

4/28/77

PLAN FOR INITIAL REMOVAL OF
WILD HORSES FROM THE STONE CABIN AND
REVEILLE GRAZING ALLOTMENTS

BATTLE MOUNTAIN DISTRICT
TONOPAH RESOURCE AREA
NEVADA
1977

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I. INTRODUCTION

A. Maps

See Appendix A.

B. Description of Proposal

This plan is an outline of operations to reduce the wild horse populations in the Stone Cabin grazing allotment (Stone Cabin project area) and in the Reveille grazing allotment (Reveille project area) to the numbers established by the land use plan for these areas. Numbers will be reduced to 185 head in the Stone Cabin project area and to 175 head in the Reveille project area. These areas are delineated on the maps in Appendix A. This reduction will involve the removal of approximately 1,115 horses, including the transport of these animals to corrals near Reno. There will be approximately 600 horses removed from the Stone Cabin area and approximately 515 head removed from the Reveille area. It should be noted this will also involve the complete removal of wild horses from the area east of the Reveille Range and from the critical deer summer range in the Kawich Range (these areas are identified on the maps in Appendix A).

Capture of horses will be done primarily with a helicopter used to herd the animals into traps or corrals. If for some reason the use of a helicopter is not practical or possible, water trapping will be substituted. Traps which are proposed for use with the helicopter would be effective water traps since each is located around a major water. Field destruction (shooting) will be used in the Kawich deer summer range if they cannot be gathered by helicopter or by trapping.

In addition to the actual removal of horses, the plan includes an intensive inventory of the wild horses in the project areas prior to start of removal operations. This will insure that the correct number of horses is removed. The inventory will be done not more than one month nor less than one week prior to the start of removal operations.

Flying (including the inventory) and transport of horses will be done by contract, utilizing separate contracts for flying (including the inventory) and transportation. In the event water trapping is done, one contract will be let for the trapping and transport of animals from the trap to the holding corral. All other work, including a ground crew for the helicopter running and a crew to feed and care for horses being held prior to shipment to Reno, will be done by BLM employees.

C. Current Situation

1. Stone Cabin Project Area

The horse population of this area is estimated as 785 head, including the 1977 colt crop. Decision WH-2.3 of the Tonopah Management Framework Plan (MFP) has set the optimum number of horses in this area at 235 head. The number of wild horses will be allowed to fluctuate between 185 and 320 head. This plan is for reduction of the population to the lower limit of 185 head.

2. Reveille Project Area

The approximate wild horse population in this area, including the 1977 colt crop, is estimated as 690 head. The Tonopah MFP, Decision WH-2.4, has set the optimum number at 200 head in this Herd Management Area, specifying that the population will be allowed to vary between 175 and 225 head. MFP Decision FF-2.2 calls for removal of horses from the Kawich deer summer range (outlined on the maps in Appendix A). In addition, the Allotment Management Plan for the Reveille Allotment, which is nearly the same area as this horse removal project area, specifies that wild horses will be maintained only in Reveille Valley itself, between the crests of the Kawich and Reveille Ranges. It prescribes that wild horses be removed entirely from the Kawich critical summer deer range. This is in turn, supported by MFP Decision WL-5b. This plan will implement these decisions by effecting a reduction in the one area (to 175 head) and completely removing horses from other selected areas.

II. REMOVAL

A. Description and Priority of Methods

Horses will be removed primarily by the use of a helicopter or by water trapping, and possibly by shooting, as identified above.

The specific way that the helicopter will be used is not exactly prescribed. Exact operating procedures may vary between trap locations and is dependent on what will work. In general, however, it is not intended to use riders on horseback or wings on the traps to start with. The only ground based "help" for the aircraft will be one to two men to shut the gate after horses enter the trap, and the contract inspector and/or radio control base at the heliport or other location. This may change depending upon experience gained during the actual operation.

In the event certain horses are identified for removal which are not captured with a band by helicopter, these individuals will be humanely destroyed by shooting in the field. One or more Bureau employees proficient as riflemen and hunters will be delegated this job.

Removal of wild horses from the Kawich critical deer area by herding with a helicopter may prove impractical or impossible because of the extremely rough terrain and the dense pinon pine cover. While the use of a helicopter will be the preferred method, removal by shooting may be required if gathering by helicopter is not successful. The District Manager will delegate one or more individuals who are proficient as riflemen and hunters to accomplish this.

The number of horses to be removed in the Stone Cabin Area north and south of Highway US-6 will be proportionate to the number of horses in each area immediately preceding the start of operations.

A plan of helicopter operations and procedures specific to this project is attached as Appendix B.

B. Time Frame

1. Term of the Contract

The term of the contract will be three months, July through September.

2. Gathering Considerations

a. Foaling Season and Weather

July through September is after the main foaling season and during the dry part of the year, when the horses will be coming into some of the traps regularly for water. The latter condition will facilitate herding them into those traps or water trapping operations. During this time of year the weather is generally favorable for flying except for localized thundershowers. There should be little or no time lost due to adverse weather. The only other problem with weather might be the low air density due to the hot, dry atmosphere. This could reduce passenger load of the helicopter.

b. Cattle

Flying will be scheduled and accomplished to cause the least practical disturbance to cattle. The greatest potential for disturbance would be denying their use of those waters where traps are located. While a given trap is being used, it would be denied to cattle for at least a day at a time, and very possibly longer. In the Stone Cabin project area cattle congregate in summer around Highway Reservoir and the Stone Cabin Ranch, and along the west side of valley from the highway north to Warm Spring. In the Reveille area cattle are generally scattered over the whole allotment wherever there is water. When herding horses in these areas, arrangements will be made with the grazing permittees to move their cattle to

an alternate water source during use of that trap. If congregations of cattle hamper the movement of horses through the area, flying in that area will be rescheduled to early in the morning or late in the afternoon when the cattle are scattered. If this is not practical, arrangements will be made to have the cattle moved.

C. Coordination With Other Agencies

1. U.S. Forest Service

When gathering in the Stone Cabin area along the National Forest boundary, it is very likely flying will be done over National Forest Lands (NFL). If horses are disturbed while flying in an adjacent area they will likely run up onto NFL. Horses may have to be gathered off NFL in such case. In the event this happens, and any other time gathering operations are going on adjacent to NFL the District Ranger will be notified and any necessary coordination with their activities will be done.

2. U.S. Air Force

The bombing and gunnery range of Nellis Air Force Base joins both project areas on the south. Aircraft from this area often overrun the boundary and fly over the project areas. In order to avoid mid-air collision with these aircraft, contact with the Air Force will be made not less than once a week during gathering operations to coordinate our flying with theirs.

I. FACILITIES

The estimated costs of facilities maintenance and new construction are given in Appendix E.

A. Existing Facilities.

The existing traps or corrals which will be used are shown on the maps in Appendix A. In the Stone Cabin project area all those shown, with

the exception of those at Stone Cabin and Five Mile ranches, will be used. Those to be used in the Reveille project are circled in green. Each of these are discussed below.

1. Stone Cabin Project Area

a. Italian Pipeline Trap

This is a BLM water trap built for the 1975-76 removal program. It can be used with minor modification. The gate needs to be strengthened and covered with canvas, polyethelyne, or burlap. The corners should be rounded by setting posts in each corner and stretching canvas or burlap between them. District force account crew will do this modification.

b. Two-Mile Pipeline Trap

Same situation as the Italian Pipeline Trap.

c. Buttes Trap

This trap is located on patented land and owned by Joe and Roy Clifford. It can be used to run horses into without repair or modification. See paragraph VI A for agreement for use of this trap.

d. Coyote Hole Trap

This facility is owned by Chet Meyer. It can be used without repair or modification except as noted for number a. above. See paragraph VI. A. for agreement for the use of this trap.

e. Haws Pipeline Trap

This is a BLM water trap constructed for the 1975-76 removal project. It can be used without repair or modification except as noted for number a. above.

2. Reveille Project Area

Each of the existing facilities which will be used is privately owned. They are all of similar construction and in satisfactory state of repair. They are essentially cattle handling corrals made with juniper posts and net wire. Each will need canvas attached to the inside of the wire to make them seem solid walled. Smooth wire or rope will be strung above the existing net wire and canvas hung from it to make the sides six feet high. Posts will be set in the corners of each and net wire strung with canvas attached to round the square corners. Six inches of dirt will be added to the floors of each wooden floored chute to deaden the sound of hooves on the wood. This will eliminate the possibility of horses "spooking" in the chute or refusing to enter it because of unfamiliar noises. This work will be done with BLM force account labor and government furnished material.

The facilities to be used are:

- 1) Witched Well
- 2) End of Reveille Mill Pipeline
- 3) Charlies Well
- 4) Echo Canyon Corral
- 5) Reveille Basin Well
- 6) Ray's Well

Deep Well, Sunrise Well, or Pryamid Well, all located in the southeastern part of the area may be used (each has a corral facility similar to those listed above) if there are horses within fifteen miles and not closer to one of the six listed above.

B. Needed Facilities

Facilities which will have to be built to accomplish the removal involve additional traps and a holding facility. These are shown in red on the maps in Appendix A. Appendix C contains specifications and a plan view of each needed facility.

1. Stone Cabin Project Area

a. Holding Facility

A permanent holding facility will be built near Highway US-6 in Stone Cabin Valley. The area is a Desert Land Entry which was abandoned and is in federal ownership. The location is in section 3, T. 3 N., R. 48 E. There is electricity and a well on the site

This facility will be used to hold captured horses after they are trapped and before they are shipped to the central corral near Reno.

b. Lone Tree Spring (Meyers Water)

Construct typical trap at this location with permanent chute and temporary corral. The exact location has yet to be determined, though it would probably be near or on the road for easy access. Horses could be run down the road, a natural path for them, and into the trap.

c. Point of Rocks

A trap of typical construction will be located here, though the configuration will be different in order to fit the local situation. It appears that the location will not be on private land.

d. Stinking Springs

There is currently a corral at this location which is federally owned. The facility will have to be rebuilt as shown in Appendix C for use as a horse trap.

e. Haws Canyon North

A trap of typical construction and configuration will be built around the trough on this leg of the pipeline.

2. Reveille Project Area

Milk Spring Trap

This facility will involve a permanent crowding pen and chute. The actual trap, or corral, will be constructed of portable corral panels and removed when not required for removal operations.

IV. DISPOSITION AND HANDLING OF HORSES

A. General Provisions for Humane Treatment

The welfare of wild horses and humane treatment of trapped animals will be of primary importance in handling them. Horses which are injured or sick to the extent they cannot recover to become normally healthy and active individuals will be humanely destroyed. They will be destroyed in the event treatment is not practical, and at the soonest practical time after discovery, whether the animal is in a trap or corral, or on the range.

B. At the Traps

Captured horses which are not moved from a trap within ten hours after capture will be fed and watered at the trap within that time.

If practical, problem animals will be identified by the project inspector at the traps. They will be sorted from the other horses at that time, if practical, and humanely destroyed. Animals which are obviously sick or diseased, lame, very old, or those with physical deformities or genetic abnormalities will be considered problem animals. Only the project inspector will destroy these animals.

A record will be kept of the date of capture, the approximate age and sex of each, and the number of horses caught at each trap. This recordation may be done at the trap or at the holding corral, whichever is most practical at the time.

