Palmdale Hybrid Power PROJECT

Supplemental Responses to CEC Data Requests Set 1

Docket 08-AFC-9

DOCKET
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Submitted on Behalf of:

PALMDALE
a place to call home

Submitted by:

Inland Energy, Inc.

Submitted to:

California Energy Commission

March 2, 2009

Prepared by:

AECOM

PALMDALE HYBRID POWER PROJECT

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Following is a supplemental response to the CEC Land Use Data Requests that addresses a question raised at the February 4, 2009 Workshop.

Workshop Question Related to Palmdale Planning Commission Public Meeting held February 19, 2009:

> The response to Data Request 28 indicated that the City expects to consider the General Plan Amendment and Zoning Change Planning Commission meeting in February. Please provide an update on the results of the Palmdale Planning Commission Public Meeting held on February 19, 2009 regarding General Plan Amendment (GPA) 09-01, Zone Change (ZC) 09-01 and Tentative Parcel Map (TPM) 070999.

Supplemental Response to Data Request 28:

Palmdale City Staff recommended that the Planning Commission take the following actions with respect to General Plan Amendment (GPA) 09-01, Zone Change (ZC) 09-01, and Tentative Parcel Map (TPM) 070999: 1) Adopt Resolution No. PC-2009-006 recommending that the City Council approve General Plan Amendment (GPA) 09-01; 2) Adopt Resolution No. PC-2009-007 recommending that the City Council approve Zone Change (ZC) 09-01; and 3) Adopt Resolution No. PC-2009-008 approving Tentative Parcel Map (TPM) 070999.

These are all proposals by the City of Palmdale for the following entitlements related to early activities associated with the PHPP: a) General Plan Amendment (GPA) 09-01 is a proposal to amend the General Plan Land Use designation on 613.4 gross acres from SP-10 (Palmdale Business Park Specific Plan) to IND (Industrial); b) Zone Change (ZC) 09-01 is a proposal to amend the Zoning designation on 613.4 gross acres from SP-10 (Palmdale Business Park Specific Plan) to M-2 (General Industrial); and c) Tentative Parcel Map (TPM) 070999 is a proposal to subdivide the existing 613.4 gross acre site into two parcels to include existing lot consolidation, abandonment of existing rights-of-way and easements as necessary, and dedication of new rights-of-way and easements. Additional details of the proposed actions are provided in the two attachments (GPA, ZC, and Parcel Map Petition and Planning Commission Meeting Agenda) provided at the end of this Land Use section.

At the February 19, 2009 Planning Commission meeting, the General Plan Amendment, Zone Change, and Tentative Parcel Map (for the PHPP site and laydown area) were all approved subject to approval by the City Council meeting scheduled for April 1, 2009. No public comments were received, and City Staff were able to answer the Commission's questions to their satisfaction. The Zone Change will need to go back for a second reading on April 15, 2009 and becomes effective 30 days later (May 15, 2009).

Data Request 31:

For each specific land use and zoning designation traversed by the proposed project linear facilities as described in AFC Tables 5.7-2b and 5.7-3b, please provide the applicable General Plan policies and zoning code section and the city's consistency determination of the particular project component with each of those policies and zoning requirements, and justification for consistency. For an example of this type of LORS consistency analysis, please refer to the Land Use section of any of the recently published Energy Commission Staff Assessments.

Response:

The following table provides the applicable City of Palmdale General Plan policies, zoning code section, and consistency determination and basis for each specific land use and zoning designation traversed by the PHPP project linear facilities as described in AFC Tables 5.7-2b and 5.7-3b. This is followed by a narrative summary of land use designations in the portion of the transmission line that traverses Los Angeles County.

City of Palmdale

LORS		Consistency Determination	Basis for Consistency
Source	**Policy and Strategy Descriptions**		
Local	**City of Palmdale**		
General Plan Land Use Map	The proposed PHPP site is currently designated "Specific Plan" but is subject to a current General Plan Amendment to modify the property's land use designation to "Industrial". The transmission line alignment is proposed over properties with "Industrial" and "Business Park" land use designations.	Yes	Consistency with the City's General Plan is outlined below.
General Plan – Land Use Element Goal L2	Adopt land use and development policies which encourage growth and diversification of the City's economic base.	Yes	Construction of the PHPP will create local employment and provide revenue to the City, facilitating economic development activities.

General Plan – Land Use Element Objective L2.1	Promote creation and retention of businesses within the city, to increase employment opportunities within the Antelope Valley	Yes	Construction of the PHPP will create local employment and provide revenue to the City, facilitating economic development activities.
General Plan – Land Use Element Goal L5	Provide opportunities for a wide range of manufacturing and related industrial uses in the City, so as to facilitate expansion and diversification of the City's economic base and provide additional employment opportunities.	Yes	Construction of the PHPP will create local employment and provide revenue to the City, facilitating economic development activities.
General Plan – Land Use Element Objective L5.1	Provide sufficient land to accommodate a wide variety of industrial uses to meet community needs.	Yes	The transmission line alignment traverses properties designated "Industrial" and "Business Park" on the City's General Plan Land Use Map. These designations are consistent with the extension of electrical infrastructure. Further, the development of PHPP and the construction of linear utilities will not preclude future industrial development, as extensive undeveloped industrial and business park lands will remain.
General Plan – Land Use Element Policy L5.1.1 (subparagraphs 2 and 3)	Descriptions of "Business Park" and "Industrial" Land Use designations	Yes	PHPP, and its associated linear infrastructure, is consistent with the stated intent of these land use designations.
General Plan – Land Use Element Policy L5.2.1	Discourage encroachment of incompatible uses into or adjacent to designated industrial land, when it can be shown that such uses may ultimately impede development of industrial	Yes	PHPP is consistent with the Industrial land use designations and is not considered an incompatible land use.

	uses, and that such uses may be established elsewhere in the Planning Area.		
General Plan – Land Use Element Policy L5.2.5	Designate land and adopt development standards so as to provide an appropriate mix of industrial uses, including labor intensive, light manufacturing, warehousing and spaces for small shop industries.	Yes	PHPP is situated on land that is designated for general industrial uses and the character of the proposed facility will be consistent with the scale and intensity of future industrial development in the vicinity. The closest industrial use is Site 1, located on Air Force Plant 42. This facility consists of several large aircraft hangars and the height, scale, and massing of these buildings is consistent with PHPP as proposed.
General Plan – Land Use Element Policy L5.2.7	Adopt performance standards for noise, odors, emissions, vibrations, glare, radiation and other potential impacts of industrial development.	Yes	The City's Zoning Ordinance contains standards for noise, light and glare, setbacks, lot coverage, and other development design parameters. PHPP is consistent with all industrial standards contained in the Zoning Ordinance.
General Plan – Land Use Element Objective 6.1	Ensure that adequate land is available for uses serving or providing benefit to the general public.	Yes	PHPP will provide efficient electrical energy, including renewable energy, which will benefit the public.
General Plan – Public Services Element Goal PS1	Ensure that adequate public services and facilities are available to support development in an efficient and orderly manner.	Yes	PHPP will increase the supply of electrical power in the local power grid, providing benefit to and supporting existing and future development in the Antelope Valley.

General Plan – Public Services Element Objective PS1.2	Ensure that new development is coordinated with provision of backbone infrastructure within the site and within adjacent properties, to promote cost-efficient construction and maintenance, and ease of access to facilities.	Yes	PHPP will support future continued growth locally within the Antelope Valley. Further, the alignment of linear infrastructure serving the project has been coordinated with backbone infrastructure plans for recycled water. The transmission line alignment, as proposed, has the least impact on nearby Plant 42 and developed properties, than other alignments previously considered.
General Plan – Public Services Element Objective PS1.5	Coordinate with other jurisdictions in the Antelope Valley to provide for regional infrastructure improvements, minimize impacts of Palmdale development on adjacent jurisdictions, and provide unified support for mutually beneficial improvements requiring outside approvals and/or funding	Yes	The facility and linear infrastructure have been coordinated with Air Force Plant 42, FAA, Southern California Gas, Los Angeles County Sanitation District, Palmdale Water District, Los Angeles County and City of Lancaster.
General Plan – Public Services Element Objective PS1.6	Ensure that utilities are provided to serve development in Palmdale in an efficient and aesthetic manner.	Yes	PHPP will fulfill this objective by creating an additional source of electrical power to serve local communities. The facility is designed to be energy efficient and aesthetic features, such as perimeter landscaping along Avenue M, will be incorporated into the project design where possible.
General Plan – Public Services Element Policy 1.6.1	Through adoption of an ordinance, regulate utility line and other utility infrastructure placement and	Yes	The City has adopted an ordinance requiring placement underground of overhead electrical

	require under-grounding where feasible.		distribution lines, as well as phone and cable lines. The transmission lines associated with PHPP are exempt from the City's ordinance based on their high voltage.
General Plan – Public Services Element Policy 1.6.2	Coordinate installation of utility line placement with street construction where possible.	Yes	The proposed location of the PHPP transmission lines follows existing or planned arterial streets from the power plant site to the connection with the utility corridor at Pearblossom.
General Plan – Public Services Element Policy 1.6.3	Through the development review process, protect existing utility easements and require dedication of additional easements where needed.	Yes	As development occurs on properties adjacent to the linear infrastructure alignments, City policy will provide for consideration and protection of those facilities during the entitlement process.
City of Palmdale Zoning Map, Zoning Ordinance Article 62	The site proposed for PHPP is currently zone "Specific Plan;" however, it is the subject of a current zone change to change the zoning to "General Industrial (M-2)." The transmission lines pass over properties designated Light Industrial (M-1), General Industrial (M-2) and Planned Industrial (M-4).	Yes	The project is consistent with the Industrial zoning designations contained in the City's Zoning Ordinance. "Utility Facilities" are principally or conditionally permitted uses in all Industrial zones.

Los Angeles County

The following narrative pertains to the portion of the PHPP transmission line that traverses the unincorporated areas of Los Angeles County.

The transmission line routes are adjacent to portions of Los Angeles County as they travel along E Avenue L to the north, county areas east of Palmdale in the vicinity of 100th to 120th Streets E, when on the south side of E Avenue Q, and along 120th Street East, E Avenue S, and 126th Street E from Avenue Q south to Avenue V, along Lone Oak, and then west along the existing power lines to the

Angeles Forest Highway. The transmission line within unincorporated area is located in areas that are designated for low density land uses with agricultural zoning designations as noted in the following discussion.

To the north of E Avenue L between 40th Street East to approximately 100th Street East, the properties in the Los Angeles County areas have Land Use designations of N-1 (Non-Urban 1; .5 dwelling units per acre (du/ac)) and N-2 (Non-Urban 2; 1.0 du/ac). The corresponding zoning designations in these areas are A-1-1 (Light Agriculture; 1 acre minimum lot size) and A-2-2 (Heavy Agriculture; 2 acre minimum lot size).

The transmission line then passes through the City on various alignments at approximately 105th Street East and at Avenue P west of 100th Street East enters County jurisdiction. The Land Use designation in this section is P (Public Service Facilities) with a zoning designation of A-1-1 (Light Agriculture; 1 acre minimum lot size).

At 100th Street East, the Transmission line travels east on the south side of Avenue Q with adjacent county areas having a Land Use designation of N-2 (Non-Urban 2) (1.0 du/ac) and a corresponding zoning designation of A-1-1 (Light Agriculture; 1 acre minimum lot size).

At Avenue Q and 120th Street east, the transmission line travels south on the west side of 120th Street East extending south to Avenue S with adjacent properties in the County having a General Plan Land Use designation of N-1 (Non-Urban 1; .5 du/ac) and a corresponding zoning designation of A-1-1 (Light Agriculture; 1 acre minimum lot size) or A-2-2 (Heavy Agriculture; 2 acre minimum lot size).

At Avenue S, the transmission line travels east to 126th Street East and extends south to Avenue T, Avenue U, and Ewen Avenue. The site area has a General Plan land use designation of N-1 (Non-Urban 1; .5 du/ac) and a corresponding zoning designation of A-1-1 (Light Agriculture; 1 acre minimum lot size) or A-2-1 (Heavy Agriculture; 1 acre minimum lot size).

From this point the transmission line travels southwest from Ewen Avenue and 126th Street East to 116th Street East north of Avenue V. Land Use designations in this area are N-1 (Non-Urban 1; .5 du/ac) and a corresponding zoning designation of A-2-1 (Heavy Agriculture; 1 acre minimum lot size) as well as P (Public Service Facilities) with an O-S (Open Space Zoning).

To the west of 116th Street East, the transmission line crosses the California Aqueduct, Pearblossom Highway and continues in a westerly/southwesterly direction crossing Avenue V towards Cheseboro Road and the Littlerock Wash, 57th Street East to 47th Street East. The properties in this Section have a Land Use designation of N-1 (Non-Urban 1; .5 du/ac) and a corresponding zoning designation of A-2-1 (Heavy Agriculture; 1 acre minimum lot size).

As the transmission line progresses westerly to the termination point, the properties have a Land Use designation of N-1 (Non-Urban 1; .5 du/ac) and a corresponding zoning designation of A-2-1 (Heavy Agriculture; 1 acre minimum lot size).

Data Request 39:

Please specify which portions (specify distance and locations) of the 23.7-mile Segment 1 require new transmission line right-of-way, and which portions are within existing rights-of-way. This is especially important given that each new pole along new right-of-way areas would need a stub road.

Response:

For all 23.7 miles of Segment 1, the PHPP transmission line will require a new transmission line right of way in the form of a utility corridor easement. The stub roads are expected to be covered by the utility corridor easement. Their average size along Segment 1 will be approximately 16 ft wide and approximately 15 ft to 30 ft long.

Data Request 40:

Please specify whether, or not, each stub road will remain in place permanently for access to the transmission line during operations and maintenance activities for the line. If not, please specify the number, location, and size (in width and length) of maintenance access roads for the transmission line.

Response:

The spur roads will all remain in place permanently along both transmission line Segments 1 and 2.

Data Request 41:

For the portions of Segment 1 that would be sited within existing rights-of-way, please specify what types of existing right-of-way would be used where these portions would be located.

a. For example, discuss whether these existing rights-of-way would be in public roadways, other existing utility corridors, etc.

b. Discuss whether there is sufficient room (i.e., width) within these existing rights-of-way to site the proposed 230 kV transmission line.

Response:

a. As discussed in the response to Data Request 39, the City will acquire a new utility corridor easement that is a total of 50 feet in width. The utility corridor easement will begin 50 feet from the centerline of the street and extend outward to a point 100 feet from the centerline of

the street. Easements for the access roads will be added as needed where the edge of the street ROW and the utility corridor easement do not meet. Please see Figure DR-41A for a diagram of a typical spur road installation relative to a single circuit transmission line.

b. After review and technical discussion with PAR Electric Inc. (transmission line consultant/constructor), a 50 foot utility corridor is sufficient width for a double circuit 230 kV transmission line. Please see Figure DR-41B for a diagram of a typical spur road installation relative to a double circuit transmission line.

Data Request 42:

Given that new right-of-way would be needed for portions of Segment 1, please specify the width of the right-of-way required for the proposed 230 kV transmission line in both urban and rural lands being traversed. Note that transmission line right-of-way width requirements are different (i.e., greater) in urbanized areas due to the potential for development in close proximity to high voltage lines.

Response:

The required utility corridor easement per PAR Electric will be a minimum of 50 feet in width for transmission line Segment 1. Segment 1 is to be constructed within an unimproved rural setting. Please see Figure DR-41A. The utility corridor easement's width of 50 feet is consistent with applicable transmission line right-of-way requirements for rural and urban areas.

Data Request 43:

Would the 200 X 200 feet of disturbance for each pole foundation be temporary or permanent disturbance (i.e., for maintenance activities)?

Response:

There will be a 50 foot radius (100 foot diameter) work area around each pole used for temporary easement and ground disturbance. The pole base/foundation will be an approximately six foot radius (12 foot diameter) concrete slab and will be a permanent disturbance.

Data Request 44:

Please specify approximately how many pulling sites would be required along the entire 35.6 miles of transmission line right-of-way.

Response:

There will be a total of 23 pull-sites (each approximately 100 feet wide by 200 feet long).

Data Request 45:

Please specify the total amount of land disturbance (in acres) resulting from each pulling site.

Response:

Approximately 10.5 acres of land will be disturbed. ((23 sites x 100 ft x 200 ft) / 43,560 sq ft/acre)

Data Request 46:

Please specify the location and size (in acres) of the construction laydown and worker parking area for Segments 1 and 2 of the 35.6-mile transmission line.

Response:

Area 1: North side of Avenue M between Pole # 6 and Pole # 7 (Segment 1) – 1 acre.
Area 2: East side of 126th St. E between Pole # 171 and Pole # 173 (Segment 1) – 3 acres.
Area 3: South of SCE ROW between Pole # 84 and Pole # 85 (Segment 2) – 0.5 acre.

Data Request 47:

For Segment 2, please provide the following information:

a. Specific data on the SCE transmission line (i.e., name and voltage) currently existing in the right-of-way that would be used for Segment 2;

b. The width (in feet) of the existing SCE right-of-way between Pearblossom and Vincent Substations;

c. Clarification as to whether there is sufficient room in the existing SCE right-of-way to accommodate the siting of a new 230 kV transmission line on tubular steel poles for 11.9 miles;

d. If not, a description of how much additional width (in feet) would be required to accommodate the 230 kV transmission line in Segment 2;

e. Indication as to what entity would own and operate the transmission line; Note that if the transmission line is not SCE-owned and operated, it would not be sited within an SCE right-of-way but rather would be sited in an adjacent right-of-way;

f. If the 230 kV transmission line is sited in an adjacent right-of-way to the existing SCE right-of-way, describe the land that would need to be acquired to accommodate the line.

Response:

a. While viewing west from Latitude N34°30'36.0" and Longitude W117°59'34.1" the H-Frame is in the third position from the right and is referred to as the Pearblossom line H-Frame SCE # 75. While viewing west from Latitude N34°36'48.7" and Longitude W117°56'42.1" the H-Frame is in the first position from the right and referred to as Pearblossom H-Frame # 96JCB.
b. The width of the SCE Pearblossom to Vincent Corridor is approximately 840 feet.
c. For Segment 2, there is sufficient room in the existing SCE right-of-way to support the construction and operation of the proposed transmission line. Per PAR Electric Inc. (transmission line consultant/constructer) there is sufficient room to inlay steel poles next to the existing Pearblossom H-frames. After the new poles are installed and strung with new conductors, the remaining unused H-Frames will be removed. According to PAR Electric, there is sufficient room available to perform this effort.
d. There is sufficient ROW to perform this Pearblossom line Segment 2 upgrade.
e. This line will continue to be owned and operated by SCE.
f. The PHPP line Segment 2 will fit in the current H-Frame ROW.

Data Request 48:

For both Segments 1 and 2 of the transmission line, please provide the following information:

a. A description of how the applicant (i.e., the city) intends to obtain the rights-of-way needed for siting of the 35.6 miles of transmission line;

b. A description of any applicant plans to purchase lands through which the transmission line right-of-way would traverse, or to obtain easement agreements for the right-of-way;

c. If land needs to be purchased for siting of the transmission line, a schedule for when purchase agreements would be executed to ensure that the transmission line right-of-way has been obtained;

d. If the applicant intends on entering into easement agreements for the right-of-way, a schedule as to when these agreements would be in place;

Response:

The following response addresses all items a-d above. As discussed in the response to Data Request 39, the City will acquire a new utility corridor easement for Segment 1. The entirety of Segment 2 will be located in the existing SCE right-of-way. The utility corridor easement for

Segment 1 will be acquired by the City following CEC project approval, when project funding is secured. The City will utilize the standard process for acquisition of easements, as set forth in State law and the City's Municipal Code, and as appropriate to ensure fair and equitable business practices. Initially, the City will seek to acquire the necessary easement interests through purchase offers, based on appraised values. In the event that property owners are unwilling to negotiate and all other options have been exhausted, the City will utilize its eminent domain authority to acquire the necessary areas for the utility corridor easement.

Segment 1 will require that the City acquire a new utility corridor easement for its entire length from the plant site to the point where it enters the existing SCE ROW at the Pearblossom substation. There are approximately 230 parcels that will potentially be affected by the placement of Segment 1 of the transmission line. The parcels to be affected are shown on a map, "Power Project Transmission Line Route – Transmission / APN Map," provided at the end of this section. The map was developed by combining data layers from several different sources and the Applicant has made a concerted effort to accurately reflect the data provided. However, historical parcel data have been known to contain errors and omissions. As such, it is recommended that this representation be used as a general reference of parcel locations along the proposed transmission line route.

Segment 2 is proposed to use the existing SCE ROW from the Pearblossom Substation to the Vincent substation. Putting the new poles in this easement will be arranged with SCE.

Data Request 49:

Please specify the locations and distance along the 35.6-mile transmission line right-of-way of lands to be purchased vs. lands that would be leased for easement.

Response:

Directly adjacent to and parallel with the street ROW, the City will acquire a utility corridor easement for the entire length of transmission line Segment 1 as described in Response 41a. The remaining 11.9 miles (transmission line Segment 2) will be placed in existing SCE-owned ROW.

PRELIMINARY
Not For Construction

FIGURE 41–A, SEGMENT 1
TYPICAL CITY/ACCESS/SPUR ROADS R/W & EASEMENT FOR SINGLE CIRCUIT T–LINE

NTS

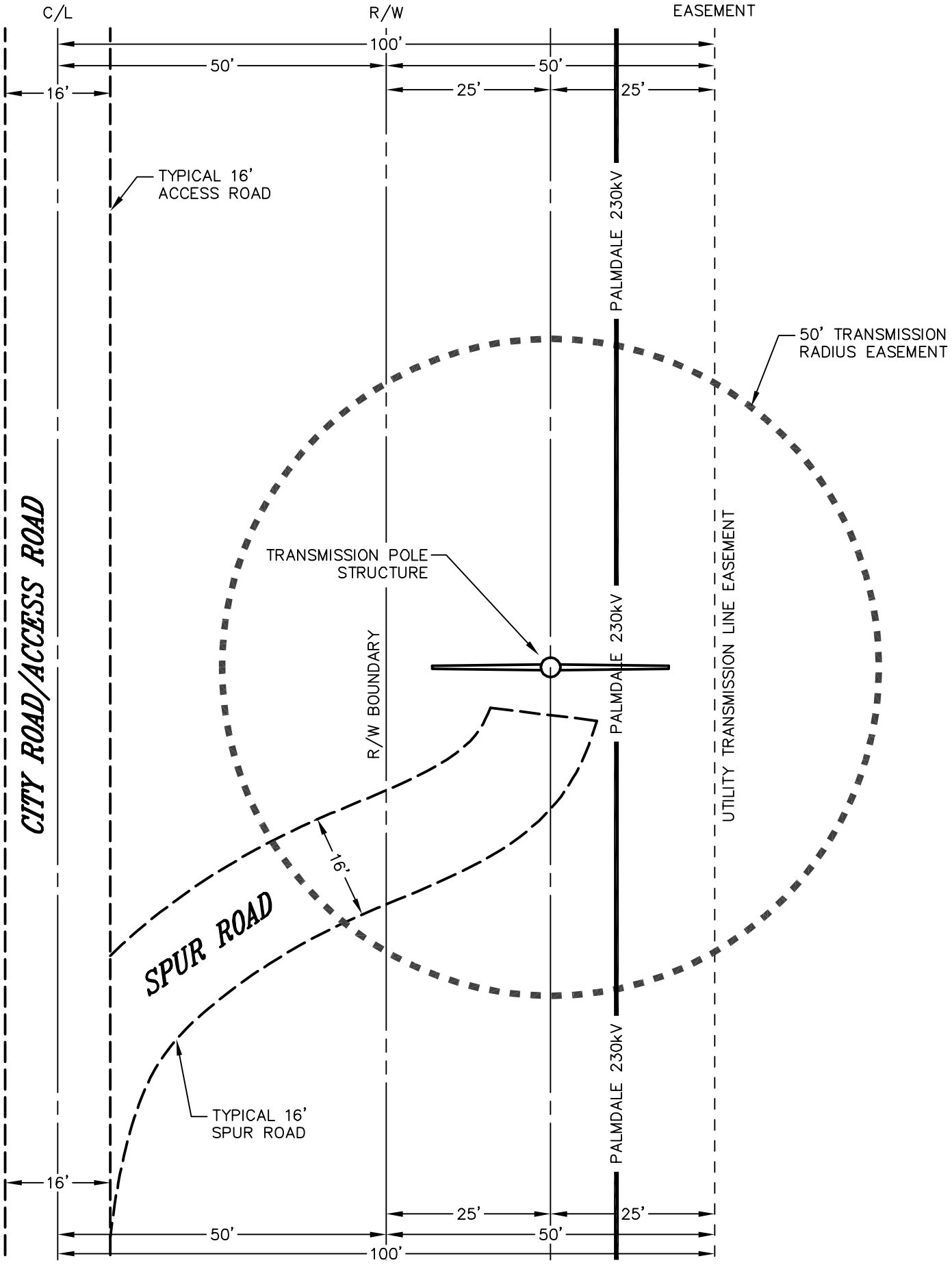
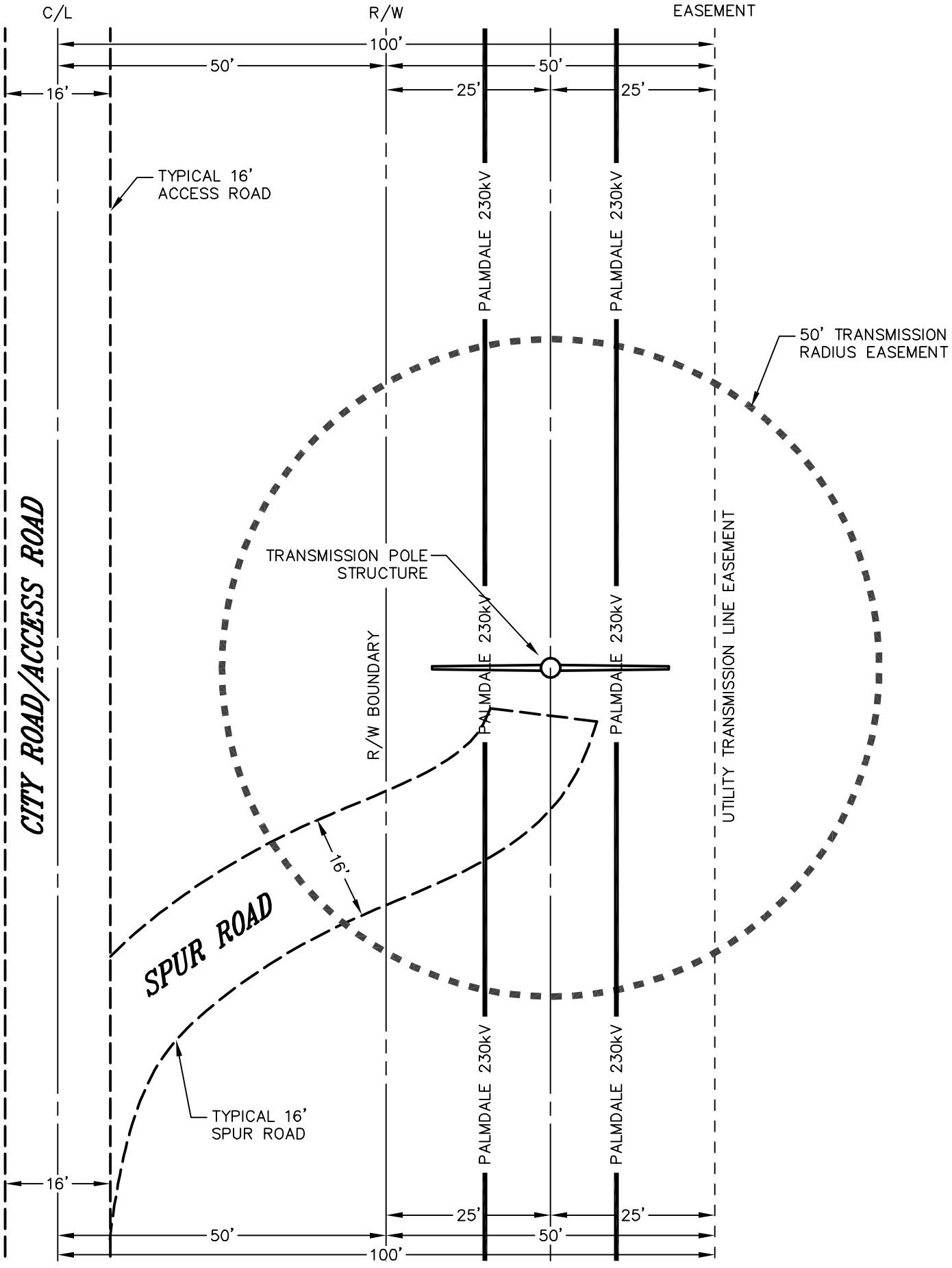


