UMATILLA COUNTY
est. 1862
Community Development

PLANNING DIVISION

216 SE 4th ST, Pendleton, OR 97801, (541) 278-6252
Email: planning@umatillacounty.gov

AGENDA

Umatilla County Planning Commission Public Hearing
Thursday, November 9, 2023, 6:30PM
Justice Center Media Room, Pendleton, Oregon

To participate in the hearing please submit comments before 4PM, November 9th to planning@umatillacounty.gov or contact the Planning Department at 541-278-6252

Planning Commission

Suni Danforth, Chair
Don Wysocki, Vice-Chair
Tammie Williams
Tami Green
Sam Tucker
John Standley
Kim Gillet
Emery Gentry
Ann Minton

Planning Staff

Bob Waldher, Community Development Director
Megan Davchevski, Planning Division Manager
Carol Johnson, Senior Planner
Tierney Cimmiyotti, Planner / GIS
Charlet Hotchkiss, Planner
Shawnna Van Sickle, Administrative Assistant

1. **Call to Order**

2. **NEW HEARING: COMPREHENSIVE PLAN TEXT AMENDMENT #T-093-23, and ZONE MAP AMENDMENT #Z-323-23: DOUG COX, APPLICANT / RANDY RUPP, OWNER.** The applicant requests to establish a new aggregate site, add the site to the Umatilla County Comprehensive Plan list of Goal 5 protected Large Significant Sites, and apply the Aggregate Resource (AR) Overlay Zone to the entire quarry site. The proposed site is located south of Highway 730 and east of Highway 207, south of the Hat Rock community. The site is identified on assessor's map as Township 5 North, Range 29 East, Section 22, Tax Lot 400. The site is approximately 46.7 acres and is zoned Exclusive Farm Use (EFU). The criteria of approval are found in Oregon Administrative Rule 660-023-0040 – 0050, 660-023-0180 (3), (5) and (7), and Umatilla County Development Code (UCDC) Section 152.487 – 488.

3. **Other Business**

4. **Adjournment**

Umatilla County

Community Development Department

UMATILLA COUNTY
est. 1862

COMMUNITY & BUSINESS DEVELOPMENT

LAND USE PLANNING, ZONING AND PERMITTING

CODE ENFORCEMENT

SOLID WASTE COMMITTEE

SMOKE MANAGEMENT

GIS AND MAPPING

RURAL ADDRESSING

LIAISON, NATURAL RESOURCES & ENVIRONMENT

PUBLIC TRANSIT

MEMO

TO: **Umatilla County Planning Commission**
FROM: **Megan Davchevski, Planning Division Manager**
DATE: **October 25, 2023**

RE: **November 9, 2023 PC Hearing**
Comprehensive Plan Text Amendment T-093-23 &
Zone Map Amendment Z-323-23

CC: Robert Waldher, Community Development Director

Background Information

The applicant requests to add a portion of Tax Lot 400 on Assessor's Map 5N 29 22 to the Umatilla County list of Large Significant Sites, providing necessary protections under Goal 5 including limiting conflicting uses within the impact area, and applying the Aggregate Resource Overlay Zone to the proposed site. The applicant is requesting approval for occasional blasting, extraction, operation of a rock crusher, scale, office, stockpile areas and an asphalt batch plant. The proposed Goal 5 site is a 46.7-acre portion of TL 400, which is 109.65-acres.

The proposal, if approved, would add this site as a large significant site onto the County's Goal 5 inventory of significant sites. The applicant desires to establish the 46.7-acre Large Significant Site with protections under Goal 5 and to allow mining (including blasting), processing, stockpiling and operation of an asphalt batch plant.

Notice

Notice of the applicant's request was mailed on October 20, 2023 to nearby property owners and agencies. The applicant requests all conflicting uses to be limited to outside the 1,500-foot impact area. Staff determined this would limit allowed uses for nearby properties. For this reason, the notice boundary was extended from the required 750-feet to also include properties within the 1,500-foot impact area. Notice of the Planning Commission and Board of Commissioner hearings was published in the East Oregonian on October 28, 2023.

Criteria of Approval

The criteria of approval are found in Oregon Administrative Rule 660-023-0040 – 0050, 660-023-0180 (3), (5) and (7), and Umatilla County Development Code (UCDC) Section 152.487 – 488.

Additional Information

Staff were unable to determine that several criteria of approval were satisfied based on the

information supplied by the applicant. Additionally, the applicant contradicts themselves in numerous statements regarding conflicts. Applicant did not explain how the proposed quarry operations would not conflict with existing uses (dwellings, farm stands, etc.), nor justify how these same uses, if proposed, should not be permitted within the impact area. It is the applicant's burden to justify measures to protect existing and proposed uses. It is then County decision makers' responsibility to determine whether or not the proposed protection measures are adequate, fair and objective.

The applicant will have the opportunity to address these criteria and supply additional information to the Planning Commission. These criteria of approval are:

- OAR 660-023-0182 (3), An aggregate resource site shall be considered significant if adequate information regarding the quantity, quality and location of the resource…
  The applicant provided two lab reports and identified one soil sample location. Based on the information provided, staff could not conclude that a **representative** set of soil samples were provided.

- OAR 660-023-0182 (5)(b)(A), [Conflicts created by the site] Determine conflicts from proposed mining of a significant aggregate site… due to noise, dust or other discharges…
  Applicant provides blasting of the basalt rock will be required and will occur occasionally, and that noise impacts from blasting will be mitigated with the existing basalt outcropping. Applicant provided an analysis of anticipated impacts from blasting from Fulcrum Geo Resources (Exhibit E). The Fulcrum report includes one detailed map (Figure 2) to support the findings, however, the map does not specifically identify the area subject to blasting. Based on the applicant's information, basalt is on the entire site, covered by sand and gravels thus the entire site would be potentially subject to blasting, although this is unclear. Fulcrum's Figure 2 map, received by Planning on September 13, 2023, identifies several basalt outcrops. The applicant provides that the basalt outcrops will serve as a natural barrier to protect existing uses from the mining activities. However, if the applicant also intends to mine these basalt outcrops, the natural barrier will eventually diminish. Because the areas subject to blasting are unclear, impacts caused by blasting cannot be determined.

- OAR 660-023-0182 (5)(c), [If conflicts exist, measures to minimize] The local government shall determine reasonable and practicable measures that would minimize the conflicts identified under subsection (b) of this section.
  The applicant consulted with Fulcrum GeoResources LLC to develop an Anticipated Impacts from Blasting report (Exhibit E) the Figure 2 map submitted with this report identify a basalt extraction area subject to blasting, however this map was provided to Planning staff as a grayscale. Therefore, it is difficult to determine where the proposed blasting area is located. Figure 2 of Exhibit A identifies the basalt extraction area as the southeast corner of the proposed site. The applicant will have the opportunity to clarify the proposed blasting area.

  The Planning Commission may find that the applicant's supplied Fulcrum Anticipated Impacts from Blasting report adequately addresses blasting concerns and provides guidelines for mitigating potential blasting impacts by properly planning controlled blasts, implementing blast procedures and time-delays to prevent excessive vibrations, other emissions, and by monitoring blasting to collect vibration data. A subsequent condition of approval requiring these procedures and practices could be imposed to mitigate conflicts. Subsequent Condition #2 has been added to the preliminary findings for consideration.

- UCDC 152.487 (A) (4) Adequate screening, either natural or man-made, is available for protecting the site from surrounding land uses.
  As stated above, the applicant relies on the existing basalt outcrops to provide screening of the site. However, the applicant does not address whether they intend to extract these outcrops. Additionally, the applicant does not offer an additional screening should the basalt outcrops be mined. The Planning Commission may find that additional screening is required along the site boundaries and may impose an additional condition of approval.

The Planning Commission may find that the request satisfies these criteria. These findings must be based on facts in the record.

Conclusion

The process of approval by the County involves review by the County Planning Commission with a recommendation to the Board of County Commissioners (BCC). The decision includes a set of Precedent and Subsequent Conditions of approval. The Planning Commission is tasked with determining if the application satisfies the criteria of approval, based on the facts in the record. Staff have provided Preliminary Findings of Fact and Conclusions of Law based on the applicant's supplied information.

Following the Planning Commission's recommendation, the BCC must also hold a public hearing(s) and decide whether or not to adopt the proposed amendments. A public hearing before the BCC is scheduled for December 6, 2023.

PLANNING COMMISSION RECOMMENDATION OPTIONS

Motion to Recommend Approval Based on Evidence in the Record

I, Commissioner_____, make a motion to recommend approval of the Doug Cox Comprehensive Plan Text Amendment #T-093-23 and Zoning Map Amendment # Z-323-23, with imposition of the provided conditions of approval, to the Board of Commissioners based on the foregoing Findings of Fact and Conclusions of Law.

Motion to Recommend Approval with Additional Findings and Conditions of Approval

I, Commissioner_____, make a motion to recommend approval of the Doug Cox Comprehensive Plan Text Amendment #T-093-23 and Zoning Map Amendment # Z-323-23, to the Board of Commissioners with the following additional Findings of Fact: _____. Further, I move that the following additional conditions of approval be imposed: _____.

Motion to Recommend Denial Based on Evidence in the Record

I, Commissioner_____, make a motion to recommend denial of the Doug Cox Comprehensive Plan Text Amendment #T-093-23 and Zoning Map Amendment # Z-323-23, to the Board of Commissioners based on evidence in the record and with the following additional Findings of Fact: _____.

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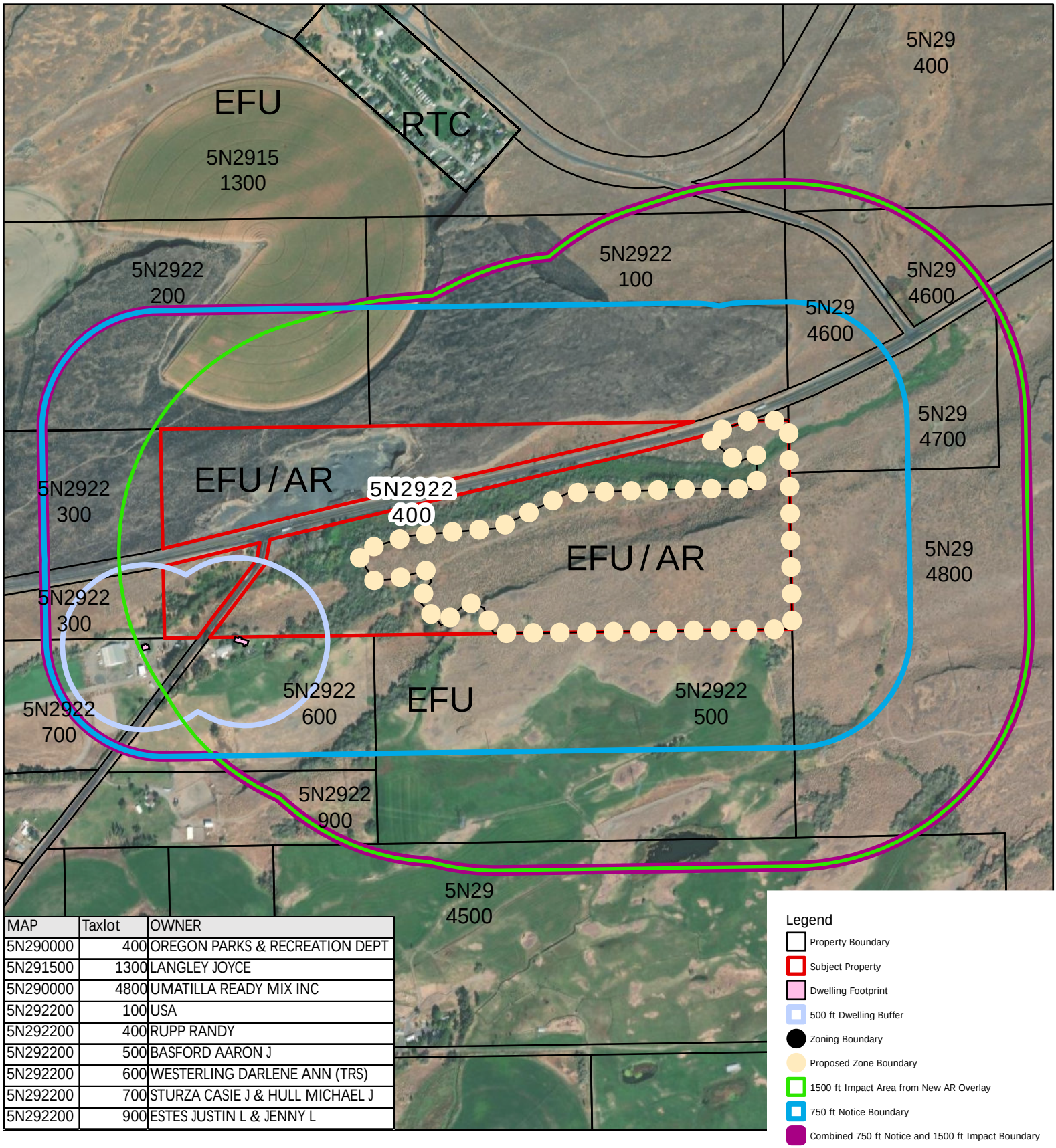
UMATILLA COUNTY
PLANNING COMMISSION HEARING – NOVEMBER 9, 2023
COMPREHENSIVE PLAN TEXT AMENDMENT & ZONING MAP AMENDMENT
DOUG COX, APPLICANT &
RANDY RUPP, OWNER
PACKET CONTENT LIST

DOUG COX Z-323-23 & T-093-23

1500 FT IMPACT AREA & 500 FT DWELLING BUFFER

MAP 5N 29 22, TL 400

Notified property owners within 1500 ft of subject property (increased from 750 ft due to impact area restrictions requested by applicant)

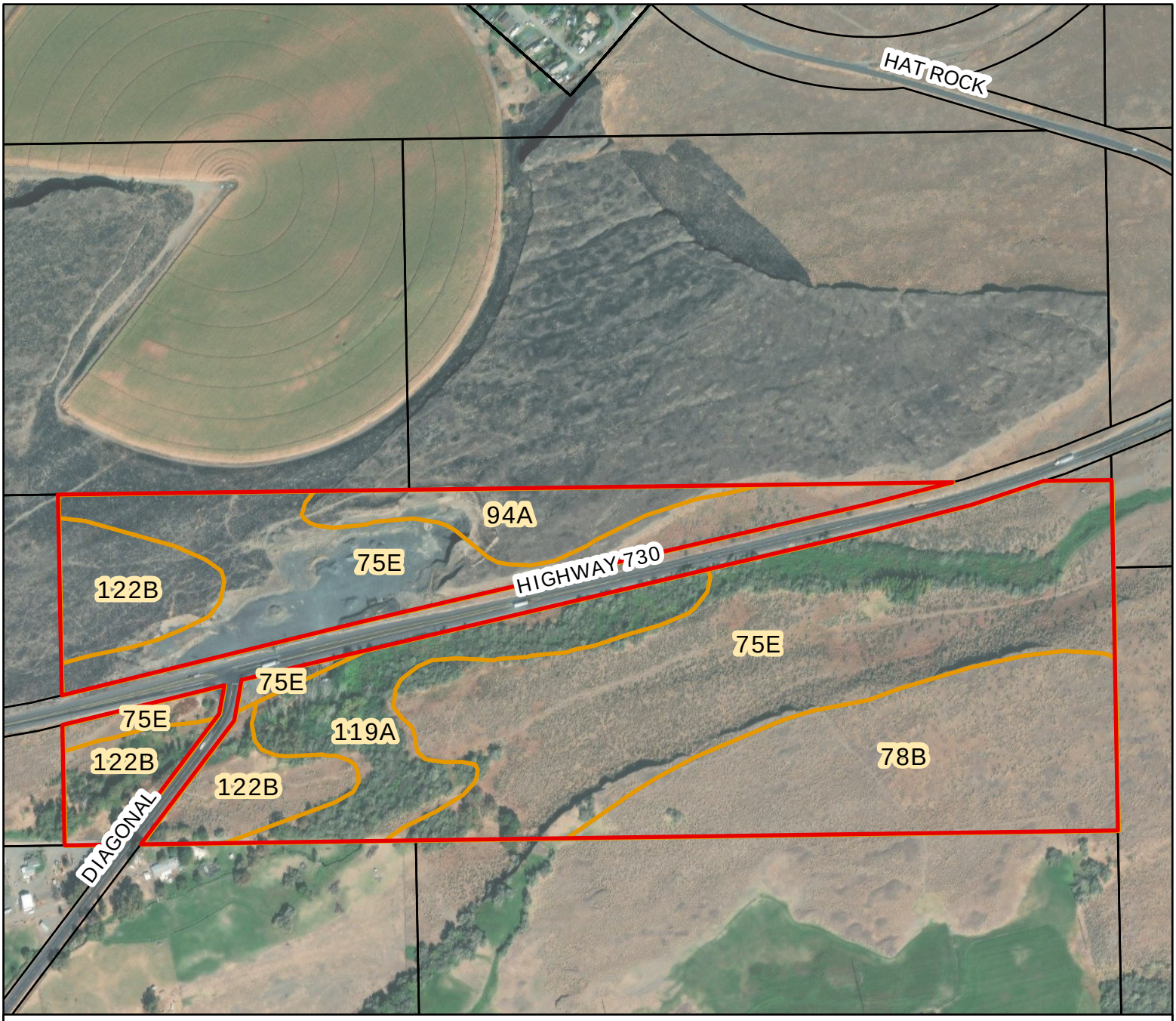


MAP	Taxlot	OWNER
5N290000	400	OREGON PARKS & RECREATION DEPT
5N291500	1300	LANGLEY JOYCE
5N290000	4800	UMATILLA READY MIX INC
5N292200	100	USA
5N292200	400	RUPP RANDY
5N292200	500	BASFORD AARON J
5N292200	600	WESTERLING DARLENE ANN (TRS)
5N292200	700	STURZA CASIE J & HULL MICHAEL J
5N292200	900	ESTES JUSTIN L & JENNY L

Miles

0 0.1 0.2 0.4

Map Disclaimer: No warranty is made by Umatilla County as to the accuracy, reliability or completeness of the data. Parcel data should be used for reference purposes only. Created by M. Davchevski, Umatilla County Planning Department
Date: 10/19/2023



DOUG COX
SOIL MAP

SOILS		
MAP SYMBOL	IRRIGATED	NON-IRRIGATED
75E	6e	7e
78B	4e	7e
94A	4e	6e
119A	-	6w
122B	4e	7e

Legend

- Property Boundary
- Subject Property
- Soils

N

0 285 570 1,140 Feet

Map Disclaimer: No warranty is made by Umatilla County as to the accuracy, reliability or completeness of the data. Parcel data should be used for reference purposes only. Created by M. Davchevski, Umatilla County Planning Department Date: 9/21/2023

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UMATILLA COUNTY BOARD OF COUNTY COMMISSIONERS
PRELIMINARY FINDINGS AND CONCLUSIONS
COMPREHENSIVE PLAN TEXT AMENDMENT T-093-23,
ZONING MAP AMENDMENT #Z-323-23
MAP 5N 29 22; TAX LOT #400

1. APPLICANT: Doug Cox, CRP and Hauling, PO Box 131, Hermiston, OR 97838

2. OWNER: Randy Rupp, 176 Kranichwood Street, Richland, WA 99352

3. REQUEST: The request is to add a portion of Tax Lot 400 on Assessor's Map 5N 29 22 to the Umatilla County list of Large Significant Sites, providing necessary protections under Goal 5 including limiting conflicting uses within the impact area, and applying the Aggregate Resource Overlay Zone to the proposed site. The applicant is requesting approval for occasional blasting, extraction, operation of a rock crusher, scale, office, stockpile areas and an asphalt batch plant. The proposed Goal 5 site is a 46.7-acre portion of TL 400, which is 109.65-acres. The goal of this application is to establish the 46.7-acre Large Significant Site with protections under Goal 5 and to allow mining (including blasting), processing, stockpiling and operation of an asphalt batch plant.

4. LOCATION: The subject property is bifurcated by the intersection of Oregon State Highway 730 and State Highway 207. The proposed project area is located south of Highway 730 and east of Highway 207, although the subject property also makes up land north of Highway 730 and west of Highway 207. The subject property is approximately 5 miles east of the City of Umatilla and approximately 5.5 miles north-east of the City of Hermiston.

5. SITUS: The proposed aggregate site does not currently have a situs address.

6. ACREAGE: Tax Lot 400 is assessed as 109.64 acres. The proposed Aggregate Resource Overlay Zone is 46.7 acres.

7. COMP PLAN: The subject property has a Comprehensive Plan designation of North/South Agriculture.

8. ZONING: The subject property is zoned Exclusive Farm Use (EFU). The portion of the subject property north of Highway 730 also as the Aggregate Resource (AR) overlay zone applied.

9. ACCESS: The site has frontage along Highway 730 and Highway 207, and is bisected by both state highways. The applicant has proposed that site access be from Highway 730 and is working with ODOT to obtain approval to relocate the Highway 730 driveway.

10. ROAD TYPE: Both State Highway 207 and 730 are two-lane, paved state highways.

11. EASEMENTS: There are no access or utility easements on the subject property. The applicant provides that there is a long-term lease agreement with ODOT for exclusive permission for extracting aggregate out of the property's existing rock quarry north of Highway 730.

12. LAND USE: The subject parcel is bifurcated east to west by State Highway 730. On the north side of the highway is an ODOT quarry which has existed for many years. On the south side of the highway is open space that contains a steep rock bluff on the south half of the parcel. There is a small, remnant part of the parcel that is west of Highway 207 and south of Highway 730. The lower lying ground is used for cattle grazing. No crops are grown on this parcel.

13. ADJACENT USE: An approved ODOT mining operation is located on the subject property, north of Highway 730. A steep rock bluff is directly to the north of the parcel. An irrigated crop circle is located north and north west of the subject property. Adjacent to the west side of the subject property is open space with some vegetation and one dwelling. To the south of the subject property is rangeland and one dwelling. The applicant states that the proposed mining area will be 500 feet or more from the two homesites. To the east is primarily open space with some moderate grazing and another aggregate operation.

14. LAND FORM: Columbia River Plateau

15. SOIL TYPES: The subject property contains predominately Non-High Value soil types. High Value Soils are defined in UCDC 152.003 as Land Capability Class I and II. The soils on the subject property are predominately Class IV.

Soil Name, Unit Number, Description	Land Capability Class	
	Dry	Irrigated
75E: Quincy loamy fine sand, 5 to 25 percent slopes	VIe	VIIe
78B: Quincy-Rock outcrop complex, 1 to 20 percent slopes	IVe	VIIe
94A: Starbuck-Rock outcrop complex, 0 to 5 percent slopes	IVe	VIe
119A: Wanser loamy fine sand, 0 to 3 percent slopes	--	VIw
122B: Winchester sand, 0 to 5 percent slopes	IVe	VIIe
Soil Survey of Umatilla County Area, 1989, NRCS. The suffix on the Land Capability Class designations are defined as "e" – erosion prone, "c" – climate limitations, "s" soil limitations and "w" – water (*Survey*, page. 172).		

16. BUILDINGS: There are no buildings on the subject property.

17. UTILITIES: The site is not served by utilities.

18. WATER/SEWER: The applicant provides that there are no water rights associated with the subject parcel. Additionally, there is no septic system. The applicant provides that the property owner has other lands in the vicinity that do

have water rights. Applicant states that water for dust control will be procured from a permitted water source.

19. FIRE SERVICE: The property is served by the Umatilla Rural Fire District.

20. IRRIGATION: The property is not located within an irrigation district.

21. FLOODPLAIN: The subject property is NOT in a floodplain.

22. WETLANDS: The subject property contains several wetlands identified on the National Wetlands Inventory. Prior to this application, the applicant submitted a request to Oregon Department of State Lands (DSL) for an off-site wetlands determination. Applicant procured engineering services from NV5 (consulting firm) to develop a mine resource evaluation report. Based on the wetlands indicated in the DSL report, NV5 developed a mine plan to avoid impact to the wetland areas, including observation of undisturbed buffers. The applicant subsequently requested a follow-up offsite determination from DSL using the mine plan from the NV5 report. DSL's updated report is attached, concluding "the proposed project area appears to avoid jurisdictional wetlands or waterways. A Removal Fill Permit is not likely to be required." See attached mine resource report dated January 31, 2023.

23. NOTICES SENT: Notice was sent to the Department of Land Conservation and Development (DLCD) on October 5, 2023. Notice was mailed to neighboring land owners and affected agencies on October 20, 2023. Notice was printed in the October 28, 2023 publication of the East Oregonian.

24. HEARING DATE: A public hearing is scheduled before the Umatilla County Planning Commission in the Justice Center Media Room, 4700 NW Pioneer Place, Pendleton, OR 97838 on **November 9, 2023 at 6:30 PM**.

A subsequent hearing is scheduled before the Umatilla County Board of County Commissioners on **December 6, 2023 at 9:00 AM**. The hearing will be held in Room 130 at the County Courthouse, 216 SE 4th St., Pendleton, OR 97801.

25. AGENCIES: Umatilla County Assessor, Umatilla County Public Works, Oregon Department of Transportation Region 5-Highways Division, Oregon Department of Land Conservation and Development, Department of Environmental Quality, Department of Geology and Mineral Industries, Department of State Lands, Oregon Water Resources Department, CTUIR-Natural Resources, CTUIR-Cultural Resources, Umatilla Rural Fire District, Pacific Power, US Fish and Wildlife, Bonneville Power Administration and Umatilla County Counsel

26. COMMENTS: Comments are pending.

NOTE: The Umatilla County Development Code has not been updated with the Division 23 Rules for Aggregate. The Oregon Administrative Rules 660-023-0180 to establish a Goal 5 Large Significant Site will be directly applied per OAR 660-023-180 (9).

27. GOAL 5 ISSUES: Scenic, Open Space, Historic, Wildlife, and other resources.
In order to mine aggregate in Umatilla County, a site must either be an active insignificant site, or be listed on the Goal 5 Inventory of the Umatilla County Comprehensive Plan as a significant site. The Umatilla County Comprehensive Plan requires that "any proposed modification to the text or areas of application (maps) of the AR, HAC, CWR or NA Overlay Zones shall be processed as an amendment to this plan." Therefore, this application constitutes a Post-Acknowledgement Plan Amendment (PAPA), and is subject to the criteria listed in Oregon Administrative Rules (OAR) 660-023-0030 through 660-023-0050, and OAR 660-023-0180. As a condition of approval for operation, the applicant must acquire a DOGAMI permit and obtain approval of a reclamation plan. Copies of both the DOGAMI permit and reclamation plan must be submitted to County Planning.

28. STANDARDS OF THE OREGON ADMINISTRATIVE RULES, DIVISION 23 FOR GOAL 5 LARGE SIGNIFICANT SITES are found in OAR 660-023-0180 (3), (5), & (7), OAR 660-023-040, and OAR 660-023-050. The standards for approval are provided in underlined text and the responses are indicated in standard text.

OAR 660-023-0180 Mineral and Aggregate Resources

(3) **[Large Significant Sites]** An aggregate resource site shall be considered significant if adequate information regarding the quantity, quality, and location of the resource demonstrates that the site meets any one of the criteria in subsections (a) through (c) of this section, except as provided in subsection (d) of this section:

(a) A representative set of samples of aggregate material in the deposit on the site meets Oregon Department of Transportation (ODOT) specifications for base rock for air degradation, abrasion, and sodium sulfate soundness, and the estimated amount of material is more than 2,000,000 tons in the Willamette Valley, or 100,000 tons outside the Willamette Valley;
(b) The material meets local government standards establishing a lower threshold for significance than subsection (a) of this section; or
(c) The aggregate site is on an inventory of significant aggregate sites in an acknowledged plan on the applicable date of this rule.
(d) Notwithstanding subsections (a) through (c) of this section, except for an expansion area of an existing site if the operator of the existing site on March 1, 1996 had an enforceable property interest in the expansion area on that date, an aggregate site is not significant if the criteria in either paragraphs (A) or (B) of this subsection apply:
(A) More than 35 percent of the proposed mining area consists of soil classified as Class I on Natural Resource and Conservation Service (NRCS) maps on the date of this rule; or
(B) More than 35 percent of the proposed mining area consists of soil classified as Class II, or of a combination of Class II and Class I or Unique soil on NRCS maps available on the date of this rule, unless the average width of the aggregate layer within the mining

area exceeds:

(i) 60 feet in Washington, Multnomah, Marion, Columbia, and Lane counties;
(ii) 25 feet in Polk, Yamhill, and Clackamas counties; or
(iii) 17 feet in Linn and Benton counties.

Applicant Response: The applicant retained a professional, licensed, geologist, Erick Staley, Principal Engineering Geologist with NV5, to analyze the site and evaluate quality and quantity of the aggregate material, in part, for purposes determining compliance with this standard. The attached Mine Resource Evaluation Report is also the basis for submitting application to the Oregon Department of Geology and Mineral Industries (DOGAMI) for the required mining operating permit. Based on the January 31, 2023, mining report the site complies with this standard. The proposed quarry area is estimated to produce 2,060,178 cubic yards of material (4,738,409 tons). Based on laboratory testing of the aggregate quality by air degradation, abrasion, and sodium sulfate soundness tests, the resource will meet ODOT specifications required to find the site "significant" per OAR 660-023-0180(3). In summary, the proposed quarry consisting of 46.7 acres, exceeds both the quantity and quality criteria for a significant aggregate site in accordance with OAR 660-023-0180(3)(a). Note: based upon the survey from Survey One LLC, the total mining area will be larger than originally estimated in the Jan 31 NV5 report. See attached January 31, 2023, Mine Resource Evaluation Report by Erick J. Staley, Certified Engineering Geologist.

Staff Response: The applicant retained the assistance of a licensed geologist with NV5 to analyze the proposed quarry site and evaluate the quality and quantity of the aggregate material. To support the application, applicant submitted a Mine Resource Evaluation report (Exhibit A), dated January 31, 2023 and two laboratory testing results. The first laboratory result is dated August 24, 2022 and was tested by Budinger & Associates (Exhibit B). The second laboratory result is dated January 26, 2023 and was tested by Carlson Testing, Inc (Exhibit C). The Budinger & Associates laboratory test found that the soil sample tested 14% for abrasion (ODOT standard maximum is 35%). The Carlson Testing, Inc. laboratory test found that the soil sample tested 10.1% for abrasion, 1.4% for air degradation (ODOT standard maximum is 30%) and 0.8% for sodium sulfate soundness (ODOT standard maximum is 12%). The proposed mining area is not comprised of Class I, II or unique soils, see attached soil map.

The NV5 geological report used AutoCAD to estimate a gross cut volume of available rock material at the proposed site. NV5 estimated, using this method, that the amount of aggregate materials at the site to be 2,125,679 cubic yards of basalt, or 4,738,409 tons. This is far more than the required 500,000 tons to be deemed a large significant site.

The Planning Commission may find that the applicant retained a licensed geologist who found through quantitative methods, that the available rock materials onsite are estimated to be about 4,738,409 tons, and has the quantity of rock available to be deemed a large significant site.

In order to be considered a large significant site, the applicant must also demonstrate that a representative set of soil samples have been tested for quality, meeting the minimum ODOT standards for degradation, abrasion, and sodium sulfate soundness. Soil samples must be **representative** (emphasis added) of the proposed mining area to justify protection and mining activities. The applicant has submitted laboratory results for two soil samples, however, the

applicant has only provided the sample location for one sample (date of collection unknown/result source unknown), see Fulcrum Geo Resources Site Plan (Exhibit D, Figure 2). Based on the information provided, staff cannot conclude that one soil sample is representative of the entire 46.7-acre site. Additionally, the applicant did not provide which laboratory result represents the soil sample depicted on Figure 2 of Exhibit D, nor the location of the second sample.

The Planning Commission may find that the applicant did not submit a representative set of soil samples, as one identified soil sample location is not representative of the 46.7-acre site regarding quality of available aggregate.

The Planning Commission may find that the applicant provided a representative soil sample to demonstrate that the quality of the aggregate materials on the site meet ODOT specifications in accordance with OAR 660-023-0180(3)(a).

Satisfaction of this criterion is pending.

(5) **[Large Significant Sites]** For significant mineral and aggregate sites, local governments shall decide whether mining is permitted. For a PAPA application involving an aggregate site determined to be significant under section (3) of this rule, the process for this decision is set out in subsections (a) through (g) of this section. A local government must complete the process within 180 days after receipt of a complete application that is consistent with section (8) of this rule, or by the earliest date after 180 days allowed by local charter.

> (a) **[Impact Area]** The local government shall determine an impact area for the purpose of identifying conflicts with proposed mining and processing activities. The impact area shall be large enough to include uses listed in subsection (b) of this section and shall be limited to 1,500 feet from the boundaries of the mining area, except where factual information indicates significant potential conflicts beyond this distance. For a proposed expansion of an existing aggregate site, the impact area shall be measured from the perimeter of the proposed expansion area rather than the boundaries of the existing aggregate site and shall not include the existing aggregate site.

Applicant Response: In order to evaluate impacts and determine a suitable mining area, applicant promulgated GIS mapping services of county Planning Department. Applicant adjusted the mining area boundary to avoid impacts to neighboring dwellings. As a result, there will be only one dwelling within the 1,500-foot impact area around the proposed 46.7 mining site. That dwelling (tax lot 600 of Map 5N 29 22) will be approximately a quarter mile west of the proposed mining area. Other uses within the 1,500-impact area include rock bluff, state highway, farm land and grazing land. The mining will generate a small amount of dust which will be limited by DEQ air permit threshold and best management practices such as applying water for dust abatement. There is no other factual information upon which to evaluate further impacts. The county may find that application has sufficiently addressed impacts within the 1,500-impact area and will appropriately mitigate any dust or noise within the impact area.

Staff Response: The PAPA application was submitted to the Planning Division on August 25, 2023. On September 6, 2023, staff provided an email regarding the application's completeness to

the applicant and processed the application fee. On September 13, 2023, the applicant provided additional information to supplement the application. The 180th day for the County to render a decision is March 4, 2024.

The applicant has proposed a 1,500-foot impact area, measured from the boundaries of the proposed mining site. Uses beyond the 1,500-foot impact area are unlikely to be impacted by the proposed mining activities. Umatilla County finds that factual information is not present to indicate that there would be significant conflicts beyond the 1,500-foot impact area from the boundaries of the proposed mining area. Therefore, the 1,500-foot impact area is sufficient to include uses listed in (b) below.

(b) **[Conflicts created by the site]** The local government shall determine existing or approved land uses within the impact area that will be adversely affected by proposed mining operations and shall specify the predicted conflicts. For purposes of this section, "approved land uses" are dwellings allowed by a residential zone on existing platted lots and other uses for which conditional or final approvals have been granted by the local government. For determination of conflicts from proposed mining of a significant aggregate site, the local government shall limit its consideration to the following:

(A) Conflicts due to noise, dust, or other discharges with regard to those existing and approved uses and associated activities (e. g., houses and schools) that are sensitive to such discharges;

Applicant Response: This standard requires the *local government* identify existing or approved, land uses within the impact area. Here the applicant provides the following analysis. The parcel is surrounded by lands zoned Exclusive Farm Use (EFU). There is not a *dwelling allowed by a residential zone on existing platted lots* within the 1,500-foot impact area. There is one dwelling within 1,500 on land zoned EFU. An analysis of mitigation for any potential conflict with that dwelling is summarized below. Applicant is not aware of any other existing or approved land uses are known within the 1,500-foot impact area.

In terms of potential conflicts due to noise, dust or other discharges, this standard requires consideration of potential impact to the single dwelling. The quarry site was moved to the east, approximately a quarter mile, in order to provide a sufficient buffer to the existing home. The tall rock outcropping or escarpment itself provides a significant buffer to prevent or minimize sound and noise impacts to the adjacent home. Additionally, the mining operation will comply with all state dust and noise standards as required of DEQ and DOGAMI. The rock crusher and asphalt batch plant will secure appropriate air quality permits and will operate in compliance with those respective permits.

September 13th Response
The applicant will retain a licensed mining and blasting professional who will conduct those activities in such a way as to limit any offsite disturbance. Several techniques will be utilized to ensure the impact from the blasting will be absorbed on the subject parcels. This will ensure that impacts to the adjacent dwelling will be non-existent or very minimal. As noted to in the original application, the applicant chose to move the mining area a quarter mile east of the existing home - the purpose of this was to create a buffer or setback in order to shield the

existing homesite from blasting and mining. Further, the columnar and basalt outcropping is 30-50 feet in height which creates an existing vertical buffer to protect the existing dwelling from impacts. Given the setback and location for the mining, applicant does not anticipate any off-site impacts in terms of noise or dust. The site plan attached as Figure 2 of the NV5 report shows the rock crusher plant and asphalt batch plant setup area which again, given the vertical and horizontal setback and one quarter mile distance, will create a more than adequate buffer to minimize impacts to the existing dwelling.

Staff Response: The applicant is tasked with identifying both existing and approved land uses within the 1,500-foot impact area. Approved land uses are those that have received land use approval but may not yet be present on the ground. The Planning Division has not granted any conditional or final approvals for properties within the impact area.

Existing uses within the 1,500-foot impact area include two existing dwellings, un-irrigated rangeland, an irrigated crop circle, one Goal 5 ODOT mining site (on the subject property), a 230kV transmission line, and some irrigated pasture/rangeland. The applicant has acknowledged one dwelling, and states that the proposed mining area was moved to the east approximately a quarter mile to provide a sufficient buffer to the existing home by a 30 to 50-foot-tall rock outcropping to prevent or minimize sound and noise impacts to this dwelling. The second dwelling, not acknowledged by the applicant, is directly across Highway 207, thus, the same buffer could potentially also shield this second dwelling.

Elsewhere in the application, the applicant states that blasting of the basalt rock will be required and will occur occasionally, and that noise impacts from blasting will be mitigated with the existing basalt outcropping. Applicant asserts that dust will not be a conflict off-site due to the proposed mining, rock crusher and asphalt batch plant locations generally identified on the applicant's site plan (Exhibit D, Figure 2).

The applicant's provided geological report speaks largely to the available material quality and quantity for purposes of establishing a large significant Goal 5 site. The report does not evaluate potential noise, dust or blasting impacts to the existing dwellings or farming activities. Staff recommended the applicant to provide a blasting plan to supplement the application; however, this was not provided. Applicant provided an analysis of anticipated impacts from blasting from Fulcrum Geo Resources (Exhibit E).

Fulcrum reviewed aerial imagery to identify structures that could be impacted by blasting. Fulcrum states that the blasting activities will be located at least 500-feet away from both Highway 730 and the transmission poles and towers present south of the subject property. The Fulcrum report includes one detailed map (Exhibit D, Figure 2) to support the findings, however, the map does not specifically identify the area subject to blasting. Based on the applicant's information, basalt is on the entire site, covered by sand and gravels thus the entire site could be subject to blasting. Fulcrum's Figure 2 map (Exhibit D), received by Planning on September 13, 2023, identifies several basalt outcrops. Staff's interpretation is that only the areas identified on Fulcrum's Figure 2 Map would be subject to blasting however, the information supplied by the applicant and supporting documentation is not detailed and clear to staff.
Additionally, the applicant states that the natural basalt rock outcrop will act as a buffer to blasting impacts. However, if the applicant plans to mine the basalt rock outcrop eventually the

naturally occurring buffer will be diminished. Planning staff recognize that the site contains existing shrubs, trees and other plants that could also serve as a buffer to dust. How blasting effects will be buffered from existing dwellings has not been shared by the applicant. Fulcrum's August 25, 2023 analysis concludes that damage of offsite structures or features from controlled blasting is not anticipated. The Fulcrum analysis states the following:

> "Blasting activities should be planned and conducted by appropriately experienced and licensed blasters in accordance with state and local regulations. This should include the use of blast procedures and time-delays that prevent excessive vibrations or other emissions from blasting. Blasting should be monitored using seismographs or similar equipment to collect vibration data and compare the results to regulatory damage thresholds."

Umatilla County may find that the applicant's supplied Fulcrum Anticipated Impacts from Blasting report adequately addresses blasting concerns and provides guidelines for mitigating potential blasting impacts by properly planning controlled blasts, implementing blast procedures and time-delays to prevent excessive vibrations, other emissions, and by monitoring blasting to collect vibration data. A subsequent condition of approval requiring these procedures and practices could be imposed to mitigate conflicts.

Umatilla County finds that the applicant has identified potential conflicts due to noise, dust, or other discharges with regard to those existing and approved uses and associated activities (e.g., houses and commercial uses) that are sensitive to such discharges exist within the 1,500-foot impact area. Umatilla County may find that the applicant has proposed to mitigate noise impacts with utilization of the natural basalt outcropping and existing shrubs and trees.

Umatilla County finds that the applicant has identified the use of water for dust abatement in section (F)(c) below.

Umatilla County may find that conflicts due to blasting exist and may be mitigated with application of the best management practices (including obtaining applicable State permits), and that the applicant is imposed with identifying practices to mitigate blasting conflicts with the existing dwellings and farm operations.

Umatilla County may find that the applicant has not clearly identified the extraction area subject to blasting, therefore, blasting conflicts cannot be analyzed without identifying extraction locations.

Satisfaction of this criterion is pending.

> <u>(B) Potential conflicts to local roads used for access and egress to the mining site within one mile of the entrance to the mining site unless a greater distance is necessary in order to include the intersection with the nearest arterial identified in the local transportation plan. Conflicts shall be determined based on clear and objective standards regarding sight distances, road capacity, cross section elements, horizontal and vertical alignment, and similar items in the transportation plan and implementing ordinances. Such standards for trucks associated with the mining operation shall be equivalent to standards for other</u>

trucks of equivalent size, weight, and capacity that haul other materials;

Applicant Response: Applicant coordinated closely with Oregon Department of Transportation in selecting the best location for ingress/egress to the site the access onto state highway. Based on input from ODOT, an Access Permit application permit has been submitted. The access location will minimize conflicts with traffic and will provide best site clearance. The access and roadway are approximately one-half mile away from the existing dwelling.

Staff Response: Kittelson & Associates (consultant) was hired by the applicant to conduct a Traffic Impact Analysis (TIA) to support the application for establishing a Large Significant Site. The TIA (Exhibit F) found two operations will comprise separate trips at the proposed site: the mining/rock crushing operation and the asphalt batch plant. The daily trip total for both operations is 356 trips, with approximately 204 of those trips being large trucks and approximately 12 of those trips being employees of the mining operation, see Table 9 below.

Table 9. Proposed Site Trips

Land Use	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
		Total	In	Out	Total	In	Out
Mining/Rock Crushing							
- Staff[1]	8	0	0	0	4	0	4
- Rock Deliveries[2]	30	6	3	3	0	0	0
- Water Deliveries[2]	4	2	1	1	0	0	0
- Other pick-ups[2]	140	10	5	5	0	0	0
Asphalt Batch Plant							
- Staff[1]	4	0	0	0	2	0	2
- Load Deliveries[2]	30	6	3	3	0	0	0
- Other pick-ups[2]	140	10	5	5	0	0	0
Total	**356**	**34**	**17**	**17**	**6**	**0**	**6**

[1] Each employee was assumed to generate 2 daily trips (1 in, 1 out). Employees are assumed arrive on site before the AM Peak Hour and were conservatively assumed to leave during the PM Peak Hour.
[2] Each delivery and pick-up was assumed to generate 2 trips (1 exit for delivery/1 return from delivery or 1 entrance for pick-up/1 exit for pick-up).

State Highway 730 is an east-west truck route that connects to Interstates 82 and 84. The applicant's TIA found the peak 15-minute flow rate for the Highway 207/Highway 730 intersection to be 312 total vehicles, 112 of these vehicles were heavy trucks. Umatilla County finds the applicant's proposal includes access to a major state highway, the additional daily traffic trips generated from the mining operation are proposed at 356, which overall, will have minimal impact on both Highway 207 and 730. ODOT and County Public Works will have the opportunity to comment on the applicant's request and may request additional conditions of approval.

Umatilla County finds the applicant is required to obtain an ODOT Road Approach Permit to State Highway 730. The access shall be constructed to comply with the ODOT requirements. This will be captured as a subsequent condition of approval and may be satisfied by submitting written verification of the ODOT Road Approach Permit approval.

> (C) Safety conflicts with existing public airports due to bird attractants, i.e., open water impoundments as specified under OAR chapter 660, division 013;

Umatilla County finds that there are no public airports within the Impact Area. The closest public airport is to the south and more than ten miles away from the site. The proposed quarry will not create safety conflicts with the existing Hermiston Airport.

> (D) Conflicts with other Goal 5 resource sites within the impact area that are shown on an acknowledged list of significant resources and for which the requirements of Goal 5 have been completed at the time the PAPA is initiated;

Applicant Response: There is one existing Goal 5 resource within the impact area, a significant aggregate resource located on the portion of tax lot 400 that is north of Highway 730. That approximately 25 acres quarry has the Aggregate Resource Overlay Zone designation. While the landowner of the subject property owns all of tax lot 400, including the Goal 5 Aggregate Resource, only the Oregon Department of Transportation is allowed to mine and use the rock material from the existing Goal 5 resource. The ODOT has an exclusive long-term lease that does not provide access for private sector use. Material from the existing rock quarry is for state highway use only and is not available to purchase by private parties. The significant resource has been mined and operated by ODOT for over 30 years. Operation of the proposed new rock quarry will be similar to operation of the existing quarry and by inference means the new use will be compatible with the existing Goal 5 resource. Worth noting is the fact that the ODOT quarry operations have not created conflicts with neighboring properties. Based on this, applicant believes the new rock quarry will not create any negative impacts for the existing Goal 5 aggregate site.

Staff Response: Umatilla County finds there are two existing Goal 5 resource sites on the subject property, an aggregate resource site north of Highway 730 and a significant wetland encompassing the proposed mining area. The site north of Highway 730 is a large significant Goal 5 aggregate site managed by ODOT. Aggregate pulled from the "Diagonal Road" quarry is used on various ODOT projects. This site was added to the County's list of significant sites and subsequently approved for mining in 1982. Since this is an existing aggregate site, and is a similar operation to the applicant's request, there are no known Goal 5 conflicts associated with the existing ODOT aggregate site.

The second Goal 5 site on the subject property is Significant Wetland Drainage Area (Map D-44 in the Umatilla County Technical Report) (Exhibit G) and is classified as a 3C Goal 5 site. Resources designated as 3C require limiting conflicting uses to protect the resource, as opposed to other designations which call for preserving the resource (3A) or allow conflicting uses (3B)[1].

1 The Umatilla County Technical Report was adopted as part of the County's Comprehensive Plan in May 1980 and contains research data which formed the basis of the Comprehensive Plan's Findings and Policies with robust public

The Goal 5 analysis for this wetland calls for limiting conflicting uses with implementation of a 100-foot setback from wetlands and streams.

The applicant's narrative fails to acknowledge this Goal 5 protected drainage area; therefore, staff have provided the following analysis:
The Drainage Area identified on Map D-44 of the Umatilla County Technical Report represents a large area of the Cold Springs Drainage. The acknowledged wetland boundary states that exact boundaries of the drainage may require site inspection. Since the Technical Report's adoption, wetland data and mapping provided by the Department of State Lands (DSL) has become more precise and accurate. DSL provided two off-site wetland determination reports that incorporated National Wetland Inventory (NWI) data with interpretation of available aerial imagery. The December 5, 2022 Wetland Determination Report (WD 2022-0606) (Exhibit H) found there are wetlands present on the subject property, and that a delineation may be required. The March 17, 2023 Wetland Determination Report (WD 2023-0095) (Exhibit I) found that a DSL permit is not required because the proposed mining area was modified to exclude potential wetland and waters impacts.

Umatilla County finds the proposed mining area was modified to eliminate potential impacts to wetlands and DSL found no wetland delineation or permitting is required.

The Technical Report states that conflicting uses should be setback a minimum of 100-feet from wetlands and streams. This policy has been codified into the Umatilla County Development Code and applies to the applicant's request.

Umatilla County finds in order to protect the Drainage Area, a 100-foot minimum setback from the mapped wetlands to all mining activities is required, this setback will minimize conflicts with the Drainage Area. A subsequent condition of approval is imposed requiring the applicant to submit a detailed site plan demonstrating that all mining activities are setback a minimum of 100-feet from wetlands.

(E) Conflicts with agricultural practices; and

Applicant Response: Agricultural practices within the 1,500-foot impact area of the proposed quarry are to the south and east and consist primarily of grazing with some irrigated agriculture farther to the south. The landowner of subject tax lot 400 owns most of the farmland to the south and east; consisting of rangeland that will not be adversely impacted by a quarry operation. The irrigated land farther to the south is set back from the proposed mining area, beyond the 1,500 [foot] impact area and will not be a receptor of noise or dust. The quarry location was refined to include a buffer with adjacent properties which will have the effect of minimizing impacts to adjacent farmland. Farming on adjacent properties consists primarily of grazing but also includes some hay ground. Neither of those farming operations would be sensitive to fugitive dust as would say a vineyard.

September 13th Response
In addition to the description provided in the original application, applicant provides the

involvement.

following description of existing agricultural practices: There is no farming to the east, west and north of the subject quarry. To the south of the proposed quarry is pasture ground. There are no known possible impacts a mining operation could create for pasture or grazing. Additionally, given the horizontal and vertical setbacks, including the 25-foot setback from the property line and the vertical topography of the mining area, applicant does not anticipate any noise or dust will leave the subject property. The vertical and horizontal setbacks are more than adequate to guarantee noise, vibrations, traffic, chemical weed abatement (if utilized) would not drift off site, therefore assuring no offsite impacts.

Staff Findings: Agricultural activities in the impact area include both irrigated and non-irrigated grazing and some irrigated crop land, one pivot is within the 1,500-foot impact area. Other lands zoned EFU are considered open space and do not appear to be farmed. The applicant did not provide information regarding the type of crop grown in the pivot circle. According to aerial imagery, it appears to be in alfalfa or grass hay production. Although the applicant states that the property owner of the subject property also owns lands to the south and east, and that these properties are rangeland that will not be affected, this is false. Property directly south of the subject property (Tax Lot 500) is owned by Aaron Basford and appears to be irrigated alfalfa/hay production and irrigated grazing land. Property to the east of the subject property is owned by Umatilla Ready Mix, Inc and land within the impact area is predominately open space.

Grazing Farm Practices: Most grazing activities within this vicinity refer to cattle grazing. Cattle are placed in a field, often with limited fencing, to roam and consume wild or planted vegetation until ready for human consumption. Many farmers rotate their cattle across various pastures or fields to allow the foraged areas the opportunity to renew.

Alfalfa/Grass Hay Farm Practices: Typical farming practices for alfalfa or grass hay production include herbicide application, swathing, raking and baling the forage into bales. Once cut, the crop lays on the ground for multiple days until dry enough to be baled. The cycle then starts over, and most irrigated lands in this area can yield four to six harvests a season.

Umatilla County finds the proposed Goal 5 aggregate site is not expected to conflict with nearby agricultural activities or practices. The ODOT site on the subject property has been operating without conflicts to nearby agricultural practices for many years. The applicant's proposed mining site will operate in a similar manner, and unless evidence is supplied providing otherwise, will not conflict with existing agricultural practices.

