

**NAHASDA
(NATIVE AMERICAN HOUSING ASSISTANCE
AND SELF DETERMINATION ACT)**

**CHAPTER LAND USE PLAN
AND HOUSING PLANNING PROJECT**

**MASTER LAND USE PLAN
SHIPROCK CHAPTER, NAVAJO NATION**



**Prepared by:
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CONSULTANT**



Rez Star Point

SHIPROCK, NAVAJO NATION

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SELF DETERMINATION ACT) CHAPTER LAND USE PLAN
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SHIPROCK CHAPTER, NAVAJO NATION

MASTER LAND USE PLAN

SPECTRUM 1 - INTRODUCTION



SPECTRUM 1: INTRODUCTION

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SPECTRUM 1: INTRODUCTION, AUTHORITY, PURPOSE AND PROCESS

1.1 Introduction

The Shiprock Chapter of the Navajo Nation successfully applied to participate in the NAHASDA Chapter Land Use Plan project under the sponsorship of the Office of Navajo Government Development. The firm of *Rez Star Point*, Duane H. Yazzie - Principal, was selected as the Consultant, to provide technical services to the Shiprock Chapter.

The Shiprock Chapter and *Rez Star Point* began work on the Chapter Land Use Plan project in November of 1999. After a series of meetings, analysis and other development tasks, the Chapter and the Consultant have completed the Chapter Land Use Plan. Specifically on the proposed development site in south Shiprock, there are five additional sites identified as potential development sites. They were not field studied through this project segment, as none are planned for housing at this time.

Presented herein is the work product that represents a comprehensive description of the various elements that are collectively formulated into the Shiprock Chapter Master Land Use Plan document. This document is to be treated as a general guide and planning tool as the community progresses toward realizing its vision of community and economic development. The document should reasonably provide development guidance over the next five years.

1.2 Background

In response to the request for new housing throughout Indian Country by Native American leadership, the United States Congress approved the Native American Housing Assistance and Self Determination Act of 1996 (NAHASDA). Although the bulk of the NAHASDA funds are intended for the development of new housing and community public activities, a significant amount of funding was made available for the planning of potential development sites by interested Navajo Chapter communities.

The opportunity for communities to learn the planning process for new housing, as well as other elements of community and economic development, is a welcome departure from the historical practice of the central government planning for the communities and thus dictating the manner of development to the communities. This opportunity is consistent with the principals of Self Determination, Self Sufficiency, Self Reliance, Decentralization, Local Empowerment and Local Governance. Further this opportunity is consistent with the time honored and paramount Navajo edict of TAA HO A JI TEEGO or "do for yourself".

The Navajo Nation through the Office of Navajo Government Development received \$1.2M of Native American Housing Assistance and Self Determination Act grant funds. This grant funded the Chapter Land Use Plan and Housing Planning project. The \$1.2M is scheduled to fund 30 Navajo Chapters at \$40,000 each, with a duplicative formula for three succeeding years. The Shiprock Chapter was selected to be one of the 30 Chapters in the first year of the project.

1.3 Authority

The Navajo Nation Council through Resolution CAP-34-98 enacted the Navajo Nation Local Governance Act (LGA). The LGA is codified as Title 26 of the Navajo Nation Code. The LGA confers certain authorities upon the Navajo Nation Chapters to engage in the process of local governance, including the ability to conduct all manner of planning for the Chapter and community.

The Local Governance Act of 1998 contains explicit authorities to be granted to the Navajo Chapters to "do for themselves". These provisions include:

Subchapter 1, B. Purpose

1. *The purpose of the Local Governance Act is to recognize governance at the local level. Through adoption of this Act, the Navajo Nation Council delegates to Chapters governmental authority with respect to local matters consistent with Navajo law, including custom and tradition.*
2. *Enactment of the Local Governance Act allows Chapters to make decisions over local matters. This authority, in the long run, will improve community decision making, allow communities to excel and flourish, enable Navajo leaders to lead towards a prosperous future, and improve the strength and sovereignty of the Navajo Nation.*

The Local Governance Act of 1998 provides specific authority giving governance-certified Chapters, the means to exercise decision-making powers on the following elements that pertain to the regulation and planning-in-general of land. The Chapters would enact ordinances via Chapter resolution to effect these authorities.

Subchapter 3, Section 103, Chapter Authority

1. *To issue home and business site leases or permits.*
2. *To amend the land use plan to meet changing needs of the community.*
3. *To acquire property by eminent domain.*
4. *To adopt zoning ordinances consistent with the land use plan.*

The Local Governance Act of 1998 further provides the following authorities for governance-certified Chapters to maintain a Comprehensive Land Use Plan that had been adopted by Chapter resolution. Said Land Use Plan, as developed by and recommended for consideration by the Chapter membership by the Chapter established Chapter Land Use Planning Committee (CLUP).

Subsection 7, Section 2004; Zoning, Comprehensive Land Use Plans, Land Use Variations.

1. *Chapters may enact zoning ordinances.*
2. *Chapters shall enforce zoning ordinances.*
3. *Chapters can approve land use variations.*

The Shiprock Chapter and Consultant began with the CLUP Committee at the beginning of the Land Use Planning and Housing Planning project. The CLUP Committee was composed of the elected Chapter leadership and the Chapter Coordinator. At a later point, the Chapter leadership determined it appropriate to continue the project with the Shiprock Planning Commission appointed Land Use Plan Task Force. (LUPTF)

The Shiprock Chapter by resolution 94-01-0018-SHIP (**Exhibit 1.9.1**), entitled “Approving and Ratifying the Plan of Operation of the Shiprock Planning Commission”, through A. Purpose, paragraph 1, authorized the Planning Commission “To provide technical assistance, in conjunction with appropriate entities in the formulation of proposed comprehensive community development plans for the Shiprock Chapter area.”

The Plan of Operation further states in Section F, Goals and Objectives of the Commission, paragraph 1, “Develop various models of a comprehensive master land use plan for the Shiprock Chapter area for the consideration and adoption by the membership of the Shiprock Chapter Government”.

The Plan of Operation further states in Section F, Goals and Objectives of the Commission, paragraph 4, that the Commission shall, “Establish committees, tasks forces and assign programs and entities to serve in any capacity deemed necessary and appropriate”.

By this authority the Commission appointed its Land Use Plan Task Force. It is the Land Use Plan Task Force that is therefore, recognized as the Shiprock Chapter Land Use Planning Committee.

The Shiprock Planning Commission Plan of Operation is appended as **Exhibit 1.9.2**.

1.4 Purpose

The purpose of developing the Shiprock Chapter Land Use Plan is to have in place a document that describes the community's aspirations for community and economic development. The process necessary for the development of the plan results in several benefits for the community, including:

- 1.4.1 To have the LUPTF Committee, the Planning Commission, the Chapter leadership and the community members learn the community land use planning process. A process that can be applied to other community based planning efforts.
- 1.4.2 To initiate a community capacity building process by empowering community leadership and community members.
- 1.4.3 To generate interest and support of community members in the planning process.
- 1.4.4 To prevent haphazard unregulated community growth.
- 1.4.5 To assure availability of infrastructure systems for anticipated community growth.
- 1.4.6 To insure that future generations have adequate housing and sufficient space to live and grow.
- 1.4.7 To "leverage" the Community Land Use Plan to identify and secure the resources necessary to accomplish the desired development.

1.5 Planning Process

The process that was employed by *Rez Star Point*, the LUPTF Committee and the Shiprock Chapter leadership involved a series of meetings. These were sessions where community members articulated and defined their goals and aspirations for the Community Land Use Plan. There were other meetings held at different locations with the intent of developing data for assessments and to address specific needs regarding infrastructure systems. Some of the specific activities included the following:

- 1.5.1 Scoping sessions with the Chapter Leadership, Shiprock Planning Commission and the Shiprock Chapter Land Use Plan Task Force to define the task of developing the Land Use Plan.
- 1.5.2 Conducted community assessments with Chapter Officials and staff to determine the state of the community.
- 1.5.3 Provided orientation on the community land use planning process elements as a means of community orientation.
- 1.5.4 Reviewed developed reports and relevant documents with the Chapter leadership to ensure accuracy and to gain concurrence.
- 1.5.5 Held a public hearing to inform community of the planning process.

- 1.5.6 Attended meetings with other agencies to determine the most viable strategies to develop adequate utility infrastructure for the proposed development site.
- 1.5.7 Review final report with the community and obtain their acceptance of the Final Report.

The following **Exhibits 1.9.3 and 1.9.4** pictorially depict the described Shiprock Chapter Land Use Planning process.

Exhibit 1.9.3

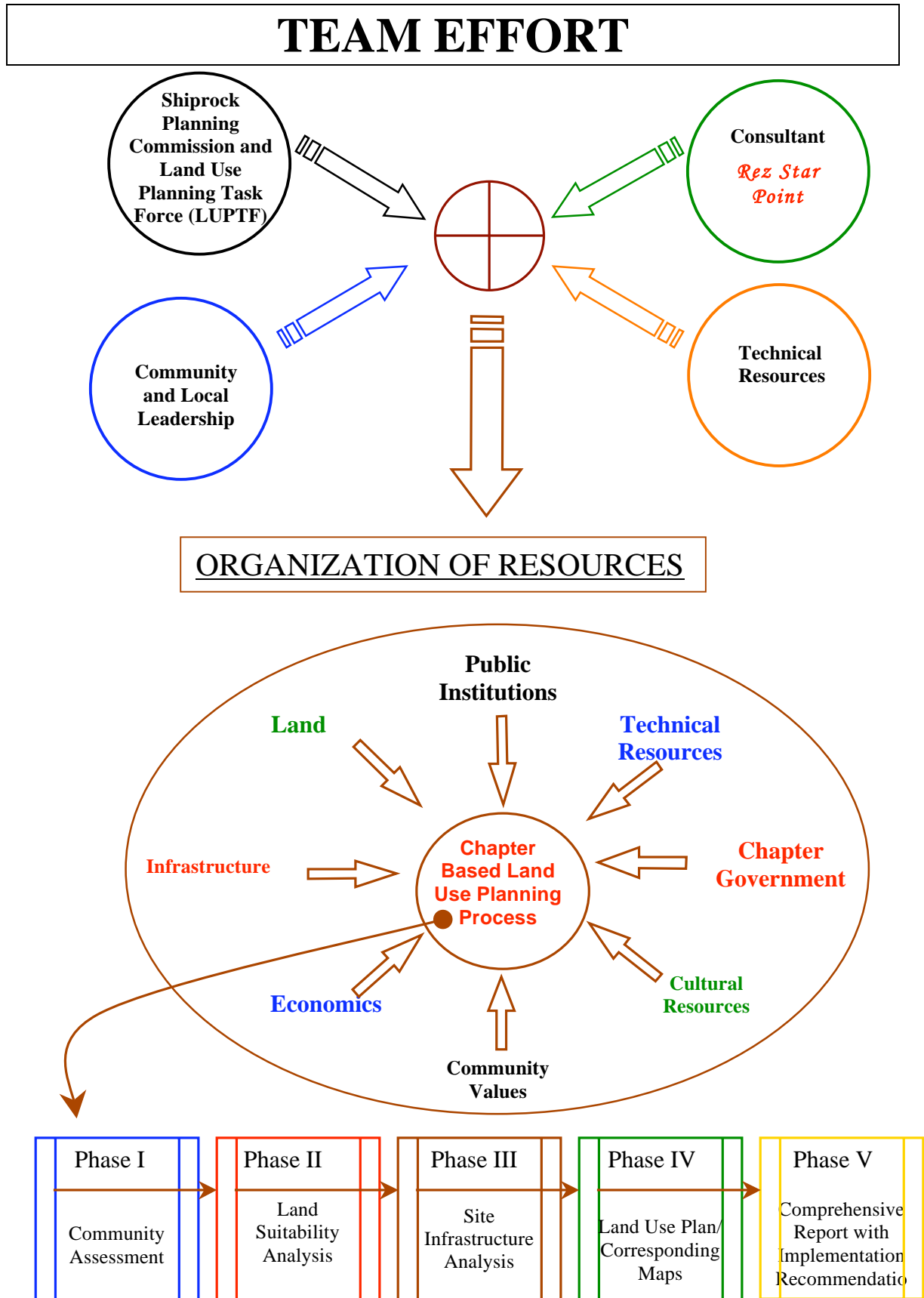
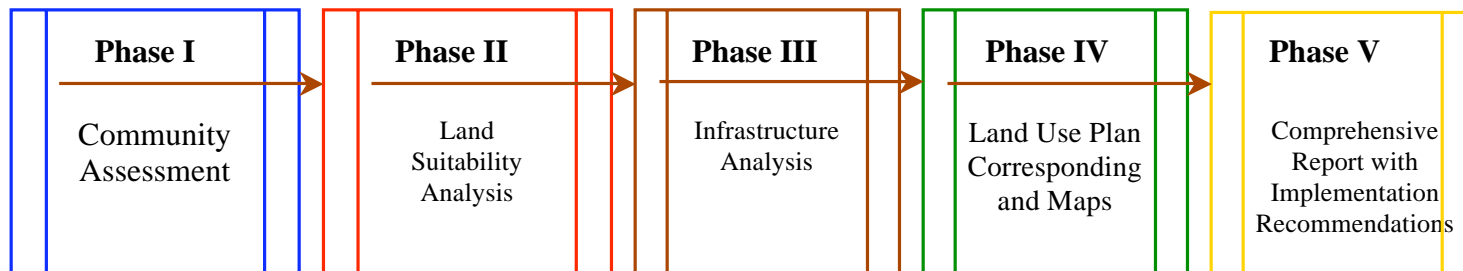


Exhibit 1.9.4

PROJECT APPROACH



PROJECT OBJECTIVES

1. Orientation and Vision Seeking 2. Goal Setting 3. Data Collection: -Public Presentations -GIS -Surveys and Analysis 4. Compilation of Data 5. Base Mapping		1. Development Sites 2. Determine Land Status 3. Develop Concurrence 4. Identify Potential Collection of Preliminary Biological Survey Data 5. Analyze Data 6. Determine Suitability 7. Alternative Sites or Proceed with Selected Site(s)		1. Collection of Information on Infrastructure 2. Analyze Data in Relation to Current and Future Site Needs 3. Planning New Infrastructure 4. Plan Rural Infrastructure - solar electric - water wells etc. (if needed)		1. Conceptualize Future Land Use Plan 2. Digitize and Computer Format 3. Presentation of Land Use Options 4. Approval of Land Use Plan: -Public Hearings -Chapter Meeting 5. Finalize Land Use Plan -Hard Copies		1. Organize Data and Analysis 2. Develop Options on Implementation 3. Compile Comprehensive Report 4. Final Critique with Community 5. Provide Continued Follow Up and Monitoring
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TO ANSWER THE QUESTIONS OF:

What is the Community NAHASDA Vision?		Where Will the Community NAHASDA Vision Be Built?		What Infrastructure Community NAHASDA Vision Will Need?		How Will the Community NAHASDA Vision Look?		How Can the Community NAHASDA Vision Be Realized?
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The following represents the process that was generally followed in the community planning effort.

1.6.1 Chapter and community Orientation

At the outset of the project the Consultant began the process of orientation with the Shiprock Chapter Land Use Plan (CLUP) Committee on the NAHASDA Chapter Land Use Plan and Housing Planning Project. The five components of the project were covered in detail, the five components being the Community Assessment, the Land Suitability Analysis, the Infrastructure Analysis, the Master Land Use Plan and the Final Report with Implementation Recommendations.

The Consultant was invited by the Shiprock Chapter Land Use Plan (CLUP) Committee to present the project to the Chapter constituency, at a duly called Chapter meeting. The Committee and the Consultant explained the purpose of the project, its history and the expectations of the project sponsors, the Office of Navajo Government Development, the Navajo Housing Authority and appropriate Navajo Nation programs and leadership, respectively.

The community membership was encouraged to pose questions to clarify their questions and concerns. It was emphasized that it was essential to have the community clearly understand the project, in order that the project achieve its intended results. This information sharing was treated as part of the community orientation process.

With the orientation, the community members were more receptive to supporting the project, this support was demonstrated through the responses to the survey questionnaires and other elements of the project where community participation was desired.

1.6.2 Identification of Potential Development Sites

Community participation was demonstrated when the CLUP Committee and the Consultant commenced with the Phase II portion of the project. There was previous identification of the potential land sites that were deemed available for the planning of new community housing.

This form of general involvement of the community was essential in the land identification process to assure that the best possible sites were identified and that the interest of impacted community members were accounted for. This contributed to the prevention of potential disputes.

1.6.3 Cultural Significance and Traditional Sensitivity

During the Phase II Land Suitability Analysis, certain members of the community with “traditional and customary expertise” were approached for advisement. These individuals were able to provide insight on specific potential development sites. These community members are regarded as local experts on the cultural significance and traditional sensitivity concerns of the areas. These community members provided invaluable information in determining the suitability for development of the identified areas, with respect to the cultural significance and traditional sensitivity issues.

1.6.4 Land Use Plan Concept Options.

The Chapter leadership was requested to critique the land use planning design that was developed by the Consultant. The design concept was presented on hard copy maps to show the plan in full detail. The community leadership was asked to comment on the design and to state their preferences on the details of the concept.

The land use plan concept was refined with the incorporation of the comments/recommendations made. Appropriate adjustments were made on the GIS base mapping electronic files maintained by the Consultant. The community was provided revised hard copies for continued and further critique.

1.6.5 Comprehensive Report and Implementation Recommendations

The LUPTF Committee, the Chapter leadership and the Consultant presented the final comprehensive report to the community members upon the completion on the project. The community members were fully orientated on the project development process and conclusions. With the full review of the Implementation Recommendations, the community understood the steps that need to be taken, in order that the desired planning is realized in a timely manner.

1.7 Conclusion

The Consultant recognized the importance and necessity of having the community members understand the project as comprehensively as possible. This insured that there was support for the effort, it protected the integrity of the project and helped the community to believe in the vision established to guide the project. With these ingredients the potential of the community achieving the desired results becomes practical and achievable.

1.8 Definitions

- **Cluster housing:** housing units developed in a “small” subdivision.
- **Chapter Boundary:** the physical geographic outer boundary of the Chapter area.
- **Chapter Membership:** for voting purposes and participation in the Chapter government, all members who are registered to vote. Those members who comprise the quorum at Chapter meetings. For purposes of services and benefits, all Tribal members, young and old, who either reside within and/or are registered in the Chapter.
- **Chapter Officials:** means the following public officials elected by the Chapter membership; Chapter President, Vice President and Secretary/Treasurer.
- **Chapter Land Use Planning (CLUP) Committee:** the committee appointed by the Chapter membership in accordance with the LGA to develop the Chapter Land Use Plan.
- **Comprehensive Land Use Plan:** a document developed by community planners and approved by the Chapter Membership that describes the current and the future land use of land within the Chapter area. The document should have provisions for community and economic development, infrastructure, open space, zoning and ordinances.
- **Cultural and/or Traditional Significance:** elements of cultural and/or traditional Dine’ value associated with certain potential development sites, such elements must be considered in view of various Tribal and Federal laws/regulations intended for historic and cultural preservation.
- **Eminent Domain:** a legal process of withdrawing land over the objections of affected land user(s), for government use or for other overriding public uses/purposes. “Just compensation” must be paid to the land users for the taking of such land as prescribed by Navajo law.
- **Environmentally Sensitive Areas:** areas that have wetlands, fragile eco-systems or the presence and/or potential presence of “species of concern” as described by the Federal Endangered Species Act.
- **Flood Plain:** an area encompassing a waterway wherein flooding of these areas is a potential consideration. Such area is also described as a “100 year flood plain”.

- **Future Land Use Plan Map:** the maps included in the Land Use Plan that describes the proposed future uses of land in the Chapter area.
- **Ground Water:** the water contained in underground aquifers or various geologic formations.
- **Infrastructure:** utilities (water, sewer, gas, electric, solid waste facilities, telecommunications), drainage systems, streets and roads.
- **Land Use Plan:** the document that identifies the current conditions and needs and the proposed future land use goals, priorities, and vision for the community. The Plan serves as a guide for the orderly growth and development of the community, illustrated by map or plat. The Plan should also contain recommendations for the implementation of the plan. The Land Use Plan must be adopted by Chapter resolution.
- **Land Use Plan Task Force (LUPTF):** the Task Force appointed by the Shiprock Planning Commission to provide guidance/recommendations on the development of the Shiprock Master Land Use Plan.
- **Land Use Policies:** a set of policies that forms the basis of relevant Chapter ordinances that prescribe the Chapter's "rules and regulations" governing the process and disposition of land use issues and concerns.
- **LGA:** the Navajo Nation Local Governance Act of 1998. This law grants authority to governance-certified Chapters over local issues.
- **NAHASDA:** the Native American Housing Assistance and Self Determination Act of 1996 recognized the right of Indian Nations to self-determination and tribal self-governance by providing the opportunity for Indian (Dine') communities to determine for themselves all aspects of planning for housing and the development, thereof.
- **Navajo Nation Law:** means Navajo statutes, administrative regulations and Navajo common law.
- **Open Space:** sectors of community land use planning areas that are left in their natural state, free of any development, thus preserving the aesthetic value of these particular land areas.
- **Ordinance:** a local law, rule or regulation enacted by Chapter resolution pursuant to the LGA at NNC Title 26; Subsection 7, Section 2004.

- **Participation Process:** the process developed by the CLUP committee and the land use planning Consultant to ensure there is community participation and education during the land use planning process.
- **Planning Process:** the steps involved in the community land use planning process, include;
 - **Community Assessment** - the gathering/assessment of community demographics, inventory of facilities and the defining of community needs for housing, economic development and community facilities.
 - **Land Suitability Analysis** – an evaluation of potential development sites to determine if there exists natural, cultural traditional resources and/or environmental constraints to development.
 - **Infrastructure Analysis** - the assessment and evaluation of data on the transportation and utilities infrastructure, particularly the infrastructure needed for the planned development.
 - **Master Land Use Plan** – the designing of land use plan concepts by the CLUP, the community leadership and the Consultant. The plans are presented to the Chapter membership in a public hearing process to ascertain comments, recommendations and concurrence.
- **Scattered Housing:** housing units that are built usually on family land outside of the community proper.
- **Service Area:** the planning/service delivery area of a chapter, members may live outside of the area and still be eligible for chapter services.
- **Subdivisions:** a contiguous section of a planned housing area that contains any number of housing units and supportive amenities.
- **Surface Water:** the waters that are openly on the surface of the Earth.
- **TAA HO A JI TEEGO** – paramount Dine’ edict meaning to “do for oneself” defined further as “achieving success through ones own initiative and determination”.
- **Withdrawn Land:** land area sites which are withdrawn for specific development purpose and which need to have clearances such as the legal survey, archeological and environmental assessments.
- **Zoning:** the land use planning that describes areas of planned land use areas for specific uses and purposes. Such zoned lands would have Chapter ordinances that prescribe the intended uses, placement and dimensions of the sites and buildings to be placed thereon.

Exhibit 1.9.1



NAVAJO NATION



RESOLUTION OF THE SHIPROCK CHAPTER

94-01-0018-SHIP

CHAPTER OFFICERS

William Lee
President

David Curley
Vice President

Lula Jackson
Secretary / Treasurer

**TRIBAL COUNCIL
DELEGATES**

Wallace Charley
Genevieve Jackson
William Tso
Duane "Chili" Yazzie

**AGRICULTURE
OFFICERS**

David Burback
Grazing Committee
Robert Hayes
Landboard Member

APPROVING AND RATIFYING THE PLAN OF OPERATION OF THE SHIPROCK PLANNING COMMISSION.

WHEREAS:

1. Pursuant to the authority contained in Section 1, Subsection (c) of Tribal Council Resolution W-20-55 which certified Shiprock Chapter as a recognized Navajo Chapter as a local government; and

2. The Shiprock Chapter recognizes the serious need the Shiprock Community and Chapter have in the absence of a planning mechanism that would provide guidance for the positive and orderly growth of Shiprock; and

3. The Shiprock Chapter by Resolution No. 92-09-00180-SHIP has directed its leadership to actively pursue the development of this planning mechanism to assist the Shiprock Chapter/Community with technical and practical recommendations on the comprehensive planning and positive development of Shiprock; and

4. There have been a group of concerned Shiprock Citizens and workers who have developed a Plan of Operation for the Shiprock Planning commission which delineates all aspects of the operating process of the Commission as it embarks on its mission.

NOW, THEREFORE, BE IT RESOLVED THAT:

1. The Shiprock Chapter hereby approves and ratifies the Plan of Operation of the Shiprock Planning Commission.

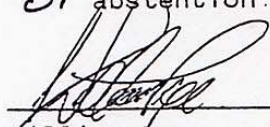
2. The Shiprock Chapter agrees to support the efforts of the Shiprock Planning Commission to provide guidance for the positive and orderly growth of Shiprock.

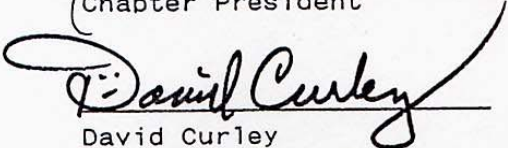
3. The Shiprock Chapter respectfully requests the Navajo Nation, the Bureau of Indian Affairs, Indian Health Services, the State of New Mexico and its entities, the U.S. Government and its entities and all other appropriate agencies to give proper recognition to the Shiprock Planning Commission.

