

NOTICE OF APPLICATION

City of Liberty Lake Planning, Engineering & Building Services (Review Authority) has published this Notice of Application to provide the opportunity to comment on the described proposal. The comment period ends 14 calendar days from the date issued. During this period, written comments may be submitted to the Review Authority. The file may be examined 8:00 a.m. to 5:00 p.m. Monday through Friday (except holidays) at City Hall, by scheduled appointment. Project info is also available on the City website at www.libertylakewa.gov/development/public_notices.asp. Questions may be directed to the Project Coordinator listed below.

Proposal File #:	LUA 2025-0011	Zoning:	R-1
Proposal:	Bella Lago 2 Preliminary Plat SEPA Review		
Proposal Description:	Preliminary Plat for 21 residential lots and a private street on 20.56 acres. Applicant proposes to develop the project in two phases.		
Site Address:	No address currently assigned		
General Location:	SE corner of the incorporated City of Liberty Lake, east of N Bella Lago Lane		
Abbreviated Legal Description -	Section:	14	Township: 25N Range: 45E
Owner:	Big Rock Investment Group, LLC	Phone:	509-954-3490
Contact:	Shawn Walker	Phone:	509-954-3490
Application Date:	04/03/2025	Notice of Application Issued:	04/04/2025
Notice of Application Issued:	04/04/2025	Comment Deadline:	4/18/2025 at 4 p.m.

City of Liberty Lake Permits Included in Application: Preliminary Plat for the proposed subdivision. Additional permits will need to be issued for required subdivision approval, and final plat approval, prior to the issuance of any building permits.

Other Permits: Liberty Lake Sewer & Water District; WA State Dept. of Ecology (DOE) permits & approvals; Spokane Clean Air permits & approvals; and Spokane Regional Health District permits & approvals may need to be issued prior to construction.

Required & Existing Studies: A SEPA Checklist; a Trip Generation & Distribution Letter; a Geohazard Evaluation; and, a Reasonable Use Exception Request.

Environmental Review: City of Liberty Lake Planning & Building Services is reviewing the proposed project for probable adverse environmental impacts and expects to issue a Mitigated Determination of Nonsignificance (MDNS) for this project. Any SEPA appeal is governed by the City of Liberty Lake Environmental Ordinance and such appeal shall be filed within fourteen (14) days after the notice that the determination has been made and is appealable. The optional DNS process in WAC 197-11-355 is being used and this may be your only opportunity to comment on the environmental impacts of this portion of the proposal. The proposal may include mitigation measures under applicable codes, and the project review process may incorporate or require mitigation measures regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request and will be supplied to reviewing agencies. Probable MDNS Conditions: Harvard Road Mitigation and other conditions as recommended by reviewing agencies.

Development Regulations: City of Liberty Lake Development & Building Codes, City of Liberty Lake Engineering Design Standards, and the Stormwater Management Manual are the primary City regulations applicable to the site.

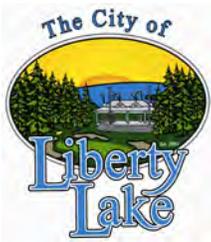
Consistency: In consideration of the above-referenced development regulations and typical conditions and/or mitigating measures, the proposal is found to be consistent, as provided in RCW 36.70B.040, with the "type of land use", "level of development", "infrastructure", and "character of development".

Written Comments: Agencies, tribes, and the public are encouraged to review and provide written comments on the proposed project and its probable environmental impacts. All comments received within 14 calendar days of the date this Notice of Application is issued, will be considered prior to making a decision on this application.

Public Hearing: As a Type II Project Permit, this action is subject to a future public hearing, which will be noticed.

REVIEW AUTHORITY:

PROJECT COORDINATOR: Lisa D. Key, Director



Community Development Department

22710 E. Country Vista, Liberty Lake, WA 99019

Phone: (509) 755-6708, Fax: (509) 755-6713, www.libertylakewa.gov

Date Issued: 04/04/2025

Signature: _____

Lisa D. Key

**PRELIMINARY SUBDIVISION PLAT
 BELLA LAGO – 2nd PHASE (P-1886-01)
 A PORTION OF THE EAST 1/2 OF SECTION 14,
 TOWNSHIP 25 NORTH, RANGE 45 EAST, W.M.
 PARCEL No. 55145.9064
 CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON**

AUDITOR'S CERTIFICATE:
 FILED FOR RECORD THIS _____ DAY OF _____, 20____.
 AT _____ M. IN BOOK _____ OF PLATS AT PAGE(S) _____
 AT THE REQUEST OF DURYEY & ASSOCIATES.

 SPOKANE COUNTY AUDITOR

DEDICATION:

KNOWN ALL MEN BY THESE PRESENTS, THAT BIG ROCK INVESTMENT GROUP LLC, A WASHINGTON LIMITED LIABILITY COMPANY HAS CAUSED TO BE PLATTED INTO LOTS THE LAND SHOWN HEREIN AS THE FINAL PLAT OF PHASE 2 AND 3 TO BELLA LAGO AND DESCRIBED AS FOLLOWS:

THAT PORTION OF THE EAST HALF OF SECTION 14, TOWNSHIP 25 NORTH, RANGE 45 EAST OF THE WILLAMETTE MERIDIAN, FURTHER DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE EAST LINE OF THE NORTHEAST QUARTER OF SECTION 14, WHICH BEARS SOUTH 02°18'45" EAST A DISTANCE OF 1200.00 FEET FROM THE NORTHEAST CORNER OF SAID SECTION;
 THENCE SOUTH 20°07'44" WEST, A DISTANCE OF 146.50 FEET;
 THENCE SOUTH 02°18'11" EAST, A DISTANCE OF 1313.60 FEET;
 THENCE SOUTH 02°55'33" EAST, A DISTANCE OF 287.30 FEET TO THE TRUE POINT OF BEGINNING;
 THENCE FROM SAID TRUE POINT OF BEGINNING CONTINUING SOUTH 02°55'33" EAST, A DISTANCE OF 2240.27 FEET;
 THENCE NORTH 87°28'10" EAST, A DISTANCE OF 55.70 FEET;
 THENCE SOUTH 02°55'33" EAST, A DISTANCE OF 150.00 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 14;
 THENCE NORTH 87°28'10" EAST, A DISTANCE OF 306.88 FEET;
 THENCE NORTH 02°31'50" WEST (RECORD = NORTH 02°32'34" WEST) A DISTANCE OF 150.00 FEET;
 THENCE SOUTH 87°28'10" WEST, A DISTANCE OF 204.95 FEET;
 THENCE NORTH 02°31'50" WEST, A DISTANCE OF 78.01 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF BELLA LAGO LANE;
 THENCE ALONG SAID EASTERLY RIGHT OF WAY LINE THE FOLLOWING COURSES;
 NORTH 27°37'30" EAST, A DISTANCE OF 85.20 FEET;
 THENCE NORTH 03°07'05" EAST, A DISTANCE OF 110.00 FEET;
 THENCE NORTH 08°38'20" EAST, A DISTANCE OF 20.00 FEET;
 THENCE ALONG A CURVE TO THE LEFT HAVING A DELTA ANGLE OF 8°37'35", A RADIUS OF 770.00 FEET, FOR AN ARC LENGTH OF 110.35 FEET;
 THENCE NORTH 00°00'45" EAST, A DISTANCE OF 60.18 FEET;
 THENCE ALONG A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 18°00'27", A RADIUS OF 484.00 FEET, FOR AN ARC LENGTH OF 152.12 FEET;
 THENCE NORTH 18°01'12" EAST, A DISTANCE OF 223.44 FEET;
 THENCE ALONG A CURVE TO THE LEFT HAVING A DELTA ANGLE OF 15°38'23", A RADIUS OF 111.23 FEET, FOR AN ARC LENGTH OF 30.36 FEET; THENCE NORTH 02°43'41" EAST, A DISTANCE OF 159.99 FEET;
 THENCE ALONG A CURVE TO THE LEFT HAVING A DELTA ANGLE OF 27°14'16", A RADIUS OF 116.00 FEET, FOR AN ARC LENGTH OF 55.14 FEET;
 THENCE NORTH 24°30'35" WEST A DISTANCE OF 96.98 FEET;
 THENCE ALONG A CURVE TO THE LEFT HAVING A DELTA ANGLE OF 23°39'21", A RADIUS OF 116.00 FEET, FOR AN ARC LENGTH OF 47.89 FEET;
 THENCE NORTH 48°09'55" WEST A DISTANCE OF 102.15 FEET;
 THENCE ALONG A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 01°19'19" A RADIUS OF 984.00 FEET, FOR AN ARC LENGTH OF 22.70 FEET;
 THENCE NORTH 46°50'36" WEST A DISTANCE OF 48.04 FEET;
 THENCE ALONG A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 20°57'12" A RADIUS OF 86.66 FEET, FOR AN ARC LENGTH OF 31.69 FEET;
 THENCE NORTH 25°34'58" WEST, A DISTANCE OF 45.26 FEET;
 THENCE ALONG A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 44°47'45" A RADIUS OF 84.00 FEET, FOR AN ARC LENGTH OF 63.67 FEET;
 THENCE NORTH 19°12'47" EAST, A DISTANCE OF 18.85 FEET;
 THENCE ALONG A CURVE TO THE LEFT HAVING A DELTA ANGLE OF 61°34'10", A RADIUS OF 116.00 FEET, FOR AN ARC LENGTH OF 124.85 FEET;
 THENCE NORTH 42°21'22" WEST A DISTANCE OF 28.25 FEET;
 THENCE ALONG A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 60°43'22" A RADIUS OF 154.00 FEET FOR AN ARC LENGTH OF 163.12 FEET;
 THENCE NORTH 18°22'00" EAST A DISTANCE OF 138.50 FEET;
 THENCE ALONG A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 20°18'43" A RADIUS OF 184.00 FEET, FOR AN ARC LENGTH OF 65.23 FEET;
 THENCE NORTH 38°40'43" EAST A DISTANCE OF 45.97 FEET;
 THENCE ALONG A CURVE TO THE LEFT HAVING A DELTA ANGLE OF 06°57'32" A RADIUS OF 287.46 FEET, FOR AN ARC LENGTH OF 34.91 FEET TO A POINT OF REVERSE CURVATURE, SAID POINT HAVING A RADIAL BEARING TO THE CENTER OF THE CURVE(S) OF NW/SE 58°16'50";
 THENCE ALONG A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 81°00'04" A RADIUS OF 29.50 FEET, FOR AN ARC LENGTH OF 41.71 FEET;
 THENCE SOUTH 67°16'46" EAST A DISTANCE OF 2.48 FEET;
 THENCE NORTH 22°43'14" EAST, A DISTANCE OF 37.00 FEET;
 THENCE NORTH 67°16'46" WEST, A DISTANCE OF 2.00 FEET;
 THENCE ALONG A CURVE TO THE RIGHT HAVING A DELTA ANGLE OF 81°34'41" A RADIUS OF 29.50 FEET, FOR AN ARC LENGTH OF 42.00 FEET, TO A POINT OF REVERSE CURVATURE, SAID POINT HAVING A RADIAL BEARING TO THE CENTER OF THE CURVE(S) OF NW/SE 75°42'05";
 THENCE ALONG A CURVE TO THE LEFT HAVING A DELTA ANGLE OF 09°09'28" A RADIUS OF 287.46 FEET, FOR AN ARC LENGTH OF 45.95 FEET;
 THENCE NORTH 05°08'27" EAST A DISTANCE OF 41.73 FEET;
 THENCE LEAVING SAID EASTERLY RIGHT OF WAY LINE, SOUTH 74°06'51" WEST A DISTANCE OF 342.00 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT A TRACT FOR RESERVOIR PURPOSES BEING A PORTION OF THE SOUTHEAST QUARTER OF SECTION 14, TOWNSHIP 25 NORTH, RANGE 45 EAST OF THE WILLAMETTE MERIDIAN, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE EAST QUARTER CORNER OF SAID SECTION 14;
 THENCE SOUTH 01°08'14" EAST ALONG THE EAST LINE OF SECTION 14, A DISTANCE OF 759.04; THENCE SOUTH 88°51'46" WEST 55.70 FEET TO THE POINT OF BEGINNING;
 THENCE CONTINUING SOUTH 88°51'46" WEST 67.40 FEET;
 THENCE NORTH 01°08'14" WEST 158.00 FEET;
 THENCE NORTH 88°51'46" EAST 67.40 FEET;
 THENCE SOUTH 01°08'14" EAST 158.00 FEET TO THE POINT OF BEGINNING;

AND EXCEPT ANY PORTION LYING WITHIN THE FINAL PLAT OF BELLA LAGO, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 35 OF PLATS, PAGES 14, THROUGH 17. SITUATE IN THE CITY OF LIBERTY LAKE, COUNTY OF SPOKANE, STATE OF WASHINGTON.

THE ABOVE LEGAL DESCRIPTION IS BASED ON STATUTORY WARRANTY DEED AFN: 7358302 RECORDED ON JULY 1, 2024 IN SPOKANE COUNTY.

DEDICATION (CONTINUED):

MASSON RIGHT OF WAY, AND OTHER UTILITY EASEMENTS SHOWN ON THE HEREIN DESCRIBED PLAT ARE HEREBY DEDICATED FOR THE USE BY SERVING UTILITY COMPANIES FOR THE CONSTRUCTION, RECONSTRUCTION, MAINTENANCE, PROTECTION, INSPECTION, AND OPERATION OF THEIR RESPECTIVE FACILITIES; DOMESTIC WATER, SANITARY AND STORM SEWER, FIBER OPTICS, CABLE, PHONE, NATURAL GAS, AND ELECTRIC. THE RIGHTS GRANTED HEREIN SHALL PROHIBIT ENCROACHMENT BY DRAINAGE SWALES OR "208 STRUCTURES" WHEN THEY INTERFERE WITH THE UTILIZATION OF THESE EASEMENT STRIPS BY THE SERVING UTILITIES; CHANGES IN GRADE THAT ALTER COVERAGE OVER INSTALLED FACILITIES; INSTALLATION OF WATER METER BOXES; PLACEMENT OF SURFACE STRUCTURES OF BRICK, ROCK, OR MASONARY THAT INTERFERE WITH THE RIGHTS GRANTED HEREIN; THE INSTALLATION OF STREET LIGHT POLES IS ALSO PROHIBITED UNLESS INSTALLED BY THE SERVING UTILITY COMPANY; UTILITY COMPANIES ALSO HAVE THE RIGHT TO TRIM AND/OR REMOVE TREES, BUSHES, LANDSCAPING, AND PROHIBIT STRUCTURES THAT MAY INTERFERE WITH THE CONSTRUCTION, RECONSTRUCTION, RELIABILITY, MAINTENANCE, AND SAFE OPERATION OF SAME. THIS PROVISION SHALL NOT PROHIBIT FENCES OR ANY LATERAL CROSSINGS OF THE EASEMENT STRIPS WITH DOMESTIC WATER OR SEWER LINES.

WARNING: THE CITY OF LIBERTY LAKE HAS NO RESPONSIBILITY TO BUILD, IMPROVE, MAINTAIN OR OTHERWISE SERVICE THE PRIVATE ROADS CONTAINED WITHIN OR PROVIDING SERVICE TO THE PROPERTY DESCRIBED IN THIS PLAT. BY ACCEPTING THIS PLAT OR SUBSEQUENTLY BY ALLOWING A BUILDING PERMIT TO BE ISSUED ON PROPERTY ON A PRIVATE ROAD, THE CITY OF LIBERTY LAKE ASSUMES NO OBLIGATION FOR SAID PRIVATE ROAD AND THE OWNERS HEREBY ACKNOWLEDGE THAT THE CITY OF LIBERTY LAKE HAS NO OBLIGATION OF ANY KIND OR NATURE WHATSOEVER TO ESTABLISH, EXAMINE, SURVEY, CONSTRUCT, ALTER, REPAIR, IMPROVE, MAINTAIN, PROVIDE DRAINAGE OR SNOW REMOVAL ON A PRIVATE ROAD. THIS REQUIREMENT IS AND SHALL RUN WITH THE LAND AND SHALL BE BINDING UPON THE OWNER, THEIR HEIRS, SUCCESSORS OR ASSIGNS INCLUDING THE OBLIGATION TO PARTICIPATE IN THE MAINTENANCE OF A PRIVATE ROAD AS PROVIDED.

"THE OWNER(S) OR SUCCESSOR(S) IN INTEREST AGREE TO JOIN IN ANY CITY-APPROVED STORMWATER MANAGEMENT PROGRAM AND TO PAY SUCH RATES AND CHARGES AS MAY BE FIXED THROUGH PUBLIC HEARINGS FOR SERVICE OR BENEFIT OBTAINED BY THE PLANNING, DESIGN, CONSTRUCTING, MAINTAINING OR OPERATION OF STORMWATER CONTROL FACILITIES"

PUBLIC SEWERS SHALL BE CONSTRUCTED TO PROVIDE FOR THE CONNECTION OF EACH PARCEL TO THE LIBERTY LAKE SEWER AND WATER DISTRICT SYSTEM OF SEWERAGE. USES ON PROPERTIES WITHIN THE PROJECT SHALL BE REQUIRED TO CONNECT TO THE SEWER AND PAY APPLICABLE CHARGES. SEWER CONNECTION PERMITS SHALL BE REQUIRED.

A PUBLIC SEWER SYSTEM WILL BE MADE AVAILABLE FOR THE PLAT, AND INDIVIDUAL SERVICES WILL BE PROVIDED TO EACH LOT PRIOR TO SALE. THE USE OF INDIVIDUAL ON-SITE DISPOSAL SYSTEMS SHALL NOT BE AUTHORIZED.

INDIVIDUAL TRACTS SHALL BE SUBJECT TO PAYMENT OF CURRENT APPLICABLE SEWER CONNECTION CHARGES AND/OR GENERAL FACILITIES CHARGES PRIOR TO THE ISSUANCE OF A SEWER CONNECTION PERMIT.

THE PUBLIC WATER SYSTEM, PURSUANT TO THE WATER PLAN APPROVED BY THE CITY OF LIBERTY LAKE, LIBERTY LAKE SEWER AND WATER DISTRICT, STATE HEALTH AUTHORITIES, THE LOCAL FIRE PROTECTION DISTRICT, SHALL BE INSTALLED WITHIN THE SUBDIVISION AND THE APPLICANT SHALL PROVIDE FOR INDIVIDUAL DOMESTIC WATER SERVICE AS WELL AS FIRE PROTECTION TO EACH LOT PRIOR TO SALE OF EACH LOT AND PRIOR TO ISSUANCE OF A BUILDING PERMIT FOR EACH LOT. THE USE OF PRIVATE WELLS AND WATER SYSTEMS IS PROHIBITED.

