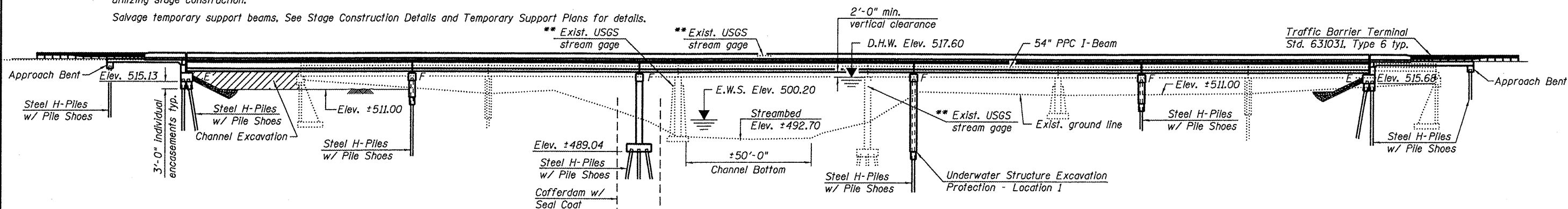
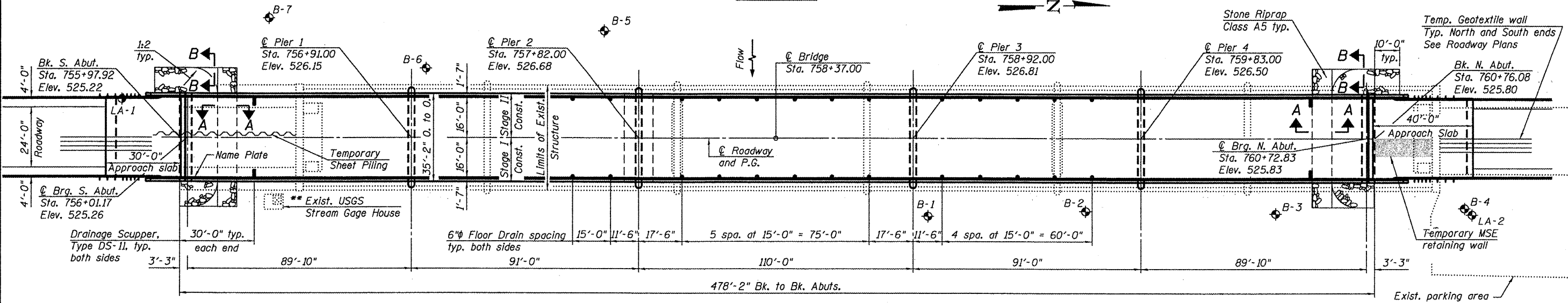


Bench Mark: WR3 Chiseled "□" top of northeast wingwall S.N. 055-0010. Elevation 520.608  
 Existing Structure: S.N. 055-0010 built in 1931 as S.B.I. Route 99 Section 105C. In 1977 as F.A. Route 36, Section 105BR at Station 758+83.5. The original 3-span truss superstructure was removed and replaced with two 3-span units of 33" precast, prestressed concrete deck beams with bituminous wearing surface. The existing abutments and solid wall piers were modified and widened and two additional solid wall pile bent piers and one solid wall pier on pile supported footing were added. 457'-6" back-to-back abutments, 42'-0" out-to-out deck. Structure to be removed and replaced utilizing stage construction.

Salvage temporary support beams, See Stage Construction Details and Temporary Support Plans for details.



**ELEVATION**



**PLAN**

\*\* Exist. USGS Stream Gage House and Instrumentation shall be removed and relocated. See Special Provisions.

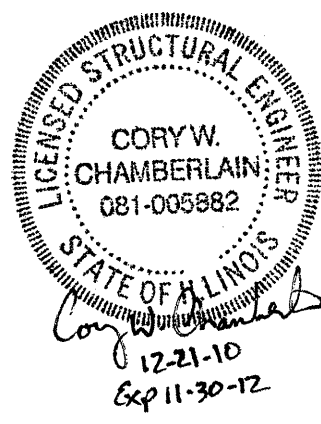
**DESIGN SCOUR ELEVATION TABLE**

| Design Scour Elevation (ft.) | S. Abut. | Pier 1 | Pier 2 | Pier 3 | Pier 4 | N. Abut. |
|------------------------------|----------|--------|--------|--------|--------|----------|
|                              | 515.13   | 476.7  | 476.7  | 476.7  | 505.00 | 515.68   |

