

**TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY**

Letter of Clarification No. 2

FOR

Invitation to Bid (ITB)

**Selmon Expressway Over Himes Avenue
Deck and Slab Restoration and Slab
Replacement**

ITB O-01520

Letter of Clarification No. 2 ~ RFO No. O-01520

Date of Letter of Clarification: 09/23/2020

To all prospective respondents:

The following responds to questions received on the solicitation reference above:

| | |
|-------------|--|
| Question 1: | Other than the as-built drawings provided for the approach slabs, do you have drawings for the bridges themselves? Or at least, do you know the thickness of the bridge decks? |
| Response 1: | Attached are the as-built plans for the bridge decks. |
| Question 2: | Please confirm that "Approach Slab 2-RT.", on the as built drawing page, is the approach slab that is to be replaced. |
| Response 2: | Confirmed. Approach Slab 2-RT is to be replaced. |
| Question 3: | Confirm Bridge 100309 Beam Pedestal Spall, identified in the Bridge Inspection report Photo 7 is not included in this contract. |
| Response 3: | This repair is not part of this contract, it is being handled by THEA's maintenance contractor. |
| Question 4: | Is the bid bond 5% of the total bid value? |
| Response 4: | Yes. |
| Question 5: | Is there are any DBE goals for this project? |
| Response 5: | Generally, THEA has a policy of utilizing SBE/DBE firms whenever possible with a goal of 15% of the project. |

Bidders MUST acknowledge receipt of this Letter of Clarification by signing, dating and returning the completed Acknowledgement of Receipt of Letter of Clarification/Addendum form with Respondent's proposal. All other items, conditions, and specifications in the procurement document not specifically changed by the Addendum remain unchanged.

Please send all questions to THEA's Procurement Manager, Man Le, via email at Man.Le@tampa-xway.com.

ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM and/or LETTER OF CLARIFICATION

Were Addenda issued on this Solicitation?

Yes

No

Were Letter of Clarification issued on this Solicitation?

Yes

No

I (We) hereby acknowledge receipt of the following Addendum/Addenda issued in reference to this solicitation by listing the Addenda by number, date and signing the form:

Addendum _____ Date: _____

Addendum _____ Date: _____

Letter of Clarification _____ Date: _____

Letter of Clarification _____ Date: _____

BIDDER:

By: _____

Authorized Signature

Printed Name of Signer

Title of Signer

Date Signed

[END OF ACKNOWLEDGMENT OF RECEIPT FORM]

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

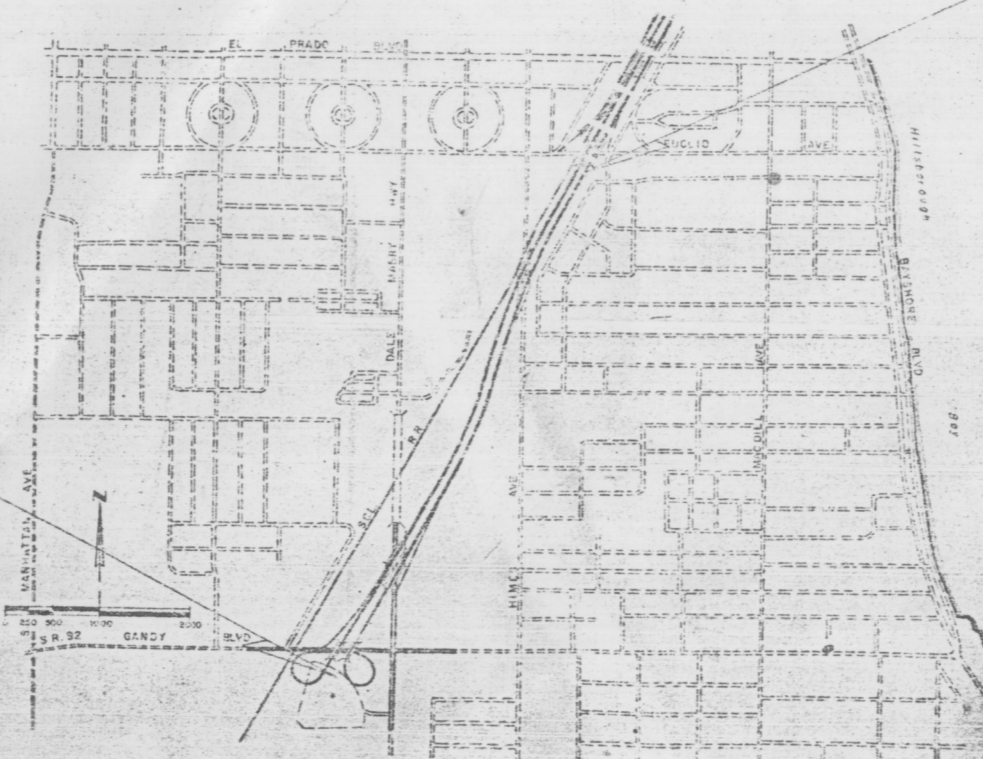
PLANS OF PROPOSED SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA
 STATE JOB NO. 10002-3501-032
 STATE ROAD NO. 449

THIS CONTRACT PLAN SET INCLUDES:
 ROADWAY PLAN
 SIGNING AND PAVEMENT MARKING PLANS
 SIGNALIZATION PLANS
 LIGHTING PLANS
 STRUCTURE PLANS
 WATERLINE RELOCATION PLANS
 SANITARY SEWER RELOCATION PLANS
 RIGHT-OF-WAY PLANS
 FOR INDEX OF OTHER PLANS SEE APPROPRIATE SHEETS

INDEX OF ROADWAY PLANS

| Sheet No. | Sheet Description |
|------------------------|--|
| 1 | KEY MAP |
| 2-6 | DRAINAGE MAP |
| 4-6 | CONTOUR GRADING AND BORROW PIT PLANS |
| 7 | BASE TRAVERSE CONTROL SHEET |
| 8 | SPIRAL STAKE-OUT AND TRAFFIC DIAGRAM |
| 9 | MISCELLANEOUS DETAILS |
| 10-12 | TYPICAL SECTIONS |
| 13 | SUMMARY OF QUANTITIES |
| 14 | MASS DIAGRAM |
| 14-28 | PLAN AND PROFILES |
| 29 | INTERCHANGE LAYOUT SHEET |
| 30-43 | DRAINAGE STRUCTURE SECTIONS |
| 50-56 | SPECIAL PROFILES |
| 57 | SOIL DATA |
| 58-63, 65-105, 108-110 | SECTION SHEET NO. 64 BLANK |
| 106-123 | DRAINAGE |
| 124-130 | APPROACH ROAD DETAILS |
| 131 | PROJECT INFORMATION SIGN |
| 132 | BORROW AREA ONE |
| STANDARD DRAWINGS | |
| 194 | STANDARD ABBREVIATIONS (4 SHEETS) |
| 195 | STANDARD SYMBOLS FOR SET MAPS AND PLAN SHEETS (3 SHEETS) |
| 200-B | STANDARD ENDWELLS FOR PIPE CULVERTS |
| 1101-W | WIRE LANES FOR ROADWAY CONSTRUCTION DETAILS (2 SHEETS) |
| 1124-S | ENDWELLS FOR PIPE CULVERTS (3 SHEETS) |
| 1431-C | SUPPLEMENTARY DETAILS FOR INLET BOXES |
| 1454-C | STANDARD ENDWELLS FOR PIPE CULVERTS |
| 1455-C | FLARED END SECTION FOR PIPE CULVERTS (2 SHEETS) |
| 1466-L | DETAILS OF PAVEMENT CROSSINGS (4 SHEETS) |
| 1915-R | DETAILS FOR MULTIPLE CONSTRUCTION |
| 2200-R | GUARDRAIL CONSTRUCTION (4 SHEETS) |
| 2443-C | STANDARD DITCH BOTTOM INLETS, TYPES "F" & "G" |
| 2446-A | STANDARD HEADWALL FOR DOUBLE 60" CONCRETE PIPE |
| 5010-A | SUPERELEVATION OF 4% |
| 5016-S | TURNOUT DETAILS |
| 5043-F | INLETS, TYPES VA & VB |
| 5046-B | STANDARD DITCH BOTTOM INLETS, TYPES C, D, E & H, SUPPLEMENTAL DETAILS |
| 5047-G | MANHOLE & JUNCTION BOX, TYPES P & J, INLETS THROATS, TYPE 1, 2, 3, 4, 5 & 6 (2 SHEETS) |
| 5048-A | INLET, TYPE "X" |
| 5049-A | INLET, TYPE "Z" |
| 5051-E | MISCELLANEOUS DRAINAGE DETAILS (2 SHEETS) |
| 5072-B | DETAILS OF FENCING (2 SHEETS) |
| 5077-L | STANDARD DETAILS FOR RAMP TERMINALS (3 SHEETS) |
| 5080-C | CURB, CURB AND GUTTER, TRAFFIC SEPARATOR (2 SHEETS) |
| 5088-A | SHOULDER GUTTER INLET, TYPE "Y" |
| 6011 | SINGLE CONCRETE T & CHANNEL (5 FT. SPAN, 4 FT. HEIGHT) |



ENGINEER
 STATE JOB NO. 10002-3501
 STA. 50+48.00

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GENERAL SPECIFICATIONS
 FLORIDA STATE DEPARTMENT OF TRANSPORTATION
 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - 1973 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

| LENGTH | OF JOB | |
|--------------|----------|-------|
| | LIN. FT. | MILES |
| ROADWAY | 5,161.46 | 0.977 |
| BRIDGES | 946.58 | 0.179 |
| NET LENGTH | 6,108.14 | 1.56 |
| EXCEPTIONS | —0— | —0— |
| GROSS LENGTH | 6,108.14 | 1.56 |

| LOCATION OF BRIDGES | | | |
|---------------------|------------|------------|--------|
| STRUCTURE | BEGIN STA. | END STA. | LENGTH |
| GANDY BLVD | 54+53.14 | 54+09.142 | 245.83 |
| DALE MABRY HWY | 61+31.781 | 65+12.638 | 380.86 |
| HINES AVE. | 97+65.196 | 100+85.195 | 319.99 |

ATTENTION
 REVISIONS
 IF ANY
 DIRECTLY BEHIND
 KEY SHEET

APPROVED BY OWNER 2-26-74
 J. E. GREINER COMPANY, INC. / WATSON AND COMPANY

APPROVED 2-26-74
 TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 1
 GANDY BLVD. TO EUCLID AVE.

