

STA-WAY-21

DESIGN DESIGNATION
 CURRENT ADT = 7198
 DESIGN YEAR ADT (1995) = 16396
 DHV = 2360
 D = 60%
 T = 21%
 V = 70 MPH

STATE OF OHIO
 DEPARTMENT OF TRANSPORTATION

STA-21-12.39
 STARK COUNTY

F-48(3)

CITY OF MASSILLON & PERRY, JACKSON & LAWRENCE TOWNSHIPS

WAYNE COUNTY
CHIPPEWA TOWNSHIP

CONVENTIONAL SIGNS

Country Line _____ LA _____
 Township Line _____ PW _____
 Section Line _____ LA & RW _____
 Corporation Line _____
 Fence Line (existing) _____ (proposed) _____
 Center Line _____
 Trees (to be removed) _____
 Utility: Pole, Telephone, Power, Light _____

Limited Access (only) _____ LA _____
 Right of Way (only) _____ PW _____
 Limited Access & Right of Way _____ LA & RW _____
 Existing Right of Way _____
 Property Line _____ (in existing fence) _____
 Railroad _____ or _____
 Guardrail (existing) _____ (proposed) _____

INDEX OF SHEETS

TITLE SHEET
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 TRAFFIC SIGNALING
 SIGN DETAILS & STANDARDS
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DELETED

LINE DATA

BEGIN PROJECT STA. 654+13.50

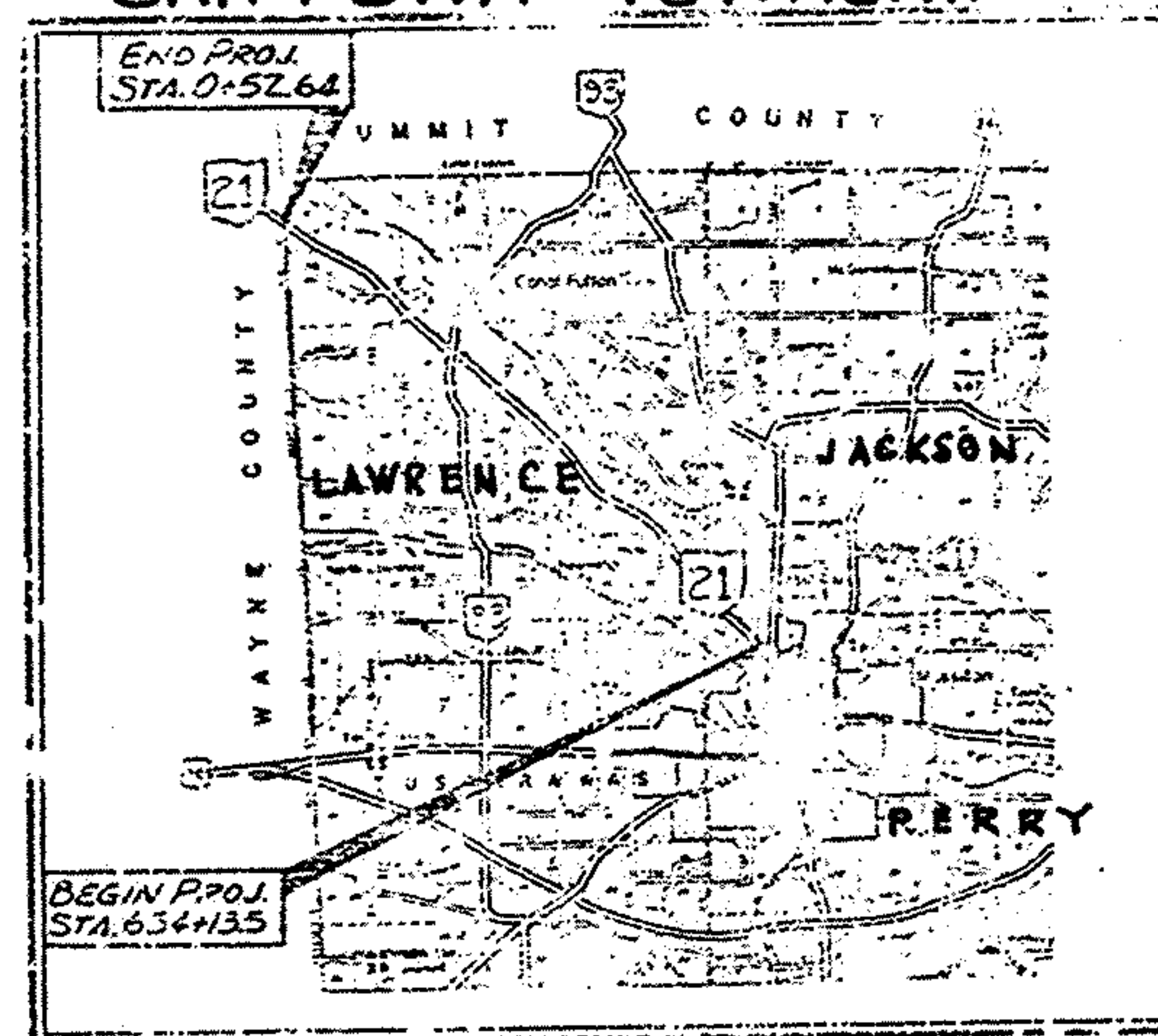
STATION EQUATION - 918+94.58 (OK) = STA 917+27.79 (AM)
 STATION EQUATION - 1129+94.09 (STARK CO.) = STA. 0+12.64 (WAYNE CO.)

