TETLIN
HEALTH CLINIC

Alaska Rural Primary Care Facility
Code and Condition Survey

April 23, 2003

Tanana Chiefs Conference, Inc
Dena' Nena' Henash

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I. Executive Summary

Overview:

The Tetlin Health Clinic is currently a 480 SF clinic with an unfinished 384 SF addition that is unheated and not able to be occupied. The original 480 SF facility was built most likely in 1970's or early 1980's on an 8" piling system with steel beams. The system has shifted considerably and has major changes in floor elevation. The unfinished addition was built on mud sills at grade and is almost 5 feet lower than the clinic with a non-code compliant unusable interior stair. The two areas are impossible to connect properly. There are no vestibules at the entries. The clinic has a waiting room at the far end from the entry requiring patients to pass the exam room and office to get to the room. There is an office space in the waiting area, a main hallway, an office/medical supply storage/pharmacy area, one exam room, one toilet room, and one storage/mechanical/janitor room. The construction is somewhat standard of frame construction, with minimal insulation. It does not meet the standards of current codes and construction. The clinic is small for the current village population is listed as 117 residents and is located at the end of 20 mile road off the main highway east of Tok Junction. The Village is located on the main highway but remote with the 20 miles of road with additional medical services available in Tok and Fairbanks. There is an airport at the Village.

Renovation/Upgrade and Addition:

The Clinic would require a 1136 SF addition to accommodate the current need and Alaska Rural Primary Care Facility space guidelines. This addition is possible on the existing site but not practical with the already nonconforming addition and adjacent buildings. The addition would require considerable additional pad filling and combining with adjacent property. There is a site available adjacent to the Clinic in the village for a new clinic. As can be seen from the documentation enclosed, the existing clinic will require some renovation to meet current code and standards as well. The cost of renovation and addition will far exceed the cost of a new clinic facility.

New Clinic:

The community has proposed that a new larger 2000 SF Denali Commission Medium Clinic can be constructed on a new site located adjacent to the existing clinic and a open piece of ground. We have included preliminary site plans based on the site that has been chosen.

The chosen site has existing utilities available and can be served easily. The Tribal Chief, Danny Adams, is in process of working further on the site selection and the ability to bring utilities to the site.

The community has completely supported this effort and have met extensively to assist in new site issues and to resolve any site considerations.

II. General Information

A. The Purpose of the Report and Assessment Process:

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility assessment, planning, design and construction. Over 200 clinics will be inspected through the course of the program. The purpose of the Code and Condition survey report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need between the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 3 and 4. The information gathered will be tabulated and analyzed according to a set of fixed criteria that should yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most efficient means to bring the clinics up to a uniform standard of program and construction quality.

A team of professional Architects and Engineers traveled to the site and completed a detailed Field Report that was reviewed by all parties. Subsequently, the team completed a draft and then final report of the facility condition.

B. Assessment Team:

Dan Williams P.E., ANTHC organized the assessment team. The team for this site visit was Gerald L. (Jerry) Winchester, Architect, Winchester Alaska, Inc.; Bob Jernstrom, PE, Jernstrom Engineering; and Dan Williams P.E., ANTHC; Tony, ANTHC Team members who assisted in preparation of report from information gathered included members of the field team above and Ben Oien PE, Structural Engineer; Tom Humphrey, PE, Electrical Engineer; Carl Bassler PE, Civil Engineer; and Estimation Inc.
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C. Report Format:

The format adopted is a modified “Deep Look” format, a facilities investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. The written report includes a floor plan of the clinic, site plan as available, and new plans for renovation/upgrade or completely new clinics. Additional information was gathered during the field visit which includes a detailed Field Report and building condition checklist, sketches of building construction details, investigations of potential sites for new or replacement clinics, and proposed plans for village utility upgrades. This information is available for viewing at ANTHC’s Anchorage offices and will be held for reference.

D. The Site Investigation:

On December 17, 2001, the team flew to the site and made observations, took photos, and discussed the needs with on-site personnel for the facility. Approximately three-four hours was spent on site, with sufficient time to investigate foundations, structure, condition, mechanical and electrical systems, and to interview the staff to assess current and projected health care needs.

Interviews were conducted with the Danny Adams, Tribal Chief. The staff provided information on the existing building, site, and utilities. Natalie Sam, Health Aide, was also interviewed regarding the existing clinic. These interviews provided clear understanding of the needs of the village, the clinic facility, and the users of the facility.

