

Bench Mark: Cut square on southwest corner of concrete base of traffic control box on northeast corner of IL 59 and Army Trail Rd. Elevation 807.24.

Existing Structure: The existing noise wall structure consists of HP-Piles spaced at 15'-0" with approximately 13'-0" to 18'-0" tall noise panel wall.

Traffic to be maintained utilizing staged construction.

Salvage: Existing noise wall panels shall be removed, modified as required, and installed on proposed noise wall. Existing noise wall panels not re-utilized shall be delivered to the IDOT maintenance yard.

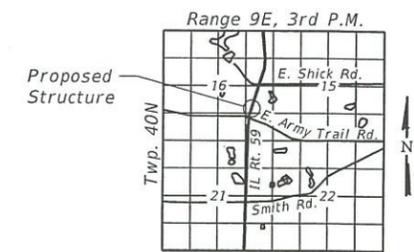
APPROVED

FEB 28 2018

**AS A BASIS FOR
PREPARATION OF DETAILED PLANS**

CURVE DATA

P.I. Sta. = 501+67.55
 $\Delta = 18^\circ 17' 04''$ (RT)
 $D = 1^\circ 05' 16''$
 $R = 5,267.07'$
 $T = 847.63'$
 $L = 1,680.85'$
 $E = 67.77'$
 $e = 2.00\%$
 $T.R. = 40'$
 $S.E. Run = 67'$
 $P.C. Sta. = 493+19.92$
 $P.T. Sta. = 510+00.77$



LOCATION SKETCH

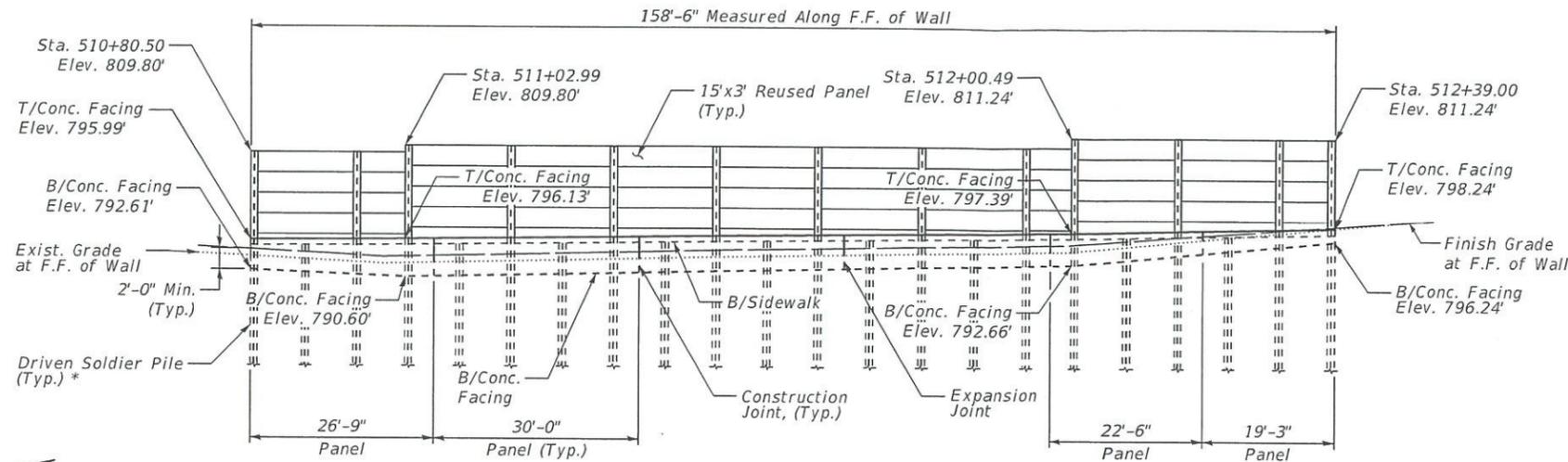
DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES

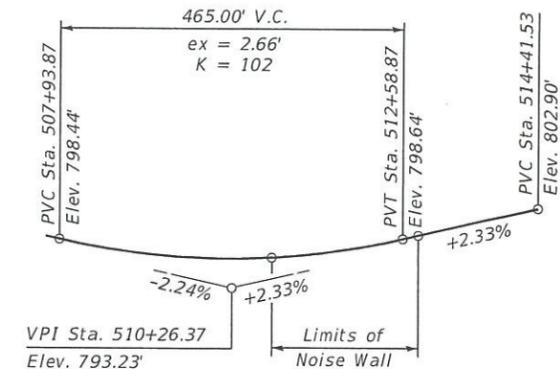
FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
SOLDIER PILES
 $f_y = 50,000$ psi (M270 Grade 50)



ELEVATION

* Pile section, spacing, & tip elevation to be determined during final design.



