

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
 BUREAU OF DESIGN

CONSTRUCTION PLAN INDEX

REEL 0-26

| ROUTE | SECTION | COUNTY | NO. OF EXP. | REMARKS |
|---------|--------------------|-------------|----------------|---------|
| FA-19 | 7-2B-2, 7-2F-2 | COOK | 37 | |
| FA-6 | 6-2B-1 | COOK | 14 | |
| SA-20 | 20-2B | COOK | 13 | |
| SA-20 | 20-2R | COOK | 21 | |
| SA-7A | 37-2R | COOK | 7 | |
| SA-35 | 15-2B-2 | COOK | 23 | |
| SA-35 | 15-2V, 2V, 2V 2B-1 | COOK | 34 | |
| FAS-114 | 003-0112Q | COOK | 12 | |
| FAS-117 | 004-0104 | COOK | 27 | |
| FAS-117 | 004-0502Q | COOK | 14 | |
| FAS-119 | 018-0610-Y-1 | COOK | 10 | |
| FAS-119 | 018-0610-Y-1-2B | COOK | 5 | |
| FAS-163 | 016-B-0102Q | COOK | 8 | |
| FAS-113 | 0406-Q | COOK | 10 | |
| FAS-113 | 100-1011 | COOK & LAKE | 19 | |
| FAS-113 | 100-0707 | COOK & LAKE | 16 | |
| FAS-1 | 100-0203 | COOK | 26 | |
| FAY-1 | 100-2B | COOK | 34 | |
| FAY-1 | 100-2B | COOK | 21 | |
| FAY-1 | 100-T | COOK | 17 | |

RT. FA-6

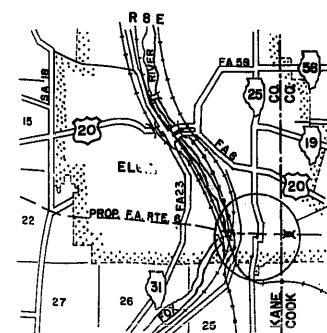
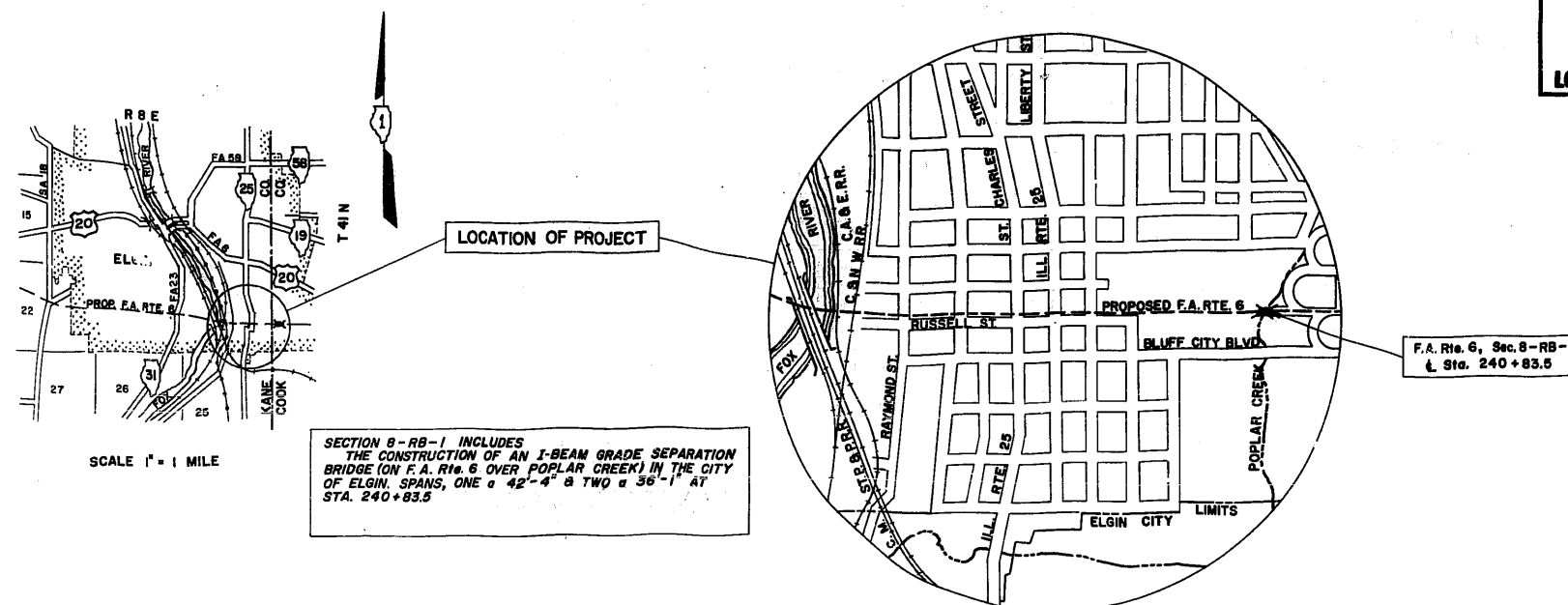
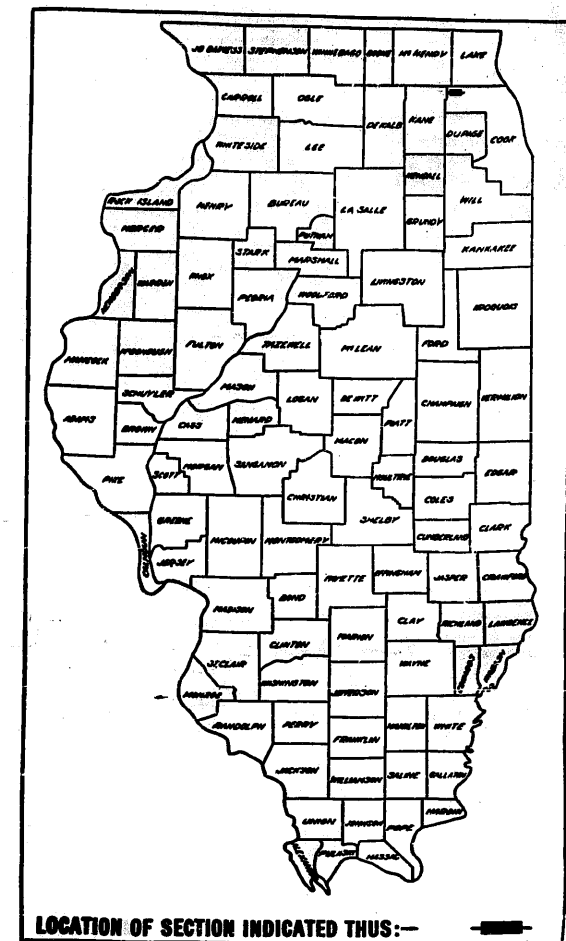
SEC. 8-RB-1

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

| FEDERAL AID ROUTE NO. | SEC. | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|--------|--------|--------------|-----------|
| 6 | 8-RB-1 | COOK | 13 | 1 |
| P. P. R. REG. NO. 4 ILLINOIS PROJECT U-613(3) | | | | |

SCALES } PLAN 1 INCH = 20 FT.
 } PROFILE HOR. 1 INCH = 20 FT.
 } PROFILE VERT. 1 INCH = 10 FT.

F. A. ROUTE 6
 SECTION 8-RB-1
 SECTION 8-RB-1
 COOK COUNTY
 PROJECT U-613(3)



SECTION 8-RB-1 INCLUDES THE CONSTRUCTION OF AN I-BEAM GRADE SEPARATION BRIDGE (ON F.A. Rte. 6 OVER POPLAR CREEK) IN THE CITY OF ELGIN. SPANS, ONE a 42'-4" & TWO a 36'-1" AT STA. 240+83.5

SCALE 1" = 800 FEET
 NET LENGTH OF IMPROVEMENT - 119.00 FEET (0.022 MILES)

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
 DIVISION OF HIGHWAYS

SUBMITTED December 22, 1959

EXAMINED March 10, 1959

PASSED March 10, 1959

APPROVED March 10, 1959

APPROVED March 10, 1959

DEPARTMENT OF COMMERCE
 BUREAU OF PUBLIC ROADS

APPROVED

DIVISION ENGINEER _____ DATE _____

TREE REMOVAL SCHEDULE

| Side | Station | Distance From G.L. | Kind | Diameter | | Remarks |
|-------|---------|--------------------|-----------|-------------|-------------|---------|
| | | | | 6"-15" | Over 15" | |
| Rt. | 239/86 | 35' | Box Elder | 6 | | |
| Rt. | 239/88 | 21' | Ash | | 19 | Tie |
| Lt. | 240/11 | 50' | Willow | 6 | | |
| Lt. | 240/11 | 50' | Willow | 6 | | |
| Lt. | 240/11 | 50' | Willow | 7 | | |
| Lt. | 240/11 | 50' | Willow | 7 | | |
| Lt. | 240/11 | 50' | Willow | 6 | | |
| Rt. | 240/17 | 67' | Ash | 8 | | |
| Rt. | 240/21 | 64' | Ash | 10 | | |
| Rt. | 240/26 | 56' | Box Elder | 9 | | |
| Rt. | 240/35 | 56' | Box Elder | 6 | | |
| Rt. | 240/39 | 37' | Ash | 15 | | |
| Rt. | 240/40 | 33' | Ash | 6 | | |
| Rt. | 240/54 | 34' | Willow | | 19 | Tie |
| Rt. | 240/54 | 34' | Willow | | 26 | |
| Rt. | 240/57 | 11' | Box Elder | 13 | | |
| Rt. | 240/61 | 19' | Willow | | 25 | |
| Lt. | 240/66 | 2' | Box Elder | 13 | | |
| Lt. | 240/69 | 7' | Box Elder | 11 | | |
| Lt. | 240/82 | 22' | Ash | | 30 | Tie |
| Rt. | 240/91 | 17' | Box Elder | 8 | | |
| Rt. | 240/91 | 17' | Box Elder | 11 | | |
| Lt. | 241/01 | 2' | Stump | | 18 | |
| Lt. | 241/02 | 5' | Stump | | 19 | |
| Lt. | 241/04 | 5' | Stump | | 24 | |
| Lt. | 241/04 | 7' | Willow | | 36 | |
| Rt. | 241/13 | 13' | Stump | | 18 | |
| CL | 241/41 | 0 | Stump | | 24 | |
| CL | 241/41 | 0 | Stump | | 26 | |
| Rt. | 241/48 | 48' | Willow | 7 | | |
| Rt. | 241/59 | 45' | Wm | 6 | | |
| Rt. | 241/63 | 27' | Box Elder | 6 | | |
| Lt. | 241/63 | 38' | Elm | | 18 | |
| Lt. | 241/78 | 35' | Elm | | 40 | |
| CL | 242/01 | 0 | Willow | | 50 | |
| Lt. | 242/11 | 20' | Ash | | 29 | |
| Lt. | 242/11 | 36' | Elm | | 17 | |
| Lt. | 242/16 | 60' | Willow | | 53 | |
| TOTAL | | | | 167 In.Dia. | 491 In.Dia. | |

