

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
OF CLACKAMAS COUNTY, STATE OF OREGON**

In the Matter of a Comprehensive
Plan Amendment, Zone Map
Amendment, and Site Plan
Review request from Cadman
Materials Inc. on property
described as T4S R1E Section
07, Tax Lots 500, 600, 700, 800,
801, 1002, 1003 & 1004 W.M



Order No. 2020-116

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File Nos.: Z0406-19-CP, Z0407-19-MAO, and Z0408-19-ZAP

Whereas, This matter coming regularly before the Board of County Commissioners, and it appearing that Cadman Materials Inc. made an application for a Comprehensive Plan Amendment, corresponding zoning map amendment, and site plan review to allow development of an aggregate mining and processing operation on undeveloped land in the Exclusive Farm Use (EFU) zoning district, on property described as T4S, R1E, Section 07 Tax Lot(s) 500, 600, 700, 800, 801, 1002, 1003 & 1004 W.M. located on the west side of S Barlow Road, approximately three-quarters of a mile south of the intersection of S Barlow Road and S Highway 99E.; and

Whereas, It further appearing that Cadman Materials Inc. through the application, also requested a modification of conditions of approval found in Planning file numbers Z0348-93-CP/Z0349-93-Z and Z1826-97-MAR to allow processing of extracted materials on Saturdays, within the existing processing facility found on property described as T4S, R1E, Section 08 Tax Lot(s) 600, 700 & 800 W.M; and

Whereas, It further appearing that the planning staff, by its report dated December 9, 2019, recommended approval of the application with conditions of approval; and

Whereas, It further appearing that after appropriate notice a public hearing was held before the Planning Commission on December 16, 2019, at which testimony and evidence was presented, and that, at this hearing, the Commission, by the vote of 7-0, recommended approval of this request; and

Whereas, It further appearing that after appropriate notice a public hearing was held before the Board of County Commissioners on February 5, 2020, at which testimony and evidence were presented, and that, at that hearing, a decision was made by the Board, by the vote of 5-0 to approve the applications, subject to conditions of approval, which are attached to this order and incorporated herein by reference.

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07, Tax Lots 500, 600, 700, 800,
801, 1002, 1003 & 1004 W.M



Order No. 2020-16

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File Nos.: Z0406-19-CP, Z0407-19-MAO, and Z0408-19-ZAP

Based on the evidence and testimony presented this Board makes the following findings and conclusions:

1. The applicant requests approval of a Comprehensive Plan Amendment, corresponding zoning map amendment, and site plan review to allow development of an aggregate mining operation on land in the EFU zoning district, as identified in Order Exhibit A (map); and approval of the modification of conditions of approval to allow for processing of extracted materials on Saturdays.
2. This Board adopts as its findings and conclusions the *Findings of Fact and Conclusions of Law for Z0406-19-CP, Z0407-19-MAO & Z0408-19-ZAP* document attached hereto and incorporated herein as Order Exhibit B, which finds the application to be in compliance with the applicable criteria.

NOW THEREFORE, IT IS HEREBY ORDERED that:

1. The requested Comprehensive Plan amendment, zoning map amendment, site plan review, are hereby APPROVED, subject to the conditions of approval identified in Order Exhibit C, which are attached to this order and incorporated herein by reference.
2. Condition #5 of Z0248-93-CP/Z0349-93-Z and condition #23 of Z1826-97-MAR are hereby amended to read: *All mining shall be restricted to the hours of 7:00 AM to 6:00 PM Monday through Friday. Processing and hauling shall be restricted to the hours of 7:00 AM to 6:00 PM Monday through Friday, and 8:00 AM to 5:00 PM on Saturday. No mining activities will occur on Sunday.*

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Order No. 2020-16

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File Nos.: Z0406-19-CP, Z0407-19-MAO, and Z0408-19-ZAP

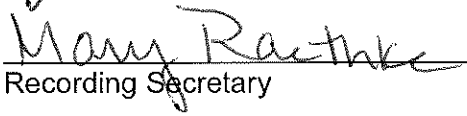
3. Table III-2, in Chapter 3 and Appendix A of the Clackamas County Comprehensive Plan, is hereby amended to reflect the approval of the subject properties as a significant Goal 5 Mineral & Aggregate site, as shown in Exhibit D hereto.

DATED this 12th day of March, 2020.

BOARD OF COUNTY COMMISSIONERS



Chair



Recording Secretary

**Board Order Exhibit A:
Z0406-19-CP, Z0407-19-MAO & Z0408-19-ZAP
Cadman Materials, Inc. – Canby Phase 4 Expansion Area
Mineral & Aggregate Overlay (MAO) Boundary**





**FINDINGS OF FACT AND CONCLUSIONS OF LAW FOR
Z0406-19-CP, Z0407-19-MAO & Z0408-19-ZAP:
PARKER NORTHWEST PAVING CO.
SIGNIFICANT GOAL 5 AGGREGATE SITE; MINERAL & AGGREGATE
OVERLAY; AND MINING SITE PLAN REVIEW**

GENERAL INFORMATION

Planning File Nos.: Z0406-19-CP, Z0407-19-MAO & Z0408-19-ZAP

Adoption Date: March 12, 2020

Applicant: Cadman Materials, Inc., 7554 185th Ave. NE, Redmond, WA 98052

Owner(s): Cadman Materials, Inc; Chong Yaxeulue; Rodney W & Charis G Yoder; Jake Vanpelt, co-trustee; Floyd R Lapp, co-trustee; Arthur D Blumenkron

Proposals: The applicant is proposing four actions:

- (1) a Post-Acknowledgement Plan Amendment (PAPA) to the Clackamas County Comprehensive Plan (Plan) to designate approximately 99 acres of the proposed mining site, which includes eight taxlots and approximately 106.5 total acres, as a Goal 5 significant mineral and aggregate resource site in Chapter 3, Table III-2 of the Plan;
- (2) a zoning map amendment to apply a Mineral and Aggregate Overlay (MAO) to the site;
- (3) approval of a Mineral & Aggregate Overlay District Site Plan Review application for the proposed mining operations; and
- (4) a modification of conditions of approval in Planning file numbers Z0348-93-CP/ Z0349-93-Z and Z1826-97-MAR to allow processing on Saturdays.

Location: Approximately three-quarters of a mile south of the intersection of S. Barlow Rd. and S. Hwy 99E, on the west side of S. Barlow Rd.

Legal Description:

Proposed mining site: T4S, R1E, Section 07 Tax Lot(s) 500, 600, 700, 800, 801, 1002, 1003 & 1004 W.M.

Proposed condition of approval modification: T4S, R1E, Section 08 Tax Lot(s) 600, 700 & 800 W.M.

Comprehensive Plan Designation: Agriculture

Zoning District: EFU; Exclusive Farm Use

Total Area Involved:

Proposed mining site: approx. 106.5 total acres

approx. 99 acres within the proposed Extraction Area

BOARD ACTION:

1. Approval of the PAPA Application (File No. Z0406-19-CP) to designate the subject properties as a “Significant” Goal 5 aggregate resource site in the Mineral and Aggregate Section of the Comprehensive Plan.
2. Approval of the Mineral Aggregate Overlay (MAO) district (File No. Z0408-ZAP), the boundaries of which would correspond to the extraction area identified in Order Exhibit A.
3. Approval of the Site Plan Review (File No. Z0407-19-MAO) approving the operational aspects of the mining proposal subject to conditions.
4. Approval of a modification of conditions of approval in Planning file numbers Z0348-93-CP/ Z0349-93-Z and Z1826-97-MAR to allow processing on Saturdays.

All approvals are subject to the Conditions of Approval found in *Board Order Exhibit C*.

BACKGROUND INFORMATION, DESCRIPTION OF THE SUBJECT PROPERTY AND SURROUNDING AREA AND PUBLIC SERVICE PROVIDERS:

A. Prior Land Use Applications:

Mining-related applications (adjacent and nearby properties)

1. File Nos. Z0348-93-CP / Z0349-93-Z (41E 08, taxlots 600, 700, 800, east side of S. Barlow Rd). This is the original PAPA (Post Acknowledgement Plan Amendment) application for the series of properties currently owned by Cadman Materials, Inc, These applications designated the site as a significant Goal 5 resource and approved a Mineral Aggregate Overlay zoning district on the property and adjacent properties. The application was approved on January 12, 1995 and included 31 conditions of approval

Board Order Exhibit B

Z0406-19-CP/Z0407-19-MAO/Z0408-19-ZAP

related to the extraction site and 3 conditions related to conflicting uses in the impact area (MAO Boundary). This is currently referred to as the “Phase 1” property and is the site of the existing processing/crushing facility utilized by Cadman for processing materials extracted on other adjacent properties.

2. File No. Z1826-97-MAR (41E 08, taxlots 600, 700, and 800). Mineral and Aggregate Overlay District Permit to develop the approximately 203-acre property with a surface mining operation as authorized in File No. Z0348-93-CP / Z0349-93-Z. This permit also authorizes the post mining use to reclaim the land as a water impoundment and agricultural land. This application was approved by the County on April 28, 1998 subject to 33 conditions.

3. File No. Z0652-99-C (41E 08, taxlot 1000, east side of S Barlow Rd). Conditional Use Permit to operate an asphalt batch plant. The County Hearings Officer approved the conditional use permit for the batch plant subject to conditions of approval. The batch plant was used in conjunction with the existing mining operation on the adjacent property. Based on information contained in the current application, this asphalt plant is no longer in operation.

4. Minor Modification of File No. Z0348-93-CP / Z0349-93-Z. On July 28, 2000 a Minor Modification of File No. Z0348-93-CP / Z0349-93-Z was approved by the County. See Exhibit 3. The Minor Modification authorized changes to two conditions of approval included in the original approval. The first change included a modification to condition no. 16 to increase the limit on aggregate and mineral extraction from 150,000 cubic yards to 3 million tons per calendar year. The second change included a modification of condition no. 10 to relocate the access road for the mining site to the same location approved for asphalt batch plant located on tax lot 1000. See reference to Conditional Use Permit File No. Z0652-99-C.

5. File Nos. Z0756-06-CP, Z0757-06-ZAP & Z0566-07-MAR (41E 08, taxlot 1000, east side of S Barlow Rd). PAPA application which designated the Rodrigues site, containing approximately 38 acres as a significant Goal 5 resource and approved a Mineral Aggregate Overlay (MAO) zoning district on the Rodrigues property. This property which was acquired by Pacific Rock Products, LLC subsequent to approval of the original site but is currently owned by Cadman Materials, Inc. and is referred to as the “Phase 2” property. Final approval of these applications was made by the Board on April 26, 2007. A MAO District Permit to develop the property with a surface mining operation is authorized in File No. Z0756-06-CP and Z0757-06-ZAP.

6. File Nos. Z0331-11-CP, Z0332-11-ZAP & Z0362-12-MAR: (41E07 taxlots 00100, 00190, 00390, 00400 & 00700/ 41E06 taxlots 01800 & 01900) These files approved the site immediately to the north of the subject property as a “significant Goal 5 aggregate resource”, applied the MAO, and authorized mining on the site. This site includes approximately 90 acres located in seven taxlots and is referred to as “Phase 3” of Cadman mining operation. These applications were approved by the County on February, 9, 2012 subject to 57 conditions. As part of this proposal, a conveyor system was built to

transport mines materials under S. Barlow Rd., to the processing site on the east side of that road (41E08 taxlots 00700 & 00800). Extraction is currently underway on this site.

Other relevant prior applications

7. File Nos. Z0294-15-CP & Z0295-15-ZAP (41E07 taxlot 800) In February, 2016, the Board approved a Comprehensive Plan/Zoning change for the upper portion (approx. 5 acres) of this taxlot from EFU (Exclusive Farm Use) to RI (Rural Industrial). The upper portion of this property has frontage on S. Highway 99E and is separated by approximately 60 feet of elevation change from the lower portion, which remains zoned EFU and is included in the current applications by Cadman Materials Inc. for inclusion in the “Phase 4” Goal 5 aggregate mining site.

B. Proposal: The stated intent of this proposal is to “expand the existing Cadman Materials Inc. - Canby Pit 3 in order to provide on-going supply of aggregate at the location of their existing operation. As noted above, Phase 3 is immediate adjacent to the northern boundary of the subject site. Although an expansion, the Oregon Administrative Rules (OARs) require the analysis be completed for the expansion area to determine the entire site is a significant Goal 5 resource and apply the Mineral & Aggregate Overlay (MAO) to the site.

As proposed, the expansion of the mining area onto the subject site, referred to as Phase 4 (or Cadman – Canby Phase 4), will not change or increase the number of currently-permitted trucks entering and leaving the existing permitted processing site, which is located across S. Barlow Rd from the subject site. The proposal is to simply transition excavation operations from the Phase 3 mining area into the Phase 4 mining area. Access to the Phase 4 site would utilize the existing driveway authorized for Phase 3; no new access from S Barlow Rd is proposed.

Operations in the Phase 4 mining area will include the stripping of overburden material, the excavation of the desired aggregate materials, the transportation of excavated material by conveyor to the existing Cadman processing facility located in the Phase 1 mining area (shown in the figure below), and the reclamation of the site once the aggregate materials have been removed. There will be no blasting or processing of materials within the Phase 4 mining area.



Source: Appendix C, Cadman Canby Pit/ Barlow Road aggregate Mine, Phase 4 Noise Study (ABD Engineering & Design)

In addition to the Comprehensive Plan text and zoning map amendments to establish the MAO, the applicant proposes to mine and process aggregate materials from the 99-acre portion of the subject property identified in **Figure 2** (attached) as the “Proposed Mining Area”. The total excavation area within that 99 acres is expected to be approximately 93.6 acres. Based on the applicant’s consultant, there are approximately 8.1 million tons of aggregate material on the subject property, with an estimated 6.9 million tons available for extraction, and that aggregate meets the applicable standards of Goal 5 to establish that the property is a Significant Mineral and Aggregate Resource site.

The rock will be excavated in three phases over an estimated eight to 10 year period depending upon demand, as shown in **Figure 6** (attached) and **Figure 8** (attached). Excavation is proposed to start in the northwest corner of the property and move eastward. Topsoil and overburden removed during the mining process will be used for berms for visual and noise screening, as well as stockpiled in setback areas for use later in the reclamation of the site. Mining excavation setbacks of 30 feet from property lines will be maintained around the excavation area.

Excavators, loaders, dozers, and articulated haul trucks will be used to excavate the site. The mine cells will be partially dewatered to a maximum depth of approximately 20 feet below the ground surface and mined wet below depths of 20 feet with appropriate equipment to eliminate the need to dewater the mining cell further.

Little site preparation is required before mining could begin on the property, as the majority of the property has been in seasonal agricultural production or used for grazing; as such, it contains little vegetation, including grasses, bushes and some trees. There is one existing dwelling with two outbuildings on the site which would be removed prior to the commencement of mining. There is an existing dwelling on taxlot 700 that sits approximately 50 feet above the current grade of the extraction area and, reportedly at the request of the homeowner, will remain (instead of selling the entire lot, this property owner reportedly wants to remain in the home with the understanding that it will be overlooking a lake in the future). There are no regulated wetlands, floodplains or other protected natural resources on the site.

Proposed conceptual reclamation of the property will occur concurrently with the mining extraction activities, to the extent practical. Once excavation activities are completed in a particular area of the property, they will progress to another area, and reclamation activities will commence in the excavated area and will include the creation of a natural area including a lake and native vegetation. Being zoned Exclusive Farm Use (EFU), the potential for future development of this site is limited to agricultural or related uses; returning the land to a natural state with a lake is consistent with the intent of EFU land.

C. Definitions: Oregon Administrative Rule 660, Division 23 outlines the “Procedures and Requirements for Complying with Goal 5.” OAR 660-023-010 and 660-023-0180(1) includes the definitions of a number of words and terminology which will be used in the evaluation of this application.

D. Site Description: The subject property is located approximately three-quarters of a mile south of the intersection of S Hwy. 99E and S. Barlow Rd. It is bound by on two sides by existing mining sites in various states of preparation, production and/or reclamation. Highway 99E traverses much of the western boundary.

The subject property includes six separate legal lots of record (in eight taxlots), totaling 106.5 acres, of which approximately 99 acres are identified as the Extraction Area. The majority of the proposed Extraction Area is currently undeveloped, and has reportedly been in some sort of seasonal agricultural use and/or grazing for several decades. Site elevations range from a high of approximately 110 feet Mean Sea Level ("MSL") in the eastern portion of the property to a low of approximately 100 feet MSL in western portion of the extraction area. Along the southwestern and southern edges of the extraction area, the elevation increases sharply to 150 to 160 feet MSL. These higher portions are not included in the Extraction Area; rather they will retain their existing uses – a few dwellings and a rural industrial business (located in the RI zone).

A Bonneville Power Administration (BPA) transmission corridor crosses the site, north to south, with a lattice tower located in the southeastern portion of tax lot 1003.

E. Zoning: The majority of the subject properties are currently zoned Exclusive Farm Use (EFU); the Comprehensive Plan designation is “Agriculture.” A small portion (approx. 5 acres) of one taxlot (41E07 00800) is zoned Rural Industrial (RI) – this

portion of the property is not included in the Extraction Area. The properties are located outside the Portland Metropolitan Urban Growth Boundary and the Metropolitan Service District Boundary and are not in a designated Urban or Rural Reserve.

F. Soils:

The subject property is considered low-value farmland. The vast majority of the soils mapped on the subject property are Class 4 – Cove silty clay loam (25), which is estimated to encompass approximately 89% of the Extraction Area.

The remainder of the Extraction Area, along the toe of the slope in the southern portions of the property, are Class 3, unique soils – Humaquepts, ponded (42) which are considered high value, but encompass only an estimated 9% of the site. Soils on the slopes inside and just outside the Extraction Area on the subject property to the south and southwest are low-value, Class 6 – Xerochrepts, very steep (92F).

G. Surrounding Conditions:

Generally, surrounding properties contain large active or retiring surface mining operations to the east, north and northeast of the subject; and rural industrial and rural residential properties to the northwest.

Table 1. Summary of Surrounding Uses

Location	Existing Use(s)	Zoning	Comments
North	Mining	EFU (Exclusive Farm Use)	Cadman Phase 3: Approx. 90 acres approved for aggregate mining (files Z0331-11-CP, Z0662-11-ZAP). MAO overlay includes entire site and the northernmost approx. 300 feet of the subject property.
East (across S Barlow Rd)	Mining/two residences	EFU	Cadman Phase 1 & 2 and processing facility: Approx. 241 acres approved for aggregate mining (files Z0348-93-CP & Z0349-93-ZAP and Z0756-06-CP & Z0757-06-ZAP). MAO overlay includes entire mining site, does not extend over residences. Asphalt batch plant approved for a portion of this site (Z0652-99-C); currently not in operation. Two residences exist in this location, both on land zoned EFU.
Northeast	Agriculture/ mining approved, not yet commenced	EFU	Parker NW/Traverso: Approx. 79 acres approved for aggregate mining (files Z0568-17-CP, Z0569-17-MAO & Z0570-17-Z). Site has been sold to Glacier NW Inc. and sitework appears to have begun for the approved aggregate mining..
South	Residences/ agriculture	EFU	Area contains a few residences and mixed farming operations hay and nursery stock. Significant elevation change, majority of these uses are up on a bluff, approx. 60 feet above the current ground level of proposed extraction area.

West	Rural industrial use/ residences	RI and EFU	One rural industrial business is located in this area, on the portion of taxlot 800 that is zoned RI. Use is limited to approved salvage, drying and milling of reclaimed wood. Several residences exist adjacent to this use on EFU-zoned land. This area is also at a significantly higher elevation (approx. 60 feet) than the proposed extraction area.
Northwest/west (across S Hwy 99E)	Residences, commercial business, agriculture	FF-10 and EFU	Located across S Hwy 99E are several residences in rural residential zoning (FF-10), one reported commercial business and further west/northwest is cultivated farmland.

H. Service Providers:

1. Sewer: The subject property is not located within a public or private sewer district. Sewage disposal is accommodated by an on-site sewage disposal systems in this area.
2. Water: The subject and surrounding properties are served by private wells.
3. Surface Water: The subject property is not located within a public or private surface water district. Surface water is regulated pursuant to Section 1008 of the ZDO. The Oregon Dept. of Geology and Mineral Industries (DOGAMI) and the Oregon Dept. of Environmental (DEQ) also have jurisdiction over some aspects of surface water management for surface mining operations.
4. Fire Protection: Canby Fire District #62

I. Agency and Property Owner Notification List:

1. Cities of Canby and Barlow
2. Clackamas County WES/SWMACC
3. Canby Fire District #62
4. Clackamas County DTD/Engineering Div.
5. Clackamas County WES/Soils Section
6. Dept. of Geology and Mineral Industries (DOGAMI)
7. Dept. of Environmental Quality (DEQ)
8. Dept. of Land Conservation and Development (DLCD)
9. Oregon Dept. of Water Resources (ODWR)
10. Metropolitan Service District (METRO)
11. Aurora Airport
12. Oregon Dept. of Aviation
13. Oregon Dept. of Transportation (ODOT)
14. Property owners of record within 2,500 ft. of the subject property (per ZDO Section 1307.10(3)(b)(iv))
15. Property owners of record within 750 ft. of the lots that contain the Cadman processing site (per ZDO Section 1307.10(3)(b)(iii.))

I. CPO Recommendation: The subject property is located within the South Canby Community Planning Organization (CPO), which is not active.

J. Exhibits: See Exhibit List following the last page of this report.

SECTION 1- COMPREHENSIVE PLAN TEXT AMENDMENT (Z0406-19-CP)

PART 1. COMPLIANCE WITH STATEWIDE PLANNING GOALS

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

This is a quasi-judicial land use application. The Clackamas County Comprehensive Plan and Section 1300 of the Zoning and Development Ordinance (ZDO) contain adopted and acknowledged procedures for citizen involvement and public notification. This application has been processed consistent with the notification requirements in Section 1307 of the ZDO including notice to individual adjacent and surrounding property owners within 2,500 feet of the subject property, surrounding property owners within 750 feet of the processing site, notice in the local newspaper, and notice to affected agencies and dual interest parties. Notice to the Community Planning Organization (CPO) in the area was not provided because the CPO is inactive. Advertised public hearings will also be conducted before the Clackamas County Planning Commission and Board of County Commissioners, which provided an opportunity for additional citizen involvement and input.

This application is consistent with Goal 1.

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

The findings addressing this Goal include references to Oregon Administrative Rule 660, Division 23 as the applicable rule guiding the process for the County decision-making for Goal 5 Post-Acknowledgement Plan Amendments (PAPAs).

Goal 2 requires coordination with affected governments and agencies. Notice of this application has been provided to the following governmental agencies for comments; City of Barlow, Canby Fire District, Aurora Airport, County Dept. of Transportation and Development (DTD), Traffic Engineering, Oregon Dept. of Transportation; District 2B, Oregon Dept. of Aviation, Dept. of Geology and Mineral Industries (DOGAMI), Dept. of Environmental Quality, Dept. of Land Conservation and Development and Dept. of Water Resources. Notice of this application was provided to all these agencies and property owners of record within 2,500 feet of the subject property and within 750 feet of the property with the processing facility on November 6, 2019, well in advance of the first evidentiary public hearing. This notice provided an opportunity for these governments and agencies to evaluate and comment on this application and for the

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County to consider and coordinate this decision and action with the affected governments and agencies.

