APPENDIX F:

HARLEM PARK TECHNICAL MEMORANDUM

Philip Habib & Associates
Engineers and Planners • 226 West 26th Street • New York, NY 10001 • 212 929 5656 • 212 929 5605 (fax)

MEMORANDUM

TO: Glen Price, NYCDCP

FROM: Stuart Gewirtzman

DATE: February 27, 2008

PROJECT: 125th Street Rezoning (PHA No. 0682)

RE: Transportation Sensitivity Analysis for Changes to the Harlem Park Development Program (Projected Development Site No. 21)

The Harlem Park project was included as a projected development site (Site No. 21) for the transportation analyses in the *125th Street Rezoning and Related Actions EIS*. Based on a preliminary development program, the EIS analyses assumed that new office and retail uses would be developed in the No Action condition, and that no further development would occur on that site in the With Action condition as a result of the proposed rezoning. As shown in Table 1, the program for the Harlem Park project was subsequently revised to include more office space and less retail space than was assumed in the *125th Street Rezoning and Related Actions EIS*. This memorandum assesses the sensitivity of the EIS transportation analyses to new significant adverse impacts due to the changes to the Harlem Park project development program.

Table 2 presents a comparison of the weekday AM, midday and PM peak hour travel demand forecast for the Harlem Park project in the *125th Rezoning and Related Actions EIS* with an updated forecast reflecting the new development program. As shown in Table 2, the new program would generate from 37 to 219 fewer vehicle trips in each peak hour. It would also generate fewer walk-only trips in each peak hour. Vehicle trips from the revised program are therefore not expected to result in new significant adverse traffic impacts compared to the analyses in the *125th Street Rezoning EIS*. There would also be fewer bus trips in the midday and PM peak hours, but 48 additional bus trips in the AM peak hour, which would occur in the No Action condition for the 125th Street Rezoning project. These additional bus trips would be distributed among the numerous bus routes serving the area, and it is anticipated that NYC Transit would adjust service levels to address any capacity shortfalls in the No

Action (as is standard practice). Therefore, no new significant adverse impacts to bus service above those already disclosed in the EIS are expected to occur in the With Action condition for the 125th Street Rezoning project.

As shown in Table 2, compared to the analyses in the *125th Street Rezoning EIS*, the updated travel demand forecast for Harlem Park shows 545 additional subway trips in the AM peak hour and 444 in the PM peak hour. The effects of this higher level of No Action demand at the 125th Street IRT (4,5,6) subway station (where the majority of these new trips would occur) were therefore analyzed to determine the potential for new significant adverse impacts at this station. As shown in Table 3, under the 125th Street Rezoning project's Expanded Arts Bonus Alternative, there would be no new significant adverse stairway or fare array impacts at the 125th Street IRT (4,5,6) station with this additional No Action demand.

Some subway trips from the Harlem Park project are also expected to occur at the 125th Street IRT (2,3) station. However, the analysis in the *125th Rezoning and Related Actions EIS* indicates that all analyzed stairways and fare arrays at this station are expected to operate at LOS A or B in the AM and PM peak hours under the Expanded Arts Bonus Alternative. The additional No Action demand that would occur at this station based on the updated Harlem Park development program is therefore not expected to result in new significant adverse impacts.

TABLE 1
Program Comparison: Program Analyzed in 125th Street Rezoning EIS (For Site 21) Vs. Current Harlem Park IDA Project

	125th Street Rezoning EIS No-Action and With-Action Conditions		Harlem Park IDA Project	
	ZSF	**GSF**	**ZSF**	**GSF**
Office	372,287	not provided	464,233	526,555
Retail	108,843	not provided	21,996	50,492
Community Facility	see note below	not provided	see note below	
Parking	NA	not provided	2,045	17,088
Total	**481,130**		**488,274**	**594,135**

NOTE: Zoning Lot also contains the College of Podiatric Medicine. 125th Street Rezoning EIS asssumes 55,770 zfa for this community facility space. Harlem Park IDA project's actual calculations are 46,148 zfa for the College or approx. 9,621 zfa less.

