

THE PORT AUTHORITY OF NY & NJ

**PROCUREMENT DEPARTMENT
ATTN: BID/PROPOSAL CUSTODIAN
2 MONTGOMERY STREET, THIRD FLOOR
JERSEY CITY, NJ 07302**

**REQUEST FOR PROPOSALS,
MULTI-FACILITY REPLACEMENT TOLL COLLECTION SYSTEM**

RFP NO.: 40551

BOOK 2

ATTACHMENT P – REFERENCE DRAWINGS

PART 1 of 2

TITLE:

**MULTI-FACILITY DESIGN AND IMPLEMENTATION OF
REPLACEMENT TOLL COLLECTION SYSTEM;
CONTRACT MF-244.251**

NOVEMBER 2014

Attachment P

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NO. 52 OF 83 SHEETS

FIRST FLOOR - PLAN

CROSS SECTION OF ADMINISTRATION BUILDING

SECTION B-B

SECTION A-A

MEZZANINE - PLAN

NOTE FOR LEGEND SEE DRAWING No. 300

REV. NO.	DESCRIPTION OF CHANGE	MADE BY	APPROVED	DATE
1	REVISE PLAN TO CONFORM TO PORT AUTHORITY CONTRACT CHANGE D-5, APR. 28, 1964	JCS	MA	5/1/64

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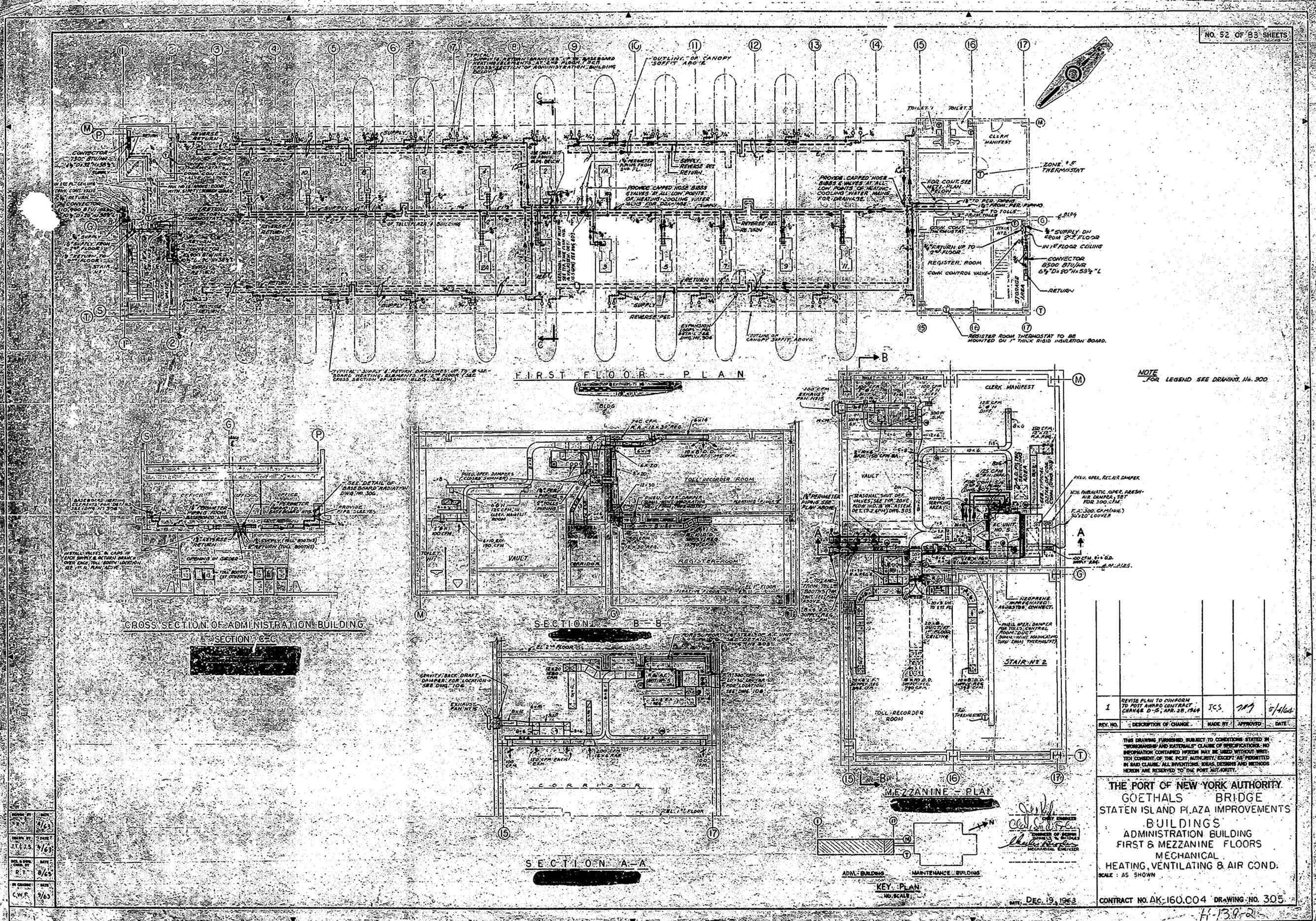
THE PORT OF NEW YORK AUTHORITY
 GOETHALS BRIDGE
 STATEN ISLAND PLAZA IMPROVEMENTS
 BUILDINGS
 ADMINISTRATION BUILDING
 FIRST & MEZZANINE FLOORS
 MECHANICAL
 HEATING, VENTILATING & AIR COND.
 SCALE: AS SHOWN

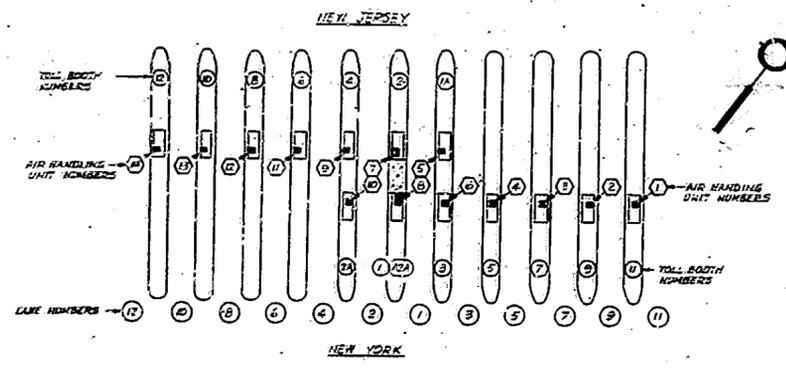
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DATE: DEC. 19, 1963

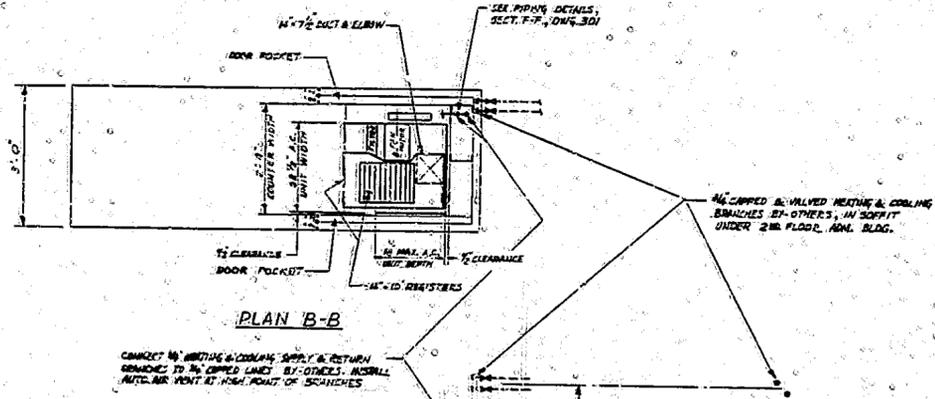
Charles S. ...
 MECHANICAL ENGINEER

KEY PLAN
 NO SCALE

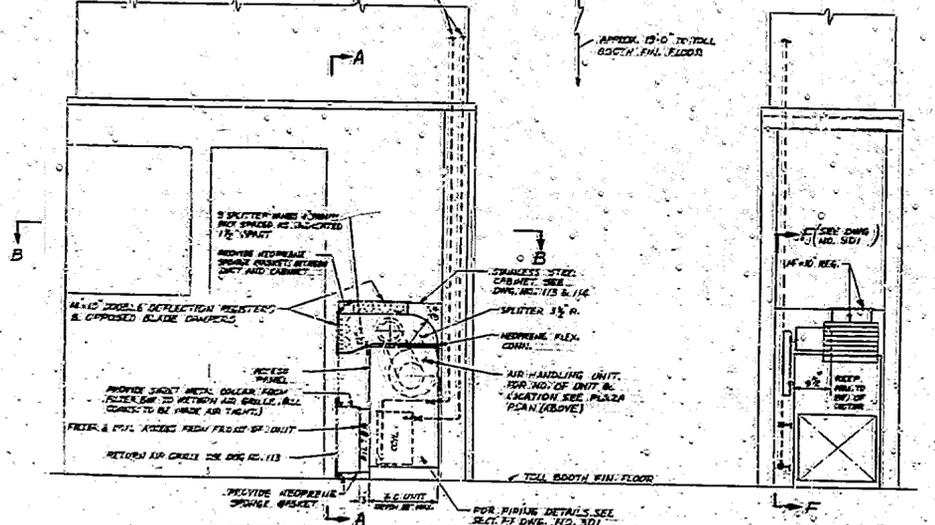




PLAN OF GOETHALS PLAZA TOLL BOOTHS

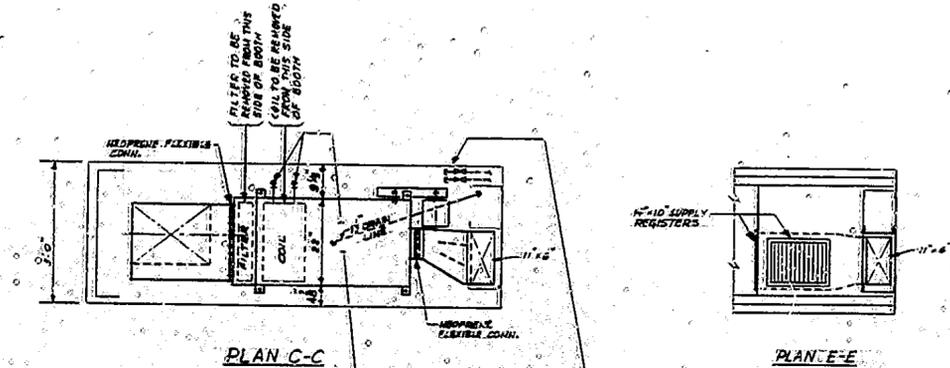


PLAN B-B



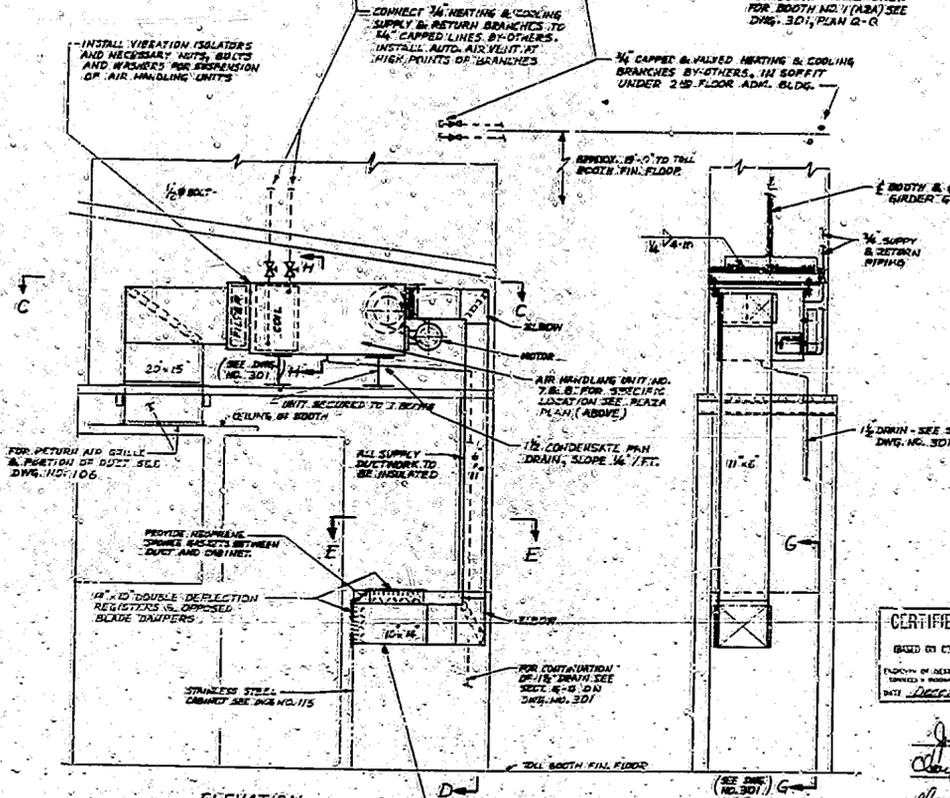
ELEVATION TOLL BOOTH NO. 1P, 2A, 3 THRU 12

SECTION A-A



PLAN C-C

PLAN E-E



ELEVATION TOLL BOOTH NO. 1(A) & 2 EXCEPT AS NOTED

SECTION D-D

CERTIFIED HAS-BURT
 BASED ON CORRECT FIELD EXPANSION
 PROPERTY OF DESIGNER
 DATE: December 3, 1965

[Signature]
 PROJECT ENGINEER
 DATE: February 27, 1966

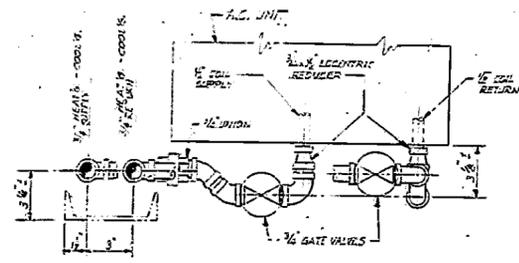
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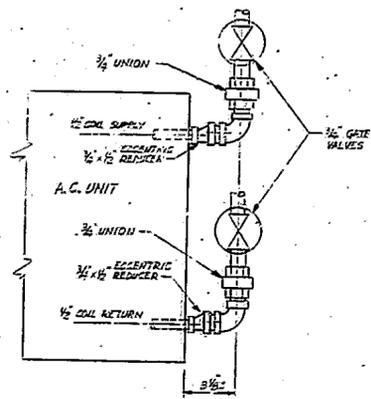
THE PORT OF NEW YORK AUTHORITY
 GOETHALS BRIDGE
 STATEN ISLAND PLAZA IMPROVEMENTS
 TOLL BOOTHS
 MECHANICAL
 HEATING, AIR CONDITIONING
 & PLUMBING

SCALE: AS SHOWN
 CONTRACT NO. AK 160.009 DRAWING NO. 300

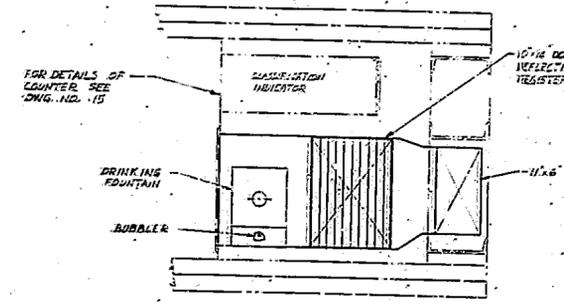
REVISION	DATE
BY R.H.T. & G.S.	1-7-64
BY S.C.S.	2-13-64
BY R.H.T.	2-27-64
BY G.S.	3-27-64



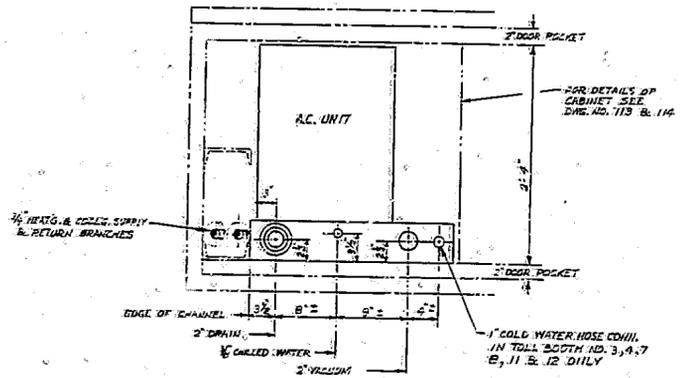
SECTION L-L



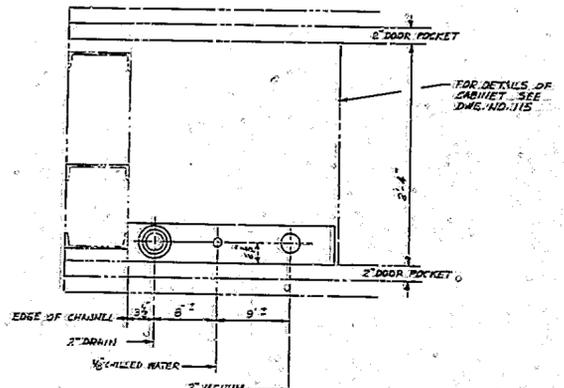
SECTION H-H



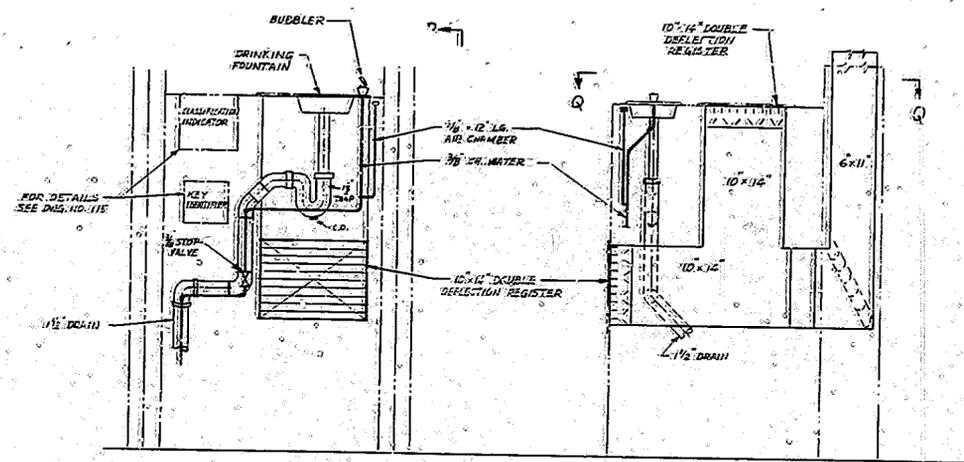
PLAN Q-Q
BOOTH NO. 1 (A2A) ONLY



PLAN J-J
LOCATION OF PLUMBING LINES
AT TOLL BOOTH FLOOR

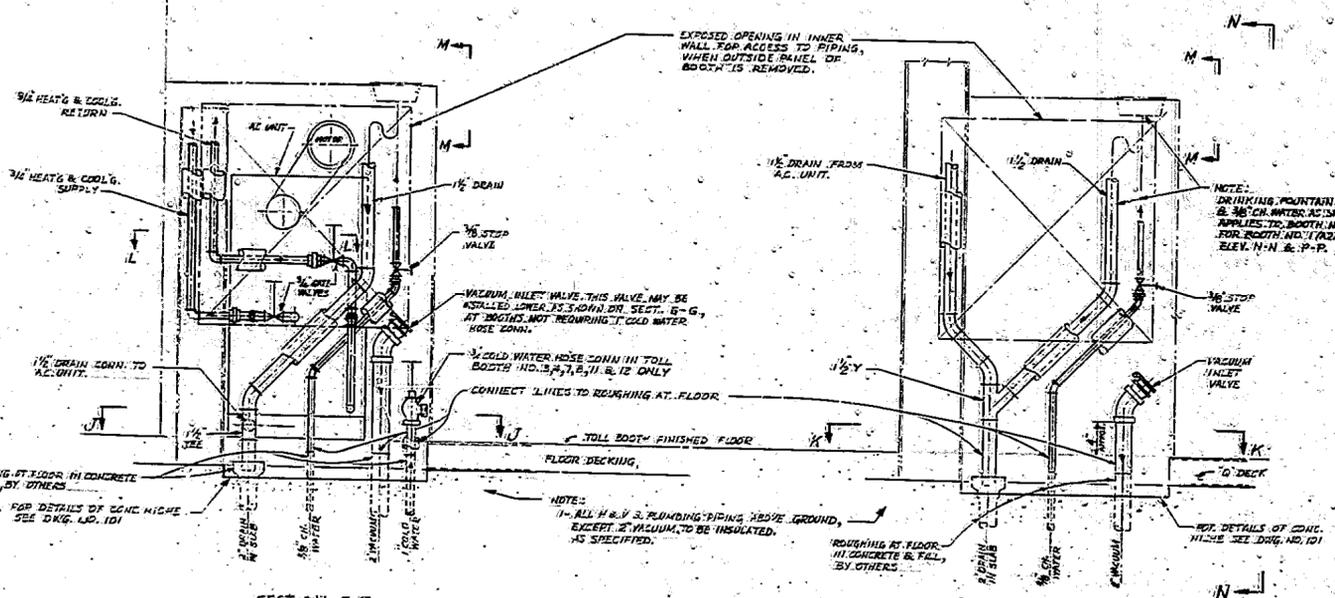


PLAN K-K
LOCATION OF PLUMBING LINES
AT TOLL BOOTH FLOOR



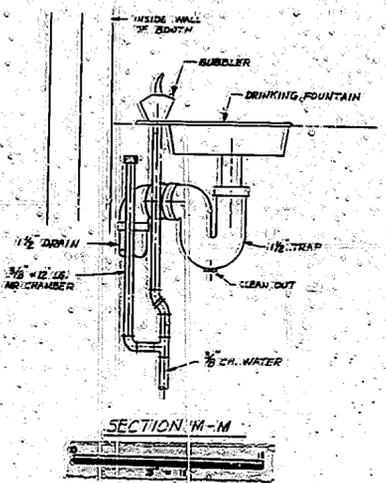
ELEVATION N-N
BOOTH NO. 1 (A2A) ONLY

ELEVATION P-P
BOOTH NO. 1 (A2A) ONLY



SECTION F-F
TOLL BOOTH NO. 1A, 2A, 3 THRU 12

SECTION G-G
TOLL BOOTH NO. 1 (A2A) & 2
EXCEPT AS NOTED



SECTION M-M

DESIGNED BY	DATE
R.H.T. & J.C.S.	1-7-65
CHECKED BY	DATE
J.C.S.	2-13-65
DESIGNED BY	DATE
R.H.T.	2-21-65
CHECKED BY	DATE
J.C.S.	2-27-65

CERTIFIED "AS BUILT"
 DATE OF ORIGINAL FIELD DRAWING: 1-7-65
 DATE OF THIS AS-BUILT: September 3, 1965

Charles W. ...
 MECHANICAL ENGINEER

REV. NO.	DESCRIPTION OF CHANGE	MADE BY	APPROVED	DATE

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THE PORT OF NEW YORK AUTHORITY
GOETHALS BRIDGE
 STATEN ISLAND PLAZA IMPROVEMENTS
 TOLL BOOTHS
 MECHANICAL
 HEATING, AIR CONDITIONING
 & PLUMBING

SCALE: AS SHOWN
 DATE: FEBRUARY 27, 1964
 CONTRACT NO. AK 160009 DRAWING NO. 301

ABBREVIATIONS (STRUCTURAL DRAWINGS ONLY)

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY OFFICIALS	HCL	HORIZONTAL CONTROL LINE	RAWP	REMEDIAL ACTION WORK PLAN
ABUT.	ABUTMENT	HDPE	HIGH DENSITY POLYETHYLENE	RCP	REINFORCED CONCRETE PIPE
ADDL.	ADDITIONAL	HEPA	HIGH-EFFICIENCY PARTICULATE AIR	RE	RESIDENT ENGINEER
ADTT	AVERAGE DAILY TRUCK TRAFFIC	HEX.	HEXAGONAL	REINF.	REINFORCEMENT
&	AND	HORIZ.	HORIZONTAL	REQ'D.	REQUIRED
ALUM.	ALUMINUM	HPC	HIGH PERFORMANCE CONCRETE	RP	RETURN PERIOD
ANOD.	ANODIZED	H.S.	HIGH STRENGTH	RWDI	ROMAN WILLIAMS DAVIES & IRWIN INC.
APPROX.	APPROXIMATE	I.F.	INSIDE FACE	S.	SOUTH
ASSY.	ASSEMBLY	IM	DYNAMIC LOAD ALLOWANCE	SB	SOUTHBOUND
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	IN.	INCHES	SCC	SELF-CONSOLIDATING CONCRETE
AWS	AMERICAN WELDING SOCIETY	INC.	INCORPORATED	SCH	SCHEDULE
BL. @	BASELINE	INT.	INTERIOR	SCPR	SCUPPER
BLDG.	BUILDING	INV.	INVERT	SPA.	SPACING
BM.	BEAM	JT.	JOINT	SPECS.	SPECIFICATIONS
B.O.	BY OTHERS	K	KIPS	S.F.	SQUARE FEET
B. BOT.	BOTTOM	KSI	KIPS PER SQUARE INCH	SHT.	SHEET
BR	BRAKING FORCES	L	ANGLE	SHV	SPECIAL HAULING VEHICLE
BRG.	BEARING	LBS	POUNDS	SIM.	SIMILAR
BRT	BUS RAPID TRANSIT	LF	LONGITUDINAL FORCE, LINEAR FOOT	SIP	STAY IN PLACE (FORMS)
BTWN.	BETWEEN	LG.	LONG	SQ.	SQUARE
C/C	CENTER TO CENTER	LL	LIVE LOAD	STA.	STATION
CEB	EURO-INTERNATIONAL CONCRETE COMMITTEE	LLV	LONG LEG VERTICAL	STD.	STANDARD
C.G.	CENTER OF GRAVITY	LRFD	LOAD AND RESISTANCE FACTOR DESIGN	STIFF.	STIFFENER
CIP	CAST-IN-PLACE	LRT	LIGHT RAIL TRANSIT	STL.	STEEL
CJ	CONSTRUCTION JOINT	LSRP	LICENSED SITE REMEDIATION PROFESSIONAL	STRUCT.	STRUCTURAL
C.L., @	CENTERLINE	LTG	LIGHTING	SUP	SHARED USE PATH
CLDF	CABLE LOSS TOTAL FORCE EFFECT	LVDT	LINEAR VARIABLE DIFFERENTIAL TRANSFORMER	SYMM.	SYMMETRICAL
CLR.	CLEAR	LW	LIGHT WEIGHT (CONCRETE)	S.S., (SS), (S)	STAINLESS STEEL
C.M.U.	CONCRETE MASONRY UNIT	MAX.	MAXIMUM	SSPC	THE SOCIETY FOR PROTECTIVE COATING (FORMERLY STEEL STRUCTURES PAINTING COUNCIL)
COL.	COLUMN	MECH.	MECHANICAL	T	TOP
CONC.	CONCRETE	MFG.	MANUFACTURER	T&B	TOP AND BOTTOM
CONN.	CONNECTION, CONNECTOR	MIN.	MINIMUM	TDROP	TEMPERATURE DROP
CONST.	CONSTRUCTION	MISC.	MISCELLANEOUS	TEMP.	TEMPORARY
CONT.	CONTINUOUS	M.H.	MANHOLE	TG	TEMPERATURE GRADIENT
COV.	COVER	MHW	MEAN HIGH WATER	THK.	THICK
CTRS.	CENTERS	MLW	MEAN LOW WATER	TMAX	MAXIMUM STATIC FORCE IN SUSPENDER
CTSK.	COUNTERSUNK	MPH	MILES PER HOUR	T.O.	TOP OF
DC	DEAD LOAD OF STRUCTURAL COMPONENTS AND NON-STRUCTURAL ATTACHMENTS	N.	NORTH	T.O.S.	TOP OF STEEL
DIAGS.	DIAGONALS	NB	NORTHBOUND	TRISE	TEMPERATURE RISE
DIA., @	DIAMETER	NCHRP	NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM	TYP.	TYPICAL
DIM.	DIMENSION	N.F.	NEAR FACE	U.O.N.	UNLESS OTHERWISE NOTED
DN.	DOWN	NJDOT	NEW JERSEY DEPARTMENT OF TRANSPORTATION	VERT.	VERTICAL
DW	DEAD LOAD OF WEARING SURFACE AND UTILITIES	NJTA	NEW JERSEY TURNPIKE AUTHORITY	VMS	VARIABLE MESSAGE SIGN
DWG.	DRAWING	NMTs	NOISE MONITORING TERMINALS	W.	WEST
E.	EAST	NO.	NUMBER	W/	WITH
EA.	EACH	NOAA	NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	WP, W.P.	WORKING POINT
(E)	EPOXY COATED	NRL	NATIONAL RATING LOAD	WWF	WELDED WIRE FABRIC
E.F.	EACH FACE	N.S.	NEAR SIDE	@	AT
EJ	EXPANSION JOINT	N.T.S.	NOT TO SCALE	%	PERCENT
EL., ELEV.	ELEVATION	NW	NORMAL WEIGHT (CONCRETE)		
EQ.	EQUAL	NYC	NEW YORK CITY		
E.W.	EACH WAY	NYCDOT	NEW YORK CITY DEPARTMENT OF TRANSPORTATION		
EXIST.	EXISTING	NYSDOT	NEW YORK STATE DEPARTMENT OF TRANSPORTATION		
EXP.	EXPANSION	O.C.	ON CENTER		
EXT.	EXTERIOR	O.D.	OUTER DIAMETER		
F.	FAHRENHEIT, FIXED	O.F.	OUTSIDE FACE		
F'C	SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE	O.H.	OPPOSITE HAND		
F.F.	FAR FACE	OPNG.	OPENINGS		
FFBW	FRONT FACE BACK WALL	OPP.	OPPOSITE		
FIN.	FINISHED	PANYNJ	THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY		
FIP	INTERNATIONAL FEDERATION FOR PRESTRESSING	PCF	POUNDS PER CUBIC FOOT		
FLR	FLOOR	PGL	PROFILE GRADE LINE		
F.O.	FACE OFF	P.I.	POINT OF INTERSECTION		
FOS	FACTOR OF SAFETY	PL	PEDESTRIAN LOADING		
FPU	ULTIMATE TENSILE STRESS	PL	PLATE		
FPY	YIELD STRESS	PLF	POUNDS PER LINEAR FOOT		
F.S.	FAR SIDE	PLUMB.	PLUMBING		
FSP	FIRE STANDPIPE	PROJ.	PROJECTION		
FT.	FOOT, FEET	PSF	POUNDS PER SQUARE FOOT		
FTG.	FOOTING	PSI	POUNDS PER SQUARE INCH		
GALV.	GALVANIZED	PT.	POINT		
GA	GAUGE	P/T	POST-TENSIONING		
GCP	GEOMETRIC POINT CONTROL	PVC.	POLYVINYL CHLORIDE		
GRTG	GRATING	QAD	QUALITY ASSURANCE DEPARTMENT OF THE AUTHORITY		
		R	RADIUS		

LEGEND

	LIMITS OF REMOVAL
	STEEL
	EARTH
	CONCRETE
○	EXISTING RIVET
⊕	REMOVE EXISTING RIVET ONE BY ONE AND REPLACE WITH STANDARD H.S. BOLT
◆	REMOVE EXISTING RIVET IN ENTIRE GROUP BEFORE INSTALLATION OF PLATES. INSTALL H.S. BOLT IN STANDARD SIZE HOLES THROUGH ALL PLIES.
●	INSTALL STANDARD H. S. BOLT IN SHOP DRILLED OR FIELD DRILLED HOLE TO CONNECT STEEL TO EXISTING STEEL
○	INSTALL STANDARD H. S. BOLT IN SHOP DRILLED OR FIELD DRILLED HOLE IN STEEL
⊗	REMOVE EXISTING RIVET AND REPLACE WITH COUNTERSUNK HEAD BOLT OR INSTALL COUNTERSUNK HEAD BOLT IN STEEL
-X	BOLT SUFFIX DESIGNATING THREADS EXCLUDED FROM SHEAR PLANE
	STRUCTURAL REPAIR YYY - REPAIR TYPE SXXXX - STRUCTURAL CONTRACT DRAWING NUMBER

**THE PORT AUTHORITY
OF NY & NJ**

HDR/PB, A JOINT VENTURE



JOSEPH L. LOBO
N.J. Professional Engineer # 24GE04323800



JOSEPH L. LOBO
N.Y. Professional Engineer # 054098

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT			

STRUCTURAL
Title
**REPLACEMENT OF MAIN SPAN ROADWAY
AND APPROACH STRUCTURES**

**LEGENDS AND
ABBREVIATIONS**

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J. JIMENEZ I. TENTER P. VAN HAGEN
Designed by Drawn by Checked by

Date 02/15/2013

Contract Number **AKB-264.039**

Drawing Number **S0101**
PID# 08491000

STRUCTURAL NOTES

1. LIMIT STATES- LOAD MODIFIERS
 - η = A FACTOR RELATED TO DUCTILITY, REDUNDANCY AND OPERATIONAL IMPORTANCE.
 - η_D = A FACTOR RELATING TO DUCTILITY
 - η_R = A FACTOR RELATING TO REDUNDANCY
 - η_I = A FACTOR RELATING TO IMPORTANCE
- 1.01 OPERATIONAL IMPORTANCE STRENGTH LIMIT STATE, $\eta_I=1.00$
- 1.02 DUCTILITY FACTOR, $\eta_D = 1.00$
- 1.03 ARCH STRENGTH LIMIT STATE:
 - A. REDUNDANCY RELATED FACTOR, η_R
 - FOR TRUSS CHORDS: 1.00
 - FOR THE ARCH DIAGONALS & VERTICALS: 1.00
 - FOR BRACING MEMBERS: 1.00
 - FOR ALL OTHER LIMIT STATES: 1.00
 - B. ALL APPROACHES SUPERSTRUCTURE MEMBERS ARE REDUNDANT AS DEFINED IN THE AASHTO LRFD SPECIFICATIONS.
2. LIVE LOAD DEFLECTIONS
 - 2.01 FOR STRUCTURES SUPPORTING BOTH LIGHT RAIL AND HIGHWAY VEHICLES OR THAT MAY SUPPORT BOTH IN THE FUTURE, THE MORE RESTRICTIVE LIMIT OF THE FOLLOWING APPLIES FOR DEFLECTIONS DUE TO LIVE LOAD PLUS IMPACT.
 - A. NOT TO EXCEED 1/1,000 OF THE SPAN LENGTH.
 - B. AASHTO LRFD ARTICLE 2.5.2.6.2
 - 2.02 SIDEWALK DEFLECTIONS AND VIBRATIONS: CHECKED FOR SERVICEABILITY, AS PER AASHTO LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES, 2009, SECTION 6.
3. MATERIALS
 - 3.01 STRUCTURAL STEEL: EXISTING AT ARCH SPAN
 - A. CARBON STEEL
 - FU = 60 KSI
 - FY = 32 KSI
 - B. SILICON STEEL
 - FU = 80 KSI
 - FY = 40 KSI
 - C. MANGANESE STEEL
 - FU = 90 KSI
 - FY = 51 KSI
 - D. EXISTING RIVETS
 - 1) 7/8" TO 1-1/4" DIAMETER, CARBON STEEL (SIZE SHOWN ON ARCH CONTRACT DRAWINGS)
 - FU = 52 KSI
 - FY = 30 KSI
 - 2) 1-1/4" DIAMETER, MANGANESE STEEL
 - FU = 82 KSI
 - FY = 47 KSI
 - 3.02 STRUCTURAL STEEL
 - A. STRUCTURAL STEEL: AASHTO M270 (ASTM A709).
 - 1) ALL MAIN LOAD CARRYING MEMBERS: GRADE 50 OR 70, AS NOTED
 - 2) OTHER ARCH MEMBERS: GRADE 36 OR 50, AS NOTED
 - 3) SUP DECKS, FRAMING, RAILINGS: SEE CONTRACT DRAWING S3701
 - 4) APPROACH STRUCTURE CATWALK: SEE CONTRACT DRAWING S2108
 - 5) APPROACH STRUCTURE ACCESS TOWER: SEE CONTRACT DRAWING S2114
 - 6) ALL STEEL FURNISHED FOR THE PROJECT SHALL MEET THE CHARPY V-NOTCH IMPACT REQUIREMENTS FOR TEMPERATURE ZONE 2.
 - B. PERMANENT SUSPENSERS: GALVANIZED STRUCTURAL STRAND CONFORMING TO ASTM A586, 2-3/8" DIAMETER, GRADE 1 WITH A CLASS A COATING ON THE INNER WIRES; CLASS C COATING ON THE OUTER WIRES.
 - TEMPORARY SUSPENSERS: GALVANIZED STRUCTURAL STRAND CONFORMING TO ASTM A586, 1-5/8" DIAMETER, GRADE 1 WITH CLASS A COATING THROUGHOUT.
 - 1) MODULUS OF ELASTICITY 23,000 KSI
 - 2) PERMANENT SUSPENSERS: MINIMUM FOS AGAINST BREAKING 4.0, BREAKING STRENGTH 668 KIPS.
 - TEMPORARY SUSPENSERS: MINIMUM FOS AGAINST BREAKING 2.8, BREAKING STRENGTH 324 KIPS.
 - 3) FATIGUE RANGE 16 KSI
 - 4) BRIDGE STRAND SOCKETS:
 - a) STANDARD TYPE 8 ANCHOR SOCKETS MANUFACTURED FROM ASTM A29, GRADE 4130, 4140, 8630 OR 4340 MATERIAL. HEAT TREAT TO A HARDNESS OF 255-302 BRINELL THROUGHOUT THE CROSS-SECTION.
 - b) OPEN STRAND SOCKETS MANUFACTURED FROM ASTM A148 GRADE 105-85.
 - c) STANDARD TYPE 6 ANCHOR SOCKETS MANUFACTURED FROM ASTM A29, GRADE 4130, 4140, 8630 OR 4340 MATERIAL. HEAT TREAT TO A HARDNESS OF 255-302 BRINELL THROUGHOUT THE CROSS-SECTION.
 - 5) HARDWARE ASSOCIATED WITH STRAND SUPPORT SYSTEMS: HOT-DIP GALVANIZED TO ASTM A123/A153 STANDARDS.
 - 3.03 FASTENERS: UNLESS OTHERWISE SPECIFIED ON THE CONTRACT DRAWINGS, FASTENERS SHALL BE 7/8" DIAMETER ASTM A325 TYPE 1, MECHANICALLY GALVANIZED HIGH STRENGTH BOLTS.
 - A. ALL BOLTED CONNECTIONS ARE DESIGNED AS SLIP CRITICAL CONNECTIONS WITH CLASS A SURFACE EXCEPT FOR:
 - 1) ARCH CHORD MEMBER STRENGTHENING CONNECTIONS WHICH INCLUDE CONNECTION OF STEEL TO EXISTING STEEL.
 - 2) ARCH GUSSET PLATE STRENGTHENING CONNECTIONS WHICH INCLUDE CONNECTION OF STEEL TO EXISTING STEEL.
 - 3) CONNECTIONS OTHERWISE SPECIFIED ON THE CONTRACT DRAWINGS.
 - B. FASTENERS WITH THREADS EXCLUDED FROM THE SHEAR PLANE ARE DESIGNATED WITH THE SUFFIX "-X", (FOR EXAMPLE: A325-X).
 - C. SHEAR CONNECTOR STUDS SHALL BE MADE FROM COLD-DRAWN BARS, GRADES 1015, 1018, OR 1020, EITHER SEMI OR FULLY KILLED, CONFORMING TO AASHTO M 169 (ASTM A108), AND SHALL HAVE A SPECIFIED MINIMUM YIELD AND TENSILE STRENGTH OF 50.0 KSI AND 60.0 KSI, RESPECTIVELY. IF FLUX RETAINING CAPS ARE USED, THE STEEL FOR THE CAPS SHALL BE OF A LOW CARBON GRADE SUITABLE FOR WELDING AND SHALL CONFORM TO ASTM A109.
 - 3.04 CONCRETE (FC IN PSI)
 - PRESTRESSED CONCRETE BOX GIRDER SEGMENTS 10,000

- PRECAST PIERS 8,500
- BOX GIRDER CLOSURE POURS 6,000
- CIP PIERS 6,000
- FOOTINGS AND ABUTMENTS 6,000
- BARRIERS 4,500
- DRILLED SHAFTS 4,000
- TREMIE SEALS 3,000
- LIGHT WEIGHT CONCRETE DECK 5,000
- CIP RETAINING WALLS 4,500
- PRECAST RETAINING WALLS 5,000
- A. ANY CAST-IN-PLACE CONCRETE THAT IS EXPOSED TO FREE/THAW MUST HAVE A MINIMUM STRENGTH OF 4500 PSI.
- B. THE USE OF STEEL STAY-IN-PLACE (SIP) FORMS FOR PERMANENT CONCRETE DECK CONSTRUCTION IS PROHIBITED. ALL CONCRETE FORMS ARE TO BE REMOVED AT THE END OF CONSTRUCTION. AN EXCEPTION IS THE SIP FORMWORK FOR THE SUP DECK.
- C. PROVIDE A SMOOTH FINISH FOR ALL EXPOSED CONCRETE SURFACES.
- D. PROVIDE A 3/4" CHAMFER AT ALL EXTERIOR CORNERS OF CONCRETE ELEMENTS UNLESS OTHERWISE NOTED ON THE CONTRACT DRAWINGS.
- E. CONCRETE PERFORMANCE CATEGORIES:

ELEMENT	PERFORMANCE CATEGORY
FOOTINGS	VI
PIER COLUMNS AND CAPS	V
ABUTMENTS/RETAINING WALLS	V
ALL ROADWAY BARRIERS	IV
ARCH/SUP/TOWER DECK	IV
ELECTRICAL FLOOR	V
SHARED USE PATH ON GRADE	IV

- 3.05 REINFORCING BARS (DEFORMED)
 - A. REINFORCING FOR THE FOLLOWING ELEMENTS SHALL CONFORM TO STAINLESS STEEL, ASTM A955, GRADE 75. THE STAINLESS STEEL ALLOY SHALL BE ASTM A276, UNS S32304, NO SUBSTITUTIONS.
 - 1) ARCH/TOWER ROADWAY SLABS
 - 2) ALL ROADWAY BARRIERS INCLUDING BARRIERS ON TOP OF RETAINING WALLS
 - 3) SUP FILLED GRATING, CURBS AND MOMENT SLABS
 - 4) APPROACH SLABS
 - 5) PRESTRESSED CONCRETE BOX GIRDERS: TOP SLAB AND BARS ANCHORED IN TOP SLABS
 - B. REINFORCING FOR THE FOLLOWING ELEMENTS SHALL CONFORM TO ASTM 615, GRADE 60.
 - 1) ALL SUBSTRUCTURE
 - 2) RETAINING WALLS
 - 3) PRESTRESSED CONCRETE BOX GIRDERS: WEBS, BOTTOM SLAB, DEVIATORS, DIAPHRAGMS EXCEPT FOR THOSE ELEMENTS ANCHORED IN THE TOP SLAB WHICH SHALL BE STAINLESS STEEL IN ACCORDANCE WITH NOTE 3.05.A.
 - 4) TOWER ELECTRICAL FLOORS
 - 5) ARCH ABUTMENT PEDESTALS
 - 6) SIDEWALK CONVERSION, TEMPORARY SHORING AND OTHER TEMPORARY STRUCTURES.
 - C. REINFORCING BARS FOR THE FOLLOWING ELEMENTS SHALL BE EPOXY COATED (ASTM A775)
 - 1) ALL SUBSTRUCTURE
 - 2) RETAINING WALLS
 - 3) PRESTRESSED CONCRETE BOX GIRDERS EXCEPT FOR THE REINFORCING DEFINED TO BE STAINLESS STEEL.
 - 4) ARCH ABUTMENT PEDESTALS
 - D. MINIMUM CLEAR COVER TO REINFORCING STEEL:
 - TOP OF STRUCTURAL SLAB WITH NO WEARING SURFACE 2 1/2 IN
 - BOTTOM OF DECK SLAB 1 1/2 IN
 - EXTERNAL UNDERSIDE OF SUPERSTRUCTURE CONCRETE BOX SEGMENTS 1 1/2 IN
 - INTERNAL TO SUPERSTRUCTURE CONCRETE BOX SEGMENTS 1 IN
 - PIER CAPS (MAIN STEEL) 3 IN
 - CIP PIERS AND PRECAST PIER SEGMENTS (EXTERNAL SURFACE) 3 IN
 - PRECAST PIER SEGMENTS (INTERNAL SURFACE) 2 IN
 - PIER FOOTINGS 3 IN
 - ABUTMENT- SURFACES IN CONTACT W/SOIL 3 IN
 - ABUTMENT- SURFACES NOT IN CONTACT W/SOIL 2 IN
 - E. THE WIRE USED TO TIE STAINLESS STEEL REINFORCEMENT SHALL BE 16 OR 18 GAUGE WIRE MEETING THE REQUIREMENTS OF ASTM A555 AND FABRICATED FROM ALLOY UNS S31600, IN DEAD SOFT ANNEALED CONDITION AND PASSIVATED ACCORDING TO ASTM A380.

- 3.06 PRESTRESSING STEEL
 - A. STRAND: AASHTO M203 (ASTM A416), GRADE 270 FOR STRESS RELIEVED STRAND WITH LOW-RELAXATION PROPERTIES.
 - 1) FPU= 270 KSI
 - 2) FPY= 243 KSI
 - 3) MODULUS OF ELASTICITY (FOR DESIGN): 28,500 KSI
 - MODULUS OF ELASTICITY (FOR ELONGATION): PER MANUFACTURER RECOMMENDATIONS.
 - 4) ANCHOR SET AND FRICTION: AS PER MANUFACTURER'S RECOMMENDATIONS. THE FOLLOWING VALUES HAVE BEEN ASSUMED IN THE DESIGN:
 - FRICTION: 0.23
 - WOBBLE: 0.0002/FT
 - ANCHOR SET: 0.25 IN
 - B. BARS: AASHTO M275 (ASTM A722), GRADE 150, TYPE II, DEFORMED.
 - 1) FPU= 150 KSI
 - 2) FPY= 120 KSI
 - 3) MODULUS OF ELASTICITY (FOR DESIGN): 30,000 KSI
 - 4) ANCHOR SET AND FRICTION: AS PER MANUFACTURER'S RECOMMENDATIONS. THE FOLLOWING VALUES HAVE BEEN ASSUMED IN THE DESIGN:
 - FRICTION: 0.3
 - WOBBLE: 0.0002/FT
 - ANCHOR SET: 0.06 IN
 - C. DUCTS:
 - 1) TYPICAL UNLESS NOTED: HDPE PIPE (ASTM D4101)
 - 2) DIAPHRAGMS AND DEVIATORS: GALVANIZED SCHEDULE 40 STEEL PIPE (ASTM A53).
- 3.07 ANCHOR BOLTS
 - A. ANCHOR BOLTS: ASTM F1554, GRADE 50 OR GRADE 105, AS NOTED.
 - B. ANCHOR BOLTS, NUTS AND WASHERS: HOT-DIPPED GALVANIZED, ASTM A153
- 3.08 ROADWAY DECK WEARING SURFACE/OVERLAY
 - THERE WILL BE NO IMMEDIATE OVERLAY ON STRUCTURES. IF REQUIRED IN THE FUTURE, THE WEARING SURFACE DEPTH WILL BE ACCOMMODATED BY MILLING OF THE CONCRETE SURFACE AN EQUAL DEPTH.

4. DESIGN LOADING
 - 4.01 LOAD COMBINATIONS: IN ACCORDANCE WITH AASHTO LRFD ARTICLE 3.4 - LOAD FACTORS AND COMBINATIONS, AND AS DEFINED WITHIN THESE NOTES.
 - 4.02 DEAD LOAD OF STRUCTURAL COMPONENTS & NON-STRUCTURAL ATTACHMENTS (DC)
 - A. LIGHT WEIGHT CONCRETE (INCLUDING STEEL REINFORCEMENT) 125 PCF (120 PCF W/O REINFORCEMENT)
 - B. NORMAL WEIGHT CONCRETE (INCLUDING STEEL REINFORCEMENT)
 - REINFORCED 150 PCF
 - PRESTRESSED: 155 PCF
 - EDGE BARRIER: 575 PLF
 - MEDIAN BARRIER: ARCH SPAN 780 PLF
 - C. STRUCTURAL STEEL 490 PCF
 - D. PEDESTRIAN/BICYCLE RAILING 100 LBS/FT, EACH
 - E. METAL RAILING (ON OUTER PARAPETS) 15 PLF
 - F. TEMPORARY BARRIER 430 PLF
 - 4.03 DEAD LOAD OF WEARING SURFACES & UTILITIES (DW)
 - A. EXISTING ARCH STRUCTURE WEARING SURFACE 30 PSF
 - B. FUTURE WEARING SURFACE 0 PSF
 - C. UTILITIES
 - ELECTRIC: 15 PLF, EACH SIDE
 - 2 DRAINAGE PIPE - WET: 70 PLF, EACH
 - 6" DIA. SCH. 40 STANDPIPE - WET: 40 PLF, EACH SIDE
 - LIGHT POLE WITH BLISTER: 1,250 LBS/EACH
 - SUP LIGHT POLE WITH BASE: 425 LBS/EACH
 - 4.04 LIVE LOAD
 - A. ADTT = 1036 TRUCKS
 - B. GRAVITY LOADS: LL AND PL
 - 1) INITIAL: FOUR VEHICULAR LANES WITH SHARED USE PATH (12 FEET).
 - a) FOUR LANES OF HL-93 LOADING AND PEDESTRIAN LOADS (FIGURE 1)
 - b) THIS CASE IS REFERRED TO AS THE BASE CASE. ALL ELEMENTS OF THE BRIDGE (ARCH AND APPROACHES) ARE DESIGNED FOR THIS CASE.
 - 2) BRT: ARCH FLOOR SYSTEM AND APPROACH STRUCTURES HAVE BEEN DESIGNED FOR FUTURE BUS RAPID TRANSIT (BRT) AS DEPICTED IN FIGURE 2.
 - a) OPERATED IN A DEDICATED LANE LOCATED AT THE CENTER OF THE STRUCTURE.
 - b) ARCH FLOOR SYSTEM: STRINGERS, FLOORBEAMS, SLAB, EDGE GIRDERS, SUSPENSERS AND SUSPENSER CONNECTIONS.
 - c) BRT LOADING: SINGLE HL-93 TRUCK WITH NO CONSIDERATION OF LANE LOADING.
 - d) ALL ELEMENTS, WITH THE EXCEPTION OF THE ARCH TRUSS, HAVE BEEN DESIGNED FOR A FUTURE BRT SYSTEM.
 - 3) LRT: ARCH FLOOR SYSTEM AND APPROACH STRUCTURES HAVE BEEN DESIGNED FOR A SINGLE TRACK FUTURE LIGHT RAIL TRANSIT (LRT) ON THE WEST SIDE AS DEPICTED IN FIGURE 3.
 - a) OPERATED IN A DEDICATED LANE LOCATED AT THE WEST SIDE OF THE STRUCTURE (FIGURE 3).
 - b) ARCH FLOOR SYSTEM: STRINGERS, FLOORBEAMS, SLAB, EDGE GIRDERS, SUSPENSERS AND SUSPENSER CONNECTIONS.
 - c) LRT LOADING: UP TO 3 CARS (6-AXLES EACH) TOTAL WEIGHT PER CAR: 147.6 KIPS (FIGURE 6)
 - d) ALL ELEMENTS, WITH THE EXCEPTION OF THE ARCH TRUSS, HAVE BEEN DESIGNED FOR A FUTURE LRT SYSTEM.

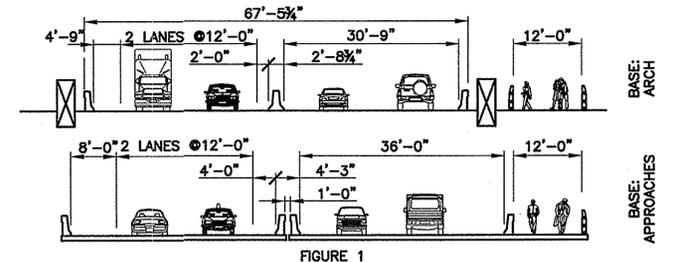


FIGURE 1

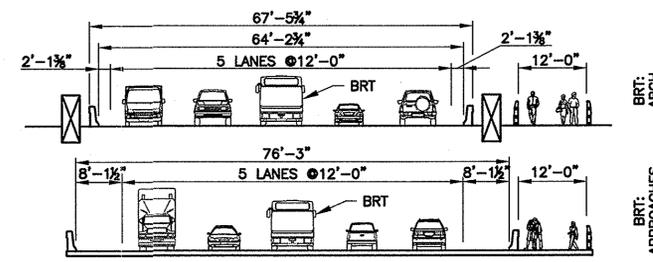


FIGURE 2

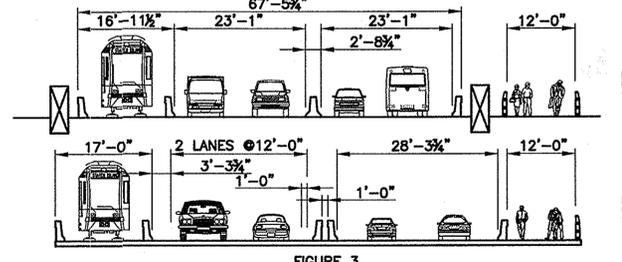


FIGURE 3

THE PORT AUTHORITY OF NY & NJ

HDR/PB, A JOINT VENTURE



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No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

BAYONNE BRIDGE

STRUCTURAL

Title
REPLACEMENT OF MAIN SPAN ROADWAY AND APPROACH STRUCTURES

STRUCTURAL NOTES SHEET 1

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R. GAJER I. TSENTER P. VAN HAGEN
Designed by Drawn by Checked by

Date 02/15/2013

Contract Number **AKB-264.039**

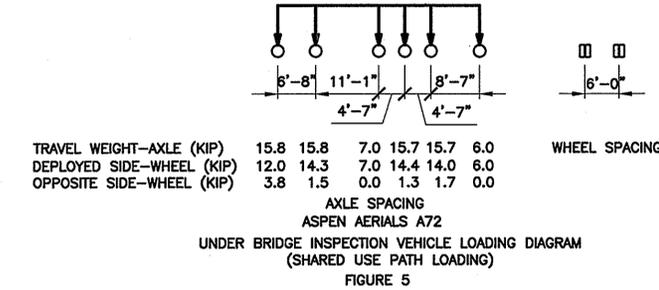
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PID# 08491000

- 4) LIVE LOADS NOTES
- THE BRT AND THE LRT LOADING ARE MUTUALLY EXCLUSIVE, I.E., THEY ARE NOT TO BE APPLIED AT THE SAME TIME.
 - BRT AND LRT MULTIPLE PRESENCE FACTORS:
100% BRT - USE MULTIPLE LANE FACTORS ONLY ON VEHICULAR LANES USED IN CONJUNCTION WITH BRT
100% LRT - USE MULTIPLE LANE FACTORS ONLY ON VEHICULAR LANES USED IN CONJUNCTION WITH LRT
- 5) APPROACH STRUCTURES AT THEIR SOUTHERN AND NORTHERN TERMINI ARE WIDER THAN THE TYPICAL SECTION DUE TO THE PRESENCE OF ACCELERATION AND/OR DECELERATION LANES. FOR THE WIDENED ENDS, THE DIVIDED ROADWAY HAS BEEN DESIGNED FOR THE NUMBER OF LANES THAT CAN FIT BETWEEN THE ROADWAY BARRIERS, WITHOUT SHOULDERS.
- 6) EXCEPTIONS: THE ANALYSIS OF CASE BRT AND CASE LRT IS LIMITED TO STRUCTURAL DESIGN. THE ALIGNMENT AND CONNECTION TO THE RAMPS AND DETAILING REQUIRED TO IMPLEMENT CASE BRT OR CASE LRT WILL BE DONE IN THE FUTURE, IF AND WHEN A BRT OR LRT SYSTEM IS IMPLEMENTED.
- 7) LL CASES SUMMARY

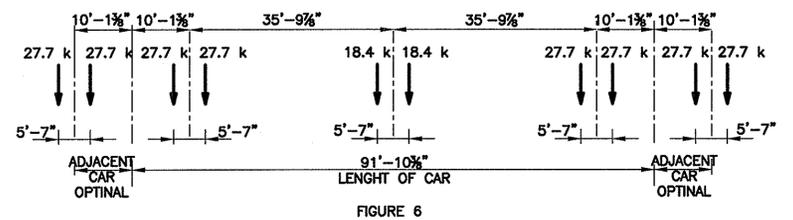
LIVE LOAD CASE	ARCH	HANGERS ¹	REDUNDANCY	FLOORBEAMS ²	STRINGERS	SLAB	APPROACHES ²
BASE CASE	X	X	X	X	X	X	X
CASE A (BRT)	NO	X	X	X	X	X	X
CASE B (LRT)	NO	X	X	X	X	X	X

¹ - INCLUDING CONNECTIONS TO THE ARCH AND FLOORBEAMS
² - ALL ELEMENTS FOR THE APPROACH STRUCTURES

- E. PEDESTRIAN LIVE LOAD (PL)
- PEDESTRIAN LOAD: 0.075 KSF
 - CONSIDERED SIMULTANEOUSLY WITH THE VEHICULAR DESIGN LIVE LOAD IN THE VEHICLE LANES IN ACCORDANCE WITH AASHTO LRFD SECTION 3.6.1.6.
 - MAINTENANCE OR INSPECTION VEHICLES: DESIGNED FOR H-15 WHEEL LOAD INCLUDING IMPACT.
 - SPECIAL INSPECTION VEHICLE: VEHICLE NOTED IN FIGURE 5 HAS BEEN CONSIDERED IN THE DESIGN WITH IM = 0.



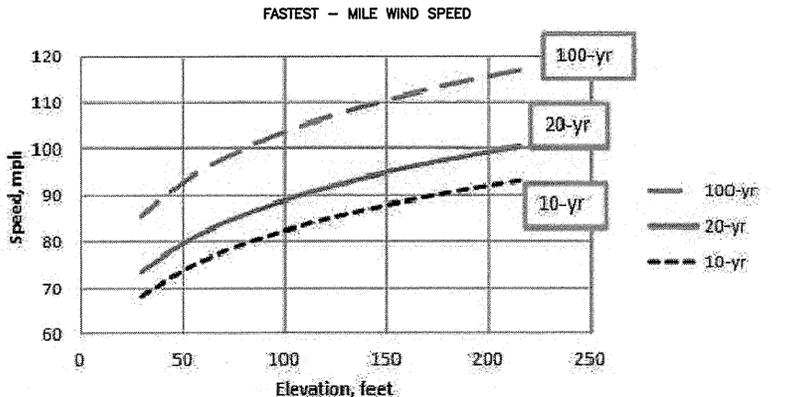
- F. LIGHT RAIL TRANSIT (LRT) SYSTEM LOADS
- THE LIGHT RAIL VEHICLE (LRV) ADOPTED IS FROM THE NJ TRANSIT LIGHT RAIL MANUAL OF DESIGN CRITERIA. THE ASSUMED LRV HAS THE FOLLOWING DESIGN LOAD CHARACTERISTICS: 6 AXLES PER CAR FOR A TOTAL WEIGHT OF 147.6 KIIPS. AN LRV TRAIN WILL CONSIST OF THREE CARS, MAXIMUM. FIGURE A2.4 DEPICTS THE POSITION AND LOAD OF EACH VEHICLE AXLE.



- TRANSIT LOADS:
 - DEAD LOAD OF RAIL/HARDWARE: 400 PLF
 - LRV DERAILMENT FORCES: FUTURE LRT WILL BE DESIGNED WITH GUARD RAILS SO DERAILMENT FORCES NEED NOT BE CONSIDERED.
 - LRV RAIL/STRUCTURE INTERACTION FORCE: NOT CONSIDERED AT THIS TIME
 - LRV SERVICE/SAFETY WALK LOADING: 75 PSF
 - LRV IMPACT (IM): 20%
 - LRV ROLLING OR HUNTING FORCE (RF): A FORCE EQUAL TO 10 PERCENT OF THE LRV LOADING ON THE TRACK APPLIED AT THE TOP OF THE RAIL AND TRANSVERSE TO THE RAIL.
 - LRV LONGITUDINAL BRAKING AND TRACTION FORCE (LF): A FORCE EQUAL TO 15% FOR NORMAL BRAKING AND 30% FOR EMERGENCY BRAKING OF THE LRV LOADING PER TRACK APPLIED LONGITUDINALLY 5 FEET ABOVE THE TOP OF RAIL ON ALL TRACKS.
 - MULTIPLE PRESENCE FACTORS APPLIED TO HIGHWAY LANES ONLY.
 - LRT LOADS COMBINED WITH HIGHWAY TRAFFIC LOADS TO PRODUCE THE MOST CRITICAL STRESS CONDITION IN THE MEMBER.

4.05 WIND LOAD: WL AND WS

- A. ARCH
- WIND DESIGN RETURN PERIODS
 - FOR STRUCTURAL DESIGN OF THE BRIDGE IN ITS FINAL CONDITION, THE 100-YEAR RETURN PERIOD WIND SPEED WAS USED: 90 MPH (MEAN HOURLY).
 - FOR AEROELASTIC STABILITY OF THE BRIDGE IN ITS FINAL CONDITION, THE 10,000-YEAR RETURN PERIOD WIND SPEED WAS USED: 133 MPH (10-MIN MEAN).
 - FOR STRUCTURAL DESIGN OF THE BRIDGE DURING CONSTRUCTION, THE 20-YEAR RETURN PERIOD WIND SPEED WAS USED: 78.5 MPH (MEAN HOURLY).
 - FOR AEROELASTIC STABILITY DURING CONSTRUCTION, THE 1,000-YEAR RETURN PERIOD WIND SPEED WAS USED: 110 MPH (10-MIN MEAN).
 - FOR WIND FORCES REFER TO RWDI REPORT DATE MARCH 2012, REVISED MAY 2012.
- B. APPROACH STRUCTURES: AASHTO-LRFD SECTION 3.8. DESIGN WIND SPEEDS (FASTEST-MILE) ARE SHOWN BELOW AS A FUNCTION OF THE HEIGHT ABOVE GROUND. THE 100-YR RETURN PERIOD WIND SPEEDS WAS USED FOR DESIGN OF THE APPROACH STRUCTURES IN THEIR FINAL CONDITION. THE 20-YR RETURN PERIOD WIND SPEEDS ARE USED FOR DESIGN OF THE APPROACH STRUCTURES DURING CONSTRUCTION. 10-YR RETURN PERIOD WIND SPEEDS ARE ALSO PROVIDED.



ELEVATION FEET	FASTEST - MILE WIND SPEED mph		
	100-YR	20-YR	10-YR
215	117	100	93
195	115	99	92
175	113	97	90
155	111	95	88
135	109	93	87
115	106	91	84
95	103	88	82
75	99	85	79
55	94	81	75
35	88	75	70
30	85	73	68

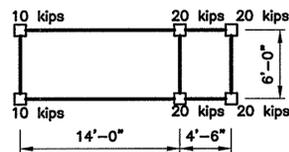
WIND SPEEDS ARE BASED ON THE RWDI FINAL WIND REPORT AND ARE CALCULATED BY CONVERTING THE MEAN HOURLY WIND SPEEDS GIVEN IN THE REPORT TO FASTEST-MILE WIND SPEEDS, AS USED PER AASHTO, AND ACCOUNTING FOR RETURN PERIOD AND HEIGHT OF STRUCTURE AS SHOWN.
SEE NOTES ON DRAWING S2006 FOR WIND RELATED RESTRICTIONS DURING THE ERECTION GANTRY OPERATIONS, AND THE DESIGN OF THE PERMANENT APPROACH STRUCTURES FOR CONSTRUCTION CONDITIONS IN CONJUNCTION WITH THE ERECTION GANTRY.

- C. FOR WIND LOADING ON SIGN STRUCTURES, SEE CONTRACT DRAWING S2732.
- 4.06 THERMAL FORCES
- DESIGNED FOR ALL EXPECTED THERMAL MOVEMENTS, FORCES AND EFFECTS OF A COLD CLIMATE.
 - UNIFORM TEMPERATURE (TU): THE DESIGN THERMAL MOVEMENT ASSOCIATED WITH A UNIFORM TEMPERATURE CHANGE: PROCEDURE A (AASHTO LRFD- SECTION 3.12.2.1)
 - DESIGN MEAN SETTING TEMPERATURE: 60° F.
 - THERMAL COEFFICIENTS:
 - NW CONCRETE: 6.0 X 10-6 PER °F (AASHTO LRFD - SECTION 5.4.2.2)
 - LW CONCRETE: 5.0 X 10-6 PER °F (AASHTO LRFD - SECTION 5.4.2.2)
 - STEEL: 6.5 X 10-6 PER °F (AASHTO LRFD - SECTION 6.4.1)
 - FOR DECK MOVEMENTS FOR DESIGN OF BEARINGS AND EXPANSION JOINTS:
 - STEEL = -30° TO 120°F
 - CONCRETE = 0° TO 80°
 - TEMPERATURE RISES AND DROPS (TDROP, TRISE)
 - THE ADDITIONAL COMBINED MOVEMENT EFFECTS OF CREEP, SHRINKAGE AND ELASTIC SHORTENING COMBINED WITH TEMPERATURE WERE CONSIDERED AS FOLLOWS:
 - 1.2 (TEMPERATURE DROP) + SHRINKAGE FOR THE ARCH
 - 1.2 (TEMPERATURE DROP + CREEP + SHRINKAGE + ELASTIC SHORTENING) FOR THE APPROACH STRUCTURES
 - 1.2 (TEMPERATURE RISE)
 - FOR LOADS AND OTHER EFFECTS, A LOAD FACTOR OF 1.0 WAS USED TO ACCOUNT FOR THE COMBINED EFFECTS OF TEMPERATURE, SHRINKAGE, CREEP AND ELASTIC SHORTENING IN THE COMBINATIONS LISTED ABOVE (4.06 F.1). SHRINKAGE IS NOT TO BE INCLUDED IN THE FORCE EFFECTS FOR THE ARCH STRUCTURE.
 - TEMPERATURE GRADIENT (TG): CONCRETE APPROACH STRUCTURES
 - LOAD FACTORS AND LOAD COMBINATIONS FOR TEMPERATURE GRADIENT (TG) UNDER THE STRENGTH, SERVICE AND EXTREME LIMIT STATES: AASHTO LRFD SECTION 3.4.
 - POSITIVE AND NEGATIVE TEMPERATURE GRADIENT (TG):
 - AASHTO LRFD SECTION 3.12.3 (FOR SUPERSTRUCTURE DESIGN)
 - TRANSVERSE THERMAL EFFECTS FOR WIDE STRUCTURES HAVE BEEN ACCOUNTED FOR IN THE DESIGN.
 - PIERS WERE DESIGNED FOR A FRICTION COEFFICIENT OF 3% AT THE BEARINGS.
- 4.07 CREEP & SHRINKAGE
- A. CREEP AND SHRINKAGE STRAINS: COMPUTED USING THE CEB-FIP MODEL CODE FOR CONCRETE STRUCTURES, 1978 VERSION. THE FOLLOWING PARAMETERS HAVE BEEN USED IN THE DESIGN:
- DESIGNED FOR RELATIVE HUMIDITY OF 70% AS PER AUTHORITY DESIGN GUIDELINES
 - FOR NOTIONAL THICKNESS CALCULATIONS, THE PERIMETER EXPOSED TO THE ATMOSPHERE IS THE SUM OF INTERNAL AND EXTERNAL PERIMETERS
 - AVERAGE AGE AT INITIAL LOADING ASSUMED TO BE 90 DAYS FOR DETERMINATION OF CREEP AND SHRINKAGE PARAMETERS
- 4.08 LONGITUDINAL FORCES
- HIGHWAY BRAKING FORCES (BR): AASHTO LRFD ARTICLE 3.6.4
 - LRV LONGITUDINAL BRAKING AND TRACTION FORCE (LF): SEE NOTE 4.04.E.2.g
- 4.09 EARTHQUAKE EFFECTS: ZONE 2, MINIMUM
- IMPORTANCE CLASSIFICATION: ESSENTIAL
 - DESIGN GROUND MOTIONS
 - ARCH: SITE-SPECIFIC MOTIONS: 2004 NYCDOT ROCK MOTIONS
 - FORCE DEMANDS: 2004 NYCDOT ROCK MOTIONS FOR 1500-YR RP
 - DISPLACEMENT DEMANDS (ARCH): 2004 NYCDOT ROCK MOTIONS FOR 2500-YR RP
 - APPROACHES

A SITE SPECIFIC RESPONSE SPECTRUM BASED ON 1,500 YEARS RETURN IS USED. A RESPONSE SPECTRUM OF 2,500 YEARS RETURN IS USED TO CHECK DISPLACEMENT DEMAND. THE RESPONSE RESPONSES ARE SHOWN BELOW:

2500-YEAR		1500-YEAR	
PERIOD (SEC)	ACCELERATION (G)	PERIOD (SEC)	ACCELERATION (G)
0	1.2	0	0.92
0.18	1.2	0.24	0.92
0.24	0.92	0.31	0.46
0.5	0.22	0.5	0.153
1	0.12	1	0.0867
2	0.04	2	0.0267
4	0.0133	3	0.0167
		4	0.0075

- D. PERMIT VEHICLES
- PERMIT VEHICLES: IN ACCORDANCE WITH AASHTO LRFD AND VARIOUS AGENCIES (PANYNJ, NYCDOT, NJDOT, NYSDOT). TWO TYPES OF PERMIT VEHICLES ARE DEFINED: ROUTINE AND SPECIAL. THESE DEFINITIONS ARE BASED ON NCHRP 454 "CALIBRATION OF LOAD FACTORS FOR LRFD BRIDGE EVALUATION".
 - THE NOTIONAL RATING LOAD (NRL) SHOWN IN FIGURE D6A-6 OF THE AASHTO 2011 MANUAL FOR BRIDGE EVALUATION, WHICH ENVELOPES THE LOAD EFFECTS OF THE "FEDERAL BRIDGE FORMULA B", SPECIALIZED HAULING VEHICLE CONFIGURATIONS (SEE FIGURE D6A-7 IN THE AASHTO MANUAL) WEIGHING UP TO 80 KIIPS, HAS BEEN USED FOR LEGAL LOAD RATINGS.
NOTE: THE VEHICLES REFERRED TO AS SPECIALIZED HAULING VEHICLES (SHV) ARE LEGAL SINGLE-UNIT SHORT-WHEELBASE MULTIPLE-AXLE TRUCKS COMMONLY USED IN THE CONSTRUCTION, WASTE MANAGEMENT, BULK CARGO AND COMMODITIES HAULING INDUSTRIES
 - SPECIAL PERMIT VEHICLE (OVERLOAD)
 - NYSDOT DESIGN PERMIT VEHICLE (STRENGTH II LIMIT STATE ONLY) - NYSDOT LRFD BLUE PAGES 3.6.1.2.4A
 - NJDOT DESIGN PERMIT VEHICLE (STRENGTH II LIMIT STATE ONLY) - NJDOT STIPULATIONS LRFD 3.6.1.2.1
 - ADDITIONAL PERMIT VEHICLES
 - NYC TRANSIT CONCRETE TRUCK (FIGURE 4)



- PERMIT VEHICULAR DYNAMIC LOAD ALLOWANCE (IM)
 - IM: AASHTO LRFD TABLE 3.6.2.1-1
 - IMPACT APPLIED TO ALL SUPERSTRUCTURE ELEMENTS, BEARINGS (EXCEPT ELASTOMERIC), AND SUBSTRUCTURE ELEMENTS (PIER CAPS, PIERS AND PILE CAPS).
 - IMPACT NOT APPLIED TO FOUNDATION COMPONENTS THAT ARE ENTIRELY BELOW GROUND LEVEL. THIS INCLUDES BUT IS NOT LIMITED TO PILES AND DRILLED SHAFTS.
 - NJDOT STIPULATIONS- LRFD 3.6. 2.

THE PORT AUTHORITY OF NY & NJ

HDR/PB, A JOINT VENTURE



JOSEPH LOBUONO

N.J. Professional Engineer # 24GE04323800



N.Y. Professional Engineer # 054098

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

BAYONNE BRIDGE

STRUCTURAL

REPLACEMENT OF MAIN SPAN ROADWAY AND APPROACH STRUCTURES

STRUCTURAL NOTES SHEET 2

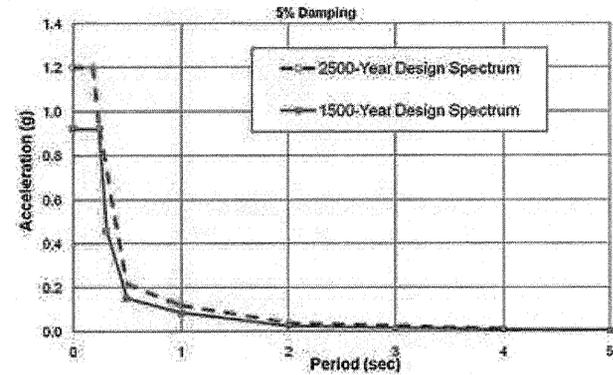
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R.GAJER I.TSENIER P.VAN HAGEN
Designed by Drawn by Checked by
Date 02/15/2013

Contract Number AKB-264.039

Drawing Number S0103
PID# 08491000

BAYONNE BRIDGE NY & NJ APPROACHES. RECOMMENDED DESIGN RESPONSE SPECTRA



4.10 SUSPENDER SPECIAL LOADING

A. SUSPENDERS FAILURE LOAD CASE

- 1) SIMULTANEOUS LOSS OF ANY TWO ADJACENT SETS OF CABLE-HANGERS WITHOUT THE OCCURRENCE OF STRUCTURAL INSTABILITY.
 - a) EQUIVALENT STATIC ANALYSES
- I. TOTAL FORCE, ACCOUNTING FOR STATIC AND DYNAMIC EFFECTS RESULTING FROM THE RUPTURE OF TWO CABLE-HANGERS: 1.65 TIMES THE MAXIMUM STATIC FORCE IN THE CABLE-HANGER (TMAX) (I.E. DYNAMIC AMPLIFICATION ASSUMED 65%)
- II. FORCE IS TO BE APPLIED AT BOTH THE TOP AND BOTTOM OF THE MISSING CABLES ANCHORAGE CONNECTION LOCATIONS.
- 2) EXTREME EVENT II LIMIT STATE CASE COMBINATION: LOAD FACTORS
 1.1 DC + 1.35 DW + 0.75(LL+IM) + 1.1 CLDF**,
 WHERE CLDF = CABLE LOSS TOTAL FORCE EFFECT (ACCOUNTING FOR STATIC AND DYNAMIC EFFECTS)
 * FULL LIVE LOAD PLACED IN THEIR ACTUAL STRIPED LANES. PL WAS NOT INCLUDED IN THIS LOAD COMBINATION
 ** ASSUME 65% DYNAMIC AMPLIFICATION: (DYNAMIC ANALYSES WERE PERFORMED TO ESTABLISH DYNAMIC EFFECTS)
- 3) EXTREME EVENT II LIMIT STATE CASE RESISTANCE FACTORS: $\phi = 1.25$ FOR BENDING MODES OF FAILURE AND TENSION MODES WHEN CHECKING YIELDING OF THE GROSS SECTION; $\phi = 1.00$ FOR NET SECTION FRACTURE; $\phi = 1.00$ FOR SHEAR MODES OF FAILURE; FOR SUSPENDERS $\phi = 1.00$; FOR BOLTS, RIVETS AND SHEAR CONNECTORS $\phi = 1.25 \phi_s$, WHERE: ϕ_s = RESISTANCE FACTOR FOR STRENGTH LIMIT STATES.

B. SUSPENDER STRAND REPLACEMENT

- 1) THE DESIGN OF MAIN SPAN PROVIDES FOR THE REPLACEMENT OF ANY INDIVIDUAL SUSPENDER STRAND WITH A REDUCTION OF THE LIVE LOAD IN THE AREA OF THE CABLE UNDER EXCHANGE.
- 2) THE LOAD FACTORS AND COMBINATION FOR THIS CONDITION:
 1.2 DC + 1.4 DW + 1.5 (LL + IM) + CABLE EXCHANGE FORCES
 * AT LEAST ONE LANE OF LIVE LOAD WAS SHIFTED AWAY FROM THE HANGER ROPE/STRAND BEING REPLACED.
 PL WAS NOT INCLUDED IN THIS LOAD COMBINATION
- 3) DEFINITIONS OF SYMBOLS: SECTION 3.3.2 OF AASHTO LRFD.
- 4) RESISTANCE FACTOR: $\phi = 0.75$

1. ERECTION DESIGN

A. GENERAL

- 1) A CONSTRUCTION SEQUENCE IS INDICATED ON THE PLANS AND, IF UTILIZED BY THE CONTRACTOR, IT SHALL BE VERIFIED FOR ACCURACY AND APPLICABILITY BY THE CONTRACTOR. IT IS PRESENTED FOR INFORMATION ONLY AND, IF USED, IT IS TO BE FULLY DEVELOPED BY THE CONTRACTOR.
- 2) IN ADDITION TO STRUCTURAL CAMBER, THE CONTRACTOR SHALL PROVIDE CAMBER TO THE STRUCTURE TO ACCOUNT FOR THE METHOD OF CONSTRUCTION CHOSEN AS WELL AS THE ROADWAY GEOMETRY, THE FINAL GRADES AND CROSS-SLOPES AS INDICATED ON THE PLANS SHALL BE ACHIEVED AND CONFIRMED BY A FINAL SURVEY.
- 3) THE CONTRACTOR SHALL SUBMIT COMPLETE STRESS AND CAMBER CALCULATIONS IN EACH ERECTION STAGE, DETAILED SHOP AND ERECTION DRAWINGS, AND THE PROPOSED ERECTION METHOD TO THE ENGINEER FOR REVIEW.
- 4) CONTRACTOR SHALL SUBMIT THE MEANS AND DESIGN OF TEMPORARY SHORING OF THE EXISTING BRIDGE FOR APPROVAL WHEN A DEEP FOUNDATION EXCAVATION ADJACENT TO THE EXISTING PIER FOUNDATIONS IS EXPECTED
- 5) THE CONTRACTOR SHALL ENSURE THAT THE STRUCTURE REMAINS SAFE AND STABLE UNDER ALL ANTICIPATED LOADING CONDITIONS DURING CONSTRUCTION.
- 6) ALL CONTRACTOR SUBMISSIONS SHALL BE SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE WHERE THE WORK IS TO BE PERFORMED.

B. MINIMUM CONSTRUCTION LOADINGS

- 1) APPLICATION OF DESIGN LOAD SHOULD BE IN ACCORDANCE TO ARTICLE 8.15 - APPLICATION OF LOADS OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS
- 2) LOAD FACTORS AND CONSTRUCTION LOAD SHOULD BE IN ACCORDANCE TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS ARTICLE 3.4.2, AND THESE CRITERIA.
- 3) DEAD LOADS: APPLIED LOADS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE ACTUAL WEIGHT OF FORM TRAVELERS (INCLUDING FORMS), CONSTRUCTION EQUIPMENT, MATERIALS, LIFTING DEVICES, ETC. A MINIMUM 10% IMPACT SHALL BE APPLIED TO ALL DEAD LOADS BEING LIFTED.
- 4) LIVE LOADS: LIVE LOAD DURING CONSTRUCTION AS PER AASHTO LRFD BRIDGE SPECIFICATIONS. IT SHALL BE APPLIED TO THE SUPERSTRUCTURE TO PRODUCE THE MAXIMUM CONSTRUCTION EFFECTS.
 - a) 3.4.1 - LOAD FACTORS AND LOAD COMBINATIONS
 - b) 3.4.2 - LOAD FACTORS FOR CONSTRUCTION LOADS
 - c) 5.14.2.3.2 - CONSTRUCTION LOADS
 - d) 5.14.2.3.3 - CONSTRUCTION LOAD COMBINATIONS AT THE SERVICE LIMIT STATE

- 5) FALSEWORK LOADS: THE DESIGN LOAD FOR FALSEWORK SHALL BE IN ACCORDANCE TO ARTICLE 3.2.2 - FALSEWORK DESIGN AND CONSTRUCTION, OF THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS.
- 6) SEISMIC LOADS: SEISMIC LOADING DURING CONSTRUCTION SHALL BE AS DEFINED BY ARTICLE 3.10.10, "REQUIREMENT FOR TEMPORARY BRIDGES AND STAGE CONSTRUCTION" OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- 7) THERMAL FORCES: TEMPERATURE EFFECTS SHALL BE CONSIDERED DURING CONSTRUCTION.
- 8) CONSTRUCTION WIND LOADS: WIND LOADS DURING CONSTRUCTION SHALL BE AS DEFINED UNDER THE WIND LOAD SECTION OF THESE CRITERIA.
- 9) LOAD COMBINATIONS: CONSTRUCTION LOADS SHALL BE COMBINED IN ACCORDANCE WITH AASHTO LRFD ARTICLE 3.4.2 - LOAD FACTORS FOR CONSTRUCTION LOADS, WITH AN EQUIVALENT, IF ANY, OVERSTRESS ALLOWANCE OF 25% FOR TEMPORARY CONDITION.

6. DESIGN PROCEDURES

A. STEEL TRUSS MEMBERS

- 1) DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS ARTICLE 6.14.2 - TRUSSES
- 2) TRUSS MEMBERS: DESIGNED TO RESIST DIFFERENT COMBINATIONS OF TENSION, COMPRESSION, FLEXURAL AND SHEAR DEMANDS ACCORDING TO APPROPRIATE SUB-SECTIONS OF ARTICLES 6.8, 6.9, 6.10 AND 6.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
- 3) GUSSET PLATES: DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS ARTICLE 6.14.2.8 - GUSSET PLATES. ALSO:
 - a) GUSSET PLATES EVALUATED OR DESIGNED ACCORDING TO THE STRENGTH EQUATIONS AND GENERAL RECOMMENDATIONS PRESENTED IN THE 2009 FHWA GUIDE: LOAD RATING GUIDANCE AND EXAMPLES FOR BOLTED AND RIVETED GUSSET PLATES IN TRUSS BRIDGES.

B. STEEL GIRDERS, STRINGERS AND FLOORBEAMS

- 1) EFFECTIVE WIDTH OF THE DECK SLAB FOR COMPOSITE SECTIONS: DETERMINED IN ACCORDANCE WITH AASHTO LRFD ARTICLE 4.6.2.6 - EFFECTIVE FLANGE WIDTH.
 - a) GIRDERS AND STRINGERS: DESIGNED IN ACCORDANCE WITH ARTICLE 4.6.2.6.1, AND TRANSVERSE FLOORBEAMS IN ACCORDANCE WITH ARTICLE 4.6.2.6.5.
- 2) LIMITING DISTRIBUTION OF FLEXURAL REINFORCEMENT "Z" FOR CRACK CONTROL: CALCULATIONS BASED ON 130 KIPS/INCH.
- 3) MINIMUM COMPRESSIVE STRENGTH: 4,000 PSI BEFORE RELEASING FORMS ON NON-PRESTRESSED CONCRETE.

D. REINFORCED AND PRESTRESSING CONCRETE DETAILING: REQUIREMENTS OF AASHTO LRFD FOR SEISMIC ZONES 3 AND 4.

E. ALLOWABLE STRESS - APPROACH STRUCTURES

- 1) PRESTRESSING STEEL - STRAND:
 - MAXIMUM STRESS AT JACKING: 216 KSI
 - MAXIMUM STRESS AT ANCHORAGES AFTER ANCHOR SET: 189 KSI
 - MAXIMUM STRESS AT TENDON AFTER PRESTRESS TRANSFER: 200 KSI
- 2) PRESTRESSING STEEL - BAR:
 - MAXIMUM STRESS AT JACKING: 108 KSI
 - MAXIMUM STRESS AFTER ANCHOR SET: 105 KSI
- 3) PRECAST SEGMENTAL CONCRETE BOX GIRDER SUPERSTRUCTURES
 PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, AS LISTED BELOW:
 - a) DURING CONSTRUCTION:
 - TEMPORARY CONCRETE COMPRESSIVE STRESS LIMITS BEFORE LOSSES: 60% OF CONCRETE'S STRENGTH AT AGE OF CHECK (PER AASHTO LRFD ARTICLE 5.9.4.1.1)
 - TEMPORARY CONCRETE TENSILE STRESS LIMITS BEFORE LOSSES (PERMANENT LOADS ONLY): NO TENSION (PER AASHTO LRFD TABLE 5.9.4.1.2-1)
 - TEMPORARY CONCRETE TENSILE STRESS LIMITS BEFORE LOSSES (WITH CONSTRUCTION LOADINGS APPLIED): BASED ON APPLICABLE LOADING CONDITION OF AASHTO LRFD TABLE 5.14.2.3.3-1
 - b) AFTER CONSTRUCTION:
 - CONCRETE COMPRESSIVE STRESS LIMITS AT SERVICE LIMIT STATE AFTER LOSSES (PERMANENT LOADS ONLY): 4.5 KSI (PER AASHTO LRFD TABLE 5.9.4.2.1-1)
 - CONCRETE COMPRESSIVE STRESS LIMITS AT SERVICE LIMIT STATE AFTER LOSSES: 6.0 KSI (PER AASHTO LRFD TABLE 5.9.4.2.1-1 AND ADJUSTED WHERE REQUIRED BY THE SECTION SLENDERNESS FACTOR)
 - CONCRETE TENSILE STRESS LIMITS AT SERVICE LIMIT STATE AFTER LOSSES (LONGITUDINAL): NO TENSION (PER AASHTO LRFD TABLE 5.9.4.2.2-1)
 - CONCRETE TENSILE STRESS LIMITS AT SERVICE LIMIT STATE AFTER LOSSES (TRANSVERSE): 0.300 KSI (PER AASHTO LRFD TABLE 5.9.4.2.2-1)
 - PRINCIPAL CONCRETE TENSILE STRESS IN WEB AT NEUTRAL AXIS AT SERVICE LIMIT STATE AFTER LOSSES: 0.350 KSI (PER AASHTO LRFD TABLE 5.9.4.2.2-1)
 - SHEAR AND TORSION DESIGN AT THE STRENGTH LIMIT STATE PER AASHTO LRFD ARTICLE 5.8.6.

4) SUPERSTRUCTURE SEGMENT CASTING AND ERECTION

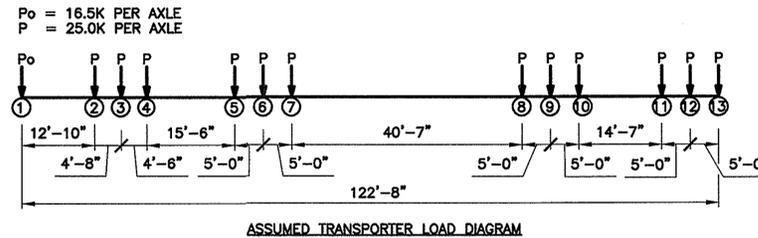
- THE FOLLOWING MINIMUM CONCRETE STRENGTH LIMITS SHALL BE OBSERVED:
- PRIOR TO LIFTING SEGMENTS OR LOWERING SUPPORT FORMS: 2.5 KSI
 - PRIOR TO TRANSVERSE AND VERTICAL POST TENSIONING: 4.0 KSI
 - PRIOR TO ERECTION OF PRECAST SEGMENTS: 10 KSI
 - PRIOR TO LONGITUDINAL POST TENSIONING OF PRECAST SEGMENTS: 10 KSI
 - PRIOR TO STRESSING LONGITUDINAL POST TENSIONING ACROSS CAST-IN-PLACE CLOSURE JOINTS: 4.0 KSI

5) PRECAST SEGMENTAL JOINTS

- a) ALL PRECAST SEGMENTAL JOINTS SHALL BE MATCH CAST AND EPOXY SEALED.
- b) REQUIRED COMPRESSIVE STRESSES ON JOINT UNTIL EPOXY HAS CURED:
 - MINIMUM: 0.030 KSI
 - AVERAGE: 0.040 KSI

7. TRANSPORTER LOAD LIMITS

THE EXISTING APPROACH STRUCTURES HAVE BEEN CHECKED FOR A SPECIAL TRANSPORTER LOAD OF THE AXLE LOAD DIAGRAM SHOWN BELOW. THE STRUCTURAL CAPACITY CHECK WAS BASED ON AVAILABLE DRAWINGS, INSPECTION REPORTS AND LOAD RATING REPORTS. THE STRUCTURES WERE FOUND TO BE CAPABLE TO CARRY THIS SPECIFIC TRANSPORTER, EXCEPT THAT IN ONE AREA BETWEEN THE NY ABUTMENT NEXT TO INNIS STREET AND THE EXISTING TOLL PLAZA. IN THIS AREA THE TRANSPORTER SHALL TRAVEL 17.00' AWAY FROM THE EXISTING WEST BARRIER. THIS INFORMATION IS FOR CONTRACTOR'S REFERENCE ONLY. CONTRACTOR SHALL BE COMPLETELY RESPONSIBLE FOR THE SAFETY OF TRANSPORTING ANY SPECIAL EQUIPMENT, MATERIALS AND STRUCTURES CROSSING THE EXISTING AND NEWLY CONSTRUCTED BRIDGE STRUCTURES.



ASSUMED TRANSPORTER LOAD DIAGRAM

THE PORT AUTHORITY
OF NY & NJ

HDR/PB, A JOINT VENTURE



N.J. Professional Engineer # 24GE04323800



N.Y. Professional Engineer # 054098

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

BAYONNE BRIDGE

STRUCTURAL

Title
REPLACEMENT OF MAIN SPAN ROADWAY AND APPROACH STRUCTURES

STRUCTURAL NOTES SHEET 3

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R.GAJER I.TSENER P.VAN HAGEN
Designed by Drawn by Checked by

Date 02/15/2013

Contract Number **AKB-264.039**

Drawing Number **S0104**

PD# 08491000

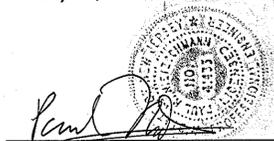
NOTES:

1. FOR LEGEND AND ABBREVIATIONS, SEE CONTRACT DRAWING S0101.
2. FOR STRUCTURAL NOTES, SEE CONTRACT DRAWINGS S0102-S0104.
3. TOLL GANTRY SHALL BE CONSTRUCTED DURING CONSTRUCTION STAGES 4 & 5.
4. CONTRACTOR SHALL FURNISH AND INSTALL 4 EMPTY CONDUITS (1 POWER, 1 COMMS AND SPARE OF EACH) WITH PULL STRINGS TO RUN DIRECTLY FROM THE EQUIPMENT PAD TO ONE POST OF THE SPACE FRAME. CONTRACTOR SHALL FURNISH AND INSTALL ANOTHER 4 EMPTY CONDUITS (1 POWER, 1 COMMS AND SPARE OF EACH) WITH PULL STRINGS TO RUN DIRECTLY FROM THE EQUIPMENT PAD TO AN ADJACENT POST OF THE SPACE FRAME. THE CONDUITS SHALL BE PLACED INSIDE THE POST AND ATTACHED TO THE OUTSIDE SURFACE OF THE SPACE FRAME CHORD MEMBERS. CONTRACTOR SHALL DESIGN, FURNISH AND INSTALL EQUIPMENT MOUNTING FRAMES TO THE SPACE FRAME. CONTRACTOR SHALL USE CONDUIT AND MOUNTING FRAME ATTACHMENT DEVICES WITHOUT DAMAGING THE CHORD MEMBERS.
5. FOR TOLL EQUIPMENT PAD DETAIL, SEE CONTRACT DRAWING S2603.
6. FOR APPROACH SLAB, SLEEPER SLAB AND CRASH WALL WITHIN APPROACH SLAB DETAILS, SEE CONTRACT DRAWINGS S0805 TO S0808.
7. CONTRACTOR SHALL COORDINATE WITH ETC REGARDING THE SPECIFIC SIZE, QUANTITY AND TERMINATION LOCATIONS OF THE TOLL SYSTEM CONDUITS, REFER TO CONTRACT DRAWINGS ES0715 AND ES0716 FOR CONDUIT SCHEDULE.

Sheet **945** of **2314**

**THE PORT AUTHORITY
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HDR/PB, A JOINT VENTURE



PAUL NIETZSCHMANN
N.J. Professional Engineer # 24GE04143500



PAUL NIETZSCHMANN
N.Y. Professional Engineer # 059939

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

**BAYONNE
BRIDGE**

STRUCTURAL

Title
**REPLACEMENT OF MAIN SPAN ROADWAY
AND APPROACH STRUCTURES**

**PERMANENT
TOLL GANTRY PLAN**

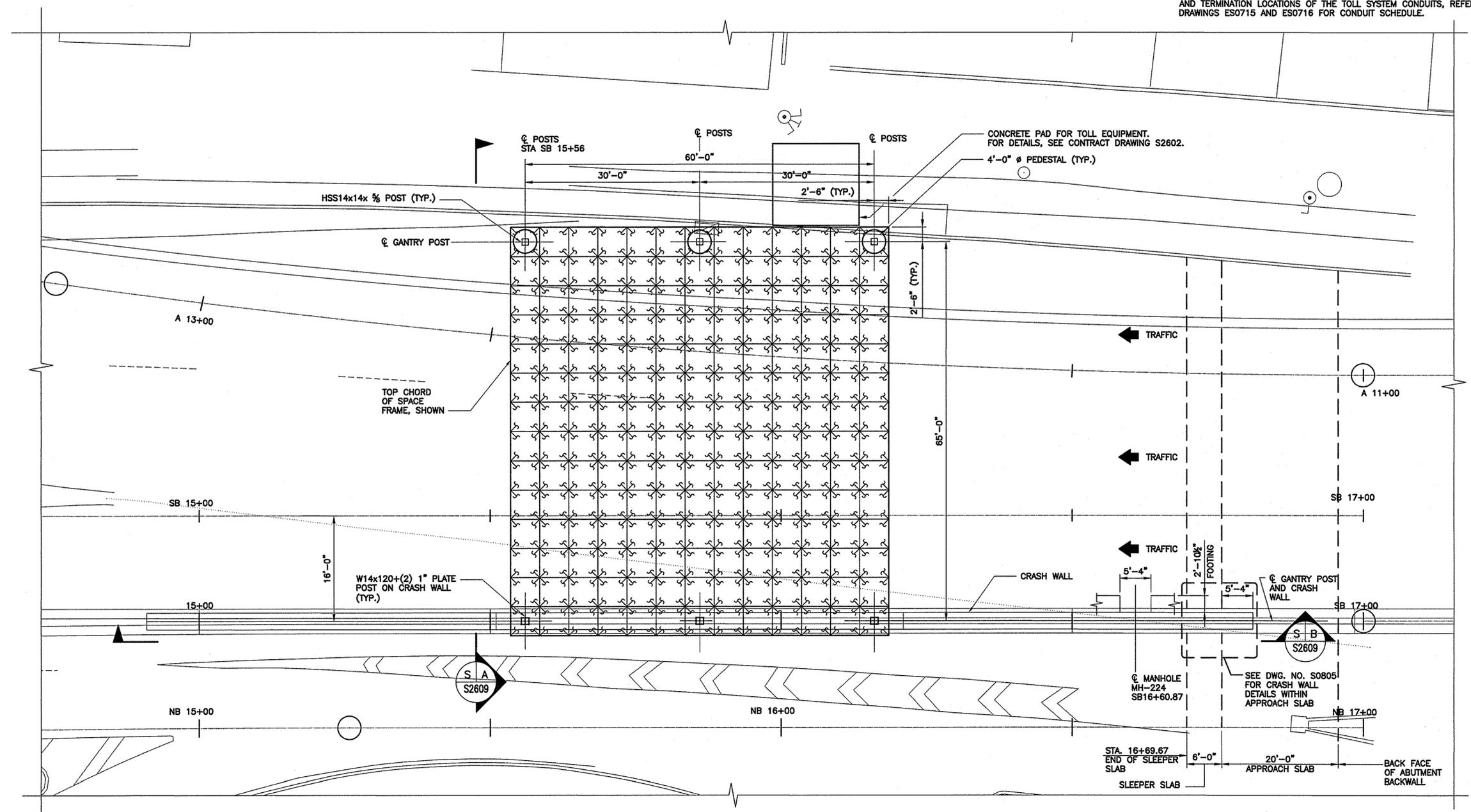
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J.REA T.VERIT P.PAN
Designed by Drawn by Checked by

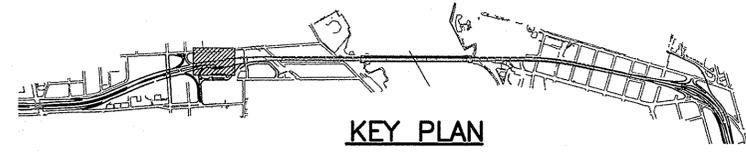
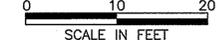
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Contract Number **AKB-264.039**

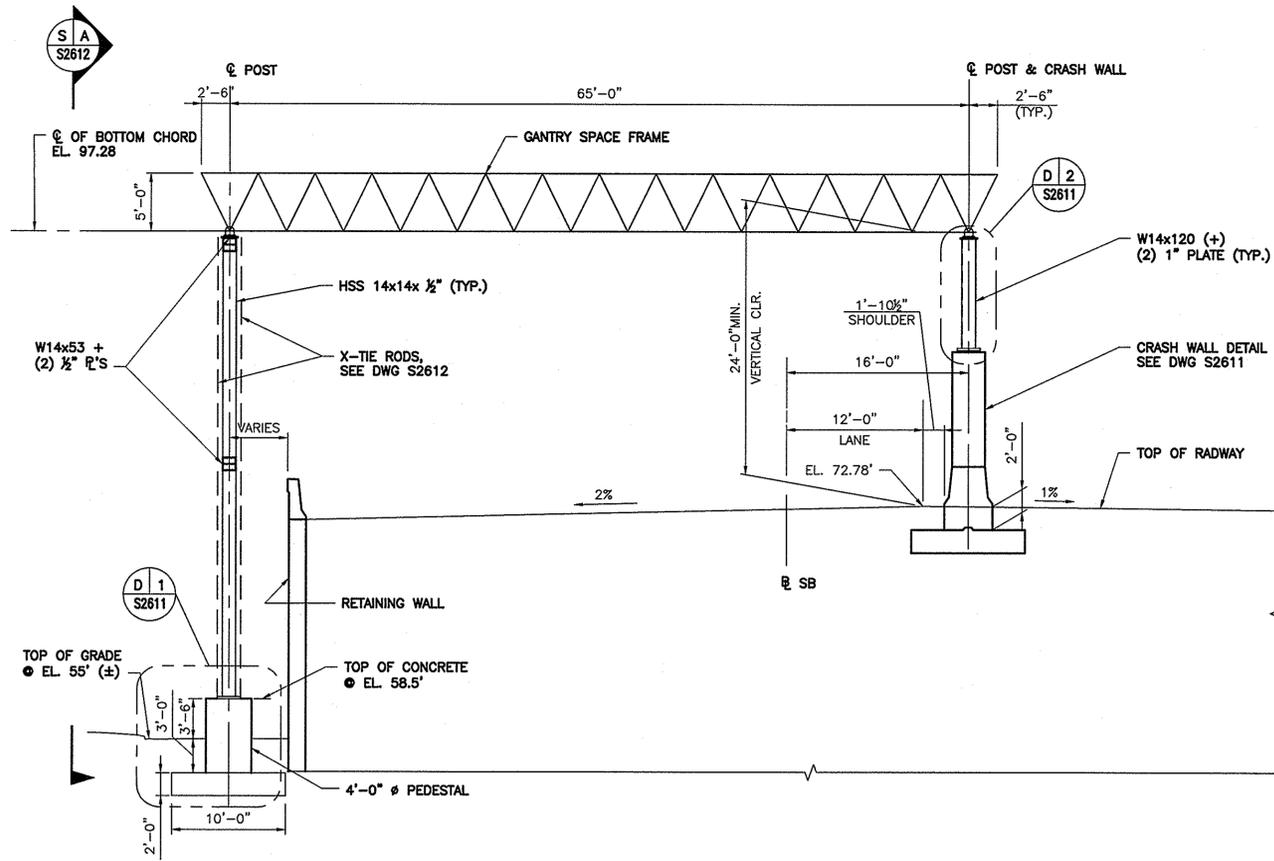
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PID# 08491000



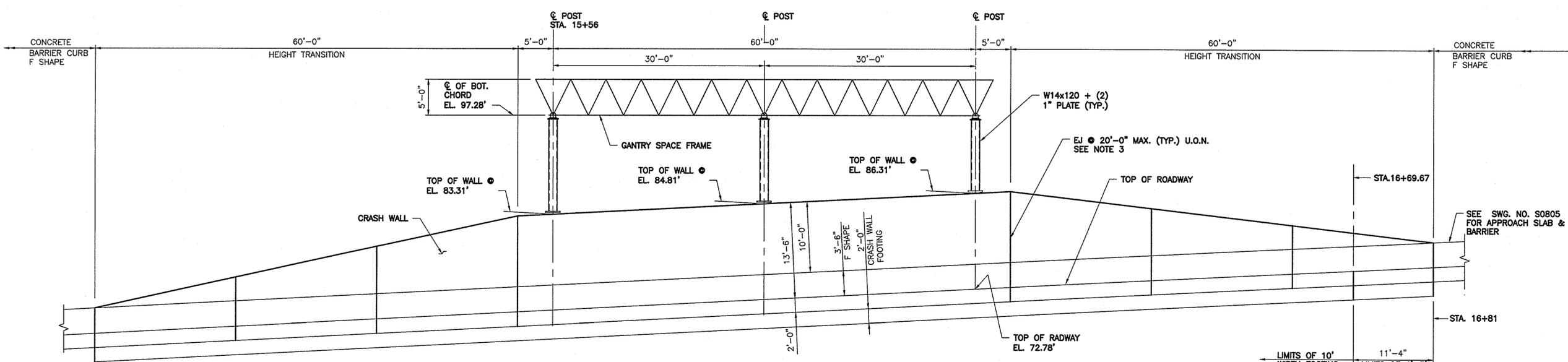
PERMANENT TOLL GANTRY PLAN



KEY PLAN



S/A SECTION (LOOKING NORTH)
S2608
SCALE IN FEET



S/B ELEVATION (LOOKING WEST)
S2608
SCALE IN FEET

- NOTES:**
- FOR LEGEND AND ABBREVIATIONS, SEE CONTRACT DRAWING S0101.
 - FOR STRUCTURAL NOTES, SEE CONTRACT DRAWINGS S0102-S0104.
 - EXPANSION JOINT SHALL BE 1/2" MAX. WITH COMPRESSIBLE FILLER MATERIAL.
 - ALL STEEL MEMBERS AND CONNECTIONS OF THE PERMANENT GANTRY SHALL BE GALVANIZED

Sheet **946** of **2314**

THE PORT AUTHORITY OF NY & NJ

HDR/PB, A JOINT VENTURE

Paul Nietzschmann
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N.J. Professional Engineer # 24GE04143500

Paul Nietzschmann
PAUL NIETZSCHMANN
N.Y. Professional Engineer # 089939

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

BAYONNE BRIDGE

STRUCTURAL

Title
REPLACEMENT OF MAIN SPAN ROADWAY AND APPROACH STRUCTURES

TOLL GANTRY TYPICAL CROSS SECTION AND ELEVATION

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J.REA T.VERIT P.PAN
Designed by Drawn by Checked by

Date **02/15/2013**

Contract Number **AKB-264.039**

Drawing Number **S2606**
PID# 08491000

**THE PORT AUTHORITY
OF NY & NJ**

HDR/PB, A JOINT VENTURE

Paul Nietzschmann
PAUL NIETZSCHMANN
N.J. Professional Engineer # 24QE04143500

Paul Nietzschmann
PAUL NIETZSCHMANN
N.Y. Professional Engineer # 05059939

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

**BAYONNE
BRIDGE**

STRUCTURAL

Title
**REPLACEMENT OF MAIN SPAN ROADWAY
AND APPROACH STRUCTURES**

**TOLL GANTRY
FRAMING PLANS**

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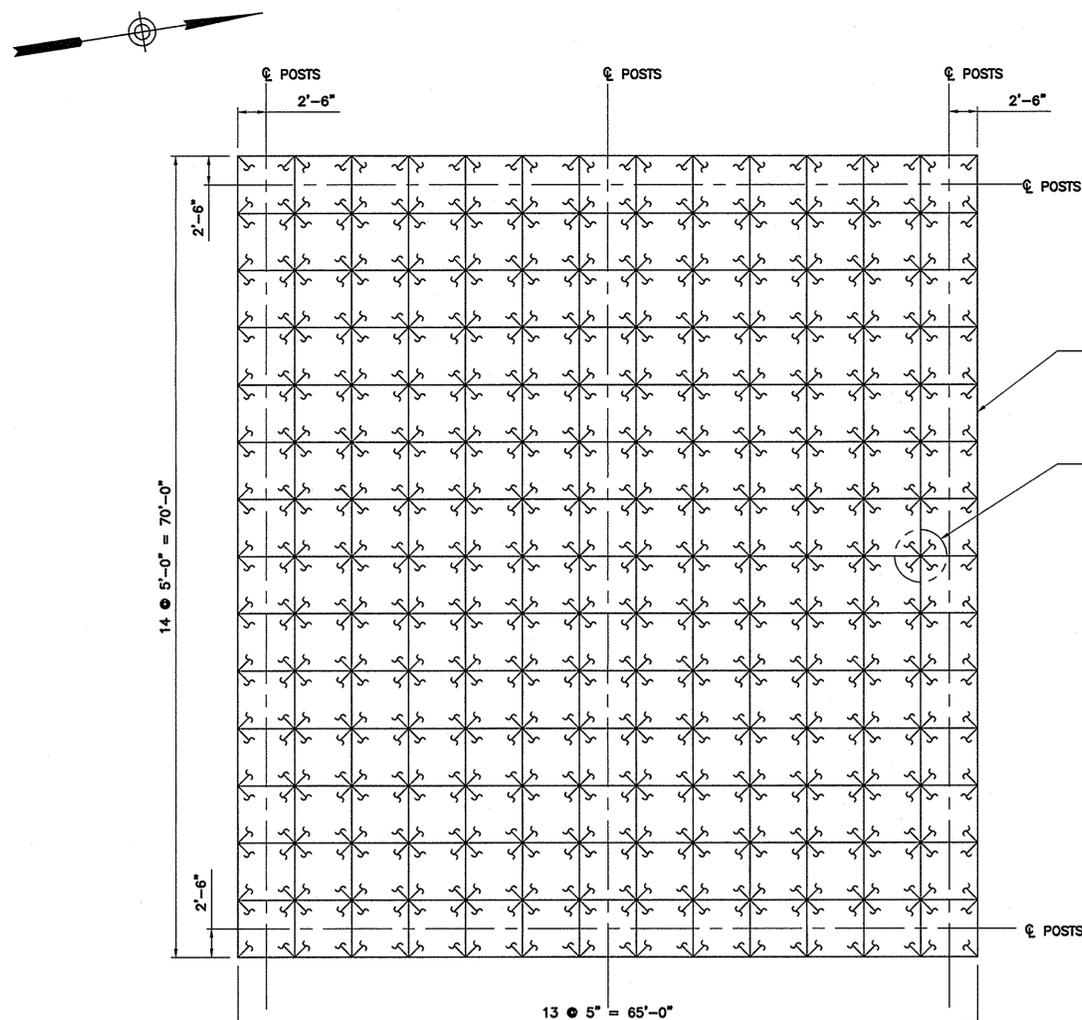
J.REA	T.VERIT	P.PAN
Designed by	Drawn by	Checked by

Date **02/15/2013**

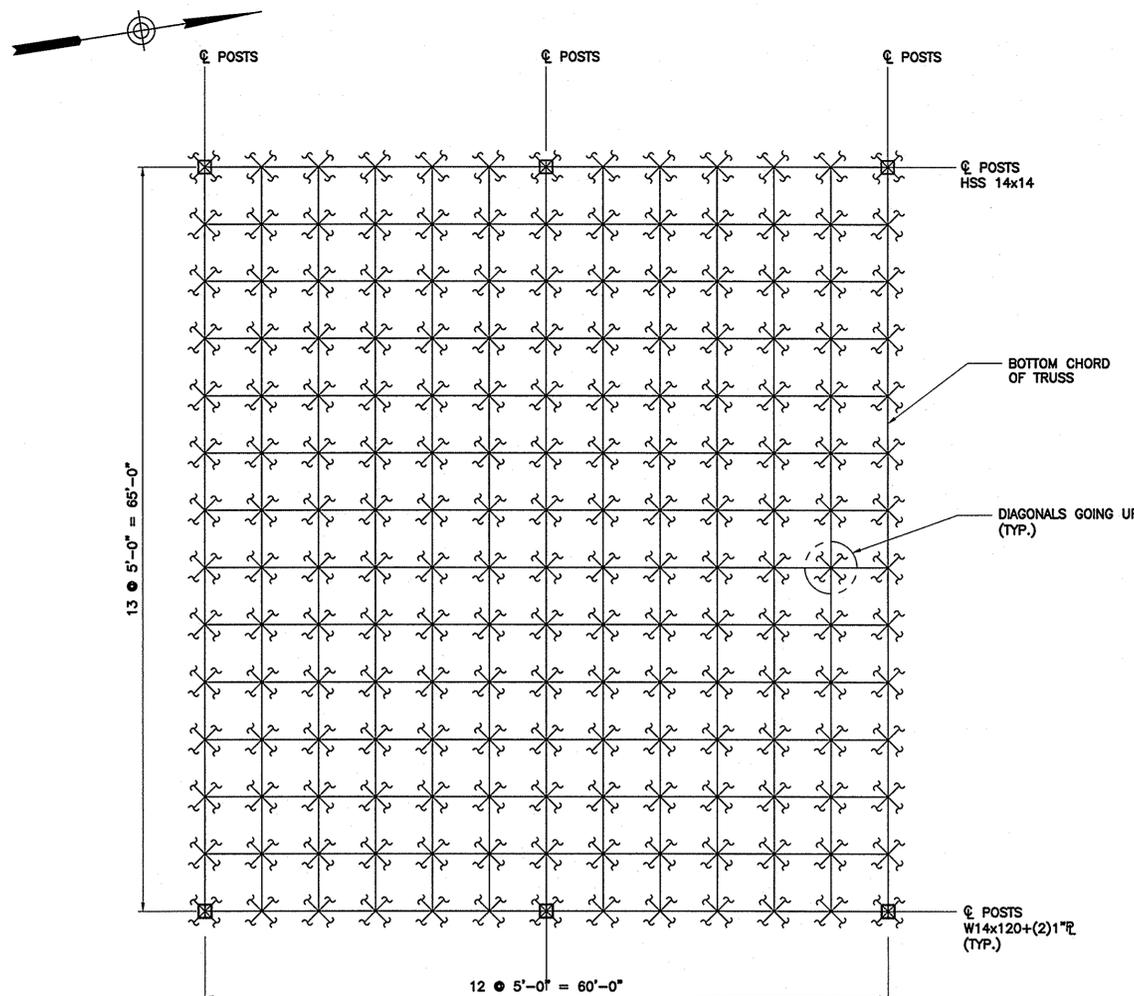
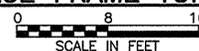
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Drawing Number **S2607**

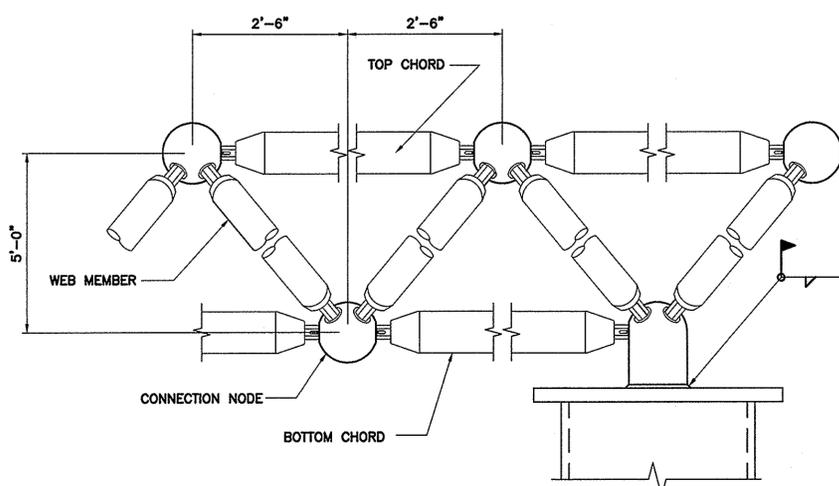
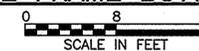
PID# 08491000



GANTRY SPACE FRAME TOP CHORD PLAN



GANTRY SPACE FRAME BOTTOM CHORD PLAN



**GANTRY SPACE FRAME DIAGRAM
N.T.S.**

NOTES:

- FOR LEGEND AND ABBREVIATIONS, SEE CONTRACT DRAWING S0101.
- FOR STRUCTURAL NOTES, SEE CONTRACT DRAWINGS S0102-S0104.

GANTRY SPACE FRAME DESIGN CRITERIA

- DESIGN CODES:
 - AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, 2012 EDITION.
 - AASHTO LRFD CONSTRUCTION SPECIFICATIONS, 2012 EDITION.
 - AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION FOR STEEL CONSTRUCTION, FOURTEENTH EDITION.
 - ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES.
 - AMERICAN WELDING SOCIETY (AWS) D1.1.
- DESIGN LOADS:
 - DEAD LOAD: 10 PSF
 - SELF WEIGHT SUPERIMPOSED DEAD LOAD: 200 lb, ON ALL NODES, CHORDS AND CONNECTIONS
 - LIVE LOAD: 3 PSF OF ICE LOAD ON FULL CIRCUMFERENCE OF ALL MEMBERS.
 - WIND LOAD: SEE AASHTO 2012
 - SEISMIC LOAD: SEE AASHTO 2012

STRUCTURAL NOTES:

- ALL ROUND OR SQUARE TUBING SHALL CONFIRM TO ASTM A500 GRADE B AND SHALL MEET THE REQUIREMENT OF AWS D1.1 SECTION 4 PART D FOR CVN TESTING AND SHALL BE GALVANIZED.
- ALL PLATES, BARS AND STRUCTURAL SHAPES SHALL BE GALVANIZED AND CONFORM TO ASTM A572 GRADE 50 AND SHALL MEET THE REQUIREMENTS OF AWS D1.1 SECTION 4 PART D FOR CVN TESTING.
- ALL WELDING SHALL BE E70XX AND CONFORM TO THE LATEST AWS STANDARDS.
- ALL NODES SHALL BE FORGED FROM 1045 NORMALIZED STEEL.
- ALL CONES SHALL BE MACHINED FROM CR 1015 STEEL.
- ALL SLEEVES SHALL CONFORM TO ASTM A563 GRADE A (SAE 1214) OF EQUIVALENT.
- ALL HEADED TENSION RODS, JOINTS SHALL BE ELECTRO GALVANIZED ACCORDING TO ASTM B-663.
- ALL THREADED ROD SHALL BE ASTM A307.
- ALL DIMENSIONS ARE TO CENTER OF NODE.
- ALL SPACE FRAME MEMBERS SHALL BE GALVANIZED PER ASTM A123.
- ALL SPACE FRAME GALVANIZED HOLES SHALL BE ORIENTED TOWARD GROUND.
- DAMAGED GALVANIZED COATINGS REQUIRING TOUCH UP SHALL BE CLEANED FREE OF DIRT AND GREASE WITH MINERAL SPIRITS AND SPRAYED WITH ZINC-RICH COLD GALVANIZING SPRAY IN CONFORMANCE WITH ASTM A780.
- CONTRACTOR SHALL FURNISH AND INSTALL 4 EMPTY CONDUITS (1 POWER, 1 COMMS AND SPARE OF EACH) WITH PULL STRINGS TO RUN DIRECTLY FROM THE EQUIPMENT PAD TO ONE POST OF THE SPACE FRAME. CONTRACTOR SHALL FURNISH AND INSTALL ANOTHER FOUR EMPTY CONDUITS (1 POWER, 1 COMMS AND SPARE OF EACH) WITH PULL STRINGS TO RUN DIRECTLY FROM THE EQUIPMENT PAD TO AN ADJACENT POST OF THE SPACE FRAME. THE CONDUITS SHALL BE PLACED INSIDE THE POST AND ATTACHED TO THE OUTSIDE SURFACE OF THE SPACE FRAME CHORD MEMBERS. CONTRACTOR SHALL DESIGN, FURNISH AND INSTALL EQUIPMENT MOUNTING FRAMES TO THE SPACE FRAME. CONTRACTOR SHALL USED CONDUIT AND MOUNTING FRAME ATTACHMENT DEVICES WITHOUT DAMAGING THE CHORD MEMBERS.

**THE PORT AUTHORITY
OF NY & NJ**

HDR/PB, A JOINT VENTURE



PAUL NIETZSCHMANN
N.J. Professional Engineer # 24GE04143500



PAUL NIETZSCHMANN
N.Y. Professional Engineer # 059939

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

**BAYONNE
BRIDGE**

STRUCTURAL

Title
**REPLACEMENT OF MAIN SPAN ROADWAY
AND APPROACH STRUCTURES**

**TOLL GANTRY
DETAILS**

SHEET 1

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent. All recipients of Contract documents, including bidders and those who do not bid and their prospective subcontractors and suppliers who may receive all or a part of the Contract documents or copies thereof, shall make every effort to ensure the secure and appropriate disposal of the Contract documents to prevent further disclosure of the information contained in the documents. Secure and appropriate disposal includes methods of document destruction such as shredding or arrangements with refuse handlers that ensure that third persons will not have access to the documents' contents either before, during, or after disposal. Documents may also be returned for disposal purposes to the Contract Desk on the 3rd Floor, 3 Gateway Center, Newark, NJ 07102 or the office of the Director of Procurement, Two Montgomery Street, 3rd Floor, Jersey City, NJ 07302. It is a violation of law for any person to alter a document in any way, unless acting under the direction of a licensed professional engineer or registered architect. If this document bearing the seal of an engineer/architect is altered, the altering engineer/architect shall affix to the document their seal and the notation "altered by" followed by their signature and the date of such alteration, and a specific description of the alteration.

