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REPORT OF INSPECTION AND REVIEW
Poultry Planning Project - 019
Yemen Arab Republic, Sana
August 18-30, 1976

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INTRODUCTORY

The basic purpose of the Poultry Planning Project is to establish self-sufficient poultry demonstration and training centers in both the Sana and Taiz areas of Yemen. These centers (farms) are intended to be catalytic centers for development of an indigenous poultry industry, and to serve as centers to train extension workers and Yemeni farmers in improved poultry production and marketing practices.

A major objective of the project is to determine the necessary methodology to be used in establishing small poultry enterprises on a sound basis in Yemen. It had been reported to the author that initial estimates to achieve the desired results might require five years or more, and that the cost might well exceed one million dollars.

Other major objectives of the project are (1) to increase the income for the small farmer (with the view that women will likely assume a major role in this instance) and (2) to improve the human diet through increased availability of additional sources of animal food protein to the economically disadvantaged elements of the Yemen population.

Training centers at both Sana and Taiz will include brooder houses, laying houses, and essential support facilities. The support facilities will include incubation/hatching space, feed grinding/mixing, poultry and egg processing, and teaching space and equipment.

The various buildings are to be designed, constructed, and equipped using materials and methods available to Yemen farmers.

Yemen "counterparts" are to be selected and sent to American and other universities to receive formal and practical instruction to enable them to assume responsible positions of leadership after the Cal Poly team has left Yemen.

Poultry Training Center - Sana

In the ensuing narrative portion of this report, major aspects of the Poultry Planning Project (019) will be discussed in terms of progress or situation to date, of major problems encountered to date (where pertinent), and of future plans and/or recommendations which are important to the achieving of the project objectives. The "major aspects" to be covered include the following: The Team, Working Conditions, Mission and Local Government Support of Project, Building Program, Commodities (Equipment), Commodities (Feed Concentrates), Vaccines-Drugs-Medicaments, Counterparts and Participant Training, Peace Corps Volunteers, and Extension Program Plans.

The Team

Mr. Leo E. Sankoff and Mr. Thomas O. Meyer and their families arrived in Sana on February 1, 1976. The Sankoff family moved directly into their permanent living quarters immediately upon arrival in Yemen. Mr. and Mrs. Meyer were billeted in temporary living quarters (four different locations) until their permanent living quarters became available. At the time of this inspection visit, both families were well situated and quite happy with their living accommodations.

Morale of "The Team" is generally very good, considering the adjustments to a new culture and the fact that both Mr. and Mrs. Sankoff have encountered health problems necessitating medical evacuation to Frankfurt, Germany.

It was especially gratifying to note the excellent manner in which the Sankoff's teenage daughters have adjusted to the conditions of a foreign culture.

Some in-depth discussions were held with Mr. Sankoff and Mr. Meyer concerning their willingness to extend their services to the project beyond the presently scheduled departure date of approximately March 31, 1978, by perhaps as much as two years.

First of all, both men indicated that they would be in a much better position to react definitively to the question in about six to eight months from now. Both men are professionals and want to "see it through", to finish the job that they have set out to accomplish in Yemen.

Mr. Sankoff's answer was that "if Mrs. Sankoff's personal health becomes 'not an issue', they would not be adverse to extending their tour of duty another two years, assuming that the objectives of the project could likely be accomplished --- and if indeed the project were to be extended by two years."

Mr. Meyer's response to the question of an extended stay in Yemen was generally quite positive. Condition of the meats program at Cal Poly would be one consideration. However, his statement was that "if the contract were to be extended by one year, or even two years if it takes it, and the program is going reasonably well, they would stay."

One thing is very certain --- and that is that the Mission Director, Mr. Ruiz, is quite anxious that both men (Sankoff and Meyer) stay until the project objectives shall have been completed.

Working Conditions

The Team has been assigned office space in the Project Building, conveniently located adjacent to the Administration Building which houses the Mission Director and his staff. The office is fourteen feet by sixteen feet in dimensions, and is equipped with four desks, six chairs, and an improvised bookcase 6.5 feet long with three shelves. Office furniture is among the commodities which have been ordered through AID/W but has not yet arrived. The project office will be relocated at the Poultry Training Center site in a building called the Training/Processing building as soon as it is completed.

