

MINOS Collaboration  
Jan. 5, 2002  
NuMI Civil  
Construction  
D. Bogert  
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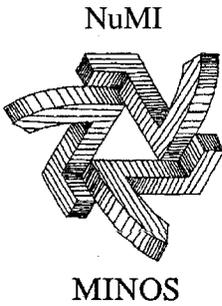
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# NuMI Civil Construction





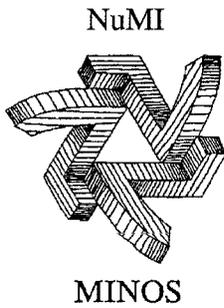
## Progress / Overview Civil Construction

The TBM reached the end of its drive December 8. The TBM is being demobilized.

By my calculation there was approximately 9014 cubic yards of raw rock excavation remaining when the TBM completed. Work commenced immediately after the TBM completed. A significant fraction is on the critical path.

Work Area	Post TBM Excavation (Raw Rock)	Done 1/2/02 (Raw Rock)
Decay Tunnel, Absorber, #1 alcove	2914 cu.yd.*	1526 cu.yd.
#2, #3, #4 alcoves	514 cu.yd.	
MINOS Hall Trim	2069 cu.yd.	
MINOS Access Trim	577 cu.yd.	
Decay Walkway Trim	2940 cu.yd.*	215 cu.yd.
<b>TOTAL</b>	<b>9014 cu.yd.</b>	<b>1741 cu.yd.</b>

\* Critical Path excavation (5854 cu.yd.) of which 1741 cu.yd. (30%) was done by Wednesday 1/2/02. To maintain the schedule S. A. Healy must average almost two rounds (about 70cu.yd./round) a day. The hardest constraint is to muck this out, since the shot rock expansion factor is at least 1.6 this would translate to about 225 cu.yd. (shot rock) a day mucked out.



## **Critical Path of the Tunnels and Halls (S. A. Healy) Contract**

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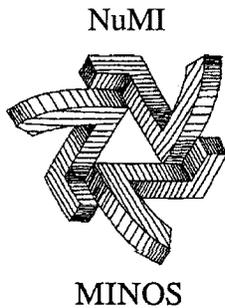
The Critical Path to contract completion runs through the following items:

- 1) Excavate the Decay Tunnel to the Absorber Hall, and the Absorber Hall.
- 2) Excavate the Decay Tunnel Walkway.
- 3) Clean out the Decay Tunnel invert.
- 4) Pour the first lift of the Decay Tunnel to provide a working surface for the Decay Pipe installation.
- 5) Install Decay Pipe (scheduled start last week of February).
- 6) Form walkway; Backfill shielding.
- 7) Finish out Target and MINOS shafts.

Non-critical path parallel work includes:

- 1) Finish out Target and MINOS Halls.
- 2) Finish out Extraction extension.

Scheduled completion – August 2002.



# Preparation of the Service Buildings and Outfitting Request for Proposal

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Rob Plunkett is the Co-Level 2 Manager responsible for the Service Buildings and Outfitting Contract. This work includes preparation of the proposal documents, (Drawings, Exhibit A [general terms], and Exhibit B [specifications]). Elaine McClusky from FESS is working with Rob as Construction Manager.

