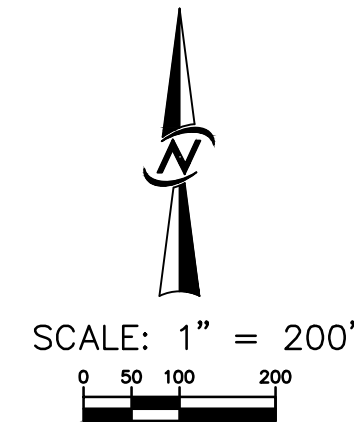



A map of the Bullfrog Site area. The site is a hatched rectangular area located south of Bullfrog Rd and east of I-90. Bullfrog Rd runs diagonally from the top left to the middle right. I-90 runs horizontally across the bottom. To the west of I-90 is a hatched area labeled 'PALOUSE TO CASCADES STATE PARK'. To the south of the site is a hatched area labeled 'LEISURE LAND CONNECTION'. To the east of the site, I-90 continues, with '1ST ST W' crossing it. Further east, 'W 2ND ST' crosses a road labeled 'SP 903'. The road 'SP 901' runs diagonally from the top left, parallel to Bullfrog Rd. The word 'BULLFROG RD' is written along the road. The word 'SITE' is written next to the hatched rectangular area with an arrow pointing to it. The words 'WA STATE HORSE PARK' are written below the site area.



**VICINITY MAP**  
1" = 5,000'

SHEET INDEX		
DRAWING NUMBER	SHEET NUMBER	NAME
1	C1.01	COVER SHEET
2	C1.02	GENERAL NOTES
3	C1.03	PHASING PLAN
4	C1.10	SITE PLAN
5	C1.21	HORIZONTAL CONTROL PLAN 1
6	C1.22	HORIZONTAL CONTROL PLAN 2
7	C1.23	HORIZONTAL CONTROL PLAN 3
8	C1.24	HORIZONTAL CONTROL PLAN 4
9	C1.25	HORIZONTAL CONTROL PLAN 5
10	C2.00	TEMPORARY EROSION & SEDIMENTATION CONTROL PLAN
11	C2.31	TEMPORARY EROSION & SEDIMENTATION CONTROL DETAILS
12	C2.32	TEMPORARY EROSION & SEDIMENTATION CONTROL DETAILS
13	C3.00	COMPOSITE GRADING PLAN
14	C3.01	GRADING PLAN 1
15	C3.02	GRADING PLAN 2
16	C3.03	GRADING PLAN 3
17	C3.04	GRADING PLAN 4
18	C3.05	GRADING PLAN 5
19	C3.31	ROADWAY DETAILS
20	C3.32	GRADING DETAILS
21	C4.00	COMPOSITE STORM DRAINAGE PLAN
22	C4.01	STORM DRAINAGE PLAN 1
23	C4.02	STORM DRAINAGE PLAN 2
24	C4.03	STORM DRAINAGE PLAN 3
25	C4.04	STORM DRAINAGE PLAN 4
26	C4.05	STORM DRAINAGE PLAN 5
27	C4.21	ROAD PROFILES
28	C4.22	ROAD PROFILES
29	C4.23	ROAD PROFILES
30	C4.31	STORM DRAINAGE DETAILS
31	C5.00	COMPOSITE SEWER PLAN
32	C5.01	SANITARY SEWER PLAN 1
33	C5.02	SANITARY SEWER PLAN 2
34	C5.03	SANITARY SEWER PLAN 3
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38	C6.00	COMPOSITE WATER PLAN
39	C6.01	WATER PLAN 1
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42	C6.04	WATER PLAN 4
43	C6.05	WATER PLAN 5
44	C6.31	WATER DETAILS
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46	L2.01	COMPOSITE LANDSCAPE PLAN
47	L2.02	PRELIMINARY LANDSCAPE PLAN
48	L2.03	PRELIMINARY LANDSCAPE PLAN
49	L2.04	PRELIMINARY LANDSCAPE PLAN
50	L2.05	PRELIMINARY LANDSCAPE PLAN
51	L2.06	PRELIMINARY LANDSCAPE PLAN
52	L2.07	LANDSCAPE SCHEDULE & NOTES
53	L2.31	LANDSCAPE DETAILS

**UNDERGROUND LOCATOR SERVICE**  
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811

<b>COVER SHEET</b>						 <p>CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING</p> <p>12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-865-7877</p>
<b>BULLFROG FLATS - PHASE S-2</b>						
<b>BULLFROG FLATS, LLC</b> 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052						
PLOT DATE	SEE STAMP DATE					
DESIGNED	QUENTIN CHALLMERS, PE					
DRAWN	MARY E. MOORE					
APPROVED	HOLLI HEAVRIN, PE					
		HOLLI HEAVRIN, PE				
		PROJECT MANAGER				
SHEET	OF					
1	C.L.O.1	53				
PROJECT NUMBER <b>24019</b>						



SUN 47 NORTH, LLC  
27777 FRANKLIN ROAD SUITE 300,  
SOUTHFIELD, MI 48034  
(248) 208-2606  
CONTACT: BILL RAFFOUL  
EMAIL: BRAFFOUL@SUNCOMMUNITIES.COM

**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052  
(425) 629-3854  
CONTACT: MICHELLE BRANLEY  
EMAIL: ADMIN@BLUEFERN.COM

ESM CONSULTING ENGINEERS LLC  
33400 8TH AVE S, SUITE 205  
FEDERAL WAY, WA 98003  
(253) 838-6113  
CONTACT: ZACHARY T. LENNON

CORE DESIGN INC.  
12100 N.E. 195TH ST, SUITE 300  
BOTHELL, WASHINGTON 98011  
(425) 885-7877  
CONTACTS:  
QUENTIN CHALMERS, P.E. - DESIGN ENGINEER, DIRECT: (425) 420-8467  
HOLLI H. HEAVIN, P.E. - PROJECT MANAGER  
LINDSEY B. SOLORIO, P.L.A. - LANDSCAPE ARCHITECT  
ROBERT D. WEST, P.L.S. - SURVEYOR  
IAN G. FAULDS - PLANNER

## NAVD88

FOR SITE LEGAL DESCRIPTION, BASIS OF BEARINGS, HORIZONTAL DATUM,  
BENCHMARKS AND EXCEPTIONS CONTAINED IN TITLE, SEE SEPARATE DOCUMENT  
TITLED BULLFROG FLATS ALTA/NSPS LAND TITLE SURVEY.

FUTURE PARCEL 1, PENDING BULLFROG FLATS BLA

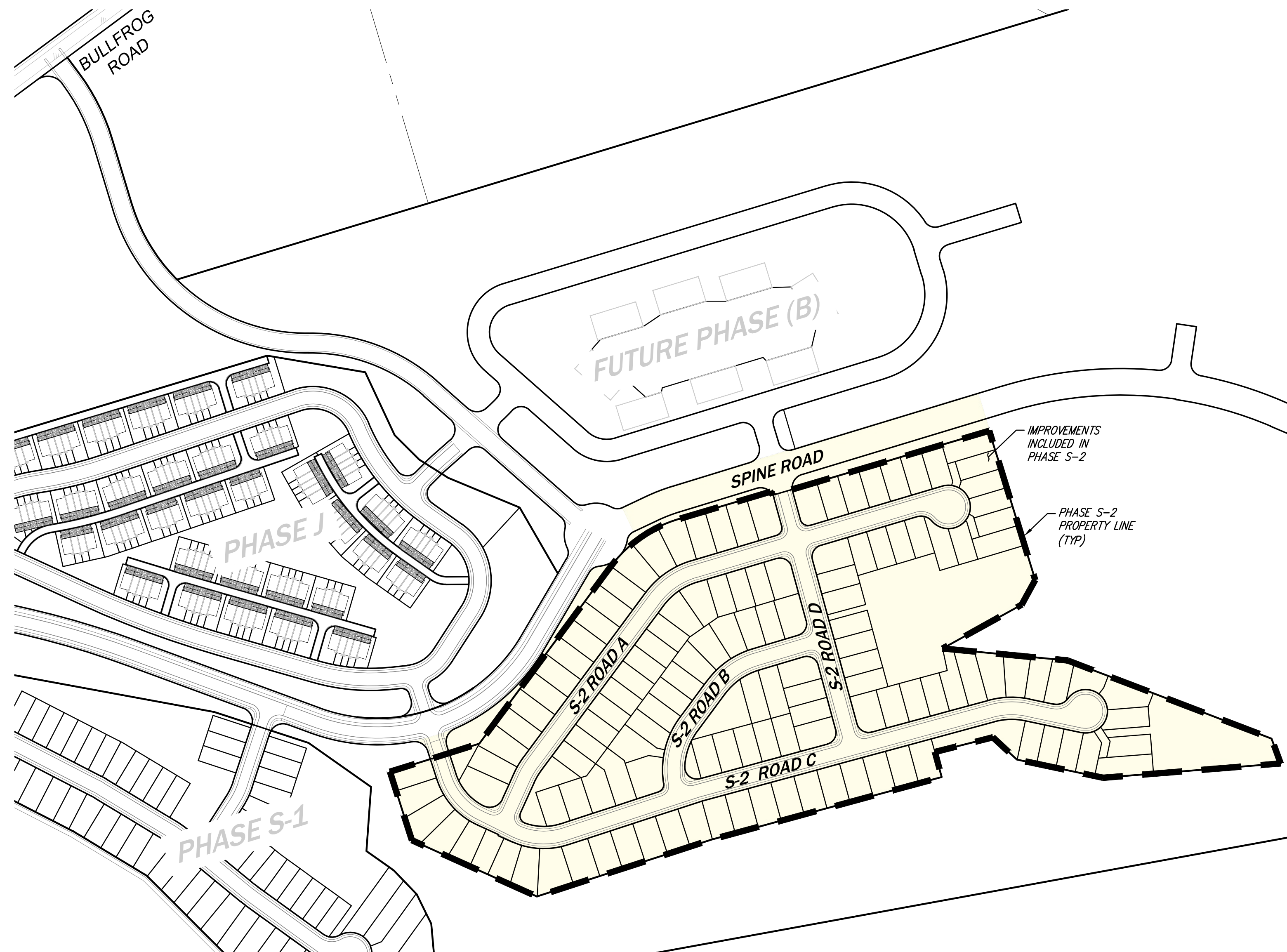
ZONING	PLANNED MIXED USE	
	(S.F.)	(ACRES)
PARCEL 1 AREA	1,551,031	35.61
PHASE S-2 AREA	1,198,114	27.50
ROW DEDICATION	258,733	5.94
PRIVATE ACCESS TRACTS (TRACTS S, T & U)	4,001	0.09
WETLANDS AND/OR CRITICAL AREAS	0	0
OPEN SPACES (TRACTS D, & M-R)	173,937	3.99
MINIMUM DENSITY (3 UNITS PER ACRE)	83 (PHASE S-2 AREA TIMES 3)	
MAXIMUM DENSITY (7 UNITS PER ACRE)	193 (PHASE S-2 AREA TIMES 7)	
LOTS PROPOSED	130	
DENSITY PROPOSED	4.73 DU/AC (PHASE S-1 AREA)	

WATER:	CITY OF CLE ELUM
SEWER:	CITY OF CLE ELUM
STORM:	CITY OF CLE ELUM
POWER:	PSE
FIRE:	CITY OF CLE ELUM
SCHOOL:	CITY OF CLE ELUM

THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITHIN A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.

TOPOGRAPHIC NOTE

THE EXISTING TOPOGRAPHIC DATA SHOWN ON THESE DRAWINGS HAS BEEN PREPARED BY OTHERS. WHILE THIS INFORMATION IS BELIEVED TO BE RELIABLE, CORE DESIGN CANNOT ENSURE ITS ACCURACY AND THUS IS NOT RESPONSIBLE FOR THE ACCURACY OF THAT INFORMATION OR FOR ANY ERRORS OR OMISSIONS WHICH MAY HAVE BEEN INCORPORATED INTO THESE DRAWINGS AS A RESULT.



CITY STANDARD NOTES:

THE FOLLOWING CITY OF CLE ELUM (COCE) STANDARD NOTES SHALL APPLY UNLESS THEY ARE IN CONFLICT WITH PROVISIONS IN THE APPROVED DEVELOPMENT AGREEMENT (DA) IN WHICH CASE THE DA SHALL GOVERN. A STRIKE THROUGH HAS BEEN ADDED TO NOTES THAT ARE IN CONFLICT WITH THE DA.

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE PLANS, THE LATEST EDITION OF STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, AND THE WASHINGTON STATE CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION, THE CITY OF CLE ELUM DEVELOPMENT STANDARDS, REFERENCED CODES AND ORGANIZATIONS, AND THESE SPECIAL PROVISIONS.
- CONSTRUCTION HOURS WITHIN THE UGA SHALL BE LIMITED TO 7:00 AM TO 7:00 PM, MONDAY THROUGH SATURDAY. SUNDAY CONSTRUCTION SHALL BE ON AN EMERGENCY BASIS ONLY AND SHALL BE APPROVED BY THE CITY. EQUIPMENT SERVICING AND MAINTENANCE TIMES WILL BE UNRESTRICTED.
- THE DEVELOPER'S CONTRACTOR SHALL GIVE A MINIMUM OF TEN (10) DAYS PRIOR NOTICE TO THE PUBLIC WORKS DIRECTOR OF THE START OF ANY CONSTRUCTION ACTIVITIES.
- BEFORE THE DEVELOPER'S CONTRACTOR COMMENCES ANY WORK, HE SHALL BE REQUIRED TO ATTEND A PRECONSTRUCTION CONFERENCE WITH THE DEPARTMENT OF PUBLIC WORKS, THE CITY'S ENGINEER, AND UTILITY COMPANIES AS DETERMINED BY THE CITY OF CLE ELUM. THE PURPOSE OF THE MEETING IS TO DISCUSS THE SCHEDULING, METHOD OF CONSTRUCTION, RESPONSIBILITIES, CONCERNS OF OTHER UTILITIES, AND OTHER PERTINENT PROJECT CONDITIONS. THE CONTRACTOR WILL SUBMIT HIS INSURANCE AND CONSTRUCTION SCHEDULE AT OR PRIOR TO THIS MEETING. SEE SPECIAL PROVISION 1-08.3 FOR CONSTRUCTION SCHEDULE SUBMITTAL REQUIREMENTS.
- THE DEVELOPER SHALL MAINTAIN A NEATLY MARKED, FULL-SIZED SET OF RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL NEW CONSTRUCTION OF THE PUBLIC FACILITIES.
- WATER SUPPLY: WATER FOR USE ON THE PROJECT MAY BE OBTAINED/PURCHASED FROM THE CITY OF CLE ELUM AND THE CONTRACTOR SHALL ARRANGE FOR AND CONVEY THE WATER FROM THE NEAREST CONVENIENT HYDRANT OR OTHER SOURCE AT HIS OWN EXPENSE. THE HYDRANTS SHALL BE USED IN ACCORDANCE WITH THE CITY OF CLE ELUM WATER DEPARTMENT REGULATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND PAYING FOR ALL MATERIAL TESTING REQUIRED BY THESE CONTRACT DOCUMENTS. ALL TESTING SERVICES SHALL BE PERFORMED BY AN INDEPENDENT, CERTIFIED TESTING FIRM AND/OR LABORATORY MEETING THE APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL SUBMIT INFORMATION RELATING TO THE QUALIFICATIONS OF THE PROPOSED TESTING FIRM TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE PRECONSTRUCTION CONFERENCE. SEE SPECIAL PROVISION 1-05.18 FOR REQUIRED TEST TYPES AND FREQUENCIES.
- LOCATIONS AND DIMENSIONS SHOWN ON THE PLANS FOR EXISTING FACILITIES ARE IN ACCORDANCE WITH AVAILABLE INFORMATION OBTAINED WITHOUT UNCOVERING, MEASURING, OR OTHER VERIFICATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE THE PRESENCE AND LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL CALL FOR FIELD LOCATION NOT LESS THAN TWO NOR MORE THAN TEN BUSINESS DAYS BEFORE THE SCHEDULED DATE FOR COMMENCEMENT OF EXCAVATION WHICH MAY AFFECT UNDERGROUND UTILITY FACILITIES, UNLESS OTHERWISE AGREED UPON BY THE PARTIES INVOLVED.

WATER STANDARD NOTES:

ALL EXTENSIONS TO THE CITY OF CLE ELUM'S DOMESTIC WATER SYSTEM SHALL CONFORM TO THE DESIGN STANDARDS OF THE CITY OF CLE ELUM AND THE STATE DEPARTMENT OF HEALTH AS FOLLOWS:

- ALL NEW LOTS AND DEVELOPMENTS SHALL BE SERVED BY A PUBLIC WATER SUPPLY LINE MAINTAINED BY THE CITY OF CLE ELUM AND LOCATED ADJACENT TO THE LOT OR DEVELOPMENT SITE. THE WATER SUPPLY LINE SHALL BE CAPABLE OF PROVIDING SUFFICIENT FLOW AND PRESSURE TO SATISFY THE FIRE FLOW AND DOMESTIC SERVICE REQUIREMENTS OF THE PROPOSED LOTS AND DEVELOPMENT REQUIREMENTS.
- WATER LINES SHALL BE EXTENDED BY THE OWNER OR DEVELOPER TO THE POINT WHERE THE ADJOINING PROPERTY OWNER'S RESPONSIBILITY FOR FURTHER EXTENSION BEGINS. THIS TYPICALLY REQUIRES AN EXTENSION ACROSS THE ENTIRE FRONTAGE OF THE PROPERTY TO THE PROPERTY LINE OF THE ADJOINING OWNER. IN SOME CASES, IT WILL REQUIRE DEDICATION OF AN EASEMENT AND A LINE EXTENSION ACROSS THE PROPERTY OR EXTENSION ACROSS TWO OR MORE SIDES OF THE DEVELOPING PROPERTY. EXTENSIONS WILL BE CONSISTENT WITH AND IMPLEMENT THE CITY'S ADOPTED WATER COMPREHENSIVE PLAN.
- ALL NEW PUBLIC DOMESTIC WATER MAINS SHALL BE A MINIMUM DIAMETER OF 8-INCH. FIRE HYDRANT RUNS LESS THAN 50 FEET FROM THE WATER MAIN TO THE FIRE HYDRANT SHALL BE A MINIMUM OF 6-INCH. LARGER PUBLIC WATER MAINS MAY BE REQUIRED DEPENDING UPON FIRE FLOW REQUIREMENTS AS DETERMINED BY THE CITY FIRE CHIEF AND CITY BUILDING OFFICIAL.
- WATER MAIN OVERSIZING, ABOVE THAT REQUIRED FOR THE PARTICULAR DEVELOPMENT BEING SUBMITTED, MAY BE REQUIRED BY THE CITY OF CLE ELUM TO BE INSTALLED FOR FUTURE EXTENSION. THE COST OF THE MATERIALS ONLY FOR THE OVERSIZING SHALL BE REIMBURSED TO THE DEVELOPER BY THE CITY. THE DEVELOPER SHALL SUBMIT ACTUAL MATERIAL INVOICES SHOWING THE ACTUAL COST OF THE MATERIALS FURNISHED AND THE COST OF THE SAME MATERIALS OF THE SIZE REQUIRED FOR THE DEVELOPMENT.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR PRESSURE REDUCING VALVE STATIONS IN AREAS OF EXCESSIVE PRESSURE.
- EIGHT-INCH DEAD-END WATER MAIN OVER 1,500 FEET IN LENGTH WILL ONLY BE ALLOWED WHERE FUTURE LOOPING VIA PUBLIC RIGHT OF WAY CAN BE ASSURED. DEAD-END MAINS EXCEEDING 1,500 FEET IN LENGTH WILL BE AT LEAST 10-INCH DIAMETER PIPE WHERE LOOPING IS NOT PRACTICAL OR IS UNLIKELY TO OCCUR IN THE FUTURE.
- MAXIMUM VALVE SPACING IN PUBLIC WATER MAINS WILL BE 1,200 LINEAR FEET. VALVES WILL BE FURNISHED AND INSTALLED ON ALL LEGS OF NEW WATER MAIN INTERSECTIONS.
- ALL NEW WATER METERS SHALL BE A MINIMUM OF 3/4-INCH AND SHALL BE FURNISHED AND INSTALLED BY THE CITY OF CLE ELUM. IF MORE THAN 10 METERS ARE REQUIRED, THEY SHALL BE FURNISHED AND INSTALLED BY THE DEVELOPER TO CITY OF CLE ELUM STANDARDS.
- ONLY ONE METER SHALL BE SERVED FROM EACH MAIN TAP. WATER AND SEWER SERVICE LINES MAY NOT BE LAID IN THE SAME TRENCH EXCEPT AS PROVIDED IN SECTION 1008 OF THE UNIFORM PLUMBING CODE (UPC) AND WITH WRITTEN APPROVAL OF THE CITY OF CLE ELUM BUILDING INSPECTOR.
- MINIMUM TWO-INCH AIR AND VACUUM RELEASE VALVES SHALL BE FURNISHED AND INSTALLED AT HIGH POINTS IN THE SYSTEM.
- FIRE HYDRANTS SHALL BE SPACED NO GREATER THAN EVERY 300 FEET. ADDITIONAL HYDRANTS MAY BE REQUIRED TO PROTECT STRUCTURES AS DETERMINED BY THE CITY FIRE CHIEF. ADDITIONAL FIRE HYDRANTS REQUIRED ON A SITE MAY REQUIRE A LOOPED, ON-SITE FIRE HYDRANT MAIN. EASEMENTS WILL BE PROVIDED FOR ALL ON-SITE, PUBLIC, LOOPED WATER MAINS.
- ALL IRRIGATION SERVICES SHALL BE INSTALLED WITH A STATE APPROVED, DOUBLE CHECK VALVE ASSEMBLY. WATER AND SEWER MAINS SHALL BE SEPARATED IN ACCORDANCE WITH SECTION C1-9.1 OF THE LATEST EDITION OF THE CRITERIA FOR SEWAGE WORKS DESIGN BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY.
- THE DESIGN OF WATER MAINS AND APPURTENANCES IS SUBJECT TO REVIEW AND APPROVAL BY THE CITY OF CLE ELUM DIRECTOR OF PUBLIC WORKS. THE DIRECTOR OF PUBLIC WORKS MAY, AT HIS DISCRETION, ADJUST THESE STANDARDS AS NECESSARY TO FACILITATE INSTALLATION OF WATER LINES AND APPURTENANCES FOR THE HEALTH, SAFETY, AND PROTECTION OF THE GENERAL PUBLIC.
- ALL DOUBLE DETECTOR CHECK VALVE ASSEMBLIES SHALL CONFORM TO CITY OF CLE ELUM STANDARDS. INITIAL AND ANNUAL TESTING WILL BE REQUIRED.

SEWER STANDARD NOTES:

ALL EXTENSIONS TO THE SEWER SYSTEM SHALL CONFORM TO THE DESIGN STANDARDS OF THE CITY OF CLE ELUM AND THE WASHINGTON STATE DEPARTMENT OF ECOLOGY AS FOLLOWS:

- ALL NEW LOTS AND DEVELOPMENTS SHALL BE SERVED BY A PUBLIC SANITARY SEWER LINE ADJACENT TO THE LOT OR DEVELOPMENT SITE.
- SEWER LINES SHALL BE EXTENDED BY THE OWNER OR DEVELOPER TO THE POINT WHERE THE ADJOINING PROPERTY OWNER'S RESPONSIBILITY FOR FURTHER EXTENSION BEGINS. THIS TYPICALLY REQUIRES AN EXTENSION ACROSS THE ENTIRE FRONTAGE OF THE PROPERTY TO THE PROPERTY LINE OF THE ADJOINING OWNER. IN SOME CASES, IT WILL REQUIRE DEDICATION OF AN EASEMENT AND A LINE EXTENSION ACROSS THE PROPERTY OR EXTENSION ACROSS TWO OR MORE SIDE OF THE DEVELOPING PROPERTY. EXTENSIONS WILL BE CONSISTENT WITH AND IMPLEMENT THE CITY'S ADOPTED SEWER COMPREHENSIVE PLAN.
- SEWER LINES SHALL BE LOCATED IN STREETS TO SERVE ABUTTING PROPERTIES. WHEN NECESSARY, SEWER LINES MAY BE LOCATED WITHIN PUBLIC EASEMENTS. LINES LOCATED IN STREETS WILL BE OFFSET FROM THE STREET CENTERLINE AND NOT LOCATED WITHIN VEHICLE WHEEL PATH. SEWER LINES LOCATED IN EASEMENTS SHALL GENERALLY BE LOCATED IN THE CENTER OF THE EASEMENT, BUT MAY, WITH THE APPROVAL OF THE DIRECTOR OF PUBLIC WORKS, BE OFFSET TO ACCOMMODATE THE INSTALLATION OF OTHER UTILITIES OR TO SATISFY SPECIAL CIRCUMSTANCES.
- THE MINIMUM SIZE FOR PUBLIC SEWER MAINS IS EIGHT (8) INCHES IN DIAMETER. THE DEVELOPER'S SEWER SYSTEM MUST PROVIDE CAPACITY FOR THE PROPOSED DEVELOPMENT. BUT MUST ALSO PROVIDE CAPACITY FOR FUTURE EXTENSIONS.
- SEWER LINES SHALL BE TERMINATED WITH A MANHOLE. IN SPECIAL CIRCUMSTANCES, A FLUSH-END (CLEAN-OUT) MAY BE INSTALLED ON THE END OF A SEWER MAIN EXTENSION, PROVIDED THE END IS NO FURTHER THAN 150 FEET FROM THE LAST MANHOLE AND THE SEWER MAIN LINE AND GRADE WILL PERMIT FURTHER EXTENSION.
- MANHOLES SHALL BE INSTALLED AT INTERVALS OF NO GREATER THAN 400 FEET AND AT ALL VERTICAL AND HORIZONTAL ANGLE POINTS IN THE SEWER MAIN. EACH BUILDING CONTAINING SANITARY SEWER FACILITIES SHALL BE SERVED BY A SEPARATE PRIVATE SIDE SEWER LINE. BRANCHED SIDE SEWERS SERVING MULTIPLE BUILDINGS AND PROPERTIES SHALL NOT BE PERMITTED. SIDE SEWERS SERVING MULTI-UNIT BUILDINGS ARE PERMITTED.
- SIDE SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE (UPC) AND SUBJECT TO REVIEW AND APPROVAL BY THE CITY OF CLE ELUM BUILDING INSPECTOR. WATER AND SEWER LINES SHALL NOT BE LAID IN THE SAME TRENCH, EXCEPT AS PROVIDED IN SECTION 1008 OF THE UPC AND WITH WRITTEN APPROVAL OF THE CITY OF CLE ELUM BUILDING INSPECTOR.
- SEWER LINES SHALL BE DESIGNED FOR GRAVITY FLOW OPERATION. LIFT STATIONS AND FORCE MAINS SHALL BE LIMITED TO THOSE LOCATIONS AND CIRCUMSTANCES WHERE THEY ARE CONSISTENT WITH THE COMPREHENSIVE SEWER PLAN AND ARE THE ONLY VIABLE SOLUTION TO SERVE THE PROPOSED DEVELOPMENT AND OTHER PROPERTIES IN THE VICINITY. LIFT STATIONS AND FORCE MAINS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON.
- THE DESIGN OF SEWER MAINS AND APPURTENANCES IS SUBJECT TO REVIEW AND APPROVAL BY THE CITY OF CLE ELUM DIRECTOR OF PUBLIC WORKS. THE DIRECTOR OF PUBLIC WORKS MAY, AT HIS DISCRETION, ADJUST THESE STANDARDS AS NECESSARY TO FACILITATE INSTALLATION OF SEWER LINES AND APPURTENANCES FOR THE HEALTH, SAFETY, AND PROTECTION OF THE GENERAL PUBLIC.

STORM STANDARD NOTES:

ALL CITY OF CLE ELUM STORM SEWER IMPROVEMENTS SHALL CONFORM TO THE FOLLOWING DESIGN STANDARDS OF THE CITY:

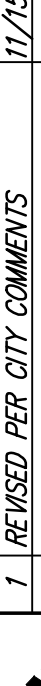
- STORM RUNOFF OCCURRING ON ALL NEW LOTS AND DEVELOPMENTS (PRIVATE PROPERTY) SHALL BE RETAINED AND DISPOSED OF ONSITE. NO STORM RUNOFF WILL BE ALLOWED TO ENTER PUBLIC PROPERTY OR PUBLIC STORM DRAINAGE SYSTEM.
- STORM DRAINAGE FACILITIES SHOWN ON THESE PLANS, INCLUDING BIORETENTION AREAS AND INFILTRATION FACILITIES WILL BE OWNED AND MAINTAINED BY THE CITY OF CLE ELUM.
- STORM RUNOFF FOR NEW PUBLIC STREETS SHALL BE DESIGNED AND CONSTRUCTED AS REQUIRED TO THE POINT WHERE THE ADJOINING PROPERTY OWNER'S RESPONSIBILITY FOR FURTHER EXTENSION BEGINS. THIS TYPICALLY REQUIRES AN EXTENSION ACROSS THE ENTIRE FRONTAGE OF THE PROPERTY TO THE PROPERTY LINE OF THE ADJOINING OWNER.
- ALL STORM SEWER DESIGNS FOR NEW PUBLIC STREETS SHALL BE BASED UPON AN ENGINEERING ANALYSIS WHICH TAKES INTO ACCOUNT TOTAL DRAINAGE AREAS, RUNOFF RATES, PIPE AND INLET CAPACITIES, AND ANY OTHER FACTORS PERTINENT TO THE DESIGN.
- ALL NEW STORM DRAINAGE FACILITIES, PUBLIC OR PRIVATE, SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF WASHINGTON. COMPLETE STORM WATER RUNOFF AND DRAINAGE FACILITIES SIZING CALCULATIONS SHALL BE SUBMITTED TO THE CITY OF CLE ELUM FOR REVIEW AND COMMENT.
- STORM SEWER FACILITIES AND PIPELINES SHALL BE DESIGNED TO MEET A MINIMUM 10-YEAR STORM\* CRITERIA. SMALL PRIVATE DEVELOPMENTS MAY BE DESIGNED TO ACCOMMODATE 1-INCH OF PRECIPITATION OVER THE ON-SITE IMPERVIOUS SURFACES. SMALL DEVELOPMENTS ARE DEFINED TO BE 20,000 SF OR LESS OF IMPERVIOUS SURFACE AREA. IMPERVIOUS SURFACES MUST BE CLEARLY NOTED AND SHOWN ON THE PROJECT SITE PLAN. \*THIS DEVELOPMENT HAS BEEN DESIGNED TO FULLY INFILTRATE THE 25 YEAR STORM.
- ALL STORM WATER FACILITIES SHALL HAVE OIL AND SILT SEPARATION.
- INLET SPACING SHALL BE DESIGNED IN ACCORDANCE WITH THE WSDOT HYDRAULICS MANUAL, CHAPTER 5. GENERALLY, INLET SPACING SHALL NOT EXCEED 300 FEET. THERE SHALL BE INSTALLED A MANHOLE OR TYPE II CATCH BASIN AT THE INTERSECTION OF TWO COLLECTOR STORM SEWERS. A COLLECTOR STORM SEWER IS A SEWER SERVICING MORE THAN ONE CATCH BASIN.

STREET STANDARD NOTES:

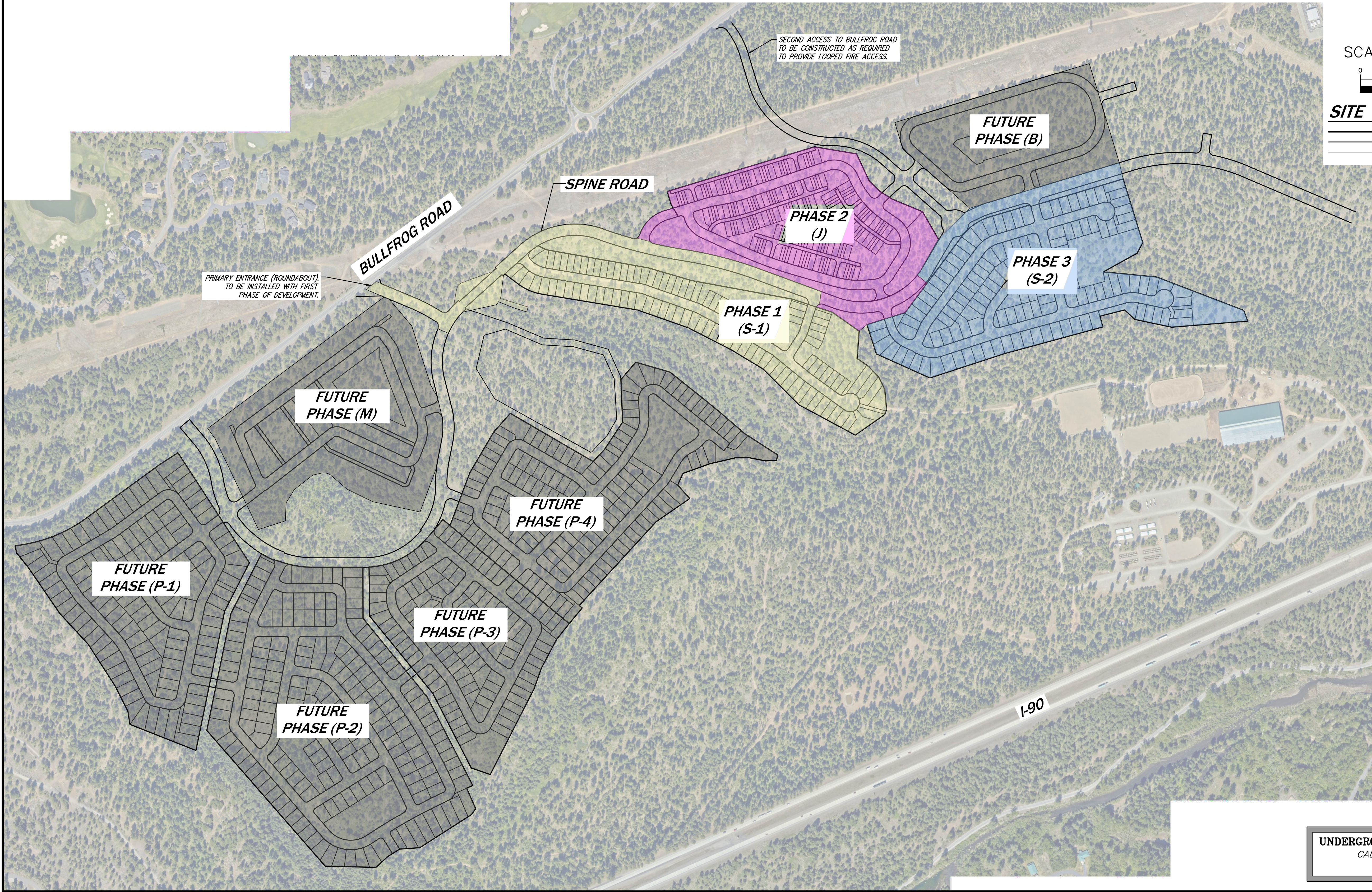
ALL NEW STREET CONSTRUCTION MUST CONFORM TO THESE DESIGN STANDARDS OF THE CITY OF CLE ELUM AND THE CLE ELUM MUNICIPAL CODE:

- THE MAXIMUM LENGTH OF A CUL-DE-SAC STREET SHALL BE 600 FEET MEASURED ALONG THE STREET CENTERLINE FROM THE NEAREST STREET INTERSECTION TO THE CENTER OF THE CUL-DE-SAC.
- CEMENT CONCRETE BARRIER CURB SHALL BE INSTALLED ALONG ALL NEW STREETS, ROLLED CURB MAY BE PERMITTED ALONG CERTAIN RESIDENTIAL STREETS AS DETERMINED BY THE CITY PUBLIC WORKS DIRECTOR. IF ROLLED CURB IS ALLOWED, BARRIER CURB MUST BE INSTALLED AROUND ALL NEW RADII. NEW SIDEWALKS BEHIND ROLLED CURB SHALL BE A MINIMUM OF 6 INCHES THICK.
- SIDEWALKS SHALL BE CONSTRUCTED ON BOTH SIDES OF ALL NEW STREETS. IF THE DEVELOPER BELIEVES THERE ARE SPECIAL CIRCUMSTANCES WHEREBY THE CONSTRUCTION OF SIDEWALK ON ONE SIDE SHOULD BE DEFERRED, HE MAY MAKE A WRITTEN REQUEST TO THE CITY PUBLIC WORKS DIRECTOR.
- NEW STREET LIGHTING SHALL BE DESIGNED TO PROVIDE REQUIRED LEVELS OF LIGHTING BASED UPON STREET CLASSIFICATION AND LOCATION AS DETERMINED BY THE CITY OF CLE ELUM. AT A MINIMUM, A STREET LIGHT SHALL BE INSTALLED AT EACH STREET INTERSECTION, AT MID BLOCK, NO MORE THAN THREE HUNDRED (300) FEET APART, AND AT ENDS OF CUL-DE-SACS. STREETLIGHTS SHALL MEET THE DESIGN AND PLACEMENT REQUIREMENTS OF THESE STANDARDS AND THE CITY PUBLIC WORKS DIRECTOR. ALL ELECTRICAL PANELS WILL BE DESIGNED TO CITY OF CLE ELUM STANDARDS.



PLOT DATE SEE STAMP DATE		SHEET 2	OF 53	PROJECT NUMBER 24019
DESIGNED QUENTIN CHALMERS, PE				
DRAWN MARY E. MOORE				
APPROVED HOLLI HEAVRIN, PE				
PROJECT MANAGER HOLLI HEAVRIN, PE				
GENERAL NOTES				
BULLFROG FLATS - PHASE S-2				
BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052				
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING				
CORE DESIGN 12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877				
				
NO. 7		REVISED PER CITY COMMENTS		
NO.		DATE		
11/15/24				

11/15/2024 11:55 AM J:\2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 3 (S2)\24019 C1.DWG



SCALE: 1" = 300'

0 150 300 600

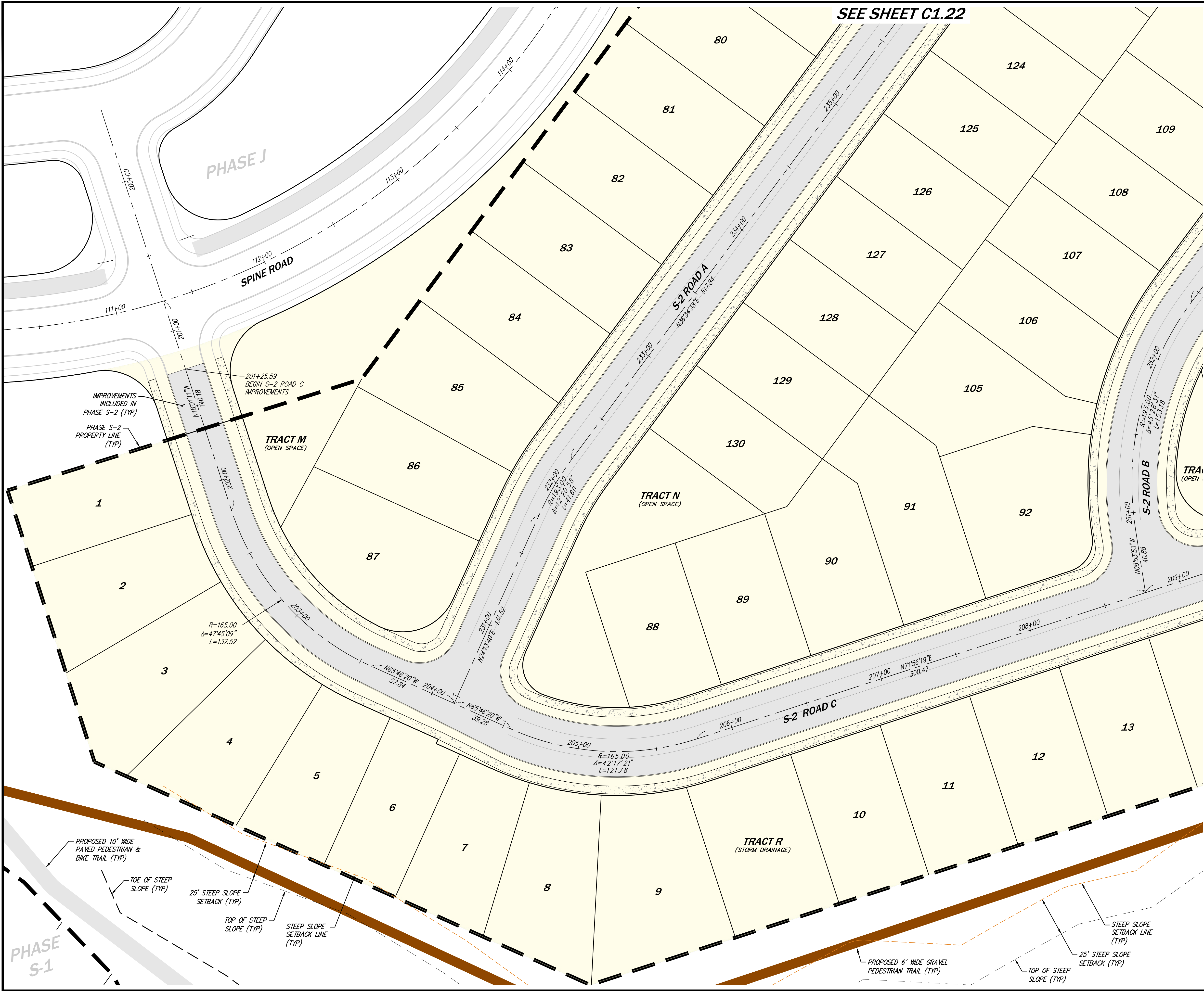
SITE

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE

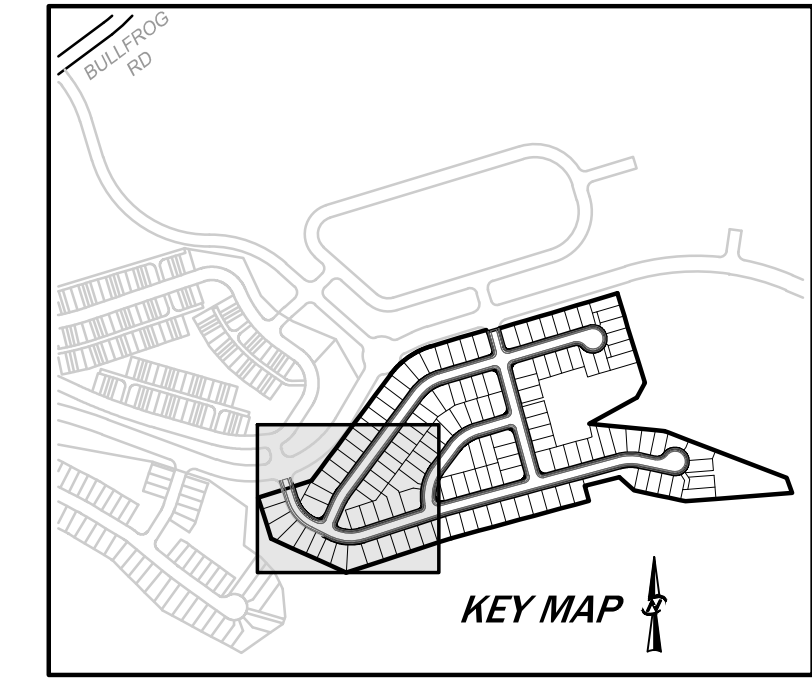
PLOT DATE SEE STAMP DATE		DESIGNED	QUENTIN CHALMERS, PE
DRAWN		MARY E. MOORE	
APPROVED		HOLLI HEAVRIN, PE	
PROJECT MANAGER		HOLLI HEAVRIN, PE	
SHEET 3		OF 53	
PROJECT NUMBER		24019	
PHASING PLAN			
BULLFROG FLATS - PHASE S-2			
BULLFROG FLATS, LLC			
18300 REDMOND WA Y, SUITE 120			
REDMOND, WA 98052			
CIVIL ENGINEERING		LANDSCAPE ARCHITECTURE	
PLANNING		SURVEYING	
DESIGN		12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877	
NO. 7		REVISED PER CITY COMMENTS	
REVISIONS		DATE	
		11/19/24	



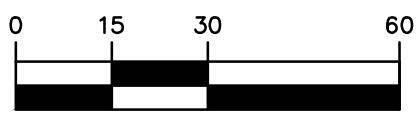
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SEE SHEET C1.22



SCALE: 1" = 30'




SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TRAVEL LANE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2

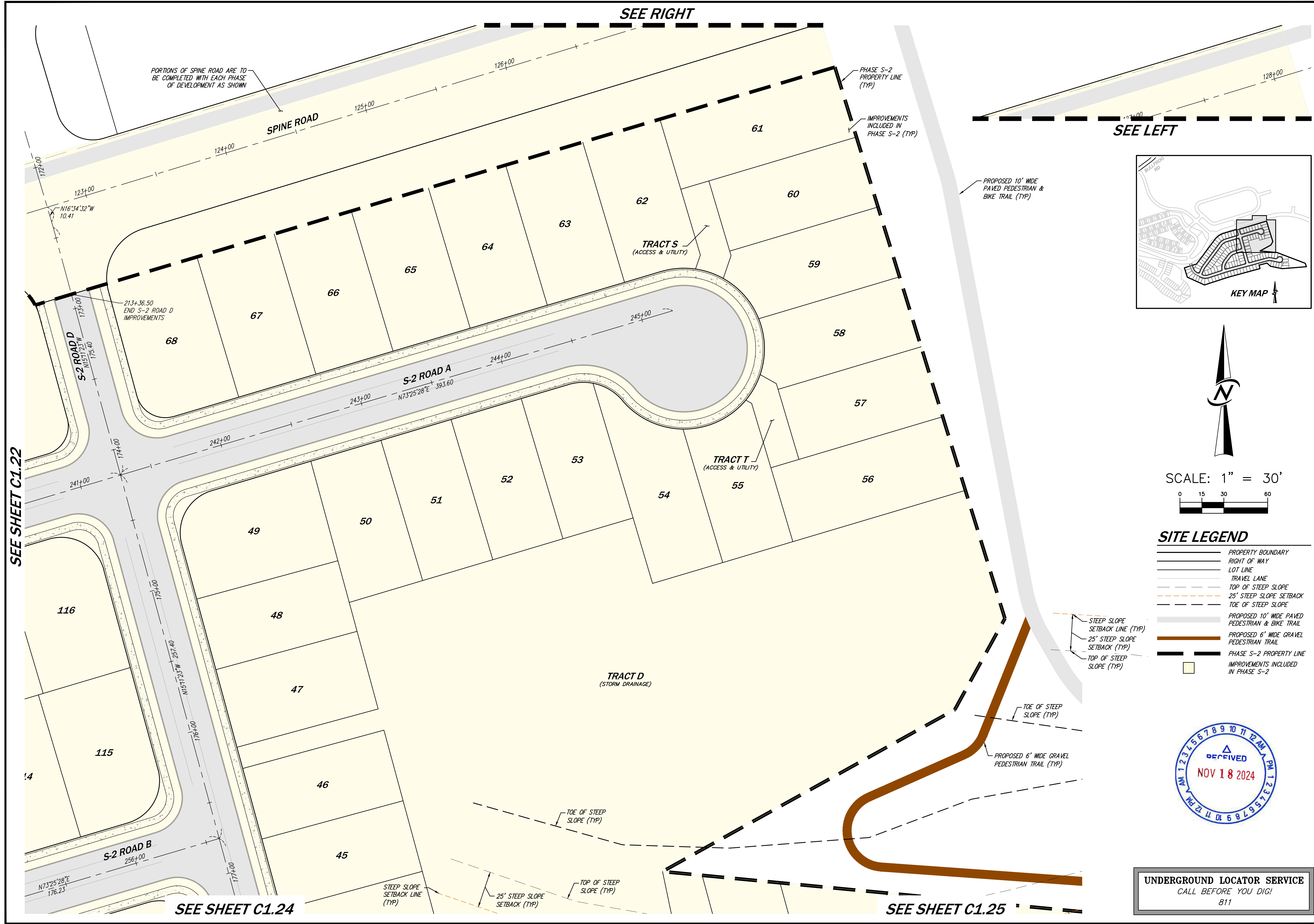


UNDERGROUND LOCATOR SERVICE  
CALL BEFORE YOU DIG!  
811

PLOT DATE SEE STAMP DATE		DESIGNED QUENTIN CHALMERS, PE	
		DRAWN MARY E. MOORE	
APPROVED HOLLI HEAVRIN, PE			
		HOLLI HEAVRIN, PE	
		PROJECT MANAGER	
SHEET 5		OF 53	
PROJECT NUMBER 24019			
HORIZONTAL CONTROL PLAN 1		BULLFROG FLATS - PHASE S-2	
BULLFROG FLATS, LLC		18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
CORE DESIGN		CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING	
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877			
NO. 7		REVISIONS	
7		REVISED PER CITY COMMENTS	
DATE		11/19/24	



