

CHAPTER EIGHT: ENERGY AND TELECOMMUNICATIONS

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CHAPTER EIGHT: ENERGY AND TELECOMMUNICATIONS

8.1 INTRODUCTION

This chapter summarizes Master Plan provisions related to energy and communications, and states both the Plan Description and Implementation Measures for SP II.

Chapters Five and Six address public health issues associated with electric and magnetic fields, fuel lines and pipelines. Setbacks and other development standards for these issues are provided in Chapter Four: Development and Design (see Section 4.2: Development Standards).

8.2 ELECTRICITY

Master Plan Summary

The Master Plan establishes a “backbone” electrical power distribution system designed in coordination with street construction. The intent is to provide a reliable electrical power system while minimizing risks to public health and risks of damage to utilities and properties adjacent to utility easements. The community will be planned to achieve a 25% energy saving by efficient community design.

It is assumed that:

- Existing local substation capacity will only be able to supply power to the approximately first 25% of the community’s development. Beyond that, new distribution circuits will need to be supplied. A new five-acre 21-kV substation will eventually need to be built inside the Mountain House area. This will happen at the construction of about 4,100 homes and a corresponding amount of commercial/industrial development.
- To accommodate future development, approximately three miles of PG&E’s Westside Tap 60 kV electrical power transmission line (#268) will be relocated within the Byron Road right-of-way.
- A 230 kV power transmission line passes through the community on an easement that is restricted to certain uses. Safety considerations for this line are covered in Chapter Six: Public Health and Safety.

Siting of all major electrical facilities at Mountain House is subject to approval of the California Public Utility Commission. A 20% margin of safety is provided in determining community power needs to provide protection against power interruptions.

Public health and safety issues will be considered in developing and implementing the electric transmission and distribution systems. All development will adhere to restrictions of use applicable to areas within the easement rights-of-way of primary power transmission lines, including setbacks along either side of the 60 kV and 230 kV lines. The Rio Oso-Tesla transmission line easements will be designated for open space uses when they pass through residential areas. Where the transmission lines pass through industrial, commercial, and public land uses, they will reflect that land use designation but uses under or adjacent to the easement will be restricted to uses compatible with the easement, such as parking lots.

Plan Description

Figure 8.1: SPII Electrical System illustrates the proposed electrical backbone system for the SPII Area. Figure 3.1 and Figures 3.4 to 3.7 specify the SPII land uses within and adjacent to transmission lines.

In accordance with the Master Plan, the MHCSD will be providing, through contracts with utility providers, all “dry” utilities to the site. All Master Plan assumed energy efficiency standards are the jurisdiction of the MHCSD and will be enforced through contracts between the MHCSD and each utility provider. Trimark and merchant builders will be subject to all MHCSD standards.

Electricity will be provided by the Modesto Irrigation District via a substation constructed along the south side of Kelso Road in Alameda County. Specific infrastructure extensions will be determined and required by the MHCSD as part of subsequent engineering. Electrical power distribution will be installed on an as-needed basis as part of SPII roadway construction. All permanent dry utilities constructed within the community will be installed as part of an underground system.

The 60-kV Weber-Herdlyn line will be relocated to an alignment that parallels the Mococo Railroad line, as far as possible from residential land uses (see Figure 8.1 and Chapter Six, Section 6.9).

SPII Implementation Measures

1. **Approved Land Uses within Easements.** The project’s proposed land uses within PG&E’s electric power transmission line easements of 230 kV shall be subject to PG&E approval and in compliance with PG&E approved land uses.
2. **County Easement Setbacks.** All implementing projects shall comply with the setback requirements and other applicable provisions of the San Joaquin County Development Title, as amended, including:
 - a. Chapter 9-310M, Residential Zone Lot and Structure Regulations;
 - b. Chapter 9-410M, Commercial Zone Lot and Structure Regulations;
 - c. Chapter 9-510M, Industrial Zone Lot and Structure Regulations; and
 - d. Chapter 9-710M, Other Zone Lot and Structure Regulations.
3. **MHCSD Energy Conservation Plan.** All implementing projects shall comply with the applicable provisions of the MHCSD Energy Conservation Plan.
4. **MHCSD Electric Infrastructure Standards.** All implementing projects shall comply with the applicable provisions of the MHCSD Development Standards (see Section 1: General Design Requirements and Section 2: Street Design Standards).
5. **Undergrounding of Lines.** All electrical distribution lines shall be underground where practical.

