

Permit

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

DATE: January 7, 1987
IN REPLY REFER TO: ADS-87-7
MAIL STOP: A120
TELEPHONE: (505) 667-9390
(FTS) 843-9390

Mr. Harold E. Valencia
Area Manager
U.S. Department of Energy
Los Alamos Area Office
Los Alamos, NM 87544

Dear Mr. Valencia:

Section 404 of the federal Clean Water Act establishes permits for discharge of dredged or fill materials into waters of the U.S. and provides for the U.S. Army Corps of Engineers (USACE) to administer the program. Pursuant to the Act and federal regulations (33 CFR 330.5), a nationwide permit for discharges of dredged or fill material into certain waters has been issued. This nationwide permit requires notification to the USACE for dredge and fill activities affecting tributaries of the Rio Grande.

Enclosed is a draft letter with attached notifications to the USACE for your concurrence and signature. Should you have any questions regarding the letter and attached notifications, please contact Charles Nylander, Environmental Surveillance (HSE-8), at 665-0453.

Sincerely,


Allen J. Friedman
Associate Director
for Support

AJT:CN:brm

Enclosure: a/s

Cy: J. Aragon, HSE-DO, MS K491
W. Hansen, HSE-DO, MS K491
T. Gunderson (HSE8-86-1439, 12-31), HSE-8, MS K490
D. Garvey, ADS-ECMO, MS A122
A. Drypolcher, HSE-8, MS K490
C. Nylander, HSE-8, MS K490
CRM-4 (2), MS A150
File



14904

DRAFT
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Chief, Regulatory Section
Albuquerque District
U.S. Army Corps of Engineers
P.O. Box 1580
Albuquerque, NM 87103-1580

Dear Sir:

The U.S. Department of Energy, Los Alamos Area Office is hereby providing notification that Los Alamos National Laboratory has two construction projects planned that will impact the waters and wetlands of the United States. One project, a 2.5-acre expansion of the existing 24-acre Los Alamos County sanitary landfill, will impact approximately 1 acre of wetlands in Sandia Canyon. The second project, construction of a sewer extension from Technical Area (TA) 41 to TA-3, will require crossing this same wetland in Sandia Canyon and crossing a small unnamed stream in Los Alamos Canyon.

We understand that the U.S. Army Corps of Engineers requires, by the authority conferred in Section 404 of the Clean Water Act, a Notification of these planned projects and that the information required in the Notification is defined in the Nationwide Permit Summary. Please accept this letter with the two attached project descriptions as Notification.

The accompanying project descriptions are presented in the same format as that called for in the Nationwide Permit Summary. The information pertaining to the expansion of the Los Alamos landfill conforms with the requirements for the "Discharge of Dredged or Fill Material into Certain Waters;" information about constructing the sewer extension conforms with the requirements for "Utility Lines."

For your review of this project, it may be helpful to know that extensive surveys of the environmental impact of the landfill expansion have been conducted and no known conflict exists with any federal, regional, state, or local plan. The project has been developed to comply with requirements of Executive Order (EO) 11990, Protection of Wetlands, and as part of these regulatory requirements a "Statement of Findings" and an "Involvement of Notification" have been sent from the Department of Energy headquarters for publication in the Federal Register. It is anticipated that these documents will be published in the next few weeks.

Chief, Regulatory Section -2-

We believe that both projects substantially comply with permit conditions and best management practices. However, if you have any questions or need additional information, please call James Phoenix (FTS 843-5288) of my staff.

Sincerely,

Harold E. Valencia
Area Manager

HEV:CN:brm

Enclosures: a/s

Cy: Kathleen Sisneros, NMEID, Santa Fe, NM

Bcy: A. Tiedman, LANL, ADS, MS A120
J. Aragon, LANL, HSE-DO, MS K491
W. Hansen, LANL, HSE-DO, MS K491
T. Gunderson (HSE8-86-1439-1, 12-31), LANL, HSE-8,
MS K490
A. Drypolcher, LANL, HSE-8, MS K490
C. Nylander, LANL, HSE-8, MS K490
D. Garvey, LANL, ADS-ECMO, MS A122
J. Mitchell, LANL, LC, MS A187
M. McCorkle, LANL, ENG-DO, MS K717
J. Spooner, LANL, ENG-DO, MS K721

**NOTIFICATION OF DISCHARGES OF FILL MATERIAL INTO WETLANDS
IN SANDIA CANYON, LOS ALAMOS, CO., N.M.**

A 2.5 acre expansion to the Los Alamos sanitary landfill for the disposal of select rubble serving Department of Energy (DOE)/Los Alamos National Laboratory (LANL) and Los Alamos County (LAC) is proposed for construction. The facility will be a joint-use-facility managed by LAC and located on DOE property.

1. General Permittee

The names, addresses and phone numbers of the permittee are:

Permittee: US Department of Energy
Los Alamos Area Office
Los Alamos National Laboratory
Attn: Harold E. Valencia, Area Manager
Mail Stop: MS A 316
Los Alamos, New Mexico 87545

Phone: (505) 667-5105

2. Location of Planned Work

The Los Alamos County sanitary landfill (located on DOE property) has operated at its present location within Sandia Canyon (Sec. 16, T. 19, N., R. 6E. New Mexico Principal Meridian), since 1971.

The landfill occupies approximately 24-acres along the south frontage of East Jemez Road within Technical Area (TA-3) (Fig. 1). This parcel is located approximately 1600 feet east of the intersection of East Jemez Road and Diamond Drive (Fig. 2). Existing operations are within a small drainage along the northern escarpment of Sandia Canyon. This landfill has gradually

progressed southward within this drainage toward its confluence with the main canyon. Steep canyon walls form a well-defined floodway throughout this reach of Sandia Canyon.

3. Description, Purpose and Size

This landfill is a joint-use facility serving Los Alamos National Laboratory/Department of Energy and Los Alamos County. It will be managed by the County. Because it is not cost effective to use the sanitary landfill for disposal of rubble, an expansion of this site is required. The proposed expansion would serve both the Laboratory and the County and involves a 2.5 acre parcel immediately adjacent to and south of the current operations. A new access road will enter from the north. This expansion should provide sufficient space to accommodate 130,000 to 150,000 cubic yards of fill and should last 3-5 years. By the end of that time, the sanitary landfill will have been moved to a new site.

Selected rubble is defined as the solid waste or excavated materials from Laboratory construction operations that has been culled of any organic, hazardous or other degradable or deformable materials which would lead to subsidence of the fill over an extended time period or would impact the air or water quality at the landfill site. An urgent need exists to create a new location for the disposal of select rubble which has, in the

near past, been buried in an excavated site at the Los Alamos Airport. The airport site is rapidly approaching capacity and will be permanently closed to further use.