J.REA T.VERIT P.PAN
Designed by Drawn by Checked by

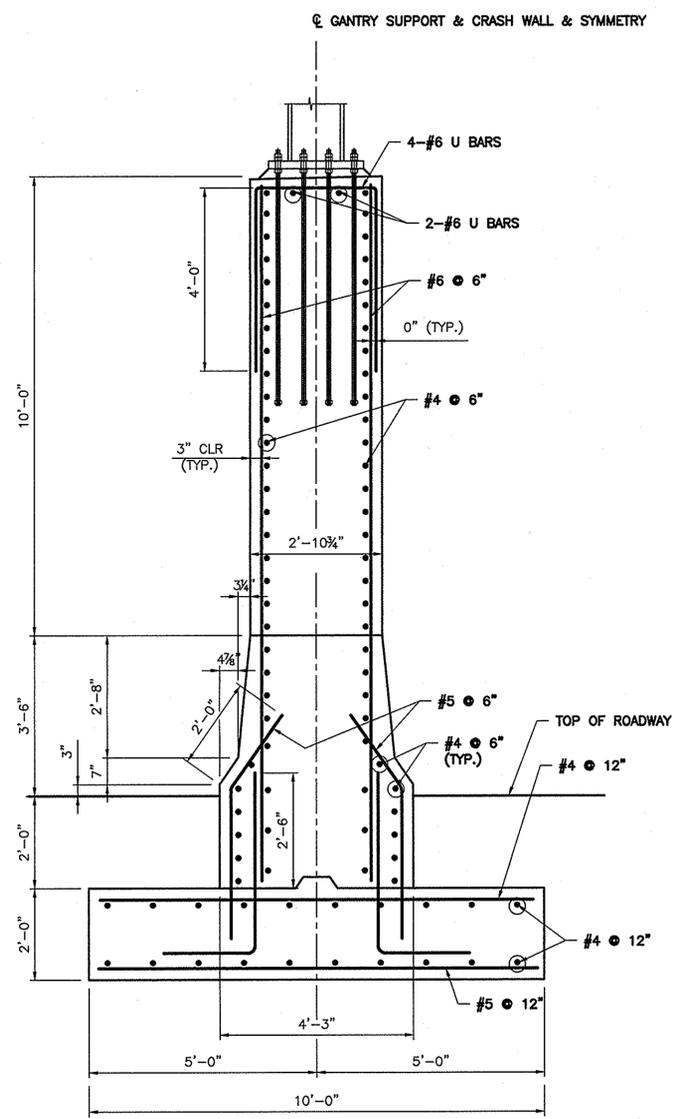
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Contract Number AKB-264.039

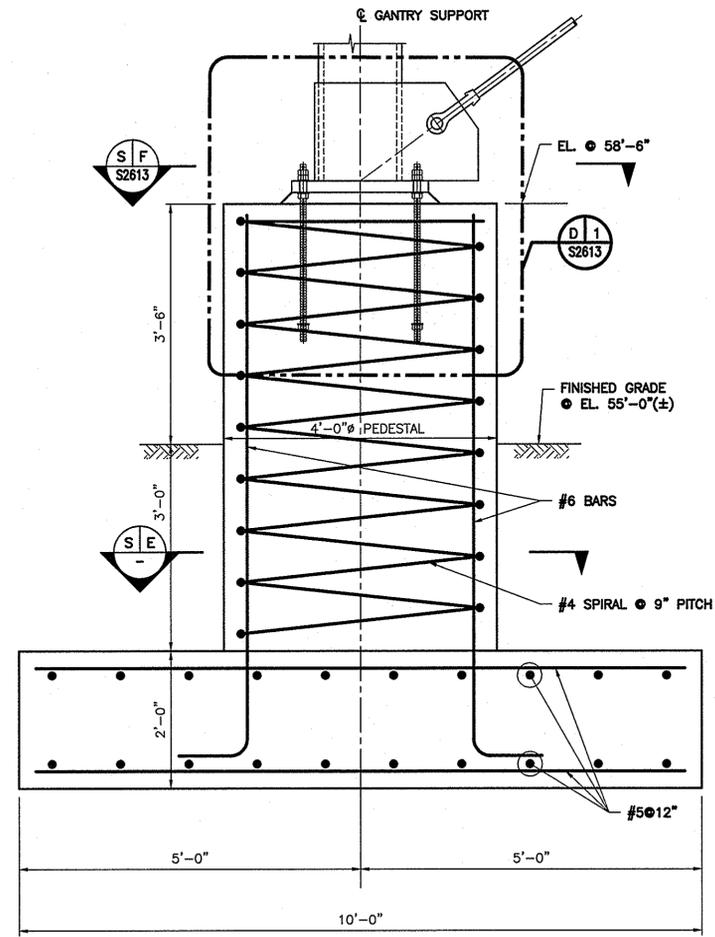
Drawing Number S2608

PID# 08491000

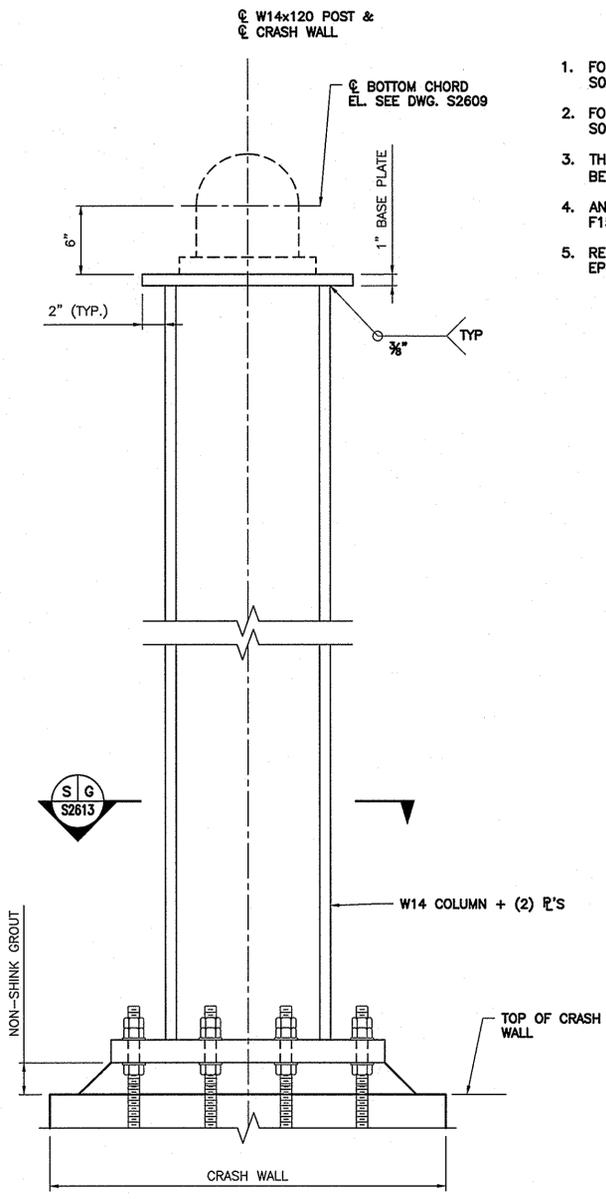
- FOR LEGEND AND ABBREVIATIONS, SEE CONTRACT DRAWING S0101.
- FOR STRUCTURAL NOTES, SEE CONTRACT DRAWINGS S0102-S0104.
- THE CONCRETE OF THE SHAFTS AND CRASH WALL SHALL BE $f'c = 4,000$ PSI.
- ANCHOR BOLTS SHALL BE IN ACCORDANCE WITH ASTM F1554, GR. 105.
- REINFORCING BARS SHALL BE ASTM A615 GRADE 60 EPOXY COATED.



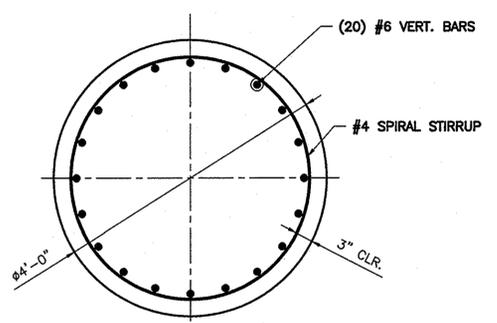
S C CRASH WALL DETAILS
S2608
SCALE IN FEET



D 1 SPREAD FOOTING
S2609
SCALE IN FEET



D 2 W14 POST DETAIL
S2609
SCALE IN FEET



S E 4'-0" DIA. CONCRETE SHAFT
SCALE IN FEET

**THE PORT AUTHORITY
OF NY & NJ**

HDR/PB, A JOINT VENTURE



PAUL NIETZSCHMANN
N.J. Professional Engineer # 24GE04143500



N.Y. Professional Engineer # 059939

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

**BAYONNE
BRIDGE**

STRUCTURAL

Title
**REPLACEMENT OF MAIN SPAN ROADWAY
AND APPROACH STRUCTURES**

**TOLL GANTRY
DETAILS -
SHEET 2**

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J.REA T.VERIT P.PAN
Designed by Drawn by Checked by

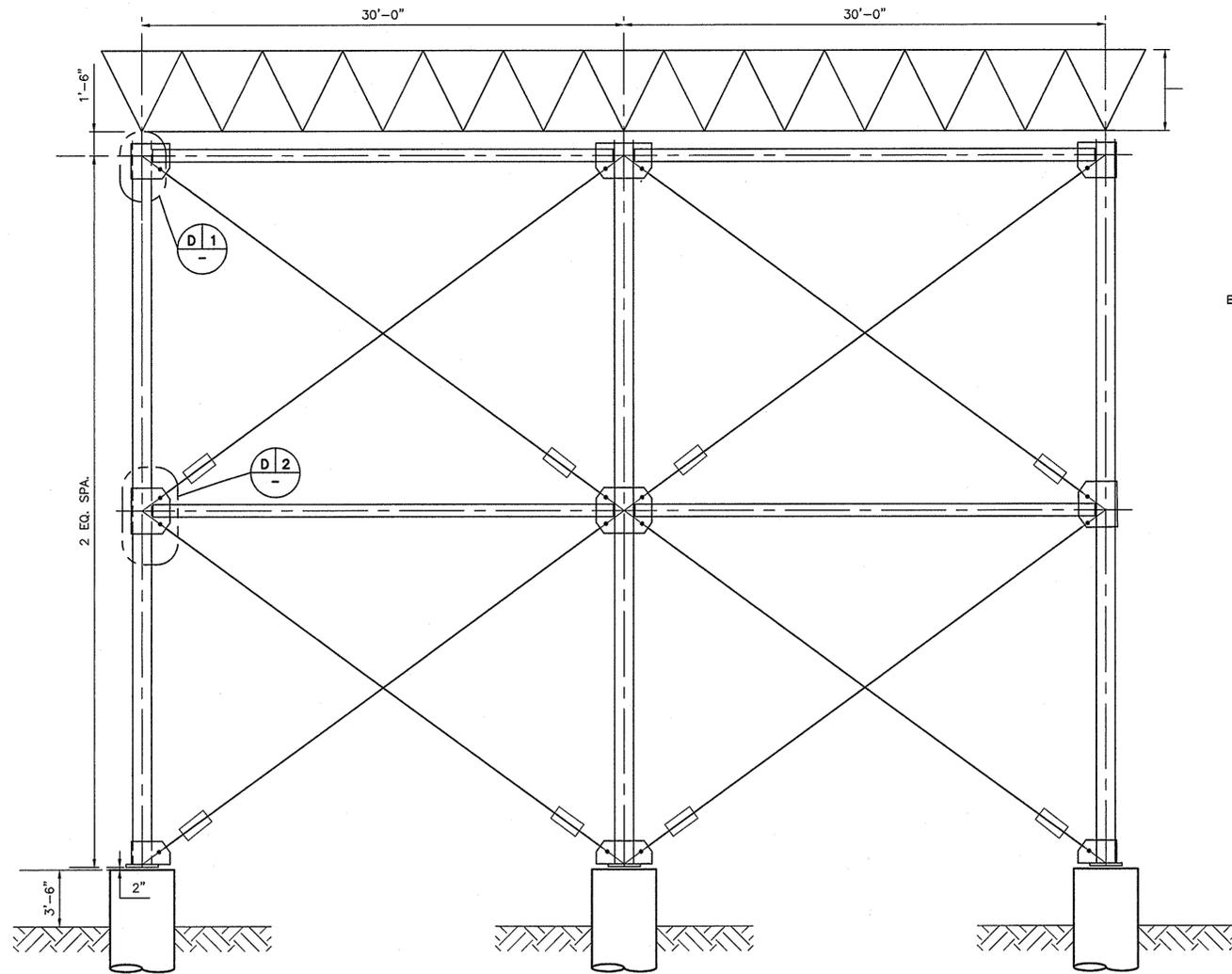
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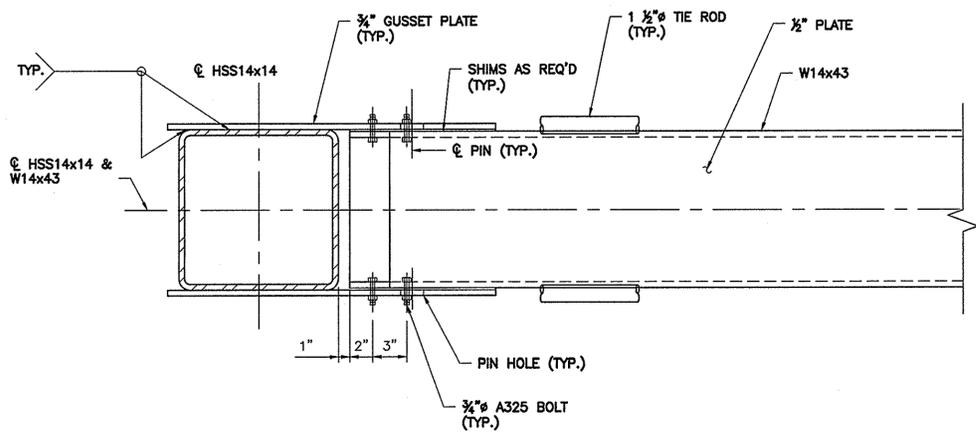
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PID# 08491000

NOTES:

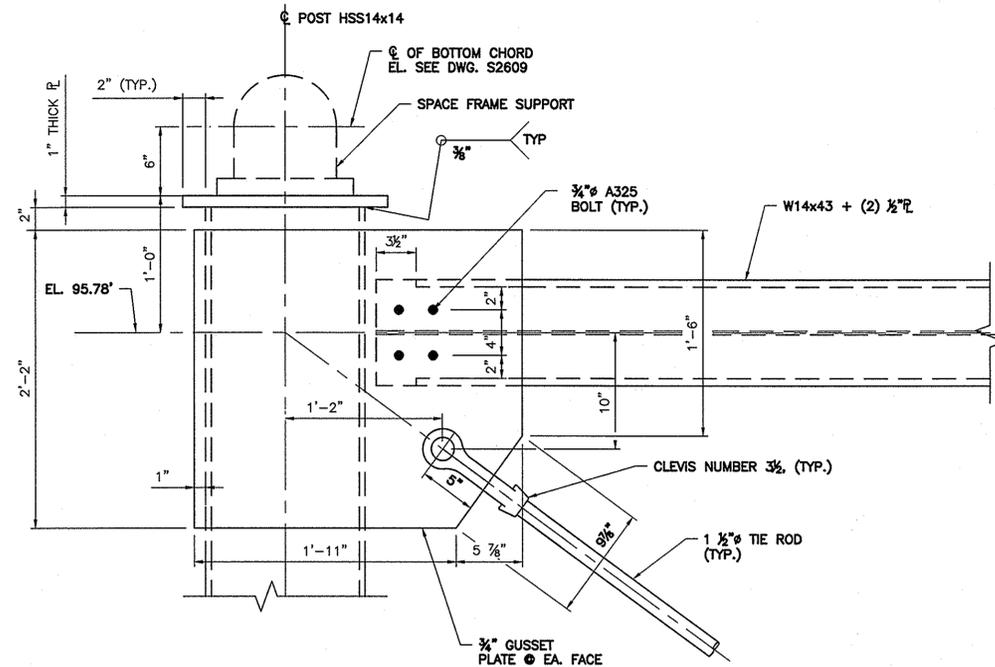
- FOR LEGEND AND ABBREVIATIONS, SEE CONTRACT DRAWING S0101.
- FOR STRUCTURAL NOTES, SEE CONTRACT DRAWINGS S0102-S0104.
- EXPANSION JOINT SHALL BE 1/2" MAX. WITH COMPRESSIBLE FILLER MATERIAL.



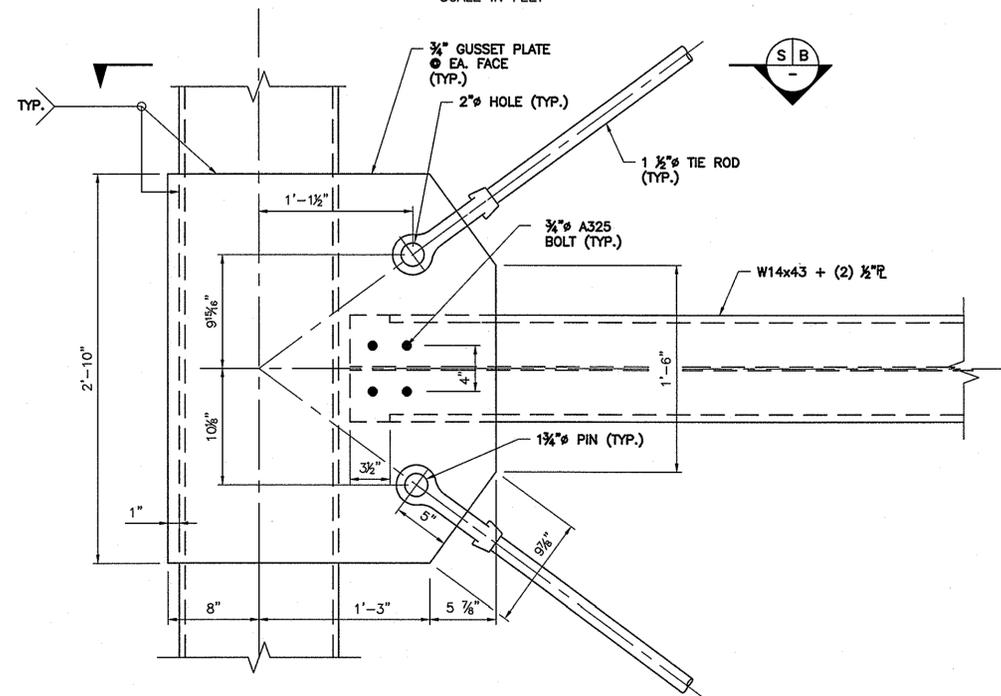
S A SECTION
S2609
SCALE IN FEET



S B SECTION
SCALE IN FEET



D 1 DETAIL
SCALE IN FEET



D 2 DETAIL
SCALE IN FEET



PAUL NIETZSCHMANN
N.J. Professional Engineer # 24GE04143500

PAUL NIETZSCHMANN
N.Y. Professional Engineer # 059939

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

**BAYONNE
BRIDGE**

STRUCTURAL

Title
**REPLACEMENT OF MAIN SPAN ROADWAY
AND APPROACH STRUCTURES**

**TOLL GANTRY
DETAILS**

SHEET 3

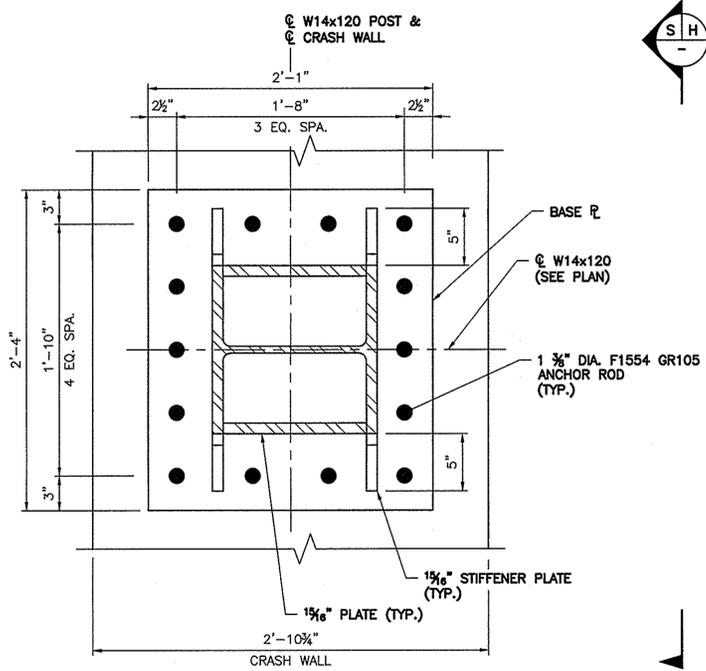
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J.REA T.VERIT P.PAN
Designed by Drawn by Checked by

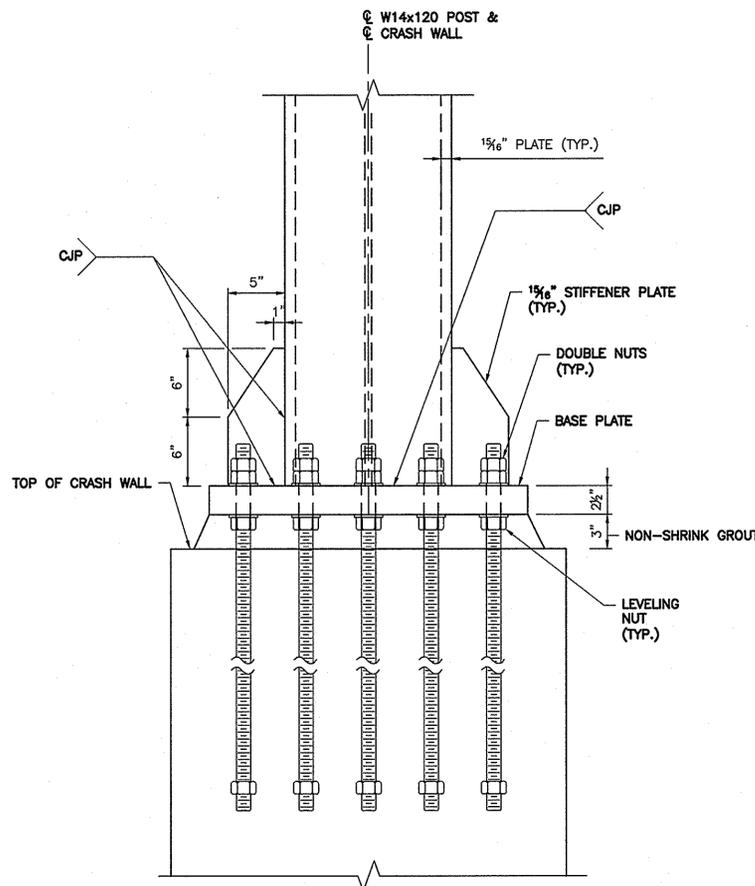
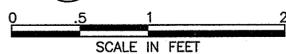
Date 02/15/2013

Contract Number **AKB-264.039**

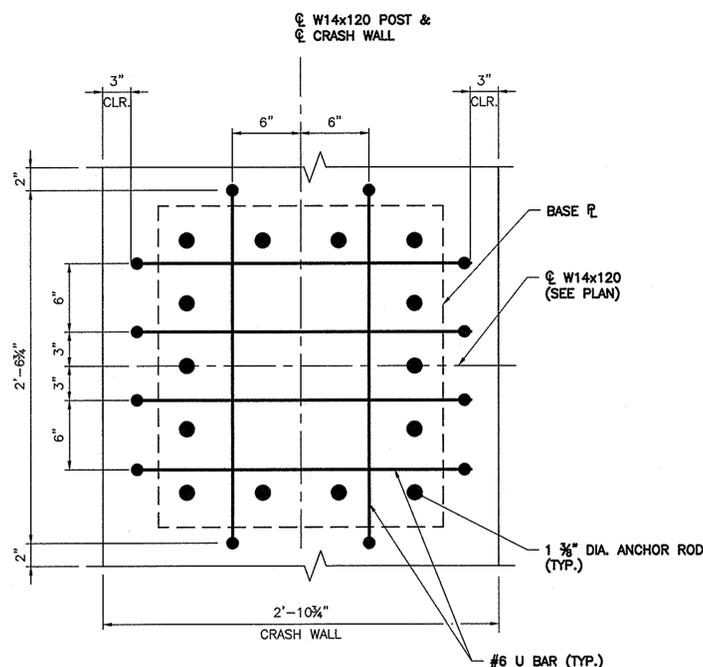
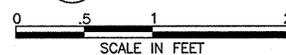
Drawing Number **S2610**
PID# 08491000



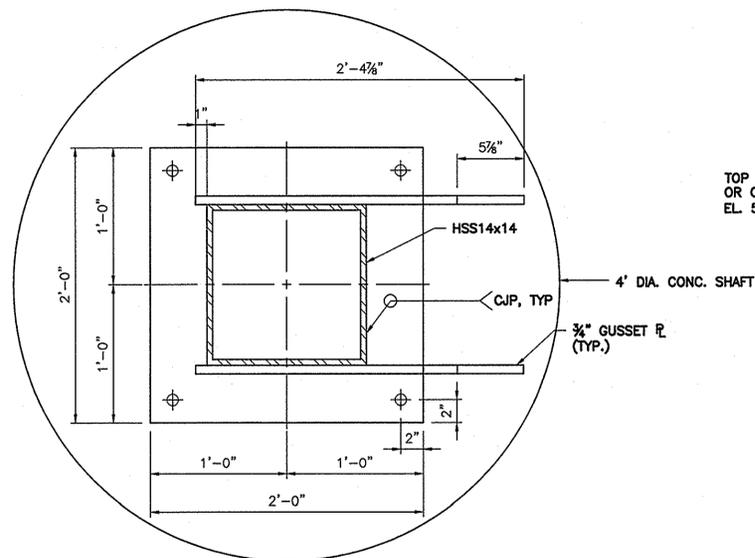
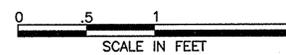
S | G SECTION
S2611



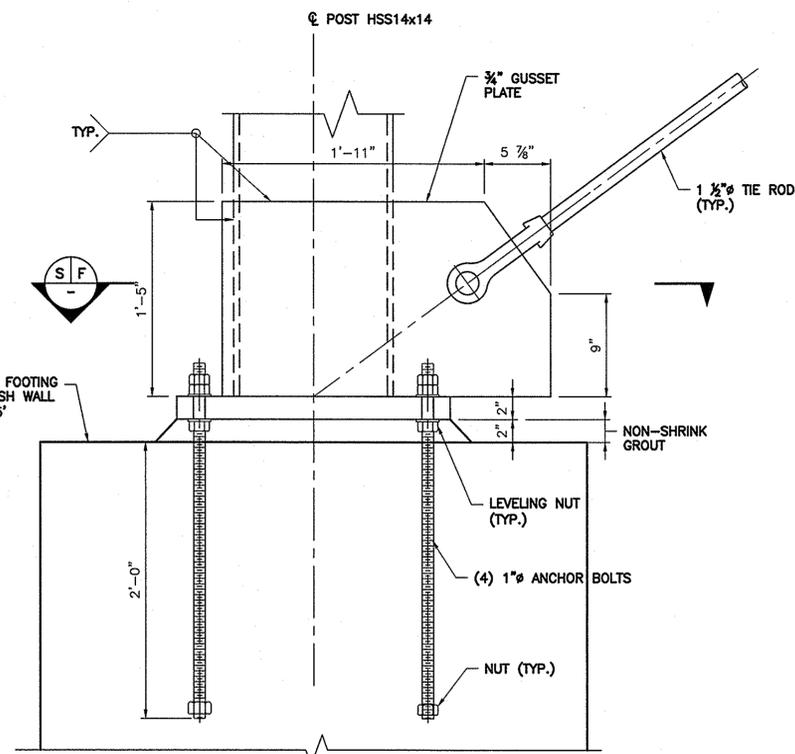
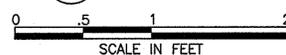
S | H SECTION



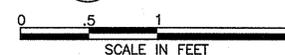
TYPICAL COLUMN BASE REINFORCEMENT DETAILS



S | F SECTION
S2611



D | I ANCHOR BOLT DETAILS
S2611



NOTES:

1. FOR LEGEND AND ABBREVIATIONS, SEE CONTRACT DRAWING S0101.
2. FOR STRUCTURAL NOTES, SEE CONTRACT DRAWINGS S0102-S0104.

Sheet 5 of 32



THE PORT AUTHORITY OF NY & NJ

Signature

Signature
S. D. Warden
S. R. Samalukhram
CHIEF STRUCTURE ENGINEER

Design Division

Goethals Bridge

BUILDING SECTION

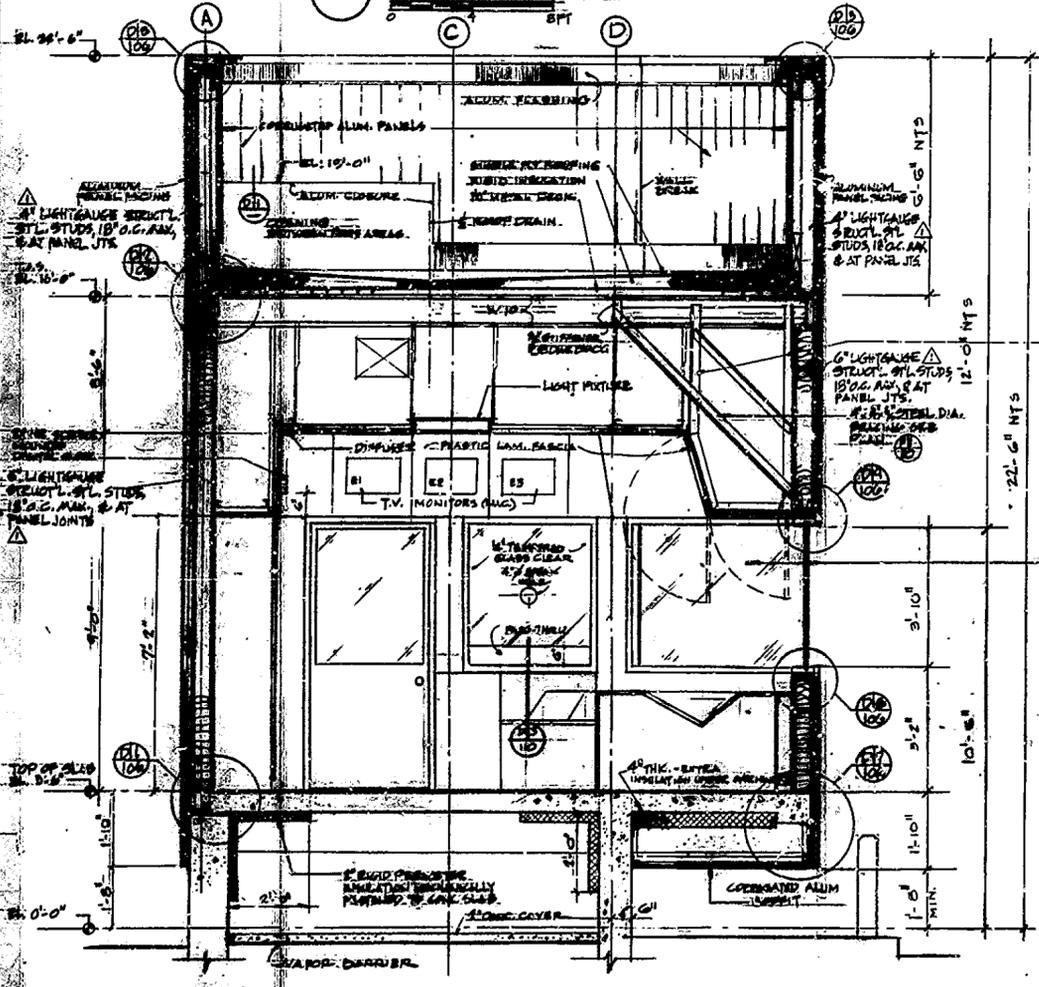
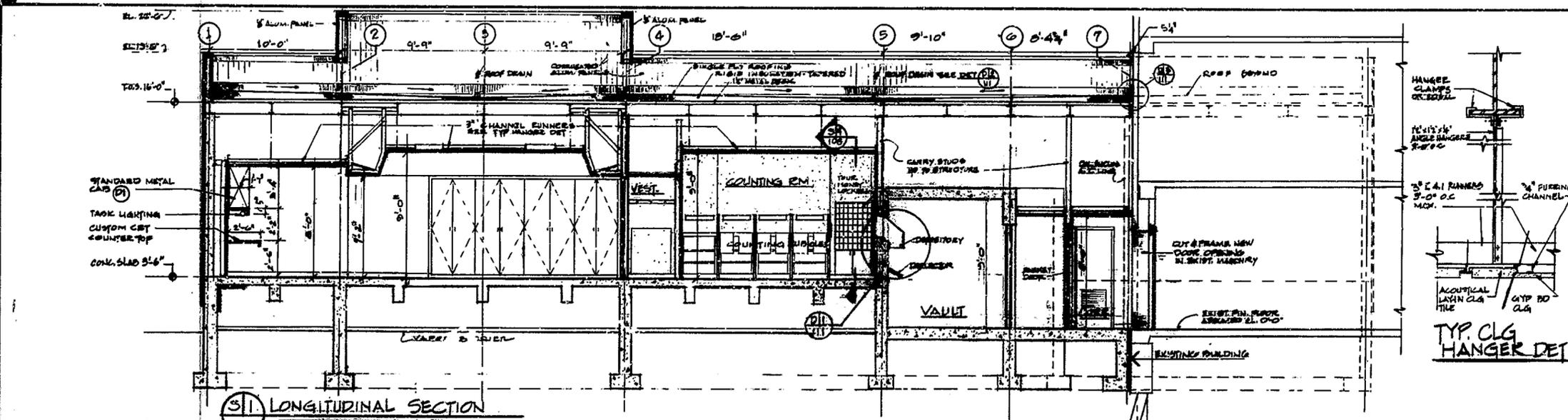
DATE DRAWING OF REVISION
DESIGNER'S INITIALS
No. Date Revision Approved

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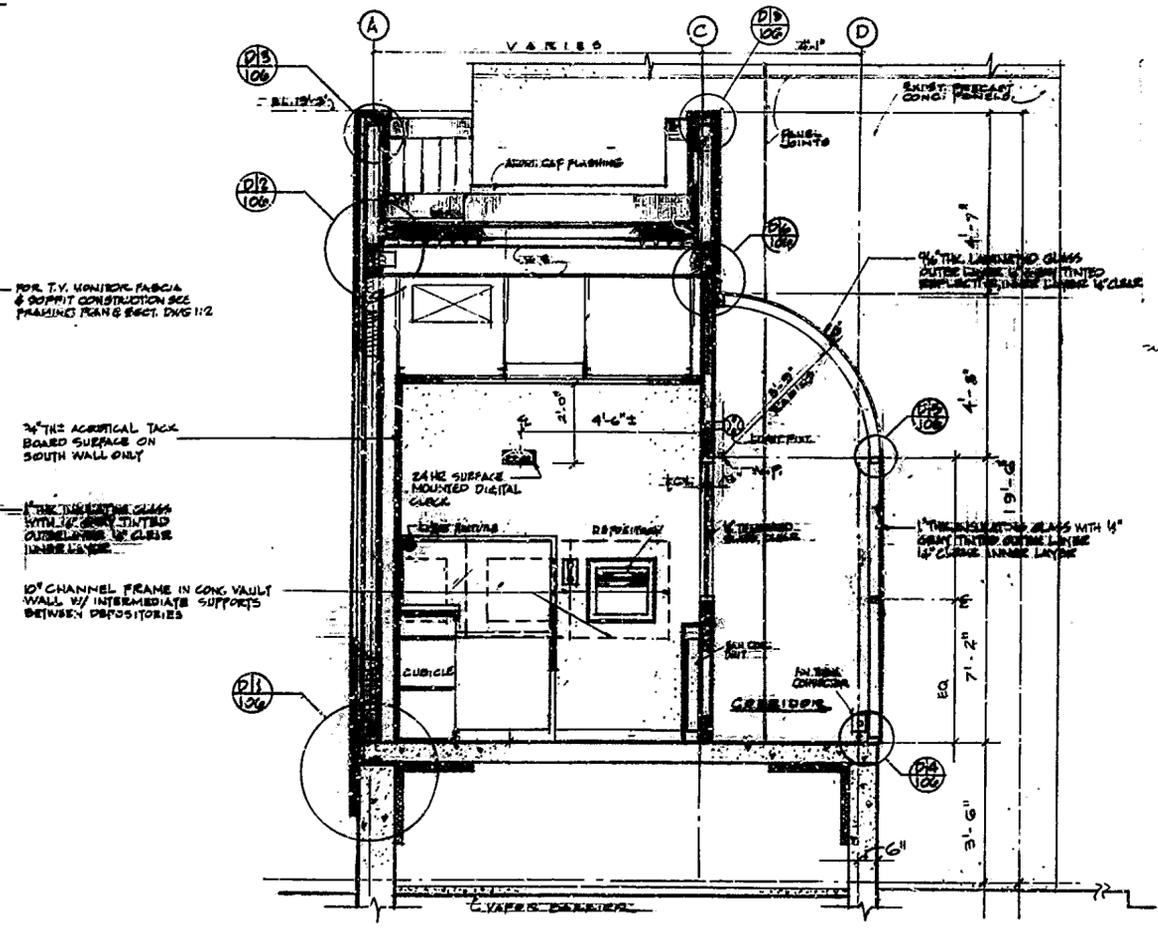
DESIGNED BY: *AS/INR-JE/UB*
DRAWN BY: *Test Laser*

DATE: 3/20/04

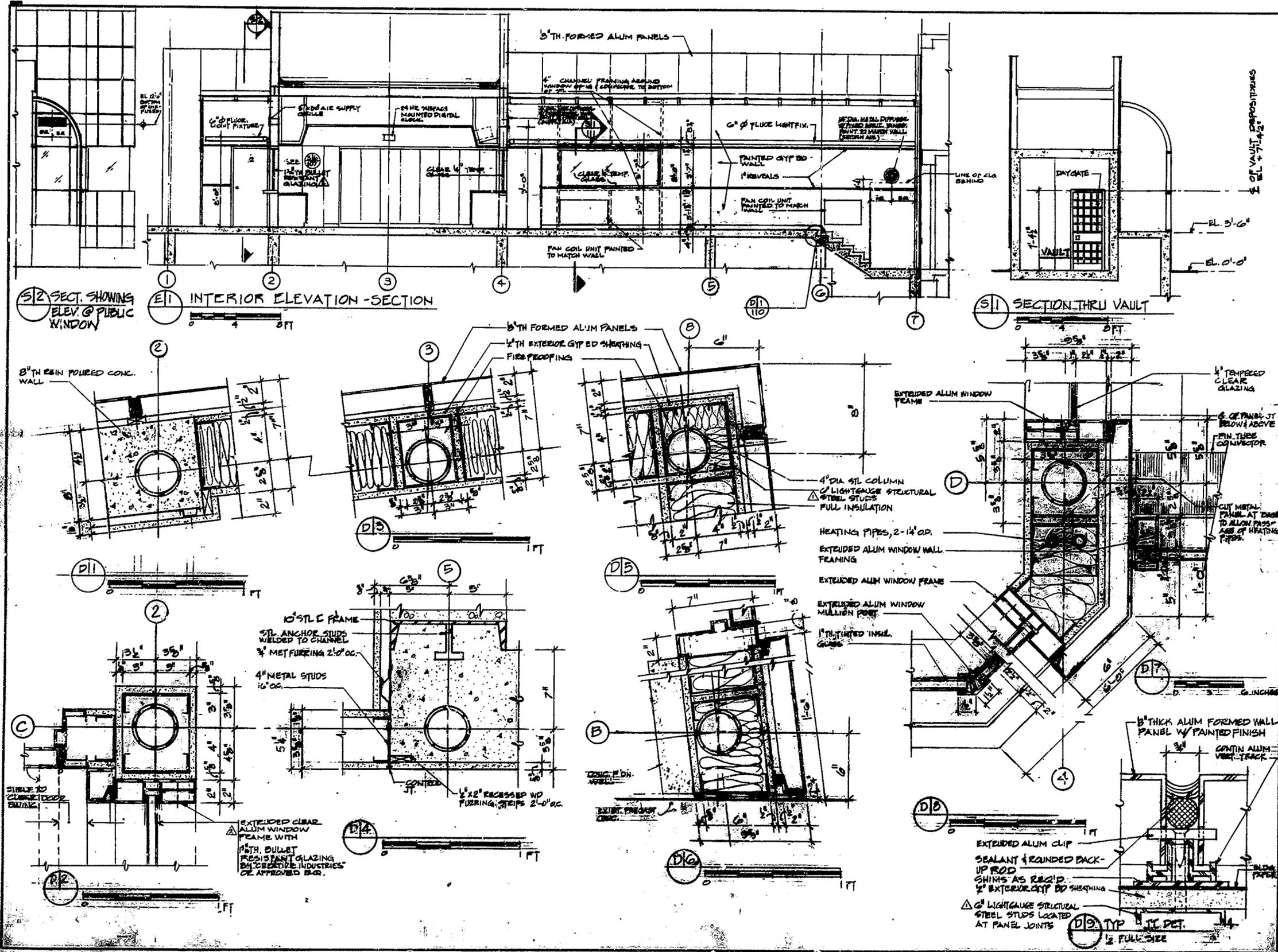
CONTRACT NUMBER:
DRAWING NUMBER:
SCALE:
PROJECT:
SHEET:
DATE:
BY:
CHECKED BY:
APPROVED BY:
DATE:
BY:
CHECKED BY:
APPROVED BY:



S2 SECTION THRU TOLLS SUPERVISORS OFFICE



S3 SECTION THRU COUNTING RM



Sheet 7 of 32

THE PORT AUTHORITY OF NY & NJ

[Signature]

[Signature]

NO.	DATE	REVISION	APPROVED

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

JR/AAK/CG

Designed by - Drawn by

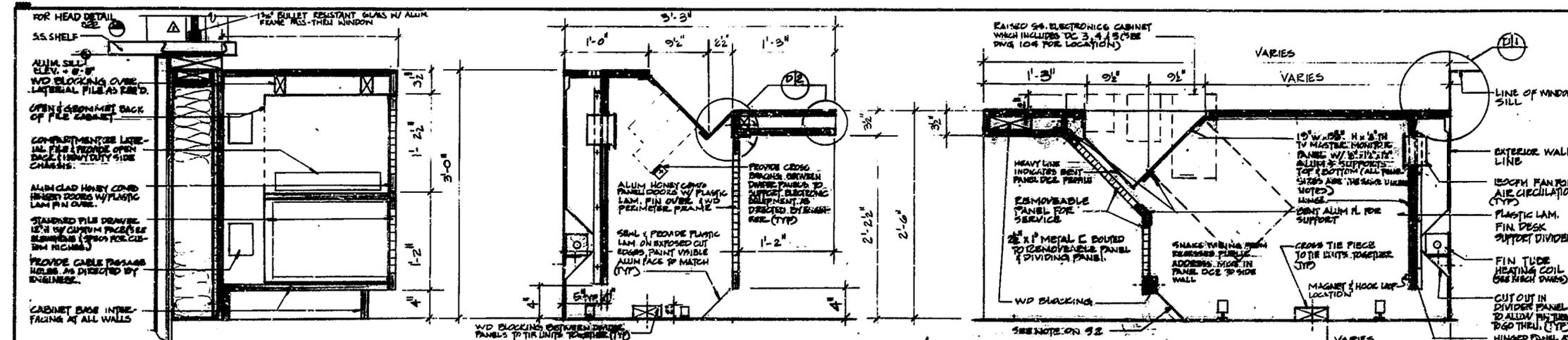
Date 3/20/84 Scale

Contract Number

THE PORT AUTHORITY OF NY & NJ

Amalika

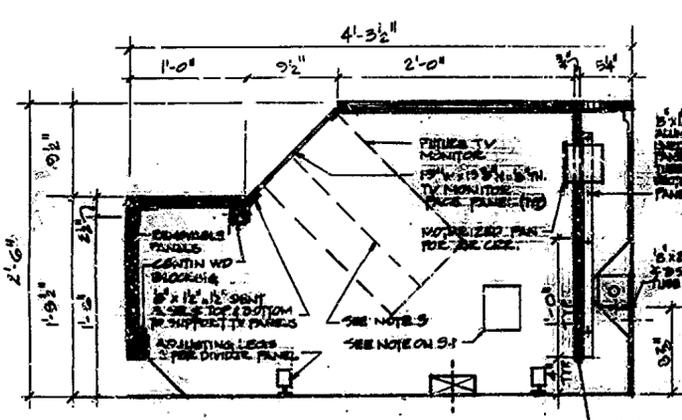
Sheldon D. Winkler



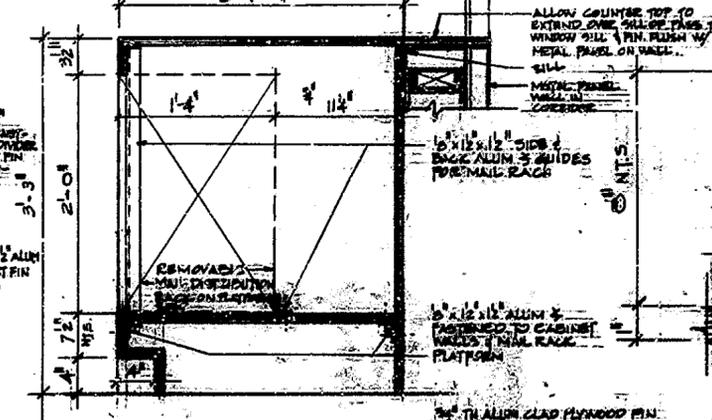
S1 SECTION THRU DESK UNIT A6

S2 SECTION THRU DESK UNITS A4 & A5

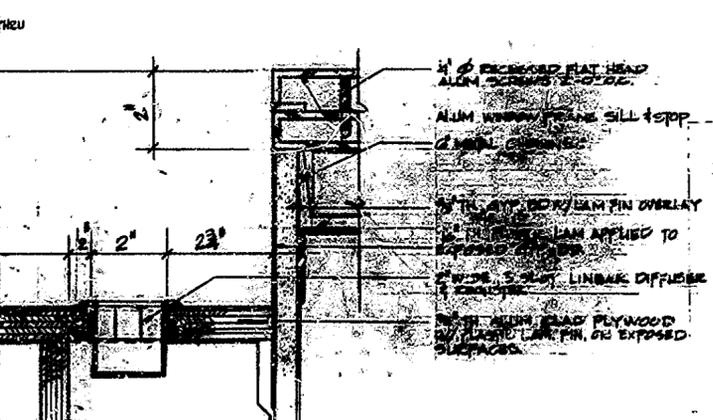
S3 SECTION THRU DESK UNIT A3



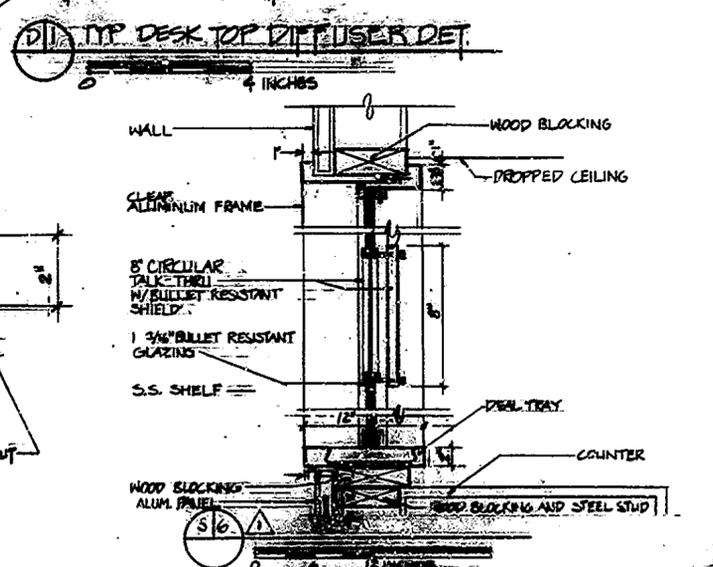
S4 SECTION THRU DESK UNIT A2



S5 SECTION THRU DESK UNIT A1

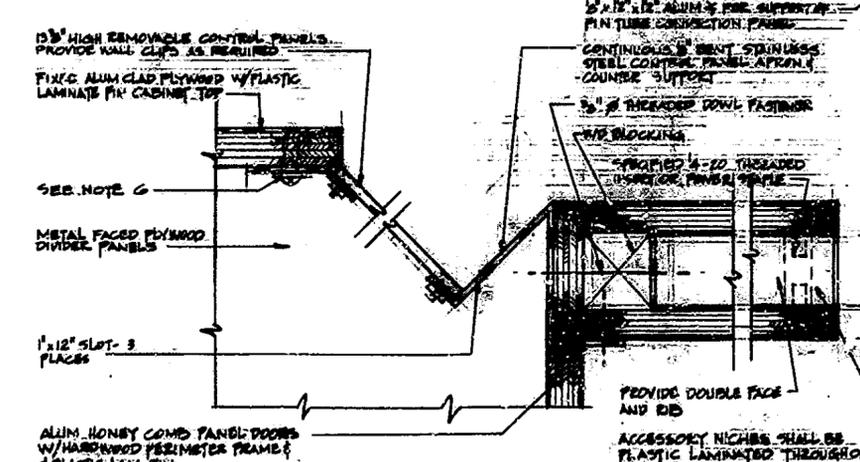


D1 DET. OF PAPER SLOT IN UNIT A5 WHERE A5 JOINS A4



D2 DET. OF DESK TOP DIFFUSER DET.

- NOTES**
1. ALL CABINET TOP, SIDE & BACK PANELS ARE TO BE MADE OF ALUM CLAD PLYWOOD W/ PLASTIC LAM FINISH ON EXPOSED SURFACES UNLESS NOTED.
 2. ALL HINGED & REMOVABLE PANELS SHALL BE ALUM CLAD HONEY COMB W/ HARDWOOD PERIMETERS AND PLASTIC LAMINATE FINISH.
 3. SEE ARCHITECT'S SPEC CHASSIS AND SLIDE OUT/LOCK/TILT-DOWN HARDWARE REQUIREMENTS.
 4. PROVIDE GEOMETRICAL PASSAGE AND AIR CIRCULATION HOLES IN ALL DIVIDER PANELS AS DIRECTED BY ENGINEER.
 5. ALL PLASTIC LAMINATE SHALL HAVE A CONTINUOUS COLOR CORE THROUGH MATERIALS EQUAL.
 6. ALL ATTACHED METAL CLIPS AND TRAINING SUPPORTS SHALL USE THROUGH-DRILL BUT BE INSET CONSTRUCTION. PLYWOOD TO PLYWOOD MAY BE TYPICAL.

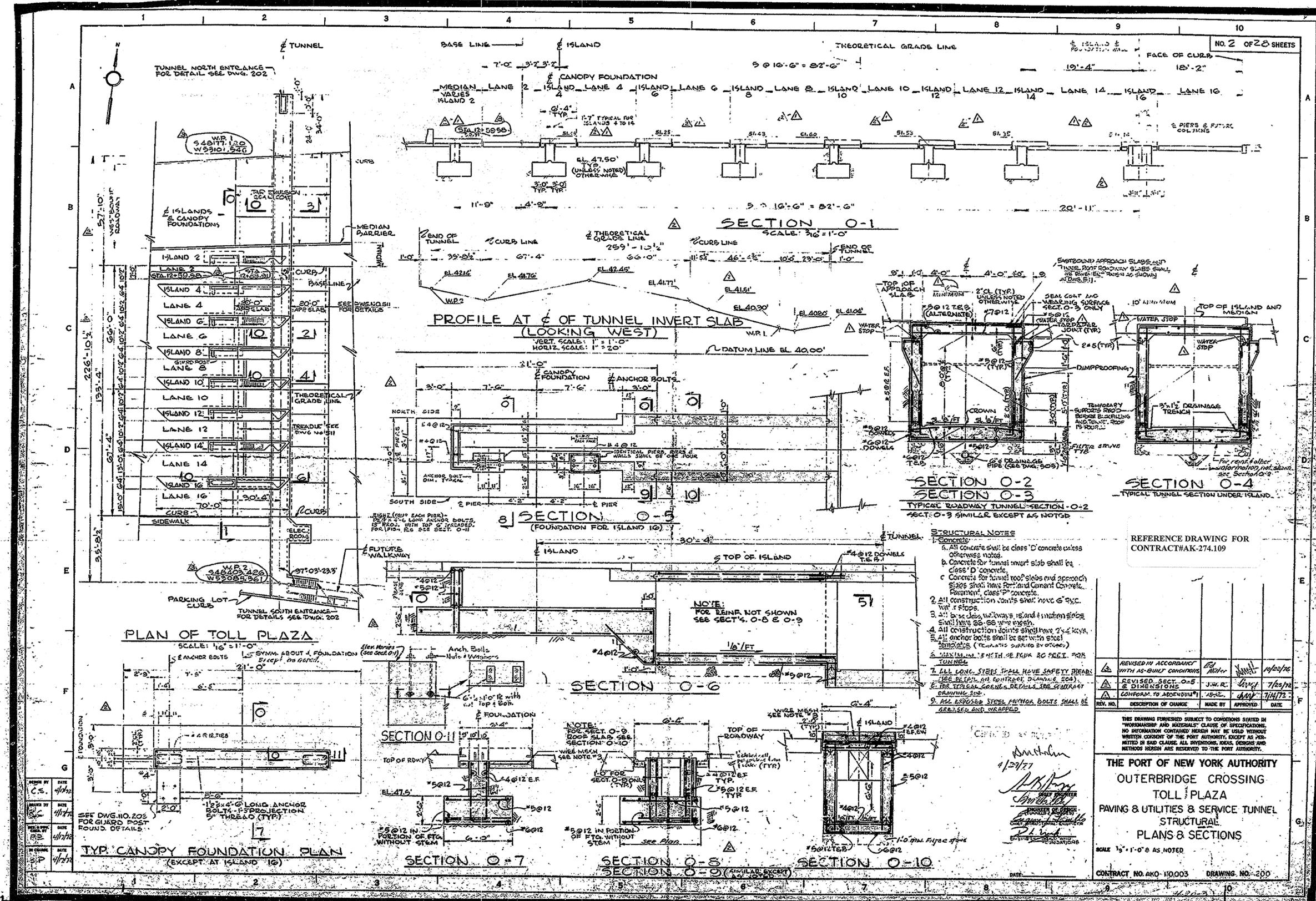


D3 DET. OF PAPER SLOT IN UNIT A5 WHERE A5 JOINS A4

No.	Date	Revision	Approved
1	9-2-00	REVISION TO SPECIFICATIONS	

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

Designed by: *Amalika* / *Sheldon D. Winkler*
 Date: 3/8/04
 Scale:
 Correct Number:
 Drawing:



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- STRUCTURAL NOTES**
1. Concrete:
 - a. All concrete shall be class 'D' concrete unless otherwise noted.
 - b. Concrete for tunnel invert slab shall be class 'D' concrete.
 - c. Concrete for tunnel roof slabs and approach slabs shall have Form and Cast-in-place concrete. Payment, class 'P' concrete.
 2. All construction joints shall have 6" x 6" x 1/2" stops.
 3. All 1/2" x 6" x 6" steel walkways, 1/2" x 1/2" x 1/2" steel plates shall have 3/8" x 3/8" x 3/8" nuts and washers.
 4. All construction joints shall have 2" x 4" keys.
 5. All anchor bolts shall be set with steel templates (templates supplied by owner).
 6. MAXIMUM 1/8" NUTS OR WASHERS SHALL BE USED FOR ALL ANCHOR BOLTS.
 7. ALL LONG STEPS SHALL HAVE SAFETY REBAR. SEE DETAIL IN CONTRACT DRAWINGS (C.D.).
 8. ALL TIE-BARS SHALL BE WELDED TO THE MAIN REINFORCING BARS.
 9. ALL EXPOSED STEEL (ANCHOR BOLTS) SHALL BE GRESSED AND CAPPED.

REFERENCE DRAWING FOR CONTRACT#AK-274.109

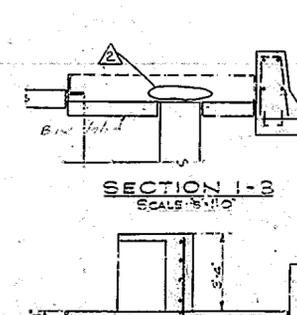
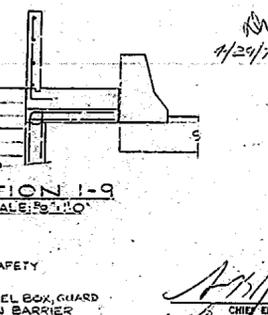
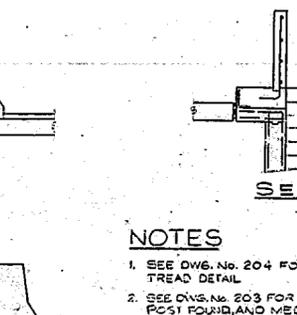
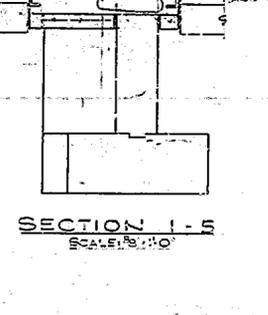
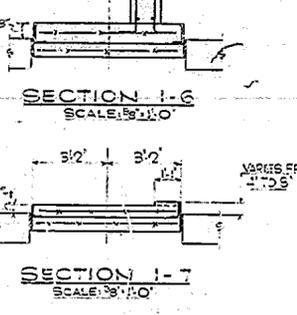
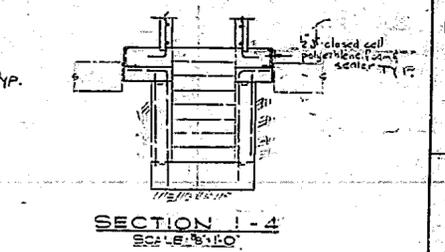
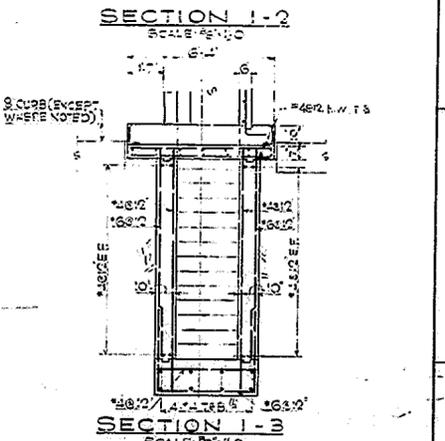
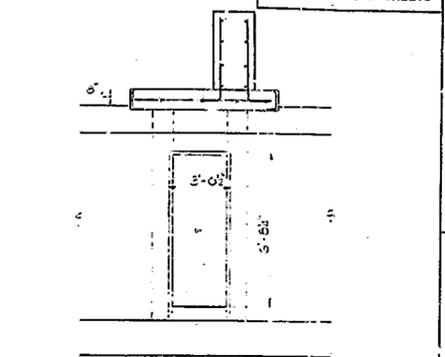
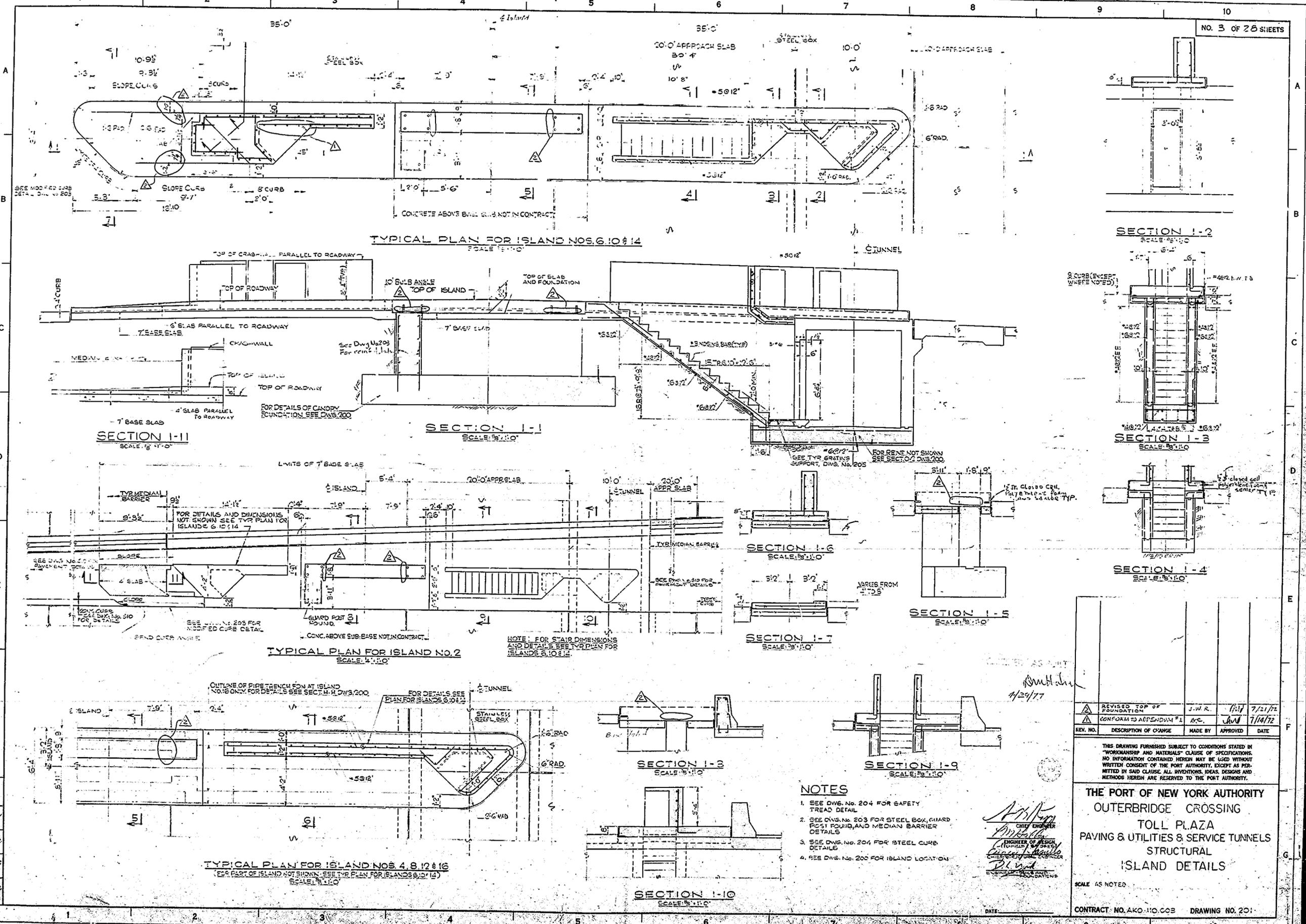
REV. NO.	DESCRIPTION OF CHANGE	MADE BY	APPROVED	DATE
1	REVISED IN ACCORDANCE WITH AS-BUILT CONDITIONS	Ed Miller	MMH	10/20/76
2	REVISED SECT. 0-8 & DIMENSIONS	J.W.R.	MMH	7/26/76
3	CONFORM TO ADDENDUM #1	J.W.R.	MMH	7/11/77
4	CONFORM TO CHANGE	J.W.R.	MMH	7/11/77

THIS DRAWING FURNISHED SUBJECT TO CONDITIONS STATED IN "WORKMANSHIP AND MATERIALS" CLAUSE OF SPECIFICATIONS. NO INFORMATION CONTAINED HEREIN MAY BE USED WITHOUT WRITTEN CONSENT OF THE PORT AUTHORITY, EXCEPT AS PERMITTED IN SAID CLAUSE. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO THE PORT AUTHORITY.

THE PORT OF NEW YORK AUTHORITY
OUTERBRIDGE CROSSING
TOLL PLAZA
PAVING & UTILITIES & SERVICE TUNNEL
STRUCTURAL
PLANS & SECTIONS

SCALE 3/8" = 1'-0" AS NOTED
 CONTRACT NO. AK-100.003 DRAWING NO. 200

NO.	DATE	BY	FOR
1	4/1/76	C.S.	DESIGN
2	4/1/76	RE	REVISION
3	4/1/76	RE	REVISION
4	4/1/76	RE	REVISION



- NOTES**
- SEE DWG. NO. 204 FOR SAFETY TREAD DETAIL
 - SEE DWG. NO. 203 FOR STEEL BOX, GUARD POST FOUNDATION AND MEDIAN BARRIER DETAILS
 - SEE DWG. NO. 204 FOR STEEL CURB DETAIL
 - SEE DWG. NO. 200 FOR ISLAND LOCATION

John J. R. [Signature]
 CHIEF ENGINEER
 PORT AUTHORITY
 ENGINEER OF DESIGN
 (REGISTERED PROFESSIONAL ENGINEER)
 CIVIL ENGINEER

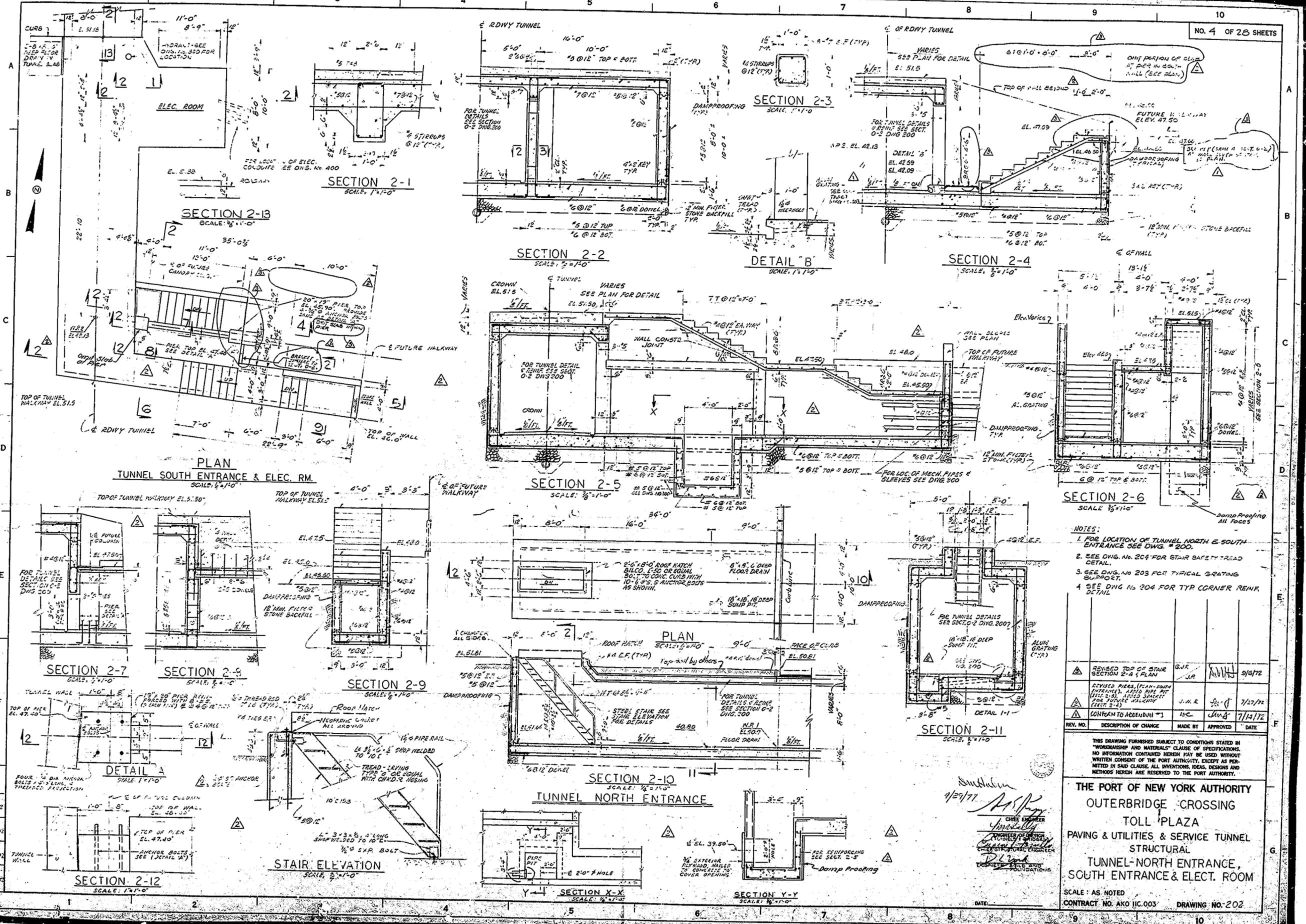
REV. NO.	DESCRIPTION OF CHANGE	MADE BY	APPROVED	DATE
1	REVISED TOP OF FOUNDATION	J.W.R.	[Signature]	7/21/72
2	CONFORM TO APPENDUM #1	M.C.	[Signature]	7/14/72

THIS DRAWING FURNISHED SUBJECT TO CONDITIONS STATED IN "WORKMANSHIP AND MATERIALS" CLAUSE OF SPECIFICATIONS. NO INFORMATION CONTAINED HEREIN MAY BE USED WITHOUT WRITTEN CONSENT OF THE PORT AUTHORITY, EXCEPT AS PERMITTED IN SAID CLAUSE. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO THE PORT AUTHORITY.

THE PORT OF NEW YORK AUTHORITY
 OUTERBRIDGE CROSSING
 TOLL PLAZA
 PAVING & UTILITIES & SERVICE TUNNELS
 STRUCTURAL
 ISLAND DETAILS

SCALE AS NOTED
 CONTRACT NO. AKO-110-G03 DRAWING NO. 201

REVISION BY	DATE
P2	4/11/72
B.S.	4/11/72
C.S.	4/11/72
J.P.	4/11/72



- NOTES:**
1. FOR LOCATION OF TUNNEL NORTH & SOUTH ENTRANCE SEE DWG. # 200.
 2. SEE DWG. NO. 204 FOR STAIR SAFETY TREAD DETAIL.
 3. SEE DWG. NO. 203 FOR TYPICAL GRATING SUPPORT.
 4. SEE DWG. NO. 204 FOR TYP. CORNER REIN. DETAIL.

REV. NO.	DESCRIPTION OF CHANGE	MADE BY	APPROVED	DATE
1	REVISED TOP OF STAIR SECTION 2-4 & PLAN	J.P.	M.H.	9/6/72
2	REVISED REIN. PLAN SOUTH ENTRANCE, ALSO REIN. PLAN FOR FUTURE WALKWAY (SECT. 2-5)	J.M.R.	J.P.	7/27/72
3	CONFORM TO ACCORDION #3	L.C.	J.M.R.	7/14/72

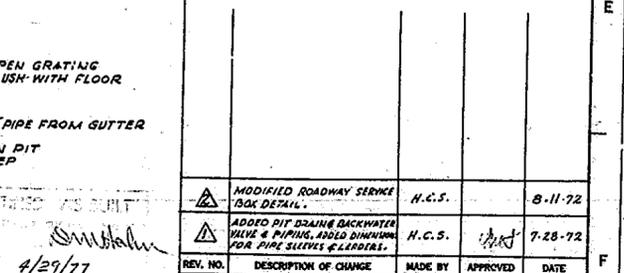
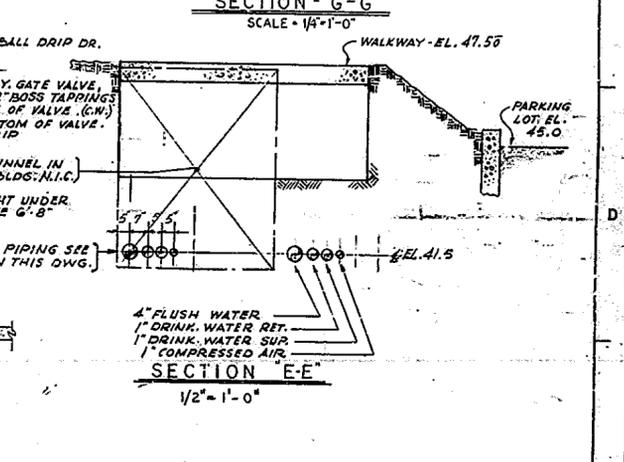
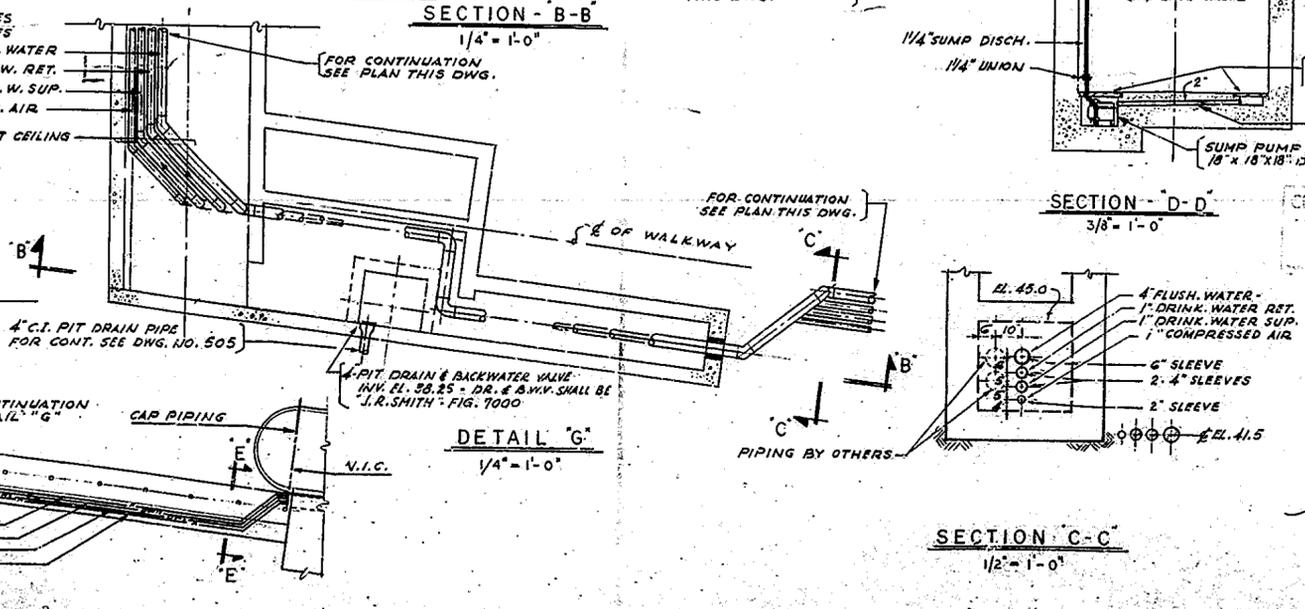
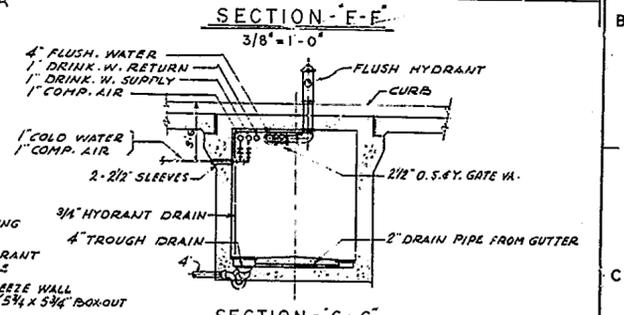
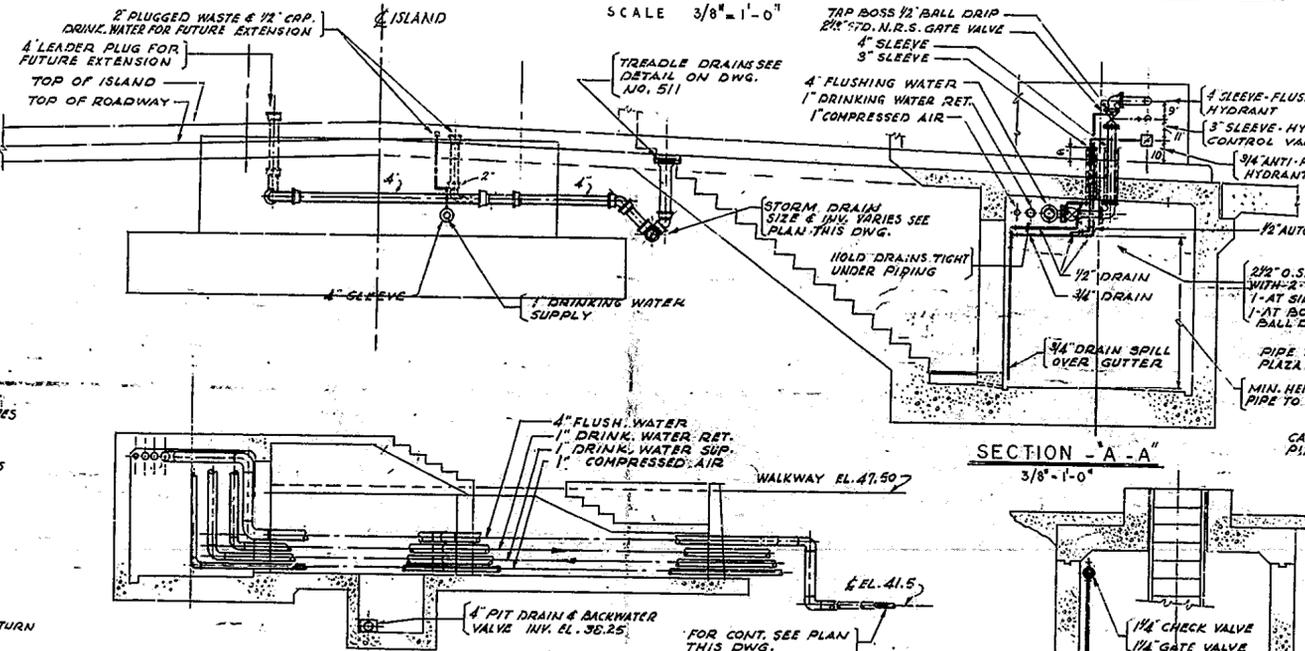
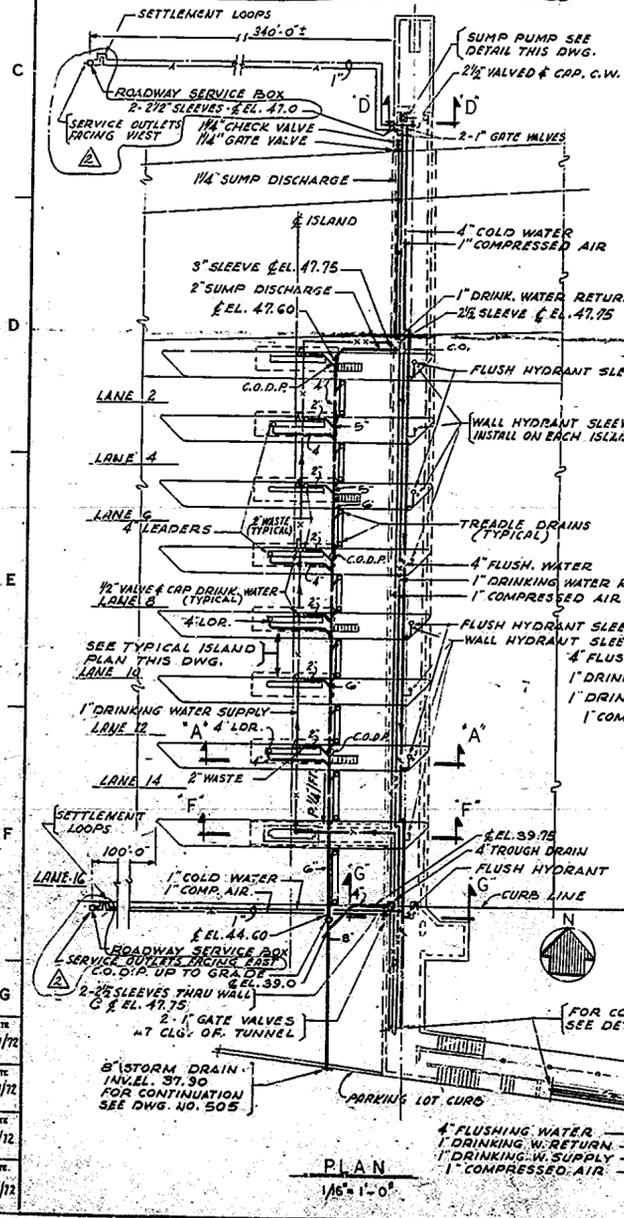
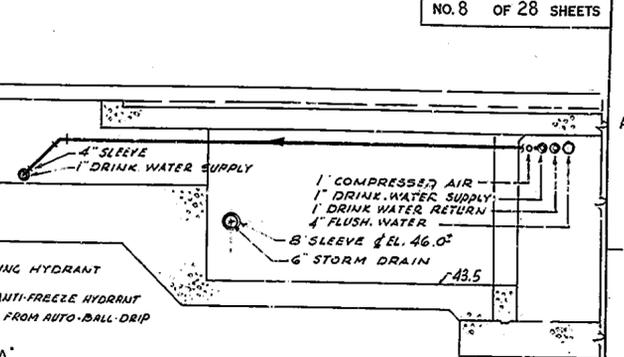
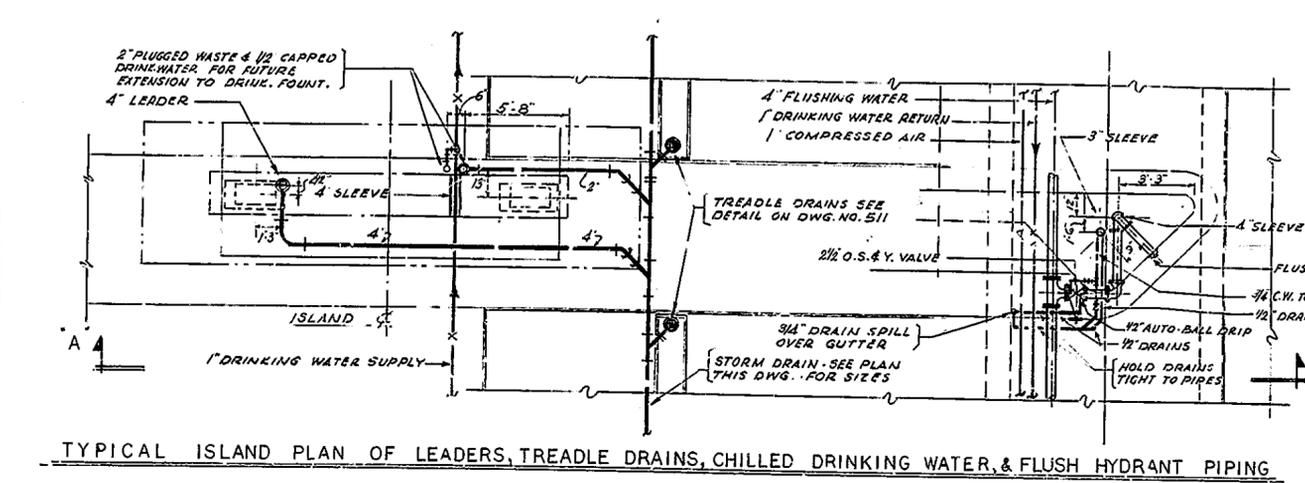
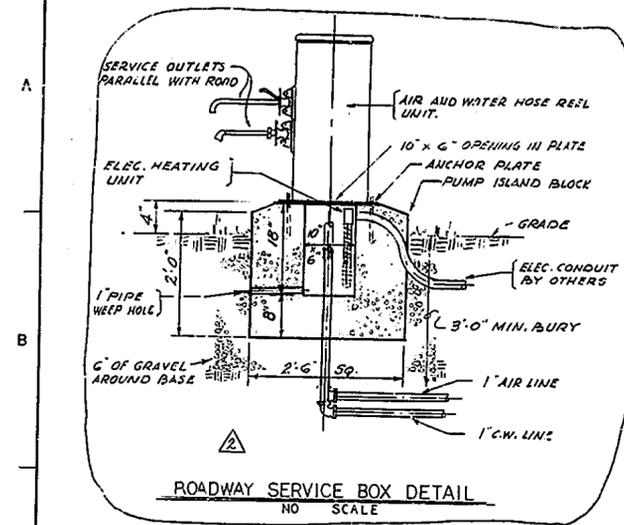
THIS DRAWING FURNISHED SUBJECT TO CONDITIONS STATED IN "WORKMANSHIP AND MATERIALS" CLAUSE OF SPECIFICATIONS. NO INFORMATION CONTAINED HEREIN MAY BE USED WITHOUT WRITTEN CONSENT OF THE PORT AUTHORITY, EXCEPT AS PERMITTED IN SAID CLAUSE. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO THE PORT AUTHORITY.

THE PORT OF NEW YORK AUTHORITY
OUTERBRIDGE CROSSING
TOLL PLAZA
PAVING & UTILITIES & SERVICE TUNNEL
STRUCTURAL
TUNNEL-NORTH ENTRANCE,
SOUTH ENTRANCE & ELEC. ROOM

SCALE: AS NOTED
 CONTRACT NO. ARO IIC.003 DRAWING NO. 202

REVISION	DATE
CS	4/1/72
ES	4/1/72
DS	4/1/72
SP	4/1/72

Signature
 4/29/72
 CHIEF ENGINEER
 STRUCTURAL
 PORT AUTHORITY



REV. NO.	DESCRIPTION OF CHANGE	MADE BY	APPROVED	DATE
1	MODIFIED ROADWAY SERVICE BOX DETAIL.	H.C.S.	[Signature]	8-11-72
2	ADDED PIT DRAIN BACKWATER VALVE & PIPING, ADDED DIMENSIONS FOR PIPE SLEEVES & LEADERS.	H.C.S.	[Signature]	7-28-72

THIS DRAWING FURNISHED SUBJECT TO CONDITIONS STATED IN "WORKMANSHIP AND MATERIALS" CLAUSE OF SPECIFICATIONS. NO INFORMATION CONTAINED HEREIN MAY BE USED WITHOUT WRITTEN CONSENT OF THE PORT AUTHORITY, EXCEPT AS PERMITTED IN SAID CLAUSE. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO THE PORT AUTHORITY.

THE PORT OF NEW YORK AUTHORITY
OUTERBRIDGE CROSSING
TOLL PLAZA
 PAVING & UTILITIES & SERVICE TUNNEL
 PLUMBING
 STORM & TREADLE DRAINAGE
 FLUSH HYDRANTS & DRINKING WATER
 SCALE AS NOTED

DATE: APRIL 20, 1972
 CONTRACT NO. AKO 110,003 DRAWING NO. 300

REVISION	DATE
DESIGN BY H.C.S.	4/17/72
CHECKED BY H.G.S.	4/17/72
DRAWN BY J.B.S.	4/17/72
IN CHARGE J.B.S.	4/17/72



THE PORT AUTHORITY OF NY & NJ

ASST. ENGINEER OF DESIGN T, B & T

JOSEPH TONETTI & ASSOCIATES ARCHITECTS



Engineering Department

Overbridge Crossing

ADDITIONAL TOLL LANE

STRUCTURAL TOLL BOOTH PLAN DETAILS - CANOPY

CHANGED LOCATION OF CAL. RODS FROM BETWEEN C16 & C18

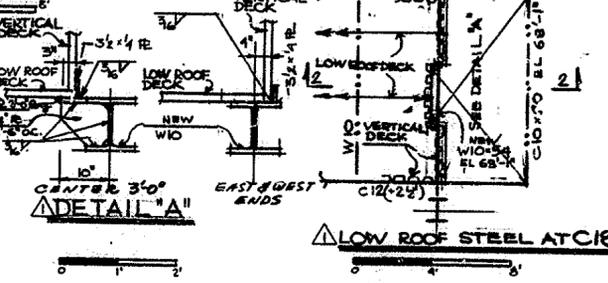
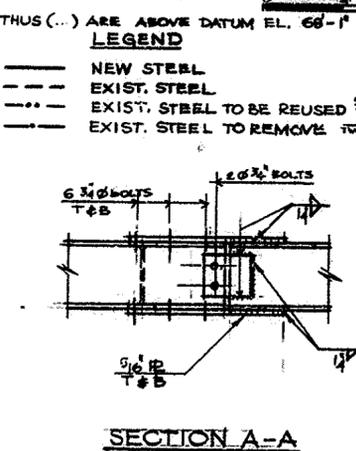
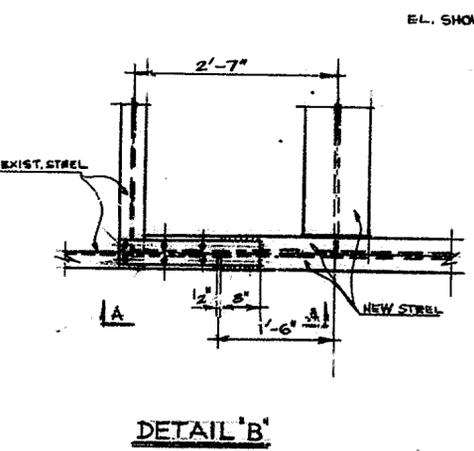
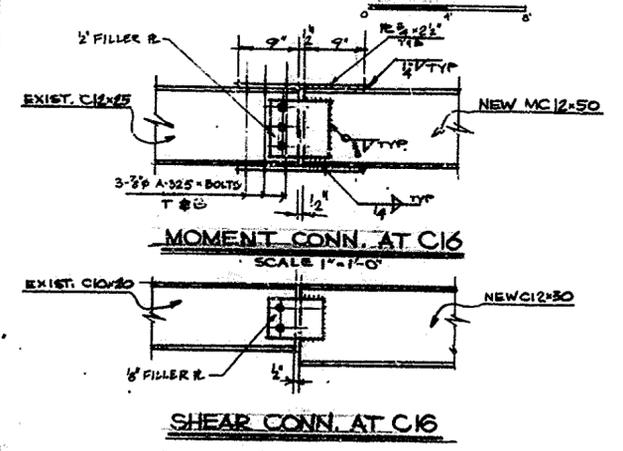
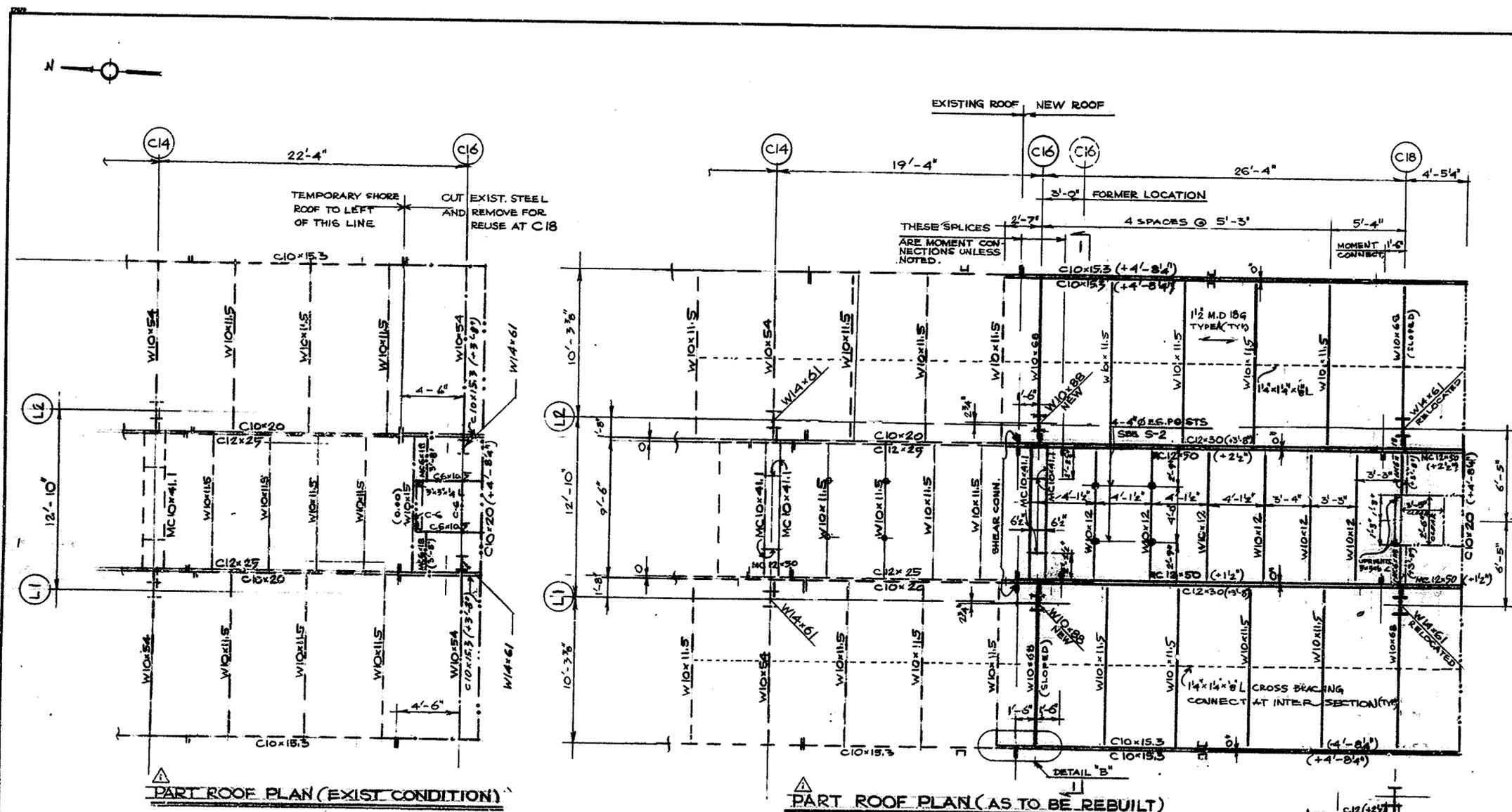
No.	Date	Revision	Approved
1	4/1/85		

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

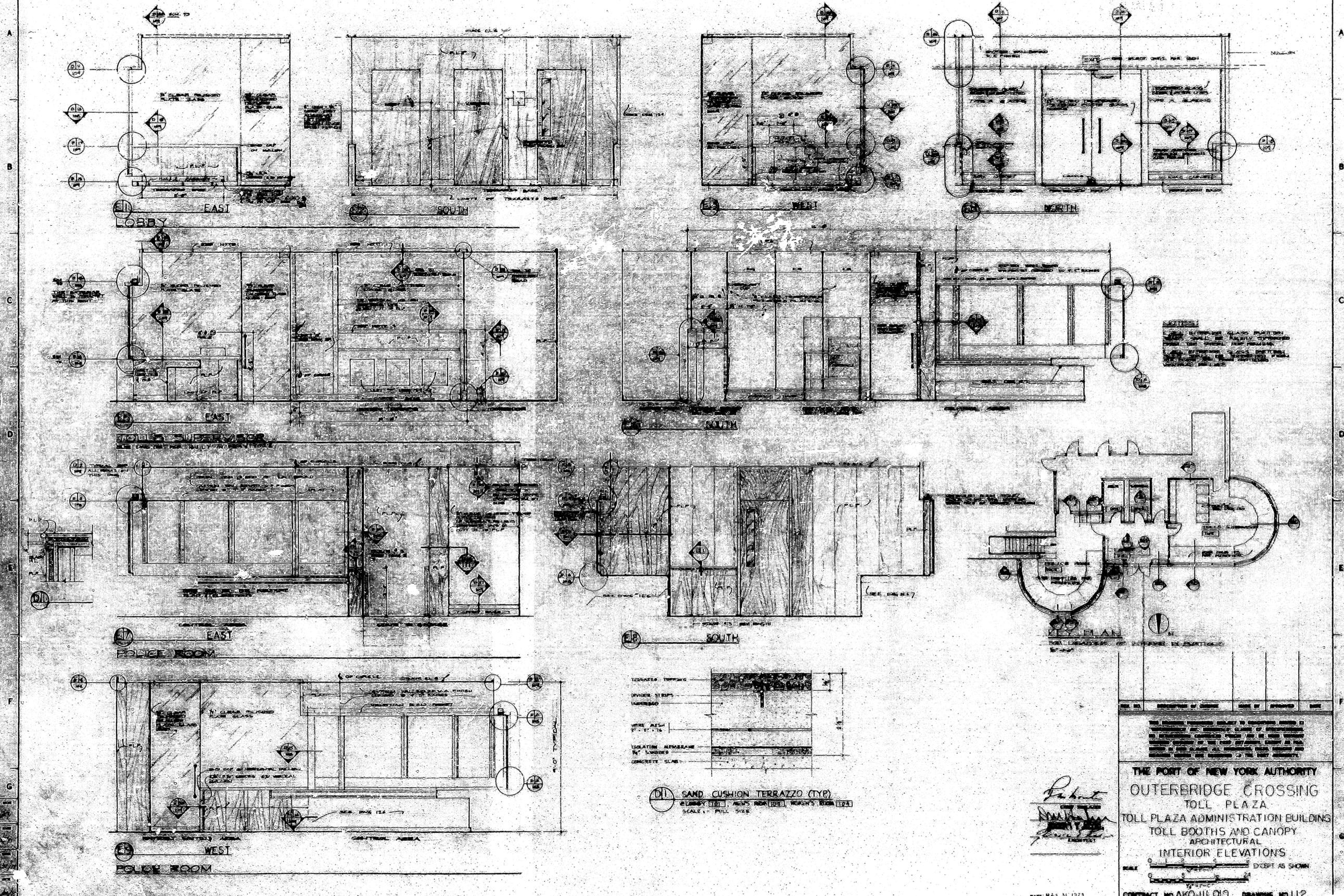
PP MG APW
 Designed by Drawn by Task Leader

Date 4/1/85 Scale AS NOTED

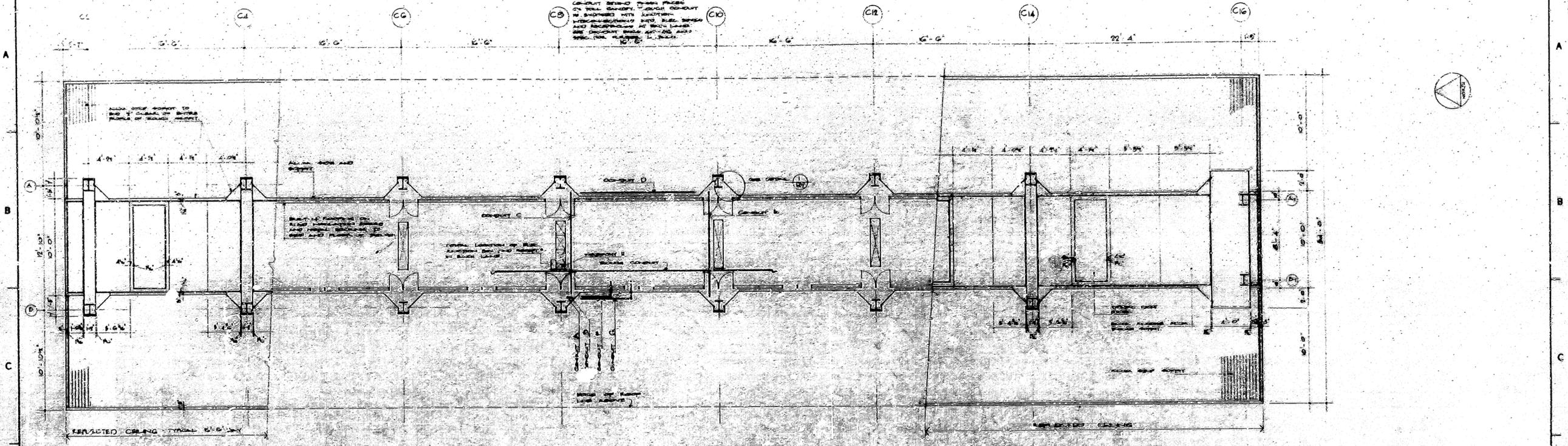
Contract Number AKO-110.024 Drawing Number 300



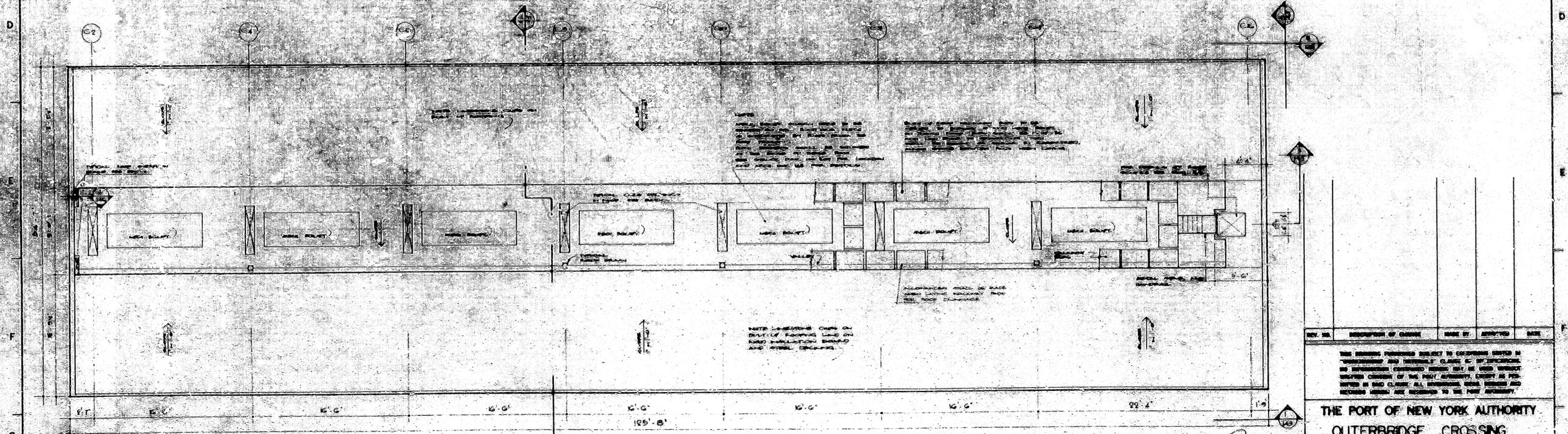
NOTES FOR SECTIONS 1 & 2 SEE DWG 201



SEAMY LINES BELOW INDICATE
SCHEMATIC OF TYPICAL LOAD
CONDUIT BEHIND TOLL PLAZA
ON TOLL CANOPY. TYPICAL CONDUIT
IS SHOWN WITH LIGHTING
INTERCOMMUNICATION AND FIRE ALARM
AND TELEPHONE AT EACH LANE
AND CHECKED BEHIND ARCHES AND
BEHIND THE WALLS IN BAY.



PLAN



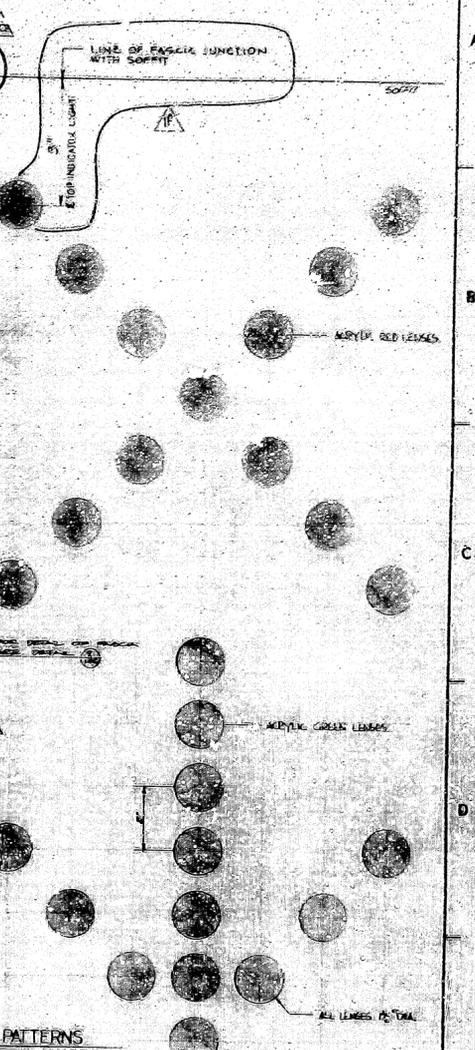
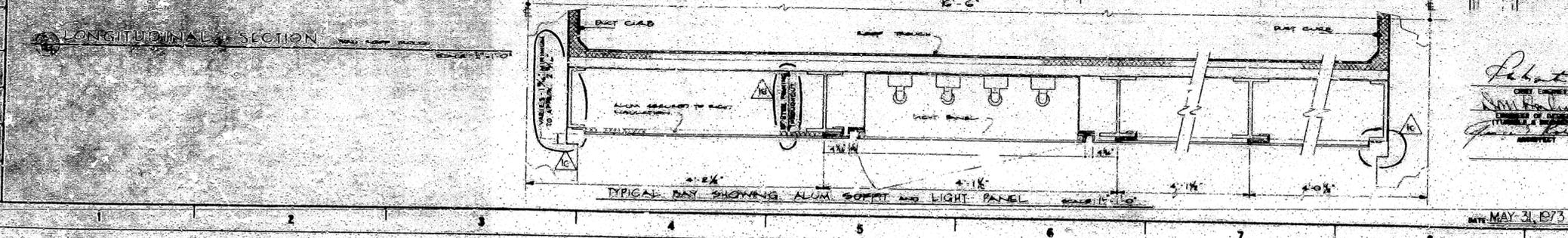
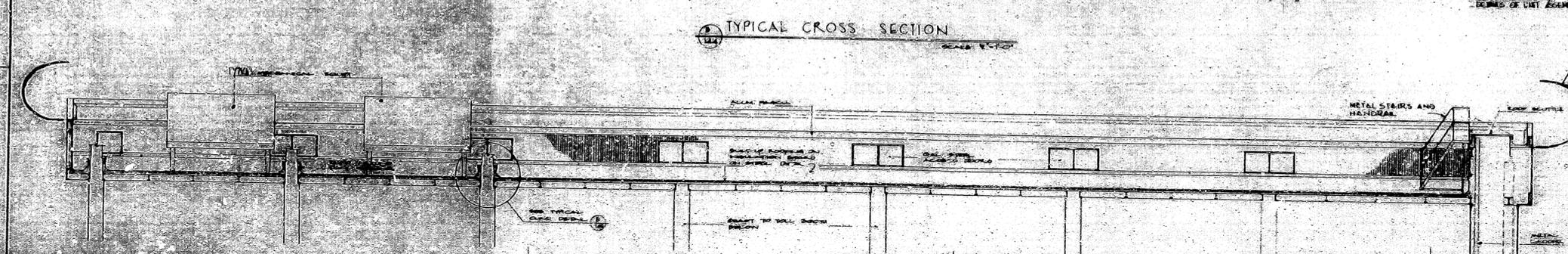
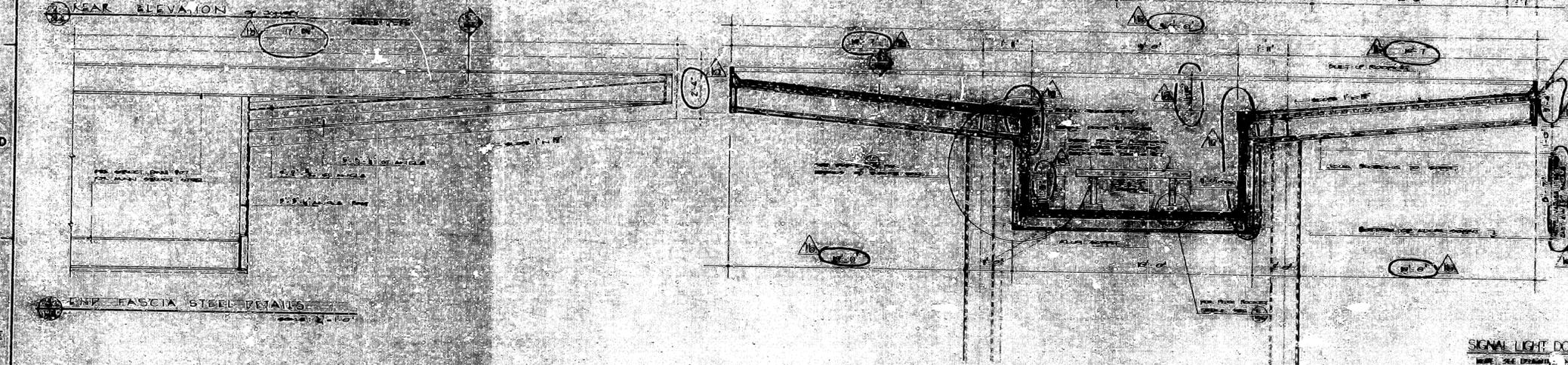
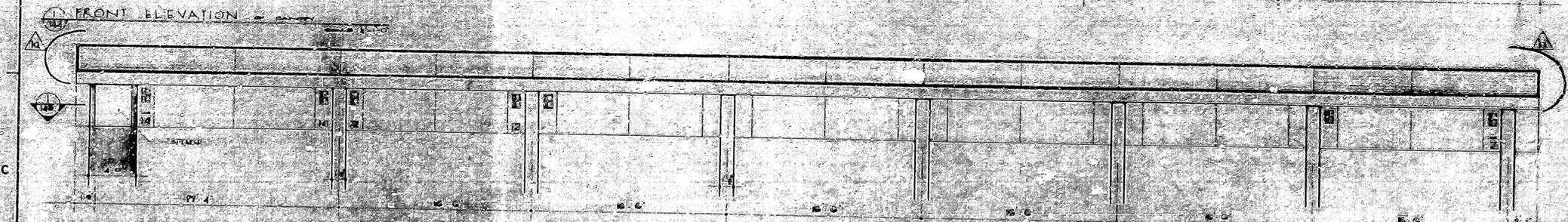
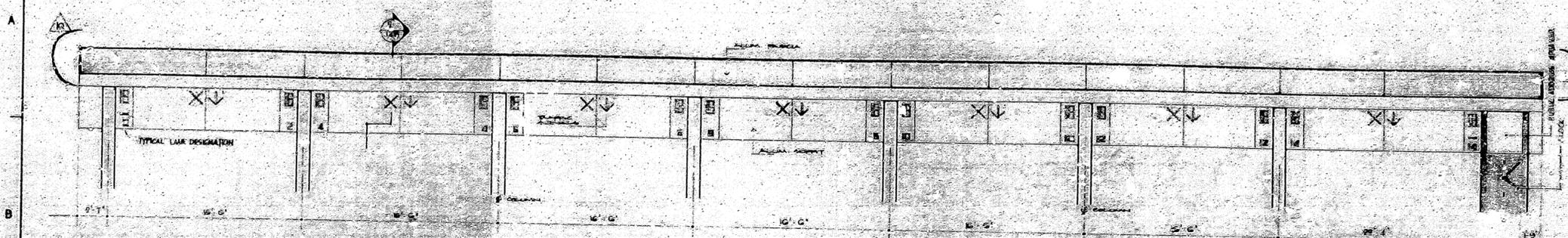
ROOF PLAN

2	4/79
LW	4/79
RJ	4/79
RJ	4/79

Robert
CHIEF ENGINEER
James
PROJECT ENGINEER

REV. NO.	DESCRIPTION OF CHANGE	MADE BY	APPROVED	DATE
<p>THE ENGINEER FURNISHES SUBJECT TO CONDITIONS STATED IN "SPECIFICATIONS AND GENERAL CONDITIONS" CLASS "C" SPECIFICATIONS. NO INFORMATION OR SERVICES HEREIN MAY BE USED WITHOUT WRITTEN CONSENT OF THE PORT AUTHORITY. CREDIT IS PERMITTED IN THIS CLAUSE. ALL DIMENSIONS SHALL BE SHOWN AND RECORDS SHALL BE KEPT IN ACCORDANCE WITH THE PORT AUTHORITY.</p>				
<p>THE PORT OF NEW YORK AUTHORITY OUTERBRIDGE CROSSING TOLL PLAZA TOLL PLAZA ADMINISTRATION BUILDING TOLL BOOTHS AND CANOPY TOLL CANOPY PLAN</p>				
SCALE AS SHOWN				
DATE: MAY 31, 1973				
CONTRACT NO. AKO-84-C80 DRAWING NO. K14				

10 OF 10 SHEETS



SIGNAL LIGHT DOT PATTERNS
 SEE THE DRAWING FOR THE LOCATION OF THE DOT PATTERNS OF THE LIGHT ASSEMBLIES

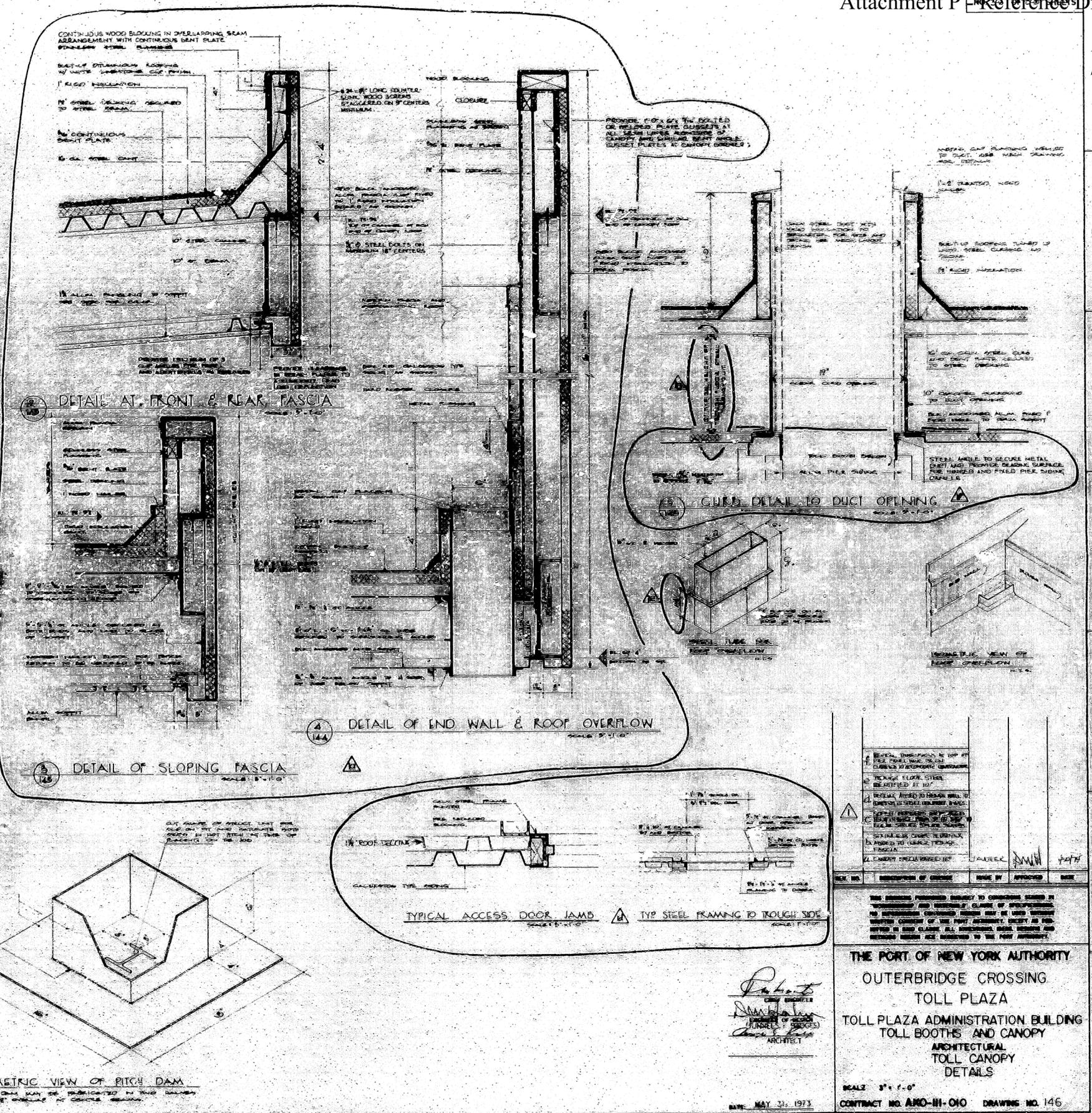
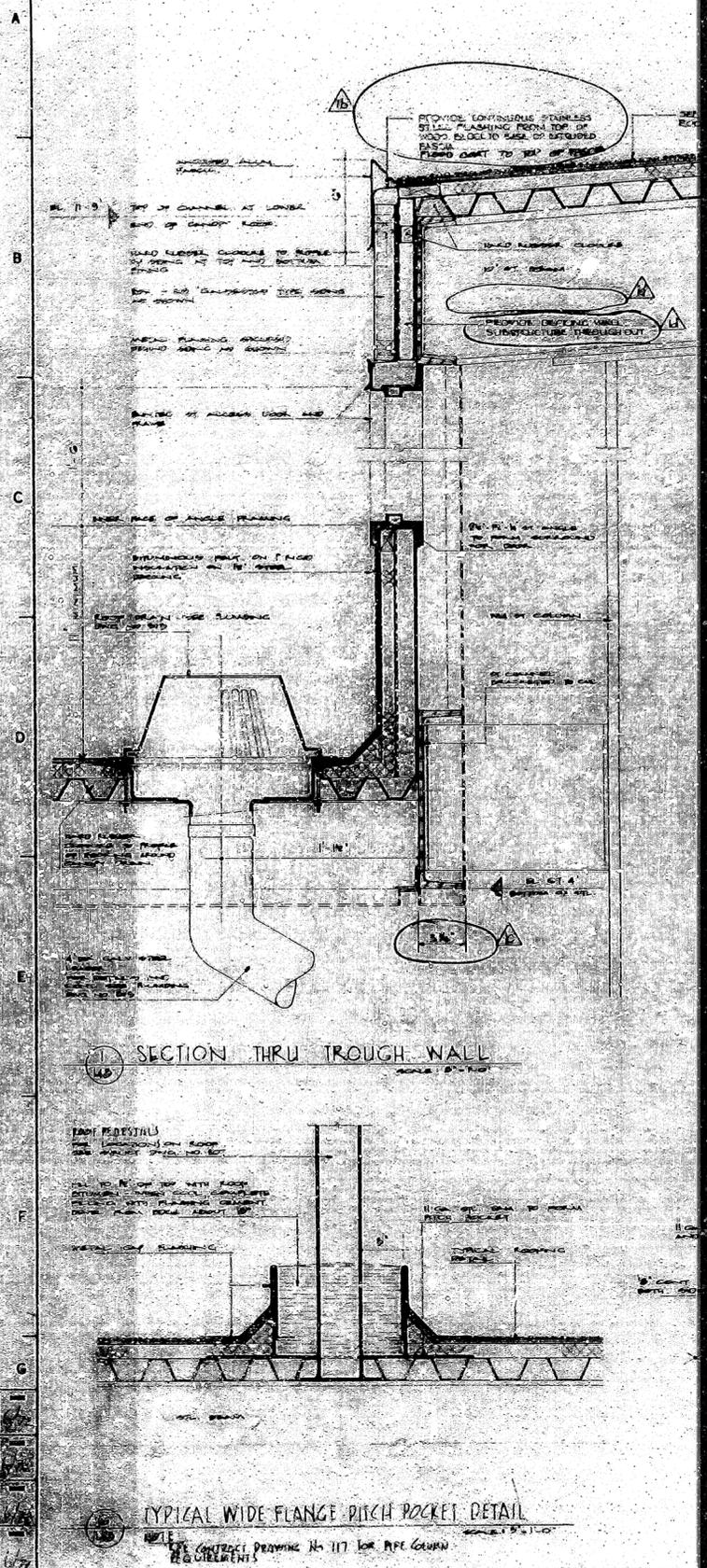
REV. NO.	DESCRIPTION OF CHANGE	DATE
1	DESIGNING MODIFIED TO TRUCKING WALL TO CONFORM TO THE STRUCTURAL REQUIREMENTS	
2	LOCATION OF THE INTERIOR LIGHTS IN THE PLAZA, SIGNAL LIGHTS, ELEVATIONS, ELEVATIONS	
3	TRUCKING FLOOR FINISHING (IDENTIFIED AS 10)	
4	DEFERRING TO TRUCKING FLOOR LIGHTING (IDENTIFIED AS 10)	
5	REWORK ELEVATIONS AT TOP OF P.C.E. PANELS, CLARIFY TO RECONSTRUCT CONTRACTOR	
6	CONSTRUCTION CONSTRUCTION, REFER TO CHANGING SHEET	
7	CL. CHANGING SHEET, REFER TO CHANGING SHEET	

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THE PORT OF NEW YORK AUTHORITY
OUTERBRIDGE CROSSING
TOLL PLAZA
TOLL PLAZA ADMINISTRATION BUILDING
TOLL BOOTHS AND CANOPY
TOLL CANOPY
ELEVATIONS

SCALE AS SHOWN
 CONTRACT NO. AKO-88-040 DRAWING NO. 143

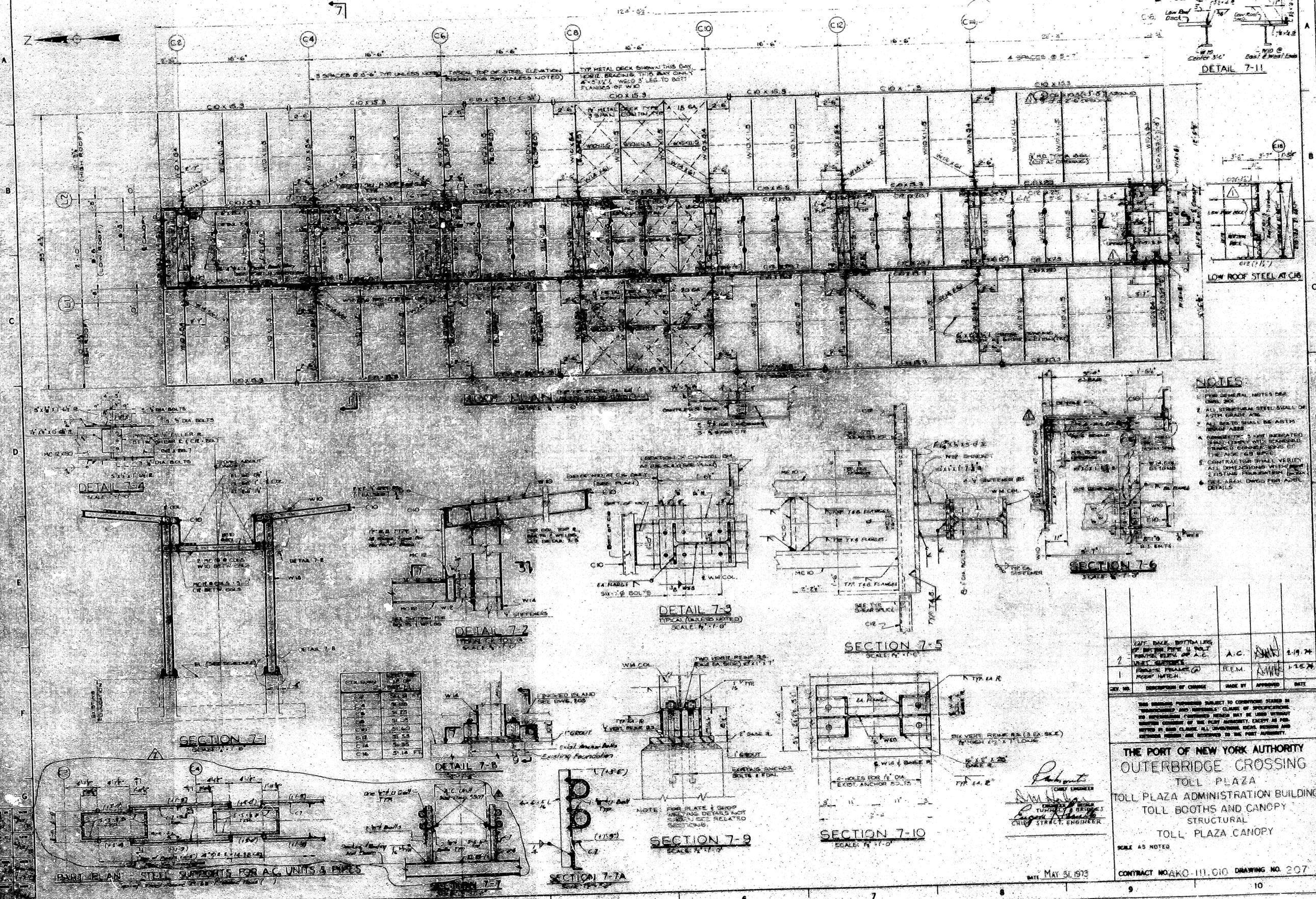
MAY 31, 1973



REV. NO.	DESCRIPTION OF CHANGE	DATE BY	APPROVED	DATE
1	REVISIONS TO TOP OF PITCH ROCKET AND DRAINAGE CHANNELS TO BE IDENTIFIED AT 10'			
2	REVISIONS TO PITCH ROCKET TO BE IDENTIFIED AT 10'			
3	REVISIONS TO PITCH ROCKET TO BE IDENTIFIED AT 10'			
4	REVISIONS TO PITCH ROCKET TO BE IDENTIFIED AT 10'			
5	REVISIONS TO PITCH ROCKET TO BE IDENTIFIED AT 10'			

THE PORT OF NEW YORK AUTHORITY
 OUTERBRIDGE CROSSING
 TOLL PLAZA
 TOLL PLAZA ADMINISTRATION BUILDING
 TOLL BOOTHS AND CANOPY
 ARCHITECTURAL
 TOLL CANOPY
 DETAILS

SCALE: 3/4" = 1'-0"
 CONTRACT NO. ARO-11-010 DRAWING NO. 146
 DATE: MAY 23, 1973



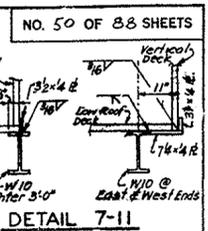
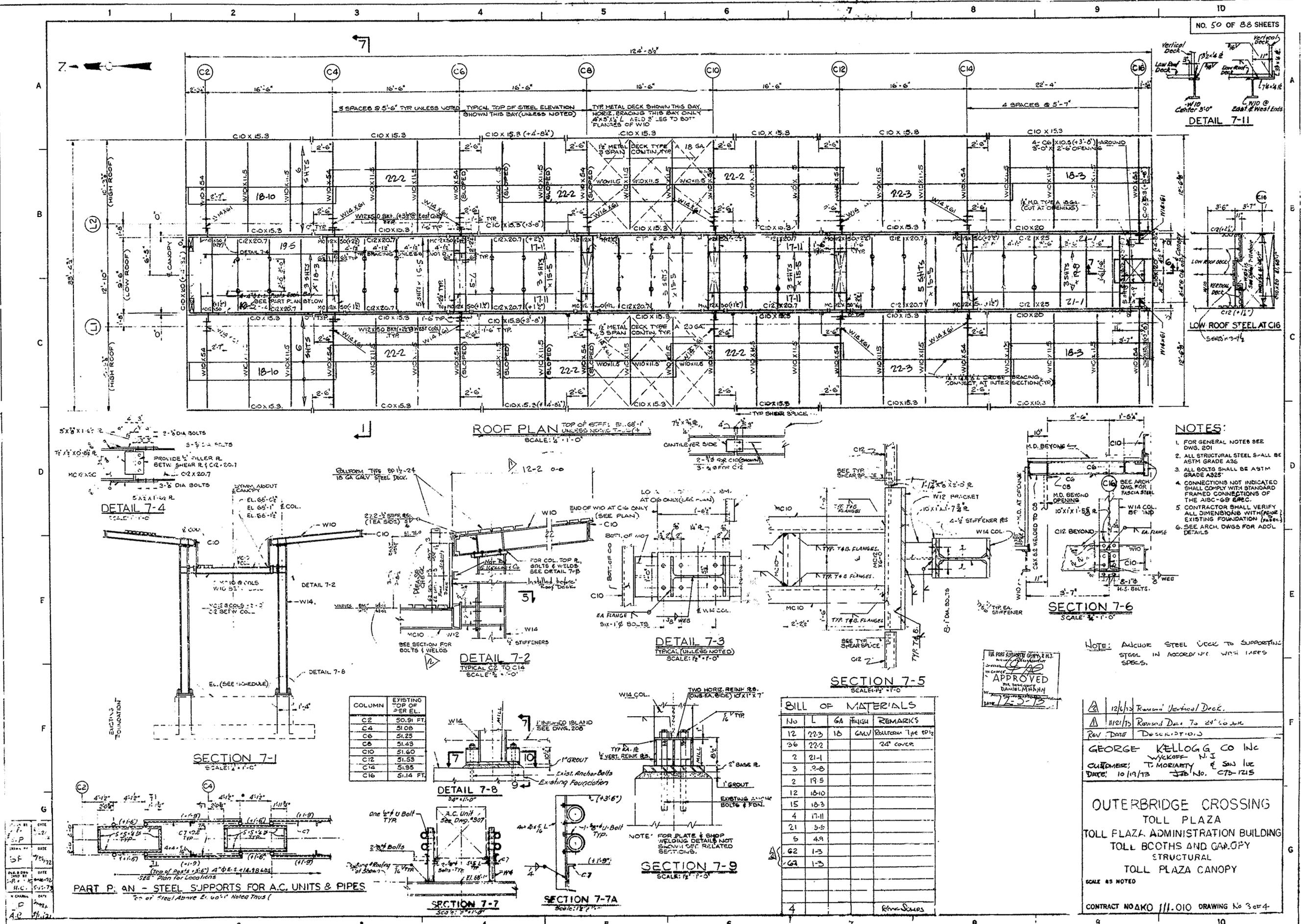
- NOTES:**
1. PER GENERAL NOTES SEE SHEET 201.
 2. ALL STRUCTURAL STEEL SHALL BE ASTM A572 GR. 50.
 3. ALL BOLTS SHALL BE ASTM A325.
 4. CONNECTIONS NOT INDICATED SHALL BE WELDED CONNECTIONS OF THE AISC 88 TYPE.
 5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH EXISTING FOUNDATION, BENCH MARKS AND SEE ARCH. DWGS FOR ADJ. DETAILS.