END PROJECT STA. 0+52.64

NET LENGTH OF PROJECT = 47,787.38 LIN. FT.
= 9.05 MILES

BEGIN WORK - STA. 654+06.7

END WORK - STA. 0+52.64

NET LENGTH OF WORK 48,094.18 LIN. FT.
= 9.10 MILES

LOCATION MAP

SCALE IN MILES

Portion to be Improved _____
 State & Federal Routes _____
 Other Roads _____

SCALES

Plan _____
 Profile: _____ Horizontal _____ Vertical _____
 Cross Section: _____ Horizontal _____ Vertical _____

SUPPLEMENTAL PRINTS				STANDARD CONSTRUCTION DRAWINGS			
BP-3	12-6-76	HW-4	1-1-70	GR-2B	12-6-76		
BP-4	12-6-76			GR-3	12-6-76		
BP-5	8-11-75			GR-4	12-6-76		
BP-7	12-6-76	MC-3	6-1-73	GR-4A	7-26-76		
BP-9	12-6-76	MC-4	7-26-76	GR-6	1-1-71		
BP-11	1-3-75			GR-3B	12-6-76		
BP-2	12-6-76			GR-3A	12-6-76		
				GR-1	12-6-76		
CB-8	9-1-69			DBR-2-73	4-10-73		

STA-21-12.39
 WAY-21-0.00
 F-48(3)

OHIO
 REGION 5
 FEDERAL PROJECT

43

1977 SPECIFICATIONS

The standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right of way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of this Highway and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved _____
 Date 3/25/77 District Deputy Director of Transportation