The subject property is located in proximity to the Cities of Canby and Barlow and although it is not located within the boundary of the Urban Growth Management Agreement (UGMA) between either of those cities and Clackamas County, notice was given to both cities. No comments have been received from either Barlow or Canby.

Goal 2 requires that all land use actions be consistent with the acknowledged Comprehensive Plan. This application has been evaluated against all the applicable goals and policies of the Clackamas County Comprehensive Plan. The background information and findings provided by the applicant and within this report, and comments received from agencies and interested parties provide an adequate factual base for rendering an appropriate decision consistent with the adopted County Comprehensive Plan.

This application is consistent with Goal 2.

C. Goal 3; Agricultural Land: *To preserve and maintain agricultural lands.*

The subject property is designated Agriculture on the County Comprehensive Plan map. No change in the Agricultural plan designation is proposed. This PAPA application requires a “balancing” of Goal 3, which is intended to preserve agricultural lands and Goal 5 which is intended to protect significant natural resources including mineral and aggregate resources. The “balancing” test is essentially weighed using the Goal 5 process in OAR 660, Division 23. The findings throughout this document provide an analysis of that rule and other applicable Statewide Planning Goals and Oregon Administrative Rules. This proposal is consistent with Goal 3 because, as discussed herein, the mineral and aggregate resource on the property is considered “Significant”. Approval of this application will recognize and protect the resource, allow use of the resource to be mined for a limited duration and the post mining use for fish and wildlife habitat uses is an allowed use in agricultural area and consistent with the preservation of agricultural land. Based on those findings this proposal is consistent with Statewide Planning Goal 3.

This application is consistent with Goal 3.

D. Goal 4; Forest Land: *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.*

The subject property is designed Agriculture on the Comprehensive Plan map. This application does not include any land designated Forest on the Comprehensive Plan map and therefore; Goal 4 is not applicable to these applications.

Goal 4 is not applicable.

E. Goal 5; Open Spaces, Scenic and Historic Areas, and Natural Resources: *To conserve open space and protect natural and scenic resources.*

Goal 5 resources include open space areas, scenic and historic resources and other natural features and resources, including mineral and aggregate resources. Chapter 3 of the Clackamas County Comprehensive Plan identifies significant Goal 5 resources within the County.

The only significant Goal 5 resources within the impact area of the proposed Phase 4 mining site are the adjacent Mineral and Aggregate (MAO) sites to the north and east. These sites have received several separate approvals; three of the sites are operated by the applicant (Phases 1 through 3 and the Cadman processing facility), while one site is owned by a different company. Overall, approximately 400 acres have been designated as significant and the MAO overlay applied.

This application requests that the subject property be identified as a significant Goal 5 Mineral and Aggregate Resource site. This again requires a “balancing” of this potential Goal 5 resource against the protection of, and / or potential conflicts with, other Goal 5 resources in the area.

OAR 660-023-0180(5)(b)(D) requires a conflict analysis to consider impacts of the proposed mining on other Goal 5 resources. As noted above, the only Goal 5 resources within the impact area are other aggregate mining operations, which, as noted in SECTION 1, Part 5 of this report can reasonably be found to not be in conflict with another mining operations.

This application is consistent with Goal 5.

F. Goal 6; Air, Water and Land Resources Quality: *To maintain and improve the quality of the air, water and land resources of the state.*

The County Comprehensive Plan and ZDO contain adopted implementing regulations to protect the air, water and land resources. These regulations, which include compliance with both County and State requirements (DEQ, DOGAMI, etc.), include standards to regulate air, dust, water, erosion and noise. Compliance with these regulations will be required and applied to any future development proposals (grading, mining, processing, hauling, etc.) on the property. Compliance with these regulations will ensure the proposed mining operation maintains and improves the air, water and land resources in the area.

This application is consistent with Goal 6.

G. Goal 7; Areas Subject to Natural Disasters and Hazards: *To protect life and property from natural disasters.*

The subject properties contain no mapped hazard areas. The applicant has also submitted a surface water management plan to reduce or avoid potential adverse flooding impacts to off-site properties due to storm water runoff.

Therefore the Board can find that this proposal would have no significant impact on areas subject to natural disasters or hazards.

This application is consistent with Goal 7.

H. Goal 8; Recreational 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.*

This proposal does not involve any designated recreational or open space lands, or affect access to any significant recreational uses in the area. This project will have no impact on the recreational needs of the County or State.

This application is consistent with Goal 8.

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

This Goal is intended to ensure Comprehensive Plans contribute to a stable and healthy economy in all regions of the state. Goal 9 also requires the County to provide for an adequate supply of sites of suitable sizes, types, locations, and services for a variety of industrial and commercial uses consistent with plan polices.

OAR 660-009 implements Statewide Planning Goal 9 for lands within urban growth boundaries. The subject property is not located within an urban growth boundary, therefore OAR 660-009 is not applicable. This proposal does not include any land designated for commercial, industrial or other types of employment uses specifically regulated under Goal 9.

However, the proposed project furthers the objectives of this goal by providing a material (rock) that is essential to the construction of a variety of infrastructure projects both within and outside the nearby Portland Metropolitan UGB area. Development of these infrastructure projects will support a variety of economic activities across the state.

This application is consistent with Goal 9.

J. Goal 10; Housing: *“To provide for the housing needs of citizens of the state.”*

This goal requires local jurisdictions to provide for an adequate number of needed housing units and to encourage the efficient use of buildable land within urban growth

boundaries. OAR 660-007 and 660-008 defines the standards for determining compliance with Goal 10. OAR 660-008 addresses the general housing standards. OAR 660-007 addresses the housing standards inside the Portland Metropolitan Urban Growth Boundary. OAR 660-007 takes precedence over any conflicts between the two rules.

The Board finds that Goal 10 is not applicable because this application does not include land planned to provide for urban residential or rural residential housing. The Agricultural plan designation is intended to preserve and maintain the land for agricultural uses and is not intended to provide land for housing. This proposal will not affect the inventory or amount of buildable lands needed for housing in the County.

Goal 10 is not applicable.

K. Goal 11; Public Facilities and 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.”*

This Goal provides guidelines for cities and counties in planning for the timely, orderly and efficient arrangement of public facilities and services, such as sewer, water and storm drainage. The Goal requires these public facilities and services to be provided at levels necessary and suitable for urban and rural uses, as appropriate. The subject property is located outside of an urban growth boundary and is considered “Agriculture” land. The area is not located within, or serviced by any public or private water, sewer or storm drainage service district. The extension of public sewer, water or storm drainage facilities is not proposed or required to support the proposed mining operation.

The inclusion of the subject property as a significant mineral and aggregate site will have no effect on the planning of public facilities or services by the County or nearby cities of Canby and Barlow.

This application is consistent with Goal 11.

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

Oregon Administrative Rule (OAR) 660-012 (Transportation Planning Rule) implements Statewide Planning Goal 12.

OAR 660-012-0060 applies to any plan map amendment that would significantly affect an existing or planned transportation facility. OAR 660-012-0060(1) requires any amendments to functional plans, acknowledged comprehensive plans, and land use regulations which would significantly affect a transportation facility to demonstrate (put in place measures as provided in Section (2) of the rule) that allowed land uses are consistent with the identified function, capacity, and performance standards (e.g. level of service, volume to capacity ratio, etc.) of the facility. Pursuant to OAR 660-012-0060(1) a plan or land use regulation amendment is deemed to significantly affect a transportation

facility if it;

- a) *Changes the functional classification of an existing or planned transportation facility;*
- b) *Changes standards implementing a functional classification; or*
- c) *As measured at the end of the planning period identified in the adopted transportation system plan:*
 - A. *Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility; or*
 - B. *Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or*
 - C. *Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.*

3. Pursuant to OAR 660-012-0060(2) compliance with OAR 660-012-0060(1) can be achieved by one or a combination of the following;

- a) *Adopting measures that demonstrate the allowed land uses are consistent with the planned function, capacity, and performance standards of the transportation facility.*
- b) *Amending the TSP or comprehensive plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of this division; such amendments shall include a funding plan or mechanism consistent with section (4) or include an amendment to the transportation finance plan so that the facility, improvement, or service will be provided by the end of the planning period.*
- c) *Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.*
- d) *Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.*
- e) *Providing other measures as a condition of development or through a development agreement or similar funding method, including transportation system management measures, demand management or minor transportation improvements. Local governments shall as part of the amendment specify when measures or improvements provided pursuant to this subsection will be provided.*

The applicant has submitted a Traffic Analysis (TA) completed by Sandow Engineering dated March 4, 2019. This analysis includes the following findings:

- *Highway 99E at South Barlow Road currently does not meet the adopted mobility standard which is expected to continue through Clackamas County's Transportation*

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System Plan planning horizon. Oregon Highway Plan Action 1F.5 defines the mobility standard as no further degradation for this intersection. Since the application requests authorization of a minable inventory of aggregate resource to replace depleted resources at the facility, traffic associated with the application of the MAO overlay from the proposed aggregate extraction operation does not modify the volume-to-capacity ratios beyond existing background conditions, meeting ODOT mobility targets as defined in the Oregon Highway Plan.

- *The existing site driveway will meet the mobility standard for the year of opening and through the end of Clackamas County Transportation System Plan planning horizon with the comprehensive plan amendment.*
- *The existing horizontal alignment of all roadways can accommodate truck traffic consistent with applicable standards under Goal 5.*
- *The application was found to meet all applicable traffic analysis code criteria.*
- *TPR has been demonstrated to be met for the proposed zone change and comprehensive plan amendment.*

Neither the Oregon Department of Transportation (ODOT) nor the County's Traffic Engineering Division have submitted comments. The Board has reviewed the analysis, however, and finds that, while some assumptions in the analysis are suspect, the fact that the proposal would not increase production of aggregate or increase the number of daily trips occurring on the existing driveway, can lead a reasonable person to conclude that the standard of no further degradation can be met.

Pertinent assumptions that the Board finds reasonable in the in the traffic study include:

- The current permitted capacity of up to 3 million tons/year is continued for Phase 4.
- The current trip cap of 154 AM and 120 PM peak hour trips is continued for Phase 4.
- Upon depletion of aggregate on existing lands (in Phase 3), the operation will move to the subject site (Phase 4).
- The conveyor tunnel will continue to be used for the same purpose and all material will be transferred from the west side to the east side of S. Barlow Rd.
- All trucks entering and leaving the overall site will be travelling in and out of the east side of S. Barlow Rd.

However, the TPR analysis, starting on page 24 of the Traffic Study includes unreasonable, aggressive assumptions for the "reasonable worst cast" trip generation under the current zoning. The analysis is based on fairly high traffic generating uses that are either allowed in the EFU zone only as conditional uses (i.e. not as primary uses, but only after consideration of several, often discretionary criteria) or that are actually not allowed in the EFU district (day care centers). The resulting conclusion is that is that the proposed MAO overlay zone would actually generate *fewer* trips than the worst-case trip generation associated with other EFU uses allowed under County code.

It is likely that if an assumption is used based on uses that are primary, outright allowed uses, that this difference in traffic generation would be positive rather than negative.

Despite this shortcoming, however, Staff believes that even with a reasonable starting assumption and showing the MAO would likely increase trips, it would be reasonable to find that there is still no significant impact to the transportation system because the actual numbers of trip on the road will not change. In other words, in the analysis, while the trips may increase due to the subject site, the trips on the adjacent MAO site will decrease with the eventual removal of the overlay, resulting in no net difference in trips onto S. Barlow Rd.

Therefore the Board can find that this proposal is consistent with OAR 660-012-0060(1)(a) and (b) because it does not include in a change in the functional classification of an existing or planned transportation facility, nor change the standards implementing a functional classification. This proposal will not significantly affect the State transportation system as defined in OAR 660-012-0060(1)(c)(C) because it will not worsen the performance of the Hwy. 99E / Barlow Road intersection.

This proposal is consistent with Goal 12.

M. Goal 13; Energy Conservation: *To conserve energy.*

The objective of Goal 13 is the conservation of energy. The proposed project will have at least two significant positive energy consequences. First, mining the aggregate resource will facilitate completion of many needed transportation improvements, which will, in turn, provide greater capacity and smoother surfaces. As a result, vehicles on roads throughout the region will be able to consume less fuel because they will spend less time idling in traffic and/or confronting substandard road conditions.

Furthermore, the energy consequences of allowing a mine can also be considered positive due to the close proximity to the cities of Canby, Barlow, Aurora, and other nearby locations where there is a current or projected significant amount of growth and demand for aggregate. Locating a mine near these markets will reduce the distance the product must travel, resulting in lower fuel consumption. The property's proximity to major transportation corridors, such as Highway 99E and Interstate 5, also reduces fuel consumption and energy impacts compared to more remote locations.

This proposal is consistent with Goal 13.

N. Goal 14; Urbanization: *To provide for an orderly and efficient transition from rural to urban land uses.*

The Board finds that Goal 14 is not applicable to this application for the following reasons:

- a. The subject property is not located within an urban growth boundary (UGB) or urban reserve area.
- b. This proposal does not involve a change in the location of the UGB.
- c. This proposal does not include a conversion of rural land to urban land, or urbanizable land to urban land.

Goal 14 is not applicable.

O. Goal 15: Willamette River Greenway: To protect, conserve, enhance and maintain the natural scenic, historical, agricultural, economic and recreational qualities of lands along the Willamette River as the Willamette River Greenway.

1. The subject property is not located within or near the Willamette River Greenway and therefore Goal 15 is not applicable.

Goal 15 is not applicable.

P. Goal 16 (Estuarine Resources), Goal 17 (Coastal Shorelands), Goal 18 (Beaches and Dunes) and Goal 19 (Ocean Resources).

Goals 16, 17, 18 and 19 are not applicable to Clackamas County.

PART 2. OREGON ADMINISTRATIVE RULE 660-023 – General Provisions and Requirements.

A. General Process: Oregon Administrative Rule 660, Division 23 contains the procedures and requirements for complying with Statewide Planning Goal 5. Oregon Administrative Rule 660-23-0180 specifically relates to Mineral and Aggregate Resources. OAR 660-023-0180(2) outlines the general process for evaluating the PAPA. This process has been followed in the evaluation of this application.

B. Individual Applications: OAR 660-23-180(2) requires local governments to amend acknowledged Comprehensive Plan inventories with regard to mineral and aggregate resources at periodic review or in response to an individual application for a Post Acknowledgement Plan Amendment (PAPA). This PAPA application has been submitted by an individual land owner and authorized by the additional landowners of the subject site.

C. Processing Time Line: Pursuant to OAR 660-023-0180(5) the County has 180 days after the receipt of the application to complete the review process and render a decision. The application was deemed complete on October 2, 2019. The 180 processing deadline is March 30, 2020. Adoption by the Board of County Commissioners will occur on March 12, 2020.

D. Applicable Sections: The following Sections of OAR 660-023 are applicable to this application: Section 10 (Definitions), Section 60 (Notice and Land Owner Involvement) and Section 180 (Mineral and Aggregate Resources).

PART 3. OREGON ADMINISTRATIVE RULE 660-023-0060 - Notice and Landowner Involvement Requirements.

A. OAR 660-023-0060: Local governments shall provide timely notice to landowners and opportunities for citizen involvement during the inventory and ESEE process. Notification and involvement of landowners, citizens, and public agencies should occur at the earliest possible opportunity whenever a Goal 5 task is undertaken in the periodic review or plan amendment process. A local government shall comply with its acknowledged citizen involvement program, with statewide goal requirements for citizen involvement and coordination, and with other applicable procedures in statutes, rules, or local ordinances.

Section 1307 of the ZDO identifies the notice requirements and procedures for a quasi-judicial application and public hearings. This Section requires notice at least 35 days before the first evidentiary hearing to the CPO. The CPO is inactive in this case, and therefore notice was not provided.

Notice is also required at least 20 days prior to the hearing to the applicant to property owners of record within 1,000 feet of the subject property's impact area (generally 1,500 feet from the subject); property owners of record within 750 feet of the processing property and contiguously owned property; nearby airport owners; the Oregon Department of Aviation; and dual interest organizations.

Notice must also be provided in a newspaper of general circulation in the affected area at least 10 days prior to the hearing.

Paragraph I in the BACKGROUND Section of this report includes a list of all the agencies sent notice of this application. This list includes all the affected dual interest area parties, including the Aurora Airport and the Oregon Dept. of Aviation. Notice was mailed to all these parties and to property owners, as required, on November 6, 2019, approximately 40 days prior to the first scheduled hearing before the Planning Commission on December 16, 2019. A notice of the public hearing was provided to the Canby Herald newspaper for publication in November 2019.

Notice of the application has been provided consistent with State law, County Comprehensive Plan policies and ZDO requirements. The notice for this application was also provided well in advance of the minimum notice requirements and at the earliest possible opportunity.

The Notice and Landowner Involvement Requirements are met.

Note: the Determination of Completeness and Adequate Application (OAR 660-023-0180(8)) is discussed in Part 8, herein, so as to maintain numerical order of the OARs.

PART 4. OREGON ADMINISTRATIVE RULE 660-023-0180(3) - Determination of Whether the Aggregate Resource Site is Significant (“Step 1”).

A. OAR-660-23-180(3): *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.*

1. OAR-660-23-180(3)(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 soundness, and the estimated amount of material is more than 2,000,000 tons in the Willamette Valley, or more than 500,000 tons outside the Willamette Valley.*

This application includes an *Aggregate Resource Evaluation and Goal 5 Significance Determination, Cadman Expansion Properties – Canby Phase 4* completed by H.G Schlicker & Associates (“HSGA”), dated August 12, 2019. The evaluation was undertaken specifically to determine the location, quality and quantity of aggregate material on the subject property. HSGA reviewed available published geologic literature and the analysis for Cadman’s current mining operation (Phase 3) adjacent to the subject property; completed a subsurface investigation; quantified the potential aggregate resources; and submitted aggregate samples to the Oregon Department of Transportation (ODOT) Materials Laboratory for quality testing.

The applicant summarizes the HSGA analysis regarding the quantity of material as follows: *To estimate the quantity of aggregate at the Site, the top and bottom elevations of the aggregate deposit were identified based on the borings. The top elevations of the aggregate deposit, that is, the top of the aggregate resource located below the residual soil/weathered material (overburden), were identified. The bottom elevations of the aggregate deposit were also identified using the borings. The bottom elevations of the resource, for the purposes of volume calculations, were artificially limited to the depths of the proposed mine floor, which varies in depth across the site. As a result, the volume of resource, is considered a conservative estimate of the quantity of aggregate present on the site. In addition, it is noted that cubic yards were translated to tons using a very conservative conversion factor of 1.54 tons per one cubic yard.*

The subsurface exploration conducted on the property included 18 drilled borings completed to a maximum depth of 85 feet in the eastern portion of the site and approximately 45 to 50 feet in the western portion of the site. Five monitoring wells have been installed in the borings.

Based on the analysis completed by HSGA, the boring samples indicate the proposed mining site generally consists of a layer of topsoil/silt up to 10 feet deep. The sand and gravel resource is located below this overburden to a depth up to approximately 70 feet in the eastern portion of the site and 40-45 feet in the western portion of the site. HSGA

used an assumption of 33 feet for the average resource thickness for the purposes of calculating the quantity under this criterion.

The quantity of the resource is addressed in Section 2.3 of the Aggregate Resource Evaluation report. Clackamas County is considered part of the Willamette Valley. Therefore this application is subject to the 2,000,000 ton threshold. The quantity of aggregate material is calculated based on the estimated cubic yards of material converted to tons (1.54 tons / cubic yard). The total cubic yards of material is estimated based on the size of the Extraction Area, average depth of the material to be mined (33 feet) and configuration of the actual mining site.

The volume estimate indicates there is at least 5 million cubic yards of sand and gravel aggregate resource on the site with approximately 4.5 million cubic yards available to mine. Based on these estimates there is approximately 6.9 million tons (4,474,480 cubic yards x 1.54) of usable mineral and aggregate materials on the subject property. As noted in the report: *The site appears to have a minimum average 33 feet thick aggregate resource providing approximately 8.1 million tons of aggregate on the site. There is approximately 6.9 million tons of sand and gravel in place to depths of approximately 30 to 70 feet below the ground surface which is available for mining, based on the required setbacks from the property lines, LNG easement and the BPA tower, and the mine slope configuration.*

The quality of the mineral and aggregate resource is summarized in Section 2.2 of the Aggregate Resource Evaluation report. Representative samples were submitted to the Oregon Department of Transportation (ODOT) Materials Laboratory for air degradation, abrasion and soundness testing. The laboratory data sheets for this quality testing are included in the appendix of the aggregate evaluation report. The test results demonstrate the sand and gravel resource meets the applicable ODOT specifications for base rock.

Pursuant to OAR 660-023-180(3)(d), even if a site meets the quality and quantity thresholds, it cannot be deemed a significant site if either: (a) more than 35% of the proposed mining area consists of Class I soils, as classified on Natural Resource and Conservation Service (“NRCS”) maps on June 11, 2004; or (b) more than 35% of the proposed mining area consists of Class II soils, or a combination of Class I, II, or Unique soils as classified on NRCS maps on June 11, 2004, unless the average thickness of the mining area exceeds 25 feet.

According to the applicable NRCS maps and summarized in the Aggregate Resource Evaluation report, the subject site is mapped primarily with Class IV soils (89.2%) and contains no Class I or II soils. Therefore the standard in OAR 660-023- 180(3)(d) for depth does not apply.

The Board finds that the location, quantity and quality standards are met for the following reasons:

1. The HSGA evaluation for this site was completed by qualified professionals in the field of geology.
2. The evaluation includes a review and analysis of a number of different resources such as geologic mapping, well logs, boring samples and subsurface exploration.
3. The subsurface exploration provide a representative sample of the mineral and aggregate resource potential.
4. There is an estimate of approximately 6.9 million tons of available aggregate resource on the property.
5. Representative samples from the test borings were tested for quality. The quality of the mineral and aggregate resources satisfies the applicable ODOT specifications for base rock for air degradation, abrasion and soundness.

The location, quality and quantity standards are met.

2. OAR-660-23-180(3)(b): *The material meets local government standards establishing a lower threshold for significance than subsection (a) of this section.*

Clackamas County has not adopted a separate standard establishing a lower threshold for significance. **This criterion is not applicable.**

3. OAR-660-23-180(3)(c): *The aggregate site was on an inventory of significant aggregate sites in an acknowledged plan on September 1, 1996.*

The subject property is not identified as a “Significant Sites” on Table III-2 - Inventory of Mineral and Aggregate Resource Sites in Chapter 3 of the Clackamas County Comprehensive Plan. **This criterion is not applicable.**

CONCLUSION: The Board finds the proposed expansion area qualifies as a “Significant” site under OAR 660-023-0180(3) because it satisfies the location, quantify and quality standard in OAR 660-023-0180(3)(a) and OAR 660-023-0180(3)(d) is not applicable.

PART 5. OREGON ADMINISTRATIVE RULE 660-023-0180(5) – Determination to Allow or Not Allow Mining (“Steps 2 through 5”).

A. OAR 660-023-0180(5): *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.*

1. OAR 660-023-0180(5)(a) (“Step 2”): *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.*

OAR 660-023-0010(3) defines the “Impact Area” as the geographic area within which conflicting uses could adversely affect a significant Goal 5 resource. The application includes a map entitled “Cadman – Canby Phase 4 Expansion Area – Tax Lot Map and Impact Area” depicting the 1500-foot potential impact area. There is no information in the record which indicates there may be potential conflicts with existing and approved land uses beyond the proposed 1,500 foot impact area, which would warrant a larger buffer area. Therefore, the Board finds that the 1,500 impact area is appropriate for the conflict analysis.

