

| | | | | |
|------------|----------------|---------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 422 | 05-00108-00-BR | HANCOCK | 9 | 1 |
| C.H. 24 | | | | |
| ROAD DIST. | ILLINOIS | CONNABLE ROAD | | |

CONTRACT NO. : 93449

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

PLANS FOR PROPOSED SURFACE TRANSPORTATION / RURAL PROGRAM

**COUNTY HIGHWAY 24 (F.A.S. RTE 422)
CONNABLE ROAD
SECTION 05-00108-00-BR
HANCOCK COUNTY
PROJECT NO. RS-422 (108)
JOB NO. C-96-225-07**

INDEX OF SHEETS

| SHEET NO. | TITLE |
|-----------|---|
| 1 | COVER SHEET |
| 2 | SUMMARY OF QUANTITIES, GENERAL NOTES & TYPICAL SECTIONS |
| 3 | PLAN & PROFILE |
| 4 | SHOULDER & GUARDRAIL DETAILS |
| 5 | GENERAL PLAN & ELEVATION |
| 6 | STEEL BRIDGE RAIL, TYPE SM (SPECIAL) |
| 7-9 | STATION CROSS SECTIONS |

STANDARDS

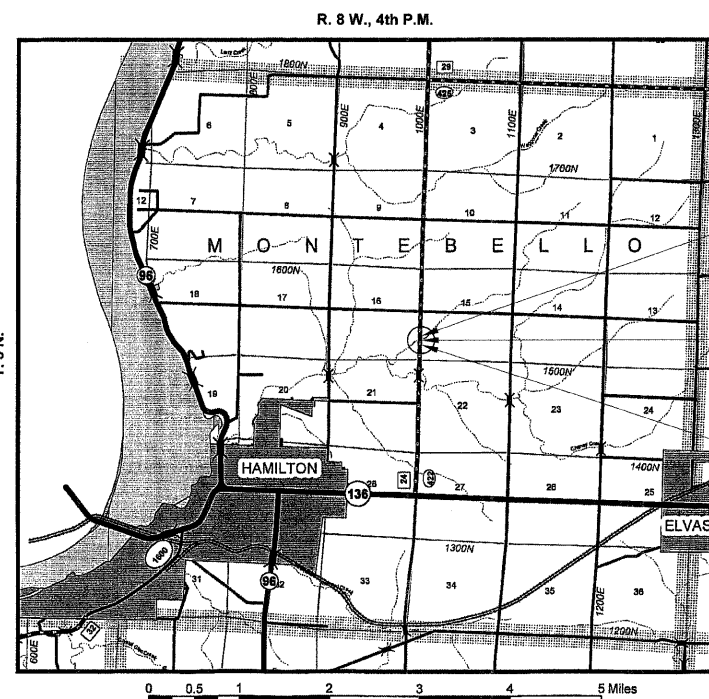
- 280001-04
- 515001-02
- 631011-04
- 635006-02
- 701901
- BLR 21-7
- BLR 26
- BLR 27

UTILITIES

| | |
|---------------------------|--------------|
| DALLAS RURAL WATER DIST. | 309-337-3718 |
| FRONTIER COMMUNICATIONS | 217-854-2222 |
| MCLEOD USA COMMUNICATIONS | 800-500-3453 |
| WIEC | 217-357-3125 |

TOLL FREE JOINT UTILITY LOCATING INFORMATION FOR EXCAVATORS (J.U.L.I.E.)
TELEPHONE NUMBER 1-800-892-0123

CONTRACT NO. 93449



LOCATION PLAN

TOTAL AND NET LENGTH OF SECTION = 400.00 FEET = 0.076 MILES

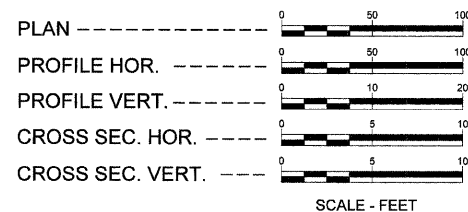
HIGHWAY CLASS - MAJOR COLLECTOR

DESIGN: 3R

DESIGN SPEED 50 MPH

ADT = 1600 (27)

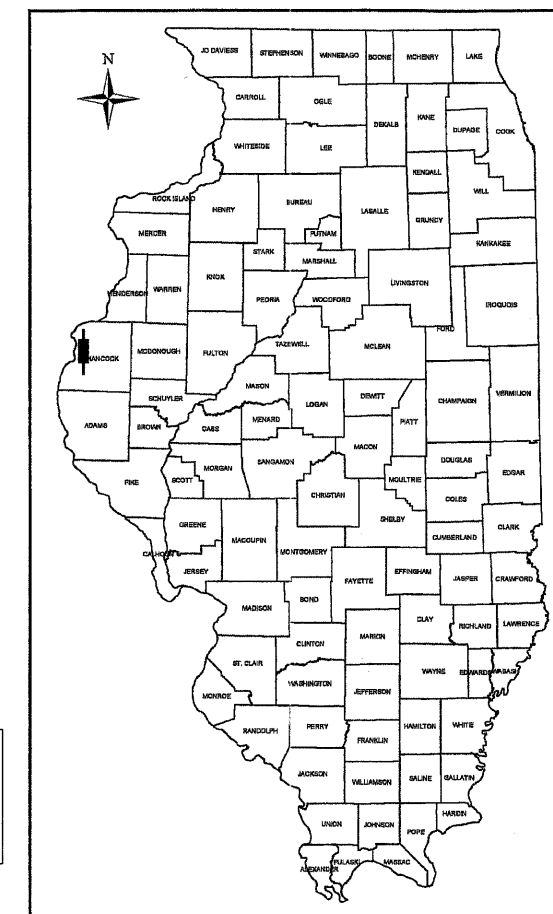
SCALES



IMPROVEMENT ENDS
STA 107+50

STA. 105+55 - 12' RISE x 24' SPAN x 34' LONG
THREE SIDED PRECAST CONCRETE
STRUCTURE WITH PRECAST WINGWALLS &
HEADWALLS & CAST IN PLACE FOOTINGS.
0° SKEW; S.N. 034-3249

IMPROVEMENT BEGINS
STA 103+50



LOCATION OF SECTION INDICATED THIS:

THESE PLANS WERE PREPARED BY ME OR BY A FULL-TIME MEMBER OF MY STAFF WORKING UNDER MY PERSONAL SUPERVISION.

Paul E. Sly
PAUL E. SLY
ILLINOIS PROFESSIONAL NO. 062-043309
EXPIRES 11/30/2009

APPROVED 16/20 20 07
Paul E. Sly
COUNTY ENGINEER

PASSED 7-1-08 20 08
Paul E. Sly
DISTRICT SIX ENGINEER OF LOCAL ROADS & STREETS

PASSED JAN 09 20 08
W. R. J...
DISTRICT SIX ENGINEER OF CONSTRUCTION

Releasing For Bid Based on Limited Review
JAN 09 20 08
Chuck H. Reed
DEPUTY DIRECTOR OF HIGHWAYS,
REGION FOUR ENGINEER
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

| | | | | |
|-----------------------|----------------|---------------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 422 C.H. 24 | 05-00108-00-BR | HANCOCK | 9 | 2 |
| ROAD DIST. | ILLINOIS | CONNABLE ROAD | | |

CONTRACT NO. : 93449

| CODE NUMBER | ITEM | UNIT | QUANTITY |
|--------------|--|-------|----------|
| 20100500 | TREE REMOVAL, ACRES | ACRE | 0.2 |
| 20200100 | EARTH EXCAVATION | CU YD | 657 |
| 20200200 | ROCK EXCAVATION | CU YD | 72 |
| * 20400800 | FURNISHED EXCAVATION | CU YD | 786 |
| 28000250 | TEMPORARY EROSION CONTROL SEEDING | POUND | 50 |
| 28000300 | TEMPORARY DITCH CHECKS | EACH | 4 |
| 28000400 | PERIMETER EROSION BARRIER | FOOT | 50 |
| 28102600 | STONE RIPRAP DITCH | TON | 56 |
| 35100100 | AGGREGATE BASE COURSE, TYPE A | TON | 729 |
| 40600100 | BITUMINOUS MATERIALS (PRIME COAT) | GAL | 475 |
| 40603080 | HOT-MIX ASPHALT BINDER COURSE, IL 19.0, N50 | TON | 274 |
| 40603310 | HOT-MIX ASPHALT SURFACE COURSE, MIX "C", N50 | TON | 95 |
| 44000100 | PAVEMENT REMOVAL | SQ YD | 933 |
| 48101200 | AGGREGATE SHOULDERS, TYPE B | TON | 156 |
| * 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 35.8 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 1,940 |
| 51500100 | NAME PLATES | EACH | 1 |
| 542D0223 | PIPE CULVERTS, CLASS D, TYPE 1, 18" | FOOT | 42 |
| △ * 63000000 | STEEL PLATE BEAM GUARDRAIL, TYPE A | FOOT | 87.5 |
| △ * 63100045 | TRAFFIC BARRIER TERMINAL, TYPE 2 | EACH | 2 |
| △ * 63100075 | TRAFFIC BARRIER TERMINAL, TYPE 5A | EACH | 4 |
| △ 63100167 | TRAFFIC BARRIER TERMINAL, TYPE 1 SPECIAL (TANGENT) | EACH | 2 |
| 67100100 | MOBILIZATION | L SUM | 1 |
| * 70101700 | TRAFFIC CONTROL AND PROTECTION | L SUM | 1 |
| △ * 78201000 | TERMINAL MARKER-DIRECT APPLIED | EACH | 2 |
| * XX003551 | THREE SIDED PRECAST CONCRETE STRUCTURE | FOOT | 34 |
| * XX006199 | STEEL BRIDGE RAIL, TYPE SM (SPECIAL) | FOOT | 60 |
| * X0323330 | PRECAST CONCRETE SUBSTRUCTURE | L SUM | 1 |