Expansion of the existing landfill operation within Sandia Canyon will be onto a 2.5-acre parcel adjacent to the existing facility. The location in Sandia Canyon of the proposed new fill can be seen in Figure 2 (the roughly circular, cross-hatched area marked "Landfill"). A proposed 7 ft. diameter, 400 ft. long culvert designed for conveyance of the 100-yr storm runoff will be placed in the bottom of the canyon (Figs 2 and 3). The culvert will be oriented in an east-west direction. Location of the new access road will be coordinated with the County sanitary landfill operation. The road will enter from the north at the east end of the proposed culvert and be accessible from the existing entrances of the sanitary landfill off East Jemez Road. The access road will be used throughout the life of the site to transport incoming rubble to the deposition point. A staging area will be located on the north rim of the canyon within the existing sanitary landfill site.

4. Specific Information Pertinent to This Notification of the Expansion of the LAC Landfill

a. Public Water Supply

The floor of Sandia Canyon adjacent to the existing

landfill lies completely within the Tshirege (geologic) Member. The Tshirege Member resists downward movement of water. It is assumed that water that infiltrates this member moves laterally rather than vertically through the formation and does not result in recharge to the underlying aquifer. This aquifer lies approximately 1100 feet beneath the floor of Sandia Canyon in the vicinity of the existing landfill. It is the only aquifer within the area that is capable of municipal and industrial water supply. Little, if any, of the stream flow that infiltrates canyon floors along the Pajarito Plateau reaches the aquifer.

b. Threatened or Endangered Species

A marsh land approximately 0.3 miles long exists in Sandia Canyon just east of the sanitary landfill. Drainage within the canyon is from west to east, and natural streamflow is ephemeral. A treated effluent discharge, which emanates from the wastewater treatment plant and the TA-3 power generating station, has produced an artificial baseflow within the canyon from which marsh-like conditions have evolved. Although much of the marsh has resulted from inflow caused by Laboratory activities, a portion of it is probably natural. The marsh has an important purifying function for released Laboratory effluents. Water samples taken in Sandia Canyon indicate high levels of chloride and

total dissolved solids in the effluent. The result is a sterile stream above the marsh.

Laboratory botanists and zoologists surveyed the canyon bottom to determine if construction will adversely impact protected plants or animal species. The biological surveys indicate the presence of no threatened or endangered plant or animal species.

c. Construction/Heavy Equipment

Construction for this site will include cutting a new road to the site over the existing landfill, installing a 7 feet diameter culvert, backfilling with structural fill immediately surrounding the culvert, backfilling the remainder of the site with select rubble, and finally constructing a new outfall line from the wastewater treatment plant at TA-3 to discharge into the new culvert. Initial construction will include all the activities cited, except for final fill with select rubble, and should need no more than three months from inception. The final phase of filling with rubble is expected to last 3-5 years.

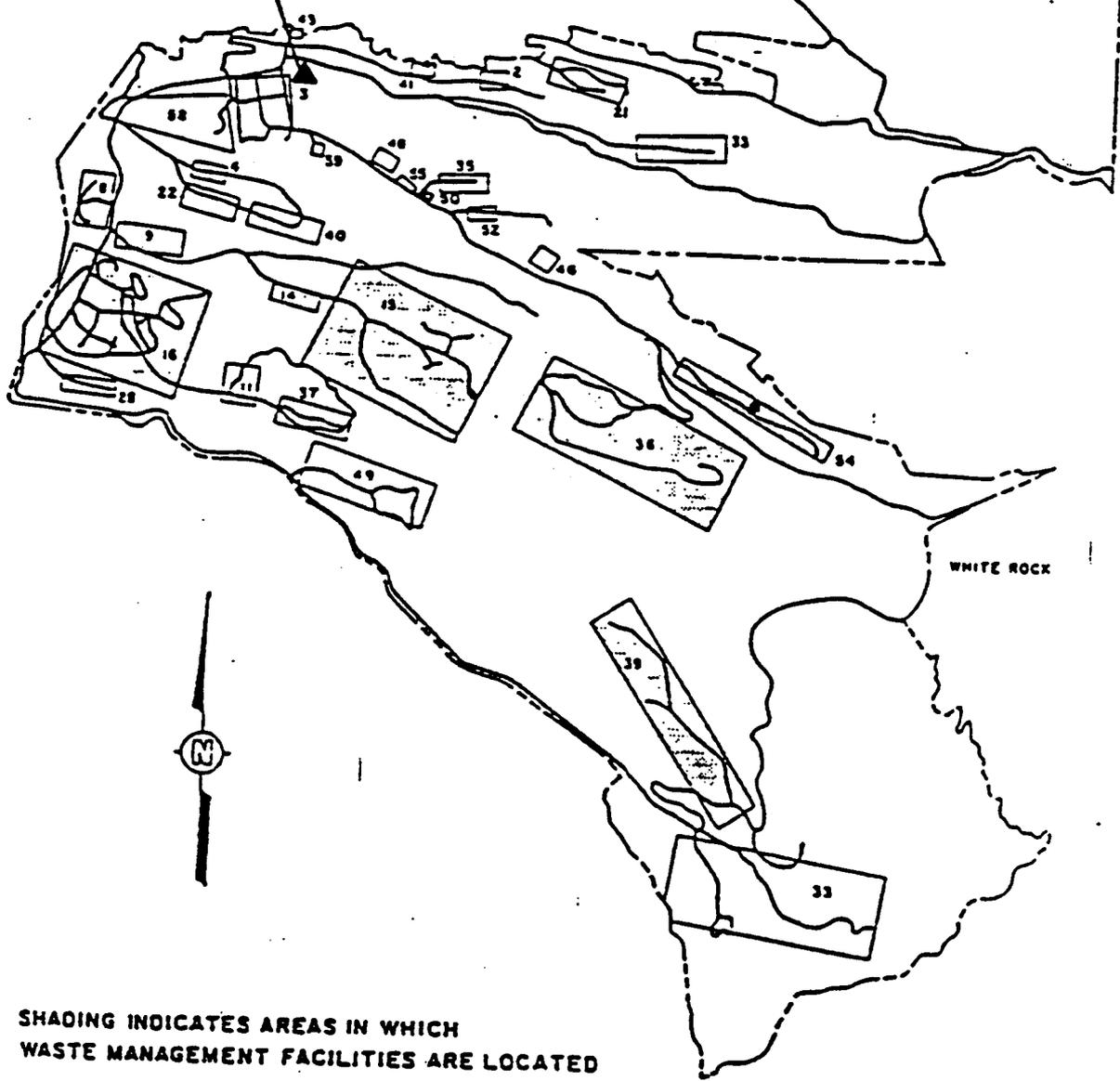
Initial construction will require some clearing and filling at the site to accommodate the new access road prior to site clearing, excavation, and sand bedding for the culvert. Backfill around the pipe with select fill materials will be accomplished by both hand and machine techniques. The use

of mats to support heavy equipment and protect the wetlands is not planned as the heavy equipment will be restricted to travel on existing or expanded landfill areas.

