**Correspondence with Utility Providers – Water, Electric and Natural Gas** 



Herman J. Miller Deputy Chief Executive Officer for Operations

## SUFFOLK COUNTY WATER AUTHORITY

Administrative Offices: 4060 Sunrise Highway, Oakdale, NY 11769-0901

(631) 563-0203 Fax (631) 563-0358

ret 20, 2010

August 30, 2010

Mr. Bruce R. Mawhirter, P.E., Leed AP VHB Engineering, Surveying and Landscape Architecture, P.C. 2150 Joshua's Path, Suite 300 Hauppauge, NY 11788

Dear Mr. Mawhirter:

SCWA has reviewed the water demand requirements for the Ronkonkoma Hub Transit-Oriented Development as outlined in your letter of August 16, 2010. For the two potential scenarios outlined, SCWA can provide the volume of water requested. However, there will need to be some distribution infrastructure improvements in order to have the water available in the project area. It is estimated, at today's cost, the required improvements will cost approximately \$200,000. These costs will be required to be paid upfront under standard SCWA construction contract.

I noted there are several multi-story buildings in the proposal. The pressure available from SCWA's system may not be adequate to serve the higher elevations in the building. A booster pump system should be considered during the design of the project.

SCWA has some concerns regarding the proposed sewage treatment plants (STP). The potential locations for the STP are not directly located in the area of contribution for any of our wells as identified by the Source Water Assessment Maps prepared by the County. However, the contribution area of a few of our wells are very close to these locations. It is very important that the design of these sewage treatment plants utilize all appropriate consideration to ensure the effluent from the plant always meets the recharge standard requirement. SCWA would be happy to meet with the design personnel to help in any way to ensure that these sewage treatment plants do not have a negative impact on our water supply.

This letter of availability is not to be considered an Action by the SCWA as defined by SEQRA regulations, and this response does not commit SCWA to commence, engage or otherwise participate or approve an action where SEQRA is applicable until all aspects of the SEQRA process are complete and the Lead Agency has made a final determination and finding as related to the project.

If you have any questions or would like to discuss this further, please do not hesitate to contact me.

Very/truly yours,

Herman J. Miller, P.E.

AUG 3-1 2010 Deputy CEO for Operations

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## Transportation Land Development Environmental

Services



VHB Engineering, Surveying and Landscape Architecture, P.C. Affiliated with Vanasse Hangen Brustlin, Inc.

August 16, 2010

## VIA OVERNIGHT CARRIER

Ref: 27406.02

Herman Miller, P.E.
Deputy CEO/Operations
Suffolk County Water Authority
4060 Sunrise Highway
Oakdale, New York 11769

Re:

Ronkonkoma Hub Transit-Oriented Development

Request for Letter of Water Availability

Dear Mr. Miller:

As discussed with Jim Morgo and Terri Elkowitz, the Town of Brookhaven is considering the adoption of a Land Use and Implementation Plan for the Ronkonkoma Hub Transit-Oriented Development ("TOD"), TOD Code and associated rezonings. The Ronkonkoma Hub TOD encompasses an approximately 53.73± acre area that includes that portion of the Long Island Railroad ("LIRR") – Ronkonkoma Train Station located within the Town of Brookhaven, and extends beyond the perimeter of the station. The proposed TOD is within the service area of the Suffolk County Water Authority.

VHB Engineering, Surveying and Landscape Architecture, P.C. ("VHB") is preparing a Draft Generic Environmental Impact Statement ("DGEIS") for the above-referenced project, that includes an evaluation of the proposed water requirements. For the purposes of determining the appropriate density, types of uses and the potential redevelopment sites, a "Theoretical Full Build Plan" (copy enclosed) has been prepared based on the goals and objectives of the Town of Brookhaven, and includes the following:

- 615 Residential Units (1,000 square feet in size);
- 60,875 square feet Retail;
- 49,375 square feet Office;
- 30,000 square feet Health Club;
- 200 seats Restaurant Use (Total); and
- Sewage Treatment Plant.

Herman Miller, P.E. Ref: 27406.02 August 16, 2010 Page 2

VHB utilized the Suffolk County Department of Health Services ("SCDHS") design sewage flow rates as the basis for estimating the proposed development's potable water requirements. Based on these parameters, VHB has projected the domestic water use for the above-referenced program mix to be approximately 169,000 gallons per day ("gpd"). With an additional 10 percent estimated for irrigation and domestic uses not entering the sanitary system, the total projected potable water demand for the Theoretical Full Build Plan is 186,000 gpd. We have annexed the Design Sewage Flow Rate calculations prepared by Michael P. Chiarelli Engineer, P.C. for your review.