INDEX OF SHEETS

| Sheet No. | Description |
|-----------|--|
| 1 | Cover Sheet |
| 2 | Schedule of Quantities, Summary of Quantities, Index of Sheets |
| 3 | Standard Plan and Profile |
| 4-11 | Bridge Plans, Sheets 1 of 8 to 8 of 8 |
| 12 | Standard Nos. 1971-S, 1972-R, 2114 & 2136 |
| 13 | Standard Nos. 1686-R & 2113 |

SUMMARY OF QUANTITIES

| Section 8-RB-1 | Items | Units | Totals |
|----------------|--|---------|---------|
| | Borrow Excavation | Cu.Yds. | 6,550 |
| | Channel Excavation | Cu.Yds. | 570 |
| | Class A Concrete | Cu.Yds. | 274.1 |
| | Class A Excavation for Structures | Cu.Yds. | 20 |
| | Class B Excavation for Structures | Cu.Yds. | 470 |
| | Class X Concrete | Cu.Yds. | 292.7 |
| | Driving Concrete Piles | Lin.Ft. | 400 |
| | Driving Timber Piles | Lin.Ft. | 616 |
| | Furnishing & Erecting Structural Steel | Lbs. | 154,448 |
| | Furnishing Concrete Piles | Lin.Ft. | 400 |
| | Furnishing Grouted Piles, (20.1'-30') | Lin.Ft. | 616 |
| | Furnishing & Erecting Metal Handrail | Lin.Ft. | 234 |
| | Handrail Concrete | Cu.Yds. | 2.8 |
| | Ham Plates | Each | 1 |
| | Reinforcement Bars | Lbs. | 47,090 |
| | Slope Wall | Sq.Yds. | 1,380 |
| | Test Piles (Concrete) | Each | 2 |
| | Tree Removal (6" - 15" Dia.) | In.Dia. | 167 |
| | Tree Removal (Over 15" Dia.) | In.Dia. | 491 |

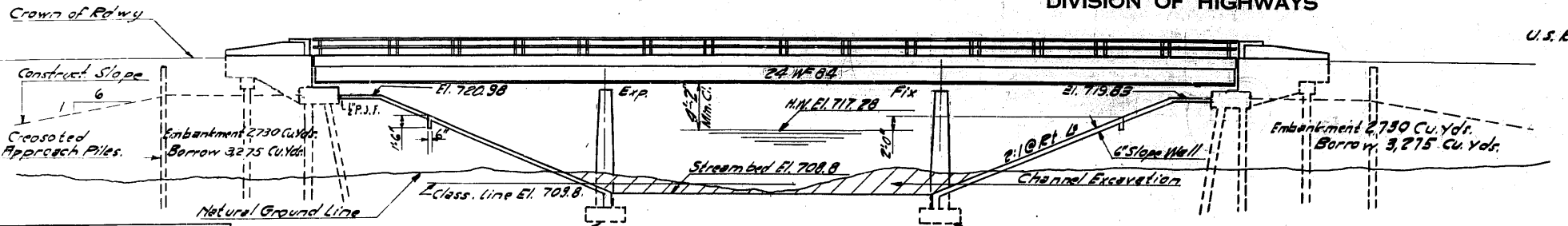
HIGHWAY CLASSIFICATION
1425-T-50 (1978)

S.M. 78° Cut in S.E. corner of 3rd. step from bottom Lt. Sta. 238+20-El. 724.11 No Existing Structure

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

Elgin City Limits

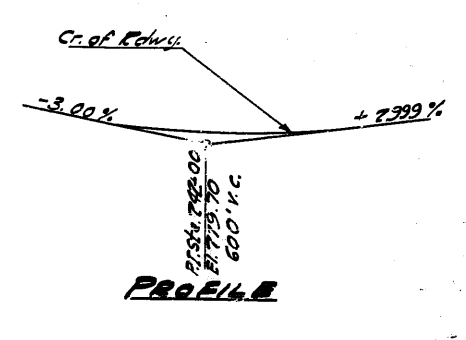
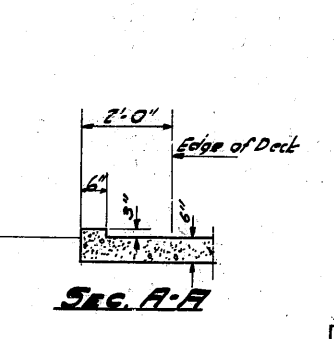
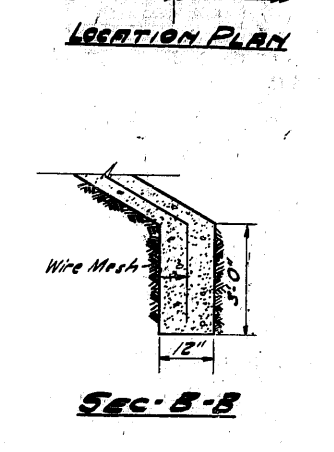
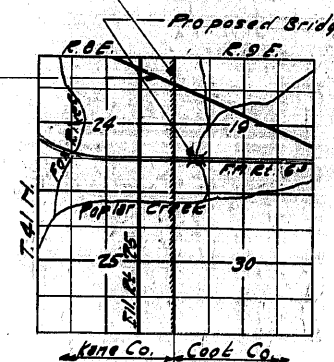
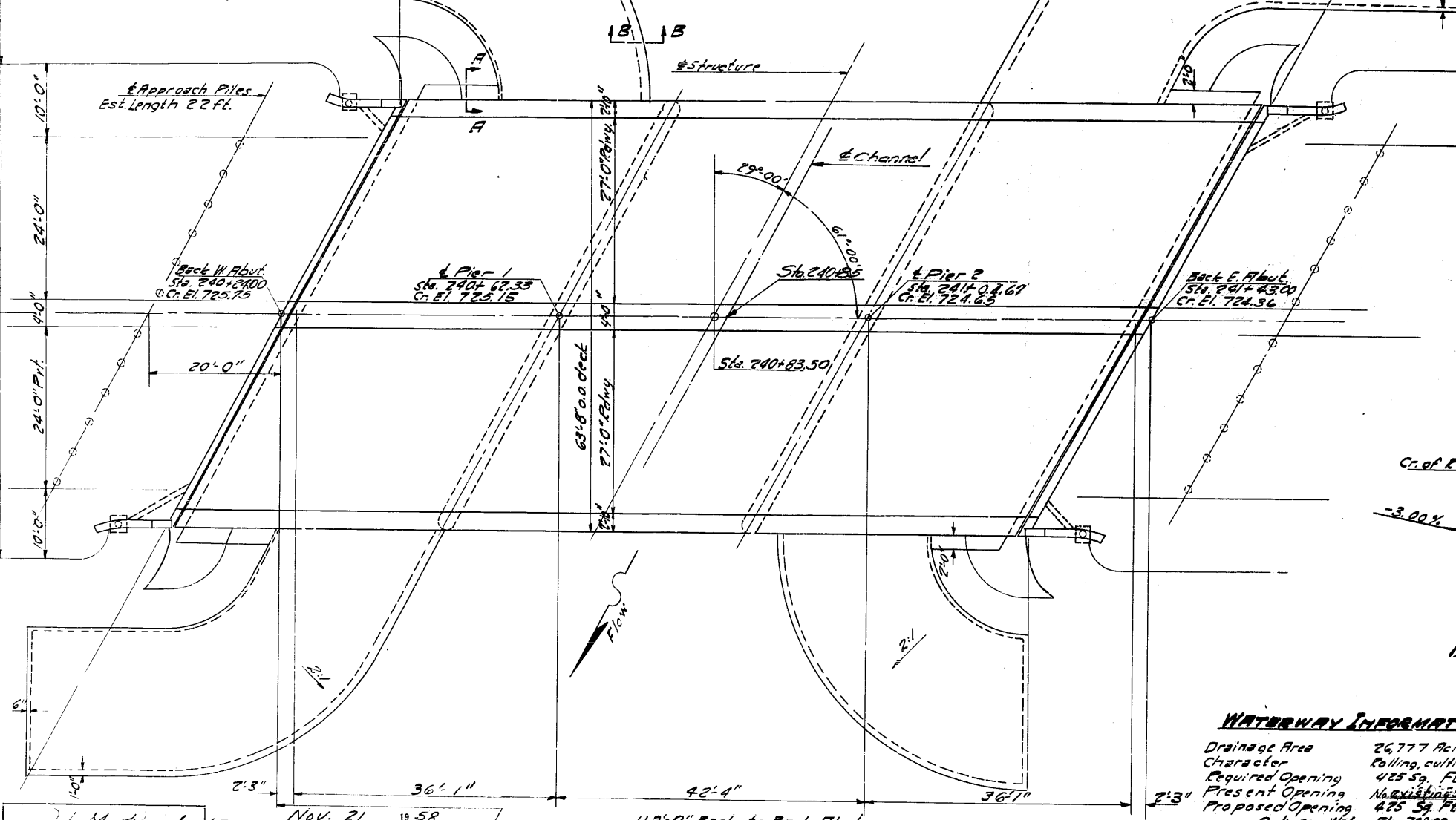
| | | | | | |
|-----------------------|----------|------------------|--------------|-----------|-------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. / |
| S.A.S. | 8-RB-1 | Cook | 13 | 4 | 8 SHEETS |
| F.A. | 6 | | | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | | |



STATION 240+83.50
BUILT 195 BY
STATE OF ILLINOIS
F.A. RT. 6 SEC. 8-RB-1
F.A. PROJ. U-613 (3)
LOADING H20-S16

NAME PLATE

Shoulder Lines



GENERAL NOTES

Class X Concrete shall be used throughout except in hand rails and Piers.
Class A Concrete shall be used in piers.
Handrail concrete shall be used in end posts.
The concrete floor slab shall be finished in accordance with Art. 5119 of the Standard Specs.
Slope wall shall be reinforced with welded wire fabric 6" x 6" mesh, 4 wires weighing 50# per 100 sq. ft.
Layout of slope walls may be varied to suit ground conditions in the field as directed by the Engineer.
Rivets 1/2" Open holes 1/2" unless noted.
Rivet connections riveted, unless noted.
All rockers, bearing plates, lead plates, pintles and anchor bolts shall be fabricated and set in accordance with Art. 5115 of the Standard Specifications and are included in quantity of Structural Steel. Estimated weight: 8029 lbs.
Anchor bolts shall be set before riveting diaphragm over supports.
All steel Handrail Posts shall be vertical.
The roadway expansion plate shall be fabricated and erected to fit the crown of roadway.
The following surfaces of expansion guards shall be given two shop coats of red lead paint; All surfaces inaccessible after erection; 3" studs shall not be painted.
Expansion guards are included in quantity of Structural Steel. Estimated weight: 3,383 lbs.
Except as otherwise provided, all structural steel shall receive one shop coat of red lead paint and two field coats of aluminum paint. See Articles 56.1 to 56.5 inclusive of the Standard Specifications.
All paint shall be furnished and applied by the Contractor.
The Contractor shall drive 2 concrete test piles (in permanent location) as directed by the Engineer before ordering remainder of Piles. One test pile at E. Abut. and one W. Abut.

BILL OF MATERIALS

| ITEM | SUB | SUPER | TOTAL | |
|-------------------------------|----------|-------|--------|--------|
| Class X Concrete | Cu. Yds. | 25.2 | 19.75 | 29.87 |
| Class A Concrete | Cu. Yds. | 274.1 | | 274.1 |
| Handrail Concrete | Cu. Yds. | | 28 | 28 |
| Reinforcement Bars | Lbs. | 15920 | 31770 | 47090 |
| Structural Steel | Lbs. | | 154440 | 154440 |
| Metal Handrail | Lin. Ft. | | 234 | 234 |
| Concrete Piles | Lin. Ft. | 400 | | 400 |
| Test Piles (Concrete) | Each | 2 | | 2 |
| Creosoted Timber Pile | Lin. Ft. | 616 | | 616 |
| Name Plate | Each | | 1 | 1 |
| Slope Wall | Sq. Yds. | 1380 | | 1380 |
| Channel Excavation | Cu. Yds. | 570 | | 570 |
| Class A Excar. for Structures | Cu. Yds. | 20 | | 20 |
| Class B Excar. for Struct. | Cu. Yds. | 470 | | 470 |
| Borrow Excavation | Cu. Yds. | 6,550 | | 6,550 |

WATERWAY INFORMATION

Drainage Area 26,777 Acres
Character Rolling, cultivated
Required Opening 425 Sq. Ft.
Present Opening No existing structure
Proposed Opening 475 Sq. Ft.
Ordinary Water Elev. 709.88
High Water Elev. 717.28

DESIGN STRESSES

$f_c = 1400$ psi Super
 $f_c = 75$ psi (Pier Flg)
 $f_s = 20,000$ psi Reinf.
 $f_s = 18,000$ psi Struct.
 $n = 10$
Max. Fg. Pressure = 2.65 Tons/Sq. Ft.

GENERAL PLAN/ELEVATION
ELGIN BY-PASS OVER POPLAR CREEK
PROJ. U-613(3)
F.A. RT. 6 SEC. 8-RB-1
COOK COUNTY
STA. 240+83.50

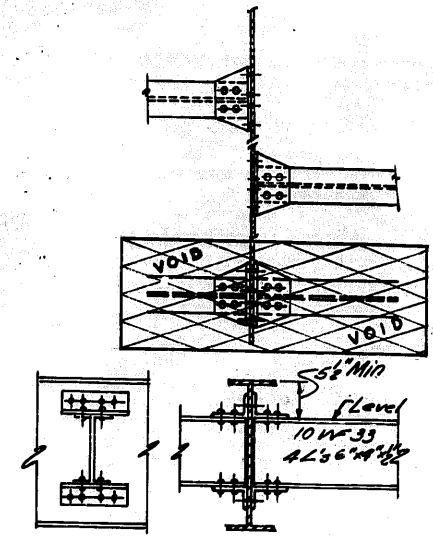
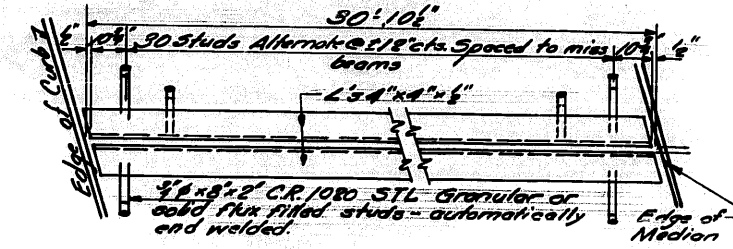
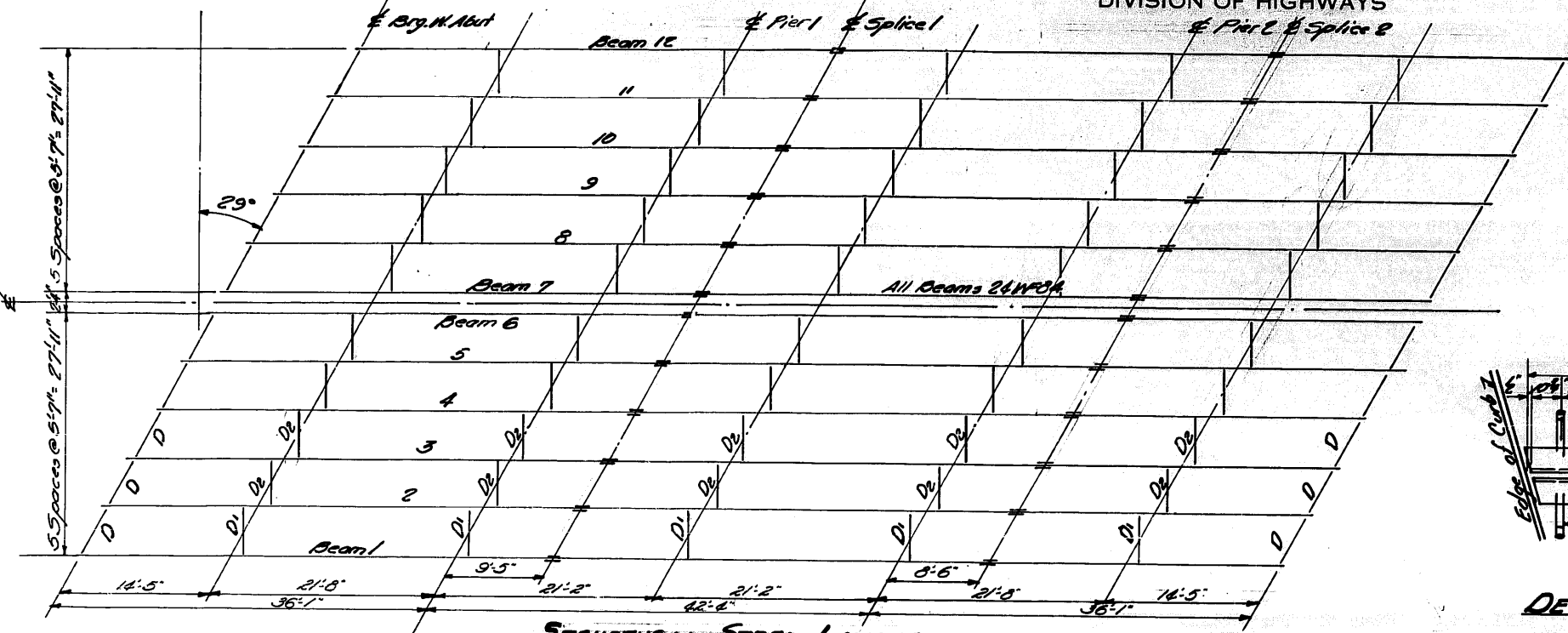
DESIGNED *L.S. Jewell*
EXAMINED *M. P. ...*
CHECKED *...*
DRAWN *M.R. F. Marcedo*
APPROVED *R.R. Bartolomew*

