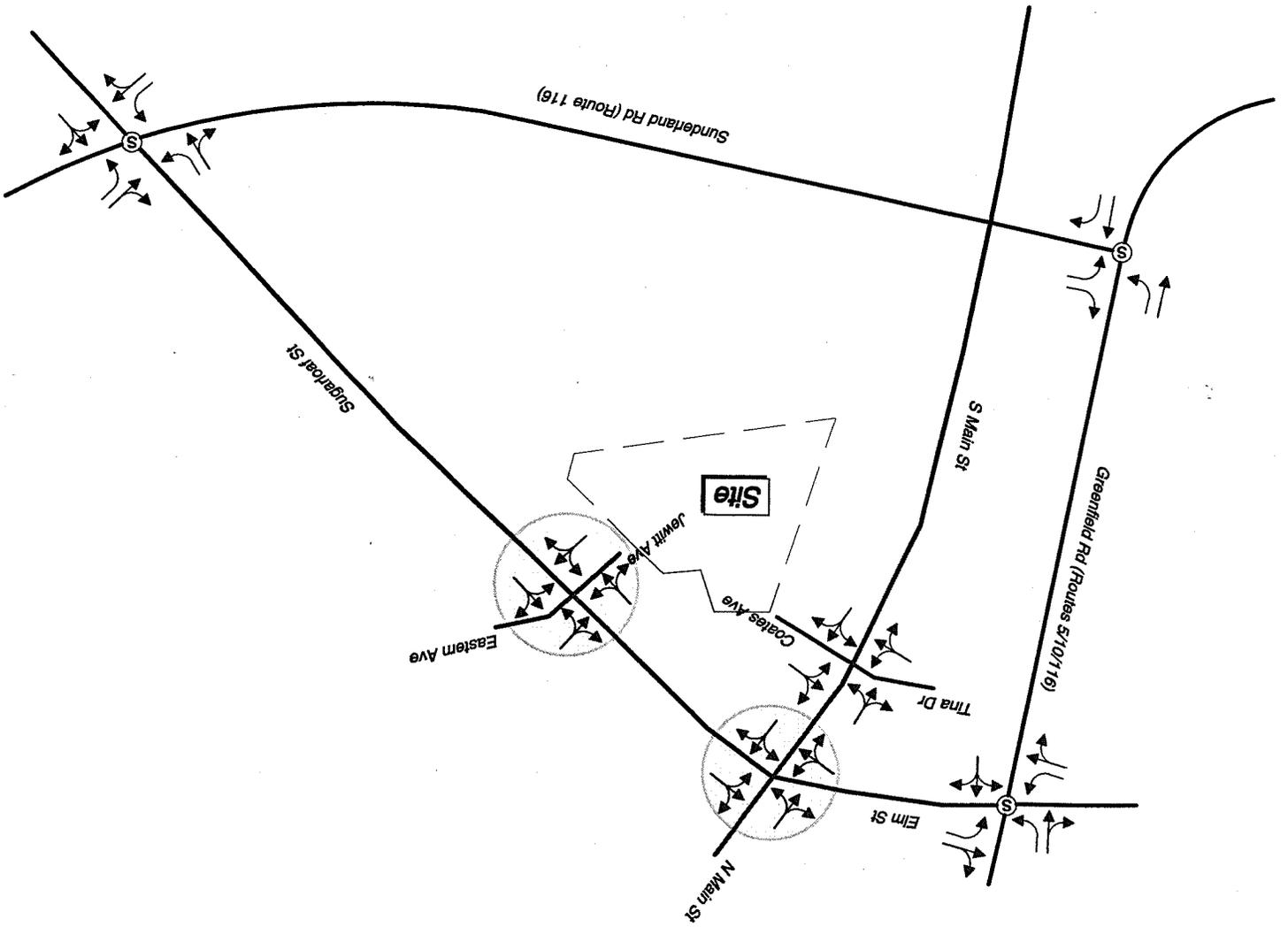


Figure 4-1

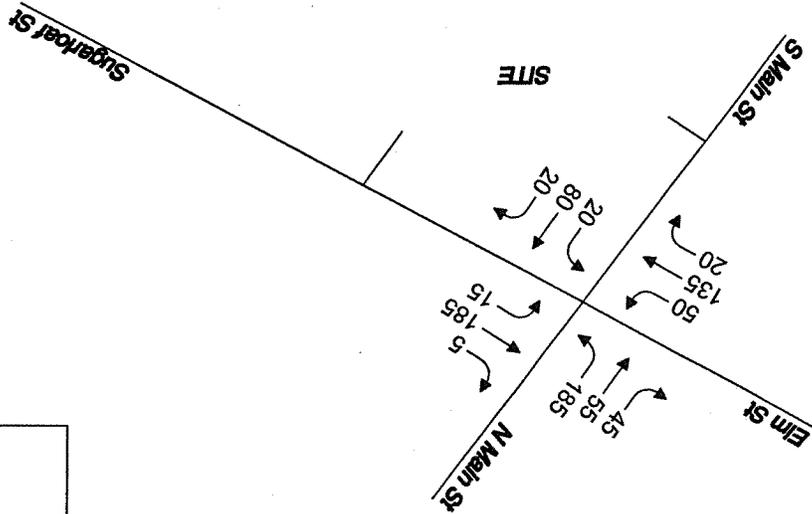
Vanasse Hangen Brustlin, Inc.

Not To Scale

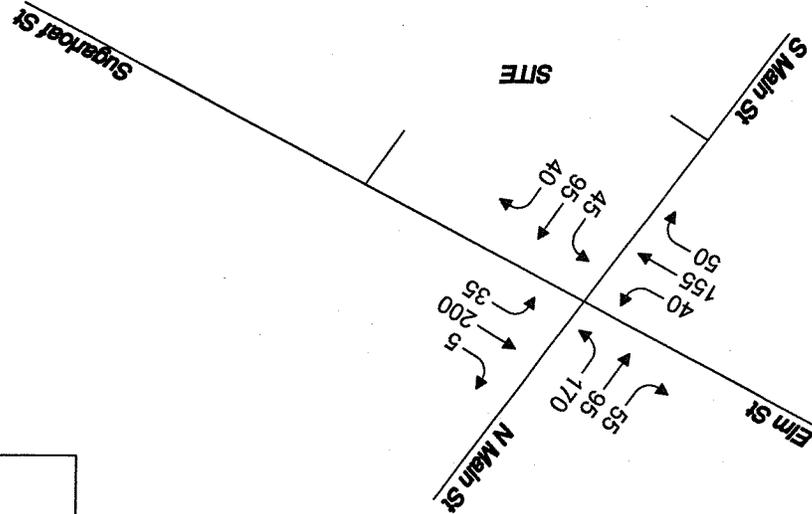