This criterion is met.

2. OAR 660-023-0180(5)(b) (“Step 3”): *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.*

The applicant identified 59 taxlots within the 1,500-foot impact area. The “approved uses” within this area generally include the following: surface mining, rural industrial uses, residential (primarily to the west of the subject site and across Hwy 99E) and farming (primarily to the south and northwest, across Hwy 99E). The applicant identified 20 residences within the impact area and, based on zoning designations, identified no opportunities to develop additional residences on vacant lands in the area.

This criterion is met.

(cont.)For determination of conflicts from proposed mining of a significant aggregate site, the local government shall limit its consideration to the following:

a. OAR 660-023-0180(5)(b)(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;*

1. Noise: The mining operation will generate noise from activities including removal of

overburden, aggregate extraction and from vehicles and equipment. There is no “blasting” proposed at this site.

Pursuant to DEQ classifications, the subject property is considered a DEQ noise regulation “existing noise source” because it is an expansion from a contiguous property. As noted in the submitted Noise Study, *the regulation for an “existing noise source” stipulates that noise radiating from the source is regulated by what is commonly referred to as the “maximum allowable noise rule”* (OAR 340-035-0035(1)(a)) which sets maximum allowable noise levels for an industrial or commercial noise source for 1%, 10%, and 50% of an hour.

The applicant has submitted a Noise Study to address noise impacts from the proposed mining operation. The Noise Study was completed by ABD Engineering & Design (ABD) and is dated August 30, 2019.

The noise study was conducted using the criteria in OAR 340-035-0035 – Noise Control Regulations for Industry and Commerce. The study include a “worst case scenario” which evaluates potential noise assuming all the following equipment would be used on or near the site, operating simultaneously: front-end loaders; on-site haul trucks, excavators, and the crushing and screening plant operating where it is currently allowed on the Phase 1 site. ABD selected 17 representative locations of residences within the impact area for predicting future sound level estimates under this “worst case scenario”.

Based upon the analysis, ABD concluded as follows:

- a. Without mitigation measures, noise at as many as seven of the residences would experience noise levels that exceed DEQ noise standards, “under the worst case”;
- b. ABD identifies several mitigation measures, including both operations restrictions, like limiting equipment in certain area, and “barriers” in three locations that range from 20 to 35 feet in height;
- c. With the recommended mitigation measures in place, ABD predicts noise levels at all 17 representative residential sites to fall under the maximum allowed DEQ limit.

Because noise is regulated by a State DEQ standard, any conflicts or impacts from noise generated from the mining area are deemed to be “minimized” if the applicable DEQ standard can be met. The Noise Study concluded that *based on the results of the study conducted by ABD, if mitigation measures such as those discussed in this report are included in the mining plan, the noise associated with the Canby Pit/Barlow Road Aggregate Mine will be in compliance with the DEQ noise regulations, and this all mining noise conflicts will be minimized as required by the Oregon Statewide Planning Goal 5*. Indeed, the Noise Study provides substantial evidence demonstrating the proposed mining operation, with mitigation measures, can satisfy the State of Oregon DEQ Noise Standards and there is no evidence to the contrary.

2. Dust: Dust will be potentially be generated from all aspects of the mining and processing operation, including overburden and aggregate extraction, berm building, processing, on and off-site truck and equipment movement.

However, as the applicant states, *the majority of the aggregate of this location will be mined in the “wet” and thereby significantly reduce dust emissions.*

To address other potential dust generating activities, the applicant proposes to employ dust mitigation measures on the subject site – many of which are recommended measures in the DOGAMI Best Management Practices guidelines, including:

- a. Watering onsite haul roads, conveyors, as necessary, and staging areas;
- b. Stockpiling topsoil and overburden for construction of berms on site. They will be seeded in order to reduce the potential of wind or surface water erosion and protect neighboring properties from potential dust emissions.
- c. Only dewatering the site to approximately 10 feet below the ground water level. This allows the majority of the resource to be mined in the “wet”, greatly reducing the potential for dust generation.
- d. Maintaining a 15 MPH speed limit for onsite truck traffic, posted on all haul roads within the subject site. Low travel speeds serve to reduce the amount of dust compared to the volumes generated at higher speeds.
- e. Covering conveyors to help keep the materials wet.

C. Other Potential Discharges: The final potential conflict that the County must consider under this conflict category is “other discharges.” Other potential discharges at the site include: (1) diesel engine emissions from on-site mobile equipment and vehicle travel; (2) discharges into the groundwater; (3) stormwater; and (4) combustion byproduct emissions from use of explosives during blasting operations.

- (1) Diesel: Use of mining equipment and vehicles will generate diesel engine exhaust, which contains pollutants such as nitrogen oxides, carbon monoxide, sulfur dioxide, and particulate matter. The release of diesel emissions could, if not minimized, create potential conflicts with residential uses in the Impact Area.

In order to mitigate, control, and limit these criteria pollutants from diesel engines in operation at the project site, the following action proposed by the applicant will be implemented: *off-road equipment shall meet Federal Tier 3 off-road engine standards and/or equipment will be modified as such.*

- (2) Groundwater: The applicant retained the professional services of H.G. Schlicker & Associates ("HGSA") for the purpose of providing a study reflecting groundwater conditions on the proposed mining site and within the impact area. The resulting study, *Hydrogeologic Analysis, Cadman Expansion Properties – Canby Pit Phase 4*, H.G. Schlicker & Associates, Inc. analyzed data from the five monitoring wells on the subject site as well as data from monitoring wells on adjacent properties

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where extraction is currently taking place. As noted in the study, mining has successfully been going on in this area for more than 70 years.

Of note, however, is that HGSA found that the current mining of Phase 3, (immediately to the north of the subject property) which is being dewatered as is it mined, has had an effect on groundwater levels, per data from the monitoring wells on that site:

Current mining operations at the Phase 3 (Paradis) location, immediately north of the proposed Phase 4 expansion properties, are being conducted by dewatering active mine cells and pumping to nearby cells. Analysis of groundwater measurements obtained at the Phase 3 site before the start of mining and during the current mining operations, along with recent measurements obtained in the monitoring wells constructed in the Phase 4 expansion properties, indicate that the inferred direction of groundwater flow in the area is generally southerly to northerly.

For this reason, this study found that *dewatering the mine cells in the proposed Phase 4 mining area will contribute to a reduction in the groundwater surface at areas surrounding the dewatered mine cell. Dewatering mine cells in the proposed Phase 4 expansion properties has the potential to impact nearby irrigation and domestic wells in the area.*

This study indicates, however, that with proper mitigation, mining management, recommended limits on dry mining (dewatering), and mining cell configuration, there will be no adverse effect on the groundwater in this area. More specifically, this study recommends the following actions to mitigate potential impacts:

- a. Mining the Canby Pit Phase 4 from north to south utilizing mine cells as proposed in the application.
- b. Installing four additional monitoring wells in the southern portion of the subject property to provide real-time and predictive data and mining progresses. These are recommended to supplement the five existing monitoring wells on the site. Based on conversations and agreements with several neighboring property owners, one additional monitoring well will be installed in the extraction area, as conditioned.
- c. Dewatering should be restricted to a depth of approximately 20 feet; extraction of material below that depth should be “wet” mined, a process which leaves most of the water in the groundwater system and the operation moves to the south and close to local off-site wells.
 - a. An approximately 20 feet deep infiltration trench may be constructed, as necessary, along the southern boundary of the proposed Phase 4 expansion area, or dewatering depths may be reduced to maintain groundwater at sufficient levels to prevent more than insignificant impacts to wells within the impact area.

The Board concurs with these findings in the HGSA study.

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(3) Stormwater: As noted by the applicant, *the current Phase 3 and processing site has a Stormwater Protection Control Plan (SWPCP) and DEQ Stormwater permit in place and approved by DOGAMI (Appendix G). As with Phase 3, stormwater will be infiltrated back into Phase 4 and/or collected and conveyed offsite to the processing site to stormwater ponds. If stormwater is planned to exit the Phase 4 site within the same manner as that described within the SWPCP for Phase 3, the plan will be revised for review and approval by DEQ and DOGAMI as a condition of Phase 4 operations. The revised plan will document that storm and surface waters are properly managed in accordance with permit requirements.*

The applicant will develop and implement a stormwater control plan in accordance with DOGAMI regulations and Best Management Practices for erosion and sediment control. As such, the applicant proposed the following conditions, to address stormwater:

(a) Applicant shall prepare an SWPCP for the Phase 4 mining, and provide documentation of approval from DEQ and DOGAMI, as required.

(b) The mining operator shall comply with the stormwater and erosion control measures approved by DEQ when conducting mining activities on the Site.

Because there are no identified conflicts associated with off-site stormwater discharges, the Board finds that it is not required to identify measures that would minimize such conflicts.

(4) Blasting: There will be no blasting at the subject site and therefore no byproduct emissions from use of explosives.

This criterion is met or can be met with conditions.

b. **OAR 660-023-0180(5)(b)(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 trucks of equivalent size, weight, and capacity that haul other materials;*

This criterion requires an analysis of “Potential conflicts to local roads.....”. Two relevant legal opinions have been issued by the LUBA in regards to this criterion. The first opinion interpreted the word "local" to mean the classification of the road (i.e. local, collector, arterial, etc.), and not a geographical area. Under that opinion,

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conflicts with the transportation system could not be evaluated if the development takes access to a road classified something other than "local." A subsequent LUBA case found that although that is a correct interpretation of the language, the County is required to consider Goal 12 of the Statewide Planning Goals. The purpose of Goal 12 is "To provide and encourage a safe, convenient and economic transportation system." Therefore, the adequacy of the transportation system as a whole can be evaluated to ensure it is safe and adequate to accommodate the traffic impacts from the proposed mining operation.

The subject site will not take direct access to S Barlow Road; rather access will occur via the adjacent property owned and operated by the applicant (Phase 3).

The project traffic engineer, Sandow Engineering, LLC ("Sandow"), completed an analysis of existing conditions, projected transportation impacts of the proposed mine, and applicable standards as set forth in the Transportation Impact Analysis (TA).

The findings addressing Statewide Planning Goal 12 – Transportation and Section 1202 of the ZDO (Zone Change criteria) address the adequacy of the transportation system including relevant site distance standards, road capacity and safety. Those findings demonstrate the road system is safe and adequate to accommodate the anticipated amount of traffic and type of truck traffic associated with the existing mining area and proposed expansion area, primarily because the proposed mining site is not expected to generate any new traffic- it is simply expected to continue the same level of traffic generated from the Phase 3 site, when the Phase 3 site is depleted and mining operations move to the proposed Phase 4 site.

Those findings demonstrate there are no significant conflicts to the local transportation system.

This criterion is met.

c. OAR 660-023-0180(5)(b)(C): *Safety conflicts with existing public airports due to bird attractants, i.e., open water impoundments as specified under OAR Chapter 660, Division 013;*

There are no public airports located in the 1,500 buffer area. The closest public airport is the Aurora Airport which is nearly 2 miles (approximately 9,000 feet) to the west. The subject property is located outside of the "Approach Corridor" and the "Conical Surface" but within the "Horizontal Surface" of this airport. This airport is considered an Instrument Approach airport. The proposed post mining use for this property includes a lake (water impoundment) for fish and wildlife habitat. OAR 660, Division 13 regulates Airport Planning. OAR 660-013-0080 identifies land use compatibility requirements for public use airports. OAR 660-013-0080(1)(f) requires the local government to regulate water impoundments of one-quarter acre or larger consistent with the requirements of ORS 836.623(2) through (6).

ORS 836.623(2)(a) prohibits new water impoundments of one-quarter acre or larger within an Approach Corridor and within 5,000 feet from the end of a runway, or on land owned by the airport or airport sponsor where the land is necessary for airport operations. The subject property is not located within an Approach Corridor or within 5,000 feet of the end of the runway.

ORS 836.632(2)(b) allows the local government to adopt regulations that limit the establishment of new water impoundments of one-quarter acre or larger for areas outside a Approach Corridor and within 5,000 feet of a runway if the local government adopts findings that the water impoundment is likely to result in a significant increase in the hazardous movements of birds across the runway or Approach Corridor. The subject property is not located within 5,000 feet of a runway.

ORS 836.632(2)(c) allows the local government to adopt regulations that limit the establishment of new water impoundments of one-quarter acre or larger between 5,000 feet and 10,000 feet of a runway outside and Approach Corridor and between 5,000 feet and 40,000 feet within an Approach Corridor for an airport with an instrument approach only where the local government adopts findings that the water impoundment is likely to result in a significant increase in hazardous movements of birds across the runways or approach corridor. The Aurora Airport is an Instrument Approach airport and the subject property is located within 40,000 feet of the approach corridor. Therefore the County has the authority to regulate the proposed post mining use (water impoundment) if it determines the use will result in a significant increase in the hazardous movement of birds across the runway or Approach Corridor of the airport. Both the Aurora Airport and Oregon Department of Aviation were sent notice of this application.

The proposed mining operation and post mining use is consistent with OAR 660, Division 13 and ORS 836.623(2) through (6) because no water impoundments will be created within 5,000 feet of an Approach Corridor or runway. No comments have been received from the airport owner, the Oregon Department of Aviation or any other interested parties indicating the proposed post mining use would result in a significant increase in the hazardous movement of birds across the runway or approach corridor of the Aurora Airport. Therefore the proposed mining operation will not create any conflicts with this existing public airport.

This criterion is met.

d. OAR 660-023-0180(5)(b)(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;*

There is only one type of Goal 5 resources located within the impact area of Phase 4, the subject property - the adjacent mining sites.

Mineral and Aggregate Sites (MAOs): The adjacent properties to the north and

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northeast/east (across Barlow Rd.) contain a total of approximately 400 acres that are designated as significant Goal 5 Mineral and Aggregate Resource sites in the Mineral and Aggregate Section of the Comprehensive Plan. The Board finds that mining of the proposed site will not conflict with the existing Significant Mineral and Aggregate Resources because they are the same type of Goal 5 resource that consist of similar types of operations and self-generated aggregate mining conflicts and there is no evidence to that a mining use conflicts with a mining use.

This criterion is met.

e. **OAR 660-023-0180(5)(b)(E):** *Conflicts with agricultural practices; and*

OAR 660-23-180(4)(c) requires ORS 215.296 to be followed when determining if conflicts to agricultural practices exist, and/or if they can be minimized. ORS 215.296 requires the local government to find the proposed use will not: 1) force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use; and 2) significantly increase the cost of accepted farm and forest practices on surrounding lands devoted to farm or forest uses.

There are existing agricultural uses within the 1,500 foot impact area. However, as noted by the applicant, *aggregate mining has been active in the area since the mid-1950s. Aggregate and agriculture within the area have both been ongoing.* The application goes further to describe the various agricultural activities, which generally include corn, hay and nursery stock, but also makes note of the fact that these cultivated areas are all located at least 400 feet (and most farther) from the Extraction Area and nearly all are located at a higher elevation (on the “terrace”) above the proposed Extraction Area.

Based upon distance and higher elevation, the primary potential impact to these agricultural produces relates to dust emissions. Upon implementation of proposed dust impact minimization measures, any impact resulting from future operations would be insignificant at best. The majority of agriculture activities in the area are located south and at least 60 feet above of the subject site, which is terraced land adjacent to S. Lone Elder Road. Since the mine operation will only be dewatering the upper 10 feet of the water table, the majority of the mining will be in the “wet” with the result that the aggregate materials will be wet when excavated. Watering the interior mine site roads, conveyors and implantation of the dust BMPs as proposed will further minimize impacts.

The Board concludes that, due to the history of co-existence, the location of the existing agricultural uses in the impact area, and the various measures that will minimize project conflicts (e.g. noise, dust, other issues noted) to a level that is insignificant, the project will not force a significant change in or significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use. Therefore, there will be no conflicts between the project and agricultural practices within the Impact Area.

This criterion is met.

f. **OAR 660-023-0180(5)(b)(F)**: *Other conflicts for which consideration is necessary in order to carry out ordinances that supersede Oregon Department of Geology and Mineral Industries (DOGAMI) regulations pursuant to ORS 517.780;*

The County has not adopted any ordinances that supersede the Oregon DOGAMI regulating mining activities pursuant to ORS 517.780.

This criterion is not applicable.

3. **OAR 660-023-0180(5)(c)** (“Step 4”): *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.*

The conflicts associated with the proposed expansion area are identified and addressed above in OAR 660-023-0180(5)(b). Based on this analysis, all the identified conflicts, including the off-site noise impacts can be minimized with reasonable and practicable conditions, such as clearly identified setbacks and buffers, noise barriers, normal and customary mining processes, and compliance with applicable state standards. Therefore mining should be allowed at the subject site, and Subsection (d) of this Section is not applicable (i.e. an ESEE Analysis is not required). The reasonable and practical measures necessary to minimizing conflicts are included in the conditions of approval.

This criterion is met.

4. **OAR 660-023-0180(5)(d)** (“Step 5”): *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. **OAR 660-023-0180(5)(d)(A)**: *The degree of adverse effect on existing land uses within the impact area;*

b. **OAR 660-023-0180(5)(d)(B)**: *Reasonable and practicable measures that could be taken to reduce the identified adverse effects; and*

OAR 660-023-0180(5)(d)(C): *The probable duration of the mining operation and the proposed post-mining use of the site.*

Based on the findings in OAR 660-023-0180(5)(b) all the identified conflicts can be minimized with reasonable and practical measures and conditions. Therefore, an ESEE

analysis is not required.

This criterion is not applicable.

5. OAR 660-023-0180(5)(e): *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. OAR 660-023-0180(5)(e)(A): *For which the PAPA application does not provide information sufficient to determine clear and objective measures to resolve identified conflicts;*

b. OAR 660-023-0180(5)(e)(B): *Not requested in the PAPA application; or*

c. OAR 660-023-0180(5)(e)(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.*

1. Pursuant to the findings in OAR 660-023-0180(5)(c), Staff has found that mining should be allowed on the property.

2. The measures to minimize conflicts are identified in the conditions of approval.

3. The recommended conditions of approval are clear and objective. Pursuant to Section 708 of the ZDO additional land use review of this proposal is required through a Mineral and Aggregate Operating Site Plan Review permit to ensure the site specific program and conditions are met prior to mining. The applicant has submitted an MAO Site Plan Review application concurrently with the Plan text and Zoning map change requests. That application is reviewed later in this document.

This criterion can be met.

6. OAR 660-023-0180(5)(f): *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.*

The extraction area on the subject property is located on primarily Class IV soils, therefore the specific limits for Class I, II and Unique farmland do not apply. However, the site remains zoned EFU and, as such, any post-mining uses must be consistent with

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uses allowed within that zoning district. The applicant has proposed a post mining use for the proposed expansion area to include natural area and a lake. This is an allowed use in the underlying EFU zoning district and is an appropriate use because it is the same post mining use authorized on the existing mining operation on the adjacent property to the north (Phase 3).

A condition of approval will require coordination between Clackamas County and DOGAMI regarding final reclamation plans and activities for this mining site.

This criterion is met.

7. OAR 660-023-0180(5)(g): *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.*

No processing will occur on the subject property; rather materials will be transported, via conveyor, to the existing process site located on the east side of S. Barlow Rd. on property owned by the operator.

This criterion is not applicable.

PART 6. OREGON ADMINISTRATIVE RULE 660-023-0180(7) – Determination to Allow, Limit, or Prevent Conflicting Use within the Impact Area.

OAR 660-023-0180(7): *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.)*

The Mineral Aggregate Overlay (MAO) zoning district is the tool within the Clackamas County Comprehensive Plan used to identify an “impact area” and to protect a significant mineral and aggregate site from conflicting uses.

Based on the findings in OAR 660-023-0180(3), the proposed site qualifies as a “Significant Mineral and Aggregate Site.” Therefore the Mineral Aggregate Overlay zoning district should be revised to protect this expansion site from conflicting uses.

Pursuant to this rule, a local government must conduct a standard analysis of the economic, social, environmental, and energy (“ESEE”) consequences that could result from allowing, limiting, or prohibiting new conflicting uses within the impact area of a significant mineral and aggregate resource site. The local government must then

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determine whether to allow, limit, or prohibit such new conflicting uses when approving the significant mineral and aggregate resource site. *Rogue Advocates et al. v. Josephine County*, 72 Or LUBA 275 (2015). Accordingly, in the present case, because the County is approving the proposed mine as a significant mineral and aggregate mineral resource site, it must contemporaneously conduct the ESEE and make the determination required by this section (7).

The standard ESEE process under OAR 660-023-0040 and OAR 660-023-0050 proceeds through the following steps:

- (1) Identify conflicting uses;
- (2) Determine the impact area;
- (3) Analyze the ESEE consequences; and
- (4) If conflicts are identified, develop a program to achieve Goal 5.

The Board adopts the following findings in support of its ESEE analysis and conflicting use determination in this case:

STEP 1 - Identify New Conflicting Uses

As the first step of the ESEE process, the local government must identify new uses that could conflict with the mine. OAR 660-023-0040(2). A “conflicting use” is “a use or activity that is subject to land use regulations and that would interfere with, or be adversely affected by, mining or processing activities at a significant mineral or aggregate resource site.” OAR 660-023-0180(1)(b). To identify conflicting uses, a local government must “examine” land uses allowed outright or conditionally within the zones applied to the impact area. OAR 660-023-0040(2). A local government is not required to consider allowed uses that are not likely to be developed because existing permanent uses occupy the site. *Id.*

In the present case, the Board finds that the conflicting uses subject to consideration under this section (7) are uses that could interfere with or adversely affect the mine, i.e., those uses that, if developed, could impose limitations on the mine’s ability to operate in the manner proposed in these applications. The Board finds that those uses would be noise-sensitive and dust-sensitive uses. The following chart identifies potential conflicts with future uses permitted outright or conditionally in the zoning districts that apply to properties surrounding the mine (EFU, FF-10, and RI):

Potential Conflicts with Future Uses Permitted Outright or Conditionally

FUTURE USES IN County: EFU, RI, FF-10	POTENTIAL CONFLICTS?	
	YES	NO
Accessory buildings to industrial uses		X
Accessory dwelling units	X	
Aircraft land uses		X
Bed & Breakfast Inns and residences	X	

FUTURE USES IN County: EFU, RI, FF-10	POTENTIAL CONFLICTS?	
	YES	NO
Boat & recreational vehicle rental facilities		X
Bulk plants		X
Bus shelters		X
Caretaker residences for farm workers & families		X
Child care facilities	X	
Churches, cemeteries, fraternal lodges & grange halls	X	
Commercial utility & communication facility (e.g., sanitary sewer, domestic water line, generation of power)		X
Commercial activity in conjunction with farm use		X
Conservation areas or structures for the conservation of water, soil, forest, or wildlife habitat resources	X	
Daycare services, adult	X	
Disposal site for solid waste materials, including composting facilities and accessory uses		X
Dwellings, single-family and farm	X	
Exploration for mineral and aggregate resources		X
Exploration for and production of geothermal, gas, oil other associated hydrocarbons per ORS Chapter 520		X
Facility for primary processing of forest products		X
Farm stand & store		X
Farm use & accessory buildings services		X
Farm & equipment sales & services		X
Fire stations, fire emergency suppression		X
Fish and Game Management		X
Forest management research and experimentation facilities		X
Forest operations, practices, any other uses		X
Golf courses & stables		X
Government uses		X
Guest houses	X	
Home occupation, including to host events	X	
Hydroelectric facilities		X
Improvement of public roads and highway-related facilities		X
Kennel		X
Libraries	X	
Local distribution of utilities (e.g., dams, electricity, telephone, natural gas)		X
Lumber & building materials dealer, sale of wood products		X
Manufactured dwellings	X	
Manufacturing of industrial products		X
Marijuana production		X
Meat market, grocery store, feed & seed stores		X
Mobile home parks	X	

FUTURE USES IN County: EFU, RI, FF-10	POTENTIAL CONFLICTS?	
	YES	NO
Nursery – retail or wholesale		X
Operations conducted for exploration, mining, crushing, or stockpiling of aggregate and other subsurface resources		X
Operations conducted for exploration, mining, and processing of geothermal resources		X
Private hunting and fishing operations		X
Processing of aggregate into asphalt or Portland cement and of other subsurface resources		X
Propagation, cultivation, maintenance, and harvesting of forest resources		X
Public road and highway projects		X
Public or private schools		X
Public & semi-private buildings		X
Public or private parks, playgrounds, hunting and fishing preserves, campgrounds, and community centers		X
Public pumping or treatment facilities		X
Public utility facilities		X
Railroad yards, freight stations		X
Recreational uses		X
Recreational vehicle camping facilities		X
Reservoirs and water impoundments,		X
Residential care home & care facilities	X	
Sanitary landfills, non-hazardous waste disposal site		X
Seasonal/caretaker farm worker & family housing	X	
Service station, auto repair shop, welding repair, junk yards, auto wrecking		X
Schools	X	
Signs		X
Slaughter houses		X
Taverns		X
Television, microwave, and radio communication facilities and transmission towers		X
Telephone exchanges		X
Temporary buildings for uses incidental to construction work		X
Temporary helipads created for purposes of forest management or timber harvesting activities		X
Temporary forest labor camps		X
Temporary portable facility for the primary processing of forest products		X
Temporary public road and highway detours		X
Temporary asphalt and concrete batch plants		X

FUTURE USES IN County: EFU, RI, FF-10	POTENTIAL CONFLICTS?	
	YES	NO
Uninhabitable structures accessory to fish and wildlife		X
Veterinarian Clinic		X
Warehousing, wholesale or storage use		X
Wireless telecommunication facilities		X
Wrecking yards – auto		X

See generally CCZDO Table 316-1, Table 401-1, and Table 604-1.

