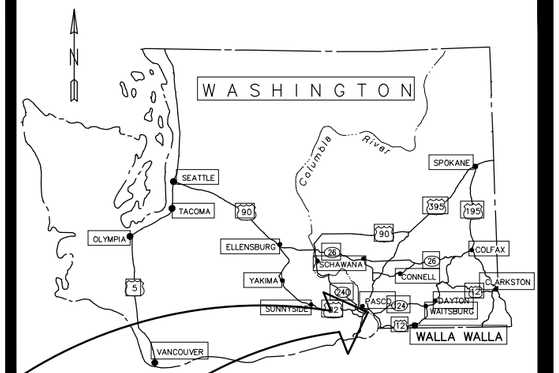
PORT OF WALLA WALLA

BURBANK INDUSTRIAL PARK
SMALL DIAMETER PRESSURE SEWER

PROJECT NUMBER: PWW 2017-03

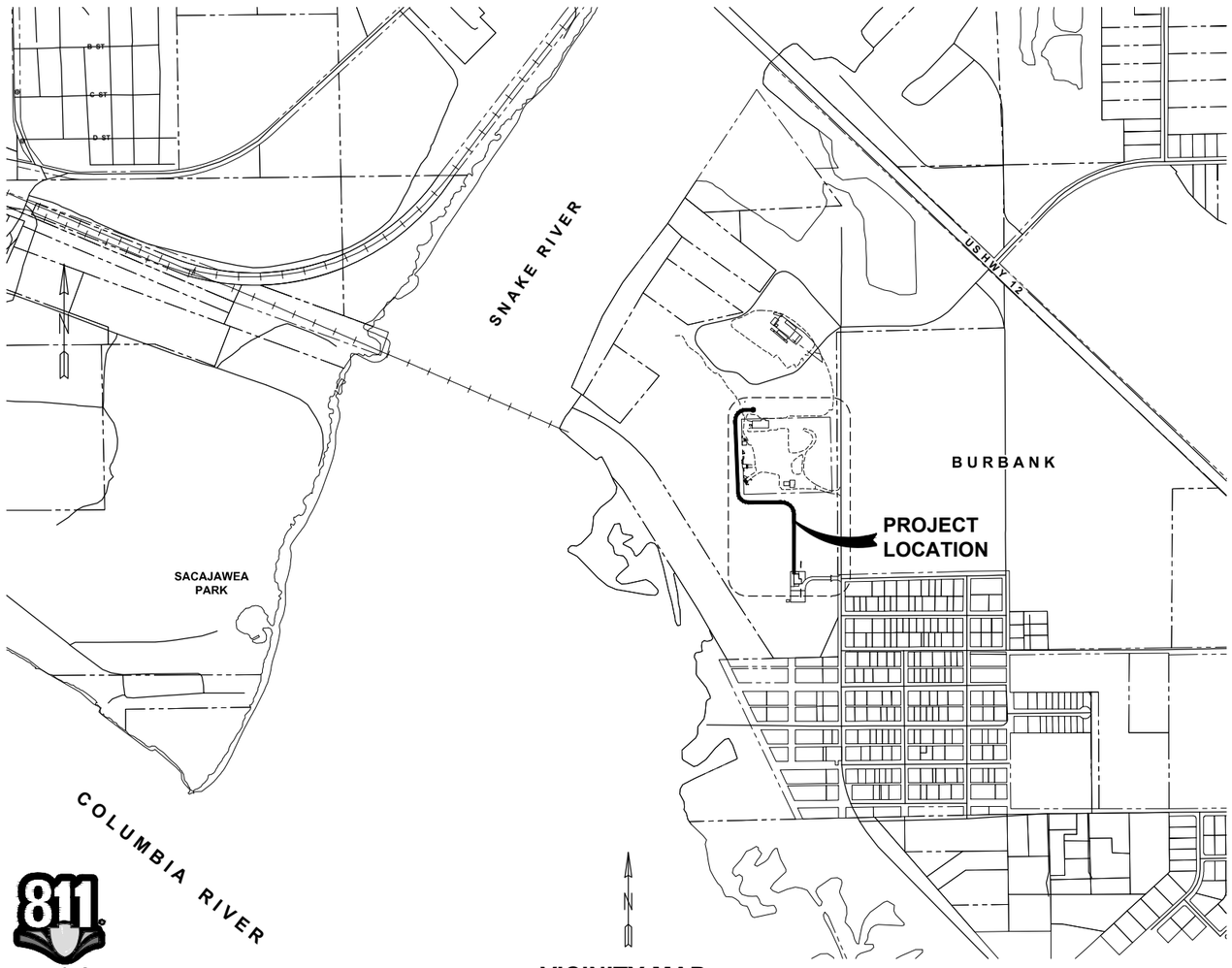
2017



INDEX

G-001 COVER
G-002 GENERAL NOTES AND EROSION CONTROL
G-003 GENERAL LEGEND
C-101 SITE PLAN
C-102 PLAN AND PROFILE
C-501 MISCELLANEOUS DETAILS

T 8N R 30E



VICINITY MAP

811 Know what's below. Call before you dig.

PORT OF WALLA WALLA COMMISSIONERS

PETER SWANT
MIKE FREDRICKSON
RON DUNNING

PORT OFFICIALS

PAT REAY, Executive Director
PAUL GEROLA, Economic Development Director
GARY STEWART, Operations & Maintenance Supervisor

JOHN H. WELLS
STATE OF WASHINGTON
40142
REGISTERED
PROFESSIONAL ENGINEER
2/23/2017

anderson perry & associates, inc.
engineering . surveying . natural resources
214 E. Birch – Walla Walla, WA 99362 Ph: (509)529-9260 Fax: (509)529-8102
WALLA WALLA, WA LA GRANDE, OR PRINEVILLE, OR

SHEET
G-001
1 OF 6

THIS DRAWING HAS BEEN REDUCED APPROXIMATELY 50%. ADJUST SCALE ACCORDINGLY. BAR SCALE SHOWN IS ACCURATE.