○ Indicates Study Area Intersections

Weekday Morning
Peak Hour Traffic Volumes
7:30 - 8:30 A.M.



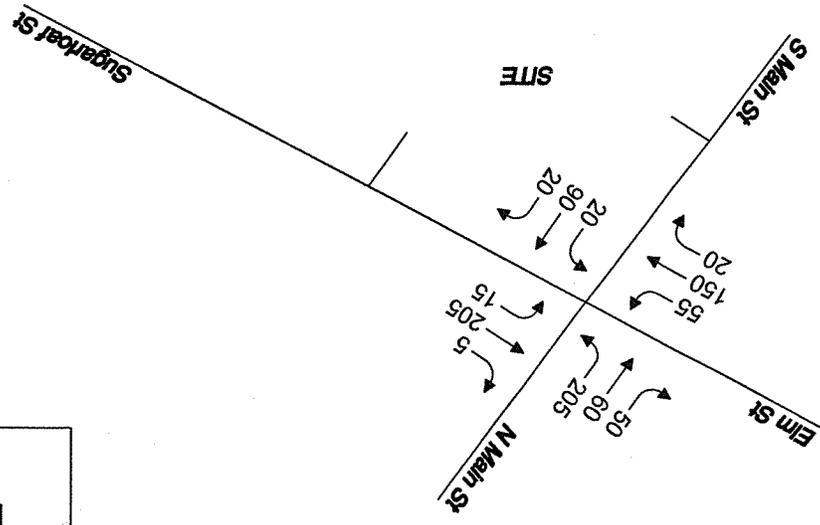
Weekday Evening
Peak Hour Traffic Volumes
4:15 - 5:15 P.M.