REV. NO.	DESCRIPTION OF CHANGE	MADE BY	APPROVED	DATE
2	CHG. DIM. BOTTOM LEG OF W10 x 30 I BEAM TO MATCH W10 x 49 I BEAM	A.C.	[Signature]	2.19.74
1	FRAMING PLAN FOR ROOF MECH.	REM.	[Signature]	1.12.74

THE PORT OF NEW YORK AUTHORITY
 OUTERBRIDGE CROSSING
 TOLL PLAZA
 TOLL PLAZA ADMINISTRATION BUILDING
 TOLL BOOTHS AND CANOPY
 STRUCTURAL
 TOLL PLAZA CANOPY
 SCALE AS NOTED
 CONTRACT NO. AKO-111.010 DRAWING NO. 207

[Signature]
 CHIEF ENGINEER
[Signature]
 CHIEF STRUCT. ENGINEER

MAY 31, 1973



- NOTES:**
1. FOR GENERAL NOTES SEE DWG. 201
 2. ALL STRUCTURAL STEEL SHALL BE ASTM GRADE A36
 3. ALL BOLTS SHALL BE ASTM GRADE A325
 4. CONNECTIONS NOT INDICATED SHALL COMPLY WITH STANDARD FRAMED CONNECTIONS OF THE AISC - 88 SPEC.
 5. CONTRACTOR SHALL VERIFY ALL DIMENSIONS WITH EXISTING FOUNDATION (AS SHOWN).
 6. SEE ARCH. DWGS FOR ADDL DETAILS.

NOTE: ANCHOR STEEL DECK TO SUPPORTING STEEL IN ACCORDANCE WITH LARS SPECS.

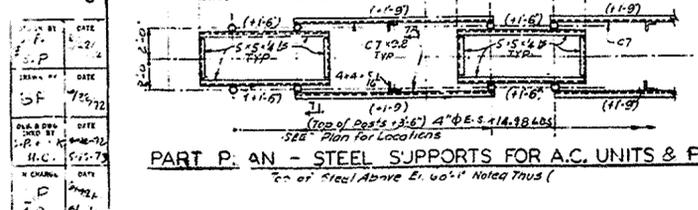
APPROVED
DANIEL M. HAN

BILL OF MATERIALS

No	L	GA	FINISH	REMARKS
12	22-3	18	GAU	Rollform Type EPD
36	22-2	18	GAU	24" COVER
2	21-1			
3	3-B			
2	19-5			
12	18-10			
15	18-3			
4	17-11			
21	5-5			
5	4-9			
62	1-3			
69	1-3			
4				Rivet Spacers

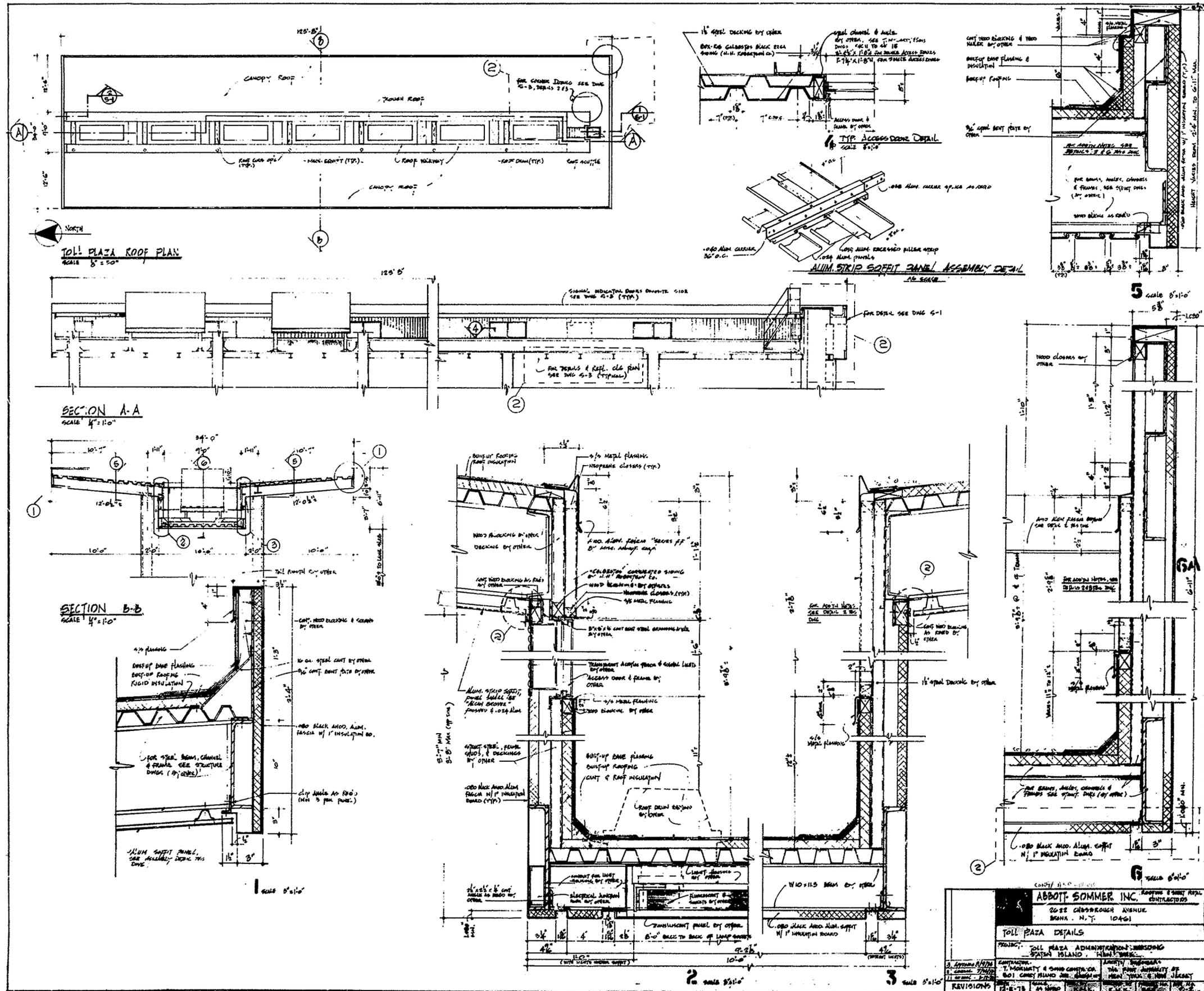
COLUMN EXISTING TOP OF 2ND FL.

COLUMN	EXISTING TOP OF 2 ND FL. EL.
C2	50.91 FT.
C4	51.08
C6	51.25
C8	51.43
C10	51.60
C12	51.53
C14	51.35
C16	51.14 FT.



REVISIONS

NO.	DATE	DESCRIPTION
1	12/1/13	Revised Vertical Deck
2	11/21/13	Revised Deck To 24" LO JOU



LIST OF ABBREVIATIONS

A.F.F. ABOVE FINISHED FLOOR	F FAHRENHEIT	P. PLUMBING
A.K.A. ALSO KNOWN AS	F.A. FRESH AIR	P.A. PORT AUTHORITY
A.P. ACCESS PANEL	F.D. FLOOR DRAIN	P.I.P. POURED IN PLACE
ABV. ABOVE	F.E.C. FIRE EXTINGUISHER CABINET	PART. PARTITION/PARTIAL
AL./ALUM. ALUMINUM	F.H.C. FIRE HOSE CABINET	PENETR. PENETRATION
ANG. ANGLE	F.H.R. FIRE HOSE RACK	PL. PLATE
APP'D APPROVED	FDN. FOUNDATION	PLAS. PLASTER
APPROX. APPROXIMATE/LY	FIN. FINISH OR FINISHED	PLUMB. PLUMBING
ARCH. ARCHITECTURAL	FIXT. FIXTURE	PMD. PREMOLDED
ASSM. ASSEMBLY	FL. FLOOR	PNL. PANEL
ASTM. AMERICAN SOCIETY FOR TESTING AND MATERIALS	FSP. FIRE STANDPIPE	POL. POLISHED
AVI. AUTOMATIC VEHICLE IDENTIFICATION	FT./IN. FEET/INCHES	PREFAB. PREFABRICATED
	FTG. FOOTING	PREV. PREVIOUS
		PT. PART/POINT
		PTD. PAINTED
B. BASE/BOTTOM	G.R. GUARD	R. RISER
B.L. BUILDING LINE	GA. GAUGE	R.A. RETURN AIR
BD. BOARD	GALV. GALVANIZED	RAD. RADIUS
BKT. BRACKET	GL. GLASS	RD. ROUND
BLDG. BUILDING	GRTG. GRATING	REC. RECOMMENDATION
BLDG'S. BUILDINGS		REFRIG. REFRIGERATOR
BLKG. BLOCKING	H. HORIZONTAL	REINF. REINFORCEMENT
BM. BEAM	H.C. HANDICAPPED	RPLMT. REPLACEMENT
BOT. BOTTOM	H.M. HOLLOW METAL	REQ. REQUIRED
BRZ. BRONZE	H.P. HIGH POINT	RM. ROOM
BTWN. BETWEEN	H.R. HANDRAIL	
	H.S. HIGH STRENGTH	S. SOUTH
C./CTR. CENTER	H.S. HEATING, VENTILATION & AIR CONDITIONING	S.C. SELF CLOSING
C.JT. CONSTRUCTION JOINT	H.V.A.C. HEATING, VENTILATION & AIR CONDITIONING	S.PT. STARTING POINT
C.L. CENTERLINE	HDWR. HARDWARE	S.S. STAINLESS STEEL
C.M.U. CONCRETE MASONRY UNIT	HGT. HEIGHT	SCH. SCHEDULE
C.S. CONCRETE SLAB	HORIZ. HORIZONTAL	SDL. SADDLE
CCTV. CLOSED CIRCUIT TELEVISION	HT. HEIGHT	SECT. SECTION
CEM. CEMENT	HTR. HEATER	SH. SHEET
CHAN. CHANNEL		SIM. SIMILAR
C.I.P. CAST IN PLACE	I.A.W. IN ACCORDANCE WITH	SLDG. SLIDING
CLG. CEILING	I.D. INSIDE DIAMETER	SPEC. SPECIFICATION
CLOS. CLOSET	INCL. INCLUDE/D	SQ. SQUARE
CLR. CLEAR	INFL. INFORMATION	ST.STL. STAINLESS STEEL
COL. COLUMN	INSUL. INSULATION	STL. STEEL
COMM. COMMUNICATIONS	INT. INTERIOR	STOR. STORAGE
CONC. CONCRETE	JT. JOINT	STRUCT. STRUCTURAL
COND. CONDITIONS		SUSP. SUSPENDED
CONN. CONNECTION	L.P. LOW POINT	SW. SWITCH
CONST. CONSTRUCTION	L.W. LIGHT WEIGHT	T.D. TRENCH DRAIN
CONT. CONTINUOUS	LAM. LAMINATED	T.O. TOP OF
CONV. CONVERT	LB/FT. POUNDS PER FOOT	T.O.P. TOP OF PARAPET
CORR. CORRUGATED	LG. LONG	T.O.S. TOP OF STEEL
COR. CORNER	LT. LIGHT	T.O.SL. TOP OF SLAB
CSK. COUNTERSUNK	LTG. LIGHTING	TEL. TELEPHONE
CT. COURT	M. MECHANICAL	TEMP. TEMPORARY/TEMPORARILY
CWF. CURTAIN WALL FACE	M.O. MASONRY OPENING	TERM. TERMINAL
	MAS. MASONRY	THK. THICK
	MATL. MATERIAL	TYP. TYPICAL
	MAX. MAXIMUM	U.L.DES. UNDERWRITERS LABORATORIES DESIGN
	MECH. MECHANICAL	U.O.N. UNLESS OTHERWISE NOTED
	MFR. MANUFACTURER	
	MH. MANHOLE	V. VERTICAL
	MID. MIDDLE	VES. VEHICLE ENFORCEMENT SYSTEM
	MIN. MINIMUM	V.I.F. VERIFY IN FIELD
	MIR. MIRROR	
	MISC. MISCELLANEOUS	W. WEST
	MNTG. MOUNTING	W.C. WATER CLOSET
	MSDS. MATERIAL SAFETY DATA SHEET	W.P. WORKING POINT
		W.W.F. WELDED WIRE FABRIC
		W/ WITH
		W/O WITHOUT
		⊙ AT
		& AND
		+/- MORE OR LESS
		NOTE: ABBREVIATIONS MAY APPEAR W/ OR W/O PERIODS, W/O A CHANGE IN MEANING.
	N. NORTH	
	N.I.C. NOT IN CONTRACT	
	N.T.S. NOT TO SCALE	
	NO./# NUMBER	
	O.C. ON CENTER	
	O.D. OUTSIDE DIAMETER	
	O.H. OVER HEAD	
	OPN'G. OPENING	
	OPP. OPPOSITE	

ARCHITECTURAL NOTES

- The following definitions shall apply to these Contract Drawings
Downstream - In this job "downstream" is East.
Provide - to furnish & install, in a complete & finished installation, to include all standard & required accessories, hardware, & finishes, whether these are specified or not.
Upstream - In this job "upstream" is West.
- Net Cost** payment shall be computed in same manner as is compensation for Extra Work, including any percentage addition to cost, as set forth in clause of contract entitled "Compensation For Extra Work." Performance of Net Cost work shall be as directed by Engineer & subject to all provisions of the Contract relating to performance of Extra Work. Compensation for said Net Cost work shall not be charged against total amount of compensation authorized for Extra Work.
- Contractor shall field verify all existing conditions, including but not limited to dimensions, locations & elevations, prior to preparing Shop Dwg. or other Submittals, & prior to undertaking removal or other operations, or staking out new work. Any existing conditions or dimensions indicated in Contract Dwg. are provided for informational purposes only, & do not relieve Contractor of responsibility to verify all dimensions. In any instance where Contractor must repair or alter elements of existing work that will remain (e.g., "patch" of existing canopy structure), Contractor shall completely survey, measure & document existing construction, prior to commencement of removal operations. Contractor shall then document information gathered in Shop Dwg., indicating existing conditions & extent & nature of proposed repair, removal, alteration or addition. After removal operations have begun & concealed elements are exposed (e.g., internal framing of canopy), verify existing conditions, & revise Shop Dwg. as required, to incorporate any concealed conditions thus exposed.
- The removal and disposal of the existing lead paint to enable demolition and removal of the canopy and tollbooth structures shall be performed in accordance with the OSHA 29 CFR PART 1926.62 "Lead In Construction" /US EPA Guidelines. The disposal of such lead bearing material shall be in accordance with all applicable regulations.



CABRERA GROUP
 ARCHITECTS P.C.
 Original signed and sealed by
 Robert Cabrera, Registered Architect
 New York License No. 7037

DRAWING OF RECORD
 (BASED ON CORRECTED FIELD DRAWINGS)
 RESIDENT ENGINEER: JAMES MASSETT
 DATE: 08 /14/ 2006

No.	Date	Revision	Approved
1	11/17/04	As-Bid/ Conformed Drawing To Addendum #3	

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ARCHITECTURAL

Title

HIGHWAY SPEED E-Z PASS

ABBREVIATIONS, LEGEND, SYMBOLS, ARCHITECTURAL & SPECIFICATIONS NOTES

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date	5-11-05	

Contract Number **AKO-284.039**

Drawing Number **A1.0**
 PID# 00417000

COATINGS AND COLOR SCHEDULE

SYSTEM DESIGNATION	COLOR	REMARKS
S-1s	01MT BRIGHT ALUMINUM (by TNE MEC)	All painting (incl. top coat) shall be spray applied in the Shop. Only minor touch-up, & only as directed by Paint Manufacturer's Representative, shall be allowed in the field.
NOTE: All exposed carbon steel (unalvanized) shall be painted with specified system S-1s (see Specifications Section 09910-Painting, Appendix B-Paint Schedule). Steel shall be abrasive blasted in accordance with SSPC SP10. Coating to be applied to all internal surfaces as well as external surfaces.		

STAINLESS STEEL FINISHES

STAINLESS STEEL FINISHES	STAINLESS STEEL TYPE
No. 4 finish	1. Uprights (square & round) 2. Upright Supports 3. Struts 4. Equipment Support Bars 5. Wireways 6. Junction Boxes 7. Troughs (w/ cover) 8. Pipe Posts 9. Cross Braces
	1. 316L 2. 316L 3. 316L 4. 316L 5. 316L 6. 316L 7. 316L 8. 316L 9. 316L

LEGEND

	BACKER ROD AND SEALANT
	STEEL
	CONCRETE
	ALUMINUM
	EXTERIOR GRADE PLYWOOD
	BATT INSULATION
	RIGID INSULATION
	EXISTING CONSTRUCTION TO BE REMOVED

SYMBOLS

	VIEW INDICATOR (P=PLAN, ETC.)	DETAIL NO.
	COLUMN LINE/NUMBER INDICATOR	1
	CENTER LINE INDICATOR	C COLUMN
	ELEVATION INDICATOR	E 1.3
	REVISION NUMBER	2



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DRAWING OF RECORD
B. M. K. S. (P.M.D. 2/9/07)
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSET
DATE 08/14/2006

No.	Date	Revision	Approved
1	11/19/06	Eliminated Stair Demolition	

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ARCHITECTURAL

Title

HIGHWAY SPEED E-Z PASS

TOLL PLAZA

REMOVALS GROUND PLAN

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

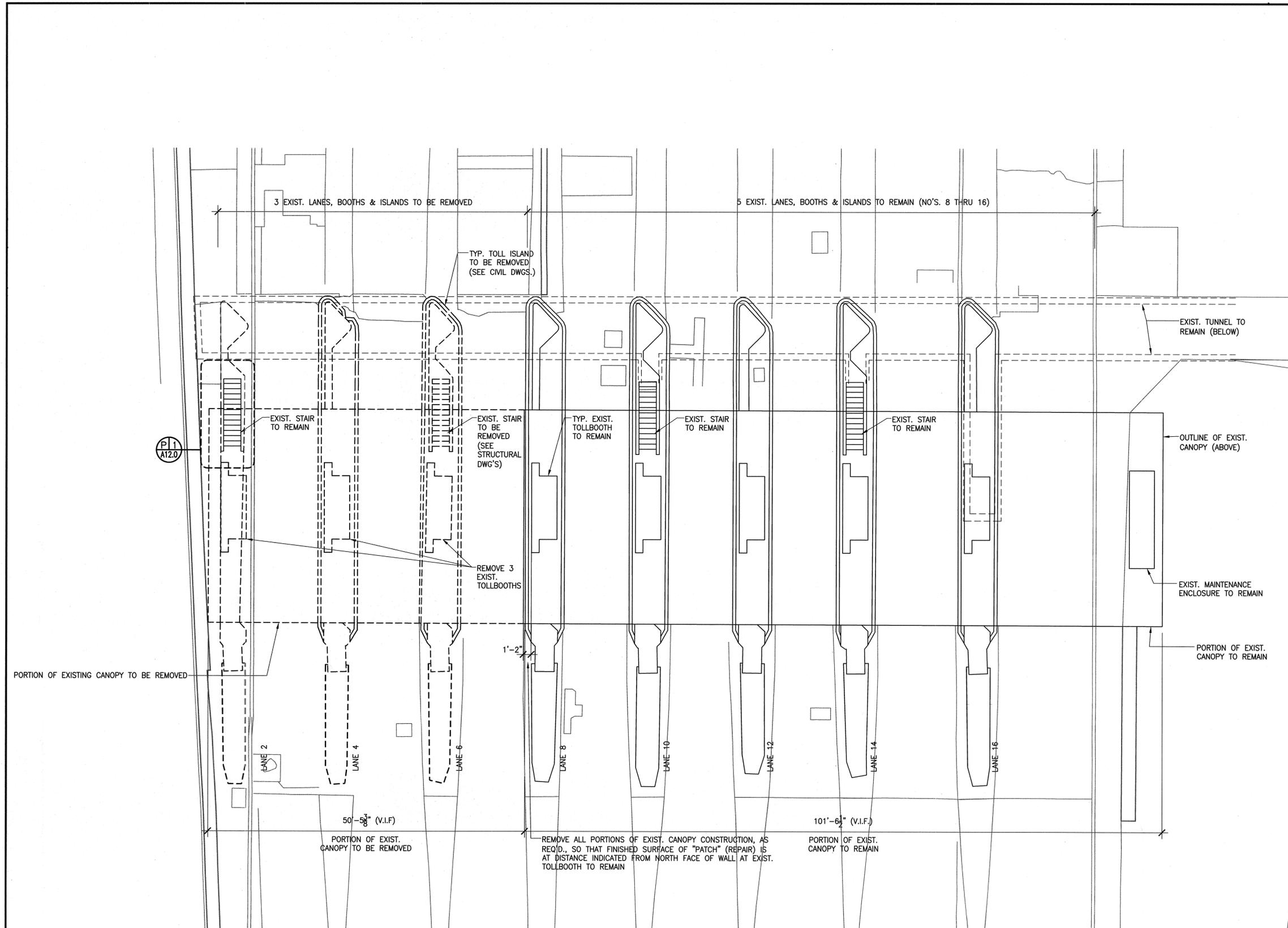
R.G. P.K. R.C.
Designed by Drawn by Checked by

Date 5-11-05

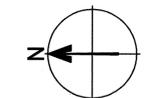
Contract Number AKO-284.039

Drawing Number A2.0

PID# 00417000



P 1 Removals Ground Plan
Scale: 0 4 8 16 feet





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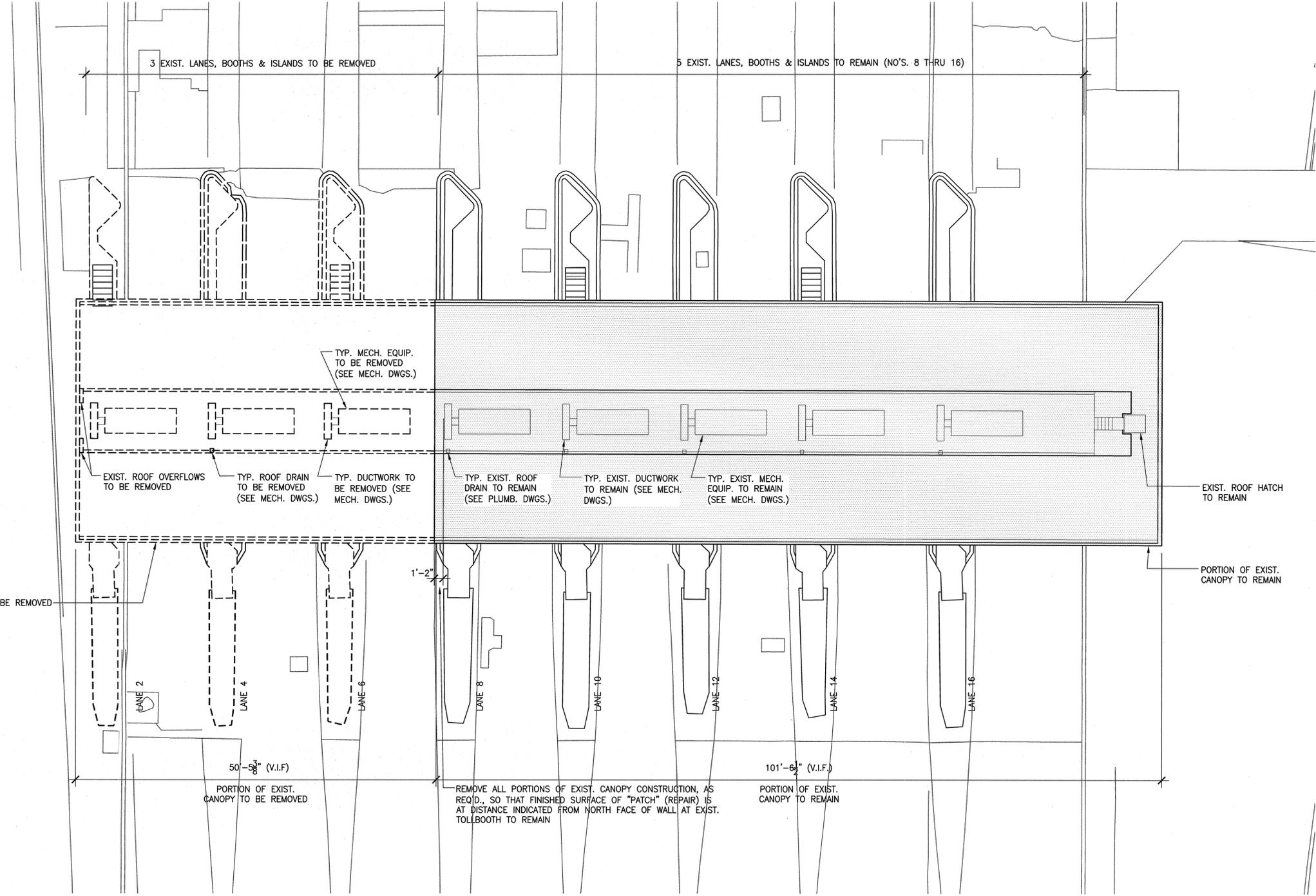
DRAWING OF RECORD
James Masset, P.E., 2/14/07
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSET
DATE 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title
HIGHWAY SPEED E-Z PASS
TOLL PLAZA
REMOVALS
ROOF PLAN

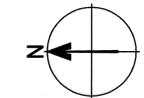
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Designed by	Drawn by	Checked by
Date	5-11-05	
Contract Number	AKO-284.039	
Drawing Number	A2.1	
	PID# 00417000	



P 1 Removals Roof Plan
Scale: 0 4 8 16 feet

LEGEND
EXISTING CONSTRUCTION (TO REMAIN)





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(BASED ON CORRECTED FIELD DRAWINGS)
J. Masset, P.E. 2/14/07
RESIDENT ENGINEER JAMES MASSET
DATE 08 /14/ 2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ARCHITECTURAL

Title
HIGHWAY SPEED E-Z PASS

TOLL PLAZA

GROUND PLAN

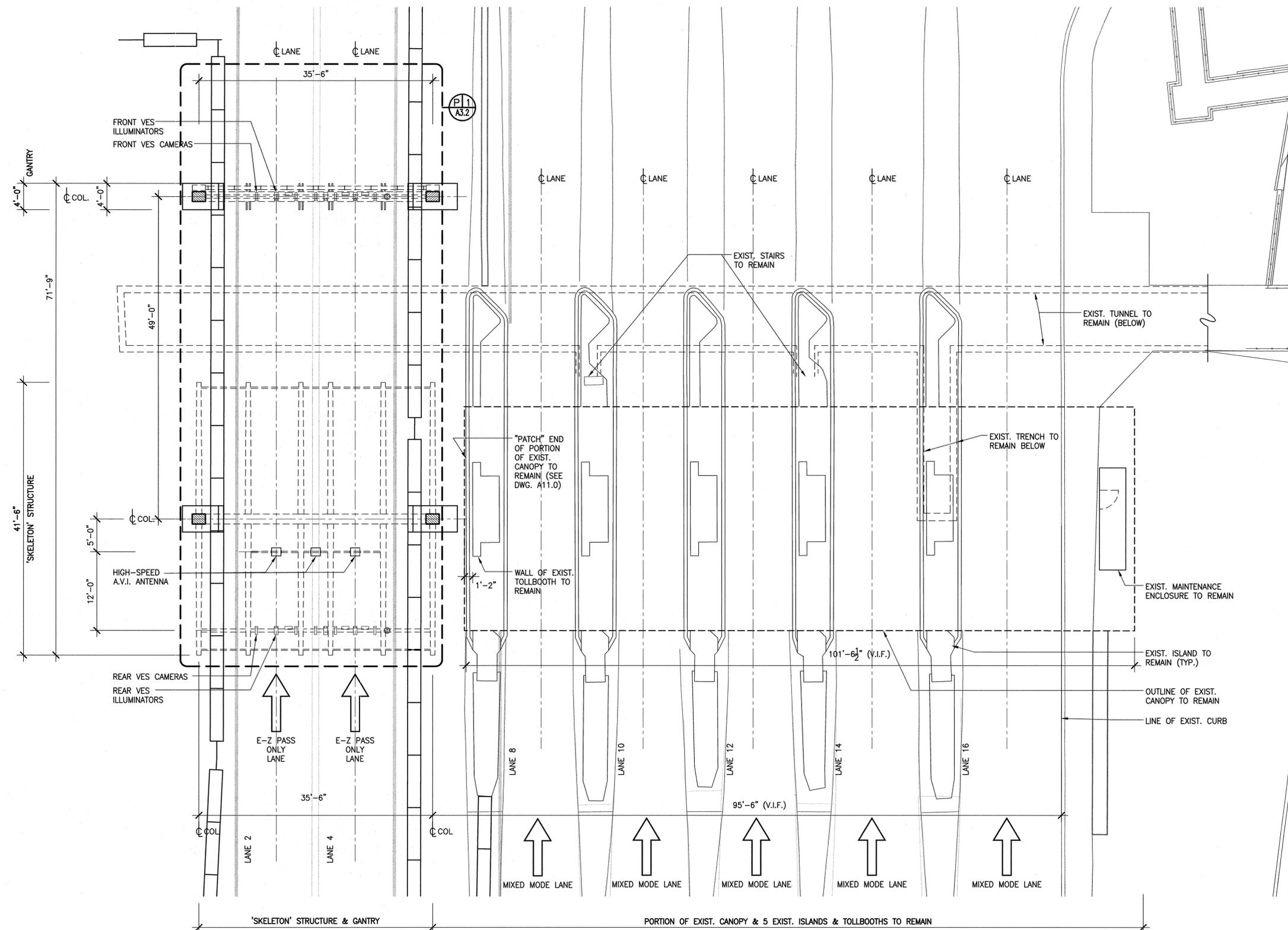
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R.G. P.K. R.C.
Designed by Drawn by Checked by

Date 5-11-05

Contract Number **AKO-284.039**

Drawing Number **A3.0**
PID# 00417000



P 1 Ground Plan
Scale: 0 4 8 16 feet



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James Masset, P.E., 2/9/07
RESIDENT ENGINEER **JAMES MASSET**
DATE 08 / 14 / 2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ARCHITECTURAL

Title
HIGHWAY SPEED E-Z PASS

TOLL PLAZA

ROOF PLAN

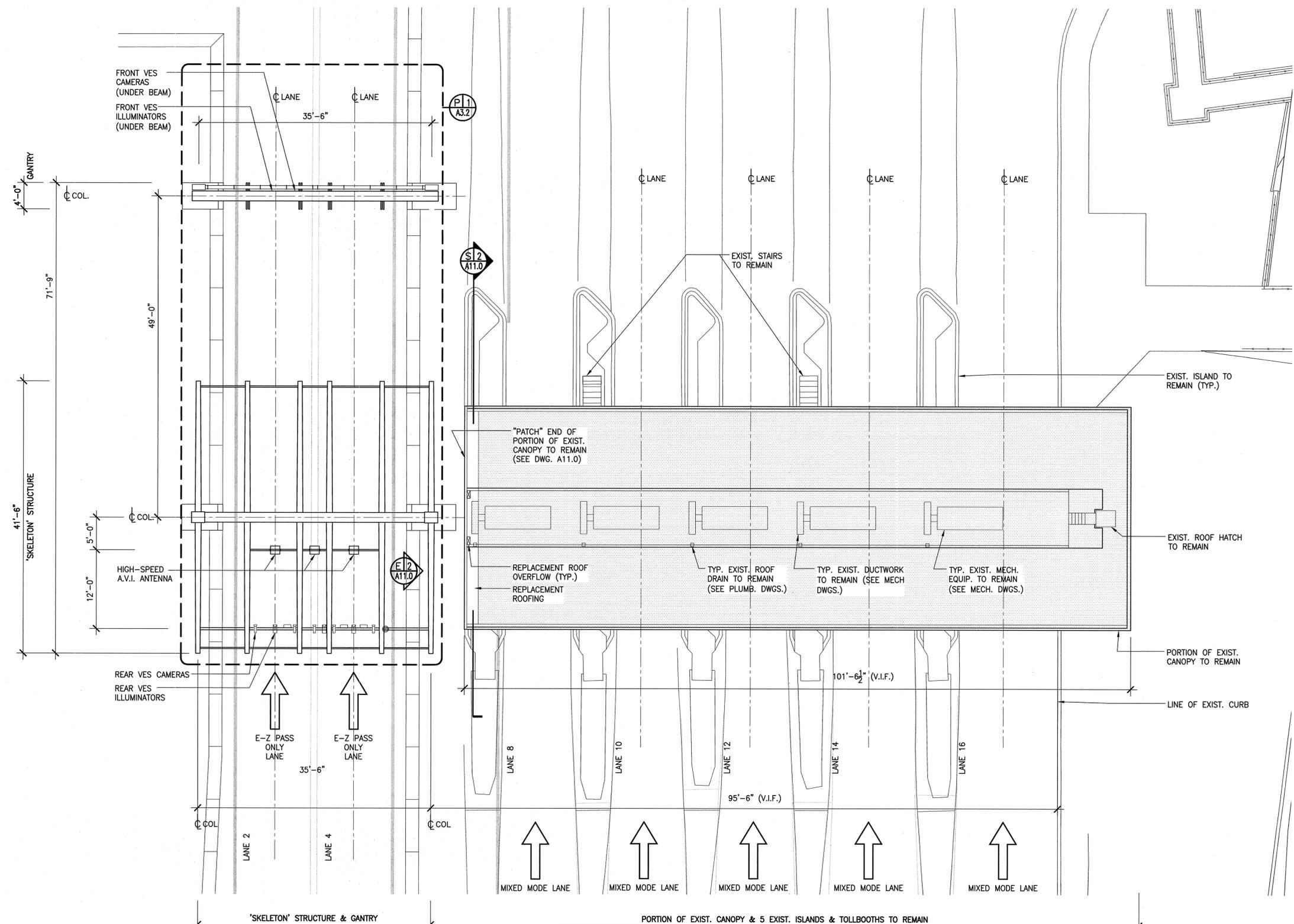
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Designed by	Drawn by	Checked by
Date		5-11-05

Contract Number **AKO-284.039**

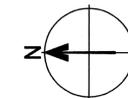
Drawing Number **A3.1**

PID# 00417000



P1 Roof Plan
Scale: 0 4 8 16 feet

LEGEND
EXISTING CONSTRUCTION (TO REMAIN)





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James Masset, P.E., 8/14/07
RESIDENT ENGINEER JAMES MASSET
DATE 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title

HIGHWAY SPEED E-Z PASS

"SKELETON" STRUCTURE & GANTRY

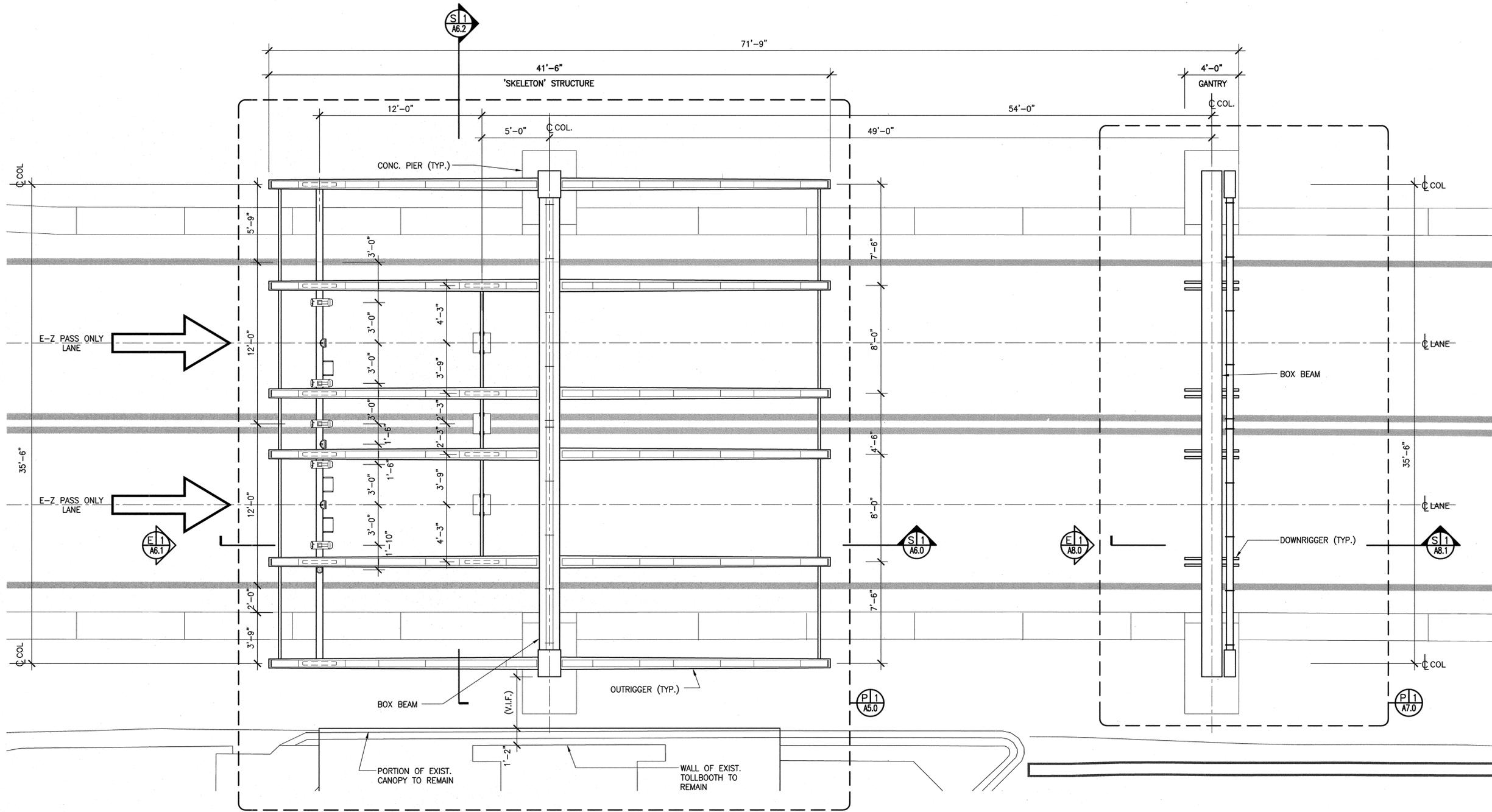
PARTIAL ROOF-LEVEL PLAN

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R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date	5-11-05	

Contract Number **AKO-284.039**

Drawing Number **A3.2**
PID# 00417000

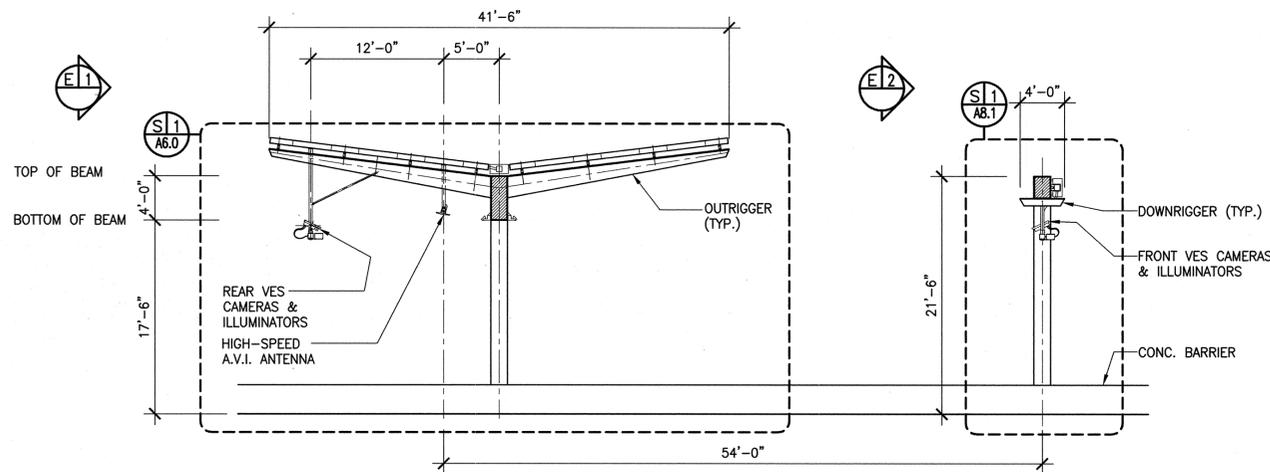
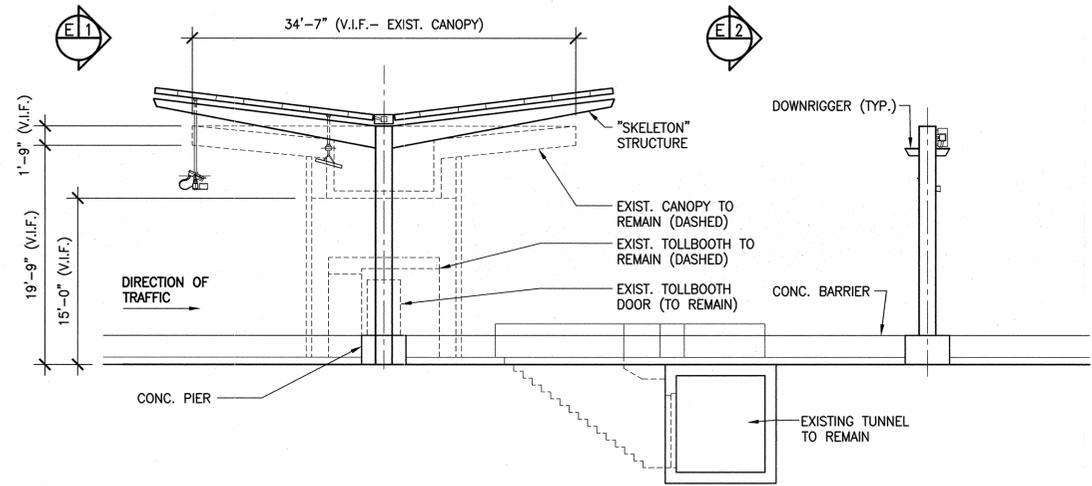


P1 Partial Roof-Level Plan - Highway Speed ("E-ZPass Only") Lanes
Scale: 0 2 4 8 feet



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DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
Stamp: *Stamp*, PMD, 2/9/07
RESIDENT ENGINEER: JAMES MASSET
DATE: 08 /14/ 2006



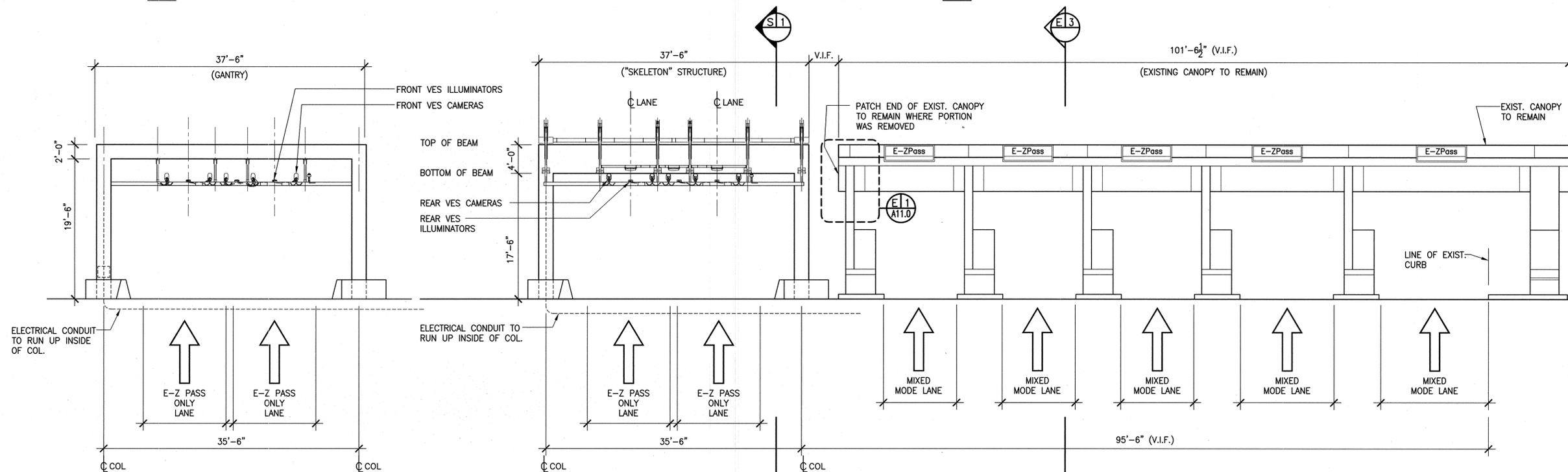
NOTE: SECTION AT TYP. "MIXED MODE" LANE & EXIST. CANOPY TO REMAIN SHOWN DASHED

E3 Side Elevation of "Skeleton Structure" & Gantry

Scale: 0 4 8 16 feet

S1 Section thru "Skeleton Structure" & Gantry

Scale: 0 4 8 16 feet



E2 Gantry Elevation

Scale: 0 4 8 16 feet

E1 Front Elevation - "Skeleton Structure" & Existing Canopy to Remain

Scale: 0 4 8 16 feet

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title
HIGHWAY SPEED E-Z PASS
" SKELETON " STRUCTURE & GANTRY
ELEVATIONS AND SECTIONS

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R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date	5-11-05	
Contract Number	AKO-284.039	
Drawing Number	A4.0	
	PID# 00417000	



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Resident Engineer, P.M.D. 2/9/09
RESIDENT ENGINEER JAMES MASSET
DATE 08/14/2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title

HIGHWAY SPEED E-Z PASS

"SKELETON" STRUCTURE

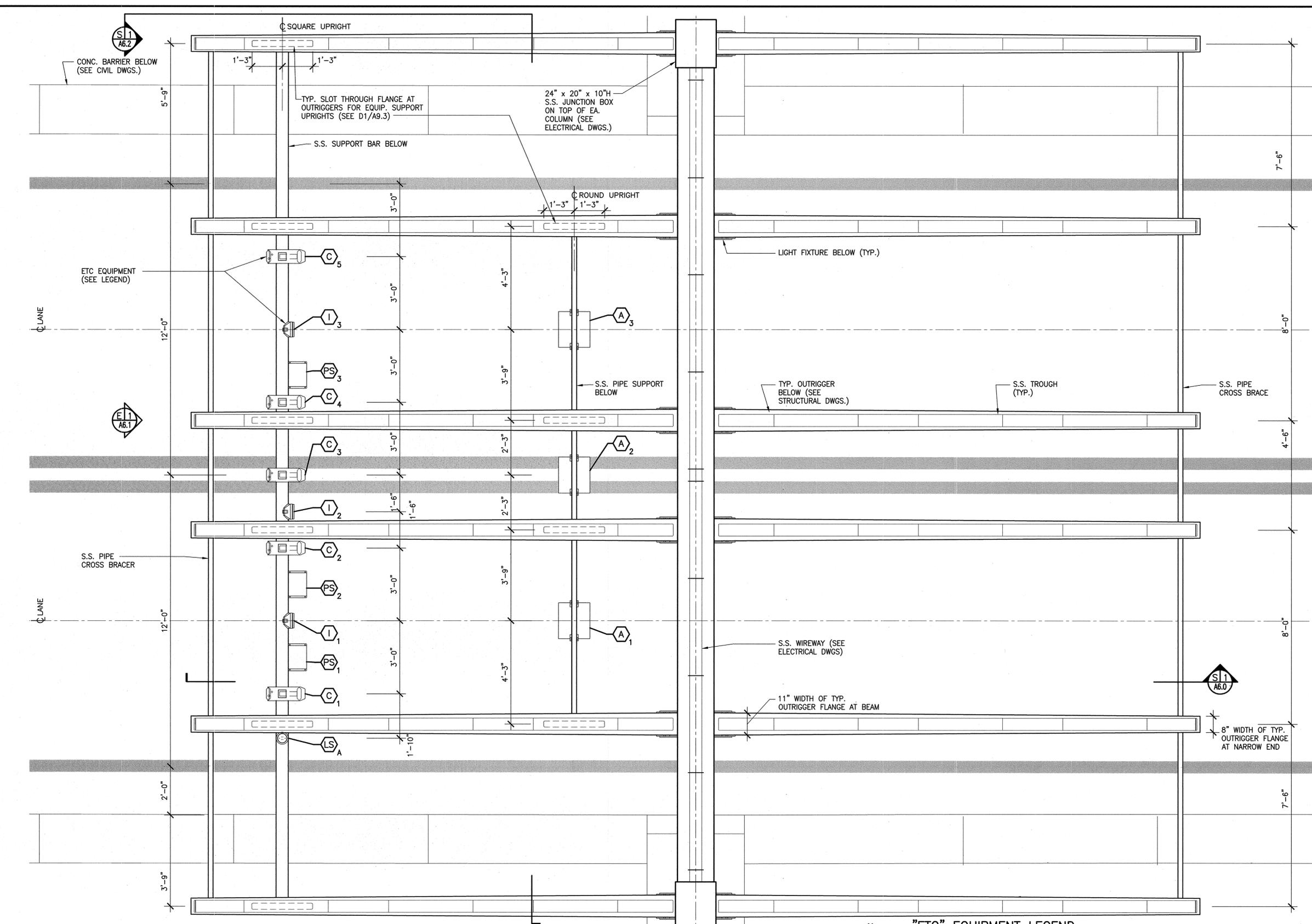
ROOF-LEVEL PLAN

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Designed by	Drawn by	Checked by
Date	5-11-05	

Contract Number **AKO-284.039**

Drawing Number **A5.0**
PID# 00417000



P 1 Partial Roof-Level Plan - Highway Speed ("E-ZPass Only") Lanes
Scale: 0 1 2 4 feet

- "ETC" EQUIPMENT LEGEND**
- (I) VES ILLUMINATOR (FLASH HEAD)
 - (C) VES CAMERA
 - (LS) LIGHT SENSOR
 - (PS) POWER SUPPLY
 - (A) AVI ANTENNA
SEE P1/A10.2 FOR HAND-HOLE LOCATIONS

Sheet **14** of **155**



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DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
J. Massey, P.E., 2/1/07
RESIDENT ENGINEER JAMES MASSEY
DATE 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title

HIGHWAY SPEED E-Z PASS

" SKELETON " STRUCTURE

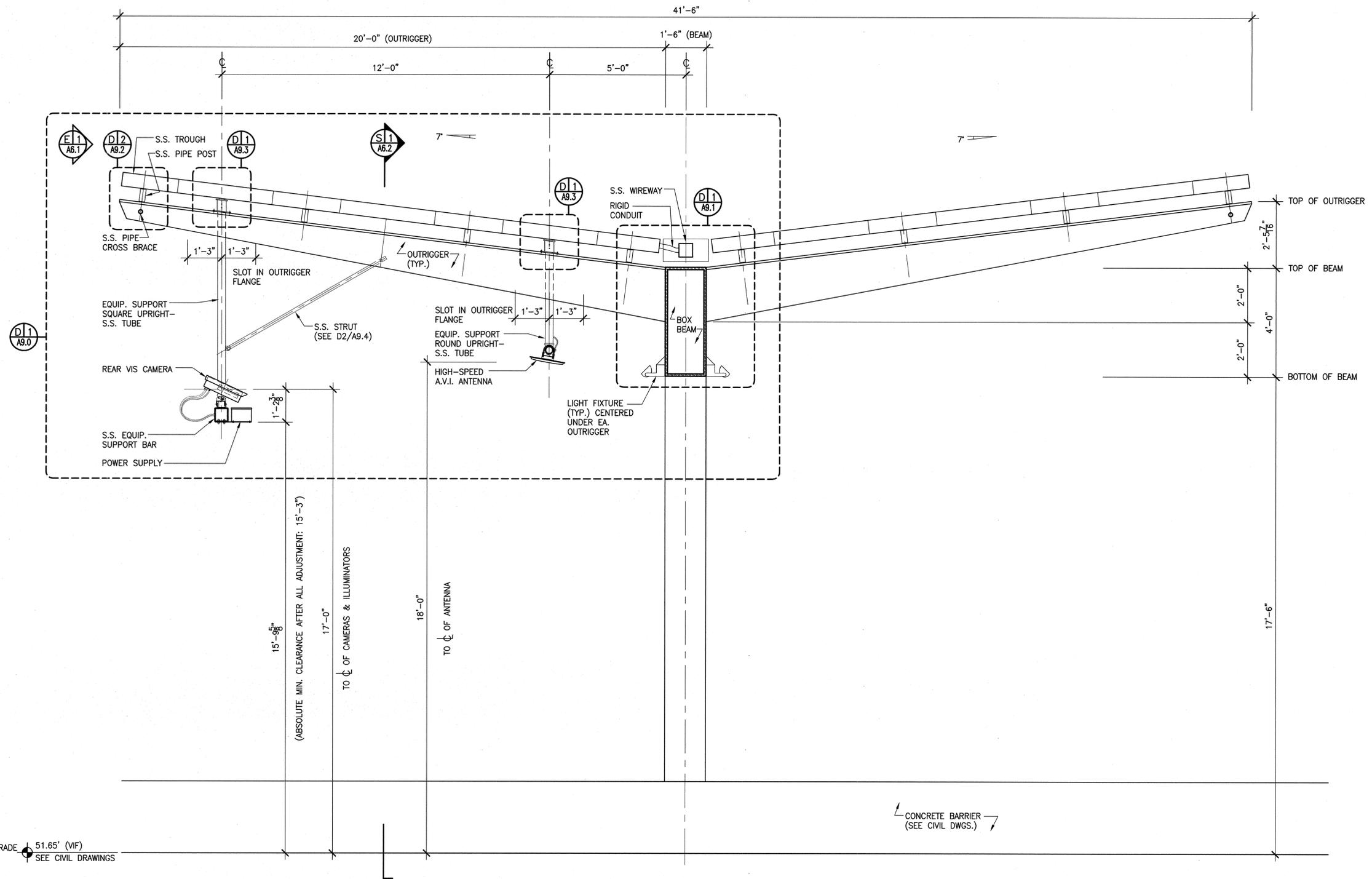
SECTION

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R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date	5-11-05	

Contract Number **AKO-284.039**

Drawing Number **A6.0**
PID# 00417000



"Skeleton" Structure - Section
Scale: 0 1 2 4 feet



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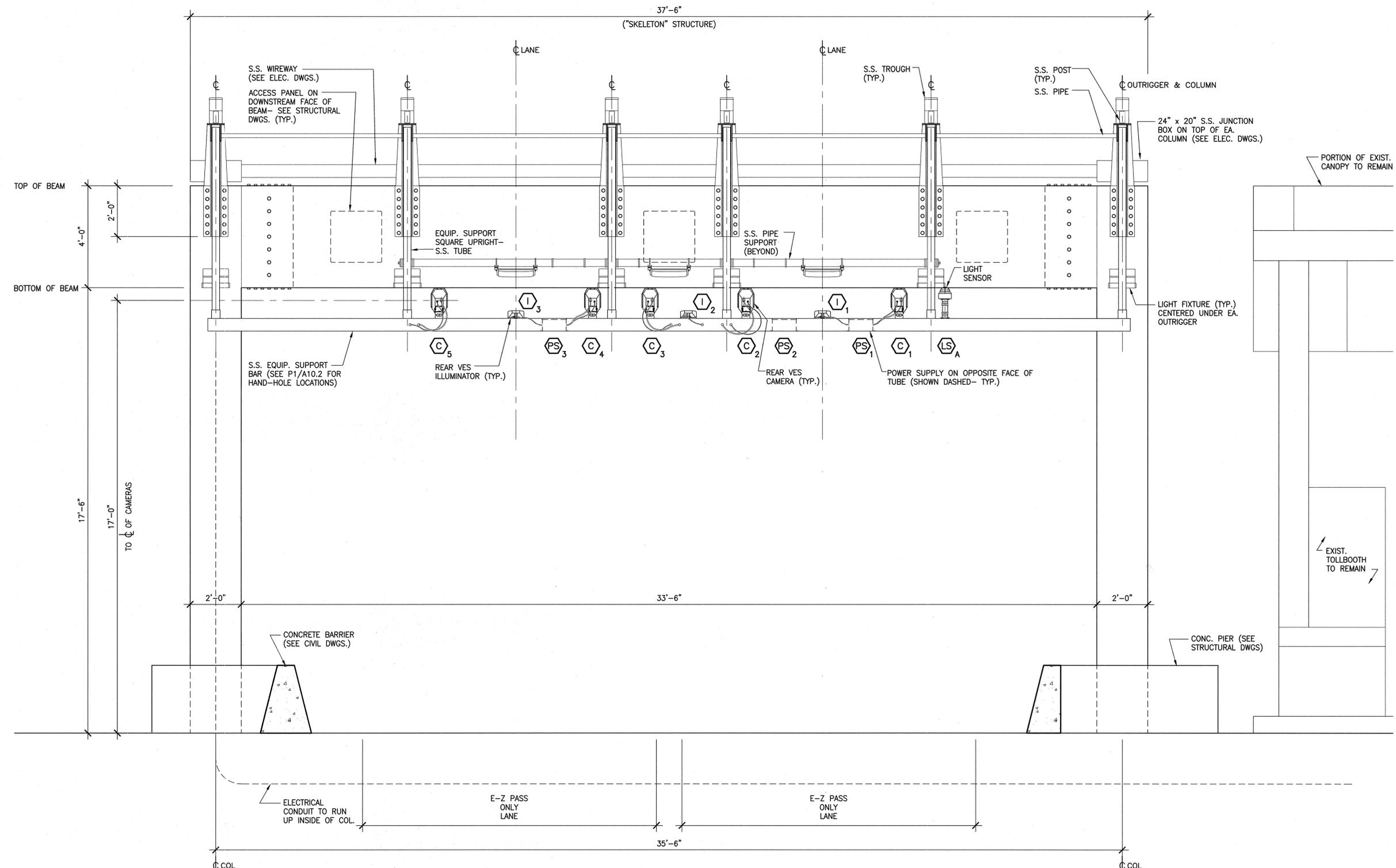
DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
James Masset, P.E., 2/9/07
RESIDENT ENGINEER JAMES MASSET
DATE 08/14/2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title
HIGHWAY SPEED E-Z PASS
"SKELETON" STRUCTURE
ELEVATION

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Designed by	Drawn by	Checked by
Date	5-11-05	
Contract Number	AKO-284.039	
Drawing Number	A6.1	
	PID# 00417000	



E 1 "Skeleton" Structure - Front Elevation
Scale: 0 1 2 4 feet



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DRAWING OF RECORD

(BASED ON CORRECTED FIELD DRAWINGS)
James Masset, P.E. 2/9/07
RESIDENT ENGINEER JAMES MASSET
DATE 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title

HIGHWAY SPEED E-Z PASS

" SKELETON " STRUCTURE

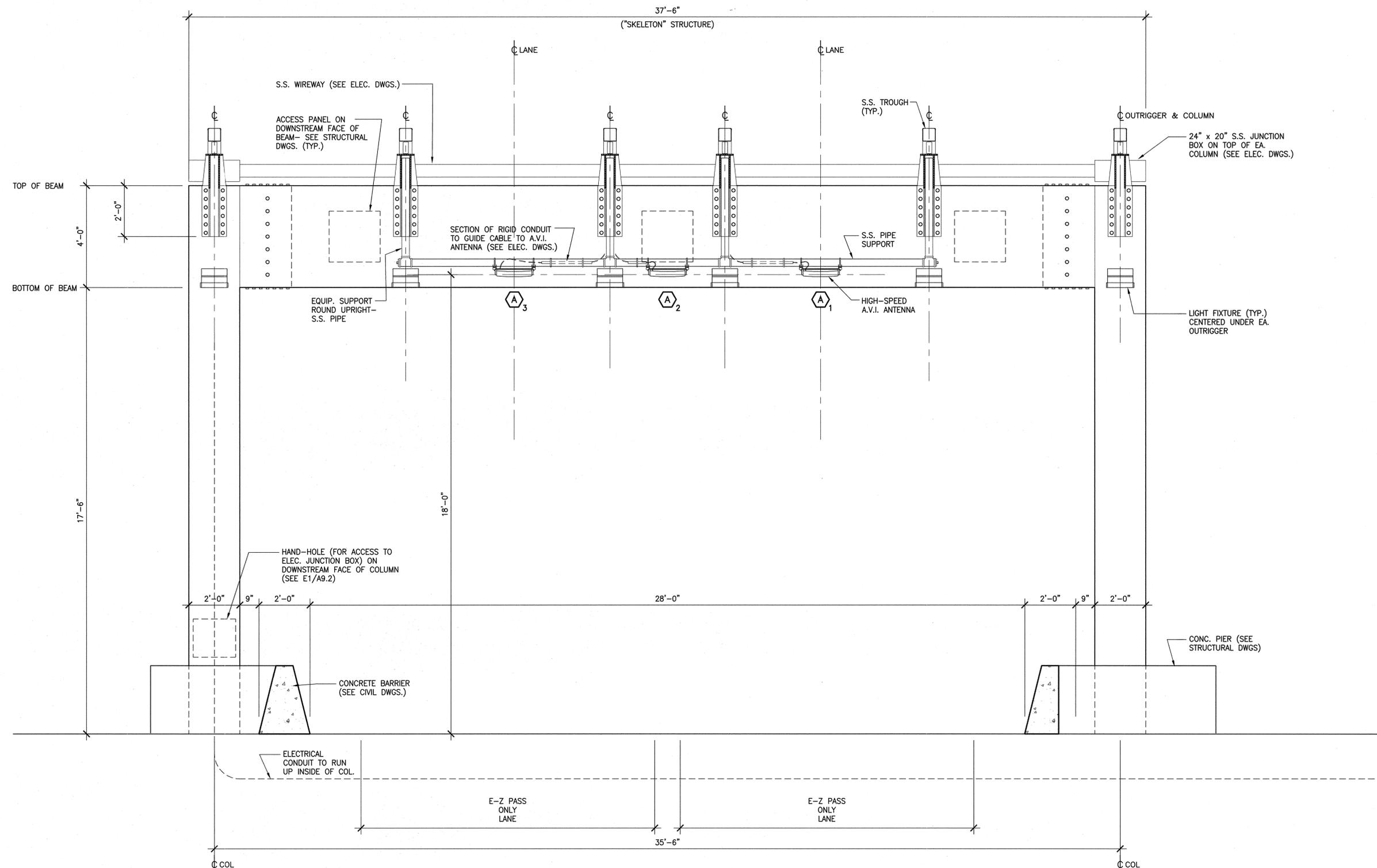
CROSS-SECTION

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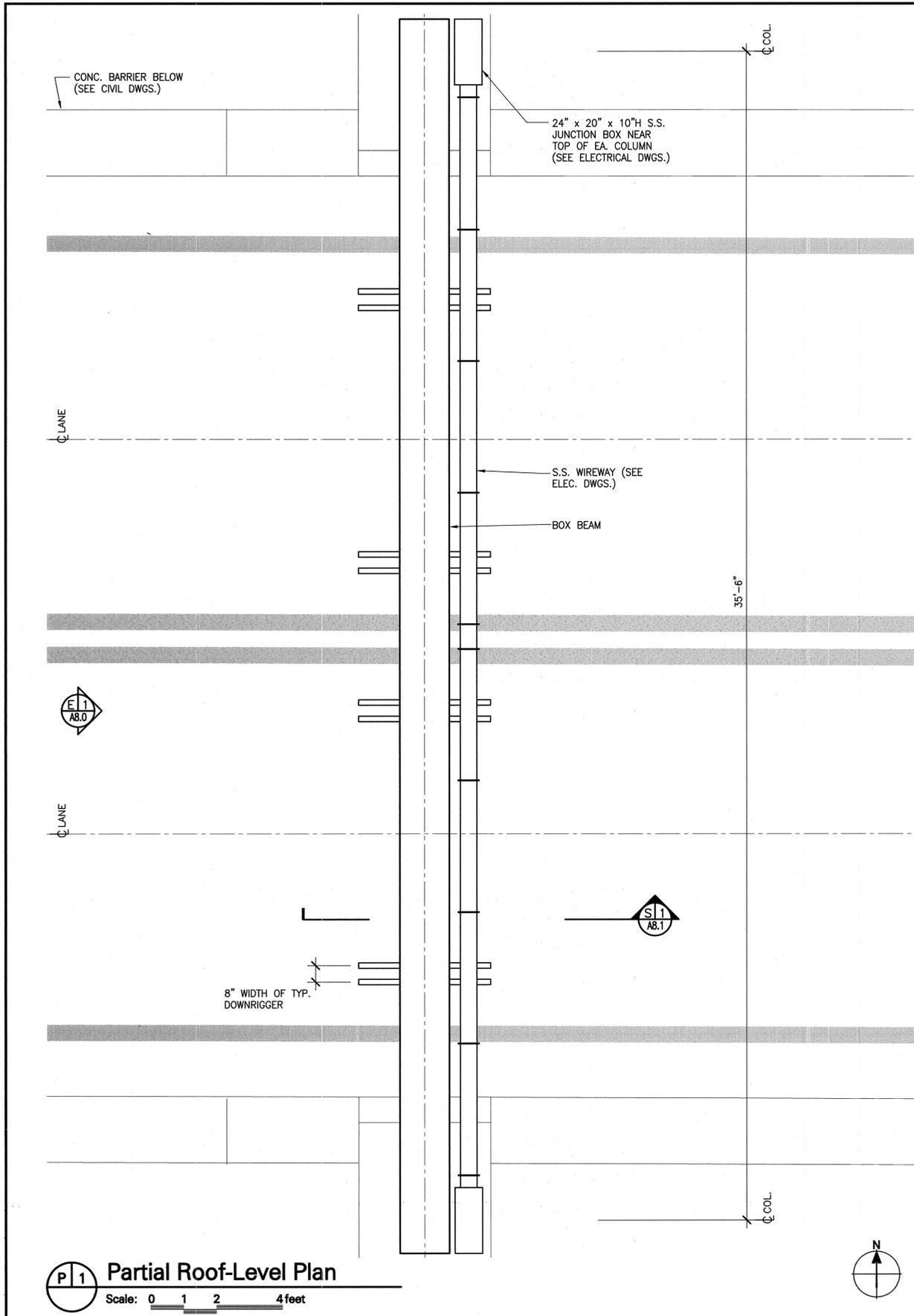
R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date	5-11-05	

Contract Number **AKO-284.039**

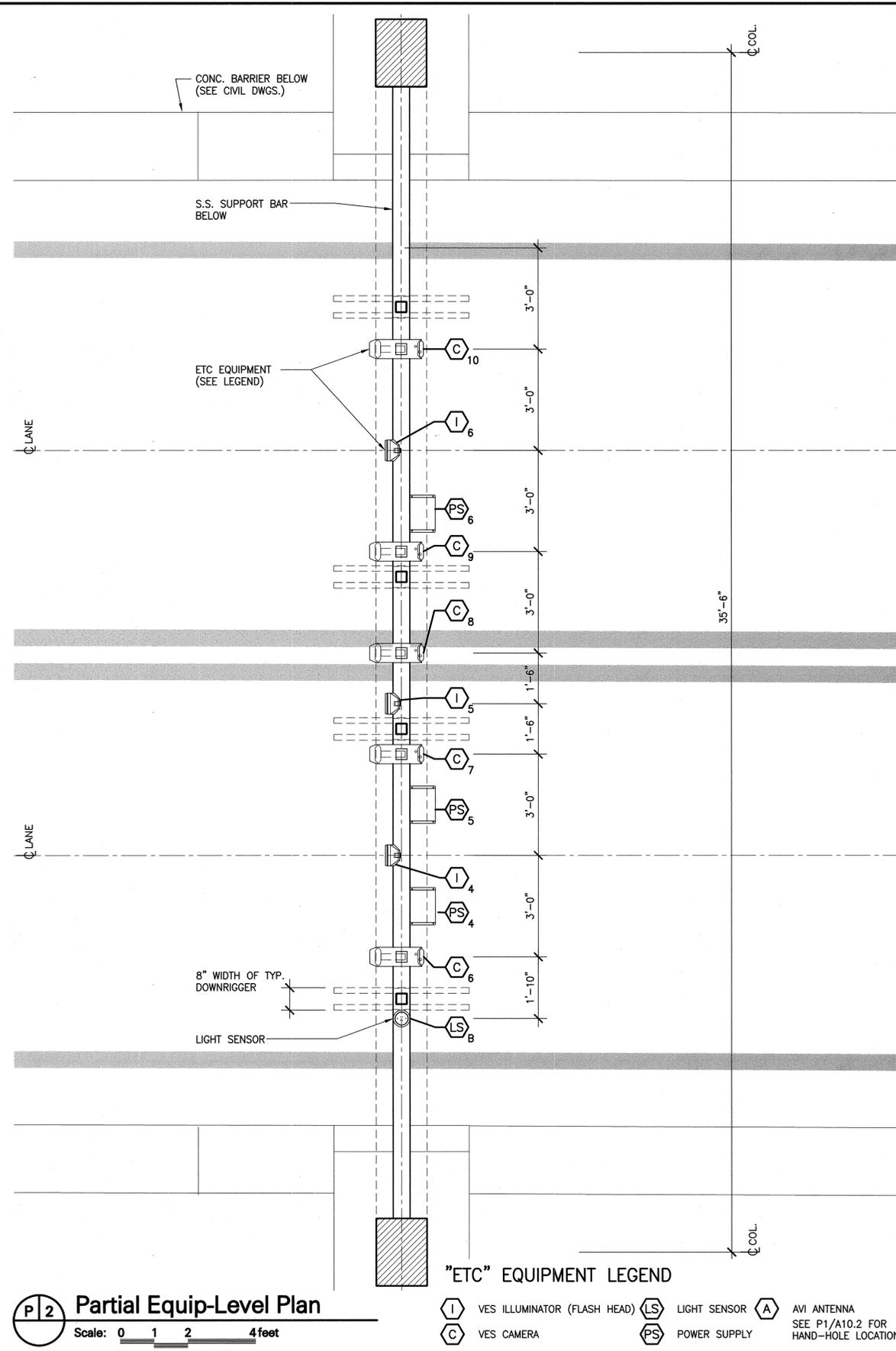
Drawing Number **A6.2**
PID# 00417000



"Skeleton" Structure - Cross-Section
Scale: 0 1 2 4 feet



P1 Partial Roof-Level Plan
Scale: 0 1 2 4 feet



P2 Partial Equip-Level Plan
Scale: 0 1 2 4 feet

"ETC" EQUIPMENT LEGEND

- (I) VES ILLUMINATOR (FLASH HEAD) (LS) LIGHT SENSOR (A) AVI ANTENNA
- (C) VES CAMERA (PS) POWER SUPPLY SEE P1/A10.2 FOR HAND-HOLE LOCATIONS



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ARCHITECTS P.C.
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DRAWING OF RECORD

(BASED ON CORRECTED FIELD DRAWINGS)
James Masset, P.E. 2/1/07
RESIDENT ENGINEER - JAMES MASSET
DATE 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title

HIGHWAY SPEED E-Z PASS

GANTRY

ROOF-LEVEL PLAN

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R.G. P.K. R.C.
Designed by Drawn by Checked by
Date 5-11-05

Contract Number **AKO-284.039**

Drawing Number **A7.0**
PID# 00417000



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New York License No. 7037

DRAWING OF RECORD

(BASED ON CORRECTED FIELD DRAWINGS)
Resident Engineer: JAMES MASSET
DATE: 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title

HIGHWAY SPEED E-Z PASS

GANTRY

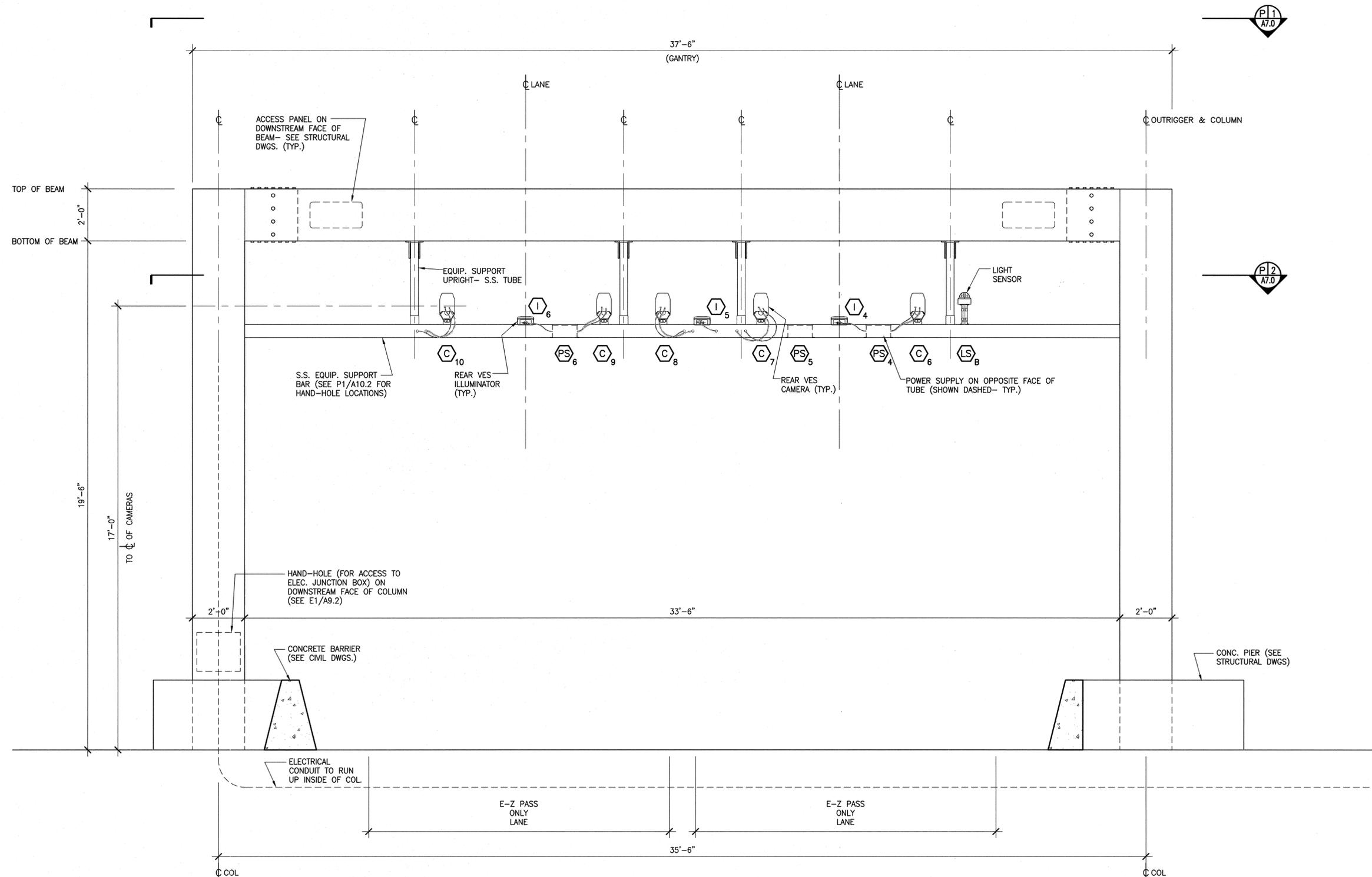
ELEVATION

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R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date	5-11-05	

Contract Number **AKO-284.039**

Drawing Number **A8.0**
PID# 00417000



E1 Gantry - Front Elevation

Scale: 0 1 2 4 feet



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DRAWING OF RECORD

(BASED ON CORRECTED FIELD DRAWINGS)
James Masset, P.E. 2/11/07
RESIDENT ENGINEER JAMES MASSET
DATE 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			
ARCHITECTURAL			
Title			
HIGHWAY SPEED E-Z PASS			
GANTRY			

SECTION & DETAILS

HIGHWAY SPEED E-Z PASS

GANTRY

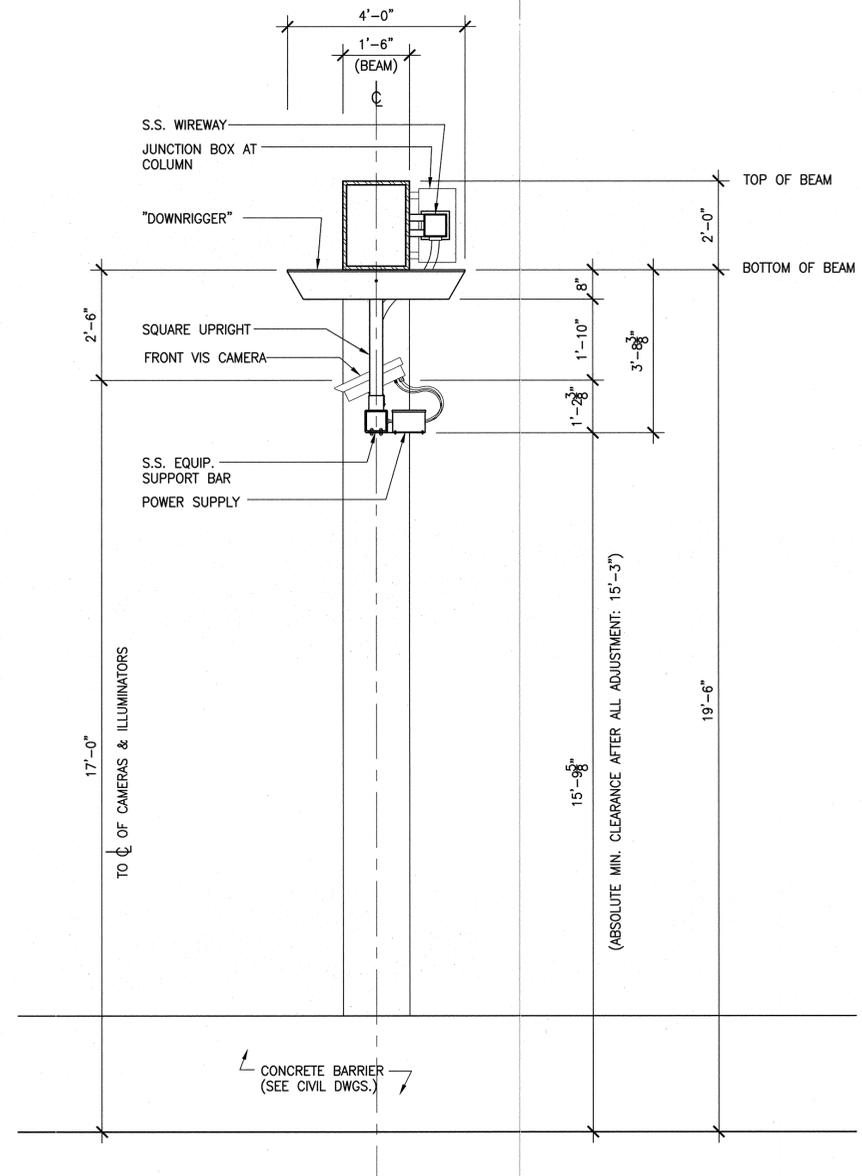
SECTION & DETAILS

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R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date		5-11-05

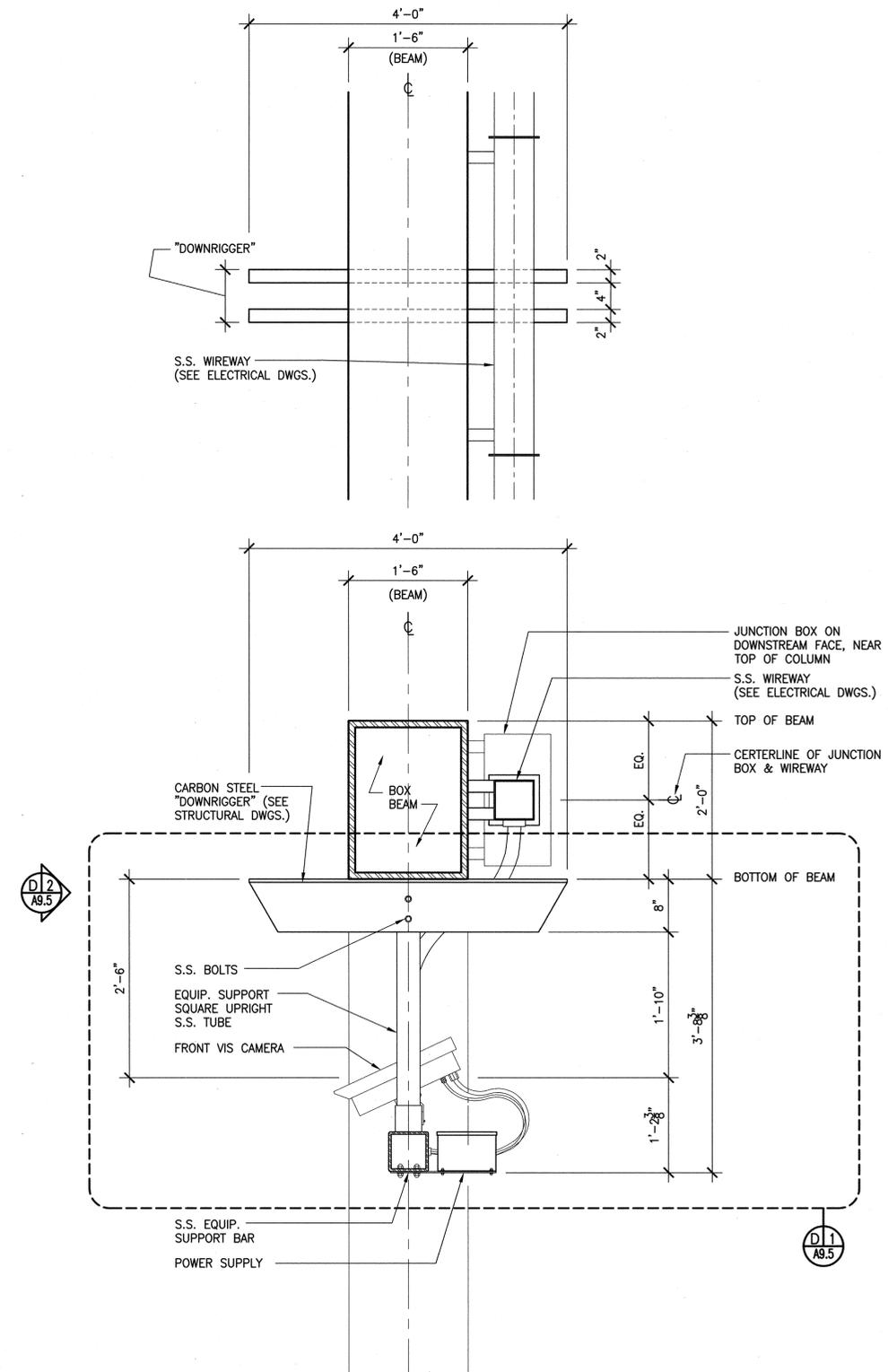
Contract Number **AKO-284.039**

Drawing Number **A8.1**
PID# 00417000



HIGHEST POINT AT FINISHED GRADE ELEV. 51.65' (V.I.F.) SEE CIVIL DRAWINGS IN AREA OF STRUCTURE

S1 Gantry - Section
Scale: 0 1 2 4 feet



D1 Typ. "Downrigger" at Gantry - Section
Scale: 0 0.5 1 2 feet



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DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
James Masset, P.E., P.E. 219 107
RESIDENT ENGINEER JAMES MASSET
DATE 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title
HIGHWAY SPEED E-Z PASS
" SKELETON " STRUCTURE

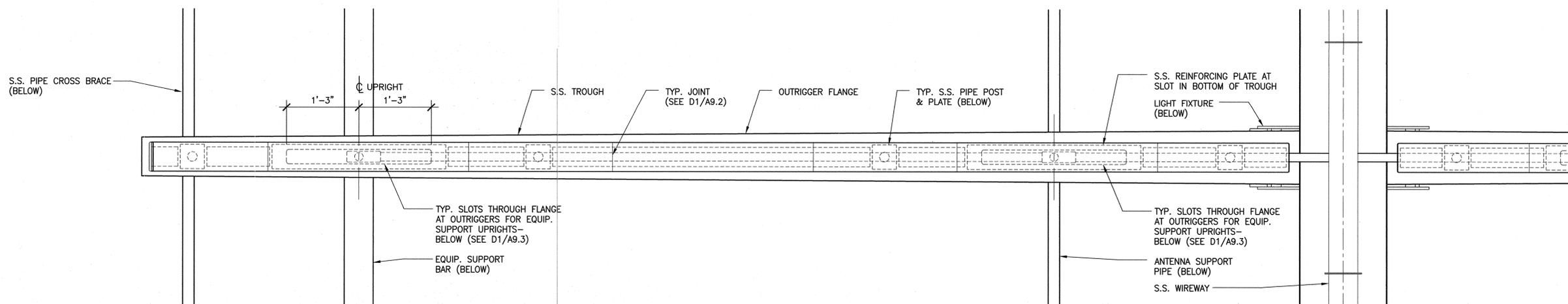
OUTRIGGER DETAILS

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R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date		5-11-05

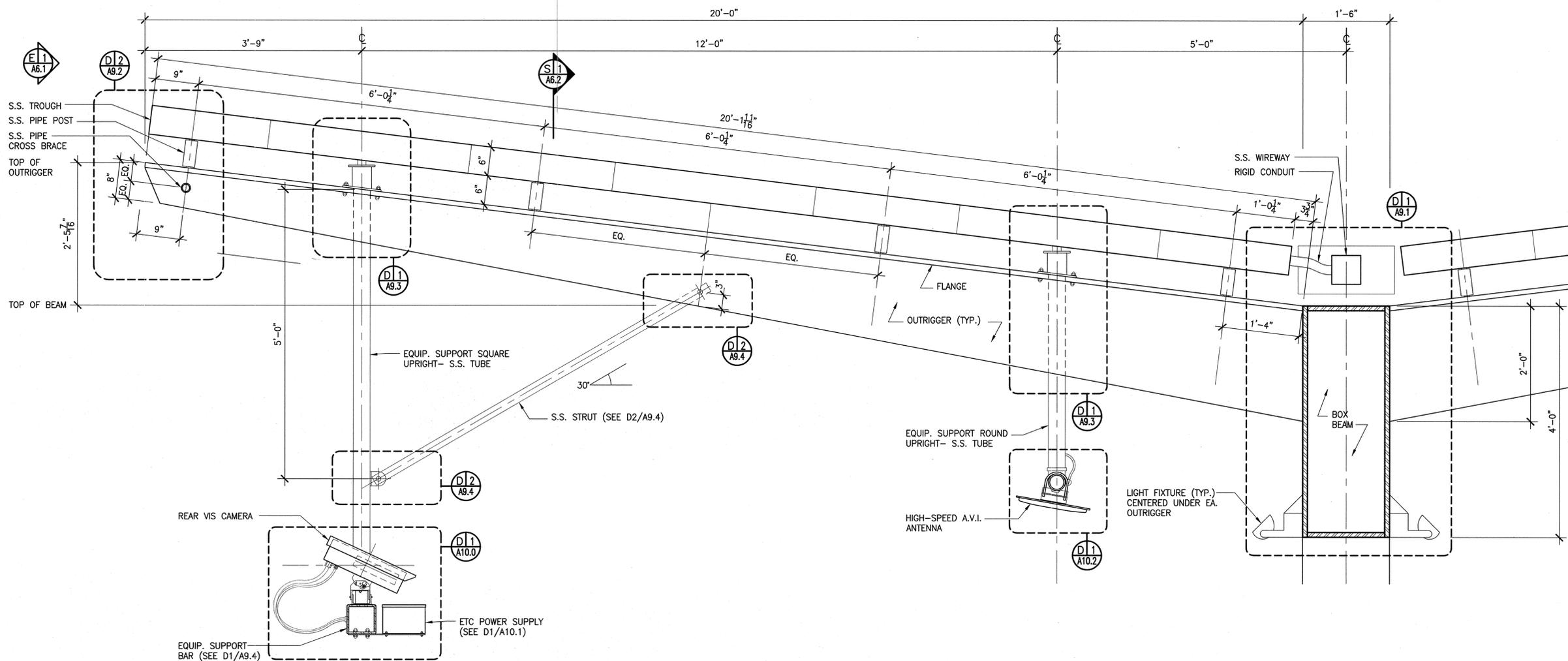
Contract Number **AKO-284.039**

Drawing Number **A9.0**
PID# 00417000



D2 Typ. Outrigger at "Skeleton" - Plan

Scale: 0 0.5 1 2 feet



D1 Typ. Outrigger at "Skeleton" - Section

Scale: 0 0.5 1 2 feet



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ARCHITECTS P.C.
Original signed and sealed by
Robert Cabrera, Registered Architect
New York License No. 7037

DRAWING OF RECORD

(BASED ON CORRECTED FIELD DRAWINGS)
James Masset, P.E. 2/9/07
RESIDENT ENGINEER JAMES MASSET
DATE 08 /14/ 2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ARCHITECTURAL

Title
HIGHWAY SPEED E-Z PASS

"SKELETON" STRUCTURE

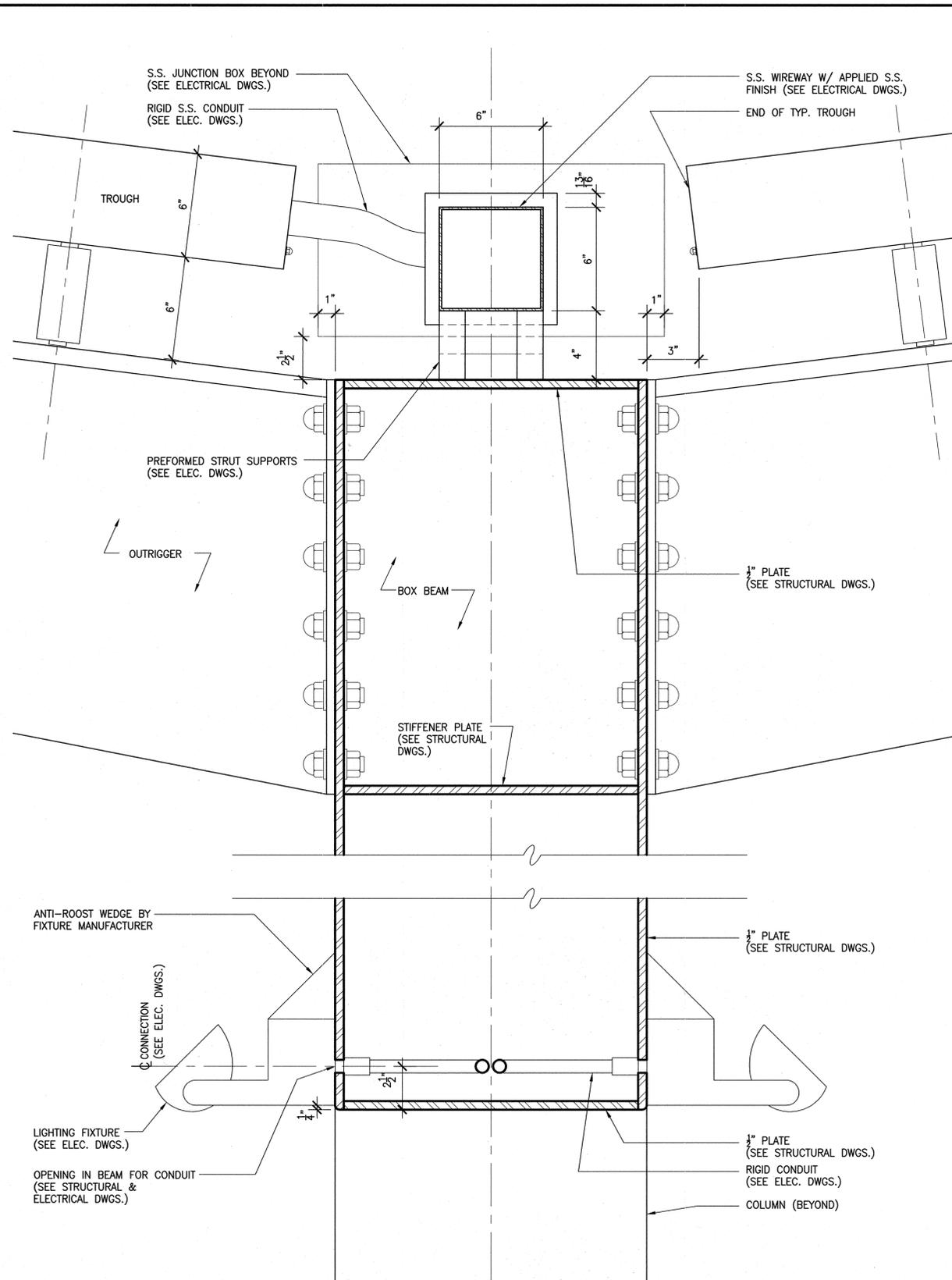
DETAIL SHEET No. 1

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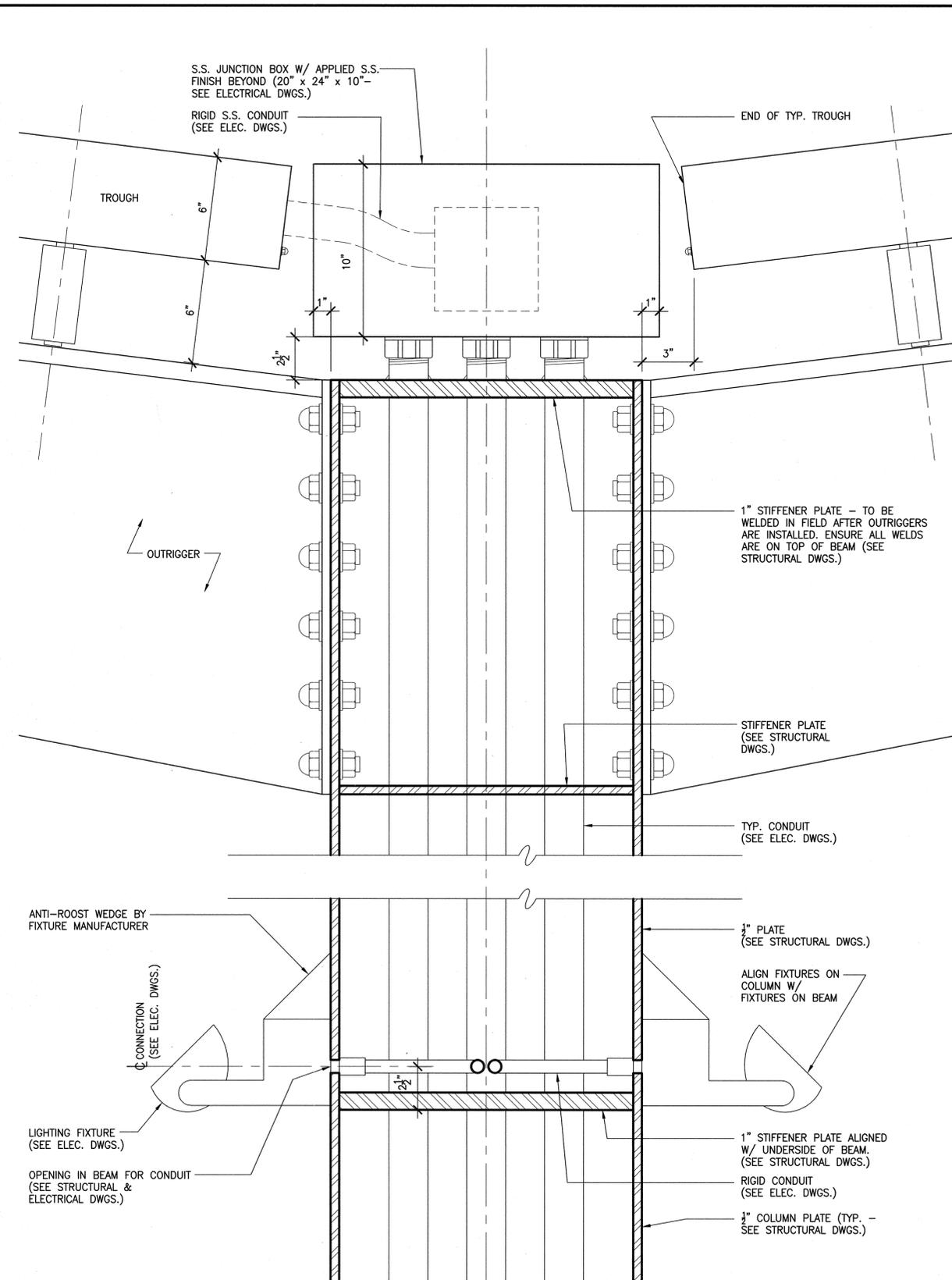
R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date	5-11-05	

Contract Number **AKO-284.039**

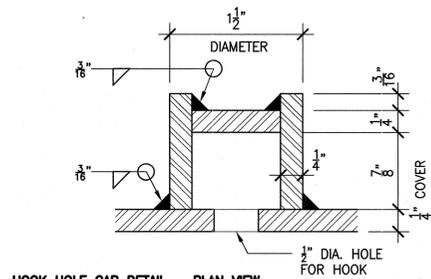
Drawing Number **A9.1**
PID# 00417000



D1 Details at Typ. Box Beam Midspan
Scale: 0 4 8 16 inches

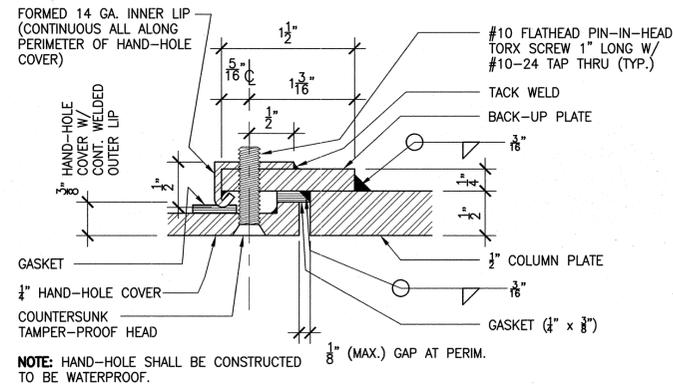


D2 Details at Typ. Box Beam at Column
Scale: 0 4 8 16 inches



D1 HOOK HOLE CAP DETAIL - PLAN VIEW

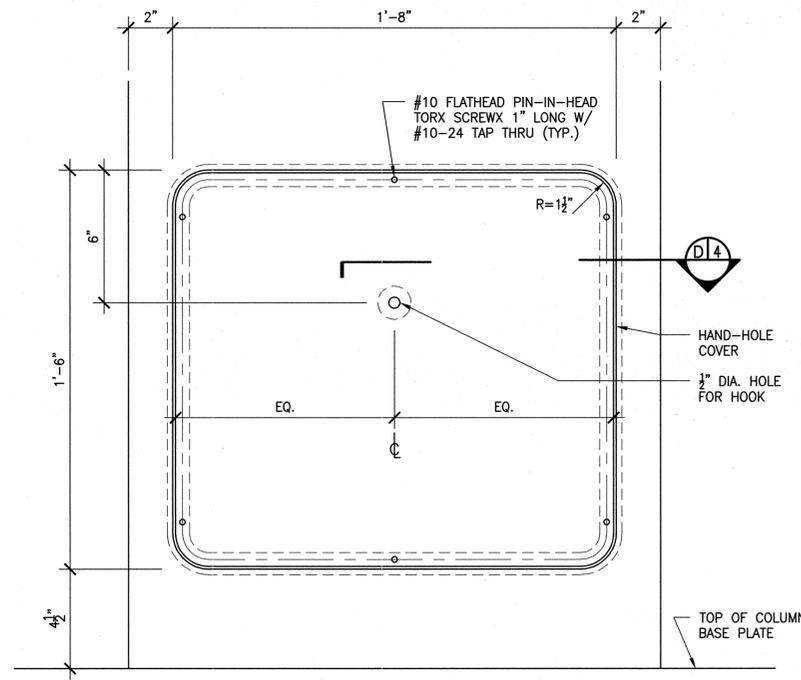
SEE STRUCTURAL DWGS. FOR MORE INFORMATION



D2 HAND-HOLE EDGE DETAIL - PLAN VIEW

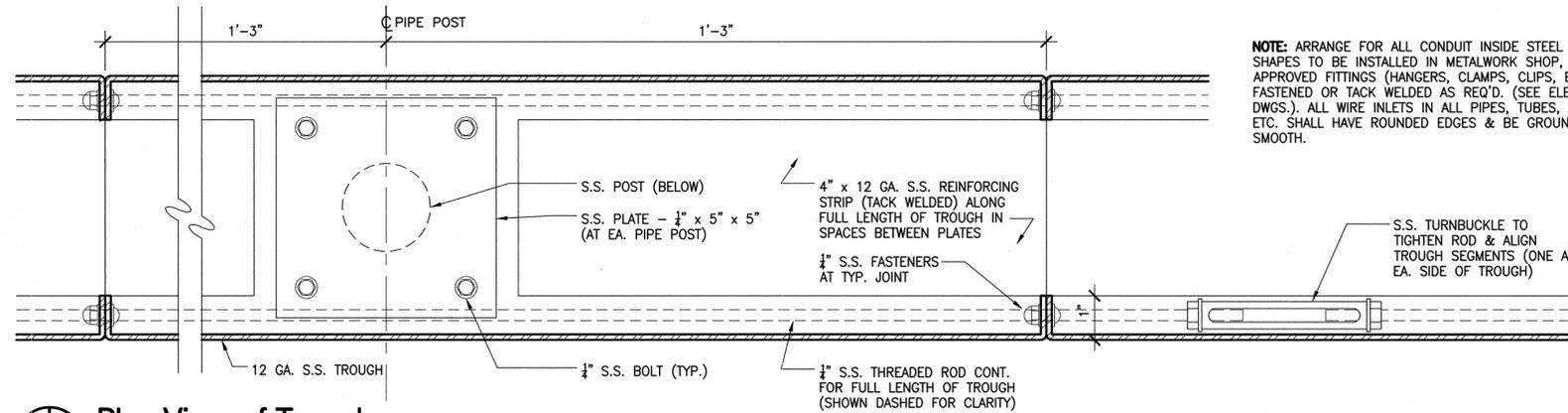
D4 Details at Column Base Hand-Hole

Scale: 0 0.5 1 2 inches



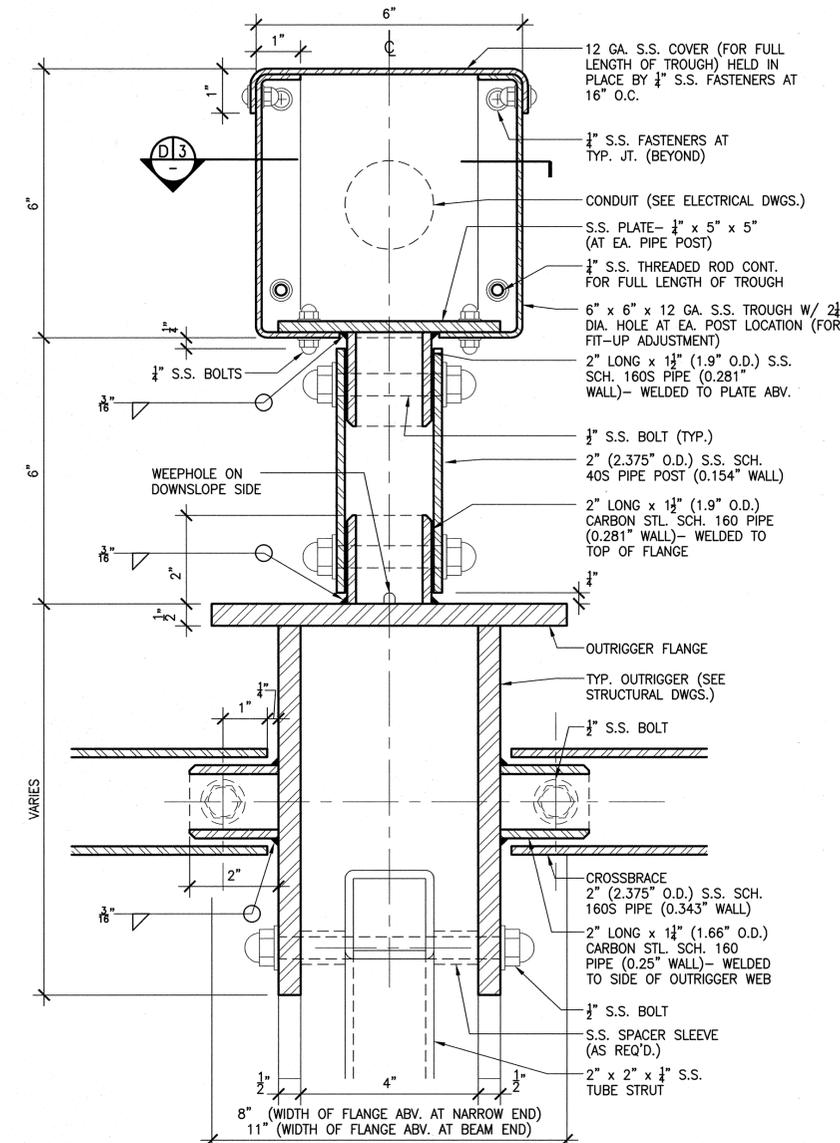
D3 Part Elevation at Downstream Face of Typ. North Column (TYP. FOR "SKELETON" STRUCTURE & GANTRY)

Scale: 0 2 4 8 inches



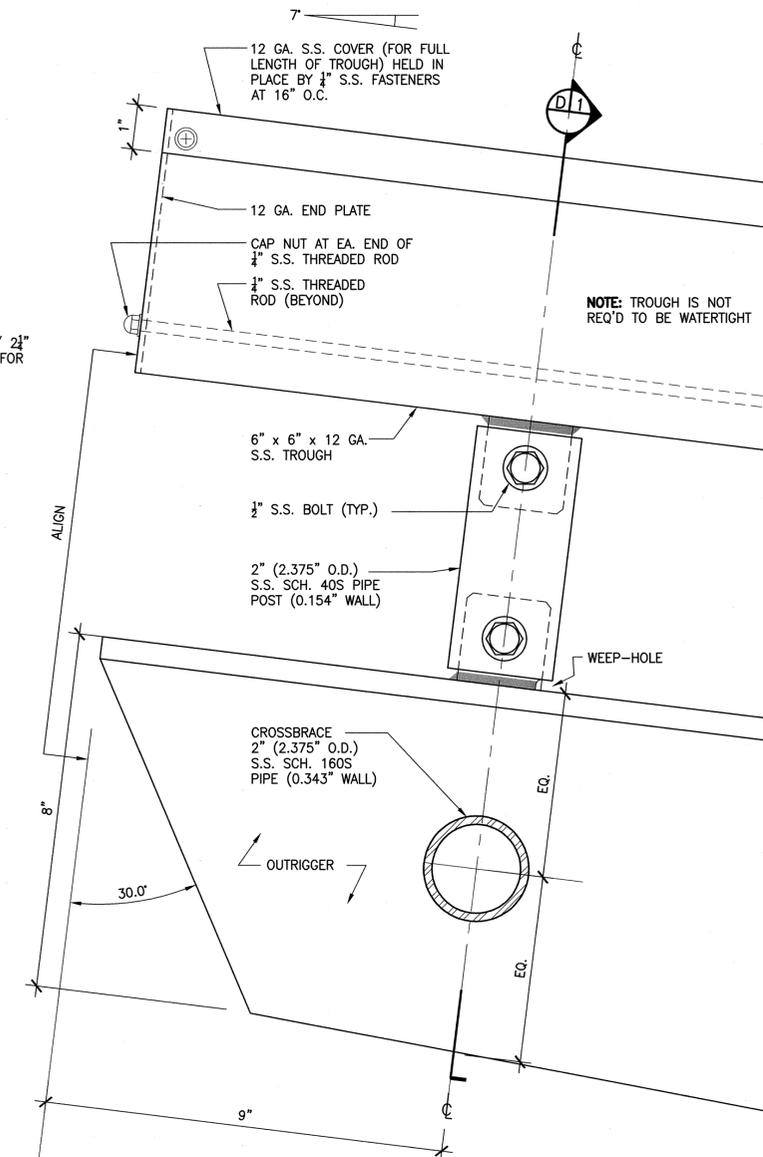
D3 Plan View of Trough

Scale: 0 1 2 4 inches



D5 Cross Section at Typical Outrigger / S.S. Post

Scale: 0 1 2 4 inches



D6 Side View at Typical Outrigger / S.S. Post

Scale: 0 1 2 4 inches



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DRAWING OF RECORD

(BASED ON CORRECTED FIELD DRAWINGS)
Resident Engineer: JAMES MASSET
DATE: 08/14/2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			
ARCHITECTURAL			
Title			
HIGHWAY SPEED E-Z PASS			
"SKELETON" STRUCTURE			
DETAIL SHEET No.2			
This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.			
R.G.	P.K.	R.C.	
Designed by	Drawn by	Checked by	
Date	5-11-05		
Contract Number	AKO-284.039		
Drawing Number	A9.2		
	PID# 00417000		

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ARCHITECTURAL

Title

HIGHWAY SPEED E-Z PASS

"SKELETON" STRUCTURE

DETAIL SHEET No.2

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Designed by Drawn by Checked by

Date 5-11-05

Contract Number AKO-284.039

Drawing Number **A9.2**
PID# 00417000

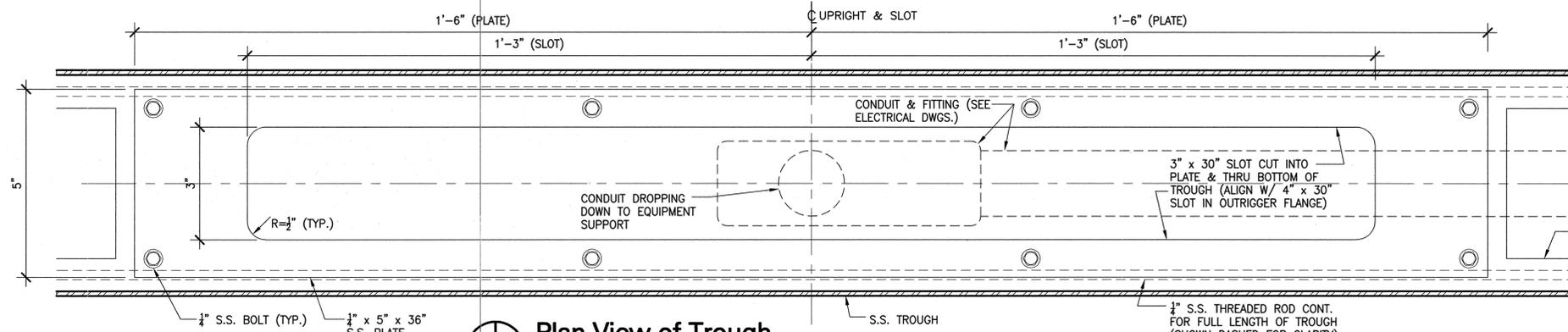


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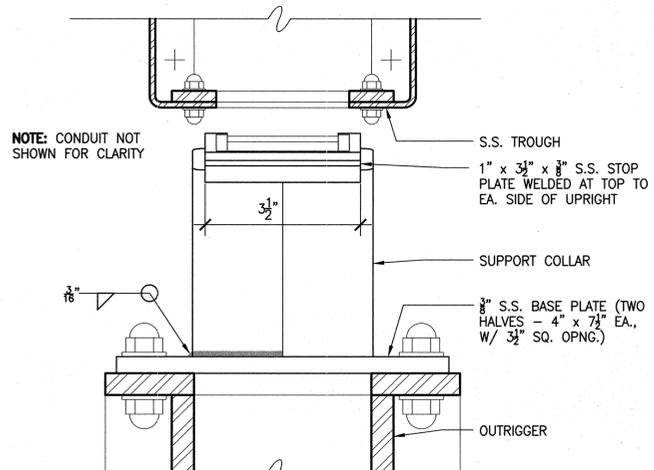
DRAWING OF RECORD

(BASED ON CORRECTED FIELD DRAWINGS)
James Massey P.E. 2/4/07
RESIDENT ENGINEER JAMES MASSEY
DATE 08/14/2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			
ARCHITECTURAL			
Title			
HIGHWAY SPEED E-Z PASS			
"SKELETON" STRUCTURE			
DETAIL SHEET No.3			
This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.			
R.G.	P.K.	R.C.	
Designed by	Drawn by	Checked by	
Date	5-11-05		
Contract Number	AKO-284.039		
Drawing Number	A9.3		
	PID# 00417000		



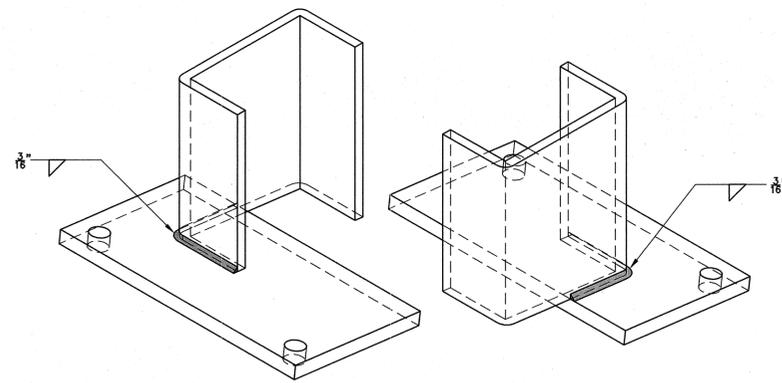
NOTE: ARRANGE FOR ALL CONDUIT INSIDE STEEL SHAPES TO BE INSTALLED IN METALWORK SHOP, USING APPROVED FITTINGS (HANGERS, CLAMPS, CLIPS, ETC.) FASTENED OR TACK WELDED AS REQ'D. (SEE ELEC. DWGS.). ALL WIRE INLETS IN ALL PIPES, TUBES, PLATES, ETC. SHALL HAVE ROUNDED EDGES & BE GROUND SMOOTH.



