

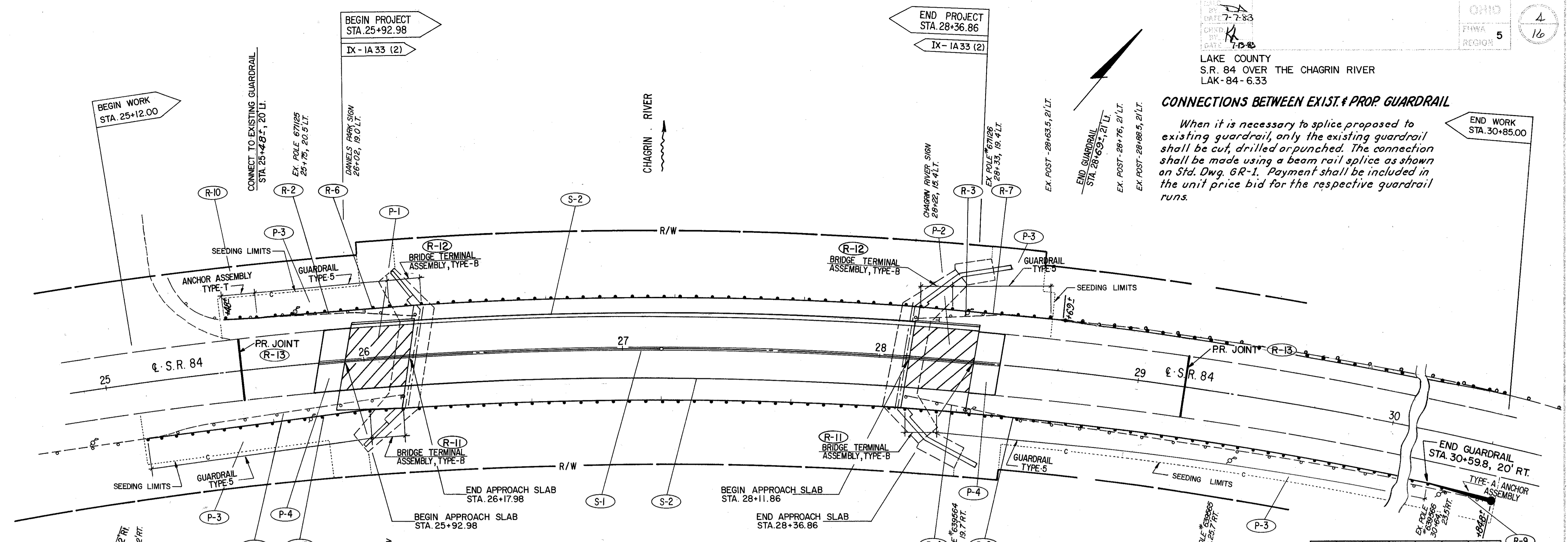
MICROFILMED  
OCT 21 1985

DATE 7-7-83  
BY KJ  
DATE 7-13-83

LAKE COUNTY  
S.R. 84 OVER THE CHAGRIN RIVER  
LAK-84-6.33

**CONNECTIONS BETWEEN EXIST. & PROP. GUARDRAIL**

When it is necessary to splice proposed to existing guardrail, only the existing guardrail shall be cut, drilled or punched. The connection shall be made using a beam rail splice as shown on Std. Dwg. GR-1. Payment shall be included in the unit price bid for the respective guardrail runs.



EX. POLE #589487  
24+91.5, 20.2' RT.  
BEGIN GUARDRAIL  
STA. 25+12.00, 22' RT.  
EX. POST-25+12.5, 22' RT.

EX. POLE #287773, 21.5' RT.  
CHAGRIN RIVER SIGN  
26+14, 15.3' RT.

EX. POLE #639564  
28+56, 19.7' RT.  
CHAGRIN RIVER SIGN  
28+22, 13.4' LT.

EX. POLE #30866  
29+39, 20.7' RT.

- ITEM 202 PAVEMENT REMOVED

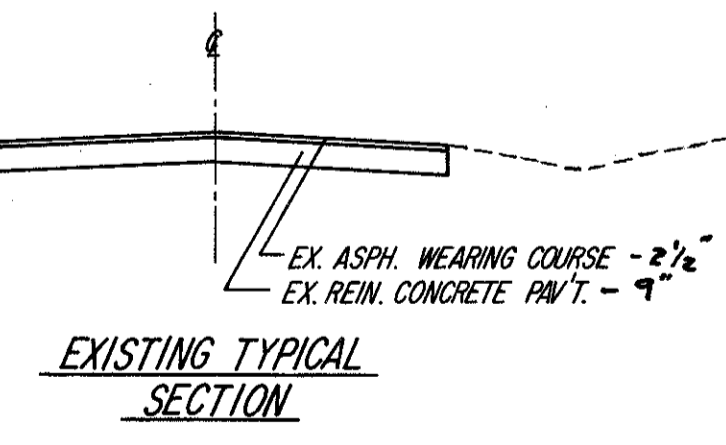
**CALCULATIONS**

**ITEM 202 WEARING COURSE REMOVED - (1" AVE DEPTH)**  
STA. 25+92.98 and STA. 28+36.86  
24' (Exist Pav't.) x 10' (Length) = 240.0 sq.ft.  
240.0 sq.ft. ÷ 9 = 26.7 sq.yds. x 2 = 53.4 sq.yds.  
TOTAL ITEM 202 = 53.4 Sq. Yds.