PROPOSED LANDFILL

LOS ALAMOS TOWNSITE

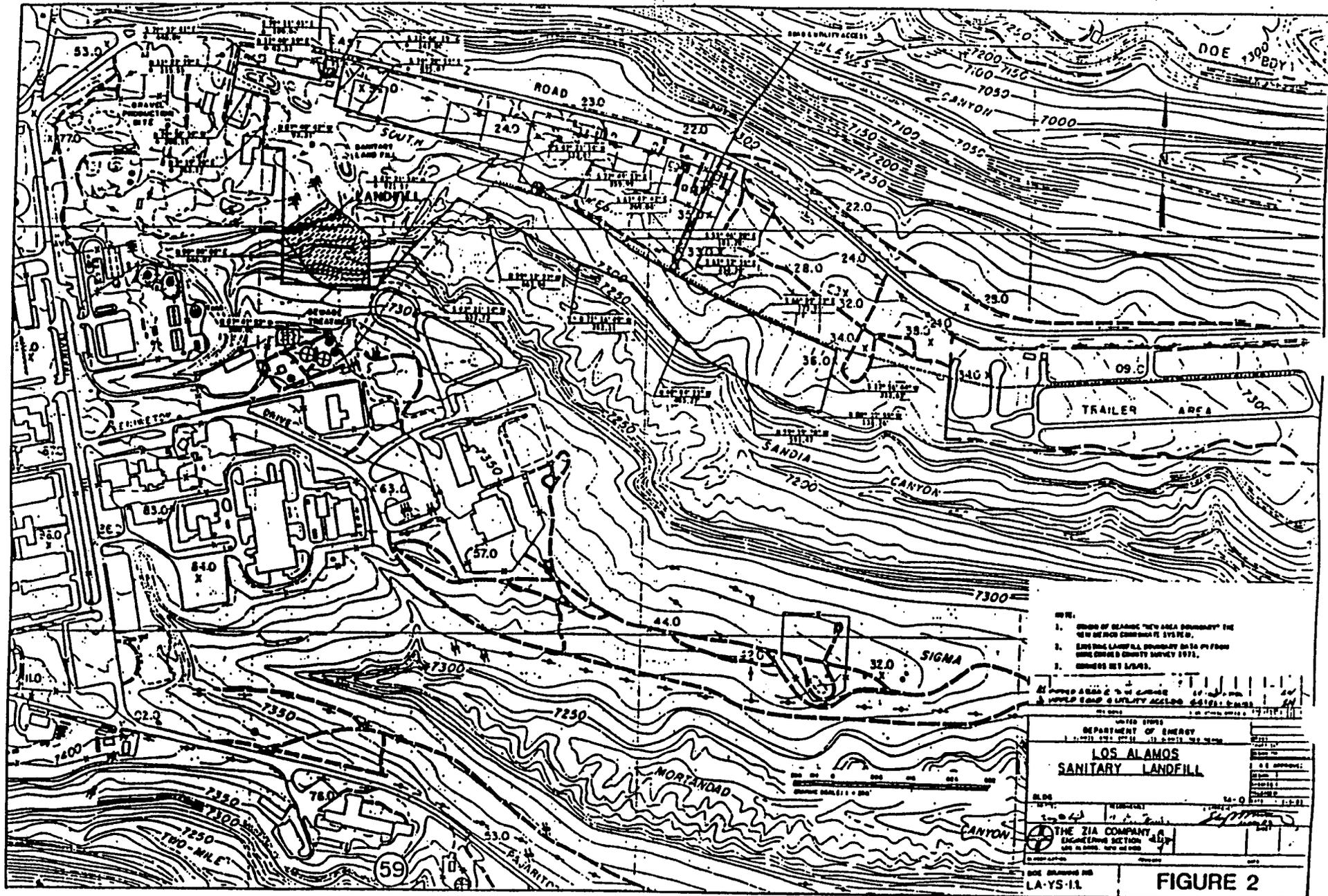
LOS ALAMOS NATIONAL LABORATORY



**SHADING INDICATES AREAS IN WHICH
WASTE MANAGEMENT FACILITIES ARE LOCATED**



FIGURE 1



1. BOUNDARY OF ISLAND "NEW AREA" DETERMINED BY THE NEW SERVICE CONSTRUCTION SYSTEM.
 2. EXISTING LANDFILL BOUNDARY AS TO PL FROM 1958 COUNTY SURVEY 1972.
 3. BOUNDARY BY L/MS.

AS SHOWN ON MAP OF LANDFILL SERVICE CONSTRUCTION SYSTEM
 A LITTLE EAST OF UTILITY ACCESS 661811 661811

UNITED STATES DEPARTMENT OF ENERGY	
LOS ALAMOS SANITARY LANDFILL	
DATE: 10/1/72 DRAWN BY: [Signature]	CHECKED BY: [Signature]
THE ZIA COMPANY ENGINEERING SECTION	SCALE: 1" = 100'