Approved _____
 Date 3/15/77 Engineer, Bureau of Bridges

Approved _____
 Date 4-6-77 Engineer, Bureau of Roadway Design

Approved _____
 Date _____ Assistant Deputy Director for Highway Design

Approved _____
 Date 4-7-77 Assistant Deputy Director for Real Estate

Approved _____
 Date 4-6-77 Assistant Deputy Dir. for Program Development

Approved _____
 Date 4-6-77 Chief Engineer, Design

Approved _____
 Date _____ Chief Engineer, Construction

Approved _____
 Date _____ Chief Engineer, Operations

Approved _____
 Date 4-6-77 Assistant Director, Department of Transportation

Approved _____
 Date 4-7-77 Director, Department of Transportation

DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION

APPROVE

DIVISION ADMINISTRATOR

DATE

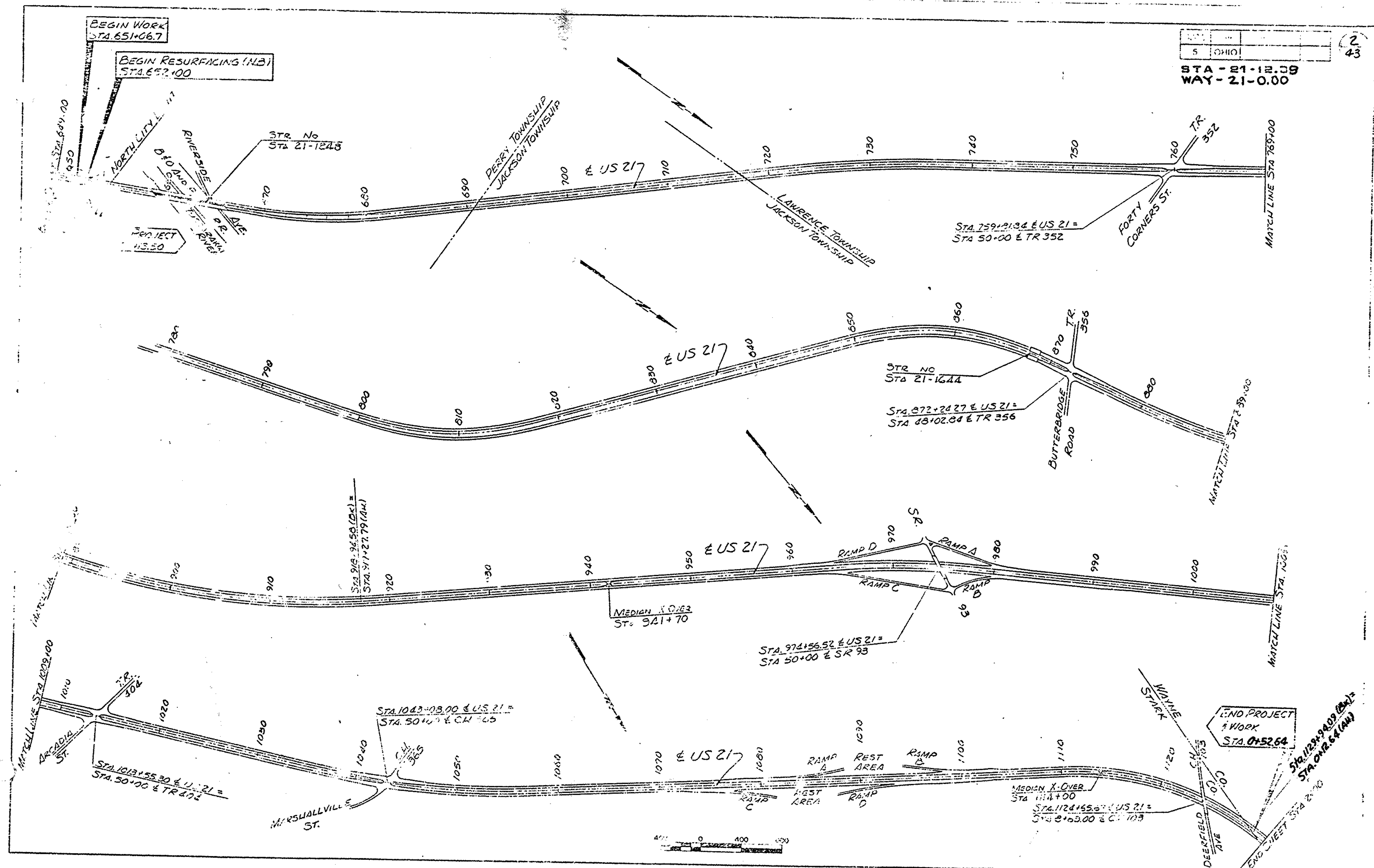
Project: STA-21-12.39; WAY-21-0.00
 Date of Letting _____ 19____, Contract No. _____

