2023-110

Clark Public Utilities
Customer-owned, customer-focused

REQUEST FOR UTILITY REVIEW – WATER AVAILABILITY
P. O. Box 8900 (8600 N.E. 117 Ave) Vancouver, WA 98668
(360) 992-8022 Email: wateradmin@clarkpud.com

APPLICANT INFORMATION

DATE: 12/13/2023

NAME Mason Wolfe
ADDRESS 2401 W Main St, Suite 210
CITY Battle Ground STATE WA ZIP 98604
TELEPHONE (360) 907-9588 EMAIL mason@wolfepm.com

Notification Method: Email Type of Development: Subdivision
Number of Units: 99 lots

Property Location

Serial Acct. No 063472-946 & 258903-000
Property Address 2103 NE North Fork Ave (or nearest cross street)
Property Size ~29 ACRES Requested Fire Flow not listed GPM

GENERAL CONDITIONS FOR SERVICE (CPU Staff Only)

Clark Public Utilities (CPU) is the water purveyor for this site. CPU Water distribution maps indicate that there are two 12" PVC water mains within NE North Fork Avenue and an 8" water an 8" PVC water main within E 24th Circle. There appears to be an existing domestic water service located along the West frontage of this site. Multiple nearby fire hydrants appear to be located along the far side of NE North Fork Avenue and E 24th Circle. See attached CPU water distribution map for reference. Utility drawings are for reference only and project engineer should verify existing conditions in the field prior to final design.

Static pressure and available fire flow at this site is expected to vary depending on site elevation, system demand and reservoir levels (HGL = 485-ft). In order to provide adequate service pressure and fire protection off-site water system improvements (i.e. booster pump station, possible reservoir site) should be anticipated with this development. Prior to civil design, it is recommended to meet with CPU Water engineering staff to review the off-site improvements required.

Depending on site access and layout plan to connect to the existing 12" water main within NE North Fork Avenue and also possibly connecting to the 8" water main within E 24th Circle. Install proper fire protection (i.e. hydrants and building sprinkler systems) as required by the Fire Marshal. The public water system shall be sized depending on the anticipated fire protection and domestic demand requirements. The Engineer shall certify that the proposed water distribution design adequately provides proper domestic and fire protection services.

Any existing, unused water services shall be properly capped and abandoned during construction. All water mains and services (up to the meter) located within private property, shall be included in an easement granted to Clark Public Utilities. Proper state approved backflow devices will be required for all domestic, fire and landscape water services. All hot taps shall be performed by a Utility approved contractor.

The Developer is responsible for costs associated with the service and fire protection installation, right-of-way permitting, and any other needed water improvements (off-site and/or on-site).

Submit full engineering plan set for further requirements and comments.

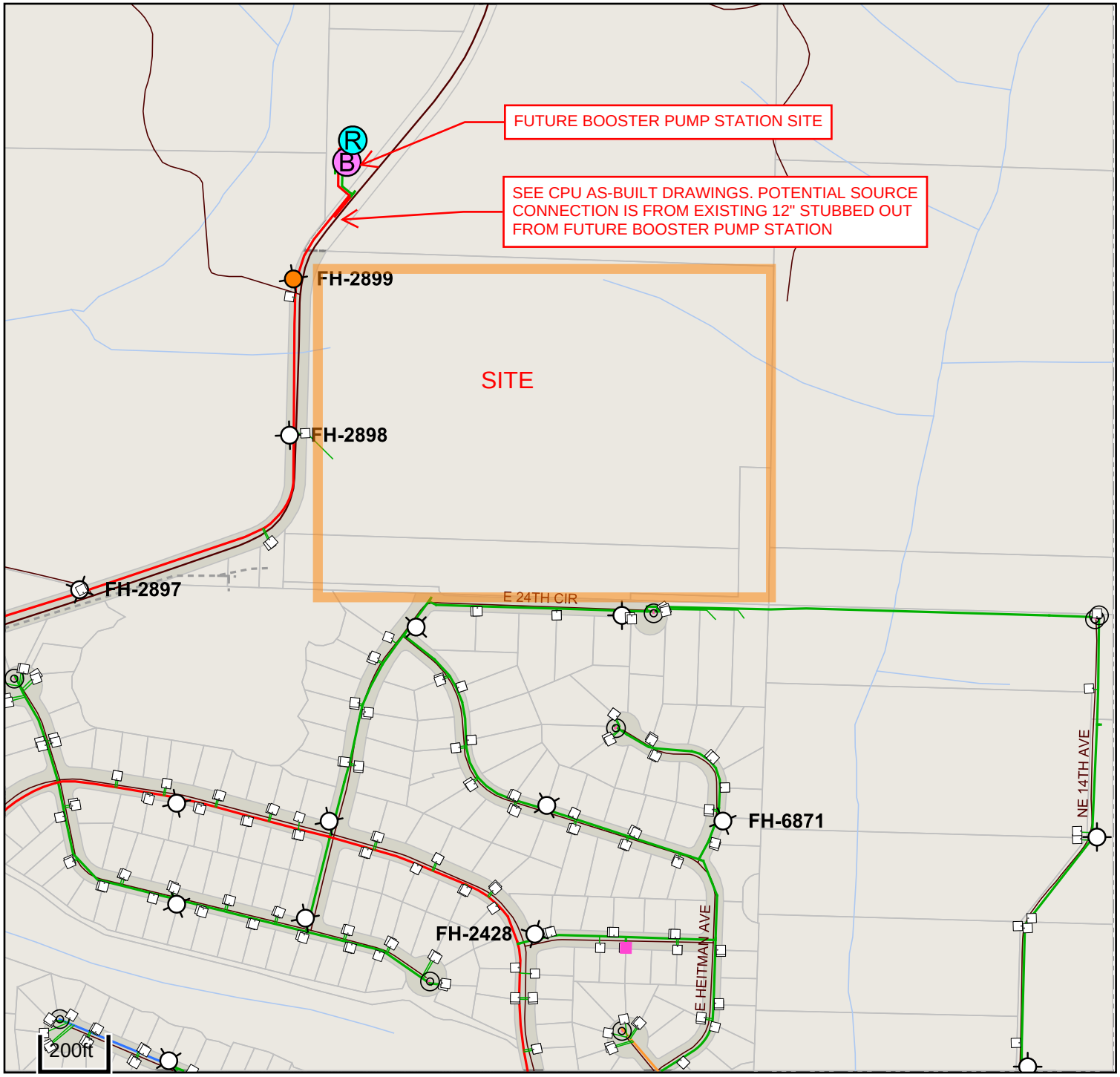
☒ Licensed Civil Eng. Drawing Required for Clark Public Utilities approval prior to construction
☒ Easement Required
☒ Clark Public Utilities has the capacity to serve, if the above conditions are met
☒ Developer/Owner shall pay County Right-of-Way fees based on off-site improvements

Review comments are subject to modification during detailed plan check and review.
This utility review is valid for six months after the date of signature below.

REVIEWED BY N. Flagg DATE 12/13/2023
Nick Flagg, PE

Revised 3/10/17 rk

2023-110



City and County Bounds
- LA CENTER
- CLARK COUNTY

Parcel (Unthemed)

Surface Waterway

Street By Type
- Major
- Local

Abandoned Water Main

Water Main
- 12
- 8
- 6
- 4
- 2

Water Service

Booster Pumping Station

Reservoir

Fire Hydrant
- 500 - 999
- Not Tested

System Valve
- Blow Off

Water Meter
- Life Support
- Water Service

1:5,000

Clark

lon=-122.662 lat=45.874 - 12/1/2022 8:59

Legend

- Taxlots

Notes:

500.0 0 250.00 500.0 Feet

WGS_1984_Web_Mercator_Auxiliary_Sphere
Clark County, WA. GIS - http://gis.clark.wa.gov

This map was generated by Clark County's "MapsOnline" website. Clark County does not warrant the accuracy, reliability or timeliness of any information on this map, and shall not be held liable for losses caused by using this information. Taxlot (i.e., parcel) boundaries cannot be used to determine the location of property lines on the ground.