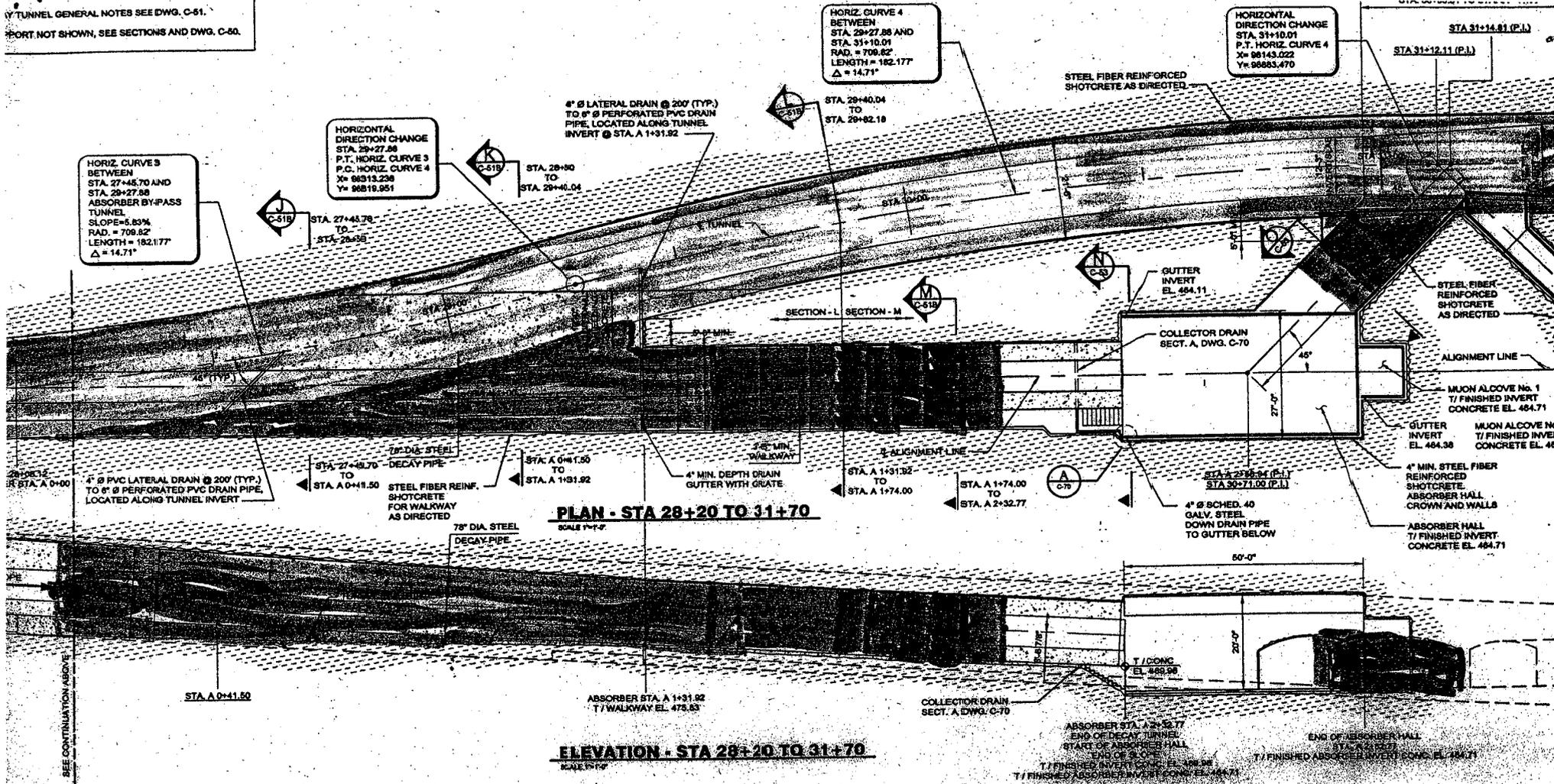
Project staff, FESS, and DOE have reviewed the Drawings.

Project Staff, FESS, and appropriate engineering staff members have reviewed the specifications.

Fermilab and contract legal consultants are reviewing the general terms. The experience with the Tunnels and Halls contract (S. A. Healy) is being incorporated into the schedule for progress payments and consideration is being given to the incorporation of liquidated damages.

The expectation is that the proposal package will be submitted to potential proposers before January 31, 2002. A 90-day bid cycle is envisioned, with authorization for pre-construction purchases of material by July 1, 2002. The present schedule envisions commencement of the work on the site in August, 2002 with a 13-month schedule for completion.

SEE TUNNEL GENERAL NOTES SEE DWG. C-61.  
 PORT NOT SHOWN, SEE SECTIONS AND DWG. C-60.



