CONTRA COSTA LOCAL AGENCY FORMATION COMMISSION
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(925) 335-1094 • (925) 335-1031 FAX

July 13, 2011 (Agenda)

July 13, 2011
Agenda Item 8

Contra Costa Local Agency Formation Commission (LAFCO)
651 Pine Street, Sixth Floor
Martinez, CA 94553

Northeast Antioch Monthly Update

Dear Commissioners:

On February 9, the Commission approved the extension of out of agency service by the City of Antioch and Delta Diablo Sanitation District to the Marsh Landing Generating Station property located in unincorporated northeast Antioch. The Commission's approval requires that the City and County provide LAFCO with monthly updates regarding the status of the joint City/County Economic Development Strategy for northeast Antioch, the proposed annexation of the area, and the tax transfer negotiations. A subcommittee was formed to address these issues.

On June 27, Commissioner McNair and LAFCO staff attended the subcommittee meeting, at which time the group received additional information relating to septic systems and other infrastructure issues in Area 2b (residential area), and updates on consulting contracts and the work program. The next subcommittee meeting is scheduled for July 25, 2011, 5:30 pm.

The City and County have submitted their written monthly update (attached).

RECOMMENDATIONS

1. Receive and file the written monthly City/County update;
2. Receive comments from the LAFCO subcommittee representatives; and
3. Provide direction as appropriate.

Sincerely,

LOU ANN TEXEIRA
EXECUTIVE OFFICER

Attachment - Monthly Written Update from the City of Antioch and Contra Costa County

July 5, 2011

Mr. Michael McGill, Chairman
Contra Costa LAFCO
651 Pine Street, 6th Floor
Martinez, CA 94553

Dear Chairman McGill:

This letter constitutes the fifth monthly update provided to LAFCO by City and County staff concerning the status of the Northeast Antioch Annexation. This letter reflects staff activities since our last report for the June 8 LAFCO meeting. This update also provides information on upcoming meetings and other anticipated actions relevant to the Northeast Antioch Annexation.

The third Northeast Antioch Annexation Subcommittee meeting was held on June 27. Subcommittee members: 1) approved the Record of Action from the May 23 meeting (attachment #1); 2) were provided a map analysis of Northeast Antioch Annexation Area 2B; 3) received an infrastructure cost update from Carlson, Barbee & Gibson, Inc.; 4) received information from staff, including Ron Bernal, Director of Public Works, City of Antioch, concerning Area 2B's infrastructure requirements; 5) engaged in a discussion amongst Subcommittee members, staff, and consultants regarding what infrastructure needs are necessary and the potential cost of infrastructure construction, and; 6) received an update on the Work Program schedule.

At the May 23rd Subcommittee meeting, County Environmental Health staff discussed how County Health Code regulations for domestic well and septic systems are applied to the residential lots in Area 2B, Northeast Antioch Annexation. County Environmental Health staff identified septic system replacement for residential lots in Area 2B as one of their key concerns because most of these lots cannot meet current County Health Code regulations for minimum setback requirements due to the size and configuration of the lots. Pursuant to this discussion, the Subcommittee requested staff to prepare a map identifying residential parcels in proposed annexation Area 2B in relation to regulation/standards for septic systems. Staff prepared an aerial map (attachment #2) in which:

- Residential lots were plotted reflecting the County's required 50 foot setback of the leachfield from property line with on-site well for water supply, 10 foot setback of the septic tank from structure and foundations;

- The age of the residence (indicative of septic system age), and;

- The number of bedrooms (indicative of septic system size required).

The map illustrates that most, if not all, the residential lots in Area 2B cannot meet the current regulations' minimum setback requirements for septic systems, as well as, that homeowners in the area would likely experience difficulty in securing permits to replace the aging septic systems. Given this scenario, Carlson, Barbee & Gibson, Inc. (CBG) supplied updated cost estimates for providing **basic** services to this area.