Vineyard Vista

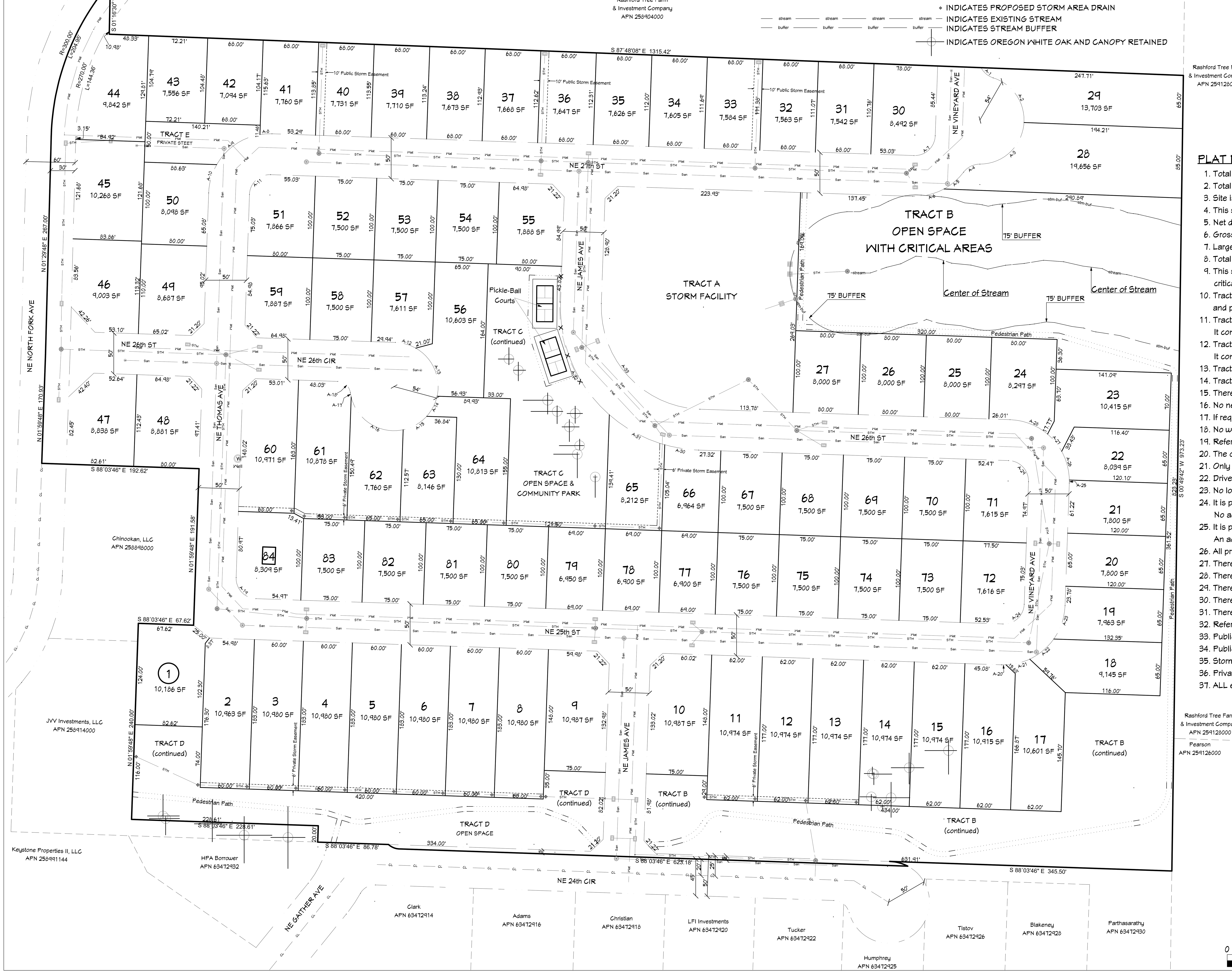
A Subdivision In The

***NE ¼ of Section 34, T5N R1E** WM*

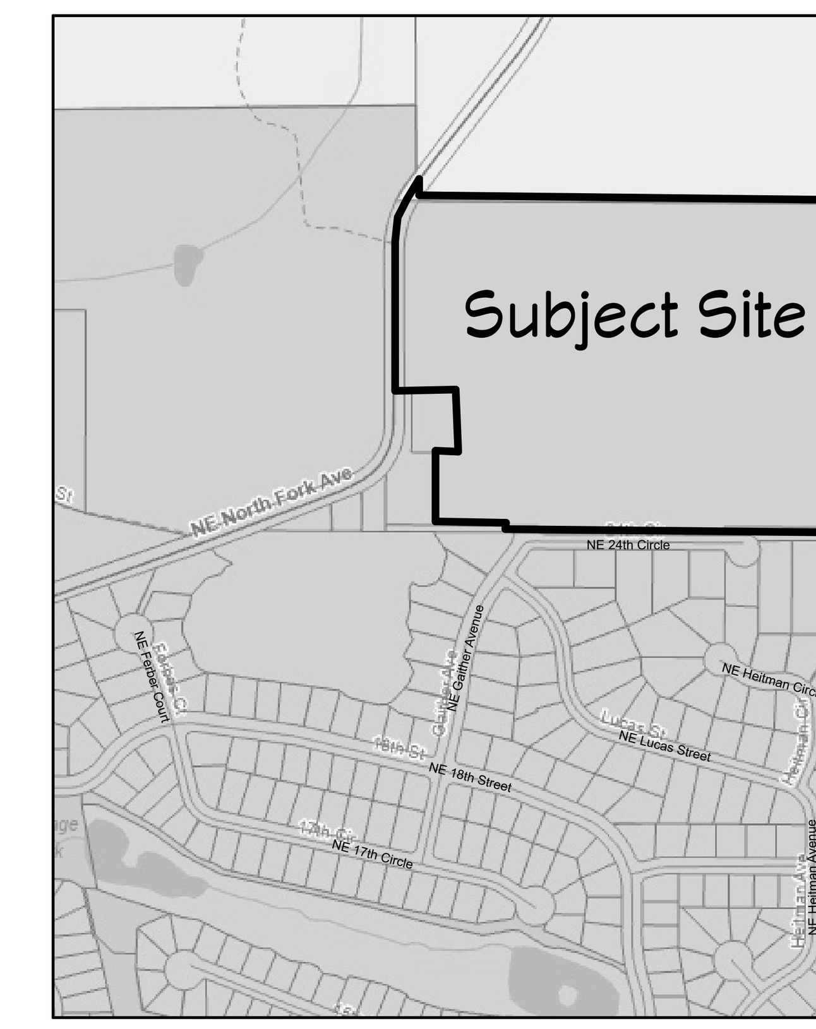
County Parcel #(s): ***258903000 and 63472946***

LEGEND

- INDICATES EXISTING ROW
- INDICATES PROPOSED NEW ROW
- INDICATES PROPOSED PEDESTIAN PATHWAY
- INDICATES PROPOSED EASEMENT
- INDICATES PROPOSED PUBLIC WATER
- INDICATES PROPOSED SANITARY SEWER
- INDICATES PROPOSED SANITARY MANHOLE
- INDICATES PROPOSED SANITARY CLEAN OUT
- INDICATES PROPOSED STORM LINE
- INDICATES PROPOSED STORM MANHOLE
- INDICATES PROPOSED STORM CATCH BASIN
- INDICATES PROPOSED STORM AREA DRAIN
- INDICATES EXISTING STREAM
- INDICATES STREAM BUFFER
- INDICATES OREGON WHITE OAK AND CANOPY RETAINED



VICINITY MAP



PLAT NOTES:

1. Total Net Area = 742,964+/- SF (17.06+/- acres)
2. Total Gross Area = 1,286,500 +/- SF (29.53+/- acres)
3. Site is Zoned LDR-7.5.
4. This subdivision proposes 84 single family residential lots.
5. Net density equals 4.92 dwelling units per acre.
6. Gross density equals 2.84 dwelling units per acre.
7. Largest lot is 19,656 SF; Smallest lot is 6,900 SF; Average Lot size is 8,845 SF.
8. Total ROW (existing, proposed and private) equals 249,072 SF (5.72+/- acres).
9. This subdivision proposes 233,666 SF (5.36+/- acres) of Open Space and Park which contains; critical areas; proposed pedestrian path and other active park amenities.
10. Tract A (a stormwater tract) contains 60,798 SF (1.40 acres) and is to collect, treat and detain all pubic and private stormwater runoff.
11. Tract B is Open Space that has critical areas and a proposed pedestrian path. It contains 158,549 SF (3.64 acres).
12. Tract C is Open Space that has Oregon White Oaks and proposed pickleball courts. It contains 35,251 SF (0.81 acres).
13. Tract D is Open Space that contains a proposed pedestrian path. It contains 39,866 SF (0.92 acres).
14. Tract E is a private road tract serving lots 41-45 & 50. It contains 5,701 SF (0.13 acres).
15. There are NO existing structures.
16. No new buildings or structures are proposed as park of this preliminary plat approval.
17. If required, a 6' tall chain-link fence around the storm facility in Tract A is only proposed fence.
18. No walls are proposed as part of the preliminary plat approval.
19. Refer to "Landscape & Tree Plan prepared by Clark Land Design for all Landscape and Tree details.
20. The only proposed lighting is required street lighting that will be designed during final engineering.
21. Only street parking proposed with this plan.
22. Driveway and garage parking will be provided during building permit.
23. No loading facilities are proposed.
24. It is presumed that NE North Fork Ave is classified as a "Rural Major Collector" road. No additional ROW along North Fork is required or proposed to be dedicated with this plan.
25. It is presumed that NE 24th Circle is classified as a "Local Access" road. An additional 5' of ROW along 24th will be dedicated with this plan.
26. All proposed internal roads are presumed to be classified as "Local Access" roads.
27. There are proposed pedestrian facilities shown on this plan in Tract B and D.
28. There are NO existing easements. All proposed easements are shown on this plan.
29. There is an existing well shown on the Existing Conditions that will be properly abandon.
30. There is NO existing septic tank or drain-field.
31. There are NO other above ground tanks or known underground tanks.
32. Refer to Existing Conditions for all existing public and private utilities.
33. Public water will be extended from existing water reservoir to the north and serve all new lots.
34. Public sewer will be extended from Southview Heights Phase VIII and serve all new lots.
35. Storm water will be collected, treated and detained in proposed Tract A.
36. Private utilities such as phone, cable & gas may be extended onto and throughout this plan.
37. ALL environmental critical areas are shown on this plan.