J. E. GREINER COMPANY, INC.
 CONSULTING ENGINEERS
 TAMPA, FLORIDA
 SUBMITTED DATE

SHEET NO. TITLE OF DRAWING

GENERAL DRAWINGS

GE-1 INDEX OF BRIDGE DRAWINGS AND SUMMARY OF BRIDGE QUANTITIES

GE-2 GENERAL NOTES

STANDARD DRAWINGS

NO. 4 PRESTRESSED CONCRETE PILES

NO. 5 PARAPET TYPE HANDRAIL

NO. 6 MISCELLANEOUS DETAILS

NO. 7 PRESTRESSED GIRDER BEARING DETAILS

NO. 15 TYPE III PRESTRESSED CONCRETE GIRDERS (270 KIP STRANDS)

NO. 16 TYPE IV PRESTRESSED CONCRETE GIRDERS (270 KIP STRANDS)

NO. 19 CAST-IN-PLACE CONCRETE PILES

NO. 20 BRIDGE LIGHTING DETAILS

EXPRESSWAY OVER GANDY BLVD.

A-1 PLAN AND ELEVATION

A-2 SUBSTRUCTURE LAYOUT & FRAMING PLAN

A-3 END BENT 1-LT

A-4 END BENT 2-LT

A-5 END BENT 1-RT

A-6 END BENT 2-RT

A-7 END BENT DETAILS

A-8 END BENTS - BILL OF REINFORCING

A-9 PIER 1-LT

A-10 PIER 2-LT

A-11 PIER 3-LT

A-12 PIERS 1-RT & 3-RT

A-13 PIER 2-RT

A-14 PIER DETAILS

A-15 PIERS - BILL OF REINFORCING

A-16 PLANS - SPANS 1-LT THRU 4-LT

A-17 PLANS - SPANS 1-RT THRU 4-RT

A-18 SECTIONS - SPANS 1-LT THRU 4-LT

A-19 SECTIONS - SPANS 1-RT THRU 4-RT

A-20 MISCELLANEOUS SUPERSTRUCTURE DETAILS & ESTIMATED QUANTITIES

A-21 SPANS - BILL OF REINFORCING

A-22 PRESTRESSED GIRDER SCHEDULE

A-23 FINISHED GRADE ELEVATION TABLES

SHEET NO. TITLE OF DRAWING

EXPRESSWAY OVER DALE HABRY HWY.

B-1 PLAN AND ELEVATION

B-2 SUBSTRUCTURE LAYOUT & FRAMING PLAN

B-3 END BENT 1-LT

B-4 END BENT 2-LT & 1-RT

B-5 END BENT 2-RT

B-6 END BENT DETAILS

B-7 END BENTS - BILL OF REINFORCING

B-8 PIER 1-LT

B-9 PIER 2-LT

B-10 PIER 3-LT

B-11 PIERS 1-RT & 3-RT

B-12 PIER 2-RT

B-13 PIER DETAILS

B-14 PIERS - BILL OF REINFORCING

B-15 PLAN - SPAN 1-LT

B-16 PLAN - SPAN 2-LT

B-17 PLAN - SPAN 3-LT

B-18 PLANS - SPANS 1-RT THRU 4-RT & 4-LT

B-19 SECTIONS - SPAN 1-LT

B-20 SECTIONS - SPAN 2-LT

B-21 SECTIONS - SPAN 3-LT

B-22 SECTIONS - SPANS 1-RT THRU 4-RT & 4-LT

B-23 MISCELLANEOUS SUPERSTRUCTURE DETAILS & ESTIMATED QUANTITIES

B-24 SPANS - BILL OF REINFORCING

B-25 PRESTRESSED GIRDER SCHEDULE

B-26 FINISHED GRADE ELEVATION TABLES

B-27 GRAVITY WALLS

SHEET NO. TITLE OF DRAWING

EXPRESSWAY OVER HIMES AVE.

C-1 PLAN AND ELEVATION

C-2 SUBSTRUCTURE LAYOUT

C-3 ABUTMENT 1 - PART PLAN AND ELEVATION

C-4 ABUTMENT 1 - PART PLAN AND ELEVATION

C-5 ABUTMENT 1 - FOOTING REINFORCING DETAILS

C-6 ABUTMENT 1 - SECTIONS

C-7 ABUTMENT 1 - WINGWALL DETAILS

C-8 ABUTMENT 1 - MISC. DETAILS

C-9 ABUTMENT 1 - BILL OF REINFORCING & ESTIMATED QUANTITIES

C-10 ABUTMENT 2 - PART PLAN AND ELEVATION

C-11 ABUTMENT 2 - PART PLAN AND ELEVATION

C-12 ABUTMENT 2 - FOOTING REINFORCING DETAILS

C-13 ABUTMENT 2 - SECTIONS

C-14 ABUTMENT 2 - WINGWALL DETAILS

C-15 ABUTMENT 2 - MISC. DETAILS

C-16 ABUTMENT 2 - BILL OF REINFORCING & ESTIMATED QUANTITIES

C-17 PIERS 1-LT, 2-LT & 2-RT

C-18 PIER 1-RT

C-19 PIER DETAILS

C-20 PIERS - BILL OF REINFORCING

C-21 PLANS - SPANS 1-LT & 2-LT

C-22 PLANS - SPANS 1-RT & 2-RT

C-23 PLAN - SPAN 3-LT OR 3-RT, MISC. SECTIONS & EXPAN. JT. DETAILS

C-24 SUPERSTRUCTURE SECTIONS

C-25 SPANS - BILL OF REINFORCING

C-26 FRAMING PLAN

C-27 STEEL GIRDER DETAILS

C-28 MISCELLANEOUS STEEL DETAILS

C-29 BEARING DETAILS

C-30 CAMBER DIAGRAM AND FINISHED GRADE ELEVATIONS-GIRDER

C-31 FINISHED GRADE ELEVATIONS-GUTTER

EXPRESSWAY OVER HIMES AVE.
RETAINING WALLS

W-1 RETAINING WALL NO. 1 - PART PLAN AND ELEVATION

W-2 RETAINING WALL NO. 1 - PART PLAN AND ELEVATION

W-3 RETAINING WALL NO. 2 - PART PLAN AND ELEVATION

W-4 RETAINING WALL NO. 2 - PART PLAN AND ELEVATION

W-5 RETAINING WALL NO. 2 - PART PLAN AND ELEVATION

W-6 RETAINING WALL NO. 3 - PART PLAN AND ELEVATION

W-7 RETAINING WALL NO. 3 - PART PLAN AND ELEVATION

W-8 RETAINING WALL NO. 3 - PART PLAN AND ELEVATION

W-9 RETAINING WALLS - REINFORCING DETAILS

W-10 RETAINING WALLS - REINFORCING DETAILS AND LIGHT STANDARD DETAIL(WALL)

W-11 RETAINING WALLS - MISC. DETAILS

W-12 RETAINING WALLS - ESTIMATED QUANTITIES & BENDING DIAGRAMS

W-13 RETAINING WALLS - BILL OF REINFORCING

W-14 RETAINING WALLS - BILL OF REINFORCING

W-15 RETAINING WALLS - BILL OF REINFORCING

W-16 RETAINING WALLS - BILL OF REINFORCING

W-17 RETAINING WALLS - BILL OF REINFORCING

SUMMARY OF BRIDGE AND RETAINING WALL QUANTITIES

| ITER NO. | ITER | UNIT | QUANTITY | | | | TOTAL |
|-----------|---|----------|-------------|------------|------------|-----------------------|---------|
| | | | GANDY BLVD. | DALE HABRY | HIMES AVE. | HIMES AVE. RET. WALLS | |
| 400-2-11 | CLASS II CONCRETE (RETAINING WALLS) | CU. YD. | --- | --- | --- | 3,566 | 3,566 |
| 400-2-4 | CLASS II CONCRETE (SUPERSTRUCTURE) | CU. YD. | 439 | 843 | 539 | --- | 1,821 |
| 400-2-5 | CLASS II CONCRETE (SUBSTRUCTURE) | CU. YD. | 370 | 790 | 2,136 | --- | 3,296 |
| 400-5-3A | CONCRETE HANDRAIL (PARAPET TYPE) - [ALUMINUM] | LIN. FT. | 1,000 | 1,498 | 1,282 | 2,605 | 6,385 |
| 400-5-3B | CONCRETE HANDRAIL (PARAPET TYPE) - [STEEL] | LIN. FT. | 1,000 | 1,498 | 1,282 | 2,605 | 6,385 |
| 415-1-4 | REINFORCING STEEL (SUPERSTRUCTURE) | LB. | 135,500 | 231,500 | 224,000 | --- | 591,000 |
| 415-1-3 | REINFORCING STEEL (RETAINING WALL) | LB. | --- | --- | --- | 510,200 | 510,200 |
| 440-1-2B | UNDERDRAINS (6 IN.) | LIN. FT. | --- | --- | 470 | 2550 | 3020 |
| 415-1-5 | REINFORCING STEEL (SUBSTRUCTURE) | LB. | 23,500 | 134,000 | 224,000 | --- | 421,500 |
| 450-1-2 | PRESTRESSED BEAMS (TYPE III) | LIN. FT. | 343 | --- | --- | --- | 343 |
| 450-1-3 | PRESTRESSED BEAMS (TYPE IV) | LIN. FT. | 1,625 | 4,519 | --- | --- | 6,147 |
| 455-3-2 | PRESTR. CONCRETE PILING FURNISHED (18"Ø) | LIN. FT. | 5,330 | 8,660 | --- | --- | 13,990 |
| 455-4-2 | PRESTR. CONCRETE PILING DRIVEN (18"Ø) | LIN. FT. | 5,330 | 8,660 | --- | --- | 13,990 |
| 455-9-12 | UNLOADED TEST PILES (18"Ø) [PRESTR.] | LIN. FT. | 280 | 240 | --- | --- | 520 |
| 455-10-90 | TEST LOADS (90 TONS) | EACH | 1 | 1 | --- | --- | 2 |
| 455-17-2 | PILE SPLICES (18"Ø) | EACH | 12 | 21 | --- | --- | 33 |
| 455-11-2 | CAST-IN-PLACE CONCRETE PILING (16"Ø) | LIN. FT. | 6,720 | 10,680 | --- | --- | 17,400 |
| 460-2-1 | STRUCTURAL STEEL (CARBON) | LUMP SUM | --- | --- | 1 | --- | 1 |
| 460-2-2 | STRUCTURAL STEEL (LOW ALLOY) | LUMP SUM | --- | --- | 1 | --- | 1 |
| 460-2-3 | STRUCTURAL STEEL (SHOE ASSEMBLIES) | LUMP SUM | --- | --- | 1 | --- | 1 |
| 524-2-2 | CONCRETE SLOPE PAVEMENT (4" THICK) | SQ. YD. | 1,750 | 3,000 | 100 | --- | 4,850 |

QUANTITY NOTES

PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN INDIVIDUAL BID ITEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR BID ITEMS.

