

NOTICE OF PUBLIC HEARING
BEFORE THE LATAH COUNTY ZONING COMMISSION
Wednesday, September 15, 2010
5:30 p.m.

The Latah County Zoning Commission will hold public hearings on Wednesday, September 15th, 2010 in Room 2-B of the Latah County Courthouse, Moscow, Idaho, to receive comments on:

5:35 p.m. – A request was made by Avista Corporation, for a conditional use permit to rebuild and operate an electrical substation on the same 28.7 acre parcel as an existing electrical substation located in the Agriculture/Forest zone. The site is accessed off of State Highway 8 and is located two (2) miles east of Moscow. The property is located in Section 15 of Township 39 North, Range 05 West, B.M. in Latah County and is referenced as Latah County Assessor's parcel number RP39N05W157215A.

All interested parties are encouraged to attend the hearings. Accommodations for individuals who qualify under the Americans with Disabilities Act are available upon request. Notice is required in the Planning Office three working days prior to the hearings in order to acquire accommodations.

The hearings will be held pursuant to the Latah County Hearing Procedures Ordinance and under authority of the Idaho Local Planning Act, the Latah County Comprehensive Plan and the Latah County Land Use Ordinance. The Latah County Zoning Commission reserves the right to limit the length of testimony.

Additional information on this request, including full copies of the proposal, is available from the Planning and Building Department at the Latah County Courthouse, Moscow, Idaho. Phone (208) 883-7220. Written comments will be accepted at the above office prior to the public hearing.

Mauri Knott
Associate Planner
(Public Service Announcement Only)

**AVISTA CORPORATION
CONDITIONAL USE PERMIT APPLICATION #820
STAFF REPORT**

SUMMARY OF APPLICATION:

Avista Corporation submitted for a conditional use permit to rebuild and operate an electrical substation on the same 28.7 acre parcel as an existing electrical substation located in the Agriculture/Forest zone. The property is owned by Avista Corporation. The site is accessed off of State Highway 8 and is located two (2) miles east of Moscow. The property is located in Section 15 of Township 39 North, Range 05 West, B.M. in Latah County and is referenced as Latah County Assessor's parcel number RP39N05W157215A.

Site Characteristics:

Size of Parcel:	28.7 acres
Soils:	Palouse Silt Loam, 3-7% Slopes, (Latah County Soil Survey Sheet #31)
Floodplain:	Zones "A" (FIRM Panel #160086 0335B)

Land Use and Regulations:

Comprehensive Plan Designation:	Rural
Existing Zoning:	Agriculture / Forest
Existing Uses:	Electrical Substation, Agriculture
Neighboring Zoning:	Agriculture / Forest
Neighboring Uses:	Golf Course, Farming, Public Right of Way, Public Trail, Rural Residential

Infrastructure/Services:

Water:	Not applicable
Sewer:	Not applicable
Access:	State Highway 8, Idaho Department of Transportation
Schools:	Moscow School District
Fire Protection:	Moscow Rural Fire District
Law Enforcement:	Latah County Sheriff

EXHIBITS:

Exhibit #1.	Staff Report
Exhibit #1A.	Criteria Worksheet
Exhibit #1B.	Latah County Comprehensive Plan and Vicinity Map
Exhibit #1C.	Zoning Map
Exhibit #1D.	Adjoining Property Owners and Aerial Photograph Map
Exhibit #2.	Application Form (Submitted by Applicant)
Exhibit #2A.	Applicant's Narrative (Submitted by Applicant)
Exhibit #2B.	Plat Map (Submitted by Applicant)
Exhibit #2C.	Photographs (Submitted by Applicant)
Exhibit #2D.	Site plan (Submitted by Applicant)
Exhibit #2E.	Grading Plan (Submitted by Applicant)
Exhibit #2F.	Material Safety Data Sheet (Submitted by Applicant)
Exhibit #3.	Staff Introduction for Latah County Zoning Commission public hearing for CUP 820 on September 15, 2010

NOTE: Exhibits not included in the staff packet are available for review in the Planning Office, and will be entered into the record during the public hearing.

APPLICABLE STATUTE, ORDINANCE, AND COMPREHENSIVE PLAN SECTIONS:

Local Planning Act: Idaho Code 67-6512
Latah County Land Use Ordinance # 269, as amended:
Section 3.01 Agriculture Forest Zone
Article 7 Conditional Use Permits
Latah County Comprehensive Plan

CRITERIA WORKSHEET

Note: This criteria worksheet does not represent staff analysis of information provided by the applicant supporters, or opponents; however, staff has identified policies which may be applicable to this particular request. Information submitted to the Planning Department prior to the mailing of the staff packet has been organized herein in relation to the applicable criteria for approval or denial. This worksheet is intended only to help identify if all relevant criteria have been addressed with supporting factual information and to provide a juxtaposition of any conflicting testimony that has been presented.

Type of request:

Conditional Use Permit to build and operate a replacement electrical substation.

Description of application:

Avista Corporation submitted for a conditional use permit to rebuild and operate an electrical substation on the same 28.7 acre parcel as an existing electrical substation located in the Agriculture/Forest zone. The new substation will replace the existing substation. The property is owned by Avista Corporation. The site is accessed off of State Highway 8 and is located two (2) miles east of Moscow. The property is located in Section 15 of Township 39 North, Range 05 West, B.M. in Latah County and is referenced as Latah County Assessor's parcel number RP39N05W157215A.

Facts of application and the information submitted

1) Section 7.01 requires that specific uses within a particular zone require special consideration prior to being permitted in that zone.

The Latah County Land Use Ordinance, under section 3.01.02(5), lists "Public buildings and utilities structures and uses" as a conditionally permitted use in the Agriculture / Forest zone.

2) Section 7.01.01 requires that an application for a conditional use be made by the owner of the affected property.

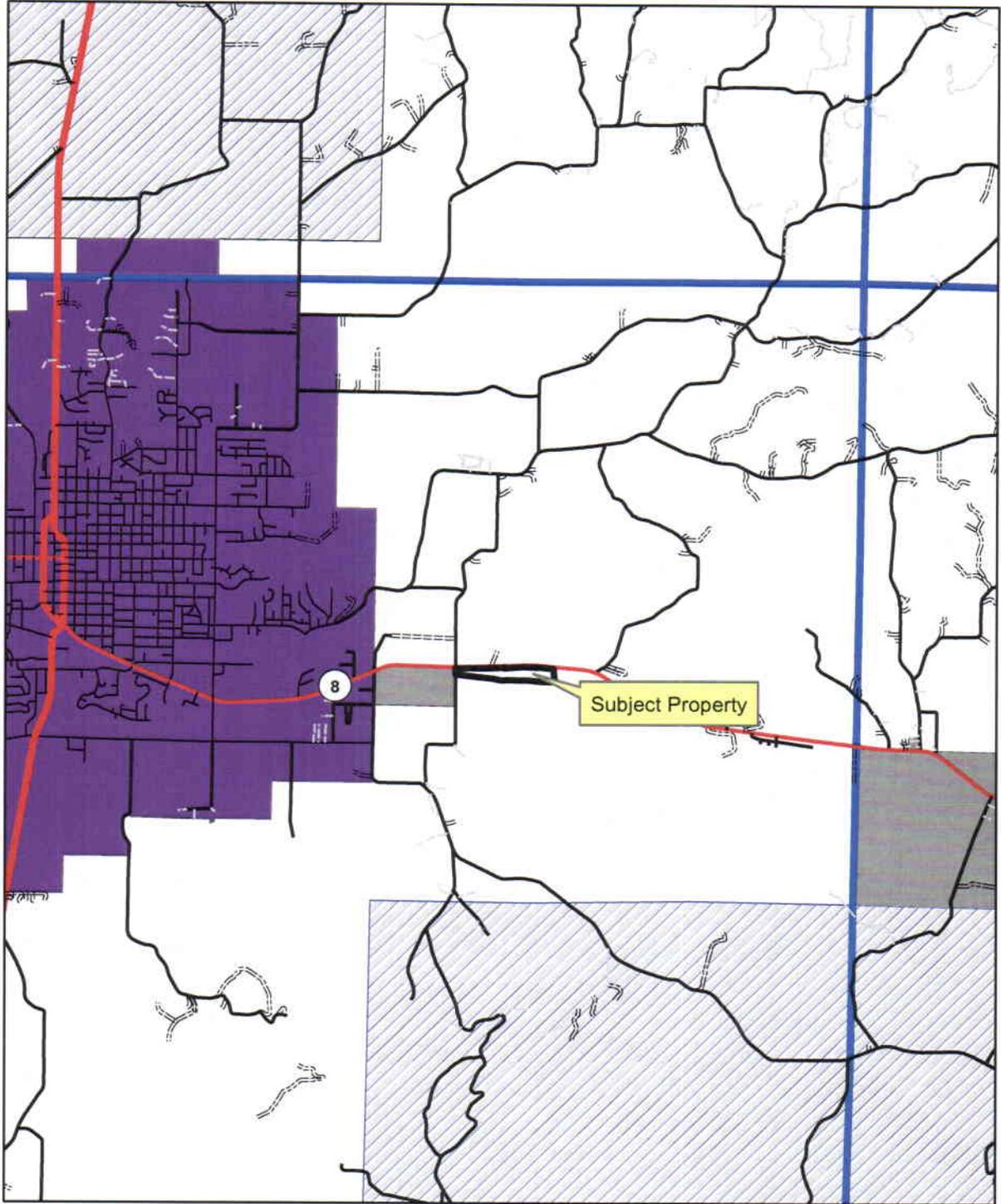
Avista Corporation submitted a completed application to the Latah County Planning and Building Department on July 29, 2010. The conditional use permit application was signed by Aaron Henson, Substation Civil Engineer, Avista Corporation.

3) Section 7.01.02 requires:

1. A conditional use permit may be granted if the Zoning Commission finds that the proposed use conforms to each of the following criteria:
 - A. The use is not detrimental to the health and safety of those in the surrounding area and will not otherwise adversely affect permitted uses or the enjoyment of such uses in that zone to any greater extent than a permitted use in that zone;
 - B. The use will not require facilities or services with excessive costs to the public;
 - C. The use is not in conflict with the goals and policies of the Latah County Comprehensive Plan.
2. If the Zoning Commission finds that a proposed use is essential to the public health, safety, or welfare, such use may be permitted even if the use is not found to meet the criteria listed above.
3. The Zoning Commission shall have the authority to set an expiration date for any conditional use permit so long as the reasons for such are included in their findings of fact and conclusions of law.

CUP 820 Vicinity and Comprehensive Plan Map

Planning & Building Department



0 0.5 1 2 Miles

Comprehensive Plan

-  AOI
-  ICR
-  PRODUCTIVE
-  RURAL

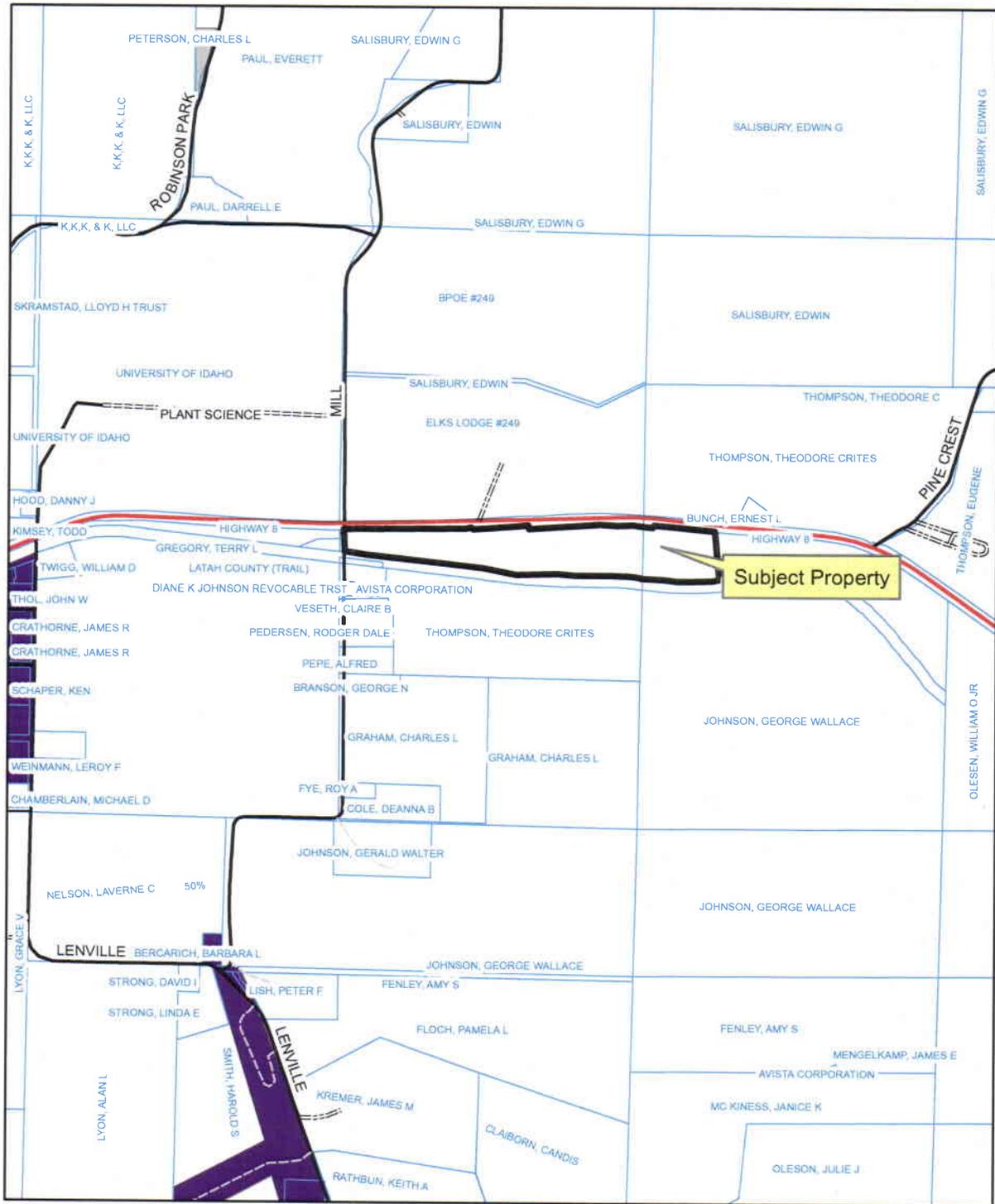
*Created on 8/3/2010 by MK

NOTE: This Document is a representation only.
Latah County bears no responsibility for errors or omissions.