Experienced stenographers are not available, so it is rather difficult to get typing done quickly and accurately. This situation is expected to improve as the local help become more experienced and proficient, but at present it does constitute a delay factor.

Duplicating equipment (e.g., xerox machines) are inoperative approximately half of the time, which again causes delay in cases where multiple copies are required. Equipment such as mimeograph and Itek machines are not available. Thus, the above situation will need to be improved so that paperwork can be expedited.

Mission and Local Government Support of Project

The Mission Director and the Agricultural Development Officer, Mr. Aldelmo Ruiz and Mr. John Young, respectively, are very enthusiastic in their support of Project 019. Other support staff in the mission have been generally cooperative in helping Mr. Sankoff and Mr. Meyer overcome the numerous obstacles which serve to delay the project.

During the time of the inspection visit, the Minister of Agriculture and the Deputy Minister of Agriculture were out of the city. Arrangements were made to visit on August 28 with Dr. Hassan Al Fosail, Director of the Livestock Division, and Mr. Mohammed Gajman, Director of Planning for the Ministry of Agriculture. Both indicated genuine interest in and support of the Poultry Planning Project, and that it was budgeted as an integral part of their governmental operations for the Yemen Arab Republic. "Yemen needs this project". "Our people need a poultry industry --- to enhance the Yemeni diet with additional sources of protein of animal origin." "We want to see this project succeed." These were some of the comments of the two representatives of the Ministry of Agriculture.

John Young and Leo Sankoff outlined need for at least ten counterparts, who would be paid in part by the Y.A.R. Ministry of Agriculture and part by the U.S. AID Mission. Both Dr. Al Fosail and Mr. Gajman talked of their plans to "advertize" these positions via the newspaper and Radio Sana in an effort to secure some eighteen to twenty qualified Yemeni who would be trained by Meyer and Sankoff in the basic management techniques in broiler and egg production and to assume a role in extension teaching of Yemeni farmers.

There was some discussion between the writer and the Mission Director concerning possible constraints relating to Y.A.R. Governmental "institutions" to support and regulate a commercial poultry industry in Yemen. The concern at this point would pertain to disease control (e.g., pullorium, typhoid, typhimurium) and regulatory functions, marketing regulations (e.g., market classes and grades of eggs and broilers), sanitation (especially in commercial large-scale broiler processing plants), among others.

It is the opinion of the writer that as the commercial poultry industry of Yemen evolves, such regulatory agencies and functions will also evolve. It is not unlikely that the Y.A.R. Ministry of Agriculture may want to seek technical help on a short-term basis from countries which now have a well-developed commercial poultry industry (e.g., U.S.A.). These types of regulatory agencies and functions are well established in the U.S. Department of Agriculture, and it is assumed that the U.S. Government would likely be willing to lend its expertise in helping Yemen to develop these "institutions" when they are needed.

Building Program

Nine buildings are under construction for the Poultry Training Center at Sana. As of August 15, 1976 it was estimated that the buildings were approximately 35 to 40 percent completed. Initially it was hoped that all of the buildings would be finished by the time Sankoff and Meyer arrived in Yemen. Due to a combination of circumstances, the above goal was not achieved; actually, the building activity had just begun. Foundations of hand-hewn stone were being laid for two buildings, which far exceeded the strength required for poultry buildings. No provisions had been made for floor drains or water lines.

Sankoff attempted unsuccessfully to resolve design problems with the building supervisor. Building supervision was then transferred to Mr. Vic Martinez. Problems were then encountered in procurement of essential building materials of suitable quality on schedule. Other delays were encountered when some 20 to 25 percent of the purchase requests were lost or misplaced and had to be resubmitted. Lack of experienced and qualified workmen contributed to the delay. At one time it was decided that contract construction might be the answer, but the cost quotations exceeded the engineering estimates by a factor of three, so the contract route was abandoned in favor of direct hire and use of local labor. Since the arrival of Cliff Frink, USAID procurement has been vastly improved. Materials purchase requests are now being expedited more efficiently, which has contributed greatly to the progress of the building program. Generally speaking, the Yemeni are expert stone masons, but they have had little opportunity to develop expertise as carpenters (but they are learning fast).