TEST LOADS MAY BE INCREASED OR DECREASED IN NUMBER, AS DIRECTED BY THE ENGINEER.

ESTIMATED WEIGHT OF STRUCTURAL STEEL FOR ITEM NO. 460-2-1 IS 677,315 LBS.

ESTIMATED WEIGHT OF STRUCTURAL STEEL FOR ITEM NO. 460-2-2 IS 68,540 LBS.

ESTIMATED WEIGHT OF STRUCTURAL STEEL FOR ITEM NO. 460-2-3 IS 12,800 LBS.

SUMMARY OF COMPOSITE NEOPRENE BEARING PADS

| GIRDER TYPE | NUMBER OF PADS REQUIRED | | | |
|-----------------|-------------------------|------------|------------|-------|
| | GANDY BLVD. | DALE HABRY | HIMES AVE. | TOTAL |
| GIRDER TYPE III | 16 | 0 | 0 | 16 |
| GIRDER TYPE IV | 48 | 96 | 100 | 244 |

| | | | |
|---|-----------|--------|------|
| NO. | REVISION | BY | DATE |
| TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | | |
| SOUTH CROSSTOWN EXPRESSWAY | | | |
| INDEX OF BRIDGE DRAWINGS AND SUMMARY OF BRIDGE QUANTITIES | | | |
| J. E. GREINER COMPANY - WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA | | | |
| MADE BY R.C.V. | DATE 1-78 | TRACER | DATE |
| CHECKED BY S.S. | DATE 8-78 | SCALE | |

| | | | |
|---------|--|----------------------------|----------|
| SECTION | CONTRACT | SOUTH CROSSTOWN EXPRESSWAY | SHEET NO |
| | | | GE-2 |
| By: | TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | Date: | |

STATE JOB NO. 10002-3501

DESIGN SPECIFICATIONS.

AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES 1969 EDITION WITH APPROVED REVISIONS.

LIVE LOADING.

HS20-44 AND ITS MODIFICATION FOR SPECIAL LOADING (SECTION 4C OF PDW-20-4) AND CONSISTS OF TWO AXLES FOUR FEET APART WITH EACH AXLE WEIGHING 24,000 LBS.

CONSTRUCTION SPECIFICATIONS.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, DATED 1972.

SPECIAL PROVISIONS FOR THIS PROJECT.

REINFORCING.

ALL REINFORCING TO HAVE TWO (2) INCH CONCRETE COVER EXCEPT AS NOTED.

ALL DIMENSIONS PERTAINING TO LOCATION OF REINFORCING ARE TO CENTERLINE OF BAR EXCEPT WHERE THE CLEAR DIMENSION IS SHOWN TO FACE OF CONCRETE.

REINFORCING DETAIL DIMENSIONS ARE OUT TO OUT OF BARS CONFORMING TO A.C.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 318).

ALL REINFORCING SHALL BE EITHER INTERMEDIATE OR HARD GRADE IN ACCORDANCE WITH ASTM A615 GRADE 40.

MAXIMUM WORKING STRESS FOR REINFORCING STEEL = 20,000 PSI

DEFLECTION DIAGRAM.

THE DEFLECTION DIAGRAM DETAILED ON STD. DWG. NO. 6 IS TYPICAL FOR ALL SPANS FOR PRESTRESSED GIRDERS. FOR VARIABLE DIMENSION A SEE MISCELLANEOUS SUPERSTRUCTURE DETAILS AND ESTIMATED QUANTITIES - SHEETS A-20 AND B-23.

CONCRETE.

ALLOWABLE CONCRETE STRESSES ARE IN ACCORDANCE WITH THE CURRENT AASHTO SPECIFICATIONS FOR HIGHWAY BRIDGES. FOR EACH OF THE CLASSES OF CONCRETE SHOWN ON THE PLANS. CONCRETE SHALL BE AS FOLLOWS.

CLASS II - F'C = 3400 PSI MINIMUM, MAXIMUM WORKING STRESS = 1360 PSI.
CLASS II CONCRETE TO BE USED FOR ALL BRIDGE SUPERSTRUCTURE AND SUBSTRUCTURE CONCRETE AND FOR RETAINING WALL CONCRETE.

CLASS III - F'C = 3000 PSI MINIMUM, MAXIMUM WORKING STRESS = 2000 PSI.
CLASS III CONCRETE TO BE USED FOR PRESTRESSED GIRDER CONSTRUCTION WHERE CALLED FOR ON THE DETAIL DRAWINGS.

CLASS IIIA - F'C = 5500 PSI MINIMUM, MAXIMUM WORKING STRESS = 2200 PSI.
CLASS IIIA CONCRETE TO BE USED FOR PRESTRESSED GIRDER CONSTRUCTION WHERE CALLED FOR ON THE DETAIL DRAWINGS.

PROVIDE 3/4 INCH CHAMFERS ON ALL EXPOSED EDGES EXCEPT AS OTHERWISE NOTED.

CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT LOCATION INDICATED ON THE PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN SHALL REQUIRE APPROVAL OF THE ENGINEER.

SLABS SHALL BE SCREEDED TO GRADE WITH NO ALLOWANCE FOR PERMANENT CAMBER. THE SLABS SHALL BE STRENGTHEN LONGITUDINALLY BETWEEN BULKHEADS, UNLESS OTHERWISE DIRECTED IN WRITING BY THE ENGINEER. FOR CONSTRUCTION JOINT DETAILS SEE STD. DWG. NO. 6.

BENCH MARKS.

MARKERS RECORDING THE ELEVATION SHALL BE PLACED ON TOP OF THE END POSTS. ON BRIDGES LONGER THAN 100 FEET, ONE MARKER SHALL BE PLACED AT EACH END OF THE BRIDGE. ON BRIDGES LESS THAN 100 FEET, ONE MARKER SHALL BE PLACED AT ONE END OF THE BRIDGE ONLY. MARKERS ARE TO BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION AND INSTALLED BY THE CONTRACTOR. THE COST OF INSTALLING THE MARKERS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICES FOR CLASS II CONCRETE.

CONCRETE END POSTS.

CONCRETE END POST ATTACHED TO WINGWALLS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR CLASS II CONCRETE AND REINFORCING STEEL.

TOP OF END POSTS SHALL BE CONSTRUCTED PARALLEL TO GRADE.

FOR NAME AND DATE DETAIL LOCATIONS SEE STD. DWG. NO. 6.

PRESTRESSED GIRDERS.

TYPES OF GIRDERS CONFORM TO AASHTO STANDARD GIRDERS OF SIMILAR DESIGNATION. EXAMPLE: TYPE IV (30-3) DENOTES TYPE IV AASHTO STANDARD GIRDER WITH 30 STRAIGHT S.R. STRANDS AND 8 DEPRESSED S.R. STRANDS.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING COMPLETE DETAILS OF GIRDERS, INCLUDING METHOD OF HOLDING DEPRESSED STRANDS IN PLACE, AND INCLUDING REINFORCING STEEL. ALSO THE SHOP DRAWINGS SHALL SHOW A COMPLETE DETENSIONING SCHEDULE SUCH AS TO MINIMIZE TENSION IN THE CONCRETE DURING RELEASE OF THE STRANDS. DETAILED CONCRETE STRESSES DURING EACH OPERATION OF DETENSIONING SHALL BE SHOWN.

TOP OF GIRDERS TO BE ROUGH FLATED. AT APPROXIMATELY THE TIME OF INITIAL SET, THE ENTIRE TOP OF THE GIRDERS SHALL BE SCRUBBED TRANSVERSELY WITH A COARSE WIRE BRUSH TO REMOVE ALL LANTANE AND TO PRODUCE A ROUGHENED SURFACE FOR BONDING SLAB.

GIRDERS MUST BE MAINTAINED IN AN UPRIGHT POSITION AT ALL TIMES AND MUST BE PICKED UP AT POINTS LOCATED A MAXIMUM DISTANCE FROM THE END OF GIRDER OF 3 FT. FOR TYPE II, 3 FT.-6 IN. FOR TYPE III, AND 4 FT. FOR TYPE IV.

S.R. STRANDS SHALL EXTEND 2-1/2 INCHES BEYOND ENDS OF GIRDERS.

ALL GIRDERS TO BE SET ON NEOPRENE PADS. (SEE STD. DWG. NO. 7 FOR PAD DETAILS)

COMPOSITE NEOPRENE PADS WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION. COST OF PLACING PADS TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PRESTRESSED BEAMS.

FOR EXTERIOR GIRDERS - 1/2 IN. BEARING PLATES, ANCHOR BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANIZED IN ACCORDANCE WITH REQUIREMENTS OF ASTM SPECIFICATIONS, DESIGNATION A 123. COST OF PLATE ASSEMBLY TO BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PRESTRESSED BEAMS.

THE USE OF MEMBRANE CURING COMPOUND WILL NOT BE PERMITTED ON THE TOPS OF TOP FLANGES OF PRESTRESSED BEAMS.

PRESTRESSED GIRDERS SHALL HAVE A CLASS 3 SURFACE FINISH.

THE BOTTOM EDGE OF THE BOTTOM FLANGE ACROSS THE ENDS OF ALL PRESTRESSED GIRDERS SHALL HAVE A 3/4 IN. CHAMFER.

CONCRETE FINIS OR PROJECTIONS SHALL BE REMOVED TO PROVIDE A VERTICAL FACE AT TOP EDGE OF GIRDERS.

LENGTH OF GIRDERS SHOWN ON THE GIRDER DETAILS SHEETS INCLUDES AN ALLOWANCE OF 1/2 IN. FOR LENGTH ON GRADE, ELASTIC SHORTENING AND SHRINKAGE.