NOTE: CONDUIT NOT SHOWN FOR CLARITY

D5 Cross Section Viewing Upright Support

Scale: 0 1 2 4 inches

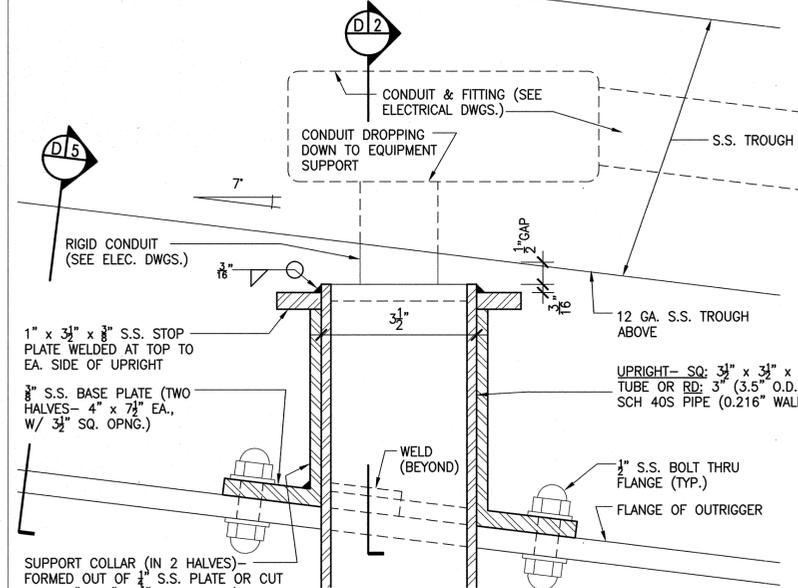


NOTE: UPRIGHT SUPPORT SHOWN PRIOR TO ASSEMBLY

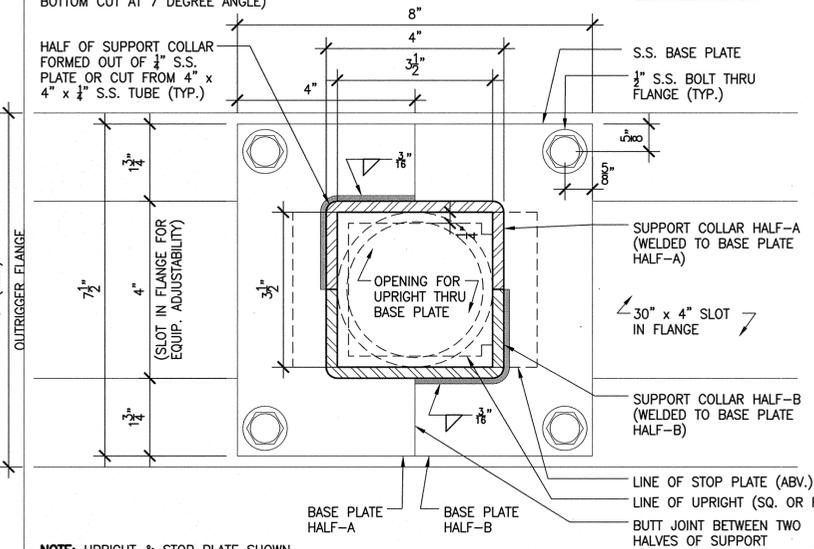
D4 Pictorial of Upright Support

D3 Plan View of Trough

Scale: 0 1 2 4 inches

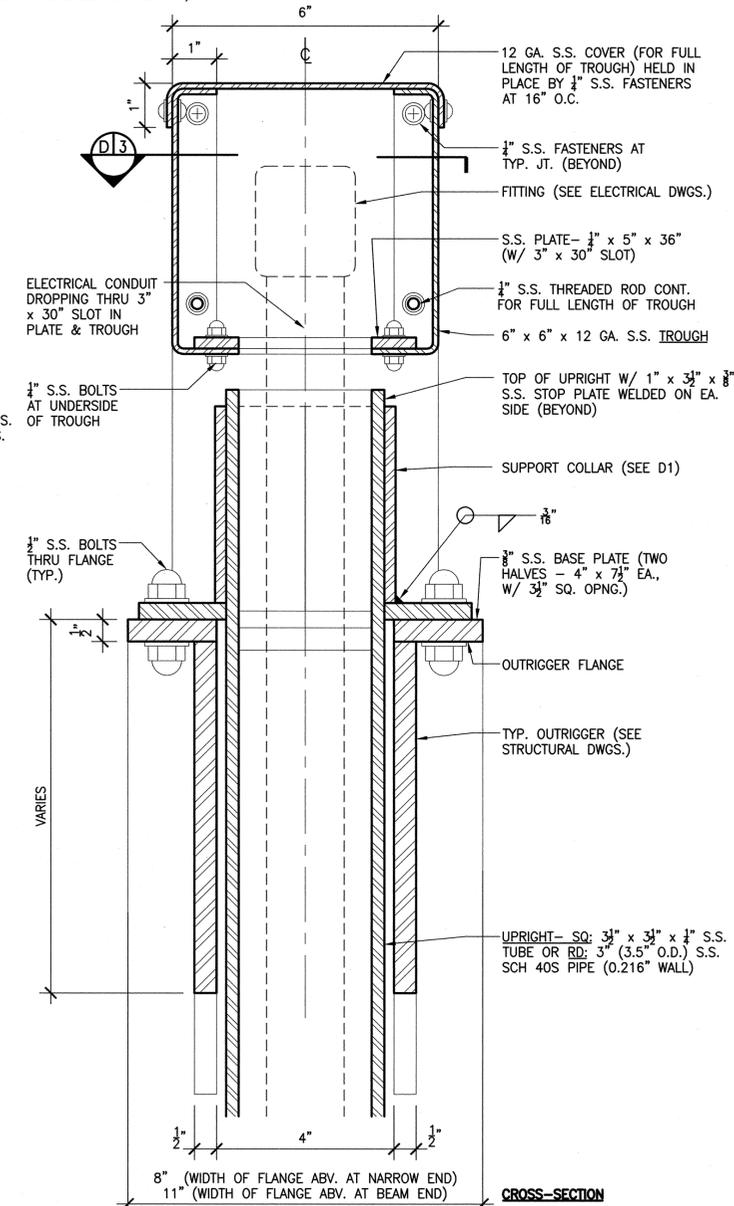


LONG SECTION VIEW



D1 Details at Upright Support (square or round)

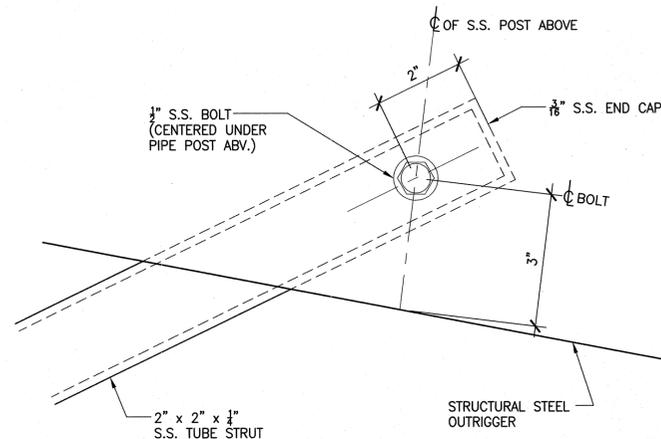
Scale: 0 1 2 4 inches



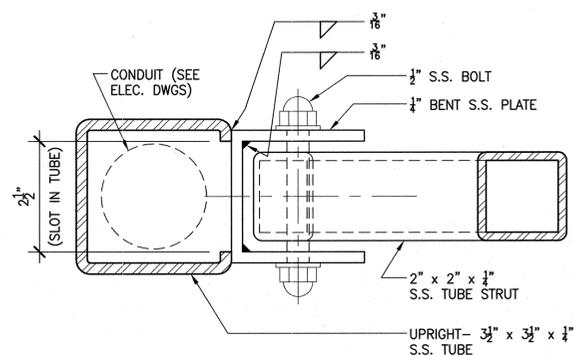
CROSS-SECTION

D2 Details at Typical Outrigger/ Slot for Upright

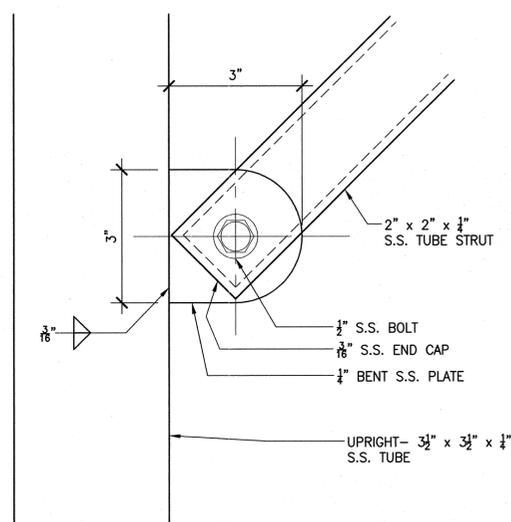
NOTE: ARRANGE FOR ALL CONDUIT INSIDE STEEL SHAPES TO BE INSTALLED IN METALWORK SHOP, USING APPROVED FITTINGS (HANGERS, CLAMPS, CLIPS, ETC.) FASTENED OR TACK WELDED AS REQ'D. (SEE ELEC. DWGS.). ALL WIRE INLETS IN ALL PIPES, TUBES, PLATES, ETC. SHALL HAVE ROUNDED EDGES & BE GROUND SMOOTH.



SIDE VIEW



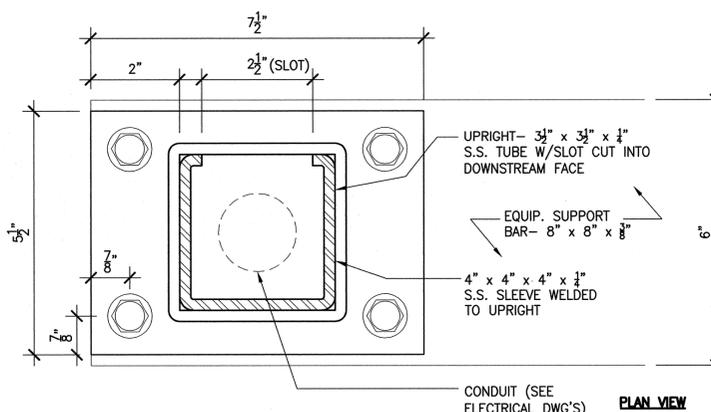
PLAN VIEW



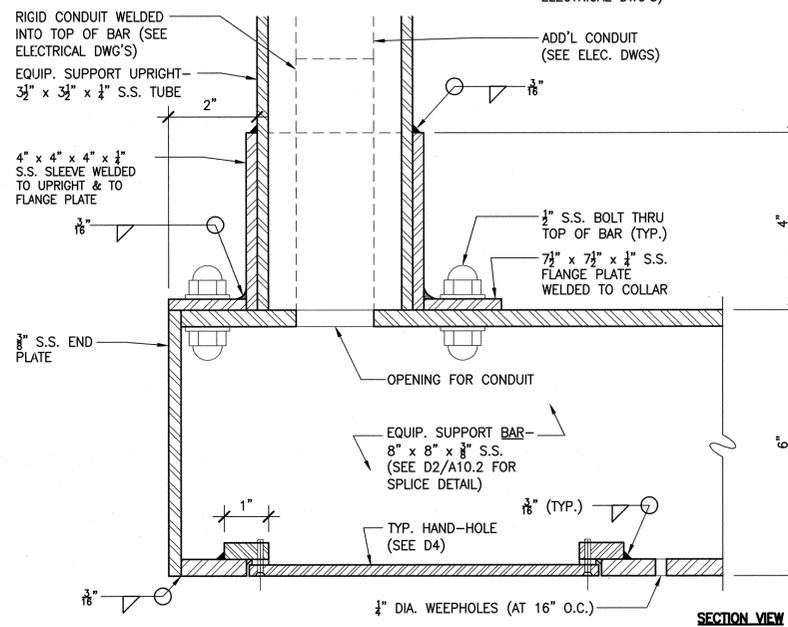
SIDE VIEW

D2 Detail at Typ. Strut

Scale: 0 1 2 4 inches



PLAN VIEW

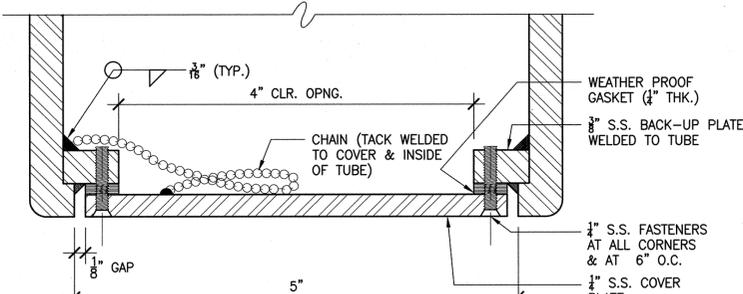


SECTION VIEW

SEE P1/A10.2 FOR HAND-HOLE LOCATIONS ON BAR

D1 Detail at Typ. Equipment Support Upright & Bar

Scale: 0 1 2 4 inches

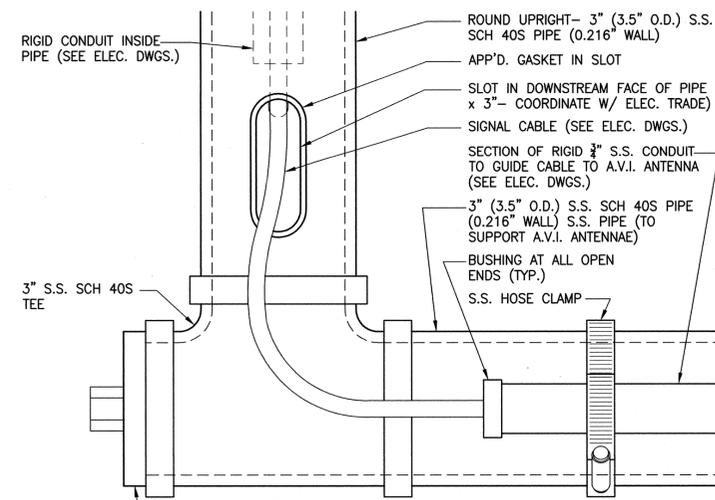


SEE P1/A10.2 FOR HAND-HOLE LOCATIONS & LENGTHS

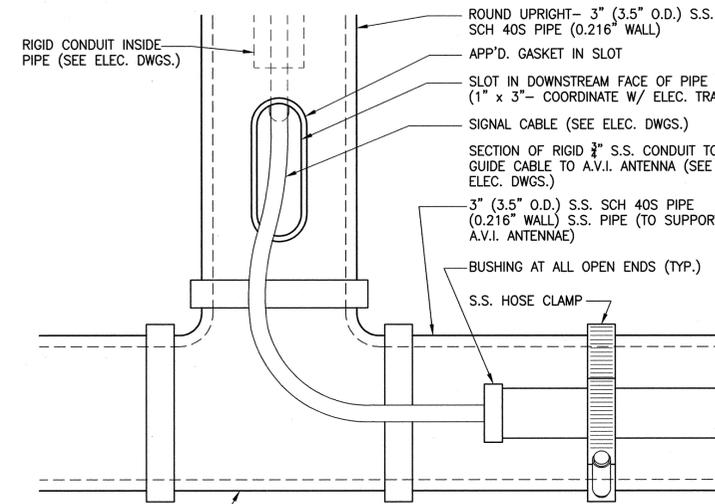
NOTE: POSITION HAND-HOLE ON TUBE WHERE INDICATED OR AS REQ'D. HAND-HOLE SHALL BE CONSTRUCTED TO BE WATERPROOF

D4 Detail at Typ. Hand-Hole in Support Bar

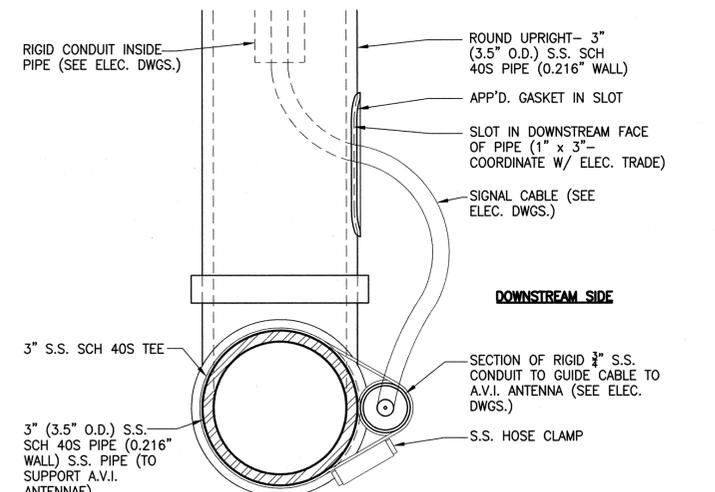
Scale: 0 0.5 1 2 inches



REAR VIEW AT END TEE



REAR VIEW AT INTERMEDIATE TEE



SECTION VIEW

D3 Detail at Typ. Round Upright & Pipe

Scale: 0 1 2 4 inches

NOTE: PIPE CONNECTIONS MAY BE THREADED OR WELDED (GROUND SMOOTH)



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DRAWING OF RECORD

(BASED ON CORRECTED FIELD DRAWINGS)
Resident Engineer: James Masset
DATE: 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ARCHITECTURAL

Title
HIGHWAY SPEED E-Z PASS

"SKELETON" STRUCTURE

DETAIL SHEET No.4

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Designed by	Drawn by	Checked by
Date	5-11-05	

Contract Number **AKO-284.039**

Drawing Number **A9.4**
PID# 00417000



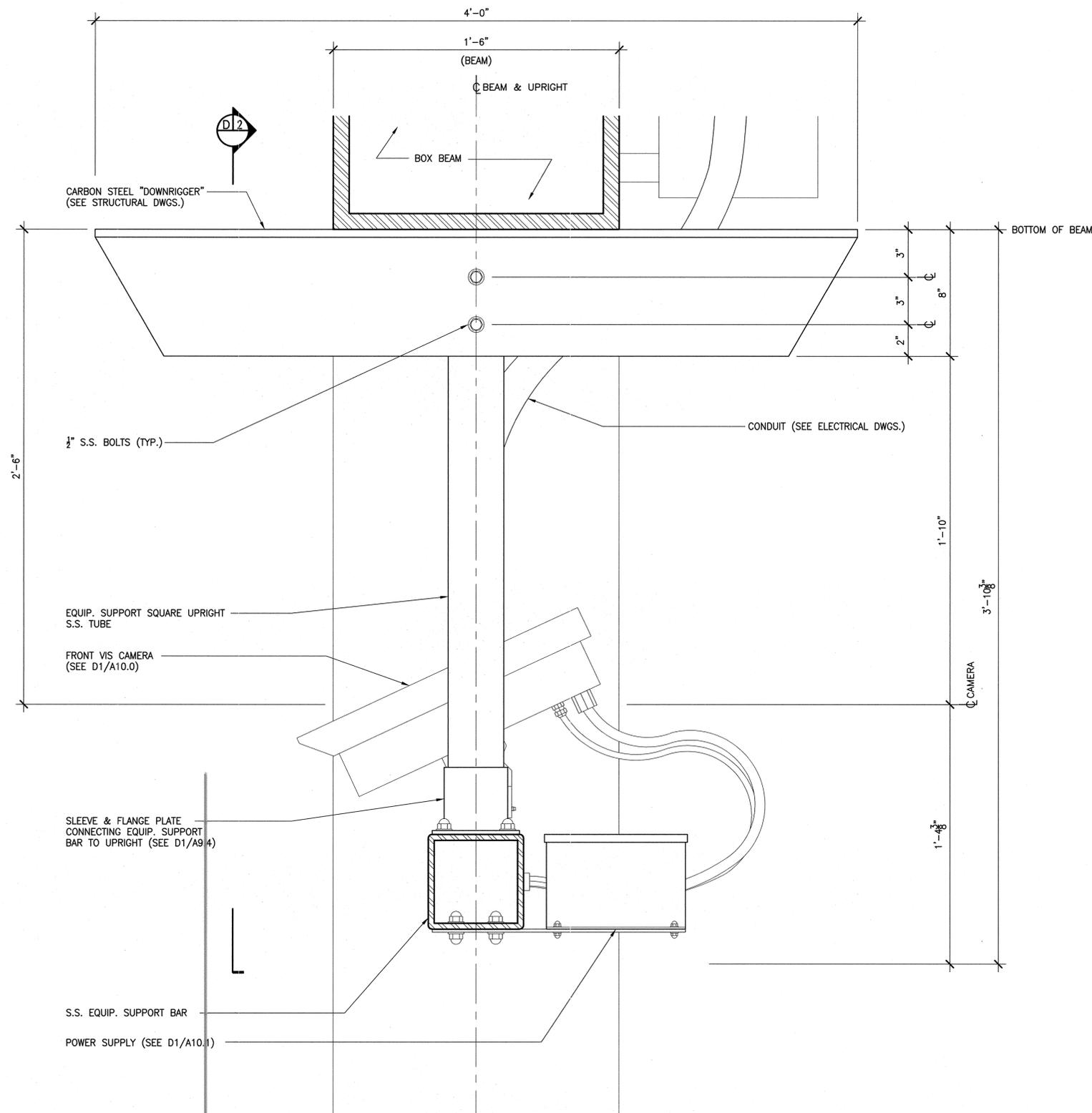
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DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
James Masset, P.E. 2/19/07
RESIDENT ENGINEER JAMES MASSET
DATE 08 /14/ 2006

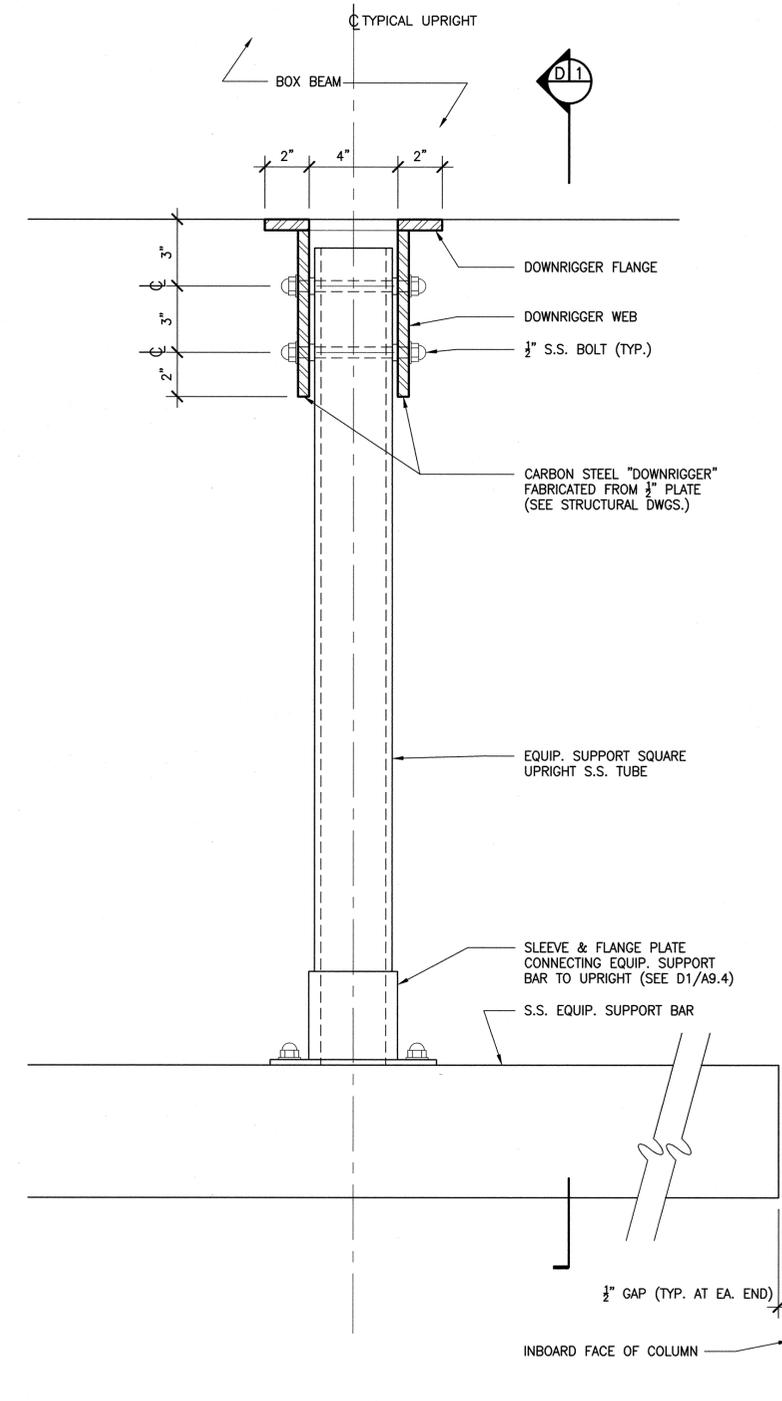
No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			
ARCHITECTURAL			
Title			
HIGHWAY SPEED E-Z PASS			
GANTRY			

DETAIL SHEET No.1
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Designed by	Drawn by	Checked by
Date	5-11-05	
Contract Number	AKO-284.039	
Drawing Number	A9.5	
	PID# 00417000	



D1 Details at Equipment Supports - Section
Scale: 0 2 4 8 inches



D2 Details at Equipment Supports - Cross Section
Scale: 0 2 4 8 inches



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DRAWING OF RECORD
Amended, 2/9/07
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER: JAMES MASSET
DATE: 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title

HIGHWAY SPEED E-Z PASS

ELECTRONIC EQUIPMENT

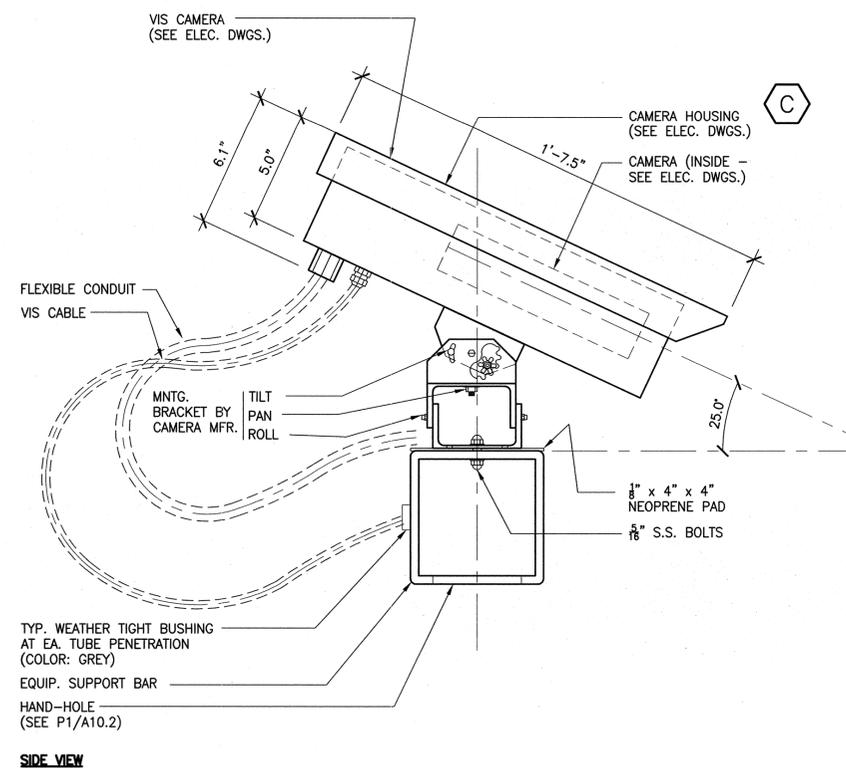
DETAIL SHEET No.1

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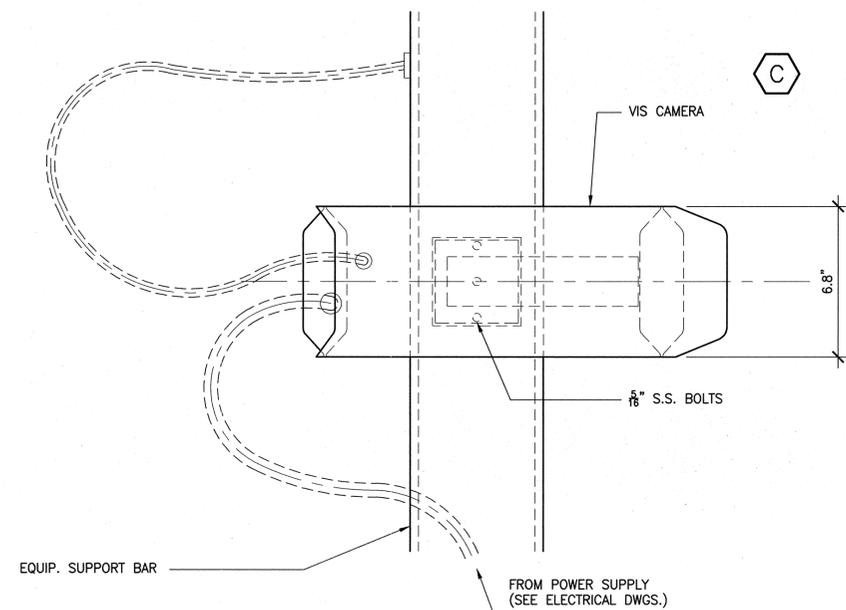
R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by
Date		5-11-05

Contract Number **AKO-284.039**

Drawing Number **A10.0**
PID# 00417000

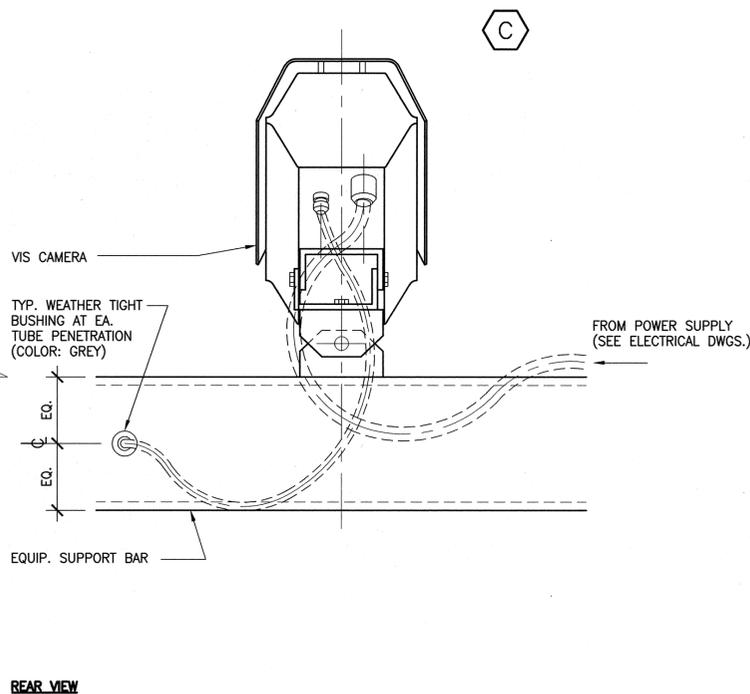


SIDE VIEW

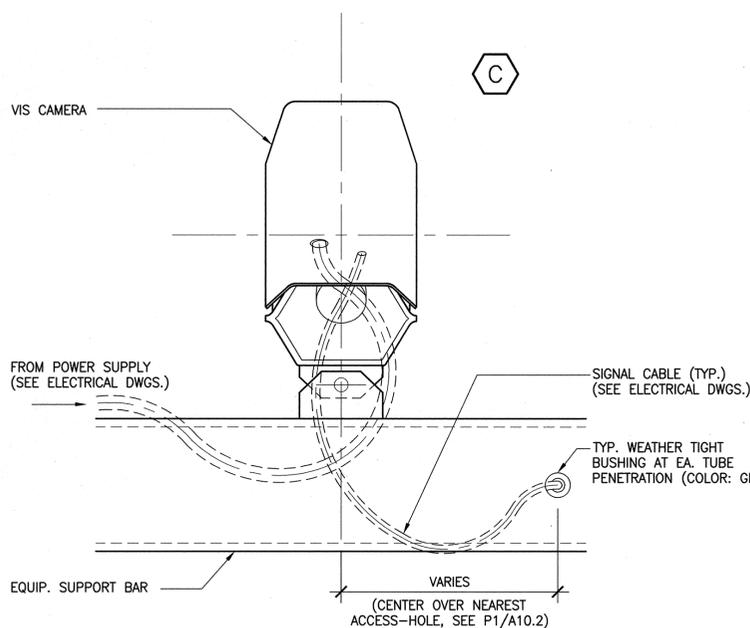


TOP VIEW

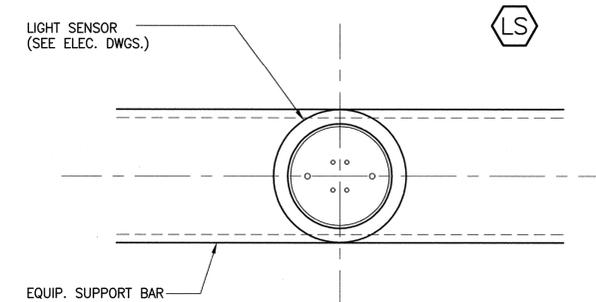
D1 Details at VES Camera
Scale: 0 2 4 8 inches



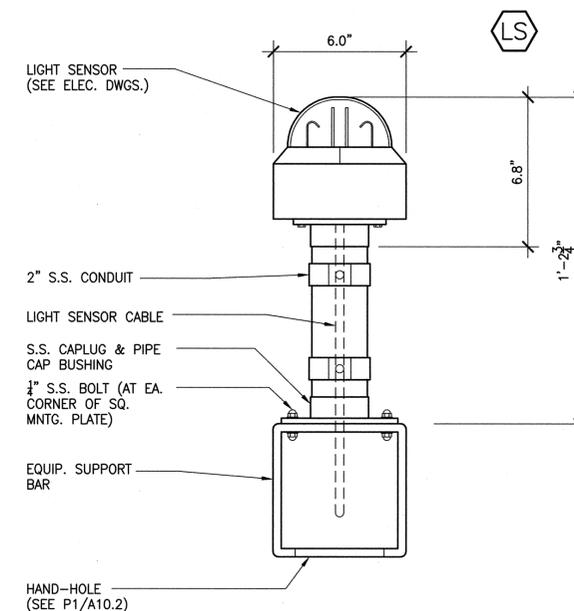
REAR VIEW



FRONT VIEW



TOP VIEW



SIDE VIEW

D3 Details at Light Sensor
Scale: 0 2 4 8 inches

"ETC" EQUIPMENT LEGEND

- I** VES ILLUMINATOR (FLASH HEAD)
- C** VES CAMERA
- LS** LIGHT SENSOR
- PS** POWER SUPPLY
- A** AVI ANTENNA

EQUIPMENT MOUNTING NOTES:

- PROVIDE ALL REQUIRED MOUNTING HARDWARE & ACCESSORIES, WHETHER INDICATED OR NOT.
- AT ALL MOUNTING BOLTS, PROVIDE S.S. WASHERS & LOCK WASHERS & NY-LOCK S.S. NUTS. ALL BOLTS SHALL HAVE ROUND HEADS & CAP NUTS. SEE SPECIFICATIONS SECTION 05701 - STAINLESS STEEL METALWORK
- AT ALL EQUIPMENT MOUNTS PROVIDE 1/4" NEOPRENE PADS OR GASKETS AS REQD. TO COMPLETELY SEPARATE MOUNTING BRACKETS/FLANGES FROM SUBSTRATE & TO WEATHERPROOF ALL PENETRATIONS
- ALL WIRE INLETS SHALL HAVE ROUNDED EDGES & BE GROUND SMOOTH
- SEE P1/A10.2 FOR HAND-HOLE LOCATIONS



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DRAWING OF RECORD
Amended P.D. 2/9/07
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSET
DATE 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title

HIGHWAY SPEED E-Z PASS

ELECTRONIC EQUIPMENT

DETAIL SHEET No.2

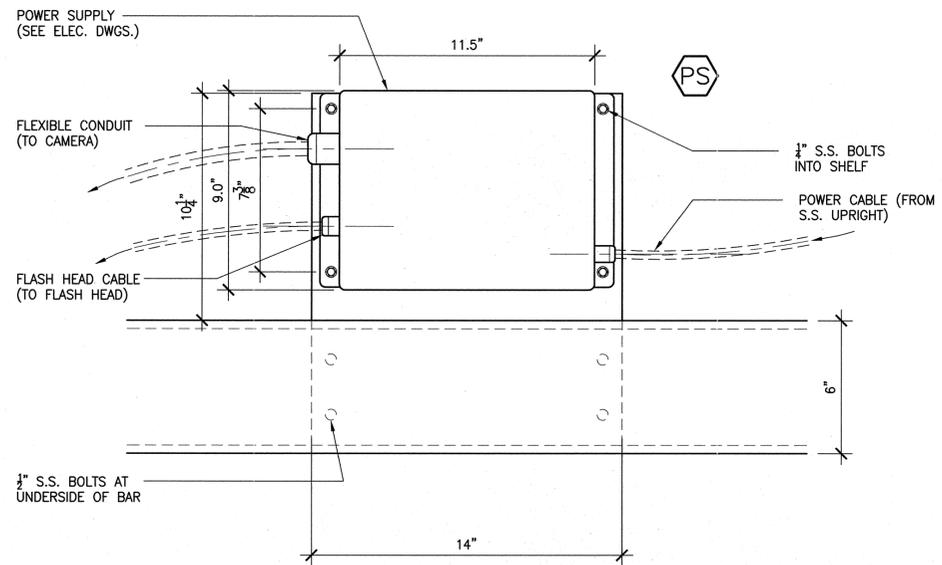
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R.G.	P.K.	R.C.
Designed by	Drawn by	Checked by

Date 5-11-05

Contract Number **AKO-284.039**

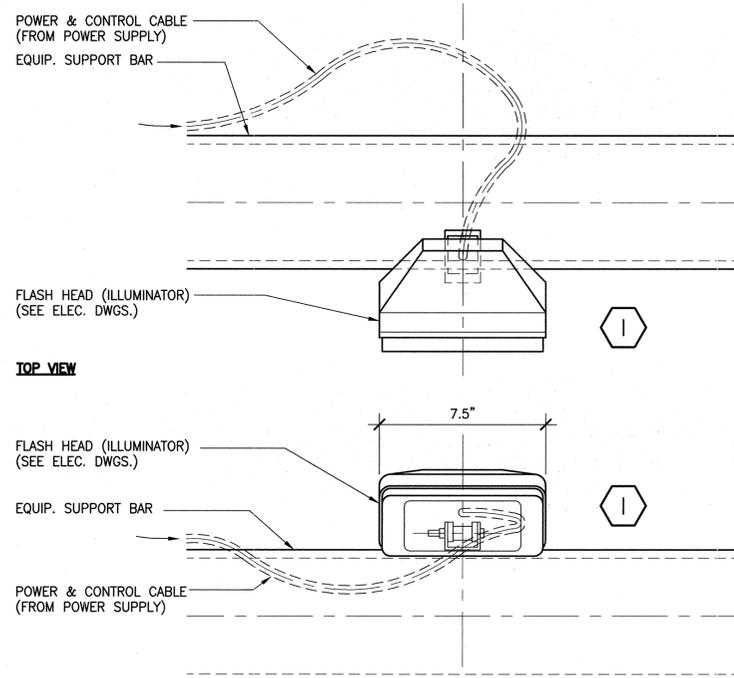
Drawing Number **A10.1**
PID# 00417000



TOP VIEW

D1 Details at Power Supply

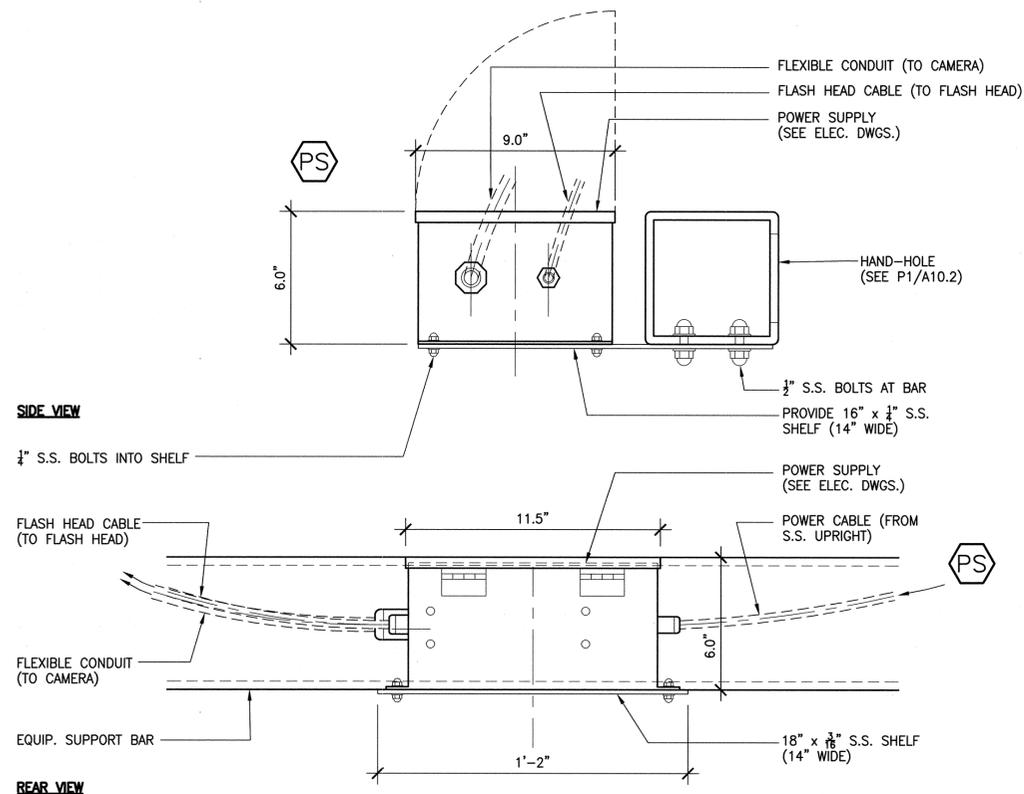
Scale: 0 2 4 8 inches



FRONT VIEW

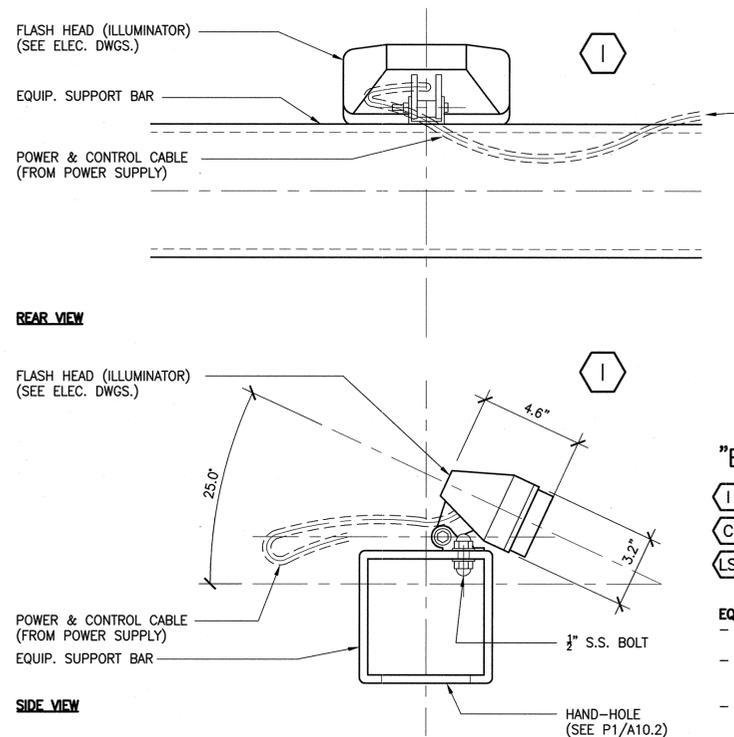
D2 Details at VES Illuminator (Flash Head)

Scale: 0 2 4 8 inches



SIDE VIEW

REAR VIEW



REAR VIEW

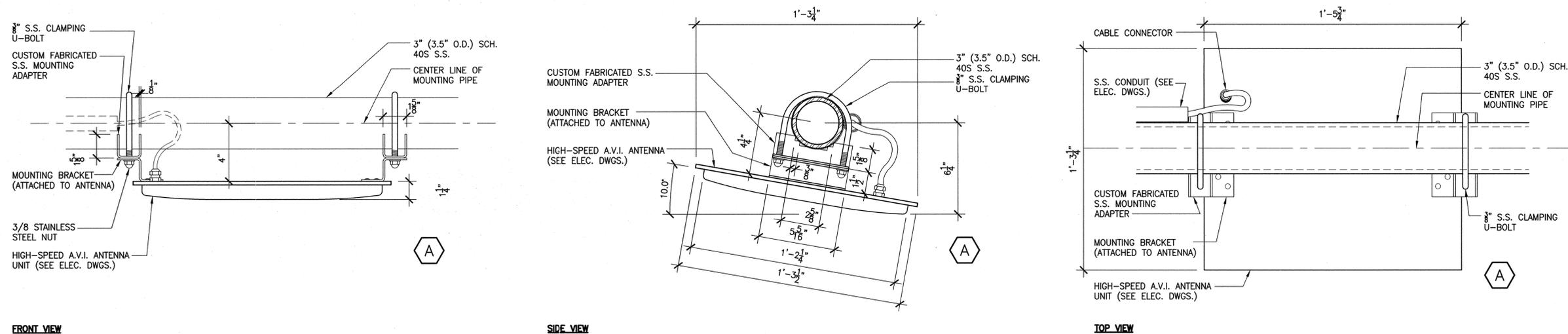
SIDE VIEW

"ETC" EQUIPMENT LEGEND

- I** VES ILLUMINATOR (FLASH HEAD) **PS** POWER SUPPLY
- C** VES CAMERA **A** AVI ANTENNA
- LS** LIGHT SENSOR

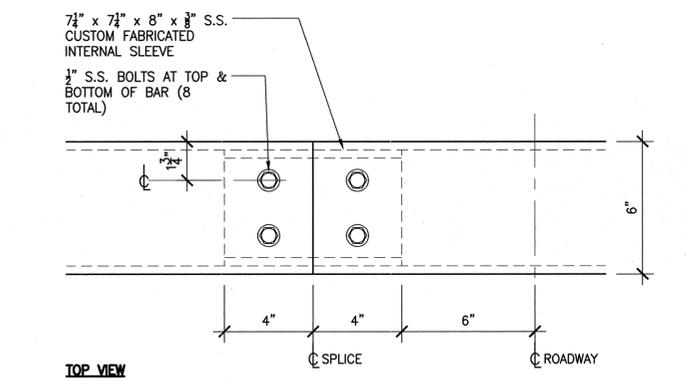
EQUIPMENT MOUNTING NOTES:

- PROVIDE ALL REQUIRED MOUNTING HARDWARE & ACCESSORIES, WHETHER INDICATED OR NOT.
- AT ALL MOUNTING BOLTS, PROVIDE S.S. WASHERS & LOCK WASHERS & NY-LOCK S.S. NUTS. ALL BOLTS SHALL HAVE ROUND HEADS & CAP NUTS. SEE SPECIFICATIONS SECTION 05701 - STAINLESS STEEL METALWORK
- AT ALL EQUIPMENT MOUNTS PROVIDE 1/4" NEOPRENE PADS OR GASKETS AS REQD. TO COMPLETELY SEPARATE MOUNTING BRACKETS/FLANGES FROM SUBSTRATE & TO WEATHERPROOF ALL PENETRATIONS
- ALL WIRE INLETS SHALL HAVE ROUNDED EDGES & BE GROUND SMOOTH
- SEE P1/A10.2 FOR HAND-HOLE LOCATIONS

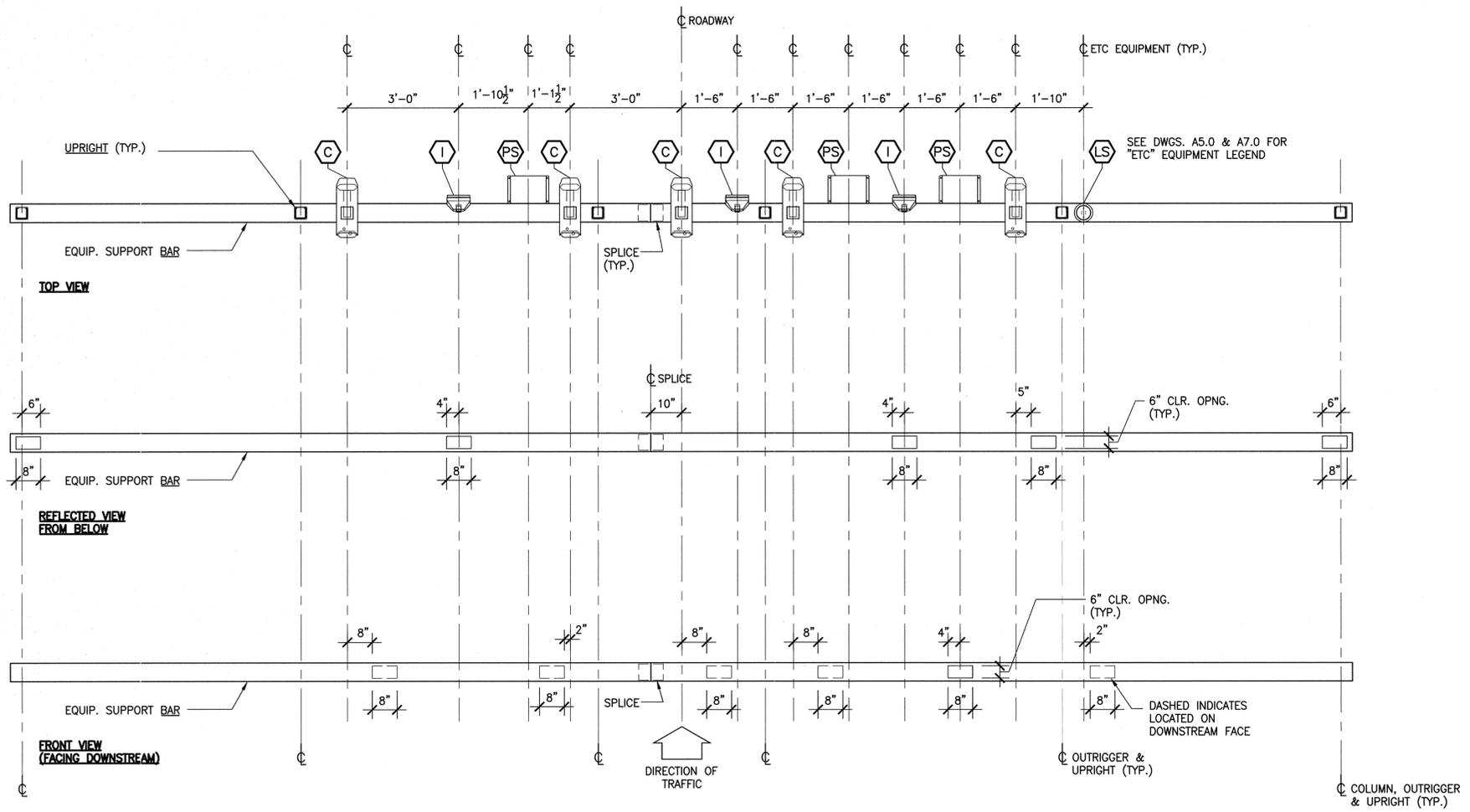


D1 Details at High-Speed A.V.I. Antenna Unit
Scale: 0 2 4 8 inches

- EQUIPMENT MOUNTING NOTES:**
- PROVIDE ALL REQUIRED MOUNTING HARDWARE & ACCESSORIES, WHETHER INDICATED OR NOT.
 - AT ALL MOUNTING BOLTS, PROVIDE S.S. WASHERS & LOCK WASHERS & NY-LOCK S.S. NUTS. ALL BOLTS SHALL HAVE ROUND HEADS & CAP NUTS. SEE SPECIFICATIONS SECTION 05701 - STAINLESS STEEL METALWORK FOR ADD'L INFORMATION.
 - AT ALL EQUIPMENT MOUNTS PROVIDE 1/4\"/>



D2 Detail at Equipment Support Bar Splice
Scale: 0 2 4 8 inches



P1 Hand-Hole Locations on Equip. Support Bar (Typ. for "Skeleton" & Gantry)
Scale: 0 1 2 4 feet

"ETC" EQUIPMENT LEGEND

(I)	VES ILLUMINATOR (FLASH HEAD)	(PS)	POWER SUPPLY
(C)	VES CAMERA	(A)	AVI ANTENNA
(LS)	LIGHT SENSOR		

DASHED INDICATES LOCATED ON DOWNSTREAM FACE

Sheet **28** of **155**

THE PORT AUTHORITY OF NY & NJ

CABRERA GROUP ARCHITECTS P.C.
Original signed and sealed by Robert Cabrera, Registered Architect
New York License No. 7037

DRAWING OF RECORD
Amendments, P.M.D. 2/9/07
(BASED ON CORRECTED FIELD DRAWINGS)

RESIDENT ENGINEER: JAMES MASSET
DATE: 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			
ARCHITECTURAL			
Title			
HIGHWAY SPEED E-Z PASS			
ELECTRONIC EQUIPMENT			
DETAIL SHEET No.3			
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R.G.	P.K.	R.C.	
Designed by	Drawn by	Checked by	
Date		5-11-05	
Contract Number	AKO-284.039		
Drawing Number	A10.2		
	PID# 00417000		



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New York License No. 7037

DRAWING OF RECORD
2/19/07
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER: JAMES MASSET
DATE: 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ARCHITECTURAL

Title

HIGHWAY SPEED E-Z PASS

EXIST. CANOPY TO REMAIN

REPAIR "PATCH" ELEVATIONS & SECTIONS

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R.G. P.K. R.C.
Designed by Drawn by Checked by

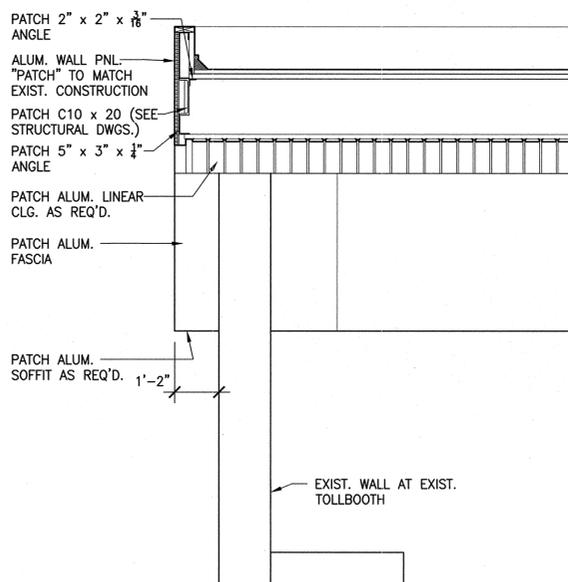
Date 5-11-05

Contract Number AKO-284.039

Drawing Number **A11.0**
PID# 00417000

E 1 Elevation Detail at End of Exist. Canopy

Scale: 0 1 2 4 feet

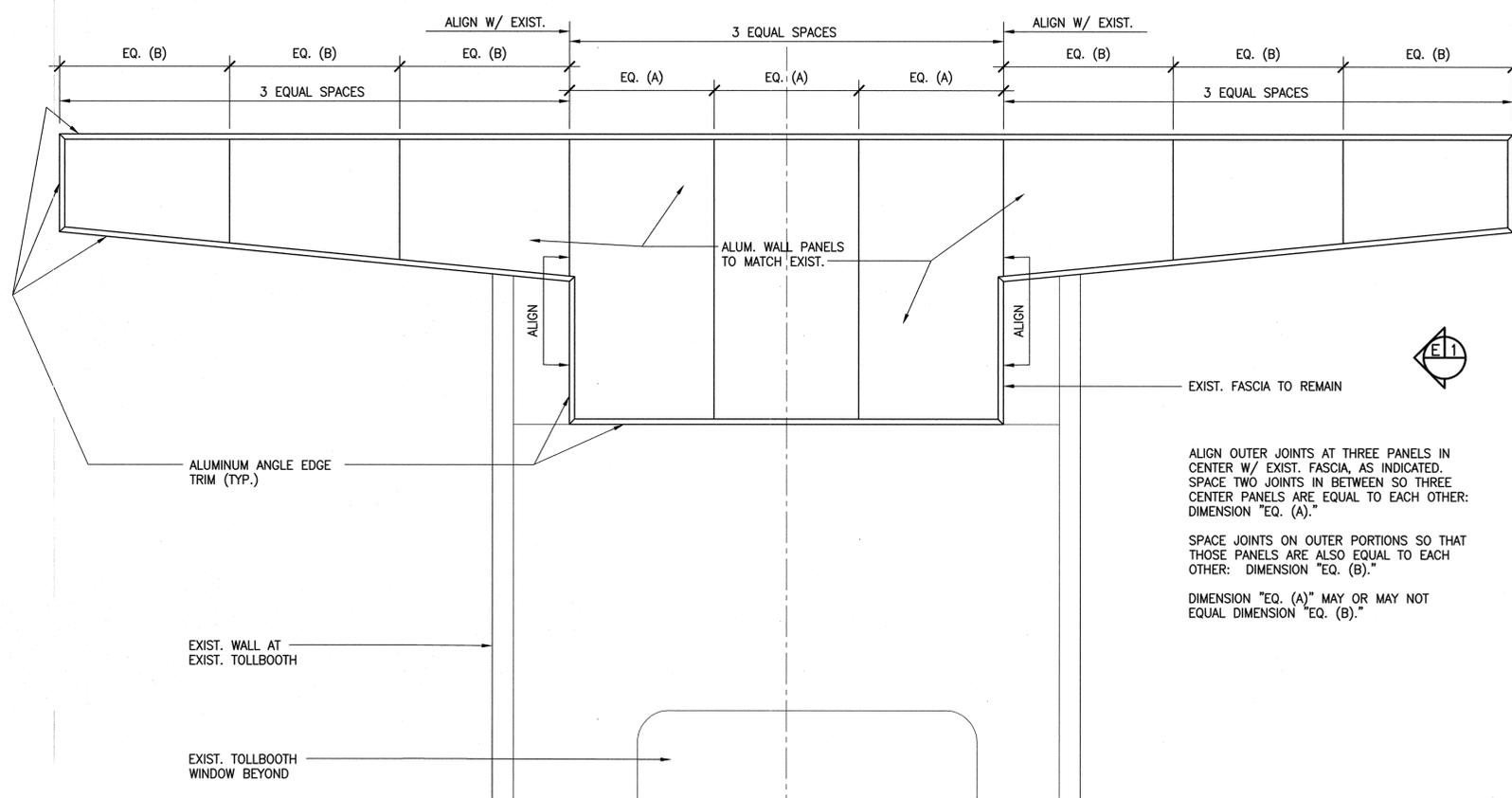


S 1 Section at End of Exist. Canopy

Scale: 0 1 2 4 feet

E 2 Side Elevation at End of Exist. Canopy

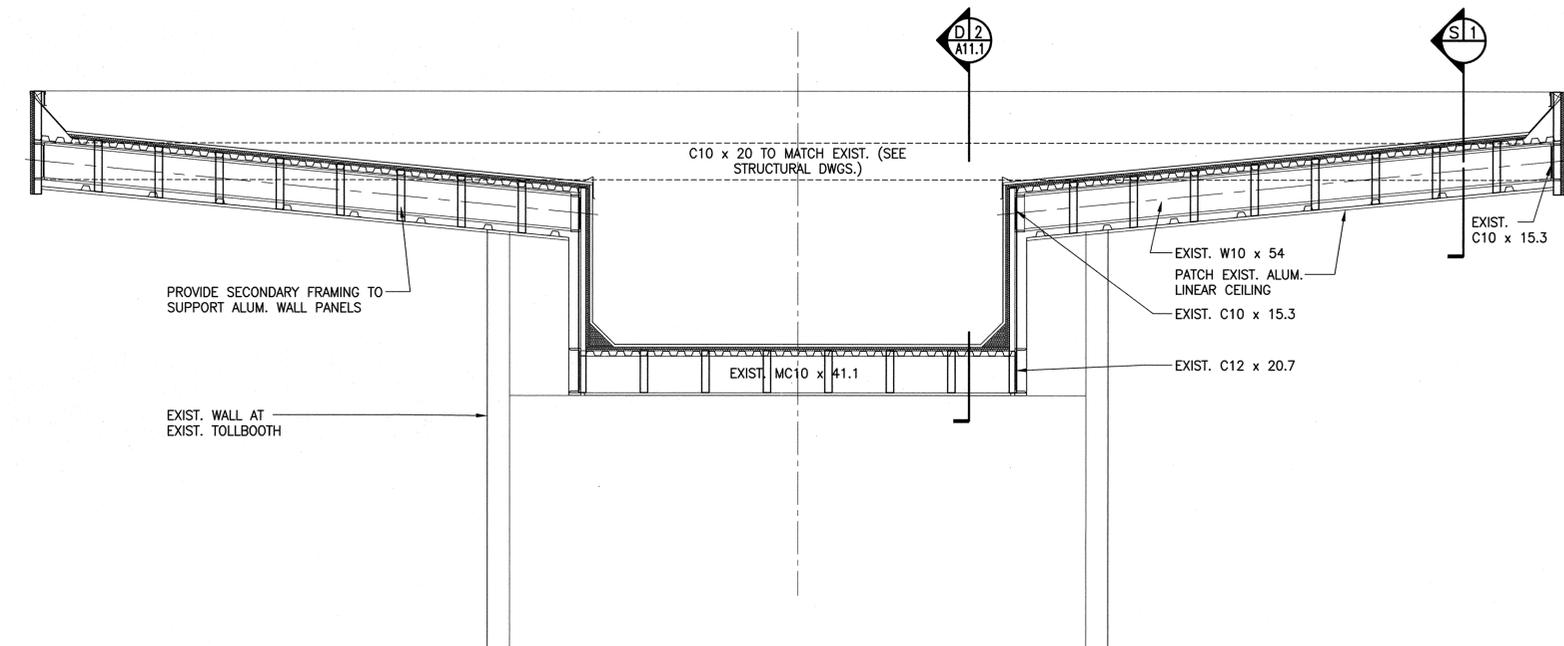
Scale: 0 1 2 4 feet



ALIGN OUTER JOINTS AT THREE PANELS IN CENTER W/ EXIST. FASCIA, AS INDICATED. SPACE TWO JOINTS IN BETWEEN SO THREE CENTER PANELS ARE EQUAL TO EACH OTHER: DIMENSION "EQ. (A)."
SPACE JOINTS ON OUTER PORTIONS SO THAT THOSE PANELS ARE ALSO EQUAL TO EACH OTHER: DIMENSION "EQ. (B)."
DIMENSION "EQ. (A)" MAY OR MAY NOT EQUAL DIMENSION "EQ. (B)."

S 2 Cross Section at Exist. Canopy to be "Patched"

Scale: 0 1 2 4 feet



LEGEND
EXISTING CONSTRUCTION (TO REMAIN)



CABRERA GROUP
ARCHITECTS P.C.
Original signed and sealed by
Robert Cabrera, Registered Architect
New York License No. 7037

DRAWING OF RECORD
Robert Cabrera, P.E. 2/9/07
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER: JAMES MASSET
DATE: 08 /14/ 2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			

ARCHITECTURAL
Title

HIGHWAY SPEED E-Z PASS

EXIST. CANOPY TO REMAIN

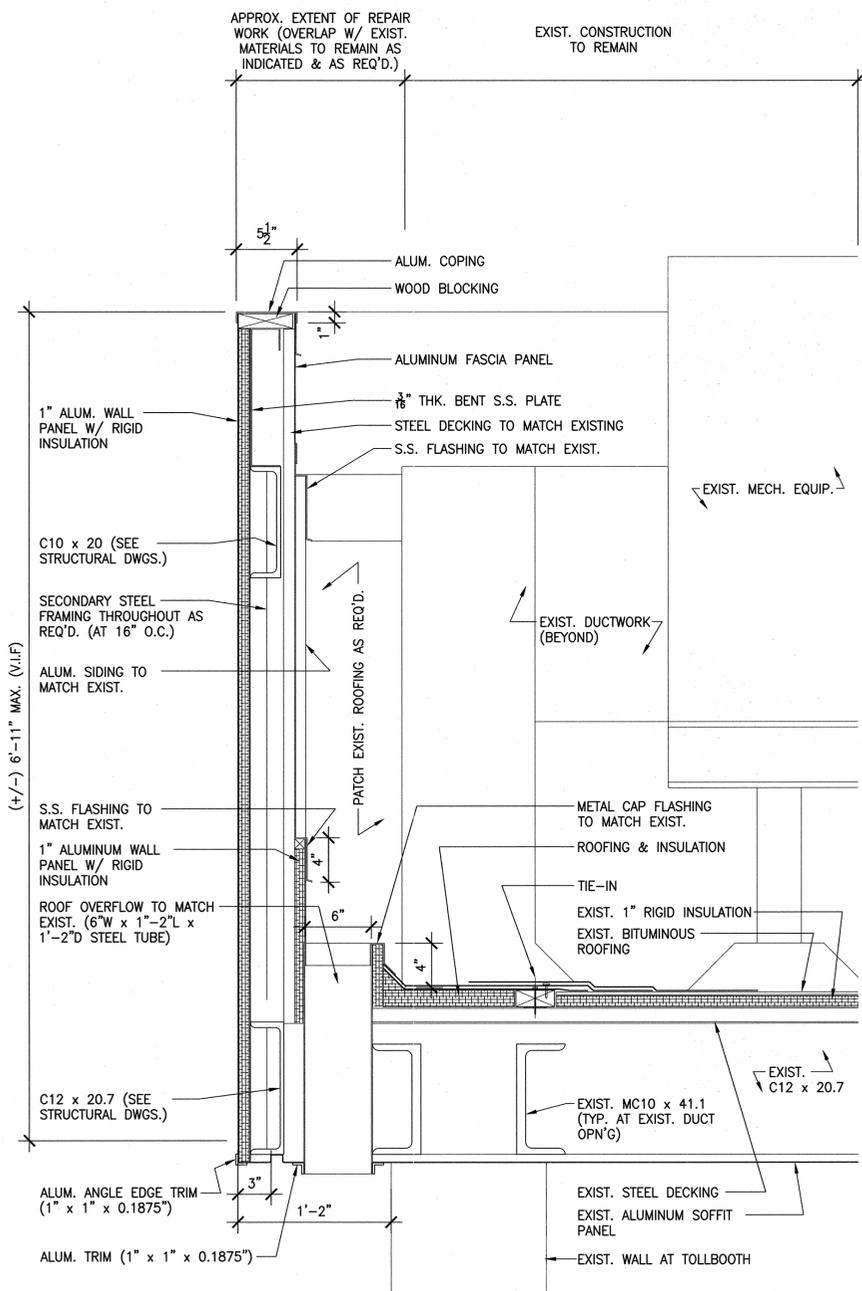
REPAIR "PATCH" DETAILS

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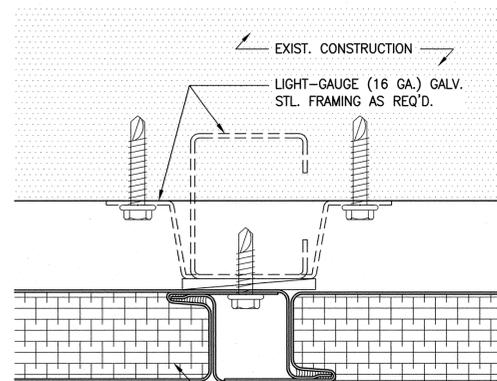
R.G. P.K. R.C.
Designed by Drawn by Checked by
Date 5-11-05

Contract Number **AKO-284.039**

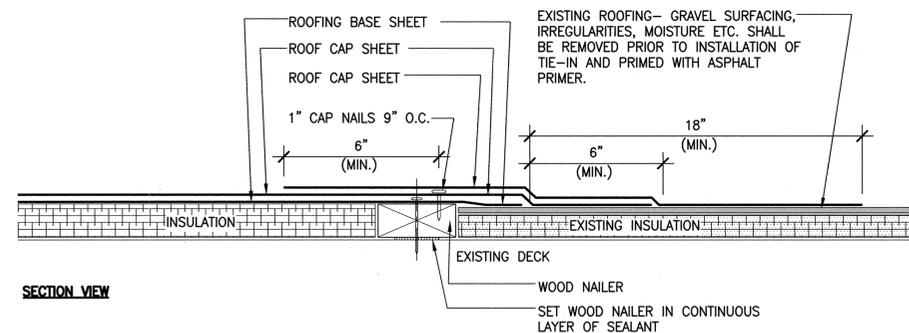
Drawing Number **A11.1**
PID# 00417000



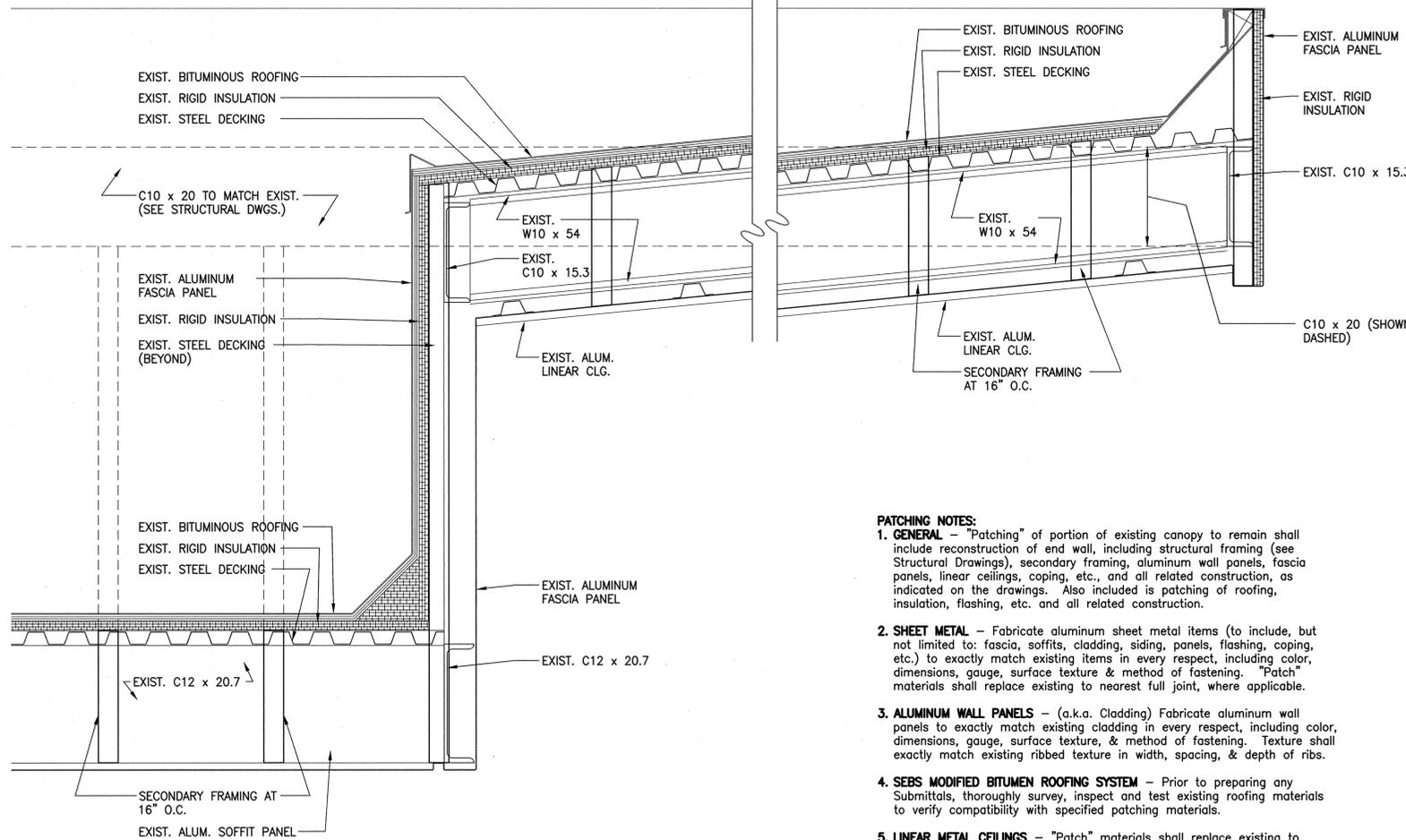
D2 Detail Long Section at End of Exist. Canopy
Scale: 0 4 8 16 inches



D3 Detail Typ. Replacement Aluminum Wall Panel
Scale: 0 0.5 1 2 inches



D4 Detail at Canopy Roof "Patch" Tie - in
Scale: 0 2 4 8 inches



D1 Detail Cross Section at Exist. Canopy to be "Patched"
Scale: 0 4 8 16 inches

- PATCHING NOTES:**
- GENERAL** - "Patching" of portion of existing canopy to remain shall include reconstruction of end wall, including structural framing (see Structural Drawings), secondary framing, aluminum wall panels, fascia panels, linear ceilings, coping, etc., and all related construction, as indicated on the drawings. Also included is patching of roofing, insulation, flashing, etc. and all related construction.
 - SHEET METAL** - Fabricate aluminum sheet metal items (to include, but not limited to: fascia, soffits, cladding, siding, panels, flashing, coping, etc.) to exactly match existing items in every respect, including color, dimensions, gauge, surface texture & method of fastening. "Patch" materials shall replace existing to nearest full joint, where applicable.
 - ALUMINUM WALL PANELS** - (a.k.a. Cladding) Fabricate aluminum wall panels to exactly match existing cladding in every respect, including color, dimensions, gauge, surface texture, & method of fastening. Texture shall exactly match existing ribbed texture in width, spacing, & depth of ribs.
 - SEBS MODIFIED BITUMEN ROOFING SYSTEM** - Prior to preparing any Submittals, thoroughly survey, inspect and test existing roofing materials to verify compatibility with specified patching materials.
 - LINEAR METAL CEILING** - "Patch" materials shall replace existing to nearest full joint.

LEGEND
EXISTING CONSTRUCTION (TO REMAIN)



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Certificate of Authorization # AC-104

ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ELECTRICAL

Title
HIGHWAY SPEED E-ZPASS

ELECTRONIC TOLL COLLECTION SYSTEM OVERALL WIRING DIAGRAM

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JVC JVC MS
Designed by Drawn by Checked by
Date **OCTOBER 8, 2004**

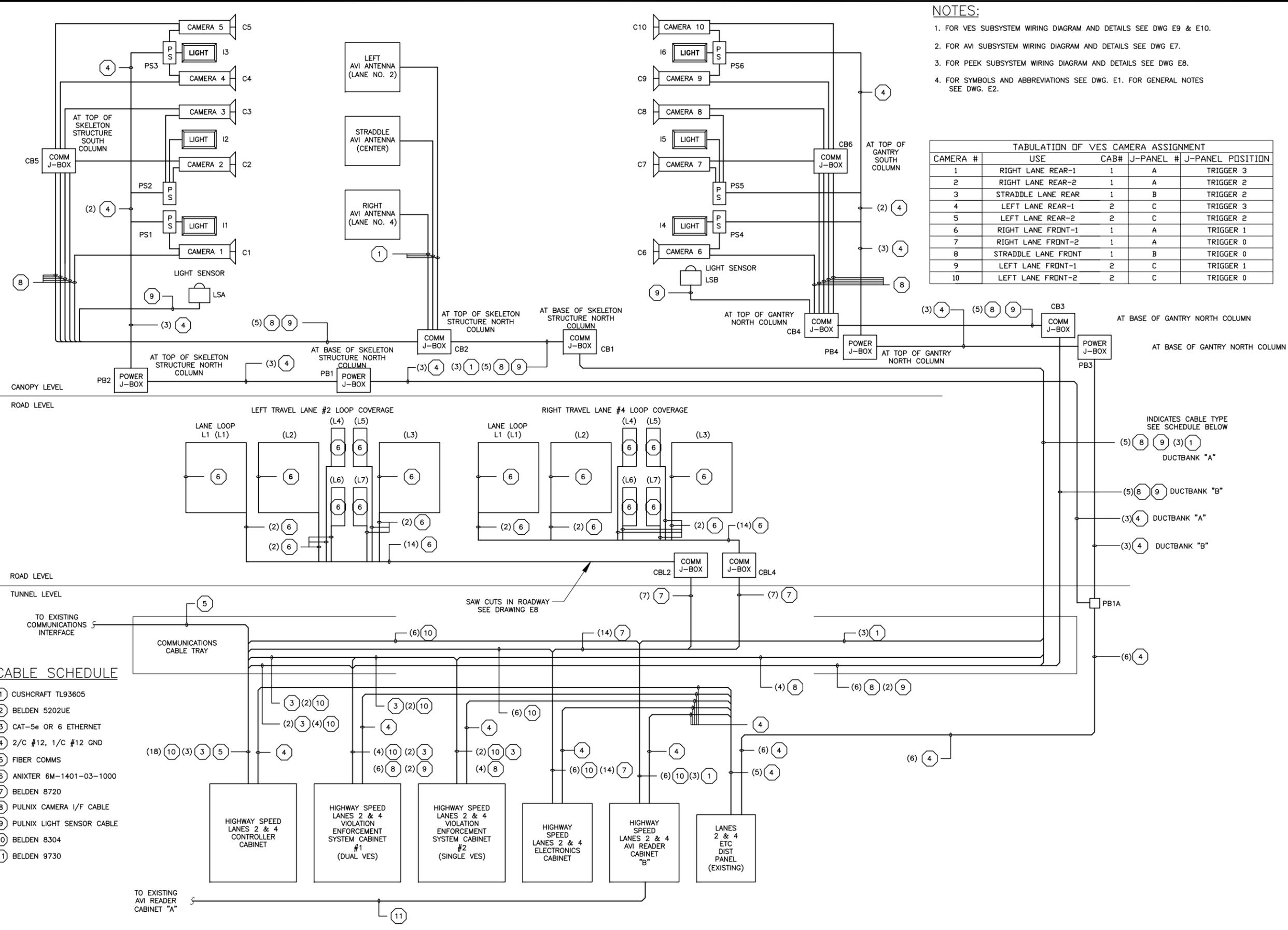
Contract Number **AKO-284.039**

Drawing Number **E006**
PID# 00417000

NOTES:

1. FOR VES SUBSYSTEM WIRING DIAGRAM AND DETAILS SEE DWG E9 & E10.
2. FOR AVI SUBSYSTEM WIRING DIAGRAM AND DETAILS SEE DWG E7.
3. FOR PEEK SUBSYSTEM WIRING DIAGRAM AND DETAILS SEE DWG E8.
4. FOR SYMBOLS AND ABBREVIATIONS SEE DWG. E1. FOR GENERAL NOTES SEE DWG. E2.

CAMERA #	USE	CAB#	J-PANEL #	J-PANEL POSITION
1	RIGHT LANE REAR-1	1	A	TRIGGER 3
2	RIGHT LANE REAR-2	1	A	TRIGGER 2
3	STRADDLE LANE REAR	1	B	TRIGGER 2
4	LEFT LANE REAR-1	2	C	TRIGGER 3
5	LEFT LANE REAR-2	2	C	TRIGGER 2
6	RIGHT LANE FRONT-1	1	A	TRIGGER 1
7	RIGHT LANE FRONT-2	1	A	TRIGGER 0
8	STRADDLE LANE FRONT	1	B	TRIGGER 0
9	LEFT LANE FRONT-1	2	C	TRIGGER 1
10	LEFT LANE FRONT-2	2	C	TRIGGER 0



CABLE SCHEDULE

- ① CUSHCRAFT TL93605
- ② BELDEN 5202UE
- ③ CAT-5e OR 6 ETHERNET
- ④ 2/C #12, 1/C #12 GND
- ⑤ FIBER COMMS
- ⑥ ANIXTER 6M-1401-03-1000
- ⑦ BELDEN 8720
- ⑧ PULNIX CAMERA I/F CABLE
- ⑨ PULNIX LIGHT SENSOR CABLE
- ⑩ BELDEN 8304
- ⑪ BELDEN 9730



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N.J. Professional Engineer # GE39775
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DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ELECTRICAL

Title
HIGHWAY SPEED E-ZPASS

**TOLL PLAZA CONDUIT PLAN & DETAILS
HIGHWAY SPEED LANE STRUCTURES**

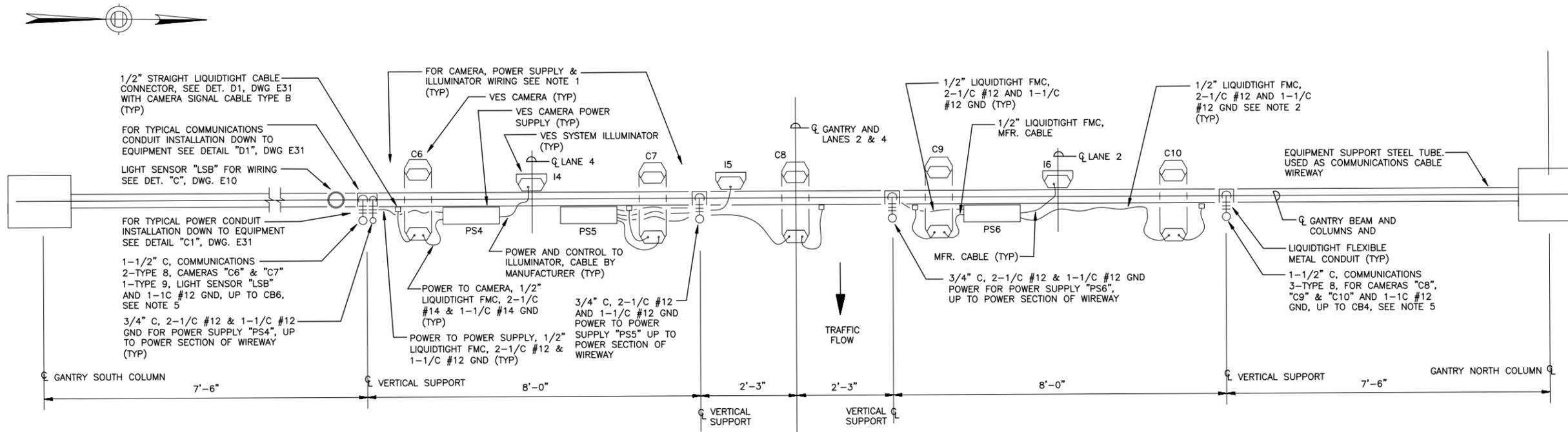
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Designed by Drawn by Checked by

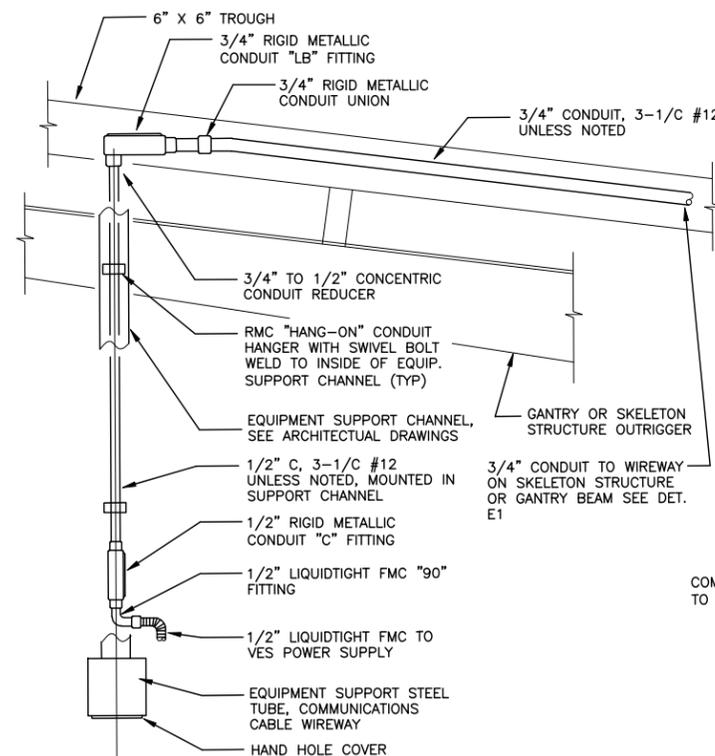
Date **OCTOBER 8, 2004**

Contract Number **AKO-284.039**

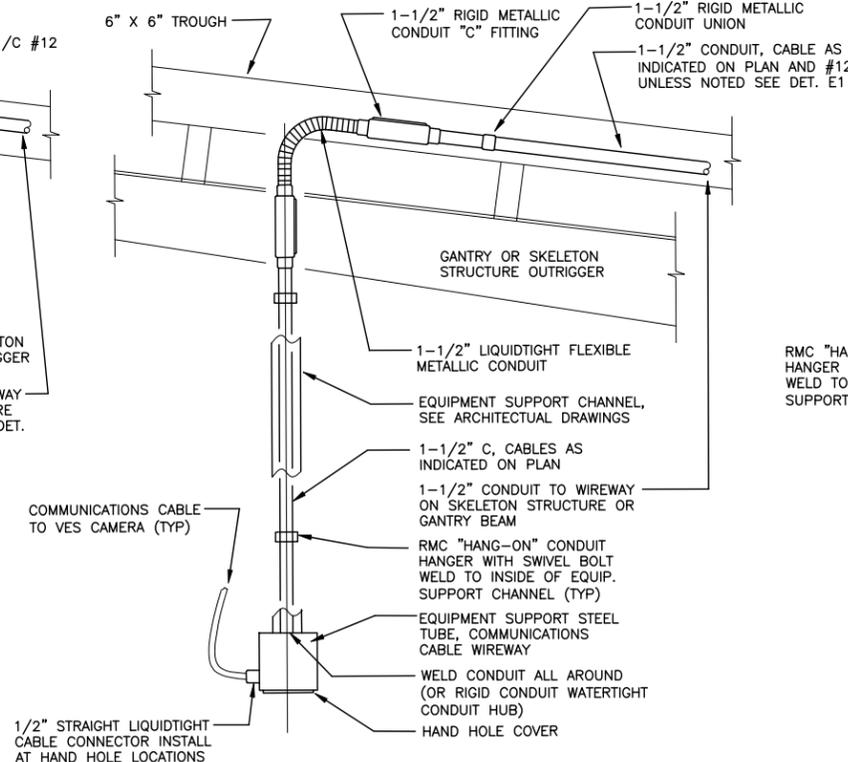
Drawing Number **E018**
PID# 00417000



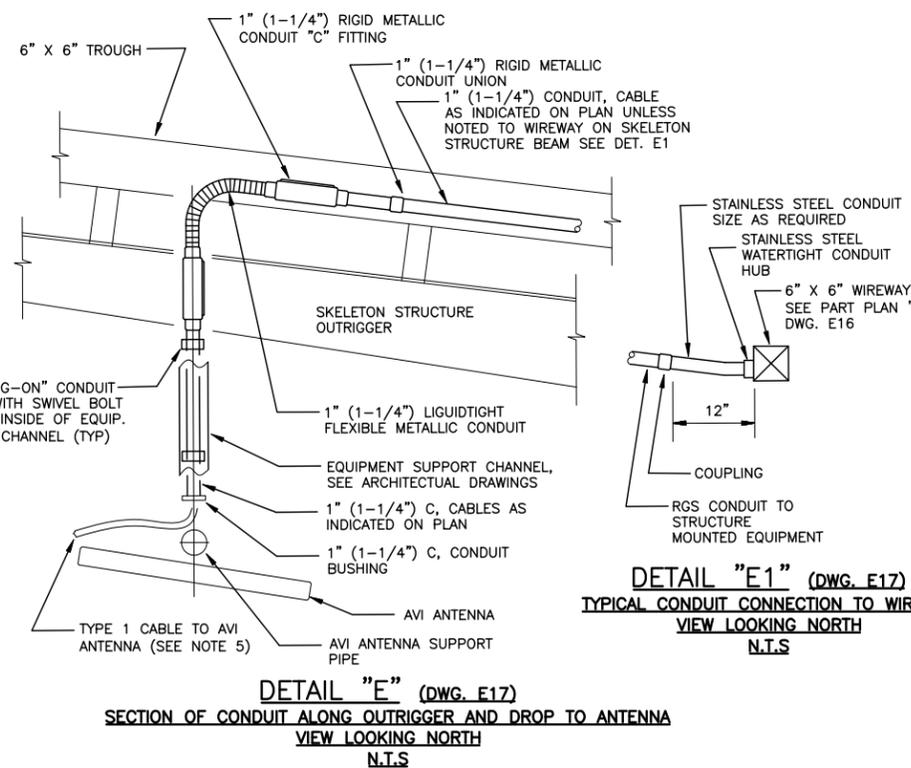
PART PLAN "L"
PLAN OF GANTRY CONDUITS AND CABLES AT EQUIPMENT LEVEL
N.T.S



DETAIL "C" (DWG. E17)
SECTION OF POWER CONDUIT ALONG OUTRIGGER AND DROP TO EQUIPMENT
VIEW LOOKING NORTH
N.T.S



DETAIL "D" (DWG. E17)
SECTION OF COMMUNICATIONS CONDUIT ALONG OUTRIGGER AND DROP TO EQUIPMENT
VIEW LOOKING NORTH
N.T.S



DETAIL "E" (DWG. E17)
SECTION OF CONDUIT ALONG OUTRIGGER AND DROP TO ANTENNA
VIEW LOOKING NORTH
N.T.S

NOTES:

- FOR CAMERA, POWER SUPPLY AND ILLUMINATOR CONNECTION DETAILS SEE DETAIL A, DRAWING E10.
 - FOR CAMERA CONNECTIONS SEE DETAIL "B", DRAWING E10.
- ALL WIRE INLETS SHALL HAVE ROUNDED EDGES.
FOR SYMBOLS AND ABBREVIATIONS SEE DWG. E1. FOR GENERAL NOTES SEE DWG. E2.
FOR CABLE TYPES SEE CABLE SCHEDULE ON DWG. E6.



URS CORPORATION - NEW YORK
Certificate of Authorization # AC-104

ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ELECTRICAL

Title
HIGHWAY SPEED E-ZPASS

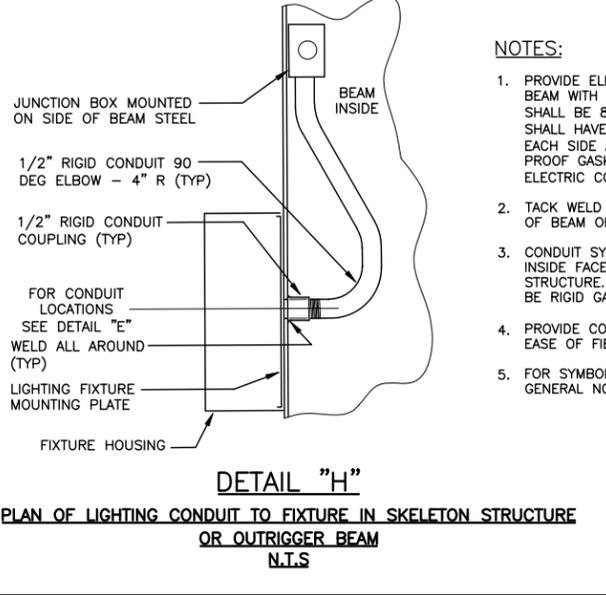
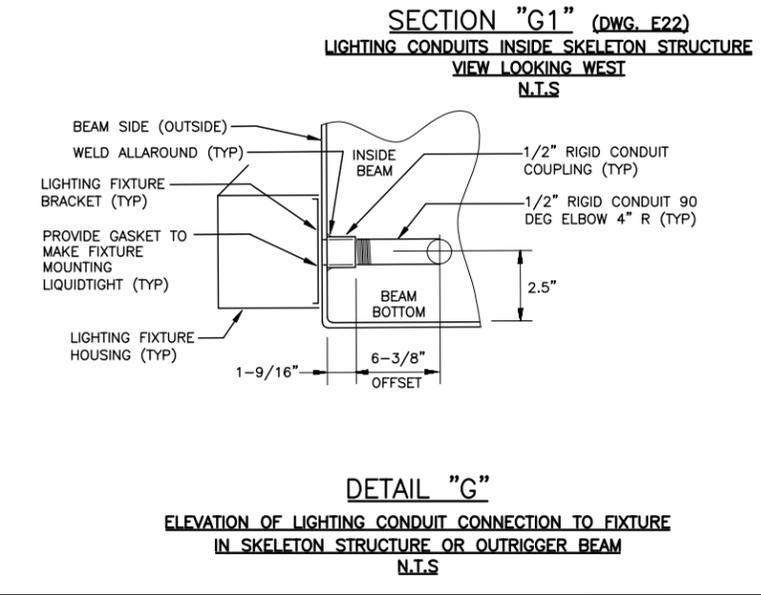
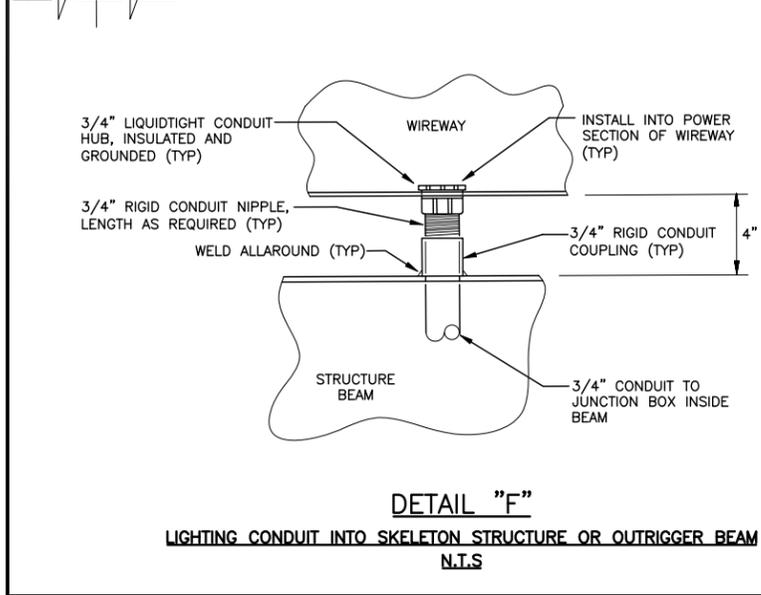
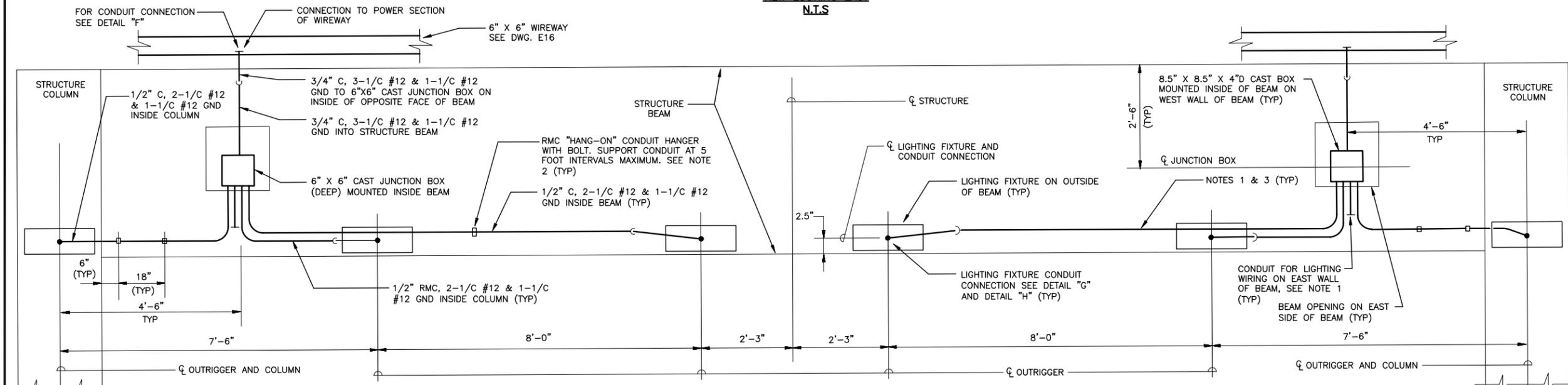
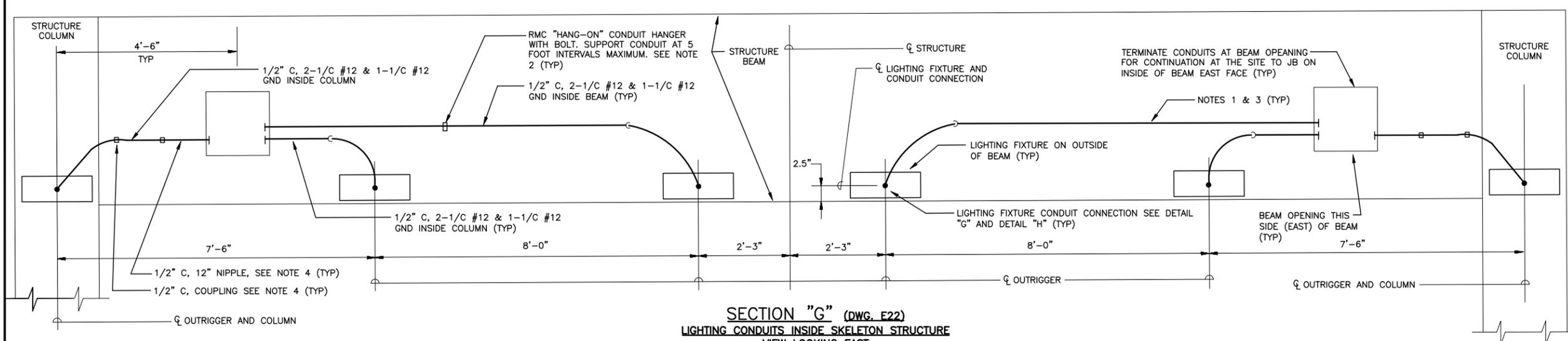
TOLL PLAZA HIGHWAY SPEED LANE STRUCTURES LIGHTING CONDUIT DETAILS

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JVC JVC MS
Designed by Drawn by Checked by
Date OCTOBER 8, 2004

Contract Number **AKO-284.039**

Drawing Number **E019**
PID# 00417000



- NOTES:**
1. PROVIDE ELECTRICAL JUNCTION BOXES AND CONDUITS IN BEAM WITH SKELETON STRUCTURE. JUNCTION BOXES SHALL BE 8.5" X 8.5" X 4" DEEP. JUNCTION BOXES SHALL HAVE 2-3/4" HUBS ON TOP, 2-3/4" HUBS ON EACH SIDE AND 3-3/4" HUBS ON BOTTOM WITH WEATHER PROOF GASKETED COVERS. BOXES SHALL BE APPLETON ELECTRIC COMPANY "RS" SERIES OR APPROVED EQUAL.
 2. TACK WELD CONDUIT HANGERS TO INSIDE SURFACE OF BEAM OR COLUMN.
 3. CONDUIT SYSTEM SHALL BE INSTALLED ON BOTH INSIDE FACES OF BEAM AND COLUMN FOR SKELETON STRUCTURE. CONDUIT AND RACEWAY SYSTEM SHALL BE RIGID GALVANIZED STEEL.
 4. PROVIDE COUPLING FOR REMOVAL OF 12" NIPPLE FOR EASE OF FIELD ASSEMBLY OF THE BEAM AND COLUMN.
 5. FOR SYMBOLS AND ABBREVIATIONS SEE DWG. E1. FOR GENERAL NOTES SEE DWG. E2.



URS CORPORATION - NEW YORK
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ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

ELECTRICAL
Title
HIGHWAY SPEED E-ZPASS

TOLL PLAZA LANES 2 AND 4 LANE LOOPS PLAN AND DETAILS

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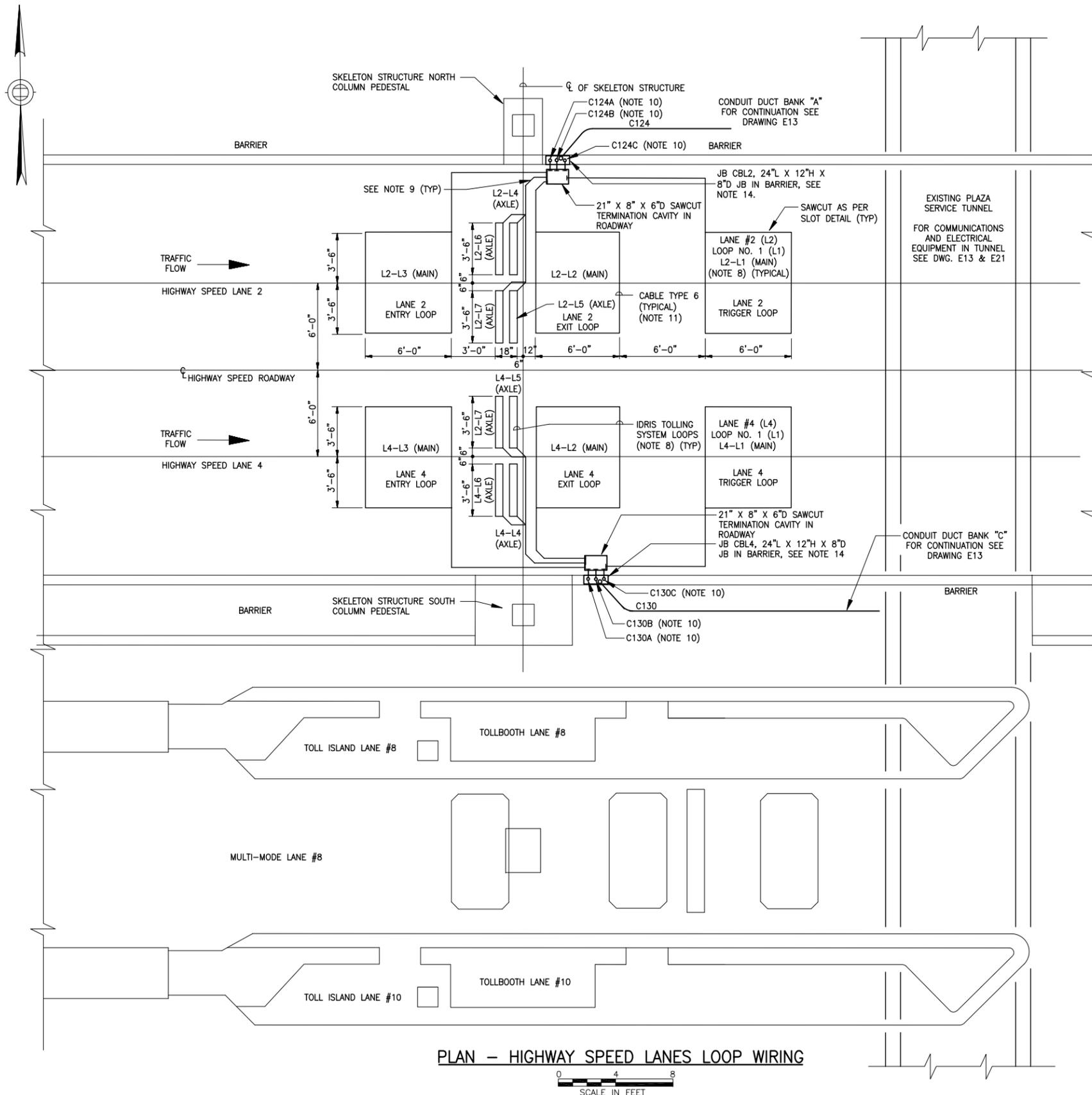
JVC JVC MS
Designed by Drawn by Checked by
Date OCTOBER 8, 2004

Contract Number AKO-284.039

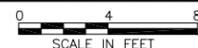
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PID# 00417000

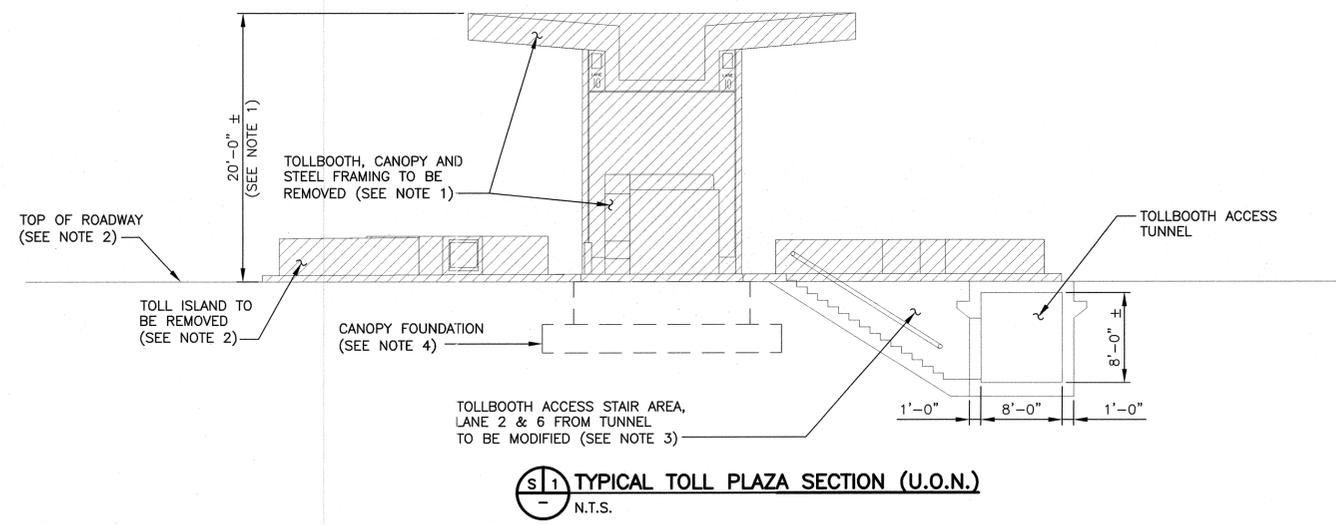
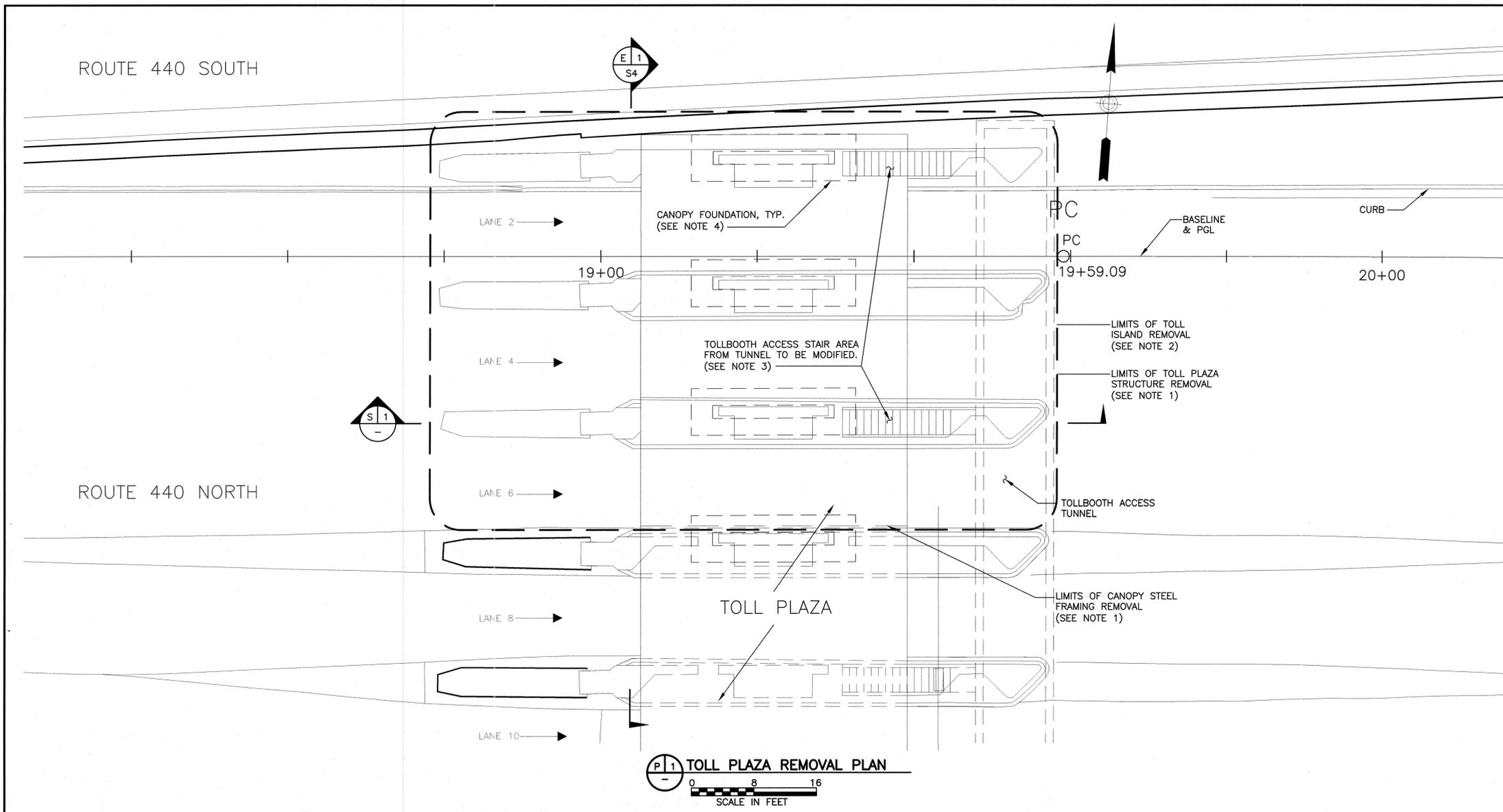
NOTES:

- SAW CUT THE LOOP LEAD-IN WIRE TRENCH WITH A UNIFORM 1/4" WIDTH AND DEPTH AS SPECIFIED BY MANUFACTURER. OVERLAP SAW CUT CORNERS AND BREAK OF SHARP CORNERS AS SHOWN IN SAW CUT DETAIL. REMOVE ALL DEBRIS FROM SAW CUTS AND BLOW DRY PRIOR TO INSTALLING THE LOOP WIRE.
- LOOP WIRES SHALL NOT BE SPLICED.
- AFTER CONTRACTOR TESTING OF LOOP WIRE, SEAL THE SAW CUT COMPLETELY AS SHOWN IN SLOT DETAIL.
- FOR DETAILS OF LOOP INSTALLATION SEE DRAWING E29. PROVIDE ON-SITE TRAINING FOR THE INSTALLATION OF THE IDRIS TOLLING SYSTEM AS MANUFACTURED BY PEEK TRAFFIC, INC., NO SUBSTITUTIONS PERMITTED.
- NOT USED.
- FOR DETAILS OF THE LOOP INSTALLATION SEE DRAWING E29. THE IDRIS TOLLING UNIT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND ONLY WHEN A REPRESENTATIVE OF THE MANUFACTURER OR A REPRESENTATIVE DESIGNATED BY THE ENGINEER IS PRESENT.
- FOR WIRING DIAGRAM SEE DRAWING E8.
- FOR ACTUAL LOOP CABLE INSTALLATION REFER TO MANUFACTURER'S INSTRUCTIONS AND/OR MANUFACTURER'S REPRESENTATIVE.
- MAINTAIN 12" SEPARATION BETWEEN AXLE SYSTEM LOOP SAW CUTS AND MAIN LOOP SAW CUTS.
- CONDUITS C124A AND C130A ARE TO BE USED FOR ENTRY LOOP CABLES. CONDUITS C124B AND C130B ARE TO BE USED FOR AXLE LOOP CABLES. CONDUITS C124C AND C130C ARE TO BE USED FOR EXIT AND TRIGGER LOOP CABLES.
- FOR CABLE TYPES SEE CABLE SCHEDULE ON DWG. E6.
- FOR SYMBOLS AND ABBREVIATIONS SEE DWG. E1. FOR GENERAL NOTES SEE DWG. E2.
- IDRIS IS A REGISTERED TRADEMARK OF DIAMOND CONSULTING SERVICES LTD. IDRIS IS PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENTS: EP0879457, USA 6345228, 6337640 & US6483443. PATENT APPLICATIONS PENDING IN OTHER COUNTRIES.
- FOR DETAILS AND LOCATION OF JUNCTION BOX IN BARRIER SEE DRAWINGS E8, E14, T13 AND T14.



PLAN - HIGHWAY SPEED LANES LOOP WIRING





- NOTES & REFERENCES:**
1. FOR TOLL PLAZA STRUCTURE REMOVAL/MODIFICATIONS INCLUDING BUT NOT LIMITED TO STEEL FRAMING, TOLLBOOTH AND CANOPY REFER TO ARCHITECTURAL DRAWINGS.
 2. FOR LIMITS OF TOLL ISLAND AND PAVEMENT REMOVAL/MODIFICATIONS SEE DWG. C3 & C4.
 3. FOR REMOVAL OF TOLL BOOTH ACCESS STAIR AREA AND DETAILS - SEE DWG. S15.
 4. CONTRACTOR SHALL REMOVE LANES 2, 4 AND 6 CANOPY FOUNDATIONS AS NECESSARY TO CONSTRUCT THE NEW SKELETON STRUCTURE FOUNDATIONS. THE PORTION OF THE FOUNDATION REMAINING SHALL BE AT AN ELEVATION EQUAL TO OR BELOW THE BOTTOM OF SUBBASE COURSE SEE DWG. NO. C11. REMOVE CANOPY FOUNDATION TO INSTALL SKELETON STRUCTURE FOUNDATION SEE DWG. S6 & S7.
 5. SEE DWG. NO. S6 & S7 FOR FOUNDATION DETAILS.
 6. FOR CONSTRUCTION STAGING NOTES SEE DWG. CS1.

LEGEND:

TOLLBOOTH, CANOPY, STEEL FRAMING AND TOLL ISLAND REMOVAL (SEE NOTES 1&2 FOR ADDITIONAL INFORMATION)

Sheet 98 of 155



URS CORPORATION - NEW YORK
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ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
James Massett (MS) 2/10/07
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT			

STRUCTURAL
Title

HIGHWAY SPEED E-ZPASS

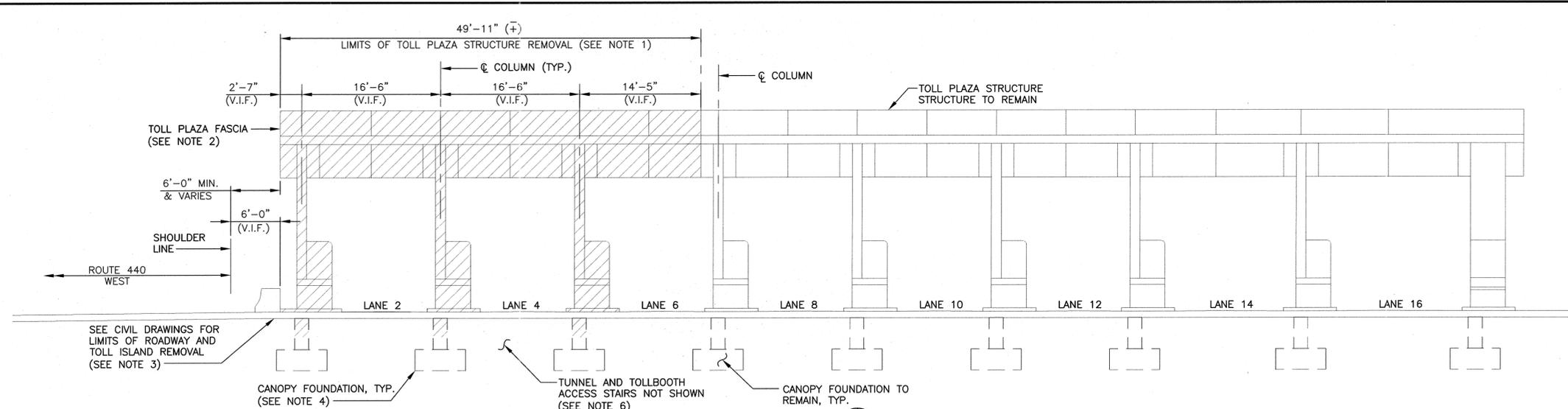
**TOLL PLAZA
REMOVAL
PLAN**

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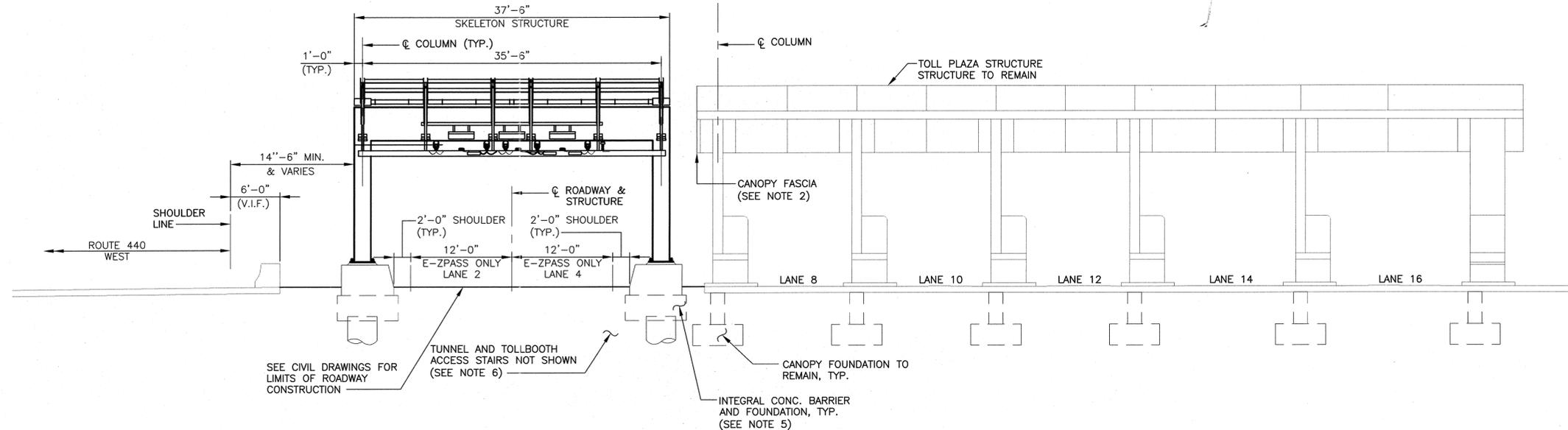
JAK JAK RN
Designed by Drawn by Checked by
Date OCTOBER 8, 2004

Contract Number AKO-284.039

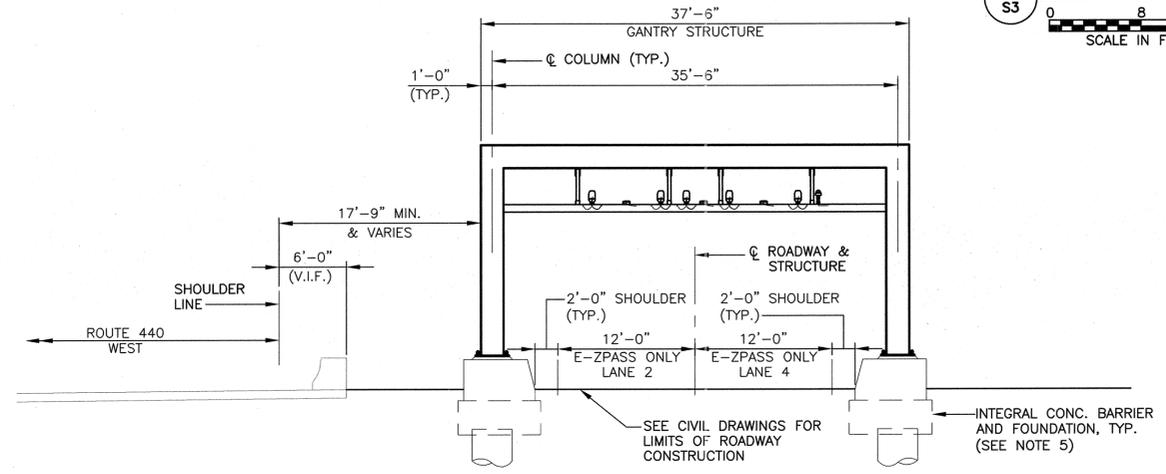
Drawing Number S002
PID# 00417000



E 1 TOLL PLAZA ELEVATION
SCALE IN FEET



E 2 SKELETON STRUCTURE / TOLL PLAZA ELEVATION
SCALE IN FEET



E 3 GANTRY STRUCTURE ELEVATION
SCALE IN FEET

- NOTES & REFERENCES:**
1. FOR TOLL PLAZA STRUCTURE REMOVAL/MODIFICATIONS INCLUDING BUT NOT LIMITED TO STEEL FRAMING, TOLLBOOTH AND CANOPY REFER TO ARCHITECTURAL DRAWINGS.
 2. SEE ARCHITECTURAL DRAWINGS FOR LIMITS OF CANOPY REMOVAL AND CANOPY FASCIA REINSTALLATION. SEE DWG. NO. S14 FOR STRUCTURAL MODIFICATION DETAILS.
 3. FOR LIMITS OF TOLL ISLAND AND PAVEMENT REMOVAL/MODIFICATIONS SEE DWG. NO. C3 & C4.
 4. SEE NOTE 4 ON DWG. S2.
 5. FOR INTEGRAL CONCRETE BARRIER AND FOUNDATION DETAILS AND ELEVATIONS SEE DWGS. S6 & S7.
 6. SEE DWG. S15 FOR TOLLBOOTH ACCESS STAIR MODIFICATION DETAILS.
 7. FOR CONSTRUCTION STAGING NOTES SEE DWG. CS1.