> (F) Other conflicts for which consideration is necessary in order to carry out ordinances that supersede Oregon DOGAMI regulations pursuant to ORS 517.780;

Applicant Response: Applicant has prepared and will soon file application with DOGAMI for required mining permit and license. Applicant will comply with any abatement measures recommended by DOGAMI. No other conflicts are known to exist. Based on the above, applicant believes this quarry operation will operate in compliance with this criterion.

Staff Findings: Umatilla County finds that there are no other conflicts for which consideration is necessary in order to carry out ordinances that supersede Oregon DOGAMI regulations. Therefore, this criterion is not applicable.

(c) **[If conflicts exist, measures to minimize]** The local government shall determine reasonable and practicable measures that would minimize the conflicts identified under subsection (b) of this section. To determine whether proposed measures would minimize conflicts to agricultural practices, the requirements of ORS 215.296 shall be followed rather than the requirements of this section. If reasonable and practicable measures are identified to minimize all identified conflicts, mining shall be allowed at the site and subsection (d) of this section is not applicable. If identified conflicts cannot be minimized, subsection (d) of this section applies.

Applicant Response: Based on the location of the quarry and the distance of the mining from adjacent properties, applicant believes that no conflicts exist. Potential impacts to consider include fugitive dust from blasting, mining, and operation of the rock crusher. Again, applicant believes there will not be impacts based largely on the topography and distance or setback from adjoining properties within the 1,500-foot impact area. Applicant and operators will utilize best management practices such as installation of air filters on operating equipment and water to abate dust, to ensure no off-site impacts. With respect to potential impacts from blasting applicant has included a Supplemental Narrative concerning Anticipated Impacts from Blasting, prepared by Erick Staley, Consulting Geologist, that addresses the issue in detail and supports the conclusion that no conflicts will arise from blasting activity.

September 13th Response
As stated in the original applications, applicant and operators will utilize best management practices (BMPs) to ensure no offsite impacts. These BMPs the applicant and operators will use include water for dust abatement and screening of rocks, in addition to compliance with required DEQ Air Contaminant Discharge Permits requirements for operating the equipment. Any potential smoke from diesel equipment will be minimized with appropriate and required mufflers. Water will be provided with a water truck; water for the truck will be procured by applicant and operator from one of many existing, legally permitted sources including but not limited to the city of Hermiston, the city of Umatilla or an industrial water sources. The Oregon Water Resources Department (OWRD) has regulatory authority on all matters related to water rights and water use. That agency regulatory authority applies in this case as well - to ensure the applicant and operators will use water from appropriate sources only. The applicant will comply with OWRD regulations and will only utilize water from appropriate sources. The applicant does not intend to drill a well.

In the September 6, 2023 letter, Planning Division Manager Megan Davchevski the following: *"Applicant states that future potential development opportunities are extremely limited and therefore restrictions on adjacent properties may not be necessary. Applicant continues to state that no conflicts have been identified, and that the county may conclude the limiting uses on adjacent lands is not necessary. However, elsewhere, including the responses to (but not limited to) OAR 660- 023-040(2)(a) and (4), the applicant identifies and requests that new conflicting uses be located outside the 1,500-impact area. Thus, the applicant is requesting to restrict new uses, currently permissible, on other lands. Additionally, the narrative is contradictory by saying that there are no potential conflicts, however, then identifies conflicts that could exist and that should not be allowed within the 1,500-foot impact area of the proposed quarry."*

To clarify, applicant believes there will not be any offsite impacts but suggests that county limit

conflicting uses as a precautionary manner. The Findings shared in this section does not discount Findings in another section. Applicant and licensed geologist believe there will not be offsite impacts but as a precautionary matter suggest county adopt language that would limit offsite conflicting uses to protect this significant aggregate resource. Factually, only County has the prerogative to impose or not impose restrictions on adjacent lands. Applicant has presented site plans with vertical and horizontal setbacks to create substantial buffers from all contiguous and adjacent properties and respectfully defers to county to determine if limitations to future uses should be imposed.

Staff Information: For context, the quotation provided above was County Planning's response to the applicant's narrative and was provided as guidance for the applicant to submit a more robust application for review. Regrettably, conflicting responses addressing potential impacts appear throughout the application. Conflicting responses in both addressing impacts to the proposed aggregate operation from permissible uses located within the 1,500-foot impact area, and impacts by the proposed aggregate mining operation to uses located within the surrounding area. Emphasis is added with bold text. Above, applicant states:

> "Based on the location of the quarry and the distance of the mining from adjacent properties, **applicant believes that no conflicts exist**. Potential impacts to consider include fugitive dust from blasting, mining, and operation of the rock crusher. Again, applicant believes there will not be impacts based largely on the topography and distance or setback from adjoining properties within the 1,500-foot impact area" and "Applicant and licensed geologist **believe there will not be offsite impacts** but as a precautionary matter suggest county adopt language that would limit offsite conflicting uses to protect this significant aggregate resource".

Applicant then requests the County to restrict all conflicting uses to outside the 1,500-foot impact area. Under the ESEE analysis, applicant states:

> "The applicant requests that Umatilla County determine that future dwelling or residential use and other uses that would place people within the impact area, such as gathering spaces, be limited to area on adjacent parcels that is outside the 1,500- impact area. That limitation would result in limited restriction on adjacent parcels. That is**, other land uses could be permitted but the siting of those uses would need to be placed outside the 1,500-impact area**". Applicant further states, "Based on the materials submitted with this application, including the ESEE analysis, **the resource site will create little or no conflicts with existing or proposed uses within the 1,500-foot impact area**. County may consider imposing a condition of approval for future land use applications for a conflicting use and **require new development be located outside the 1,500-foot impact area**".

Applicant did not explain how the proposed quarry operations would not conflict with existing uses (dwellings, farm stands, etc.), nor how these same uses, if proposed, should not be permitted within the impact area. Additionally, the applicant contradicts themselves in numerous statements regarding conflicts. It is the applicant's burden to justify measures to protect existing and proposed uses. It is then County decision makers' responsibility to determine whether or not the proposed protection measures are adequate, fair and objective.

Staff Response: The County has identified potential conflicts with the two existing residential dwellings and an existing Goal 5 Drainage Area (wetland site), located on the subject property.

Umatilla County finds that conflicts with the Goal 5 Drainage Area site can be mitigated with implementation of a minimum setback requirement of 100-feet from the wetlands to all mining activities, as demonstrated in (D) above.

Umatilla County finds that potential conflicts were identified within the 1,500-foot impact area. Blasting, dust and noise have the potential to conflict with the two existing dwellings, thus mitigation measures must be identified and implemented.

Applicant states that water will be applied for dust abatement. Water will be brought onsite with a water truck and procured from a legally permitted source. Applicant has identified potential water sources as the City of Hermiston, City of Umatilla or other industrial water sources. Applicant also states that air filters will be installed on all operating equipment. Umatilla County finds the following two subsequent conditions of approval mitigate the conflict with dust and are imposed: that the applicant obtain all necessary permits from Oregon Water Resources Department, and that water used for dust abatement and/or rock screening be from a permitted source and that air filters be installed on all operating equipment.

Elsewhere in the application, the applicant states that the natural basalt outcrop will serve as a barrier between the dwellings and potential conflicts with noise. Noise is governed by the Umatilla County Noise Control Ordinance, Chapter 96 and Oregon Administrative Rule 340-035-0035. Approved blasting activities, with all appropriate permits, are exempt from the noise regulations as stated in §96.04[2] of the Umatilla County Code of Ordinances. While approved blasting activities are exempt in the Noise Control Ordinance, general mining activities must comply with the noise regulations, Oregon Department of Environmental Quality enforces OAR 340-035-0035.

Umatilla County finds a subsequent condition of approval requiring the mining operations to comply with the DEQ Noise Standard provided in OAR 340-035-0035 is imposed.

The identified basalt outcrop begins at the south property line, about 1,500-feet from Highway 207. The outcrop then continues north-east and diminishes several times. Identified mining activities will occur north and north-west of this outcrop. The nearest dwelling is approximately 1,000 feet from the proposed mining area. Maps submitted by the applicant (Exhibit D, Figures 2 and 3) identify the extraction area as being in the entire southeast quarter of the proposed site. The existing wetlands and shrub trees may provide a noise barrier to protect the dwellings. Buffers for the south and east site boundaries have not been identified. Comments from nearby property owners and occupants of either dwelling may result in additional conditions of approval to address noise conflicts.

2 Umatilla County Code of Ordinances §96.04(F) states: *Sound caused by blasting activities when performed under a permit issued by the appropriate governmental authorities and only between the hours of 9:00 a.m. to 4:00 p.m., excluding weekends.*

The applicant consulted with Fulcrum GeoResources LLC to develop an *Anticipated Impacts from Blasting* report (Exhibit E) the Figure 2 map submitted with this report identify a basalt extraction area subject to blasting, however this map was provided to Planning staff as a grayscale. Therefore, it is difficult to determine where the proposed blasting area is located. Figure 2 of Exhibit A identifies the basalt extraction area as the southeast corner of the proposed site.

Umatilla County may find that the applicant has generally identified the extraction area subject to blasting as the southeast corner of the subject property; however, the applicant has not specifically identified the area subject to blasting. Therefore, blasting conflicts cannot be analyzed without more information.

Umatilla County may find that the applicant's supplied Fulcrum *Anticipated Impacts from Blasting* report adequately addresses blasting concerns and provides guidelines for mitigating potential blasting impacts by properly planning controlled blasts, implementing blast procedures and time-delays to prevent excessive vibrations, other emissions, and by monitoring blasting to collect vibration data. A subsequent condition of approval requiring these procedures and practices could be imposed to mitigate conflicts.

The applicant has identified limited impacts from dust and stormwater that can be managed or mitigated through various voluntary measures and best management practices. During mining and processing, if approved on site, the applicant or its contractors will implement best management practices and, as necessary or required, obtain necessary permits in the management of dust, stormwater, or other identified discharges. A subsequent condition of approval is imposed requiring the applicant and its contractors to implement best management practices, including obtaining necessary permits to manage dust, stormwater and other discharges.

Umatilla County may find that blasting conflicts are minimized with imposition of the following condition of approval: The mining operation shall mitigate blasting impact by properly planning controlled blasts, implementing blast procedures and time-delays and monitoring blasting to collect vibration data.

Satisfaction of this criterion is pending.

(d) **[If conflict can't be minimized then conduct an Economic, Social, Environmental, and Energy (ESEE) analysis]** The local government shall determine any significant conflicts identified under the requirements of subsection (c) of this section that cannot be minimized. Based on these conflicts only, local government shall determine the ESEE consequences of either allowing, limiting, or not allowing mining at the site. Local governments shall reach this decision by weighing these ESEE consequences, with consideration of the following:

(A) The degree of adverse effect on existing land uses within the impact area;
(B) Reasonable and practicable measures that could be taken to reduce the identified adverse effects; and
(C) The probable duration of the mining operation and the proposed post-mining use of the site.

Applicant Response: The applicant and geologist carefully selected the layout of the quarry to minimize adverse effects of the proposed mining operation on adjacent lands. Applicant does not believe there will be impacts however, applicant will comply with reasonable and appropriate required mitigation if county or other party identifies impacts.

Staff findings: Pending satisfaction of (c) above, the Planning Commission could find that all identified potential conflicts could be minimized as described in (c) above. This criterion is not applicable.

(e) **[Amend Plan]** Where mining is allowed, the plan and implementing ordinances shall be amended to allow such mining. Any required measures to minimize conflicts, including special conditions and procedures regulating mining, shall be clear and objective. Additional land use review (e. g., site plan review), if required by the local government, shall not exceed the minimum review necessary to assure compliance with these requirements and shall not provide opportunities to deny mining for reasons unrelated to these requirements, or to attach additional approval requirements, except with regard to mining or processing activities:

(A) For which the PAPA application does not provide information sufficient to determine clear and objective measures to resolve identified conflicts;
(B) Not requested in the PAPA application; or
(C) For which a significant change to the type, location, or duration of the activity shown on the PAPA application is proposed by the operator.

Applicant Response: The applicant believes the mining operation will create no or very limited impacts to adjacent lands. Negative externalities are likely limited to truck traffic onto Highway 730. Lands to the north include a steep escarpment which will not be impacted by the quarry operation or truck traffic. Where the applicant/operators will implement best management practices and comply with all permits necessary to ensure management of dust and stormwater discharges, applicant believes further ESEE analysis is not required. If county concludes an ESEE analysis is warranted, applicant will comply with any Conditions of Approval included as part of the land use permit approval.

Staff Response: The applicant is requesting mining approval. Umatilla County finds the imposed conditions of approval are clear and objective and satisfy the criteria. Further site plan review will be completed at the time the zoning permit is issued for the mining activities and will not exceed the minimum review necessary to assure compliance with the conditions of approval. This criterion is satisfied.

(f) **[Post mining uses]** Where mining is allowed, the local government shall determine the post-mining use and provide for this use in the comprehensive plan and land use regulations. For significant aggregate sites on Class I, II and Unique farmland, local governments shall adopt plan and land use regulations to limit post-mining use to farm uses under ORS 215.203, uses listed under ORS 215.213(1) or 215.283(1), and fish and wildlife habitat uses, including wetland mitigation banking. Local governments shall coordinate with DOGAMI regarding the regulation and reclamation of mineral and aggregate sites, except where exempt under ORS 517.780.

Applicant Response: The mining site is comprised of soil types that are not Class I, II or unique soils. Applicant engaged services of Erick Staley, C.E.G. with NV5. to design and develop a mining and reclamation plan, attached to this application. The mining and reclamation plan is also submitted to DOGAMI for their review and regulation and permitting. Post mining land use will be grazing. Applicant will comply with all post-mining requirements required of DOGAMI including reclamation and restoration of lands for post mining use. The applicant will restore the site to standards imposed by DOGAMI which will also be consistent with post- mining farm uses such as grazing, as identified in ORS 215.283. Applicant understands that Umatilla County will coordinate with DOGAMI as part of county land use review.

Staff Findings: The applicant has identified grazing as a post mining land use, which is an outright use in the EFU zone. Applicant has also submitted a reclamation plan for DOGAMI review and has provided a copy of the submittal in support of the application (Exhibit J). Umatilla County finds the applicant has identified a possible post-mining use that is allowed under ORS 215.283. Umatilla County finds this criterion is satisfied.

(g) **[Issuing a zoning permit]** Local governments shall allow a currently approved aggregate processing operation at an existing site to process material from a new or expansion site without requiring a reauthorization of the existing processing operation unless limits on such processing were established at the time it was approved by the local government.
Applicant Response: Applicant finds this criterion is not applicable as this is a new site.

Staff Findings: The applicant is requesting approval of a new mining site. Umatilla County finds this criterion is not applicable.

(7) **[Protecting the site from other uses/conflicts]** Except for aggregate resource sites determined to be significant under section (4) of this rule, local governments shall follow the standard ESEE process in OAR 660-023-0040 and 660-023-0050 to determine whether to allow, limit, or prevent new conflicting uses within the impact area of a significant mineral and aggregate site. (This requirement does not apply if, under section (5) of this rule, the local government decides that mining will not be authorized at the site.)

Applicant Response: Applicant is proposing a significant aggregate resource under section (4) of this rule. Applicant requests county designate the resource as a significant resource and protect the resource from conflicting uses. Applicant believes that future potential development opportunities are extremely limited and therefore restrictions on adjacent properties may not be necessary. That is, given all adjacent land is zoned EFU, only a limited list of non-farm agricultural uses is permissible by existing local and state law. Development on land to the south and southeast is already restricted due to the presence of high voltage transmission lines and associated easements. Land to the north includes a steep rock bluff which cannot be developed. Land to the west includes State Highway 207 and further west a small remnant of tax lot 400 where future development is not likely given the parcel size and zoning. Land to the east is grazing land that may continue without any restriction.

Where no conflicts have been identified, county may conclude that limiting uses on adjacent lands is not necessary. Given that the quarry will not negatively impact farming uses on

adjacent lands county may find that limitations are not necessary. One dwelling is located adjacent to the quarry area but approximately 1,500 feet distance from the quarry.

Staff Response: The applicant has provided an ESEE analysis. The analysis supports a decision to limit new conflicting uses within the impact area to assure protection of the aggregate site. The applicant's provided ESEE analysis follows.

660-023-0040 ESEE Decision Process

(1) Local governments shall develop a program to achieve Goal 5 for all significant resource sites based on an analysis of the economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use. This rule describes four steps to be followed in conducting an ESEE analysis, as set out in detail in sections (2) through (5) of this rule. Local governments are not required to follow these steps sequentially, and some steps anticipate a return to a previous step. However, findings shall demonstrate that requirements under each of the steps have been met, regardless of the sequence followed by the local government. The ESEE analysis need not be lengthy or complex, but should enable reviewers to gain a clear understanding of the conflicts and the consequences to be expected. The steps in the standard ESEE process are as follows:

(a) Identify conflicting uses;
Applicant Response: The subject property and other property within 1,500 feet to the west, south, southeast, and east is zoned Exclusive Farm Use (EFU) which allows a variety of farm related uses including dwellings if certain criteria are met. The contiguous parcels currently contain dwellings and would not qualify for additional dwellings. All existing dwellings are located outside the 1,500-impact area, except for the dwelling located on tax lot 600.

Where tax lot 600 is a small, pre-existing, non-conforming parcel zoned EFU additional dwellings would not be permissible. Other uses on adjacent lands that could be permitted, include a list of uses permitted with standards ORS 215.283(1) and uses permitted conditionally ORS 215.283(2). Those uses require land use review by Umatilla County and if qualified or permitted could be sited on adjacent parcels but outside the 1,500 feet area that could create a conflict with an aggregate operation. Any potential conflict that might arise would be a new use that would permit a place where people are living or working. The parcels are large enough so that future uses could be sited outside the 1,500-impact area.

Land to the north is zoned EFU and contains a large escarpment. All other property within the 1,500-foot impact area is zoned EFU and those lands are primarily range land. Tax lot 600 is contiguous to tax lot 400 and contains a dwelling. That dwelling is located 1,500 feet from the quarry area. Given the parcel size and soil types it is not likely other adjacent parcels in the EFU Zone would qualify to meet the standards for siting a farm dwelling.

Staff Response: Conflicting uses have been evaluated and provided below. Identified conflicting uses are: winery, farm stand, home occupations, churches, dwellings, schools, parks, playgrounds, community centers, boarding and lodging facilities and various commercial uses related to agriculture. This criterion is satisfied.

(b) Determine the impact area;
Applicant Response: The impact area is a 1,500-foot buffer extending from the aggregate site boundary.

Staff Response: The identified 1,500-foot buffer is sufficient according to the maximum distance allowed by Oregon Revised Statute.

(c) Analyze the ESEE consequences; and
Item (c) is addressed below.

(d) Develop a program to achieve Goal 5.
Item (d) is addressed below.

(2) Identify conflicting uses. Local governments shall identify conflicting uses that exist, or could occur, with regard to significant Goal 5 resource sites. To identify these uses, local governments shall examine land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area. Local governments are not required to consider allowed uses that would be unlikely to occur in the impact area because existing permanent uses occupy the site. The following shall also apply in the identification of conflicting uses:

Applicant Response: Applicant concludes that other uses on adjacent land, all of which is zoned EFU, will be limited to farming and natural resource use. The proposed mining will not conflict with natural resource use. Given parcel size, soil type, easements, and the existing high voltage transmission line, non farm development is very unlikely to be permissible under UCDO or state law other than uses already present on adjacent properties. Nonetheless, applicant provides an analysis of potential conflicting uses. Under this provision, applicant identifies conflicting uses that could occur, in proximity to the mining site. The table below includes potential uses that could create conflicts within the 1500-foot impact of the entire parcel even though the proposed mining site is smaller than the parcel area.

Potential conflicting uses found in the Umatilla County Development Code are outlined in the **Table 1**, below. This criterion is satisfied.

Table 1 - Potential Conflicting Uses

Potential Conflicting Uses		
Zoning	Code Sections	Potential Conflicting Uses
EFU	152.056 Uses Permitted 152.058 Zoning Permit 152-059 Land Use Decisions or 152.060 Conditional Uses	No conflicting uses identified. Replacement Dwellings, Winery, Farm Stand, Home Occupations. Churches, Dwellings, Schools, Parks, Playgrounds, Community Centers, Hardship Dwellings, Boarding and Lodging Facilities, Various Commercial Uses Related to Agriculture.

Staff Response: The applicant has identified potential conflicting uses within EFU zone and the 1500-foot impact area. Umatilla County finds potential conflicts exist and are evaluated below.

(a) If no uses conflict with a significant resource site, acknowledged policies and land use regulations may be considered sufficient to protect the resource site. The determination that there are no conflicting uses must be based on the applicable zoning rather than ownership of the site. (Therefore, public ownership of a site does not by itself support a conclusion that there are no conflicting uses.)

Applicant Response: The uses listed in the table above will be mitigated with existing UCDO setbacks. Applicant finds that any of the potential conflicting uses are highly unlikely given the restrictive EFU Zoning. However, county could adopt a Goal 5 protection program to protect the aggregate resource and require that would include only a single standard - requiring that any new non-farm development be allowed outside the 1,500-impact area. That would both protect the Goal 5 resource and not limit future land uses on adjacent parcels.

Staff Response: Potential conflicting uses taken from the Umatilla County Development Code that could be adversely affected by mining on the proposed Goal 5 expansion area are identified above. Therefore, this criterion is not applicable.

(b) A local government may determine that one or more significant Goal 5 resource sites are conflicting uses with another significant resource site. The local government shall determine the level of protection for each significant site using the ESEE process and/or the requirements in OAR 660-023-0090 through 660-023-0230 (see OAR 660-023-0020(1)).

Applicant Response: There is an existing Goal 5 aggregate resource site directly to the east of the proposed quarry. This Goal 5 site is a large significant aggregate resource. Approval of the proposed quarry would not impact the existing quarry.

Umatilla County may find that the only significant Goal 5 site within the impact area is an existing aggregate operation, which is not identified as a conflicting use since the proposed use being evaluated is also aggregate mining. The ESEE analysis is evaluated below.

Staff Response: There are two existing Goal 5 sites within the 1,500-foot impact area, both Goal 5 sites are on the subject property. The Goal 5 site north of Highway 730 is a large significant aggregate site and is mined by ODOT. Since this is an existing aggregate site, and is a similar operation to the applicant's request, there are no known conflicts.

The other Goal 5 site is on most of the subject property and is a significant wetland in the Umatilla County Technical Report. This significant wetland is designated as a 3c in the Technical Report, the 3c designation states that the site is significant and warrants protection from conflicting uses. The identified protection in the Technical Report is to limit conflicting uses with a 100-foot setback for structures and sewage disposal systems.

Umatilla County finds one significant Goal 5 site within the impact area is an existing aggregate operation, which is not identified as a conflicting use since the proposed use being evaluated is also aggregate mining. The other Goal 5 site, a significant wetland, has been protected and conflicts with this site are evaluated and can be mitigated under OAR 660-023-0180(3)(d) above. The ESEE analysis is evaluated below.

(3) **Determine the impact area**. Local governments shall determine an impact area for each significant resource site. The impact area shall be drawn to include only the area in which allowed uses could adversely affect the identified resource. The impact area defines the geographic limits within which to conduct an ESEE analysis for the identified significant resource site.
Applicant Response: The impact area for an aggregate site is 1,500 feet, as specified by OAR 660-023-0180(5)(a). Based on the list of potential conflicting uses identified in **Table 1**, above, Umatilla County may conclude that the 1,500-foot impact area is sufficient for conducting the ESEE analysis.

Staff Response: The 1,500-foot impact area specified in OAR 660-023-0180(5)(a) is adequate for determining impacts for the proposed aggregate site. Umatilla County finds and concludes the 1,500-foot impact area is adequate for conducting the ESEE analysis.

(4) **Analyze the ESEE consequences**. Local governments shall analyze the ESEE consequences that could result from decisions to allow, limit, or prohibit a conflicting use. The analysis may address each of the identified conflicting uses, or it may address a group of similar conflicting uses. A local government may conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning. The local government may establish a matrix of commonly occurring conflicting uses and apply the matrix to particular resource sites in order to facilitate the analysis. A local government may conduct a single analysis for a site containing more than one significant Goal 5 resource. The ESEE analysis must consider any applicable statewide goal or acknowledged plan requirements, including the requirements of Goal 5. The analyses of the ESEE consequences shall be adopted either as part of the plan or as a land use regulation.
Applicant Response: The applicant requests that Umatilla County determine that future dwelling or residential use and other uses that would place people within the impact area, such as gathering spaces, be limited to area on adjacent parcels that is outside the 1,500-impact area. That limitation would result in limited restriction on adjacent parcels. That is,

other land uses could be permitted but the siting of those uses would need to be placed outside the 1,500-impact area.

Land uses that have potential to pose a conflict with the quarry include wineries, farm stands, mass gatherings, agri-tourism activities, churches, commercial activities in conjunction with farm use that could encourage gathering, private and public parks, golf courses, community centers, destination resorts, living history museums, residential homes, room and board operations, and schools. Again, those uses could occur on adjacent parcels but be sited outside the 1,500-impact area.

Mining at the quarry located north of Highway 730 has operated in this area without any significant conflicts for more than 30 years.

Table 1 shows uses allowed in the EFU zone within the 1,500-foot impact area. For purposes of the ESEE analysis, these potential conflicting uses can be grouped into two types of similar uses:

- Dwellings (typically includes farm dwellings, non-farm dwellings, lot of record dwellings, replacement dwellings, hardship dwellings, home occupations, room and board operations

- Public/Private Gathering Spaces (typically includes wineries, churches, community centers, private and public parks and playgrounds, living history museums, golf courses, public or private schools, various commercial uses related to agriculture)

County Finding: As shown in Table 1, above, the local government has determined several outright and permitted uses that are allowed by the different zones within the 1,500-foot impact area. For purposes of the ESEE analysis, these potential conflicting uses can be grouped into two types of similar uses:

- Dwellings (typically includes farm dwellings, non-farm dwellings, lot of record dwellings, replacement dwellings, hardship dwellings, home occupations, room and board operations

- Public/Private Gathering Spaces (typically includes wineries, churches, community centers, private and public parks and playgrounds, living history museums, golf courses, public or private schools, various commercial uses related to agriculture)

The ESSE Analysis follows:

ESEE consequences related to review criteria for dwellings and gathering spaces in the 1,500-foot impact area surrounding the proposed quarry			
	Prohibit dwellings and gathering spaces	*Condition the placement of new dwellings and gathering spaces*	*No change to review standards for dwellings and gathering spaces*
Economic Consequences	**Consequences related to new use on neighboring properties.**	**Consequences related to new use on neighboring properties.** The economic impact to neighboring property owners would be neutral	A 500kV transmission line and towers is located on parcels to the south. Development is not allowed under and adjacent to

	There may be some negative economic impact to neighboring property owners if new dwellings or gathering places were allowed within 1,500 feet of the quarry boundary. Where the adjacent parcels are large a new dwelling could be permitted but restricted to locate outside the 1,500-impact area. **Consequences related to not allowing quarry operation.** The economic benefit of preserving the applicant's ability to operate the mining site has an economic impact through direct employment and by providing aggregate and asphalt to development in West Umatilla County.	given that new development may occur on the larger parcels, but the specific siting would be limited to area outside the 1,500-impact area.	the transmission line. New development is likely already limited to areas outside of the 1,500 area.
	Prohibit dwellings and gathering spaces	*Condition the placement of new dwellings and gathering spaces*	*No change to review standards for dwellings and gathering spaces*
Social Consequences	**Consequences related to new use on neighboring properties.** Restricting the placement of a dwelling to an area outside 1,500 feet of the quarry boundary, would have a negative social consequence. This would be similar if gathering spaces were also prohibited. The social consequences stem from a landowner's desire to have reasonable options and flexibility when making choices about what they can and cannot do on their land. **Consequences related to limitation of quarry.** Development and other construction and maintenance projects in the region would be delayed or limited if access to the quarry is not allowed.	**Consequences related to new use on neighboring properties.** The social impact to neighboring property owners would be neutral if acceptance of the mining activity were added as a condition of approval for new dwellings and uses related to social gatherings within 1,500 feet of the quarry boundary. Options available to property-owners would not be reduced. Dwellings and gathering spaces that meet county and state standards criteria would be allowed. **Consequences related to loss of quarry.** Various development and construction projects in the region that would utilize the aggregate material in the proposed quarry may have to forgo their development which could impact social activities including those that would benefit recreation and tourism.	**Consequences related to new use on neighboring properties.** The social impact to neighboring property owners would be neutral if new dwellings and social gathering spaces within 1,500 feet of the quarry boundary were allowed under existing county and state review standards. **Consequences related to loss of quarry.** Various development and construction projects in the region that would be served with aggregate material in the proposed quarry would be delayed or possibly even cancelled.

	Prohibit dwellings and gathering spaces	*Condition the placement of new dwellings and gathering spaces*	*No change to review standards for dwellings and gathering spaces*
Environmental Consequences	**Consequences related to new use on neighboring properties.** None identified. **Consequences related to not allowing quarry operation.** Limiting access to this quarry would have a net negative environmental impact as it would increase distance to haul material to new development thus increasing vehicle emissions from truck travel.	**Consequences related to new use on neighboring properties.** Environmental consequence would be negligible given that development from under transmission lines already limits development within the 1,500 setback area. **Consequences related to loss of quarry.** Efficient development practices include obtaining aggregate material from a quarry close to the project site. There will be some environmental benefit from fewer vehicle emissions when truck travel is minimized.	**Consequences related to new use on neighboring properties.** A negative environmental consequence may be increased noise if new dwellings and social gathering spaces were allowed in the impact area. **Consequences related to loss of quarry.** There may be some negative environmental consequence if new uses in the impact area oppose mining activity and pose an obstacle to the use of this site. Efficient development practices include obtaining aggregate material from a quarry close to the project site. Vehicle emissions will increase if trucks must travel further to access material.
	Prohibit dwellings and gathering spaces	*Condition the placement of new dwellings and gathering spaces*	*No change to review standards for dwellings and gathering spaces*
Energy Consequences	**Consequences related to new use on neighboring properties.** None identified. **Consequences related to loss of quarry access.** Consequences related to loss of quarry access. Efficient development practices include obtaining aggregate material from a quarry close to the project site. There will be some negative energy consequences from additional fuel use if truck travel is increased due to loss of access to this quarry.	**Consequences related to new use on neighboring properties.** None identified. **Consequences related to loss of quarry.** Efficient development practices include obtaining aggregate material from a quarry close to the project site. There will be some negative energy consequences from additional fuel use if truck travel is increased due to loss of access to this quarry.	**Consequences related to new use on neighboring properties.** None identified. **Consequences related to loss of quarry.** Efficient development practices include obtaining aggregate material from a quarry close to the project site. There will be some negative energy consequences from additional fuel use if truck travel is increased due to loss of access to this quarry.

(5) **Develop a program to achieve Goal 5**. Local governments shall determine whether to allow, limit, or prohibit identified conflicting uses for significant resource sites. This decision shall be based upon and supported by the ESEE analysis. A decision to prohibit or limit conflicting uses protects a resource site. A decision to allow some or all conflicting uses for a particular site may also be consistent with Goal 5, provided it is supported by the ESEE analysis. One of the following determinations shall be reached with regard to conflicting uses for a significant resource site:

(a) A local government may decide that a significant resource site is of such importance compared to the conflicting uses, and the ESEE consequences of allowing the conflicting uses are so detrimental to the resource, that the conflicting uses should be prohibited.
(b) A local government may decide that both the resource site and the conflicting uses are important compared to each other, and, based on the ESEE analysis, the conflicting uses should be allowed in a limited way that protects the resource site to a desired extent.
(c) A local government may decide that the conflicting use should be allowed fully, notwithstanding the possible impacts on the resource site. The ESEE analysis must demonstrate that the conflicting use is of sufficient importance relative to the resource site, and must indicate why measures to protect the resource to some extent should not be provided, as per subsection (b) of this section.

Applicant Response: Based on the materials submitted with this application, including the ESEE analysis, the resource site will create little or no conflicts with existing or proposed uses within the 1,500-foot impact area. County may consider imposing a condition of approval for future land use applications for a conflicting use and require new development be located outside the 1,500-foot impact area. County could require a waiver of remonstrance with language stating that the applicant accepts normal mining activity at this significant aggregate site and restricts a landowner's ability to pursue a claim for relief or cause of action alleging injury from the aggregate operation.

Staff Response: Umatilla County has determined, through the applicant's ESEE analysis, that the resource site and the conflicting uses (dwellings, wetlands and public/private gathering spaces) are important compared to each other. Applicant is requesting that new conflicting uses be prohibited within the 1,500-foot impact area. However, this could be considered "taking" from property owners of lands within the impact area. Other quarry sites (new and expansions) have requested that new conflicting uses, identified in the ESEE analysis, be allowed with a recorded waiver of remonstrance. The waiver precludes the landowner's ability to pursue a claim for relief or cause of action against the aggregate operation. Therefore, Umatilla County finds that proposed conflicting uses within the 1,500-foot impact area should be required to sign a waiver of remonstrance for the life of the Cox Quarry and is adequate to achieve Goal 5.

A condition of approval is imposed that any land use application for a proposed conflicting use within the 1,500-foot impact area requires a waiver of remonstrance prior to final approval. The waiver shall include language stating that the applicant accepts normal mining activity at this significant aggregate site and restricts a landowner's ability to pursue a claim for relief or cause of action alleging injury from the aggregate operation.

Umatilla County finds that the waiver of remonstrance requirement for proposed conflicting uses along with the mitigation measures proposed by the applicant are adequate to minimize conflicts for future uses that potentially locate within the mining impact area. The criterion is satisfied.

660-023-0050 Programs to Achieve Goal 5

(1) For each resource site, local governments shall adopt comprehensive plan provisions and land use regulations to implement the decisions made pursuant to OAR 660-023-0040(5). The plan shall describe the degree of protection intended for each significant resource site. The plan and implementing ordinances shall clearly identify those conflicting uses that are allowed and the specific standards or limitations that apply to the allowed uses. A program to achieve Goal 5 may include zoning measures that partially or fully allow conflicting uses (see OAR 660-023-0040(5) (b) and (c)).

Applicant Response: Umatilla County may find that Policy 41 of the Umatilla County Comprehensive Plan may be amended to list the quarry as a significant aggregate resource site.

The Umatilla County Zoning Map may be amended to apply the Aggregate Resource (AR) Overlay Zone to the subject property. In addition, county may apply a 1,500-foot buffer around the AR Overlay Zone which will be shown on the Zoning Map to acknowledge that conflicting uses (dwellings and public/private gathering spaces) may be limited.

Finally, as noted previously, county may require a condition of approval for any land use application that could present a conflict within the 1,500-foot impact area.

Staff Response: Umatilla County finds that if the request is approved, Policy 41 of the Umatilla County Comprehensive Plan shall be amended to list the Cox Quarry as a significant aggregate resource site.

The Umatilla County Zoning Map will be amended to apply the Aggregate Resource (AR) Overlay Zone to the subject property. In addition, a 1,500-foot buffer around the AR Overlay Zone will be shown on the Zoning Map to acknowledge that conflicting uses (dwellings and public/private gathering spaces) are limited.

As noted previously, a condition of approval is imposed that any land use application for a proposed conflicting use within the 1,500-foot impact area requires a waiver of remonstrance prior to final approval. The purpose of this condition is not to disallow these activities, but to ensure that applicants for these types of uses be made aware of the mining operation and waive their rights to remonstrate against aggregate mining activities allowed by this decision. This would be consistent with current Umatilla County Development Code provisions found at 152.063(D) that are applicable to permitted mining activities. This criterion is met.

(2) When a local government has decided to protect a resource site under OAR 660-023-0040(5)(b), implementing measures applied to conflicting uses on the resource site and within its impact area shall contain clear and objective standards. For purposes of this division, a standard shall be considered clear and objective if it meets any one of the following criteria:

(a) It is a fixed numerical standard, such as a height limitation of 35 feet or a setback of 50 feet;

(b) It is a nondiscretionary requirement, such as a requirement that grading not occur beneath the dripline of a protected tree; or
(c) It is a performance standard that describes the outcome to be achieved by the design, siting, construction, or operation of the conflicting use, and specifies the objective criteria to be used in evaluating outcome or performance. Different performance standards may be needed for different resource sites. If performance standards are adopted, the local government shall at the same time adopt a process for their application (such as a conditional use, or design review ordinance provision).

Applicant Response: Applicant requests that Umatilla County find it valuable to limit conflicting uses within the 1,500-foot impact area for the life of the quarry in order to achieve Goal 5. Applicant also requests the Umatilla County Zoning Map be amended to apply the Aggregate Resource (AR) Overlay Zone to the 46.7-acre property. In addition, a 1,500-foot buffer around the AR Overlay Zone will be shown on the Zoning Map to acknowledge that conflicting uses (dwellings and public/private gathering spaces) are limited. Finally, applicant requests a condition of approval be imposed on any land use application for a proposed conflicting use within the 1,500-foot impact area requires a waiver of remonstrance prior to final approval.

Staff Response: Umatilla County finds that proposed conflicting uses within the 1,500-foot impact area are required to sign a waiver of remonstrance to achieve Goal 5. The purpose of this condition is not to disallow these activities, but to ensure that applicants for these types of uses be made aware of the mining operation and also waive their rights to remonstrate against aggregate mining activities allowed by this decision. This is consistent with Umatilla County Development Code provision 152.063(D) which is applicable to the permitted mining activities.

The Umatilla County Zoning Map will be amended to apply the Aggregate Resource (AR) Overlay Zone to the subject property. In addition, a 1,500-foot buffer around the AR Overlay Zone will be shown on the Zoning Map to acknowledge that conflicting uses (dwellings and public/private gathering spaces) are limited.

Umatilla County finds a condition of approval is imposed that any land use application for a proposed conflicting use within the 1,500-foot impact area requires a waiver of remonstrance prior to final approval. This criterion is satisfied.

(3) In addition to the clear and objective regulations required by section (2) of this rule, except for aggregate resources, local governments may adopt an alternative approval process that includes land use regulations that are not clear and objective (such as a planned unit development ordinance with discretionary performance standards), provided such regulations:

(a) Specify that landowners have the choice of proceeding under either the clear and objective approval process or the alternative regulations; and
(b) Require a level of protection for the resource that meets or exceeds the intended level determined under OAR 660-023-0040(5) and 660-023-0050(1).

Umatilla County finds that this request is related to aggregate resources. Therefore, this criterion is not applicable.

29. STANDARDS OF THE UMATILLA COUNTY DEVELOPMENT CODE FOR ESTABLISHING AN AR OVERLAY ZONE are found in Sections 152.487 and 152.488. The following standards of approval are underlined and the findings are in normal text.
152.487 CRITERIA FOR ESTABLISHING AN AR OVERLAY ZONE: Section 152.487 of the Umatilla County Development Code lists required criteria the Planning Commission must consider for establishing an AR Overlay Zone. Criteria are listed and underlined. Evaluation responses are provided in normal text.

(A) At the public hearing the Planning Commission shall determine if the following criteria can be met:

(1) The proposed overlay would be compatible with the Comprehensive Plan;

Applicant Response: The Umatilla County Comprehensive Plan and Technical Report apply to this application that seeks to protect the proposed aggregate site under Goal 5 as a significant site. Applicant requests county apply the Aggregate Resource Overlay Zone to the mining site, and to allow mining and processing on the site.

Comprehensive Plan Finding 38: Extraction of non-renewable aggregate and mineral resources requires ongoing exploration, reclamation, separation from adjacent incompatible land uses and access.

Comprehensive Plan Policy 38.
(a) The County shall encourage mapping of future agencies sites, ensure their protection from conflicting adjacent land uses, and required reclamation plans.
(b) Aggregate and mineral exploration, extraction, and reclamation shall be conducted in conformance with the regulations of the Department of Geology and Mineral Industries.
(c) The County Development Ordinance shall include conditional use standards and other provisions to limit or mitigate conflicting uses between aggregate sites and surrounding land uses.

The applicant is seeking protection of the aggregate site by the application of the Aggregate Resource Overlay Zone and protection from encroaching and conflicting uses by mapping of the buffer area. The applicant hired a certified geologist to evaluate the site and prepare a map of the extraction and reclamation area for the Department of Geology and Mineral Industries. Based on this the application can be found to comply with Comprehensive Plan Policy 38.

Finding 41: Several aggregate sites were determined to be significant enough to warrant protection from surrounding land uses in order to preserve the resource.

Umatilla County [may] find that the applicant's request for limitations of conflicting residential and social gathering spaces would be required only in very limited circumstance but that they would be reasonable to provide protection of a significant Goal 5 resource.

The applicant's application and professional geology report demonstrate that the inventory of

aggregate material at [the site] meets ODOT quality specifications and exceeds the 500,000 tons minimum. The application complies with quality and quantity standards in OAR 660-023-0180(3).

There are no residences or properties zoned for residential use within 1,000 feet of the proposed overlay.
The mining area will have some screen with trees and other vegetation between the mining area and Highway 730. Some of the mining operation may be visible from state Highway 730 but not from other vistas.

Based on the above, the applicant requests that the Comprehensive Plan be updated to include the proposed quarry in order to preserve the resource, in compliance with Finding 41.

Staff Response: The Umatilla County Comprehensive Plan and Technical Report apply to the applicant's request. The existing ODOT site, also located on the subject property, north of Highway 730 has been added to the Comprehensive Plan Aggregate Resource Large Significant Site inventory indicating that the site is significant and warrants protection. This ODOT aggregate site has also been approved for mining activities. The applicant's request seeks to similarly protect the proposed aggregate site under Goal 5 as a significant site, to apply the Aggregate Resource Overlay Zone to the mining site, and to allow mining and processing on the site.

Comprehensive Plan Findings and Policies are also applicable. Finding 38 states, "Extraction of non-renewable aggregate and mineral resources requires ongoing exploration, reclamation, separation from adjacent incompatible land uses and access." The accompanying policy is also applicable:

> Policy 38. (a) The County shall encourage mapping of future agencies sites, ensure their protection from conflicting adjacent land uses, and required reclamation plans.
> (b) Aggregate and mineral exploration, extraction, and reclamation shall be conducted in conformance with the regulations of the Department of Geology and Mineral Industries.
> (c) The County Development Ordinance shall include conditional use standards and other provisions to limit or mitigate conflicting uses between aggregate sites and surrounding land uses.

The applicant is seeking protection of the aggregate site by the application of the Aggregate Resource Overlay Zone and protection from encroaching and conflicting uses by mapping of the buffer area to best achieve both this Finding and Policy.

Finding 41 is also applicable and states, "Several aggregate sites were determined to be significant enough to warrant protection from surrounding land uses in order to preserve the resource." Based on this application, the applicant requests that the accompanying Policy be updated to list the Cox Quarry.

Umatilla County finds that the applicant's request for application of the AR Overlay zone and limitations of conflicting residential and social gathering space uses is reasonable under the Goal 5 protection program and appears to be compatible with the Umatilla County Comprehensive

Plan. This criterion is met.

(2) There is sufficient information supplied by the applicant to show that there exists quantities of aggregate material that would warrant the overlay;

Umatilla County finds that the applicant's PAPA application and laboratory reports demonstrate that the inventory of aggregate material at the Cox Quarry is estimated at 4,738,409 tons which exceeds the minimum 500,000 tons and warrants the overlay. This criterion is met.

(3) The proposed overlay is located at least 1,000 feet from properties zoned for residential use or designated on the Comprehensive Plan for residential;

Umatilla County finds that there are no properties zoned for residential use within 1,000 feet of the proposed overlay. This criterion is met.

(4) Adequate screening, either natural or man-made, is available for protecting the site from surrounding land uses.

Applicant Response: No response.

Staff Response: The proposed quarry will be sited south of Highway 730 and east of Highway 207. The proposed mining area will be set back from the two highways, and the existing wetlands and shrubbery will provide some screening. The Planning Commission may find that additional screening is required along the south and east site boundaries and may impose an additional condition of approval.

(5) The site complies with Oregon Administrative Rules (OAR) 660-023-0180.

Umatilla County finds that the standards found in (OAR) 660-023-0180 were found to be met by the proposed mining operation, as provided above. This criterion is met.

152.488 MINING REQUIREMENTS: Section 152.488 of the Umatilla County Development Code lists mining requirements for aggregate sites under the AR Overlay Zone. Criteria are listed and underlined. Evaluation responses are provided in standard text.

(A) All work done in an AR Overlay Zone shall conform to the requirements of DOGAMI or its successor, or the applicable state statutes.
Applicant Response: Applicant's geologist has prepared an application to DOGAMI and the application will be submitted concurrently with the land use application. Applicant will comply with all mining and reclamation required by DOGAMI.

Staff Findings: Umatilla County finds and concludes that the applicant shall provide to the Umatilla County Planning Division a copy of the DOGAMI operating permit and, as a condition of approval, will be required to obtain all necessary State Permits before commencing mining activities.

(B) In addition to those requirements, an aggregate operation shall comply with the following standards:

(1) For each operation conducted in an AR Overlay Zone the applicant shall provide the Planning Department with a copy of the reclamation plan that is to be submitted under the county's reclamation ordinance;

Applicant Response: See attached reclamation plan prepared for DOGAMI permits.

Staff Findings: Umatilla County finds that the reclamation plan requirements must meet the standards of DOGAMI and that a copy of the approved reclamation plan is to be submitted to the Planning Division. A subsequent condition of approval is imposed requiring the applicant to submit a copy of the DOGAMI approved reclamation plan to Planning, the condition of approval satisfies the criterion.

(2) Extraction and sedimentation ponds shall not be allowed within 25 feet of a public road or within 100 feet from a dwelling, unless the extraction is into an area that is above the grade of the road, then extraction may occur to the property line;

Applicant Response: The applicant will mine the aggregate resource leaving a 25-foot buffer area around the perimeter of the subject property. There is one home on property adjacent to the proposed mining area, located to the south and west of the mining site. Mining will not be done within 100 feet of the home. There are no other homes within the 1,500-foot impact area. Sedimentation pond will be more than 25 feet from any county roads. See attached mining plan and site plan.

Staff Findings: Umatilla County finds and concludes that the applicant has submitted a site plan demonstrating that extraction and sedimentation ponds are not within 25-feet of a public road or within 100-feet of a dwelling. A subsequent condition of approval imposing that this site plan accompany the final zoning permit satisfies the criterion.

(3) Processing equipment shall not be operated within 500 feet of an existing dwelling at the time of the application of the Overlay Zone. Dwellings built after an AR Overlay Zone is applied shall not be used when computing this setback.

Applicant Response: The nearest dwelling is located to the south and west of the quarry area. Although the property lines abut, the dwelling will be approximately 1,500 feet from the mining area. Additionally, processing equipment will be sited in such a way as to create a further and more physical buffer.

Staff Findings: Umatilla County finds as a condition of approval, the applicant shall provide a site plan demonstrating that processing equipment will be sited to retain the 500-foot setback to the existing dwellings. Umatilla County concludes imposition of this condition of approval satisfies the criterion.

(4) All access roads shall be arranged in such a manner as to minimize traffic danger and nuisance to surrounding properties and eliminate dust.

Applicant Response: The parcel has direct access to Highway 730 and has applied to ODOT to move the access for the purpose of minimizing congestion and conflicts with traffic. A new road on the parcel will be constructed to standard.

Staff Findings: Umatilla County finds that the proposed Cox Quarry site has frontage along both Highway 730 and Highway 207. The applicant has indicated that Highway 730 will be utilized for access. A new access point will need to be approved and constructed to Highway 730 to support the mining activity. A subsequent condition of approval is imposed that the applicant obtain access permit approval from ODOT to Highway 730. Internal haul roads shall be constructed to minimize traffic danger and nuisance to surrounding properties and eliminate dust. Umatilla County finds and concludes a subsequent condition of approval requiring haul roads to be constructed to minimize traffic danger and nuisance to surrounding properties and eliminate dust satisfies the criterion.

30. ANALYSIS OF STATEWIDE PLANNING GOALS 1 THROUGH 14.

Goal 1 Citizen Involvement: *To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.*

Applicant Response: Umatilla County's Comprehensive Plan and Umatilla County Development Ordinance includes robust provisions for citizen involvement program, including notice of Planning Commission and Board of Commissioners public hearings and opportunity for persons to participate in the hearings. This combined legislative and quasi-judicial request will be publicly noticed and heard at two public hearings where citizens will be afforded opportunity to participate in person and/or in writing.

County Finding: Umatilla County finds that the applicant's request will go through the public hearing process and therefore complies with Statewide Planning Goal 1 (Citizen Involvement).

Goal 2 Planning: *To establish a land use planning process and policy framework as a basis for all decisions and actions related to use of land and to assure an adequate factual base for such decisions and actions.*

Applicant Response: By following UCDO and ORS notice and hearing requirements this request is in compliance with Goal 2.

County Finding: Umatilla County finds that through this amendment process, the applicant's request complies with the County's Comprehensive Plan and Development Code and therefore complies with Statewide Planning Goal 2 (Planning).

Goal 3 Agricultural Lands: *To preserve and maintain agricultural lands.*

Applicant Response: The application and materials demonstrate that the proposed quarry will be compatible with uses allowed in the EFU zone while also allowing mining of a Goal 5 significant site. The only potential impact for agricultural lands is dust, which, as noted above, will be mitigated with water for dust control and air filters on equipment. An aggregate operation is consistent with Oregon Revised Statute 215.203, designating the zoning as

Exclusive Farm Use (EFU). That is, rock quarries are allowed on land zoned EFU provided the resource is designated as a significant resource under the Goal 5 process which is precisely the request here. Additionally, most quarries in Oregon are located on EFU zoned land. Where there is any doubt about compatibility with agricultural lands, above the application shows that only minor dust has the potential to impact farm and the applicant proposes to use dust abatement and filtering to prevent impacts. No place has the application found the proposed use is contrary to preservation of agricultural lands in the area. Oregon law does not prioritize Statewide Planning Goals and has developed Administrative Rules with clear and objective standards for permitting Goal 5 resources while balancing impacts to farmland. The applicant has demonstrated that Goal 3 farmland will be protected while allowing the designation and development of a Goal 5 aggregate resource at this location. Statewide Planning Goals 3 and 5 are complimentary at this location.

County Finding: Umatilla County finds that the applicant's request appears to be consistent with Statewide Planning Goal 3 (Agricultural Lands) as demonstrated throughout this document. Potential conflicts with the proposed mining operation and existing agricultural operations were analyzed. Umatilla County found through conditions of approval, these conflicts may be minimized. The proposed site is not located on high value farmland soils, nor is it removing productive farmland. As the applicant has provided, aggregate extraction and associated mining activities are allowed in the EFU zone, thus, a Goal Exception to Statewide Planning Goal 3 is not required. Umatilla County concludes the request is compliant with Goal 3.

Goal 4 Forest Lands: *To conserve forest lands by maintaining the forest land base and to protect the state's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.*

Applicant Response: There are no forest lands in this region of the county and no forest lands impacted by this request.

County Finding: Umatilla County finds that Statewide Planning Goal 4 (Forest Lands) does not directly apply to the applicant's request.