* SEE SPECIAL PROVISIONS

CONSTRUCTION TYPE CODE: X023 -2#

△ SPECIALTY ITEMS

GENERAL NOTES

THE NOTED APPLICATION RATES ARE FOR QUANTITY CALCULATIONS ONLY. THE APPLICATION RATE TO BE APPLIED WILL BE DETERMINED BY THE ENGINEER AT THE TIME OF PLACEMENT.

SEEDING WILL BE DONE BY OTHERS.

FENCE WILL BE DONE BY OTHERS.

PAVEMENT MARKING / STRIPING WILL BE DONE BY OTHERS.

THE JOINT DETAIL AT THE BEGINNING AND END OF IMPROVEMENT TO BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.

WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER, AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.

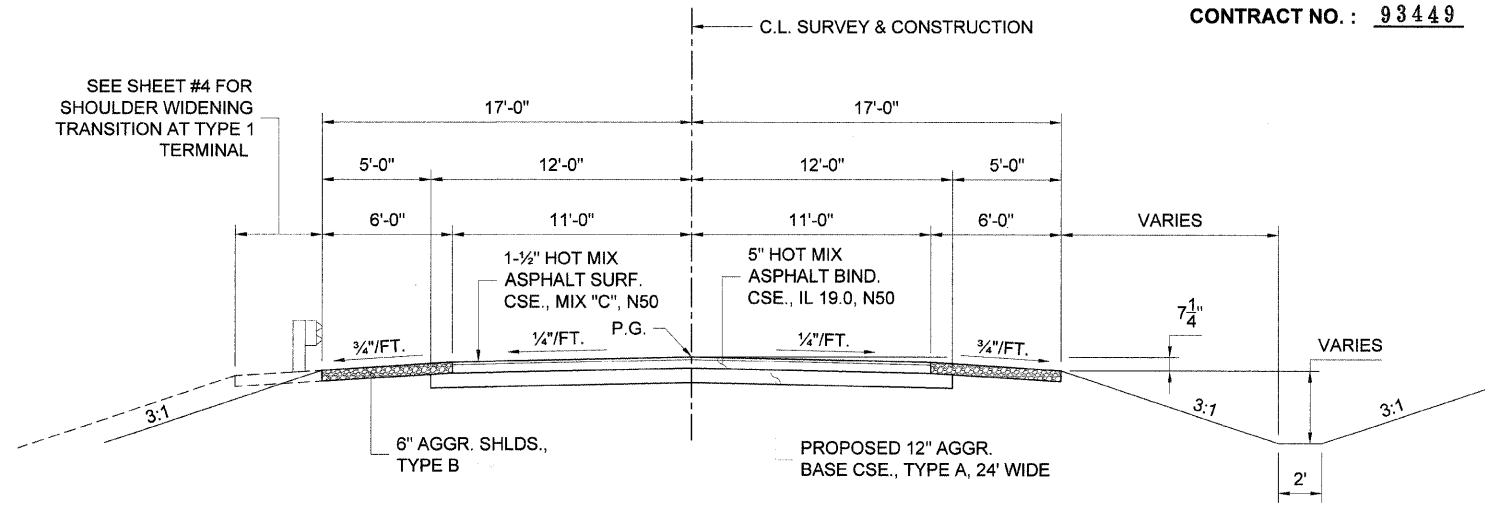
ALL EROSION PROTECTION TO BE PLACED AS DIRECTED BY THE ENGINEER.

APPLICATION RATES USED IN QUANTITY CALCULATIONS

| | |
|------------------------------------|----------------------|
| STONE RIPRAP DITCH (CLASS A3) | 1.65 TON / CU. YD. |
| AGGREGATE BASE | 2.05 TON / CU. YD. |
| AGGREGATE SHOULDERS | 1.75 TON / CU. YD. |
| BITUMINOUS MATERIALS (PRIME COAT) | 0.35 GAL. / SQ. YD. |
| HOT MIX ASPHALT (SURFACE & BINDER) | 112# / SQ. YD. / IN. |

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

| ITEM | AGGREGATE COMPOSITION | ASPHALT GRADE | VOIDS |
|-----------------|------------------------|---------------|------------|
| HMA BINDER CSE | IL - 19.0 | PG 64-22 | 4.0% @ N50 |
| HMA SURFACE CSE | IL-9.5 or 12.5 Mix "C" | PG 64-22 | 4.0% @ N50 |

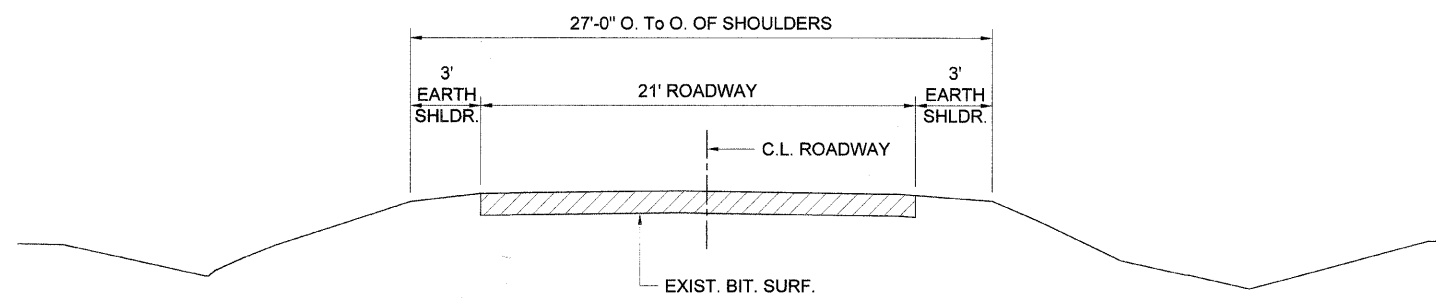


TYPICAL FILL SECTION CONSTRUCT AS SHOWN ON STATION CROSS SECTIONS.

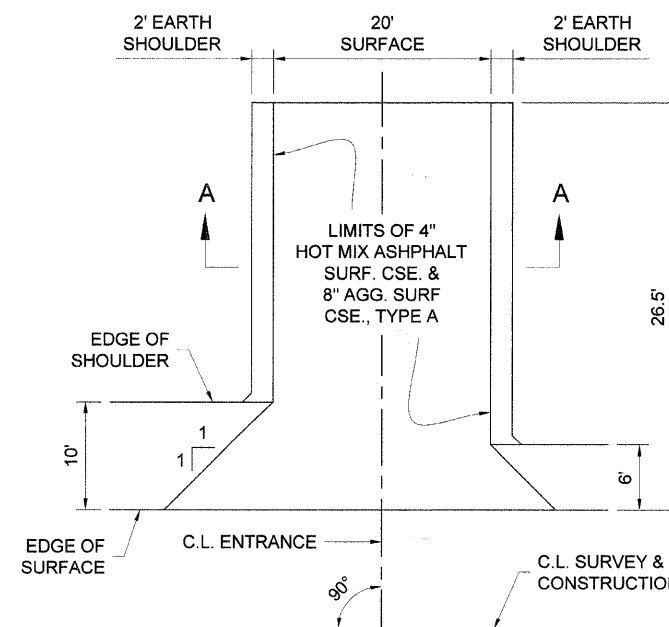
TYPICAL PROPOSED ROADWAY CROSS SECTION

STA. 103+50 TO 107+50

TYPICAL CUT SECTION CONSTRUCT AS SHOWN ON STATION CROSS SECTIONS.