PROFILE GRADE

(Along IL 59 N.B. P.G.L.)

HIGHWAY CLASSIFICATION

IL Rte. 59 - F.A.P. Rte. 338
 Functional Class: Other Principal Arterial
 ADT: 37,700 (2016); 42,000 (2040)
 ADTT: 6,032 (2016); 6,720 (2040)
 DHV: 4,784 (2015)
 Design Speed: 45 m.p.h.
 Posted Speed: 45 m.p.h.
 Two-Way Traffic
 Directional Distribution: 50%/50%

NOISE WALL DESIGN LOADS

AASHTO LRFD Load Combinations:
 Service I Wind Load = 15 psf
 Strength III Wind Load = 35 psf
 Strength V Wind Load = 20 psf

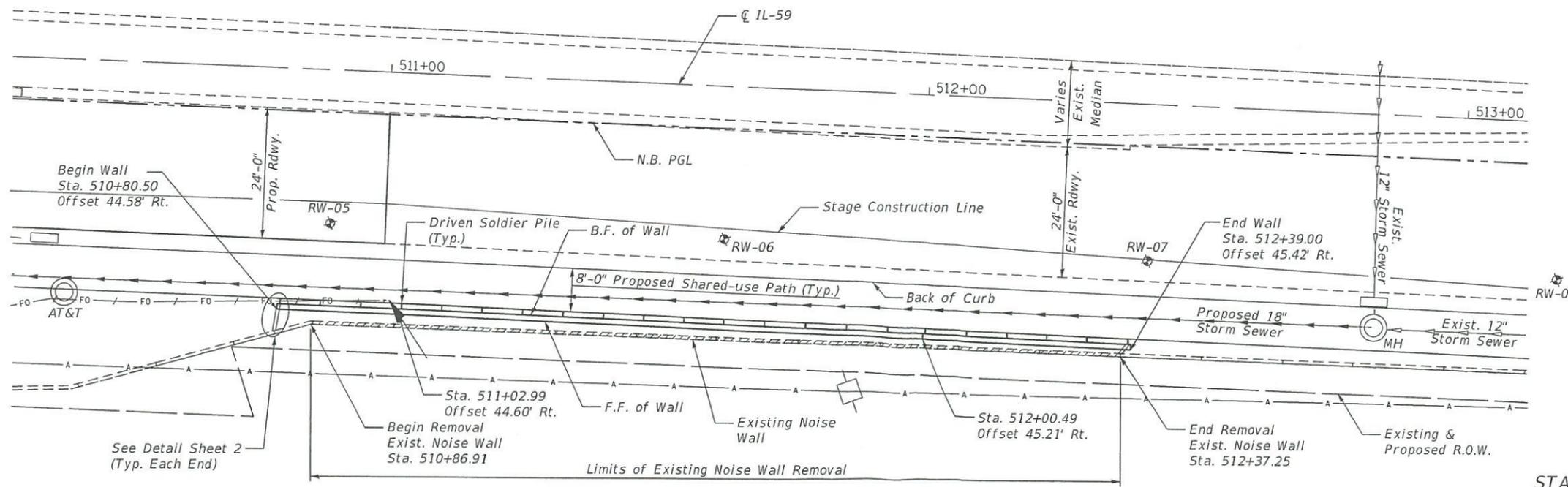
**GENERAL PLAN AND ELEVATION
RETAINING AND NOISE WALL ALONG
F.A.P. RTE. 59 (S. SUTTON RD.)**

SECTION 110TS-N

DUPAGE COUNTY

STATION 510+80.50 TO STATION 512+39.00

STRUCTURE NO. 022-2999



PLAN

FILE NAME =
COLLINS ENGINEERS
 123 N. Wacker Dr.,
 Suite 900
 Chicago, IL 60606
 Tel: (312) 724-3300
 Fax: (312) 704-9320
 www.collinseng.com
 ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993