LEGEND:
 TOLLBOOTH, CANOPY, STEEL FRAMING AND TOLL ISLAND REMOVAL (SEE NOTES 1&2 FOR ADDITIONAL INFORMATION)



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 WILLIAM N. MARMAN
 N.J. Professional Engineer # GE39775
 N.Y. Professional Engineer # 60871

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 RESIDENT ENGINEER JAMES MASSETT
 DATE 08/14/2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			

OUTERBRIDGE CROSSING

STRUCTURAL

Title
 HIGHWAY SPEED E-ZPASS

SKELETON & GANTRY STRUCTURES ELEVATION

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Designed by	JAK	Checked by	RN
Date	OCTOBER 8, 2004		
Contract Number	AKO-284.039		
Drawing Number	S004		
	PID# 00417000		

Sheet 101 of 155



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WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

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(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

**OUTERBRIDGE
CROSSING**

STRUCTURAL

Title
HIGHWAY SPEED E-ZPASS

**SKELETON & GANTRY
STRUCTURES
FOUNDATION PLAN**

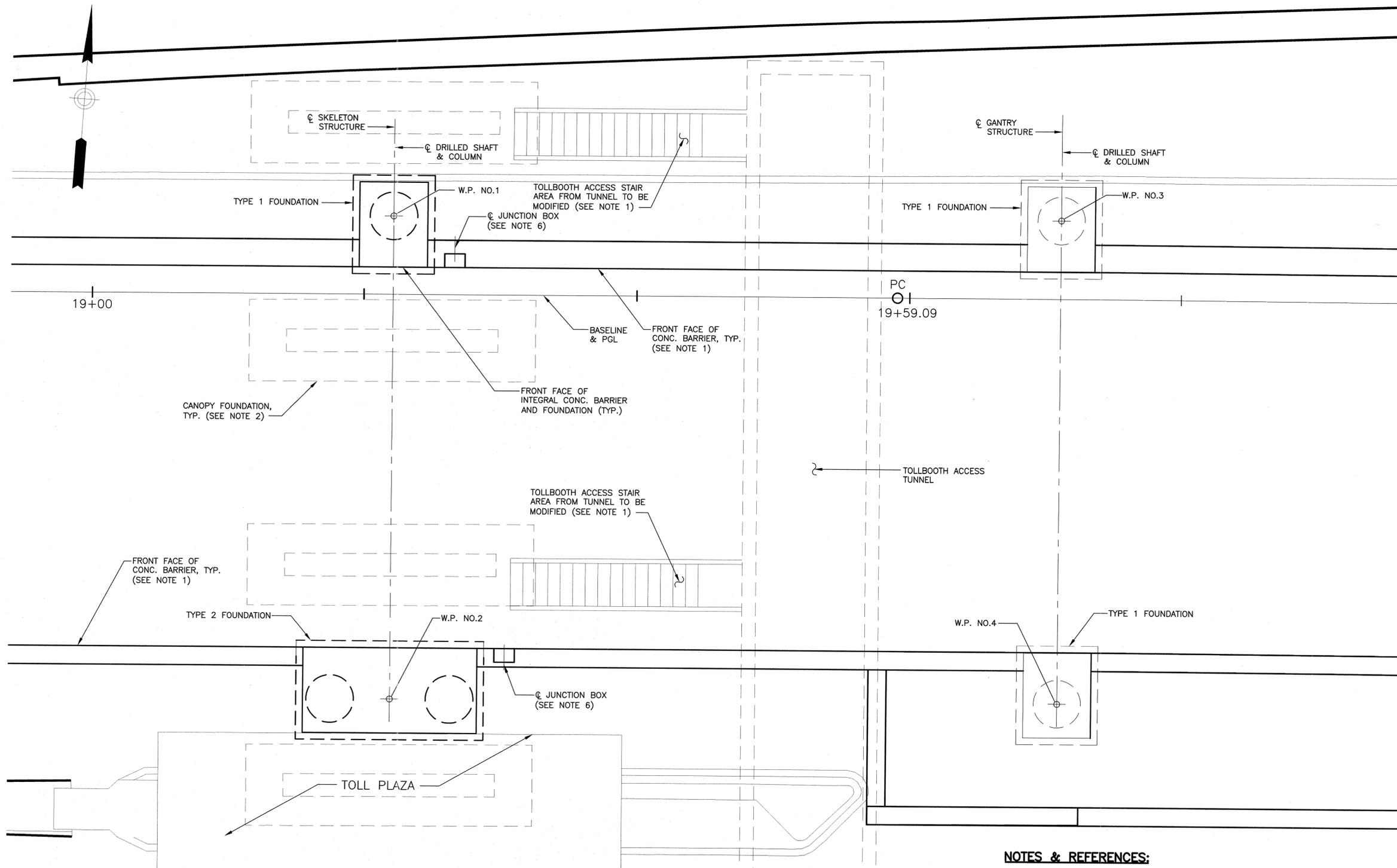
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JAK JAK RN
Designed by Drawn by Checked by

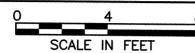
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Contract Number **AKO-284.039**

Drawing Number **S005**
PID# 00417000

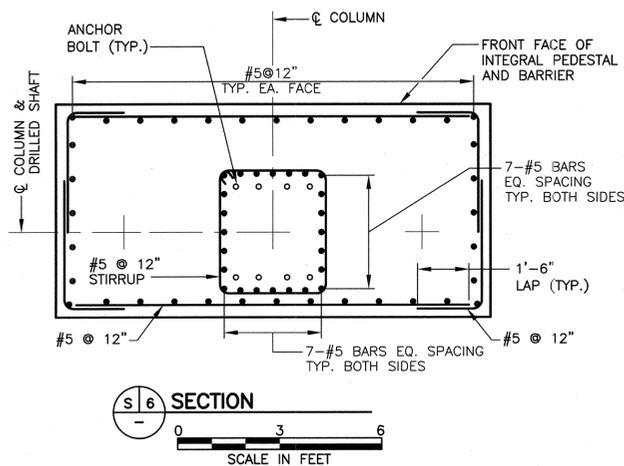
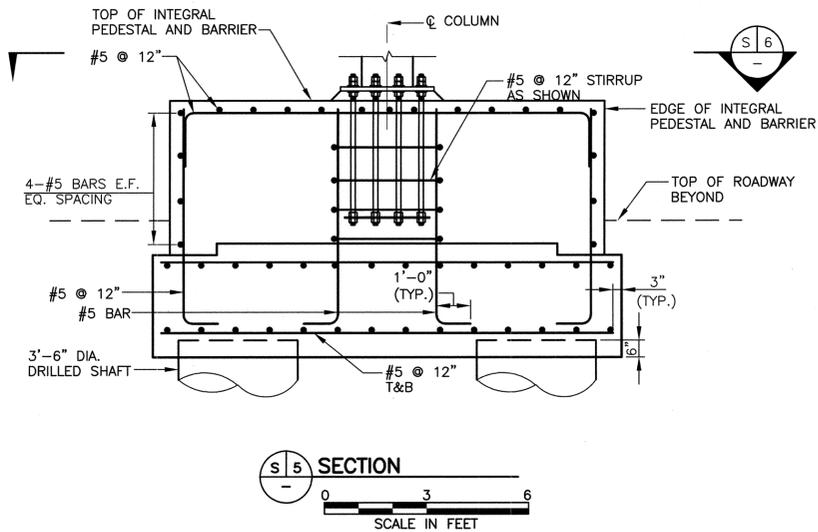
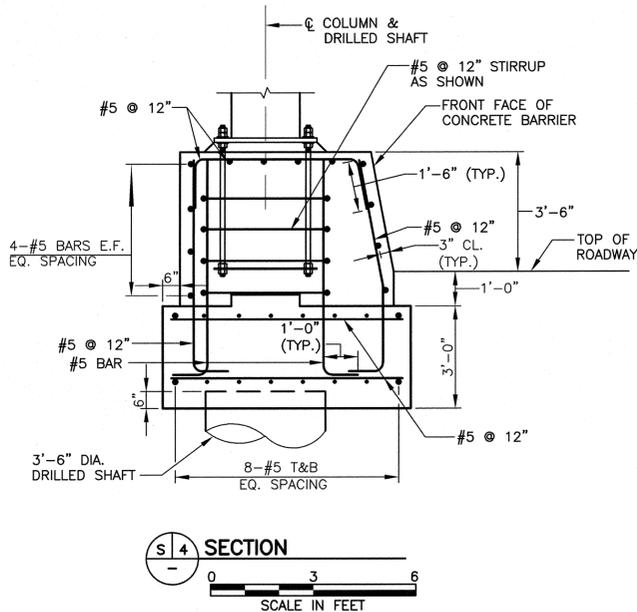
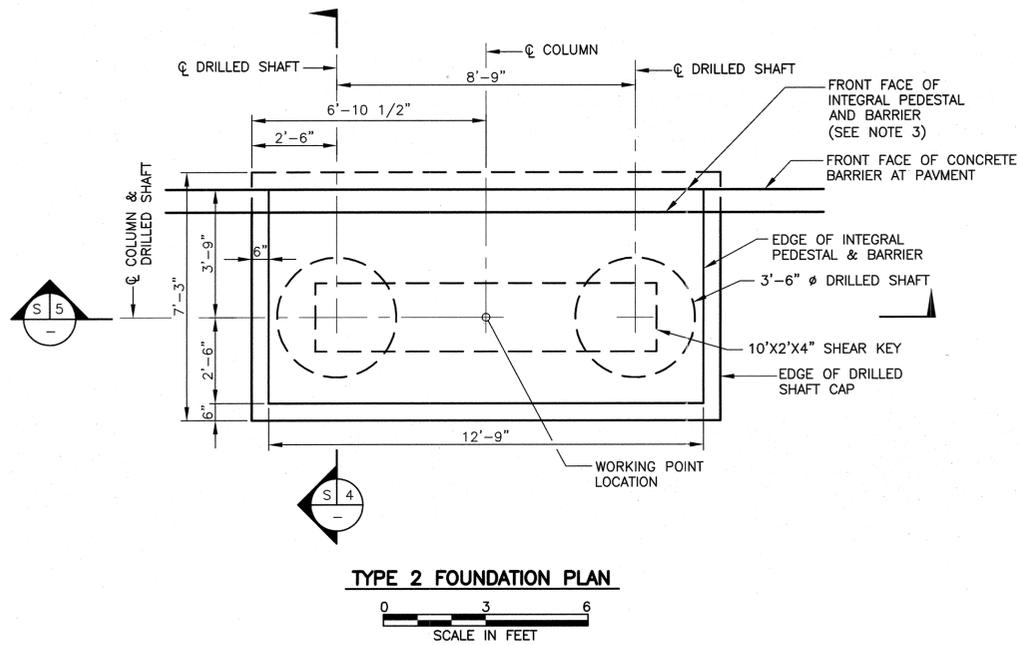
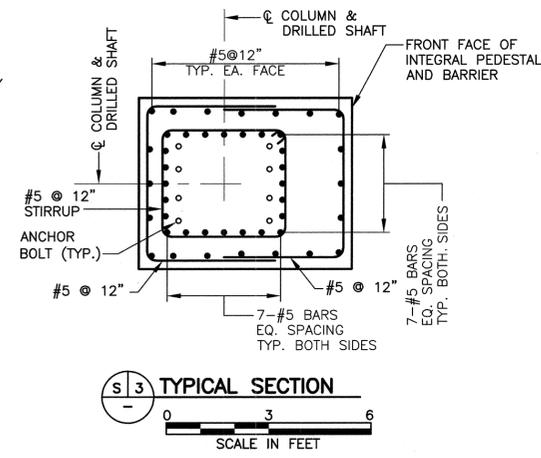
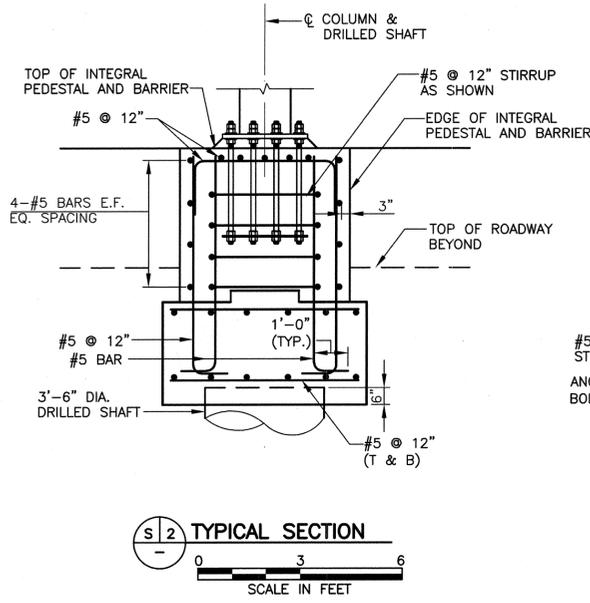
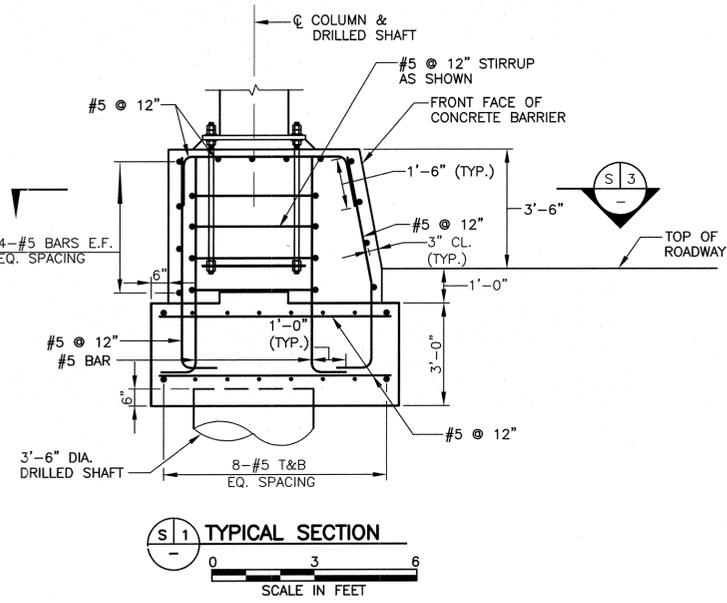
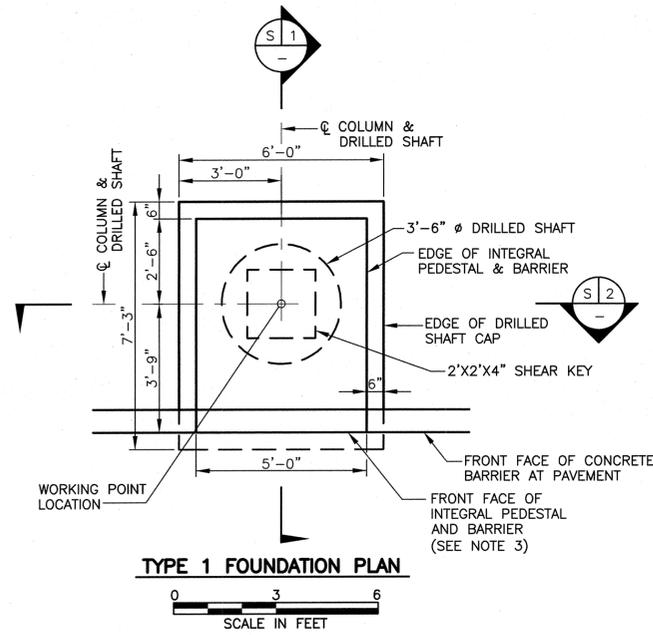


SKELETON & GANTRY FOUNDATION PLAN



NOTES & REFERENCES:

1. SEE DWGS. T12-T15 FOR CONCRETE BARRIER DETAILS.
2. SEE NOTE 4 ON DWG. S2.
3. SEE DWG. S6 FOR FOUNDATION TYPE 1 AND 2 REINFORCEMENT DETAILS.
4. FOR COLUMN BASE PLATE DETAIL AND ANCHOR BOLT DETAIL SEE DWG. S7.
5. FOR WORKING POINTS SEE DWG. S3.
6. SEE DWG. NO. T13-14 FOR JUNCTION BOX DETAILS.



NOTES & REFERENCES:

1. FOR COLUMN BASE PLATE DETAIL AND ANCHOR BOLT DETAIL SEE DWG. S7.
2. FOR WORKING POINTS SEE DWG. S3.
3. SEE ELECTRICAL DRAWINGS FOR CONDUIT DETAILS AT SKELETON AND GANTRY STRUCTURES FOUNDATION.



URS CORPORATION - NEW YORK
Certificate of Authorization # AC-104

ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
James Massett
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

STRUCTURAL
Title
HIGHWAY SPEED E-ZPASS

SKELETON & GANTRY STRUCTURES FOUNDATION DETAILS (1 OF 2)

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

JAK JAK RN
Designed by Drawn by Checked by

Date OCTOBER 8, 2004

Contract Number AKO-284.039

Drawing Number S006
PID# 00417000



URS CORPORATION - NEW YORK
Certificate of Authorization # AC-104

ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
(Handwritten signature and date)
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

STRUCTURAL

Title
HIGHWAY SPEED E-ZPASS

SKELETON & GANTRY STRUCTURES FOUNDATION DETAILS (2 OF 2)

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

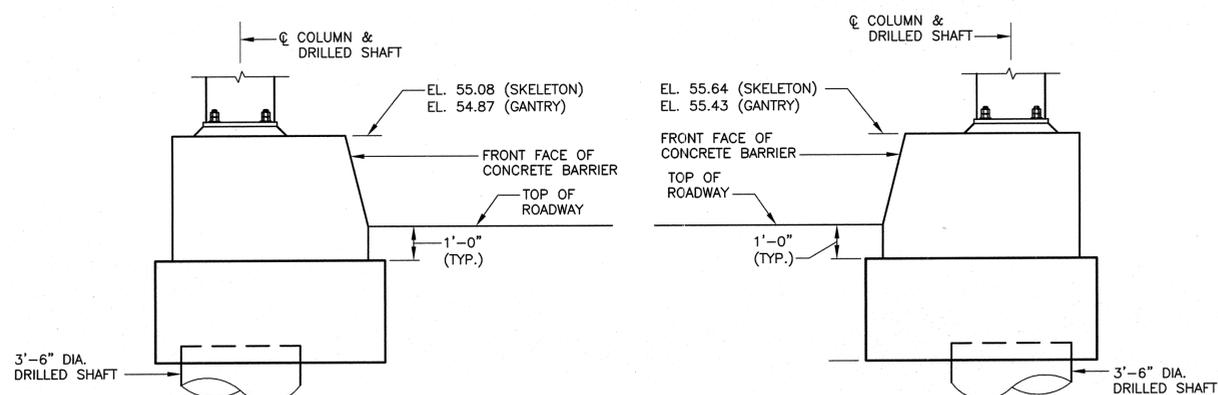
JAK JAK RN
Designed by Drawn by Checked by
Date **OCTOBER 8, 2004**

Contract Number **AKO-284.039**

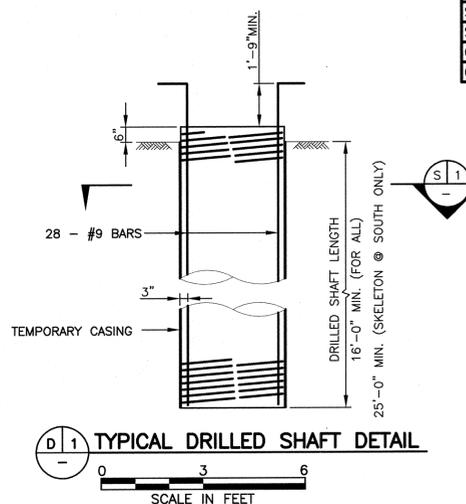
Drawing Number **S007**
PID# 00417000

LOCATION	P KIPS	M (TRANSVERSE) FT-KIP	M (LONGITUDINAL) FT-KIP	V (TRANSVERSE) KIP	V (LONGITUDINAL) KIP
SKELETON (NORTH)	60.0	155.0	75.0	8.0	2.0
SKELETON (SOUTH)	220.0	1000.0	75.0	76.0	2.0
GANTRY (NORTH)	60.0	30.0	12.0	3.0	2.0
GANTRY (SOUTH)	60.0	30.0	12.0	3.0	2.0

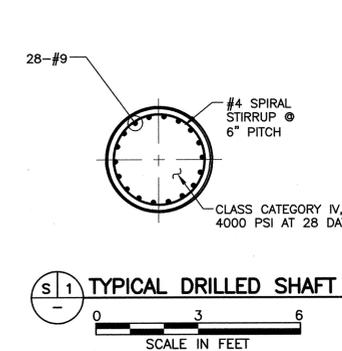
SKELETON	NORTH	SOUTH
TOP ELEV.	48.08	48.64
MIN. BOTTOM ELEV.	32.00	23.00
GANTRY	NORTH	SOUTH
TOP ELEV.	47.87	47.43
MIN. BOTTOM ELEV.	32.00	31.00



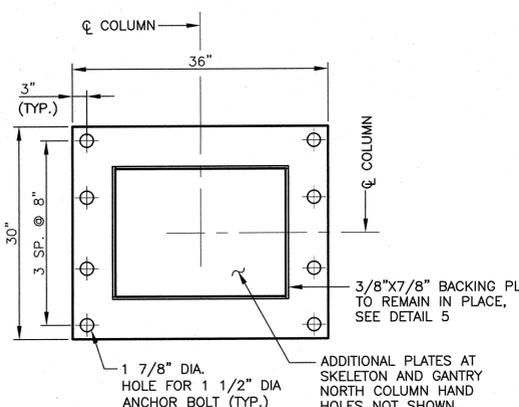
SKELETON & GANTRY FOUNDATION ELEVATIONS
N.T.S.



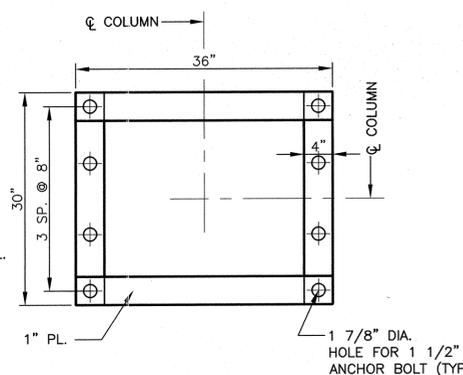
(D) 1 TYPICAL DRILLED SHAFT DETAIL
SCALE IN FEET



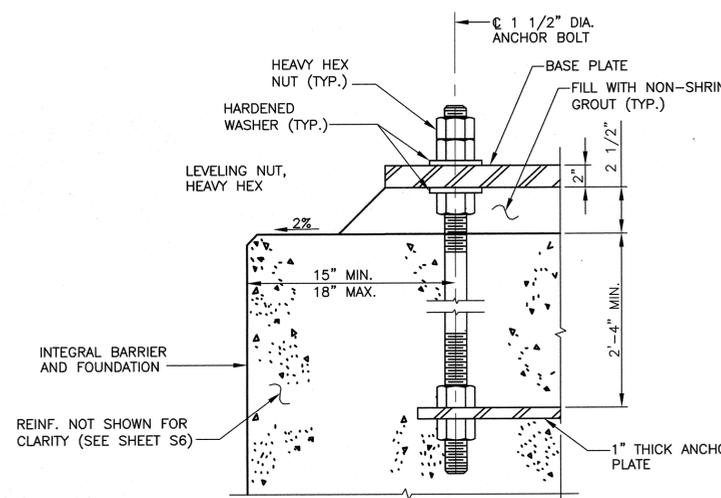
(S) 1 TYPICAL DRILLED SHAFT SECTION
SCALE IN FEET



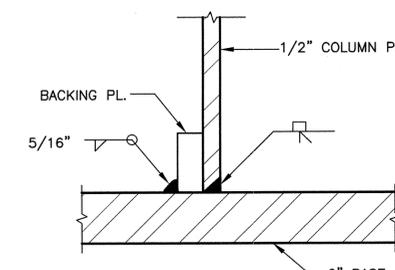
(D) 2 TYPICAL BASE PLATE DETAIL
N.T.S.



(D) 3 TYPICAL ANCHOR PLATE DETAIL
N.T.S.



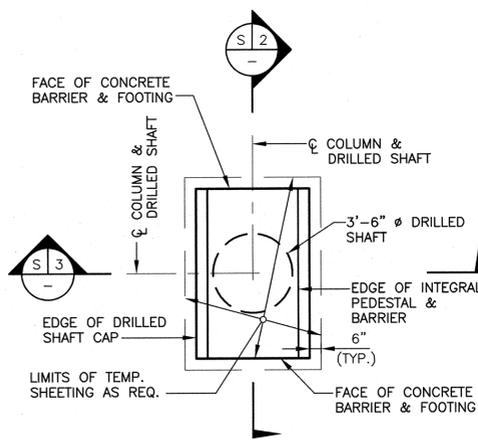
(D) 4 TYPICAL ANCHOR BOLT DETAIL
SCALE IN FEET



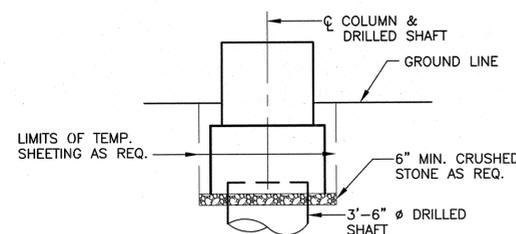
(D) 5 TYPICAL BACKING PLATE DETAIL
N.T.S.

NOTES & REFERENCES:

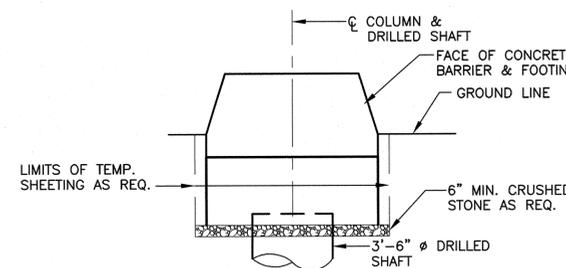
- ELEVATION SHOWN ARE BASED ON 3'-6" BARRIER HEIGHT. SEE GRADING PLANS FOR ELEVATIONS AT THE CURB.
- CONTRACTOR SHALL VERIFY ELEVATIONS PRIOR TO FABRICATION.
- LOADS SHOWN ARE UNFACTORED (SERVICE LOADS).
- ANCHOR BOLTS SHALL BE CAPPED USING CAP NUTS.
- NON-SHRINK GROUT SHALL CONFORM TO SECTION 03602 GROUTING (NON-METALLIC).
- EXCAVATION AND BACKFILLING OPERATIONS SHALL CONFORM TO SECTION 02221 EXCAVATION, BACKFILLING AND FILLING.
- INSTALL DRILLED SHAFT CONFORMING TO 5.FOUNDATIONS (CAISSONS/DRILLED SHAFTS) UNDER GENERAL NOTES ON DWG. S1.



TYPICAL TEMPORARY SHEETING AND EXVATION DETAILS
SCALE IN FEET



(S) 2 TYPICAL SECTION
SCALE IN FEET



(S) 3 TYPICAL SECTION
SCALE IN FEET



URS CORPORATION - NEW YORK
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ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			

OUTERBRIDGE CROSSING

STRUCTURAL
Title
HIGHWAY SPEED E-ZPASS

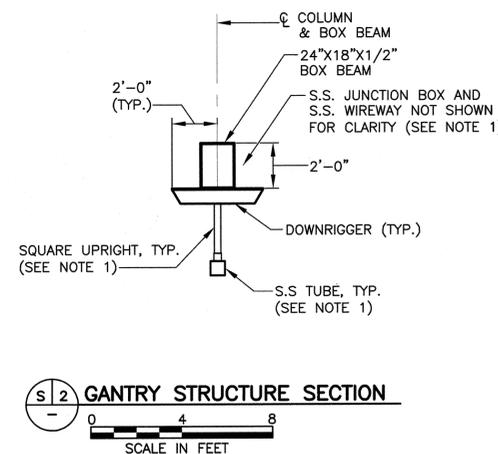
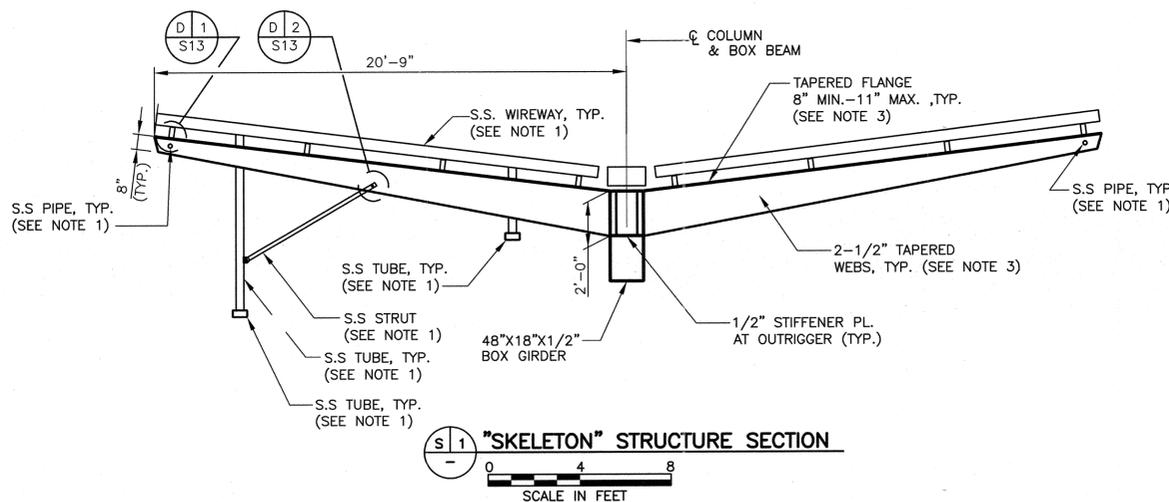
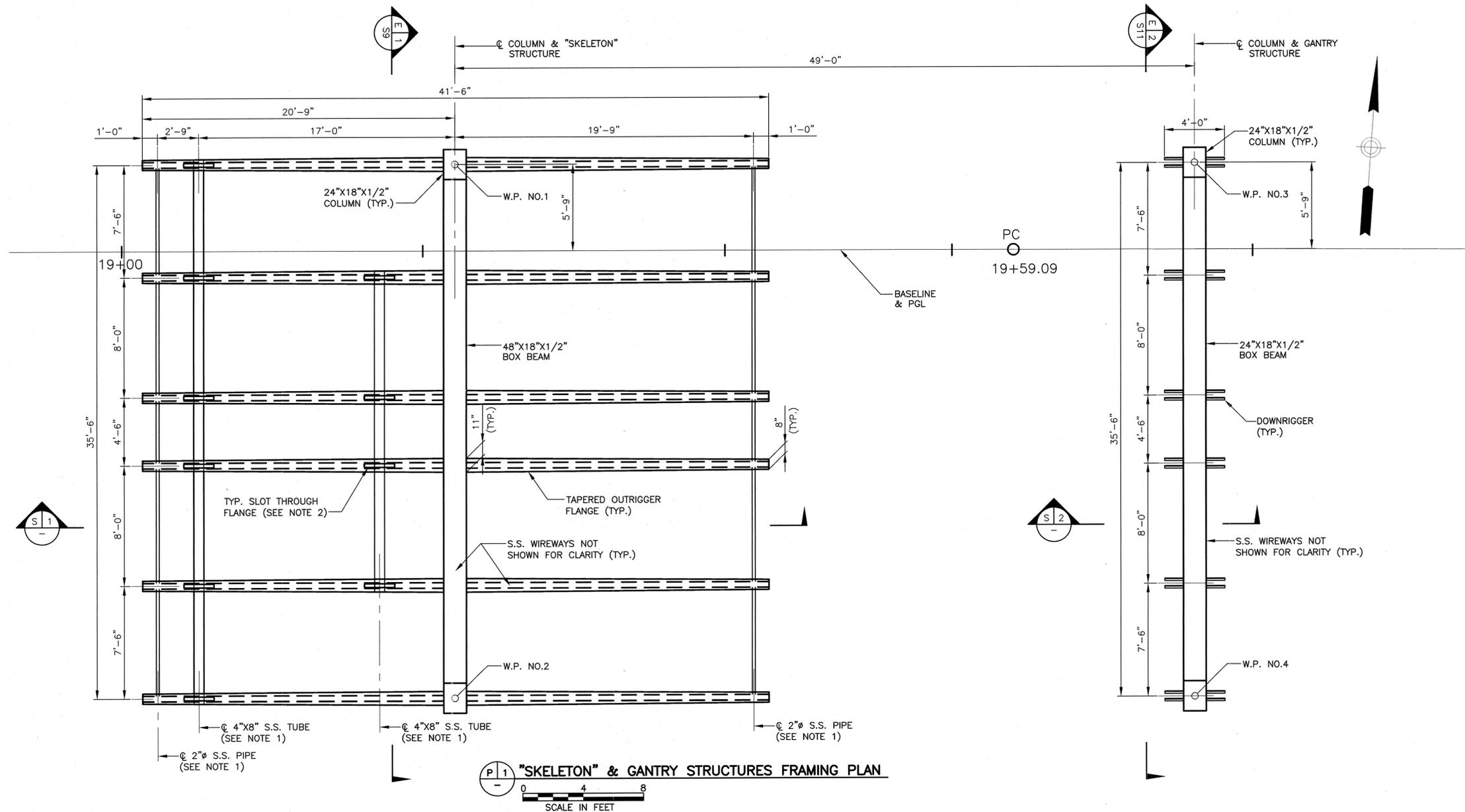
SKELETON & GANTRY STRUCTURES FRAMING PLAN & DETAILS

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

Designed by JAK Drawn by JAK Checked by RN
Date OCTOBER 8, 2004

Contract Number AKO-284.039

Drawing Number S008
PID# 00417000



NOTES & REFERENCES:

- SEE ARCHITECTURAL DRAWINGS FOR ALL S.S. MEMBERS AND CONNECTION DETAILS.
- SEE ARCHITECTURAL DRAWINGS FOR SLOT LOCATION AND DETAILS.
- SEE DWGS. S10 AND S12 FOR CONNECTION DETAILS.
- FOR WORKING POINTS SEE DWG. S3.
- THE BOX GIRDERS SHALL BE CAMBERED SUCH THAT UNDER FULL DEAD LOAD THE BOTTOM OF THE BOX BEAM SHALL BE LEVEL. DEAD LOAD DEFLECTION AT MID SPAN IS 1/8" (SKELETON) AND 1/8" (GANTRY).
- CONTRACTOR SHALL ALIGN BOX GIRDER & OUTRIGGERS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DETAILING THE METHOD OF ERECTION AND INSTALLATION OF THE SKELETON AND GANTRY STRUCTURES.



URS CORPORATION - NEW YORK
Certificate of Authorization # AC-104

ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
James Massett
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

**OUTERBRIDGE
CROSSING**

STRUCTURAL

Title
HIGHWAY SPEED E-ZPASS

**SKELETON STRUCTURE
MISCELLANEOUS
STEEL DETAILS**

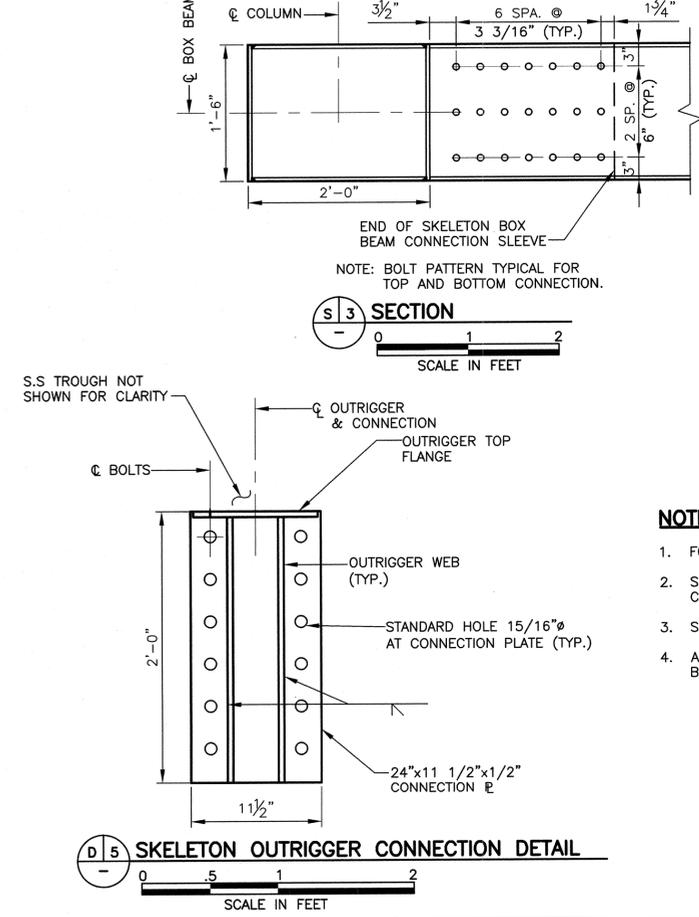
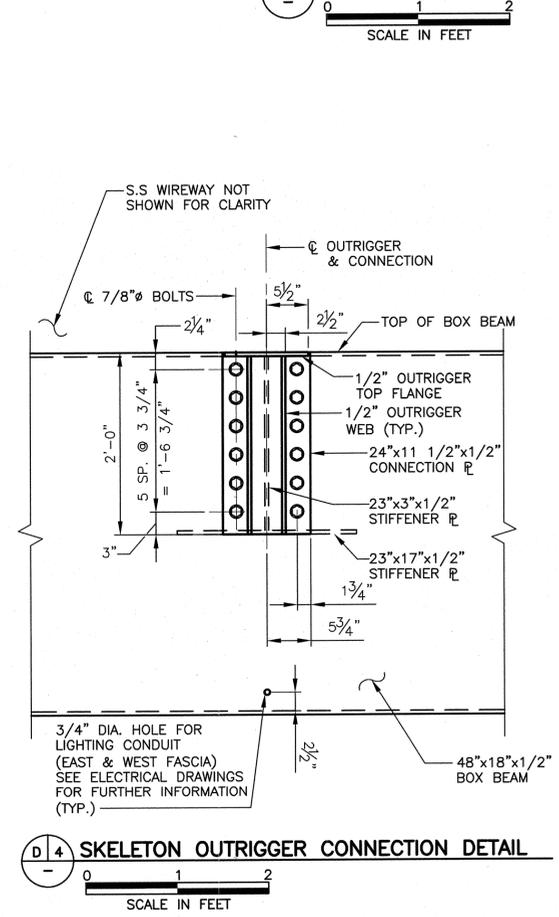
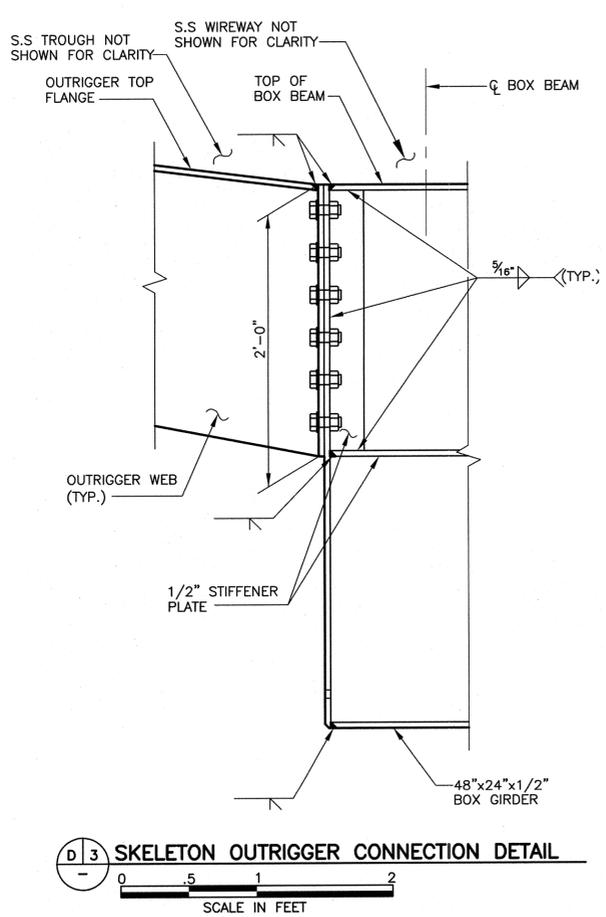
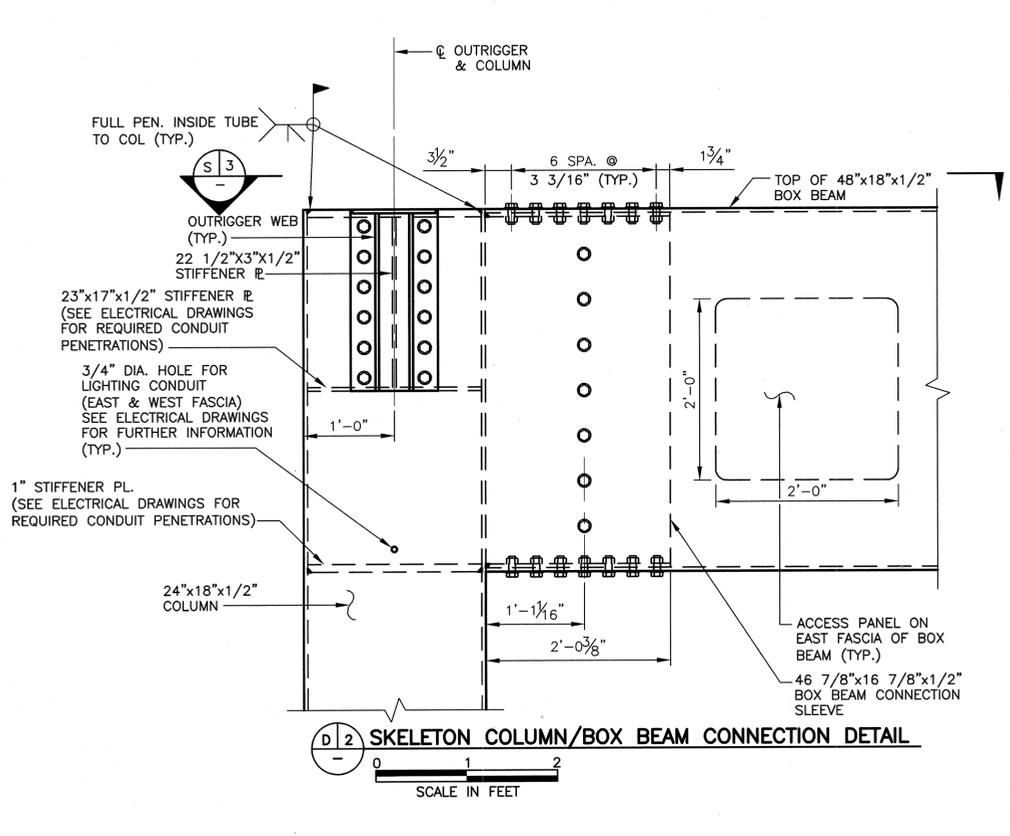
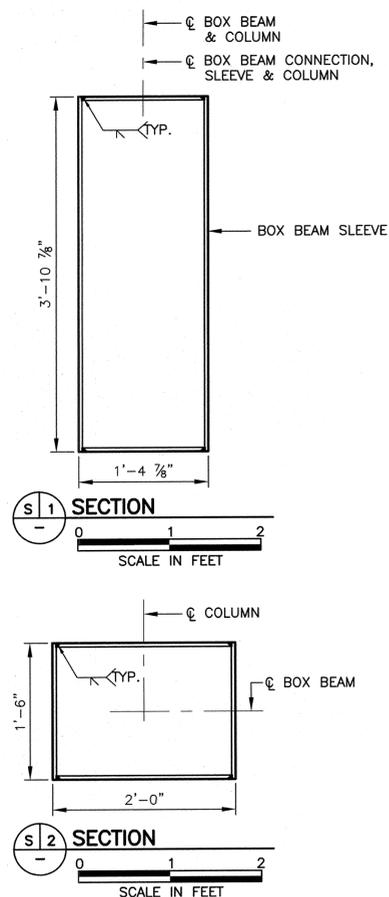
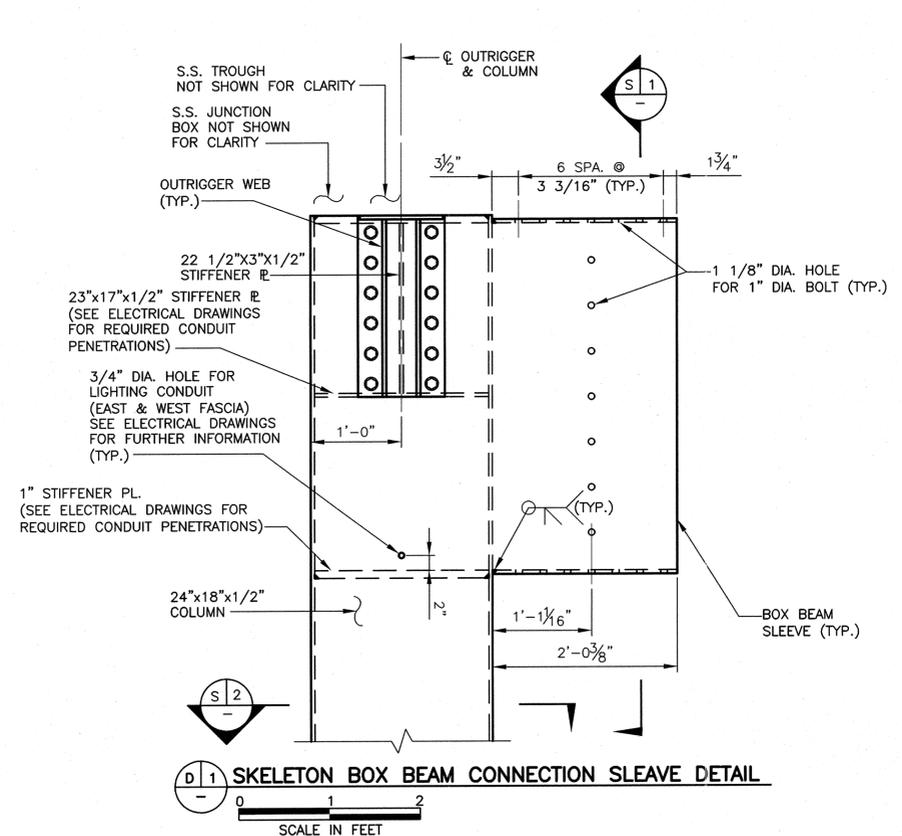
This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

JAK JAK RN
Designed by Drawn by Checked by

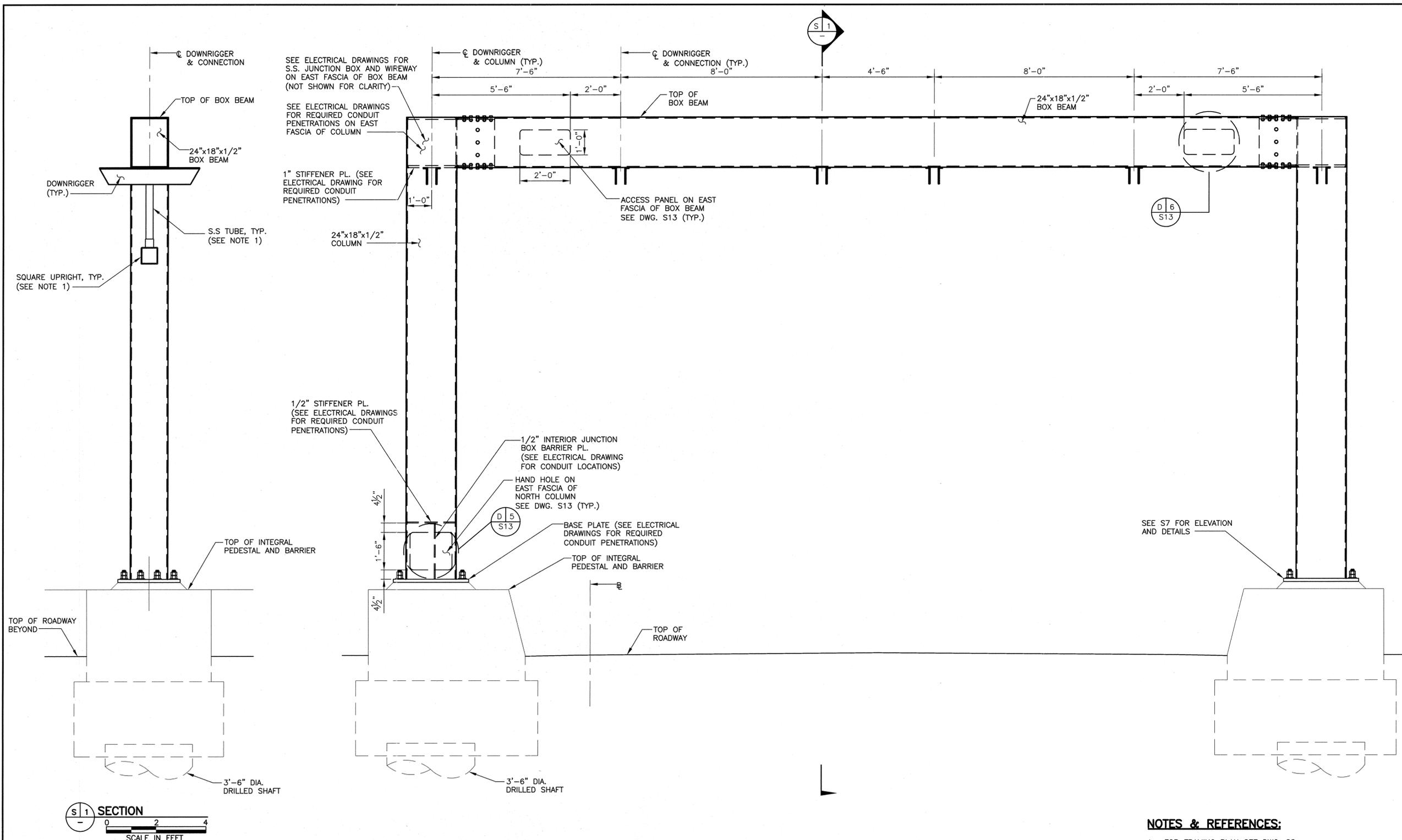
Date **OCTOBER 8, 2004**

Contract Number **AKO-284.039**

Drawing Number **S010**
PID# 00417000



- NOTES & REFERENCES:**
- FOR FRAMING PLAN SEE DWG. S8.
 - SEE ARCHITECTURAL DRAWINGS FOR ALL S.S. MEMBERS AND CONNECTION DETAILS.
 - SEE DWG. S1 FOR STRUCTURAL STEEL REQUIREMENTS.
 - ALL BOLTED CONNECTIONS UON SHALL SLIP CRITICAL (SC) AND BE MADE USING A325 BOLTS.



- NOTES & REFERENCES:**
1. FOR FRAMING PLAN SEE DWG. S8.
 2. SEE ARCHITECTURAL DRAWINGS FOR ALL S.S. MEMBERS AND CONNECTION DETAILS.
 3. SEE DWG. S1 FOR STRUCTURAL STEEL REQUIREMENTS.

Sheet **107** of **155**

THE PORT AUTHORITY OF NY & NJ

URS CORPORATION - NEW YORK
Certificate of Authorization # AC-104

ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
James Massett
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			
OUTERBRIDGE CROSSING			
STRUCTURAL			
Title			
HIGHWAY SPEED E-ZPASS			
GANTRY STRUCTURE ELEVATION STEEL DETAILS			

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

JAK	JAK	RN
Designed by	Drawn by	Checked by
Date	OCTOBER 8, 2004	
Contract Number	AKO-284.039	
Drawing Number	S011	
	PID# 00417000	



URS CORPORATION - NEW YORK
Certificate of Authorization # AC-104

ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.Y. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
Amended 08/14/2006
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

STRUCTURAL

Title
HIGHWAY SPEED E-ZPASS

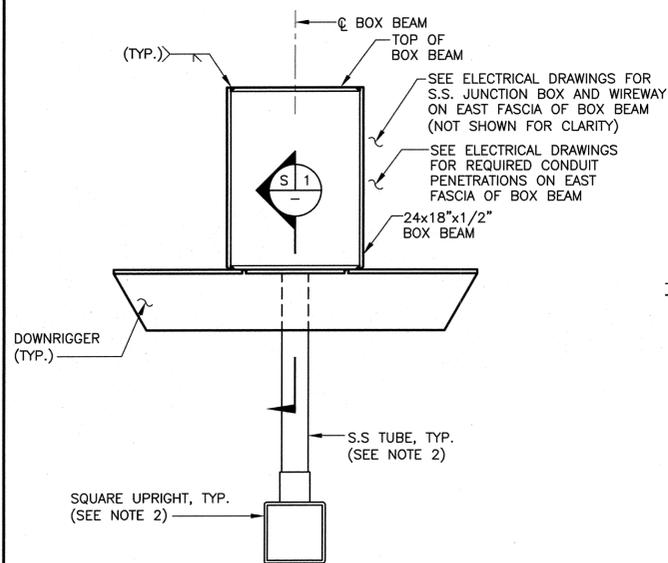
GANTRY STRUCTURE MISCELLANEOUS STEEL DETAILS

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

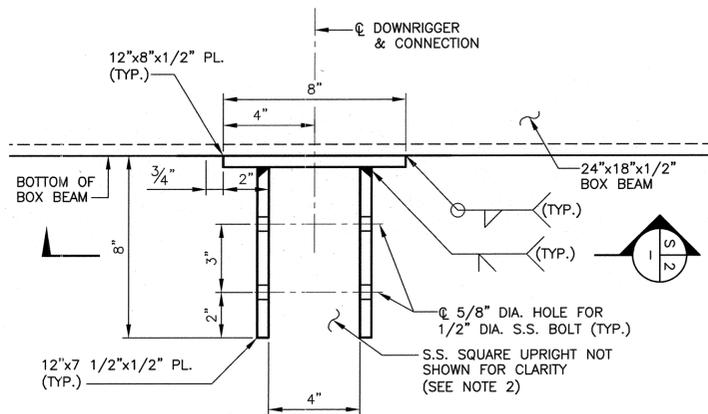
JAK	JAK	RN
Designed by	Drawn by	Checked by
Date	OCTOBER 8, 2004	

Contract Number **AKO-284.039**

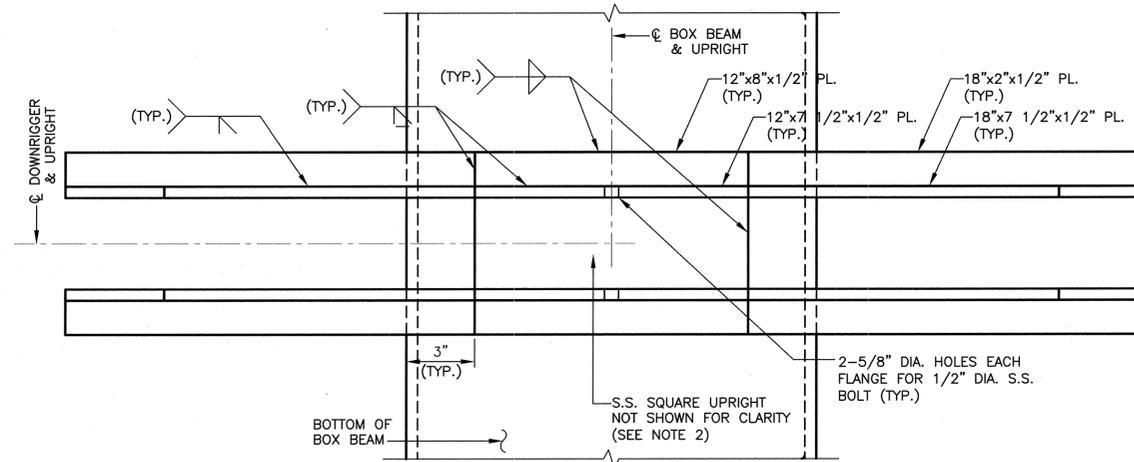
Drawing Number **S012**
PID# 00417000



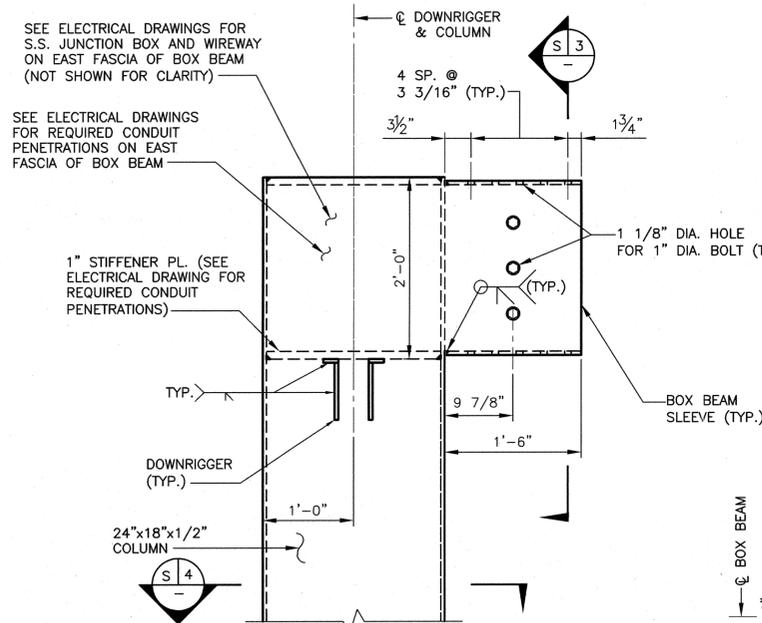
D1 GANTRY DOWNRIGGER CONNECTION
SCALE IN FEET



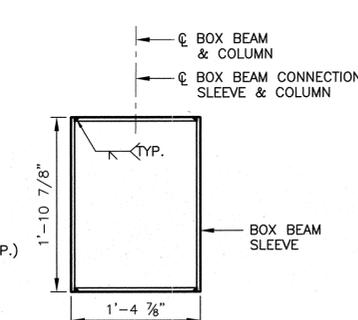
S1 GANTRY DOWNRIGGER CONNECTION SECTION
SCALE IN FEET



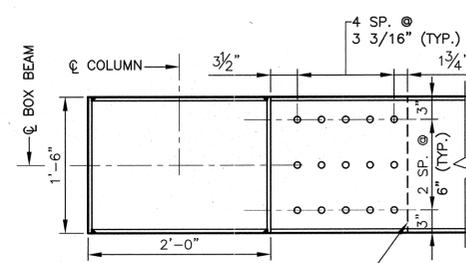
S2 GANTRY DOWNRIGGER CONNECTION SECTION
SCALE IN FEET



D3 GANTRY DOWNRIGGER CONNECTION DETAIL
SCALE IN FEET

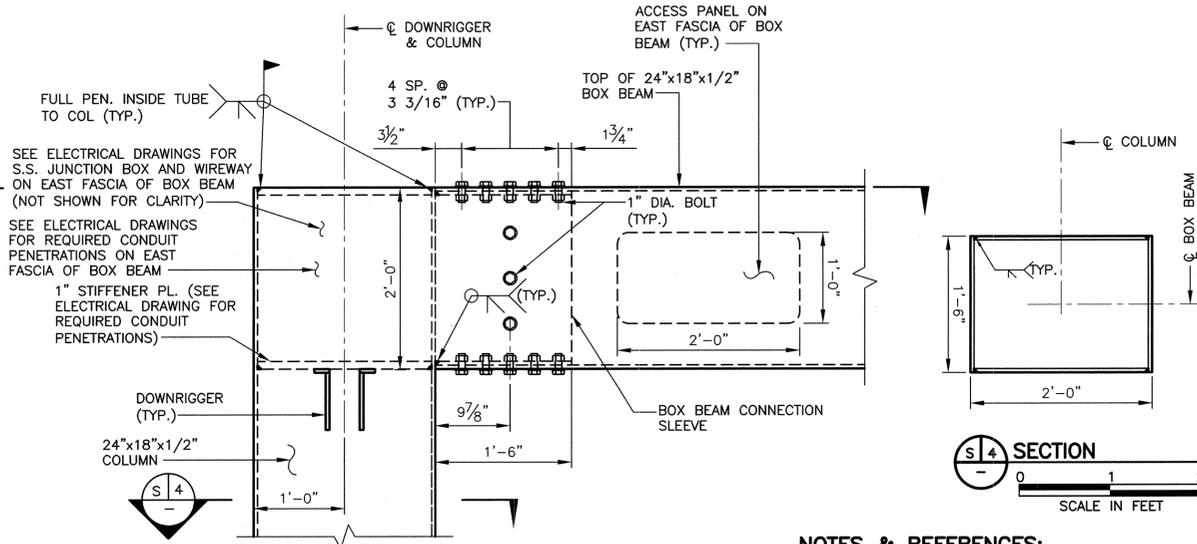


S3 SECTION
SCALE IN FEET



NOTE: BOLT PATTERN TYPICAL FOR TOP AND BOTTOM CONNECTION.

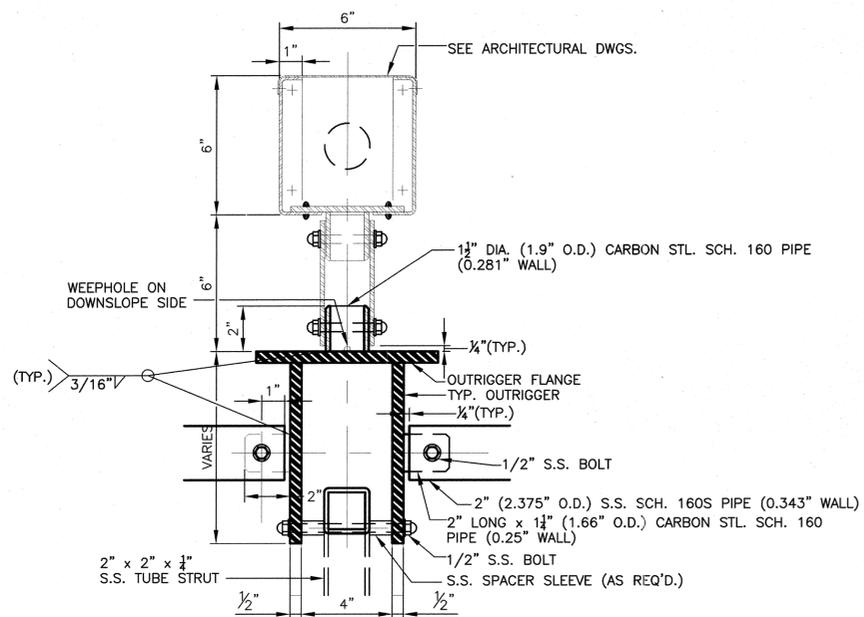
S5 SECTION
SCALE IN FEET



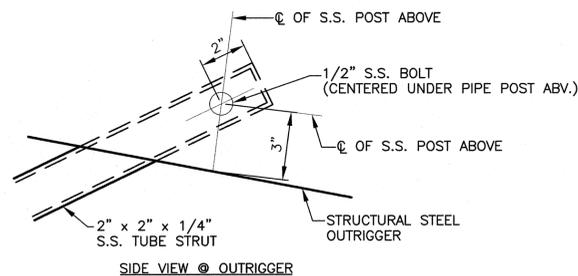
D4 GANTRY DOWNRIGGER CONNECTION DETAIL
SCALE IN FEET

NOTES & REFERENCES:

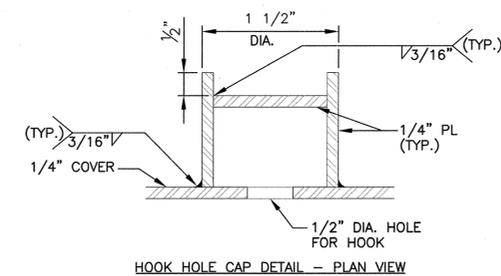
- FOR FRAMING PLAN SEE DWG. S8.
- SEE ARCHITECTURAL DRAWINGS FOR ALL S.S. MEMBERS AND CONNECTION DETAILS.
- SEE DWG. S1 FOR STRUCTURAL STEEL REQUIREMENTS.
- ALL CONNECTIONS SHALL BE SLIP CRITICAL (SC) AND BE MADE USING A325 BOLTS.



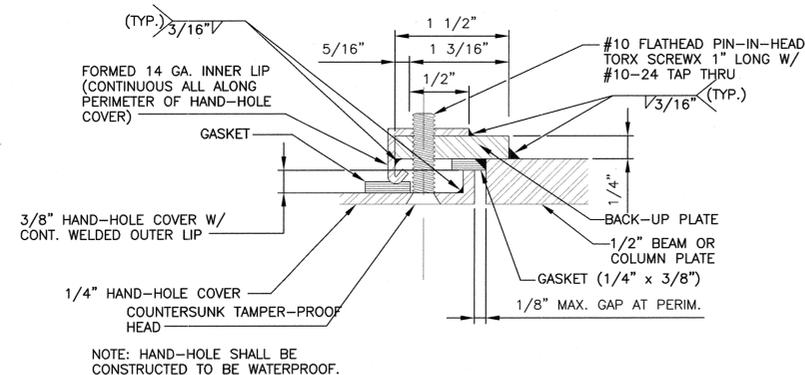
D 1 TROUGH POST SUPPORT DETAIL
S-8
SCALE IN FEET



D 2 STRUT BOLT HOLE DETAIL
S-8
SCALE IN FEET



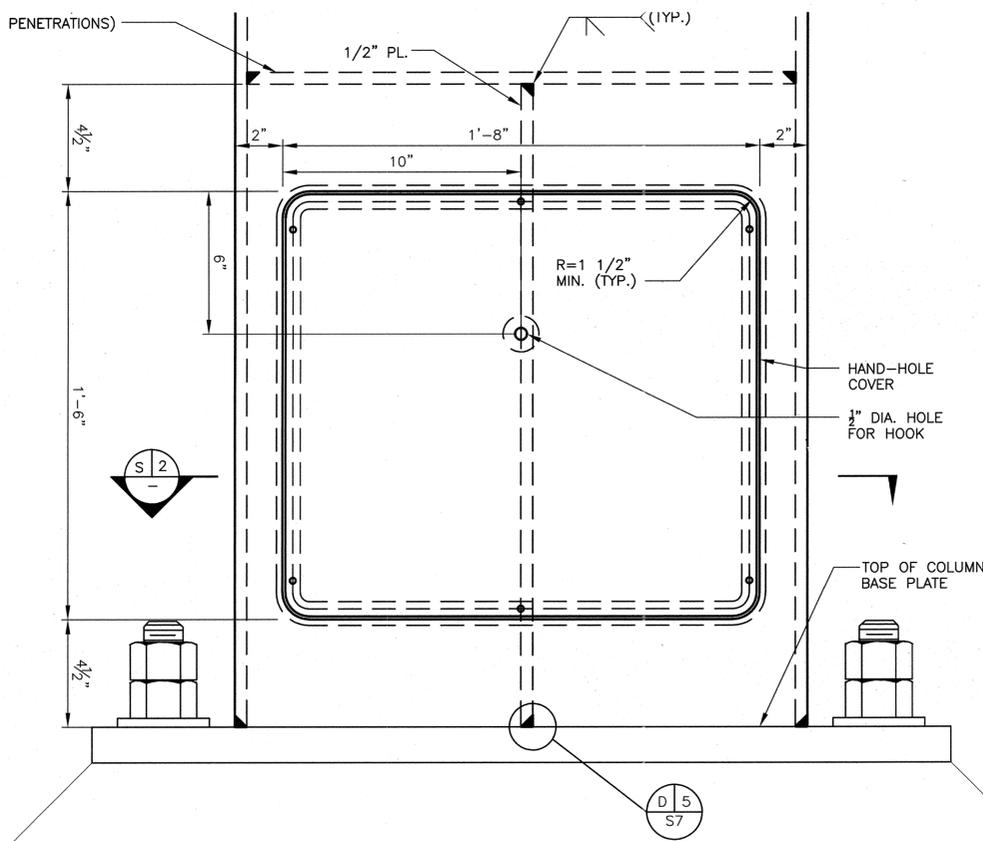
HOOK HOLE CAP DETAIL - PLAN VIEW



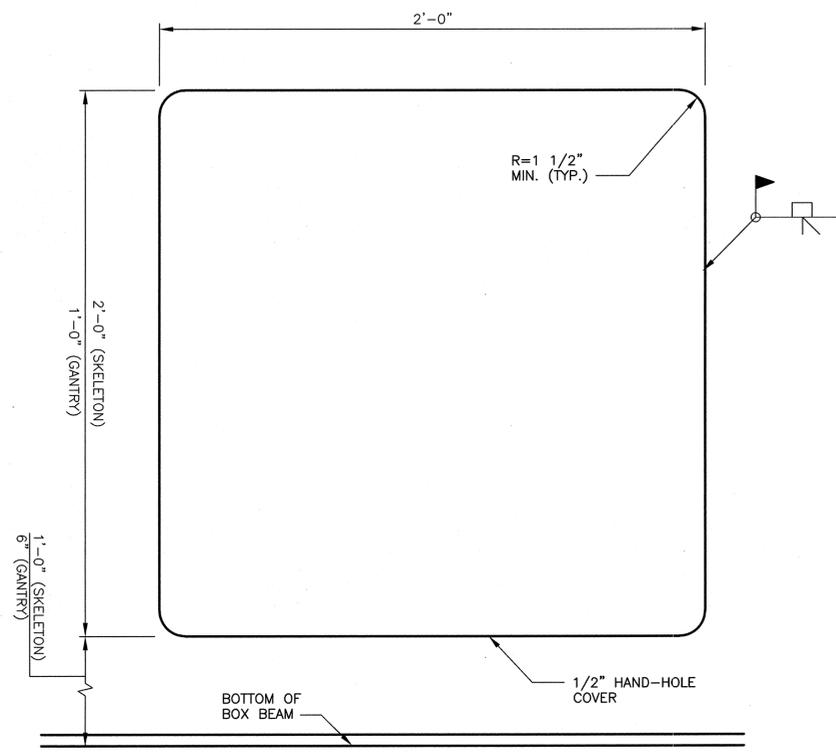
HAND-HOLE EDGE DETAIL - PLAN VIEW

NOTE: SEE ARCHITECTURAL DWGS. FOR MORE INFORMATION

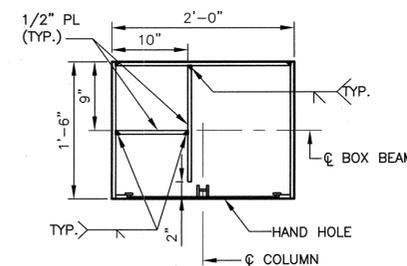
D 3 TYPICAL HAND HOLE DETAIL
N.T.S.



D 5 DETAIL AT COLUMN BASE HAND HOLE
S9
SCALE IN FEET



D 6 DETAIL AT BOX BEAM ACCESS HOLE
S9
SCALE IN FEET



S 1 SECTION
SCALE IN FEET

NOTES & REFERENCES:

1. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ALL S.S. MEMBERS SIZES AND LOCATION.
2. SEE DWG. S1 FOR STRUCTURAL STEEL REQUIREMENTS.



URS CORPORATION - NEW YORK
Certificate of Authorization # AC-104

ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
James Massett
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

STRUCTURAL
Title
HIGHWAY SPEED E-ZPASS

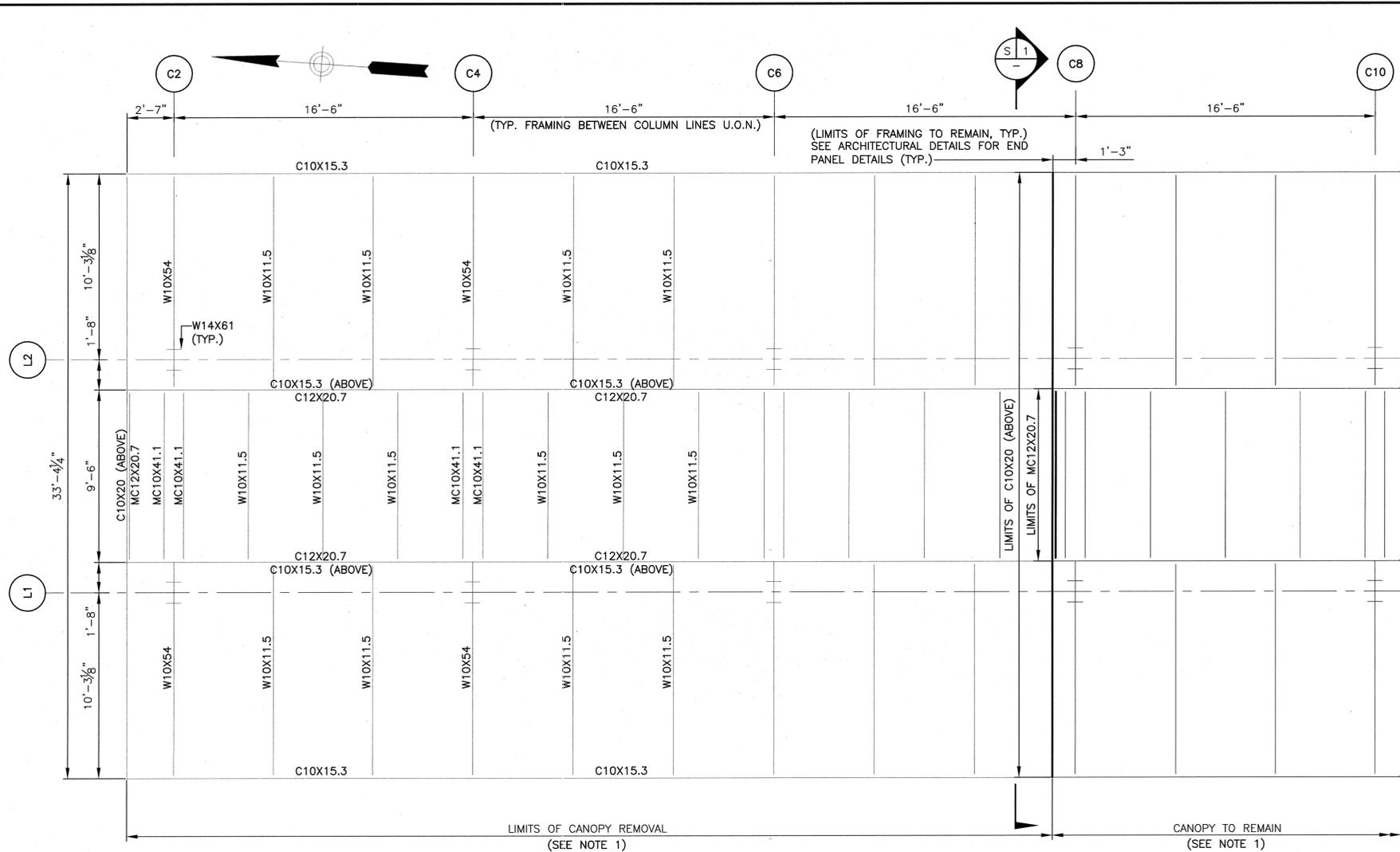
MISCELLANEOUS STEEL DETAILS

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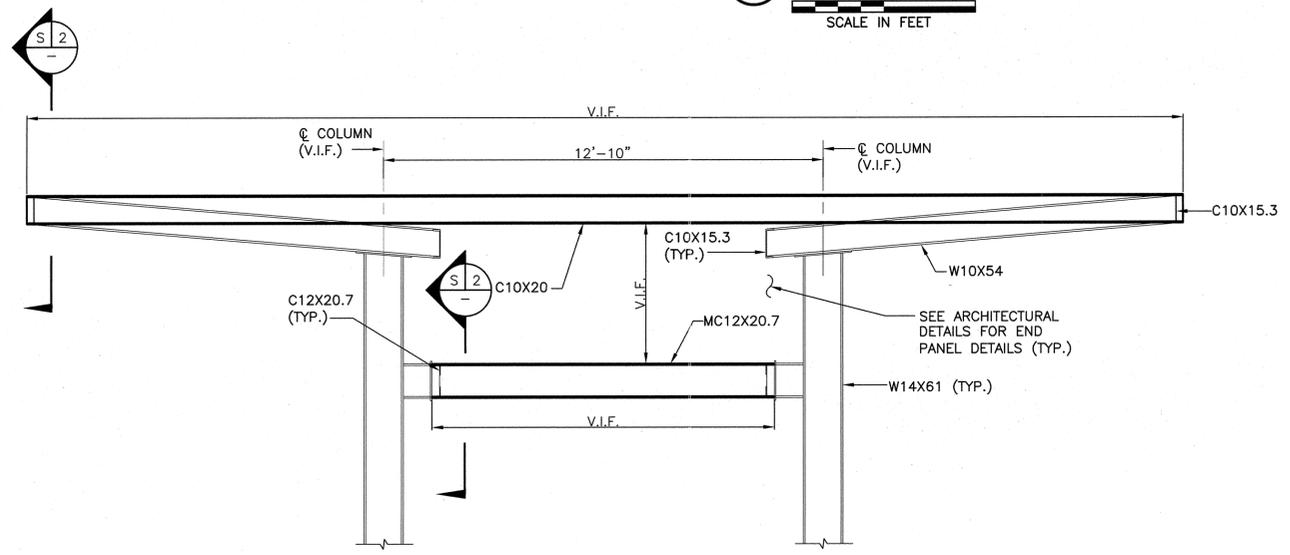
JAK JAK RN
Designed by Drawn by Checked by
Date **OCTOBER 8, 2004**

Contract Number **AKO-284.039**

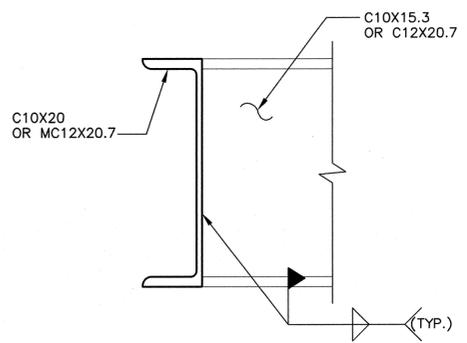
Drawing Number **S013**
PID# 00417000



P 1 CANOPY FRAMING PLAN
SCALE IN FEET



S 1 SECTION
SCALE IN FEET



S 2 SECTION
SCALE IN FEET

NOTES & REFERENCES:

1. SEE ARCHITECTURAL DRAWINGS FOR TOLL PLAZA STRUCTURE REMOVAL/MODIFICATIONS.
2. INFORMATION SHOWN ON THESE PLANS ARE TAKEN FROM CONTRACT NO.AKO 11.010 DRAWING NO.207, DATED MAY 31, 1973.
3. ALL DIMENSIONS SHOWN SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION.
4. CONTRACTOR SHALL SUPPORT AND PROTECT CANOPY STRUCTURE AS REQUIRED DURING REMOVAL OPERATION. CONTRACTOR SHALL SUBMIT A DETAILED PLAN INDICATING THE SEQUENCE AND METHOD OF REMOVAL FOR ENGINEER REVIEW AND APPROVAL.

Sheet 110 of 155



URS CORPORATION - NEW YORK
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ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
(BASED ON CORRECTED FIELD DRAWINGS)

RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved
ENGINEERING DEPARTMENT			

OUTERBRIDGE CROSSING

STRUCTURAL
Title
HIGHWAY SPEED E-ZPASS

TOLLBOOTH PLAZA CANOPY MODIFICATIONS & DETAILS

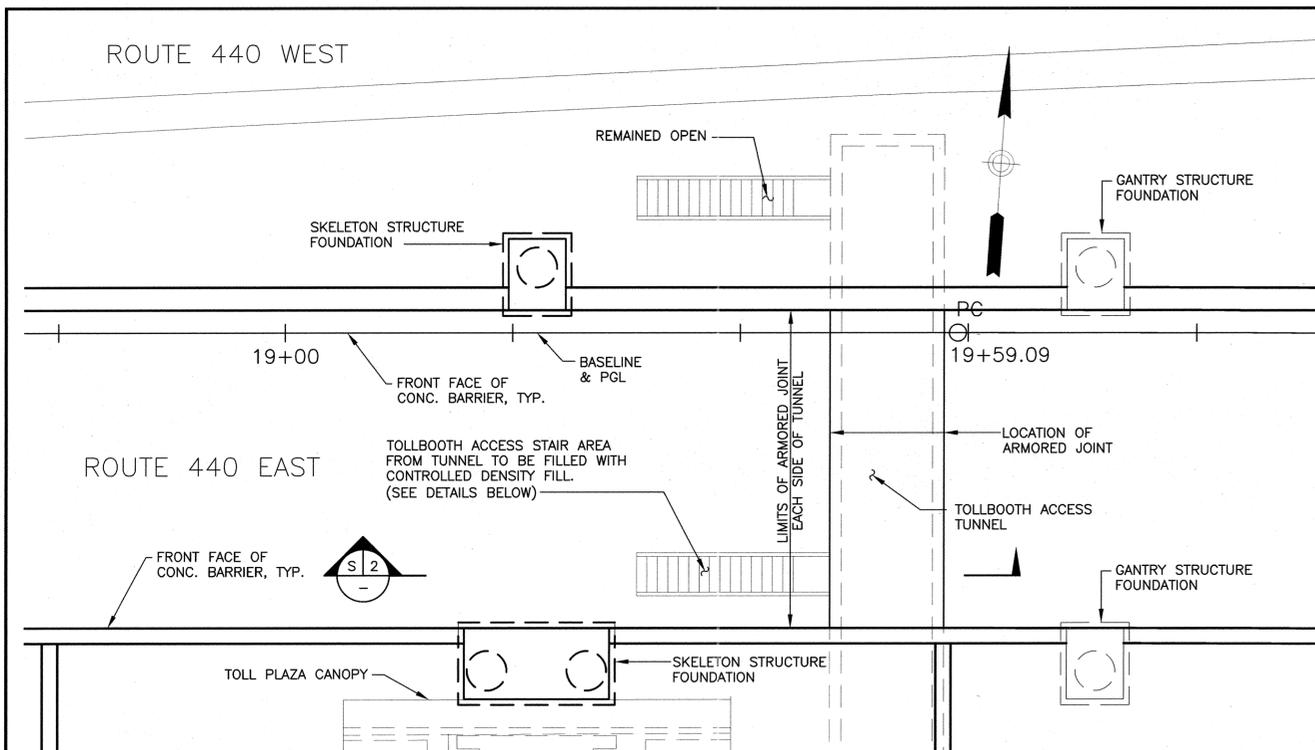
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JAK JAK RN
Designed by Drawn by Checked by

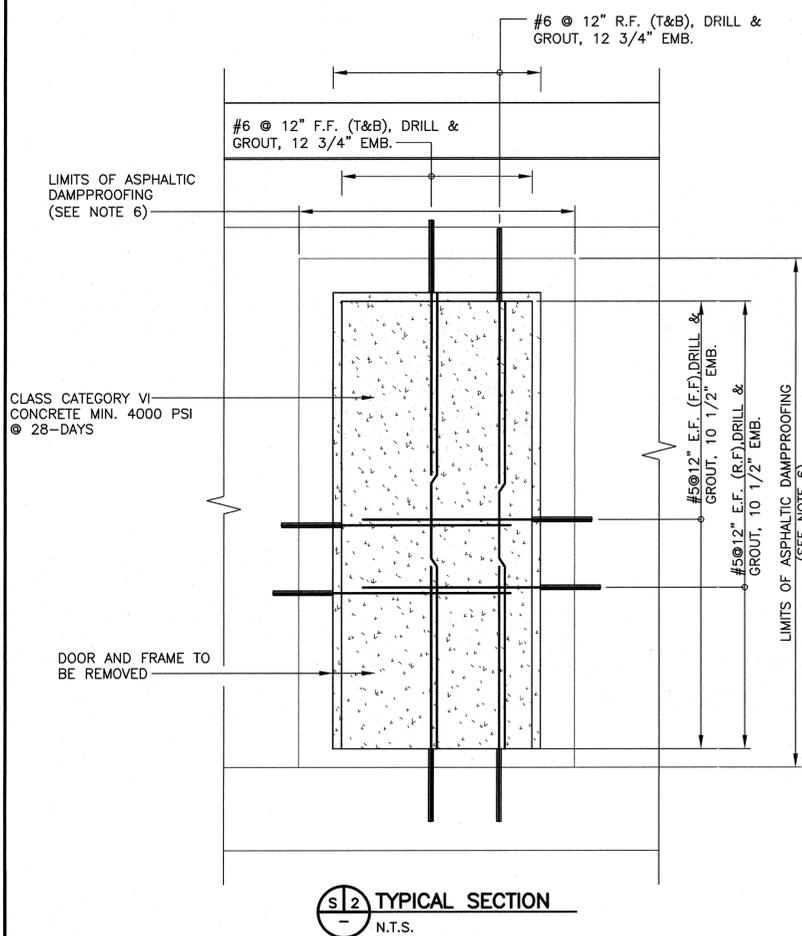
Date OCTOBER 8, 2004

Contract Number AKO-284.039

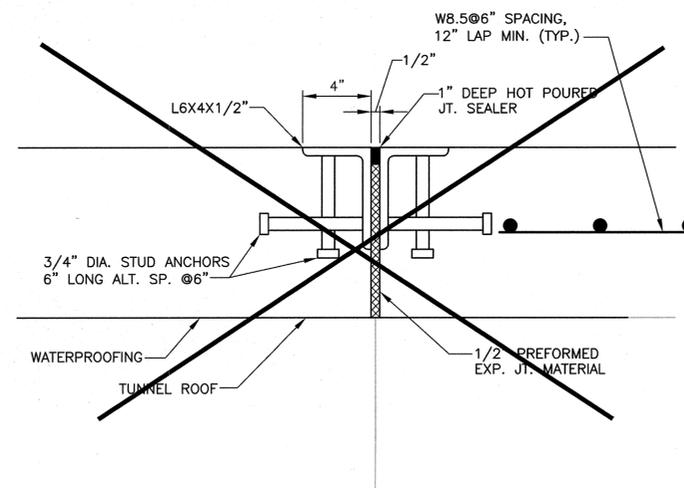
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PID# 00417000



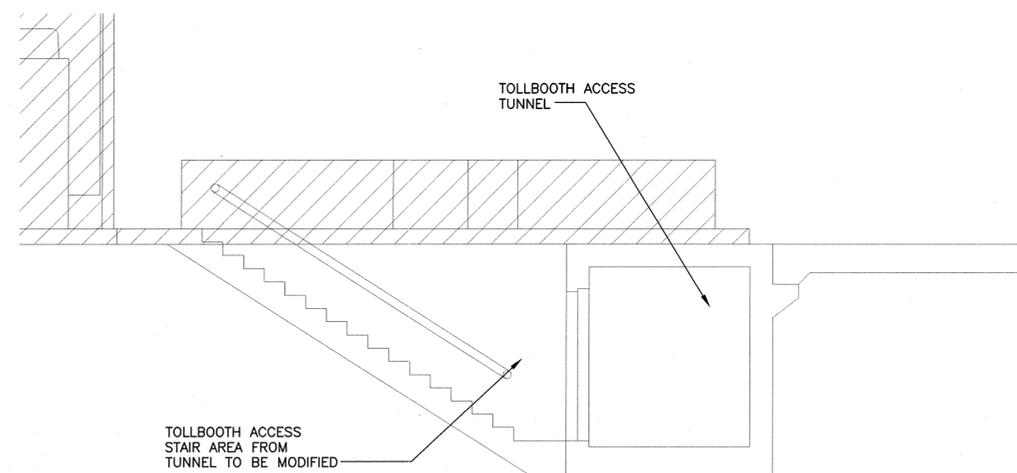
P1 TOLL PLAZA ACCESS STAIR PLAN
SCALE IN FEET



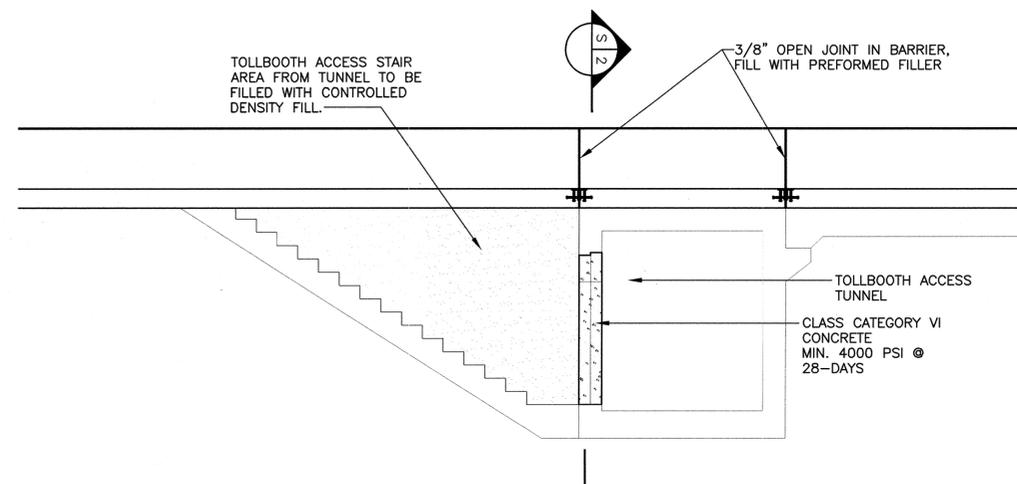
S2 TYPICAL SECTION
N.T.S.



D1 TYPICAL ARMORED JOINT DETAIL
N.T.S.



S1 TUNNEL SECTION AT STAIR
SCALE IN FEET



S1 TUNNEL SECTION AT MODIFIED STAIRS
SCALE IN FEET

NOTES & REFERENCES:

1. FOR TOLL PLAZA STRUCTURE REMOVAL/MODIFICATIONS INCLUDING BUT NOT LIMITED TO STEEL FRAMING, TOLLBOOTH AND CANOPY REFER TO ARCHITECTURAL DRAWINGS.
2. FOR LIMITS OF TOLL ISLAND AND PAVEMENT REMOVAL/MODIFICATIONS SEE DWG. C3 & C4.
3. ARMORED JOINT (ANGLES AND STUDS) SHALL BE GALVANIZED. STEEL SHALL CONFORM TO A36 GRADE 36 REQUIREMENTS.
4. USE NON-SHRINK GROUT WITH MIN. 4000 PSI STRENGTH.
5. FLOWABLE FILL SHALL BE AS PER SPECIFICATIONS AND SHALL BE VERY FLOWABLE AND EXCAVATABLE.
6. WATERPROOFING SHALL BE APPLIED IN THE LIMITS SHOWN ALONG THE TOP OF THE TUNNEL AND ALONG THE SEAM AT THE DOOR OPENING PRIOR TO FILLING THE STAIRWAY WITH FLOWABLE FILL AND CLOSURE OF THE OPENING WITH CONCRETE. WATERPROOFING SHALL BE IN CONFORMANCE WITH SECTION 07168 ASPHALTIC DAMPPROOFING-COLD APPLIED NONFIBRATED MASTIC (LIQUID).
7. FOR CONSTRUCTION STAGING NOTES SEE DWG. CS1.

LEGEND:

- TOLLBOOTH, CANOPY, STEEL FRAMING AND TOLL ISLAND REMOVAL (SEE NOTES 1&2 FOR ADDITIONAL INFORMATION)
- CONTROLLED DENSITY FILL (SEE NOTE 5 FOR ADDITIONAL INFORMATION)



URS CORPORATION - NEW YORK
Certificate of Authorization # AC-104

ORIGINAL SEALED AND SIGNED BY

WILLIAM N. MARMAN
N.J. Professional Engineer # GE39775
N.Y. Professional Engineer # 60871

DRAWING OF RECORD
Signature P.M.D. 2910?
(BASED ON CORRECTED FIELD DRAWINGS)
RESIDENT ENGINEER JAMES MASSETT
DATE 08/14/2006

No.	Date	Revision	Approved

ENGINEERING DEPARTMENT

OUTERBRIDGE CROSSING

STRUCTURAL

Title
HIGHWAY SPEED E-ZPASS

TOLLBOOTH ACCESS STAIR MODIFICATION DETAILS

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.

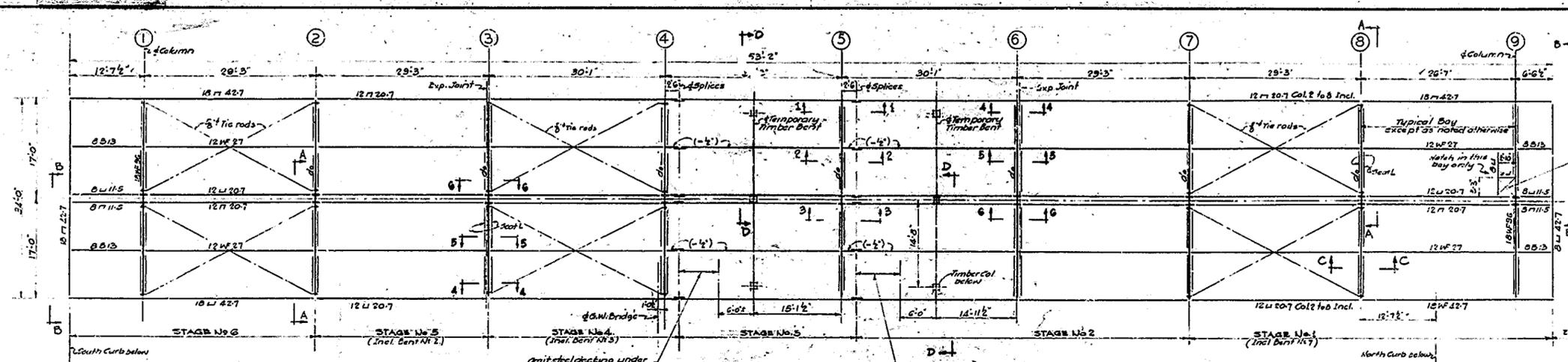
JAK JAK RN
Designed by Drawn by Checked by

Date **OCTOBER 8, 2004**

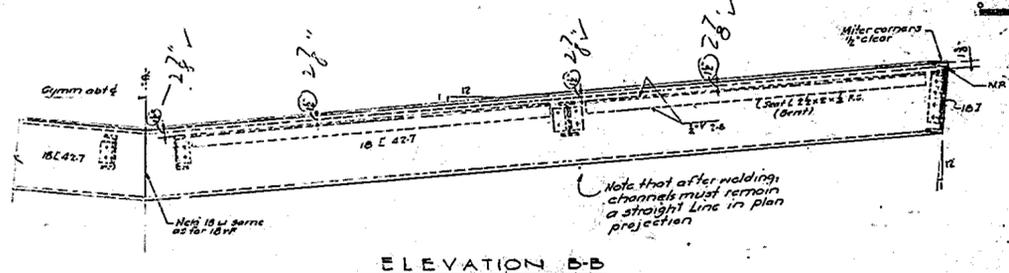
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Drawing Number **S015**
PID# 00417000

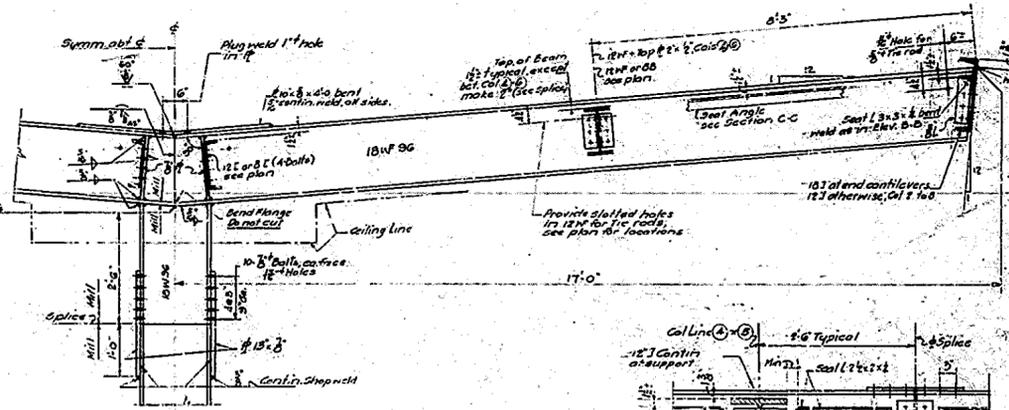
NO. 10 OF 20 SHEETS



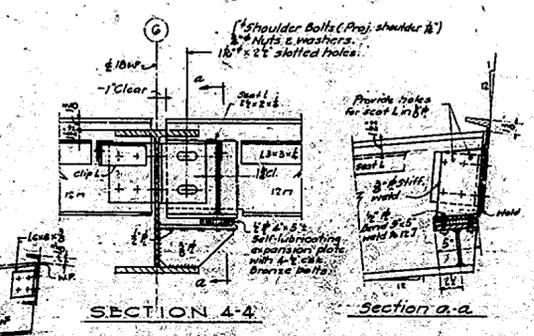
FRAMING PLAN
(Carried over from Roofing)



ELEVATION B-B

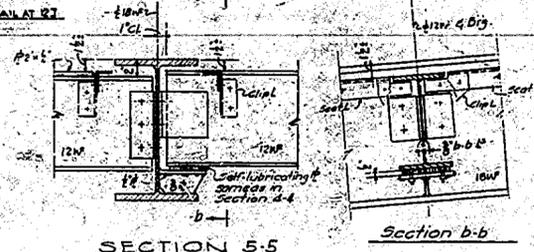


SECTION A-A



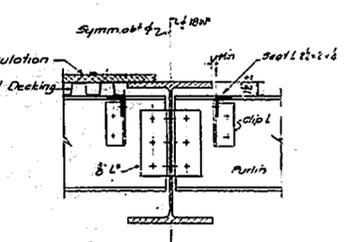
SECTION 4-4

SECTION a-a

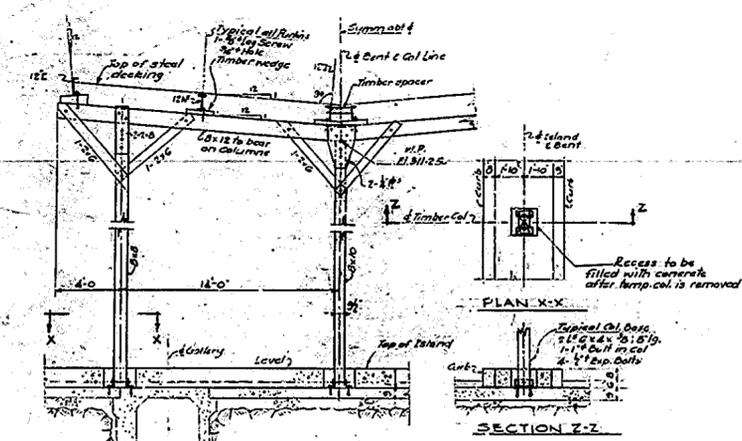


SECTION 5-5

SECTION b-b



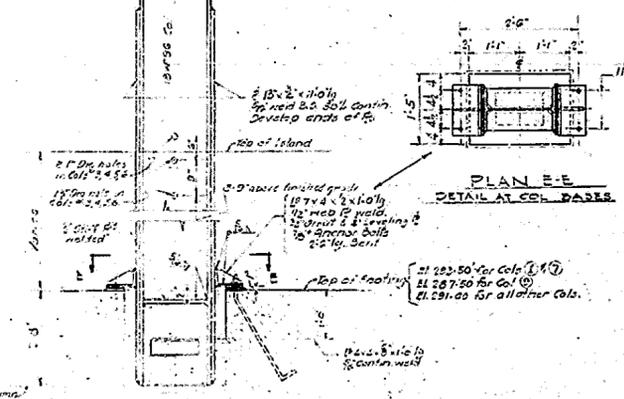
SECTION C-C
(Typical except as shown otherwise)



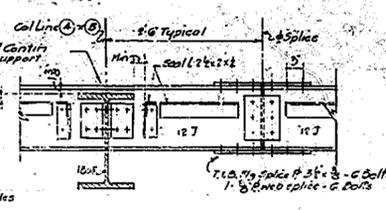
SECTION D-D

SECTION Z-Z

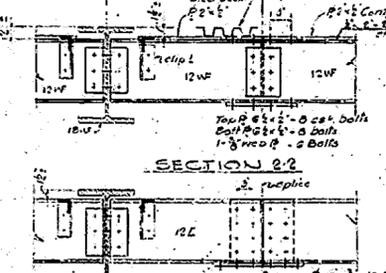
DETAILS FOR TEMPORARY TIMBER BENT
(One required - Remove Bent from Stage 2 and reuse at Stage 3)
Note: Timber to be L.L. Yellow Pine, Street grade.
3/4" Bolts with 2 washers



PLAN E-E
DETAIL AT COL BASE



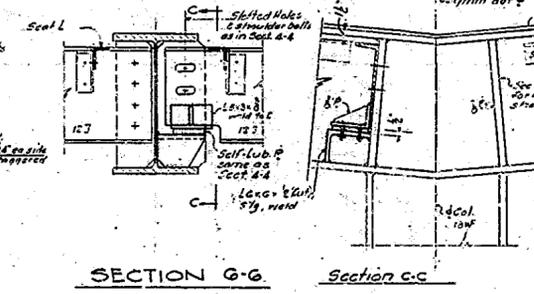
SECTION 1-1



SECTION 2-2

SECTION 3-3

DETAILS OF SPLICES



SECTION G-G

SECTION c-c

DETAILS AT EXPANSION JOINTS

SCALE IN FEET

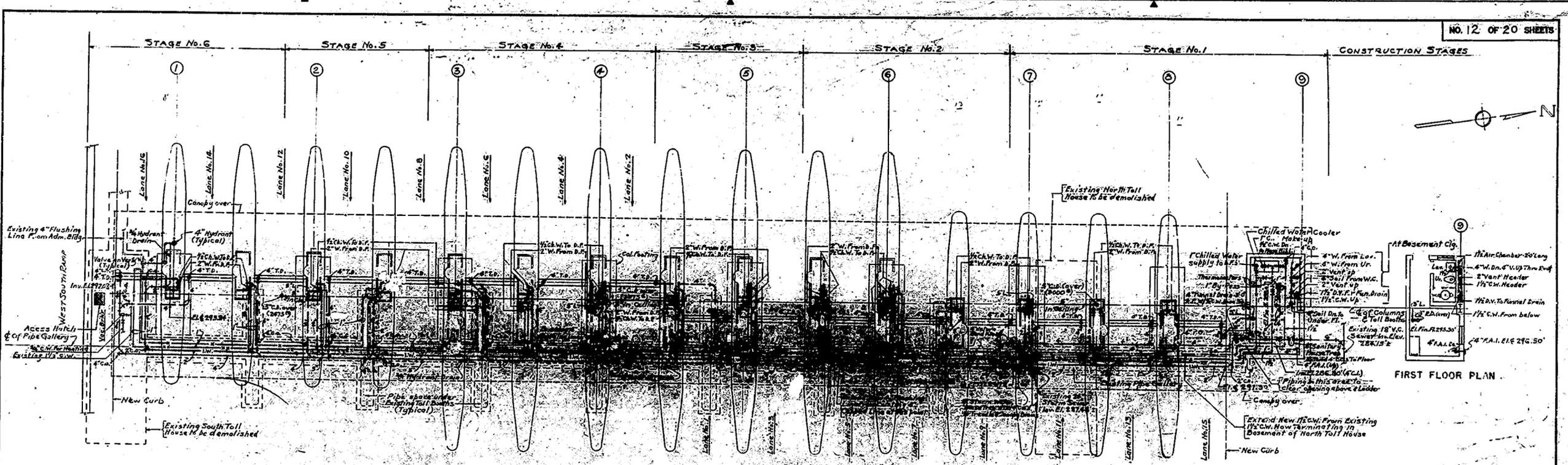
THE PORT OF NEW YORK AUTHORITY
 GEORGE WASHINGTON BRIDGE
 NEW JERSEY PLAZA
 TOLL BOOTHS & CANOPY
 CANOPY STEEL FRAMING PLAN
 AND DETAILS

John J. ...
 CHIEF ENGINEER
R.F. ...
 SUPERVISOR OF DESIGN
Anna ...
 STRUCTURAL ENGINEER

SCALE AS SHOWN
 CONTRACT NO. GWB 140.008 DRAWING NO. 10

December 1953

NO. 12 OF 20 SHEETS



PLAN OF PIPING IN GALLERY & BELOW GRADE

0 8 16 24
(SCALE IN FEET)

NOTES:

1. ALL STORM & SOIL PIPING NOW EXISTING IN PIPE GALLERY AND NOT TO REMAIN CONNECTED IS TO BE REMOVED IN ITS ENTIRETY.
2. NEW CHILLED WATER SUPPLY PIPING, STORM AND INDIRECT WASTE PIPING TO BE INSTALLED IN TIERS ON WEST WALL OF PIPE GALLERY.
3. FOR LOCATION OF DRINKING FOUNTAINS IN TOLL BOOTHS SEE DWG. NO. 4
4. AT COLUMN LINES 1 TO 8 INCLUSIVE, ALL LEADER AND TREADLE DRAINS, DRINKING FOUNTAIN WASTES AND CHILLED WATER SUPPLY PIPING SHALL BE INSTALLED BETWEEN THE UNDERSIDE OF THE PAVEMENT WHICH IS 1'-3" BELOW GRADE AND THE TOP OF THE COLUMN FOOTINGS.
5. AT TOLL BOOTHS WITHOUT COLUMNS, ALL OF THE ABOVE MENTIONED PIPING SHALL BE INSTALLED BETWEEN THE TOP OF THE 8" SLAB AND THE UNDERSIDE OF THE TOLL BOOTH FLOOR.