ARC LENGTH TABLE			ARC LENGTH TABLE		
#	RADIUS	LENGTH	#	RADIUS	LENGTH
A-1	25'	19.84'	A-18	16'	22.38'
A-2	54'	71.49'	A-19	25'	39.30'
A-3	54'	81.80'	A-20	75'	5.17'
A-4	25'	23.61'	A-21	75'	30.10'
A-5	54'	31.17'	A-22	75'	38.80'
A-6	75'	39.79'	A-23	75'	43.66'
A-7	25'	39.24'	A-24	25'	39.24'
A-8	75'	14.81'	A-25	75'	3.78'
A-9	75'	66.59'	A-26	75'	36.71'
A-10	75'	36.34'	A-27	75'	27.38'
A-11	25'	39.24'	A-28	75'	50.01'
A-12	54'	25.95'	A-29	25'	39.30'
A-13	54'	68.93'	A-30	175'	42.08'
A-14	54'	28.02'	A-31	175'	77.69'
A-15	54'	33.67'	A-32	175'	155.30'
A-16	54'	83.21'	A-33	125'	196.48'
A-17	54'	5.38'			

N

0 60 120

DISCLAIMER:

This plan and design is based on available information from Brown Surveying, Cascadia Ecological Services, Inc and Clark County's GIS system. Dimensions, location of existing conditions such as structures, critical areas, parcels, boundaries, etc., are deemed accurate, but are not guaranteed. Refer to Existing Conditions Survey dated 11-21-2023 prepared by Brown Surveying for detailed preliminary survey information. Refer to Critical Areas Report dated 11-21-2023 prepared by Cascadia Ecological Services, Inc for detailed critical areas information.

Vineyard Vista

A Subdivision In The

***NE ¼ of Section 34, T5N R1E** WM*

County Parcel #(s): ***258903000 and 63472946***

Site Address: **NE North Fork Avenue**

La Center, WA 98629

Preliminary Plat
Preliminary Utility Plan

OWNER / APPLICANT:
Chinookan, LLC
Lincoln Wolverton
P.O. Box 886
La Center Washington 98629
360-606-8986
lincolnwolverton@hotmail.com

APPLICANT REPRESENTATIVE / CONTACT:
Wolfe Project Management, LLC
Mason Wolfe
2401 W Main Street, Suite 210
Battle Ground, Washington 98604
360-907-9588
mason@wolfepm.com

REVISION TABLE		
#	DATE	REVISED BY
8	11-10-2023	MWW
9	11-21-2023	MWW

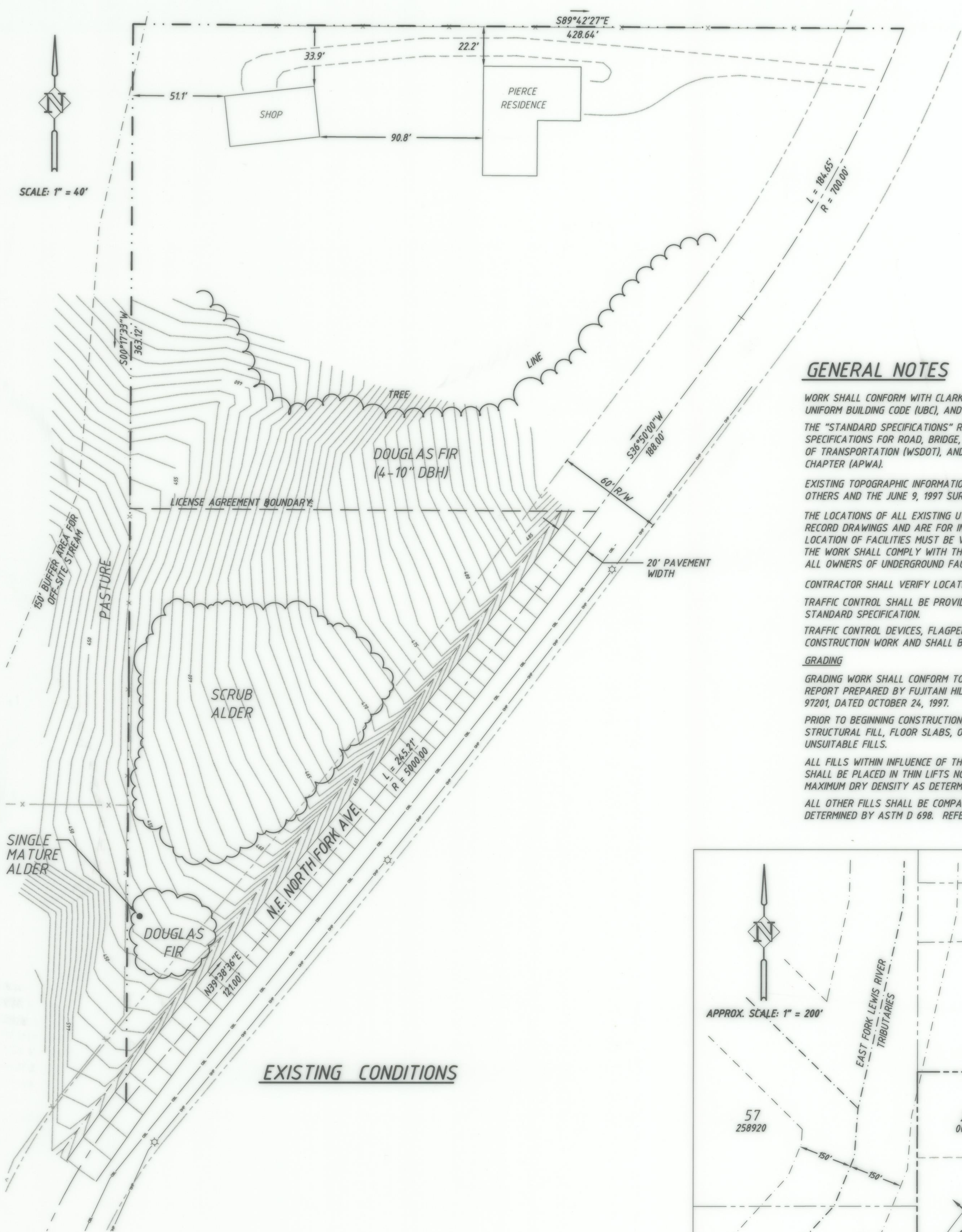
ORIGINAL DATE: 11/01/2022

SCALE: 1" = 60'

SHEET: P-1

UPPER LA CENTER RESERVOIR

CLARK COUNTY, WASHINGTON



EXISTING CONDITIONS

GENERAL NOTES

WORK SHALL CONFORM WITH CLARK PUBLIC UTILITIES STANDARDS, CLARK COUNTY STANDARDS, THE UNIFORM BUILDING CODE (UBC), AND THE UNIFORM PLUMBING CODE (UPC).

THE "STANDARD SPECIFICATIONS" REFERRED TO IN THE PLANS AND NOTES ARE THE "1994 STANDARDS SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION", WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT), AND AMERICAN PUBLIC WORKS ASSOCIATION - WASHINGTON STATE CHAPTER (APWA).

EXISTING TOPOGRAPHIC INFORMATION AND UTILITIES SHOWN ARE BASED ON AS-BUILTS PROVIDED BY OTHERS AND THE JUNE 9, 1997 SURVEY PREPARED BY HAGEDORN, INC.

THE LOCATIONS OF ALL EXISTING UTILITIES ARE AS PER THE REFERENCED TOPOGRAPHIC SURVEY OR RECORD DRAWINGS AND ARE FOR INFORMATIONAL PURPOSES ONLY. THE CURRENT AND EXACT LOCATION OF FACILITIES MUST BE VERIFIED PRIOR TO CONSTRUCTION, THE CONTRACTOR PERFORMING THE WORK SHALL COMPLY WITH THE PROVISIONS OF CHAPTER 19.122 RCW, INCLUDING NOTIFICATION OF ALL OWNERS OF UNDERGROUND FACILITIES AT LEAST 48 BUSINESS HOURS PRIOR TO EXCAVATION.

CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.

TRAFFIC CONTROL SHALL BE PROVIDED FOR BY THE CONTRACTOR IN ACCORDANCE WITH THE COUNTY'S STANDARD SPECIFICATION.

TRAFFIC CONTROL DEVICES, FLAGPERSONS, ETC., SHALL BE IN PLACE PRIOR TO INITIATION OF CONSTRUCTION WORK AND SHALL BE EFFECTIVELY MAINTAINED.

GRADING

GRADING WORK SHALL CONFORM TO THE CONCLUSIONS AND RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED BY FUJITANI HILTS & ASSOCIATES, INC., 2255 S.W. CANYON RD., PORTLAND, OR 97201, DATED OCTOBER 24, 1997.

PRIOR TO BEGINNING CONSTRUCTION, ALL AREAS OF THE SITE THAT WILL RECEIVE FOUNDATION, STRUCTURAL FILL, FLOOR SLABS, OR PAVEMENT SHOULD BE STRIPPED OF TOP SOIL, ROOTS, UNSUITABLE FILLS.

ALL FILLS WITHIN INFLUENCE OF THE TANK OR WITHIN A 2-FOOT DEPTH OF ANY PAVEMENT SECTION SHALL BE PLACED IN THIN LIFTS NOT TO EXCEED 9-12 INCHES AND COMPACTED TO 98 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698. REFER TO PROJECT GEOTECHNICAL REPORT.

ALL OTHER FILLS SHALL BE COMPACTED TO 93 PERCENT OF THE MAXIMUM DRY DENSITY, AS DETERMINED BY ASTM D 698. REFER TO PROJECT GEOTECHNICAL REPORT.

ROADS AND PARKING

ASPHALTIC CONCRETE (A.C.) PAVEMENT SHALL BE CLASS "C" AS SPECIFIED AND DEFINED IN DIVISION 5 OF THE 1994 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (WSDOT).