R:\Clients\Port_WW\385-313 Pressure Sewer\060 Design\385-313-060G-001.dwg, 2/23/2017 4:19:40 PM, _DWG To PDF.pc3

GENERAL CONSTRUCTION NOTES

1. THESE PLANS, SPECIFICATIONS, AND REFERENCED DOCUMENTS SHALL BE USED TO CONSTRUCT THE IMPROVEMENTS SHOWN. REFERENCED DOCUMENTS INCLUDE THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (2016 EDITION), WSDOT STANDARD PLANS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL. WHERE NECESSARY THE CONTRACTOR SHALL PREPARE AND SUBMIT A TRAFFIC CONTROL PLAN TO THE PORT OF WALLA WALLA AND WALLA WALLA COUNTY FOR REVIEW AND APPROVAL. ALL SIGNING SHALL COMPLY WITH THE MUTCD AND ALL TRAFFIC OPERATIONS MUST BE ACCEPTABLE TO THE PORT OF WALLA WALLA AND IF NECESSARY, WALLA WALLA COUNTY PRIOR TO STARTING CONSTRUCTION.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES IN AND AROUND THE WORK AREAS. BOTH PRIVATE AND PUBLIC POWER, WATER, TELEPHONE, GAS, CABLE, ETC. SHALL BE INCLUDED. THE CONTRACTOR SHALL MAKE ADVANCE EXPLORATIONS NEEDED TO PROPERLY PLAN THE INSTALLATION OF PIPE TO THE DESIGN LINE AND GRADE AND TO ACHIEVE A UNIFORM GRADE AND HORIZONTAL ALIGNMENT. **THIS INCLUDES POTHOLING AT ALL UTILITY LINE CROSSINGS TO VERIFY PROPOSED ALIGNMENTS AND GRADES.** THE ONE CALL LOCATE NUMBER FOR WALLA WALLA COUNTY IS 811. ANY DISCREPANCIES BETWEEN THE DESIGN SHEETS AND EXISTING CONDITIONS SHALL BE REPORTED TO THE ENGINEER.

4. THE KNOWN EXISTING WATER, AND OTHER UTILITIES ARE TYPICALLY SHOWN IN PLAN VIEW. SOME OMISSIONS AND INACCURACIES SHOULD BE EXPECTED. CRITICAL LOCATIONS SHOULD BE FIELD LOCATED AHEAD OF TIME AND THE CALL-BEFORE-YOU-DIG PROCEDURES SHOULD BE IMPLEMENTED IN ALL CASES.

5. ANY OBSTRUCTIONS ENCOUNTERED THAT MAY NOT BE SHOWN ON THE PLANS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE PORT. ITEMS VISIBLE IN THE FIELD ARE THE CONTRACTOR'S RESPONSIBILITY, EVEN IF NOT SHOWN ON THE PLANS.

6. ALL PIPES SHALL BE BEDDED SELECT BACKFILL MATERIAL MEETING REQUIREMENTS FOR CRUSHED SURFACING TOP COURSE PER WSDOT SPECIFICATION 9-03.9(3) AND AS INDICATED IN THE DETAILS AND THE SPECIFICATIONS.

7. A PROFILE GRADE IS SHOWN ON THE PLANS. THE INTENT IS TO AVOID CONFLICTS WITH EXISTING UTILITIES AND TO MAINTAIN THE REQUIRED SLOPE. THE GRADE CAN BE ADJUSTED AFTER POTHOLING THE EXISTING UTILITIES WITH APPROVAL OF THE ENGINEER PROVIDED NECESSARY INVERT ELEVATIONS AND PIPE SLOPES ARE ACHIEVED. GRADE ADJUSTMENTS TO ACCOMMODATE EXISTING UTILITIES SHALL BE CONSIDERED A NORMAL PART OF THE WORK AND NO ADDITIONAL PAYMENT WILL BE MADE FOR THIS WORK WHEN THE GENERAL LOCATION OF EXISTING UTILITIES IS SHOWN ON THE DRAWINGS.

8. EXISTING SANITARY SEWER LINES MUST BE KEPT FREE OF DEBRIS AND OPERATIONAL AT ALL TIMES. IF STOPPAGE PROBLEMS ARE ENCOUNTERED OR DEBRIS ENTERS THE LINES, THE CONTRACTOR SHALL CONTACT THE OWNERS REPRESENTATIVE.

9. PORTIONS OF THE PROJECT AREA ARE KNOWN TO HAVE COBBLES AND BOULDERS PRESENT BELOW THE EXISTING GRADE. THE NUMBER AND DEPTH VARIES. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL BOULDERS (ROCKS LARGER THAN 12" IN DIAMETER) FROM EXCAVATION AREAS AND TRENCHES. STOCK PILE BOULDERS ADJACENT TO THE TRENCH.

