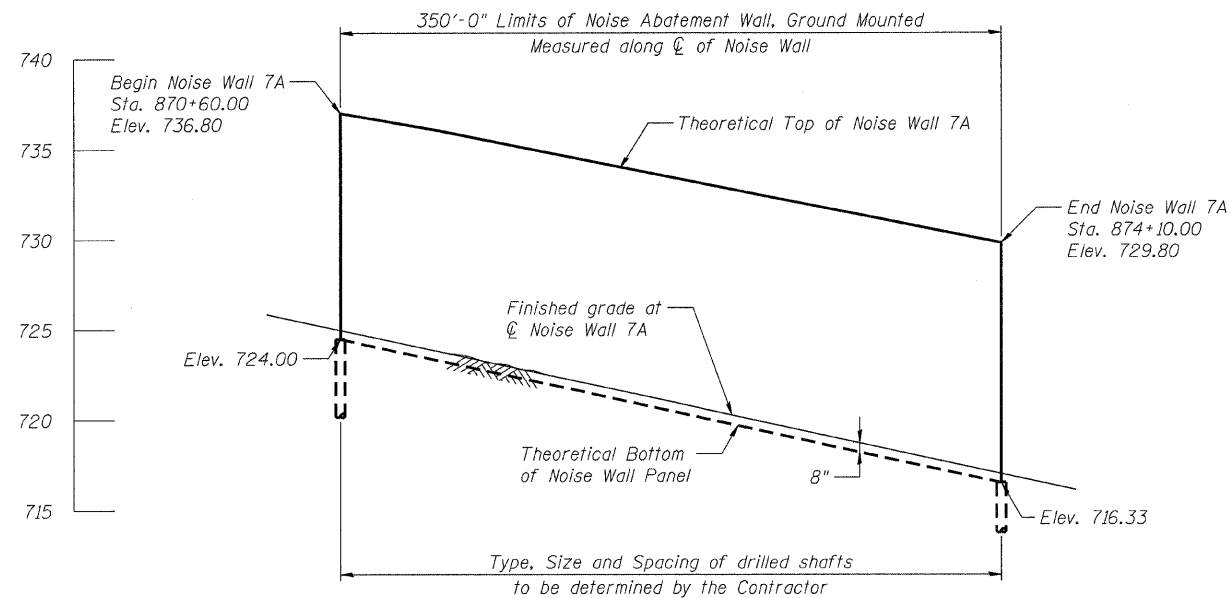
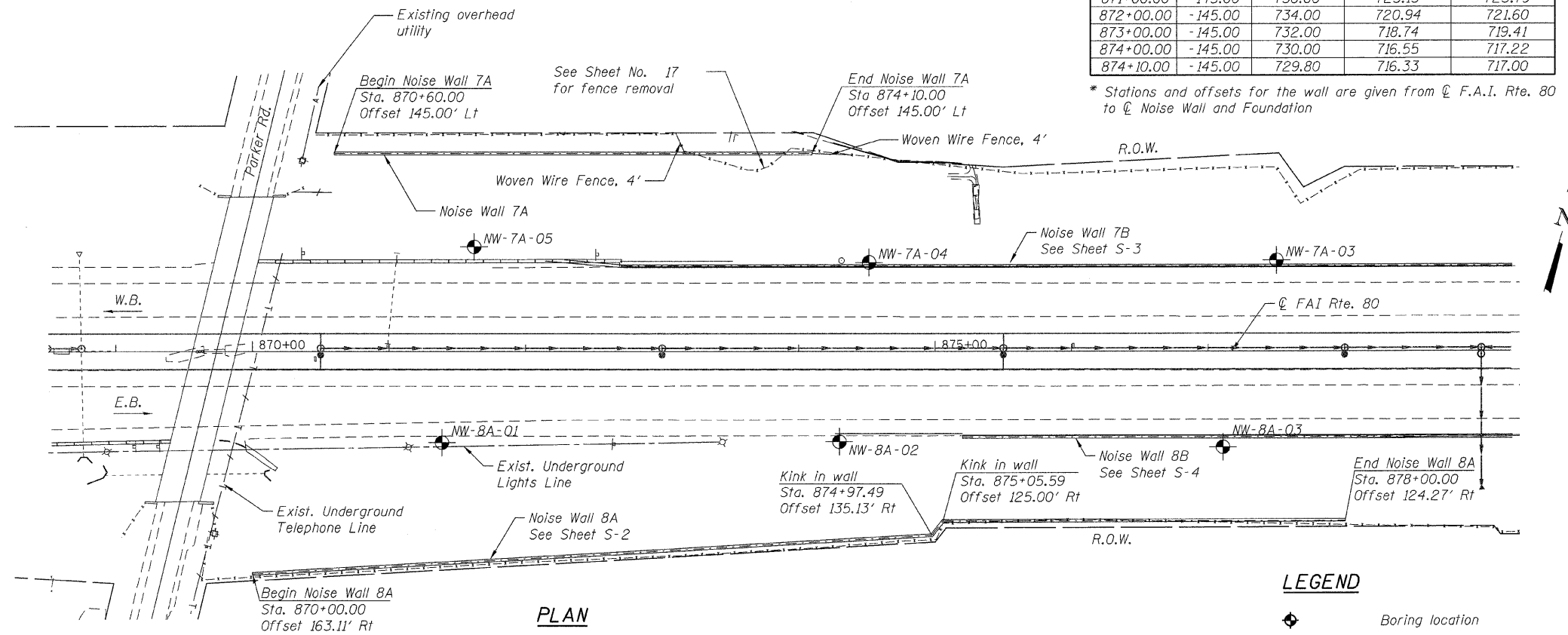