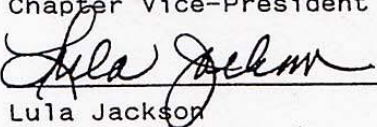
4. The Shiprock Chapter further asks that the Navajo Nation's Division of Community Development and the Transportation and Community Development Committee of the Navajo Nation Council to grant and delegate any authorities and rights to the Shiprock Planning Commission as may be appropriate under the Navajo Tribal Law.

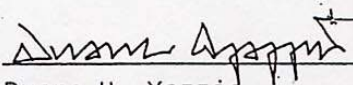
C E R T I F I C A T I O N

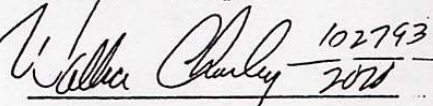
We the undersigned, certify that the above resolution was presented and thoroughly discussed at a duly called chapter meeting, at which a quorum was present, and the same was approved by a vote of 32 in favor: 03 opposed with 01 abstention on this 27 day of Oct, 1993

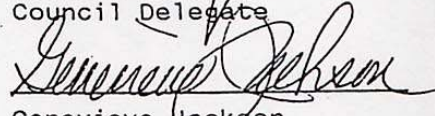

William Lee
Chapter President


David Curley
Chapter Vice-President


Lula Jackson
Chapter Secretary/Treas.


Duane H. Yazzie
Council Delegate


Wallace Charley
Council Delegate


Genevieve Jackson
Council Delegate

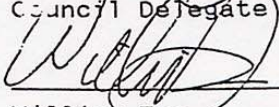

William Tso
Council Delegate

Exhibit 1.9.2 Shiprock Planning Commission Plan of Operation

Exhibit 1.9.2

PLAN OF OPERATION SHIPROCK PLANNING COMMISSION

A. PURPOSE:

The purpose of the Shiprock Planning Commission (hereinafter referred to as the "Commission") will include but not be limited to the following:

1. To provide technical assistance, in conjunction with appropriate entities in the formulation of proposed comprehensive community development plans for the Shiprock Chapter area. The Commission will provide oversight regarding the implementation and further refinement of such plans. The proposed plans are subject to discussion, amendment and adoption by the Chapter membership.
2. To represent all interests and residents of the Shiprock Chapter area, thereby involving all interested individuals and parties in Commission activities.
3. To draft and recommend local ordinances and to propose changes to existing laws and regulations to the Chapter Government, in the interest of providing protection to the health, safety and welfare of Shiprock Chapter residents, enhancing their quality of life.
4. To serve in an advisory capacity, and to address any issue or concern at the direction of the Chapter Government.
5. To administer Commission programs and activities to further its goals in accordance with the Plan of Operation and applicable laws. The Commission may address any other issue or concern that are accepted and authorized by majority vote of the Commission.

B. COMMISSION MEMBERSHIP

1. Eligibility
Commission members shall be members of the community, whether it be by residence, profession or by association. Special membership provisions can be made by the Commission.
2. Number Commissioners
The number of voting Commission members shall be fifteen (15).
3. Removal of Commission Members
Commission for just cause by majority vote of the members of Members of the Commission may be removed from the the Commission.
4. Filling Vacancies
In the event a member is removed from office, the members of the Commission may fill the vacancy by majority vote.
5. Alternates to Commission Meetings
Members of the Commission may with good cause designate by written proxy, a representative to represent that member to a Commission meeting.

C. OFFICERS OF THE COMMISSION

1. Officers of the Commission

The Officers of the Commission shall be Chairperson, Vice Chairperson, Secretary and Treasurer.

2. Election of Officers

The Officers shall be elected by the members of the Commission at the first meeting of the calendar year upon the expiration of the Officer's term. The Officers shall serve two year terms and can be elected to subsequent terms. The positions will be filled at two year intervals.

3. Removal of Officers

Officers of the Commission may be removed from office for just cause by majority vote of the voting members of the Commission.

4. Filling Vacancies

In the event an Officer is removed from office, the members of the Commission shall fill the removed Officer's unexpired term by majority vote.

D. RESPONSIBILITIES OF THE OFFICERS OF THE COMMISSION

1. Chairperson

It shall be the responsibility of the Chairperson to have all preparations for Commission meetings and activities in order, and that she/he will preside over all Commission meetings. It shall be the responsibility of the Chairperson in conjunction with the Officers of the Commission to develop agendas for Commission meetings and make it available to all concerned one week prior to the scheduled meeting.

2. Vice Chairperson

It shall be the responsibility of the Vice Chairperson to carry out the duties of the Chairperson in her/his absence or at the direction of the Chairperson.

3. Secretary

It shall be the responsibility of the Secretary to take and record minutes of each meeting, keep files on all Commission activities, and to assure that there is public notice made of Commission meetings.

4. Treasurer

It shall be the responsibility of the Treasurer to record all financial activities and to report such financial records to the Commission. The Treasurer shall keep available financial records, including audits for review by the public and other appropriate authorities at all times. The Treasurer shall be the authorized signatory along with either the Chairperson or the Vice Chairperson on all disbursements of funds on behalf of the Commission.

E. MEETINGS AND QUORUM

1. Regular Scheduled Meetings

The Commission shall meet the first Thursday of each month; the Commission may schedule special meetings as necessary. The first meeting of the calendar year will be the annual meeting of the Commission.

2. Public Meeting Notice
Notice of all regularly scheduled meetings shall be made at least seven (7) days in advance of the meeting date.
3. Quorum
Eight members of the Commission shall constitute a quorum.
4. Voting
All Commission members shall be entitled to one vote. The Chairperson shall vote only in tie-vote situations.

F. GOALS AND OBJECTIVES OF THE COMMISSION.

The duties and responsibilities of the Commission shall include, but not be limited to the following:

1. Develop various models of a comprehensive master land use plan for the Shiprock Chapter area for consideration and adoption by the membership of the Shiprock Chapter Government. The Commission will review and evaluate the plan annually for any appropriate and necessary amendment.
2. To facilitate, network and engage supportive resources to implement activities that will serve to provide a positive impact on the Shiprock Chapter area.
3. Coordinate all manner of developmental activity in concurrence with the efforts and wishes of the Shiprock Chapter Government. To consult with community members, officials and other resources to gather recommendations and input on the Commission's efforts.
4. Establish committees, task forces and assign programs and entities to serve in any capacity deemed necessary and appropriate.
5. Identify and secure governmental, public and/or private funding for community, economic, social and cultural development activities intended to serve the general welfare of the Shiprock area residents.
6. Employ persons or business interests as may be necessary to carry forth the goals and objectives of the Commission, subject to availability of funds.
7. Utilize expertise, resources and facilitate the establishment of any entities for the intended purposes of accomplishing the goals of the Commission.
8. Provide periodic reports to the Shiprock Chapter Government and to appropriate governmental and private entities for information, coordination, advice and for the general benefit of the Shiprock Chapter area.

G. AMENDMENTS

The Commission reserves to itself by majority vote, the authority to make amendments to this Plan of Operation from time to time.

CERTIFICATION

We hereby certify that the foregoing Plan of Operation was considered by the Shiprock Planning Commission at a duly called meeting in Shiprock, Navajo Nation, New Mexico, at which a quorum was present and that same was passed by a vote of 8 in favor; 0 opposed and 0 abstentions, this 5 day of April, 2001.



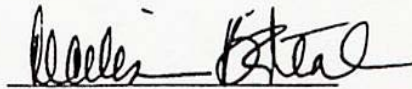
Vivienne Tallbull, Chairperson



Sally Y. Begay, Secretary



Charles Atcitty, Vice Chairperson



Cecelia Bidtah, Treasurer

Exhibit 1.9.5 List of Meetings

<u>Date</u>	<u>Type of Meeting</u>	<u>Discussion</u>
November 04, 1999	Planning Commission	Orientation on project
November 15, 1999	Chapter Plng. Committee	Orientation
November 22, 1999	Planning Commission	Complete orientation
December 16, 1999	Chapter Plng. Committee	CA Survey
January 31, 2000	Shiprock Chapter	Public Hearing
February 02, 2000	Planning Commission	Update on project
February 13, 2000	Shiprock Chapter	Orientation
March 02, 2000	Planning Commission	Update on project
March 07, 2000	Chapter Plng. Committee	Site Selection
March 23, 2000	LUP Task Force	Project process
April 06, 2000	Planning Commission	Update on project
April 13, 2000	Shiprock Community	Public Hearing
April 27, 2000	LUP Task Force	GIS Mapping
May 02, 2000	Chapter Plng. Committee	Site Selection
May 08, 2000	Chapter Ofc. & ONDG	Project status
June 06, 2000	Chapter Plng. Committee	Review of Site Analysis
June 29, 2000	LUP Task Force	Project update
July 14, 2000	Chapter Plng. Committee	Review of project
August 16, 2000	Chapter Public Hearing	Five Mgmt systems
September 2000	- No meeting attended –	
October 03, 2000	Chapter Plng. Committee	Transition of project
November 08, 2000	Chapter Plng. Committee	Review of project
December 12, 2000	Chapter Plng. Committee	Site complications
January 2001	- No meeting –	

February 2001	- No meeting –	
March 2001	- No meeting –	
April 2001	- No meeting –	
May 06, 2001	Planning Commission	Status of project
June 08, 2001	Chapter Officials	Five Mgmt Systems
July 22, 2001	Chapter Meeting	Update on project
August 12, 2001	Chapter Meeting	FMS & project update
October 25, 2001	Planning Commission	Review of Final Report
October 28, 2001	Chapter Meeting	Acceptance of Final Report

SHIPROCK CHAPTER, NAVAJO NATION

MASTER LAND USE PLAN

SPECTRUM 2 – COMMUNITY ASSESSMENT



SPECTRUM 2 – COMMUNITY ASSESSMENT

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2.7 Commercial Industrial Development Information

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SPECTRUM 2: COMMUNITY ASSESSMENT

2.1 Vision Statement

The vision of the Shiprock Chapter is to provide a system and process of structured and organized growth for the Shiprock community. In accordance with the vision objectives, the Chapter intends to facilitate and promote community, social and economic development by assuring an environment conducive to positive development including the provision of adequate community infrastructure. The paramount goal of the community leadership and community planners is to assure the provision of sufficient housing, employment and opportunity for a safe and healthy lifestyle for Shiprock community members in perpetuity.

2.1.1 SHIPROCK CHAPTER LAND USE PLANNING TASK FORCE (LUPTF)

- Jerry Thomas, Co-Chairperson, BIA Branch of Natural Resources
- Denise R. E. Copeland, Co-Chairperson, Navajo Capital Improvement Office
- Viviane Tall Bull, Chairperson, Shiprock Planning Commission
- Ted Charles, Navajo Department of Land Development
- Donald Bedonie, BIA Branch of Real Estate
- Randolph Sells, Navajo Regional Business Development Office
- Charley P. Joe, Shiprock Chapter Vice President
- Roger Anderson, IHS Office of Environmental Health
- Cecelia Bidtah, Navajo Housing Authority
- Revis Begay, Navajo Tribal Utility Authority
- Charles Atcitty, IHS Facilities Management Branch
- Robert Montoya, BIA Branch of Roads
- David Burbank, Former Grazing Committee Member
- Marilyn Garcia, Shiprock Chapter Coordinator
- Doug Isley, Dine' College, Shiprock Campus

SHIPROCK CHAPTER OFFICIALS

November 1999	William Lee, Chapter President MacDonald Lee, Chapter Vice President Leonard Anthony, Chapter Secretary/Treasurer David Burbank, Grazing Committee Member
October 2001	Duane H. Yazzie, Chapter President Charley P. Joe, Chapter Vice President Hazel Dayish, Chapter Secretary/Treasurer Robert Hayes, Grazing Committee Member
November 1999- October 2001	Wallace Charley, Council Delegate Lula Jackson, Council Delegate Richard T. Begaye, Council Delegate Perry Garnenez, Farm Land Board Member Marilyn Garcia, Chapter Manager

2.1.2 General Chapter Information

Shiprock Chapter was certified on October 26, 1955, by the Navajo Tribal Council through resolution CJ-20-55. The Shiprock Chapter is within the District 12 Land Management District of the Northern Navajo Agency. According to the Chapter Images, 1996 issue, the Chapter has approximately 125,314 acres. The amount of acreage will change with the updated delineation of the Shiprock Chapter boundary line and the boundary lines of its neighbors, Gadi' i' ahi and Hogback. The calculation of acreage based on a boundary line that has been drawn by the Shiprock Chapter leadership is approximately 217,754 acres.

When the Shiprock Chapter was formed, it was understood that the Chapter boundary line encompassed the area of jurisdiction as understood by the Shiprock area leadership and community members. This jurisdiction boundary was one that the Dine` leadership from years prior to the 1950`s, found reasonable and acceptable. This area of jurisdiction has been diminished to a significant extent by the formation of the Gadi' i' ahi Chapter and the Hogback Chapter.

2.2 Existing Land Status Information

There were no deliberate efforts to collaborate with the Shiprock Chapter by the Gadi' i' ahi and Hogback Chapters on the boundary lines, when the two Chapters were being formed.

Thus, the three Chapters claim specific expanses of land that are not coordinated with the neighboring Chapters. This results in significant overlaps of claimed jurisdiction of land. There are also some boundary overlaps with the Sanostee Chapter, the Beclabito Chapter and to a limited extent with the Red Valley Chapter. There is general acceptance that there are boundary overlaps, although it has not been known to what extent until now, through the work on this project. It is generally understood that the boundary line discrepancies will need to be addressed at some point by the Chapters.

The maps submitted with this report are the only maps available that provide this composite information, including the delineated Chapter boundary line as perceived by the Shiprock Chapter. There will need to be some adjustment on the presented Shiprock Chapter boundary line as the maps will undergo additional adjustment and refinement.

2.3 Demographic Data

The following data 2.3.1 through 2.3.4 were extrapolated from the 2000 Census data. The 2000 U.S. Census report combined the Shiprock and Gadi' i' ahi population and voter numbers. The combined population is 9,279 and 3,725 combined registered voter numbers for the two Chapters.

The process used to distinguish the population numbers between the two communities was to refer to the August 06, 2001 Navajo Election Registered Voter numbers, which are 3,270 or 88% for Shiprock and 455 or 12% for Gadi' i' ahi of the total combined registered voter number of 3,725. Using these percentage figures of 88% and 12% respectively, the Shiprock population is calculated at 8,166 and 1,113 for Gadi' i' ahi.

2.3.1 Population

The Shiprock Chapter/community population for the year 2000 is 8,166, according to the U.S. 2000 Census count.

2.3.2 Households

The 2000 U.S. Census count results show that there are 2,684 households in the Shiprock community area.

2.3.3 Household Members

The 2000 U.S. Census count results show that there is an average of 3.61 persons living in Shiprock households.

2.3.4 Median Age

The 2000 U.S. Census count reported that the median age of the Shiprock population is 26.4 years of age.

2.4 Existing and Future Residential Needs

The Consultant designed a survey form that was circulated on a limited basis to ascertain data that would provide a description of the demographics of the community. The survey form is attached as **Exhibit 2.9.1**.

According to the 2000 Census data, the estimated number of households is 3,050 for Shiprock and Gadi' i' ahi, 88% of this amount is 2,684 for Shiprock. The survey concentration was on the housing units that are not within the “organized” housing subdivisions, such as those owned/managed by the NHA, BIA, IHS, the schools and other entities. The total number of housing in these “organized” subdivisions is 903, thus the base total number of housing units used for the survey calculations is 1,781. The 1,781 number was arrived by subtracting 903 from 2,684.

The number of surveys that were completed was 608, which is approximately 34% of the total number of households. This base number of 608 surveys is used in the following data tabulations.

2.3.1 Types of Dwellings

Of the surveyed 608 households, 34 or 6% of the homes are hogans, 448 or 74% are frame houses and 116 or 19% are mobile homes.

2.4.2 Years of Construction

Of the 608 homes, 460 or 76% responded to this question, there were 148 or 24% not responding. Out of the 460 respondent households there are 6 or 1% of the houses that were constructed in the year 2000, 44 or 9% were built in the 1990`s, there are 116 or 26% of the homes that were built in the 1980`s. There are 132 or 27% of the houses that were constructed in the 1970`s, there are 148 or 32% of the dwellings that were built in the 1960`s and there are 24 or 5% of the houses built in the 1950`s. Thus, 35% of the homes were built in the last 20 years and 65% of the homes are over 20 years old.

2.4.3 Home Ownership

Of the 608 homes, 476 or 78 % responded to this question and there were 132 or 22% not responding. The majority of the respondents stated that they own their homes, which is 476 households for a total of 53%. There are 136 or 29% who are renting, and 80 or 17% who are in the process of buying their homes (mobile homes).

2.4.4 Condition of Dwellings

Of the 608 homes 216 or 36% did not respond, thus the total number of surveyed households utilized in the condition of dwelling survey conclusions, are 392 or 64%. Of these, there are 108 or 18% who said that their houses were in fair condition, but needed minor repair.

The overwhelming number of 284 households for a total of 72% stated that their houses were in poor condition, they specified a number of problems they were experiencing with their houses. Some of these reported conditions include; houses being too small, leaking roofs, deteriorating floors and walls, broken doors and windows, water piping breaking down and generally various stages of dilapidation and disrepair.

2.4.5 Utilities of Dwellings

The community, for the most part has adequate domestic water. The water that supplies the water system comes from the Farmington/Shiprock water line. The Farmington/Shiprock water line supplies approximately 60% of Shiprock's water need and the remaining 40% is treated locally by NTUA. The system serves the majority of the Chapter area, except for the remote rural areas.

Those families that have domestic water outside the community proper and throughout the farming areas rely on septic waste water systems. The community including most of the rural area is adequately supplied with electricity. The domestic water and electrical systems are owned and operated by the NTUA.

The available gas lines primarily serves the immediate community proper area of the Chapter. The community is served with a telephone system that is operated and maintained by the Navajo Communications Co. The following utility data was generated through the survey:

2.4.5.1.1 Electricity - 566 or 93% of the dwellings have electricity and there are 42 or 7% of the homes without electricity.

2.4.5.2 Water - There are 540 or 88% of the homes that have domestic running water and 68 or 12% without water.

2.4.5.4.1 Sewer/Septic - 530 or 86% of homes have sewer/septic service and 58 or 14% are without sewer/septic systems.

2.4.5.5 Gas/Propane - There are 580 or 97% of the dwellings that have a gas or propane system and 28 or 3% without propane or gas for heating and cooking. These latter households would rely on wood/coal burning stoves.

2.4.5.5 Telephone - There are 192 or 32% of the surveyed homes that have phones and there are 416 or 68% of the homes that do not have phones.

2.4.6 Homesite Leases

Of the households surveyed, 308 had approved homesite leases for a percentile of 64%, 220 households or 36% said they did not have homesite leases.

2.4.7 Demand for Housing

2.4.7.1 Background

The Shiprock Chapter is experiencing a serious housing need; there are too many community families that live in housing with dilapidated conditions. The Chapter and pertinent Tribal programs have limited resources that can be employed to help families generate the resources needed to build new homes or to substantially improve their existing housing.

2.4.7.2 Consequences

Due in part to these conditions, community members are finding their children and other family members relocating to areas away from the community where these family members have ready access to more resources, including employment, schools and housing.

This is detrimental to the traditionally close-knit Navajo family that is accustomed to living close to each other for family support, family togetherness and the building on, of traditional familial values. This phenomenon of families moving away, in part because of the lack of housing is contributing to a breakdown of the Navajo family unit.

In these "modern" times, it is also a disturbing trend that families who live in overcrowded conditions experience a high incidence of social ills, including exposure to alcoholism, family abuse and violence. Some of the resulting psychological and physical damage is devastatingly permanent.

It is essential that families, particularly growing children have adequate living space. They all need their own space.

The families who have to live in houses with dilapidated and overcrowded conditions suffer, in terms of the impact that poor housing has on their self-esteem. The younger school age family members would suffer more, perhaps from ridicule and embarrassment.

2.4.7.3 The Housing Need

The Shiprock Chapter Officials have a standing needs list that seldom changes, only in the respect of the unfortunate need of adding more names. The Chapter has approximately 190 families who need new houses constructed and there are 96 families who need substantial renovation or additions to their existing homes. Thus, there are 284 families who are in need of immediate housing assistance.

Of the surveyed households there are 586 who expressed the desire for new housing, however only the 284 families have demonstrated need.

This number is extremely high considering that the reported number of households in the Shiprock Chapter area is 2,684. The total number of families needing housing assistance in relation to the total number of households, show that nearly 11% of the community are in need of housing. When considering only the “non-organized” privately owned housing units, the percentage of families needing new housing is 16%.

The estimated and planned number of households in 10 years or the year 2011 is approximately 3,500. If the housing needs are not effectively addressed, there could be as many as 350 families in dire need of housing at that time.

2.5 Grazing and Agriculture Information

2.5.1 Background

Like most Navajo Nation Chapters, the Shiprock Chapter has many of its citizens who continue to raise livestock on their grazing permit areas. There is a significant amount of livestock raised throughout the Shiprock Chapter area. Unlike most Navajo Nation Chapters, Shiprock is known for its agriculture. Shiprock takes pride in this designation. There is evidence that farming has been a livelihood pursuit along the San Juan River for hundreds of years.

Although agriculture and livestock raising have been time-honored traditions, in recent years there has been a trend away from these practices. This is because many children find the need to attain wage earning jobs to survive in the modern world, subsequently there has been a loss of interest in farming and raising livestock. However, there seems to be a recent resurgence of these traditional livelihoods, perhaps, in part because of the general state of the economy and the difficulty in obtaining employment.

Water and land are the greatest natural resources that the community of Shiprock is blessed with. The importance of these two resources is being increasingly understood more and more in their proper context and in terms of the value of these resources in future times.

2.5.2 Non-Grazing and non-Agricultural Resources

To a very limited extent there are other natural resources such as, natural gas and oil, but their importance to the community-at-large is minimal. This is the case primarily because the community realizes very little direct benefit from the exploitation of these resources.

Other natural resources that are non-mineral are the natural attractions such as the Shiprock pinnacle and other area attractions including the Four Corners, the Mesa Verde Cliff Dwellings, Chaco Canyon and the surrounding mountains that are valuable from an aesthetic point of view.

Additionally the benefit that can be derived from the tourist trade is also realized and appreciated, the Navajo Division of Economic Development and its Department of Tourism, the Shiprock RBDO and Shiprock planners are making concerted efforts to develop this tourist trade potential.

2.5.3 Water

Perhaps the most precious unique resource that Shiprock has is the water from the perennial San Juan River. The community has the privilege of using as much water as needed on its farming activity. The water rights to the San Juan River remain under dispute and the Shiprock community holds claim to the water it believes it is entitled to. In view of the priceless commodity that water represents and more so in the future, Shiprock recognizes it's very pivotal position.

As the community presently receives 60% of its domestic water from the Farmington Municipal Water System, Shiprock planners and leaders are discussing with appropriate entities, the establishment of an independent Shiprock Municipal Water System. This would involve the construction of a sizable reservoir, the increased capacity of the community water treatment facility, as well as the development of new water systems and the improvement of existing systems.

2.5.4 Agriculture

The Shiprock community intends to keep the designation of being a center of agriculture. The farmers are the "first-line defense" in the protection of the community's water rights. The Shiprock leaders and planners will do all necessary and appropriate to assure that the viability of farming activity is maintained and maximized.

Some of the plans include ways to improve the irrigation water delivery system, a Farmers Cooperative, redevelopment of non-used and underused agricultural farm plots, institution of good water management practices and the development of new farm lands. Also, marketing outlets for produce sales will be improved by developing marketing outlets outside of Shiprock, including the Navajo Nation, the border communities and other Native communities.

2.5.5 Grazing

The Shiprock area livestock owners continue the livelihood they cherish. There are planned programs that will provide valuable support for ranchers. These plans include the development of new water sources such as redevelopment of capped wells, installation of solar windmills, innovative water catchment dams and the institution of strong and practical range management programs.

Grazing and Agricultural Information survey data appended at **Exhibit 2.9.2.**

2.6 Community and Public Facilities Information

2.6.1 Background

The Shiprock Community has begun a new phase of development with its community facilities. Many of the earlier phase facilities are in dilapidated condition and beyond improvement, primarily because of age. The Chapter Government over the past 20 years has been dismantling some of these older buildings and providing space for new facilities.

Shiprock has submitted its share of proposals requesting for funding from any number of sources over the years, perhaps half of the requests have been approved. Considering the development slump, Shiprock's successes in requested funding for community facilities has been significant.

The Shiprock Planning Commission developed a community development priority list, including facilities in late 1995. A cursory review of the development priority list reveals that the community is basically on track with its facilities development "wish list". There are some major projects under construction that are a tremendous step forward in terms of community facilities development for the Shiprock area.

2.6.2 Public and Communities Facilities Inventory

There are approximately 150 public and community facilities situated in Shiprock. About 70% of these facilities are beyond their expected use life span. Of these facilities about 50% have undergone substantial rehabilitation and improvement work. At least half of the 150 facilities should be replaced.

2.6.3 Streets and Pavement

There are approximately 55 miles of streets in and around the residential and community proper areas of Shiprock. There are perhaps 25 miles of these streets that are paved. The Planning Commission and the Chapter Government have also been requesting to have a number of the primary dirt streets paved. With the expensive cost of street paving, progress has been slow in this respect.

The community planners and leaders coordinate with the Bureau of Indian Affairs Branch of Roads and the Navajo Department of Transportation in the plans for the streets paving. Currently the BIA Branch of Roads and the Navajo Department of Transportation have scheduled the paving of approximately 10 miles of streets on their project list over the next three years.

The Navajo Engineering and Construction Authority under contract with the BIA Branch of Roads has paved the Mesa Farm Road for a distance of eight miles. The Mesa Farm area is one the more populated sectors of the community, thus this road is heavily used and the paving of the road provides a significant service to the community.

