

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

| | | | | |
|---------------------|----------|------------------|--------------|-----------|
| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 275B D2-00025-00-BR | LAKE | | 40 | 11 |
| FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT | | |

SHEET NO. 1
30 SHEETS

CONTRACT 83790

Benchmark: Set Square on NE abutment/wingwall El. 665.04

Existing Structure: S.N. 049-6801. Built in 1964 as Moffett Road Bridge Section 44-12-1B-CA (Part 1B) (County) and Section 8B-CS (Part 1B) (Village). 3-Span P.P.C. deck on open abutments. 114'-9" Back to Back of Abutments, 31'-0" Out of Out Deck. Structure is to be removed. Traffic will be detoured during construction.

Salvage: None.

LOADING HS20-44

Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS

AASHTO 2002 Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

FIELD UNITS

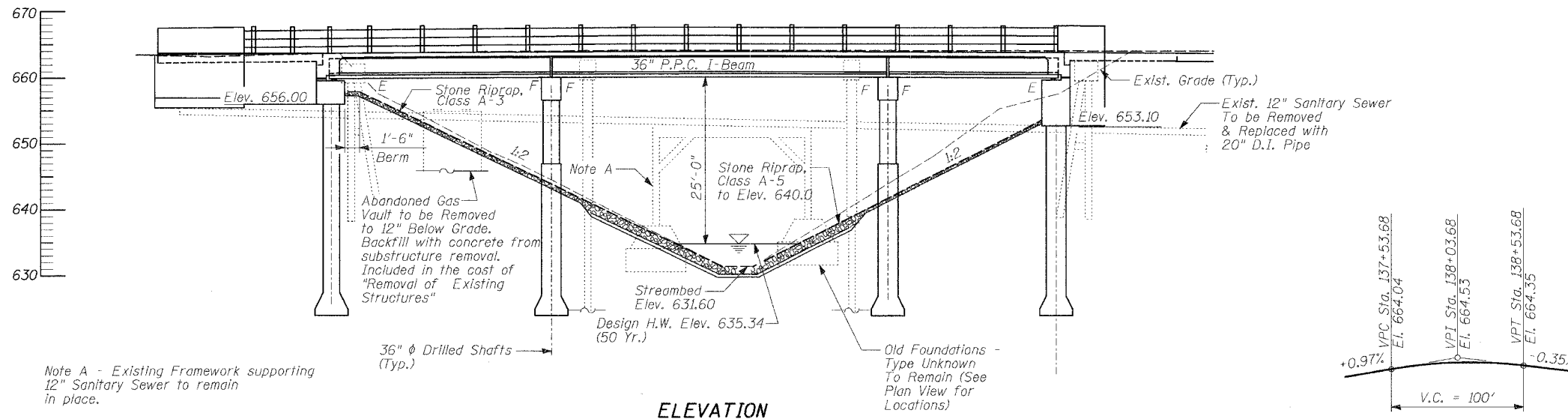
$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

PRECAST PRESTRESSED UNITS

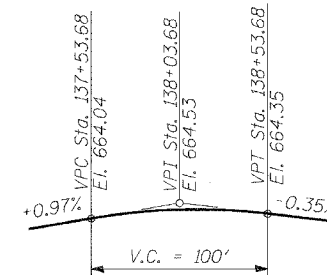
$f'_c = 6,000$ psi
 $f'_ci = 5,000$ psi
 $f'_s = 270,000$ psi ($\frac{1}{2}$ " ϕ low lax. strands)
 $f_{si} = 201,960$ psi ($\frac{1}{2}$ " ϕ low lax. strands)