The current status of the nine buildings (see plot plan attached) is as follows:

1. Brooder house no. 1 has been completed, ready for chicks, since June 1, 1976.
2. Lay house No. 1 is completed. Waterers have arrived, feeders not. Nests are yet to be built, in place.
3. The Training/Processing building should be completed by 10-30-76. Most of the commodities (equipment) have not yet arrived.
4. The Feed Mill is 60 percent completed, should be done by 11-1-76. The grinder and mixer have arrived, the feed elevators and scales not.
5. Brooder house No. 2 should be completed by 10-1-76. Masonry work is completed, now ready for framing, slab floor has been poured.
6. Lay house No. 2 should be completed by 12-1-76. Masonry work is completed, now ready for framing, slab floor has been poured.
7. Lay house No. 3 should be completed by 2-1-77. Footings and foundations are completed, floor drains and plumbing are installed, and the slab floor has been poured.
8. Lay house No. 4 should be completed by 4-1-77. Footings and foundations are completed, floor drains and plumbing are now being installed.
9. Brooder house No. 3 (lowest priority) should be completed by 6-1-77. It will be finished last. Soil has been excavated for the footings.

General note --- electricity and water are stubbed in and ready to install in each building as it is completed.

It is important to note that the basic purposes of the project, namely the demonstration of poultry raising and poultry extension training, can be started just as soon as the first baby chicks arrive at the Poultry Training Center - Sana. The building program is expected to continue at a steady pace, assuming that orders for essential building materials are filled reasonably on schedule, and that the full and complete program of demonstration and training will soon get underway at the Sana site.

Commodities (Equipment)

Of the 140 commodities (other than feed) that have been ordered from AID/W, approximately 49 percent had arrived as of August 28, 1976. Items that have been received include the following: timeclocks, microscope and ancillary equipment, power sprayer, feed grinder (hammer mill), feed mixer, brooders, debeaker and ancillary equipment, feather-picking machine, filmstrips, freezer chests, and an egg-o-matic grader (sizer). Items critical to the project which have not arrived include the following: poultry singeing nozzle, hand truck for moving sack feed, feed elevators, feed scales, coccidiostats, disinfectants, egg candling lights, shipping coops, projectors for slides and filmstrips, egg scales, projector screen, chick feeders, incubation equipment (incubators and hatchers), and the poultry cooling rack (for slaughtered birds), among others.

At present, Yemen does not have completely adequate deep-water port facilities (although such are being prepared). This means that certain items must be first unloaded at a port across the Red Sea (Djibouti), placed on vessels that can negotiate the shallower waters of Yemen ports, then trucked to Sana. This arrangement poses real problems, not the least of which is the physical damage to heavy equipment resulting from double handling. There have been instances where highly perishable commodities have been sent by surface transportation (ships) rather than via air freight. One prime example of this is a shipment of vaccines (!!!), drugs, and disinfectants. This situation must be corrected if the project is to have a chance to succeed.

Commodities (Feed Concentrates)

One of the most indispensable items in the project, assuming that baby chicks have been received, is feed. It is expected that locally produced grains, principally grain sorghums and millet, will be available for the preparation of the various complete feeds --- broiler, starter, grower, and layer rations. The other critical components essential to the preparation of the complete feeds are the poultry feed concentrates, which must be sent by ship from the U.S.A. The poultry feed concentrates contain the nutrients essential to the formulation of the complete feeds --- namely; protein, vitamins, minerals, and other growth stimulants not present in adequate quantities in feed grains.

There is currently on hand at the Poultry Training Center in Sana only enough feed materials to grow out one batch of 600 broilers to ten weeks of age, and one batch of 600 sexed lay pullets to about 22 weeks of age (the start of the egg production cycle). Recent reports indicate that a shipment of poultry feed concentrates leaving Houston, Texas on August 26, 1976 will arrive by ship in Yemen in approximately five months. Thus it becomes obvious that (1) poultry feed concentrates must be ordered at least six or eight months in advance of need, and (2) that every effort must be made to improve the procurement schedule for an item so indispensable to the life and well-being of this project. The very best of cooperation on the part of AID/W will be needed to expedite orders for feed concentrates.