Goal 5 Open Spaces, Scenic and Historic Areas, and Natural Resources: *To protect natural resources and conserve scenic and historic areas and open spaces.*

Applicant Response: The application and materials demonstrate the aggregate site is a significant resource and should be protected to allow mining. The existing Goal 5 aggregate site located north of Highway 730 is not available to private sector. The site contains wetlands listed on the National Wetlands Inventory map. A wetland delineation was reviewed by Department of State Lands. The quarry and mining area was configured to avoid impacts to wetlands.

County Finding: As demonstrated throughout this document, other Goal 5 resources are present on the subject property (wetlands and ODOT aggregate site) and will not be impacted by the proposed quarry site. The applicant provided ESEE analysis demonstrates the importance and benefit of establishing the proposed Goal 5 site. Umatilla County finds and concludes that the

applicant's request is to apply Goal 5 protection to the site, the request has been reviewed under the necessary Goal 5 process and appears to be consistent with Statewide Planning Goal 5 (Open Spaces, Scenic and Historic Areas, and Natural Resources).

Goal 6 Air, Water and Land Resources Quality: *To maintain and improve the quality of the air, water and land resources of the state.*
Applicant Response: The application and materials demonstrate that proposed mining will or can comply with applicable federal and state environmental standards for air and water quality. Additionally, applicant will utilize best management practices.

County Finding: Umatilla County finds that the applicant's request addresses air, water and land resource quality and will obtain necessary permits and implement best practices to be consistent with Statewide Planning Goal 6 (Air, Water and Land Resource Quality), as demonstrated throughout this document.

Goal 7 Areas Subject to Natural Hazards and Disasters: *To protect people and property from natural hazards.*

Applicant Response: Natural hazards known in this general vicinity include wildfire and flooding. The property is not located in a designated flood zone as designated by the Federal Emergency Management Agency. The property is not subject to flooding. While there is no evidence of wildfire on the property, wildfires are generally known to occur. The subject property is not located in a high-risk wildfire area according to the 2021 Umatilla County Natural Hazard Mitigation Plan (NHMP WF-2). Operation of the quarry would not create additional challenges to wildfire mitigation.

County Finding: The subject property is not within the FEMA mapped floodplain, nor is it prone to flooding. Wildfires are generally known to occur along the Highway 730 corridor, however, the property is not located in a high-risk wildfire area in Umatilla County's 2021 Natural Hazard Mitigation Plan. Operation of the quarry would likely not create additional challenges to wildfire mitigation. Umatilla County finds that Statewide Planning Goal 7 (Areas Subject to Natural Hazards and Disasters) does not directly apply to this request.

Goal 8 Recreation Needs: *To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.*

Applicant Response: The application does not impact recreational opportunities.

County Finding: Umatilla County finds that the applicant's request appears to be consistent with Statewide Planning Goal 8 (Recreation Needs) and Goal 8 does not directly apply to this request.

Goal 9 Economy: *To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens.*

Applicant Response: The approval of a new aggregate site will provide economic benefit to the

region by increasing the supply of rock and asphalt for new development, repair and construction of roads and other uses. Currently, given the level of development in West Umatilla and North Morrow Counties there is a deficit of aggregate and asphalt. The new quarry will create 3-4 new jobs in the area. Overall, the new quarry will have positive effect on the local and regional economy.

County Finding: Umatilla County finds that the applicant's request will provide an economic benefit to the region, as described in the ESEE analysis, and will increase the supply of rock and asphalt for development. Therefore, the request appears to be consistent with Statewide Planning Goal 9 (Economy).

Goal 10 Housing: *To provide for the housing needs of citizens of the state.*

Applicant Response: Approval of this site would increase supply of aggregate and asphalt used in housing construction such as for roads and infrastructure.

County Finding: Umatilla County finds housing is not a direct consideration of this request, however, the requested activities will allow for aggregate to be available for use in the housing and commercial construction business. Thus, the request is consistent with Statewide Planning Goal 10.

Goal 11 Public Services: *To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.*

Applicant Response: The proposed quarry does not have a direct impact on Goal 11 however, it would provide rock and asphalt resources necessary for infrastructure development.

County Finding: Umatilla County finds that the applicant's request appears to support Statewide Planning Goal 11 (Public Services).

Goal 12 Transportation: *To provide and encourage a safe, convenient and economic transportation system.*

Applicant Response: Applicant has submitted an Access Permit application to ODOT to relocate the existing driveway to a location that will minimize congestion and be better suited for vision clearance. Additionally, the relocated access and internal roadway will avoid impacts to wetlands. Traffic from the mining area will vary based on the time of year. At peak applicant estimates 12 trucks per day and two to three employee vehicles. Average Daily Trips will be under the 250 trips identified within the Umatilla County Development Code UCDC 152.019(B)(2)(a) and Transportation System Plan (TSP) as the trigger for requiring a Traffic Impact Study. However, county staff indicated they could not deem the application complete without a traffic impact analysis. Applicant then employed Kittelson and Associates, Inc. to conduct a transportation impact analysis which is attached. The TIA concludes that "the proposed Aggregate Resources Overlay Zone and mining and asphalt operation is not anticipated to result in a significant impact to the transportation network or require offsite mitigation." Kittelson & Associates recommended two conditions which the applicant supports.

- Construct a new site access roadway connection to US 730. A STOP (R1-1) sign should be installed on the northbound approach to US 730 in accordance with ODOT and County standards and the Manual on Uniform Traffic Control Devices (MUTCD) in conjunction with site development.
- To provide and maintain adequate intersection sight distance at the site access road connection to US 730, locate any proposed signage or landscaping appropriately such that the minimum intersection sight distance can be maintained.

Based on the TIA and the above, the application can be found to be in compliance with the county Transportation System Plan, County Development Code 152.019(B) and Goal 12.

County Finding: Umatilla County finds as part of this application approval process; the applicant will be required to construct a new access point to serve the proposed mining operation that complies with ODOT requirements. The applicant submitted a Traffic Impact Analysis (Exhibit F) which found that the proposed mining operations will add approximately 356 daily trips on local roads, which overall will have minimal impact on both Highway 207 and Highway 730. The current 15-minute traffic count for the intersection of these two state highways is nearly equivalent to the average daily trips of the mining operation. Therefore, the proposed mining operation is not anticipated to have a significant effect on the local transportation network. Umatilla County finds that the applicant's request appears to support Statewide Planning Goal 12 (Transportation).

Goal 13 Energy: *To conserve energy.*

Applicant Response: Application does not directly affect energy conservation, however, by approving this new quarry and mining operation truck hauling can be reduced which in turn decreases energy consumption.

County Finding: Umatilla County finds that the addition of this site on the Goal 5 Aggregate Resource inventory will reduce the hauling distances of aggregate trucks for projects in the vicinity. Decreasing hauling distances reduces fossil fuel consumption. Therefore, the applicant's request appears to be consistent with Statewide Planning Goal 13 (Energy).

Goal 14 Urbanization: *To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities.*

Applicant Response: The proposed quarry and mining operation is a rural use. Goal 14 does not apply.

County Finding: Mining operations are not necessarily an urban land use and are typically located outside of urban areas. Umatilla County finds that Statewide Planning Goal 14 (Urbanization) is not specifically applicable to this request.

PAPA DECISION: APPROVAL

BASED UPON THE FINDINGS OF FACT AND CONCLUSIONS OF LAW, THE REQUEST TO AMEND THE COMPREHENSIVE PLAN TO ADD THIS SIGNIFICANT SITE TO THE COUNTY'S INVENTORY OF SIGNIFICANT SITES AND ESTABLISH AN AGGREGATE RESOURCE OVERLAY TO THE COX SITE IS APPROVED.

DECISION TO ALLOW MINING: APPROVAL

BASED UPON THE FINDINGS OF FACT AND CONCLUSIONS OF LAW, THE REQUEST TO ALLOW MINING OF THE COX SITE IS APPROVED, SUBJECT TO THE FOLLOWING CONDITIONS.

MINING ACTIVITIES ARE NOT ALLOWED UNTIL A COUNTY ZONING PERMIT HAS BEEN ISSUED

Precedent Conditions: The following precedent conditions must be fulfilled prior to final approval of this request:

1. Obtain approval for the Post Acknowledgement Plan Amendment (PAPA) request to list the site as a Large Significant Aggregate Site in the Comprehensive Plan, and apply the Aggregate Resource (AR) Overlay Zone.

2. Pay notice costs as invoiced by the County Planning Division.

Subsequent Conditions: The following subsequent conditions must be fulfilled following final approval of this request:

1. Obtain all other federal and state permits necessary for development. Provide copies of these permit approvals to the Planning Division.

    a. Obtain an ODOT road approach permit to Highway 730. Provide a copy of the access approval to the Planning Division.

    b. Obtain all applicable permits for the mining operations from DOGAMI before these activities begin. Applicant will obtain approval from DOGAMI for the reclamation plan and submit a copy of the reclamation plan to the Planning Department.

    c. Obtain all applicable permits for the mining operation from DEQ (air, noise, and water quality issues) before these activities begin.

2. Submit a blasting plan to the Planning Division explaining how blasting impacts will be mitigated. The plan shall detail blast procedures, how the procedures will be implemented, how time-delays will be utilized and implemented, and monitoring

procedures including how vibration data will be collected. The blasting plan shall be implemented for all blasting activities for the life of the Cox Quarry.

3. Obtain a Zoning Permit from Umatilla County Planning Division to finalize the approval of mining the aggregate site. The site plan shall demonstrate that the extraction and sedimentation ponds are not located within 25-feet of a public road or within 100-feet from a dwelling. Processing equipment shall not be located within 500-feet of an existing dwelling. Additionally, all mining activities shall be setback a minimum of 100-feet from wetlands.
4. The applicant and its contractors shall implement best management practices, including obtaining necessary permits to manage dust, stormwater and other discharges.

5. If the site were to lay inactive for a period of greater than one year, a new zoning permit must be obtained.

6. Adhere to DEQ Noise Standard as found in OAR 340-035-0035, *Noise Control Regulations for Industry and Commerce*.

7. Develop internal haul roads in a manner that minimize traffic danger and nuisance to surrounding properties and eliminate dust.

8. If cultural artifacts are observed during ground-disturbing work, that work must cease in the development area until the find is assessed by qualified cultural resource personnel from the State Historic Preservation Office and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). Once qualified cultural resource personnel from SHPO and CTUIR are satisfied, the ground-disturbing work may continue.

9. Contour and revegetate the quarry for agricultural or wildlife habitat purposes during post-mining activities according to the requirements of the DOGAMI application.

10. Any land use application for a proposed conflicting use within the 1,500-foot impact area requires a waiver of remonstrance prior to final approval. The waiver shall include language stating that the applicant accepts normal mining activity at this significant aggregate site and restricts a landowner's ability to pursue a claim for relief or cause of action alleging injury from the aggregate operation.

UMATILLA COUNTY BOARD OF COMMISSIONERS

Dated the _____day of _____, 2023

_____
Celinda A. Timmons, *Commissioner*

_____
John M. Shafer, *Commissioner*

_____
Daniel N. Dorran, *Commissioner*

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Proposed Umatilla County Comprehensive Plan Text Amendment

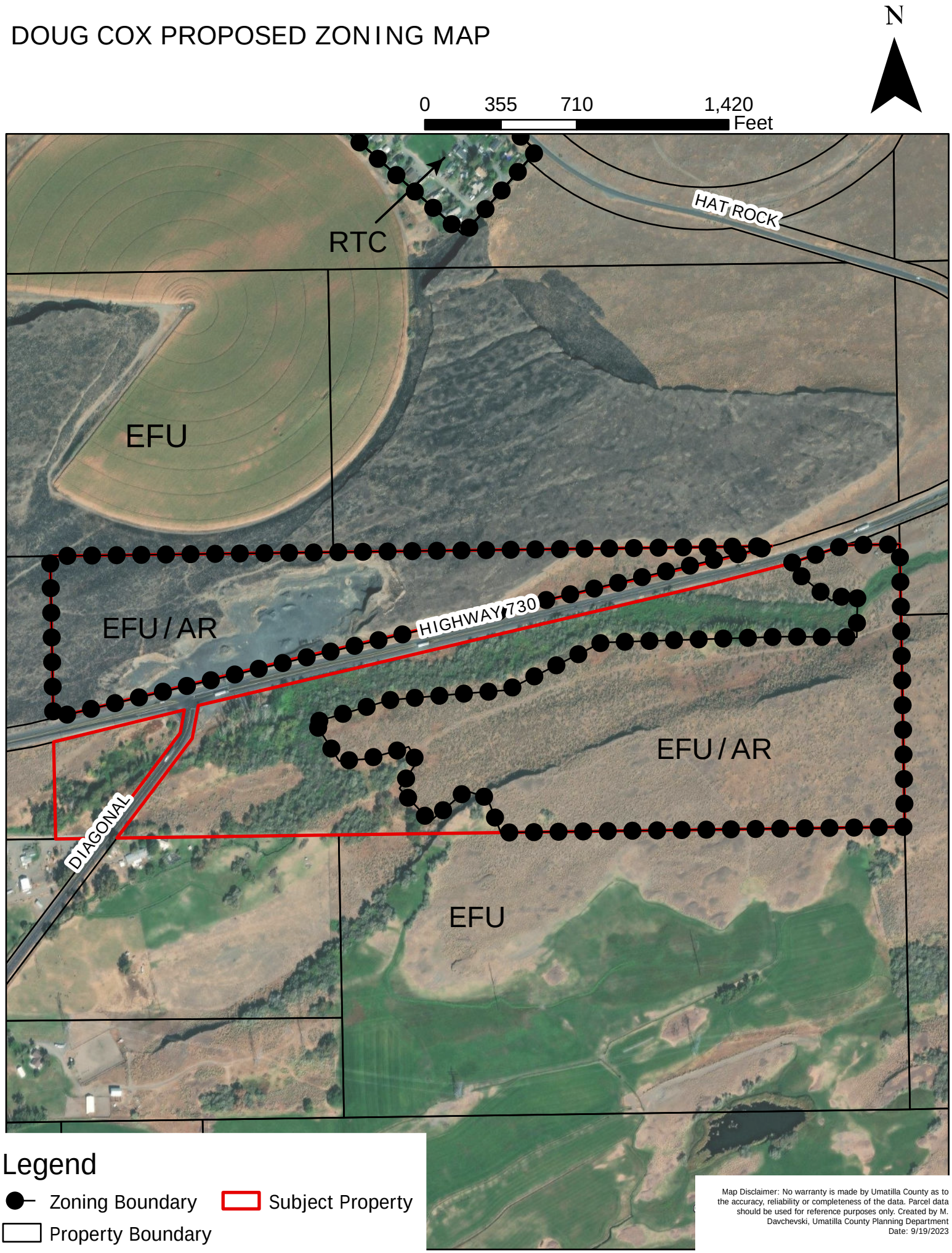
DOUG COX QUARRY
Comprehensive Plan Text Amendment T-093-23
Zoning Map Amendment #Z-323-23
Township 5N, Range 29E, Section 22, Tax Lot 400

This proposed amendment to the Umatilla County Comprehensive Plan is to add to the Doug Cox Quarry Site to the list of Goal 5 protected, significant resource aggregate sites. The following proposed changes will be made in Chapter 8, Open Space, Scenic and Historic Areas, and Natural Resources:

Note: Proposed changes are in underlined text.

41. Several aggregate sites were determined to be significant enough to warrant protection from surrounding land uses in order to preserve the resource (see Technical Report).	41. In order to protect the aggregate resource, the County shall apply an aggregate resource overlay zone to the following existing sites: (1) ODOT quarry, T5N, R35E, Section 35, TL 6200, 5900. (2) ODOT quarry, T5N, R29E, Section 22, TL 800 ("Sharp's Corner") (3) Private, commercial pit, T4N, R38E, Section 27, TL 1100. (4) Upper Pit, T4N, R28E, Sections 28, 29, TL 4000. (5) ODOT quarry, T3N, R33E, Section 23, TL 100, 600, 700 (6) Several quarries, T2N, R31E, Section 15, 16, 17, TL 400, 800, 3100. (See Technical report for specific site information). (7) ODOT quarry, T3S, R30 1/2, Section 12, 13, TL 503. (8) ODOT quarry, T4N, R35, TL 7303. (9) Private, commercial pit, T4N, R28E, Sections 30, 31, TL 300, 2200, 2202, 2203. (10) ODOT quarry, T1N, R35, Section 34, TL 800, 900, 1000, and T1S, R35, Section 03, TL 100. (11) ODOT quarry, T1S, R30, TL 1901. (12) ODOT quarry, T2N, R27, TL 2700. (13) Private, commercial pit, T4N, R27E, Section 25, TL 900, Section 36, TL 400, 500, 600, 700, 800, 1400, 1500. (14) Private, commercial pit, T2N, R32, Section 04, TL 400. (15) [Intentionally left blank] (16) Private, commercial pit, T5N, R29, Section 22, TL 400

DOUG COX PROPOSED ZONING MAP



Legend

- Zoning Boundary
- Subject Property
- Property Boundary

Map Disclaimer: No warranty is made by Umatilla County as to the accuracy, reliability or completeness of the data. Parcel data should be used for reference purposes only. Created by M. Davchevski, Umatilla County Planning Department
Date: 9/19/2023

NV5

January 31, 2023

CRP & Hauling, LLC
PO Box 131
Hermiston, OR 97838

Attention: Doug Cox

Mine Resource Evaluation Report
Proposed Mine Site
Umatilla County, Oregon
Project: CRPHauling-1-01

INTRODUCTION

NV5 is pleased to submit this report to CRP & Hauling, LLC (CRP) summarizing our mine resource evaluation for a proposed mine in the southeast portion of Tax Lot 400, southeast of the intersection of US 730 and Diagonal Boulevard (OR 207) in unincorporated Umatilla County, Oregon. Figure 1 presents a vicinity map of the site. The subject property consists of 74.5 acres. Figure 2 presents an aerial photograph and the existing topography for the subject property. Figure 3 shows the final topography for a potential mine extraction area based on the interpreted geology underlying the site, discussed later in this report. Figure 4 shows cross sections reflecting the existing and final topographies and the estimated resource volume.

CRP intends to develop a surface aggregate mine at the subject property and will be applying for land-use entitlement through a Goal 5 process to rezone the property into Umatilla County's Aggregate Resource overlay. To facilitate this process, the site must be determined to be "significant" in accordance with Oregon Administrative Rules (OAR) Section 660-023-0180. The criteria rely on demonstration of the location, quantity, and quality of aggregate resources. To address these criteria, NV5 conducted a study of the aggregate resource at the property and has prepared this mine resource evaluation report to support a determination of whether the property has "significant" resources in accordance with OAR 660-023-0180(3).

SCOPE OF SERVICES

Our specific scope of services consisted of the following:

- Reviewed readily available geologic data for the site, including geologic maps, soil maps, and previous laboratory testing of a collected rock sample from the site.
- Conducted surface reconnaissance of the site and vicinity for site conditions, surface geologic exposures, and possible sensitive areas for potential permitting constraints.
- Collected a representative sample from natural bedrock exposures at the site.
- Arranged for aggregate quality testing of the sample with a qualified laboratory including air degradation, abrasion, and soundness testing.
- Developed a potential mined excavation that would maximize the extent of the interpreted resource within the confines of what overseeing agencies would likely permit, created a 3-D geologic model for the site, and calculated an estimated volume of the resource.
- Summarized our findings in this mine resource evaluation report prepared by a registered geologist licensed in Oregon, including the estimated resource volume and tonnage at the site and supporting figures.

SITE CONDITIONS

SURFACE CONDITIONS

NV5 visited the site on December 13, 2022, to observe site conditions. The site topography consists of a well-defined bluff about 30 to 50 feet tall and running roughly east to west, which separates a flat upland in the southeast site from the gently sloped, lower property to the north, as shown by the topographic contours on Figure 2. Elevations on the site range from 400 to 500 feet above mean sea level (MSL). The upper part of the bluff consists of a discontinuous bedrock escarpment with near-vertical exposures of hard, gray to brownish gray, hackly jointed to narrowly columnar basalt. The exposed basalt ranges from 10 to 20 vertical feet.

The upland south of the basalt escarpment is generally well vegetated by grasses, shrubs, and isolated trees. Basalt is also exposed as isolated, lenticular knobs rising about 5 to 6 feet above the surrounding ground surface and oriented parallel to the escarpment. These bedrock knobs are visible in aerial photos and suggest the soil on top of the upland bedrock is fairly shallow, likely no more than a few feet thick.

Downslope of the exposed basalt, there is a gradually decreasing, well-vegetated slope covered by grasses and brush. An existing access road traverses the area from east to west. We observed exposures of loose, fine- to medium-grained sand with few fines along the gently sloped area.

Farther north is a densely vegetated drainage with abundant trees, bushes, and tall grasses. It is identified as the Cold Springs Wash on maps and runs parallel to US 730 across most of the property except for the easternmost site, where a narrow drainage runs through a pasture. The wash turns south near its western extent to continue off site. The western wash creates an interior division of the property between the main area to the east and a much smaller area to the west (as shown on Figure 2). This wash is apparently wet and green most of the year, based on our on-site observations of standing water and review of historical aerial imagery. At the time of our site visit, the region had experienced several inches of snow followed by rain, which

melted the snow and resulted in significant runoff draining into the wash from the surrounding area. There also was runoff through the pasture east of the wash that flowed off site and collected as standing water in the off-site pasture.

Wetlands

According to the National Wetlands Inventory (NWI), the on-site wash is identified as a freshwater emergent wetland categorized as PEM1C for Palustrine, Emergent, Persistent, and Seasonally Flooded.[1] NWI also maps a small, isolated wetland in the southeast corner of the upland property, also categorized as PEM1C. The Oregon State Department of State Lands (DSL) provided an off-site wetlands determination report that incorporated the NWI data with additional wetland areas based on interpretation of aerial imagery (Attachment A). The mapped wetlands shown on Figures 2 and 3 are based on the information from the DSL report, except for the isolated NWI wetland shown in the southeast corner. Based on our review of historical aerial imagery and the aerials included in the DSL report, this isolated wetland polygon does not show any difference in vegetation from the surrounding upland nor any historical accumulation of water. Instead, there is an area roughly the same size as the isolated wetland polygon south of the subject property that has consistent green vegetation, trees, and water accumulation in historical aerials. The NWI does not map this area as an isolated wetland, even though these features are apparent in aerial imagery. We interpret the isolated polygon mapped by NWI as a mapping error of the area located off site, to the south. As such, this polygon is not considered accurate and does not affect the resource interpreted in this report.

Topsoil

We reviewed soil maps available online from the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) for the project area.[2] The soils mapped by NRCS within the proposed mine area shown on Figures 2 and 3 consist of Quincy-Rock outcrop complex on the upland and Quincy loamy fine sand between the escarpment and the wetlands. The topsoil thickness described for these units (where topsoil is present) is reported to be 15 inches.
A criterion under OAR 660-023-0180(3)(d) requires that a "significant" aggregate resource property cannot have more than 35 percent of the proposed mine area covered by Class 1 or Class 2 soil. NRCS assigns a land capability class to each mapped soil unit to categorize its potential for agricultural use. Neither of the mapped soil units is Class 1 or Class 2 soil.

SITE GEOLOGY

The proposed mine site is on the south side of the Columbia River valley within the Deschutes-Columbia Plateau physiographic province.[3] The regional topography is characterized by relatively broad, flat areas with gently undulating topography interrupted by abrupt bedrock hills, steep bluffs, terraces, and canyons. The uplands and canyons typically expose bedrock of the Columbia River Basalt Group (CRBG). The CRBG consists of dense, hard basalt flows that were

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1 U.S. Fish and Wildlife Service, n.d. National Wetlands Inventory web mapping application. Retrieved January 24, 2023, from https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/.
2 U.S. Department of Agriculture Natural Resources Conservation Service, n.d. Web Soil Survey. Retrieved January 24, 2023, from https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.
3 Orr, E. L., and Orr, W. N., 1999. *Geology of Oregon.* Iowa: Kendall/Hunt Publishing, 254 pp.

emplaced over vast areas of the Pacific Northwest. The CRBG underlies much of the region, including the site vicinity.[4] Many of the flattened uplands correspond to basalt flow tops truncated by the steeply eroded bedrock exposures.

The CRBG is considered to have significant resource potential for aggregate due to the durability and lateral consistency of the basalt flows. Another portion of Tax Lot 400 north of US 730 is currently mined by the Oregon Department of Transportation (ODOT), which extracts basalt bedrock for roadway aggregate. There is a similar basalt escarpment north of US 730 to the one observed on site. We observed that the exposed basalt is similarly hard and jointed like the on-site basalt.

The Columbia River valley was subjected to multiple glacial-outburst floods from Glacial Lake Missoula (i.e., the Missoula floods) over several glacial cycles, the most recent occurring approximately 15,500 to 13,000 years ago. These turbulent floods resulted from the bursting of glacial ice dams that formed Glacial Lake Missoula, inundating the site vicinity. The flood waters scoured much of the soil and weathered rock from the area and also carved channels and terraces that are still evident today. US 730 occupies an elongate lowland between the two bedrock escarpments discussed above. We interpret the lowland to represent a glacial flood channel between the on-site bluff and the hillside to the north of US 730 (Figure 2). Later, less-turbulent flooding deposited accumulations of sand and gravel as stream bars and hummocky bedload over the scoured basalt surface. We interpret the fine to medium sand observed on site in the gently sloped area as Missoula flood deposits from the later stages of glacial flooding.

RESOURCE QUANTITY

In accordance with OAR 660-023-0180(3), a potential "significant" aggregate site must demonstrate it has adequate quantity and quality of aggregate resource to deserve listing. Per OAR code, a potential site must have at least 500,000 tons of aggregate resource, and the material must pass certain ODOT quality tests. The following sections describe our estimate of the quantity of basalt aggregate resource potentially available at the site within the confines of what permitting agencies would likely allow for mining.

MINING LIMITS AND GROSS CUT VOLUME

To estimate the quantity of available rock material at the site, we first developed a three-dimensional model using AutoCAD-Civil3D software to estimate a gross cut volume of material. The limits of the model were determined using the following parameters:

- Topographic data downloaded from Google Earth Pro to characterize the ground surface.
- A 25-foot setback from the property boundary for mine extraction. Extraction activities typically must observe a setback from property boundaries to avoid accidental trespass during mining and allow access around the site perimeter.

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[4] Madin, I. P., and Geitgey, R. P., 2007. *Preliminary Geologic Map of the Umatilla Basin, Morrow and Umatilla Counties, Oregon*. Department of Geology and Mineral Industries Open-File Report O-07-15, plate 1, scale 1:100,000 (compiled at 1:44,000).

- A 25-foot setback from the wetland areas shown on Figures 2 and 3, for similar reasons.
- A simplified boundary between the interpreted occurrence of basalt bedrock and sand deposits, drawn as a vertical contact. This is more conservative than what would be expected at the site, since the sand should overlie basalt. This should result in a lesser volume of basalt than what may actually underlie the site.
- A final mined floor elevation of 420 feet above MSL. This would allow the mine floor to drain to a stormwater pond or other management system.
- Excavated basalt mine slopes with a net gradient of 1H:1V, which is more conservative than using a simple vertical cut.

The final cut topography resulting from these mining limits is presented on the map on Figure 3 and in the cross sections on Figure 4. The extraction limits include a basalt extraction area and a sand extraction area. The resulting gross cut volume in the basalt extraction area is estimated to be 2,125,679 cubic yards, as summarized in Table 1 and in the table on Figure 4. There is an additional estimated volume of 694,419 cubic yards of sand (see table on Figure 4), but this sand volume is not considered part of the "significant" resource analysis in this report and simply represents additional, potential resource available at the site.

OVERBURDEN REDUCTION

We reduced the gross cut volume in the basalt extraction area using an assumed average topsoil and overburden thickness of 2 feet. This is based on the vegetative cover and occurrence of bedrock knobs observed on the upland and the soil unit description from NRCS. The total overburden volume was estimated at 65,501 cubic yards in the basalt extraction area. This reduces the gross cut to an in situ resource volume of 2,060,178 cubic yards, as summarized in Table 1.

RESOURCE TONNAGE

For listing as a "significant" resource, a property in Umatilla County must have at least 500,000 tons of aggregate. To convert the estimated in situ rock volume (cubic yards) of basalt resource to mass (tons), we used a typical density for in-place basalt resource of 2.3 tons per cubic yard. This is on the lower end of published values for basalt density, which range from 2.3 to 2.5 tons per cubic yard.[5,6] Using this density, the resulting tonnage of resource rock would be 4,738,409 tons, as summarized in Table 1.

Our estimate indicates the potential basalt resource in our analysis results in more than nine times the required tonnage to be considered "significant." This does not include the additional resource that may be present at greater depths than the model mine floor, nor does it include the additional sand resource at the site.

---

[5] GeoSci Developers, 2017. Densities of Igneous Rocks. Retrieved from https://gpg.geosci.xyz/content/physical_properties/tables/density_igneous_rocks.html.

[6] Caterpillar Inc., 2018. *Caterpillar Performance Handbook*. Peoria, Illinois, 2,442 pp.

Table 1. Resource Quantity Estimate for the Basalt Extraction Area

Material	Estimated Quantity
Gross Cut Volume	2,125,679 cubic yards
Topsoil Volume	- 65,501 cubic yards
In Situ Rock Volume	**2,060,178 cubic yards**
Resource Tonnage	**4,738,409 tons**

RESOURCE QUALITY

CRP previously tested the quality of a grab sample from the exposed basalt on site. Laboratory testing was performed by Budinger and Associates of Spokane Valley, Washington. The results are provided in Appendix B. NV5 collected an additional grab sample from the exposed on-site basalt during our reconnaissance. Laboratory testing was performed by Carlson Testing, Inc. of Tigard, Oregon. Test result reports are presented in Appendix B. Quality tests included the following:

- Los Angeles Abrasion (AASHTO T 96): Used to evaluate the abrasion resistance of an aggregate. This test measures the toughness of an aggregate and provides an indication of how readily a crushed aggregate may further break down through transport and handling.
- Oregon Degradation Value (ODOT TM 208): Used to determine the susceptibility of an aggregate to degrade under repeated traffic loading. The test measures the production of fines when particles are abraded in the presence of water by means of air jets.
- Sulfate Soundness (AASHTO T 104): This test determines an aggregate's resistance to disintegration by weathering and, in particular, freeze-thaw cycles. Salt crystals precipitate in the aggregate pores, which simulate ice-crystal formation.

The test results summarized in Table 2 are compared to standard acceptance criteria for various aggregate products in accordance with the 2021 ODOT Specifications Manual.[7] The test reports indicate that the submitted samples meet the ODOT acceptance criteria for base rock summarized in Table 2. These three tests correspond to the ODOT quality tests required for an aggregate resource to be considered "significant" per OAR 660-023-0180(3). The laboratory testing indicates the on-site aggregate resource meets the quality requirements for listing as "significant."

[7] Oregon Department of Transportation, 2022. *Oregon Standard Specifications for Construction, 2021.* Retrieved from https://www.oregon.gov/odot/Business/Specs/2021_STANDARD_SPECIFICATIONS.pdf.

Table 2. Aggregate Quality Requirements and Laboratory Test Results

Quality Test Method	Requirement to Pass per OAR 660-023-0180(3)(a)	Results for Farmington Quarry Aggregate
Abrasion (AASHTO T 96)[1]	Loss not more than 35 percent by weight	10 to 14 percent (pass)
Oregon Air Degradation (ODOT TM 208)[2]	Loss not more than 30 percent by weight	1.4 percent (pass)
Sodium Sulfate Soundness (AASHTO T 104)[3]	Loss not more than 12 percent by weight	0.8 percent (pass)

1. AASHTO T 96, Standard Method of Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
2. ODOT Test Method 208-12, Method of Test for Oregon Air Aggregate Degradation
3. AASHTO T 104, Standard Method of Test for Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate

CONCLUSION

The results of our study indicate the proposed mine site has basalt resource at the property of sufficient quantity and quality to warrant considering the site as a "significant" aggregate resource in accordance with OAR 660-023-0180(3).

LIMITATIONS

We prepared this mine resource evaluation report for use by CRP for the proposed mine project in Umatilla County, Oregon. Our report, conclusions, and interpretations should not be construed as warranty of the subsurface conditions and are not applicable to areas other than the subject site.

Our interpretations of the mining and geologic conditions are based on discussions with the client, review of publicly available information, and exposures of soil and rock at the project area. The accuracy of outside information is beyond our control. If subsurface conditions differing from those described in this report are noted during the course of site development, re-evaluation will be necessary.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted practices in this area at the time the report was prepared. No warranty or other conditions, express or implied, should be understood.

♦ ♦ ♦

We appreciate the opportunity to be of service to you. Please call if you have questions concerning this report or if we can provide additional services.

Sincerely,

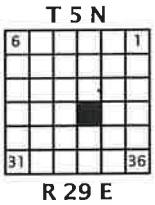
NV5

Erick J. Staley, C.E.G.
Principal Engineering Geologist

Expires 06/01/2023

EJS:sn
Attachments
One copy submitted
Document ID: CRPHauling-1-01-013123-geolr

FIGURES



SITE COORDINATES:

LATITUDE: 45° 54' 7.5" N

LONGITUDE: 119° 10' 1.2" W

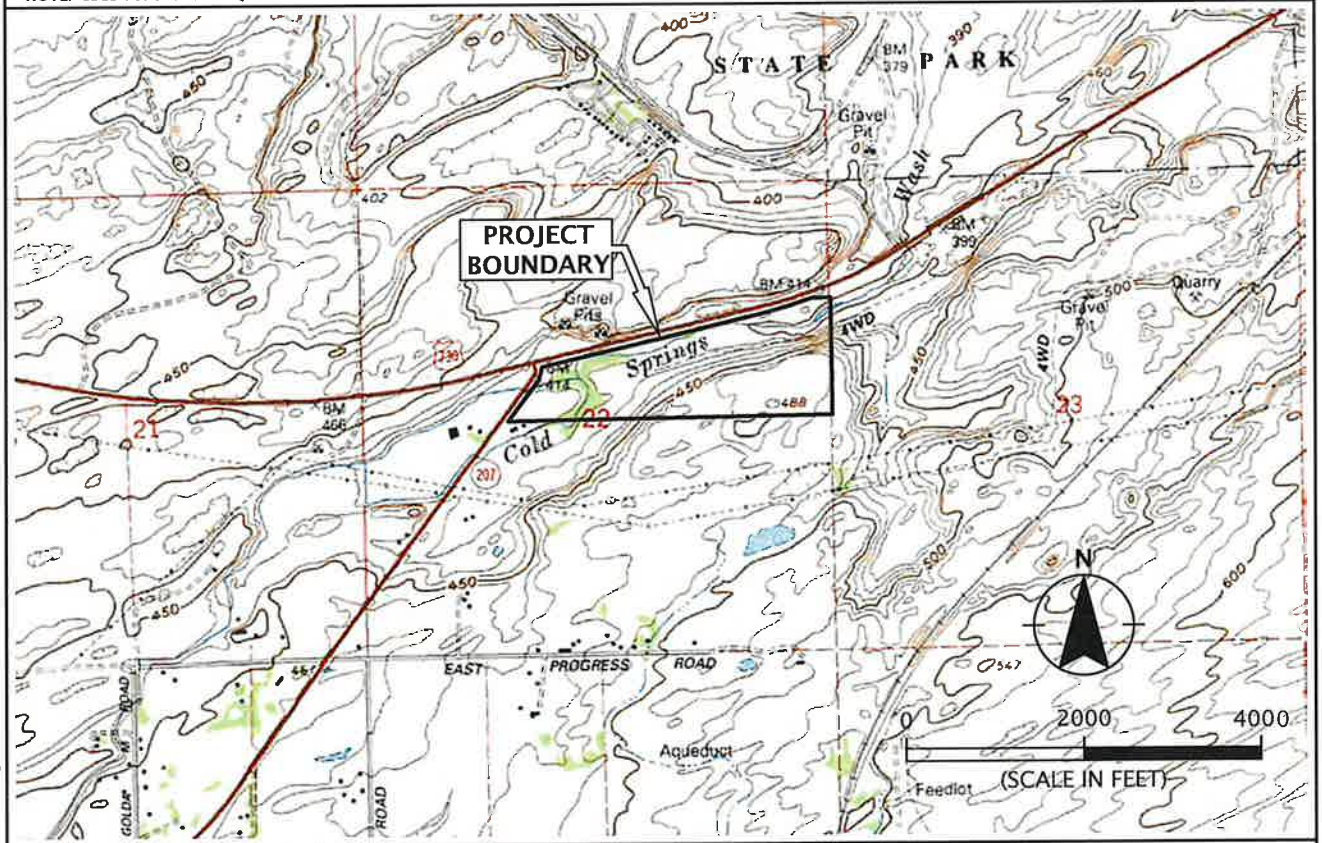
EASTERN OREGON

LEGAL DESCRIPTION

THE PROPERTY BOUNDARY IS LOCATED IN PORTIONS OF THE FOLLOWING QUARTER-QUARTER SECTIONS:

- SE QUARTER OF THE NE QUARTER OF SECTION 22
- SW QUARTER OF THE NE QUARTER OF SECTION 22
- SE QUARTER OF THE NW QUARTER OF SECTION 22

NOTE: USGS TOPOGRAPHIC QUADRANGLE MAPS REPRODUCED USING MAPTECH TERRAIN NAVIGATOR PRO®.



NV5	CRP & HAULING, LLC	VICINITY MAP	
	CRPHAULING-1-01 JANUARY 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.	FIGURE 1

Printed By: mmiller | Print Date: 1/31/2023 8:46:40 AM
File Name: J:\A-D\CRPHauling\CRPHauling-1\CRPHauling-1-01\Figures\CAD\CRPHauling-1-01-VM02.dwg [Layout: FIGURE 1

Printed By: Mike_Miller | Print Date: 8/24/2023 8:28:48 AM
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NOTES:

1. PROPERTY BOUNDARY AND EASEMENTS BASED ON SURVEY DATED AUGUST 4, 2022, PREPARED BY SURVEY ONE, LLC.
2. EXISTING TOPOGRAPHY OBTAINED FROM GOOGLE EARTH PRO.
3. AERIAL PHOTOGRAPH DATED APRIL 14, 2021, OBTAINED FROM GOOGLE EARTH PRO.

FULCRUM GEO RESOURCES LLC	CRP & HAULING, LLC	SITE PLAN - AGGREGATE RESOURCE OVERLAY	
	PROJECT 007.01.01 AUGUST 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E., W.M.	FIGURE 1

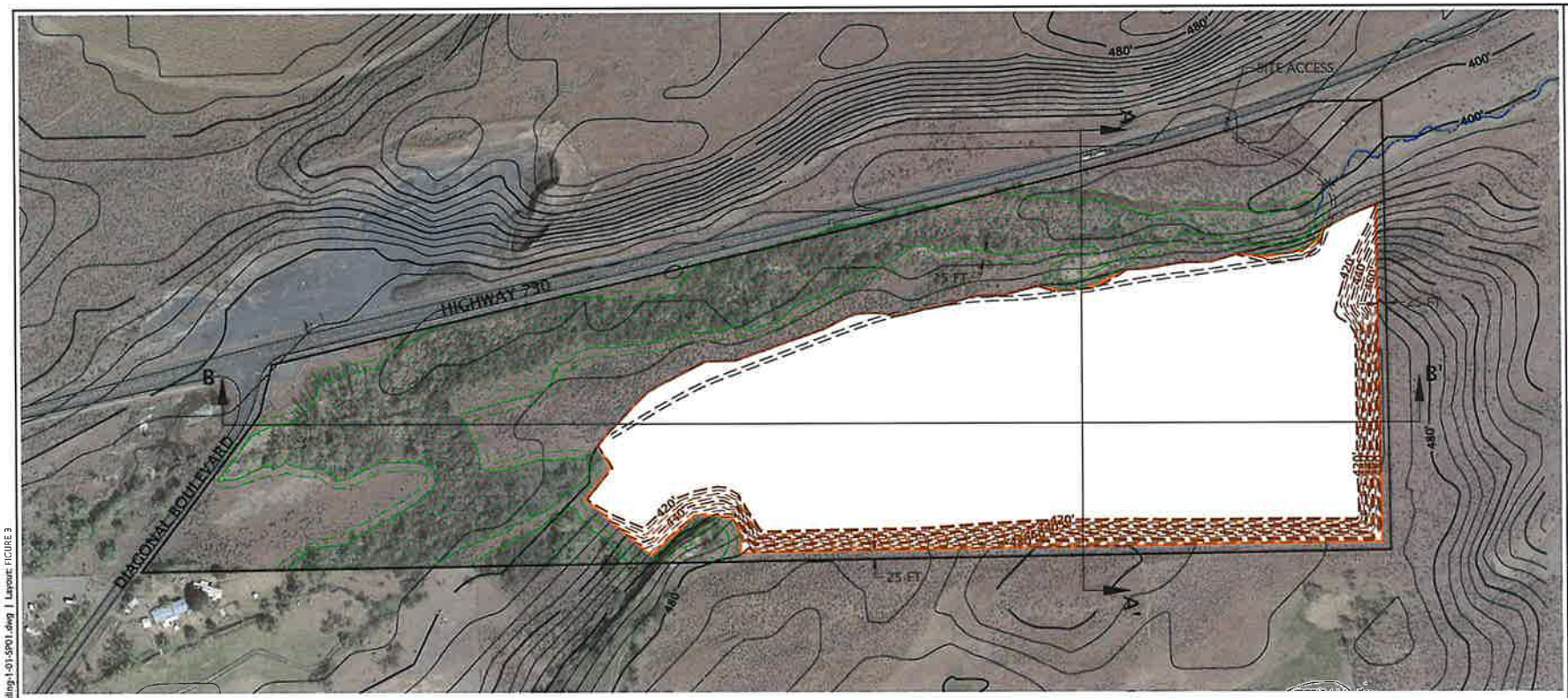
Printed By: mmiller | Print Date: 1/31/2023 8:45:10 AM
File Name: J:\A-D\CRPHauling\CRPHauling-1\CRPHauling-1-01\Figures\CAD\CRPHauling-1-01-SP01.dwg | Layout: FIGURE 2

LEGEND:

- PROJECT BOUNDARY (74.5 ACRES)
- SAND EXTRACTION AREA (16.5 ACRES)
- BASALT BEDROCK EXTRACTION AREA (20.3 ACRES)
- 400' EXISTING TOPOGRAPHY (5-FOOT INTERVALS; 20-FOOT INDEX CONTOURS)
- WETLAND
- 25-FOOT WETLAND BUFFER
- ARTIFICIAL DRAINAGE PATH
- PROPOSED AND EXISTING SITE ACCESS ROAD
- PROPOSED CULVERT
- A A' CROSS SECTION

NOTES:
1. EXISTING TOPOGRAPHY OBTAINED FROM GOOGLE EARTH PRO.
2. AERIAL PHOTOGRAPH DATED APRIL 14, 2021, OBTAINED FROM GOOGLE EARTH PRO.
3. WETLAND AREAS CREATED FROM NWI MAPS, DSL WETLAND DETERMINATION REPORT WD#2022-0606, AND GOOGLE EARTH AERIAL PHOTOGRAPH DATED APRIL 14, 2021.

NV5	CRP & HAULING, LLC	EXISTING TOPOGRAPHY MAP WITH AERIAL	
	CRPHAULING-1-01 JANUARY 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.	FIGURE 2



LEGEND:

- PROJECT BOUNDARY (74.5 ACRES)
- LIMITS OF EXCAVATION (20.3 ACRES)
- FINAL TOPOGRAPHY (5-FOOT INTERVALS; 20-FOOT INDEX CONTOURS)
- EXISTING TOPOGRAPHY (5-FOOT INTERVALS; 20-FOOT INDEX CONTOURS)
- WETLAND
- 25-FOOT WETLAND BUFFER
- ARTIFICIAL DRAINAGE PATH
- SITE ACCESS ROAD
- CULVERT
- A A' CROSS SECTION

N

0 300 600

(SCALE IN FEET)

NOTES:

1. EXISTING TOPOGRAPHY OBTAINED FROM GOOGLE EARTH PRO.
2. AERIAL PHOTOGRAPH DATED APRIL 14, 2021, OBTAINED FROM GOOGLE EARTH PRO.
3. WETLAND AREAS CREATED FROM NWI MAPS, DSL WETLAND DETERMINATION REPORT WD#2022-0606, AND GOOGLE EARTH AERIAL PHOTOGRAPH DATED APRIL 14, 2021.

FINAL TOPOGRAPHY MAP WITH AERIAL

UMATILLA COUNTY, OR
SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.

FIGURE 3

CRP & HAULING, LLC

CRPHAULING-1-01
JANUARY 2023

Printed By: mmiller | Print Date: 1/31/2023 8:43:16 AM
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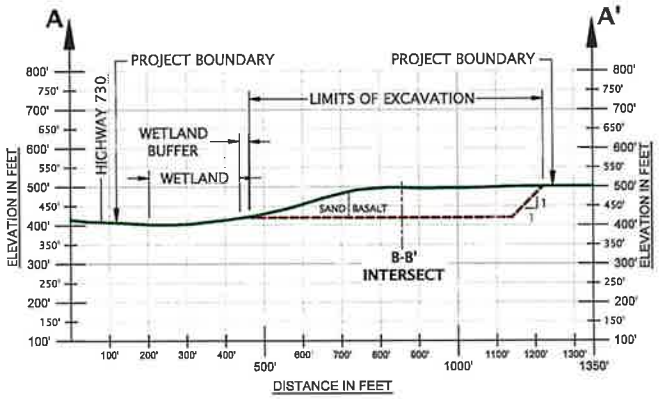


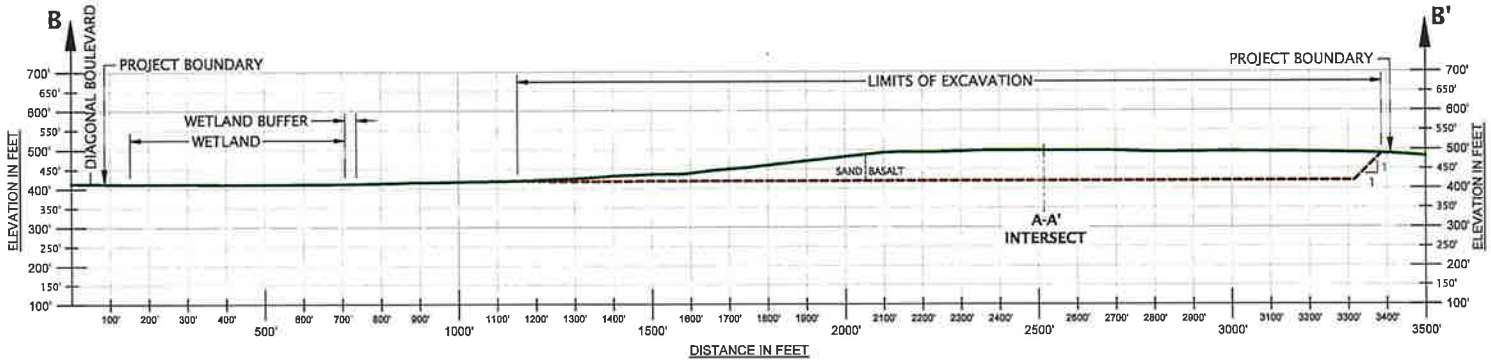
LEGEND:

- EXISTING TOPOGRAPHY
- FINAL TOPOGRAPHY

EXCAVATION VOLUME TABLE	
RESOURCE	**VOLUME**
SAND	694,419 CUBIC YARDS
BASALT	2,125,679 CUBIC YARDS

0 300 600
(VERTICAL SCALE IN FEET)

0 300 600
(HORIZONTAL SCALE IN FEET)



CROSS SECTIONS A-A' AND B-B'

UMATILLA COUNTY, OR
SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.

FIGURE 4

CRP & HAULING, LLC

CRPHAULING-1-01
JANUARY 2023

NV5

Printed By: mmiller | Print Date: 1/31/2023 8:49:17 AM
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Budinger & Associates

Proudly serving the Inland Northwest since 1976

Geotechnical Engineering
Environmental Engineering
Construction Materials Testing
Subsurface Exploration
Special Inspection

Guy Copenhaver
Copenhaver Construction
22393 State Route 2 E
Creston, WA 99117

August 24, 2022

Project Number L22010

PROJECT: **Copenhaver 2022 Materials**

SUBJECT: **Results of Laboratory Testing**
Report #19

At your request, we provided laboratory testing services for the subject project. Services were limited to the performance of specific laboratory tests, selected at your discretion.

For this period, our involvement was limited to laboratory testing of one sample delivered to our laboratory us on August 18, 2022. Laboratory tests were performed in general accordance with methods listed in the attached *Laboratory Summary* sheets.

If you have questions regarding this report, please call.

Respectfully Submitted,
Budinger & Associates, Inc.

Terri Ballard
Laboratory Manager

TJB/lat/Addressee –
Guy Copenhaver - guywcopenhaver@gmail.com
gmcopenhaver@odessaoffice.com
kanconst@hotmail.com
Jim Derrer – cci.concrete@hotmail.com

Attachments:
Aggregate Laboratory Summary – 1 page

AGGREGATE
LABORATORY SUMMARY

LABORATORY NUMBER			22-0911
SAMPLED BY			Client
SAMPLE TYPE			Bulk
DATE RECEIVED			8/18/22
SAMPLE SOURCE			Rupp Quarry
	Units	Test Method	
LA WEAR (Method A)	% loss	AASHTO T-96	14
WA DEGRADATION	D	WSDOT T-113	70

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AUG 25 2023
UMATILLA COUNTY
PLANNING DEPARTMENT

Carlson Testing, Inc.

Bend Office (541) 330-9155
Geotechnical Office (503) 601-8250
Eugene Office (541) 345-0289
Salem Office (503) 589-1252
Tigard Office (503) 684-3460

January 26, 2023
CTI Job #T2207311
Lab Log #22-0613

NV5 - Erick Staley
9450 SW Commerce Cir Ste. 300
Wilsonville, OR 97070

RE: GOAL 5 RESOURCES EVALUATION TESTING
NV5 - UMATILLA #1 - LABORATORY TESTING

As requested, Carlson Testing Inc. has completed LA Abrasion, Oregon Air Degradation, and Soundness of Aggregates tests conducted on a sample of out-crop basalt-bedrock material from the Umatilla #1 site. The sample was collected by your representative on December 13, 2022 from the site and delivered to our Tigard facility on December 15, 2022. Testing was completed on January 24, 2023. ODOT Section 2630.11 and 00745 specifications applied at client's request. Following are the test results:

LOS ANGELES ABRASION – AASHTO T96:

Sample Identification	Test Results
Sample Number	1
Nominal Maximum Aggregate Size, inch	1/2"
Grading	B
Revolutions	1000
Percent Loss to Abrasion, %	10.1%
ODOT Section 2630.11 Specification	35.0% Maximum

OREGON AIR DEGRADATION (OAD) – ODOT TM 208:

Test Identification	Test Results	ODOT Section 2630.11 Specifications
Sediment Height, inch	0.6	3.0" Maximum
% Passing the #20 Sieve, %	1.4	30.0% Maximum

SOUNDNESS IN AGGREGATE USING MAGNESIUM SULFATE (COARSE AGGREGATE) – AASHTO T104:

Sieve Fraction	Weight Before Test, gms	Weight After Test, gms	Weight Loss After 5 Cycles, gms	Percent Loss After 5 Cycles, %
3/4" to 3/8"	1001	995	6	0.6
3/8" to #4	299	296	3	1.0

Average Percent Loss after 5 Cycles: 0.8%

ODOT Section 00745 Specification: 12.0% Maximum

This sample meets specifications and requirements of the Goal 5 Resources evaluation testing.

