May 22, 1990

Mr. Marvin Miura, Director
Office of Environmental Quality Control
465 S. King Street, Room 104
Honolulu, Hawaii 96813

Dear Mr. Miura:

SUBJECT: MOLOKAI SENIOR/YOUTH AND MEO FACILITIES
TMK: 5-3-02:167
KAUNAKEKAI, MOLOKAI, HAWAII

Pursuant to the requirements of Hawaii Revised Statutes
Section 343-3, we are submitting the enclosed negative
document for your processing. We will not be requiring an
Environmental Impact Statement for the above project.

If you have any questions, please do not hesitate to contact
Mr. Barry C. Helle, Community Development Block Grant
Coordinator, at 243-7783.

Very truly yours,

ANNE M. TAKABUKI
Managing Director

Enclosures

cc: Barry Helle
(1) IDENTIFICATION OF APPLICANT: COUNTY OF MAUI

(2) IDENTIFICATION OF APPROVING AGENCY: OFFICE OF THE MAYOR COUNTY OF MAUI

(3) IDENTIFICATION OF AGENCIES CONSULTED IN MAKING ASSESSMENT:

DEPARTMENT OF LAND AND NATURAL RESOURCES, STATE OF HAWAII
DEPARTMENT OF PUBLIC WORKS, COUNTY OF MAUI;
DEPARTMENT OF HUMAN CONCERNS, COUNTY OF MAUI;
DEPARTMENT OF WATER SUPPLY, COUNTY OF MAUI; and
OFFICE OF THE MAYOR, COUNTY OF MAUI

(4) GENERAL DESCRIPTION OF THE ACTION'S TECHNICAL, ECONOMIC, SOCIAL, AND ENVIRONMENTAL CHARACTERISTICS:

A. General Project Description

The applicant would like to construct a public facility to house a Molokai Youth Center, Senior Citizen Center and the Molokai operations of Maui Economic Opportunity. This facility would be located in downtown Kaunakakai, on a vacant parcel bordered by Kaunakakai Elementary, Home Pumehana, The Mitchell Pauole Center/softball field and public tennis courts. This parcel is 5.411 acres, presently occupied by only the tennis courts, which will remain.

The Molokai Senior/Youth MEO Facility has been designed with consideration of architectural styles prevalent in Hawaii and particularly those of other public facilities on Molokai. This complex will utilize mason exterior and wood framing, a cement slab floor and asphalt shingle roofing.

The complex has been designed in a U-shaped configuration with each of the three components occupying one wing with an open courtyard in the middle. Separating the Youth and Senior portions will be an assembly/dining hall which will be available for use by all three tenants and the general public.
Each wing of the facility will consist of general office space, classrooms and additional space relevant to each occupant's particular needs, including a child daycare center on the MEO wing and an elderly day care center on the Senior Citizen wing.

A copy of the project's plans, including a site location map; a conceptual landscape plan and exterior elevations plan is enclosed herein as a supplement to the negative declaration.

B. Technical Background

(i) **Access.** Vehicular traffic will enter and exit at two points along Alhoa Street. Parking will be provided on three sides of the complex, including a special parking area for MEO's bus fleet. A tree-lined walkway will provide access for foot traffic from Home Pumehana, County office buildings and the tennis courts.

(ii) **Water.** There are existing County water lines on three sides of this property. Fire hydrants are spaced appropriately along each of these lines. To the north side is an eight inch line, on the west is a four inch line and on the south is another eight inch line. With water available on three sides, the fire flow protection requirements will be more than addressed.

(iii) **Wastewater Disposal.** The County's 12 inch sewer line runs along the south side of the property approximately 30 feet from the proposed south wing of this complex. From this site the wastewater is conveyed to the Kaunakakai treatment plant approximately 1.25 miles to the west. Based on a design flow of 5 gallons per capita per day (DOH rate) it is estimated that the wastewater generated will range between 750 and 1250 gallons per day.