An alternative plan is also being evaluated to consider redevelopment of a portion of the LIRR-Ronkonkoma Station within the Town of Islip. The "Theoretical Maximum Build Out Plan" (copy enclosed) includes the following:

- 802 Residential Units;
- Six Town Houses;
- 102,275 square feet Retail Space;
- 49,375 square feet Office Space;
- 30,000 square feet Health Club;
- 100 seats Restaurant; and
- Sewage Treatment Plant.

The domestic water use (utilizing SCDHS design sewage flow rates as the basis for estimating the proposed development's potable water requirements) for the Theoretical Maximum Build Out Plan scenario is approximately 203,000 gpd. With an additional 10 percent estimated for irrigation and domestic uses not entering the sanitary system, the total projected water demand for the Theoretical Maximum Build Out Plan is approximately 223,000 gpd. We have annexed the Design Sewage Flow Rate calculations prepared by Michael P. Chiarelli Engineer, P.C. for your review.

Finally, for both scenarios, a sewage treatment plant (STP) is being considered. VHB utilized the SCDHS design flow rates for the purpose of evaluating the maximum volume of sewage flow that could be accommodated by an STP on the land area potentially available within the TOD, which indicated that the STP would potentially be capable of accommodating a maximum sewage flow of 275,000 gpd. With an additional 10 percent estimated for irrigation and domestic uses not entering the sanitary system, the maximum potential water demand, should the STP be developed to capacity, would be approximately 302,500 gpd. It is important to note that a portion of this projected maximum water demand consists of existing properties that are currently served by SCWA, and technically would not constitute new demand.



Herman Miller, P.E. Ref: 27406.02 August 16, 2010 Page 3

## Fire Flow ·

Utilizing ISO publication "Guide for Determination of Needed Fire Flow", Edition 05-2008, VHB has estimated the Needed Fire Flow for the proposed development, under either scenario, to be 4,500 gpm.

The aforementioned information is based on conceptual plans and uses. As the TOD is advanced and finalized, a more detailed analysis of the proposed water needs and the associated infrastructure improvements will be developed and coordinated with SCWA.

We hope this information is sufficient in order for you to provide comments regarding availability of water and any infrastructure improvements that may be required. Should you have any questions or require additional information, please feel free to contact the undersigned. Thank you.

Sincerely,

VHB Engineering, Surveying and Landscape Architecture, PC

Chief Engineer, Long Island Office

Bruce R. Mawhirter, PE, LEED AP

BRW/lm

enc. cc:

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J. Morgo

T. Elkowitz

P. Rogalle

Ronkonkoma HUB Project Sewage Treatment Design Calculations Max Build-out

Site 1

July 8, 2010

NATIONAL CONTRACTOR OF CONTRAC	A TANAH MANANCAN MAN		
Description	Count	Unit Flow	Total Flow
Housing Unit (601-1200 sq.ft.)	123 units	225 GPD/unit	27,675 GPD
		Speciment (State Section Secti	The state of the s

Site 2

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Description	Count	Unit Flow	Total Flow
Housing Unit (601-1200 sq.ft.)	60 units	225 GPD/unit	13.500 GPD
Retail	38,375 sq.ft.		
1/2 Dry Store	19,188 sq.ft.	0.03 GPD/sg.ft.	576 GPD
1/2 Wet Store	19,188 sq.ft.	0.10 GPD/sq.ft.	1 919 GPD
Office	24.375 sq.ft		
1/2 Medical	12,188 sa.ft.	0.10 GPD/cg ft	1710 CDD
1/2 Non-medical	12,188 sa.ft.	0.06 GPD/sq.ft	731 GPD
Subtotal	ANTINA SELECTION DE L'ANTINO D		0.10 LC./ 0.00 LV./ CD./
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		THE STATE OF THE PARTY OF THE STATE OF THE PARTY OF THE P	
Description	Count	Unit Flow	Total Flow
Health Club	30,000 sq.ft.	0.30 GPD/sq.ft.	9,000 GPD
Retail	22,500 sq.ft.		
1/2 Dry Store	11,250 sq.ft.	0.03 GPD/sa.ft.	338 GPD
1/2 Wet Store	11,250 sq.ft.	0.10 GPD/sq.ft.	1.125 GPD
Office	25,000 sq.ft.		
1/2 Medical	12,500 sq.ft.	0.10 GPD/sq ft	1 250 GPD
1/2 Non-medical	12,500 sq.ft.	0.06 GPD/sa.ft.	750 GPD
Housing Unit (601-1200 sq.ft.)	66 units	225 GPD/unit	14.850 GPD
Subtotal	and designations where the property of the second s	ALE TO THE THE STREET STREET, AND THE STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET, STREET,	27,313 GPD
		TOTAL STREET, SALVEN STREET, S	

