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CENTRAL REGIONAL OFFICE

CITY OF YAKIMA

Office of City Manager *CITY HALL, YAKIMA, WASHINGTON 98901 Phone: (509) 575-6040*

January 22, 1996

Mr. Patrick Spurgin, Central Regional Office Director
Washington Department of Ecology
15 West Yakima Avenue
Yakima, WA 98902

Dear Mr. Spurgin:

Subject: Interstate I-82 Gateway Project
January 11, 1996 Meeting Regarding Landfill and Wetland Issues

I want to thank you and your staff for meeting with the I-82 Gateway project team on January 11, 1996. We appreciate your willingness to work with us and provide constructive input on the environmental issues affecting the wetlands mitigation project and construction of the "TAR" off-ramp serving the Gateway shopping center development area. This letter is intended to (1) document our meeting on the environmental issues affecting the off-ramp construction and wetland mitigation and (2) up-date you on recent project developments. The landfill, drainage, and wetland mitigation issues we discussed are summarized separately below.

TAR Off-Ramp and Landfill Issue

The TAR off-ramp will provide access to the new Gateway shopping center development area from the southbound lanes of Interstate 82. The off-ramp will cross the southeast corner of a log storage yard currently owned by Boise Cascade. The property required for the off-ramp and associated drainage improvements is to be transferred to the City of Yakima in the near future and ultimately to the Washington State Department of Transportation (WSDOT). As we discussed during our meeting, the extreme eastern edge of a former municipal solid waste landfill was found to underlie the TAR off-ramp right-of-way (the portion of the landfill extending beneath the embankment is estimated to be less than 1/4 acre). Based on information we have at this time, the landfill accepted municipal solid waste from about 1963 to 1970.

During the meeting, we described the investigations our project team have completed to evaluate the extent of the landfill refuse. Specifically, we excavated approximately 30 test pits between December 11 and 27, 1995, in the vicinity of the proposed off-ramp. The attached Figure 1 shows the location of the TAR ramp and associated drainage improvements; Figure 2 shows the test pit locations. The test pits allowed us to estimate the lateral and vertical extent of the refuse in this area and evaluate our options for

constructing the off-ramp given the presence of the landfill. As we noted in our presentation, we only investigated that portion of the landfill in the immediate vicinity of the off-ramp; we did not collect any information regarding the character or extent of refuse in other potions of the landfill.

In addition to the subsurface investigation, we collected four samples of the landfill refuse for laboratory analysis. These refuse samples were analyzed for toxicity characteristic leaching procedure (TCLP) metals (by EPA methods 1311, 7470, and 6010) and total petroleum hydrocarbons (by WTPH-Diesel, "extended" for heavy oil). A summary of the results was provided at the meeting. The purpose of the laboratory analyses were to characterize the refuse for disposal at a local municipal solid waste landfill if its removal was deemed necessary for construction of the off-ramp.

Given the project requirements, we had two options with regard to the refuse: (1) construct the off-ramp over the landfill or (2) remove the refuse prior to off-ramp construction. After evaluating the options, our project team came to the conclusion that constructing the off-ramp over the refuse was the best solution. This preferred solution for constructing the off-ramp was presented during our meeting. We concluded that removing the refuse presented potential cost, schedule, and environmental risks that could be averted or minimized by leaving the refuse in place. From an environmental perspective, for example, there is no evidence at this time that removing the refuse and transporting it elsewhere would have any net environmental benefit. Further, we believed that removal of the refuse would entail some level of environmental risk -- both during construction and in the long term. For example, we considered the possibility of (1) an unintended release of leachate to groundwater or surface water during excavation or (2) modification or of groundwater flow pathways that might provide new or enhanced contaminant migration pathways. After such considerations, it is our opinion that leaving the refuse in place was the most prudent course to take given the construction schedule and our knowledge of site conditions.

As discussed with Richard Bassett of your office, our design includes an impermeable geomembrane liner that will be placed between the refuse and the embankment fill material. A lined ditch will be provided to collect drainage exiting the fill atop the liner so that it can be directed to the drainage system (discussed below). In this way, infiltration into the refuse will be essentially eliminated -- a significant improvement over the existing condition. The liner is designed to be compatible with any liner system that might be required for other portions of the landfill in the future. Therefore, we do not believe that our approach limits remedial action measures that Ecology may stipulate for the landfill in the future. Subsequent to the meeting, we completed the design for the liner system (see Figure 3) and the contractor is currently installing it in the TAR ramp fill.