(iv) **Telephone and Electrical.** Both telephone and electrical service is available from overhead lines on adjacent Ailoa Street. These will be connected to this complex via underground extension lines, a distance of approximately 75 feet.

(v) **Traffic.** Entryways will be constructed to connect the complex parking lot to Ailoa Street. This project will have a slight impact on the traffic flow of the area. The hours of operation will be approximately the same as the County office buildings and Kaunakakai Elementary which are located on neighboring properties. However, access to the school is via a different street.
C. Economic and Employment Considerations

The proposed project will generate numerous short term construction employment. It is also being planned to accommodate the future expansion of the three occupying agencies.

D. Social Considerations

(i) Public Schools. The only impact on the school system is the expected increase in morning and afternoon traffic as clients are dropped off at the child and senior citizen day care facilities. The dining/assembly hall could be made available for school functions.

(ii) Police Protection. There is no anticipated effect of the Police Department. The Molokai office of the Maui Police Department is located approximately 200 feet away on Ainoa Street.

(iii) Fire Protection. The fully manned Kaunakakai Fire Station is located within 400 feet of the project site.

E. Environmental Considerations

(i) Solid Waste.

Solid waste will be handled under contract with private refuse collection companies for hauling and disposal at the County operated landfill.

(ii) Drainage. Surface runoff from the project site is minimal since it is grassed and naturally sheet flows to a swale on the Aioa Street and school-side property lines. The swale exits the property at the south corner and into the regional park properly. The development of this project will alter this drainage pattern. An internal storm drainage system will be designed to accommodate flows of collected runoff water.

(iii) Theoretical Flood Inundation. According to the "Flood Insurance Rate Map" (FIRM) Community Panel #15003 0085B, the proposed project site is located in an area designated "Zone C". Zone "C" is an area of minimal flooding. Therefore, the project is not subject to the "Flood Hazard District Ordinance", Chapter 19.62 of the Maui County Code.

(iv) Soils. The soils of the site are classified as Mala Silty Clay (HMa) by the Soil Conservation Service of the United States Department of Agriculture. Permeability is rapid and runoff is slow. The hazard of water erosion is slight.
(v) **Vegetation.** Vegetation at the site consist of weeds, bermuda grass and monkey pod trees lining a walkway. No endangered specie of flora was found on site.

(vi) **Animal Life.** No rare or endangered species of animal life is found on the project site.

(5) **SUMMARY DESCRIPTION OF AFFECTED ENVIRONMENT, INCLUDING SUITABLE AND ADEQUATE LOCATION AND SITE MAPS:**

The project site is 5.411 acres of open grassed field, of which approximately 3 acres on the south end of the existing park will be utilized. Except for the tree-lined walkway and the public tennis courts to the far north, the property is vacant.

(6) **IDENTIFICATION AND SUMMARY OF MAJOR IMPACTS AND ALTERNATIVES CONSIDERED, IF ANY:**

A. **Air Quality**

Although short term degradation of air quality can be expected during the initial clearing and grading operation, this will be minimized by appropriate construction methods and control as specified in the County's grading ordinance. No long term degradation of air quality is anticipated. On the contrary, when the project is completed air quality is expected to improve due to frequent landscape irrigation and better maintenance of vegetation at the site.

B. **Water Quality.**

This project will not have any effect on coastal water quality. Surface runoff is minimal and will be easily handled by an internal drainage system.

C. **Noise.**

An increase in noise levels is anticipated during the construction period. These short term impacts, however will be limited to normal daylight working hours. Once completed the only anticipated noise would come from the playground activities of the child daycare center.

D. **View Corridors and Vistas.**

Views of the coastline from the site are generally obstructed by Kaunakakai School and other developments. Mauka views from the site will be maintained through the tree-lined walkway. This development will have minimal effect on view since it will be one-story tall and in a relatively flat area.
E. **Beach Access.**

This project is not along the shoreline, thus there is no affect on beach access.

F. **Historical, Archaeological or Cultural**

There are no significant historical, archaeological or cultural resources known to exist on the site.