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Description	Count	Unit Flow	Total Flow
Housing Unit (601-1200 sq.ft.)	60 units	225 GPD/unit	13,500 GPD
Housing Unit (>1200 sq.ft.)	6 units	300 GPD/unit	1.800 GPD
Retail	16,400 sq.ft.		
1/2 Dry Store	8,200 sq.ft.	0.03 GPD/sn ft	246 GPD
1/2 Wet Store	8,200 sq.ft.	0.10 GPD/sa.ft.	820 GPD
Subtotal	bālostapasio sapla data baranda kalanda karanda karanda karanda karanda karanda karanda karanda karanda karanda		16.366 GPD

Site 5

Total Flow	44,100 GPD
Unit Flow	225 GPD/unit
Count	196 units
Description	lousing Unit (601-1200 sq.ft.)

Site 6

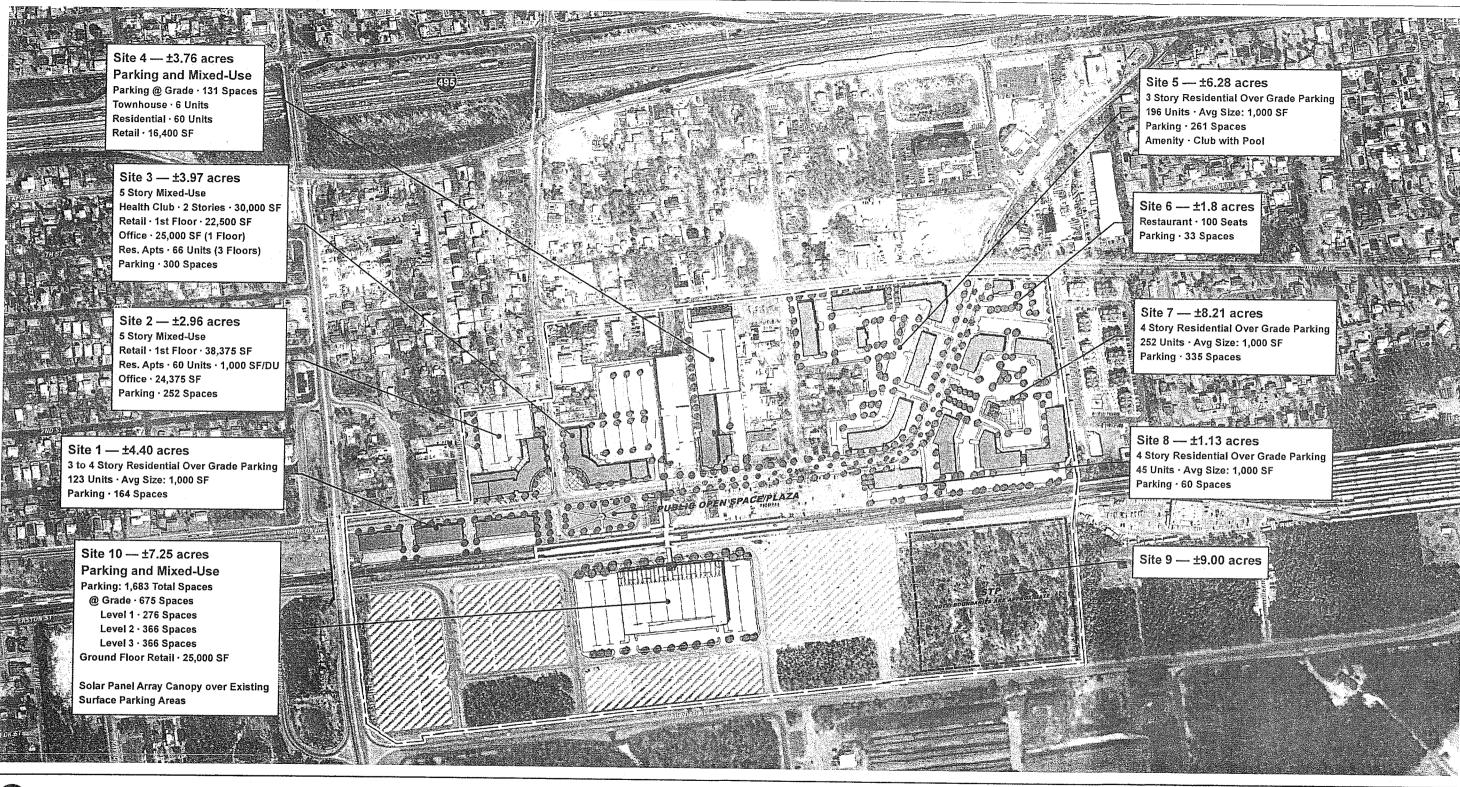
Total Flow	3,000 GPD
Unit Flow	30 GPD/seat
Count	100 seats
Description	Restaurant