Andrea J. Bellanca, P.E., P.L.S., Carlson, Barbee & Gibson, Inc., presented and discussed the updated costs of providing the critical infrastructure necessary for providing sanitary sewer and potable water services to Area 2B. In their review of the critical infrastructure required to serve Area 2B, CBG assumed that the sanitary sewer and potable water services were the most critical utilities necessary to serve the area. (It is important to note that Contra Costa County Health Services shared with the Subcommittee, at the May 23 meeting, that sewer and water were their concerns, as well).

The infrastructure construction cost to provide **basic** potable water and sewer was estimated at $3,442,400 (attachment #3). The updated estimate is markedly less expensive than their original 2009 estimate. In 2009, Area 2B was estimated to cost $11.293 million plus 25% contingency of $2.823 million for a total of $14.116 million. This estimate included construction of 1.6 miles of residential roads. In addition, in order to conform to City of Antioch standards, costs included:

- Right of way acquisition for road widening;
- New street sections, curb, gutter, sidewalk, and landscaping;
- Storm drain improvements and two new trunk storm drain lines to existing regional detention basins;
- Sanitary sewer construction and laterals to each parcel;
- Water line construction and laterals to each parcel; and
- Relocating existing power lines.

Ron Bernal, Director of Public Works, City of Antioch, suggested that providing the very "basic" services still leaves outstanding issues, including:

- Sewer and water improvements should be installed in Wymore Way;
- Concurrent design of the storm drain with other utilities;
- Overlay the paved streets impacted by utility installation;
- Future maintenance funding, and;

- Connection fees.

In order to focus discussions, CBG is developing a "menu" of items, with costs, for the Subcommittee's consideration. The potential of a phased plan is also being studied. Staff is searching for potential grant funding and other revenue possibilities to help finance the infrastructure costs.

The Subcommittee received an updated Work Program Calendar (attachment #4) and was advised the status of consulting contracts/work. It is anticipated that Keyser Marston Associates', "Northeast Antioch Annexation Area Market Analysis" draft, capturing market and property tax economics, will be available the week of July 4.

In conclusion, the Northeast Antioch Subcommittee and staff are: assessing infrastructure requirements and costs; developing financing and revenue opportunities; analyzing disadvantaged community legislation, and; building the cornerstones of a mutually beneficial agreement. We continue to work diligently towards a responsible solution.

The next Subcommittee meeting is scheduled for July 25, 5:30 p.m., Antioch Public Works Training Room, 1201 West Fourth Street.

Jim Jakel
Antioch City Manager

Rich Seithel
Senior Deputy
County Administrator's Office

Cc: Antioch City Council
Contra Costa County Board of Supervisors
Lou Ann Texeira, Executive Director, LAFCO

Att. Record of Action of May 23 meeting
Area 2B aerial photos and Environmental Health website excerpts
CBG Draft Antioch Annexation Estimate
Work Program Calendar as of June 27, 2011

CITY OF ANTIOCH, CONTRA COSTA COUNTY, & LAFCO
NORTHEAST ANTIOCH ANNEXATION SUBCOMMITTEE

Monday, June 27, 2011
Agenda Item #3

To: Subcommittee Members

From: Rich Seithel, Pat Roche, Contra Costa County;
Victor Carniglia, Mindy Gentry, City of Antioch

Subject: Record of Action from May 23 meeting

AGENDA ITEM #1: Introductions

County Supervisor Federal Glover, City Councilmember Gary Agopian, City Councilmember Mary Rocha, LAFCO Commissioner Martin McNair, and LAFCO Commissioner Dwight Meadows were in attendance. Staff introductions were made and the meeting was called to order.

AGENDA ITEM #2: Public Comment

There were no public comments.