**PLAN - STA 28+20 TO 31+70**  
 SCALE 1/4" = 1'-0"

**ELEVATION - STA 28+20 TO 31+70**  
 SCALE 1/4" = 1'-0"

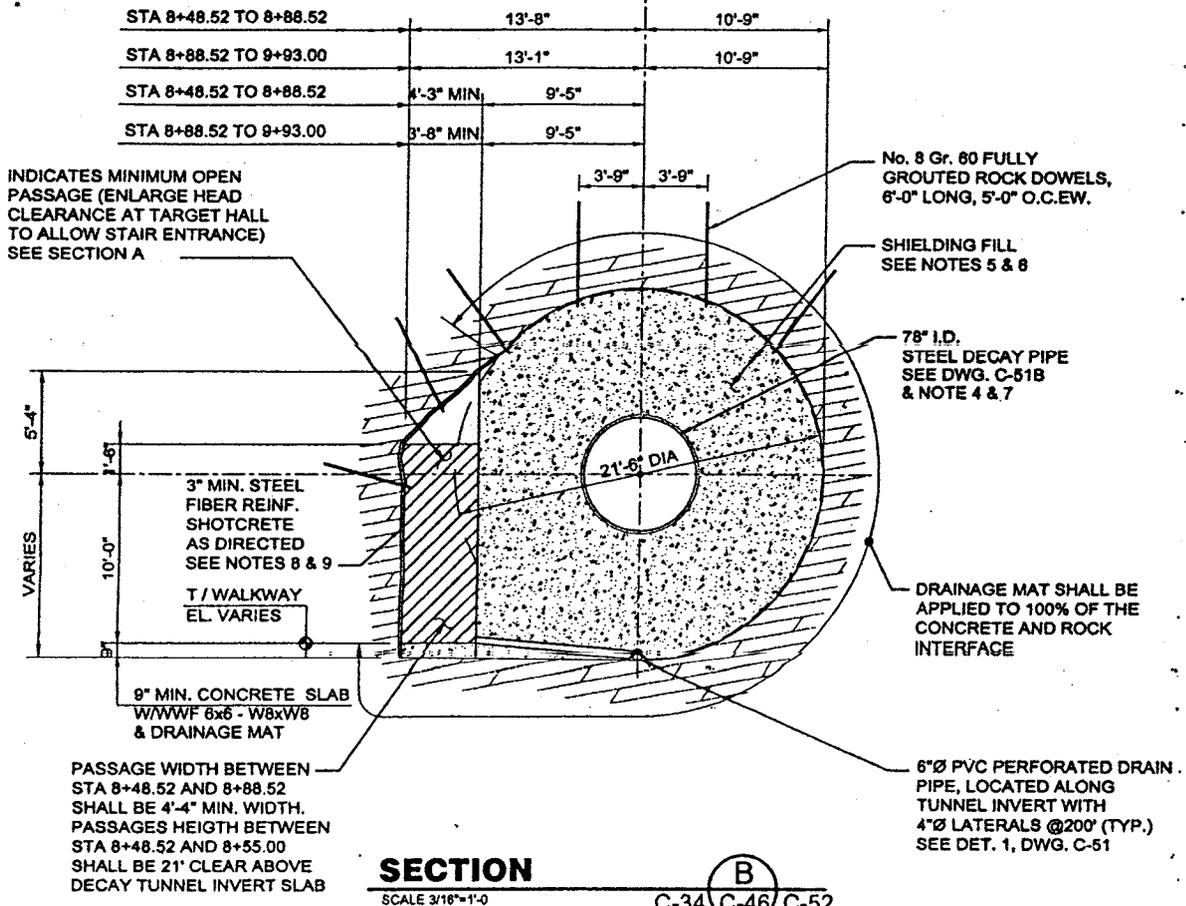
SEE CONTINUATION ABOVE



DESIGNER		DATE		REVISION		DATE	
DESIGNED	R. BURTON / C. CITEREM	10/25/00		DISCIPLINE REVIEW	A. RENN	11/20/00	
DRAWN	B. JEDZUSIAK / C. MCCOY	10/25/00		FINAL REVIEW	T. LACKOWSKI	11/20/00	
CHECKED	M. BRUNEN	11/20/00		ENR ACCEPTED	B. CRUMPLEY	11/20/00	
APPROVED	M. BRUNEN	11/20/00		FEES ACCEPTED	S. NEVILL	11/20/00	
				SUBMITTED	C. LAUGHTON / B. BOGERT	11/20/00	