(7) **PROPOSED MITIGATION MEASURES, IF ANY:**

A. **Traffic Access.** Vehicular traffic will enter and exit at two points along Alloa Street. Parking will be provided with approximately 90 standard stalls and 6 parallel stalls. Eight 12' x 24' stalls will be provided for MEO Bus Service in a separate fenced parking area.

B. **Water.** Domestic water service and fire protection will be taken from one of the 8-inch lines bordering the project.

C. **Drainage.** An internal storm drainage system will be designed to accommodate flows of collected runoff water. A drainage and soil erosion control study is included as an attachment.

D. **Theoretical Flood Inundation.** The project is within Zone C of the Flood Insurance Rate Map and outside any flood plains. Zone C designated areas are subject to minimal flooding.

E. **Soils.** To mitigate wind erosion, all exposed areas will be grassed as soon as grading is completed.

F. **Air Quality.** Short term impacts on air quality caused by construction will be mitigated as specified in the County's grading ordinance.

G. **Noise.** Increased noise level during construction will be mitigated by limiting construction to normal, daylight working hours.

H. **Historical Archaeological, Cultural.** No significant resources have been discovered on the property.

(8) **DETERMINATION:**

It is hereby determined that with the incorporation of the above-described mitigation measures, the proposed project will not have a significant impact on the environment as defined by Chapter 343, Hawaii Revised Statutes, and the Environmental Impact Statement (EIS) Rules of the Department of Health, State of Hawaii, and that an environmental impact statement should not be required.

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FINDINGS AND REASONS SUPPORTING DETERMINATION:

Under laws enacted by the Hawaii State Legislature and by the Rules and Regulations of the Planning Commission of the County of Maui, the following objectives for the use, protection and development of special management areas were established.

A. Provide coastal recreational opportunities accessible to the public.

The project is located within Kaunakakai, Molokai, which is under the jurisdiction of the County of Maui. This facility, like other existing and planned facilities in Kaunakakai will not inhibit coastal recreational opportunities.

B. Protect, preserve, and where desirable restore those natural and man-made historic and prehistoric resources in the coastal zone management area that are significant in Hawaiian and American history and culture.

No archaeological, historical or cultural sites were found on the project site.

C. Protect, preserve, and where desirable, restore or improve the quality of coastal scenic and open space resources.

The project is located mauka of the southern coastline of the island of Molokai. The project is bordered on the south side by Kaunakakai Elementary School and other developments beyond the school.

D. Protect valuable coastal ecosystems from disruption and minimize adverse impacts of all coastal ecosystems.

There is no evidence to indicate that the proposed development will have an adverse impact on the offshore ecosystem. As stated earlier, an internal storm drainage system will be designed to accommodate flows of collected runoff water.

E. Provide public or private facilities and improvements important to the State's economy in suitable locations.

The project is consistent with the policies of the State and County government in that it will provide short and long term employment opportunities. It will also provide the much needed facilities for the youth and senior citizens of Molokai. Also provided will be important new operational facilities for Maui Economic Opportunity and a dining/assembly hall.
F. Reduce hazard to life and property from tsunami, storm waves, stream flooding, erosion and subsidence

As stated earlier, according to the U.S. Army Corps of Engineers' Flood Insurance Rate Maps, the project site is not in a high hazard zone. Also, an internal storm drainage system will be designed to accommodate flows of collected runoff water.

G. Improve the development review process communication, and public participation in the management of coastal resources and hazards

The project will be reviewed by the public and appropriate agencies in accordance with the provisions of State law and regulations of the County of Maui Planning Department.

COUNTY OF MAUI

By ANNE M. TAKABUKI
Its Managing Director
DRAINAGE & SOIL EROSION CONTROL REPORT
for
MOLOKAI SENIOR & YOUTH CENTER/M.E.O. FACILITIES
at
KAUNAKAKAI, MOLOKAI, HAWAII
TMK 5-3-02: 167

Prepared by:
ECM, INC.
485 Waiale Drive
Wailuku, Maui, HI.