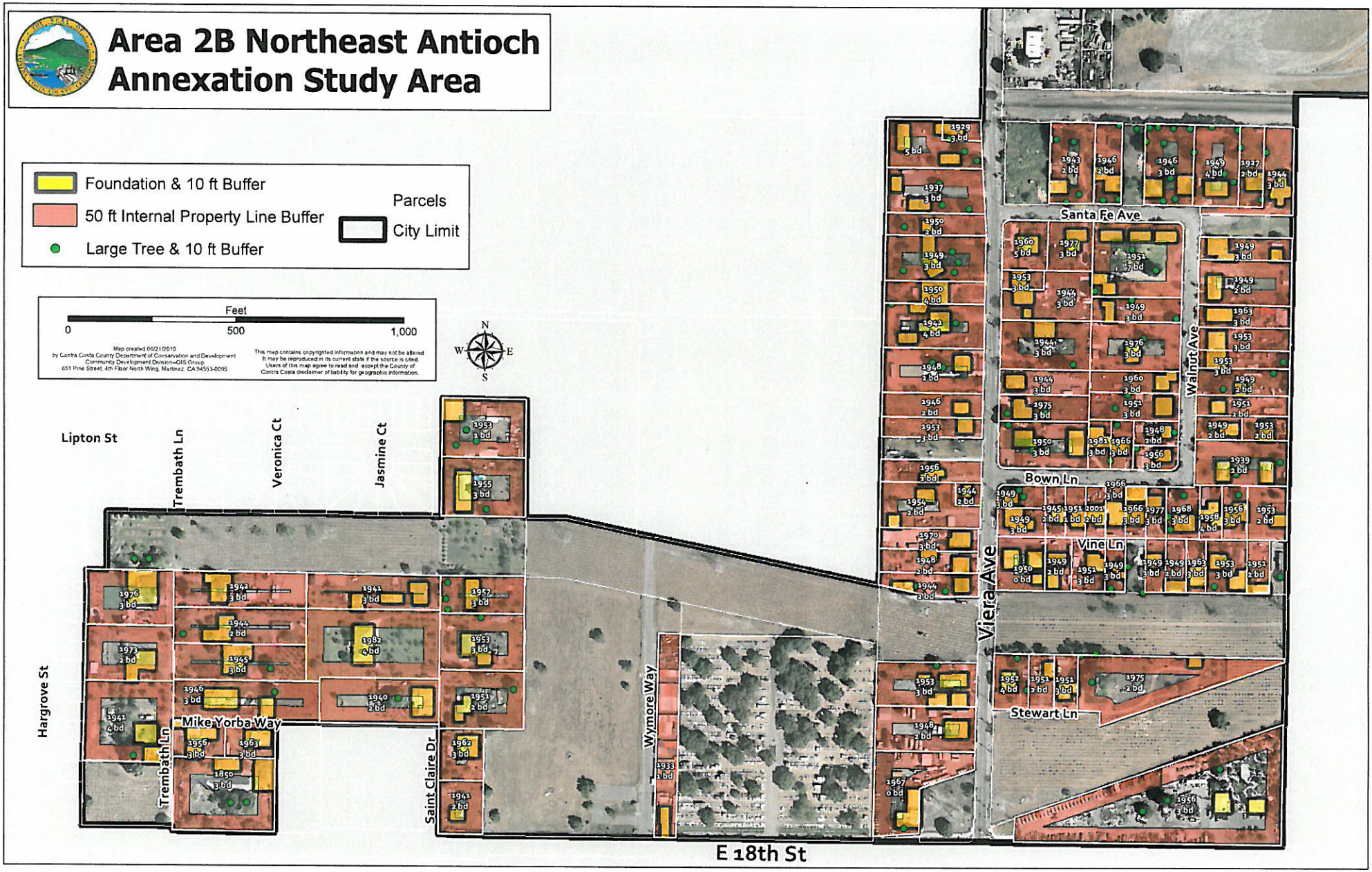
AGENDA ITEM #3: Approve the April 25 Record of Action

The Record of Action was unanimously approved.

AGENDA ITEM #4: Presentation and Discussion with Contra Costa County Health Services Environmental Health Division Concerning the Residential Area in the Proposed Annexation Area(s)

The Subcommittee received information from staff, including Contra Costa Environmental Health (CCEH) staff (Marilyn Underwood, Director, Environmental Health, Richard Lee, Assistant Director, Environmental Health, and; John Wiggins, Supervising Environmental Health Specialist). CCEH staff discussed how County Health Code regulations for domestic well and septic systems are applied to the residential lots in Area 2B, Northeast Antioch Annexation. In their concluding remarks, CCEH staff stressed that septic systems, such as Area 2B, are considered temporary requiring eventual replacement with sanitary sewer to ensure groundwater and public health protection.