Individual horses may be released from a trap back to the range for study purposes as outlined in the Herd Management Plan (HMAP). Only those animals will be released, however, which are not likely, in the judgement of the project inspector,

to be caught again during successive runs to that particular trap. Normally this will restrict those released to the horses among the last animals caught at a given time.

C. Transport from Traps to Holding Corral

Movement of captured horses from the traps to the holding facility will be done by contract. It may be the same contract as that for transporting these animals from the holding corral to the main holding and disposition site near Reno.

Animals less than a year old will be hauled from the traps separated from the older animals.

Animals one year old and older will be hauled from the traps only in trucks rated at one ton or larger and with stock racks not less than six feet high from the bed. Trucks rated greater than 1½ ton will have racks with a loading door both at the rear and the front.

D. Care and Feeding at the Holding Facility

Horses being held at this facility will be fed and cared for by two temporary BLM employees hired for this specific purpose. Additional permanent or temporary employees will be available as needed from the Tonopah Area Office. A holding corral foreman (a permanent or part time employee stationed at Tonopah) will supervise their work and be available at the corrals to talk to the public, to direct the movement of horses through the corrals, and to coordinate shipment of horses to the Reno holding facility. To insure the security of the horses and government property, the holding facility will be manned at all times.

As soon as practical after unloading into the holding corral, each load of horses will be inspected by the project inspector, or the holding corral foreman, and a designated brand inspector or deputy. Horses will be identified and separated as follows:

1. Mares with suckling colts. Foals will be allowed to mother up and each pair will be positively identified.

2. Animals which are branded, which are suspected of being branded, which are known to be private, or which otherwise fall under the purview of the agreement with the Nevada State Department of Agriculture.

3. Problem animals.

A record will be kept of the date of arrival and the number of each kind of animal as identified. If the horses have not been identified by approximate age and by sex at the trap, that will also be done at this time.

Animals one year and older will be separated by sex as soon as practical after unloading at the holding facility.

Each animal may be individually marked prior to shipment to Reno, if required by the operation of that holding and disposition facility.

As first preference, grass hay will be fed at the holding corral. Local sources will be utilized if the hay is available. An alfalfa-grass mixture will be fed if the supply of grass hay becomes limited. Straight alfalfa will be fed only as a last resort.

E. Transport from Holding Corral to Reno

The movement of captured horses from the Stone Cabin holding corral to the main facility near Reno will be done by contract. It may be the same contract as that for transport of horses from the traps to our holding facility. Separate contracts may be required, depending upon the ability of interested truckers.

Foals and colts less than a year old will be kept separate from the adult horses during transport.

Provision for brand inspection and the required shipping permit will be included in the agreement with the Nevada State Department of Agriculture. See paragraph VI of this plan.

F. Disposal of Carcasses

Prior to, or immediately after disposal, all carcasses will be aged by the tooth wear method

and the age, sex, and date of death of the animal recorded. If required by the Bureau for study purposes, the mandible will be detached and saved.

1. At Traps

Horses which die at or near a trap will be dragged or carried not less than one quarter mile from the trap and left to the environment.

2. At the Holding Corral

A disposal site will be located not less than one mile from the holding corral where carcasses of those animals which die at or near the holding corral will be buried.

3. In the Field

Animals which die in the field will be left to the environment at the place of death, except that no carcass will be left within three hundred feet of any road or vehicular trail.

G. Provision for Veterinary Services

Provision will be made to have a veterinarian available to the operation within four hours notice during the daylight hours. The nearest veterinarian is at Bishop, approximately 115 miles from the project area. This situation makes it impractical and excessively expensive to have a veterinary at the site, or on immediate call.

Either the project inspector or the holding corral foreman will summon a veterinarian if in his judgement veterinary services are required to alleviate the suffering of one or more horses, to insure their well being, or to diagnose and/or treat disease or sickness.

H. Determination of Health Status

The general health of captured animals, as determined from outward appearance and behavior, will be noted and recorded by the project inspector or the holding corral foreman. A veterinarian will be summoned by either of these individuals if, in his judgement, there is evidence of disease or chronic sickness. In addition, the Reno holding facility will be notified.

V. PUBLIC RELATIONS AND INFORMATION

In general all publicity, formal public contact, and inquiries will be handled by the District Manager. This will insure continuity in this part of the program. All tours, site inspections, filming expeditions, etc. by the media and/or members of the general public while the project is underway, will be conducted to insure that safety requirements are met, that gathering operations are not interfered with, and that the onlookers are accommodated to the fullest extent possible.

The Federal Land Policy and Management Act of 1976 requires a public hearing prior to any use of aircraft or motorized vehicles for the removal of wild horses. A public hearing will be held in Tonopah early in the planning of this project. More specific plans will be made when regulations and Bureau policy concerning the hearing are formulated

This public hearing will provide the focus for public involvement with the project. The normal publicity generated by the hearing will provide an opportunity for public announcement of the project and will provide a forum for public comment.

There will be at least three Bureau initiated news releases concerning the removal project. The District Office will write and release each of these. The first will be to announce the public hearing. The second will be released after the contracts are awarded and the starting date is set. It will identify the contractors, give relevant information about the contracts, and explain the project and its purpose. If appropriate, it may also respond to certain points brought up during the hearing and/or report on the hearing in general. The final news release will be a kind of wrap up story of the project.

VI. AGREEMENTS AND EASEMENTS

The following agreements are necessary for the accomplishment of this removal project. They will be consummated upon approval of this plan and attached as Appendix D.

A. Use and Maintenance of Private Facilities.

1. Chet Meyers for use of Coyote Hole Trap.

2. Joe and Roy Clifford for the use of Buttes Trap.
3. Joe Fallini et. al. for use of six traps and water facilities.

B. Use of Private Waters

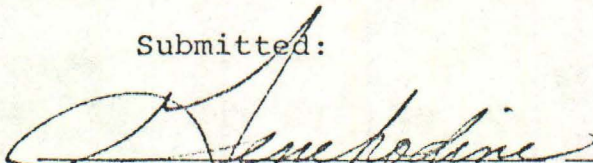
Tom Colvin for use of water at Reed's Ranch.

C. Agreement for Brand Inspection and Disposition of Private and Estray Animals.

This agreement with the Nevada State Department of Agriculture, Division of Brand Inspection, will be negotiated and consummated by the Nevada State Office and the Battle Mountain District Office.

I. SIGNATURES

Submitted:



GENE NODINE, District Manager

4/28/77

Date

Approved:

E. I. ROWLAND, State Director

Date

U. S. DEPARTMENT OF INTERIOR
BUREAU OF LAND MANAGEMENT
BATTLE MOUNTAIN DISTRICT
TONOPAH RESOURCE AREA

ENVIRONMENTAL ASSESSMENT RECORD
for
WILD HORSE REMOVAL IN STONE CABIN AND
REVEILLE ALLOTMENTS

1977

INTRODUCTION

With the signing of Public Law 92-195 (Wild Horse and Burro Act) the Bureau of Land Management was delegated the management responsibilities for the wild and free-roaming horses and burros using the public lands. The legislation requires that horses and burros be managed in such a manner as to achieve a healthy natural ecological balance. To accomplish this goal, the relative values and needs of wildlife, wild and free-roaming horses and burros, and livestock must be evaluated and a decision made as to the most appropriate proportions and numbers of each.

The Battle Mountain District has made these determinations through the use of the Bureau Planning System. (Tonopah Area Management Framework Plan, 1976 Revision, Wild Horses Recommendations WH-2.2, 2.3 and 2.4). The District Manager's decision regarding numbers of wild and free-roaming horses in Stone Cabin and Reveille Grazing Allotments is as follows:

Stone Cabin Allotment

"The optimum number of horses in the Willow Creek HMA ((Herd Management Area)) should be 55 head with the total number allowed to vary between 40 - 70 head.

The optimum number of horses in the Stone Cabin HMA should be 180 head with the total number allowed to vary between 145-250".

Reveille Allotment

"The optimum number of horses in this area should be 200 head with the total number allowed to vary between 175 - 225 head."

The estimated numbers of horses presently using these areas are:

Stone Cabin Allotment	--	785 head
Reveille Allotment	--	690 head

Since these numbers are considerably greater than the decision calls for, and the decision also specifies removal of excess horses under these conditions, the following numbers of horses will be removed:

Stone Cabin Allotment	--	600 head
Reveille Allotment	--	<u>515 head</u>
	total	<u>1115 head</u>

This document will assess the expected effects of various methods of horse removal on the environment, and the impacts expected to occur if the horses are not removed.

I. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

There are five feasible methods, under existing law, for removing horses from the subject area.

These methods are: chasing the horses into traps with a helicopter, chasing the horses into traps using horseback riders, roping the horses, water trapping, and destroying the horses in place. The major steps required to implement these methods are as follows:

A. Chasing the horses into Traps with a Helicopter

1. Setting up heliport and base of operations (use of trailer for living quarters, fuel/maintenance truck, vehicles for access, etc.).
2. Construction of horse traps and holding corral.
3. Chasing wild horse bands into the traps using a helicopter.
4. Loading and transfer of horses from traps to holding corral.
5. Feeding and watering horses while they are kept in the holding corral awaiting shipment to the main corral in Reno.
6. Caring for sick or injured horses.
7. Humane destruction of horses that will not recover from injuries or illness.
8. Disposing of carcasses of dead horses.
9. Transport of horses to central holding facility near Reno.

B. Chasing the Horses into Traps using Saddle Horses

1. Construction of horse traps and holding corral.
2. Chasing wild horse bands into the traps using saddle horses.

3. Loading and transfer of horses from traps to holding corral.
4. Feeding and watering horses while they are kept in the holding corral awaiting shipment to Reno.
5. Caring for sick or injured horses.
6. Humane destruction of horses that will not recover from injuries or illness.
7. Disposing of carcasses of dead horses.
8. Transport of horses to central holding facility near Reno.

C. Roping the Horses

1. Construction of a holding corral to hold captured horses.
2. Chasing wild horses individually using saddle horses, catching them with ropes, and bringing them under control.
3. Transporting the wild horses to the holding corral.
4. Feeding and watering horses kept in the holding corral awaiting shipment to Reno.
5. Caring for sick or injured horses.
6. Humane destruction of horses that will not recover from injuries or illness.
7. Disposing of carcasses of dead horses.
8. Transport of horses to central holding facility near Reno.

D. Water-trapping the Horses

1. Construction of five additional water traps and a holding corral.
2. Capturing wild horses when they come to water.
3. Loading and transfer of horses from the traps to the holding corral.

4. Feeding and watering horses kept in the holding corral awaiting shipment to Reno.
5. Caring for sick or injured horses.
6. Humane destruction of horses that will not recover from injuries or illness.
7. Disposing of carcasses of dead horses.
8. Transport of horses to central holding facility near Reno.

E. Destroying the Horses in Place

1. Construction of blinds in selected areas.
2. Stalking the horses or waiting in blinds until they are within range.
3. Shooting the horses with high-powered rifles.
4. Photographing and determining age and sex of each animal killed, and marking each kill location on a map.
5. Disposing of carcasses of dead horses, or leaving them to the elements, if other disposal methods are not feasible.