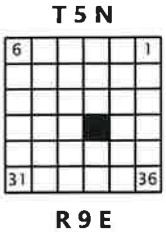
Our reports pertain to the material tested/inspected only. Information contained herein is not to be reproduced, except in full, without prior authorization from this office. Under all circumstances, the information contained in this report is provided subject to all terms and conditions of CTI's General Conditions in effect at the time this report is prepared. No party other than those to whom CTI has distributed this report shall be entitled to use or rely upon the information contained in this document.

Respectfully submitted,

CARLSON TESTING, INC.

Jason Bryant
QA Manager

cb
cc: NVS - ERICK STALEY ERICK.STALEY@NVS.COM



EASTERN OREGON

SITE COORDINATES:

LATITUDE: **45° 54' 7.5" N**

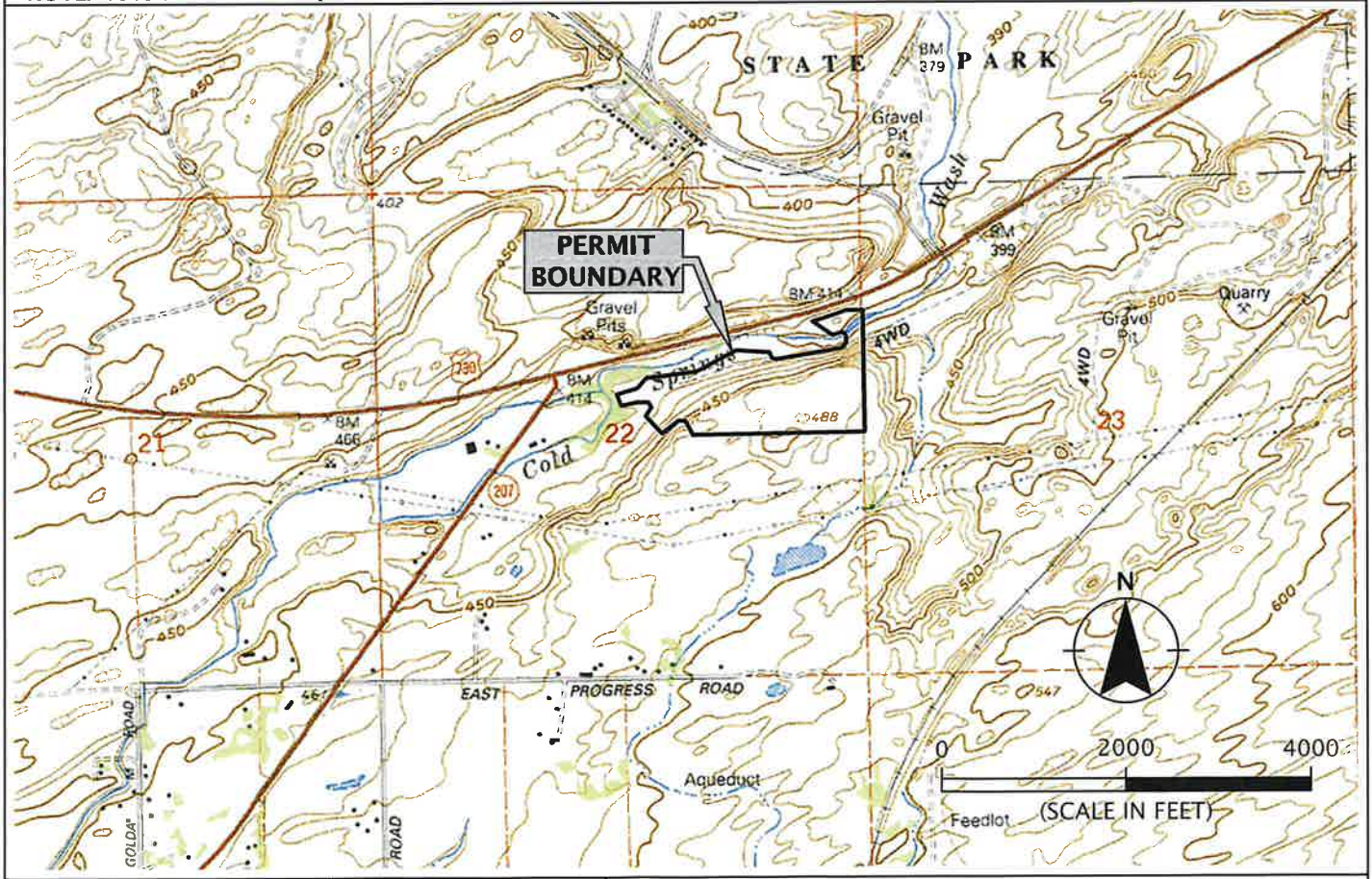
LONGITUDE: **119° 10' 1.2" W**

LEGAL DESCRIPTION

THE PERMIT BOUNDARY IS LOCATED IN PORTIONS OF THE FOLLOWING QUARTER-QUARTER SECTIONS:

- SE QUARTER OF THE NE QUARTER OF SECTION 22
- SW QUARTER OF THE NE QUARTER OF SECTION 22

NOTE: USGS TOPOGRAPHIC QUADRANGLE MAPS REPRODUCED USING MAPTECH TERRAIN NAVIGATOR PRO®.



FULCRUM GEO RESOURCES	CRP & HAULING, LLC	**VICINITY MAP**	
	PROJECT 007.01.01 SEPTEMBER 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.	**FIGURE 1**

Printed By: Mike.Miller | Print Date: 9/11/2023 2:15:47 PM
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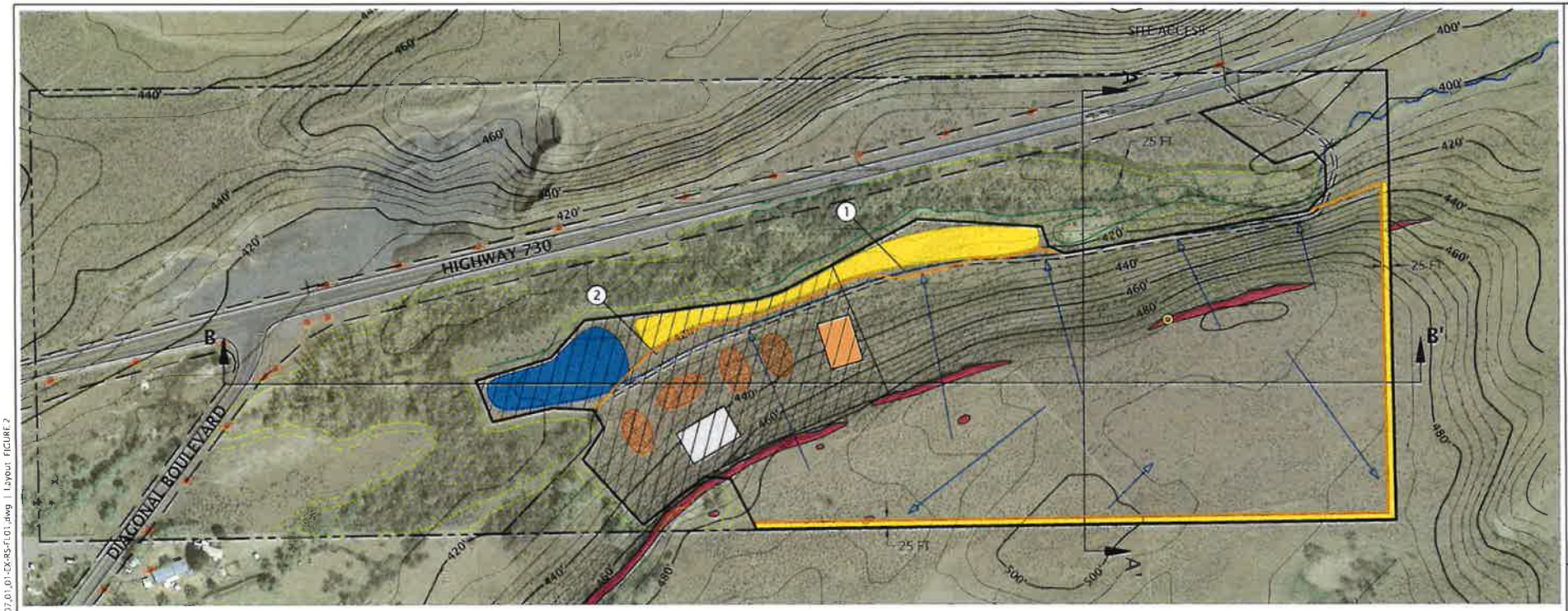

LEGEND:

- PROPERTY BOUNDARY
- PERMIT BOUNDARY (46.7 ACRES)
- EASEMENT
- LIMITS OF EXTRACTION (38.0 ACRES)
- OPERATIONS, PROCESSING, AND STOCKPILING AREA
- 400' EXISTING TOPOGRAPHY (5-FOOT INTERVALS; 20-FOOT INDEX CONTOURS)
- WETLAND
- 25-FOOT WETLAND BUFFER
- ARTIFICIAL DRAINAGE PATH
- EXISTING DRAINAGE PATTERNS
- OVERHEAD POWER POLE
- BASALT OUTCROP
- SAMPLE LOCATION
- PROPOSED AND EXISTING SITE ACCESS ROAD
- PROPOSED STORMWATER DIVERSION DITCH
- PROPOSED CULVERT
- PROPOSED PRODUCT STOCKPILE
- PROPOSED ROCK CRUSHER
- PROPOSED ASPHALT BATCH PLANT
- 1 PROPOSED SCALES LOCATION
- 2 PROPOSED OFFICE LOCATION
- PROPOSED TOPSOIL STOCKPILE AREAS
- PROPOSED STORMWATER POND
- A A' CROSS SECTION

N

0 300 600

(SCALE IN FEET)

NOTES:

1. PROPERTY BOUNDARY AND EASEMENTS BASED ON SURVEY DATED AUGUST 4, 2022, PREPARED BY SURVEY ONE, LLC.
2. EXISTING TOPOGRAPHY OBTAINED FROM GOOGLE EARTH PRO.
3. AERIAL PHOTOGRAPH DATED APRIL 14, 2021, OBTAINED FROM GOOGLE EARTH PRO.
4. WETLAND AREAS CREATED FROM NWI MAPS, OREGON DEPARTMENT OF STATE LAND WETLAND DETERMINATION REPORT WD#2022-0606, AND GOOGLE EARTH AERIAL PHOTO DATED APRIL 14, 2021.

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SEP 13 2023
UMATILLA COUNTY
PLANNING DEPARTMENT

SITE PLAN - EXISTING TOPOGRAPHY WITH AERIAL

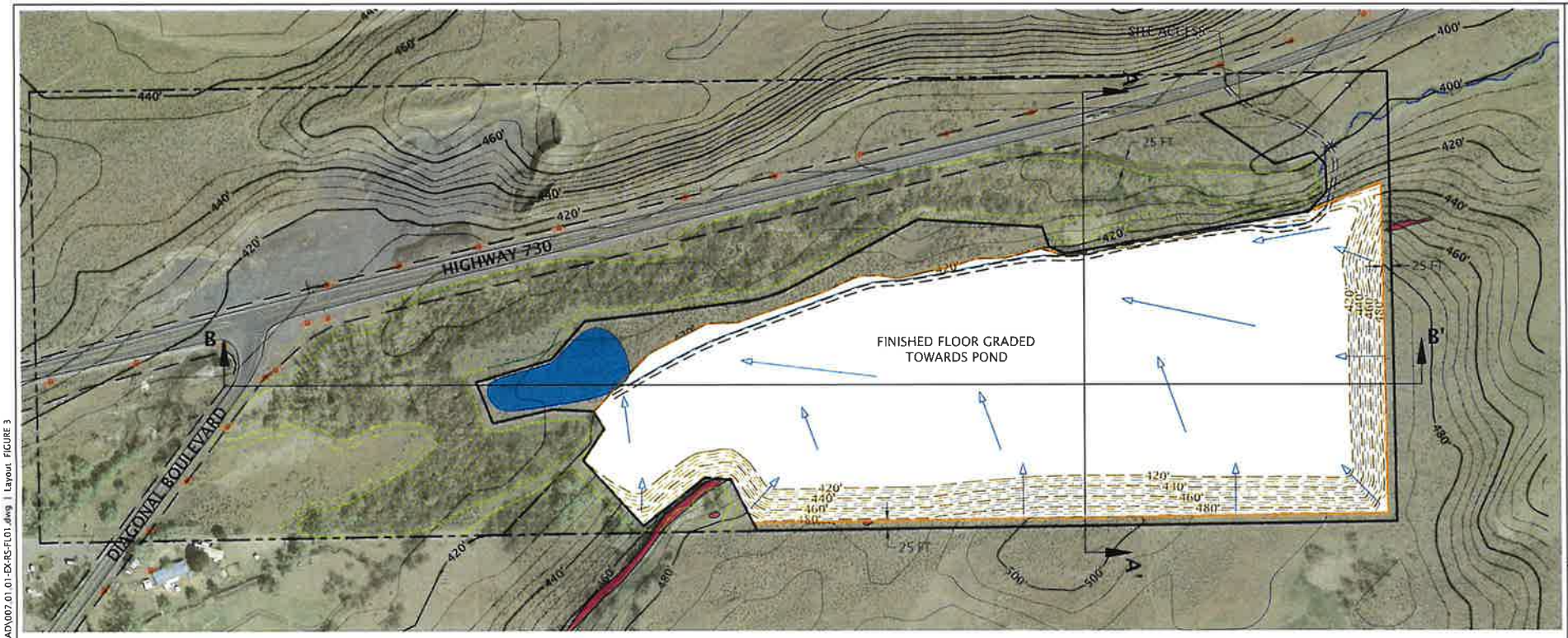
FIGURE 2

UMATILLA COUNTY, OR
SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.

CRP & HAULING, LLC

PROJECT 007.01.01
SEPTEMBER 2023

FULCRUM GEO RESOURCES LLC



LEGEND:

- PROPERTY BOUNDARY
- PERMIT BOUNDARY (46.7 ACRES)
- EASEMENT
- LIMITS OF EXCAVATION (38.0 ACRES)
- 420' FINAL TOPOGRAPHY (5-FOOT INTERVALS; 20-FOOT INDEX CONTOURS)
- 400' EXISTING TOPOGRAPHY (5-FOOT INTERVALS; 20-FOOT INDEX CONTOURS)
- WETLAND
- 25-FOOT WETLAND BUFFER
- FINAL DRAINAGE PATTERNS
- OVERHEAD POWER POLE
- BASALT OUTCROP
- ARTIFICIAL DRAINAGE PATH
- SITE ACCESS ROAD
- STORMWATER DIVERSION DITCH
- CULVERT
- STORMWATER POND
- A A' CROSS SECTION

N

0 300 600

(SCALE IN FEET)

NOTES:

1. PROPERTY BOUNDARY AND EASEMENTS BASED ON SURVEY DATED AUGUST 4, 2022, PREPARED BY SURVEY ONE, LLC.
2. EXISTING TOPOGRAPHY OBTAINED FROM GOOGLE EARTH PRO.
3. AERIAL PHOTOGRAPH DATED APRIL 14, 2021, OBTAINED FROM GOOGLE EARTH PRO.
4. WETLAND AREAS CREATED FROM NWI MAPS, OREGON DEPARTMENT OF STATE LAND WETLAND DETERMINATION REPORT WD#2022-0606, AND GOOGLE EARTH AERIAL PHOTO DATED APRIL 14, 2021.

RECLAMATION PLAN - FINAL TOPOGRAPHY WITH AERIAL

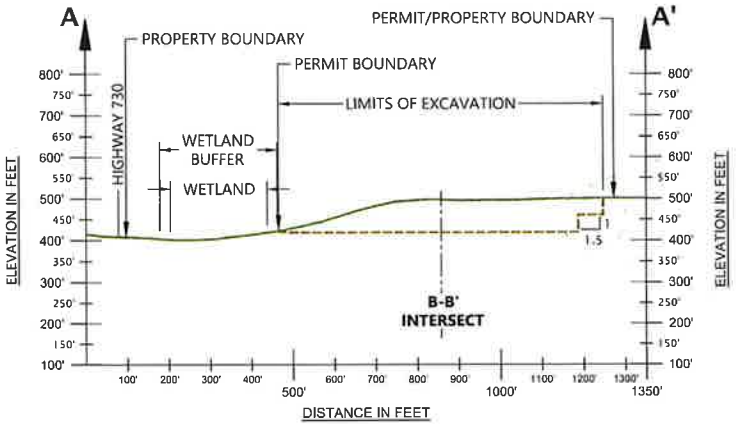
UMATILLA COUNTY, OR
SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.

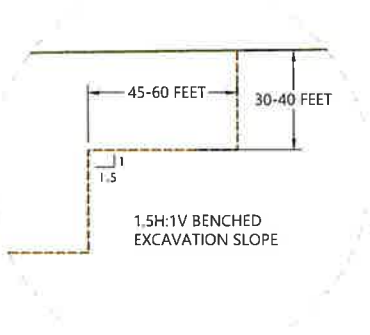
FIGURE 3

CRP & HAULING, LLC

PROJECT 007.01.01
SEPTEMBER 2023

FULCRUM GEO RESOURCES LLC





CUT SLOPE DETAIL (TYP.)
(1 INCH = 50 FEET)

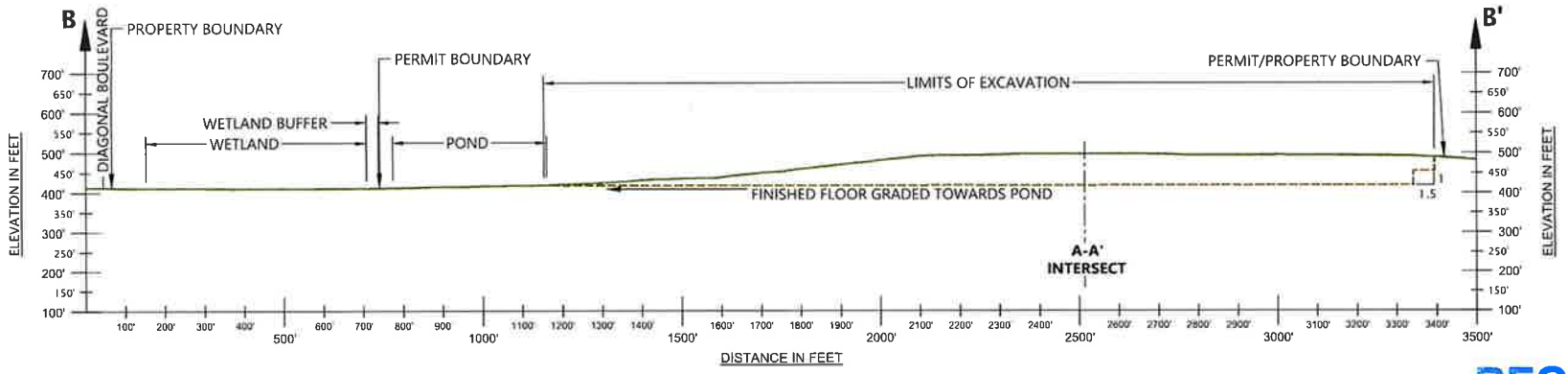
LEGEND:

EXISTING TOPOGRAPHY

FINAL TOPOGRAPHY

0 300 600
(VERTICAL SCALE IN FEET)

0 300 600
(HORIZONTAL SCALE IN FEET)



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SEP 13 2023

UMATILLA COUNTY
PLANNING DEPARTMENT

CROSS SECTIONS A-A' AND B-B'

UMATILLA COUNTY, OR
SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.

FIGURE 4

CRP & HAULING, LLC

PROJECT 005.01.01
SEPTEMBER 2023

FULCRUM GEO RESOURCES

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FULCRUM
GEO RESOURCES LLC
17600 Pacific Highway, Unit 357
Marylhurst, Oregon 97036
503.250.2247

August 25, 2023

Corey, Byler & Rew, LLP
222 S.E. Dorion Avenue
Pendleton, Oregon 97801-0218

Attention: Patrick Gregg

Anticipated Impacts from Blasting
Proposed CRP & Hauling Quarry
Umatilla County, Oregon
Project: 007.01.01

INTRODUCTION

On behalf of CRP & Hauling, LLC (CRP), Fulcrum GeoResources LLC (Fulcrum) presents this report discussing anticipated impacts from blasting at the proposed CRP & Hauling Quarry located in unincorporated Umatilla County, Oregon. CRP is in the process of applying to be added to Umatilla County's Aggregate Resource (AR) Overlay. The primary resource comprises bedrock of the Columbia River Basalt Group, consisting of dense, hard basalt that forms a prominent bluff at the site. The slope below the bluff also has a sand deposit overlying the basalt that represents an additional product for aggregate use.

CRP expects to use controlled blasting as part of mine operations to extract the basalt. We understand Umatilla County is concerned of the impacts mine blasting may have on the surrounding area, particularly to structures on neighboring properties and public roadways that border the property. CRP requested that Fulcrum evaluate potential impacts of blasting to the site vicinity.

BACKGROUND

The project is located in the southeast corner of tax lot 400 in the SW¼ and SE¼ of the NE¼ of Section 22, Township 5 North, Range 29 East, Willamette Meridian (Figure 1). Tax lot 400 covers a much larger area than the proposed mine project boundaries including lands north and west of Diagonal Boulevard and U.S. Route 730. The proposed AR Overlay area, shown on Figure 2, corresponds to the proposed mine permit boundary submitted to the Oregon Department of Geology and Mineral Resources (DOGAMI) for an Operating Permit application and consists of

46.7 acres. The AR Overlay boundary is defined by the south and east property lines and a boundary to the north and west to avoid wetlands and their buffers.

Within the proposed permit boundary are the limits of excavation, shown as an orange line on Figure 2. This is where the basalt and sand resource will be extracted. Blasting to extract basalt is anticipated to occur from the southern limits of excavation to approximately 100 feet north of the bluff visible on Figure 2.

SITE VICINITY

Fulcrum reviewed aerial imagery available on Google Earth Pro to identify features in the site vicinity and distances to the proposed area of blasting. The only structures for human occupancy within 1,500 feet are located west-southwest of the project and appear to be rural residences (Figure 2). One is located approximately 1,100 feet away and the other approximately 1,200 feet away from the westernmost proposed blasting area.

The limits of excavation are located within 300 feet of the south margin of U.S. Route 730 (Figure 2). However, these limits include areas north of the basalt bluff where only sand resource will be extracted. Blasting for basalt extraction will be located at least 500 feet from U.S. Route 730. Blasting will be located much farther from Diagonal Boulevard, at least 1,000 feet to the west.

Electrical utility poles and aerial transmission lines are located north, west, and south of the limits of extraction. There may also be buried utilities along the easements of the public roadways. Individual electrical poles are located along the east side of Diagonal Boulevard and the north side of U.S. Route 730 and are thus located more than 500 feet away from the proposed blasting area. Larger, cross-braced transmission poles and towers are located no closer than about 500 feet south of the project.

VIBRATIONS FROM BLASTING

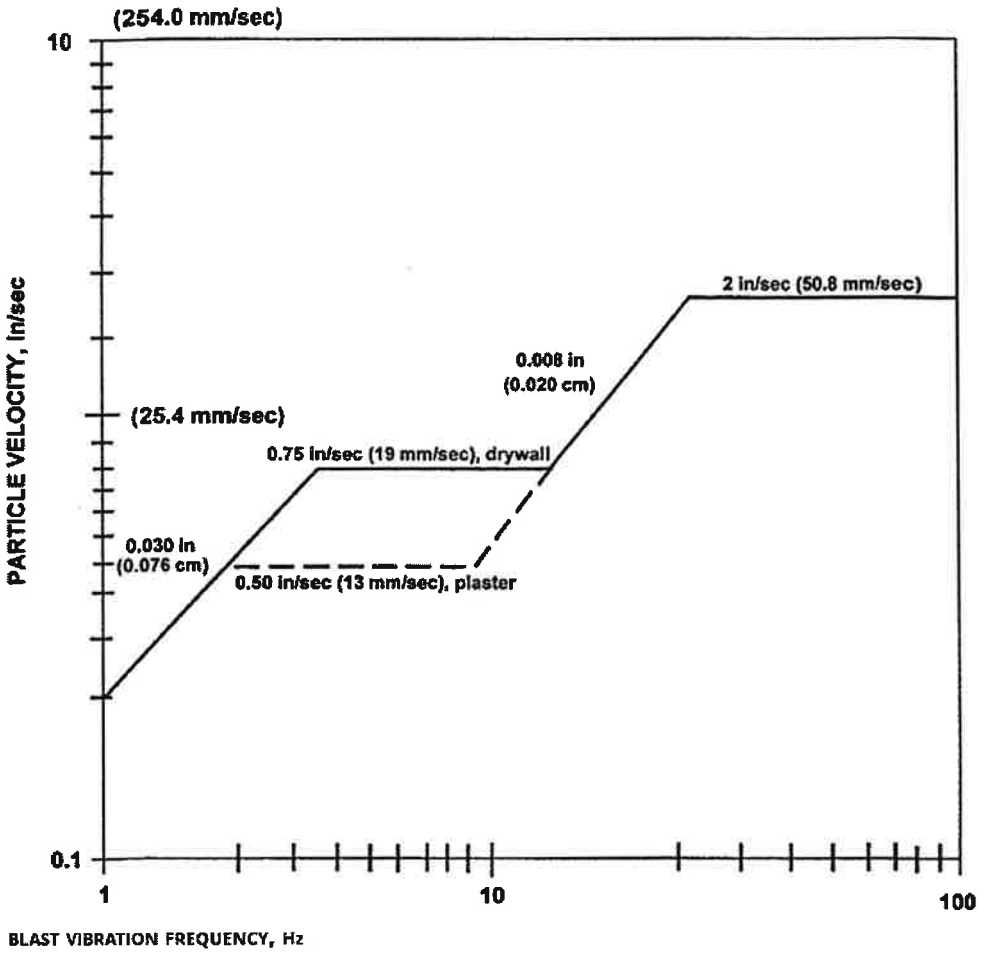
Controlled blasting is a common means used by mine operators to break rock out of its in-situ condition and move it into a manageable area. Only a portion of the blast energy is consumed in breaking up the rock and moving it from the mine highwall. The remaining energy is emitted in waves through the surrounding vicinity. The energy decreases significantly with distance as the waves travel outward from the source into a progressively larger area.

VIBRATION THRESHOLDS

Ground-borne waves emitted by blasting cause oscillatory motion in the rock particles, but the material generally does not have a net displacement – the particles vibrate. Vibrations from blasting are typically characterized using vibration amplitude (the intensity of the vibration in terms of particle displacement, velocity, or acceleration) and frequency (the number of cycles per second, or hertz [Hz]). Particle velocity is typically used to evaluate the potential for damage to structures and subsurface infrastructure. Vibration thresholds for blasting damage consider

the peak particle velocity (PPV), defined as the maximum instantaneous peak of the vibratory motion, expressed in units of inches per second (in/sec).

Vibration monitors (i.e., seismographs) are used to collect data of the particle velocities and vibration frequencies generated by blasting and compare the readings to regulatory vibration thresholds to prevent damage. Blast vibration limits used by many state and municipal regulations are derived from a study conducted by the former United States Bureau of Mines (USBM)[1]. The USBM study involved blasting at mines and monitoring the effects in residential homes. The blasts varied in intensity and distance from the buildings to determine thresholds that would result in different degrees of damage to the homes. The limits resulting from the study were intended to protect residential-type structures from the least amount of observable damage – cosmetic cracking – which can also develop in homes independent of blasting. Typical regulatory limits are summarized in the figure below.



[1] Siskind, D. E., Stagg, M. S., Kopp, J. W., and Dowding, C. H., 1980. Structure Response and Damage Produced by Ground Vibration from Surface Mine Blasting: United States Department of the Interior, Bureau of Mines, Report of Investigations RI-8507.

Because the USBM-derived vibration thresholds were developed for cosmetic damage to residential-type structures, they are generally not applicable to roadways or utility infrastructure like aerial transmission lines or pipelines. USBM conducted another study related to the sensitivity of buried pipelines to ground vibrations from surface mines and determined a vibratory threshold of 5 in/sec to prevent damage to pressurized steel and PVC pipes[2]. This threshold can be referenced for buried utilities along public roadway easements. Engineered features such as utility poles should be more tolerant of vibrations and changes in air pressure than the thresholds used for residential cosmetic damage. These structures are designed to resist wind loads far greater than what a typical mine blast would generate.

BLAST MONITORING AND ANTICIPATED BLAST VIBRATIONS

It is a common requirement for blasters to use seismographs to monitor controlled blasting at mine sites. Fulcrum's principal engineering geologist, Erick Staley, C.E.G., has reviewed blasting data from many quarries and heavy construction projects. A plot of blast vibration data versus distance, shown on Figure 3, includes data collected from three quarries in Yakima, Dallesport, and Hermiston. These quarries extract Columbia River Basalt resource and thus reflect similar subsurface and climatic conditions to the CRP site.

The plot on Figure 3 also shows the attenuation relationship between vibration intensity and distance. For reference, the anticipated vibrations at distances of 500 feet and 1,100 feet from a blast are shown, which have corresponding PPVs of 0.84 in/sec and 0.29 in/sec, respectively. The PPV of 0.29 in/sec at 1,100 feet distance can be used to anticipate vibrations at the nearest residential structure to the site. This is significantly lower than the most conservative vibration threshold of 0.5 in/sec for older homes with lath-and-plaster wall construction and at vibration frequencies less than 10 Hz. From our experience, mine blasts typically produce higher vibration frequencies where higher vibration thresholds up to 2 in/sec should be considered.

The PPV of 0.84 in/sec at 500 feet can be used to anticipate vibrations experienced at the closest portion of U.S. Route 730 to the north and electrical towers to the south. From the prior discussion, a damage threshold of 5 in/sec can be considered for buried utilities. The damage thresholds for electrical poles and towers should be greater than that for cosmetic damage to residential structures, or greater than 2 in/sec. Thus, the anticipated vibrations at 500 feet are below these vibration thresholds. Even the highest readings collected from the three quarries, from blasts larger than would likely be used at the CRP site, are still below damage thresholds.

Moreover, it is worth noting that the Oregon Department of Transportation has an existing quarry in Columbia River Basalt north of and adjacent to U.S. Route 730. This bedrock quarry has operated for years and is located much closer to the highway than the proposed CRP quarry. We are not aware of any damage blasting has caused to the roadway or utility

[2] Siskind, D. E., Stagg, M. S., Wiegand, J. W., and Schulz, D. L., 1994. Surface Mine Blasting Near Pressurized Transmission Pipelines: United States Department of the Interior, Bureau of Mines, Report of Investigations RI-9523.

infrastructure along the highway. It thus seems likely that blasting at the proposed CRP quarry has a low potential for damaging the highway and utilities.

CONCLUSIONS AND RECOMMENDATIONS

Based on our review, we do not anticipate offsite structures or features will be damaged by the use of controlled blasting to extract basalt resource from the site. Blasting activities should be planned and conducted by appropriately experienced and licensed blasters in accordance with state and local regulations. This should include the use of blast procedures and time-delays that prevent excessive vibrations or other emissions from blasting. Blasting should be monitored using seismographs or similar equipment to collect vibration data and compare the results to regulatory damage thresholds.

LIMITATIONS

We have prepared this report for use by CRP & Hauling, LLC to evaluate anticipated blast vibrations for the proposed CRP & Hauling Quarry. The services described in this report were provided consistent with generally accepted professional consulting principles and practices. Our findings, conclusions, and interpretations should not be construed as warranty of the site conditions.

Our interpretations of the mining and geologic conditions are based on information from publicly available sources and our experience in the region and with the mining industry. The accuracy of outside information is beyond our control.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with generally accepted practices in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

———— ♦♦ ————

If you have questions concerning the information provided, please call.

Sincerely,

Fulcrum GeoResources LLC

Erick J. Staley, C.E.G.
Principal Engineering Geologist

Expires 06/01/2024

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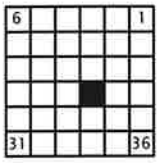


R 29 E

EASTERN OREGON

SITE COORDINATES:

LATITUDE: **45° 54' 7.5" N**

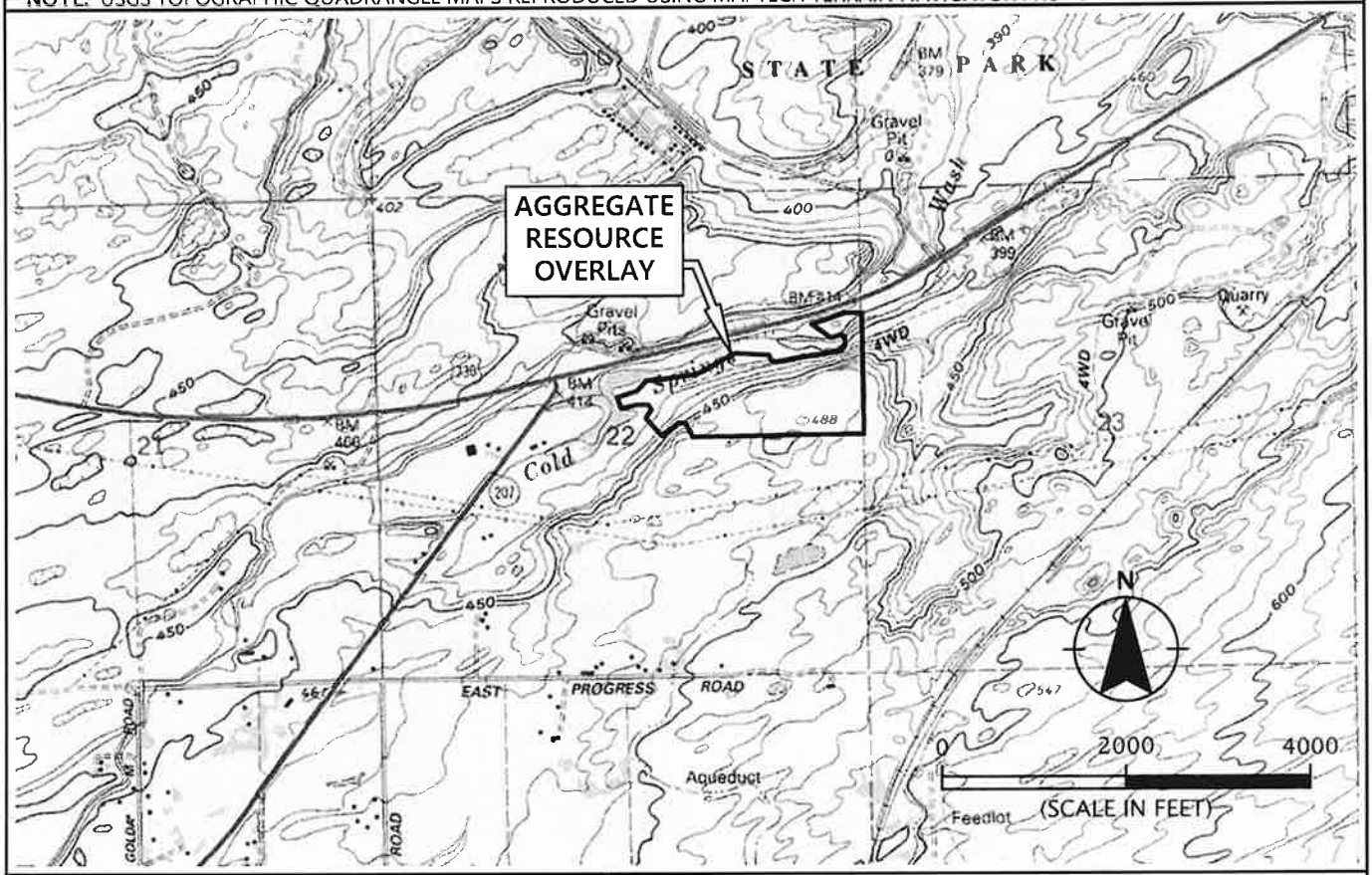
LONGITUDE: **119° 10' 1.2" W**

LEGAL DESCRIPTION

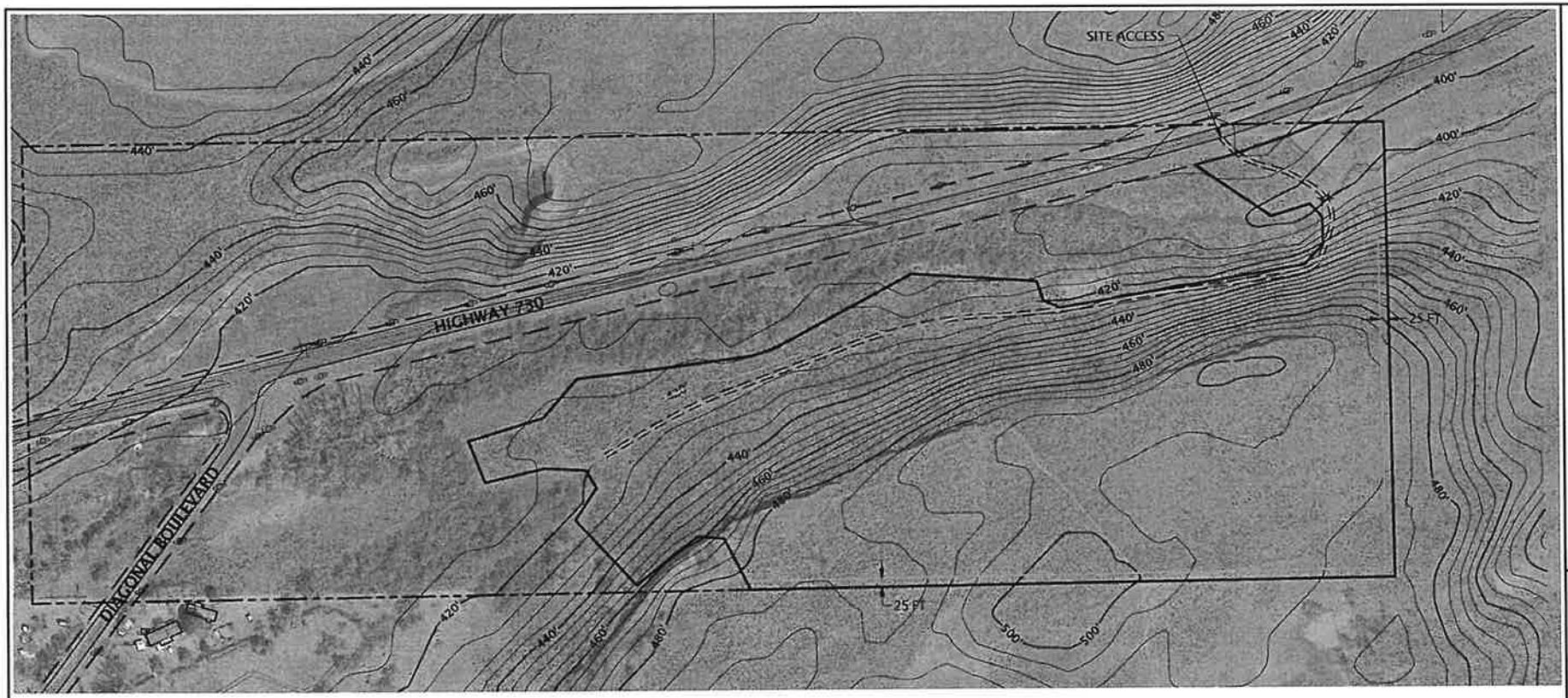
THE PERMIT BOUNDARY IS LOCATED IN PORTIONS OF THE FOLLOWING QUARTER-QUARTER SECTIONS:

- SE QUARTER OF THE NE QUARTER OF SECTION 22
- SW QUARTER OF THE NE QUARTER OF SECTION 22

NOTE: USGS TOPOGRAPHIC QUADRANGLE MAPS REPRODUCED USING MAPTECH TERRAIN NAVIGATOR PRO®.



FULCRUM GEO RESOURCES LLC	CRP & HAULING, LLC	**VICINITY MAP**	
	PROJECT 007.01.01 AUGUST 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.	**FIGURE 1**



LEGEND:

- PROPERTY BOUNDARY
- AGGREGATE RESOURCE OVERLAY (46.7 ACRES)
- EASEMENT
- LIMITS OF EXTRACTION (38.0 ACRES)
- 400' EXISTING TOPOGRAPHY (5-FOOT INTERVALS; 20-FOOT INDEX CONTOURS)
- OVERHEAD POWER POLE
- PROPOSED AND EXISTING SITE ACCESS ROAD
- PROPOSED CULVERT
- RESIDENTIAL STRUCTURE

N

0 300 600

(SCALE IN FEET)

NOTES:

1. PROPERTY BOUNDARY AND EASEMENTS BASED ON SURVEY DATED AUGUST 4, 2022, PREPARED BY SURVEY ONE, LLC.
2. EXISTING TOPOGRAPHY OBTAINED FROM GOOGLE EARTH PRO.
3. AERIAL PHOTOGRAPH DATED APRIL 14, 2021, OBTAINED FROM GOOGLE EARTH PRO.
4. WETLAND AREAS CREATED FROM NWI MAPS, OREGON DEPARTMENT OF STATE LAND WETLAND DETERMINATION REPORT WD#2022-0606, AND GOOGLE EARTH AERIAL PHOTO DATED APRIL 14, 2021.

SITE PLAN - EXISTING TOPOGRAPHY WITH AERIAL

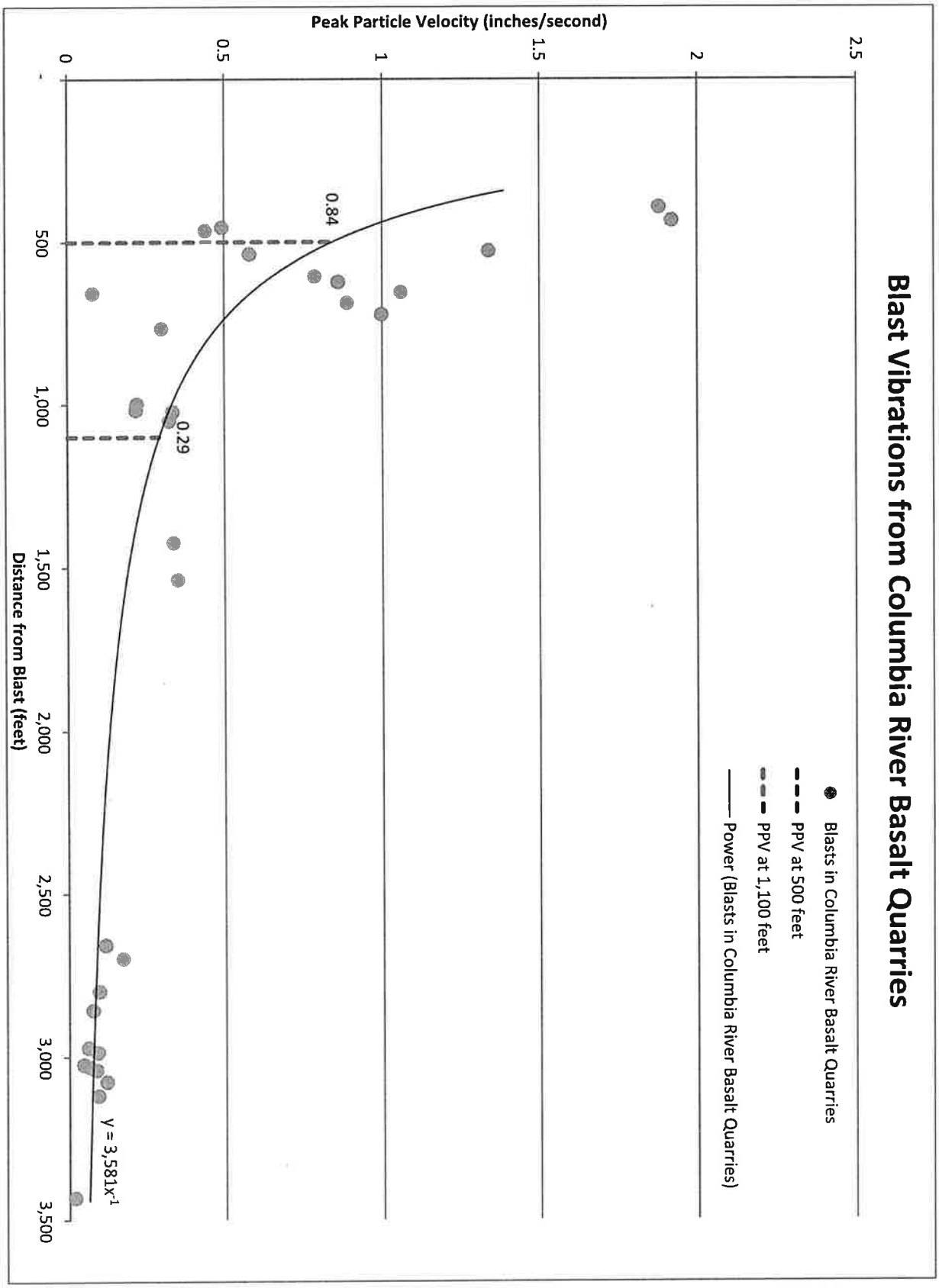
UMATILLA COUNTY, OR
SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.

FIGURE 2

CRP & HAULING, LLC

PROJECT 007.01.01
AUGUST 2023

FULCRUM GEO RESOURCES LLC



FULCRUM GEO RESOURCES	CRP & HAULING, LLC	BLAST VIBRATIONS - COLUMBIA RIVER BASALT QUARRIES	
	PROJECT 007.01.01 AUGUST 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.	FIGURE 3

KITTELSON & ASSOCIATES
851 SW 6th Avenue, Suite 600
Portland, OR 97204
P 503.228.5230

May 22, 2023

Project #: 29134

Robert Waldher and Megan Davchevski
Umatilla County Department of Land Use Planning
216 SE 4th Street
Pendleton, OR 97801

RE: Aggregate Overlay Zone/Asphalt Batch Plant Transportation Assessment

Dear Robert and Megan,

This letter presents a Traffic Impact Analysis supporting a proposed plan map amendment that would add an Aggregate Resource Overlay to approximately 47.6 acres of existing Exclusive Farm Use (EFU) zoned property in Umatilla County.

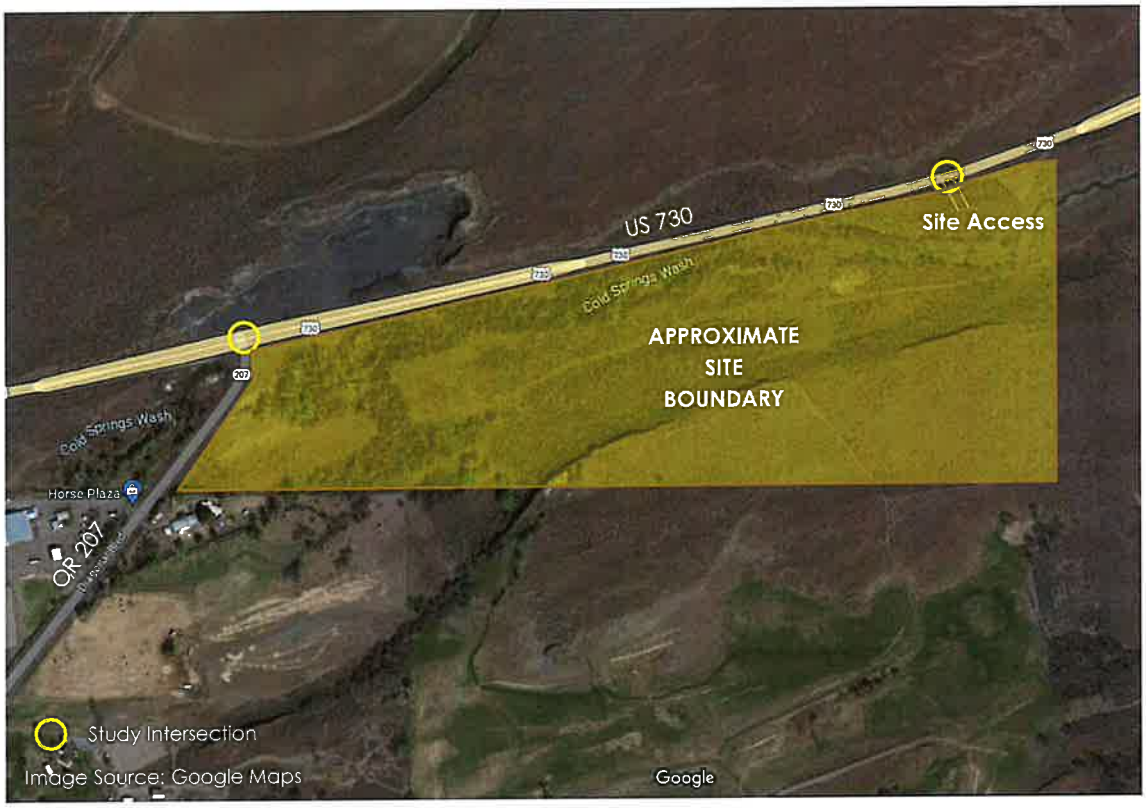
Based on the results of the transportation analysis outlined in this report, the proposed Aggregate Resource Overlay zone and the subsequent development of a proposed aggregate mining/asphalt batch plant operation is not anticipated to result in a significant effect on the surrounding transportation network or require offsite transportation improvements. Additional details of our analyses are summarized herein.

PROJECT BACKGROUND

The 47.6-acre property consists of Tax Lot 400 of Map 5N 29 22 (see Figure 1) and is currently zoned Exclusive Farm Use (EFU). In order to support a proposed aggregate mining and asphalt batch plant operation, the owner is requesting that Umatilla County apply the Aggregate Resource Overlay zone to the subject property.

Modifications to existing zoning designations must be shown to meet the applicable criteria in Oregon Administrative Rule 660-012-0060, also known as the Transportation Planning Rule (TPR). Per the TPR, an analysis of whether the zoning overlay has the potential to create a significant effect to a transportation facility must be reviewed. The following report addresses the TPR requirements and the specific transportation-related impacts of a proposed aggregate mining operation.

Figure 1 – Site Vicinity Map and Study Intersections



STUDY SCOPE & ANALYSIS METHODOLOGY

The proposed land use action is a unique case in that the existing use of the property (agricultural use) already represents a reasonable maximum development scenario under the existing EFU zoning, as the zone typically generates no consistent or measurable peak hour trips. As such, the focus of this analysis is on incremental impacts of the potential allowed uses under the proposed Aggregate Resource Overlay zone.