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Chick Sources

The current status of chick procurement has been a classic exercise in frustration. Brooder house No. 1 has been completed and ready for chicks since June 1, 1976. Ideal Farms of Nairobi, Kenya has cooperated twice in providing 600 sexed lay-strain day-old chicks on special hatching schedules for the benefit of this project. On June 25, 1976, Sankoff was in Nairobi with the 600 chicks in his possession; the air flight was cancelled and the chicks had to be returned to the hatchery. A second order was placed for the same quantity and quality of chicks to leave Nairobi on August 23, 1976; the only alternative was to air ship the chicks to Jeddah for transfer to Yemen Airlines for shipment to Sana. Because of the highly perishable nature of the merchandise (baby chicks), and the high temperatures of Jeddah (110° to 115°F), the procurement plan for the August 23 shipment had to be abandoned. Given proper shipping temperatures (70°-75°F) the day-old baby chick can survive a shipping schedule of 72 hours post-hatch; a chick can nourish itself on the yolk sac which is absorbed into its body cavity during the last three or four days of the incubation period.

Currently a plan is being pursued to secure chicks from a source in Denmark or Egypt, where it seems possible and likely that the hatching schedule can be properly coordinated to ensure arrival of live baby chicks at the Sana International Airport. The above is another example of project delay.

Vaccines-Drugs-Medicaments

Vaccines, drugs, and medicaments are critical items in the production of poultry grown under confinement conditions of considerable population density. As mentioned earlier, it is imperative that perishable products of such a nature must be shipped by air or else they will lose their potency, thereby posing a real threat to the success of the project.

Contact has been established with the British Veterinary Team in Sana, and their cooperation in procuring and storing these critical materials is assured. Dr. Tim Barrows, a British Veterinarian at the unit, took us on a tour of their laboratory and showed every evidence of desire to cooperate in any way possible in ensuring a constant supply of vaccines, drugs, and medicaments.

Counterparts and Participant Training

Yemeni counterparts will comprise a very important aspect of the project after chicks have been received and the demonstration/extension training activities are underway. It was mentioned earlier that the Ministry of Agriculture will take steps to secure some 18 to 20 individuals over the period of the next year or so. These counterparts will be trained at the Sana center by Mr. Meyer and Mr. Sankoff; they in turn will help train Yemeni farmers.

Four participants have been selected for formal and practical university training in Cairo and the U.S.A. It is expected that these men will assume very important leadership roles when the Cal Poly team has left Yemen. One participant, Mr. Abdullah Al-Rahoumi will soon be leaving for Cairo for one year of university studies in poultry production. Dr. Hassan M. Al-Fosail (DVM) plans to attend the University of Georgia for two years to secure the M.S. degree in poultry pathology. Mr. Mohamed Abdullah Al-Heleli plans to

attend Texas A&M University for two years to secure the M.S. degree in poultry management. Mr. Abdul Karim Abdo Taleb plans to attend Cal Poly, San Luis Obispo, for two years to complete the B.S. degree in poultry industry. The three participants scheduled for the U.S. universities will soon be leaving Yemen to attend an intensive three-month English language training course under auspices of ALIGU (American Language Institute, Georgetown University) University studies are scheduled to begin as soon as possible after January 1977.

The writer had a very interesting two-hour visit with Mr. Taleb, the gentleman who plans to start degree studies at Cal Poly effective Winter Quarter 1977. He is currently employed by the Y.A.R. Ministry of Agriculture assigned to the British-run dairy farm. His first two years of college work were completed in Czechoslovakia. The writer also met and visited with the other three participants while in Yemen. All four participants are enthusiastic and serious concerning their future role in the project, and all seemed competent to achieve their respective educational goals.

Peace Corps Volunteers

Bill and Faith Warwick are starting a two-year tour of duty with the Peace Corps in Yemen. Currently they are involved in an intensive course to learn the Arabic language. Both Mr. & Mrs. Warwick have completed three years of study as poultry industry majors at Cal Poly. Plans are that they will be assigned by the Peace Corps to work with Sankoff and Meyer in poultry extension work. It is felt that Mrs. Warwick would be especially effective in working with Yemeni women who will become involved in home flock operations.