11/15/2024 7:07 AM A:\2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 3 (S2)\24019 C1.21.DWG



DATE 11/19/24	
NO.	REVISIONS 7 REVISED PER CITY COMMENTS
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING <b>CORE DESIGN</b> 12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877	
<b>HORIZONTAL CONTROL PLAN 3</b> <b>BULLFROG FLATS - PHASE S-2</b> <b>BULLFROG FLATS, LLC</b> 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE DESIGNED DRAWN APPROVED PROJECT MANAGER	SEE STAMP DATE QUENTIN CHALMERS, PE MARY E. MOORE HOLLI HEAVRIN, PE HOLLI HEAVRIN, PE
SHEET 7 PROJECT NUMBER 24019	OF 53 C1.23

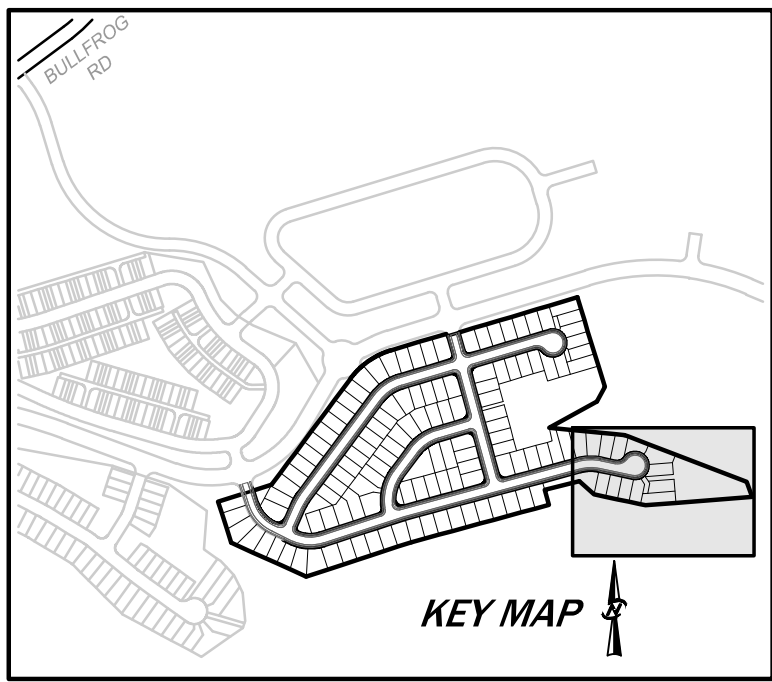
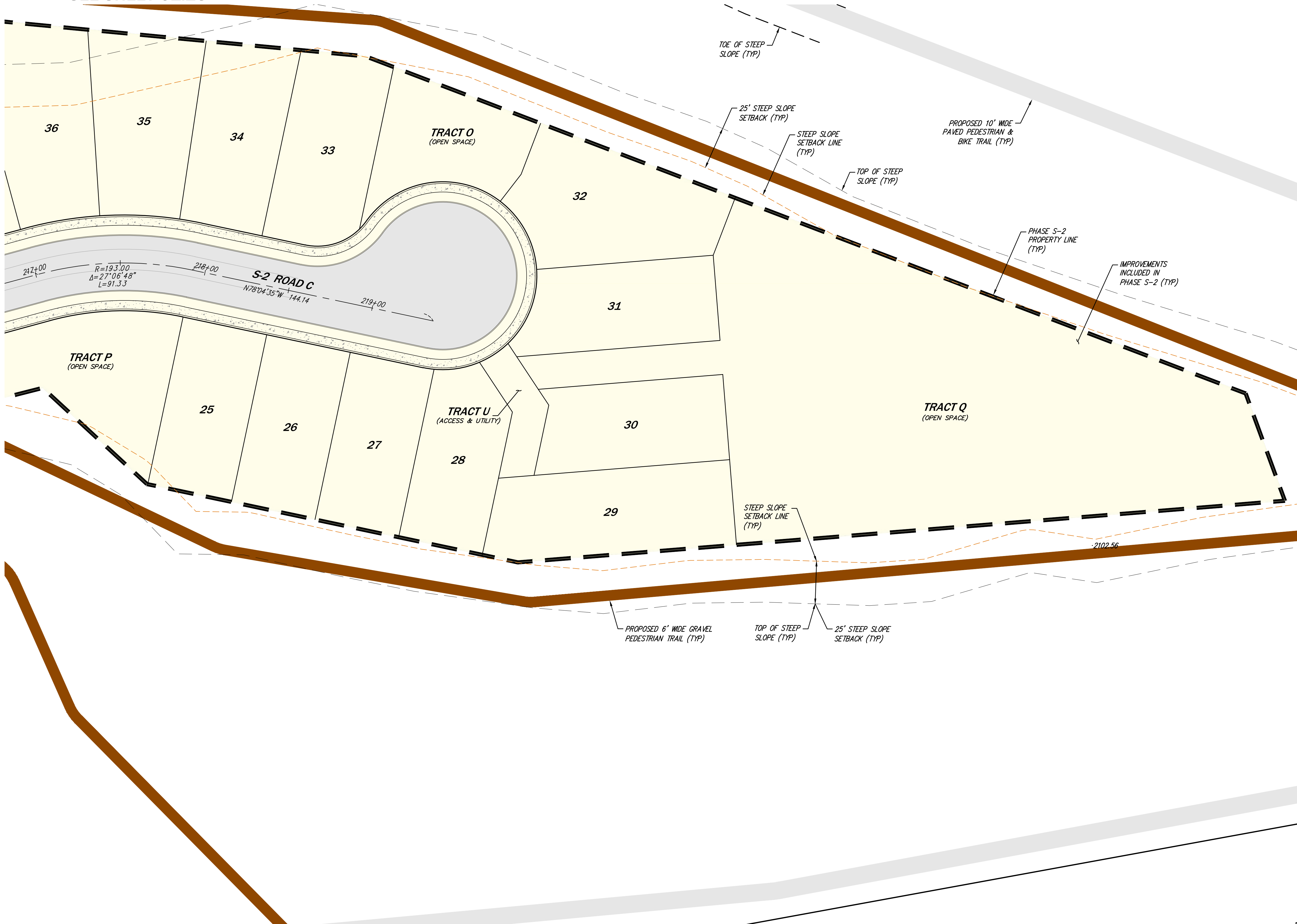
UNDERGROUND LOCATOR SERVICE  
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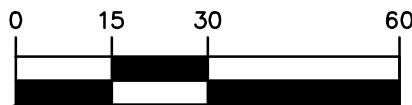


SEE SHEET C1.24

SEE SHEET C1.23



SCALE: 1" = 30'




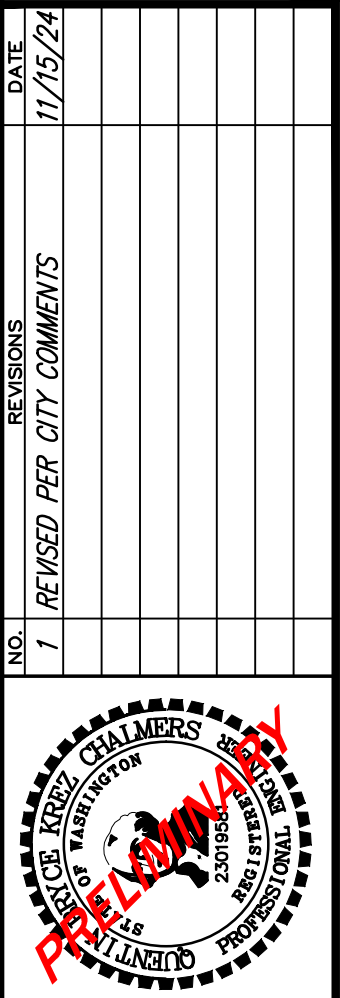
SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TRAVEL LANE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



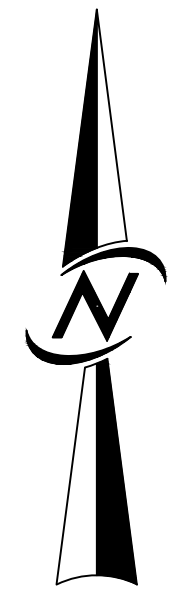
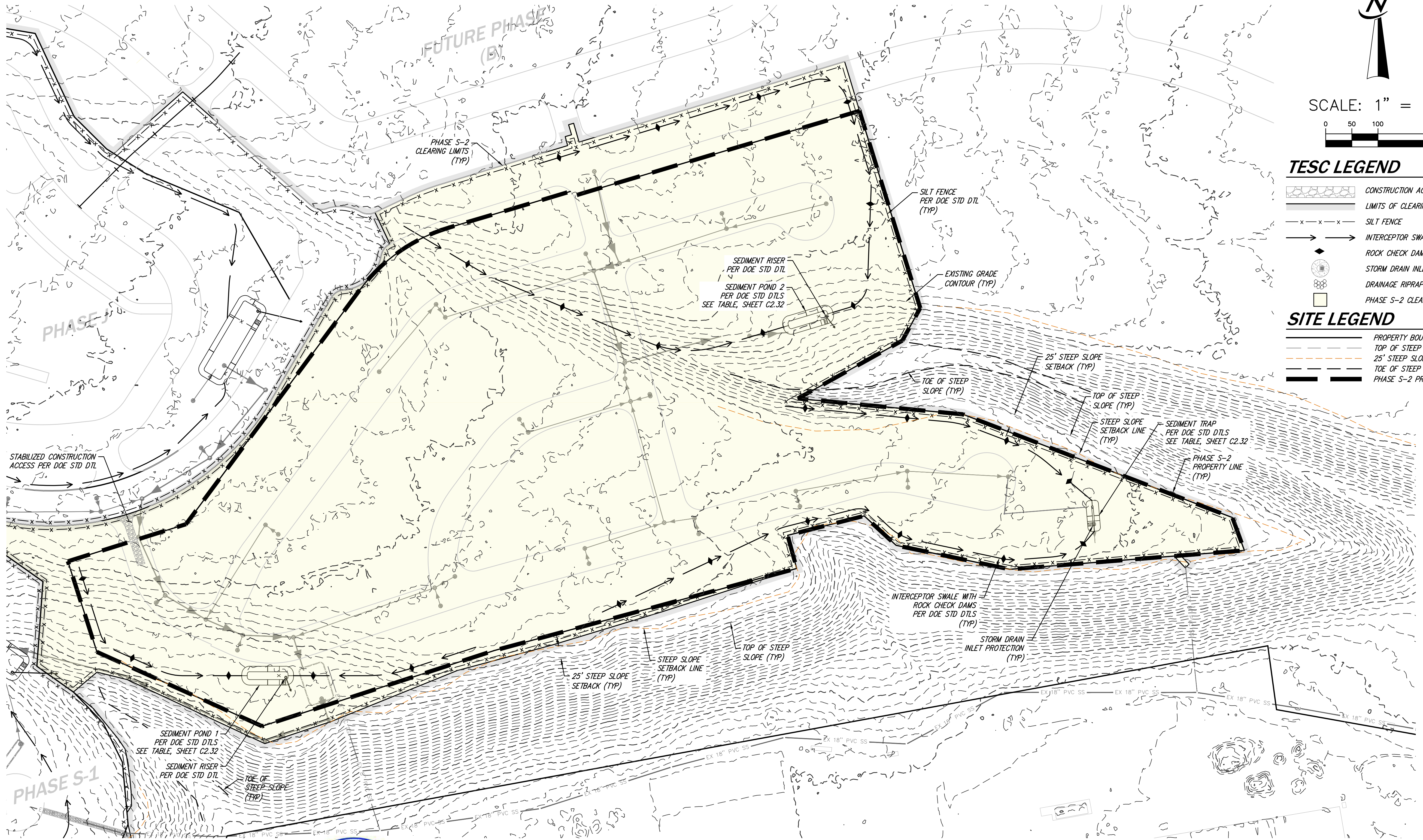
UNDERGROUND LOCATOR SERVICE  
CALL BEFORE YOU DIG!  
811

PLOT DATE		SEE STAMP DATE		DESIGNED		QUENTIN CHALMERS, PE		DRAWN		MARY E. MOORE		APPROVED		HOLLI HEAVRIN, PE		PROJECT MANAGER		HOLLI HEAVRIN, PE	
SHEET		OF		9		C1.25		53											
PROJECT NUMBER																			
24019																			
HORIZONTAL CONTROL PLAN 5										BULLFROG FLATS - PHASE S-2									
BULLFROG FLATS, LLC										18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052									
CORE DESIGN										CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING									
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877																			
NO. 7																			
REVISED PER CITY COMMENTS																			
REVISIONS																			
DATE																			
11/19/24																			



11/19/24

11/19/2024 7:07 AM A:\2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 3 (S2)\24019 C1.21.DWG



SCALE: 1" = 100'

0 50 100 200

### TESC LEGEND

- CONSTRUCTION ACCESS
- LIMITS OF CLEARING
- SILT FENCE
- INTERCEPTOR SWALE
- ROCK CHECK DAM
- STORM DRAIN INLET PROTECTION
- DRAINAGE RIPRAP
- PHASE S-2 CLEARING LIMITS

### SITE LEGEND

- PROPERTY BOUNDARY
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PHASE S-2 PROPERTY LINE



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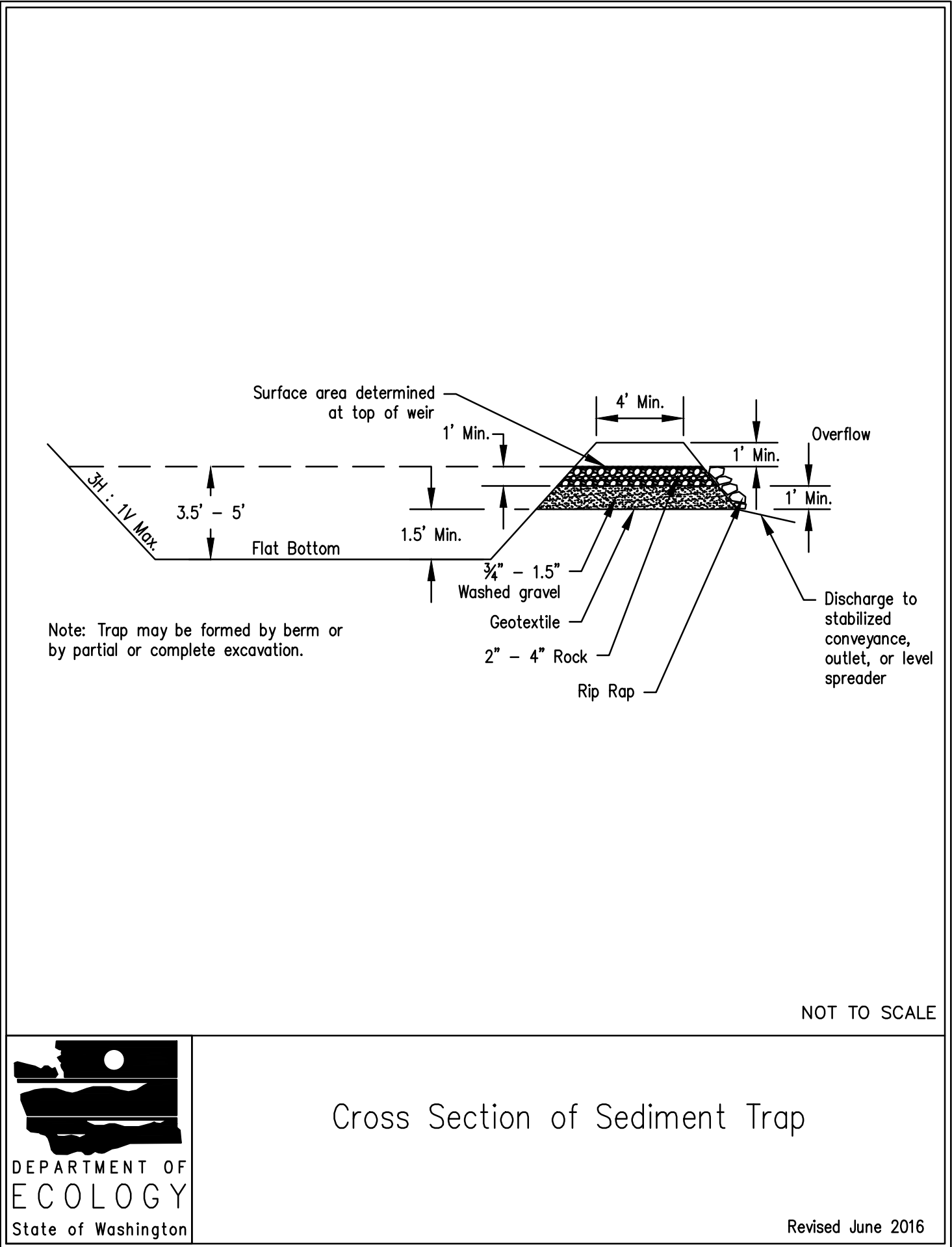
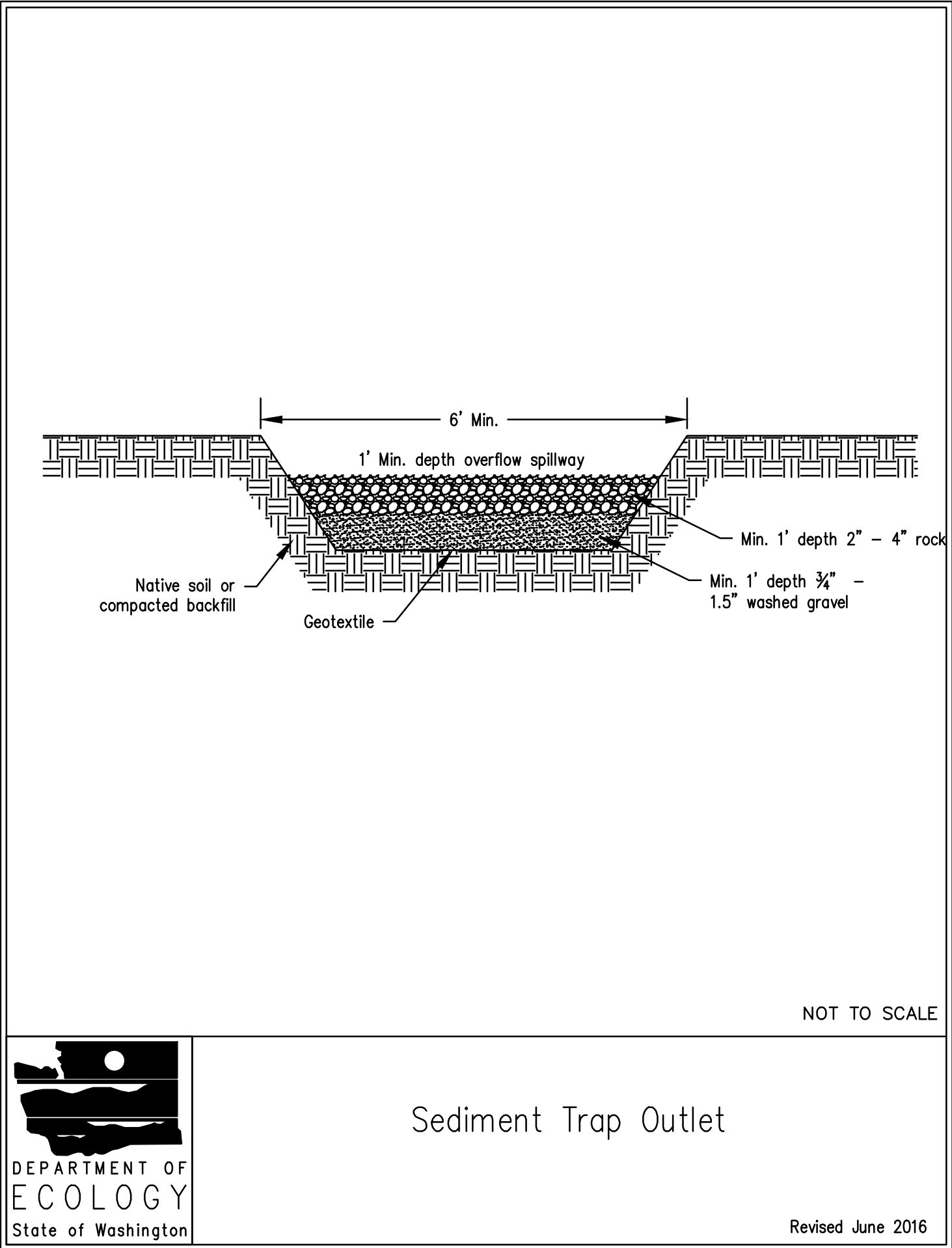
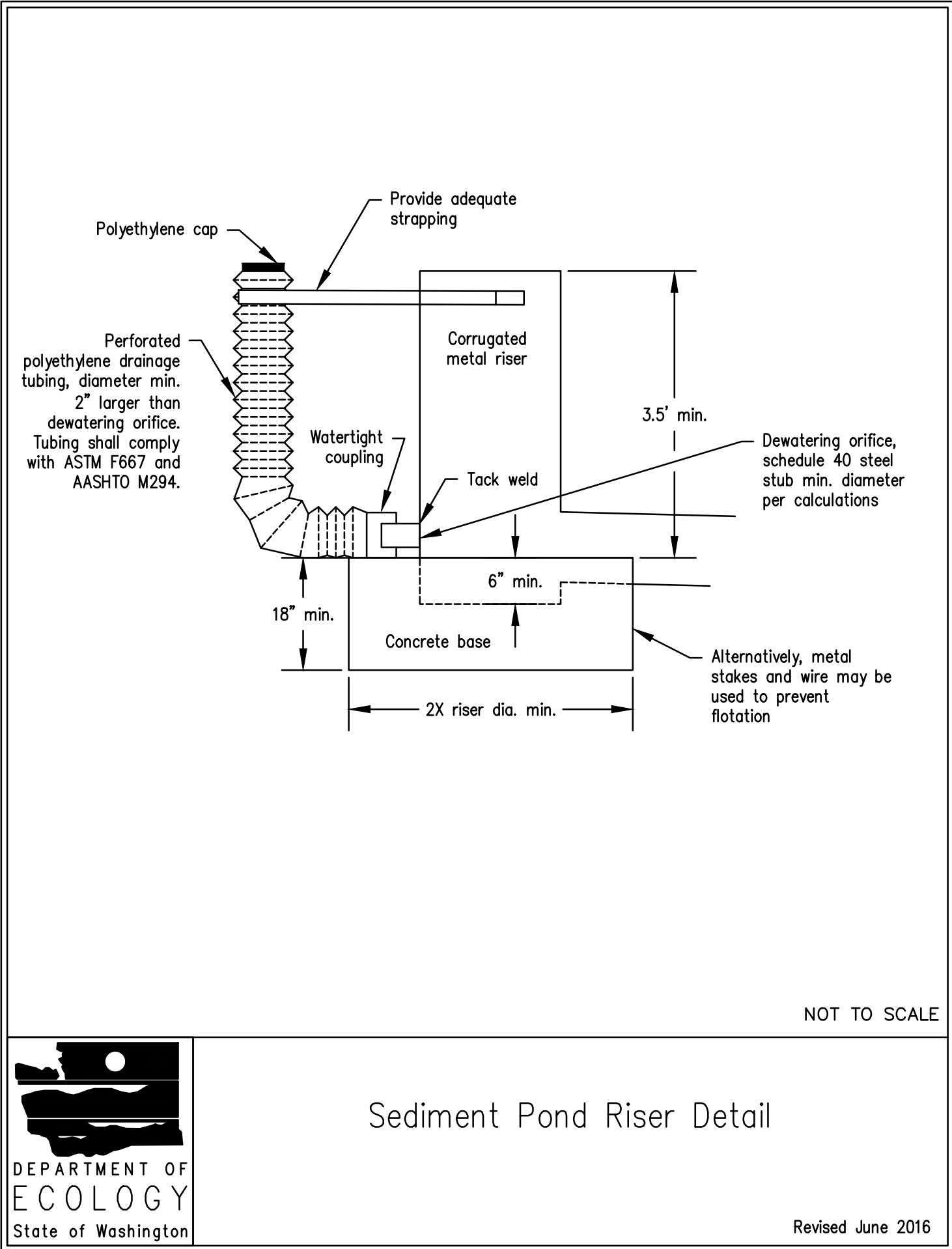
DATE 11/19/24		REVISIONS 7 REVISED PER CITY COMMENTS	
NO.		7	
DESIGNED QUENTIN CHALLMERS, PE		DRAWN MARY E. MOORE	
APPROVED HOLLI HEAVRIN, PE		PROJECT MANAGER HOLLI HEAVRIN, PE	
SHEET 10		OF 53	
PROJECT NUMBER 24019		PROJECT NUMBER 24019	

TEMPORARY EROSION & SEDIMENTATION CONTROL PLAN  
**BULLFROG FLATS - PHASE S-2**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

CIVIL ENGINEERING  
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PLANNING  
SURVEYING  
**CORE DESIGN**  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

11/19/24

11/19/24



BMP C241: Sediment Pond 1 Properties	
Impervious Tributary Area	3.00 ac
Pervious Tributary Area	0.00 ac
2-yr 24 hr Storm Precip.	1.74 in
10-yr 24 hr Storm Precip.	2.90 in
100-yr 24 hr Storm Precip.	4.64 in
2-yr 24 hr Flow Rate	1.17 cfs
10-yr 24 hr Flow Rate	2.02 cfs
100-yr 24 hr Flow Rate	3.28 cfs
Riser Diameter	12 in
Dewatering Orifice Diameter	2.25 in
Emergency Overflow Spillway Length	6.0'
Required Pond Surface Area	2,438 sf
Approx. Dimension at W.S. (L x W)	86' x 29'
Riser Depth	3.5'
Freeboard	1.0'

BMP C241: Sediment Pond 2 Properties	
Impervious Tributary Area	3.36 ac
Pervious Tributary Area	0.00 ac
2-yr 24 hr Storm Precip.	1.74 in
10-yr 24 hr Storm Precip.	2.90 in
100-yr 24 hr Storm Precip.	4.64 in
2-yr 24 hr Flow Rate	1.31 cfs
10-yr 24 hr Flow Rate	2.26 cfs
100-yr 24 hr Flow Rate	3.68 cfs
Riser Diameter	12 in
Dewatering Orifice Diameter	2.25 in
Emergency Overflow Spillway Length	6.0'
Required Pond Surface Area	2,729 sf
Approx. Dimension at W.S. (L x W)	91' x 31'
Riser Depth	3.5'
Freeboard	1.0'

BMP C240: Sediment Trap Properties	
Impervious Tributary Area	.89 ac
Pervious Tributary Area	0.00 ac
2-yr 24 hr Storm Precip.	1.74 in
10-yr 24 hr Storm Precip.	2.90 in
100-yr 24 hr Storm Precip.	4.64 in
2-yr 24 hr Flow Rate	0.35 cfs
10-yr 24 hr Flow Rate	0.60 cfs
100-yr 24 hr Flow Rate	0.97 cfs
Riser Diameter	-
Dewatering Orifice Diameter	-
Emergency Overflow Spillway Length	6.0'
Required Pond Surface Area	729 sf
Approx. Dimension at W.S. (L x W)	47' x 16'
Riser Depth	3.5'
Freeboard	1.0'



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NO. 7

REVISIONS

DATE 11/19/24

REVISED PER CITY COMMENTS

CH. KIRBY CHALMERS

REGISTERED PROFESSIONAL ENGINEER

NO. 145

EXPIRATION DATE 12/31/2026

CIVIL ENGINEERING

LANDSCAPE ARCHITECTURE

PLANNING

SURVEYING

CORE DESIGN

12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

TEMPORARY EROSION & SEDIMENTATION CONTROL DETAILS

BULLFROG FLATS - PHASE S-2

BULLFROG FLATS, LLC

18300 REDMOND WAY, SUITE 120

REDMOND, WA 98052

PLOT DATE SEE STAMP DATE

DESIGNED QUENTIN CHALMERS, PE

DRAWN MARY E. MOORE

APPROVED HOLLI HEAVRIN, PE

HOLLI HEAVRIN, PE

PROJECT MANAGER

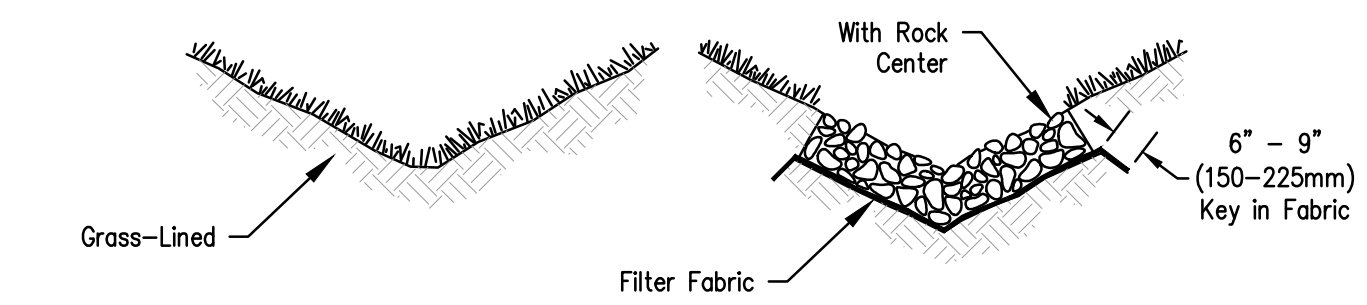
SHEET 11

OF 53

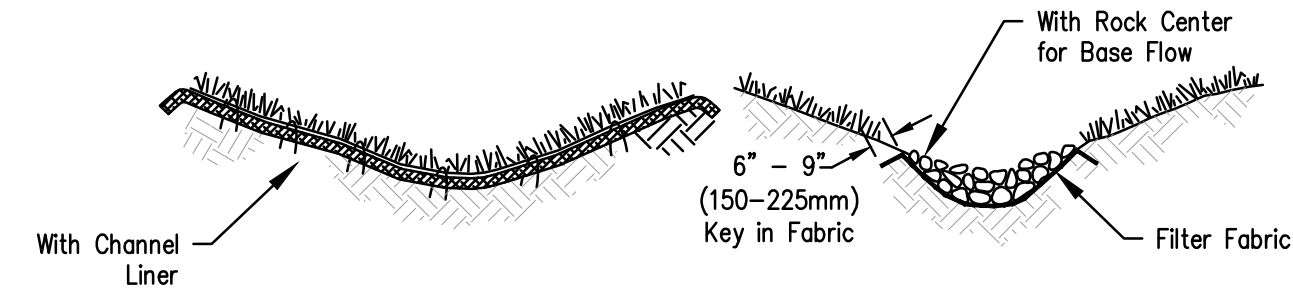
PROJECT NUMBER 24019

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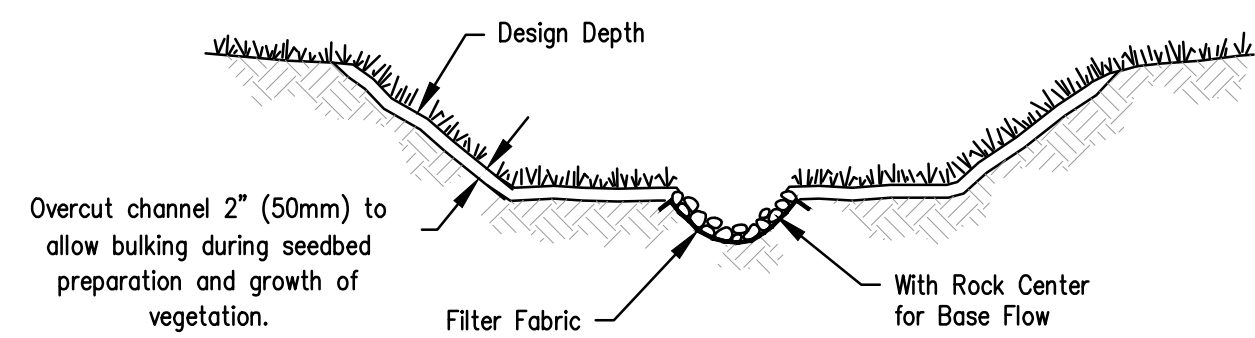
Typical V-Shaped Channel Cross-Section



Typical Parabolic Channel Cross-Section



Typical Trapezoidal Channel Cross-Section



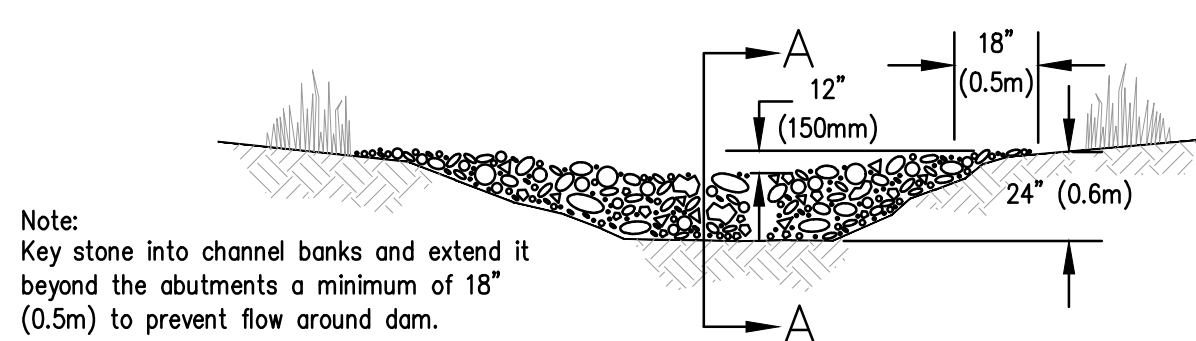
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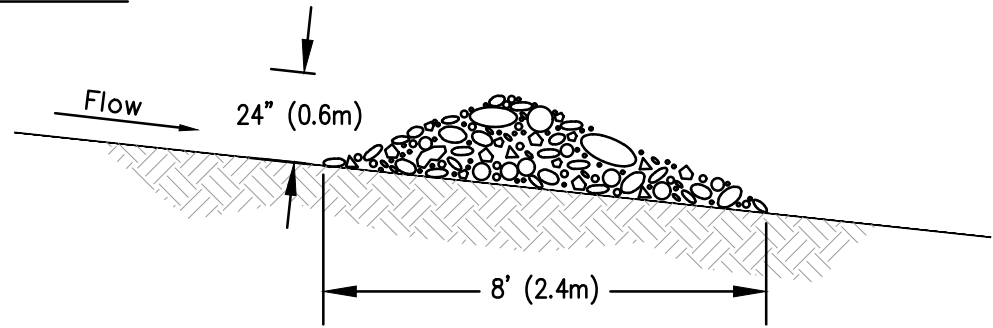
Typical Grass-Lined Channels

Revised June 2016

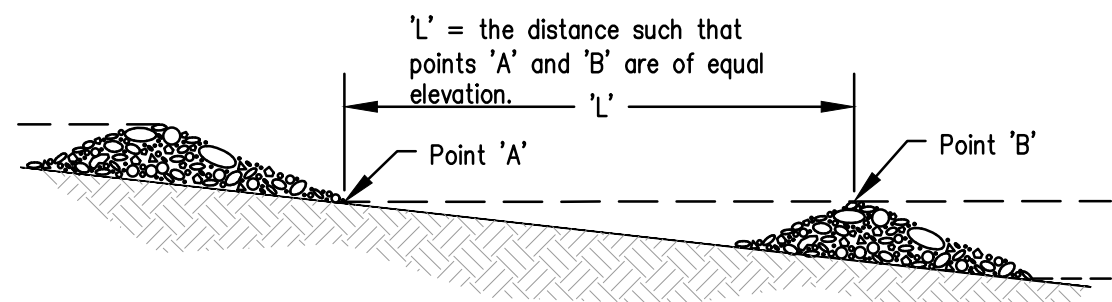
View Looking Upstream



Section A-A



Spacing Between Check Dams

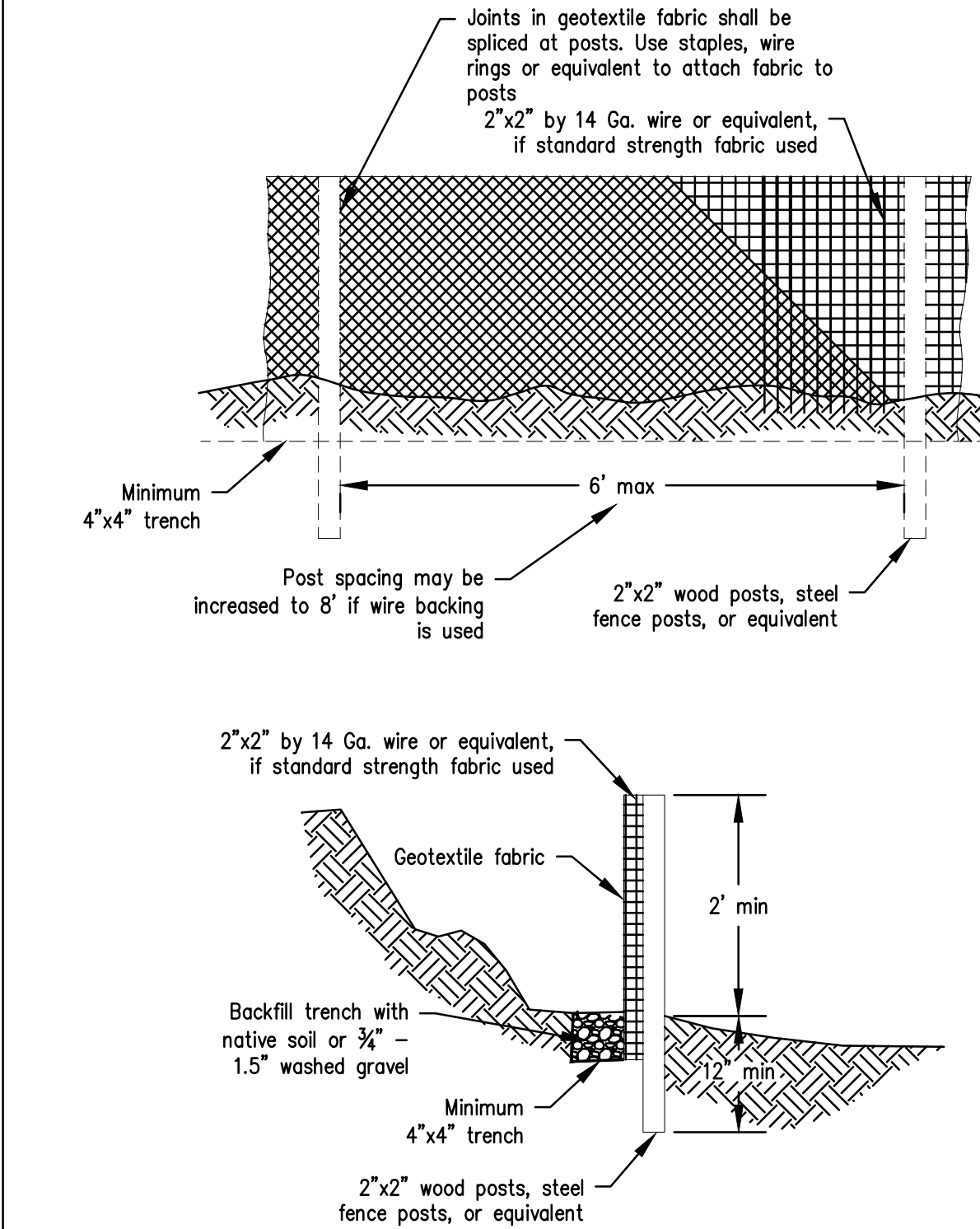


NOT TO SCALE



Rock Check Dam

Revised June 2016

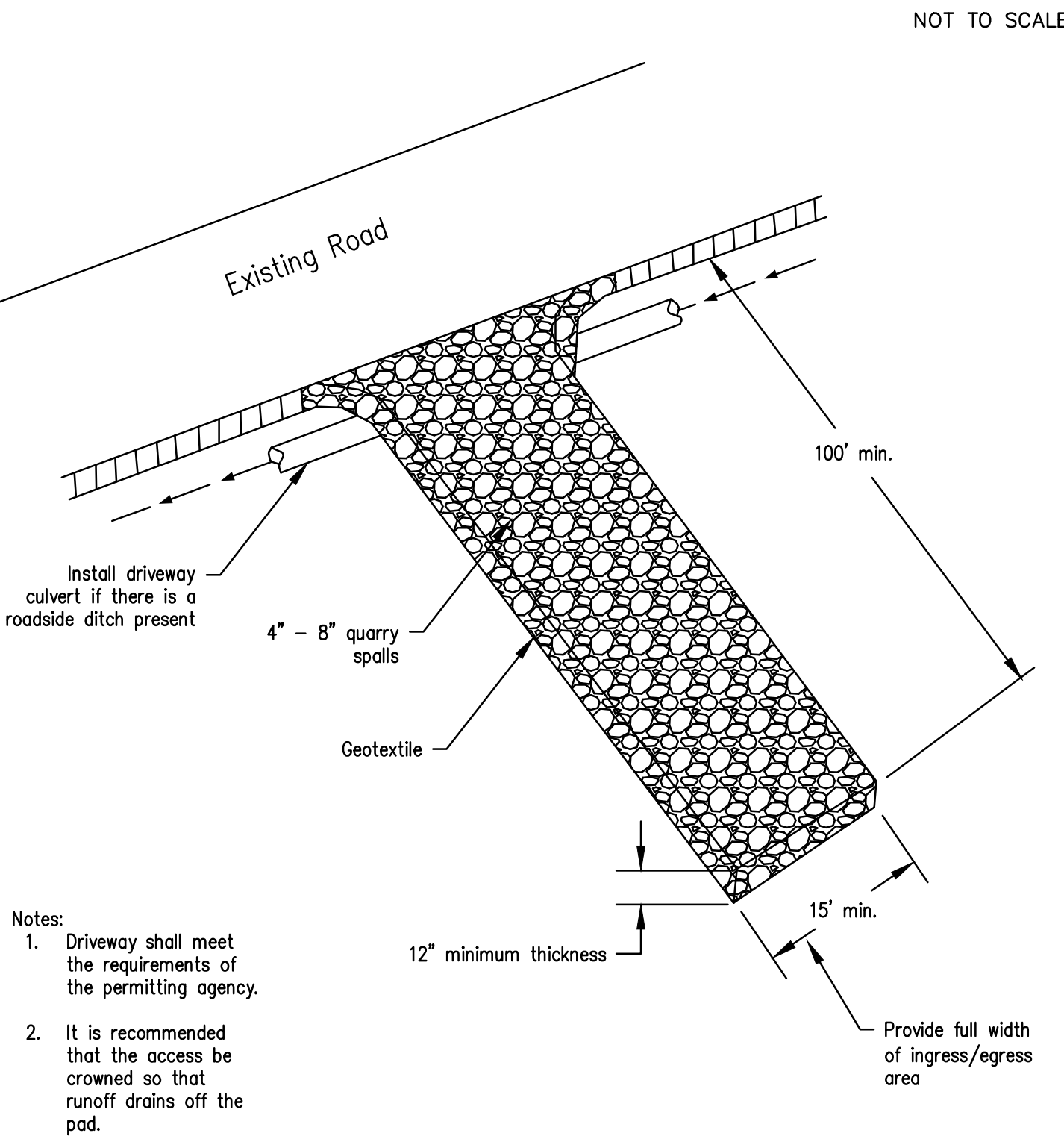


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Silt Fence

Revised July 2017

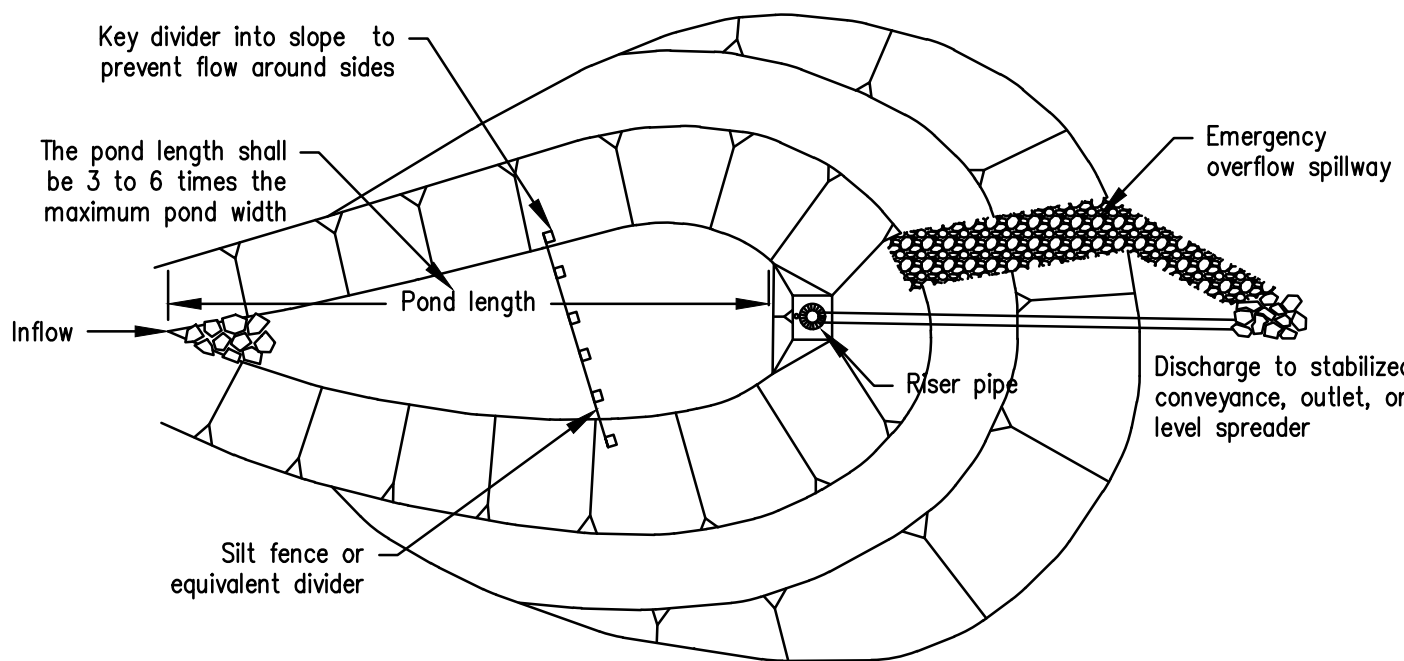


NOT TO SCALE



Stabilized Construction Access

Revised June 2018

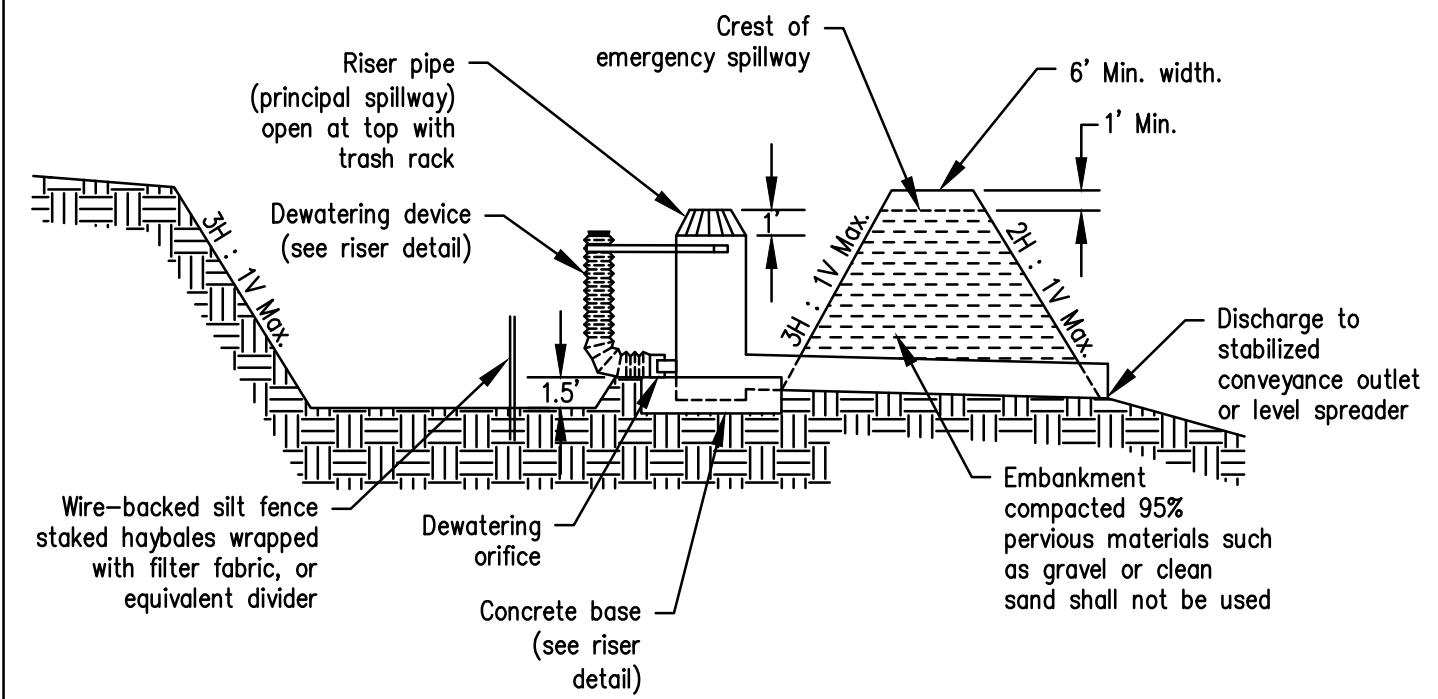


NOT TO SCALE



Sediment Pond Plan View

Revised June 2016



NOT TO SCALE



Sediment Pond Cross Section

Revised June 2016



NO.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	11/19/24



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LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING

**CORE DESIGN**

12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

TEMPORARY EROSION & SEDIMENTATION CONTROL DETAILS

**BULLFROG FLATS - PHASE S-2**

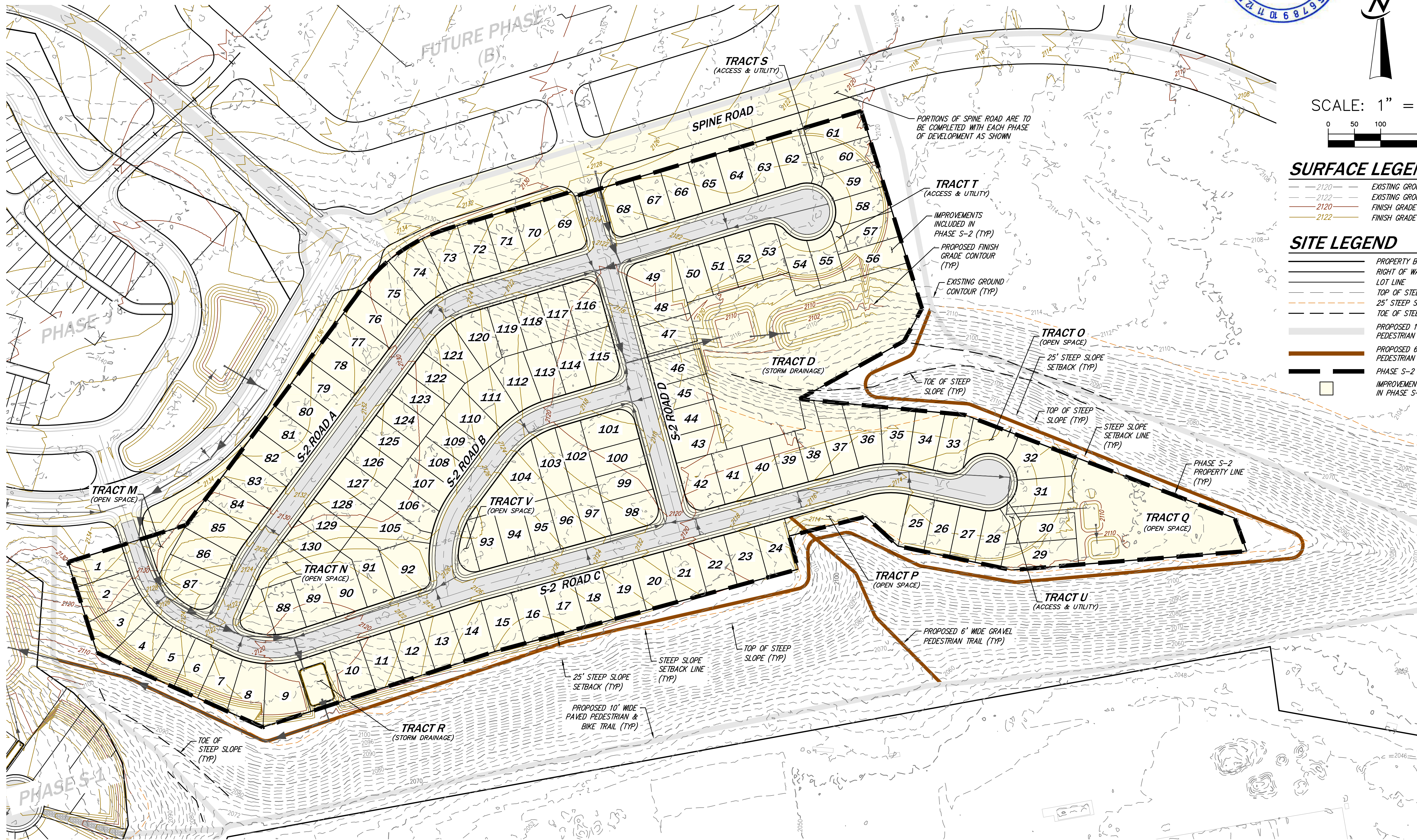
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE	SEE STAMP DATE	DESIGNED	DRAWN	APPROVED	PROJECT MANAGER
		QUENTIN CHALMERS, PE	MARY E. MOORE	HOLLI HEAVRIN, PE	HOLLI HEAVRIN, PE

SHEET	OF
12	53
PROJECT NUMBER 24019	

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11/15/2024 8:40 AM A: [2024] [24019] [ENGINEERING] [PRELIMINARY] [SHEETS] [PHASE 3 (S2)] [24019] C:\00\006



SCALE: 1" = 100'

0 50 100 200

- SURFACE LEGEND**
- 2120 EXISTING GROUND CONTOUR MAJR
  - 2122 EXISTING GROUND CONTOUR MINR
  - 2120 FINISH GRADE CONTOUR MAJR
  - 2122 FINISH GRADE CONTOUR MINR

- SITE LEGEND**
- PROPERTY BOUNDARY
  - RIGHT OF WAY
  - LOT LINE
  - TOP OF STEEP SLOPE
  - 25' STEEP SLOPE SETBACK
  - TOE OF STEEP SLOPE
  - PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
  - PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
  - PHASE S-2 PROPERTY LINE
  - IMPROVEMENTS INCLUDED IN PHASE S-2

NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



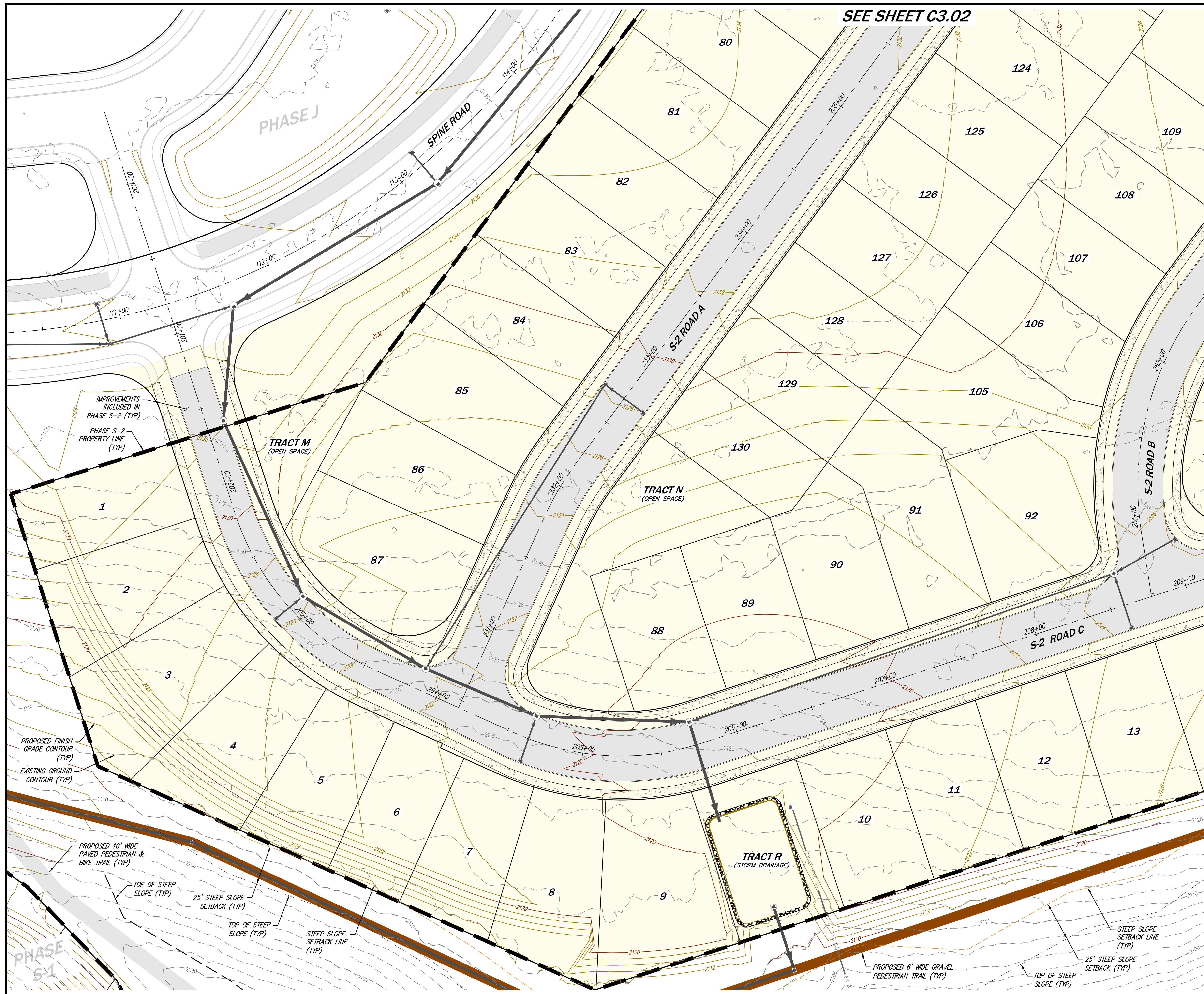
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
**CORE DESIGN**  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

**COMPOSITE GRADING PLAN  
BULLFROG FLATS - PHASE S-2  
BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052**

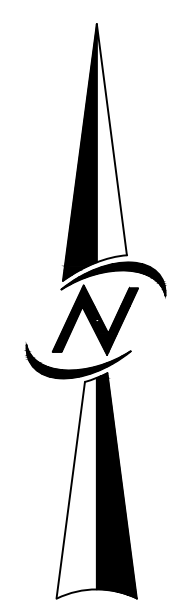
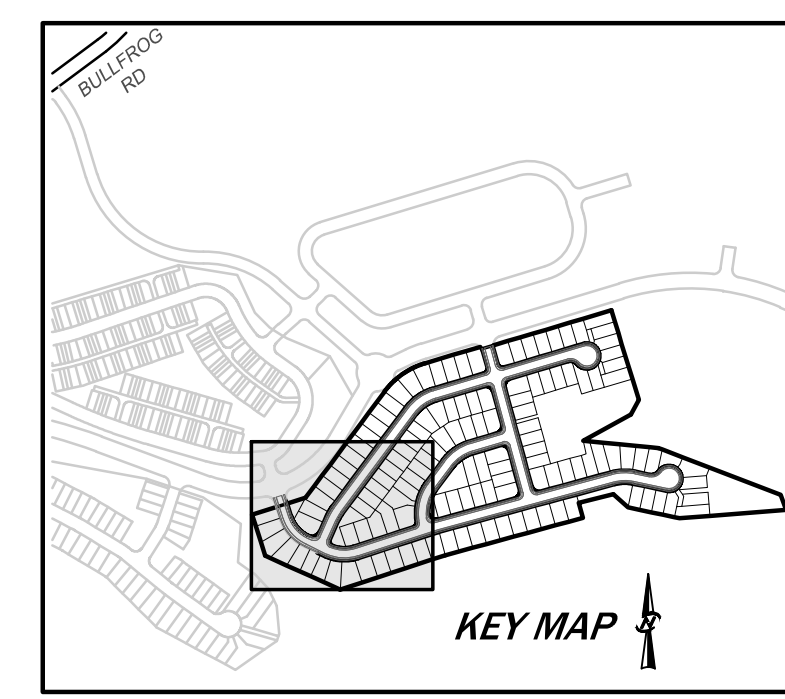
PLOT DATE	SEE STAMP DATE
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
	HOLLI HEAVRIN, PE
	PROJECT MANAGER

**UNDERGROUND LOCATOR SERVICE**  
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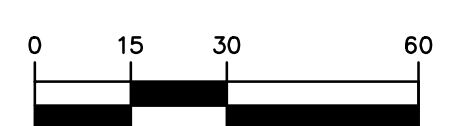
SHEET	OF
13	53
PROJECT NUMBER 24019	



**SEE SHEET C3.02**



SCALE: 1" = 30'



## ***SURFACE LEGEND***

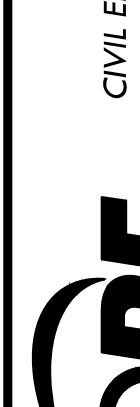

- 2120 — EXISTING GROUND CONTOUR MAJR  
— 2122 — EXISTING GROUND CONTOUR MINR  
— 2120 — FINISH GRADE CONTOUR MAJR  
— 2122 — FINISH GRADE CONTOUR MINR

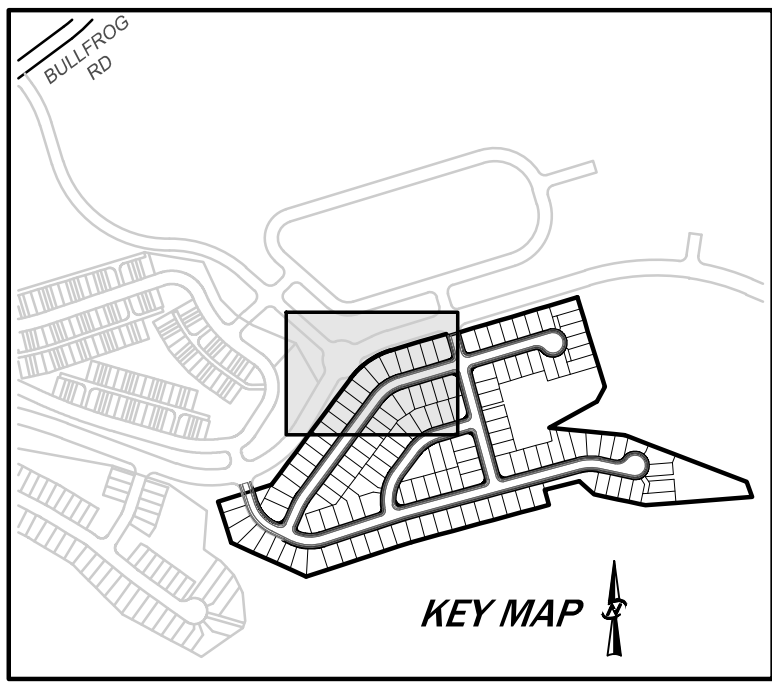
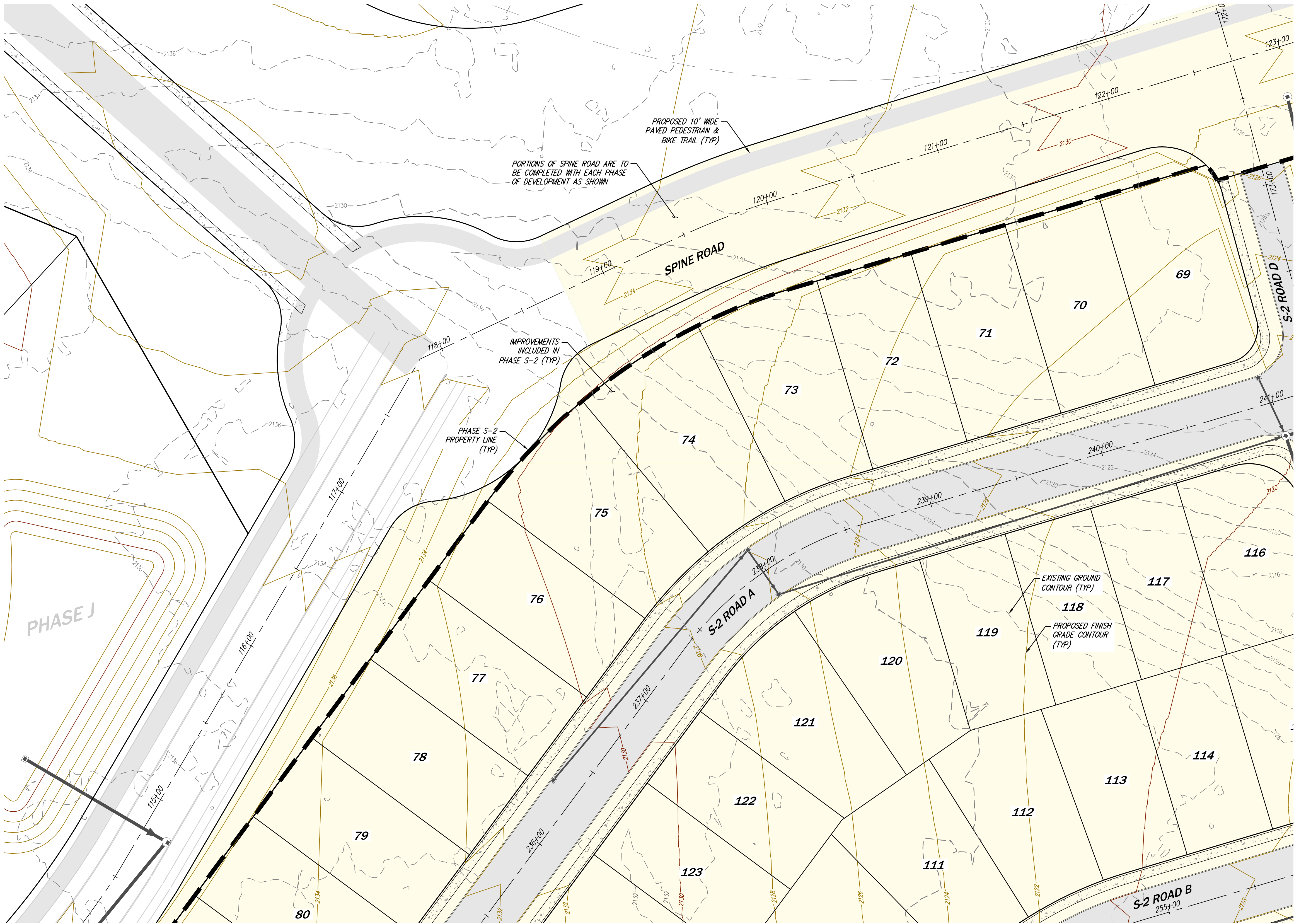
## SITE LEGEND

- 
- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED  
PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL  
PEDESTRIAN TRAIL
- PHASE 5-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED  
IN PHASE 5-2

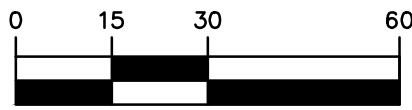


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PLOT DATE <i>SEE STAMP DATE</i> DESIGNED <i>QUENTIN CHALMERS, PE</i> DRAWN <i>MARY E. MOORE</i> APPROVED <i>HOLLI HEAVRIN, PE</i> _____ PROJECT MANAGER		<b>GRADING PLAN 1</b> <b>BULLFROG FLATS - PHASE S-2</b> <b>BULLFROG FLATS, LLC</b> 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052		 <p>             CIVIL ENGINEERING              LANDSCAPE ARCHITECTURE              PLANNING              SURVEYING           </p> <p>             12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877           </p>				<table border="1"> <thead> <tr> <th>NO.</th> <th>REVISIONS</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>REVISED PER CITY COMMENTS</td> <td>11/15/24</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		NO.	REVISIONS	DATE	1	REVISED PER CITY COMMENTS	11/15/24																											
NO.	REVISIONS	DATE																																								
1	REVISED PER CITY COMMENTS	11/15/24																																								
SHEET <b>14</b> OF <b>53</b> <i>C3.01</i>		PROJECT NUMBER <b>24019</b>																																								



SCALE: 1" = 30'



### SURFACE LEGEND

- 2120 EXISTING GROUND CONTOUR MAJR
- 2122 EXISTING GROUND CONTOUR MINR
- 2120 FINISH GRADE CONTOUR MAJR
- 2122 FINISH GRADE CONTOUR MINR

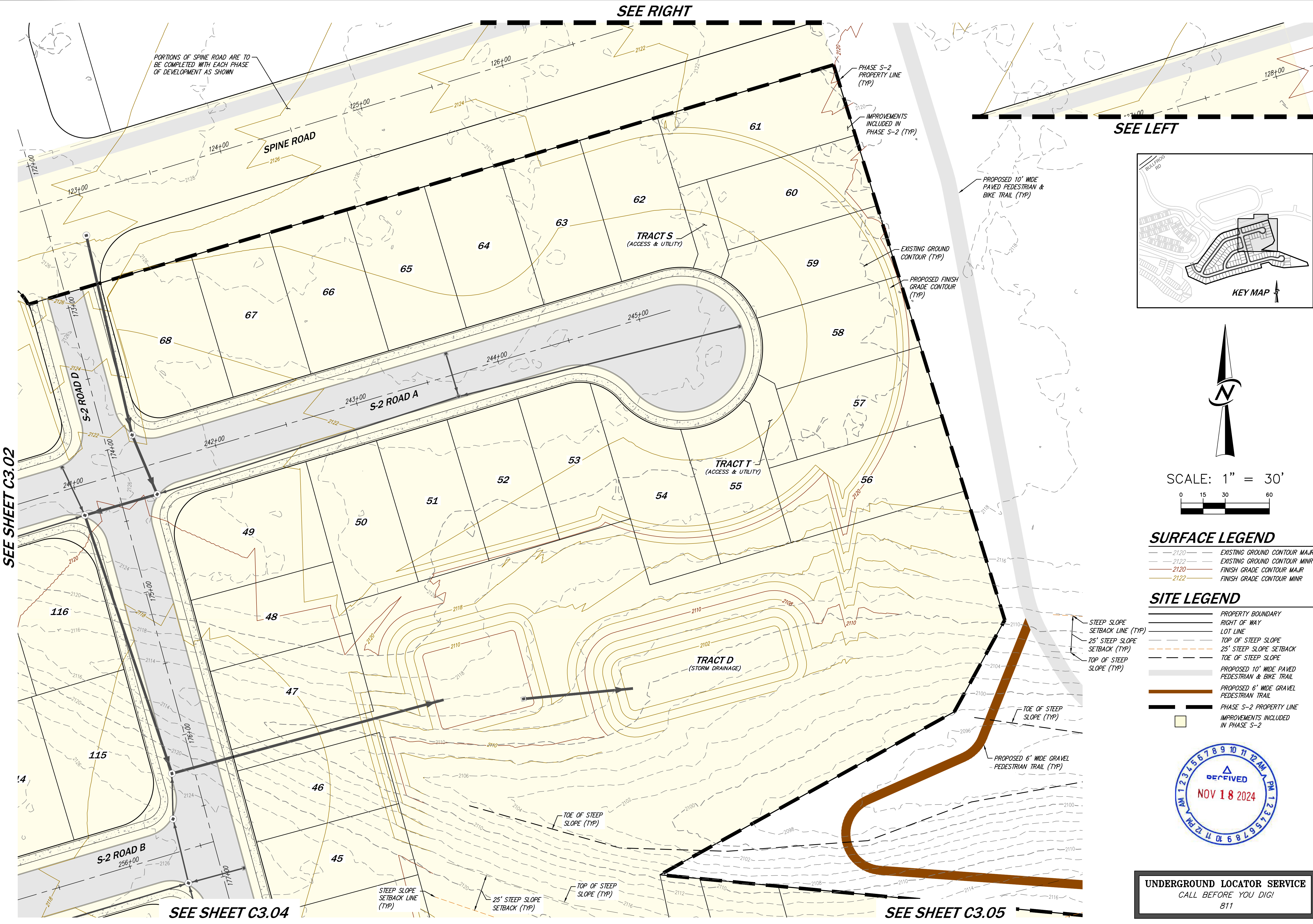
### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



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NO. 7		REVISED PER CITY COMMENTS	DATE 11/19/24
REVISIONS			
DESIGNED		QUENTIN CHALMERS, PE	
DRAWN		MARY E. MOORE	
APPROVED		HOLLI HEAVRIN, PE	
PROJECT MANAGER		HOLLI HEAVRIN, PE	
SHEET 15		OF 53	
PROJECT NUMBER		24019	
GRADING PLAN 2		BULLFROG FLATS - PHASE S-2	
BULLFROG FLATS, LLC		18300 REDMOND WAY, SUITE 120	
REDMOND, WA 98052			
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING		CORE DESIGN	
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877			
DATE 11/19/24			



PORTIONS OF SPINE ROAD ARE TO BE COMPLETED WITH EACH PHASE OF DEVELOPMENT AS SHOWN

SPINE ROAD

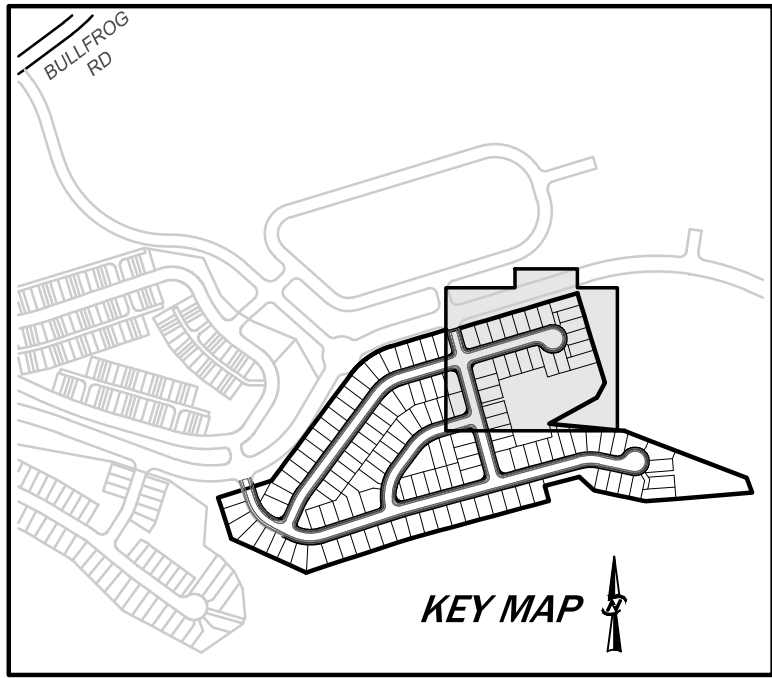
SEE RIGHT

SEE LEFT

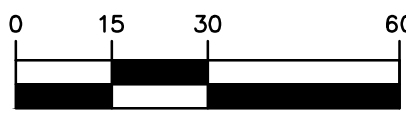
SEE SHEET C3.02

SEE SHEET C3.04

SEE SHEET C3.05



SCALE: 1" = 30'



SURFACE LEGEND

- 2120 EXISTING GROUND CONTOUR MAJR
- 2122 EXISTING GROUND CONTOUR MINR
- 2120 FINISH GRADE CONTOUR MAJR
- 2122 FINISH GRADE CONTOUR MINR

SITE LEGEND

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- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6" WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



UNDERGROUND LOCATOR SERVICE  
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811

NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING

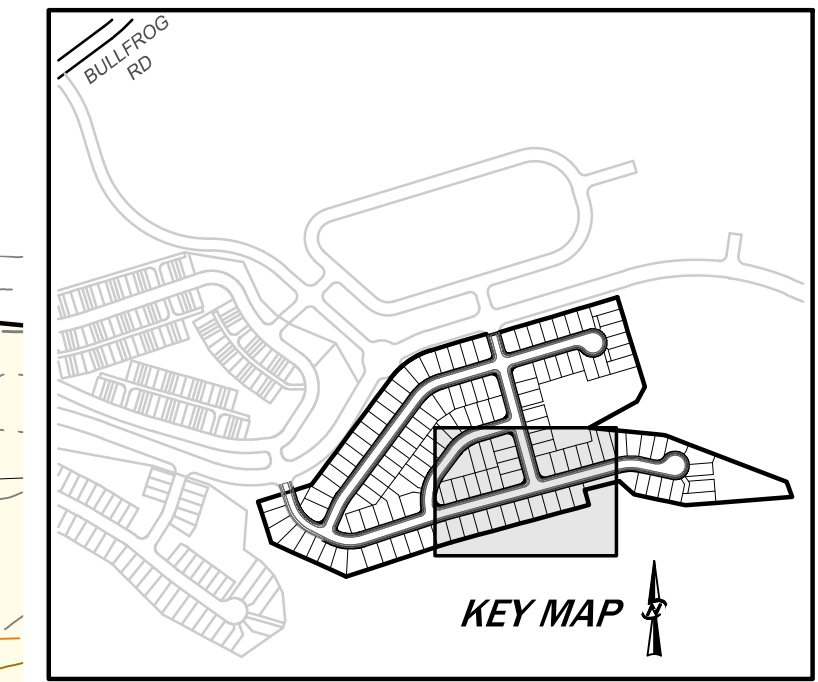


GRADING PLAN 3  
BULLFROG FLATS - PHASE S-2  
BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

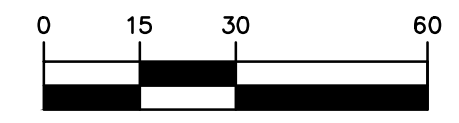
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
PROJECT MANAGER	HOLLI HEAVRIN, PE

SHEET	OF
16	53
PROJECT NUMBER 24019	

11/19/24













SCALE: 1" = 30'



### **SURFACE LEGEND**


- — 2120 — — EXISTING GROUND CONTOUR MAJR  
— — 2122 — — EXISTING GROUND CONTOUR MINR  
— — 2120 — — FINISH GRADE CONTOUR MAJR  
— — 2122 — — FINISH GRADE CONTOUR MINR

### **SITE LEGEND**

- 
-  PROPERTY BOUNDARY  
 RIGHT OF WAY  
 LOT LINE  
 TOP OF STEEP SLOPE  
 25' STEEP SLOPE SETBACK  
 TOE OF STEEP SLOPE  
 PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL  
 PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL  
 PHASE S-2 PROPERTY LINE  
 IMPROVEMENTS INCLUDED IN PHASE S-2

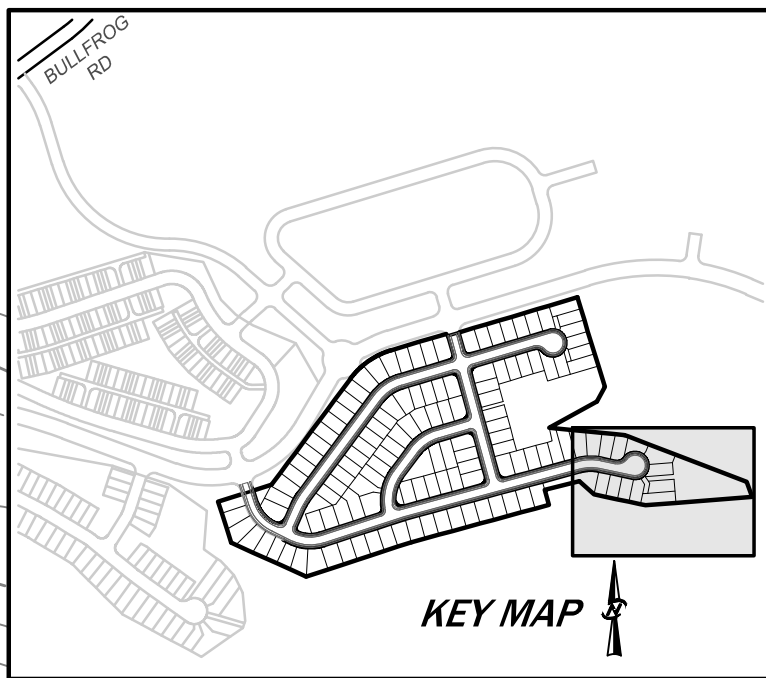
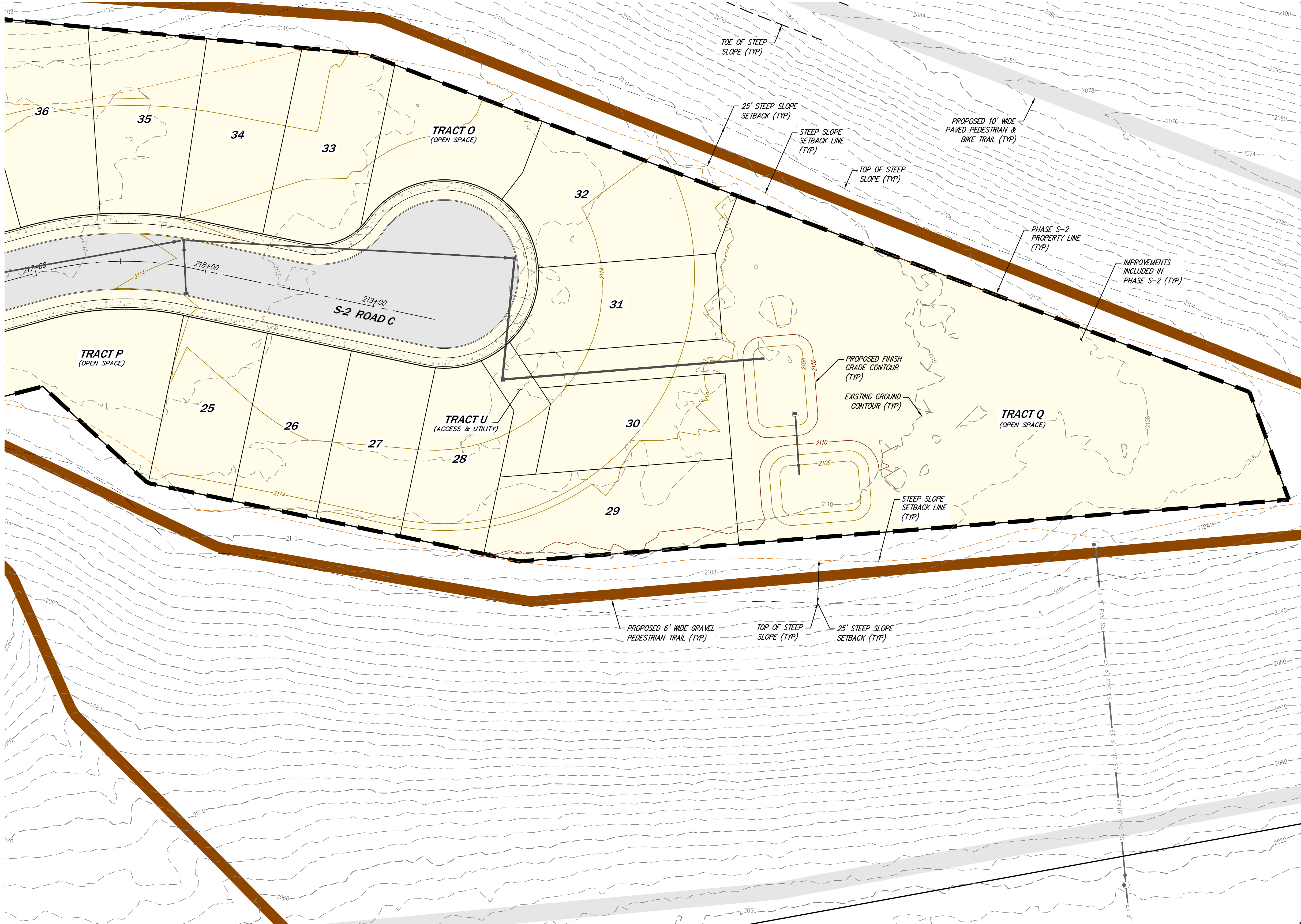


**UNDERGROUND LOCATOR SERVICE**  
*CALL BEFORE YOU DIG!*  
811

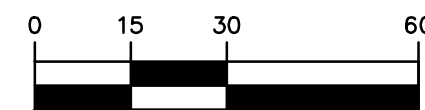
PLOT DATE <i>SEE STAMP DATE</i>		<p><b>GRADING PLAN 4</b></p> <p><b>BULLFROG FLATS - PHASE S-2</b></p> <p><b>BULLFROG FLATS, LLC</b></p> <p>18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052</p>	<p>CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING</p> <p><b>CORE</b> DESIGN</p> <p>12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877</p>		NO.	REVISIONS	DATE
SHEET	OF				1	REVISED PER CITY COMMENTS	11/15/24
17	53						
PROJECT NUMBER							
24019							

SEE SHEET C3.04

SEE SHEET C3.03



SCALE: 1" = 30'



### SURFACE LEGEND

2120	EXISTING GROUND CONTOUR MAJR
2122	EXISTING GROUND CONTOUR MINR
2120	FINISH GRADE CONTOUR MAJR
2122	FINISH GRADE CONTOUR MINR

### SITE LEGEND

---	PROPERTY BOUNDARY
---	RIGHT OF WAY
---	LOT LINE
---	TOP OF STEEP SLOPE
---	25' STEEP SLOPE SETBACK
---	TOE OF STEEP SLOPE
---	PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
---	PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
---	PHASE S-2 PROPERTY LINE
---	IMPROVEMENTS INCLUDED IN PHASE S-2



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NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING

**CORE** DESIGN

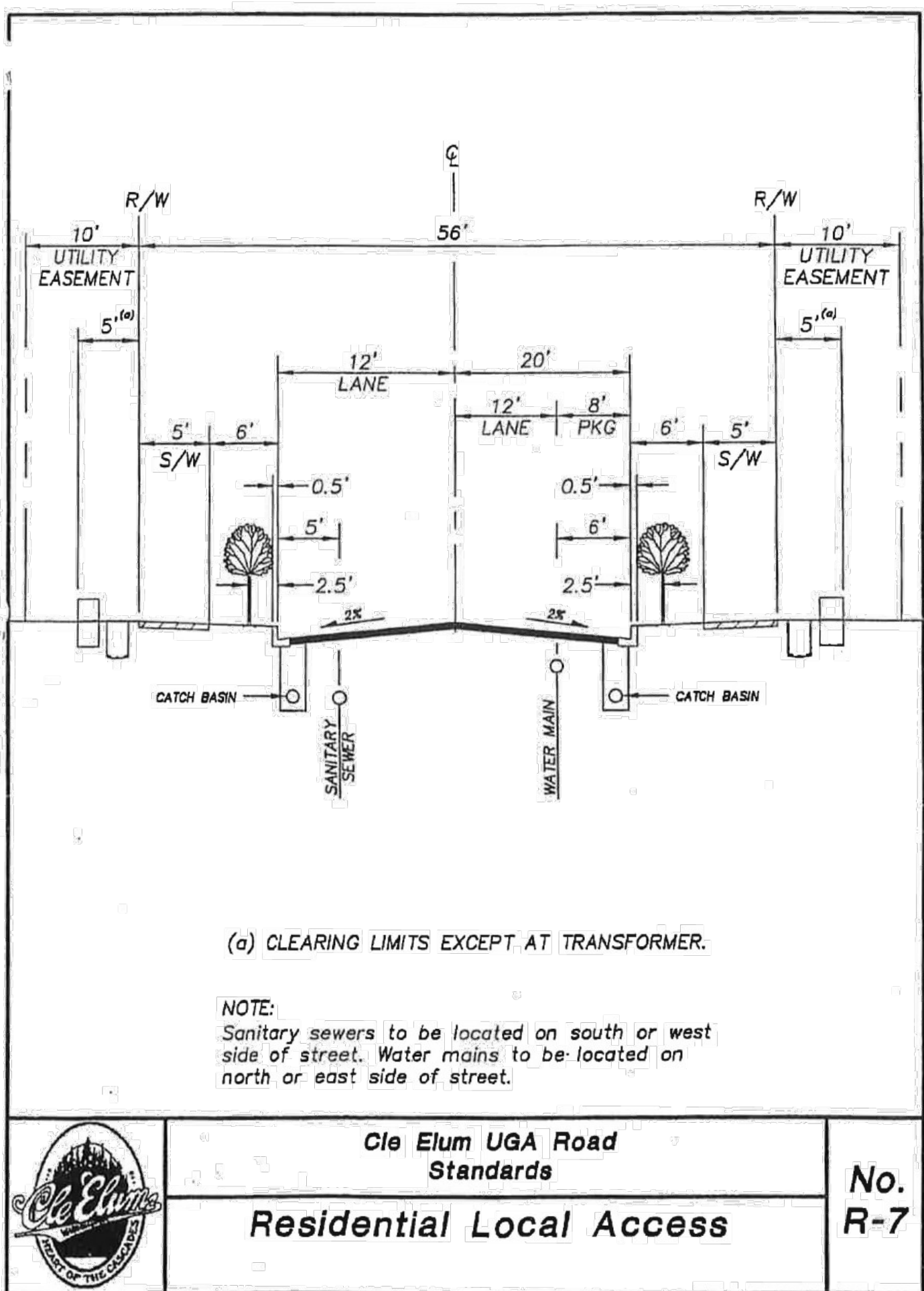
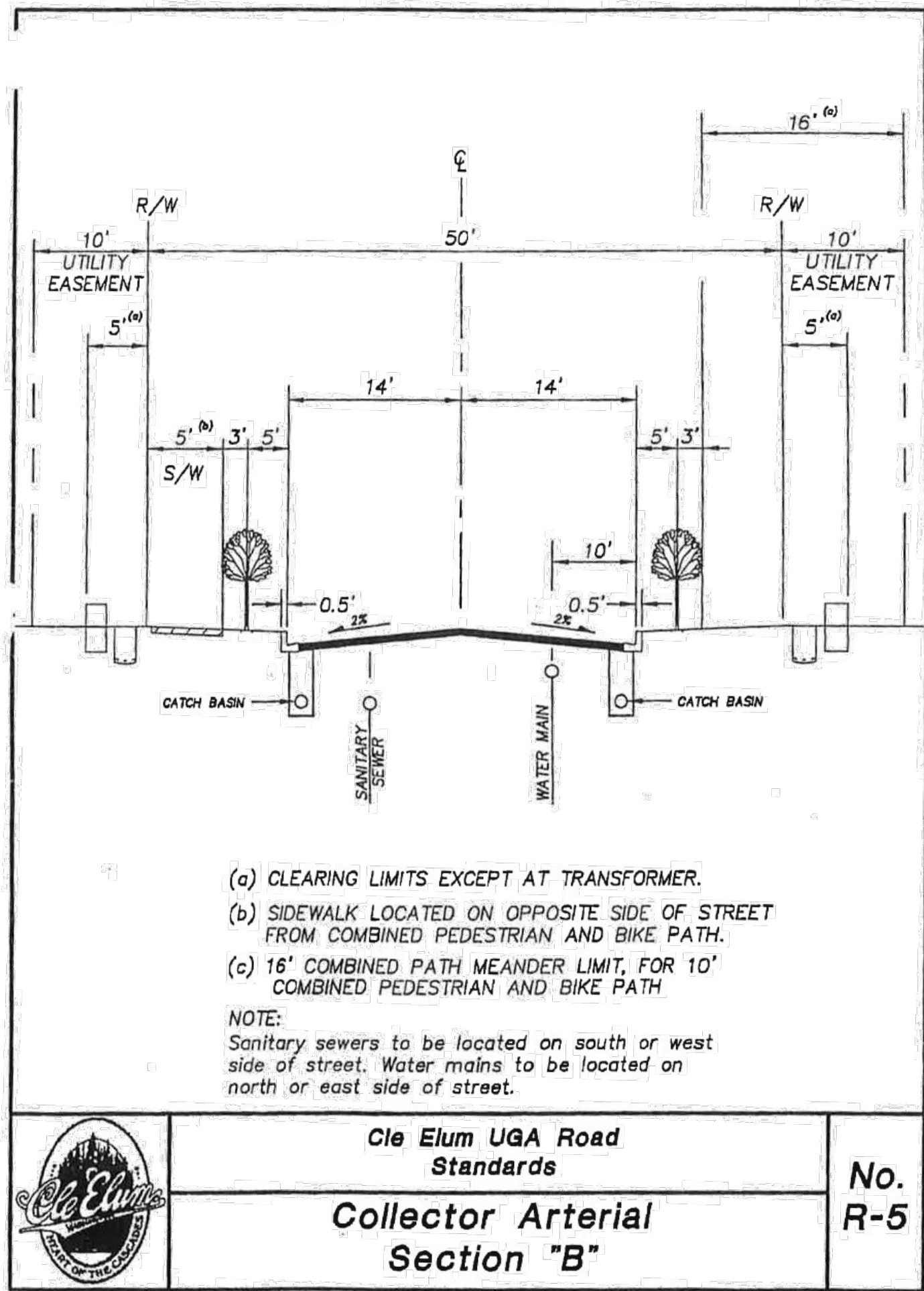
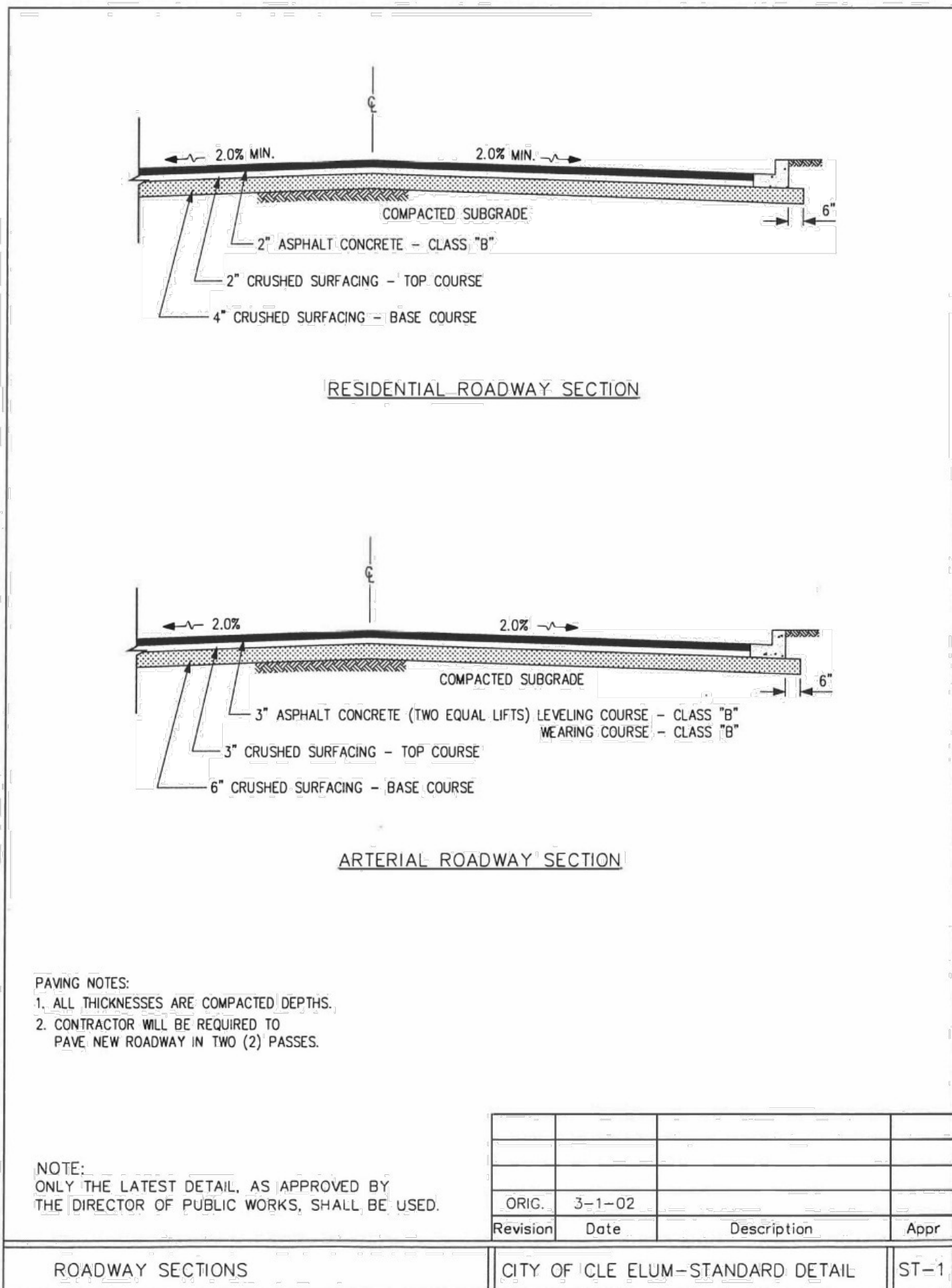
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877