CRUSHED ROCK SHALL BE 5/8" (MINUS) AND 1 1/4" (MINUS) AS DEFINED IN DIVISION 4, OF THE 1994 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION (WSDOT).

STORM DRAINAGE

STORM DRAIN AND CULVERT PIPE SHALL BE SMOOTH INTERIOR, HIGH DENSITY POLYETHYLENE CORRUGATED PIPE AS PRODUCED AND SPECIFIED BY ADS, PRODUCT NAME N12(TM) OR APPROVED EQUAL. FITTINGS FOR STORM DRAIN PIPE SHALL BE PVC.

PERFORATED DRAIN PIPE, BENDS, AND FITTINGS SHALL BE SINGLE WALL CORRUGATED "ADS" PIPE AS SPECIFIED ABOVE OR APPROVED EQUAL.

STORM PIPE TRENCHING AND BACKFILL SHALL BE AS PER THE STANDARD TRENCH DETAILS PER THE STANDARD WATER DETAILS, SHEET 4.

WATER

ALL WATER SYSTEM IMPROVEMENTS PER CLARK PUBLIC UTILITIES STANDARDS AND DETAILS, SHEET 4.

EROSION CONTROL

EROSION CONTROL PER CLARK COUNTY REQUIREMENTS AND STNDS. SEE E.C. PLAN AND NOTES, SHEET 2.

CONSTRUCTION PHASING

THE SITE WORK CONSTRUCTION SHALL OCCUR IN TWO PHASES. UPON COMPLETION OF PHASE 1, THE SITE CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE RINGWALL FOUNDATION WITH THE TANK CONTRACTOR. PHASE 2 CONSTRUCTION SHALL COMMENCE UPON COMPLETION OF THE RINGWALL FOUNDATION, AND SHALL INCLUDE THE FOLLOWING:
ITEM 1 - INSTALL CATCH BASIN (AT RESERVOIR OVERFLOW)
ITEM 2 - CONNECT 8" A.D.S. AND 4" PERF. FOUNDATION DRAIN TO CATCH BASIN
ITEM 3 - PHASE 2 PORTION OF ROAD SECTION B-B PER DETAIL, SHEET 3.

WATER QUALITY BIO-SWALE PLANTING NOTES

SLOPES AND FLOOR OF WATER QUALITY BIO-SWALE SHALL BE SEEDED WITH WETLAND SEED MIXTURE (PRO-TIME NO. 504 OR APPROVED EQUAL).

ALL EROSION CONTROL DEVICES SHALL BE IN PLACE PRIOR TO CONSTRUCTION TO PREVENT TRANSPORT OF SEDIMENT TO THE BIO-SWALE.

THE WATER QUALITY BIO-SWALE SHALL BE KEPT CLEAR OF DEBRIS AND SEDIMENT UNTIL THE DENSE GRASS COVER OF THE SLOPES AND BASIN FLOOR HAVE BEEN ESTABLISHED.

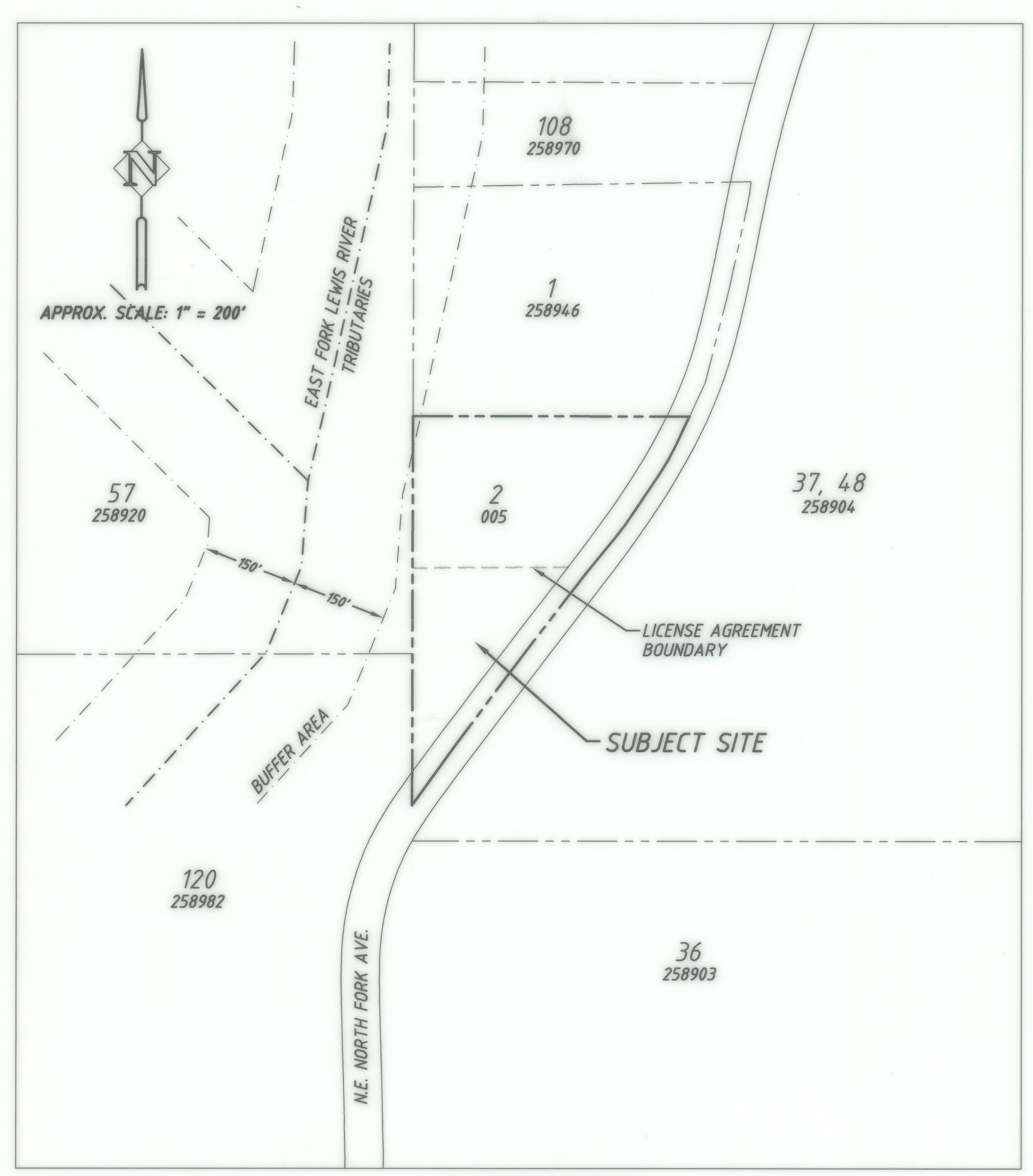
WATER QUALITY BIO-SWALE MAINTENANCE REQUIREMENTS

SEDIMENT SHOULD BE REMOVED WHEN IT BUILDS UP TO 6 INCHES IN DEPTH AT ANY LOCATION. THE SWALE SHOULD BE CLEANED WITH EQUIPMENT WHICH OPERATES SIMILAR TO A DITCH MASTER RATHER THAN BACKHOE DRAGGING TO MINIMIZE DAMAGE TO THE SWALE VEGETATION.

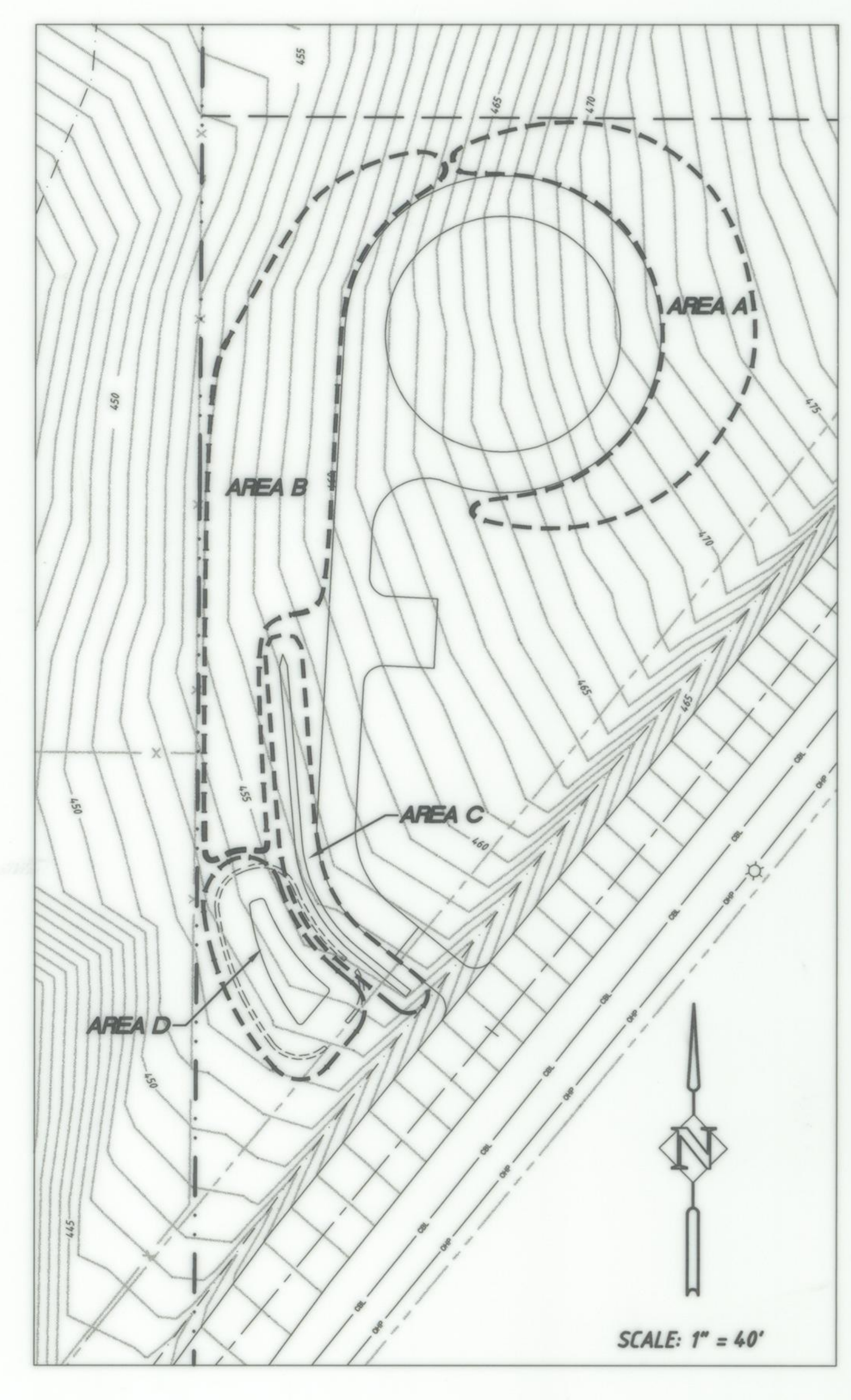
VEGETATED SWALES SHOULD BE INSPECTED AT LEAST THREE TIMES A YEAR, ESPECIALLY AFTER HEAVY RUNOFF.