SEISMIC DATA

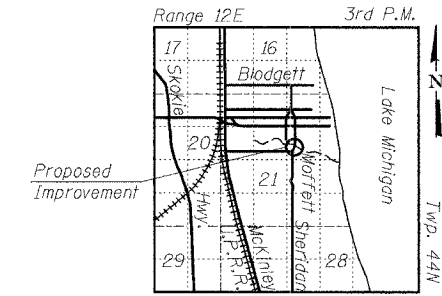
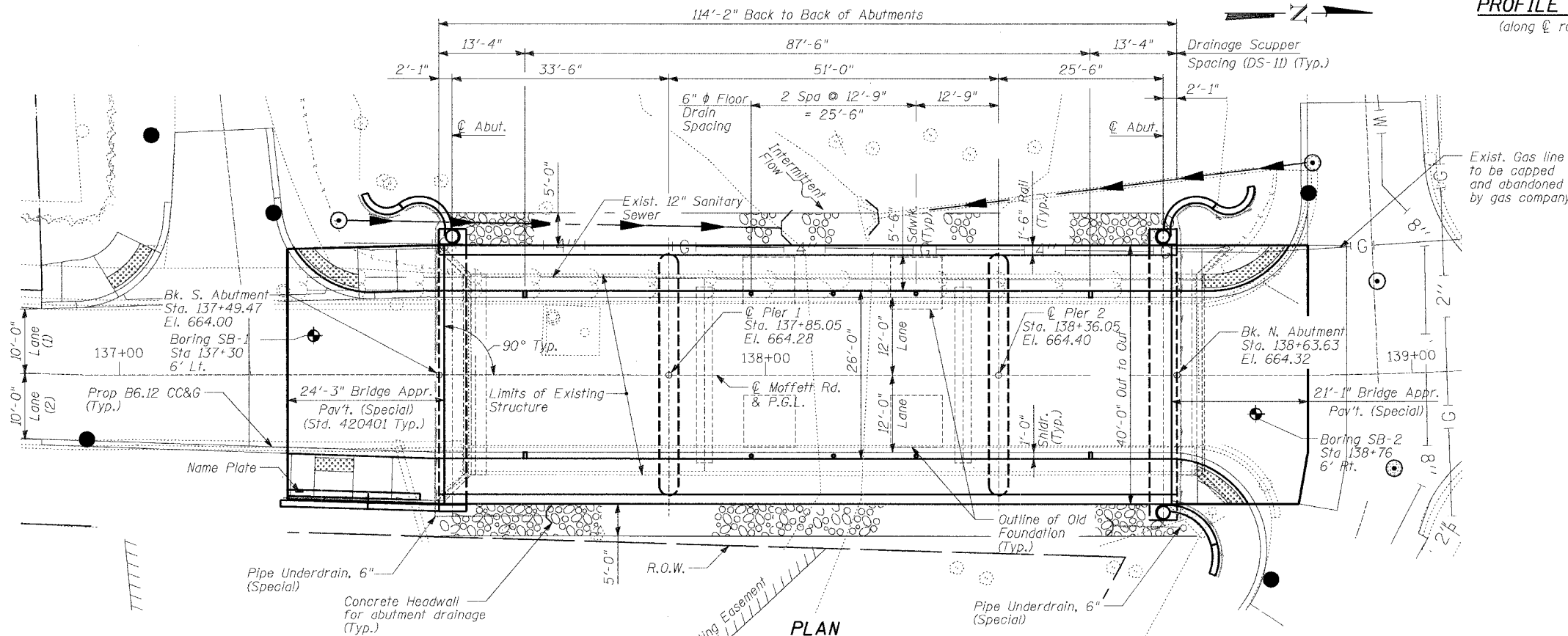
Seismic Performance Category (SPC) = A
Bedrock Acceleration Coefficient (A) = 3.5%
Site Coefficient (S) = 1.0



Note A - Existing Framework supporting 12" Sanitary Sewer to remain in place.



PROFILE GRADE
(along ϕ roadway)



LOCATION SKETCH

I certify that to the best of my knowledge, information and belief, this bridge design is structurally adequate for the design loading shown on the plans. The design is an economical one for the style of the structure and complies with requirements of the current "AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES."



Signed Phillip D. Frey
Phillip D. Frey, S.E. II, Lic. No. 081-004826
Expires 11-30-2005.
Date 2/23/05

GENERAL PLAN AND ELEVATION

MOFFETT ROAD OVER
DRAINAGE RAVINE
FAU 2758
LAKE COUNTY
S.N. 049-6803

TYLIN INTERNATIONAL

| | |
|----------|------------|
| DESIGNED | SP, DR |
| CHECKED | SP |
| DRAWN | SP, DR |
| CHECKED | PF |
| DATE | 12-22-2004 |

(1) Lane width varies from 10'-0" at Sta. 137+88.00 to 12'-0" at Sta. 137+48.14.
(2) Lane width varies from 10'-0" at Sta. 137+88.00 to 12'-0" at Sta. 137+48.21.