F. In addition, all the methods would be implemented subject to the following guidelines:

1. Horse removal by chasing into traps with a helicopter or with saddle horses, roping the horses, or water trapping (method A, B, C or D), would be done under contract with individuals or groups, and would be supervised by a Battle Mountain District employee designated as Contract Inspector by the Contracting Officer's Authorized Representative.
2. Horse removal by destroying the horses in place (Method E) would be done by skilled B.L.M. Employees, authorized in writing by the Battle Mountain District Manager.
3. Any branded animals captured would be turned over to the State of Nevada to be disposed of under the state estray laws.
4. Certain wild horses, after capture, might be marked, tagged, inspected by a veterinarian, and released.

5. Any capture or destruction of wild horses will be done in as humane a manner as possible.

The proposed action is wild horse removal by combining the use of a helicopter to chase the horses into traps, and by water-trapping the horses where feasible, using destruction of the horses in place as a removal method only when vegetation or other factors make the use of the other methods ineffective. The remaining methods described for horse removal (chasing on horseback, and roping), will be regarded as alternatives.

Another possible alternative is no action, or refusal to remove horses.

II. DESCRIPTION OF EXISTING ENVIRONMENT

A. Non-Living Components

1. Climate.

Annual precipitation in the area normally ranges 4 - 7 inches in the valley bottoms and 10 -14 inches in the higher country bordering the valleys; the bulk of the precipitation comes as rain and snow in winter and early spring and rain in later spring and summer. Temperatures range from summer time highs in the 80's and 90's (degrees F.) and lows in the 50's and 60's, to wintertime highs in the 40's and 50's and lows varying from the 30's to below zero. Humidity ranges from 20 - 30% in the summer to 50 - 60% in the winter. Windy periods commonly occur in the spring and fall.

2. Topography

The area is typical basin and range country, with long valleys separated by mountain ranges trending north and south. The land form is relatively flat in the valley bottoms, rising sharply at the foot of the mountains. Elevations in the Stone Cabin Allotment vary from slightly over 5,300 feet on the lowest valley floor to about 7,000 feet at the foot of the mountains; elevations in Reveille Allotment at comparable points are from slightly under 5,000 feet to over 6,000 feet. Elevations on the borders of the Stone Cabin Allotment are 6,000 - 7000 feet in the Monitor Range, 7,000 - 8,000 feet in the Hot Creek Range, and 7,000 - 9,400 feet in the Kawich

Range. The Reveille Allotment has a common border with the Stone Cabin Allotment in the southern end of the Hot Creek Range and the Kawich Range north of the Nellis Air Force Bombing Range Boundary, and in addition borders in the southern Pancake Range at elevations of 6,000 - 7,000 feet and in the Quinn Canyon Range at elevations of 6,000 - 7,400 feet, enclosing the Reveille Range, which has elevations of 6,000 - 8,800 feet. Slopes in the area vary from less than 1% to over 10% in the valleys and from 10% to 60 or 70% in the surrounding mountains.

3. Soils

Soils in the valley areas are generally alkaline, fine to medium textured, moderately fertile, and moderately erosive. Varying amounts of rock and sandy areas appear in all the valleys, as well as a dry lake in Railroad Valley. Soils in the mountain areas are generally shallow, medium to coarse-textured, neutral to slightly acid, moderately fertile and fairly erosive with a large amount of loose rock and rock outcrops.

4. Air and water Quality

Air quality is normally very good, with few pollutants and good visibility. Local intense windstorms sometimes create dusty conditions for short periods, primarily in spring and fall.

Water quality is generally fair to good in the few live streams that occur in the area. Most of the water used by livestock, wild horses, and wildlife in the area comes from scattered springs and seeps, and from wells drilled to provide livestock water.

B. Living Components

1. Plants

The vegetation in the mountains around Stone Cabin Valley and on the western border of Reveille Valley consists of pinion-juniper woodland; the eastern border of Reveille Valley is vegetated with shadscale, sagebrush, rabbitbrush, and greasewood. As the elevation decreases, the vegetative types intergrade to big sagebrush, black sagebrush, shadscale, with greasewood in the lowest areas. Grasses in the understory are galleta in the higher areas, Indian ricegrass in sandy spots, and saltgrass around the dry lake beds.

2. Animals

The most numerous grazing animals in the area are domestic livestock; four ranching operations are presently licensed in Stone Cabin Allotment with animal numbers varying between 100 and 1800 head, for a total of 15,783 Animal Unit Months Use, and one of these four operations is also the sole user in Reveille, licensed for numbers varying between 1750 and 2370 head, or a total of 25,197 AUMs use yearly. Wild horses, as previously stated, are estimated to number 785 head in Stone Cabin, using 9420 AUMs annually, and 690 head in Reveille Allotment, using 8,280 AUMs annually.

Estimated yearly deer use is 1379 AUMs in Stone Cabin and 871 AUMs in Reveille Allotment; Antelope use estimates are 370 and 434 AUMs. Numbers of deer and antelope are not stated here, since use is made by various sized herds or parts of herds in different places in the area at different times of the year. Various other small animals, birds, reptiles, etc, normally use the area.

A recent watershed survey done by the Battle Mountain District produced data which indicated the range condition in the Reveille Allotment to be poor on over 90% of the acreage, fair or less than 10%, and good on 1%. In the Stone Cabin Allotment, the situation is not much better, with poor condition on almost 50%, fair condition on slightly over 40%, and good condition on less than 10% of the acreage.

These data indicate that the total grazing use by all animals is too great to allow the forage resource to maintain itself in a healthy condition.

C. Ecological Interrelationships

The only ecological interrelationships not typical of the climate-vegetation complex of the area are as follows:

1. The excessive forage use situation mentioned above, in addition to lowering plant vigor and reducing reproduction, causes a decrease in plant cover and root material allowing increased erosion and sediment production.
2. A critical deer summer range has been identified on the Kawich Range. Summer ranges have been determined to be the limiting factor for deer population in this area, and competition from other

animals (predominantly horses) has led to reduction of deer populations, and could lead to further reduction or elimination if the competition became severe.

D. Human Interest Values

1. Aesthetic and scenic values

The entire area is moderately high in aesthetic and scenic value, due to its sparsely populated, undeveloped nature and the small amount of human activity.

2. Historical Values

Eleven historical sites have been identified in the Stone Cabin Allotment and nine in the Reveille Allotment. These historical sites are mostly the remains of mining operations, but also include associated mills, remains of mining communities, charcoal kilns, one arrastra (dragstone ore crusher) a stagecoach stopover, and a few abandoned ranch headquarters. Site conditions vary from well preserved to almost obliterated.

3. Archaeological Values

Numerous archaeological sites have been identified within the two allotments. These include chipping sites where projectile points and other tools were fashioned, habitation sites, and other task-oriented or stopover sites where artifacts occur. Site conditions vary from undisturbed to almost completely destroyed.

4. Wilderness Values

There are no designated wilderness areas within either allotment, or nearby. 55,000 acres around Kawich Peak in the Kawich Range have been designated for management as a defacto primitive area and will be evaluated for wilderness area suitability and possible future designation as wilderness.

III. ANALYSIS OF PROPOSED ACTION AND ALTERNATIVES

A. Horse Removal

1. Environmental Impacts

- a. Impacts common to most or all removal methods:

The removal of 1115 horses, by whatever means, would produce the following impacts:

- 1) Erosion and sediment loss would be reduced through trampling reduction.
- 2) Forage plants would be grazed less heavily, allowing a recovery in vigor, better production, thickening of cover, and other related benefits.
- 3) More forage and water would be left for use by wildlife, livestock, and the horses remaining after removal was complete, allowing healthier herds and higher productivity. Elimination of horses would be especially beneficial in the Kawich critical deer summer range.
- 4) Funds expended for hiring men and equipment and purchasing feed would benefit the economy in Tonopah and Warm Springs, and to a lesser degree, the remainder of Southern Nevada; ranchers in the Stone Cabin and Reveille Allotment would benefit through the reduction of competition between horses and livestock.
- 5) The building and use of structures to aid in the capture and holding of horses would lead to soil disturbance, vegetation damage, and unaccustomed activity which would disturb wildlife, horses and livestock using the areas; the existence of the structures would constitute a certain visual impact (5 traps and 1 holding corral would be built). Strong smells and changes in appearance would result from additional manure deposited in and near the traps and holding corral, and organic matter would be added to the soil. Archaeological sites occurring where construction was proposed could be disturbed or destroyed. On the other hand, livestock management would be facilitated by the addition of traps and the corral.
- 6) Some horses might be accidentally injured or killed during operations, and some might have to be destroyed to accomplish their removal from areas where other gathering and trapping methods cannot be effective, or due to their not being able to recover from illness or injury; scavenger population would benefit temporarily from an

increase in food supply, and decomposition of the horse carcasses would return organic matter to the earth but air quality would suffer for short periods of time as the carcasses decompose.

- 7) Coliform contamination in streams would be reduced with a reduction in total animal numbers.
- 8) Local residents in the Tonopah and Warm Springs area would probably approve of the horse removal, but wild horse enthusiasts would probably vigorously disapprove.
- 9) Opportunities for wild horse viewing by the public would be diminished.
- 10) Eventual recipients of the horses removed would be extremely gratified.

b. Additional Impacts associated with specific horse removal methods:

- 1) Chasing horses into traps with a helicopter:
 - a) Soil and vegetation disturbance from heavier than normal use at the heliport.
 - b) Air pollution for short periods caused from dust stirred up by the helicopter and from helicopter exhaust.
 - c) Disturbance of wildlife, livestock and uncaptured horses during capture operations.
 - d) Significant stress produced in horses during gathering, transportation to holding corrals, or transportation to their eventual home after adoption.
- 2) Water Trapping:
 - a) Barring other large animals from some waters periodically by enclosing the waters with, and using traps.
 - b) Significant stress produced in horses during loading and transport to holding facilities.
- 3) Destroying Horses in Place:
 - a) Possibility of only wounding horses instead of killing outright and wounded horses escaping to face a lingering death.

- b) Strong opposition by wild horse enthusiasts, and possible adverse publicity.
 - c) Possibility of inadvertent destruction of a private horse and consequent legal action against the Bureau.
- 4) Chasing horses into traps using saddle horses, and capture by roping the horses individually:
- a) Large crews with considerable equipment, gear, and feed required, resulting in more expense and more difficulty in managing operation.
 - b) Disturbance of soils and vegetation at base of operations.
 - c) High possibility of injury to crew, saddle horses, and wild horses.
 - d) Temporary air pollution from dust stirred up during chasing or roping operations.
 - e) Significant stress produced in horses during loading and transport to holding facilities.
- c. Impacts avoidable through use of specific methods:
- 1) Destroying horses in place:

Impacts associated with construction of traps and corral, hiring of crews, horses, and equipment, purchase of feed, the capture operation, transportation to the holding corral, maintenance and care of the captured horses until adoption, and the adoption process itself, could all be avoided through use of this method of horse removal.
 - 2) Horse capture by use of a helicopter, gathering or roping with saddle horses, or water trapping:

Strong and vocal opposition by wild horse enthusiasts and possible adverse publicity could probably be avoided by using these methods.
- d. Possible mitigating or enhancing measures in addition to those specified in the Horse Removal Plan:
- 1) Radio contact could be maintained with the Battle Mountain District Office, using a portable radio repeater if necessary, to enable medical, veterinary, or other assistance to be arranged, and other problems to be solved during operations.