LD0300 Rev. 9-3-75

5	OHIO
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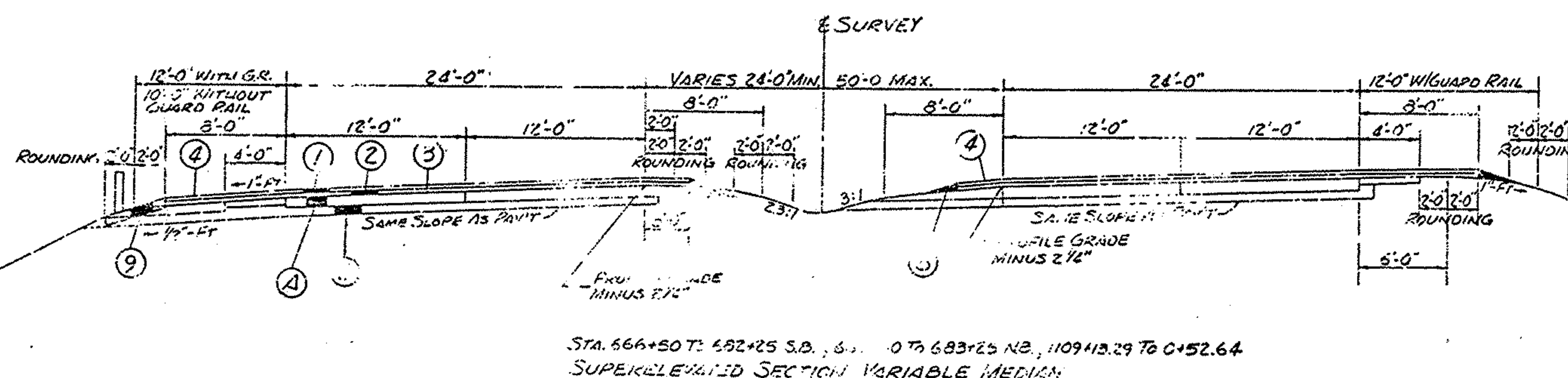
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WAY - 21-0.00



LOCATION MAP

TYPICAL SECTIONS
TYPE 404



- NOTE: ITEM ⑨ TO BE USED FROM BEGINNING TO ENDING
STA. 6+ FROM GUARD RAIL LOCATION TO END OF
FOR USE WHERE THERE IS NO FROM GUARD.

TYPICAL SECTION

GENERAL NOTES

AREA	STATE	IN. NO.
5	OHIO	

5
43

STA - 21-12.15
WAY - 21-0.00

ORIGINAL CONSTRUCTION PLANS

ORIGINAL CONSTRUCTION PLANS ARE ON FILE IN THE DISTRICT 4 OFFICE AT 795 CAKWOOD STREET, PAVENA, OHIO 44266

PROJECT STATIONING

STATIONING SHOWN ON THESE PLANS IS STENCILED INTO THE EXISTING PAVEMENT AS DETAILED IN THE SPECIFICATIONS FOR ITEM 451.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON THE TYPICAL SECTIONS, APPLY TO ALL CROSS SECTIONS EVEN THOUGH NOT SHOWN ON THESE PLANS

IF THE PROPOSED PAVEMENT CONCRETE SHALL BE APPROXIMATELY 2 1/2 INCHES ABOVE THAT OF THE EXISTING PAVEMENTS, AS INDICATED ON THE TYPICAL SECTIONS.

MATERIAL AND EQUIPMENT STORAGE

FOR SAFE PURPOSES, NO MATERIAL, PRIVATE VEHICLES OR EQUIPMENT SHALL BE STORED OR PARKED IN THE MEDIAN OR WITHIN 10 FEET OF THE OUTSIDE EDGE OF PAVEMENT UNLESS BEHIND GUARD RAIL.