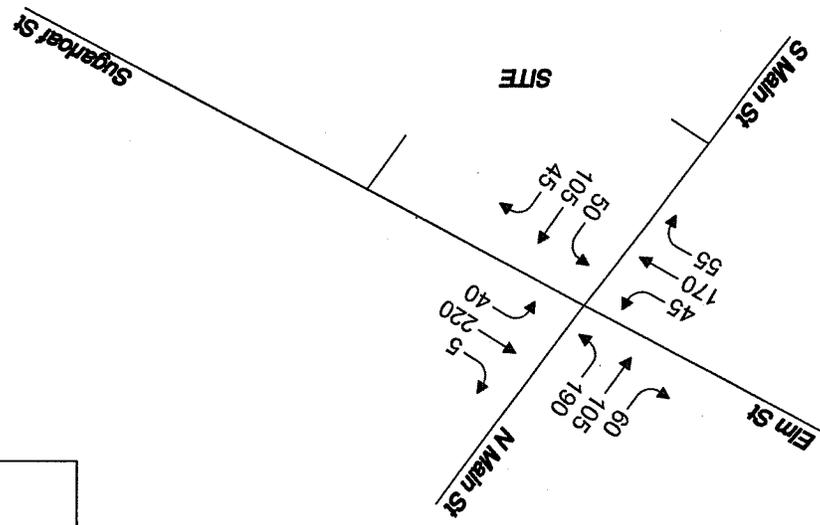
Vannasse Hangen Brustlin, Inc.

2009 Existing
Peak Hour Traffic Volumes
Figure 4-2

Weekday Morning
Peak Hour Traffic Volumes
7:30 - 8:30 A.M.



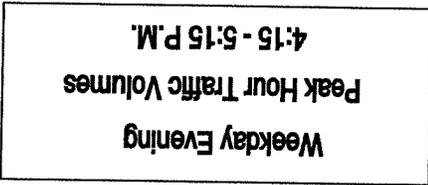
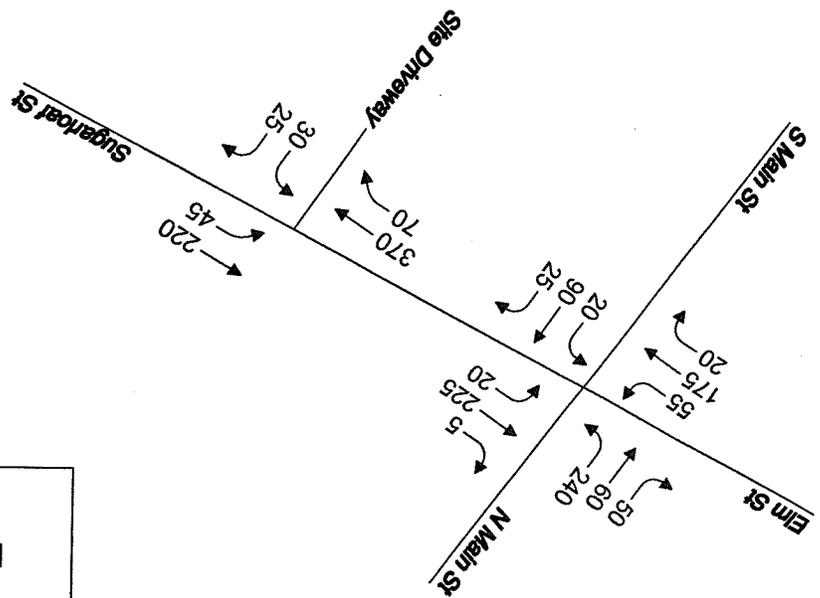
Weekday Evening
Peak Hour Traffic Volumes
4:15 - 5:15 P.M.



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2014 No Build
Peak Hour Traffic Volumes

Figure 4-3



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Figure 4-4

2014 Build
Peak Hour Traffic Volumes

Mixed Use Development

South Deerfield, MA



Sanitary Sewer



The Town of Deerfield Department of Public Works is the public entity having responsibility for sewer infrastructure within the Town of Deerfield. Currently, all sewage from the Town collects in local street sewer mains, all of which ultimately combine and outlet to the Town Interceptor Sewer Main. This large diameter transmission main conveys approximately 5-million gallons of sewage daily to the South Deerfield Wastewater Treatment Plant. Sewage in this interceptor flows north to south along South Main Street and west to Sunderland Road (Route 116). The South Deerfield Wastewater Treatment Plant currently has a design capacity of 0.85 million gallons of sewage daily, with a current demand of 0.45 million gallons per day. The Oxford Food facility was previously responsible for at least half of the

Utility Availability

All public and private utility companies serving the site were contacted to determine capacities, availability and accessibility of utility connections for the proposed development. All record information obtained from public and private utility companies is included in Appendix C for reference.