Area 2B Northeast Antioch Annexation Study Area



ATTACHMENT #2

Excerpts!

CONTRA COSTA
HEALTH SERVICES

Environmental Health
2120 Diamond Blvd., Suite 200 Concord, CA 94520
Phone: (925) 692-2500 Fax: (925) 692-2504

HEALTH OFFICER REGULATIONS CHAPTER 420-6

Subdivisions & Individual Systems

Adopted by the Health Officer on October 3, 2000
pursuant to County Ordinance Code section 420-6.307

Effective Date: October 17, 2000

h. Location of proposed replacement area.

i. Distances to lot lines, wells, creeks, streams and structures to determine compliance with setback requirements.

j. Details of construction (on the septic tank, trench, sump and pump, etc.) as necessary to assure compliance with the Ordinance Code, these regulations, and the Uniform Plumbing Code. This shall include quality, kind and grade of materials, and methods of assembly and installation.

k. Such other features and/or detail as the Health Officer may reasonable require.

420-6.412 SITE PLAN REQUIREMENTS, ALTERNATIVE SYSTEMS

In addition to all of the site plan requirements for a standard system, the site plan for an alternative system shall include the following:

a. Calculations for the complete sizing and layout of the alternative systems.

b. Distribution network design, including hydraulic calculations for pump sizing.

c. Schematic of the distribution system, indicating spacing of the perforations and orifice size.

d. Cross-section of the alternative system.

e. Details and/or cross section of:
   1. Transmission line.
   2. Dose counter and alarm system (dose volume and frequency must be specified).
   3. Monitoring well location(s) and specifications.
   4. Equipment specifications.
   5. Other components of the alternative system.

f. Such other feature and/or detail as the Health Officer may reasonably require.

420-6.414 SUBDIVISIONS PROPOSING INDIVIDUAL SYSTEMS

An individual system serves one parcel only. Proposals for sewage disposal systems that serve two (2) or more parcels are considered public sewage disposal systems and are subject to different requirements. Each parcel proposed to be created and relying on an individual system for sewage disposal shall satisfy all of the requirements to obtain a construction permit for an individual system on the parcel.

The tentative map and parcel or final map shall identify and show, for each parcel created, all boundaries of the acceptable drainfield and replacement area, soil profile holes, groundwater determination holes and percolation test holes. All of these features shall also be clearly located and identified in the field by a registered professional. All site development plans such as for roads, road cuts,

grading, proposed structures, drainage plans and water system elements shall also be noted on the tentative map and parcel or final map.

420-6.416 ADDITIONS AND REMODELS

a. Additions shall not encumber the replacement area.

b. **Classes.** Additions to and remodels of existing structures may require upgrades or alterations to the individual system. Upgrades and alterations to an individual system may only be done pursuant to a construction permit. (Ordinance Code section 420-6.303) The intent of the establishment of the following classes of sewage disposal is to provide uniform and consistent guidelines for additions and remodels. These classes apply to this section only.

Class 1. The individual system is in compliance with all current requirements and an unencumbered 100 percent approved and reserved drainfield replacement area exists.

Class 2. The individual system is not in compliance with all current requirements. However, the system was installed pursuant to a permit, no modifications were made in violation of the permit, the sizing and setback criteria can be met, an unencumbered 100 percent, approved and reserved drainfield replacement area exists, and there is no history of the system.

Class 3. The individual system is functioning properly but may be undersized or not in compliance with setbacks and depth to limiting conditions. Replacement area may be limited or unavailable.

Redwood Septic Tanks. Dwellings with redwood septic tanks or cesspools will not be approved for any additions or remodels until an approved individual system is installed.

c. **Requirements for Additions and Remodels.** Additions and remodels have been categorized into four types. The approval of the proposed type of addition and/or remodel will be based on the class of individual system existing at the property. For purposes of this section only, "living area" means the habitable, heated portion of the dwelling, not normally including areas such as storage or a garage, and square footage as determined by outside measurements.