**FERMI NATION**  
 LIMITED  
 PROJECT NORTH  
 DRAWING 6-7



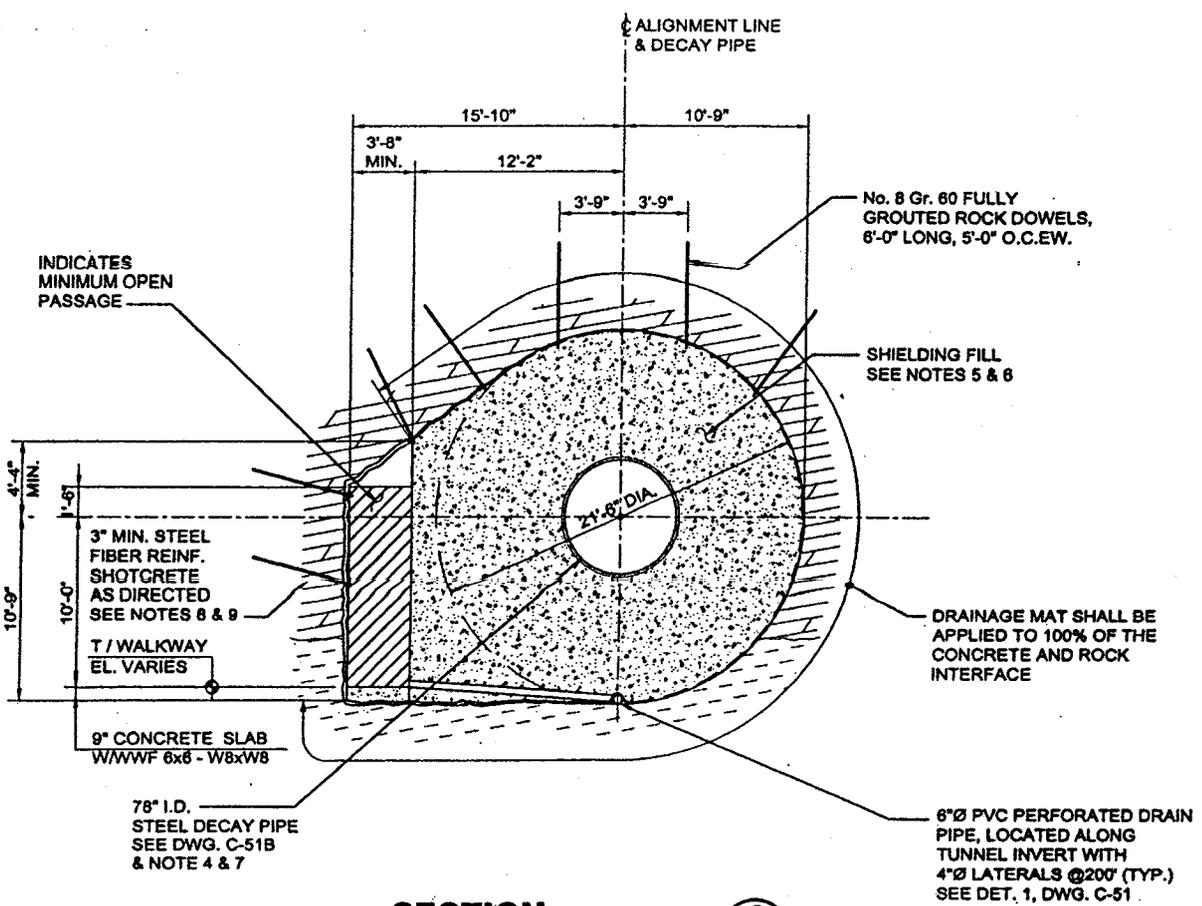
**SECTION**

**B**

SCALE 3/16"=1'-0"