The Tetlin Tribal Government and staff have reviewed the use of a Denali Commission Medium Health Clinic design adapted to the selected Tetlin site. They have agreed to proceed with final approvals of a site based on the determination that it meets all the criteria including local approval.

III. Clinic Inspection Summary

A. Community Information:

Population: 117 (2000 Census)
Unincorporated, Unorganized Borough, Alaska Gateway School District.

Location:
Tetlin is located along the Tetlin River, between Tetlin Lake and the Tanana River, 20 miles southeast of Tok. It lies in the Tetlin National Wildlife Refuge. The village is not connected by road to the Alaska Highway. It lies at approximately 63d 08m N Latitude, 142d 31m W Longitude. (Sec. 29, T018N, R015E, Copper River Meridian.) Tetlin is located in the Fairbanks Recording District. The area encompasses 70.4 sq. miles of land and 1.5 sq. miles of water. Tetlin lies within the continental climatic zone, with cold winters and warm summers. In the winter, cold air settles in the valley and ice fog and smoke are common. The average low during January is -32; the average high during July is 72. Extreme temperatures have been measured from -71 to 99.

History:
The semi-nomadic Athabascan Indians have historically lived in this area, moving with the seasons between several hunting and fishing camps. In 1885, Lt. H.T. Allen found small groups of people living in Tetlin and Last Tetlin, to the south. The residents of Last Tetlin had made numerous trips to trading posts on the Yukon River. In 1912, villagers from Tetlin would trade at the Tanana Crossing Trading Post. During the Chisana gold stampede in 1913, a trading post was established across the river from Tetlin. When two trading posts were opened in the village during the 1920s by John Hajdukovich and W.H. Newton, residents from Last Tetlin relocated to Tetlin. A school was constructed in 1929, and a post office was opened in 1932. The 786,000-acre Tetlin Indian Reserve was established in 1930. An airstrip was constructed in 1946. When the Alaska Native Claims Settlement Act (ANCSA) was passed in 1971, the reserve was revoked. Tetlin opted for surface and subsurface title to the 743,000 acres of land in the former Reserve.

Culture:
Due to the community's isolation, the residents are able to pursue a traditional Athabascan culture and lifestyle. The sale or importation of alcohol is banned in the village.

Economy:
The school, clinic, store and post office provide the only employment. Many residents engage in trapping or making handicrafts for sale. Fire fighting for BLM employs members of the community

in the summer. Nearly all families participate in subsistence activities throughout the year. Whitefish, moose, ducks, geese, spruce hens, rabbits, berries and roots are harvested.

Facilities:

At present, all residents haul treated well water from the school or washeteria, and use honey buckets or outhouses. Construction of a flush/haul system is underway, including plumbing for 42 homes. Electricity is provided out of Tok. The landfill is not permitted.

Transportation:

A road is available only during summer months. Many residents own skiffs and snowmachines for hunting, fishing and hauling wood. Tetlin is accessible by riverboat. The village owns and maintains a 1,700' turf airstrip. Scheduled and charter flights are available from Tok, and freight is often delivered by plane. Goods are also brought from Tok during the summer.

Climate:

Tetlin lies within the continental climatic zone, with cold winters and warm summers. In the winter, cold air settles in the valley and ice fog and smoke are common. The average low during January is -32; the average high during July is 72. Extreme temperatures have been measured from -71 to 99.

B. General Clinic Information:

Physical Plant Information:

The existing Tetlin Health Clinic is a 20-30 year old 480 SF building with a non-occupied, unfinished and unheated 384 SF addition. (See attached Plan) It is one of the smaller size clinics provided during the last twenty years in the program area. It has very small a waiting room that is used for storage, one exam room, a small office work area, one toilet, one office/supply/pharmacy room, and one mechanical/janitor room. It has a front entry with no vestibule and does not allow stretcher access. There is no rear entry and a sealed up non-code compliant door to the unfinished lower area. The clinic is served with water and sewer from the washeteria next door. A sink is provided in the exam room and in the toilet/bathroom. The facility is totally inadequate, small corridors, and cramped spaces.

Clinic program usage information:

We do not have the patient records that indicate clinic usage and area available from the TCC. There is one full time and one part time health aides. The office space provided is entirely inadequate as it has all office functions, travel, files, and use by all health aides. The room contains a desk, copier, fax, and two chairs and other equipment and supplies.

Community Program Sheet:

The community program sheet P1.0 Services has been included if available on the next page. These sheets were completed during the Code and Condition Survey by ANTHC representative.