10. NEW PRESSURE SEWER SHALL HAVE A CONTINUOUS LOCATE WIRE AND IDENTIFYING TAPE.

11. OPERATION OF EXISTING VALVES AND FACILITIES SHALL BE PERFORMED BY PORT OF WALLA WALLA PERSONNEL UNLESS PERMISSION IS OBTAINED FROM THE OWNER FOR OPERATION OF THE EXISTING SYSTEM BY THE CONTRACTOR.

12. THE CONTRACTOR SHALL PROVIDE TEMPORARY TAPS, BLOWOFFS, FITTINGS, AND THRUST BLOCKS AS REQUIRED TO FACILITATE FLUSHING AND TESTING.

13. NO BACKFILL SHALL BE PLACED UNTIL THE PIPE IS INSPECTED BY THE PORT. A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN BY THE CONTRACTOR TO THE PORT.

14. KNOWN SURVEY MONUMENTS AND CONTROL POINTS ARE SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING, PROTECTING, AND IF NECESSARY, RESETTING MONUMENTS. THE CONTRACTOR SHALL BE REQUIRED TO RETAIN A WASHINGTON STATE LICENSED SURVEYOR TO DIRECT THE WORK REQUIRED TO RESET MONUMENTS AND PERMANENT BENCH MARKS.

15. THE SIZES AND TYPES OF EXISTING SEWER LINES SHOWN ON THE PLANS ARE BASED ON OWNERS RECORDS. SOME DISCREPANCIES ARE EXPECTED. THE CONTRACTOR SHALL FIELD VERIFY ALL SIZES AND TYPES PRIOR TO MAKING CONNECTIONS. CONNECTIONS TO EXISTING SEWER LINES WILL BE MADE BASED ON THE ACTUAL SIZE. NO ADDITIONAL PAYMENT WILL BE MADE IF THE TYPE AND SIZE OF PIPE IS DIFFERENT.

16. THE CONTRACTOR SHALL KEEP THE WORK AREA CLEAN AND MAINTAIN DUST CONTROL AT ALL TIMES. SEE EROSION CONTROL NOTES.

17. THE CONTRACTOR SHALL MAINTAIN AN ACCURATE AND UPDATED SET OF RECORD DRAWINGS THAT INCORPORATE ANY CHANGES OR ADDITIONS ENCOUNTERED. THESE SHALL BE DELIVERED TO THE ENGINEER UPON COMPLETION OF THE WORK AND WILL BE USED AS A BASIS FOR PREPARING A SET OF RECORD DRAWINGS FOR THE PORT OF WALLA WALLA. FINAL PAYMENT WILL NOT BE MADE UNTIL ACCEPTABLE DRAWINGS HAVE BEEN PROVIDED.

18. AT THE END OF EACH WORK DAY, ALL OPEN TRENCHES SHALL BE BACKFILLED OR TEMPORARILY COVERED TO THE SATISFACTION OF THE ENGINEER.

19. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL REPLACE EXISTING SURFACES WITH "LIKE" RESTORATION. RESTORATION SHALL BE EQUAL OR BETTER THAN EXISTING. ANY WORK REQUIRED TO RESTORE SURFACES OUTSIDE THE DEFINED LIMITS SHALL BE THE CONTRACTOR'S RESPONSIBILITY AT NO ADDITIONAL COST TO THE OWNER. SURFACE RESTORATION SHALL BE NATIVE DRY LAND GRASS SEED MIX AT A MINIMUM RATE OF 4 LBS. PER 1000 SQ-FT WITH FERTILIZER (22-16-8) APPLIED AT 1 LB. PER 100 SQ-FT.

20. BECAUSE OF THE TYPES OF SOILS FOUND AT THE SITE AND THE PROXIMITY TO THE SNAKE RIVER, THE GROUNDWATER LEVELS AND VOLUME ARE IMPACTED BY THE RIVER LEVEL. THE ANTICIPATED GROUNDWATER LEVELS FOR THE LATE FALL INTO EARLY SPRING ARE SHOWN ON THE DRAWINGS. GROUNDWATER IS INDICATED ON THE PLAN AND PROFILE SHEETS TO BE 342.0±. THIS IS CONSISTENT WITH THE TEST PIT LOGS EXCAVATED WITHIN THE PROJECT AREA AND THE TIME OF YEAR THE TEST PITS WERE EXCAVATED. IT IS EXPECTED THAT THE GROUNDWATER LEVEL WILL FLUCTUATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND ACCOUNT FOR ALL NECESSARY DEWATERING FOR THIS PROJECT. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED FOR ADDITIONAL DEWATERING FOR FLUCTUATIONS IN GROUNDWATER LEVELS LESS THAN 343.0 FEET NAVD88.

21. THE OWNER'S SURVEYOR WILL PROVIDE CONSTRUCTION STAKING FOR THE SMALL DIAMETER PRESSURE SEWER.

22. MARKER POSTS SHALL BE INSTALLED AT ALL PIPELINE DEAD END, BURIED VALVE LOCATIONS AND BURIED BLIND FLANGES.

MATERIALS

A. HIGH DENSITY POLYETHYLENE TUBING

HIGH DENSITY POLYETHYLENE TUBING, WHEN REQUIRED, SHALL CONFORM TO AWWA C901 AND ASTM D 3350 (PE4710) WITH 125 PSI WORKING PRESSURE AND SHALL BE IRON PIPE SIZE DR17.0.