2.6.4 Landfill and Transfer Station

The community for many years had a bad experience with open trash dumping and an unregulated landfill, however the persistence of the community, with support from the BIA and the Navajo Nation Solid Waste Program and Navajo EPA, eventually resolved the solid waste problem with the construction of the Shiprock Regional Solid Waste Transfer Station. The Transfer Station was constructed with funds appropriated by the State of New Mexico Legislature. The Station is operated and maintained by the San Juan County. The Station is available to most New Mexico area Northern Navajo Chapters.

2.6.5 Public Safety Services

Police Services - Shiprock is host to the Navajo Department of Public Safety, Shiprock District. The District covers over 50,000 square acres and has one of the larger forces of public safety personnel on the Navajo Nation, including 54 Police Officers, 15 support personnel, a staff of 10 Detention personnel and a fleet of 20 vehicles. It is one of the busier Districts as exemplified through its year 2000 statistics of 10,444 arrests, 19,275 responses to assistance calls for misdemeanor offenses and 778 calls on felony offenses.

Fire Services - The BIA has a Fire Department that has the primary responsibility of providing coverage to Bureau facilities in the Shiprock Agency, but will supplement the community Fire Department when the need arises. In the early 1980's the community formed the Shiprock Volunteer Fire Department. The San Juan County funded the construction of the Shiprock Fire Station and continues to fund the operation.

2.6.6 Health and Medical Facilities

The Shiprock community has the Northern Navajo Medical Center. This state-of-the-art health and medical complex is adequately meeting the health and medical needs of the Northern Navajo region and beyond. The NNMC as of October 2001 had 245,818 outpatient clients and 4,232 in-patients. In the next few years it will be imperative to increase the operations funding for the NNMC to assure that it will continue to meet its ever-increasing patient load.

2.6.7 Schools

There are four different educational settings in Shiprock. These include the public school district, the contract school, the pre-school and the Dine` college. The Central Consolidated Public School District has K-12 grades at the Nataani Nez, Mesa, Nizhoni and Eva B. Stokley Elementary Schools, the Tse Bit ai Mid-School and the Shiprock High School. The total enrollment for the Shiprock area public school system is 2,967. The public school district has 10 different school facilities in Shiprock.

The contract school under the Shiprock Alternative Schools, Inc. has the Atsa Bi Yaz Elementary School and the Northwest High School. The SASI also has the Tse Bi Tai Learning Center that addresses the needs of the mentally handicapped. The total SASI enrollment is 383. The contract school has 125 staff members and nine buildings.

The Shiprock Headstart Program serves pre-school children, ages 3 to 5. The Shiprock Headstart enrollment is 668 and has a staff of 122, one primary Center building, six Homebase Programs and an administrative building.

The Shiprock Campus of the Dine` College offers courses that can lead to the attainment of an Associate Degree and/or the students can transfer credits to a four year college institution. The enrollment at the Shiprock Dine` College Campus is 328. The college campus has a staff of 53 and eight buildings. The college and community suffered a devastating fire in 1997; the fire destroyed several buildings, including some laboratories that were fully equipped. As a result the Dine` College has been losing students to San Juan College and other area institutions of higher learning.

2.6.8 Planned Construction

The 1995 completion of construction of the Northern Navajo Medical Center is viewed as the forerunner of a number of major construction activities. These projects include;

1. Dine' College Shiprock Campus - The Phase I site development work of the new Shiprock Dine' College Campus construction has been completed. The \$4.1M Phase II construction portion will include the development of administration and staff offices, classrooms, library, cafeteria and support facilities. The eventual total construction envisioned will require \$55M at a minimum.
2. Northern Navajo BIA Administrative Complex - The Bureau of Indian Affairs, Shiprock Agency completed construction of its new \$4.5M Northern Navajo Agency Administrative Office Complex. The facility will house all Shiprock BIA staff, as well as the 93-638 program staff, including the Social Services, Census, Housing Services and Department of Criminal Investigations.
3. SASI Campus - The Shiprock Alternative Schools, Inc. is building its new \$26.3M school complex. The complex includes administrative and staff offices, classrooms, library, cafeteria, dormitories, parking areas and athletic facilities.
4. Multi-Purpose Complex - The Shiprock Community looks forward to the development of the Shiprock Multi-Purpose Complex. This facility will serve many community purposes, although it will focus on the provision of services for young people. The total funding required for the facility is approximately \$12M.

To date the community has secured \$1.5M from the State of New Mexico and the U.S. Department of Housing and Urban Development. These funds are being used for the design and engineering, the site development and the installation of utility infrastructure. The community continues to submit proposal for complete construction in the amount of \$12M to the HUD and the Navajo Capital Improvement Office.

5. Shiprock Boys and Girls Club – The Boys and Girls Club is undergoing approximately \$750,000 of renovation and further improvement. The program projects for additional funding from the National Boys and Girls Club organization.

6. Shiprock Recreational Vehicle Park - The Shiprock Chapter Government in working closely with the Navajo Division of Economic Development Department of Tourism have begun the development of the Shiprock Recreational Vehicle Park along the San Juan River. There has been approximately \$232,000 secured to begin the design and engineering and to proceed with the site development.

The funds came from the State of New Mexico Legislature in the amount of \$100,000 and about \$132,000 from the Navajo Division of Economic Development. There still needs to be \$1.2M generated to fund the full project.

7. Shiprock Veterans Memorial Complex - The Shiprock Veterans program has secured \$170,000, mostly from the NM State Legislature for the planned development of the Shiprock Veterans Memorial Complex. The Veterans program still needs to obtain another \$130,000 to construct their building.
8. Nizhoni Community Park - The Shiprock Planning Commission, the Navajo Office of Dine' Youth and the Chapter Government have been working on the development of the Nizhoni Community Park. To date \$145,000 has been appropriated from the NM State Legislature for the Park development.
9. Shiprock Behavioral Health Program - The Navajo BHP was awarded a large section of the former Shiprock IHS Hospital, BHP is developing the Northern Navajo Addiction Recovery Center. The program was awarded \$2.2M from the NM State Legislature, IHS and the Department of Behavioral Health to begin the renovations. The program ultimately seeks \$7.3M.
10. Northern Navajo Tribal Administrative Office Complex - The Shiprock Planning Commission has land reserved for the eventual development of the Northern Navajo Tribal Administration Office Complex, within the 36-acre Multi-Use area. Efforts continue to seek the approximate \$4M needed to finance the construction of the new building.
11. Shiprock Northern Navajo Fair Grounds - The Chapter has withdrawn 200 acres of land in south Shiprock for the development of the new Fairgrounds. Efforts are underway to obtain \$5M for construction.

Another major development concern is the lack of water in this south section of the community. The Chapter Government is seeking a \$250,000 grant from the State of New Mexico Legislative to address this need and the water needs of the citizens who live in the south side.

12. South Shiprock Commercial Tract - The lands now occupied by the Fairgrounds is prime real estate. This 35-acre site east and across from the Shiprock Tse Bi Tai Shopping Center is an excellent location for commercial and other development.

The Navajo Division of Economic Development through the Department of Tourism contracted with David Sloan and Associates to formulate a master plan concept for the development of the area once the Fairgrounds are relocated

13. East Shiprock Tribal Building - This building is in the final phases of a major renovation by appropriate Tribal entities. The building houses at least five significant Tribal programs.
14. Community Waste Water System Upgrade - The Chapter Government received a \$150,000 appropriation from the NM State Legislature for much needed improvement to the community waste water system.

The Chapter Government is coordinating with the Northern Navajo Medical Center's Office of Environmental Health in addressing five critical needs areas around the immediate community proper. The OEH is contributing approximately \$300,000 in match funds to provide a total of \$450,000 to do the project.

15. Shiprock Industrial Building - In lieu of the Industrial Building being occupied by some light industry interest, the Division of Economic Development has leased the building for the establishment of a large hardware store (Ace Hardware) and other offices.

Ayani Neez, Inc., the primary tenant has agreed to have the Navajo Nation Temporary Assistance for Needy Families (NN TANF) to occupy part of the facility. The NN TANF is refurbishing portions of the building to accommodate their occupancy along with other Tribal programs.

16. Shiprock Municipal Water System - The Shiprock leadership and planners are concerned that the community relies on the Farmington Water System for 60% of its domestic water. To address this concern in the long term, plans are to eventually develop an independent Shiprock Water System. This will include the development of a sizable reservoir and the increased capacity of the Shiprock Water Treatment Facility.
17. The Dine' Housing, Inc. – The DHI plans to redevelop the VCA housing and the Migrant housing areas. The tenant controlled Housing Corporation has been successful in obtaining substantial funding from the NHA/NAHASDA funding sources for this development.
18. Headstart/Day Care Complex - The Shiprock Chapter and the Planning Commission are collaborating with the Department of Headstart under the Division of Dine Education and the Day Care program under the Division of Social Services for the development of “one stop shopping” child care programs and a new facility. The Headstart and Day Care Programs are able to generate \$2.6 million for the construction of this new program facility and headquarters. The new facility will be built in the southwest corner of the 36-acre multi-use area.
19. Shiprock NTUA Administration Building - The NTUA will be building a new Administration Building in South Shiprock adjacent to their supply center/maintenance yard. The funds budgeted by the NTUA for this construction is \$1M.
20. Elderly Home - The Shiprock Chapter expects to receive a \$90K NAHASDA planning grant to plan the development of a Shiprock Comprehensive Elderly program and facilities. This program would include day care, independent living, respite care, and comprehensive medical and geriatric care.
21. Fire Department - The Planning Commission and the Chapter are working with the Fire Department and San Juan County to establish a new fire department headquarters and fire station in south Shiprock 36-acre multi-use area. The San Juan County has committed the funding for this construction.

Community and Public Facilities Information summary survey data appended as **Exhibit 2.9.3.**

2.7 Commercial and Industrial Development Information

2.7.1 Background

The Shiprock Community had its beginnings as an organized community in the early 1900`s. The community went through some strong and positive phases of community and economic development into the 1970`s. Prior to the 1980`s, Shiprock was perhaps the most developed community on the Navajo Nation. The community has witnessed different types of positive development, including light industry.

By the mid-1970`s, the community went into a development slump, due to various causes, including the general state of the economy, welfare dependency, tribal politics and the unfortunate Fairchild episode.

Shiprock prides itself on being on the “cutting edge” of experiencing the fruits and ills of the modern ways. Shiprock has seen the best of economic and community development and it has experienced the worst of it. The community is destined to phase out of this development slump and blaze the way into the new millennium. Community planners and leaders are convinced that Shiprock is the Native City of the Future.

2.7.2 Existing Businesses Inventory

There are approximately 60 businesses operating in Shiprock, additionally there are five entities that lease commercial area lots who operate non-profit oriented activities. Even with this number of businesses, the area citizens still find it necessary to “go to town” for any number of commodities and services.

It is the contention of community leaders and planners that the community is on the verge of a positive development “boom” that will serve as an impetus to the permanent community and economic development of Shiprock. The Chapter and community leadership are intent on attaining the “right combination of elements” that will provide the conditions to create this long overdue opportunity.

In addition to the formal business situations in Shiprock, there are numerous homebased “cottage” industry activity that make any variation of arts and crafts and other hand made items.

Other kinds of traditional industry are the seasonal sale of produce and other agricultural products and the sale of fuels, such as coal and firewood. Another significant home cottage industry is the sale of a wide variety of immediately consumable foods.

These types of cottage industry are very substantial and do provide for a significant portion of subsistence earnings of families involved with these activities. In 1994 a study was done in conjunction with First Nations Development Institute of Fredericksburg, Va. to determine the extent of the cottage industry in and around Shiprock. The finding was that, collectively, approximately \$4M worth of cottage industry commerce was taking place on an annual basis. Shiprock planners envision the development of a matrix of traditional economy fused with these types of Dine` style cottage industry.

2.7.3 Proposed New Businesses

There are numerous proposed businesses that are planned and business site leases formally filed for with the Regional Business Development Office. These proposed businesses are at various stages of development, including the drafting of business plans, the securing of finance and the processing of business leases through the Navajo Nation review and approval processes, as well as with the Bureau of Indian Affairs.

The Shiprock Community also has several formal business leases previously withdrawn for commercial purposes that are dormant. The primary reasons for this situation is that, prospective business owners do not consummate various particulars to complete the business site lease process and they also experience the general difficulty of obtaining finance. Also many potential entrepreneurs are discouraged by the stringent requirements, including the bonding, insurance and leasehold tax arrangements that are required by the Navajo Nation and the BIA.

Commercial and Industrial Development Information summary survey data appended as **Exhibit 2.9.4.**

Exhibit 2.9.1

Community Assessment Survey Instrument

Exhibit 2.9.1.

**NAHASDA Chapter Land Use Plan Project
Phase 1-Community Assessment**

No: _____

Survey Instrument- Shiprock

Date: _____

Interviewer: _____ **Location of Residence:** _____

No.	AGE	M	F	TRIBE	RACE	EDUC.	IN-SCHOOL	VETERAN Y N	EMPLOYED Y N	OCCUPATION/ SKILLS	REGIS. N S	CHAPTER
1.												
2.												
3.												
4.												
5.												
6.												
7.												
8.												
9.												
10.												

NO.	AGE	M	F	CEN. Y N	EDUC.	IN-SCH.	VETERAN Y N	E.M.P Y N	OCCUP. SKILLS	LIVE WHERE	REGIS N S	CHAPTER
1.												
2.												
3.												
4.												

- A. Where employed? _____ B. How long? _____
 C. Total household annual income? _____ D. Source of income? _____
 E. Type of home? _____ F. Year built? _____ G. Own or rent? _____
 H. Type of exterior wall? _____ I. Problems with dwelling? _____
 J. Electricity? _____ K. Water? _____ L. Sewer? _____ M. Gas? _____ N. Phone? _____
 O. Grazing permit? _____ P. Land use permit? _____ Q. How many vehicles? _____
 R. Where does family buy food? _____
 S. Where does family buy gas? _____
 T. Where does family buy clothes? _____
 U. Where does family buy vehicles? _____
 V. Where does family go for medical care? _____
 W. Do family members attend Chapter meetings? _____ X. Civic organizations? _____
 Y. If you were to get a new house, where would you want it? _____
 Z. What do you feel are your greatest needs? _____

NOTES: _____

Exhibit 2.9.2 Grazing and Agricultural Information Data

Natural Resources Inventory:

	Type of Nat. Resc.	Description	Land Status	No. of Acres	Location
1.	Land	Graz, & Dev	Tribal Trust	115,000	Chap. Area
2.	Water	Ag. Dom. & Dev	Tribal Trust	88,800	San Juan Rv.
3.	Oil	Tribal lease to Co.	Tribal Trust		Chap. Area
4.	Gas	Tribal lease to Co.	Tribal Trust		Chap. Area
5.	Land	Agriculture	Tribal Trust	7,400	Chap. Area

Land Status:

- Amount of Acreage in Chapter area? 125,314
- Legal Classification of Land? Fed/Tribal Trust
- Soil Type of Land by Percentage? Under calculation by BIA Natural Resources
- Are any Chapter lands under lease to Navajo Nation or other? Yes
- How many leases? 17
- What type of leases are they and for what activity? Mineral, Ag. Tribal Bldgs. Commercial
- Amount of acreage under lease with each? Information being compiled by BIA

Water:

- What is the Community domestic water source? Farmington System - 60%, NTUA - 40%
- Does Community claim any water rights? Yes
- If yes, approximate number of acre feet claimed? 88,800
- Are there any natural springs? Yes, 3
- Are there Wells developed? Yes
- How Many? 3
- How many windmills are there? 5
- How many are not working? 2
- Are there any solar powered windmills? Yes, 4
- How many are not working? 2
- Are there manmade dams/reservoirs in Chapter area? Yes, 6
- How many livestock ponds are there in Chapter area? 13
- How many need repair? 7

Agriculture:

- How many acres are reserved for Agriculture? 7400
- How many are under production? 5700
- How many families have Land Use Permits? 380
- Does the Chapter assist the Farmers? Yes
- What different crops are planted and harvested? Corn, melons, squash, alfalfa hay, wheat

- Is there a Farming Cooperative? Yes
- How many families belong to the Cooperative? 87
- Source of water for irrigation? San Juan River
- Approximate number of acre feet used annually? 88,800
- What method of irrigation is used by percentage? Flood-85%, gated pipe-10%, sprinkler-5%
- Are all farms served by the Community Irrigation Canal System? Yes
- Miles of System? 55
- When was System constructed? 1930`s-1940`s
- Problems with the System? Silted up canals/drainages, silted up/trashed siphons, irregular delivery of water, control of irrigation system by Navajo Nation, no local control

Grazing:

- How many acres are reserved for Grazing? 110,000
- Are grazing acres actively used? Yes
- How many families have Grazing Permits? 118
- Does the Chapter assist the permittees? Yes
- Approximate number of sheep in Chapter area? 1033 Goats? 638 Cattle? 846 Horses? 33
- Is there a Ranching Cooperative? Yes
- How many families participate in the Co-op? 43
- What is source of water for Livestock? Windmills, catchment dams, irrigation, hauling water
- Feed? Range forage, hay purchase, other supplements
- Primary problems experienced by Permittees? Shortage of livestock water, poor rangeland condition/natural feed

Exhibit 2.9.3 Community and Public Facilities Information Data

Public Facilities Inventory:

Facility	Yr. Built	Yr. Renov.	Blgd. Comp.	Stage of Completion
1. Chapter House	1985	N/A	Yes	100%
2. Pre-School	1992	1999	Yes	100%
3. Day Care	1978	1987	Yes	100%
4. Senior Citizens Center	1996	N/A	Yes	100%
5. Multi-Purpose Center	1967	1999	Yes	100%
6. Tribal Office	There are 61 Tribal properties/buildings listed in Shiprock			
7. Storage/Warehouse	1992	N/A	Yes	100%

Streets - Pavement:

- Is the road to the Chapter House paved? Yes
- Is Chapter parking lot paved? No
- Does Community have streets? Yes
- Are streets named? Some
- Approximate miles of streets? 55
- How many miles are paved? 25
- Miles of streets unpaved? 30
- Who maintains streets? BIA, NHA, community
- Are there plans to pave unpaved streets? Yes

Landfill/Transfer Station:

- Is there a community Landfill? No
- Does Community have access to Transfer Station? Yes
- If yes, where is Station? North Shiprock
- Who maintains Station? San Juan County
- How often are transfers made? Twice weekly
- Is there fee for using Station? No

Police Station/Fire Station:

- Is there Police Station in Community? Yes
- How many Officers are stationed there? 54
- Is there Housing available for Officers? Some
- Is there a Fire Station in the Community? Yes
- Who maintains the Station? San Juan County & BIA
- How many volunteers? 25
- What is water tank size of the Fire Truck? 1-750, 2-500, 3-250
- What facilities does Station have? 1 Station House each-SJC & BIA
- What is range of service provided? 20 miles

Health/Medical Facilities:

- Is there a Health/Medical facility in the Community? Yes
- Name of facility? Northern Navajo Medical Center
- How many Doctors work in the facility? 58
- Nurses? 146
- Other Technicians/ Support staff? 70

- How many housing units are provided for staff? 70
- How many housing units are needed? 50
- What is the out patient workload? 130,000
- What is the radius of service area? 50 miles
- If no, where is nearest facility? N/A
- How far from Community is it? N/A

Schools:

	Name of School	Type of Sch	Yr. Est.	Enrmt	Gr Level	Sq. Ft.
1.	Shiprock High School	Public	1966	888	12	218,064
2.	TseBit`Ai Mid School	Public	1980	467	8	102,535
3.	Mesa Elementary	Public	1981	377	5	62,765
4.	Nizhoni Elementary	Public	1985	380	5	50,265
5.	Nataani Nez Elem.	Public	1989	490	5	81,115
6.	Eva B. Stokley	Public	1997	346	5	48,500
7.	Northwest High Sch.	Contract	1986	170	12	
8.	At`tsa Bi` Yaz Elem.	Contract	1986	217	5	

Planned Construction:

	Facility	Sch to be Built	Stage of Proj.	No. of People to Benefit	Rev Creation
1.	Dine` College Ph.I	Present	Const. Doc.	25,000	No
2.	BIA Ofc. Complex	Present	Complete	45,000	No
3.	S/R Alter. Sch. Inc	Present	Under Construct	20,000	No
4.	S/R Multi-Purpose	Mar 2000	Infrastructure	45,000	No
5.	S/R Boys/Girls Club	Present	Maj. Renovation	15,000	No
6.	S/R RV Park	Present	Phase I	10,000	Yes
7.	S/R Vets Mem.Com.	Jul 2000	Seeking shortfall	7,000	No
8.	Nizhoni Com. Park	Present	Phase II	15,000	No
9.	S/R BHP	Present	Phase I	2,500	No
10.	East Trib Bldg.	Present	Completed	25,000	No
11.	Sewer Upgrade	Jul 2001	IHS Project List	10,000	No
12.	S/R Water Supply	No time	Assessment Ph.	15,000	No
13.	Fairgrounds	No time	Seeking Funds	125,000	Yes
14.	South Commercial	No time	Await Fairgrounds	15,000	Yes
15.	S/R Industrial Bld	Present	Major renovation	15,000	Yes
16.	Nataani Nez Hsq.	Present	Funds Secured	1,000	No
17.	Headstart/Day Care	Apr 2002	Design/Eng.	1,000	No
18.	NTUA Bldg.		Funds Secured	15,000	Yes
19.	Elderly Care	No Time	Planning Funds	5,000	No
20.	Tribal Ofc Complex	No Time	Seeking Funds	2,000	No
21.	Fire Dept.	No Time	Funds Secured	15,000	No

Exhibit 2.9.4 Commercial and Industrial Development Information

Business Persons/Companies	Nav ?	term_from	term_to	commencing	acreage	acreage
Clement J. Goodluck & Harriet M. Goodluck	Y	07-Mar-67	06-Mar-92	07-Mar-67	6.23	0
John/Angela Sells & Robert/Laverna Ahkeah	Y	25-Apr-67	24-Apr-92	25-Apr-67	1.427	0
Carl Todacheene & Vina Todacheene	Y	24-Aug-67	23-Aug-92	24-Aug-67	2.79	0
Arlenco, Inc./Minnie Hamilton	Y	11-Sep-67	10-Sep-92	11-Sep-67	1.34	0
Virgil L. Kirk, Jr.	Y	29-Jun-70	29-Jun-95	29-Jun-70	2.497	0
Howard H. Nez Sr. (deceased)	Y	17-Jul-70	16-Jul-95	17-Jul-70	1.92	0
New Mexico State Highway Department	N	21-Oct-70	20-Oct-95	21-Oct-70	5.217	0
Wallace Ben & Gladys Ben	Y	19-Apr-72	18-Apr-97	19-Apr-72	1	0
Estate of Tyrone J. King	Y	27-Dec-73	26-Dec-98	27-Dec-73	1.722	0
Jimmie W. King (deceased)	Y	27-Dec-73	26-Dec-98	27-Dec-73	1.722	0
Willard D. Frazier	Y	11-Jun-75	10-Jun-99	11-Jun-75	3.856	0
Ned L. Bernally	Y	23-Feb-77	22-Feb-02	23-Feb-77	2.983	0
Arnold Harrison & Caroline Harrison Russell	Y	13-Apr-78	12-Apr-03	13-Apr-78	1.74	0
Steven Junior Mitchell	Y	- -	- -	- -	5.29	0
Luther C., Gary and Randolph Sells	Y	- -	- -	- -	1.63	0
Charles R./Ann Foutz & Decker/Linda Foutz	N	15-Apr-81	14-Apr-06	15-Apr-81	2.15	0
Raymond Hosteen Tso & Dorothy Rose Tso	Y	22-Oct-81	21-Oct-91	22-Oct-81	1	0
Harry Wilfred Franklin, Sr.	Y	30-Dec-82	29-Dec-97	30-Dec-82	1.68	0
Harry W. Franklin, Sr.	Y	23-Dec-76	22-Dec-01	23-Dec-76	2	0
Manning Trading Company, Inc.	N	24-Sep-82	23-Sep-97	24-Sep-82	2.18	0
Sam Garnenez & Perry Garnenez	Y	01-Jan-77	31-Dec-01	01-Jan-77	4	0
Loren Crank & Mary Lou Crank	Y	02-Jun-83	01-Jun-08	02-Jun-83	5.83	0
E. J. Foutz & Loyd Foutz	N	16-Dec-83	15-Dec-93	16-Dec-83	2.42	0
Jeffrey Manning	N	22-Sep-86	21-Sep-20	22-Sep-86	1.03	0
Edwin L. Foutz	N	01-Feb-88	31-Jan-18	01-Feb-88	2.07	0
Shiprock Non-Profit Housing & Community Dev.	N	- -	- -	- -	0	10
South Shiprock Housing Inc.	N	- -	- -	- -	0	10
South Shiprock Apartments Inc.	N	- -	- -	- -	0	10
Hill Enterprises, Inc./Doyle & Mercedes Hill	N	22-May-91	21-May-16	22-May-91	1.11	0
Jay Edwin Foutz	N	13-Sep-91	12-Sep-16	13-Sep-91	1.828	0
Wilford Duncan and Betty Duncan	Y	01-Sep-60	31-Aug-85	01-Sep-60	0	0
Cynthia R. Montano & Benjamin Montano	Y	09-Jul-81	22-May-86	09-Jul-81	1.078	0
Wallace D. McGilbert	Y	20-Jan-67	19-Jan-82	20-Jan-67	1.755	0
Ned N. McKensley & Nellie C. McKensley	Y	28-Jun-67	27-Jun-82	28-Jun-67	1.14	0
Larry Fields & Rose Marie Fields	Y	04-Sep-81	03-Sep-06	04-Sep-81	5.13	0
Chief Conoco & Grocery, Inc./Cody Wilkerson	N	24-Jan-83	23-Jan-88	24-Jan-83	1.28	0
W.L. Whitaker & Sandra Whitaker	N	29-Jun-73	28-Jun-95	29-Jun-73	0	0.294
Mettler and LeCuyer, P. C.	N	03-Aug-93	02-Aug-08	03-Aug-93	0.17	0
Herman and Katherine Buck	Y	04-Oct-93	03-Oct-18	04-Oct-93	1.38	0
Troy P. Kennedy (Deceased)	N	28-Sep-58	27-Sep-93	28-Sep-58	2.4	0
Phil W. & Melba Foutz		25-Oct-58	24-Oct-83	25-Oct-58	2.5	0
Four Corners Native American Ministry	N	07-Jun-19	06-Jun-19	07-Jun-19	1.03	0
Leonard Hilt, Sr and Nancy Hilt	Y	09-Jun-94	08-Jun-19	09-Jun-94	2.53	0
Dr. Ray Begay, President	Y	18-Feb-94	17-Feb-99	18-Feb-94	0	0
Nizhoni Smiles, Inc./Julie Freeland	N	05-Oct-94	04-Oct-19	05-Oct-94	0.75	0
Bond's Inc.	N	01-Jan-55	31-Dec-79	01-Jan-55	2.15	0