STUDY SCOPE

This analysis identifies the transportation-related impacts associated with the application of the Aggregate Resource Overlay zone. The study was prepared in accordance with scoping direction from Umatilla County staff. The study scope and overall study area for this project were selected based on an analysis of current and future traffic volumes at study intersections and discussions with County staff. The analysis addresses the following:

- Existing land use and transportation system conditions within the site vicinity;
- Review of regional traffic growth, seasonal traffic patterns and planned transportation improvements;
- Site trip generation and distribution estimates for reasonable worst-case development scenario for the proposed Aggregate Resource Overlay zone;
- Planning horizon year 2043 traffic operations under existing EFU zoning and proposed Aggregate Resource Overlay zone scenarios;
- Transportation system adequacy to accommodate the proposed reasonable worst case development scenarios for the proposed Aggregate Resource Overlay zone;
- Assessment of overlay zone change compliance with the TPR (OAR Section 660-12-060); and,
- Conclusions and recommendations.

STUDY INTERSECTIONS

The study intersections were identified in collaboration with County staff and a review of local and regional transportation infrastructure that could potentially be impacted by the overlay zone and subsequent development. Figure 1 illustrates the location of the study intersections that are listed below. For ease of review, each intersection is referenced within this report using a numerical ID.

1. US 730/OR 207
2. US 730/Proposed Site Access

TRAFFIC ANALYSIS TIME PERIODS

Study intersection operations were analyzed during the weekday morning (intersection peak hour between 7:00-9:00 AM) and evening peak hour (intersection peak hour between 4:00-6:00 PM).

ANALYSIS METHODOLOGY

The unsignalized and signalized intersection operational analyses presented in this report were prepared following *Highway Capacity Manual 7th Edition* (Reference 1) analysis procedures using PTV Vistro software.

APPLICABLE MOBILITY STANDARDS

Intersection operating targets adopted by the Oregon Department of Transportation (ODOT) and Umatilla County are summarized below.

ODOT MOBILITY TARGETS

ODOT uses volume-to-capacity (v/c) ratios to assess intersection operations. Table 6 of the *Oregon Highway Plan* (OHP) provides maximum volume-to-capacity ratio mobility targets for all signalized/roundabout and unsignalized intersections located outside the major metropolitan areas. Table 1 summarizes the v/c ratio that will be used to identify the existing and potential future operational issues at the ODOT owned/maintained US 730/OR 207 intersection.

Table 1 - ODOT Mobility Targets

Intersection	OHP Mobility Target
US 730/OR 207	0.70
US 730 Proposed Site Access	V/C ≤ 0.70 major approach/0.75 minor approach

UMATILLA COUNTY OPERATING STANDARDS

Umatilla County's standards specify that LOS "E" or better is considered acceptable at unsignalized intersections.

EXISTING CONDITIONS TRAFFIC ANALYSIS

The existing conditions analysis identifies field conditions and the current operational, traffic control, and geometric characteristics of the roadways and other transportation facilities within the study vicinity. These conditions will be compared with future year conditions later in this report. Kittelson staff visited the study area and inventoried the existing transportation system to identify lane configurations, traffic control devices, bicycle and pedestrian facilities, transit stops, and geometric features at the study intersections in April of 2023.

SITE CONDITIONS AND ADJACENT LAND USES

The overall site is located on the southeast corner of the US 730/OR 207 intersection, the site frontage continues along the south side of US 730 and the east side of OR 207. The land is currently undeveloped and has historically been used for miscellaneous agricultural purposes. A separate unrelated aggregate mining operation is located opposite the site on the north side of US 730.

TRANSPORTATION FACILITIES

Table 2 summarizes the attributes of key roadways in the site vicinity. Figure 2 illustrates the existing lane configurations and traffic control devices at the study intersection.

Table 2 – Existing Transportation Facilities

Roadway	Jurisdictional Authority	Functional Classification[1]	Number of Auto Lanes	Posed Speed (mph)	Sidewalks Present?	Bike Lanes Present?	On-Street Parking Allowed?
US 730	ODOT	Regional Highway (Freight Route)	2	55	No	No	No
OR 207	ODOT	Regional Highway	2	55	No	No	No

[1]Source: *Oregon Highway Plan*

INTERSECTION CRASH HISTORY

ODOT provided crash records for the study intersection and adjacent highway segment for the five-year period from January 1, 2016 through December 31, 2020. Table 3 summarizes the ODOT crash data. As shown in the table, there was one crash at the study intersection and one crash along the US 730 site frontage, both occurring on the same day when ice was present. *Appendix A contains the crash data summary sheets.*

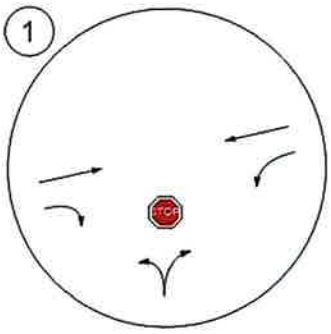
Table 3 - Reported Crash History (January 1, 2016 - December 31, 2020)

Study Intersection	Crash Type					Severity			Total
	Rear End	Turning	Angle	Fixed Object	Other	PDO	Injury	Fatal	
US 730/OR 207	0	0	0	0	1[1]	0	1	0	1
US 730 site frontage	0	0	0	0	1[2]	0	1	0	1

[1]Non-collision overturn (ice), [2] Non-collision (ice)

Figure 2 - Existing Lane Configurations & Traffic Control Devices

Lane Configuration and Traffic Control



EXISTING CONDITIONS

Turning movement counts at the study intersection was conducted on a mid-week day in mid-April 2023. *Appendix B contains the intersection turning movement count sheets.*

SEASONAL ADJUSTMENT

To determine an appropriate seasonal factor, the On-Site ATR method was utilized as outlined in ODOT's *Analysis Procedures Manual* (APM).

On-Site ATR Method

The On-Site ATR Method is used when an Automatic Traffic Recorder (ATR) is within or near the project area. There is one ATR within relatively close proximity of the site. ATR 30-002 is located along US 730 near the US 730/OR 37 intersection approximately 2.5 miles to the east. The ATR was not operational in 2020 and 2021 so data was used from 2015 to 2019 to develop the seasonal adjustment factor. As shown in Table 4, the seasonal factors was calculated as 1.22. This factor was applied to the existing traffic volumes.

Table 4 - Seasonal Adjustment Calculations for ATRs

	2019	2018	2017	2016	2015	Average
ATR 30-002						
Count Month (April)	~~110~~	104	~~95~~	103	102	103
Peak Month	124	126	~~157~~	~~123~~	129	126

- ATR 30-002 Season Adjustment Factor = 126%/103% = 1.22

EXISTING INTERSECTION OPERATIONS

Figure 3 illustrates the seasonally adjusted 2023 existing traffic volumes at the study intersection; Table 5 summarizes the corresponding traffic operations during the weekday AM and PM peak hours (7:40-8:40 AM and 4:00 – 5:00 PM). As shown in Table 5 and detailed in *Appendix C* (which includes the existing conditions operations analysis worksheets), the study intersection operations satisfy applicable ODOT performance targets and County standards during the AM and PM peak hours.

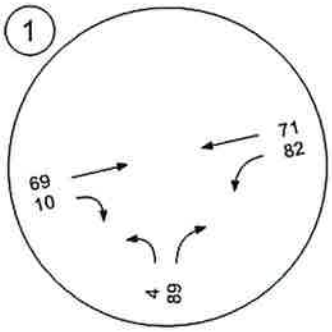
Table 5 – Existing Traffic Conditions

Intersection	Critical Approach	Weekday AM Peak Hour			Weekday PM Peak Hour		
		V/C	Approach Delay (sec)	Approach LOS	V/C	Approach Delay (sec)	Approach LOS
US 730/OR 207	NB	0.13	9.9	A	0.14	10.7	B

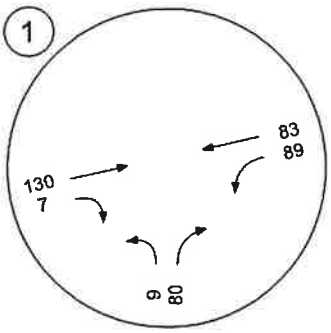
Figure 3 - Existing Traffic Conditions, Weekday AM & PM Peak Hours

Traffic Volume - Base Volume

AM Peak Hour



PM Peak Hour



YEAR 2043 TRAFFIC CONDITIONS

This section of the report contains a detailed assessment of the long-term traffic impacts associated with and without the proposed plan map amendment. More specifically, it evaluates the impacts of an aggregate mining operation which would be allowed under the Aggregate Resource Overlay zone. The analysis of long-term traffic conditions is required by the State's Transportation Planning Rule (TPR, OAR Section 660-12-0060), given that the proposed plan map amendment would require an amendment to an acknowledged land use regulation and may have the potential to significantly affect a transportation facility.

To test for a significant effect and development-related impacts, an analysis of traffic conditions was conducted under the existing EFU land use designation (assuming continued farming use of the site) and the proposed Aggregate Resource Overlay zone (assuming the development of an aggregate mining/asphalt batch plant operation).

Based on the required analysis, the impacts of traffic generated by the potential Aggregate Resource Overlay zone (using the proposed aggregate mining/asphalt batch plant operation as a reasonable worst-case proxy) were examined in the following manner:

- Anticipated future traffic growth patterns were identified for the weekday AM and PM peak hour under the 2043 planning horizon year. This horizon year assumes no overlay zone and is indicative of future conditions with no land use modifications beyond those allowed under the Exclusive Farm Use designation.
- A reasonable worst-case land development scenario (aggregate mining/asphalt batch plant operation) was developed under the proposed Aggregate Resource Overlay zone. Estimates of average daily, weekday AM, and weekday PM peak hour site trips were prepared for the potential Aggregate Resource Overlay zone using the proposed aggregate mining/asphalt batch plant operation.
- A site trip distribution pattern was derived through a review of existing traffic volumes and the site's proximity to the regional and interstate transportation network.
- Weekday AM and PM peak hour site-generated trips from the proposed aggregate mining/asphalt batch plant operations were assigned to the surrounding streets and study intersection.
- Planning horizon year 2043 traffic volumes and operations were analyzed for the weekday AM and PM peak hour under existing background conditions and for the proposed Aggregate Resource Overlay zone designation.

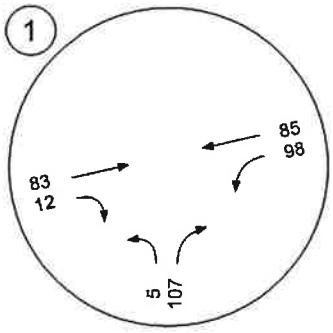
YEAR 2043 EXISTING ZONING SCENARIO TRAFFIC FORECAST

To achieve a reasonable estimate of existing zoning scenario traffic levels during the 2043 planning horizon year, a 1% per year growth rate was applied to the study intersection traffic volumes. This growth rate was derived through a review of ODOT's Future Year Volume tables and other recent traffic studies performed in the area.

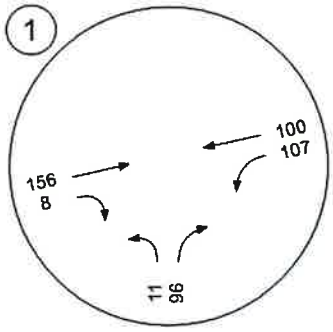
The resulting year 2043 existing zoning scenario traffic volumes forecast for the weekday AM and PM peak hour are illustrated in Figure 4. The volumes shown reflect background traffic levels without any changes to the underlying zoning on the subject site.

Traffic Volume - Base Volume

AM Peak Hour



PM Peak Hour



YEAR 2043 EXISTING ZONING INTERSECTION OPERATIONS

Study intersection operations under the 2043 Existing Zoning Scenario were assessed to understand the base future year operations assuming no changes are made to the site zoning and the land continues to be used for agricultural purposes. Table 6 summarizes the operational analyses for the weekday AM and PM peak hours reflective of anticipated regional and local traffic volume growth. As shown, the study intersection is forecast to continue to operate acceptably during both the weekday AM and PM peak hours. *Appendix D includes the 2043 existing zoning intersection operations analysis worksheets.*

Table 6 – Year 2043 Existing Zoning Traffic Conditions

Intersection	Critical Approach	Weekday AM Peak Hour			Weekday PM Peak Hour		
		V/C	Approach Delay (sec)	Approach LOS	V/C	Approach Delay (sec)	Approach LOS
US 730/OR 207	NB	0.16	10.2	B	0.18	11.3	B

PROPOSED AGGREGATE RESOURCE OVERLAY ZONE

Under the proposed Aggregate Resource Overlay zone, an aggregate mining/asphalt batch plant operation is proposed. This use represents a reasonable worst-case development scenario for the site considering its rural location. Based on discussions with the applicant/owner, anticipated operational features of the proposed aggregate mining/asphalt batch plant operation include:

- A rock mining operation consisting of the following activities:
  - Extraction of aggregate
  - Delivery of aggregate to off-site locations
  - Pick-up of aggregate by customers
- An onsite asphalt batch plant consisting of the following:
  - Production of asphalt using aggregate mined at the site
  - Delivery of asphalt to off-site locations
  - Pick-up of asphalt by customers

In recognition of these unique characteristics and the fact that there are no comparable land uses in the *Trip Generation Manual*, detailed discussions were had with the applicant to identify the trip making potential of such an operation. *Appendix E* contains a detailed breakdown of the mining and asphalt operations and the associated trip making characteristics. Table 7 summarizes the resulting number of new trips that can be expected on a typical weekday and during the weekday AM and PM peak hours.

Table 7 – Aggregate Mining/Asphalt Batch Plant Trip Generation Estimates

Land Use	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
		Total	In	Out	Total	In	Out
Aggregate Mining/ Asphalt Batch Plant	356	34	17	17	6	0	6

SITE TRIP DISTRIBUTION AND ASSIGNMENT

The site-generated trips from the proposed aggregate mining/asphalt batch plant operation were distributed onto the study area roadway system via an assumed future driveway connection east of the US 730/OR 207 intersection. This access connection was assumed to be a two-lane driveway that would be stop-controlled. The regional distribution was determined via a combination of existing traffic patterns and destinations afforded by the regional transportation facilities within the site vicinity. Figure 5 illustrates the resulting trip distribution pattern and site-generated trip assignment at the study intersections.

YEAR 2043 OVERLAY ZONE INTERSECTION OPERATIONS

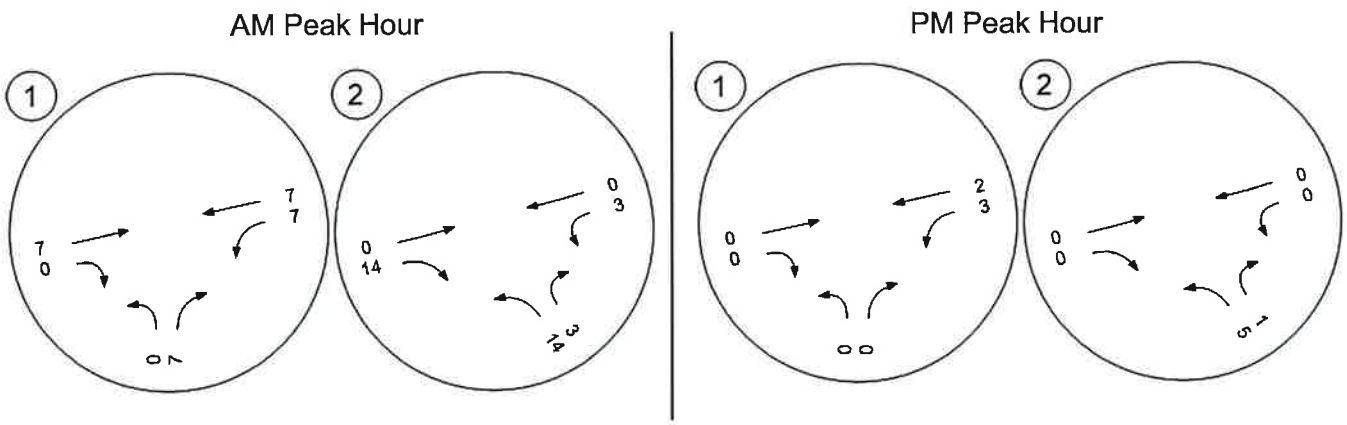
To reflect conditions anticipated under the proposed Aggregate Resource Overlay zone, the weekday AM and PM peak hour site generated traffic volumes shown in Figure 5 were added to the existing zoning traffic volumes shown in Figure 4 to arrive at the cumulative 2043 traffic volumes shown in Figure 6.

Operations of the study intersections under 2043 conditions (with the site converted to an aggregate mining operation) are summarized in Table 8 for the weekday AM and PM peak hours. As shown, all of the study intersections are forecast to continue to operate acceptably during both the weekday AM and PM peak hours. *Appendix F includes the 2043 total traffic conditions intersection operations analysis worksheets.*

Table 8 – Year 2043 Aggregate Overlay Zoning Traffic Conditions

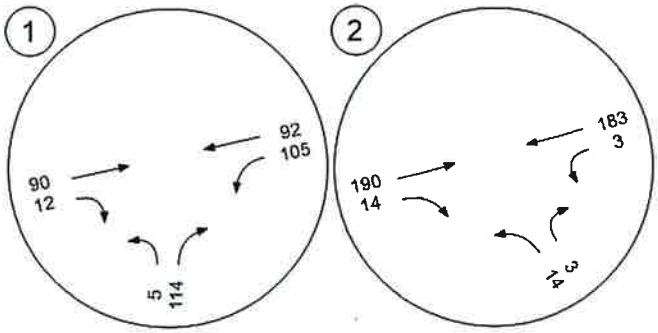
Intersection	Critical Approach	Weekday AM Peak Hour			Weekday PM Peak Hour		
		V/C	Approach Delay (sec)	Approach LOS	V/C	Approach Delay (sec)	Approach LOS
US 730/OR 207	NB	0.17	10.3	B	0.18	11.3	B
US 730/ Proposed Site Access	NB	0.03	11.2	B	0.01	12.0	B

Traffic Volume - Net New Site Trips

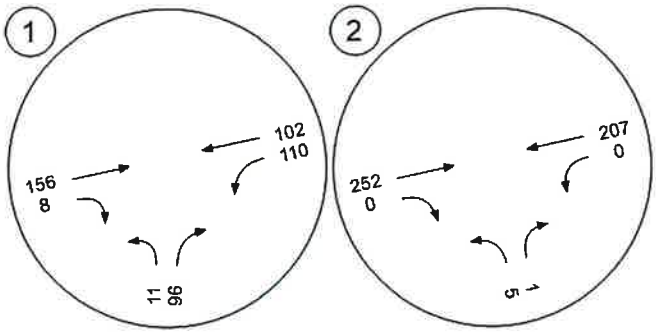


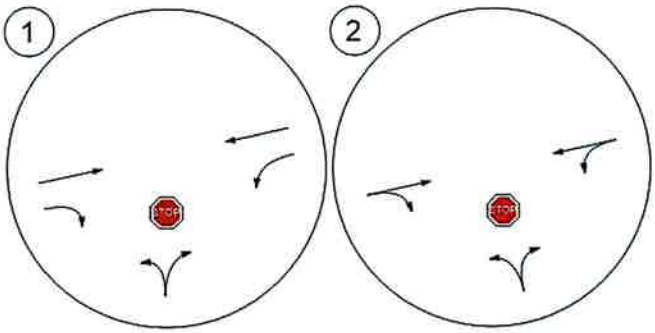
Traffic Volume - Future Total Volume

AM Peak Hour



PM Peak Hour





TRANSPORTATION PLANNING RULE COMPLIANCE

This section addresses the Oregon Administrative Rule Section 660-12-0060 of the Oregon Transportation Planning Rule (TPR) requirements for the proposed zone change.

TRANSPORTATION PLANNING RULE

OAR Section 660-12-0060 Plan and Land Use Regulation Amendments of the TPR sets forth the criteria for evaluating plan and land use regulation amendments. The criteria establish the determination of significant effect on a transportation system resulting from a land use action; where a significant effect is identified, the criteria establish the means for achieving compliance. The relevant portion of this section of the TPR is reproduced below in italics followed by the response for this project in standard text.

660-12-0060 Plan and Land Use Regulation Amendments

(1) If an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility, then the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule. A plan or land use regulation amendment significantly affects a transportation facility if it would:

(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);

Response: The proposed Aggregate Resource Overlay zone will not require or result in any changes to the functional classification of any transportation facility in the vicinity of the site.

(b) Change standards implementing a functional classification system; or

Response: The proposed Aggregate Resource Overlay zone will not require changes to the standards that implement the functional classification system.

(c) Result in any of the effects listed in paragraphs (A) through (C) of this subsection. If a local government is evaluating a performance standard based on projected levels of motor vehicle traffic, then the results must be based on projected conditions measured at the end of the planning period identified in the adopted TSP. As part of evaluating projected conditions, the amount of traffic projected to be generated within the area of the amendment may be reduced if the amendment includes an enforceable, ongoing requirement that would demonstrably limit traffic generation, including, but not limited to, transportation demand management. This reduction may diminish or completely eliminate the significant effect of the amendment.

(A) Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;

Response: The proposed Aggregate Resource Overlay zone would result in future traffic volumes that remain consistent with the functional classifications of the roadways in the study area.

(B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan; or

Response: The proposed Aggregate Resource Overlay zone would not degrade operations of the study intersections below adopted performance targets.

SITE ACCESS

As noted herein, the study intersections and site access can operate acceptably assuming the development of an aggregate mining/asphalt batch plant operation. To support a specific land use application for the aggregate mining/asphalt batch plant operation, the following section includes a more detailed assessment of the proposed site access to US 730 including turn lane, sight distance, and traffic control needs.

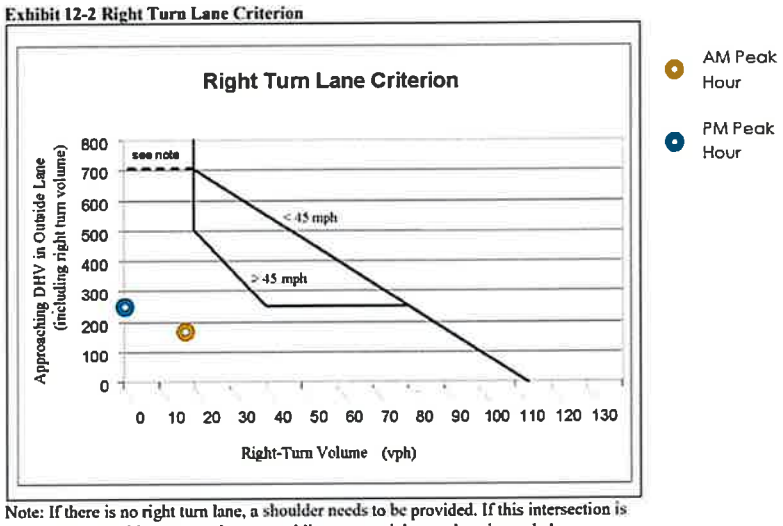
Turn Lane Assessment

To accommodate future traffic movements to the site access road, the need for left- and right-turn lanes were evaluated for the proposed US 730/Site Access intersection.

RIGHT-TURN LANE WARRANT ANALYSIS

The proposed US 730/ Site Access intersection was evaluated to determine if a right-turn lane on the eastbound US 730 approach is appropriate to accommodate future site-generated traffic volumes. The procedures used to determine the need for a right-turn lane were based on ODOT's right-turn lane criterion. Based on this analysis, it was determined that ODOT's volume-based right-turn lane volume criterion at the US 730/ Site Access intersection is not met under the 2043 Total traffic scenarios. Exhibit 1 contains the right-turn lane criterion.

Exhibit 1 -US 730 Site Access Right-Turn Lane Assessment (Source: Analysis Procedures Manual)



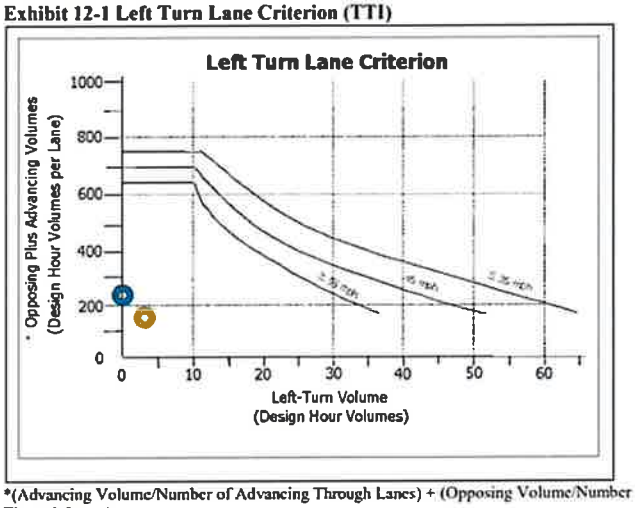
Note: If there is no right turn lane, a shoulder needs to be provided. If this intersection is in a rural area and is a connection to a public street, a right turn lane is needed.

LEFT-TURN LANE WARRANT ANALYSIS

The proposed US 730/ Site Access intersection was evaluated to determine if a left-turn lane on the westbound US 730 approach is appropriate to accommodate future site-generated traffic volumes. The procedures used to determine the need for a left-turn lane were based on ODOT's left-turn lane criterion. Based on this analysis, it was determined that ODOT's volume-based left-turn lane volume criterion at the US 730/ Site Access intersection is not met under the 2043 Total traffic scenarios. Exhibit 2 contains the left-turn lane criterion.

Exhibit 2 US 730 Site Access Left-Turn Lane Assessment (Source: Analysis Procedures Manual)

Exhibit 12-1 Left Turn Lane Criterion (TTI)



*(Advancing Volume/Number of Advancing Through Lanes) + (Opposing Volume/Number of Opposing Through Lanes)
Opposing left turns are not counted as opposing volumes

Preliminary Intersection Sight Distance

Intersection sight distance (ISD) was evaluated at the proposed site access driveway to US 730. For this assessment, preliminary intersection sight distance measurements were evaluated using the recommended observation reference points[1] outlined in *A Policy on Geometric Design of Highways and Streets*. As noted in *A Policy on Geometric Design of Highways and Streets*, the minimum passenger car intersection sight distance requirement for a 55-mph design speed is 610 feet (left-turn from stop) and 530 feet (right-turn from stop). For combination trucks, the minimum intersection sight distance requirement for a 55-mph design speed is 930 (left-turn from stop) and 850 feet (right-turn from stop).

From the approximate location of the proposed site access driveway approach to US 730, there is adequate sight distance (>850 feet) looking to the west and adequate sight distance (>930 feet) looking to the east.

[1] For passenger cars, an eye height of 3.5 feet, an object height of 3.5 feet, and an observation point located 14.5 feet from the edge of the cross-street travel lane. For combination trucks, an eye height of 7.6 feet, an object height of 3.5 feet, and an observation point located 14.5 feet from the edge of the cross-street travel lane.

To provide and maintain adequate intersection sight distance post development, it is recommended that any proposed signage or landscaping be appropriately located such that the minimum intersection sight distance can be maintained.

Site Access Traffic Control

To accommodate future traffic movements on the site access road, a STOP (R1-1) sign should be installed on the northbound approach to US 730 in accordance with ODOT and County standards and the *Manual on Uniform Traffic Control Devices (MUTCD)* in conjunction with site development.

CONCLUSIONS

Based on the results of the transportation analysis outlined in this report, the proposed Aggregate Resource Overlay zone and the assumed aggregate mining/asphalt batch plant operation is not anticipated to result in a significant effect on the surrounding transportation network or require offsite mitigation. To support the land use application for an aggregate mining/asphalt batch plant operation, the following is recommended:

- Construct a new site access roadway connection to US 730. A STOP (R1-1) sign should be installed on the northbound approach to US 730 in accordance with ODOT and County standards and the *Manual on Uniform Traffic Control* Devices (MUTCD) in conjunction with site development.
- To provide and maintain adequate intersection sight distance at the site access road connection to US 730, locate any proposed signage or landscaping appropriately such that the minimum intersection sight distance can be maintained.

We trust this traffic impact analysis adequately addresses impacts associated with the proposed Aggregate Resource Overlay Zone and proposed aggregate mining/asphalt batch plant operation. Please contact us if you have any questions or comments regarding the contents of this report or the analyses performed.

Sincerely,
KITTELSON & ASSOCIATES, INC.

Matt Hughart
Matt Hughart, AICP
Principal Planner

A. Kauffman
Alec Kauffman
Analyst

Julia Kuhn
Julia Kuhn, P.E.
Senior Principal Engineer

Appendix A Crash Data

OREGON DEPARTMENT OF TRANSPORTATION - POLICY, DATA AND ANALYSIS DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Intersectional Crashes at US-730, Columbia River Hwy (#002) & OR-207, Hermiston Hwy (#333)
January 1, 2016 through December 31, 2020

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR:														
TOTAL														
FINAL TOTAL														

Disclaimers: *Effective 2016,* ***collection of "Property Damage Only" (PDO) crash data elements was reduced for vehicles and participants.*** *Age, Gender, License, Error and other elements are no longer available for PDO crash reporting. Please keep this in mind when comparing 2016 PDO crash data to prior years.*

A higher number of crashes may be reported as of 2011 compared to prior years. This does not necessarily reflect an increase in annual crashes. The higher numbers may result from a change to an internal departmental process that allows the Crash Analysis and Reporting Unit to add previously unavailable, non-fatal crash reports to the annual data file. Please be aware of this change when comparing pre-2011 crash statistics. For all disclaimers, see https://www.oregon.gov/ODOT/Data/documents/Crash_Data_Disclaimers.pdf.

OREGON DEPARTMENT OF TRANSPORTATION - POLICY, DATA AND ANALYSIS DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Intersectional Crashes at US-730, Columbia River Hwy from Milepoint 191.40 through Milepoint 192.00.
January 1, 2016 through December 31, 2020

COLLISION TYPE	FATAL CRASHES	NON-FATAL CRASHES	PROPERTY DAMAGE ONLY	TOTAL CRASHES	PEOPLE KILLED	PEOPLE INJURED	TRUCKS	DRY SURF	WET SURF	DAY	DARK	INTER-SECTION	INTER-SECTION RELATED	OFF-ROAD
YEAR: 2017														
NON-COLLISION	0	1	0	1	0	1	0	0	1	1	0	0	0	1
2017 TOTAL	0	1	0	1	0	1	0	0	1	1	0	0	0	1
FINAL TOTAL	0	1	0	1	0	1	0	0	1	1	0	0	0	1

Disclaimers: *Effective 2016,* ***collection of "Property Damage Only" (PDO) crash data elements was reduced for vehicles and participants.*** *Age, Gender, License, Error and other elements are no longer available for PDO crash reporting. Please keep this in mind when comparing 2016 PDO crash data to prior years.*

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OREGON DEPARTMENT OF TRANSPORTATION - POLICY, DATA AND ANALYSIS DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CONTINUOUS SYSTEM CRASH LISTING

002 COLUMBIA RIVER

Intersectional Crashes at US-730, Columbia River Hwy from Milepoint 191.40 through Milepoint 192.00.
January 1, 2016 through December 31, 2020

SER# / INVEST / UNLOC?	SPED	ALC	DRUGS	SCHL	WORK	DATE / DAY/TIME / LAT/LONG	COUNTY / CITY / URBAN AREA	RD# / CMPT/MLG / MILEPNT / LRS	FC / CONN # / FIRST STREET / SECOND STREET / INTERSECTION SEQ#	RD CHAR / DIRECT / LOCTN	INT-TYP (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CNTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH TYP / COLL TYP / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / VEH TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	AGE	SEX	LICNS RES	PED LOC	ERROR	ACTN	EVENT	CAUSE
00171	Y	N	N	N	N	02/04/2017	UMATILLA	1 06		STRGHT		N	Y	CLD	OVERTURN	01	NONE 0	STRGHT										124	01
STATE		N				Sat 7A		MN 0		UN	(NONE)	UNKNOWN	N	ICE	NCOL		PRVTE	E W									000	124	00
								191.59		01			N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	27	M	OTH-Y		047,080,081	017		01
No	45	54	11.37	-119	10	9.45		000200100S00			(02)													N-RES					

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
014	EMR V PKD	EMERGENCY VEHICLE LEGALLY PARKED IN THE ROADWAY
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED OR DISABLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSUING OR ATTEMPTING TO STOP A VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
046	W/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. WITH TRAFFIC
047	A/ TRAFIC	NON-MOTORIST WALKING, RUNNING, RIDING, ETC. FACING TRAFFIC
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF ROAD
052	MERGING	MERGING

ACTION CODE TRANSLATION LIST

ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
055	SPRAY	BLINDED BY WATER SPRAY
088	OTHER	OTHER ACTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST

CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS SIG	DISREGARDED TRAFFIC SIGNAL
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD; STRADDLING
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROAD; WRONG SIDE DIVIDED RO
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
17	ILLNESS	PHYSICAL ILLNESS
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST NOT VISIBLE; NON-REFLECTIVE CLOTHIN
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
28	NM INATT	NON-MOTORIST INATTENTION
29	F AVOID	FAILED TO AVOID VEHICLE AHEAD
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (PER PAR)
33	RECKLESS	RECKLESS DRIVING (PER PAR)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)
40	VIEW OBS	VIEW OBSCURED
50	USED MDN	IMPROPER USE OF MEDIAN OR SHOULDER
51	FAIL LN	FAILED TO MAINTAIN LANE
52	OFF RD	RAN OFF ROAD

COLLISION TYPE CODE TRANSLATION LIST

COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST

CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1 L-TURN	FROM OPPOSITE DIRECTION-ONE LEFT TURN,ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED
4	EXP	EXPIRED
8	N-VAL	OTHER NON-VALID LICENSE
9	UNK	UNKNOWN IF DRIVER WAS LICENSED AT TIME OF CRASH

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	INATTENTION (FAILURE TO DIM LIGHTS PRIOR TO 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING/EXITING PARKED POSITION W/ INSUFFICIENT CLEARANCE; OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD (2-WAY UNDIVIDED ROADWAYS)

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TOO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY; WRONG SIDE DIVIDED ROAD
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION, NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION, TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WORK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAY ON RD	STANDING OR LYING IN ROADWAY
071	NM IMP USE	IMPROPER USE OF TRAFFIC LANE BY NON-MOTORIST
073	ELUDING	ELUDING / ATTEMPT TO ELUDE
079	F NEG CURV	FAILED TO NEGOTIATE A CURVE
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER-CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	INDRCT PED	PEDESTRIAN INDIRECTLY INVOLVED (NOT STRUCK)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	INDRCT BIK	PEDALCYCLIST INDIRECTLY INVOLVED (NOT STRUCK)
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER OR NON-MOTORIST BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON/OFF STOPPED/PARKED VEHICLE (OCCUPANTS ONLY; MUST HAVE PHYSICAL CONTACT W/ VEHI(
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BAR OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING OR PARAPET (ON BRIDGE OR APPROACH)
047	BR ABUTMNT	BRIDGE ABUTMENT (INCLUDED "APPROACH END" THRU 2013)
048	BR COLMN	BRIDGE PILLAR OR COLUMN
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL BRIDGE STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, FALLEN OR FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRGL PVMT	OTHER BUMP (NOT SPEED BUMP), POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJECT (HIGHWAY SIGN, SIGNAL HEAD, ETC.); NOT BRIDGE
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	LO-HI EDGE	LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ FRM MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY ROCK OR OTHER MOVING OR FLYING OBJECT (NOT SET IN MOTION BY VEHICLE)
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTHR CRASH	CRASH RELATED TO ANOTHER SEPARATE CRASH
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
091	BUILDING	BUILDING OR OTHER STRUCTURE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE
093	CELL PHONE	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL WTNSD	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	FIXED OBJECT, UNKNOWN TYPE.
101	OTHER OBJ	NON-FIXED OBJECT, OTHER OR UNKNOWN TYPE
102	TEXTING	TEXTING
103	WZ WORKER	WORK ZONE WORKER
104	ON VEHICLE	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
108	OFFICER	LAW ENFORCEMENT / POLICE OFFICER
109	SUB-BIKE	"SUB-BIKE": PEDALCYCLIST INJURED SUBSEQUENT TO COLLISION, ETC.
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR OR TROLLEY RIGHT-OF-WAY

EVENT CODE TRANSLATION LIST

EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
115	DSTRCT GPS	DISTRACTED BY NAVIGATION SYSTEM OR GPS DEVICE
116	DSTRCT OTH	DISTRACTED BY OTHER ELECTRONIC DEVICE
117	RR GATE	RAIL CROSSING DROP-ARM GATE
118	EXPNSN JNT	EXPANSION JOINT
119	JERSEY BAR	JERSEY BARRIER
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
121	FENCE	FENCE
123	OBJ IN VEH	LOOSE OBJECT IN VEHICLE STRUCK OCCUPANT
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE (NOT GRAVEL)
125	SHLDR	SHOULDER GAVE WAY
126	BOULDER	ROCK(S), BOULDER (NOT GRAVEL; NOT ROCK SLIDE)
127	LAND SLIDE	ROCK SLIDE OR LAND SLIDE
128	CURVE INV	CURVE PRESENT AT CRASH LOCATION
129	HILL INV	VERTICAL GRADE / HILL PRESENT AT CRASH LOCATION
130	CURVE HID	VIEW OBSCURED BY CURVE
131	HILL HID	VIEW OBSCURED BY VERTICAL GRADE / HILL
132	WINDOW HID	VIEW OBSCURED BY VEHICLE WINDOW CONDITIONS
133	SPRAY HID	VIEW OBSCURED BY WATER SPRAY
134	TORRENTIAL	TORRENTIAL RAIN (EXCEPTIONALLY HEAVY RAIN)
135	RAIL OCC	INJURED OCCUPANT OF RAILWAY TRAIN, LIGHT RAIL, STREET CAR OR CABLE CAR

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION
01	RURAL PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL PRINCIPAL ARTERIAL - OTHER
06	RURAL MINOR ARTERIAL
07	RURAL MAJOR COLLECTOR
08	RURAL MINOR COLLECTOR
09	RURAL LOCAL
11	URBAN PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN PRINCIPAL ARTERIAL - OTHER
16	URBAN MINOR ARTERIAL
17	URBAN MAJOR COLLECTOR
18	URBAN MINOR COLLECTOR
19	URBAN LOCAL
78	UNKNOWN RURAL SYSTEM
79	UNKNOWN RURAL NON-SYSTEM
98	UNKNOWN URBAN SYSTEM
99	UNKNOWN URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION
0	MAINLINE STATE HIGHWAY
1	COUPLET
3	FRONTAGE ROAD
6	CONNECTION
8	HIGHWAY - OTHER

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY (K)
2	INJA	SUSPECTED SERIOUS INJURY (A)
3	INJB	SUSPECTED MINOR INJURY (B)
4	INJC	POSSIBLE INJURY (C)
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE
9	NONE	NO APPARENT INJURY (O)

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
0	REGULAR MILEAGE
T	TEMPORARY
Y	SPUR
Z	OVERLAPPING

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY
9	PARKNG	PARKING MANEUVER

NON-MOTORIST LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH OR PARKING LANE
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
13	AT INTERSECTION - IN BIKE LANE
14	NOT AT INTERSECTION - IN BIKE LANE
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
16	NOT AT INTERSECTION - IN PARKING LANE
18	OTHER, NOT IN ROADWAY
99	UNKNOWN LOCATION

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYA
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OB
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	OTHR	OTHER TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVRHD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
040	AUTO. FLAG	AUTOMATED FLAGGER ASSISTANCE DEVICE
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING
095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
00	PDO	NOT COLLECTED FOR PDO CRASHES
01	PSNGR CAR	PASSENGER CAR, PICKUP, LIGHT DELIVERY, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, SEATED MOTOR SCOOTER (REV. 2022)
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE, DIRT BIKE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER (STANDING)
15	SNOWMOBILE	SNOWMOBILE
16	MTRZ/EBIKE	MOTORIZED OR ELECTRIC BICYCLE (E-BIKE) (EFF.2022)
17	UTV	UTV SIDE BY SIDE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

099	UNKNOWN	UNKNOWN OR NOT DEFINITE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

OREGON DEPARTMENT OF TRANSPORTATION - POLICY, DATA AND ANALYSIS DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
STATE HIGHWAY SYSTEM CRASH LOCATIONS - DRIVER BEHAVIOR FORMAT

Intersectional Crashes at US-730, Columbia River Hwy from Milepoint 191.40 through Milepoint 192.00.
January 1, 2016 through December 31, 2020

SERIAL NO	DATE	TIME	DAY	*COUNTY OR CITY NAME	COMPNT	MLGTYP	CRASH LOCATION	COLL TYPE	EVENT	CAUSE	ERROR	SURF	TOT VEH	VEHICLE TYP/OWN #1	VEHICLE TYP/OWN #2	--PEOPLE-- KILL	INJ A	INJ B	INJ C	SPEED
00171	02/04/2017	7A	SA	*Umatilla	MN	R	HY 002, COLUMBIA RIVER AT MP 191.59	NCOL	124	01	047,080,081	ICE	1	011		0	1	N	Y	

VEHICLE OWNERSHIP CODES

Code	Short Description	Long Description
0	N/A	Not collected for PDO Crashes
1	PRVTE	Private
2	GOVMT	Government
3	PUBLC	Public
4	RENTL	Rental vehicle
5	STOLN	Stolen vehicle
9	UNKN	Unknown ownership

VEHICLE TYPE CODES

Code	Short Description	Long Description
00	PDO	Not collected for PDO Crashes
01	PSNGR CAR	Passenger car, pickup, light delivery, etc.
02	BOBTAIL	Truck tractor with no trailers (bobtail)
03	FARM TRCTR	Farm tractor or self-propelled farm equipment
04	SEMI TOW	Truck Tractor with trailer/mobile home in tow
05	TRUCK	Truck with non-detachable bed, panel, etc.
06	MOPED	Moped, minibike, seated motor scooter (rev. 2022)
07	SCHL BUS	School bus (includes van)
08	OTH BUS	Other bus
09	MTRCYCLE	Motorcycle, dirt bike
10	OTHER	Other: forklift, backhoe, etc.
11	MOTRHOME	Motorhome
12	TROLLEY	Motorized Street Car/Trolley (no rails/wires)
13	ATV	ATV
14	MTRSCTR	Motorized scooter (standing)
15	SNOWMOBILE	Snowmobile
16	MTRZ/EBIKE	Motorized or Electric bicycle (E-bike) (eff.2022)
17	UTV	UTV Side by Side
99	UNKNOWN	Unknown vehicle type

CAUSE CODES

Code	Short Description	Medium Description	Long Description	Code Termination Date
00	NO CODE	NO CODE APPLICABLE	No cause associated at this level	
01	TOO-FAST	TOO FAST FOR COND	Too fast for conditions (not exceed posted speed)	
02	NO-YIELD	FAILED YIELD ROW	Did not yield right-of-way	
03	PAS-STOP	PASSED STOP SIGN	Passed stop sign or red flasher	
04	DIS SIG	DISREGRD TRAF SIGNAL	Disregarded traffic signal	
05	LEFT-CTR	LEFT OF CTR/STRADDLE	Drove left of center on two-way road; straddling	
06	IMP-OVER	IMPROPER PASSING	Improper overtaking	
07	TOO-CLOS	FOLLOW TOO CLOSE	Followed too closely	
08	IMP-TURN	IMPROPER TURN	Made improper turn	
09	DRINKING	ALC OR DRUGS	Alcohol or Drug Involved	12/31/2002
10	OTHR-IMP	OTHER DRIVE ERR	Other improper driving	
11	MECH-DEF	MECH DEFECT	Mechanical defect	
12	OTHER	OTHER	Other (not improper driving)	
13	IMP LN C	IMP LANE CHANGE	Improper change of traffic lanes	
14	DIS TCD	DISRG OTHR TCD	Disregarded other traffic control device	
15	WRNG WAY	WRONG WAY / 1-WAY RD	Wrong way on one-way road; wrong side divided road	
16	FATIGUE	DRIVER FATIGUED	Driver drowsy/fatigued/sleepy	
17	ILLNESS	PHYSICAL ILLNESS	Physical illness	
18	IN RDWY	ILLEGALLY IN RDWY	Non-motorist illegally in roadway	
19	NT VISBL	NOT VISIBLE	Non-motorist not visible; non-reflective clothing	
20	IMP PKNG	IMPROPER PARKING	Vehicle improperly parked	
21	DEF STER	DEFECTIVE STEERING	Defective steering mechanism	
22	DEF BRKE	DEFECTIVE BRAKES	Inadequate or no brakes	
24	LOADSHFT	LOAD SHIFTED	Vehicle lost load or load shifted	
25	TIREFAIL	TIRE FAILURE	Tire Failure	
26	PHANTOM	PHANTOM VEHICLE	Phantom / Non-contact Vehicle	
27	INATTENT	INATTENTION	Inattention	
28	NM INATT	NON-MTRST INATTENT	Non-Motorist Inattention	
29	F AVOID	FAIL AVOID VEH AHEAD	Failed to avoid vehicle ahead	
30	SPEED	EXCED POSTED SPEED	Driving in excess of posted speed	
31	RACING	SPEED RACING	Speed Racing (per PAR)	
32	CARELESS	CARELESS DRIVING	Careless Driving (per PAR)	
33	RECKLESS	RECKLESS DRIVING	Reckless Driving (per PAR)	
34	AGGRESV	AGGRESSIVE DRIVING	Aggressive Driving (per PAR)	
35	RD RAGE	ROAD RAGE	Road Rage (per PAR)	
40	VIEW OBS	VIEW OBSCURED	View obscured	
50	USED MDN	IMP USE MEDIAN/SHLDR	Improper use of median or shoulder	
51	FAIL LN	F MAINT LANE	Failed to maintain lane	12/31/2015
52	OFF RD	RAN OFF RD	Ran off road	12/31/2015

ERR CODES

Code	Short Description	Medium Description	Long Description
000	NONE	NO ERROR	No error
001	WIDE TRN	WIDE TURN	Wide turn
002	CUT CORN	CUT CORNER	Cut corner on turn
003	FAIL TRN	F OBEY TRN	Failed to obey mandatory traffic turn signal, sign or lane markings
004	L IN TRF	LTRN FNT TRAF	Left turn in front of oncoming traffic
005	L PROHIB	LTRN PROHIB	Left turn where prohibited
006	FRM WRNG	T FRM WRNG LN	Turned from wrong lane
007	TO WRONG	T TO WRONG LN	Turned into wrong lane
008	ILLEG U	ILLEG U-TURN	U-turned illegally
009	IMP STOP	IMP STOP	Improperly stopped in traffic lane
010	IMP SIG	IMP/FAIL SIG	Improper signal or failure to signal
011	IMP BACK	IMP BACKING	Backing improperly (not parking)
012	IMP PARK	IMP PARKED	Improperly parked
013	UNPARK	IMP STRT PARK	Improper start leaving parked position
014	IMP STRT	IMP STRT STOP	Improper start from stopped position
015	IMP LGHT	IMP/NO LIGHTS	Improper or no lights (vehicle in traffic)
016	INATTENT	INATTENTION	Inattention (Failure to Dim Lights prior to 4/1/97)
017	UNSF VEH	DR UNSAFE VEH	Driving unsafe vehicle (no other error apparent)
018	OTH PARK	PRK MAN N/CLR	Entering/exiting parked position w/ insufficient clearance; other improper parking maneuver
019	DIS DRIV	DISRG DR SIG	Disregarded other driver's signal
020	DIS SGNL	DISRG TRF SIG	Disregarded traffic signal
021	RAN STOP	DISRG STP SGN	Disregarded stop sign or flashing red
022	DIS SIGN	DISRG WRN SGN	Disregarded warning sign, flares or flashing amber
023	DIS OFCR	DISRG POL/FLG	Disregarded police officer or flagman
024	DIS EMER	DISRG SIR/EMR	Disregarded siren or warning of emergency vehicle
025	DIS RR	DISRG RR SIG	Disregarded RR signal, RR sign, or RR flagman
026	REAR-END	F AVOID STP V	Failed to avoid stopped or parked vehicle ahead other than school bus
027	BIKE ROW	F/YLD ROW BIK	Did not have right-of-way over pedalcyclist
028	NO ROW	NO R-O-W	Did not have right-of-way
029	PED ROW	F/YLD ROW PED	Failed to yield right-of-way to pedestrian
030	PAS CURV	PASS ON CURVE	Passing on a curve
031	PAS WRNG	PASS WRNG SID	Passing on the wrong side
032	PAS TANG	PASS TANGENT	Passing on straight road under unsafe conditions
033	PAS X-WK	PASS STP4PED	Passed vehicle stopped at crosswalk for pedestrian
034	PAS INTR	PASS AT INTER	Passing at intersection
035	PAS HILL	PASS ON HILL	Passing on crest of hill
036	N/PAS ZN	PASS N/PASSNG	Passing in "No Passing" zone
037	PAS TRAF	PASS ONC TRAF	Passing in front of oncoming traffic
038	CUT-IN	CUTTING IN	Cutting in (two lanes - two way only)
039	WRNGSIDE	DR WRONG SIDE	Driving on wrong side of the road (2-way undivided roadways)
040	THRU MED	DR THRU MEDN	Driving through safety zone or over island
041	F/ST BUS	F/STP SCHLBUS	Failed to stop for school bus
042	F/SLO MV	F/SLO SLO VEH	Failed to decrease speed for slower moving vehicle
043	TOO CLOSE	FOLLW TO CLOS	Following too closely (must be on officer's report)
044	STRDL LN	STRD/DR WRNG	Straddling or driving on wrong lanes
045	IMP CHG	IMP LANE CHG	Improper change of traffic lanes

Code	Short Description	Medium Description	Long Description
046	WRNG WAY	WRNG WY/1 WAY	Wrong way on one-way roadway; wrong side divided road
047	BASCRULE	V BASIC RULE	Driving too fast for conditions (not exceeding posted speed)
048	OPN DOOR	OPN DOOR TRAF	Opened door into adjacent traffic lane
049	IMPEDING	IMPEDING TRAF	Impeding Traffic
050	SPEED	SPEED	Driving in excess of posted speed
051	RECKLESS	RECKLSS DRVNG	Reckless driving (per PAR)
052	CARELESS	CARELSS DRVNG	Careless driving (per PAR)
053	RACING	RACING	Speed Racing (per PAR)
054	X N/SGNL	X-INT NO SGNL	Crossing at intersection, no traffic signal present
055	X W/SGNL	X-INT W/ SGNL	Crossing at intersection, traffic signal present
056	DIAGONAL	X-INT DIAGNL	Crossing at intersection - diagonally
057	BTWN INT	X-BTWN INTER	Crossing between intersections
059	W/TRAF-S	W SHLD W/TRAF	Walking, running, riding, etc., on shoulder WITH traffic
060	A/TRAF-S	W SHLD A/TRAF	Walking, running, riding, etc., on shoulder FACING traffic
061	W/TRAF-P	W PAVE W/TRAF	Walking, running, riding, etc., on pavement WITH traffic
062	A/TRAF-P	W PAVE A/TRAF	Walking, running, riding, etc., on pavement FACING traffic
063	PLAYINRD	PLAY IN RDWY	Playing in street or road
064	PUSH MV	PUSH MV IN RD	Pushing or working on vehicle in road or on shoulder
065	WORK IN RD	WORK IN RD	Working in roadway or along shoulder
070	LAY ON RD	LYING IN RD	Standing or lying in roadway
071	NM IMP USE	N-M IMP USE	Improper use of traffic lane by non-motorist
073	ELUDING	ELUDING	Eluding / Attempt to elude
079	F NEG CURV	FAIL NEG CURV	Failed to negotiate a curve
080	FAIL LN	F MAINT LANE	Failed to maintain lane
081	OFF RD	RAN OFF RD	Ran off road
082	NO CLEAR	MISJUDGE CLR	Driver misjudged clearance
083	OVRSTEER	OVERSTEER	Over-correcting
084	NOT USED	NOT USED	Code not in use
085	OVRLOAD	OVERLOAD	Overloading or improper loading of vehicle with cargo or passengers
097	UNA DIS TC	UNA DISRG TCD	Unable to determine which driver disregarded traffic control device