1. Bedroom additions: A Class 1 system is required. The system may be required to be expanded.
2. Non-bedroom additions (including any increase in square footage of living area including detached structure):
    a. 0-55 percent increase in square footage requires a minimum of a Class 2 system.
    b. Over 55 percent increase in square footage requires a Class 1 system.
3. Remodeling of existing dwellings (or remodeling without addition):

a. Remodeling involving 0-55 percent of the square footage of the existing dwelling requires a minimum of a Class 2 system.
b. Remodeling involving over 55 percent of the square footage of the dwelling requires a Class 1 system.

4. Detached non-living or non-habitable additions or remodels (such as a garage, barn or patio) to an existing structure require at least a Class 2 system.

420-6.418 REQUIREMENTS FOR COMMERCIAL BUILDINGS

An application for a change in use, addition or remodel of a commercial system must include an evaluation by a registered professional or the integrity and performance of the existing sewage disposal system, the flow and strength of the wastewater and the proposed wastewater flow and strength.

An application for a change of use, addition and/or remodel will be approved without requiring a system upgrade if the system is functioning properly, the required replacement area exists pursuant to the approved system design, and there will not be an increase in the flow and/or strength of the wastewater.

A change of use, addition and/or remodel that results in an increase in the flow and/or the strength of the wastewater will require that the sewage disposal system be upgraded to handle the proposed wastewater flow and strength and meet the current standards for individual systems.

420-6.420 INDIVIDUAL SYSTEM REPAIRS

a. Repairs to an individual system generally involve an alteration to or replacement of a malfunctioning component of the system. If the malfunction creates a public health hazard and/or nuisance, the repair must be made immediately pursuant to a construction permit to eliminate the hazard and/or nuisance. A registered installer or registered professional shall evaluate the malfunctioning system to determine the source of the malfunction. The written evaluation shall include a review of the age and history of the system, the design flow and the actual flow, the site and soil conditions, and the best available technology to repair the system based on the review.

The application may include the use of a holding tank or chemical toilet during the repair of system on a temporary basis when no other alternative is available.

b. Repair to Redwood Septic Tank. An existing redwood septic tank may be repaired under the following conditions:

1. A sanitary sewer is not available.
2. The tank has been pumped and the system inspected by a licensed contractor to show:
   a. The bottom, sides and ends of the tank are structurally sound;
   b. The septic tank and leach field appear to be functioning normally.

3. The repair(s) are limited to:
    a. Replacement of the top boards;
    b. Resecuring of the baffle(s);
    c. Upgrading the outlet or inlet.

420-6.422 ABATEMENT

Any individual system that causes sewage to surface on the ground and/or cause performance well test samples to exceed the system failure levels listed in section 420-6.812 (Performance Results) is deemed to be an improperly functioning system (section 420-6.109), have an adverse effect on groundwater and surface water, and a public health hazard and nuisance. Such a system may be immediately corrected or abated by order of the Health Officer. Any replacement, repair, alteration, enlargement, improvement or reconditioning of an improperly functioning system must be conducted with a construction permit issued by the Health Officer.

420-6.424 ABANDONMENT

a. A construction permit is required to abandon an individual system or any part thereof. If a parcel is connected to a public sewer, the individual system shall be abandoned.

b. The following requirements apply to the abandonment of a septic tank or sump:

    1. The septic tank and/or sump shall be pumped of all contents by a licensed septic tank chemical toilet cleaner.
    2. The tank and/or sump lid(s) shall be removed and disposed at a sanitary landfill.
    3. Several holes shall be made in the bottom of the septic tank and/or sump.
    4. The septic tank and/or sump shall be filled with pea gravel, drain rock or compacted native soils.

ARTICLE 420-6.6: SYSTEM REQUIREMENTS AND CRITERIA

420-6.602 SITE EVALUATION

An individual system shall only be permitted in natural undisturbed ground areas. Modifying, cutting, benching or altering in any way, a site being considered for placement of an individual system, shall invalidate the site for consideration of an individual system if the Health Officer finds that the modification or alteration prevents the proper evaluation of the site. The site will thereafter not be considered for the placement of an individual system until the Health Officer finds that the site conditions have returned to its natural state.