Barbara J. Boan	Y	11-Oct-55	10-Oct-80	11-Oct-55	1.28	0
Larry K. Wilkerson and Edwin L. Wilkerson	N	01-Jan-71	31-Dec-76	01-Jan-71	0	1.28
Harry W. Franklin, Sr.	Y	01-Jan-55	31-Dec-79	01-Jan-55	2.17	2.7
David D. Lee		01-Jan-70	31-Dec-73	01-Jan-70	0	0
Clyde S. Ashcroft		01-Jan-71	31-Dec-76	01-Jan-71	0	0
Jack D. Abraham		01-Jan-76	31-Dec-80	01-Jan-76	0	0
J.S. McGee and Troy P. Kennedy	N	01-Jan-55	31-Dec-79	01-Jan-55	1.5	0
H. Munro Foutz and Hugh Foutz (dec)	N	01-Jan-55	31-Dec-79	01-Jan-55	1.86	0
Edwin L. Foutz	N	01-Jan-55	31-Jan-88	01-Jan-55	2.72	0
Bruce M. Barnard	N	01-Jan-55	20-Apr-83	01-Jan-55	2.72	0
Loretta A. Bouldin and Helen Wiles	Y	01-Jan-55	31-Dec-79	01-Jan-55	5.13	0
Perry, Sam and Henry Garnenez	Y	01-Jan-55	31-Dec-79	01-Jan-55	3.4	0
Larry C. Crawford	N	01-Jun-70	31-May-75	01-Jun-70	0	0.16
Ralph D. Bird		01-Jul-71	30-Jun-76	01-Jul-71	0	0
David Talk	Y	17-Feb-56	16-Feb-81	17-Feb-56	1	0
Luther, Vernon J. and James O. Manning	N	25-Mar-56	24-Mar-81	25-Mar-56	5	0
E.J., Lloyd and Russell Foutz	N	09-Oct-57	08-Oct-82	09-Oct-57	5	0
Frank Yazzie Begay and Ruth Begay	Y	01-Jan-61	31-Oct-86	01-Jan-61	1	0
Clifton E. Culver		01-Feb-62	31-Jan-84	01-Feb-62	2.95	0
Robert B. and Katleen Foutz	N	01-Oct-57	30-Sep-82	01-Oct-57	4.14	0
Oscar Damon	Y	01-Jan-62	31-May-87	01-Jan-62	3.003	0
Albert A. Damon	Y	01-Jan-73	31-May-87	01-Jan-73	0	3.003
Rebekah Jane Sells	Y	01-Nov-62	31-Oct-87	01-Nov-62	1.51	0
Rodney C. Pearson	N	01-Jan-74	31-Dec-78	01-Jan-74	0	1.51
Lucy P. King and Gloria King	Y	23-May-66	22-May-91	23-May-66	1.814	0
Don Curley, Sr. and Marie Curley	Y	09-Mar-67	09-Mar-92	09-Mar-67	6	0
Harris and Claudine Arthur	Y	09-Jun-72	09-Mar-92	09-Jun-72	0	6
James E. Buttrill	N	18-Aug-70	17-Aug-95	18-Aug-70	0	0.338
Albert H. Lee	Y	13-May-93	12-May-98	13-May-93	0	0
Helen Haven	Y	30-Sep-88	29-Sep-98	30-Sep-88	0	0
Linda V. Torres	Y	14-Aug-89	13-Aug-99	14-Aug-89	0	0
Jimmie Garnenez, Sr.	Y	07-Apr-93	06-Apr-18	07-Apr-93	3.6	0
Wesley Bileen	Y	- -	- -	- -	0.562	0
Jerry F. Nez	Y	- -	- -	- -	0	0
Jim Berry		- -	- -	- -	0	0
Paul and Angelita Kinlacheeny		- -	- -	- -	0	0

Exhibit 2.9.5 Land Status Maps

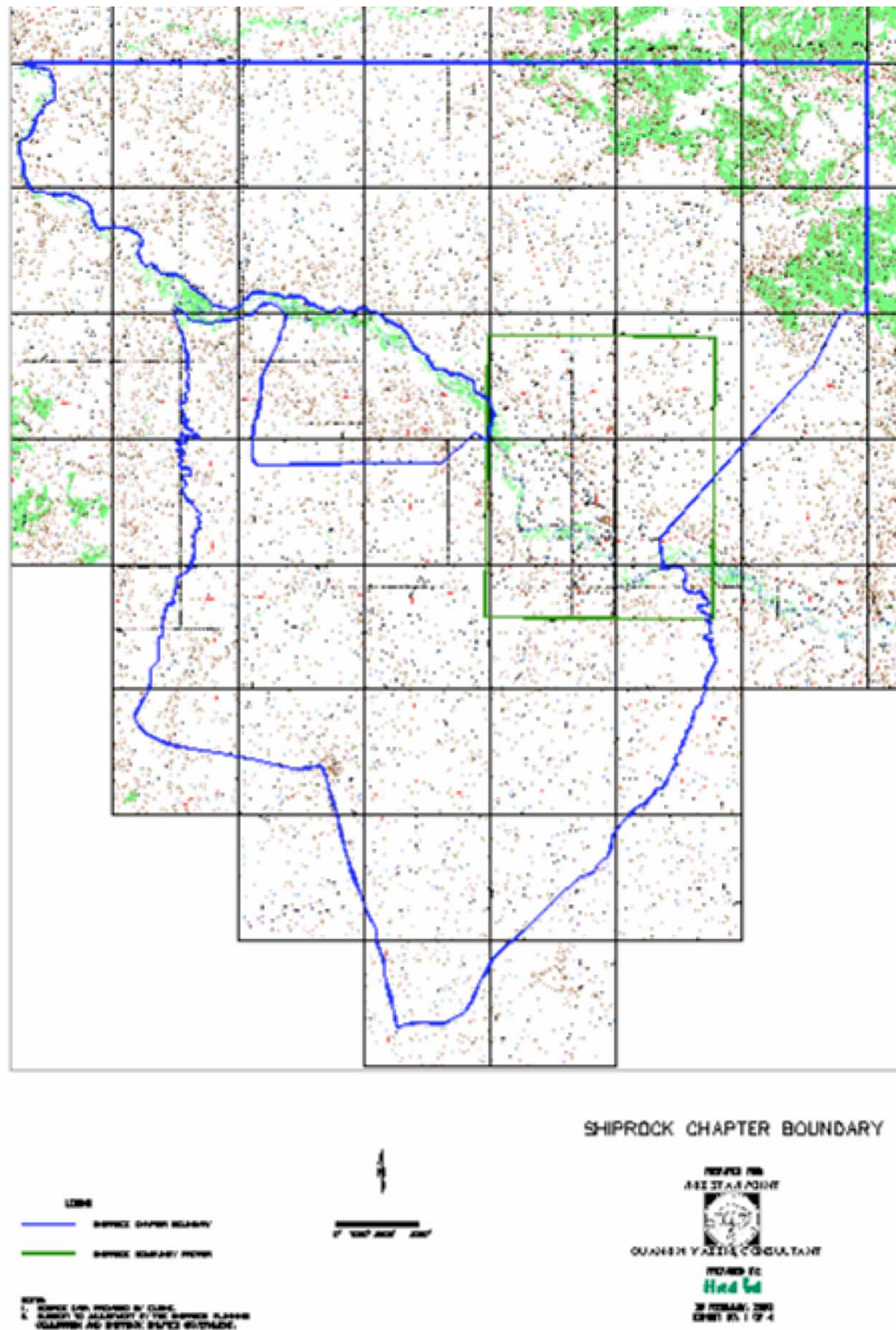


Exhibit 2.9.6 Shiprock Master Land Use Plan Zoned Areas

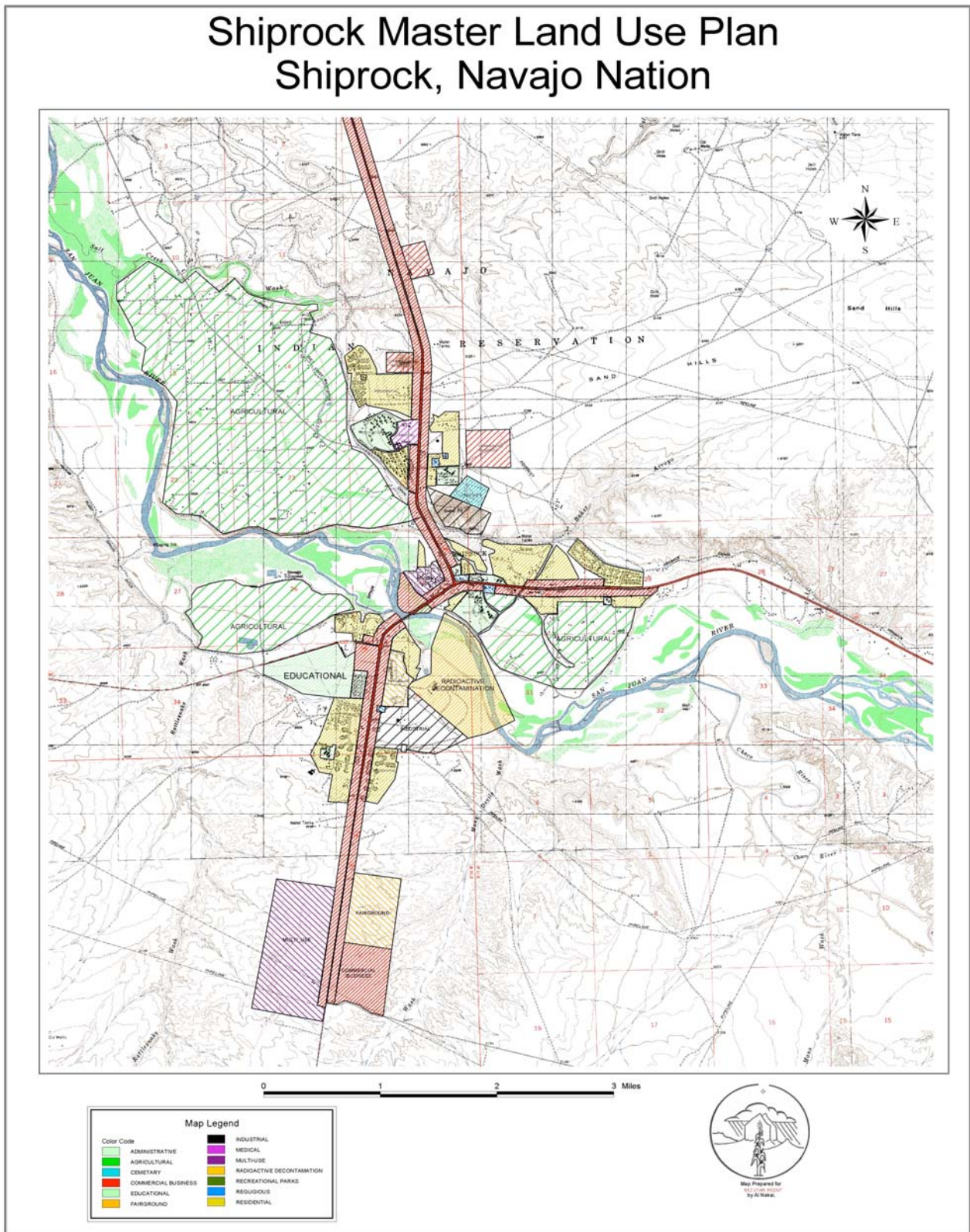


Exhibit 2.9.7 Water and Waste Water Infrastructure Systems

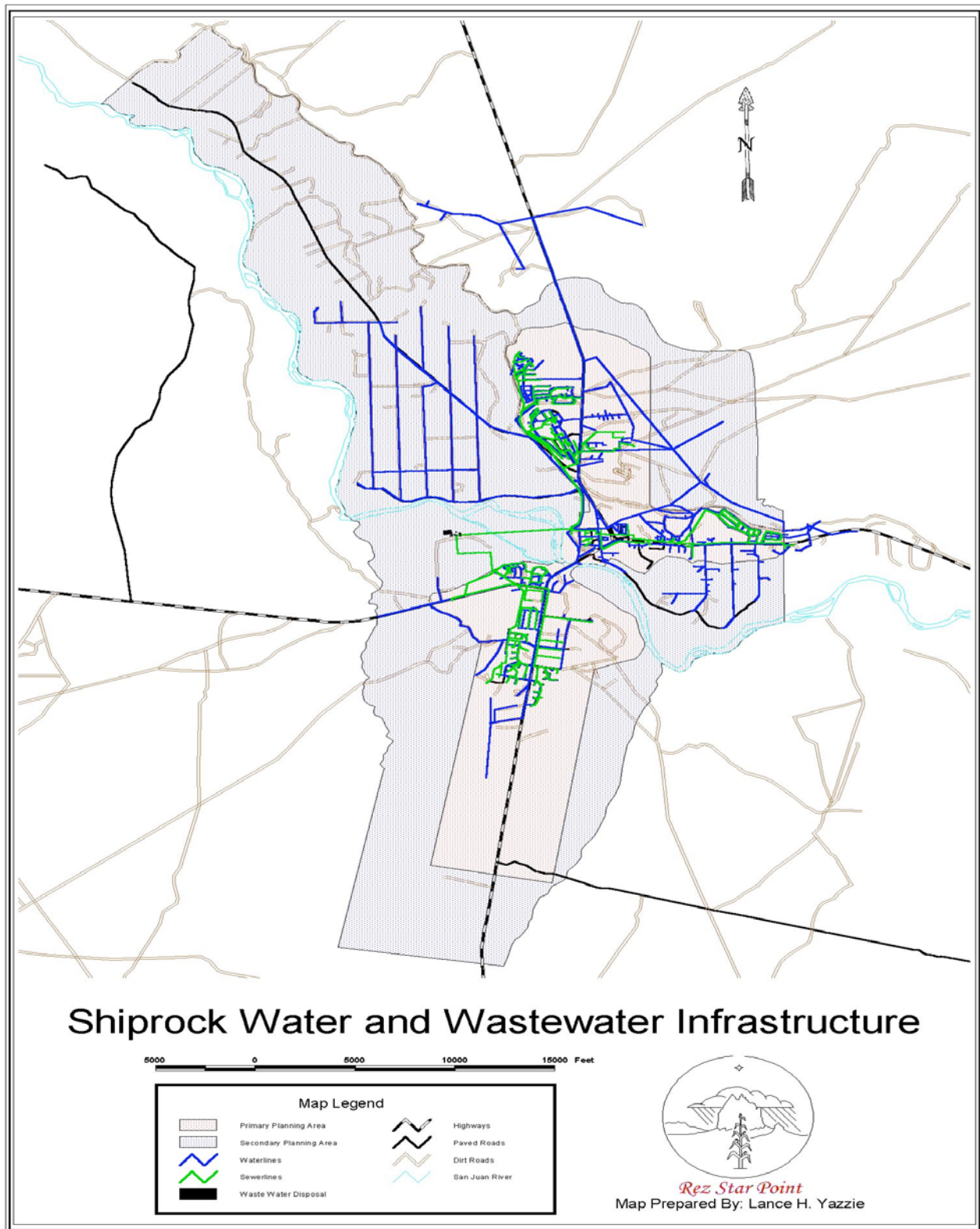
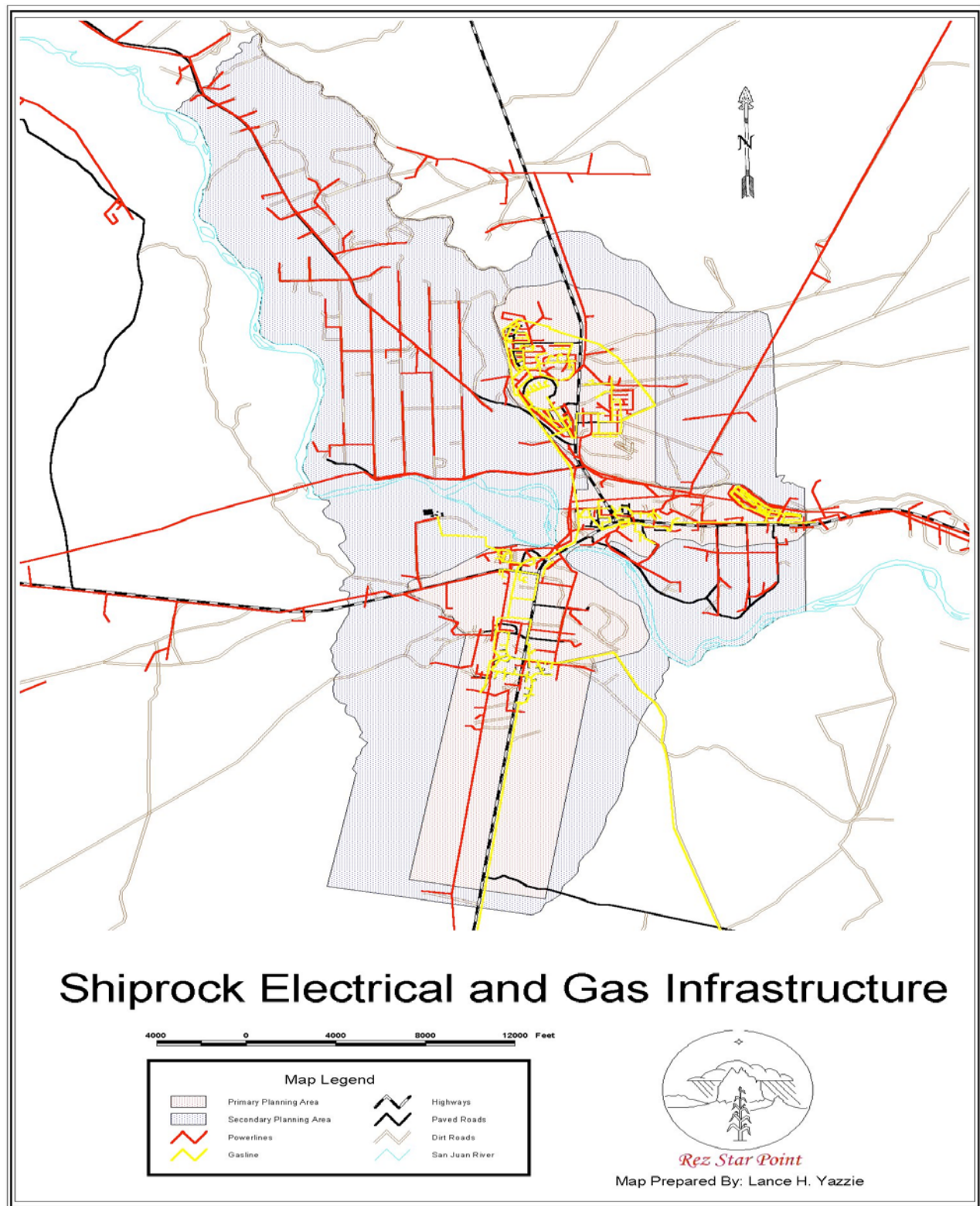


Exhibit 2.9.8 Electric and Gas Infrastructure Systems



SHIPROCK CHAPTER, NAVAJO NATION

MASTER LAND USE PLAN

SPECTRUM 3 - LAND SUITABILITY ANALYSIS



SPECTRUM 3 – LAND SUITABILITY ANALYSIS

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SPECTRUM 3 –SITE ANALYSIS

3.1 Background

The Shiprock Chapter Government on February 20, 1994 approved Chapter resolution 94-02-0031-SHIP entitled “*Supporting and recommending withdrawal of approximately 450 acres of land south of Shiprock on westside of state highway 666 within Shiprock Chapter boundary for future housing and community development within San Juan County, Shiprock, New Mexico*” attached as **Exhibit 3.7.1**, with legal survey description as **Exhibits 3.7.2** and photos of the site at **Exhibit 3.7.3**.

3.2 Existing Environment

3.2.1 Climate

The Shiprock area situated at 4875 feet elevation has a semi-arid climate. Temperatures of 100 degrees (F) are common during the summer and below zero temperatures occur occasionally in the winter. The monthly mean annual temperature in the region is 50-55 degrees (F). Precipitation occurs primarily during two periods of the year from July to August and December through February. The summer precipitation generally exceeds the winter months. The mean annual rainfall is 6.6 inches, with extremes ranging from 3.0 to 15.8 inches. The prevailing winds blow from the southwest.

3.2.2 Geology

The study area is located on weathered Upper Cretaceous Mancos Shale with minor Quaternary alluvium-colluvium derived from weathered bedrock. Visible structural features include a low angle eastward dipping Cuesta ridge that extends roughly south to north along the mid section of the project area. The Cuesta ridge is probably associated with the Rattlesnake Anticline that lies several miles to the west.

The eastern portion is characterized by gentle sloping topography with broad low gradient swales that drain towards US route 666. Moderate to high angled escarpment are scattered along the west face of the Cuesta ridge. The western portion of the study area is highly dissected with several entrenched ephemeral drainages that flow west towards Rattlesnake wash about 1 mile to the west. The ephemeral drainages run parallel adjacent to lobate shaped fingers and ridges of weathered Mancos shale.

3.3 Site Analysis Elements

3.3.1 Ground and Surface Water

The potential quantity of ground water to be attained beneath the identified 450-acre tract could be contained within the Morrison and Gallup geologic formations. The estimation of the distance to these layers is from 1000 to 1200 feet. The limited data available on these layers in this specific area, suggests that the quantity of water that would be available through drilling is unknown. Additionally the quality of water would also be questionable. The probability of hitting brackish and saline water would be high.

Water bearing characteristics of the Mancos Shale Formation is considered poor in the shale beds and the formation serves as an aquiclude, where groundwater is prevented from flowing between water bearing formations and non-water bearing strata of the Mancos Shale. Groundwater wells that have been previously drilled within the regional vicinity of the study area penetrated the Mancos Shale and drew brackish groundwater from the Dakota Formation and the Gallup Sandstone. These two water-bearing formations are considered a part of the D multiple-aquifer system in the southwest San Juan Basin.

No surface flowing streams are located within the boundaries of the area. Any surface waters are primarily the runoff from rainwater and the snows. Several dry ephemeral streams with entrenched channels drain westward towards the Shiprock Wash. Shallow broad eastward draining swales flow towards US route 666 and to the Many Devils Wash east of the highway. These drainages control seasonal rainfall runoff within the area.

The precipitation in this area is limited, the amount of precipitation is currently estimated to be at a level of approximately 4 to 5 inches per year. Thus, the surface water from precipitation runoff is not significant enough to be a complicating factor, in terms of it being a deterrent to development. A small stock pond is situated south of the southwestern corner of the study area. The stock pond was created by impoundment of overflow water derived from drilled shallow wells.

The conclusion of the Consultant is that it would not be cost prudent or practical to consider drilling for water in this area and that the quantity of surface water is not significant for use in the development process or to be used as a water supply for the completed development.

The Northern Navajo Medical Center Office of Environmental Health is extending the main community water system to service this south portion of the community, therefore a steady and adequate domestic water supply will be available for the development in the next two to three years.

3.3.2 Soils Information

The proposed housing and community development site is located on two soil type complexes. The two soils complex include the following:

3.3.2.1 Littlehat-Persayo-Nataani complex

Soil characteristic of the Littlehat type is light yellow to grayish brown, gypsiferous silty loam to sandy loam. Persayo type are light yellowish brown to pale brown, fine sandy loam. Nataani type soils are light yellowish brown to light gray, sandy loam to gypsiferous silty loam. Soils associated with this complex were derived from weathered bedrock, alluvium and residuum.

3.3.2.2 Littlehat-Persayo-Badlands complex

Soils associated with this complex have the following texture and characteristics. Littlehat type is light yellow to light yellowish brown, silty loam to siltyclay loam. Persayo type is light yellowish brown, silty loam to siltyclay. Badlands type is exposures of weathered siltstone and shale bedrock.

The conclusion of the Consultant is that these soil types, referred to as “clay” soils in layman terms are not expressly prohibitive to the proposed development in the 450-acre site.