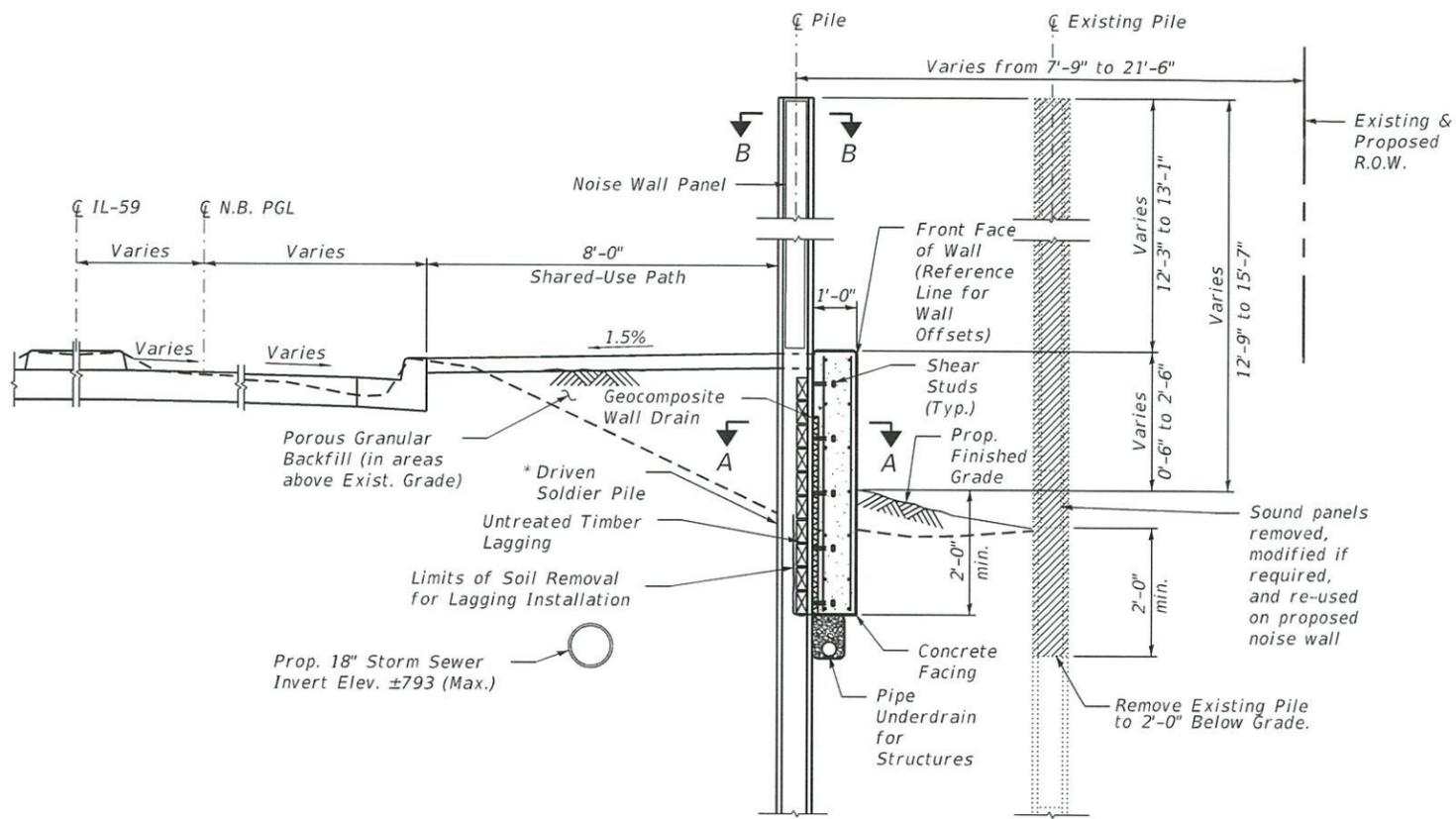
USER NAME =	DESIGNED - LY	REVISOR -
PLOT SCALE =	CHECKED - JMS	REVISOR -
PLOT DATE =	DRAWN - DR	REVISOR -
	CHECKED - JMS	REVISOR -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION
STRUCTURE NO. 022-2999**