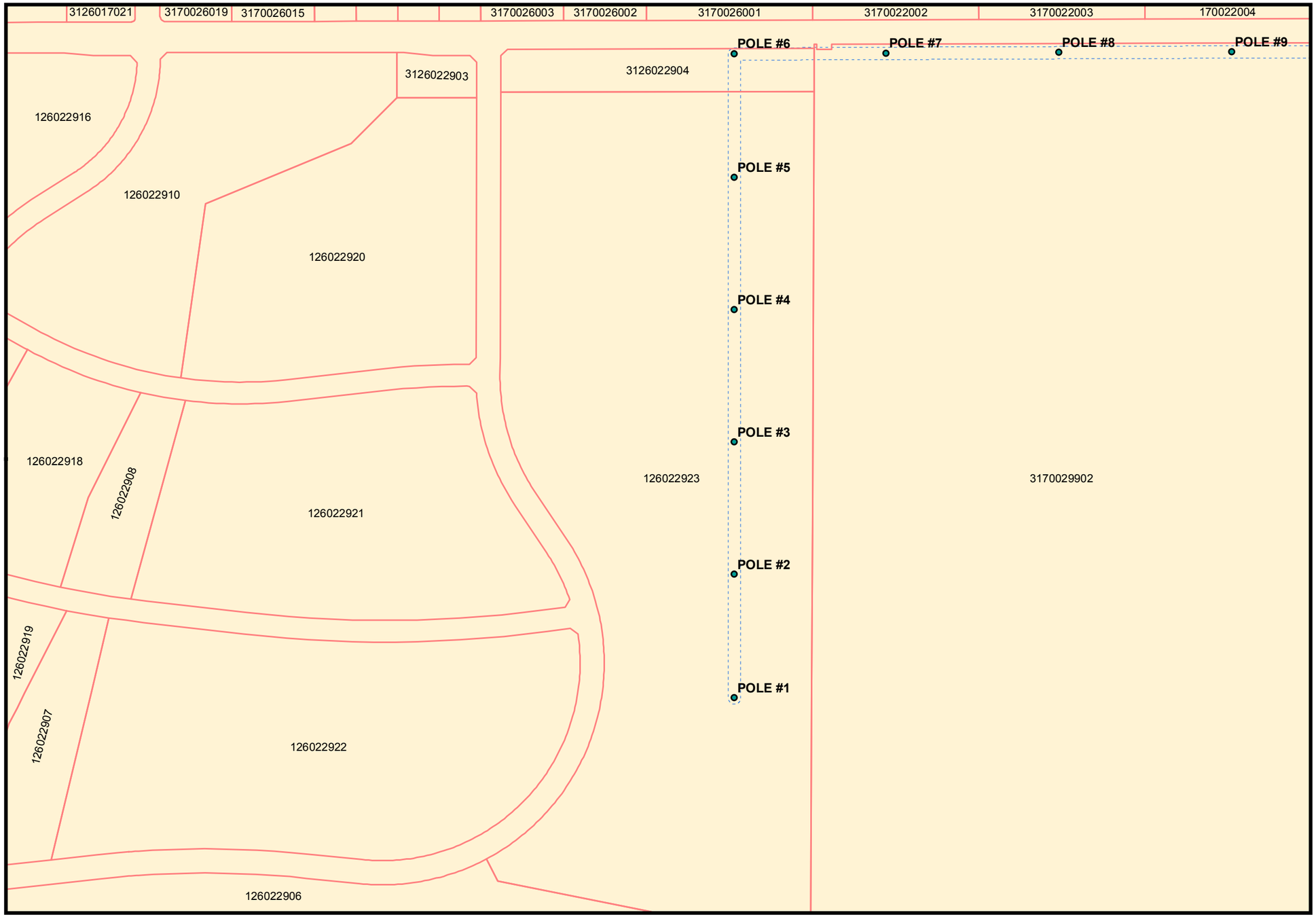
FIGURE 41–B, SEGMENT 2
TYPICAL CITY/ACCESS/SPUR ROADS R/W & EASEMENT FOR DOUBLE CIRCUIT T–LINE
NTS

PRELIMINARY
Not For Construction



Palmdale Hybrid Power Project Tline Route

Transmission / APN Map



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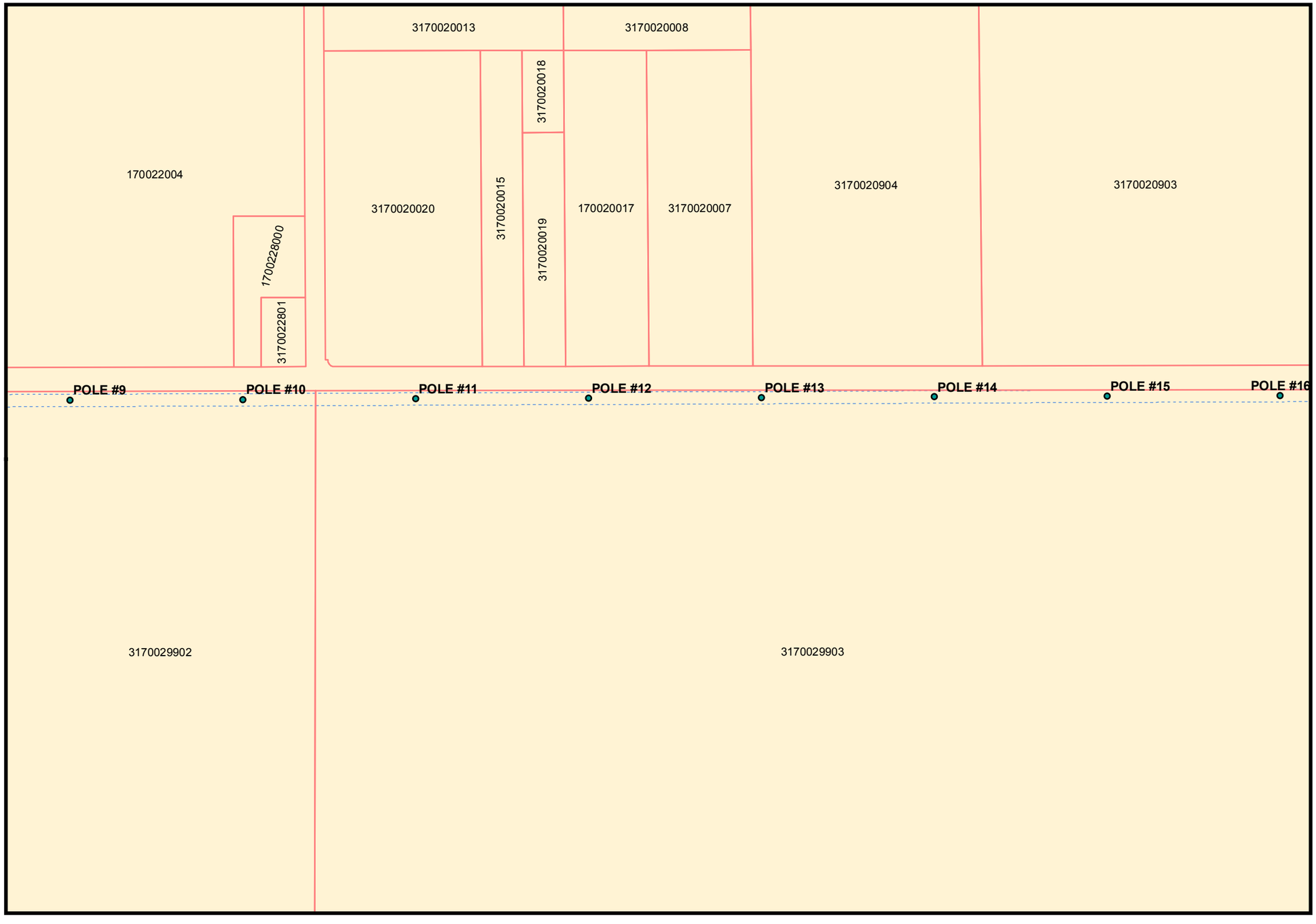

Palmdale Hybrid Power Project Tline Route

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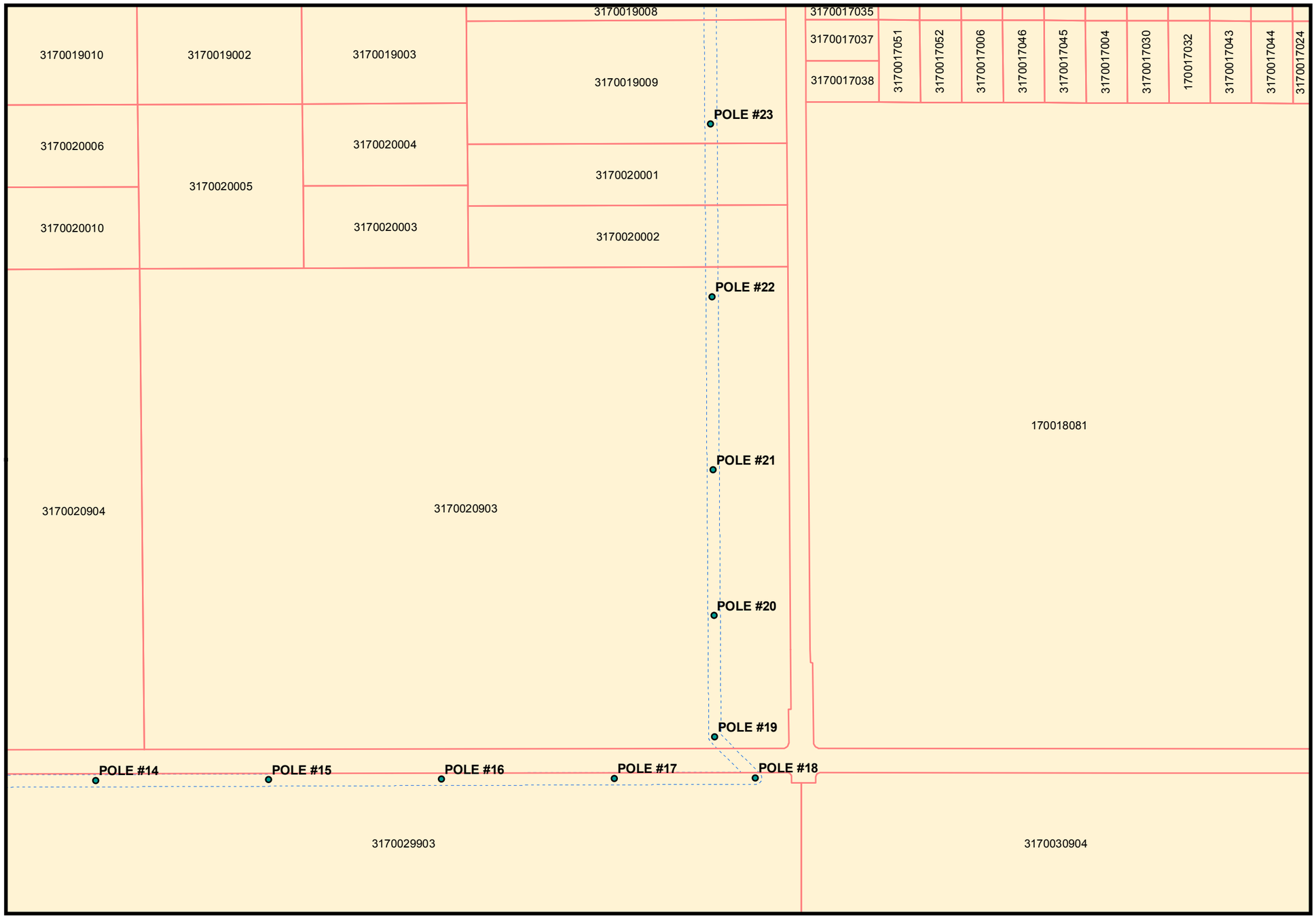
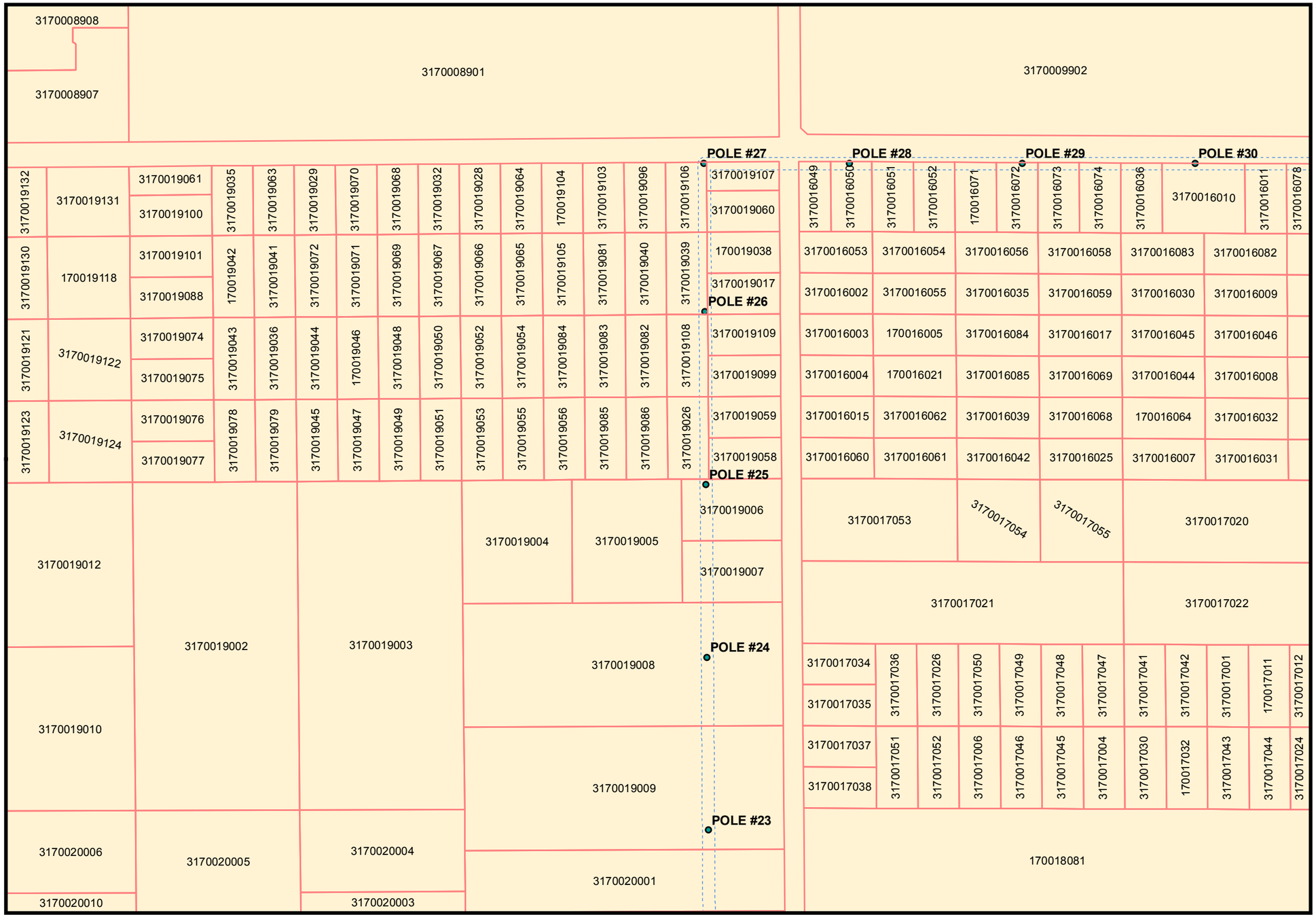


Palmdale Hybrid Power Project Tline Route

Transmission / APN Map



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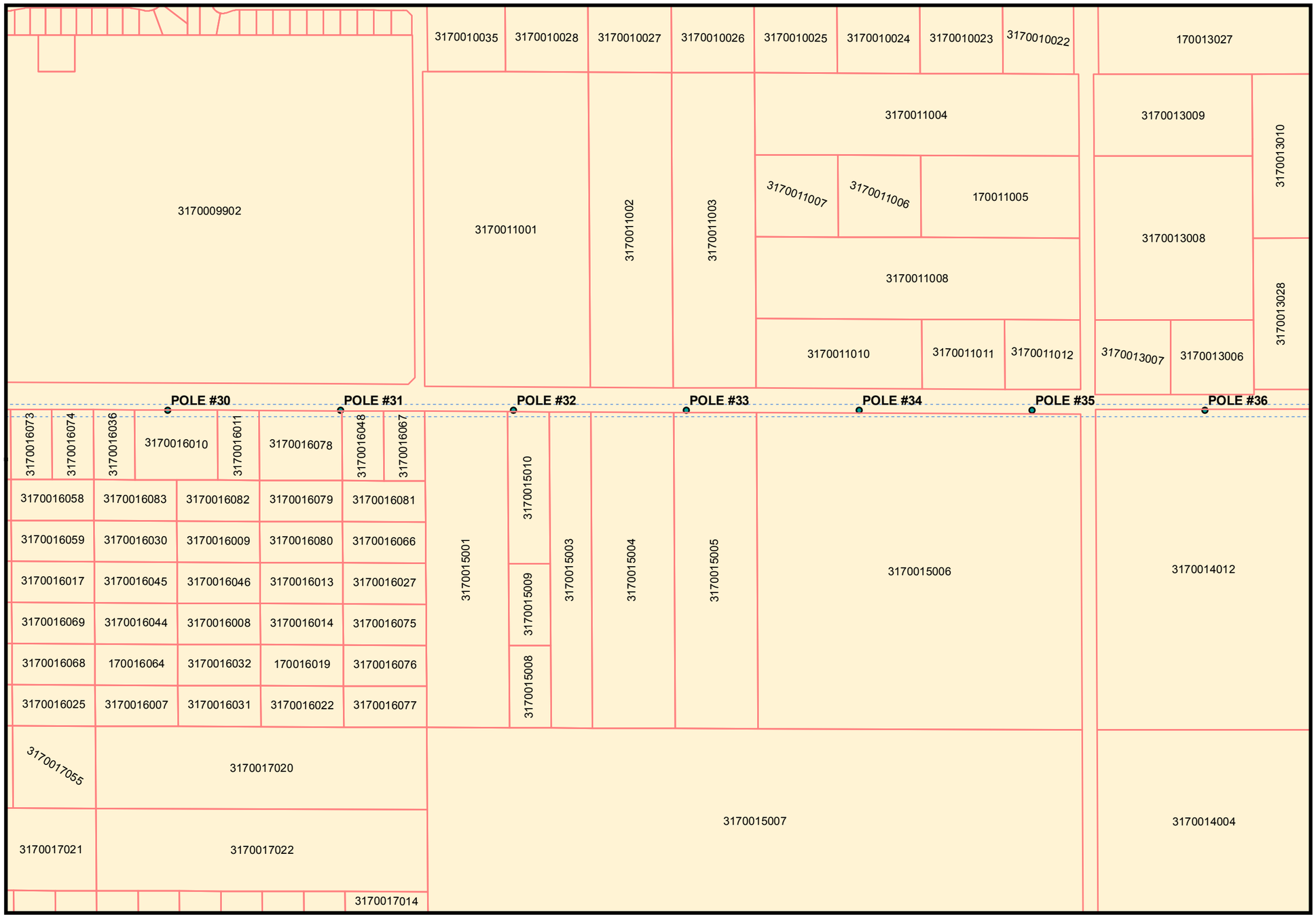

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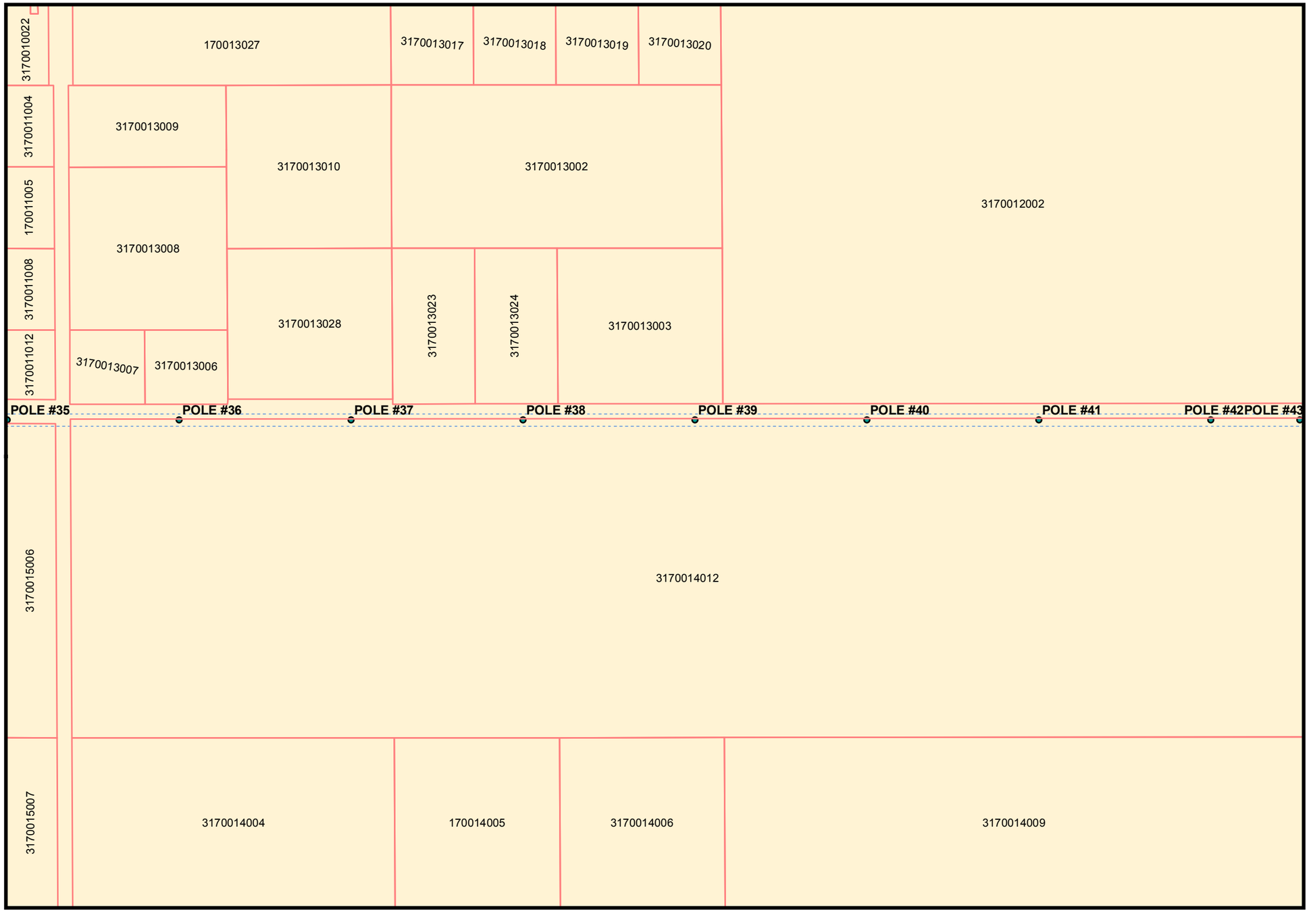