In summary, the potential conflicting uses are generally: (1) uses that involve residential occupancy such as dwellings, residential care facilities, day care facilities, and mobile home parks; (2) uses that allow large assemblies such as schools, churches, and libraries; and (3) conservation uses.

The Board finds that there are factual and regulatory limitations that make it unlikely that many of the identified conflicting uses would develop and/or that many of the properties would be developed due to existing development (e.g., dwellings on EFU-zoned parcels) and the fact that some properties within the impact area to the north and northeast are already subject to the Mineral Aggregate Overlay due to other mines, which limits the development of uses that are incompatible in all instances with the mines pursuant to CCZDO 708.08.C.

STEP 2 - Determine the Impact Area

The Board must define an impact area for purposes of the ESEE analysis under section (7). OAR 660-023-0040(3). The impact area must be limited to the area where allowed uses could adversely affect the significant resource site. *Id.* In the present case, the Board notes that it previously determined that the area in which the mine could potentially interact with off-site uses for purposes of the ESEE analysis under section (5) is within 1500 feet from the boundary of the mining area. As a result, the Board applies a like impact area for this ESEE analysis under section (7).

STEP 3 - Analyze the ESEE Consequences

Based upon the identified new conflicting uses within the identified impact area only, the Board finds that the ESEE consequences of allowing, prohibiting, or limiting these new conflicting uses are as follows:

Economic:

Allowing New Conflicting Uses: The positive economic consequences of allowing the full range of conflicting uses in the impact area include increased landowner spending on development, consultant fees and permitting fees, construction materials and contractors; increased work opportunities for consultants and contractors; and increased property values and related ad valorem tax revenues, all associated with allowing landowners to

achieve the highest and best uses of their properties. These factors would, in turn, have a multiplier effect through the economy.

The adverse economic consequences of allowing the full range of conflicting uses in the impact area are the loss of the full complement of economic benefits associated with the mine, which will be limited or prohibited by the new conflicting uses. These lost economic benefits could include the total loss or reduction of mining activity, which will result in lower revenues for the mine operator, fewer workers employed at the mine, and a reduction in the supply of aggregate rock for the construction market.

Prohibiting New Conflicting Uses: The positive economic consequences of prohibiting conflicting uses, if deemed necessary, are the realization of the full complement of economic benefits associated with the mine, which will not be limited or prohibited by the new conflicting uses. These realized economic benefits include optimized revenues for the mine operator, full employment at the mine, and development of additional public and private construction projects in close proximity to the developing urban area with the increased aggregate supply provided by the mine.

The adverse economic consequences of prohibiting new conflicting uses include the loss of the economic benefits of these conflicting uses described above such as increased landowner spending on development, consultant fees and permitting fees, construction materials and contractors; increased work opportunities for consultants and contractors; increased property values and related ad valorem tax revenues; and the related multiplier effect across the economy.

Limiting New Conflicting Uses: Limiting the new conflicting uses will limit the potential nature and magnitude of the positive and negative consequences described above. The degree to which these consequences are limited will be directly tied to the degree that the new conflicting uses themselves are limited.

Social:

Allowing New Conflicting Uses: The positive social consequences of allowing new conflicting uses in the impact area include the positive social esteem for the: (1) homeowners and residents of the new conflicting dwellings; (2) workers employed at the conflicting businesses; and (3) workers employed to construct the conflicting uses.

The negative social consequences of allowing new conflicting uses in the impact area include the loss of the potentially positive employment confidence and social esteem for the workers employed at the mine, which may be curtailed by the new conflicting uses, the potential for reduced aggregate output and mining-related expenditures due to potential operational uncertainties, and the loss of social esteem to the extent allowing new conflicting uses will lead to a loss of open space or a rural “feel” to the impact area.

Prohibiting New Conflicting Uses: The positive social consequences of prohibiting new conflicting uses are the increased employment confidence and social esteem for the workers employed at the mine, which will not be prohibited or restricted because new

conflicting uses are not allowed. Additionally, there may be some social esteem associated with not allowing development of conflicting uses to the extent the development restriction has the effect of preserving open space or at least a rural “feel” to the area.

The adverse social consequences of prohibiting new conflicting uses are the loss of the potentially positive social esteem for the: (1) homeowners and residents of the new conflicting dwellings; (2) workers employed at the conflicting businesses; and (3) workers employed to construct the conflicting uses. This positive social esteem would not occur because the new conflicting uses would not be allowed.

Limiting New Conflicting Uses: Limiting the new conflicting uses will limit the positive and negative consequences described above. The degree to which these consequences are limited will be directly tied to the degree that the new conflicting uses themselves are limited.

Environmental:

Allowing New Conflicting Uses: Some conservation-focused conflicting uses, such as conservation and management of fish and wildlife resources, have inherently positive environmental consequences. Additionally, because development of these new conflicting uses could limit or prohibit development of the mine, there could be a reduction in the adverse environmental consequences of developing the mine, including the dust and diesel emissions associated with the mine and the impacts to groundwater (which, while minimized, will still occur).

The adverse environmental consequences of allowing some new conflicting uses include increased carbon footprint, utilization of natural resources, and air, noise, and light pollution.

Prohibiting New Conflicting Uses: The positive environmental consequences of prohibiting new conflicting uses will be the avoidance of the adverse environmental consequences of developing some new conflicting uses, which include increased carbon footprint, utilization of natural resources, and air, noise, and light pollution.

The adverse environmental consequences of prohibiting new conflicting uses include the potential loss of the environmental benefits of conservation-related conflicting uses described above such as conservation and management of fish and wildlife resources.

Limiting New Conflicting Uses: Limiting the new conflicting uses will limit the positive and negative consequences described above. The degree to which these consequences are limited will be directly tied to the degree that the new conflicting uses themselves are limited.

Energy:

Allowing New Conflicting Uses: The positive energy consequences of allowing new conflicting uses include allowing the limited development of properties close to urban

areas as opposed to more remote rural locations, which could comparatively reduce vehicle miles traveled and result in a smaller carbon footprint.

The adverse energy consequences of allowing new conflicting uses include that these uses will consume additional energy and the total loss (or reduction) of the energy benefits associated with developing and operating the mine in close proximity to the urbanizing area of the region as opposed to at a more distant rural location. These benefits include a reduction in vehicle miles traveled in supplying aggregate to infrastructure projects.

Prohibiting New Conflicting Uses: The positive energy consequences of prohibiting new conflicting uses include that these uses will not develop and use energy and the realization of the energy benefits associated with the full development of the mine at this location, which reduces aggregate delivery time and costs and facilitates the completion of many needed transportation improvements in the southern Metro region, which will, in turn, provide greater roadway capacity and result in reduced time idling in traffic and/or confronting substandard road conditions.

The adverse energy consequences of prohibiting new conflicting uses include the loss of energy from allowing the development of properties close to urban areas as opposed to more remote rural locations, which will comparatively reduce vehicle miles traveled and result in a smaller carbon footprint.

Limiting New Conflicting Uses: Limiting the new conflicting uses will limit the positive and negative consequences described above. The degree to which these consequences are limited will be directly tied to the degree that the new conflicting uses themselves are limited.

Conclusion: Based upon the findings stated above, the Board finds that, on balance, the ESEE consequences favor allowing the potential conflicting uses within the impact area but not on the subject property (the portion of the impact area closest to the mine). As a result, the Board finds that the MAO boundary should be applied to the subject property (mine site) but not to off-site properties.

STEP 4 - Develop a Program to Achieve Goal 5

If no uses conflict with a significant resource site, a local government may rely upon its acknowledged comprehensive plan and land use regulations to protect the resource site. OAR 660-023-0040(2)(a). Likewise, in the context of a PAPA for a significant mineral and aggregate resource site, if the local government determines that new conflicting uses should be allowed within the impact area, the local government program to achieve Goal 5 for the site may consist of simply relying on its acknowledged comprehensive plan and land use regulations to protect the resource site. *Rogue Advocates et al. v. Josephine County*, 77 Or LUBA 452, ___ (2018). Under these circumstances, a local government is not obligated to adopt a new program to achieve Goal 5. *Id.*

In the present case, as explained above, the Board finds that new conflicting uses should be allowed within the impact area under the County’s acknowledged comprehensive plan and land use regulations. As a result, the County is not required to develop or adopt a program to achieve Goal 5 in this context as it already exists under the County’s acknowledged plan and implementing ordinances.

The Board concludes that these findings include the required ESEE analysis and determination under section (7). Based on the findings of this ESEE analysis, the Board finds that reliance upon the development standards set forth in Section 708.08 of the ZDO is sufficient to protect the significant mineral and aggregate resource from conflicting uses and finds that the MAO overlay district boundary need only encompass the extraction area on the subject properties.

PART 7. OREGON ADMINISTRATIVE RULE 660-023-0180(8) – Determination of a Complete and Adequate Application.

A. OAR 660-023-0180(8): *In order to determine whether information in a PAPA submittal concerning an aggregate site is adequate, local government shall follow the requirements of this section rather than OAR 660-023-0030(3). An application for approval of an aggregate site following sections (4) and (6) of this rule shall be adequate if it provides sufficient information to determine whether the requirements in those sections are satisfied. An application for a PAPA concerning a significant aggregate site following sections (3) and (5) of this rule shall be adequate if it includes:*

1. OAR 660-023-0180(a): *Information regarding quantity, quality, and location sufficient to determine whether the standards and conditions in section (3) of this rule are satisfied;*

The *Aggregate Resource Evaluation and Goal 5 Significance Determination, Cadman Expansion Properties – Canby Phase 4*, completed by H.G Schlicker & Associates (“HSGA”), dated August 12, 2019, contains analysis and findings related to the significance determination for the subject site. SECTION 1, Part 4 of this report specifically addresses the standards regarding the quantity, quality and location of the resource as required in OAR 660-23-180(3). Those findings demonstrate the information in the report is adequate to determine the location, quantity and quality of the aggregate resource on the subject property.

This submittal standard is met.

2. OAR 660-023-0180(b): *A conceptual site reclamation plan;* (Final approval of reclamation plans resides with DOGAMI rather than local governments, except as provided in ORS 517.780)

A conceptual reclamation plan was submitted with the application; the proposed reclamation use is a lake and natural area.

This submittal standard is met.

3. OAR 660-023-0180(c): *A traffic impact assessment within one mile of the entrance to the mining area pursuant to section (5)(b)(B) of this rule;*

The narrative of the application includes a summary of the traffic analysis completed by Sandow Engineering, dated March 4, 2019. Section (5)(b)(B) of this rule requires an analysis of 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.

The submitted traffic information provides an analysis of the closest intersections impacted by the proposed mining site. No other roads or intersections within a one mile radius will be significantly impacted and therefore an analysis of other roads or intersections within one mile is not required.

This submittal standard is met.

4. OAR 660-023-0180(d): *Proposals to minimize any conflicts with existing uses preliminarily identified by the applicant within a 1,500 foot impact area; and*

The location of conflicts within the 1,500 buffer area is identified in the ABD *Noise Study*; a land use conflict analysis is provided in the narrative of the application. This analysis includes an evaluation of conflicts with existing uses identified by the applicant and identified subject experts. The evaluation includes impacts from noise, dust and impacts or conflicts with groundwater resources, wetlands, storm water, roads, other Goal 5 resources and agricultural land and practices.

Proposed mitigation and other measures to reduce or minimize potential conflicts are discussed in the narrative and proposed conditions of approval throughout the application materials.

This submittal standard is met.

5. OAR 660-023-0180(e): *A site plan indicating the location, hours of operation, and other pertinent information for all proposed mining and associated uses.*

The section of the application titled “Mine Plan” includes a general site plan of the existing and proposed mining site. The application also includes other maps and aerial photos of the existing and proposed mining site which identify existing mined areas, the access road to the existing site, location of processing areas, monitoring wells, proposed landscape berms and other features. The application also includes substantial information addressing hours of operation, mining activities, types of equipment, proposed berms and landscaping and other pertinent operational characteristics regarding the existing and

proposed mining activities.

This submittal standard is met.

PART 8. SUMMARY OF FINDINGS AND CONCLUSIONS ON THE PAPA

Parts 1-7 of SECTION 1 of this report outline and addresses all the policies, standards and criteria found to be applicable to this proposal in the Statewide Planning Goals and Oregon Administrative Rules. In consideration of the findings in Parts 1-7, the Board finds that this proposal should be approved for the following reasons:

- A. This proposal is consistent with the Statewide Planning Goals 1 - 3, 5, 6 - 9 and 11 - 13. Statewide Goals 4, 10, 14 - 19 are not applicable.
 - B. The adequacy and safety of the transportation system is subject to the Statewide Planning Goal 12. The findings in this report demonstrate compliance with the Statewide Planning Goal 12 – Transportation, the implementing Transportation Planning Rule in OAR 660-012. Therefore, the affected State and County transportation facilities are adequate.
 - C. This proposal complies with OAR 660-023-0180. Specifically:
 - 1. The findings in SECTION 1, Part 7 demonstrate the PAPA application is complete.
 - 2. The findings in SECTION 1, Part 3 demonstrate the application has been processed in compliance with the minimum notice and landowner involvement requirements.
 - 3. The findings in SECTION 1, Part 4 demonstrate the mining site is “Significant” because it includes more than 2,000,000 tons of usable aggregate which meets ODOT’s specifications for base rock.
 - 4. The findings in SECTION 1, Part 5 demonstrate all the potential conflicts associated with mining can be minimized subject to reasonable and practical measures, therefore mining of the site should be allowed.
 - 5. The findings in SECTION 1, Part 6 demonstrate that no conflicting uses are located within the impact area, which has been determined to be the same as the “Noise Compliance Boundary”.
 - D. The post mining use is a lake and natural area, which is an allowed use in the underlying EFU zoning district.
-

**SECTION 2- ZONE CHANGE TO APPLY MINERAL AGGREGATE
OVERLAY ZONING DISTRICT (MAO) (Z0408-19-ZAP)**

PART 1. COMPLIANCE WITH SECTION 1202 OF THE ZDO

A. The zone change criteria are listed in Section 1202 of the Clackamas County Zoning and Development Ordinance (ZDO).

1. Section 1202.01A: *The proposed zone change is consistent with the applicable goals and policies of the Comprehensive Plan.*

Because the Land Use Board of Appeals (LUBA) has held that the Goal 5 rule for aggregate establishes a comprehensive regulatory scheme that supersedes local review standards for aggregate, the County's Comprehensive Plan policies do not apply in this application.

This criterion is not applicable.

2. Section 1202.01B: *If development under the proposed zoning district designation has a need for any of the following public services, the need can be accommodated with the implementation of the applicable service provider's existing capital improvement plan: sanitary sewer, surface water management, and water. The cumulative impact of the proposed zone change and development of other properties under existing zoning designations shall be considered*

The subject properties are not located in a public sewer, surface water or water district, nor is the extension of these services proposed or necessary to support the proposed mining operation.

This criterion is met.

3. Section 1202.01C: *The transportation system is adequate and will remain adequate with approval of the proposed zone change. For the purpose of this criterion:*

a) Section 1202.01C(1): *Adequate means a maximum volume-to-capacity ratio (v/c), or a minimum level of service (LOS), as established by Comprehensive Plan Tables 5-2a, Motor Vehicle Capacity Evaluation Standards for the Urban Area, and 5-2b, Motor Vehicle Capacity Evaluation Standards for the Rural Area.*

b) Section 1202.01C(2): *The evaluation of transportation system adequacy shall be conducted pursuant to the Transportation Planning Rule (Oregon Administrative Rules 660-012- 0060).*

c) Section 1202.01C(3): *It shall be assumed that the subject property is developed with the primary use, allowed in the proposed zoning district, with the highest motor vehicle trip generation rate.*

d) Section 1202.01C(4): *The methods of calculating v/c and LOS are established by the Clackamas County Roadway Standards.*

e) Section 1202.01C(5): *The adequacy standards shall apply to all roadways and intersections within the impact area of the proposed zone change. The impact area shall be identified pursuant to the Clackamas County Roadway Standards.*

f) Section 1202.01C(6): *A determination regarding whether submittal of a transportation impact study is required shall be made based on the Clackamas County Roadway Standards, which also establish the minimum standards to which a transportation impact study shall adhere*

g) Section 1202.01C(7): *Notwithstanding Subsections 1202.03(C)(4) through (6), motor vehicle capacity calculation methodology, impact area identification, and transportation impact study requirements are established by the ODOT Transportation Analysis Procedures Manual for roadways and intersections under the jurisdiction of the State of Oregon.*

The adequacy of the transportation system has been addressed under the discussion of Statewide Planning Goal 12 and the implementing Transportation Planning Rule. Those findings demonstrate the County transportation facilities are adequate to accommodate the proposed zone change. Those findings are adopted by reference to address this criterion.

This criterion is met.

4. Section 1202.01D: *Safety of the transportation system is adequate to serve the level of development anticipated by the proposed zone change*

The Board has concluded, based on the applicant’s Traffic Study, that the safety of the transportation system is adequate to serve the level of development anticipated by the zone change. This conclusion is adopted as part of this report by reference therein and demonstrate the affected County road system is safe to accommodate traffic from the proposed expansion area. Neither ODOT nor the County’s Traffic Engineering Division has raised or identified any safety issues at the Hwy. 99E / Barlow Road intersection.

This criterion is met.

PART 2. SUMMARY OF ZONE CHANGE CRITERIA

This application satisfies the applicable criteria in ZDO Section 1202.

SECTION 3: SITE PLAN REVIEW APPLICATION (FILE NO. Z0407-19-MAO)

PART 1. COMPLIANCE WITH SECTIONS 708, 1006, AND 1010 OF THE ZDO

With the approval of the PAPA (Z0406-19-CP) and MAO Overlay District (Z0408-19-ZAP) applications, the applicant also seeks Site Plan Review approval for an aggregate mining operation on the subject properties, to include an extraction area on an approximately 94-acre portion of the property, as identified in the mining plan.

This request is subject to the standards set forth in Section 708 of the County Zoning and Development Ordinance (ZDO).

Section 708.02, Definitions, contains the definitions of terms applicable to this request.

Section 708.04: This subsection identifies the specific uses which may be allowed in the mining Extraction Area.

1. Section 708.04A(1) lists mining as a permitted use in the Extraction Area.
 - a. The proposed Extraction Area is the approximately 94-acre portion of the property located approximately three-quarters of a mile south of the intersection of S Hwy 99E and S Barlow Rd.
 - b. Mining will occur within the proposed Extraction Area boundary. Processing will occur on a property on the east side of S Barlow Rd; materials will be transported to this property on an existing conveyor system that goes under S Barlow Rd.
2. Section 708.04A(2) lists processing, except the batching or blending of mineral and aggregate materials into asphalt concrete within two miles of a commercial vineyard existing on the date the application was received for the asphalt batch plant.
 - a. Processing of aggregate is not proposed and therefore will not be permitted within the Extraction Area.
3. Section 708.04A(3) lists stockpiling of mineral and aggregate materials extracted and processed onsite as a permitted use in the Extraction Area.
 - a. Stockpiling of mineral and aggregate materials may occur within the Extraction Area.
4. Section 708.04A(4) lists temporary offices, shops or other accessory structures used for the management and maintenance of onsite mining and processing equipment as a permitted use in the Extraction Area.

- a. No accessory structures are proposed and therefore will not be permitted within the Extraction Area.
5. Section 708.04A(5) lists the sale of mining products extracted and processed onsite as a permitted use in the Extraction Area.
 - a. The sale of extracted and processed products is not proposed to occur within the Extraction Area.
6. Section 708.04A(6) lists storage of transportation equipment or machinery used in conjunction with onsite mining or processing as a permitted use in the Extraction Area.
 - a. The Extraction Area will be used to store equipment used in conjunction with the onsite mining. This equipment will generally include, but not be limited to a portable conveyor system, hydraulic excavator and front end loader and haul trucks and a dozer. The applicant states that all other equipment such as dump trucks, service vehicles, water trucks will be stored across S Barlow Rd at the existing processing site and adjacent property owned by Cadman (Phase 1 & 2 properties).
7. Section 708.04A(7) lists other activities including buildings and structures necessary and accessory to development or reclamation of the onsite mineral or aggregate resource as a permitted use in the Extraction Area.
 - a. The uses proposed in the Extraction Area are limited to mining and the use and storage of some of the equipment for the purpose of mining and processing.
8. Section 708.04B states that the County may permit other uses allowed by the underlying zone subject to requirements of the underlying zone and requirements of this section for protection of significant mineral and aggregate sites within the Extraction Area.
 - a. No other uses are proposed within the Extraction Area at this time.

These criteria are met.

9. Section 708.05 contains the Extraction Area Development Standards. *The following standards are the basis for regulating mining and processing activities in the Mineral and Aggregate Overlay District. Requirements adopted as part of the Comprehensive Plan also apply to mining and processing activities in the overlay. Before beginning any mining or processing activity, the applicant shall show compliance with these standards and requirements adopted as part of the Comprehensive Plan program.*

- a. Section 708.05A: Access. *Onsite roads used in mining and processing, and access roads from the Extraction Area to a public road shall meet the following standards:*

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1. *All access roads within 100 feet of a paved county road or state highway shall be paved, oiled or watered.*

The applicant states that: *The subject site will not require new access/egress locations. S. Barlow Road will be utilized for access purposes.*

The driveway into the processing facility (on the east side of S Barlow Rd) is paved for a distance of approximately 1,500 feet and is washed, as needed, as a dust control measure. Gravel roads on site and within the processing facility are well maintained and watered for dust control. A truck wheel wash is located approximately 1,800 feet east of the processing facility's exit driveway which connects to S. Barlow Road. Trucks are required to use the wheel wash prior to leaving the site.