Nov. 21 19 58

LOADING H20-S16-44

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

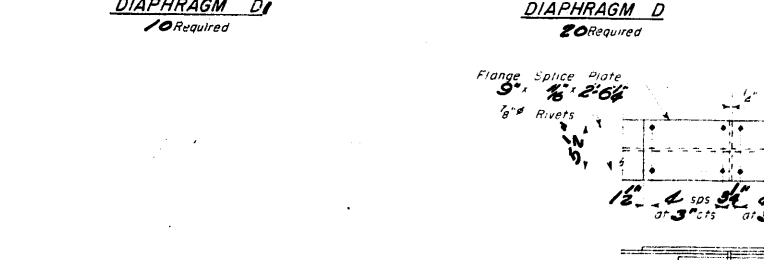
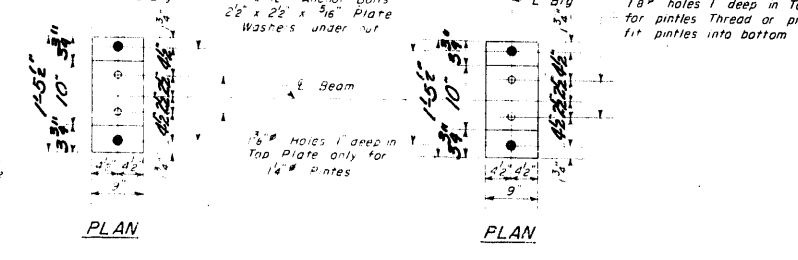
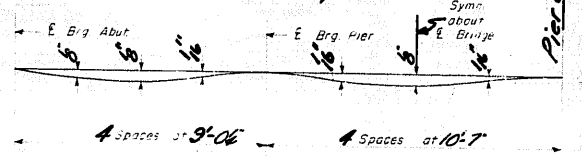
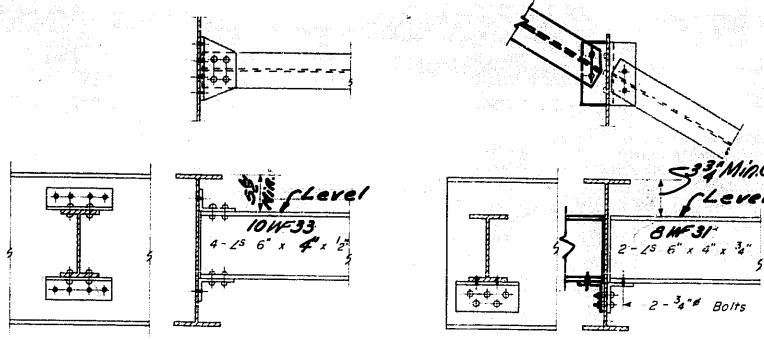
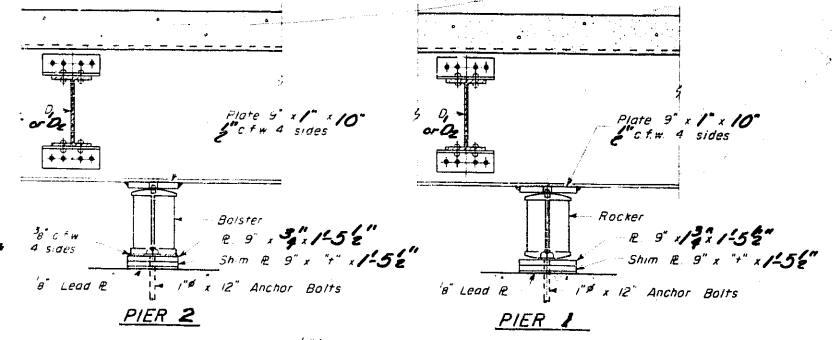
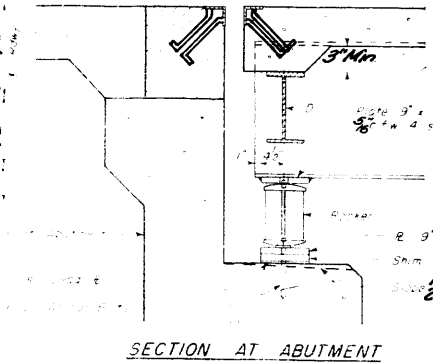
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|-------------|---------|--------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 6 | 8-RB-1 | Cook | 13 | 6 |
| SHEET NO. 3 | | | | |
| 8 SHEETS | | | | |



STRUCTURAL STEEL LAYOUT

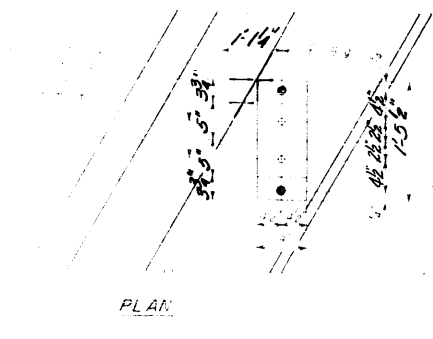
DETAIL OF EXPANSION GUARD

DIAPHRAGM D2

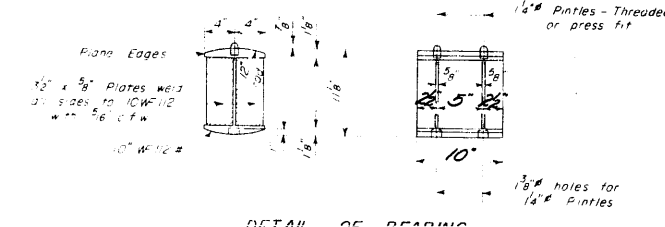


ELEVATION TOP OF BEAMS

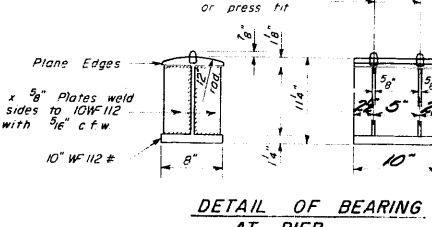
| Beam No. | E. Brg. W. Abut. | E. Pier 1 | Splice | E. Pier 2 | E. Splice | E. Brg. W. Abut. |
|----------|------------------|-----------|--------|-----------|-----------|------------------|
| 1 | 723.14 | 724.53 | 724.38 | 723.98 | 723.67 | 723.67 |
| 2 | 723.13 | 724.54 | 724.39 | 724.00 | 723.89 | 723.69 |
| 3 | 723.13 | 724.54 | 724.39 | 724.01 | 723.91 | 723.72 |
| 4 | 723.12 | 724.54 | 724.40 | 724.03 | 723.93 | 723.74 |
| 5 | 723.11 | 724.55 | 724.41 | 724.05 | 723.95 | 723.77 |
| 6 | 723.10 | 724.54 | 724.41 | 724.06 | 723.96 | 723.80 |
| 7 | 723.07 | 724.53 | 724.39 | 724.04 | 723.95 | 723.79 |
| 8 | 724.98 | 724.44 | 724.31 | 723.98 | 723.88 | 723.73 |
| 9 | 724.88 | 724.35 | 724.22 | 723.90 | 723.81 | 723.66 |
| 10 | 724.78 | 724.26 | 724.14 | 723.82 | 723.73 | 723.60 |
| 11 | 724.68 | 724.18 | 724.05 | 723.75 | 723.67 | 723.58 |
| 12 | 724.58 | 724.09 | 723.97 | 723.67 | 723.59 | 723.47 |



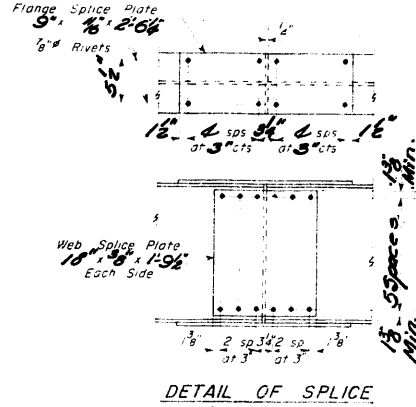
DETAIL OF PLATE



DETAIL OF BEARING AT PIER



DETAIL OF BEARING AT PIER



DETAIL OF SPLICE

DESIGNED BY: M. S. Revilla
CHECKED BY: J. A. Rutherford
DRAWN BY: W. A. S. [Signature]
EXAMINED BY: M. Rosine
PASSED BY: E. [Signature]
APPROVED BY: R. K. Bartelme [Signature]
Nov. 21, 1958

TABLE OF "I" DIMENSIONS

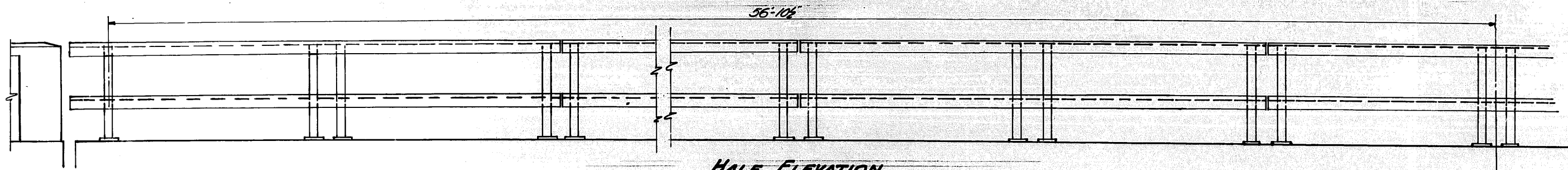
| Beams | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|
| W. Abut. | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Pier 1 | 0 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Pier 2 | 0 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| E. Abut. | 0 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |

STRUCTURAL STEEL
F.A.R. 6 Sec. 8-RB-1
COOK COUNTY
STA. 240+83.50

Revised - 11-16-59-IVM - On detail DIAPHRAGM D, added notation to indicate that minimum distance between top of stringer & top of diaphragm (36") would be at Beams 1 & 12 for the East Abut. and at Beams 6 & 12 for the West Abut.; on detail DIAPHRAGM D2, added top unit of the detail and added 3 stringers to indicate stringer in location of diaphragms.

| | | | | |
|------------------|---------|----------|-------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 6 | 8-RB-1 | Cook | 13 | 7 |
| F.A. DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT. | |

SHEET NO. 7
8 SHEETS

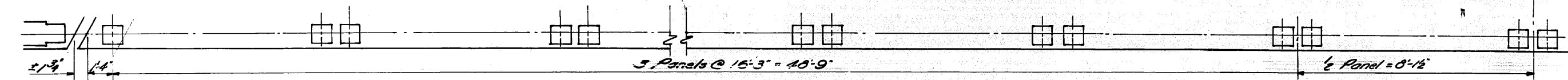


HALF ELEVATION

Dimension along Handrail

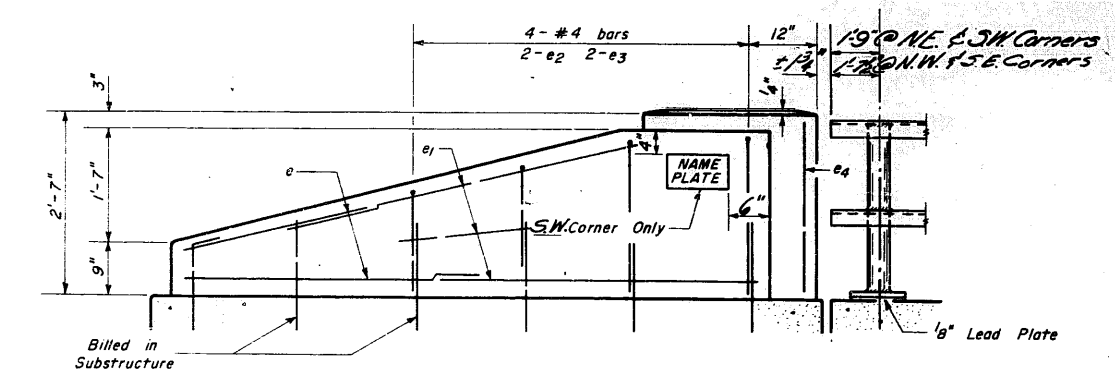
Symm. about C Bridge except as noted.