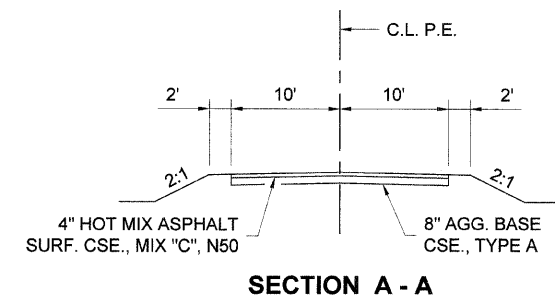


TYPICAL EXISTING ROADWAY CROSS SECTION



PRIVATE ENTRANCE DETAIL

P.E. LT. STA. 106+66

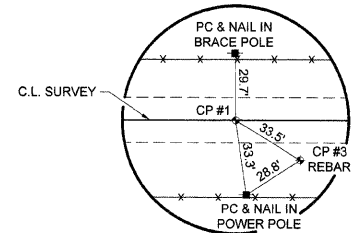


SECTION A - A

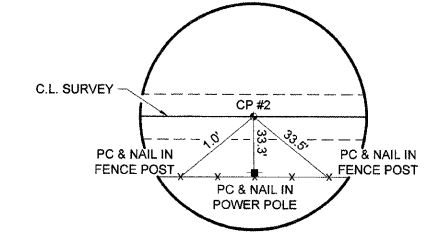
SUMMARY OF QUANTITIES, GENERAL NOTES, & TYPICAL CROSS SECTION
 SECTION 00-00108-00-BR
 C.H. 24 (F.A.S. 422)
 HANCOCK COUNTY
 STA. 105+55 - STRUCTURE NO. 034-3249

| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|-----------------------|-----------------------|------------------------|--------------|-----------|
| F.A.S. 422 C.H. 24 | 05 00108- 00-8R | HANCOCK | 9 | 3 |
| ROAD DIST. | | ILLINOIS CONNABLE ROAD | | |

CONTRACT NO.: 93449



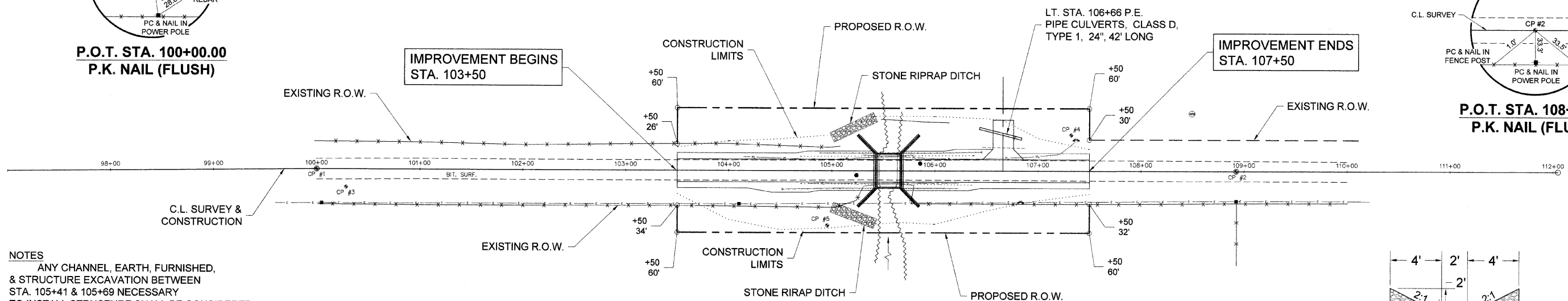
P.O.T. STA. 100+00.00
P.K. NAIL (FLUSH)



P.O.T. STA. 108+92.36
P.K. NAIL (FLUSH)

DARIN & ANGELA MILLER

PIPES TO BE REMOVED
(INCIDENTAL TO "EARTH EXCAVATION")
LT. STA. 106+55, 18" CMP, 42' LONG

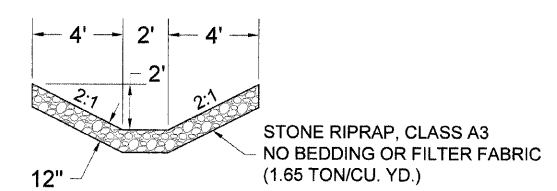


NOTES
ANY CHANNEL, EARTH, FURNISHED, & STRUCTURE EXCAVATION BETWEEN STA. 105+41 & 105+69 NECESSARY TO INSTALL STRUCTURE SHALL BE CONSIDERED INCIDENTAL TO THREE SIDED PRECAST CONCRETE STRUCTURE. SEE SPECIAL PROVISIONS TREE REMOVAL MEASURED FROM STA. 103+50 LT. TO STA. 105+53 LT.

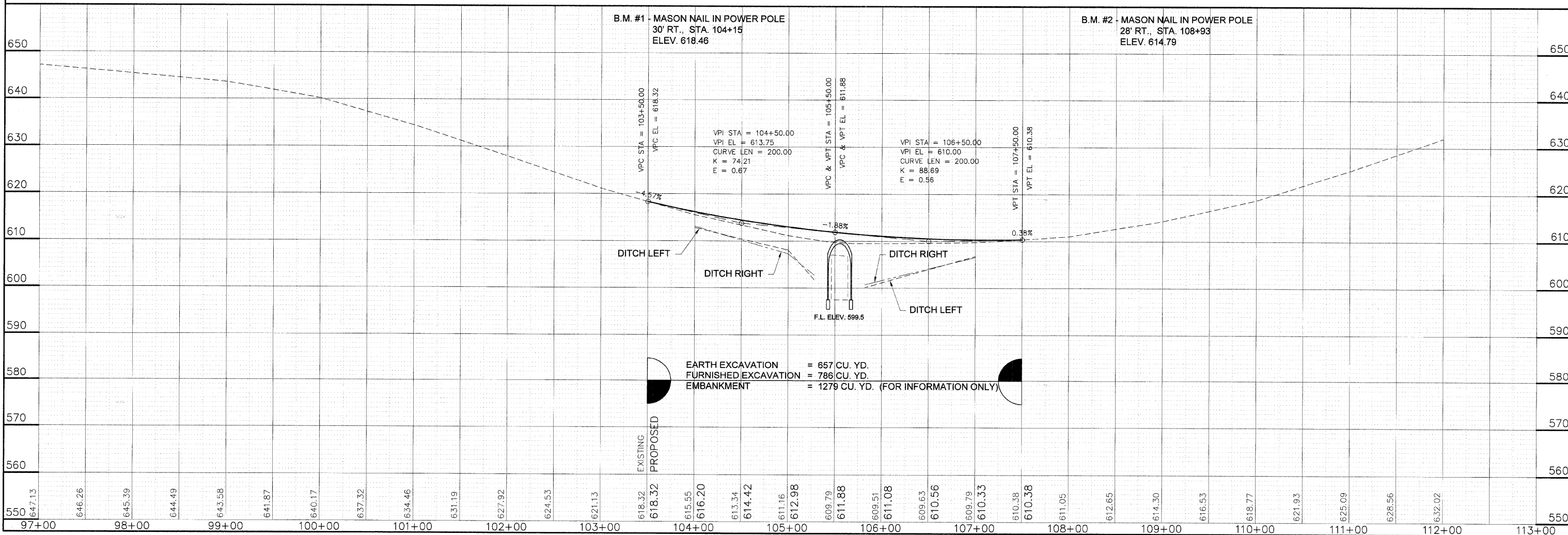
PROPOSED STRUCTURE
STA. 105+55
12' RISE x 24' SPAN x 34' LENGTH
THREE-SIDED PRECAST CONCRETE STRUCTURE WITH PRECAST WINGWALLS & HEADWALLS & CAST IN PLACE FOOTINGS.
0° SKEW
S.N. 034-3249

MARK A. DILLARD

EXISTING STRUCTURE
SINGLE SPAN STEEL I-BEAM WITH CONCRETE FLOOR ON CLOSED TIMBER ABUTMENTS AND WINGS
17.5' SPAN
24.0' ROADWAY



