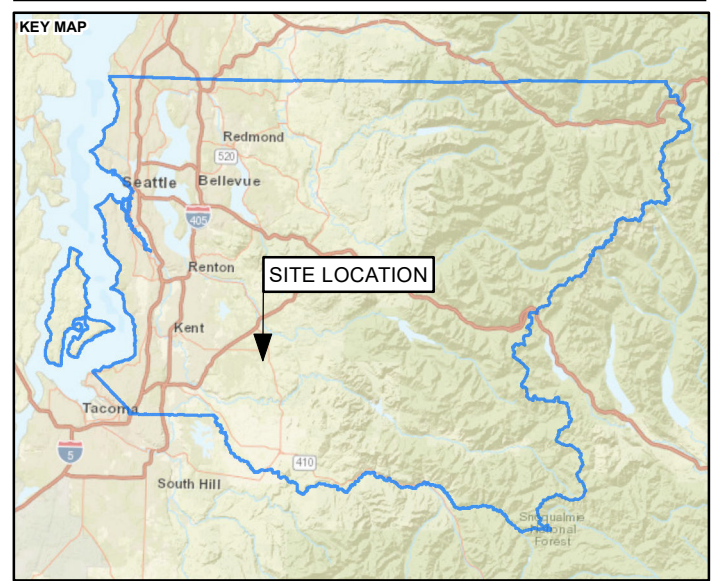
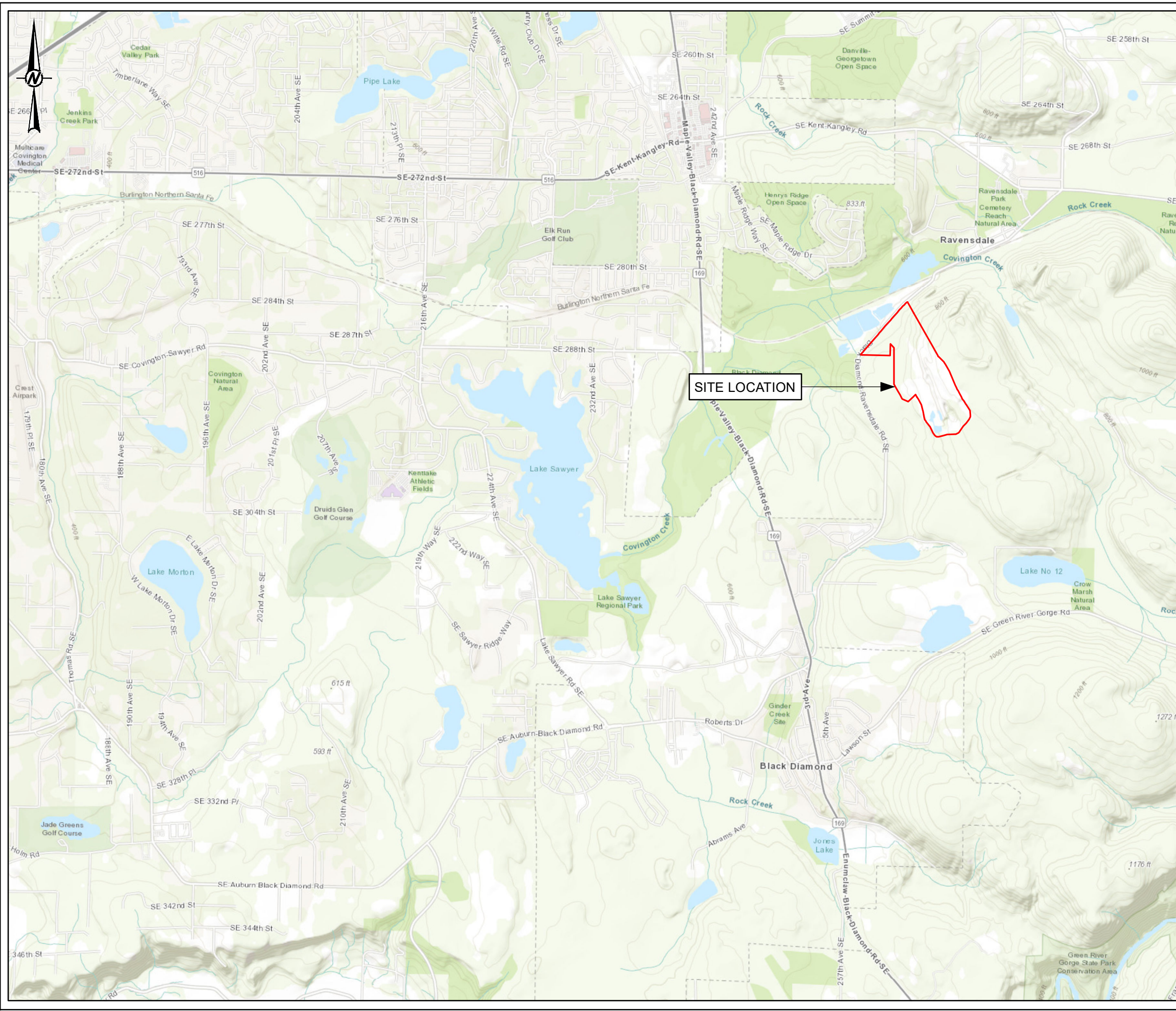
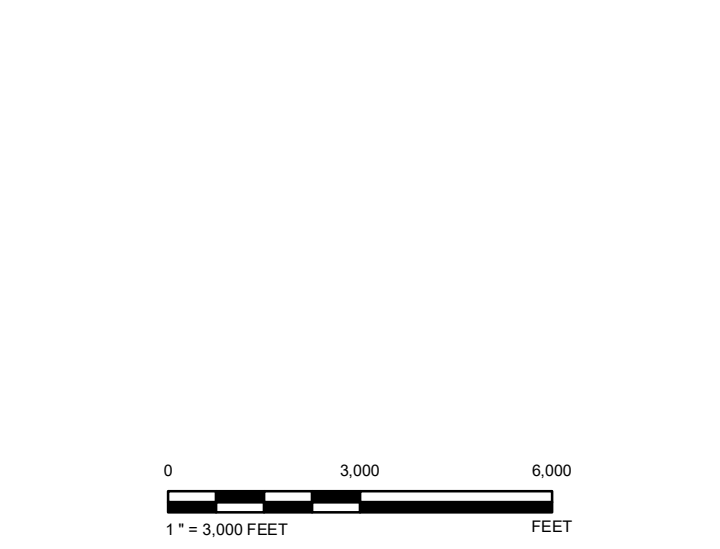


Figures



LEGEND

- ▭ Property Boundary
- ▭ King County Boundary



REFERENCE(S)