C Bridge

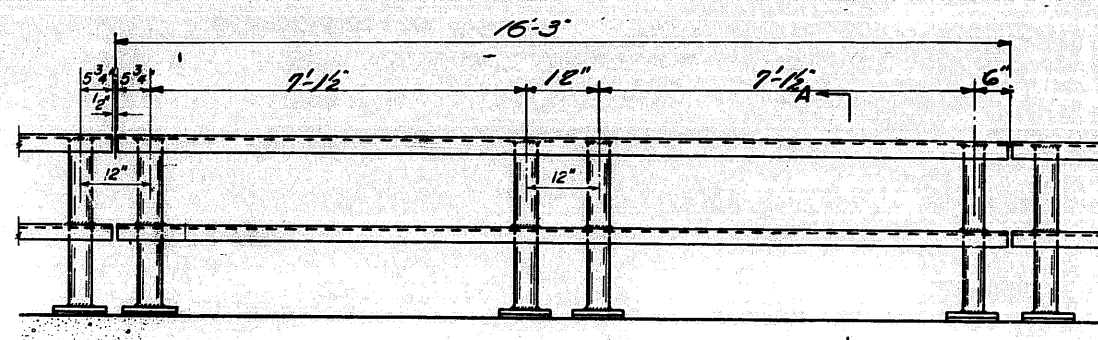


HALF PLAN

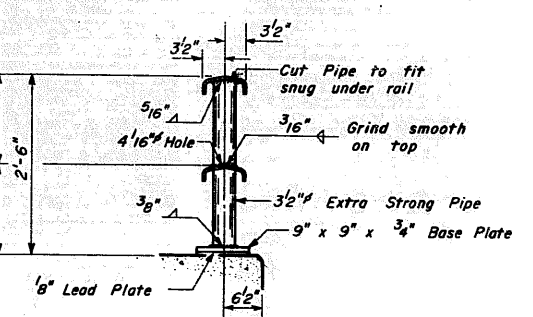
Dimensions along Handrail



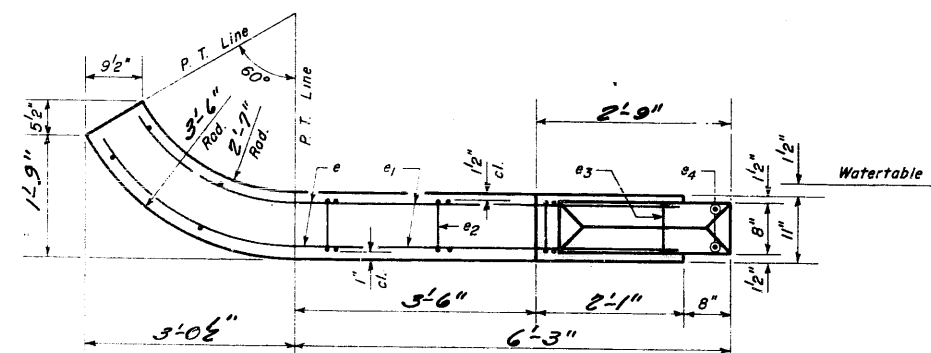
ELEVATION



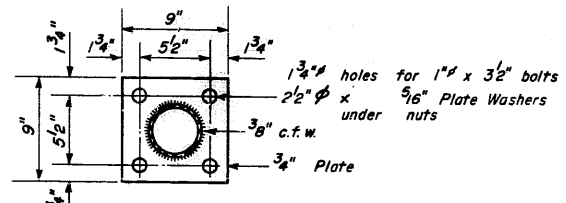
ELEVATION TYPICAL PANEL



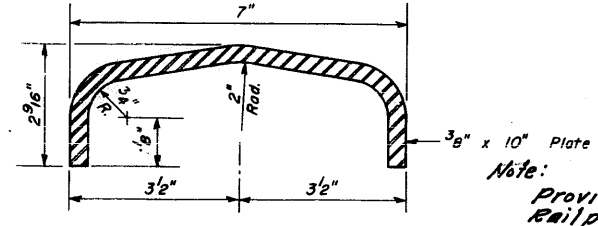
SECTION A-A



PLAN - END POST



BASE PLATE
ALL POSTS - SUPERSTRUCTURE

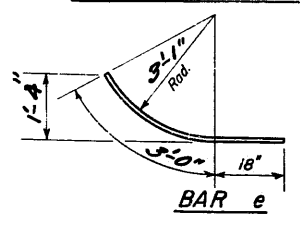


DETAIL OF RAIL

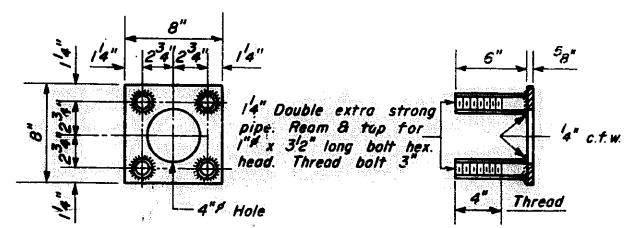
BILL OF MATERIAL

| | | |
|--------------------|----------|-----|
| Handrail Concrete | Cu. Yd. | 2.8 |
| Reinforcement Bars | Lbs. | 190 |
| Metal Handrail | Lin. Ft. | 234 |

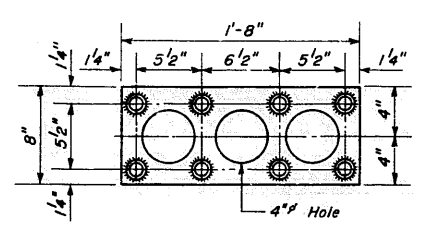
Note: Provide 1-1/8" and 2-1/8" shim plates for 50% of Rail posts. Punch shim plates same as base plate.



BAR e



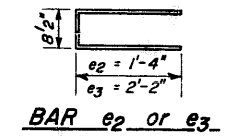
ANCHOR DEVICE
At Single Post



ANCHOR DEVICE
At Double Post

BILL OF REINFORCEMENT

| Bar | No. | Size | Length | Shape |
|-----|-----|------|--------|-------|
| e | 16 | #4 | 4'-6" | — |
| e1 | 24 | #4 | 5'-6" | — |
| e2 | 8 | #4 | 3'-4" | — |
| e3 | 8 | #4 | 5'-0" | — |
| e4 | 8 | #4 | 2'-3" | — |



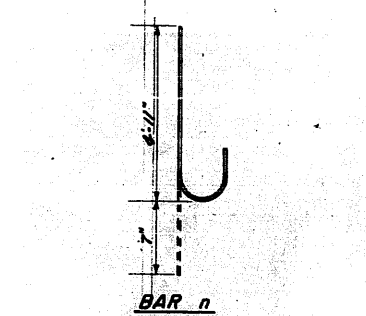
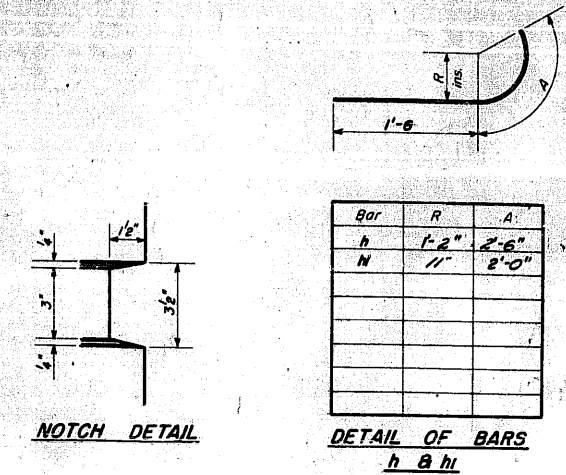
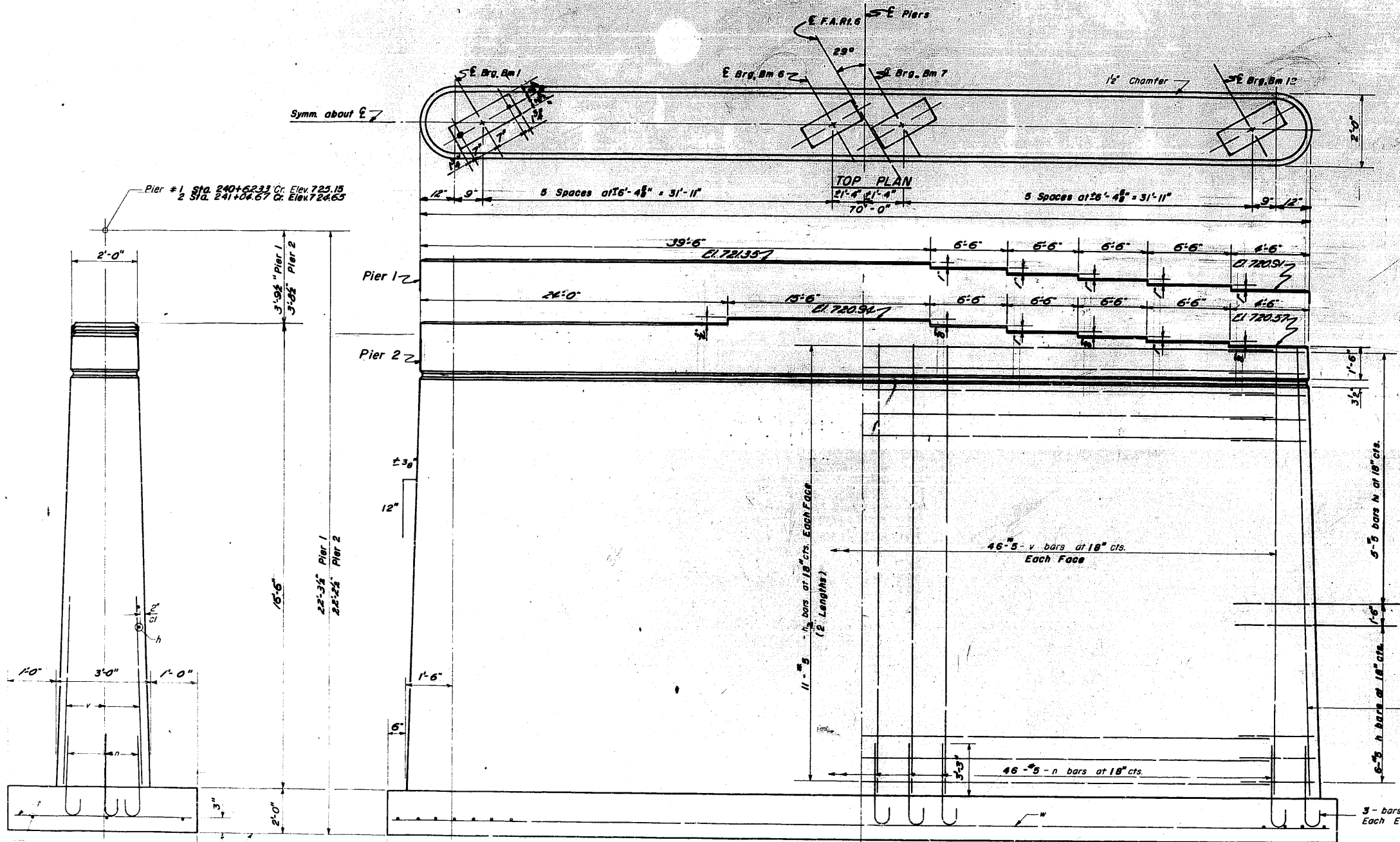
BAR e2 or e3