EVENT CODES

Code	Short Description	Medium Description	Long Description
001	FELL/JUMP	FELL/JUMPED MV	Occupant fell, jumped or was ejected from moving vehicle
002	INTERFER	PSNGR INTERFERED	Passenger interfered with driver
003	BUG INTF	ANML INTERFERED	Animal or insect in vehicle interfered with driver
004	INDRCT PED	PED INDRCTLY INVLV	Pedestrian indirectly involved (not struck)
005	SUB-PED	SUBSEQUENT PED	"Sub-Ped": pedestrian injured subsequent to collision, etc.
006	INDRCT BIK	BIKE INDRCTLY INVLV	Pedalcyclist indirectly involved (not struck)
007	HITCHIKR	HITCHHIKER	Hitchhiker (soliciting a ride)
008	PSNGR TOW	PSNGR TOWED	Passenger or non-motorist being towed or pushed on conveyance
009	ON/OFF V	ON/OFF STOP VEH	Getting on/off stopped/parked vehicle (occupants only; must have physical contact w/ vehicle)
010	SUB OTRN	SUBSEQ OVERTURN	Overturned after first harmful event
011	MV PUSHD	VEH BEING PUSHED	Vehicle being pushed
012	MV TOWED	VEH TOWED/TOWING	Vehicle towed or had been towing another vehicle
013	FORCED	FORCED BY IMPACT	Vehicle forced by impact into another vehicle, pedalcyclist or pedestrian
014	SET MOTN	MV SET IN MOTION	Vehicle set in motion by non-driver (child released brakes, etc.)
015	RR ROW	RAILROAD ROW	At or on railroad right-of-way (not Light Rail)
016	LT RL ROW	LIGHT RAIL ROW	At or on Light-Rail right-of-way
017	RR HIT V	TRAIN HIT VEH	Train struck vehicle
018	V HIT RR	VEH HIT TRAIN	Vehicle struck train
019	HIT RR CAR	VEH HIT RR CAR	Vehicle struck railroad car on roadway
020	JACKNIFE	JACKKNIFE	Jackknife; trailer or towed vehicle struck towing vehicle
021	TRL OTRN	TRAILER O'TURN	Trailer or towed vehicle overturned
022	CN BROKE	TRLR CONN BROKE	Trailer connection broke
023	DETACH TRL	DETCHD TRLR STRKNG	Detached trailing object struck other vehicle, non-motorist, or object
024	V DOOR OPN	V DOOR OPN IN TRAF	Vehicle door opened into adjacent traffic lane
025	WHEELOFF	WHEEL CAME OFF	Wheel came off
026	HOOD UP	HOOD FLEW UP	Hood flew up
028	LOAD SHIFT	LOAD SHIFTED	Lost load, load moved or shifted
029	TIREFAIL	TIRE FAILURE	Tire failure
030	PET	PET	Pet: cat, dog and similar
031	LVSTOCK	LIVESTOCK	Stock: cow, calf, bull, steer, sheep, etc.
032	HORSE	HORSE	Horse, mule, or donkey
033	HRSE&RID	HORSE & RIDER	Horse and rider
034	GAME	GAME NO DEER/ELK	Wild animal, game (includes birds; not deer or elk)
035	DEER ELK	DEER OR ELK	Deer or elk, wapiti
036	ANML VEH	ANIMAL-DRAWN VEH	Animal-drawn vehicle
037	CULVERT	CULVERT/MANHOLE	Culvert, open low or high manhole
038	ATENUATN	IMPACT CUSHION	Impact attenuator
039	PK METER	PARKING METER	Parking meter
040	CURB	CURB	Curb (also narrow sidewalks on bridges)
041	JIGGLE	JIGGLE BAR N/MED	Jiggle bar or traffic snake for channelization

EVENT CODES

Code	Short Description	Medium Description	Long Description
042	GDRL END	GUARDRAIL END	Leading edge of guardrail
043	GARDRAIL	GUARDRAIL	Guard rail (not metal median barrier)
044	BARRIER	MEDIAN BARRIER	Median barrier (raised or metal)
045	WALL	WALL	Retaining wall or tunnel wall
046	BR RAIL	BRIDGE RAIL	Bridge railing or parapet (on bridge or approach)
047	BR ABUTMNT	BRIDGE ABUTMENT	Bridge abutment (included "approach end" thru 2013)
048	BR COLMN	BRIDGE COLUMN	Bridge pillar or column
049	BR GIRDR	BRIDGE GIRDER	Bridge girder (horizontal bridge structure overhead)
050	ISLAND	TRAFFIC ISLAND	Traffic raised island
051	GORE	GORE	Gore
052	POLE UNK	POLE-UNKNOWN	Pole – type unknown
053	POLE UTL	POLE-UTILITY	Pole – power or telephone
054	ST LIGHT	POLE-ST LIGHT	Pole – street light only
055	TRF SGNL	POLE-TRAF SIGNAL	Pole – traffic signal and ped signal only
056	SGN BRDG	POLE-SIGN BRIDGE	Pole – sign bridge
057	STOPSIGN	STOP/YIELD SIGN	Stop or yield sign
058	OTH SIGN	OTHER SIGN	Other sign, including street signs
059	HYDRANT	HYDRANT	Hydrant
060	MARKER	DELINEATOR	Delineator or marker (reflector posts)
061	MAILBOX	MAILBOX	Mailbox
062	TREE	TREE/STUMP	Tree, stump or shrubs
063	VEG OHED	VEGTN OVER RDWY	Tree branch or other vegetation overhead, etc.
064	WIRE/CBL	CABLE ACROSS RD	Wire or cable across or over the road
065	TEMP SGN	TEMP SIGN/BARR	Temporary sign or barricade in road, etc.
066	PERM SGN	PERM SIGN/BARR	Permanent sign or barricade in/off road
067	SLIDE	SLIDE/ROCKS	Slides, fallen or falling rocks
068	FRGN OBJ	FOREIGN OBJECT	Foreign obstruction/debris in road (not gravel)
069	EQP WORK	EQUIP WORKING	Equipment working in/off road
070	OTH EQP	OTHER EQUIPMENT	Other equipment in or off road (includes parked trailer, boat)
071	MAIN EQP	MAINTNCE EQUIP	Wrecker, street sweeper, snow plow or sanding equipment
072	OTHER WALL	OTHER WALL	Rock, brick or other solid wall
073	IRRGL PVMT	IRREGULAR PAVEMENT	Other bump (not speed bump), pothole or pavement irregularity (per PAR)
074	OVERHD OBJ	OTHER OVERHEAD OBJ	Other overhead object (highway sign, signal head, etc.); not bridge
075	CAVE IN	CAVE IN	Bridge or road cave in
076	HI WATER	HIGH WATER	High Water
077	SNO BANK	SNOW BANK	Snow Bank
078	LO-HI EDGE	LOW-HIGH PVMNT EDGE	Low or high shoulder at pavement edge
079	DITCH	CUT SLOPE/DITCH	Cut slope or ditch embankment
080	OBJ FRM MV	OBJ FRM OTHR VEH	Struck by rock or other object set in motion by other vehicle (incl. lost loads)
081	FLY-OBJ	OTHER MOVING OBJ	Struck by rock or other moving or flying object (not set in motion by vehicle)
082	VEH HID	VEH OBSCURE VIEW	Vehicle obscured view
083	VEG HID	VEG OBSCURE VIEW	Vegetation obscured view
084	BLDG HID	BLD OBSCURE VIEW	View obscured by fence, sign, phone booth, etc.

EVENT CODES

Code	Short Description	Medium Description	Long Description
085	WIND GUST	WIND GUST	Wind Gust
086	IMMERSED	IMMERSION	Vehicle immersed in body of water
087	FIRE/EXP	FIRE/EXPLOSION	Fire or explosion
088	FENC/BLD	FENCE/BUILDING	Fence or building, etc.
089	OTHR CRASH	REFER OTHR CRASH	Crash related to another separate crash
090	TO 1 SIDE	TWO WAY ONE SIDE	Two-way traffic on divided roadway all routed to one side
091	BUILDING	BUILDING	Building or other structure
092	PHANTOM	PHANTOM VEH	Other (phantom) non-contact vehicle
093	CELL PHONE	CELL PHONE PER PAR	Cell phone (on PAR or driver in use)
094	VIOL GDL	VIOL GRAD DR LIC	Teenage driver in violation of graduated license pgm
095	GUY WIRE	GUY WIRE	Guy wire
096	BERM	BERM	Berm (earthen or gravel mound)
097	GRAVEL	GRAVEL IN RDWY	Gravel in roadway
098	ABR EDGE	ABRUPT EDGE	Abrupt edge
099	CELL WTNSD	CELL PHONE WITNESSED	Cell phone use witnessed by other participant
100	UNK FIXD	UNK FIX OBJ	Fixed object, unknown type.
101	OTHER OBJ	OTHER OBJ NOT FIXED	Non-fixed object, other or unknown type
102	TEXTING	TEXTING	Texting
103	WZ WORKER	WZ WORKER	Work Zone Worker
104	ON VEHICLE	RIDE ON VEH EXTERIOR	Passenger riding on vehicle exterior
105	PEDAL PSGR	PSNGR ON PEDALCYCLE	Passenger riding on pedalcycle
106	MAN WHLCHR	NONMOTOR WHEELCHAIR	Pedestrian in non-motorized wheelchair
107	MTR WHLCHR	MOTORIZED WHEELCHAIR	Pedestrian in motorized wheelchair
108	OFFICER	POLICE OFFICER	Law Enforcement / Police Officer
109	SUB-BIKE	SUBSEQUENT BICYCLIST	"Sub-Bike": pedalcyclist injured subsequent to collision, etc.
110	N-MTR	NM STR VEH	Non-motorist struck vehicle
111	S CAR VS V	ST CAR STRUCK VEH	Street Car/Trolley (on rails or overhead wire system) struck vehicle
112	V VS S CAR	VEH STRUCK ST CAR	Vehicle struck Street Car/Trolley (on rails or overhead wire system)
113	S CAR ROW	STREET CAR ROW	At or on street car or trolley right-of-way
114	RR EQUIP	VEH STRUCK RR EQUIP	Vehicle struck railroad equipment (not train) on tracks
115	DSTRCT GPS	DISTRACT GPS DEVICE	Distracted by navigation system or GPS device
116	DSTRCT OTH	DISTRACT OTHR DEVICE	Distracted by other electronic device
117	RR GATE	RR DROP-ARM GATE	Rail crossing drop-arm gate
118	EXPNSN JNT	EXPANSION JOINT	Expansion joint
119	JERSEY BAR	JERSEY BARRIER	Jersey barrier
120	WIRE BAR	WIRE BARRIER	Wire or cable median barrier
121	FENCE	FENCE	Fence
123	OBJ IN VEH	LOOSE OBJ IN VEHICLE	Loose object in vehicle struck occupant
124	SLIPPERY	SLIPPERY SURFACE	Sliding or swerving due to wet, icy, slippery or loose surface (not gravel)
125	SHLDR	SHLDR GAVE	Shoulder gave way
126	BOULDER	ROCKS / BOULDER	Rock(s), boulder (not gravel; not rock slide)
127	LAND SLIDE	ROCK OR LAND SLIDE	Rock slide or land slide
128	CURVE INV	CURVE PRESENT	Curve present at crash location

EVENT CODES

Code	Short Description	Medium Description	Long Description
129	HILL INV	HILL PRESENT	Vertical grade / hill present at crash location
130	CURVE HID	CURVE OBSCURED VIEW	View obscured by curve
131	HILL HID	HILL OBSCURED VIEW	View obscured by vertical grade / hill
132	WINDOW HID	WINDOW VIEW OBSCURED	View obscured by vehicle window conditions
133	SPRAY HID	SPRAY OBSCURED VIEW	View obscured by water spray
134	TORRENTIAL	TORRENTIAL RAIN	Torrential Rain (exceptionally heavy rain)
135	RAIL OCC	RAIL/CABLE CAR OCC	Injured occupant of railway train, light rail, street car or cable car

Appendix B Traffic Count Summary Worksheets

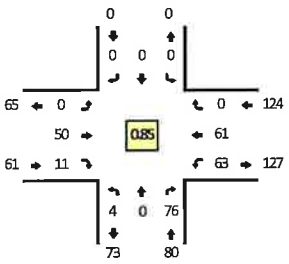
Type of peak hour being reported: Intersection Peak

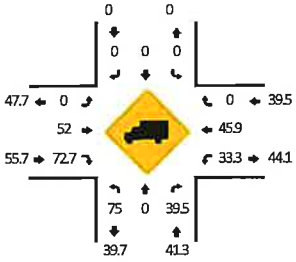
Method for determining peak hour: Total Entering Volume

LOCATION: OR 207 -- US 730
CITY/STATE: Umatilla, OR

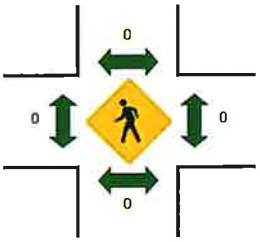
QC JOB #: 16172201
DATE: Wed, Apr 19 2023

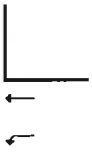
Peak-Hour: 7:25 AM – 8:25 AM
Peak 15-Min: 7:40 AM – 7:55 AM

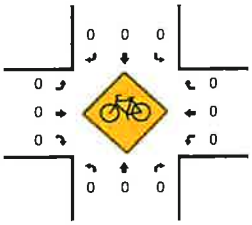


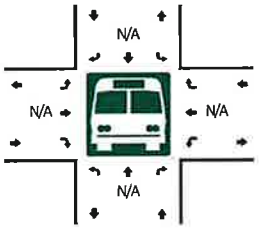


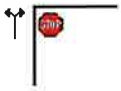
Quality Counts
DATA THAT DRIVES COMMUNITIES

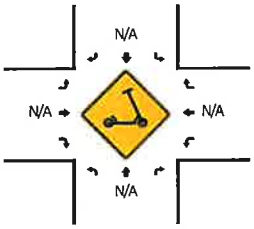












5-Min Count Period Beginning At	OR 207 (Northbound)				OR 207 (Southbound)				US 730 (Eastbound)				US 730 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	5	0	0	0	0	0	0	4	0	0	5	8	0	0	22	
7:05 AM	1	0	5	0	0	0	0	0	0	9	1	0	3	3	0	0	22	
7:10 AM	0	0	1	0	0	0	0	0	0	2	0	0	4	4	0	0	11	
7:15 AM	2	0	5	0	0	0	0	0	0	4	0	0	6	9	0	0	26	
7:20 AM	0	0	6	1	0	0	0	0	0	3	1	0	4	2	0	0	17	
7:25 AM	0	0	8	0	0	0	0	0	0	3	0	0	3	11	0	0	25	
7:30 AM	3	0	6	0	0	0	0	0	0	5	2	0	5	1	0	0	22	
7:35 AM	0	0	1	0	0	0	0	0	0	4	1	0	6	3	0	0	15	
7:40 AM	0	0	8	0	0	0	0	0	0	4	0	0	10	5	0	0	27	
7:45 AM	1	0	6	0	0	0	0	0	0	8	1	0	5	5	0	0	26	
7:50 AM	0	0	5	0	0	0	0	0	0	6	1	0	6	6	0	1	25	
7:55 AM	0	0	4	0	0	0	0	0	0	1	1	0	6	3	0	0	15	253
8:00 AM	0	0	9	0	0	0	0	0	0	3	1	0	4	6	0	0	23	254
8:05 AM	0	0	4	0	0	0	0	0	0	6	0	0	1	3	0	0	14	246
8:10 AM	0	0	9	0	0	0	0	0	0	3	2	0	3	5	0	0	22	257
8:15 AM	0	0	11	0	0	0	0	0	0	2	2	0	6	7	0	0	28	259
8:20 AM	0	0	5	0	0	0	0	0	0	5	0	0	7	6	0	0	23	265
8:25 AM	0	0	3	0	0	0	0	0	0	5	0	0	2	5	0	0	15	255
8:30 AM	0	0	3	0	0	0	0	0	0	5	0	0	8	4	0	0	20	253
8:35 AM	2	0	6	0	0	0	0	0	0	8	0	0	8	3	0	0	27	265
8:40 AM	1	0	5	0	0	0	0	0	0	1	0	0	6	4	0	0	17	255
8:45 AM	0	0	2	0	0	0	0	0	0	5	0	0	4	6	0	0	17	246
8:50 AM	0	0	5	0	0	0	0	0	0	4	0	0	7	8	0	0	24	245
8:55 AM	2	0	5	0	0	0	0	0	0	9	0	0	6	9	0	0	31	261

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	76	0	0	0	0	0	0	72	8	0	84	64	0	4	312
Heavy Trucks	0	0	40		0	0	0		0	28	4		16	24	0		112
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 4/26/2023 2:45 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

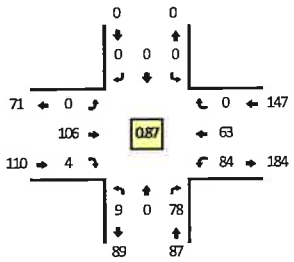
Type of peak hour being reported: Intersection Peak

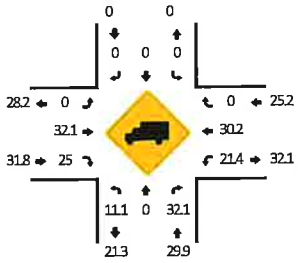
Method for determining peak hour: Total Entering Volume

LOCATION: OR 207 -- US 730
CITY/STATE: Umatilla, OR

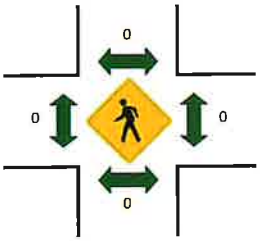
QC JOB #: 16172202
DATE: Wed, Apr 19 2023

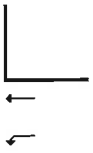
Peak-Hour: 4:30 PM – 5:30 PM
Peak 15-Min: 4:35 PM – 4:50 PM

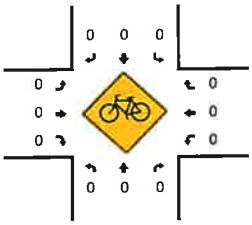


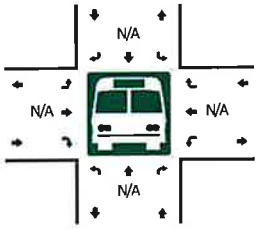


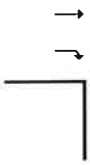
Quality Counts
DATA THAT DRIVES COMMUNITIES

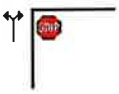


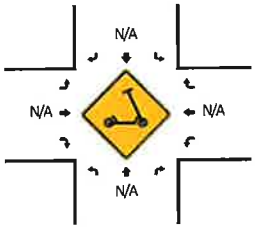












5-Min Count Period Beginning At	OR 207 (Northbound)				OR 207 (Southbound)				US 730 (Eastbound)				US 730 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	3	0	7	0	0	0	0	0	0	7	0	0	2	6	0	0	25	
4:05 PM	0	0	1	0	0	0	0	0	0	12	1	0	8	6	0	0	28	
4:10 PM	1	0	7	0	0	0	0	0	0	4	0	0	4	6	0	0	22	
4:15 PM	1	0	6	0	0	0	0	0	0	8	2	0	10	8	0	0	35	
4:20 PM	0	0	3	0	0	0	0	0	0	7	0	0	2	3	0	0	15	
4:25 PM	0	0	7	0	0	0	0	0	0	5	0	0	6	6	0	0	24	
4:30 PM	0	0	2	0	0	0	0	0	0	13	0	0	4	10	0	0	29	
4:35 PM	0	0	5	0	0	0	0	0	0	17	1	0	10	6	0	0	39	
4:40 PM	0	0	7	0	0	0	0	0	0	4	1	0	8	0	0	0	20	
4:45 PM	1	0	7	0	0	0	0	0	0	13	1	0	10	8	0	0	40	
4:50 PM	1	0	3	0	0	0	0	0	0	11	0	0	3	5	0	0	23	
4:55 PM	0	0	10	0	0	0	0	0	0	5	0	0	6	4	0	0	25	325
5:00 PM	1	0	8	0	0	0	0	0	0	5	0	0	3	2	0	0	19	319
5:05 PM	0	0	8	1	0	0	0	0	0	5	1	0	7	4	0	0	26	317
5:10 PM	2	0	6	0	0	0	0	0	0	8	0	0	10	4	0	0	30	325
5:15 PM	0	0	7	0	0	0	0	0	0	9	0	0	13	4	0	0	33	323
5:20 PM	1	0	10	0	0	0	0	0	0	7	0	0	2	7	0	0	27	335
5:25 PM	2	0	5	0	0	0	0	0	0	9	0	0	8	9	0	0	33	344
5:30 PM	0	0	4	0	0	0	0	0	0	3	0	0	11	9	0	0	27	342
5:35 PM	0	0	7	0	0	0	0	0	0	7	1	0	6	4	0	0	25	328
5:40 PM	0	0	3	0	0	0	0	0	0	8	1	0	6	3	0	0	21	329
5:45 PM	0	0	8	0	0	0	0	0	0	6	0	0	9	7	0	0	30	319
5:50 PM	2	0	3	0	0	0	0	0	0	5	0	0	4	7	0	0	21	317
5:55 PM	1	0	8	0	0	0	0	0	0	7	0	0	5	6	0	0	27	319

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	0	76	0	0	0	0	0	0	136	12	0	112	56	0	0	396
Heavy Trucks	4	0	44		0	0	0		0	40	4		24	16	0		132
Buses		0				0				0				0			0
Pedestrians																	0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		
Scooters																	

Comments:

Report generated on 4/26/2023 2:45 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Appendix C Existing Traffic Operations Worksheets

Intersection Level Of Service Report
Intersection 1: OR 207 / US 730

Control Type:	Two-way stop	Delay (sec / veh):	13.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	OR 207		US 730		US 730	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	175.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	OR 207		US 730		US 730	
Base Volume Input [veh/h]	4	89	69	10	82	71
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	67.00	41.00	57.00	75.00	36.00	48.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	89	69	10	82	71
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	26	20	3	24	21
Total Analysis Volume [veh/h]	5	105	81	12	96	84
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

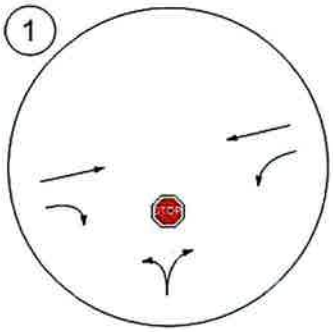
Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

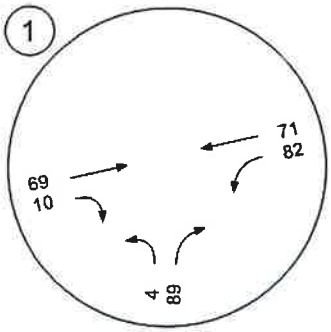
V/C, Movement V/C Ratio	0.01	0.12	0.00	0.00	0.07	0.00
d_M, Delay for Movement [s/veh]	12.96	9.71	0.00	0.00	7.96	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.44	0.44	0.00	0.00	0.24	0.00
95th-Percentile Queue Length [ft/ln]	11.09	11.09	0.00	0.00	5.91	0.00
d_A, Approach Delay [s/veh]	9.86		0.00		4.24	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.83					
Intersection LOS	B					

Study Intersections

Lane Configuration and Traffic Control



Traffic Volume - Base Volume



Intersection Level Of Service Report
Intersection 1: OR 207 / US 730

Control Type:	Two-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

Intersection Setup

Name	OR 207		US 730		US 730	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	175.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	OR 207		US 730		US 730	
Base Volume Input [veh/h]	9	80	130	7	89	83
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	29.00	38.00	37.00	50.00	36.00	32.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	9	80	130	7	89	83
Peak Hour Factor	0.8200	0.8200	0.8200	0.8200	0.8200	0.8200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	24	40	2	27	25
Total Analysis Volume [veh/h]	11	98	159	9	109	101
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

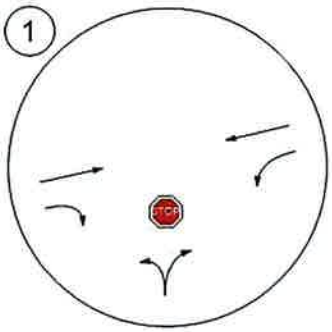
Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

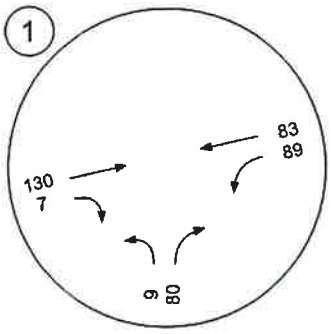
V/C, Movement V/C Ratio	0.02	0.12	0.00	0.00	0.09	0.00
d_M, Delay for Movement [s/veh]	13.73	10.33	0.00	0.00	8.22	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.51	0.51	0.00	0.00	0.29	0.00
95th-Percentile Queue Length [ft/ln]	12.80	12.80	0.00	0.00	7.29	0.00
d_A, Approach Delay [s/veh]	10.67		0.00		4.27	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.23					
Intersection LOS	B					

Study Intersections

Lane Configuration and Traffic Control



Traffic Volume - Base Volume



Appendix D Existing Zoning 2043 Traffic Operations Worksheets

Intersection Level Of Service Report
Intersection 1: OR 207 / US 730

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.014

Intersection Setup

Name	OR 207		US 730		US 730	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	175.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	OR 207		US 730		US 730	
Base Volume Input [veh/h]	5	107	83	12	98	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	67.00	41.00	57.00	75.00	36.00	48.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	107	83	12	98	85
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	31	24	4	29	25
Total Analysis Volume [veh/h]	6	126	98	14	115	100
Pedestrian Volume [ped/h]	0		0		0	

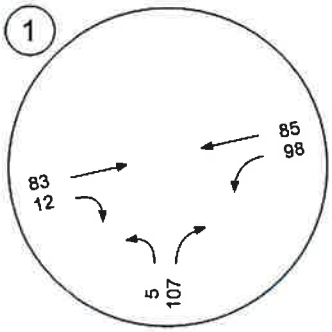
Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.15	0.00	0.00	0.09	0.00
d_M, Delay for Movement [s/veh]	14.09	10.01	0.00	0.00	8.06	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.57	0.57	0.00	0.00	0.29	0.00
95th-Percentile Queue Length [ft/ln]	14.20	14.20	0.00	0.00	7.32	0.00
d_A, Approach Delay [s/veh]	10.20		0.00		4.31	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.95					
Intersection LOS	B					

Traffic Volume - Base Volume



Intersection Level Of Service Report
Intersection 1: OR 207 / US 730

Control Type:	Two-way stop	Delay (sec / veh):	15.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.033

Intersection Setup

Name	OR 207		US 730		US 730	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	175.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	OR 207		US 730		US 730	
Base Volume Input [veh/h]	11	96	156	8	107	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	29.00	38.00	37.00	50.00	36.00	32.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	96	156	8	107	100
Peak Hour Factor	0.8200	0.8200	0.8200	0.8200	0.8200	0.8200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	29	48	2	33	30
Total Analysis Volume [veh/h]	13	117	190	10	130	122
Pedestrian Volume [ped/h]	0		0		0	

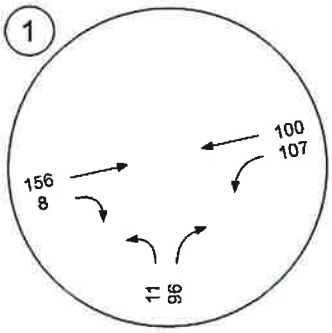
Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.15	0.00	0.00	0.11	0.00
d_M, Delay for Movement [s/veh]	15.37	10.86	0.00	0.00	8.39	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.68	0.68	0.00	0.00	0.37	0.00
95th-Percentile Queue Length [ft/ln]	16.93	16.93	0.00	0.00	9.15	0.00
d_A, Approach Delay [s/veh]	11.31		0.00		4.33	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.40					
Intersection LOS	C					

Traffic Volume - Base Volume



Appendix E Trip Generation Estimates

FUTURE SITE TRIP GENERATION ASSUMPTIONS

Based on discussions with the applicant, the following two sources will comprise the daily trips.

MINING/ROCK CRUSHING OPERATION:

- Approximate Hours of Operation
  - 6:00 AM to 3:30 PM (4 staff)
- Delivery of aggregate to offsite locations from 6:00 AM to 3:30 PM
- Approximately 182 daily trips consisting of the following:
  - 8 Staff Trips (4 entering at the start of the day and 4 exiting at the end of the day)
  - 30 rock deliveries per day (15 entering, 15 exiting)
  - 2 water deliveries per day (2 entering, 2 exiting)
  - 140 loads picked up at the site by others (70 entering, 70 exiting)

ASPHALT BATCH PLANT:

- Approximate Hours of Operation
  - 6:00 AM to 3:30 PM (2 staff)
- Delivery of aggregate to offsite locations from 6:00 AM to 3:30 PM
- Approximately 174 daily trips consisting of the following:
  - 4 Staff Trips (2 entering at the start of the day and 2 exiting at the end of the day)
  - 30 Asphalt deliveries per day (15 entering, 15 exiting)
  - 140 loads picked up at the site by others (70 entering, 70 exiting)

Based on these details, the following table estimates the total number of net new trips that can be expected on a typical weekday.

Table 9. Proposed Site Trips

Land Use	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
		Total	In	Out	Total	In	Out
Mining/Rock Crushing							
- Staff[1]	8	0	0	0	4	0	4
- Rock Deliveries[2]	30	6	3	3	0	0	0
- Water Deliveries[2]	4	2	1	1	0	0	0
- Other pick-ups[2]	140	10	5	5	0	0	0
Asphalt Batch Plant							
- Staff[1]	4	0	0	0	2	0	2
- Load Deliveries[2]	30	6	3	3	0	0	0
- Other pick-ups[2]	140	10	5	5	0	0	0
Total	**356**	**34**	**17**	**17**	**6**	**0**	**6**

[1] Each employee was assumed to generate 2 daily trips (1 in, 1 out). Employees are assumed arrive on site before the AM Peak Hour and were conservatively assumed to leave during the PM Peak Hour.
[2] Each delivery and pick-up was assumed to generate 2 trips (1 exit for delivery/1 return from delivery or 1 entrance for pick-up/1 exit for pick-up).

Appendix F Aggregate Resource Overlay Zone 2043 Traffic Operations Worksheets

Intersection Level Of Service Report
Intersection 1: OR 207 / US 730

Control Type:	Two-way stop	Delay (sec / veh):	14.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	OR 207		US 730		US 730	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	175.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	OR 207		US 730		US 730	
Base Volume Input [veh/h]	5	107	83	12	98	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	67.00	41.00	57.00	75.00	36.00	48.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	7	7	0	7	7
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	114	90	12	105	92
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	34	26	4	31	27
Total Analysis Volume [veh/h]	6	134	106	14	124	108
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.16	0.00	0.00	0.10	0.00
d_M, Delay for Movement [s/veh]	14.66	10.14	0.00	0.00	8.11	0.00
Movement LOS	B	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.62	0.62	0.00	0.00	0.32	0.00
95th-Percentile Queue Length [ft/ln]	15.45	15.45	0.00	0.00	8.02	0.00
d_A, Approach Delay [s/veh]	10.33		0.00		4.33	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.98					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: US 730 / Site Access A

Control Type:	Two-way stop	Delay (sec / veh):	11.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.028

Intersection Setup

Name	Site Access A		US 730		US 730	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Site Access A		US 730		US 730	
Base Volume Input [veh/h]	0	0	190	0	0	183
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	49.00	0.00	0.00	42.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	14	3	0	14	3	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	3	190	14	3	183
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	56	4	1	54
Total Analysis Volume [veh/h]	16	4	224	16	4	215
Pedestrian Volume [ped/h]	0		0		0	

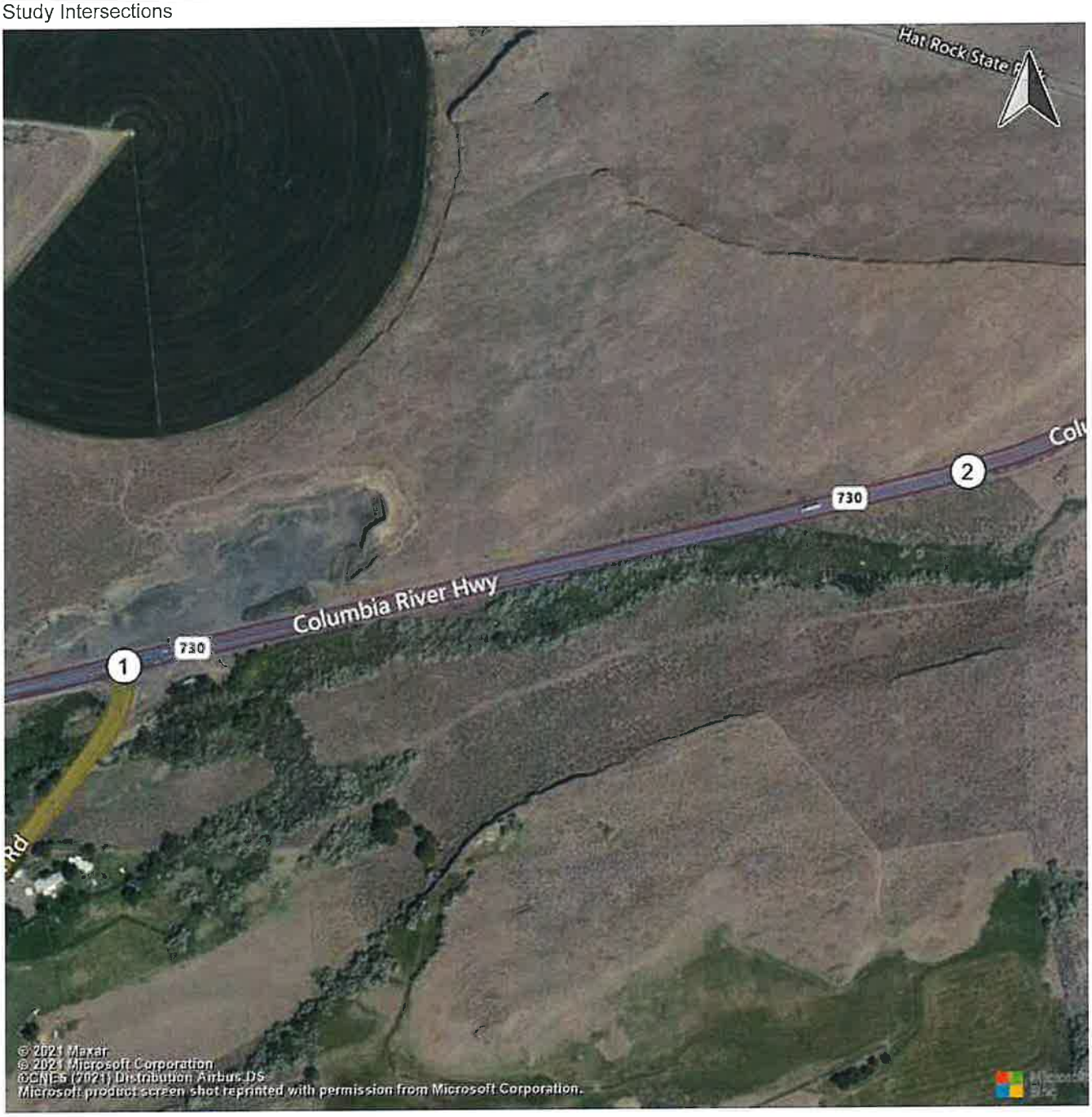
Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

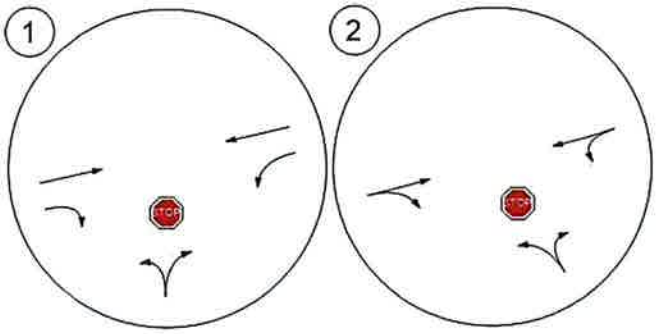
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	11.58	9.64	0.00	0.00	7.69	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.10	0.10	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	2.58	2.58	0.00	0.00	0.17	0.17
d_A, Approach Delay [s/veh]	11.19		0.00		0.14	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.53					
Intersection LOS	B					

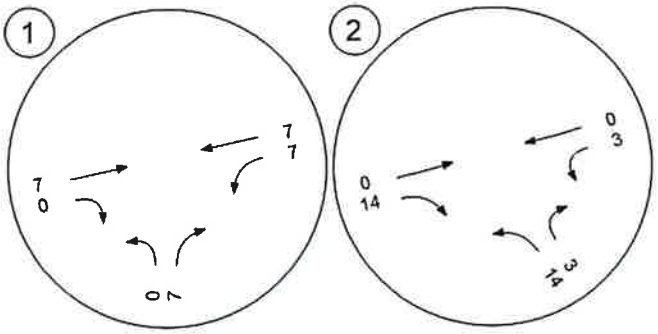
Study Intersections



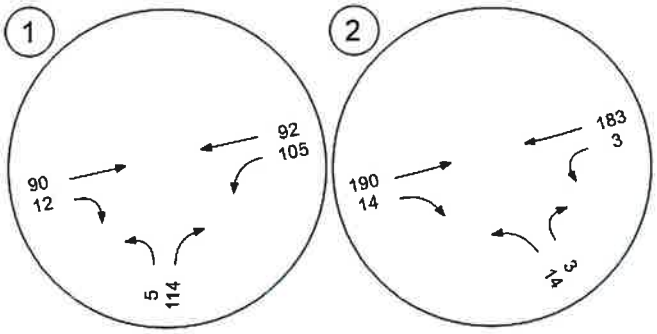
Lane Configuration and Traffic Control



Traffic Volume - Net New Site Trips



Traffic Volume - Future Total Volume



Intersection Level Of Service Report
Intersection 1: OR 207 / US 730

Control Type:	Two-way stop	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.034

Intersection Setup

Name	OR 207		US 730		US 730	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	1	0
Entry Pocket Length [ft]	100.00	100.00	100.00	150.00	175.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	OR 207		US 730		US 730	
Base Volume Input [veh/h]	11	96	156	8	107	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	29.00	38.00	37.00	50.00	36.00	32.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	3	2
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	96	156	8	110	102
Peak Hour Factor	0.8200	0.8200	0.8200	0.8200	0.8200	0.8200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	29	48	2	34	31
Total Analysis Volume [veh/h]	13	117	190	10	134	124
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.15	0.00	0.00	0.11	0.00
d_M, Delay for Movement [s/veh]	15.54	10.87	0.00	0.00	8.40	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.68	0.68	0.00	0.00	0.38	0.00
95th-Percentile Queue Length [ft/ln]	17.00	17.00	0.00	0.00	9.46	0.00
d_A, Approach Delay [s/veh]	11.33		0.00		4.36	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.42					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: US 730 / Site Access A

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.012

Intersection Setup

Name	Site Access A		US 730		US 730	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00		55.00		55.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Site Access A		US 730		US 730	
Base Volume Input [veh/h]	0	0	252	0	0	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	38.00	0.00	0.00	34.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	5	1	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	1	252	0	0	207
Peak Hour Factor	0.8200	0.8200	0.8200	0.8200	0.8200	0.8200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	77	0	0	63
Total Analysis Volume [veh/h]	6	1	307	0	0	252
Pedestrian Volume [ped/h]	0		0		0	

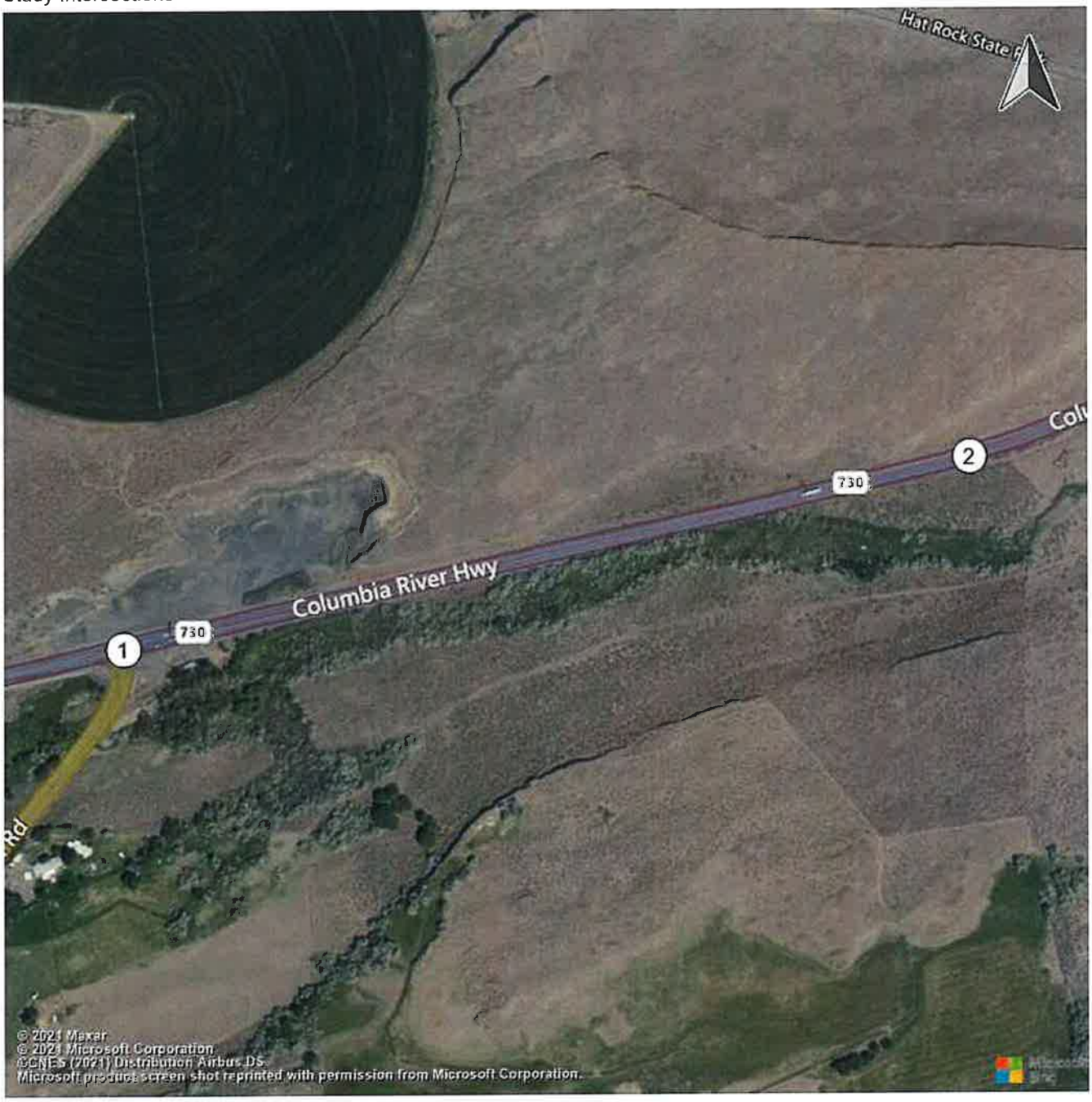
Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

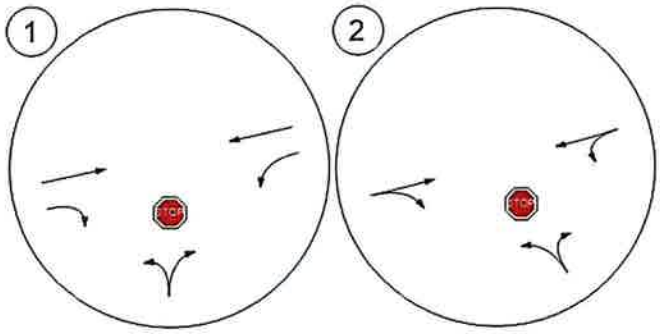
Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	12.39	9.98	0.00	0.00	7.85	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.03	1.03	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.04		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.15					
Intersection LOS	B					

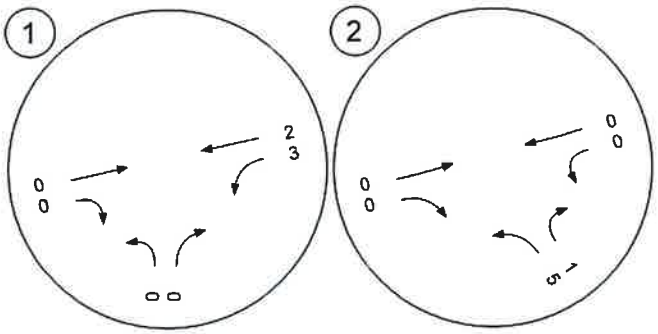
Study Intersections



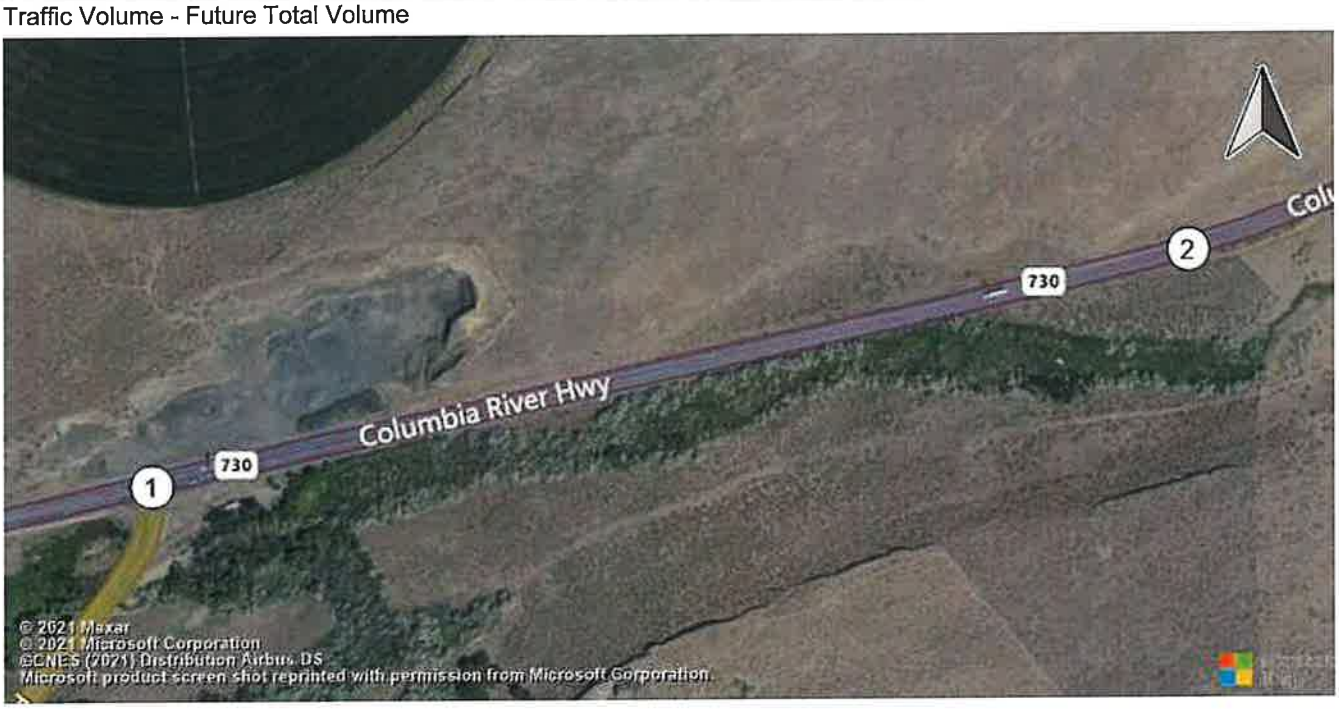
Lane Configuration and Traffic Control



Traffic Volume - Net New Site Trips



Traffic Volume - Future Total Volume



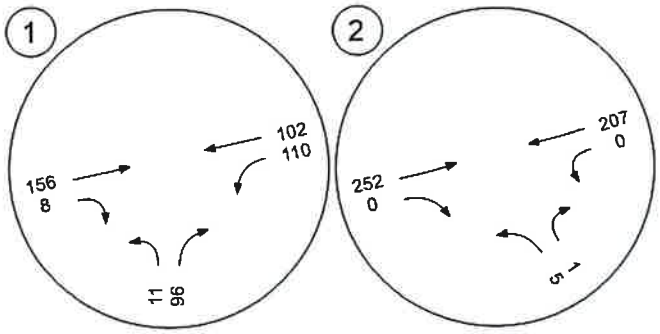
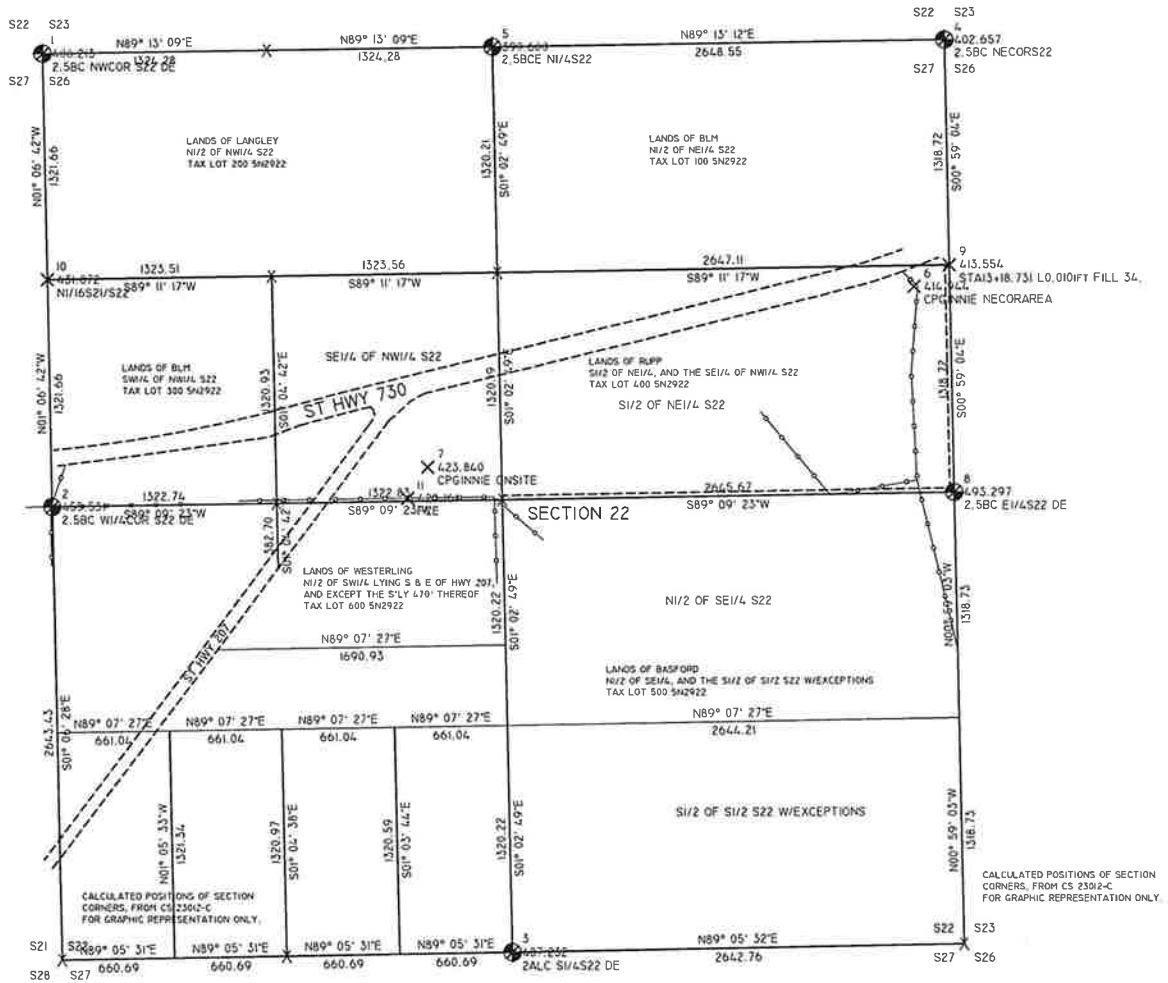


EXHIBIT MAP

A SURVEY OF SECTION 22, T5N, R29E,W.M. TO FIND THE BOUNDARY LINES OF THE RUPP TRACT, BEINGLOCATED IN THE SOUTH 1/2 OF THE NORTHEAST 1/4 OF SECTION 22, TOWNSHIP 5 NORTH, RANGE 29 EAST, WILLAMETTE MERIDIAN, UMATILLA COUNTY, OREGON.