SEE DRAWING NO. LA-YS-11 **FIGURE 2**

1 = 10

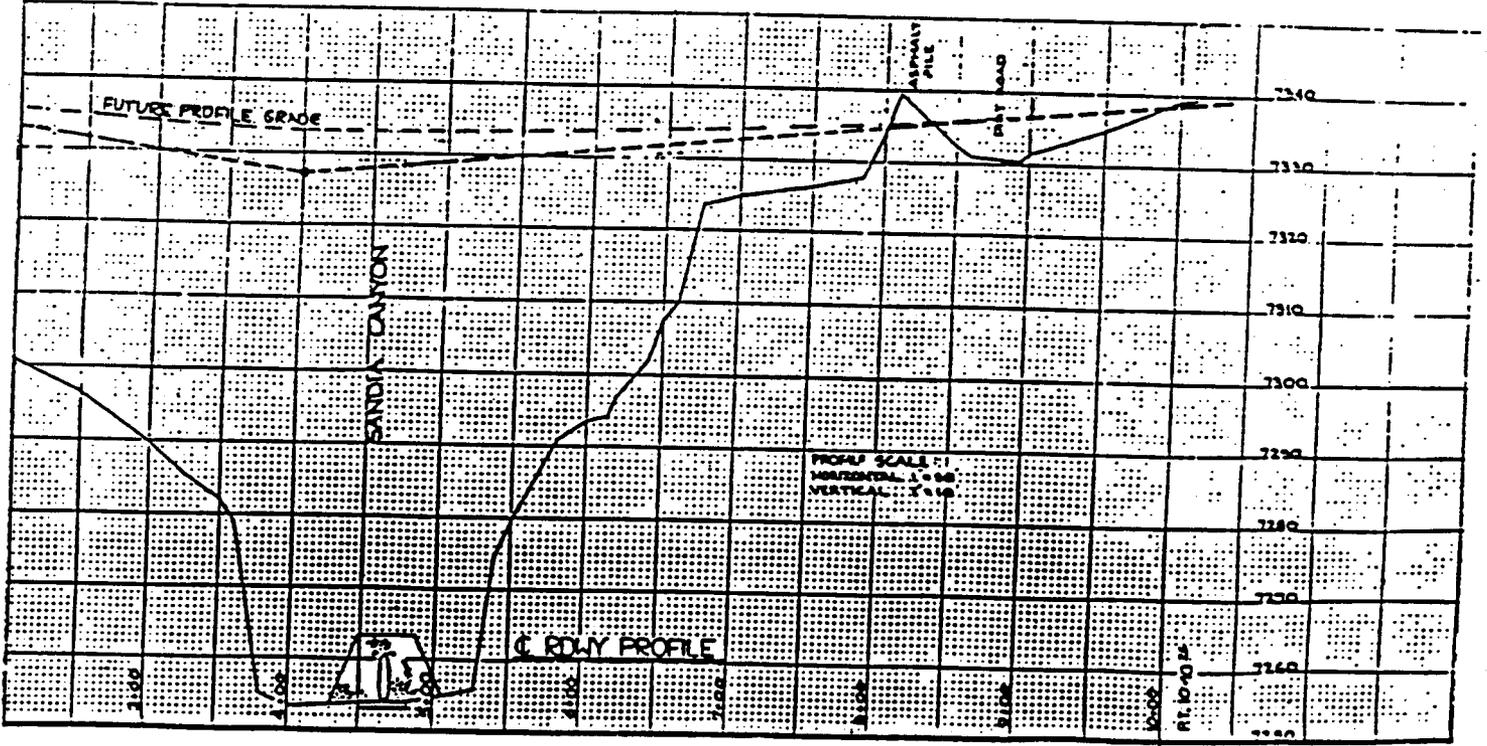
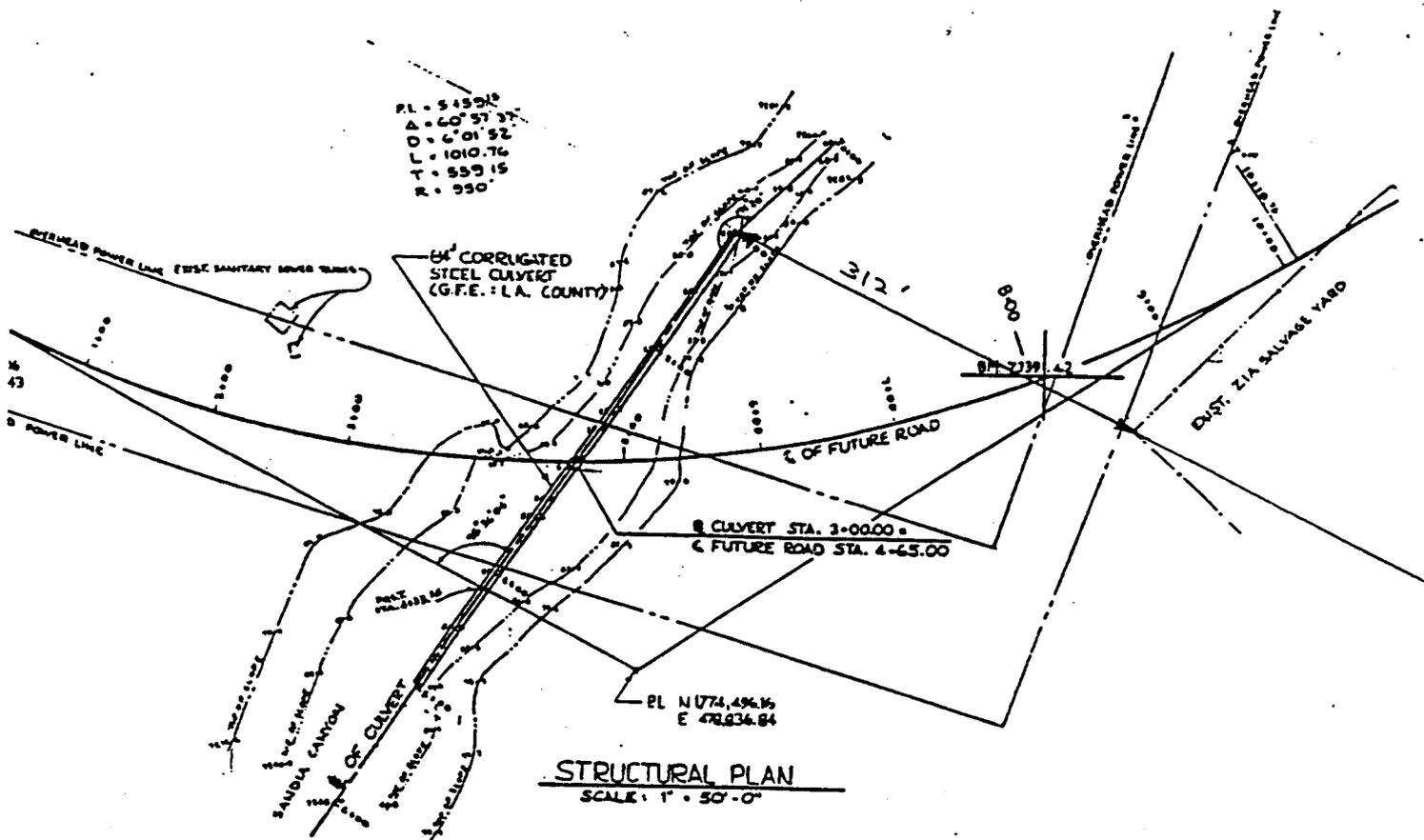


FIGURE 3

**NOTIFICATION OF STREAM AND WETLAND CROSSINGS BY A UTILITY LINE
IN LOS ALAMOS CANYON AND SANDIA CANYON, LOS ALAMOS CO., N.M.**

An 8217-ft. sewer extension, carrying domestic sewage from Technical Area 41 (TA-41) to the wastewater treatment plant at Technical Area 3 (TA-3) at Los Alamos National Laboratory is planned for construction. The sewer extension will cross beneath an unnamed stream near TA-41 and will cross beneath a wetland near TA-3. A plan of the sewer extension is shown in Figure 1.

1. General Permittee

The name, address and phone number of the permittee is:

Permittee: US Department of Energy
Los Alamos Area Office
Los Alamos National Laboratory
Attn: Harold E. Valencia, Area Manager
Mail Stop: MS A 316
Los Alamos, New Mexico 87545

Phone: (505) 667-5105

2. Location of Planned Work

The sewer extension will originate at TA-41 (approximately 35° 52'32" North Latitude, 105° 16' 56" Longitude) and will cross

under a small, unnamed stream in Los Alamos Canyon, travel west in the utility easement along East Jemez Road approximately 3500 ft., then drop into Sandia Canyon where it will cross under a wetland before rising to the wastewater treatment plant at TA-3 (approximately 35° 52' 34" North Latitude, 106° 19' 5" Longitude).

Technical Area 41 is located on Omega Road approximately 7500 ft. east of the point where Omega Road passes beneath the main bridge across Los Alamos Canyon on Diamond Drive.

The wastewater treatment plant at TA-3 is located approximately 1300 ft. east of Diamond Drive, starting 1200 ft. south of the intersection of Diamond Drive and West Jemez Road.

3. Description, Purpose and Size of Sewer Line

The 8217-ft. sewer line shown in Figure 1 consists of three sections:

- o A 6-inch polyethylene force main 3730-ft. long, originating at Lift Station No. 1 at TA-41 and conducting sewage to Manhole No. 1 in Omega Road,
- o An 8-inch and 10-inch PVC gravity sewer line 1300 ft. long originating at Manhole No. 1 and dropping into Sandia Canyon, terminating at Lift Station No. 2, and

- o A 18-inch polyethylene force main, 3187-ft. long originating at Lift Station No. 2 conducting sewage to the treatment plant.