LCZC Hrg: **CUP 811**
Applicant: **Avista**
Exhibit #: **1B**
Date: **8/3/2010**

CUP 820 Zoning

Planning & Building Department



Subject Property



Zoning_Districts_2009 ZONE_TYPE

- Agriculture / Forestry
- Rural Residential
- Suburban Residential

*Created on 8/3/2010 by MK

NOTE: This Document is a representation only.
Latah County bears no responsibility for errors or omissions.

LCZC Hrg: **CUP 811**
 Applicant: **Avista**
 Exhibit #: **1C**
 Date: **8/3/2010**



Application for Conditional Use Permit

Instructions

Please complete the application and required attachments. For certain uses, additional information may be necessary. Incomplete applications or applications without all required attachments will not be accepted. A public hearing will be scheduled only after Staff has determined the application is technically complete.

Please submit to: **Latah County Department of Planning & Building**
Latah County Courthouse 522 S Adams, Room 205, P.O. Box 8068, Moscow, ID 83843 (208) 883-7220

1. Applicant Information			
a. Applicant Name AARON B HENSON	b. Home Phone	c. Work Phone 509 495-4550	
d. Mailing Address P.O BOX 3727 MSC-24	e. City SPOKANE	f. State WA	g. Zip code 99220
h. Property Owner (if different than applicant) AVISTA Corp	i. Home Phone N/A	j. Work Phone ---	
k. Mailing Address P.O Box 3727	l. City SPOKANE	m. State WA	n. Zip code 99220

2. General Site Information			
a. Assessor's Parcel Number(s) 7215 RP39N05W157215A		b. Parcel Address (if applicable) 3125 STATE HWY 8, Moscow	
c. Acreage of Existing Parcel 28.73	d. Zoning AG/FOREST	e. Comprehensive Plan Designation RURAL	f. Floodplain designation(s) ZONE A
g. FEMA Panel # 1000860335B		h. Is the parcel within an Area of City Impact? <input type="checkbox"/> Yes. <input checked="" type="checkbox"/> No.	
i. Impact City STATE HIGHWAY 8		j. Road Used to Access Site STATE HIGHWAY 8	

Note: Sites within an area of city impact may require additional notification time prior to public hearings or a hearing before the other jurisdiction.

i. Existing Uses ELECTRICAL SUBSTATION		
3. Service Provider Information (please attach additional information if requested)		
a. Fire District Moscow	b. Road District NORTH LATAH HIGHWAY	c. School District Moscow
d. Source of Potable Water (i.e. water district or private well) NONE N/A	e. Sewage Disposal (i.e. sewer district or private septic system) NONE N/A	

4. Adjacent Properties Information	
a. Zoning of Adjacent Properties AG/FOREST	b. Existing Uses of Adjacent Properties FARM, GOLF COURSE

5. Permit Information
a. Proposed Use ELECTRICAL SUBSTATION

b. What provision of the Latah County Zoning Ordinance allows the proposed use to be considered for a Conditional Use Permit in the Zoning District in which the property is located? #269 SECTION 3.01.02
--

Note: If the proposed use is not specifically listed, please contact the Department prior to submittal to determine if the use is similar to those that are specifically listed as conditionally permitted uses. The Department may require additional information in order to make a determination.

6. Authorization		7. Attachments	
The applicant does hereby certify that all of the above statements and information in any attachments transmitted herewith are true, and further acknowledges that approval of this application may be revoked if it is found that any such statements are false.		All attachments should be reproducible in black and white at 8½" x 11"	
a. Signature of Applicant <i>Aaron B Henson</i>	b. Date 7/28/10	<input checked="" type="checkbox"/> Fee: (\$200.00) Make checks payable to Latah County.	
c. Signature of Property Owner (if different than applicant)	d. Date	<input checked="" type="checkbox"/> Completed Narrative Worksheet: See instructions on the Conditional Use Permit Narrative Worksheet.	
		<input checked="" type="checkbox"/> Site Plan: The site plan should include a north arrow, location of roads and rights-of-way, existing buildings, improvements and features; the location and dimensions of proposed facilities, improvements and operations; as well as any other details necessary for the Zoning Commission to make a decision.	
		<input checked="" type="checkbox"/> Vicinity Map: The map should show the site location in relation to neighboring communities and natural features.	
		<input type="checkbox"/> Assessor's Plat Map: Include a copy of that portion of the map that shows the subject parcel and adjoining parcels.	
		<input type="checkbox"/> Other Attachments: Required by staff / Zoning Commission for certain proposed uses.	

Office Use Only			
Date Received 7/29/2010	Amount 200.00	Receipt No.	By MSK
CUP # 820	Date Determined Technically Complete 7/29/2010	By MSK	
Hearing Date September 15 2010			

10/11/2006

LCZC Hrg: CUP 811
Applicant: Avista
Exhibit #: 2
Date: 8/3/2010

PROJECT NARRATIVE

Avista Project

Project Title Moscow 230kV Substation Rebuild

Applicant Avista Corporation
 PO Box 3727 MSC -24
 Spokane, WA 99220-3727
 (509) 495-4550
 Aaron Henson / Substation Civil Engineer

Project Location 3125 State Hwy 8
 Moscow, ID 83843
 Two miles east of Moscow on the Troy Highway

Legal Description N/2 NW/4 SE/4 & N/2 NE/4 SE/4 of Sec 15, and
 N/2 NW/4 SW/4 of Sec 14, T39N R5W BM

Parcel Number RP39N05W157215A

Zone Agricultural/Forestry

Site Size 28.73 acres gross

Proposal This is a rebuild of the existing electrical substation located on the same property. The new construction will take place to the east of the existing facility so as to not interrupt electrical service to the area. The new construction will increase reliability and minimize the impact of system outages. The existing substation will be de-energized and disassembled upon completion of project.

LCZC Hrg: CUP 811
Applicant: Avista
Exhibit #: 2A
Date: 8/3/2010

SITE DESCRIPTION

The site is located two miles east of the City of Moscow, Idaho on the south side of State Highway 8. The property is bounded on the north side by the highway and has approximately 3,200 feet of highway frontage. The south side of the property is bounded by Burlington Northern Railroad (Latah Bike trail) and the western edge of the property is bounded by Mill Road. Existing access to the site is gained by way of a single 40-foot wide approach off of Highway 8 located fourth tenths of a mile east of Mill Road.

The substation property is located in an area that is zoned Agricultural/Forestry. The land outside the fenced yard is free of trees and is currently cultivated for dry-land crops. The site slopes from south to north with a drainage ditch located at the east edge of the parcel. This ditch provides drainage for north side of Tomer Butte and curves around to the north side of the property running parallel the highway for approximately $\frac{3}{4}$ of a mile before it empties into the South Fork of the Palouse River. This channel has water in it only part of the year and is deemed an intermittent stream by the county per the USGS definition.

The existing substation was built in 1967 and consists of a 300-ft x 600-ft yard located toward the east end of the property. The yard is protected by a 6-foot high chain-link fence topped with three strands of barbed wire for a total height of 7-feet. The yard area is covered with 4 - 6 inches of crushed rock; there no impervious surfaces within the yard other than the concrete foundations for the equipment.

An existing 230 kV transmission line runs north-south along the section line through the east end of the fenced yard. Avista acquired a 100-ft right of way for this transmission line when it was constructed in 1957. This transmission line supplies the power to the substation that is then distributed to the region.

The western part of the parcel between the substation yard and Mill road is the main corridor for 115 kV transmissions lines leaving the substation. Avista allows the land around the poles to be farmed in order to keep the weeds under control.

Most of the entire parcel is located in a 'Zone A' flood plain as defined by the National Flood Insurance Rate Map (FIRM); no floodway has been identified. At the time of the original construction this flood plain was not identified and no steps have been taken to protect against flood damage since that time. However, due to the function of the substation most all equipment is elevated 10-feet or more off the ground and the heavier ground mounted equipment is not susceptible to flood damage. All new construction will be subject to the requirements of the Latah County Development permit and will comply with the requirements for building in a flood plain.

PURPOSE

The Palouse region and specifically the Moscow area has been identified as an area that has experienced a modest growth rate since the construction of the original Moscow 230 kV Substation in 1967. This substation is one of two main hubs for the electrical service in the Palouse region. It provides power to the Moscow area and as far away as Deary to the East, Garfield to the North and Juliaetta to the South. In order to provide reliable service to residents and businesses in this area and meet the projected increase in demand for power, substantial upgrades are required.

Avista has recently acquired approximately 7.42 acres immediately to the east of the existing substation. A boundary line adjustment has been done on this new property to include it as part of the existing parcel owned by Avista. This location has been chosen as the site to rebuild the substation because it minimizes the impact of moving the facility and the existing transmission and distribution lines to another location; it minimizes interruption of service; and the minimizes the construction time and its impacts to the local community had the rebuild taken place within the existing yard.

FACILITY DESCRIPTION

The new substation will consist of 350' x 700' (5.25 acre) fenced yard located at the east end of the property (refer to attached Avista drawing E-37173, sheet 1). The substation yard is located 70-feet south of the Highway right-of-way (northern property line) to permit a 15-foot wide drive around the outside of the fence and a 60-foot buffer to the property line. The security fence will be 7.5-foot high with chain link (cyclone) type fabric and topped with three strands of barbed wire to prevent unauthorized access. The fence serves to protect the equipment inside the yard from vandalism and acts of terrorism as well as to protect public at large from the danger of electrocution. The gates to the yard are posted with the name and address of the substation along with the emergency phone number. The perimeter of the fence is posted with signage that warns of the high voltage danger.

A graveled apron will be located on the west side of the fenced yard. Access to the new yard will be via of the existing 40-foot wide approach off Highway 8. This approach is planned to be rebuilt as part of the project. The current culvert is too small to handle the flows in the ditch during spring run-off and a new one has been sized as part of the flood plain analysis is performed to complete Development Permit.

Equipment inside the 230kV yard will consist of 45-foot tall steel A-frame structures that support the conductor coming into the substation. Steel columns support elevated aluminum bus pipe and switches 10 to 15 feet above finished grade. The transformers will be placed on elevated concrete foundations and integrated oil containment structures.

Circuit Breakers, and control cabinets are supported on steel stands that keep them elevated off the ground. All supporting steel rests of foundations that have been designed for wind, seismic and flood loads.

A 20'x40' equipment enclosure will be located in the yard to provide shelter to metering, protective relaying and communication equipment. This equipment requires a controlled temperature environment in order to operate properly. Therefore, the enclosure will be insulated and the internal temperature kept within operating levels. The enclosure also provides a weather proof location to store station documentation.

The existing 230kV transmission line will be routed around to enter on the east end of the substation. The 115 kV transmission lines will exit the west end the substation and will connect to existing overhead transmission lines that parallel the highway. No additional easements or crossings are anticipated.

This is an unmanned, unoccupied facility; no sewer or water service is required for the operation of the facility. No septic system will be located on site.

Fire Department Lock Boxes

The gates into the substation yard will be secured with chains and locks keyed to Avista's standards. Avista respectfully requests a waiver from any requirement for Fire Department lock boxes. Avista's operations are governed by the National Electrical Safety Code ("NESC"). NESC Rule 110A1 state that areas containing energized electrical equipment must be kept locked in order to limit access by unauthorized personnel, of which Fire Department employees must be considered because they do not have the proper training to work around high voltage equipment.

If Fire Department access is required during an emergency, the inherent safety risks posed in any substation require qualified Avista personnel to be on-site prior to Fire Department access. Automatic alarming between the substation and Avista's Central Operating Facility will alert Avista in the event of such an emergency. Should Fire Department personnel arrive on scene first, they should wait for Avista personnel to secure the site prior to entry into any substation.

CRITERIA AND STANDARDS

The following section of the Latah County Land Use Ordinance applies to this application. The standards are restated here from Section 7.01.02 along with Avista's response.

Latah County Land Use Ordinance

A. The use is not detrimental to the health or safety of those in the surrounding area and will not otherwise adversely affect permitted uses or the enjoyment of such uses in that zone to any greater extent than a permitted use in that zone.

Response: An electrical substation is a compatible use for this area and is listed as an approved conditional use for the zoning. The area is zoned Agriculture/Forestry and the surrounding land uses consist of large acreage farms with the Moscow Elks Golf Course located across the highway. The construction of the substation will not have a greater impact on the uses of these adjacent properties than currently exists. Rebuilding on the existing property will not require that the existing transmission lines be relocated.

B. The use will not require facilities or services with excessive costs to the public.

Response: The electrical substation will not require public facilities or services. No water or sewer services are necessary and existing phone lines will be used for the communication equipment.

C. The use is not in conflict with the goals and policies of the Comprehensive Plan

Response: See next section of the project narrative addressing the Comprehensive Plan.

Latah County Comprehensive Plan

The following goals are restated from the Latah County comprehensive plan along with Avista's responses.

Goal 1) Community Design Element

To ensure a pattern of planned growth which results in the orderly and attractive development of Latah County.

Response: The substation is a compatible land use for this area and is listed as an approved conditional use for the zoning. The area is zoned Agriculture/Forestry and the surrounding land uses consist of large acreage farms and golf course.

Construction of the substation will not have an adverse impact on the Latah County bike trail which follows the now abandoned Burlington Northern rail bed.

Goal 2) Population Element

To ensure that population growth is accommodated in an orderly pattern.

Response: The rebuild of the substation will provide Avista the ability to meet the anticipated load growth in the area.

Goal 3) Housing Element

To ensure an adequate and attractive living environment to meet the needs of the residents of different ages, family sizes, lifestyles, and income levels.

Response: The electrical substation will not have an adverse affect on this goal.

Goal 4) Economic Development Element

To foster agriculture and forestry, to provide local appropriate land uses, to encourage economic diversification and to guide the development of commercial and industrial sector in a way compatible with the natural environment and existing land uses.

Response: The electrical substation will not have an adverse affect on this goal.

Goal 5) Public Services, Facilities and Utilities Element:

To provide an orderly pattern of development which will ensure adequate public facilities and services without excessive costs.

Response: The proposed substation rebuild is needed for the purpose of improving the aging network infrastructure. The existing equipment at the Moscow 230 kV Substation does not meet the load demand or the reliability requirements needed for this region. In addition, newer equipment will provide more reliable service to residents and businesses in the area effectively reducing the impact of system outages.