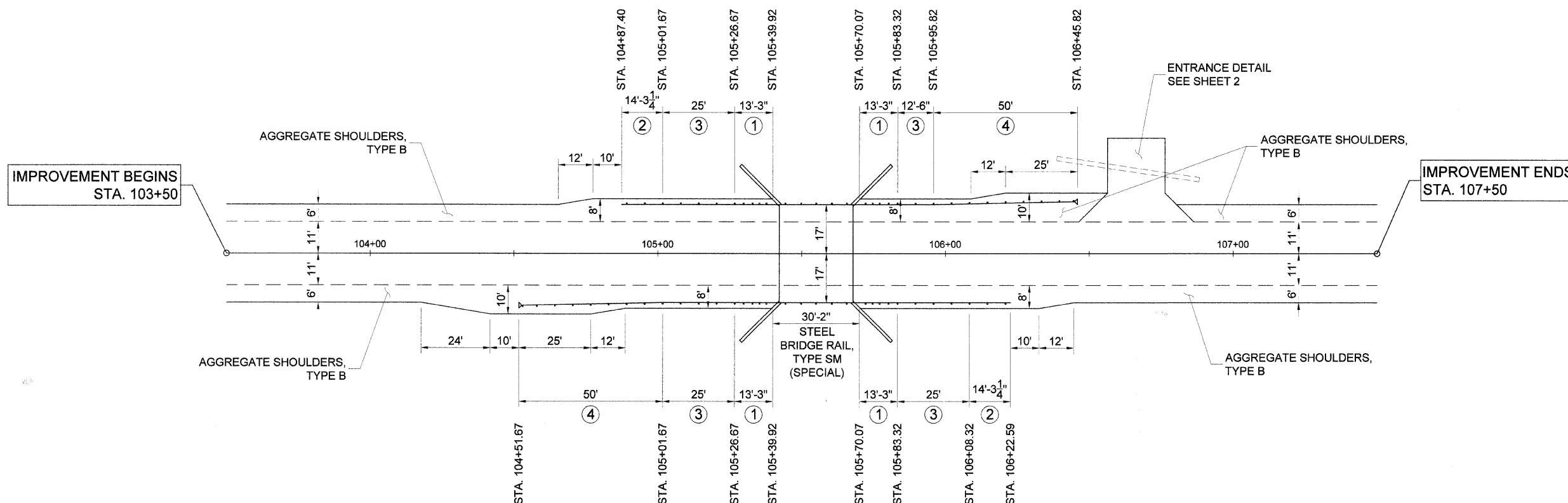
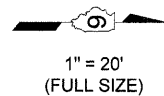
STONE RIPRAP DITCH
LT. STA. 105+00 TO STA. 105+42
RT. STA. 105+00 TO STA. 105+42
TOTAL QUANTITY = 56 TONS



SCALES:
1" = 50' HOR
1" = 10' VER
(FULL SIZE)

| | | | | |
|-----------------------|------------------------|---------|--------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 422 C.H. 24 | 05-00108-00-BR | HANCOCK | 9 | 4 |
| ROAD DIST. | ILLINOIS CONNABLE ROAD | | | |

CONTRACT NO. : 93449



LEGEND

NOTE: ALL DIMENSIONS REFER TO FRONT FACE OF PROPOSED RAILING.

- ① TRAFFIC BARRIER TERMINAL, TYPE 5A
- ② TRAFFIC BARRIER TERMINAL, TYPE 2
- ③ STEEL PLATE BEAM GUARDRAIL, TYPE A
- ④ TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

SHOULDER AND GUARDRAIL DETAIL

TRAFFIC BARRIER TERMINAL, TYPE 1, SPECIAL (TANGENT)

18' RT. STA. 104+51.67 TO 17' RT. STA. 105+01.67 = 1 EACH
 17' LT. STA. 105+95.82 TO 18' LT. STA. 106+45.82 = 1 EACH
 TOTAL = 2 EACH

STEEL PLATE BEAM GUARDRAIL, TYPE A

17' LT. STA. 105+01.67 TO 17' LT. STA. 105+26.67 = 25 FOOT
 17' RT. STA. 105+01.67 TO 17' RT. STA. 105+26.67 = 25 FOOT
 17' LT. STA. 105+83.32 TO 17' LT. STA. 105+95.82 = 12.5 FOOT
 17' RT. STA. 105+83.32 TO 17' RT. STA. 106+08.32 = 25 FOOT
 TOTAL = 87.5 FOOT

TRAFFIC BARRIER TERMINAL, TYPE 5A

17' LT. STA. 105+26.67 TO 17' LT. STA. 105+39.92 = 1 EACH
 17' RT. STA. 105+26.67 TO 17' RT. STA. 105+39.92 = 1 EACH
 17' LT. STA. 105+70.07 TO 17' LT. STA. 105+83.32 = 1 EACH
 17' RT. STA. 105+70.07 TO 17' RT. STA. 105+83.32 = 1 EACH
 TOTAL = 4 EACH

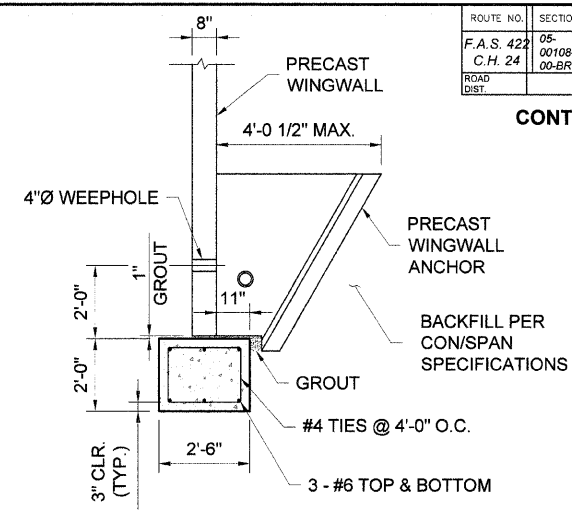
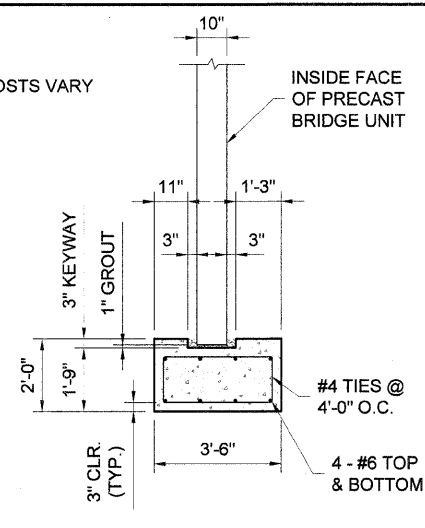
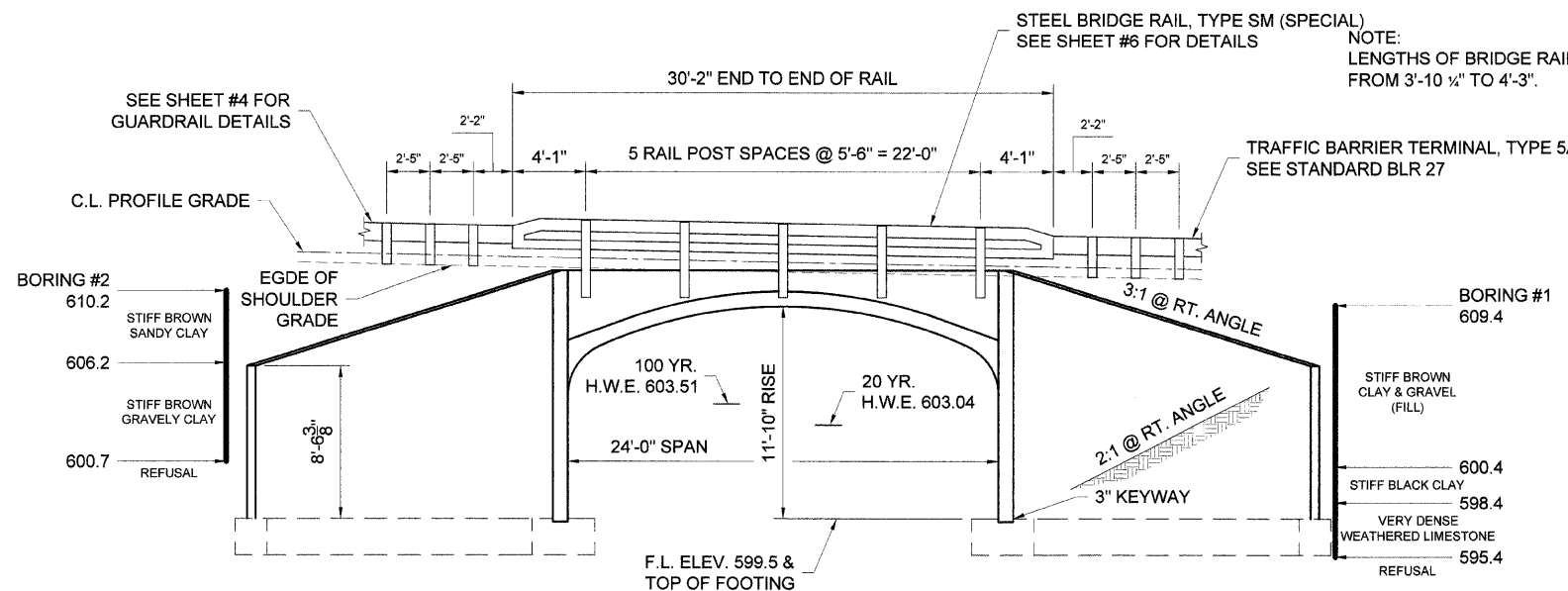
TRAFFIC BARRIER TERMINAL, TYPE 2

17' LT. STA. 104+87.40 TO 17' LT. STA. 105+01.67 = 1 EACH
 17' RT. STA. 106+08.32 TO 17' RT. STA. 106+22.59 = 1 EACH
 TOTAL = 2 EACH