The sewer will transport domestic, sanitary wastewater from TA-41 to be treated at the wastewater treatment plant.

4. Specific Information Pertaining to Construction of the Utility Line

All special conditions needed to permit construction of utility lines will be complied with.

- o The discharge line bedding and select backfill will not take place in the proximity of a public water supply intake.
- o The activity will not significantly disrupt the movement of indigenous aquatic life. The project is not intended to create any permanent impounded water bodies.
- o All fill material for the sewer line will consist of select material, free from toxic pollutants.
- o Best management practices will be observed throughout construction of stream and wetland crossings.

Both the stream and marsh crossings will be accomplished by construction of a temporary diversion dam approximately 10 ft. upstream from the planned location of the sewer line trench. Flow will be diverted from the stream bed while the trench is being dug. The stream will be returned to the stream bed approximately 10-ft. below the trench. After completion of the stream bed crossing, the temporary diversion dam will be destroyed and flow will be returned to the stream bed. It is anticipated that flow will be diverted for one week at each crossing to install the sewer line.

Stream beds and marshlands will be restored to original pre-construction bottom contours after construction of the utility line. No significant change in stream velocities or flow capacities is anticipated to result from this project.

Plan and profile views of wetland and stream crossings are shown in Figure 2 and Figure 3. Figure 4 shows construction details of the stream and marsh crossing.