GRADING PLAN 5  
**BULLFROG FLATS - PHASE S-2**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
PROJECT MANAGER	HOLLI HEAVRIN, PE

SHEET	OF
18	53
PROJECT NUMBER 24019	

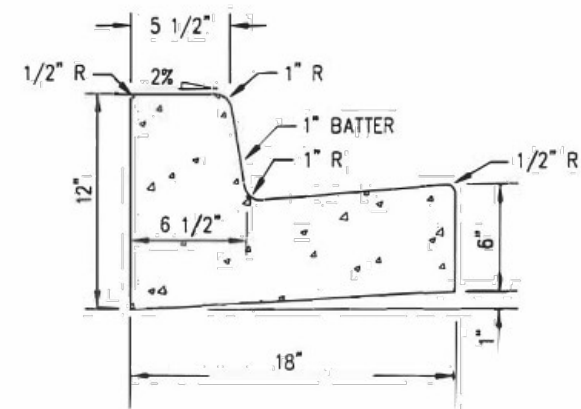
11/15/2024 6:59 AM J:\2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 3 (S2)\24019 CL3.DWG



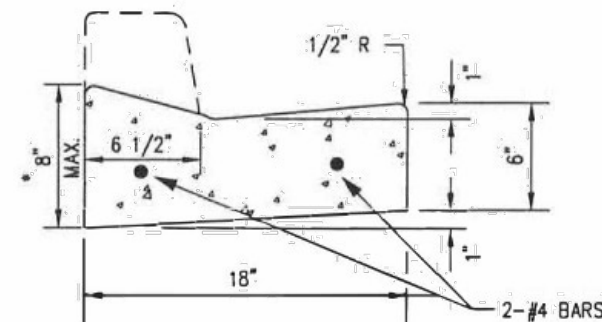
PLOT DATE SEE STAMP DATE		SHEET 19 OF 53	PROJECT NUMBER 24019	ROADWAY DETAILS  <b>BULLFROG FLATS - PHASE S-2</b>  <b>BULLFROG FLATS, LLC</b> 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	 CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING 12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877		NO. 7	REVISED PER CITY COMMENTS	DATE 11/19/24
DESIGNED QUENTIN CHALMERS, PE									
DRAWN MARY E. MOORE									
APPROVED HOLLI HEAVRIN, PE									
PROJECT MANAGER HOLLI HEAVRIN, PE									

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\* AS DIRECTED BY ENGINEER, MAY VARY  
DEPENDENT UPON GRADE OF SIDEWALK AND  
DRIVEWAY BEYOND CURB.



FULL HEIGHT - TYPE A



DEPRESSED - TYPE D

NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

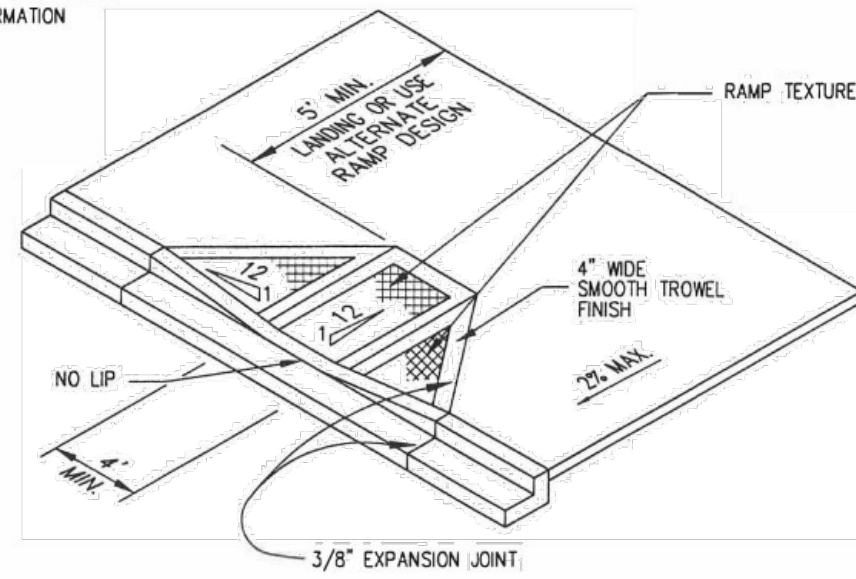
Revision	Date	Description	Appr
ORIG.	3-1-02		

CONCRETE CURB & GUTTER

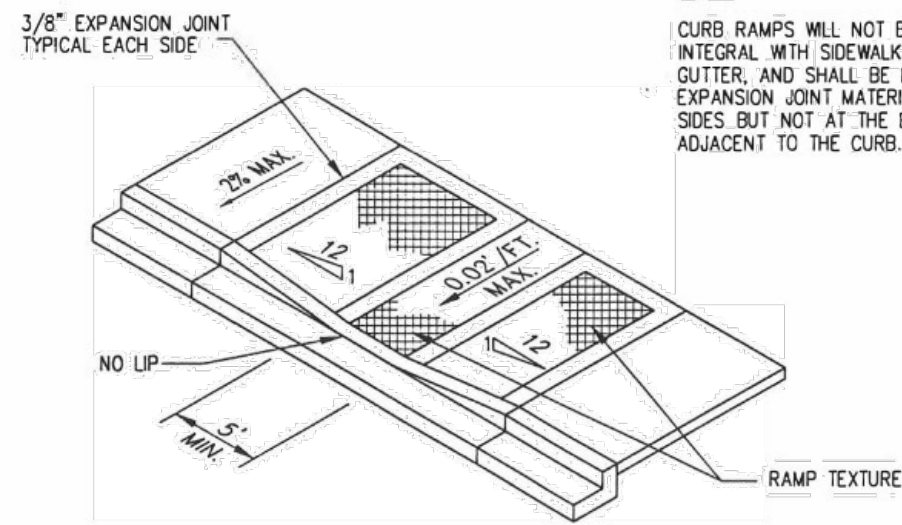
CITY OF CLE ELUM-STANDARD DETAIL

ST-2

SEE WSDOT STANDARD PLAN F-3  
FOR ADDITIONAL INFORMATION



STANDARD



ALTERNATE

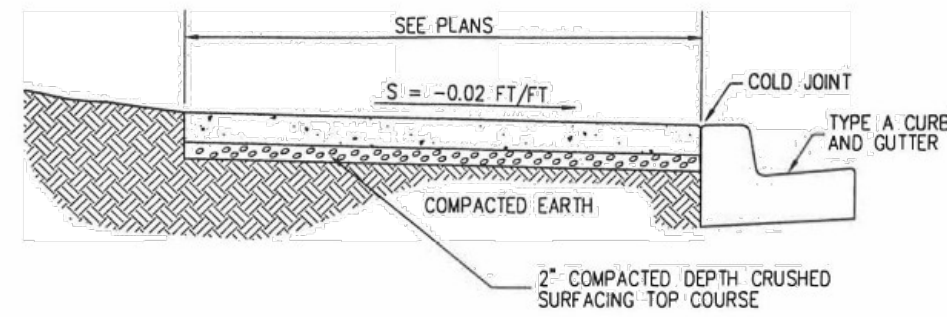
NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

Revision	Date	Description	Appr
ORIG.	3-1-02		

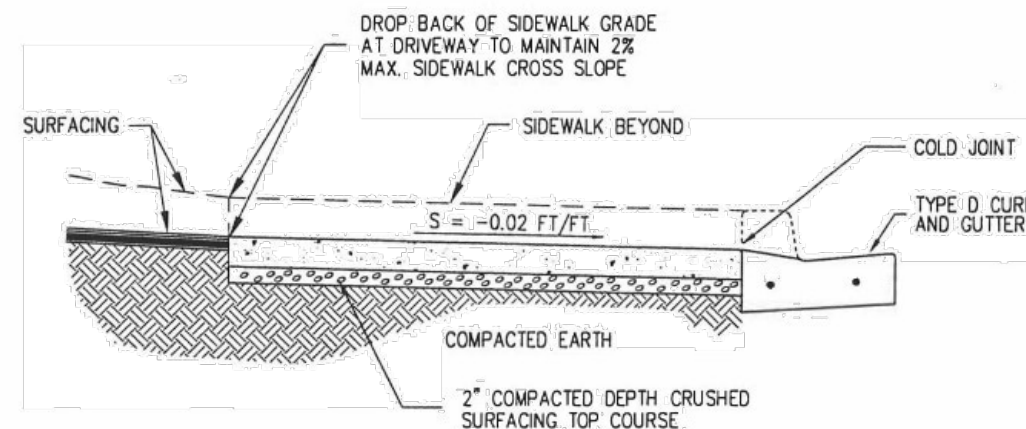
CURB RAMP

CITY OF CLE ELUM-STANDARD DETAIL

ST-3



4" THICK SIDEWALK SECTION



6" THICK SIDEWALK SECTION AT DRIVEWAYS

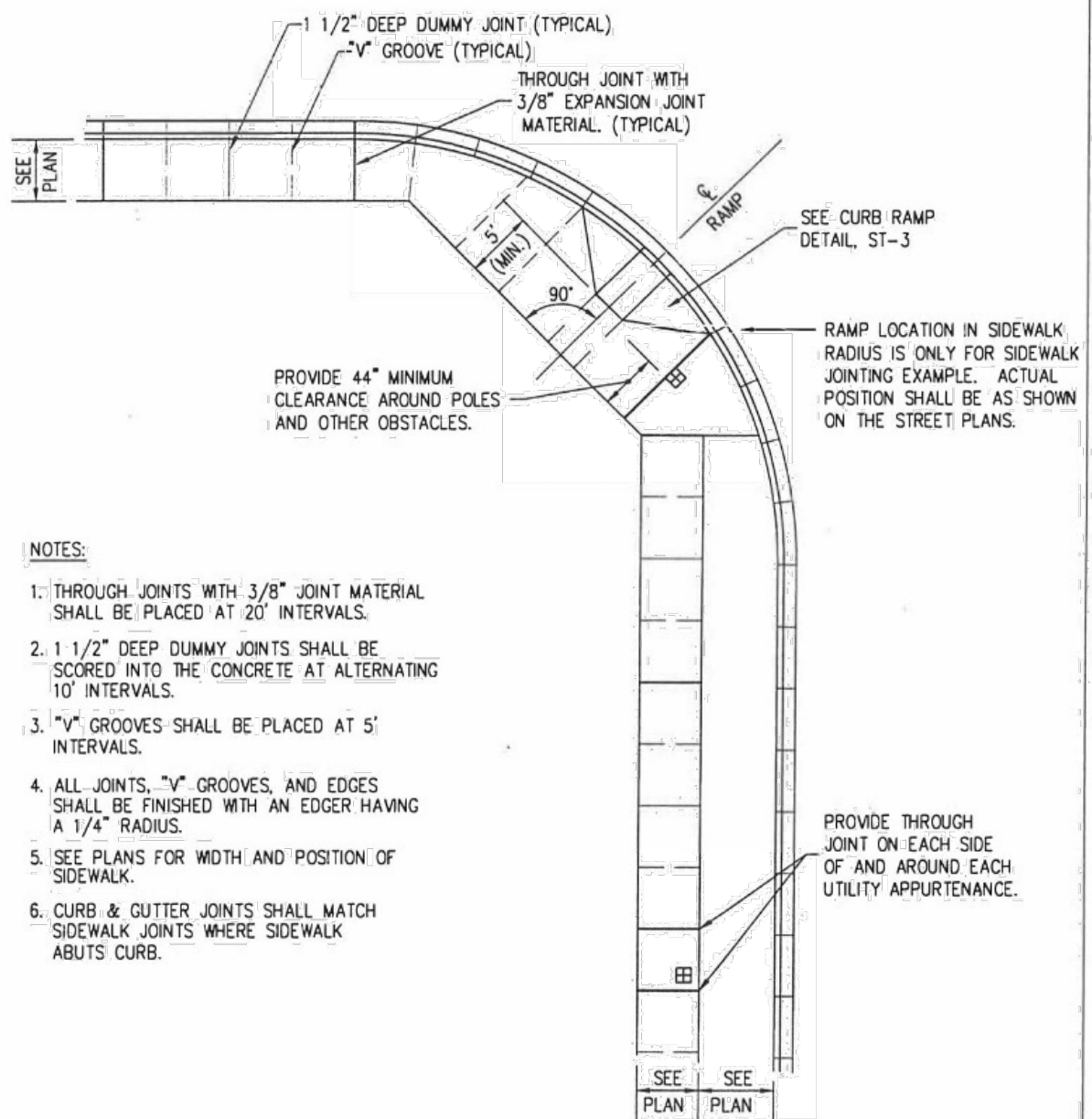
NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

Revision	Date	Description	Appr
ORIG.	3-1-02		

SIDEWALK SECTIONS

CITY OF CLE ELUM-STANDARD DETAIL

ST-4



- NOTES:
- THROUGH JOINTS WITH 3/8" JOINT MATERIAL SHALL BE PLACED AT 20' INTERVALS.
  - 1 1/2" DEEP DUMMY JOINTS SHALL BE SCORED INTO THE CONCRETE AT ALTERNATING 10' INTERVALS.
  - 1/4" GROOVES SHALL BE PLACED AT 5' INTERVALS.
  - ALL JOINTS, 1/4" GROOVES, AND EDGES SHALL BE FINISHED WITH AN EDGER HAVING A 1/4" RADIUS.
  - SEE PLANS FOR WIDTH AND POSITION OF SIDEWALK.
  - CURB & GUTTER JOINTS SHALL MATCH SIDEWALK JOINTS WHERE SIDEWALK ABUTS CURB.

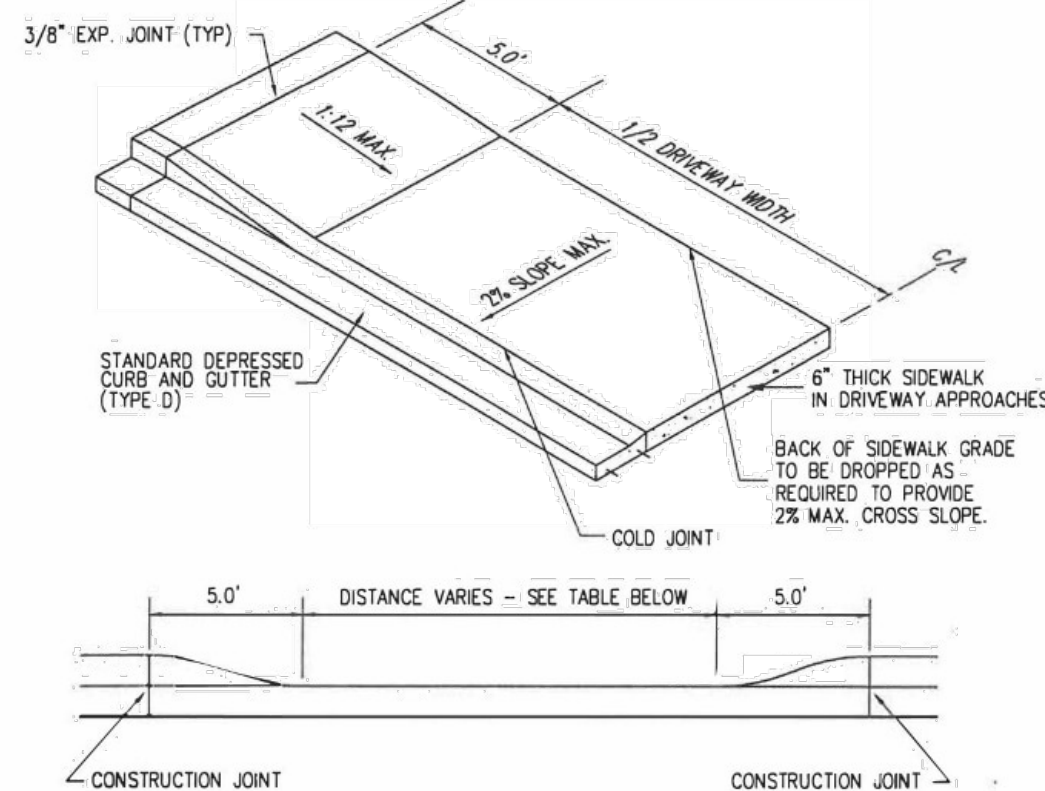
NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

Revision	Date	Description	Appr
ORIG.	3-1-02		

SIDEWALK JOINTING

CITY OF CLE ELUM-STANDARD DETAIL

ST-5



REFER TO CLE ELUM MUNICIPAL CODE  
RESIDENTIAL DRIVEWAYS - 20' MAXIMUM WIDTH

COMMERCIAL APPROACHES WITH RADIUS CURB RETURNS  
SHALL BE REVIEWED AND APPROVED BY THE PUBLIC  
WORKS DIRECTOR ON A CASE BY CASE BASIS.

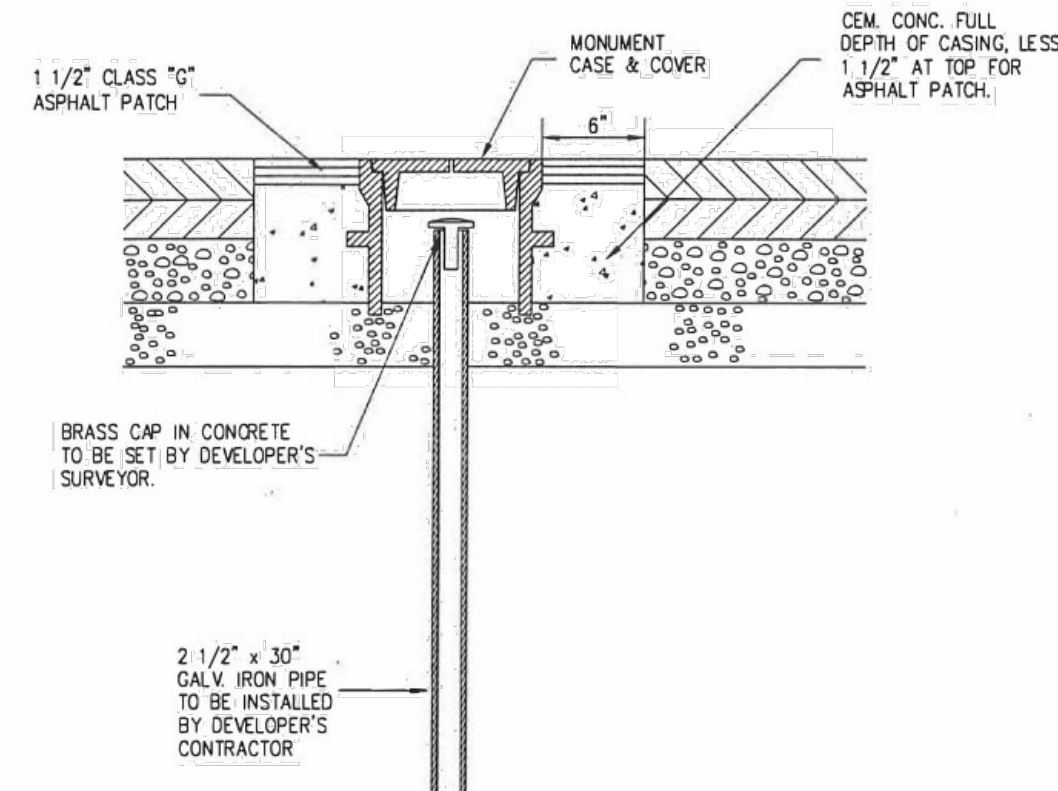
NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

Revision	Date	Description	Appr
ORIG.	3-1-02		

DRIVEWAY APPROACHES

CITY OF CLE ELUM-STANDARD DETAIL

ST-6



- NOTES:
- TOP OF MONUMENT SHALL BE BETWEEN 6" AND 12" BELOW FINISH GRADE.
  - MONUMENT, MONUMENT CASE AND COVER TO BE PLACED AFTER FINAL LIFT OF ASPHALT.

NOTE:  
ONLY THE LATEST DETAIL, AS APPROVED BY  
THE DIRECTOR OF PUBLIC WORKS, SHALL BE USED.

Revision	Date	Description	Appr
ORIG.	3-1-02		

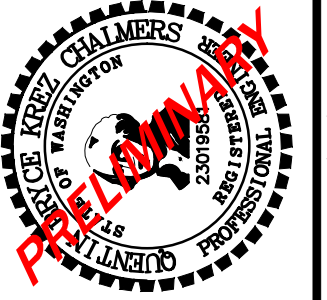
MONUMENT

CITY OF CLE ELUM-STANDARD DETAIL

ST-9



NO.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	11/19/24



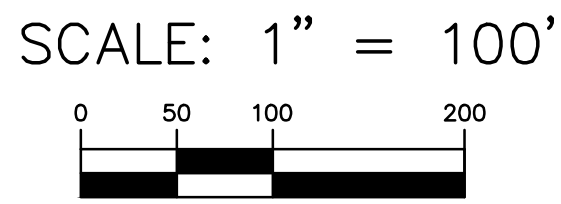
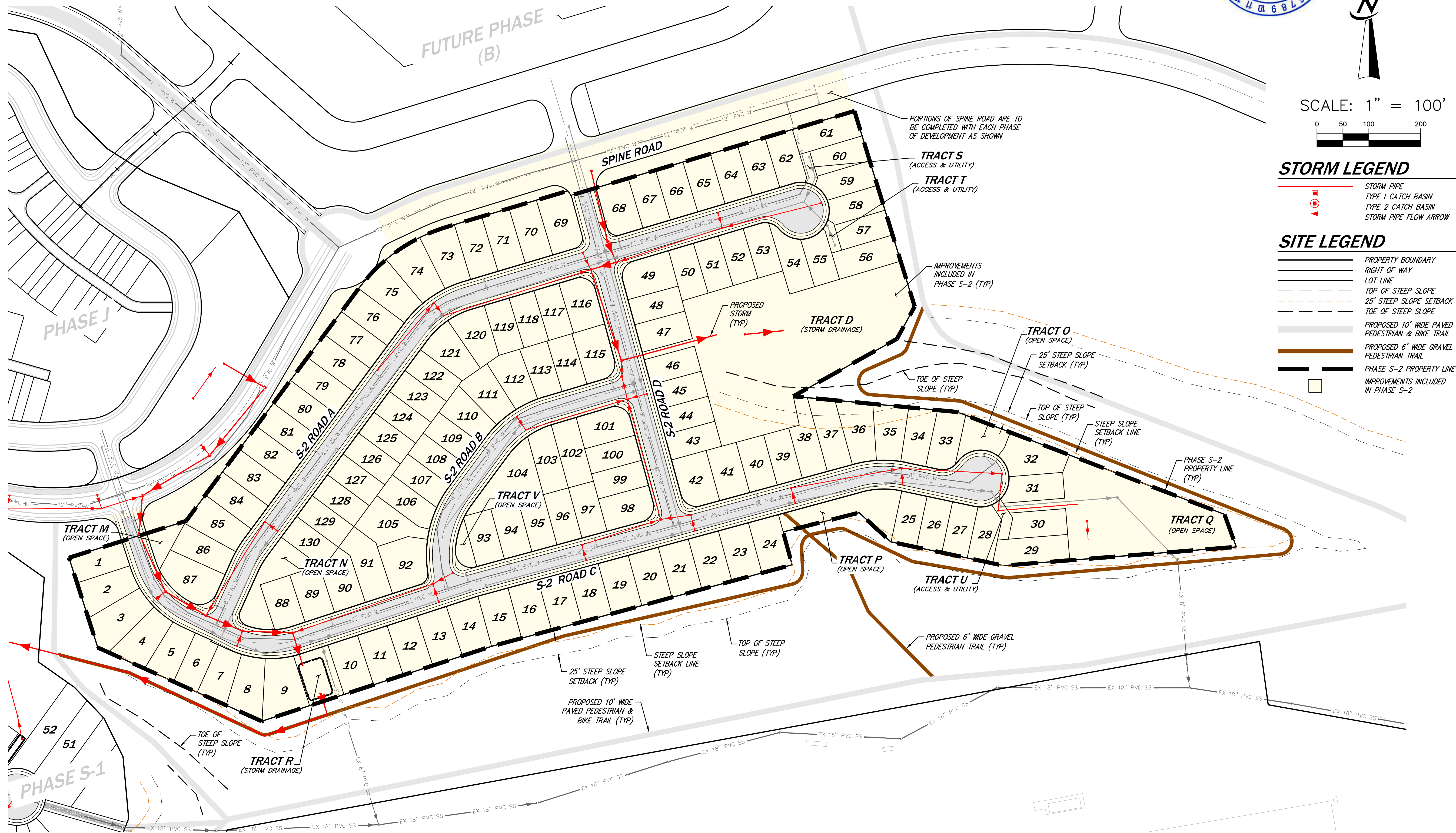
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
**CORE DESIGN**  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

GRADING DETAILS  
**BULLFROG FLATS - PHASE S-2**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE	SEE STAMP DATE	DESIGNED	QUENTIN CHALMERS, PE	DRAWN	MARY E. MOORE	APPROVED	HOLLI HEAVRIN, PE	PROJECT MANAGER	HOLLI HEAVRIN, PE
20	63.32	53							
PROJECT NUMBER 24019									

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11/15/2024 6:59 AM A: [2024] [24019] [ENGINEERING] [PRELIMINARY] [SHEETS] [PHASE 3 (S2)] [24019 C4.00.DWG]



**STORM LEGEND**

- STORM PIPE
- TYPE 1 CATCH BASIN
- TYPE 2 CATCH BASIN
- STORM PIPE FLOW ARROW

**SITE LEGEND**

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2

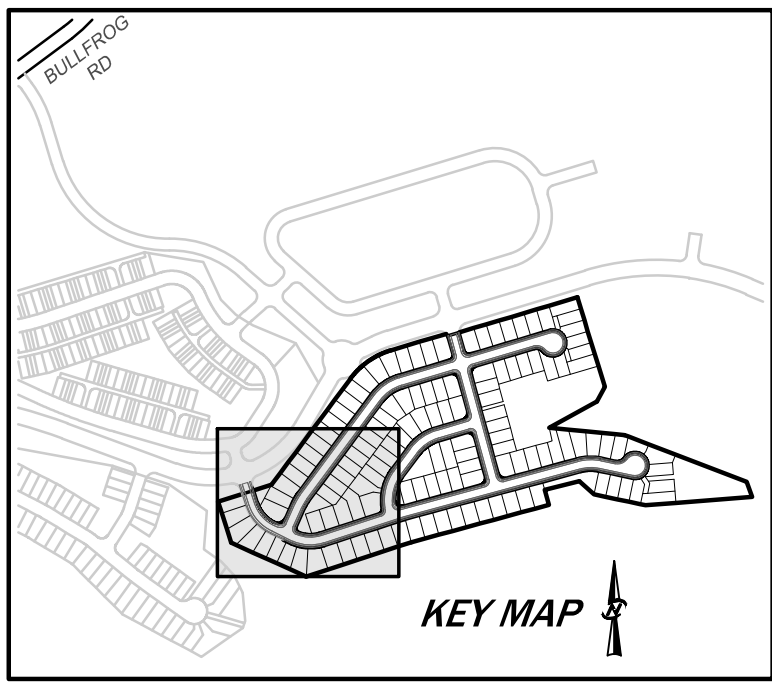
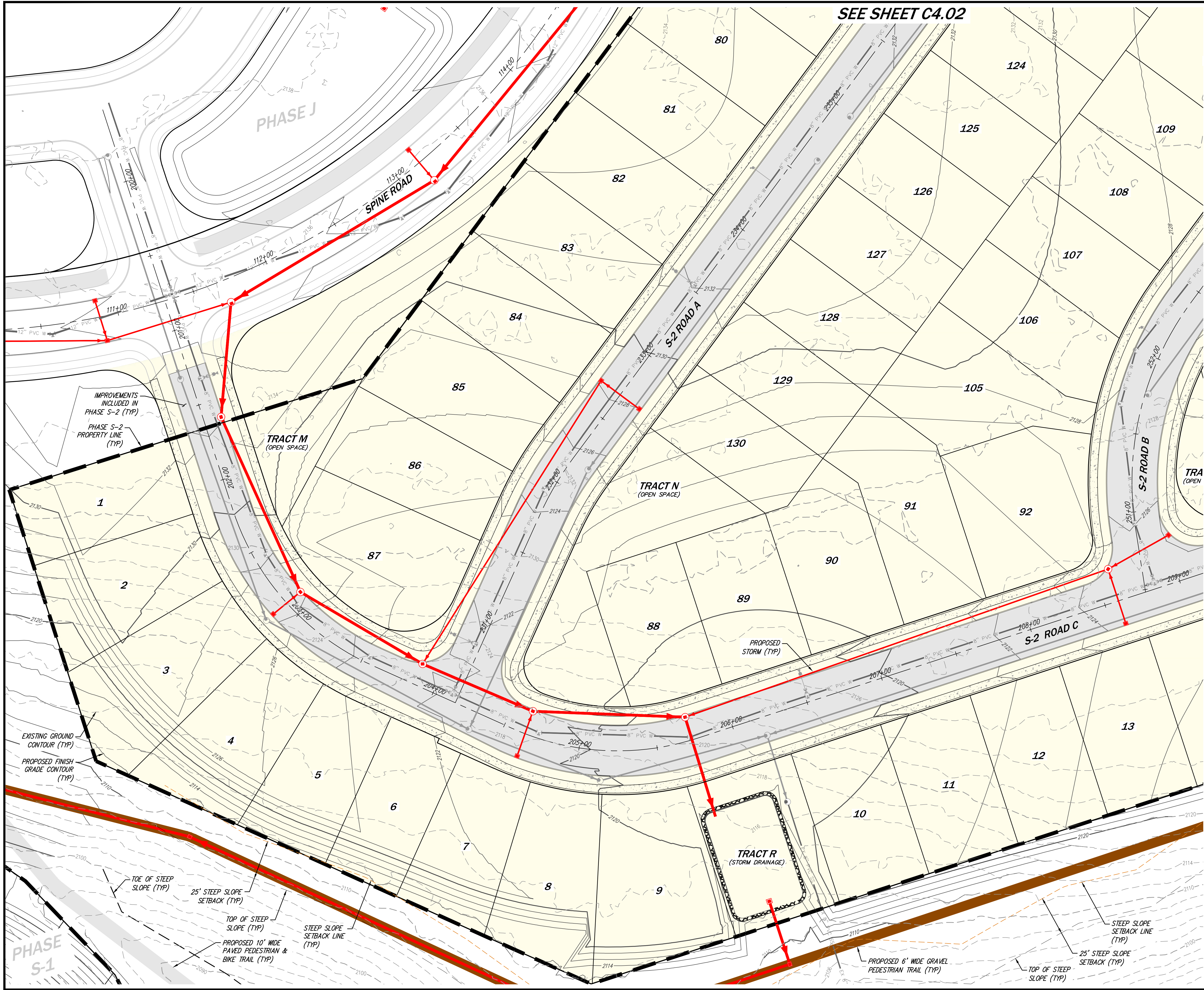
DATE 11/15/24		REVISIONS	
NO. 7		REVISED PER CITY COMMENTS	
DESIGNED QUENTIN CHALMERS, PE		DRAWN MARY E. MOORE	
APPROVED HOLLI HEAVRIN, PE		PROJECT MANAGER HOLLI HEAVRIN, PE	
SHEET 21		OF 53	
PROJECT NUMBER 24019		PROJECT NUMBER 24019	

**COMPOSITE STORM DRAINAGE PLAN**  
**BULLFROG FLATS - PHASE S-2**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

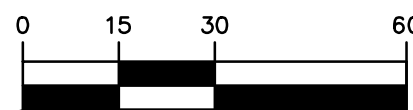
**CORE DESIGN**  
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

**UNDERGROUND LOCATOR SERVICE**  
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11/15/2024 7:00 AM A: (2024)24019 (ENGINEERING) PRELIMINARY SHEETS PHASE 3 (S2) 24019 C4.01.DWG



SCALE: 1" = 30'



#### STORM LEGEND

- STORM PIPE
- TYPE 1 CATCH BASIN
- TYPE 2 CATCH BASIN
- STORM PIPE FLOW ARROW

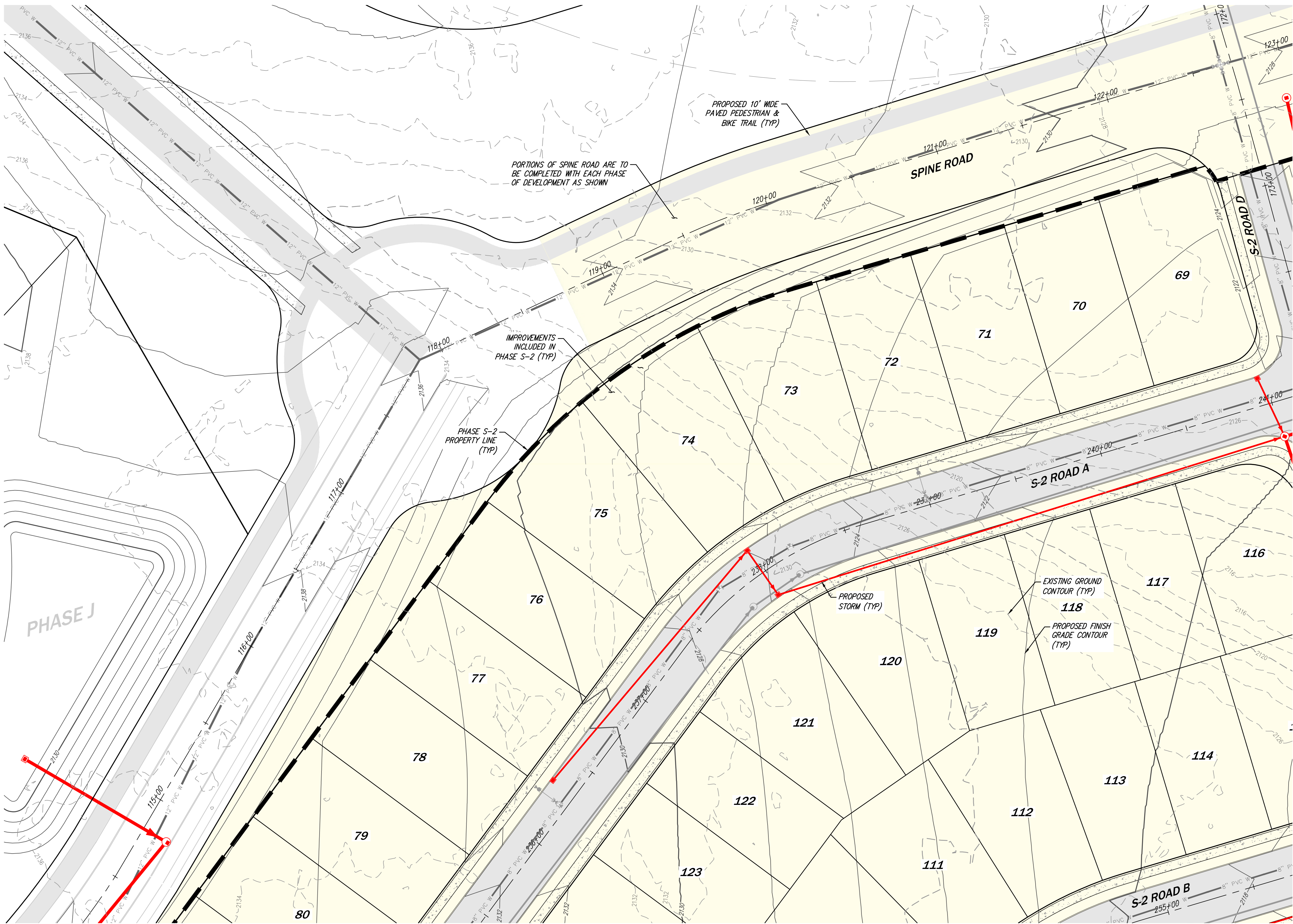
#### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



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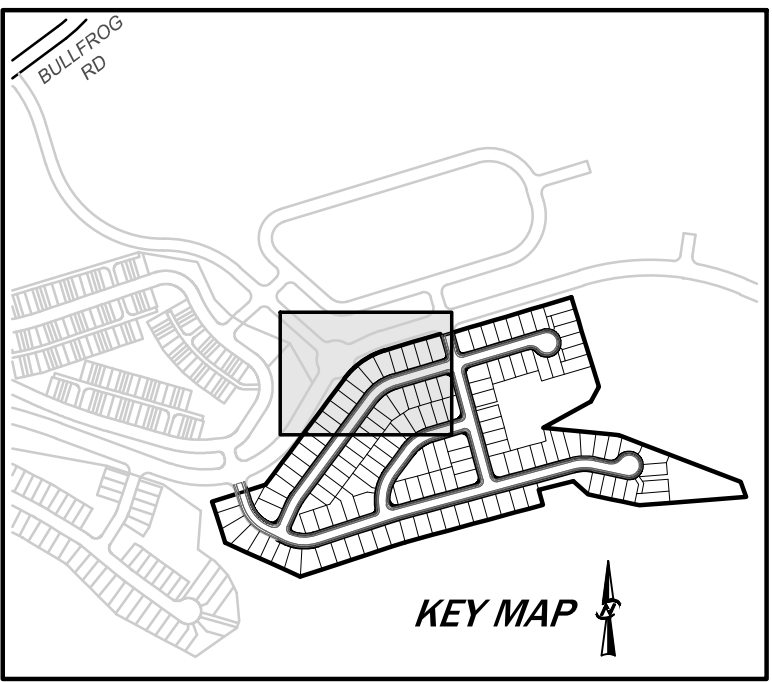
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DESIGNED: QUENTIN CHALMERS, PE		C4.01		PROJECT MANAGER	
DRAWN: MARY E. MOORE		APPROVED: HOLLI HEAVRIN, PE		PROJECT MANAGER	
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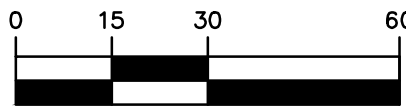
SEE SHEET C4.01

SEE SHEET C4.04

SEE SHEET C4.03



SCALE: 1" = 30'



STORM LEGEND

- STORM PIPE
- TYPE 1 CATCH BASIN
- TYPE 2 CATCH BASIN
- STORM PIPE FLOW ARROW

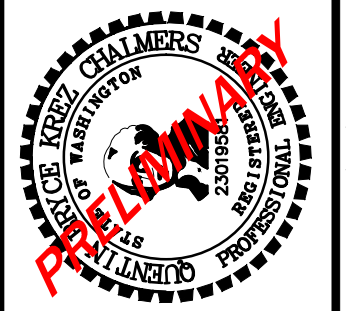
SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



UNDERGROUND LOCATOR SERVICE  
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NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



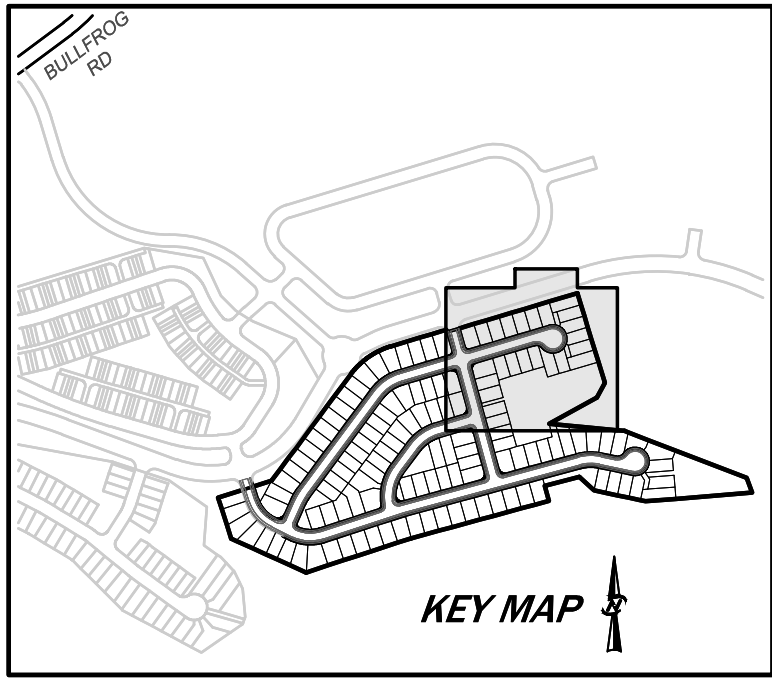
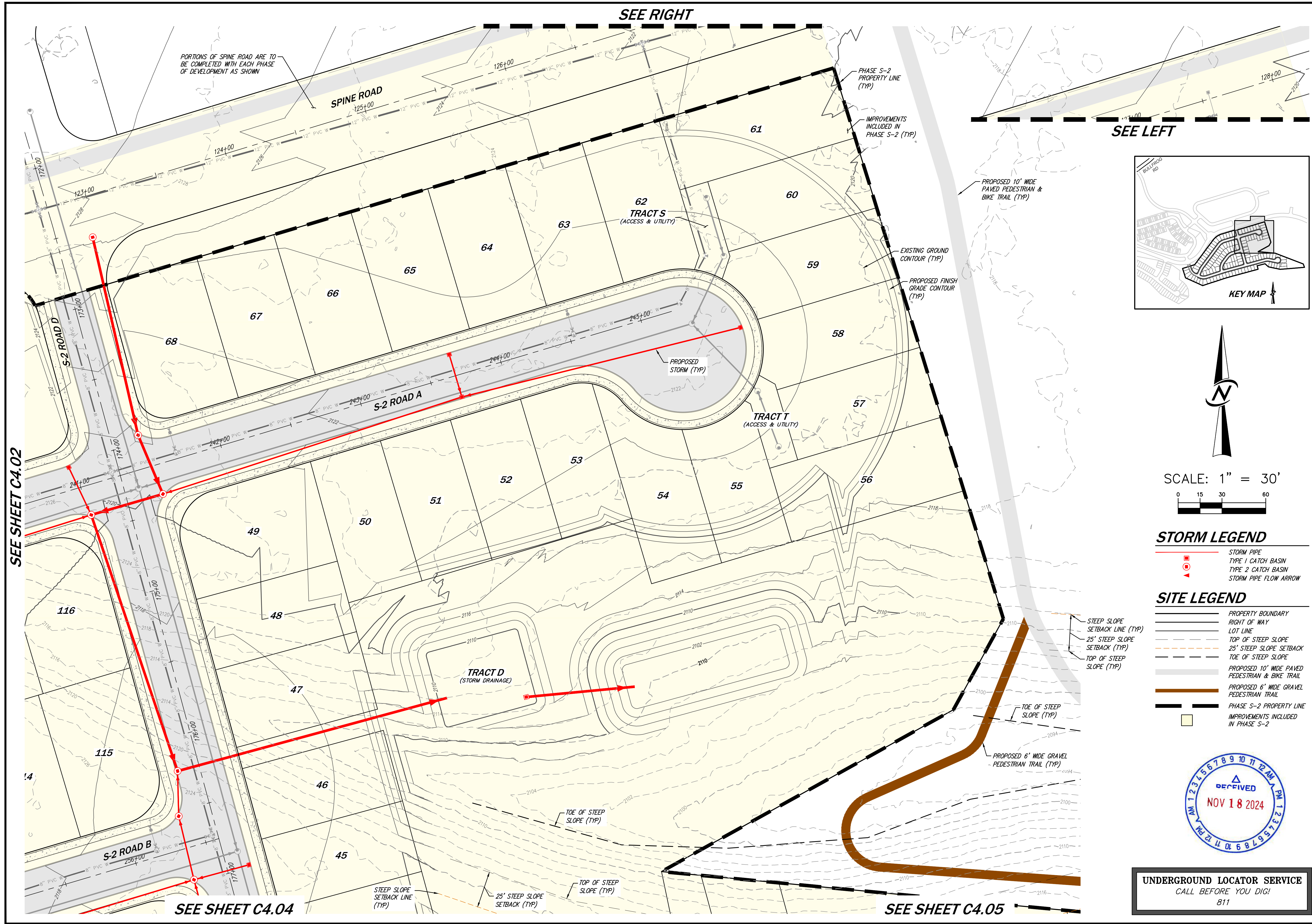
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
**CORE DESIGN**  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

STORM DRAINAGE PLAN 2  
BULLFROG FLATS - PHASE S-2  
BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE	SEE STAMP DATE
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
	HOLLI HEAVRIN, PE
	PROJECT MANAGER

SHEET	OF
23 C4.02	53
PROJECT NUMBER 24019	

11/15/2024 7:03 AM A: [2024] [24019] [ENGINEERING] [PRELIMINARY] [SHEETS] [PHASE 3] (S2) [24019] C4.01.DWG



SCALE: 1" = 30'

0 15 30 60

#### STORM LEGEND

- STORM PIPE
- TYPE 1 CATCH BASIN
- TYPE 2 CATCH BASIN
- STORM PIPE FLOW ARROW

#### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK (TYP)
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



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NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24

DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
PROJECT MANAGER	HOLLI HEAVRIN, PE

SHEET	OF
24	53

PROJECT NUMBER	24019
----------------	-------

CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING

**CORE**  
DESIGN

12100 NE 195th St, Suite 300  
Bothell, Washington 98011 425.885.7877

STORM DRAINAGE PLAN 3  
BULLFROG FLATS - PHASE S-2

BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

DATE  
11/19/24

REVISIONS

NO.