1. ASPECT CONSULTING (PROPERTY BOUNDARY)
2. ESRI (WASHINGTON STATE COUNTY BOUNDARY)
3. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET
4. MAP SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), NGCC, (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

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**RI WORK PLAN 2021
RAVENSDALE, WA**

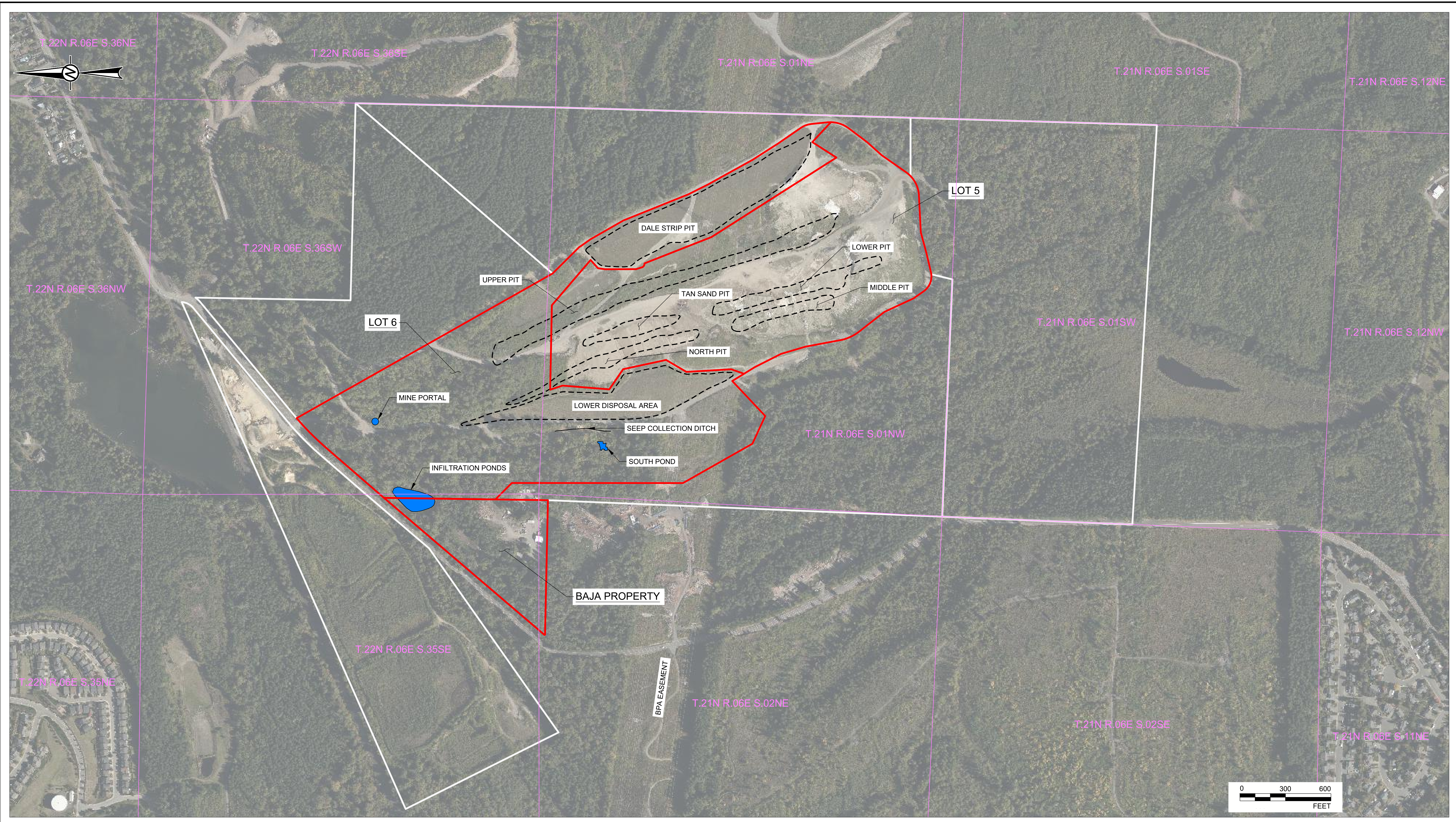
TITLE
SITE LOCATION MAP

CONSULTANT	YYYY-MM-DD	2021-06-17
	DESIGNED	JX
	PREPARED	TL
	REVIEWED	JX
	APPROVED	GZ

PROJECT NO.	PHASE	REV.	FIGURE
152030402	004	0	1-1

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 IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

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LEGEND

- PRELIMINARY SITE EXTENTS
- PARCEL BOUNDARIES (WHITE)
- HISTORICAL COAL AND/OR SAND MINE PIT EXTENTS (APPROXIMATE)
- TOWNSHIP, RANGE, SECTION, AND QUARTER BOUNDARIES

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PROJECT
RI WORK PLAN 2021
RAVENSDALE, WA