SHOULDER AND GUARDRAIL DETAILS

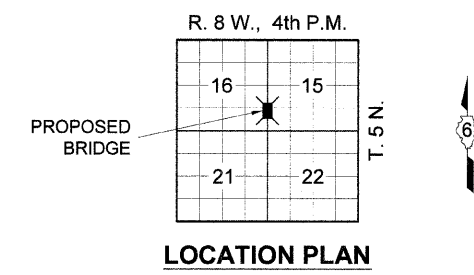
SECTION 00-00108-00-BR
 C.H. 24 (F.A.S. 422)
 HANCOCK COUNTY
 STA. 105+55 - STRUCTURE NO. 034-3249

CONTRACT NO. : 93449

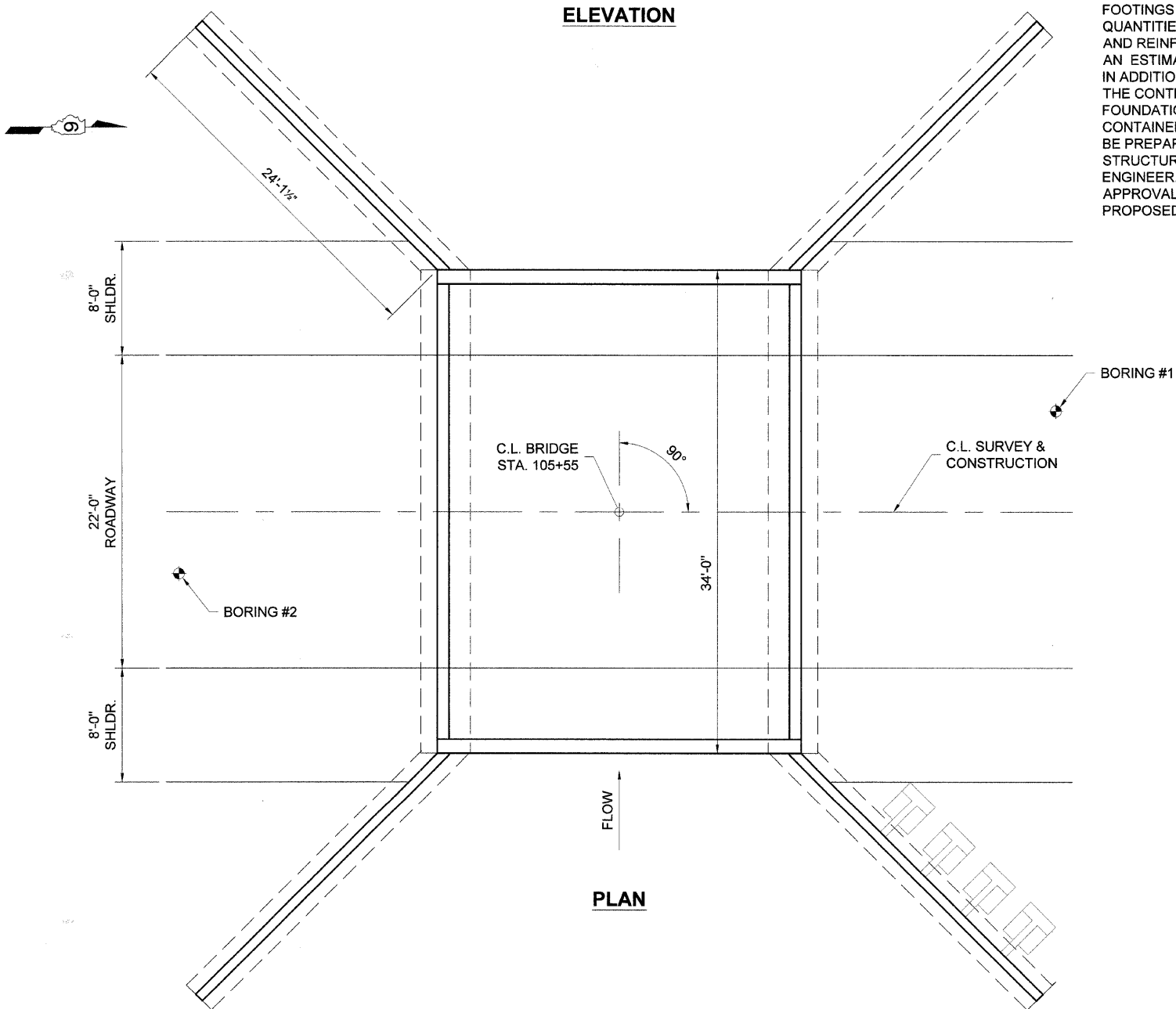


NOTE:
FOOTINGS ARE FOR EXAMPLE ONLY.
QUANTITIES FOR CONCRETE STRUCTURES AND REINFORCEMENT BARS ARE JUST AN ESTIMATE.
IN ADDITION THE SUPPLIER SELECTED BY THE CONTRACTOR SHALL SUBMIT A COMPLETE FOUNDATION DESIGN BASED ON THE BORINGS CONTAINED WITHIN THE PROPOSAL. THEY SHALL BE PREPARED AND SEALED BY AN ILLINOIS LICENSED STRUCTURAL ENGINEER, FOR APPROVAL BY THE ENGINEER. NO WORK SHALL BEGIN UNTIL APPROVAL IS GIVEN IN WRITING THAT THE PROPOSED FOUNDATION DESIGN IS ACCEPTABLE.

BRANCH OF CHANEY CREEK
BUILT 200_ BY
HANCOCK COUNTY
SEC. 05-00108-00-BR
F.A. PROJ. RS-422 (108)
LOADING HS20
STR. NO. 034-3249



LETTERING FOR NAME PLATE
SEE STANDARD 515001



TOTAL BILL OF MATERIAL

| CODE NUMBER | ITEM | UNIT | QUANTITY |
|-------------|--|-------|----------|
| 20200200 | ROCK EXCAVATION | CU YD | 72 |
| * 50100100 | REMOVAL OF EXISTING STRUCTURES | EACH | 1 |
| 50300225 | CONCRETE STRUCTURES | CU YD | 35.8 |
| 50800205 | REINFORCEMENT BARS, EPOXY COATED | POUND | 1,940 |
| 51500100 | NAME PLATES | EACH | 1 |
| * XX003551 | THREE SIDED PRECAST CONCRETE STRUCTURE | FOOT | 34 |
| * XX006199 | STEEL BRIDGE RAIL, TYPE SM (SPECIAL) | FOOT | 60 |
| * X0323330 | PRECAST CONCRETE SUBSTRUCTURE | L SUM | 1 |

* SEE SPECIAL PROVISIONS

NOTE:
REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A706, GRADE 60.

WATERWAY INFORMATION

1.72 Sq. Mi. - Drainage Area
127 Sq. Ft. - Required Opening (20 yr. Flood)
127 Sq. Ft. - Provided Opening
93 Sq. Ft. - Present Opening
671 c.f.s. - Design Discharge
1.32 Ft. - Design Created Head
954 c.f.s. - 100 yr. Discharge
2.17 Ft. - 100 yr. Created Head

GENERAL PLAN & ELEVATION
SECTION 00-00108-00-BR
C.H. 24 (F.A.S. 422)
HANCOCK COUNTY
STA. 105+55 - STRUCTURE NO. 034-3249

CONTRACT NO. : 93449

NOTES

Hollow structural sections shall conform to the requirements of ASTM designation A 500 Grade B Structural Steel Tubing and shall meet the longitudinal CVN requirements of 15 ft-lbs at 0° F.

All other steel shapes and plates shall conform to the requirements of AASHTO M 270 Grade 36 except posts and angles shall conform to AASHTO M 270, Grade 50.

Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A 307 except for high strength bolts, nuts and washers noted which shall conform to AASHTO M 164.

All bolts, nuts, cap screws, washers and lock washers shall be galvanized according to AASHTO M 232.

All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication according to AASHTO M 111 and ASTM A 385. Galvanized rail shall not be painted.