Introduction

The following details the results of an assessment of Existing Utility Infrastructure for the Project Site. An analysis of the existing utilities in and around the Project Site is important in developing a program for development for any site. Utility infrastructure construction is typically a costly effort when unexpected issues arise during the actual construction phase. Proper research and planning will help to eliminate any surprises and potential high-cost solutions.

Utilities

5

Water

The Town of Deerfield Water Department maintains infrastructure in the vicinity of the project site. The Oxford Food facility served as one of the largest consumers of water in Town, and multiple water services were used. The large 16" main in Sugarloaf Street provided the site with water via a 6" service. This service runs east-west through an abutting property. The second water service is located off of Coates Avenue. This 8" service runs north-south into the property. An 8" water line is also located in South Main Street, but does not provide an existing connection to the site. Indications from the Town of Deerfield Water Department suggest that adequate pressure, in the range of 100 psi, and flow rates are available in this area for domestic usage as well as fire protection. Figure 5-3 provides a graphic representation of the water distribution system in the vicinity of the site.

Currently, stormwater runoff generated by the site is retained on site by means of a vegetated basin which discharge to a separate vegetated wetland. The existing basin has sustained growth of vegetation like that of a wetland, and may be regulated as a resource area. Any potential development would reflect associated protective buffer zones. New detention/infiltration systems will be designed with the parcel redevelopment. On site, a closed drainage system conveys stormwater via catch basins, piping and manholes, to the design basin as previously described. The integrity of these structures and piping is unknown. Figure 5-2 provides a graphic representation of the stormwater management system in the vicinity of the site.

Stormwater Drainage

Record Plans show that the Project Site maintains a sanitary sewer connection to the municipal collection system along South Main Street. Field investigations indicate that this sewer service to have a depth of approximately 10-feet below grade. An additional 4" service is shown connecting to the main in Sugarloaf Street which provides sanitary sewer service to the Department of Public Works garage. Municipal records indicate that the Interceptor along South Main Street is a 21-inch interceptor main transmitting sewage waste south to Sunderland Road (Rte 116) and ultimately to the treatment plant. Additional sanitary sewer infrastructure is located in both Sugarloaf Street and Thayer Street. Figure 5-1 provides a graphic representation of the sewage collection infrastructure in the vicinity of the site.

BOD load to the plant. Indication from the Chief Plant Operator suggests that the plant has adequate capacity for development of the site. No other indication of potential issues was suggested.

Telephone

Verizon maintains telephone infrastructure surrounding the subject property. Service is available via overhead wires. Figure 5-4 provides a graphic representation of the telephone services in the vicinity of the site.

Cable Television

Comcast maintains cable television and high-speed communications infrastructure surrounding the subject property. Service is available via overhead wires. Figure 5-4 provides a graphic representation of the cable television services in the vicinity of the site.

Electric

Western Massachusetts Electric Company (WMECO) maintains infrastructure in the vicinity of the project site. Figure 5-5 provides a graphic representation of the electric services in the vicinity of the site. Service is available via overhead wires.

Gas

Berkshire Gas Company previously serviced the property when it was fully operational. Record plans indicate a 4" Intermediate Pressure gas main in South Main Street and a 4" Intermediate Pressure gas main in Coates Avenue which previously served the property. An additional main in Sugarloaf Street is located within the grass strip between the roadway and sidewalk along the south side, and would be available for future services. The representative from Berkshire Gas stated that since this property utilized gas as a primary method of processing and heating, adequate capacity can be expected for future development. Figure 5-6 provides a graphic representation of the electric services in the vicinity of the site.