MOUNTAIN HOUSE SPECIFIC PLAN II

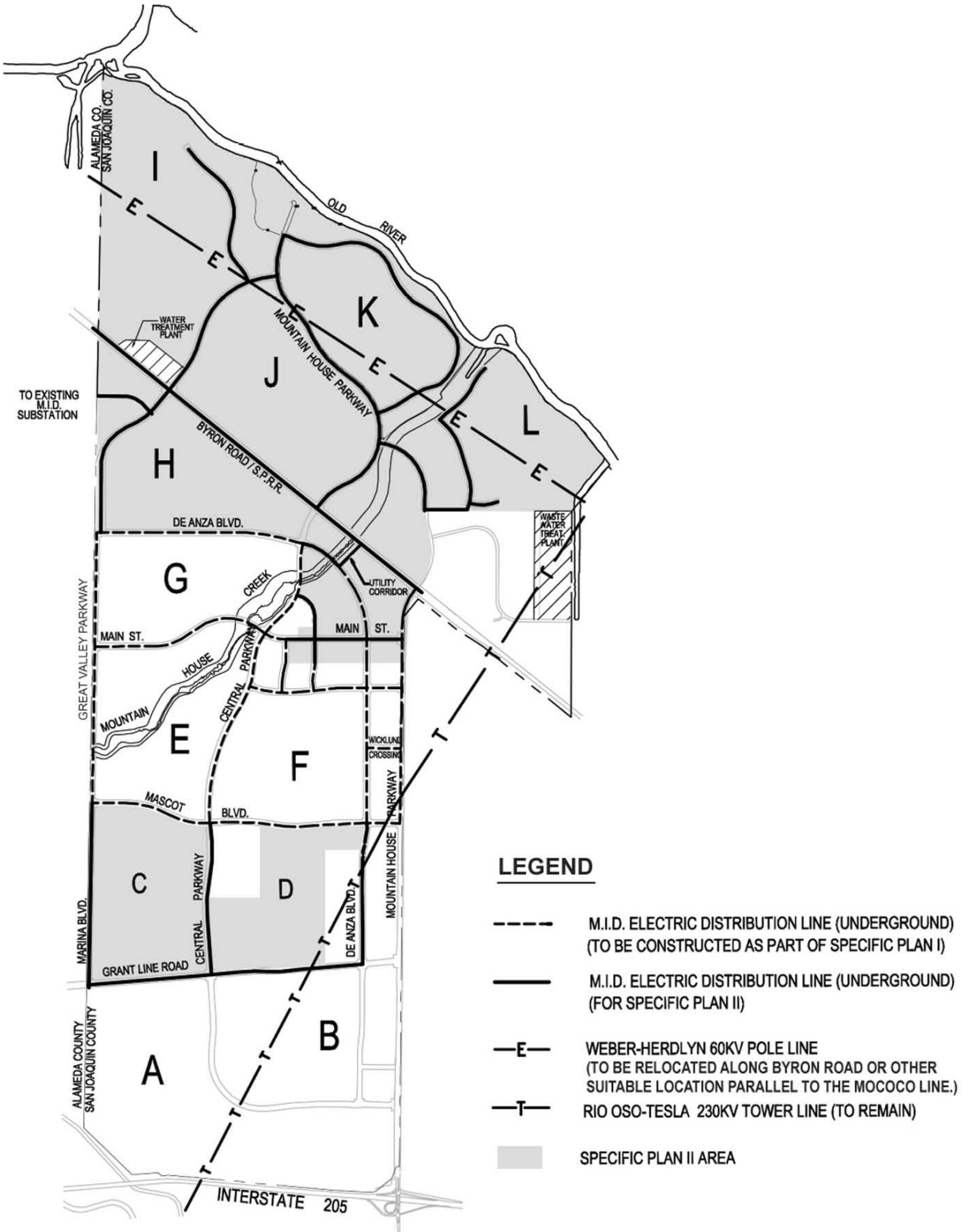


FIGURE 8.1 – SPII ELECTRICAL SYSTEM

8.3 NATURAL GAS

Master Plan Summary

The Master Plan calls for a natural gas transmission and distribution system that will deliver a reliable and cost-efficient source of natural gas to the community, while minimizing the risks to public health and the risk of damage to utilities and properties located adjacent to utility easements. The natural gas transmission and distribution systems will be designed and constructed to assure a reliable and cost-effective source of natural gas to the Mountain House community, and to achieve a 25% savings in the consumption of natural gas as compared to standard usage. Public safety issues will be considered during construction near natural gas transmission and distribution systems.

The Master Plan assumes a 10% safety margin in the calculation of the community's gas demand and a 25% natural gas savings the calculation of the community's gas demand.

Each Specific Plan will specify land uses and development standards adjacent to natural gas lines. The County will submit the Specific Plans to PG&E for review and comment on any proposed development in the vicinity of natural gas utilities that cross the project site.

Plan Description

Figure 8.2: SPII Natural Gas System illustrates the proposed natural gas system for the SPII Area. Figure 3.1 and Figures 3.4 to 3.7 specify the SPII land uses within and adjacent to natural gas lines.

In accordance with the Master Plan, the MHCS D will be providing, through contracts with utility providers, all "dry" utilities to the site. All Master Plan assumed energy efficiency standards are the jurisdiction of the MHCS D and will be enforced through contracts between the MHCS D and each utility provider. Trimark and merchant builders will be subject to all MHCS D standards.