ALL LOTS WITHIN THIS LOT ARE SUBJECT TO TRANSPORTATION MITIGATION FEES PER THE HARVARD ROAD MITIGATION PLAN, AND SUCH FEES SHALL BE PAID AT THE TIME OF THE ISSUANCE OF A BUILDING PERMIT FOR EACH LOT.

SIDE YARD AND REAR YARD SETBACKS ARE SPECIFICALLY DRAFTED ON THIS FINAL PLAT. THE SETBACKS INDICATED ON THIS PLAT MAY BE VARIED FROM IF PROPER ZONING APPROVALS ARE OBTAINED.

NO DIRECT ACCESS WILL BE ALLOWED FROM LOTS TO NORTH BELLA LAGO LANE.

INDIVIDUAL DRIVEWAY ACCESS PERMITS ARE REQUIRED PRIOR TO ISSUANCE OF A BUILDING PERMIT FOR DRIVEWAY APPROACHES TO THE CITY OF LIBERTY LAKE ROAD SYSTEM.

GEOTECHNICAL REQUIREMENTS FOR INDIVIDUAL LOT CONSTRUCTION CAN BE FOUND IN *****

THE PHASE 2 AND 3 TO BELLA LAGO HOMEOWNERS ASSOCIATION WILL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPED STRIPS, OPEN SPACE TRACTS, ALLEYS/DRIVEWAYS, AND STREET LIGHTING. ADDITIONALLY, ANY PRIVATE STREETS OR COMMON AREAS SHOWN ON THIS PLAT ARE HEREBY DEDICATED TO THE PHASE 2 AND 3 TO BELLA LAGO HOMEOWNERS ASSOCIATION, AND THE HOMEOWNERS ASSOCIATION WILL BE RESPONSIBLE FOR THE MAINTENANCE OF STREETS AND COMMON AREAS WITHIN THE PLAT.

THE OWNERS OF ALL LOTS WITHIN THIS SUBDIVISION SHALL BE MEMBERS OF THE PHASE 2 AND 3 TO BELLA LAGO HOMEOWNERS ASSOCIATION, A HOMEOWNERS ASSOCIATION CREATED BY DOCUMENT RECORDED BY THE SECRETARY OF STATE OF THE STATE OF WASHINGTON UNDER U.S.I. NUMBER _____ AND SUBJECT TO THE ARTICLES OF INCORPORATION AND BYLAWS THEREOF. ALL OWNERS SHALL BE SUBJECT TO THE DECLARATION OF PROTECTIVE COVENANTS FOR PHASE 2 AND 3 TO BELLA LAGO HOMEOWNERS ASSOCIATION AS RECORDED UNDER AUDITOR'S FILE NUMBER: _____

ACKNOWLEDGMENT

STATE OF WASHINGTON }
 COUNTY OF SPOKANE } SS:

I CERTIFY THAT I KNOW OR HAVE SATISFACTORY EVIDENCE THAT ***** IS THE PERSON WHO APPEARED BEFORE ME, AND SAID PERSON ACKNOWLEDGED THAT HE SIGNED THIS INSTRUMENT AND ACKNOWLEDGED IT TO BE HIS FREE AND VOLUNTARY ACT FOR THE USES AND PURPOSES MENTIONED IN THE INSTRUMENT.

DATED: _____

 SIGNATURE

 TITLE
 MY APPOINTMENT EXPIRES: _____

EQUIPMENT & PROCEDURES:

THIS SURVEY WAS PERFORMED WITH A CARLSON BRX6 RTK GPS SYSTEM AND A CARLSON CR2 ROBOTIC TOTAL STATION. PROCEDURES WERE USED THAT MEET OR EXCEED THE REQUIREMENTS OF RCW 58.09, WAC 332-130-085 AND WAC 332-130-090.

SURVEYOR'S NOTES:

- THE CONTROL SURVEY WAS PERFORMED AND THE MONUMENTS SHOWN AS FOUND HEREON WERE LOCATED IN AUGUST 21, 2024.
- THE PURPOSE OF THIS SURVEY IS TO CREATE AND MONUMENT THE LOTS, TRACTS AND ROADS OF THIS SUBDIVISION.

REFERENCES:

- PARCEL VESTING DEED DEED AFN: 7358302 IN SPOKANE COUNTY RECORDS
- FINAL PLAT OF BELLA LAGO IN BOOK 35 AT PAGE 14, SPOKANE COUNTY RECORDS
- CITY WATER TOWER TRACT AFN: *****
- CITY WATER TOWER TRACT AFN:*****
- FINAL PLAT OF CROWN LIBERTY GRANDE VISTAS
- ROS BOOK 79, PAGE 82
- ROS BOOK 62, PAGE 88
- ROS BOOK 197, PAGE 19

FOUND MONUMENT DESCRIPTIONS:

- M1 ***
 M2 ***

BASIS OF BEARINGS:

THE BEARING OF SOUTH 89°18'00" EAST ALONG THE SOUTH LINE OF SECTION 7, AS SHOWN UPON THAT CERTAIN MAP ENTITLED "LEGENDARY HILLS ADDITION" RECORDED AS PLAT NO. 1560, SPOKANE COUNTY RECORDS, WAS TAKEN AS THE BASIS OF BEARINGS SHOWN UPON THIS SURVEY.

APPROVALS:

CITY OF LIBERTY LAKE
 THIS PLAT WAS APPROVED AND ACCEPTED BY THE CITY OF LIBERTY LAKE OF SPOKANE COUNTY, WASHINGTON, ON THIS _____ DAY OF _____, 2025.

MAYOR, CITY OF LIBERTY LAKE

 CITY OF LIBERTY LAKE PLANNING, ENGINEERING & BUILDING SERVICES
 EXAMINED AND APPROVED THIS _____ DAY OF _____, 2025

CITY OF LIBERTY LAKE DIRECTOR OF PLANNING & ENGINEERING

 CITY OF LIBERTY LAKE ENGINEER
 EXAMINED AND APPROVED THIS _____ DAY OF _____, 2025

CITY OF LIBERTY LAKE ENGINEER

SPOKANE COUNTY ASSESSOR
 EXAMINED AND APPROVED THIS _____ DAY OF _____, 20_____

SPOKANE COUNTY ASSESSOR

SPOKANE COUNTY TREASURER
 I, TREASURER OF SPOKANE COUNTY, WASHINGTON, DO HEREBY CERTIFY THAT ALL TAXES WHICH HAVE BEEN LEVIED AND BECAME CHARGEABLE AGAINST THE LAND SHOWN WITHIN THIS MAP AND DESCRIBED IN THE DEDICATION OF THIS DATE, HAVE BEEN FULLY PAID, SATISFIED, AND DISCHARGED.
 DATED THIS _____ DAY OF _____, 2025

SPOKANE COUNTY TREASURER

SURVEYOR'S CERTIFICATE:

I, MASON K. MARKER, PLS NO. 21032298, DO HEREBY CERTIFY THAT THIS MAP CORRECTLY REPRESENTS A SURVEY PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION AND IS IN CONFORMANCE WITH THE REQUIREMENTS OF THE CITY OF LIBERTY LAKE, WA SUBDIVISION ORDINANCE.



MASON K. MARKER
 PLS 21032298
 EXPIRES: 08/09/26
 _____ DATE _____

CONTACT INFORMATION:

ENGINEER:
 MATT GIBB
 DG ENGINEERS—COEUR D'ALENE
 208 N 4TH ST
 COEUR D'ALENE, ID 83814
 (208)—820-1195
 mgibb@dc-engineers.com

SURVEYOR:
 MASON MARKER, PLS
 DURYEY & ASSOCIATES
 PO BOX 7400
 SPOKANE, WA 99207
 (509) 465-8007
 mason.marker@duryea-associates.com

DEVELOPER:
 SHAWN WALKER
 BIG ROCK INVESTMENT GROUP, LLC
 24709 E LIBERTY CREEK RD
 LIBERTY LAKE, WA 99019
 (509) 954-3490
 smow29@gmail.com

PROPERTY ADDRESS:
 APN: 55145.9064

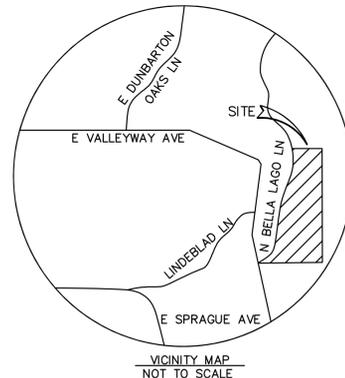
ESTIMATED PROJECT VALUE/ESTIMATED CONSTRUCTION DATE:
 TO BE DETERMINED

BUILDING FOOTPRINT:
 APPROXIMATE PAD SIZE IS 40FT X 60FT

PROPOSED USE:
 SINGLE FAMILY RESIDENTIAL

NOTES:

- EXISTING AND PROPOSED ZONING:
 EXISTING = SINGLE FAMILY RESIDENTIAL (R1)
 PROPOSED = SINGLE FAMILY RESIDENTIAL (R1)
- EXISTING AND PROPOSED USE:
 EXISTING = SINGLE FAMILY RESIDENTIAL
 PROPOSED = SINGLE FAMILY RESIDENTIAL
- COMPREHENSIVE PLANE CATEGORY:
 SINGLE FAMILY RESIDENTIAL (R1)
- NUMBER OF LOTS:
 PHASE 1 = 10 LOTS
 PHASE 2 = 11 LOTS
 TOTAL = 21 LOTS
- LOT SIZES:
 SMALLEST LOT SIZE = 0.476 AC (LOT 2)
 TYPICAL LOT SIZE (AVERAGE) = 0.623 AC
 LARGEST LOT SIZE = 1.055 AC (LOT 19)
- MINIMUM LOT FRONTAGE (PER SEC. 10-2B-7 OF LIBERTY LAKE LAND DEVELOPMENT CODE):
 MINIMUM FRONTAGE: 20 FEET AT FRONT PROPERTY LINE
- GROSS SITE AREA = 20.334 AC
- PERCENT BUILDING COVER:
 # OF LOTS = 21
 ASSUME 1/3 LOT COVERAGE
 AVERAGE LOT AREA = 0.623 AC
 GROSS SITE AREA = 20.334 AC
 PERCENT BUILDING COVERAGE = (21*(1/3)*0.623AC)/20.334 AC
 = **0.214 OR 21.4%**
- GROSS RESIDENTIAL DENSITY:
 GROSS DENSITY = TOTAL LOTS/GROSS AREA
 = 21/20.334 AC
 = **1.033 LOTS/AC**
- NET RESIDENTIAL DENSITY:
 TOTAL LOTS = 21
 GROSS SITE AREA = 20.334AC
 ROW AREA = 2.349AC
 OPEN SPACE AREA = 3.359AC
 WATER TOWER AREA = 0.077AC
 NET RESIDENTIAL DENSITY = TOTAL LOTS/(GROSS SITE AREA-ROW-OPEN SPACE-TOWER)
 = (21 LOTS)/(20.334AC-2.349AC-3.359AC-0.077AC)
 = **1.443 LOTS/AC**
- BUILDING SETBACKS PER CITY OF LIBERTY LAKE DEVELOPMENT CODE 10-2B-5
 FRONT YARD MINIMUM SETBACK = 10 FT
 BACK YARD MINIMUM SETBACK = 15 FT
 SIDE YARD MINIMUM SETBACK = 5 FT



SHEET INDEX:

- NOTES AND SIGNATURES
- PARENT PARCEL BOUNDARY
- LOT/TRACT LAYOUT
- EASEMENTS AND SETBACKS
- BUILDING FOOTPRINTS WITH TOPOGRAPHY
- UTILITIES

NOTES AND SIGNATURES

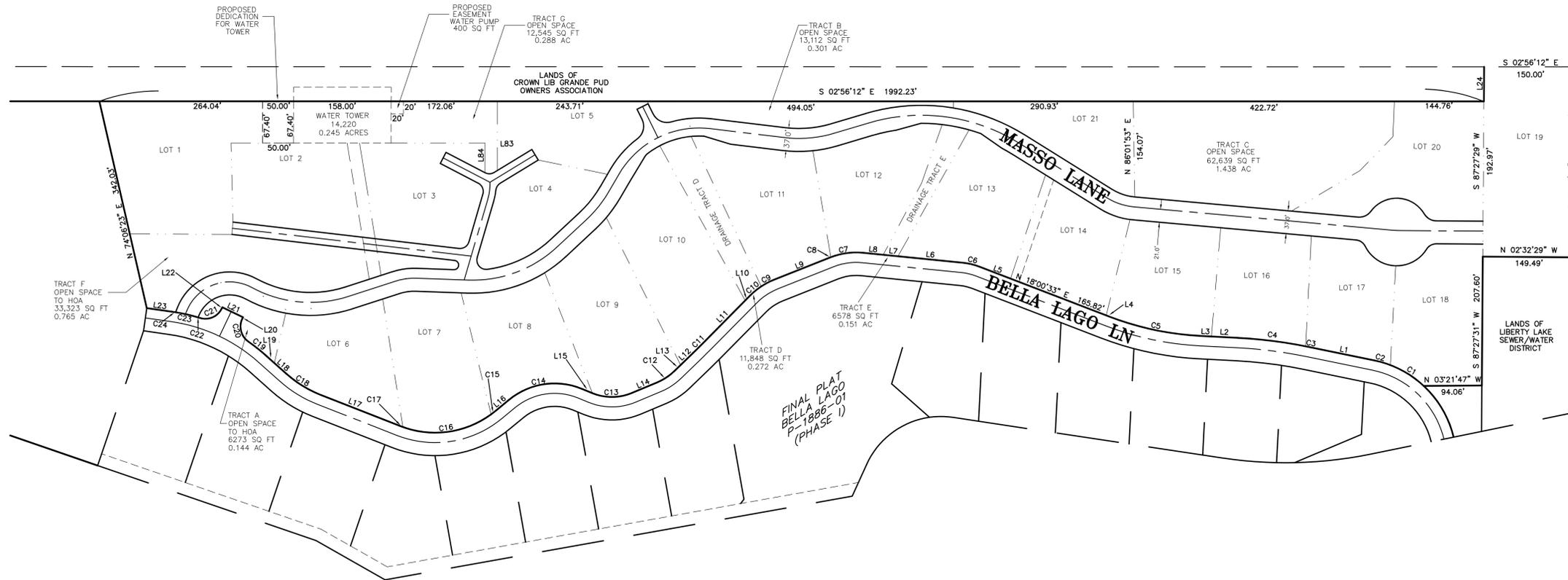
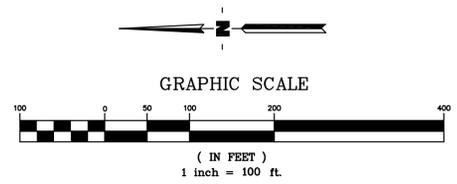
**BELLA LAGO-2nd PHASE
 APN# 55145.9064
 LIBERTY LAKE, WA**



2702 N. Perry Street Spokane, WA 99207 (509) 465-8007
 www.duryea-associates.com

PROJECT SURVEYOR: MKM	SHEET: 1 OF 6
DRAWN BY: MKM	
LAST DATE OF REVISION: 12-19-24	JOB NO.: 24-3579

PRELIMINARY SUBDIVISION PLAT
 BELLA LAGO - 2nd PHASE (P-1886-01)
 A PORTION OF THE EAST 1/2 OF SECTION 14,
 TOWNSHIP 25 NORTH, RANGE 45 EAST, W.M.
 PARCEL No. 55145.9064
 CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON



LEGEND:

	PROPERTY LINE
	CENTERLINE
	EASEMENT LINE
	BUILDING SETBACK LINE
	BUILDING ENVELOPE
	NEW SANITARY SEWER
	NEW STORM DRAIN
	NEW WATER LINE
	FIRE HYDRANT
	WATER METER
	SANITARY SEWER MANHOLE
	BLOW OFF
	CATCH BASIN

LINE TABLE:

LINE	BEARING	DISTANCE
L1	S 05°37'41" W	108.24'
L2	N 00°00'06" E	42.44'
L3	N 00°00'06" E	17.74'
L4	N 18°00'33" E	4.63'
L5	N 18°00'33" E	52.98'
L6	N 02°43'02" E	103.69'
L7	N 02°43'02" E	23.95'
L8	N 02°43'02" E	32.34'
L9	S 24°31'14" E	96.68'
L10	N 48°10'34" W	10.52'
L11	N 48°10'34" W	91.63'
L12	N 46°51'15" W	33.18'
L13	N 46°51'15" W	14.86'
L14	S 25°35'37" E	45.26'
L15	N 19°12'08" E	18.85'
L16	N 42°22'01" W	28.25'
L17	S 18°21'21" W	138.50'
L18	N 38°40'04" E	26.48'
L19	N 38°40'04" E	19.49'
L20	N 67°17'25" W	2.48'
L21	S 22°42'35" W	37.00'
L22	N 67°17'25" E	2.00'
L23	N 05°07'48" E	41.73'

CURVE TABLE:

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	166.00'	63.99'	63.59'	N 28°53'19" E	22°05'11"
C2	166.00'	26.71'	26.68'	N 13°14'13" E	9°13'03"
C3	770.00'	4.89'	4.89'	N 08°26'48" E	0°21'51"
C4	770.00'	111.04'	110.94'	N 04°07'58" E	8°15'44"
C5	484.00'	152.12'	151.49'	N 09°00'20" E	18°00'27"
C6	111.23'	30.36'	30.27'	N 10°11'22" E	15°38'23"
C7	116.00'	53.58'	53.08'	N 10°30'35" W	26°27'14"
C8	116.00'	1.59'	1.59'	N 24°07'43" W	0°47'02"
C9	116.00'	24.00'	23.96'	N 30°28'50" W	11°51'12"
C10	116.00'	23.89'	23.85'	N 42°18'30" W	11°48'08"
C11	984.00'	22.70'	22.70'	S 47°30'54" E	1°19'19"
C12	86.66'	31.69'	31.52'	S 36°22'39" E	20°57'12"
C13	84.00'	65.67'	64.01'	N 03°11'44" W	44°47'45"
C14	116.00'	124.65'	118.74'	S 11°34'56" E	61°34'09"
C15	154.00'	9.11'	9.11'	N 40°40'19" W	9°23'22"
C16	154.00'	149.97'	144.12'	N 11°04'42" W	55°47'53"
C17	154.00'	4.13'	4.13'	N 17°35'18" E	1°32'06"
C18	184.00'	65.23'	64.89'	N 25°30'43" E	20°18'43"
C19	287.46'	34.91'	34.89'	N 35°11'18" E	6°57'33"
C20	29.50'	41.71'	38.32'	S 72°12'33" W	81°00'04"
C21	29.50'	42.00'	38.54'	S 26°30'04" E	81°54'41"
C22	287.46'	3.12'	3.12'	N 13°58'56" E	0°37'21"
C23	287.46'	37.50'	37.47'	N 09°55'42" E	7°28'23"
C24	287.46'	5.32'	5.32'	N 05°39'38" E	1°03'40"