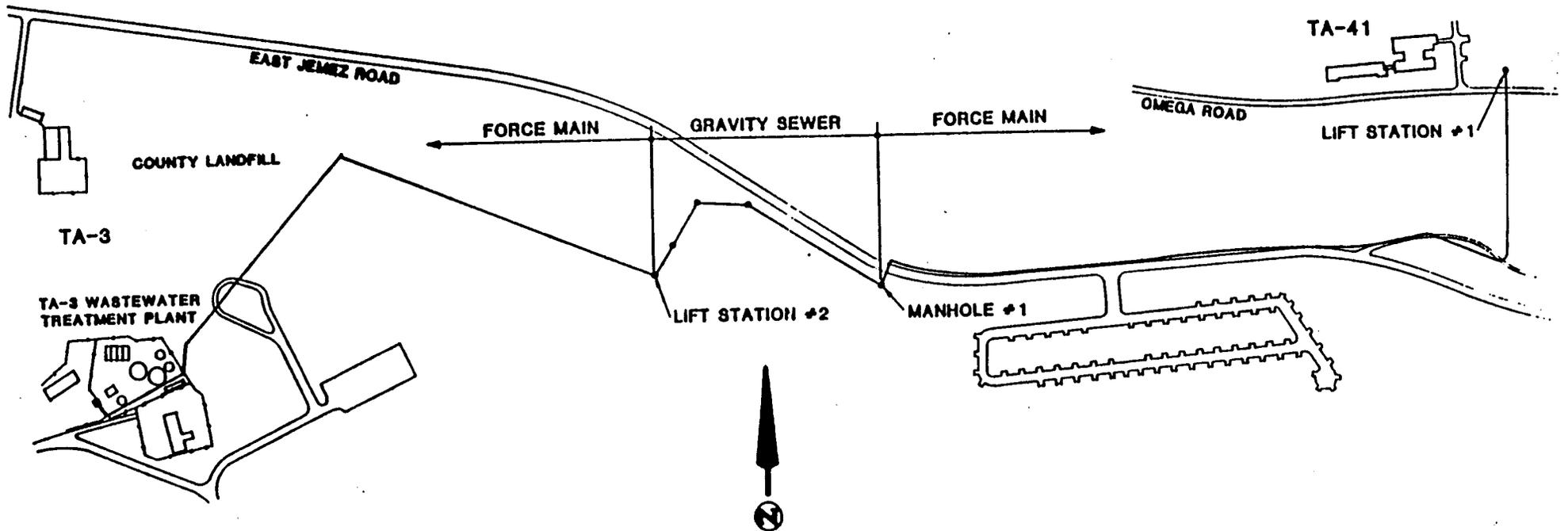


FIGURE 1
SEWER EXTENSION
-TA-41 TO TA-3

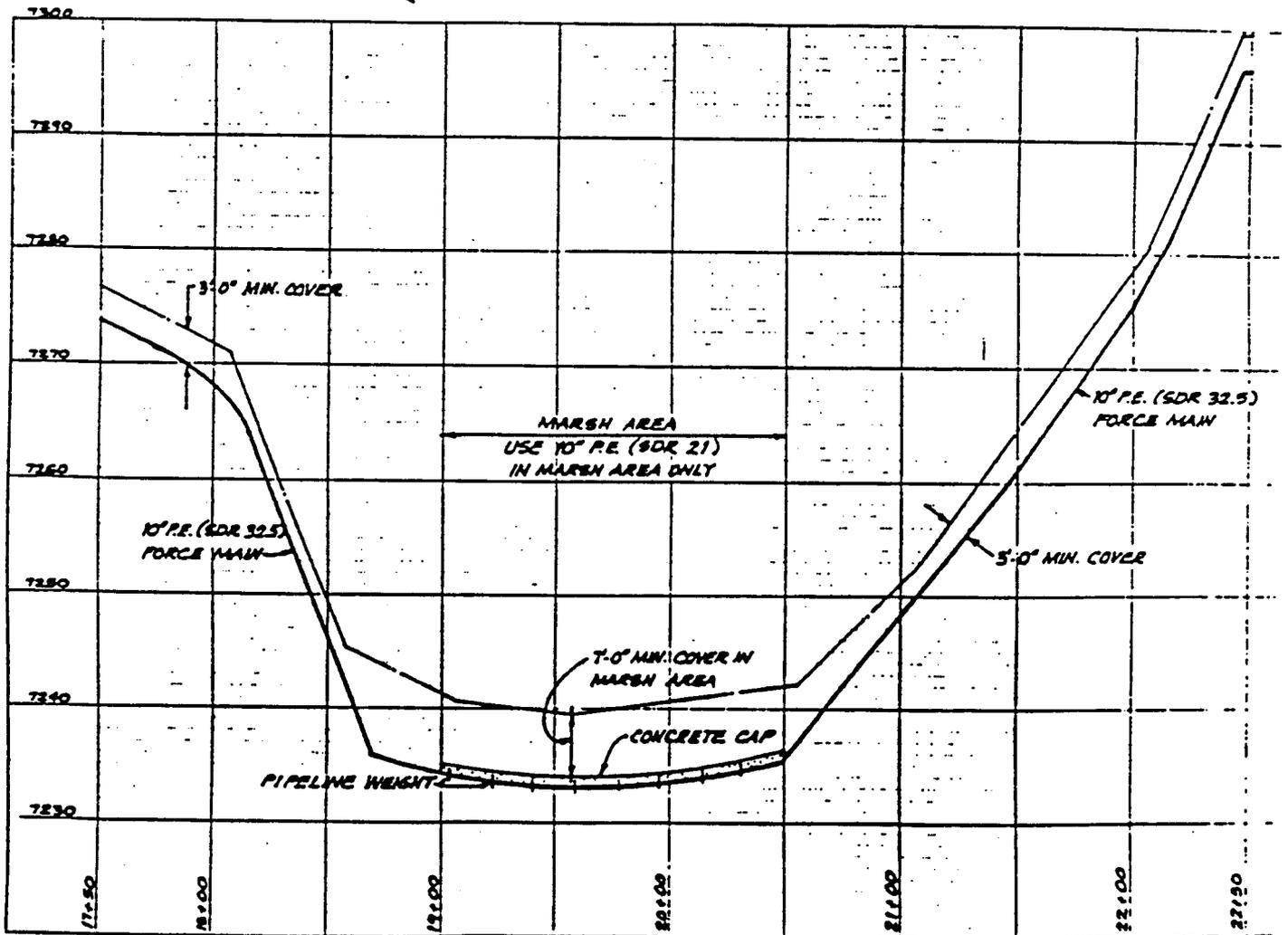
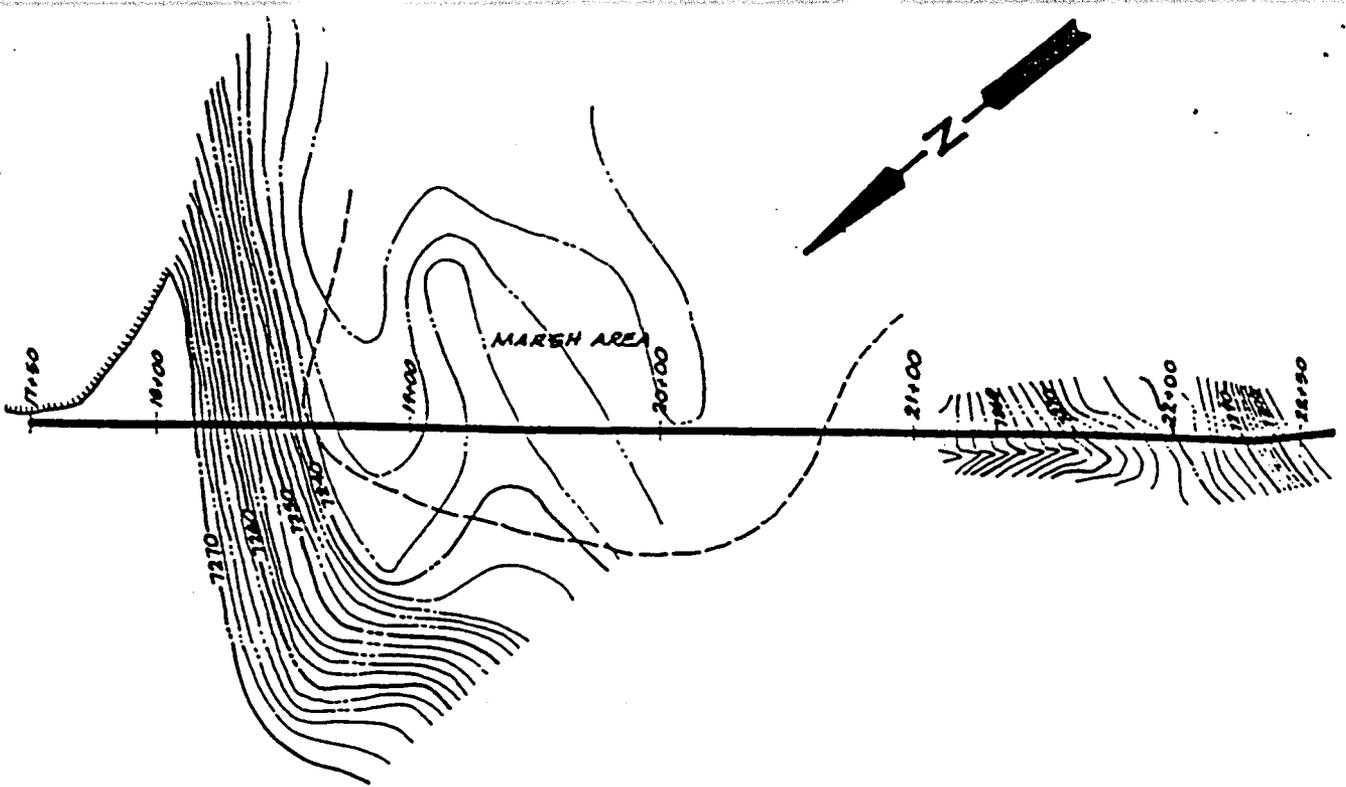