C. Program Deficiency Narrative:

1. Space Requirements and Deficiencies:

Space Comparison Matrix - Current Tetlin Actual SF to Denali Commission Medium Clinic

Alaska Rural Primary Care Facility

	Current Clinic			Medium clinic					
Purpose / Activity	**Actual Net SF**			**ARPCF SF**			**Difference**		
		No.	**Net Area (SF)**	**Size**	**No.**	**Net Area (SF)**	**Size**	**No.**	**Net Area (SF)**
Arctic Entries			0	50	2	100			100
Waiting/Recep/Closet	138	1	138	150	1	150			12
Trauma/Telemed/Exam			0	200	1	200			200
Office/Exam	88	1	88	150	1	150			62
Admin./Records			0	110	1	110			110
Pharmacy/Lab			0	80	1	80			80
Portable X-ray			0			0			0
Specialty Clinic/Health Ed/Conf			0	150	1	150			150
Patient Holding/ Sleeping Room			0	80	1	80			80
Storage	75	1	75	100	1	100			25
HC Toilet	32	1	32	60	2	120			88
Janitor's Closet			0	30	1	30			30
Subtotal Net Area			333			1270			937
Circulation & Net/Gross Conv. @ 45%			125			572			447
Subtotal (GSF)			458			1842			1384
Mechanical Space @ 8%			22			147			125
Total Heated Space			480			1989			1509
Morgue (unheated enclosed space)				30	1	30			30
Ext. Ramps, Stairs, Loading	As Required			As Required			As Required		

   a. Overall space deficiencies: The size of the facility is about 1136 sf short of the ARPCF space requirements.

   b. Specific room deficiencies: There are no vestibules, small waiting space, minimal office and storage space, no TDY, no trauma room. This in combination with other small spaces leaves the clinic very program deficient.

   c. Other size issues: Mechanical room is minimal, and there are no unheated or exterior storage areas, and circulation is narrow and very difficult.

2. Building Issues:

   a. Arctic Entries - The main entry in not accessible for ADA and is impossible to get a gurney into the room. It has storage of needed materials that cannot be stored inside the facility due to lack of room. There is no rear entry access.

b. Waiting / Reception –The waiting area contains two chairs and has equipment and other items stored in the room.

c. Trauma/Telemed/Exam – There is a no trauma room and the one exam room does not meet all aspects or requirements. There is only one room that is used for exam or some combination.

d. Office / Exam – There is one exam room, which is crowded with equipment. There was no capability of putting a patient in a gurney in the exam room. There is a sink in the room and sanitation for patients is an issue. Privacy is very difficult. Note that electrical service is completely inadequate for the needs of the equipment.

e. Administration / Records – There is one office room space used for all administrative, records, scheduling, and other functions. It is very small.

f. Pharmacy / Lab – There is not a Pharmacy and medicines are stored in locked cabinets in the exam room.

g. Specialty Clinic / Health Education / Conference - This function is completed in the exam rooms. There is no special area.

h. Patient Holding / Sleeping Room – There is no sleeping room and a rollaway bed for itinerant staff. The exiting does not meet code with window egress.

i. Storage – Storage is inadequate and is an impediment to safety and the operation of this clinic. There is a lack of adequate storage for needed medical supplies, files, and equipment in this facility. There is minimal storage and mostly it is in the exam rooms. There is storage in all the rooms.

j. HC Toilet Facilities – There is one toilet facilities which does not meet any ADA requirements or current codes.

k. Janitors Room – There is no janitor's room as required by code.

l. Mechanical/Boiler room – There is no real mechanical room and heating is currently with Toyo stoves.

m. Ancillary Rooms – There are no ancillary rooms as all space is used to maximum capacity including exam rooms, office, waiting room, corridors, and vestibules.

3. Functional Design Issues

This facility is functionally poorly laid out and not completely functional for its intended use. The spaces do not meet the functional size requirement, access is non-compliant, and the ability to perform required medical functions within the facility is severely hampered by lack of storage.

4. Health Program Issues

a. Vestibule and comfort:
The front door of the clinic has no vestibule, which is inadequate to defer the heat loss. There is no ADA access or proper gurney access. The exam rooms are cold every time the door is opened and the cold air migrates into the clinic where patients are being attended.

b. Medical/Infectious Waste
This is being handled in a very basic method and is hampered by the small non-functional facility.

c. Infection Control
This is being completed with minimal long-term control due to lack of facilities. Floor materials are very worn out and replaced with multiple materials and sizes allowing for control problems. There are no rubber base materials, and wall and ceiling materials are also considerably lacking in cleaning ability. The exposed piping also provides very unsanitary conditions and impossible cleaning of the exam rooms.

d. Insect and Rodent Control
None noted or investigated

e. Housekeeping
The difficulty in cleaning and housekeeping in such a congested facility is understandable and is being done at the best level currently possible.