East

LEGEND

- I.W. — INDIRECT WASTE
- S.W.S.D. — SOIL, WASTE & STORM DRAINS (UNDERGROUND)
- V. — VENT - V.
- - - - - CHILLED WATER SUPPLY - CH.W.
- - - - - CHILLED WATER RETURN
- G.W. — GOLD WATER - C.W.
- W.C. WATER CLOSET
- L.A.V. LAVATORY
- U.R. PEDESTAL URINAL
- C.O. BRASS CLEANOUT
- C.D. CANOPY DRAIN
- T.D. TREADLE DRAIN
- R.D. ROOF DRAIN
- W. WASTE
- F.A.I. FRESH AIR INLET / LEADER
- L. LEADER
- D.F. DRINKING FOUNTAIN
- D.V. DROP VENT
- G.V. GATE VALVE
- C.V. CHECK VALVE
- A.F. ABOVE FLOOR
- F.D. FLOOR DRAIN

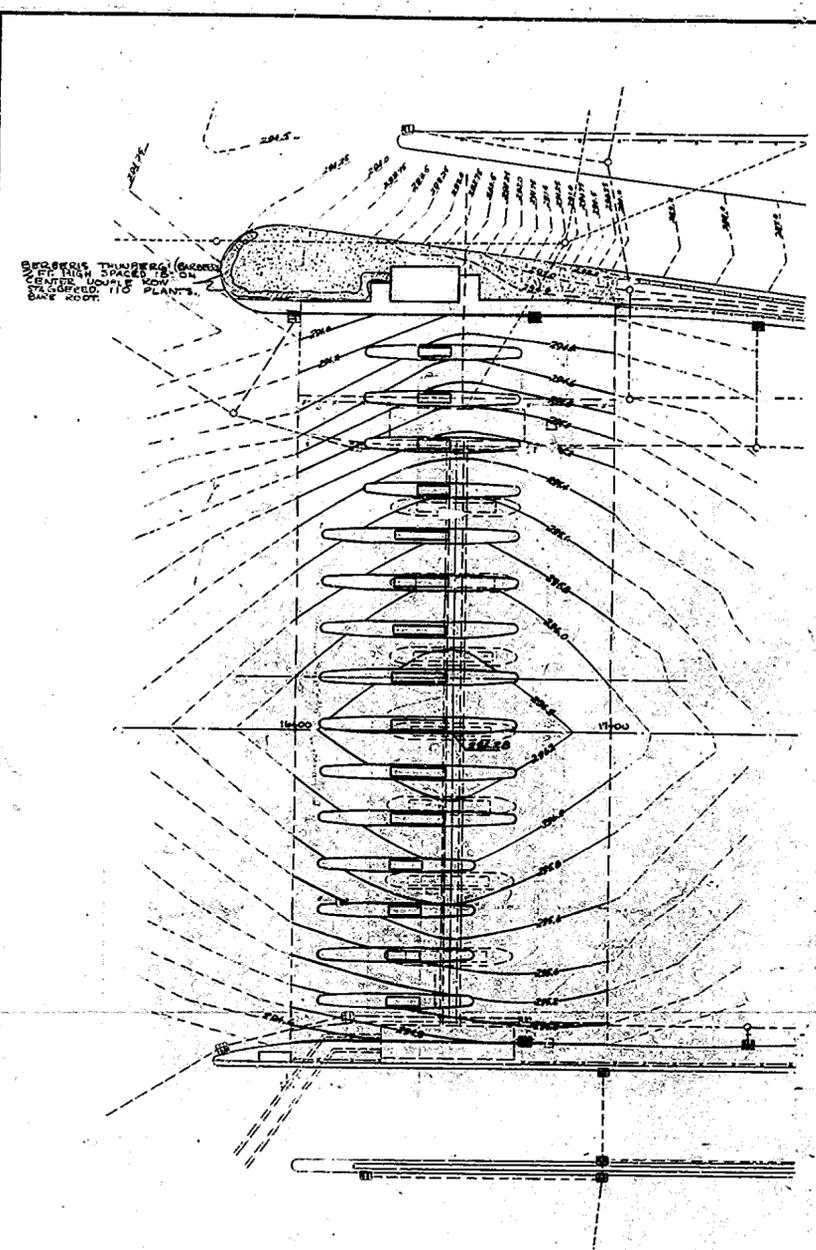
THE PORT OF NEW YORK AUTHORITY
 GEORGE WASHINGTON BRIDGE
 NEW JERSEY PLAZA
 TOLL BOOTHS & CANOPY
 MECHANICAL INSTALLATION
 PLUMBING

John Hoff
 CHIEF ENGINEER
R.F. Schaefer
 ENGINEER OF DESIGN
C.R. Johnson
 ELECT. MECH. ENGINEER

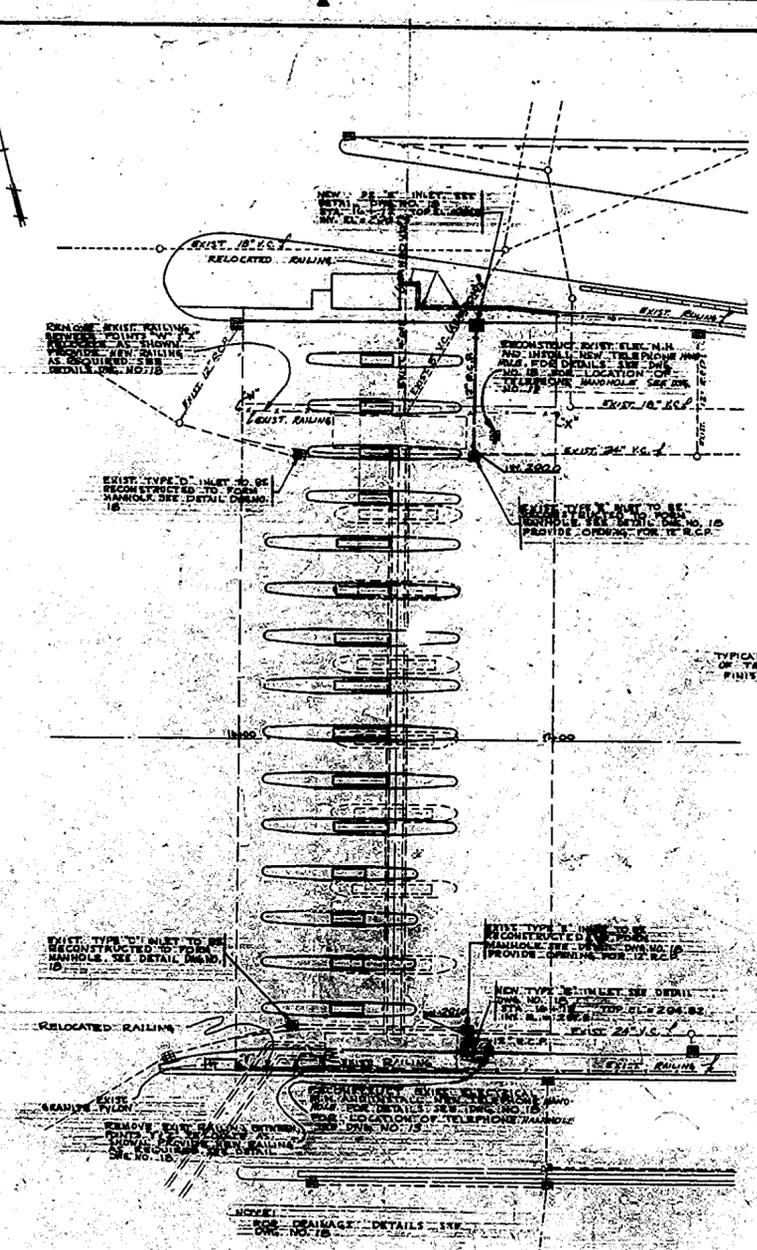
SCALE AS SHOWN

DATE - DECEMBER 31, 1953

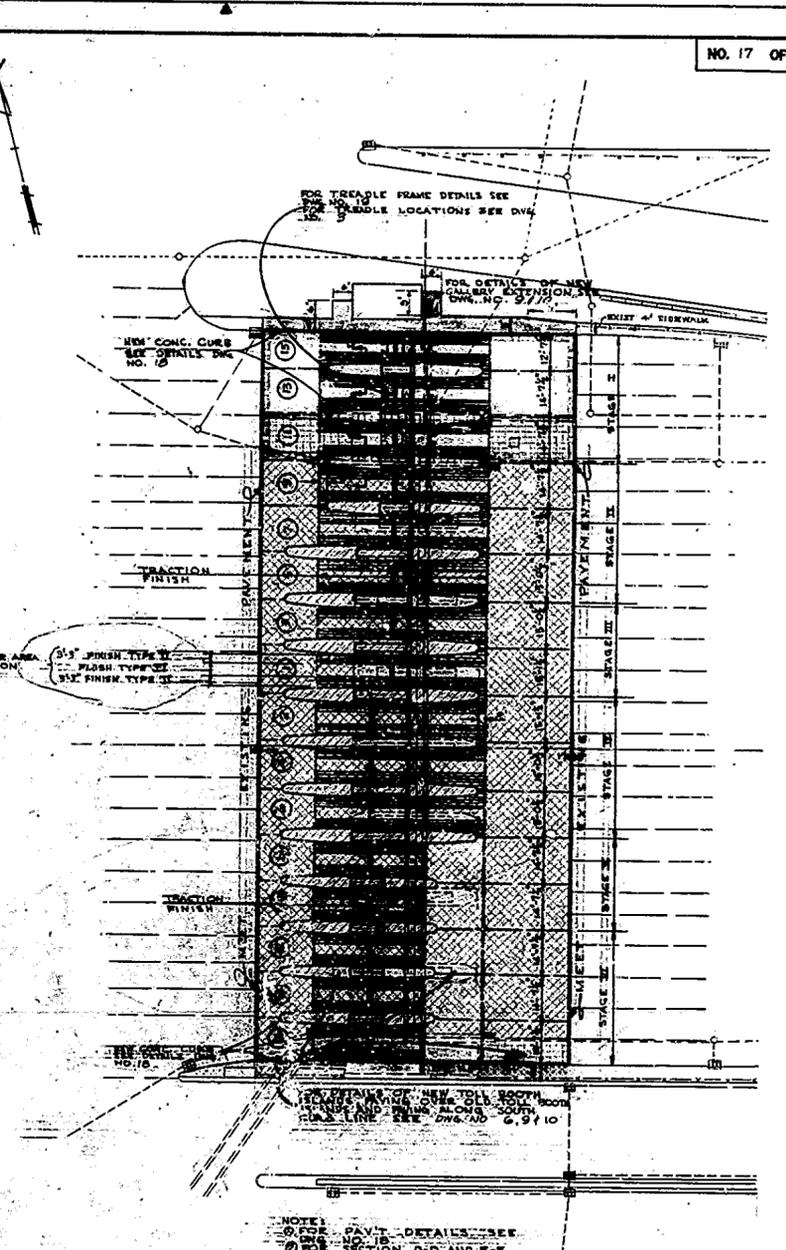
CONTRACT NO. GWB-140008 DRAWING NO. 12



GRADING PLAN



DRAINAGE PLAN



PAVING PLAN SHOWING STAGE LINES FOR PAVING

LEGEND

GRADING PLAN	
EXISTING CONTOURS	---
NEW CONTOURS	---
PAVING PLAN	
EXPANSION JOINT	---
FORMED CONTRACTION JOINT	---
LONGITUDINAL JOINT	---
10" CONCRETE PAV'T	---
EXIST. 6" CONC. TOP TO BE REMOVED	---
EXIST. 6" CONC. TOP TO BE REMOVED AND REPLACED WITH NEW 6" CONC. PAV'T	---
SIDEWALK PAV'T	---
EXIST. SIDEWALK PAV'T TO BE REMOVED	---
EXIST. SIDEWALK PAV'T TO BE REMOVED AND REPLACED	---
TREADLE	---
LANE NUMBERS	---

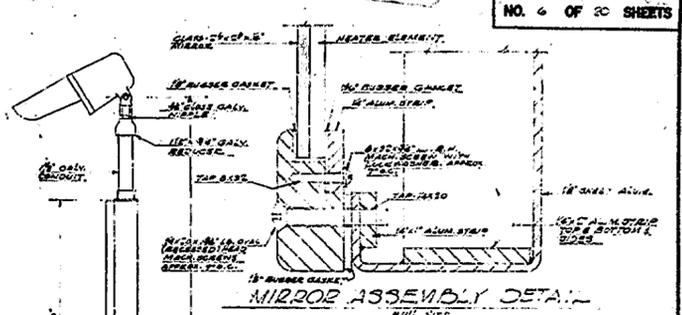
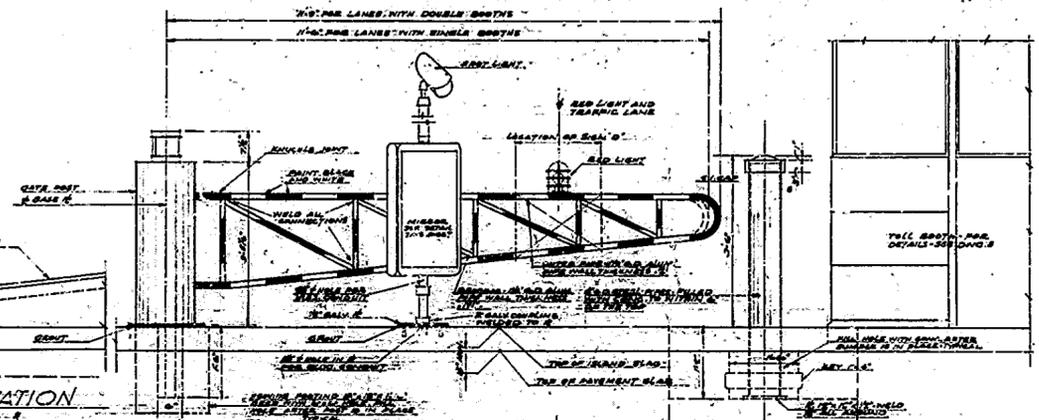
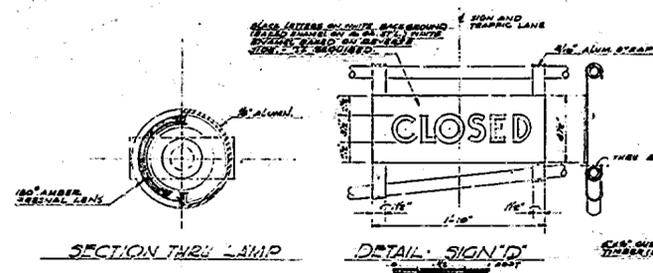


John J. Kelly
R.F. Schmitt
R.T. Malin

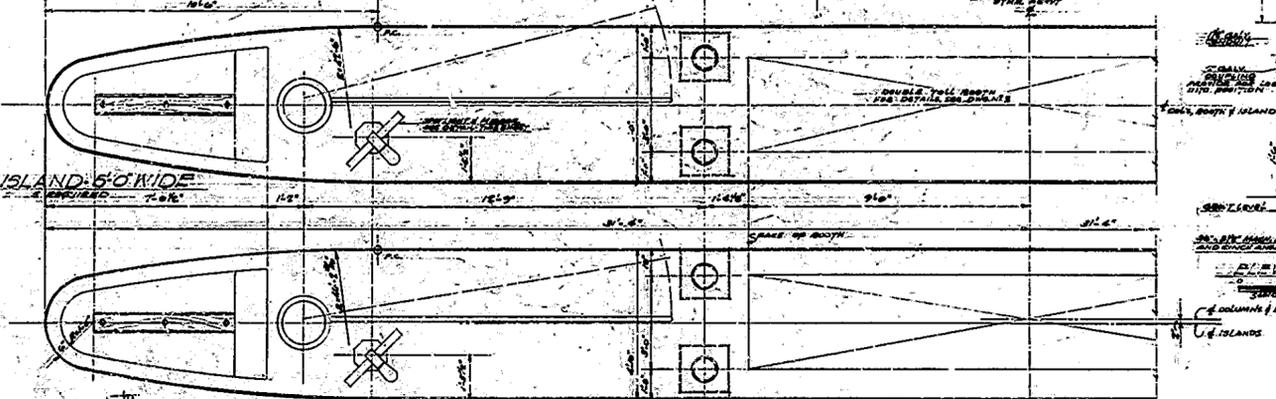
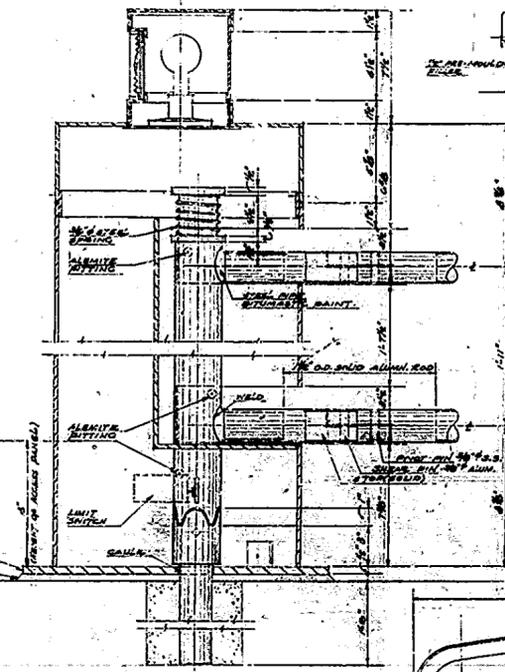
REVISED 1-26-54 R.F.S.
 DATE: DECEMBER 31, 1953

THE PORT OF NEW YORK AUTHORITY
 GEORGE WASHINGTON BRIDGE
 NEW JERSEY PLAZA
 TOLL BOOTHS AND CANOPY
 GRADING, DRAINAGE AND PAVING PLANS

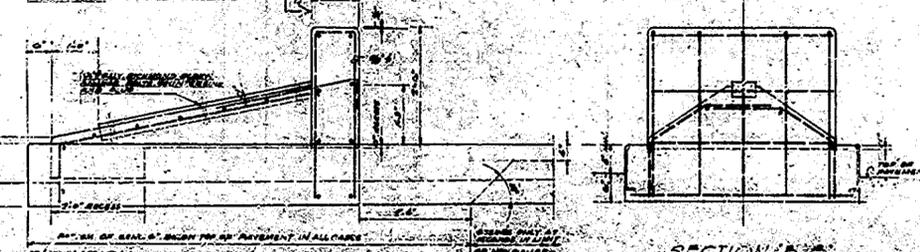
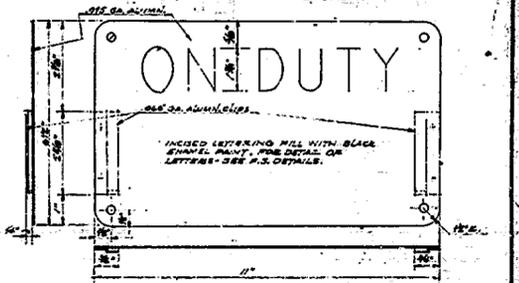
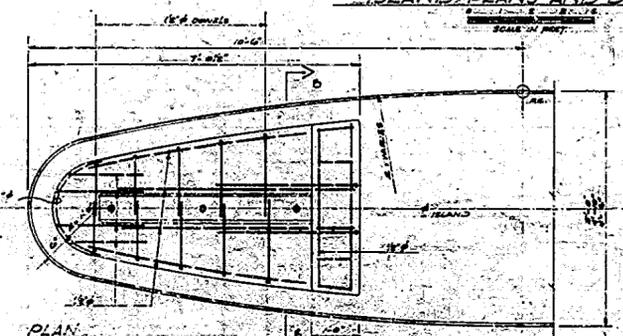
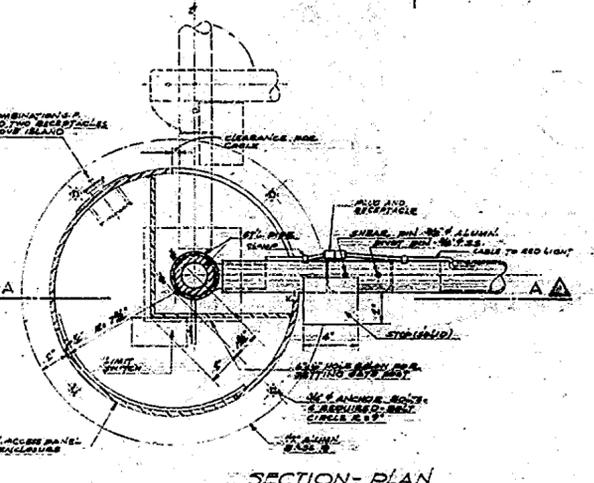
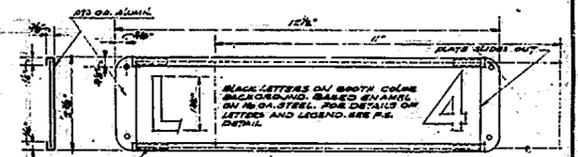
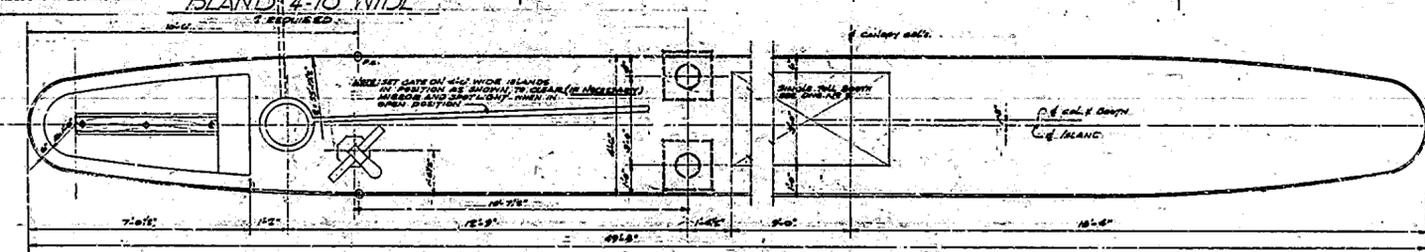
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 CONTRACT NO. GWB-140.008 DRAWING NO. 17



DUTY
FULL SIZE DETAIL-TYPICAL LETTERS
FOR SIGN 'C'



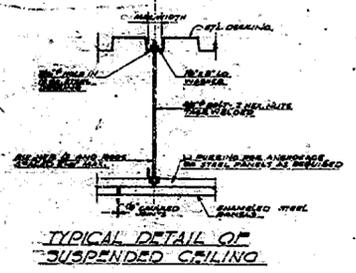
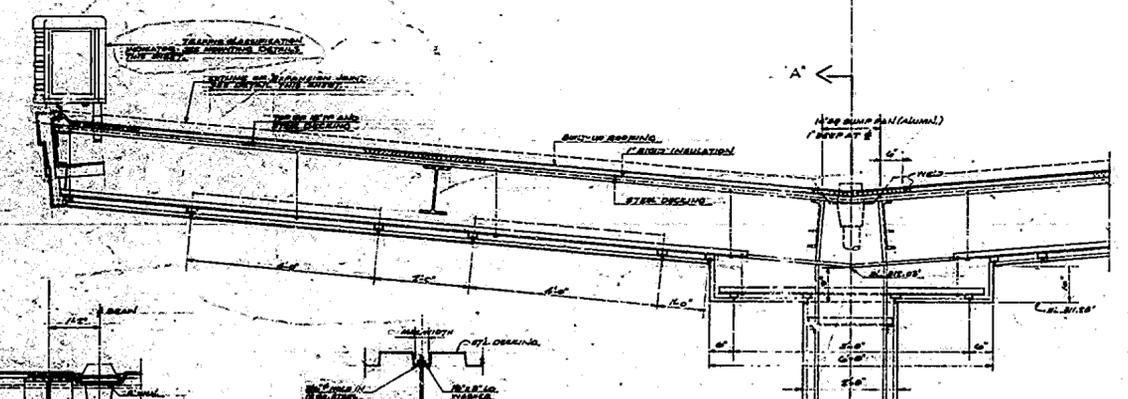
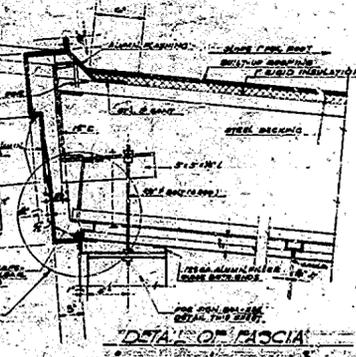
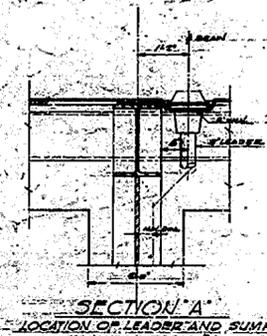
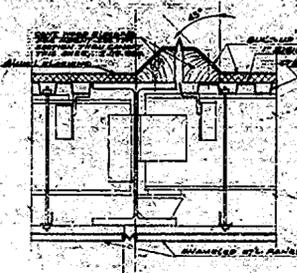
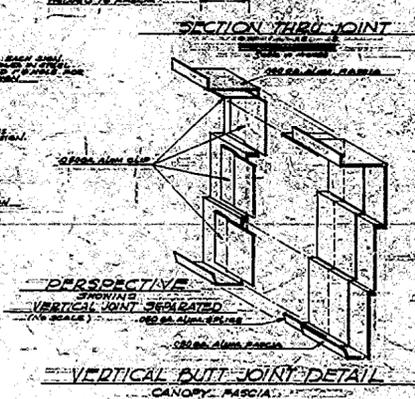
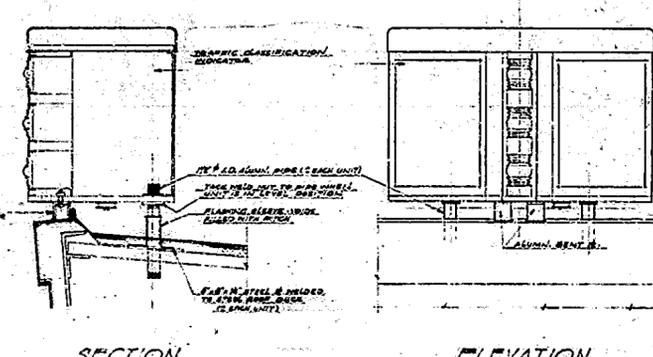
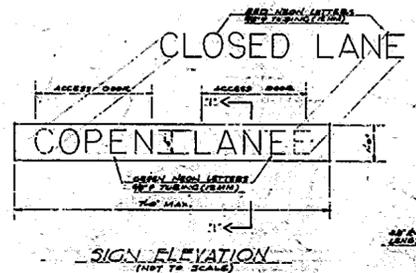
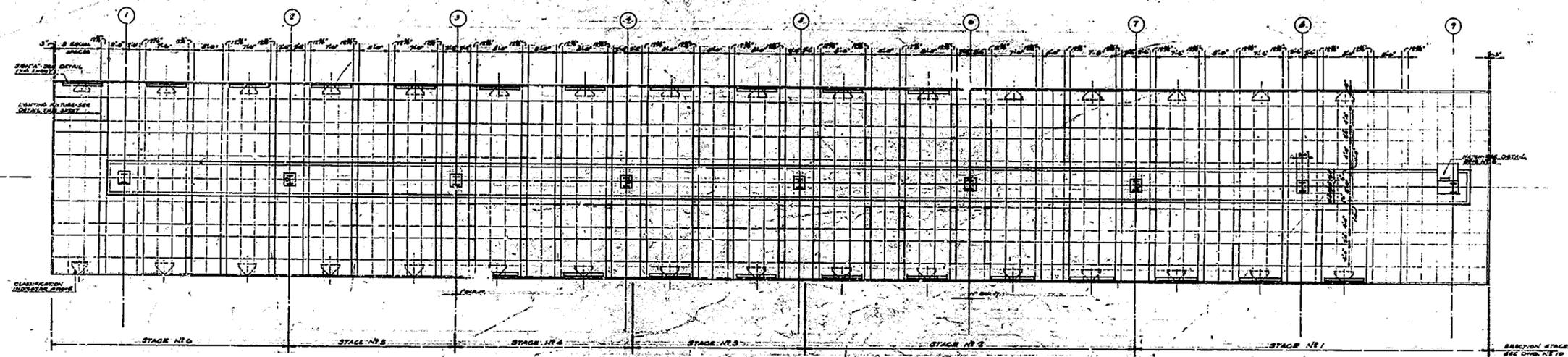
LANA
FULL SIZE DETAIL-TYPICAL LETTERS
FOR SIGN 'B'



John R. Kelly
R.F. Schaefer
Richard H. Kelly
DEPUTY ARCHITECT

THE PORT OF NEW YORK AUTHORITY
GEORGE WASHINGTON BRIDGE
NEW JERSEY PLAZA
TOLL BOOTHS & CANOPY
ISLAND DETAILS
SCALE AS INDICATED
CONTRACT NO. GWB140.008 DRAWING NO. 6

DATE: DECEMBER 31, 1965

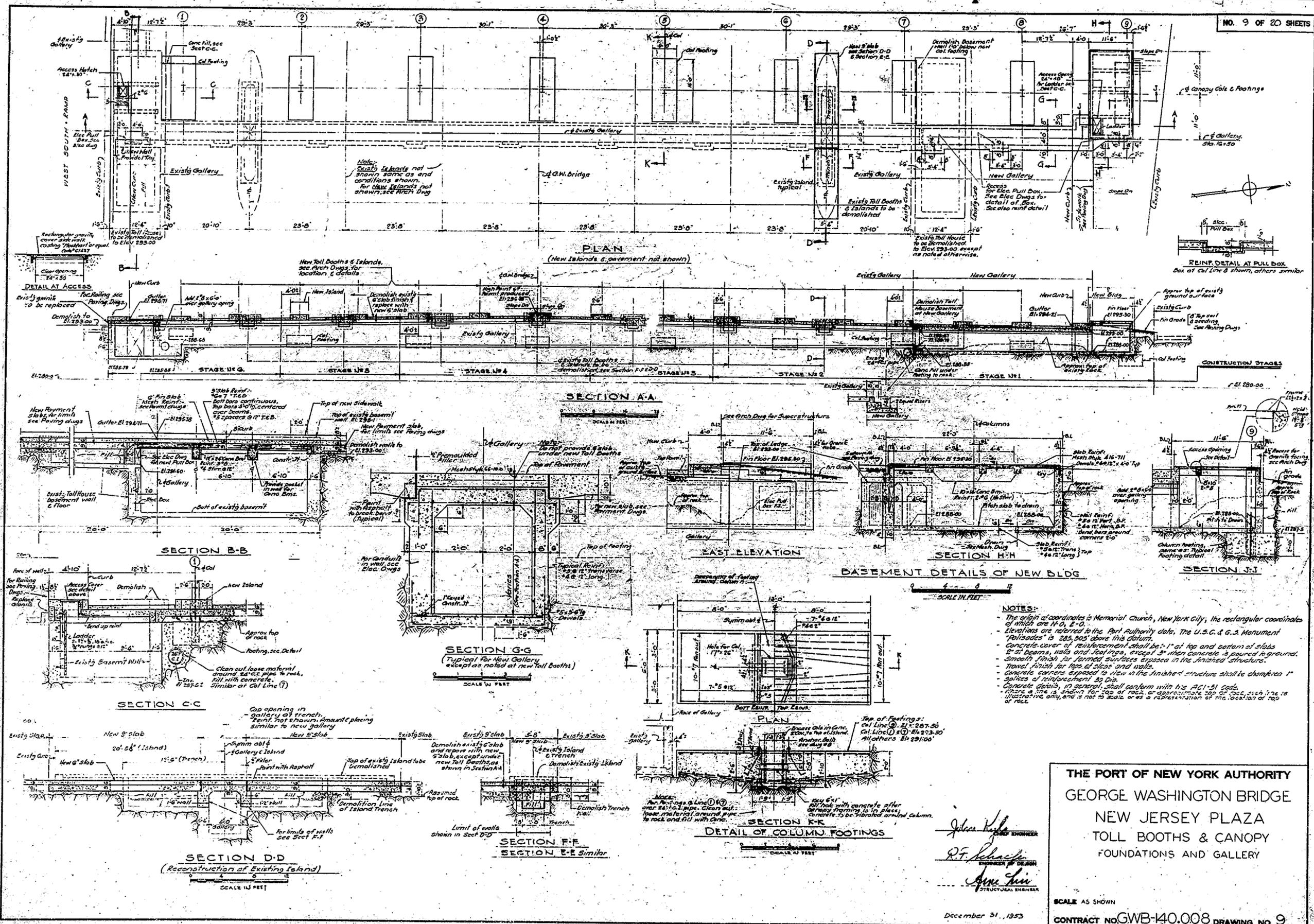


John K. [Signature]
R.F. [Signature]
Richard [Signature]

REVISED 1-26-54 RFL
 DATE DECEMBER 31, 1953

THE PORT OF NEW YORK AUTHORITY
 GEORGE WASHINGTON BRIDGE
 NEW JERSEY PLAZA
 TOLL BOOTHS & CANOPY
 CANOPY DETAILS
 SCALE AS INDICATED
 CONTRACT NO. GWB.140.008 DRAWING NO. 7

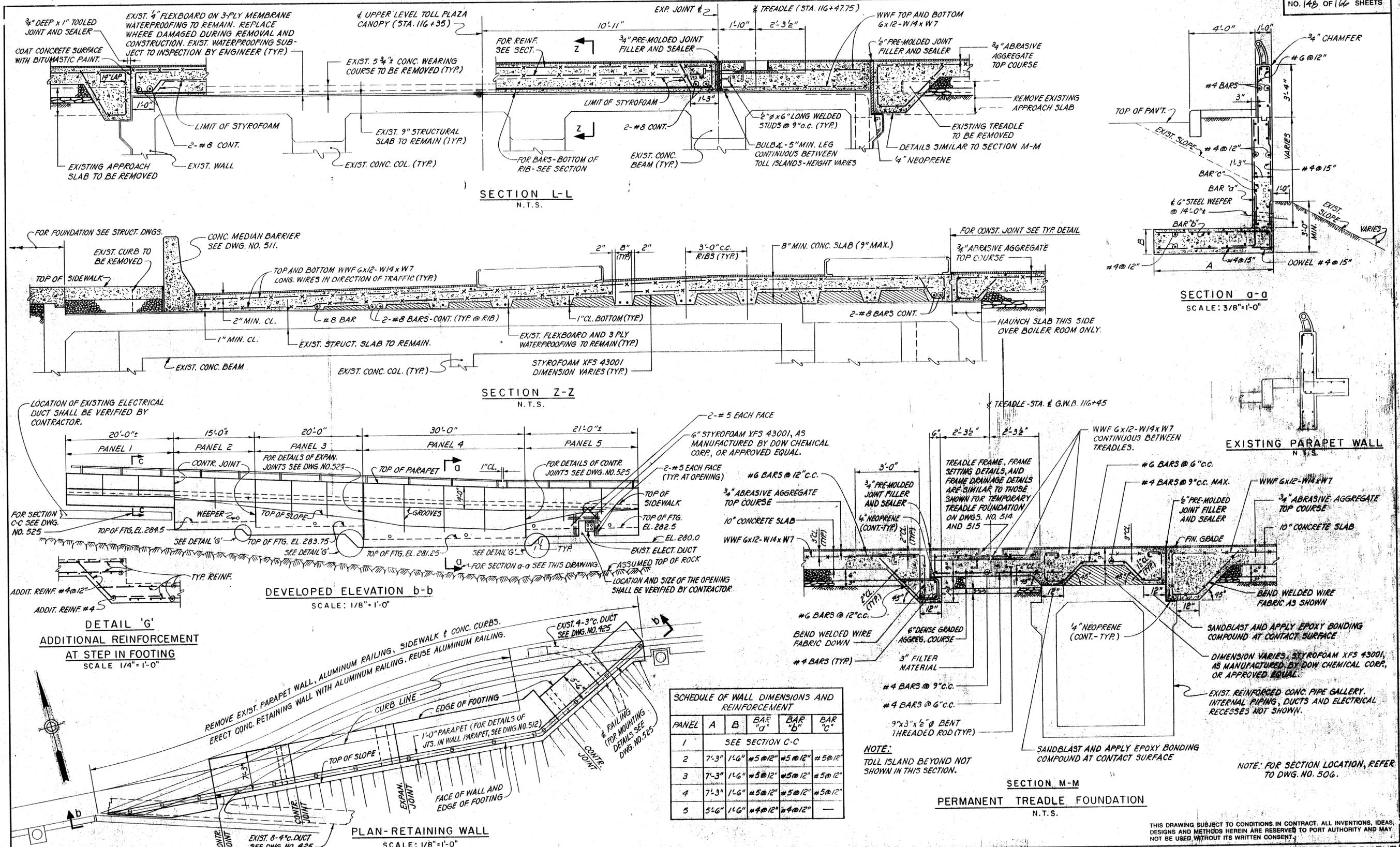
NO. 9 OF 20 SHEETS



THE PORT OF NEW YORK AUTHORITY
GEORGE WASHINGTON BRIDGE
NEW JERSEY PLAZA
TOLL BOOTHS & CANOPY
FOUNDATIONS AND GALLERY

SCALE AS SHOWN
 CONTRACT NO. GWB-40.008 DRAWING NO. 9

December 31, 1953



REVISIONS

NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION

DESIGNED: R.A. DRAWN: W.E.L./H.L. CHECKED: J.G. IN CHARGE: J.G.

RECORDED

Lee Edinger
CHIEF ENGINEER

John J. Quinn
CHIEF CIVIL ENGINEER

John J. Quinn
CHIEF STRUCTURAL ENGINEER

John J. Quinn
ENGINEER OF DESIGN (TUNNELS & BRIDGES)

JUNE 21, 1979
DATE

THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

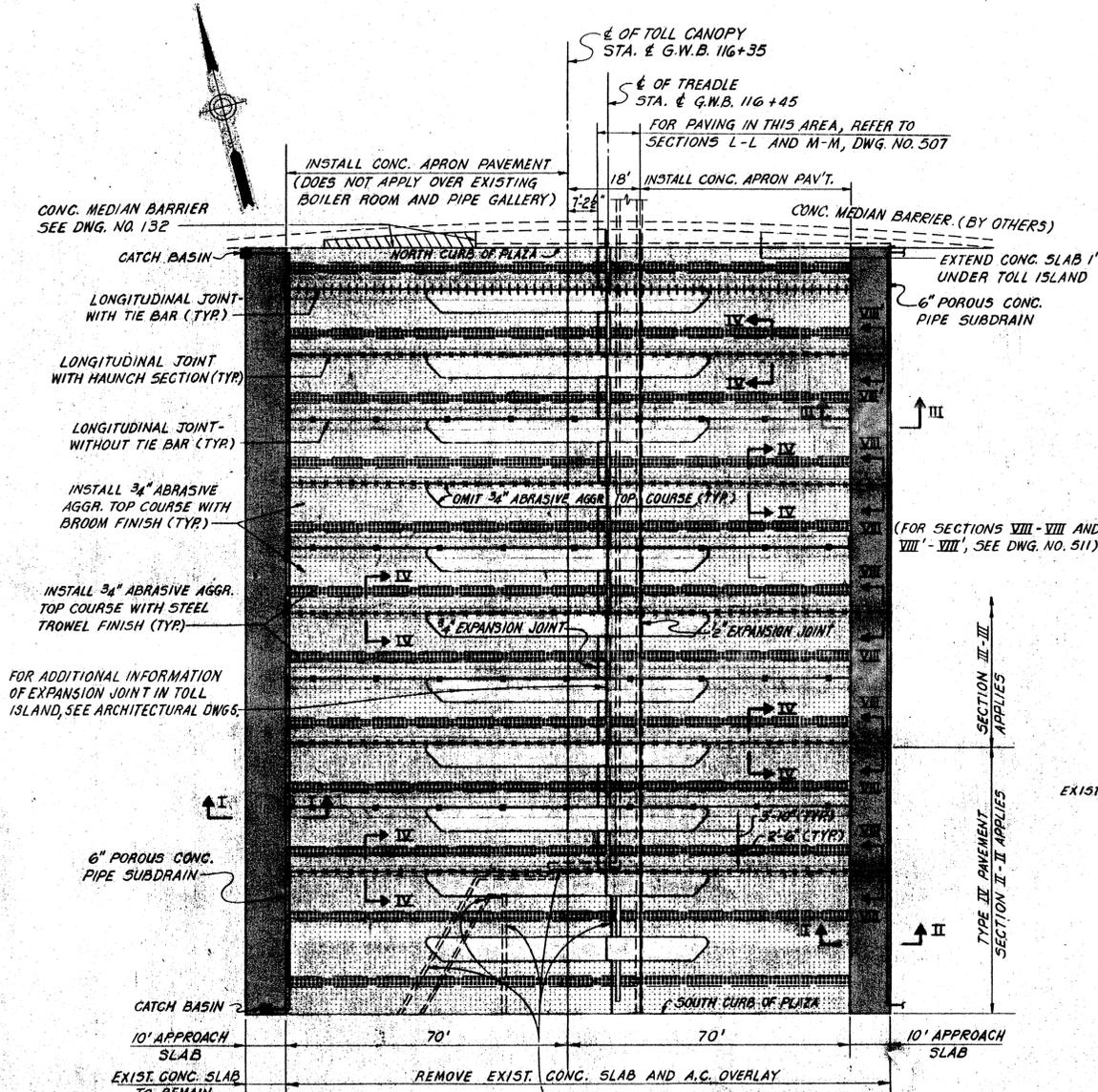
UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING

CIVIL

SECTIONS THRU TOLL PLAZA

CONTRACT NO. GWB-150.006 DRAWING NO. 507

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

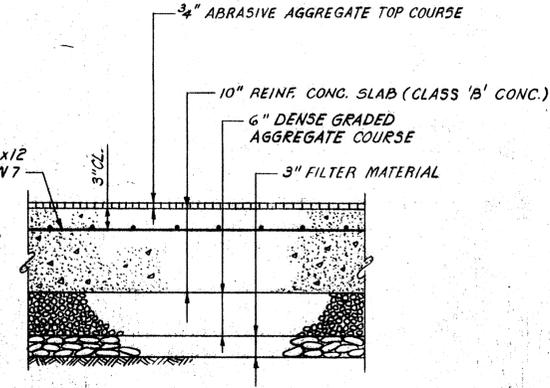


CONCRETE APRON PLAN

SCALE IN FEET

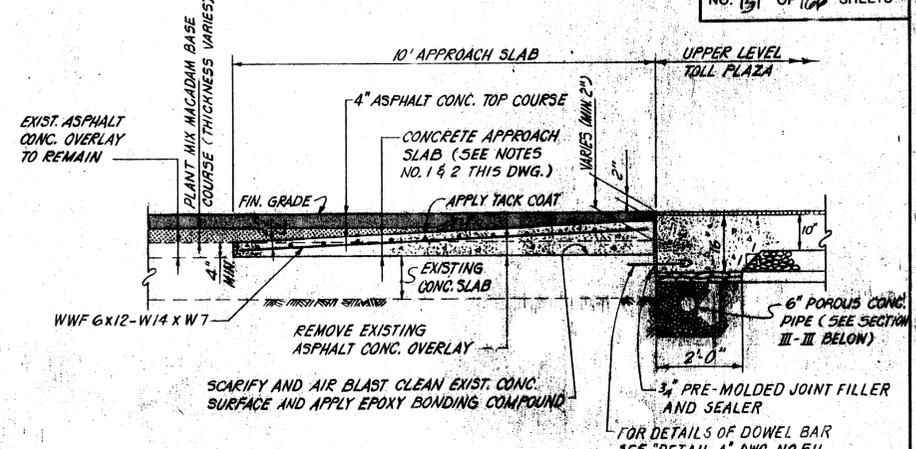
NOTES: (THIS DWG. ONLY)

1. WHERE THERE IS A LONGITUDINAL JOINT IN THE EXIST. CONC. SLABS, THE CONTRACTOR SHALL FORM A COINCIDING JOINT IN THE CONC. APPROACH SLAB, USING 1/2" PRE-MOLDED JOINT FILLER AND SEALER.
2. DURING EACH STAGE OF THE CONSTRUCTION, THE CONTRACTOR SHALL INSTALL CONC. APPROACH SLAB TO THE NEAREST EXIST. LONGITUDINAL JOINT WHERE POSSIBLE. NO ENCRoACHMENT SHALL BE PERMITTED ON AN ACTIVE TRAFFIC LANE.
3. WHERE WELDED WIRE FABRIC SHEETS ARE LAPPED, THE AMOUNT OF LAP SHOULD BE ENOUGH TO PERMIT CROSS WIRES TO LAP BY 1 INCH OR TO ALLOW LONGITUDINAL WIRES TO LAP BY A DISTANCE EQUAL TO 40 TIMES THE DIAMETER OF THE WIRE.
4. THE CONTRACTOR SHALL CORRELATE CONCRETE APRON PLAN WITH TOLL ISLAND PAVING PLAN SHOWN ON DWG. NO. 511.
5. FOR WIDTHS OF TRAFFIC LANE AND TOLL ISLAND, SEE DWG. NO. 506.



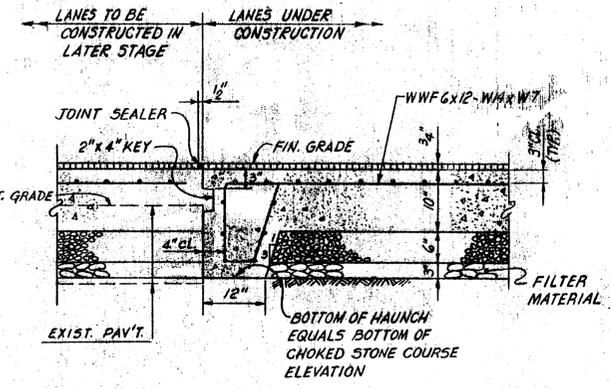
CONCRETE APRON PAVEMENT

N.T.S.



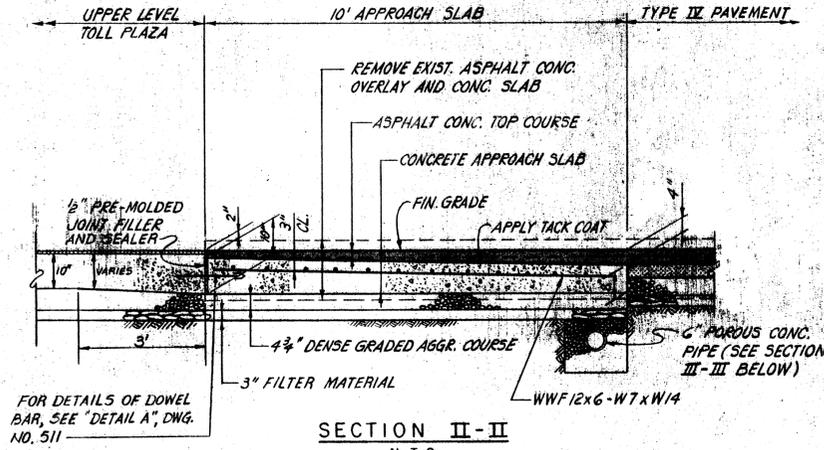
SECTION I-I

N.T.S.



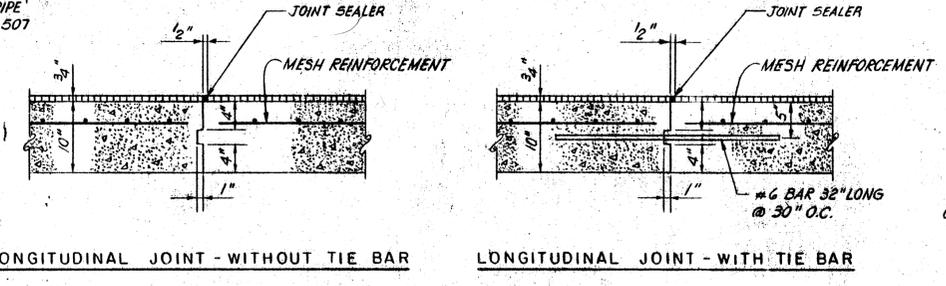
SECTION IV-IV

N.T.S.



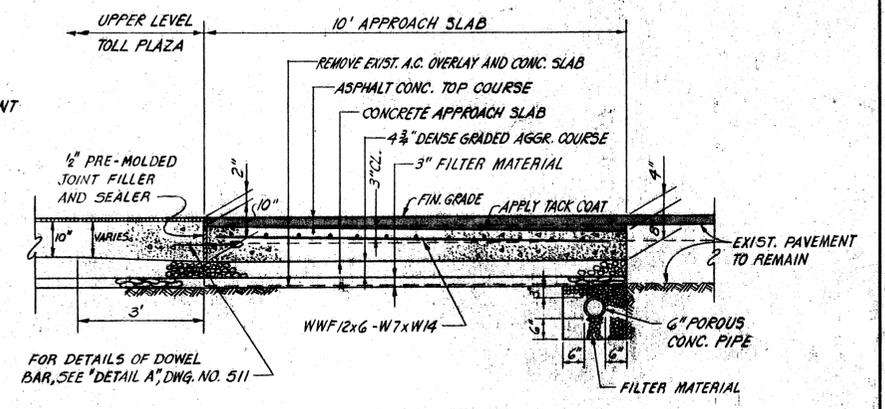
SECTION II-II

N.T.S.



LONGITUDINAL JOINT DETAIL

N.T.S.

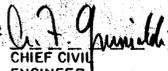


SECTION III-III

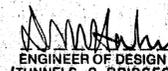
N.T.S.

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED		DRAWN		CHECKED		IN CHARGE	
NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION

 CHIEF ENGINEER CHIEF CIVIL ENGINEER



 ENGINEER OF DESIGN (TUNNELS & BRIDGES)

JUNE 21, 1979
 DATE

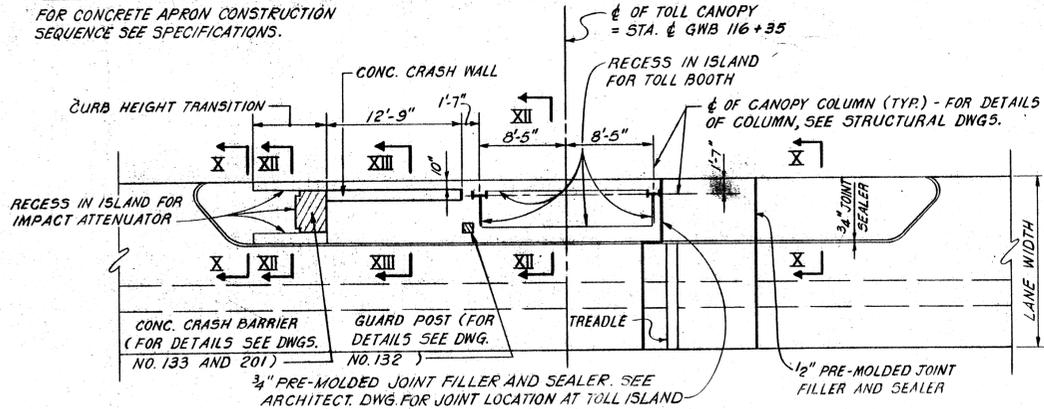
THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY, TOLL BOOTHS & SERVICE BUILDING
 CIVI1

PAVING DETAILS SHEET 1 OF 3

CONTRACT NO. GWB-150.006 DRAWING NO. 510

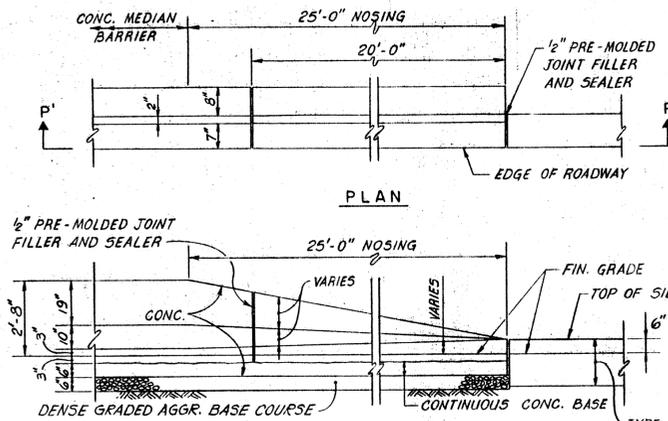
NOTE:
FOR CONCRETE APRON CONSTRUCTION
SEQUENCE SEE SPECIFICATIONS.



TOLL ISLAND PAVING PLAN

(TYPICAL FOR TOLL ISLAND NO.4 THRU NO.24,
FOR TOLL ISLAND NO.2 SEE DWG. NO. 132)

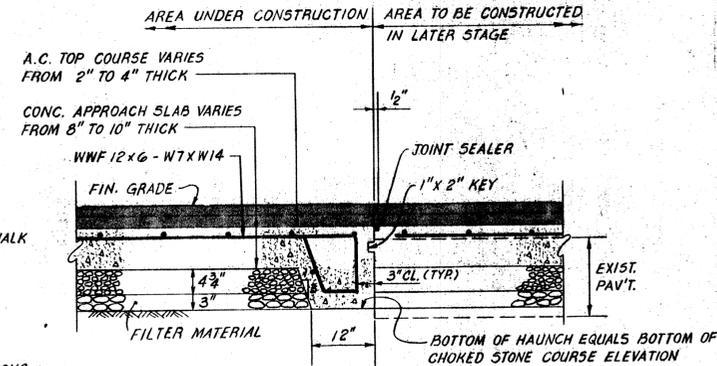
N.T.S.



SECTION P'-P

CONCRETE MEDIAN BARRIER NOSING

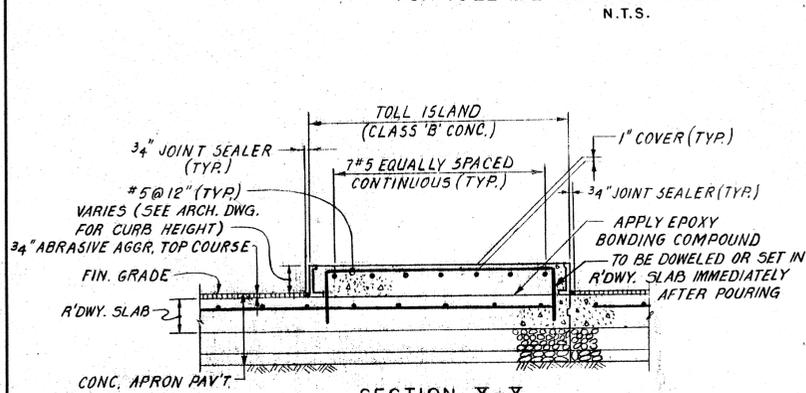
N.T.S.



SECTION VIII-VIII

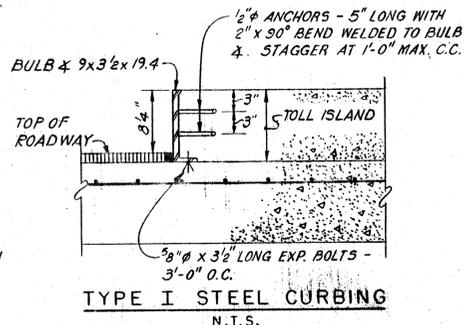
SECTION VIII-VIII (OPP. HAND & SIMILAR)

N.T.S.



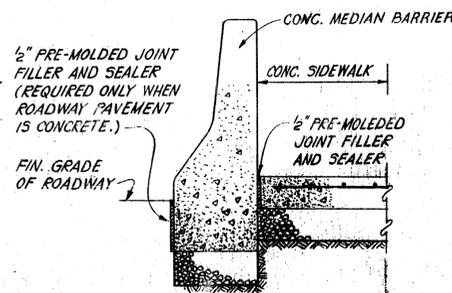
SECTION X-X

N.T.S.



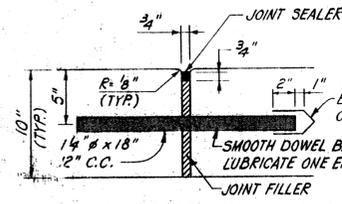
TYPE I STEEL CURBING

N.T.S.



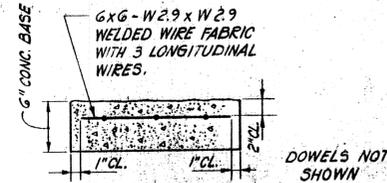
SECTION V-V

N.T.S.



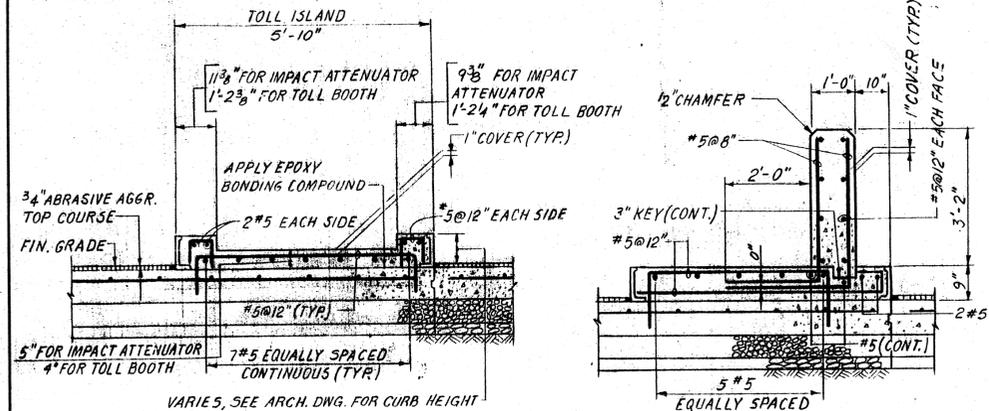
DETAIL A

N.T.S.



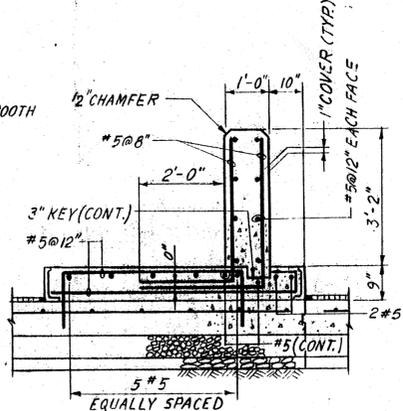
DETAIL B

N.T.S.



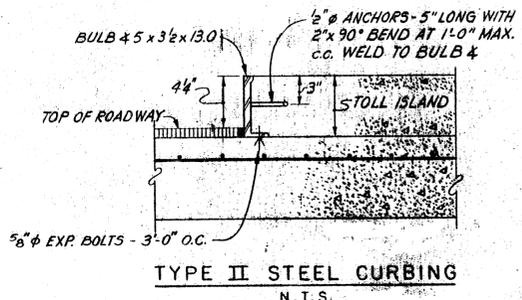
SECTION XII-XII

N.T.S.



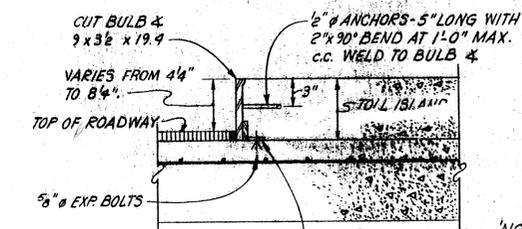
SECTION XIII-XIII

N.T.S.



TYPE II STEEL CURBING

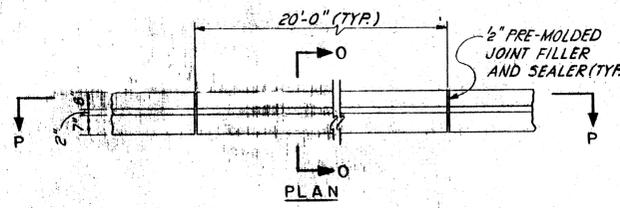
N.T.S.



TYPE III STEEL CURBING

N.T.S.

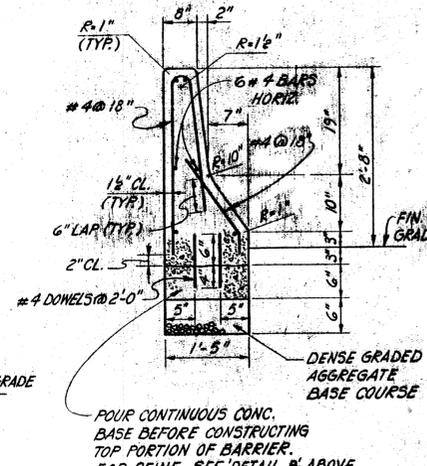
NOTE A
WHERE CONC. MEDIAN BARRIER AND CONC. MEDIAN BARRIER NOSING CROSS THE ROOF SLAB OF THE BOILER ROOM AT THE SOUTH SIDE OF TOLL PLAZA, THE DENSE GRADED AGGREGATE BASE COURSE AND PART OF THE CONTINUOUS CONC. BASE MAY BE ELIMINATED.



SECTION P-P

CONCRETE MEDIAN BARRIER

N.T.S.



SECTION O-O

CONCRETE MEDIAN BARRIER

N.T.S.

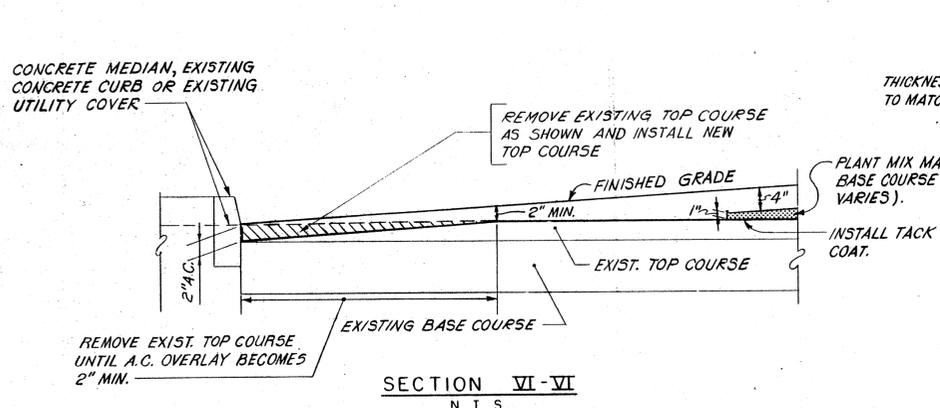
THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED		NO.		DATE		APPD.		DESCRIPTION	
H.Z.L.	DESIGNED								
P.A.	DRAWN								
J.G.	CHECKED								
J.G.	IN CHARGE								

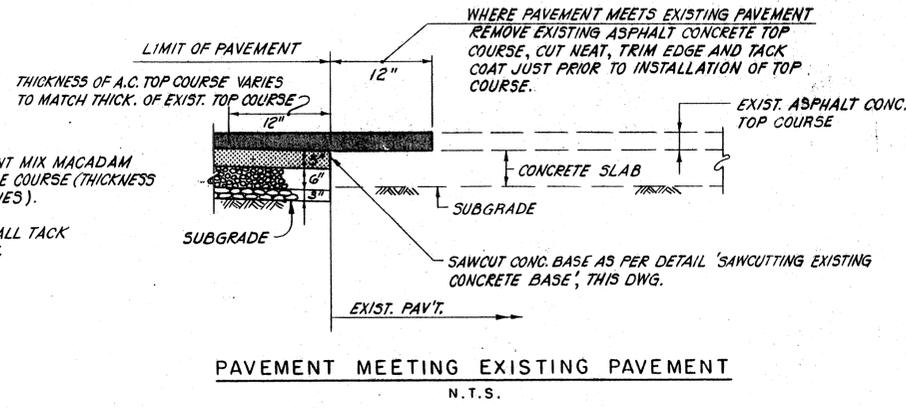
THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE
JUNE 21, 1979
DATE

CHIEF ENGINEER
CHIEF CIVIL ENGINEER
ENGINEER OF DESIGN (TUNNELS & BRIDGES)

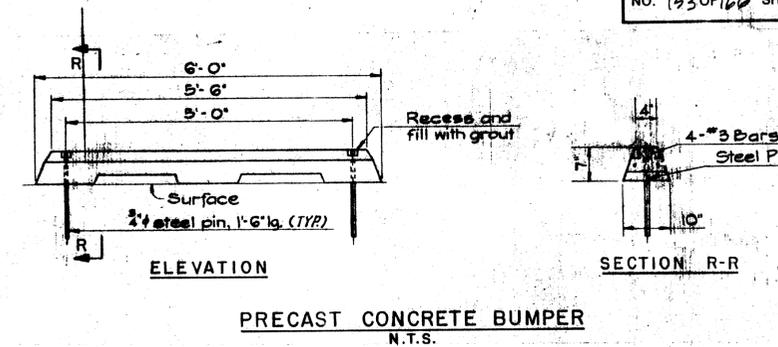
UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING CIVIL
PAVING DETAILS - SHEET 2 OF 3
CONTRACT NO. GWB-150.006 DRAWING NO. 511



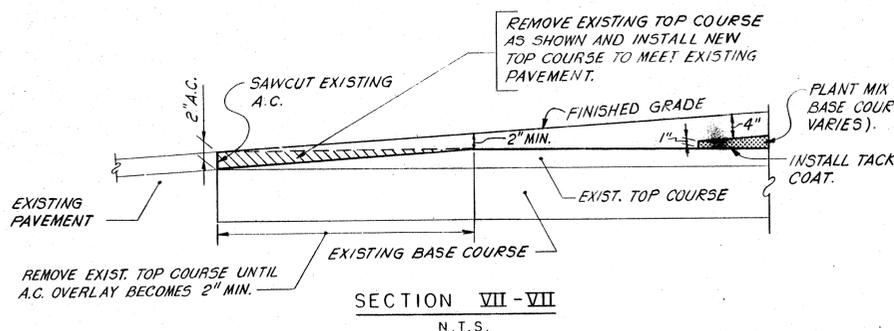
SECTION VI-VI
N.T.S.



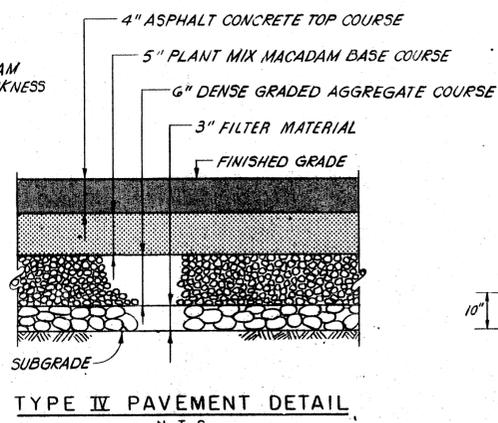
PAVEMENT MEETING EXISTING PAVEMENT
N.T.S.



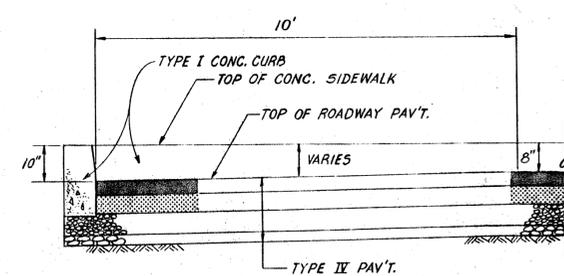
PRECAST CONCRETE BUMPER
N.T.S.



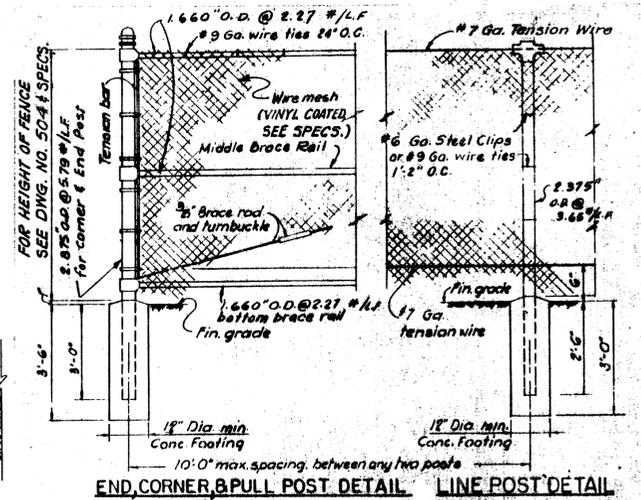
SECTION VII-VII
N.T.S.



TYPE IV PAVEMENT DETAIL
N.T.S.

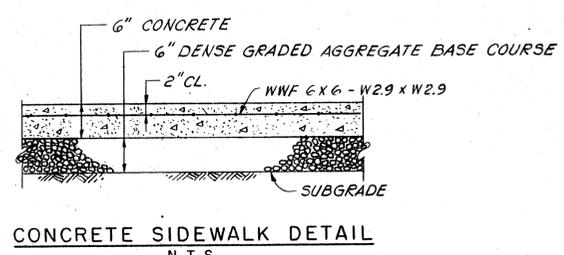


SECTION IX-IX
N.T.S.



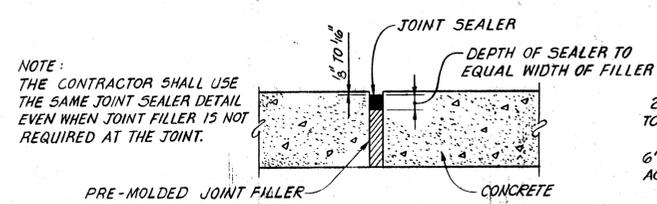
END, CORNER & PULL POST DETAIL
LINE POST DETAIL

- NOTES:**
1. ALL POSTS, RAILS AND BRACES SHALL BE SCHEDULE 40 PIPE UNLESS OTHERWISE SPECIFIED.
 2. THERE SHALL BE A TOP BRACE, MIDDLE BRACE, BOTTOM BRACE AND BRACE ROD ON ONE BAY EACH SIDE OF CORNER, ANGLE, AND END POSTS ONLY.
 3. ERECT PULL POST EVERY 500 FEET OR WHENEVER CHANGE IN FENCE PROFILE EXCEEDS 15\"/>
- VINYL COATED STEEL CHAIN LINK FENCE
N.T.S.

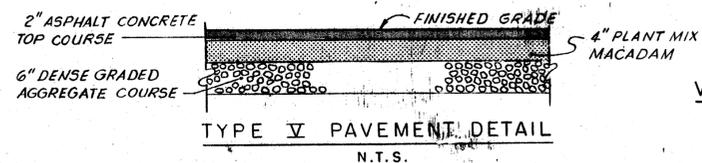


CONCRETE SIDEWALK DETAIL
N.T.S.

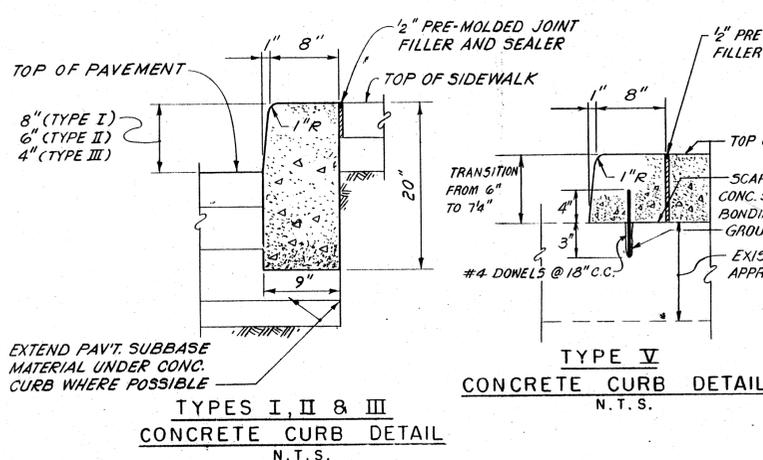
NOTE: THE LAYOUT OF EXPANSION AND SCORED JOINTS IN THE SIDEWALK AREA SHALL BE PROVIDED BY THE ENGINEER, UNLESS OTHERWISE SPECIFIED.



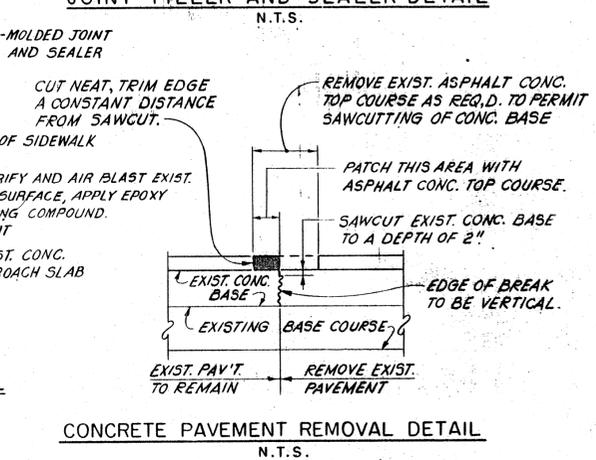
JOINT FILLER AND SEALER DETAIL
N.T.S.



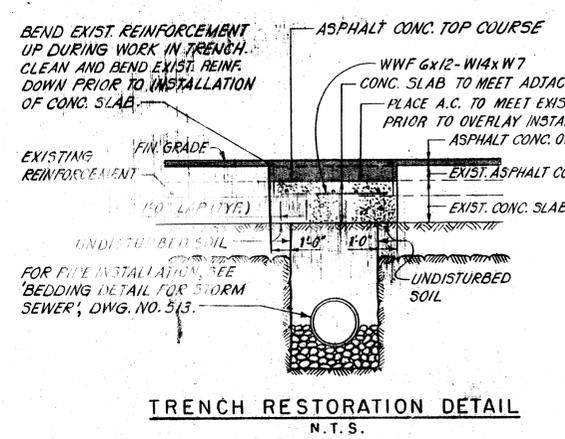
TYPE V PAVEMENT DETAIL
N.T.S.



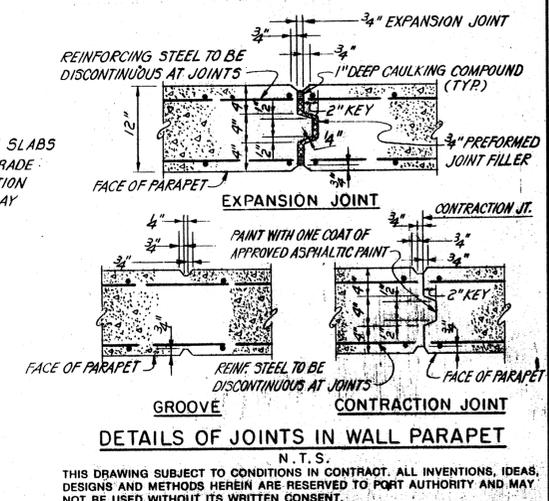
TYPES I, II & III
CONCRETE CURB DETAIL
N.T.S.



CONCRETE PAVEMENT REMOVAL DETAIL
N.T.S.



TRENCH RESTORATION DETAIL
N.T.S.



DETAILS OF JOINTS IN WALL PARAPET
N.T.S.

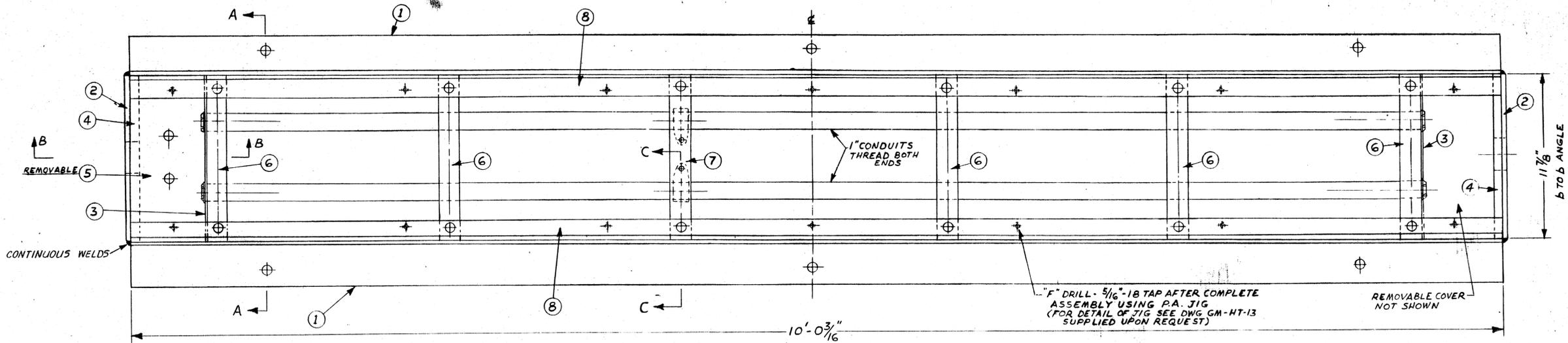
THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED		REVISIONS		NO. DATE APPD.		DESCRIPTION	
H.T.L.	R.A.						
DRAWN							
CHECKED	J.G.						
IN CHARGE	J.G.						

Les Eschwege
 CHIEF ENGINEER
W. J. Grunwald
 CHIEF CIVIL ENGINEER
W. J. Grunwald
 ENGINEER OF DESIGN (TUNNELS & BRIDGES)
 JUNE 21, 1979
 DATE

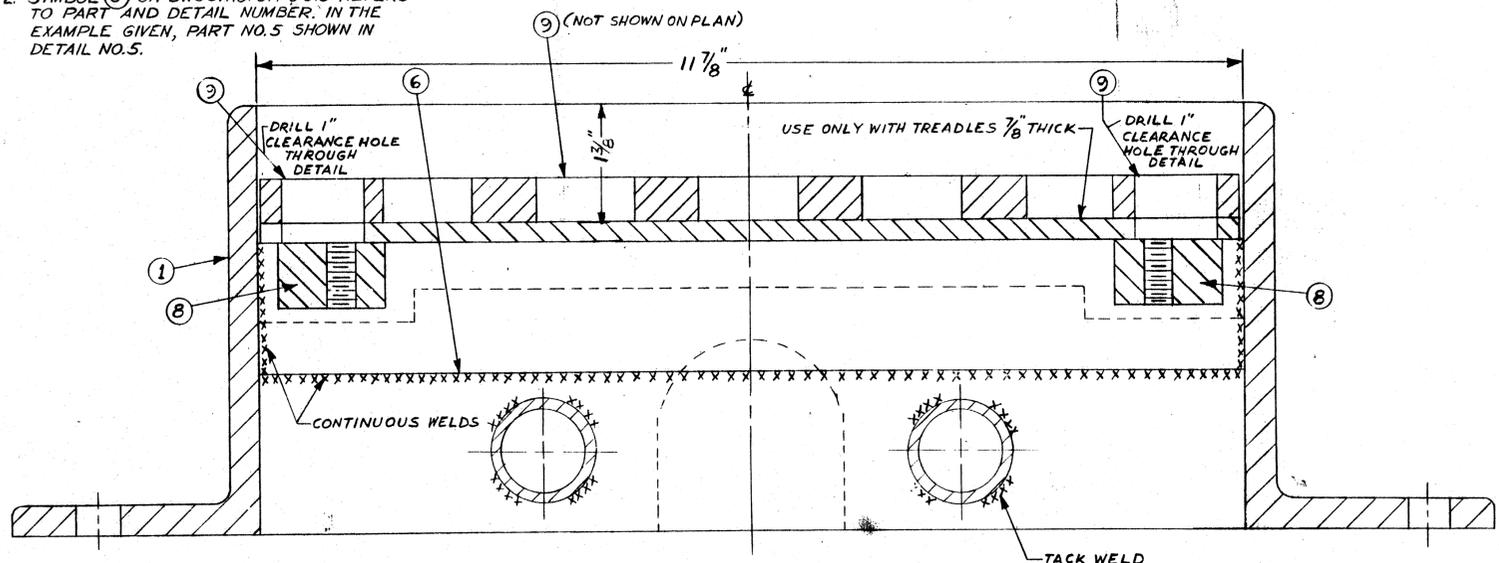
THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY, TOLL BOOTHS & SERVICE BUILDING
 CIVIL
 PAVING DETAILS - SHEET 3 OF 3
 CONTRACT NO. GWB-150.006 DRAWING NO. 512

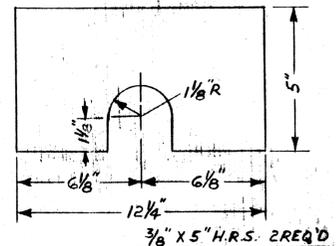


ASSEMBLY PLAN
N.T.S.

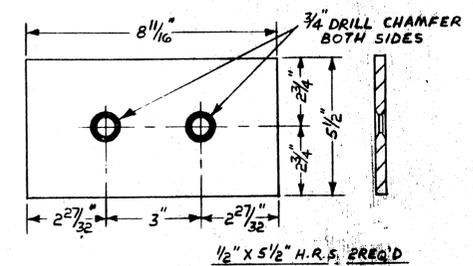
NOTE:
1. ASSEMBLE PARTS 6, 7 & 8 BEFORE TACK-WELDING PARTS 6 & 7 IN PLACE
2. SYMBOL (5) ON DWGS. NO. 514 & 515 REFERS TO PART AND DETAIL NUMBER. IN THE EXAMPLE GIVEN, PART NO. 5 SHOWN IN DETAIL NO. 5.



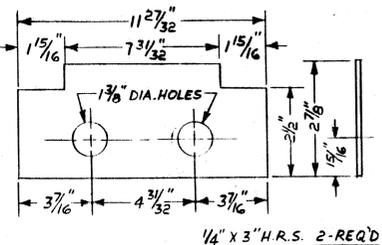
SECTION "A-A"
N.T.S.



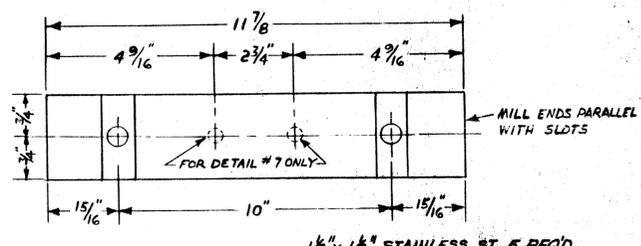
DETAIL NO. 2
N.T.S.



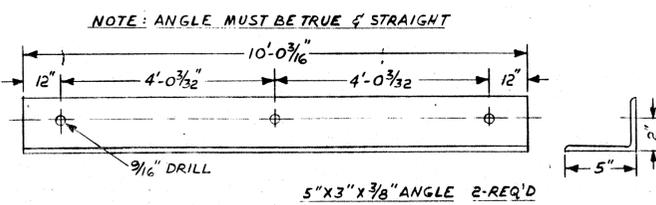
DETAIL NO. 5
N.T.S.



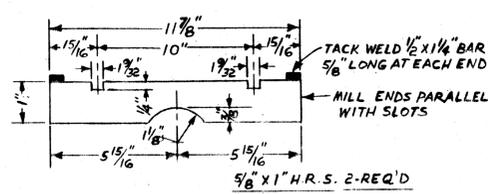
DETAIL NO. 3
N.T.S.



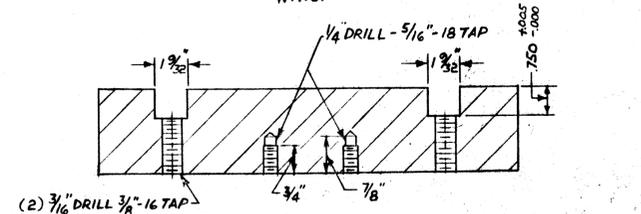
DETAIL NO. 6
N.T.S.



DETAIL NO. 1
N.T.S.



DETAIL NO. 4
N.T.S.



DETAIL NO. 7
N.T.S.

TREADLE FRAME DETAILS

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED J.G.	REVISIONS				NO.	DATE	APPD.	DESCRIPTION
	NO.	DATE	APPD.	DESCRIPTION				
DRAWN J.G.								
CHECKED J.G.								
IN CHARGE								

John J. Hill
CHIEF ENGINEER

John J. Hill
CHIEF CIVIL ENGINEER

John J. Hill
ENGINEER OF DESIGN (TUNNELS & BRIDGES)

JUNE 21, 1979
DATE

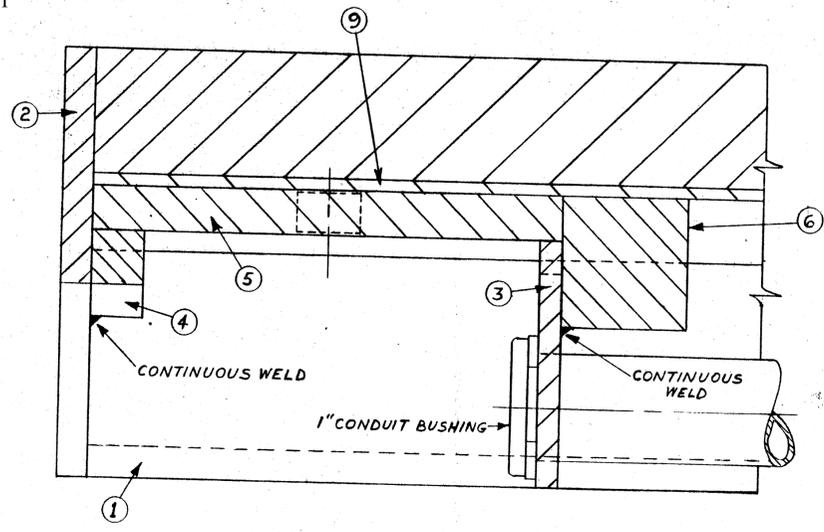
THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

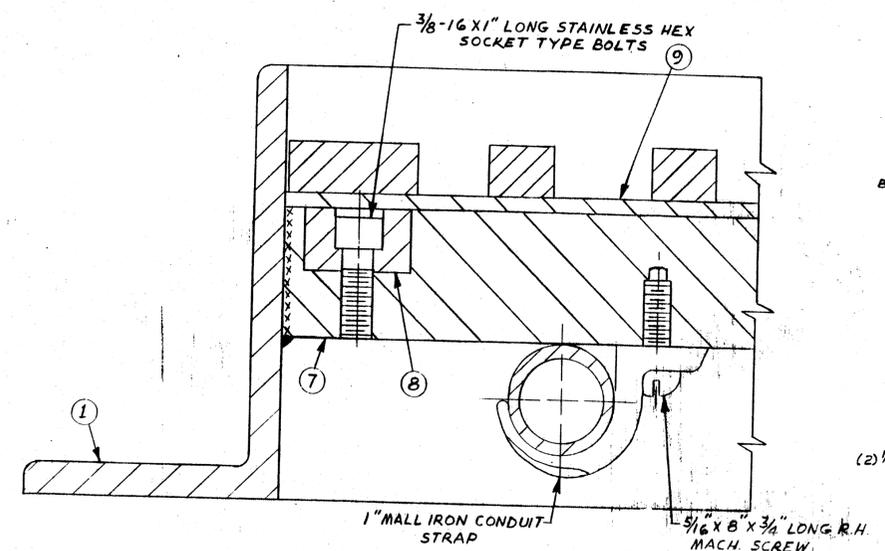
UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING CIVIL

TREADLE FRAME AND TEMPORARY FOUNDATION - SHEET 1 OF 2

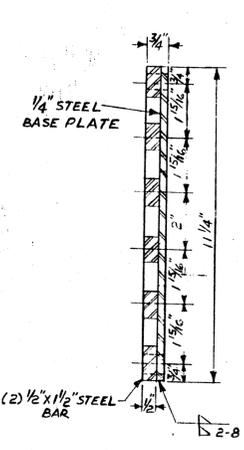
CONTRACT NO. **GWB-150.005** DRAWING NO. **514**



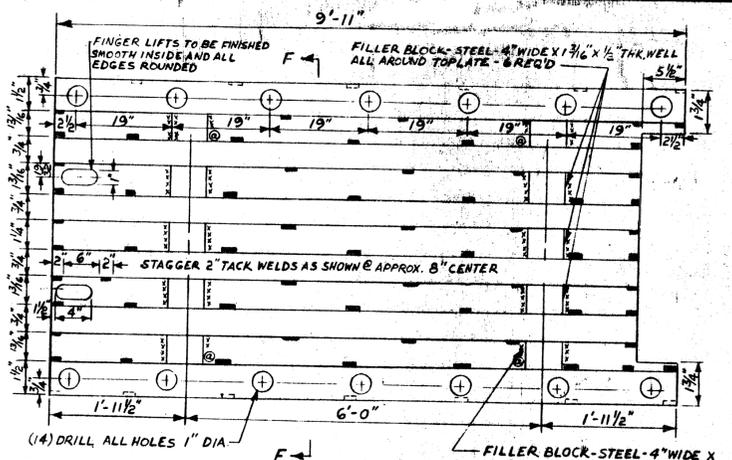
SECTION "B-B"
N.T.S.



SECTION "C-C"
N.T.S.



SECTION "F-F"
N.T.S.

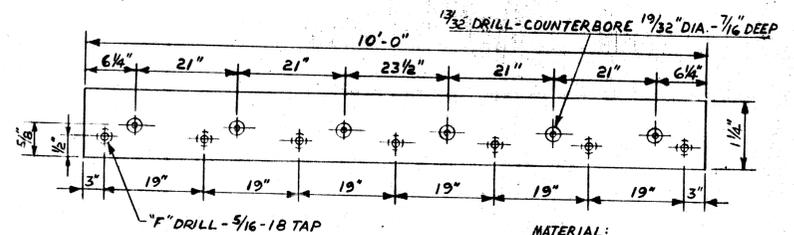


DETAIL NO. 9 FILLER PLATE
N.T.S.

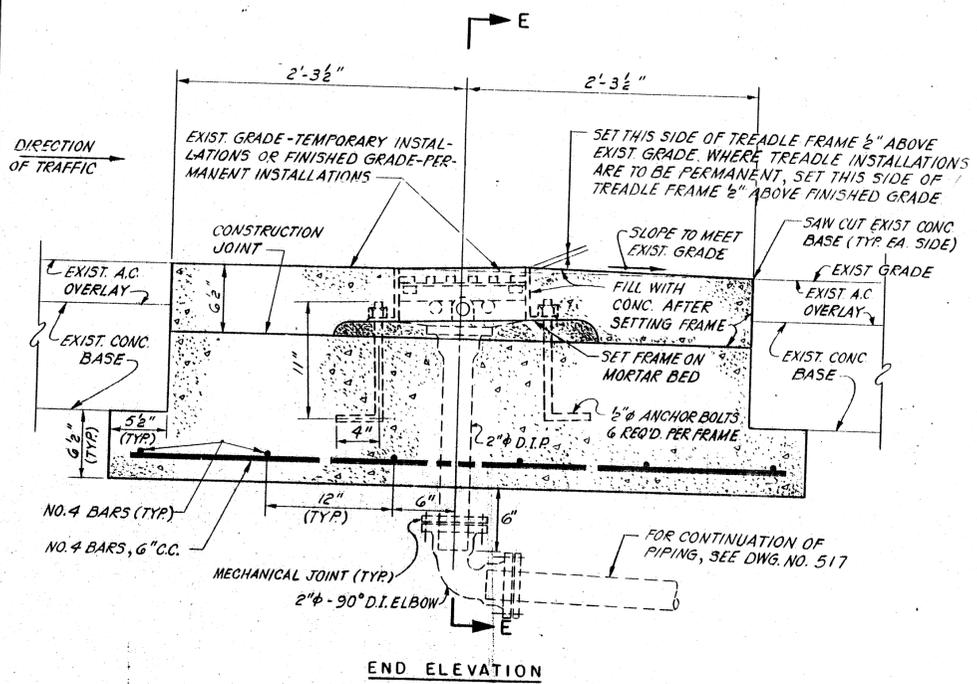
- NOTES:**
1. FABRICATED FRAMES ARE TO BE INSPECTED BY THE PORT AUTHORITY BEFORE APPLICATION OF THE SHOP PAINT.
 2. BEFORE APPLYING SHOP COAT, ALL GREASE AND OIL SHALL BE REMOVED BY WASHING WITH GASOLINE OR OTHER APPROVED SOLVENT.
 3. ALL FRAMES SHALL BE GIVEN ONE (1) COAT OF HEAVY DUTY PAINT FINISH AS PER P.A. SPECIFICATIONS AND SHALL BE THOROUGHLY DRY BEFORE SHIPMENT.

4. FILLER PLATE TO BE HOT DIP GALVANIZED AFTER FABRICATION.
5. FILLER PLATE MAXIMUM ALLOWABLE TOLERANCE FROM PLANE SURFACE = 1/8" AFTER WELDING.
6. ALL STAINLESS STEEL SHALL BE S.S. 304.

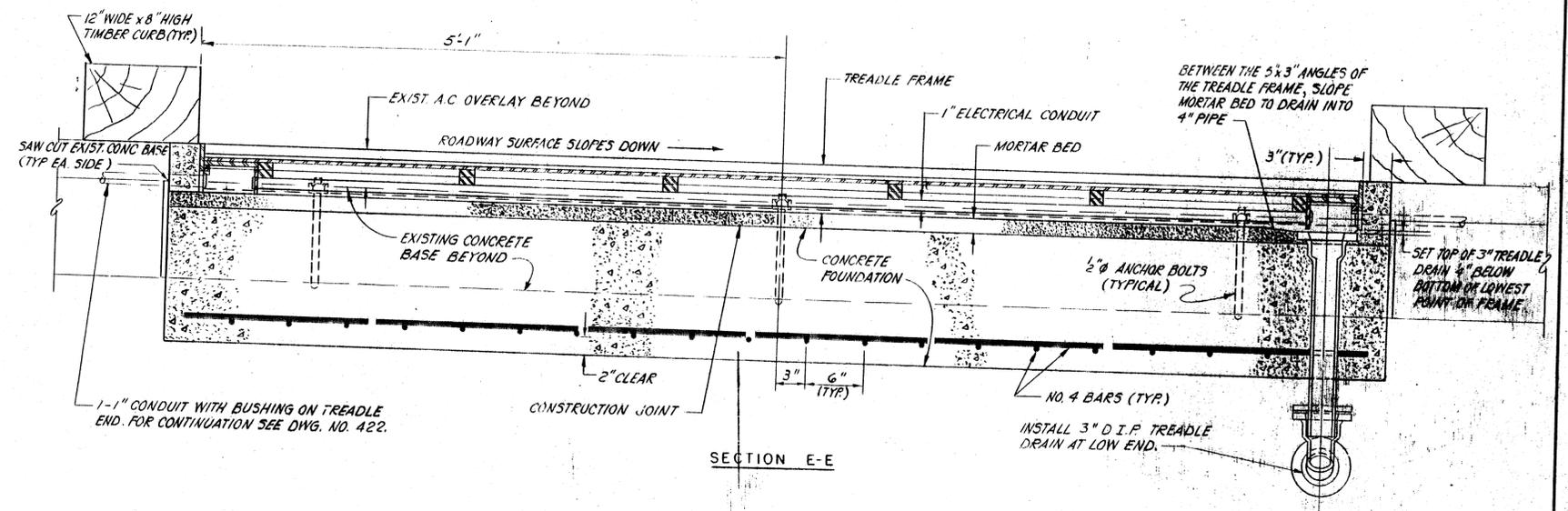
TREADLE FRAME DETAILS (CONTINUED)



DETAIL NO. 8
N.T.S.



END ELEVATION



SECTION E-E

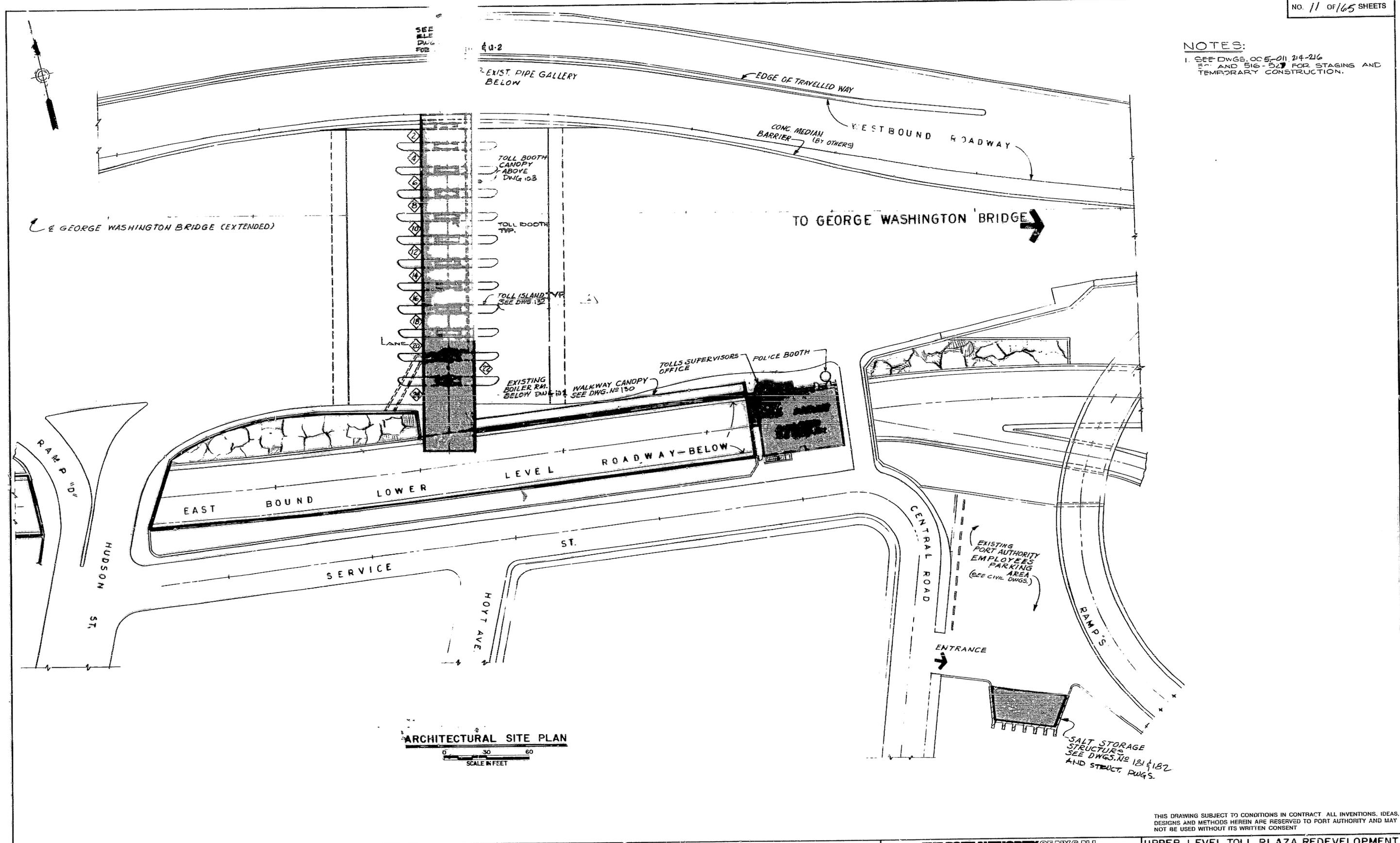
TEMPORARY TREADLE FOUNDATION
SCALE: 1/2" = 1'

DESIGNED R.A.	DRAWN H.T.L.	CHECKED J.G.	IN CHARGE	REVISIONS				DESCRIPTION
				NO.	DATE	APPD.	NO.	
								ENGINEERING PROGRAM MANAGER T&T PROGRAM DRAWING OF RECORD

[Signature] CHIEF ENGINEER
[Signature] CHIEF CIVIL ENGINEER
[Signature] ENGINEER OF DESIGN (TUNNELS & BRIDGES)
 DATE: JUNE 21, 1979

THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE.

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.
UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING CIVIL
TREADLE FRAME AND TEMPORARY FOUNDATION - SHEET 2 OF 2
 CONTRACT NO. GWB-150.006 DRAWING NO. 515



NOTES:
 1. SEE DWGS. OCE-011 214-216
 511 AND 516-523 FOR STAGING AND
 TEMPORARY CONSTRUCTION.

ARCHITECTURAL SITE PLAN
 SCALE IN FEET
 0 30 60

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

G.E. DESIGNED	G.E. DRAWN	NO.	DATE	APPD.	DESCRIPTION	REVISIONS			
						NO.	DATE	APPD.	DESCRIPTION
EL	EL	1	3-23-80		REVISED TO CONFORM TO APPEND. M N&1				

E. J. Casella
 ASST. CHIEF ENGINEER
 OF DESIGN

J. H. D. Wender
 CHIEF ARCHITECT

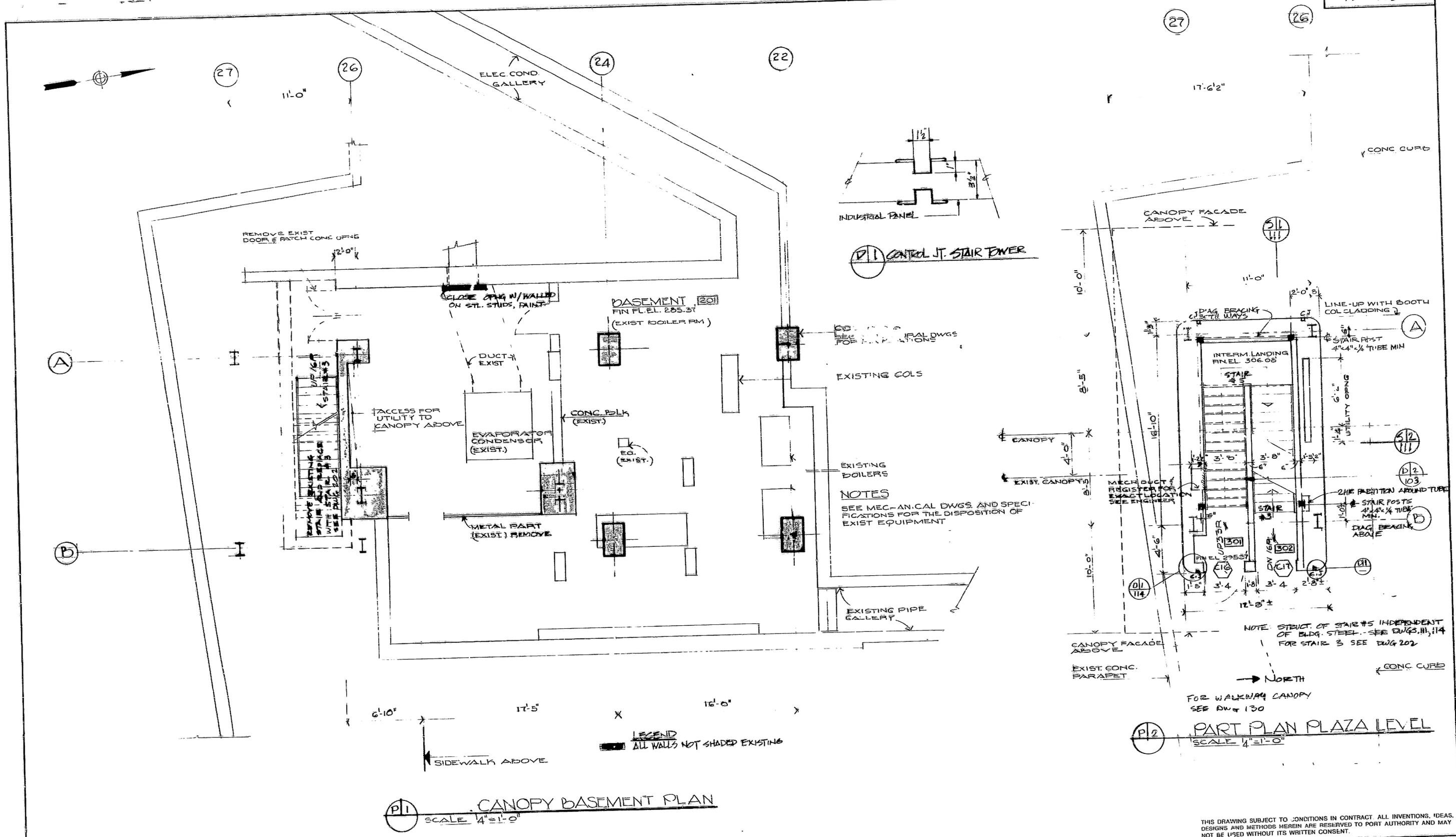
[Signature]
 ENGINEER OF DESIGN
 TUNNELS & BRIDGES

JAN 31, 1980
 DATE

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE

**UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY, TOLL BOOTHS & SERVICE BUILDING
 ARCHITECTURAL
 SITE PLAN**

CONTRACT NO. **GWB-150.006** DRAWING NO. **101**



P1 CANOPY BASEMENT PLAN
SCALE 1/4" = 1'-0"

P2 PART PLAN PLAZA LEVEL
SCALE 1/4" = 1'-0"

LEGEND
ALL WALLS NOT SHADED EXISTING

NOTES
SEE MEC.-AN.CAL DWGS. AND SPECIFICATIONS FOR THE DISPOSITION OF EXIST EQUIPMENT

NOTE: STRUCT. OF STAIRS IS INDEPENDENT OF BLDG. STEEL. SEE DWGS. 111, 114 FOR STAIR 3 SEE DWG 202

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
GE								
DR								
CHK								
IN CH								

[Signature]
ASST. CHIEF ENGINEER
OF DESIGN

[Signature]
SULLIVAN WANDER
CHIEF ARCHITECT

[Signature]
ENGINEER OF DESIGN
TUNNELS & BRIDGES

JAN. 31, 1980
DATE

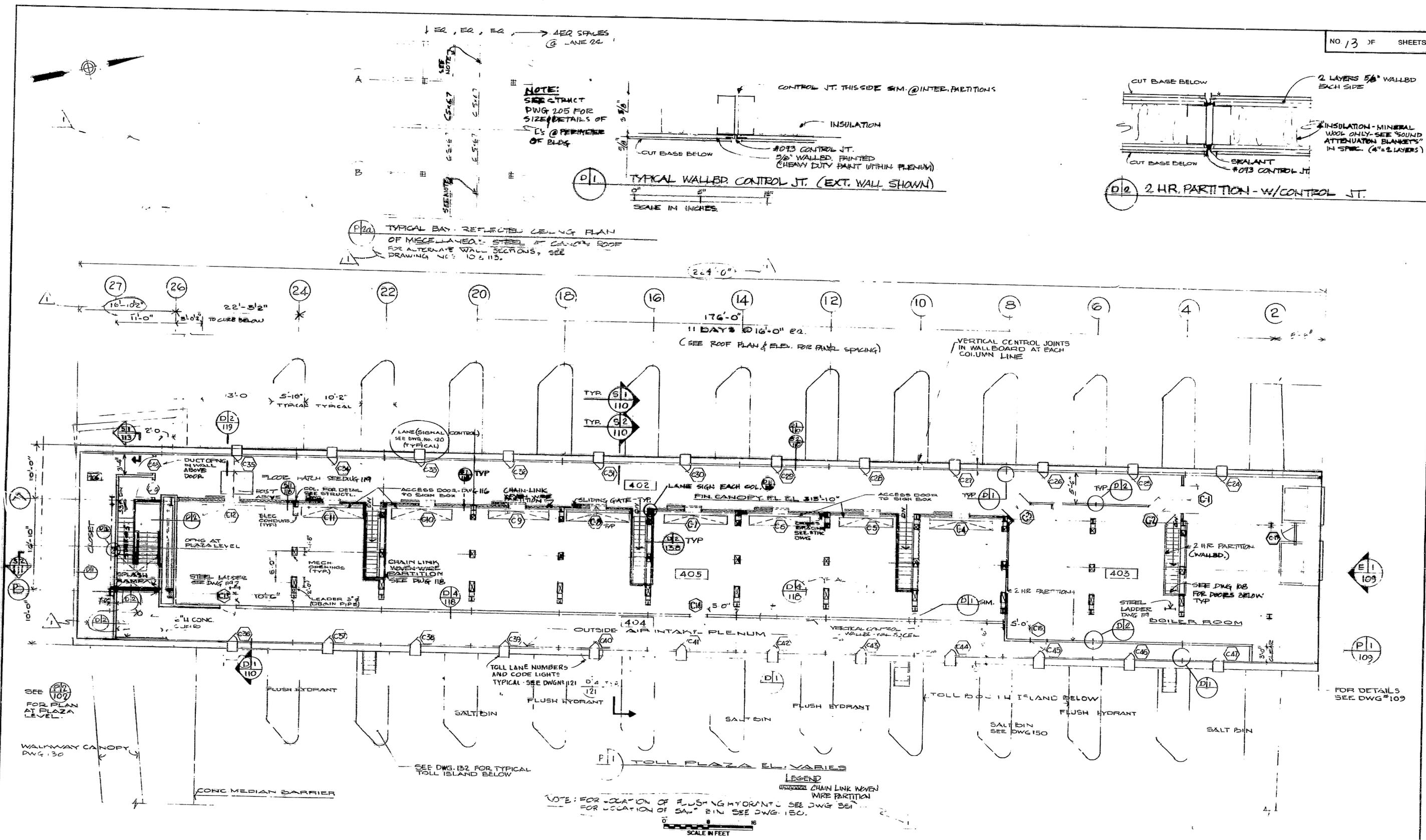
THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
CANOPY TOLL BOOTHS & SERVICE BUILDING
ARCHITECTURAL

BASEMENT PLAN - CANOPY

CONTRACT NO. GWB-150 008 DRAWING NO. 102



G.E. DESIGNED	REVISIONS					
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE
G.E. DRAWN	1	4.25.80	[Signature]	REVISED TO CONFORM TO ADDENDUM N 1		
EL CHECKED						
EL IN CHARGE						

[Signature]
ASSY. CHIEF ENGINEER OF DESIGN

[Signature]
CHIEF ARCHITECT

[Signature]
ENGINEER OF DESIGN TUNNELS & BRIDGES

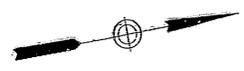
JAN. 31 1980
DATE

THE PORT AUTHORITY OF NY & NJ

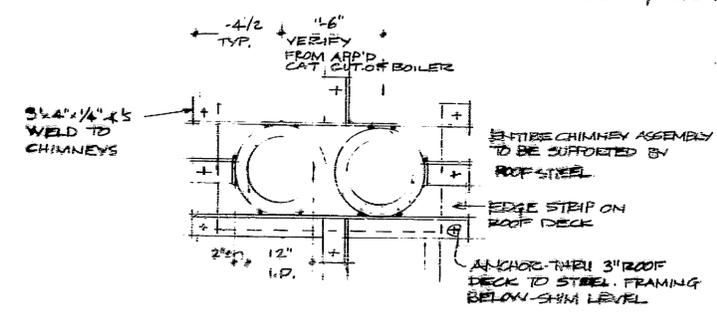
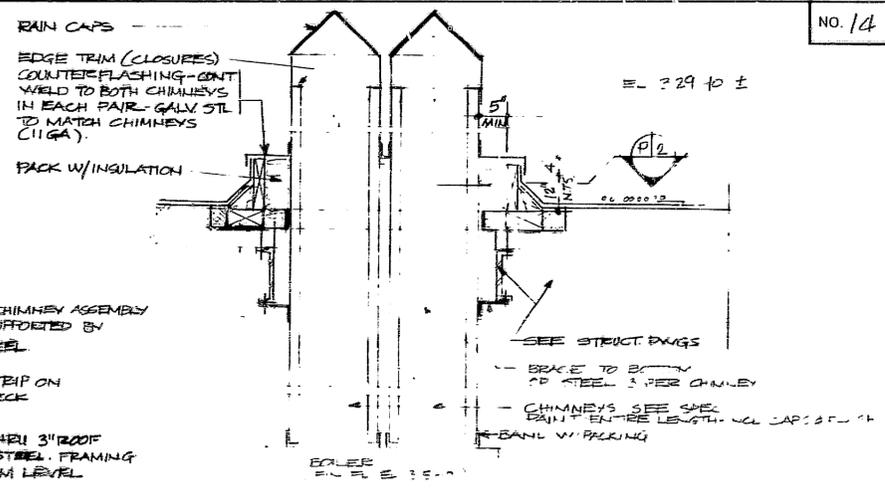
GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING ARCHITECTURAL CANOPY FLOOR PLAN

CONTRACT NO. **GWB-150.008** DRAWING NO. **103**

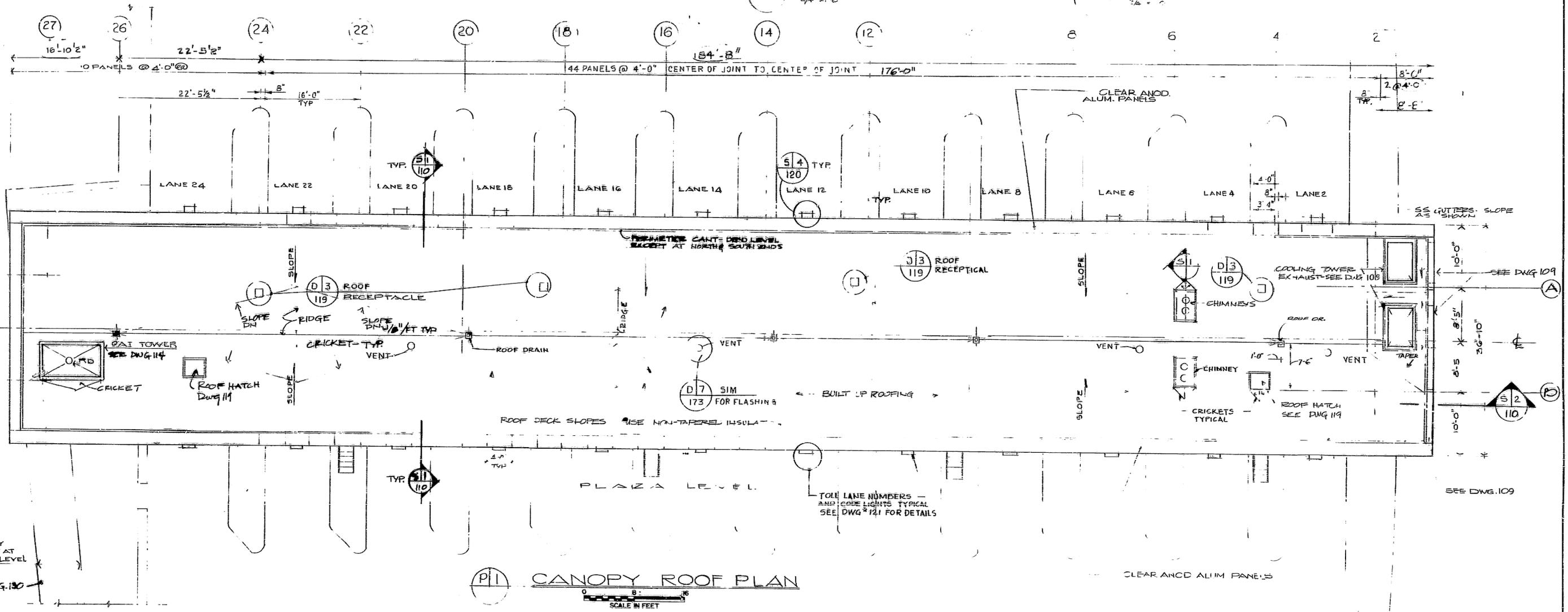


NOTE:
COORDINATE CHIMNEYS WITH BOILER. VERIFY ALL DIMENSIONS FROM BOILER SHOP DIMS. BEFORE FABRICATING CHIMNEYS.



P2 PLAN OF CHIMNEY SUPPORTS
3/4" x 1/4"

E1 SECTION THRU CHIMNEYS (ONE PAIR)
3/4" x 1/4"



P1 CANOPY ROOF PLAN

NOTE: CRICKETS BETWEEN ROOF DRAINS
USE TAPERED INSULATION TO GET 1/8" FT SLOPE MIN.

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED DRAWN CHECKED IN CHARGE	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
	1	4-23-80		REVISION TO CONFORM TO ADDENDUM NO. 1				

[Signature]
ASST. CHIEF ENGINEER
OF DESIGN

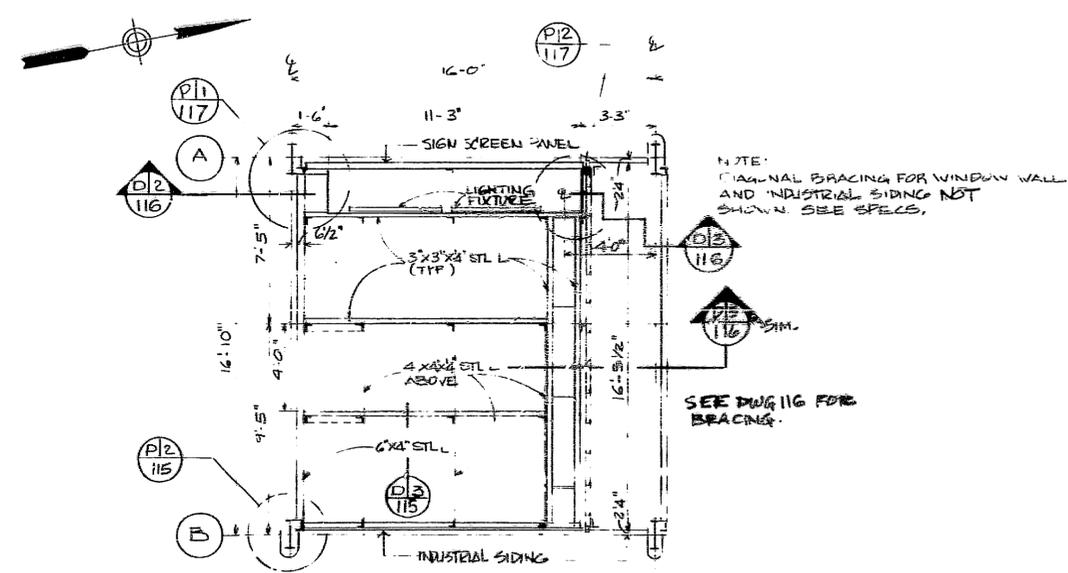
[Signature]
ENGINEER OF DESIGN
TUNNELS & BRIDGES

JAN. 31, 1980
DATE

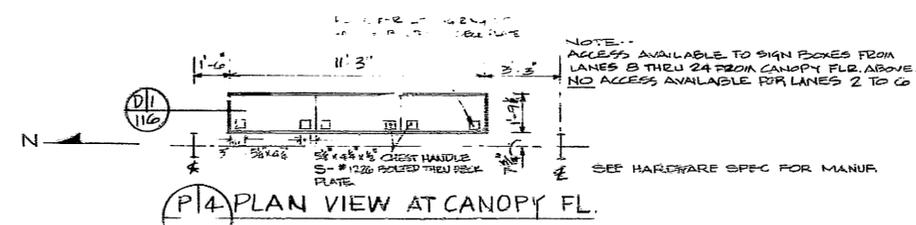
THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
CANOPY, TOLL BOOTHS & SERVICE BUILDING
ARCHITECTURAL
CANOPY ROOF PLAN

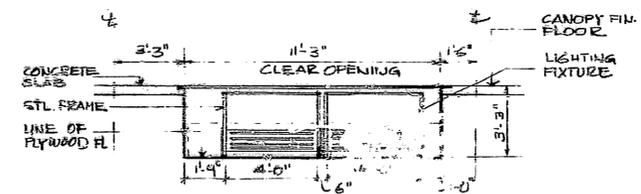
CONTRACT NO. GWB-150.00A DRAWING NO. 104



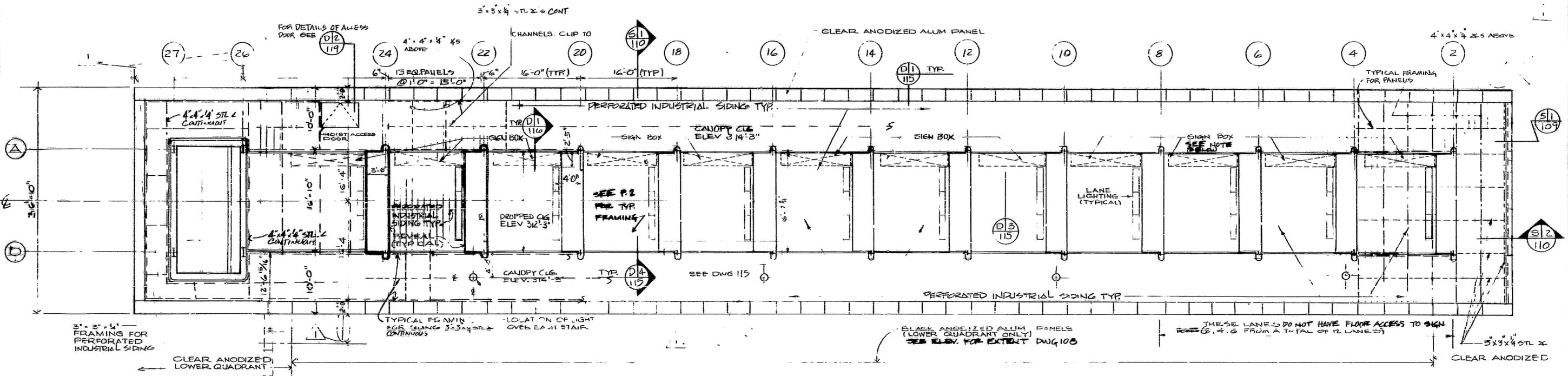
P2 TYP. DROPPED CLG. FRAMING PLAN WITH SIGN BOX - TYPICAL ALL LANES SCALE 4" = 1'-0" EXCEPT 24, 24 SIMILAR



P14 PLAN VIEW AT CANOPY FL.



S1 THRU SIGN BOX SCALE 4" = 1'-0"



P1 REFLECTED CLG PLAN SCALE 1/8" = 1'-0"

NOTE: ON ALL SIGN BOXES, 2 BOXES WILL RECEIVE ART WORK ALL OTHERS WILL REMAIN BLANK SEE DWG. 117

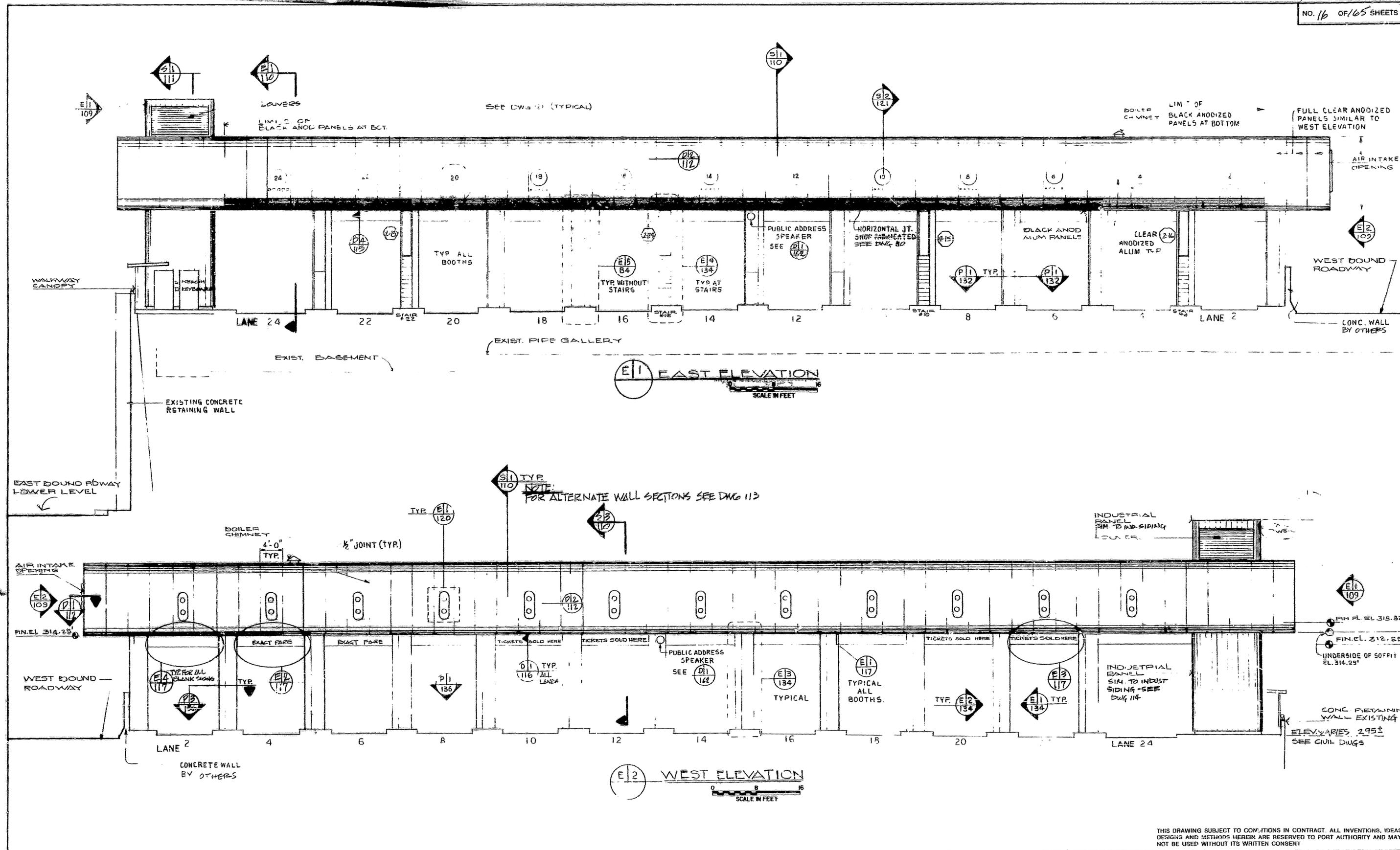
THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT

DESIGNED		REVISIONS		DESCRIPTION	
J.C./B.E.	NO. DATE APPD.	NO. DATE APPD.	DESCRIPTION	NO. DATE APPD.	DESCRIPTION
B.E.	1 4-23-80				
DRAWN					
E.L.					
CHECKED					
E.L.					
IN CHARGE					

ASST. CHIEF ENGINEER OF DESIGN
 ENGINEER OF DESIGN TUNNELS & BRIDGES
 JAN 31, 1980
 DATE

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTH & SERVICE BUILDING ARCHITECTURAL
 CANOPY REFLECTED CEILING PLAN
 CONTRACT NO. GWB-150.008 DRAWING NO. 105



THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT

DESIGNED JR/NP	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
DRAWN	4-23-80							
CHECKED								
IN CHARGE								

John D. Wanda
ASST. CHIEF ENGINEER
OF DESIGN

William D. Wanda
CHIEF ARCHITECT

William D. Wanda
ENGINEER OF DESIGN
TUNNELS & BRIDGES

JAN 31, 1980
DATE

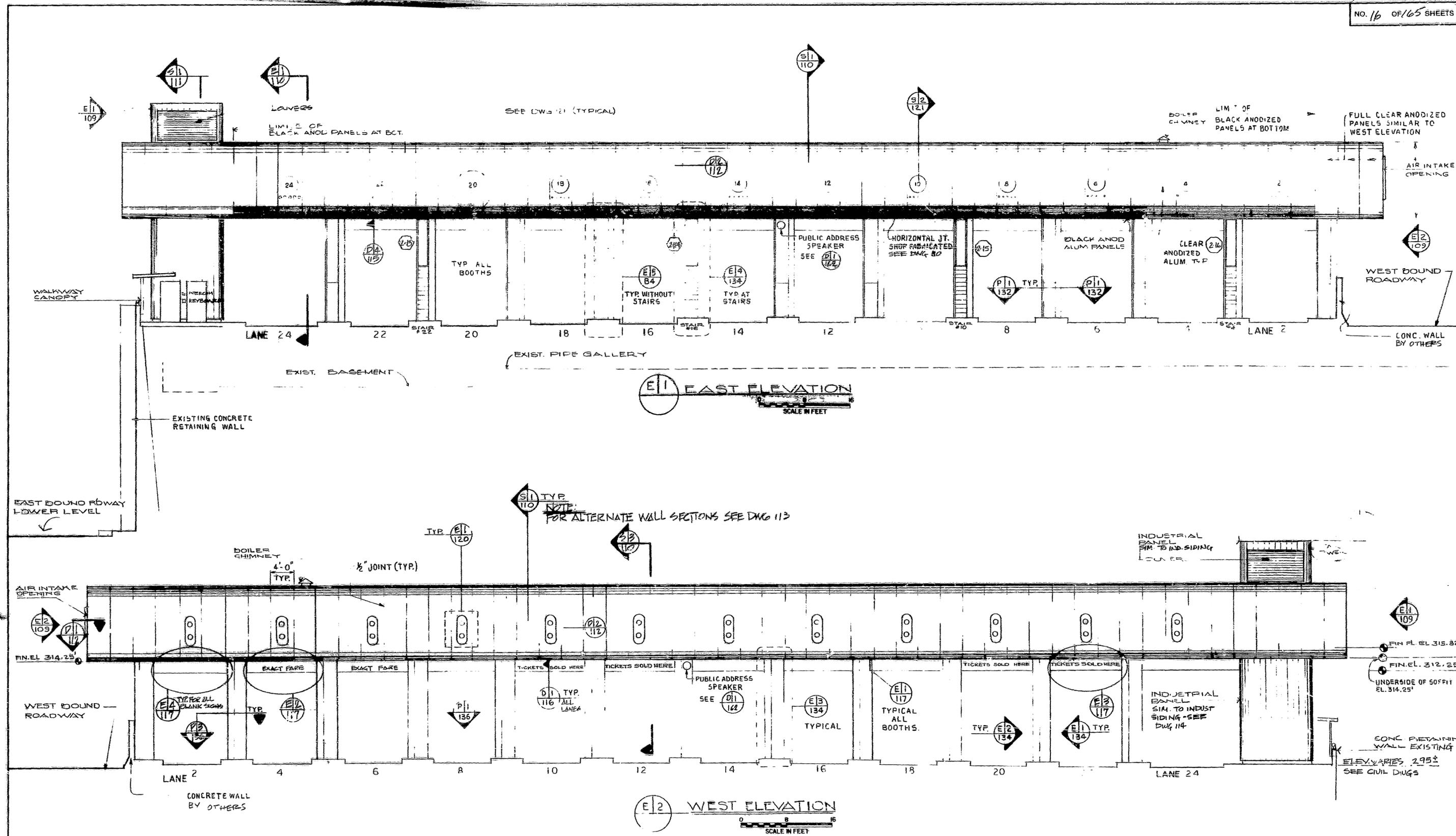
THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
CANOPY, TOLL BOOTHS & SERVICE BUILDING
ARCHITECTURAL

CANOPY ELEVATIONS-EAST, WEST

CONTRACT NO. **GWB-150.003** DRAWING NO. **108**



THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT

DESIGNED JR/NP	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
DRAWN								
E.L. CHECKED	4-23-80							
E.L. IN CHARGE								

[Signature]
ASST. CHIEF ENGINEER OF DESIGN

[Signature]
CHIEF ARCHITECT

[Signature]
ENGINEER OF DESIGN
TUNNELS & BRIDGES

JAN 31, 1980
DATE

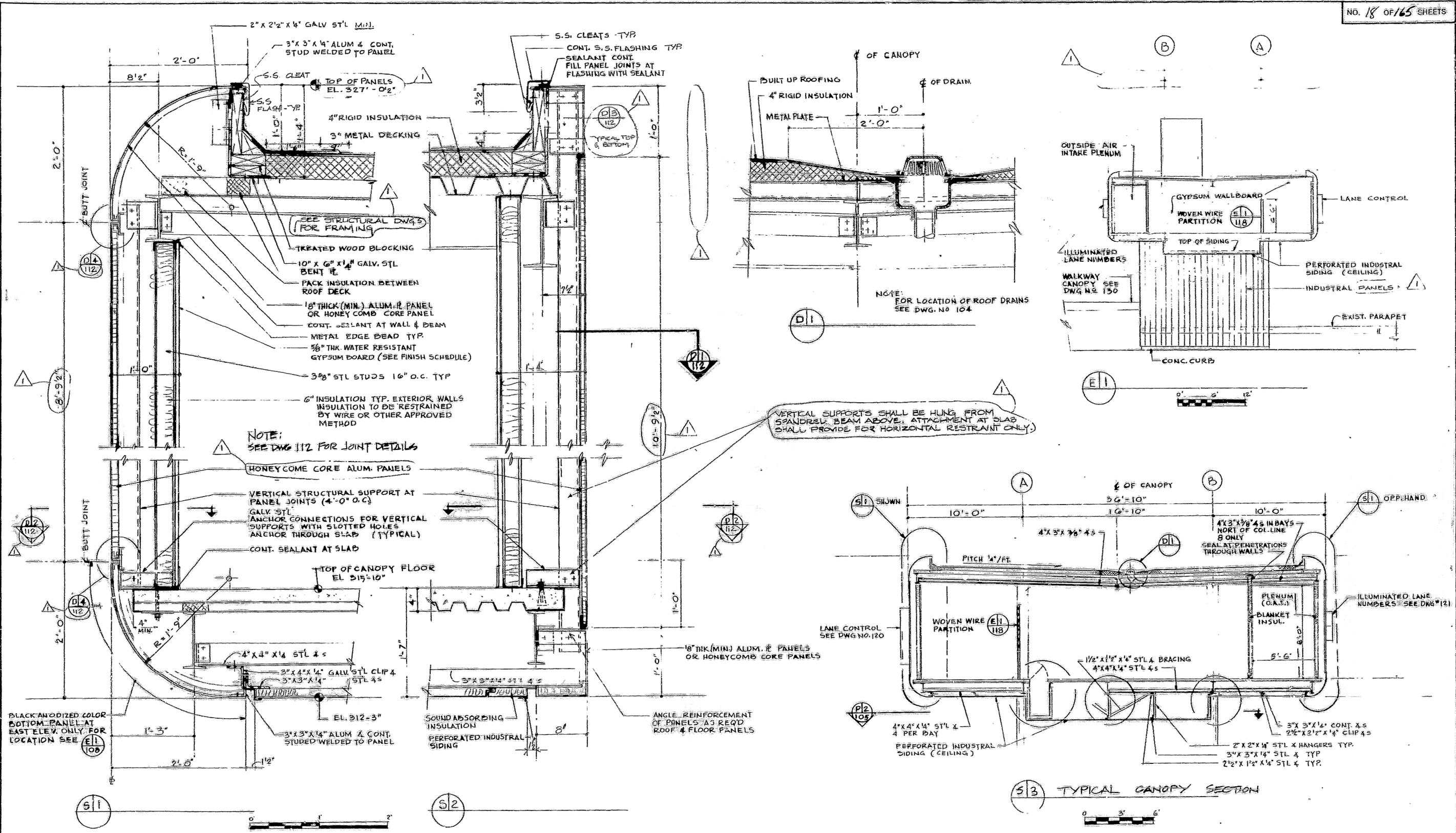
THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING ARCHITECTURAL

CANOPY ELEVATIONS-EAST, WEST

CONTRACT NO. **GWB-150.003** DRAWING NO. **108**



NOTE: FOR ALTERNATE WALL SECTIONS SEE DWG 113

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED	REVISIONS					
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE
DRAWN	1	4-23-80		REVISED TO CONFORM TO ADDENDUM N#1		
CHECKED						
IN CHARGE						

Ed Anello
 ASST. CHIEF ENGINEER OF DESIGN

Silvan D. Winter
 CHIEF ARCHITECT

[Signature]
 ENGINEER OF DESIGN TUNNELS & BRIDGES

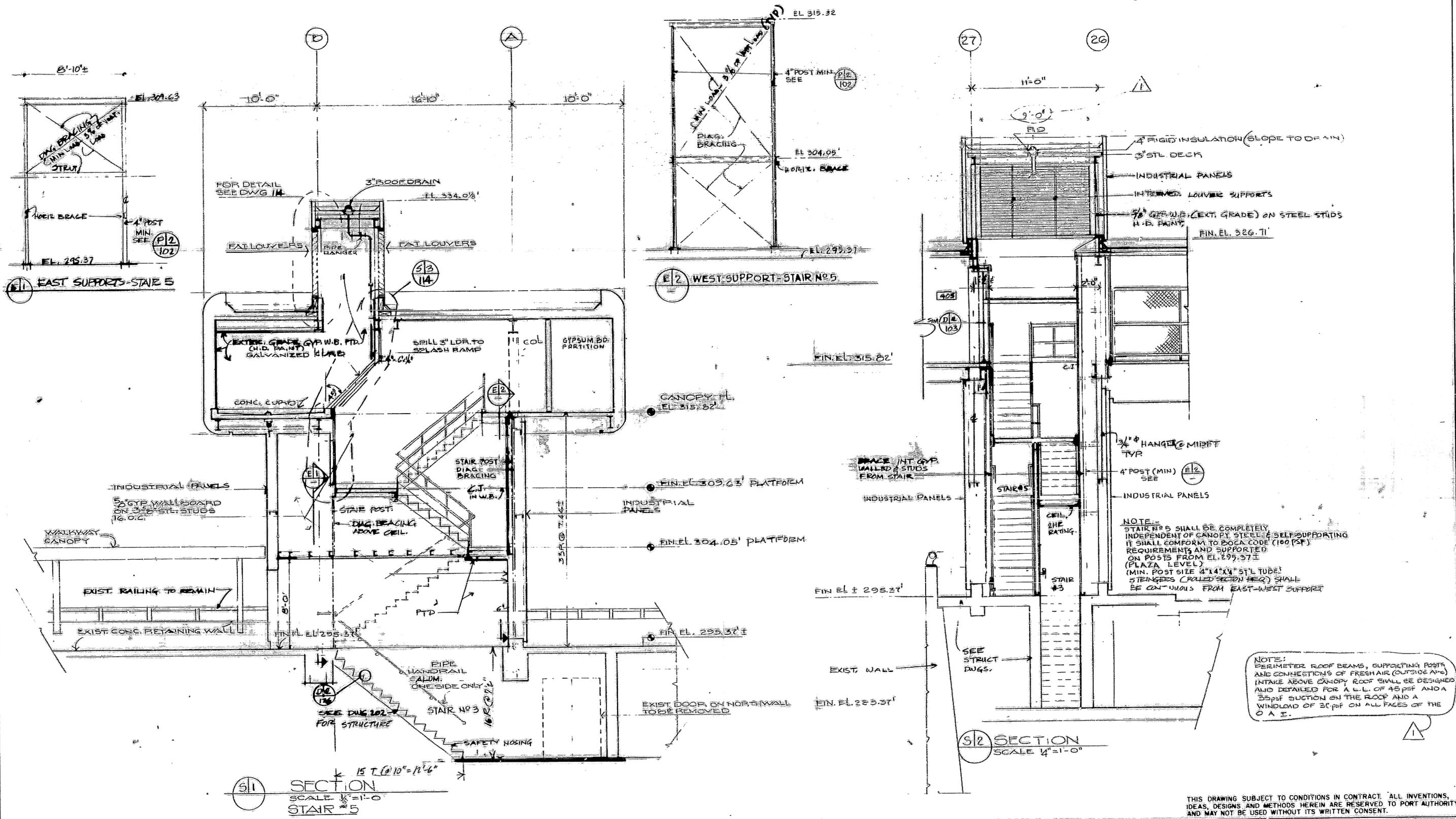
JAN. 31, 1980
 DATE

THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING ARCHITECTURAL CANOPY WALL SECTIONS

CONTRACT NO. SWB-150.008 DRAWING NO. 110



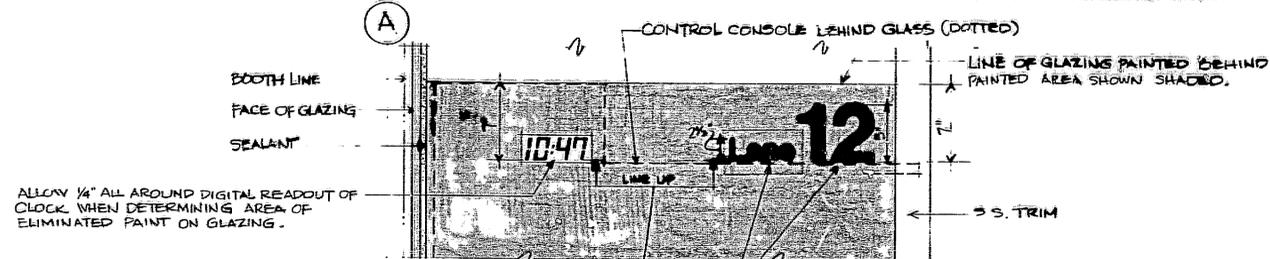
G.E. DESIGNED C.R. DRAWN E.L. CHECKED E.L. IN CHARGE	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
	1	4-23-80		REVISED TO CONFORM TO ADDENDUM NO. 1				

El Nasulle
 ASST. CHIEF ENGINEER
 OF DESIGN

William D. Wambler
 CHIEF ARCHITECT

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE
 JAN. 31, 1980
 DATE

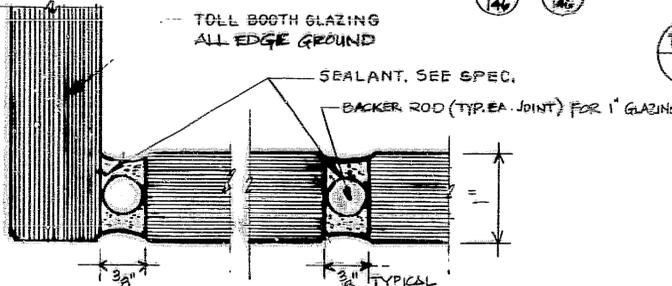
UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY TOLL BOOTHS & SERVICE BUILDING
 ARCHITECTURAL
 STAIR TOWER SECTIONS
 CONTRACT NO. GWB 150.00E DRAWING NO. 111



CONTRACTOR SHALL COORDINATE SHELF FOR CLOCK, PAINTED GLAZING, AND "LANE NUMBER" GRAPHICS SO THAT THE BOTTOM OF THE CLOCK DIGITS LINES UP WITH THE BOTTOM OF THE "LANE NUMBER" AT 7" BELOW PAINTED GLAZING LINE. SEE D12 AND D11.