Natural gas will be provided by Pacific Gas and Electric via both existing facilities constructed as part of Neighborhoods E, F and G, as well as expansions of additional existing facilities, as determined by PG&E. Natural gas will be provided on an as-needed basis as part of the on-site roadways. The relocation of the existing gas line along Mountain House Parkway will require detailed planning and phasing. It is anticipated that the relocation would take place in stages as development occurs.

All permanent dry utilities constructed within the community will be installed as part of an underground system.

SPII Implementation Measures

1. **Approved Land Uses within Easements.** The project's proposed land uses within natural gas transmission pipeline easements shall be subject to PG&E approval and in compliance with PG&E approved land uses.
2. **County Pipeline Assessment Requirements.** All implementing projects shall comply with the setback requirements and other applicable provisions of the San Joaquin County Development Title, as amended, including:

- a. **Chapter 9-310M, Residential Zone Lot and Structure Regulations;**
 - b. **Chapter 9-410M, Commercial Zone Lot and Structure Regulations;**
 - c. **Chapter 9-510M, Industrial Zone Lot and Structure Regulations; and**
 - d. **Chapter 9-710M, Other Zone Lot and Structure Regulations.**
3. **MHCSD Energy Conservation Requirements. All implementing projects shall comply with the applicable provisions of the MHCSD Energy Conservation Plan.**
 4. **MHCSD Gas Infrastructure Standards. All implementing projects shall comply with the applicable provisions of the MHCSD Development Standards (see Section 1: General Design Requirements and Section 2: Street Design Standards).**
 5. **Pipeline Relocation Requirements. Relocation of the PG&E gas distribution pipeline which runs from Arnaudo Blvd north through Neighborhoods H, I and J shall be relocated in accordance with the PG&E/MHCSD Pipeline Relocation Plan and in accordance with the provisions of the MHCSD/PG&E Encroachment Agreement.**