Summary

Based on the information that was gathered and analyzed in this Chapter, it is expected that adequate utility capacity exists off-site to serve either of the two development scenarios. The two development scenarios propose a variety of uses, each generating different levels of demand on each utility. The two utilities that will vary the most based on the different uses are domestic water and sanitary sewage. We anticipate the concepts to approximately generate the following average daily demands:

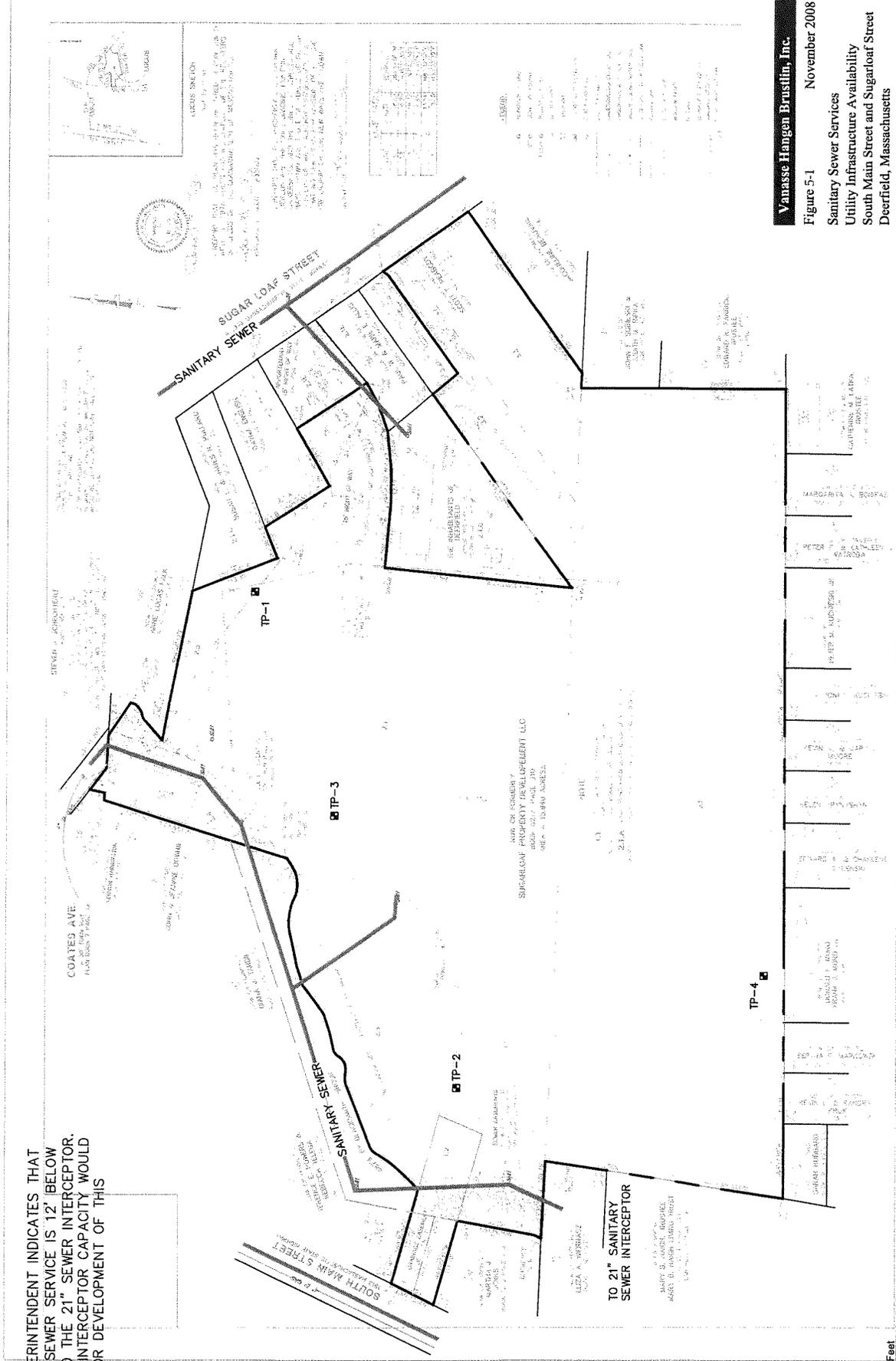
Mixed Use: Domestic Water: 14,500 gallons per day
Sanitary Sewage: 13,000 gallons per day

Light Industrial Use: Domestic Water: 6,750 gallons per day
Sanitary Sewage: 6,000 gallons per day

The conceptual demand on both the existing sewage system as well as the water distribution system does not exceed expectation, nor do we believe they exceed previous demands under the Oxford Foods development. Typically, food processing facilities generate a very large sanitary flow, and require large amounts of domestic water.