AT TRANSFER OF TENSIONING LOADS THE CYLINDER STRENGTH OF CONCRETE SHALL BE MINIMUM OF 4,000 PSI.

APPROXIMATELY 50 PERCENT OF THE STRAIGHT STRANDS FOR TYPE III AND TYPE IV GIRDERS ARE TO BE SHIELDED AT THE GIRDER ENDS WITH A NON-CORROSIVE MATERIAL TO PREVENT BONDING TO THE CONCRETE. FOR LENGTH OF SHIELDING REQUIRED AND STRANDS TO BE SHIELDED, SEE STD. DWG. NO. 3 15 AND 16.

APPROACH SLABS.

FOR APPROACH SLAB DETAILS, SEE ROADWAY PLANS.

FOR ROADWAY JOINT DETAILS AT END BENTS, SEE JOINT DETAILS AT BRIDGE ENDS ON STD. DWG. NO. 6.

FOR ROADWAY JOINT DETAIL AT ABUTMENTS, SEE SHEET C-22.

CONCRETE PILING.

THE INDIVIDUAL END BENT AND PIER DETAIL SHEETS ARE DETAILED FOR BID ALT. 2A UTILIZING 18" PRESTRESSED CONCRETE PILING. AT THE CONTRACTOR'S OPTION BID ALT. 2B MAY BE SELECTED UTILIZING 16" CAST IN PLACE PILING FOR END BENT AND PIER FOOTING CONSTRUCTION.

DESIGN LOAD FOR PILES.
PIER PILES - 45 TONS
END BENT PILES - SEE END BENT DETAIL SHEETS.

CONCRETE SLOPE PAVEMENT.

SEE SLOPE PAVEMENT DETAILS ON STD. DWG. NO. 6.

SLOPE PAVEMENT SHALL BE TOoled WITH A DOUBLE 1/4 IN. RADIUS TOOL AT APPROX. 2 FT. INTERVALS ALONG THE SLOPE AND APPROX. 4 FT. INTERVALS ACROSS THE SLOPE.

CONSTRUCTION JOINTS WILL BE PERMITTED AT TOoled JOINTS ONLY AS DIRECTED BY THE ENGINEER.

ANCHOR BOLTS.

ALL ANCHOR BOLTS SHALL CONFORM TO ASTM DESIGNATION A 307 OR A 36.

WELDING.

ALL WELDING SHALL CONFORM TO AWS STRUCTURAL WELDING CODE 1972 EDITION AND SECTION 460-6 OF THE CONSTRUCTION SPECIFICATIONS.

NO FIELD WELDING PERMITTED.

WELDING OF FLANGE PLATES TO WEBS SHALL BE DONE BY SUBMERGED ARC PROCESS.

STRUCTURAL STEEL.

ALL CONNECTION BOLTS TO BE 7/8 IN. DIA. HIGH STRENGTH BOLTS - ASTM A 325 (FRICTION TYPE).

ALL STRUCTURAL STEEL FOR GIRDERS SHALL BE EITHER ASTM A 36 OR WHERE NOTED SHALL BE ASTM A 572 + 85000 PSI MINIMUM TENSILE STRENGTH.

BEARING PLATES FOR SHOE ASSEMBLIES SHALL BE ASTM A 36.

FOR PAINTING SEE SPECIFICATIONS. PAINT SHALL NOT BE APPLIED TO TOP FLANGES OF GIRDERS OR SHEAR CONNECTORS COVERED BY CONCRETE.

COMPOSITE NEOPRENE BEARING PADS WILL BE THE SAME TYPE AND DIMENSIONS AS FOR A TYPE IV PRESTRESSED GIRDER. THE PADS WILL BE FURNISHED BY THE DEPARTMENT OF TRANSPORTATION. COST OF PLACING PADS TO BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR STRUCTURAL STEEL (SHOE ASSEMBLIES).

COMPACTION REQUIREMENTS FOR SPREAD FOOTINGS.
EACH FOOTING AREA SHALL BE STRIPPED OF ALL SURFACE VEGETATION, TOP SOIL AND OTHER UNSUITABLE FOUNDATION MATERIAL TO A MINIMUM DEPTH OF SIX (6) INCHES AND TO A DISTANCE THREE (3) FEET OUTSIDE OF THE FOOTING LINES.

IF THE GROUNDWATER LEVEL AT THE TIME OF CONSTRUCTION IS HIGHER THAN ABOUT TWO (2) FEET BELOW THE FOOTING BEARING LEVEL, USE WELLPOINTS TO DEWATER. MAINTAIN GROUNDWATER LEVELS AT LEAST TWO FEET BELOW THE BEARING LEVEL UNTIL FOOTINGS ARE CONSTRUCTED AND BACKFILLED.

THE FOOTING EXCAVATIONS SHALL BE DUG TO THE FINAL BOTTOM OF FOOTING ELEVATION AND THOROUGHLY COMPACTED WITH A HEAVY VIBRATORY ROLLER HAVING A MINIMUM STATIC WEIGHT OF AT LEAST FOUR (4) TONS. A MINIMUM OF SIX (6) PASSES IS RECOMMENDED TO INSURE MAXIMUM DENSITY OF EFFECT. IT MAY BE NECESSARY TO MAKE SEVERAL FINAL PASSES WITH A SMALLER STEEL WHEELED UNIT OR SLEO-TYPE COMPACTOR TO REMOVE UPPER SURFACE DISTURBANCE CAUSED BY THE HEAVY ROLLER.

DENSITY TESTS SHALL BE TAKEN AT THE ONE (1) TO TWO (2) FOOT DEPTH BELOW BOTTOM-OF-FOOTING (AT LEAST ONE PER FOOTING) TO ENSURE A MINIMUM DRY DENSITY EQUIVALENT TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY.

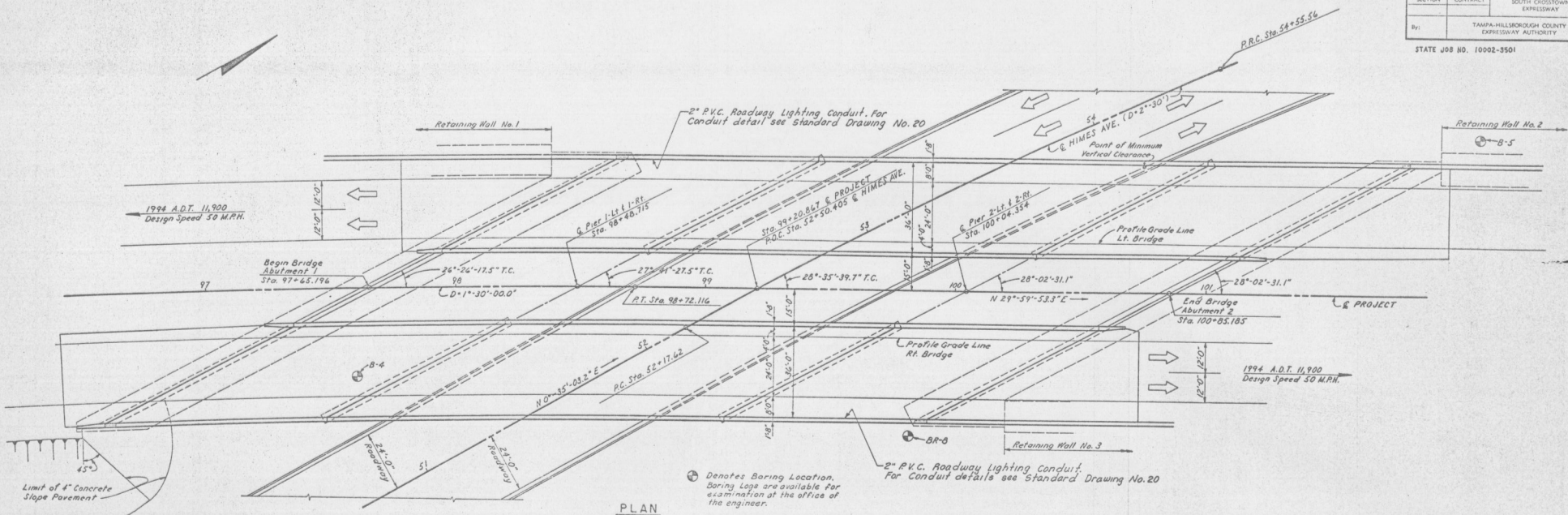
BACKFILL AROUND THE FOOTINGS WITH SANDS COMPACTED TO WITHIN 95% OF THE MAXIMUM DRY DENSITY.

COST OF COMPACTION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE BID FOR CLASS II CONCRETE (SUBSTRUCTURE) FOR MIKES AVENUE BRIDGE AND FOR CLASS II CONCRETE (RETAINING WALLS) FOR RETAINING WALLS.

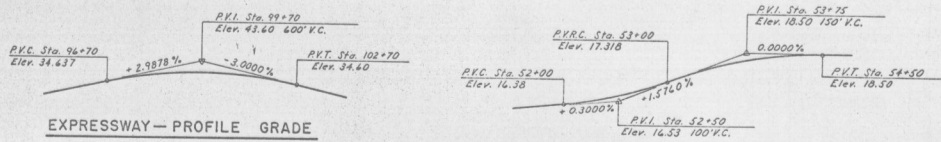
CONCRETE FINISHES:

- PRESTRESSED GIRDERS: CLASS 3
- PARAPET TYPE HANDRAIL: CLASS 3
- WINGWALLS: CLASS 3
- FACIALS: THE OUTSIDE VERTICAL FACE OF CLASS SHALL BE CLASS 1.
- PIERS: ALL EXPOSED SURFACES EXCEPT TOP OF CAP SHALL BE CLASS 1.
- RETAINING WALLS AND ABUTMENTS: EXPOSED SURFACES OF RETAINING WALLS AND ABUTMENTS SHALL BE FINISHED AS FOLLOWS:
 - RETAINED AREAS: GENERAL SURFACE FINISH ONLY
 - PLAIN AREAS: CLASS 3

| | | | |
|---|----------|--------|------|
| NO. | REVISION | BY | DATE |
| TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | | |
| SOUTH CROSSTOWN EXPRESSWAY | | | |
| GENERAL NOTES | | | |
| J. E. GREINER COMPANY - WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA | | | |
| MADE | DATE | TRACED | DATE |
| ENGINEER | DRAWN | SCALE | |

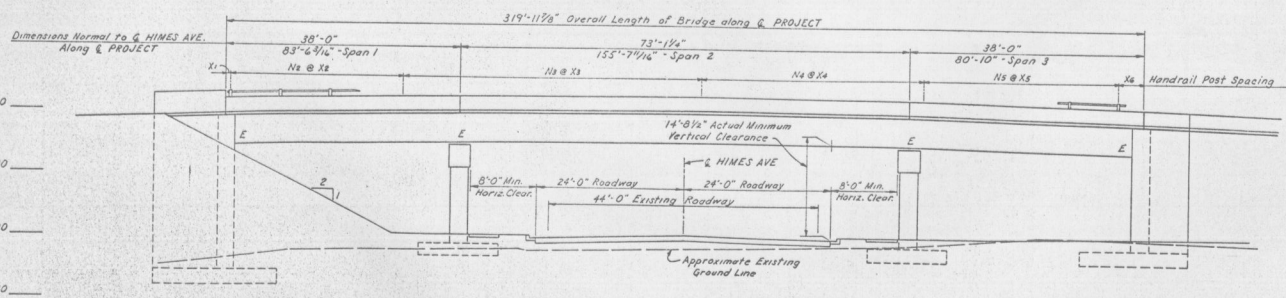


PLAN



EXPRESSWAY - PROFILE GRADE

HIMES - PROFILE GRADE



ELEVATION

Note: All horizontal dimensions are normal to G & HIMES AVE. except as otherwise noted.