5. Utilities
   a. Water Supply
   Water is supplied by washeteria water system.

   b. Sewage Disposal
   Sewer is supplied by washeteria sewer system

   c. Electricity
   See Electrical Narrative.

   d. Telephone
   A single phone line services the clinic and is inadequate for current needs.

   e. Fuel Oil
   The fuel system is not adequate with some leaking having occurred around the existing above ground tank. There is not protection or containment for possible spilling.

D. Architectural / Structural Condition

1. Building Construction:

a. Floor Construction:
The floor is 2x10 joist metal frame on a piling foundation system. There is some settlement and heaving which has caused doors to stick and floor to be uneven. There is approximately 2-3 inches of differential in the floor elevations. There is batt insulation in the floor system with fiberboard soffit that is deteriorating.

b. Exterior Wall Construction:
The walls are 2x6 with R-13 insulation. The exterior is wood lap siding over plywood and needs major finishing. There appears to be fiberglass batt insulation with vapor barrier and gypsum board on the interior.

c. Roof Construction:
The roof is 2x4 trusses at 24" oc with metal roof. There is roof shear plywood, however, ventilation is non-existent. The insulation is R-19 to R-24 batt insulation that is minimal in this climate and required upgrading to R-60.

d. Exterior Doors:
The exterior doors are residential metal and in poor shape and will not withstand the use required. They need replacement.

e. Exterior Windows:
Windows are thermo-pane windows; and need replacement due to age and deterioration.

f. Exterior Decks, Stairs, and Ramps
There is only one entry on the front. It is 5 ft in elevated and the decks, stairs are deteriorating. There are also threshold problems that need corrections to allow for full ADA access. All new ramps, stairs, decks, and railings are required to meet code.

2. Interior Construction:

a. Flooring:
The flooring is sheet vinyl over particle board. It has been replaced once and is in very poor shape. It is older, worn and patched and needs complete replacement for clean ability and infection control issue.

b. Walls:
The walls are of 2x4 wood construction, with no sound insulation. The type of wall construction does not provide for patient privacy in any way. The finish is gypsum board and with the settlement issues, finishes require repairs for cracking in almost every corner and room.

c. Ceilings:
The ceilings are gypboard over the ceiling joists. It also needs renovation due to building settlement.

d. Interior doors:
The interior walls are of hollow core wood construction and none of the hardware meets ADA requirements. These do not meet the standards for privacy and durability for clinics. The must all be replaced. There has also been floor shifting and most of the doors do not close properly.

e. Casework:
The upper casework is poor and the lower casework is of very bad construction. Plastic laminate tops that do not fit to walls due to settlement. The sanitary issues are significant with the counters and cracks to the walls in most rooms.

f. Furnishings:
The furnishings are all old and very poor condition. There is one chair in the waiting room and a variety of desks, chairs, and tables for other use. The exam tables are old as well.

g. Insulation:

Floor Insulation		R-13
Wall Insulation	R-13	
Attic/Roof Insulation		R-24-30
Attic Ventilation		NONE

h. Tightness of Construction:
The building is of poor overall construction in an area that requires tightness and adequate insulation. The building has numerous leaks in construction system at doors, floor, roof, and sills as well as the walls.

i. Arctic Design:
The vestibules are non-existent, orientation is OK, and siting of the clinic is not good since it sets lower than the road in front and has drainage problems.

3. Structural

a. Foundations
The foundation is piling and metal frame and is in poor structural condition with some jacking of piling, probably due to inadequate depth of penetration into permafrost and deep active layer. Floors have settled, walls are racked, and the building has floor level deviation and has substantial cracking on the interior. There not adequate hold down strapping and the bracing is loose or missing. In general the foundation needs substantial upgrade to new useful life or replacement.

b. Walls and Roof:
The walls and roof are adequate but should be upgraded to meet current codes. The roof system with no ventilation is prone to failure in the long term.

c. Stairs, Landings, and Ramps
These elements are in poor condition and need of replacement with signs of rotting and deterioration of structural elements.