7

REVISED PER CITY COMMENTS

QUENTIN CHALMERS, PE  
REGISTERED PROFESSIONAL ENGINEER  
NOV 18 2024

11/19/24

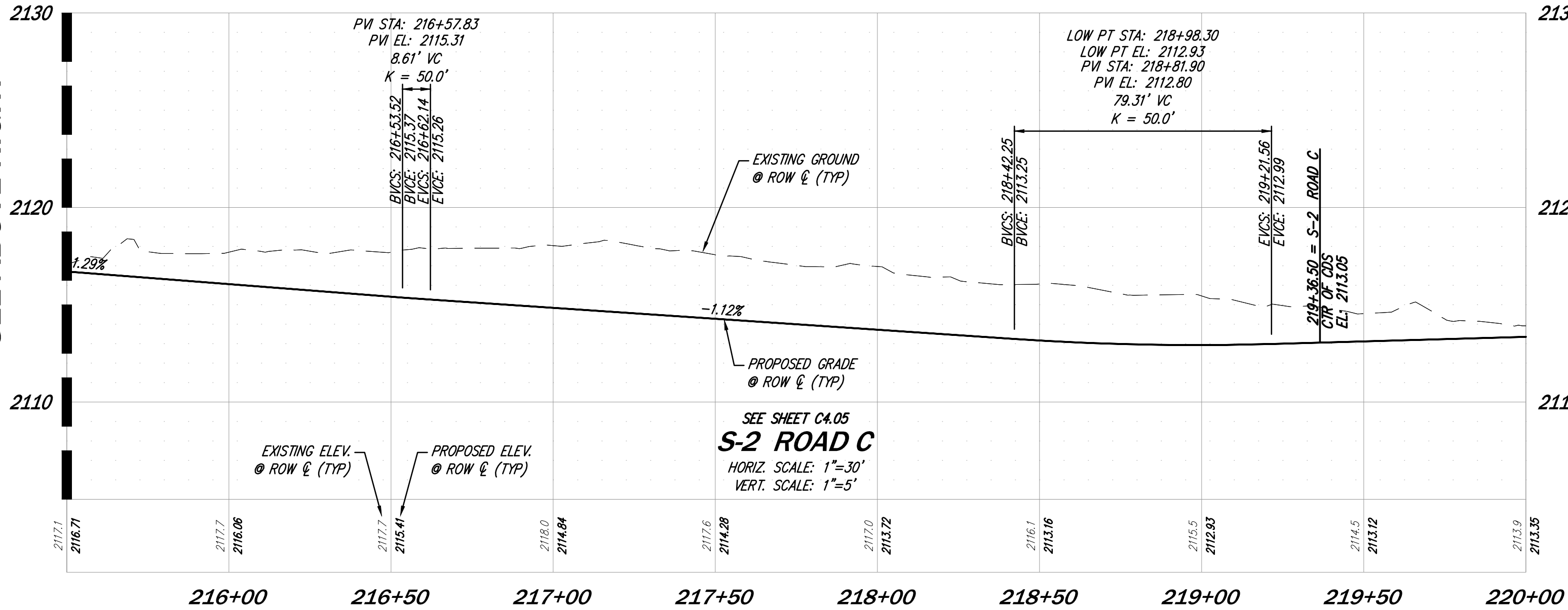




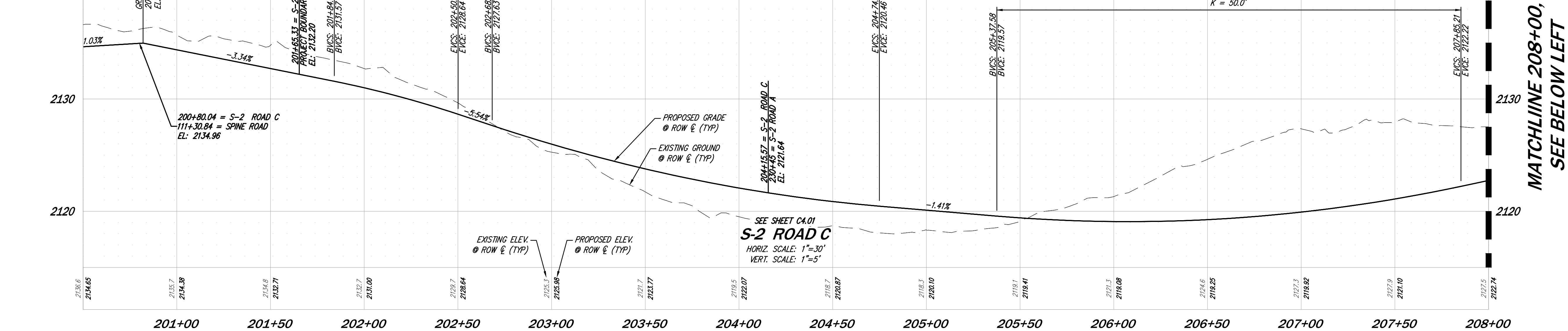
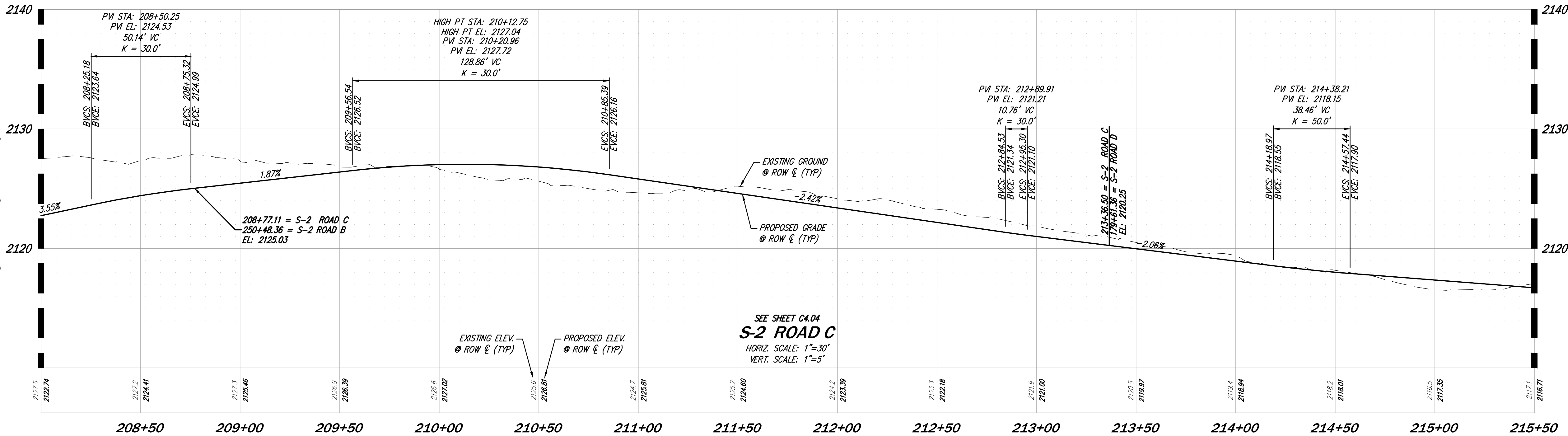


11/15/2024 7:06 AM A:\2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 3 (S2)\24019 C4.21.DWG

MATCHLINE 215+50  
SEE ABOVE RIGHT



MATCHLINE 208+00  
SEE ABOVE RIGHT

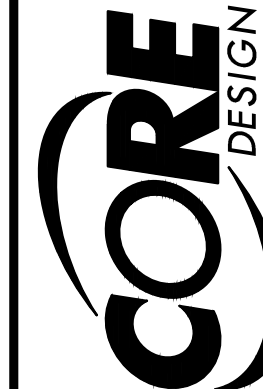


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ROAD PROFILES  
BULLFROG FLATS - PHASE S-2

BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING



12100 NE 195th St, Suite 300  
Bellevue, Washington 98011 425.885.7877

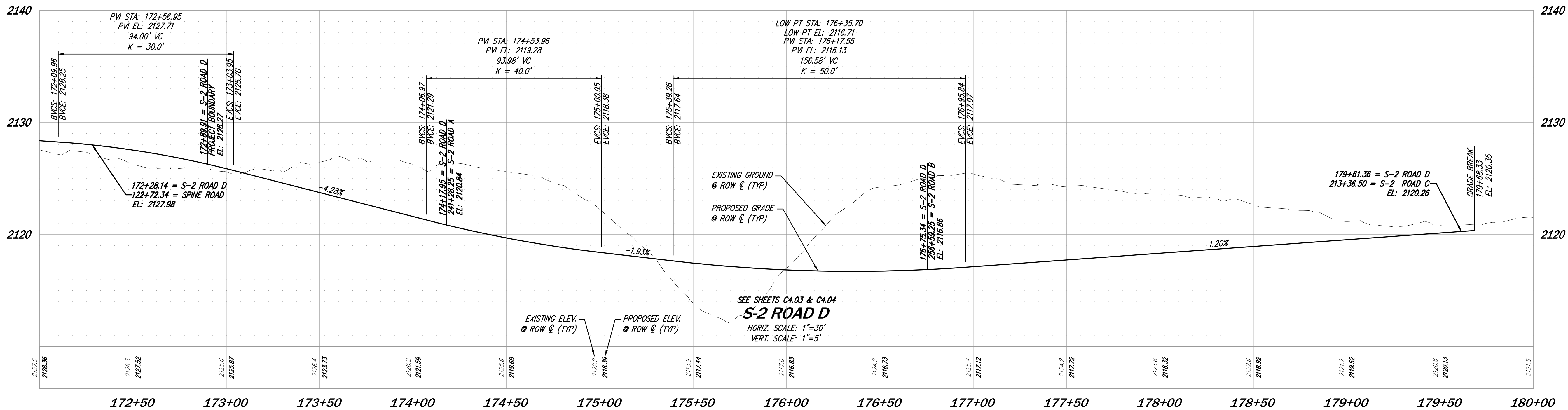


NO.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	11/19/24

SHEET	OF
28	53
PROJECT NUMBER 24019	

11/19/24

11/15/2024 7:06 AM A:\2024\24019\ENGINEERING\PRELIMINARY\SHEETS\PHASE 3 (S2)\24019 C4.21.DWG



UNDERGROUND LOCATOR SERVICE  
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PLOT DATE: SEE STAMP DATE		DESIGNED: QUENTIN CHALMERS, PE	
DRAWN: MARY E. MOORE		APPROVED: HOLLI HEAVRIN, PE	
PROJECT NUMBER: 24019		PROJECT MANAGER: HOLLI HEAVRIN, PE	

ROAD PROFILES	
BULLFROG FLATS - PHASE S-2	
BULLFROG FLATS, LLC	
18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	

CIVIL ENGINEERING	
LANDSCAPE ARCHITECTURE	
PLANNING	
SURVEYING	
DESIGN	

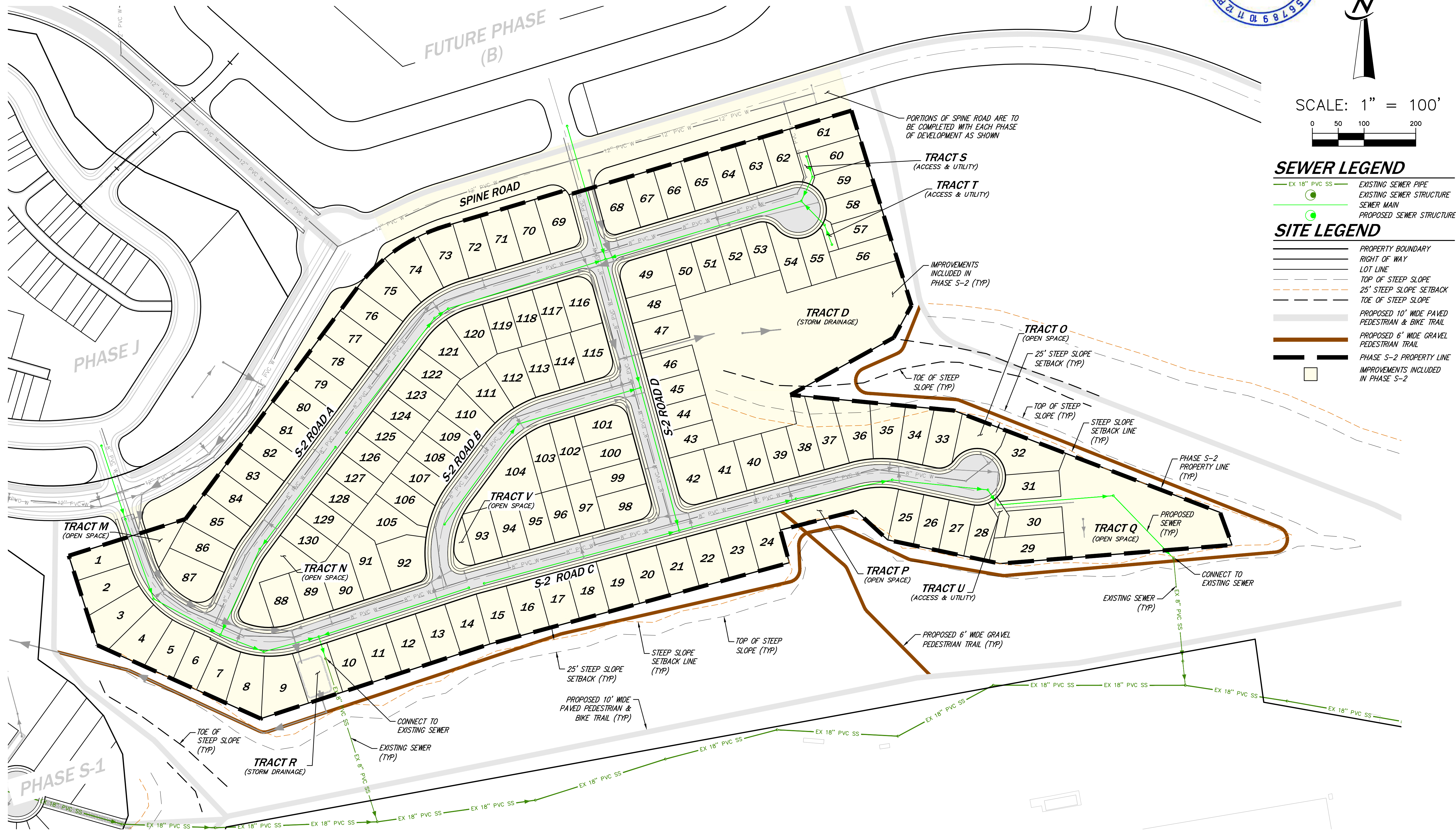
CORE DESIGN	
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877	

NO. 7	
REVISIONS	
REVISED PER CITY COMMENTS	
DATE	
11/19/24	

DATE	
11/19/24	



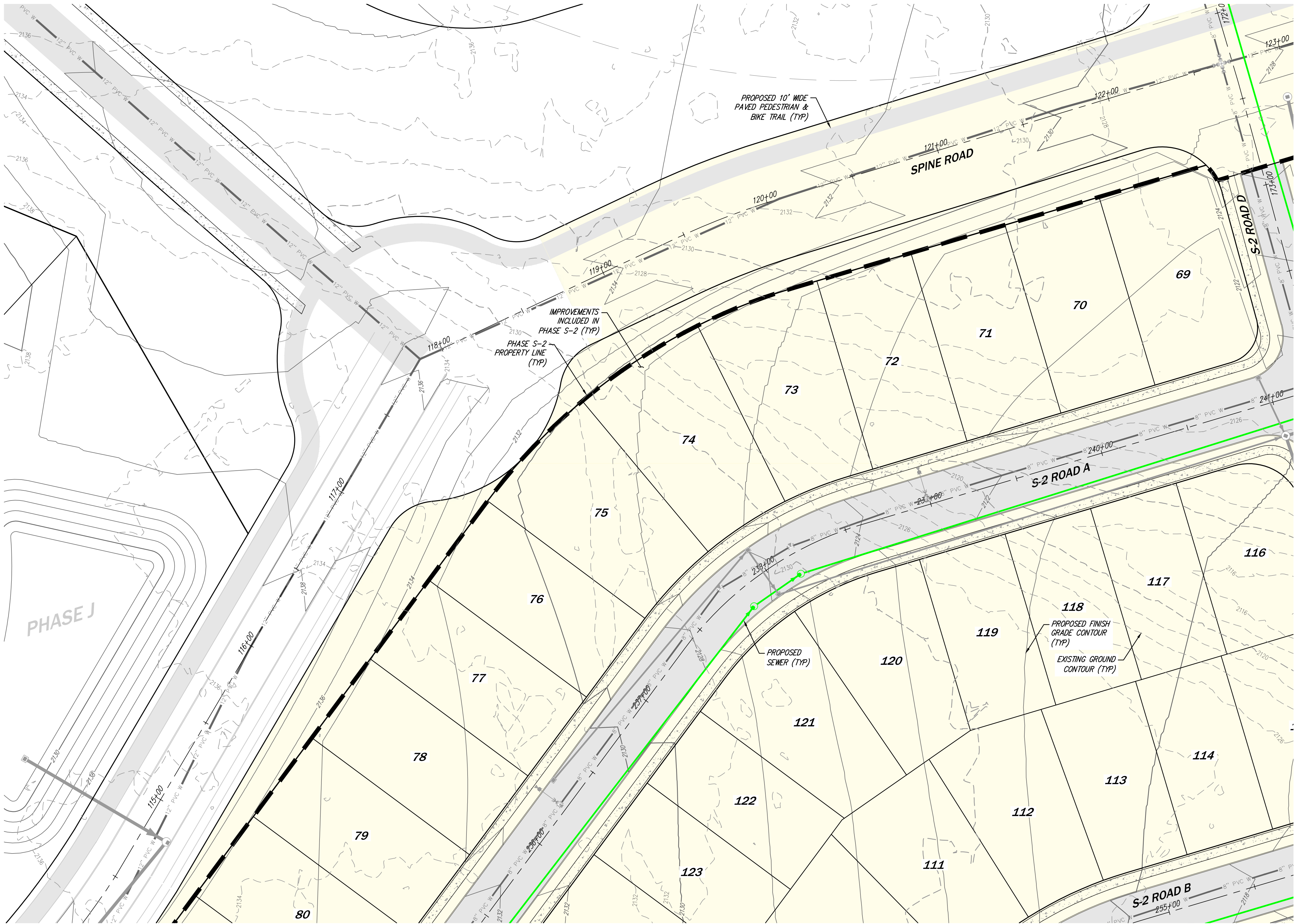
11/15/2024 7:00 AM A: [2024] [24019] [ENGINEERING] [PRELIMINARY] [SHEETS] [PHASE 3] (S2) [24019] C5.00.DWG



PLOT DATE: 11/15/2024		SEE STAMP DATE: 11/15/24	
DESIGNED: QUENTIN CHALMERS, PE	DATE: 11/19/24	REVISIONS:	
DRAWN: MARY E. MOORE	NO. 7	REVISED PER CITY COMMENTS	
APPROVED: HOLLI HEAVRIN, PE			
HOLLI HEAVRIN, PE			
PROJECT MANAGER			
SHEET 31 OF 53		PROJECT NUMBER 24019	
COMPOSITE SEWER PLAN		BULLFROG FLATS - PHASE S-2	
BULLFROG FLATS, LLC		BULLFROG FLATS, LLC	
18300 REDMOND WA Y, SUITE 120		18300 REDMOND WA Y, SUITE 120	
REDMOND, WA 98052		REDMOND, WA 98052	
CIVIL ENGINEERING		CIVIL ENGINEERING	
LANDSCAPE ARCHITECTURE		LANDSCAPE ARCHITECTURE	
PLANNING		PLANNING	
SURVEYING		SURVEYING	
CORE DESIGN		CORE DESIGN	
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877		12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877	

UNDERGROUND LOCATOR SERVICE  
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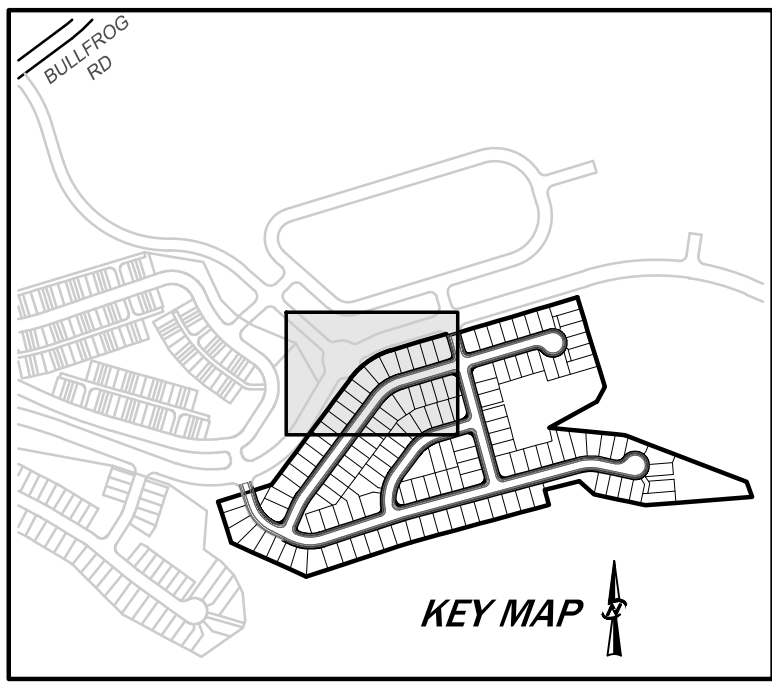




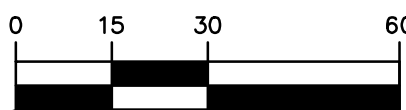
SEE SHEET C5.01

SEE SHEET C5.04

SEE SHEET C5.03



SCALE: 1" = 30'



SEWER LEGEND

- EX 18" PVC SS EXISTING SEWER PIPE
- 8" PVC W EXISTING/NEW STRUCTURE
- PROPOSED SEWER STRUCTURE

SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE IMPROVEMENTS INCLUDED IN PHASE S-2



UNDERGROUND LOCATOR SERVICE  
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PLOT DATE		SEE STAMP DATE	<div><div>SANITARY SEWER PLAN 2</div><div>BULLFROG FLATS - PHASE S-2</div><div>BULLFROG FLATS, LLC</div><div>18300 REDMOND WAY, SUITE 120</div><div>REDMOND, WA 98052</div></div>	<div><div>CIVIL ENGINEERING</div><div>LANDSCAPE ARCHITECTURE</div><div>PLANNING</div><div>SURVEYING</div><div>DESIGN</div></div> <div><div>CORE</div><div>DESIGN</div></div> <div>12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877</div>	<div><div>NO.</div><div>1</div><div>REVISED PER CITY COMMENTS</div><div>DATE</div><div>11/15/24</div></div> <div><div>QUENTIN CHALMERS</div><div>PE</div><div>12345</div><div>STATE OF WASHINGTON</div><div>NOV 18 2024</div></div> <div><div>CIVIL ENGINEERING</div><div>LANDSCAPE ARCHITECTURE</div><div>PLANNING</div><div>SURVEYING</div><div>DESIGN</div></div> <div><div>CORE</div><div>DESIGN</div></div> <div>12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877</div>
DESIGNED		QUENTIN CHALMERS, PE			
DRAWN		MARY E. MOORE			
APPROVED		HOLLI HEAVRIN, PE	<div><div>33</div><div>C5.02</div><div>53</div></div> <div>PROJECT NUMBER</div> <div>24019</div>		
		HOLLI HEAVRIN, PE			
		PROJECT MANAGER			

SEE RIGHT

SEE LEFT

PORTIONS OF SPINE ROAD ARE TO BE COMPLETED WITH EACH PHASE OF DEVELOPMENT AS SHOWN

SPINE ROAD

PHASE S-2 PROPERTY LINE (TYP)

IMPROVEMENTS INCLUDED IN PHASE S-2 (TYP)

PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL (TYP)

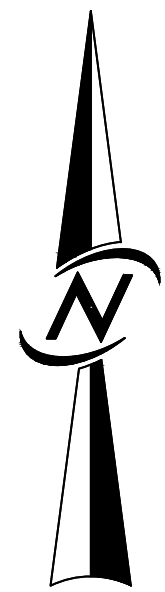
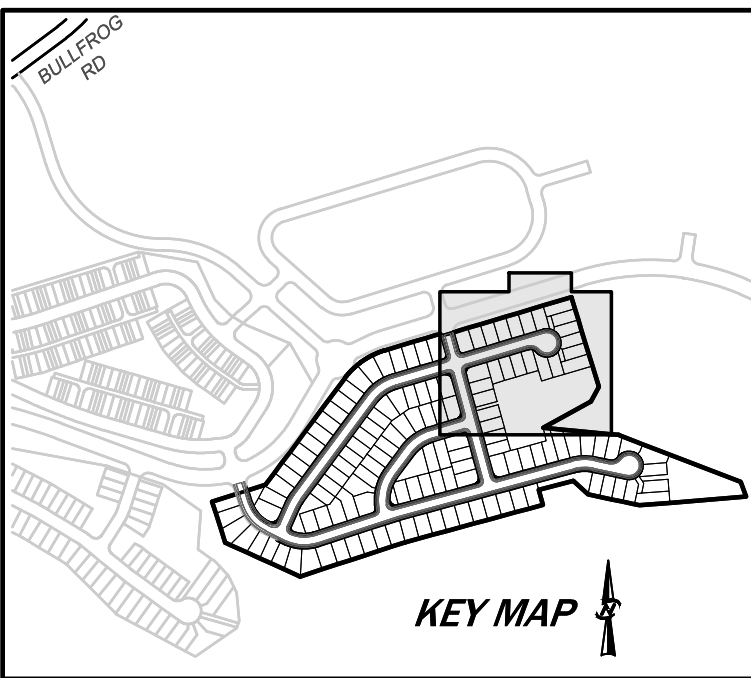
EXISTING GROUND CONTOUR (TYP)

PROPOSED FINISH GRADE CONTOUR (TYP)

TRACTS (ACCESS & UTILITY)

TRACT T (ACCESS & UTILITY)

TRACT D (STORM DRAINAGE)



SCALE: 1" = 30'



SEWER LEGEND

- EX 18" PVC SS EXISTING SEWER PIPE
- EXISTING SEWER STRUCTURE
- SEWER MAIN
- PROPOSED SEWER STRUCTURE

SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK (TYP)
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2

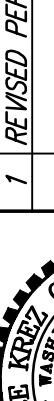



UNDERGROUND LOCATOR SERVICE  
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SEE SHEET C5.02

SEE SHEET C5.04

SEE SHEET C5.05

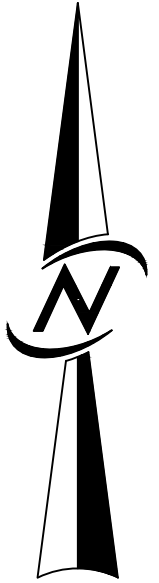
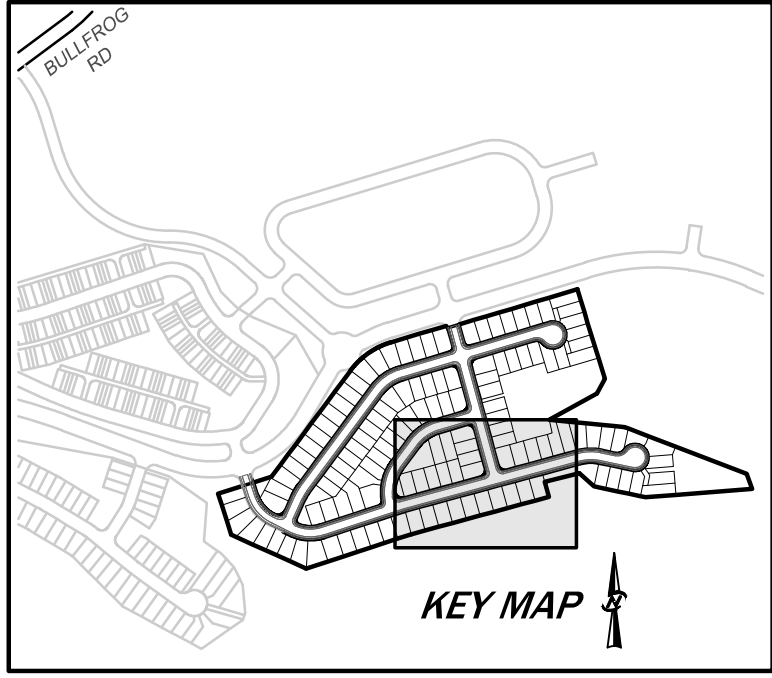
NO.		REVISIONS		DATE	
7		REVISED PER CITY COMMENTS		11/15/24	
					
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING					
					
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425.885.7877					
SANTARY SEWER PLAN 3					
BULLFROG FLATS - PHASE S-2					
BULLFROG FLATS, LLC					
18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052					
PLOT DATE, SEE STAMP DATE		DESIGNED QUENTIN CHALMERS, PE			
DRAWN		MARY E. MOORE			
APPROVED		HOLLI HEAVRIN, PE			
		HOLLI HEAVRIN, PE			
PROJECT MANAGER					
SHEET		OF			
34		53			
C5.03					
PROJECT NUMBER					
24019					



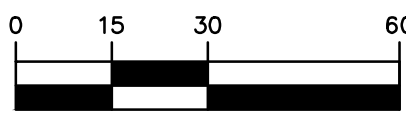
SEE SHEET C5.03

SEE SHEET C5.01

SEE SHEET C5.05



SCALE: 1" = 30'



SEWER LEGEND

- EX 18" PVC SS EXISTING SEWER PIPE
- EXISTING SEWER STRUCTURE
- SEWER MAIN
- PROPOSED SEWER STRUCTURE

SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



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DATE 11/19/24		REVISIONS NO. 7 REVISED PER CITY COMMENTS	
DESIGNED QUENTIN CHALMERS, PE		DRAWN MARY E. MOORE	
APPROVED HOLLI HEAVRIN, PE		PROJECT MANAGER HOLLI HEAVRIN, PE	
SHEET 35		OF 53	
PROJECT NUMBER 24019			

**CORE DESIGN**

CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING

12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

**SANITARY SEWER PLAN 4**

**BULLFROG FLATS - PHASE S-2**

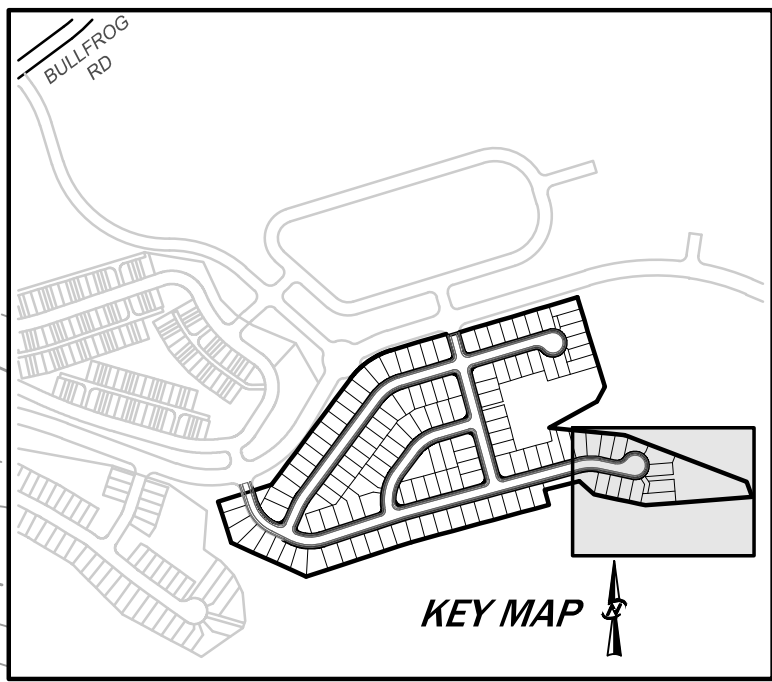
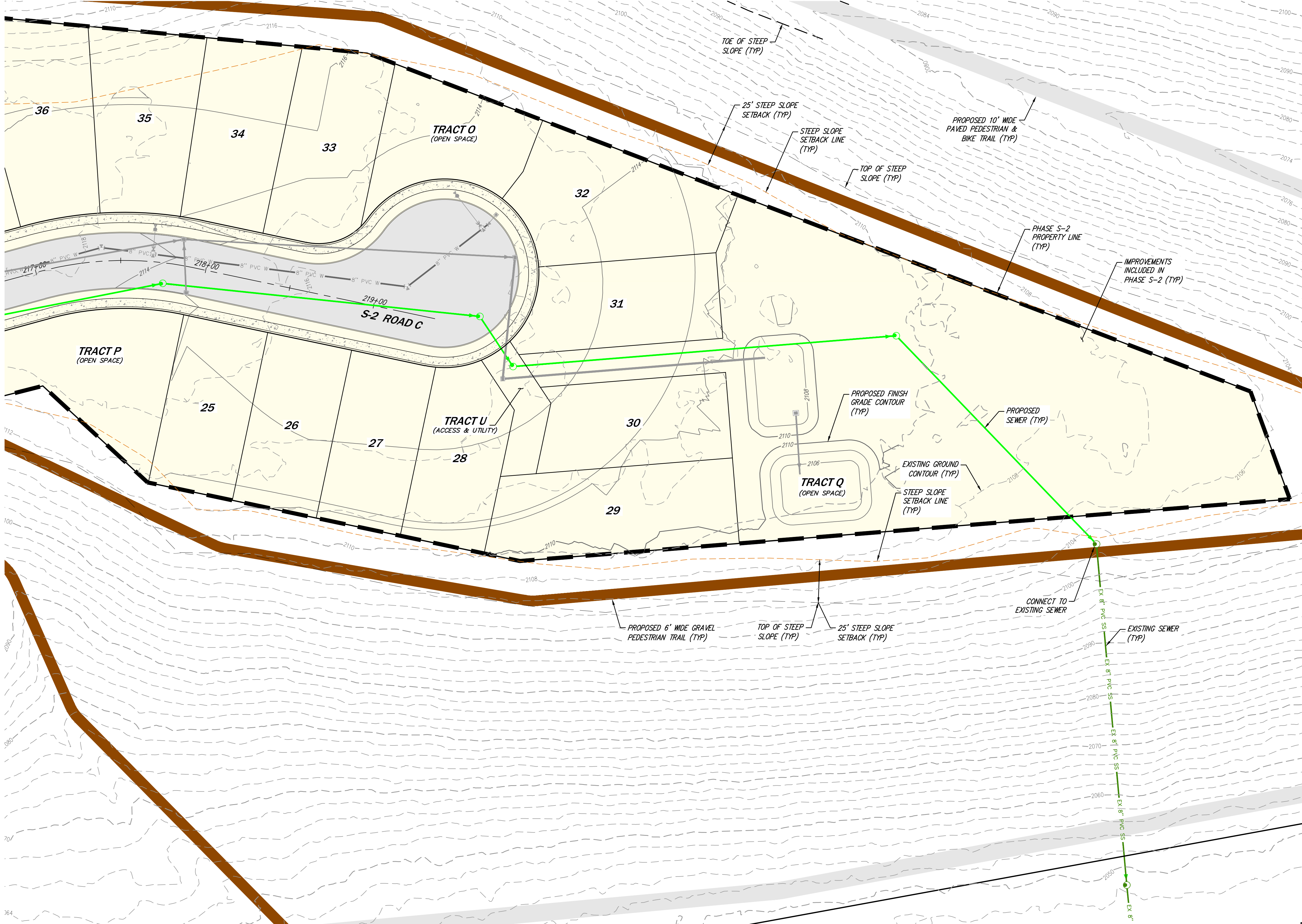
**BULLFROG FLATS, LLC**

18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

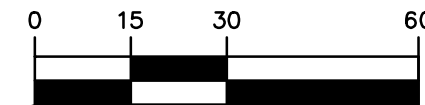
11/19/2024 7:09 AM A: [2024]24019 [ENGINEERING] PRELIMINARY SHEETS PHASE 3 (S2) 24019 C5.01.DWG

SEE SHEET C5.04

SEE SHEET C5.03



SCALE: 1" = 30'



### SEWER LEGEND

- EX 18" PVC SS EXISTING SEWER PIPE
- EXISTING SEWER STRUCTURE
- SEWER MAIN
- PROPOSED SEWER STRUCTURE

### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



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NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING



12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

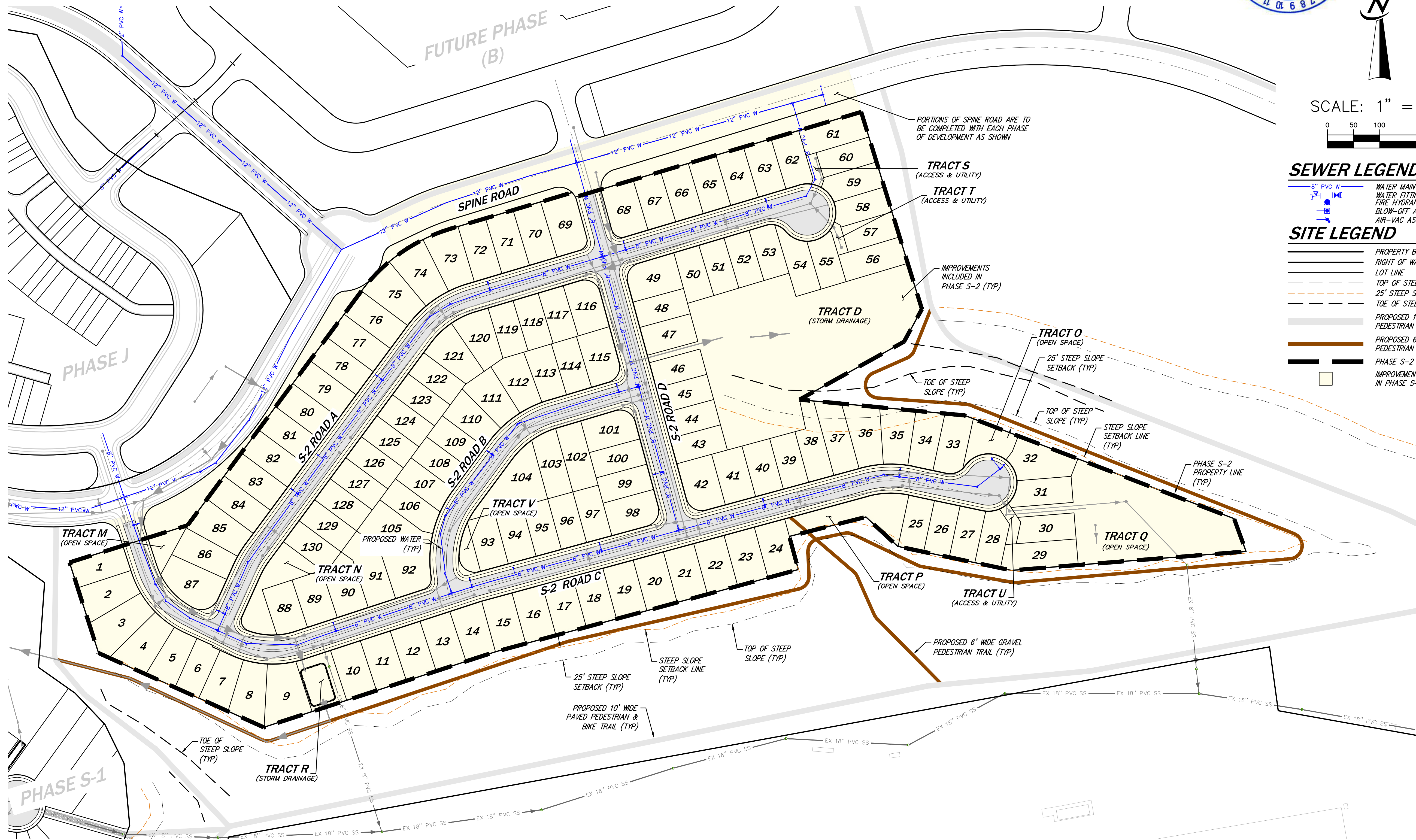
SANITARY SEWER PLAN 5  
BULLFROG FLATS - PHASE S-2  
BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE	SEE STAMP DATE
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
	HOLLI HEAVRIN, PE
	PROJECT MANAGER

SHEET	OF
36	53
C5.05	
PROJECT NUMBER	24019



11/15/2024 7:01 AM A:\2024\24019\ENGINEERING\PRELIMINARY\PHASE 3 (S2)\24019\_C6.00.DWG



SCALE: 1" = 100'

### SEWER LEGEND

- 8" PVC W
- 12" PVC W
- 18" PVC W
- 24" PVC W
- 30" PVC W
- 36" PVC W
- 42" PVC W
- 48" PVC W
- 54" PVC W
- 60" PVC W
- 66" PVC W
- 72" PVC W
- 78" PVC W
- 84" PVC W
- 90" PVC W
- 96" PVC W
- 102" PVC W
- 108" PVC W
- 114" PVC W
- 120" PVC W
- 126" PVC W
- 132" PVC W
- 138" PVC W
- 144" PVC W
- 150" PVC W
- 156" PVC W
- 162" PVC W
- 168" PVC W
- 174" PVC W
- 180" PVC W
- 186" PVC W
- 192" PVC W
- 198" PVC W
- 204" PVC W
- 210" PVC W
- 216" PVC W
- 222" PVC W
- 228" PVC W
- 234" PVC W
- 240" PVC W
- 246" PVC W
- 252" PVC W
- 258" PVC W
- 264" PVC W
- 270" PVC W
- 276" PVC W
- 282" PVC W
- 288" PVC W
- 294" PVC W
- 300" PVC W

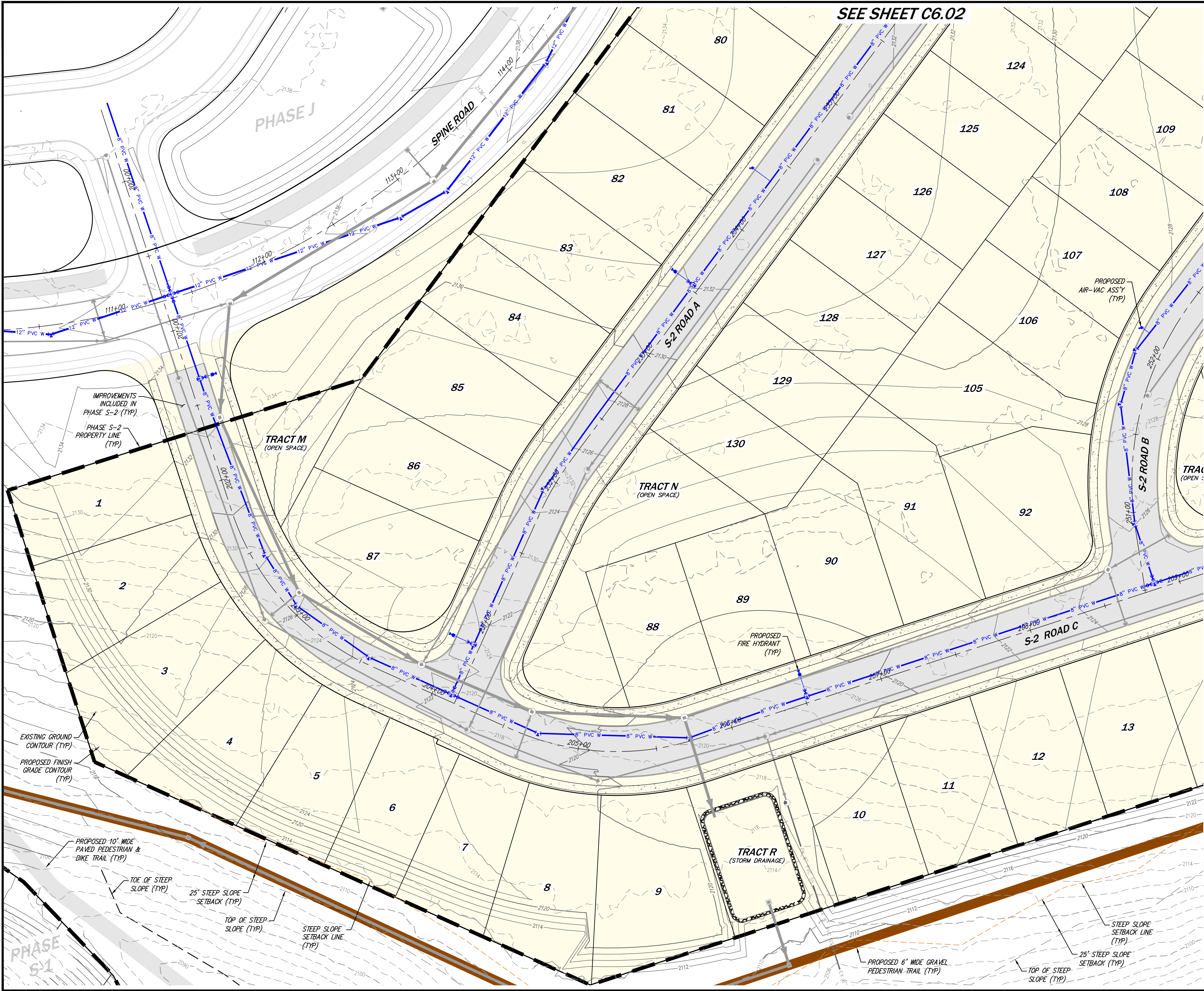
### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2