CONSULTANT

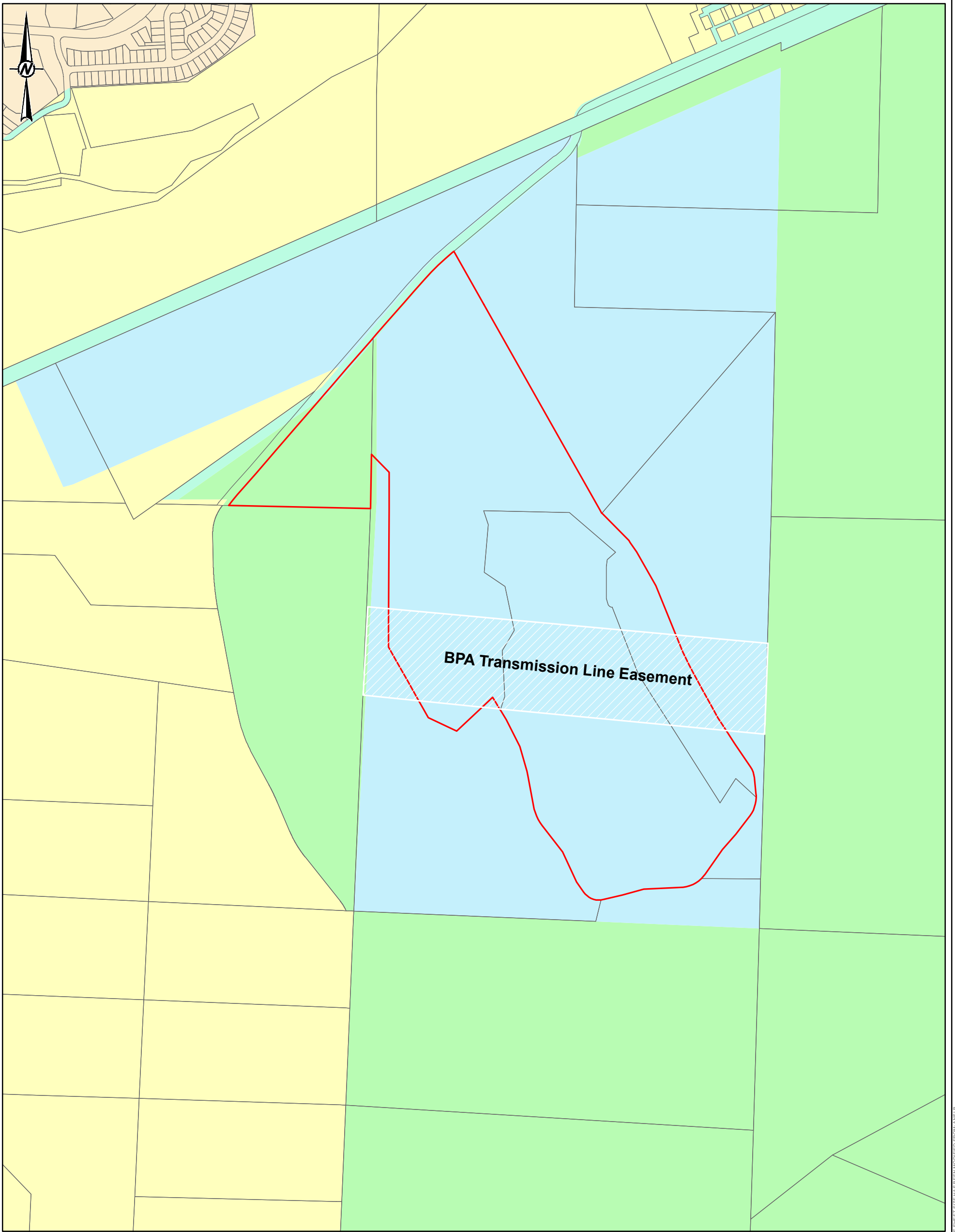
YYYY-MM-DD	2021-06-17
DESIGNED	JX
PREPARED	REDMOND
REVIEWED	JX
APPROVED	GZ

TITLE
SITE OVERVIEW MAP



PROJECT NO.	PHASE	REV.	FIGURE
152030402	004	0	2-1

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANS/D



- LEGEND**
- King County Parcel Boundary
 - Forest
 - Mineral Resource-Related
 - Rural Area
 - Single-Family Residential
 - Undesignated
 - Site



- REFERENCE(S)**
1. ASPECT CONSULTING (BPA TRANSMISSION LINE EASEMENT, SITE)
 2. KING COUNTY GIS OPEN DATA (PARCEL, ZONING)
 3. COORDINATE SYSTEM: NAD 1983 HARN STATEPLANE WASHINGTON NORTH FIPS 4601 FEET

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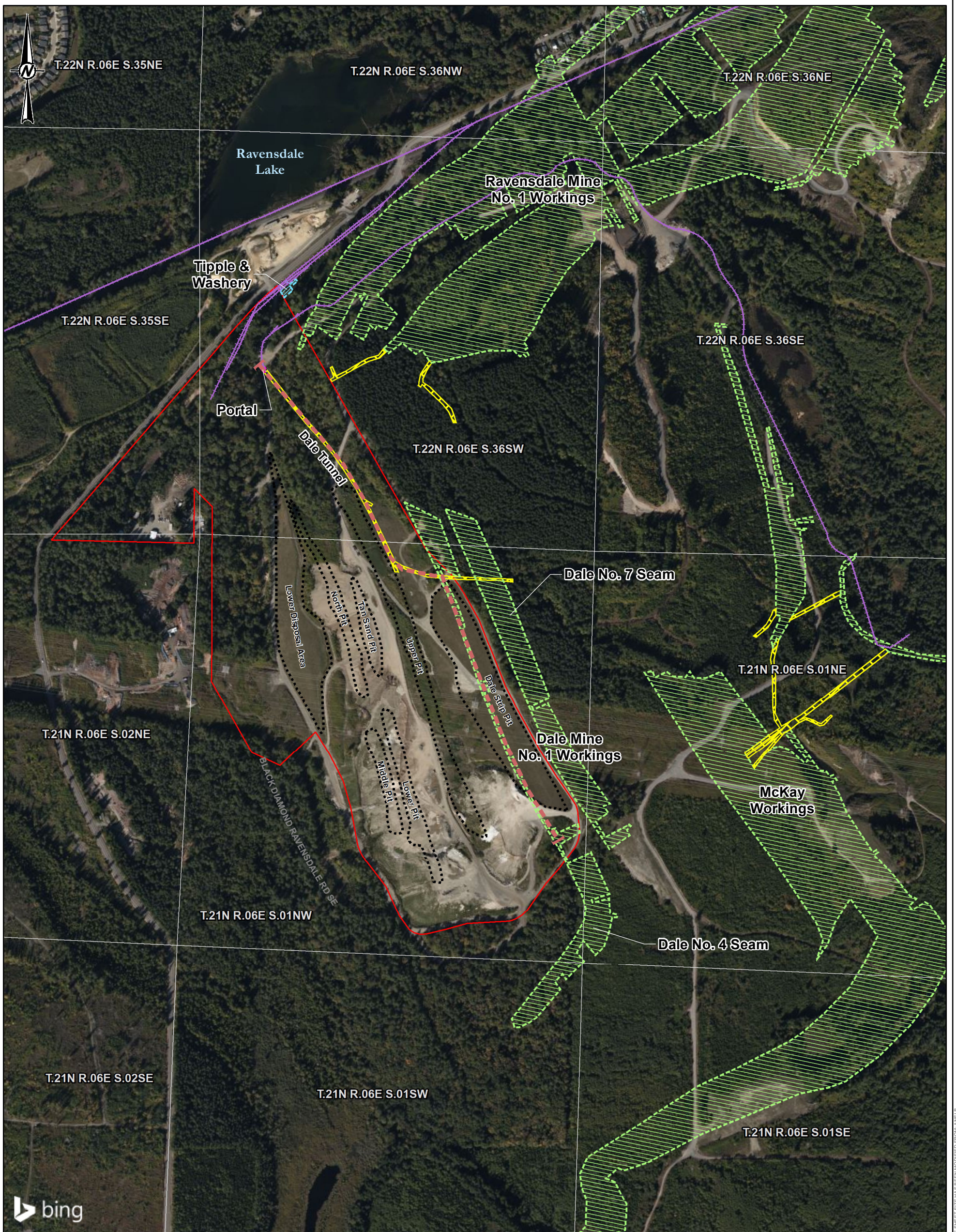
PROJECT
**RI WORK PLAN 2021
RAVENSDALE, WA**