NOTE: For Under Bridge Lighting mounted on Piers, see Roadway Lighting Plans Sheets L-4, L-7 & L-11.

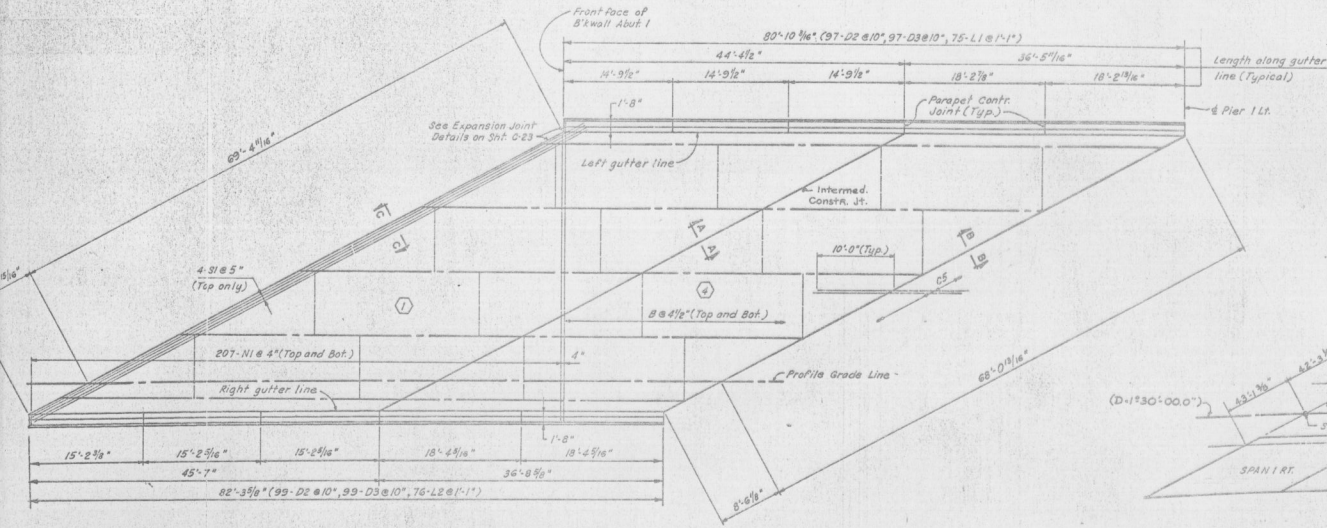
| LOCATION | HANDRAIL POST SPACES | | | | | |
|-----------------------|----------------------|----------------|------------|---------------|-------------|------------|
| | X1 | N6 @ X6 | N4 @ X4 | N4 @ X4 | N5 @ X5 | X4 |
| Lt. Bridge - Lt. Side | 6'-6 1/4" | 28 @ 7'-11" | 10 @ 7'-8" | 1 @ 7'-6 1/4" | - | 3'-1 1/8" |
| Lt. Bridge - Rt. Side | 1'-0" | 21 @ 7'-11" | 3 @ 7'-10" | 3 @ 8'-0" | 12 @ 7'-11" | 7'-10 1/4" |
| Rt. Bridge - Lt. Side | 1'-0" | 28 @ 7'-10" | 6 @ 7'-11" | 6 @ 7'-7" | - | 7'-5 3/8" |
| Rt. Bridge - Rt. Side | 1'-0" | 1 @ 7'-11 1/4" | 1 @ 8'-0" | 20 @ 7'-8" | 19 @ 8'-0" | 6'-1 1/4" |

- NOTES
1. For INDEX OF BRIDGE DRAWINGS AND SUMMARY OF BRIDGE QUANTITIES see sheet No. GE-1.
 2. For GENERAL NOTES see sheet No. GE-2.

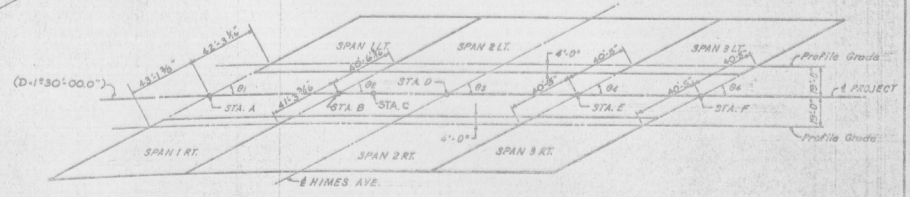
| NO. | REVISION | BY | DATE |
|--|----------|------|------|
| TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | | |
| SOUTH CROSSTOWN EXPRESSWAY | | | |
| PLAN AND ELEVATION EXPRESSWAY OVER HIMES AVE. | | | |
| J. E. GREINER COMPANY - WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA | | | |
| MADE | F. J. P. | DATE | 6-72 |
| CHECKED | L. H. S. | DATE | 6-72 |
| TRACED | | DATE | |
| SCALE | | | |

| | | | |
|---------|--|----------------------------|-----------|
| SECTION | CONTRACT | SOUTH CROSSTOWN EXPRESSWAY | SHEET NO. |
| | | | C-21 |
| By: | TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | Date: |

STATE JOB NO. 10002-3501



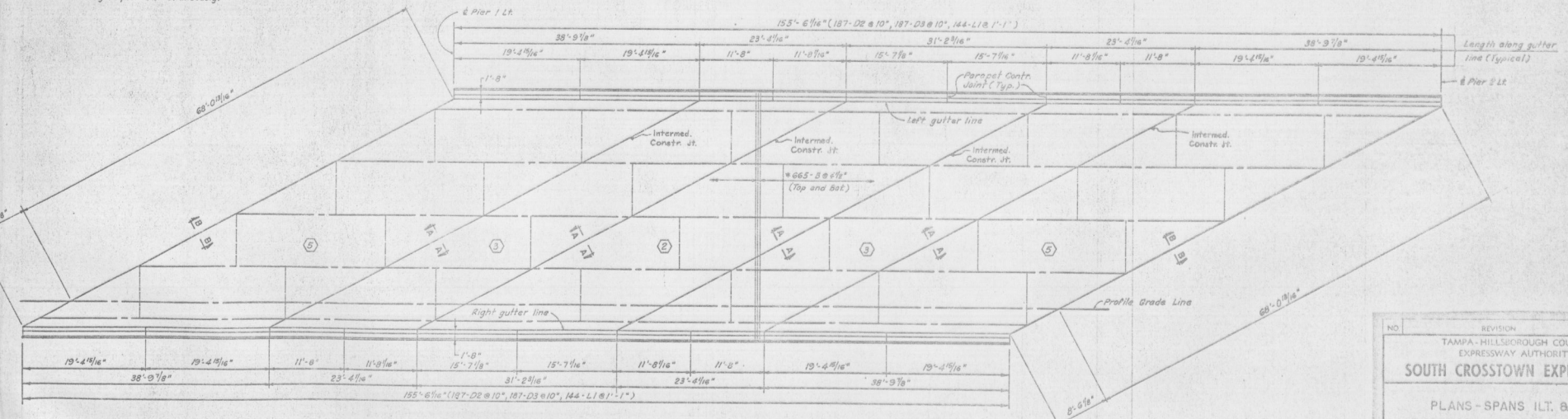
SPAN 1LT.



KEY PLAN

- STA. A - 97+65.136 (Front Face 8' Wall Abut 1)
 - STA. B - 98+48.715 (4 Pier 1)
 - STA. C - 98+72.116 (P.F. Station)
 - STA. D - 99+20.667 (4 Project)
 - STA. E - 100+04.554 (4 Pier 2)
 - STA. F - 100+85.185 (Front Face 8' Wall Abut 2)
- 0+ = 26'-25'-17.5" T.C.
 0+ = 27'-41'-27.5" T.C.
 0+ = 28'-35'-39.7"
 0+ = 28'-02'-31.1"

Indicates slab pouring sequence. Pours having the same number may be poured simultaneously.



SPAN 2LT.