Site 7

	<b>1</b>
Total Flow	56,700 GPD
Unit Flow	225 GPD/unit
Count	252 units
Description	Housing Unit (601-1200 sq.ft.)

45 units   225 GPD/unit   1   Count	Description	Count	Unit Flow	Total Flow
Description         Count         Unit Flow           25,000 sq.ft.         0.03 GPD/sq.ft.           12,500 sq.ft.         0.10 GPD/sq.ft.	nit (601-1200 sq.ft.)	45 units	225 GPD/unit	10,125 GPD
Description         Count         Unit Flow           25,000 sq.ft.         0.03 GPD/sq.ft.           12,500 sq.ft.         0.10 GPD/sq.ft.			straducijani politika politika pradajenim izati politika politika politika politika politika politika da sa	and with the property of the enterty
Description         Count         Unit Flow           25,000         sq.ft.         0.03 GPD/sq.ft.           12,500         sq.ft.         0.10 GPD/sq.ft.				
25,000 sq.ft. 0.03 GPD/sq.ft. 12,500 sq.ft. 0.10 GPD/sq.ft.	Description	Count	Unit Flow	Total Flow
12,500 sq.ft. 0.03 GPD/sq.ft. 12,500 sq.ft. 0.10 GPD/sq.ft.		25,000 sa.ft.		
12,500 sq.ft. 0.10 GPD/sq.ft.	ore	12,500 sq.ft.	0.03 GPD/sq ft	375 GDD
	tore	12,500 sq.ft.	0.10 GPD/sq.ft	1.250 GPD
		urd ste delegeneration de la company (sur en estatement de la company de la company de la company de la company		7.0004

Totals	
Site 1	27.675
Site 2	17.944
Site 3	27,313
Site 4	16,366
Site 5	44,100
Site 6	3.000
Site 7	56.700
Site 8	10,125
Site 10	1,625
Existing to Remain	7,701
TOTAL	212,548





WIB Engineering, Surveying and Landscape Architecture, P.C.

Legend

Long Island Rail Road Solar Panel Array Canopy

Office: Retail: Restaurant:

Note: Parking based on ITE parking generation rates as follows:

Note: Study Area totals are as follows...

Brookhaven: 53.73 Acres Islip: 52.16 Acres

Aerial Imagery - New York State Geographic Information Systems

1.33 Spaces/Unit

2.84 Spaces/Unit

2.65 Spaces/Unit

1 Space/3 Seats

500 Feet Assessors Parcels, LIR Rail, Land Use and Zoning – Suffolk County GIS Basemap, Town of Brookhaven, Long Island, NY

Ronkonkoma Hub Transit-Oriented Land Use and Implementation Plan

Theoretical Maximum Build Out Plan

Ronkonkoma HUB Project Sewage Treatment Design Calculations Full Build-out July 8, 2010

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Site 1			
Description	Count	Unit Flow	Total Flow
Housing Unit (601-1200 sq.ft.)	123 units	225 GPD/unit	27,675 GPD

Site 2

Description	Count	Unit Flow	Total Flow
Housing Unit (601-1200 sq.ft.)	60 units	225 GPD/unit	13,500 GPD
Retail	38,375 sq.ft.		
1/2 Dry Store	19,188 sq.ft.	0.03 GPD/sq.ft.	576 GPD
1/2 Wet Store	19,188 sq.ft.	0.10 GPD/sq.ft.	1.919 GPD
Office	24,375 sq.ft.		
1/2 Medical	12,188 sq.ft.	0.10 GPD/sq.ft.	1.219 GPD
1/2 Non-medical	12,188 sq.ft.	0.06 GPD/sq.ft.	731 GPD
Subtotal	errennen ander den der errennen der den den sen der errennen den errennen den der den den den der der den den		17,944 GPD