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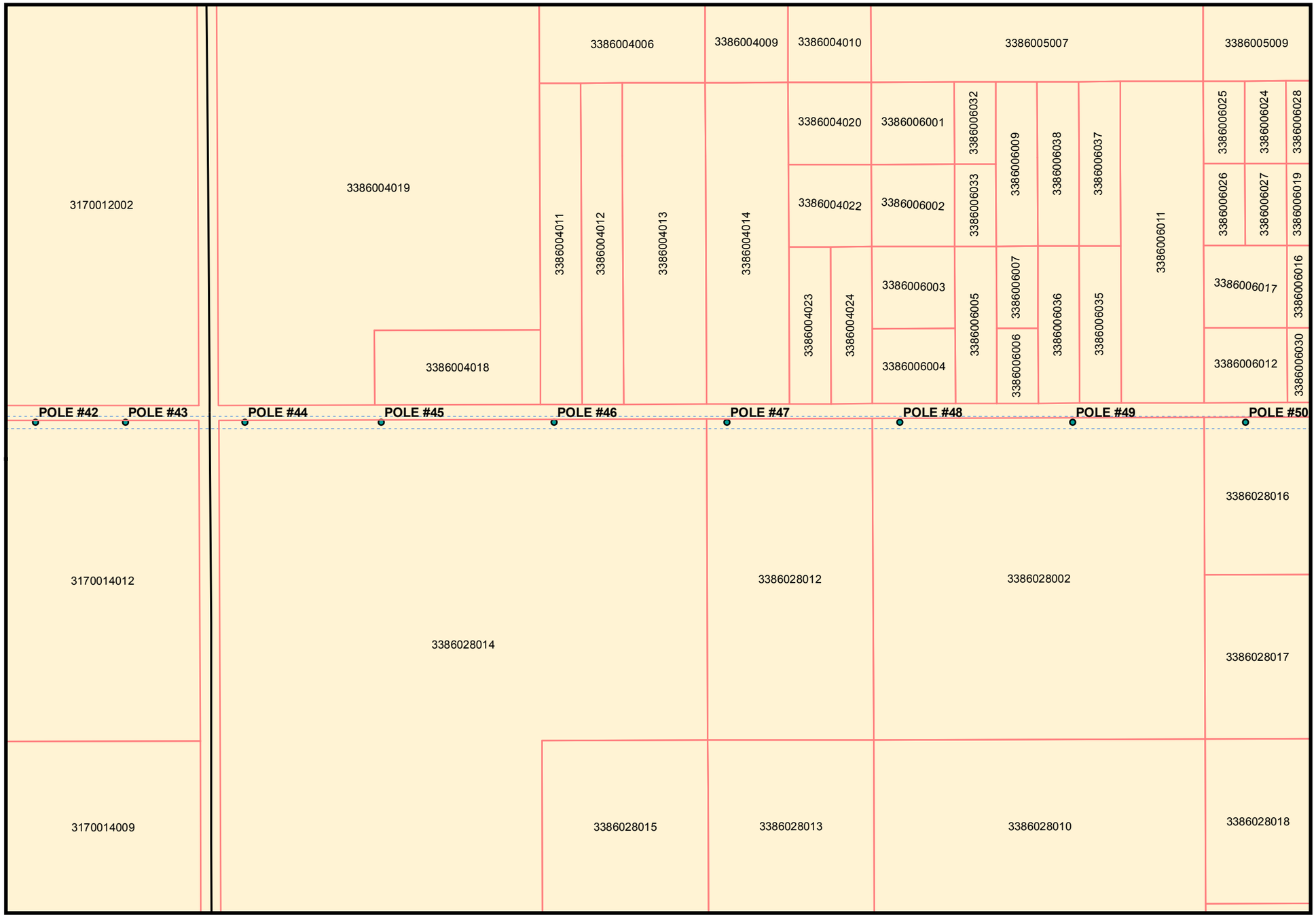

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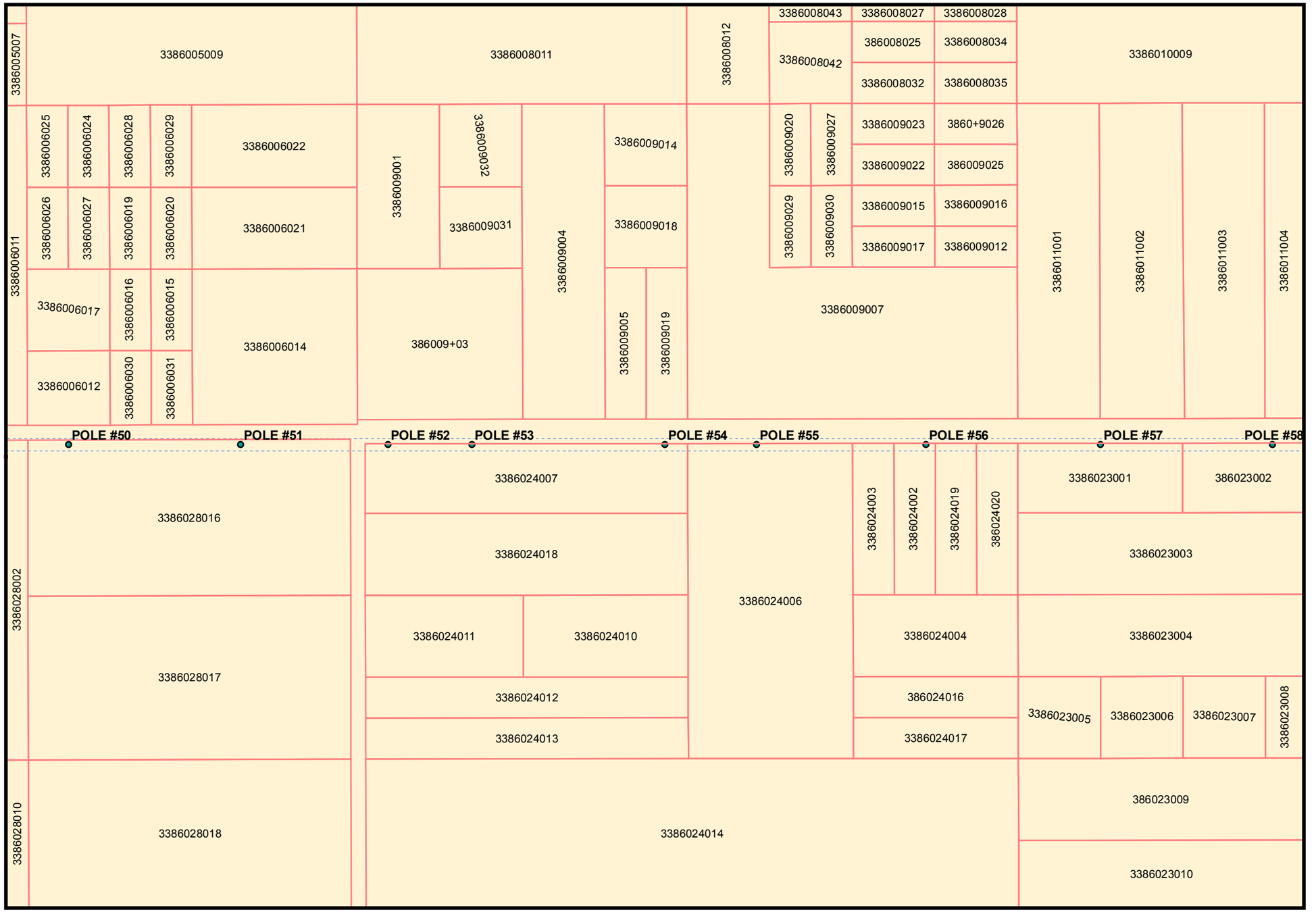

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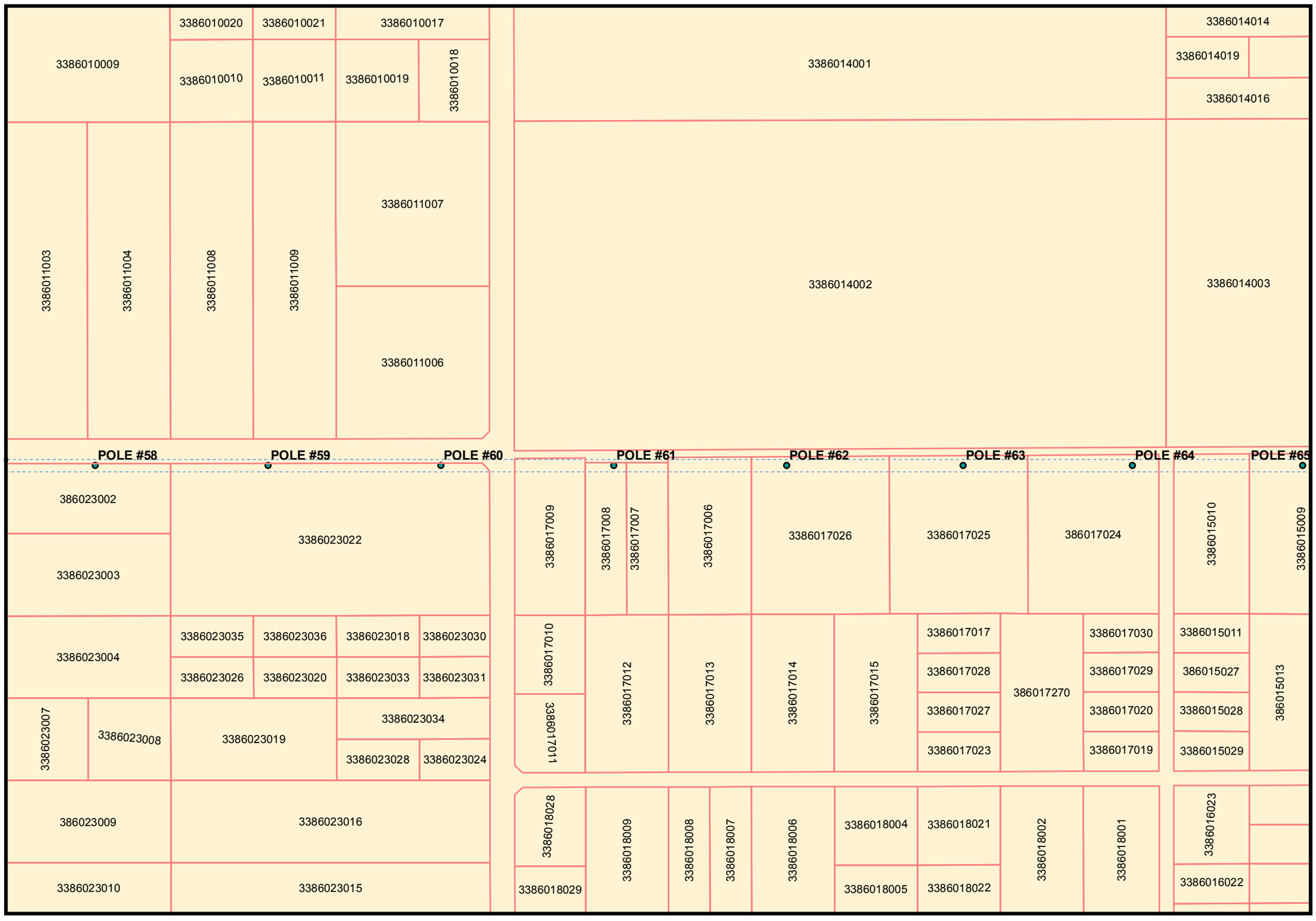

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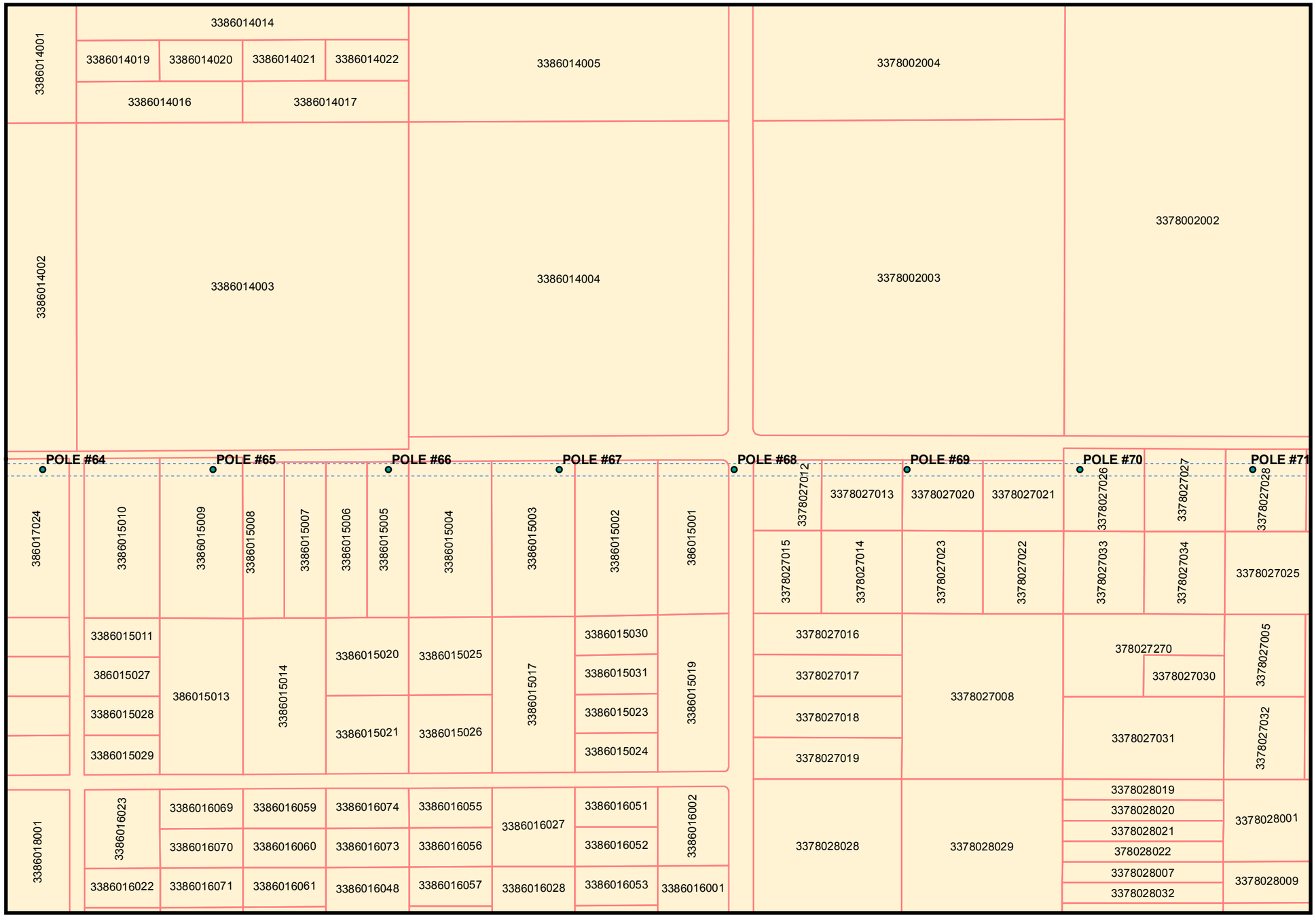

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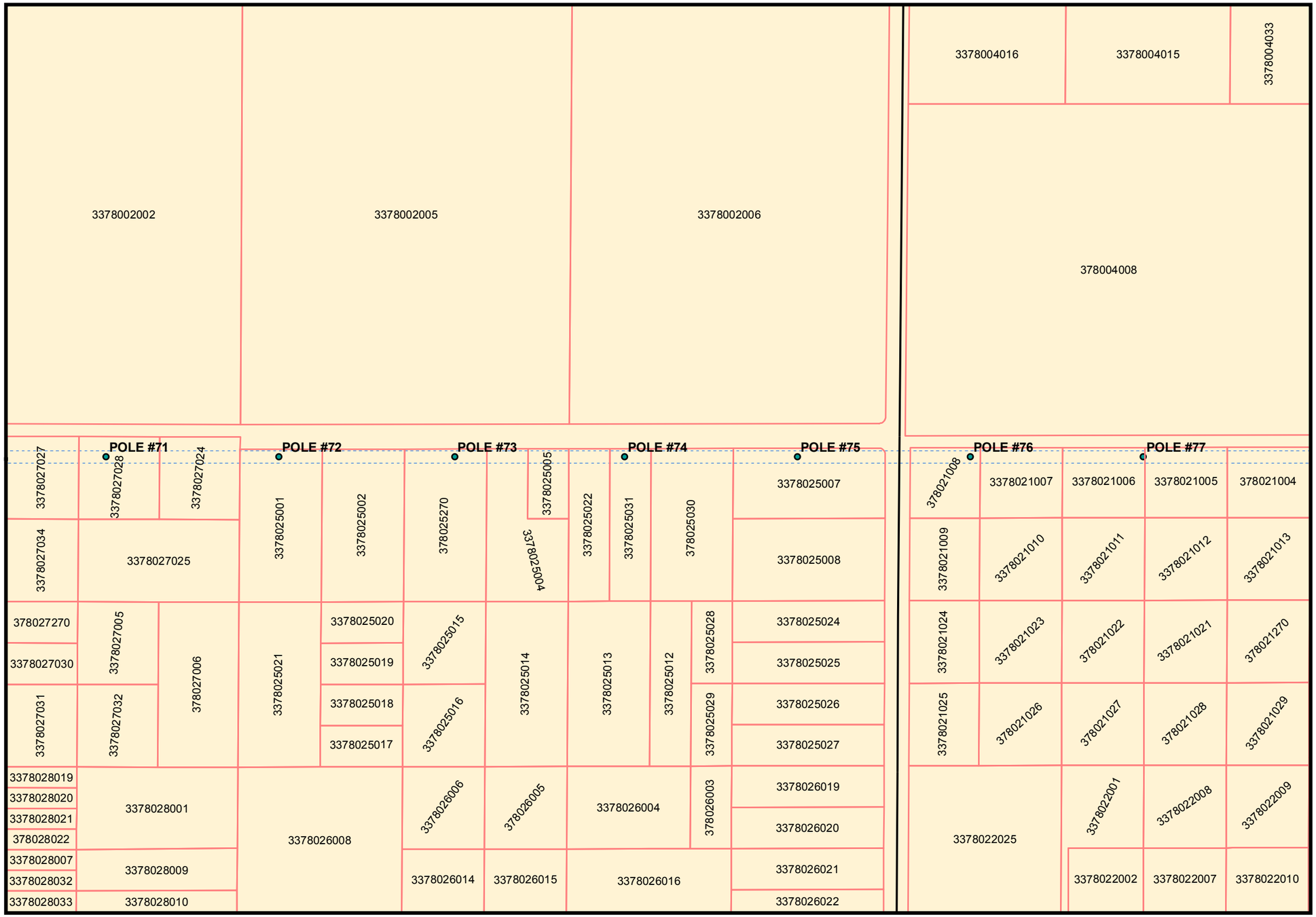

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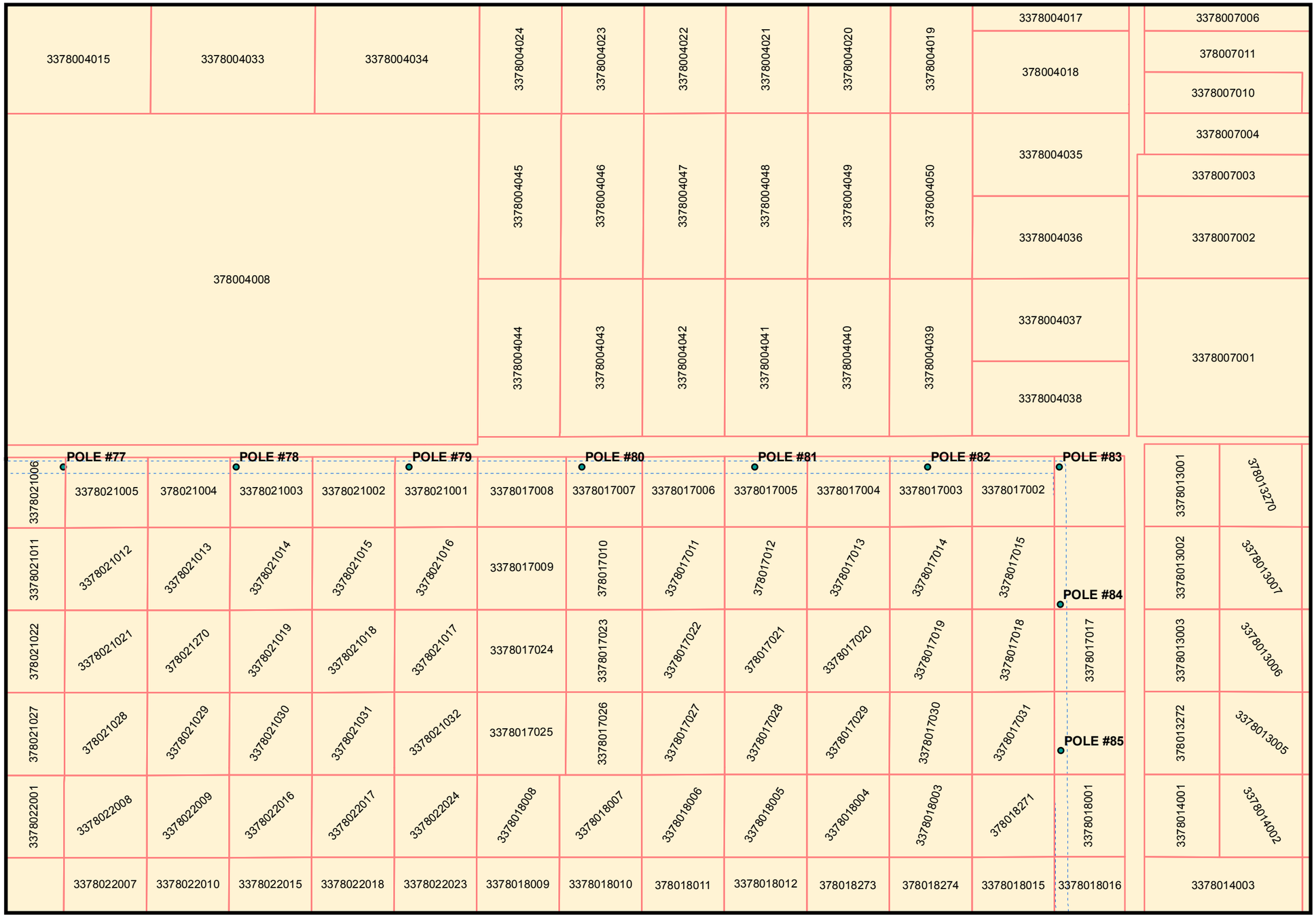

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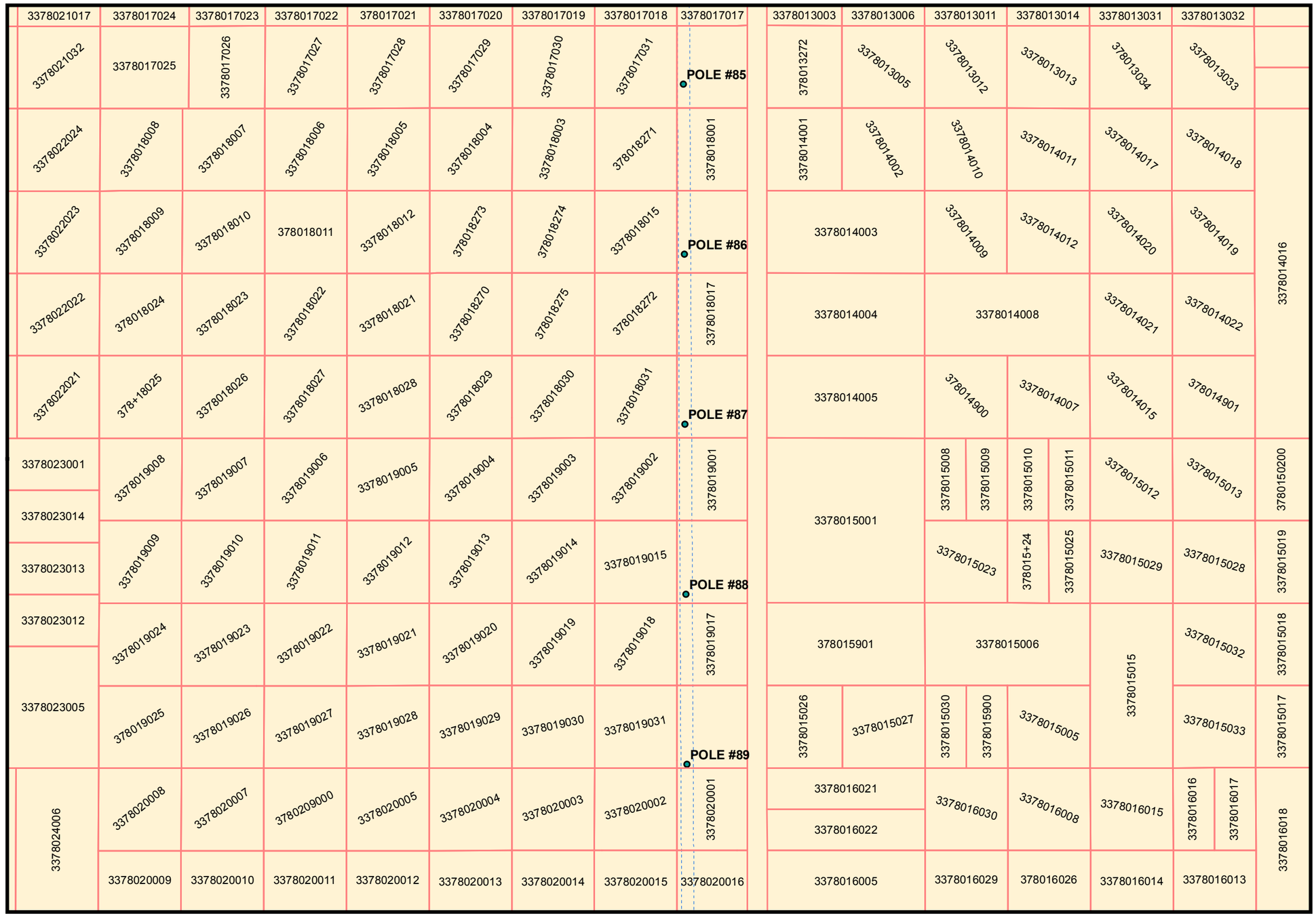
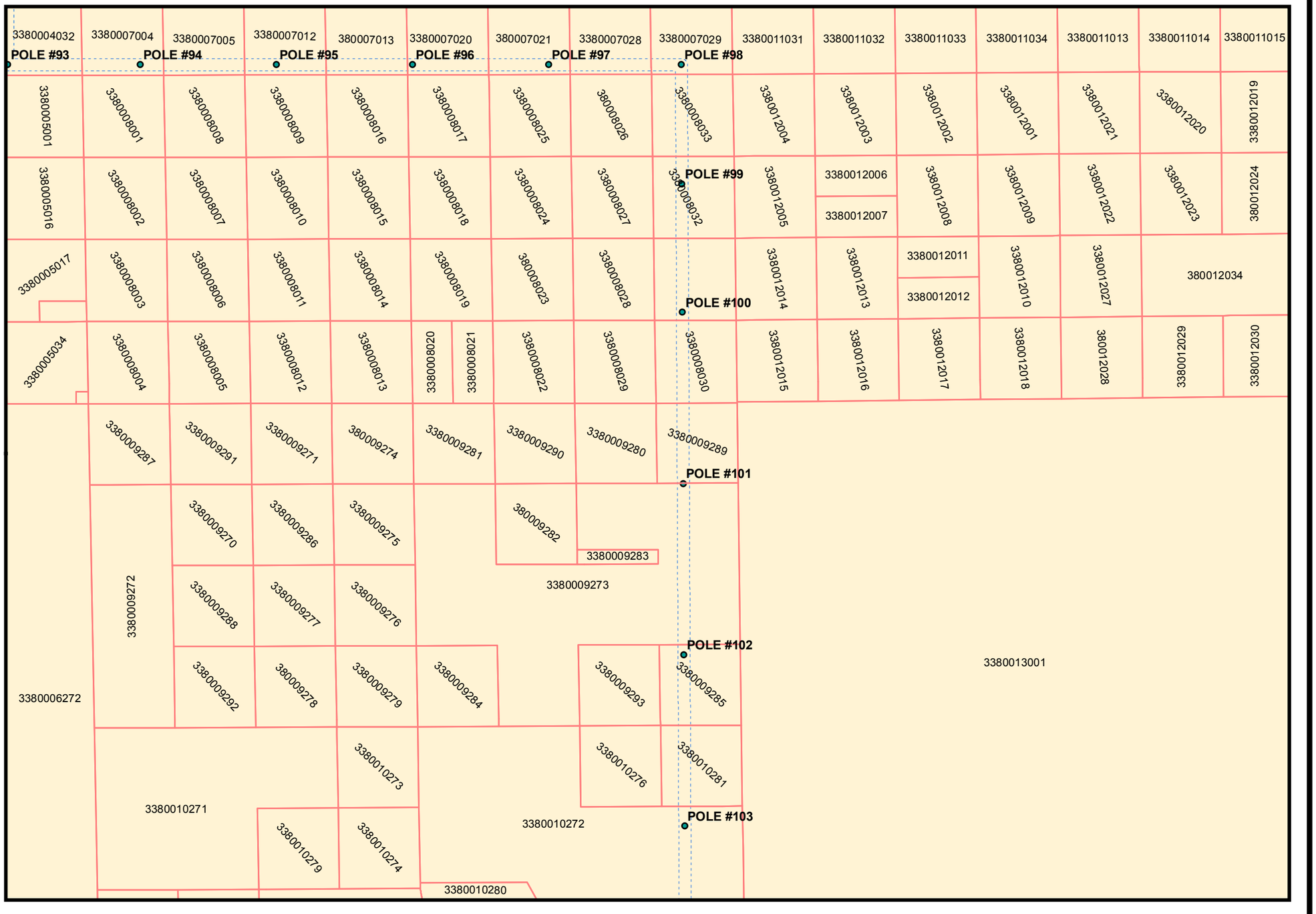