TITLE
AREA ZONING MAP

CONSULTANT	YYYY-MM-DD	2021-06-17
DESIGNED	TL	
PREPARED	TL	
REVIEWED	JX	
APPROVED	GZ	



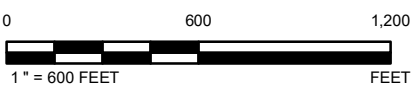
PROJECT NO.	PHASE	REV.	FIGURE
152030402	004	0	2-2



- LEGEND**
- Site
 - Conceptual Cross Section (See Figure 2-5)
 - Historical Coal and/or Sand Mine Pit Extent
 - PLSS Quarter Section Boundary

Historical Mine Features

- Area of Chutes and Pillars
- Underground Mine Portal
- Surface Structure
- Underground Tunnel
- Surface Tram/Rail



NOTE(S)

1. HISTORICAL COAL MINE FEATURES ARE APPROXIMATE AND HAVE BEEN MATCHED TO CURRENT, GEOREFERENCED SITE FEATURES USING TOWNSHIP, RANGE AND SECTION MARKERS SHOWN ON HISTORICAL MAPS, WITH MINOR ADJUSTMENTS. HOWEVER, THE HISTORICAL MAPS WERE HAND DRAWN AND APPEAR TO HAVE BEEN SCANNED AND CLIPPED, MAYBE MULTIPLE TIMES, AND THEIR ACCURACY CANNOT BE CONFIRMED.

REFERENCE(S)

1. ASPECT CONSULTING (CONCEPTUAL CROSS SECTION, HISTORICAL MINING FEATURES, PIT, SITE, SURFACE TRAM/RAIL)
2. KING COUNTY (PLSS SURVEY SECTIONS)
3. COORDINATE SYSTEM: NAD 1983 HARN STATEPLANE WASHINGTON NORTH FIPS 4601 FEET
4. MAP SERVICE LAYER CREDITS: © 2021 MICROSOFT CORPORATION © 2021 MAXAR ©CNES (2021) DISTRIBUTION AIRBUS DS

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PROJECT
RI WORK PLAN 2021
RAVENSDALE, WA

TITLE
HISTORICAL COAL MINING FEATURES

CONSULTANT



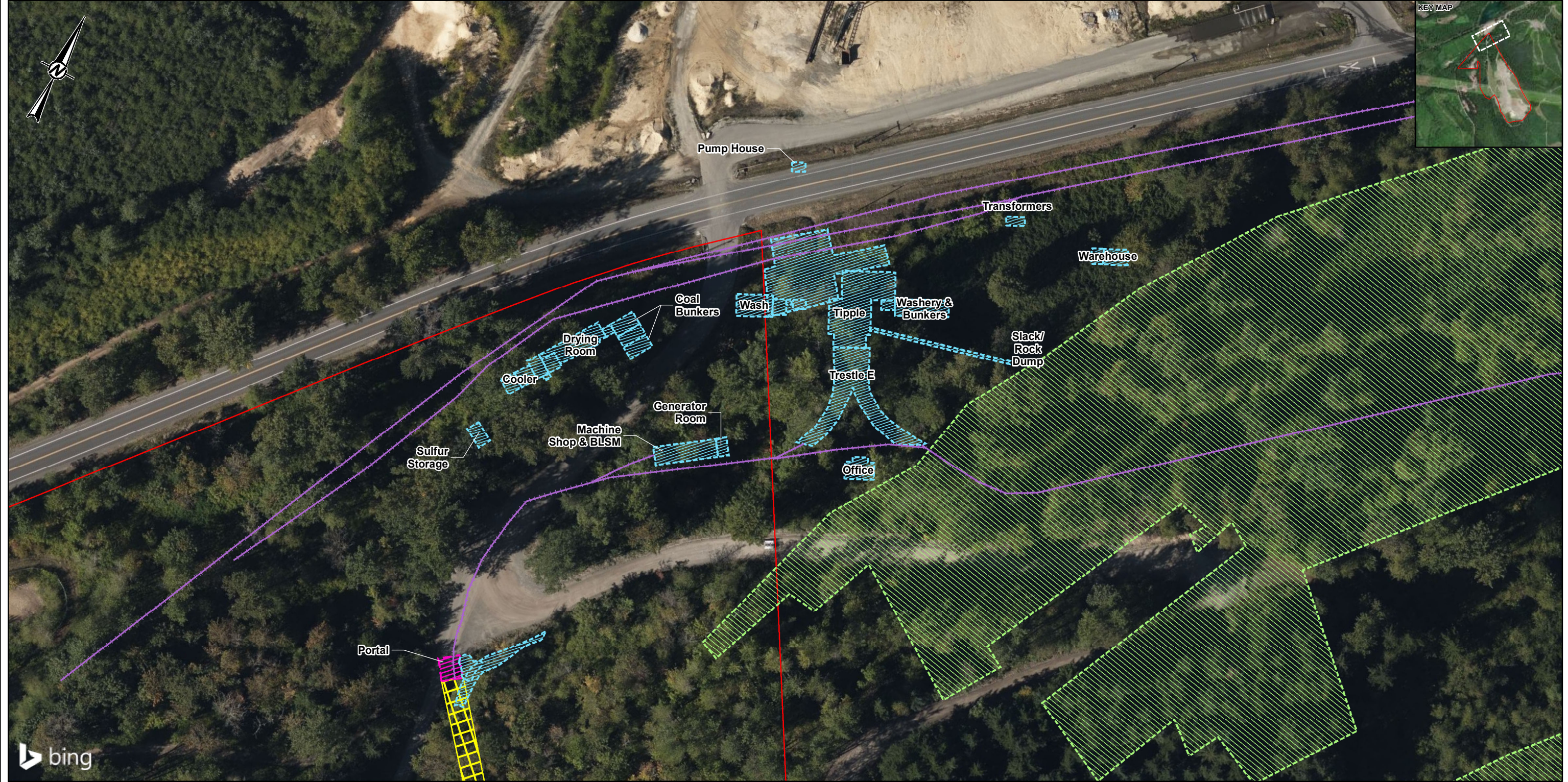
PROJECT NO.
152030402

PHASE
004

REV.
0

FIGURE
2-3

YYYY-MM-DD	2021-06-17
DESIGNED	TL
PREPARED	TL
REVIEWED	JX
APPROVED	GZ



PATH: G:\HOLCIM\Reviews\152030402_RI_2019\004_RI_1\152030402_RI_1\152030402_004_F24_Rev0_Dmr_Coal_Mine_Surface_Structure.mxd PRINTED ON: 2021-06-17 AT: 12:47:43 PM