- 2) Water trapping operations could be carried on at only some, instead of all, of the water traps during any one time period to allow wildlife, livestock and horses free access to water in parts of the area periodically; traps could also be left open at night.
- 3) Crews hired could be limited to men familiar with and accustomed to working horses, and they could be required to provide their own saddle horses to assure that strong horses in good condition are used; these restrictions could minimize injuries to wild horses, saddle horses and men through inexperience, or poor physical condition.
- 4) Ground clearing and soil disturbance associated with trap and holding corral construction could be limited to only that necessary to facilitate construction.
- 5) It could be required that handling and transportation of wild horses, as well as capture or destruction be accomplished in as humane a manner as possible to avoid causing needless injury or suffering to wild horses; this policy could also avert some of the probable opposition, criticism, and adverse publicity from wild horse enthusiasts.
- 6) A detailed cultural resources inventory could be carried out on proposed trap and corral sites and other disturbance sites prior to construction of disturbance to determine the extent of cultural resources present and the action necessary to protect or salvage the sites.
- 7) The project areas could be closed to unauthorized use by private horses to reduce the possibility of a private horse being shot. The closure could be issued prior to the start of operations and terminated upon completion of the project.

e. Recommendations for Mitigation or Enhancement:

Use the possible mitigating measures listed above, in addition to those specified by the removal plan, to avoid or minimize impacts.

f. Residual Impacts:

- 1) Some soil disturbance, vegetation damage, visual

impact, temporary disturbance to animals in the area, and temporary air quality degradation due to dust, engine exhaust, and carcass decomposition would occur.

- 2) Some injuries to crew members and saddle horses would still be likely to occur, and some wild horses would be accidentally injured or killed or deliberate destruction would be necessary.
- 3) Should a private horse be inadvertently destroyed, the owner could sue the Bureau for the price of the horse.

2. Relationship between Short-Term Use and Long Term Productivity

This short-term action (removal of 1115 wild horses) will benefit the long-term productivity of the area through reducing the total grazing and water use in the allotments; the effect of this will be to allow plant vigor to improve and plant cover to increase and protect the soil from erosion.

Removal will also reduce trampling and competition among all grazing animals with special benefits in the critical deer summer range on the Kawich Mountains, where the summer range is a limiting factor on deer population.

3. Irreversible Impacts and Irretrievable Commitments of Resource

None of the impacts will be irreversible; the only irretrievable commitment of resources will be the funds expended during the gathering, holding, and disposal operation.

B. No action Alternative

1. Environmental Impacts

a. Anticipated Impacts

- 1) The refusal to remove horses would produce the following detrimental impacts:
 - a) The unchecked natural increase in the horse population would produce an increase in vegetative and soil disturbance, competition for forage and water with livestock and wildlife, erosion, and sedimentation, coliform contamination, and air quality degradation through increased manure smells and carcass decomposition.

- b) Plant vigor would continue to suffer, and ecological conditions would continue to deteriorate.
- c) Ranchers' incomes would probably be diminished through the increasing forage competition with livestock, the local economy would be denied the benefit of increased spending for the gathering effort, and the local people would disapprove of the District's refusal to act.

2) Beneficial Impacts from refusal to remove horses:

- a) Proposed traps and corral will not be needed, avoiding the outlay of funds, disturbance during construction and use, visual impact, and concentration of trampling disturbance, manure deposition, carcass disposal and disturbance of cultural resources at trap and corral sites.
- b) Gathering will not take place, avoiding the production of dust and exhaust products, localized vegetation and soil disturbance during gathering, disturbance of other animals, stress affecting captured horses, the necessity for destruction of horses for removal or humane reasons, production of carcasses and their decomposition products, the strong disapproval of wild horse enthusiasts, the outlay of funds and the possibility of injury to crews and saddle horses. Wild horse viewing by the public would become easier with the natural increase in numbers.

b. Possible Mitigating or Enhancing Measures

The logical measure to mitigate the detrimental impacts of no action would be to carry out horse removal in accordance with the guidelines in the removal plan and the mitigating measures recommended earlier in this EAR.

c. Recommendations for Mitigation or Enhancement

Employ the procedure outlined in b. above.

d. Residual Impacts

Residual impacts would be identical to those listed earlier in section III A.1.F.

2. Relationships Between Short-term Use and Long-term Productivity

This short-term use (no horse removal) would impair long-term productivity through the continuation and intensification of soil and vegetative disturbance, excessive forage removal and suppression of plant vigor, excessive competition with livestock and wildlife for forage and water, and worsening of ecological conditions.

3. Irreversible or Irrecoverable Commitments of Resources

Soil losses resulting from trampling by excessive horse numbers would be irretrievable. Irreversible impacts on vegetation and on wildlife populations might result if excessive horse use damaged vegetation or supplanted wildlife populations past the point of no return.

IV. PERSONS, GROUPS, AND AGENCIES CONSULTED

U.S. Forest Service; Glade Quilter, Tonopah District Ranger. Various other persons, groups, and agencies (County, State, and Federal) were consulted during development of the Tonopah Management Framework Plan which specifies wild horse removal down to population levels discussed in the Introduction.

A public information and review effort will be made as outlined in the horse removal plan and the associated public participation plan.

V. INTENSITY OF PUBLIC INTEREST

Interest in any horse removal proposal is high among wild horse enthusiasts and ranchers in the Stone Cabin and Reveille Allotments, moderate in the Nevada Fish and Game Department and U.S. Forest Service personnel in Tonopah, and moderate to low or undetermined in others.

VI. PARTICIPATING STAFF

F. Rex Rowley --	Tonopah Area Manager
Don Peterson --	Range Conservationist, Tonopah Area
Tom Curry --	Range Conservationist, Tonopah Area

Kurt Ballantyne -- Wildlife Biologist, Tonopah Area
Dorothy Mason -- Range Conservationist, Tonopah Area
Sam Ball -- Archaeologist Tonopah Area
Michael C. Mitchel -- Wild Horse Specialist
Henry W. Riedeman III -- Environmental Coordinator

VII. SUMMARY CONCLUSION

A. Residual Impacts .

Some soil disturbance, vegetation damage, visual impact, temporary disturbance of animals in the area, and temporary degradation of air quality would occur.

Some injury to crew members and saddle horses, and some accidental injury or death of wild horses would be likely. Destruction of some individual wild horses would probably be necessary.

B. Short-term Use vs Long-term Productivity

This short term use would benefit long-term productivity by decreasing grazing use, water use, competition with other animals, and trampling.

C. Irreversible Impacts and Irretrievable Commitments of Resources

None of the expected impacts are irreversible; only the funds expended during removal operations would be irretrievable.

D. Level and Nature of Public Interest.

High Favorable - Ranchers in the allotments

High Unfavorable - Wild Horse Enthusiasts

Moderate Favorable - Tonopah Office of the U.S. Forest Service and Nevada Fish and Game Department.

Probable Mixed Interest in remaining public.

- E. An additional conclusion should be expressed at this point. If the District does not take action to control the horse population, nature will, through starvation, disease, exposure, or other processes, and these will probably come into full operation only after significant damage to the natural resources has occurred through massive overuse.

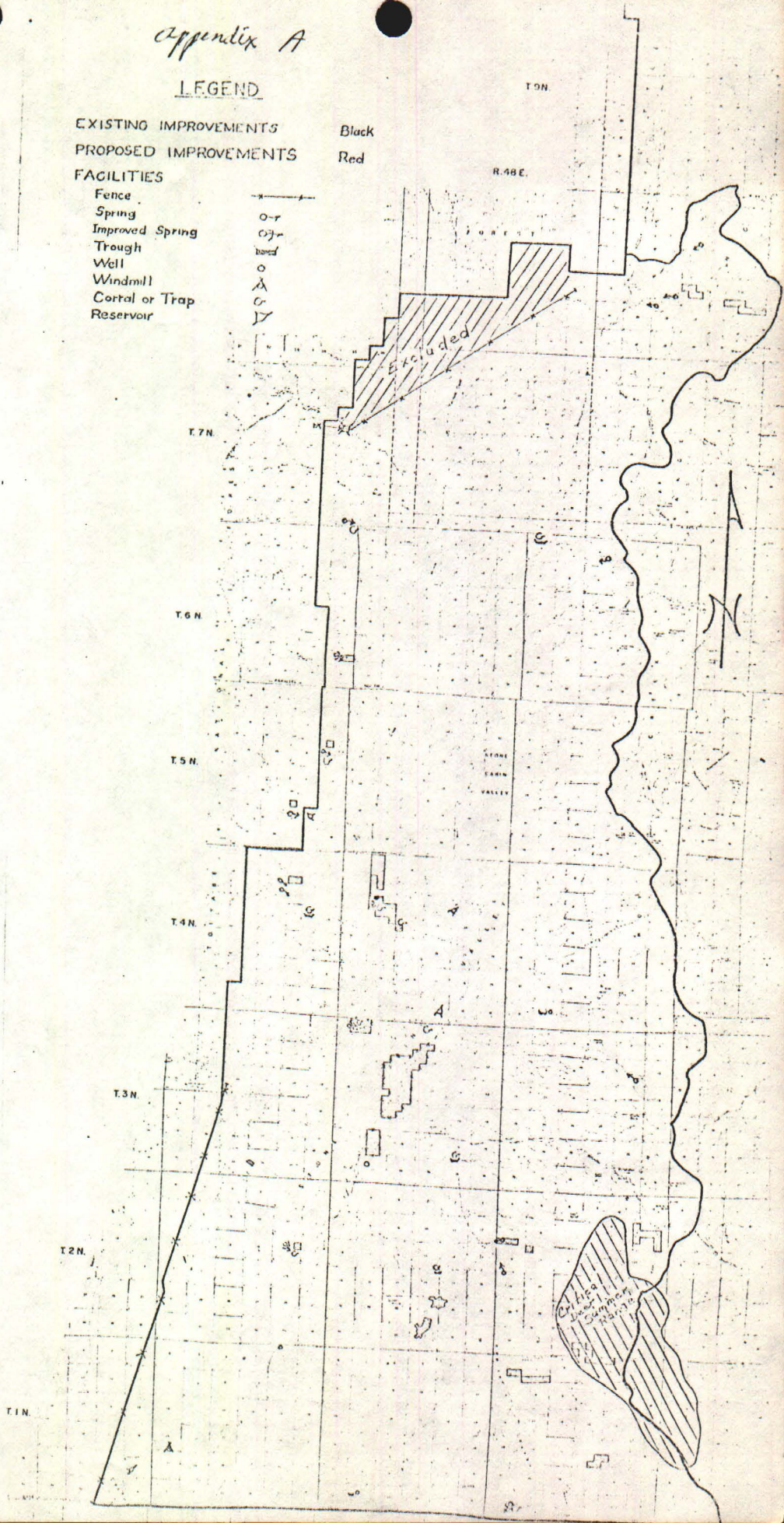
VIII. SIGNATURES

Prepared by	<u>Herrell W. Redman III</u> - Environmental Coordinator	Date	<u>16-June-77</u>
Reviewed by	<u>Michael J. Smith</u>	Date	<u>6/16/77</u>
Reviewed by	<u>Ken Rowley</u>	Date	<u>6/28/77</u>
Reviewed by	<u>Shepherd Hansen</u>	Date	<u>7-8-77</u>
Reviewed by	<u>Randy Taylor</u>	Date	<u>7-20-77</u>

Appendix A

LEGEND

- EXISTING IMPROVEMENTS Black
- PROPOSED IMPROVEMENTS Red
- FACILITIES
- Fence —
- Spring ○
- Improved Spring ○
- Trough —
- Well ○
- Windmill ○
- Cortal or Trap ○
- Reservoir ▽



Appendix B

Plan for Helicopter Operations Stone Cabin and Reveille Horse Removal

The purpose of this plan is to specify guidelines within which a helicopter will be used in the removal of approximately 1115 wild horses from Stone Cabin and Willow creek valleys, and the Reveille grazing allotment (See paragraph I.B. of the removal plan).