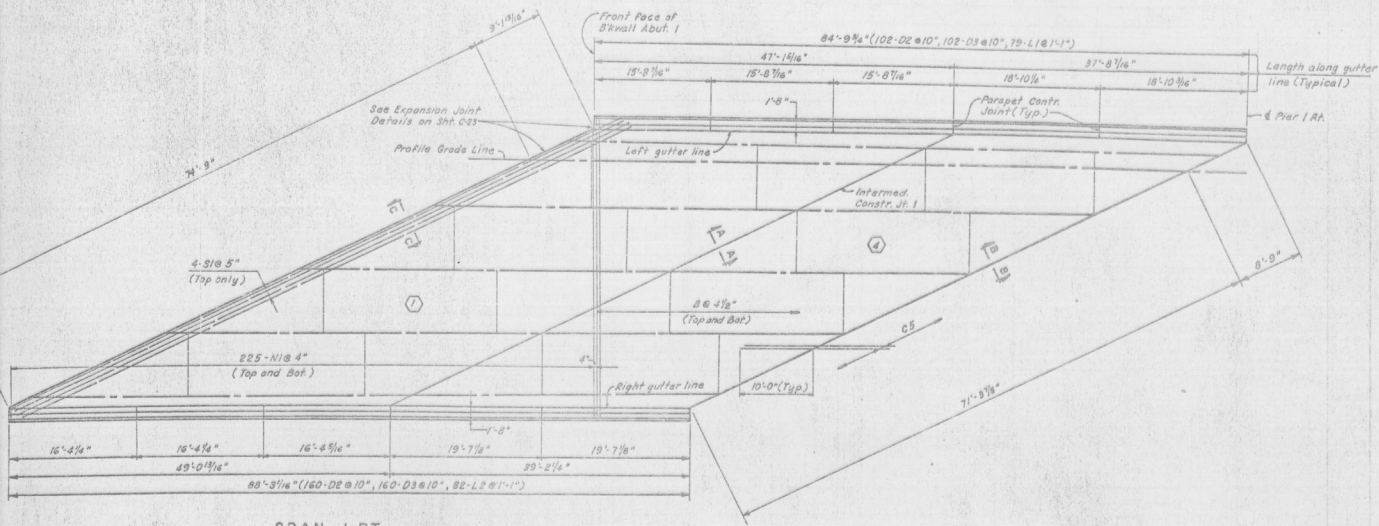
* Quantity shown is for Spans 1, 2 & 3.

NOTE: Work this sheet with sheets C-23 Thru C-25 & C-30.

| | | | |
|--|----------|------|-------|
| NO. | REVISION | BY | DATE |
| TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | | |
| SOUTH CROSSTOWN EXPRESSWAY | | | |
| PLANS - SPANS 1LT. & 2LT. EXPRESSWAY OVER HIMES AVE. | | | |
| J. E. GREINER COMPANY - WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA | | | |
| MADE | D. S. K. | DATE | 11-72 |
| CHECKED | D. C. W. | DATE | 12-72 |
| SCALE | | DATE | |

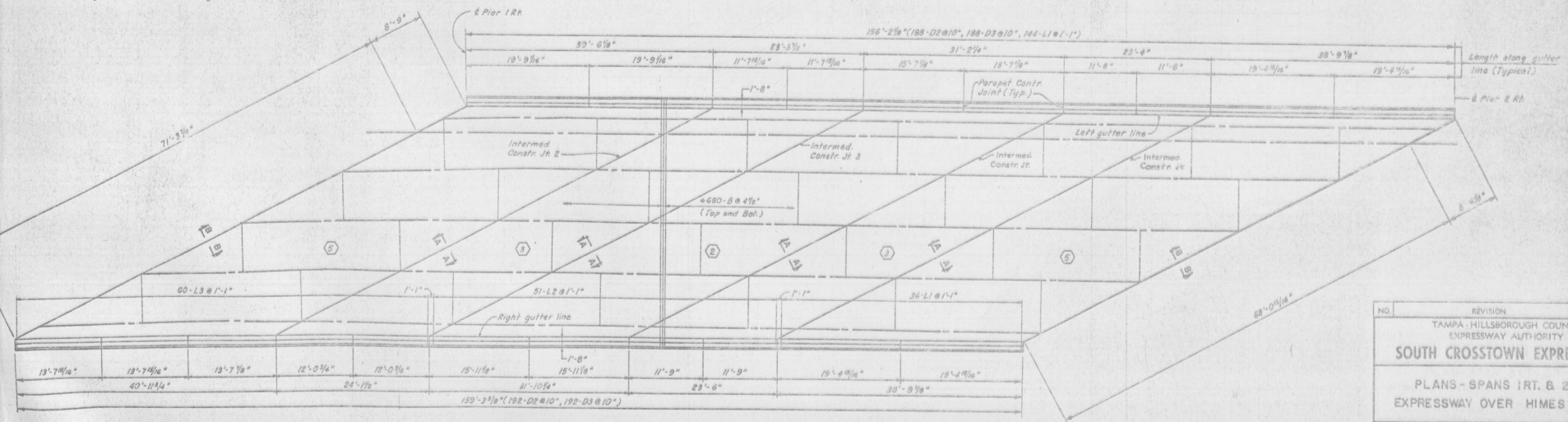
| | | | |
|---------|--|----------------------------|----------------|
| SECTION | CONTRACT | SOUTH CROSSTOWN EXPRESSWAY | SHEET NO. C-22 |
| BY: | TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | DATE: |

STATE JOB NO. 10002-3501



SPAN 1-RT

Indicates slab pouring sequence. Pours having the same number may be poured simultaneously.



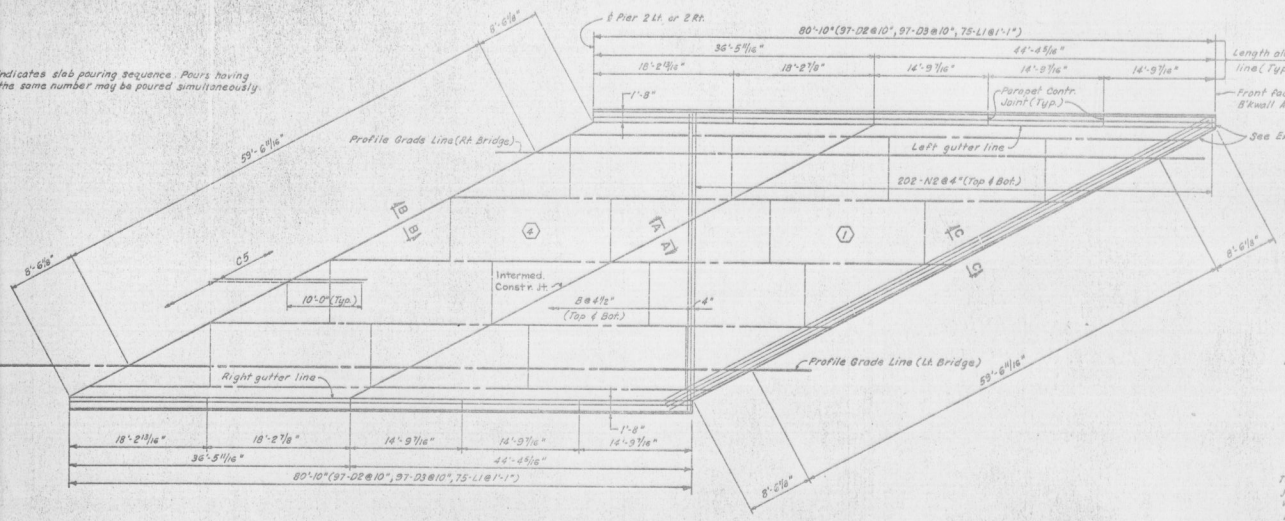
SPAN 2-RT.

*Quantity shown is for Spans 1, 2 & 3.

NOTE: Work this sheet with sheets C-23 thru C-25 of C-30.

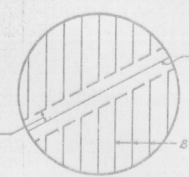
| | | | |
|--|-------------|------------------|-------------|
| NO. | REVISION | BY | DATE |
| TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | | |
| SOUTH CROSSTOWN EXPRESSWAY | | | |
| PLANS - SPANS 1RT, 2 RT, EXPRESSWAY OVER HIMES AVE. | | | |
| J. E. GREINER COMPANY - WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA | | | |
| MADE BY: J. E. R. | DATE: 11-72 | TRACED BY: E. R. | DATE: 11-72 |
| CHECKED: D. C. W. | DATE: 12-72 | SCALE: | |

Indicates slab pouring sequence. Pours having the same number may be poured simultaneously.



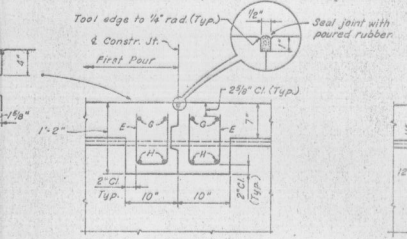
PLAN-SPAN 3LT OR 3RT

See Expan. Joint Details below.

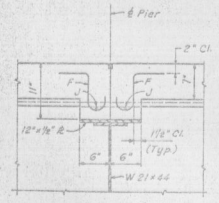


SLAB STEEL BENDING DETAIL AT CONSTRUCTION JOINT

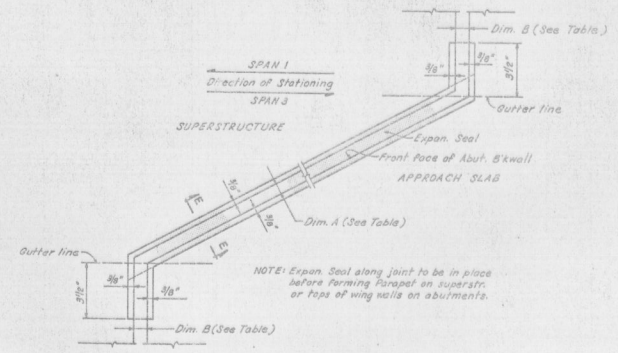
Top and bottom C bars are to be continuous thru construction joints, or at the Contractor's option, C bars may be (1) lap spliced with a 1'-3" lap at the joint (2) cut, with No. 6 x 2'-6" dowels provided tied to top steel of 8'-0" o.c.



SECTION A-A (Intermed. Constr. Jt.)



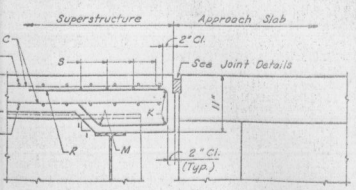
SECTION B-B



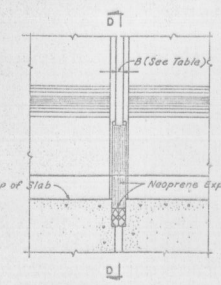
PLAN

| TEMP. | ABUTMENT 1 OR 2 | |
|-------|-----------------|---------|
| | DIM. A | DIM. B |
| 30° | 5/16" | 7/16" |
| 40° | 5/16" | 9/16" |
| 50° | 5/8" | 5/8" |
| 60° | 7/16" | 3/4" |
| 70° | 3/8" | 7/8" |
| 80° | 11/16" | 1" |
| 90° | 7/8" | 1 1/8" |
| 100° | 5/8" | 1 1/16" |
| 110° | 9/16" | 1 1/4" |

NOTE: Use this sheet with sheets C-21, C-22, C-24, C-25 & C-30.