DESIGNED: M. S. Revilla
 CHECKED: W. A. Sausaman
 DRAWN: W. A. Sausaman
 EXAMINED: [Signature]
 APPROVED: R. H. Bartelmez
 DATE: Nov. 21, 1958

HANDRAIL
F.A. RT. 6 SEC. 8-R.B-1
COOK COUNTY
STA. 240+83.50

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

| | | | | | |
|-----------------------|----------|------------------|--------------|-----------|-------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 5 8 SHEETS |
| S.A.L. | 8-RB-1 | Cook | 13 | 8 | |
| P.A.G. | | | | | |
| FED. ROAD DIST. NO. 7 | ILLINOIS | FED. AID PROJECT | | | |



PIER 1&2
BILL OF MATERIAL

| Bar | No. | Size | Length | Shape |
|--------------------|-----|---------|--------|-------|
| h | 48 | #8 | 4'-0" | U |
| n | 40 | #5 | 3'-6" | U |
| h ₂ | 20 | #5 | 34'-6" | U |
| n | 196 | #5 | 5'-6" | C |
| r | 144 | #4 | 4'-9" | — |
| v | 196 | #5 | 16'-0" | — |
| w | 16 | #5 | 24'-6" | — |
| Class A Concrete | | Cu. Yd. | 2741 | |
| Reinforcement Bars | | Lb. | 9060 | |

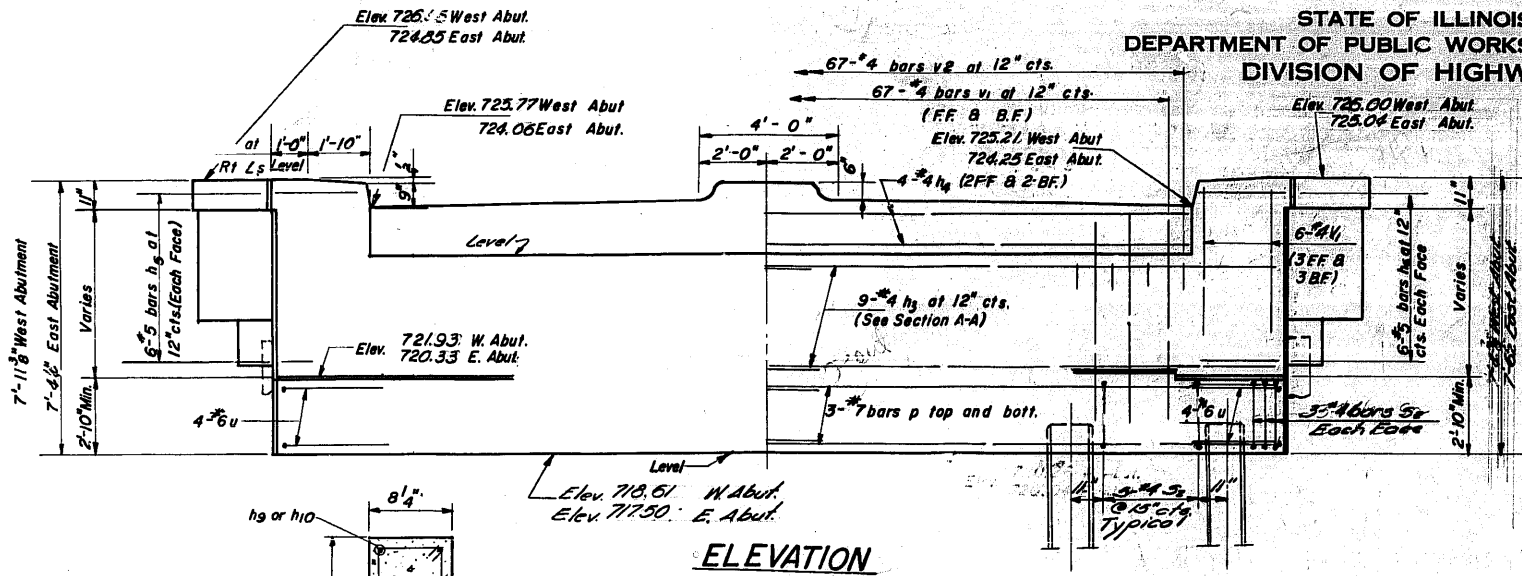
DESIGNED *M. A. Revell*
 EXAMINED *M. J. Rourke*
 CHECKED *W. A. Sausman*
 DRAWN *W. A. Sausman*
 APPROVED *R. B. Bostelmann*
 Nov. 21 1958
 CHIEF HIGHWAY ENGINEER

PIERS 1&2
 F.A. RT. 6 SEC. 8-RB-1
 COOK COUNTY
 STA. 240 + 83.50

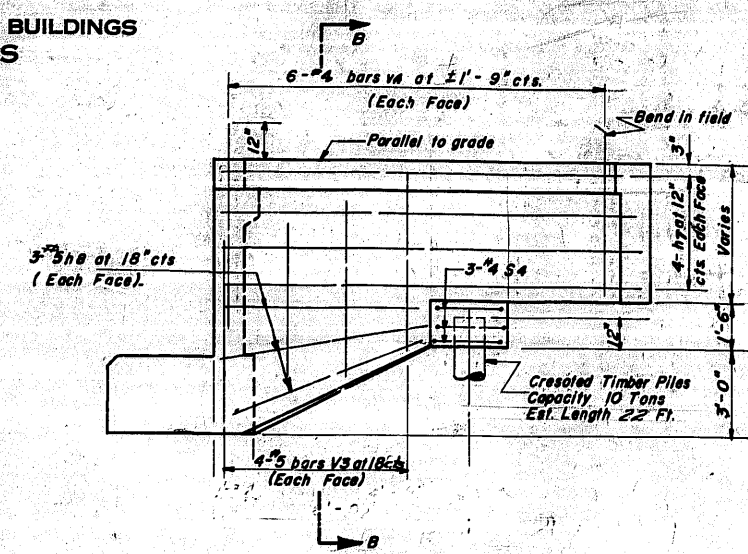
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

| | | | | |
|-----------------------|---------|----------|------------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A. 6 | 8-RB-1 | Cook | 13 | 9 |
| FED. ROAD DIST. NO. 7 | | ILLINOIS | FED. AID PROJECT | |