I. General

A. Responsibility

The project inspector will have overall responsibility for all aircraft operations in connection with the removal. He will be responsible for the action of the helicopter during its operation, excepting that responsibility normally reserved to the pilot.

The project inspector will be either in the aircraft or on the ground in the area whenever gathering operations are in progress.

B. Aircraft and Pilot Specification

The helicopter will be a Bell Model 47G3B1 or equivalent. Pilot qualifications will be as specified in Manual 9400.

II. Heliport

A heliport will be established at Reed's Ranch located in southern Stone Cabin Valley for the duration of the project. A base of operations with radio base station will be located there and manned 24 hours per day. A heliport manager-base station operator will be designated by the project inspector or COAR; this person will live at the heliport for the duration of the project. The helicopter will be stationed at the heliport during the project.

III. COMMUNICATIONS

There will be provision for continuous radio contact between the helicopter, project inspector and/or base station, and ground crew whenever the helicopter is in the air. Within the aircraft there will be provision for intercom between the pilot and all passengers and for radio contact between the pilot and one passenger, and the ground.

IV. AIRCRAFT OPERATIONS

Provisions for safety, aircraft and pilot standards, inspections, flight time restrictions, and other standard regulations on aircraft operations will be as specified in Manual 9400. There will be provision for flying at least six days a week.

During actual gathering operations either the project inspector or another Bureau employee designated by him will accompany the pilot in the aircraft. A second passenger may also be along if the extra weight does not limit the maneuvability of the helicopter..

At least once each day while the helicopter is flying, radio or telephone contact will be made between the gathering operation and the Tonopah Resource Area Headquarters. This will keep the Area and District Managers informed as to the progress of the operation and provide an opportunity to report special occurrences or problems, to ask for temporary help or additional supplies, and for the Area or District Manager to contact the gathering operation for their own purposes.

V. COORDINATION

Each day that horses are run a coordination or strategy meeting will be held prior to the start of activities. If special conditions warrant, the meeting could be held the night before. At the option of the project inspector, a critique meeting may be held after an individual run to discuss problems and solutions. Attendance at these meetings will include the project inspector, pilot, pilot's helper or fuel truck operator, ground crew, and base station operator. Normally, the project inspector will conduct the meeting.

The purpose of the coordination meeting will be to discuss the day's operation, issue instructions, and make certain everyone involved knows the plan and is aware of his role. Items discussed may include: the plan of operations for the day; helicopter refueling locations; where horses will be gathered and the approximate number; which trap(s) will be in use; amount of flight time that day; special considerations, such as visitors; assessment of weather and flight conditions, who will be in the aircraft; establish radio checkin times.

VI. RECONNAISSANCE FLIGHTS

Two kinds of reconnaissance flights will be made: initial and special.

A. Initial Recon

Prior to running horses in a general vicinity the pilot and project inspector will fly over the area to generally familiarize themselves with the terrain, relative number of horses, landmarks, etc.

B. Specific Recon

As often as deemed necessary by the pilot and/or project inspector, specific reconnaissance flights will be done to assure safety in flight, the welfare of the horses, and to assure flight time profitable to the operation. Specific purposes would include to learn and assess local short term flight conditions, to map specific hazards to flight or to horses, to plan a specific run, or to locate horses.

VII. HERDING AND HANDLING HORSES

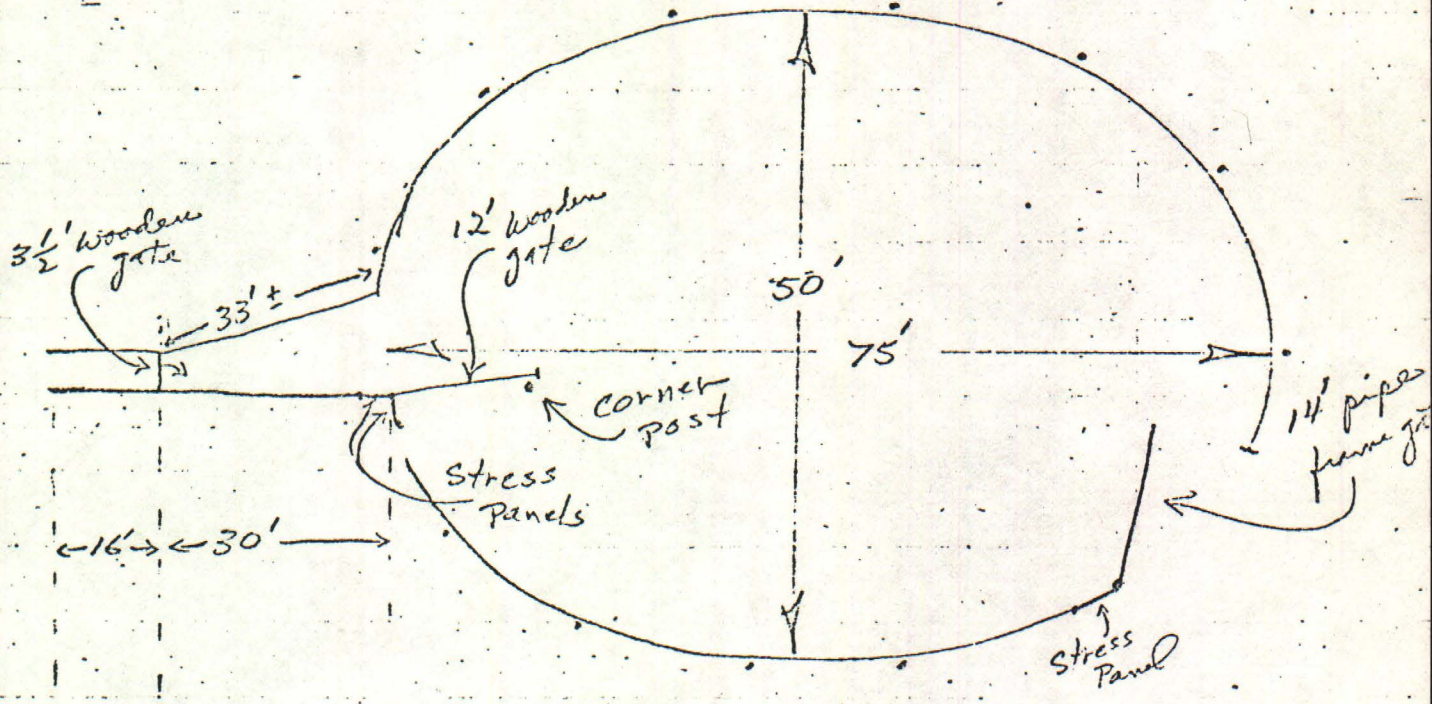
The safety and well-being of wild horses will rate next in importance to the safety of aircraft and personnel. Regulations 43CFR 4740.4 stipulates certain conditions and methods for herding horses by helicopter which will govern these operations.

Specific techniques and facilities used in herding horses will depend upon what is found to work and probably will vary between trap locations and may vary with time at the same location. Discussion of these items at this time is not practical or useful. For example, whether wings will be used on traps, how much of a ground crew will be required, whether riders will be used, etc. is unknown. Operations will commence using traps without wings and one or two people to close the gate at the trap.

The daily or cumulative number of captured horses will not exceed that number which can be safely and humanely transported out of the traps at one time or which can be adequately cared for at the holding corral. We will not run more horses into any one trap than can be safely loaded out, nor will we overload the holding corral.

Appendix C.

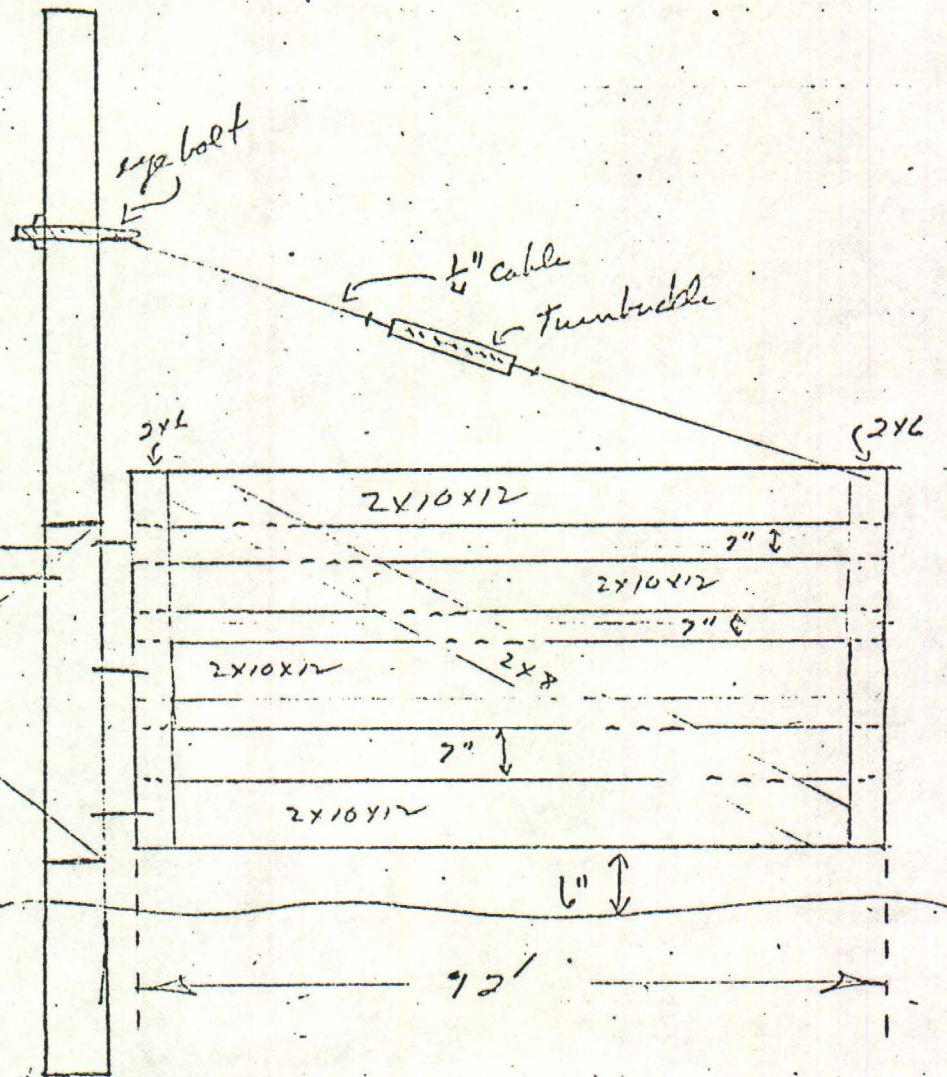
Standard Plan for Typical Trap with
Standard Shute and Crowding Pen.