B. LOCATING WIRE

LOCATING WIRE SHALL BE INSTALLED WITH ALL UNDERGROUND PIPING. LOCATING WIRE SHALL BE A MINIMUM OF 12 AWG UF SOLID COPPER WITH GREEN COLORED INSULATION FOR WASTEWATER PIPING AND BLUE COLORED INSULATION FOR WATER PIPING. THE USE OF THHN WIRE WILL NOT BE ACCEPTABLE. AT ALL SPLICES THE CONNECTING ENDS OF THE WIRES SHALL BE OVERLAPPED AND TIED. THE ENDS SHALL BE STRIPPED AND CONNECTED WITH A WIRE NUT TO ENSURE AN ELECTRICAL CONNECTION AND MADE WATERPROOF WITH AN APPROVED SILICONE SPLICE KIT. THE SPLICE KIT SHALL BE KING TECHNOLOGY MODEL 50-566. WHERE LOCATION WIRE IS TO BE SECURED TO EXTERIOR OF CLEANOUTS, VALVE BOXES, ETC., STAINLESS STEEL PIPE STRAPS SHALL BE USED.

C. FITTINGS

UNLESS SPECIFIED OTHERWISE, ALL FITTINGS SUCH AS ELBOWS, TEES, CROSSES, ETC., FOR BURIED PIPE SHALL BE HDPE HEAT FUSION WELDED JOINT PER MANUFACTURER'S REQUIREMENTS.

D. VALVES

GENERAL

VALVES SHALL BE OF THE TYPE CALLED FOR ON THE DRAWINGS AND SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:

GATE VALVES, 2 INCHES AND SMALLER

VALVES SHALL BE ALL BRONZE, NON-RISING STEM, CONFORMING TO FEDERAL SPECIFICATION MSS_SP_80, RATED FOR A MINIMUM WORKING PRESSURE OF 125 PSI.

EROSION CONTROL NOTES

1. THE AREA OF DISTURBANCE FOR THIS PROJECT IS LESS THAN 1 ACRE. THEREFORE NO STORMWATER GENERAL CONSTRUCTION PERMIT IS NEEDED.

TESTING

1. GENERAL

   THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE LENGTH OF ANY GIVEN SECTION OF LINE TO BE TESTED. IT IS RECOMMENDED THAT THE LENGTH OF LINE TO BE TESTED NOT BE EXCESSIVE SO THAT THE IDENTIFICATION OF ANY PROBLEM AREAS CAN BE READILY MADE. IT IS ALSO RECOMMENDED THAT TESTING FOLLOW CLOSELY AFTER THE PIPE INSTALLATION AND BACKFILL.

2. HYDROSTATIC TESTING OF PRESSURE SEWER LINES

   a. EACH SECTION OF THE LINES BEFORE BEING PLACED INTO SERVICE SHALL BE ISOLATED AND SLOWLY FILLED WITH WATER. AIR SHOULD BE EXPELLED FROM THE LINES THROUGH TAPS MADE AT THE HIGH POINTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ANY NECESSARY TAPS IN ADDITION TO THOSE SHOWN ON THE DRAWINGS, AND SUCH ADDITIONAL TAPS SHALL BE AT NO ADDITIONAL COST TO THE OWNER.

   b. ALL LINES SHALL BE PRESSURE TESTED BY THE CONTRACTOR AT 100 PSI PRESSURE, AT THE LOWEST PIPE ELEVATION, FOR ONE HOUR. ANY CRACKED OR DEFECTIVE PIPE OR FITTING SHALL BE REMOVED AND REPLACED.

3. LEAKAGE TEST

   EACH SECTION OF THE LINE BEFORE BEING PLACED INTO SERVICE SHALL BE TESTED BY THE CONTRACTOR FOR LEAKAGE FOR A PERIOD OF TWO HOURS AT AN AVERAGE GAGE PRESSURE OF 60 PSI. THE SECTION OF PIPE WILL PASS THE LEAKAGE TEST IF THE PRESSURE HOLDS STEADY FOR THE 2-HOUR PERIOD.

4. EQUIPMENT

   THE CONTRACTOR SHALL PERFORM AND PROVIDE ALL EQUIPMENT AND MATERIALS NECESSARY TO PERFORM THE REQUIRED TEST.

JOHN H. WELLS
STATE OF WASHINGTON
40142
REGISTERED
PROFESSIONAL ENGINEER
2/23/2017

REVISION	BY	DATE

DESIGNED BY J. WELLS
DRAWN BY P. RICHARDSON
REVIEWED BY H. BOGGS

HORZ. SCALE | VERT. SCALE
JOB NUMBER 385-313 | DATE FEBRUARY 23 2017
ACAD FILE:

THIS DRAWING HAS BEEN REDUCED APPROXIMATELY 50%. ADJUST SCALE ACCORDINGLY. BAR SCALE SHOWN IS ACCURATE.

anderson perry & associates, inc.
engineering - surveying - natural resources
WALLA WALLA, WA. LA GRANDE, OR. PRINEVILLE, OR.