- LEGEND**
- Historical Mining Features**
- Area of Chutes and Pillars
 - Underground Mine Portal
 - Surface Structure
 - Underground Tunnel
 - Site
 - Surface Tram/Rail



- REFERENCE(S)**
1. ASPECT CONSULTING (HISTORICAL MINING FEATURES, SITE, SURFACE TRAM/RAIL, SURFACE STRUCTURES)
 2. COORDINATE SYSTEM: NAD 1983 HARN STATEPLANE WASHINGTON NORTH FIPS 4601 FEET
 3. MAP SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
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RAVENSDALE, WA

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YYYY-MM-DD	2021-06-17
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PREPARED	TL
REVIEWED	JX
APPROVED	GZ

TITLE
DALE COAL MINE SURFACE STRUCTURES

PROJECT NO.	PHASE	REV.	FIGURE
152030402	004	0	2-4

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS B

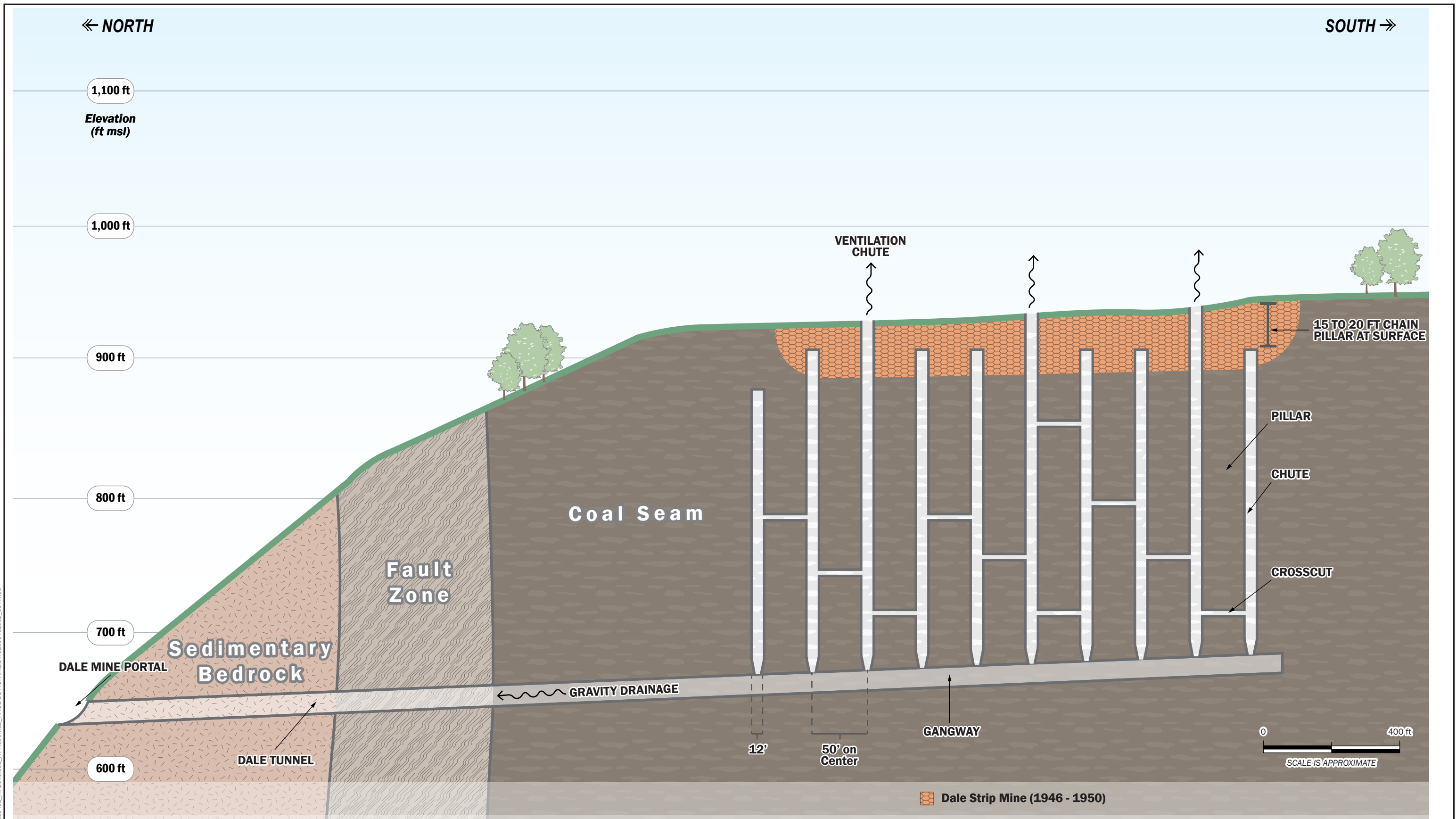


FIGURE PRESENTED AS RECEIVED FROM ASPECT CONSULTING, LLC MARCH 9, 2020.

CLIENT

HOLCIM (US). INC.