The existing substation yard does not provide enough room for the new equipment therefore, a new yard needs to be built. In order to minimize the impact of re-locating the facility, plans have been made to build adjacent to the existing substation on a newly acquired property on the east end of the parcel. This will also allow for construction and change over to the new equipment without interruption of service. It will also take advantage of the existing transmission line and prevent the need for relocating that line and the four distribution lines to a new site. A boundary line adjustment has been done to

make the new property a part of the existing parcel. The new substation yard has been sized to fit within the boundaries of the parcel and meet all of the required setbacks.

The existing yard will be left in place and will be used as an approach to the new substation. It will also be used as an area for staging equipment.

Goal 6) School Facilities and Student Transportation Element

To minimize the adverse effects of new residential development on school facilities and student transportation.

Response: The proposed substation will not have any adverse impact on school facilities or student transportation.

Goal 7) Transportation Element

To promote an efficient and safe transportation system in Latah County.

Response: The proposed substation will have minimal impact on traffic on State Highway 8 during the expected 36 month construction time frame and then no adverse impact on after that time.

Goal 8) Natural Resource Element:

To ensure sound stewardship of the county's natural resources.

Response: The parcel is located in an area designated as a Zone A floodplain per the Flood Insurance Rate Maps. A flood water study has been completed as part of the requirements of the Latah County Development permit. Other than the flood plain the site has not be deemed as an area of natural significance.

Oil cooled transformers will be located in the yard and a containment system will be installed around each transformer foundation. The oil containment system is sized to hold 110% of the volume of oil in the transformer. An alarm system will also be installed that will alert Avista's 24-hour manned Central Operations Center in the event there is a problem with the transformer that could result in the release of oil. Response times to this type of alarm are less than 2 hours. This system has been use successfully throughout Avista's network to prevent the contamination of surface and groundwater.

Avista uses shields over the high voltage conductors that connect the equipment within the yard. These shields reduce the possibility of injury to animals and predatory birds that try to nest within the yard.

Goal 9) *Special Areas Element*

To recognize and preserve special areas and sites of historic, archeological, architectural, geological, biological, or scenic significance.

Response: The property on which the substation is to be built has not been identified as a special area of historic, archeological, architectural, geological, biological, or scenic significance.

Goal 10) *Hazardous Areas Element*

To protect life and property from natural hazards.

Response: The parcel is located in an area designated as a Zone A floodplain per the Flood Insurance Rate Maps. A flood water study has been completed as part of the requirements of the Latah County Development permit. Steps to flood proof the construction of the substation will be made as required in the Development permit.

Goal 11) *Recreation Element*

To encourage a variety of recreational opportunities in Latah County.

Response: For reasons of safety and security the substation will not directly provide for recreational opportunities in the area. The substation will not have an adverse impact on the Latah County bike trail which follows the now abandoned Burlington Northern rail bed.

Goal 12) *Land Use Element*

Response: The substation is a compatible land use for this area and is listed as an approved conditional use for the zoning. The area is zoned Agriculture/Forestry and the surrounding land uses consist of large acreage farms with areas of stand timber.

Goal 13) *Property Rights Element*

Ensure that land use policies do not unconstitutionally violate private property rights.

Response: To the best of our knowledge, the substation rebuild will not violate private property rights.

Latah County Land Use Ordinance #269
 Article 3; Section 3.01 Agriculture/Forest Zone

Requirement	Proposed
Section 3.01.03 Minimum Lot Size 1 acre	28.73 acres
Section 3.01.03 Setbacks Accessory Structures 10 feet From Public right-of-way 20 feet From Centerline of road 60 feet Section 9.01.01 From Perennial Streams 100 feet	Setback requirements comply with the zoning ordinance
Section 3.01.02 Conditional Uses Public Utility Complex Facility	The substation, by definition of the zoning ordinance, is considered a Public Utility complex facility and allowed if approved by a conditional use permit process

EXISTING WORK

Avista Corporation, formerly doing business as Washington Water Power, purchased the original 21 acre parcel in November of 1965. Since that time Avista has taken care to ensure that the property has remained free of noxious weeds and trash from dumping.

A pre-application conference with the Latah County Planning Department occurred on May 25th, 2010 to discuss the plans for developing the land for use as an electrical substation. No issues of concern were identified beyond the requirements for building in the flood plain and expected considerations of compliance with the county's Comprehensive Plan.

On June 28, 2010, Hodge and Associates, Inc. filed a Record of Survey with the County, on behalf of Avista for parcel RP39N05W157215A which included the boundary line adjustment for the recently purchased 7.42 acres at the East end of the property.

On July 12, 2010, Hodge and Associates, Inc. submitted an application for Development Permit for this project on behalf of Avista.

Please refer to the attached Site Plan and Grading Plan, Avista drawings E-37173 Sheets 1 & 4.

IMPACT STATEMENTS

Traffic

During the initial construction phase which is expected to last approximately sixteen months there will be periodic times of increased traffic at the site. This will consist of the mobilization and de-mobilization of the grading equipment, delivery vehicles and concrete trucks. Delivery of materials to the site will be several times during the week and will occur during normal working hours.

After the initial construction phase, traffic will be significantly reduced and consist of work crews (one to two trucks) entering and leaving the site periodically throughout the workday.

Once the station is operational, normal traffic to the site will be reduced to a single maintenance vehicle visiting the site on a monthly basis.

Noise and Lighting

During the initial construction phase it can be expected that there will be an increase in noise to a level consistent with a typical construction site. The increase in noise levels will occur during normal working hours.

An energized substation typically generates a low frequency noise that can be heard outside of the yard. This noise primarily originates from the transformer, but depending on weather conditions, may also be heard from the insulators supporting the rigid bus. Avista performs noise surveys of substations and has found that the average noise level is 45 dBA at the yard fence with a maximum noise levels not exceeding 55 dBA at the yard fence. See Table 1: Sound Levels, for a comparison of common noise levels. The State of Idaho and Latah Counties do not have regulations for the acceptable noise level originating from a public facility. However, 55 dBA is the maximum permitted level allowed by other jurisdictions (including EPA guidelines) in which Avista operates and is therefore used as a bench mark for this project. Based on these test levels, there are no plans for noise mitigation.

The substation is equipped with yard lighting that is turned on only during times of emergency repairs.

Drainage

As part of the requirements for the Development Permit, Avista has hired an outside consultant to conduct a survey of the property and perform a flood water analysis. The requirements of the Development permit limits the increase of the 100-year mean flood elevation by no more and one foot.

The substation yard is covered in 4 to 6-inches of uncompacted crushed rock. Beyond the foundations and the oil containment structures, there are no impervious surfaces in the yard.

Environmental

Each of the 250 MVA transformers will contain approximately 23,000 gallons of non-PCB dielectric insulating oil (mineral oil, see attached Material Safety Data Sheet) used to regulate the temperature of the transformer. The 20 MVA distribution transformer uses approximately 3100 gallons insulating oil. Around each transformer is a containment system that is sized to hold 110% of the oil volume. The containment basin consists of a concrete moat around the transformer foundation. In addition, the transformer is equipped with a continuous electronic monitoring system that will signal Avista's 24-hour manned Central Operations Center should there be a problem that could cause a significant leak. If that occurs, the Transformer can be taken off-line and crews dispatched to assess the problem. The response time for crews during such an event is less than two hours after a problem is identified.

A 125 volt DC battery bank consisting of 60 lead acid cells (see attached Material Safety Data Sheet) will be located inside the control shelter. The battery bank will provide backup power for substation monitoring equipment and remote control in the event of an AC station service failure. Approximately 2.5 gallons of liquid electrolyte will be in each cell, for a total of 150 gallons. Containment for approximately 50 gallons will surround the battery bank. This will be sufficient to hold more than 33% of the total electrolyte, should an unlikely spill occur involving one third or 20 cells.

A spill kit is located within substation yard near the panel house. Kits contain powder absorbent, pads, and other clean-up materials for containment of small to medium sized spills. The kits are inspected monthly to ensure they are properly stocked and in working order.

Avista has an annual weed prevention and control plan that is enforced at all of its substations. Weed control is undertaken in the late spring and early summer months. The access roads, gravel surfaced areas and the substation yard are sprayed by licensed applicators. In addition to the graveled areas, exposed cuts and other areas outside the fence that are designated as "Native Vegetation" will be included in the weed management plan to control the weeds identified as "noxious".

EMF

Low levels of electric and magnetic fields (EMF) are associated with all electric equipment whether they be utility equipment and lines or household appliances, lighting, heating and cooling equipment, etc. The EMF field strength produced by the equipment in a substation diminishes rapidly as the distance from the equipment increases. Outside the security fence, it can be expected that EMF levels will not be more than the existing

the naturally occurring, or background level EMF. At this time, low levels of EMF are not considered dangerous, and the studies linking health risks to EMF are inconclusive.

TENTATIVE WORK SCHEDULE

The following is an approximate time line for completion of milestones for this project. Dates are subject to change and are dependant on permitting, equipment lead times and scheduling with other projects.

<u>Task</u>	<u>Target Date</u>
Site Grading	Sept – Nov. 2010
Install Security Fence	December 2010
Install Foundations & Structures	April 2011
Begin Electrical Work	July 2011
Complete Work/ Energize	October 2013

CONCLUSION

The foregoing narrative and accompanying documents and plans, together demonstrate that the plans for an Electrical Substation generally conform to applicable criteria and standards of the County's Code. Therefore, the applicant requests that the Planning Commission approve the application.

Attachments

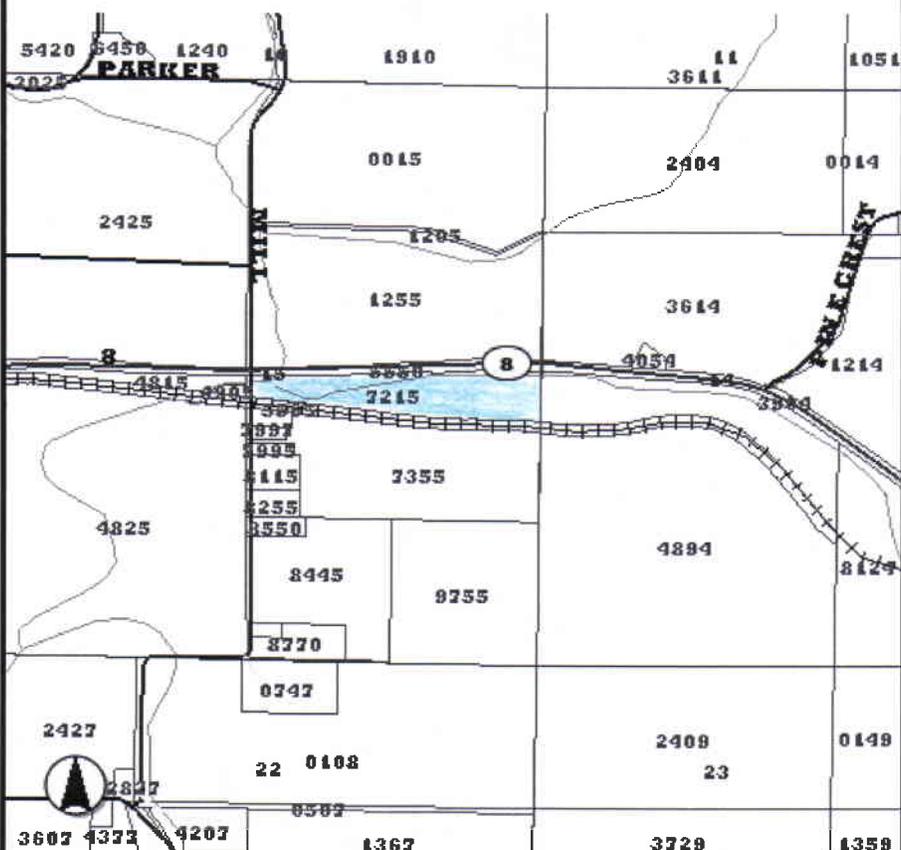
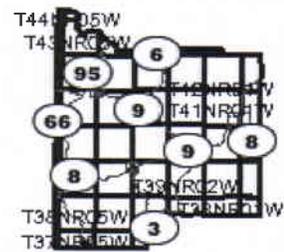
Avista Drawing E-37173, Sheet 1 - Site Plan
Avista Drawing E-37173, Sheet 4 - Grading Plan

Material Safety Data Sheet for Transformer Oil
Material Safety Data Sheet for Battery Fluid

Relative Sound Levels		
Examples	Sound Level dBA	Comment
Jet aircraft @ 160-ft distance	140	
Loud Hand Clap @ 3-ft	130	Threshold of pain
Referee's Whistle @ 3-ft	120	Threshold of discomfort
Police Siren @ 30-ft	110	16x as loud as 70dB
Chainsaw @ 3-ft distance	100	8x as loud as 70dB
Gas Lawn Mower	90	4x as loud as 70dB
Diesel Truck @ 100-ft	85	
Garbage Disposal Noisy urban daytime sound	80	2x as loud as 70dB
Hair Dryer	70	Arbitrary Base Line
Electric Typewriter	65	
Conversation in a Restaurant AC unit @ 100-ft	60	Half as loud as 70 dB
Maximum Substation Noise Level at Security Fence	55	
Conversational speech, Commercial Area	50	1/4 as loud as 70 dB
Typical Transformer Noise Level at Security Fence	45	
Bird Calls		
Quite urban daytime sound	40	1/8 as loud as 70 dB
Quite urban night sound	35	
Library	30	1/16 as loud as 70 dB
Quite rural night sound	25	
Sound of Breathing @ 3-feet distance	10	Barely Audible

Table 1: Relative Sound Levels

ArcIMS HTML Viewer Map



- Legend**
- Latah County
 - State Highways
 - Railroads
 - Areas of City Impact
 - Sections
 - County Roads
 - ALLEY
 - AVENUE
 - CIRCLE
 - COURT
 - DRIVE
 - EXTENSION
 - GRADE
 - HIGHWAY
 - LANE
 - LOOP
 - OTHER
 - PARKWAY
 - PLACE
 - PRIVATE
 - PRIVATE DRIVEWAY
 - PRIVATE ROAD
 - RD
 - ROAD
 - STREET
 - TRAIL
 - WAY
 - Streams
 - Bodies of Water
 - Parcels