PORT OF WALLA WALLA
BURBANK INDUSTRIAL PARK
SMALL DIAMETER PRESSURE SEWER
2017

GENERAL NOTES AND EROSION CONTROL

SHEET
G-002
2 OF 6

LEGEND

WATER

	EXISTING	PROPOSED
IRRIGATION	IRR	IRR
WATER LINE	W	W
SERVICE CONNECTION	W	W
VALVES (GATE/BUTTERFLY/CHECK)		
CAP		
COUPLING		
REDUCER		
WATER METER		
FIRE HYDRANT		
THRUST BLOCK		
FLANGE		
AIR RELIEF		
BLOWOFF		

SEWER/STORM DRAIN

	EXISTING	PROPOSED
SANITARY SEWER LINE	SS	SS
SANITARY SEWER SERVICE	SS	SS
PRESSURE SEWER	PS	PS
STORM DRAIN LINE	SD	SD
STORM DRAIN CULVERT > 24" DIAMETER		
SANITARY SEWER MANHOLE		
SANITARY SEWER CLEANOUT		
STORM DRAIN MANHOLE		
STORM DRAIN CATCH BASIN		

MISC. UTILITIES

	EXISTING	PROPOSED
BURIED POWER	UGP	UGP
OVERHEAD POWER	OHP	OHP
BURIED TELEPHONE	T	T
OVERHEAD TELEPHONE	OHT	OHT
BURIED TV	TV	TV
OVERHEAD TV	OTV	OTV
GAS	G	G
IRRIGATION		
UTILITY POLE		
UTILITY POLE ANCHOR		
PAD TRANSFORMER		
POWER VAULT	P	P
TELEPHONE RISER/VAULT	T	T
GAS METER		
WATER FAUCET		
STREET LIGHT		
YARD LIGHT		
GUARD POST		
ADDRESS POST		

SURVEY

	EXISTING	PROPOSED
ANGLE POINT		
BENCH MARK		
BLOCK CORNER		
IRON PIPE		
MONUMENT (IN CASE)		
MONUMENT (SURFACE)		
SOIL BORING/TEST PIT	745.2	745.2
SPOT ELEVATION		
CENTERLINE		
RIGHT-OF-WAY		
PROPERTY LINE		
EASEMENT LINE		
SECTION LINE		

SURFACE FEATURES

	EXISTING	PROPOSED
INDEX CONTOUR	740	740
INTERMEDIATE CONTOUR		
CREEK/DITCH CENTERLINE		
RETAINING WALL		
SIDEWALK CURB & GUTTER		
DRIVEWAY/ACCESS RAMP W/WARNING STRIP		
EDGE ASPHALT/CONCRETE		
EDGE GRAVEL		
FENCE LINE/GATE		
GUARDRAIL		
RAILROAD		
DAYLIGHT/CATCH POINT		
TREE, CONIFER		
TREE, DECIDUOUS		
SHRUB/BRUSH		
STUMP		
RIPRAP		
SIGN		
MAILBOX	MB	MB
BUILDING	728	728

RESTORATION

	EXISTING	PROPOSED
ASPHALT HATCH		
GRAVEL HATCH		
CONCRETE HATCH		
GRASS/SOD HATCH		

TRAFFIC CONTROL

TYPICAL TRAFFIC CONTROL ARROWS		
TYPICAL TRAFFIC CONTROL SYMBOLS	STOP	STOP
TYPICAL TRAFFIC DIVIDER LINES		
FOG LINE		

1/101 — SECTION DESIGNATION; SHEET WHERE SECTION IS SHOWN

DETAIL 1/1 — DETAIL NUMBER; PAGE WHERE DETAIL IS FROM

DETAIL NUMBER A/1 SECTION — PAGE WHERE DETAIL IS FROM

X — X — SHEET BREAK

SURVEY DATA

HORIZONTAL DATUM AND BASIS OF SURVEY
WASHINGTON DEPARTMENT OF TRANSPORTATION (WSDOT) PROVIDED PROJECT DATUM BASED ON TIES TO 32 CONTROL MONUMENTS.

VERTICAL DATUM
WSDOT PROVIDED NAVD88 DATUM

PURPOSE OF PROJECT

THE PURPOSE OF THIS PROJECT IS TO EXTEND A 2-INCH PRESSURE SEWER FROM NEAR THE EXISTING PORT OF WALLA WALLA LIFT STATION NO. 1 TO THE SOUTH FOR SERVING PORT OF WALLA WALLA TENANTS.

JOHN H. WELLS — STATE OF WASHINGTON — 40142 — REGISTERED PROFESSIONAL ENGINEER — 2/23/2017

REVISION	BY	DATE

DESIGNED BY J. WELLS
DRAWN BY P. RICHARDSON
REVIEWED BY H. BOGGS

HORZ. SCALE — VERT. SCALE
JOB NUMBER 385-313 — DATE FEBRUARY 23 2017
ACAD FILE:

THIS DRAWING HAS BEEN REDUCED APPROXIMATELY 50%. ADJUST SCALE ACCORDINGLY. BAR SCALE SHOWN IS ACCURATE.

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

anderson perry & associates, inc.
engineering - surveying - natural resources
WALLA WALLA, WA. LA GRANDE, OR. PRINEVILLE, OR.

PORT OF WALLA WALLA
BURBANK INDUSTRIAL PARK
SMALL DIAMETER PRESSURE SEWER
2017

GENERAL LEGEND

SHEET G-003
3 OF 6

EXISTING LIFT STATION NO 1
CONNECTION POINT

HARRIS REBAR FACILITY

HARRIS REBAR OFFICE

FUTURE SITE OF
KONCRETE INDUSTRIES

SMALL DIAMETER
PRESSURE SEWER

TRANSPORT FACILITY

2ND AVENUE

N

12"W

SS

G

X

LEGEND

- NEW SMALL DIAMETER PRESSURE SEWER
- SS — EXISTING SANITARY SEWER
- FUTURE SEWER SERVICE

JOHN H. WELLS
STATE OF WASHINGTON
40142
REGISTERED
PROFESSIONAL ENGINEER
2/23/2017

REVISION	BY	DATE

DESIGNED BY J. WELLS
DRAWN BY D. LUTTON
REVIEWED BY H. BOGGS

80 0 80 160 240
VERTICAL SCALE IN FEET

HORZ. SCALE VERT. SCALE
JOB NUMBER 385-313 DATE FEBRUARY 23 2017
ACAD FILE 385-313-060C-101.dwg

THIS DRAWING HAS BEEN REDUCED APPROXIMATELY 50%. ADJUST SCALE ACCORDINGLY. BAR SCALE SHOWN IS ACCURATE.

anderson perry & associates, inc.
engineering - surveying - natural resources
WALLA WALLA, WA. LA GRANDE, OR. PRINEVILLE, OR.