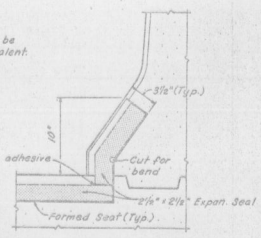


SECTION C-C

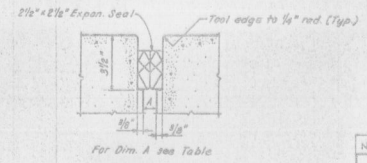


ELEVATION AT GUTTER

NOTE: Expansion Seal to be D.S. Brown or equivalent.



SECTION D-D

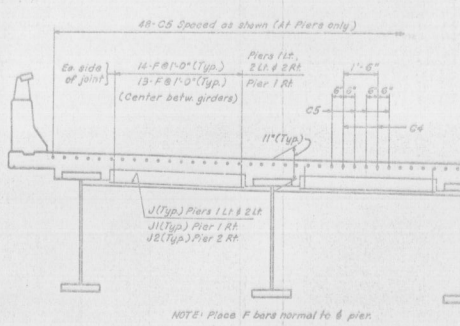
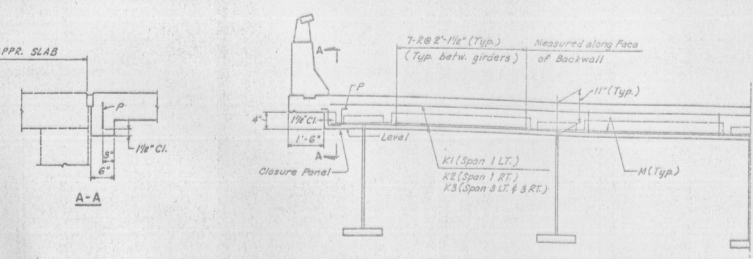
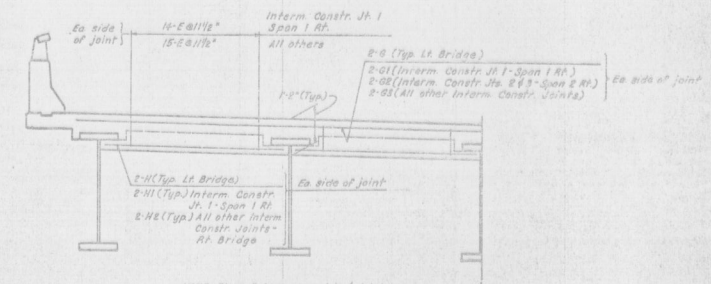
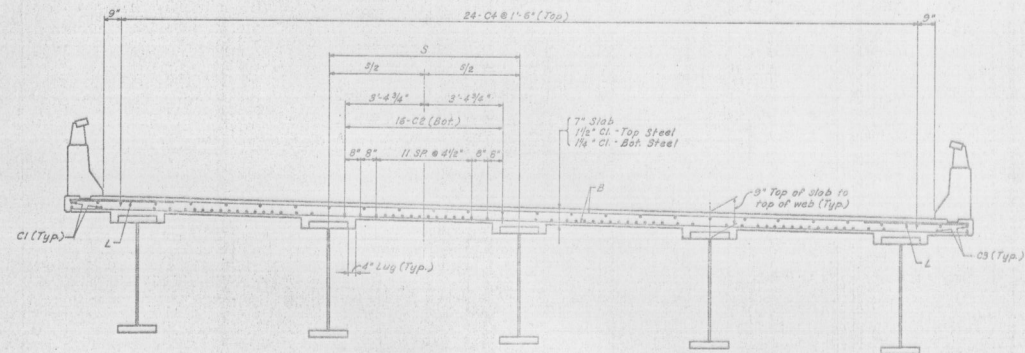
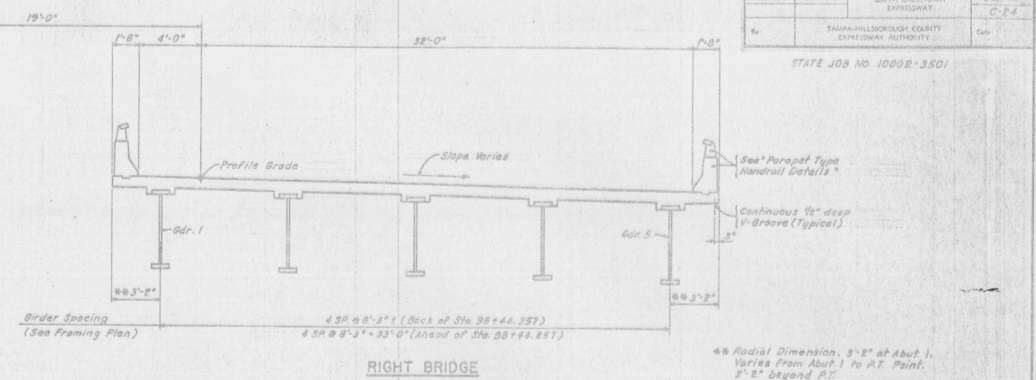
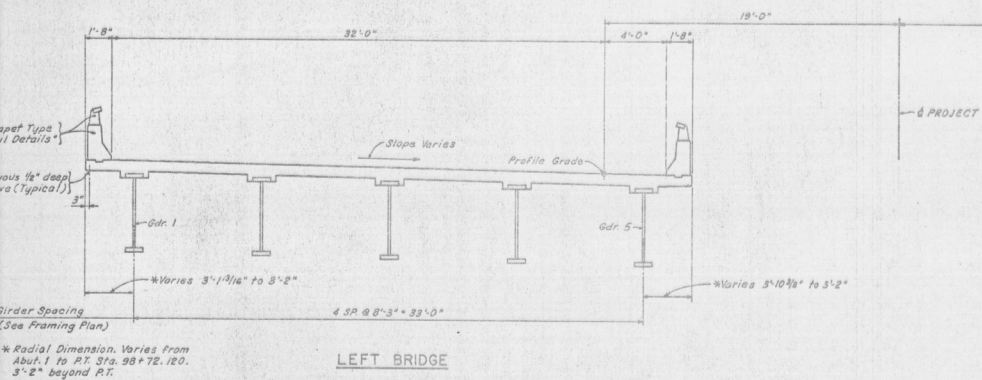


SECTION E-E

| | | | |
|---|--|------|-------|
| NO. | REVISION | BY | DATE |
| | TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | |
| SOUTH CROSSTOWN EXPRESSWAY | | | |
| PLAN-SPAN 3LT OR 3RT, MISC. SECTIONS & EXPAN. JT. DETAILS | | | |
| EXPRESSWAY OVER HIMES AVE. | | | |
| J. E. GREINER COMPANY - WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA | | | |
| MADE | E.R. | DATE | 11-72 |
| CHECKED | R.V.R. | DATE | 12-72 |
| TRACED | E.C. | DATE | 11-72 |
| SCALE | | | |

| | | | |
|---------|----------|--|-----------|
| SECTION | CONTRACT | SOUTH CROSSTOWN EXPRESSWAY | SHEET NO. |
| 6. | | TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | C-24 |

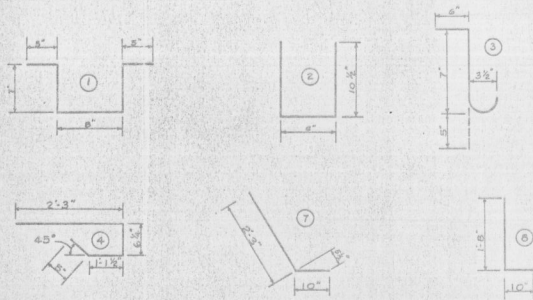
STATE JOB NO. 1000E-3501



- NOTES**
1. Work in sheet with sheets C-21, C-22, C-23 & C-25.
 2. Cross slope and transition data shown on sheet C-31.

| | | | |
|--|------------|-------------|------------|
| NO. | REVISION | BY | DATE |
| TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | | |
| SOUTH CROSSTOWN EXPRESSWAY | | | |
| SUPERSTRUCTURE SECTIONS | | | |
| EXPRESSWAY OVER HIMES AVE. | | | |
| J. E. GREINER COMPANY - WATSON & COMPANY REGISTERED ENGINEERS TAMPA, FLORIDA | | | |
| MADE E.R. | DATE 11-72 | TRACED E.R. | DATE 11-72 |
| CHECKED B.H.J. | DATE 12-72 | SCALE | |

BENDING DIAGRAMS



Note: All Bar Dimensions Are Out To Out.

| ESTIMATED QUANTITIES | | | | |
|-------------------------------|----------|------------|------------|---------|
| ITEM | UNIT | QUANTITY | | |
| | | LT. BRIDGE | RT. BRIDGE | |
| CLASS II CONCRETE (SUPERSTR.) | CU. YDS. | 266.4 | 272.4 | 538.8 |
| REINFORCING STEEL(SUPERSTR.) | LBS. | 110,745 | 113,273 | 224,018 |