C-34, C-46, C-52

DECAY TUNNEL STA 8+48.52 TO STA 9+93.00



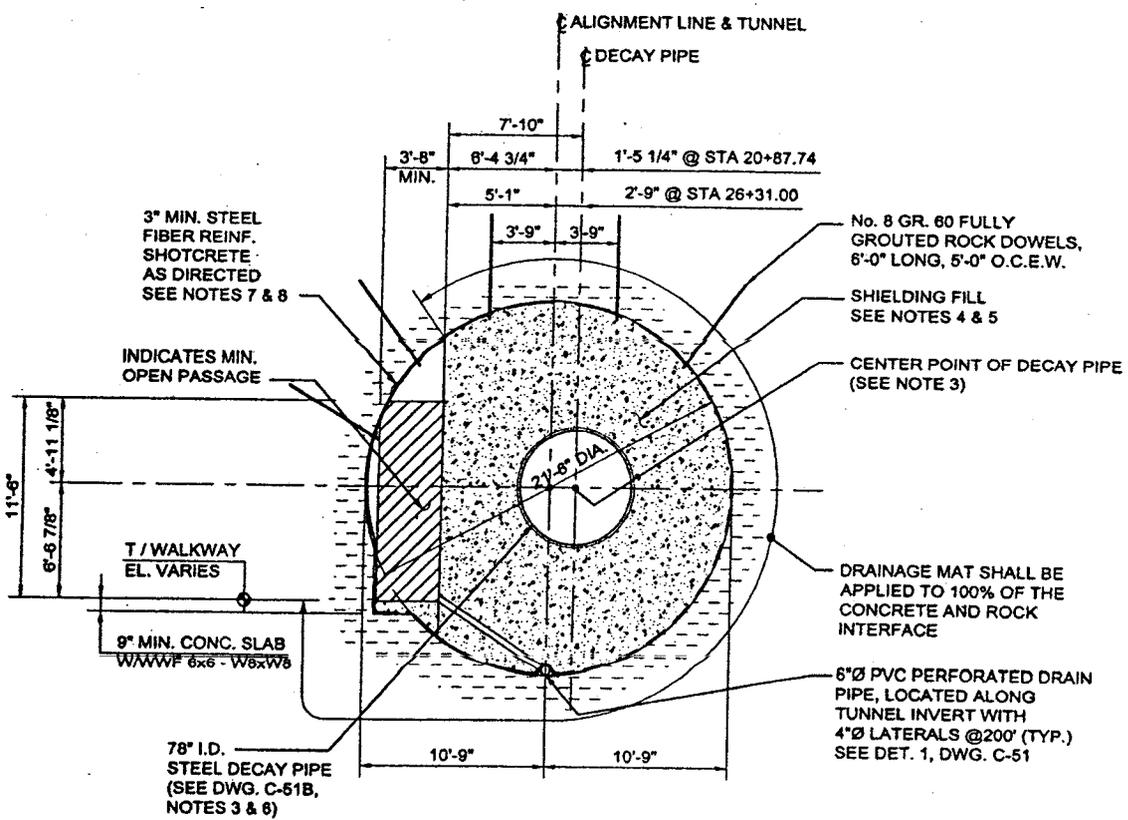
**SECTION**

**C**

SCALE 3/16"=1'-0"