This criterion is met.

2. *All roads in the Extraction Area shall be constructed and maintained to ensure compliance with applicable state standards for noise control and ambient air quality.*

The ABD *Noise Study* report (March 4, 2019) has analyzed site operations to account for the loudest potential noise sources anticipated within the operation. Conditions have been proposed within that report designed to mitigate for those loudest potential sources. The report concludes that if the recommended mitigation measures are included as part of the mining plan, the noise associated with the excavation operations in the Cadman Phase 4 site will be in compliance with DEQ noise regulations at all residences.”

In addition, the applicant has incorporated into the mining plan the following measures, which will be included in any conditions of approval:

- (a) *Onsite haul roads will be elevated, graded, graveled, ditched (where necessary) and maintained.*
- (b) *Operations at the site will include the watering of haul roads and staging areas. This mitigation method ensures that dust emissions are reduced to minimal levels.*
- (c) *Onsite haul roads will not be constructed within two hundred fifty (250) feet of a neighboring residence. This measure ensures that dust emissions will not be generated as a result of road usage in sensitive areas adjacent to the extractions site.*

Conditions of approval ensure that roads in the extraction area will be constructed and maintained for noise control and ambient air quality purposes.

This criterion is met.

3. *All roads in the Extraction Area shall be paved at all points within 250 feet of a noise or dust sensitive use existing on February 22, 1996.*

No roads are proposed by the applicant within 250 feet of the noise and dust sensitive areas adjacent to the subject (residences). If in the future, any roads internal to the Extraction Area are constructed within 250 feet of these uses, those roads would be paved.

This criterion can be met.

b. Section 708.05B requires screening of the mining activities.

1. *The mining activities listed in Subsection (B)(2) of this Section shall be obscured from the view of screened uses, unless one of the exceptions in Subsection (B)(4) applies. Screening shall be accomplished in a manner consistent with Subsection (B)(3).*

The applicant states that screening of the excavation area will include *screening and noise barriers around the majority of the site*, including new screening/barriers to be constructed on the western, southern and eastern edges of the extraction area. In addition, the applicant has requested an exception under Subsection (B)(4)(b) due to the fairly significant topographic difference on the southern and southwestern bounds of the Extraction Area.

It is unclear from the application whether these “barriers” are berms with natural screening, as per Subsection (B)(3) or if they are some other material. To the extent that these do represent qualified screening, the Board finds this criteria to be satisfied; a condition to ensure such compliance is warranted. The Board also notes that the Extraction Area is partially bound on the south and southwest by a bluff, with an approximately 60 foot elevation difference from the current ground level of the Extraction Area. An exception under Subsection (4)(b) may be warranted for these areas, as discussed further below.

This criterion can be met with conditions.

2. Mining activities to be screened:

- a) *All excavated areas, except: areas where reclamation activity is being performed, internal onsite roads existing on the date of county adoption, new roads approved as part of the Site Plan Review, material excavated to create berms, and material excavated to change the level of the mine site to an elevation that provides natural screening,*
- b) *All processing equipment.*
- c) *All equipment stored on the site.*

The applicant’s proposed screening berms will screen all mining activities and equipment to be stored on site. As the applicant notes, *the equipment to be stored is identified as the portable conveyor system, hydraulic excavator, and a front end loader. Haul trucks and a*

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dozer when stripping overburden for a new mine cell will be stored on site. All other equipment such as dump trucks, service vehicles and water trucks will be stored at the existing Cadman processing facility. Additionally, as the site is excavated, the equipment stored will be stationed on the lowered levels, and out of public view.

This criterion is met.

3. Types of screening

a) Natural screening is existing vegetation or other landscape features within the boundaries of the Extraction Area that obscure mining activities from screened uses. Natural screening shall be preserved and maintained except where removed according to a mining or reclamation plan approved by DOGAMI.

b) Supplied screening is either vegetative or earthen screening. Supplied vegetative screening is screening that does not exist at the time of the Site Plan Review. Plantings used in supplied vegetative screening shall be evergreen shrubs and trees, and shall not be required to exceed six feet in height when planted. Supplied earthen screening shall consist of berms covered with earth stabilized with ground cover.

As discussed above, the subject properties contain little to no existing vegetation or other landscape features within the boundaries of the Extraction Area aside from the hillside immediately south/southwest of the Extraction Area that contains some trees and natural screening. Atop this bluff to the south/southwest, however, is approximately 60 feet in elevation above the current ground level of the Extraction area.

Supplied screening berms will be constructed, according to the applicant, with overburden and seeded with ground cover for erosion control. In addition, where noise barriers/walls are proposed, vegetation can be planted to obscure such structures.

This criterion can be met.

4. Exceptions. *Supplied screening shall not be required if any of the following circumstances exist:*

a) The natural topography of the site obscures mining and processing from screened uses.

b) Supplied screening cannot obscure mining and processing from screened uses because of local topography.

c) Supplied vegetative screening cannot reliably be established or cannot survive due to soil, water or climatic conditions.

The applicant's narrative includes a request for an exception under Subsection (B)(4)(b) due to the fairly significant topographic difference on the southern and southwestern

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bounds of the Extraction Area. No discussion of the request ensued, but it is fairly obvious that an elevation difference in the nature of 60 feet, as is found along the bluffs to the south and southwest of the Extraction Area. For those areas, an exception is warranted under (4)(b) and the Board so concludes.

This criterion is met.

- c. Section 708.05C: Air and Water Quality. *The discharge of contaminants and dust created by mining and processing shall comply with applicable state air quality and emissions standards and applicable state and federal water quality standards.*

As explained in detail in the application and consultant reports in support of the PAPA/MAO applications discussed in the earlier sections of this report, the applicant shall develop and operate the mine in compliance with applicable state air quality and emissions standards and applicable state and federal water quality standards.

The applicant states that they shall *operate the subject mining site in compliance with applicable State Air Quality and Emission Standards. The applicant maintains DEQ issued permits that regulate operating conditions and requirements at the active aggregate mining operation. The permits are identified as Air Contaminant Discharge Permit No. 37-0494-08-01 and NPDES-1200A-Stormwater Discharge Permit/SWPCP. If the application is approved, the applicant will amend the referenced permits to include operations at the subject site. Copies of the permits are included in the application. The plan will also be modified to include Stormwater Control measures and methods that will be employed in Phase 4.*

The Board imposed conditions of approval to ensure compliance with these standards.

This criterion is met.

- d. Section 708.05D: Streams and Drainage. *Mining and processing shall not occur within 100 feet of mean high water of any lake, river, perennial water body or wetland not constructed as part of a reclamation plan approved by DOGAMI unless allowed by specific provisions adopted in the Comprehensive Plan.*

The applicant is not proposing any mining or processing activities within 100 feet of the mean high water line of any lake, river, perennial water body or wetland not constructed as part of a reclamation plan.

This criterion is met.

- e. Section 708.05E: Noise. *Mining and processing shall comply with state noise control standards. Operators may show compliance with noise standards through the report of a certified engineer that identifies mitigation methods to control noise. Examples of noise mitigation measures are siting mining and processing*

using existing topography, using supplied berms, or modifying mining and processing equipment.

The *Cadman Phase 4 Aggregate Site – Goal 5 Noise Study* (August 30, 2019) is included as part of the application package and was prepared by a certified engineer, ABD Engineering & Design, Inc. The purpose of the study was to identify noise impacts resulting from aggregate extraction and potential processing onsite operations and to recommend mitigation methods for noise control. The Noise Study concluded "*If mitigation measures such as those discussed in this report are included as part of the mining plan, the noise associated with the Canby Pit/Barlow Road Aggregate Mine will be in compliance with the DEQ noise regulations and thus all mining noise conflicts will be minimized as required by the Oregon Statewide Planning Goal 5 rules.*" The mitigation methods recommended in the Study have been incorporated into the applicant's Mining and Operations Plan and into the recommended conditions of approval.

This criterion is met.

f. Section 708.05F: Hours of Operation.

1. Mining and processing is restricted to the hours of 7:00 AM to 6:00 PM Monday through Friday, and 8:00 AM to 5:00 PM Saturday. Hauling and other activities may operate without restriction provided that state noise control standards are met.

2. No operations shall take place on Sundays or the following legal holidays: New Year's Day, Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

The applicant states that operating hours at the proposed Extraction Area and at the processing facility (located on the east side of S Barlow Rd) will be restricted to the hours of 7:00 AM to 6:00 PM Monday through Friday, and 8:00 AM to 5:00 PM Saturday and that no work will be conducted on Sundays and on the following holidays: New Year's Day, Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

The Board notes that for processing to occur on Saturdays, conditions imposed on the processing site at the time of its MAO designation, limit operations to Monday through Friday and these would need to be amended (Condition # 5, Planning File Z0348-93-CP/Z0349-93-Z and Condition #23 of Z1826-97-MAR). These conditions are identical and state:

Mining, processing and hauling shall be restricted to the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday. Other activities may operate without restriction provided that the Department of Environmental Quality noise control standards are met.

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The applicant has requested this amendment and states that *subsequent to the Board's imposition of the Condition of Approval, Section 708.05.F of the CCZDO was amended to expressly allow processing operations on Saturday as well as Monday through Friday.*

The Board has been unable to ascertain whether or not that statement is true; however, based on the Board's reading of the findings associated with the original approvals, there appears to be no impact-based reason for the condition - the findings specifically note that, with the recommended mitigation, all noise impacts would fall within DEQ standards. These DEQ noise standards (according to the applicant) are no different for Saturday than for Monday through Friday. Therefore there appear to be no specific circumstances have been identified that would necessarily warrant the limitation and therefore processing is allowed on Saturday from 8:00AM to 5:00PM, as per these criteria in ZDO Section 708.05F.

This criterion is met.

g. Section 708.05G: Drilling and Blasting.

1. Drilling and blasting is restricted to the hours of 9:00 AM to 4:00 PM Monday through Friday. No drilling or blasting shall occur on Saturdays, Sundays, or the following legal holidays: New Year's Day, Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day and Christmas Day.

2. Notice of blasting events shall be posted at the Extraction Area in a manner calculated to be seen by landowners, tenants and the public at least 48 hours prior to the blasting event. In the case of ongoing blasting activities, notice shall be provided once each month for the period of blasting activities, and specify the days and hours when the blasting event is expected to occur.

No drilling or blasting is proposed at the subject site. A condition of approval is included which states that drilling and blasting are not authorized on the site.

This criterion is met.

h. Section 708.05H: Surface and Ground Water. *Surface and ground water shall be managed in a manner that meets all applicable state water quality standards and DOGAMI requirements. The applicant shall demonstrate that all water necessary for the proposed operation has been appropriated to the site and is legally available.*

An extensive analysis of surface and ground water systems has been performed for this application by H.G. Schlicker & Associates. The HGSA report identifies site conditions, future aggregate extraction methods, potential impacts, neighboring wells, and mitigation measures that can be implemented in the applicants' Mine Plan that mitigate impacts associated with the identified potential conflicts. Monitoring of the nine wells on site will provide long term data gathering to observe any changes, should there be any. In

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addition, the site will only be dewatered for the first approximately 10 feet of excavation and will be wet mined below that level to minimize likelihood of negative impacts to groundwater levels and neighboring wells.

The applicant has stated that the DEQ issued NPDES Permit the applicant has obtained for Phase 3 will be revised for Phase 4 to ensure that water quality standards are met and that water required for dust control will be less than the exempt 5,000 gallons per day.

It should be noted that all aspects of the proposed onsite and offsite stormwater management will be under the authority of the applicable agencies. For stormwater, ground water, and wetlands, those agencies include DOGAMI, Clackamas County, Water Environment Services, the Surface Water Management Agency of Clackamas County, DSL and the Army Corp of Engineers.

This criterion is met.

- i. Section 708.05I: Compliance with Special Conditions. *The County may impose additional, special conditions to resolve issues specific to an individual site. The conditions shall be specified in the site-specific program to achieve the Goal adopted as part of the Comprehensive Plan.*

The applicant acknowledges that the County may impose special conditions to resolve issues specific to an individual site, and that these conditions must be specified in the site-specific program to achieve the Goal adopted as part of the Comprehensive Plan text amendment and MAO overlay designation process. In the companion PAPA/MAO applications, the applicant has proposed a series of conditions designed to limit potential conflicts with proposed mining activities as well as the impacts associated with those conflicts. Imposing these conditions should resolve issues specific to the property.

This criterion is met.

- j. Section 708.05J: Security. *The permittee shall fence the Extraction Area boundary between the mining site and any parcel where dwellings are a principal use. Fencing shall be a cyclone type fence a minimum of six feet high.*

“Principal use” is interpreted to mean a use allowed as a primary use in the County’s Zoning and Development Ordinance (ZDO). The Board finds the requirements of this Subsection do not apply to the permit application for two reasons:

1. The dwellings located on parcels immediately adjacent to the boundaries of the Extraction area are on lands within an Exclusive Farm Use (EFU) zoning district and a dwelling is not considered the principal use in the EFU Zone.

2. The dwellings within the impact area that are on lands within the Farm Forest-10 Acre (FF-10) zoning district are all located across S Hwy 99E from the Extraction area, so even though dwellings are a primary use in these zones, all of these parcels are across the state highway from the boundary of the Extraction Area and not immediately adjacent.

In lieu of fencing, the applicant has proposed screening berms and noise barriers in various locations around the site to provide visual and noise separation from the mining operation and nearby dwellings.

This criterion is met.

k. Section 708.05K: Performance requirements:

1. *The mining operator shall maintain DOGAMI and other state agency permits.*
2. *The mining operator shall carry a comprehensive general liability policy covering mining, and incidental activities during the term of operation and reclamation, with an occurrence limit of at least \$500,000. A certificate of insurance for a term of one year shall be deposited with the County prior to the commencement of mining and a current certificate of insurance shall be kept on file with the County during the term of operation and reclamation.*

The applicant has proposed conditions to ensure compliance with this requirement, as identified in Section 4 of this report. The Board finds the proposed conditions will be sufficient to meet this criterion.

This criterion is met.

A. Section 708.06: Reclamation.

1. Section 708.06A: *No mining shall begin until the permittee provides the county with a copy of a DOGAMI Operating Permit or exemption in accordance with ORS 517.750 through 517.900 and the rules adopted thereunder.*

The applicant has proposed the following conditions to ensure compliance with this requirement:

- a) Applicant shall not initiate mining and activities on the Cadman, Phase 4 Aggregate site until the State Department of Geologic and Mineral Industries approves the reclamation plan and operating permit for the site.
- b) Applicant shall obtain approval from the State Department of Geology and Mineral Industries of a reclamation plan for the site and shall affect reclamation in accordance with same.

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This criterion can be met.

2. Section 708.06B: *The County's jurisdiction over mined land reclamation is limited to determining the subsequent beneficial use of mined areas, ensuring that the subsequent beneficial use is compatible with the Comprehensive Plan and Zoning and Development Ordinance, and ensuring that mine operations and reclamation activities are consistent with the program to achieve the Goal adopted as part of the Comprehensive Plan.*

The Reclamation Plan and subsequent beneficial use of the mining site is based on a partially backfilled, natural area and a lake, which is consistent with OAR 660-023-180(5)(f) and with the County's Zoning and Development Ordinance (ZDO), specifically Section 401 (Exclusive Farm Use).

This criterion is met.

3. Section 708.06C: *The County shall coordinate with DOGAMI to ensure compatibility between DOGAMI and the County in the following manner.*
 - a) *When notified by DOGAMI that an operator has applied for reclamation plan and an Operating Permit, the County shall inform DOGAMI whether Site Plan Review approval by the County is required.*
 - 1) *If Site Plan Review approval is required, the County shall request that DOGAMI delay final action on the application for approval of the reclamation plan and issuance of the Operating Permit until after Site Plan Review approval has been granted.*
 - 2) *If Site Plan Review approval is not required, the County shall so notify DOGAMI and the County shall review the proposed reclamation plan and Operating Permit during DOGAMI's notice and comment period.*

This section requires coordination with DOGAMI in reviewing Operating Permits and Reclamation Plans. The requested Site Plan Review, if approved, shall be completed prior to the issuance of the DOGAMI Operating Permit and Reclamation Plan. A condition of approval to this effect is warranted.

This criterion is met.

- b) *When reviewing a proposed reclamation plan and Operating Permit application circulated by DOGAMI, the County shall review the plan against the following criteria:*

- 1) *The plan provides for rehabilitation of mined land for a use specified in the Comprehensive Plan, including subsequent beneficial uses identified through the Goal 5 planning process.*
- 2) *The reclamation plan and surface mining and reclamation techniques employed to carry out the plan comply with the standards of Section 708.05.*
- 3) *Measures are included which will ensure that other significant Goal 5 resources determined to conflict with mining will be protected in a manner consistent with the Comprehensive Plan.*

During the DOGAMI permit application and review process, the County will have the opportunity for input on the proposed reclamation plan. County staff will review that submittal against the criteria listed above.

This criterion is met.

G. Section 708.07: Extraction Area Permits.

A Site Plan Review, or Extraction Area Permit, requires review as a Type I application pursuant to Section 1307, to the extent that Section 1307 is consistent with the requirements of ORS 197.195 and 215.425.

Although a Type I review is typically a Planning Director administrative action under the terms of this subsection, the Planning Commission and Board of County Commissioners (BCC) have jurisdiction to hear and decide applications filed concurrently with a comprehensive plan amendment application under Section 1307.04 of the ZDO. The applicant has filed the application concurrently with the PAPA/MAO applications. Therefore, the Planning Commission has jurisdiction to hear this matter and advise the BCC on the Site Plan Review application.

This criterion is met.

1. The County shall approve, approve with conditions, or deny the application for the permit based on the conformance of the site plan with the standards of ZDO Sections 708, 1006, 1010, and the requirements of the site-specific program to achieve Goal 5 adopted as part of the Comprehensive Plan.

The applicant has directly responded to the requirements of section 708 in the preceding findings. The Site Plan Review section also incorporates the standards of sections 1006 and 1010, which are discussed below:

- a) 1006 – Water Supply, Sanitary Sewer, Surface Water, and Utilities Concurrency

Water Supply: The applicant notes that water will be required for dust control management on haul roads and staging areas within the aggregate extraction site. The volume required is estimated at less than 5,000 gallons per day, and is based on present day quantities used in similar operations at the adjacent Cadman site (Phase 3).

Pertaining to the availability of water necessary for the proposed operation, under the exempt uses section of the Oregon Water Laws (ORS section 537.545), a water right not to exceed 5,000 gallons per day is provided for “any single industrial or commercial purpose.” This provision states, “no registration, certificate of registration, application for permit, permit, certificate of completion or ground water right certificate under 537.505 to 537.795 and 537.992 is required for the use of ground water.”

Sanitary Sewer/Sewage Disposal: The applicant expects that portable toilets (port-a-potties) will be used rather than a subsurface sewage disposal system. Portable toilets are utilized at the company’s existing operations. *The proposed aggregate operations are not stationary in that excavating activities move frequently and are normally conducted over a large area. Permanent or isolated sanitary facilities are not ideal for ever moving employee work stations. The port-a-potties referred to are trailer-mounted and are relocated at staging areas as operations move through the subject site.*

Stormwater: Compliance with state water quality standards for storm water occurring within the Extraction Area will be based upon review and approval by the DOGAMI. All aspects of the proposed onsite and offsite stormwater management will be under the authority of the applicable agencies. For stormwater, ground water, and wetlands, those agencies include DOGAMI, Clackamas County, DSL and the Army Corp of Engineers. The applicant notes that Cadman *has an approved Stormwater/Surface Water Management Control plan in place for operations at the existing Phase 3 site. If the application is approved, the applicant will modify the SWPCP to include like operations on Phase 4.*

With regard to requirements of County Roadway Standards, the applicant is not proposing to drain or convey storm/surface waters into roadside ditches. Stormwater will be managed and conveyed to the processing area’s stormwater ponds.

Sensitive Groundwater Areas: The subject property site is located outside the Portland Metropolitan Urban Growth Boundary and Mount Hood Urban Area; however the standards found under 1006.05 do not apply to the proposal because it is not located within a Sensitive Groundwater area.

This criterion is met.

- b. 1010 – Signs. This section of the ZDO sets forth the standards for all on-premise signs for multiple use types.

At this time, the applicant is not proposing any signs. The application does not include new access/exit driveways onto S. Barlow Rd. from the proposed Extraction Area (Phase

4). Access to and from the subject site will be through an onsite road utilizing the existing driveway for Phase 3 site.

This criterion is not applicable.

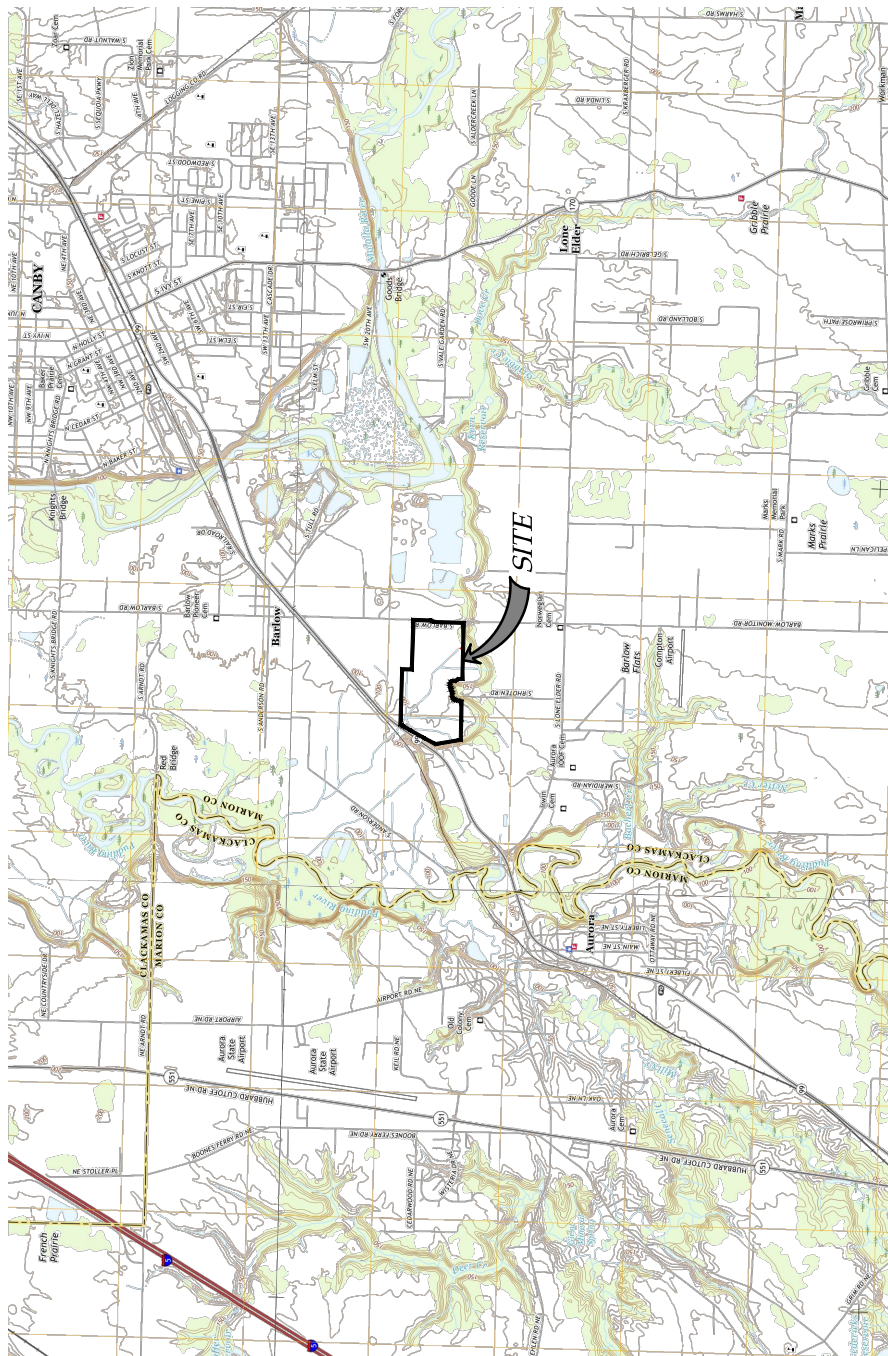
**PART 2. SUMMARY OF MINERAL & AGGREGATE SITE REVIEW
CRITERIA**

Based upon the application materials and these findings, the Board finds that this application satisfies, or can satisfy, the applicable approval standards of the Sections 708, 1006 and 1010.