TABLE 2
125th Street Rezoning EIS (Site 21) and Harlem Park IDA Project Trip Differences

AM	125th Street Rezoning EIS (Site 21)			Harlem Park IDA Project			Net
	In	Out	Total	In	Out	Total	Difference
Vehicles	165	7	172	112	23	135	-37
Subway	231	9	240	745	40	785	545
Bus	93	4	97	136	9	145	48
Walk	139	6	145	86	17	103	-42

MD	125th Street Rezoning EIS (Site 21)			Harlem Park IDA Project			Net
	In	Out	Total	In	Out	Total	Difference
Vehicles	123	138	261	23	24	47	-214
Subway	162	166	328	91	103	194	-134
Bus	143	144	287	63	81	144	-143
Walk	510	533	1,043	400	585	985	-58

PM	125th Street Rezoning EIS (Site 21)			Harlem Park IDA Project			Net
	In	Out	Total	In	Out	Total	Difference
Vehicles	111	292	403	42	142	184	-219
Subway	141	394	535	89	890	979	444
Bus	133	234	367	29	172	201	-166
Walk	231	383	614	51	111	162	-452

Table 3
2017 Future With the Expanded Arts Bonus Alternative Conditions at the 125th Street IRT (4,5,6) Subway Station
(SITE 21 REVISED)

Stairways

No.	Station Element/Location	Peak Period	Actual Width in Feet	Friction Factor (1)	Effective Width in Feet (1)	Maximum 15 Minute Capacity (2)	No Build Pk 15 Min Volume	Pk 15 Min Project Increment	Build Pk 15 Min Volume	2017 No Build PFM (2)	2017 No Build V/C (5)	2017 No Build LOS	2017 Build PFM (2)	2017 Build V/C (5)	2017 Build LOS	Width Increment Threshold in Inches (3)
S1	Stairway @ SW Corner	8-9 AM	5.7	0.8	3.76	564	574	23	597	10.18	1.02	D	10.59	1.06	D	2.64 < 6
	Lexington Ave/E.125th St	5-6 PM	5.7	0.8	3.76	564	583	54	637	10.34	1.03	D	11.29	1.13	D	5.84 < 6
S2	Stairway @ SE Corner	8-9 AM	5.8	0.8	3.84	576	442	36	478	7.67	0.77	C	8.30	0.83	C	---
	Lexington Ave/E.125th St	5-6 PM	5.8	0.8	3.84	576	549	41	590	9.53	0.95	C	10.24	1.02	D	1.12 < 6
S3	Stairway @ NW Corner	8-9 AM	5.8	0.8	3.84	576	637	26	663	11.06	1.11	D	11.51	1.15	D	1.88 < 6
	Lexington Ave/E.125th St	5-6 PM	5.8	0.8	3.84	576	562	36	598	9.76	0.98	C	10.38	1.04	D	2.95 < 6
S4	Stairway @ NE Corner	8-9 AM	5.9	0.8	3.92	588	736	0	736	12.52	1.25	D	12.52	1.25	D	0.00 < 6
	Lexington Ave/E.125th St	5-6 PM	5.9	0.8	3.92	588	911	0	911	15.49	1.55	E	15.49	1.55	E	0.00 < 3

Fare Arrays and Exit Gates

No.	Station Element/Location	Peak Period	Maximum 15 Minute Capacity (4)	No Build Pk 15 Min Volume	Pk 15 Min Project Increment	Build Pk 15 Min Volume	2017 No Build V/C	2017 No Build LOS	2017 Build V/C	2017 Build LOS
R-258	W.125th Street Fare Array	8-9 AM	5,220	2,484	85	2,579	0.48	C	0.49	C
	9 entry/exit turnstiles	5-6 PM	5,220	2,721	131	2,852	0.52	C	0.55	C
	2 high revolving exit gates									

Notes:

(1) Effective width measured as stairwell width less one foot to account for side handrails. Effective width is further reduced by 20 percent to account for friction where there are two-way flows.

(2) Stair capacity in persons per 15 minutes based on NYC Transit guidelines of 10 persons per foot-width per minute (PFM).

(3) Width increment threshold needed to restore processor to No Build conditions (or an acceptable LOS if the No Build is LOS A, B or C).

(4) Fare array capacity based on 32 ppm for turnstiles, 20 ppm for high entry/exit turnstiles, and 30 ppm for high revolving exit gates as per NYCT guidelines.

(5) Stairway LOS - v/c ratio relationship.

LOS	V/C Ratio
A	0.00 - 0.50
B	0.51 - 0.70
C	0.71 - 1.00
D	1.01 - 1.30
E	1.31 - 1.70
F	>1.71

* Denotes a significant adverse impact based on CEQR criteria