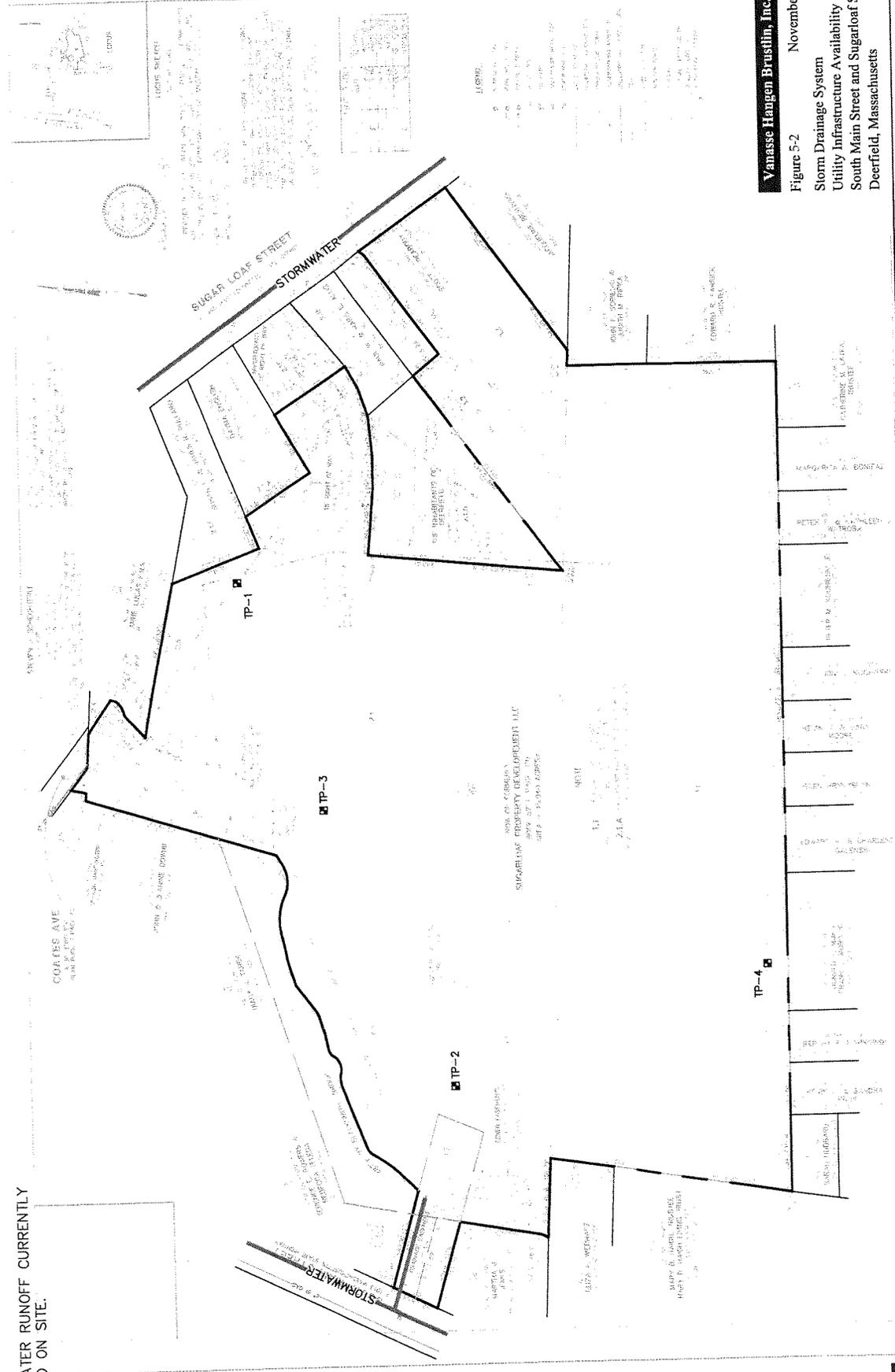
Other utilities demands will not be significantly affected by different development scenarios.