Palmdale Hybrid Power Project Tline Route

Transmission / APN Map

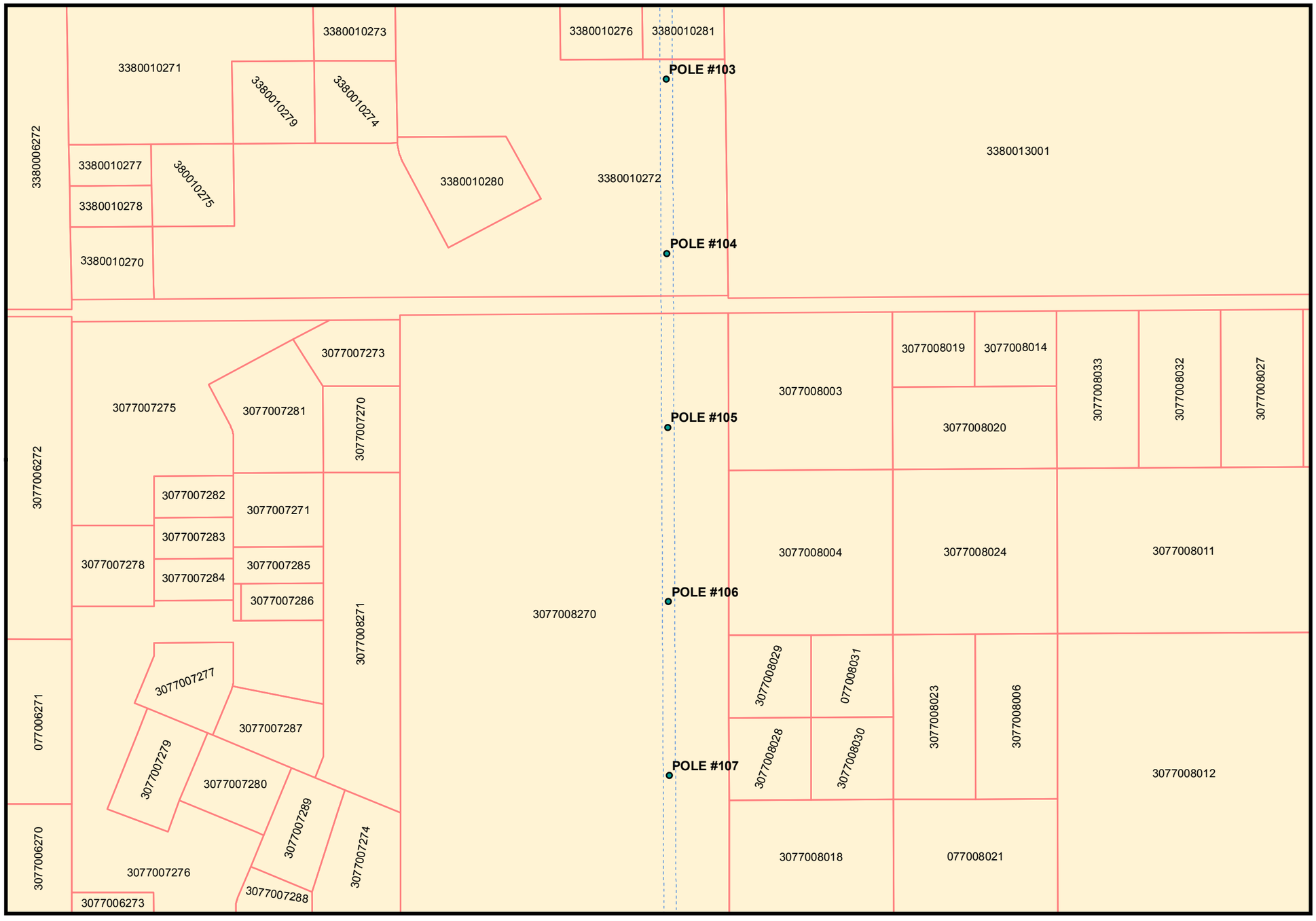
Palmdale Hybrid Power Project Tline Route

Transmission / APN Map



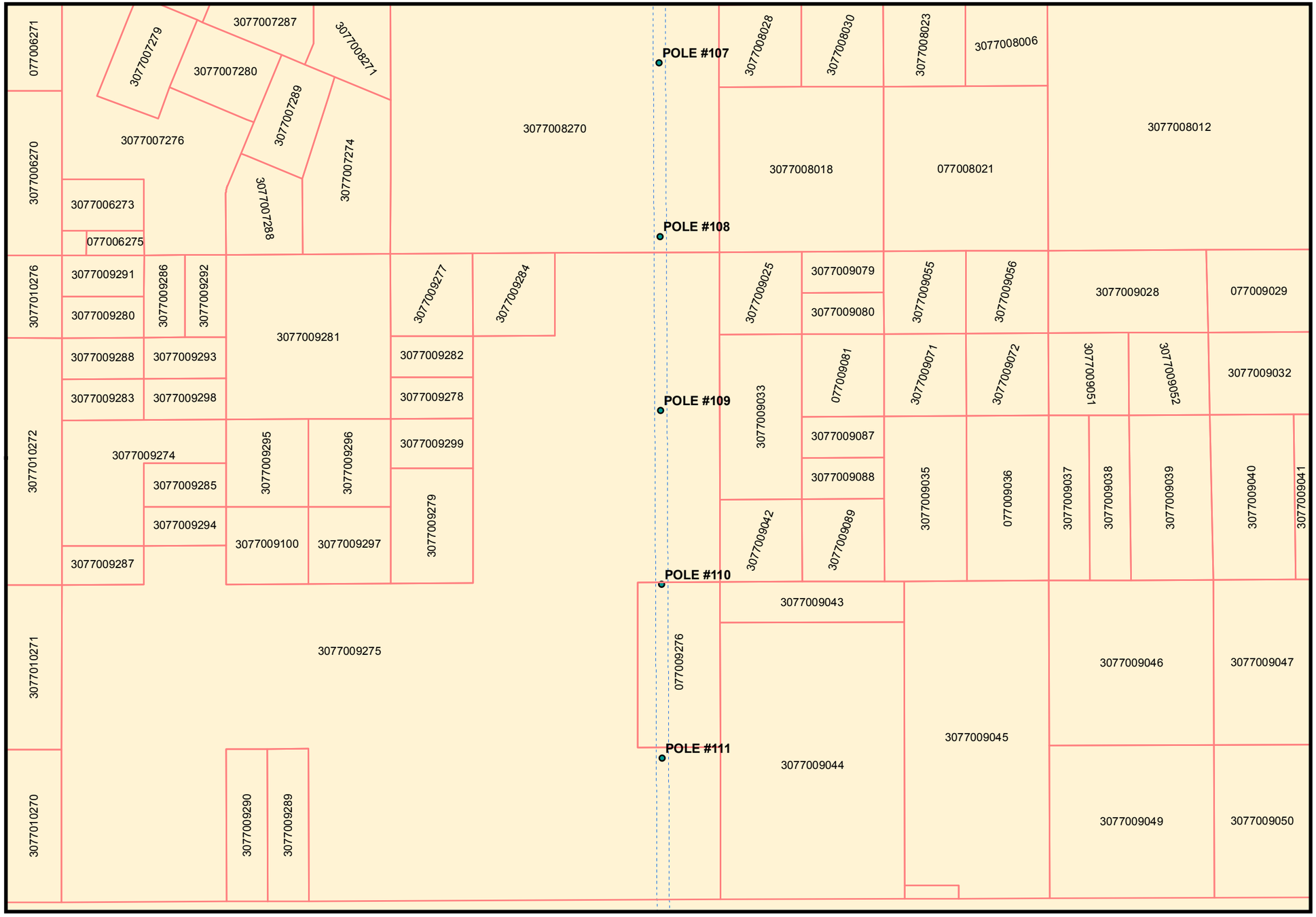
Palmdale Hybrid Power Project Tline Route

Transmission / APN Map



Palmdale Hybrid Power Project Tline Route

Transmission / APN Map



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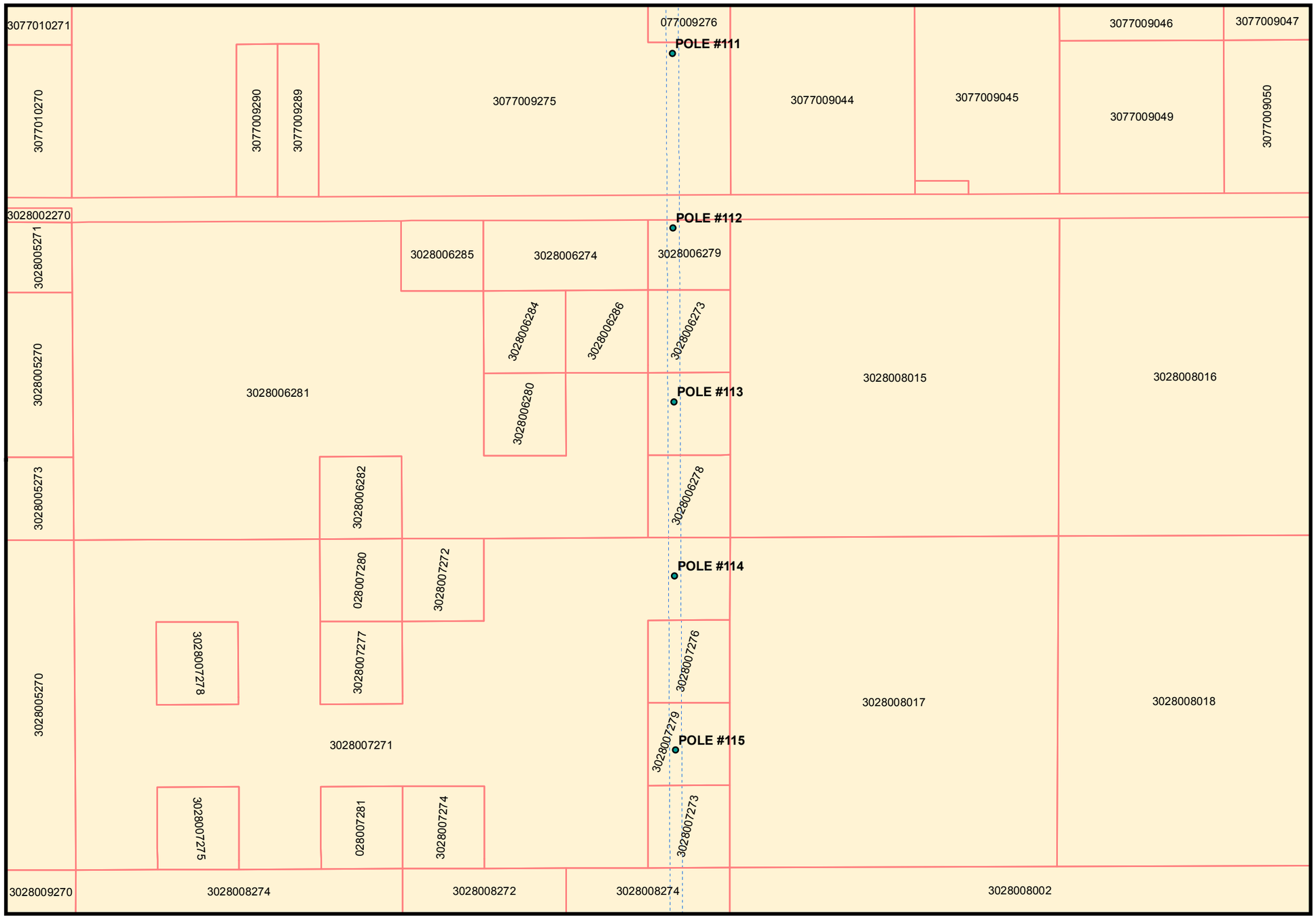

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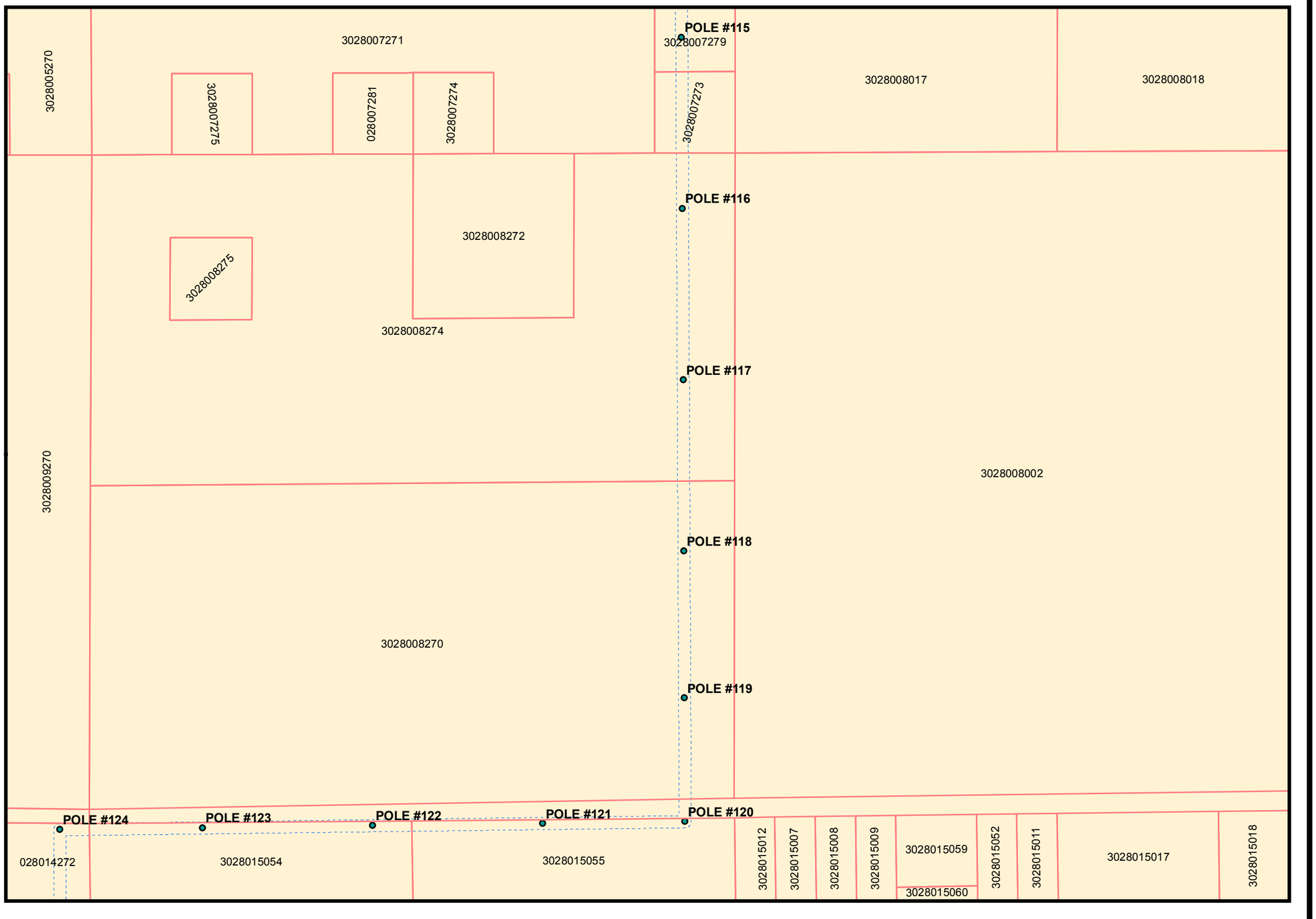

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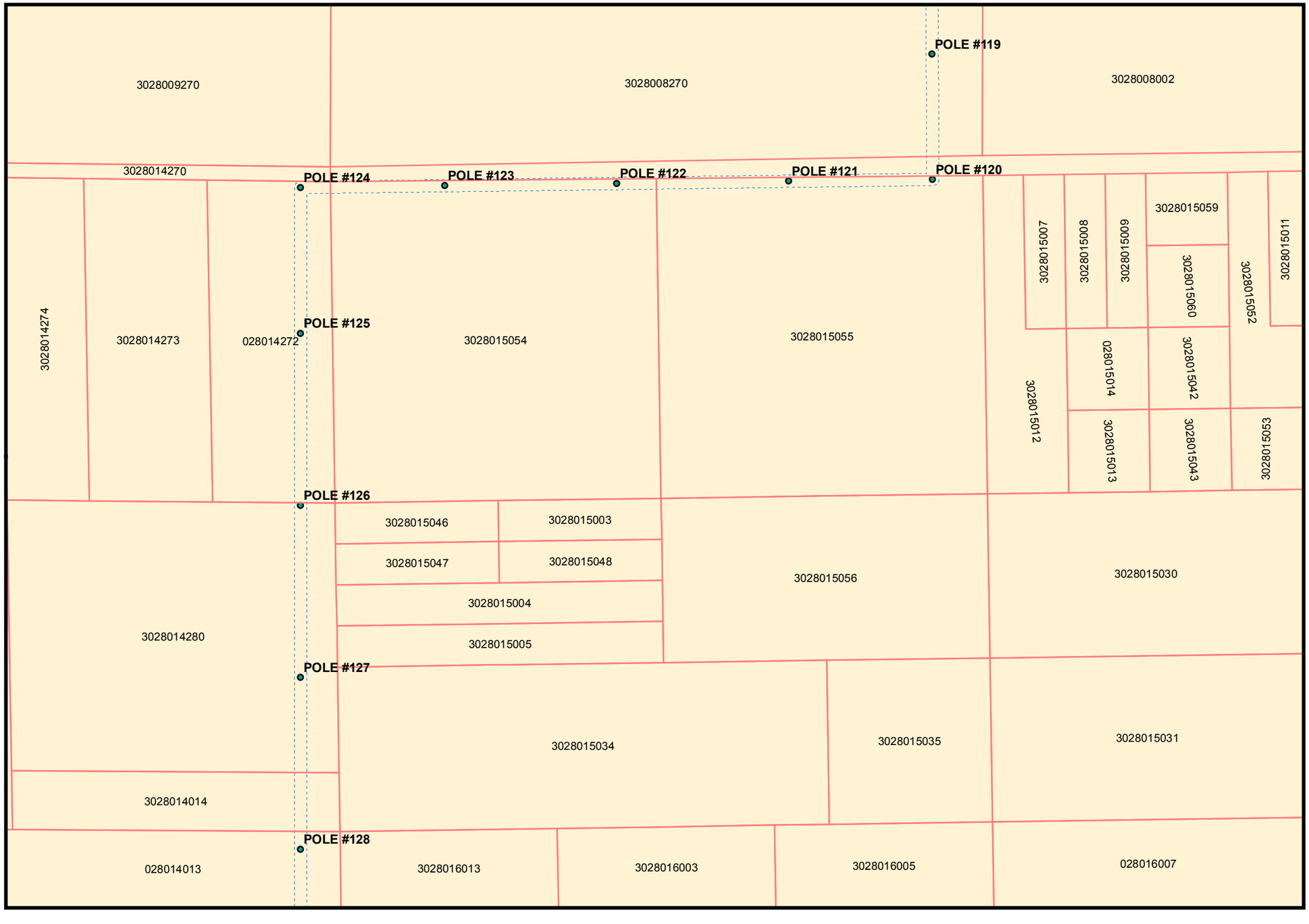

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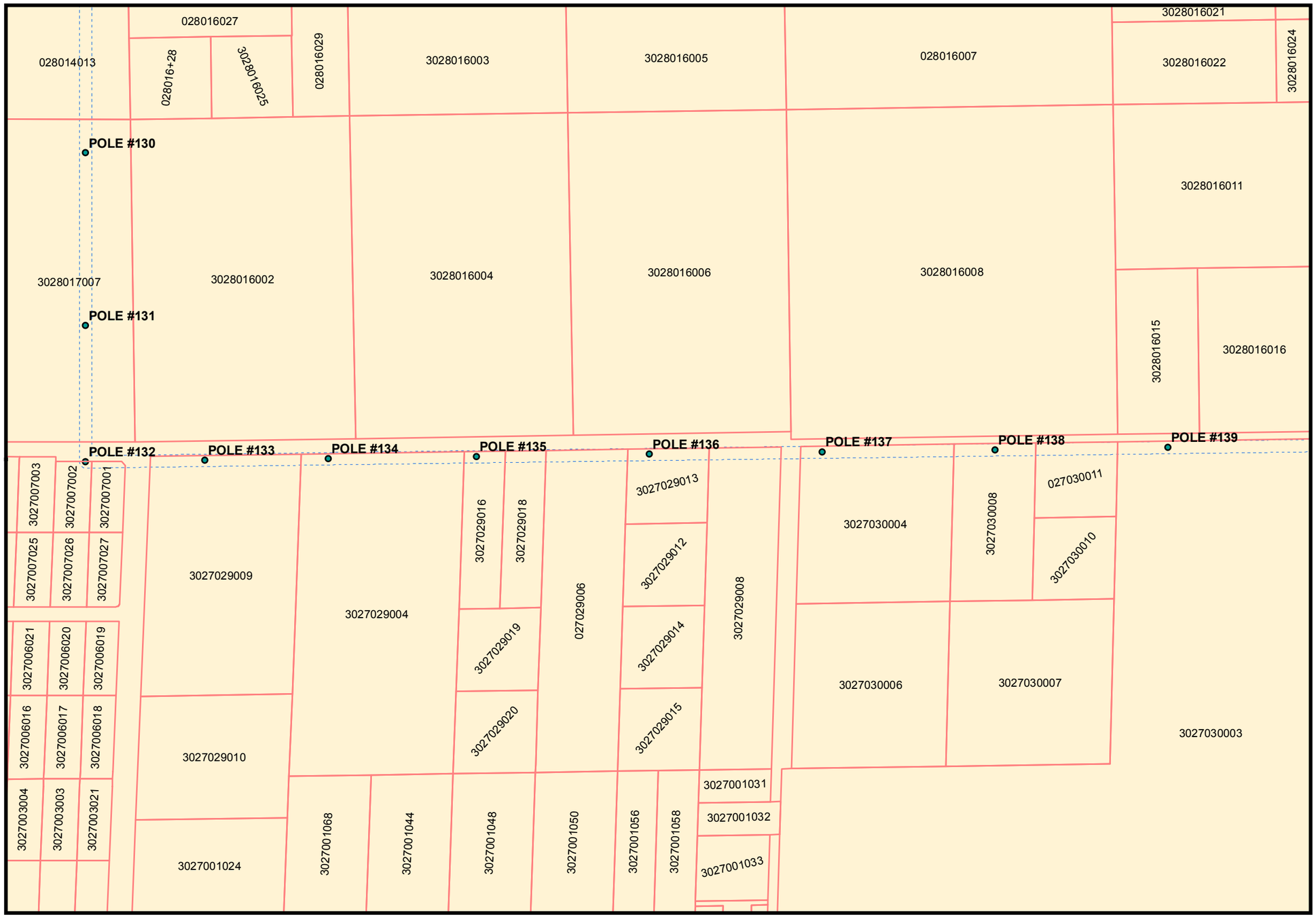