420-6.604 SITE CRITERIA

The following minimum site criteria are established for the protection of water quality and the prevention of health hazards and nuisance conditions which could arise from discharges of sewage on individual sites.

a. **Ground Slope and Stability.** Natural ground slope in all areas to be used for effluent disposal shall not be greater than 20 percent for standard systems and 30 percent for suitable alternative systems. All soils to be utilized for effluent disposal shall be stable.

b. **Soil Depth.** Soil depth is measured vertically to the point where bedrock, hardpan, impermeable soils, saturated soils or excessive rock content are encountered. Minimum soil depth shall be determined based upon soil quality and type of system.

c. **Depth to Groundwater.** Minimum depth to the anticipated highest level of groundwater below the bottom of the leaching trench shall be three feet for standard systems and pressure dosing systems and two feet for pre-treated alternative systems such as sand filter systems and mound systems.

d. **Soil Percolation Rates.** Soil percolation rates for standard systems shall be one (1) to sixty (60) minutes per inch. Alternative systems shall be allowed for soil with percolation rates from one (1) to one hundred and twenty (120) minutes per inch. A pressure dose distribution system will be required for soil with percolation rates of one (1) to five (5) minutes per inch with limiting factors of high groundwater and/or shallow soils.

e. **Setback Distances.** Minimum setback distances for various features of individual systems shall be as shown in APPENDIX 1. *

f. **Replacement Area.** An adequate drainfield replacement area equivalent to and separate from the primary drainfield area shall be reserved at the time of site approval. Incompatible uses of the replacement area is prohibited.

420-6.606 ADDITIONAL CRITERIA

The Health Officer may also require any other information necessary to evaluate the suitability of proposed individual system. If, in the opinion of the Health Officer, the land proposed for the individual system has severe soil limitations, submission of a technical report prepared by a licensed engineering geologist, registered geologist, registered environmental health specialist or similarly qualified soils expert shall be required. If the Health Officer believes that the introduction of sewage effluent into the soil may create slope instability, a technical report prepared by a licensed engineering geologist or registered geologist shall be required.

APPENDIX 1
SETBACK REQUIREMENTS

MINIMUM HORIZONTAL DISTANCE REQUIRED FROM:	Septic tank, Interceptor, Dosing tank, Holding tank, Distribution box	Disposal Field, Replacement Area	Piping (ABS or Cast Iron)	Piping (PVC or other)
Wells and springs	100 feet	100 feet	25 feet	50 feet
Bays, streams, rivers, ditches, canals, culverts or 10 year flood plains (1)	100 feet	100 feet	25 feet	50 feet
Ephemeral streams, rivers, ditches, canals or culverts (1)	50 feet	50 feet	25 feet	50 feet
Lake or reservoir (1)	100 feet	200 feet	25 feet	50 feet
Domestic water supply reservoir or tributary stream thereof (1)	1,000 feet	1,000 feet	25 feet	50 feet
Property line with public water supply and no on-site well	10 feet	10 feet		10 feet
Property line with on-site well or spring water supply	25 feet	50 feet *		10 feet
Structures and foundations	10 feet *	10 feet		5 feet
Impervious surfaces		5 feet		
Areas subject to vehicular traffic		5 feet		Not allowed
Cutbanks, fill banks, cuts – manmade or escapements	10 feet	4 x height (100 feet maximum)		10 feet
Areas subject to inundation or stormwater run off	5 feet	10 feet		5 feet
Easements and right-of-ways (3)	5 feet	5 feet	5 feet	5 feet
Water lines – public	10 feet	10 feet	1 foot	10 feet
Water lines – private (4)	5 feet	5 feet	1 foot	10 feet

DRAFT

June 10, 2011
Job No.: 1622-010

MEMORANDUM

TO: Victor Carniglia - City of Antioch

FROM: Andrea J. Bellanca, P.E., P.L.S. - Carlson, Barbee & Gibson, Inc.