MOUNTAIN HOUSE SPECIFIC PLAN II

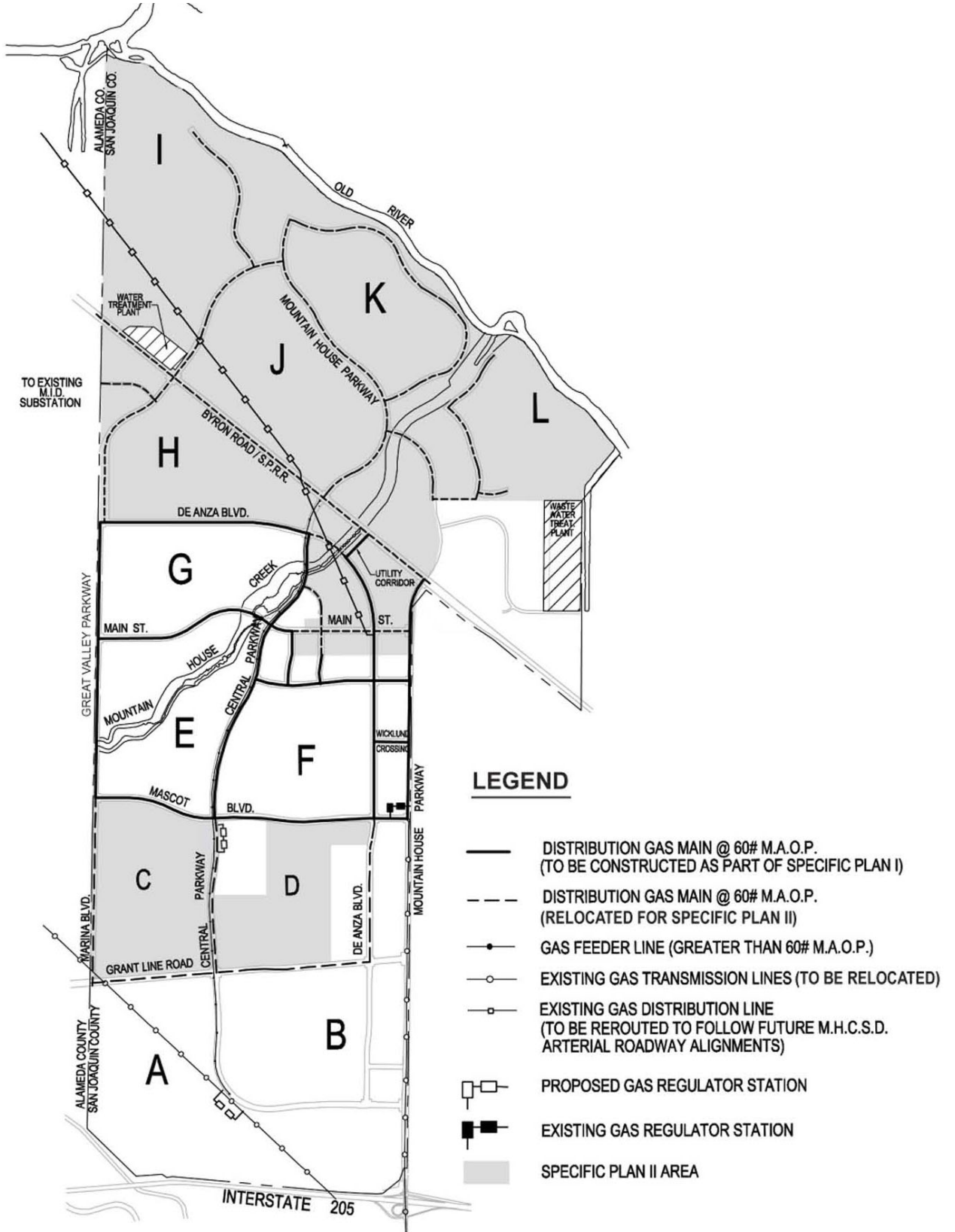


FIGURE 8.2 – SII NATURAL GAS SYSTEM

8.4 TELECOMMUNICATIONS/CABLE

Master Plan Summary

The Master Plan calls for an extensive telecommunication services to satisfy current and anticipated future needs, including adequate spare communication lines for expansion of services within the community as needed for the next 20 to 40 years.

The Mountain House telecommunications transport system will consist of a high speed digital fiber optics network with a centralized hub for all forms of telecommunications to serve residential, business, and public services including fast response to emergencies (police, fire and major medical).

Plan Description

Figure 8.3: SPII Telecommunications System illustrates the proposed telecommunications system for the SPII Area. Figure 3.1 and Figures 3.4 to 3.7 specify the SPII land uses within and adjacent to telecommunications lines.