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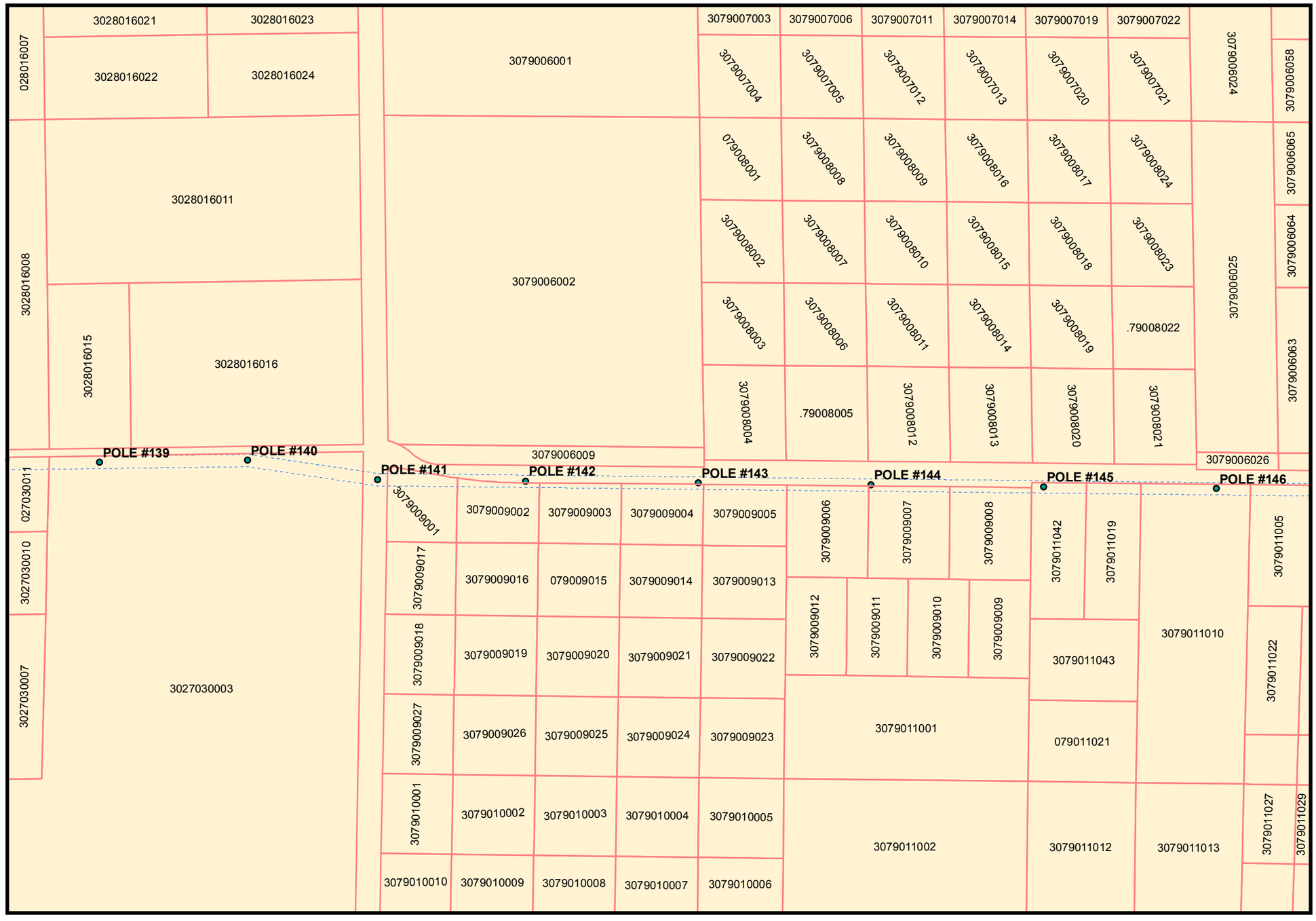

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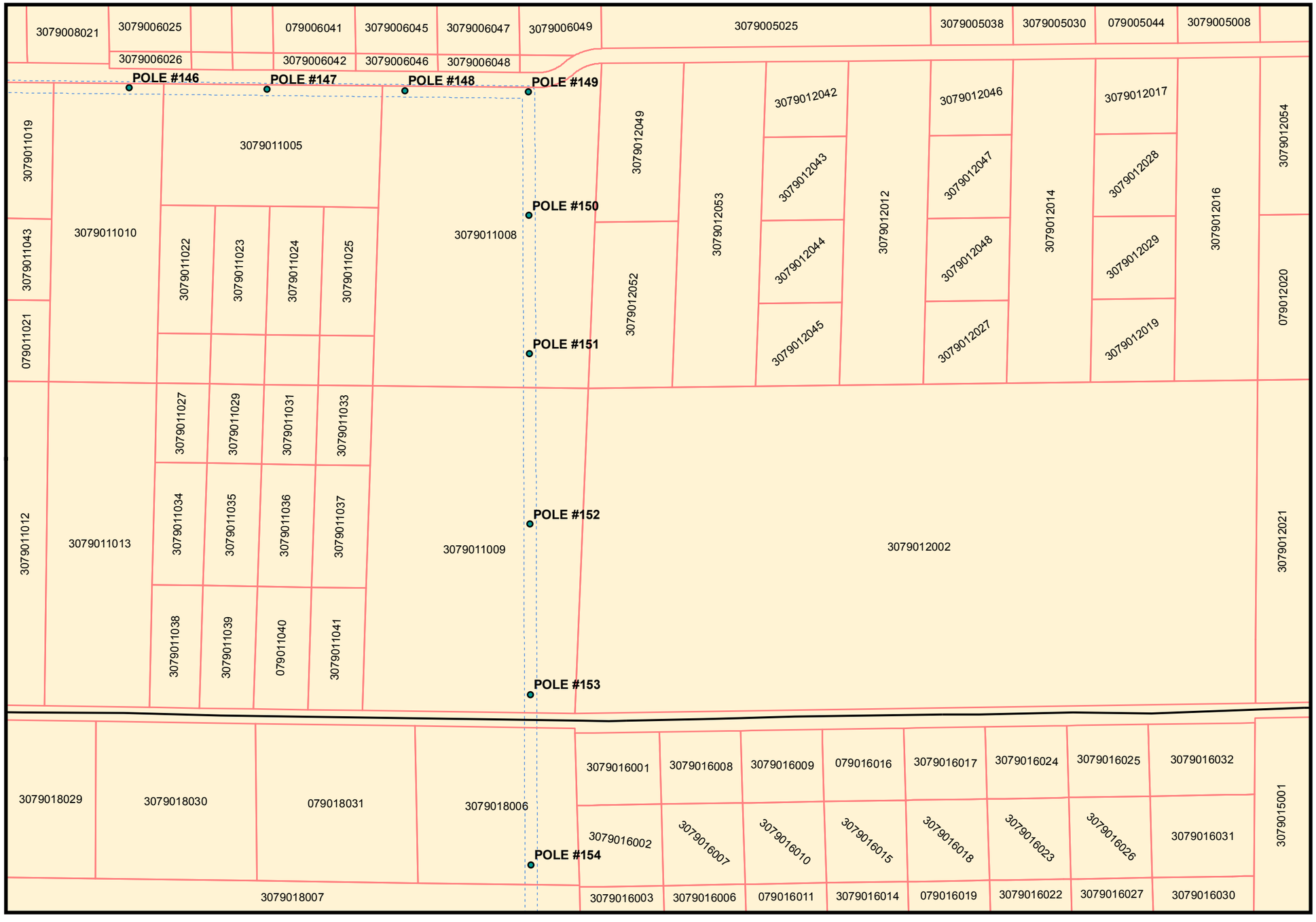

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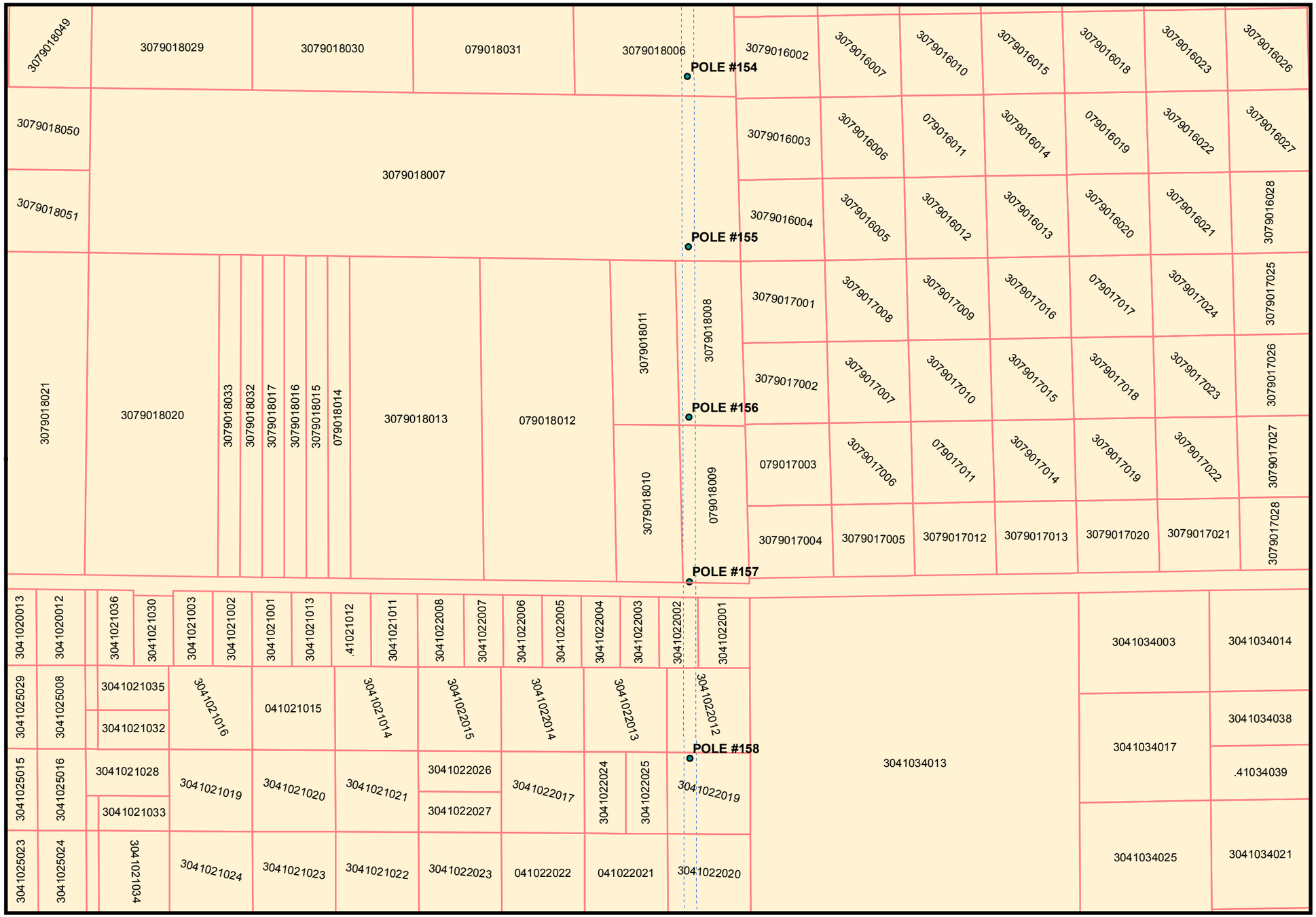

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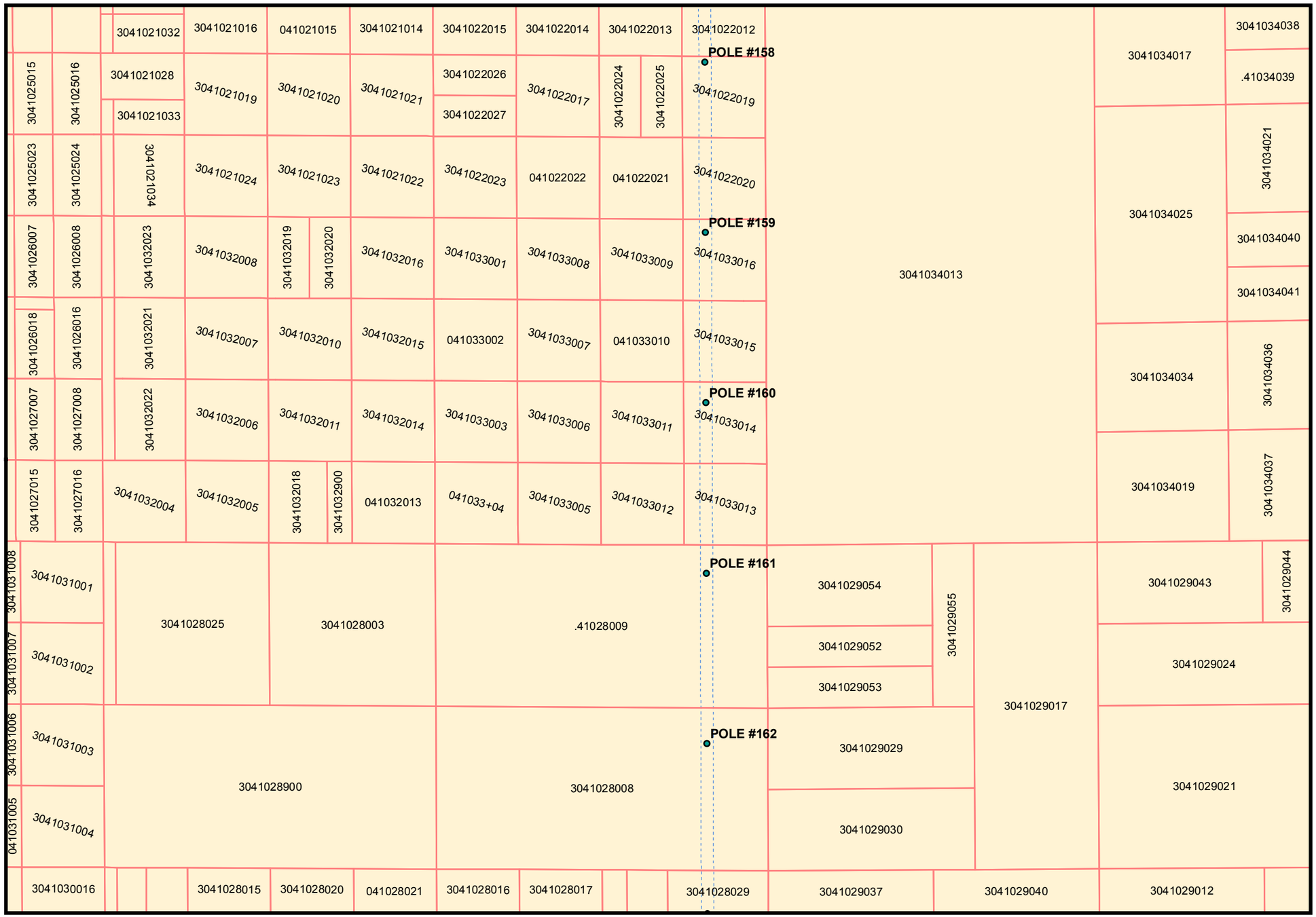

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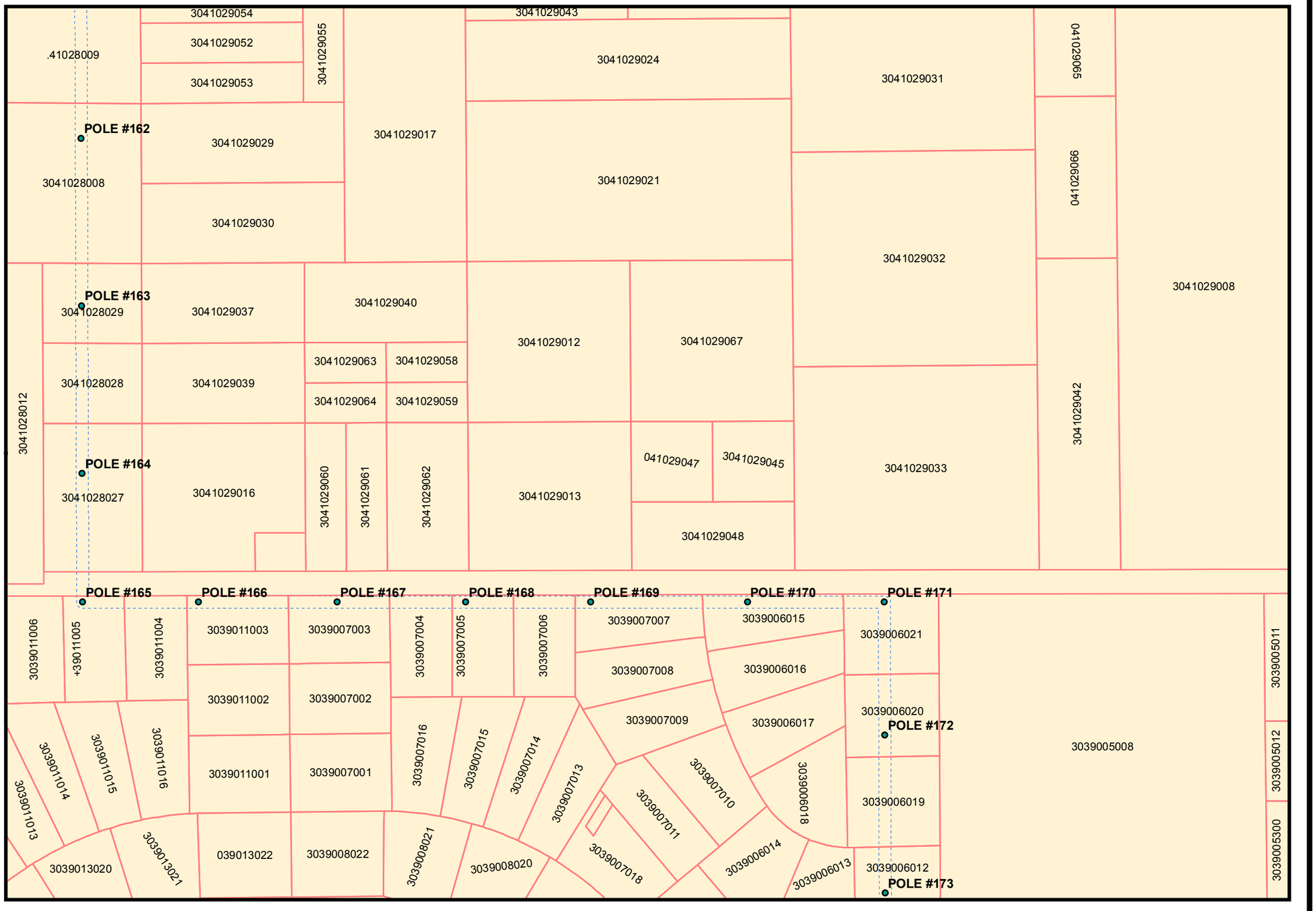

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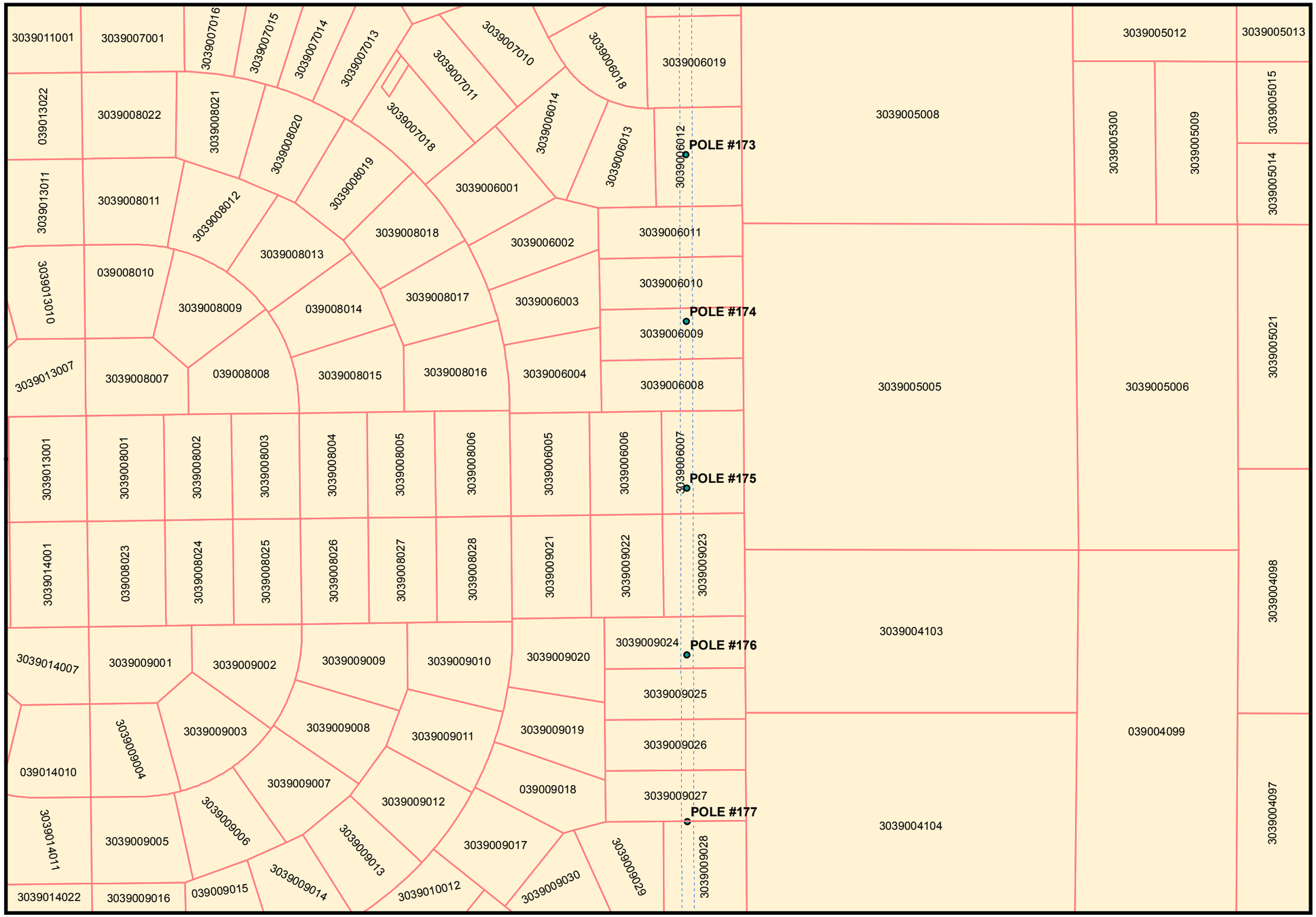

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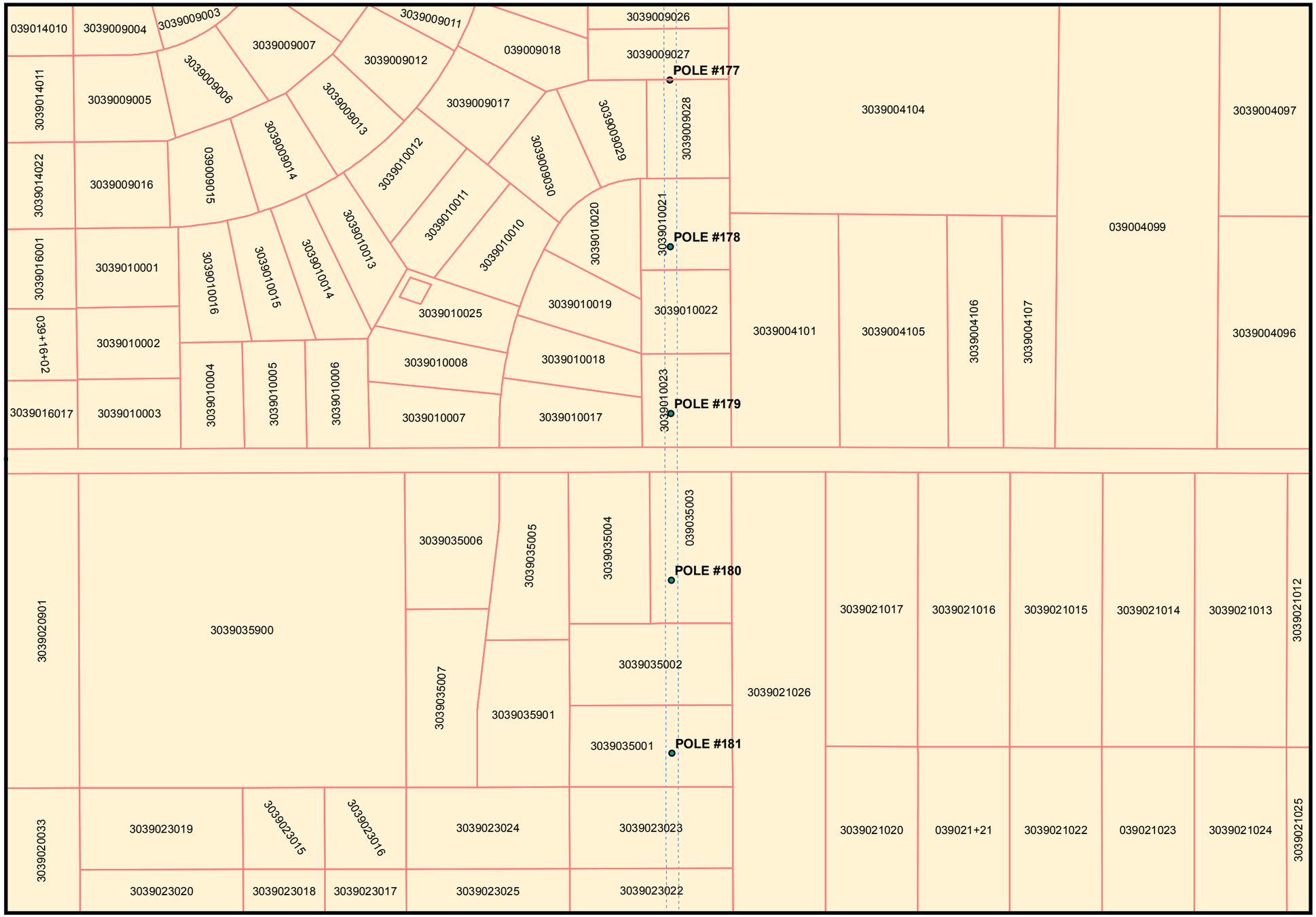