Map created with ArcIMS - Copyright © (C) 1992-2010 ESRI. All rights reserved. 0.14m i

LCZC Hrg: CUP 811
 Applicant: Avista
 Exhibit #: 2B
 Date: 8/3/2010

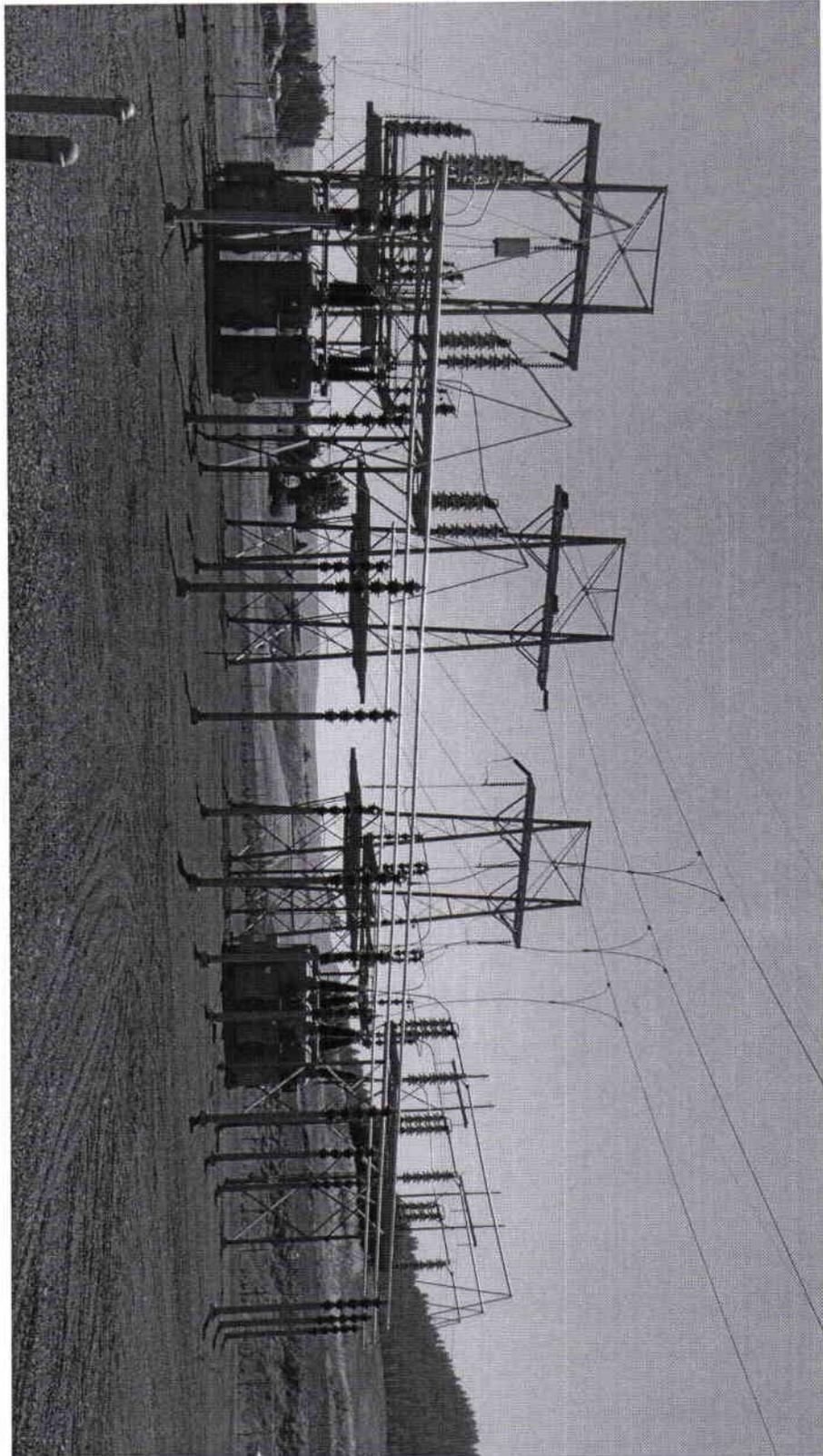


Figure 1: Existing 230kV Yard Looking East

LCZC Hrg: CUP 811
Applicant: Avista
Exhibit #: 2C
Date: 8/3/2010

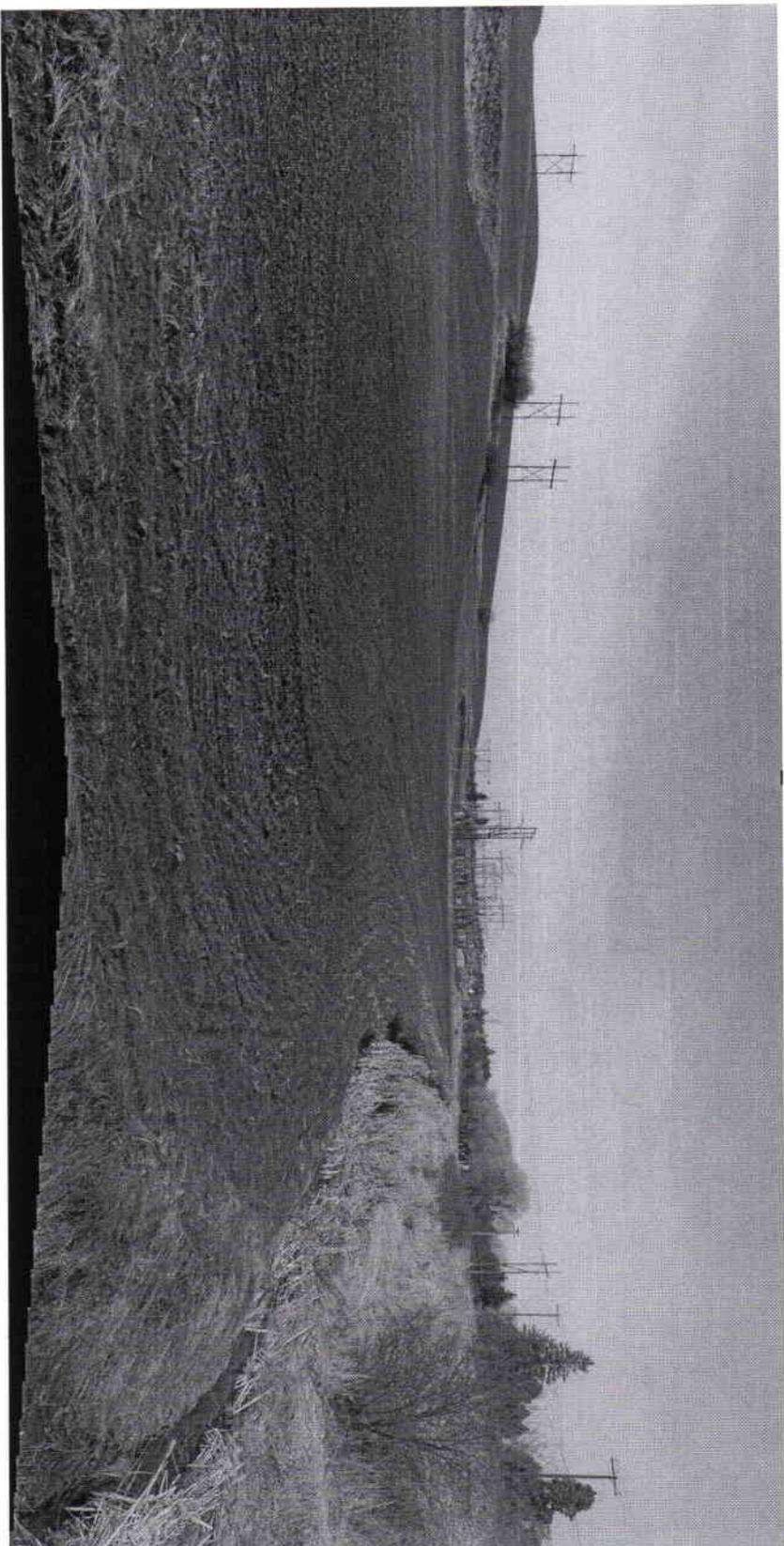
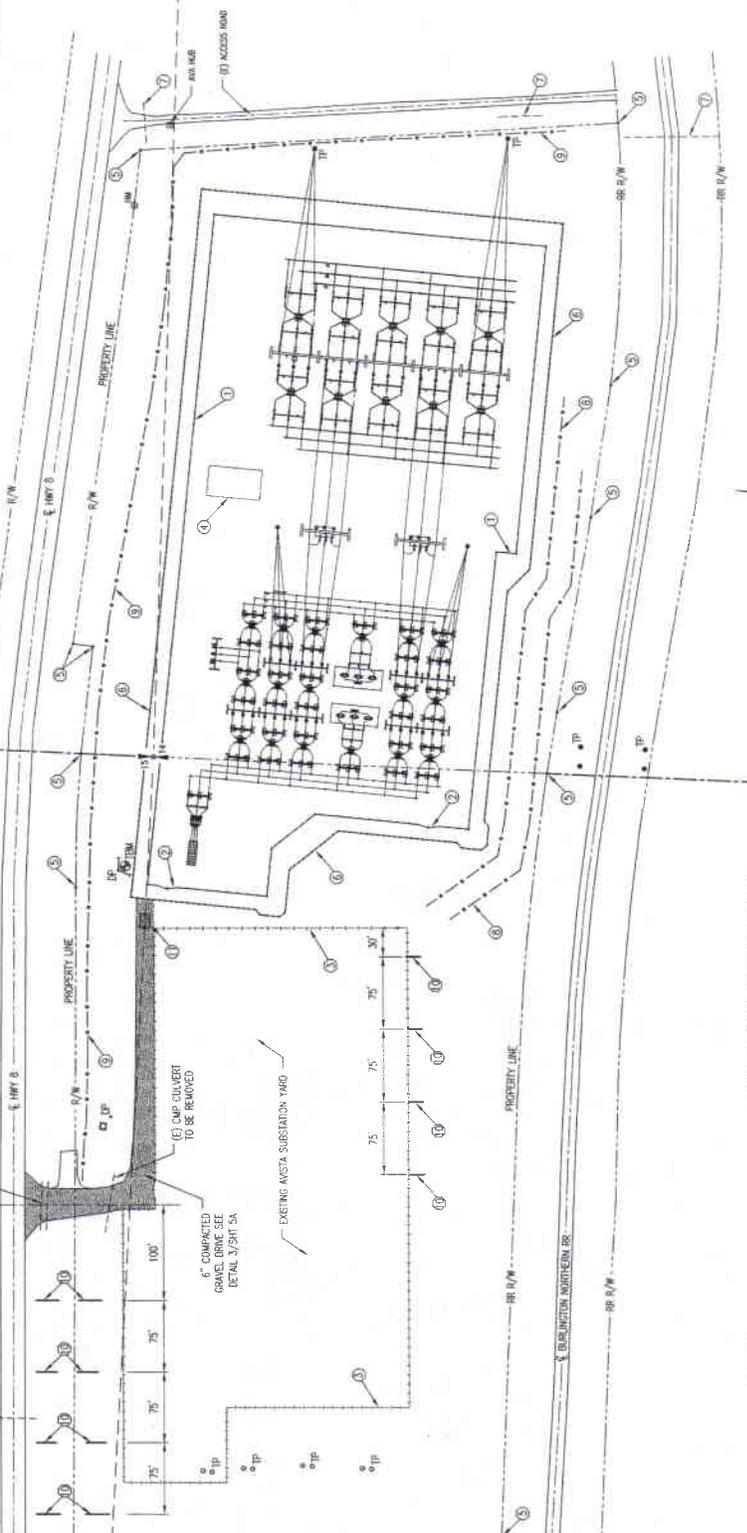


Figure 2: Project Site Looking West

E-37173

- LEGEND**
- ASV (A) AVISTA
 - (C) EXISTING
 - (P) PROPOSED
 - R/W RIGHT OF WAY
 - TM TEMPORARY MONUMENT
 - TP TRANSMISSION POLE
 - DP DISTRIBUTION POLE
 - HM HIGHWAY MONUMENT
 - Q QUARTER CORNER (P/ORG)
 - EXISTING SUBSTATION FENCE
 - PROPOSED SUBSTATION FENCE
 - SUBSTATION PAD BOUNDARY
 - SILT FENCE / MATILE



KEYNOTES

- 1 7" DOWN-LINK FENCE W/ 3"-STIKKINGS OF BARBED WIRE
- 2 20' DOUBLE SWING DRIVE GATE
- 3 EXISTING SUBSTATION FENCE
- 4 ELECTRICAL CONTROL ENCLOSURE
- 5 PROPERTY CORNER
- 6 GRAVEL AREA BOUNDARY
- 7 EXISTING CMP CULVERT TO REMAIN
- 8 STRAW MATILE - SEE DETAIL 1/3/11 SA
- 9 CHECK DAM - SEE DETAIL 1/3/11 SA
- 10 VEHICLE WASHOUT



REFERENCE DRAWINGS

- SPT 2 INITIAL/ULTIMATE PLAN
- SPT 3 GENERAL PLAN
- SPT 4 GROUND & FOUNDATION PLAN
- SPT 10

230 KV SUBSTATION		AVISTA CORP SPokane, Washington	
MOSCOW - LATAH COUNTY, IDAHO		Michael C. Nagelschlag	
DATE	05-20-10	DATE	7/27/10
DESIGN	ASH	CHECKED	MH
DRAWN	ASH	NOTED	
SCALE	1" = 60'	DATE CHECKED	ASPT
JOB # 1 - PROJ02		SHEET NO. 1 OF 1	
E-37173		E-37173	

CONSTRUCTION DWG
 JULY 27, 2010
 JOB # 1 - PROJ02

SITE PLAN
 SCALE 1" = 90'

GENERAL CONSTRUCTION NOTES:

1. PLANS FOR CONSTRUCTION OF SUBSTATION PAD AND GROUNDING. SEE AVISTA PLANS FOR DEVELOPMENT OF SUBSTATION EQUIPMENT AND STRUCTURES.
2. OFFSETS MEASURED FROM SECTION QUARTER CORNER.
3. CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL PER LATAH COUNTY AND STORM WATER POLLUTION PREVENTION (SWPP) PLAN REQUIREMENTS.
4. ALL DISTURBED AREAS ARE TO BE SEEDDED WITH A NATIVE GRASS MIX.
5. REFER TO SHEET 5 FOR DESIGN OF SILT FENCE AND CHECK DAMS.