SHEET INDEX:

1. NOTES AND SIGNATURES
2. PARENT PARCEL BOUNDARY
3. LOT/TRACT LAYOUT
4. EASEMENTS AND SETBACKS
5. BUILDING FOOTPRINTS WITH TOPOGRAPHY
6. UTILITIES



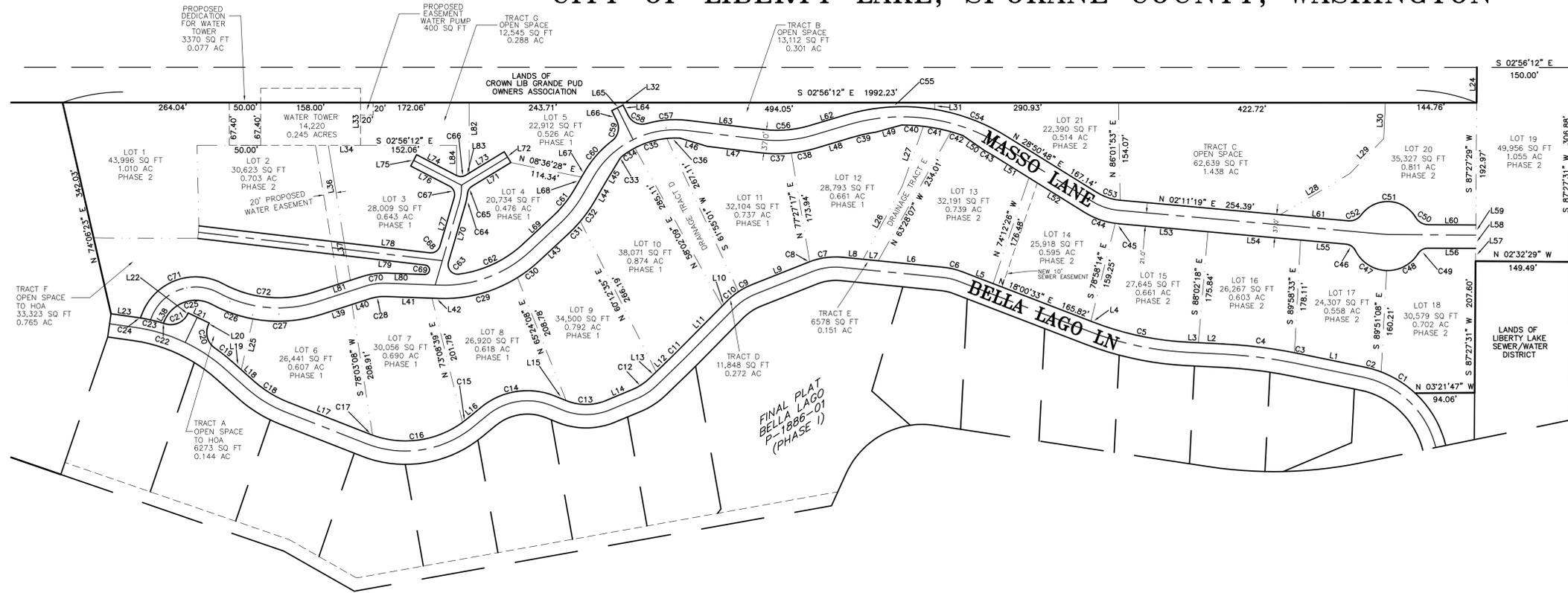
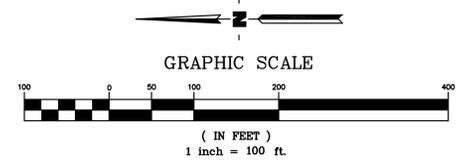
PARENT PARCEL BOUNDARY
BELLA LAGO-2nd PHASE
 APN# 55145.9064
 LIBERTY LAKE, WA

DURYEA & ASSOCIATES
 Surveying and Mapping

2702 N. Perry Street Spokane, WA 99207 (509) 465-8007
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PROJECT SURVEYOR: MKM	SHEET: 2 OF 6
DRAWN BY: MKM	
LAST DATE OF REVISION: 12-19-24	JOB NO.: 24-3579

PRELIMINARY SUBDIVISION PLAT
 BELLA LAGO - 2nd PHASE (P-1886-01)
 A PORTION OF THE EAST 1/2 OF SECTION 14,
 TOWNSHIP 25 NORTH, RANGE 45 EAST, W.M.
 PARCEL No. 55145.9064
 CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON



LINE TABLE:

LINE	BEARING	DISTANCE
L1	S 08°37'41" W	108.84'
L2	N 00°00'00" E	42.44'
L3	N 00°00'00" E	17.74'
L4	N 18°00'33" E	4.63'
L5	N 18°00'33" E	52.98'
L6	N 02°43'02" E	103.89'
L7	N 02°43'02" E	23.95'
L8	N 02°43'02" E	32.34'
L9	S 24°31'14" E	96.68'
L10	N 48°10'54" W	10.55'
L11	N 48°10'54" W	91.63'
L12	N 46°51'18" W	33.18'
L13	N 48°51'15" W	14.88'
L14	S 25°38'37" E	45.28'
L15	N 19°12'08" E	18.85'
L16	N 42°22'01" E	28.23'
L17	S 18°21'21" W	138.50'
L18	N 38°40'04" E	26.48'
L19	N 38°40'04" E	19.49'
L20	N 67°17'28" W	2.48'
L21	S 22°42'58" W	37.00'
L22	N 67°17'28" W	2.00'
L23	N 05°07'48" E	41.73'
L24	S 87°27'31" W	55.70'
L25	N 80°01'52" W	82.42'
L26	N 64°44'03" W	131.37'
L27	N 73°27'52" W	99.80'
L28	S 32°24'02" W	128.49'
L29	N 48°41'18" W	76.45'
L30	S 89°33'37" W	56.92'
L31	N 87°03'48" E	14.51'
L32	N 85°58'50" E	3.87'
L33	S 87°03'48" W	67.40'
L34	N 02°56'12" W	51.01'
L35	S 77°46'35" W	103.47'
L36	S 77°46'35" W	20.80'
L37	S 77°46'35" W	20.80'
L38	N 70°57'38" W	2.69'
L39	S 20°52'08" E	51.20'
L40	S 20°52'08" E	28.28'
L41	S 00°58'11" E	72.90'
L42	S 00°58'11" E	11.42'
L43	N 45°41'16" W	64.55'
L44	S 62°34'26" E	32.83'
L45	N 61°37'00" W	45.16'
L46	N 13°51'09" W	44.51'
L47	N 03°54'45" E	84.73'
L48	S 19°29'46" E	58.39'
L49	S 18°13'39" E	42.08'
L50	N 37°46'39" E	42.08'
L51	S 28°50'48" W	63.28'
L52	S 28°50'48" W	103.88'
L53	S 02°11'19" W	142.52'
L54	S 02°11'19" W	142.52'
L55	S 02°11'19" W	72.79'
L56	S 02°35'08" E	75.60'
L57	N 87°27'29" E	20.10'
L58	N 87°27'29" E	21.00'
L59	N 87°27'29" E	16.00'
L60	S 02°35'08" E	75.42'
L61	N 02°11'19" W	108.26'
L62	N 19°29'46" E	58.39'
L63	S 03°54'45" W	120.53'
L64	S 60°40'20" W	18.23'
L65	N 29°19'51" W	20.00'

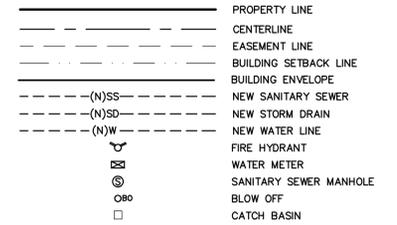
CURVE TABLE:

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	166.00'	63.99'	63.99'	N 28°53'19" E	22°05'11"
C2	166.00'	28.71'	28.68'	N 13°17'03" E	01°13'03"
C3	770.00'	4.89'	4.89'	N 08°26'48" E	02°21'51"
C4	770.00'	111.04'	110.94'	N 04°07'58" E	01°54'44"
C5	484.00'	152.12'	151.49'	N 09°00'20" E	18°00'27"
C6	111.23'	30.36'	30.22'	N 10°11'22" E	15°38'23"
C7	116.00'	53.56'	53.08'	N 10°30'35" W	26°27'14"
C8	116.00'	1.59'	1.59'	N 24°07'43" W	04°07'02"
C9	116.00'	24.50'	23.90'	N 30°28'56" W	11°51'12"
C10	116.00'	23.89'	23.85'	N 42°18'30" W	11°48'08"
C11	984.00'	22.70'	22.70'	S 47°30'54" E	11°19'19"
C12	86.66'	31.69'	31.52'	S 36°22'39" E	20°57'12"
C13	84.00'	66.87'	64.01'	N 03°11'44" W	04°47'45"
C14	116.00'	124.65'	118.74'	S 11°34'56" E	61°34'09"
C15	154.00'	9.11'	9.11'	N 40°40'19" W	3°23'22"
C16	154.00'	149.97'	144.12'	N 11°04'42" W	55°47'53"
C17	154.00'	4.13'	4.13'	N 17°35'18" E	1°42'06"
C18	184.00'	65.23'	64.89'	N 28°30'43" E	20°18'43"
C19	287.46'	34.91'	34.89'	N 35°11'18" E	6°57'33"
C20	29.50'	41.71'	38.32'	S 72°13'33" W	81°00'04"
C21	29.50'	42.00'	38.54'	S 26°30'04" E	81°34'41"
C22	287.46'	3.12'	3.12'	N 13°58'36" E	03°37'21"
C23	287.46'	37.50'	37.47'	N 08°55'42" E	7°28'27"
C24	287.46'	5.32'	5.32'	N 08°55'42" E	103°46'00"
C25	54.00'	90.88'	80.53'	N 22°44'49" W	96°25'38"
C26	221.00'	69.15'	68.87'	S 16°30'09" W	17°55'42"
C27	221.00'	108.57'	108.45'	S 08°30'58" E	28°24'26"
C28	79.00'	27.51'	27.37'	N 10°53'40" W	18°56'58"
C29	221.00'	130.09'	128.22'	S 17°46'58" E	33°43'34"
C30	221.00'	42.98'	42.91'	S 40°13'00" E	11°08'30"
C31	221.00'	26.25'	26.24'	N 01°12'08" E	64°30'45"
C32	221.00'	38.50'	38.45'	S 57°35'01" E	9°58'49"
C33	18.00'	6.65'	6.61'	S 51°02'22" E	21°09'15"
C34	137.00'	23.50'	23.47'	S 35°30'56" E	34°39'28"
C35	137.00'	53.23'	52.89'	N 13°20'20" E	22°15'36"
C36	136.92'	21.33'	21.31'	S 03°41'35" E	8°56'36"
C37	221.00'	49.16'	49.06'	S 02°27'36" E	12°44'42"
C38	221.00'	41.13'	41.07'	S 14°00'50" W	81°00'48"
C39	279.00'	39.02'	38.98'	S 15°29'24" E	8°00'44"
C40	287.00'	34.41'	34.39'	S 00°19'22" W	6°52'08"
C41	287.00'	44.45'	44.41'	N 08°11'40" W	8°52'28"
C42	287.00'	20.18'	20.18'	N 43°48'47" E	40°14'46"
C43	279.00'	18.57'	18.56'	N 26°56'24" E	3°48'47"
C44	121.00'	51.67'	51.28'	S 16°36'44" W	24°28'07"
C45	121.00'	4.62'	4.62'	S 03°17'00" W	21°12'29"
C46	18.00'	18.38'	17.59'	N 31°26'42" E	58°30'45"
C47	57.00'	61.69'	58.72'	S 29°41'42" W	62°00'44"
C48	57.00'	59.48'	56.82'	S 31°12'18" E	59°47'13"
C49	18.00'	18.38'	17.59'	N 07°43'04" E	58°30'45"
C50	23.00'	23.61'	22.59'	N 26°49'33" E	88°49'22"
C51	52.00'	102.44'	86.66'	S 00°11'54" E	117°52'17"
C52	23.00'	23.61'	22.59'	S 01°14'44" W	64°30'45"
C53	84.00'	39.08'	38.73'	S 15°31'04" W	26°39'28"
C54	316.00'	123.51'	122.72'	N 17°38'59" E	22°23'38"
C55	316.00'	143.11'	141.89'	N 06°31'18" W	25°56'56"
C56	184.00'	75.17'	74.65'	N 07°43'04" E	58°30'45"
C57	166.00'	65.65'	65.23'	N 07°25'04" W	22°39'37"
C58	25.00'	34.65'	31.95'	S 20°57'44" W	79°25'12"
C59	25.00'	34.67'	31.96'	N 78°35'48" W	79°27'44"
C60	166.00'	65.79'	65.36'	S 51°11'51" E	62°42'29"
C61	184.00'	53.91'	53.71'	S 54°10'51" E	16°47'10"
C62	184.00'	114.35'	112.52'	N 27°59'02" W	35°36'27"

AREA TABLE:

PARCEL	AREA (ACRES)	AREA (SQ FT)
LOT 1	1.010	43,996
LOT 2	0.703	30,623
LOT 3	0.643	28,009
LOT 4	0.476	20,734
LOT 5	0.526	22,912
LOT 6	0.607	26,441
LOT 7	0.690	30,056
LOT 8	0.618	26,920
LOT 9	0.792	34,500
LOT 10	0.874	38,071
LOT 11	0.737	32,104
LOT 12	0.661	28,793
LOT 13	0.739	32,191
LOT 14	0.595	25,918
LOT 15	0.635	27,845
LOT 16	0.603	26,267
LOT 17	0.558	24,307
LOT 18	0.702	30,579
LOT 19	1.055	45,956
LOT 20	0.811	35,327
LOT 21	0.514	22,390
TRACT A	0.144	6,273
TRACT B	0.301	13,112
TRACT C	1.438	62,639
TRACT D	0.272	11,848
TRACT E	0.151	6,578
TRACT F	0.765	33,323
TRACT G	0.288	12,545
ROAD ROW	2.349	102,322
WATER	0.077	3,354

LEGEND:



PRELIMINARY

LOT/TRACT LAYOUT
BELLA LAGO-2nd PHASE
 APN# 55145.9064
 LIBERTY LAKE, WA



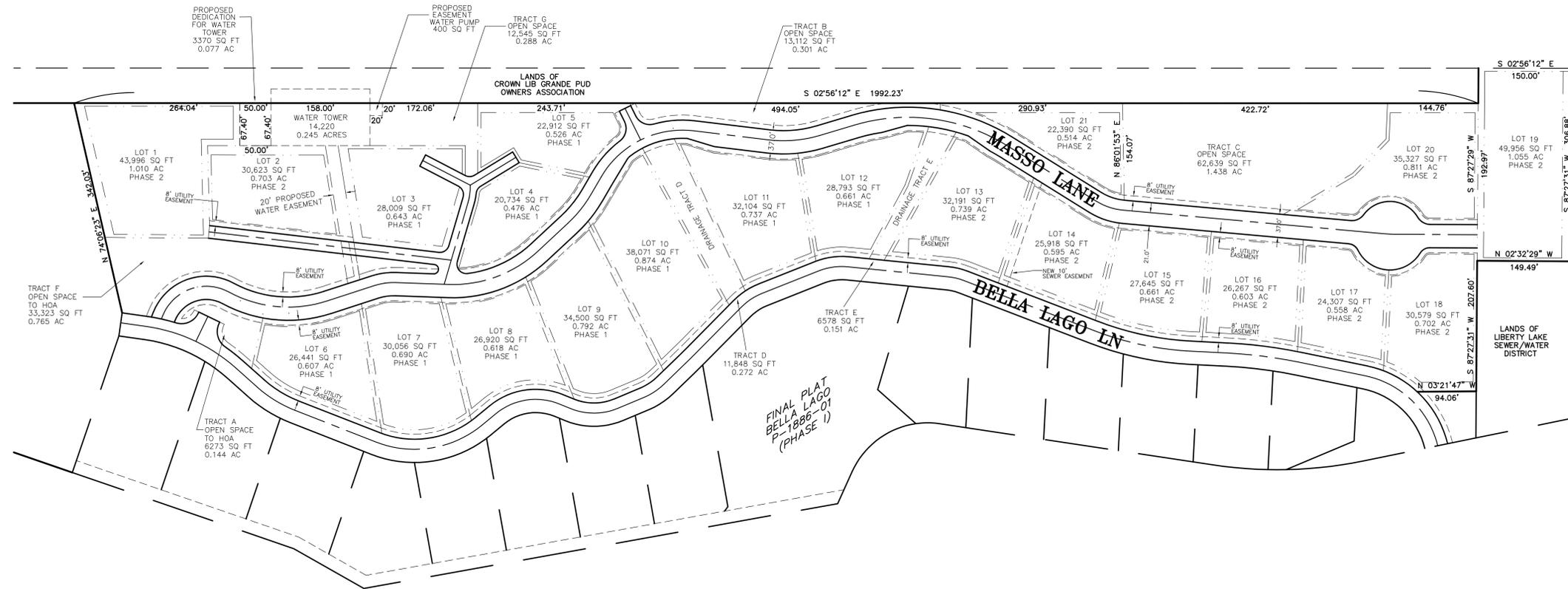
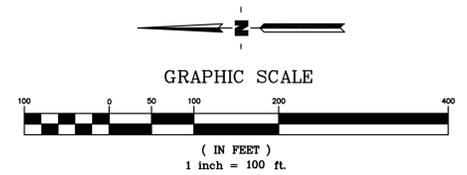
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PROJECT SURVEYOR: MKM	SHEET: 3 OF 6
DRAWN BY: MKM	
LAST DATE OF REVISION: 12-19-24	JOB NO.: 24-3579

SHEET INDEX:

- 1 NOTES AND SIGNATURES
- 2 PARENT PARCEL BOUNDARY
- 3 LOT/TRACT LAYOUT
- 4 EASEMENTS AND SETBACKS
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- 6 UTILITIES

PRELIMINARY SUBDIVISION PLAT
 BELLA LAGO - 2nd PHASE (P-1886-01)
 A PORTION OF THE EAST 1/2 OF SECTION 14,
 TOWNSHIP 25 NORTH, RANGE 45 EAST, W.M.
 PARCEL No. 55145.9064
 CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON



NOTES:

- 1) BUILDING SETBACKS
 FRONT YARD MINIMUM = 10 FT
 BACK YARD MINIMUM = 15 FT
 SIDE YARD MINIMUM = 5 FT
- 2) TYPICAL UTILITY EASEMENT IS 8 FT OFF OF RIGHT-OF-WAY LINE

LEGEND:

	PROPERTY LINE
	CENTERLINE
	EASEMENT LINE
	BUILDING SETBACK LINE
	BUILDING ENVELOPE
	NEW SANITARY SEWER
	NEW STORM DRAIN
	NEW WATER LINE
	FIRE HYDRANT
	WATER METER
	SANITARY SEWER MANHOLE
	BLOW OFF
	CATCH BASIN

SHEET INDEX:

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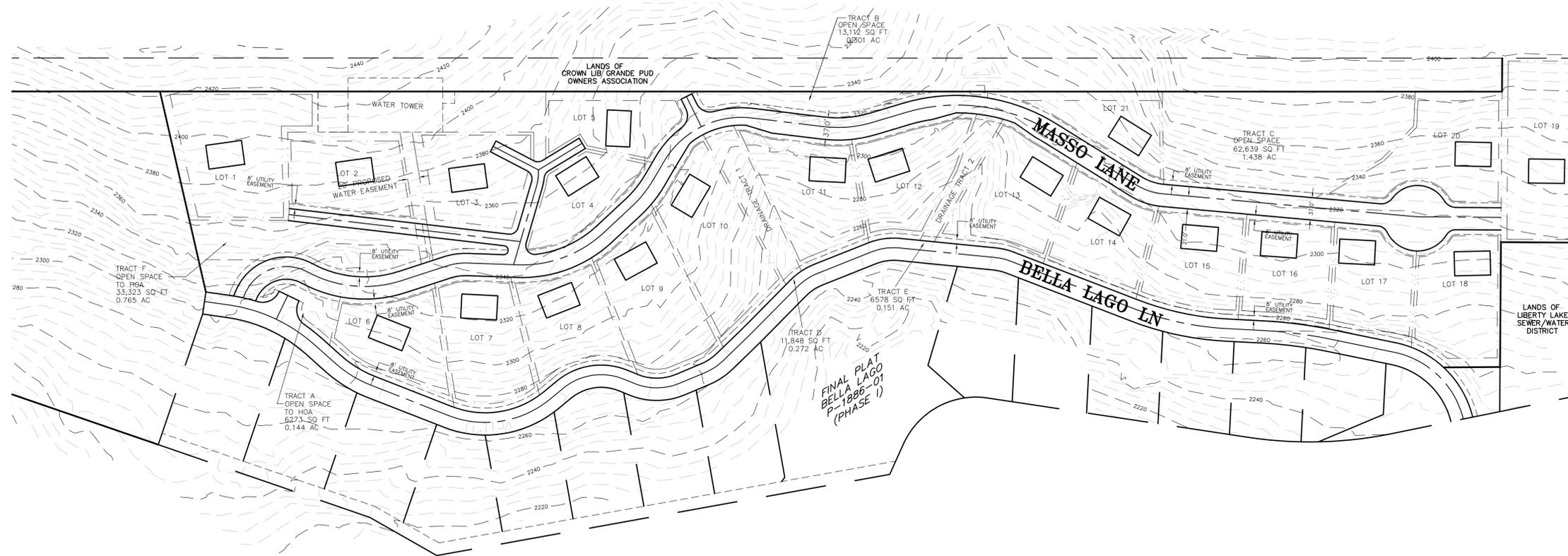
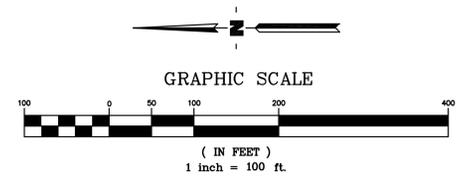
EASEMENTS AND SETBACKS
BELLA LAGO-2nd PHASE
APN# 55145.9064
LIBERTY LAKE, WA

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DRAWN BY: MKM	
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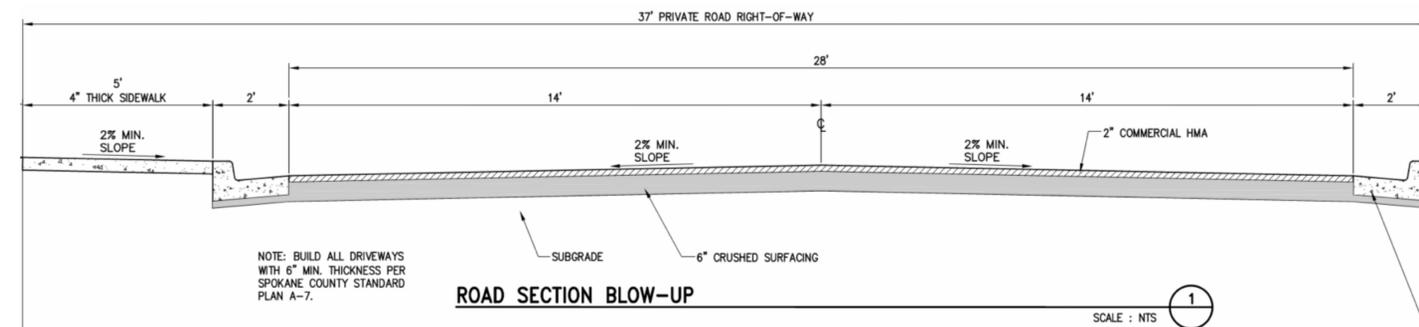
PRELIMINARY SUBDIVISION PLAT
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 PARCEL No. 55145.9064
 CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON



NOTES:

1) BUILDING PAD (TYPICAL) IS 40 FT X 60 FT

TYPICAL ROAD SECTION:



LEGEND:

- PROPERTY LINE
- - - CENTERLINE
- - - EASEMENT LINE
- - - BUILDING SETBACK LINE
- - - BUILDING ENVELOPE
- - - (N)SS NEW SANITARY SEWER
- - - (N)SD NEW STORM DRAIN
- - - (N)W NEW WATER LINE
- ⊕ FIRE HYDRANT
- ⊙ WATER METER
- ⊙ SANITARY SEWER MANHOLE
- ⊙ BLOW OFF
- CATCH BASIN

SHEET INDEX:

- 1 NOTES AND SIGNATURES
- 2 PARENT PARCEL BOUNDARY
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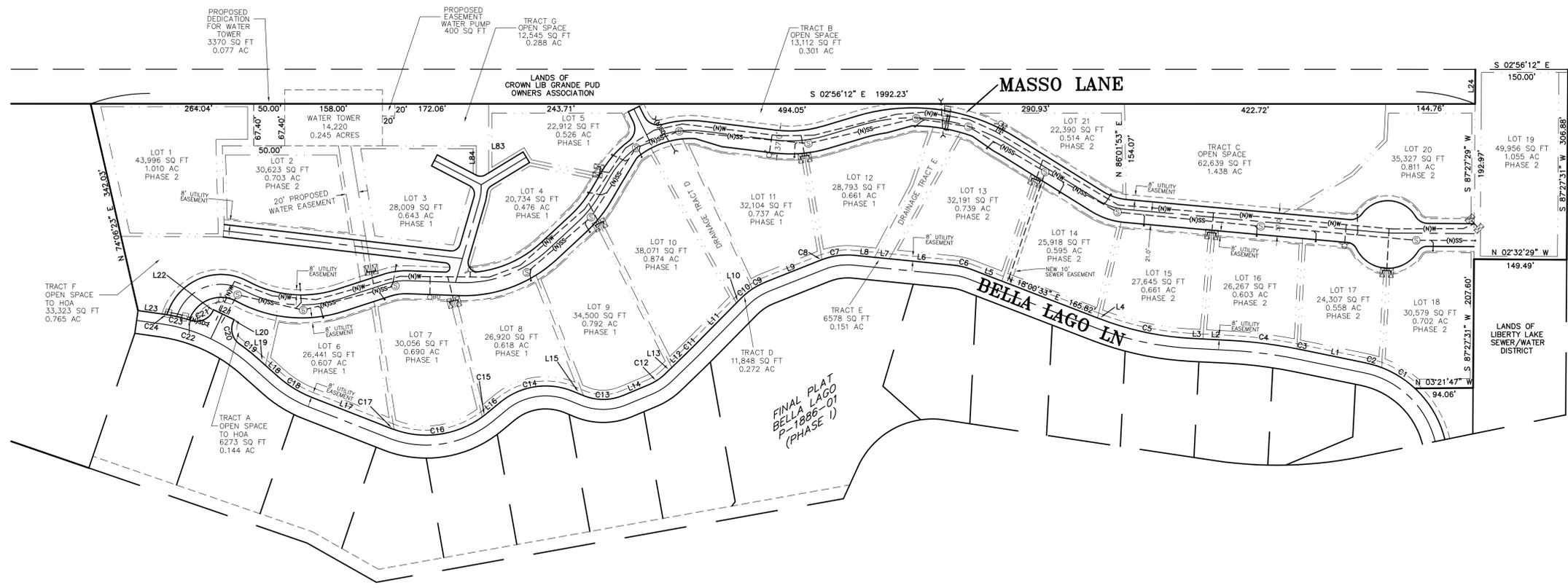
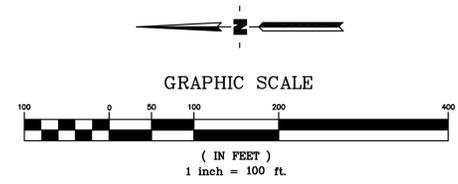
PRELIMINARY
BUILDING FOOTPRINTS & TOPO
BELLA LAGO-2nd PHASE
APN# 55145.9064
LIBERTY LAKE, WA



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PROJECT SURVEYOR: MKM	SHEET: 5 OF 6
DRAWN BY: MKM	
LAST DATE OF REVISION: 12-19-24	JOB NO.: 24-3579

PRELIMINARY SUBDIVISION PLAT
BELLA LAGO - 2nd PHASE (P-1886-01)
A PORTION OF THE EAST 1/2 OF SECTION 14,
TOWNSHIP 25 NORTH, RANGE 45 EAST, W.M.
PARCEL No. 55145.9064
CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON



LEGEND:

	PROPERTY LINE
	CENTERLINE
	EASEMENT LINE
	BUILDING SETBACK LINE
	BUILDING ENVELOPE
	NEW SANITARY SEWER
	NEW STORM DRAIN
	NEW WATER LINE
	FIRE HYDRANT
	WATER METER
	SANITARY SEWER MANHOLE
	BLOW OFF
	CATCH BASIN



PRELIMINARY

- SHEET INDEX:**
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UTILITIES

BELLA LAGO-2nd PHASE
APN# 55145.9064
LIBERTY LAKE, WA

DURYEA & ASSOCIATES
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PROJECT SURVEYOR: MKM	SHEET: 6 OF 6
DRAWN BY: MKM	
LAST DATE OF REVISION: 12-19-24	JOB NO.: 24-3579



SEPA CHECKLIST

Liberty Lake Planning, Engineering & Building Services
22710 E. Country Vista Drive, Liberty Lake WA 99019
Phone: (509) 755-6704 Fax: (509) 755 6713
Website: www.libertylakewa.gov
Email: permitcenter@libertylakewa.gov

City Development Code Article 10-6A, Environmental Ordinance

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:

Please adjust the format of this template as needed. Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

A. Background [\[HELP\]](#)

1. Name of proposed project, if applicable:

Bella Lago - 2nd Phase

2. Name of applicant: Big Rock Investment Group
3. Address and phone number of applicant and contact person:
Contact: Shawn Walker - 509.954.3490
24709 East Liberty Creek Rd. Liberty Lake, WA 99019
4. Date checklist prepared:
3/17/2025
5. Agency requesting checklist:
City of Liberty Lake
6. Proposed timing or schedule (including phasing, if applicable):
Phase 1 consists of lots 2-9 – Summer 2025. Phase 2 lots 10-20 and lot 1-2 - Summer 2026.
Final wrap up Summer 2027 after water tower development. Some work will be completed for Phase 2 during Phase 1.
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.
After completion of Phase 2, no further work is proposed.
8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.
A stormwater treatment plan has been prepared for this land in conjunction with Bella Lago Phase 1 completed previously.
9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
Not aware of any governmental approvals pending.
10. List any government approvals or permits that will be needed for your proposal, if known.
N/A.
11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

This project is a continuation of the original Bella Lago project completed in 2008. The proposed project will consist of two phases and result in the construction of 21 residential lots and a private access road. Total acreage of the combined lots will be 14.35 acres, with the entire site, including open space and private road, being 20.56 acres.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

Parcel No. 55145.9064. Other associated parcels: 55145.9065 & 55141.5524.



Liberty Lake, Washington. Just east of the Liberty Lake and MeadowWood golf courses off N. Bella Lago Ln. E 1/2 of the SE 1/4 of Section 14, T 25N, R 45E, W.M..

B. Environmental Elements [\[HELP\]](#)

1. **Earth** [\[help\]](#)

a. General description of the site:

The site is on a west facing slope populated with coniferous trees above Bella Lago Lane. A primitive road traversed the site from north to south, roughly parallel to the slope. Rock outcrops are present on the site.

b. What is the steepest slope on the site (approximate percent slope)? **18-70%**

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

Quaternary flood gravels over Hauser Lake Gneiss. Removal of soils in specific areas will be necessary to level the site for construction purposes.

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

The geohazard report noted no signs of unstable soils were not observed. See G24493 Geohazard Evaluation Report REVISED for observations.

- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

There will be cut and fill required to construct the new private road. Estimated quantities are approximately 1000 cy of each.

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

Areas of the site are mapped in the geohazard report as posing a severe potential for erosion. "Erosion Control BMP's will be implemented to prevent erosion from exiting the site and site stabilization will be maintained in the short and long term.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

N/A.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

Erosion control BMP's consisting of Construction Entrance, Silt Fence, and Inlet protection. an Erosion and Sediment Control plan will be prepared identifying critical areas.

2. Air [\[help\]](#)

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

Typical roadway construction and residential construction emissions. Dust is anticipated and dust control measures will be implemented. After construction, emissions will be limited to automobile use and heating/cooling equipment.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No off-site sources are known or anticipated.

- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

Dust control measures will be employed on an as needed basis for site construction activity. Construction equipment access mitigation will be employed to reduce off site contamination.

3. **Water** [\[help\]](#)

a. Surface Water: [\[help\]](#)

- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

No surface water body in the immediate area.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

N/A.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

N/A.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

No.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

No.

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

None.

b. Ground Water: [\[help\]](#)

- 1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No groundwater will be withdrawn.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste material will be discharged into the ground from septic tanks.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Stormwater runoff from pollutant generating impervious surfaces (PGIS) will be treated by the existing stormwater treatment facilities from the original Bella Lago project. Quantities of stormwater will be determined and the size of existing facilities will be analyzed to determine if they meet the demand.

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

Waste Materials entering ground or surface waters is not anticipated.

- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

No. On-site drainage travels south and will continue to do so post construction.

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any:

Runoff from and pollutant source will be contained and treated in stormwater facilities before entering the ground.

4. **Plants** [\[help\]](#)

a. Check the types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- Orchards, vineyards or other permanent crops.
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

Approximately 10-20% of the site trees, shrubs, and grass will be removed or altered as a result of construction. Some of this area will be replaced with landscaping from native plants.

c. List threatened and endangered species known to be on or near the site.

None known.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Landscaping as required by the City of Liberty Lake.

e. List all noxious weeds and invasive species known to be on or near the site.

None known.

5. **Animals** [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

- birds: hawk, heron, eagle, songbirds other:
- mammals: deer, bear, elk, beaver, other:
- fish: bass, salmon, trout, herring, shellfish, other _____

Hawk, songbirds, Rocky Mtn Elk and deer.

- b. List any threatened and endangered species known to be on or near the site.
No known threatened or endangered species.

- c. Is the site part of a migration route? If so, explain.
No migration route is known for this site.

- d. Proposed measures to preserve or enhance wildlife, if any:
No exceptional measures to enhance wildlife habitat are included.

- e. List any invasive animal species known to be on or near the site.
No known invasive animal species.

6. **Energy and Natural Resources** [\[help\]](#)

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.

Electric heating and cooling will be used for the residential buildings as required to meet WSEC. Lighting will be predominately LED.

- b. Would your project affect the potential use of solar energy by adjacent properties?
If so, generally describe.

No.

- c. What kinds of energy conservation features are included in the plans of this proposal?
List other proposed measures to reduce or control energy impacts, if any:

Buildings will be designed to meet or exceed requirements of the WSEC.

7. Environmental Health [\[help\]](#)

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe. None.

- 1) Describe any known or possible contamination at the site from present or past uses.

N/A.

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

N/A.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

N/A.

- 4) Describe special emergency services that might be required.

N/A.

5) Proposed measures to reduce or control environmental health hazards, if any:

N/A.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

This site is located on a private drive in a residential area and therefore noise is minimal.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

We anticipate typical noise level associated with the construction of residential buildings and roadways. Construction activity will be limited to the daytime. At completion, noise will limited to residential traffic.

3) Proposed measures to reduce or control noise impacts, if any:

Construction noise will be limited to normal working hours.

8. Land and Shoreline Use [\[help\]](#)

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

Land Use R-1 (Single Family Residential) Current land uses will not be affected.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

No.

c. Describe any structures on the site.

Water tanks exist on-site and will be maintained through construction.

d. Will any structures be demolished? If so, what?

No.

e. What is the current zoning classification of the site?

R-1 - Single Family Residential

f. What is the current comprehensive plan designation of the site?

Residential housing.

g. If applicable, what is the current shoreline master program designation of the site?

N/A.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Critical areas include areas exceeding 30% slope and have been recognized by the City of Liberty Lake.

i. Approximately how many people would reside or work in the completed project?

±21 residing families.

j. Approximately how many people would the completed project displace?

None.

k. Proposed measures to avoid or reduce displacement impacts, if any:

N/A.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

Project will maintain residential status with the construction of single-family homes.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

N/A.

9. Housing [\[help\]](#)

a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.

21 middle to high income single family homes.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

c. Proposed measures to reduce or control housing impacts, if any:

N/A.

10. Aesthetics [\[help\]](#)

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

Adhering to City of Liberty Lake building requirements.

- b. What views in the immediate vicinity would be altered or obstructed?

None.

- b. Proposed measures to reduce or control aesthetic impacts, if any:

Landscaping, buildings, and frontages in conformance with City of Liberty Lake development standards.

11. Light and Glare [\[help\]](#)

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

Residential lightning.

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

Not anticipated.

- c. What existing off-site sources of light or glare may affect your proposal?

None known.

- d. Proposed measures to reduce or control light and glare impacts, if any:

N/A.

12. Recreation [\[help\]](#)

a. What designated and informal recreational opportunities are in the immediate vicinity?
MeadowWood and Liberty Lake Golf Course. Spokane County Park.

b. Would the proposed project displace any existing recreational uses? If so, describe.
No.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
N/A.

13. Historic and cultural preservation [\[help\]](#)

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers ? If so, specifically describe.
No.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.
No.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.
There is no evidence of any cultural or historic significance on the project site.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

N/A.