SHEET NO. 6
8 SHEETS



ELEVATION

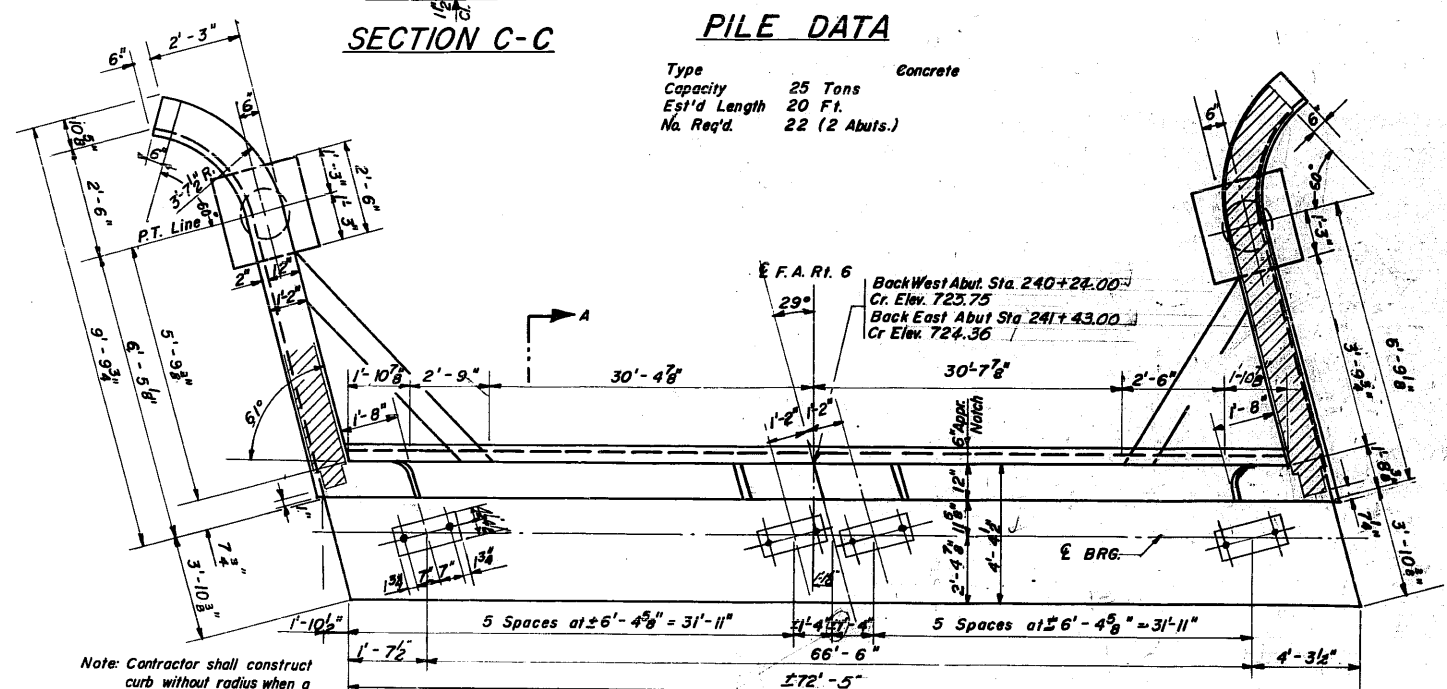


SECTION B-B

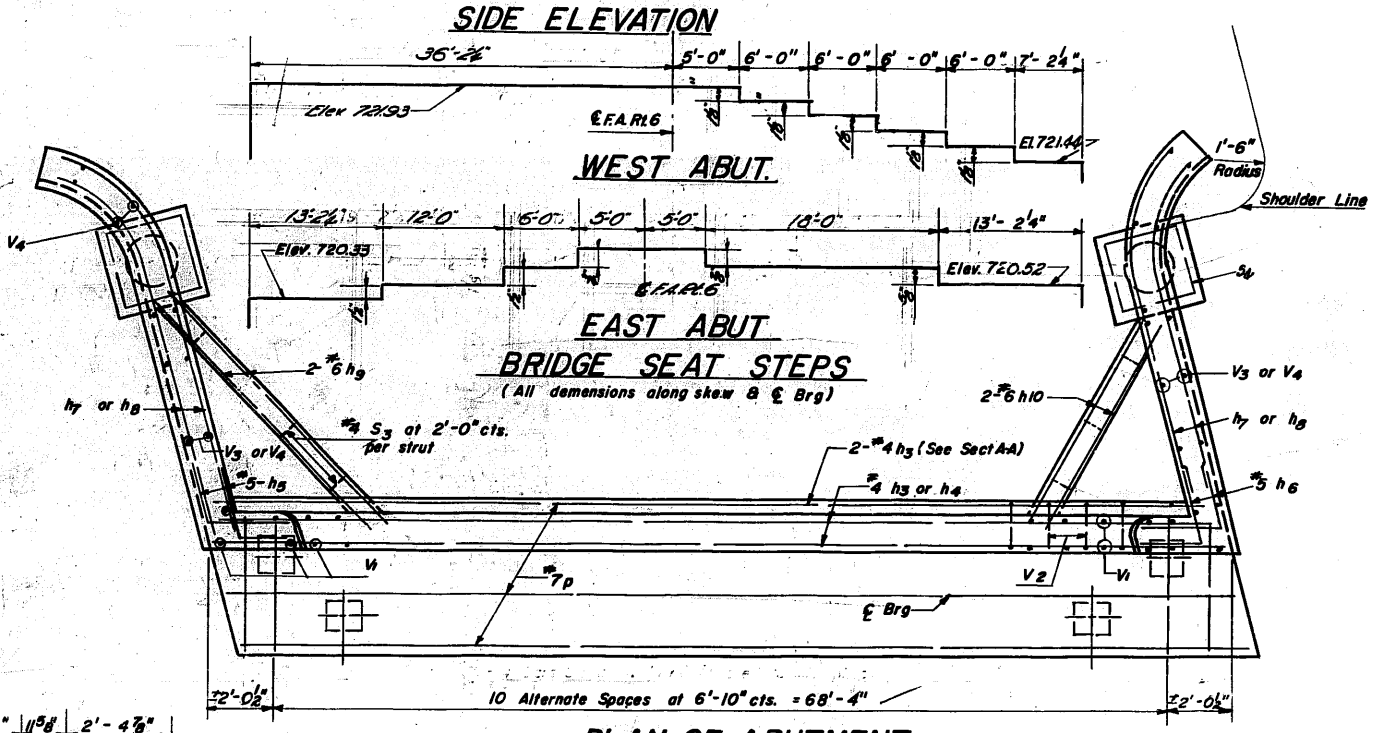
SECTION C-C

PILE DATA

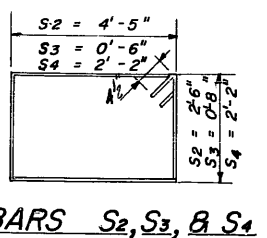
| | |
|--------------|---------------|
| Type | Concrete |
| Capacity | 25 Tons |
| Est'd Length | 20 Ft. |
| No. Req'd. | 22 (2 Abuts.) |



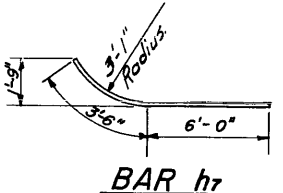
PLAN OF ABUTMENT



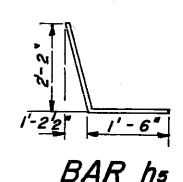
PLAN OF ABUTMENT
Reinforcement and Pile Spacing



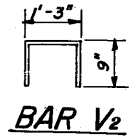
BARS S₂, S₃, & S₄



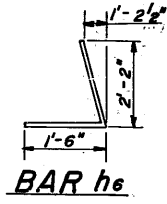
BAR h₇



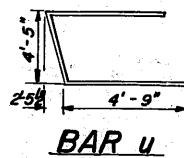
BAR h₅



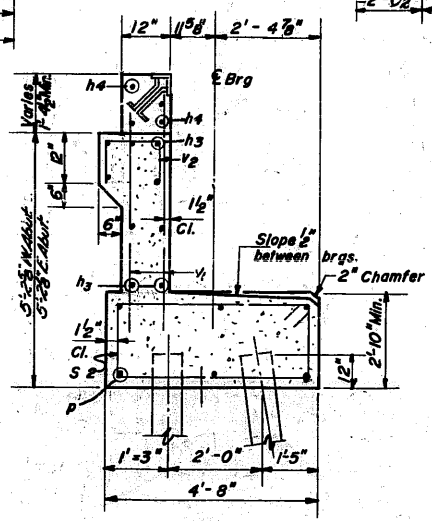
BAR V₂



BAR h₆



BAR u



SECTION A-A

BAR LIST

| Bar | No. | Size | Length | Shape | Bar | No. | Size | Length | Shape |
|-----------------|-----|------|--------|-------|----------------|-----|------|--------|-------|
| h ₅ | 36 | #4 | 36'-6" | — | S ₂ | 112 | #4 | 14'-7" | □ |
| h ₆ | 16 | #4 | 35'-6" | — | S ₃ | 12 | #4 | 3'-2" | □ |
| h ₇ | 24 | #5 | 4'-0" | — | S ₄ | 12 | #4 | 9'-5" | □ |
| h ₈ | 24 | #5 | 4'-0" | — | V ₁ | 292 | #4 | 5'-6" | — |
| h ₉ | 32 | #5 | 9'-6" | — | V ₂ | 134 | #4 | 2'-9" | □ |
| h ₁₀ | 24 | #5 | 5'-0" | — | V ₃ | 32 | #4 | 4'-9" | — |
| h ₁₁ | 8 | #6 | 10'-0" | — | V ₄ | 48 | #4 | 4'-6" | — |
| h ₁₂ | 8 | #6 | 6'-6" | — | u | 16 | #6 | 14'-6" | — |
| P | 24 | #7 | 37'-0" | — | | | | | |

BILL OF MATERIAL

| Item | Unit | Qtd. |
|----------------------|----------|------|
| Class X Concrete | Cu Yds. | 95.2 |
| Reinforcement Bars | Lbs. | 6250 |
| Concrete Piles | Lin Ft | 400 |
| Test Pile (Concrete) | Each | 2 |
| Crested Piles | Lin. Ft. | 28 |

ABUTMENTS
F. A. Rt. 6 Sec. 8-RB-1
COOK COUNTY
Sta. 240+83.50

DESIGNED: M. J. Revell
CHECKED: [Signature]
DRAWN: M. K. Rutherford
CHECKED: [Signature]
EXAMINED: [Signature] Nov. 21 1958
PASSED: [Signature]
APPROVED: [Signature] CHIEF HIGHWAY ENGINEER

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

| | | | | |
|-----------------------|---------|---------------------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| 6 | 8-RB-1 | Cook | 13 | 10 |
| I.L. ROAD DIST. NO. 7 | | ILLINOIS FED. AID PROJECT | | |

SHEET NO. 7
8 SHEETS

BORING #1

Boring located at Station 240+30, 15 Ft Rt Centerline.

| Elevation | Blows per Foot | ft. |
|---|----------------|------|
| Surface of Ground. 712.2 | | |
| Stiff black silty clay. | | |
| 702.0 | | |
| Medium brown poorly graded subangular gravel. | 16 | |
| 707.0 | | |
| 705.0 | | |
| 705.0 | | |
| 704.5 | 57 | |
| 703.5 | | |
| 702.0 | | |
| 701.0 | 93 | |
| Very dense brown poorly graded subangular gravel. | | |
| 699.5 | | |
| 698.5 | 67 | |
| 697.0 | | |
| 696.0 | 101 | |
| 695.5 | | |
| Hard gray clay till with occasional silt lenses. | 57 | 6.54 |
| 694.5 | | |
| 693.5 | | |
| Hard gray clay till with occasional silt lenses. | | |
| 692.0 | | |
| 691.0 | 46 | 8.78 |

BORING #2

Boring located at Station 240+52, 27 Ft Lt Centerline.

| Elevation | Blows per Foot | ft. |
|---|----------------|------|
| Surface of Ground. 712.7 | | |
| Black silty clay. | | |
| 709.0 | | |
| Medium brown poorly graded gravel. | | |
| 705.5 | | |
| 705.0 | | |
| Dense brown poorly graded subangular gravel. | 31 | |
| 704.0 | | |
| 703.5 | | |
| 702.5 | | |
| 701.5 | 71 | |
| Very dense brown well graded subangular gravel. | | |
| 700.0 | | |
| 699.0 | 94 | |
| 698.5 | | |
| 697.5 | | |
| 696.5 | 66 | |
| 696.0 | | |
| Hard gray clay till. | 61 | 9.74 |
| 695.0 | | |
| 694.0 | | |
| Hard gray clay till. | | |
| 692.5 | 44 | 9.20 |
| 691.5 | | |

BORING #3

Boring located at Station 241+10, 18 Ft Rt Centerline.