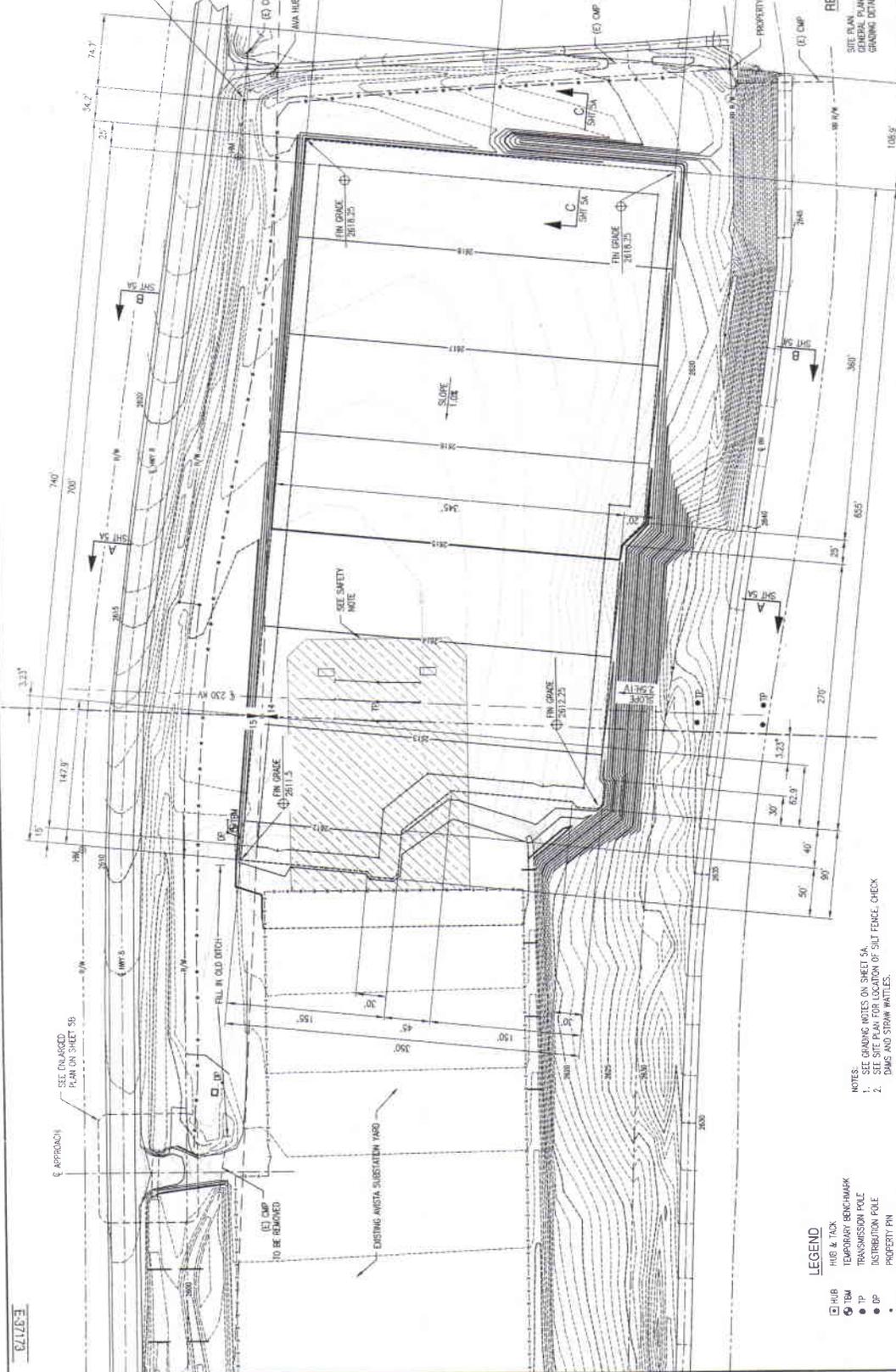
SITE DATA

ADDRESS: 3125 Highway 8, Moscow, ID 83843
 PROPERTY DESCRIPTION: 5/2 NW/4 & N/2 SW/4 Section 14, T24N, R36W, B1
 PARCEL NUMBER: #P090009107215A
 LOCATION: 2 Miles East of the City of Moscow, Latah County, ID across from the Elk Cor Course on the Troy Highway.
 ZONING: FPM Zone A
 PLAN: FPM Final No. 1600066333B
 AREA: 7.37 acres (28.66 Hekt)
 DATE COMPLETED: June, 29, 2010 by Hodge & Associates, Inc. Moscow, ID

LCZC Hrg: CUP 811
Applicant: Avista
Exhibit #: 2D
Date: 8/3/2010

GRADING DATA

GRADING AREA: 6.25 ACRES
 EXCAVATION VOLUME: 9,800 CY
 EXCAVATION DEPTH: 10.00 FT MAX
 FILL VOLUME: 10,000 CY
 FILL DEPTH: 6 FT MAX



REFERENCE DRAWINGS

SHEET NO. SHEET TITLE
 SHEET 1 GENERAL PLAN
 SHEET 2 GRADING DETAILS

230 KV SUBSTATION MOSCOW - LATAH COUNTY, IDAHO	
AVISTA CORP SPokane, Washington	
DATE	7/27/10
DESIGNER	Michael D. Maganda
CHECKED	
DATE	
PROJECT NO.	E-37173

CONSTRUCTION DWG
 JULY 27 2010
 JOB # _____
 PERIOD _____



Know what's below.
 Call before you dig.

GRADING PLAN

SCALE: 1" = 50'

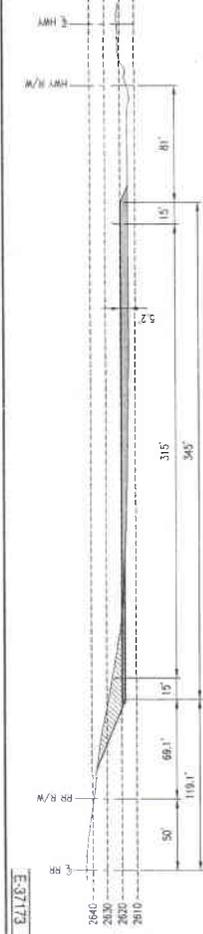
- NOTES:**
- SEE GRADING NOTES ON SHEET 56.
 - VERIFY LOCATION OF SILT FENCE. CHECK DIMS AND STRAK WATTLES.

SMOOTH WIRE
 AREA IN SHADDED REGION HAS LOW OVERHEAD POWER LINES AND UNDERGROUND UTILITIES. CARE SHALL BE TAKEN NOT TO DISTURB EXISTING COPPER WIRE LOCATED 12" BELOW EXISTING GRADE. VEHICLES SHALL NOT BE PARKED IN THIS AREA AND PEDESTRIAN TRAFFIC SHALL BE LIMITED. BEETS AND LOGS SHOULD BE REMOVED FROM THE AREA. CONSTRUCTION OPERATIONS MAY TAKE PLACE AS NORMAL. PERSONNEL TO STAY BACK 30'-FEET FROM STRUCTURES.

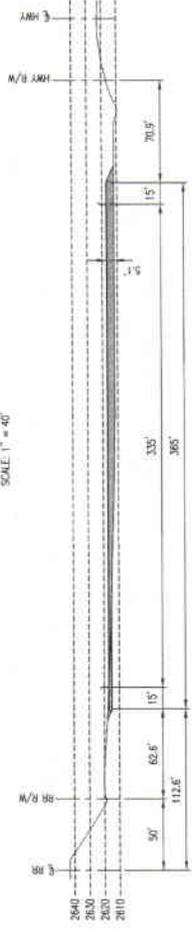
LEGEND

- HUB & TACK
- TEMPORARY BENCHMARK
- TRANSMISSION POLE
- DISTRIBUTION POLE
- PROPERTY PIN
- HIGHWAY MONUMENT
- QUARTER CORNER (FOUND)
- EXISTING 1' CONTOURS
- NEW 1' GRADED CONTOURS
- MODIFIED 1' CONTOURS
- EXISTING 5' CONTOURS
- NEW 5' GRADED CONTOURS
- MODIFIED 5' CONTOURS
- SUBSTATION FENCE BOUNDARY
- PROPOSED SUBSTATION FENCE

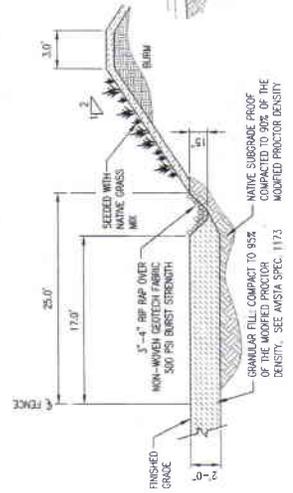
LCZC Hrg: CUP 811
Applicant: Avista
Exhibit #: 2E
Date: 8/3/2010



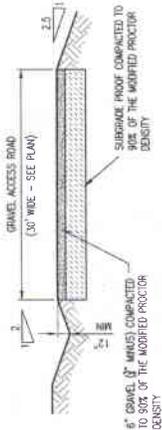
SECTION A-A
SCALE: 1" = 40'



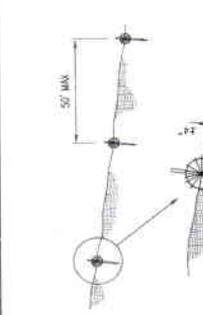
SECTION B-B
SCALE: 1" = 40'



SECTION C-C
NOT TO SCALE



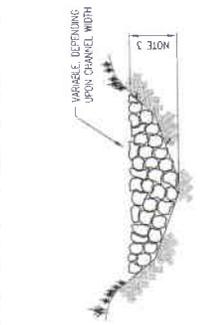
TYPICAL ACCESS ROAD SECTION
NOT TO SCALE



SECTION

- NOTES:**
1. STRAW WATTLES TO BE 6" DIAMETER AND 90" TO 107" LONG.
 2. FOLLOW CONTOUR OF SLOPE. BUT ADJACENT WATTLES TIGHTLY.
 3. STAKES TO BE SPACED 8" FROM EACH END AND NOT MORE THAN 6'-FT O.C. DRINK STAKES THROUGH THE CENTER OF THE WATTLE AND PERPENDICULAR TO SLOPE LEAVING 2" - 3" ABOVE THE TOP OF WATTLE.

1
STRAW WATTLE
NOT TO SCALE



ELEVATION

- NOTES:**
1. USE ROCKS 3" TO 6" IN SIZE FOR CHECK DAM.
 2. PLACE ROCKS 50' DAM IS PERPENDICULAR TO THE FLOW. USE ROCKS OR FILTER FABRIC TO FILL ANY GAPS AND TAMP BACKFILL MATERIAL TO PREVENT ENDSION OF FLOW AROUND DAM.
 3. HEIGHT SHALL NOT EXCEED THE LESSER OF 18" OR 1/4 CHANNEL DEPTH.
 4. INSPECT AFTER EACH SIGNIFICANT STORM OR DRAIN DURING PROLONGED RAIN EVENTS. MAINTAIN AND REPAIR AS NEEDED.

2
ROCK CHECK DAM
NOT TO SCALE

GRADING NOTES

1. SUBSTATION PAD AND AREAS OF FILL, GRUB AND STRIP ALL ORGANIC MATERIAL UNTIL UNDISTURBED NATIVE MATERIAL IS REACHED TO A DEPTH OF 24" FROM THE SURFACE. ALL EXPOSED NATIVE MATERIAL SHALL BE PROTECTED WITH A 2" MINIMUM DEPTH OF WOOLY ORGANIC MATTER AND MULCH-WASTE DEEPS. MAXIMUM DEPTH OF FILL SHALL BE 5 FEET ABOVE EXISTING GROUND. BACKFILL WITH APPROVED FILL. SEE GRADING SPECIFICATION 51173-59.
2. CONTIGUOUS AND SPOT ELEVATIONS SHALL BE GRADDED ELEVATIONS. BLEND SOIL SURFACES TO EXISTING GROUND ELEVATION AT GRADING CORNERS. ALL CUTS AND FILLS SHALL BE SLOPED 2.5H:1V MINIMUM OR AS NOTED ON GRADING PLAN.
3. TRES OF VERTICAL CURVES, ASSIGNED ELEVATION AS TOP OF SUBCUT OR PEAK OF CURVE. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED.
4. ALL AREAS WITHIN THE SUBSTATION PAD BOUNDARY TO RECEIVE A MINIMUM OF 2"-6" GRANULAR FILL. OVER EXCAVATE AS NECESSARY.
5. NATIVE SOILS AT FILL AREAS SHALL BE SCARIFIED AND ALLOWED TO DRY PRIOR TO COMPACT. FILL AREA TO BE PROOF COMPACTED TO 95% ASTM D-1557 PRIOR TO PLACING FILL.
6. ALL FILL SHALL BE PLACED IN NOT MORE THAN 8 INCH UNCOMPACTED LIFTS. ALL FILL SHALL BE PROOF COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR). ALL CEMENTED ACCESS ROAD SURFACES SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR).
7. ALL COMPACTOR SHALL BE DONE BY MECHANICAL MEANS.
8. CONTRACTOR TO CALL UTILITY LOCATE SERVICE PRIOR TO START OF CONSTRUCTION.

REFERENCE DRAWINGS

SHT 1
GENERAL PLAN
SHT 3
GRADING PLAN
SHT 4

CONSTRUCTION DWG
JULY 22, 2010
JOB # P5007

230 KV SUBSTATION MOSCOW, LATAH COUNTY, IDAHO	
AVISTA, CORP. SPokane, WASHINGTON	
AS NOTED	05-20-10
DATE	05-20-10
DESIGNER	CHUCK JAMES
CHECKER	MM
DATE	7/27/10
DESIGNED BY	Michael O. Thompson
DATE	7/27/10
PROJECT NO.	E-37173
DATE	7/27/10



Know what's below.
Call before you dig.

4
SILT FENCE
NOT TO SCALE

MAINTENANCE STANDARDS:

1. SILT FENCES AND OTHER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT (SPILL OF FENCE), THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.
3. IT IS IMPORTANT TO CHECK THE UPDRILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOSING AND ACTING AS A BARRIERS TO FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPAIR THE FENCE IMMEDIATELY TO REMOVE THE TRAPPED SEDIMENT.
4. SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE SHALL BE INSTALLED.
5. IF THE FILTER FABRIC (GEOTEXTILE) IS DAMAGED OR OBTERORATED, IT SHALL BE REPLACED IMMEDIATELY.