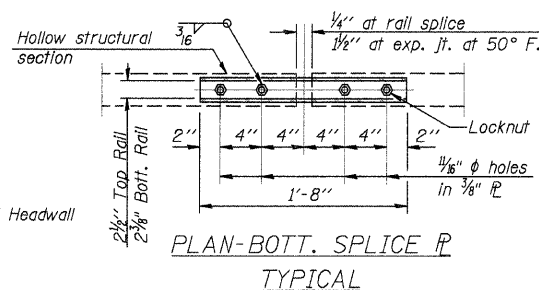
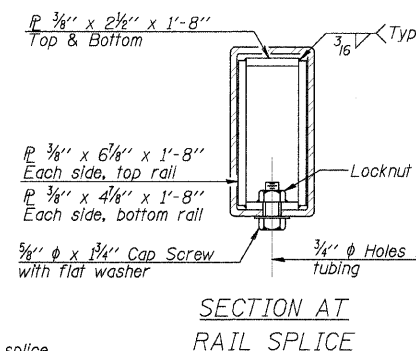
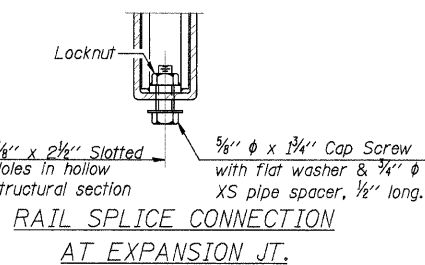
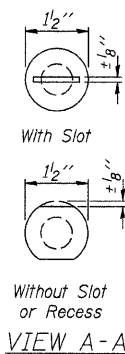
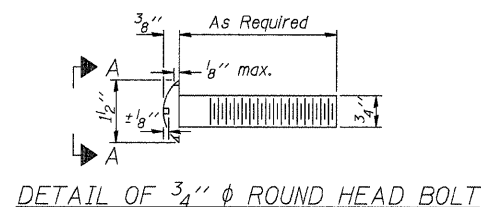
Railing shall be according to Section 509 of the Standard Specifications, except as noted, and will be paid for at the contract unit price per foot for Steel Bridge Rail, Type SM (Special).

All field drilled holes shall be coated with an approved zinc rich paint before erection.

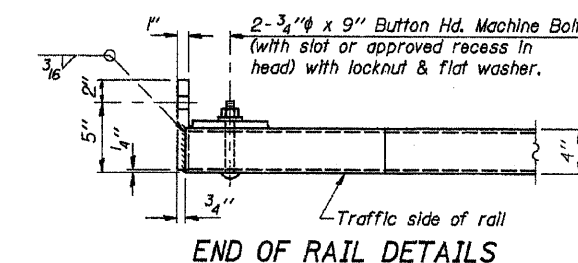
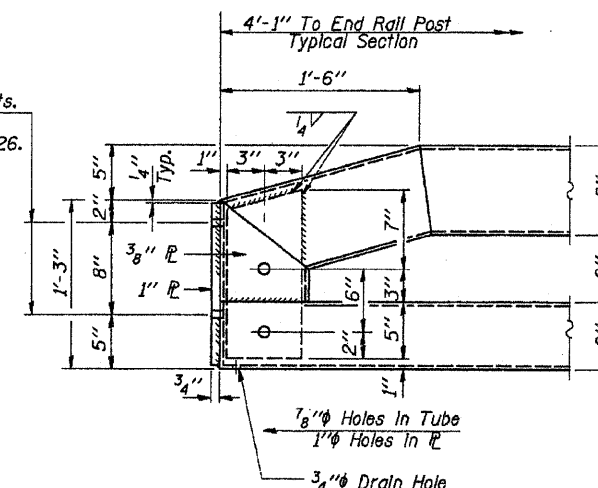
For multi-span bridges, sufficient 1/2" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Steel Bridge Rail, Type SM (Special).

The 1/2" x 7" x 6" plates that come in contact with concrete shall receive 1/8" fabric bearing pads between the plates and concrete.

The 3/4" Ø high strength bolts used to connect the 6 x 4 x 3/4 angles to the post shall be tightened according to Article 505.04(FX2) of the Standard Specifications. The 1" Ø high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/8 turn. The 5/8" Ø cap screws in bottom of posts shall be tightened to a snug fit only.



1/8" Ø Holes for 1" Ø x 4" Round Head Bolts. Provide 2 flat washers & locknuts for guard rail connection shown on Std. 631026.



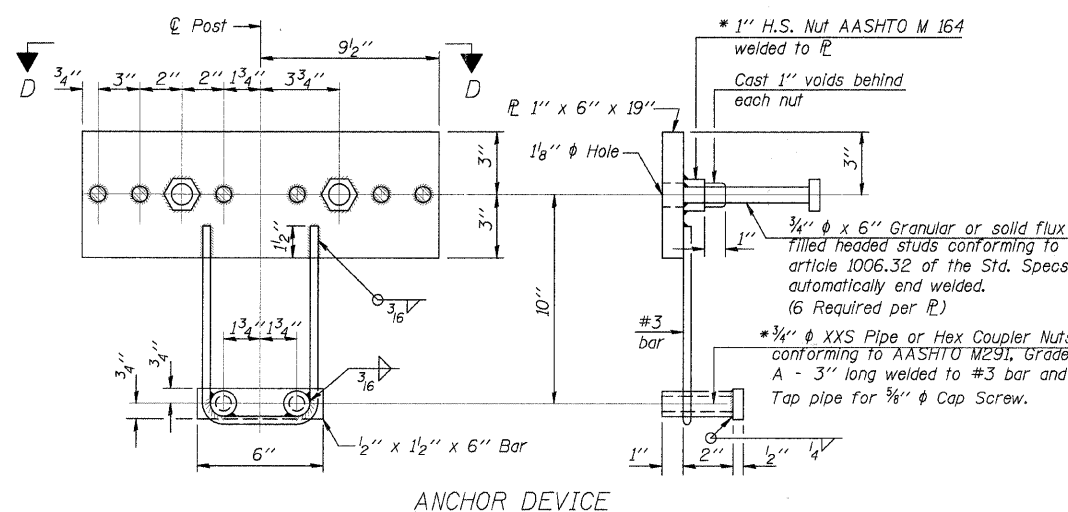
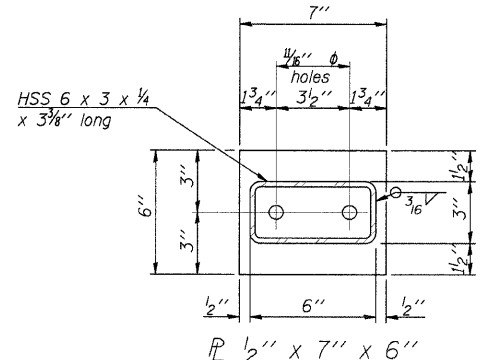
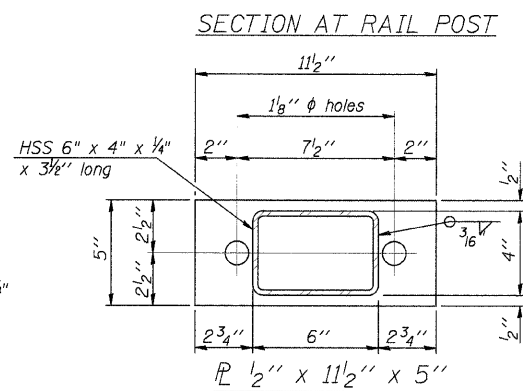
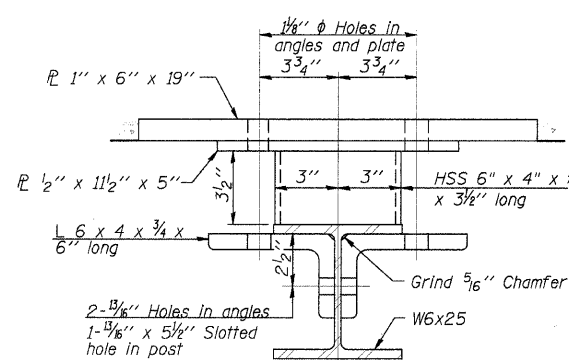
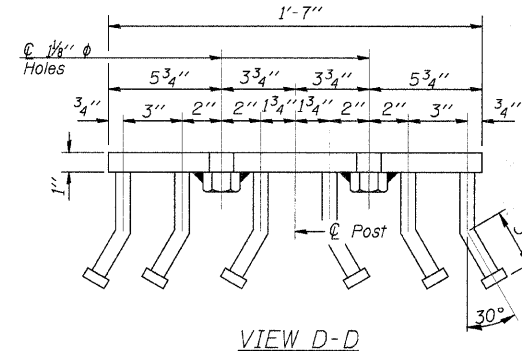
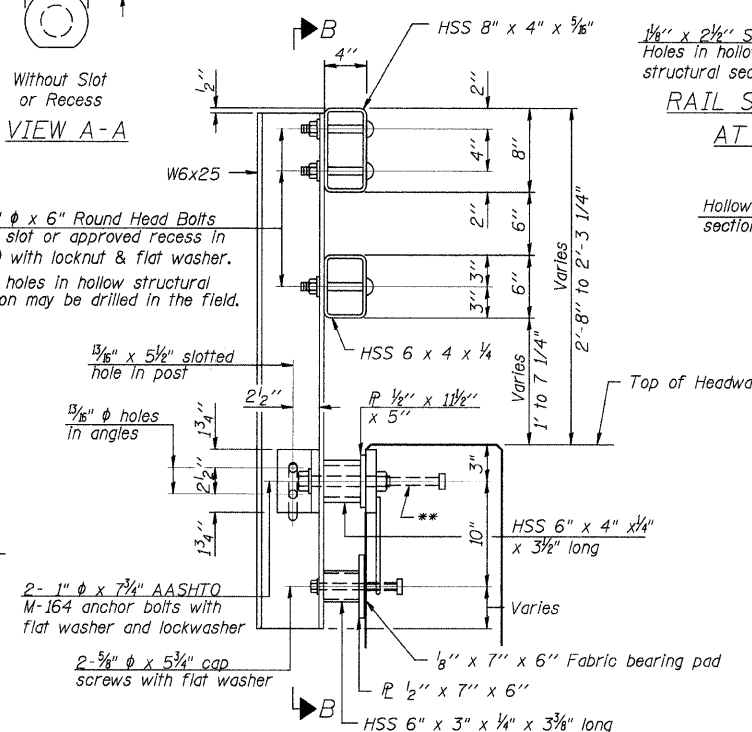
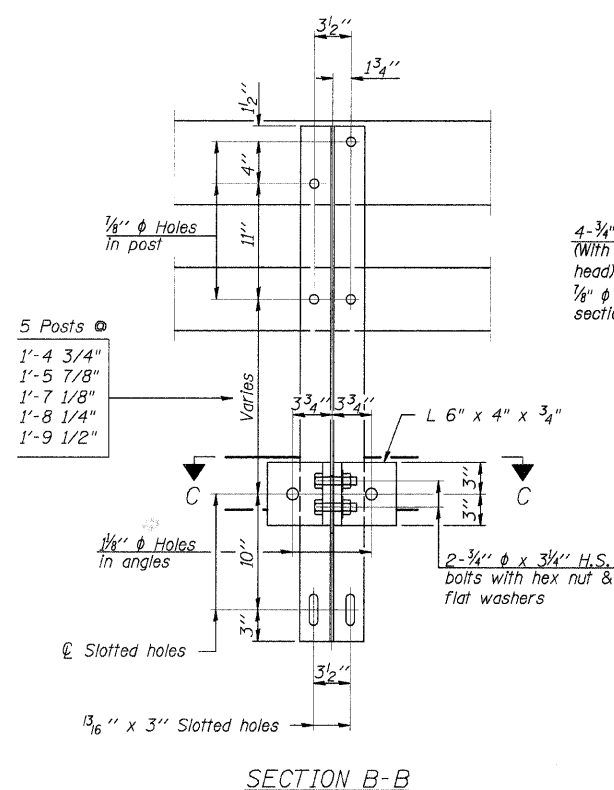
BILL OF MATERIAL