SCALE 1"=500'

0 500' 1000'

BASIS OF BEARING

BEARING BASE -- NAD83 ORNSPC GRID BEARINGS

LEGEND

- FOUND BRASS CAP SECTION CORNER, OR AS NOTED.
- X — CALCULATED POINT - NOTHING FOUND OR SET.
- XXX(R#) — RECORD AND REFERENCE TO SURVEY
- PROPERTY LINE
- EXISTING FENCES, WHERE TIED
- STATE HIGHWAYS ARE AN APPROXIMATION FROM GOOGLE IMAGES

SURVEYOR'S NARRATIVE:

THIS SURVEY WAS PERFORMED AT THE REQUEST OF DOUG COX, DEVELOPER, TO LOCATE THE PROPERTY LINES OF THE LANDS OWNED BY RUPP IN THE AREA WHERE A ROCK PIT IS BEING PERMITTED, WHICH IS IN THE SI/2 OF NE 1/4 OF SECTION 22, TOWNSHIP 5 NORTH, RANGE 29 EAST, W.M.,UMATILLA COUNTY, OREGON.
I WAS ABLE TO LOCATE ALL OF THE NECESSARY SECTIONAL CORNERS TO DELINEATE THE LINES OF OWNERSHIP IN THE AREA NEEDED.
I HOLD NAD83 ORNSPC COORDINATE DATUM, AND SHOW GRID BEARINGS AND DISTANCES, AS PER COUNTY SURVEY 23-012-C.
THIS SURVEY WAS PERFORMED USING A CARLSON BRX7 RTK GPS SYSTEM. STANDARD ERROR FOR THE RTK SYSTEM IS 8.0MM + 1 PPM X BASELINE MEASURED, IN MILLIMETERS.
I FIND NOTHING OUT OF THE ORDINARY ON THIS SURVEY.

ROBERT D. ENGLISH

ROBERT D. ENGLISH, WAPLS44338

REGISTERED PROFESSIONAL LAND SURVEYOR

ROBERT D. ENGLISH

OREGON JANUARY 11, 2005 ROBERT DOUGLAS ENGLISH 44338LS

RENEWAL DATE: 12/31/23

REFERENCES:

(R1) ASSESSOR'S MAP 5N2922, 5N29D, 5N29
(R2) UMATILLA COUNTY SURVEY RECORDS FOR ALL SECTION CORNERS
(R3) UMATILLA COUNTY SURVEY 23-012-C, PRIMM FOR UMATILLA COUNTY, 2023.
(D1) WARRANTY DEED, DOC.NO. 2016-6510388, LEWIS & CLARK COLLEGE TO RUPP, 2016. 5N2922 TL400. SI/2 NEI/4 S22, SEI/4 NWI/4 S22.
(D2) BARGAIN & SALE DEED, DOC.NO. 1998-3310191, BASFORD TO BASFORD, 1998. 5N2922 TL500. NI/2 SEI/4, SI/2 SI/2 S22 W/EXCEPTIONS.
(D3) QUIT CLAIM DEED, DOC.NO. 2015-6270076, WESTERLING TO WESTERLING, 2015. 5N2922 TL600. NI/2 SWI/4 S&E OF HWY 207.
(D4) BARGAIN & SALE DEED, DOC.NO. 2020-7010510, STURZA TO STURZA, 2020. 5N2922 TL700. NI/2 SWI/4 S22 W/EXCEPTIONS, SEE CS83-167-B.
(D5) STATUTORY WARRANTY DEED, DOC.NO. 2017-6620316, PETERSON TO UMATILLA READY-MIX, INC., 2017. 5N29 TL302 & TL303.
(D6) CORRECTION WARRANTY DEED, REEL 69, PAGE 549, ROGERS TO CONFORTH/LANGLEY, 1980.,5N2922 TL200. NI/2 NWI/4 S22.

DATE: 04/27/23	DWN.BY: RDE	EXHIBIT MAP FOR: CRP & HAULING, LLC. PO BOX 131 HERMISTON, OR 97801
SCALE: 1"=20'	CHK. BY: RDE	
JOB NO. 2022-041	REV.DATE: XX/XX/XX	SURVEY ONE,LLC P.O. BOX 382 PENDLETON OR, 97801 PH:541-276-2055 Fax:541-276-3480
DWG NO. SINECO 730PIT.DWG		

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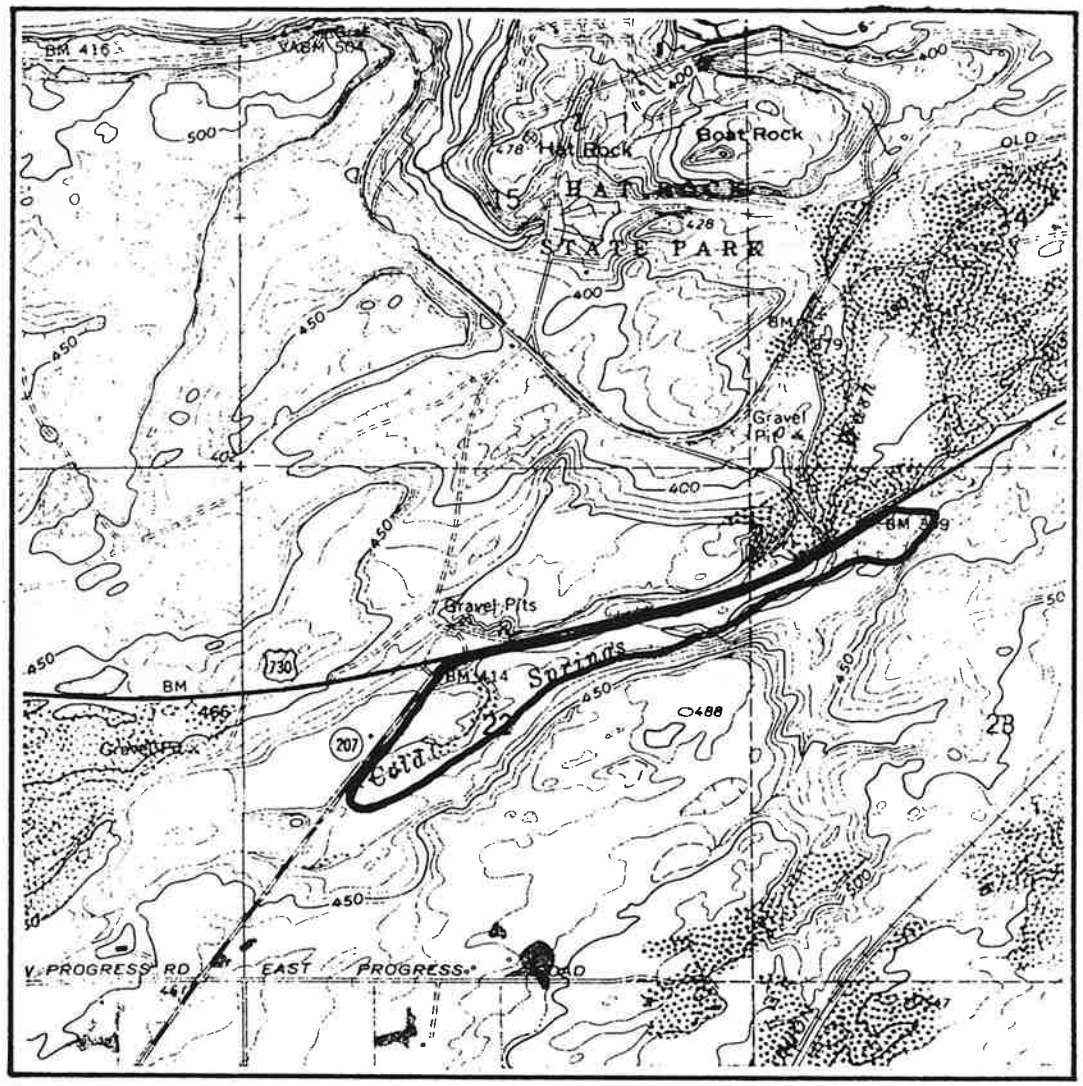
SIGNIFICANT WETLANDS

MAP: D-44 **AREA:** Drainage Area

T/R: T5N R29 EWM; Section 22



Wetland Area (Exact boundaries may require site inspection) **Map Source: U.S.G.S.**

Plan Designation: Agricultural

Zoning Designation: Exclusive Farm Use; Special Agriculture

Possible Land Use Conflicts: Some farming activities (draining wetlands; feedlots, lack of soil conservation practices).

Goal 5 Analysis: 3C; Limit Conflicting Uses

Management Program: Plan and zoning limit conflicting uses; 100 foot setback from wetlands and streams required for structures and sewage disposal installations.

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OFFSITE WETLAND DETERMINATION REPORT

OREGON DEPARTMENT OF STATE LANDS **WD#:** 2022-0606

951 SW Simpson Ave, Suite 104, Bend OR 97702 (541) 388-6112

At your request, an offsite wetland determination has been conducted on the property described below.

County: Umatilla City: 5.3 mi E of McNary, 5.7 mi NE of Hermiston

Other Name & Address: Tamra Mabbott, TM Consulting, 80379 Zimmer Lane, Hermiston, OR 97838

Township: 5N Range: 29E Section: 22 Q/Q: N/A Tax Lot(s): 400 (portion)

Project Name: New rock quarry

Site Address/Location: SE of the Hwy 730 & Hwy 207 intersection, Hermiston, OR 97838

☒ The National Wetlands Inventory & National Hydrography Dataset show a wetland/waterway on the property.

☒ The county soil survey shows hydric (wet) soils on the property. Hydric soils indicate that there may be wetlands.

☐ It is unlikely that there are jurisdictional wetlands or waterways on the property based upon a review of wetlands maps, the county soil survey and other information. An onsite investigation by a qualified professional is the only way to be certain that there are no wetlands.

☒ There are wetlands and waterways on the property that are subject to the state Removal-Fill Law.

- ☒ A state permit is required for ≥ 50 cubic yards of fill, removal, or ground alteration in the wetlands or waterways.
- ☐ A state permit may be required for any amount of fill, removal, or other ground alteration in the Essential Salmonid Habitat and hydrologically associated wetlands.
- ☐ A state permit may be required for any amount of fill, removal, or other ground alteration in a compensatory wetland mitigation site.

☒ A state permit will be required for the project if there are 50 cubic yards or more of ground disturbance proposed within jurisdictional wetlands or waters.

☐ The proposed parcel division may create a lot that is largely wetland and thus create future development problems.

☒ A wetland determination or delineation may be needed prior to site development (if the proposed quarry area does not change). The wetland delineation report should be submitted to the Department of State Lands for review and approval.

☒ A permit may be required by the Army Corps of Engineers: (503) 808-4373

Note: This report is for the state Removal-Fill Law only. City or County permits may be required for the proposed activity.

Comments: Based on review of the submitted site plan, it appears that there are four locations where the proposed quarry area could impact potential wetlands (see attached WIW Aerials). These potential wetland areas seem to extend beyond National Wetlands Inventory and hydric soil mapping, based on desktop review of aerial and Lidar imagery.

It is recommended that the applicant either revise their proposed quarry area to avoid these potentially jurisdictional features or hire a qualified wetland consultant to prepare a wetland delineation report for the site. This report, once reviewed and approved by DSL, will inform the extent of wetlands and waterways on-site, as well as which features are jurisdictional to the state Removal-Fill Law.

Determination by: J. Salgado Date: 12 / 05 / 2022

☐ This jurisdictional determination is valid for five years from the above date, unless new information necessitates a revision. Circumstances under which the Department may change a determination and procedures for renewal of an expired determination are found in OAR 141-090-0045 (available on our web site or upon request). The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months from the above date.

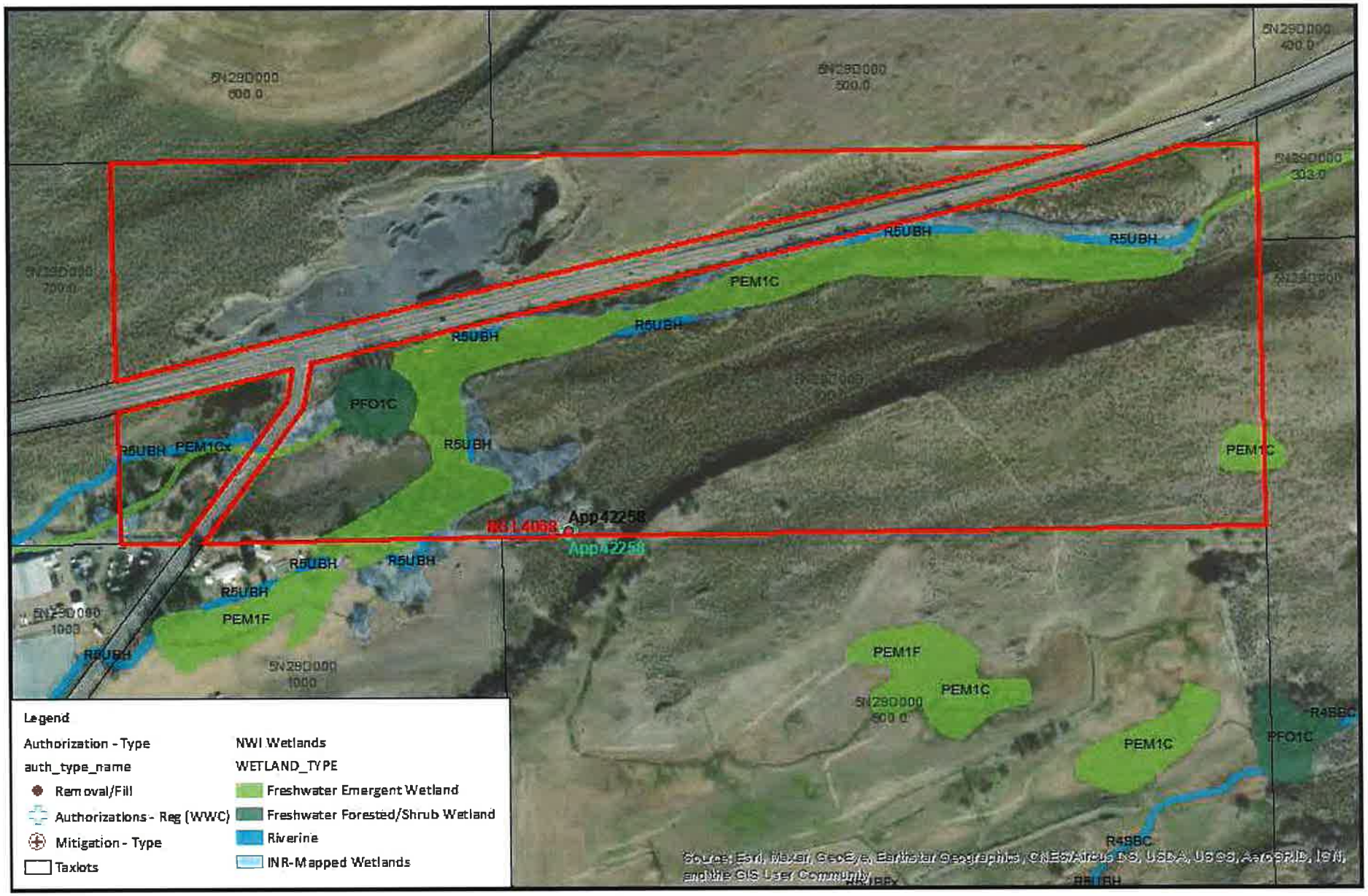
☒ **This is a preliminary jurisdictional determination and is advisory only.**

Copy To: ☒ Other Email: tamra.mabbott@gmail.com ☒ Enclosures: NwiAerial, HydroSoilsAerial, WIW Aerials
☒ Umatilla County Planning Department
☐

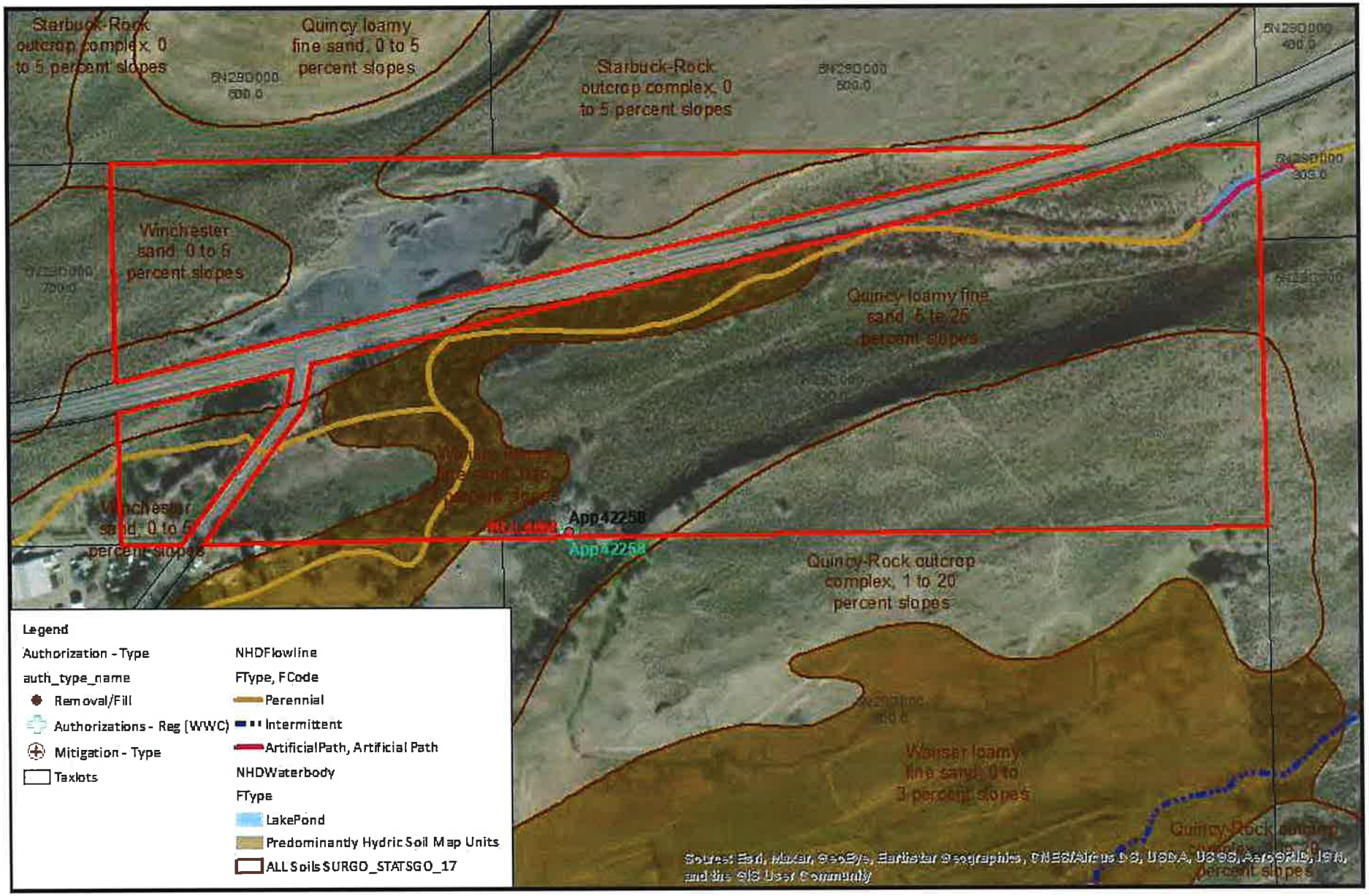
FOR OFFICE USE ONLY

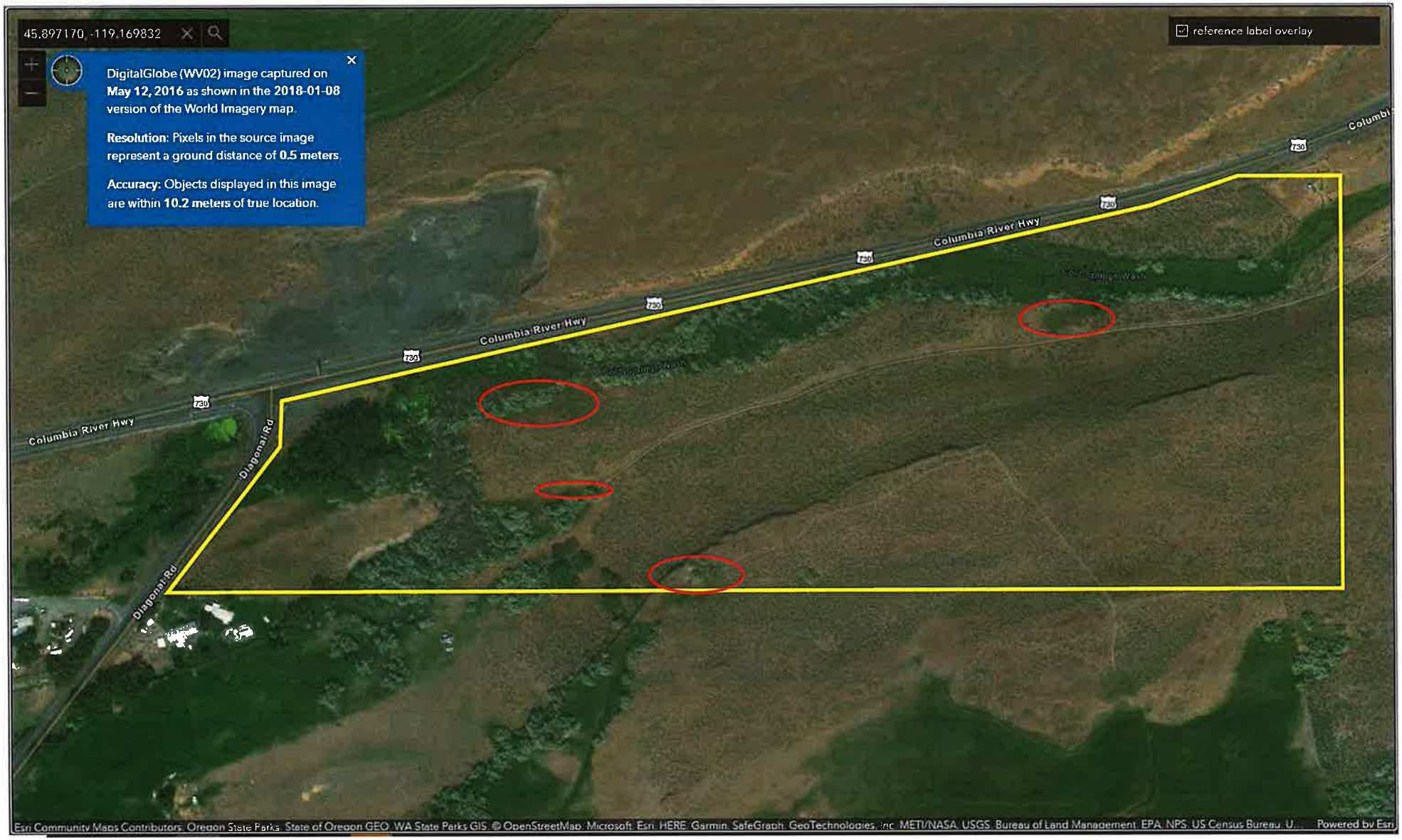
Entire Lot(s) Checked? ☐ Yes ☒ No	**Waters Present** ☒ Yes ☐ No ☐ Maybe			**Request Received:** 10 / 31 / 2022
LWI Area: N/A	**LWI Code:** N/A	**Latitude:** 45.901617		**Longitude:** -119.168630
Has Wetlands? ☒Y ☐N ☐Unk	**ESH?** ☐Y ☒N	**Wild & Scenic?** ☐Y ☒N	**State Scenic?** ☐Y ☒N	**Coast Zone?** ☐Y ☒N ☐Unk
Adjacent Waterbody: PEM, PFO, Cold Springs Wash				**Related DSL File #:** APP42258 / WD2008-0503 Adjacent

WD2022-0606 NwiAerial



WD2022-0606 HydroSoilsAerial




45.897170, -119.169832
reference label overlay
DigitalGlobe (WV02) image captured on May 12, 2016 as shown in the 2018-01-08 version of the World Imagery map.
Resolution: Pixels in the source image represent a ground distance of 0.5 meters.
Accuracy: Objects displayed in this image are within 10.2 meters of true location.
Columbia River Hwy
Diagonal Rd
Esri Community Maps Contributors, Oregon State Parks, State of Oregon GEO, WA State Parks GIS, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, U...
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45.897170, -119.169832
reference label overlay
USDA FSA () image captured on Jun 24, 2015 as shown in the 2016-06-13 version of the World Imagery map.
Resolution: Pixels in the source image represent a ground distance of 1 meters.
Accuracy: Objects displayed in this image are within 6 meters of true location.
Columbia River Hwy
730
Diagonal Rd
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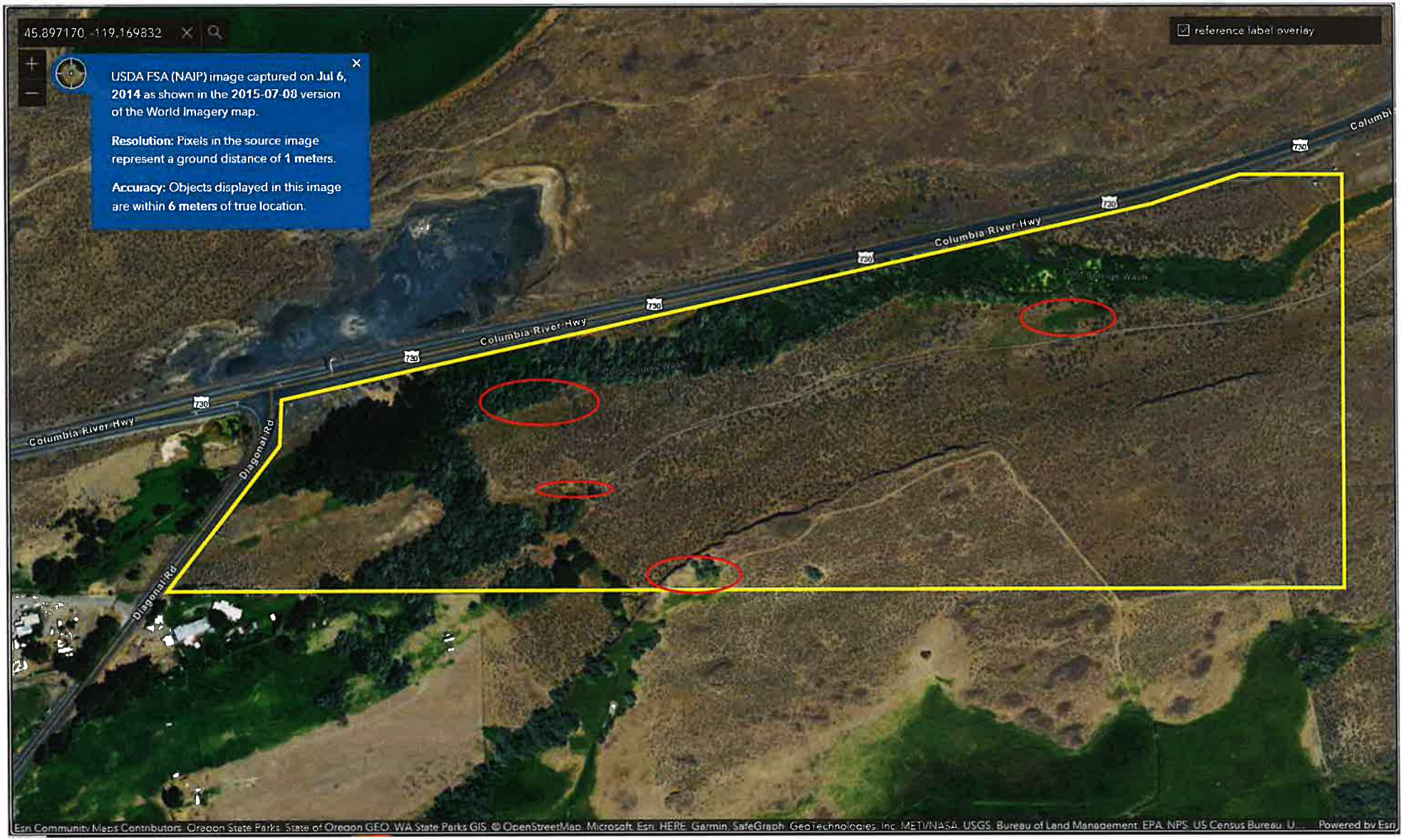
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USDA FSA (NAIP) image captured on Jul 6, 2014 as shown in the 2015-07-08 version of the World Imagery map.
Resolution: Pixels in the source image represent a ground distance of 1 meters.
Accuracy: Objects displayed in this image are within 6 meters of true location.
Columbia River Hwy
730
Diagonal Rd
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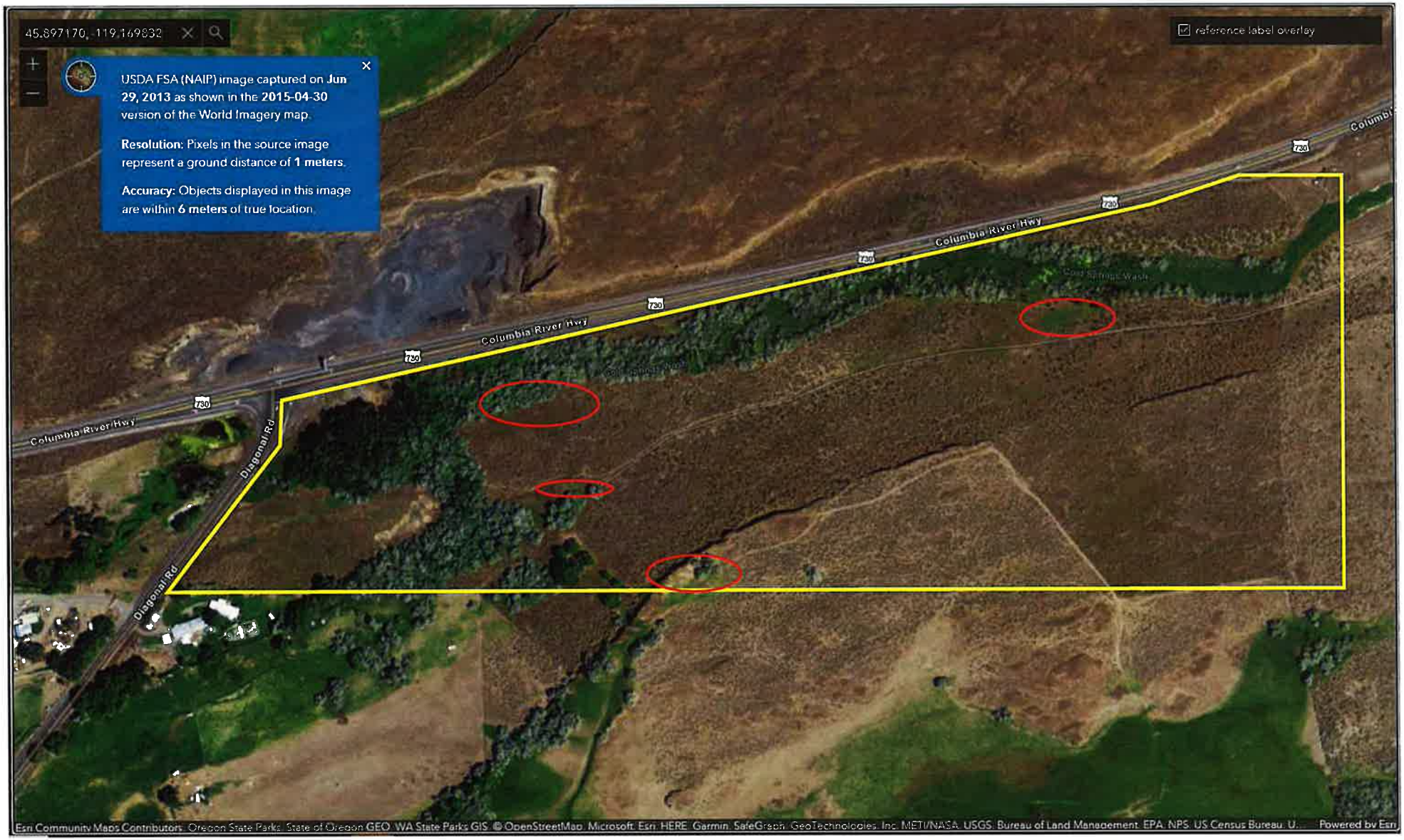
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Resolution: Pixels in the source image represent a ground distance of 1 meters.
Accuracy: Objects displayed in this image are within 6 meters of true location.
Columbia River Hwy
730
Diagonal Rd
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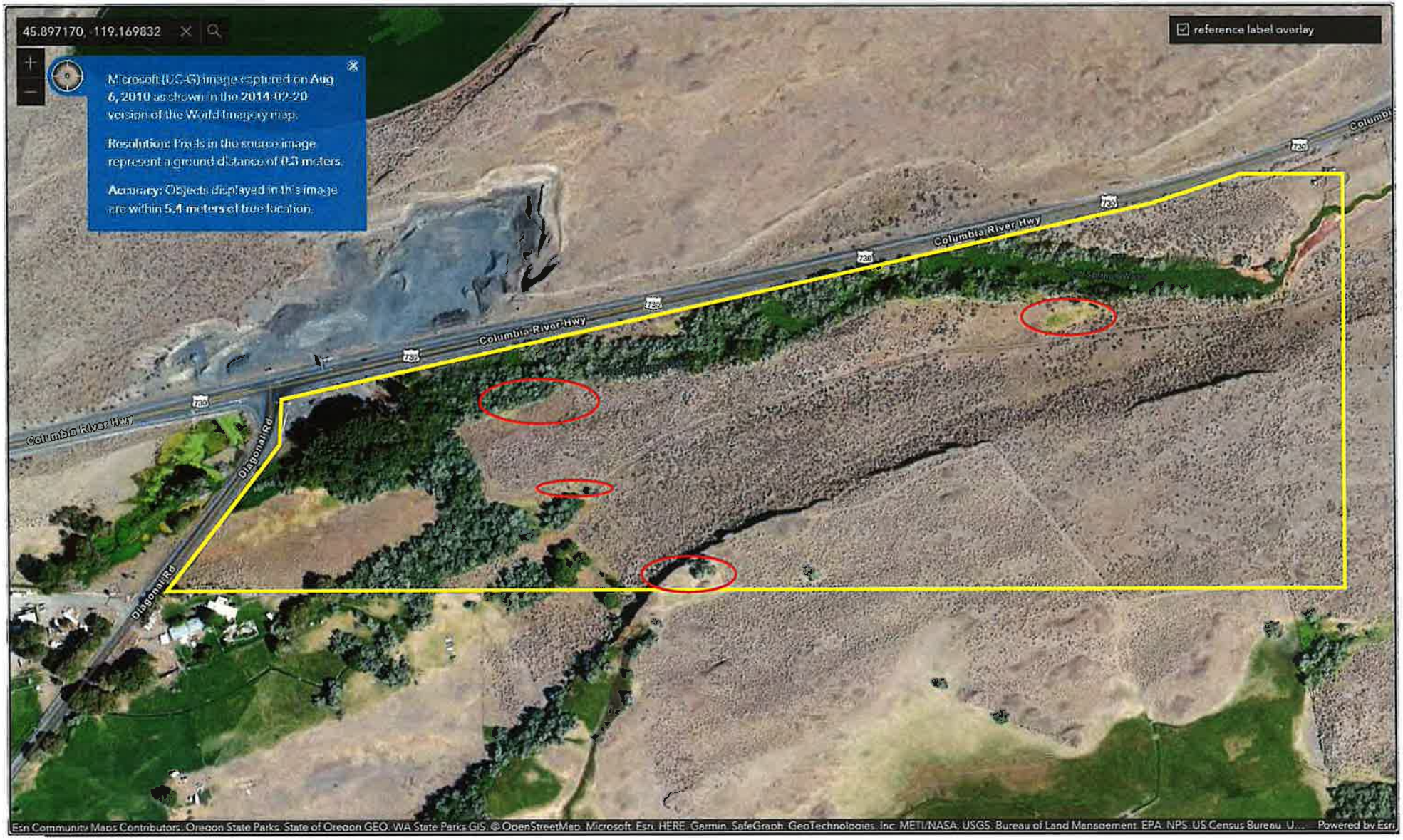
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reference label overlay
Microsoft (UC-G) image captured on Aug 6, 2010 as shown in the 2014-02-20 version of the World Imagery map.
Resolution: Pixels in the source image represent a ground distance of 0.3 meters.
Accuracy: Objects displayed in this image are within 5.4 meters of true location.
Columbia River Hwy
730
Diagonal Rd
Esri Community Maps Contributors, Oregon State Parks, State of Oregon GEO, WA State Parks GIS, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, U... Powered by Esri

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OFFSITE WETLAND DETERMINATION REPORT

OREGON DEPARTMENT OF STATE LANDS **WD#:** 2023-0095

951 SW Simpson Ave, Suite 104, Bend OR 97702 (541) 388-6112

At your request, an offsite wetland determination has been conducted on the property described below.

County: Umatilla City: 5.3 mi E of McNary, 5.7 mi NE of Hermiston

Other Name & Address: Doug Cox, CRP & Hauling, LLC, PO Box 131, Hermiston, OR 97838

Township: 5N Range: 29E Section: 22 Q/Q: N/A Tax Lot(s): 400 (portion)

Project Name: Revised plan for rock quarry/mine

Site Address/Location: SE of the Hwy 730 & Hwy 207 intersection, Hermiston, OR 97838

☒ The National Wetlands Inventory & National Hydrography Dataset show a wetland/waterway on the property.

☒ The county soil survey shows hydric (wet) soils on the property. Hydric soils indicate that there may be wetlands.

☐ It is unlikely that there are jurisdictional wetlands or waterways on the property based upon a review of wetlands maps, the county soil survey and other information. An onsite investigation by a qualified professional is the only way to be certain that there are no wetlands.

☒ There are wetlands or waterways on the property that are subject to the state Removal-Fill Law.

- ☒ A state permit is required for ≥ 50 cubic yards of fill, removal, or ground alteration in the wetlands or waterways.
- ☐ A state permit may be required for any amount of fill, removal, or other ground alteration in the Essential Salmonid Habitat and hydrologically associated wetlands.
- ☐ A state permit may be required for any amount of fill, removal, or other ground alteration in a compensatory wetland mitigation site.

☒ A state permit does not appear to be required for the project because the site plan was modified to exclude potential wetland and waters impacts following DSL's WD2022-0606 response.

☐ The proposed parcel division may create a lot that is largely wetland and thus create future development problems.

☐ A wetland determination or delineation is needed prior to site development; the wetland delineation report should be submitted to the Department of State Lands for review and approval.

☐ A permit may be required by the Army Corps of Engineers: (503) 808-4373

Note: This report is for the state Removal-Fill Law only. City or County permits may be required for the proposed activity.

Comments: This response is for the proposed project area only (extraction areas, stormwater pond, and stockpile areas), as shown on the 1/25/2023 site plan. DSL does **not** concur with the wetland boundaries on the site plan; they have not been verified by a wetland professional or submitted to DSL for review & approval as a wetland delineation report.

That said, the proposed project area appears to avoid impacts to jurisdictional wetlands or waterways. A state Removal-Fill permit is not likely required for this activity.

If 50 cy or more of ground disturbance occurs to jurisdictional wetlands or waterways, DOGAMI may notify DSL of a potential Removal/Fill violation. Best management practices should be implemented to avoid impacts to these wetlands and minimize sedimentation & erosion in Cold Springs Wash.

Determination by: J. Salgado Date: 03 / 17 / 2023

☐ This jurisdictional determination is valid for five years from the above date, unless new information necessitates a revision. Circumstances under which the Department may change a determination and procedures for renewal of an expired determination are found in OAR 141-090-0045 (available on our web site or upon request). The applicant, landowner, or agent may submit a request for reconsideration of this determination in writing within six months from the above date.

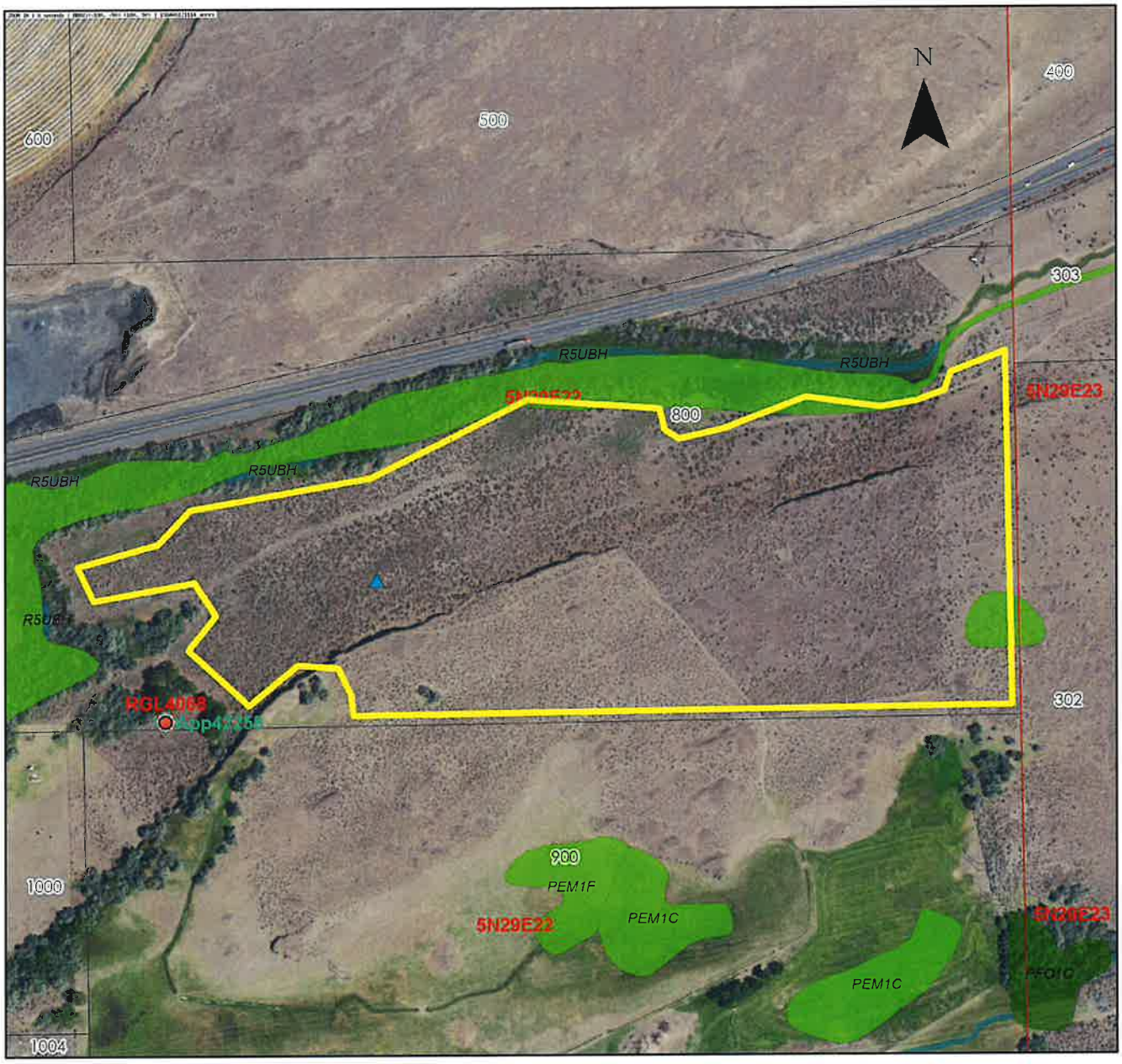
☒ **This is a preliminary jurisdictional determination and is advisory only.**

Copy To: ☒ Other Email: wdcox51393@gmail.com ☒ Enclosures: NwiAerial, HydroSoilsLidar
☒ Umatilla County Planning Department
☒ tamra.mabbott@gmail.com
☒ erick.staley@nv5.com

FOR OFFICE USE ONLY

Entire Lot(s) Checked? ☐ Yes ☒ No	**Waters Present** ☒ Yes ☐ No ☐ Maybe		**Request Received:** 02 / 24 / 2023
LWI Area: N/A	**LWI Code:** N/A	**Latitude:** 45.901916	**Longitude:** -119.167643
Has Wetlands? ☒Y ☐N ☐Unk	**ESH?** ☐Y ☒N	**Wild & Scenic?** ☐Y ☒N	**State Scenic?** ☐Y ☒N **Coast Zone?** ☐Y ☒N ☐Unk
Adjacent Waterbody: PEM, PFO, Cold Springs Wash		**Related DSL File #:** WD2022-0606 Same Site, APP42258 / WD2008-0503 Adjacent	

WD2023-0095 NwiAerial



220 110 0 220 440 660 880

Feet

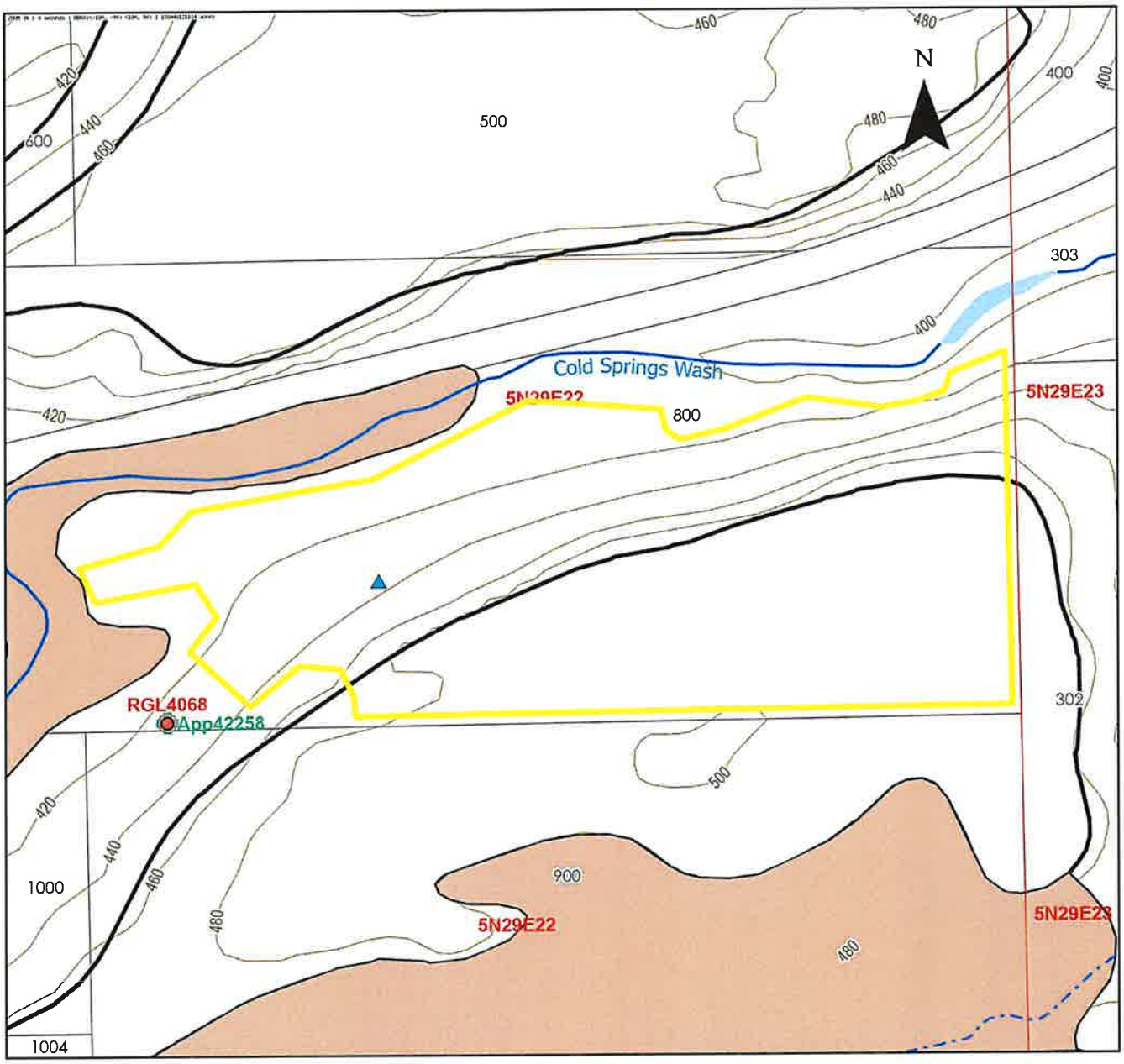
Legend

- Sections
- City Limits
- UGB
- Authorizations - Reg (WWC)
- Enforcements
- Mitigation - Type
- Wetland Delineations
- Wetland Determinations
- Determinations by Consultant
- Wetland Land Use Notices

SWI NWI Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/ Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

WD2023-0095 HydroSoilsLidar



220 110 0 220 440 660 880 Feet

Legend

- Sections
- City Limits
- UGB
- Authorizations - Reg (WWC)
- Enforcements
- Mitigation - Type
- Wetland Delineations
- Wetland Determinations
- Determinations by Consultant
- Wetland Land Use Notices
- DSL Compensatory Mitigation Sites
- ESH

FULCRUM
GEO RESOURCES LLC
17600 Pacific Highway, Unit 357
Marylhurst, Oregon 97036
503.250.2247

July 17, 2023

Oregon Department of Geology and Mineral Industries
Mineral Land Regulation and Reclamation Program
229 Broadalbin Street SW
Albany, OR 97321-2246

Operating Permit Application
Additional Narrative
Proposed CRP & Hauling Quarry
Umatilla County, Oregon
Project: 007.01.01

INTRODUCTION

On behalf of CRP & Hauling, LLC (CRP), Fulcrum GeoResources LLC (Fulcrum) is pleased to present this narrative to the Oregon Department of Geology and Mineral Industries (DOGAMI) for the proposed CRP & Hauling Quarry located in unincorporated Umatilla County, Oregon. CRP is applying for an Operating Permit (OP) and requested Fulcrum prepare the application package. Most of the project details are explained on the OP application form and mine plan maps. This narrative is intended to accompany the application and provide additional information.