SUBJECT: Antioch Annexation Estimate

In reviewing the critical infrastructure required to serve 'Area 2B' of the northeast Antioch Annexation area, Carlson, Barbee & Gibson, Inc. (CBG) assumed that the sanitary sewer and potable water services were the most critical utilities necessary to serve the site.

CBG has prepared an updated estimate to reflect the costs associated with providing only the sanitary sewer and potable water services to the site. For the purposes of this memorandum, we refer to the 'Viera Avenue' site to include Viera Avenue, Santa Fe Avenue, Walnut Avenue, Bown Lane, Vine Lane, and Stewart Lane. We refer to the 'Mike Yorba Way' site to include Mike Yorba Way, Trembath Lane, and St. Claire Drive. We assumed that Wymore Way would not require utility service at this time.

Potable Water

Viera Avenue Site: There is an existing 16" water line located within Viera Street. This estimate assumes that service laterals can be hot tapped from this 16" line to serve the homes fronting on Viera Street. 8" water mains would be 'cut-in' off of the existing 16" to service the minor side streets.

Mike Yorba Way Site: An 8" water line would be hot-tapped into the 12" water line on East 18th Street and connected to the 6" water stubs at the end of Lipton street to the north.

Sanitary Sewer

Viera Avenue Site: Sewer service will be provided by extending the 15" sewer on Wilbur Avenue constructed by PG&E located to the east. An 8" sewer would be constructed within all of the streets in the Viera Avenue Site.

Mike Yorba Way Site: Sewer service would be extended north on Trembath Lane to serve Trembath Lane and Mike Yorba Way. Sewer service would be extended up St. Claire Drive by tying into the existing 6" sewer line constructed across East 18th Street by the Gateway Christian Center.

Alternatives: CBG investigated alternative sewer connection points for the Viera Avenue Site. One option was to connect to the existing 15" sewer main located south of the Holy Cross Cemetery. Another option was to connect to the existing sewer in Viera Street.

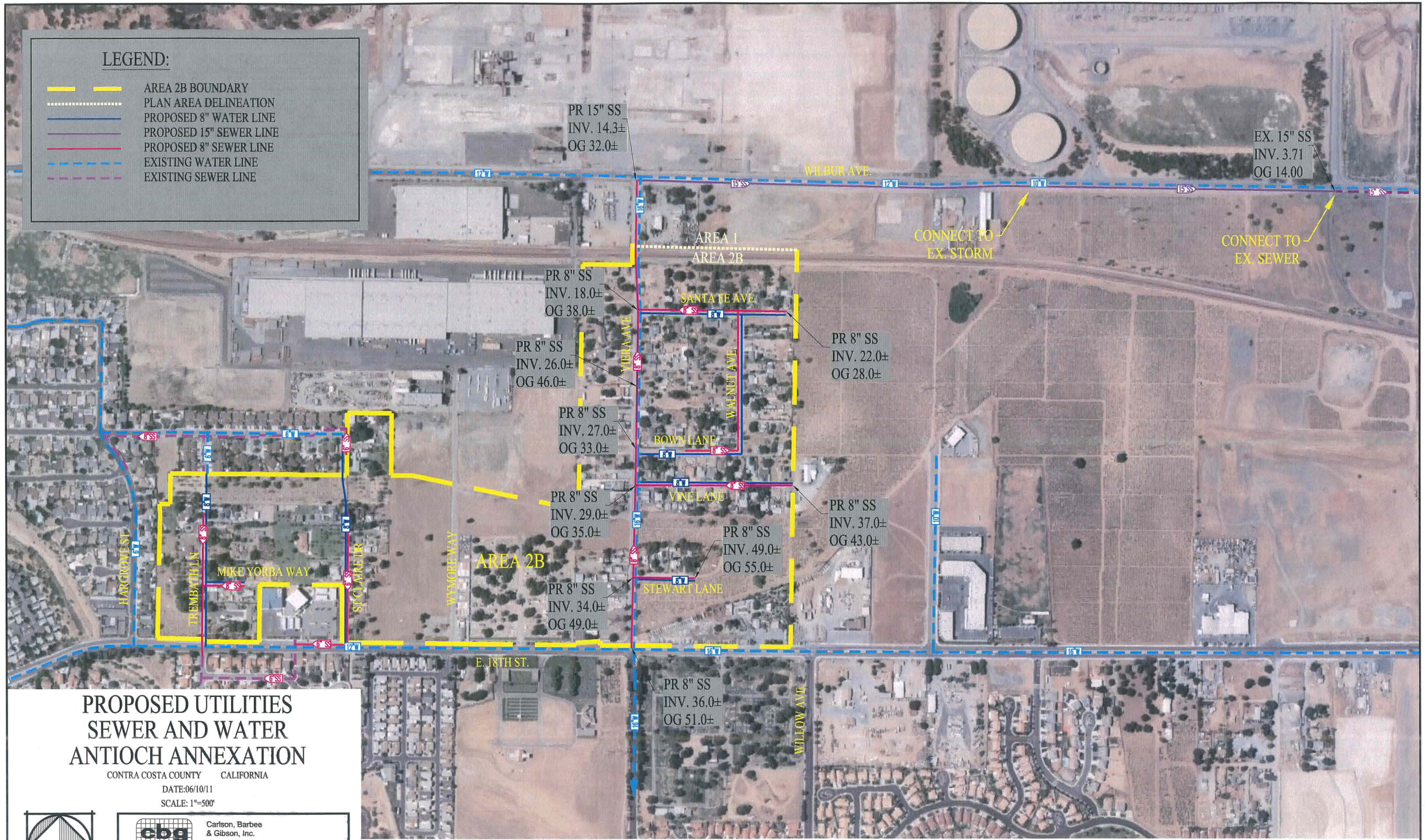
The existing sewer in Viera Street appears to be too shallow to provide service to all of the Viera Avenue Site.