| Elevation | Blows per Foot | ft. |
|---|----------------|------------------|
| Surface of Ground. 712.4 | | |
| Stiff black silty clay. | | |
| 708.5 | | |
| Medium brown poorly graded subangular gravel. | | |
| 705.5 | | |
| 705.0 | | |
| Stiff blue-gray silty clay. | 8 | 1.43 |
| 704.0 | | |
| 703.0 | | |
| 702.5 | | |
| 701.5 | 116 | |
| Very loose brown poorly graded subangular gravel. | | |
| 700.0 | | |
| 699.0 | 75 | |
| 698.5 | | |
| Dense brown poorly graded subangular gravel. | | |
| 697.5 | 39 | |
| 696.5 | | |
| 695.5 | | |
| Hard gray clay till, occasional sand lenses. | 28 | 6.29 |
| 694.0 | | |
| Hard gray clay till, occasional sand lenses. | | |
| 692.5 | 43 | 8.94 |
| 691.5 | | |
| 690.0 | | |
| 689.0 | 49 | To Stone To Test |

BORING #4

Boring located at Station 241+58, 10 Ft Lt Centerline.

| Elevation | Blows per Foot | ft. |
|--|----------------|------|
| Surface of Ground. 712.2 | | |
| Stiff black silty clay. | | |
| 706.5 | | |
| Medium gray silty sand. | | |
| 707.5 | | |
| 707.0 | | |
| 706.0 | 44 | |
| Dense gray subangular poorly graded gravel. | | |
| 704.5 | | |
| 703.5 | 49 | |
| 702.5 | | |
| 702.0 | | |
| Very loose gray subangular poorly graded gravel. | | |
| 701.0 | 72 | |
| 700.0 | | |
| Medium gray subangular poorly graded gravel. | | |
| 699.5 | | |
| 698.5 | 28 | |
| 698.0 | | |
| Dense gray subangular well graded gravel. | | |
| 697.0 | | |
| 696.0 | 34 | |
| 695.0 | | |
| Very dense gray subangular well graded gravel. | | |
| 694.5 | | |
| 693.5 | 50 | |
| Dense (very) subangular well graded gravel. | | |
| 692.0 | | |
| 691.0 | 77 | |
| 690.0 | | |
| 689.5 | | |
| Hard gray clay till. | | |
| 688.5 | 52 | Lost |
| 687.5 | | |
| 687.0 | | |
| Hard gray clay till, lenses of loose sand. | | |
| 686.0 | 21 | 4.94 |
| 684.5 | | |
| 683.5 | 28 | 4.08 |

Note: Blows per Foot = Blows per Foot of penetration of sampling spoon.
Blows per Foot = 30 lbs.
Drop = 12 inches.
Q_u = Uncorrected compressive strength in tons per square foot.

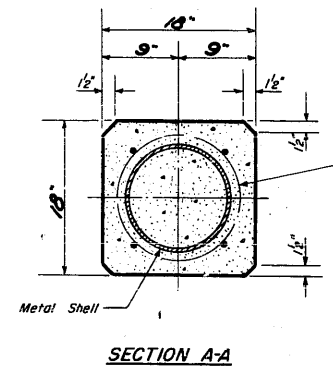
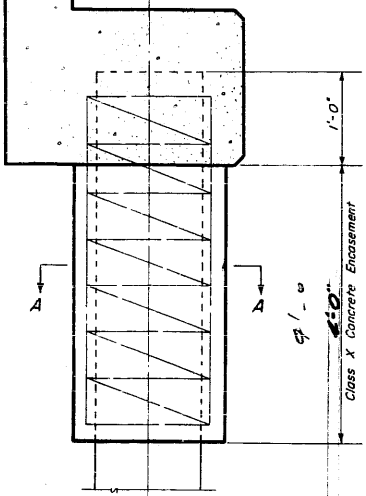
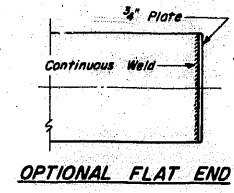
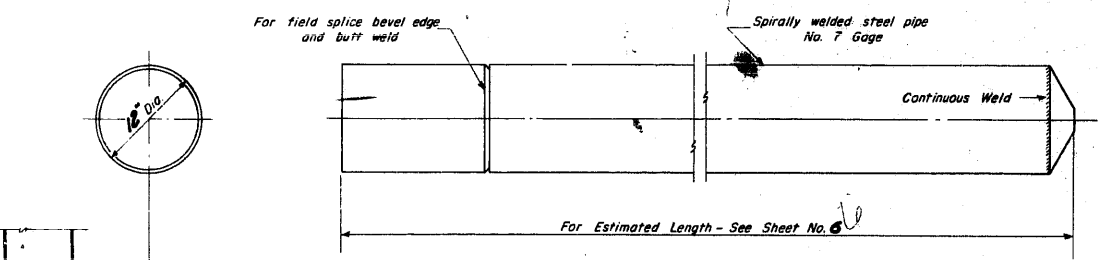
| | | | |
|----------|-------------------------|----------|-------------------------|
| DESIGNED | <i>M. J. Clevell</i> | EXAMINED | <i>M. J. Clevell</i> |
| CHECKED | <i>C. J. Rutherford</i> | PASSED | <i>E. J. Rutherford</i> |
| DRAWN | <i>Rutherford</i> | APPROVED | <i>R. R. Bartelme</i> |
| CHECKED | <i>C. J. Rutherford</i> | | |

Nov. 21 1958

BORINGS
F.A. RT. 6 SEC. 8-RB-1
COOK COUNTY
STA. 240+83.50

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

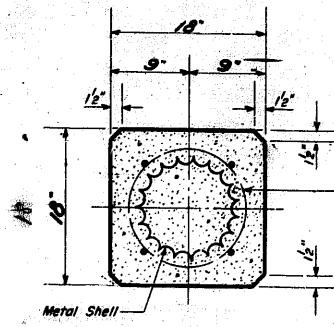
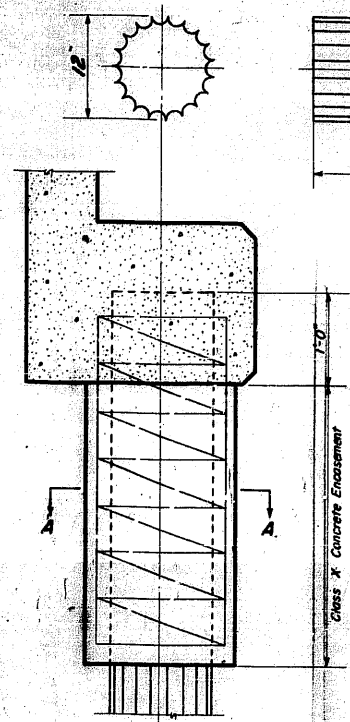
| | | | | | |
|------------------------|----------|------------------|--------------|-----------|-------------------------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. | SHEET NO. 8 8 SHEETS |
| A.R.L. P.A. 6 | 8-RB-1 | Cook | 13 | 11 | |
| FED. H. A. MET. W.P. 1 | ILLINOIS | FED. AID PROJECT | | | |



1 1/2" Dia Spiral #2 Wire 6" Pitch
2 extra turns top and bottom.
4-#4 Tie Bars. The cost of
Class X Concrete Encasement and
Reinforcement is incidental to
the cost of furnishing Piles.

Note: Driving and bearing ends of pipe
shall be cut square.

ALTERNATE B
DETAIL OF SPIRALLY WELDED STEEL SHELL
FOR CAST IN PLACE CONCRETE PILES

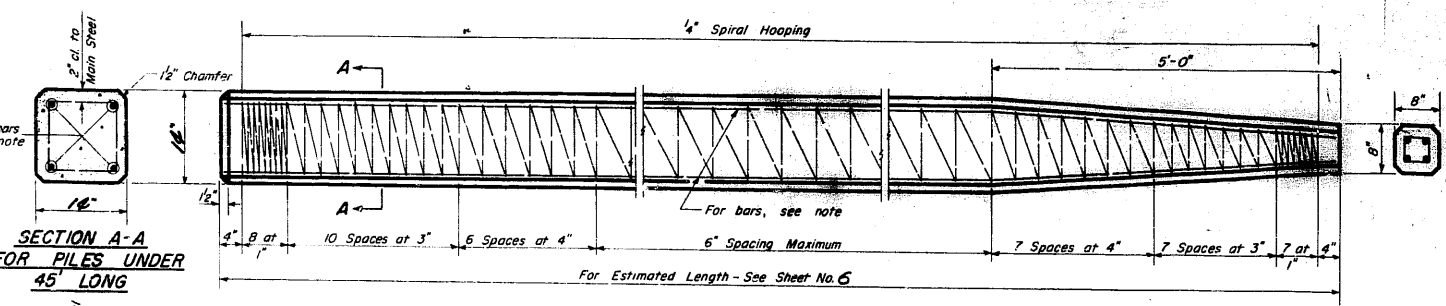


1 1/2" Dia. Spiral #2 Wire, 6" Pitch
2 extra turns top and bottom.
4-#4 Tie Bars. The cost of
Class X Concrete Encasement
and Reinforcement is incidental
to the cost of furnishing Piles.

ALTERNATE B
DETAIL OF METAL SHELL
FOR CAST IN PLACE CONCRETE PILES

ALLOWABLE TAPERS

- 1 - Taper 1/2"-6" for 10'-0" x 10'-0" Cylindrical Section Extension
- 2 - Taper 1/4"-0" for 17'-0" x 13'-0" Cylindrical Section Extension
- 3 - Taper 1/7"-0" for 20'-0" x 13'-0" Cylindrical Section Extension



Note: For 16" Piles 45' long or more use 8-#8 bars - 4 for
the full length and 4 to the point of bevel.
For 16" Piles under 45'-0" long use 4-#9 bars
the full length.

Handling: For Pile lengths up 45 Ft. use two slings placed
at a distance of 0.21 L* from each end.
For Piles longer than 45 Ft., use three slings
placed at a distance of 0.12 L* from each end
and at mid-point of pile.

* L = Over all length of pile to be handled

ALTERNATE A
DETAIL OF PRECAST CONCRETE PILES

| | | | |
|----------|---------------|----------|--------------|
| DESIGNED | M. G. Revilla | EXAMINED | Nov. 21 1958 |
| CHECKED | W. A. Sausman | PASSED | |
| DRAWN | W. A. Sausman | APPROVED | |
| CHECKED | | | |

PILE DATA
P.A.P. 6 SEC. 8-RB-1
COOK COUNTY
STA. 240+83.50