March 12, 1990
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I. SITE LOCATION AND PROJECT DESCRIPTION

The proposed project is located in Kaunakakai, Molokai. The project will utilize the south half portion of Lot 167, TMK 5-3-02. See Plat 1. The lot fronts Kolapa Place and Aioa Street.

The project consists of five separate buildings connected by covered walkways. There are 83 parking stalls proposed, eight of which are for M.E.O. bus parking. There is a play yard and three open courtyards.

II. EXISTING CONDITIONS

The project site involves an area of approximately 3.2 acres. The total lot area is 5.4 acres. The site is presently used as a grassed play field. The average ground slope is 1%. Elevations range from 5 to 12 MSL at the project site.

Runoff from the site sheet flows towards an existing drainage ditch that runs along the west and south boundary line. The drainage ditch then runs south to Kam V Hwy. and runs along the north side of Kam V Hwy. to a 10' x 3' box culvert under Kam V Hwy. The ditch then runs south to the ocean. See Plat 2.
III. FLOOD HAZARD

According to the "Flood Insurance Rate Map" (FIRM) Community Panel #150003 0085B, the proposed project site is located in an area designated "Zone C". Zone "C" is an area of minimal flooding. Therefore, the project is not subject to the "Flood Hazard District Ordinance", Chapter 19.62 of the Maui County Code.

IV. GENERAL DRAINAGE SCHEME

The proposed development increases the existing 10-year storm runoff from 2.4 cfs to 7.4 cfs. There are no drainage structures proposed for this project, except for driveway culverts. Runoff generated from the project will sheet flow to flow lines in the parking lots and discharge into the existing drainage ditch.

The existing drainage ditch will be regraded, narrowed and reseeded. The capacity of the reworked ditch will be greater than the existing capacity of the 48-inch CMP, just above the project site.

V. BASIS OF DESIGN

1. This drainage design is based on the formulas, charts, and tables from the "Maui County Drainage Master Plan, 1971". The drainage runoff was computed by using the rational formula for 10 year, and 1-hour duration rainfall.
The rational formula is:

\[ Q = C \times I \times A \]

Where:
- \( Q \) = Rate of flow in cfs
- \( I \) = Rainfall intensity in inches per hour
- \( C \) = Runoff Coefficient
- \( A \) = Drainage area in acres

2. Values of Runoff Coefficient, \( C \)

a) Existing Conditions
- Infiltration (medium) = 0.07
- Relief (0 - 5\%) = 0.00
- Vegetal cover (good) = 0.03
- Development type (open) = 0.15
  Total \( = 0.25 \)

b) New Condition
- Infiltration (high) = 0.14
- Relief (flat) = 0.00
- Vegetal cover (poor) = 0.05
- Development type (center) = 0.45
  Total \( = 0.64 \)
3. QUANTITIES OF RUNOFF

a) Existing Condition:
   \[ A = 3.2 \]
   \[ L = 400 \text{ Ft.} \]
   \[ S_e = 1\% \]
   \[ T_C = 25 \text{ min. (Ave. grass)} \]
   \[ 10 \text{ Yr. One-Hr. Rainfall} = 2'' \]
   \[ i = 3'' \]
   \[ Q_{10} = C_i A \]
   \[ = 0.25 \times 3 \times 3.2 = 2.4 \text{ cfs} \]

b) New Condition:
   \[ A = 3.2 \]
   \[ L_1 = 800 \text{ Ft.} \]
   \[ S_1 = 1\% \]
   \[ 10 \text{ Yr. One-Hr. Rainfall} = 2'' \]
   \[ i = 3.6'' \]
   \[ Q_{10} = C_i A \]
   \[ = 0.64 \times 3.6 \times 3.2 = 7.4 \text{ cfs} \]
4. CAPACITY OF 48" CMP JUST ABOVE PROJECT SITE