Palmdale Hybrid Power Project Tline Route

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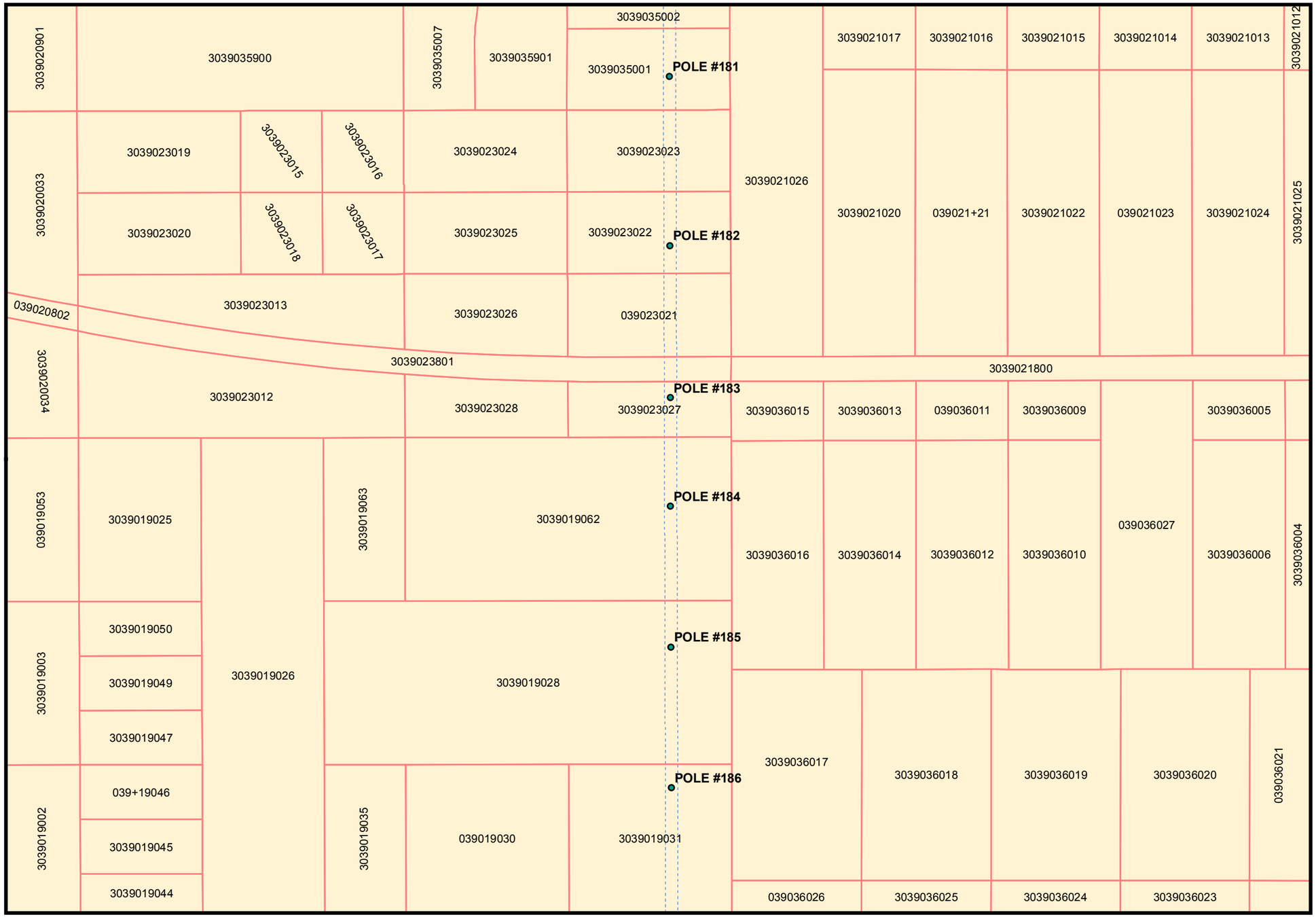

Palmdale Hybrid Power Project Tline Route

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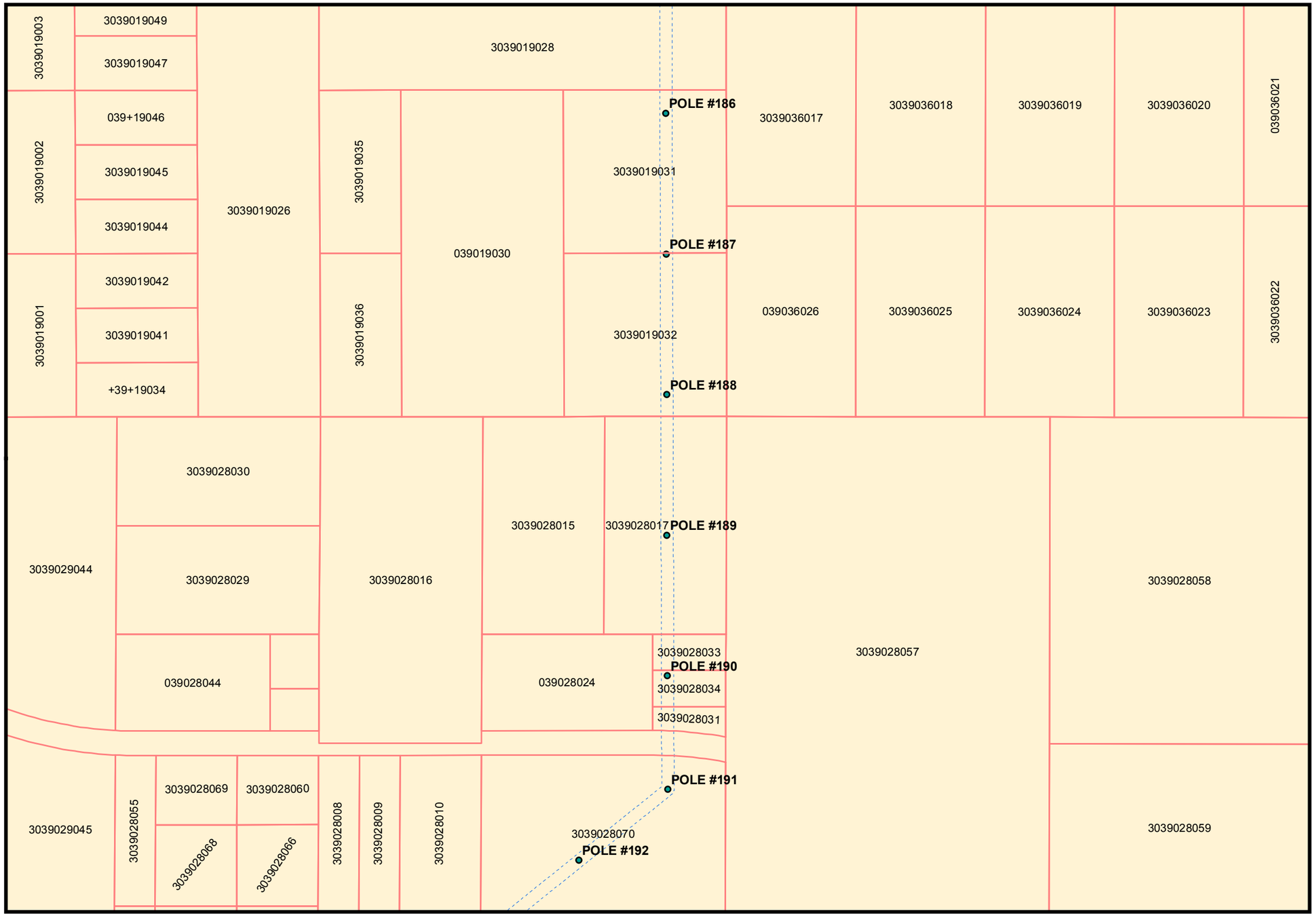

Palmdale Hybrid Power Project Tline Route

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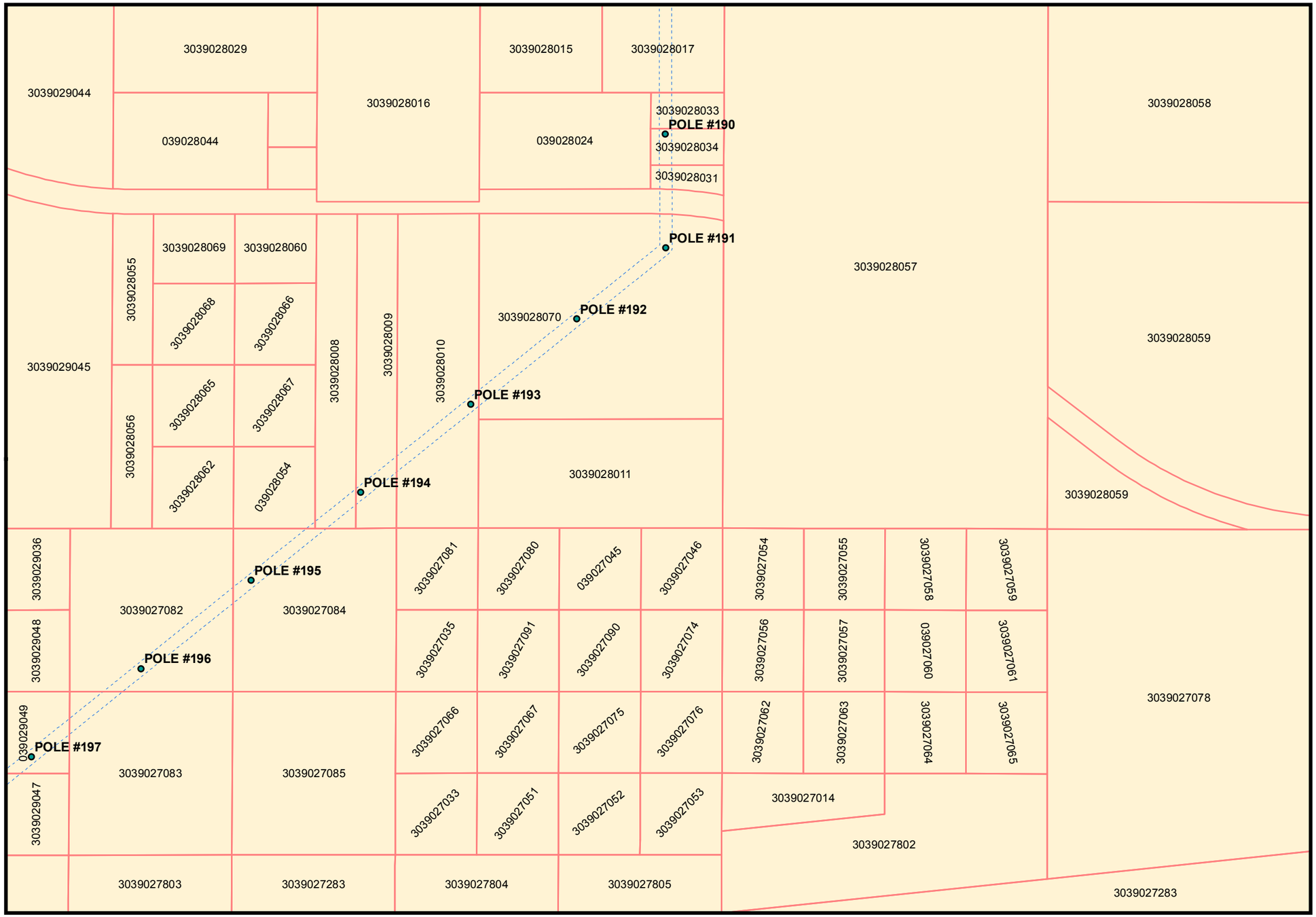
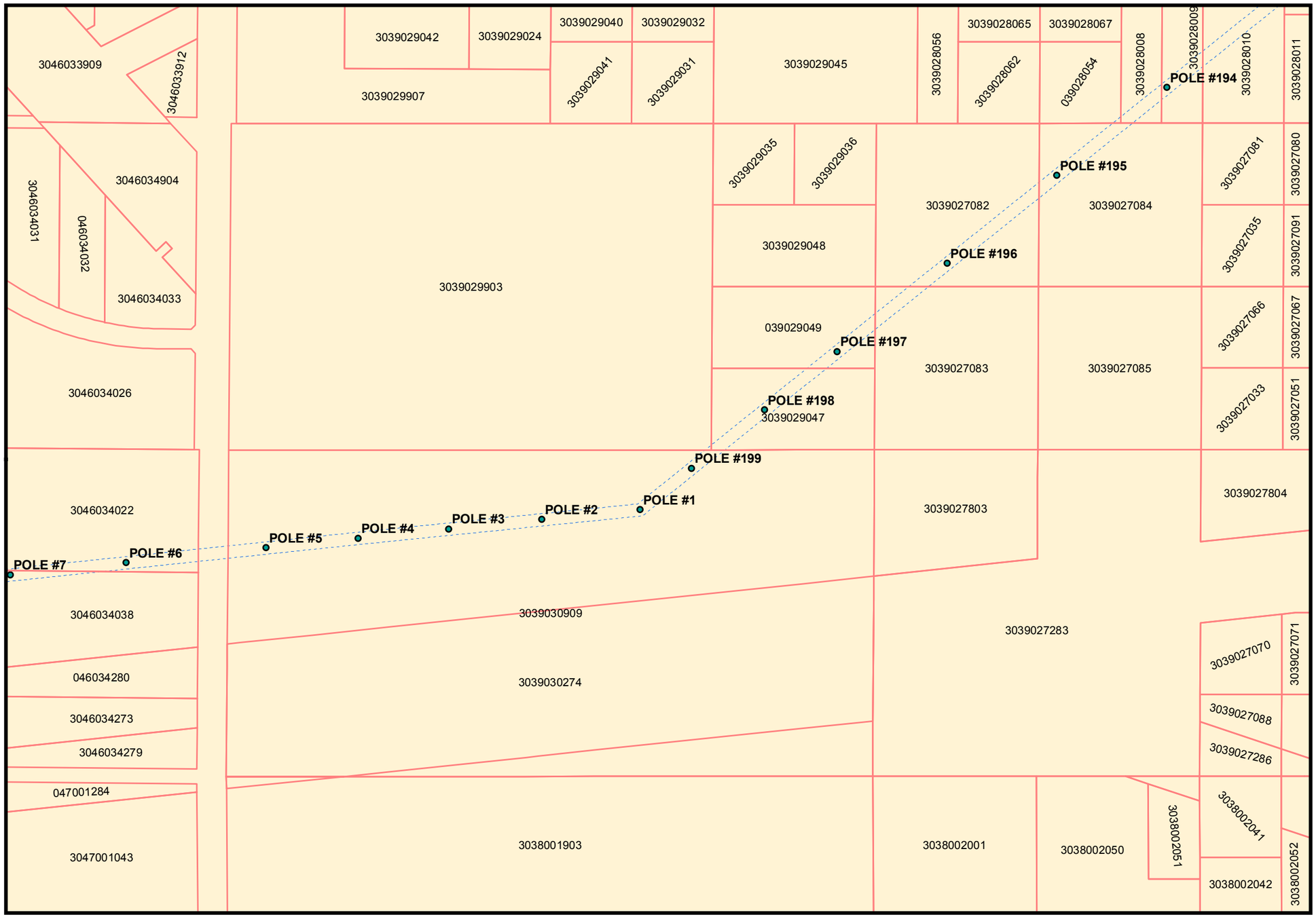


Palmdale Hybrid Power Project Tline Route

Transmission / APN Map



Data Request 20:

Please submit a new confidential Attachment 7 which adds the tower locations and the pull site locations for the proposed transmission line to the plotted locations of known and newly identified cultural resources.

Response:

The Applicant has revised the confidential version of Attachment 7, which adds tower locations, pull site locations, and laydown areas for the proposed transmission line to the plotted locations of known and newly identified cultural resources. The 10 maps comprising this revision have been delivered under separate confidential cover to the CEC.

As indicated in the depiction of the tower locations on the revised maps, the transmission line route has been rerouted out of the original alignment in two places – east of the Pearblossom Substation (Map 8 of 10) and east and south of the Vincent substation (Map 10 of 10). The Applicant is conducting new archaeological surveys of these areas, including the requisite buffers. A survey report will be provided within 30 days of completion of the field work.

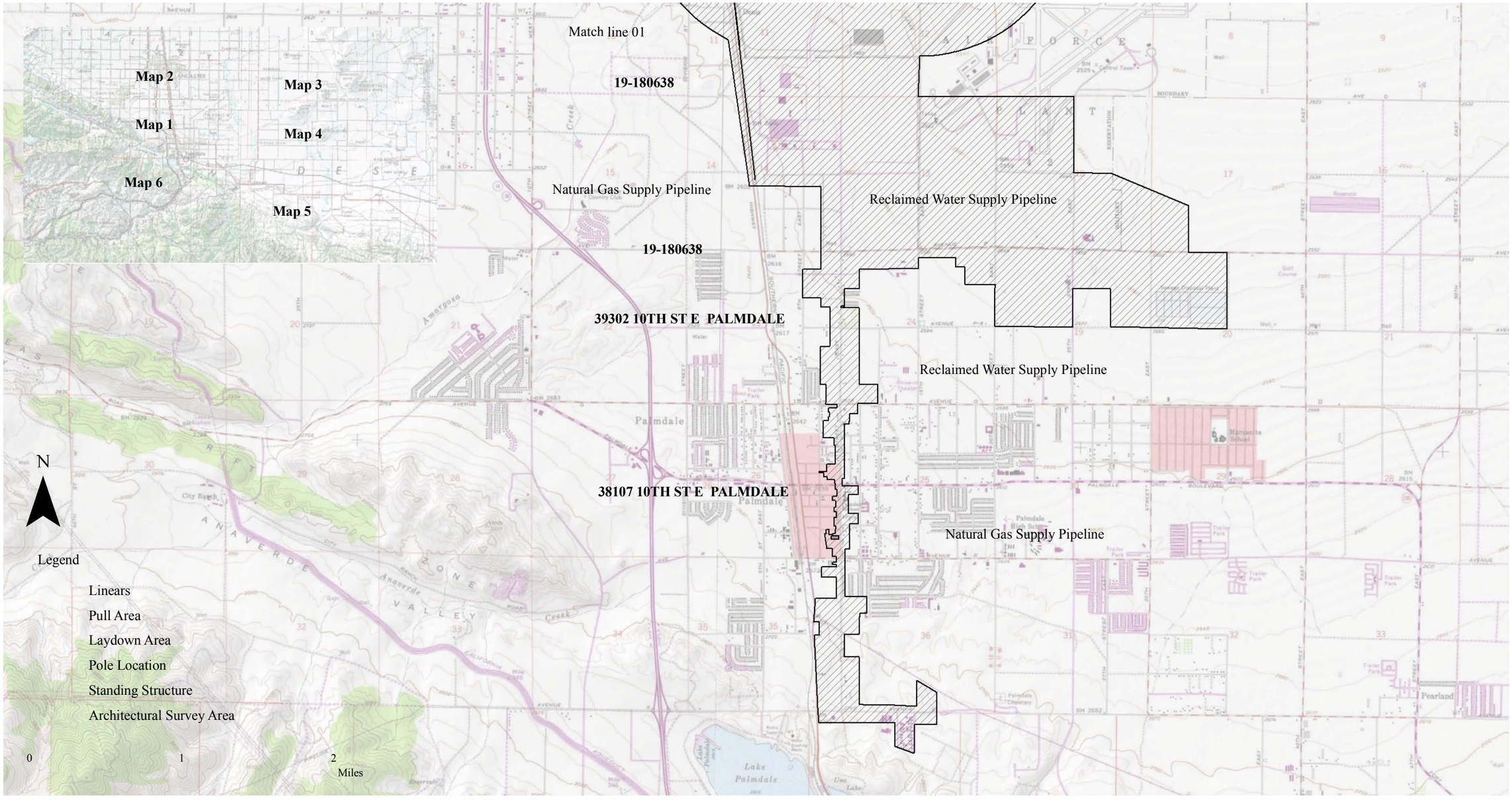
Data Request 21:

Please submit a new non-confidential Figure 5 which adds the tower locations and the pull site locations for the proposed transmission line to the plotted locations of known and newly identified built-environment resources.

Response:

The Applicant has revised the non-confidential version of Figure 5, which adds tower locations, pull site locations, and laydown areas for the proposed transmission line to the plotted locations of known and newly identified built-environment resources. The six maps comprising Figure 5 are included as an attachment at the end of this section.

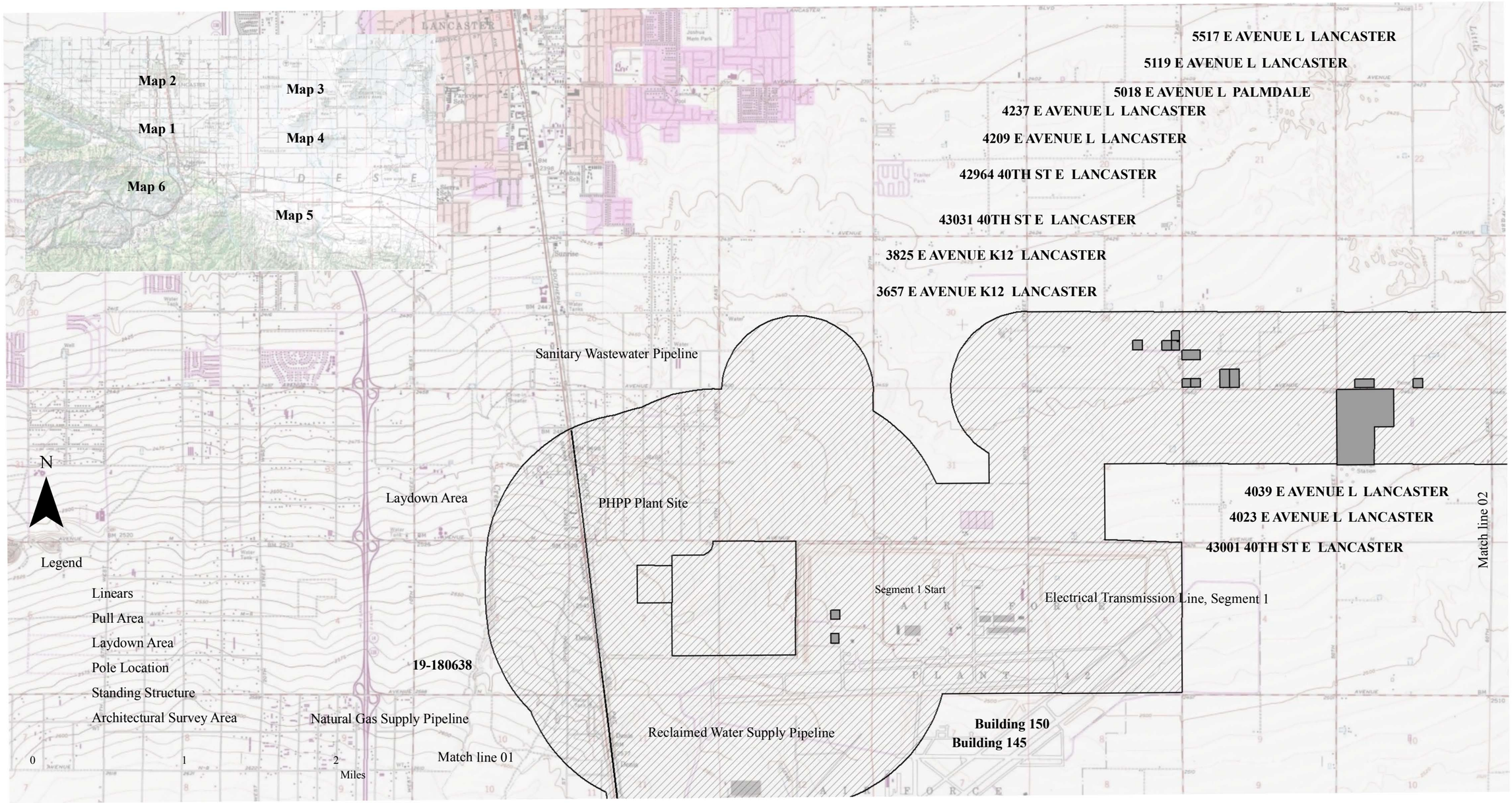
The two transmission line reroutes (see response to Data Request 20), the three laydown areas, and the 22 pull site locations are all within the built environment survey area, so no new built environment surveys will need to be conducted. One of the pull sites extends into Parcel AIN 3027007002, which is outside of the original built environment surveys area. This parcel has been added to the survey area, but is vacant according to the County Assessor's data, so it will not be re-surveyed.