FIGURE 2
 PROFILE OF WETLAND CROSSING

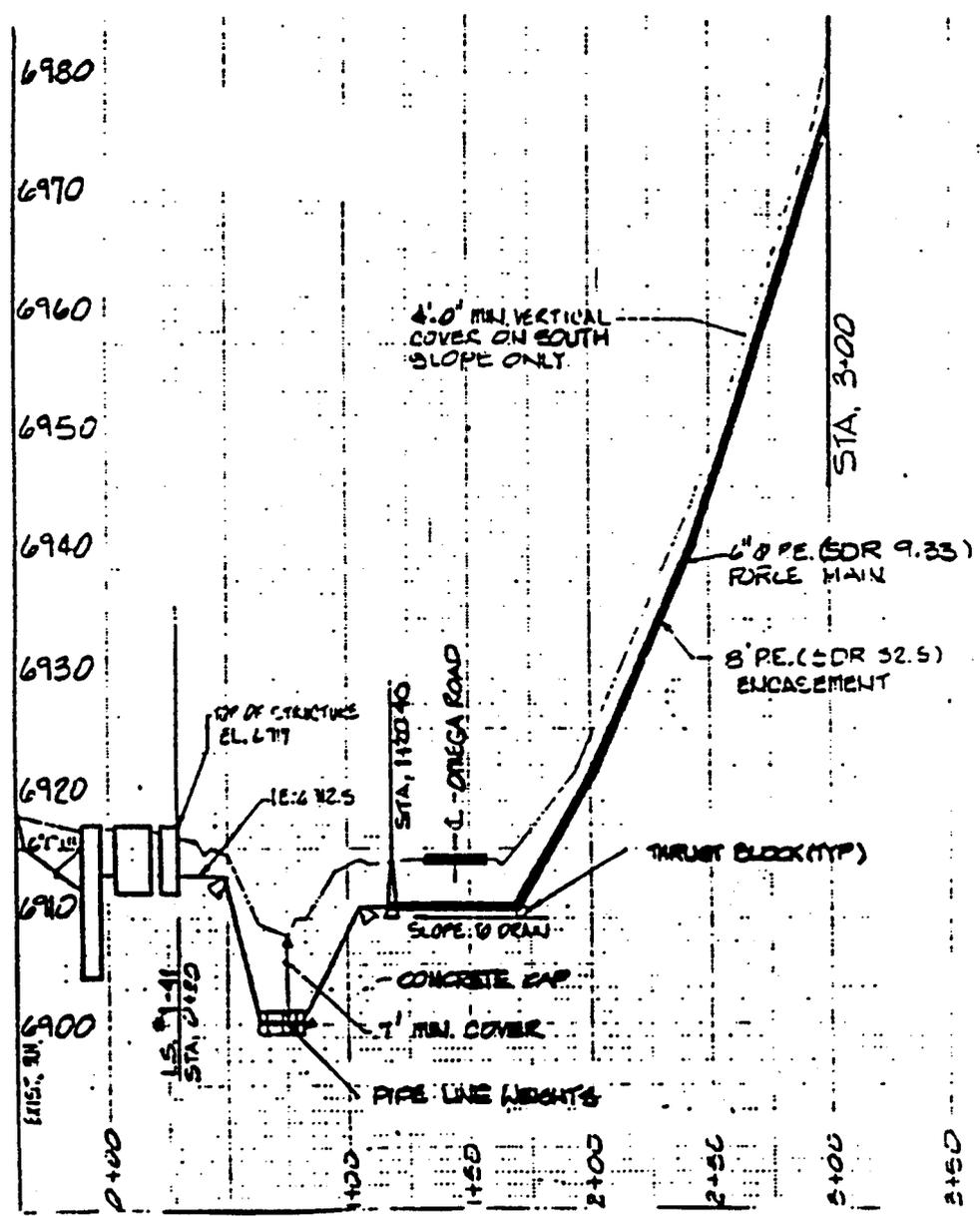
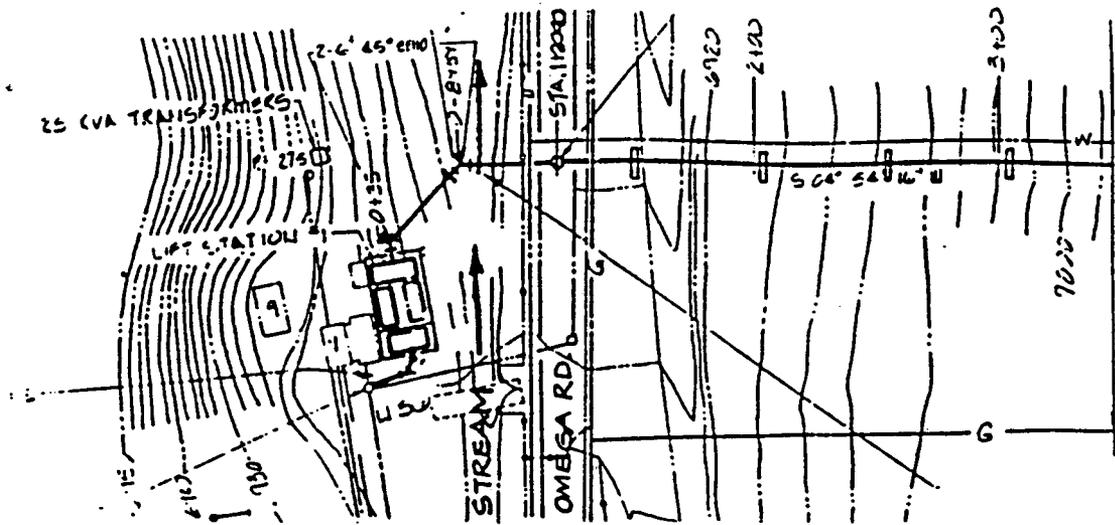
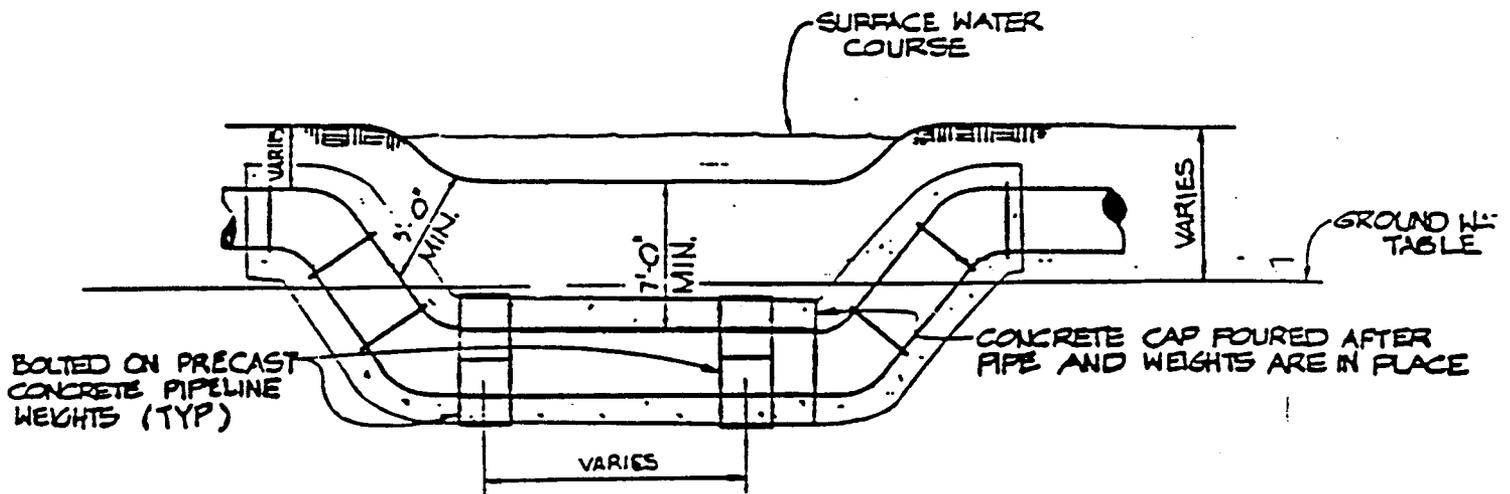


FIGURE 3
 PROFILE OF STREAM CROSSING



1. P.E. PIPE TO BE WEIGHTED DOWN W/A BOLTED ON PRECAST REINFORCED CONCRETE PIPELINE WEIGHTS AT STREAM CROSSINGS.
 - a. SPACING OF WEIGHTS = 10'-0" O.C. (MIN)
 - b. WEIGHT (EACH) = 250 LBS. (MIN)
 - c. NO. OF WEIGHTS = 3
 - d. O.D. OF 6" P.E. PIPE = 6.625"
2. AT EA. WEIGHT LOCATION ON THE PIPE, THE PIPE SHALL BE WRAPPED W/3 TURNS OF 10 MIL POLYETHYLENE SHEET COMPLETELY AROUND THE PIPE TO CUSHION PIPE FROM CONCRETE.
3. A LEAN CONCRETE CAP (2500 PSI) SHALL BE FOUNDED OVER THE PIPE AFTER INSTALLATION OF PIPE IN THE STREAM. A TREMIE SHALL BE USED TO PLACE CONCRETE IF WATER IS PRESENT IN TRENCH & CANNOT BE COMPLETELY PUMPED OUT.