3.3.3 Slopes and Topography

The project area is divided into three distinct physiographic features that are controlled by structural geologic processes. The Rattlesnake anticline, which lies 1 mile to the west has moderately uplifted the region, with the study area situated entirely on the eastern limb of the anticline.

The eastern half of the study area is characterized by shallow eastward sloped (8% to 10%) grassy swales with minor lobate shape fingers. Drainages are broad and shallow with no distinct channels.

The medial region of the surveyed area has an arcuate shape cuesta ridge or shallow dipping monoclinial ridge where bedded sandstone and shale are exposed along west sloped escarpments.

The western half of the survey area has varying slopes between 10% and 30% and has a series of nearly parallel entrenched drainage channels and adjacent lobate shaped finger ridge that gives the western half an overall undulate topographic appearance. The westward channels drain into the Shiprock wash to the west.

This section would be available for development only after an extensive Mesa Verde Cactus remediation program and considerable site development ground work.

The conclusion of the Consultant is that the eastern portion of the 450-acre site, particularly the south end portion is conducive for immediate development with minimal site preparation.

3.3.4 Vegetation and Wildlife

3.3.4.1. Vegetation

The vegetation community cover types were determined by visual observation of the existing flora throughout the project area. Dominant and/or co-dominant plant species, other associated plant species and estimated total percent plant cover were all determined during the initial survey. Vegetative plant community types encountered consists of two major distinct cover types that include Salt desert scrub, Grassland swales and inclusions of both cover types at the interface of adjacent plant communities. A complete list of the 50 vascular plant species observed within the project area is attached as **Exhibit 3.7.4**.

Salt desert scrub - Co-dominant or dominant shrub species consists of Castle Valley saltbush, Mat saltbush and Bud sage. Other associate species include Winterfat, Shadscale, Frankenbush, with an intermittent presence of Alkali sacaton and Indian Ricegrass. Total vegetative plant cover range from 5% to 25%. Areas with less than 5% total vegetative cover consist of monoculture Castle Valley saltbush or Mat saltbush with no forb or grass cover. The majority of the project area falls within this plant community cover type. Vegetation cover type is found on eroded Mancos shale ridges, benches, extended lobate fingers and Cuesta top plus escarpment.

Grassland swales - Vegetative cover dominated by drought tolerant grass species with little to no shrub cover. Grassy swale are dominated by Alkali Sacaton in association with Indian Ricegrass and Galleta. Shrubs may include Shadscale, Mat Saltbush, Castle Valley Saltbush, Rubber Rabbitbrush and Torrey Ephedra. Total vegetative plant cover ranges from 15% to 40%. Grass dominated cover is found on gentle sloping drainages between extended lobate fingers and ridges. Fairly large areas along the eastern half of the project area fall within this plant community type.

3.3.4.2 Wildlife

Pertinent field data was developed based on field observation of wildlife tracks, droppings, special habitat inventory, animal occurrence and other life forms analysis. See **Exhibit 3.7.5** for species list.

An abundant rodent species of the region is the Gunnison prairie dog. Several sites of inactive prairie dog colonies were located on shallow sloped grassy swales along the eastern half of the project area. Prairie dog colonies are often abandoned after a few years and as a result old distributional maps often become unreliable. Small rodent activity was noted throughout the project area.

Signs of several carnivore species were observed during the survey including Coyote tracks and scattered droppings and Red Fox tracks with visual observation on eroded badlands topography along the western half of the study area. Fresh Mountain Lion tracks were noted in the northwest corner of the surveyed area. Historically, other carnivores in this region would include the Gray Wolf, Bobcat and several weasel species. However, it is very unlikely any of these species reside in or near this area.

Bird species of interest that could potentially be found in and near the study area include; Burrowing owl, Golden Eagle, Bald Eagle, Peregrine Falcon, Ferruginous Hawk and the Rough legged Hawk. Minor potential exists for Burrowing Owls in abandoned prairie dog colonies, however no Owls were observed during the on-site analysis field investigation, it is believed that Burrowing Owls are not present in the study area.

No raptor nest sites or raptor utility sites were found within the study area. Red tailed Hawks were observed hovering overhead. Nesting sites for raptors exists several miles to the north along the San Juan River corridor.

Evidence of domestic and/or feral animal activity within the study area include tracks made by cattle, sheep and horses. The proposed development project will have impact on wildlife inhabiting the area. However, the impact should be limited to small rodents and reptiles.

The conclusion of the Consultant is that only approximately 75 acres of the 450-acre site is feasible for development, in consideration of the vegetation and wildlife studies performed and the impacts as presented herein. This determination is reached primarily because of the presence of the Mesa Verde Cacti.

3.3.5 Culturally Significant Areas

The Consultant and an Archeologist recognized by the Navajo Historic Preservation Department reviewed the cultural resources files for the specific site and vicinity. There were two cultural resource surveys done for two separate projects that traverse or border the proposed development site area, they were for the installing of an electrical powerline and the burying of fiber optic cable. Neither of the performed cultural resources inventory recorded any findings of culturally significant resource concern.

Thus, the conclusion by the Consultant is that there are no known cultural resources within the 450 acres.

3.3.6 Traditionally Sensitive Areas

Through an interview with the Grazing Permittee for the proposed development site area, there are no traditionally sensitive area resource concerns that would be of issue in the area. The grazing permittee, Mr. Talk, who is a well-known traditional practitioner in his own right, states that there have not been any recurring traditional ceremonies or other traditional activity on the site within memory, spanning a period of over 50 years.

The conclusion of the Consultant is that there are no issues of traditional sensitive issues in the proposed development site.

3.3.7 Environmentally Sensitive Areas - (Endangered, Threatened and Sensitive Flora)

Federally protected plants found growing in this habitat type in or near the proposed development area, include *Sclerocactus mesa-verdae* (Mesa Verde Cactus), *Astragalus humillimus* (Mancos Milkvetch) and *Astragalus tortipes* (Sleeping Ute Mountain Milkvetch). Only the Mesa Verde Cactus was found growing in isolated pockets within the project area. Two Federal Candidate species *Proatriplex pleiantha* (Four Corners Orach) and *Astragalus cronquistii* (Cronquist's Milkvetch) which are both known to grow in similar habitat types was not observed in the study area. The study area is a considerable habitat for the Mesa Verde Cacti.

3.3.7.1 Discussion on Endangered/Threatened Flora in Region:

- *Sclerocactus mesa-verdae* (Mesa Verde Cactus)

Federal Status: Listed Threatened

Description: Stems mainly solitary but may form clusters of up to 15 stems, oval to depressed globose stems 3-11 cm (1.25-3.5 inches) tall; central spines none or rarely 1, radial spines 8-11, 6-13 mm long; flowers cream to pink, 2 cm in diameter; fruit green turning tan; flowering period late April to early May.

Known Distribution: San Juan County, New Mexico and adjacent Montezuma County, Colorado.

Habitat: Salt desert scrub communities at elevations of 1,485-1,820 m (4,900-6,000 feet). Restricted to the Mancos Shale and Fruitland Formations. The Cacti is often found growing on the tops of weathered adobe hills and benches. Two major associates include *Atriplex corrugata* (Mat Saltbush) and *Frankenia jamesii*.

Remarks: Numerous small isolated pockets of the Mesa Verde Cacti were found growing in the area. Considerable potential habitat was also encountered during the initial survey. Immediate threats include; illegal collecting and habitat destruction caused by off road vehicles, Oil/Gas development and Economic and Urban development.

- *Astragalus humillimus* (Mancos Milkvetch)

Federal Status: Listed Endangered

Description: Perennial plant with stems forming clumps up to 30 cm across, spiny leaf stalks persistent; leaves with 7-11 oval leaflets; flower branches short, 1-4 flowered, petals lavender to purplish; flowering late April and early May.

Known Distribution: San Juan County, New Mexico and adjacent Montezuma County, Colorado.

Habitat: Grows in joint fractures and shallow depressions on rimrock of Pointlookout Sandstone Member of the Mesa Verde Group at elevations of 1500-2000 m (5000-6500 feet).

Remarks: The Mancos milkvetch grows on ledges and mesa tops in slickrock habitat of the Mesa Verde Group. No sandstone habitat was found within the study area. The nearest known location of the Mancos milkvetch to the study area is along the western flanks of the Hogback monocline, several miles to the northeast.

- *Astragalus tortipes* (Sleeping Ute Mountain Milkvetch)

Federal Status: Proposed listing

Description: Usually 1-6 stems from a subterranean root crown, white strigose pubescent; leaves 8-18 cm (3.25-7.5 inches) long, linear; flowers pale yellow; pedicels recurved during late anthesis; pods hyperflexed; flowers in May.

Known Distribution: Ute Mountain Ute Indian Reservation, Montezuma County, Colorado. The Milkvetch known to grow in the southern foothills of the Sleeping Ute Mountain.

Habitat: Salt desert scrub plant communities on weathered Mancos Shale overlain by pediment gravel at 1725 m (5,700 feet).

Remarks: A newly described species discovered during surveys conducted for seismic line and irrigation canal system for the Southern Ute Tribe. This new species exists within the region and may occur in New Mexico.

▪ *Proatriplex pleiantha* (Four Corners Orach)

Federal Status: Candidate threatened

Description: Annual forb, ascending stems 0.5-1.5 dm (2-6 inches) tall, succulent, glabrous to sparingly scurfy; leaves alternate to subopposite, petiolate, leaf blades 5-15 mm long and about as wide, ovate to suborbicular; flowers unisexual, monoecious, flowering period in May.

Known Distribution: San Juan County, New Mexico, Montezuma County, Colorado and San Juan County, Utah.

Habitat: The Four Corners Orach grows on barren desert badlands often devoid of any vegetation. It grows on Mancos Shale and Fruitland Shale formations at 1500-1650 m (5000-5500 feet) elevation.

Remarks: Most sightings of Four Corners Orach in New Mexico occur south of Fruitland, New Mexico on Navajo Tribal Lands leased to BHP Minerals. Populations in Colorado are on the Ute Mountain Ute Indian Reservation. Potential habitat exists within the study area but no plants were located within the 450 acre study area.

▪ *Astragalus cronquistii* (Cronquist's Milkvetch)

Federal Status : Candidate threatened

Description: Perennial herb, caulescent stems 1.5-4 dm (6-24 inches) tall; leaves 1.5-4.5 cm (0.75-1.75 inches) long, yellow green leaflets 6-25 mm (0.125-1 inch) long; flowers dull pink-purple, flowering during May; fruits linear-elliptic, sessile, declined pendulous.

Known Distribution: San Juan County, Utah and Montezuma County, Colorado.

Habitat: Rocky benches, ridges and sandy washes in salt desert scrub and blackbrush communities on Cutler, Morrison and Mancos Shale Formations at elevations of 1450-1500 m (4750-5000 feet).

Remarks: Potential habitat exists for this rare milkvetch within the proposed project area, however no plants were found during the initial field survey. Cronquist's milkvetch is known only from Comb's wash area in San Juan County, Utah and in the southern foothills of the Sleeping Ute Mountain, Montezuma County, Colorado.

3.3.7.3 Compilation of Field Data and Methodology

The field survey was conducted during April 2000 on 455 acres of relatively undisturbed rangeland south of Shiprock. The survey was done with two surveyors conducting the groundwork locating populations of Mesa Verde Cactus.

The methodology used during field survey consisted of walking out the entire survey boundary in manageable blocks of 30 to 40 acres. Approximately 30 to 40 acres were surveyed daily. Two surveyors walked side by side 15 feet apart, traversing the entire 30 to 40 acre blocks back and forth to ensure that 90% to 95% total ground cover was achieved.

A 50 to 75 foot buffer zone was also surveyed beyond the required survey boundary. Whenever good habitat for the cactus was encountered a more intense survey was conducted throughout the immediate area. All cactus populations were mapped, counted and flagged to provide future surveys with access to a baseline data of approximate locations of Mesa Verde Cacti, as well as the numbers of individual cactus found at each population site during the survey.

Raptor surveys were conducted by visual surveys of all powerline poles, fencelines and any protruding high areas with the aid of binoculars and field spotting scopes.

3.3.7.4 Summary of Vegetation/Wildlife and Environmentally Sensitive Area Survey Results

With the completion of the Mesa Verde Cacti inventory, a total of 1125 individual cacti were documented to be occupying the entire spatial area of the survey boundary. The region west of the powerline has the highest cactus concentrations. Many small and large populations occur along the entire western half of the study area. The southeastern most area has very little to no cactus present.

Regions east of the powerline have widely scattered small populations throughout the area. The highest concentrations occur within the vicinity of the Questar substation and north of the Lorraine Talk homesite lease area. Large tracts of gentle sloping areas with little to no Mesa Verde cacti were encountered along regions east of the powerline.

These areas may provide the most suitable location for the proposed housing development project in which small numbers of the cactus may be salvaged by means of transplanting. The habitat that currently exists is not considered very good habitat for this rare endemic cactus. A distribution map of Mesa Verde Cactus can be found as **Exhibit 3.7.6**.

3.4 Accessibility

The site is approximately 2 miles south of the Shiprock Community proper along the U.S. Highway 666, immediately west of the U.S. Highway 666 and Navajo Route 36 junction. The site enjoys immediate access to these two highly used highways. The 450-acre site is rectangular and situated length wise along Highway 666 for approximately 3,450 feet. The Chapter resolution specifies that the immediate frontage be reserved for commercial tracts, with the housing and other community development elements situated behind and to the west of the proposed commercial property.

The conclusion of the Consultant is that the site has easy and comfortable accessibility. The site is in a location that would also be accessible from the northeast side and the southeast side, thereby allowing the development of a well-managed street system.

3.5 Conclusion

The conclusion of the Consultant in summary in regard to the potential of developing the 75 acres of the 450 acres site is that it is a moderate to good site for development.

Of the 450-acre site, approximately 15% or 75 acres should be feasible for development on an immediate basis, with minimal site preparation work. The 75 acres should be identified as lands readily available for immediate development. An additional 35% or 135 acres would be available on a marginal basis, these acreages would require a more involved site preparation work program and some necessary remediation of the Mesa Verde Cacti, possibly with a significant transplanting program. The remaining 50% acreage or 225 acres should be reserved for long term planning as these acres have a proliferation of Mesa Verde Cacti and a considerable portion of the 225 acres would necessitate significant site preparation work.

The community of Shiprock should proceed with the Master Land Use Planning with short term and long-term land use planning concepts in response to the site analysis by the Consultant.

3.6 Consultation Coordination

The Consultant credits Mr. Arnold Clifford of Carrizo Mountain Consulting, Beclabito, Navajo Nation for the commendable fieldwork performed on the Vegetation, Wildlife and Environmentally Sensitive Areas elements of this Phase II Site Analysis on the 450 acres identified for development purposes by the Shiprock Chapter and Community.

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Exhibit 3.7.1 Chapter Resolution Withdrawing Land

 <div>NAVAJO NATION</div> 	
<div>RESOLUTION 94-02-0031-SHIP: OF THE SHIPROCK CHAPTER</div>	
<div>CHAPTER OFFICERS</div> <div>William Lee President</div> <div>David C. Curley Vice President</div> <div>Lula Jackson Secretary / Treasurer</div>	<div><u>SUPPORTING AND RECOMMENDING WITHDRAWAL OF APPROXIMATELY 450 ACRES OF LAND SOUTH OF SHIPROCK ON WESTSIDE OF STATE HIGHWAY 666 WITHIN SHIPROCK CHAPTER BOUNDARY FOR FUTURE HOUSING AND COMMUNITY DEVELOPMENT WITHIN SAN JUAN COUNTY, SHIPROCK, NEW MEXICO.</u></div>
<div>TRIBAL COUNCIL DELEGATES</div> <div>Wallace Charley</div> <div>Genevieve Jackson</div> <div>William Tso</div> <div>Duane "Chili" Yazzie</div>	<div><u>WHEREAS:</u></div> <div>1. The Shiprock Chapter pursuant to the authority contained in Section 1, Subsection (C) of Tribal Council Resolution W-20-55 which certified Shiprock Chapter as a recognized Chapter of the Navajo Nation and is authorized to conduct business of a local government; and</div> <div>2. The Shiprock Chapter with estimate population over 10,000 of which 4,000 are registered voters has high unemployment rate and severe shortage of houses; and</div> <div>3. The Shiprock Chapter has on file over 500 request for houses applications and the local Navajo Housing Authority receives on daily basis 6-10 applications for housing; and</div> <div>4. The Navajo Housing Authority (NHA) has been working on developing strategies and funding alternative funding solutions, begins to advocate a project called the " The Residential Master Lease Act " which would allow community to withdraw land for housing development; and</div> <div>5. The Shiprock Chapter is also aware of a need for land withdrawal for professional staff (Doctors and Nurses) housing advocate by the Shiprock Hospital Steering Committee; and</div> <div>6. The Shiprock Chapter is also advocating to have a strip of land be reserved for future economic development adjacent to the highway; and</div> <div>7. The Shiprock Chapter further recognizes the requirement of additional housing by virtue of the new Hospital Construction and other future community and economic development project to address increased administration and service activity within Shiprock area; and</div>
<div>AGRICULTURE OFFICERS</div> <div>David Burbank Grazing Committee</div> <div>Robert Hayes Landboard Member</div>	

RESOLUTION OF THE
SHIPROCK CHAPTER
RESOL. 94-02-0031-SHIP
PAGE 02 OF 03

8. The Shiprock Chapter acknowledges herein that the Economic Development and Community Development Commission highly supported this effort and is also in the best interest of the community; and

9. To develop housing on the lease land withdrawal and should other developments, industrial, commercial or otherwise be planned.

NOW, THEREFORE, BE IT RESOLVED THAT:

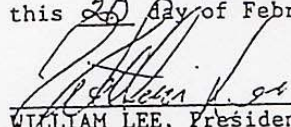
1. The Shiprock Chapter hereby recommends for approval of 450 acres Land withdrawal by appropriate offices within the Navajo Nation for the need of additional development in the area of housing, commercial and industrial development to benefit the Shiprock Community; and


2. The Shiprock Chapter further requests that the Navajo Nation, the Navajo Housing Authority (NHA) and Indian Health Services (IHS) to actively work together to encourage favorable consideration by funding sources so that it would accomplish the goals and objectives set out by this chapter.

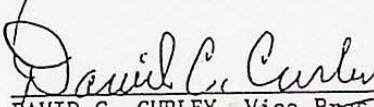
RESOLUTION OF THE
SHIPROCK CHAPTER
RESOL. NO. 94-02-031 -SHIP
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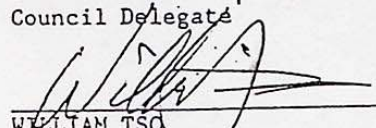
C E R T I F I C A T I O N


We, the undersigned, certify that the above resolution was present and thoroughly discussed at a duly called chapter meeting, at which a quorum was present, and the same was approved by a vote of 57 in favor; 00 opposed with 02 abstention on this 20 day of February, 1994.


WILLIAM LEE, President


DUANE H. YAZZIE
Council Delegate


DAVID C. CURLEY, Vice Pres.


WILLIAM TSO
Council Delegate


LULA JACKSON, Sec./Treasurer

GENEVIEVE JACKSON
Council Delegate

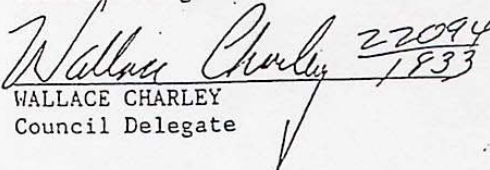
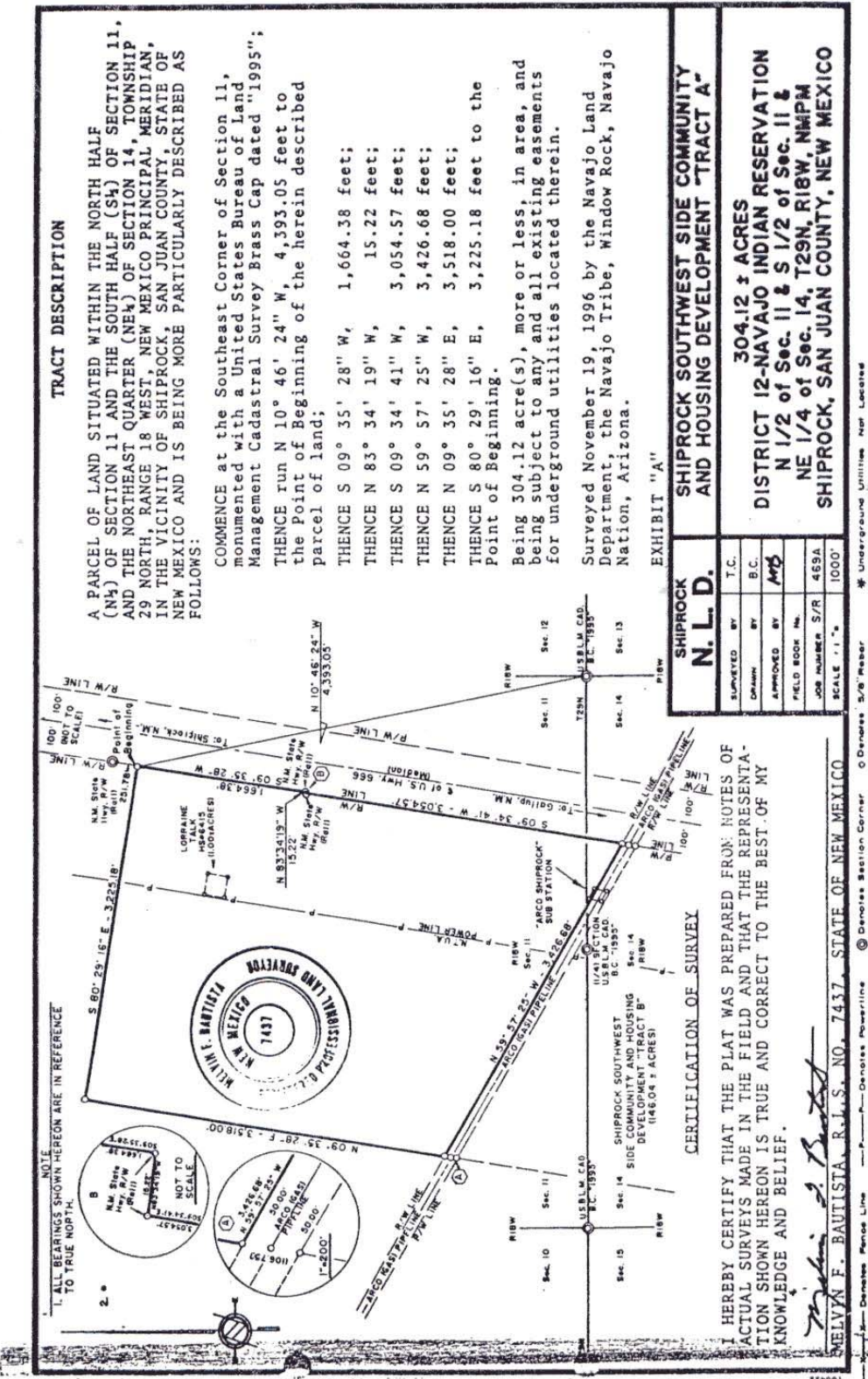

WALLACE CHARLEY
Council Delegate



Exhibit 3.7.2 Legal Description

EXHIBIT 3.7.2



TRACT DESCRIPTION

A PARCEL OF LAND SITUATED WITHIN THE SOUTH HALF (S $\frac{1}{2}$) OF SECTION 11 AND THE NORTH HALF (N $\frac{1}{2}$) OF SECTION 14, TOWNSHIP 29 NORTH, RANGE 18 WEST, NEW MEXICO PRINCIPAL MERIDIAN, IN THE VICINITY OF SHIPROCK, SAN JUAN COUNTY, STATE OF NEW MEXICO AND IS BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE at the Northwest Quarter of Section 14,
commonly known as the United States Bureau of Land
Management Cadastral Survey Brass Cap dated "1995";

THENCE run S 11° 01' 06" E, 1,295.42 feet to the Point of Beginning of the herein described parcel of land;

THIENCE N 09° 35' 28" E, 2,582.12 feet;

THIENCE S 59° 57' 26" E, 3,426.71 feet;

THENCE S 09° 34' 41" W, 1,380.38 feet;

THENCE N 80° 29' 14" W, 3,211.03 feet to the Point
of Beginning.

Being 146.04 acre(s), more or less, in area, and being subject to any and all existing easements for underground utilities located therein.

Surveyed November 19, 1996 by the Navajo Land Department, the Navajo Tribe, Window Rock, Navajo Nation, Arizona.

EXHIBIT "A"

SHIPROCK N. L. D.	SHIPROCK SOUTHWEST SIDE COMMUNITY AND HOUSING DEVELOPMENT "TRACT B"			
SUPPLYED BY	T. C.	146.04 ± ACRES		
DRAWN BY	B. C.	DISTRICT 12-NAVAJO INDIAN RESERVATION		
APPROVED BY	<i>MB</i>	S 1/2 of Sec. 11 & N 1/2 of Sec. 14		
FIELD BOOK No.		T29N, R18W, NMPM		
JOB NUMBER S/R	470A	SHIPROCK, SAN JUAN COUNTY, NEW MEXICO		
SCALE 1" =	500'			

IF Underground Utilities Not Located

5/8" Rubber

Denotes Section Corner

~~Powerline~~ Denotes Powerline

— II — Dearden Brenda Ling

CERTIFICATION OF SURVEY

WHEREBY CERTIFY THAT THE PLAT WAS PREPARED FROM NOTES OF ACTUAL SURVEYS MADE IN THE FIELD AND THAT THE REPRESENTATION SHOWN HEREON IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

HELVIN F. BAUTISTA, R.L.S., NO. 7437, STATE OF NEW MEXICO

Exhibit 3.7.3 Photos of Development Site



Photo taken from east side of Development Site



Photo taken from south side of Development Site

Exhibit 3.7.4

Flora of the Proposed 450-Acre South Shiprock Housing Development Site

APIACEAE - Parsley Family

Cymopterus bulbosus A. Nels.