14. Transportation [\[help\]](#)

- a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any.

Private access road will be constructed for access to the proposed homes. E. Valleyway Avenue is the main arterial to the site and will not be impacted by the proposed construction.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

No.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

Residential parking as required by the City of Liberty Lake. No parking will be eliminated.

- d. Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private).

Yes. A new private access road will be constructed for access to the single-family homes.

- e. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No.

f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?
~240 total trips, assuming two adults per household. travel will be predominately during the AM and PM peak hours during the work week. See trip letter for further details

g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.
No.

h. Proposed measures to reduce or control transportation impacts, if any:
None.

15. Public Services [\[help\]](#)

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe.
Not anticipated.

b. Proposed measures to reduce or control direct impacts on public services, if any.
N/A.

16. Utilities [\[help\]](#)

a. List all utilities currently available at the site: (ex: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system)
Water and sewer are available from Liberty Lake Sewer and Water District.
Power is available from Avista.

- b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

Water, sewer from LLSWD and power from Avista.

C. Signature [\[HELP\]](#)

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: Shawn Walker

Name of signee Shawn Walker

Position and Agency/Organization Partner

Date Submitted: 3/26/25

D. Supplemental sheet for non-project actions [\[HELP\]](#)

(IT IS NOT NECESSARY to use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.



*trip generation
letter*



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Washington
Oregon
California
Texas
Alaska
Colorado
Montana

March 27, 2025

City of Liberty Lake Public Works
Planning, Engineering, and Building Division
22710 East Country Vista Drive
Liberty Lake, WA 99019
(509) 755-6730
Parcel Number: 55145.9064
Zoning: Single Family Residential (R1)

Re: Trip Generation Letter for the new **Bella Lago – 2nd Phase project**

City of Liberty Lake Public Works,

As part of the permitting process for the proposed project, DCI Engineers understands that a trip generation and distribution letter is required for the new Bella Lago – 2nd Phase being constructed just east of the Meadowwood and Liberty Lake Golf Course at Parcel 55145.9064 in Liberty Lake, Washington. A vicinity map showing the project location is included in Appendix I. The project will consist of 21 single family homes and a new private access road for access to each lot's future driveway. The project will also include concrete sidewalks, landscaping, and utility connections as required by the city of Liberty Lake. Construction of the project will occur in two phases with phase 1 beginning summer 2025, phase 2 beginning summer 2026, and project completion in summer 2027.

Summary:

The 3rd Edition of ITE's *Trip Generation Handbook* and 11th Edition of ITE's *Trip Generation Manual* were used to determine the estimated number of new trips that could be generated by completion of the project during the weekday and weekday AM and PM Peak Hours. It is estimated that 240 new trips will be generated during a typical weekday, 18 (5 entering, 13 exiting) new primary trips will be generated during the weekday AM Peak Hour, and 23 (14 entering, 9 exiting) new primary trips will be generated during the weekday PM Peak Hour.

Trip values were estimated using the 11th Edition of ITE's *Trip Generation Manual*. Land Use 210: Single-Family Detached Housing was used to determine the estimated number of trips generated by the proposed 21 lot subdivision. The corresponding pages from the ITE Manual have been included in Appendix II. Due to the nature of the proposed project, pass-by, diverted link, and internal capture trips were assumed to be negligible.

Trip Generation Summary:

The 11th Edition of the ITE's *Trip Generation Manual* was used to calculate the number of trips entering and exiting the site during the typical weekday, and weekday AM and PM Peak Hours. The number of new trips generated was estimated based on an independent variable (IV) of dwelling units for the proposed project. Since the subdivision consists of 21 lots, the IV is 21. Based on the methodology in the 3rd Edition of ITE's *Trip Generation Handbook*, the fitted curve was used to estimate the number of trips for a typical weekday, as well as the trips for the weekday AM and PM Peak Hours.

Land Use 210: Single-Family Detached Housing

- Weekday
 - Average vehicle trip ends vs. Dwelling Units (21)
 - 240 Total Trips (Fitted Curve)
 - **50% IN, 120 trips**
 - **50% OUT, 120 trips**
- Weekday, AM Peak Hour of Adjacent Street Traffic
 - Average vehicle trip ends vs. Dwelling Units (21)
 - 18 Total Trips (Fitted Curve)
 - **25% IN, 5 trips**
 - **75% OUT, 13 trips**
- Weekday, PM Peak Hour of Adjacent Street Traffic
 - Average vehicle trip ends vs. Dwelling Units (21)
 - 23 Total Trips (Fitted Curve)
 - **63% IN, 14 trips**
 - **37% OUT, 8 trips**

Trip Distribution Summary:

Trips for the new residential homes will enter and exit the site through the new private road, Masso Lane, that is connected to the existing Bella Lago Ln to the west. A site plan for the project has been included in Appendix IV. The table below describes the movements at the boundary of the analysis extents, the potential destinations/originations associated with that movement, and the anticipated percentage of trips that would be associated with that movement. It is assumed that these percentages will be consistent across both the AM and PM peak hours.

Roadway (Direction)	Origination/ Destination	Anticipated Percentage	AM Peak Hour Trips In/Out	PM Peak Hour Trips In/Out
E Appleway Avenue (East)	Cd'A	12%	1/2	2/1
E Country Vista Dr/ E Appleway Avenue (West)	Spokane Valley	6%	0/1	1/0
I-90 (East)	Cd'A	24%	1/3	3/2
I-90 (West)	Spokane	58%	3/7	8/5
		100%	5/13	14/8

Exhibits showing the anticipated distribution of trips created by the proposed project have been included in Appendix III. Included exhibits show the proposed AM and PM peak hour trips.

If you have any questions, please don't hesitate to contact me at 509-455-4448.

Sincerely,
DCI Engineers Inc.

Matt Gibb, P.E.
Associate Principal

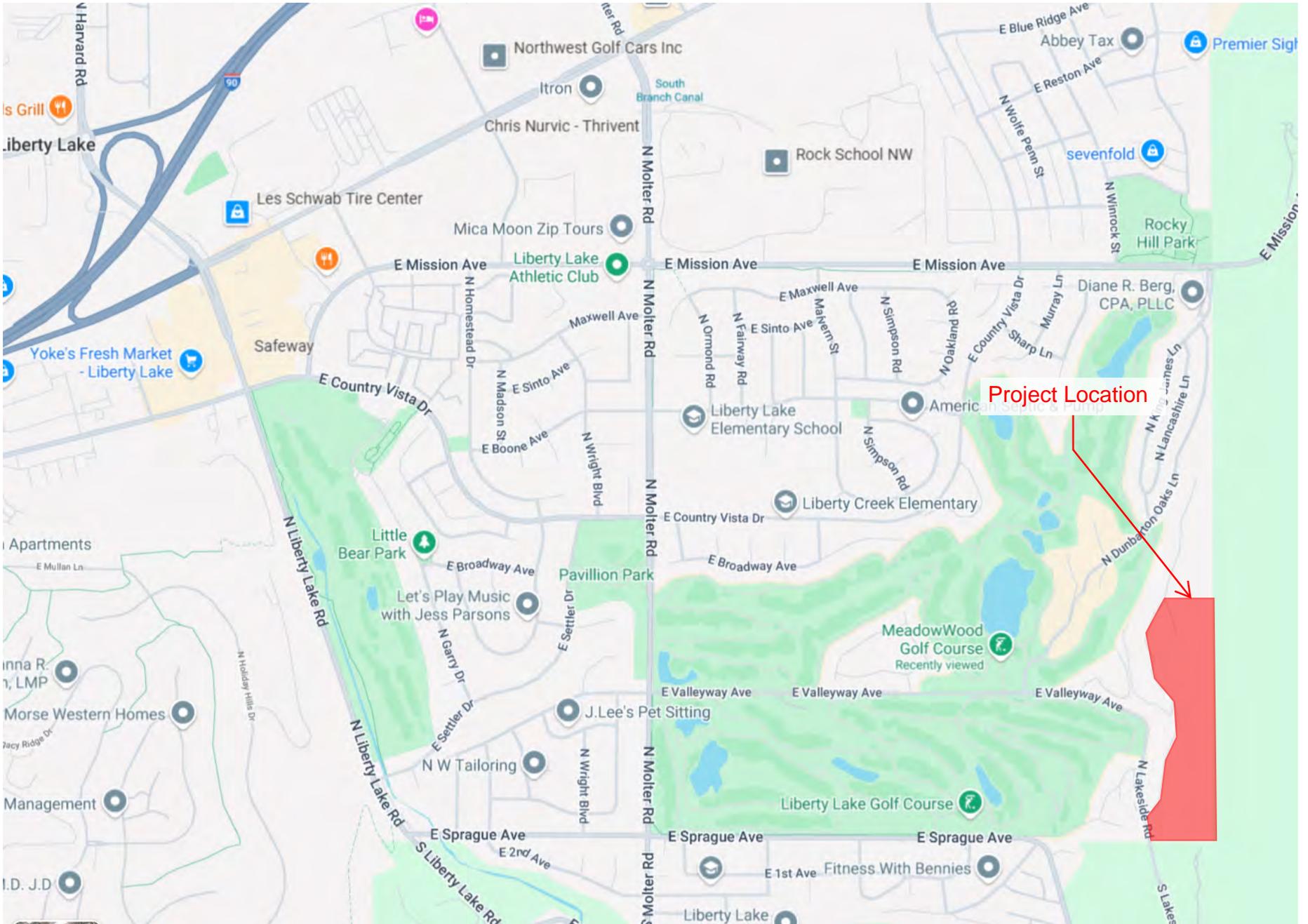


Appendix I: Vicinity Map
Appendix II: Excerpts from the ITE Trip Generation Manual, 11th Edition
Appendix III: Trip Distribution
Appendix IV: Site Plan

Appendix I

Vicinity Map

Parcel: 55145.9064



Appendix II

Land Use: 210

Single-Family Detached Housing

Description

A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.

Specialized Land Use

Data have been submitted for several single-family detached housing developments with homes that are commonly referred to as patio homes. A patio home is a detached housing unit that is located on a small lot with little (or no) front or back yard. In some subdivisions, communal maintenance of outside grounds is provided for the patio homes. The three patio home sites total 299 dwelling units with overall weighted average trip generation rates of 5.35 vehicle trips per dwelling unit for weekday, 0.26 for the AM adjacent street peak hour, and 0.47 for the PM adjacent street peak hour. These patio home rates based on a small sample of sites are lower than those for single-family detached housing (Land Use 210), lower than those for single-family attached housing (Land Use 251), and higher than those for senior adult housing -- single-family (Land Use 251). Further analysis of this housing type will be conducted in a future edition of *Trip Generation Manual*.

Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

For 30 of the study sites, data on the number of residents and number of household vehicles are available. The overall averages for the 30 sites are 3.6 residents per dwelling unit and 1.5 vehicles per dwelling unit.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Arizona, California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Jersey, North Carolina, Ohio, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, and West Virginia.

Source Numbers

100, 105, 114, 126, 157, 167, 177, 197, 207, 211, 217, 267, 275, 293, 300, 319, 320, 356, 357, 367, 384, 387, 407, 435, 522, 550, 552, 579, 598, 601, 603, 614, 637, 711, 716, 720, 728, 735, 868, 869, 903, 925, 936, 1005, 1007, 1008, 1010, 1033, 1066, 1077, 1078, 1079

Single-Family Detached Housing (210)

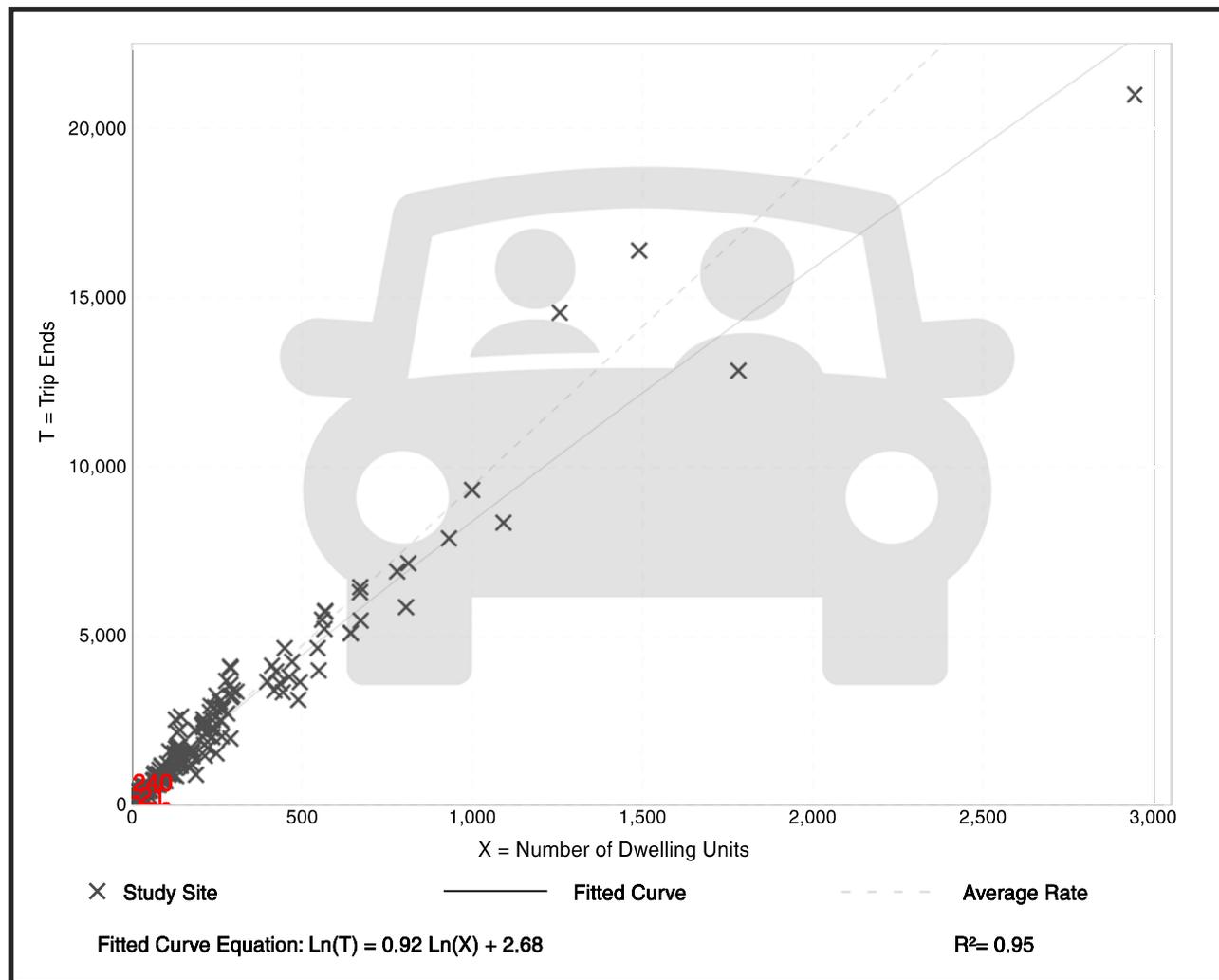
Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 174
Avg. Num. of Dwelling Units: 246
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

Data Plot and Equation



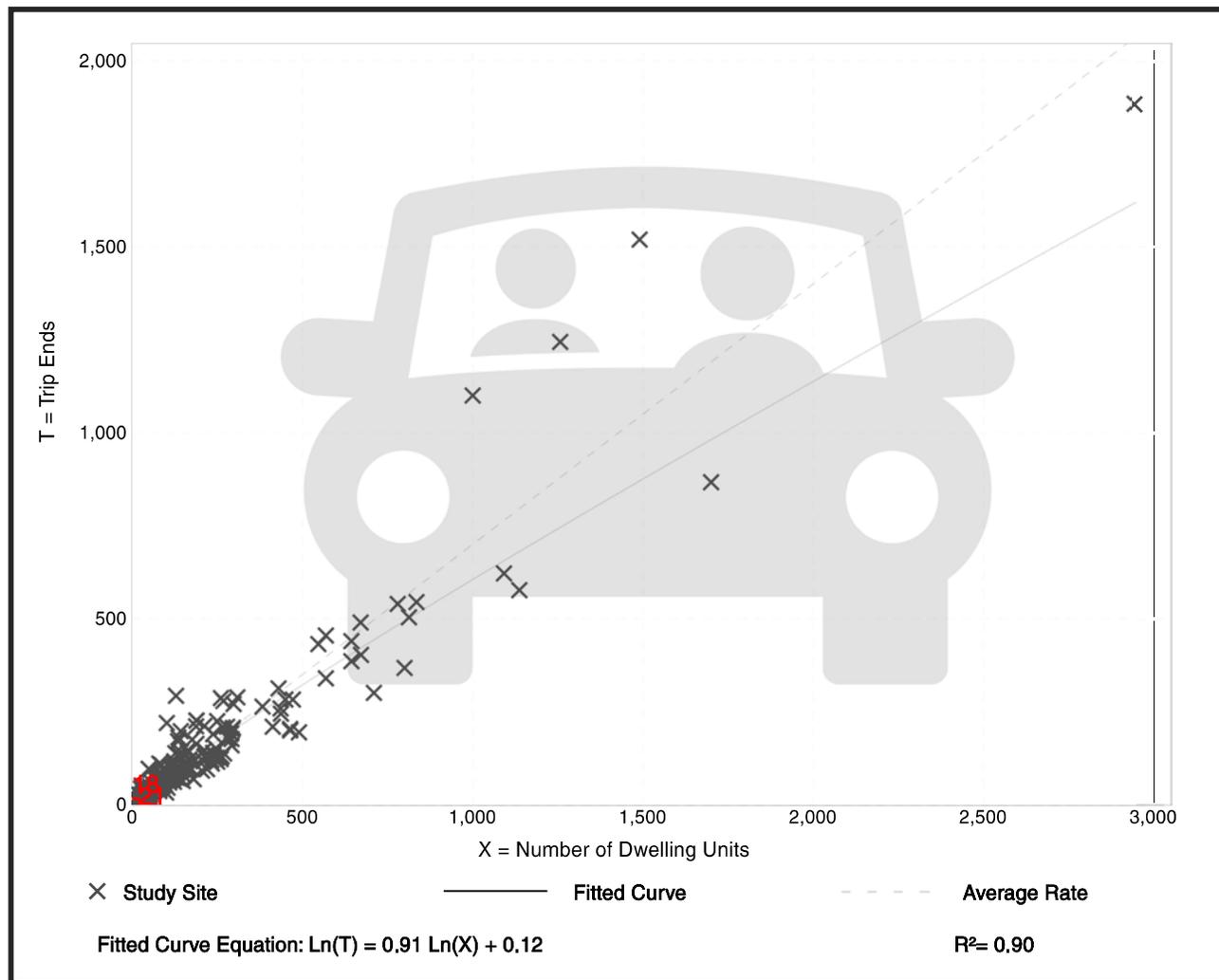
Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
 On a: Weekday,
 Peak Hour of Adjacent Street Traffic,
 One Hour Between 7 and 9 a.m.
 Setting/Location: General Urban/Suburban
 Number of Studies: 192
 Avg. Num. of Dwelling Units: 226
 Directional Distribution: 25% entering, 75% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