**ITEM 404 1" ASPHALT CONCRETE AC-20**  
TOTAL from ITEM 202 = 53.4 sq.yds.  
53.4 s.y. x 9 = 480.6 sq.ft.  
480.6 s.f. x 1" (.08) ÷ 27 = 1.42 cu. yd.  
TOTAL FROM ITEM 611 = 190 s.y. (EXCLUDING CURB)  
190 x 2" ÷ 36 = 10.5 c.y. TOTAL ITEM 404 = 11.92 c.y.

**ITEM 407 TACK COAT**  
TOTAL from ITEM 202 = 53.4 sq.yds.  
243.4 s.y. x 0.10 /sq.yd. = 24.3 gals.  
TOTAL ITEM 407 = 24 Gal.

**ITEM 202 PAVEMENT REMOVED**  
24' x (25 + 25) ÷ 9 = 133.3 s.y.  
TOTAL ITEM 202 = 133.3 s.y.



| REF.         | LOCATION                  | S.Y.        | S.Y.       | C.Y.      | C.Y.      | S.Y.       | GAL.      | S.Y.        | S.Y.       |
|--------------|---------------------------|-------------|------------|-----------|-----------|------------|-----------|-------------|------------|
| P-1          | STA. 25+92.98 to 26+17.98 | 96          | 16         | 96        |           |            |           |             | 67         |
| P-2          | STA. 28+11.86 to 28+36.86 | 96          | 16         | 96        |           |            |           |             | 67         |
| P-3          | BRIDGE-ENDS               |             |            |           |           |            |           | 1090        |            |
| P-4          | STA. 25+92.98 & 28+36.86  | 53.4        |            | 12        |           | 24         |           |             |            |
| <b>TOTAL</b> |                           | <b>53.4</b> | <b>192</b> | <b>32</b> | <b>12</b> | <b>192</b> | <b>24</b> | <b>1090</b> | <b>134</b> |

| REF. | LOCATION                  | MILE | MILE |
|------|---------------------------|------|------|
| S-1  | STA. 25+92.98 to 28+36.86 | 0.05 |      |
| S-2  | STA. 26+17.98 to 28+11.86 |      | 0.10 |
|      |                           | 0.05 | 0.10 |

| REF.         | LOCATION                      | L.F.         | L.F.      | L.F.          | EA.      | EA.      | EA.      | L.F.      |
|--------------|-------------------------------|--------------|-----------|---------------|----------|----------|----------|-----------|
| R-1          | STA. 25+12.5 to 26+14, Rt.    | 101.5        |           |               |          |          |          |           |
| R-2          | STA. 25+69.5 to 26+22, Lt.    | 61.5         |           |               |          |          |          |           |
| R-3          | STA. 28+13 to 30+81, Lt.      | 222.5        |           |               |          |          |          |           |
| R-4          | STA. 28+10 to 30+84, Rt.      | 274          |           |               |          |          |          |           |
| R-5          | STA. 25+12.9 to 26+13.8, Rt.  |              |           | 99.00         |          |          |          |           |
| R-6          | STA. 25+60.5 to 26+21.8, Lt.  |              |           | 62.27         |          |          |          |           |
| R-7          | STA. 28+14 to 30+81, Lt.      |              |           | 268.2         |          |          |          |           |
| R-8          | STA. 28+10 to 30+59.8, Rt.    |              |           | 220.27        |          |          |          |           |
| R-9          | STA. 30+59.8, Rt.             |              |           |               |          |          | 1        |           |
| R-10         | STA. 25+60.5, Lt.             |              |           |               | 1        |          |          |           |
| R-11         | STA. 26+00.44, & 28+22.3, Rt. |              |           |               |          | 2        |          |           |
| R-12         | STA. 26+10.51, & 28+26.3, Lt. |              |           |               |          | 2        |          |           |
| R-13         | STA. 25+50 & 29+20, Lt.       |              | 48        |               |          |          |          | 60        |
| <b>TOTAL</b> |                               | <b>699.5</b> | <b>48</b> | <b>649.74</b> | <b>1</b> | <b>4</b> | <b>1</b> | <b>60</b> |

COLPETZER WOODS CONSULTANTS, INC.  
CONSULTING ENGINEERS  
MENTOR, OHIO

**GUARDRAIL REPLACEMENT**  
STATE ROUTE 84 OVER  
THE CHAGRIN RIVER  
LAKE COUNTY, OHIO

SCALE \_\_\_\_\_ DATE \_\_\_\_\_  
DESIGNED \_\_\_\_\_ DRAWN \_\_\_\_\_ TRACED \_\_\_\_\_ CHECKED \_\_\_\_\_ REVIEWED \_\_\_\_\_ DATE \_\_\_\_\_