FIELD OFFICE

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 900 SQ. FT. OF FLOOR SPACE AND IN ADDITION TO THE REQUIREMENTS OF ITEM 619, HE SHALL PROVIDE AND MAINTAIN SANITARY FACILITIES AS PER 107.06. ALL THE ABOVE IS INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 619 FIELD OFFICE.

ESTIMATED QUANTITIES

SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT. ESTIMATED QUANTITIES OF MATERIALS SHALL NOT BE ORDERED FOR DELIVERY TO THE PROJECT UNLESS AUTHORIZED BY THE ENGINEER.

ALTERNATE METHODS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC PROVIDED THE INTENT OF THE ABOVE PROVISIONS IS FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL IS GRANTED, IN WRITING, BY THE DIRECTOR.

CORRECTION TO EXISTING PIPE

WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CORRECT TO, OR TO CROSS EITHER OVER OR UNDER AND EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE HE STARTS TO LAY THE PROPOSED CONDUIT. PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE PERTINENT 603 CONDUIT ITEMS.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE PERFORMED ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DUMPS, OR BARRICADES AT ALL TIMES. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND THE EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

SEEDING

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN THE WORK LIMITS, AS SHOWN ON THE CROSS SECTIONS.

PUBLIC SAFETY

NO HAZARD SHALL BE LEFT UNPROTECTED EXCEPT FOR THE ACTUAL TIME NECESSARY TO REMOVE, GRADE AND REINSTALL GUARDRAIL IN A CONTINUOUS OPERATION. THE REMOVAL OF ALL GUARDRAIL SHALL AT ALL TIMES BE AS DIRECTED BY THE ENGINEER. NO GUARDRAIL SHALL BE REMOVED UNTIL THE REPLACEMENT MATERIAL IS ON THE SITE, READY FOR INSTALLATION. FAILURE TO COMPLY WITH THIS REQUIREMENTS SHALL BE DEEMED SUFFICIENT CAUSE TO ORDER WORK SUSPENDED ON THIS PROJECT UNTIL SUCH TIME THAT THE ENGINEER IS ASSURED OF SAID COMPLIANCE.

SEQUENCE OF OPERATION

THE CONTRACTOR IS ENCOURAGED TO GROUP THE VARIOUS ITEMS OF WORK IN SUCH A MANNER WHICH WILL ADD TO THE EFFICIENCY, ECONOMY AND SAFETY OF OPERATIONS IN SECURING A COMPLETE WORKABLE INSTALLATION. HOWEVER, THE INSTALLATION OF ALL NEW SIGNS AND SUPPORTS SHALL BE COMPLETE PRIOR TO THE REMOVAL OF EACH OF THE EXISTING SIGN INSTALLATIONS, AND A MAXIMUM OF ONE GUIDE SIGN IN THE SEQUENCE OF THREE SIGNS FOR AN INTERCHANGE MAY BE DISMANTLED AT ANY ONE TIME. REMOVAL OF GUARD RAIL SHALL NOT BEGIN UNTIL ADJACENT SUPPORT AND FOUNDATIONS SCHEDULED FOR REMOVAL ARE REMOVED.

PARTIAL AND FULL DEPTH PAVEMENT JOINT REPAIR

BEFORE WORK ON THIS ITEM BEGINS, THE PROJECT ENGINEER SHALL MARK WITH PAINT THE AREAS FOR REMOVAL AND REPLACEMENT.

SEE SHEET 22 FOR LOCATIONS

SEE NOTE IN PROPOSAL FOR ITEM SPECIFICATIONS.

WATERING AND MOWING PERMANENT SEEDED AREAS:

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER TO PROMOTE GROWTH AND TO CARE FOR THE PERMANENT SEEDED AREAS, AS PER 659.09.

659 WATER	—	—	—	—	20	M. GAL.
659 MOWING	—	—	—	—	41	M. SQ. FT.

LOCATIONS OF GUARDRAIL

THE LOCATIONS OF GUARDRAIL RUNS AS SHOWN IN THESE PLANS ARE SUBJECT TO ADJUSTMENT TO ASSURE THAT THE PLANNED INSTALLATIONS WILL AFFORD MAXIMUM PROTECTION FOR TRAFFIC.