FIGURE 1



0 2500' 5000'
SCALE: 1" = 5000'



PERMITEE/OPERATOR:

CADMAN MATERIALS INC.
7554 185TH AVENUE NE
REDMOND, WASHINGTON 98052

ENGINEERING GEOLOGIST:

KUPER CONSULTING LLC
ENGINEERING GEOLOGY CONSULTANTS
3575 RUNNING DEER DRIVE
HELENA, MT 59602
TIGARD, OREGON (503)638-9722
HELENA, MONTANA (406)475-3244

CADMAN - CANBY PHASE 4 EXPANSION AREA

CANBY, OREGON

VICINITY MAP



ENGINEERING ♦ SURVEYING ♦ PLANNING

PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 150 (503) 684-0652
TIGARD, OREGON 97224 FAX (503) 624-0157

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CHECKED BY	JRA
JOB NO.	2803-001

DRAWING NAME: J:\2803-001.18\6. Engineering\3. CAD\PRODUCTION\2. PAPA\2803001-PAPA_FIG2.DWG 2019/08/21 - 11:45AM - DAB

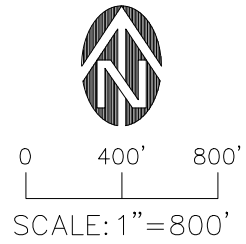
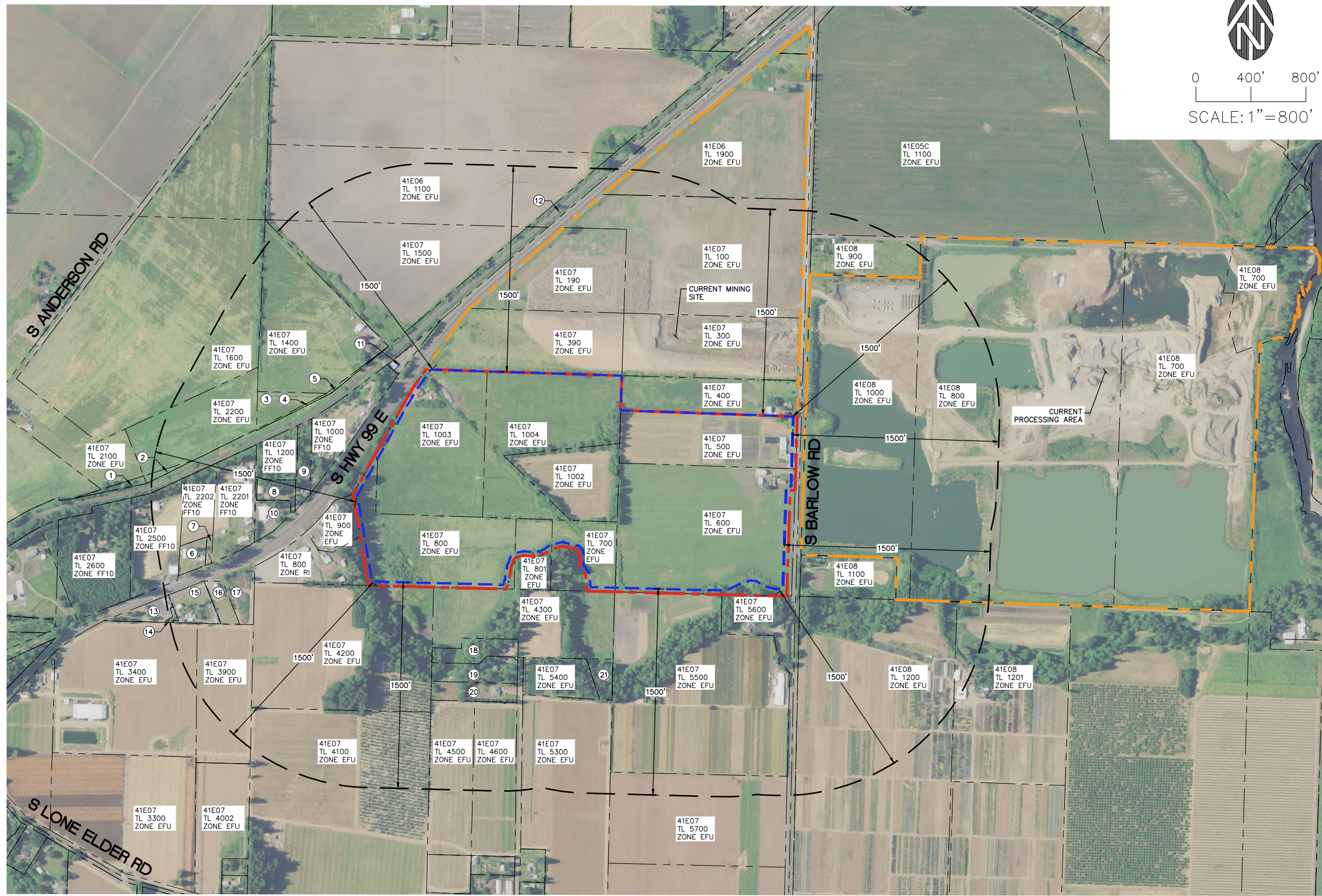


FIGURE 2

- | | |
|---------------------------|--------------------------|
| ① 41E07 TL6100, ZONE EFU | ⑫ 41E06 TL2000, ZONE EFU |
| ② 41E07 TL1902, ZONE EFU | ⑬ 41E07 TL3501, ZONE EFU |
| ③ 41E07 TL1300, ZONE EFU | ⑭ 41E07 TL3500, ZONE EFU |
| ④ 41E07 TL1501, ZONE EFU | ⑮ 41E07 TL3600, ZONE EFU |
| ⑤ 41E07 TL2402, ZONE EFU | ⑯ 41E07 TL3700, ZONE EFU |
| ⑥ 41E07 TL2400, ZONE FF10 | ⑰ 41E07 TL3800, ZONE EFU |
| ⑦ 41E07 TL2300, ZONE FF10 | ⑱ 41E07 TL4402, ZONE EFU |
| ⑧ 41E07 TL1101, ZONE FF10 | ⑲ 41E07 TL4400, ZONE EFU |
| ⑨ 41E07 TL1001, ZONE FF10 | ⑳ 41E07 TL4401, ZONE EFU |
| ⑩ 41E07 TL1102, ZONE FF10 | ㉑ 41E07 TL5401, ZONE EFU |
| ⑪ 41E07 TL200, ZONE FF10 | |

NOTE:
DRAWING SCALES INDICATED APPLY TO 11"x17" DRAWING SHEETS. SCALE MAY NOT BE ACCURATE IF DRAWING PLOTS ARE LESS THAN THIS SIZE. USE BAR SCALE FOR REFERENCE ON REDUCED SIZE SHEET.

NOTES

- ONSITE TAX LOT AREAS ARE OBTAINED FROM PROJECT SURVEYOR, S&F LAND SERVICES.
- ADJACENT TAX LOT AREAS ARE OBTAINED FROM CLACKAMAS COUNTY GIS ONLINE MAPPING SHAPEFILES (<http://www.clackamas.us/gis/dataportal.html>).
- ADJACENT TAX LOTS DEPICTED ARE FOR ILLUSTRATIVE PURPOSE ONLY, NOT TO BE USED AS A SURVEYED LOCATION BOUNDARY/AREA.
- AERIAL IMAGE SOURCE IS NOAA DATA ACCESS VIEWER, 2016 (<https://coast.noaa.gov/dataviewer/#>).
- MAO OVERLAY DEPICTED PER EXHIBITS PROVIDED BY CLACKAMAS COUNTY DATED AUGUST 9, 2017.

PERMITEE/OPERATOR:

CADMAN MATERIALS INC.
7554 185TH AVENUE NE
REDMOND, WASHINGTON 98052

ENGINEERING GEOLOGIST:

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LEGEND

	APPROXIMATE CURRENTLY PERMITTED MINING BOUNDARY	RI	RURAL INDUSTRIAL DISTRICT
	APPROXIMATE PROPOSED MINING PERMIT BOUNDARY (PHASE 4)	EFU	EXCLUSIVE FARM USE DISTRICT
	SETBACK	FF10	FARM FOREST 10-ACRE
	MINING EXCAVATION BOUNDARY		
	1500' IMPACT AREA		
	APPROXIMATE TAX LOT BOUNDARY		

CADMAN - CANDY PHASE 4 EXPANSION AREA

TAXLOT MAP AND IMPACT AREA
CANBY, OREGON

WESTLAKE CONSULTANTS INC.
ENGINEERING ♦ SURVEYING ♦ PLANNING
PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 150
TIGARD, OREGON 97224
(503) 684-0652
FAX (503) 624-0157

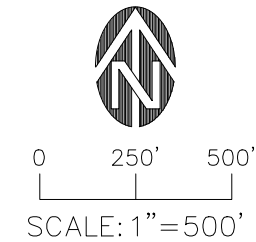
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JOB NO.	2803-001

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FIGURE 3



LEGEND

- CADMAN PROPERTY
- CONVEYOR SYSTEM
- APPROXIMATE TAX LOT BOUNDARY
- PERMITTED PROCESSING FACILITY
- PERMITTED PHASE 3

SUBJECT PARCELS

- CHA
- BLUMENKRON
- LAPP
- LEE
- VANPELT
- YODER

CADMAN - CANDY PHASE 4 EXPANSION AREA
CANBY, OREGON

SITE PLAN

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CONSULTANTS INC.

ENGINEERING ♦ SURVEYING ♦ PLANNING

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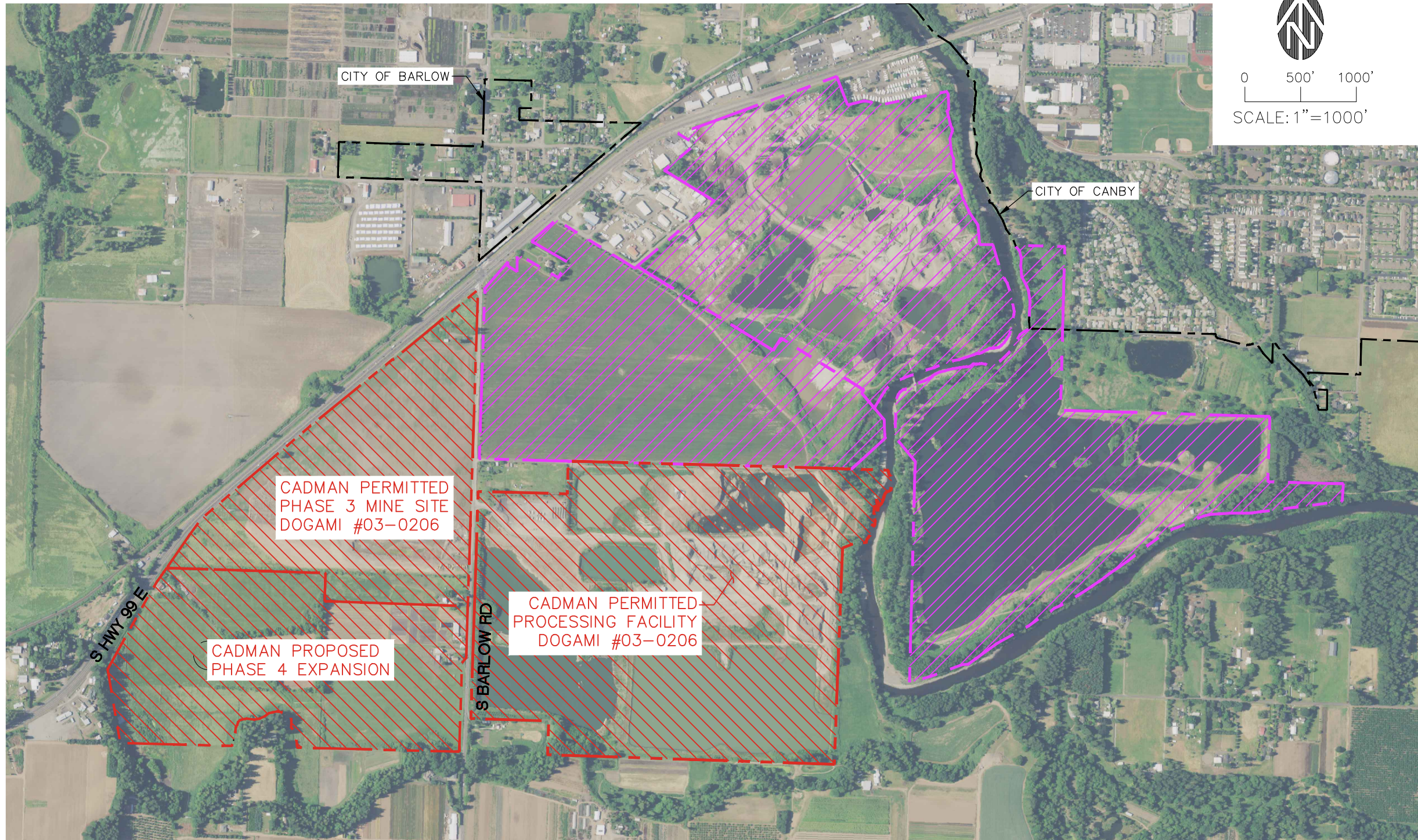





FIGURE 4

LEGEND

-  CITY BOUNDARY
-  PERMITTED AND PROPOSED CADMAN MATERIALS INC. MINE SITES
-  OTHER PERMITTED MINE SITES

PERMITEE/OPERATOR:

CADMAN MATERIALS INC.
 7554 185TH AVENUE NE
 REDMOND, WASHINGTON 98052

ENGINEERING GEOLOGIST:

KUPER CONSULTING LLC
 ENGINEERING GEOLOGY CONSULTANTS
 3575 RUNNING DEER DRIVE
 HELENA, MT 59602
 TIGARD, OREGON (503)638-9722
 HELENA, MONTANA (406)475-3244

NOTE:

1. DRAWING SCALES INDICATED APPLY TO 11"x17" DRAWING SHEETS. SCALE MAY NOT BE ACCURATE IF DRAWING PLOTS ARE LESS THAN THIS SIZE. USE BAR SCALE FOR REFERENCE ON REDUCED SIZE SHEET.
2. AERIAL IMAGE SOURCE IS NOAA DATA ACCESS VIEWER, 2016 (<https://coast.noaa.gov/dataviewer/#>).
3. PROPERTY LINES DEPICTED ARE FOR ILLUSTRATIVE PURPOSE ONLY, NOT TO BE USED AS A SURVEYED LOCATION BOUNDARY/AREA.

CADMAN - CANBY PHASE 4 EXPANSION AREA
 CANBY, OREGON

PERMITTED MINE SITES

WESTLAKE
 CONSULTANTS INC.
 ENGINEERING ♦ SURVEYING ♦ PLANNING
 PACIFIC CORPORATE CENTER
 15115 S.W. SEQUOIA PARKWAY, SUITE 150
 TIGARD, OREGON 97224
 (503) 684-0652
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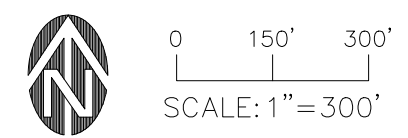
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FIGURE 5



NOTES

1. PROPERTY LEGAL DESCRIPTION:
TAX MAP 41E07 TAX LOT 500, 600, 700, 800, 801, 1002, 1003 AND 1004 ZONED EXCLUSIVE FARM USE (EFU) IN CLACKAMAS COUNTY.
2. ALL UTILITY EASEMENT LOCATIONS AND WIDTHS TO BE CONFIRMED (SURVEYED) IN THE FIELD IN COORDINATION WITH THE UTILITY COMPANIES PRIOR TO MINING.
3. TOPOGRAPHIC SURVEY INFORMATION WAS PROVIDED BY S&F LAND SERVICES. THIS EXISTING CONDITIONS FIGURE 5 IS FOR ILLUSTRATIVE PURPOSES ONLY.
4. ADJACENT TAX LOT AREAS ARE OBTAINED FROM CLACKAMAS COUNTY GIS ONLINE MAPPING SHAPEFILES (<http://www.clackamas.us/gis/dataportal.html>).
5. ADJACENT TAX LOTS DEPICTED ARE FOR ILLUSTRATIVE PURPOSE ONLY, NOT TO BE USED AS A SURVEYED LOCATION BOUNDARY/AREA.
6. AERIAL IMAGE SOURCE IS NOAA DATA ACCESS VIEWER, 2016 (<https://coast.noaa.gov/dataviewer/#>).
7. THERE ARE 18 BORING LOCATIONS AND 5 OF THESE INCLUDE MONITORING WELLS.

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO QUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

VERTICAL DATUM

NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED ON STATIC GNSS OBSERVATIONS PROCESSED THROUGH NATIONAL GEODETIC SURVEY (NGS) ONLINE POSITIONING USER SERVICES (OPUS) AND ADJUSTED BY THE LEAST SQUARES METHOD IN TRIMBLE BUSINESS CENTER.

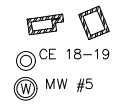
HORIZONTAL DATUM

OREGON NORTH STATE PLANE COORDINATE SYSTEM NAD83 (2011) (EPOCH 2010.0). BASED ON STATIC GNSS OBSERVATIONS PROCESSED THROUGH NATIONAL GEODETIC SURVEY (NGS) ONLINE POSITION USER SERVICES (OPUS) AND ADJUSTED BY LEAST SQUARES METHOD IN TRIMBLE BUSINESS CENTER.

DISTANCES SHOWN HEREON ARE GROUND DISTANCES, INTERNATIONAL FEET.
SCALE FACTOR = 0.9998936734
GROUND DISTANCE * 1.0001063266 = GRID DISTANCE

LEGEND

	APPROXIMATE CURRENTLY PERMITTED MINING BOUNDARY
	APPROXIMATE PROPOSED MINING PERMIT BOUNDARY (PHASE 4)
	APPROXIMATE TAX LOT BOUNDARY
	EXISTING EASEMENT
	EXISTING FENCE
	APPROXIMATE TAX LOT BOUNDARY
	EXISTING 25' MAJOR CONTOUR
	EXISTING 5' MINOR CONTOUR
	EXISTING ROW
	EXISTING STRUCTURE
	TEST BORE LOCATION
	MONITORING WELL LOCATION



NOTE:
DRAWING SCALES INDICATED APPLY TO 11"x17" DRAWING SHEETS. SCALE = 1"=300'. ALL DRAWING PLOTS ARE LESS THAN 11"x17" IN SCALE FOR REFERENCE ON REDUCED SIZE SHEET.

ENGINEERING GEOLOGIST:

KUPER CONSULTING LLC
ENGINEERING GEOLOGY CONSULTANTS
3575 RUNNING DEER DRIVE
HELENA, MT 59602
TIGARD, OREGON (503)638-9722
HELENA, MONTANA (406)475-3244

PERMITEE/OPERATOR:

CADMAN MATERIALS INC.
7554 185TH AVENUE NE
REDMOND, WASHINGTON 98052

CADMAN - CANDY PHASE 4 EXPANSION AREA

CANYBY, OREGON

WESTLAKE CONSULTANTS INC.

ENGINEERING ♦ SURVEYING ♦ PLANNING

PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 150
TIGARD, OREGON 97224
(503) 684-0652
FAX (503) 624-0157

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JOB NO.	2803-001

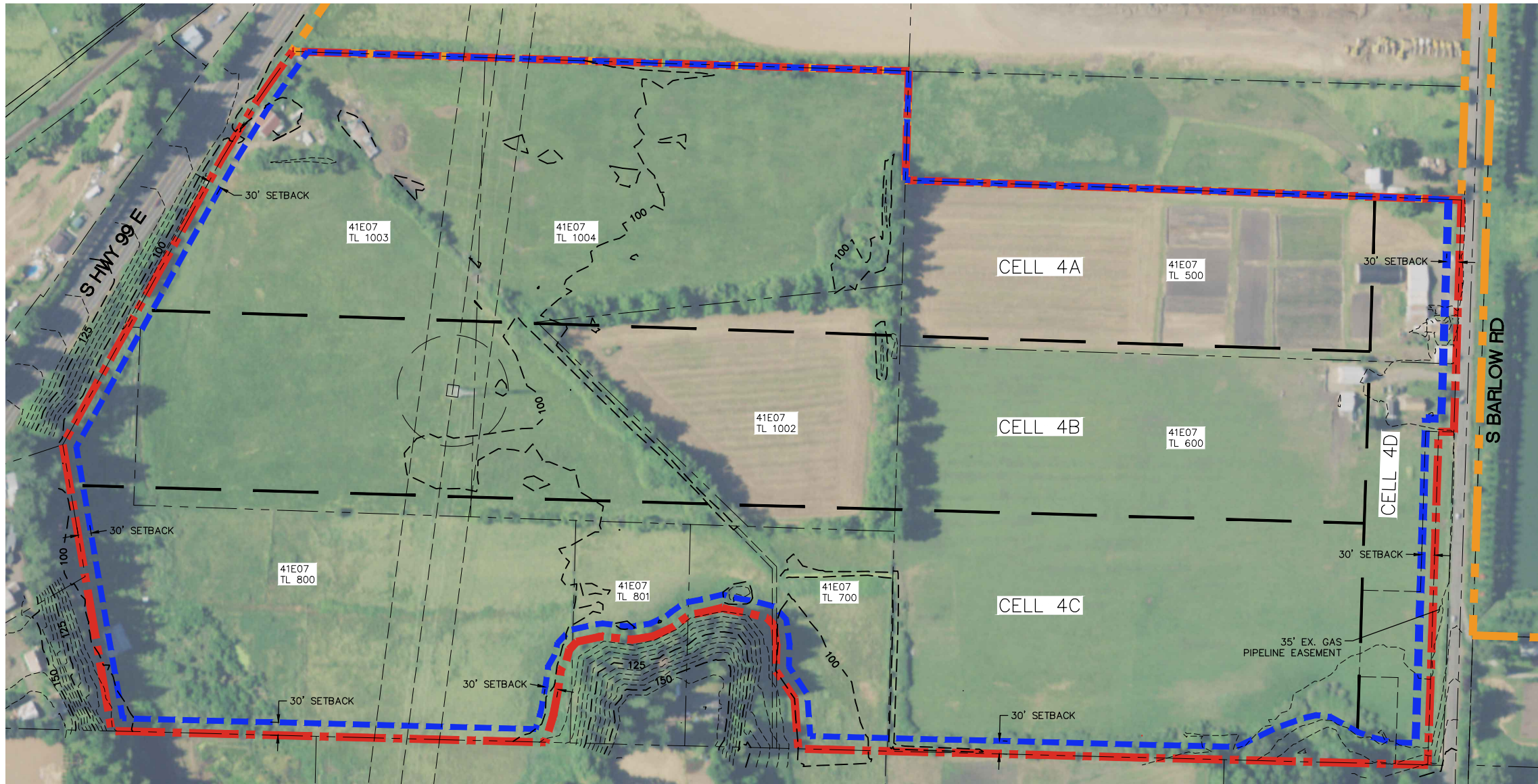


FIGURE 6



0 150' 300'
SCALE: 1"=300'

REFERENCES:

1. ARCHAEOLOGICAL AND CULTURAL SURVEY: HERITAGE RESOURCES ASSOCIATES, INC.
2. GROUNDWATER: H. G. SCHLICKE & ASSOCIATES, INC.
3. NOISE: ABD ENGINEERING & DESIGN
4. SIGNIFICANCE REPORT: H. G. SCHLICKE & ASSOCIATES, INC.
5. TRAFFIC: SANDOW ENGINEERING, LLC.
6. AERIAL IMAGE: NOAA DATA ACCESS VIEWER, 2016.