In accordance with the Master Plan, the MHCSO will be providing, through contracts with utility providers, all “dry” utilities to the site. All Master Plan assumed energy efficiency standards are the jurisdiction of the MHCSO and will be enforced through contracts between the MHCSO and each utility provider. Trimark and merchant builders will be subject to all MHCSO standards.

Telephone service will be provided by SBC via facilities constructed as part of Neighborhoods E, F and G. Cable television and high-speed Internet services will be provided by Charter Communications via facilities constructed as part of Neighborhoods E, F and G. All telecommunications provisions will be constructed in accordance with MHCSO telecommunications requirements. All residential units and businesses will be equipped with interior telecommunications hook-up terminals.

All permanent dry utilities constructed within the community will be installed as part of an underground system.

SPII Implementation Measures

1. **MHCSO Structured Wiring Requirements. All habitable structures constructed within the Mountain House community shall be constructed in accordance with the MHCSO Structured Wiring Guidelines.**
2. **MHCSO Telecommunications Infrastructure Standards. All implementing projects shall comply with the applicable provisions of the MHCSO Development Standards (see Section 1: General Design Requirements and Section 2: Street Design Standards).**

MOUNTAIN HOUSE SPECIFIC PLAN II

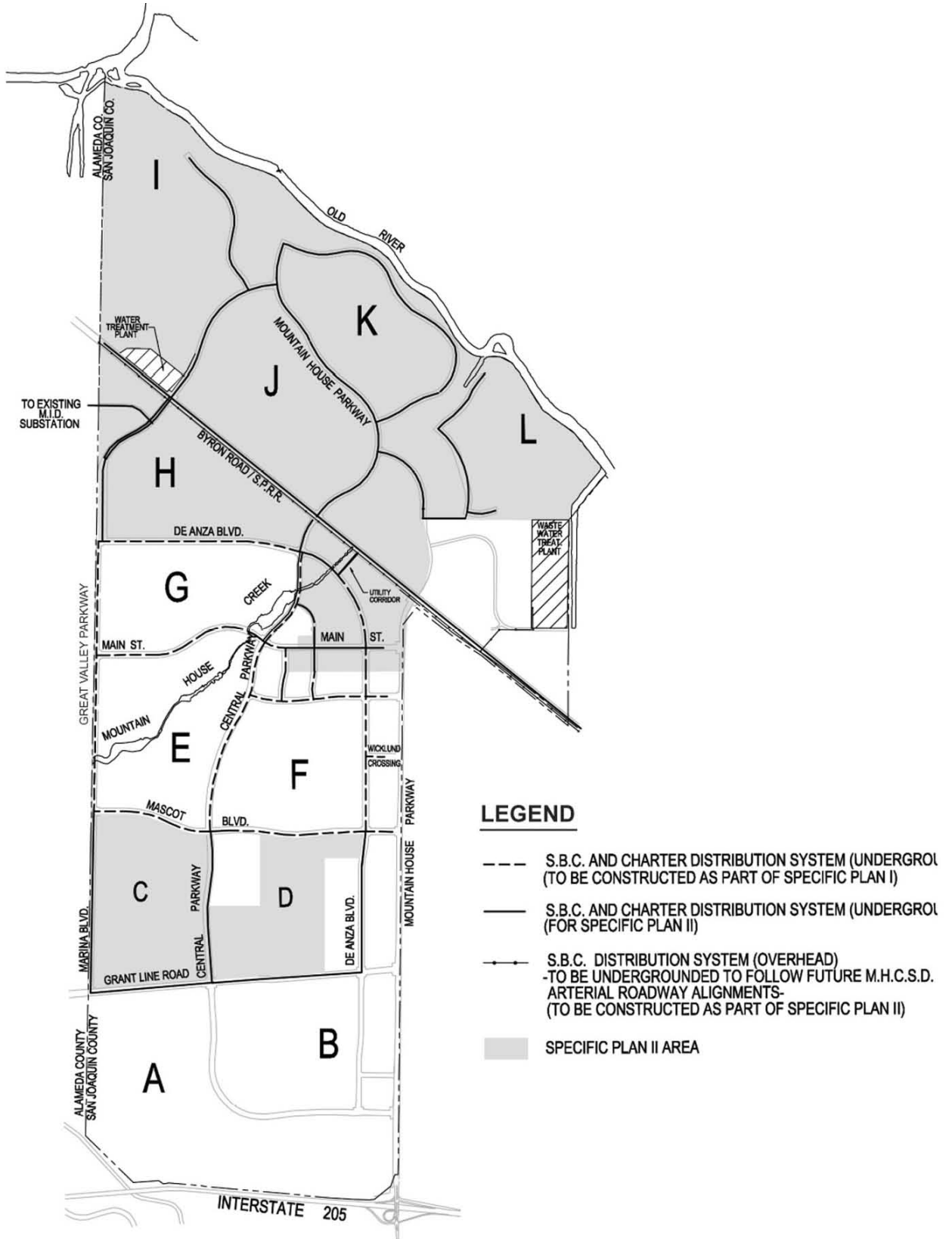


FIGURE 8.3 – SPII TELECOMMUNICATIONS SYSTEM

8.5 SITING CRITERIA FOR PUBLIC FACILITIES

Master Plan Summary

The Master Plan directs that public safety and convenience be considered in the design and placement of public utilities and facilities. In particular, electrical and gas facilities should be located and treated to minimize visual and other impacts on the community, especially residential and other sensitive land uses.

Plan Description

All SPII public facilities will be sited and developed in a manner consistent with the Master Plan and the provisions of the documents listed below.

SPII Implementation Measures

1. **County Permitted Use Requirements.** All implementing projects shall comply with all applicable provisions of the San Joaquin County Development Title, as amended, including:
 - a. Chapter 9-700M, Intent and Organization of Other Zones;
 - b. Chapter 9-705M, Other Zones Use Regulations; and
 - c. Chapter 9-710M, Other Zone Lot and Structure Regulations.
