

AMTRAK NORTH ACCESS TUNNEL, NY

12-9-87

The following are responses to BOS' letter dated 10/29/87 signed by Magdi Farag, P.E., Chief:

<u>COMMENT NO.</u>	<u>RESPONSE</u>	<u>RESOLUTION</u>
1.	Will comply.	
2.	Has been done. See Dwg. #C-22.	
3.	Specification indicates all existing facilities impacted by the project to be replaced. Therefore, all existing splash blocks (existing) impacted will be replaced. This will be repeated in the plan.	
4.	A note stating "all internal manholes shall be maintained by AMTRAK" will be repeated as Note # 14 on Dwg. S-32.	
5.	In a meeting on July 2, 1987 with BOS/ Structural Group, it was agreed with Mr. D. Smith that 15 inch diam. pipe is AMTRAK's property and it is existing. The drain pipe collects general water not directly connected to bridge above and should not be changed. 16 inch diam. new pipe is on the western end of the tunnel and cannot be connected to 3.5'x3.5' concrete box.	
6.	Not in direct conflict. It is close. However, this is a temporary construction condition. See Note 10 on S.32 and Spec.	
7.	We will comply.	
8.	We will include in the Profile on S-32 to show: . Slope . Type of sewer . Will make reference to Civil Dwg for grading. . Will refer to Dwg S-33 for bedding.	

All other items are shown on S-32.

We are showing all necessary information, our scale is slightly different but presentation is clear, constructable, and well detailed drawings.

9. All construction joints shown have key and water stop. The joints are needed for the following reasons:
 - . To eliminate cracking associated with long concrete pouring.
 - . To maintain quality control during the construction to achieve the quality end product.
 - . This is the accepted method for all concrete construction. C.J. provides options for contractor to alternate the pour sequence to eliminate shrinkage. Expansion joints are provided because of the proximity to the surface and also recommended by ACI 350 R-77 Sect. 2.8 & Page 350 R-9.
10. Will comply. Will be shown on Dwg. S-36.
11. By AMTRAK. (Legal Dept.'s are discussing and working on this subject.)
12. Will do. See Dwg. C-11.
13.
 - a) It is done. The 1'-0" collar is the integral part of the MH. See Sect. B on Dwg S-36.
 - b) Exact make up of the sewer not known. If it is not the same as on 34th Street, contractor will identify. A note will be added to ask the contractor to identify and describe it for as built Dwgs. See Dwg. S-36.
 - c) Will do. See Sec. E on Dwg. S-35.
14. This is the first time this request is made. It has to be recognized that the siphon design is unique in which following four major points have to be satisfied.
 - . Inverts at 33 & 34th streets at east of

11th Avenue.

- . Invert at 33rd street at west of 33rd street.
- . Satisfy all the house connections along 33 & 34th streets not to be flooded.
- . Hydraulic gradient satisfies the MH cover elevation.

At this point, this request cannot be met for the following reasons:

- . Will change the siphon cross sections (reduced)
- . Will force to lower the profile. This cannot be done because of the controlling inverts at MH #1, #2, & #3.
- . It will increase the velocity which will raise the hydraulic gradient.
- . It will cause flooding at critical house connections and MHs. The proposed cross section and design was reviewed by BOS' staff in several different meetings.

15.
 - a) Will do drawings. S-33, 34, 35, and 36.
 - b) Guide lines for design of chambers is attached to Hydraulic calculations. The selected radius satisfies all of the requirements. See calculations which are stamped by a P.E.
16.
 - a) Standard practice of R bar detailing with proper dowels are shown.
 - b) All necessary information and relevant details and bar placements are shown on Dwgs. S-93 and 94.
 - c) Flow Redirection Chamber is very close to the adjacent Flow Distribution Chamber and new chamber (MH) #3 from where access can be provided.
17.
 - a) Dwgs S-33 thru S-36 have more details (sections & plans) than the sample given. There are 26 sections taken to cover 180 feet long siphon which should be adequate.

The selected sectional details are based on the following:

- . Plan
- . Elevation
- . Proper cross sections

Suggested sections do not add anything more. Dwgs were set up following the example give on Nov. 10, 1986. This sample has no such sections. In addition, there are 45 sectional plans shown on S-60 thru S-65.

- b) There are 3 sections showing the Weir details:

Dwg. S-33: Chamber A
Dwg. S-35: Sect. A & Sect. D

- *18. (i) See Matrix.
(ii) See Matrix.
(iii) Will do.
- (iv) (a) See Comment 17.
(b) Shown on Dwg S-34, Sections A & D.
19. The orientation of Sections A & B shown on S-34 are coordinated with the Plan of Siphon shown on Dwg S-32.
20. It is shown on Dwg S-35 plan Sections C & D.
21. Covers are shown on S-34. If necessary, a reference note can be to Dwg. S-33.
22. This project requires the Engineer to bar detail the structures. The bar detailing followed ACI practice and the bar sizes and spacing were indicated on the plans. See Legend shown on S-68.

DATE	SAMPLE SIPHON	SANITARY SEPERATION		REDUNDANCY	REMARK	ITEM NO.
		WITH	WITHOUT			
Received sample 11/10/86	This sample given by BOS has no sani- tary sewer separation			None		(1)
Design Memo 1/8/87 Submitted by PB					No response from BOS	(2)
60% Dwg. 3/24/87 Submitted by PB					4/15/87 Structural response from BOS	(3)
90% Dwg. 6/5/87 Submitted by PB					6/28/87 Telephone call request for sanitary separation from BOS	(4)
6/29/87 Meeting	Second sample given by BOS with sanitary separation				. Provide 16" o pipe inside siphon. . No change of sizes or elevation of proposed sewer (siphon) . BOS accepted siphon design hydraulically (Later BOS took exemption to this item only)	(5)

DATE	SAMPLE SIPHON	SANITARY SEPERATION		REDUNDANCY	REMARK	ITEM NO.
		WITH	WITHOUT			
7/30/87					The results of eleven meetings held between 6/29.& 7/30/87 between PB & BOS staff resolving the separation of the sanitary sewer.	(6)
100% Dwgs. 8/31/87					10/29/87 letter from BOS. Most of the comments appear for the first time.	(7)

GURSOY/021/043