Extension Program Plans

First of all the extension program cannot really become functional until the Poultry Training Center is operational, with chicks on the site, with the Training/Processing building constructed and equipped with furniture and teaching facilities (projectors, films, slide sets, interpreters, Yemeni counterparts). Every possible effort is being put forth to reach this starting point.

There is no overall agricultural extension program operative in Yemen. Rudiments of such a program are being started in Taiz in connection with the F.A.O. project. Full advantage will be taken to tie in and make the best possible use of this program as it evolves.

Initial steps are now being taken to identify cooperating farmers and potential counterparts --- via the Ministry of Agriculture, Peace Corps, Water Resources people, the German vegetable farm, and others who know the people in the villages. Cooperating farmers will be brought in to the Training Center for intensive short courses. These farmers will be supplied with near ready-to-lay pullets that have been properly vaccinated against Marek's Disease and Newcastle Disease.

Counterparts and participants, trained at the Training Center will comprise a cadre of extension personnel who will become the field extension staff. Problems which they cannot handle will be brought back to the Sana Training Center for resolving.

Extension work in the villages will necessarily have to be programmed through the village sheiks, who can be most helpful in identifying producers and cooperating small farmers in the various villages.

Already there is manifested interest in starting a commercial poultry industry in Yemen. The writer had the opportunity to visit two such operations in the Sana area.

One operation was being constructed by a Yemeni gentleman named Omeri, who was formerly in the export-import business in Aden (South Yemen). He is entering into a cooperative venture with Danish businessmen, and Denmark will be his source of chicks and feed. Water supply was a bit tenuous at the time of our visit, but Mr. Omeri is confident that it will be overcome. Mr. Omeri has been in contact, several times, with Sankoff and Meyer for advice and counsel concerning housing, ventilation, possible hatchery operations, marketing potential and methods, vaccination and sanitation programs, among others, for 150,000 broiler capacity and 20,000 layers.

The other operation, Saleh & Sons, will be strictly a broiler operation. Already he has raised and marketed some 14,000 broilers out of 16,000 started --- and this using straight-run White Leghorn chicks. He currently has two new buildings under construction (each 36 ft. x 360 ft. in dimensions), which will result in a tripling of his production capacity. Sankoff and Meyer have visited this farm a few times at the request of Mr. Saleh, and he has visited their offices for advice on housing, ventilation, feeding and watering equipment, vaccination and sanitation procedures, control of cannibalism and feather pulling, processing and marketing methods, among others, for a broiler production capacity of some 35,000 to 40,000 at any given time. He is counting on Sana to be his principal market outlet for his broilers.

Poultry Training Center -Taiz

The second center for poultry training will be established at Taiz, which is 260 kilometers (162 miles) south of Sana. A supplemental allocation in the amount of \$344,000 is currently being sought to construct the training center in Taiz. The site, almost two acres, has been selected and the land will be provided gratis basis by the FAO Experiment Station.

Congressional approval of the \$344,000 supplement is expected soon. Within the next two weeks it is planned that initial site preparation will begin. Mr. Meyer and the writer went to Taiz on August 25, measured the site (600 ft. x 130 ft.), and a plot plan is being prepared showing the size and location of the eight buildings that are planned. The buildings will consist of three brooder houses (20 ft. x 40 ft. each), three layer houses (20 ft. x 80 ft. each) a feed mill (24 ft. x 48 ft.), and one building designed to house the training/hatchery/office functions. Currently the plan is to have these eight buildings constructed on a contract basis according to plans and specifications developed by Sankoff and Meyer.

The elevation of the site at Taiz is approximately 4,000 feet above sea level, compared to 7,100 feet in Sana. Since the higher elevation (thus lower oxygen tension) at Sana will cause a reduction in hatchability percentage, it is planned that the incubation/hatching functions will eventually be handled at Taiz for both Training Centers.

Critical Performance Indicators -- Possible Extension of Project

A team of two AID/W specialists arrived in Sana on August 22, 1976 to discuss a new computerized integrated management system which is to be implemented on or about October 1, 1976. The system is called "Project Performance Tracking" (PPT), and involves a network of time-projected critical performance indicators which identify critical points that must be achieved by a specified time in order that the objectives of a project can be fulfilled on schedule.