NOTES

PROPERTY LEGAL DESCRIPTION:
TAX MAP 41E07 TAX LOT 500, 600, 700, 800, 801, 1002, 1003 AND 1004
ZONED EXCLUSIVE FARM USE (EFU) IN CLACKAMAS COUNTY.

ALL UTILITY EASEMENT LOCATIONS AND WIDTHS TO BE CONFIRMED (SURVEYED) IN THE FIELD IN COORDINATION WITH THE UTILITY COMPANIES PRIOR TO MINING.

NOTE:
DRAWING SCALES INDICATED APPLY TO 11"x17" DRAWING SHEETS. SCALE MAY NOT BE ACCURATE IF DRAWING PLOTS ARE LESS THAN THIS SIZE. USE BAR SCALE FOR REFERENCE ON REDUCED SIZE SHEET.

MINE SITE STATISTICS:

TAX LOT MINING AREA	AREA PER SURVEY TOPO DRAWING
TAX MAP 41E07 TAX LOT 500	± 11.26 AC**
TAX MAP 41E07 TAX LOT 600	± 26.90 AC**
TAX MAP 41E07 TAX LOT 700	± 3.88 AC**
TAX MAP 41E07 TAX LOT 800	± 14.19 AC**
TAX MAP 41E07 TAX LOT 801	± 1.59 AC**
TAX MAP 41E07 TAX LOT 1002	± 7.29 AC
TAX MAP 41E07 TAX LOT 1003	± 16.80 AC**
TAX MAP 41E07 TAX LOT 1004	± 16.63 AC
PROPOSED MINING / MAO AREA	± 98.5 AC*
PROPOSED MINING EXCAVATION AREA	± 93.6 AC

* AREAS USED IN REPORTS AND EXHIBITS
** A PORTION OF TAX LOT INCLUDED IN PROPOSED MINING AREA.

PERMITEE/OPERATOR:

CADMAN MATERIALS INC.
7554 185TH AVENUE NE
REDMOND, WASHINGTON 98052

ENGINEERING GEOLOGIST:

KUPER CONSULTING LLC
ENGINEERING GEOLOGY CONSULTANTS
3575 RUNNING DEER DRIVE
HELENA, MT 59602
TIGARD, OREGON 97144
HELENA, MONTANA (406)475-3244

NOTES

1. THE PROPOSED MINING IS IN CLACKAMAS COUNTY. THE SITE IS ZONED EXCLUSIVE FARM USE (EFU). A MINERAL AND AGGREGATE OVERLAY ZONE (MAO) WILL BE APPLIED TO THE FUTURE DOGAMI PERMIT BOUNDARY.
2. THE OPERATIONAL LIFE OF THE MINE IS APPROXIMATELY 8-10 YEARS.
3. EXCAVATIONS AND MINING OPERATIONS ARE RESTRICTED TO THE HOURS OF:
7:00 AM TO 6:00 PM MON - FRI
AND 8:00 AM TO 5:00 PM SAT
NO OPERATION SHALL TAKE PLACE ON SUNDAYS OR THE FOLLOWING LEGAL HOLIDAYS:
NEW YEAR'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, THANKSGIVING DAY, AND CHRISTMAS DAY.
4. PROPERTY LINE SETBACK DISTANCES:
A. 30.0' FROM ANY PROPERTY LINE
B. 30.0' FROM S HIGHWAY 99 E.
C. 30.0' FROM S BARLOW ROAD
5. PROPOSED HAUL ROADS SHALL BE WATERED FOR DUST SUPPRESSION.
6. THE APPLICANT SHALL FLAG OR OTHERWISE MARK THE BOUNDARIES OF THE REQUIRED EXCAVATION SETBACKS FROM PROPERTY BOUNDARIES BEFORE BEGINNING EXCAVATION AT THE AGGREGATE SITE.
7. ACCESS ROADS TO AGGREGATE SITE SHALL BE GATED AND LOCKED WHEN NOT IN OPERATION.
8. ADJACENT TAX LOTS ARE OBTAINED FROM CLACKAMAS COUNTY GIS ONLINE MAPPING SHAPEFILES AND AERIAL IMAGE WERE OBTAINED FROM NOAA DATA ACCESS VIEWER BY WESTLAKE CONSULTANTS INC. ADJACENT TAX LOTS ARE APPROXIMATE ONLY AND ARE FOR ILLUSTRATIVE PURPOSE ONLY. NOT TO BE USED AS A SURVEYED LOCATION OF BOUNDARY/AREA.
9. MINING OPERATIONS TO BE IN ACCORDANCE WITH CLACKAMAS COUNTY ZONING DEVELOPMENT CODE, SECTION 70B.
10. BERMS AND NOISE BARRIERS WILL RANGE FROM 10' TO 35' HIGH WITH 1½:1 SLOPES. BERMS WILL BE LOCATED WITHIN THE 30' SETBACK. REFER TO NOISE STUDY FOR BERM AND BARRIER LOCATIONS.

PHASING

1. DEPTH OF FLOOR RANGES FROM 35 FEET IN THE WESTERN PORTION TO 70 FEET IN THE EASTERN PORTION BELOW PRESENT SURFACE ELEVATIONS.
2. THE TIMING FOR MINING IS DEPENDENT ON MARKET CONDITIONS. MINING WILL START IN THE NORTHERN PORTIONS OF THE SITE AND WILL GRADUALLY MOVE TOWARD THE SOUTH.
3. DEWATERING WILL LOWER PRESENT GROUNDWATER LEVELS IN THE PHASE 4 AREA APPROXIMATELY 10 FEET.
4. EXCAVATED MATERIAL WILL BE CONVEYED VIA A CULVERT UNDERNEATH S BARLOW ROAD TO ADJACENT CADMAN PROCESSING AREA.
5. RECLAMATION TO BE PERFORMED DURING AND AFTER MINING OPERATIONS HAVE BEEN COMPLETED. RECLAMATION WILL HAVE 3:1 SLOPES TO 6 FEET BELOW WATER TABLE AND 1½:1 SLOPES BELOW 16 FEET FROM GROUND SURFACE.
6. AS MINING PROCEEDS ACROSS THE SITE, VEGETATION WILL BE HARVESTED AND REMOVED. THE OVERBURDEN WILL BE STRIPPED AND STOCKPILED FOR USE IN NOISE BERMS AND RECLAMATION.
7. ALL OVERBURDEN AND REJECT ARE TO BE STOCKPILED (WHERE FEASIBLE) IN SETBACK AREAS, AS PERIMETER BERMS AND EQUIPMENT AREAS ON SITE OR USED IN RECLAMATION. THE STOCKPILES AND BERMS ARE TO BE GRADED WITH 1½:1 SIDE SLOPES. THEY ARE TO RECEIVE 6" OF TOPSOIL AND BE SEEDED.

STORMWATER

1. STORMWATER WILL BE ALLOWED TO INFILTRATE INTO THE PHASE 4 AND 3 (CURRENT MINING TO THE NORTH), WHERE PHASE 3 IS NOT BROUGHT BACK UP TO ELEVATION. STORMWATER WILL BE PUMPED FROM PHASE 4 TO THE CURRENT STORMWATER PONDS ON THE EAST SIDE OF S BARLOW ROAD. WATER WILL BE PUMPED VIA THE SAME PIPING SYSTEM THAT IS IN USE CURRENTLY WHICH RUNS THROUGH THE CONVEYOR TUNNEL UNDER S BARLOW ROAD.
2. THE CURRENT MINE SITE HAS A 1200-A NPDES STORMWATER PERMIT. AS MINING PROGRESS ACROSS THE SITE, THE STORMWATER PERMIT/PLAN WILL BE UPDATED AS NECESSARY; WORKING WITH DOGAMI AND DEQ.
3. FIELD CONDITIONS SHALL BE VERIFIED PRIOR TO CONSTRUCTION OF ANY STORMWATER CONTROL FACILITIES.
4. STORMWATER AND EROSION CONTROL TO BE CONDUCTED IN ACCORDANCE WITH DOGAMI BEST MANAGEMENT PRACTICES FOR RECLAIMING SURFACE MINES IN OREGON.
5. MODIFICATIONS TO THE STORMWATER FACILITIES SHALL BE MADE TO BRING STORMWATER QUALITY INTO COMPLIANCE SHOULD IT NOT MEET THE PERMIT REQUIREMENTS.

LEGEND

	APPROXIMATE CURRENTLY PERMITTED MINING BOUNDARY
	APPROXIMATE PROPOSED MINING PERMIT BOUNDARY (PHASE 4)
	MINING EXCAVATION BOUNDARY
	CELL 4A TO 4D
	APPROXIMATE TAX LOT BOUNDARY
	EXISTING EASEMENT
	EXISTING 25' MAJOR CONTOUR
	EXISTING 5' MINOR CONTOUR

CADMAN - CANDY PHASE 4 EXPANSION AREA

CANBY, OREGON

CONCEPTUAL MINING AND OPERATION PLAN

DATE	08/2019
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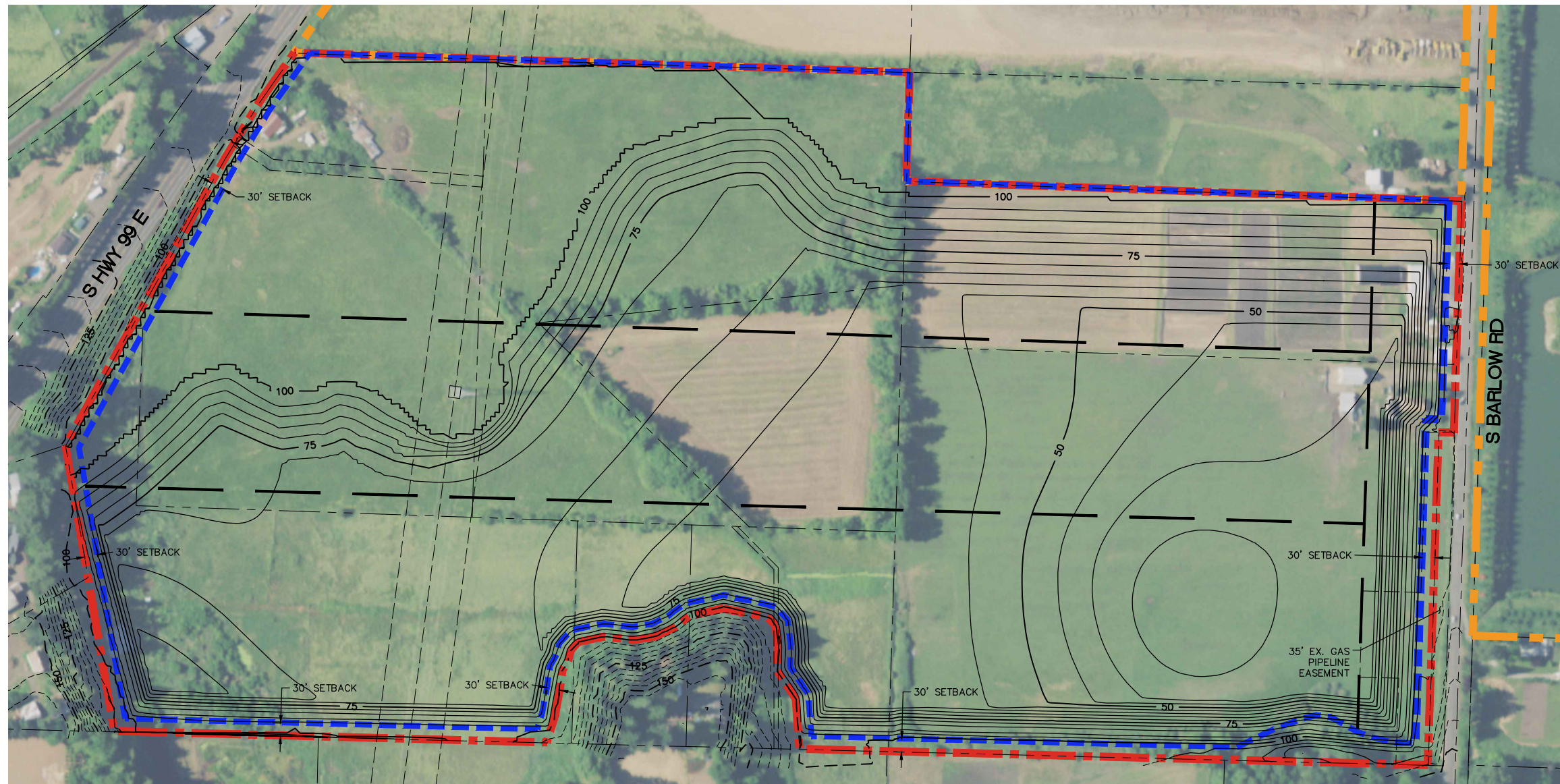


FIGURE 7



0 150' 300'
SCALE: 1"=300'

NOTE:
DRAWING SCALES INDICATED APPLY TO 11"x17" DRAWING SHEETS. SCALE MAY NOT BE ACCURATE IF DRAWING PLOTS ARE LESS THAN THIS SIZE. USE BAR SCALE FOR REFERENCE ON REDUCED SIZE SHEET.

NOTES:

1. CONCURRENT RECLAMATION TO BE PERFORMED, WHERE POSSIBLE.
2. POST MINING LAND USE IS A LAKE.
3. APPROXIMATE GRADING SHOWN.
4. ALL ACTIVITIES SHALL COMPLY WITH THE CLACKAMAS COUNTY CONDITIONS OF APPROVAL
5. MINING DEPTHS WILL VARY ACROSS THE SITE FROM 35 FEET IN THE WEST TO APPROXIMATELY 70 FEET IN THE EAST.

PLANTING NOTES / REVEGETATION PLAN:

1. TOPSOIL/OVERBURDEN TO BE PLACED ON UPPER MINED SLOPES TO NOMINAL THICKNESS OF 18 INCHES
2. SHORELINE TO BE PLANTED TO PROTECT AGAINST EROSION

NON-DESIRABLE VEGETATION SUCH AS BLACKBERRIES WILL BE REMOVED AS NECESSARY AND TEMPORARY EROSION COVER WILL BE ACCOMPLISHED WITH THE APPROPRIATE SPECIES (E.G. STERILE WHEAT OR OTHER CEREAL GRAIN) AT THE TIME TREE PLANTINGS OCCUR.

LEGEND

	APPROXIMATE CURRENTLY PERMITTED MINING BOUNDARY
	APPROXIMATE PROPOSED MINING PERMIT BOUNDARY (PHASE 4)
	MINING EXCAVATION BOUNDARY
	CELL 4A TO 4D
	APPROXIMATE TAX LOT BOUNDARY
	EXISTING EASEMENT
	EXISTING 25' MAJOR CONTOUR
	EXISTING 5' MINOR CONTOUR
	PROPOSED 25' MAJOR CONTOUR
	PROPOSED 5' MINOR CONTOUR

PERMITEE/OPERATOR:

CADMAN MATERIALS INC.
7554 185TH AVENUE NE
REDMOND, WASHINGTON 98052

ENGINEERING GEOLOGIST:

KUPER CONSULTING LLC
ENGINEERING GEOLOGY CONSULTANTS
3575 RUNNING DEER DRIVE
HELENA, MT 59602
TIGARD, OREGON 97224
HELENA, MONTANA (406)475-3244

Board Order Exhibit B

Z0406-19-CP/Z0407-19-MAO/Z0408-19-ZAP

Page 65 of 67

CADMAN - CANDY PHASE 4 EXPANSION AREA
CANBY, OREGON

CONCEPTUAL RECLAMATION PLAN

WESTLAKE
CONSULTANTS INC.
ENGINEERING ♦ SURVEYING ♦ PLANNING
PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 150
TIGARD, OREGON 97224
(503) 684-0652
FAX (503) 624-0157

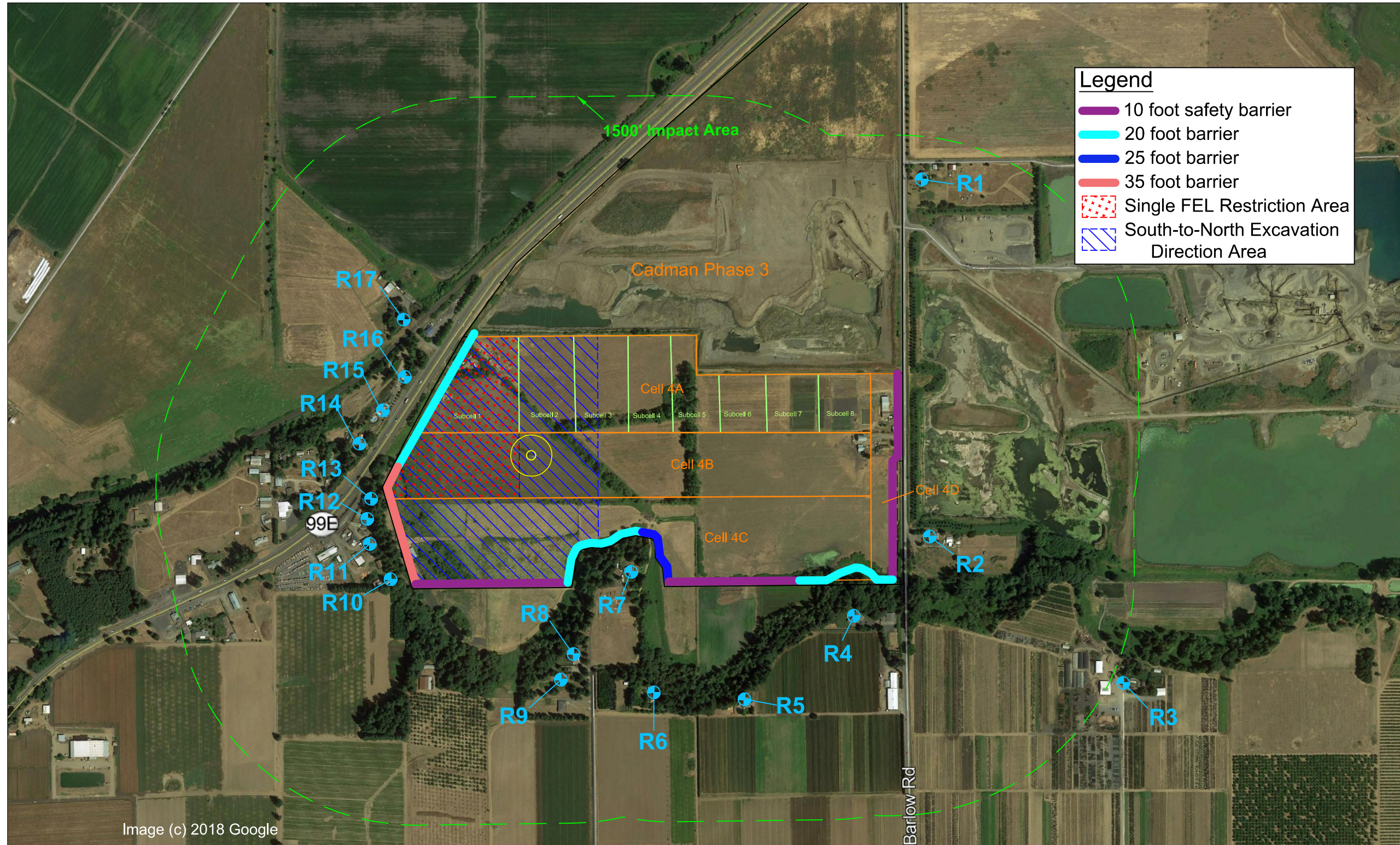
DATE	08/2019
REVISION	
DRAWN BY	III
CHECKED BY	BRS
JOB NO.	2803-001

DRAWING NAME: J:\2803-001\18\6. ENGINEERING\3. CAD\PRODUCTION\2. PAPA\2803001-PAPA_FL08.DWG 2019/09/05 - 09:56AM - JRA



0 100' 200'
SCALE: 1"=200'

FIGURE 8



Legend

- 10 foot safety barrier
- 20 foot barrier
- 25 foot barrier
- 35 foot barrier
- Single FEL Restriction Area
- South-to-North Excavation Direction Area

CADMAN - CANDY PHASE 4 EXPANSION AREA
CANBY, OREGON

PROPOSED NOISE MITIGATION AND RECEIVERS

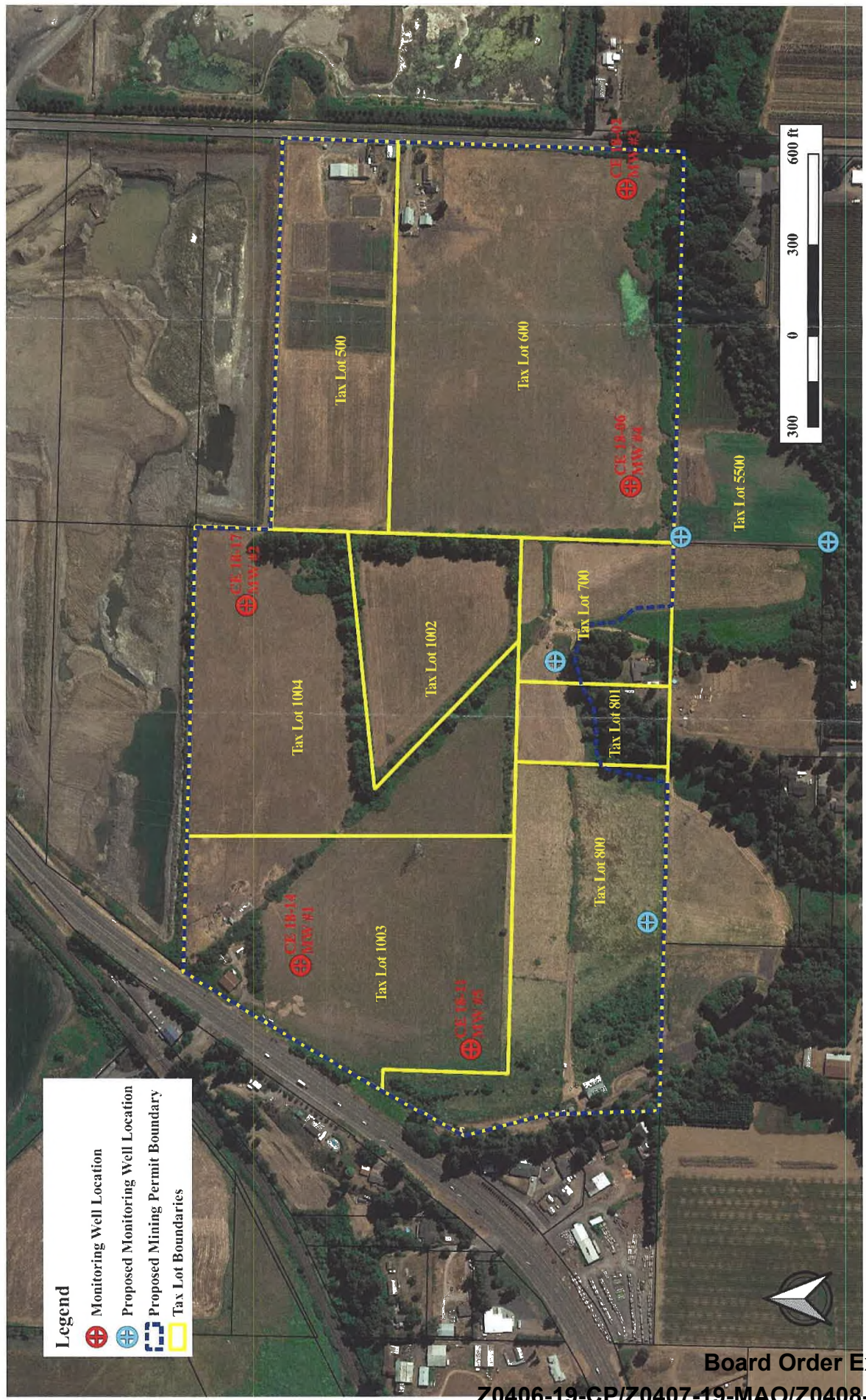
WESTLAKE CONSULTANTS INC.
ENGINEERING ♦ SURVEYING ♦ PLANNING
PACIFIC CORPORATE CENTER
15115 S.W. SEQUOIA PARKWAY, SUITE 150 TIGARD, OREGON 97224
(503) 684-0652
FAX (503) 624-0157

PERMITEE/OPERATOR:
CADMAN MATERIALS INC.
7554 185TH AVENUE NE
REDMOND, WASHINGTON 98052

ENGINEERING GEOLOGIST:
KUPER CONSULTING LLC
ENGINEERING GEOLOGY CONSULTANTS
3575 RUNNING DEER DRIVE
HELENA, MT 59602
TIGARD, OREGON (503)638-9722
HELENA, MONTANA (406)475-3244

NOTES
1. THIS IS CREDITED TO ABD ENGINEERING & DESIGN REPORT, DATED AUGUST 30, 2019.
Board Order Exhibit B
Z0406-19-CP/Z0407-19-MAO/Z0408-19-ZAP
NOTE:
DRAWING SIZE INDICATED ON SHEET.
DRAWING PLOTS ARE LESS THAN THIS SIZE. USE BAR SCALE FOR REFERENCE ON REDUCED SIZE SHEET.