BIO-SWALE SHOULD BE MOWED AT LEAST TWICE A YEAR TO MAINTAIN AESTHETICS AND RESTRICT GROWTH OF UNDESIRABLE VEGETATION. CUTTINGS SHOULD BE PROMPTLY REMOVED AND PROPERLY DISPOSED OF TO PREVENT POLLUTANTS FROM ENTERING THE RECEIVING WATERS.

VEGETATION MAY REQUIRE WATERING IN TIMES OF DROUGHT, PARTICULARLY IN THE FIRST MONTHS OF ESTABLISHMENT.



VICINITY MAP



PLANTING QUANTITIES

AREA A (CUT SLOPE)	
DOUGLAS FIR	30
SWORD FERN	25
ALASKA HUCKLEBERRY	25
AREA B (GENERAL)	
RED ALDER	30
WESTERN HAZEL	30
SWORD FERN	30
AREA C (SWALE)	
SLOUGHSEDGE	80
BLUE WILDRYE	15 LBS SEED
AREA D (POND)	
RED OSIER DOGWOOD (AROUND POND PERIMETER)	10
SNOWBERRY	20
SWORD FERN	20

NOTES:
1. ALL TREES A MIN. 1" CALIPER DBH
2. MIN. 1' SPACING ON HUCKLEBERRY, SNOWBERRY AND FERN.
3. MIN. 2' SPACING ON DOGWOOD
4. PLANT DOUGLAS FIRS IN CLUMPS OF 5

LANDSCAPE PLAN

QUOTE SET

TITLE SHEET, EXIST. CONDITIONS AND LANDSCAPE PLAN
UPPER LA CENTER RESERVOIR
CLARK COUNTY, WASHINGTON

Harper • Houf Righellis, Inc.
ENGINEERS ◇ PLANNERS
5200 SW MACADAM AVENUE, SUITE 580
PORTLAND, OR 97201
TEL (503) 221.1131 FAX (503) 221.1171

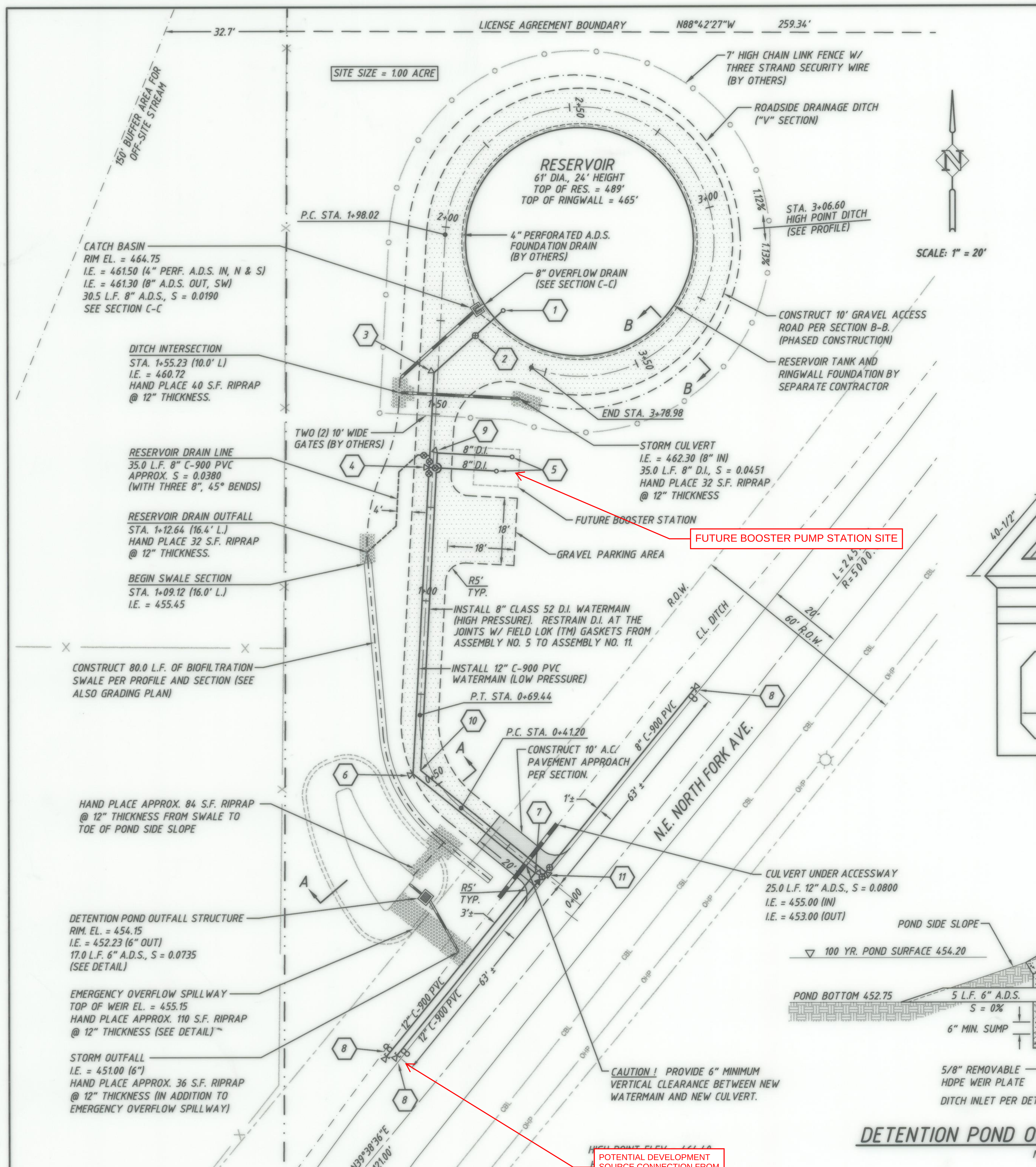
CHARLES L. HARPER
STATE OF WASHINGTON
22393
REGISTERED
PROFESSIONAL ENGINEER
[illegible] 5-28-98
EXPIRES: 3/3/00