"LANE NUMBERS" SHALL BE HELVETICA STYLE, UPPER & LOWER CASE AS SHOWN, AND NUMBER OF BOOTH SIZES ARE SHOWN. SUBMIT ARTWORK AS PER NOTE #3, SHEET 148. USE WHITE LETTERS SILKSCREENED TO INSIDE FACE OF GLAZING. THE PORT AUTHORITY WILL PROVIDE PROTOTYPE OF LETTERING.

LETTERS, WHITE STICK-ON, TO BE FIELD APPLIED TO FACE OF TOLL BOOTH. STYLE SHALL BE SELECTED BY ENGINEER. SUBMIT ARTWORK AS PER NOTE #3, SHEET 148. TOLL RATE SCHEDULE SIMILAR TO THE SCHEDULE SHOWN, WILL BE SUPPLIED BY THE P.A.

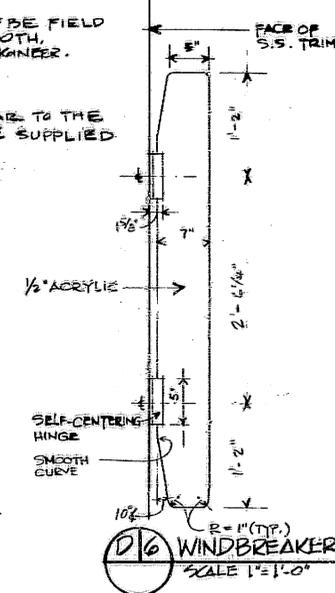


D1 SCALE: FULL SIZE
D2 SCALE: FULL SIZE

D5 PART ELEV. SOUTH TOLL BOOTH SCALE: 1/2" = 1'-0"

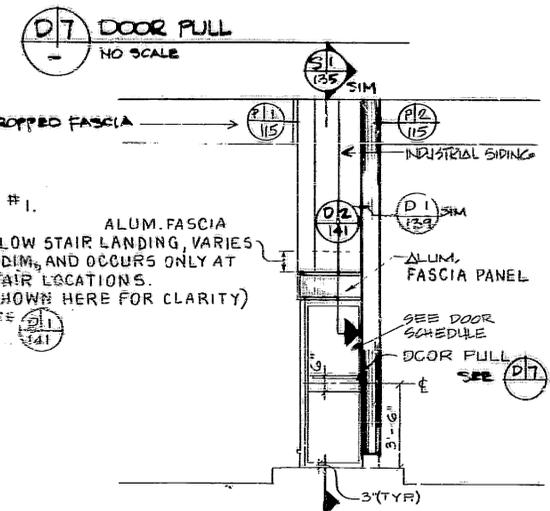


D14 TOLL RATE SCHEDULE SCALE: 1" = 1'-0"



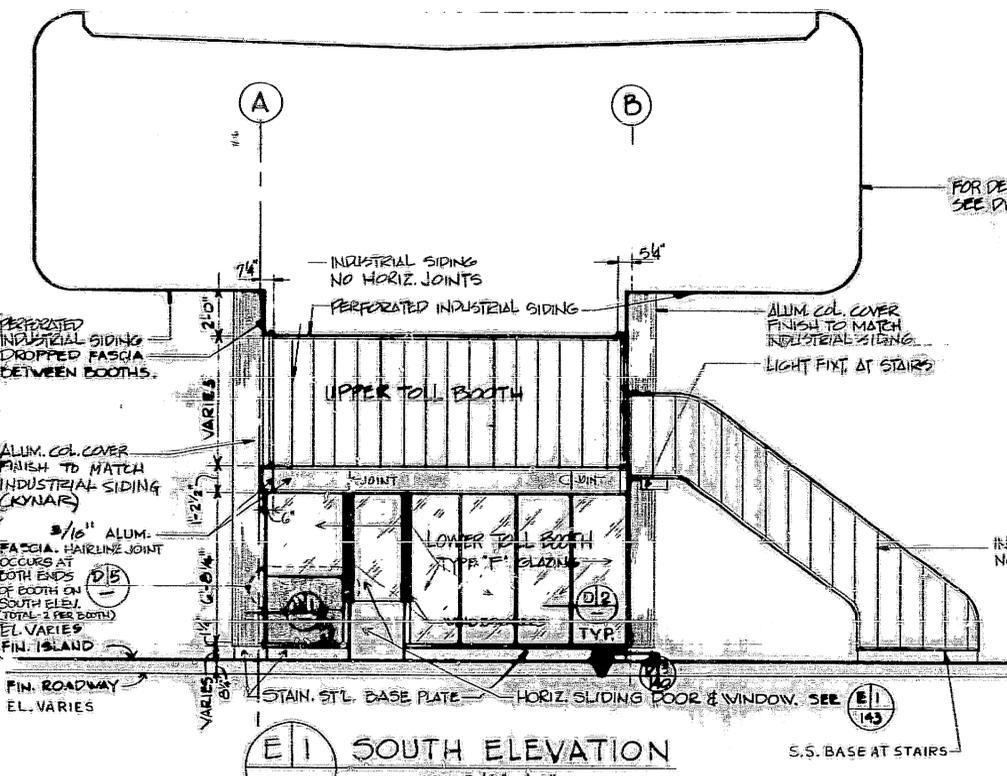
D16 WINDBREAKER SCALE: 1" = 1'-0"

NOTE #1: ALUM. FASCIA BELOW STAIR LANDING, VARIES IN DIM. AND OCCURS ONLY AT STAIR LOCATIONS. (SHOWN HERE FOR CLARITY) SEE D11 AND D14.

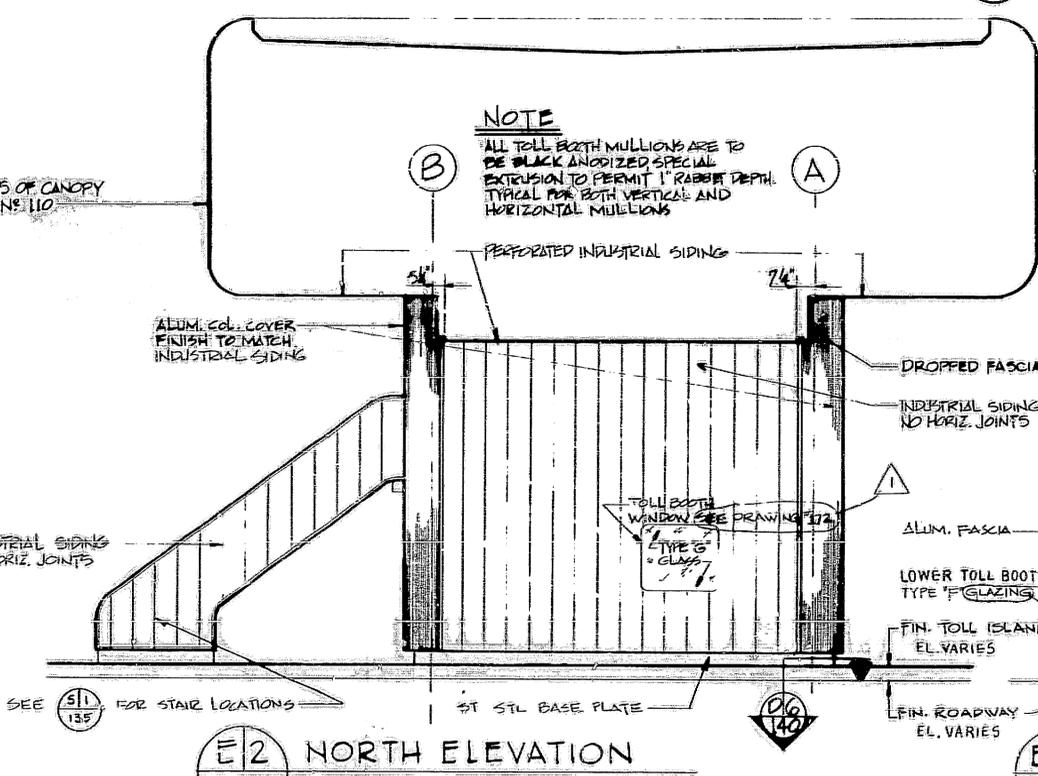


D7 DOOR PULL NO SCALE

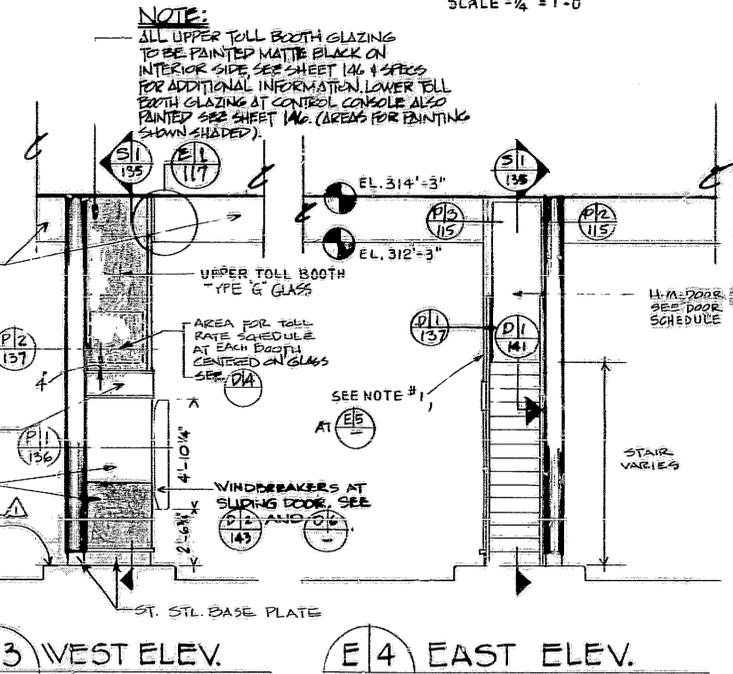
E5 EAST ELEV. TYPICAL TOLL BOOTH WITHOUT STAIRS SCALE: 1/4" = 1'-0"



E1 SOUTH ELEVATION SCALE: 1/4" = 1'-0"



E2 NORTH ELEVATION SCALE: 1/4" = 1'-0"



E3 WEST ELEV. SCALE: 1/4" = 1'-0"

E4 EAST ELEV. TYPICAL TOLL BOOTH WITH STAIRS SCALE: 1/4" = 1'-0"

NOTE: ALL TOLL BOOTH MULLIONS ARE TO BE BLACK ANODIZED SPECIAL EXTRUSION TO PERMIT 1" RABBIT DEPTH. TYPICAL FOR BOTH VERTICAL AND HORIZONTAL MULLIONS.

NOTE: ALL UPPER TOLL BOOTH GLAZING TO BE PAINTED MATTE BLACK ON INTERIOR SIDE. SEE SHEET 146 & SPEC. FOR ADDITIONAL INFORMATION. LOWER TOLL BOOTH GLAZING AT CONTROL CONSOLE ALSO PAINTED. SEE SHEET 146. (AREAS FOR PAINTING SHOWN SHADING).

NOTE: FOR ADDITIONAL GLAZING SPACING AND DIMENSIONS SEE P11 136

NOTE: E1 AND E2 SHOW TYP. TOLL BOOTH WITH STAIRS. BOOTH ELEVATIONS WITHOUT STAIRS SIMILAR EXCEPT FOR STAIRS.

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED JEM/WE	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
DRAWN JEM	1	4-23-86		REVISED TO CONFORM TO ADDENDUM N ² 1				
CHECKED EL								
IN CHARGE								

Ol Saville
ASST. CHIEF ENGINEER
OF DESIGN

William D. Wender
CHIEF ARCHITECT

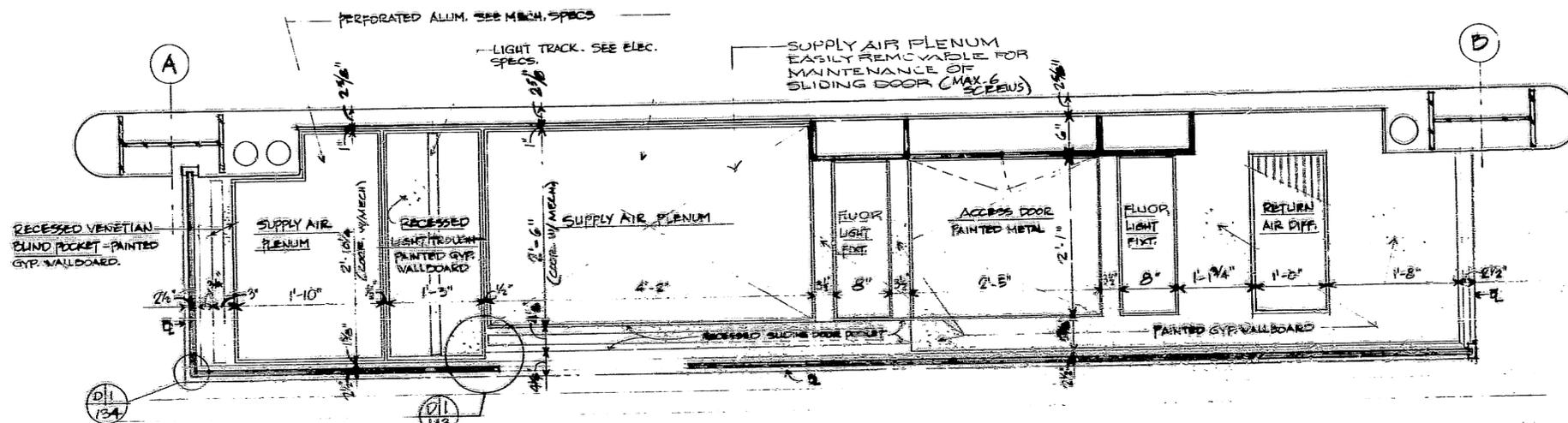
Amithan
ENGINEER OF DESIGN
TUNNELS & BRIDGES

JAN 31, 1980
DATE

THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
CANOPY, TOLL BOOTHS & SERVICE BUILDING
ARCHITECTURAL
BOOTH ELEVATIONS

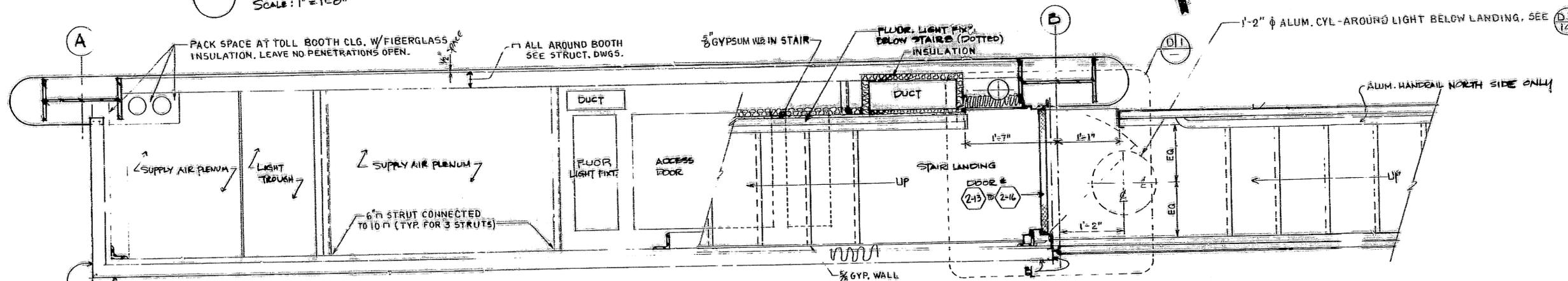
CONTRACT NO. GWB-150.008 DRAWING NO. 134



P13 REFLECTED CEILING PLAN - TYPICAL TOLL BOOTH
SCALE: 1" = 1'-0"

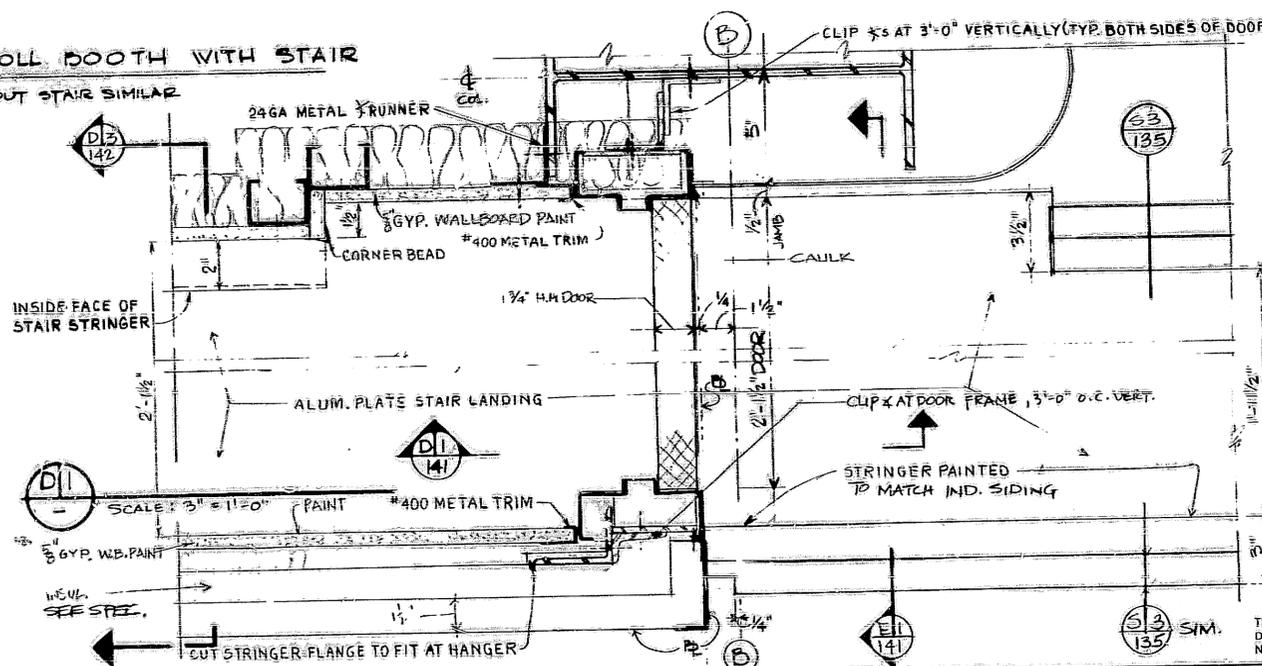
NOTES -

- 1) INSULATION ACROSS CEILING FOR P12 NOT SHOWN FOR CLARITY.
- 2) ALL INSULATION AROUND DUCTS SHALL FOLLOW MECH. SPECS. FOR INSULATION AT ALL OTHER CONSTRUCTION, FOLLOW ARCH. SPECS. (R-19 TYP)
- 3) SEE MECH. DIVGS. FOR ADDITIONAL INFORMATION ON DUCTS ABOVE CEILING.
- 4) VENETIAN BLINDS IN THE TOLL BOOTHS WILL BE BY OTHERS.



P12 PLAN ABOVE CEILING - TYPICAL TOLL BOOTH WITH STAIR
SCALE: 1" = 1'-0"
TOLL BOOTH WITHOUT STAIR SIMILAR

SEE P12 117 FOR DETAIL @ SIGN BOX ABOVE



NOTE:
AT COL'S 12, 12, 14, 16, DOOR JAMB SHALL BE MODIFIED TO FIT STRUCTURE.

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

JEM DESIGNED JEM /SK DRAWN JEM CHECKED EL IN CHARGE	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
	1	4-23-80	NAN	REVISED TO CONFORM TO ADDENDUM NO. 1				

El Savilla
ASS'T. CHIEF ENGINEER
OF DESIGN

William D. Warden
CHIEF ARCHITECT

John H. Baker
ENGINEER OF DESIGN
TUNNELS & BRIDGES
JANUARY 31, 1980
DATE

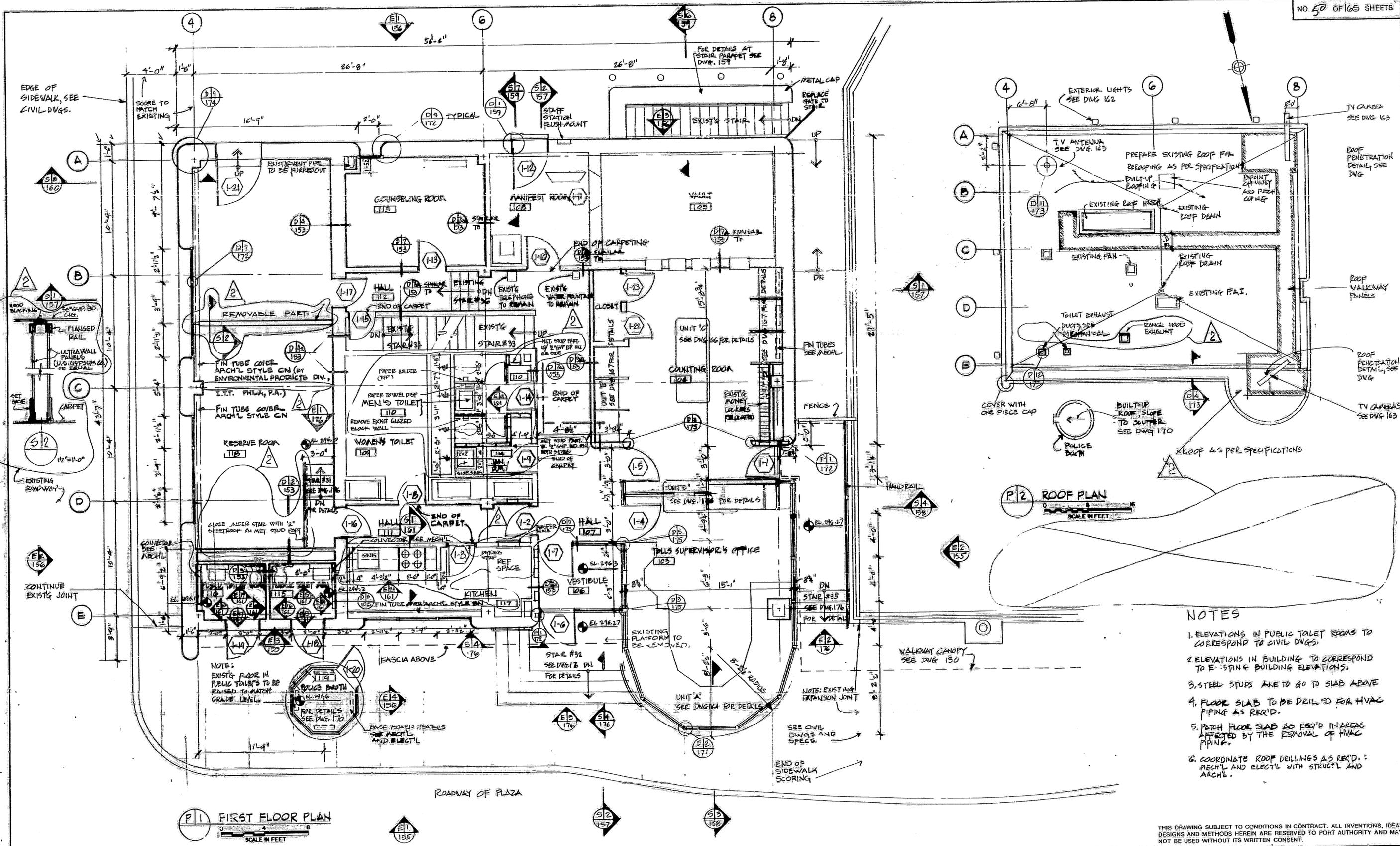
THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

**UPPER LEVEL TOLL PLAZA REDEVELOPMENT
CANOPY, TOLL BOOTHS & SERVICE BUILDING
ARCHITECTURAL**

BOOTH CEILING PLANS

CONTRACT NO. **GWB-150.003** DRAWING NO. **137**



- NOTES**
1. ELEVATIONS IN PUBLIC TOILET ROOMS TO CORRESPOND TO CIVIL DWGS.
 2. ELEVATIONS IN BUILDING TO CORRESPOND TO EXISTING BUILDING ELEVATIONS.
 3. STEEL STUDS ARE TO GO TO SLAB ABOVE
 4. FLOOR SLAB TO BE DRILLED FOR HVAC PIPING AS REQ'D.
 5. PATCH FLOOR SLAB AS REQ'D IN AREAS AFFECTED BY THE REMOVAL OF HVAC PIPING.
 6. COORDINATE ROOF DRILLINGS AS REQ'D. - MECH'L AND ELECT'L WITH STRUCT'L AND ARCH'L.

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO FORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED CM	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
DRAWN EL	1	4-23-80		REVISED TO CONFORM TO ADDENDUM NO. 1				
	2	8-21-80		REVISED IN ACCORDANCE WITH P.A.C.C. 151				
CHECKED EL								
IN CHARGE								

John J. ...
 ASST. CHIEF ENGINEER OF DESIGN
 OF DESIGN

Simon D. ...
 CHIEF ARCHITECT

...
 ENGINEER OF DESIGN
 TUNNELS & BRIDGES

JAN 31, 1980
 DATE

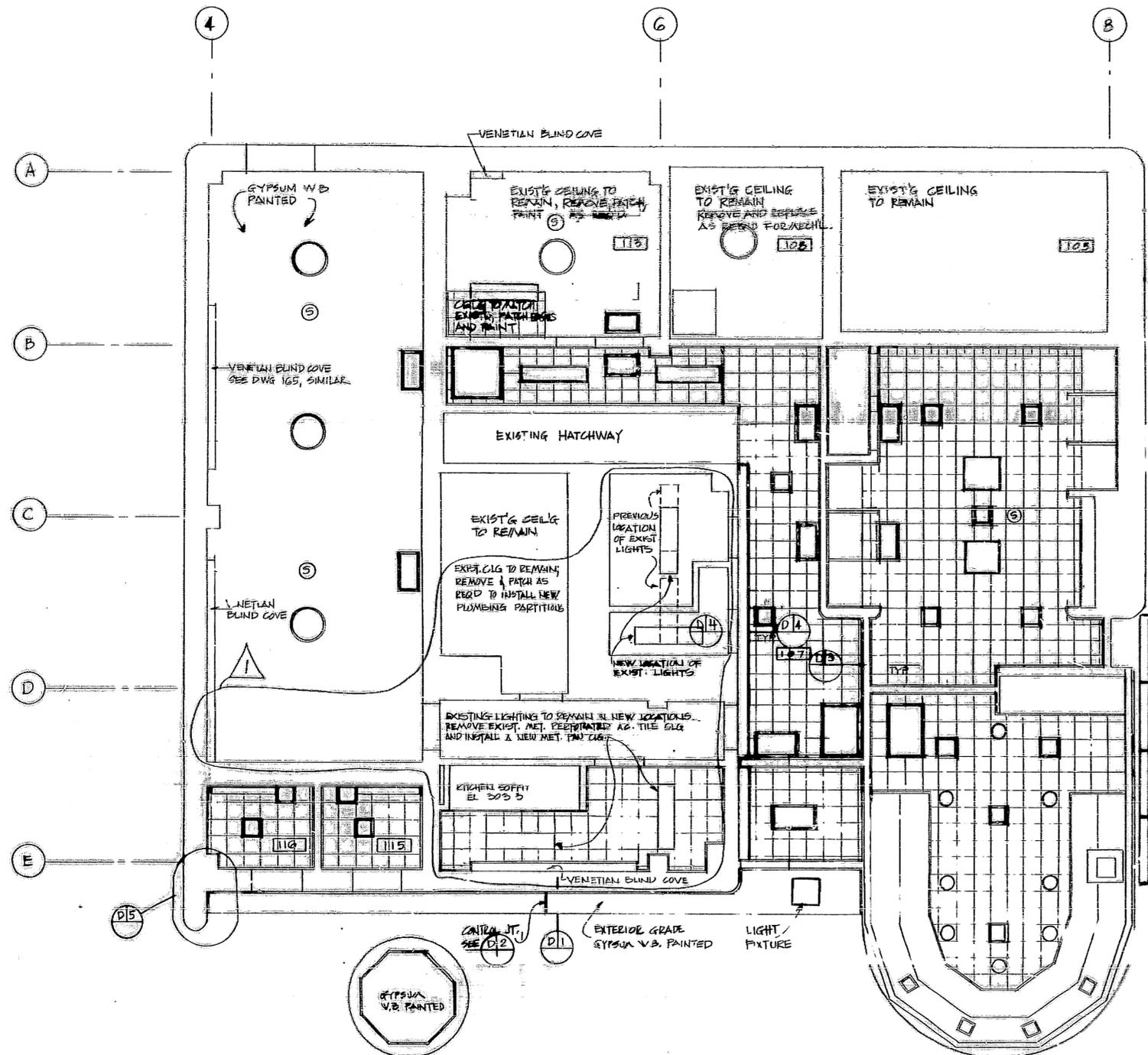
THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY, TOLL BOOTHS & SERVICE BUILDING
 ARCHITECTURAL

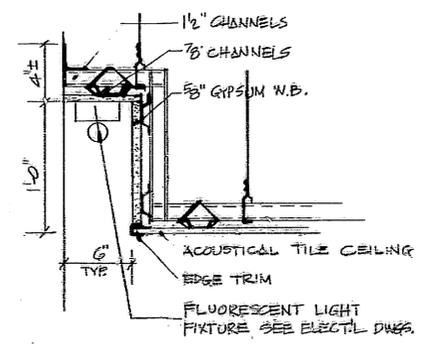
SERV. BLDG. FIRST FLOOR & ROOF PLANS

CONTRACT NO. GWB-150.00B DRAWING NO. 152

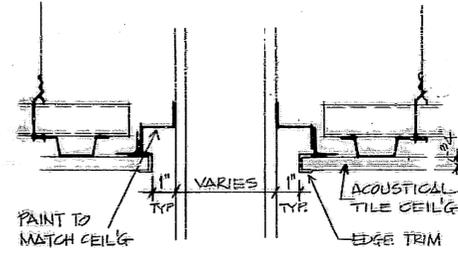


P1 REFLECTED CEILING PLAN
SCALE IN FEET

NOTE:
1. FOR CEILING HEIGHTS SEE FINISH SCHEDULE DWG. 180
2. VENETIAN BLIND COVE, SIMILAR TO DETAIL DWG. 165
3. ROOM 106, ALL GYPSUM W.B. OR PLASTERBOARD ON STL STUDS ARE TO RECEIVE INSULATION AND BE CONTINUOUS TO SLAB ABOVE.
4. UNLESS INDICATED AS EXIST'G TO REMAIN, ALL CEIL'GS WILL BE REPLACED.

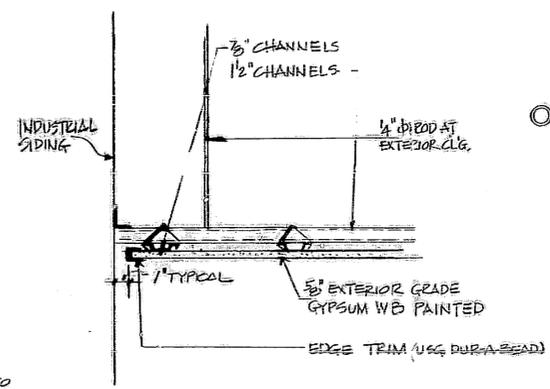


D4 COVE LIGHTS INTERIOR
SCALE 1/2" = 1'-0"

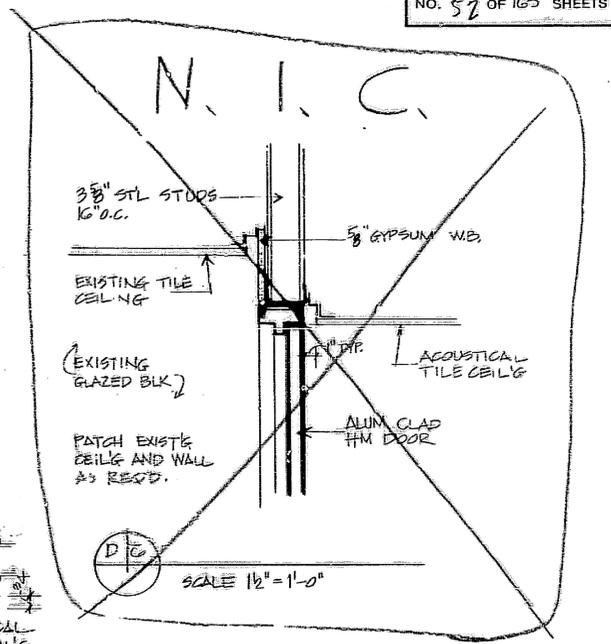


D3 TYPICAL REVEAL
SCALE 3/4" = 1'-0"

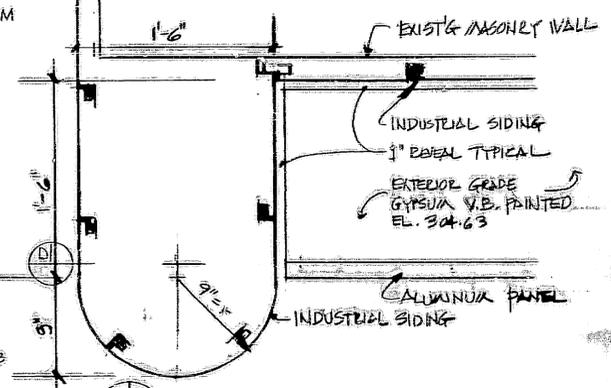
D2 CONTROL JOINT
SCALE 1/2" = 1'-0"



D1 SCALE 1/2" = 1'-0"



D5 SCALE 1/2" = 1'-0"



D6 SCALE 1/2" = 1'-0"

LEGEND

- □ CEILING DIFFUSERS
- LIGHT FIXTURES
- ⊙ SPEAKERS
- DOWNLIGHTS
- ▧ ACOUSTIC TILE CEILING

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

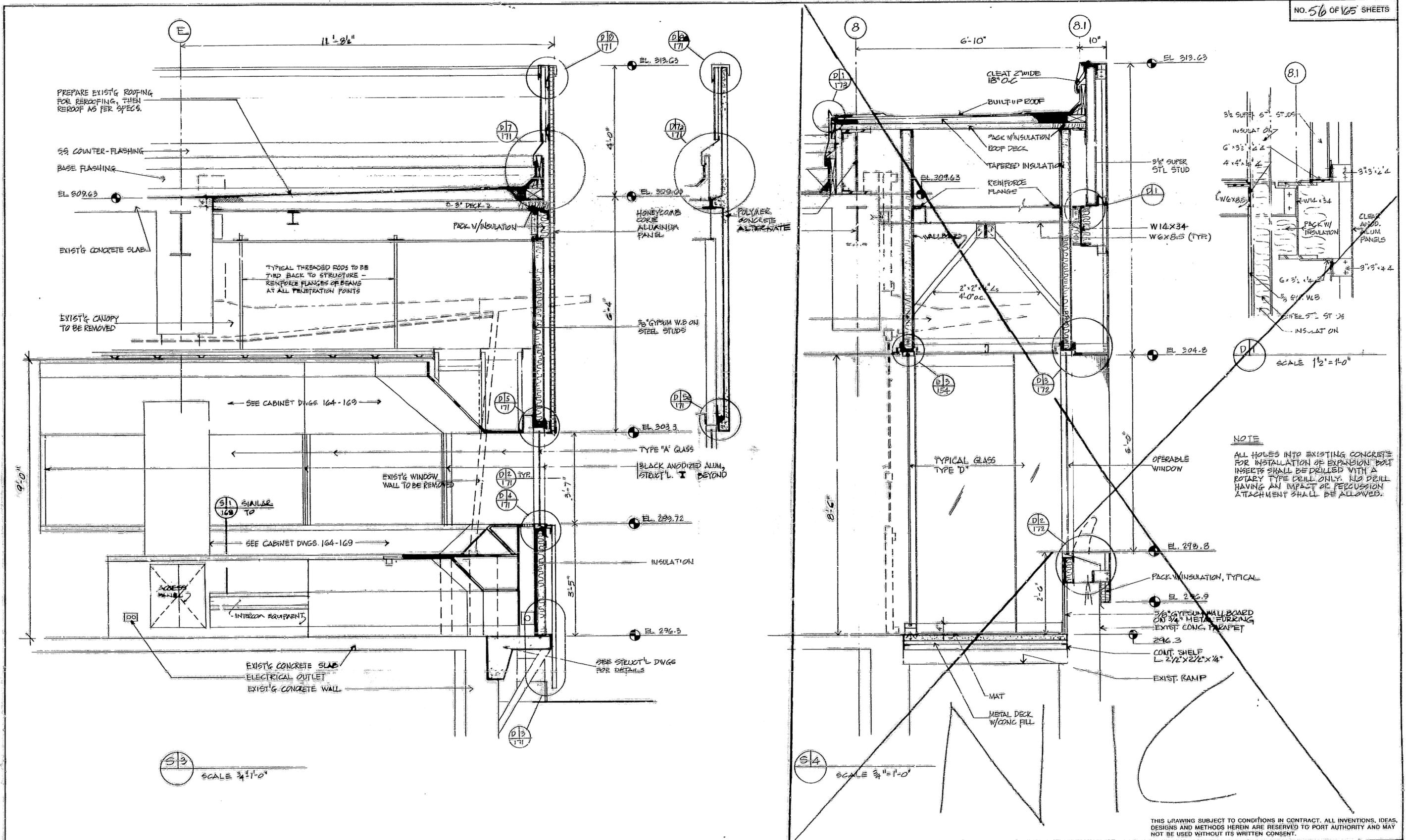
CM DESIGNED	REVISIONS			
	NO.	DATE	APPD.	DESCRIPTION
CM	1	8-21-81	[Signature]	REVISED IN ACCORDANCE WITH PA C.C. L-1
DRAWN				
EL				
CHECKED				
EL				
IN CHARGE				

E. J. Scully
ASST. CHIEF ENGINEER OF DESIGN

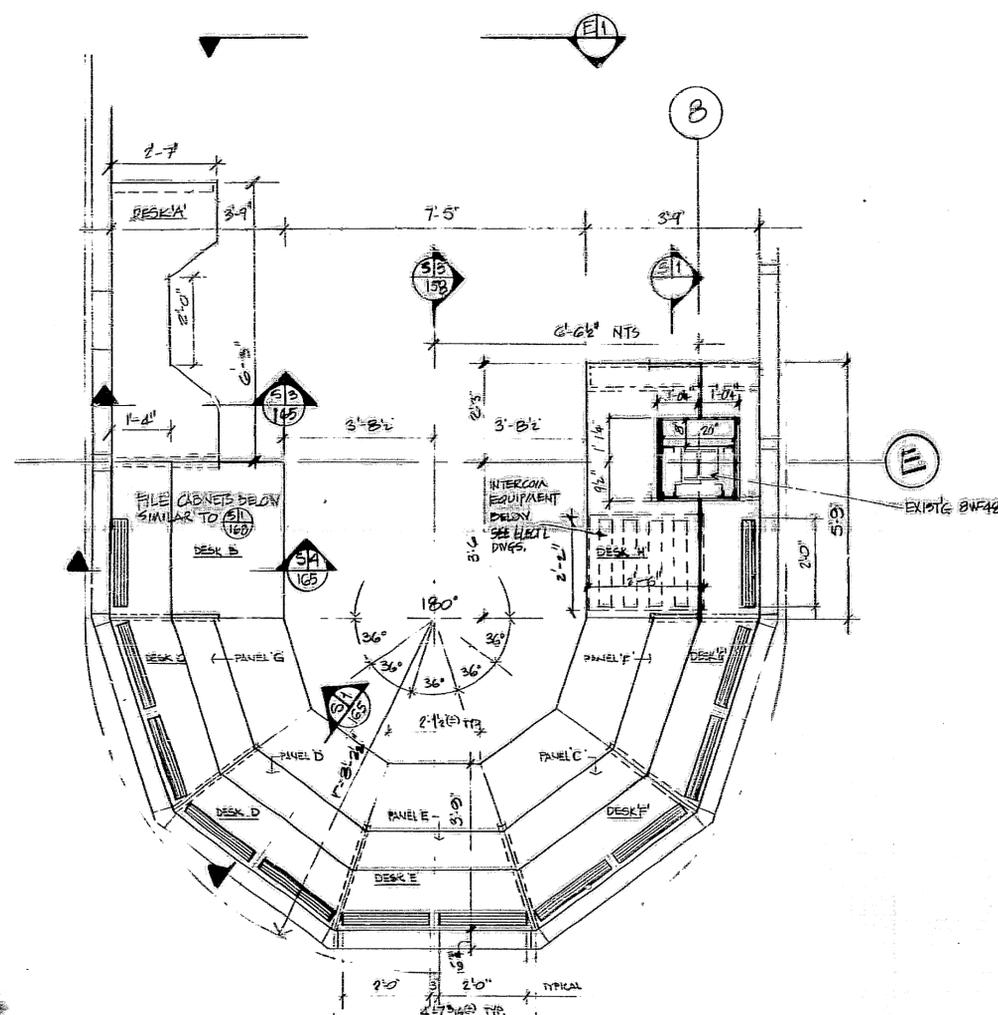
[Signature]
ENGINEER OF DESIGN
TUNNELS & BRIDGES
JAN. 31, 1980
DATE

THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE

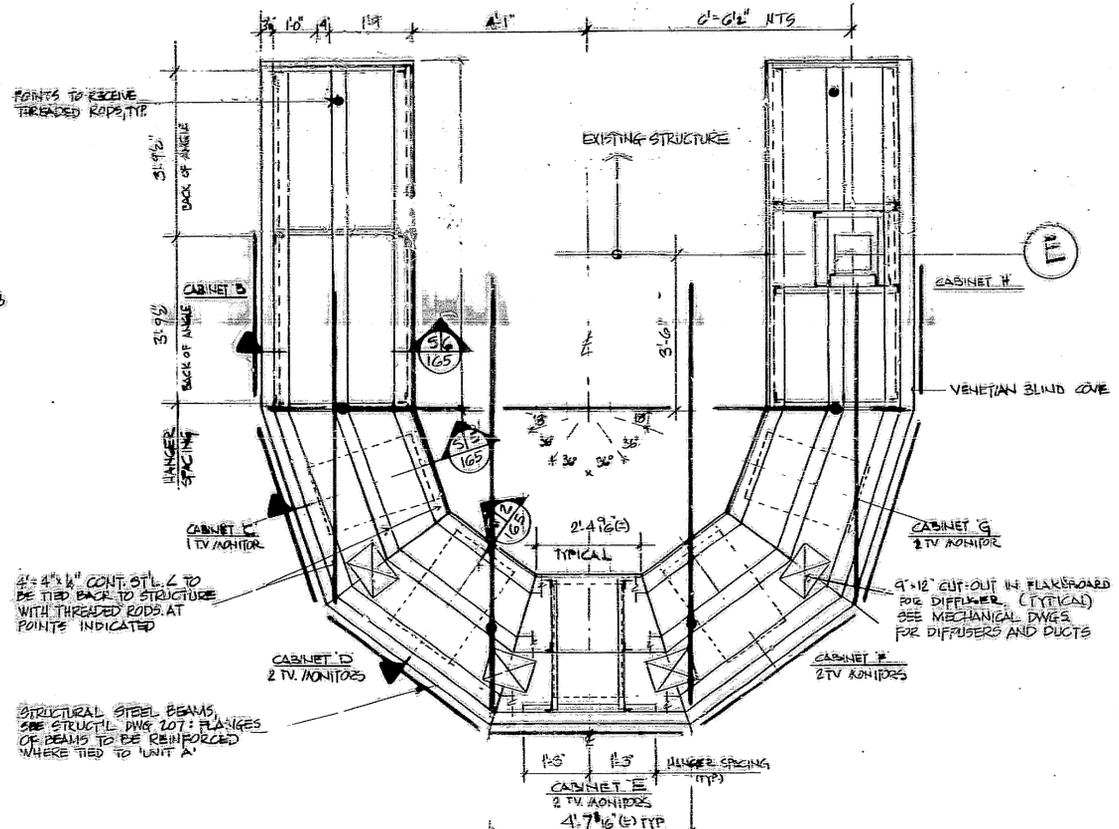
UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING ARCHITECTURAL
SERV. BLDG. REFLECTED CEILING PLAN
FIRST FLOOR
CONTRACT NO. GWB-150.008 DRAWING NO. 154



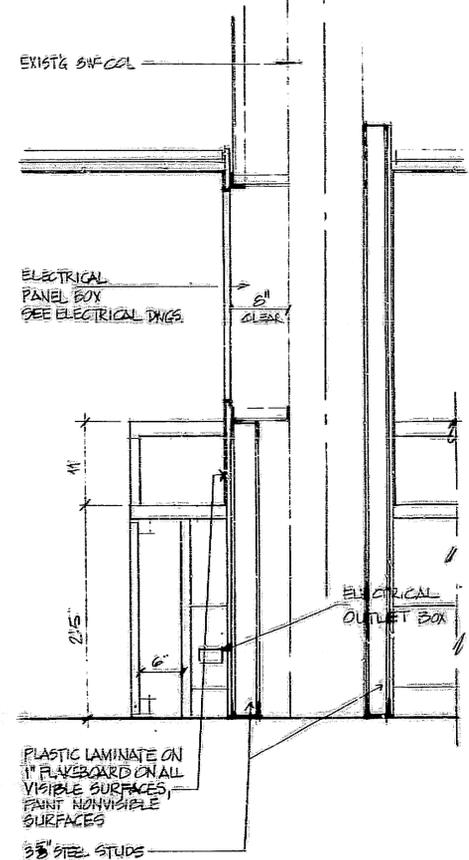
DESIGNED DRAWN CHECKED IN CHARGE	REVISIONS						THE PORT AUTHORITY OF NY & NJ GEORGE WASHINGTON BRIDGE UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING ARCHITECTURAL SERV. BLDG. - WALL SECTIONS SHEET No. 1 CONTRACT NO. GWB-150.008 DRAWING NO. 158		
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE		APPD.	DESCRIPTION
CA JEA EL EL EL									El Casallo ASST. CHIEF ENGINEER OF DESIGN Skillman CHIEF ARCHITECT JAN. 31 1980 DATE



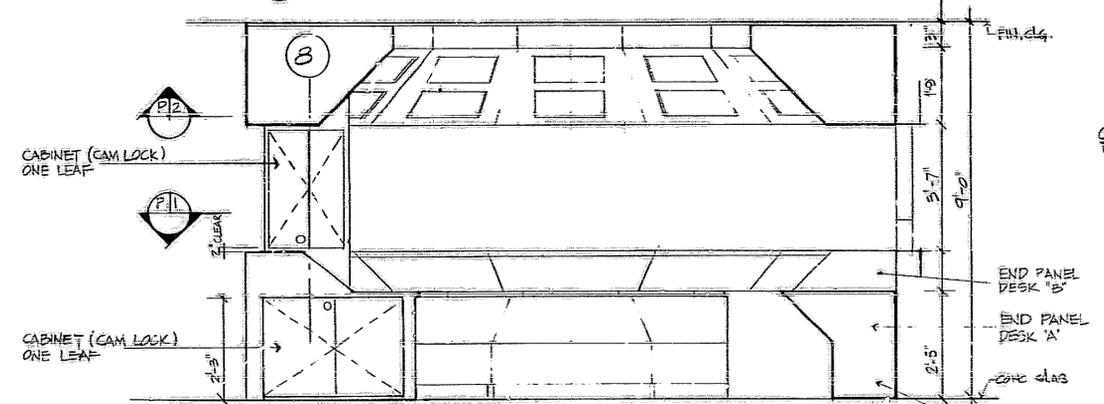
P11 UNIT-A LOWER CABINETS - PLAN
1/2" = 1'-0"



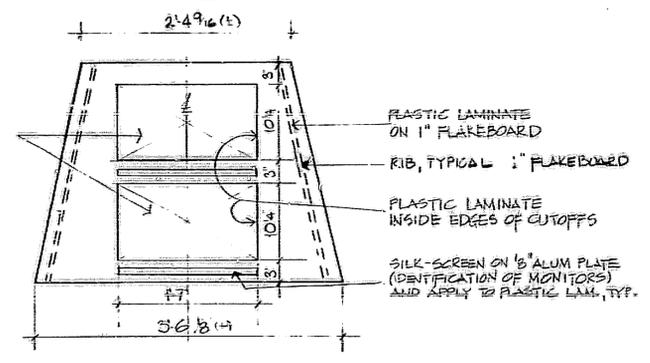
P12 UNIT-A UPPER CABINETS - PART. REFD PLAN
1/2" = 1'-0"



S11
1/8" = 1'-0"



E11 UNIT-A UPPER & LOWER CABINETS - ELEVATION
1/2" = 1'-0"



E12 UNIT-A UPPER LEVEL PANEL ELEVATION
1" = 1'-0"

- NOTES**
- 1) ALL HANGERS SHOWN ARE STEEL L_s 1/2" x 1/2" x 1/4"
 - 2) CABINETS D, E, F, & G EACH HAVE TWO TV MONITORS AND CABINET C HAS ONLY ONE TV MONITOR WITH PROVISION FOR ADDING ONE ADDITIONAL TV MONITOR.
 - 3) COLOR, SEE SPECS
 - 4) ALL CABINETS SHALL HAVE HAIRLINE JOINTS
 - 5) ALL LOWER CABINETS OF UNIT A SHALL BE SET BEFORE INSTALLATION OF CARPET AND PAIR.
 - 6) SHOT DWGS ARE TO BE SUBMITTED, FULL SIZE, OF ALL GRAPHICS INCL DWGS. 140 & 169

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED M.A./CM	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
DRAWN CM/EL								
CHECKED EL								
IN CHARGE								

E. J. Casullo
ASST. CHIEF ENGINEER
OF DESIGN

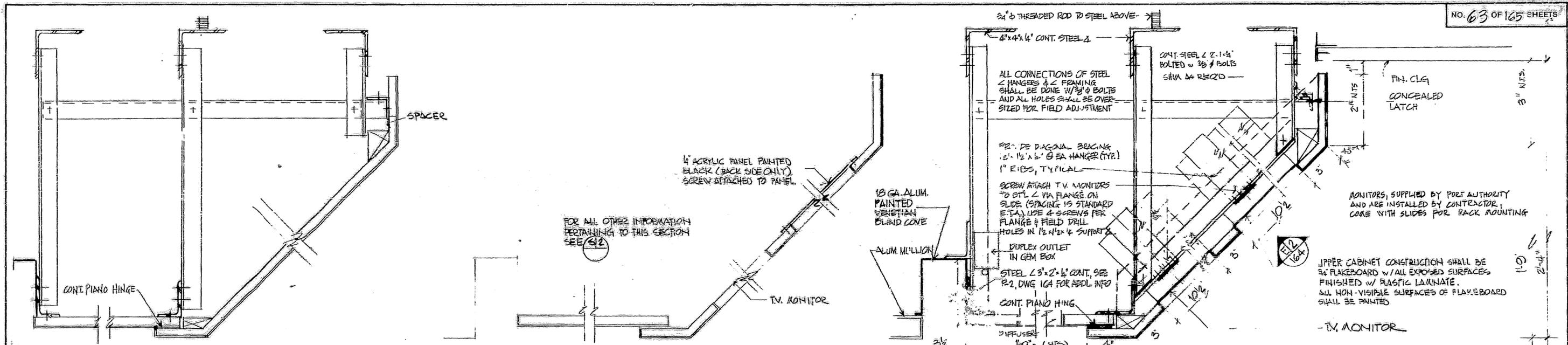
S. J. Dwyer
CHIEF ARCHITECT

[Signature]
ENGINEER OF DESIGN
TUNNELS & BRIDGES
JAN 31, 1980
DATE

THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

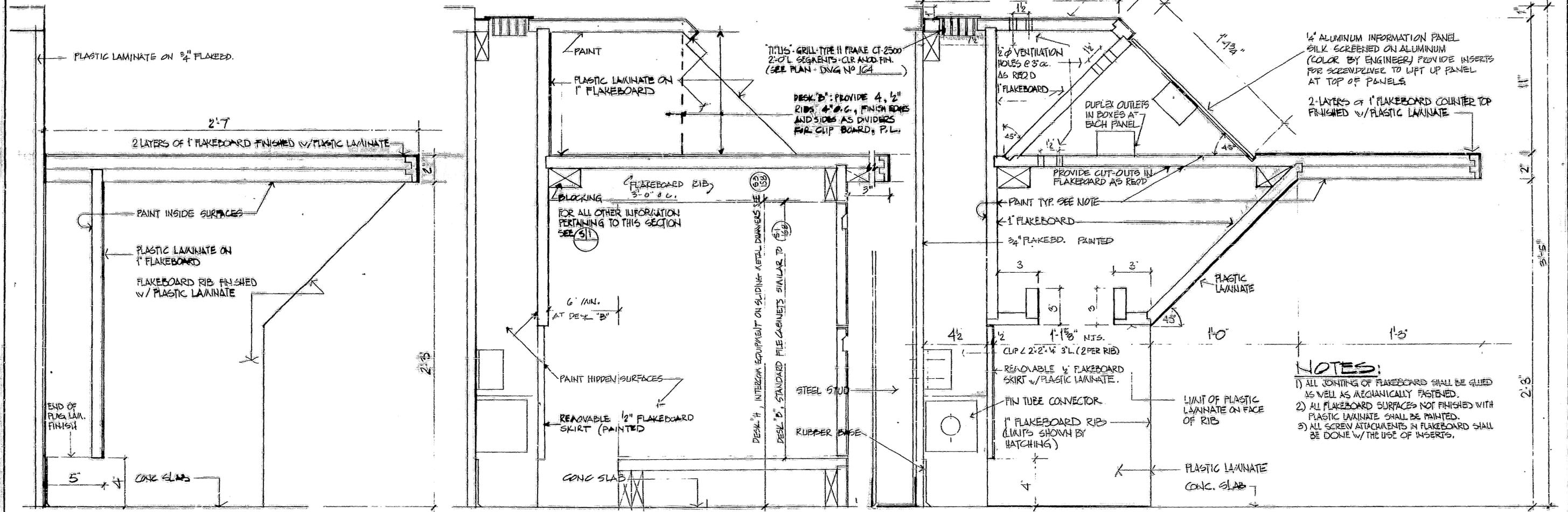
UPPER LEVEL TOLL PLAZA REDEVELOPMENT
CANOPY, TOLL BOOTHS & SERVICE BUILDING
ARCHITECTURAL
SERV. BLDG. CABINET DETAILS
SHEET No. 1
CONTRACT NO. GWB-150.008 DRAWING NO. 164



616 UPPER CABINETS - UNIT 'A' TYPICAL FOR CABINETS 'B, C, H' 3'-10"

615 UPPER CABINET - UNIT 'A' - TYPICAL FOR CABINETS 'C' 3'-10"

612 UPPER CABINET - UNIT 'A' TYPICAL FOR CABINETS 'D, E, F, G' 3'-10"



613 LOWER CABINET - UNIT 'A' - DESK 'A' 3'-10"

614 LOWER CABINET - UNIT 'A' - DESKS 'B, C, H' 3'-10"

611 LOWER CABINET - UNIT 'A' - TYPICAL FOR DESKS 'C, D, E, F, G' 3'-10"

- NOTES:**
- 1) ALL JOINTING OF FLAKEBOARD SHALL BE GLUED AS WELL AS MECHANICALLY FASTENED.
 - 2) ALL FLAKEBOARD SURFACES NOT FINISHED WITH PLASTIC LAMINATE SHALL BE PAINTED.
 - 3) ALL SCREW ATTACHMENTS IN FLAKEBOARD SHALL BE DONE W/ THE USE OF INSERTS.

MA DESIGNED MA DRAWN CME CHECKED EL IN CHARGE	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION

E. J. Masullo
ASST. CHIEF ENGINEER OF DESIGN

William D. Wender
CHIEF ARCHITECT

George J. ...
ENGINEER OF DESIGN
TUNNELS & BRIDGES

JAN. 31, 1980
DATE

THE PORT AUTHORITY OF NY & NJ

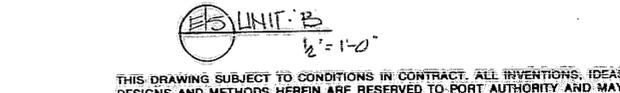
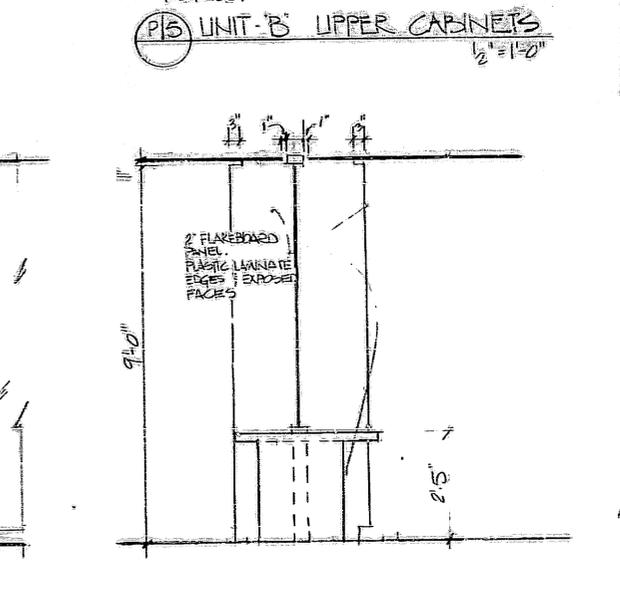
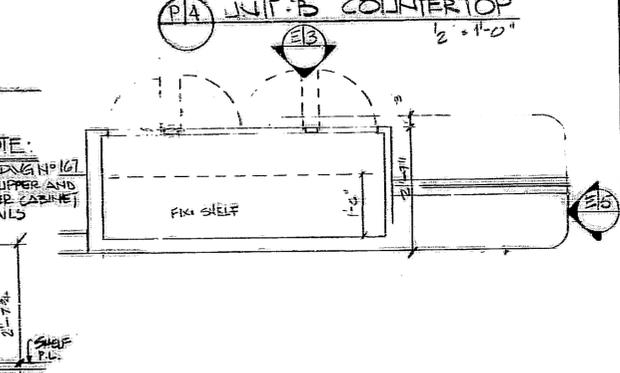
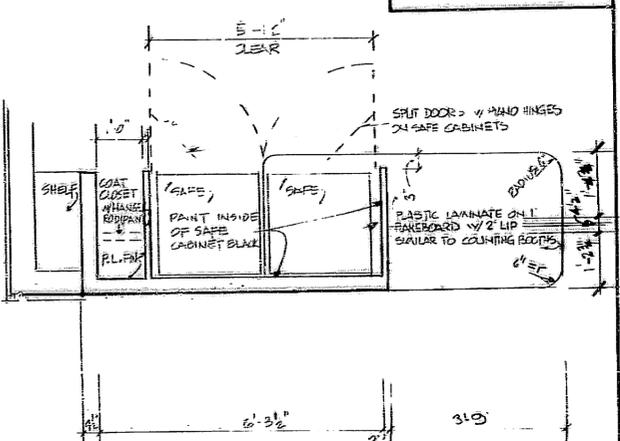
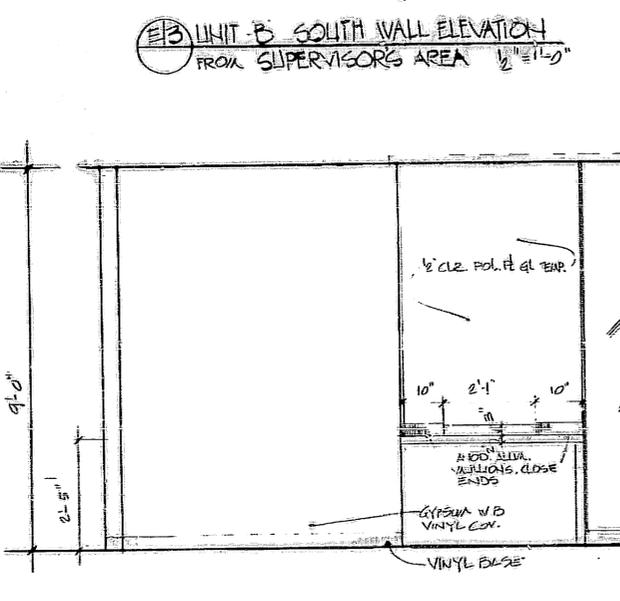
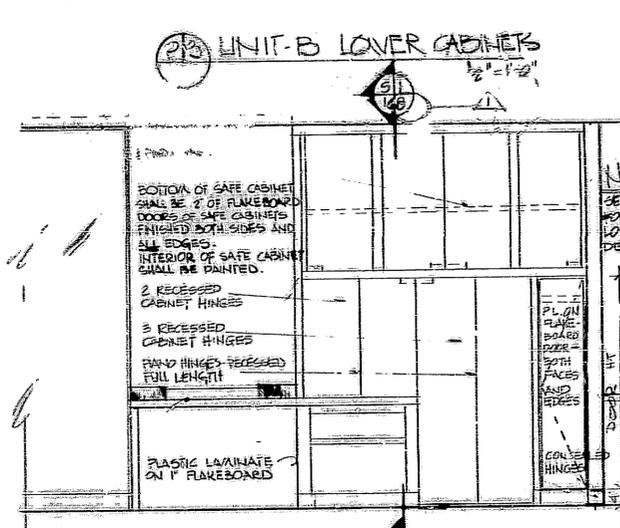
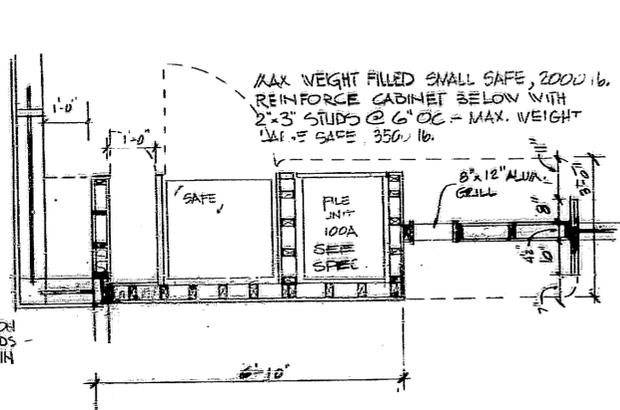
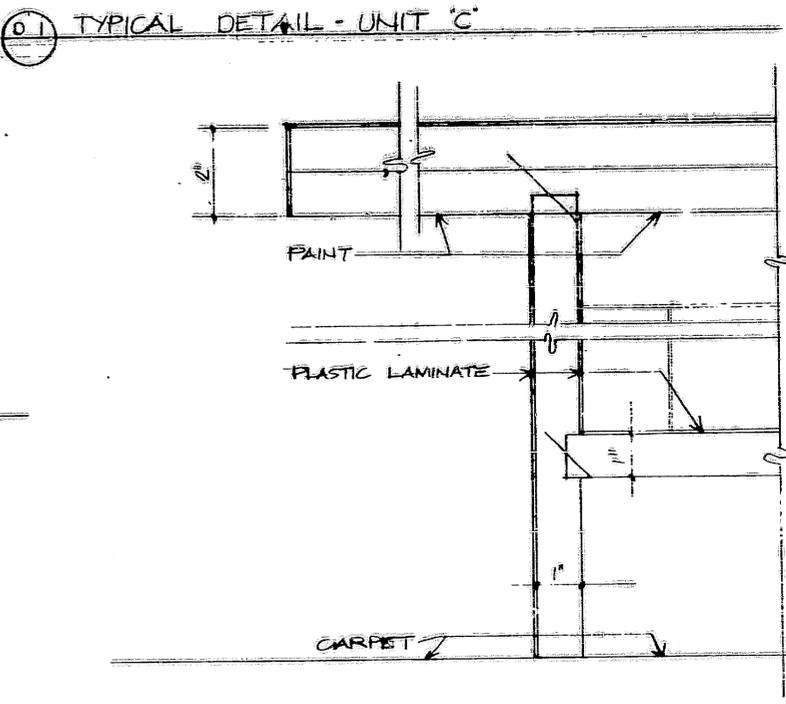
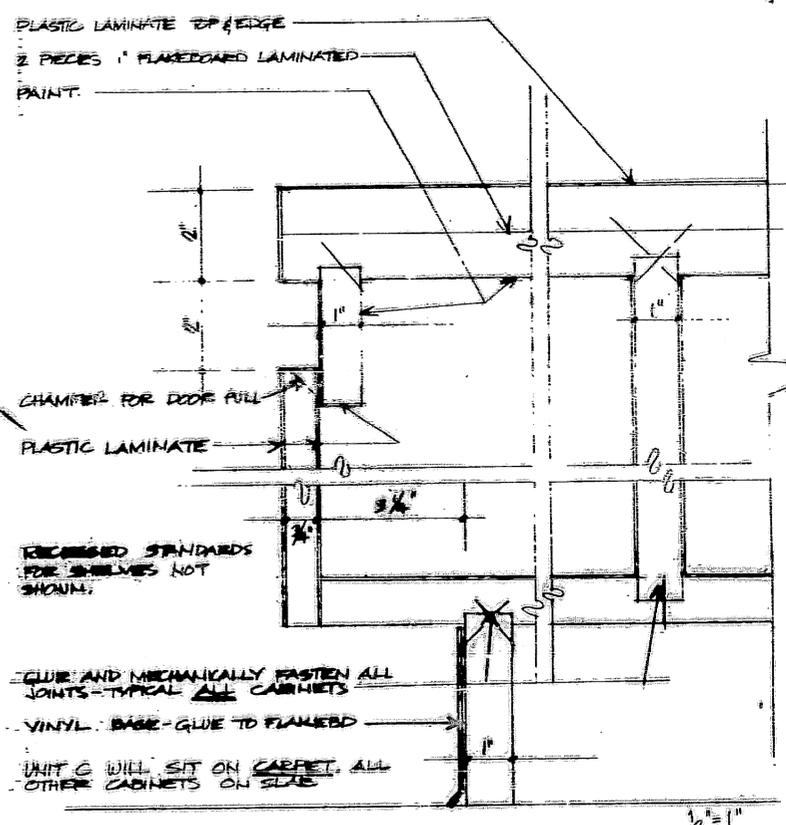
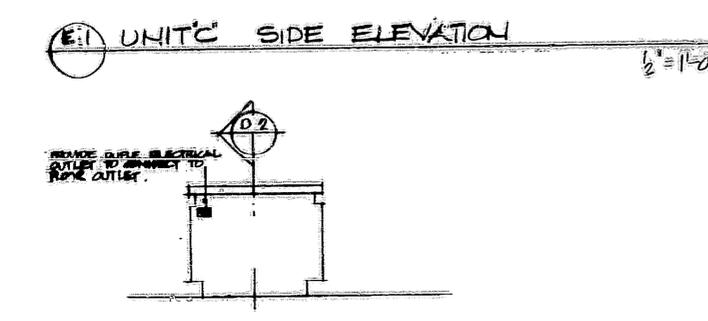
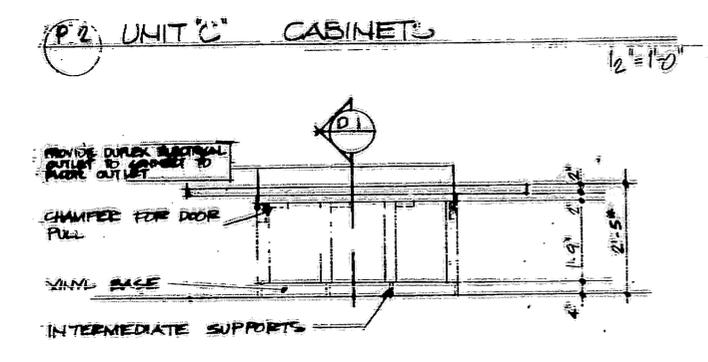
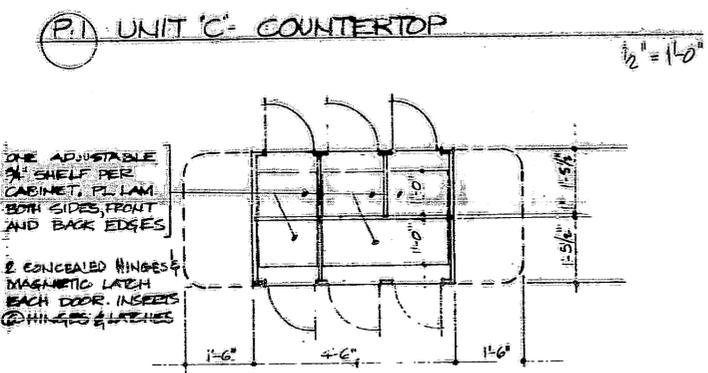
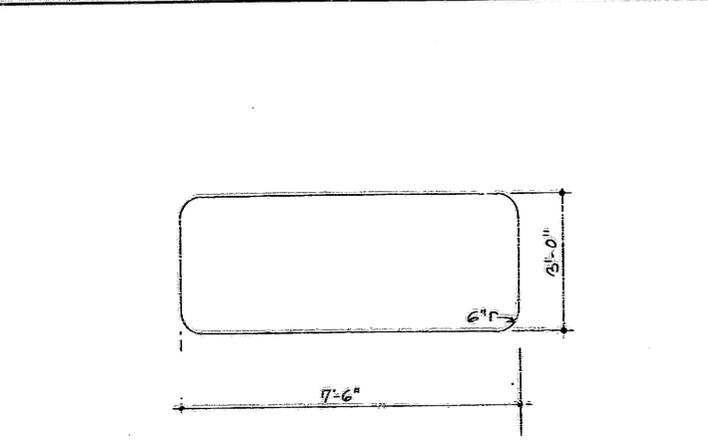
GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING ARCHITECTURAL

SERV. BLDG. CABINET DETAILS

SHEET No. 2

CONTRACT NO. GWB-150.008 DRAWING NO. 165



THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

DESIGNED DRAWN CHECKED IN CHARGE	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
	1	4-23-60		REVISED TO CONFORM TO ADDENDUM N-2-1				

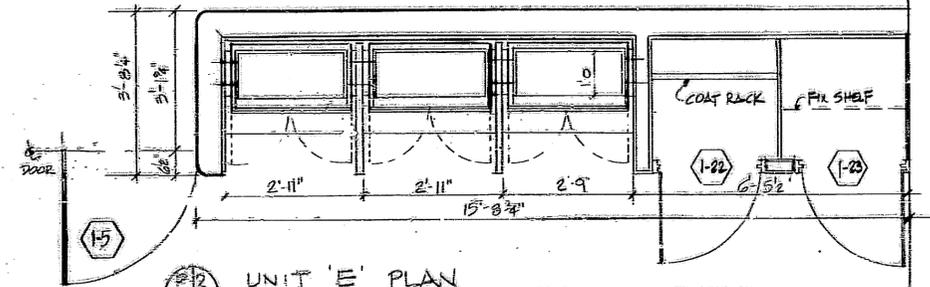
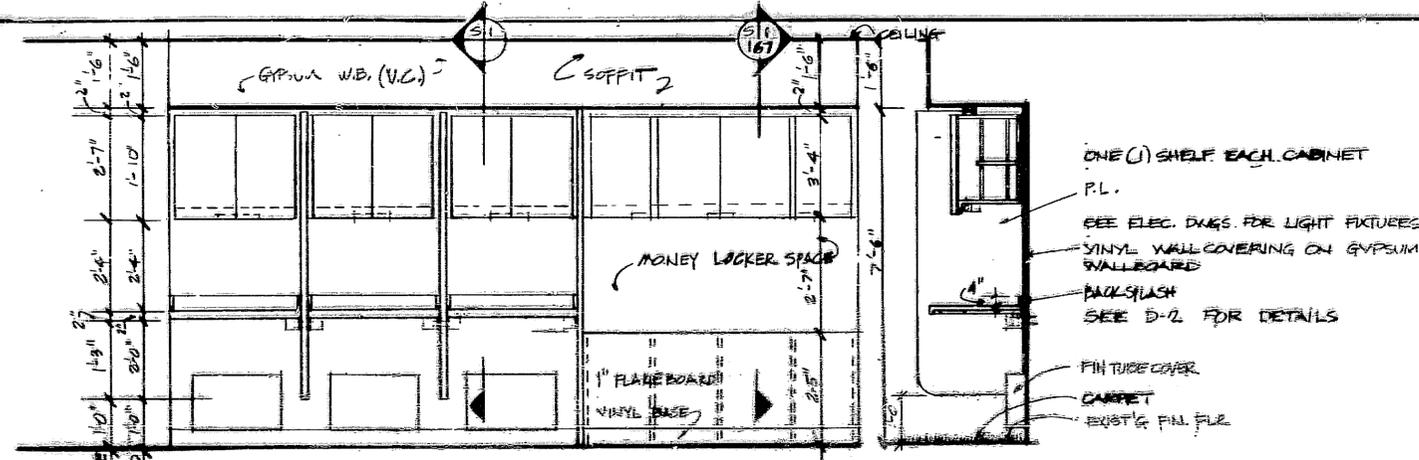
E. J. Savullo
ASST. CHIEF ENGINEER OF DESIGN

John Winder
CHIEF ARCHITECT

John Winder
ENGINEER OF DESIGN
TUNNELS & BRIDGES
JAN 31, 1960
DATE

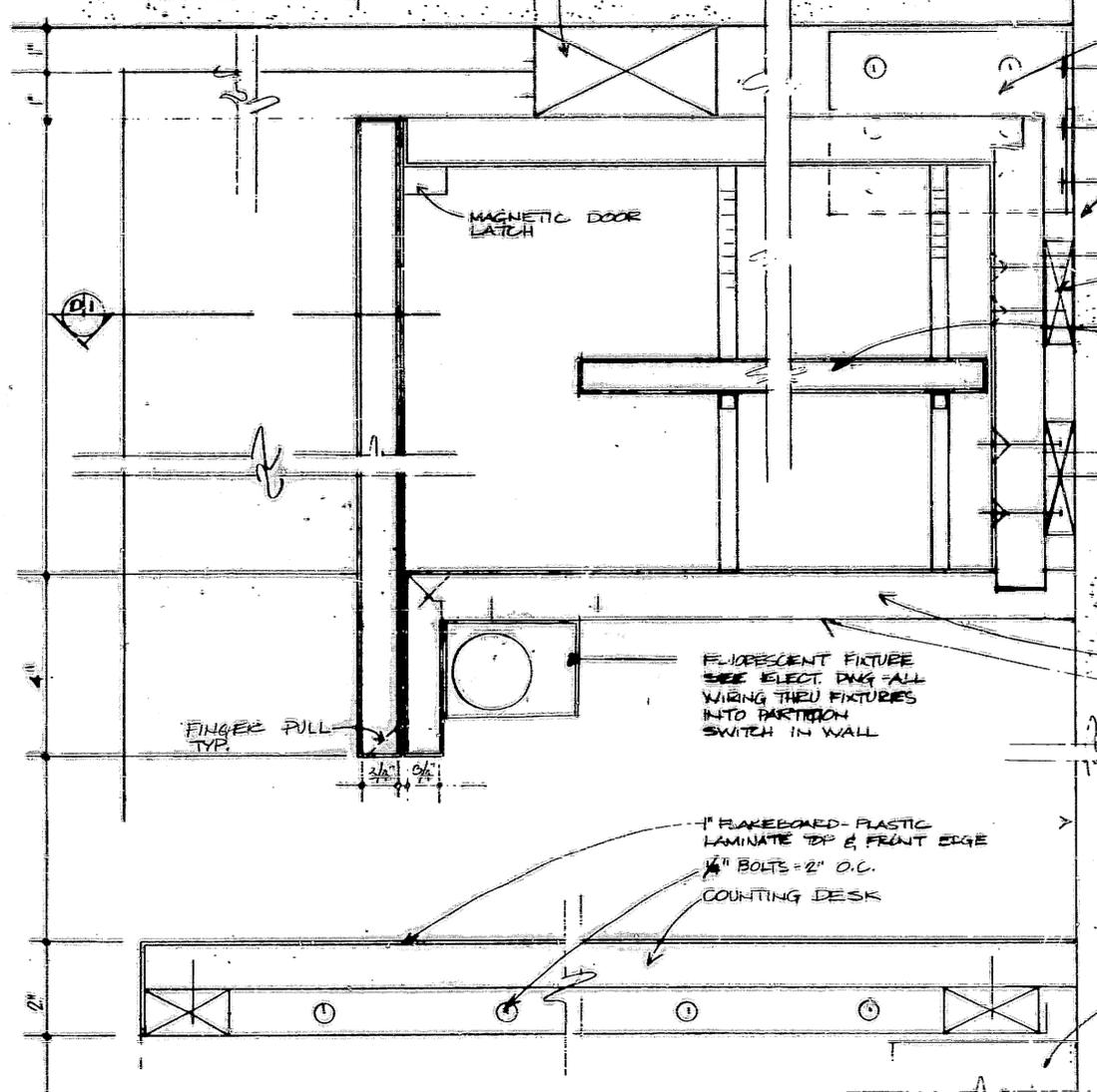
THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT CANOPY, TOLL BOOTHS & SERVICE BUILDING ARCHITECTURAL SERV. BLDG. CABINET DETAILS SHEET No. 3
CONTRACT NO. GWB-150.008 DRAWING NO. 166



D1 UNIT D COUNTING BOOTHS - ELEVATION
 UNIT 'E' SIMILAR (NO FIN TUBE UNITS)
 SCALE IN FEET

D1 UNIT D SECTION
 UNIT 'E' SIMILAR
 SCALE IN FEET

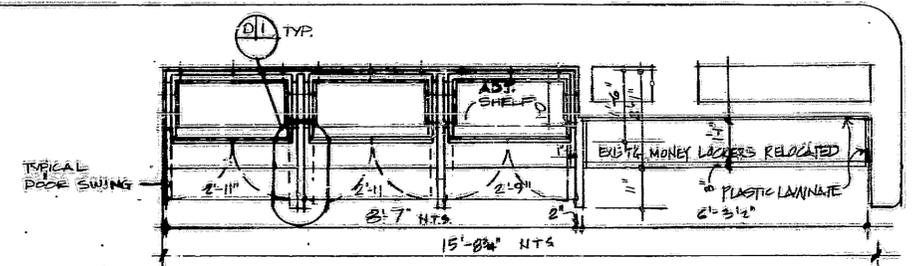


ACQUETICAL TILE CEILING OR SOFFIT (SEE ELEVATIONS)
 2" x 2" x 1/2" BEAT STLS
 EACH SIDE OF EACH SHELF
 TOP & BOTTOM, ANCHOR TO STUDS TO METAL STUDS

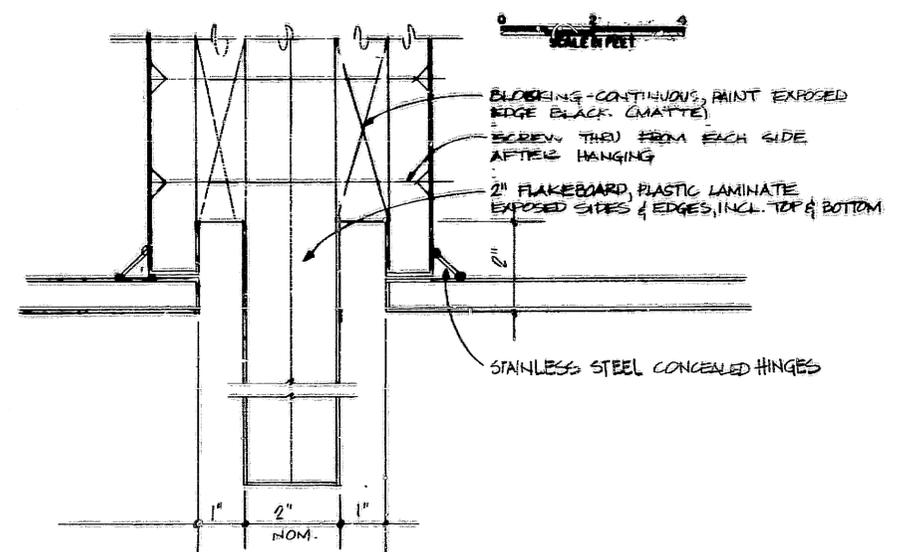
3/8" GYPSUM WALLBOARD ON METAL STUDS

WOOD GROUND ANCHOR TO METL STUDS HANG CABINETS WITH CONTR. SCREWS

SIDES, TOP & BOTTOM OF CABINETS
 1" FLAKEBOARD - PLASTIC LAMINATE ALL EXPOSED SURFACES INSIDE AND OUTSIDE EXCEPT AS NOTED
 PAINT.



D1 UNIT 'D' PLAN



D1 DETAIL AT PARTITION (TYP.)
 SCALE IN INCHES

D12 CABINET DETAILS
 SCALE IN INCHES

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

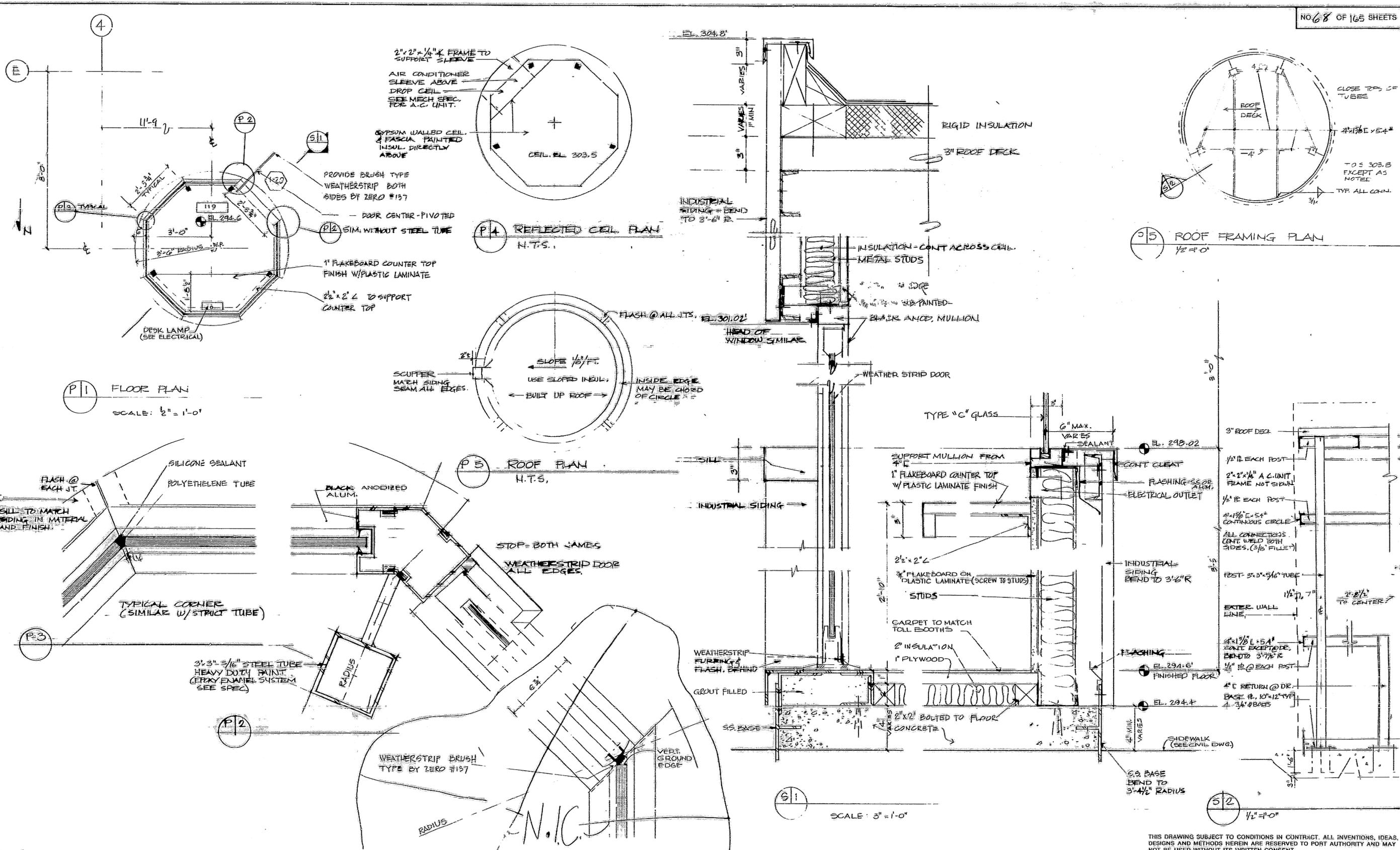
DESIGNED M.A. 6/2	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
DRAWN ELCM								
CHECKED EL								
IN CHARGE								

El Louelle
 ASST. CHIEF ENGINEER
 OF DESIGN
Sylvan D. Wanda
 CHIEF ARCHITECT

George W. ...
 ENGINEER OF DESIGN
 TUNNELS & BRIDGES
 JAN. 31, 1980
 DATE

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY, TOLL BOOTHS & SERVICE BUILDING
 ARCHITECTURAL
 SERV. BLDG. CABINET DETAILS
 SHEET No. 4
 CONTRACT NO. GWB-150.005 DRAWING NO. 167



DESIGNED CM	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
DRAWN EL								
CHECKED EL								
IN CHARGE								

El Saville
ASST. CHIEF ENGINEER
OF DESIGN

Sullivan D. Wender
CHIEF ARCHITECT

John H. ...
ENGINEER OF DESIGN
TUNNELS & BRIDGES

JAN. 31, 1980
DATE

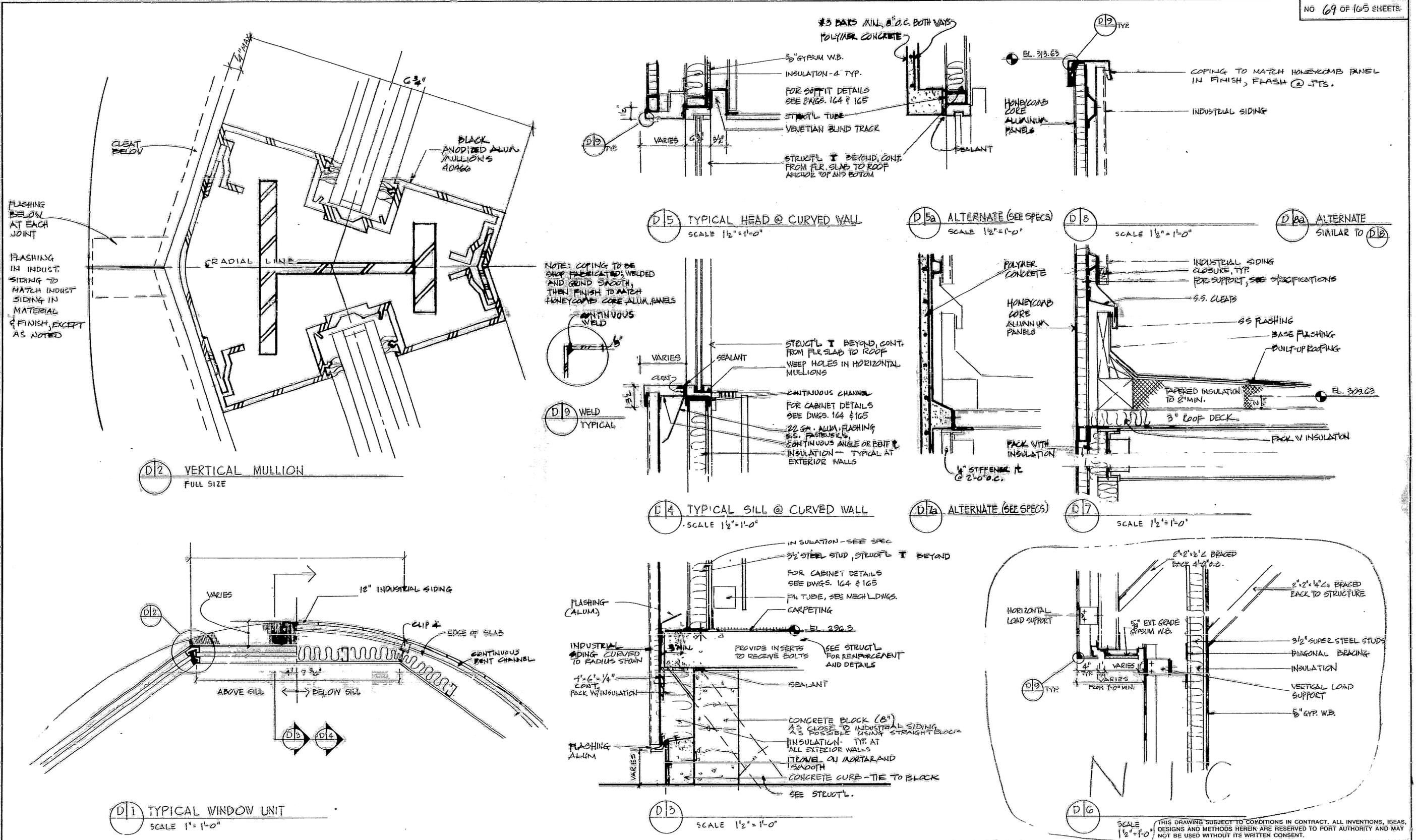
THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

**UPPER LEVEL TOLL PLAZA REDEVELOPMENT
CANOPY, TOLL BOOTHS & SERVICE BUILDING
ARCHITECTURAL**

SERV. BLDG. POLICE BOOTH

CONTRACT NO. **GWB-150.008** DRAWING NO. **170**



DESIGNED	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
DRAWN								
CHECKED								
IN CHARGE								

E. J. S. S.
 ASST. CHIEF ENGINEER
 OF DESIGN

Julian D. Warden
 CHIEF ARCHITECT

M. J. H.
 ENGINEER OF DESIGN
 TUNNELS & BRIDGES

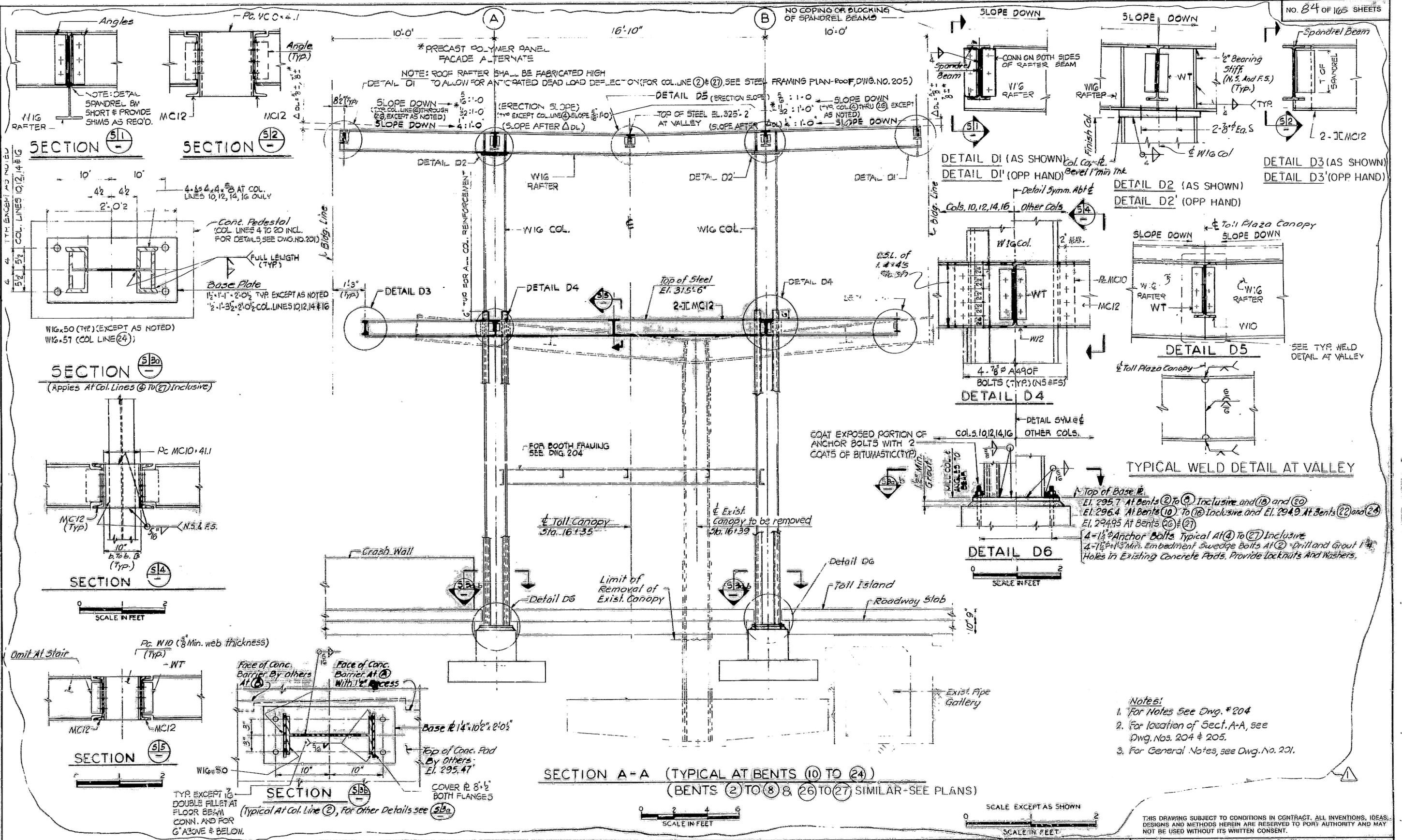
JAN. 31, 1980
 DATE

THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY, TOLL BOOTHS & SERVICE BUILDING
 ARCHITECTURAL
 SERV. BLDG. DETAILS - SHEET No. 1

CONTRACT NO. GWB-150.008 DRAWING NO. 171



REVISIONS					
NO.	DATE	APPD.	DESCRIPTION	NO.	DATE
1	2-23-80	[Signature]	GENERAL REVISIONS		

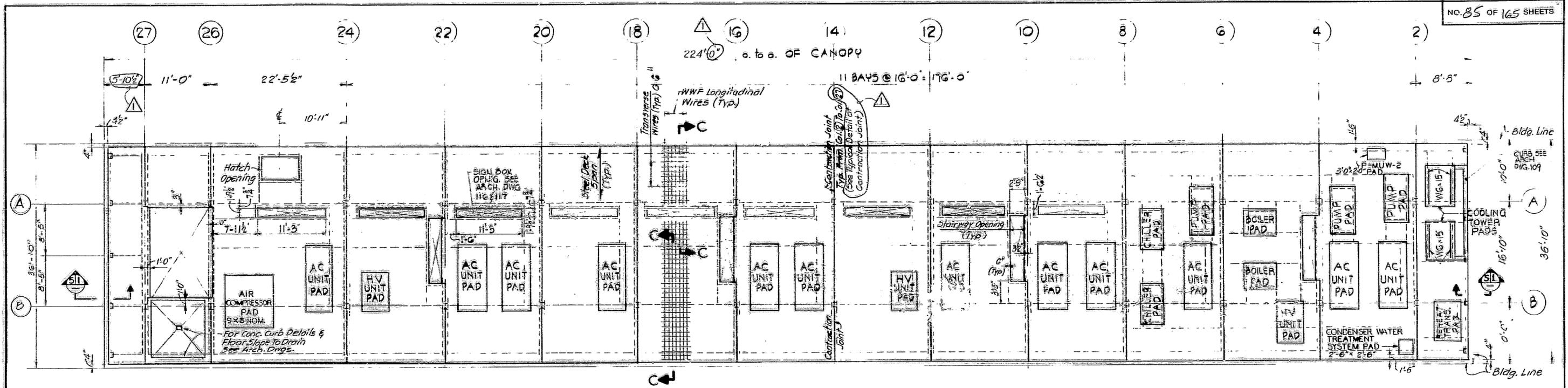
ASS'T. CHIEF ENGINEER OF DESIGN
 CHIEF STRUCTURAL ENGINEER
 ENGINEER OF DESIGN (TUNNELS & BRIDGES)
 JANUARY 31, 1980
 DATE

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE

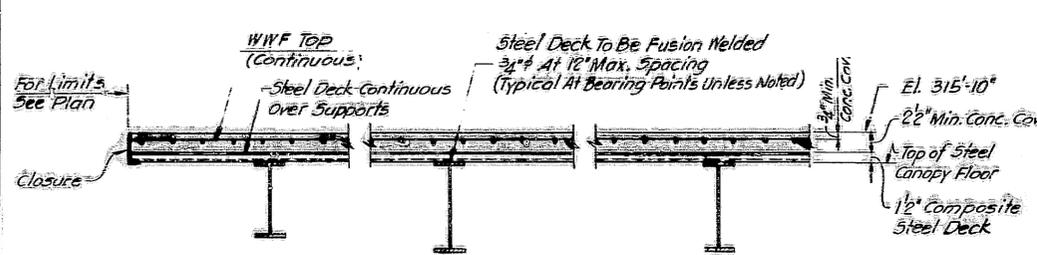
UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY TOLL BOOTHS & SERVICE BUILDING
 STRUCTURAL
 CANOPY STEEL
 TYPICAL SECTIONS AND DETAILS
 CONTRACT NO. GWB-150.008 DRAWING NO. 207

- Notes:
- For Notes See Dwg. #204
 - For location of Sect. A-A, see Dwg. Nos. 204 & 205.
 - For General Notes, see Dwg. No. 201.

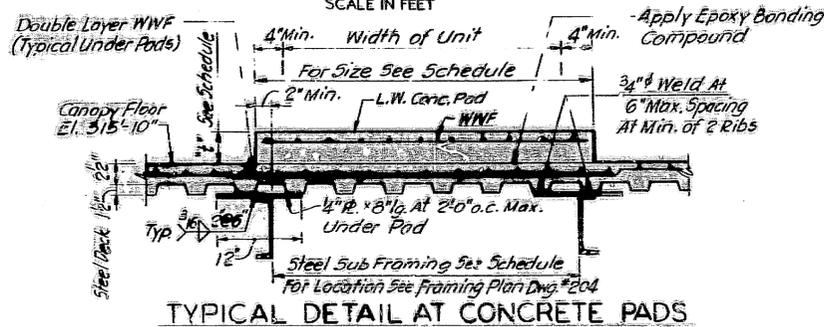
THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.



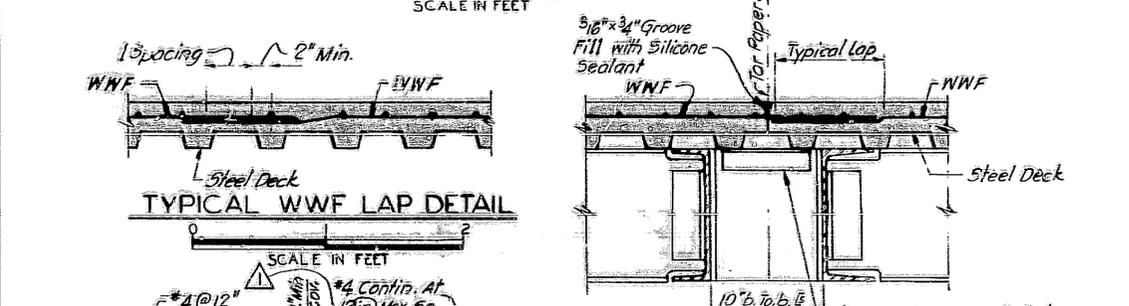
CANOPY CONCRETE FLOOR PLAN (FINISHED SLAB EL. 315'-10")



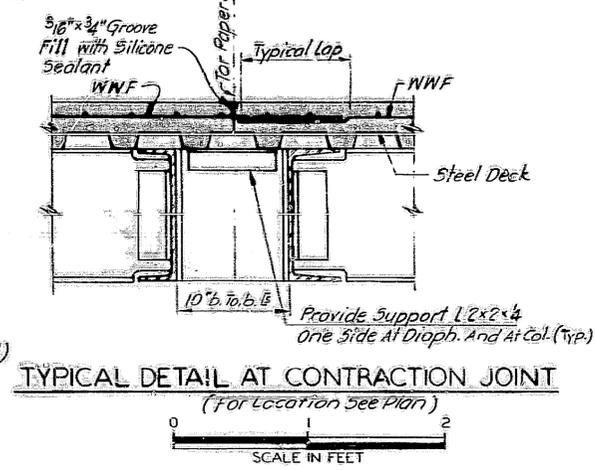
SECTION C-C
Typical At Canopy Floor (For Oprg. See Plan)
SCALE IN FEET



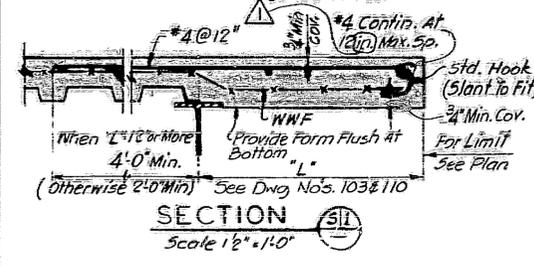
TYPICAL DETAIL AT CONCRETE PADS
SCALE IN FEET



TYPICAL WWF LAP DETAIL
SCALE IN FEET



TYPICAL DETAIL AT CONTRACTION JOINT
(For Location See Plan)
SCALE IN FEET



SECTION S11
Scale 1/2" = 1'-0"

CONCRETE PAD SCHEDULE			
UNIT	"L" (INCHES)	NOMINAL SIZE (FT.)	STEEL SUB FRAMING REQUIRED
AC	4"	11' x 5'	NO
HV	4"	6' x 4'	NO
CHILLER	4"	7' x 4'	YES
PUMP	4"	8' x 4'	YES
BOILER	4"	4.5' x 5.5'	YES
COOLING TOWER REHEAT TRANS.	6"	7' x 5'	YES
	4"	7' x 4'	YES

NOTE: Pad Sizes Are Nominal. Exact Size Shall Be In Accordance With Manufacturer's Data For Each Unit. Locations Shown Are Approximate. Where Required Pads and Struts Shall Be Located Over Structural Steel Subframing As Shown. For Other Pads See Plan Thickness 4" Unless Noted

- NOTES: (Toll Plaza Canopy Concrete)**
- For General Notes see Dwg. 201
 - Steel Deck for canopy floor shall be 1/2" 18Ga. galvanized "Lock Form" Type BP 1-2-24 AS Manufactured by Roll Form or an approved equal. Contractor shall provide end closures as required.
 - Welded wire fabric for canopy floor shall be WWF 4x6- W4xW2.1
 - Concrete for canopy floor and pads shall be Class "LB" Light Weight concrete, $f_c = 4000 \text{ psi}$
 - Floor & pads shall receive a wood trowel finish. Slab areas under pads shall be roughened to 1/4" amplitude prior to pouring of pad.
 - For concrete details and end closures at openings and slab edges see Arch. Drawings.
 - For duct and pipe sleeve openings see Mechanical and Architectural Drawings.

DESIGNED V.E. & L.M.	DRAWN J.E.	CHECKED A.B.	IN CHARGE	REVISIONS							
				NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
				1	4-23-80		REVISED TO CONFORM TO APPENDUM NO. 1				

El. Lorusso
ASST. CHIEF ENGINEER OF DESIGN

J. Kelly
CHIEF STRUCTURAL ENGINEER

Smith
ENGINEER OF DESIGN
TUNNELS & BRIDGES

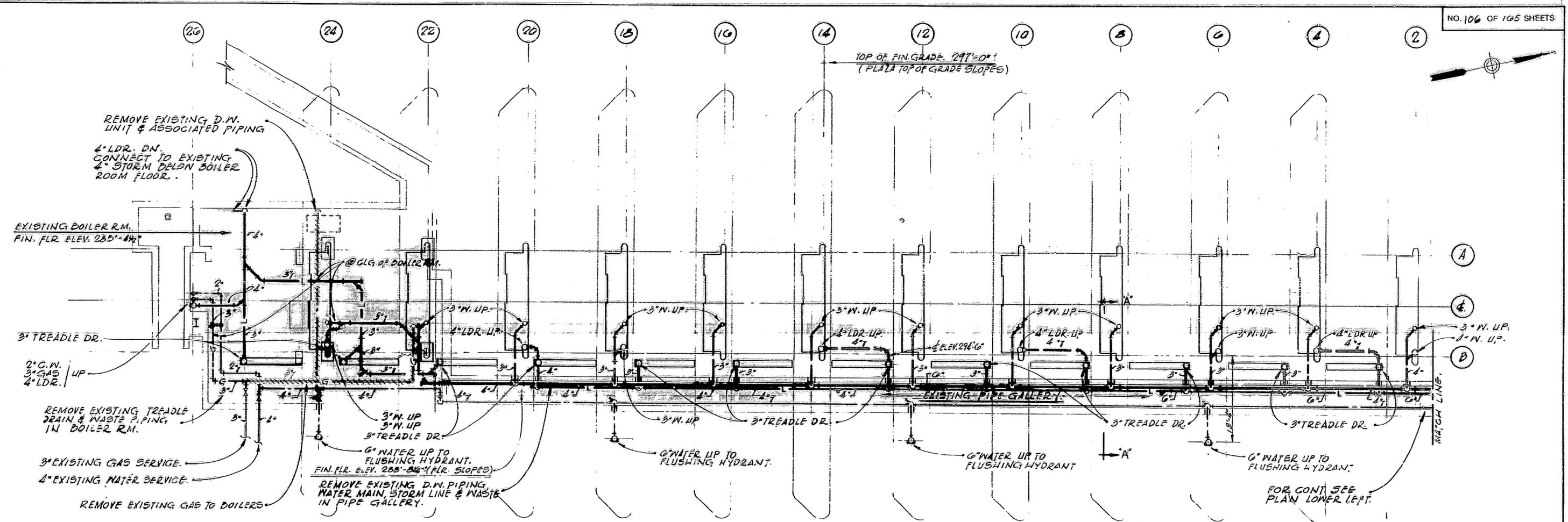
JANUARY 31, 1980
DATE

THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

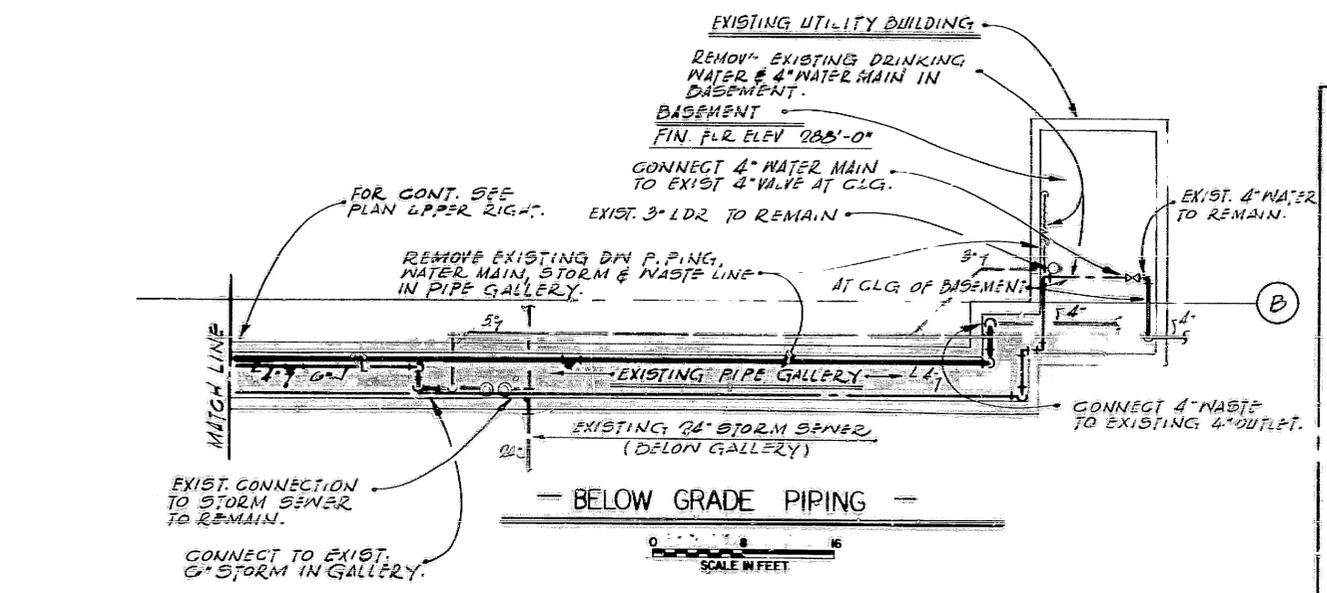
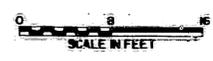
UPPER LEVEL TOLL PLAZA REDEVELOPMENT
CANOPY TOLL BOOTHS & SERVICE BUILDING
STRUCTURAL
CANOPY CONCRETE FLOOR PLAN

CONTRACT NO. GWB 150.008 DRAWING NO. 208

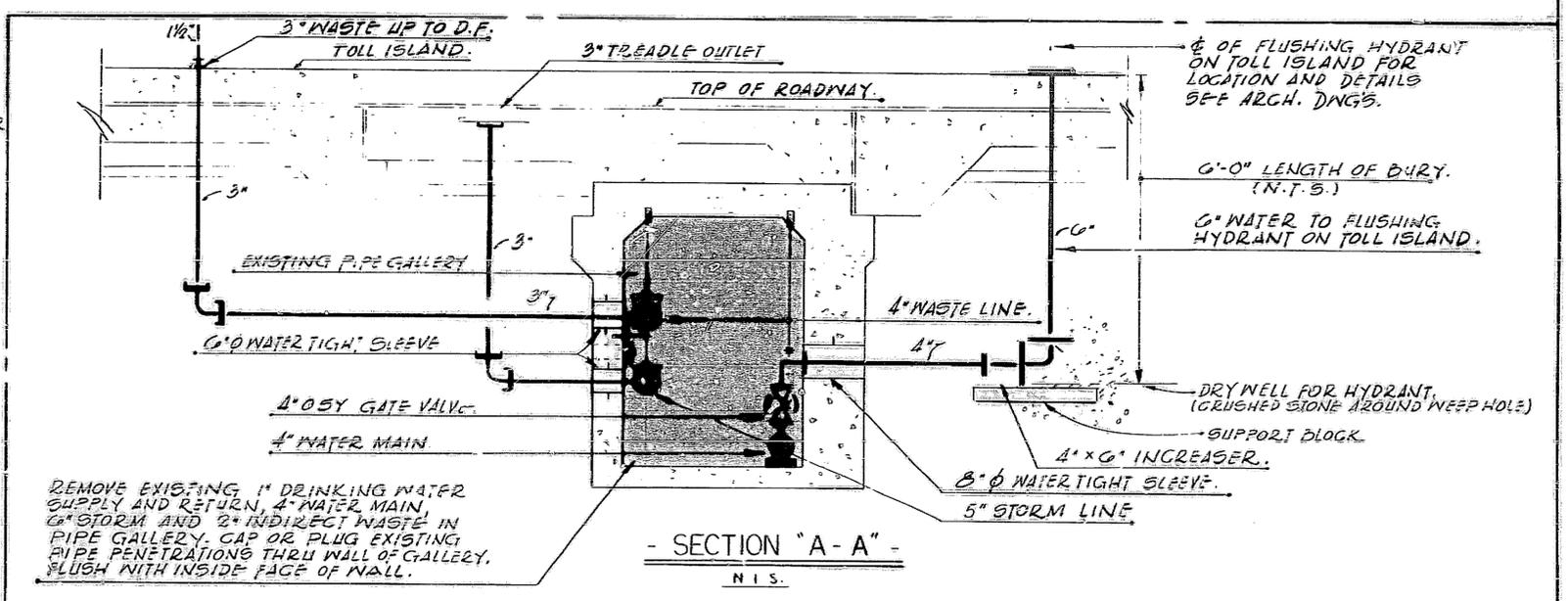


- BELOW GRADE PIPING -

- GENERAL NOTES:**
- COORDINATE LOCATIONS OF FL. DR. AND VALVED OUTLETS ON CANOPY LEVEL WITH MECHANICAL EQUIPMENT
 - FOR LEGEND & SYMBOLS SEE DWG. NO. 350.



- BELOW GRADE PIPING -



- SECTION "A-A" -
N.I.S.