| Item | Unit | Quantity |
|--------------------------------------|------|----------|
| Steel Bridge Rail, Type SM (SPECIAL) | Foot | 60 |

BRIDGE RAIL, TYPE SM (SPECIAL)

SECTION 00-00108-00-BR
C.H. 24 (F.A.S. 422)
HANCOCK COUNTY

STA. 105+55 - STRUCTURE NO. 034-3249



11-1-06 (6'-3" Maximum Post Spacing) (5" minimum to 7'6" maximum CWS thickness)

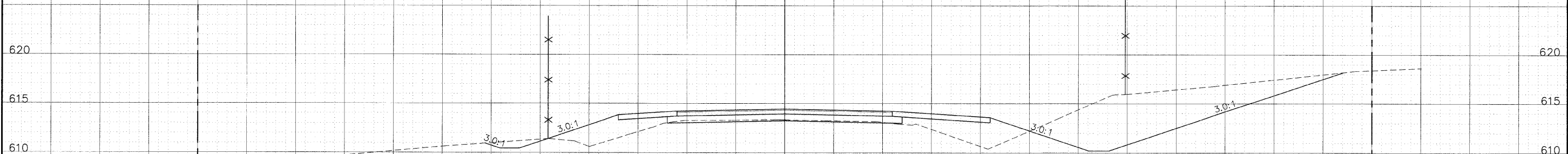
* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.

Note: Sheet based on IDOT drawing R-34CWS

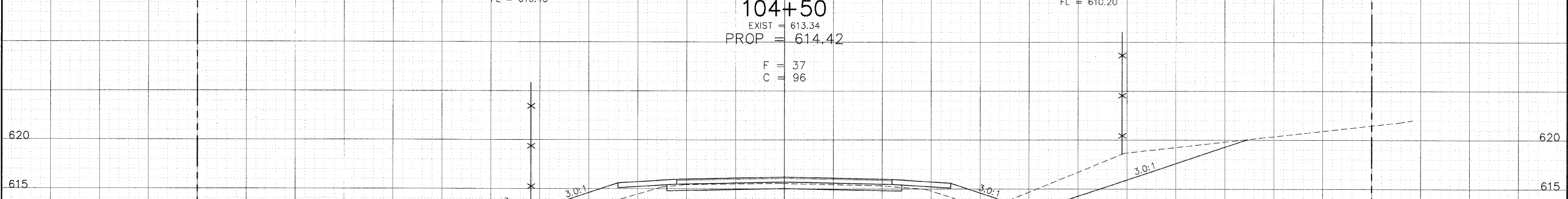
75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55

| | | | | |
|------------------------------------|-----------------------------------|-------------------|-------------------|----------------|
| ROUTE NO. F.A.S. 423 C.H. 15 | SECTION 97- 00100- 00-RS | COUNTY HANCOCK | TOTAL SHEETS 9 | SHEET NO. 7 |
| ROAD DIST. | | ILLINOIS | POWELLTON ROAD | |

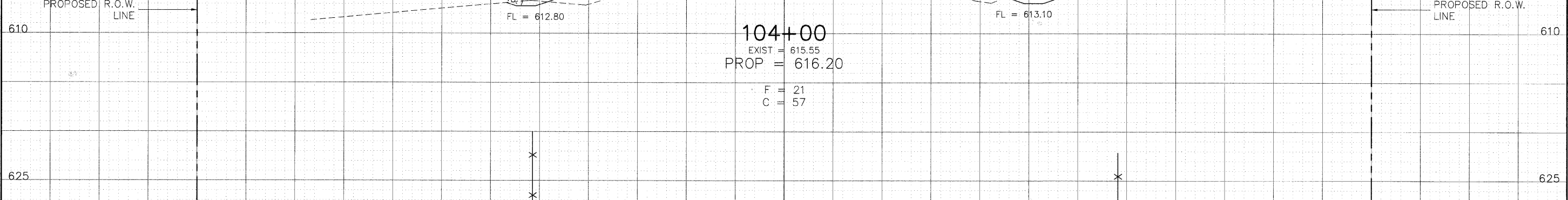
CONTRACT NO.: 93449



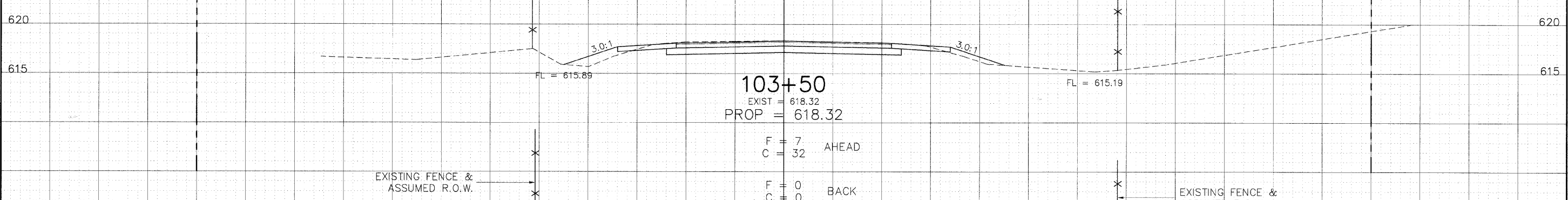
104+50
 EXIST = 613.34
 PROP = 614.42
 F = 37
 C = 96