NOTES:
DPW SUPERINTENDENT INDICATES THAT EXISTING SEWER SERVICE IS 12" BELOW GRADE TO THE 21" SEWER INTERCEPTOR. EXISTING INTERCEPTOR CAPACITY WOULD ALLOW FOR DEVELOPMENT OF THIS PARCEL

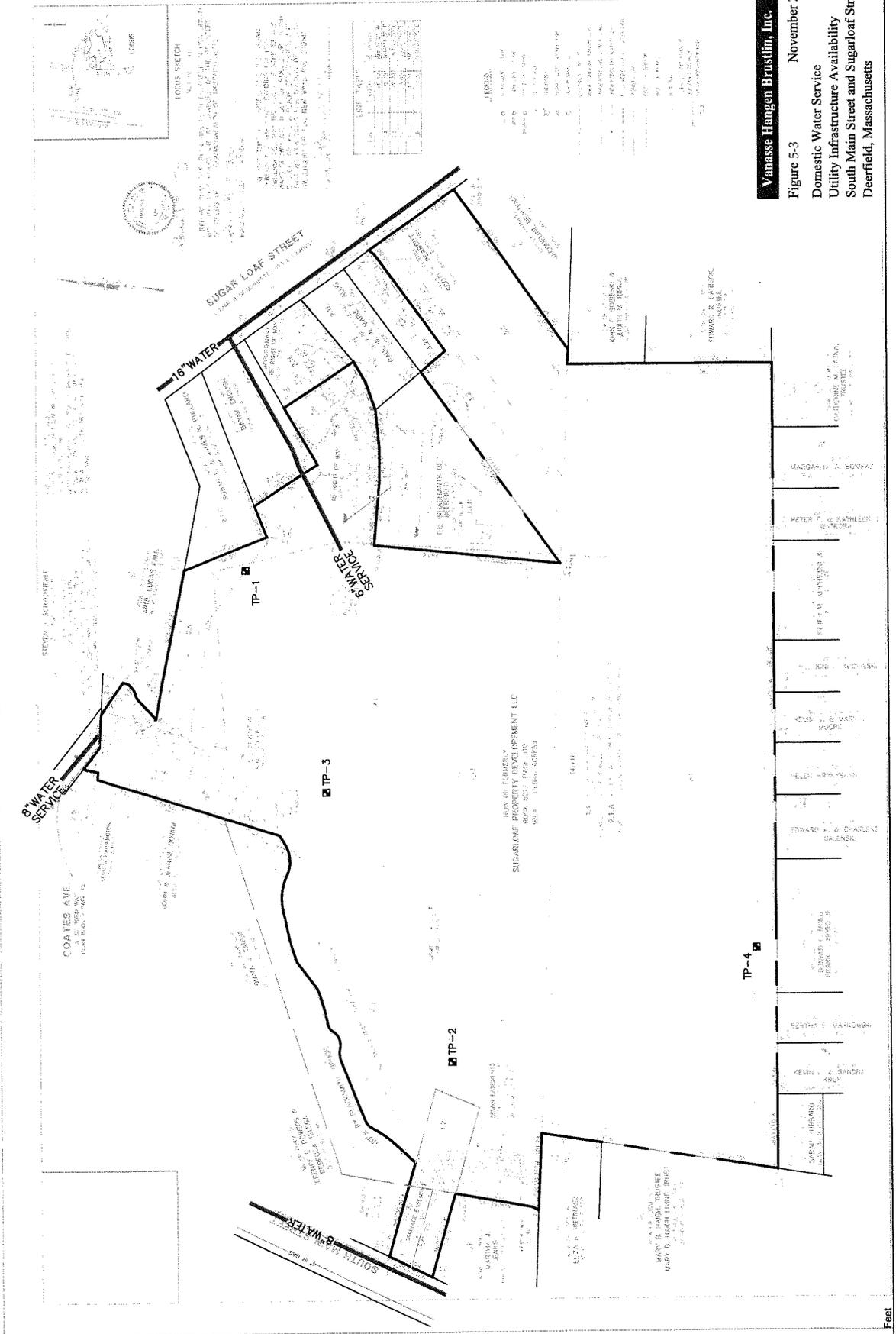


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November 2008
Sanitary Sewer Services
Utility Infrastructure Availability
South Main Street and Sugarloaf Street
Deerfield, Massachusetts