Data Plot and Equation



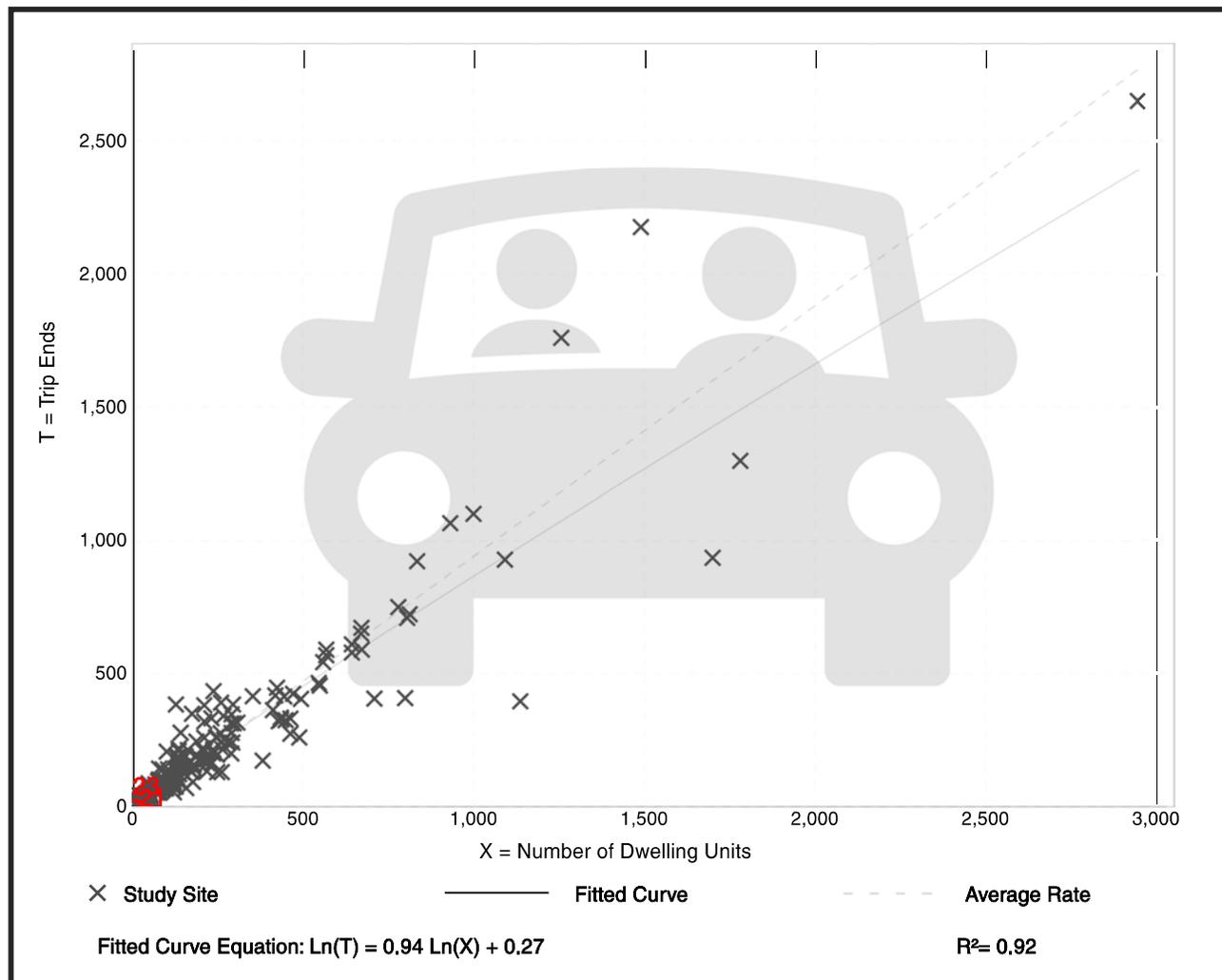
Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 208
 Avg. Num. of Dwelling Units: 248
 Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

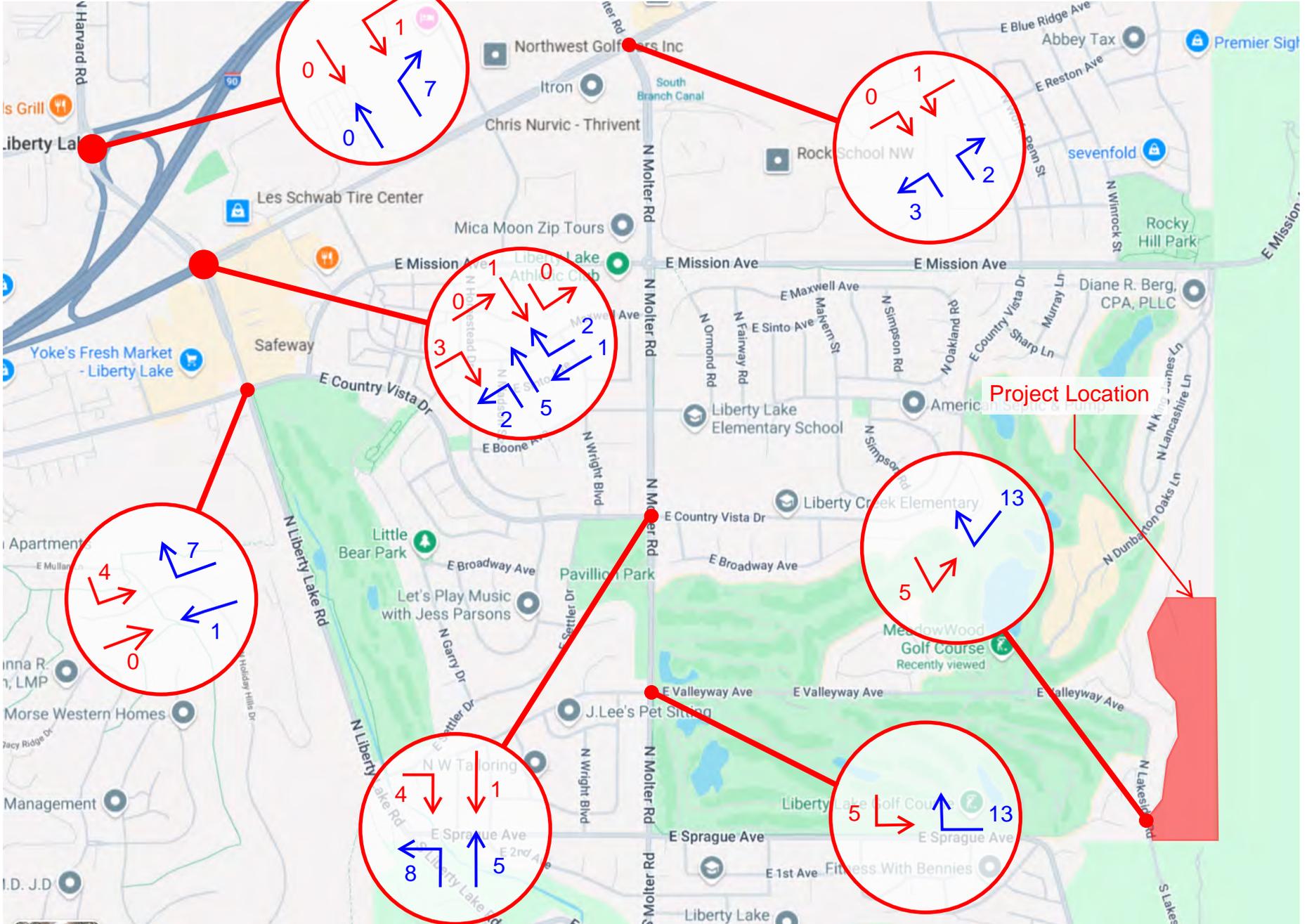
Data Plot and Equation



Appendix III

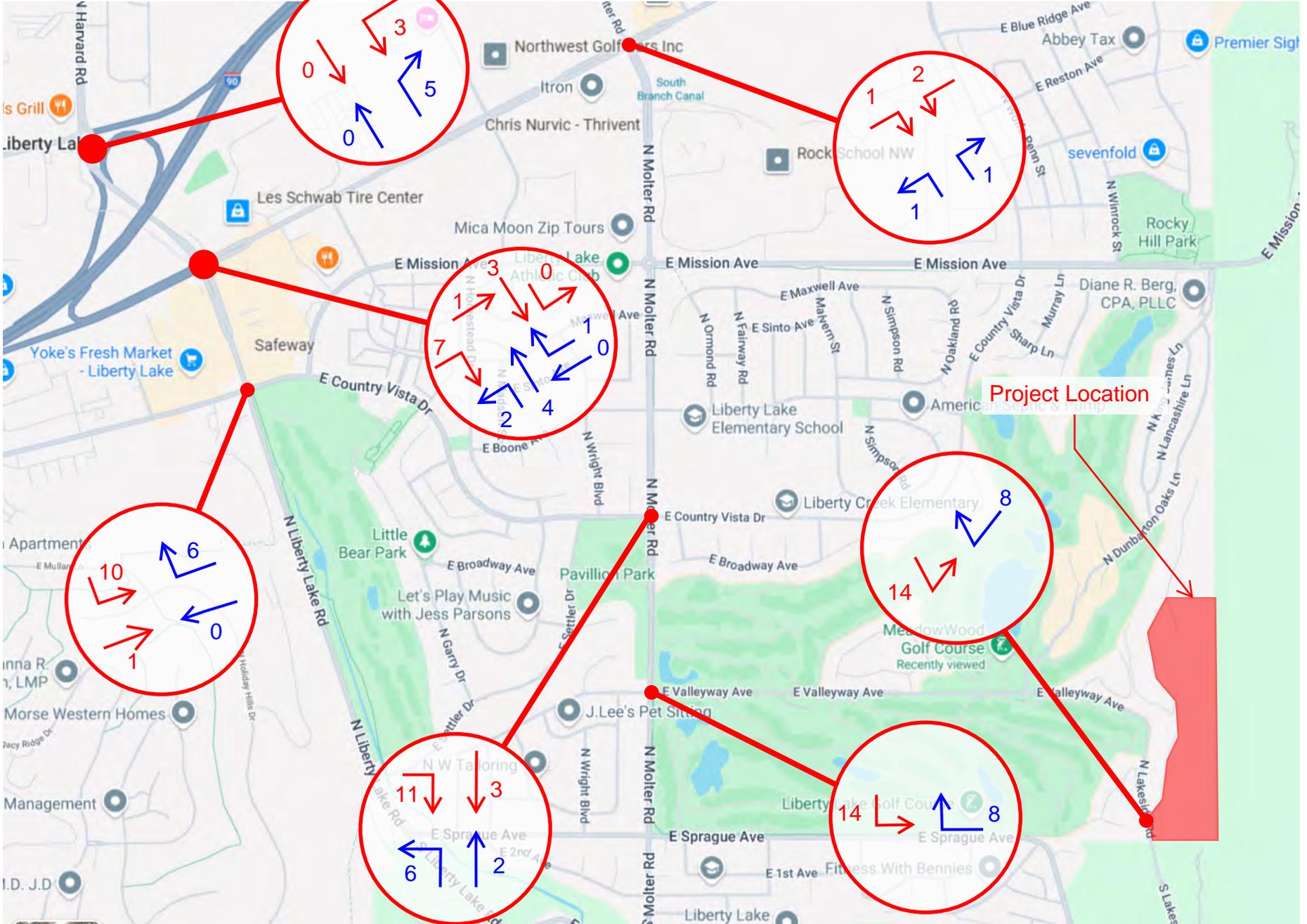
Trip Distribution - AM Peak Hours

- 5 Entering Trips
- 13 Exiting Trips



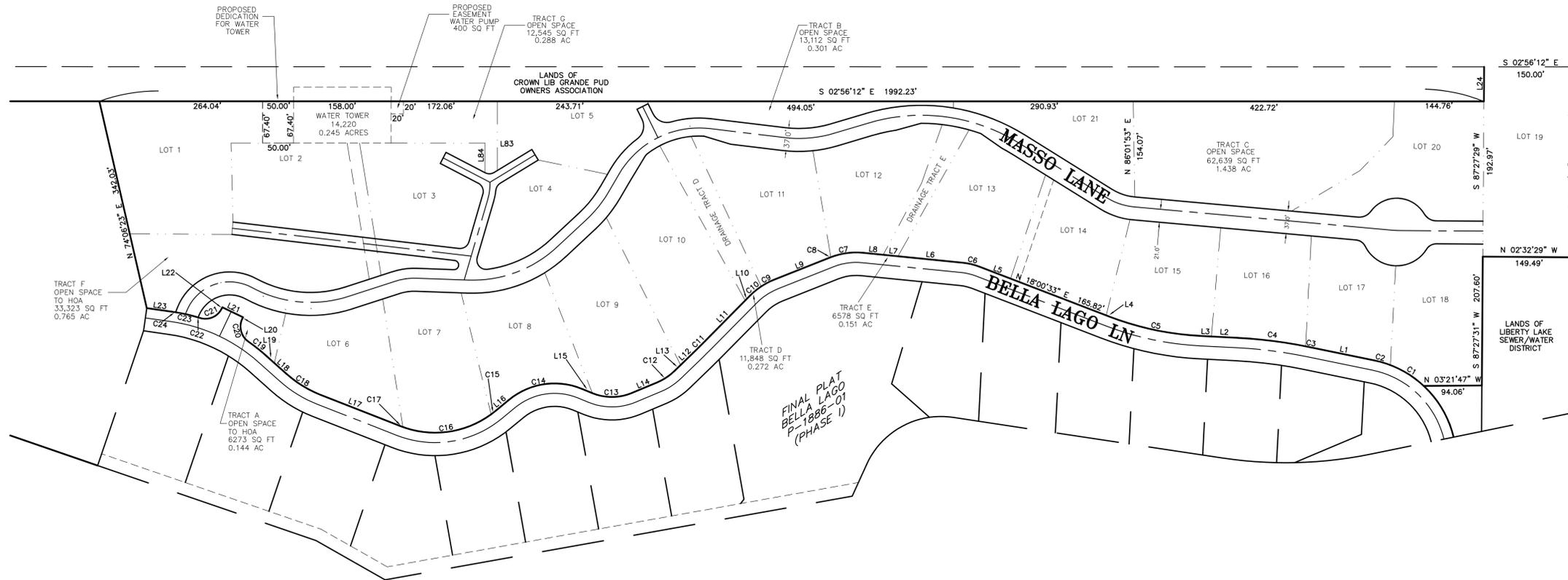
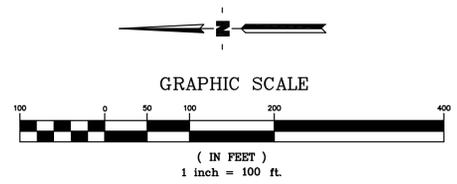
Trip Distribution - PM Peak Hours

- 14 Entering Trips
- 8 Exiting Trips



Appendix IV

PRELIMINARY SUBDIVISION PLAT
 BELLA LAGO - 2nd PHASE (P-1886-01)
 A PORTION OF THE EAST 1/2 OF SECTION 14,
 TOWNSHIP 25 NORTH, RANGE 45 EAST, W.M.
 PARCEL No. 55145.9064
 CITY OF LIBERTY LAKE, SPOKANE COUNTY, WASHINGTON



LEGEND:

—	PROPERTY LINE
- - -	CENTERLINE
- - - -	EASEMENT LINE
- - - - -	BUILDING SETBACK LINE
- - - - -	BUILDING ENVELOPE
- (N)SS - - - -	NEW SANITARY SEWER
- (N)SD - - - -	NEW STORM DRAIN
- (N)W - - - -	NEW WATER LINE
⊕	FIRE HYDRANT
⊗	WATER METER
⊙	SANITARY SEWER MANHOLE
⊖	BLOW OFF
□	CATCH BASIN

LINE TABLE:

LINE	BEARING	DISTANCE
L1	S 05°37'41" W	108.24'
L2	N 00°00'06" E	42.44'
L3	N 00°00'06" E	17.74'
L4	N 18°00'33" E	4.63'
L5	N 18°00'33" E	52.98'
L6	N 02°43'02" E	103.69'
L7	N 02°43'02" E	23.95'
L8	N 02°43'02" E	32.34'
L9	S 24°31'14" E	96.68'
L10	N 48°10'34" W	10.52'
L11	N 48°10'34" W	91.63'
L12	N 46°51'15" W	33.18'
L13	N 46°51'15" W	14.86'
L14	S 25°35'37" E	45.26'
L15	N 19°12'08" E	18.85'
L16	N 42°22'01" W	28.25'
L17	S 18°21'21" W	138.50'
L18	N 38°40'04" E	26.48'
L19	N 38°40'04" E	19.49'
L20	N 67°17'25" W	2.48'
L21	S 22°42'35" W	37.00'
L22	N 67°17'25" E	2.00'
L23	N 05°07'48" E	41.73'

CURVE TABLE:

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	166.00'	63.99'	63.59'	N 28°53'19" E	22°05'11"
C2	166.00'	26.71'	26.68'	N 13°14'13" E	9°13'03"
C3	770.00'	4.89'	4.89'	N 08°26'48" E	0°21'51"
C4	770.00'	111.04'	110.94'	N 04°07'58" E	8°15'44"
C5	484.00'	152.12'	151.49'	N 09°00'20" E	18°00'27"
C6	111.23'	30.36'	30.27'	N 10°11'22" E	15°38'23"
C7	116.00'	53.58'	53.08'	N 10°30'35" W	26°27'14"
C8	116.00'	1.59'	1.59'	N 24°07'43" W	0°47'02"
C9	116.00'	24.00'	23.96'	N 30°28'50" W	11°51'12"
C10	116.00'	23.89'	23.85'	N 42°18'30" W	11°48'08"
C11	984.00'	22.70'	22.70'	S 47°30'54" E	11°19'19"
C12	86.66'	31.69'	31.52'	S 36°22'39" E	20°57'12"
C13	84.00'	65.67'	64.01'	N 03°11'44" W	44°47'45"
C14	116.00'	124.65'	118.74'	S 11°34'56" E	61°34'09"
C15	154.00'	9.11'	9.11'	N 40°40'19" W	9°23'22"
C16	154.00'	149.97'	144.12'	N 11°04'42" W	55°47'53"
C17	154.00'	4.13'	4.13'	N 17°35'18" E	1°32'06"
C18	184.00'	65.23'	64.89'	N 25°30'43" E	20°18'43"
C19	287.46'	34.91'	34.89'	N 35°11'18" E	6°57'33"
C20	29.50'	41.71'	38.32'	S 72°12'33" W	81°00'04"
C21	29.50'	42.00'	38.54'	S 26°30'04" E	81°54'41"
C22	287.46'	3.12'	3.12'	N 13°58'56" E	0°37'21"
C23	287.46'	37.50'	37.47'	N 09°55'42" E	7°28'27"
C24	287.46'	5.32'	5.32'	N 05°39'38" E	1°03'40"

SHEET INDEX:

1. NOTES AND SIGNATURES
2. PARENT PARCEL BOUNDARY
3. LOT/TRACT LAYOUT
4. EASEMENTS AND SETBACKS
5. BUILDING FOOTPRINTS WITH TOPOGRAPHY
6. UTILITIES



PARENT PARCEL BOUNDARY
BELLA LAGO-2nd PHASE
APN# 55145.9064
LIBERTY LAKE, WA

DURYEA & ASSOCIATES
 Surveying and Mapping

2702 N. Perry Street Spokane, WA 99207 (509) 465-8007
 www.duryea-associates.com

PROJECT SURVEYOR: MKM	SHEET: 2 OF 6
DRAWN BY: MKM	
LAST DATE OF REVISION: 12-19-24	JOB NO.: 24-3579

Shawn Walker
24709 E. Liberty Creek Road
Liberty Lake, WA 99019

January 17, 2024
Revised from July 26, 2024
Project G24493

Project: Bella Lago Lane Parcel 55145.9064 – Liberty Lake, WA
Subject: Results of Geohazard Evaluation

Mr. Walker:

As requested, we conducted geologic research of the subject property. We understand a preliminary geohazard assessment is required by Spokane County prior to construction.