D = 48"
L = 24'
S = 0.0042 \quad S_{1/2} = 0.0648
N = 0.024
A = 12.57 s.f.
P = 12.57
R = \lambda/P = 1
R_{2/3} = 1
Q = 1.486/0.24 \quad A \cdot R_{2/3} \cdot S_{1/2}
= 1.486/0.24 \quad (12.57) \quad (1) \quad (0.0648) = 50 \text{ CFS}

5. CAPACITY OF DRAINAGE DITCH ALONG WEST BOUNDARY

Area = 24.03 s.f.
WP = 30.93
R = 0.777
R_{2/3} = 0.845
Slope = 0.009
S_{1/2} = 0.095
N = 0.0225
Q = 1.486/n \quad A \cdot R_{2/3} \cdot S_{1/2}
= 1.486/0.0225 \quad (24.03) \quad (0.845) \quad (0.095) = 127 \text{ CFS}
6. CAPACITY OF DRAINAGE DITCH ALONG SOUTH BOUNDARY

   Area = 12.6 s.f.
   WP = 20.13
   R = 0.626
   R 2/3 = 0.732
   Slope = 0.004
   S 1/2 = 0.063

   Q = 1.486/0.0225 (12.6) (0.732) (0.063) = 38 CFS

7. CAPACITY OF RECONSTRUCTED DRAINAGE DITCH

   Trapezoid Section with 1 1/2:1 side slopes
   The Bottom Width is 3 Feet
   The Top Width is 9 Feet
   And the Depth is 2 Feet
   Area = 12 s.f.
   WP = 10.21
   R = 1.1753
   R 2/3 = 1.1137
   S min = 0.006
   S 1/2 = 0.077

   Q = 1.486/0.0225 (12) (1.1137) (0.077) = 68 cfs
8. **COMPUTE RUNOFF OF TOTAL DRAINAGE BASIN**

1. From Plat 3
   - Area = 615 acres
   - Slope = 8% (Ave.)

2. From SCS Soil Survey
   - MmA, Mala Silty Clay
   - rVT2, Very Stony Land, Eroded

3. From SCS Erosion and Sediment Control Guide
   a. Table 8-1
      - Hydrologic Classification = C
   b. Table 2-2
      - Curve Number = 77
   c. Rainfall Map
      - 100-Year, 24-Hour Rainfall = 9 Inches
   d. Figure 10-1 Peak Discharge Per Inch of Runoff
      - For 16% Slope at 615 Acres = 118 cfs
   e. Table 2-1 (Runoff Depth)
      - For 9-Inch Rainfall and CN of 77
      - D = 6.2 Inches.
   f. Peak Discharge @ 16%
      - Q = 118 cfs x 6.2 Inches = 731.6 cfs
   g. Table 11-1
      - For 8% Slope Q is 0.78 times greater than 16%
      - Q = 731.6 x 0.78 = 571 cfs
CAPACITY OF 10 X 3 CONCRETE BOX CULVERT UNDER KAM V HWY.

\( n = 0.013 \)

\( L = 65' \)

\( A = 30 \text{ s.f.} \)

\( S = 0.02 \text{ ft/ft} \)

\[
Q = 1.486/n \ A \ r^{2/3} \ S^{1/2} \quad r = A/P = 30/16 = 1.875
\]

\[
r^{2/3} = 1.52
\]

\[
Q = 1.486/0.013 \ (30) \ (1.52) \ (0.14) \quad S^{1/2} = 0.14
\]

\( Q = 730 \text{ cfs} \)
VI. CONCLUSION

Based on this study, the project site will generate 7.4 cfs. The present runoff is 2.4 cfs. The increase runoff is therefore 5.0 cfs. The runoff will be directed into an existing drainage ditch. The drainage ditch will be reconstructed to carry the predicted runoffs.

The total drainage basin generates 571 cfs on a 100-year storm. All this runoff goes to a 10 x 3 box culvert under Kam V Hwy. The capacity of the existing 10 x 3 box culvert is computed at 730 cfs.