In addition to this narrative, the application package includes the following:

- OP Application Form
- Proof of land ownership (Trio)
- Permit Boundary Survey Map
- Mine plan maps and figures including
    - Figure 1 – Vicinity Map
    - Figure 2 – Site Plan – Existing Topography with Aerial
    - Figure 3 – Reclamation Plan – Final Topography with Aerial
    - Figure 4 – Cross Sections A-A' and B-B'
- Offsite Wetland Determination Report prepared by Oregon Department of State Lands, dated December 5, 2022
- Offsite Wetland Determination Report prepared by Oregon Department of State Lands, dated March 17, 2023

BACKGROUND

The project is located in the southeast corner of tax lot 400 in the SW¼ and SE¼ of the NE¼ of Section 22, Township 5 North, Range 29 East, Willamette Meridian. The landowner is Randy Rupp. CRP has leased the property to operate a surface aggregate mine, conditional upon all approvals being met. Tax lot 400 covers a much larger area than the proposed mine project boundaries including lands north and west of Diagonal Boulevard and U.S. Route 730.

CRP is in the process of applying to be added to Umatilla County's Aggregate Resource (AR) Overlay, which would allow mining as a permitted use at the site. Review of the DOGAMI OP application is intended to run contemporaneously with the Umatilla County AR Overlay approval process. The proposed AR Overlay area consists of the portion of tax lot 400 enclosed by the easements off of Diagonal Boulevard and U.S. Route 730 and the south and east property boundaries, consisting of 74.0 acres. The proposed OP boundary is shown on the mine plan maps and consists of 46.7 acres. The OP boundary is defined by the south and east property lines and a boundary to the north and west intended to avoid interpreted wetlands and their buffers. The wetlands are further discussed below.

WETLANDS

Wetlands presented on the mine plan maps are located along the Cold Springs Wash and represent a combination of areas mapped in the National Wetlands Inventory (NWI)[1] and areas of potential wetlands noted by the Oregon Department of State Lands (DSL). CRP submitted an initial request for an offsite wetland determination to DSL in October 2022. DSL provided their initial determination, dated December 5, 2022, and noted four areas near the NWI-mapped wetlands that are potentially jurisdictional features. DSL recommended that CRP either revise the project to avoid all potential wetlands or conduct a wetlands delineation.

The project plans were revised to avoid the potentially jurisdictional features as well as a 25-foot buffer from the wetland features, as shown on the mine plan maps submitted with this application (Figures 2 and 3). The revised plans were submitted to DSL for a follow-up offsite wetland determination. DSL reviewed the revised mine plan and provided a determination report, dated March 17, 2023. DSL explained that while the agency could not concur with the mapped wetlands, as they have not been officially delineated, the revised project appears to avoid jurisdictional wetlands and waterways, and a state permit does not appear to be required.

The only anticipated impact from the project to these features is the placement of a culvert for the access road across a segment of the Cold Springs Wash east of the mapped wetlands. This crossing will require less than 50 cubic yards of fill and will not impede seasonal water flow along the wash. As such, a state removal/fill permit will not be needed.

[1] https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper

DEED EXCEPTIONS

The trio (property profile, property map, and deed with legal description) included with the OP application lists many exceptions under Exhibit B, consisting mostly of reservations and easements. The deed transferring ownership of the subject property to the current landowner (Randy Rupp) included 17 separate tracts. The tract relevant to the proposed CRP & Hauling Quarry is Tract 4. Fulcrum and the applicant's land-use attorney reviewed the listed exceptions recovered from property records by AmeriTitle, who prepared the trio. Based on review of the available records, the listed exceptions either are for tracts other than Tract 4, are not relevant to the project area, or consist of public-roadway and utility easements along Diagonal Boulevard and U.S. Route 730. None of those easements are located in the proposed OP boundary.

Document ID: 007.01.01_2023-07-17 OP narr.docx

Oregon Department of Geology and Mineral Industries
Mineral Land Regulation and Reclamation Program
229 Broadalbin Street SW
Albany, OR 97321-2246
(541) 967-2039
Fax (541) 967-2075

Operating Permit Application Form Division 30 & Division 35*

*DOGAMI may require additional information for Division 35 applications.

CONFIDENTIALITY NOTICE
Any production records, mineral assessments and trade secrets submitted by a mine operator or landowner to the State Department of Geology and Mineral Industries shall be confidential. [1999 c.492 §10 (enacted in lieu of ORS 517.900)]

Primary Point of Contact

To ensure effective communications and timely processing, a Primary Point of Contact (PPC) is recommended for this application. The PPC should be a representative of the applicant with signature authority or a designated agent. Documentation of signature authority and/or designated agent is required for all applicants registered to do business in the state of Oregon. DOGAMI specific Designated Agent and Signature Authority forms are available on our website.

Section 1: Contact Information			
1a. Applicant / Proposed Permittee			
Name of Applicant: **CRP & Hauling, LLC**			
Mailing Address: **PO Box 131**	City: **Hermiston**	State: **OR**	Zip: **97838**
Telephone: **541-571-5118**	Fax:	Email: **wdcox51393@gmail.com**	
Preferred method of contact ☐ Telephone ☒ Email			
1b. Primary Contact for the Application			
Name: **Doug Cox**			
Mailing Address: **PO Box 131**	City: **Hermiston**	State: **OR**	Zip: **97838**
Telephone: **541-571-5118**	Fax:	Email: **wdcox51393@gmail.com**	
Preferred method of contact ☐ Telephone ☒ Email			
1c. Application Prepared By			
Name: **Erick Staley, Fulcrum GeoResources LLC**			
Mailing Address: **17600 Pacific Hwy, Unit 357**	City: **Marylhurst**	State: **OR**	Zip: **97036**
Telephone: **503-250-2247**	Fax:	Email: **erick@fulcrumgeo.com**	
Preferred method of contact ☐ Telephone ☒ Email			
1d. Operator Information			
Name: **same as Applicant**			
Mailing Address:	City:	State:	Zip:
Telephone:	Fax:	Email:	
1e. Contact Person for Field Visits			
Name: **Doug Cox**	Preferred method of contact ☒ Telephone ☐ Email		
Telephone: **541-571-5118**	Fax:	Email: **wdcox51393@gmail.com**	
1f. Landowner Information			
Name of Landowner (1): **Randy Rupp**			
Mailing Address: **176 Kranichwood St**	City: **Richland**	State: **WA**	Zip: **99352**
Telephone: **509-628-7516**	Fax:	Email:	
Name of Landowner (2):			
Mailing Address:	City:	State:	Zip:
Telephone:	Fax:	Email:	
1g. Mineral Estate Owner Information – If Split Estate			
Name of Mineral Estate Owner (1):			
Mailing Address:	City:	State:	Zip:
Telephone:	Fax:	Email:	
Name of Mineral Estate Owner (2):			
Mailing Address:	City:	State:	Zip:
Telephone:	Fax:	Email:	

Section 2: Project Description

2a. Location Information

Address and/or highway and milepost of surface mine:

Located southeast of intersection between US 730 and Diagonal Blvd (OR 207); entrance at Milepost 191.9.

Distance from the nearest named community: **6** mile(s) from **northeast of Hermiston, OR**

Directions to site (from the nearest town or major intersection):

Drive 6 miles northeast from Hermiston on Diagonal Blvd, turn right at intersection with US 730. Drive 0.5 miles east on US 730 to site entrance, turn right onto site.

Legal Description:

County: **Umatilla**

Township: **5N**	Range: **29E**	Section: **22**	Tax Lot(s): **400 (portion)**
Township: _____	Range: _____	Section: _____	Tax Lot(s): _____
Township: _____	Range: _____	Section: _____	Tax Lot(s): _____
Township: _____	Range: _____	Section: _____	Tax Lot(s): _____

Latitude/Longitude: **45.901195° / -119.164285°**

Site Name: CRP & Hauling Quarry

Does this site have a current DOGAMI Operating Permit, Exploration Permit, Exclusion Certificate, or Grant of Limited Exemption, or has it been permitted in the past? ☐ yes ☒ no

If yes: Specify DOGAMI ID# _____

Is there an approved Limited Exemption Closure Plan on file with DOGAMI? ☐ yes ☒ no

2b. Application Type

Please indicate the purpose of this application:

☒ New Operating Permit – skip to 2c.

☐ Amendment to a current Operating Permit

If you are applying for an Amendment to a current Operating Permit, please describe in detail the intended modifications:

The Proposed Operating and Reclamation Plans in this Amendment will (check one):

☐ Replace the existing approved plan(s) on file with DOGAMI and apply to the entirety of the site upon completion of this Amendment.

☐ Pertain only to the Amendment area and are in addition to the existing approved plan(s) on file with DOGAMI.

2c. Third Party Permits and Approvals

Do you know of any state, federal or local government permits or approvals that will be required for this mining operation? ☒ yes ☐ no

If yes: Please list any state, federal or local government permits or approvals and describe the status:

Umatilla County - Addition of Aggregate Resource Overlay - applied/pending

Oregon Department of Transportation Approach Permit - applied/pending

Oregon Department of Environmental Quality Air Permit - prior to processing, will be procured by crushing subcontractor for their portable crusher

*Note: DOGAMI can only issue an Operating Permit if all required state, federal, and local government approvals have been obtained, otherwise a Provisional Operating Permit will be issued. POP's are not applicable to Operating Permit Amendment applications.

2d. Permit Acreage and Boundaries

Specify the approximate total number of acres to be covered under the Operating Permit **46.7** acres

Does the proposed permitted acreage coincide with the area approved by the local land use jurisdiction? ☒ yes ☐ no

If no: Explain: **Permit area is fully located within the AR overlay proposal under review by Umatilla County.**

Have the boundaries of the proposed permit area been marked on the ground with temporary or permanent boundary markers? ☒ yes ☐ no

If yes: Describe boundary markers: **Boundary corners marked with pink stakes during permit boundary survey. Additional markers will be placed after approval of permit application and before site preparation for mining.**

What is the total number of acres to be affected by mining related activities in the 12 months following permit issuance (include excavation, processing, stockpiling and land clearing)? **12** acres

2e. Site Conditions

General Topography in the vicinity of the permit area (check all that apply):

☐ mountains ☒ hills/buttes ☐ valleys ☒ plains ☐ badlands
☐ floodplain ☐ other: _____ ☐ other: _____

Site Specific Topography (describe the topography within the permit area): **Site topography consists of a well-defined bluff up to 50 feet tall and running roughly east to west, which separates a flat upland in the southeast site from the gently sloped, lower property to the north.**

Current Land Use(s) for all tax lots or parcels within the permit area (check all that apply):

☒ range/open space ☐ forestry ☐ industrial ☐ wildlife/wetland ☐ recreation
☐ residential ☐ commercial ☐ agriculture ☐ other: _____ ☐ other: _____

Structures, Facilities & Surface Disturbances:

☒ none ☐ residential ☐ farm/ranch
☐ industrial/commercial ☐ roads ☐ overhead power lines or facilities
☐ underground utilities (e.g. electrical, fiber optic, water, sewer, etc.) ☐ oil/gas structures or pipelines ☐ other: _____

Additional Description (optional):

Vegetation (general description of the dominant grasses, forbs, shrubs and trees located within the permit area):

Site vegetation consists of dry-climate grasses with shrubs and isolated trees.

Listed sensitive, threatened or endangered fish and/or wildlife species (within the permit area and nearby water ways):

None are known; no critical habitat mapped in the site vicinity by USFWS, NMFS, and ODFW.

Surface Water Features within or near the permit area (includes features that may contain water at any time, including seasonal and stormwater runoff):

☐ none ☐ river _____ ☒ stream/creek **Cold Springs Wash** ☐ spring
☐ lake/pond ☐ irrigation ditch/canal ☒ ephemeral drainage ☒ wetlands*

***The DOGAMI Wetland Supplemental Form may be required to be submitted with this application package.**

2f. Surrounding Area Conditions

Land Use(s) within 1,500 feet of the permit area (check all that apply):

☒ range/open space ☐ forestry ☒ industrial ☒ wildlife/wetland ☐ recreation
☒ residential ☐ commercial ☒ agriculture ☐ other: _____ ☐ other: _____

Structures, Facilities & Surface Disturbances within 1,500 feet of the permit area (check all that apply):

- ☐ none
- ☒ industrial/commercial
- ☒ underground utilities (e.g. electrical, fiber optic, water, sewer, etc.)
- ☒ residential
- ☒ roads
- ☐ oil/gas structures or pipelines
- ☐ farm
- ☒ overhead power lines or facilities
- ☐ other: _____

What is the distance to the nearest structure not owned by the permittee? **~1,100** feet

Surface Water Features within 1,500 feet of the permit area (check all that apply):

- ☐ none
- ☐ river _____
- ☒ stream/creek **Cold Springs Wash**
- ☐ spring
- ☐ lake/pond
- ☐ irrigation ditch/canal
- ☒ ephemeral drainage
- ☒ wetlands*

***The DOGAMI Wetland Supplemental Form may be required to be submitted with this application package.**

Section 3: Proposed Operating Plan

3a. Development Plans & Equipment

What type of surface mine will be developed?

☐ single bench ☐ multiple bench ☒ sidehill cut ☐ hilltop removal
☐ open pit ☐ pond excavation ☐ other: _____ ☐ other: _____

What is the primary commodity? (Select One)

☒ lava ☐ decomposed granite ☐ pumice ☐ topsoil
☐ borrow/fill ☐ diatomaceous earth ☐ sand and gravel ☐ bentonite
☐ cinder ☐ dredge tailings ☐ shale ☐ other: _____

What is the primary use? (Select One)

☐ asphalt aggregate ☐ concrete aggregate ☐ landscaping materials ☐ other: _____
☒ base rock aggregate ☐ construction fill ☐ rip rap

What is the general deposit type?

☒ bedrock ☐ river/floodplain (alluvial)* ☐ river channel terrace
☐ talus ☐ other: _____ ☐ unknown

***The DOGAMI Floodplain Supplemental Form may be required to be submitted with this application package.**

Check all mining methods and on-site activities that apply:

☒ drilling and blasting ☒ ripping and loading ☒ crushing ☐ washing ☒ screening
☒ shovel/loader/scraper ☐ material recycling ☒ stockpiling ☐ other: _____ ☐ other: _____

Equipment to be used for mining and processing includes (check all that apply):

☒ loaders ☒ dozers ☒ excavators ☒ trucks ☒ screeners
☒ crushers ☒ drilling equipment ☐ other: _____ ☐ other: _____

Date to begin mining activities: **shortly after approval** Expected duration (in years): **20-40**

3b. Water Management

Indicate the proposed use(s) of water (check all that apply):

☐ wash plant ☐ asphalt plant ☐ concrete batch plant
☒ dust control ☐ crusher ☐ other: _____

Note: A DEQ permit will be required for process water generated and stored on site.

If applicable: Is the water source within 300 feet of the permit area? ☐ yes ☒ no

If yes: Identify the source of water to be used and show its location on a map:

☐ irrigation ditch ☐ pond ☐ pit ☐ groundwater well ☐ other: _____

Note: A water right may be required by the Oregon Water Resource Department.

Will water be stored on site? ☒ yes ☐ no

If yes: What will the water be stored in?

☐ detention/retention pond ☐ lined detention/retention pond ☒ water storage tank
☐ other: _____

What is the approximate depth that groundwater is first encountered? **~405 ft above mean sea level; ~10-15** feet below ground surface

What source or method was used to determine depth to groundwater? **max water level in nearby wetland areas**

Have monitoring wells been constructed on site or are monitoring wells proposed? ☐ yes ☒ no

If yes: A DOGAMI Groundwater Supplemental Form must be submitted with this application.

Will excavation operations be conducted below groundwater level? ☐ yes ☒ no

Will dewatering be conducted at this site? ☐ yes ☒ no

If yes: A DOGAMI Groundwater Supplemental Form must be submitted with this application and a DEQ Permit may be required.

Has a DEQ water quality permit been obtained for the site?

If yes: DEQ Permit #

3c. Designated Setbacks

Will surface mining operations require crossing external property lines? ☐ yes ☒ no

What will be the minimum undisturbed property line setback for:

Excavation operations: **25** feet wide

Processing operations: **> 25** feet wide

Stockpiling operations: **> 25** feet wide

If proposing disturbances within the setbacks (such as visual berms or roads), explain: **Perimeter berms composed of stored topsoil will be located in the setback around the south and east extraction area.**

Specify the minimum undisturbed setback(s) between mining operations and:

Overhead utilities (poles or towers): _____ feet wide

Underground utilities (e.g. electrical, fiber optic, water, sewer, etc.): _____ feet wide

Right-of-Way/Easement Road: _____ feet wide

Other: _____ _____ feet wide

☒ not applicable (none of the above-listed items are present within the proposed permit area)

Are setbacks shown on the attached map(s)? ☒ yes ☐ no

If no: Explain:

Have setbacks been marked on the ground with permanent or temporary boundary markers? ☐ yes ☒ no

If no: Explain: **Markers will be placed after approval of permit application and before mining operations commence.**

3d. Designated Buffers

Does a naturally vegetated area (buffer) exist along a river, stream or natural drainage? ☐ not applicable ☒ yes ☐ no

If no or not applicable, skip to 3e.

What are the minimum undisturbed buffers for the following:

River (Ordinary High Water Line): _____ feet wide

Stream (Ordinary High Water Line): _____ feet wide

Natural drainage: _____ feet wide

Riparian Vegetation: **25** feet wide

Have the undisturbed buffers been marked on the ground with permanent or temporary boundary markers? ☐ yes ☒ no

Have conservation/protection buffers been established? ☐ not applicable ☐ yes ☒ no

If yes: check all that apply:

☐ unstable slopes ☐ wildlife habitat ☐ water quality ☐ other: _____

Describe the nature and configuration of the conservation buffer(s):

Wetland buffers are located outside of the permit boundary.

3e. Visual Screening

Does a natural landform or vegetative screen currently exist?

Along the **permit** boundary ☒ yes ☐ no

Within the **permit** boundary ☒ yes ☐ no

Along the **property** boundary ☒ yes ☐ no

Within the **property** boundary ☒ yes ☐ no

If yes to any of the above: Describe: **The quarry will consist of a side-hill cut into a basalt bluff and will be accessed from the north. Viewers from the south and most of the east perimeter will not see the quarry. Additional visual screening will be provided by perimeter berms. The wetland/treed areas north and west of the permit area have trees and other vegetation and will remain to screen the site from the north and west.**

Will a berm be constructed along the permit boundaries to develop a visual screen? ☒ yes ☐ no

If yes: The average height of the constructed screen/berm will be **5** feet tall and **10-20** feet wide.

Will a vegetative screen be established along the permit boundaries to develop a visual screen? ☐ yes ☒ no

If yes: If planting trees, what is the estimated height at maturity? _____ feet tall

Please describe (include species and planting densities):

Will a fence be installed along the permit boundary for safety or visual screening? ☒ yes ☐ no

Will the screening/fencing/berm be maintained for the life of the surface mine? ☐ not applicable ☒ yes ☐ no

If no: Explain:

3f. Vegetation

Will vegetation be removed sequentially from areas to be mined to prevent unnecessary erosion? ☒ yes ☐ no

If no: Explain:

Will small trees and other transplantable vegetation be salvaged for use in revegetating other phases? ☐ yes ☒ no

Wood and other organic debris will be (check all that apply):

☐ recycled ☒ removed from site ☒ chipped ☒ burned ☐ buried

☐ piled and composted on site for growth medium or mulch ☐ other: _____ ☐ other: _____

Note: A DEQ permit is generally required for burial of debris and may be required for burning.

Will coarse wood (logs, stumps) and other large debris be salvaged for fish and wildlife habitat? ☐ not applicable ☐ yes ☒ no

3g. Soil and Overburden Salvage and Stabilization

Identify and characterize the type(s) of soil present within the site area per NRCS Web Soil Survey:

Soils mapped by NRCS within the proposed mine area consist of Quincy-Rock outcrop complex on the upland and Quincy loamy fine sand between the bluff and the wetland areas. The topsoil thickness described for these units (where topsoil is present) is reported to be 15 inches.

Will growth medium and overburden materials be salvaged? ☒ yes ☐ no

Explain: **Growth medium will be stripped incrementally ahead of mining and stored in perimeter berms and stockpiles. Overburden will be minimal - thin to absent over bedrock, and sand will be sold as a product.**

Will growth medium and overburden materials be segregated and stored separately during stripping operations? ☒ yes ☐ no

Explain proposed stripping, handling, and storage of growth medium and overburden materials: **Growth medium (e.g. topsoil) will be stripped using dozers and placed in nearby berms or loaded and hauled to designated piles for future reclamation of the site. Overburden sand will be sold as product. If any sand is not sold, it will be separately stockpiled near the source area and be incorporated into reclamation and spread as a subsoil prior to placing topsoil.**

For the areas to be stripped:

Thickness of growth medium averages **ranges 0 to 15 in.; average ~8 in.** ☒ inches ☐ feet

Thickness of overburden averages **minimal; sand will be sold as product** ☐ inches ☐ feet

Depth to bedrock is approximately **ranges 0 to 24 in.** ☒ inches ☐ feet (below ground surface).

Total volume of growth medium available within the permit area is **~40,000** cubic yards.

Total volume of stored growth medium is **none currently** cubic yards and will require **2-3** acres for storage.

Total volume of stored overburden is **none currently** cubic yards and will require **minimal** acres for storage.

Will growth medium and overburden materials be moved directly to mined out portions of the site for concurrent reclamation? ☐ yes ☒ no

Will the storage areas be cleared of all vegetation and organic matter prior to stockpiling? ☐ yes ☒ no

If no: Explain: **Brush will be removed prior to soil stockpiling, but grasses will remain along with in-place topsoil. Storage areas are flat to gently sloped and do not present a stability issue for stockpiling.**

Will subsurface drainage for the storage area be established prior to material placement? ☐ yes ☒ no

Explain: **Subsurface drainage improvements are not needed for soil storage areas. They are sandy and flat to gently sloped.**

Will growth medium and overburden materials be stabilized with vegetation to prevent water and wind erosion if stored for more than one season? ☒ yes ☐ no

If no: Explain:

Are the storage areas delineated on the attached map(s)? ☒ yes ☐ no

3h. Surface Mine Excavations

What is the total number of acres to be affected by mining related activities (include excavation, processing, stockpiling and land clearing)? **~45** acres

What is the maximum vertical depth to be mined below the existing topographic grade? **80** feet

What will be the lowest elevation of the excavated mine relative to mean sea level? **420** feet

What will be the highest elevation of the excavated mine relative to mean sea level? **500** feet

Will benches be developed as mining operations advance? ☒ yes ☐ no

If yes: The average dimensions of the benches will be approximately:

30-40 foot vertical faces separated by **45-60** foot horizontal benches resulting in an interim sloping configuration of **1.5**H: **1**V (e.g. 1½H:1V, 2H:1V)

If no: The interim sloping configuration of the excavation slopes will be: _____H: _____V (e.g. 1½H:1V, 2H:1V).

Will excavation operations result in the creation of ponds/water-filled excavation areas? ☐ yes ☒ no

If yes: The interim sloping configuration of the in-water slopes will be _____H: _____V (e.g. 3H:1V).

Will oversize be generated on site? ☐ yes ☒ no

If yes: Specify the location for storage:

Will any waste products such as tailings or crusher fines be generated during mining? ☐ yes ☒ no

If yes: Specify the location for storage:

Are the storage/stockpile areas delineated on the attached map(s)? ☒ yes ☐ no

3i. Best Management Practices and Stormwater Controls

Will all stormwater runoff be contained on site? ☒ yes ☐ no

If no: A DEQ (NPDES)Permit may be required.

Methods to control erosion and minimize sedimentation within the permit area include (check all that apply):

☒ minimize the areas stripped	☒ divert natural runoff around the site	☒ graveled roads and working areas
☒ internal sloping	☒ conveyance ditches	☒ rock check dams
☐ water bars	☒ settling/infiltration ponds	☐ retention berms
☒ seeding and mulching	☐ other: _____	☐ other: _____

Section 4: Reclamation Plan

4a. Post-Mining Land Use

Subsequent Land Use(s) of the permit area (check all that apply):

☒ range/open space ☐ forestry ☐ industrial ☐ wildlife/wetland ☐ recreation
☐ residential ☐ commercial ☐ agriculture ☐ other: _____ ☐ other: _____

If more than one post-mining land use is selected provide a map delineating where each use is applicable.

What will be the average elevation of the reclaimed mine floor relative to mean sea level? 420 feet

Is the proposed post-mining land use compatible with the existing local land use jurisdiction? ☒ yes ☐ no

If no: Explain:

Is the final local land use approval for surface mining attached? ☐ yes ☒ no

If no: Explain: **Approval of AR overlay in process with Umatilla County.**

4b. Reclamation Schedule

Will reclamation activities be conducted concurrently with mining? ☒ yes ☐ no

If no: How many days after mining is completed will reclamation operations begin?

If yes: Has the permit area been divided into cells/phases for sequential mining? ☐ yes ☒ no

4c. Final Excavation Slopes

Will final excavation slopes be constructed using the benching method? ☒ yes ☐ no

If yes: The average dimensions of the final benches will be approximately 30-40 foot vertical faces separated by 45-60 foot horizontal benches resulting in an interim sloping configuration of 1.5H: 1V (e.g. 1½H:1V, 2H:1V).

Will final slopes be constructed via a continuous slope? ☐ yes ☒ no

If yes: The completion of Section 4d is required.

Will reclamation blasting be used to reduce the entire highwall to a scree or rubble slope less than 2H:1V? ☐ yes ☒ no

If yes: Will access to benches be maintained for reclamation blasting? ☐ yes ☐ no

Will selective blasting will be used to remove benches and walls and to create chutes, buttresses, spurs, scree slopes, and rough cliff faces that appear natural or blend in with surrounding topography? ☒ yes ☐ no

Will final excavation slopes be steeper than 1½H:1V? ☐ yes ☒ no

If yes: The DOGAMI Slope Stability Supplemental Form must be submitted with this application.

Will small portions of benches or vertical faces be left to provide habitat for raptors and other cliff-dwelling birds? ☒ yes ☐ no

Will the final excavation slopes vary in steepness? ☒ yes ☐ no

If yes: Explain: **Final slopes will be benched and blend with adjacent slopes.**

Are cross-sections of the final excavation slopes attached? (may be required) ☒ yes ☐ no

Will measures be taken to limit access to the top and bottom of hazardous slopes? ☒ yes ☐ no

Explain: **Berms will be maintained at the top of the slope during mining. Fencing will be installed above the highwall where berms are removed following reclamation.**

4d. Final Fill Slopes

Will above-water final fill slopes be constructed on site? ☐ yes ☒ no

If no: Skip to 4e.

Will final fill slopes be steeper than 2H:1V or exceed 100 lineal feet in length? ☐ yes ☐ no

What will be the final sloping configuration of fill slopes? _____H: _____V (e.g. 2H:1V)

If yes: The DOGAMI Slope Stability Supplemental Form must be submitted with this application.

Will the final fill slopes vary in steepness? **If yes:** Explain:	☐ yes ☐ no
Will fill slopes have a sinuous appearance in both profile and plan view? **If no:** Explain:	☐ yes ☐ no
Will the final grouser tracks of equipment be preserved and oriented to trap moisture, growth medium, and seeds, to encourage seed germination and inhibit erosion (track walking)?	☐ yes ☐ no

4e. Working Floors	
Will flat working areas be formed into gently rolling hills to blend in with the surrounding area? **If yes:** Give details:	☐ yes ☒ no
Will the working floor be gently graded into sinuous drainage channels to preclude sheet-wash erosion during heavy rain events? **If yes:** Give details: **The final quarry floor will be gently sloped to direct stormwater to the north ditch en route to the infiltration area.**	☒ yes ☐ no
Will the working floor and other compacted areas be, plowed, ripped, or blasted to decompact the upper surface prior to spreading growth mediums to foster revegetation? Explain (If yes, include depth of decompaction): **After the mine excavation is constructed to final grade, the floor and flattened portions of benches will be ripped 3 to 6 inches, then both will be capped with growth medium and revegetated.**	☒ yes ☐ no

4f. Imported Fill	
Will imported materials be necessary to complete reclamation? **If no:** Skip to 4g. **If yes:** Give volumes needed to meet reclamation plan: _____	☐ yes ☒ no
Are the locations for fill stockpiling and permanent placement shown on the map(s)?	☐ yes ☐ no
How will the quality of imported fill be monitored to ensure it meets DEQ clean fill standards? _____	
Will the backfill materials be mixed or screened to ensure uniformity for compaction and stability?	☐ yes ☐ no

4g. Backfilling Operations	
Will an excavation area be located below natural grade requiring backfilling? **If no:** Skip to 4h	☐ yes ☒ no
What will be the total depth of backfilled materials? _____ feet.	
Will backfilling be conducted in lifts? **If yes:** Specify the average depth of the lifts: _____ feet.	☐ yes ☐ no
Will the backfilled slopes be compacted? Explain:	☐ yes ☐ no
Will compaction testing be conducted under supervision/direction of an Oregon Certified Engineering Geologist or Geotechnical Engineer to determine the compaction percentage? (may be required subject to post-mining land use)	☐ yes ☐ no
Will backfilling be completed utilizing on site overburden materials? **If yes:** Explain:	☐ yes ☐ no
Will you be backfilling into water? **If no:** Skip to 4h	☐ yes ☐ no
Will dewatering be necessary for the backfilling operations? **If yes: A DOGAMI Groundwater Supplemental Form is required to be submitted with this application and a DEQ NPDES Permit may be required.**	☐ yes ☐ no

Will backfilling be limited to the dry season or otherwise conducted under dry conditions? ☐ yes ☐ no
If no: A DOGAMI Slope Stability Supplemental Form may be required.

Will the excavation pit/pond be *entirely* backfilled to natural ground surface elevation? ☐ yes ☐ no
If no: The completion of Section 4h is required for in-water sloping configurations.

4h. Ponds and Wetlands

Will stormwater controls or excavation operations intersect the groundwater table resulting in the creation of ponds and/or wetlands? ☐ yes ☒ no
If no: Go to Section 4i.

Specify the construction method and dimensions for each settling/infiltration pond to remain on site:
Pond #1 will be approximately _____ acres in size and approximately _____ feet deep and constructed via:
☐ excavation ☐ retention berms ☐ combination of both
Pond #2 will be approximately _____ acres in size and approximately _____ feet deep and constructed via:
☐ excavation ☐ retention berms ☐ combination of both

All in-water sloping configurations will be constructed at _____ H: _____ V or flatter to a minimum depth of _____ feet below the low-water level of the ponds(s).
Per OAR 632-030-0027(5), all in-water sloping configurations must be established at 3H:1V or flatter from the ordinary high-water level to six feet below the ordinary low-water level for permanent water impoundments.

If not already present, will soils, silts, and clay-bearing materials be placed below water level to enhance revegetation for fish and wildlife habitat? ☐ yes ☐ no
If yes: Give details:

Will wetlands be constructed on site? ☐ yes ☐ no
If yes: Give details:

Will wildlife and fish habitat/enhancements be developed? ☐ yes ☐ no
If yes: Check all that apply:
☐ varied water depths ☐ islands ☐ peninsulas ☐ fish structures
☐ shallow areas (<18 inches deep) ☐ sinuous/irregular shorelines ☐ other: _____ ☐ other: _____
What species are the habitat/enhancements intended to benefit?

Will final pond(s) be utilized for agriculture, forestry or supply water (impoundment)? ☐ yes ☐ no
If no: Skip to 4i.

Has approval from other agencies with jurisdiction to regulate impoundment of water been obtained? ☐ yes ☐ no
If yes: Attach written approval.

What measures will be taken to prevent seepage from the site from adversely affecting the stability of impoundments and adjacent slopes? (check all that apply):
☐ monitoring ☐ relief drains ☐ weep holes
☐ compaction ☐ grouting ☐ installing upstream blanket
☐ none
Give details:
What measures have been taken to design impoundments to resist seismic hazards?

4i. Growth Medium Replacement

Will the importation of growth medium be required to complete reclamation? ☐ yes ☒ no
Explain (if yes, describe source):

Will growth medium materials be replaced on all above-water slopes and/or benches? ☐ yes ☒ no
If no: Explain: **Near-vertical portions of benches will remain, which will provide wildlife (e.g. raptor) habitat similar to the bluffs and cliffs located in the surrounding vicinity.**

Will growth medium be distributed evenly over the site? ☒ yes ☐ no
If no: Specify: **Except on near-vertical bench slopes**

Soil will be replaced on the mine floor to an approximate depth of 8 ☒ inches ☐ feet
Soil will be replaced on established benches to an approximate depth of 8 ☒ inches ☐ feet

If growth medium is in short supply, will it be strategically placed to conserve moisture and promote revegetation? ☒ yes ☐ no
If no: Explain:

Will growth medium be moved when conditions are exceptionally wet or dry? ☐ not applicable ☐ yes ☒ no
If yes: Explain:

If applicable: will clay/silt from settling ponds be used to supplement the growth medium materials? ☐ yes ☒ no

Will any additional materials be utilized as a growth medium substitute to complete revegetation (e.g. reject fines)? ☐ not applicable ☒ yes ☐ no
If yes: Explain: **If excess sand remains at completion of mining, it will be incorporated as a subsoil/additional growth medium for revegetation.**

Will all growth medium be replaced with equipment that will minimize compaction, or will growth medium be plowed, disced, or ripped following placement? ☒ yes ☐ no
If no: Explain:

Will all replaced growth medium be stabilized in a timely manner with vegetation and/or mulch to prevent loss by erosion, slumping, or crusting? ☒ yes ☐ no
If no: Explain:

4j. Revegetation

The average precipitation on site is 10 inches per year.

Will the site be revegetated? ☒ yes ☐ no
If no: The site will not be revegetated because:
☐ Demonstration plots and areas will be used to show that active revegetation is not necessary.
☐ Revegetation is inappropriate for the approved subsequent use of this surface mine.

Will revegetation activities start during the first proper growing season (e.g. fall for grasses, fall or late winter for trees and shrubs) following restoration of slopes? ☒ yes ☐ no
If yes: Give details: **Grass seed will be broadcast at 40 pounds per acre over replaced topsoil.** **If no:** Explain:

Will vegetation test plots be used to determine optimum vegetation plans? ☐ yes ☒ no

4k. Planting and/or Seeding Techniques and Specifications

Describe the method and time of year for planting and/or seeding: **Seed will be broadcast by hand over replaced topsoil in the fall.**

Give seeding details (lbs/acre of grass, legume, or forb mixture): **Grass seed will be broadcast at 40 pounds per acre.**

Give planting details (stems/acre of trees and shrubs, size and type of plant stock): **n/a**

Additional planting/seeding techniques include:

☒ ripping, discing and/or tilling	☐ blasting to create permeability	☐ mulching
☐ irrigation	☐ fertilization	☐ planting dormant trees and shrubs
☐ importation of clay or organic-rich growth medium	☐ other growth medium conditioners or amendments	☒ seeds to be protected with growth medium or mulch
☐ other: _____		

Describe the noxious weed and invasive plant control measures: **Should noxious or invasive species propagate on site, they will be removed mechanically or by herbicide.**

4l. Drainage and Stormwater Controls				
Will the reclaimed surface mine site be internally drained?		☒ yes	☐ no	
Will natural runoff be directed to a natural drainage or safe outlet upon completion of reclamation?	☐ not applicable	☒ yes	☐ no	
If applicable: Explain: **The final quarry floor will be gently sloped to direct stormwater to the north ditch en route to the infiltration pond, where it will infiltrate.**				
Will the construction of ditches and channels be necessary to limit erosion and siltation?		☒ yes	☐ no	
If applicable: Explain: **A perimeter ditch will be constructed along the north side of the operation to capture stormwater and route to the infiltration pond. Check dams will be placed along the ditch as needed to reduce flow velocity and ditch erosion.**				
Will conveyance ditches and channels be lined with vegetation or riprap?	☐ not applicable	☒ yes	☐ no	
If applicable: Explain: **The ditch will be lined with ripap as needed.**				
Will it be necessary to stabilize or rehabilitate stream channels or banks?		☐ yes	☒ no	
If yes: Give details:				

4m. Site Cleanup		
Will all mining-related equipment be removed from the site?	☒ yes	☐ no
If no: Explain:		
Will all structures and buildings be removed from the site?	☒ yes	☐ no
If no: Explain:		
Will all visual and/or retention berms be removed from the site?	☒ yes	☐ no
If no: Explain:		
Will all debris, refuse, and/or hazardous material be removed from the site?	☒ yes	☐ no
If no: Explain:		
Will all stockpiles be sold, graded, and or removed from the site?	☒ yes	☐ no
If no: Explain:		
Will all oversize be sold, reduced, or removed from the site?	☒ yes	☐ no
If no: Explain:		

Signature Page

APPLICANT

I am applying for an Operating Permit under ORS 517.790. My signature below attests that the information provided in this application is accurate and true to the best of my knowledge. Any misrepresentation in these materials will be considered grounds for denial for an Operating Permit.

Doug Cox, CRP & Hauling, LLC
Applicant's Printed Name

Applicant's Signature

Owner
Title

7/17/2023
Date

PREPARED BY

I prepared this application for the applicant above. My signature below attests that the information provided in this application is accurate and true to the best of my knowledge. Any misrepresentation in these materials will be considered grounds for denial for an Operating Permit.

Erick Staley, Fulcrum GeoResources LLC
Preparer's Printed Name

Preparer's Signature

Principal Geologist
Title

7/17/2023
Date

LANDOWNER(S)

I have read, understand, and acknowledge receipt of all information provided in this application. By signing this form, I am granting consent to the mining activities as outlined in this application on my property.

Randy Rupp
Landowner (1) Printed Name

Landowner (1) Signature

Owner
Title

7/17/2023
Date

Landowner (2) Printed Name

Landowner (2) Signature

Title

Date

MINERAL ESTATE OWNER(S)

I have read, understand, and acknowledge receipt of all information provided in this application. By signing this form, I am granting consent to the mining activities as outlined in this application on my property.

Randy Rupp
Mineral Estate Owner (1) Printed Name

Mineral Estate Owner (1) Signature

Owner
Title

7/17/2023
Date

Mineral Estate Owner (2) Printed Name

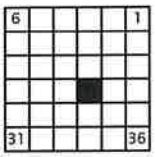
Mineral Estate Owner (2) Signature

Title

Date

Attach additional signature pages as necessary

T 5 N



R 29 E

EASTERN OREGON

SITE COORDINATES:

LATITUDE: **45° 54' 7.5" N**

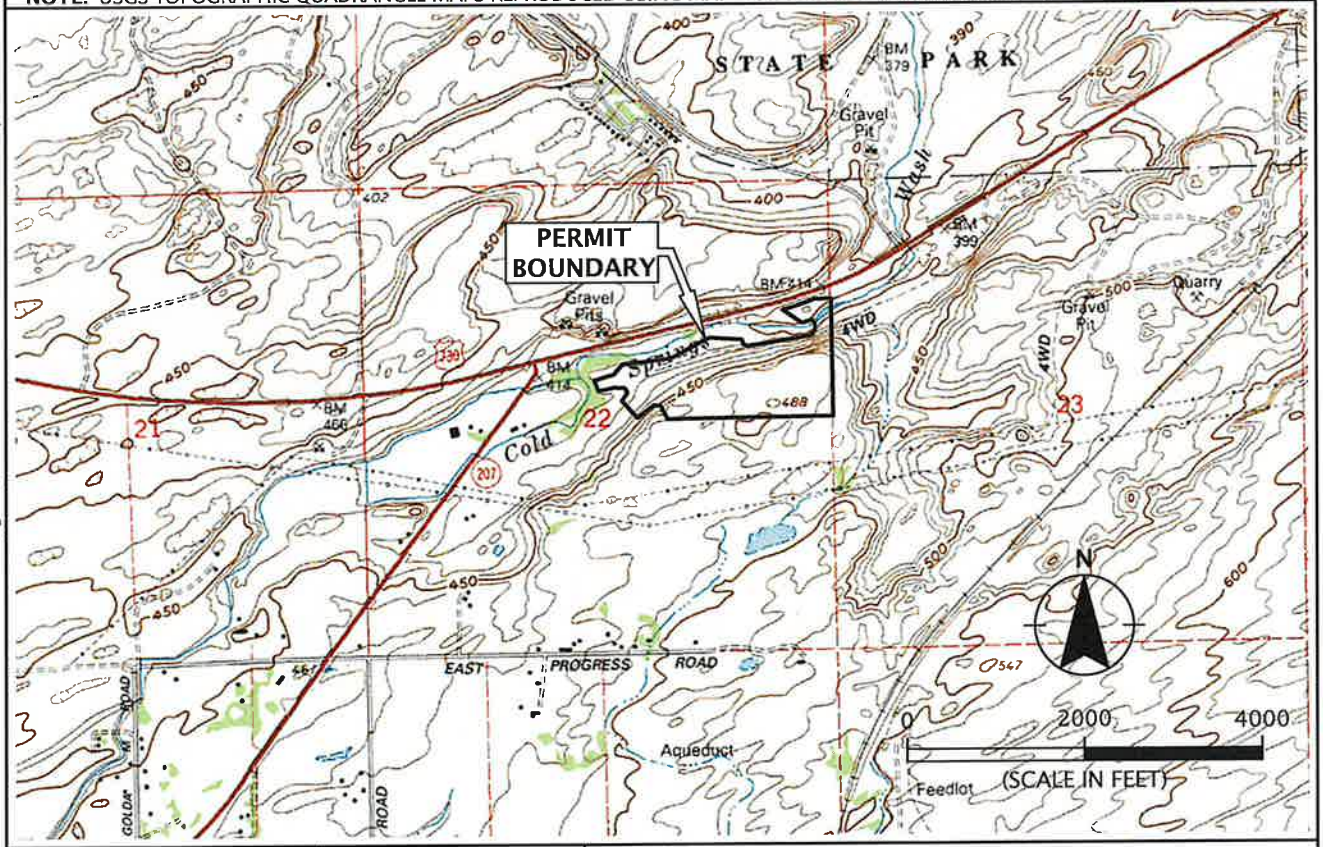
LONGITUDE: **119° 10' 1.2" W**

LEGAL DESCRIPTION

THE PERMIT BOUNDARY IS LOCATED IN PORTIONS OF THE FOLLOWING QUARTER-QUARTER SECTIONS:

- SE QUARTER OF THE NE QUARTER OF SECTION 22
- SW QUARTER OF THE NE QUARTER OF SECTION 22

NOTE: USGS TOPOGRAPHIC QUADRANGLE MAPS REPRODUCED USING MAPTECH TERRAIN NAVIGATOR PRO®.



FULCRUM GEO RESOURCES	CRP & HAULING, LLC	**VICINITY MAP**	
	PROJECT 007.01.01 JULY 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.	**FIGURE 1**

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LEGEND:

- PROPERTY BOUNDARY
- PERMIT BOUNDARY (46.7 ACRES)
- EASEMENT
- LIMITS OF EXTRACTION (38.0 ACRES)
- OPERATIONS, PROCESSING, AND STOCKPILING AREA
- EXISTING TOPOGRAPHY (5-FOOT INTERVALS; 20-FOOT INDEX CONTOURS)
- WETLAND
- 25-FOOT WETLAND BUFFER
- ARTIFICIAL DRAINAGE PATH
- EXISTING DRAINAGE PATTERNS
- OVERHEAD POWER POLE
- PROPOSED AND EXISTING SITE ACCESS ROAD
- PROPOSED STORMWATER DIVERSION DITCH
- PROPOSED CULVERT
- PROPOSED STORMWATER POND
- PROPOSED TOPSOIL STOCKPILE AREAS
- CROSS SECTION

NOTES:

1. PROPERTY BOUNDARY AND EASEMENTS BASED ON SURVEY DATED AUGUST 4, 2022, PREPARED BY SURVEY ONE, LLC.
2. EXISTING TOPOGRAPHY OBTAINED FROM GOOGLE EARTH PRO.
3. AERIAL PHOTOGRAPH DATED APRIL 14, 2021, OBTAINED FROM GOOGLE EARTH PRO.
4. WETLAND AREAS CREATED FROM NWI MAPS, OREGON DEPARTMENT OF STATE LAND WETLAND DETERMINATION REPORT WD#2022-0606, AND GOOGLE EARTH AERIAL PHOTO DATED APRIL 14, 2021.

FULCRUM GEO RESOURCES LLC	CRP & HAULING, LLC	SITE PLAN - EXISTING TOPOGRAPHY WITH AERIAL	
	PROJECT 007.01.01 JULY 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.	FIGURE 2

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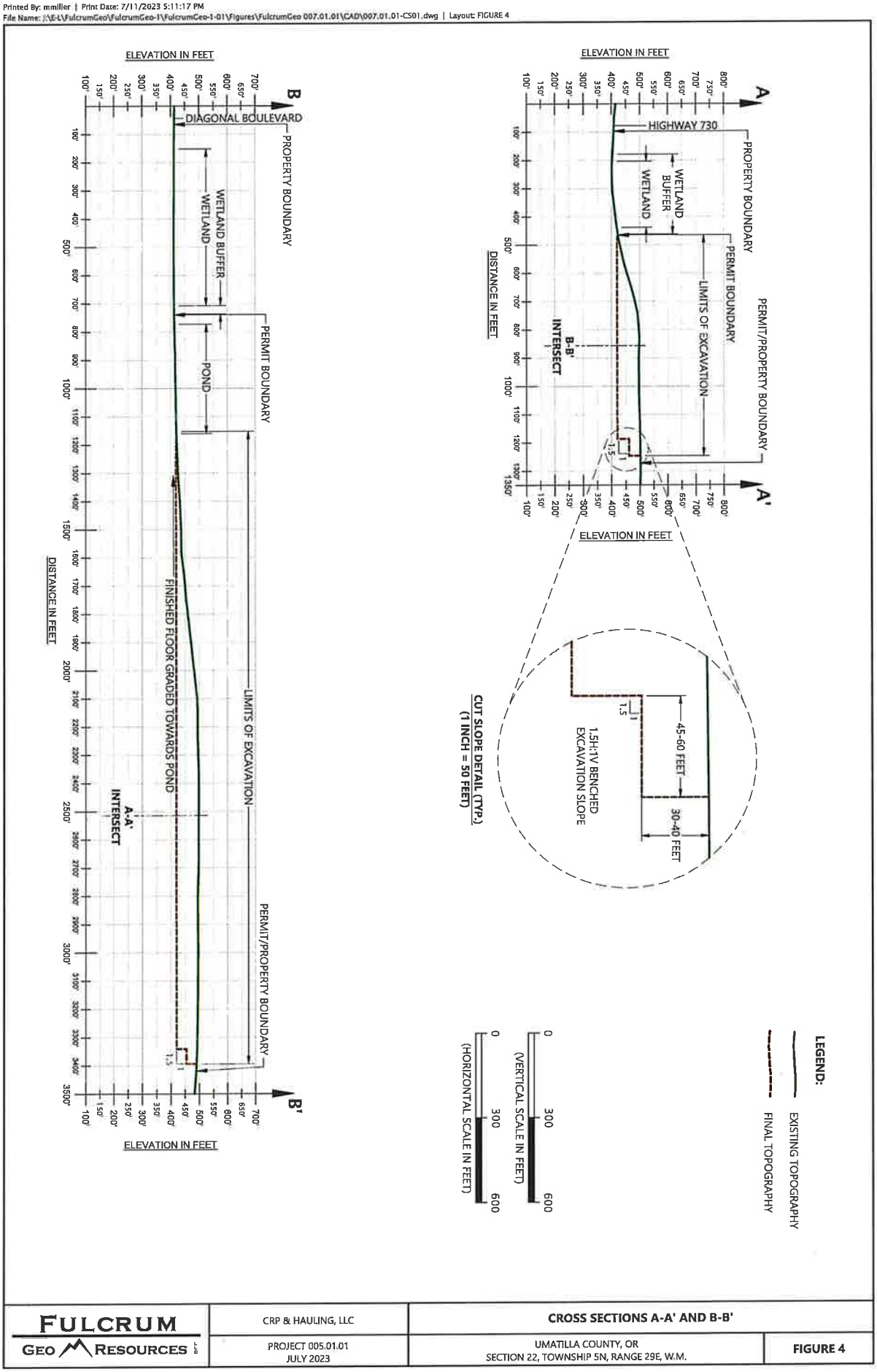
File Name: J:\E-L\FulcrumGeo\FulcrumGeo-1\FulcrumGeo-1-01\Figures\FulcrumGeo 007_01_01\CAD\007_01_01-EX-RS-FL01.dwg | Layout: FIGURE 3

NOTES:

1. PROPERTY BOUNDARY AND EASEMENTS BASED ON SURVEY DATED AUGUST 4, 2022, PREPARED BY SURVEY ONE, LLC.
2. EXISTING TOPOGRAPHY OBTAINED FROM GOOGLE EARTH PRO.
3. AERIAL PHOTOGRAPH DATED APRIL 14, 2021, OBTAINED FROM GOOGLE EARTH PRO.
4. WETLAND AREAS CREATED FROM NWI MAPS, OREGON DEPARTMENT OF STATE LAND WETLAND DETERMINATION REPORT WD#2022-0606, AND GOOGLE EARTH AERIAL PHOTO DATED APRIL 14, 2021.

FULCRUM GEO RESOURCES LLC	CRP & HAULING, LLC	RECLAMATION PLAN - FINAL TOPOGRAPHY WITH AERIAL
	PROJECT 007.01.01 JULY 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.
		FIGURE 3



FULCRUM GEO RESOURCES LLC	CRP & HAULING, LLC	**CROSS SECTIONS A-A' AND B-B'**	
	PROJECT 005.01.01 JULY 2023	UMATILLA COUNTY, OR SECTION 22, TOWNSHIP 5N, RANGE 29E, W.M.	**FIGURE 4**