3
TYPICAL ACCESS ROAD SECTION
NOT TO SCALE

1
STRAW WATTLE
NOT TO SCALE

2
ROCK CHECK DAM
NOT TO SCALE

ELEVATION

SECTION

GRADING NOTES

SECTION C-C
NOT TO SCALE

TYPICAL ACCESS ROAD SECTION
NOT TO SCALE

4
SILT FENCE
NOT TO SCALE

1
STRAW WATTLE
NOT TO SCALE

2
ROCK CHECK DAM
NOT TO SCALE

ELEVATION

SECTION

GRADING NOTES

1. SUBSTATION PAD AND AREAS OF FILL, GRUB AND STRIP ALL ORGANIC MATERIAL UNTIL UNDISTURBED NATIVE MATERIAL IS REACHED TO A DEPTH OF 24" FROM THE SURFACE. ALL EXPOSED NATIVE MATERIAL SHALL BE PROTECTED WITH A 2" MINIMUM DEPTH OF WOOLY ORGANIC MATTER AND MULCH-WASTE DEEPS. MAXIMUM DEPTH OF FILL SHALL BE 5 FEET ABOVE EXISTING GROUND. BACKFILL WITH APPROVED FILL. SEE GRADING SPECIFICATION 51173-59.
2. CONTIGUOUS AND SPOT ELEVATIONS SHALL BE GRADDED ELEVATIONS. BLEND SOIL SURFACES TO EXISTING GROUND ELEVATION AT GRADING CORNERS. ALL CUTS AND FILLS SHALL BE SLOPED 2.5H:1V MINIMUM OR AS NOTED ON GRADING PLAN.
3. TRES OF VERTICAL CURVES, ASSIGNED ELEVATION AS TOP OF SUBCUT OR PEAK OF CURVE. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED.
4. ALL AREAS WITHIN THE SUBSTATION PAD BOUNDARY TO RECEIVE A MINIMUM OF 2"-6" GRANULAR FILL. OVER EXCAVATE AS NECESSARY.
5. NATIVE SOILS AT FILL AREAS SHALL BE SCARIFIED AND ALLOWED TO DRY PRIOR TO COMPACT. FILL AREA TO BE PROOF COMPACTED TO 95% ASTM D-1557 PRIOR TO PLACING FILL.
6. ALL FILL SHALL BE PLACED IN NOT MORE THAN 8 INCH UNCOMPACTED LIFTS. ALL FILL SHALL BE PROOF COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR). ALL CEMENTED ACCESS ROAD SURFACES SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR).
7. ALL COMPACTOR SHALL BE DONE BY MECHANICAL MEANS.
8. CONTRACTOR TO CALL UTILITY LOCATE SERVICE PRIOR TO START OF CONSTRUCTION.

REFERENCE DRAWINGS

SHT 1
GENERAL PLAN
SHT 3
GRADING PLAN
SHT 4

CONSTRUCTION DWG
JULY 22, 2010
JOB # P5007

230 KV SUBSTATION MOSCOW, LATAH COUNTY, IDAHO	
AVISTA, CORP. SPokane, WASHINGTON	
AS NOTED	05-20-10
DATE	05-20-10
DESIGNER	CHUCK JAMES
CHECKER	MM
DATE	7/27/10
DESIGNED BY	Michael O. Thompson
DATE	7/27/10
PROJECT NO.	E-37173
DATE	7/27/10



Know what's below.
Call before you dig.

4
SILT FENCE
NOT TO SCALE

3
TYPICAL ACCESS ROAD SECTION
NOT TO SCALE

1
STRAW WATTLE
NOT TO SCALE

2
ROCK CHECK DAM
NOT TO SCALE

ELEVATION

SECTION

GRADING NOTES

1. SUBSTATION PAD AND AREAS OF FILL, GRUB AND STRIP ALL ORGANIC MATERIAL UNTIL UNDISTURBED NATIVE MATERIAL IS REACHED TO A DEPTH OF 24" FROM THE SURFACE. ALL EXPOSED NATIVE MATERIAL SHALL BE PROTECTED WITH A 2" MINIMUM DEPTH OF WOOLY ORGANIC MATTER AND MULCH-WASTE DEEPS. MAXIMUM DEPTH OF FILL SHALL BE 5 FEET ABOVE EXISTING GROUND. BACKFILL WITH APPROVED FILL. SEE GRADING SPECIFICATION 51173-59.
2. CONTIGUOUS AND SPOT ELEVATIONS SHALL BE GRADDED ELEVATIONS. BLEND SOIL SURFACES TO EXISTING GROUND ELEVATION AT GRADING CORNERS. ALL CUTS AND FILLS SHALL BE SLOPED 2.5H:1V MINIMUM OR AS NOTED ON GRADING PLAN.
3. TRES OF VERTICAL CURVES, ASSIGNED ELEVATION AS TOP OF SUBCUT OR PEAK OF CURVE. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED.
4. ALL AREAS WITHIN THE SUBSTATION PAD BOUNDARY TO RECEIVE A MINIMUM OF 2"-6" GRANULAR FILL. OVER EXCAVATE AS NECESSARY.
5. NATIVE SOILS AT FILL AREAS SHALL BE SCARIFIED AND ALLOWED TO DRY PRIOR TO COMPACT. FILL AREA TO BE PROOF COMPACTED TO 95% ASTM D-1557 PRIOR TO PLACING FILL.
6. ALL FILL SHALL BE PLACED IN NOT MORE THAN 8 INCH UNCOMPACTED LIFTS. ALL FILL SHALL BE PROOF COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR). ALL CEMENTED ACCESS ROAD SURFACES SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR).
7. ALL COMPACTOR SHALL BE DONE BY MECHANICAL MEANS.
8. CONTRACTOR TO CALL UTILITY LOCATE SERVICE PRIOR TO START OF CONSTRUCTION.

REFERENCE DRAWINGS

SHT 1
GENERAL PLAN
SHT 3
GRADING PLAN
SHT 4

CONSTRUCTION DWG
JULY 22, 2010
JOB # P5007

230 KV SUBSTATION MOSCOW, LATAH COUNTY, IDAHO	
AVISTA, CORP. SPokane, WASHINGTON	
AS NOTED	05-20-10
DATE	05-20-10
DESIGNER	CHUCK JAMES
CHECKER	MM
DATE	7/27/10
DESIGNED BY	Michael O. Thompson
DATE	7/27/10
PROJECT NO.	E-37173
DATE	7/27/10



Know what's below.
Call before you dig.

4
SILT FENCE
NOT TO SCALE

3
TYPICAL ACCESS ROAD SECTION
NOT TO SCALE

1
STRAW WATTLE
NOT TO SCALE

2
ROCK CHECK DAM
NOT TO SCALE

ELEVATION

SECTION

GRADING NOTES

1. SUBSTATION PAD AND AREAS OF FILL, GRUB AND STRIP ALL ORGANIC MATERIAL UNTIL UNDISTURBED NATIVE MATERIAL IS REACHED TO A DEPTH OF 24" FROM THE SURFACE. ALL EXPOSED NATIVE MATERIAL SHALL BE PROTECTED WITH A 2" MINIMUM DEPTH OF WOOLY ORGANIC MATTER AND MULCH-WASTE DEEPS. MAXIMUM DEPTH OF FILL SHALL BE 5 FEET ABOVE EXISTING GROUND. BACKFILL WITH APPROVED FILL. SEE GRADING SPECIFICATION 51173-59.
2. CONTIGUOUS AND SPOT ELEVATIONS SHALL BE GRADDED ELEVATIONS. BLEND SOIL SURFACES TO EXISTING GROUND ELEVATION AT GRADING CORNERS. ALL CUTS AND FILLS SHALL BE SLOPED 2.5H:1V MINIMUM OR AS NOTED ON GRADING PLAN.
3. TRES OF VERTICAL CURVES, ASSIGNED ELEVATION AS TOP OF SUBCUT OR PEAK OF CURVE. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED.
4. ALL AREAS WITHIN THE SUBSTATION PAD BOUNDARY TO RECEIVE A MINIMUM OF 2"-6" GRANULAR FILL. OVER EXCAVATE AS NECESSARY.
5. NATIVE SOILS AT FILL AREAS SHALL BE SCARIFIED AND ALLOWED TO DRY PRIOR TO COMPACT. FILL AREA TO BE PROOF COMPACTED TO 95% ASTM D-1557 PRIOR TO PLACING FILL.
6. ALL FILL SHALL BE PLACED IN NOT MORE THAN 8 INCH UNCOMPACTED LIFTS. ALL FILL SHALL BE PROOF COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR). ALL CEMENTED ACCESS ROAD SURFACES SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR).
7. ALL COMPACTOR SHALL BE DONE BY MECHANICAL MEANS.
8. CONTRACTOR TO CALL UTILITY LOCATE SERVICE PRIOR TO START OF CONSTRUCTION.

REFERENCE DRAWINGS

SHT 1
GENERAL PLAN
SHT 3
GRADING PLAN
SHT 4

CONSTRUCTION DWG
JULY 22, 2010
JOB # P5007

230 KV SUBSTATION MOSCOW, LATAH COUNTY, IDAHO	
AVISTA, CORP. SPokane, WASHINGTON	
AS NOTED	05-20-10
DATE	05-20-10
DESIGNER	CHUCK JAMES
CHECKER	MM
DATE	7/27/10
DESIGNED BY	Michael O. Thompson
DATE	7/27/10
PROJECT NO.	E-37173
DATE	7/27/10



Know what's below.
Call before you dig.

4
SILT FENCE
NOT TO SCALE

3
TYPICAL ACCESS ROAD SECTION
NOT TO SCALE

1
STRAW WATTLE
NOT TO SCALE

2
ROCK CHECK DAM
NOT TO SCALE

ELEVATION

SECTION

GRADING NOTES

1. SUBSTATION PAD AND AREAS OF FILL, GRUB AND STRIP ALL ORGANIC MATERIAL UNTIL UNDISTURBED NATIVE MATERIAL IS REACHED TO A DEPTH OF 24" FROM THE SURFACE. ALL EXPOSED NATIVE MATERIAL SHALL BE PROTECTED WITH A 2" MINIMUM DEPTH OF WOOLY ORGANIC MATTER AND MULCH-WASTE DEEPS. MAXIMUM DEPTH OF FILL SHALL BE 5 FEET ABOVE EXISTING GROUND. BACKFILL WITH APPROVED FILL. SEE GRADING SPECIFICATION 51173-59.
2. CONTIGUOUS AND SPOT ELEVATIONS SHALL BE GRADDED ELEVATIONS. BLEND SOIL SURFACES TO EXISTING GROUND ELEVATION AT GRADING CORNERS. ALL CUTS AND FILLS SHALL BE SLOPED 2.5H:1V MINIMUM OR AS NOTED ON GRADING PLAN.
3. TRES OF VERTICAL CURVES, ASSIGNED ELEVATION AS TOP OF SUBCUT OR PEAK OF CURVE. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED.
4. ALL AREAS WITHIN THE SUBSTATION PAD BOUNDARY TO RECEIVE A MINIMUM OF 2"-6" GRANULAR FILL. OVER EXCAVATE AS NECESSARY.
5. NATIVE SOILS AT FILL AREAS SHALL BE SCARIFIED AND ALLOWED TO DRY PRIOR TO COMPACT. FILL AREA TO BE PROOF COMPACTED TO 95% ASTM D-1557 PRIOR TO PLACING FILL.
6. ALL FILL SHALL BE PLACED IN NOT MORE THAN 8 INCH UNCOMPACTED LIFTS. ALL FILL SHALL BE PROOF COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR). ALL CEMENTED ACCESS ROAD SURFACES SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR).
7. ALL COMPACTOR SHALL BE DONE BY MECHANICAL MEANS.
8. CONTRACTOR TO CALL UTILITY LOCATE SERVICE PRIOR TO START OF CONSTRUCTION.

REFERENCE DRAWINGS

SHT 1
GENERAL PLAN
SHT 3
GRADING PLAN
SHT 4

CONSTRUCTION DWG
JULY 22, 2010
JOB # P5007

230 KV SUBSTATION MOSCOW, LATAH COUNTY, IDAHO	
AVISTA, CORP. SPokane, WASHINGTON	
AS NOTED	05-20-10
DATE	05-20-10
DESIGNER	CHUCK JAMES
CHECKER	MM
DATE	7/27/10
DESIGNED BY	Michael O. Thompson
DATE	7/27/10
PROJECT NO.	E-37173
DATE	7/27/10



Know what's below.
Call before you dig.

4
SILT FENCE
NOT TO SCALE

3
TYPICAL ACCESS ROAD SECTION
NOT TO SCALE

1
STRAW WATTLE
NOT TO SCALE

2
ROCK CHECK DAM
NOT TO SCALE

ELEVATION

SECTION

GRADING NOTES

1. SUBSTATION PAD AND AREAS OF FILL, GRUB AND STRIP ALL ORGANIC MATERIAL UNTIL UNDISTURBED NATIVE MATERIAL IS REACHED TO A DEPTH OF 24" FROM THE SURFACE. ALL EXPOSED NATIVE MATERIAL SHALL BE PROTECTED WITH A 2" MINIMUM DEPTH OF WOOLY ORGANIC MATTER AND MULCH-WASTE DEEPS. MAXIMUM DEPTH OF FILL SHALL BE 5 FEET ABOVE EXISTING GROUND. BACKFILL WITH APPROVED FILL. SEE GRADING SPECIFICATION 51173-59.
2. CONTIGUOUS AND SPOT ELEVATIONS SHALL BE GRADDED ELEVATIONS. BLEND SOIL SURFACES TO EXISTING GROUND ELEVATION AT GRADING CORNERS. ALL CUTS AND FILLS SHALL BE SLOPED 2.5H:1V MINIMUM OR AS NOTED ON GRADING PLAN.
3. TRES OF VERTICAL CURVES, ASSIGNED ELEVATION AS TOP OF SUBCUT OR PEAK OF CURVE. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED.
4. ALL AREAS WITHIN THE SUBSTATION PAD BOUNDARY TO RECEIVE A MINIMUM OF 2"-6" GRANULAR FILL. OVER EXCAVATE AS NECESSARY.
5. NATIVE SOILS AT FILL AREAS SHALL BE SCARIFIED AND ALLOWED TO DRY PRIOR TO COMPACT. FILL AREA TO BE PROOF COMPACTED TO 95% ASTM D-1557 PRIOR TO PLACING FILL.
6. ALL FILL SHALL BE PLACED IN NOT MORE THAN 8 INCH UNCOMPACTED LIFTS. ALL FILL SHALL BE PROOF COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR). ALL CEMENTED ACCESS ROAD SURFACES SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR).
7. ALL COMPACTOR SHALL BE DONE BY MECHANICAL MEANS.
8. CONTRACTOR TO CALL UTILITY LOCATE SERVICE PRIOR TO START OF CONSTRUCTION.