Specifications for Typical Trap.

1. Oval trap to be constructed of portable round panels, each 12 feet long with top rail not less than six feet above ground and bottom rail not more than twelve inches above ground level.
2. Canvas to be stretched tight ^{and tied} on the inside of the panels and main gate.
3. Corner posts to be set at every other panel joint and panels wire securely to them.
4. Skute and crowding pen to be permanent installations as shown on typical drawings, and the oval round to be portable, except for stress panels and corner posts.

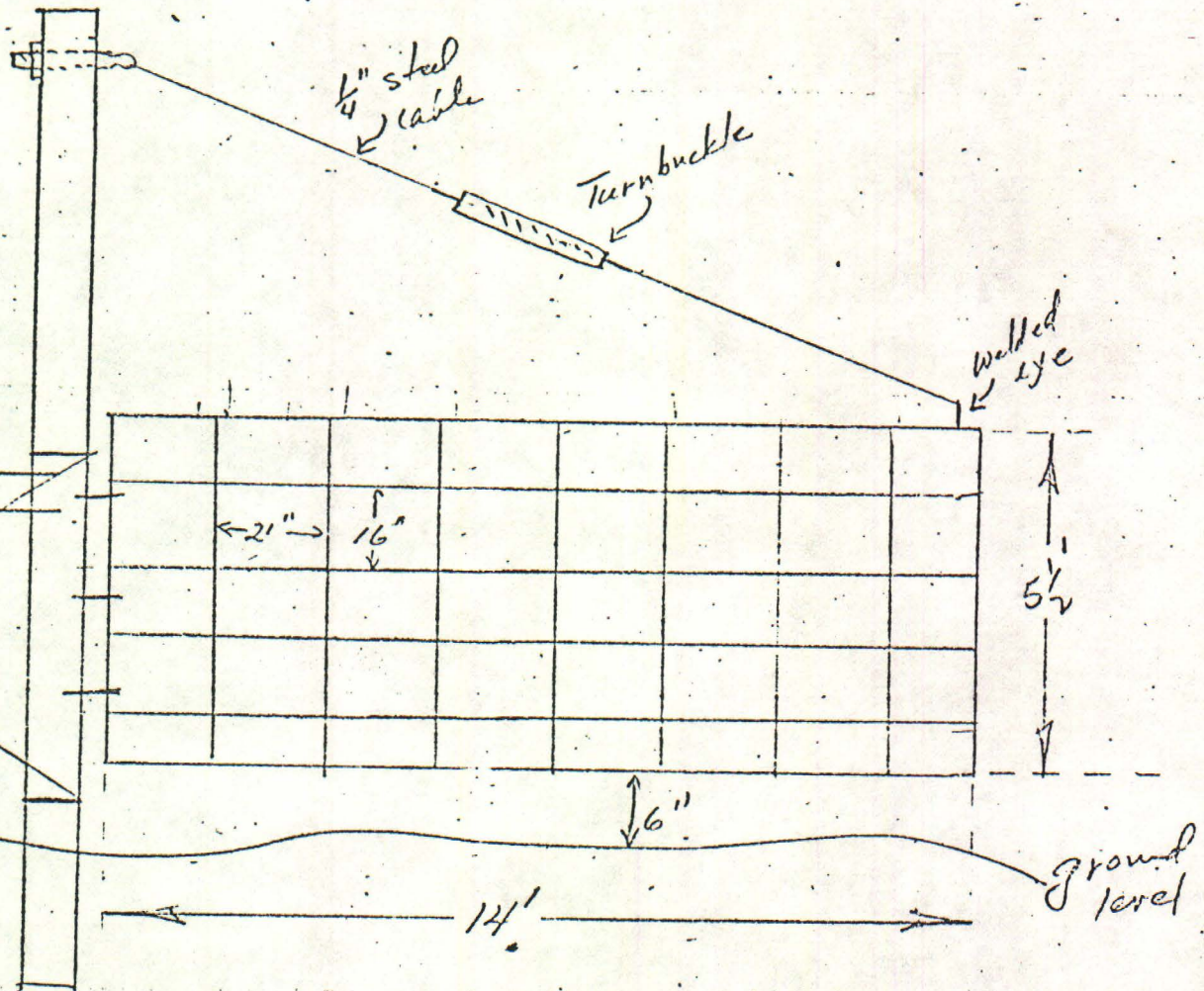
Typical 15' Wooden Gate Construction



General Specifications

1. 2x6 ends bolted together w/ carriage bolts; nuts counter sunk
2. 2x8 cross brace nailed to 2x10s w/ 16d nails one on each side of gate, ends bolted into 2x6 ends.
3. 2x10 panels held in place by 2x6 on each side on each end.
4. hinge and latch hardware not specified

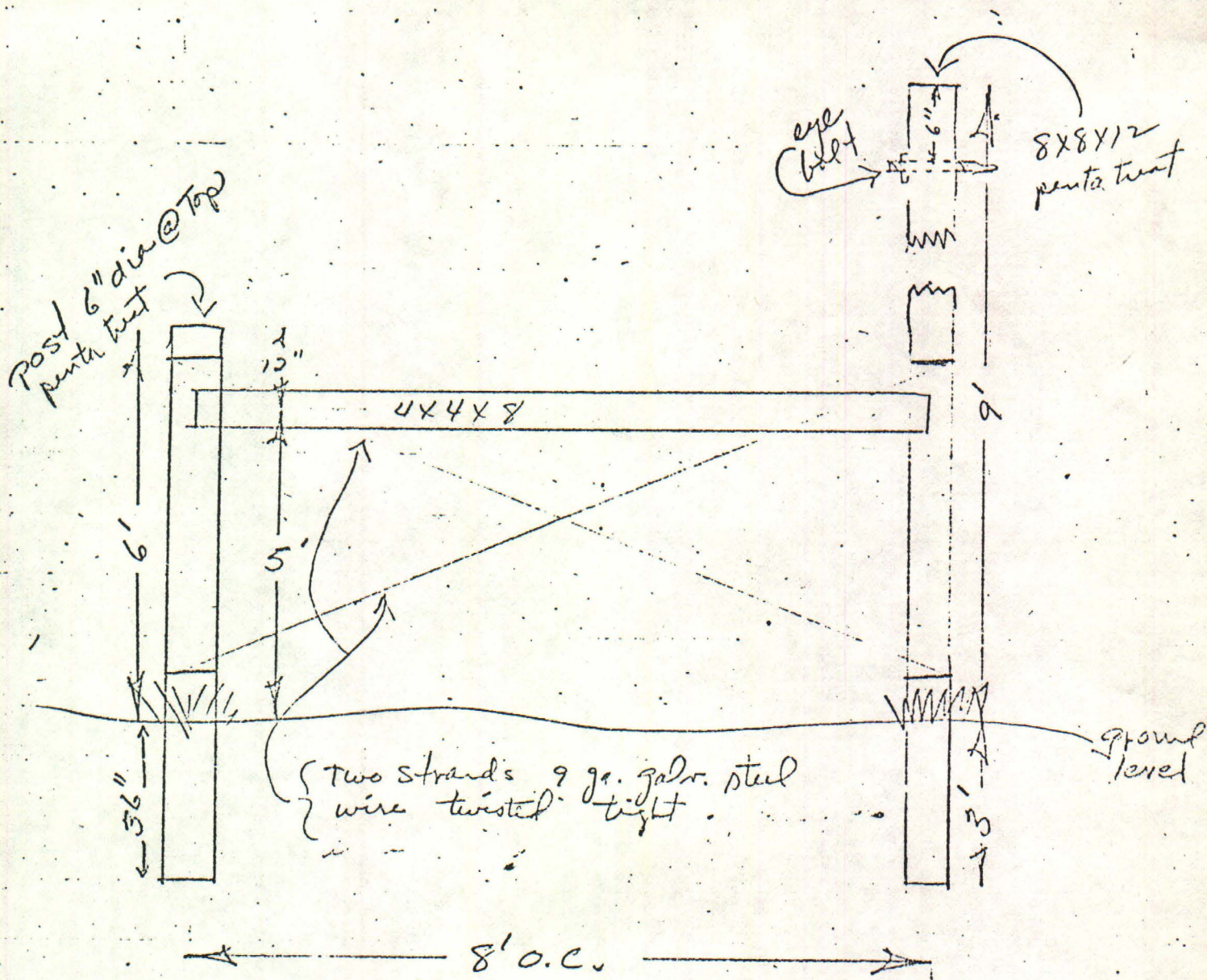
Typical 14' Pipe Frame Detachable Gate



Specifications for 14' Pipe Frame Gate

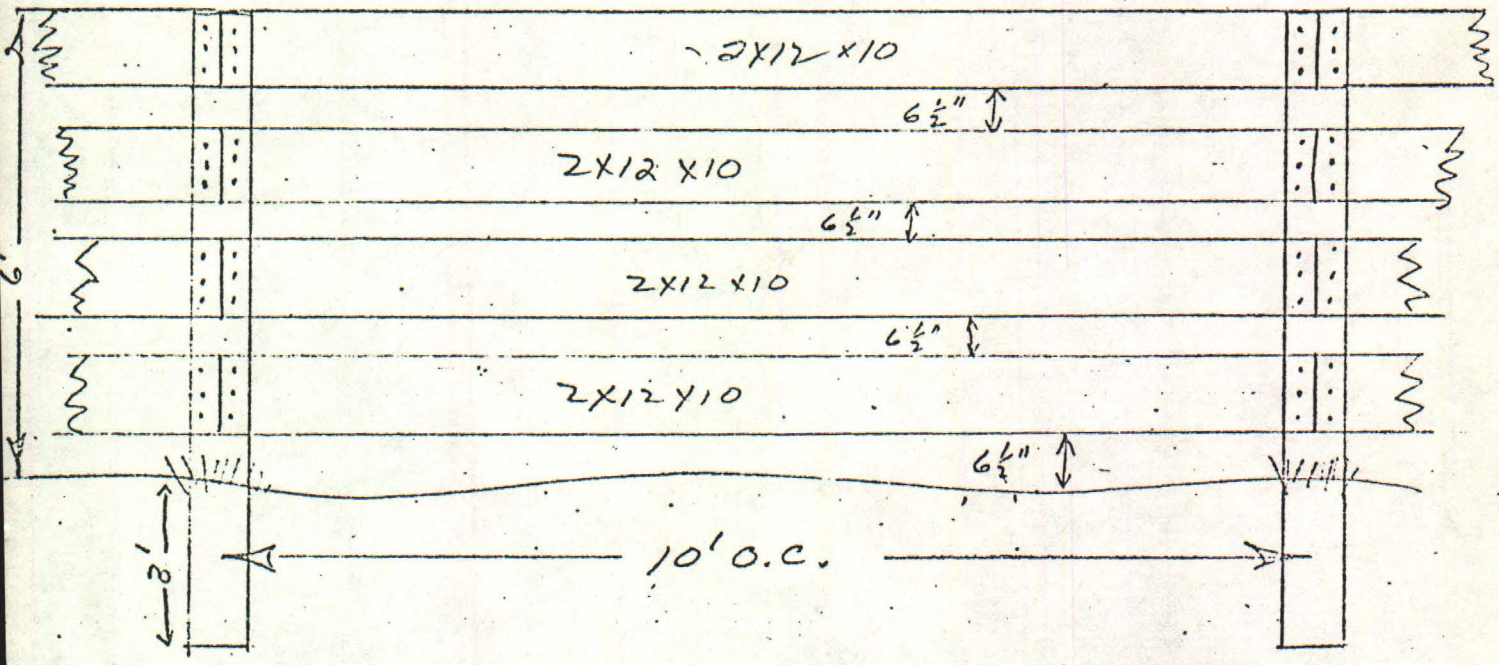
1. Outside frame of $1\frac{1}{4}$ " black steel pipe
2. Interior mesh of 1" black steel pipe
3. all joints and intersections welded
4. Painted same color as ^{fence} panels.
5. gate to be covered with 13oz. canvas, tied in place over the frame.
6. hinges and latches not specified, except that hinges must allow the gate to be easily detached from the gate post.