CONSULTANT

YYYY-MM-DD 2020-03-16

PREPARED REDMOND

DESIGN

REVIEW

APPROVED



PROJECT

RI WORK PLAN 2021
RAVENSDALE, WA

TITLE

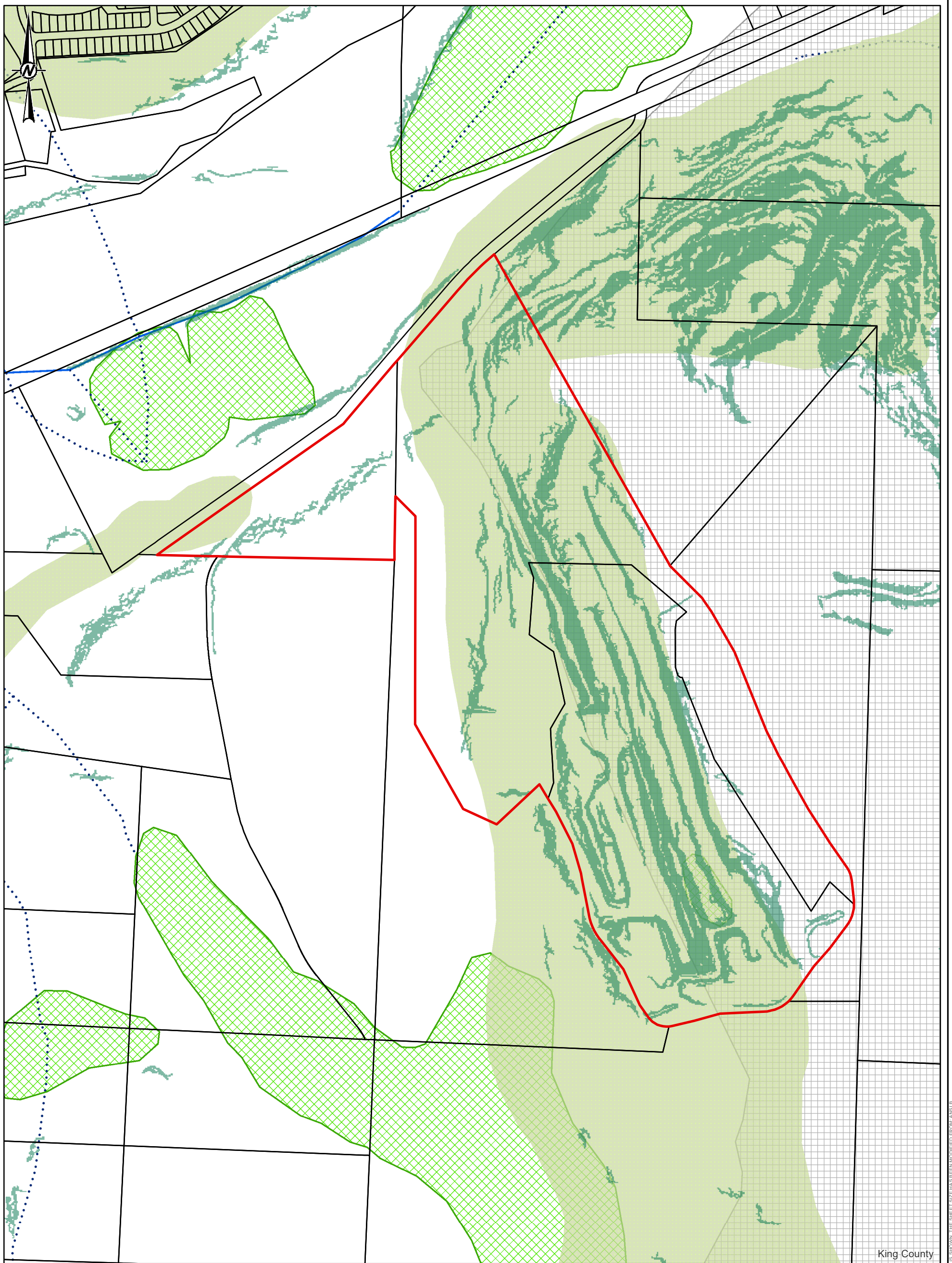
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COAL SEAM MINING METHODS

PROJECT No.
152030402

Phase
004

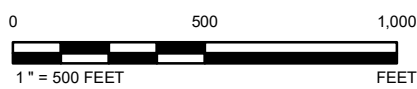
Rev.
0

Figure
2-5



King County

- LEGEND**
- Site
 - King County Parcels
 - Potential Steep Slope Hazard
 - Erosion Hazard
 - Coal Mine Hazard
 - Stream
 - Wetland



- REFERENCE(S)**
1. ENVIRONMENTALLY SENSITIVE AREAS PROVIDED BY KING COUNTY IMAP (MARCH 2020)
 2. PARCEL LINES PROVIDED BY KING COUNTY IMAP (MARCH 2020)

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PROJECT
**RI WORK PLAN 2021
RAVENSDALE, WA**

TITLE
ENVIRONMENTAL HAZARD MAP

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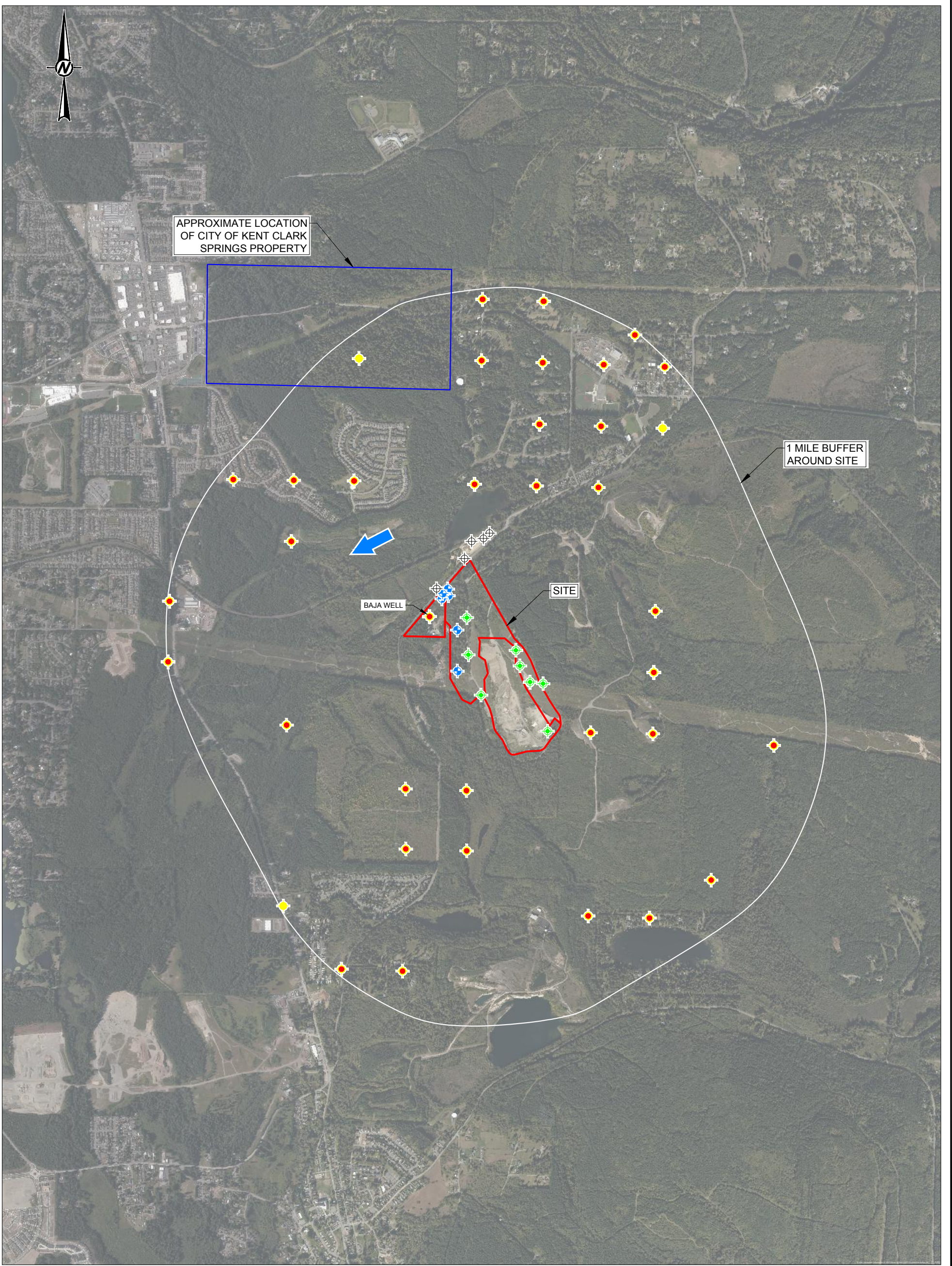
YYYY-MM-DD	2021-06-17
DESIGNED	MLB
PREPARED	REDMOND
REVIEWED	SJS
APPROVED	GZ