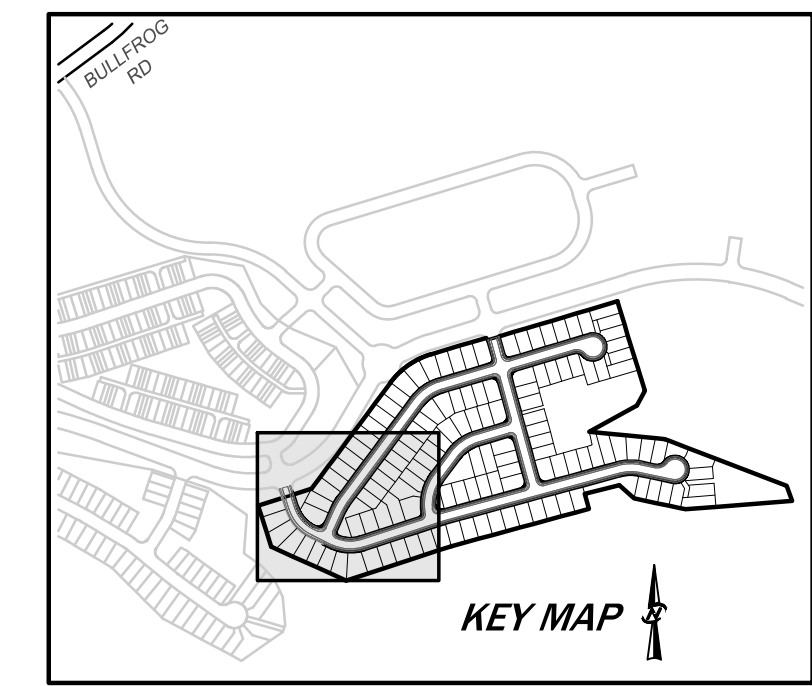
UNDERGROUND LOCATOR SERVICE  
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DATE	11/15/24	NO.	7	REVISIONS	REVISED PER CITY COMMENTS
DESIGNED	QUENTIN CHALMERS, PE				
DRAWN	MARY E. MOORE				
APPROVED	HOLLI HEAVRIN, PE				
PROJECT MANAGER	HOLLI HEAVRIN, PE				
SHEET	38	OF	53		
PROJECT NUMBER	24019				
COMPOSITE WATER PLAN BULLFROG FLATS - PHASE S-2 BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052					
CORE DESIGN CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING 12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877					
11/15/24					

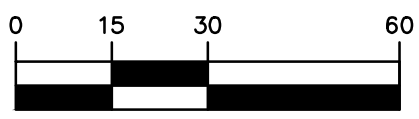
11/15/2024 7:05 AM A: (2024)24019 (ENGINEERING) PRELIMINARY SHEETS PHASE 3 (S2) 24019 C6.01.DWG



SEE SHEET C6.02



SCALE: 1" = 30'



WATER LEGEND


- 8" PVC W WATER MAIN
- WATER FITTING/VALVE
- FIRE HYDRANT
- BLOW-OFF ASS'Y
- AIR-VAC ASS'Y

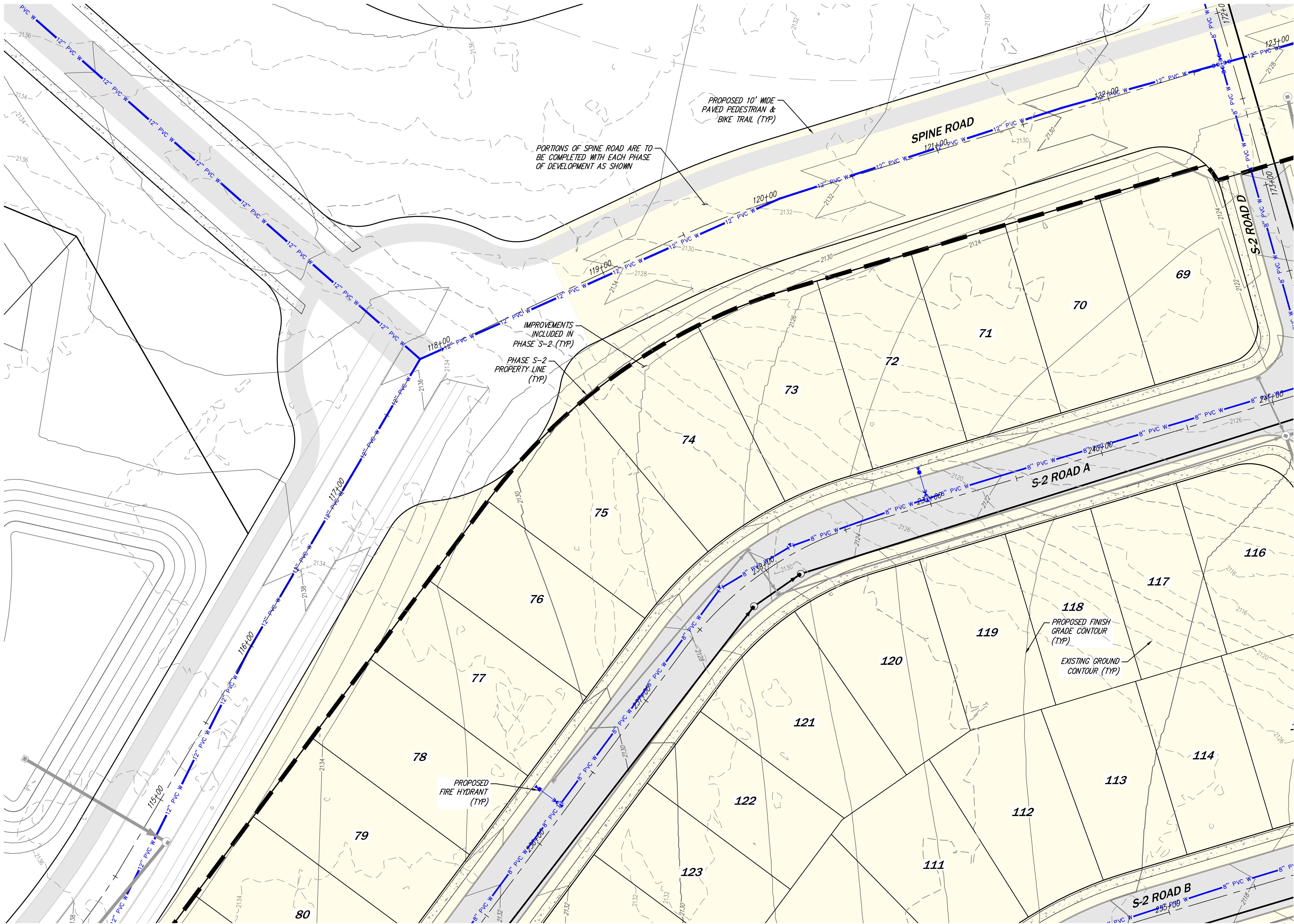
SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



UNDERGROUND LOCATOR SERVICE  
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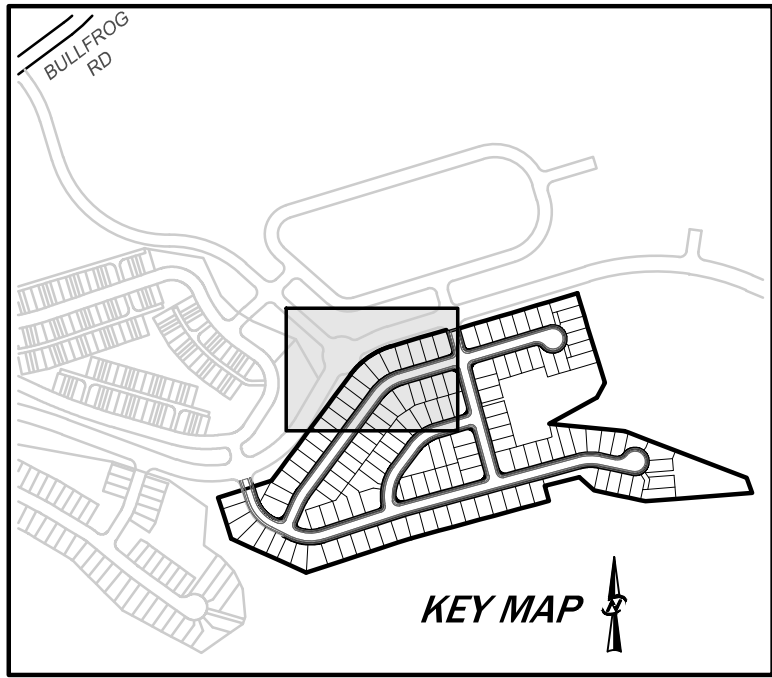
PLOT DATE SEE STAMP DATE		DESIGNED QUENTIN CHALMERS, PE		DRAWN MARY E. MOORE		APPROVED HOLLI HEAVRIN, PE		PROJECT MANAGER HOLLI HEAVRIN, PE	
SHEET 39		OF 53		PROJECT NUMBER 24019					
WATER PLAN 1						BULLFROG FLATS - PHASE S-2			
BULLFROG FLATS, LLC						18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052			
CORE DESIGN						CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING			
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877									
									
NO. 7		REVISIONS		DATE 11/19/24					
1		REVISED PER CITY COMMENTS							



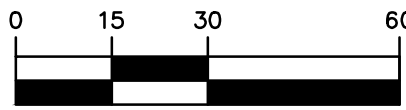
SEE SHEET C6.01

SEE SHEET C6.04

SEE SHEET C6.03



SCALE: 1" = 30'



WATER LEGEND

- 8" PVC W WATER MAIN
- WATER FITTING/VALVE
- FIRE HYDRANT
- BLOW-OFF ASS'Y
- AIR-VAC ASS'Y

SITE LEGEND

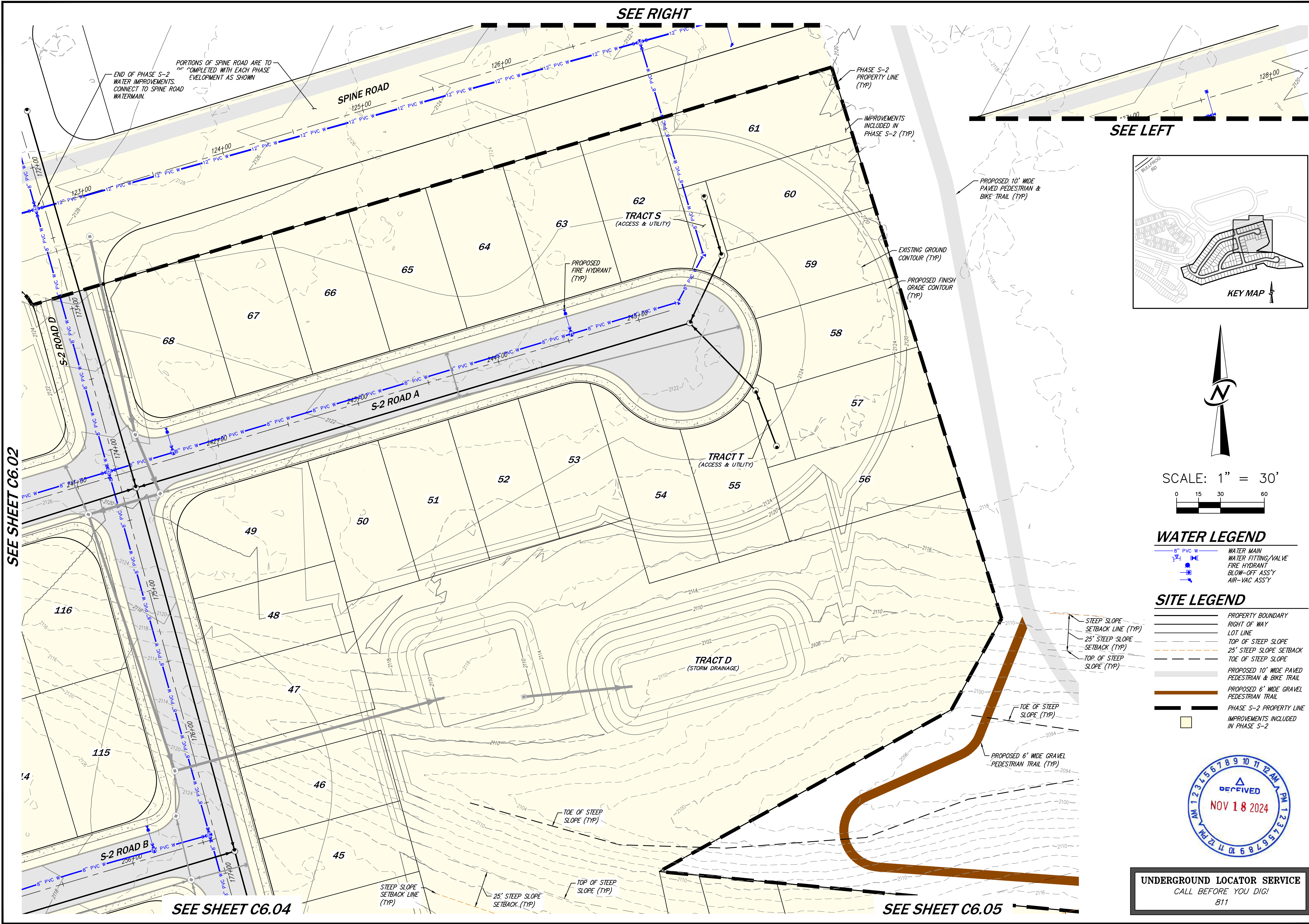
- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



UNDERGROUND LOCATOR SERVICE  
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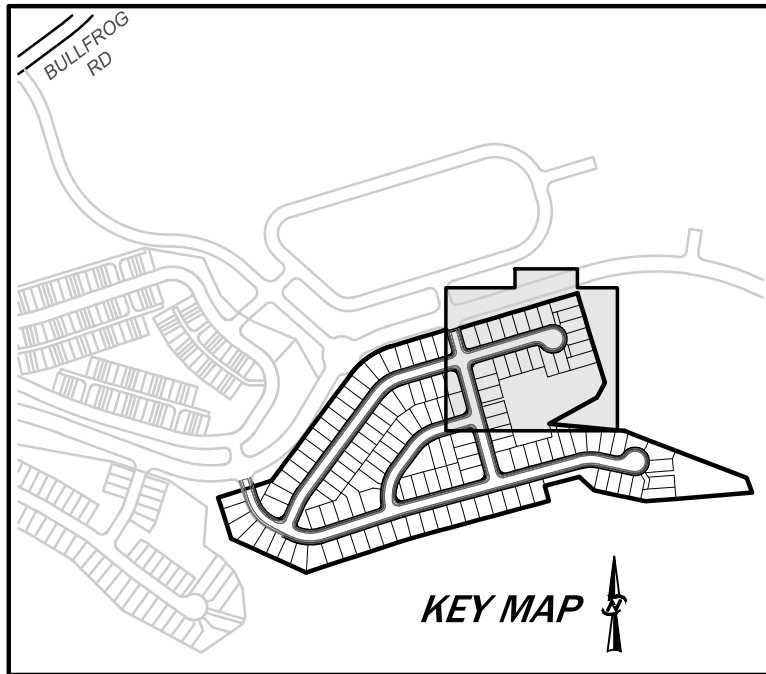
PLOT DATE: 11/15/2024 DESIGNED: QUENTIN CHALMERS, PE DRAWN: MARY E. MOORE APPROVED: HOLLI HEAVRIN, PE PROJECT MANAGER: HOLLI HEAVRIN, PE		SHEET 40 OF 53 C6.02		PROJECT NUMBER 24019	
WATER PLAN 2 BULLFROG FLATS - PHASE S-2 BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052		CORE DESIGN CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING 12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877		NO. 7 REVISIONS REVISED PER CITY COMMENTS DATE 11/19/24	

11/15/2024 7:09 AM A: (2024)24019 (ENGINEERING) PRELIMINARY SHEETS PHASE 3 (S2) 24019 06.01.DWG

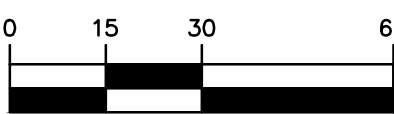


SEE LEFT

SEE RIGHT



SCALE: 1" = 30'



### WATER LEGEND

- 8" PVC W
- WATER MAIN FITTING/VALVE
- FIRE HYDRANT
- BLOW-OFF ASS'Y
- AIR-VAC ASS'Y

### SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2

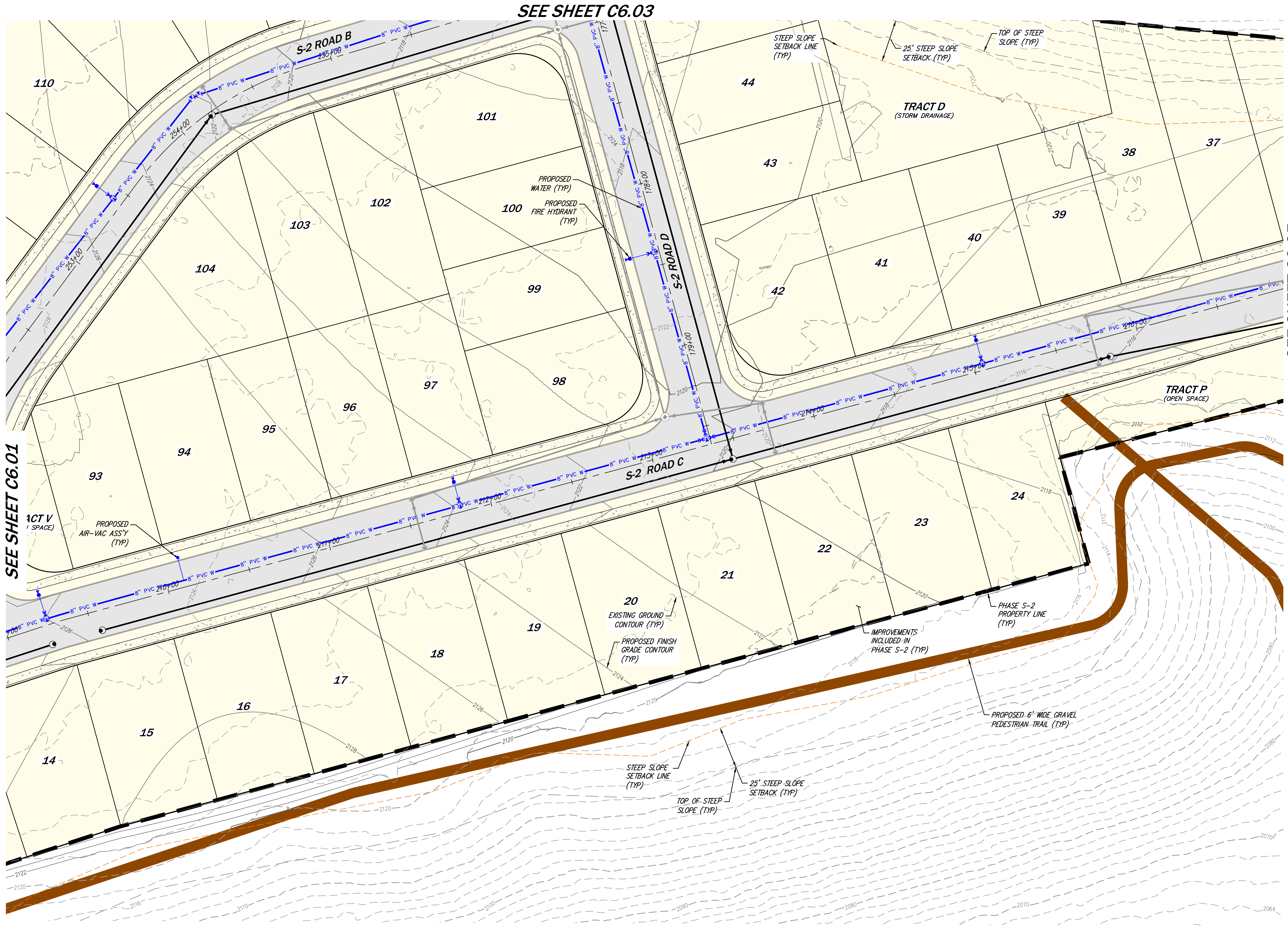


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NO. 7		REVISIONS PER CITY COMMENTS	DATE 11/19/24
DESIGNED		QUENTIN CHALLMERS, PE	
DRAWN		MARY E. MOORE	
APPROVED		HOLLI HEAVRIN, PE	
PROJECT MANAGER		HOLLI HEAVRIN, PE	
SHEET 41		OF 53	
PROJECT NUMBER		24019	

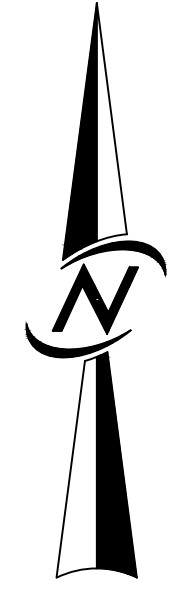
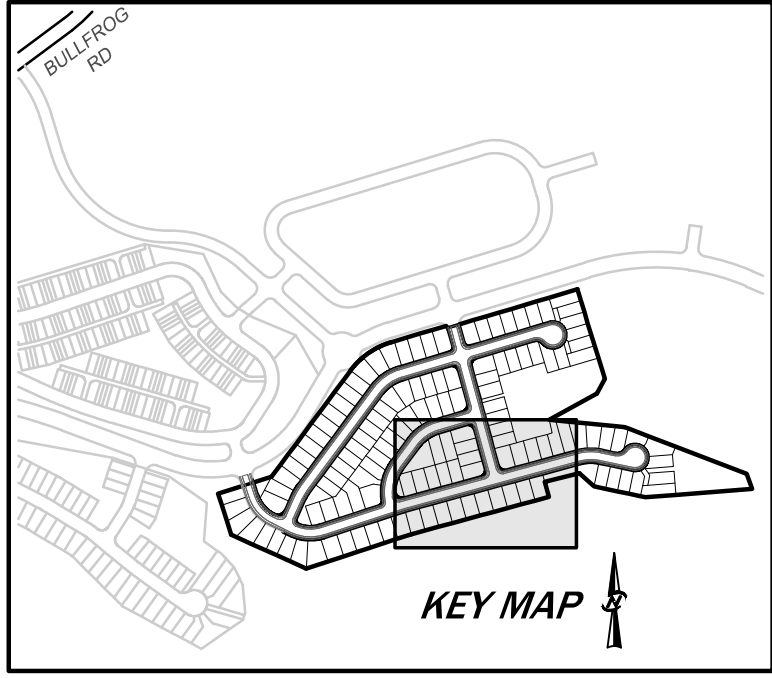
**WATER PLAN 3**  
**BULLFROG FLATS - PHASE S-2**  
**BULLFROG FLATS, LLC**  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

**CORE DESIGN**  
CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING  
12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877



SEE SHEET C6.03

SEE SHEET C6.01



SCALE: 1" = 30'

WATER LEGEND

- 8" PVC W WATER MAIN
- Water fitting/valve
- Fire hydrant
- Blow-off ass'y
- Air-vac ass'y

SITE LEGEND

- Property boundary
- Right of way
- Lot line
- Top of steep slope
- 25' steep slope setback
- Toe of steep slope
- Proposed 10' wide paved pedestrian & bike trail
- Proposed 6' wide gravel pedestrian trail
- Phase S-2 property line
- Improvements included in phase S-2



UNDERGROUND LOCATOR SERVICE  
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NO.	REVISIONS	DATE
7	REVISED PER CITY COMMENTS	11/19/24



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING



WATER PLAN 4  
BULLFROG FLATS - PHASE S-2  
BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

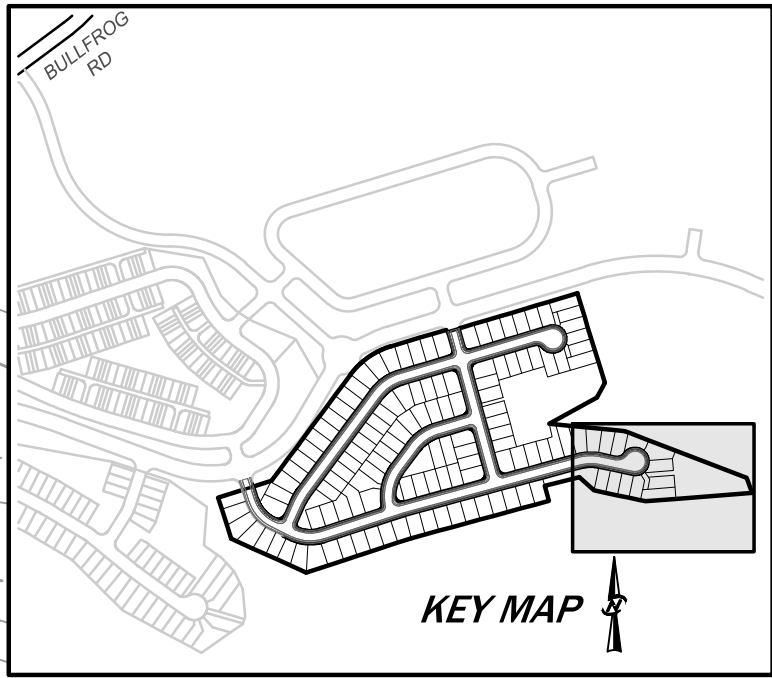
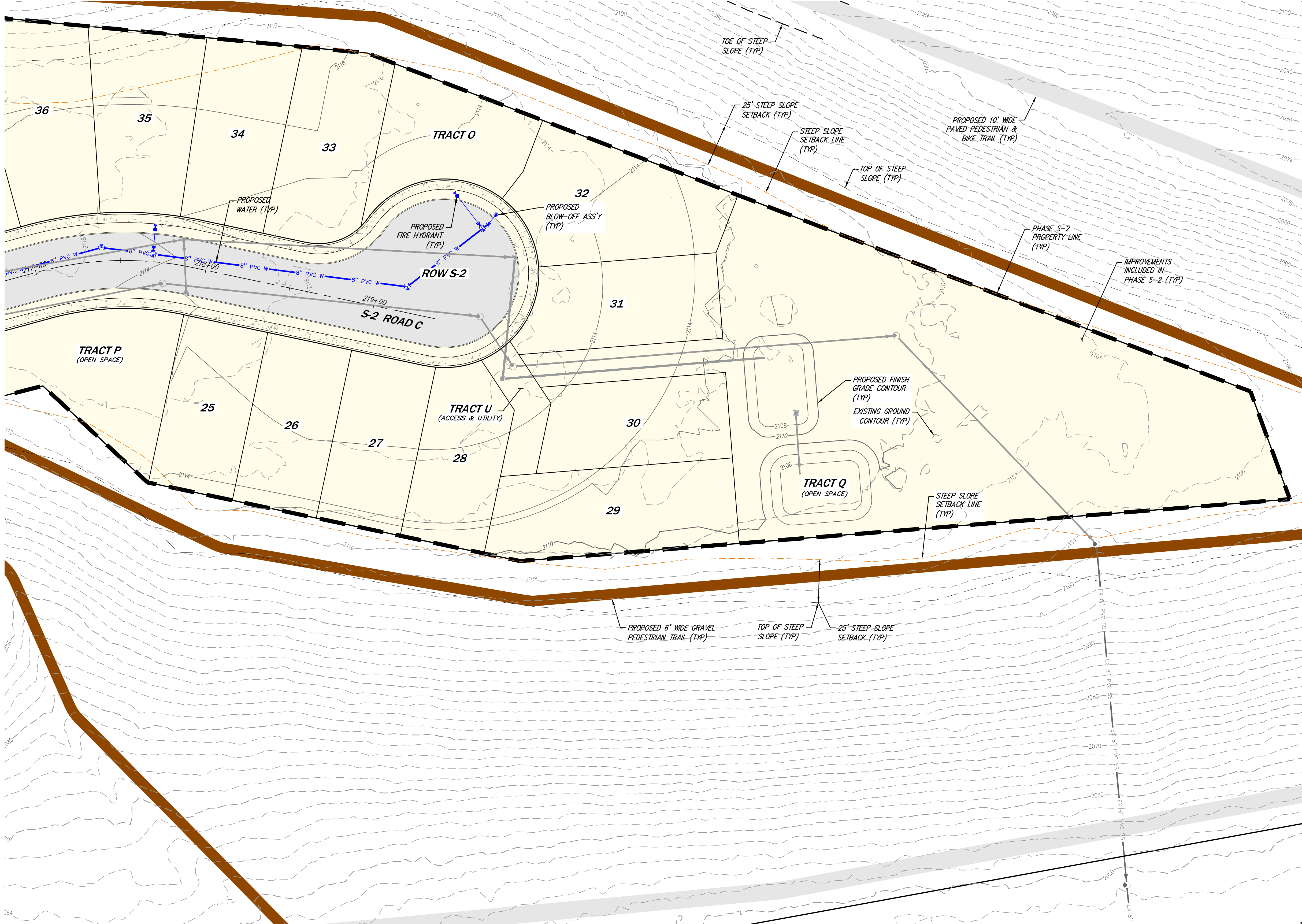
DESIGNED	QUENTIN CHALMERS, PE
DRAWN	MARY E. MOORE
APPROVED	HOLLI HEAVRIN, PE
PROJECT MANAGER	HOLLI HEAVRIN, PE

SHEET	OF
42	53
PROJECT NUMBER 24019	

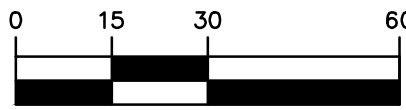
11/19/24

SEE SHEET C6.04

SEE SHEET C6.03



SCALE: 1" = 30'



WATER LEGEND

- 8" PVC W WATER MAIN
- WATER FITTING/VALVE
- FIRE HYDRANT
- BLOW-OFF ASS'Y
- AIR-VAC ASS'Y

SITE LEGEND

- PROPERTY BOUNDARY
- RIGHT OF WAY
- LOT LINE
- TOP OF STEEP SLOPE
- 25' STEEP SLOPE SETBACK
- TOE OF STEEP SLOPE
- PROPOSED 10' WIDE PAVED PEDESTRIAN & BIKE TRAIL
- PROPOSED 6' WIDE GRAVEL PEDESTRIAN TRAIL
- PHASE S-2 PROPERTY LINE
- IMPROVEMENTS INCLUDED IN PHASE S-2



UNDERGROUND LOCATOR SERVICE  
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NO. 7		REVISIONS	DATE
7		REVISED PER CITY COMMENTS	11/19/24
DESIGNED		QUENTIN CHALMERS, PE	
DRAWN		MARY E. MOORE	
APPROVED		HOLLI HEAVRIN, PE	
PROJECT MANAGER		HOLLI HEAVRIN, PE	
SHEET 43		OF 53	
PROJECT NUMBER		24019	

WATER PLAN 5

BULLFROG FLATS - PHASE S-2

BULLFROG FLATS, LLC

18300 REDMOND WAY, SUITE 120

REDMOND, WA 98052

CIVIL ENGINEERING

LANDSCAPE ARCHITECTURE

PLANNING

SURVEYING

DESIGN

CORE

12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

DATE

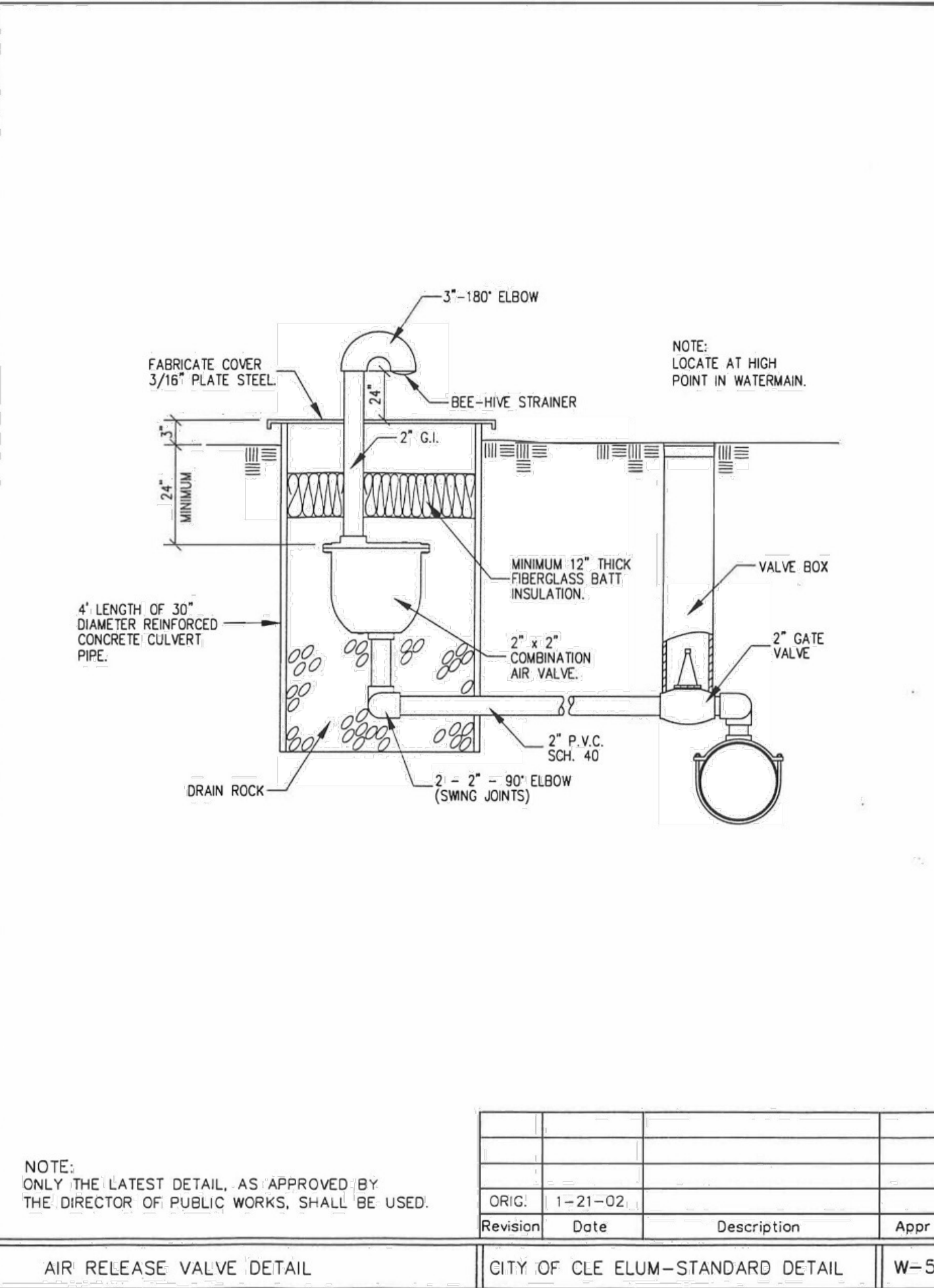
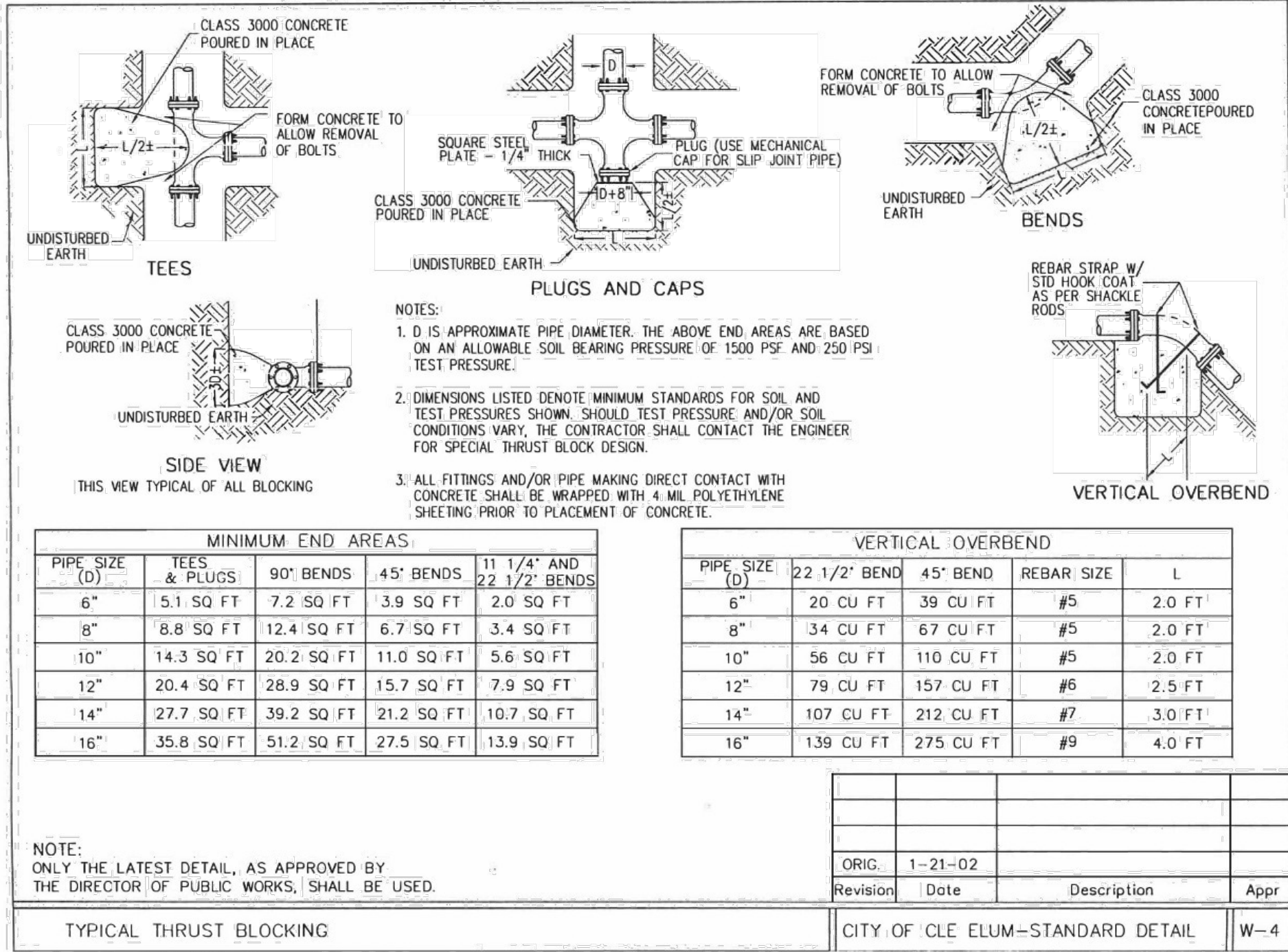
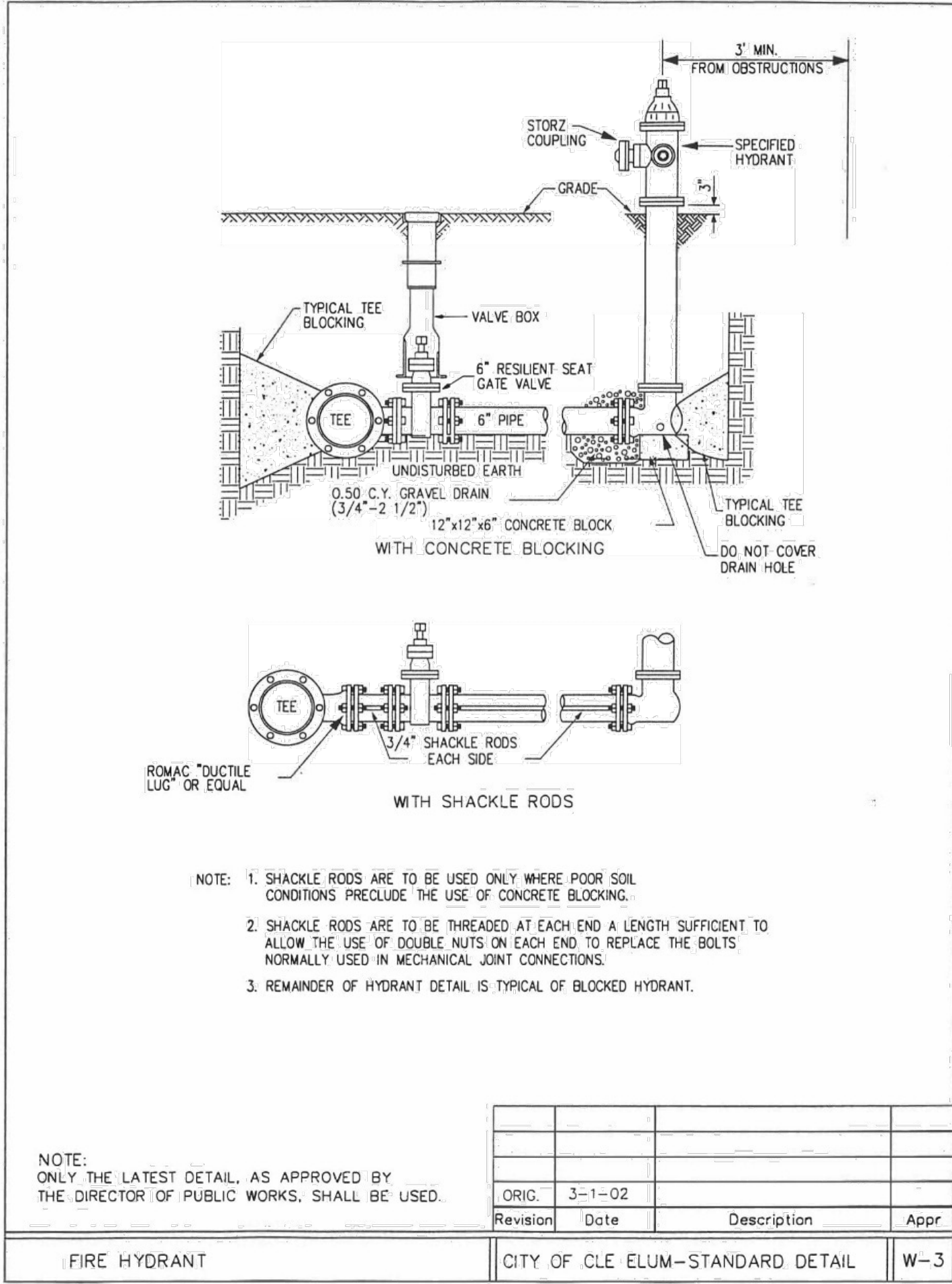
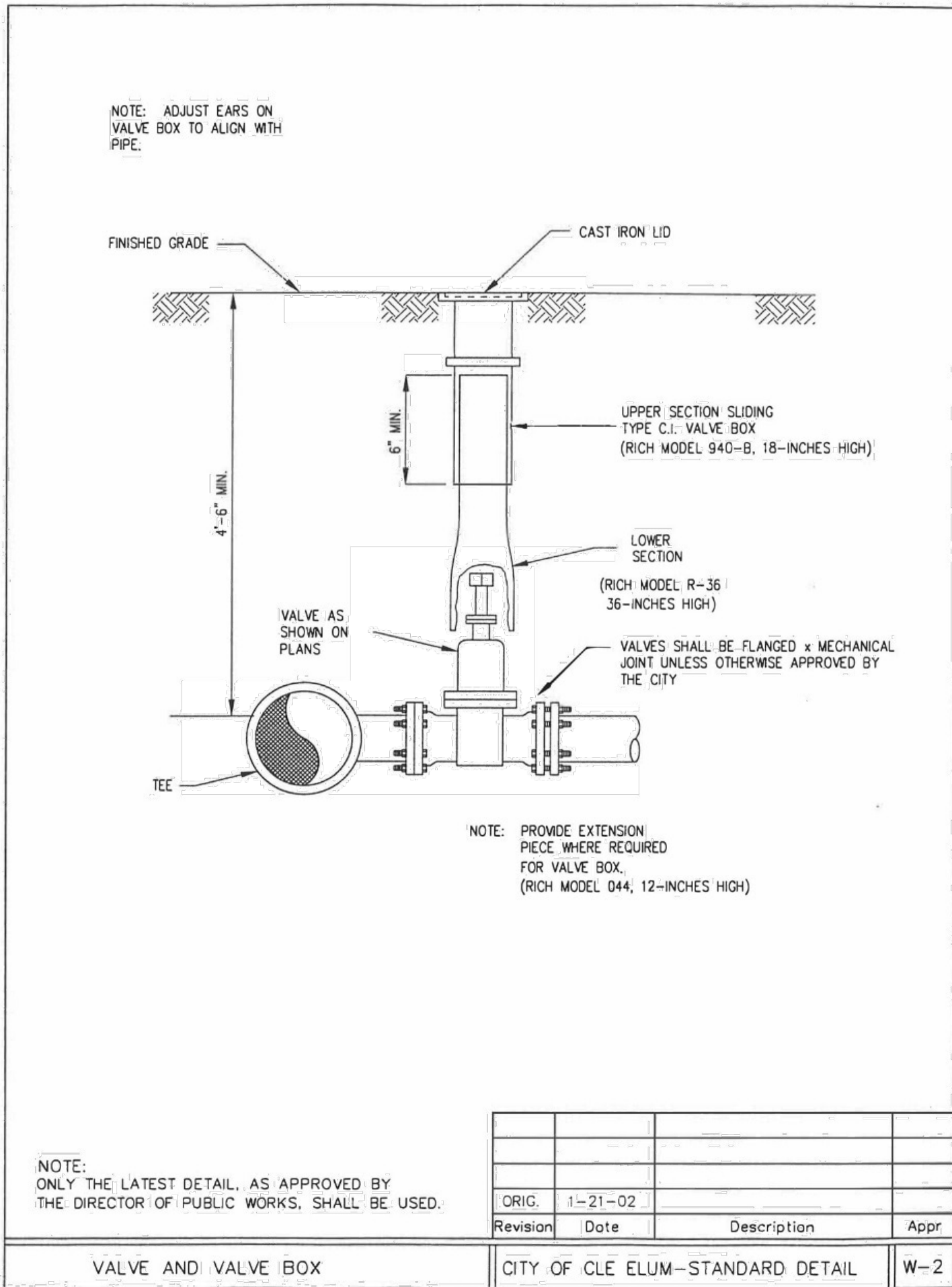
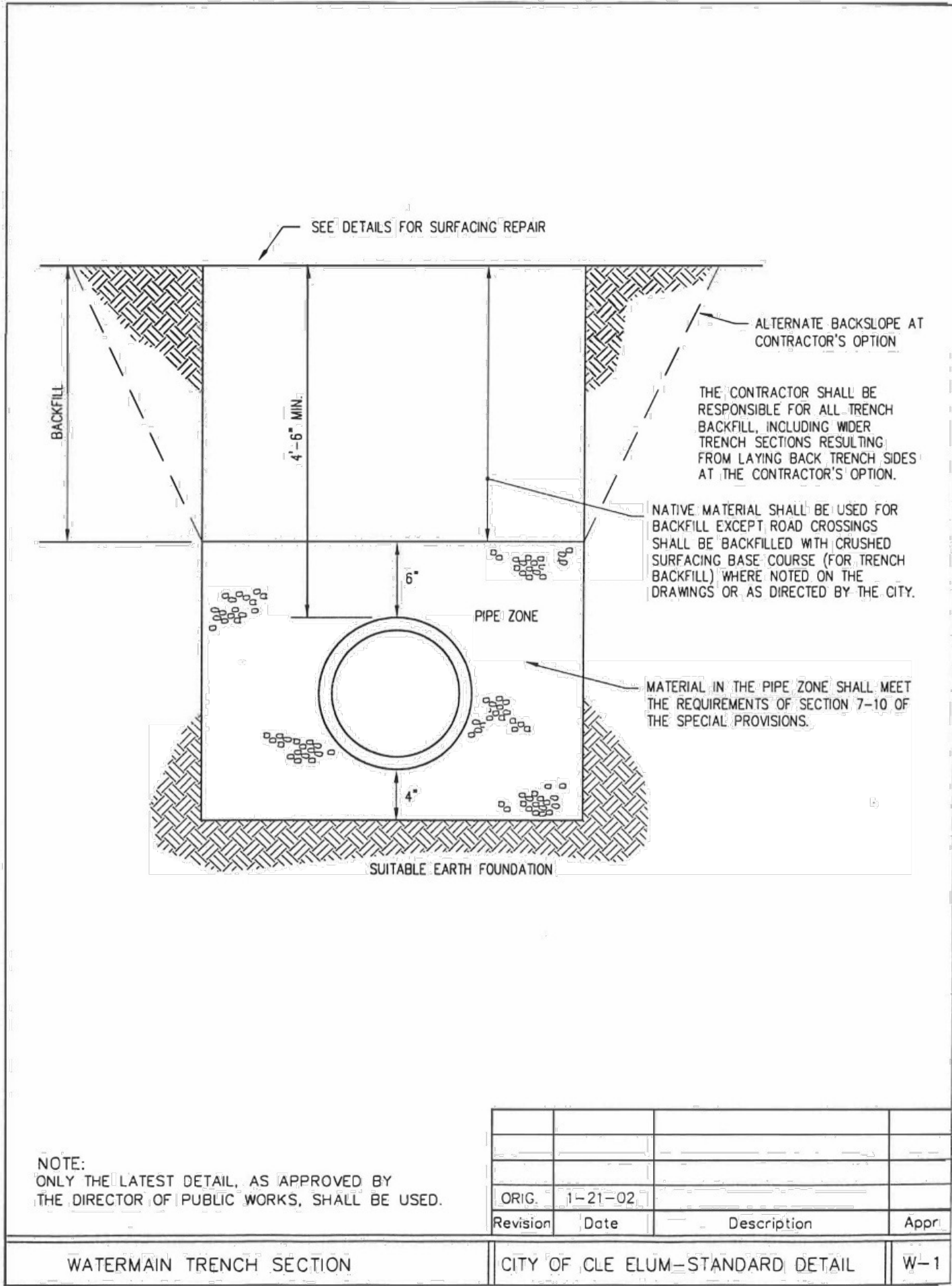
11/19/24