INTRODUCTION

Project

A residential development of approximately 22 lots is planned for the approximately 20.5-acre site. The development will include road construction, single-family homes, and utility installation.

Location

The site is in the E ½ of the SE ¼ of Section 14, Township 25N, Range 45E, Willamette Meridian. It is on Spokane County Parcel 55145.9064. There is no physical address listed for the site. The location is illustrated in the *Vicinity Map* and *Site Plan*.

Scope

The scope of services included:

- Review of readily available geologic and soil information;
- Field reconnaissance of the property;
- Evaluation of pertinent geologic and hydrologic conditions at the site based on visual observations;
- Development of professional opinions relating to potential geologic hazards as defined by the City of Liberty Lake (COLL) Development Code, *Title 10, Chapter 6b-5: Geologically Hazardous Areas*; and,
- Preparation of a letter report documenting our conclusions.

Subsurface exploration and laboratory analysis were not included in the scope of services. Geotechnical engineering for the development addressing, for example, design and construction parameters for embankment construction, cut and fill slopes, underground utilities, seismicity, drainage facilities, and pavements is also not included in the scope of services. It can be provided upon request for additional services.

This report addresses conclusions as to the potential geohazards as defined by the COLL Development Code associated with development. The conclusions are based on visual observations of the ground surface conditions and our review of readily available published data.

ENCOUNTERED CONDITIONS

Physical Setting and USDA Soil Mapping

The site is in the southern portion of the Priest River metamorphic core complex. Core complexes are typically “domal” and comprised of a core of high-grade metamorphic rocks such as gneiss. These metamorphic rocks formed deep within the crust as a result of significant elevated pressure and temperature causing metamorphism of the preexisting rock. During the last ice age, repeated rupturing of the ice dams that retained Glacial Lake Missoula resulted in massive floods that scoured pre-existing rock and sedimentary formations across parts of Idaho and Washington and deposited coarse-grained soil in consequentially developed channels and basins.

Geologic mapping of the area shows the site is underlain by Quaternary flood gravels (*Qfg*) over Hauser Lake Gneiss (*pChl*) consisting of gray, tan, and brown coarse-grained gneiss. (WSDNR, 2004)

The Natural Resource Conservation Service (NRCS) lists the native soils associated with the site as described in *Table 1*, below.

Table 1. NRCS Soil Units

Soil Unit	Soil Name	Slopes	K Factor, Whole Soil
5071	Lenz-Spokane complex	15 to 30 percent slopes	0.32
5073	Lenz-Rock outcrop complex	15 to 30 percent slopes	0.17
5074	Lenz-Rock outcrop complex	30 to 60 percent slopes	0.17
7091	Urban land-Lenz, disturbed complex	15 to 30 percent slopes	0.2

Surface Conditions

The site faces west at an approximately 10 to 35-degree slope. The topographic high of approximately 2,428 feet was observed on the northern end of the eastern site boundary. The topographic low of 2,248 feet was observed just east of Bella Lago Lane at the base of two west-sloping draws. Culverts were observed at the base of the draws, crossing beneath and daylighting on the west side of Bella Lago Lane. Water was not observed in the culverts. Total relief across the site was approximately 108 feet (NAD 83).

The parcel was populated by coniferous trees among low-growing grasses and shrubs. A primitive road was observed beginning at the northwest corner of the site off Bella Lago Lane. The road gently sloped down to the south, roughly parallel to the slope, and crossed the two draws over embankment fill ranging in height from approximately 5 to 12 feet. A gravel road provided access to two City of Liberty Lake water reservoirs approximately 350 feet south of the intersection with Bella Lago Lane.

Rock outcrops were observed on the east side of Bella Lago Lane, the east side of the road, and in multiple locations on the slope.

Historical Imagery

We reviewed historical aerial images dating back to 1957 as well as satellite imagery obtained from *Google Earth*. The dirt and gravel road appeared to have been constructed between 1992 and 2003. Bella Lago Lane on the west side of the site appeared to have been constructed between 2006 and 2007. The two City of Liberty Lake water reservoirs appeared to have been constructed in 2015.

Analysis of topography and surficial features was done using global information system (GIS) software and a digital elevation model from light detection and ranging (LIDAR) data obtained from Washington State Department of Natural Resources Lidar portal (WSDNR, 2007). Slopes greater than 30 percent and erodible soils were mapped and presented in *Figures*.

GEOLOGIC HAZARDS

The COLL Development Code requires evaluation of geologically hazardous areas, principally erosion and landslide areas (*Title 10, Chapter 6B-5, Section A*). The purpose of the code is to discourage development in geologically hazardous areas unless proponents demonstrate that such areas can be developed consistent with acceptable standards for public health and safety.

Based on this code, geohazard areas in Liberty Lake exhibit at least one of the following characteristics:

- a. *A slope of 30 percent or greater;*
- b. *Soils identified by Natural Resource Conservation Service (NRCS) as posing a severe potential for erosion (see Section 11.20.090M Appendix M);*
- c. *Hydraulic factors such as existing on-site surface and groundwater or changes in hydraulic factors, caused by proposals that create a severe potential for erosion or landslide hazard;*
- d. *Areas that historically have been prone to land sliding or with one of the following geologic formations: alluvium, landslide deposits, Latah Formation;*
- e. *Areas of uncompacted fill; and,*
- f. *Areas that are unstable as a result of rapid stream or stream bank erosion.*

Review of readily available information and recent site observations indicated components “a”, “b”, and “e” of the COLL Development Code, as described above, were observed on site. Other components of the COLL Development Code were not observed. Geohazards are discussed further below.

DISCUSSION

Slopes greater than 30 percent, erosion hazard areas, and uncompacted fill were identified during the review of published data of the site. Other geologically hazardous areas defined in the COLL Development Code were not observed. Geologic hazards are illustrated in *Figures*.

To determine whether soils pose a severe potential for erosion, we used the modified version of the Universal Soil Loss Equation (USLE) outlined in *Section 11.20.090L, Appendix L¹* which states “*The index is a product of K times the average slope of the map unit (K*ave slope). Slight has an index of less than or equal to 3.0 (less than 5 tons/acre/yr.), moderate has an index of 3.0 to 4.0 (5 to 8 tons/acre/yr.), and severe has an index greater than 4.0 (greater than 8 tons/acre/yr.)*” Based on K Factors in *Table 1* above, slopes greater than 23.5 percent pose severe potential for erosion.

Areas of bare soil, stripped of vegetation may pose erosion hazards but should be manageable by using typical best management practices (BMPs), not disturbing slopes, preservation of natural drainages, and not removing vegetation outside the construction areas. Dust abatement will likely be necessary during grading activities and dry periods.

Specific erosion control BMPs should be included in development plans. Specific traffic restricted areas should be delineated in construction plans. Traffic on slopes above the proposed structures should be restricted. Traffic in the development area should be limited to areas required for construction during wet weather. These practices, coupled with standard civil site design should be adequate to address soil erosion risks associated with the site. We recommend revegetating exposed soils as soon as possible to mitigate further erosion.

Records of compaction required to verify the placement of fill materials were not provided or readily available for the embankment fill placed for the road in the center of the site. Thus, the observed fill is

¹ Spokane County Critical Areas Ordinance (CAO), April, 2018

Budinger & Associates, Inc.

Geotechnical & Environmental Engineers

Construction Materials Testing & Special Inspection

assumed to be uncompacted. We anticipate uncompacted fill will be removed from areas where structures and pavements are proposed during initial site grading activities.

While geologic hazard conditions are present within the proposed development, these conditions are anticipated to be manageable through proper design, construction, and verification. To address the geotechnical concerns on the site, subsurface explorations will be required to provide parameters for others to design and construct roads, embankments, cuts, walls, structures, and stormwater drainage. We recommend retaining qualified professionals to complete erosion and sediment control plans, civil engineering and stormwater design, and geotechnical exploration and analysis.

LIMITATIONS

The conclusions presented herein represent our professional opinions based on the limited scope of work performed to date. This report is intended for the sole use of our client for the purposes stated herein and should not be used by other parties for other purposes without contacting us to provide specific evaluation and recommendations under an agreed scope of services. Specific geotechnical evaluation and design for construction is beyond the scope of this report.

The client should expect these services to have been completed in a manner consistent with the level of skill and care ordinarily exercised by members of the profession currently practicing in this area with similar budget and time constraints on projects of similar size and scope. No express or implied warranties are offered or made.

Be aware that geohazard evaluation reports do not substitute for geotechnical engineering evaluations to design slopes, walls, roads, utilities, stormwater facilities, structures, and earthwork.

Please do not hesitate to contact us if you have questions or concerns regarding the information presented herein.

Prepared by:
BUDINGER & ASSOCIATES, INC.

Jack Pappas, LEG
Engineering Geologist

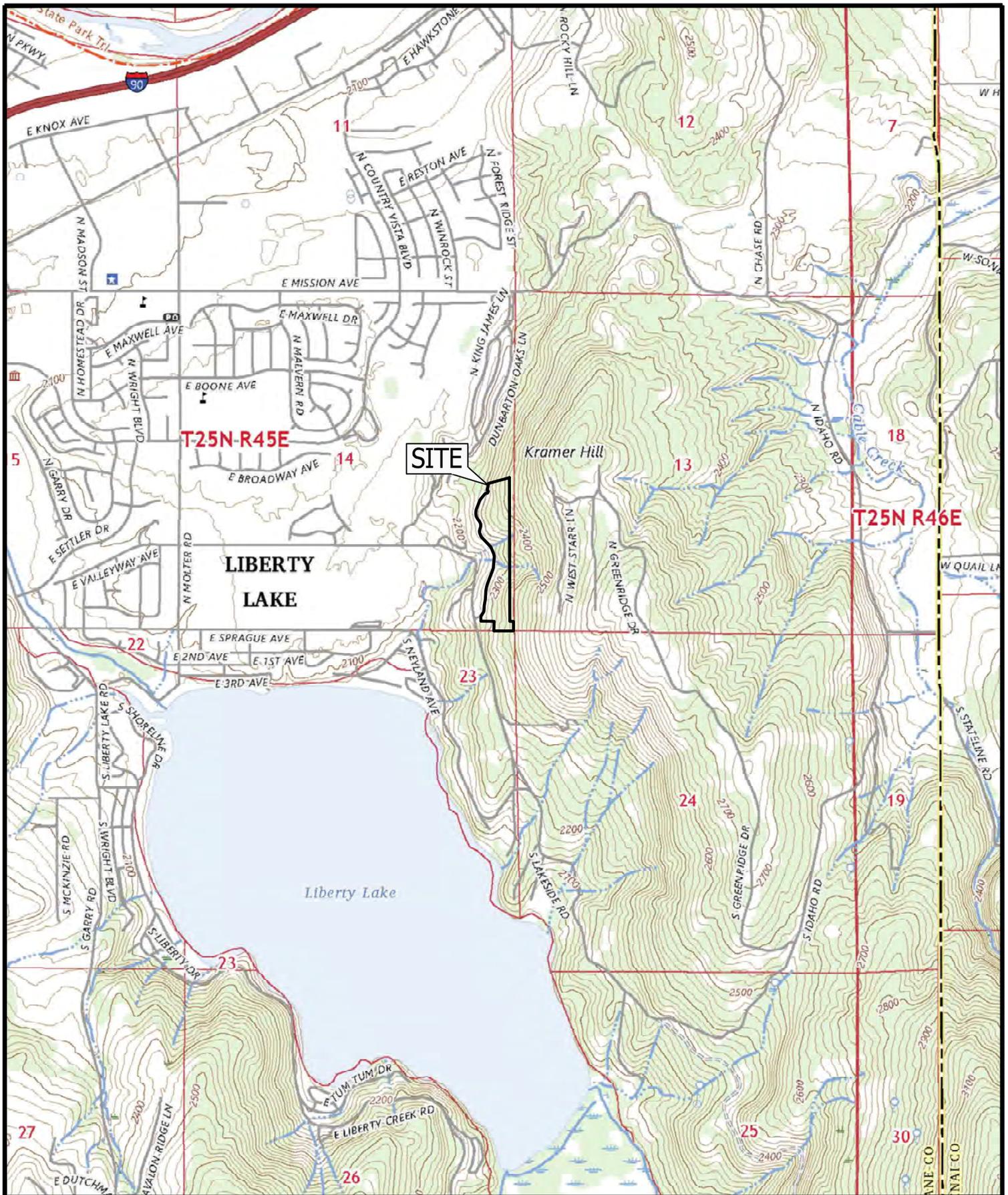
John Finnegan, PE, LEG, LHG
Principal Geotechnical Engineer



1/17/2025

Attachments:

- **Figure 1:** Vicinity Map
- **Figure 2-1:** Satellite Image
- **Figure 2-2:** LIDAR – Hillshade
- **Figure 2-3:** Severe Potential for Erosion
- **Figure 2-4:** Slopes Greater than 30 Percent
- **Figure 2-5:** Geologic Map
- *Important Information about This Geotechnical Engineering Report*