Onion Spring Parsley

ASTERACEAE - Sunflower Family

Artemisia spinescens D.C. Eaton in Wats.

Budsage

Chrysothamnus nauseosus (Pallas) Britt.

Rubber Rabbitbrush

Erigeron bellidiastrum Nutt.

Pretty Daisy

Heterotheca villosa (Pursh) Shinn.

Hairy Goldenaster

Leucelene ericoides (Torr.) Greene

Rose heath

Machaeranthera canescens (Pursh) Gray

Hoary Aster

Senecio douglasii DC.

Douglas Groundsel

var. longilobus (Benth.) L. Benson

Townsendia annua Beaman

Annual Townsendia

BORAGINACEAE - Borage Family

Cryptantha sp.

Cryptantha

Lappula occidentalis (Wats.) Greene

Western Stickseed

BRASSICACEAE - Mustard Family

Chorispora tenella (Pallas) DC.

Musk Mustard

Descurainia sophia (L.) Webb ex Prantl.

Flixweed

Lepidium montanum Nutt.

Pepperweed

Stanleya pinnata (Pursh) Britt.

Prince's Plume

CACTACEAE - Cactus Family

Opuntia polyacantha Haw.

Plains Prickly Pear

Sclerocactus mesa-verdae (Bois. ex Hill & Sal.) Bnsn.

Mesa Verde Cactus

Sclerocactus parviflorus Clover & Jotter

CHENOPODIACEAE - Goosefoot Family

Atriplex confertifolia (Torr. & Frem.) Wats.

Shadscale

Atriplex corrugata Wats.

Mat Saltbush

Atriplex gardneri (Moq.) D. Dietr.

Castle Valley Saltbush

var. cuneata (A. Nels.) Welsh

<u>Atriplex obovata</u> Moq.	New Mexico Saltbush
<u>Ceratoides lanata</u> (Pursh) J. T. Howell	Winterfat
<u>Halogeton glomeratus</u> (Bieb.) C. A. Mey.	Halogeton
<u>Salsola iberica</u> Sennen & Pau	Tumbleweed

EPHEDRACEAE - Ephedra Family

<u>Ephedra torreyana</u> Wats.	Torrey Ephedra
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EUPHORBIACEAE - Spurge Family

<u>Euphorbia parryi</u> Engelm.	Parry Spurge
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FABACEAE - Bean Family

<u>Astragalus amphioxys</u> Gray	Crescent Milkvetch
<u>Astragalus mollissimus</u> Torr.	Woolly Locoweed
<u>var. thompsonae</u> (Wats.) Barneby	

FRANKENIACEAE - Alkali-heath Family

<u>Frankenia jamesii</u> Torr. in Gray	Frankel Bush
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GERANIACEAE - Geranium Family

<u>Erodium cicutarium</u> (L.) L'Her.	Storksbill
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HYDROPHYLLACEAE - Waterleaf Family

<u>Phacelia crenulata</u> Torr.	Torrey Scorpionweed
<u>var. corrugata</u> (A. Nels.) Brand	

LILIACEAE - Lily Family

<u>Androstephium breviflorum</u> Wats.	
--	--

MALVACEAE - Mallow Family

<u>Sphaeralcea coccinea</u> (Nutt.) Rydb.	Common Globemallow
---	--------------------

ONAGRACEAE - Evening Primrose Family

<u>Oenothera caespitosa</u> Nutt.	Morning Lily
<u>var. navajoensis</u> (W.L.Wagn., Stckhse. & W.Kln.) Cronq.	

***PLANTAGINACEAE* - Plantain Family**

Plantago patagonica Jacq.

Wooly Plantain

***POACEAE* - Grass Family**

Bouteloua barbata Lag.

Sixweeks Grama

Bromus tectorum L.

Cheatgrass

Eremopyrum triticeum (Gaertn.) Nevski

Annual Wheatgrass

Hilaria jamesii (Torr.) Benth.

Galleta

Munroa squarrosa (Nutt.) Torr.

False Buffalograss

Oryzopsis hymenoides (R. & S.) Ricker

Indian Ricegrass

Sitanion hystrix (Nutt.) J.G. sm.

Squirreltail Grass

Sporobolus airoides (Torr.) Torr.

Alkali Saccaton

Sporobolus cryptandrus (Torr.) Gray

Sand Dropseed

***POLEMONIACEAE* - Phlox Family**

Eriastrum diffusum (Gray) Mason

Spreading Eriastrum

T. Gilia gunnisonii T & G.

Gunnison Gilia

Gilia haydenii Gray

Hayden Gilia

***POLYGONACEAE* - Buckwheat Family**

Eriogonum divaricatum Hook.

Spreading

Buckwheat

Eriogonum gordonii Benth. in DC.

Gordon Buckwheat

***TAMARICACEAE* - Tamarisk Family**

Tamarix ramosissima Ledeb.

Saltcedar

Exhibit 3.7.5

Fauna of the Proposed 450-Acre South Shiprock Housing Development Site

Mammals

<u>Bovis sp.</u>	Cattle
<u>Canis domesticus</u>	Feral Dog
<u>Canis latrans</u>	Coyote
<u>Cynomys gunnisoni</u>	Gunnison Prairie Dog
<u>Felis concolor</u>	Mountain Lion
<u>Felis domesticus</u>	Feral Cat
<u>Equus sp.</u>	Horse
<u>Mus musculus</u>	House Mouse
<u>Ovis sp.</u>	Sheep
<u>Peromyscus maniculatus</u>	Deer Mouse
<u>Sylvilagus auduboni</u>	Desert Cottontail
<u>Vulpes fulva</u>	Red Fox

Birds

<u>Buteo jamaicensis</u>	Red-tailed Hawk
<u>Callipepla gambelii</u>	Gambel's Quail
<u>Cathartes aura</u>	Turkey Vulture
<u>Corvus brachyrhynchos</u>	Common Crow
<u>Corvus corax</u>	Common Raven
<u>Eremophila alpestris</u>	Horned Lark
<u>Falco sparverius</u>	American Kestrel
<u>Pica pica</u>	Black-billed Magpie
<u>Pooecetes gramineus</u>	Vesper Sparrow
<u>Sayornis saya</u>	Say's Phoebe
<u>Sturnella neglecta</u>	Western Meadowlark
<u>Turdus migratorius</u>	Robin
<u>Zenaidura macroura</u>	Morning Dove

Exhibit 3.7.6 *iina ba'* Letter on Soils

612 E. Murray Drive
Farmington, NM 87401
Office; (505) 327-1072

iiná bá

P.O. Box 2606
Farmington, NM 87499
Fax: (505) 327-1496

April 27, 2000

Mr. Duane "Chili" Yazzie
P.O. Box 1708
Shiprock, New Mexico 87420-1708

Dear Mr. Yazzie:

Per your request, we offer the following additional information concerning the Littlehat/Persayo/Nataani soil complex as found on undulating plateaus and rolling hills south of Shiprock, New Mexico. In classifying or identifying soils according to the Soil Conservation Service, it is necessary that slope percentages be determined for the existing landform. The information provided indicated an eight to ten degree landscape slope at the area of interest. Therefore, a one to fifteen percent slope was used. Without an onsite evaluation, the following descriptions are believed to be the soil type and landform feature descriptive of the subject location west of U.S. Highway 666 at the junction of Navajo Route 36 in San Juan County, New Mexico.

The following information regarding the Littlehat/Persayo/Nataani (250) was obtained from an unpublished 1992 document prepared by the Department of Agriculture, Soil Conservation Service titled "Shiprock Area, Parts of San Juan County, New Mexico, and Apache County, Arizona, Field Technical Guide". Copies of the pages referenced are attached.

The Littlehat soil is a silt loam derived from the parent material "Alluvium with residuum derived from siltstone and the Mancos Shale". It is a moderately deep soil and considered well drained, with moderate permeability and moderate shrink-swell potential. The available water capacity is 1.0 to 2.0 inches, with rapid runoff, and severe hazard of water erosion. The soil type is very subject to soil blowing and is strongly saline below ten inches. The typical profile of soil characteristics is: surface to ten inches light yellowish brown gypsiferous silt loam; from 10-31 inches it becomes grayish brown and light brownish gray; below 31 inches, it is often compacted into the parent material of siltstone.

The Persayo soil is considered a very fine sandy loam derived from alluvium with residuum derived from siltstone and shale. It is generally of shallow depth and well drained with moderately slow permeability. The available water capacity is 1.5 to 2.5 inches with medium runoff, and moderate hazard of water erosion and a severe hazard of soil blowing. The soil is moderately saline and slightly sodic. Typically, from the surface layer to two inches the soil is light yellowish brown very fine sandy loam. From two to six inches very pale brown gypsiferous loam. Six to seventeen inches light yellowish brown gypsiferous clay loam. Below 17 inches it is considered a siltstone.

The Nataani soil a very fine sandy loam derived from alluvium with residuum derived from siltstone. Moderately deep and well drained, the Nataani soil has a moderate permeability. The available water capacity is 3.5 to 4.5 inches with a slow surface runoff, and slight hazard of water erosion. A severe hazard of soil blowing is associated with this soil type, which is moderately saline and slightly sodic below 16 inches. Typical color characteristics are from the surface layer to three inches light yellowish brown very fine sandy loam; from three to nine inches light yellowish brown loam; from nine to twenty-one inches light gray to light yellowish

April 27, 2000
iiná bá, Ltd.

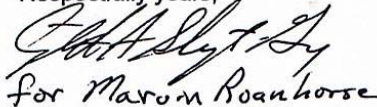
brown gypsiferous silt loam; and from 21-30 inches light yellowish brown gypsiferous silt loam. Below 30 inches it is considered a siltstone.

Proposed uses for building site development based with shallow excavations, dwellings without basements and local streets/roads were considered for the subject location. Regarding the potential for building site development involving shallow excavations and dwellings without basements, with proper site preparation, site selection, and foundation design, the Littlehat/Persayo/Nataani appears to be moderately suited to these uses (Building Site Development Section of Attachment). Difficulty with excavation should be anticipated due to the shallow depth to rock. Both soil complexes exhibit low soil strength which will require special design for the roads.

The above descriptions and rating of the soil complexes are based on information provided by the U. S. Department of Agriculture Soil Conservation Service in an unpublished 1992 report. *iiná bá, Ltd.* recommends that a thorough geotechnical investigation be conducted to determine the engineering properties of the site soils and that the recommendations be incorporated in any subdivision or separate residential site as well as foundation design for any structures including utilities and roads.

Please contact us if more information is needed, or clarification required. Thank you for the opportunity to be of assistance.

Respectfully yours,



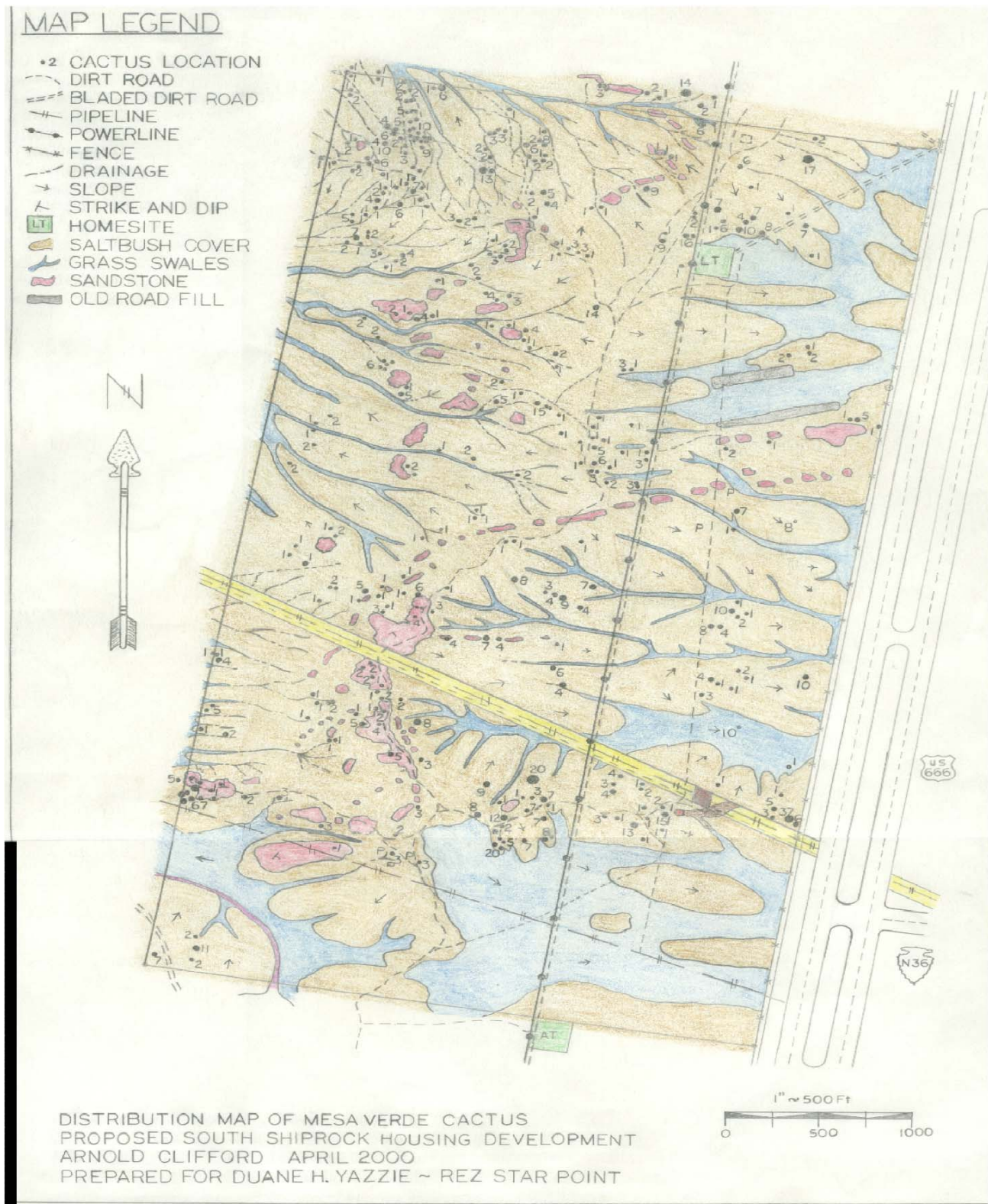
Marvin Roanhorse
Engineering Technician
iiná bá, Ltd.

Attachments

MR/CSG/mr

File: 01678-Soils Letter

Exhibit 3.7.7 Biological Map



SHIPROCK CHAPTER, NAVAJO NATION

MASTER LAND USE PLAN

SPECTRUM 4-INFRASTRUCTURE ANALYSIS



SPECTRUM 4- INFRASTRUCTURE ANALYSIS

TABLE OF CONTENTS

- 4.1 Background**
- 4.2 Infrastructure Analysis Elements**
 - 4.2.1 Electric**
 - 4.2.2 Gas**
 - 4.2.3 Water**
 - 4.2.4 Sewer**
 - 4.2.5 Telecommunications**
 - 4.2.6 Solid Waste**
- 4.3 Conclusions**
- 4.4 Exhibits**

SPECTRUM 4 - INFRASTRUCTURE ANALYSIS

4.1 Background

The Shiprock Chapter Government by resolution designated a potential area for economic and community development, including housing and various needed public and community facilities. This area is a 450-acre site located south of the Shiprock Community proper. The Consultant has performed a site analysis of this area and has determined that a portion of the site is moderately suited for immediate development.

Although there is a strong presence of the federally protected Mesa Verde Cacti, the area deemed suited for immediate development of 75 acres has minimal or no cactus plants. Additionally, the concerns with constructing on the “clay” soil type can be mitigated with the implementation of recommendations generated from the performance of a geotechnical assessment. This infrastructure analysis is done within a concentration on the 75 acres.

In the interests of completing the full evaluation of this site, the Consultant conducted this analysis of the infrastructure elements that would need to be available to serve the area. The calculations utilized are based on the assumption that the proposed housing subdivision would initially be comprised of the construction of 60 houses.

4.2 Infrastructure Analysis Elements

4.2.1 Electric - The Navajo Tribal Utility Authority has issued a utility clearance (**Exhibit 4.4.2**) wherein NTUA verifies that there is adequate electrical power, in that NTUA has a 14.4/24.40 KV, three (3) phase power line that crosses the proposed development site. The utility authority states that this electrical power line can be tapped into, to provide power to housing and other development that will be constructed on the site.

The Navajo Tribal Utility Authority has submitted an estimated cost to tap into the power line and to provide electricity to the proposed housing subdivision. This would necessitate the construction of a main trunk line throughout the subdivision at a total cost of \$86,000. There would be additional cost of getting the electrical power to each house, however that cost is borne by NTUA through a grant-in-aid program.

The conclusion of the Consultant is that there is more than adequate electrical power readily available to service the development site.

- 4.2.2 Gas - The Navajo Tribal Utility Authority states that there is a 2" steel natural gas pipeline located 5 feet outside of the eastside New Mexico State Highway Right-of -Way fence. Currently, the pipeline is inactive, due to the shut down of Western Helium Plant, however the pipeline can be reactivated with the capacity of 60 psi to serve the housing and other development.

The NTUA quotes the cost amount of \$107,996 to construct a gas line that would serve the proposed housing subdivision area. The NTUA further states that there would be additional cost to pipe the gas to each house, however that cost is negated by the NTUA's grant-in-aid program.

This Consultant concludes that the near proximity of a natural gas pipeline will provide adequate natural gas to service the development site.

- 4.2.3 Water - The Northern Navajo Medical Center Office of Environmental Health recently installed a new booster station by the south Shiprock water tank. This booster station is intended to serve new housing and other future development at and around the 450-acre development site.

The Office of Environmental Health has scheduled the extension of an 8 inch water main to south Shiprock, by approximately 2000 feet from the booster station/south water tank. This water main will be sufficient to provide water to the development at the site. The 2000-foot water line will bring water at least 1/2 of the way to the southern boundary of the 75-acre tract. These plans are detailed in the Feasibility Study document for Water Supply and Waste Disposal Facilities for South Shiprock, attached as **(Exhibit 4.4.3)**.

The feasibility study by OEH renders the estimation of \$216,675 to provide water and sewer service to the south 75-acre development site.

With the scheduled main water line extension and the plans by the Shiprock Chapter Government, the Northern Navajo Fair Board and the community to continue the line extension to the south boundary of the development site, the conclusion of the Consultant is that there will be an abundant supply of water.

- 4.2.4 Sewer - OEH projects that the primary community sewer system will need to be extended 12,000 feet to service the development site. OEH does have cost estimates to extend the community sewer system to this area, however OEH will not begin scheduling the securing of funds until there are site development plans for the housing and other facilities.

The Office of Environmental Health calculates that the cost to provide sewer service to the 75-acre site would be approximately \$408,800.

The conclusion of the Consultant is that the prospect of providing sewer service to the development site is good. The Shiprock Chapter will continue working with OEH and the developers, including the Northern Navajo Fair Board to eventually provide sewer service to this area of the community.

- 4.2.5 Telecommunications - The main telephone trunk line runs along the highway on the west side. In addition, there is a new fiber optics line that is buried, also on the west side of highway 666. The Navajo Communications Company has advised that the telephone line, as well as the fiber optics line can be readily accessed to serve the 75-acre site.

The conclusion of the Consultant is that there is readily available access to these telecommunications infrastructure.

- 4.5.6 Solid Waste - The community disposes its solid waste at the Shiprock Regional Solid Waste Transfer Station. The Station is available to most New Mexico area Northern Navajo Chapters.

Thus the conclusion of the Consultant is that the solid waste infrastructure need is readily available.

4.3 Conclusion

The conclusion of the Consultant is that the 450-acre tract can be serviced immediately with electrical power and telecommunications. The Shiprock Chapter and the Office of Environmental Health are making steady efforts to provide the proposed development area with potable water and sewer service. Lastly, the Navajo Tribal Utility Authority can provide gas service to the development site. To secure the gas service would require clearance from the New Mexico Department of Transportation for the authority to bore underneath highway 666 for the delivery of the gas line main to the development site.

The conclusion is that the solid waste disposal system is adequately provided for and will not present any issues of concern.

Therefore, the Consultant concludes that the areas suited for development within the 75-acre tract development site should be scheduled for development, as the site can be serviced immediately or in the near future with the various needed infrastructure components.

Exhibit 4.4.1 NTUA Letter



NAVAJO TRIBAL UTILITY AUTHORITY AN ENTERPRISE OF THE NAVAJO NATION

April 20, 2000

Duane "Chili" Yazzie
SHIPROCK CHAPTER
P.O. Box 576
Shiprock, New Mexico 87420-0576

Dear Mr. Yazzie:

In response to your request for Utility Clearance, we performed an evaluation of the Authority's facilities within the Shiprock Southwest side Community and Housing Development Tract "A" & "B", a total of 450.16 acres.

The Authority does maintain a 14.4/24.40 KV, three (3) phase power line with an enter tie from Navajo, New Mexico Sub-Station. Therefore, the Authority does have adequate power source to the described Development Tract.

In addition, the Authority also has a 2" steel Natural Gas pipe line, which is located 5 (five) feet outside the east New Mexico State Rights-of-Way fence. Currently, this pipe line is inactive due to the shut down of Western Helium Plant. However, this pipe line can be reactivated with a pressure of 60 psi to serve the Development Tract, and would need to bore to cross NM Highway 666.

If you have any questions, or require additional information, please contact Shiprock NTUA, Customer Service Department at (505) 368-4639. Thank you.

Sincerely,

Reevis Begay
Customer Service Supervisor

RB/sjj

xc: File

Home Office: P.O. BOX 170 FT. DEFANCE, AZ 86504 (520) 729-5721	KAYENTA P.O. BOX 37 KAYENTA, AZ 86033 (520) 697-3574	TUBA CITY P.O. BOX 398 TUBA CITY, AZ 86045 (520) 283-5421	SHIPROCK P.O. BOX 1200 SHIPROCK, NM 87420 (505) 368-4639	CHINLE P.O. BOX 549 CHINLE, AZ 86503 (520) 674-5470	FORT DEFANCE P.O. BOX 587 FT. DEFANCE, AZ 86504 (520) 729-5727	DILCON HC 63 BOX D WINSLOW, AZ 86047 (520) 657-3258	85 CROWNPOINT P.O. BOX 1825 CROWNPOINT, NM 87313 (505) 786-5566
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NAVAJO TRIBAL UTILITY AUTHORITY
AN ENTERPRISE OF THE NAVAJO NATION

May 16, 2000

Duane "Chili" Yazzie
SHIPROCK CHAPTER
P.O. Box 576
Shiprock, New Mexico 87420-0576

Dear Mr. Yazzie:

In response to your request for a preliminary cost estimate to construct a three (3) phase electric line and natural gas service lines to accommodate a sixty (60) Units to the proposed Sub-Division, southwest of Shiprock.

The main three (3) phase overhead truck line to the proposed Sub-Division cost includes Archeological Clearance, Legal Survey, and construction of the main trunk line at a cost of \$86,000.00. The construction cost for electric services to the sixty (60) Units is \$20,000.00, however, the Authority would apply Grant-in-Aid, in the amount of \$1,500.00 per house. The Authority's contribution would be applied toward the service line cost, not the main trunk lines.

Cost to construct a 2" (two inch) natural gas main trunk line to the area would include an Archeological Clearance, Legal Survey, road boring, and constructing of the 2" main natural gas pipeline at a cost of \$107,996.00. To construct the natural gas service line to the sixty (60) Units, is \$10,322.40, however, the Authority would also apply a Grant-in-Aid in the amount of \$811.00 per house. The Authority's contribution would be applied toward the service lines, not the main pipeline.

If you have any questions, or require additional information, please contact Shiprock NTUA, Customer Service Department at (505) 368-4639. Thank you.

Sincerely,


Reevis Begay
Customer Service Supervisor

RB/sjj
xc: File

Home Office: P.O. BOX 170 FT. DEFIANCE, AZ 86504 (520) 729-5721	KAYENTA P.O. BOX 37 KAYENTA, AZ 86033 (520) 697-3574	TUBA CITY P.O. BOX 398 TUBA CITY, AZ 86045 (520) 283-5421	SHIPROCK <i>1749</i> P.O. BOX 1298 SHIPROCK, NM 87420 (505) 368-4639	CHINLE P.O. BOX 549 CHINLE, AZ 86503 (520) 674-5470	FORT DEFIANCE P.O. BOX 587 FT. DEFIANCE, AZ 86504 (520) 729-5727	DILCON HC 63 BOX D WINSLOW, AZ 86047 (520) 657-3258	CROWNPOINT P.O. BOX 1825 CROWNPOINT, NM 87313 (505) 786-5586
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Exhibit 4.4.2 OEH Letter

FEASIBILITY STUDY

WATER SUPPLY AND WASTE DISPOSAL FACILITIES

South Shiprock Community Water System Extension

Shiprock Chapter, Navajo Nation

San Juan County, New Mexico

Indian Health Service

United States Department of Health and Human Services

Public Health Service

Indian Health Service

Office of Environmental Health and Engineering

Division of Sanitation Facilities Construction

Window Rock, Arizona

April 2000

75,000 gallon water storage tank, and a duplex booster pumping system to pump water up to the tank. IHS is currently constructing a booster station building and installing 2,500 feet of 6-inch PVC waterline to serve existing homes under two scattered housing projects. The existing pumps and hydropneumatic storage tanks would be removed and larger pumps and a control system would be installed. An additional 2,000 feet of 8-inch PVC water pipeline, and one road bore would be required to connect the Fairgrounds with community water service off of the extension. Community sewer service to the planned housing site would be provided by an extension of an existing sewermain northwest of the former Fairchild building where a 12-inch VCP sewerline begins. The extension would consist of approximately 12,000 feet of 10-inch PVC sewer pipeline, one road bore, and 31 manholes. An additional 3,500 feet of 8-inch PVC sewer pipeline, and 9 manholes would be required to connect the Fairgrounds with community sewer service off of the extension.