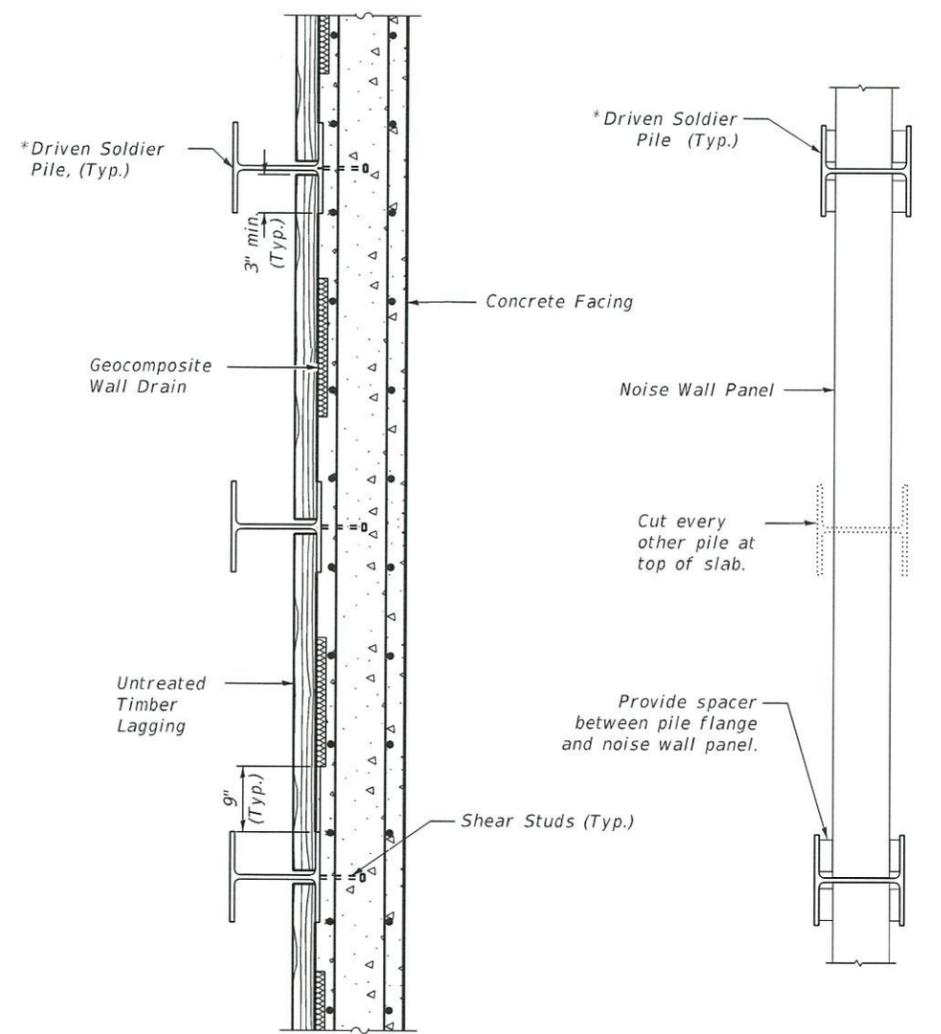
SHEET NO. 1 OF 2 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
338	110TS-N	DuPAGE	2	1
			CONTRACT NO. 62F19	
ILLINOIS FED. AID PROJECT				



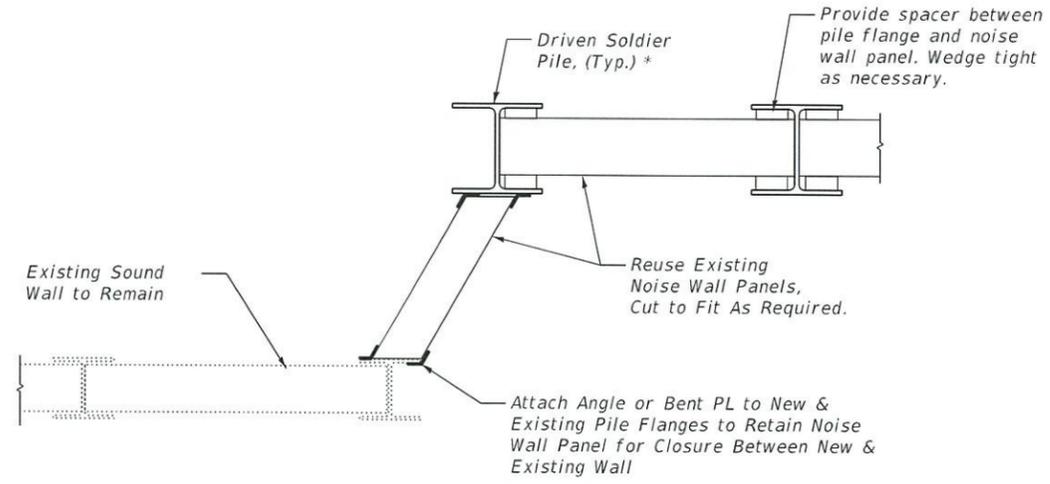
TYPICAL CROSS SECTION

* Driven soldier piles shall be painted.



SECTION A-A

SECTION B-B



TYPICAL CONNECTION TO EXISTING NOISE WALL

APPROVED

FEB 28 2018

AS A BASIS FOR
PREPARATION OF DETAILED PLANS

FILE NAME = COLLINS ENGINEERS <small>123 N. Rockwell Dr., Suite 900, Chicago, IL 60606 Tel: (312) 704-1300 Fax: (312) 704-3300 www.collinseng.com ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993</small>	USER NAME =	DESIGNED - LY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS AND DETAILS STRUCTURE NO. 022-2999			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE =	CHECKED - JMS	REVISED -					338	110TS-N	DuPAGE	2	2
	PLOT DATE =	DRAWN - DR	REVISED -		SHEET NO. 2 OF 2 SHEETS			CONTRACT NO. 62F19				
		CHECKED - JMS	REVISED -		ILLINOIS FED. AID PROJECT							