Therefore, the proposed work will not have any adverse drainage effect on the adjoining or downstream properties.
VII. SOIL EROSION CONTROL

1. The soils of the site are classified as Maal Silty Clay (MmA) by the Soil Conservation Service of the United States Department of Agriculture. These soils are characterized as having an erodibility factor of 0.28.

2. HESL soil loss for project during construction.
   Erosion rates as set forth by the County of Maui Ordinance are as follows:
   \[ E = RKISC\]

WHERE:

\[ E = \text{Uncontrolled erosion rate (Soil Loss) in tons/acre/year.} \]
\[ R = \text{Rainfall factor} - 170 \text{ tons/acre/year} \]
\[ K = \text{Soil erodibility factor} - 0.28 \]
\[ L = \text{Slope length} - 400 \text{ feet (Makai portion only)} \]
\[ S = \text{Slope gradient} - 1.0\% \]
\[ LS = \text{Slope length factor} - 0.20 \]
\[ C = \text{Cover factor} - \text{use bare soil} - 1.0 \]
\[ P = \text{Control factor} - \text{construction site} - 1.0 \]

THEREFORE:

\[ E = 170 \times 0.28 \times 0.20 \times 1 \times 1 \]
\[ = 9.5 \text{ tons/acre/year} \]

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3. Allowable Erosion Rate
   a. Coastal water hazard (D) = class A = 2
   b. Downstream hazard (F) = 4
   c. Duration of site work = 1 year
   d. Maximum allowable construction area x erosion rate = 3571 tons/year
   e. Graded area = 3.2 acre
   f. Allowable erosion rate = 3571/3.2
      = 1116 tons/acre/year

4. Allowable E = 1116 greater than 9.5 tons/acre/year

Erosion rate for graded area is within the allowable limits and therefore does not require additional control measures.

5. Severity Rating Number:
   \[ H = (2F + 3D)AE \]

WHERE:
   \[ H = \text{Severity Rating} \]
   \[ F = \text{Downstream Hazard} : 4 \]
   \[ T = \text{Duration of site work} : 1 \text{ year} \]
   \[ D = \text{Coastal Water Hazard} : 2 \]
   \[ A = \text{Graded Area} : 3.2 \text{ acres} \]
   \[ E = \text{Soil loss rate} : 9.5 \text{ tons/acre/year} \]
   \[ H = \left( (2 \times 4 \times 1) + 3 \times 2 \right) \times 3.2 \times 9.5 = 426 \]

Severity rating number is within the allowable maximum value of 50,000.
6. Erosion Control Measures

Temporary and permanent erosion control measures shall include the following:

a. Control dust by means of waterwagons or by installing temporary sprinkler systems or both if necessary.

b. Graded areas shall be thoroughly watered after construction activity has ceased for the day, weekends and holidays.

c. All exposed areas shall be paved, grassed or permanently landscaped as soon as finished grading is completed.
REFERENCES:

1. Technical Paper No. 43
   Rainfall—Frequency Atlas of the Hawaiian Islands,
   Cooperative Studies Section, Hydrological Services Division,
   U. S. Weather Bureau, U.S. Department of Commerce, dated
   1962.

2. Drainage Master Plan for The County of Maui, State of

3. Storm Drainage Standard, Department of Public Works, City
   and County of Honolulu, March 1969.

4. Soil Survey of the Island of Kauai, Oahu, Maui, Molokai,
   and Lanai, State of Hawaii, by the U. S. Department of
   Agriculture, Soil Conservation Service, in cooperation with
   the University of Hawaii.

5. Erosion and Sediment Control Guide for Urbanizing Area in
   Hawaii, U. S. Department of Agriculture, Soil Conservation
   Service, Hawaii Association of Soil and Water Conservation
   Districts, Soil Conservation Society of America, Hawaii
   Chapter, January 1976.

6. Flood Insurance Rate Map (FIRM), Maui County, Hawaii, U.S.
   Department of Housing and Urban Development, Federal
   Insurance Administration.