REFERENCE DRAWINGS

SHT 1
GENERAL PLAN
SHT 3
GRADING PLAN
SHT 4

CONSTRUCTION DWG
JULY 22, 2010
JOB # P5007

230 KV SUBSTATION MOSCOW, LATAH COUNTY, IDAHO	
AVISTA, CORP. SPokane, WASHINGTON	
AS NOTED	05-20-10
DATE	05-20-10
DESIGNER	CHUCK JAMES
CHECKER	MM
DATE	7/27/10
DESIGNED BY	Michael O. Thompson
DATE	7/27/10
PROJECT NO.	E-37173
DATE	7/27/10



Know what's below.
Call before you dig.

4
SILT FENCE
NOT TO SCALE

3
TYPICAL ACCESS ROAD SECTION
NOT TO SCALE

1
STRAW WATTLE
NOT TO SCALE

2
ROCK CHECK DAM
NOT TO SCALE

ELEVATION

SECTION

GRADING NOTES

1. SUBSTATION PAD AND AREAS OF FILL, GRUB AND STRIP ALL ORGANIC MATERIAL UNTIL UNDISTURBED NATIVE MATERIAL IS REACHED TO A DEPTH OF 24" FROM THE SURFACE. ALL EXPOSED NATIVE MATERIAL SHALL BE PROTECTED WITH A 2" MINIMUM DEPTH OF WOOLY ORGANIC MATTER AND MULCH-WASTE DEEPS. MAXIMUM DEPTH OF FILL SHALL BE 5 FEET ABOVE EXISTING GROUND. BACKFILL WITH APPROVED FILL. SEE GRADING SPECIFICATION 51173-59.
2. CONTIGUOUS AND SPOT ELEVATIONS SHALL BE GRADDED ELEVATIONS. BLEND SOIL SURFACES TO EXISTING GROUND ELEVATION AT GRADING CORNERS. ALL CUTS AND FILLS SHALL BE SLOPED 2.5H:1V MINIMUM OR AS NOTED ON GRADING PLAN.
3. TRES OF VERTICAL CURVES, ASSIGNED ELEVATION AS TOP OF SUBCUT OR PEAK OF CURVE. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED. TYPICAL SLOPE SHALL BE 1% TO 2% UNLESS OTHERWISE INDICATED.
4. ALL AREAS WITHIN THE SUBSTATION PAD BOUNDARY TO RECEIVE A MINIMUM OF 2"-6" GRANULAR FILL. OVER EXCAVATE AS NECESSARY.
5. NATIVE SOILS AT FILL AREAS SHALL BE SCARIFIED AND ALLOWED TO DRY PRIOR TO COMPACT. FILL AREA TO BE PROOF COMPACTED TO 95% ASTM D-1557 PRIOR TO PLACING FILL.
6. ALL FILL SHALL BE PLACED IN NOT MORE THAN 8 INCH UNCOMPACTED LIFTS. ALL FILL SHALL BE PROOF COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR). ALL CEMENTED ACCESS ROAD SURFACES SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY (MODIFIED PROCTOR).
7. ALL COMPACTOR SHALL BE DONE BY MECHANICAL MEANS.
8. CONTRACTOR TO CALL UTILITY LOCATE SERVICE PRIOR TO START OF CONSTRUCTION.

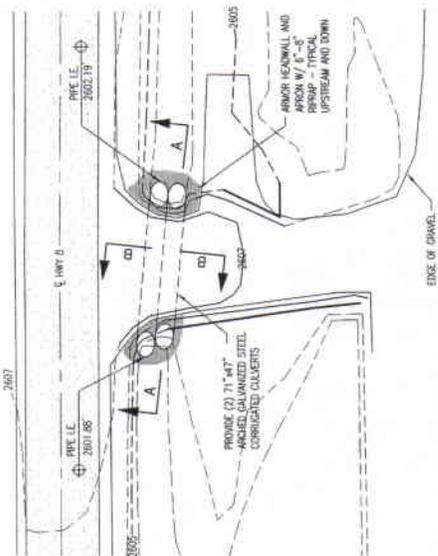
REFERENCE DRAWINGS

SHT 1
GENERAL PLAN
SHT 3
GRADING PLAN
SHT 4

CONSTRUCTION DWG
JULY 22, 2010
JOB # P5007

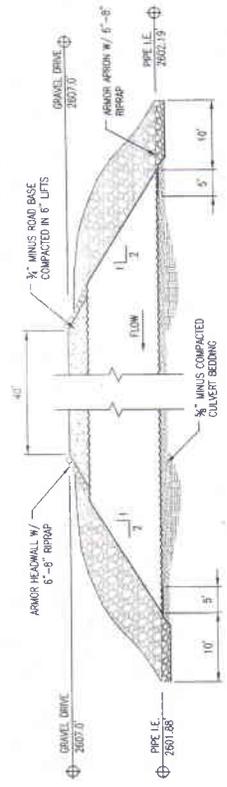
230 KV SUBSTATION MOSCOW, LATAH COUNTY, IDAHO	
AVISTA, CORP. SPokane, WASHINGTON	
AS NOTED	05-20-10

E-37173



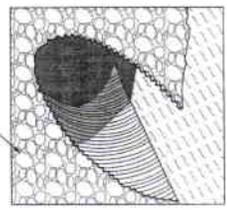
GRADING PLAN: APPROACH

SCALE: 1" = 20'



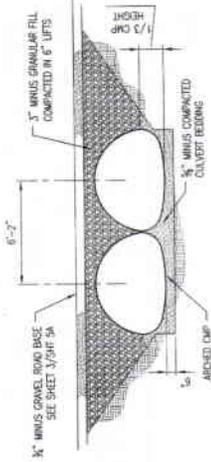
SECTION A-A

NTS



TYPICAL ARMOR HEADWALL

NTS



SECTION B-B

NTS



REFERENCE DRAWINGS

SITE PLAN	SHT 1
CERIAL PLAN	SHT 2
GRADING PLAN	SHT 3
	SHT 4

200 KV SUBSTATION		MOSCOW - LATAH COUNTY, IDAHO	
AVISTA CORP.		SPOKANE, WASHINGTON	
AS NOTED	05-20-10	DATE	7/27/10
SCALE	AS SHOWN	DRAWN BY	MM
DESIGNED BY	MM	CHECKED BY	MM
APPROVED BY	MM	DATE	7/27/10
DWG NO.	E-37173	DATE	7/27/10
BY	MM	DATE	7/27/10

CONSTRUCTION DWG
 JULY 27, 2010
 JOB # 100007



Know what's below.
 Call before you dig.

Material Safety Data Sheet

24-Hour Emergency Telephone Numbers

HEALTH : ChevronTexaco Emergency Information Center (800) 231-0623 or (510) 231-0623

TRANSPORTATION : CHEMTREC (800) 424-9300 or (703) 527-3887

Emergency Information Centers are located in the U.S.A. International collect calls accepted.

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

TEXACO Transformer Oils

Product Number(s): 00600, 01515, CPS220600, CPS221515

Synonyms: TEXACO Transformer Oil, TEXACO Transformer Oil Inhibited

Company Identification

ChevronTexaco Global Lubricants
6001 Bollinger Canyon Road
San Ramon, CA 94583
United States of America

Product Information

Product Information: 800-LUBE-TEK
email : lubemsds@chevron.com

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Distillates, hydrotreated light naphthenic	64742-53-6	40 - 60 %weight
Distillates, hydrotreated middle	64742-46-7	40 - 60 %weight

SECTION 3 HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation.

Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the

skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin.

Ingestion: Not expected to be harmful if swallowed.

Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

SECTION 4 FIRST AID MEASURES

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

Skin: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.

Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.

SECTION 5 FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

NFPA RATINGS: Health: 0 Flammability: 1 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: (Cleveland Open Cup) 295 °F (146 °C) (Min)

Autoignition: NDA

Flammability (Explosive) Limits (% by volume in air): Lower: NDA Upper: NDA

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating an accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Nitrile Rubber, Viton.

Respiratory Protection: No respiratory protection is normally required.

If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling	Notation
Distillates, hydrotreated light naphthenic	OSHA_PEL	5 mg/m ³			
Distillates, hydrotreated light naphthenic	ACGIH_TLV	5 mg/m ³	10 mg/m ³		
Distillates, hydrotreated light naphthenic	ACGIH	5 mg/m ³	10 mg/m ³		

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Colorless

Physical State: Liquid

Odor: Petroleum odor

pH: NA

Vapor Pressure: NDA

Vapor Density (Air = 1): >1

Boiling Point: >392 F (>200 °C)

Solubility: Soluble in hydrocarbons; insoluble in water

Freezing Point: NA

Melting Point: NDA
Specific Gravity: 0.88 @ 15.6 °C / 15.6 °C
Viscosity: 8.8 cSt @ 40 °C (Typical)
Evaporation Rate:

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility With Other Materials: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: None known (None expected)

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.

Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials or product components.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

ENVIRONMENTAL FATE

This material is not expected to be readily biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Name: NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION UNDER 49 CFR

DOT Hazard Class: NOT APPLICABLE

DOT Identification Number: NOT APPLICABLE

DOT Packing Group: NOT APPLICABLE

Additional Information: NOT HAZARDOUS BY U.S. DOT. ADR/RID HAZARD CLASS NOT APPLICABLE.

SECTION 15 REGULATORY INFORMATION

SARA 311/312 CATEGORIES:	1. Immediate (Acute) Health Effects:	NO
	2. Delayed (Chronic) Health Effects:	NO
	3. Fire Hazard:	NO
	4. Sudden Release of Pressure Hazard:	NO
	5. Reactivity Hazard:	NO

REGULATORY LISTS SEARCHED:

4_I1=IARC Group 1	15=SARA Section 313
4_I2A=IARC Group 2A	16=CA Proposition 65
4_I2B=IARC Group 2B	17=MA RTK
05=NTP Carcinogen	18=NJ RTK

06=OSHA Carcinogen

19=DOT Marine Pollutant

09=TSCA 12(b)

20=PA RTK

No components of this material were found on the regulatory lists above.

CHEMICAL INVENTORIES:

AUSTRALIA: All the components of this material are listed on the Australian Inventory of Chemical Substances (AICS).

CANADA: All the components of this material are on the Canadian DSL or have been notified under the New Substance Notification Regulations, but have not yet been published in the Canada Gazette.

PEOPLE'S REPUBLIC OF CHINA: All the components of this product are listed on the draft Inventory of Existing Chemical Substances in China.

EUROPEAN UNION: All the components of this material are in compliance with the EU Seventh Amendment Directive 92/32/EEC.

JAPAN: All the components of this product are on the Existing & New Chemical Substances (ENCS) inventory in Japan, or have an exemption from listing.

KOREA: All the components of this product are on the Existing Chemicals List (ECL) in Korea.

PHILIPPINES: All the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS).

UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory.

NEW JERSEY RTK CLASSIFICATION:

Under the New Jersey Right-to-Know Act L. 1983 Chapter 315 N.J.S.A. 34:5A-1 et. seq., the product is to be identified as follows:

PETROLEUM OIL (Lubricating oil)

WHMIS CLASSIFICATION:

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulations.

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 0 Flammability: 1 Reactivity: 0

HMIS RATINGS: Health: 0 Flammability: 1 Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, *- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT: This is a new Material Safety Data Sheet.

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV	-	Threshold Limit Value	TWA	-	Time Weighted Average
STEL	-	Short-term Exposure Limit	PEL	-	Permissible Exposure Limit
			CAS	-	Chemical Abstract Service Number
NDA	-	No Data Available	NA	-	Not Applicable
<=	-	Less Than or Equal To	>=	-	Greater Than or Equal To

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the ChevronTexaco Energy Research & Technology Company, 100 Chevron Way, Richmond, California 94802.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.



MATERIAL SAFETY DATA SHEET

Form #: MSDS 853020
Revised: 07/05/09
Supersedes: 01/02/08
ECO #: 1000751

I. PRODUCT IDENTIFICATION

Chemical Trade Name (as used on label):

Lead-Acid Battery

Manufacturer's Name/Address:

EnerSys
P.O. Box 14145
2366 Bernville Road
Reading, PA 19612-4145

Chemical Family/Classification:

Electric Storage Battery

Telephone:

For information and emergencies, contact EnerSys'
Environmental, Health & Safety Dept. at 610-208-1996

24-Hour Emergency Response Contact:

CHEMTREC DOMESTIC: 800-424-9300 CHEMTREC INT'L: 703-527-3877

II. HAZARDOUS INGREDIENTS/IDENTIFY INFORMATION

Table with 6 columns: Components, CAS Number, Approximate % by Wt. Or Vol., OSHA, ACGIH, NIOSH. Rows include Inorganic Lead Compound (Lead, Antimony, Arsenic, Calcium, Tin), Electrolyte (Sulfuric Acid), Case Material (Polypropylene, Polystyrene, Styrene Acrylonitrile, Acrylonitrile Butadiene Styrene, Styrene Butadiene, Polyvinylchloride, Polycarbonate, Hard Rubber, Polyethylene), and Other (Silicon Dioxide, Sheet Molding Compound).

Inorganic lead and electrolyte (sulfuric acid) are the primary components of every battery manufactured by EnerSys. Other ingredients may be present dependent upon battery type. Contact your EnerSys representative for additional information.

III. PHYSICAL DATA

Table with 2 columns: Property, Value. Rows include Boiling Point (203 - 240° F), Melting Point (N/A), Solubility in Water (100%), Evaporation Rate (Butyl Acetate = 1) (Less than 1), Appearance and Odor (Manufactured article; no apparent odor. Electrolyte is a clear liquid with a sharp, penetrating, pungent odor).