Typical Stress Panel Construction



cross brace mortised into uprights 1" lead milled in place with two 20d nails each end.

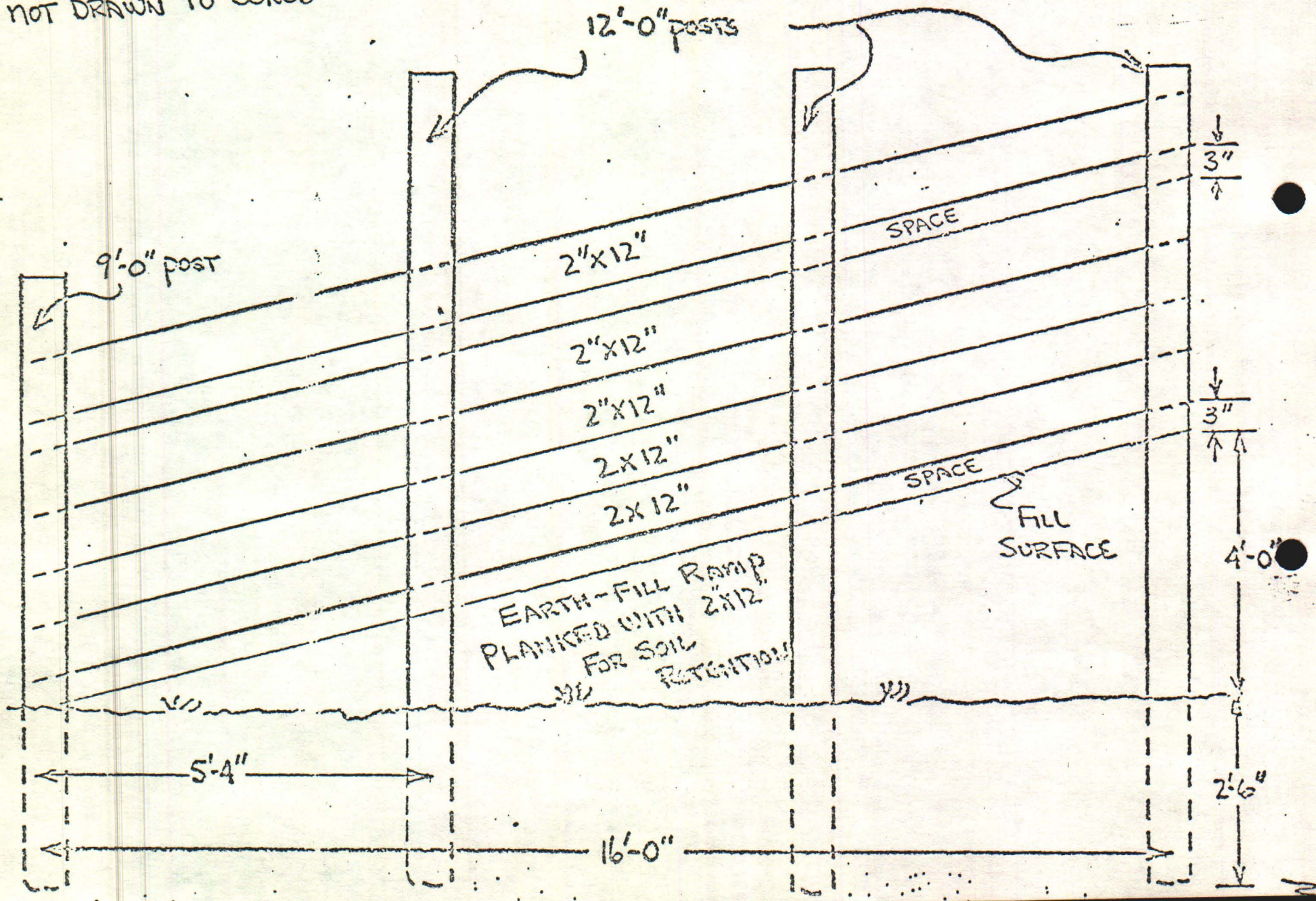
Crowding Pen Construction
Typical fence section