WSA

Survey Results Map

Figure 5 Map 1/6
Built Environment Technical Report
PHPP
Palmdale, California



WSA

Survey Results Map

Figure 5 Map 2/6
Built Environment Technical Report
PHPP
Palmdale, California

Match line 02

43000 70TH ST E LANCASTER

42612 70TH ST E PALMDALE

42658 70TH ST E PALMDALE

Electrical Transmission Line, Segment 1

41617 100TH ST E PALMDALE

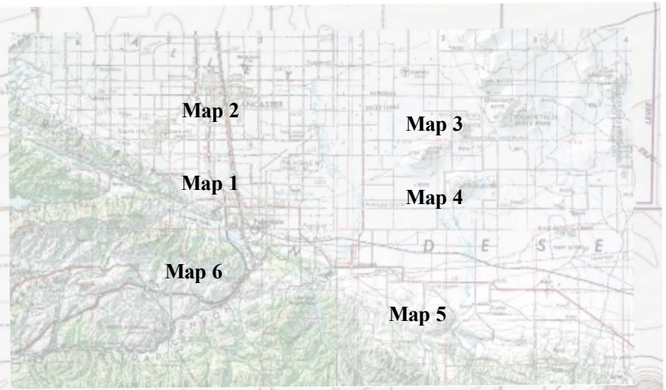
10654 E AVENUE M PALMDALE

41711 106TH ST E PALMDALE

41630 106TH ST E PALMDALE

41615 107TH ST E PALMDALE

Match line 03



N

Legend

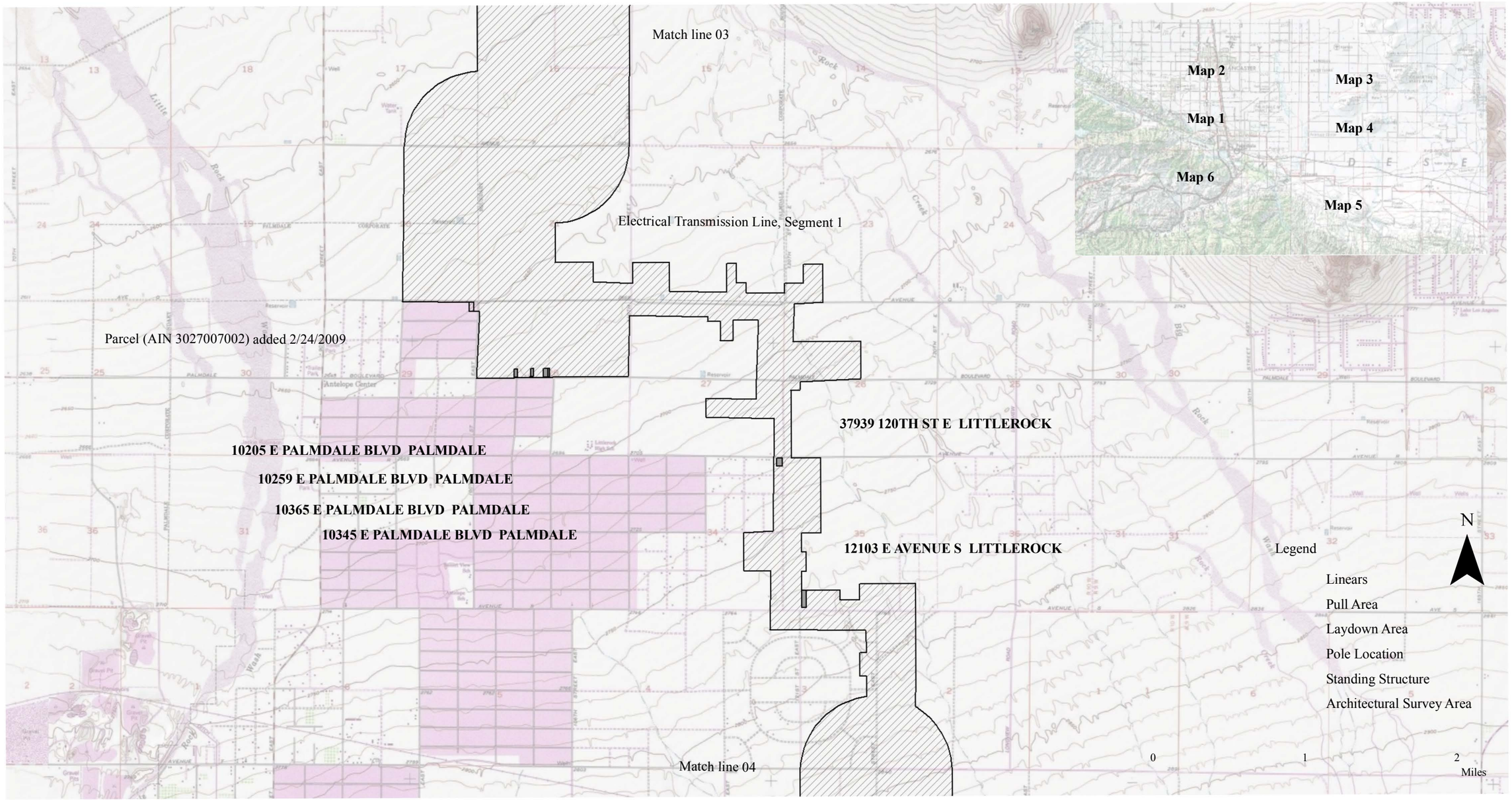
- Linears
- Pull Area
- Laydown Area
- Pole Location
- Standing Structure
- Architectural Survey Area

0 1 2 Miles

WSA

Survey Results Map

Figure 5 Map 3/6
Built Environment Technical Report
PHPP
Palmdale, California



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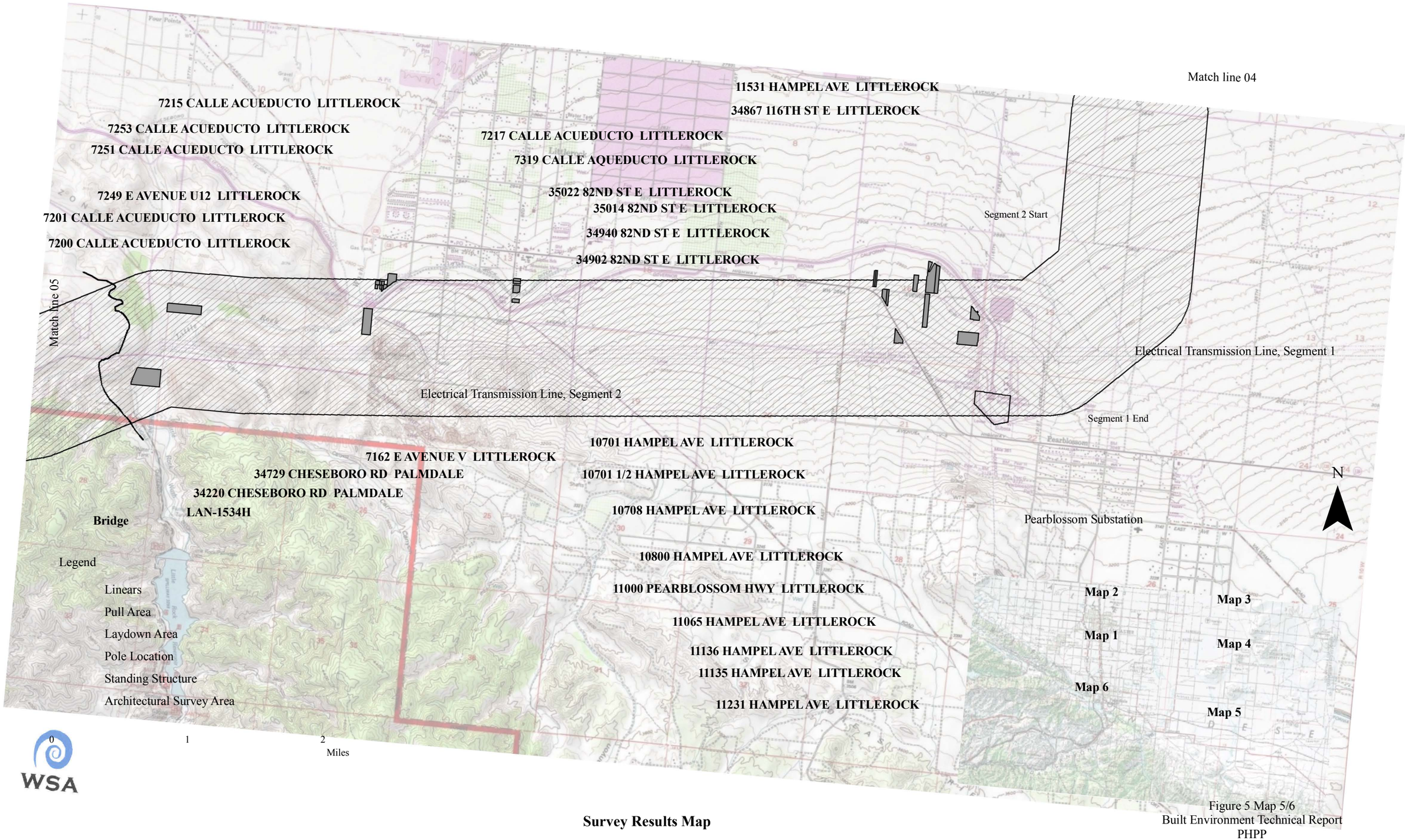
Survey Results Map

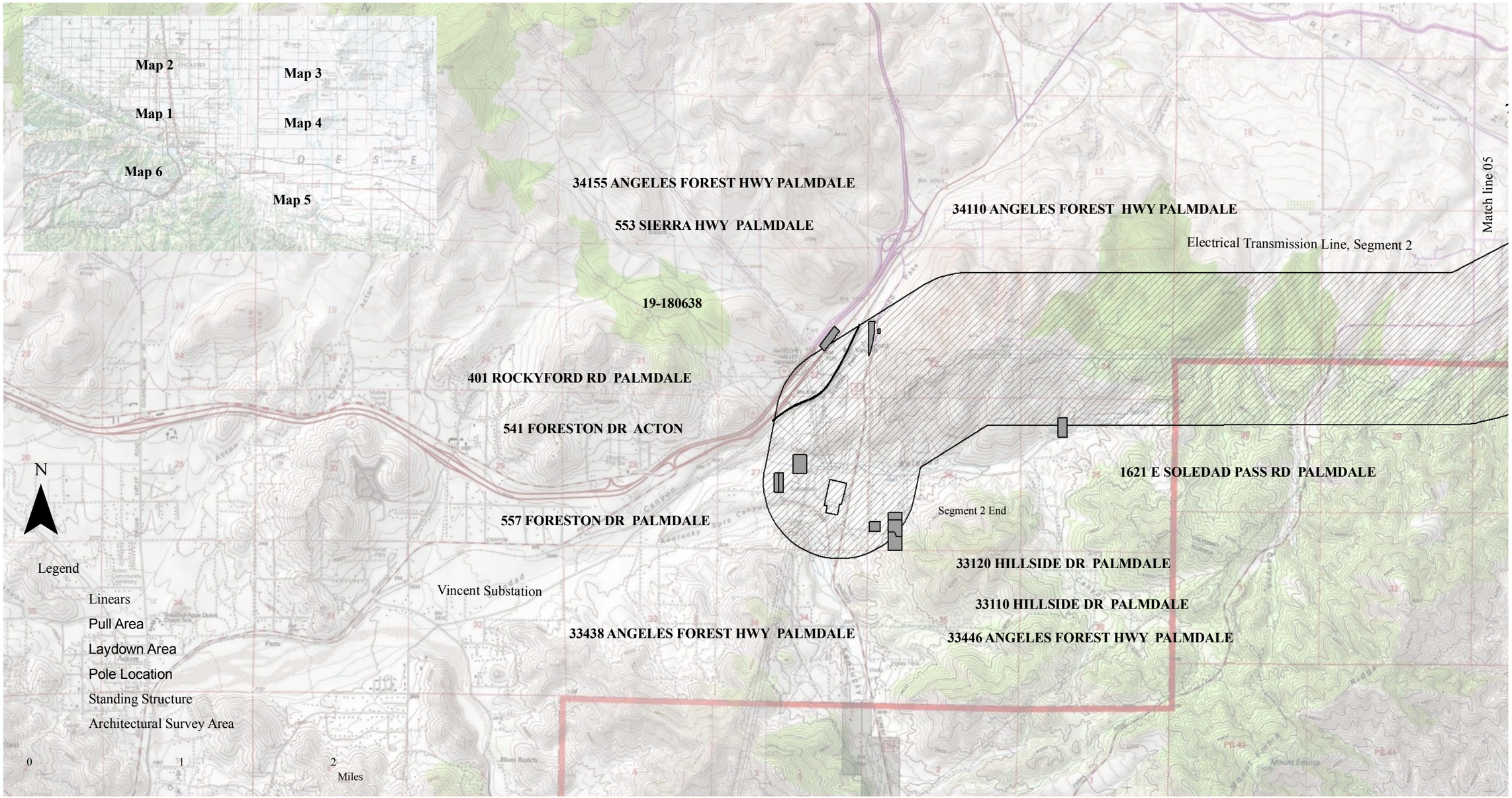
Figure 5 Map 4/6
Built Environment Technical Report
PHPP
Palmdale, California



WSA

Survey Results Map

Figure 5 Map 5/6
Built Environment Technical Report
PHPP
Palmdale, California



WSA

Survey Results Map

Figure 5 Map 6/6
Built Environment Technical Report
PHPP
Palmdale, California

Data Request 4:

Please verify the aerial interpreted preliminary wetland delineation results and provide the results from the ground-truthing exercise with the tower locations and access/spur roads superimposed on the figures. Show the wetland delineation maps at a scale of 1 inch equals 200 feet.

Response:

Ground-truthing field verification of the wetland delineation results was conducted on February 19, 2009. Revision of the "Preliminary Determination of Jurisdictional Waters of the United States and Waters of the State of California, PHPP" report (AFC Appendix H, Attachment 3) and associated figures is currently in progress and the revised report is expected to be submitted to the CEC within 30 days.

Data Request 5:

Please provide the final determination from the U. S. Army Corps of Engineers (USACE) regarding whether or not jurisdiction will be asserted. Should the USACE assert jurisdiction, please explain the project-specific circumstances that would necessitate substantial temporary or permanent impacts to jurisdictional waters.

Response:

The Applicant has confirmed our previous determination through the ground truthing exercise discussed above that there are no potential jurisdictional waters of the United States or of the State that may be affected by any Project components.

With respect to the transmission lines, Project engineers are ensuring avoidance of impacts to potentially jurisdictional waters by relocating poles and adjusting proposed work and staging (i.e., laydown) areas of the Project. The Applicant produced a Preliminary Determination of Jurisdictional Waters of the United States and Waters of the State of California for the Palmdale Hybrid Power Project in July 2008 (AFC Appendix H, Attachment 3). In early February 2009, the Applicant received specific information showing proposed pole locations, work areas for pole placement (within a radius of 50-ft surrounding the pole), access routes, and staging areas for the Project. The Applicant's wetland specialist (Mr. Nick Ricono, AMEC) conducted a ground truthing exercise for the entire proposed transmission line on February 19, 2009, to identify waters with potential Federal and State jurisdiction, and to identify locations where construction activities could impact those waterways, triggering State and/or Federal permitting processes.

Based on that ground truthing exercise, the Applicant determined that there are no potentially jurisdictional waters in the vicinity of pole locations 149 to 153 on Segment 1. Washes interpreted from aerial photographs are relic structures that have no existing hydrologic pathway producing a

bed and bank or any hydrophytic vegetation. Example Photographs in the vicinity of poles 149 and 153 are provided below.

Photo 1: Facing South from Pole 149

Photo 2: Facing North from Pole 153

The ground truthing exercise did identify some areas that required minor adjustment to ensure no potentially jurisdictional waters would be impacted. This involved comparing the Google Earth fly-over "kmz" file that was provided in the Supplemental Responses submitted on February 12, 2009 with the locations of washes as found in the field. This file provided pole locations that were surrounded by a circular work area, as well as pull sites/staging areas and spur roads. In every case, it was determined that some slight adjustment of these areas, for instance changing the shape of the work areas from a perfect circle or moving the pole location slightly, would avoid the impact. The work areas can be defined as needed to provide sufficient work space. A revised Google Earth fly-over file is provided with this submittal that shows these adjustments to the areas as listed below.

Areas of concern where transmission pole location, spur road, and/or proposed work or staging areas had the potential to impact a jurisdictional water (based on the February 12 version of the Google Earth fly-over file), and actions that will be taken to avoid any potential impacts, are as follows:

- Segment 1, Pole 154-157. A small ephemeral wash follows the eastern edge of 120th St. potentially draining residential areas from south to north. Work areas for pole placement lie on the eastern edge of the wash. The poles and proposed work areas have been relocated outside of the drainage areas and away from the eastern edge of the wash to avoid any impacts to the ephemeral wash.
- Segment 1, staging area at Pole 171. An ephemeral wash lies across the southwestern corner of the staging area. This staging area has been relocated to avoid any impacts to the ephemeral wash.

- Segment 1, Pole 195. An ephemeral wash lies within the proposed work area west of the pole. The pole placement and associated proposed work area have been relocated to avoid any impacts to the ephemeral wash.
- Segment 2, Pole 23. An ephemeral wash lies within the proposed work area east of the pole. The pole location and associated proposed work area have been relocated to avoid any impacts to the ephemeral wash.
- Segment 2, Pole 52. An ephemeral wash lies within the proposed work area east of the pole. The pole location and associated proposed work area have been relocated to the west to avoid any impacts to the ephemeral wash.
- Segment 2, between Pole 62 and 63. Little Rock Wash is an active channel in this area. Pole alignment figures showed access roads entering the wash from the east and west. The access roads have been relocated to avoid any impacts to the channel and wash.
- Segment 2, Pole 85. An ephemeral wash lies within the proposed work area west of the pole. The pole and proposed work area have been relocated to avoid any impacts to the ephemeral wash.
- Segment 2, Pole 89. An ephemeral wash lies within the proposed work area west of the pole. The pole and proposed work area have been relocated to avoid any impacts to the ephemeral wash.
- Segment 2, Pole 104. An ephemeral wash lies within the proposed work area east of the pole. The pole and proposed work area have been relocated to avoid any impacts to the ephemeral wash.

Data Request 6:

Please contact California Department of Fish and Game (CDFG) and provide a record of correspondence regarding the need to complete a Streambed Alteration Agreement. Should a Streambed Alteration Agreement be needed, please explain the project-specific circumstances that would necessitate substantial temporary or permanent impacts to jurisdictional waters of the State. Also provide the CDFG mitigation for the Streambed Alteration Agreement, if appropriate.

Response:

Please see Response to Data Request 5. Contact with the CDFG was initially made on September 18, 2008 to discuss jurisdictional waters of the State with Jamie Jackson of the CDFG. Since that time, the Applicant has confirmed our previous determination that there are no jurisdictional waters of the United States or of the State that may be affected by any Project components.

Data Request 7:

Please provide the anticipated schedule of USACE and Regional Water Quality Control Board (RWQCB) permitting for (and verification of) jurisdictional waters, and expected mitigation measures likely to be included in USACE and RWQCB permits, if appropriate.

Response:

Please see Response to Data Request 5. The Applicant has confirmed our previous determination through the ground truthing exercise that there are no jurisdictional waters of the United States or of the State that may be affected by any Project components.

Data Request 10:

Please provide a detailed raven monitoring and control plan that discusses:

- how the monitoring and control plan will be coordinated with CDFG and USFWS;
- area covered by the plan;
- use of perch-deterrent devices and locations of their installation;
- measures that might reduce raven presence and nesting activities (e.g., removing food items, garbage, and access to water);
- a monitoring plan, including discussion of survey methods and frequency for establishing baseline data on pre-project raven numbers and activities,
- assessing post-project changes from this baseline, and the funding mechanism for the monitoring plan;
- remedial actions that would be employed (e.g., nest removal) if raven predation of juvenile desert tortoise and other wildlife is detected; and
- the circumstances that would trigger the implementation of remedial actions.

Response:

As set forth in the Applicant's initial response to this Data Request, the Project is expected to have minimal, if any, impact on desert tortoises. Accordingly, the Applicant does not anticipate that a Raven Monitoring and Control Plan (Plan) is necessary. However, if the USFWS, CDFG and CEC determine that such a Plan nevertheless is required, the Applicant will work with the agencies to prepare a Plan that would mitigate the Project's impacts to desert tortoise, if any.

USFWS currently is establishing a region-wide management and monitoring program in the California Desert Conservation Area through agreements with State and local governments and

private project applicants. Private project applicants would contribute to a region-wide effort in an amount related to the anticipated level of adverse impacts from their project on desert tortoises from predation by ravens. Funds collected from private project applicants would be held by the National Fish and Wildlife Foundation as part of a Desert Conservation Fund until they are needed to implement portions of the region-wide program.

Contributing funding to this region-wide monitoring and management plan would be in lieu of conducting an offsite project-specific statistically based raven monitoring program to determine project-related effects on local raven densities, nesting, and potential effects on desert tortoises.

The Applicant is continuing to discuss the need for, and the components of, a raven control monitoring and management plan for the Project with USFWS, CDFG and CEC.

Following is a response to a question related to Alternatives raised at the CEC February 4, 2009 Workshop.

Workshop Question Related to PHPP Alternative Site Analysis:

> Please discuss the alternatives that were considered for routing the PHPP transmission line to the west of Air Force Plant 42 along a north-south corridor extending from the proposed power plant site to the Vincent Substation interconnection. Such an alternative would substantially reduce the length of the proposed transmission line route.

Supplemental Response:

The CEC requested that the Applicant discuss further the alternatives proposed for routing the 230 kV transmission line along a north-south corridor at the western end of Air Force Plant 42.

From the standpoint of best serving the needs of the City, region, and State, the PHPP's electrical capacity must be delivered to the Vincent 500/230-kV Substation, which is the most suitable interconnection point with the regional transmission system. While the development of the transmission line in an area west of Air Force Plant 42 could have reduced the overall length of the proposed transmission line by approximately 26 miles, it would have presented significant difficulties for development.

The most direct route from the plant site to the Vincent Substation was rejected. This route, which was proposed to run along Sierra Highway, would have conflicted with Air Force Plant 42's flight operations. The Applicant discussed the possibility of undergrounding the lines in the vicinity of the runway with Southern California Edison (SCE), but they would not accept ownership of underground high voltage lines due to their corporate policy which prohibits operating or maintaining such lines. In addition, Sierra Highway has a very congested utility sub-grade which would have complicated transmission line construction along this route. For these reasons, this alternative was rejected.

The Applicant considered an alternate route that ran south on 10th St. W. Because this route contains existing transmission line right of ways (ROWs) and is far enough away from airport operations to avoid direct impacts and not require undergrounding, it could have satisfied aviation concerns and would have helped consolidate Palmdale's transmission infrastructure. However, 10th St. W. is one of the City's busiest retail centers and discussions with commercial land owners and SCE regarding the use of existing ROWs became problematic. For example, 10th St. W. is a heavily congested street containing both above grade and subgrade utilities. Restringing the above grade distribution lines located on the west side of 10th street would have been costly to local commerce because of the potential loss of revenue due to construction outages. In addition, SCE's existing ROW includes franchised distribution line easements across privately owned land, which creates additional restrictions on the placement of large transmission lines on existing SCE-owned distribution lines. Typically, landowners are hesitant to grant utility rights for large transmission lines (230 kV and above) as it could impact the value of their property. Thus, SCE

was unwilling to allow the PHPP transmission lines to be added to their existing distribution lines along 10th St. W. In addition, the PHPP transmission line would have had to cross the Antelope Valley freeway (I-14) while at the same time crossing the local shopping mall. It was highly unlikely the Project could have negotiated a ROW through the parking lot of the mall due to applicable ordinances. Because of the possibility of a prolonged disruption to City residents and businesses, significant uncertainties associated with the use of existing infrastructure, and difficulty obtaining right of ways, this alternative was rejected.

The Applicant also considered a north-south route located along Division Street, between Sierra Highway and 10th St. W located sufficiently west of the Air Force Plant 42 runway so as to not impact aircraft operations or require undergrounding, and far enough east of 10th St. W, so as to avoid Palmdale commerce. However, this route would have required crossing back and forth from east to west at multiple locations across Division Street to avoid impacting a housing subdivision, including an extremely challenging portion of a subdivision beginning at East Avenue R4 and Division Street, which continued heading south to Barbara Lane. There where multiple concerns associated with traversing homes in this area. The proposed transmission line also passed near the Palmdale Learning Plaza at the corner of Rayburn and Division Street, which was seen as a potentially significant impact, thus the Applicant decided to reject this option as well.

In addition to the concerns raised by these westerly routes with respect to Air Force Plant 42 operations; transmission line undergrounding; and disruptions to the City's commerce, housing subdivisions, and schools; none of the proposed westerly routes met the City's goal of supporting future development in the transmission deficient eastern parts of the City.

Having eliminated the more direct western transmission line route options, various easterly routes were analyzed. Using the same criteria of avoiding existing or future aviation flight paths, and avoiding major disruptions to Palmdale's commerce and the public, the selected easterly route was sited far enough east to avoid existing or future airport operations and along existing right of ways wherever possible. In the southern portions of the proposed easterly route the Applicant chose to avoid existing residential areas by entering the SCE transmission ROW at the Pearblossom Substation. This proposed route also met the City's goal of supporting future residential and commercial development in the eastern corridor of Palmdale.

In summary, the proposed eastern route meets the Applicant's objectives, while minimizing impacts to the public and the local aviation community. The current eastern alignment was carefully chosen and was routed along existing roads and ROWs to minimize environmental impacts. The proposed western routes all posed greater potential for significant impacts to the public, commerce, and the local aviation community, and did not provide substantial environmental advantages compared to the proposed eastern route, so they were rejected.

Data Request 73:

Provide a one-line diagram for the existing SCE Vincent Substation before the interconnection of the Palmdale project.

Response:

A preliminary one-line diagram was submitted to the CEC as Figure 2-10 in September 2008 as part of the PHPP Data Adequacy Supplement (response to PO-1, question 3). At that time, the response made reference to pre- and post-conditions at the Vincent Substation as undergoing modification by Southern California Edison (SCE) for a regional grid upgrade. The pre-substation configuration continues to undergo modifications and upgrades by SCE, and unfortunately their final design is not yet available. The Applicant expects to receive the Facility Study within a matter of days, which will provide information on SCE's plans for the Vincent Substation. The Facility Study will also include information on electrical modifications required at the Vincent Substation to accommodate the interconnection with the PHPP, including equipment ratings, bay arrangement of breakers, disconnect switches, buses and any breakers of associated substations requiring upgrades. The Facility Study and all relevant one-line diagrams will be forwarded to the CEC once it is received from SCE.

Data Request 74:

Provide a one-line diagram for the SCE Vincent Substation after the addition of the project. Show all equipment ratings including bay arrangement of the breakers, disconnect switches, buses, and etc. which are required for the addition of the Palmdale project.

Response:

Please see response to Data Request 73 above. All relevant one-line diagrams will be forwarded to the CEC as soon as this information is received from SCE. The Applicant expects to receive the Facility Study within a matter of days, which will provide information on SCE's plans for the Vincent Substation. The Facility Study will also include information on electrical modifications required at the Vincent Substation to accommodate the interconnection with the PHPP, including equipment ratings, bay arrangement of breakers, disconnect switches, buses and any breakers of associated substations requiring upgrades.

Data Request 75:

The existing 230 kV transmission lines from Vincent Substation to Pearblossom Substation feed the California Department of Water Resource (CDWR) water pumping plant. This circuit will be moved and placed on the new PHPP steel poles. Provide evidence showing

that CDWR is informed of and supports the proposed changes, and that CDWR can accept any possible interruption to the normal operation of the pumping plant.

Response:

The Applicant is in the process of coordinating and preparing interconnection plans with the CDWR and SCE, especially with respect to the potential requirement for a short-term outage at the Pearblossom pumping station associated with the interconnection of the PHPP at Vincent Substation. These formal communications have been and are currently being held with Mr. Rick Buckingham at the CDWR and Mr. Paul Sindelar at SCE. Copies of emails documenting these informal communications are included as Attachment DR-75 at the end of this section. More formal communications have been held including general discussion of the interconnection plan at the February 4, 2009 CEC Workshop in Palmdale, attended by Mr. Rick Buckingham of CDWR and Mr. Rob Tucker and Ms. Jessica Hackensberg of SCE.

Because current plans are to build a new transmission line alongside the existing transmission line in the current SCE right of way along Segment 2, the actual interconnection is expected to require a relatively short period of time to complete, perhaps a matter of hours rather than days. New poles will be strategically placed near the existing H-frames and their access roads to the extent possible and new conductors will be installed along the entire length of the new SCE line between Vincent and Pearblossom Substations. The Applicant and SCE will schedule the interconnection at a point in time when the CDWR pumping station is most able to accept a short duration outage, such as during a maintenance shutdown. CDWR plans to submit to the CEC a proposed Condition of Certification that addresses the issue of an interconnection outage at the pumping station upon completion of negotiations with SCE and the Applicant.

Data Request 76:

Clarify if any existing poles that are supporting the above Vincent – Pearblossom 230 kV line will be removed after relocating the transmission lines.