The AID specialists were Mr. Ross Thomas and Mr. Charles Wilding-White. It was determined that the Poultry Planning Project (019) was "ripe" for such an exercise. The two specialists, Mr. John Young, Mr. Leo Sankoff, Mr. Thomas Meyer, and the writer became involved in the process of identifying and calendarizing some 24 critical performance indicators so vital to the poultry project.

On the basis of the PPT projections for the poultry project that were made over the period from August 22 to August 28, it was indicated that likely the termination date should be extended two years, from May 31, 1978 to May 31, 1980. A letter was prepared by the writer, at the request of Mr. Aldelmo Ruiz, Mission Director, about the possibility that the project may need to be extended to May 31, 1980. A copy of that letter, dated August 28, 1976, is attached to this report.

In discussing the matter with Mr. Aldelmo Ruiz, Mission Director, during an exit interview, Mr. Ruiz indicated that the decision concerning possible extension of the project might best be made after a formal evaluation of the project by a special evaluation team --- hopefully within the next eight to twelve months.

SUMMARY AND RECOMMENDATIONS

Generally speaking, the project is progressing as rapidly as can reasonably be expected, given the constraints and delay factors under which Mr. Sankoff and Mr. Meyer are working. Plans and actions insofar as the extension program is concerned are somewhat nebulous at this point. However, the first essential steps are being taken --- namely, the construction of the facilities at Sana, the procurement of chicks, feed, vaccines-drugs-medicaments, commodities (equipment) and expendable supplies. At present the team is working hard to get the Sana Training Center operational. As soon as these critical initial steps have been achieved, there is every reason to feel that the team will proceed with dispatch in fulfilling the overall objectives of the Poultry Planning Project.

Following are recommendations that in the opinion of the writer should help to expedite the objectives of the project:

- (1) Provide more help in building construction supervision at the Sana Center, thereby freeing more of the team's time for activities relating to project objectives. Mr. Martinez is doing an outstanding job of supervision, but his time and energies are spread rather thinly.
- (2) Provide more and better secretarial help and duplicating facilities to expedite the essential paperwork. It is recognized that this situation may be expected to improve as the local secretaries gain experience and become more familiar with the terminology and office procedures.
- (3) AID/W simply must do a better job in expediting orders for critical commodities (equipment, expendable supplies, teaching aids, feed concentrates, vaccines-drugs-medicaments) --- and exercise better judgment in the shipping of perishable items such as vaccines. Furthermore, more "lead" time must be allowed on feed concentrates from the U.S.A., at least 6 to 8 months.

(4) Though far beyond the purview of the current poultry project, the development of deep port facilities in Yemen is a critical factor. It is understood that such facilities are now being developed. Such facilities are extremely important in regard to shipments of feed concentrates and heavy equipment.

(5) Efforts need to be intensified to improve and stabilize procurement schedules and shipping methods for highly perishable commodities such as baby chicks and/or hatching eggs. More dependable airline schedules would help, but this too is perhaps well beyond the purview of the poultry project.

(6) Efforts need to be intensified, soon, to locate and train counterparts. The Y.A.R. Ministry of Agriculture has committed itself to cooperation in the search for such personnel.

(7) More definitive plans for the extension program need to be developed, with various alternatives and more sharply defined objectives. Flexibility in planning and in methodology will be necessary, particularly in the early stages. The likelihood of industry competition for trained Yemeni extension specialists is recognized as a potentially serious deterrent to the project. Special attention must be given to an extension methodology which will be effective with Yemeni farmers (and their wives) since the literacy level of the population is believed to be low, perhaps of the order of ten percent.

(8) Plans seem to be moving well for commencing construction of the Taiz Poultry Training Center. However, it is recommended that plot planning and initial site preparation should proceed at the earliest possible date, in order to "tie it down". Shortly following should be the development of building plans and specifications suitable for contract bidding, with a definite priority sequence identified in case the bids exceed available funds.

August 28, 1976

Mr. Aldelmo Ruiz
Mission Director
U.S. AID Mission to the Yemen Arab Republic
Sana, Yemen

Dear Mr. Ruiz:

This is to recommend and urge that consideration be given to a two-year extension of the Poultry Planning Project 019. from the present termination date of May 31, 1978 to May 31, 1980.