DESIGNED: CER
DRAWN: CER
CHECKED: CLH
DATE: 5/28/98

DATE	NO.	DESCRIPTION

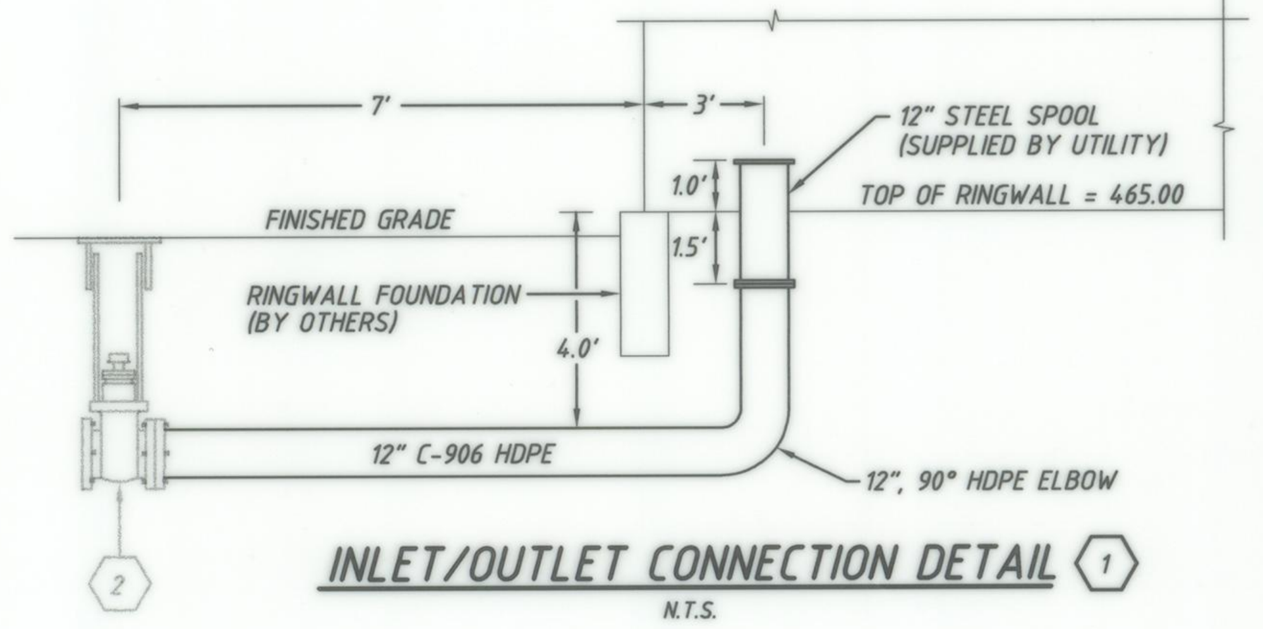
REVISIONS

SHEET NO. 1 OF 4
JOB NO. CPU-53

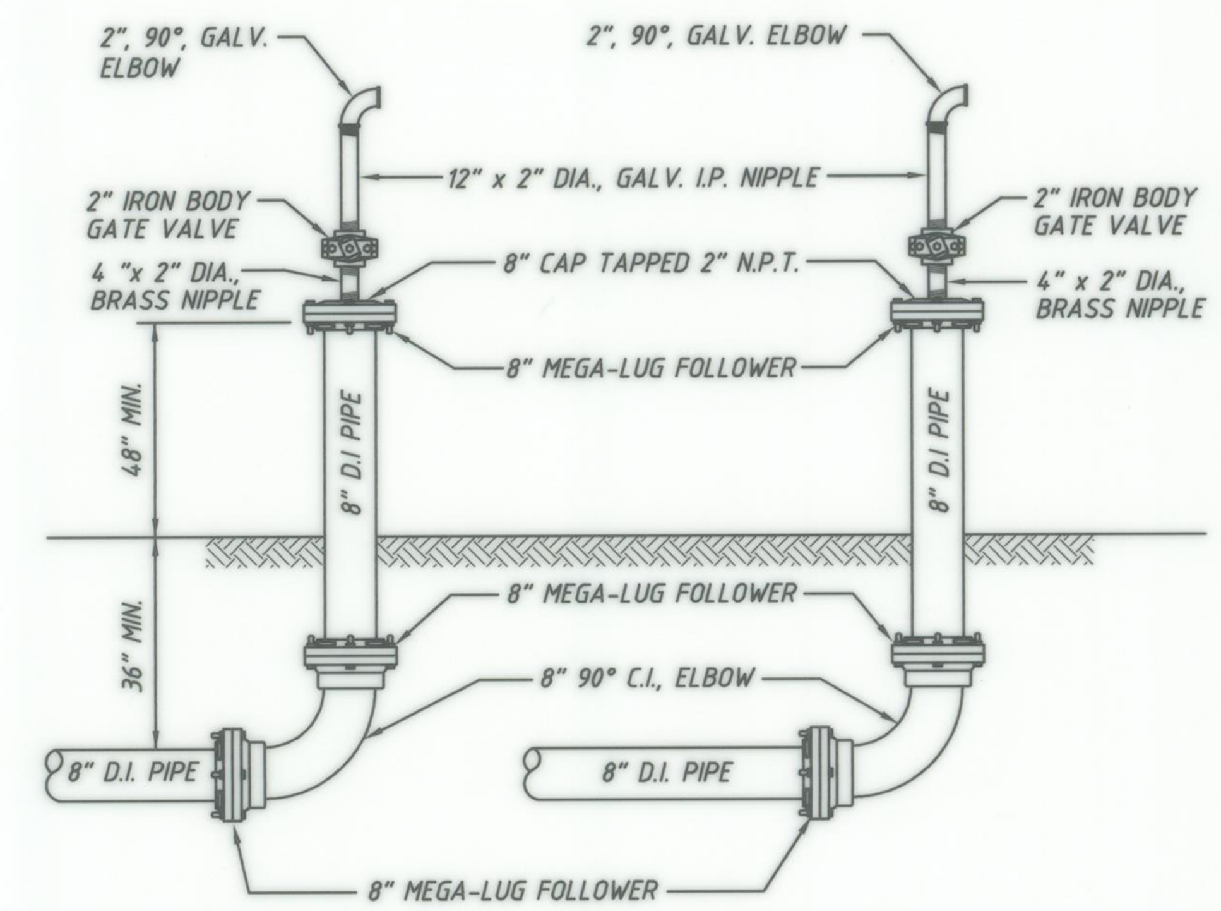


LEGEND

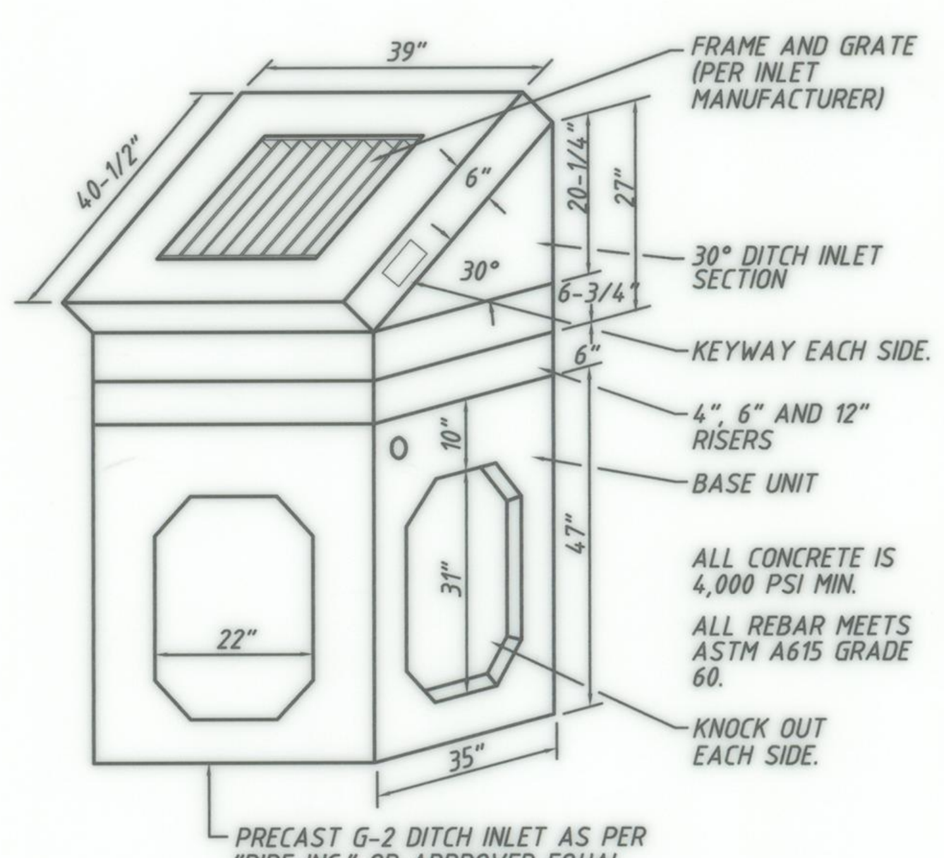
— - - —	EXIST. R.O.W.
— · · —	EXIST. P/L
——	EXIST. EDGE OF PAVEMENT
— OHP —	EXIST. OVERHEAD POWER
— CBL —	EXIST. UNDGR. CABLE
——	PROP. EDGE OF PAVEMENT
— — —	PROP. EDGE OF GRAVEL
— · — · —	PROP. SWALE/DITCH C/L
▬	PROP. STORM LINE
——	PROP. WATERMAIN
⊗	PROP. WATER VALVE
▷	THRUST BLOCK
∞	BLOWOFF
▨	ASPHALT ROAD
░	GRAVEL ROAD
▩	RIPRAP