The primary purpose of our meeting was to present this information to your staff so that Ecology could provide input and identify any significant problems with our proposed

plans. Ecology staff indicated that they did not see any "fatal flaws" with our plan to leave the refuse in place beneath the off-ramp. However, your staff did indicate that the landfill appears to fall under the authority of the Model Toxics Control Act (MTCA). This conclusion was based on the total petroleum hydrocarbon (TPH) concentrations in the four refuse samples collected (concentrations range from 3,800 to 10,900 mg/kg). If subject to MTCA, we understand that the site will be evaluated further in the future by Ecology and the Yakima County Health Department. Furthermore, your staff indicated that the off-ramp construction over the landfill, including the liner and drainage provisions (discussed below), would be considered an independent action under MTCA. As such, you indicated that Ecology could not approve our proposal but only provide suggestions on an advisory basis.

TAR Off-Ramp Drainage

During our meeting, we also discussed the need to provided drainage along the western edge of the off-ramp embankment. This pipe will carry drainage from the Boise Cascade site and surplus irrigation water. This drainage system must accommodate flows up to 30 cfs. A large-diameter buried pipe was one of several options presented at the meeting (see Figure 3). At this time, we have selected this buried pipe option and design work is in progress. Again, this approach for conveying existing surface water will improve environmental conditions relative to the landfill refuse. Prior to construction, surface water flowed through the site in an unlined ditch, allowing infiltration into the refuse. This infiltration will be eliminated with the current approach.

The trench required for the buried pipe will encounter refuse. Our original approach to this situation was to relocate the refuse to that area of the landfill to be covered by the off-ramp embankment (discussed earlier). Since our meeting, however, we have found that this will not be possible due to schedule and engineering constraints. Therefore, we are now planning to transfer refuse to Yakima County's Terrace Heights Landfill. The Yakima County Health Department has verbally approved this plan.

As shown in Figure 3, the trench will be backfilled with imported sand and gravel. Low permeability "check dams" will be installed at regular intervals along the trench so that the backfill will not act as a conduit for groundwater (or contaminant) migration. Trench excavation is expected to begin by the end of January.

Wetland Mitigation Issue

At the meeting, Don Heinle of CH2M HILL provided your staff with an update on the wetland mitigation project that is associated with the I-82 Gateway project. As discussed, the original site for the wetland (adjacent to the TAR off-ramp) has been abandoned due to the presence of the above-referenced landfill. Cathy Rajala of your office agreed that locating the wetland over the landfill would not be acceptable and that it was necessary to identify a new mitigation site. Ms. Rajala was amenable to

considering other sites within 10 miles of the project but indicated that sites closest to the Gateway project would be preferred.

Dr. Heinle discussed several sites proposed by the Greenway Foundation plus another site suggested by the City of Yakima. There was a consensus that a suitable site can likely be identified from these candidate properties. The approximate cost for constructing a wetland at the site closest to the Gateway project (located on the west side of the Yakima River, immediately east of I-82) could be $500,000 or more based on the significant excavations that would be required. Based on the potential cost, it was agreed that a more economical site should be identified if possible. At this time, CH2M HILL is evaluating several sites and will report back to the City of Yakima and Ecology in the near future. Ms. Rajala agreed to investigate the how the shoreline permit will be impacted by the decision to relocate the mitigation area.

The information provided above summarizes our discussions at the meeting on January 11. Since that time, construction of the TAR off-ramp embankment has begun. The contractor has left the refuse undisturbed and is currently constructing the embankment with import fill material. Meanwhile, drainage pipe design and site selection for the wetland mitigation are in progress.

Consistent with Ecology's initial determination that the landfill site is subject to the MTCA regulations, this letter should be considered formal notification of "site discovery" as addressed by WAC 173-340-300. In addition, a brief report presenting our investigations and laboratory data will be prepared in the near future. This report will be forwarded to you when it is completed.

Please contact me at 575-6040 if you have any questions.