NO. 7

REVISIONS

REVISED PER CITY COMMENTS

11/19/24



11/15/2024 7:13 AM A: 2024 (2019) (ENGINEERING) (PRELIMINARY) (SHEETS) PHASE 3 (S2) (2019) (06.31) (ING)

11/15/24

NO.	REVISIONS	PER CITY COMMENTS
7	REVISED	

11/15/24

RECEIVED

NOV 18 2024

11/15/24

RECEIVED

NOV 18 2024

CIVIL ENGINEERING

LANDSCAPE ARCHITECTURE

PLANNING

SURVEYING

CORE DESIGN

12100 NE 195th St, Suite 300, Bothell, Washington 98011 425.885.7877

WATER DETAILS

BULLFROG FLATS - PHASE S-2

BULLFROG FLATS, LLC

18300 REDMOND WA Y, SUITE 120

REDMOND, WA 98052

PLOT DATE SEE STAMP DATE

DESIGNED QUENTIN CHALMERS, PE

DRAWN MARY E. MOORE

APPROVED HOLLI HEAVRIN, PE

HOLLI HEAVRIN, PE

PROJECT MANAGER

SHEET	OF
44	53

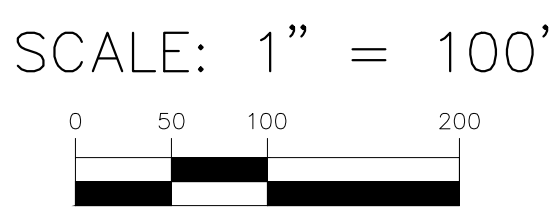
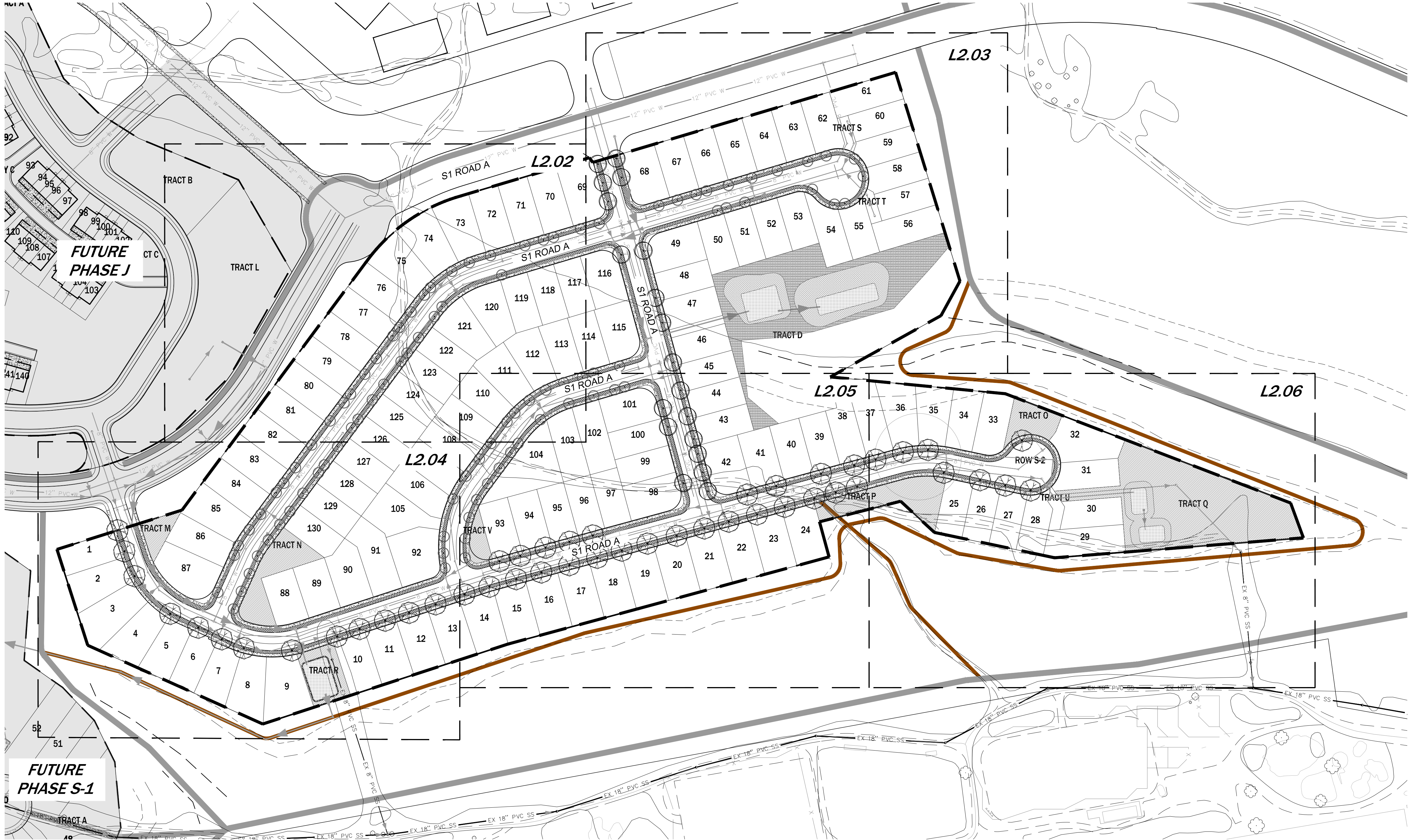
UNDERGROUND LOCATOR SERVICE

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PROJECT NUMBER 24019

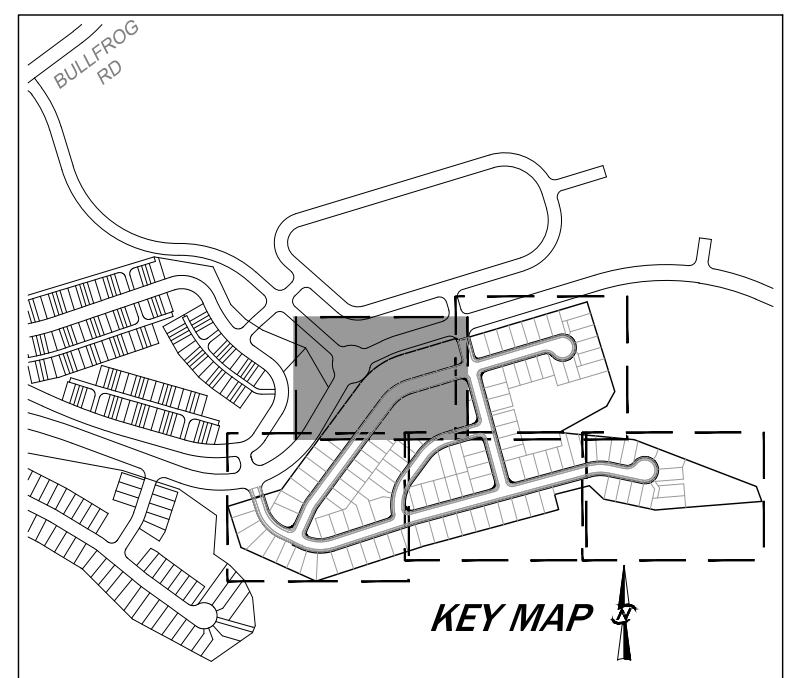
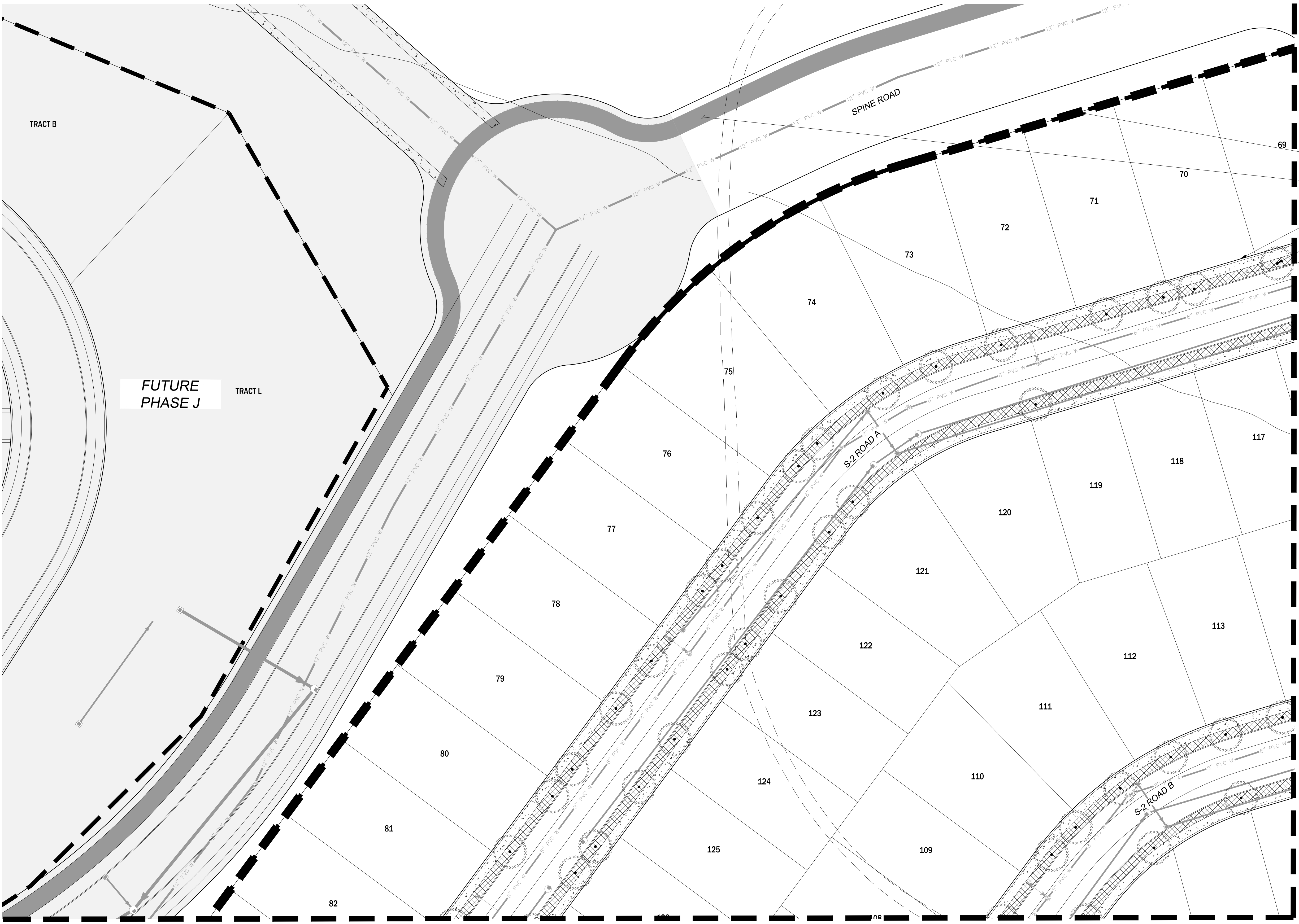




PHASE S2 COMPOSITE PRELIMINARY LANDSCAPE PLAN  
SCALE 1" = 100'

UNDERGROUND LOCATOR SERVICE  
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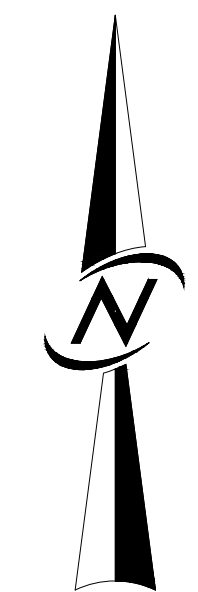
DATE: 11/15/24	
REVISIONS:	
NO.	REVISIONS PER CITY COMMENTS
1	
STATE OF WASHINGTON REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT NO. 19100-04 / 11/15/24	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING	
CORE DESIGN 12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877	
COMPOSITE LANDSCAPE PLAN BULLFROG FLATS - PHASE S-2 BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE: SEE STAMP DATE	DESIGNED: DANNY VILLAGRANA
DRAWN: MARK S. LEES	APPROVED: LINDSEY B. SOLORIO, P.L.A.
	HOLLI HEAVIN, PE
	PROJECT MANAGER
SHEET 46	OF 53
PROJECT NUMBER 24019	



- PROPERTY LINE (TYP.)
- PAVED PATHWAY (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE
- R.O.W. (TYP.)
- STREET TREE (TYP.)
- GROUNDCOVER (TYP.)

**SITE LEGEND**

- GENERAL LANDSCAPING
- ZONE 1 DETENTION LANDSCAPING
- ZONE 2 DETENTION LANDSCAPING
- GROUNDCOVER (SEE SHEET L2.07)



SCALE: 1" = 30'

0 15 30 60

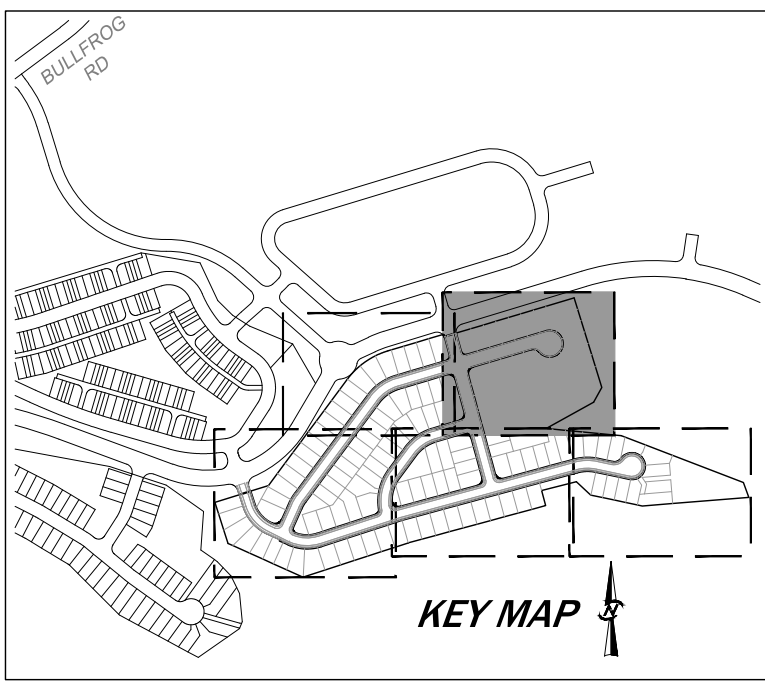
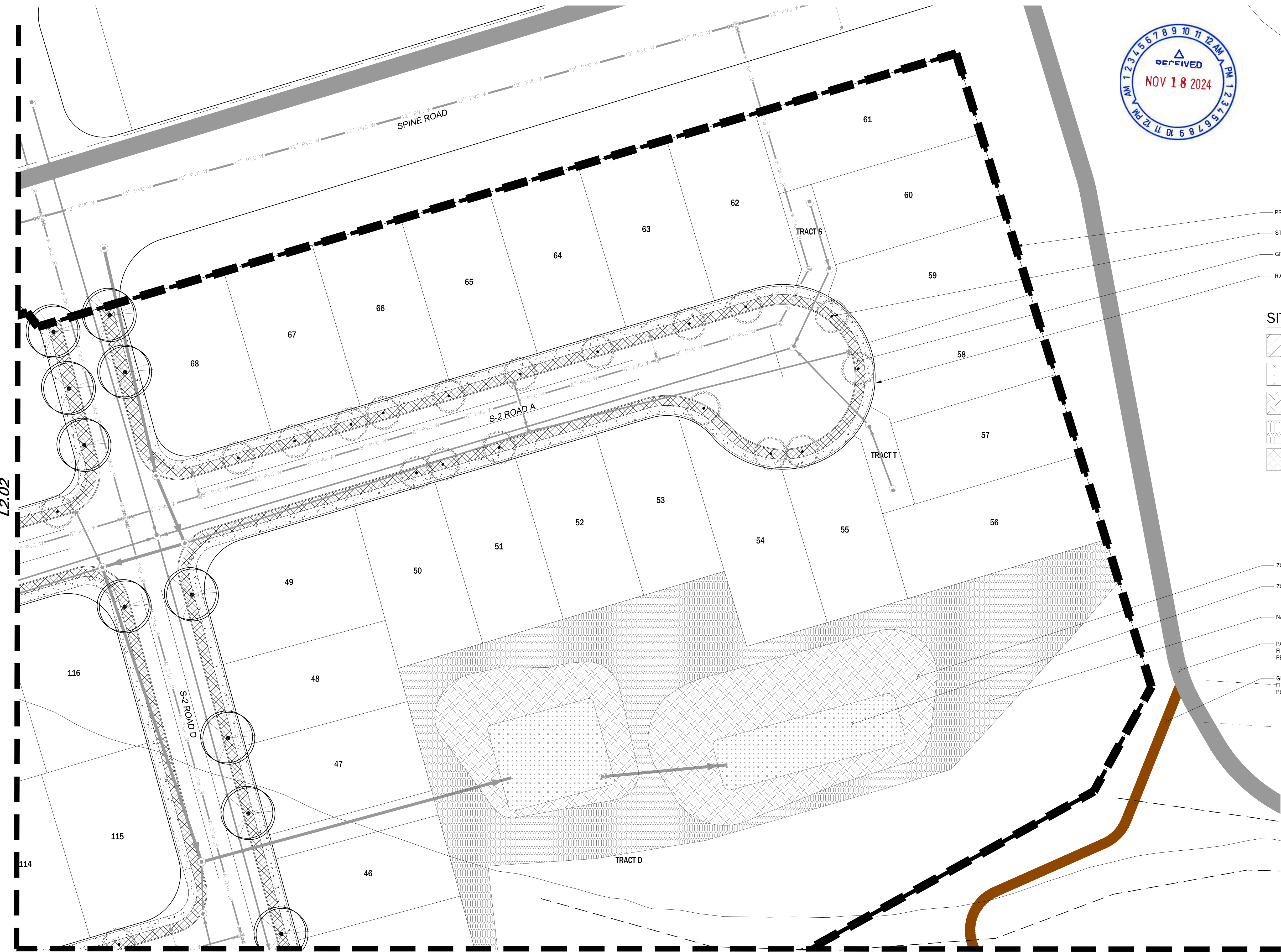
PRELIMINARY LANDSCAPE PLAN

SCALE 1" = 30'

L2.04

UNDERGROUND LOCATOR SERVICE  
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NO. 1		REVISIONS		DATE 11/15/24	
7		REVISED PER CITY COMMENTS			
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING					
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877					
<b>PRELIMINARY LANDSCAPE PLAN</b>					
<b>BULLFROG FLATS - PHASE S-2</b>					
<b>BULLFROG FLATS, LLC</b>					
18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052					
PLOT DATE: SEE STAMP DATE		DESIGNED: DANNY VILLAGRANA		DRAWN: MARK S. LEES	
APPROVED: LINDSEY B. SOLORIO, P.L.A.		HOLLI HEAVRIN, PE		PROJECT MANAGER	
SHEET 47		OF 53		PROJECT NUMBER 24019	
L2.02					



- PROPERTY LINE (TYP.)
- STREET TREE (TYP.)
- GROUND COVER (TYP.)
- R.O.W. (TYP.)

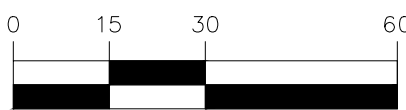
SITE LEGEND

- GENERAL LANDSCAPING
- ZONE 1 DETENTION LANDSCAPING
- ZONE 2 DETENTION LANDSCAPING
- NATIVE SLOPE STABILIZATION
- GROUND COVER (SEE SHEET L2.07)

- ZONE 2 DETENTION LANDSCAPING (TYP.)
- ZONE 1 DETENTION LANDSCAPING (TYP.)
- NATIVE SLOPE STABILIZATION (TYP.)
- PAVED PATHWAY (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE
- GRAVEL TRAIL (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE



SCALE: 1" = 30'



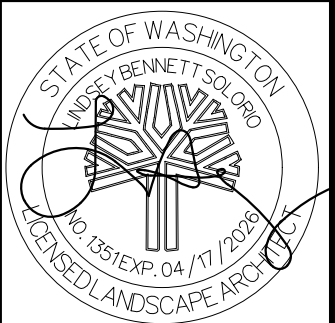
PRELIMINARY LANDSCAPE PLAN

SCALE 1" = 30'

UNDERGROUND LOCATOR SERVICE

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NO.	REVISIONS	DATE
1	REVISED PER CITY COMMENTS	11/15/24



CIVIL ENGINEERING  
LANDSCAPE ARCHITECTURE  
PLANNING  
SURVEYING

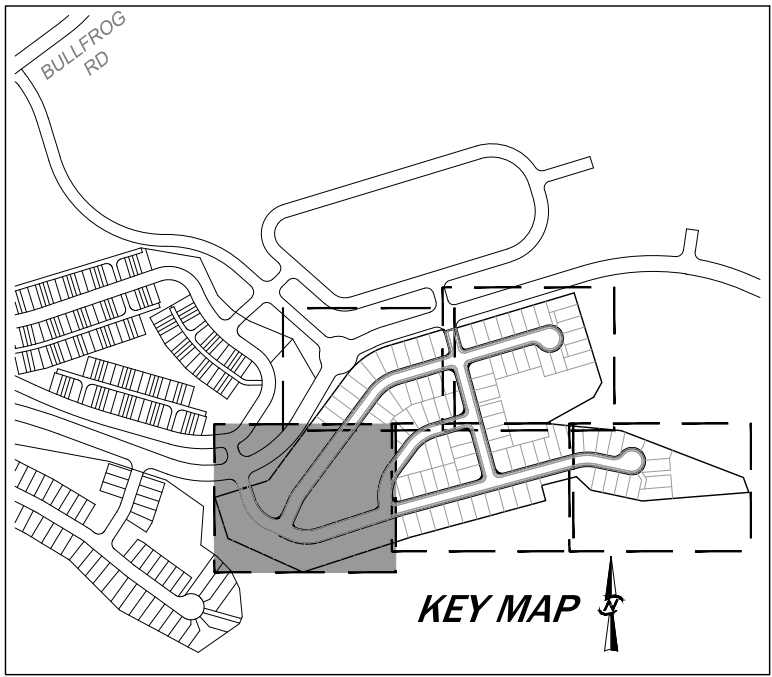
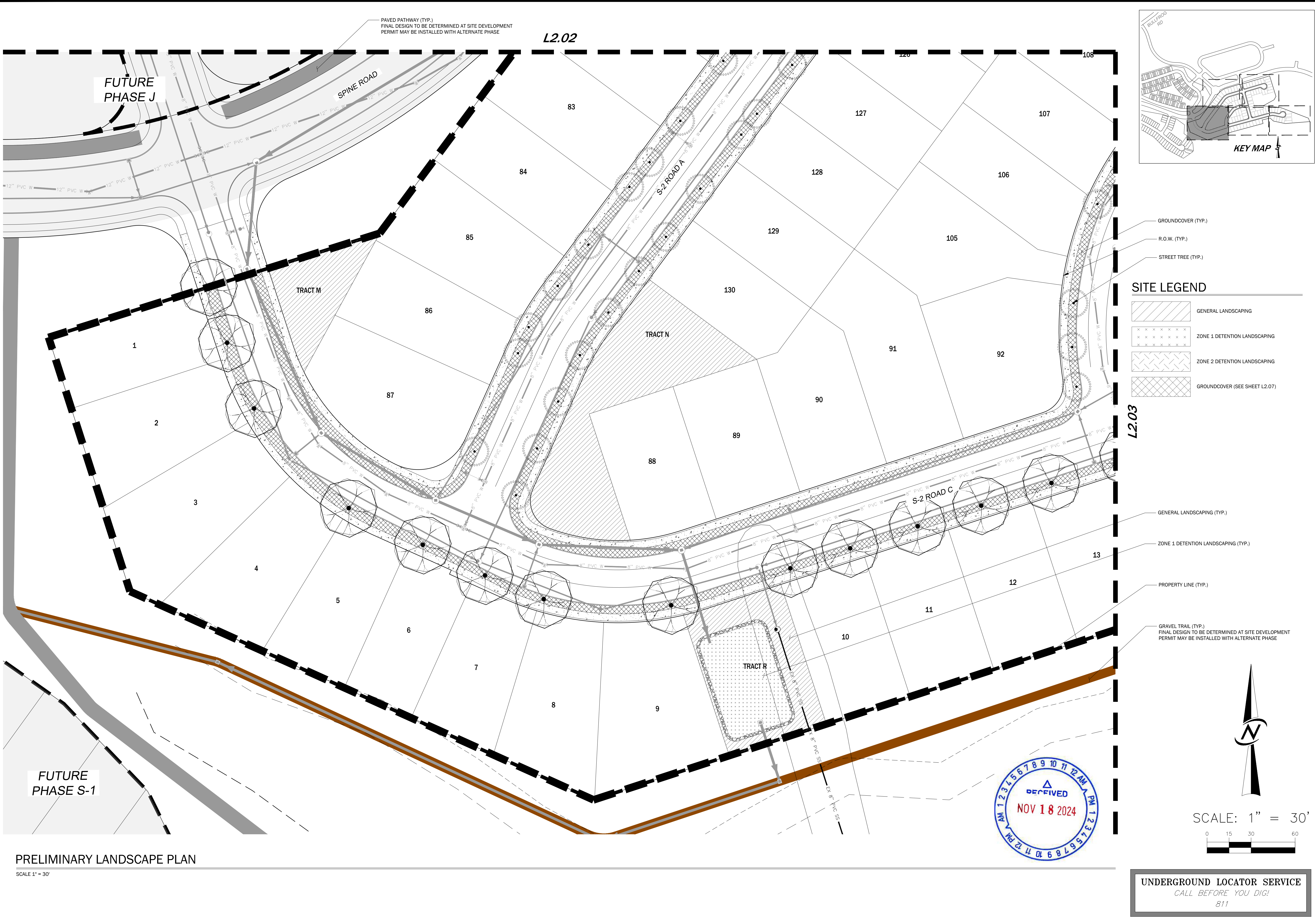
**CORE** DESIGN

12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877

PRELIMINARY LANDSCAPE PLAN  
BULLFROG FLATS - PHASE S-2  
BULLFROG FLATS, LLC  
18300 REDMOND WAY, SUITE 120  
REDMOND, WA 98052

PLOT DATE: SEE STAMP DATE	DESIGNED: DANNY VILLAGRANA	DRAWN: MARK S. LEES	APPROVED: LINSEY B. SOLORIO, P.L.A.
			HOLLI HEAVIN, PE
			PROJECT MANAGER

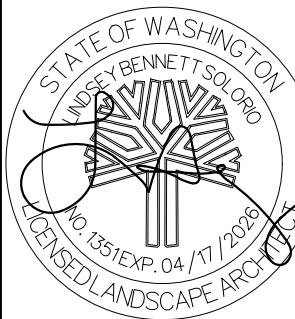

SHEET	OF
48	53
PROJECT NUMBER 24019	

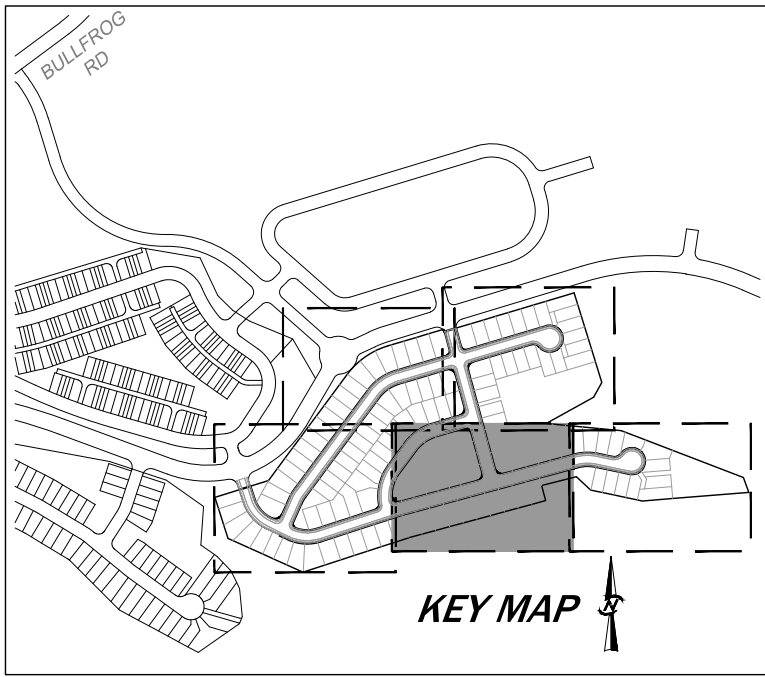
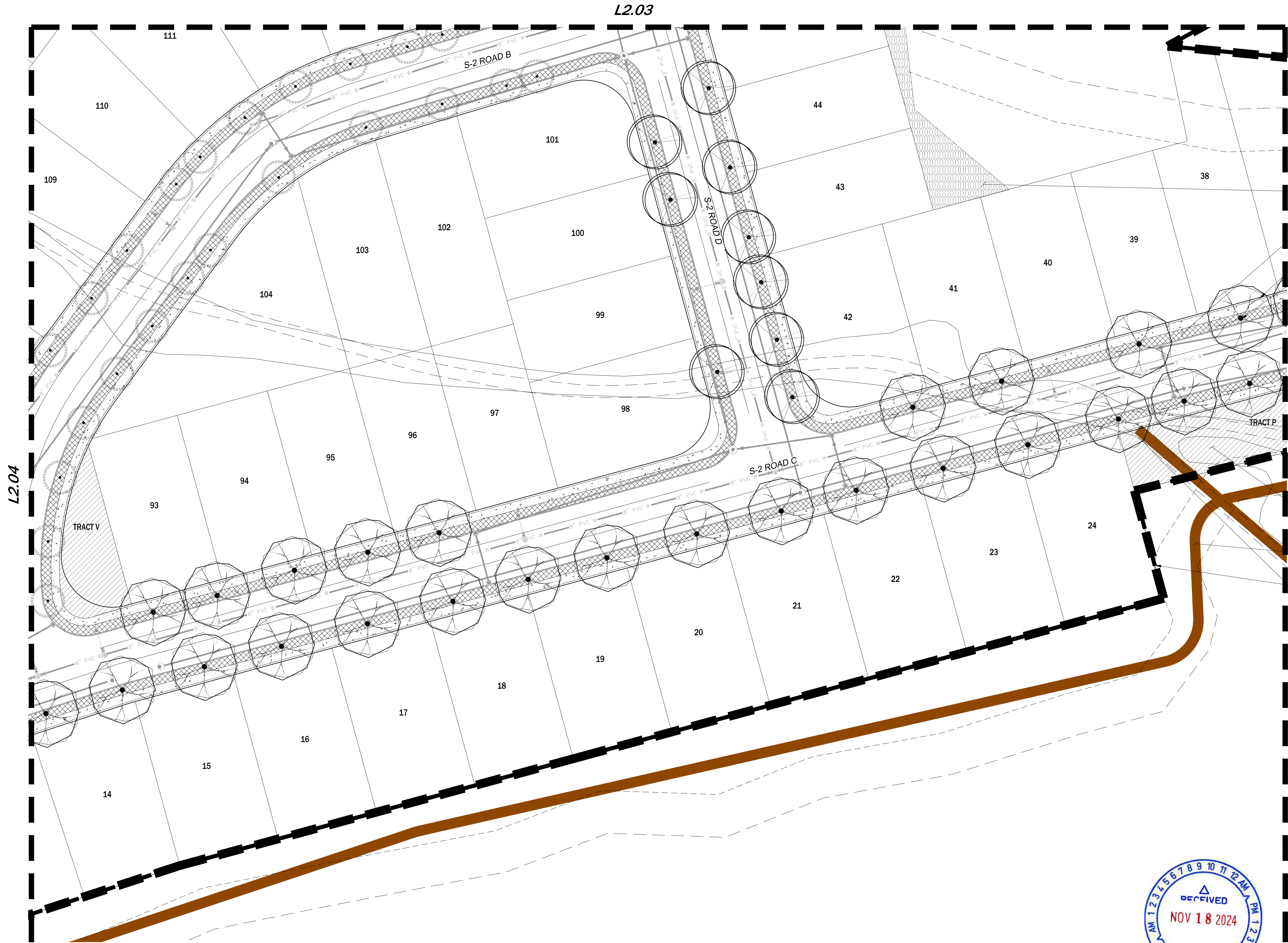


- GROUNDCOVER (TYP.)
- R.O.W. (TYP.)
- STREET TREE (TYP.)

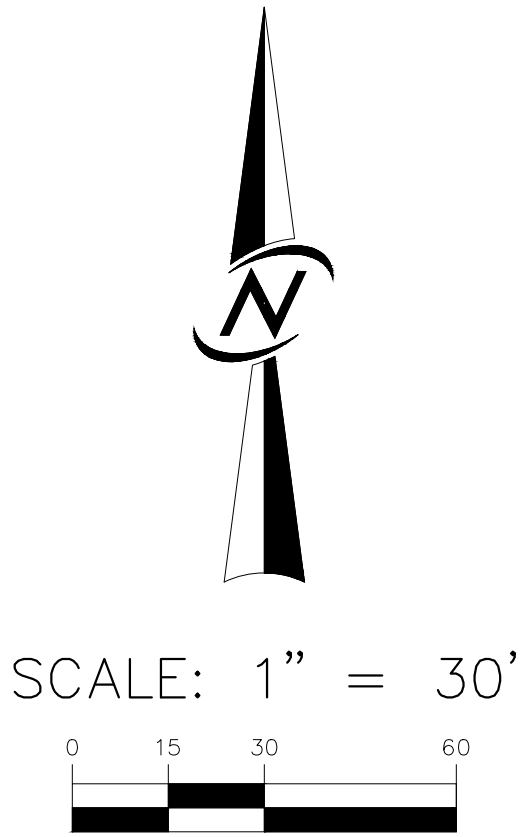
- SITE LEGEND**
- GENERAL LANDSCAPING
  - ZONE 1 DETENTION LANDSCAPING
  - ZONE 2 DETENTION LANDSCAPING
  - GROUNDCOVER (SEE SHEET L2.07)

- GENERAL LANDSCAPING (TYP.)
- ZONE 1 DETENTION LANDSCAPING (TYP.)
- PROPERTY LINE (TYP.)
- GRAVEL TRAIL (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT  
PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE

NO.		REVISIONS	DATE
1		REVISED PER CITY COMMENTS	11/15/24
			
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING			
			
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877			
<b>PRELIMINARY LANDSCAPE PLAN</b>		<b>BULLFROG FLATS - PHASE S-2</b>	
<b>BULLFROG FLATS, LLC</b>		18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE: SEE STAMP DATE	DESIGNED: DANNY VILLAGRANA	DRAWN: MARK S. LEES	APPROVED: LINDSEY B. SOLORIO, P.L.A.
			HOLLI HEAVRIN, PE
			PROJECT MANAGER
SHEET	OF		
49	L2.04		53
PROJECT NUMBER 24019			



- SITE LEGEND**
- NATIVE SLOPE STABILIZATION (TYP.)
  - GROUNDCOVER (TYP.)
  - R.O.W. (TYP.)
  - STREET TREE (TYP.)
  - GENERAL LANDSCAPING
  - ZONE 1 DETENTION LANDSCAPING
  - ZONE 2 DETENTION LANDSCAPING
  - NATIVE SLOPE STABILIZATION
  - GROUNDCOVER (SEE SHEET L2.07)
  - GENERAL LANDSCAPE (TYP.)
  - GRAVEL TRAIL (TYP.)  
FINAL DESIGN TO BE DETERMINED AT SITE DEVELOPMENT  
PERMIT MAY BE INSTALLED WITH ALTERNATE PHASE
  - PROPERTY LINE (TYP.)

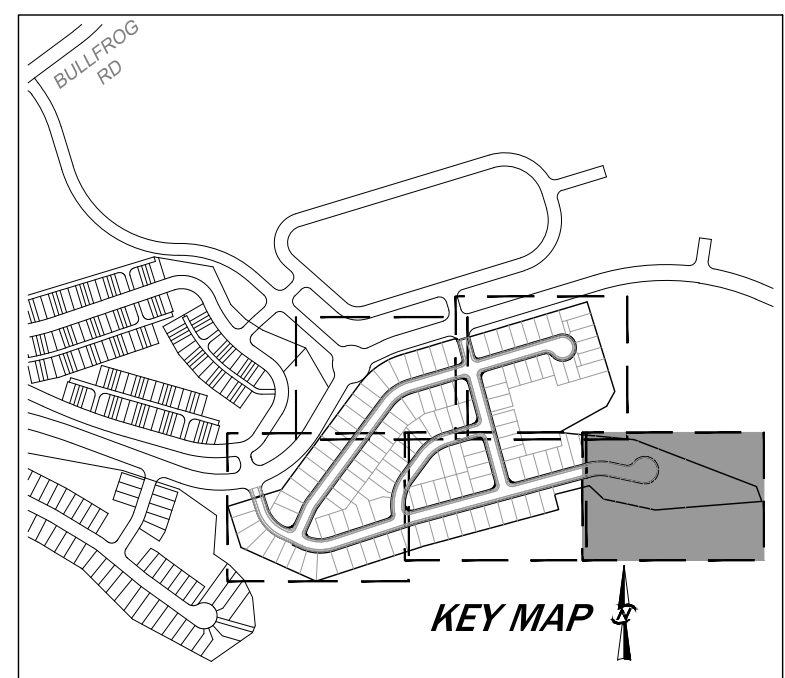
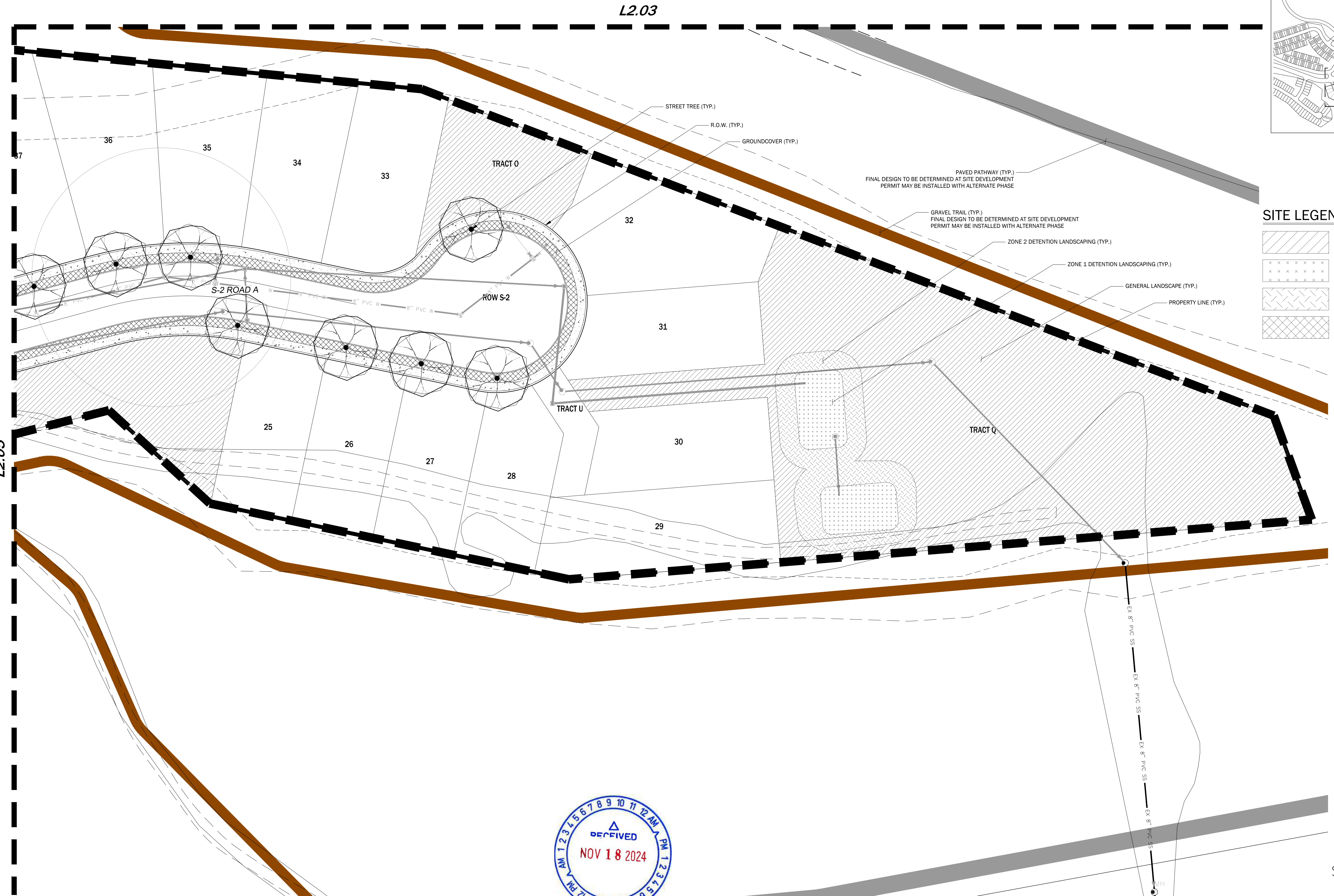


PRELIMINARY LANDSCAPE PLAN

SCALE 1" = 30'

UNDERGROUND LOCATOR SERVICE  
CALL BEFORE YOU DIG!  
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NO. 1		DATE 11/15/24	
REVISIONS		REVISED PER CITY COMMENTS	
CIVIL ENGINEERING LANDSCAPE ARCHITECTURE PLANNING SURVEYING			
12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877			
PRELIMINARY LANDSCAPE PLAN BULLFROG FLATS - PHASE S-2		BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE: SEE STAMP DATE	DESIGNED: DANNY VILLAGRANA	APPROVED: LINDSEY B. SOLORIO, P.L.A.	
DRAWN: MARK S. LEES	HOLLI HEAVRIN, PE		
PROJECT MANAGER		PROJECT MANAGER	
SHEET 50		OF 53	
PROJECT NUMBER 24019			



**SITE LEGEND**

[Pattern]	GENERAL LANDSCAPING
[Pattern]	ZONE 1 DETENTION LANDSCAPING
[Pattern]	ZONE 2 DETENTION LANDSCAPING
[Pattern]	GROUNDCOVER (SEE SHEET L2.07)

Labels: STREET TREE (TYP.), R.O.W. (TYP.), GROUNDCOVER (TYP.), PAVED PATHWAY (TYP.), GRAVEL TRAIL (TYP.), ZONE 1 DETENTION LANDSCAPING (TYP.), ZONE 2 DETENTION LANDSCAPING (TYP.), GENERAL LANDSCAPE (TYP.), PROPERTY LINE (TYP.)

North arrow pointing up.

SCALE: 1" = 30'

Graphic scale bar: 0, 15, 30, 60 feet.