E. Mechanical Condition

1. Heating System
   a. Fuel Storage and Distribution
   The clinic's heating fuel oil storage tank is located adjacent to the building and not a minimum of 5 ft. as required by code. The 500-gallon storage tank does not have the proper venting or piping as required by code.

b. Oil-Fired Heater
A residential grade, oil-fired, "Toy stove" provides heating for the entire clinic. The heater is in good condition and does provide the required heating needs of the occupied Health Clinic. The exhaust and combustion air opening for the heater is provided in the intake and exhaust kit mounted on the outside wall. The addition to the clinic is not occupied and has no heating system.

c. Heat Distribution System
The abandoned baseboard enclosures (from the previous heating system) are all bent and broken.

2. Ventilation System
   a. System
   There is no mechanical ventilation system. Ventilation is by operable windows. The windows do not open easily and as such do not provide effective ventilation. The office does not have an operable window and as such has no ventilation. The office had an operable window before the addition was built, but now the window opens into the attic space of the addition.

   b. Exhaust Air
   A ceiling mounted exhaust fan services the toilet room. This fan is not ducted outside, but is ducted into the attic space.

3. Plumbing System
   The clinic has no water and sewer service at the time of the inspection. Water and sewer services are provided by the adjacent washeteria, but service was discontinued because of a lack of heat in the clinic. Apparently keeping the heat on in the clinic has been a problem.

   a. Water System
   The water system plumbing is typical ½" and ¾" copper distribution piping to the clinic exam sinks and toilet fixtures.

   b. Sewer System
   A sewer lift station provides for the needs of the clinic. The sewage is pumped overhead into the adjacent washeteria system.

   c. Fixtures
   The toilet room plumbing fixtures are not ADA approved or UPC code compliant for barrier free access.

   d. Water Heater
   The electric water heater is installed in the storage room. Access to the water heater is limited. The water heater was turned off to prevent freezing in the system when heat in the clinic is down.

F. Electrical Condition

1. Electrical Service

a. Electrical service is an overhead connection to the building with a 100A 120/240V meter/main combination panel located on the exterior of the building.
b. The meter is located to high up the wall to be read without a ladder.
c. The meter is ABB 200Cl Form S SN98704693
d. There is an older 70 circuit breaker tapped off the meter/main. It is not clear what this circuit is feeding but the installation is substandard and should be removed.

2. Power Distribution
   a. Panel A is 100 Amp Sq. D load center with 14 poles total and no spares or spaces.

   b. It appears that at one time non-metallic sheathed cable (Romex) was used for the branch circuit wiring. It has recently been changed to all surface mounted raceway with MC cables homeruns. However there is still a lot of temporary wiring that needs to be completed. And the NM cable needs to be removed.

3. Grounding System
   Grounding of Electrical Systems
   a. The service is grounded to the metal piling.

   Grounding of Electrical Equipment
   b. The antenna is probably not grounded. Not verified from photos. NEC 820-40(d)

4. Exterior Elements
   a. There is no exterior lighting or receptacle.

5. Wiring devices
   a. Receptacles are grounding type. GFCI receptacles are not provided within 6 ft of most sinks.
   b. Receptacles are residential type, not hospital grade. NEC 517-81(b)

6. Lighting
   a. Foot candle measurements were taken and lighting levels are generally not adequate. The exam room measured 40FC and should have 75FC.

   b. The lighting is predominately 4 ft fluorescent strip lights chain hung from the ceiling. This is a very unsanitary arrangement for a clinic.

7. Emergency System
   a. Building does not utilize battery backed emergency type exit signs. UBC 1003.2.8.

   b. The building does not have any emergency egress lighting. UBC 1003.2.8.

8. Fire Alarm System
   a. There is no fire alarm system or smoke detectors. ADA 4.28 and UBC 1105.4.5

9. Telecommunication
   a. Provisions for telephone wiring were not verified. There does appear to be adequate telephone service to the building. And 1 outlet per room.

b. Some provisions for LAN were noted but the telemedicine equipment was not functional. (EIA/TIA)

10. Energy Management
    a. All of the lighting should be replaced. Rooms should have occupancy sensor switches installed.

G. Civil / Utility Condition

1. Location of building
    a. Patient Access
    Located in the relative center of the village for ease of access and seems to work fine. It is on the main road to the airport and to the connecting road to the highway system, which is an advantage. There is an airport for the village.

    b. Service Access
    Road access is provided to front entry. The entry does not meet ADA code access requirements. There are thresholds and steps that make access impossible without correction.

    c. Other Considerations:
    The facility is located in the center of town and allows for minimal expansion.

2. Site Issues
    a. Drainage
    Drainage from the site is adequate. There is no significant pad on which the building is constructed and correction would include putting a new extended pad on the site for the existing and any new expansion of the building.

    b. Snow
    There does not appear to be a snow-drifting problem as the facility sits in the open.