The total estimated cost of providing community water & wastewater facilities to the planned 60 homes, Juvenile Justice Complex and Fairgrounds is \$804,000 for an average cost of \$13,400 per home.

EXISTING SANITATION FACILITIES

Water Supply: The community of Shiprock is served with water by the Shiprock Water Treatment Plant, and/or by purchasing from the City of Farmington via a water transmission line. The plant is operated by the Navajo Tribal Utility Authority (NTUA), and consists of two separate conventional treatment trains designated as plant #1 and plant #2 that are operated independent of each other. The two plants have a combined capacity of 1.0 million gallons per day (mgpd), and currently serve approximately 2,350 residential and 133 commercial, 48 public buildings, and 10 NTUA buildings for a total of 2,541 units. The source of water for the plant is the San Juan River. When the water treatment plant cannot provide enough water for demands, the water is bought from the City of Farmington. The City of Farmington also sells water to the NTUA for the primary supply to approximately 1,200 Reservation homes located between Farmington and Shiprock.

The Shiprock Water System consists of five pressure zones, each controlled by its associated water storage tank: Bluff Tank, Mesa Tank, Cortez Tanks, Fairchild Tank, and Gallup Tank. Under normal operational conditions, the water treatment plant is the sole source of water for all the tanks on the system.

Sewage Disposal: Central Shiprock is served by a community sewer system, with an estimated 1,160 services, which produce an average monthly flow of approximately 0.65 mgpd with daily peak flows of 1.1 mgpd. Sewage from the north side of the San Juan River is pumped under the River where it flows to the Shiprock Wastewater Treatment Plant. Sewage from the south side of the River flows by gravity to the Plant.

The Shiprock Wastewater Treatment Plant capacity is 1.0 mgpd, and consists of primary clarification, trickling filters, secondary clarification, chlorination, dechlorination, and

discharge in the San Juan River. IHS will soon complete the following upgrades: aeration basin, new secondary clarifier, an additional anaerobic digester, sludge drying beds and composting facility.

Solid Waste Disposal: A compactor transfer station operated by San Juan County is located approximately 0.5 miles northeast of Shiprock, adjacent to the Cortez water storage tanks. Solid waste will ultimately be disposed at the USEPA approved San Juan County Landfill at Crouch Mesa, east of Farmington.

ALTERNATIVES CONSIDERED

Alternative I

Water service under this alternative would consist of constructing a 75,000 gallon water storage tank, a duplex booster pumping system to pump water from a point near the Gallup tank up to the new storage tank, and approximately 4,500 feet of 8-inch PVC waterline. Approximately 2,000 feet of 6-inch PVC waterline, and one road bore across State Highway 666 would be required to serve the new Fairgrounds. The location of the housing site and Juvenile Justice Complex, and the new tank would be designed such that the water pressure will not drop below 20 psi at the meters. The NTUA will operate & maintain an extension if the dynamic pressure does not drop below 15 psi at the meter.

Sewer service would consist of extending the community sewer system approximately 12,000 feet along State Highway 666. Construction would consist of approximately 12,000 feet of 10-inch PVC sewer mainline extension, one road bore, and 31 manholes. Approximately 3,500 feet of 8-inch PVC sewerline, and 9 manholes would be required to serve the new Fairgrounds. Approximately 1,500 feet of 10-inch PVC sewer mainline extension would be required for upgrading an existing 8-inch VCP for the expected increased sewage flow. The 10-inch sewer mainline extension could, with proper permits, be placed within the Highway 666 right-of-way, which may alleviate the need for Archaeological, and Threatened & Endangered Species Surveys.

No provisions for costs have been included for the water distribution and sewage collection lines within the housing and Fairground sites since no conceptual plan layout has been generated. No existing homes would receive service under this alternative.

Alternative II

Water service under this alternative would be identical to Alternative I. Sewer service under this alternative would consist of constructing a new 10-acre, 3-cell sewage lagoon, approximately 2,500 feet of 10-inch PVC sewer pipe through the housing site and up to the lagoon, 7 manholes, and various lagoon plumbing. The lagoon location would be within housing area on the West Side of Highway 666 or within the Fairgrounds site east of Highway 666. Placement of the lagoon within the housing area would not allow gravity flow of sewer from the Fairgrounds.

Again, no provisions for costs have been included for the water distribution and sewage collection lines within the housing and Fairground sites since no conceptual plan layout has been generated. No existing homes would receive service under this alternative.

Alternative III

Water service under this alternative would again be identical to Alternative I. Sewer service under this alternative would consist of providing septic tank and drainfield systems for each of the 60 homes and the Juvenile Justice Complex. Each homesite would be required to be no less than 0.5 acres in size to facilitate placement of the drainfield. No provision for costs have been included for sewer service for the Fairgrounds, but projected estimates would surpass Alternative I, therefore none was provided.

No provisions for costs have been included for the water distribution lines within the housing site or the Fairgrounds since no conceptual plan layout has been generated. No existing homes would receive service under this alternative.

RECOMMENDED SANITATION FACILITIES

Water Supply: The only alternative considered is Alternative I. This alternative recommends that a duplex booster system, a water storage tank, and 8-inch PVC waterlines be constructed to provide the housing site with potable water. Also included in this recommended alternative is construction of a 8-inch PVC waterline to cross Highway 666 to serve the new Fairgrounds.

Sewage Disposal: Alternative II is rejected based on the construction costs and additional NTUA costs to operate & maintain a new sewage treatment lagoon. Due to the poor conditions of the soils, and the unreliability & maintenance required by the homeowner with septic tank/drainfield systems, Alternative III is rejected. The only reasonable recommendation is Alternative I. Sewer service would consist of extending the community sewer system approximately 12,000 feet along State Highway 666 to the housing and Fairground sites. Construction would involve approximately 12,000 feet of 10-inch PVC, 3,500 feet of 8-inch PVC sewer mains, and approximately 40 manholes.

Solid Waste Disposal: No solid waste disposal facilities are recommended.

COST ESTIMATE

The following is a cost estimate of the recommended facilities:

ALTERNATIVE I				
WATER SUPPLY				
Item	Quantity	Unit	Unit Cost	Total
<u>Off-Site for Fairgrounds</u>				
Archaeological, and Threatened & Endangered Species Surveys	1	LS	\$2,000.00	\$2,000
ROW Surveying & Drafting	1	LS	3,000.00	3,000
ROW Clearing	2,000	LF	0.15	300
8-inch PVC Pipe-Complete	2,000	LF	5.80	11,600
Road Bore (14-inch Casing)	400	LF	33.00	13,200
Flush Valve – Complete	1	EA	400.00	400
Pressure Testing	2,000	LF	0.20	400
Leak Repair	2	EA	275.00	550
NECA Management & Crew Support	1	LS	12,000.00	12,000
SUBTOTAL FAIRGROUNDS FACILITIES				\$43,450
<u>Off-Site for Housing Subdivision</u>				
Archaeological, and Threatened & Endangered Species Surveys	1	LS	\$3,500.00	\$3,500
ROW Surveying & Drafting	1	LS	6,500.00	6,500
ROW Clearing	4,500	LF	0.15	675
8-inch PVC Pipe-Complete	4,500	LF	5.80	26,100
Flush Valve – Complete	3	EA	300.00	900
Pressure Testing	4,500	LF	0.20	1,400
Leak Repair	4	EA	275.00	1,100
Booster Station-Pump, Plumbing	1	LS	14,000.00	14,000
Booster Station-Electrical, Controls	1	LS	10,000.00	10,000
Booster Station-Chem. Pumps, Plumbing	1	LS	6,000.00	6,000
Water Storage Tank (75,000 Gal.), Complete	1	LS	75,000.00	75,000
Telemetric Controls	1	LS	9,000.00	9,000
Chainlink Fence, Tank Site	400	LF	15.00	6,000
NECA Management & Crew Support	1	LS	20,000.00	20,000
SUBTOTAL HOUSING FACILITIES				\$180,175
TOTAL - WATER SUPPLY FACILITIES				\$223,625

ALTERNATIVE I (Continued)
WASTE DISPOSAL

Item	Quantity	Unit	Unit Cost	Total
<u>Off-Site for Fairgrounds</u>				
Archaeological, and Threatened				
& Endangered Species Surveys	1	LS	\$1,500.00	\$1,500
ROW Surveying & Drafting	1	LS	5,000.00	5,000
ROW Clearing	3,500	LF	0.15	525
8-inch PVC Sewer Pipe	3,500	LF	13.00	45,500
4-foot Dia. Manholes (0-5 ft)	5	EA	1,200.00	6,000
4-foot Dia. Manholes (5-10 ft)	10	EA	1,700.00	17,000
Leak Testing	3,500	LF	1.50	5,250
NECA Management and Crew				
Support	1	LS	10,325.00	<u>10,325</u>
SUBTOTAL FAIRGROUNDS SEWAGE FACILITIES				\$91,100
 <u>Off-Site for Housing Subdivision</u>				
Archaeological, and Threatened				
& Endangered Species Surveys	1	LS	\$5,000.00	\$5,000
ROW Surveying & Drafting	1	LS	18,000.00	18,000
ROW Clearing	12,000	LF	0.15	1,800
10-inch PVC Sewer Pipe	12,000	LF	15.00	180,000
Road Bore (16-inch Casing)	400	LF	90.00	36,000
4-foot Dia. Manholes (0-5 ft)	5	EA	1,200.00	6,000
4-foot Dia. Manholes (5-10 ft)	20	EA	1,700.00	34,000
Leak Testing	12,000	LF	1.50	18,000
NECA Management and Crew				
Support	1	LS	39,000.00	<u>39,000</u>
SUBTOTAL HOUSING SEWAGE FACILITIES				\$337,800
TOTAL - SEWAGE DISPOSAL FACILITIES				\$428,900
 <u>COST SUMMARY - ALTERNATIVE I</u>				
TOTAL - WATER SUPPLY FACILITIES				\$223,625
TOTAL - WASTE DISPOSAL FACILITIES				428,900
Subtotal				\$652,525
Add 10% Contingencies				<u>65,252</u>
Subtotal				\$717,717
Add 12% Support Services				<u>86,133</u>
TOTAL PROJECT CONSTRUCTION COST				\$803,850
TOTAL PROJECT COST (ROUNDED)				\$804,000
Cost Per Homesite (\$804,000 / 60) = \$13,400				

FEASIBILITY STUDY

WATER SUPPLY AND WASTE DISPOSAL FACILITIES


South Shiprock Community Water Extension

Shiprock Chapter, Navajo Nation

San Juan County, New Mexico

Indian Health Service


Prepared By:



Roger Anderson, P.E., District Engineer
Shiprock Service Unit

4/21/00
Date

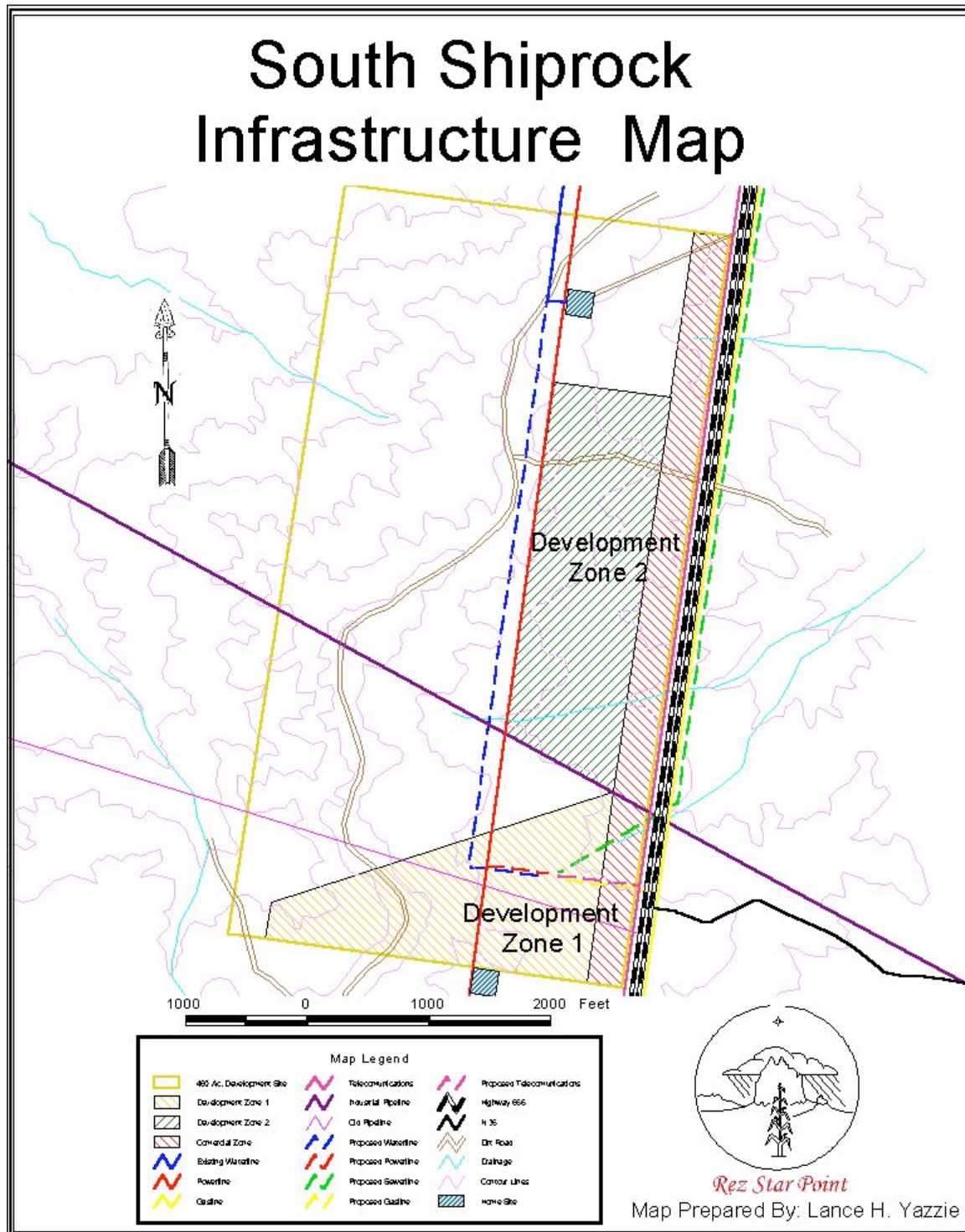
Reviewed By:



Roger Anderson, P.E., District Engineer
Shiprock Service Unit

4/21/00
Date

Exhibit 4.4.3 Utilities Infrastructure Map



SHIPROCK CHAPTER, NAVAJO NATION

MASTER LAND USE PLAN

SPECTRUM 5 – MASTER LAND USE SITE PLAN NARRATIVE



SPECTRUM 5 - MASTER LAND USE SITE PLAN NARRATIVE

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PHASE 5 - MASTER LAND USE SITE PLAN NARRATIVE

5.1 Introduction

5.1.1 Background

The Shiprock area was resettled in the late 1860`s after the forced imprisonment of the Dine` at Bosque Redondo. The Shiprock area known as Tooh` in Navajo, has been inhabited for centuries by early Navajos and there is archeological evidence that Chocoan people lived along the San Juan River in the distant past.

Contemporary Shiprock grew out of settlement by agents of the Federal Government in the early 1900`s. Most notable of the early American settlers was a man by the name of William T. Shelton, who was the first Government Agent to be stationed at Tooh` as the Agency Superintendent. Mr. Shelton who reportedly was a tall man came to be revered as the "Tall Chief" or Nataani Nez. As the years went by, the community came to be referred to as Nataani Nez. This is a common name for Shiprock among the Dine`.

Shiprock enjoyed prominence through the years as an agricultural trade center. Shiprock also is the roots of many strong leaders, many of who served in the Tribal, state and federal governments.

Shiprock has always been regarded as being vocal and unhesitant in defending the rights of people. For years from the early part of the century through the mid-1970`s, Shiprock was a leader in community and economic development.

This unfortunately changed when Shiprock became a strong critic of the central Tribal government. An end result, in part, because of this advocacy and activism, was an apparent deliberate neglecting of Shiprock`s development needs by the central government. The divisiveness and polarity due to the political debate that occurred during the 1970`s and into the 1980`s resulted in a decline and stalemating of progress and development for Shiprock.

Shiprock is on the rebound as it embarks on a process of development that will utilize to the optimum its resources, to realize its vast potential. Economic and community development, including the development of new affordable housing are in critical need. The NAHASDA project will provide great impetus in generating momentum for the community to meet these needs and achieve its well-deserved self-sufficiency.

5.1.2 Scope and Objective

The specific objective of the project is to develop community based land use plans with the focus and emphasis on the designation of community land for the eventual development of housing. An integral component of the land use plan is the articulation of the plans to coordinate the development of all facets of infrastructure. The plans developed through the project are designed to be in compliance with the Navajo Nation Local Governance Act, at 26 N.N.C. Section 2004.

5.1.3 Shiprock Planning Area

The Shiprock Chapter Government by resolution designated an area for economic and community development, including housing and various needed public and community facilities. This area is a 450-acre site located south of the Shiprock Community proper. The consultant has performed a site analysis of this area and has determined that portions of the site are moderately suited for immediate development. The area deemed moderately suited consists of approximately 75 acres and is concentrated on the southeast portion of the site.

For purposes of this land use plan, the consultant focuses on the 75 acres. However the master planning of this site is done within the overall context of the Shiprock Chapter/community primary land use planning area. Thus, the primary elements of the Shiprock Community proper areas zoned for various development purposes are reflected in this Shiprock Chapter and Community Master Land Use Plan.

5.2 Population

The 2000 U.S. Census reports that, the Shiprock Chapter community has approximately 8,166. There are approximately 2,684 households with about 3.61 persons per household. The estimated annual population growth rate is approximately 2.5%, using this percentage the estimated population for the Shiprock Chapter will be 12,089 for the year 2012.

In spite of these 2000 Census numbers, the Shiprock community leadership contends that there are approximately 12,000 to 15,000 people presently living in and around Shiprock.

This is due to the fact that there is an apparent significant undercount and also the fact that many people from other areas of the Navajo Nation live in Shiprock for purposes of being close to schools and employment. In many cases these "guests" do not become registered members of the Shiprock Chapter, choosing to maintain their affiliation with their home chapter/communities. Consequently they enjoy various community benefits, although Shiprock "loses" because they are not counted in the official Shiprock Chapter Census count and voter registration.

5.3 Employment

As Shiprock is a population center, there are a considerable number of employers in the community and in the area. The major employers in the community are the Navajo Nation, the IHS, the BIA, NTUA, NECA, Dine` College, the Public and Contract School Systems and the 50 plus businesses located in Shiprock.

There are a significant number of families who are self-employed in traditional economic activity, such as agriculture, ranching and native crafts. Because of the limited availability of regular wage employment there are many families who are engaged in various other pursuits that help the families generate economy including traveling long distances for minimum wage labor work in agriculture, construction, oil field work and doing spot job work. There is also a considerable trade in the selling of home cooked foods stuff for sale to the public.

Other prominent employers in the area include the Arizona Public Service Co., the BHP Mines, the New Mexico Public Service Co., the City of Farmington, Navajo Agricultural Products Industry, San Juan County, and the numerous businesses throughout the county and the four corners region.

According to the 1990 U.S. Census data, there are 48.1% of the 16 and over individuals in the work force and of those in the work force approximately 75% are employed and there are 24.9% who are unemployed. This translates to an unemployment rate of approximately 25% for Shiprock. Also according to the 1990 U.S. Census, the 1990 median household income was \$12,636, the median family income was \$14,841 and the per capita income for Shiprock was \$4,767.

The unemployment numbers from the 2000 Census count are not yet available.

5.4 Community Services Assessment

5.4.1 Solid Waste Disposal

The community of Shiprock has the Shiprock Regional Solid Waste Transfer Station. The Transfer Station was constructed with funds appropriated by the New Mexico State Legislature. The station is operated and maintained by the San Juan County through a Joint Powers Agreement. The station is available to most New Mexico Northern Navajo Chapters and to some extent the Shiprock Agency Chapters, including those from Arizona and Utah.

5.4.2 Transportation

The Shiprock Community sits at the crossroads of State Highway 64 and U.S. Highway 666. These roads are used heavily by area residents and the many travelers who come through Shiprock. Highway 666 as it comes to Shiprock is primarily a two-lane road, except for a 5-mile four-lane stretch to the south of the community and the immediate community proper. The Highway 64 to the west is a two-lane road, whereas the Highway 64 to the east is a divided four-lane highway going into Farmington. Highway 666 to the south intersects with the Interstate 40 in Gallup.

There is a limited service airstrip 5 miles south of Shiprock. A portion of the airstrip was recently resurfaced. The airstrip can only accommodate prop planes. The nearest commercial airport is in Farmington, 30 miles to the east. This well equipped airport in Farmington can serve jet planes and is a major stopping point for three commercial commuter service airlines.

5.4.3 Police and Fire Services

The community of Shiprock is host to the Shiprock District of the Navajo Department of Public Safety. The District covers some 50,000 square acres and has one of the larger forces of public safety personnel on the entire Navajo Nation.

The community has the BIA Fire Department and the Shiprock Volunteer Fire Department. The San Juan County Government funded the construction of the Shiprock Fire Station and continues to fund the operation on an annual basis through a Joint Powers Agreement.

5.4.4. Health and Medical Facilities

The Shiprock community has the Northern Navajo Medical Center (NNMC). This state-of-the-art health and medical complex is adequately meeting the health and medical needs of the Northern Navajo region and beyond.

In addition to the Medical Center, there are the Nizhoni Smiles, Inc., which provides dental services and the Shiprock Dialysis Center that provides a variety of services to dialysis patients.

5.4.5 Education

There are four different educational settings in Shiprock. These include the public school district, the contract school, the pre-school and the Dine` college.

5.4.5.1 The Central Consolidated Public School District has K-12 grades at the Nataani Nez, Mesa, Nizhoni and Eva B. Stokley Elementary Schools, the Tse Bi Tai Mid School and the Shiprock High School.

5.4.5.2 The Shiprock Alternative Schools, Inc. contract school has the Atsa Bi Yaz Elementary School, the Northwest High School and the Tse Bi Tai Learning Center that addresses the needs of the mentally handicapped.

5.4.5.3 The Shiprock Headstart Program serves pre-school children with a program that emphasizes a strong orientation in the traditional forms of Dine' education fused with the contemporary mode of formal education.

5.4.5.4 The Shiprock Campus of the Dine` College is the largest campus outside the main Tsaiile campus and is a prominent member of the Shiprock community.

5.4.6 Recreation

In addition to the full schedule of recreation and athletic programs offered and provided through the schools, there are a number of community recreational activities available for the community youth and community members. These include various community leagues providing opportunity for participation in various league play including softball, baseball and basketball.

There are youth football and soccer organizations, some affiliated with the area city leagues or Navajo Nation. The Navajo Office of Dine' Youth (OYD) is instrumental in providing many of these programs. The OYD sponsors a series of wellness activities that are scheduled throughout the year, such as Fun Runs and the Just Move It run/walk series. The Shiprock Boys and Girls Club also offers a wide variety of recreational, athletic and educational (library) activity in and around the Club's large gymnasium.

5.4.7 Churches

There are eight major church denominations with significant attendance and there are also several different smaller churches situated throughout the Shiprock Chapter area. In addition to the contemporary churches, the Native traditional religious beliefs are well represented in the forms of the traditional Dine' ceremonial practices, as well as, the Native American Church.

5.5 Existing Land Use of Development Area

5.5.1 Master Land Use Study Area

The 450-acre area that is designated by the community for the express purpose of developing a new housing subdivision, other amenities to complete the proper and comprehensive development of a well-planned subdivision and an economic development zone are situated in a strategic location. This is because the area south of the Shiprock community proper will be the focus of the expansion of community development in the next few years, primarily because of land and infrastructure availability.

5.5.2 Existing Land Use

The 450 acres are mostly used for grazing purposes on a limited basis, although there are two other current uses of the site, which are a homesite lease and some natural gas industrial improvements. Other than these uses, there is very limited or no usage.

There is minimal public access to the area as the entire frontage of the property is fenced and the south, west and north sides are difficult to access, because of the housing adjacent to the site on the populated north side that has effectively prevented through traffic. Additionally there is limited public access due to poor dirt roads. Thus the area is largely undisturbed.

5.6 Site Related Elements

5.6.1 Existing Improvements - Structures

There are two existing uses within the 450-acre site, they are, a 1-acre homesite lease. The homesite is occupied with a doublewide mobile home and other improvements, including a well-used dirt road going off of U.S. Highway 666 to the homesite. The fenced homesite is approximately 800 feet from the northern boundary of the 450-acre site.

The homesite is in an area that is active with Mesa Verde Cacti and thus this area is not suitable for planned development. The homesite is situated where it will not be an obstacle to the sectors of the 450-acre site, particularly the 75 acres in the southern portion that are deemed to be suitable for development.