PRELIMINARY LANDSCAPE PLAN


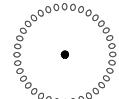
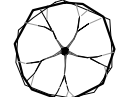

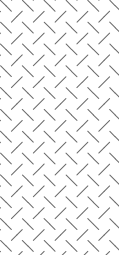



SCALE 1" = 30'



UNDERGROUND LOCATOR SERVICE  
CALL BEFORE YOU DIG!  
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NO. 1		DATE 11/15/24	
REVISED PER CITY COMMENTS			
STATE OF WASHINGTON LANDSCAPE ARCHITECT PLANNING SURVEYING 12100 NE 195th St, Suite 300 Bothell, Washington 98011 425-885-7877			
<b>CORE DESIGN</b>			
PRELIMINARY LANDSCAPE PLAN BULLFROG FLATS - PHASE S-2		BULLFROG FLATS, LLC 18300 REDMOND WAY, SUITE 120 REDMOND, WA 98052	
PLOT DATE: SEE STAMP DATE	DESIGNED: DANNY VILLAGRANA	APPROVED: LINDSEY B. SOLORIO, P.L.A.	
DRAWN: MARK S. LEES	PROJECT MANAGER: HOLLI HEAVIN, PE		
SHEET 51	L2.06	OF 53	
PROJECT NUMBER 24019			

PLANT SCHEDULE

SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE
STREET TREES				
	19	GLEDITSIA TRIACANTHOS F. INERMIS DROUGHT TOLERANT	THORNLESS HONEY LOCUST	2" CAL. MIN. AND 12' HT. MIN.
	93	PARROTTIA PERSICA DROUGHT TOLERANT	PERSIAN PARROTTIA	2" CAL. MIN. AND 12' HT. MIN.
	46	QUERCUS VELUTINA DROUGHT TOLERANT	BLACK OAK	2" CAL. MIN. AND 12' HT. MIN.
SYMBOL	QTY	BOTANICAL NAME	COMMON NAME	SIZE
SHRUB AREAS				
	72,660 SF	GENERAL LANDSCAPING GENERAL LANDSCAPING LOCATED 30' NEAR BUILDING SETBACKS TO CONSIST OF NON-TO-LOW-FLAMMABLE PLANTINGS: ARBUTUS UNED0 'COMPACTA' DROUGHT TOLERANT GAULTHERIA SHALLOV DROUGHT TOLERANT HOLODISCUS DISCOLOR DROUGHT TOLERANT ACER MACROPHYLLUM LAWN FERN MIX 75% POLYSTICHUM MUNIUM 25% BLECHNUM SPICANT DROUGHT TOLERANT NATIVE POLLINATOR MEADOW SEED MIX ANNUAL WILDFLOWERS 29% PERENNIAL WILDFLOWERS 47% GRASSES 24%	DWARF STRAWBERRY TREE SALAL OCEAN-SPRAY BIG LEAF MAPLE	2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 5 GAL./24" HT. MIN. 5 GAL./24" HT. MIN. 1 GAL.
	19,550 SF	ZONE 2 DETENTION LANDSCAPING ARTEMISIA FRIGIDA DROUGHT TOLERANT CHAMAEBATIARIA MILLEFOLIUM CORNUS SERICEA PAXISTIMA MYRSINITES PHILADELPHUS LEWISII FRAGARIA CHILOENSIS ZONE 2 NATIVE GRASS SEED MIX	FRINGED WORMWOOD FERNBUSH RED TWIG DOGWOOD OREGON BOXWOOD WILD MOCK ORANGE BEACH STRAWBERRY	2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 4" POT HYDROSEED
	12,727 SF	ZONE 1 DETENTION LANDSCAPING MAHONIA NERVOSA DROUGHT TOLERANT PHYSCARPUS MALVACEUS DROUGHT TOLERANT SPIRAEA DOUGLASII ZONE 1 NATIVE GRASS SEED MIX	OREGON GRAPE MALLOW NINEBARK WESTERN SPIREA	2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. 2 GAL./24" HT. MIN. HYDROSEED
	28,101 SF	NATIVE SLOPE STABILIZATION		
GROUND COVERS				
	49,795 SF	ARCTOSTAPHYLOS UVA-URSI DROUGHT TOLERANT	KINKINNICK	4" POT

GENERAL NOTES

- THE LANDSCAPE CONTRACTOR MUST BE LICENSED AND OR BONDED. CONTRACTOR MUST BE EXPERIENCED IN LANDSCAPE WORK OF THE BEST TRADE PRACTICES AND HAVE THE NECESSARY EQUIPMENT AND PERSONNEL TO PERFORM WORK.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HER/HIMSELF WITH THE SITE AND ALL OTHER SITE IMPROVEMENTS PRIOR TO THE START OF LANDSCAPE WORK.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND USE CAUTION WHILE EXCAVATING IN ORDER TO AVOID DISTURBING ANY EXISTING UTILITIES. THE LANDSCAPE CONTRACTOR WILL PROMPTLY NOTIFY THE GENERAL CONTRACTOR AND OWNER OF ANY CONFLICTS. IN THE EVENT OBSTRUCTIONS ARE ENCOUNTERED DURING PLANTING ACTIVITIES, ALTERNATIVE LOCATIONS MAY BE SELECTED BY THE OWNER'S REPRESENTATIVE.
- THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK RELATED TO OTHER TRADES AS REQUIRED.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE ALL PLANTS OF THE CORRECT SIZE, SPECIES VARIETY, QUANTITY AND QUALITY AS SPECIFIED ON PLANT SCHEDULE AND SYMBOLS ON LANDSCAPE PLAN. IF UNAVAILABLE, THE LANDSCAPE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY AND PROVIDE THE NAMES AND TELEPHONE NUMBERS OF THREE NURSERY SUPPLIERS OR PLANT BROKERS THAT HAVE BEEN CONTACTED. SUBSTITUTIONS SHALL ONLY BE MADE UPON THE APPROVAL OF THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT.
- ALL PLANT MATERIAL SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING. ALL PLANT MATERIAL SHALL CONFORM TO THE LATEST EDITION OF AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANSI Z60.1).
- THE LANDSCAPE CONTRACTOR SHALL DELIVER, MAINTAIN AND WATER PLANT MATERIAL UNTIL OWNERS FINAL ACCEPTANCE IS RECEIVED.
- THE LANDSCAPE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ALL PROPERTY, INCLUDING PAVEMENT, WALKWAYS, CURBS, FENCING, STRUCTURES, ETC., DURING CONSTRUCTION.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING INFORMED OF ALL EXISTING CODES, LAWS AND ORDINANCES RELATING TO THE WORK REQUIRED ON SITE, AND SHALL COMPLY ACCORDINGLY.
- THE LANDSCAPE CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR TO ASSURE PROPER SUBGRADES ARE MET.
- THE LANDSCAPE CONTRACTOR SHALL SUBMIT THREE REPRESENTATIVE SOIL SAMPLES TO THE OWNER'S REPRESENTATIVE FOR TESTING BY AN APPROVED SOIL TESTING LABORATORY. AMENDMENTS SHALL BE ADDED TO THE SOIL MIX AS RECOMMENDED BY SOIL TESTING LAB.
- THE LANDSCAPE CONTRACTOR SHALL RAKE PREPARED AREAS AND REMOVE ANY ROCK OR DEBRIS OVER 1". ALL LAWN AREAS SHALL BE ROLLED TO PROVIDE A FIRM, SMOOTH SURFACE FREE OF DIVOTS OR MOUNDS.
- THE LANDSCAPE CONTRACTOR SHALL PROVIDE A 2" DEEP LAYER OF MULCH IN ALL PLANTING BEDS.
- MULCH SHALL BE 100% NATURAL FIR OR HEMLOCK, FINE GROUND, OF UNIFORM COLOR, FREE FROM DYES, WEED SEEDS, SAWDUST & SCRAP LUMBER FIBER, TRASH, INORGANIC MATERIAL OR ANY OTHER COMPOUND DETRIMENTAL TO PLANT GROWTH.
- FERTILIZER SHALL BE A COMPLETE, BALANCED COMMERCIAL BRAND WITH COMPLETE CHEMICAL ANALYSIS SHOWN ON AN UNOPENED CONTAINER WHEN DELIVERED. FERTILIZER SHALL BE APPLIED AT RATES CONSISTENT WITH THE MANUFACTURER'S RECOMMENDATIONS AND SOIL TESTING LAB'S RECOMMENDATIONS.
- WORK AREAS TO BE KEPT NEAT AND ORDERLY AND FREE OF DEBRIS AND RUBBISH AT ALL TIMES DURING PROGRESS OF WORK. RAKE BEDS NEATLY TO AN EVEN FINE GRADE AROUND ALL PLANTS. ALL PAVED AREAS ARE TO BE CLEANED BY BROOM AND/OR WASHED AFTER EACH DAY'S WORK OR MORE FREQUENTLY AS REQUIRED. ALL PLANTING AREAS AND ADJACENT PAVED AREAS SHALL BE LEFT IN A NEAT AND CLEAN CONDITION UPON COMPLETION OF JOB.
- IF A DISCREPANCY EXISTS BETWEEN THE PLANT QUANTITIES ON THE PLANT SCHEDULE AND THOSE SHOWN ON THE PLAN THE QUANTITIES ON THE PLAN SHALL GOVERN.
- PROPOSALS FOR PLANT SUBSTITUTIONS, LOCATION ADJUSTMENTS, SOIL AMENDMENTS OR ANY VARIATIONS FROM THE APPROVED PLANS SHALL REQUIRE PRIOR APPROVAL BY THE CITY OF OLE ELUM PLANNING.
- SOILS LOCATED IN PLANTING AREAS THAT HAVE BEEN COMPACTED TO A DENSITY GREATER THAN THAT PENETRABLE WITH A HAND SHOVEL (APPROX. 85%), SHALL BE LOOSENEED TO INCREASE AERATION FOR A MINIMUM DEPTH OF 18 INCHES FOR THE ENTIRE AREA OF THE COMPACTED SOILS UTILIZED FOR LANDSCAPE PURPOSES. IMPORTED TOPSOIL SHALL BE INCORPORATED INTO LOOSENEED SUB GRADE TO A MINIMUM DEPTH OF 6". VERIFICATION OF THE NEED FOR ADDITIONAL SOIL AMENDMENTS WILL BE MADE AT THIS TIME. RECOMMENDED AMENDMENTS SHALL BE APPLIED PRIOR TO PLANTING.
- DRAINAGE: CONTRACTOR SHALL NOTIFY THE OWNER OF ANY LOW POINTS OR FORESEEN POOR DRAINING AREAS EXISTING ON-SITE AND PROVIDE CORRECTIVE DRAINAGE PLANS PRIOR TO COMMENCING LANDSCAPE WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE IN ALL FINISHED LANDSCAPE AREAS THAT ARE PART OF THIS SCOPE OF WORK. ALL POSITIVE DRAINAGE FROM LANDSCAPE AREAS SHALL BE DISCHARGED APPROPRIATELY AND SHALL NOT CREATE DRAINAGE PROBLEMS OFF-SITE OR IN OTHER AREAS OF THE PROJECT. FINISHED LANDSCAPE AREAS WITH PONDING WATER OR OTHER POOR DRAINAGE CONDITIONS SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
- OWNER SHALL APPROVE PLANT MATERIAL & PLANTING BED LOCATION PRIOR TO INSTALLATION. ALLOW 24 HOURS MINIMUM NOTIFICATION FOR INSPECTION REQUEST. PLANT MATERIAL THAT HAS BEEN APPROVED FOR INSTALLATION SHALL BE PLANTED WITHIN 24 HOURS. INSTALLATION SHALL NOT BE CONDUCTED UNDER ADVERSE WEATHER CONDITIONS WITHOUT PRIOR APPROVAL OF THE RESPONSIBLE OFFICIAL. PLANT MATERIAL THAT CANNOT BE PLANTED WITHIN ONE DAY FOLLOWING ARRIVAL SHALL BE HELED-IN, KEPT MOIST AND PROTECTED AT ALL TIMES FROM EXTREME WEATHER CONDITIONS. PLANTS SHALL BE STORED AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- TREE PITS SHALL BE A MINIMUM OF TWO TIMES (2X) THE DIAMETER OF THE TREE'S ROOT MASS. ADDITIONAL AERATION MAY BE REQUIRED AS DIRECTED BY THE RESPONSIBLE OFFICIAL. ADD WATER TUBES TO THE TREE PLANTINGS IN PAVED AREAS.
- STREET TREES SHALL BE SYMMETRICAL AND UNIFORM IN APPEARANCE, SIZE AND STRUCTURE.
- STREET TREE AND SHRUB INSTALLATIONS SHALL CONFORM TO THE FOLLOWING GENERAL GUIDELINES:  
A.) TREES SHALL NOT BE PLANTED IN LOCATIONS THAT COULD LEAD TO ROOTS DAMAGING SIDEWALKS OR CURBING, OR IN ANY OTHER LOCATION THAT MAY CAUSE A SAFETY CONCERN.
- PLANT MATERIALS SHALL BE GUARANTEED FOR A PERIOD OF TWO YEARS. PLANT MATERIAL THAT HAS LOST MORE THAN 30 PERCENT OF ITS NORMAL FOLIAGE SHALL BE REPLACED AT CONTRACTOR'S EXPENSE AS DIRECTED BY THE RESPONSIBLE OFFICIAL.
- ALL TREE STAKES TO BE REMOVED AFTER A PERIOD OF TWO YEARS.
- ALL SLOPES STEEPER THAN 3:1 SHALL BE PROTECTED WITH EROSION CONTROL FABRIC INSTALLED PER MANUFACTURER'S SPECIFICATIONS OR OTHER APPROVED EROSION CONTROL METHOD.
- ALL SOIL IN LANDSCAPED AREAS SHALL BE AMENDED PER 2012 C.O.R. STANDARD DRAWING 632.



NO. 1

DATE 11/15/24

REVISIONS

REVISED PER CITY COMMENTS

STATE OF WASHINGTON

WASHINGTON STATE

NOV 18 2024

RECEIVED

CIVIL ENGINEERING

LANDSCAPE ARCHITECTURE

PLANNING

SURVEYING

DESIGN

CORE

LANDSCAPE SCHEDULE & NOTES

BULLFROG FLATS - PHASE S-2

BULLFROG FLATS, LLC

18300 REDMOND WAY, SUITE 120

REDMOND, WA 98052

PLOT DATE: SEE STAMP DATE

DESIGNED: DANNY VILLAGRANA

DRAWN: MARK S. LEES

APPROVED: LINDSEY B. SOLORIO, P.L.A.

HOLLI HEAVRIN, PE

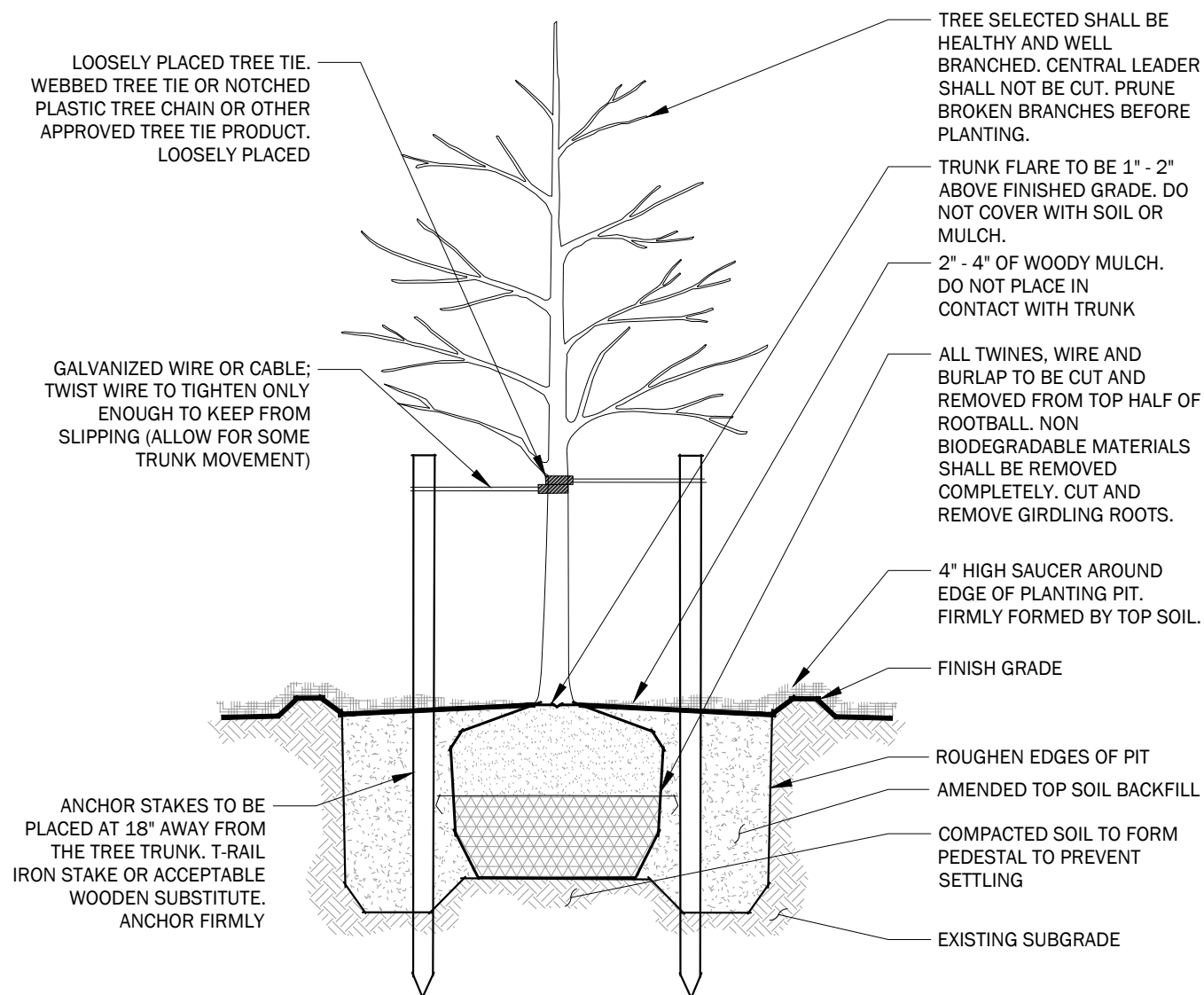
PROJECT MANAGER

SHEET 52

OF 53

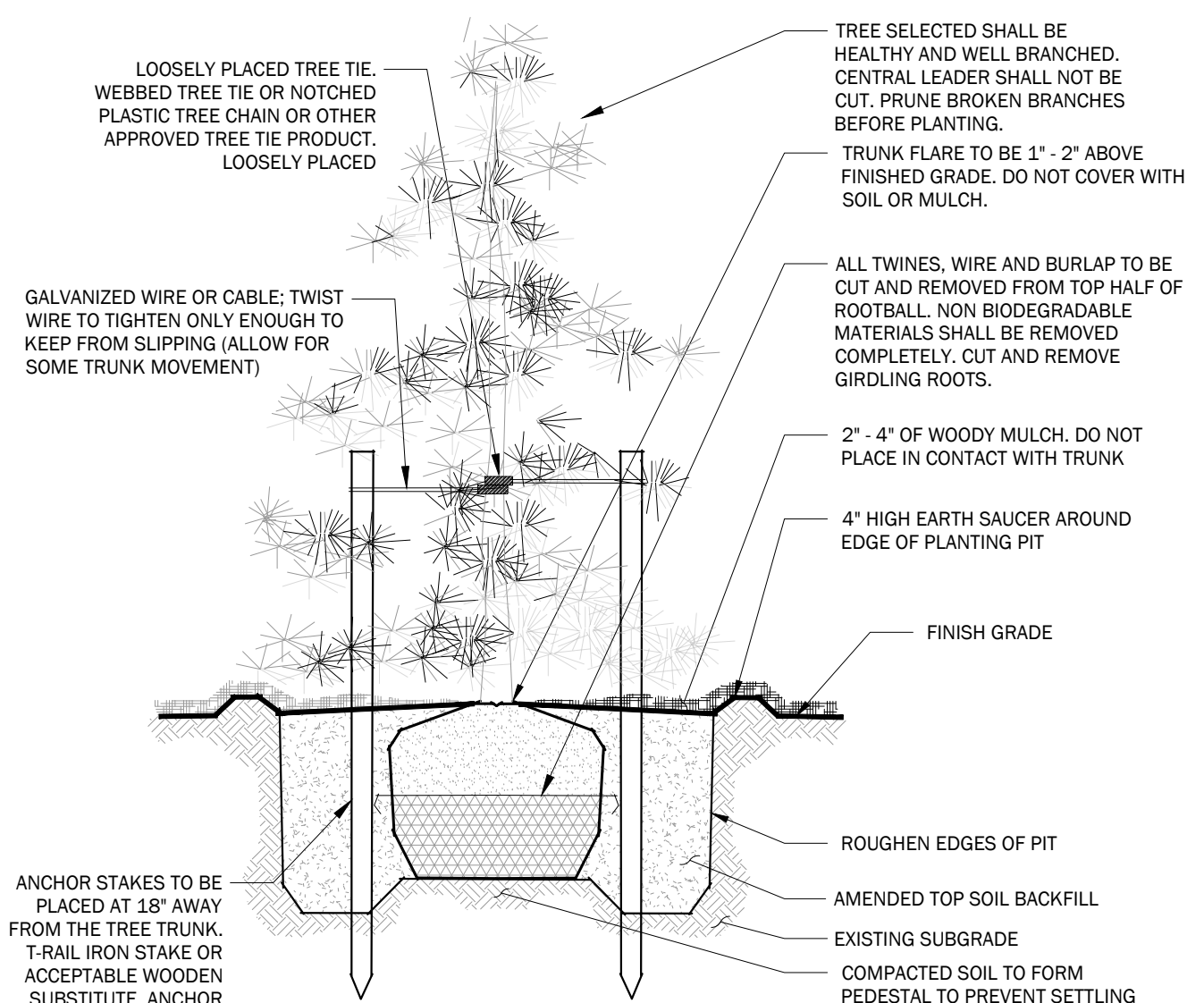
PROJECT NUMBER 24019

UNDERGROUND LOCATOR SERVICE  
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811



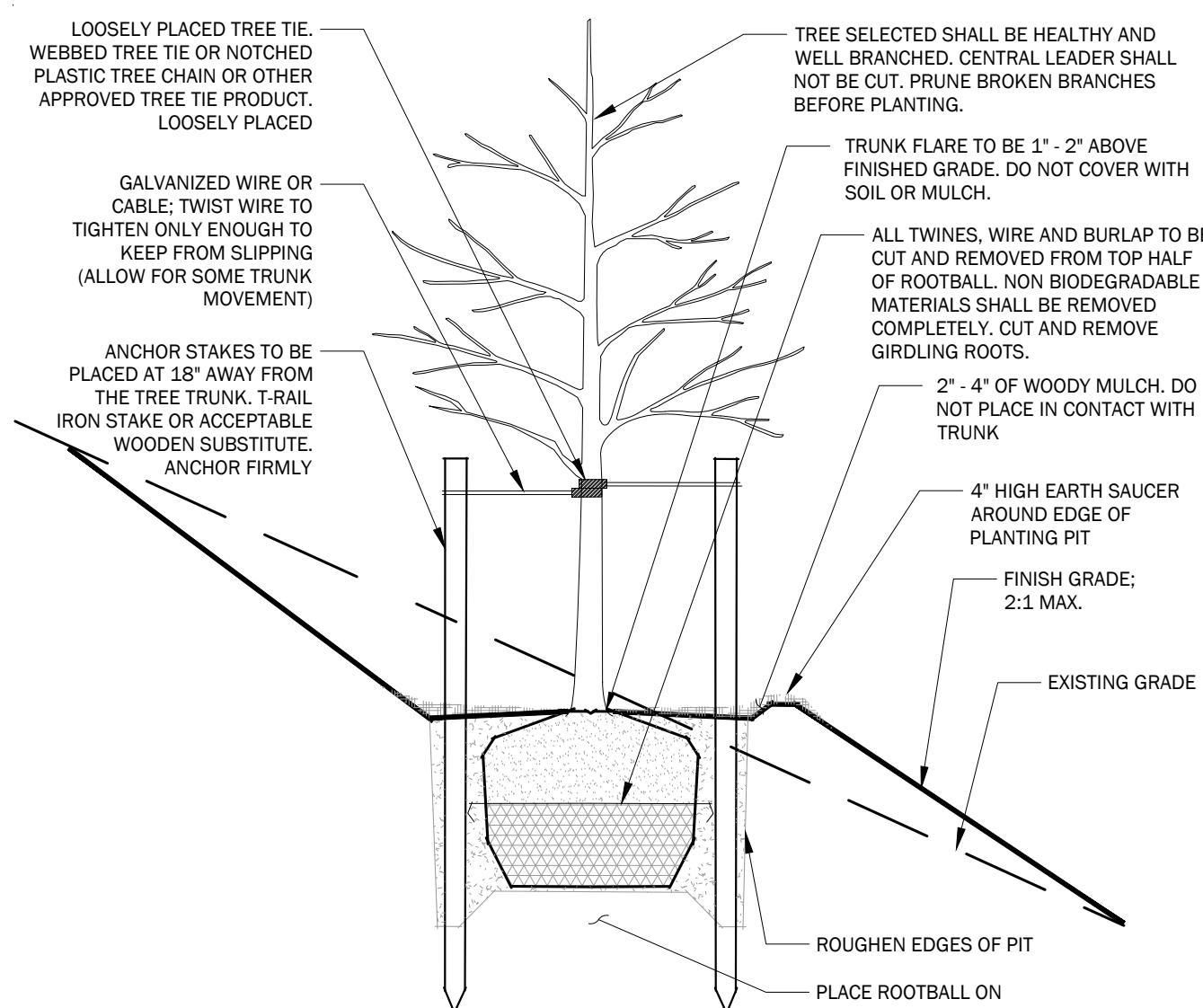
PLANTING DECIDUOUS TREE

NOT TO SCALE



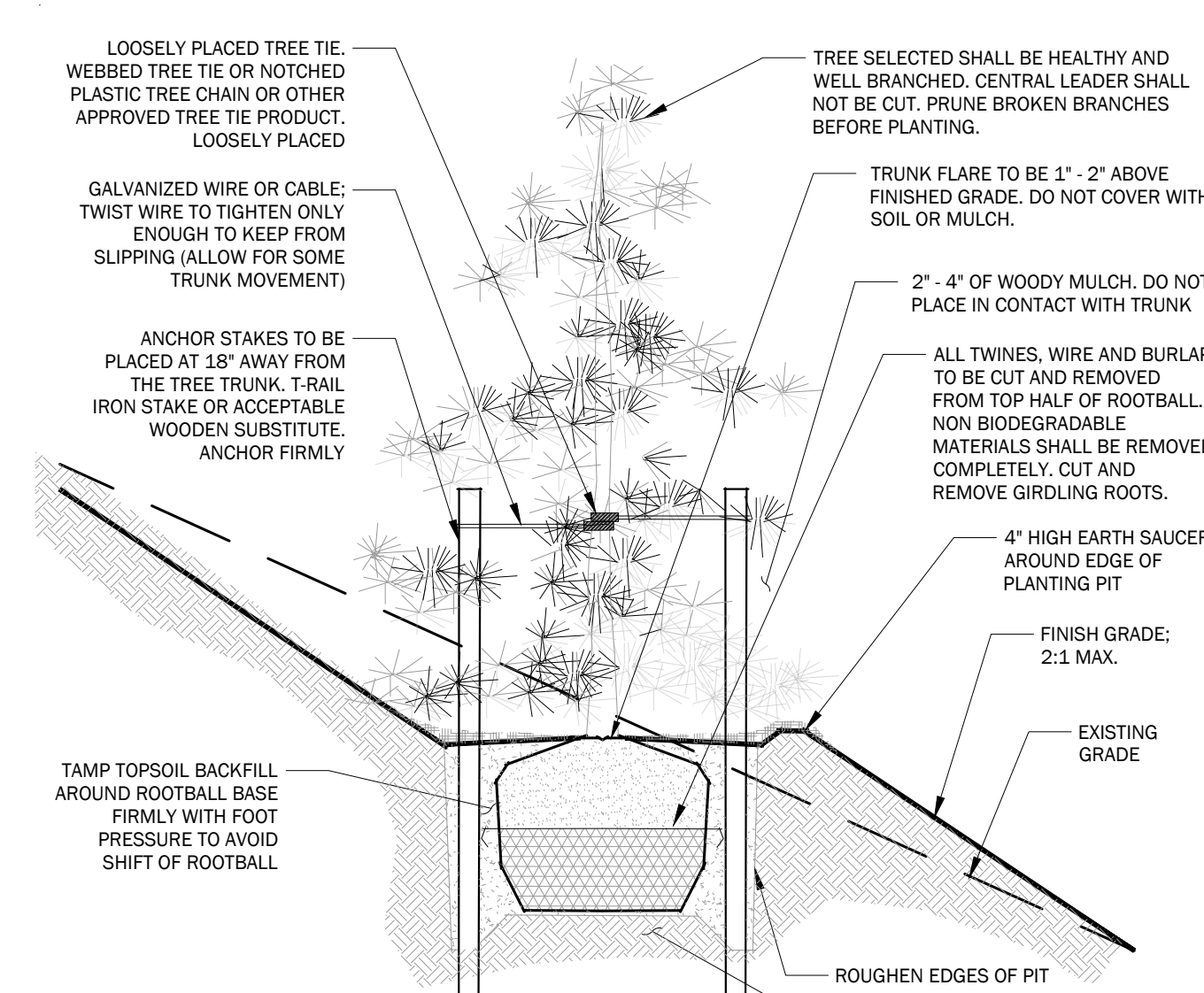
PLANTING CONIFER TREE

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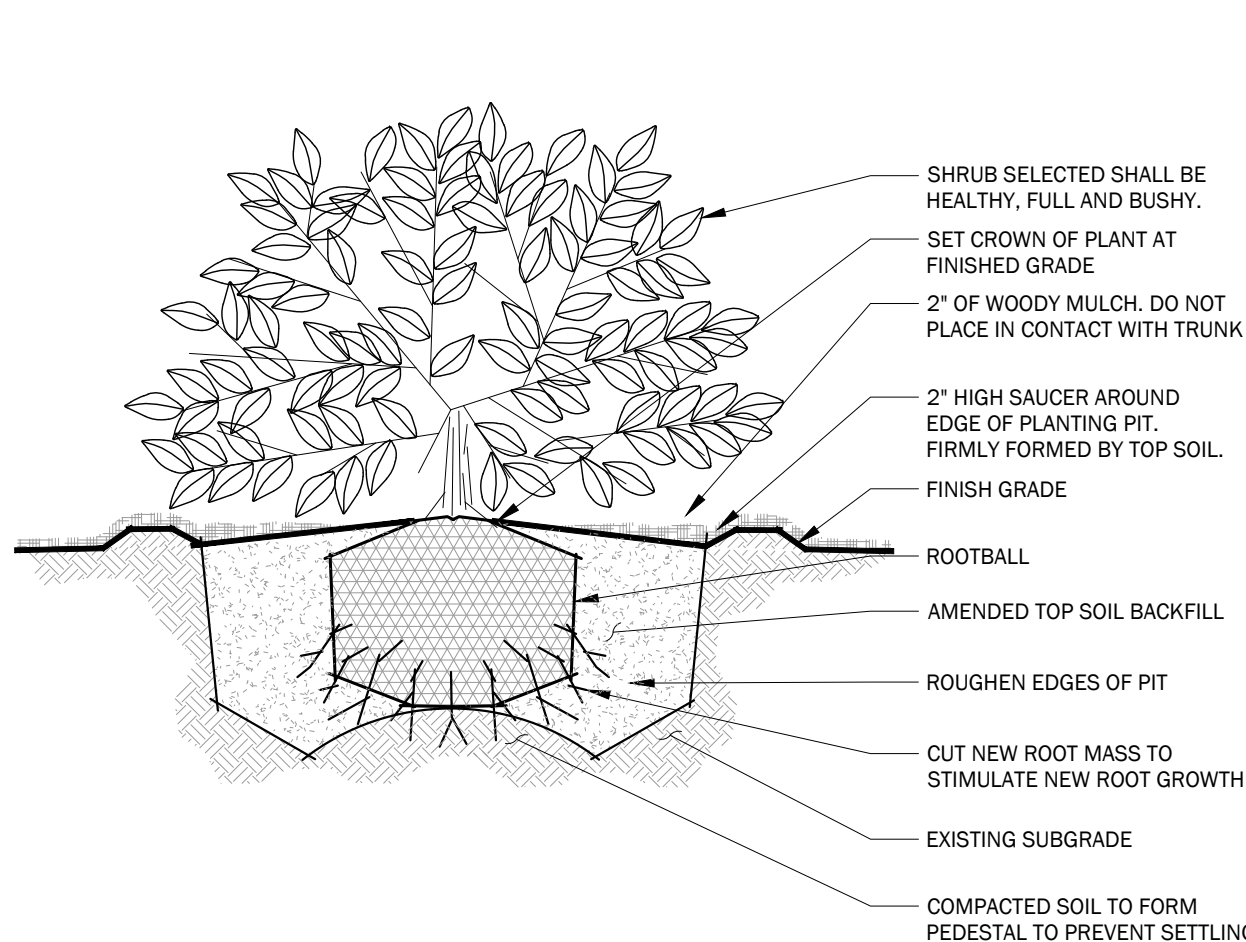
PLANTING DECIDUOUS TREE ON SLOPE

NOT TO SCALE



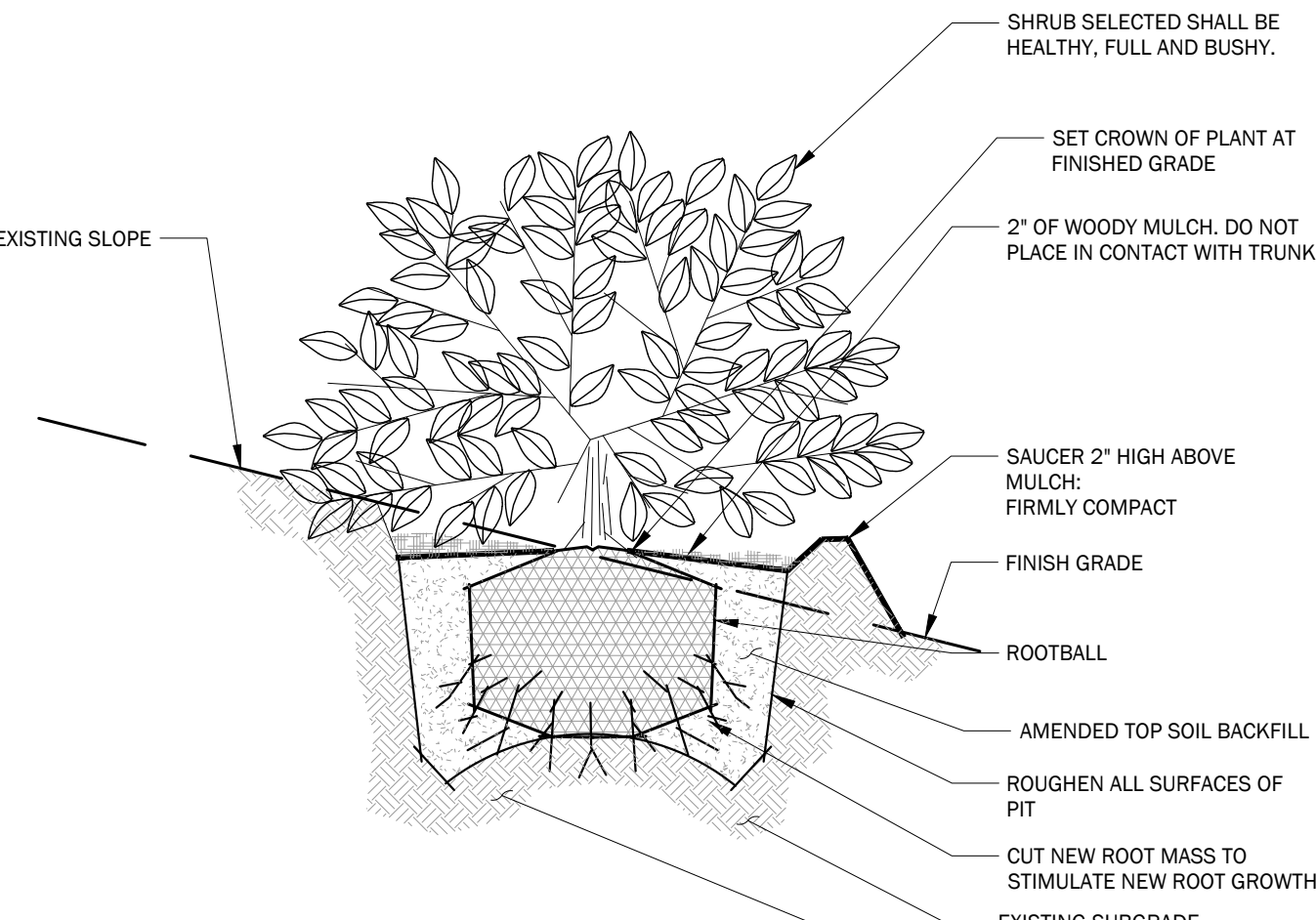
PLANTING CONIFER TREE ON SLOPE

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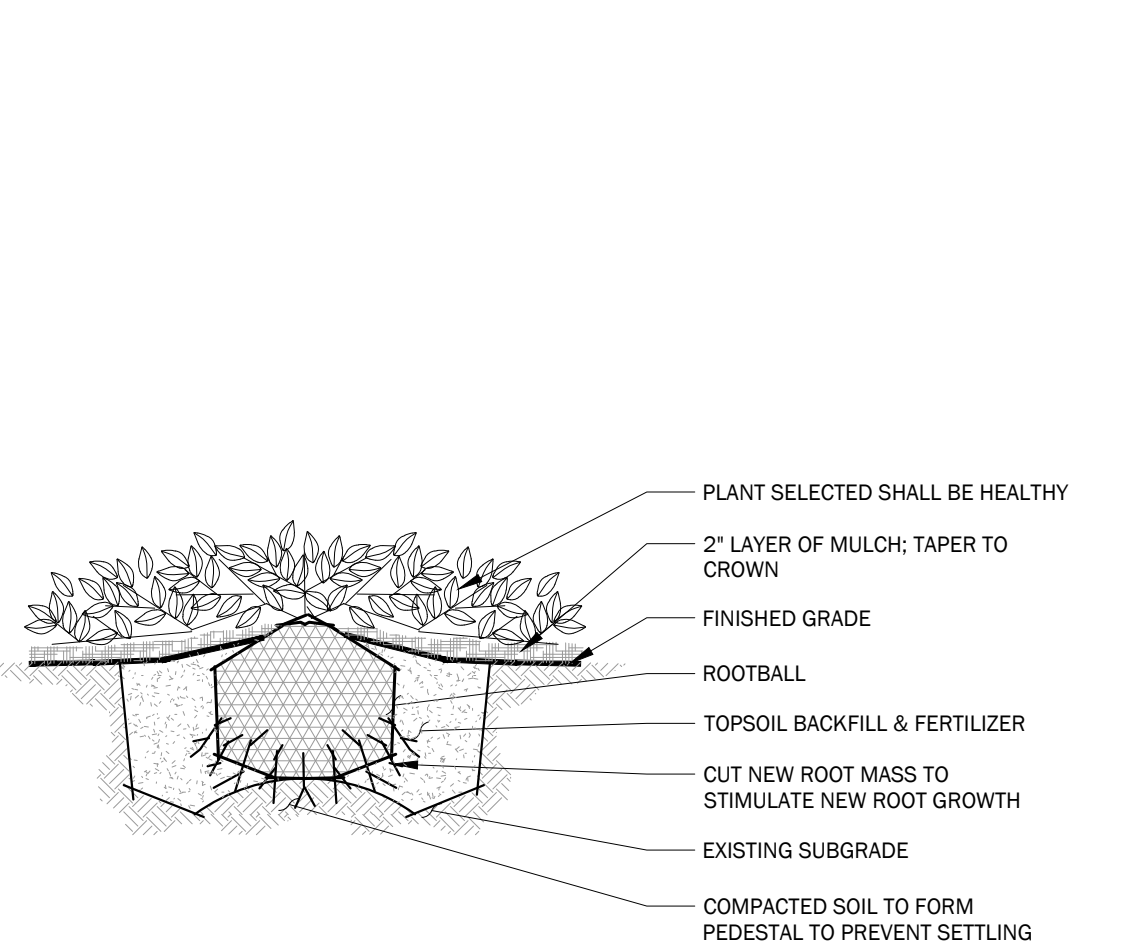
PLANTING SHRUB

NOT TO SCALE



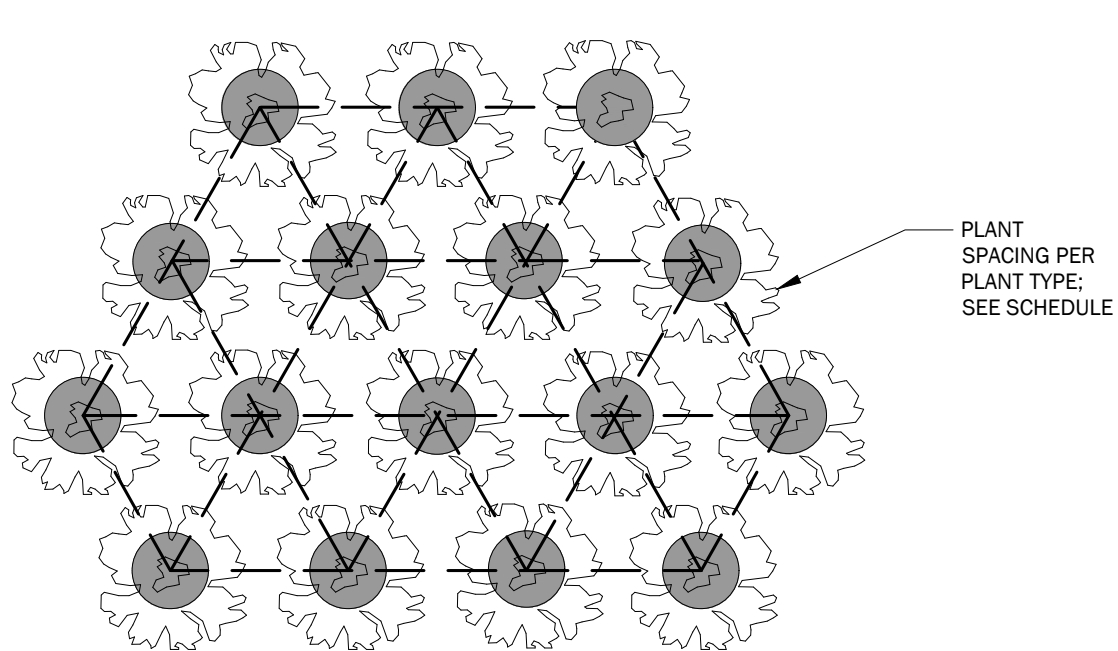
PLANTING SHRUB ON SLOPE

NOT TO SCALE



PLANTING GROUNDCOVER

NOT TO SCALE

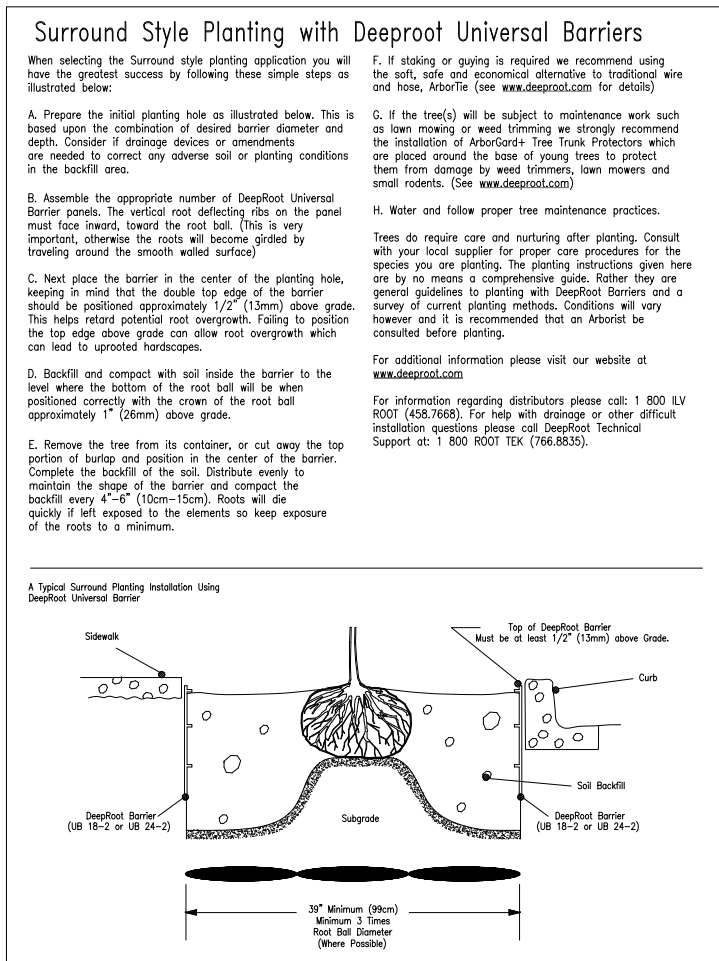


NOTE:  
TO AVOID LANDSCAPE INTRUSION INTO PATHS, THE FOLLOWING PLANTING SPACING OFF-SETS FROM EDGE OF ALL PATHS, DRIVES, ACCESS ROUTES, ETC. SHALL BE MET:

GROUND COVER: 18"  
SMALL SHRUBS (UNDER 3' TALL): 30"  
MEDIUM SHRUBS (FROM 3' TALL TO 6'): 42"  
LARGE SHRUBS (OVER 6' TALL): 48"

PLANT SPACING

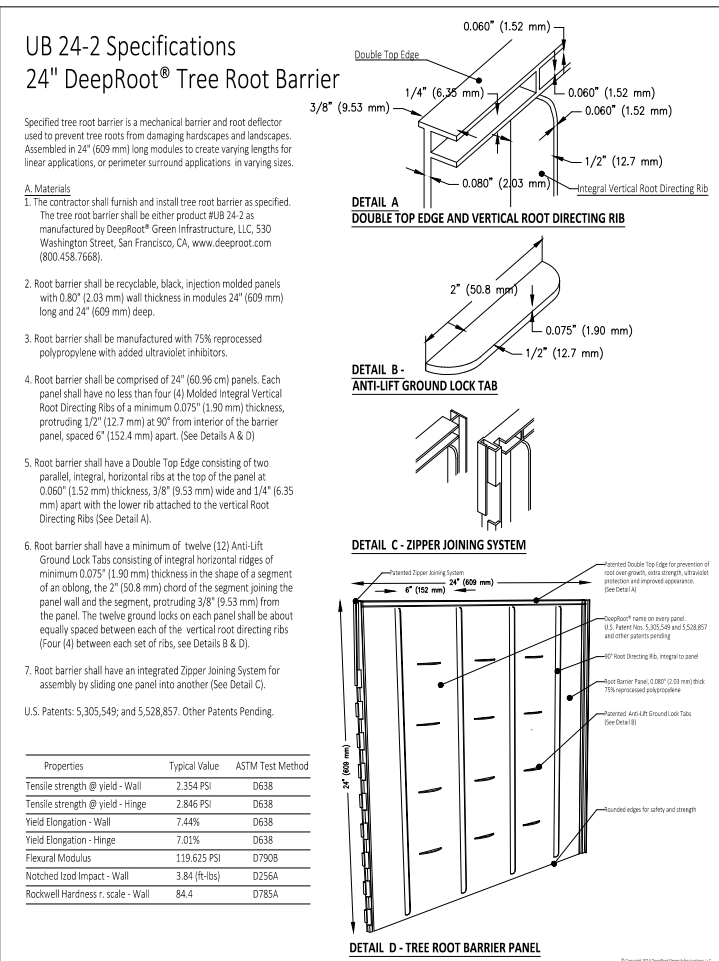
NOT TO SCALE



ROOT BARRIER (DEEPROOT UNIVERSAL BARRIER OR SIMILAR)

NOT TO SCALE

SOURCE:  
DEEPROOT



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