3. Proximity of adjacent buildings
    There is not adequate space for any expansion on the current site.

4. Utilities
    a. Water Supply
    The new PHS Washeteria provides adequate water for the facility.

    b. Sewage Disposal
    The new PHS Washeteria provides adequate sewer for the facility.

    c. Electricity
    Power from Village system via overhead wire. See Photos

    d. Telephone
    Overhead phone with only one phone connection, requiring fax and phone on same line.

H. Existing Facility Floor Plan (Site Plans, New Clinic Plans, Regional Map):

We have attached drawings, as we have been able to identify, find, or create as part of this report. We have endeavored to provide all drawings for all the sites; however, in some cases exact existing site plans were not available. We have provided as indicated below:

A1.1 Existing Site Plan is attached if available

A1.2 Existing Facility Floor Plan is attached following.

A1.3 The Existing typical wall section is attached following as required by the report guidelines.

A2.1 The Addition to the Existing Facility as required to meet ARPCF Space Guidelines is attached following.

A3.1 There has not been an new site selected.

A3.2 The New Denali Commission Clinic Floor Plan meeting the ARPCF Space Guidelines and proposed for this location is attached.

IV. Deficiency Evaluation

A. Deficiency Codes:

The deficiencies are categorized according to the following deficiency codes to allow the work to be prioritized for funding. The codes are as follows:

01 Patient Care: Based on assessment of the facilities ability to support the stated services that are required to be provided at the site. Items required for the patients social environment such as storage, privacy, sensitivity to age or developmental levels, clinical needs, public telephones and furnishings for patient privacy and comfort.

02 Fire and Life Safety: These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated life safety aspects of building codes including the Uniform Building Code, International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code. Deficiencies could include inadequacies in fire barriers, smoke barriers, capacity and means of egress, door ratings, safe harbor, and fire protection equipment not covered in other deficiency codes.

03 General Safety: These deficiencies identify miscellaneous safety issues. These are items that are not necessarily code items but are conditions that are considered un-safe by common design and building practices. Corrective actions required from lack of established health care industry safety practices, and local governing body code safety requirements. I.e. Occupational Safety Health Administration (OSHA) codes & standards.

04 Environmental Quality: Deficiencies based on Federal, State and Local environmental laws and regulations and industry acceptable practices. For example this addresses DEC regulations, hazardous materials and general sanitation.

05 Program Deficiencies: These are deficiencies that show up as variations from space guidelines evaluated through industry practices and observation at the facility site and documented in the facility floor plans. These are items that are required for the delivery of medical services model currently accepted for rural Alaska. This may include space modification requirements, workflow pattern improvements, functional needs, modification or re-alignment of existing space or other items to meet the delivery of quality medical services. (Account for new space additions in DC 06 below)

06 Unmet Supportable Space Needs: These are items that are required to meet the program delivery of the clinic and may not be shown or delineated in the Alaska Primary Care Facility Space Guideline. Program modifications requiring

additional supportable space directly related to an expanded program, personnel or equipment shall be identified in this section; for example additional dental space, specialty clinic, storage, or program support space that requires additional space beyond the established program.

07 Disability Access Deficiencies: The items with this category listing are not in compliance with the Americans with Disabilities Act. This could include non-compliance with accessibility in parking, entrances, toilets, drinking fountains, elevators, telephones, fire alarm, egress and exit access ways, etc.

08 Energy Management: These deficiencies address the efficiency of lighting, heating systems/fuel types and the thermal enclosures of buildings, processes, and are required for energy conservation and good energy management.

09 Plant Management: This category is for items that are required for easy and cost efficient operational and facilities management and maintenance tasks of the physical plant.

10 Architectural M&R: Items affecting the architectural integrity of the facility, materials used, insulation, vapor retarder, attic and crawlspace ventilation, general condition of interiors, and prevention of deterioration of structure and systems.

11 Structural Deficiencies: These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.

12 Mechanical Deficiencies: These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems, interior mechanical utilities, requiring maintenance due to normal wear and tear that would result in system failure.

13 Electrical Deficiencies: These are deficiencies with normal or emergency power, electrical generating and distribution systems, interior electrical and communications utilities, fire alarm systems, power systems and communications systems within a building that should be repaired or replaced on a recurring basis due to normal wear and tear that would otherwise result in system failure.