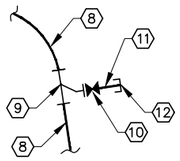
PORT OF WALLA WALLA
BURBANK INDUSTRIAL PARK
SMALL DIAMETER PRESSURE SEWER
2017

SITE PLAN

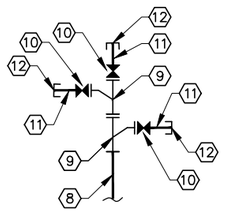
SHEET C-101
4 OF 6

SHEET NOTES

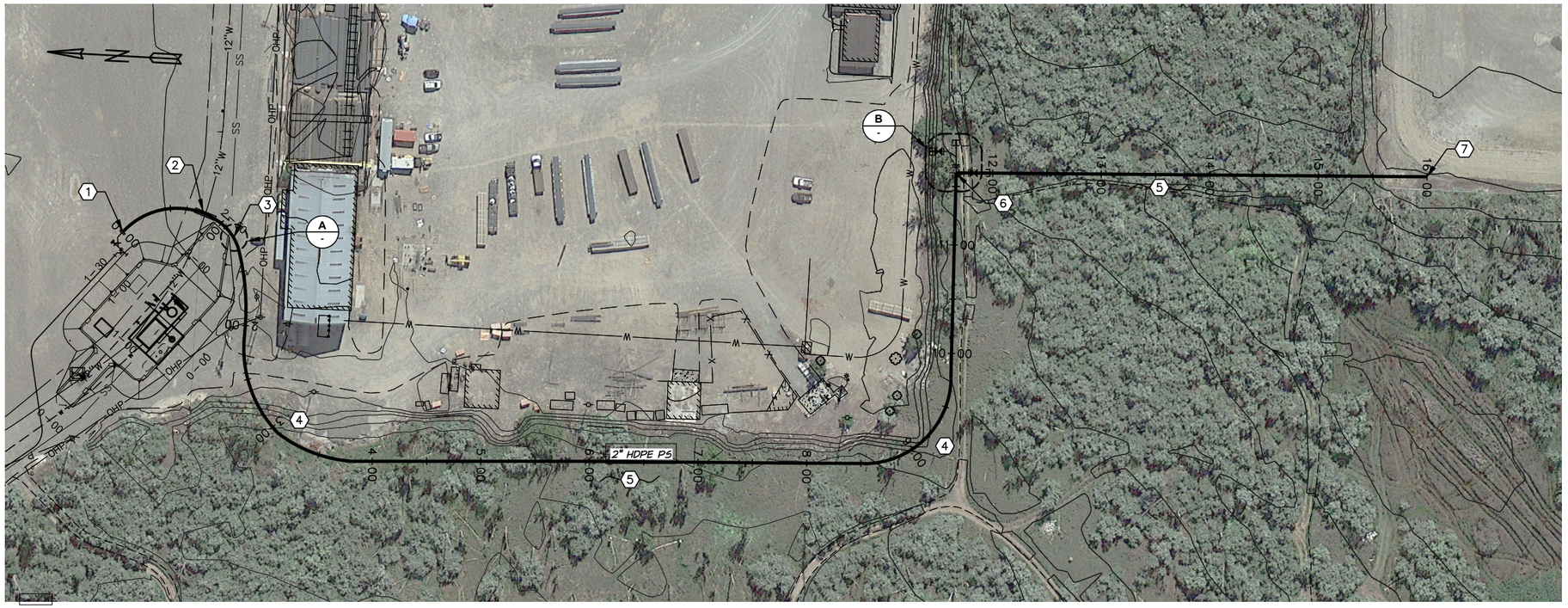
1. POTHOLE AND VERIFY FITTINGS REQUIRED FOR CONNECTING TO EXISTING PORT OF WALLA WALLA SEWER. REMOVE FLANGE AND MAKE CONNECTION.
2. CASING PIPE, 20 LF 4-INCH DI PROVIDED BY PORT OF WALLA WALLA CENTERED ON THE WATER LINE.
3. 2" WYE WITH 2" GATE VALVE, VALVE BOX AND LOCATE WIRE. BLIND FLANGE FOR CAP.
4. CURVE PIPE AS SHOWN.DO NOT EXCEED MANUFACTURER'S REQUIREMENTS FOR MINIMUM RADIUS BENDS.
5. REMOVE TREES, STUMPS, AND BRUSH A MINIMUM OF 10' EACH SIDE OF THE PIPE ALIGNMENT. STACK IN PILES ON SITE ACCORDING TO PORT INSTRUCTIONS.
6. INSTALL WYE WITH GATE VALVES, VALVE BOXES, AND LOCATE WIRE.
7. INSTALL 2" GATE VALVE, VALVE BOX AND LOCATE WIRE. BLIND FLANGE FOR CAP.
8. 2" HDPE FUSION WELD
9. 2" WYE FUSION WELD WITH FLANGE AS REQUIRED
10. 2" GATE VALVE, FLG
11. 2" HDPE PIPE 10 FT MIN LENGTH
12. 2" CAP, RESTRAINED