It would be the intent of the California Polytechnic State University that the present team of specialists, Mr. Leo E. Sankoff and Mr. Thomas O. Meyer, would continue as Poultry Specialist/Chief of Party and Extension Specialist, respectively. There is of course the possibility that for reasons of personal health or other compelling factors it might become necessary to replace one or both members of the present team. Should such a change become necessary, every effort would be made to replace one or both team members with men of comparable qualifications and expertise.

You are of course fully aware of the delays that have been encountered by Mr. Sankoff and Mr. Meyer in completing the essential buildings, in the procurement of critical commodities, chicks, feed concentrates, counterparts, and project participants.

Within the past week, the Cal Poly team has worked with Mr. John Young, Mr. Ross Thomas, and Mr. Charles Wilding-White in projecting a network of "Critical Performance Indicators" for the Poultry Planning Project 019.

I was involved to some degree in the process of making the projections, and the proposed two-year extension seems, in view of the current project status, to be a realistic (minimal) time frame for achieving the project objectives. One critical element in the projection is the time required (2 years) in the training of the participants who are expected to return and assume leadership responsibility after the Cal Poly team has left Yemen.

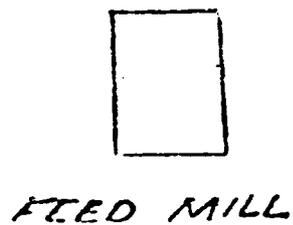
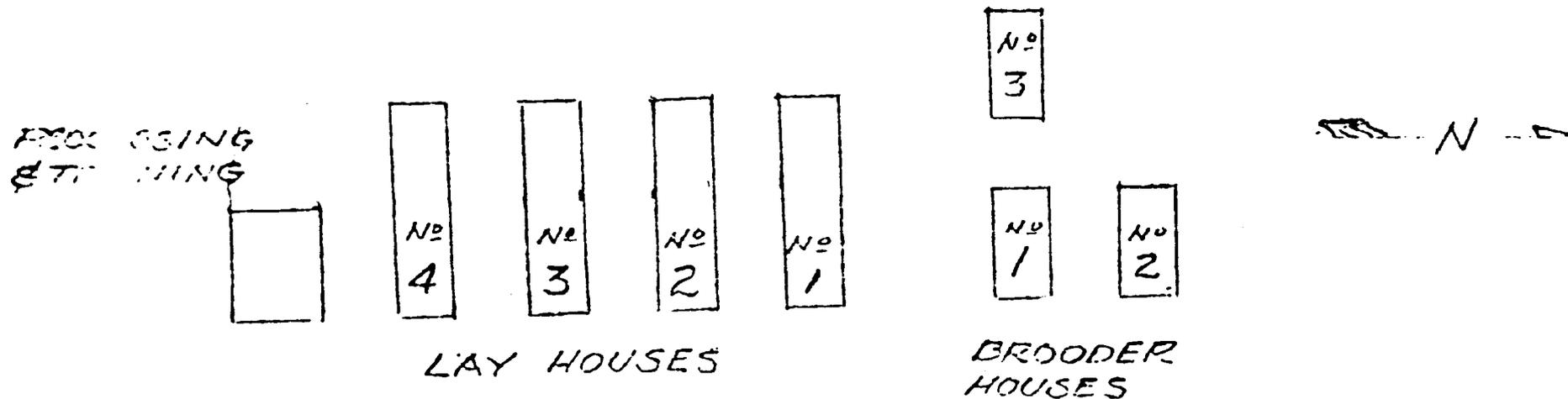
Mr. Ruiz, I am in no position to provide a meaningful estimate of the additional costs that the proposed two-year extension might entail. Such cost projections would necessarily have to be worked out via consultations between Cal Poly and the Contracts Office of AID/W.

You may be assured that both Cal Poly and the two specialists (Sankoff/Meyer) are very desirous of completing the objectives of this project, and therefore suggest the two-year extension to May 31, 1980.

Sincerely,

John W. West, Associate Dean
School of Agriculture & Natural Resources
California Polytechnic State University
San Luis Obispo, CA 93407 U.S.A.

PLOT PLAN POULTRY PROJECT - SANA



SCALE $\frac{1}{16}'' = 1'0''$