14 Utilities M&R: This category is used for site utilities for incoming services to facilities that are required for the building to be fully operational. Deficiencies may include sewer and water lines, water wells, water tanks, natural gas and propane storage, electric power and telecommunications distribution, etc.

15 Grounds M&R: Real property grounds components that should be replaced on a recurring basis due to normal wear and tear. Deficiencies with respect to trees, sod, soil erosion, lawn sprinklers, parking, bridges, pedestrian crossings, fences, sidewalks & roadways, and site illumination etc. are considerations.

16 Painting M&R: Any painting project that is large enough to require outside contractors or coordination with other programs.

17 Roof M&R: Deficiencies in roofing, and related systems including openings and drainage.

18 Seismic Mitigation: Deficiencies in seismic structural items or other related issues to seismic design, including material improperly anchored to withstand current seismic requirements effect. The elements under consideration should include the cost incidental to the structural work like architectural and finishes demolition and repairs.

B. Photographs:

We have provided photographs attached which are noted to describe the various deficiencies described in the narratives and itemized in the summary below. The photos do not cover all deficiencies and are intended to provide a visual reference to persons viewing the report who are not familiar with the facility.

We have included additional photos as Appendix B for general reference. These are intended to add additional information to the specific deficiencies listed and to provide general background information.

C. Cost Estimate General Provisions

1. New Clinic Construction

a. Base Cost: The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency). The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

- General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.
- The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

b. Project Cost Factors

- Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.
- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

d. Estimated Total Project Cost of New Building: This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

2. Remodel, Renovations, and Additions

a. Base Cost: The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis

Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

- The cost of Additions to clinics is estimated at a unit cost higher than new clinics due to the complexities of tying into the existing structures.
- Medical equipment is calculated at flat rate of approximately $32 which is the same amount as used for Equipment for New Clinic Construction. It is included as a line item in the estimate of base costs.

b. General Requirements Factor: General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

c. Area Cost Factor: The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

d. Contingency for Design Unknowns (Estimating Contingency): The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

e. Estimated Total Cost: This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

f. Project Cost Factors: Similar to new clinics, the following project factors have been included in Section VI of this report.

- Design Services is included at 10% to cover professional services including engineering and design.
- Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.
- Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

g. Estimated Total Project Cost of Remodel/Addition: This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon

wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. Summary of Existing Clinic Deficiencies

The attached sheets document the deficiencies; provide recommendations on how to make repairs or accommodate the needs and provide a cost estimate to accomplish the proposed modifications. The summary addresses individual deficiencies. If all deficiencies were to be addressed in a single construction project there would be cost efficiencies that are not reflected in this tabulation.

These sheets are reports from the Access Data Base of individual Deficiencies that are compiled on individual forms and attached for reference.

Refer to Section VI. New Clinic Analysis for a comparison of remodel/addition to new construction.

VI. New Clinic Analysis

The analysis of whether a new clinic is required is based on the Denali Commission standard of evaluation that "New Construction is viable if the cost of Repair/Renovation and Addition exceeds 75% of the cost of New Construction".

We have therefore determined the cost of a New Clinic Construction to meet the Alaska Rural Primary Care Facility (ARPCF) Space Guidelines for the size of village. We have also determined the cost to Repair/Renovation and Addition to the existing Clinic to meet the same ARPCF Space Guidelines.

A. The cost of a New Denali Commission 1500 SF Small Clinic in Tetlin is projected to be:

• Base Anchorage Construction Cost per sf.			$183
• Project Cost Factor:		@ 45%	$ 82
Medical Equipment	17%		
Construction Contingency	10%		
Design Fees	10%		
Construction Administration	8%		
• Multiplier for Village		@ 1.28	$ 74
Adjusted Cost per SF			$339
Projected Cost of a New Clinic:	**2000 sf. X $339**	**=**	**$678,000**

B. The cost of the Repair/Renovation and Additions for the existing Clinic are projected to be:

• Code & Condition Repairs/Renovations			
Cost from Deficiency Summary			$390,767
• Remodel/Upgrade work (See Def. Code 01)			
100% of clinic 864 SF = 864 SF @ $110/SF			$ 94,827
• Additional Space Required by ARPCF – (See Def. Code 06)			
○ Base Anchorage Cost			$226
Medical Equipment			$ 32
Additional Costs –			$ 98
General Requirements	20%		
Estimation Contingency	15%		
○ `Multiplier for Village	@1.28		$ 98
Adjusted Cost per SF			$609
Total Addition Cost of 1136 SF @ $454			$516,668
• Project Cost Factor:	@ 28%		$280,633
Construction Contingency	10%		
Construction Administration	8%		
Design Fees	10%		
Total cost of remodel/addition			**$1,282,195**

C. Comparison of Existing Clinic Renovation/Addition versus New Clinic:

Ratio of Renovation/Addition versus New Clinic is:
$1,282,195 / $678,000 = 1.89 x cost of New Clinic

Based on Denali Commission standard of evaluation; the remodel/addition costs are more than 75% of the cost of new construction. A new clinic is recommended for this community.