IV. FIRE AND EXPLOSION HAZARD DATA

Table with 2 columns: Property, Value. Rows include Flash Point (N/A), Flammable Limits (LEL = 4.1% (Hydrogen Gas), UEL = 74.2%), Extinguishing Media (CO2; foam; dry chemical).

Special Fire Fighting Procedures:

If batteries are on charge, shut off power. Use positive pressure, self-contained breathing apparatus. Water applied to electrolyte generates heat and causes it to spatter. Wear acid-resistant clothing.

Unusual Fire and Explosion Hazards:

Highly flammable hydrogen gas is generated during charging and operation of batteries. To avoid risk of fire or explosion, keep sparks or other sources of ignition away from batteries. Do not allow metallic materials to simultaneously contact negative and positive terminals of cells and batteries. Follow manufacturer's instructions for installation and service.

V. REACTIVITY DATA

Table with 2 columns: Property, Value. Rows include Stability (Stable), Conditions To Avoid (Prolonged overcharge; sources of ignition).

Incompatibility: (Materials to avoid)

Sulfuric Acid: Contact with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agents, metals, sulfur trioxide gas, strong oxidizers and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas.

Lead Compounds: Avoid contact with strong acids, bases, halides, halogenates, potassium nitrate, permanganate, peroxides, nascent hydrogen and reducing agents.

Hazardous Decomposition Products:

Sulfuric Acid: Sulfur trioxide, carbon monoxide, sulfuric acid mist, sulfur dioxide, and hydrogen. Lead Compounds: High temperatures likely to produce toxic metal fume, vapor, or dust; contact with strong acid or base or presence of nascent hydrogen may generate highly toxic arsine gas.



MATERIAL SAFETY DATA SHEET

Form #: MSDS 853020

Revised: 07/05/09

Supersedes: 01/02/08

ECO #: 1000751

VI. HEALTH HAZARD DATA

Routes of Entry:

Sulfuric Acid: Harmful by all routes of entry.

Lead Compounds: Hazardous exposure can occur only when product is heated, oxidized or otherwise processed or damaged to create dust, vapor or fume.

Inhalation:

Sulfuric Acid: Breathing of sulfuric acid vapors or mists may cause severe respiratory irritation.

Lead Compounds: Inhalation of lead dust or fumes may cause irritation of upper respiratory tract and lungs.

Ingestion:

Sulfuric Acid: May cause severe irritation of mouth, throat, esophagus and stomach.

Lead Compounds: Acute ingestion may cause abdominal pain, nausea, vomiting, diarrhea and severe cramping. This may lead rapidly to systemic toxicity and must be treated by a physician.

Skin Contact:

Sulfuric Acid: Severe irritation, burns and ulceration.

Lead Compounds: Not absorbed through the skin.

Eye Contact:

Sulfuric Acid: Severe irritation, burns, cornea damage, and blindness.

Lead Compounds: May cause eye irritation.

Effects of Overexposure - Acute:

Sulfuric Acid: Severe skin irritation, damage to cornea, upper respiratory irritation.

Lead Compounds: Symptoms of toxicity include headache, fatigue, abdominal pain, loss of appetite, muscular aches and weakness, sleep disturbances and irritability.

Effects of Overexposure - Chronic:

Sulfuric Acid: Possible erosion of tooth enamel, inflammation of nose, throat and bronchial tubes.

Lead Compounds: Anemia; neuropathy, particularly of the motor nerves, with wrist drop; kidney damage; reproductive changes in males and females.

Carcinogenicity:

Sulfuric Acid: The International Agency for Research on Cancer (IARC) has classified "strong inorganic acid mist containing sulfuric acid" as a Category I carcinogen, a substance that is carcinogenic to humans. This classification does not apply to liquid forms of sulfuric acid or sulfuric acid solutions contained within a battery. Inorganic acid mist (sulfuric acid mist) is not generated under normal use of this product. Misuse of the product, such as overcharging, may result in the generation of sulfuric acid mist.

Lead Compounds: Lead is listed as a 2B carcinogen, likely in animals at extreme doses. Proof of carcinogenicity in humans is lacking at present.

Arsenic: Listed by National Toxicology Program (NTP), International Agency for Research on Cancer (IARC), OSHA and NIOSH as a carcinogen only after prolonged exposure at high levels.

Medical Conditions Generally Aggravated by Exposure:

Overexposure to sulfuric acid mist may cause lung damage and aggravate pulmonary conditions. Contact of sulfuric acid with skin may aggravate diseases such as eczema and contact dermatitis. Lead and its compounds can aggravate some forms of kidney, liver and neurologic diseases.

EMERGENCY AND FIRST AID PROCEDURES:

Inhalation:

Sulfuric Acid: Remove to fresh air immediately. If breathing is difficult, give oxygen.

Lead: Remove from exposure, gargle, wash nose and lips; consult physician.

Ingestion:

Sulfuric Acid: Give large quantities of water; do not induce vomiting; consult physician.

Lead: Consult physician immediately.

Skin:

Sulfuric Acid: Flush with large amounts of water for at least 15 minutes; remove contaminated clothing completely, including shoes.

Lead: Wash immediately with soap and water.

Eyes:

Sulfuric Acid and Lead: Flush immediately with large amounts of water for a least 15 minutes; consult physician.

Proposition 65:

Warning: Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Batteries also contain other chemicals known to the State of California to cause cancer. Wash hands after handling.

VII. PRECAUTIONS FOR SAFE HANDLING AND USE

Spill or Leak Procedures:

Stop flow of material, contain/absorb small spills with dry sand, earth, and vermiculite. Do not use combustible materials. If possible, carefully neutralize spilled electrolyte with soda ash, sodium bicarbonate, lime, etc. Wear acid-resistant clothing, boots, gloves, and face shield. Do not allow discharge of unneutralized acid to sewer.

Waste Disposal Methods:

Spent batteries: Send to secondary lead smelter for recycling.

Place neutralized slurry into sealed containers and handle as applicable with state and federal regulations. Large water-diluted spills, after neutralization and testing, should be managed in accordance with approved local, state and federal requirements. Consult state environmental agency and/or federal EPA.



MATERIAL SAFETY DATA SHEET

Form #: MSDS 853020

Revised: 07/05/09

Supersedes: 01/02/08

ECO #: 1000751

VII. PRECAUTIONS FOR SAFE HANDLING AND USE (Cont.)

Handling and Storage:

Store batteries in cool, dry, well-ventilated areas with impervious surfaces and adequate containment in the event of spills. Batteries should also be stored under roof for protection against adverse weather conditions. Separate from incompatible materials. Store and handle only in areas with adequate water supply and spill control. Avoid damage to containers. Keep away from fire, sparks and heat.

Precautionary Labeling:

POISON - CAUSES SEVERE BURNS

DANGER - CONTAINS SULFURIC ACID

VIII. CONTROL MEASURES

Engineering Controls:

Store and handle in well-ventilated area. If mechanical ventilation is used, components must be acid-resistant.

Work Practices:

Handle batteries cautiously to avoid spills. Make certain vent caps are on securely. Avoid contact with internal components. Wear protective clothing when filling or handling batteries.

Respiratory Protection:

None required under normal conditions. When concentrations of sulfuric acid mist are known to exceed the PEL, use NIOSH or MSHA-approved respiratory protection.

Protective Gloves:

Rubber or plastic acid-resistant gloves with elbow-length gauntlet.

Eye Protection:

Chemical goggles or face shield.

Other Protection:

Acid-resistant apron. Under severe exposure emergency conditions, wear acid-resistant clothing and boots.

Emergency Flushing:

In areas where sulfuric acid is handled in concentrations greater than 1%, emergency eyewash stations and showers should be provided, with unlimited water supply.

IX. OTHER REGULATORY INFORMATION

NFPA Hazard Rating for Sulfuric Acid:

Flammability (Red) = 0

Reactivity (Yellow) = 2

Health (Blue) = 3

Sulfuric acid is water-reactive if concentrated.

U.S. DOT:

The transportation of wet and moist charged (moist active) batteries within the continental United States is regulated by the U.S. DOT through the Code of Federal Regulations, Title 49 (CFR49). These regulations classify these types of batteries as a hazardous material. Refer to CFR 49, 173.159 for more details pertaining to the transportation of wet and moist batteries.

The shipping information is as follows:

Proper Shipping Name: Batteries, wet, filled with acid

Packing Group: III

Hazardous Class: 8

Label/Placard Required: Corrosive

UN Identification: UN2794

Contact your EnerSys representative for additional information regarding the classification of batteries.

IATA:

The international transportation of wet and moist charged (moist active) batteries is regulated by the International Air Transport Association (IATA). These regulations also classify these types of batteries as a hazardous material. The batteries must be packed according to IATA Packing Instruction 800.

The shipping information is as follows:

Proper Shipping Name: Batteries, wet, filled with acid

Packing Group: III

Hazardous Class: 8

Label/Placard Required: Corrosive

UN Identification: UN2794

Contact your EnerSys representative for additional information regarding the classification of batteries.



MATERIAL SAFETY DATA SHEET

Form #: MSDS 853020
Revised: 07/05/09
Supersedes: 01/02/08
ECO #: 1000751

IX. OTHER REGULATORY INFORMATION (Cont.)

IMDG:

The international transportation of wet and moist charged (moist active) batteries is regulated by the International Maritime Dangerous Goods code (IMDG). These regulations also classify these types of batteries as hazardous material. The batteries must be packed according to IMDG code pages 8120 and 8121.

The shipping information is as follows:

Proper Shipping Name: Batteries, wet, filled with acid
Hazardous Class: 8
UN Identification: UN2794
Packing Group: III
Label/Placard Required: Corrosive

Contact your EnerSys representative for additional information regarding the classification of batteries.

RCRA:

Spent lead-acid batteries are not regulated as hazardous waste by the EPA when recycled, however state and international regulations may vary.

CERCLA (Superfund) and EPCRA:

- (a) Reportable Quantity (RQ) for spilled 100% sulfuric acid under CERCLA (Superfund) and EPCRA (Emergency Planning Community Right to Know Act) is 1,000 lbs.
(b) Sulfuric acid is a listed "Extremely Hazardous Substance" under EPCRA, with a Threshold Planning Quantity (TPQ) of 1,000 lbs.
(c) EPCRA Section 302 notification is required if 1,000 lbs. or more of sulfuric acid is present at one site.
(d) EPCRA Section 312 Tier 2 reporting is required for batteries if sulfuric acid is present in quantities of 500 lbs. or more and/or if lead is present in quantities of 10,000 lbs. or more.
(e) Supplier Notification: This product contains toxic chemicals, which may be reportable under EPCRA Section 313 Toxic Chemical Release Inventory (Form R) requirements.

If you are a manufacturing facility under SIC codes 20 through 39, the following information is provided to enable you to complete the required reports:

Table with 3 columns: Toxic Chemical, CAS Number, Approximate % by Wt. Rows include Lead, Sulfuric Acid, Antimony, and Arsenic.

If you distribute this product to other manufacturers in SIC Codes 20 through 39, this information must be provided with the first shipment of each calendar year.

The Section 313 supplier notification requirement does not apply to batteries, which are "consumer products".

* Not present in all battery types. Contact your EnerSys representative for additional information.

TSCA:

Ingredients in EnerSys' batteries are listed in the TSCA Registry as follows:

Table with 4 columns: Components, CAS Number, TSCA Status. Rows include Electrolyte (Sulfuric Acid) and Inorganic Lead Compound (Lead, Lead Oxide, Lead Sulfate, Antimony, Arsenic, Calcium, Tin).

CAA:

EnerSys supports preventative actions concerning ozone depletion in the atmosphere due to emissions of CFC's and other ozone depleting chemicals (ODC's), defined by the USEPA as Class I substances. Pursuant to Section 61 of the Clean Air Act Amendments (CAAA) of 1990, finalized on January 19, 1993, EnerSys established a policy to eliminate the use of Class I ODC's prior to the May 15, 1993 deadline.

CUP #820 – Staff Introduction

A request was made by Avista Corporation, for a conditional use permit to rebuild and operate an electrical substation on the same 28.7 acre parcel as an existing electrical substation located in the Agriculture/Forest zone. The site is accessed off of State Highway 8 and is located two (2) miles east of Moscow. The property is located in Section 15 of Township 39 North, Range 05 West, B.M. in Latah County and is referenced as Latah County Assessor's parcel number RP39N05W157215A.

The Latah County Land Use Ordinance, under section 3.01.02(5), lists "Public buildings and utility structures and uses" as a conditionally permitted use in the Agriculture Forest Zone.

Section 7.01.02 requires:

1. **A conditional use permit may be granted if the Zoning Commission finds that the proposed use conforms to each of the following criteria:**
 - A. The use is not detrimental to the health and safety of those in the surrounding area and will not otherwise adversely affect permitted uses or the enjoyment of such uses in that zone to any greater extent than a permitted use in that zone;
 - B. The use will not require facilities or services with excessive costs to the public;
 - C. The use is not in conflict with the goals and policies of the Latah County Comprehensive Plan.
2. **If the Zoning Commission finds that a proposed use is essential to the public health, safety, or welfare, such use may be permitted even if the use is not found to meet the criteria listed above.**
3. **The Zoning Commission shall have the authority to set an expiration date for any conditional use permit so long as the reasons for such are included in their findings of fact and conclusions of law.**

Exhibits will now be entered into the record.

The following exhibits were submitted with the staff packet:

EXHIBITS:

Exhibit #1.	Staff Report
Exhibit #1A.	Criteria Worksheet
Exhibit #1B.	Latah County Comprehensive Plan and Vicinity Map
Exhibit #1C.	Zoning Map
Exhibit #1D.	Adjoining Property Owners and Aerial Photograph Map
Exhibit #2.	Application Form (Submitted by Applicant)
Exhibit #2A.	Applicant's Narrative (Submitted by Applicant)
Exhibit #2B.	Plat Map (Submitted by Applicant)
Exhibit #2C.	Photographs (Submitted by Applicant)
Exhibit #2D.	Site plan (Submitted by Applicant)
Exhibit #2E.	Grading Plan (Submitted by Applicant)
Exhibit #2F.	Material Safety Data Sheet (Submitted by Applicant)
Exhibit #3.	Staff Introduction for Latah County Zoning Commission public hearing for CUP 820 on September 15, 2010