Response:

The existing wooden H-frame pole structures supporting the transmission line between the Vincent and Pearblossom Substations (i.e., Segment 2) follow along an existing SCE easement established for the transmission line right of way, which provides power to the CDWR's Pearblossom pumping station. PHPP's new Segment 2 transmission line will replace the existing wooden H-frame SCE line, serving both the PHPP and DWR. The wooden H-frame structures will no longer be used and will be discarded following standard industry practices. They will be replaced with new steel monopoles capable of handling two (2) 230 kV circuits. There is an existing spur transmission line located on CDWR's property which is constructed of the same wooden H-frame structures. This spur will be the location where the new 230 kV feed from Vincent leaves the steel poles and is

restrung along existing H-frames to the CDWR pumping plant. This short spur transmission line and associated H-frame structures will not be replaced nor impacted by the PHPP.

Data Request 78:

Provide the Facility Study Plan.

Response:

In accordance with the Federal Energy Regulatory Commission (FERC) Large Generation Interconnection Procedures (LGIP), the California Independent System Operator (CAISO) and SCE are currently in the process of performing an Interconnection Facilities Study for the PHPP. The Interconnection Facilities Study (Facility Study) does not require the development of a Facility Study Plan prior to the development of the actual Facility Study.

Data Request 79:

Provide the Facility Study Report.

Response:

See the response to Data Request 73. The Interconnection Facilities Study (Facility Study) for the PHPP is expected to be completed by CAISO and SCE within the next few weeks and will be forwarded to the CEC as soon as it is received by the Applicant.

ATTACHMENT DR-75

Correspondence with CDWR

From: Rick Buckingham <rbucking@water.ca.gov>
Date: Mon, 2 Feb 2009 10:55:54 -0800
To: Allen Cadreau <allencadreau@inlandenergy.com>
Subject: RE: Palmdale project (PHPP) project

Thanks !, Looking forward to seeing you on Wednesday …

Rick Buckingham
Sr. Transmission Contracts Specialist
CDWR - State Water Project phone: 916.574.0657 cell: 916.698.7962

From: Allen Cadreau [mailto:allencadreau@inlandenergy.com]
Sent: Monday, February 02, 2009 10:55 AM
To: Buckingham, Rick
Subject: Re: Palmdale project (PHPP) project

Hello Rick, the prior. SCE will build a new 230kv steel pole (in place of old H-frames) that is capable of handling 2 - 230kv circuits. One for the project and one for DWR. The old H frames will be removed and discarded.

Allen

On 2/2/09 10:37 AM, "Rick Buckingham" <rbucking@water.ca.gov> wrote:
It was great talking with you as well. By the way, there seems to be two stories that I hear, would the Project have SCE build new towers from Pearblossom's vicinity to Vincent (and put our lines on them) or would there be a new line that parallels our current wooden towers?

Rick Buckingham
Sr. Transmission Contracts Specialist
CDWR - State Water Project phone: 916.574.0657 cell: 916.698.7962

From: Allen Cadreau [mailto:allencadreau@inlandenergy.com]
Sent: Friday, January 30, 2009 3:33 PM
To: Buckingham, Rick
Subject: Palmdale project (PHPP) project

Hello Rick,

That was great timing. Thanks again for the call and the link. We are please that you will be attending the CEC workshop on Feb 4th. We look forward to working together with you and your staff.

Allen G. Cadreau
VP of Engineering
Inland Energy Inc.
Newport Beach CA. 92660 Cell 714 686 9792 Work 949 856 2200

Minor revisions have been made to the Palmdale Hybrid Power Project (PHPP) site layout and linear routes to reflect agency requests, further engineering, and site conditions. A list of the proposed changes is provided below, followed by additional description of the changes. Most of the changes involve rearrangement within the site or slight changes to linear facility routes that do not involve new potential impacts. Some of these changes have been previously provided to the CEC, e.g., the revised conceptual site plan and secondary access road, but are included here to provide a more complete list of changes. In addition, there have been changes to short portions of the transmission line associated with the recent work to indentify specific pole locations that will necessitate some additional field survey work to be completed. The results of these additional surveys will be provided within 30 days of the completion of the field work.

Changes to the PHPP include:

- Changes to the conceptual site layout include slight changes to the primary site access road, addition of a second (emergency) access road, relocation of the gas metering station, adjustment to the locations of the detention basins, a decrease in the acres of solar field and a slight increase in the number of acres (5 acres) for the power plant site overall.
- Changes in the power block plot plan and sources include slight relocation of the combustion turbines, increase in the size of the Auxiliary Boiler from 100 MMBtu/hr to 110 MMBtu/hr including increasing the stack height (from 30 feet to 60 feet), decrease in the stack heights (from 30 feet to 16 feet) of the emergency diesel generator and fire water pump engine, and relocation of the ammonia storage tank.
- Relocation of the sanitary wastewater and potable water pipelines.
- Relocation of short pieces of the transmission line, i.e., along Lone Oak Rd and the interconnection with the Vincent substation.

Further descriptions of these changes are provided below. Additionally, three figures which show the changes are provided at the end of this section.

Changes to the Site Layout

Figure 2-4 in the AFC provided the General Arrangement Site Plan for PHPP, showing the relative locations of the solar array, power block, laydown area and other site features. Subsequent to the submittal of the AFC, several changes to the site layout as described above are proposed. A revised Figure 2-4 is provided at the end of this section. A revised conceptual site plan was previously provided to the Energy Commission related to questions raised about the detention basins. A second access road was added to the preliminary Landscape Plan provided on January 12, 2009. This new figure is consistent with those submittals but is a change from the AFC.

The City has determined that some minor changes to the primary access road would improve overall site access for PHPP and the possible future development of the western half of the site. In response to a request by the Energy Commission, a second emergency access road that runs along the eastern boundary of the site has been added.

Southern California Gas Company (SCG) requested that the gas metering station be relocated, so it was moved from within the power block to a location on the western boundary of the plant site. It has been moved away from the power block so that SCG can perform venting operations without plant safety concerns. It was moved to a location outside the facility fence to allow for easier access but still with the security of a dedicated entrance. Thirdly, the station was moved to a location that will be more convenient for a future development on the remaining 300 acres to the west on property also owned by the City.

The site grading plan was revised and some adjustments made to improve the utility of the detention basins. Note, in some places in the AFC these basins were referred to as "ponds", which lead to some confusion. The PHPP will not utilize evaporation ponds and instead will use a zero liquid discharge brine crystallizer. The detention ponds will be used to catch storm water and hold the water until it can soak into the ground, which is expected to occur rapidly, and hence minimize storm water runoff from the site. The grading changes lead to about a one foot decrease in elevation in parts of the site, with some additional berms around the detention basins and property sides.

The changes above lead to some adjustments which slightly increased the number of acres for the site from 327 to 333 acres, with a 50 acre laydown area during construction. The breakdown of the site acreage is as follows:

Solar field: 251 acres
Power block: 26 acres
Roadways (primary and secondary): 24 acres
Detention basins: 20 acres
Setbacks and slopes: 12 acres
Construction laydown area: 50 acres
Total: 333 acres (383 acres including temporary construction laydown area)

Changes to the Power Block

The project originally proposed to use a 100 MMBtu/hr natural gas fired auxiliary boiler to pre-heat the combined cycle system's steam seals and piping to facilitate faster startups as part of GE's Rapid Start Process. Further engineering work by GE has identified that a slightly larger, 110 MMBtu/hr boiler, would be preferred. This modest increase in output provides a higher steam load to facilitate the sealing of the units at start up. This equipment change has caused negligible changes to the power plant emissions. Revised tables of the Maximum Hourly and Annual Auxiliary Boiler Emissions (AFC Table 5.2-22) and Total Annual Potential Emissions, Normal Operation (AFC Table 5.2-27) are provided below (revised emissions shown in italics). Since all changes in emissions would be to the second decimal place, the only change in the total plant emissions from the AFC to those shown below is an increase in the total CO from 254.8 tpy to 254.9 tpy. No other total emissions in Table 5.2-27 were changed as a result of this increase in size of the boiler.

In addition to the criteria pollutant increase, the greenhouse gas (GHG) emissions also increase slightly. A ten percent increase in the auxiliary boiler CO_2 and other GHG emissions increases the emission estimates given in AFC Table 5.2-28 from 1,852,123 metric tpy CO_2 equivalents to 1,852,389 metric tpy CO_2 equivalents.

Table 5.2-22R Maximum Hourly and Annual Auxiliary Boiler Emissions

Pollutant	Hourly Emission Rate (lb/hr)	Annual Emissions (tpy)
NO_X	*1.21*	*0.30*
VOC	*0.59*	*0.15*
CO	*4.05*	*1.01*
SO_2	*0.06*	*0.02*
PM10	*0.82*	*0.20*

Table 5.2-27R Total Annual Potential Emissions, Normal Operation

Source	NO_X (tpy)	CO (tpy)	VOC (tpy)	PM/PM10/PM2.5 (tpy)	SO_2 (tpy)
Combustion turbines/HRSGs	113.7	252.6	39.64	117.1	8.83
Auxiliary Boiler	*0.30*	*1.01*	*0.15*	*0.20*	*0.016*
HTF Heater	0.22	0.74	0.11	0.15	0.012
Emergency Generator	0.67	0.39	0.04	0.022	0.0007
Fire-Water Pump Engine	0.03	0.026	0.001	0.0015	5.0E-05
Cooling Tower	n/a	n/a	n/a	7.1	n/a
Maintenance Vehicles	0.39	0.12	0.03	1.51	0.00
Total	**115.3**	**254.*9***	**40.0**	**126.1**	**8.9**
Revised emissions shown in *italic*					

Due to the new boiler and further engineering on the power block, a few other minor changes were made. Design refinements to the auxiliary boiler resulted in an increase in the planned stack height from 30 feet to 60 feet. The distance between the two combustion turbine stacks was increased to 135 feet, allowing for more room for duct bank placement in between the stacks. The emergency generator and fire water pump engine was previously assumed to be located inside the larger buildings in the power block. These buildings had a nominal height of 24 feet and the projected stacks were proposed at six feet above this height. Subsequent design refinements now have these emergency engines with 16 ft stack heights. Other slight changes, such as moving the ammonia storage tank, were made as result of the combustion turbine stack relocation.

The changes to the boiler emissions, stack locations, and stack heights were modeled to ensure there would be no changes to the conclusions in the AFC. There was a slight increase in hourly concentrations (NO_2 and CO) due to the reduction in stack height of the emergency diesel generators and a slight decrease in the longer averaging periods (8-hour CO and 24-hour PM10/PM2.5) due to the increase in stack height of the auxiliary boiler. All concentrations remained below applicable standards and thresholds. Revised modeling files can be provided to the CEC; however, the CEC air consultant mentioned at the February 4, 2009 Workshop that an additional Set of Data Requests is forthcoming with some questions about the modeling. Therefore, we propose to provide updated modeling files after it is determined if further changes are needed in response to these requests.

AFC Figure 2-5 provided a General Arrangement of the Power Block, and a revised figure that reflects the changes discussed above is provided at the end of this section.

Changes to the Sanitary Wastewater and Potable Water Pipeline routes

The sanitary wastewater pipeline was shown in the AFC to travel about a mile up 15th St. E to connect with an existing sewer system along E Ave. L. The City evaluated other options and has instead selected a slightly shorter route to an existing connection point that proceeds north from the east side of the power block, then east along E Ave. M to approximately 25th St. E where it will connect with the sanitary wastewater main. This route was chosen to keep this component of the project within the City of Palmdale's jurisdiction and because of a more favorable grade. The route has already been surveyed for biological, cultural, and paleontological resources as it runs parallel to the proposed transmission line along E Ave. M, and hence the potential for impacts has already been analyzed. Further, this change eliminates the minor impact of a one mile line to the north of the plant site.

The potable water line alignment has also changed from that portrayed in the original AFC submittal. The potable water pipeline originates on E Ave. M near the water tanks between 5th and 6th St. E. It used to proceed along E Ave. M, turn south along 15th St. E and enter the power block from the east. The new proposed alignment will instead proceed along E Ave. M, but turn south sooner at the new site entrance on 10th St. E, follow the new access road entering the power block from the west. This new alignment will better support potential City plans for development of the western portion of the site. The change to the alignment is wholly within the PHPP power plant site which has already been surveyed. The route proposed to travel east along E Ave M between 5th St. E and 10th St. E has also been surveyed since this is part of the original potable water alignment. Hence, no additional impacts have been identified due to this change.

The new proposed routes for the sanitary wastewater and the potable water pipelines are shown on a figure showing all of the linear routes. This new figure, PD-1, is provided at the end of this section.

Changes to the Transmission Line route

CEC Data Request Set 1 included a request to provide specific pole locations for the transmission line. It also requested additional information on the pole locations, spur roads and related facilities in relation to washes and other streambeds. Further discussions with Southern California Edison (SCE) and more detailed engineering to address these requests have caused changes to be made to the proposed alignment near the beginning of and at the end of Segment 2 of the transmission line from the way it was originally depicted in the AFC.

Originally the transmission line was to enter the Vincent Substation on the north side of the facility. The administrative and control buildings are clustered on the north side of the Vincent substation and SCE would not allow the PHPP transmission lines to cross over these structures to the switchyard on the south side of the substation. The newly proposed alignment has the transmission line now running south down E. Soledad Pass Road, then south and west on Hillside Drive into the substation from the south.

Additionally, the transition from Segment 1 to Segment 2 of the transmission line into the Pearblossom switchyard is along Lone Oak Rd. The transmission line will still roughly follow Lone Oak Rd., but is now slightly further north, outside of the corridor previously surveyed for cultural resources.

These two changes to the alignment are minor; however they will require some additional field surveys. The required cultural surveys will be conducted in March and the results provided within 30 days of the completion of the work. Biological surveys for special status species will be conducted in the proper time of year (e.g., March – April), and results provided in a timely manner.

In addition, there were several areas of concern where transmission pole location, spur road, and/or proposed work or staging areas had the potential to impact a jurisdictional water, and actions were taken to avoid any potential impacts, including relocation of staging areas and minor relocations of transmission line poles. These changes are summarized in the Biological Resources section of this March 2, 2009 Supplemental Responses submittal.

The changes to Segment 2 of the transmission line are shown on the figure showing all of the linear facilities (same figure as above for the potable and wastewater pipelines) provided at the end of this section, as well as in the revised Google Earth fly-over which is included in the CD as part of this submittal.

NORTHWEST INFILTRATION BASIN
AREA = 10 AC

PT# 1509
N 2057412.50
E 6527885.08

PT# 1510
N 2057469.75
E 6530580.06

AVENUE M

NORTH INFILTRATION
BASIN AND SLOPE
AREA = 10 AC

ROADWAYS
AREA = 23 AC

SOLAR FIELD NORTH
AREA = 109 AC

SECONDARY
(EMERGENCY)
ACCESS ROUTE
AREA = 1 AC

15th ST E

POWER BLOCK
AREA = 26 AC

CONSTRUCTION LAYDOWN
AREA = 50 AC

PROPOSED GAS
METER STATION
(200'x200')

SOUTHWEST
INFILTRATION BASIN

SOUTHWEST
INFILTRATION BASIN

SETBACK AND SLOPE
AREA = 12 AC

GRADING LIMIT
AS SUBMITTED
IN DESCP

613'

SOLAR FIELD SOUTH
AREA = 142 AC

PROPOSED
GRADING LIMIT

SIERRA HWY

SOUTHERN PACIFIC RAILROAD

E AVENUE M-12

300 0 300 600
SCALE IN FEET
SCALE: 1" = 300'

N

NOTES:

1. STACK COORDINATES-

HRSG 1:
STATE PLANE GROUND COORDINATE
N: 2055300.000
E: 6529671.000

GEOGRAPHIC COORDINATE (NAD 83)
LATITUDE: 35 38 23.91803
LONGITUDE: 118 06 22.94693

BASE ELEVATION: 2517

HRSG 2:
STATE PLANE GROUND COORDINATE
N: 2055435.000
E: 6529671.000

GEOGRAPHIC COORDINATE (NAD 83)
LATITUDE: 34 38 25.25346
LONGITUDE: 118 06 22.94864

BASE ELEVATION: 2517

- PRELIMINARY -
NOT FOR CONSTRUCTION

REV	DESCRIPTION	DWN	CHK	APP	DATE
A	ISSUE FOR REVIEW	MTW			02-26-09

CITY OF PALMDALE

PALMDALE HYBRID
POWER PROJECT

Kiewit

Kiewit Power
8455 Lenexa Drive
Lenexa, Kansas 66214

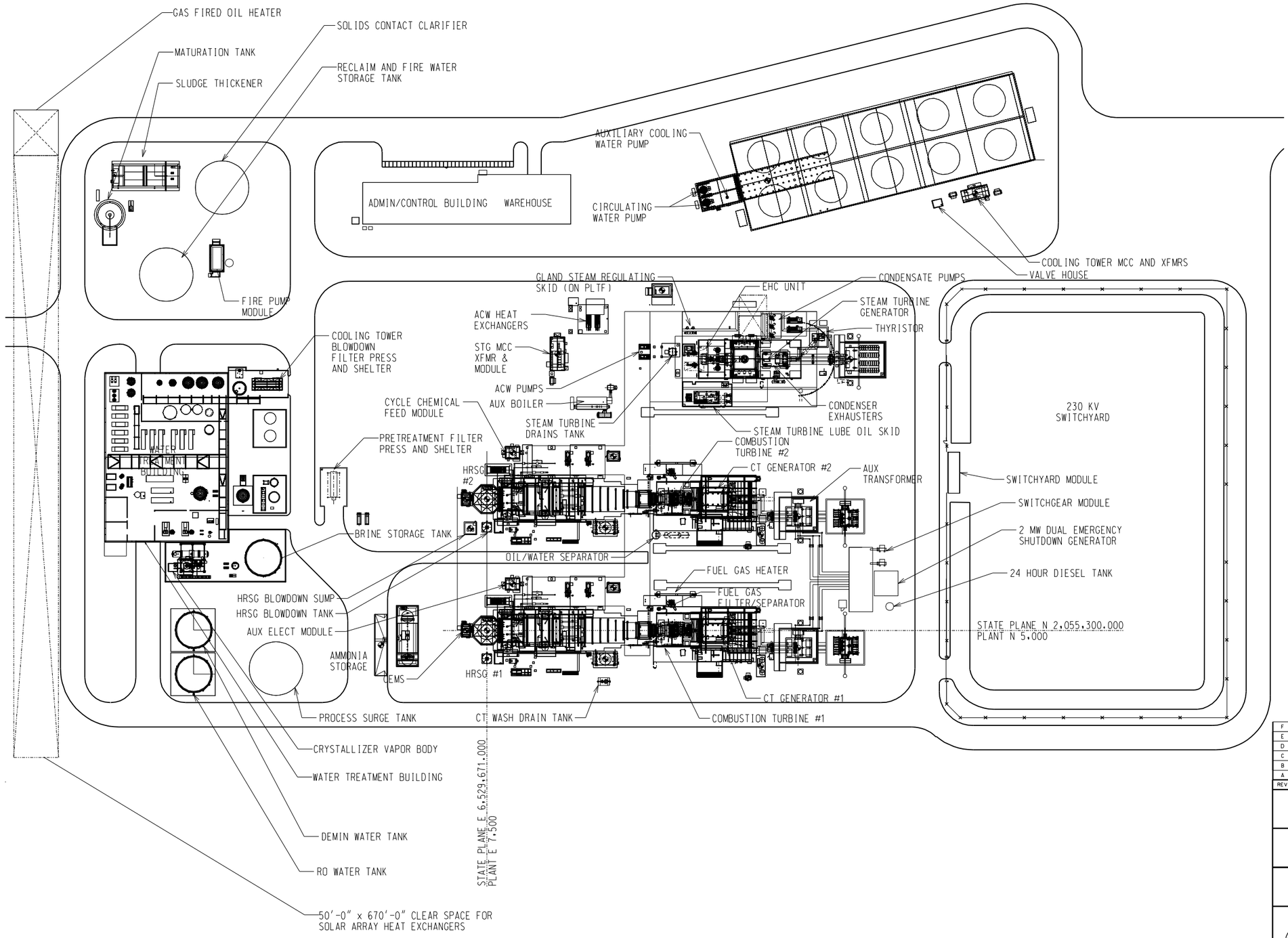
CONCEPTUAL SITE LAYOUT

	by	date
DESIGNED	MDM	01-06-09
DRAWN	MDM	01-06-09
CHECKED		
APPROVED		

DRAWING NUMBER
2007-021-CM-022609

NOTES:

1. IN FINAL DESIGN COOLING TOWERS WILL BE IN LINE WITH PERVAILING WIND CONDITION
2. ADDITIONAL AREA FOR SOLAR HEAT EXCHANGERS IF REQUIRED



REV	DESCRIPTION	DWN	CHK	APP	DATE
F	REMOVED CONFIDENTIAL NOTE	PDW		DJJ	02-26-09
E	ISSUED FOR REVIEW	JAH		SJL	11-13-08
D	REVISED TITLE BLOCK INFORMATION	DAD		SJL	07-24-08
C	ISSUED FOR CEC APPLICATION	DAD		PAP	06-26-08
B	REVISED PLANT LAYOUT	JAL		RRT	06-26-07
A	PRELIMINARY	BDL		RRT	05-23-07

CITY OF PALMDALE

PALMDALE HYBRID POWER PROJECT

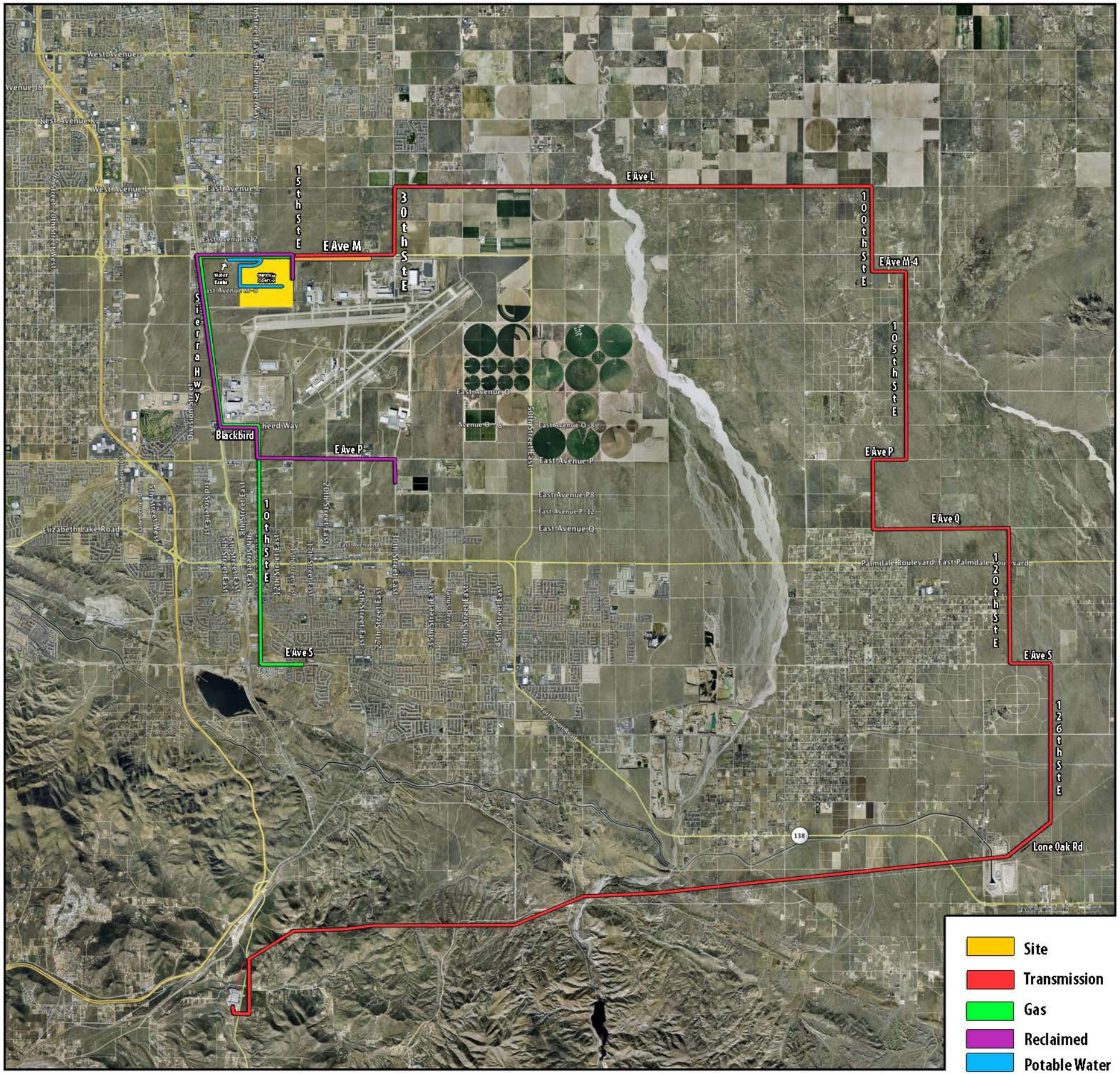
Kiewit
Kiewit Power
8455 Lenexa Drive
Lenexa, Kansas 66214

GENERAL ARRANGMENT
POWER BLOCK

	by	date
DESIGNED	RRT	05-23-07
DRAWN	BDL	05-23-07
CHECKED	---	-----
APPROVED	---	-----

DRAWING NUMBER

2007-021-PP-001



Palmdale Hybrid Power Project Map #090224

STATE OF CALIFORNIA
ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

In the Matter of:	)	Docket No. 08-AFC-9
	)	
Application for Certification,	)	**PROOF OF SERVICE LIST**
for the CITY OF PALMDALE HYBRID	)	
POWER PLANT PROJECT	)	(Revised February 27, 2009)
	)	
	)	

☒ Transmission by depositing one original signed document and twelve (12) copies with an overnight mail delivery service at Camarillo, California with delivery fees thereon fully prepaid and addressed to the following:

DOCKET UNIT

CALIFORNIA ENERGY COMMISSION
Attn: DOCKET NO. 08-AFC-9
1516 Ninth Street, MS-15
Sacramento, California 95814-5512
docket@energy.state.ca.us

☒ Transmission via regular mail delivery to the following:

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PALMDALE HYBRID POWER PROJECT
CEC Docket No. 08-AFC-9

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DECLARATION OF SERVICE

I, Sara J. Head, declare that on February 28, 2009, I served and filed copies of the attached:

PALMDALE HYBRID POWER PROJECT
SUPPLEMENTAL RESPONSES TO CEC DATA REQUESTS SET 1

The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service List, as shown above. The document has been sent to both the other parties in this proceeding (as shown on the Proof of Service List) and to the Commissioner's Docket Unit, in the following manner: sent through overnight mail or regular mail delivery service at Camarillo, California with delivery fees thereon fully prepaid and addressed to the California Energy Commission and to those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

Sara J. Head