* Note: Village factors may have been adjusted for recent 2001 cost adjustments and may have changed from previously published data distributed to the villages.

D. Overall Project Cost Analysis:

The overall project cost analysis below incorporates land, multi-use, utility costs, and road access costs, and project management fees if any are associated with the project.

Item	Quantity	Units	Unit Cost	Area Adjustment Factor	Total Cost	Allowable under "Small" Clinic Process (yes/no)
Primary Care Clinic (Allowable)	2000	SF	$265.00	1.28	$678,000	yes
Clinic (Non-allowable portion)	0	SF	$265.64	1.3	$0	no
Land	15,000	SF	$2.00	1	$30,000	yes
Multi-Use Facility Design Cost	0	LS	$0.00	1	$0	yes
Multi-Use Facility Construction Cost	0	LS	$0.00	1	$0	no
Utility Extension/Improvements	1	LS	$15,000	1	$15,000	yes
Road access & parking lot improvements	1	LS	$5,000	1	$5,000	yes
Subtotal Project Cost					$728,000	
Project Management Fees					Unknown	
Total Project Cost					**Unknown**	

VII. Conclusions and Recommendations

The existing Tetlin Clinic has served the community well for many years. Base on current ANTHC and TCC delivery model for health care to rural Alaska, the facility is not adequate in size or in condition to meet these needs. The existing structure could be adapted for many other less clinical and medically stringent uses without extensive remodeling.

After careful review it is the recommendation of the consultant team that a new Denali Commission 2000 SF Medium Clinic be considered for Tetlin. The addition of approximately 1136 sf of clinic space required by the current ARPCF Program Space Guidelines and the major renovation and upgrading of the existing clinic space will cost 1.89 times the cost of a new clinic. This results in the recommendation of a new clinic for this village.

We reviewed the options with the local community leaders the consensus was that the New Medium Clinic would meet the current community needs and for years to come. In addition, they agreed that there is a good adjacent site that is available for construction of a new clinic. The site is adjacent to all existing utilities.

The community believes this is a good solution and will produce the best return for funds invested in a clinic that meets the needs of Tetlin Community and is aggressively moving to assist in any way to accomplish this goal.

Appendix A: Specific Deficiencies Listings

The attached sheets represent the individual deficiencies identified for this project and the corrective action required to meet current codes and standards of construction. The deficiencies are further summarized in Section V. Summary of Existing Clinic Deficiencies.

Appendix B: General Site Photographs

Aerial: Existing Clinic & New Site

Aerial: New Site Behind Existing Clinic

Exterior From South

Exterior From North

Exterior From East

West Side From North

Foundation

Foundation & Addition

Addition

Foundation

Windows

Exterior Stairs

Exterior Stairs

Attic

Exterior Stairs

Attic

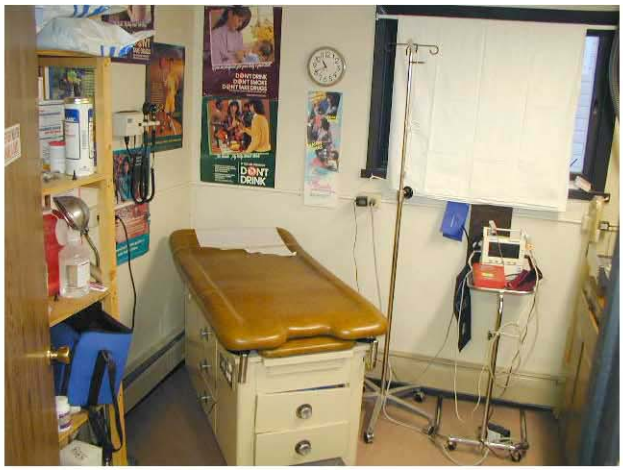
Addition Area Unheated

Addition Unheated

Stairs Not to Code

Stairs Not to Code

Hallway



Exam Room

Office

Sink

Waiting Room

Reception/ Waiting

Rotting of Walls

Hallway

Floor Deterioration

Exam Room

New Site From Northwest

New Site From North

This Report was Prepared by

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