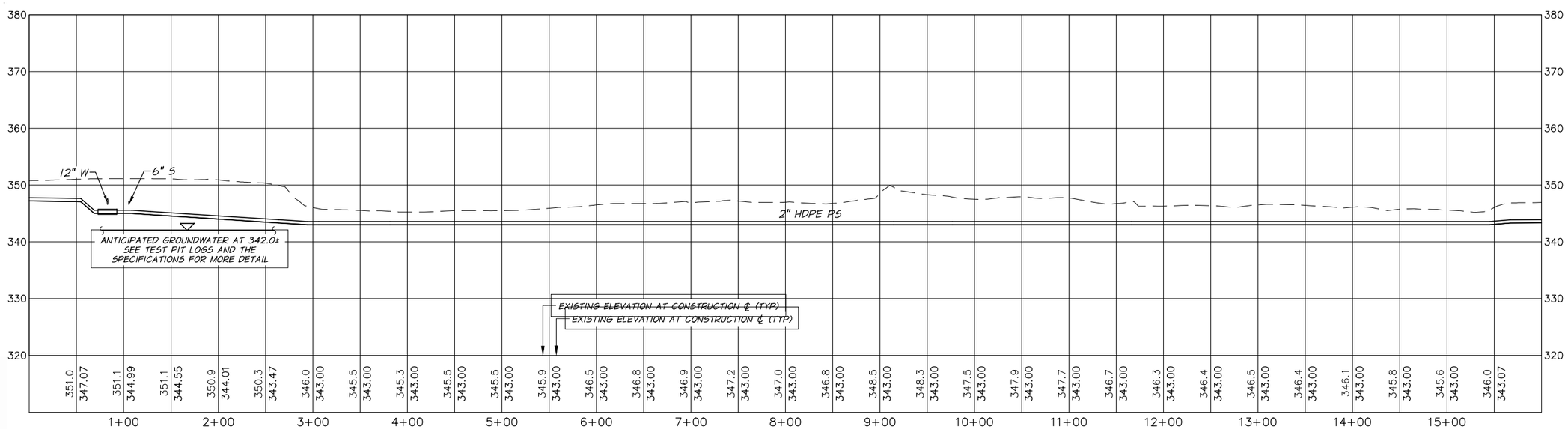


DETAIL A -
NTS



DETAIL B -
NTS





JOHN H. WELLS
STATE OF WASHINGTON
40142
REGISTERED
PROFESSIONAL ENGINEER
2/23/2017

REVISION	BY	DATE

DESIGNED BY J. WELLS
DRAWN BY D. LUTTON
REVIEWED BY H. BOGGS

60 0 60 120 180 HORIZONTAL SCALE IN FEET
10 0 10 20 30 VERTICAL SCALE IN FEET

HORZ. SCALE VERT. SCALE
JOB NUMBER 385-313 DATE FEBRUARY 23 2017
ACAD FILE: 385-313-060C-102.dwg

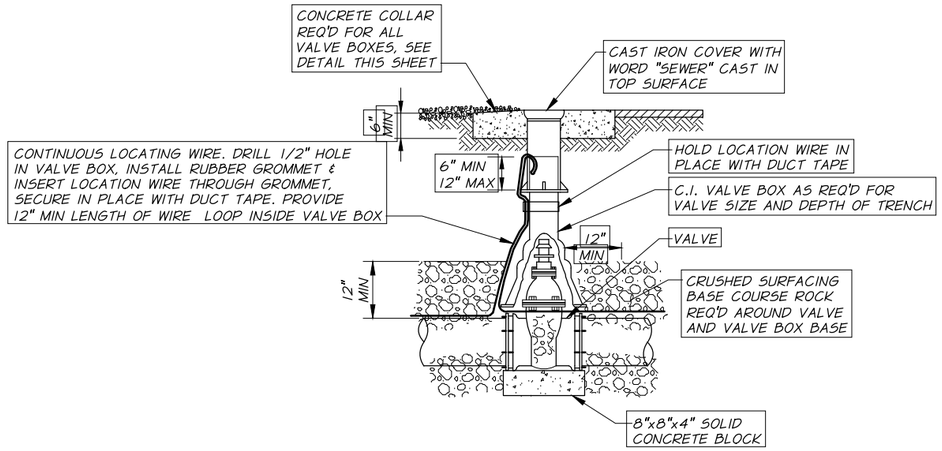
THIS DRAWING HAS BEEN REDUCED APPROXIMATELY 50%. ADJUST SCALE ACCORDINGLY. BAR SCALE SHOWN IS ACCURATE.

anderson perry & associates, inc.
engineering - surveying - natural resources
WALLA WALLA, WA. LA GRANDE, OR. PRINEVILLE, OR.