**WATERWAY INFORMATION**

Drainage Area = 655 Sq. Mi. Prop. Low Grade Elev. 523.2 @ Sta. - 764+59.25  
 Exist. Low Grade Elev. 520.80 @ Sta. - 756+04.75

| Flood            | Freq. Yr. | Q C.F.S. | Opening Sq. Ft. |       | Nat. Head - Ft. |       | Headwater El. |       |       |
|------------------|-----------|----------|-----------------|-------|-----------------|-------|---------------|-------|-------|
|                  |           |          | Exist.          | Prop. | Exist.          | Prop. | Exist.        | Prop. |       |
| Design           | 10        | 21,200   | 3100            | 3123  | 515.4           | 1.1   | 1.0           | 516.5 | 516.4 |
| Base             | 50        | 34,600   | 4060            | 4097  | 517.6           | 2.8   | 2.6           | 520.4 | 520.2 |
| OverTop (Exist.) | 100       | 40,800   | 4127            | 4505  | 518.5           | 3.3   | 3.3           | 521.8 | 521.8 |
| OverTop (Prop.)  | 55        | 36,100   | 4127            |       | 517.9           | 2.9   |               | 520.8 |       |
| OverTop (Prop.)  | 200       | 47,100   |                 | 4870  | 519.3           |       | 3.9           |       | 523.2 |



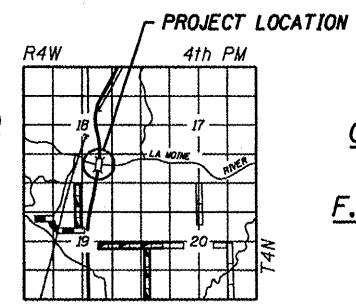
**LOADING HL-93**  
 Allow 50#/sq. ft. for future wearing surface.  
**DESIGN SPECIFICATIONS**  
 2007 AASHTO LRFD Bridge Design Specifications with 2008, 2009 Interims  
**DESIGN STRESSES**  
**FIELD UNITS**  
 $f'_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinforcement)

STATION 758+37.00  
 BUILT 20 BY  
 STATE OF ILLINOIS  
 F.A.P. RT. 542 SEC. 105BR-1  
 LOADING HL-93  
 STRUCTURE NO. 055-0083

**NAME PLATE**  
 See Std. 515001

**APPROVED**  
 For Structural Adequacy Only  
 [Signature]  
 Engineer of Bridges & Structures

**PRECAST PRESTRESSED UNITS (Span 3)**  
 $f'_c = 7,000$  psi  
 $f'_{ci} = 6,000$  psi  
 $f_{pu} = 270,000$  psi (1/2"  $\phi$  low lax strands)  
 $f_{pbt} = 201,960$  psi (1/2"  $\phi$  low lax strands)  
**PRECAST PRESTRESSED UNITS (Spans 1,2,4,5)**  
 $f'_c = 6,000$  psi  
 $f'_{ci} = 5,000$  psi  
 $f_{pu} = 270,000$  psi (1/2"  $\phi$  low lax strands)  
 $f_{pbt} = 201,960$  psi (1/2"  $\phi$  low lax strands)



**SEISMIC DATA**  
 Seismic Performance Zone (SPZ) = 1  
 Design Spectral Acceleration at 1.0 sec. ( $S_{D1}$ ) = 0.113g  
 Design Spectral Acceleration at 0.2 sec. ( $S_{D5}$ ) = 0.173g  
 Soil Site Class = D

**GENERAL PLAN AND ELEVATION**  
**IL 61 OVER LAMOINE RIVER**  
**F.A.P. ROUTE 542 - SEC. 105BR-1**  
**MCDONOUGH COUNTY**  
**STATION 758+37.00**  
**STRUCTURE NO. 055-0083**

| USER NAME = dhaberling        | DESIGNED - BRO/FLL | REVISED - |
|-------------------------------|--------------------|-----------|
| FILE NAME = 0550083-68482.dgn | CHECKED - SDS/JHP  | REVISED - |
| PLOT DATE = 12/21/2010        | DRAWN - DLH        | REVISED - |
| PLOT TIME = 10:14:58 AM       | CHECKED - CWC/SDS  | REVISED - |

**WHKS & CO. ENGINEERING**  
 7018 KINGSMILL CT., SPRINGFIELD, IL (217) 483-9457  
 DESIGN FIRM #184001038

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**GENERAL PLAN AND ELEVATION**  
**S.N. 055-0083**  
 SHEET NO. 1 OF 41 SHEETS

| F.A.P. RTE. | SECTION | COUNTY    | TOTAL SHEETS | SHEET NO. |
|-------------|---------|-----------|--------------|-----------|
| 542         | 105BR-1 | MCDONOUGH | 117          | 41        |

CONTRACT NO. 68482  
 ILLINOIS FED. AID PROJECT