PROJECT NO.
152030402

PHASE
004

REV.
0


FIGURE
2-6



	ALLUVIAL MONITORING WELLS		PRIVATE WELLS (LOCATIONS OBTAINED FROM ECOLOGY'S WELL REPORT DATABASE)
	BEDROCK MONITORING WELLS		RESERVE SILICA PLANT SITE MONITORING WELLS
	WELLS WITHIN RADIUS		REGIONAL GROUNDWATER FLOW DIRECTION (SOURCE: CITY OF KENT WELLHEAD PROTECTION PROGRAM, APRIL 2, 1996)

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RAVENSDALE, WA

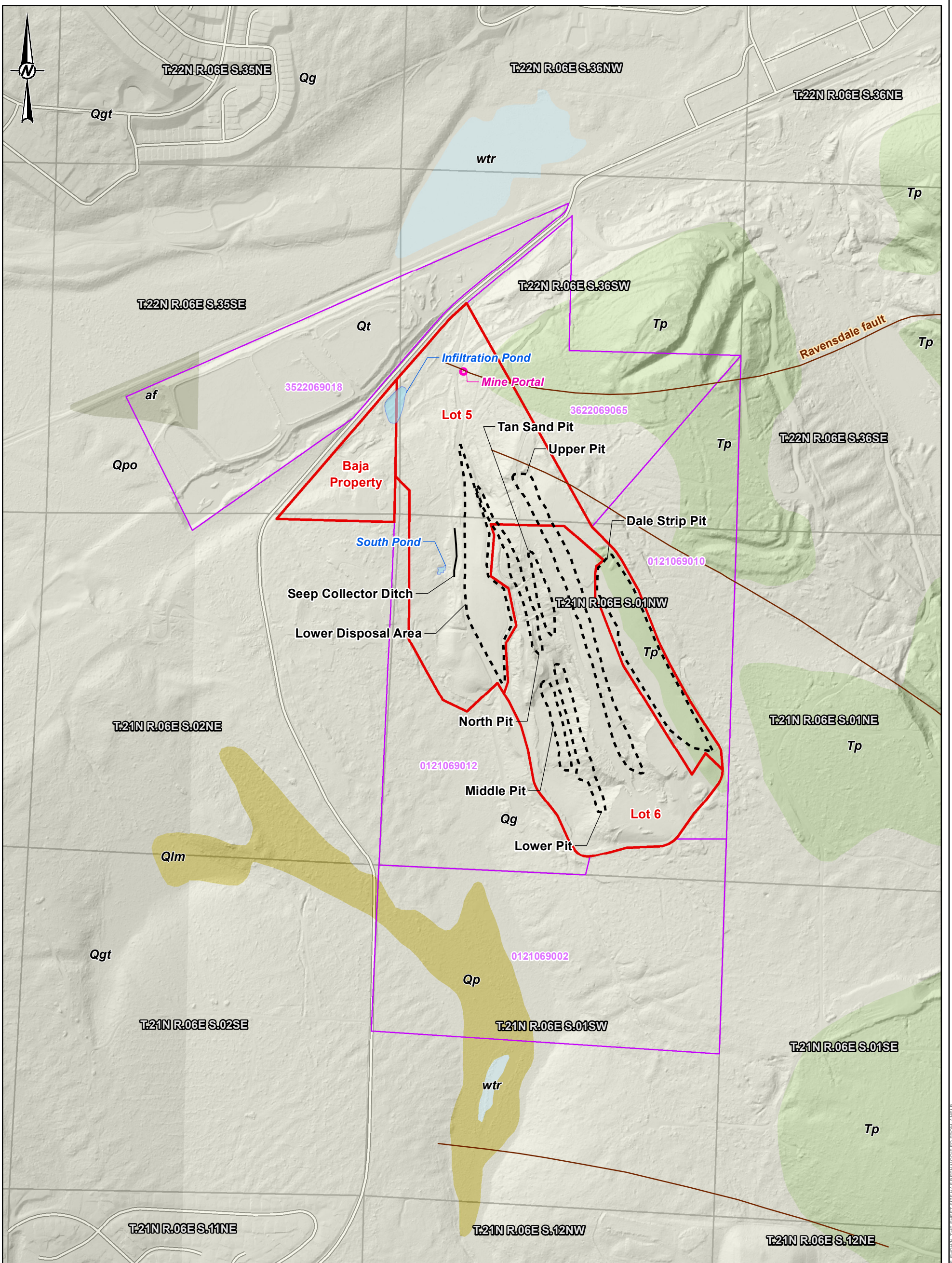
CONSULTANT	YYYY-MM-DD	2021-06-17
	DESIGNED	REDMOND
	PREPARED	JX
	REVIEWED	JX
	APPROVED	GZ

TITLE
PUBLIC, PRIVATE, AND MONITORING WELL LOCATION MAP



PROJECT NO. 152030402	PHASE 004	REV. 0	FIGURE 2-7
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1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANS D



- LEGEND**
- Seep Collector Ditch
 - Mine Portal
 - Pit
 - Pond
 - Site Boundary
 - Parcel
 - Fault
 - PLSS Quarter Section Boundary

- Quaternary Rocks and Deposits**
- Quaternary bog, marsh, swamp, or lake deposits (Qlm/Qp)
 - Holocene artificial fill and modified land (af)
 - Pleistocene continental glacial drift (Qpo/Qt)
 - Pleistocene continental glacial till (Qgt)

- Tertiary Rocks**
- Tertiary sedimentary rocks and deposits (Tp)
- Water**
- Water (wtr)