REMOVE EXISTING 1\"/>

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

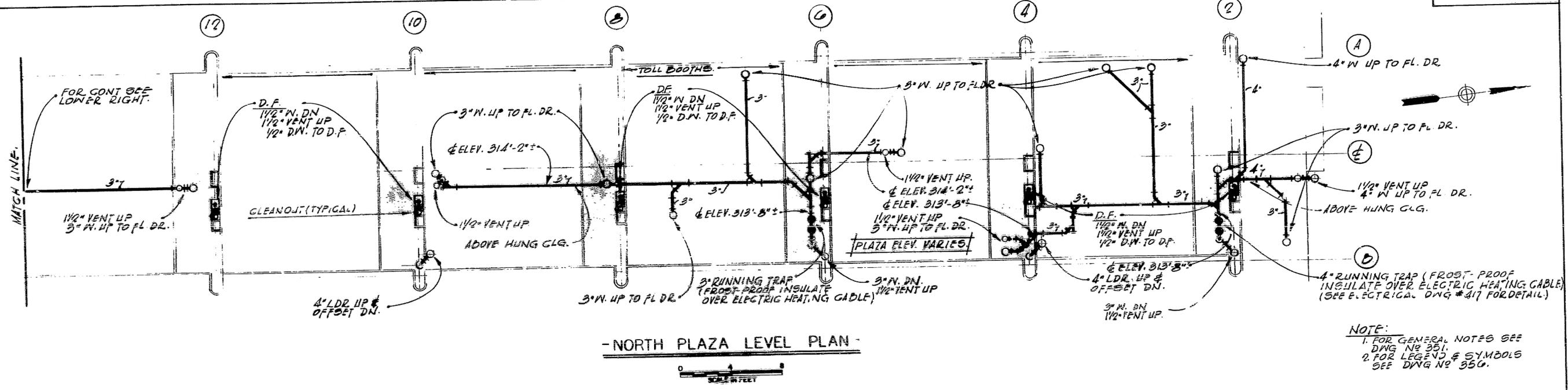
E.D.W. DESIGNED	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
E.D.W. DRAWN								
W.M.D. CHECKED								
W.M.D. IN CHARGE								

[Signature]
ASST. CHIEF ENGINEER OF DESIGN
[Signature]
CHIEF MECHANICAL ENGINEER

[Signature]
ENGINEER OF DESIGN (TUNNELS & BRIDGES)
JANUARY 1988
DATE

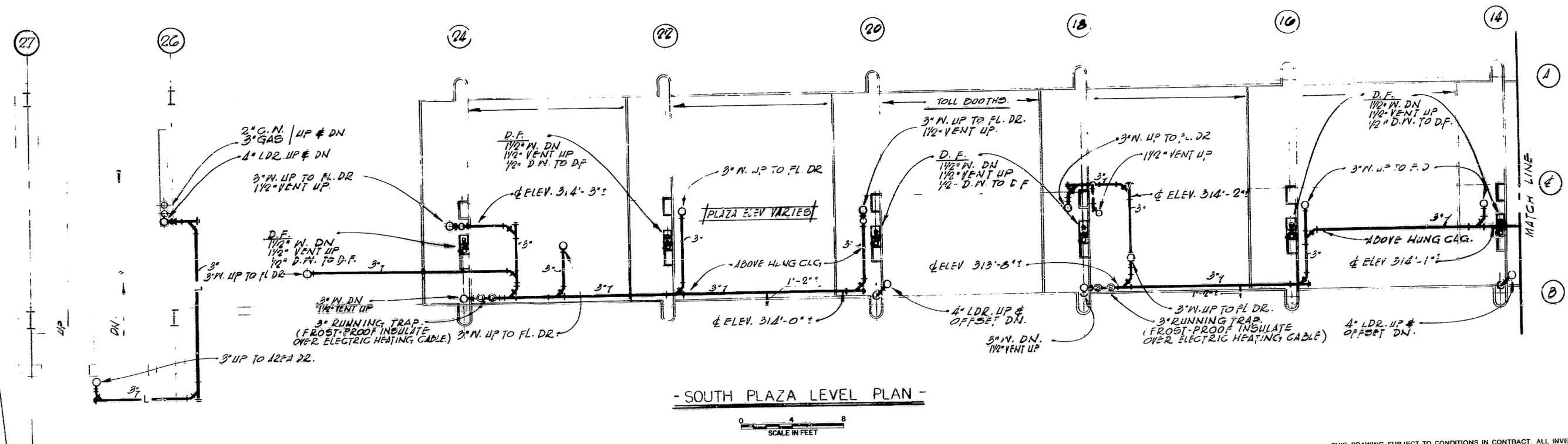
THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
CANOPY TOLL BOOTHS & SERVICE BUILDING
PLUMBING
BELOW GRADE PIPING AND SECTION
CONTRACT NO. GWB 150.008 DRAWING NO. 351



NOTE:
 1. FOR GENERAL NOTES SEE DWG NO 351.
 2. FOR LEGEND & SYMBOLS SEE DWG NO 350.

- NORTH PLAZA LEVEL PLAN -



- SOUTH PLAZA LEVEL PLAN -



THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

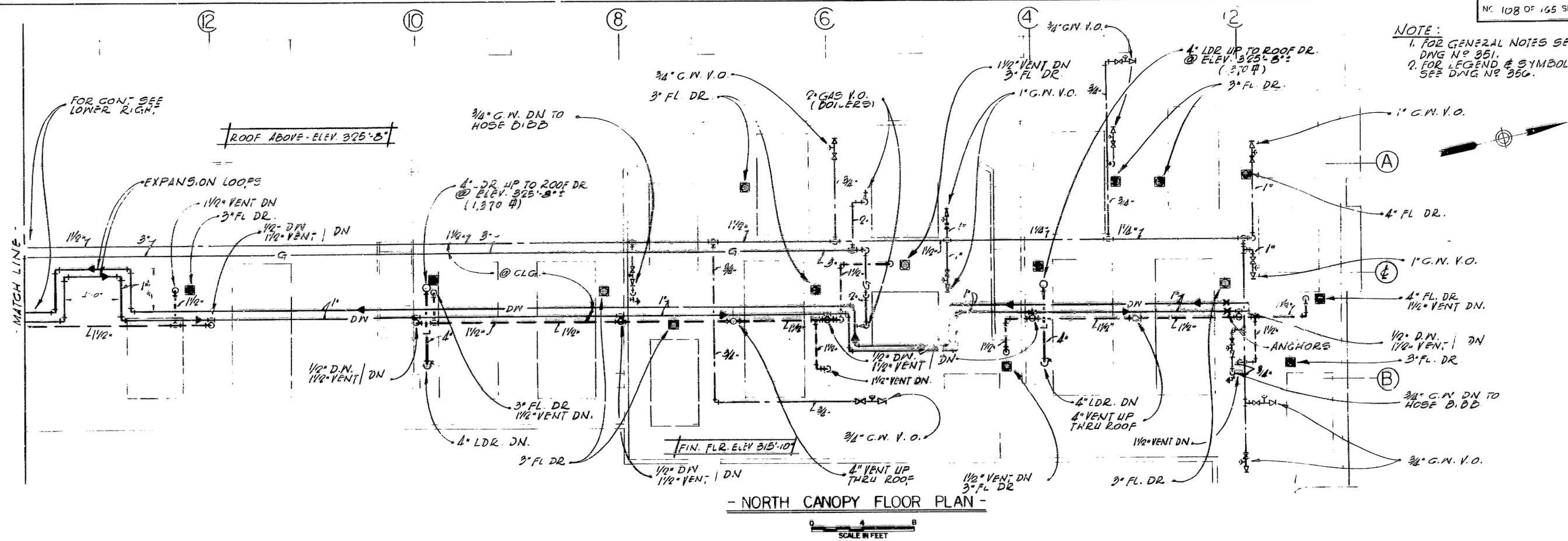
E. D. W. DEC 1980	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
W M S D DRAWN								
W M S D CHECKED								
W M S D IN CHARGE								

E. J. Scullio
 ASST. CHIEF ENGINEER
 OF DESIGN

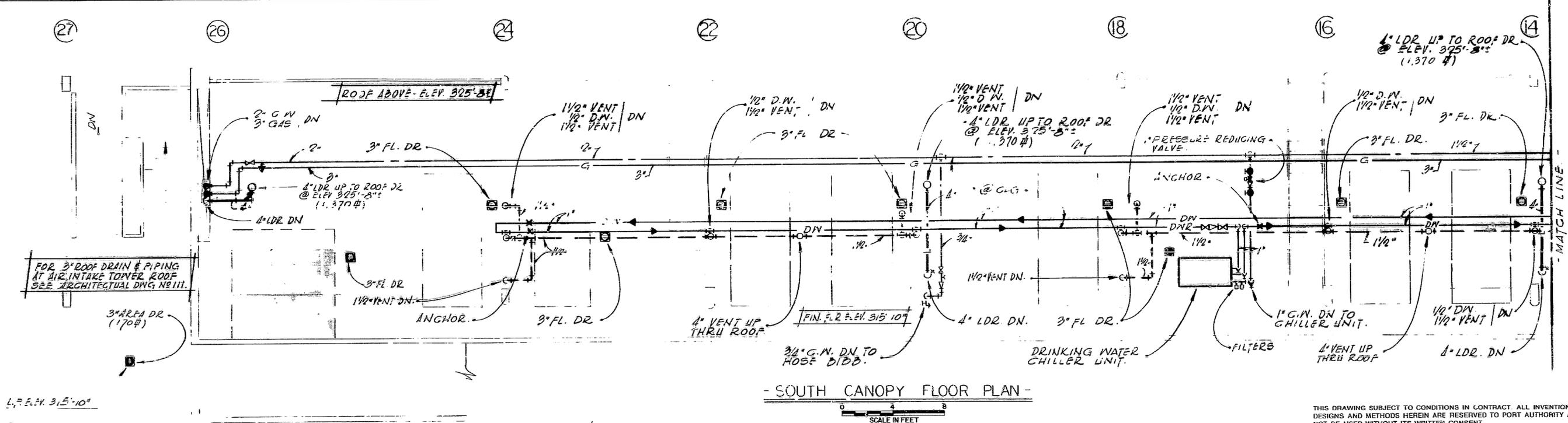
James Hahn
 ENGINEER OF DESIGN
 (TUNNELS & BRIDGES)
 JANUARY 31, 1980

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY TOLL BOOTHS & SERVICE BUILDING
 PLUMBING
 PLAZA LEVEL PLAN
 CONTRACT NO. GWB 150.008 DRAWING NO. 352



NOTE:
 1. FOR GENERAL NOTES SEE DNG N° 351.
 2. FOR LEGEND & SYMBOLS SEE DNG N° 366.



THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

E.D.W. DESIGNED E.D.W. DRAWN W.M.F.D. CHECKED W.M.S.D. IN CHARGE	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION

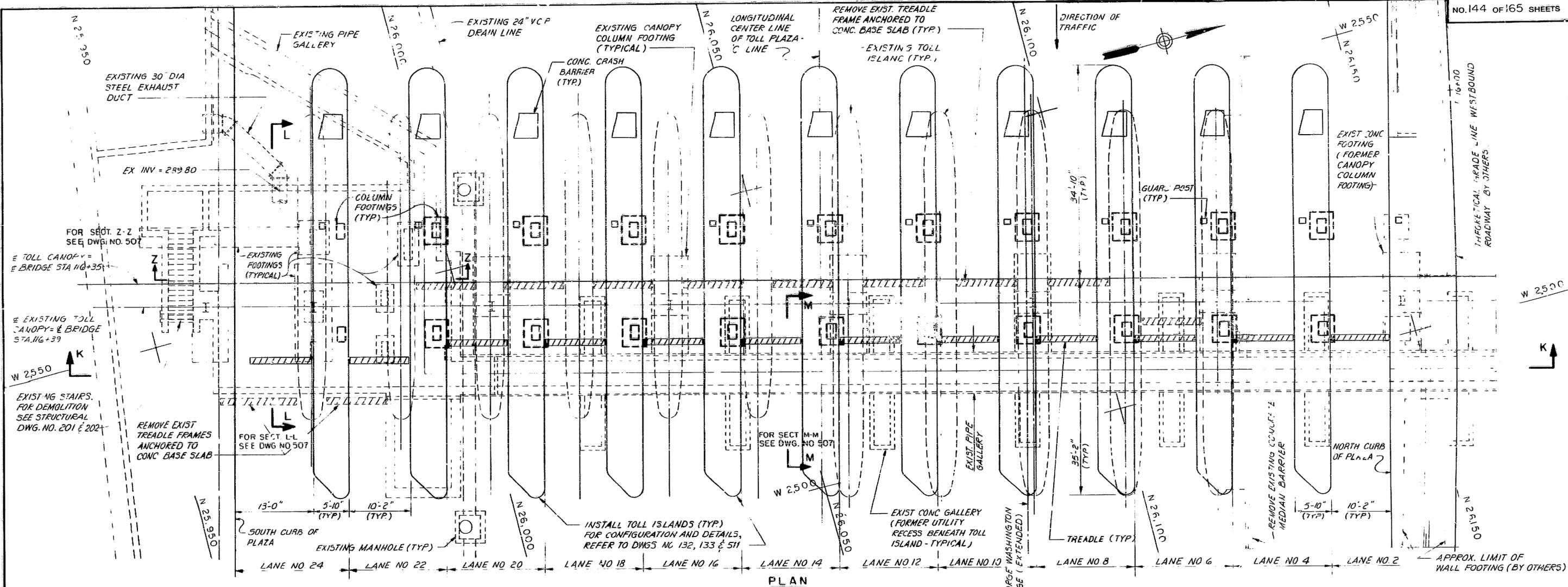
[Signature]
 ASST. CHIEF ENGINEER OF DESIGN

[Signature]
 ENGINEER OF DESIGN (TUNNELS & BRIDGES)

JANUARY 31, 1980
 DATE

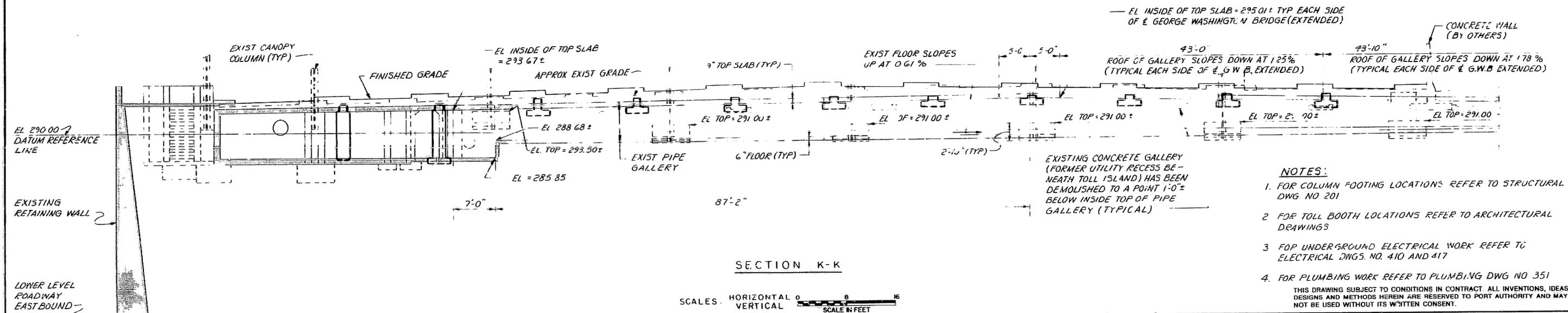
THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY TOLL BOOTHS & SERVICE BUILDING
 PLUMBING
 CANOPY FLOOR PLAN
 CONTRACT NO. GWB - 150.008 DRAWING NO. 353



PLAN

NOTE: STAIRWELL BUILDING AND WALKWAY CANOPY NOT SHOWN ON THIS DWG.



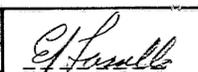
SECTION K-K

SCALES: HORIZONTAL 1" = 10' VERTICAL 1" = 4' SCALE IN FEET

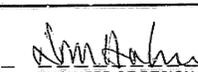
- NOTES:
- FOR COLUMN FOOTING LOCATIONS REFER TO STRUCTURAL DWG NO 201
 - FOR TOLL BOOTH LOCATIONS REFER TO ARCHITECTURAL DRAWINGS
 - FOR UNDERGROUND ELECTRICAL WORK REFER TO ELECTRICAL DWGS. NO. 410 AND 417
 - FOR PLUMBING WORK REFER TO PLUMBING DWG NO 351

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

I.W.L. DESIGNED	REVISIONS			DESCRIPTION
	NO.	DATE	APPD.	
R.A. DRAWN				
J.G. CHECKED				
J.G. IN CHARGE				


 ASST. CHIEF ENGINEER
 (DESIGN)

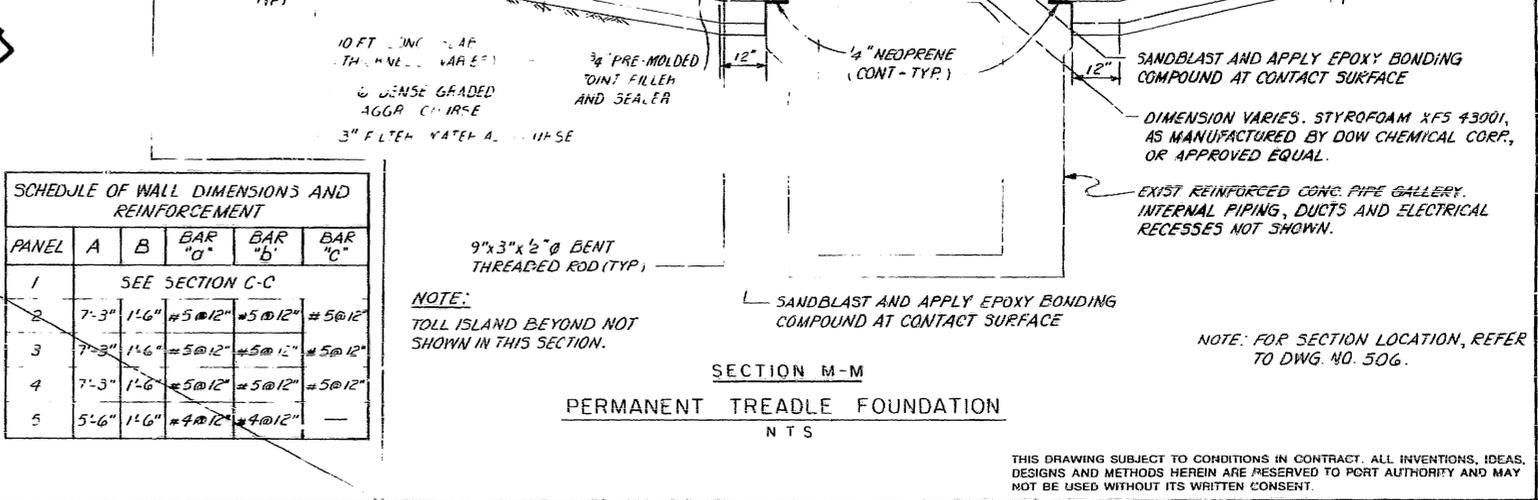
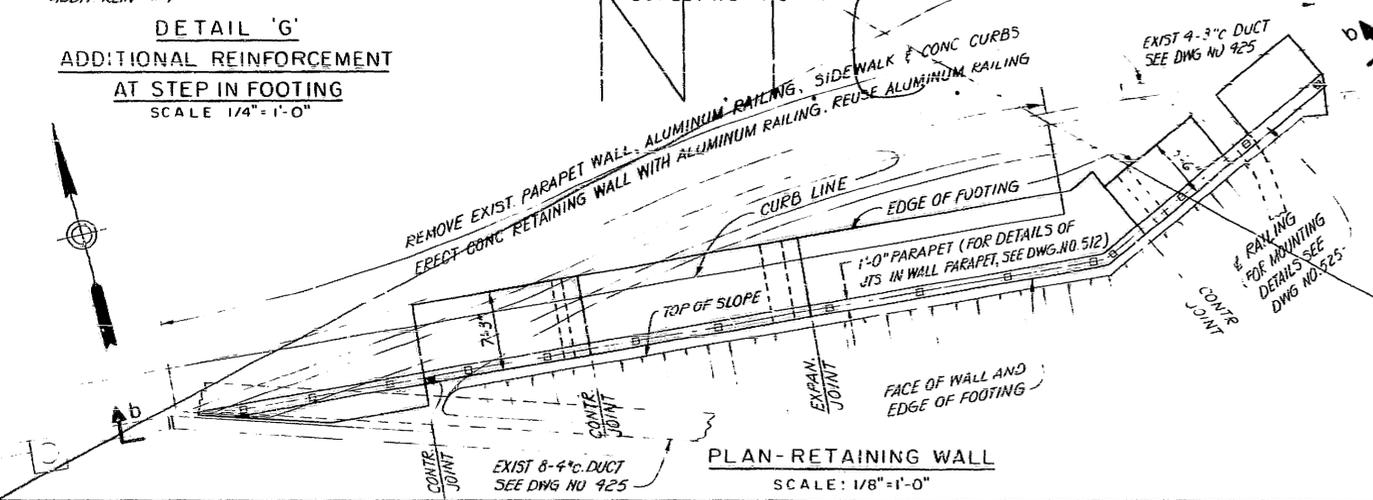
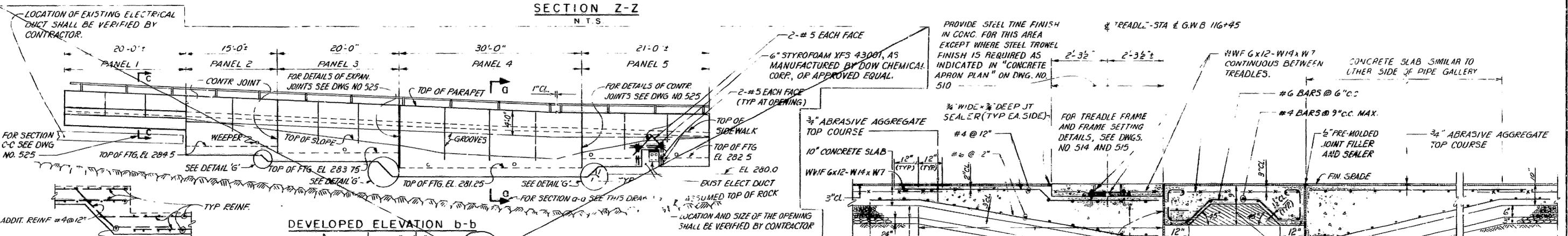
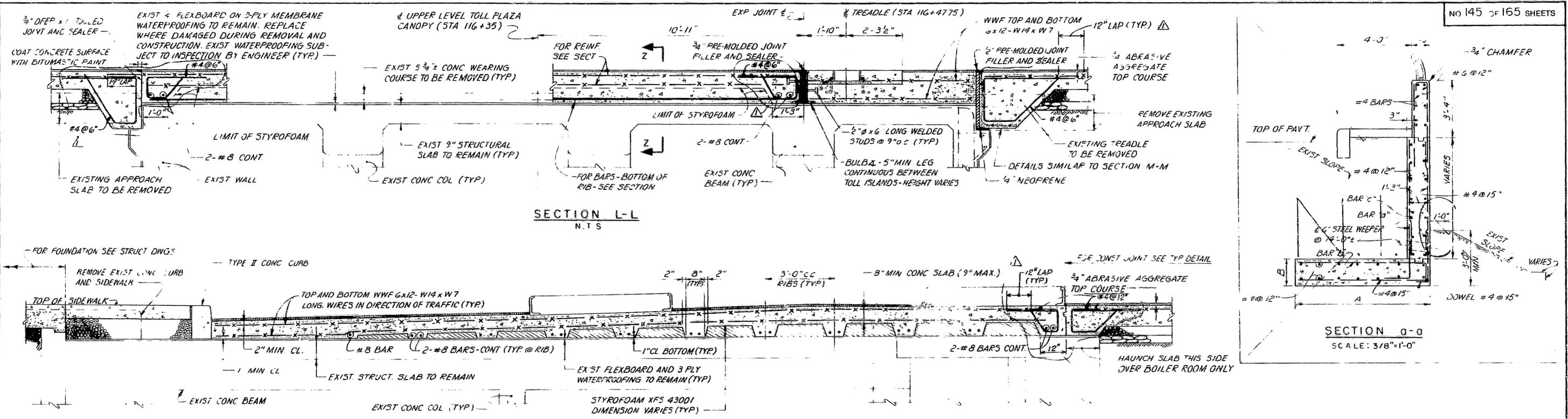

 CHIEF CIVIL ENGINEER


 ENGINEER OF DESIGN
 (TUNNELS & BRIDGES)

JANUARY 31, 1980
 DATE

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE

UPPER LEVEL TOLL PLAZA REDEVELOPMENT
 CANOPY, TOLL BOOTHS & SERVICE BUILDING
 CIVIL
 PLAN AND SECTION THRU TOLL PLAZA
 CONTRACT NO. GWB-150.008 DRAWING NO. 506



SCHEDULE OF WALL DIMENSIONS AND REINFORCEMENT

PANEL	A	B	BAR "a"	BAR "b"	BAR "c"
1	SEE SECTION C-C				
2	7'-3"	1'-6"	#5 @ 12"	#5 @ 12"	#5 @ 12"
3	7'-3"	1'-6"	#5 @ 12"	#5 @ 12"	#5 @ 12"
4	7'-3"	1'-6"	#5 @ 12"	#5 @ 12"	#5 @ 12"
5	5'-6"	1'-6"	#4 @ 12"	#4 @ 12"	

REVISIONS					
NO.	DATE	APPD.	DESCRIPTION	NO.	DATE
1	4.25.80		REVISED TO CONFORM ADDENDUM NO. 1		

ASST. CHIEF ENGINEER OF DESIGN

CHIEF STRUCTURAL ENGINEER

ENGINEER OF DESIGN (TUNNELS & BRIDGES)

JANUARY 31, 1980

DATE

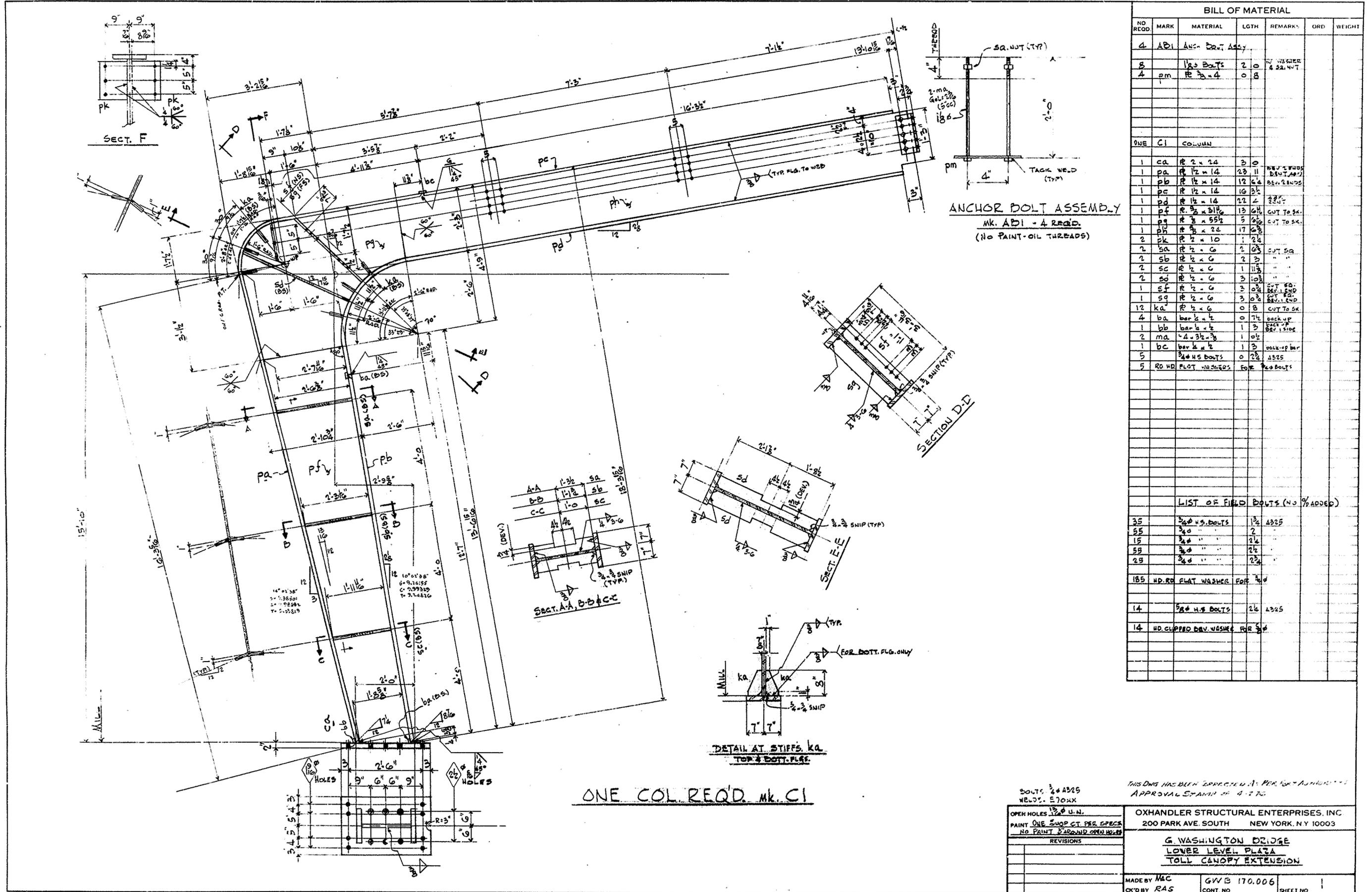
THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE

CIVIL

SECTIONS THRU TOLL PLAZA

CONTRACT NO. GWB-150.008 DRAWING NO. 507



BILL OF MATERIAL						
NO REQD	MARK	MATERIAL	LGTH	REMARKS	ORD	WEIGHT
4	AD1	ANCH. BOLT ASSEMBLY				
8		1/2" BOLTS	2 0	BY WISNER & SUTHER		
4	pm	R 2 x 4	0 8			
ONE C1 COLUMN						
1	ca	R 2 x 24	3 0			
1	pa	R 1/2 x 14	23 11	DEV. ENDS		
1	pb	R 1/2 x 14	12 6 1/2	DEV. ENDS		
1	pc	R 1/2 x 14	16 3/4			
1	pd	R 1/2 x 14	22 1/2			
1	pe	R 3/8 x 3 1/2	13 6 1/2	CUT TO SK.		
1	pf	R 3/8 x 5 1/2	5 2 1/2	CUT TO SK.		
1	pg	R 3/8 x 2 1/2	17 6 3/4			
2	pk	R 2 x 10	1 2 1/2			
2	sa	R 2 x 6	2 6 3/4	CUT SQ.		
2	sb	R 2 x 6	2 2 1/2			
2	sc	R 2 x 6	1 1 1/2			
2	sd	R 2 x 6	3 10 3/4			
1	se	R 2 x 6	3 0 3/4	CUT SQ.		
1	sf	R 2 x 6	0 8	DEV. ENDS		
12	ka	R 2 x 6	0 8	CUT TO SK.		
4	ba	bar 2 x 2	0 7 1/2	BACKUP		
1	bb	bar 2 x 2	1 3	BACKUP		
2	ma	4 x 3 1/2 x 3/8	1 0 1/2			
1	bc	bar 2 x 2	1 3	BACKUP BAR		
5		3/4" HS BOLTS	0 2 1/2	A325		
5	RD HD	FLAT WASHERS	FOR	FOR BOLTS		
LIST OF FIELD BOLTS (NO 1/2 ADDED)						
35		3/4" HS. BOLTS	1 3/4	A325		
55		3/4" "	2			
15		3/4" "	2 1/4			
55		3/4" "	2 1/4			
25		3/4" "	2 1/4			
185 HD. RD. FLAT WASHERS FOR 3/4"						
14 5/8" HS. BOLTS 2 1/4 A325						
14 HD. CLIPPED DEV. WASHERS FOR 3/4"						

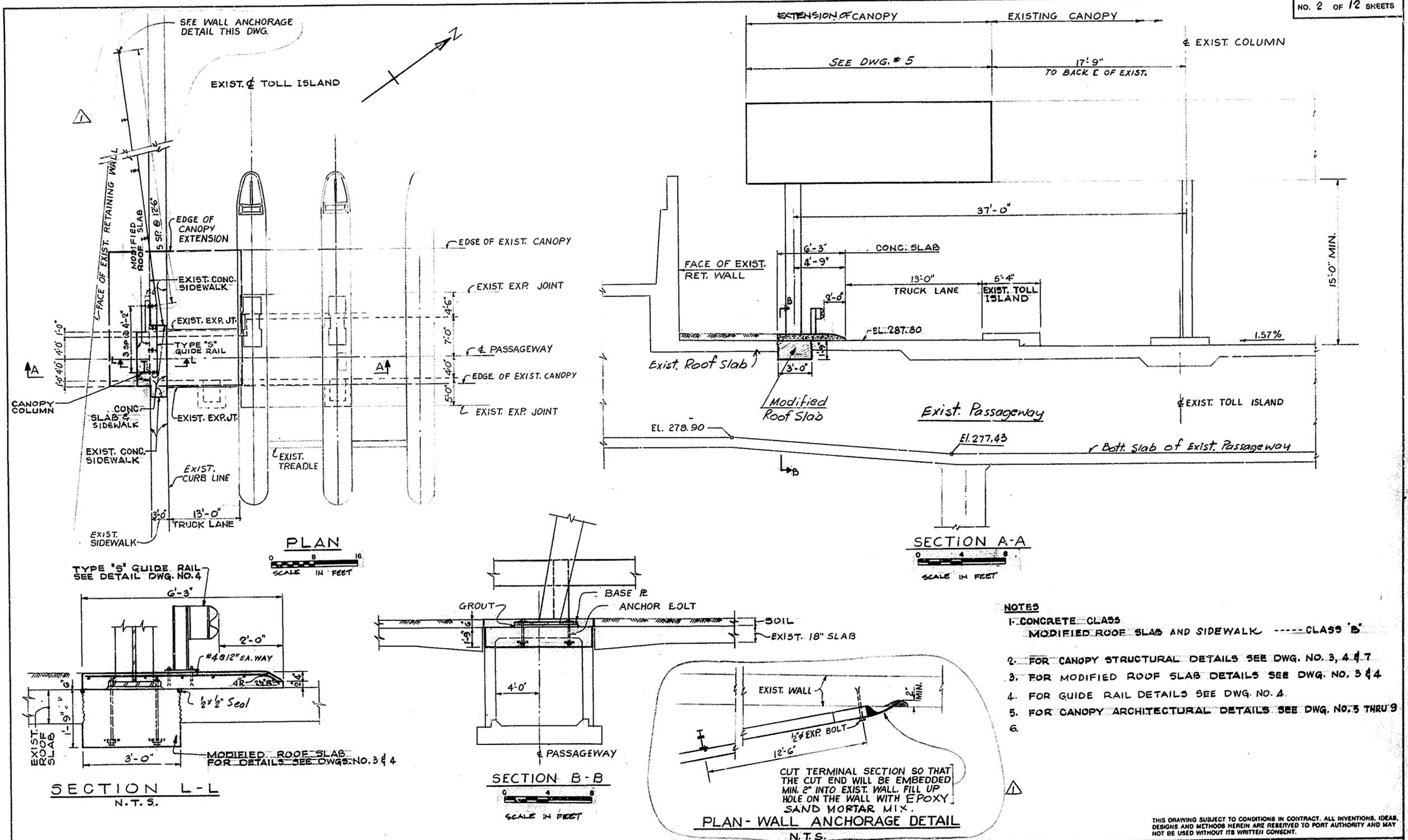
ONE COL. REQ'D. MK. C1

SOBTS 3/4" A325
NEW 1/2" E70XX

THIS DWG HAS BEEN CORRECTED BY PER. RAS - AS SHOWN BY APPROVAL STAMP OF 4-7-76

OPEN HOLES 1/2" U.N. PAINT ONE SHOP COAT PER SPEC NO PAINT 3" AROUND OPEN HOLES	OXHANDLER STRUCTURAL ENTERPRISES, INC 200 PARK AVE. SOUTH NEW YORK, N.Y. 10003
REVISIONS	G WASHINGTON BRIDGE LOWER LEVEL PLAZA TOLL CANOPY EXTENSION
MADE BY M&C CK'D BY RAS	GWB 170.006 CONT. NO. SHEET NO. 1

NO. 2 OF 12 SHEETS



- NOTES**
1. CONCRETE CLASS MODIFIED ROOF SLAB AND SIDEWALK CLASS 'B'
 2. FOR CANOPY STRUCTURAL DETAILS SEE DWG. NO. 3, 4 & 7
 3. FOR MODIFIED ROOF SLAB DETAILS SEE DWG. NO. 3 & 4
 4. FOR GUIDE RAIL DETAILS SEE DWG. NO. 4
 5. FOR CANOPY ARCHITECTURAL DETAILS SEE DWG. NO. 5 THRU 9
 - 6.

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

S.T.S. DESIGNED S.G. DRAWN S.T.S. CHECKED A.C. IN CHARGE	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION
	1	2-4-78		Extended Guide Rail Type 'S'				

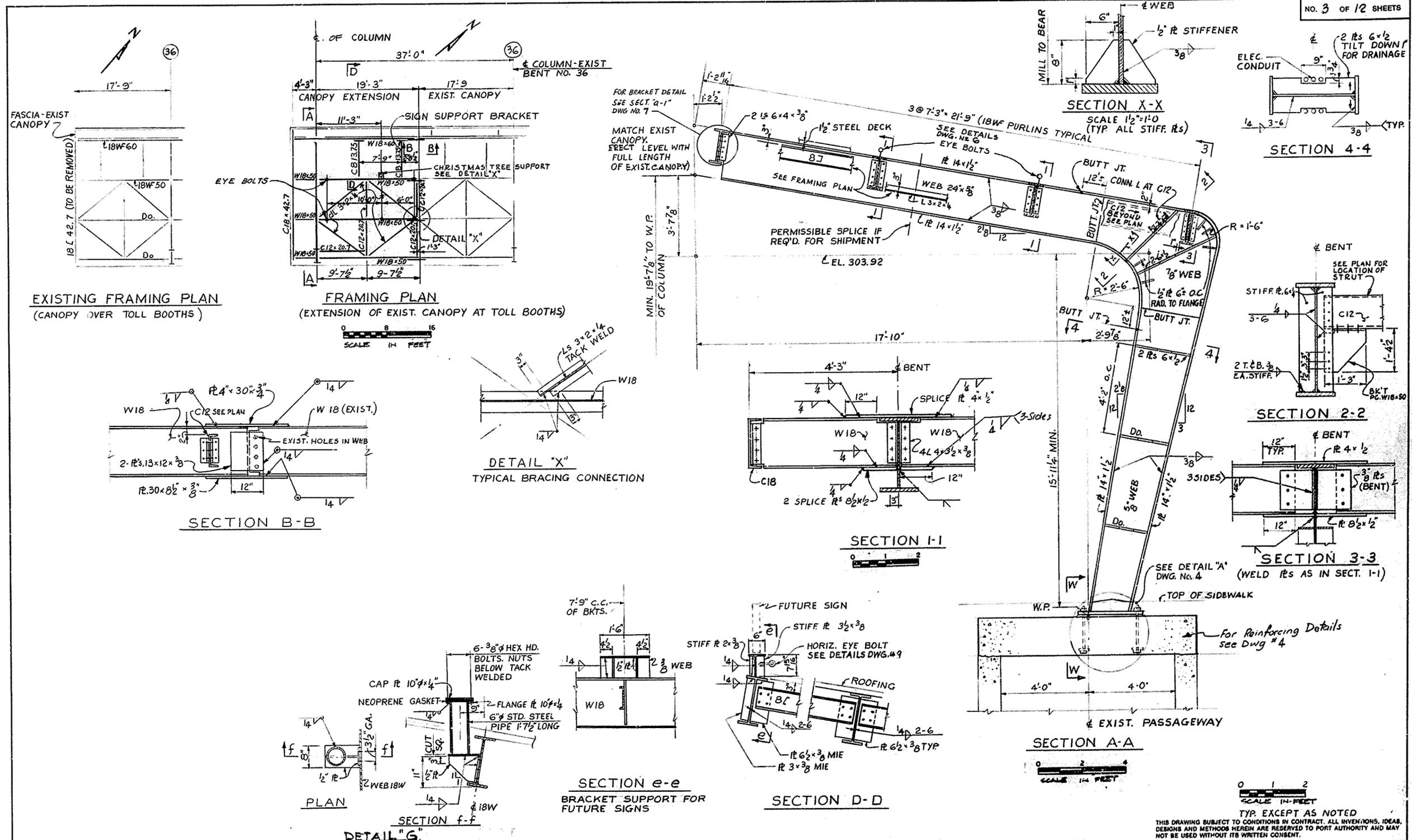
William J. ...
 ARCHIEF ENGINEER

... ..
 ENGINEER OF DESIGN
 TUNNELS / BRIDGES
 DATE: NOV. 6, 1975

THE PORT AUTHORITY OF NY & NJ
**GEORGE WASHINGTON BRIDGE
 LOWER LEVEL PLAZA
 TOLL CANOPY EXTENSION**

STRUCTURAL
**SOUTH TOLL CANOPY EXTENSION
 PLAN AND SECTIONS**
 CONTRACT NO. GWB 170.006 DRAWING NO. 2

NO. 3 OF 12 SHEETS



TYP. EXCEPT AS NOTED
THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

I. C. DESIGNED S. G. DRAWN F. C. CHECKED A. C. IN CHARGE	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION

William J. ...
CHIEF ENGINEER

George ...
ENGINEER OF DESIGN

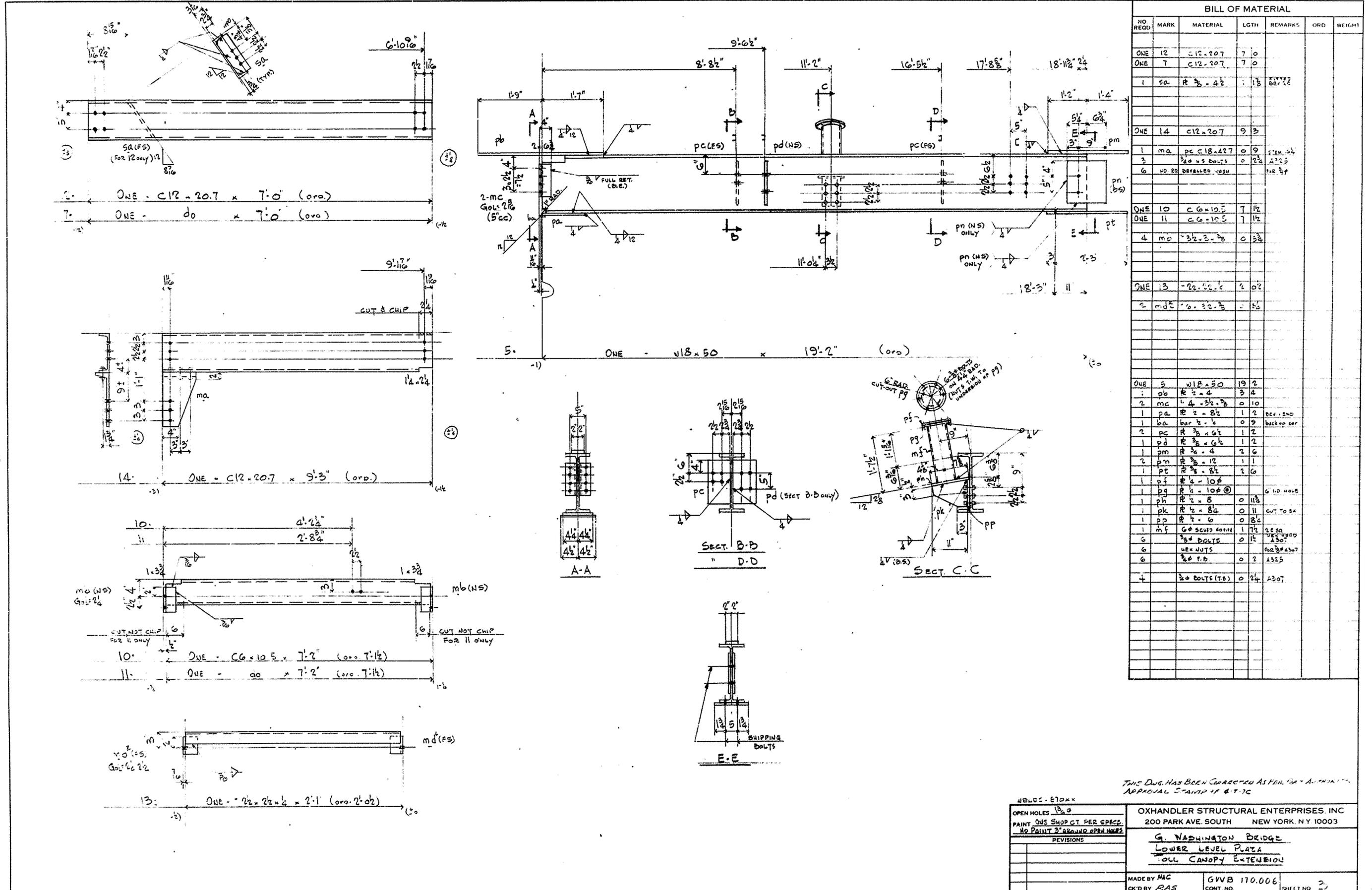
NOV 6 1975
DATE

THE PORT AUTHORITY OF NY & NJ

GEORGE WASHINGTON BRIDGE
LOWER LEVEL PLAZA
TOLL CANOPY EXTENSION

STRUCTURAL
SOUTH TOLL CANOPY EXTENSION
CANOPY STRUCTURAL STEEL DETAILS

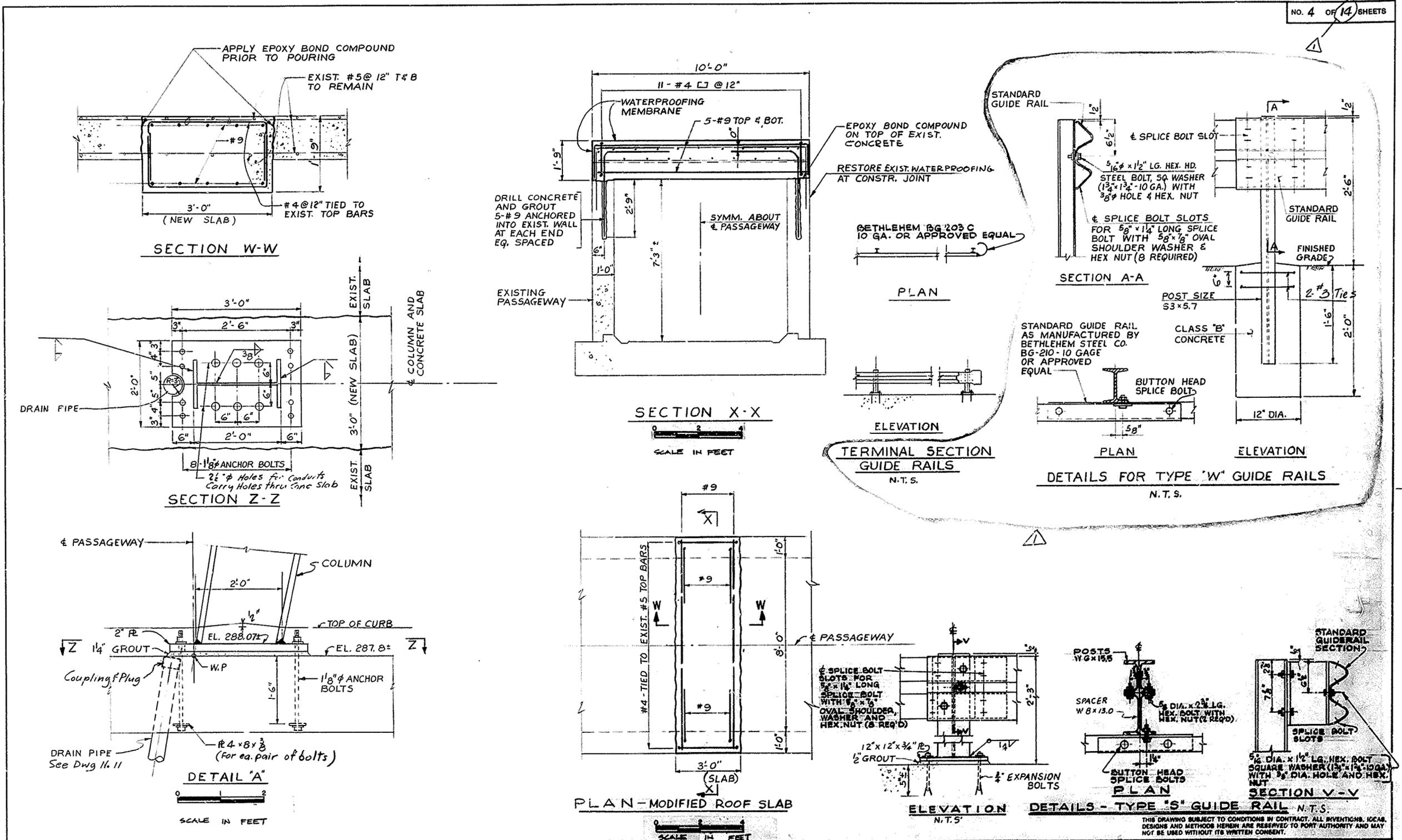
CONTRACT NO. **GWB 170.006** DRAWING NO. **3**



THIS Dwg. HAS BEEN CORRECTED AS PER PA - APPROVAL APPROVAL STAMP IF A.T. 7C

WELDED - E70xx	OXHANDLER STRUCTURAL ENTERPRISES, INC 200 PARK AVE. SOUTH NEW YORK, N.Y. 10003
OPEN HOLES 1/2" Ø	G. WASHINGTON BRIDGE
PAINT ONE SHOP QT PER SPEC.	LOWER LEVEL PLATE
NO PAINT 2" AROUND OPEN HOLES	ROLL CANOPY EXTENSION
REVISIONS	
MADE BY MAC	GUVB 170.006
CHK'D BY RAS	CONT. NO. SHEET NO. 2

NO. 4 OF 14 SHEETS

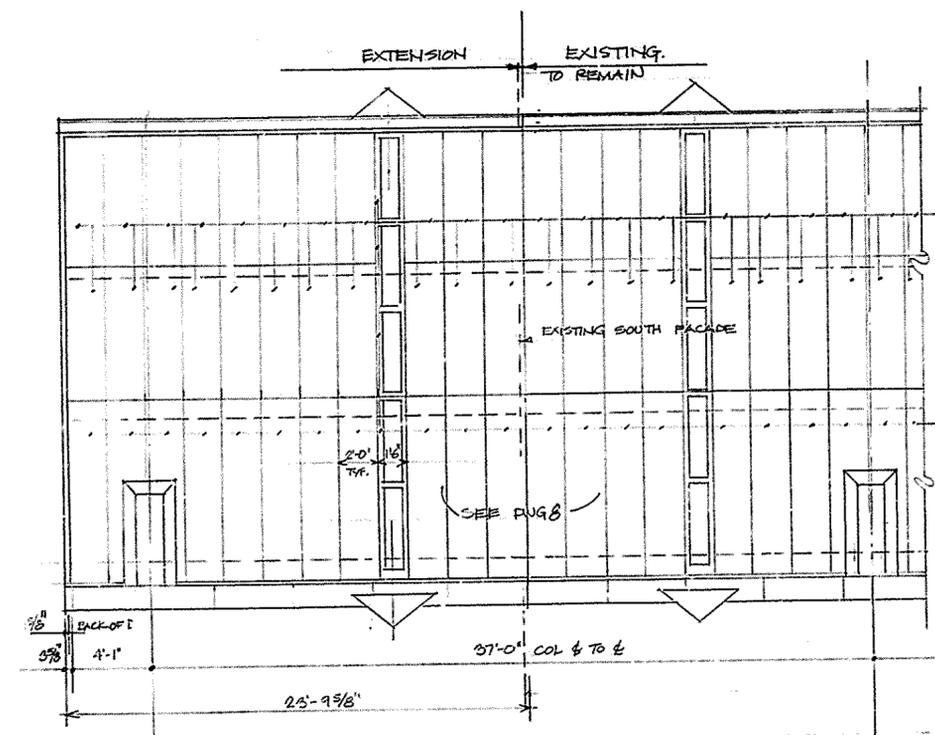


DESIGNED S. G.	REVISIONS					
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE
DRAWN S. T. S.	11-17-75			Added details for Type W Guide Rails & Title of Terminal Section - Guide Rails		
CHECKED A. C.						
IN CHARGE						

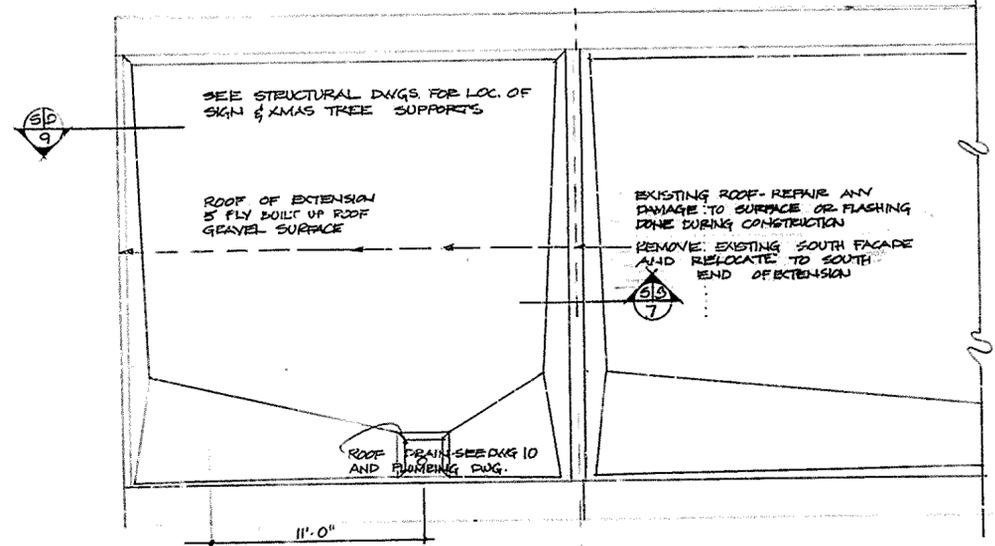
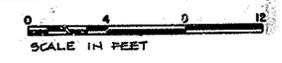
William J. ...
 CHIEF ENGINEER
George J. ...
 CHIEF STRUCTURAL ENGINEER
 DATE: MAY 6, 1975

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE
 LOWER LEVEL PLAZA
 TOLL CANOPY EXTENSION
 STRUCTURAL
 SOUTH TOLL CANOPY EXTENSION
 CANOPY COLUMN FOUNDATION
 CONTRACT NO. GWB 170.006 DRAWING NO. 4

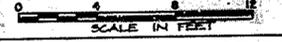
NO. 5 OF 12 SHEETS



P12 REFLECTED CEILING PLAN

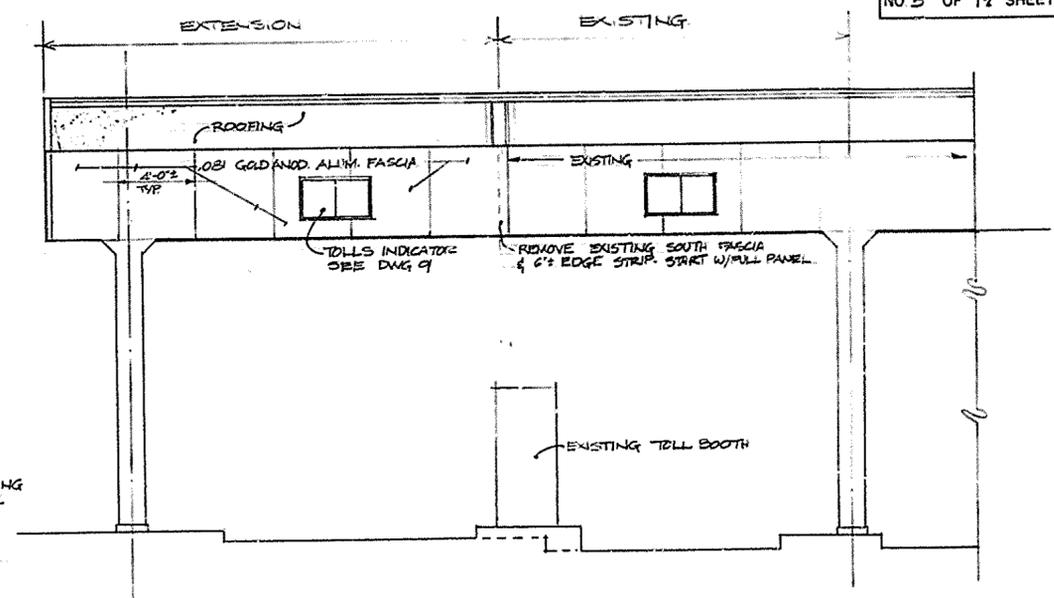


P11 ROOF PLAN

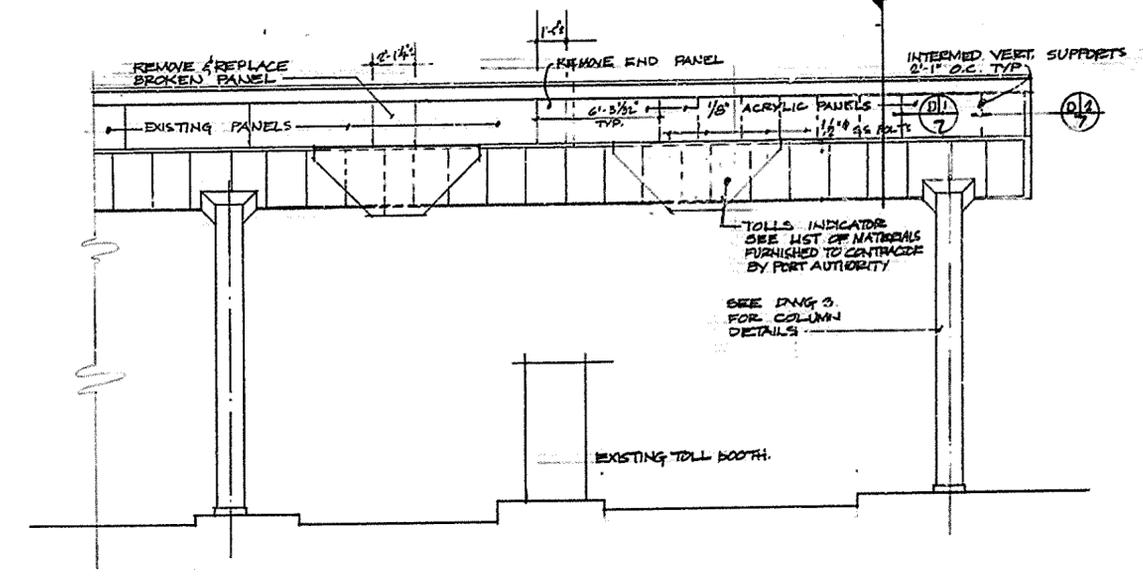
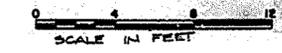


JOB PORCELAIN ENAMEL ALUMINUM CEILING OR SOFFIT PANELS. PANELS FOR EXTENSION TO MATCH EXISTING IN COLOR DETAIL AND DIMENSION SEE DETAILS DWG 8

BACK ROW OF PANELS JOB ANODIZED ALUM. PANELS PATTERN #10. PANELS CONTAINING LIGHT FIXTURES SAME MATERIAL PANELS FOR EXTENSION TO MATCH EXISTING PANELS IN COLOR DETAIL AND DIMENSION SEE DETAILS DWG 8



P12 REAR ELEVATION - EAST SIDE



E11 FRONT ELEVATION - WEST SIDE



THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT

DESIGNED E.L.	DRAWN K.C.	CHECKED K.C.	IN CHARGE	REVISIONS									
				NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION		

[Signature]
ENGINEER OF DESIGN - TUNNELS & BRIDGES

[Signature]
ARCHITECT

[Signature]
CHIEF ENGINEER

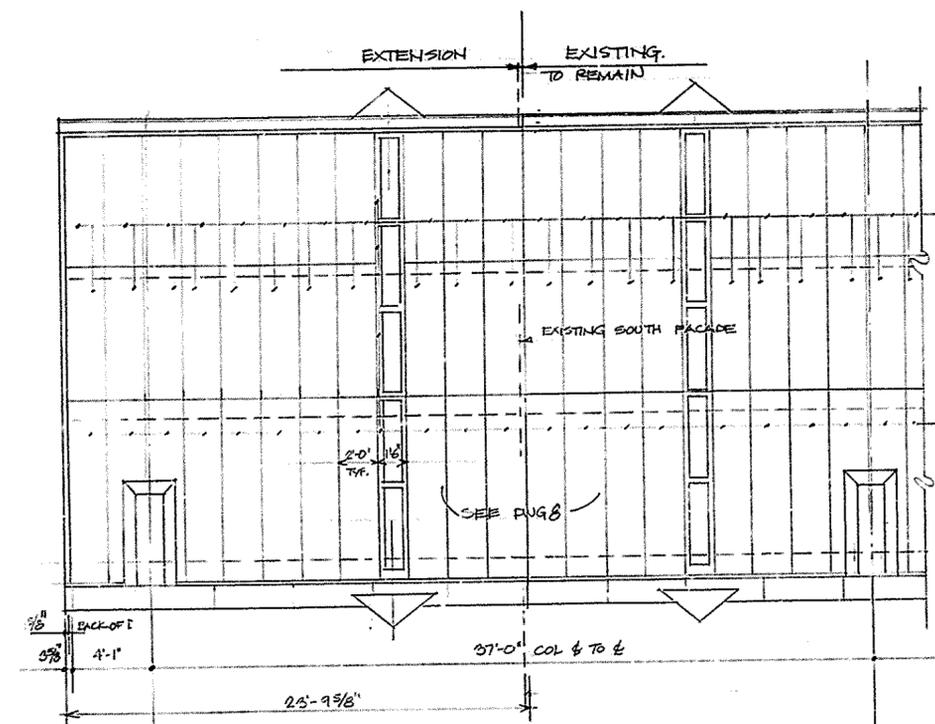
Nov. 6, 1975
DATE

THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE
LOWER LEVEL PLAZA
TOLL CANOPY EXTENSION

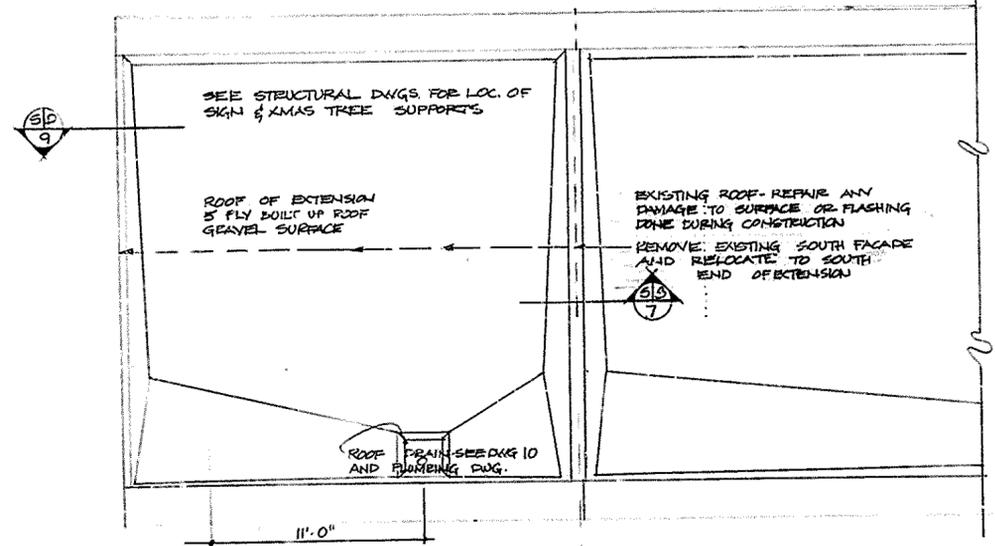
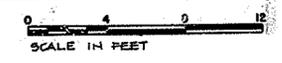
ARCHITECTURAL
PLANS & ELEVATIONS

CONTRACT NO. G.W.B. 170.006 DRAWING NO. 5

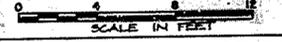
NO. 5 OF 12 SHEETS



P12 REFLECTED CEILING PLAN

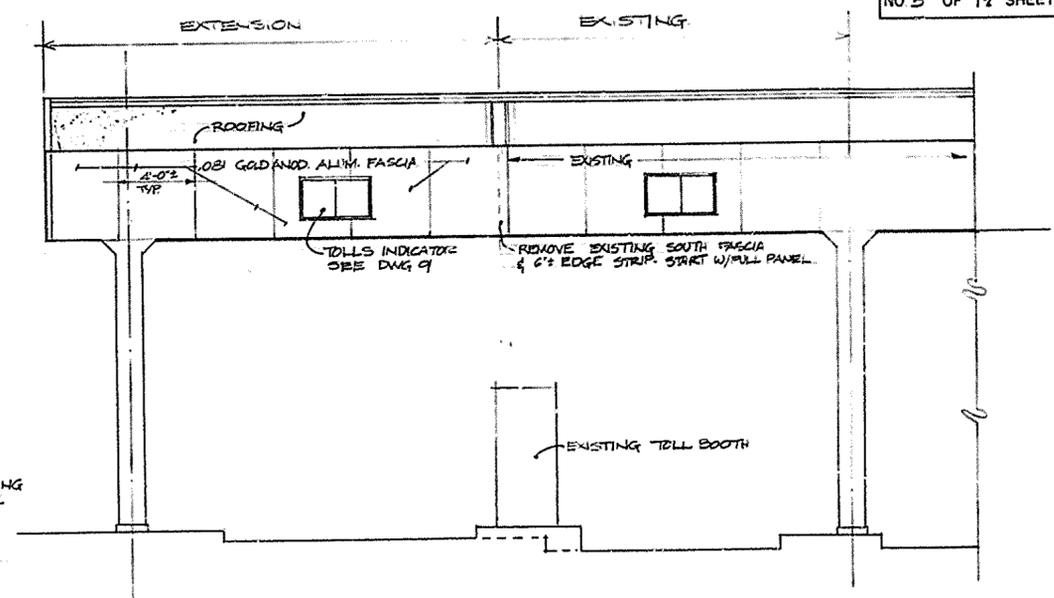


P11 ROOF PLAN

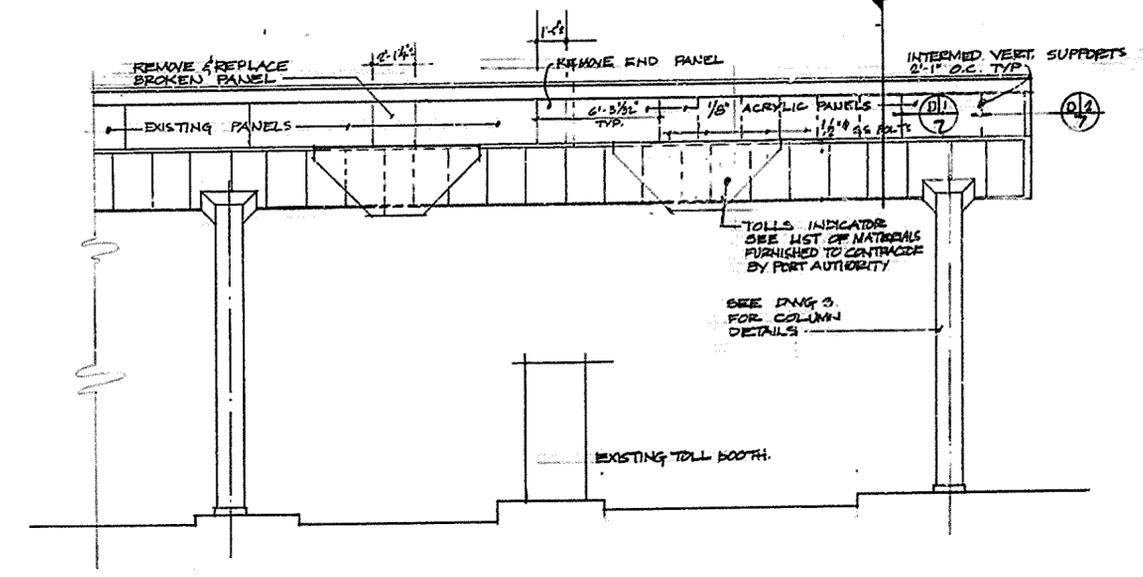
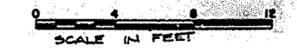


JOB PORCELAIN ENAMEL ALUMINUM CEILING OR SOFFIT PANELS. PANELS FOR EXTENSION TO MATCH EXISTING IN COLOR DETAIL AND DIMENSION SEE DETAILS DWG 8

BACK ROW OF PANELS JOB ANODIZED ALUM. PANELS PATTERN #10. PANELS CONTAINING LIGHT FIXTURES SAME MATERIAL PANELS FOR EXTENSION TO MATCH EXISTING PANELS IN COLOR, DETAIL AND DIMENSION SEE DETAILS DWG 8



P12 REAR ELEVATION - EAST SIDE



E11 FRONT ELEVATION - WEST SIDE



THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT

DESIGNED E.L.	DRAWN K.C.	CHECKED K.C.	IN CHARGE	REVISIONS									
				NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION		

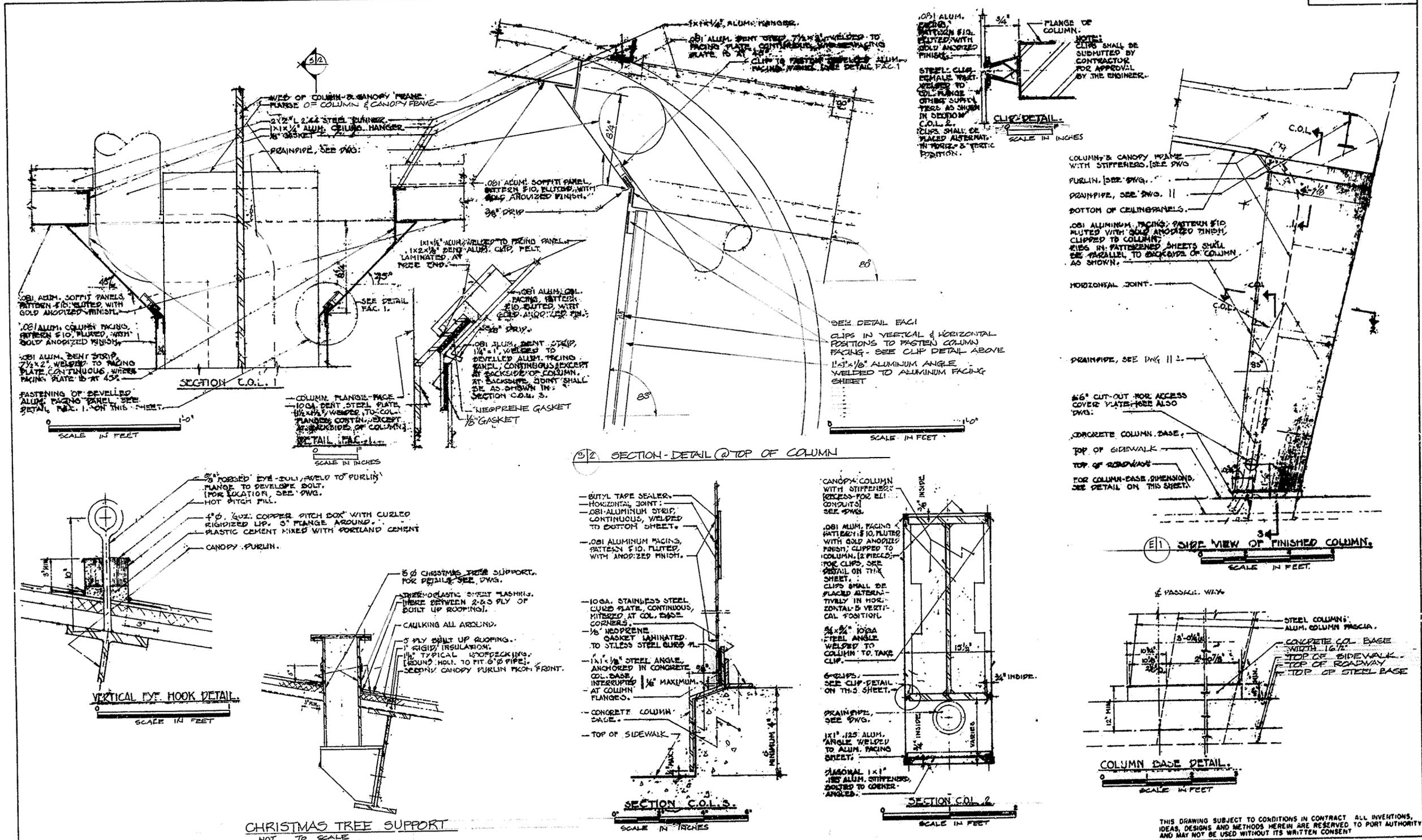
ENGINEER OF DESIGN - TUNNELS & BRIDGES

ARCHITECT
 Nov. 6, 1975
 DATE

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE
 LOWER LEVEL PLAZA
 TOLL CANOPY EXTENSION

**ARCHITECTURAL
 PLANS & ELEVATIONS**
 CONTRACT NO. G.W.B. 170.006 DRAWING NO. 5

NO. 6 OF 12 SHEETS

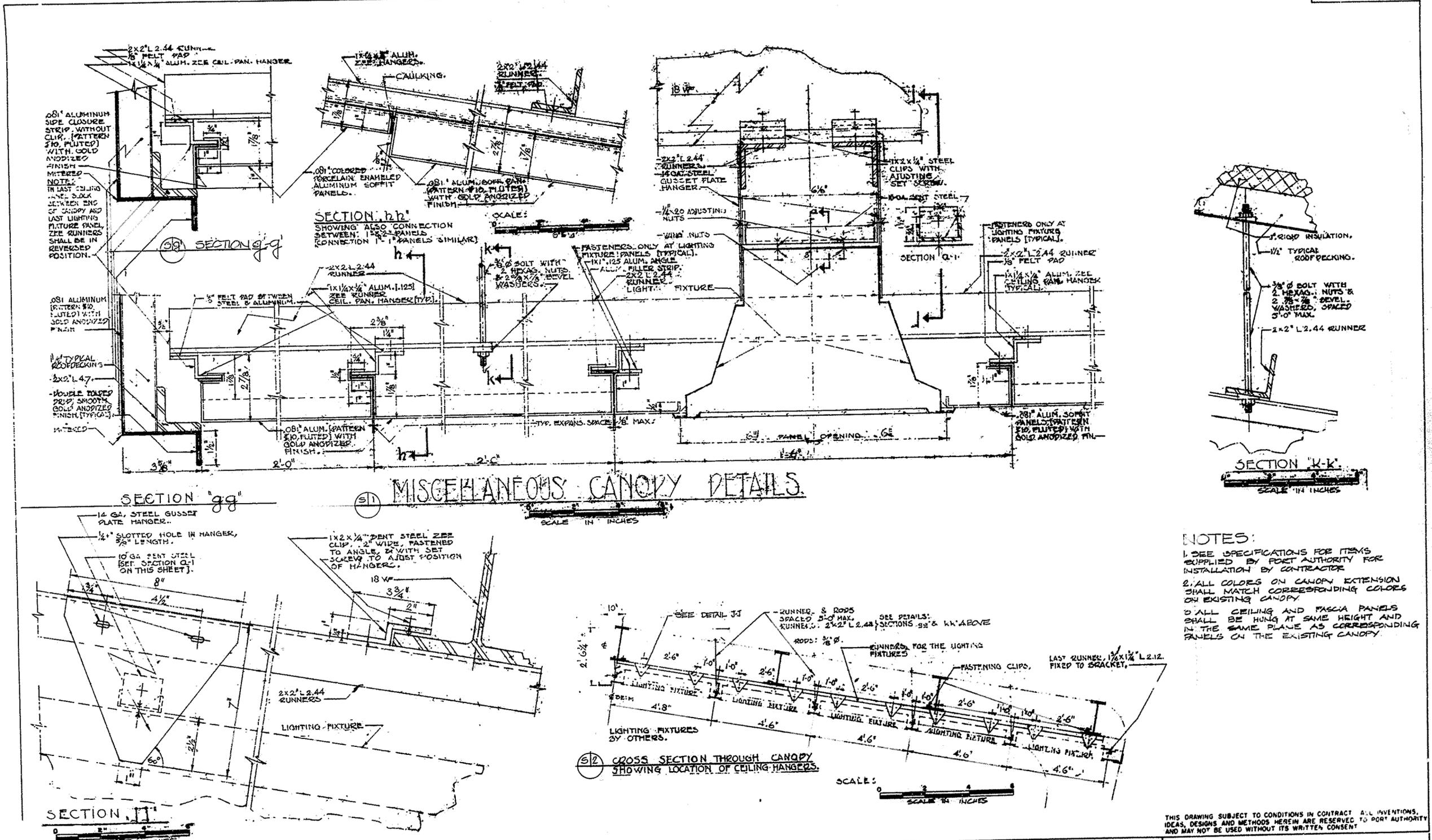


THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

REVISIONS					
DESIGNED	NO.	DATE	APPD.	DESCRIPTION	NO.
DRAWN					
CHECKED					
IN CHARGE					

ENGINEER OF DESIGN - TUNNELS & BRIDGES
 CHIEF ENGINEER
 DATE: Nov. 6, 1975
 ARCHITECT

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE
 LOWER LEVEL PLAZA
 TOLL CANOPY EXTENSION
 ARCHITECTURAL
 DETAILS
 CONTRACT NO. GMB 170-006
 DRAWING NO. 6



NOTES:
 1. SEE SPECIFICATIONS FOR ITEMS SUPPLIED BY PORT AUTHORITY FOR INSTALLATION BY CONTRACTOR.
 2. ALL COLORS ON CANOPY EXTENSION SHALL MATCH CORRESPONDING COLORS ON EXISTING CANOPY.
 3. ALL CEILING AND FASCIA PANELS SHALL BE HUNG AT SAME HEIGHT AND IN THE SAME PLANE AS CORRESPONDING PANELS ON THE EXISTING CANOPY.

THIS DRAWING SUBJECT TO CONDITIONS IN CONTRACT. ALL INVENTIONS, IDEAS, DESIGNS AND METHODS HEREIN ARE RESERVED TO PORT AUTHORITY AND MAY NOT BE USED WITHOUT ITS WRITTEN CONSENT.

REVISIONS					
DESIGNED	NO.	DATE	APPD.	DESCRIPTION	
DRAWN					
CHECKED					
IN CHARGE					

[Signature]
 ENGINEER OF DESIGN - TUNNELS & BRIDGES

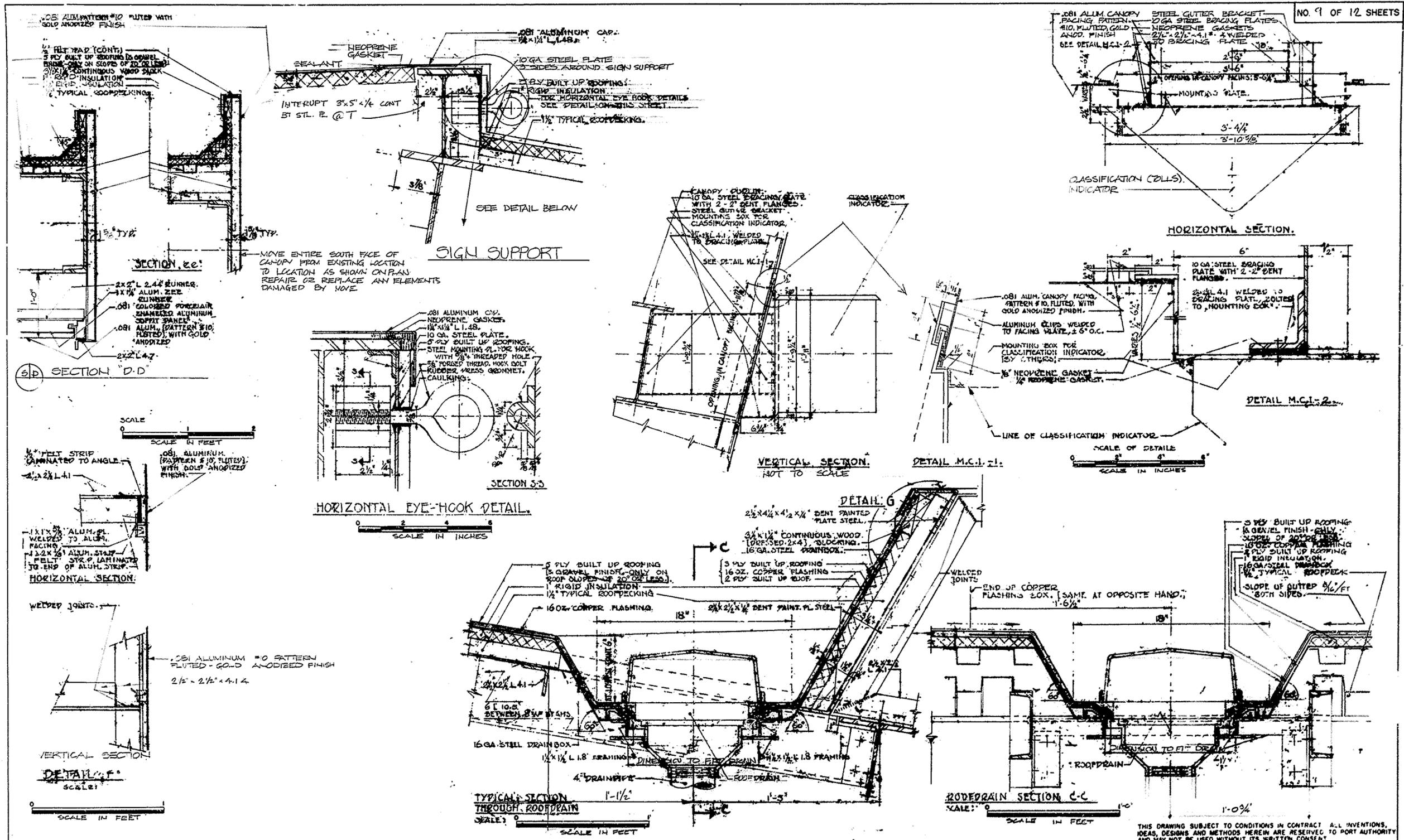
[Signature]
 ARCHITECT

[Signature]
 CHIEF ENGINEER

NOV. 6, 1975
 DATE

THE PORT AUTHORITY OF NY & NJ
 GEORGE WASHINGTON BRIDGE
 LOWER LEVEL PLAZA
 TOLL CANOPY EXTENSION

ARCHITECTURAL
 DETAILS
 CONTRACT NO. G.W.B. 170.006 DRAWING NO. 3



NO. 9 OF 12 SHEETS

DESIGNED	REVISIONS							
	NO	DATE	APPD	DESCRIPTION	NO	DATE	APPD	DESCRIPTION
DRAWN								
CHECKED								
IN CHARGE								

[Signature]
ENGINEER OF DESIGN TUNNELS & BRIDGES

[Signature]
CHIEF ENGINEER

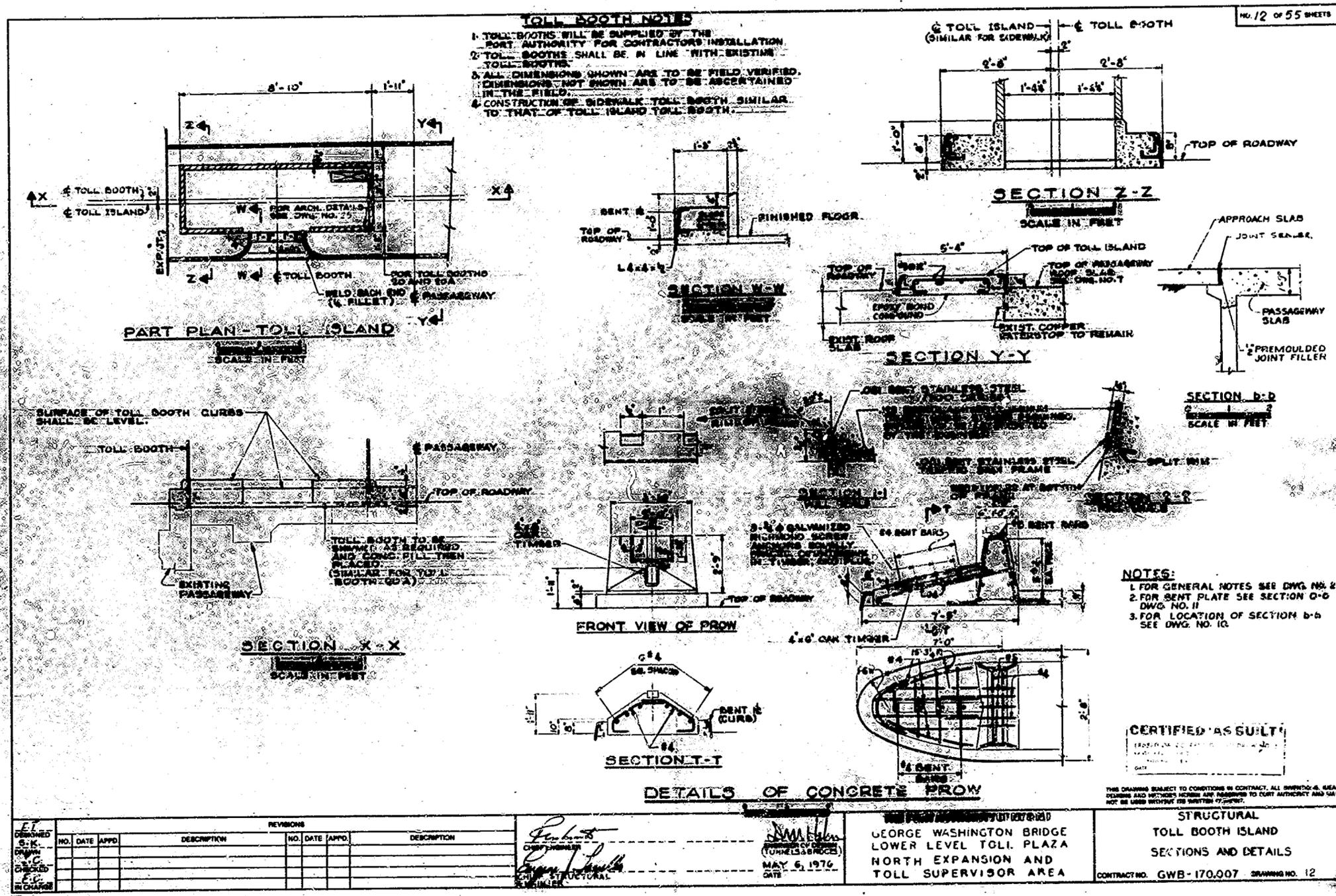
NOV. 6, 1975
DATE

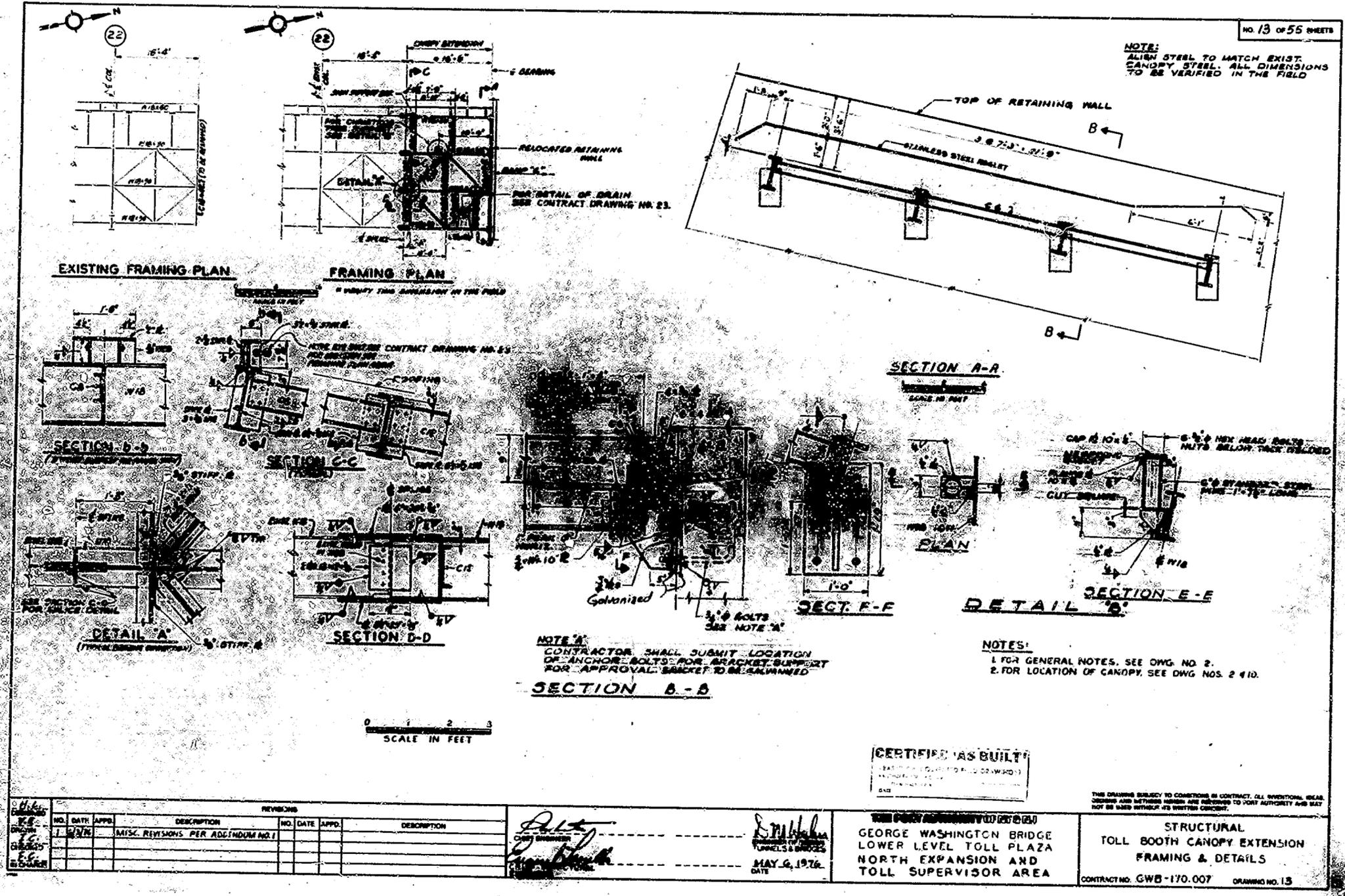
[Signature]
ARCHITECT

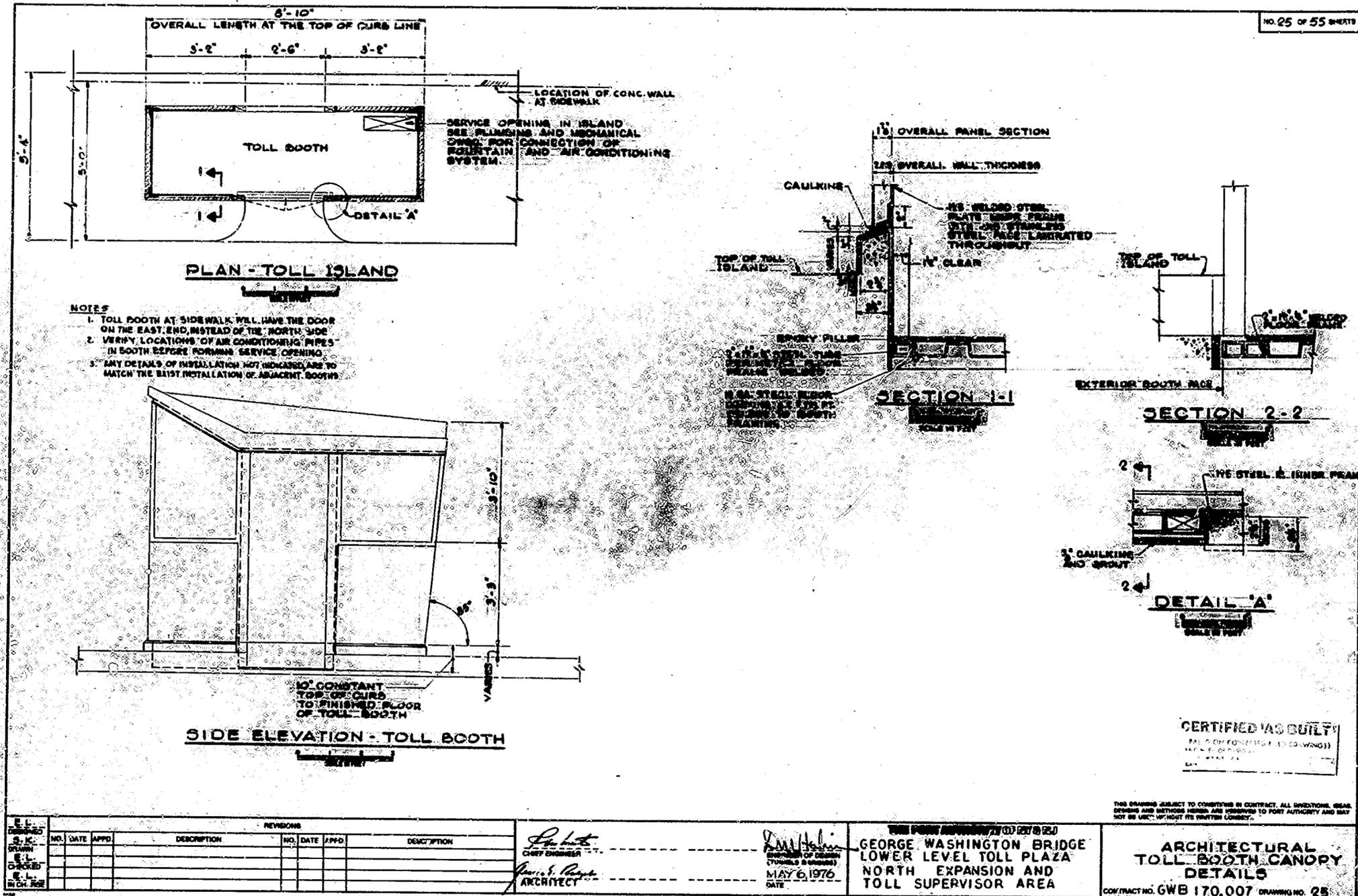
THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE
LOWER LEVEL PLAZA
TOLL CANOPY EXTENSION

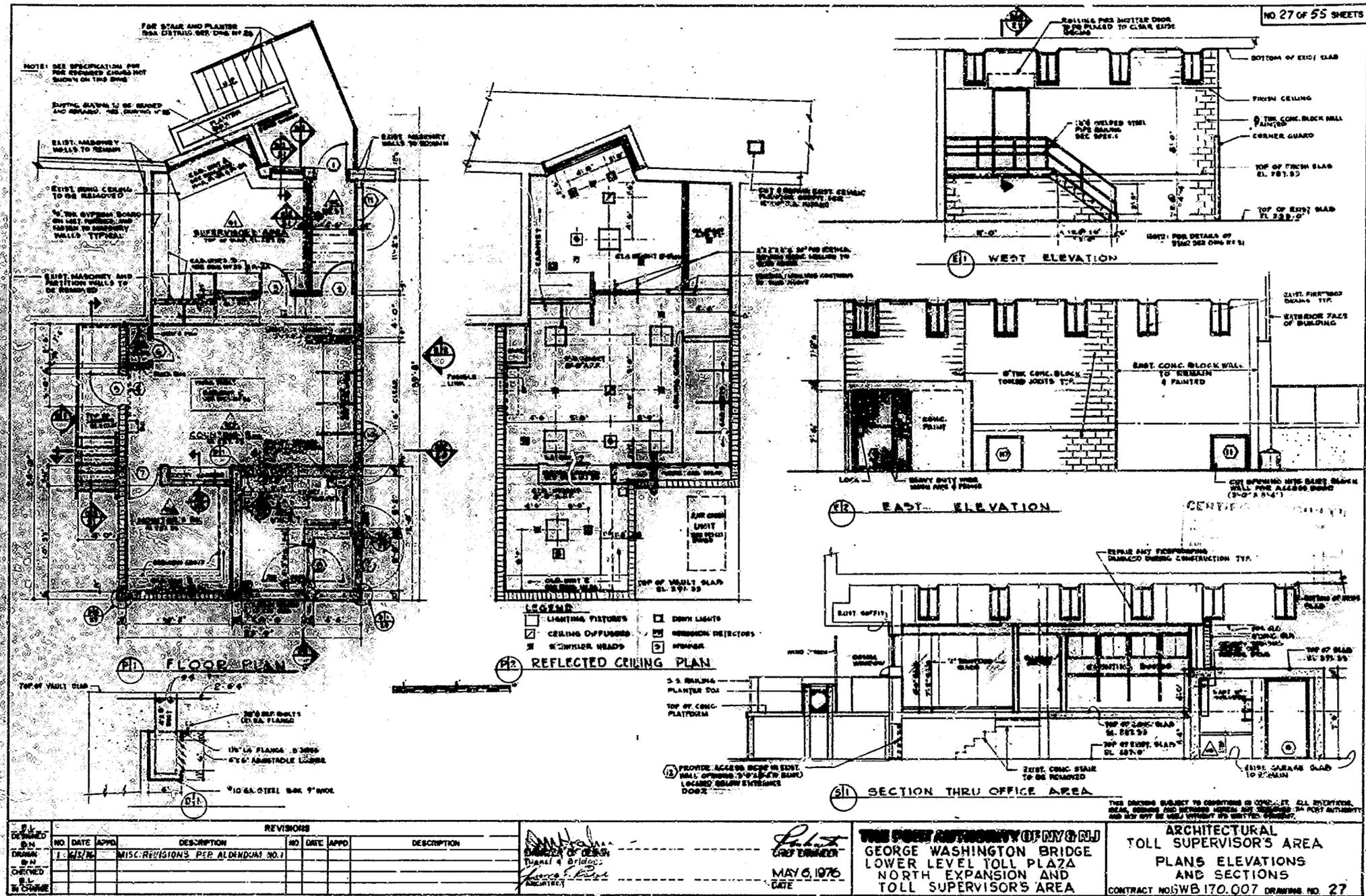
**ARCHITECTURAL
DETAILS**

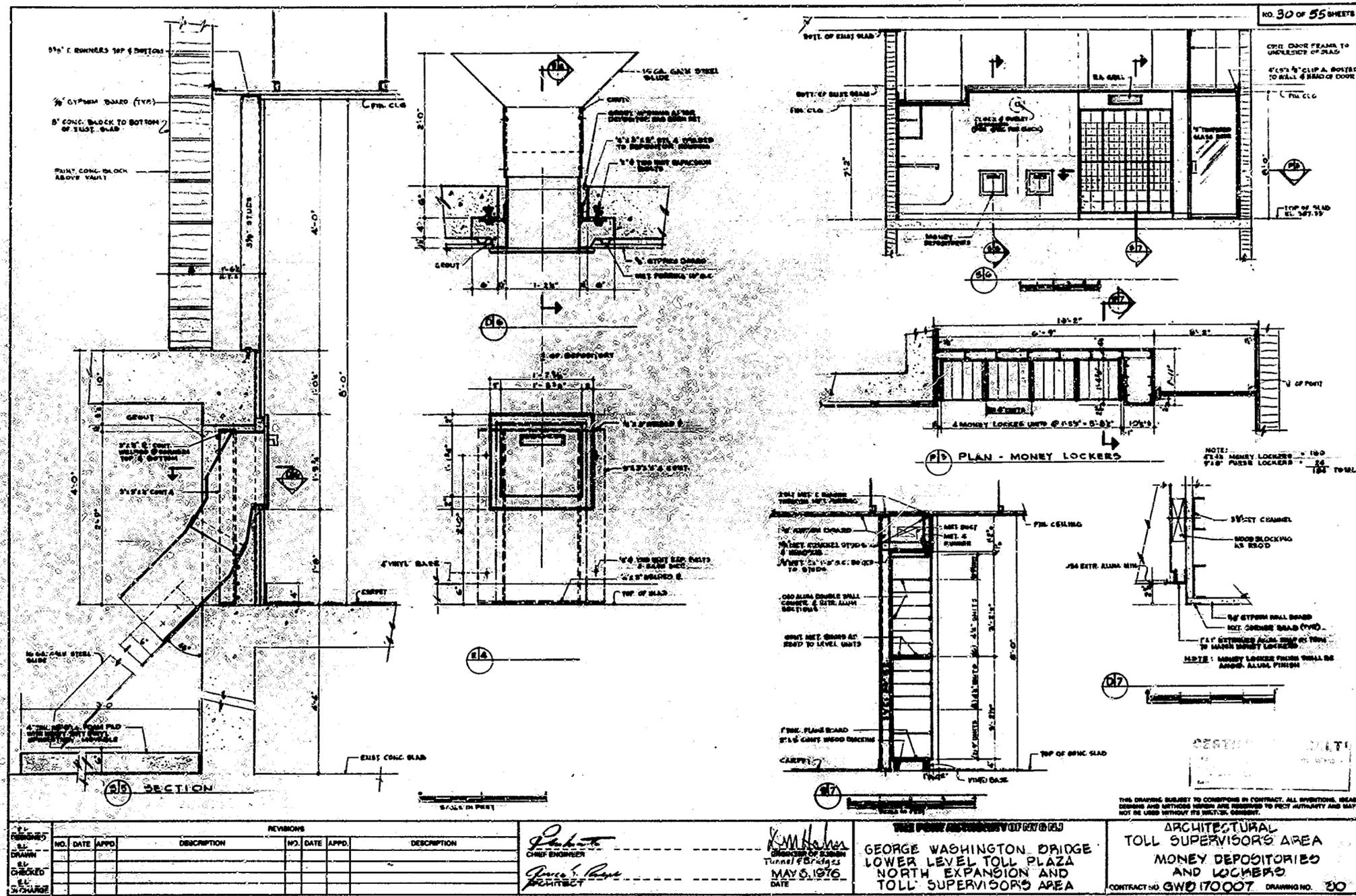
CONTRACT NO. G4WB 170.006 DRAWING NO. 9











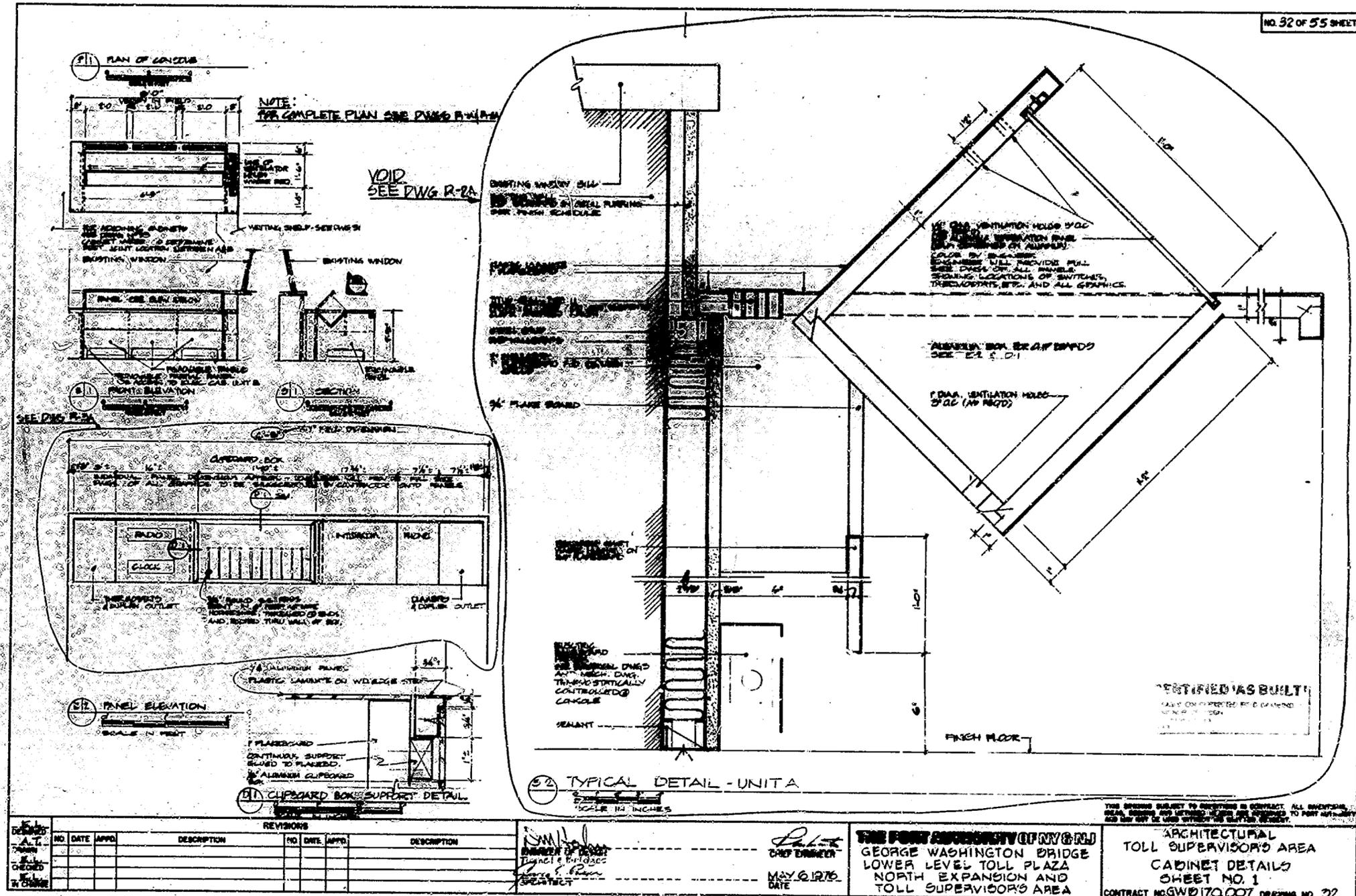
REVISED	REVISIONS							
	NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION

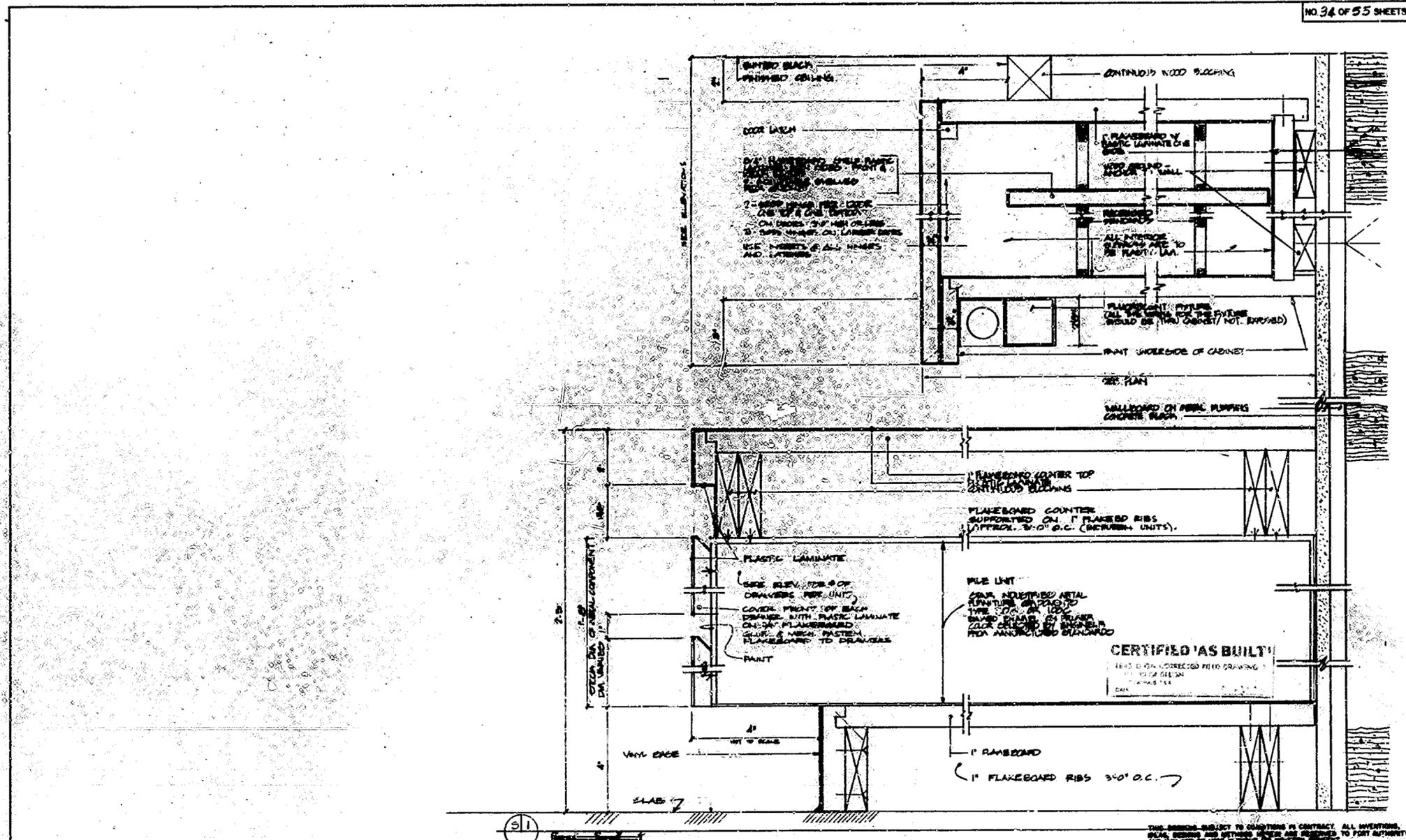
John S. [Signature]
 CHIEF ENGINEER

[Signature]
 ARCHITECT
 DATE: MAY 6, 1976

GEORGE WASHINGTON BRIDGE
 LOWER LEVEL TOLL PLAZA
 NORTH EXPANSION AND
 TOLL SUPERVISOR'S AREA

ARCHITECTURAL
 TOLL SUPERVISOR'S AREA
 MONEY DEPOSITORIES
 AND LOCKERS
 CONTRACT NO. GWD 17007 DRAWING NO. 30





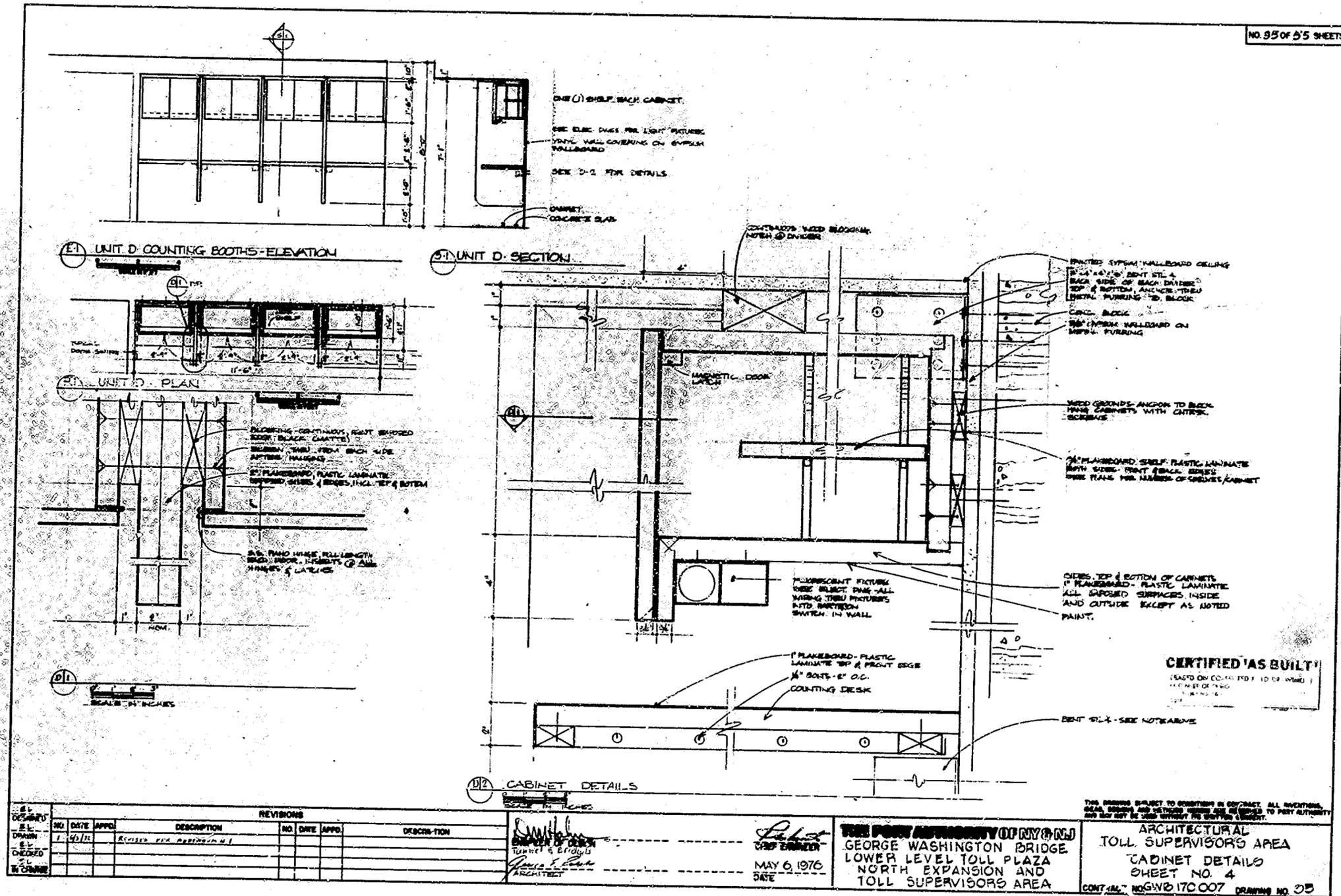
REVISIONS							
NO.	DATE	APPRO.	DESCRIPTION	NO.	DATE	APPRO.	DESCRIPTION

[Signature]
DESIGNER OF DESIGN
ARCHITECT

[Signature]
CHIEF ENGINEER
MAY 6, 1976
DATE

THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE
LOWER LEVEL TOLL PLAZA
NORTH EXPANSION AND
TOLL SUPERVISOR'S AREA

ARCHITECTURAL
TOLL SUPERVISOR'S AREA
CABINET DETAILS
SHEET NO. 3
 CONTRACT NO. 69-170-007 DRAWING NO. 34



NO. 36 OF 55 SHEETS

P.1 UNIT C - COUNTERTOP
 SEE DRAWING FOR LOCATION
 7'-6" x 2'-0"

P.2 UNIT C - CABINETS
 THE ADJUSTABLE SH SHELF FOR CABINET PL LAM SHELVES FRONT AND BACK EDGES
 2 SIPS, 1/2" AND 1/4" METRIC LAM SHELVES, 1/2" METRIC SHELVES, 1/4" METRIC SHELVES, 1/4" METRIC SHELVES

P.3 UNIT C - SIDE ELEVATION

P.4 UNIT C - END ELEVATION

P.5 TYPICAL DETAIL UNIT C
 PLACE LAMINATE TOP EDGE
 5 PIECES 1" PLYWOOD LAMINATED
 PAINT
 CHAMFER FOR DOOR PULL
 PLASTIC LAMINATE
 DECREASED STANDARDS FOR SHELVES NOT SHOWN
 GLUE AND MECHANICALLY FASTEN ALL JOINTS - TYPICAL
 VINYL BASE - GLUE TO PLASTER
 UNIT C WILL SIT ON CABINET ALL OTHER CABINETS CHAIRS

P.6 MONITOR RM. UP CAB UNIT E
 MONITOR RM.
 SEE PLAN DRAWING
 OPEN SHELVES - ONE ADJUSTABLE SHELF PER SHELF
 1/2" METRIC PLASTIC LAM 1/4" METRIC SHELVES

P.7 MONITOR RM. UP CAB UNIT E
 MONITOR RM. UP CAB UNIT E
 CERTIFIED AS BUILT
 TRAP ON CORNER TO DRAINAGE
 1/4" METRIC SHELVES
 1/4" METRIC SHELVES

P.8 ELEV SOUTH WALL MONITOR ROOM
 PLASTIC LAMINATE ON 1" PLYWOOD
 VINYL BASE
 PAINT
 PLASTIC LAMINATE
 GLUE & MECH. FASTEN ALL JOINTS - TYPICAL

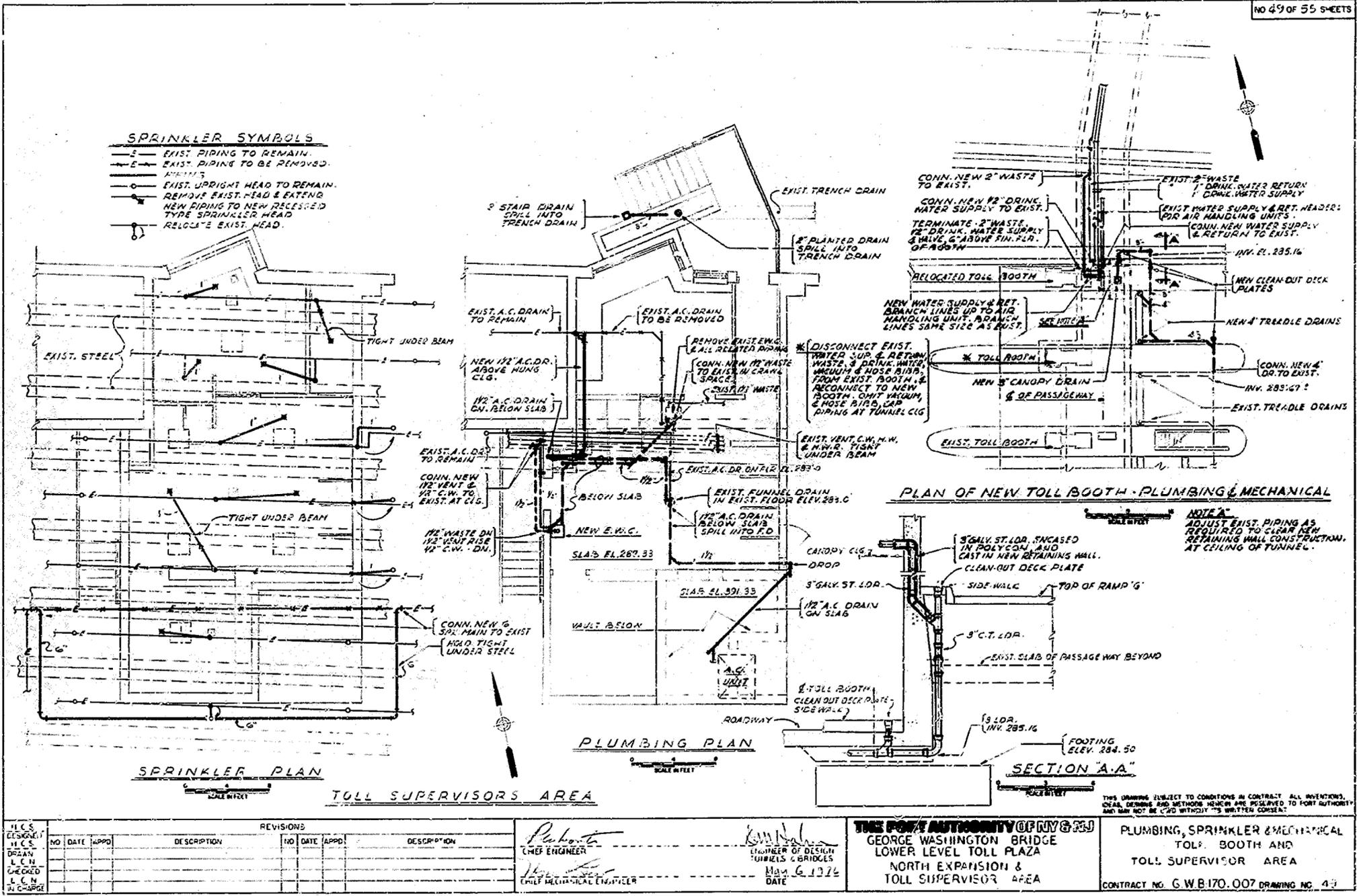
P.9 ELEV EAST WALL MONITOR ROOM
 PLASTIC LAMINATE ON 1" PLYWOOD
 VINYL BASE

REVISIONS

NO.	DATE	APPD.	DESCRIPTION	NO.	DATE	APPD.	DESCRIPTION

George Washington Bridge Lower Level Toll Plaza North Expansion and Toll Supervisor's Area
 ARCHITECTURAL TOLL SUPERVISOR'S AREA CABINET DETAILS SHEET NO 5
 CONTRACT NO. GWD 170.007 DRAWING NO. 36

NO 49 OF 55 SHEETS



- SPRINKLER SYMBOLS**
- EXIST. PIPING TO REMAIN.
 - - - EXIST. PIPING TO BE REMOVED.
 - EXIST. UPRIGHT HEAD TO REMAIN.
 - REMOVE EXIST. HEAD & EXTEND NEW PIPING TO NEW RECESSED TYPE SPRINKLER HEAD.
 - RELOCATE EXIST. HEAD.

SPRINKLER PLAN

PLUMBING PLAN

PLAN OF NEW TOLL BOOTH - PLUMBING & MECHANICAL

TOLL SUPERVISORS AREA

NOTE A
ADJUST EXIST. PIPING AS REQUIRED TO CLEAR NEW RETAINING WALL CONSTRUCTION AT CEILING OF TUNNEL.

H.C.S. DESIGNED	H.C.S. DRAWN	L.C.H. CHECKED	L.C.H. IN CHARGE	REVISIONS			
				NO.	DATE	APPRO.	DESCRIPTION

Robert
CHIEF ENGINEER

Michael
CHIEF MECHANICAL ENGINEER

Michael
ENGINEER OF DESIGN
TUNNELS & BRIDGES
MAY 6 1976
DATE

THE PORT AUTHORITY OF NY & NJ
GEORGE WASHINGTON BRIDGE
LOWER LEVEL TOLL PLAZA
NORTH EXPANSION &
TOLL SUPERVISOR AREA

PLUMBING, SPRINKLER & MECHANICAL
TOLL BOOTH AND
TOLL SUPERVISOR AREA
CONTRACT NO. G.W.B.170.007 DRAWING NO. 49