DATE	09/2019
REVISION	
DRAWN BY	
CHECKED BY	
JOB NO.	2803-001



Legend

- ⊕ Monitoring Well Location
- ⊕ Proposed Monitoring Well Location
- Proposed Mining Permit Boundary
- Tax Lot Boundaries



Imagery provided by Google, 2018. All locations and dimensions are approximate.

Date: 08/27/2019 Scale: 1" = 300'	Prepared by: AML Approved by: JDG	Proposed Monitoring Well Locations	Figure 9 Cadman Expansion Properties - Carby Phase 4 Clackamas County, Oregon
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Project #Y184184

**Cadman Materials, Inc. (Canby Pit – Phase 4)
Z0406-97-CP, Z0407-19-MAO & Z0408-19-ZAP
CONDITIONS OF APPROVAL**

General Conditions

1. Table 3-2 in the Mineral and Aggregate Resources Section of the Comprehensive Plan shall be amended to add “Cadman – Canby Phase 4 Expansion Area Aggregate Site” to the list of Significant Sites, on property described as T4S, R1E, Section 07 Tax Lot(s) 500, 600, 700, 800, 801, 1002, 1003 & 1004 W.M.
2. The Mineral & Aggregate Overlay shall be applied to the approved Extraction Area, area as identified as the “MAO Boundary – Cadman - Canby Phase 4 Expansion Area” in *Board Order Exhibit A* and comprising approximately 99 acres.
3. Mining shall be allowed on the property subject to the site specific program in the submitted application to the extent it is consistent with the remaining conditions of approval.
4. The post reclamation use of the subject property shall be limited to a natural area and lake, consistent with the Clackamas County Comprehensive Plan, Clackamas County Zoning and Development Ordinance and specifically those uses listed under ORS 215.283(1). All plant species used in reclamation shall be native species, and approved in coordination with the DOGAMI and ODFW.
5. The approval of the application granted by this decision concerns only the applicable criteria for this decision. The decision does not include any conclusion by the County concerning whether the activities allowed will or will not come in conflict with the provisions of the Federal Endangered Species Act (ESA). This decision should not be construed to or represented to authorize any activity that will conflict with or violate the ESA. It is the applicant, in coordination if necessary with the Federal agencies responsible for the administration and enforcement of the ESA, who must ensure that the approved activities are designed, constructed, operated and maintained in a manner that complies with the ESA.

General Operations Related Conditions

5. Compliance with all operating conditions proposed in the submitted application is required, to the extent they are consistent with the remaining conditions of approval.
6. The combined level of aggregate and mineral extraction for the Cadman Canby properties – Phase 1 through 4 shall not exceed 3 million tons per calendar year.
7. All mining and processing activities related to Phase 4, except for routine maintenance, is restricted to the hours of 7:00 AM to 6:00 PM Monday through Friday, and 8:00 AM to 5:00 PM on Saturday. No mining activities will occur on Sunday.

8. No mining (including but not limited to excavation and processing), shall take place on any of the following legal holidays: New Year's Day, Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.
9. Condition #5 of Z0248-93-CP/Z0349-93-Z and condition #23 of Z1826-97-MAR are hereby amended to read: ***All mining shall be restricted to the hours of 7:00 AM to 6:00 PM Monday through Friday. Processing and hauling shall be restricted to the hours of 7:00 AM to 6:00 PM Monday through Friday, and 8:00 AM to 5:00 PM on Saturday. No mining activities will occur on Sunday.***
10. There shall be no drilling or blasting on the Site.
11. The applicant and/or operator shall not initiate mining and activities on the Cadman –Canby Phase 4 Aggregate Site (“Site”) until the Oregon Department of Geologic and Mineral Industries (DOGAMI) approves the reclamation plan and operating permit for the Site.
12. The Canby Fire District shall review and approve this mining operation to ensure it is acceptable for access by fire and emergency vehicles. The Fire District shall also review and approve any provisions for storage and utilization of both hazardous and flammable liquids in accordance with Uniform Fire Code requirements.
13. The applicant and/or operator shall obtain Oregon DEQ approval of a Spill Prevention Controls and Countermeasures Plan for the site and shall comply with same.
14. Applicant/operator shall obtain or amend its current Stormwater Control permit issued by DEQ and regulated by DOGAMI to include stormwater generated at the proposed extraction site, as necessary.
15. Copies of all permits issued for the Cadman – Phase 4 site shall be provided to the County including, but not limited to, any permits issued by DOGAMI, DSL, DEQ, the Oregon Water Resources Department, the Oregon Fire Marshal's Office, local Fire Marshal’s Office if applicable, and the U.S. Army Corps of Engineers.
16. The Site operator shall carry a comprehensive liability policy covering mining and incidental activities during the term of the operation and reclamation, with an occurrence limit of at least \$500,000. A certificate of insurance for a term of one (1) year shall be deposited with the County prior to the commencement of mining, and a current certificate of insurance shall be kept on file with the County during the term of operation and reclamation.
17. If mining operations disturb any area outside of the permit area or area designated for active mining in the reclamation plan, including but not limited to disturbances caused by landslide or erosion, the operator must restore the disturbed area to a

condition that is comparable to what it was prior to the disturbance, as approved by DOGAMI.

General Mine Plan Related Conditions

18. Extraction shall be limited to those areas of the identified Extraction Area labeled as appropriate for such activities and depicted on the approved Mining and Operation Plan.
19. The processing plant located on the existing mining operation (Phase 1) shall be used for processing mineral and aggregate materials from the Site. No new processing facilities shall be established.
20. Berms currently separating Phase 3 from Phase 4 as authorized may be removed upon substantial completion of excavation of Phase 3.
21. All lighting on Phase 4, if any, shall be directional to minimize glare and light intrusion on surrounding properties, pursuant to ZDO Subsection 1005.05.
22. Identified setbacks from the property lines, utilities, and easements will be maintained in accordance with the Mining Plan. The operator shall maintain a minimum 30-foot property line setback, 30-foot setback from S. Barlow Road except where the 35 foot wide gas line easement occurs and then a 30 foot setback from the easement and a 30-foot setback from S Highway 99E for excavation. The operator shall maintain a minimum 100-foot setback for excavation near the BPA tower.
23. Security and noise berms, construction of internal access roads and construction of DOGAMI-approved stormwater control measures are allowed within the setback areas.
24. Prior to any land disturbance within the Bonneville Power Administration (“BPA”) right-of-way, the applicant shall submit to the County Planning Division a copy of a current Land Use Agreement between the applicant and the BPA authorizing mining within the BPA right-of-way. The applicant shall comply with all compatibility requirements included in such Land Use Agreement.
25. In the event that cultural resources are encountered during the project activities, the applicant shall comply with all applicable State laws and regulations regarding suspension of work activities and recovery disposition of such resources. The State Historic Preservation Office (SHPO) should be notified, and a qualified archaeologist should be called in to evaluate the discovery and recommend subsequent courses of action in consultation with the appropriate tribes and SHPO. An Inadvertent Discovery Plan (IDP) will be put in place prior to ground disturbance to ensure actions and notification in compliance with Oregon State law (ORS 97.740 to 97.760, 358.905 to 358.955, and 390.235).

26. Slope inclinations will vary from 3:1 (horizontal to vertical) above water level to 1:1 slope below water level with the excavation mining, and shall not exceed 1:1 – (horizontal to vertical) within the excavation during mining, unless approved by DOGAMI.
27. Interior extraction slopes will be graded, shaped, and planted for erosion control purposes.
28. Reclamation with the applicant's proposed submittal and as approved by DOGAMI shall be completed concurrently, as feasible.
29. Dewatering during excavation will be limited to approximately 10 feet below the existing water level throughout the mining area, or approximately 20 feet below the current ground surface
30. In the event groundwater levels within the Extraction Area fall more than 10 feet below the natural groundwater level, Cadman will notify Weyerhaeuser immediately.
31. Excavation shall be undertaken consistent with the applicant's proposed excavation plan: mining shall begin at the northern part of the site moving in a west-east direction progressing to the south, excavating one cell at a time.
32. Installation of five new monitoring wells – four at locations identified in the groundwater study prepared by HG Schlicker & Associates (HGSA) in Appendix B (application) dated August 27, 2019, and illustrated in **Figure 9, Board Order Exhibit B**, plus one located in the southwest corner of the Extraction Area – is required a minimum of one year prior to the initiation of mining. Each of these five wells shall have continuous monitoring devices installed. The five existing monitoring wells shall remain until mining requires removal.
33. Wells shall be monitored on a quarterly basis and data shall be shared with Weyerhaeuser and other neighbors upon request. The quarterly data will be collected in January, April, July and October. In addition, the operator shall collect monitoring data in June and August and share this data with Weyerhaeuser and other neighbors upon request.
34. All monitoring wells should be monitored prior to mining and semi-annually for heavier and lighter hydrocarbons (DX and GX), and polycyclic aromatic hydrocarbons (PAHs) until the wells are abandoned or for the life of the mine.
35. If a trend is observed that could significantly affect nearby wells, the applicant shall work with regulatory agencies to modify its mining plans to mitigate the effects to a level no longer significant within the impact area. Strategies to accomplish this could include:

- establishment of a recharge area constructed at the southern end of the Canby Phase 4 site so that the recharge activity is directly between the mining activity and the nearby domestic and irrigation wells,
 - altering the mining cell order and/or size of the mining cells, and/or
 - reducing dewatering depths.
36. A report of monitoring data shall be submitted to DOGAMI and Clackamas County, upon request.
 37. The mining operator shall be responsible for restoring the water source for any property within the impact area where the State Department of Geology and Mineral Industries, in consultation with other State agencies, determines this mining operation has damaged a well of cause water quality to not meet health standards in place at the time this mining operation is approved.
 38. Recommended impact minimization measures in the HGSA report in Appendix B, dated August, 27, 2019 shall be met if a trend is observed that could significantly affect wells in the Impact Area.
 39. If water well quantity impacts attributable to the authorized mining within the impact area occurs the operator shall rebuild to its historic level of production for any well that is demonstrated to be significantly affected by the mining operations.
 40. A Fuel, Oil Prevention Plan and Response Plan will be in place for operations at the subject extraction site.
 41. There will be no livestock grazing on the subject site.
 42. The operator shall salvage, stockpile and retain all available soil and overburden material for final reclamation. Soil and overburden stockpiles and berms must be seeded in a cover crop to reduce erosion.
 43. The operator shall clearly mark the DOGAMI permit boundary and required setbacks in the field, visible to all equipment operators.

Transportation Related Conditions

44. No interior haul roads will be constructed within 250 feet of the any residences unless the haul road is paved.
45. The Phase 4 mining operation, in combination with Phases 1 through 3, shall not generate more than 154 weekday AM peak trips and 120 weekday PM peak trips.
46. Employees shall park their personal vehicles at the designated parking lot located at the Cadman processing facility or onsite in designated areas. All new parking

spaces shall meet minimum ZDO section 1007 dimensional requirements. Parking spaces for disabled persons and the adjacent accessible areas shall be paved.

47. Aggregate trucks shall maintain and utilize the existing truck wheel wash located near the exit driveway connecting to S Barlow Rd from the processing facility as a sediment/dust control method.
48. If on-site parking is provided on Phase 4, the applicant shall provide adequate on site circulation for the parking and maneuvering of all vehicles anticipated to use the parking and maneuvering areas, including a minimum of 24 feet of back up maneuvering room for all 90-degree parking spaces. Loading spaces shall also be afforded adequate maneuvering room. The applicant shall show the paths traced by the extremities of anticipated large vehicles (dump trucks with pups, delivery trucks, fire apparatus, garbage and recycling trucks), including off-tracking, on the site plan to insure adequate turning radii are provided for the anticipated large vehicles maneuvering on the site.
49. The existing access-exit driveway connecting the existing processing area to S Barlow Rd will be paved for a minimum of 300 feet.
50. The operator shall maintain compliance with all conditions of approval in Planning files Z00331-11-CP and Z0332-11-ZAP as they relate to the driveway intersection and access roads that are located on Phase 3 and will be utilized by Phase 4 operations.

Acoustic Related Conditions

48. The mine operator shall comply with all recommended noise mitigation measures concurrent with mining activities which create the need for such measures including barriers/berms identified in the report identified in the noise study prepared by ABD Engineering Design in Appendix C (application) dated August 30, 2019, and illustrated in **Figure 8, Board Order Exhibit B**.
49. The overburden berms for noise mitigation and/or safety will be planted in accordance with DOGAMI recommendations to reduce the potential for erosion.
50. Off-road equipment (*i.e.* excavators, front-end loaders, loading trucks, and bulldozers used for internal site operations shall be fitted with broadband rather than traditional narrowband backup alarms.
51. The operator must use factory or enhanced muffler systems.

Air Quality Related Conditions

52. The operator shall maintain vegetative ground cover on stockpiles to reduce dust.

53. The operator shall sprinkle interior roads with a water truck from March 1 to November 1 to reduce dust.
54. The conveyor shall be covered to reduce the potential for dust dispersion.
55. No more than 5,000 gallons of water per day will be used for dust suppression.
56. A 15 MPH speed limit for onsite truck traffic will be posted on all haul roads within the subject site.
57. Off-road equipment shall meet federal Tier 3 off-road engine standards, and/or equipment to be modified as such.

Table III-2
Inventory of Mineral and Aggregate Resource Sites *

Significant Site	Location
Anderson Quarry	T4S, R1E, Section 06, Taxlots 1100, 1200 & 1600
<u>Cadman Materials Inc./ Canby Pit, Phase 4</u>	<u>T4S, R1E, Section 07 Taxlots 500, 600, 700, 800, 801, 1002, 1003 & 1004</u>
Canby Sand & Gravel Site	N/A
Dhooghe Road Quarry Site	T5S, R3E, Section 17, Taxlots 600, 690, 700 & 790 (Taxlots combined post-approval, significant site now located on T5S, R3E, Section 17, Taxlots 600 & 700)
Estacada Rock Products Site	T3S, R4E, Section 18, Taxlots 1400, 1490, 1491 & 1492
Minsinger Bench Site	T2S, R6E, Section 20, Taxlots 100, 200, 300 & 500 (Taxlots reconfigured post-approval, significant site now located on T2S, R6E, Section 20, Taxlots 500 & 501)
Molalla River Reserve/Abbott, Merrill, Wallace Properties	T4S, R2E, Section 33, Taxlots 700, 900 & 1100 T4S, R2E, Section 34, Taxlots 500 & 700
Oregon Asphaltic Paving Company Site	T3S, R1E, Section 29, Taxlot 900 T3S, R1E, Section 30, Taxlots 1500, 1590 & 1700 T3S, R1E, Section 31, Taxlots 100 & 400
Pacific Rock/Rodrigues Property	T4S, R1E, Section 08, Taxlot 1000
Pacific Rock Products, L.L.C. Property	T4S, R1E, Section 06, Taxlots 1800 & 1900 T4S, R1E, Section 07, Taxlots 100, 190, 300, 390 & 400
Parker-Northwest Paving Co/Traverso Aggregate Site	T4S, R1E, Section 05C, Taxlot 1100 T4S, R1E, Section 05D, Taxlot 1100
River Island Sand & Gravel Site	T2S, R3E, Section 26, Taxlots 600 & 701 (Taxlots reconfigured post-approval, significant site now located on T2S, R3E, Section 26, Taxlot 600 & 100)
Tonquin Aggregate Quarry	T3S, R1W, Section 04A, Taxlots 100 & 102
Wilmes Sand & Gravel Site	T4S, R1E, Section 08, Taxlots 600, 700 & 800

CLACKAMAS COUNTY COMPREHENSIVE PLAN

Potential Sites				
17	65	Francis Welch Silica	Ellis Deposit	Port Blakely Tree Farm
21-22	87	Terrill Silica Deposit	Scotts Mills Locality	Hein-Morris Property
29	89	Petes Mtn.	Dibble Deposit	Halton Company Property
32	90	Kroaker Prospect	Johnson & Laird	Alford-Goheen Property
35	114-116	Bauxite Deposit	Molalla High Alumina Clay	Robert Poole Property
37	227	Clear Creek	Avison Lumber	Western Pacific Construction
43	229	North Fork Claims	Forman Property	Wilsonville Concrete
45	231	Perry Bond Ranch	Molalla Redi-Mix	Molalla River Group
61-63		Molalla Clay	Patton Stone Quarry	Ogle Mountain Mine

Other Sites				
1-2	84	Crown Zellerbach	Florence Silvers	Meadowbrook
4-13	86	Cavenham Forest Ind	Barton Sand & Gravel	180 Pit
14-15	88	Jim Hartman	Columbia Continental	Marquam Limestone Quarry
26	92-100	Doug Sandy	Brightwood Quarry	Beaver Creek
30-31	102-113	Jim Elting	Norman Strabein	South Fork 9AC
33-34	117	Jack Parker	Oregon State Hwy Division 1	
38-42	119-161	Cassinelli	Quarry 3	
44	166-226	Clack Sand & Gravel	South Eagle Pit	
47	228	OR State Hwy Div 2	Arrah Wanna Co	
64	23	Quick Srvc Sand & Gravel	John Jorgeson	
66-82	232-460	George Herbst	Arthur Snyder	

*Resource sites identified by number from the State of Oregon Department of Geology and Mineral Industries (DOGAMI) Special Paper 3 “Rock Material Resources of Clackamas, Columbia, Multnomah, and Washington Counties, Oregon;” by number or name from the DOGAMI “Mineral Information Layer For Oregon By County;” by name from Conditional Uses for Surface Mining; and by name from H.G. Schlicker & Associates, Inc. Report for the Anderson Quarry, Jerry Lewis & Associates Report for Canby Sandy & Gravel Site and Oregon Asphaltic Paving Company Site, Cascade Earth Sciences, LTD. Report for River Island Sand & Gravel Site, Dhooghe Road Quarry Site and Estacada Rock Products Site, and Reports Boatwright Engineering, Inc., Northwest Testing Laboratories, Inc. and Carlson Testing, Inc. for Wilmes Sand & Gravel Site

[Amended by Board Order 2000-94; Amended by Board Order 2001-283, 11/29/01; Amended by Board Order 2007-269, 4/26/07; Amended by Board Order 2012-12, 2/9/12; Amended by Board Order 2014-14, 2/27/14; Amended by Board Order 2018-20, 4/5/18]

Appendix A

MAPS AND DOCUMENTS ADOPTED BY REFERENCE

The following maps and documents have been adopted by reference to the Comprehensive Plan. These documents are available for review at the Clackamas County Planning and Zoning Division.

NATURAL RESOURCES AND ENERGY

Habitat Conservation Area Maps [Added by Order 2008-197, 1/5/09; Added by Ordinance ZDO-256, 7/18/16]

Water Quality Resource Area Maps [Added by Order 2008-197, 1/5/09; Added by Ordinance ZDO-256, 7/18/16]

Board Order 2014-14 (In the Matter of a Comprehensive Plan Amendment, Zone Map Amendment, and Site Plan Review request from Tonquin Holdings, LLC, on property described as T3S R1W Section 04A, Tax Lots 100 and 102) and All Attachments [Added by Order 2014-14, 2/27/14]

[Board Order 2020-_____ \(In the Matter of a Comprehensive Plan Amendment, Zone Map Amendment, and Site Plan Review request from Cadman Materials, Inc. on property described as on property described as T4S R1E Section 07, Tax Lots 500, 600, 700, 800, 801, 1002, 1003 & 1004\) and all Attachments \[Added by Order 2020-_____, 3/12/2020\]](#)

TRANSPORTATION

Clackamas County Pedestrian Master Plan [Added by Order 96-362, 5/23/96]

Clackamas County Bicycle Master Plan [Added by Order 96-362, 5/23/96]

Clackamas County Airport Plan [Added by Order 01-256, 11/1/01]

SE 172nd Avenue/190th Drive Corridor Management Plan, February 2012, Revised January 2018 [Added by Ordinance ZDO-232, 3/12/12; Amended by Ordinance ZDO-255, 7/14/16; Amended by Ordinance ZDO-270, 11/27/18]

Clackamas County Active Transportation Plan, June 1, 2015 [Added by Ordinance ZDO-251, 6/1/15]

**COMMUNITY AND DESIGN PLANS, Clackamas Regional Center Area
Design Plan**

Phillips Creek Greenway Framework Plan [Added by Order 98-308, 12/23/98]

Clackamas Regional Center Pedestrian/Bicycle Plan [Added by Ordinance
ZDO-238, 10/15/12]