Description	Count	Unit Flow	Total Flow
Health Club	30,000 sq.ft.	0.30 GPD/sq.ft.	9,000 GPD
Retail	22,500 sq.ft.		
1/2 Dry Store	11,250 sq.ft.	0.03 GPD/sq.ft.	338 GPD
1/2 Wet Store	11,250 sq.ft.	0.10 GPD/sq.ft.	1,125 GPD
Office	25,000 sq.ft.		
1/2 Medical	12,500 sq.ft.	0.10 GPD/sq.ft.	1,250 GPD
1/2 Non-medical	12,500 sq.ft.	0.06 GPD/sa.ft.	750 GPD
Housing Unit (601-1200 sq.ft.)	66 units	225 GPD/unit	14,850 GPD
Subtotal			27,313 GPD

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Description	Count	Unit Flow	Total Flow
Restaurant	100 seats	30 GPD/seat	3,000 GPD

Site 5

Total Flow	44,100 GPD
Unit Flow	225 GPD/unit
Count	196 units
Description	Housing Unit (601-1200 sq.ft.)

Site 6				
Description	Count	Unit Flow	Total Flow	parent.
Restaurant	100 seats	30 GDD/coat		17
Estatistementationistatististementationistatistementationistatistementationistatistementationistatistementationista		JO OF D/Scal	3,000 GPD	