PORT OF WALLA WALLA
BURBANK INDUSTRIAL PARK
SMALL DIAMETER PRESSURE SEWER
2017

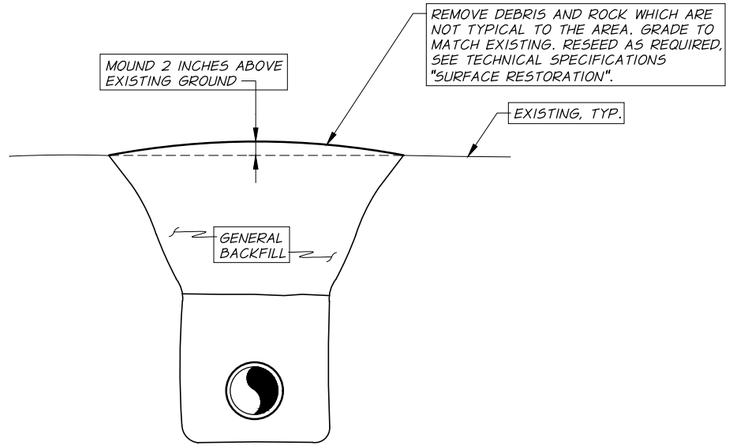
PLAN AND PROFILE

SHEET C-102
5 OF 6



VALVE BOX DETAIL

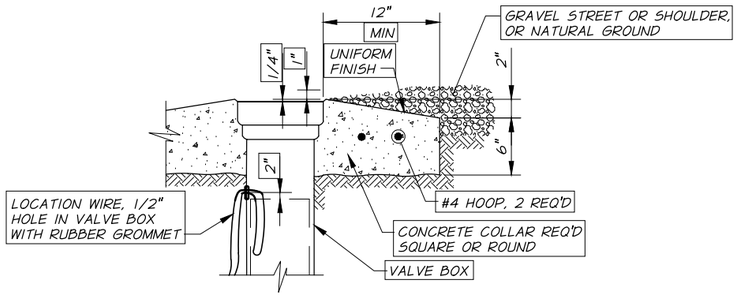
NTS



TRENCH RESTORATION

NATURAL AREAS

NTS



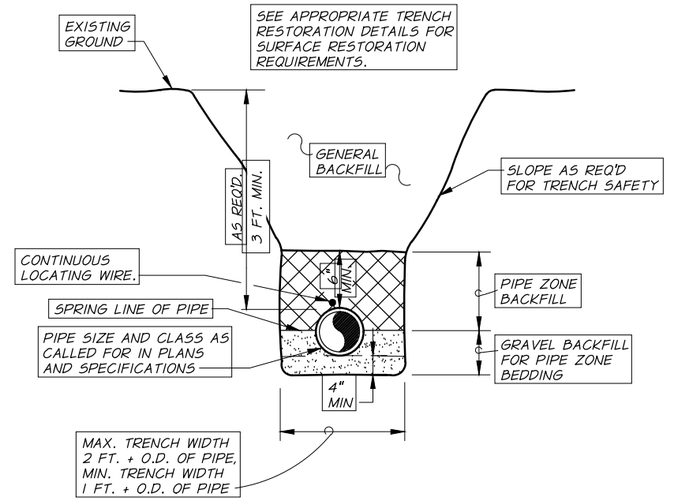
REQUIREMENTS FOR CONCRETE COLLARS:

1. CONCRETE: CLASS 4000.
2. COLLAR TO BE FORMED AND UNIFORMLY ROUNDED.
3. SMOOTH BROOMED FINISH REQ'D.
4. APPLY CONCRETE CURING COMPOUND.
5. PROTECT FROM TRAFFIC FOR 4 DAYS MINIMUM.

CONCRETE COLLAR DETAIL

IN GRAVEL STREETS OR NATURAL GROUND

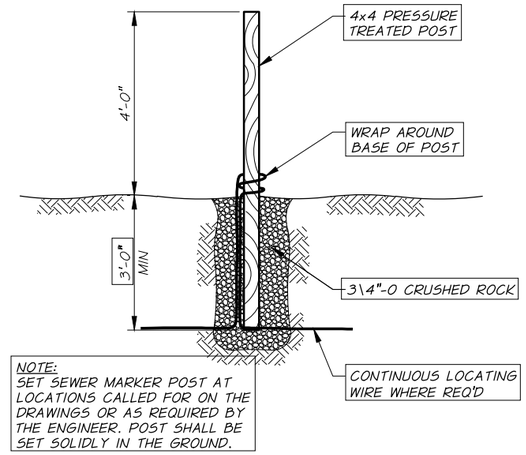
NTS



TRENCH EXCAVATION AND BACKFILL

SEWER LINES

NTS



NOTE:
SET SEWER MARKER POST AT LOCATIONS CALLED FOR ON THE DRAWINGS OR AS REQUIRED BY THE ENGINEER. POST SHALL BE SET SOLIDLY IN THE GROUND.

MARKER POST

(WITH LOCATING WIRE)

N.T.S.

JOHN H. WELLS
STATE OF WASHINGTON
40142
REGISTERED
PROFESSIONAL ENGINEER
2/23/2017

REVISION	BY	DATE

DESIGNED BY J. WELLS
DRAWN BY P. RICHARDSON
REVIEWED BY H. BOGGS

HORZ. SCALE | VERT. SCALE
JOB NUMBER 385-313 | DATE FEBRUARY 23 2017
ACAD FILE:

THIS DRAWING HAS BEEN REDUCED APPROXIMATELY 50%. ADJUST SCALE ACCORDINGLY. BAR SCALE SHOWN IS ACCURATE.

anderson perry & associates, inc.
engineering - surveying - natural resources
WALLA WALLA, WA. LA GRANDE, OR. PRINEVILLE, OR.

PORT OF WALLA WALLA

BURBANK INDUSTRIAL PARK
SMALL DIAMETER PRESSURE SEWER
2017

MISCELLANEOUS DETAILS

SHEET
C-501
6 OF 6