Sincerely,

City of Yakima,

Glenn Rice
Assistant City Manager

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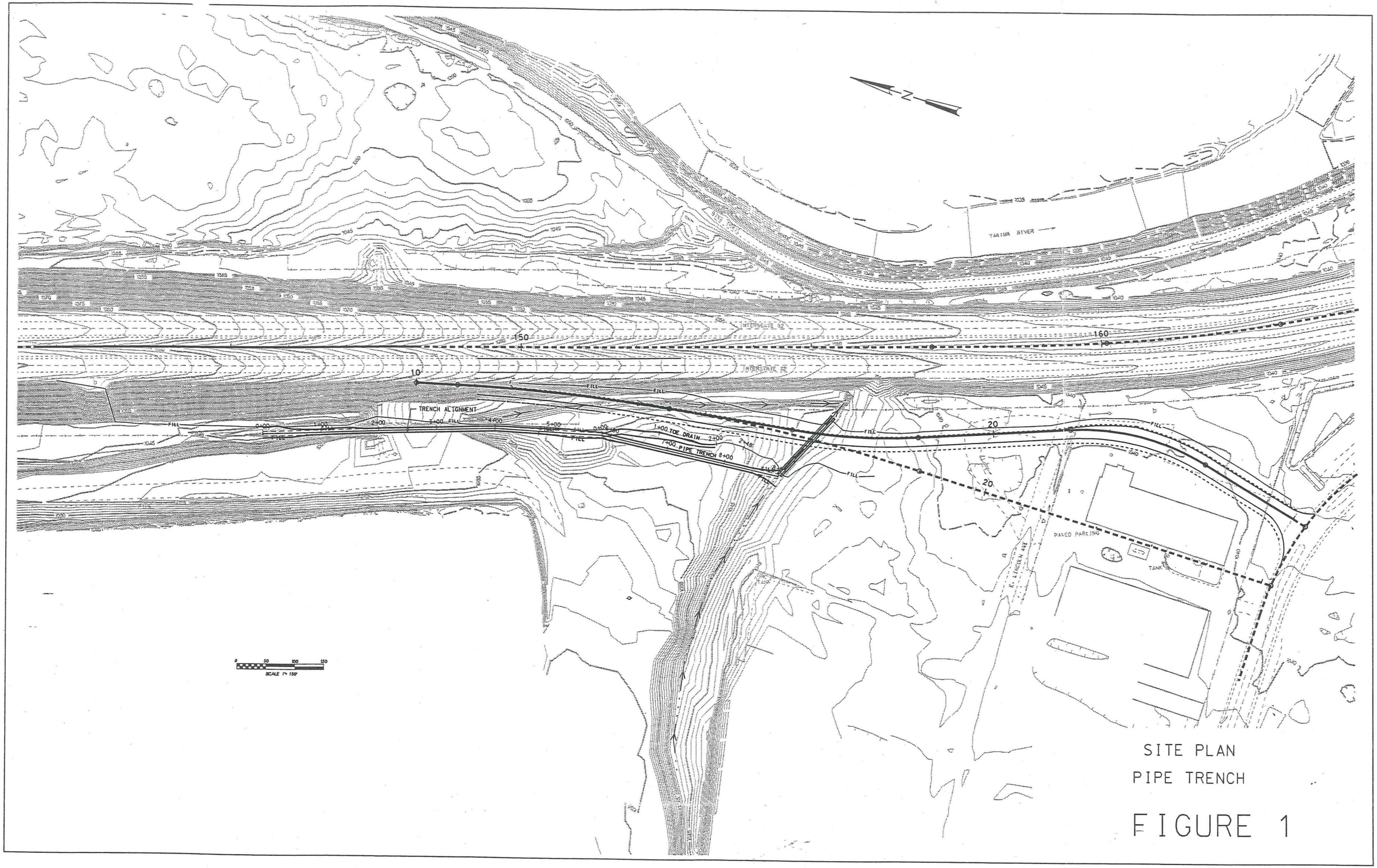
c: Mike Stephens/Washington DOT
Eilert Bjorge/Washington DOT
Dick Zias/City of Yakima
Art McEwen/Yakima County Health Department
Denny Covell/DEC Engineering Services
Brad Stein/CH2M HILL



SITE PLAN
PIPE TRENCH

FIGURE 1

AR/TAR STA 13+00 APPROXIMATE LIMIT OF FILL
TO BE PLACED WITHOUT ENCROACHING ON GARBAGE

AR/TAR STA 16+50 APPROXIMATE LIMIT OF FILL
TO BE PLACED WITHOUT ENCROACHING ON GARBAGE

INTERSTATE 82

TP1 0
TP2 1-5 4
TP3 2
TP4 1-5 5
TP5 2-5
TP6 2-14 12
TP7 1-6 6
TP8 0-6 6
TP9 3-13 10
TP10 6-2 ?
TP11 3-13 10
TP12 6-14 8
TP16 0
TP17 0
TP18 1-12 11
TP19 2-11 9
TP21 2-11 9
TP22 1-5 4
TP24 0
TP25 4-9.5 5.5
TP26
TP27 2-10 8
TP28 1-3 2
TP29 3-7 4
TP30 1-12 11
TP31 0-10 10
TP32 5-15 10