Connecting to the existing 15" sewer south of the Holy Cross cemetery requires the proposed sewer pipe to have a minimum slope. The existing topography has the intersection of East 18th Street and Viera Avenue at elevation 50 and the eastern end of Santa Fe Avenue at elevation 28. Because of this, the proposed sewer would end up being 40' deep which appeared infeasible.

Summary

The infrastructure construction costs are as follows:

Potable Water	$981,900
Sanitary Sewer	$2,460,400
Total	$3,442,400



PROPOSED UTILITIES
SEWER AND WATER
ANTIOCH ANNEXATION

CONTRA COSTA COUNTY CALIFORNIA

DATE:06/10/11

SCALE: 1"=500'

Carlson, Barbee & Gibson, Inc.
CIVIL ENGINEERS • SURVEYORS • PLANNERS
6111 BOLLINGER CANYON ROAD, SUITE 150
SAN RAMON, CALIFORNIA 94583
(925) 866-0322
FAX (925) 866-8575
SAN RAMON • LATHROP

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WORK PROGRAM CALENDAR as of June 27, 2011

	Description	Target Date	Status	Completed/On-Time
Task #1	Finalize Work Program and Form Subcommittee: • Finalize Work Program • Form Subcommittee • Prepare Public Information Strategy	April 25, 2011 February 2011 Nov/Dec 2011	Finalized Formed Not Initiated	Yes/Yes Yes/Yes No/Yes
Task #2	Consensus on Fiscal Analysis: • Prepare and present draft market analysis • Prepare and present draft infrastructure cost analysis • Prepare and present updated fiscal analysis	June 27, 2011 June 27, 2011 August 22,2011	Consultant study initiated Consultant initiated update Dependent on prior analysis	No/No (targeting July) Draft Completed/Yes No/Yes
Task #3	Explore infrastructure financing models	To Be Determined	Exploration initiated	No/No schedule
Task #4	Tax Exchange/Revenue Sharing Agreement: • Subcommittee level • Board/Council level	October 2011 December 2011	Dependent on Task #2 and #3	No/Yes
Task #5	Land Use Requirements	May/June 2012	Dependent on Task #2	No/Yes
Task #6 and #7	Formalizing Economic Development Strategy	May 2012	Initiated	No/Yes