FIGURE 4
STREAM & MARSH CROSSING DETAIL



Department of Energy
Albuquerque Operations Office
Los Alamos Area Office
Los Alamos, New Mexico 87544

JUL 02 1998

Mr. Joseph C. King
County Administrator
Incorporated County of Los Alamos
P. O. Box 30
Los Alamos, NM 87544

Dear Mr. King:

The Department of Energy (DOE) is writing to provide you with a forecast for the Sandia Canyon crossing, which is part of the proposed East Bypass Road. Due to regulatory issues and questions concerning the ongoing efforts, the rubble pile was closed for rubble disposal by Los Alamos County in April of 1998. A planning projection has been requested by the County so that appropriate stabilization of the rubble pile can be designed and implemented. The planning projection is also requested so the County can address disposal sites, including the current rubble pile location, for future rubble placement.

The most recent master planning documents prepared by our management and operating contractor, the University of California (UC), indicate that the proposed East Bypass Road remains an integral element of future development activities for the TA-3 area at Los Alamos National Laboratory (LANL). The road and projects related to its development have for many years been targeted as long-term planning. As part of this planning effort, a definition of the road's center line across Sandia Canyon is currently under preparation. LANL projects completion of this definition by August 28, 1998. As soon as it is available, DOE will provide you with a copy.

The Corps of Engineers (COE) has indicated that an adequate response to the issues outlined in its letter to DOE, April 9, 1998, would allow the County to resume placement of construction debris, meeting the definition of suitable material under Nationwide Permit 26, into the rubble pile in Sandia Canyon. The plan for the center line in combination with adequate stabilization measures implemented both prior to and during placement of additional rubble material should provide the County with the elements necessary to re-open the rubble pile for some period into the future.

As indicated to you previously, DOE agrees to pay a proportional share of the expenditures required for stabilization and continuing costs associated with the ongoing rubble management. DOE understands that an alternate arrangement will be required for the County to gain access and continue placement of rubble to south of the County's current Special Use Permit boundary, and we are committed to meeting with you to make

Joseph C. King

2

JUL 02 1998

the necessary changes in our current agreements. Bonnie Koch, 665-7202, or Steve Fong at 665-5547 will be contacting you and your staff to arrange this meeting. If you have any questions in the meantime, please contact them without hesitation.

Sincerely,



C. S. Przybylek
Acting Area Manager

LPMO:6SF-021

cc:

D. Riker

Public Works Dept. Director
Incorporated County of Los Alamos
P. O. Box 30
Los Alamos, NM 87544

F. Orth, Asst. Attorney

Incorporated County of Los Alamos
P. O. Box 30
Los Alamos, NM 87544

J. Wood

Department of the Army
Corps of Engineers
4101 Jefferson
Albuquerque, NM 87109-3435

Barbara Hoditschek

Surface Water Quality Bureau
New Mexico Environment Department
P. O. Box 26110
Santa Fe, NM 87502-6110

Cecilia Brown

Surface Water Quality Bureau
New Mexico Environment Department
P. O. Box 26110
Santa Fe, NM 87502-6110

Ralph Ford-Schmid

Oversight Bureau
New Mexico Environment Department
P. O. Box 26110
Santa Fe, NM 87502-6110

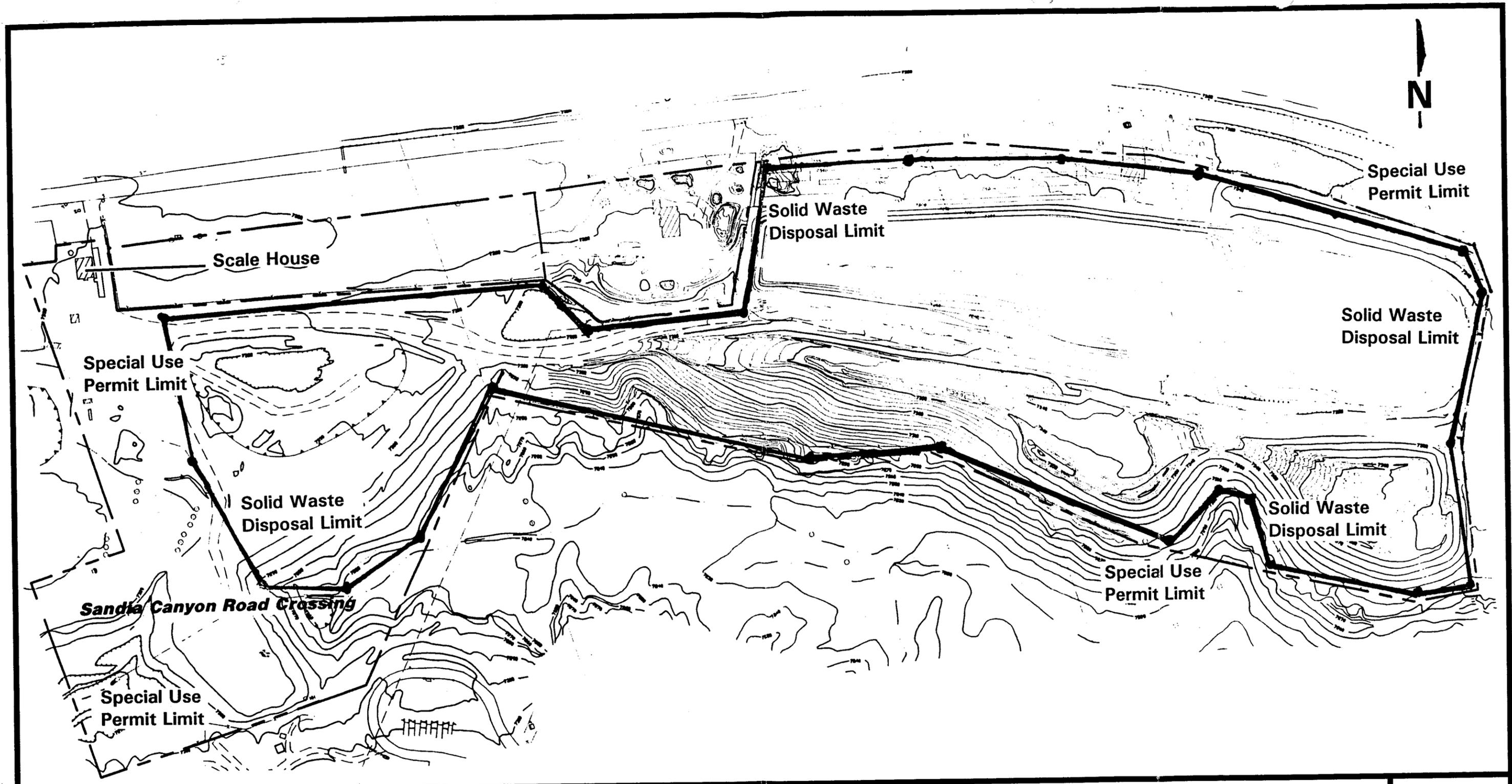
H. Le-Doux, LAM, LAAO

S. Fong, LPMO, LAAO

J. Plum, LAAME, LAAO

B. Koch, LAAME, LAAO

E. Hoth, FE-8, LANL, MS-K718



Engineering Solutions & Design
 3916 Juan Tabo Blvd. NE
 Albuquerque, NM 87111
 (505) 298-1851

Designed by: J. Chappelle

Drafted by: J. Garcia

Reviewed by: J. Chappelle

Date: August 4, 1998

Los Alamos County Landfill

Landfill Disposal Limits

Figure
Number

1