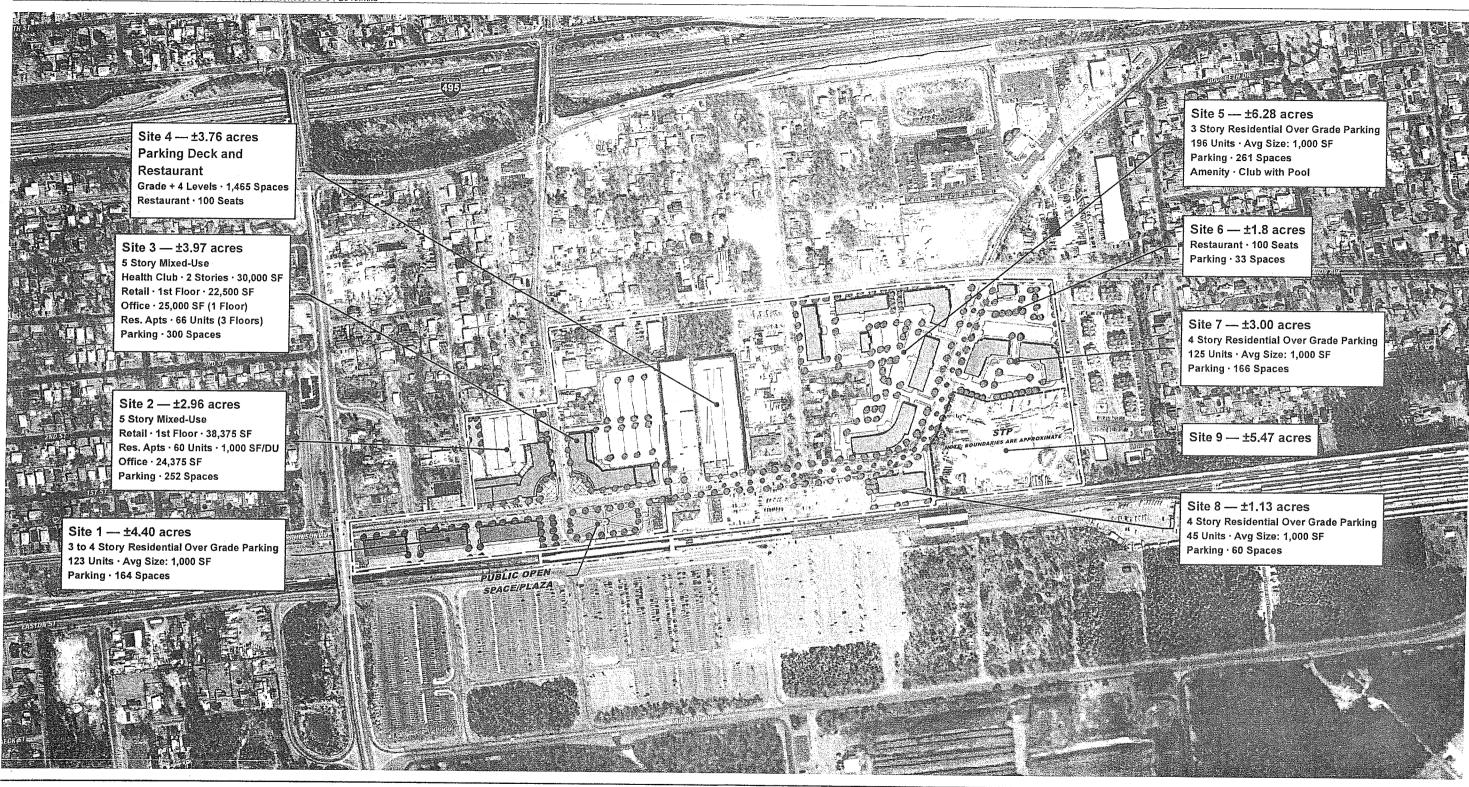
Site 7

Total Flow	28,125 GPD
Unit Flow	225 GPD/unit
Count	125 units
Description	Housing Unit (601-1200 sq.ft.)

Total Flow	10,125 GPD
Unit Flow	225 GPD/unit
Count	45 units
Description	Housing Unit (601-1200 sq.ft.)

Totals	
Site 1	27,675
Site 2	17,944
Site 3	27,313
Site 4	3,000
Site 5	44,100
Site 6	3,000
Site 7	28.125
Site 8	10,125
Existing to Remain	7,701
TOTAL	168,983

lotals	
Site 1	27,675
Site 2	17,944
Site 3	27,313
Site 4	3,000
Site 5	44,100
Site 6	3,000
Site 7	28,125
Site 8	10,125
Existing to Remain	7,701
TOTAL	168,983





WHB Engineering, Surveying and Landscape Architecture, P.C.

- Long Island Rail Road

1.33 Spaces/Unit Retail:

Restaurant:

2.84 Spaces/Unit 2.65 Spaces/Unit 1 Space/3 Seats

Note: Study Area totals are as follows...

Brookhaven: 53.73 Acres Islip: 52.16 Acres



Ronkonkoma Hub Transit-Oriented Land Use and Implementation Plan

Theoretical Full Build Plan

Aerial Imagery - New York State Geographic Information Systems

Note: Parking based on ITE parking generation rates as follows:

500 Feet Assessors Parcels, LIR Rail, Land Use and Zoning - Suffolk County GIS Basemap, Town of Brookhaven, Long Island, NY

August 19, 2010

Bruce Mawhirter VHB Engineering 215 Joshua's Path Suite 300 Hauppauge, NY 11788

Re: Ronkonkoma Hub

Transit Oriented Land Use

Dear Sir:

As requested, please be advised that LIPA will provide electric service to the above-referenced project in accordance with our filed tariff and schedules in effect at the time service is required.

Please feel free to contact James Domozych at (631)758-5122 if you require any further information.

Very truly yours,

James Domozych Design Engineer

Electric Design & Construction

JD/md

From:

Homburger, Raymond C. [Raymond.Homburger@lipangrid.com]

Sent:

Thursday, August 26, 2010 9:48 AM

To:

Mawhirter, Bruce; Gennaro, Kim

Cc:

Frigeria III, Vincent; dmanning@mjbradley.com; Keating, John J.

Subject:

Natural Gas Availability for The Ronkonkoma Hub - Town of Brookhaven/LIRR

Hello Bruce and Kim.

I am the Major Account Executive for National Grid and LIPA for Federal, State and Public Transportation customers in our service territory on Long Island. The MTA - LIRR is one of my larger customers.

I have had our Gas Engineering department review your plans on the proposed Ronkonkoma Hub project slated for construction in 2014 through 2019. The plans detailed the approximate square footage for Residential, Retail, Office, Health Club and Restaurant use. Using approximate heating values for each specific application yields a usage of ~ 55 Decatherms of Natural gas/hour. That particular site is well suited for natural gas availability. There is a 6"- 60 pound high pressure gas main already in the ground in the area, and National Grid will be able to provide the gas for this load.

I understand you are already in receipt of a letter from LIPA confirming the availability to also provide electric for your anticipated load for the project.

Please add my contact information to your distribution list for future communication concerning the project and I will be sure to assist in any way I can.

Sincerely,

Ray

Raymond Homburger Lead Account Executive Major Accounts Energy Solutions Services National Grid LIPA

25 Hub Drive Melville, N.Y. 11747 631 755-5349 (office) 516 807-3854 (mobile) raymond.homburger@lipangrid.com

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