2. **MHCS D Design Requirements.** All implementing public improvement projects shall comply with the applicable provisions of the MHCS D Design Manual (see Chapter Thirteen: Civic Facilities and Chapter Fourteen: Public Works Facilities).
3. **MHCS D Public Facility Construction Requirements.** All implementing projects shall comply with the applicable provisions of the MHCS D Development Standards.
4. **Utilities Locations.** Underground utilities (electrical distribution, telephone, cablevision, natural gas, and other) or concealed public facilities, including surface access boxes or manholes, shall be located such that they will have a minimum impact on maintenance and vehicular pedestrian traffic.
5. **Surface Mounted Facilities.** Future development plans shall closely coordinate the placement of surface mounted public facilities with the architectural design of the community to minimize the adverse impact on aesthetics.
6. **Electrical Transformer Placement Requirements.** Electrical transformers within residential neighborhoods shall be in underground vaults. Where located in commercial and industrial areas and in the town center area, transformers may be mounted above-ground, provided they are adequately shielded by landscaping.

8.6 PHASING AND COSTS

Master Plan Summary

Electrical power distribution will be installed on an as-needed basis as part of the on-site roadways. The only exceptions to this incremental construction have been the extension of the initial temporary service lines for the first Specific Plan and the siting and construction of the permanent community electrical substation. The initial service line extensions will require accelerated planning and construction to coincide with the start of residential development.

Natural gas will also be provided on an as-needed basis as part of the on-site roadways. However, the relocation of the existing gas line from Mountain House Parkway to Central Parkway will require detailed planning and phasing.

Telecommunications will also be provided on an as-needed basis and will be developed along with on-site roadways.

Plan Description

The Master Plan requirements related to phasing and costs will be implemented by SPII through the implementation measure listed below.

SPII Implementation Measures

1. **Phasing and Costs. All implementing projects shall comply with the applicable requirements of the Public Financing Plan and Technical Report, Master Acquisition and Reimbursement Agreement between the MHCSD and Trimark Communities, Master Plan Development Agreement between San Joaquin County and the Master Developer, MHCSD Capital Improvement Program, and applicable development fee Ordinances.**