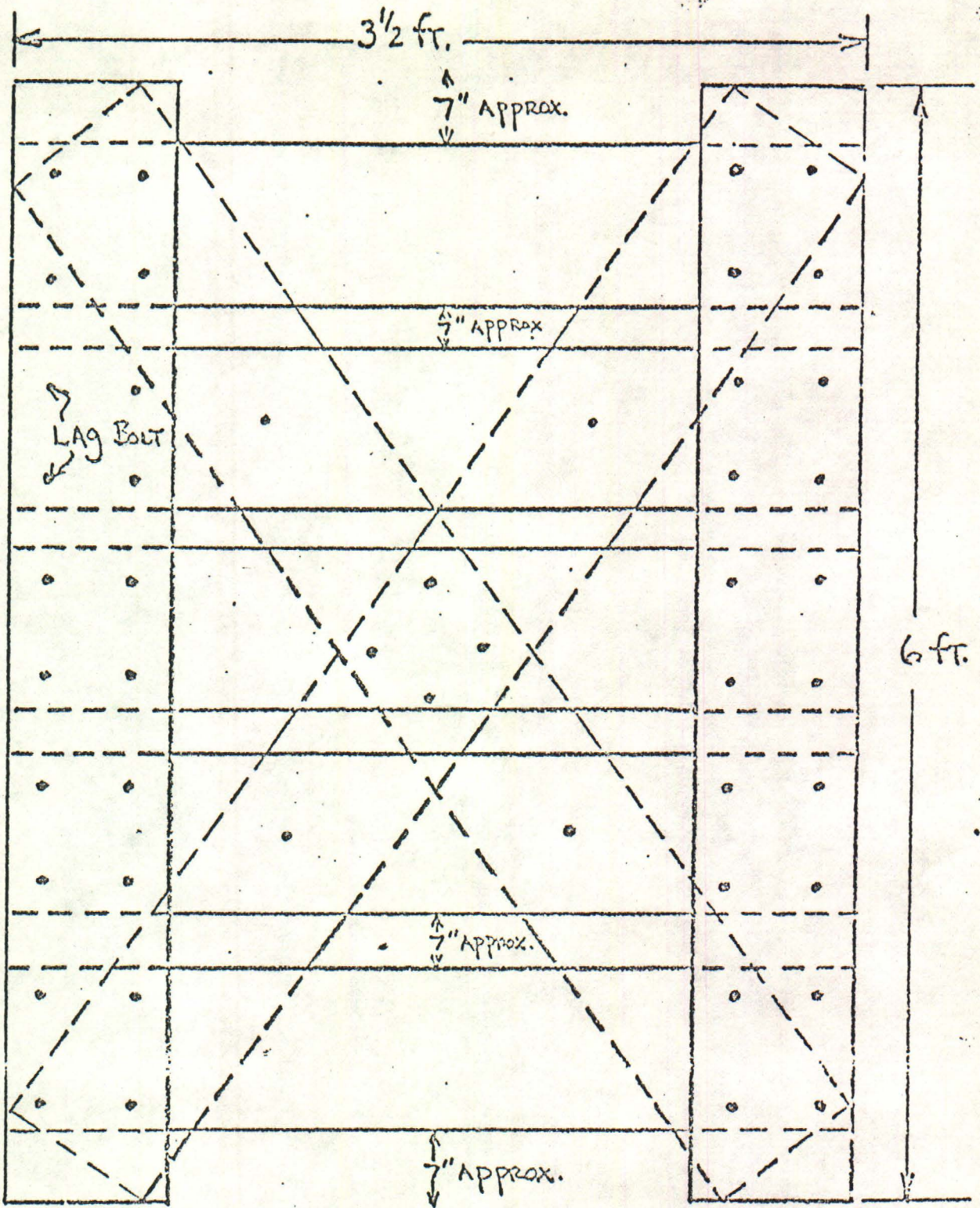


posts - 8x8x9 timbers, butt treated w/ penta solution
206 nails

LOADING CHUTE & Ramp

NOT DRAWN TO SCALE

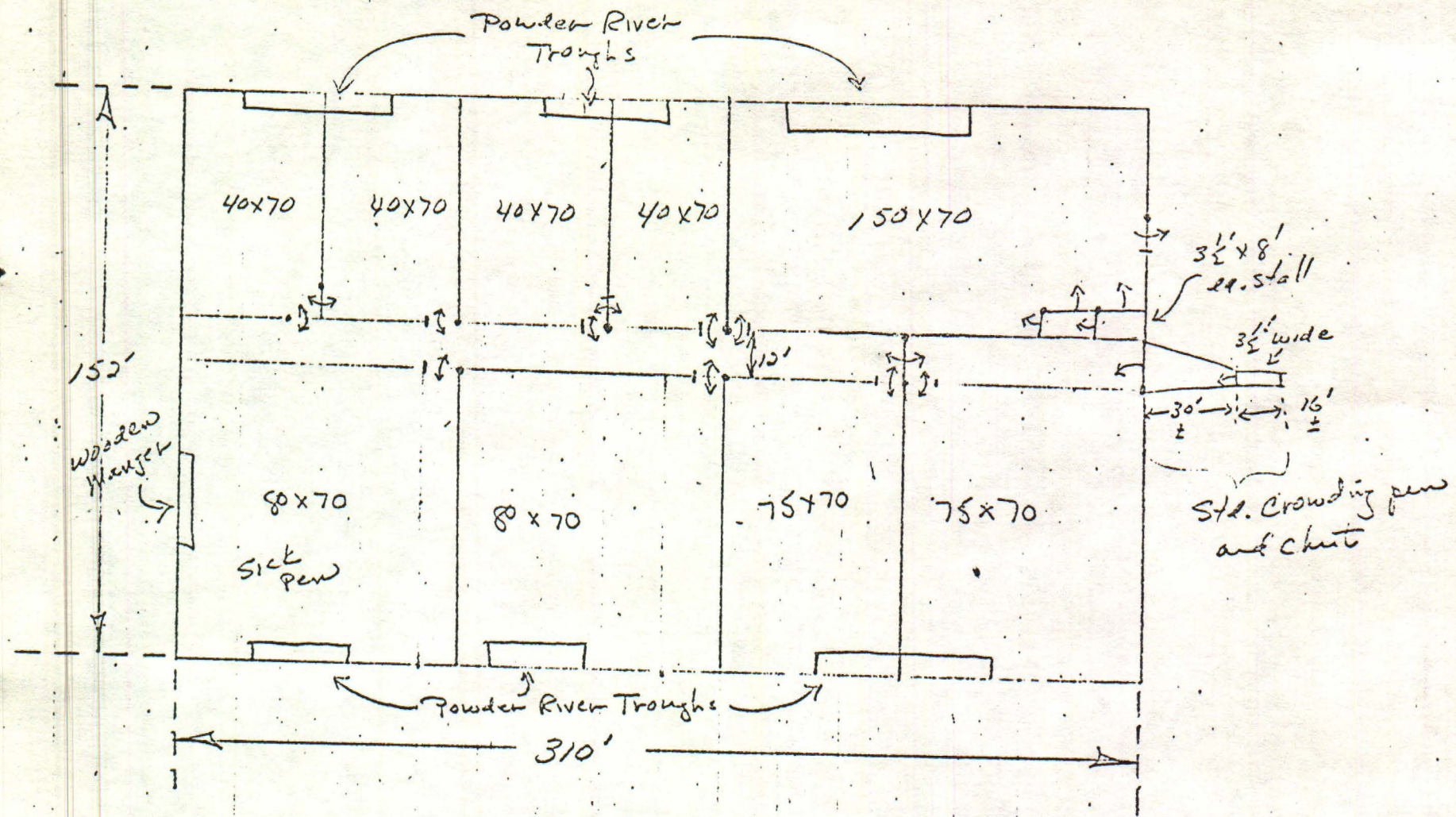




2" X 6" PLANK CONSTRUCTION
 NOT DRAWN TO SCALE

CHUTE GATE

Central Holding Canal



All gates 12' wide unless otherwise specified.

General Specifications for Central Holding Canal

1. All gate 10' wide unless otherwise specified
2. Gates in the alley and between alley and crowding pen are standard 10' wooden gates, supported by ⁵ posts,
3. Gates between pens and between pen and alley are portable panels covered with canvas.
4. Alley and stalls to be of wood construction as specified below.

top plank 6' above ground

bottom plank 6" above ground

Posts 8x8x9 10' O.C. set 36" in ground

Planking 2x8x12 spaced w/ 15" void between

5. Pens of portable canal panels with top rail not less than six feet above ground and bottom rail not more than twelve inches above ground.

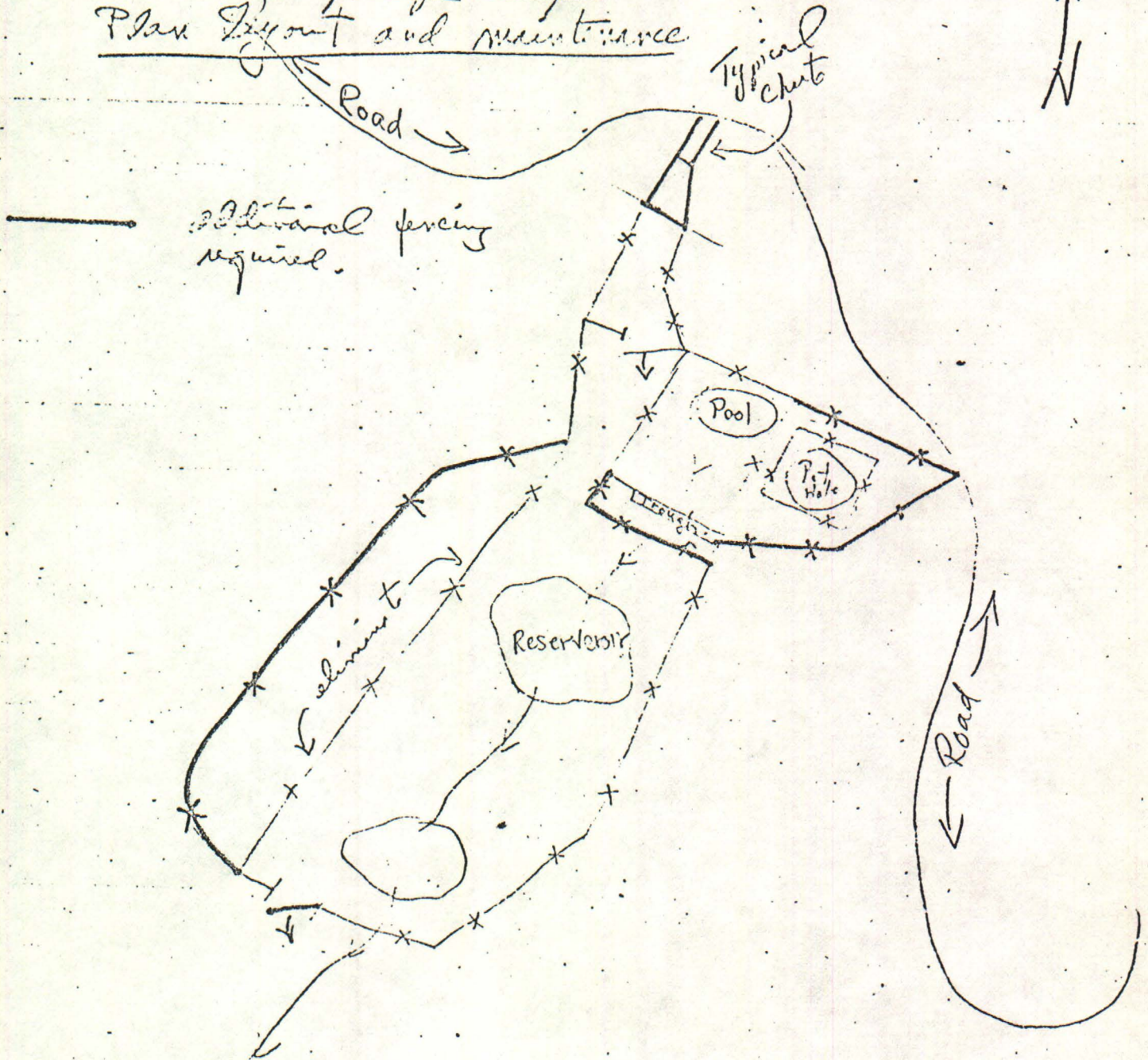
Corner posts set at each panel junction with panels securely wired to them.

6. Chute and crowding pen to be of standard construction as shown elsewhere except that the dirt fill floor of chute will be overlaid with 2x12 planking, ~~and~~ 2x4. Chute will be nailed to the floor on 36" centers.

Appendix C

Sinking Springs Trap.

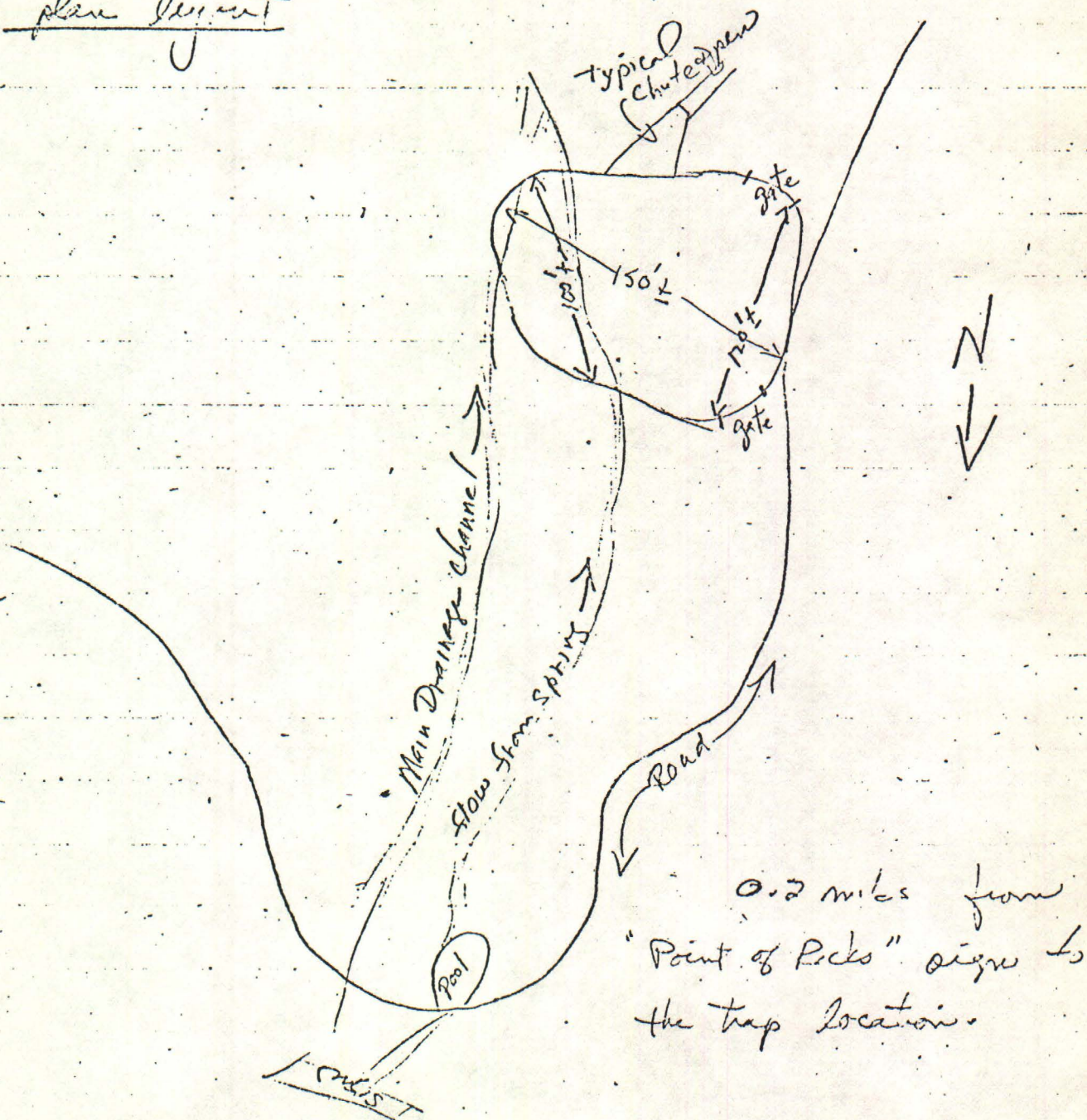
Plan Layout and maintenance



In general, existing fences to be utilized with
road strengthening.

Appendix C

Point of Rocks Trap
plan layout



Appendix E

Summary of Costs

Facilities Const. & Maint.	Flying Contract	Transport Contract	Temp. mm	Perm. mm.
\$ 33,000	\$ 18,000	\$ 16,000	20	8