104+00
 EXIST = 615.55
 PROP = 616.20
 F = 21
 C = 57



103+50
 EXIST = 618.32
 PROP = 618.32
 F = 7 AHEAD
 C = 32



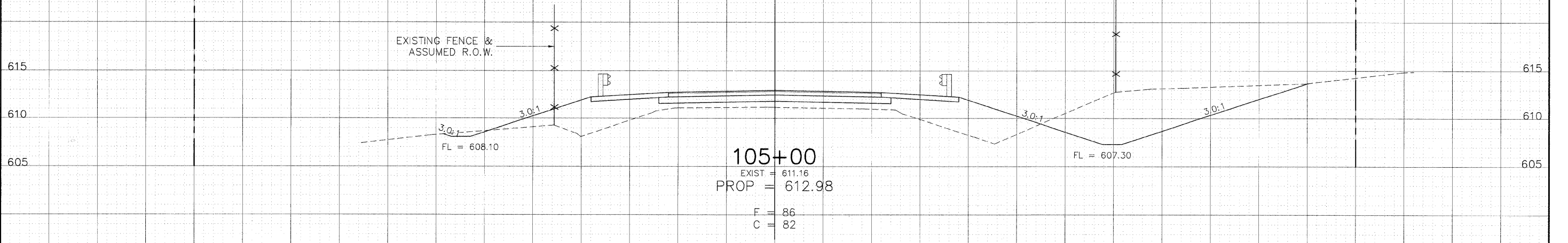
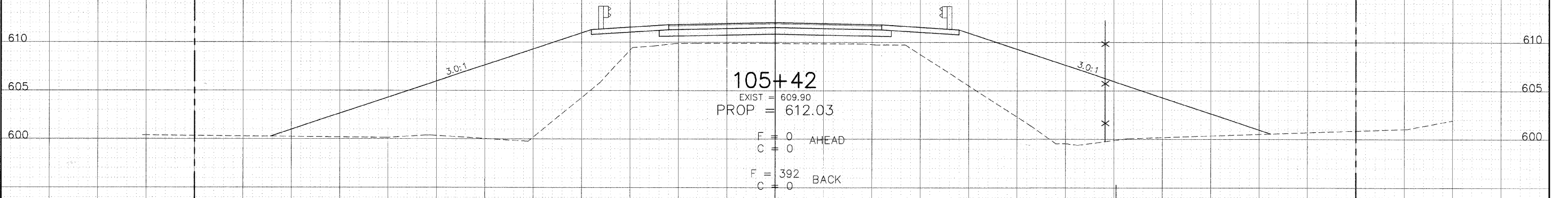
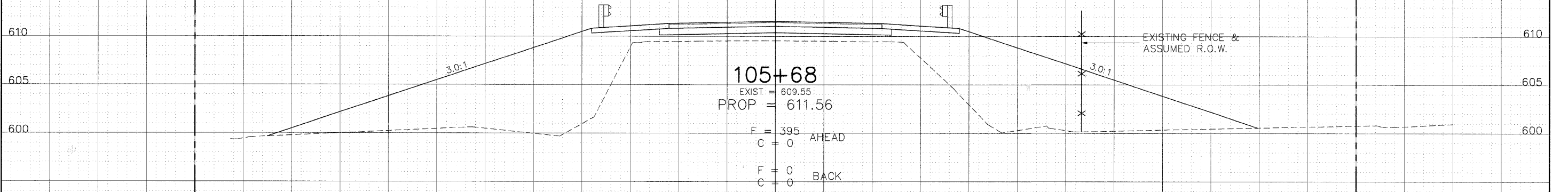
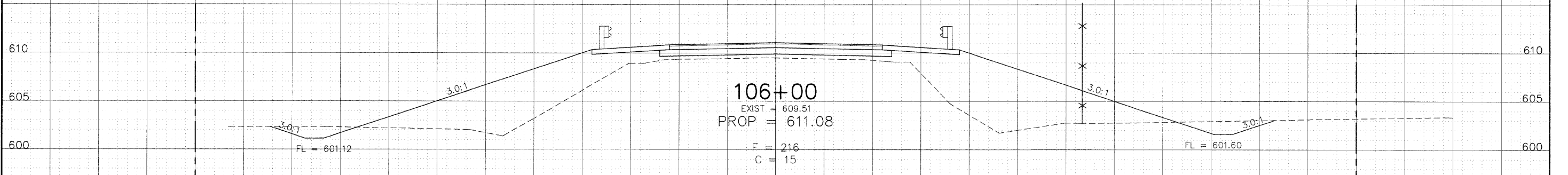
103+00
 EXIST = 621.13
 F = 0 BACK
 C = 0

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55

| | | | | |
|------------------------------------|-----------------------------------|-------------------|-------------------|----------------|
| ROUTE NO. F.A.S. 422 C.H. 24 | SECTION 05- 00108- 00-BR | COUNTY HANCOCK | TOTAL SHEETS 9 | SHEET NO. 8 |
| ROAD DIST. | | ILLINOIS | CONNABLE ROAD | |

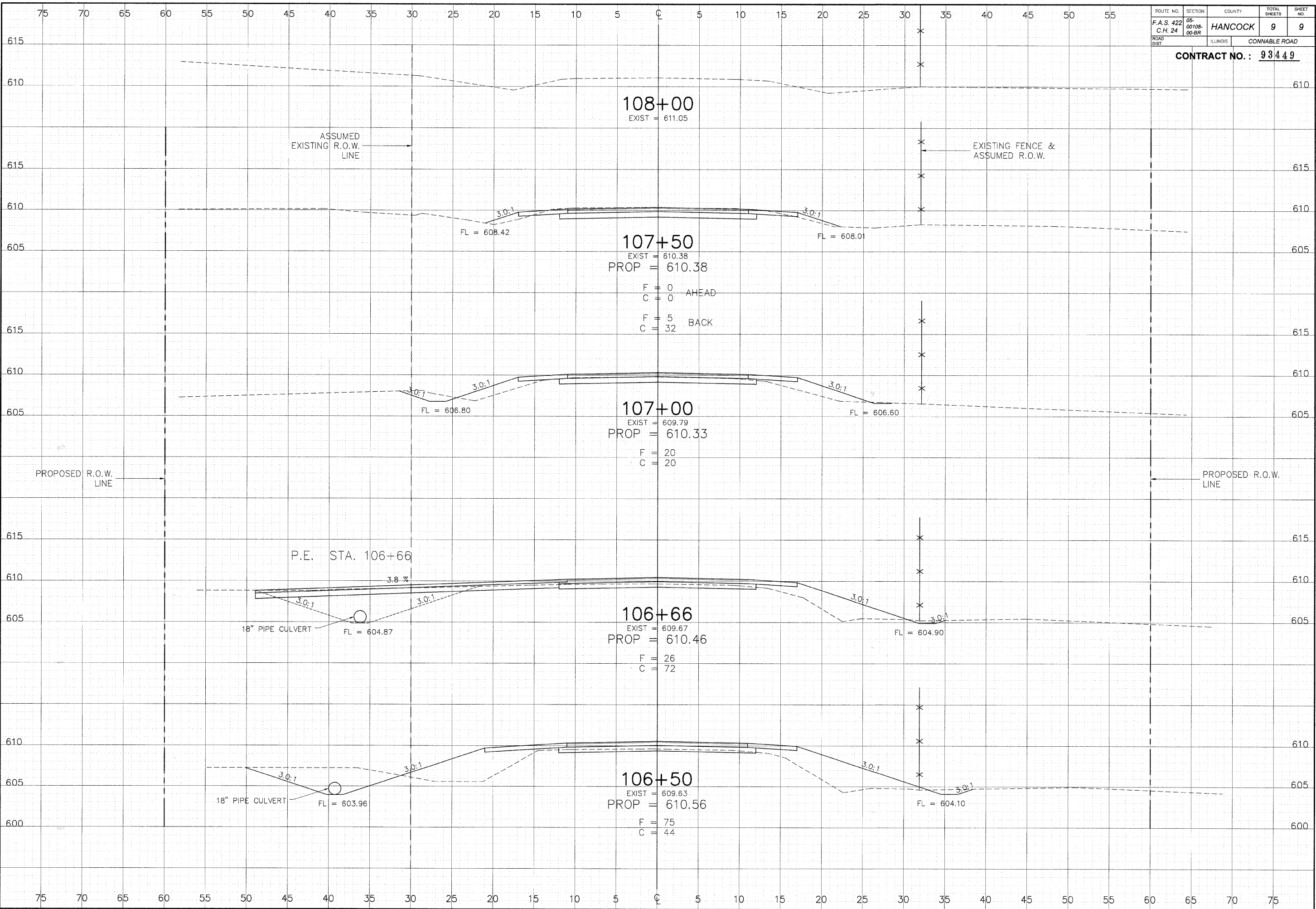
CONTRACT NO.: 93449



75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

| | | | | |
|------------|----------------|----------|---------------|-----------|
| ROUTE NO. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
| F.A.S. 422 | 05-00108-00-BR | HANCOCK | 9 | 9 |
| ROAD DIST. | | ILLINOIS | CONNABLE ROAD | |

CONTRACT NO.: 93449



108+00
EXIST = 611.05

107+50
EXIST = 610.38
PROP = 610.38

F = 0
C = 0 AHEAD
F = 5
C = 32 BACK

107+00
EXIST = 609.79
PROP = 610.33

F = 20
C = 20

106+66
EXIST = 609.67
PROP = 610.46

F = 26
C = 72

106+50
EXIST = 609.63
PROP = 610.56

F = 75
C = 44

ASSUMED EXISTING R.O.W. LINE

EXISTING FENCE & ASSUMED R.O.W.

PROPOSED R.O.W. LINE

PROPOSED R.O.W. LINE

P.E. STA. 106+66

18" PIPE CULVERT
FL = 604.87

18" PIPE CULVERT
FL = 603.96

3.8 %

3.0:1
FL = 608.42

3.0:1
FL = 608.01

3.0:1
FL = 606.80

3.0:1
FL = 606.60

3.0:1
FL = 604.90

3.0:1
FL = 604.10