C-46, C-52

DECAY TUNNEL STA 9+93.00 TO STA 14+85.00

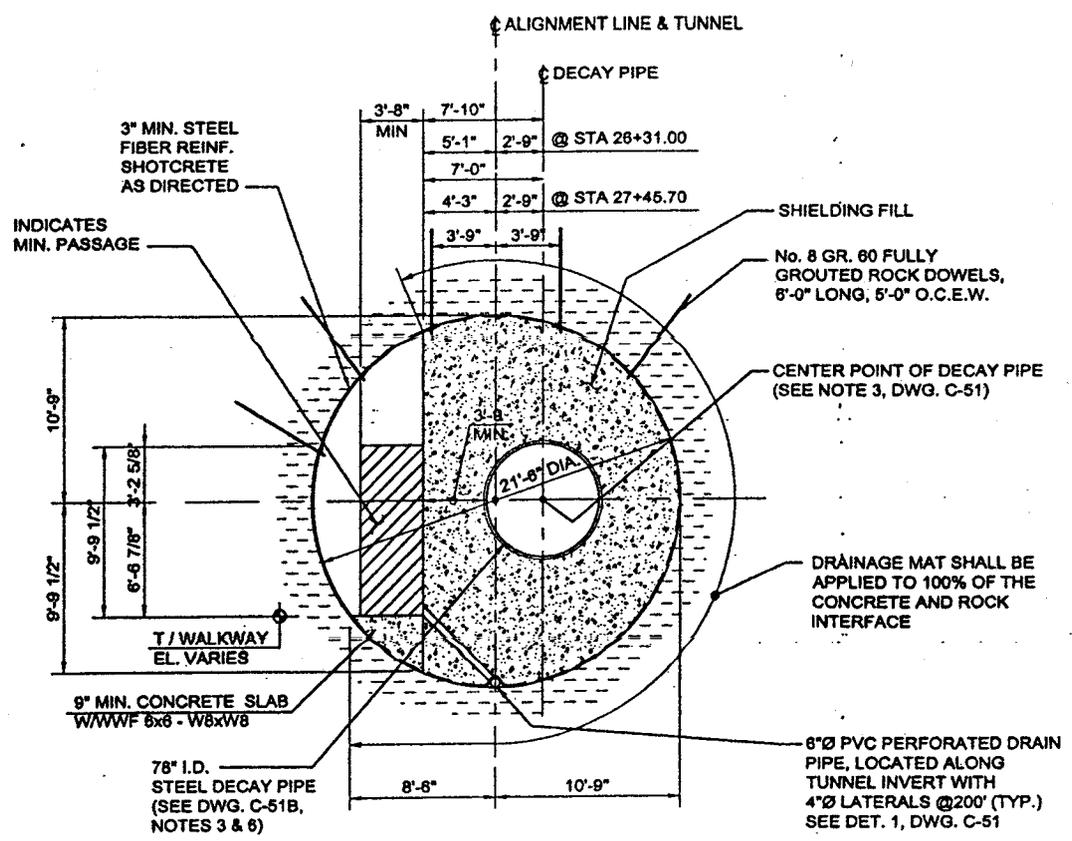


**SECTION**

SCALE 3/16"=1'-0"

**H**  
C-47, C-48, C-52

DECAY TUNNEL STA 20+87.74 TO STA 26+31.00

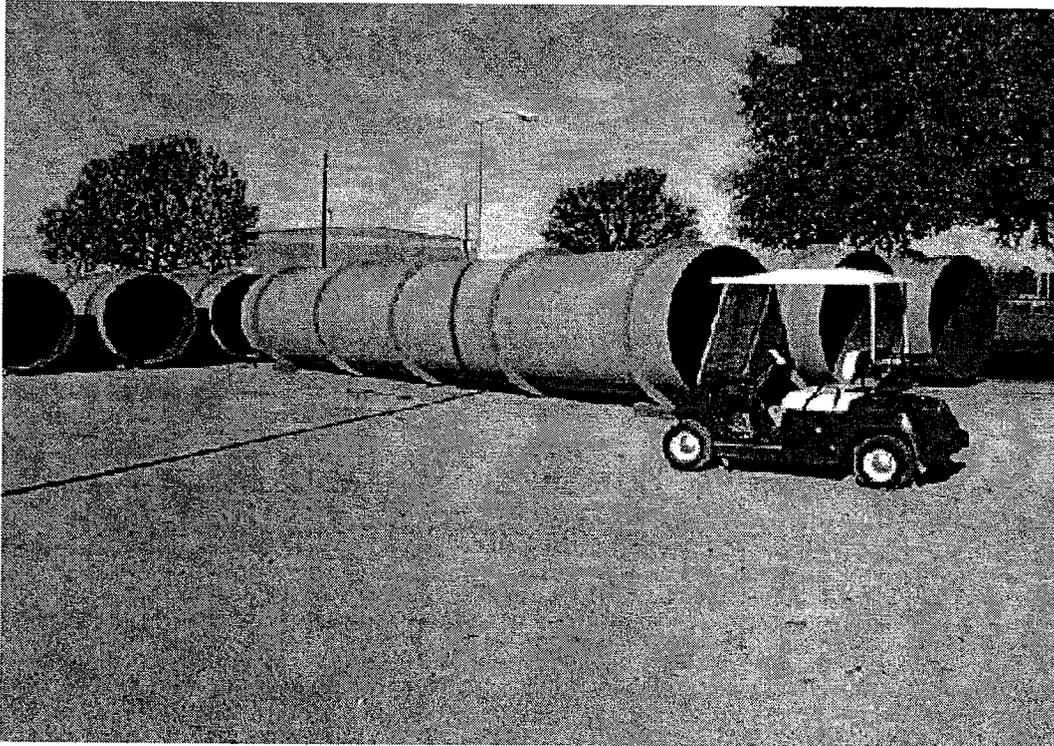


**SECTION**

SCALE 3/16"=1'-0"

**I**  
C-48, C-52

DECAY TUNNEL STA 26+31.00 TO STA 27+45.70



**STORAGE OF COMPLETED DECAY PIPE**



**STORAGE OF COMPLETED DECAY PIPE**