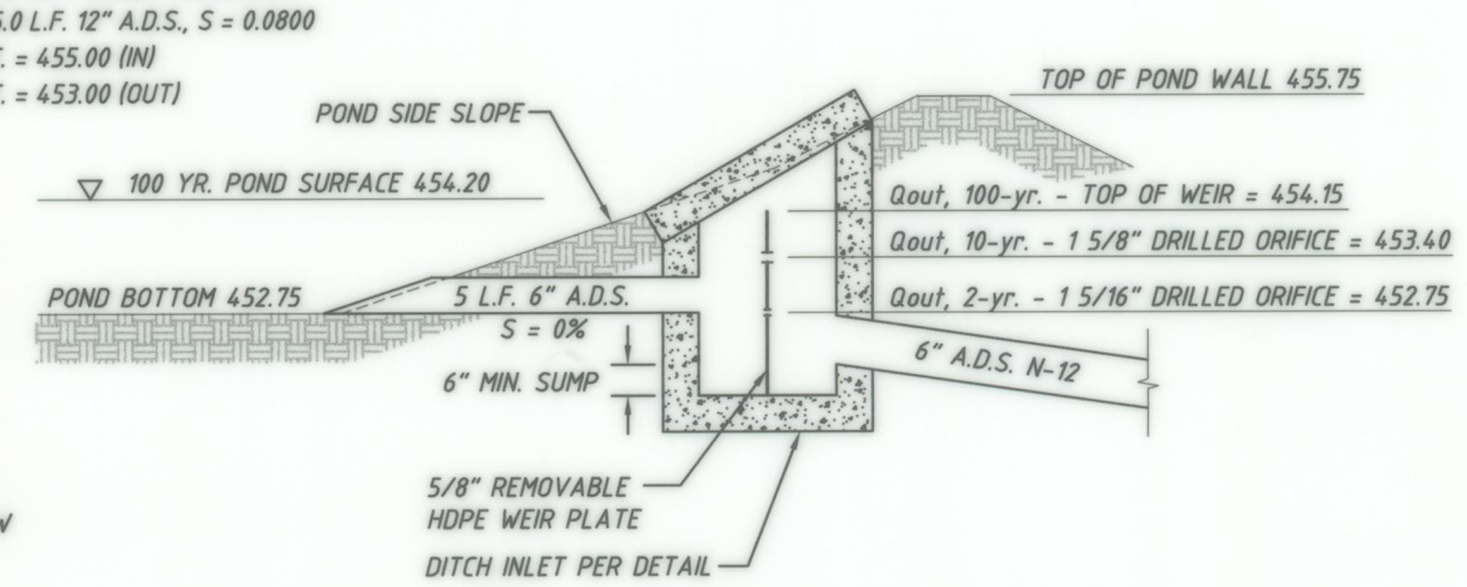
INLET/OUTLET CONNECTION DETAIL (1)
N.T.S.



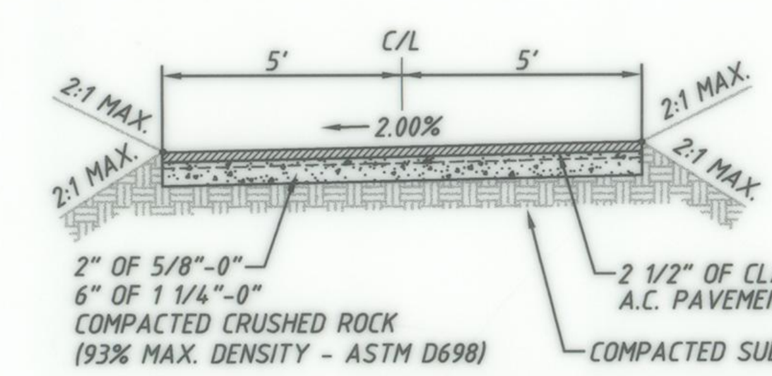
RISER DETAIL TO FUTURE BOOSTER STATION (5)
N.T.S.



DITCH INLET
N.T.S.



DETENTION POND OUTFALL STRUCTURE
N.T.S.

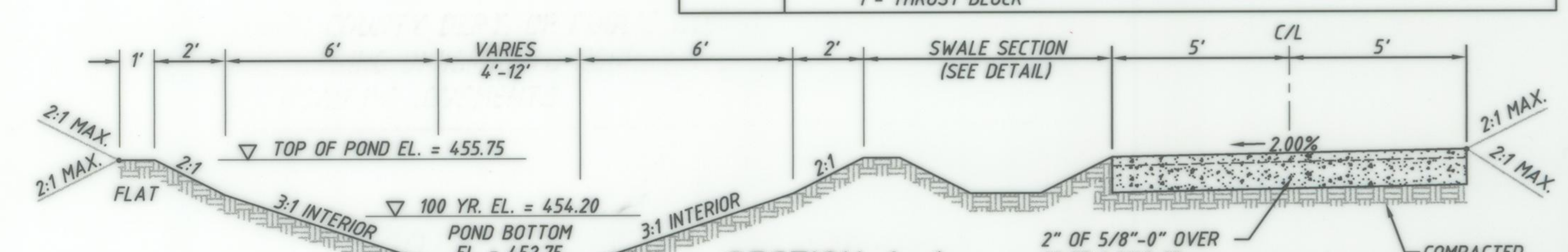


ASPHALT APPROACH SECTION
STA. 0+11.85 TO STA. 0+31.85
N.T.S.

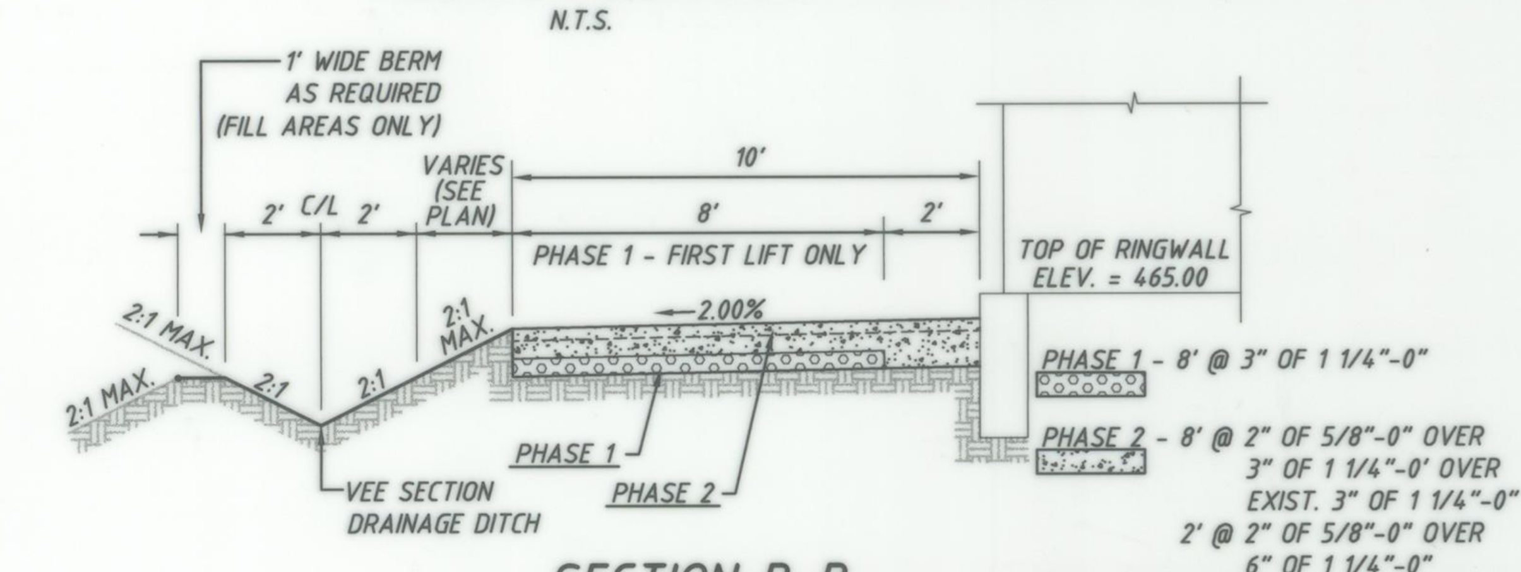
PROJECT CONSTRUCTION NOTES

APPROXIMATE LENGTH OF 12" C-900, P.C. 150, PVC PIPE = 290 LINEAL FEET +/-
APPROXIMATE LENGTH OF 8" C-900, P.C. 150, PVC PIPE = 65 LINEAL FEET +/-
APPROXIMATE LENGTH OF 8" CL. 52 D.I. PIPE = 170 LINEAL FEET +/-

NO. OF LOCATIONS (SEE x NOTE)	ASSEMBLY REFERENCE (#) AND DESCRIPTION
1	(1) 1 - 12", 90° HDPE ELBOW 1 - 12" STEEL SPOOL, FLG. (SUPPLIED BY UTILITY) 2 - 12" ADAPTER, FLG. x M.J. 1 - THRUST BLOCK 14.0 L.F. 12" C-906 HDPE WATERMAIN (P.C. 160/DR 11) SEE INLET/OUTLET CONNECTION DETAIL THIS SHEET FOR SHOP FABRICATION
1	(2) 1 - 12" B.F.V., FLG. x M.J. W/ MEGALUG RETAINER GLAND (C-900 PVC) 1 - VALVE BOX TOP W/ 6" PVC PIPE EXT.
1	(3) 1 - 12", 45° C.I. BEND, M.J., W/ MEGALUG RETAINER GLAND (C-900 PVC) 1 - THRUST BLOCK
1	(4) 2 - 12" x 8" C.I. TEE, FLG. 1 - 12" B.F.V., FLG. x M.J. W/ MEGALUG RETAINER GLAND (C-900 PVC) 1 - 12" B.F.V., FLG. 2 - 8" G.V., FLG x M.J. 1 - 12" ADAPTER, FLG. x M.J. W/ MEGALUG RETAINER GLAND (C-900 PVC) 4 - VALVE BOX TOP W/ 6" PVC PIPE EXT. 1 - THRUST BLOCK
1	(5) 2 - 8", 90° C.I. ELBOW, M.J. 2 - 8" C.I. CAP TAPPED 2" N.P.T., M.J. 6 - 8" MEGA-LUG FOLLOWER (D.I.) 2 - 4" x 2" DIA. BRASS NIPPLE 2 - 2" IRON BODY GATE VALVE 2 - 12" x 2" DIA. GALV. I.P. NIPPLE 2 - 2", 90° GALV. ELBOW } SEE RISER DETAIL
1	(6) 1 - 12", 45° C.I. BEND, M.J. W/ MEGALUG RETAINER GLANDS (C-900 PVC) 1 - 12", 11 1/4° C.I. BEND, M.J. W/ MEGALUG RETAINER GLANDS (C-900 PVC) 2 - THRUST BLOCK
1	(7) 1 - 12", 90° C.I. ELBOW, M.J., W/ MEGALUG RETAINER GLANDS (C-900 PVC) 1 - THRUST BLOCK
3	(8) 1 - PERPENDICULAR BLOW-OFF ASSEMBLY, INCLUDING MAIN CAP AND THRUST BLOCK
1	(9) 1 - 8", 90° C.I. ELBOW, M.J. W/ MEGALUG RETAINER GLANDS (D.I.) 1 - THRUST BLOCK
1	(10) 1 - 8", 45° C.I. BEND, M.J., W/ MEGALUG RETAINER GLANDS (D.I.) 1 - 8", 11 1/4° C.I. BEND, M.J., WITH MEGALUG RETAINER GLANDS (D.I.) 1 - THRUST BLOCK
1	(11) 1 - 8" C.I. TEE, FLG. 1 - 8" G.V., FLG x M.J., W/ MEGALUG RETAINER GLAND (C-900 PVC) 1 - 8" G.V., FLG. 1 - 8" ADAPTER, FLG. x M.J., W/ MEGALUG RETAINER GLAND (D.I.) 1 - 12" x 8" REDUCER, M.J. x FLG., W/ MEGALUG RETAINER GLAND (C-900 PVC) 2 - VALVE BOX TOP W/ 6" PVC PIPE EXT. 1 - THRUST BLOCK