SITE

LIBERTY LAKE

Kramer Hill

Liberty Lake



SCALE: 1"=2000'
0 1000 2000

SECTION 14
T 25 N R 45 E
USGS 2024



Budinger & Associates

VICINITY MAP

BELLA LAGO LANE PARCEL 55145.9064
LIBERTY LAKE, WASHINGTON

FIGURE 1

PROJECT NUMBER G24493

DATE: 6/2024

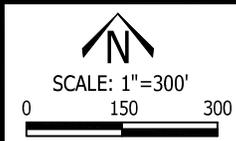
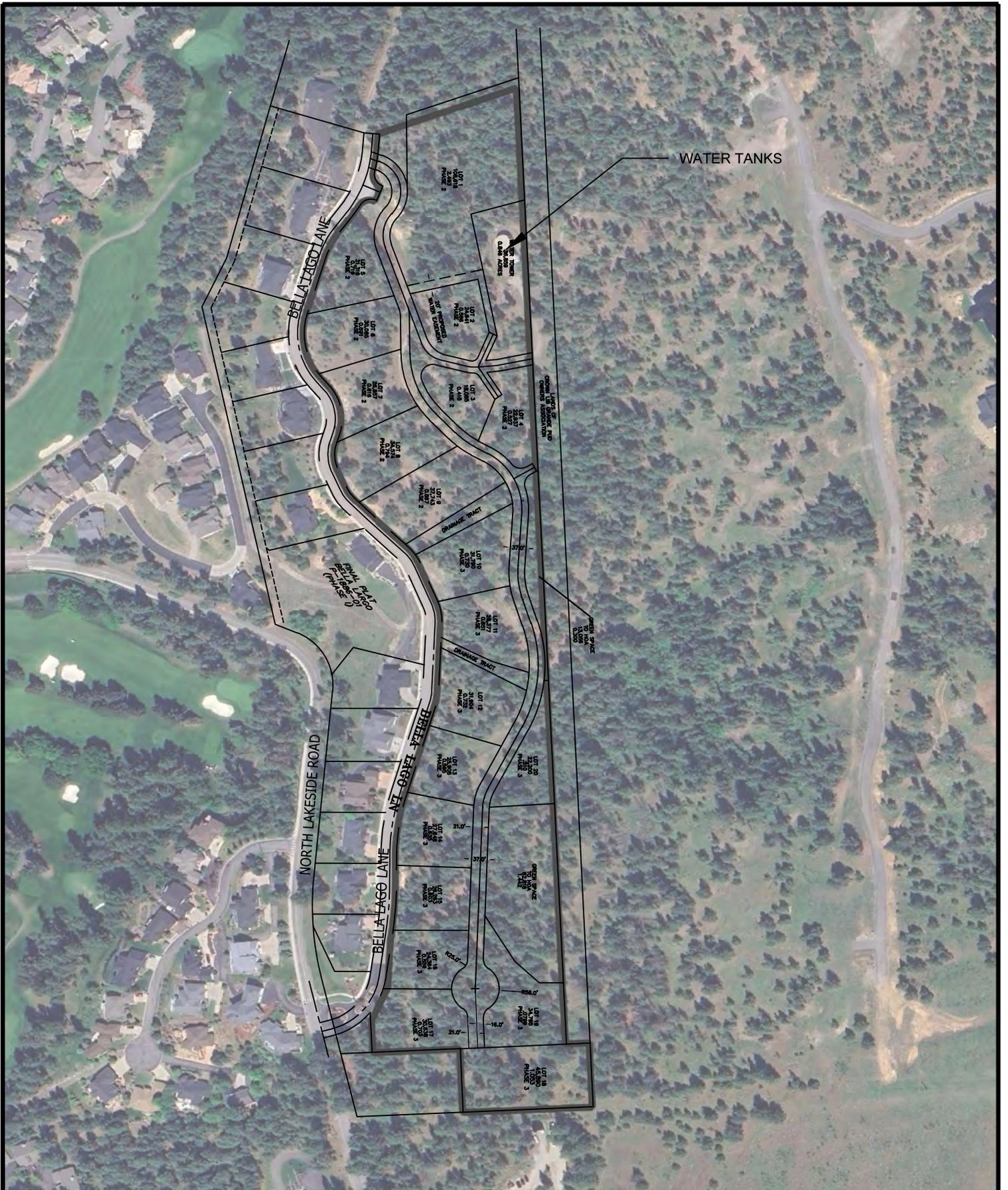
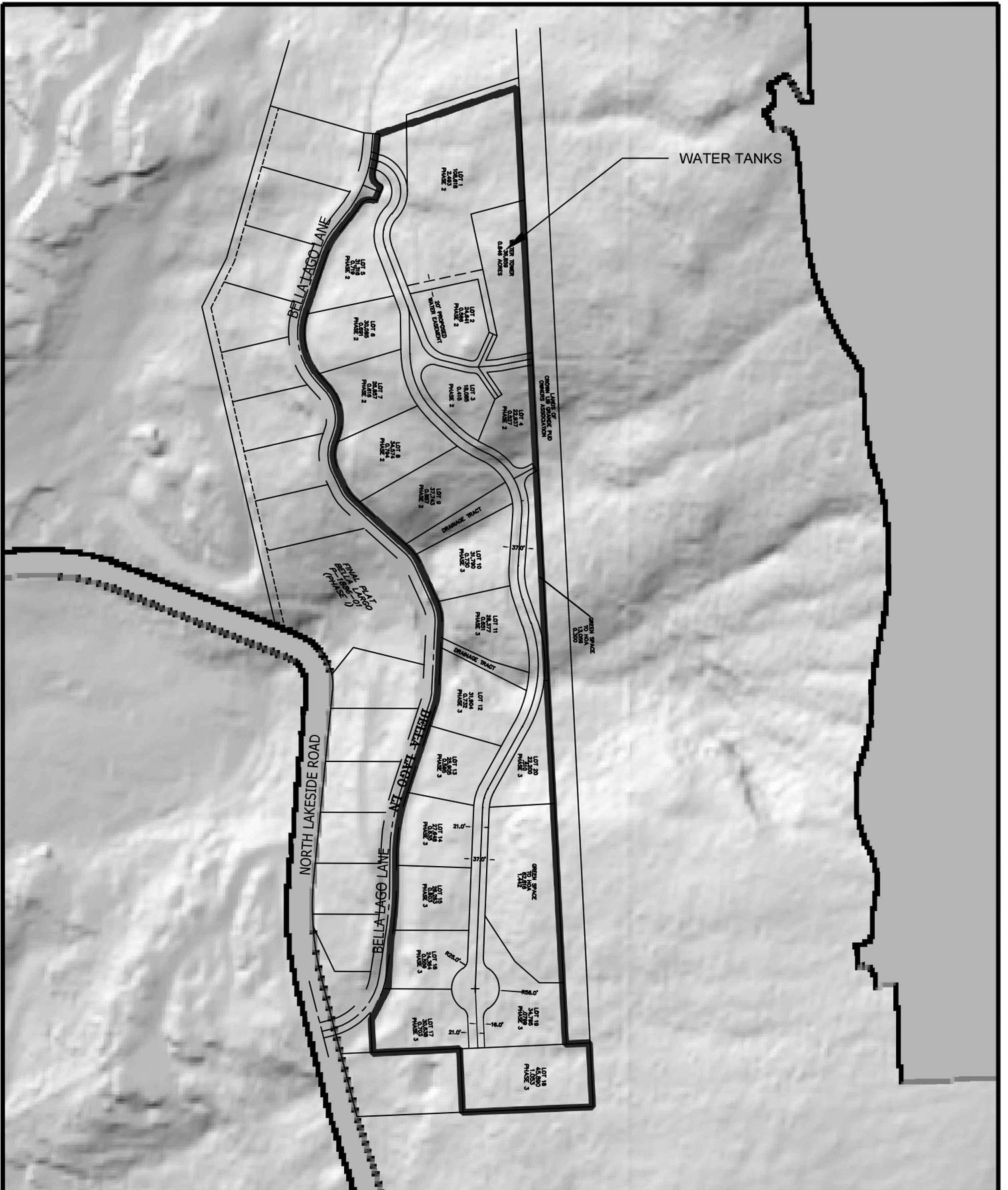


IMAGE PROVIDED BY:
GOOGLE SATELLITE
2024



SATELLITE IMAGE
BELLA LAGO LANE PARCEL 55145,9064
LIBERTY LAKE, WASHINGTON

FIGURE 2-1
PROJECT NUMBER G24493
DATE: 6/2024



SCALE: 1" = 300'

0 150 300

IMAGE PROVIDED BY:
WADNR LIDAR
2007



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& Associates

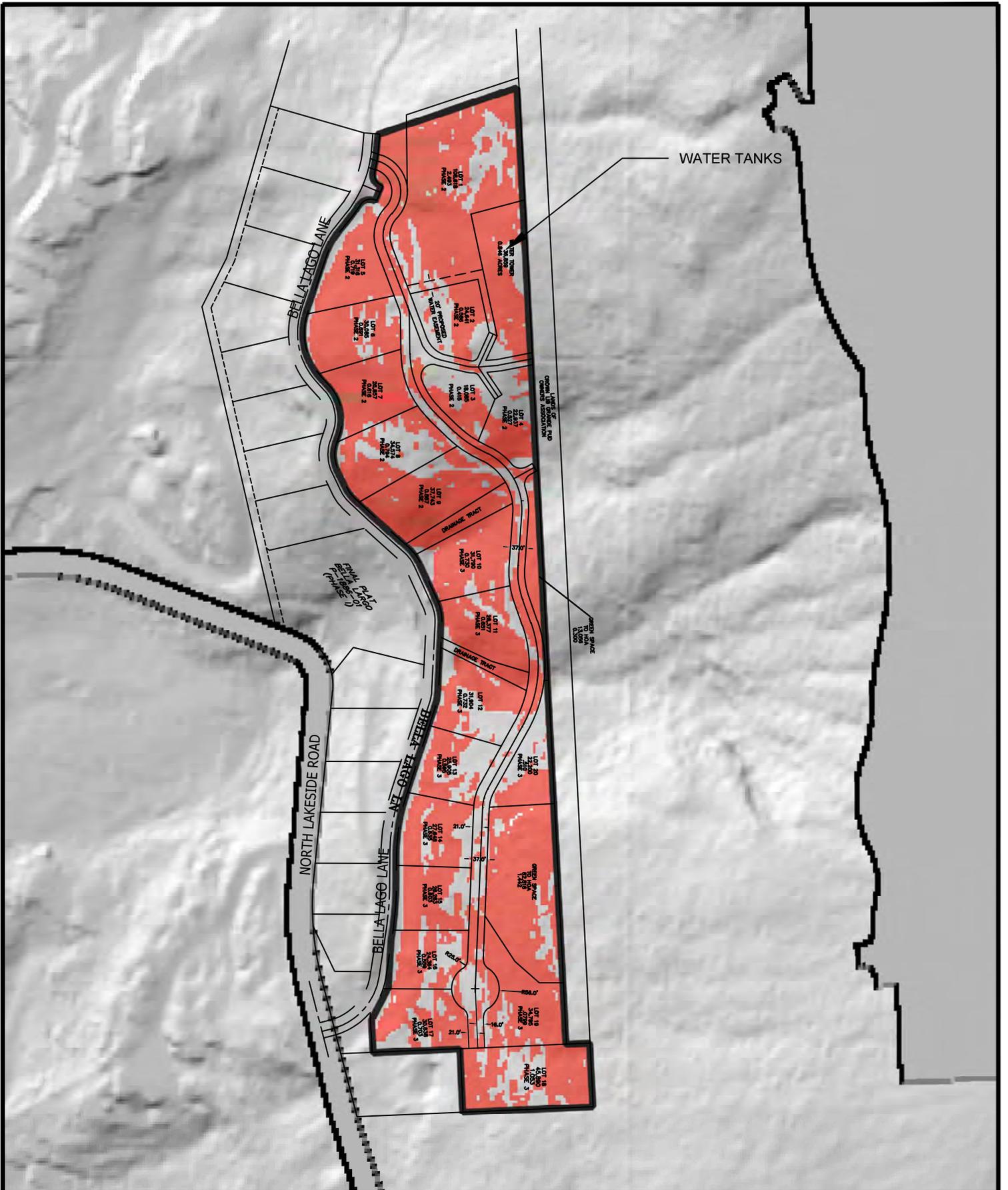
LIDAR - HILLSHADE

BELLA LAGO LANE PARCEL 55145,9064
LIBERTY LAKE, WASHINGTON

FIGURE 2-2

PROJECT NUMBER G24493

DATE: 6/2024



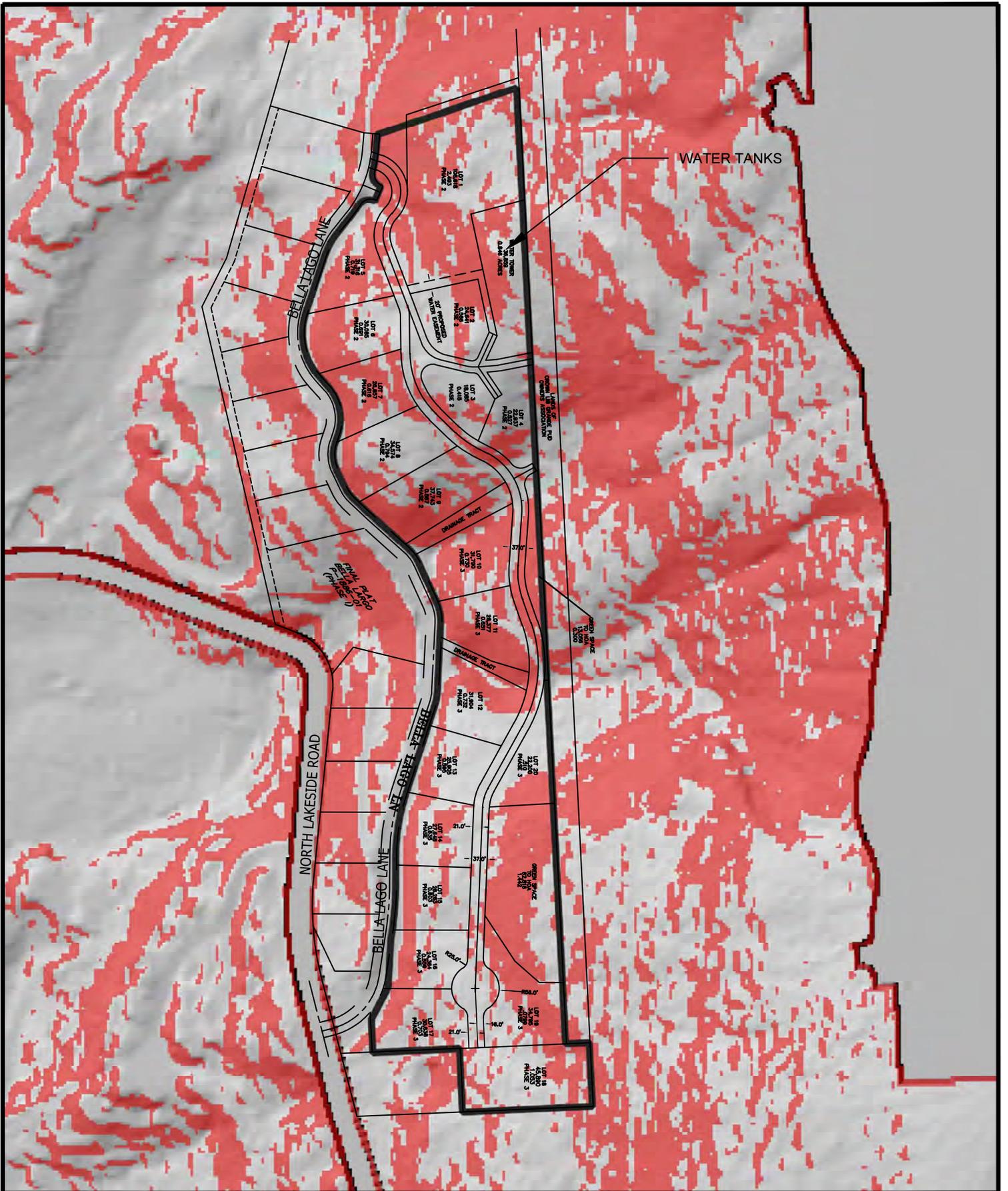

 SCALE: 1" = 300'
 0 150 300

IMAGE PROVIDED BY:
 WADNR LIDAR
 2007


 Budinger
 & Associates

SEVERE POTENTIAL FOR EROSION
 BELLA LAGO LANE PARCEL 55145,9064
 LIBERTY LAKE, WASHINGTON

FIGURE 2-3
 PROJECT NUMBER G24493
 DATE: 6/2024



SCALE: 1"=300'
0 150 300

IMAGE PROVIDED BY:
WADNR LIDAR
2007



Budinger
& Associates

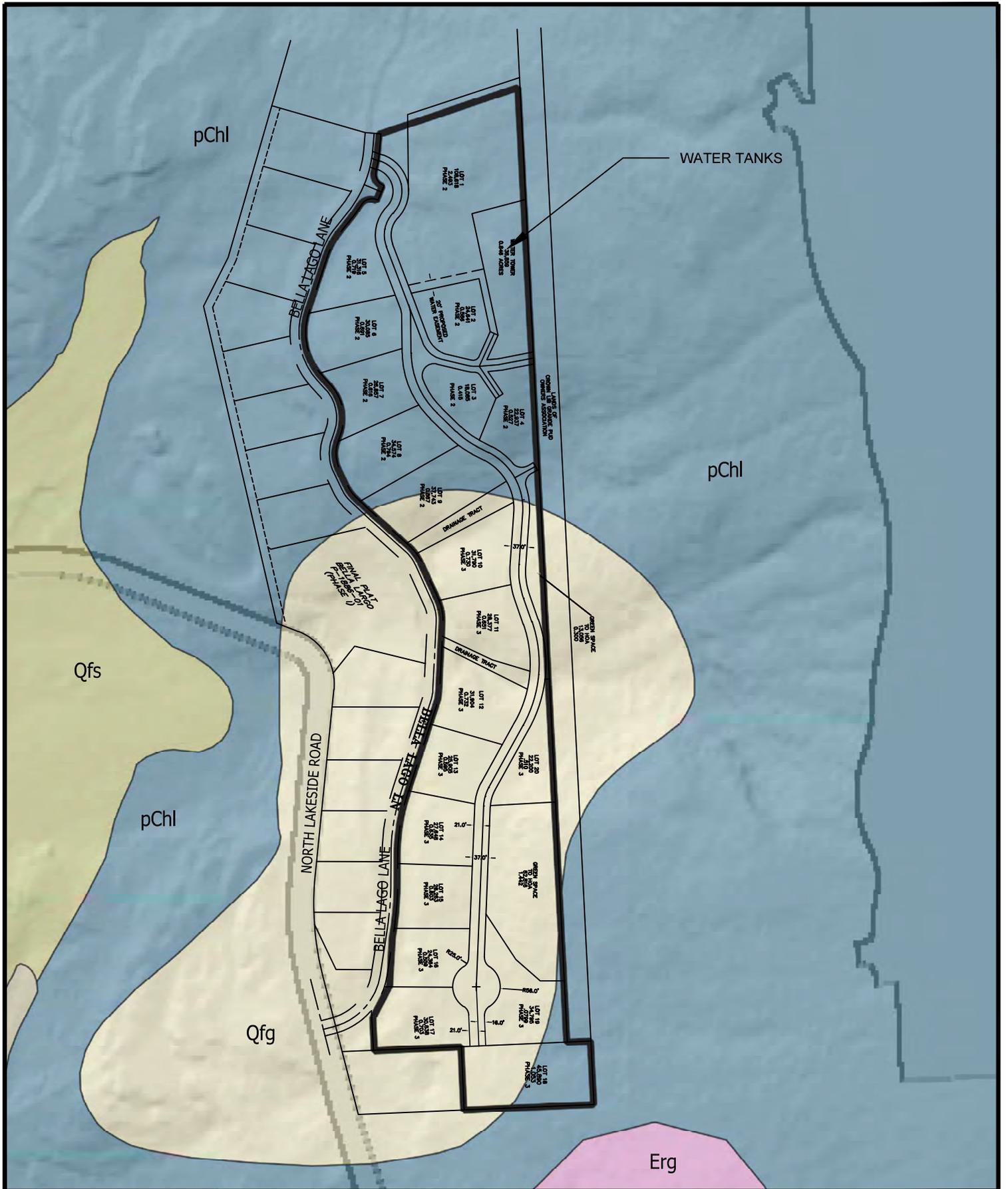
SLOPES 30 PERCENT OR GREATER

BELLA LAGO LANE PARCEL 55145,9064
LIBERTY LAKE, WASHINGTON

FIGURE 2-4

PROJECT NUMBER G24493

DATE: 6/2024



SCALE: 1"=300'

0 150 300

IMAGE PROVIDED BY:
WADNR, 2004



Budinger
& Associates

GEOLOGIC MAP

BELLA LAGO LANE PARCEL 55145,9064
LIBERTY LAKE, WASHINGTON

FIGURE 2-5

PROJECT NUMBER G24493

DATE: 6/2024

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a constructor — a construction contractor — or even another civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on this geotechnical-engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you — should apply this report for any purpose or project except the one originally contemplated.*

Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

Geotechnical Engineers Base Each Report on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical-engineering report that was:

- not prepared for you;
- not prepared for your project;
- not prepared for the specific site explored; or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse;
- the elevation, configuration, location, orientation, or weight of the proposed structure;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an

assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the geotechnical engineer performed the study. *Do not rely on a geotechnical-engineering report whose adequacy may have been affected by:* the passage of time; man-made events, such as construction on or adjacent to the site; or natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Contact the geotechnical engineer before applying this report to determine if it is still reliable.* A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ — sometimes significantly — from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide geotechnical-construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are Not Final

Do not overrely on the confirmation-dependent recommendations included in your report. *Confirmation-dependent recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's confirmation-dependent recommendations if that engineer does not perform the geotechnical-construction observation required to confirm the recommendations' applicability.*

A Geotechnical-Engineering Report Is Subject to Misinterpretation

Other design-team members' misinterpretation of geotechnical-engineering reports has resulted in costly

problems. Confront that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Constructors can also misinterpret a geotechnical-engineering report. Confront that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing geotechnical construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical-engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make constructors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give constructors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise constructors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure constructors have sufficient time to perform additional study.* Only then might you be in a position to give constructors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and constructors fail to recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help

others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Environmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform an *environmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own environmental information, ask your geotechnical consultant for risk-management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold-prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical-engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; *none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention.* *Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.*

Rely, on Your GBC-Member Geotechnical Engineer for Additional Assistance

Membership in the Geotechnical Business Council of the Geoprofessional Business Association exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your GBC-Member geotechnical engineer for more information.



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