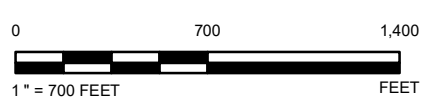
- REFERENCE(S)**
1. ASPECT CONSULTING (MINE PORTAL, PITS, PONDS, SEEP COLLECTOR, SITE BOUNDARY)
 2. KING COUNTY (PARCEL, PLSS SURVEY SECTIONS)
 3. WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES (SURFACE GEOLOGY, FAULT LINE)
 4. PUGET SOUND LIDAR CONSORTIUM (LIDAR HILLSHADE, 2016)
 5. WSDOT (PUBLIC ROADS)
 6. COORDINATE SYSTEM: NAD 1983 HARN STATEPLANE WASHINGTON SOUTH FIPS 4602 FEET

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RAVENSDALE, WA

TITLE
SITE SURFACE GEOLOGY MAP

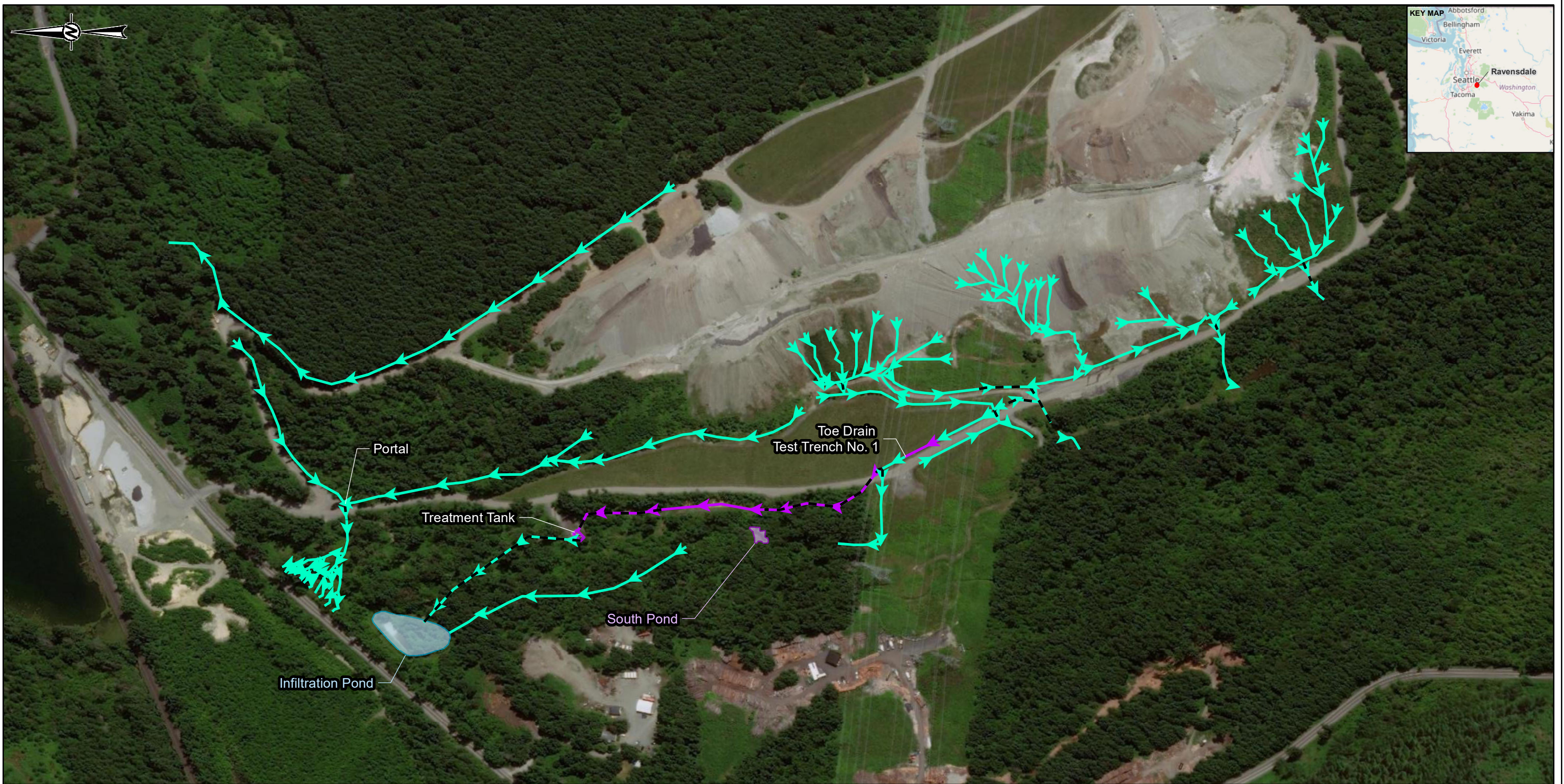
PROJECT NO.	PHASE	REV.	FIGURE
152030402	004	0	2-8



CONSULTANT	YYYY-MM-DD	2021-06-17
DESIGNED	TL	
PREPARED	TL	
REVIEWED	JX	
APPROVED	GZ	



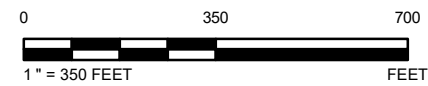
IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB



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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANS B

- LEGEND**
- Treatment Tank
 - Infiltration Pond
 - South Pond
- Surface Water Drainage (Wet Season)**
- pH < 8.5 Surface Flow Path
 - pH > 8.5 Surface Flow Path
 - pH < 8.5 Underground Pipe Flow
 - pH > 8.5 Underground Pipe Flow



NOTE(S)
 1. WET SEASON SURFACE WATER DRAINAGE APPROXIMATED WITH AERIAL IMAGERY.

REFERENCE(S)
 1. GOLDR (SURFACE WATER DRAINAGE, TREATMENT TANK, PONDS, PH SURVEY POINTS)
 2. COORDINATE SYSTEM: NAD 1983 STATEPLANE WASHINGTON NORTH FIPS 4601 FEET
 3. MAP SERVICE LAYER CREDITS: © OPENSTREETMAP (AND) CONTRIBUTORS, CC-BY-SA
 SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AERGRID, IGN, AND THE GIS USER COMMUNITY

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 RAVENSDALE, WA**

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DESIGNED	TD/TL
PREPARED	TL
REVIEWED	JX
APPROVED	GZ

TITLE
SURFACE WATER DRAINAGE MAP (WET SEASON)

PROJECT NO.	PHASE	REV.	FIGURE
152030402	004	0	2-9