FILL

TANK

LEGEND

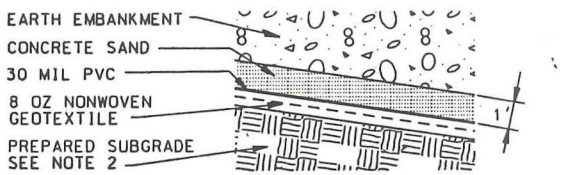
TP31	TEST PIT LOCATION
0-10 / 10	DEPTH TO TOP AND BOTTOM OF REFUSE (IN FEET) REFUSE THICKNESS
4	CONTOUR LINE (ISOPACH) REPRESENTING APPROXIMATE REFUSE THICKNESS (IN FEET)
	REFUSE SAMPLE COLLETED FOR LABORATORY ANALYSIS

TEST PIT LOCATION
AND REFUSE ISOPACH

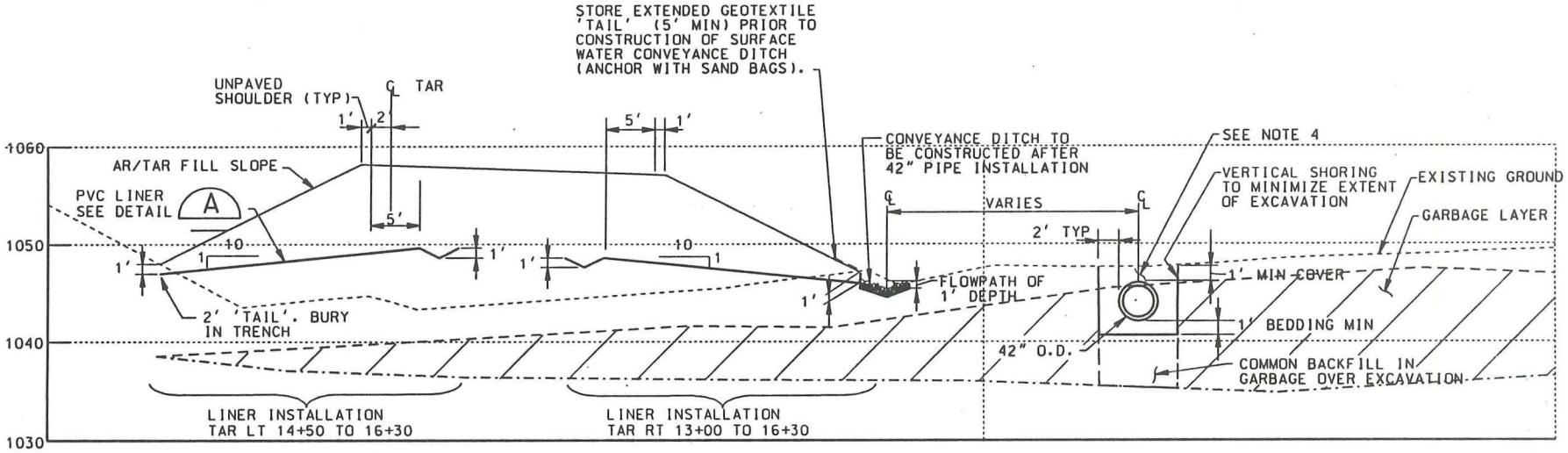
FIGURE 2

NOTES:

1. LINER SLOPE VARIES. SLOPE SO LINER IS 1 FOOT BELOW GRADE AT FILL CATCH LINE.
2. PREPARED SUBGRADE SHALL BE SMOOTH AND FREE OF STICKS, FOREIGN MATERIAL, AND ROCKS LARGER THAN 1 INCH IN DIAMETER. CHECK SUBGRADE FIRMNESS WITH LOADED DUMP TRUCK. YIELDING UNDER LOAD SHALL NOT EXCEED 2 INCHES.
3. NO EQUIPMENT LOADS ON PVC LINER OR GEOTEXTILE UNTIL A MIN. OF 1 FOOT COVER IS IN PLACE. USE ONLY WIDE TRACK, LOW-PRESSURE VEHICLES UNTIL A MINIMUM OF 3 FEET OF COVER IS IN PLACE.
4. TO MAINTAIN EXISTING GROUND WATER FLOWLINE, INSTALL CHECK DAMS COMPOSED OF LOW PERMEABILITY MATERIAL PLACED ACROSS TRENCH AT 100' INTERVALS.



PVC LINER DETAIL (A)



TYPICAL SECTION

FIGURE 3