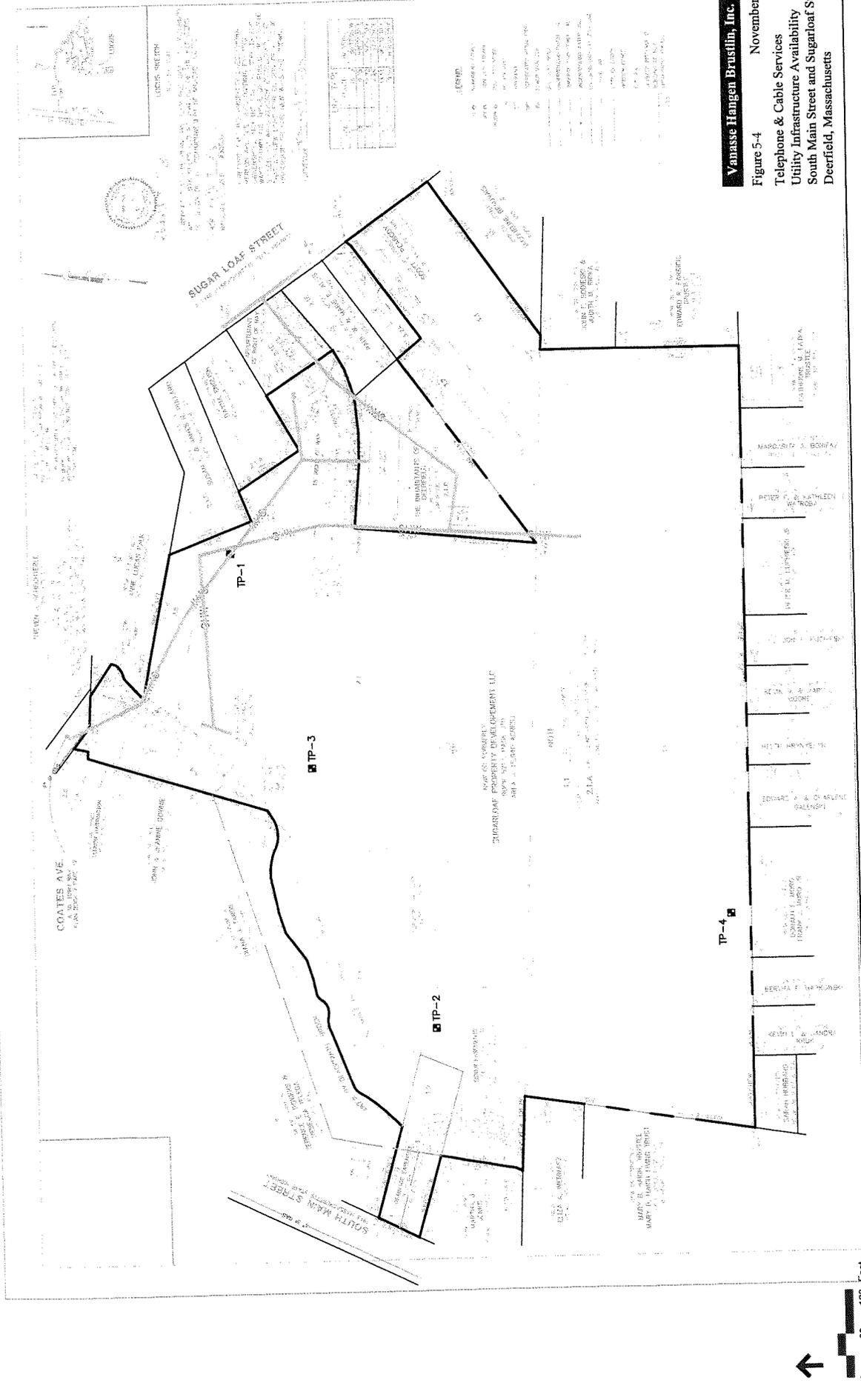
NOTES:
STORMWATER RUNOFF CURRENTLY
RETAINED ON SITE.



Vanasse Haugen Brushlin, Inc. November 2008
Figure 5-2 Storm Drainage System
 Utility Infrastructure Availability
 South Main Street and Sugarloaf Street
 Deerfield, Massachusetts



Vanasse Hangen Brustlin, Inc. November 2008
Figure 5-3
Domestic Water Service
Utility Infrastructure Availability
South Main Street and Sugarloaf Street
Deerfield, Massachusetts



Vanasse Hangen Brustlin, Inc.
Figure 5-4 November 2008
Telephone & Cable Services
Utility Infrastructure Availability
South Main Street and Sugarloaf Street
Deerfield, Massachusetts