Benchmark: BM 18-chiseled in South edge of concrete shoulder at stamped station 875+00, Elev. 699.89  
 BM 29 - chiseled square south edge of concrete merge ramp from weight station at stamped station 1010+00, Elev. 725.36  
 Existing structure: None  
 Staging: See MOT plans



**ELEVATION - NOISE WALL 7A**  
 (Looking North)



**PLAN**

**LEGEND**

◆ Boring location

**NOTES:**

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.
2. All reinforcement including the welded wire fabric shall be Epoxy Coated.
3. Welded wire fabric shall be according to AASHTO M 55.
4. Anchor bolts shall conform to ASTM F 1554 Grade 55 or 105.
5. The Contractor shall verify and consider the location of existing and proposed drainage structures, overhead and underground utilities prior to wall construction. Any damage to utilities to be repaired at the contractor's expense.
6. Existing fence along the ROW shall remain, except as noted. Any damage to the fence shall be repaired by the Contractor at no additional expense to the Department.
7. See sheet S-2 for wall 8A elevation and for Noise Wall 7A, 8A & 11 typical section.
8. The stresses developed in the Precast Panels and Posts during shipping, storage, transportation and erection shall be accounted for. It is the responsibility of the Contractor to provide additional reinforcement or bracing if necessary to address these items, subject to approval by the Engineer. Cost included with Noise Abatement Wall (ground mounted or structure mounted accordingly).
9. See Geotechnical Report for geotechnical recommendations.
10. Slip forming of the Concrete Barrier Support System will not be allowed.
11. Top of walls shall have 1'-0" concrete coping. All walls shall have proper, aesthetically pleasing end treatments. Cost included with Noise Abatement Wall (ground mounted or structure mounted accordingly).

**WALL 7A INFORMATION**

Station *	Offset *	Theoretical Top of Wall	Theoretical Bottom of Wall	Proposed Grade Elev. at front face
870+60.00	-145.00	736.80	724.00	724.67
871+00.00	-145.00	736.00	723.13	723.79
872+00.00	-145.00	734.00	720.94	721.60
873+00.00	-145.00	732.00	718.74	719.41
874+00.00	-145.00	730.00	716.55	717.22
874+10.00	-145.00	729.80	716.33	717.00

\* Stations and offsets for the wall are given from  $\bar{C}$  F.A.I. Rte. 80 to  $\bar{C}$  Noise Wall and Foundation

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Noise Abatement Wall, Ground Mounted	Sq. Ft.	50,750
Noise Abatement Wall, Structure Mounted	Sq. Ft.	35,320
Barrier Support Structure for Noise Abatement Wall	Ft.	3,080

**INDEX OF SHEETS**

- S-1 General Plan - Noise Abatement Walls 7A & 8A
- S-2 Elevation - Wall 8A
- S-3 General Plan - Noise Abatement Walls 7B & 8B
- S-4 Details - Walls 7B & 8B
- S-5 General Plan and Elevation - Noise Abatement Wall 11

**DESIGN STRESSES**

**FIELD UNITS**

$f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 36,000$  psi (M270 Grade 36) Min.

**PRECAST UNITS**

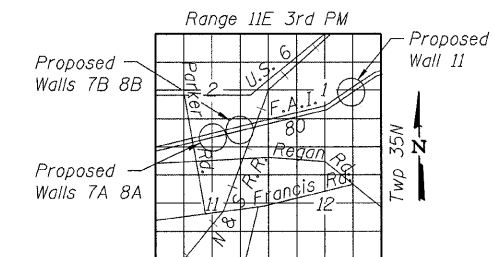
$f'_c = 4,500$  psi (min.)  
 $f_y = 60,000$  psi (Reinforcement)  
 $f_y = 65,000$  psi (Welded Wire Fabric)

**LOADING**

Wind Load on Noise Walls 35 psf  
 (See Special Provision)

**DESIGN SPECIFICATIONS**

AASHTO 2002 Standard Specifications for Highway Bridges  
 AASHTO 1989 Guide Specifications for Structural Design of Sound Barriers, with Interims



**LOCATION SKETCH**

**GENERAL PLAN**  
**NOISE ABATEMENT WALLS 7A & 8A**  
**F.A.I. RTE. 80 - SEC 99-5R-1**  
**WILL COUNTY**  
**STA. 869+67.65 TO STA. 878+00.00**

N:\PROJECTS\3384\5-Noise Walls\Design\Structural\CAD\01-Noise wall 7A.dgn



USER NAME = jkellman	DESIGNED - EKM	REVISED -
PLOT SCALE = 50' / IN.	CHECKED - AMK	REVISED -
PLOT DATE = 3/24/2011	DRAWN - RD	REVISED -
	CHECKED - EKM	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

SHEET NO. S-1 OF S-5 SHEETS

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99-5R-1	WILL	112	40
CONTRACT NO. 60N86				
[ILLINOIS] FED. AID PROJECT				