The other significant manmade improvement is an industrial station previously used to transport crude oil. This station consists of components including a 16-inch steel piping infrastructure and valves that are part of the existing petroleum transmission infrastructure. These components are fenced in on an approximate 1-acre compound. The Questar Co. of Salt Lake City owns these industrial improvements.

The Questar Co. plans to retrofit the 16" industrial pipeline and support equipment to reactivate the line to transport natural gas from the natural gas fields 50 miles east of Shiprock to the California. The Questar Co. is making certain improvements to this area and facilities to operate a compressor station at the existing location.

However, the Shiprock Chapter has requested the company to consider the relocation of the planned compressor station to a location "out-of-sight" and well away from the proposed housing development. This out-of-sight location would be approximately ½ to 1 mile to the west over the hill from the planned housing development area. The company has stated a willingness to consider the request.

These improvements are in the southeast portion of the site at approximately 500 feet west of the Highway 666 and 1500 feet from the southern boundary of the 450-acre site. These structures are in an area active with Mesa Verde Cacti and as such, not an area conducive to planned development.

The improvements are approximately 300 feet from the area that is deemed most feasible for planned development and therefore they would not be obstructions to the development. An adequate buffer zone can be instituted between this area and the planned subdivision.

5.6.2 Other Improvements

Other improvements are old piles of asphalt that were disposed of when the present highway was being constructed. These two piles of old asphalt are to the north of the primary development area and therefore, these "improvements" will not be obstructing the planned new development.

5.6.3 Roads

There are dirt roads through the area that are marginally used and are inconsequential. The 550 feet long graveled service road going to the industrial station is used on a very marginal basis. These roads will not be prohibitive to the development.

5.6.4 Utilities

There is a high capacity electrical powerline that intersects (north-south), the full length of the proposed development area. This is a positive factor, as this powerline will provide the electrical power to the new subdivision and other developments.

Other utility infrastructure that go through the area are two industrial gas pipelines that traverse the property diagonally in a northwest-southeast direction. One is an old line that is no longer used, this line that is closer to the southern boundary, this old line needs to be uncovered and taken out. This line is old to the extent that there are not any accurate records of the line and whether it has been taken out and replaced by the one now owned by Questar Co.

The other pipeline is the 16" line that is previously described. This pipeline is approximately 300 feet north of area that is planned for housing and other development.

The other utility infrastructure that borders the development site, are the telephone and fiber optics lines that are situated along the highway right-of-way.

5.6.5 Contamination

Any contamination in this area would be very minimal and only in a confined area. This confined area is directly around the described industrial station area. Any presence of contaminants would be largely insignificant and not prohibitive to development purposes of this area.

5.6.6 Environmental Assessment

There has not been an Environmental Assessment (EA) performed for this area in compliance with the EA requirements of the Navajo Nation and Bureau of Indian Affairs. However, a Biological Survey has been done in the proposed development area, primarily to identify vegetation and animals, soil types, presence of water, drainage areas, and topography. The findings from the Biological Survey can be used as competent data in the development of the EA, any additional Archeological Surveys and other required clearances.

A primary objective of the Biological Assessment was to determine if there are any vegetation or wildlife that would be of concern considering the dictates of the Federal Endangered Species Act (ESA) of 1975 as amended. Throughout major portions of the site there were numerous Mesa Verde Cacti located, a threatened plant species, protected by the Federal ESA.

Due to the abundance of the cacti throughout most of the site, the approximate 75-acre area that is free of the plant is determined to be the only area that is readily available for development.

The Consultant advises the community that in order to continue with the planning and development of other potential portions of the 450-acre site, the EA and the other relevant surveys and studies need to be completed. This includes securing the Finding of No Significant Impact (FONSI) statement, the Archeological Survey, as well as completing the land withdrawal process for the withdrawn 450 acres.

5.7 Description of Master Land Use Plan

5.7.1 Master Land Use Plan Design Process

The community has clearly stated by resolution that the withdrawn area will be reserved for a planned subdivision and economic development. The planned subdivision would be inclusive of housing and other elements that would ordinarily be a part of such a planned subdivision including a park, other basic community development amenities, as well as areas reserved for economic development along the frontage.

The Consultant was directed by the Chapter leadership to devise some options on how the planned subdivision might be designed. The design reflected in the Master Land Use Site Plan has been presented for review by the Chapter leadership and the Land Use Plan Task Force.

5.7.2 Master Plan Use Elements

5.7.2.1. Housing Subdivision

The planned Shiprock housing subdivision is on approximately 75 acres of land situated in the southeast section of the identified 450-acre proposed development area.

The number of houses that are being provided for is 60 houses. There are planned to be two housing units per acre. The lot sizes are calculated to a minimum of .5 acres per house unit.

These lots are large considering the “normal” ratio of 2.5 housing units per acre formula that is used by the Navajo Housing Authority. It is expected that with the 2 housing units per acre planned, the cost of overall development will be higher than normal.

However the benefits of having a housing subdivision planned with a more spacious environment will become evident in years to come. There will be a minimum of 30 acres dedicated to the housing area.

5.7.2.2 Park Area

There is a minimum of 5 acres of land reserved in the center of the housing subdivision for the development of a community park area. The park area should eventually have various components, intended to provide for the recreational needs of the children and residents.

These would include a playground area with all manner of playground equipment and other elements for recreation such as basketball courts, horseshoe tossing pits, etc. There would also be a picnic area complete with gazebos, bar-be-que grills and tables. There could also be a veranda (shade house) for meetings and other family functions.

5.7.2.3 Future Sites

In close proximity to the components discussed above, there are separate lots that are reserved for other development that could include office facilities or other appropriate buildings that are needed to manage and maintain the housing subdivision. The reserved spaces identified as “future site” are comprised of 3 acres each, respectively.

5.7.2.4 Commercial/Business

The Shiprock Chapter by resolution reserves the highway frontage for a width of 364 feet from the center of the highway, for the establishment of commercial business outlets and retail shops. Thus, approximately 1400 feet or at least 5 acres along the frontage will be available for commercial use on the eastside of the 75-acre area.

5.7.2.5 Streets

In addition, there are also the basic elements of the streets, sidewalks, landscaping and access to the different parts of the development area that are provided for in the Land Use Plan.

To insure adequate measures to provide protection for the Mesa Verde Cacti in the area, there will be a minimum of a 120 feet buffer between the proposed housing area and where there are cacti situated.

5.8 Implementation of Master Land Use Plan

5.8.1 Site Development Considerations

5.8.1.1 Water and Sewer Systems

The greatest utility need at the 75-acre development site is water. The efforts by the Shiprock Chapter, OEH, NTUA with support from the Northern Navajo Fair Board to get water to the site must be continued. As the community municipal system is extended to the site, a companion wastewater system will be developed to deliver the wastewater into the municipal system.

5.8.1.2 Natural Gas System

The cost to deliver natural gas to the site will be borne by NTUA. The primary task will be to get approval from the New Mexico State Department of Transportation to bore under the Highway 666.

5.8.1.3 Industrial Gas Pipeline

The request that the community has made of the Questar Co. to locate the proposed compressor station "out-of-sight" will be essential to reestablish the esthetics of the development site. This will be important, also in terms of assuring that there is a condition of safety for the residents.

5.8.1.4 Soil Preparation

There should be geo-technical assessments done of the soil to determine if soil compaction will be necessary or other type of soil preparation work done prior to development. Because of the terrain slope grade, it may also be necessary to do some grading to attain a more acceptable slope to build on.

5.8.2 Legal Considerations

5.8.2.1 Consummate Land Withdrawal Process

Although the Chapter/community has withdrawn the land and the legal survey description has been done, the process of official land withdrawal through the Navajo Nation and BIA have not been completed. This needs to be done as a priority.

5.8.2.2 Complete Clearance Issues

- The Archeological Survey and the Environmental Assessment (FONSI) need to be completed.
- Notification Issues on Mesa Verde Cacti

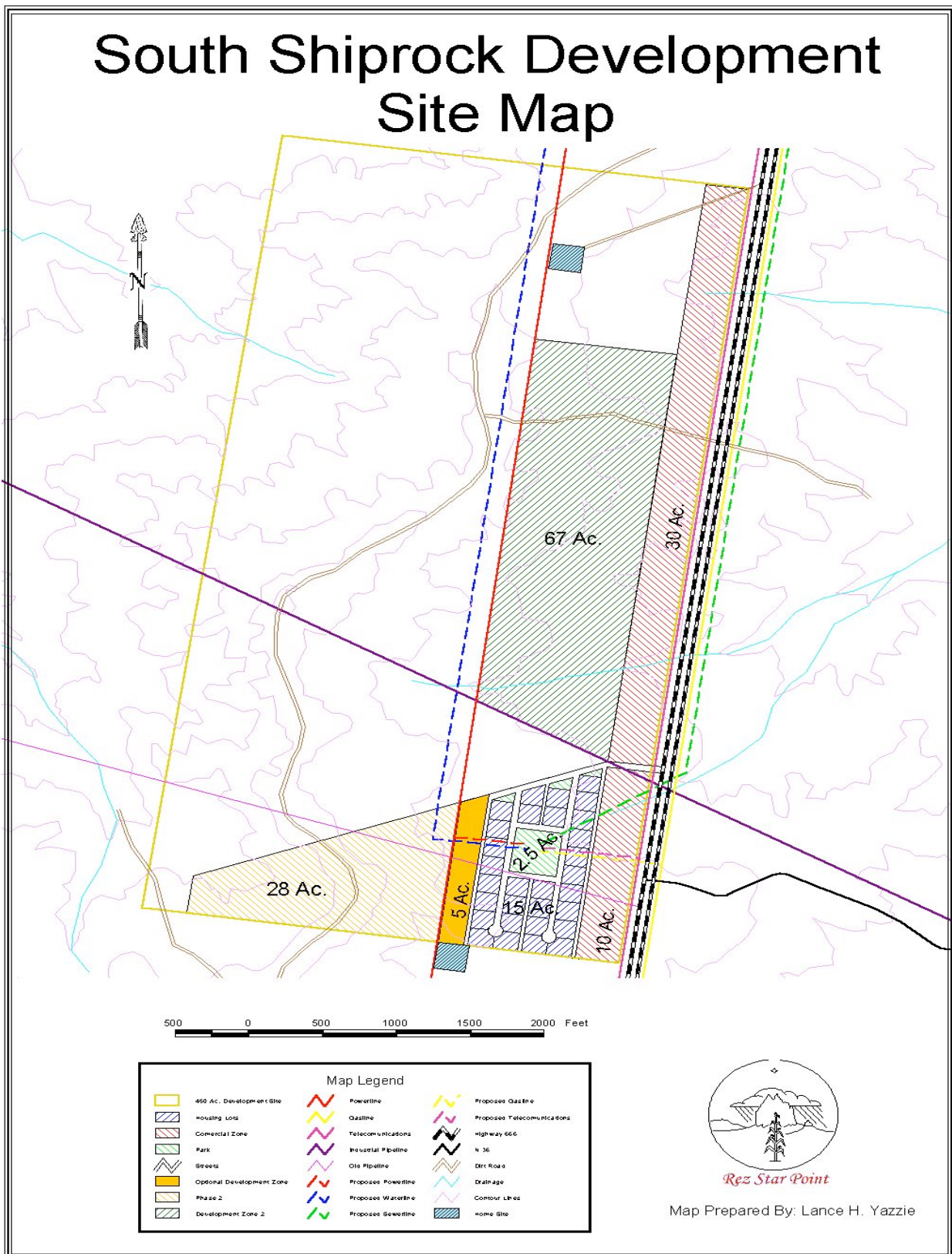
The pertinent Navajo Nation and Federal offices and programs need to be duly notified of the planned development in an area inhabited by the Mesa Verde Cacti. With the participation of the offices, particularly the Navajo Nation Fish and Wildlife, adequate assurances must be established as a buffer zone to provide protection for the Mesa Verde Cacti.

With this notification, the appropriate agencies may require additional remediation processes for the cacti that might be impacted by the development. There will need to be in the minimum of a 120-foot buffer zone between the cacti and the development zone

5.9 Conclusion

The Consultant concludes that given all factors that the identified 75 acres has overriding value and potential for development as planned. The community needs to proceed with plans to develop the area in the effort to address the tremendous need for housing.

Exhibit 5.9.1 Master Land Use Plan – South Shiprock Site Development Plan



SHIPROCK CHAPTER, NAVAJO NATION

MASTER LAND USE PLAN

SPECTRUM 6 – IMPLEMENTATION RECOMMENDATIONS



SPECTRUM 6: IMPLEMENTATION RECOMMENDATIONS

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- 6.1 Shiprock Chapter Land Use Policies**
- 6.2 Site Development Requirements**
- 6.3 Implementation Recommendations**
- 6.4 Legal Considerations**
- 6.5 Conclusions**

SPECTRUM 6 – IMPLEMENTATION RECOMMENDATIONS

6.1 Shiprock Chapter Land Use Policies

PREFACE:

The following policies shall describe the internal policies that will provide general direction for the community, as the Shiprock Chapter and the Shiprock Planning Commission proceed with the plans for the development of the community utilizing this Master Land Use Plan.

These policies are intended to provide guidance in the most general terms; any specific issue not addressed by these policies shall be governed by pertinent existing Navajo Nation laws and regulations, Further those localized issues not provided for herein, shall be subject to the deliberation and decision of the community leadership and community membership.

6.1.1 Chapter Boundary Policy

It is recognized that there are no “official” Chapter boundaries that are formally accepted by the Shiprock Chapter, Navajo Nation and the Bureau of Indian Affairs. According to the Chapter Images, 1996 issue, the Chapter has approximately 125,314 acres. The amount of acreage will change with the updated delineation of the Shiprock Chapter boundary line and the boundary lines of its neighbors, Gadi’i’ahi and Hogback. The calculation of acreage based on a boundary line that has been delineation by the Shiprock Chapter leadership is approximately 217,754 acres.

There were no deliberate efforts to collaborate with the Shiprock Chapter by the Gadi’i’ahi and Hogback Chapter on the boundary lines when the two Chapters were being formed. Thus, the three Chapters claim specific expanses of land that are not coordinated with the neighboring Chapters. This results in significant overlaps of claimed jurisdiction of land.

There are also some boundary discrepancies with the Sanostee Chapter and to a limited extent with the Red Valley Chapter. There is general acceptance that there are boundary overlaps, although it has not been known to what extent until now through the work on this project. It is generally understood that the boundary line discrepancies will need to be addressed at some point by the Chapters.

The policy of the Shiprock Chapter will be to protect the integrity of the recognized Shiprock Chapter boundary and to diligently engage in discussions and negotiations with other jurisdictions to conclusively resolve any potential boundary discrepancies.

6.1.2 Cultural and Traditional Resources Preservation Policy

A prerequisite in the process of community and economic development is the assessing of the cultural and traditional resources located on and adjacent to proposed development sites. The community leadership shall assure that the community knowledge of such resources is made known and accounted for in the pre-development community assessment processes. Cultural resources include areas where there were previous human habitation and funerary sites. Traditional resources include areas currently used for traditional ceremonial activities.

In addition to this responsibility of the community leadership, the Chapter and Commission will assure that all relevant laws and regulations are complied with, including but not limited to the Navajo Nation Cultural Resources Preservation Act, the National Historic Preservation Act, Archeological Protection Act and the Native American Graves Protection and Repatriation Act.

6.1.3 Environmentally Sensitive Areas Policy

A prerequisite in the process of community and economic development is the assessing of the environmental conditions and resources located on and adjacent to proposed development site(s). The Chapter leadership will assure that all relevant laws and regulations are complied with, including but not limited to the Navajo Nation Environmental Protection Act, the Federal Environmental Protection Act, Endangered Species Act, the Clean Water Act and other pertinent laws and regulations, in the assessment of proposed development areas.

6.1.4 Grazing and Agricultural Land Management Policy

The prudent practices of land use for livestock grazing and agricultural activities are time-honored activities that the Shiprock Chapter community members are accustomed to. The regard for the land and the proper care, thereof have been central to traditional livelihood throughout the history of the people and is thus considered a sacred trust and birthright.

The Chapter leadership shall assure the proper stewardship of the land and natural resources by advancing and advocating appropriate land management practices. The policy of the Shiprock Chapter shall be to continue traditionally learned land management practices, in addition to referring to and utilizing the Navajo Nation Grazing Regulations and other pertinent laws and regulations.

6.1.5 Land Use Approval Policy

The Master Land Use Plan as approved by the Chapter membership shall dictate the manner and process of the various land use proposals. The Master Land Use Plan is subject to periodic review and amendment by the Chapter membership.

All requests for Chapter land development shall be first presented to the Shiprock Planning Commission for initial review. The Commission shall submit its recommendation to the Chapter leadership.

The Commission and the Chapter leadership shall insure that all appropriate information is secured before the land use proposal is forwarded to the Chapter membership, these information include, the verification of land availability, regulatory clearances, development plans and conformance with the Master Land Use Plan. Appropriate Tribal and pertinent laws and regulations shall be complied with.

6.1.6 Chapter Land Master Leasing Policy

To expedite the development of land, the policy of the Shiprock Chapter shall be to make concerted effort to withdraw large tracts of land for comprehensive planning for housing, commercial, industrial and other appropriate development. These large withdrawn tracts of Chapter lands shall be surveyed and comprehensively field cleared to secure all required regulatory clearances.

6.1.7 Chapter Housing Development Policy

With the overall housing needs of the community determined the Chapter leadership in conjunction with various housing providers shall determine a strategy to address the housing need. The basic considerations in the formulation of the housing development strategy shall include the land areas identified for housing development, required infrastructure systems, funding sources, types of housing development, building materials, design of the housing and the long-term maintenance and operation of the projects.

6.1.8 Identification of New Areas for Development Policy

The Shiprock Chapter leadership and the Commission shall continually assess the need for new development areas to meet the anticipated growth of population and community. Areas that are considered for new development shall be assessed for land suitability, including all appropriate surveys and regulatory clearances. Areas that are determined to be available and suitable for future development shall be dedicated as such, to the Master Land Use Plan.

6.1.9 Infrastructure Needs Policy

The consideration for and identification of new development areas requires that the infrastructure necessary to serve the new areas be analyzed and planned. In addition to the future planning of infrastructure, the Chapter leadership and Commission must be cognizant of the condition of existing infrastructure systems with the purpose of assuring the viability of the systems. This function is necessary to determine the portions or components of the systems that need replacement or upgraded to insure that the infrastructure needs of the community membership are met.

6.1.10 Commercial and Industrial Development Policy

The policy of the Shiprock Chapter will be to encourage local community members and others to develop commercial/business development. The community will also encourage the establishment of light industrial development to provide employment opportunities. The development of such commercial and industrial interests shall be provided for within the established Master Land Use Plan. The community leadership shall do all things necessary to assist the prospective entrepreneurs to establish their business concerns in the community.

6.2 Implementation Recommendations

6.2.1 Working with Existing Laws and Regulations

The Shiprock Chapter leadership and Planning Commission will have good familiarity with the intent and enabling authorities of pertinent and existing Navajo Nation laws and Bureau of Indian Affairs regulations as they relate to the Shiprock development process. Albeit the Local Governance Act of 1998 grants certain authorities to the Chapter government for planning and regulation of local affairs and issues, there remain continued oversight of community local governance activities by the central Navajo government and the BIA, in some respects.

It is therefore incumbent upon the community leadership to understand those pertinent laws and regulations to be able to exercise the greatest measure of local governance autonomy that is feasible. By understanding and working within the parameters of the oversight laws and regulations, the community will be enabled to realize its potential.

6.2.2 Establishment of Chapter Land Development Code

As the Community leadership and community membership understand their position in relation to existing laws and regulations and further understand the mechanisms in maintaining the Master Land Use Plan, there will be the need to develop appropriate Land Development Codes to provide additional guidance in the orderly development of the Shiprock Chapter and community.

6.2.3 Zoning

To ensure that the various components of the community and economic development occur in a prescribed and orderly fashion, specific sites for these components will be described beforehand through the zoning mechanisms on the Master Land Use Plan.

The Chapter Leadership and the Commission will require that all development occur in conformity with the zoning policies, except where the community membership makes formal exceptions to the zoning policies. Such exceptions shall be accomplished through Chapter resolution upon the recommendation of the Commission and with appropriate adjustments to the Shiprock Master Land Use Plan.

6.2.4 Regulatory Clearances

With the provision of land for the proposed development pursuant to the Master Land Use Plan and attendant zoning requirements, the Chapter leadership shall assure that there is compliance with all pertinent legal and regulatory clearance requirements. These include, but are not limited to legal survey, archeological survey, environmental assessments with the Finding Of No Significant Impact (FONSI) statement, to render the potential development sites project ready.

6.2.5 Building Code

The Chapter leadership and Planning Commission shall adopt a set of Building Codes to provide guidance on the manner of acceptable construction of public facilities and housing. A set of Building Codes would ensure quality construction and would thus assure the protection of the safety and health of the citizens in this respect.

6.2.6 Enforcement of Land Use Development Code

Even the most well-developed and well-intentioned Development Code is not practical, if they are absent enforcement processes. The Shiprock Chapter and the Commission will establish appropriate enforcement processes to assure the viability and successful use and exercise of the Land Use Development Code.

6.2.7 Community Education

It is incumbent on the community leadership to insure that the community membership understands the purpose and intent of the Shiprock Chapter Master Land Use Plan and all its particulars.

The Chapter leadership shall continue an orientation process for the Land Use Plan to establish ownership and acceptance of the Plan as a guiding tool for the orderly future growth and development of the community.

6.2.8 Review and Update of the Land Use Plan

The Chapter leadership and the Planning Commission shall continually assess the Master Land Use Plan and present recommendations to the Chapter membership on any elements of adjustment and updating that are appropriate and necessary.

The Land Use Plan document shall provide reasonable guidance for the community over the next five years. At the end of the five-year time frame, the Land Use Plan should undergo critical review and updating.

6.3 Site Development Requirements

6.3.1 Community Water Supply

The primary site development requirement is the development of an adequate water source to supply water for the proposed housing and other facets of community development.

The Chapter leadership with its a productive working relationship with the Indian Health Service Office of Environmental Health, the NTUA, the Northern Navajo Fair Board and the New Mexico State Legislature will have water to the site by 2003.

6.3.2 Geotechnical Assessment of Soil

An additional special site development requirement is that, because construction on clay type soil can present stability problems, the Shiprock community must have geotechnical assessments performed prior to commencement of the development process.

The geotechnical assessments will determine if any remedial measures are necessary for adequate soil preparation to prepare the proposed development sites for housing and other development.

6.3.3 Species of Concern Issue

The pertinent Navajo Nation and Federal programs need to be duly notified of the planned development in this area considering its proximity to the Mesa Verde Cacti. With the notification of these offices, particularly the Navajo Nation Fish and Wildlife, adequate assurances must be established to provide protection of the Mesa Verde Cacti.

There will need to be in the minimum of a 120-foot buffer zone established between the cacti and the development zone. These agencies may require additional remediation processes for the cacti that might be impacted by the development.

6.4 Legal Considerations

6.4.1 Development Site Land Withdrawal

The processing of the land withdrawal for the 450-acre has to be processed through the Navajo Nation and Bureau of Indian Affairs. The Chapter leadership is pursuing the proper land withdrawal process. The area specifically reserved for housing development must be relinquished to the Navajo Housing Authority.

6.4.2 The Archeological Survey and the Environmental Assessment are outstanding issues that need to be completed with the securing of the Finding Of No Significant Impact (FONSI) statement

6.5 Conclusion

The 75-acre site proposed for housing and the different components of community and economic development is a good site. The development planned herein depends on the consummation of the site development requirements and the legal considerations, as well as the aggressive advocacy for development by the community leadership. These factors coupled with the support of the Navajo Nation, as well as the Indian Health Service and the Bureau of Indian Affairs, the Shiprock community can enjoy the positive attributes of development into the future.

SHIPROCK CHAPTER, NAVAJO NATION

MASTER LAND USE PLAN

SPECTRUM 7 – SUMMARY



SPECTRUM 7: SUMMARY

The Native American Housing Assistance and Self Determination Act has provided the Shiprock Chapter, the Shiprock Planning Commission and community the opportunity to self-reflect in a process of assessing its special inherent qualities. This self-assessment has provided focus and impetus for the community leadership to continue the plans for the development of the community and to forge a successful future.

The benefits that have been collectively realized and the technical assistance imparted by the Consultant and other partners in the planning process have developed a Master Land Use Plan that will form the basis for the eventual development of a Comprehensive Land Use Plan. The Chapter leadership, the Planning Commission and the community recognize that in spite of the state of development or non-development of the community, and the limitation of resources, that the development and economic potential of the community and Chapter area is vastly tremendous.

It is understood that the Shiprock Master Land Use Plan document is a tool in the planning and development process of the community. It is understood that the Plan is intended to provide general guidance in the planning process and it is accepted that the Plan is a living document, such that it should not be stagnant, but ever changing and growing as the community continues to refine the document by working with it. It is further accepted that the Plan is intended to provide general community planning and development guidance for five years, at which time there needs to be a critical review and updating of the Plan.

The Shiprock Chapter leadership, the Planning Commission and the community membership appreciate that the developed Master Land Use Plan represents a crucial element in the satisfaction of the requirements to attain certification under the Local Governance Act. The belief of the Shiprock Community leadership and community membership in regard to the ready opportunity of capitalizing on the development of Shiprock's potential has been bolstered through the community capacity building and community empowerment that is emphasized through participation in the NAHASDA Chapter Land Use Planning project.

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