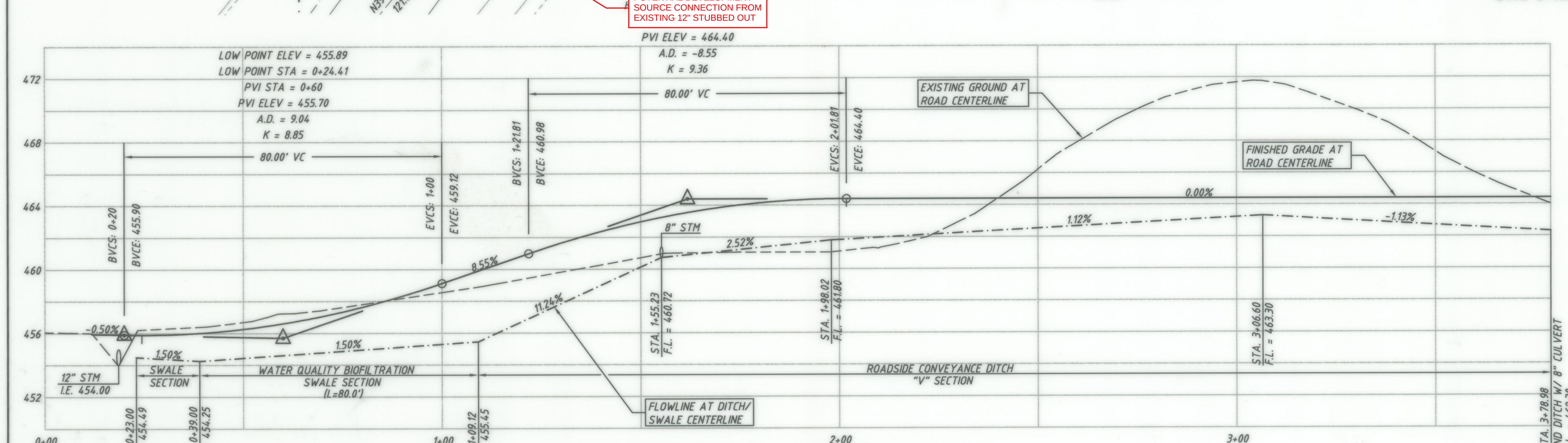


SECTION A-A
POND AND ACCESS ROAD
N.T.S.

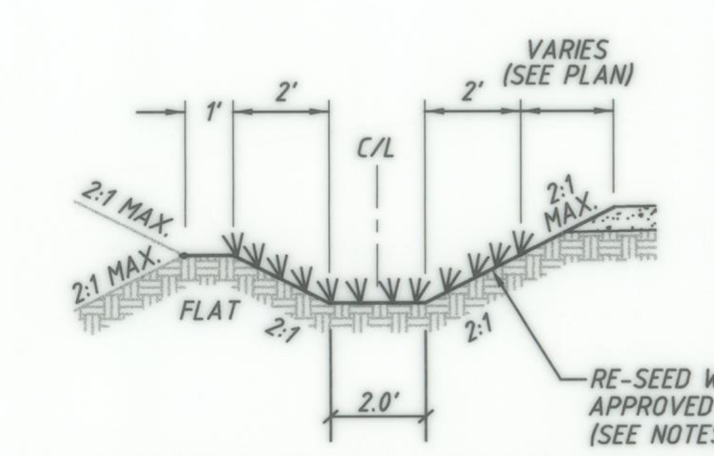


SECTION B-B
"V" DITCH AND ACCESS ROAD
N.T.S.

SEE NOTES ON SHEET 1 FOR INFORMATION REGARDING CONSTRUCTION PHASING

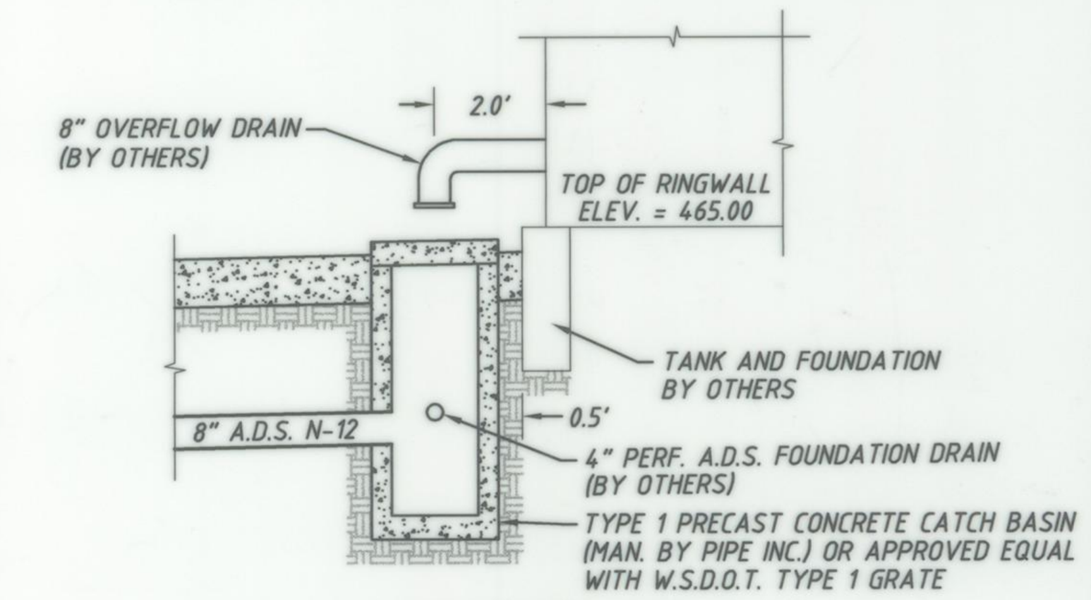


ACCESS ROAD AND DITCH/SWALE PROFILES
ROAD CENTERLINE PROFILE
SCALE: 1" = 20' H
1" = 5' V

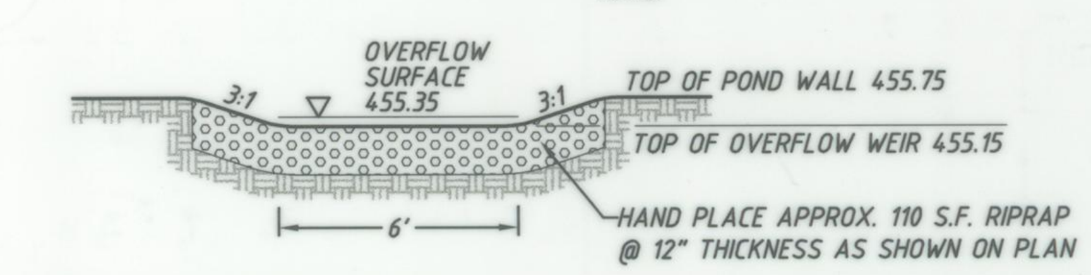


NOTE: SEE SHEET 1 FOR NOTES AND MAINTENANCE REQUIREMENTS

WATER QUALITY BIO-SWALE TYPICAL SECTION
STA. 0+39.00 TO STA. 1+09.12
N.T.S.



SECTION C-C
OVERFLOW DRAIN CONNECTION
N.T.S.



EMERGENCY OVERFLOW SPILLWAY - WEIR SECTION
N.T.S.

ROAD AND UTILITIES PLAN
UPPER LA CENTER RESERVOIR
CLARK COUNTY, WASHINGTON

QUOTE SET

Harper • Houf Righellis, Inc.
ENGINEERS ◇ PLANNERS
5200 SW MACADAM AVENUE, SUITE 580
PORTLAND, OR 97201
TEL (503) 221.1131 FAX (503) 221.1171

CHARLES L. HARPER
STATE OF WASHINGTON
22393
REGISTERED PROFESSIONAL ENGINEER
5-28-98
EXPIRES: 3/3/00

DESIGNED:	CER
DRAWN:	CER
CHECKED:	CLH
DATE:	5/28/98

DATE	NO.	DESCRIPTION
		R E V I S I O N S

SHEET NO. 3 OF 4
JOB NO. CPU-53