BILL OF REINFORCING STEEL

| LT. BRIDGE | | | | | RT. BRIDGE | | | | | | |
|------------|------|-----------|-------------------------|----------------|------------|------|------|-----------|----------------------------|----------------|---------|
| MARK | SIZE | NO. REGD. | LENGTH FT. IN. | LOCATION | BENDING | MARK | SIZE | NO. REGD. | LENGTH FT. IN. | LOCATION | BENDING |
| B | 5 | 1330 | 39 0 | SLAB | STR. | B | 5 | 1380 | 39 0 | SLAB | STR. |
| C1 | 4 | 4 | 323 2 | SLAB | STR. | C1 | 4 | 4 | 327 9 | SLAB | STR. |
| C2 | 4 | 64 | 324 6 | SLAB | STR. | C2 | 4 | 64 | VARIES FROM 327 5 TO 334 0 | SLAB | STR. |
| C3 | 4 | 24 | 324 6 | SLAB | STR. | C3 | 4 | 24 | VARIES FROM 327 5 TO 334 3 | SLAB | STR. |
| C4 | 4 | 4 | 324 6 | SLAB | STR. | C4 | 4 | 4 | 334 4 | SLAB | STR. |
| C5 | 4 | 96 | 20 0 | SLAB | STR. | C5 | 4 | 96 | 20 0 | SLAB | STR. |
| D2 | 4 | 764 | 3 1 | SLAB & PARAPET | 7 | D2 | 4 | 782 | 3 1 | SLAB & PARAPET | 7 |
| D3 | 4 | 784 | 2 6 | SLAB & PARAPET | 8 | D3 | 4 | 782 | 2 6 | SLAB & PARAPET | 8 |
| E | 4 | 720 | 2 2 | SLAB | 2 | E | 4 | 712 | 2 2 | SLAB | 2 |
| F | 4 | 224 | 1 6 | SLAB | 3 | F | 4 | 216 | 1 6 | SLAB | 3 |
| G | 8 | 24 | 79 1 | SLAB | STR. | G1 | 8 | 4 | 83 6 | SLAB | STR. |
| H | 8 | 96 | 17 0 | SLAB | STR. | G2 | 8 | 8 | 80 0 | SLAB | STR. |
| J | 5 | 16 | 13 1 | SLAB | STR. | G3 | 8 | 12 | 79 1 | SLAB | STR. |
| K1 | 5 | 2 | 80 0 | SLAB | STR. | H1 | 8 | 16 | 10 0 | SLAB | STR. |
| K2 | 5 | 2 | 78 4 | SLAB | STR. | H2 | 8 | 80 | 17 0 | SLAB | STR. |
| L1 | 5 | 513 | 4 7 | SLAB | STR. | J1 | 5 | 8 | 12 1 | SLAB | STR. |
| L2 | 5 | 76 | 5 3 | SLAB | STR. | J2 | 5 | 8 | 13 1 | SLAB | STR. |
| M | 5 | 8 | 13 0 | SLAB | STR. | H2 | 5 | 2 | 81 7 | SLAB | STR. |
| N1 | 5 | 414 | VARIES FROM 1 6 TO 37 2 | SLAB | STR. | K3 | 5 | 2 | 78 4 | SLAB | STR. |
| N2 | 5 | 404 | VARIES FROM 37 2 TO 1 6 | SLAB | STR. | L1 | 5 | 409 | 4 10 | SLAB | STR. |
| P | 4 | 4 | 2 8 | CLOSURE PANEL | 1 | L2 | 5 | 133 | 5 1 | SLAB | STR. |
| R | 4 | 56 | 8 1 | SLAB | 4 | L3 | 5 | 60 | 5 8 | SLAB | STR. |
| S1 | 4 | 4 | 83 0 | SLAB | STR. | H | 5 | 8 | 13 0 | SLAB | STR. |
| S2 | 5 | 4 | 81 4 | SLAB | STR. | N1 | 5 | 450 | VARIES FROM 1 6 TO 37 2 | SLAB | STR. |
| | | | | | | N2 | 5 | 404 | VARIES FROM 37 2 TO 1 6 | SLAB | STR. |
| | | | | | | P | 4 | 4 | 2 8 | CLOSURE PANEL | 1 |
| | | | | | | R | 4 | 56 | 8 1 | SLAB | 4 |
| | | | | | | S1 | 4 | 4 | 83 0 | SLAB | STR. |
| | | | | | | S2 | 4 | 4 | 81 4 | SLAB | STR. |

NOTES:

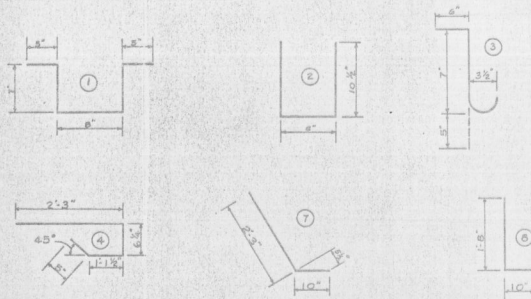
- For General Notes see sheet GE-2.
- For miscellaneous superstructure details not shown see Std. Dwg. No. 5.
- For Parapet Type Neutral and Parapet Contr. Joint Details see Std. Dwg. No. 5.
- For placement of D-2 and D-3 bars in slab or parapet see Std. Dwg. No. 5.
- Bars over 60" length include a 3D bar diameter splice and bars over 300" length include two 3D bar diameter splices in the length shown.

Work This Sheet With Sheets C-21 Thru C-24.

| NO. | REVISION | BY | DATE |
|---|----------|-------|------|
| | | | |
| TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | | |
| SOUTH CROSSSTOWN EXPRESSWAY | | | |
| SPANS-BILL OF REINFORCING EXPRESSWAY OVER HIMES AVE. | | | |
| J. E. GREINER COMPANY - WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA | | | |
| MADE BY | DATE | SCALE | DATE |
| DESIGNED BY | DATE | SCALE | DATE |

BILL OF REINFORCING STEEL

BENDING DIAGRAMS



Note: All Bar Dimensions Are Out To Out.

| ESTIMATED QUANTITIES | | | | |
|-------------------------------|----------|------------|------------|---------|
| ITEM | UNIT | QUANTITY | | |
| | | LT. BRIDGE | RT. BRIDGE | TOTAL |
| CLASS II CONCRETE (SUPERSTR.) | CU. YDS. | 266.4 | 272.4 | 538.8 |
| REINFORCING STEEL(SUPERSTR.) | LBS. | 110,745 | 113,273 | 224,018 |

| LT. BRIDGE | | | | | | RT. BRIDGE | | | | | |
|------------|------|-----------|-------------------------|----------------|---------|------------|------|-----------|----------------------------|----------------|---------|
| MARK | SIZE | NO. REGD. | LENGTH FT. IN. | LOCATION | BENDING | MARK | SIZE | NO. REGD. | LENGTH FT. IN. | LOCATION | BENDING |
| B | 5 | 1330 | 39 0 | SLAB | STR. | B | 5 | 1380 | 39 0 | SLAB | STR. |
| C1 | 4 | 4 | 323 2 | SLAB | STR. | C1 | 4 | 4 | 327 9 | SLAB | STR. |
| C2 | 4 | 64 | 324 6 | SLAB | STR. | C2 | 4 | 64 | VARIES FROM 327 5 TO 334 0 | SLAB | STR. |
| C3 | 4 | 24 | 324 6 | SLAB | STR. | C3 | 4 | 24 | VARIES FROM 327 0 TO 334 3 | SLAB | STR. |
| C4 | 4 | 4 | 324 6 | SLAB | STR. | C4 | 4 | 4 | 334 4 | SLAB | STR. |
| C5 | 4 | 96 | 20 0 | SLAB | STR. | C5 | 4 | 96 | 20 0 | SLAB | STR. |
| D2 | 4 | 764 | 3 1 | SLAB & PARAPET | 7 | D2 | 4 | 782 | 3 1 | SLAB & PARAPET | 7 |
| D3 | 4 | 784 | 2 6 | SLAB & PARAPET | 8 | D3 | 4 | 782 | 2 6 | SLAB & PARAPET | 8 |
| E | 4 | 720 | 2 2 | SLAB | 2 | E | 4 | 712 | 2 2 | SLAB | 2 |
| F | 4 | 224 | 1 6 | SLAB | 3 | F | 4 | 216 | 1 6 | SLAB | 3 |
| G | 8 | 24 | 79 1 | SLAB | STR. | G1 | 8 | 4 | 83 6 | SLAB | STR. |
| H | 8 | 96 | 17 0 | SLAB | STR. | G2 | 8 | 8 | 80 0 | SLAB | STR. |
| J | 5 | 16 | 13 1 | SLAB | STR. | G3 | 8 | 12 | 79 1 | SLAB | STR. |
| K1 | 5 | 2 | 80 0 | SLAB | STR. | H1 | 8 | 16 | 10 0 | SLAB | STR. |
| K2 | 5 | 2 | 78 4 | SLAB | STR. | H2 | 8 | 80 | 17 0 | SLAB | STR. |
| L1 | 5 | 913 | 4 7 | SLAB | STR. | J1 | 5 | 8 | 12 1 | SLAB | STR. |
| L2 | 5 | 76 | 5 3 | SLAB | STR. | J2 | 5 | 8 | 13 1 | SLAB | STR. |
| M | 5 | 8 | 13 0 | SLAB | STR. | K2 | 5 | 2 | 81 7 | SLAB | STR. |
| N1 | 5 | 414 | VARIES FROM 1 6 TO 37 2 | SLAB | STR. | K3 | 5 | 2 | 78 4 | SLAB | STR. |
| N2 | 5 | 404 | VARIES FROM 37 2 TO 1 6 | SLAB | STR. | L1 | 5 | 609 | 4 10 | SLAB | STR. |
| P | 4 | 4 | 2 8 | CLOSURE PANEL | 1 | L2 | 5 | 133 | 5 1 | SLAB | STR. |
| R | 4 | 56 | 8 1 | SLAB | 4 | L3 | 5 | 60 | 5 8 | SLAB | STR. |
| S1 | 5 | 4 | 83 0 | SLAB | STR. | H | 5 | 8 | 13 0 | SLAB | STR. |
| S2 | 5 | 4 | 81 4 | SLAB | STR. | N1 | 5 | 650 | VARIES FROM 1 6 TO 37 2 | SLAB | STR. |
| | | | | | | N2 | 5 | 404 | VARIES FROM 37 2 TO 1 6 | SLAB | STR. |
| | | | | | | P | 4 | 4 | 2 8 | CLOSURE PANEL | 1 |
| | | | | | | R | 4 | 56 | 8 1 | SLAB | 4 |
| | | | | | | S1 | 4 | 4 | 88 8 | SLAB | STR. |
| | | | | | | S2 | 4 | 4 | 81 4 | SLAB | STR. |

NOTES:

1. For General Notes see sheet GE-2.
2. For miscellaneous superstructure details not shown see Std. Dwg. No. 6.
3. For Parapet Type Neutral and Parapet Gate Joint Details see Std. Dwg. No. 5.
4. For placement of D-2 and D-3 bars in slab or parapet see Std. Dwg. No. 6.
5. Bars over 60 ft length include a 3D bar diameter splice and bars over 300 ft length include two 3D bar diameter splices in the length shown.

Work This Sheet With Sheets C-21 thru C-24.

| NO. | REVISION | BY | DATE |
|--|----------|-------|------|
| | | | |
| TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY | | | |
| SOUTH CROSSTOWN EXPRESSWAY | | | |
| SPANS-BILL OF REINFORCING EXPRESSWAY OVER HIMES AVE. | | | |
| J. E. GREINER COMPANY - WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA | | | |
| MADE BY | DATE | SCALE | DATE |
| DESIGNED BY | DATE | SCALE | DATE |