GUARD RAIL FLARES

ALL GUARD RAIL FLARES ON THIS PROJECT SHALL BE 1'-5" AS SHOWN ON GR-4 UNLESS OTHERWISE NOTED THROUGHOUT THE PLAN.

GUARD RAIL REMOVAL

GUARD RAIL DESIGNATED FOR REMOVAL ON THIS PROJECT SHALL BE CAREFULLY DISMANTLED AND THE SALVAGEABLE RAIL ELEMENTS AND BOLTS STORED FOR STATE FORCES. ALL POSTS, BLOCKS, BOLTS, DAMAGED RAIL AND OTHER MATERIAL NOT CONSIDERED SALVAGEABLE SHALL BE DISPOSED OF AS DIRECTED. ALL POST HOLES SHALL BE CAREFULLY FILLED AND TAMPED AND THE SITE CLEANED AND RESTORED.

SITE RESTORATION WILL INCLUDE GRADING OF THE SHOULDER IN THE AREA OF THE GUARD RAIL REMOVAL TO PROVIDE PROPER SHOULDER DRAINAGE AND SMOOTH SHOULDER SLOPES WHERE TRAFFIC OR WEATHER MAY HAVE BUILT A RIDGE OF EARTH AND DEBRIS UNDER THE GUARD RAIL. THE GRADED OR DISTURBED AREA SHALL BE RESEED EXCEPT, WHERE NEW GUARD RAIL IS TO BE CONSTRUCTED, AN AREA UNDER THE NEW GUARD RAIL 4' WIDE, MEASURED FROM THE EDGE OF THE PAVED SHOULDER, SHALL BE FILLED WITH ITEM 411, AS PER TYPICAL SECTION.

PAYMENT FOR ALL OF THE ABOVE, EXCEPT ITEM 411, SHALL BE AT THE UNIT PRICE BID FOR 202 GUARD RAIL REMOVED FOR RE-USE OR STORAGE OR 202 GUARD RAIL, BARRIER DESIGN, REMOVED FOR RE-USE OR STORAGE, MEASURED BY THE LINEAR FOOT CENTER TO CENTER OF TERMINAL POSTS OR CENTER OF BRIDGE CONNECTION SPLICES.

CURB REMOVED:

FOR EXISTING TYPE 2, 2A AND 6 CURB TO BE REMOVED SEE STD. DRWG. BP-7, TYPE 2A INTEGRAL TYPE SHALL BE REMOVED FLUSH WITH THE SURFACE OF THE EXISTING PAVEMENT.

EROSION CONTROL

ITEMS 601 AND 600 ARE PROVIDED IN THE PLANS FOR EROSION CONTROL. ROCK OR TURF OF A STABLE NATURE WILL NOT BE REMOVED IN ORDER TO PLACE ANY OF THESE ITEMS. THE ENGINEER SHALL CHECK AND RE-EVALUATE QUANTITIES OR ADJUST LOCATIONS AND QUANTITIES FOR THESE ITEMS WHERE INDICATED BY FIELD CONDITIONS DURING CONSTRUCTION.

ITEM 411 (WEDGE COURSE ON EXISTING SHOULDERS)

COMPACTION OF SUBGRADE REQUIRED BY 411.03 IS HEREBY WAIVED ON THIS PROJECT.

WATER POLLUTION, SOIL EROSION & SILTATION CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER FOR EROSION AND SILTATION CONTROL MEASURES: ITEM 659 - WATER — — — 8 M. GAL.

ITEM 207 - TEMPORARY SEEDING & MULCHING — — — 3673 S.Y.
ITEM 207 - STRAW OR HAY BALES — — — 40 EB.
ITEM 659 - MOWING — — — — — 41 M.S.F.
ITEM 659 - COMMERCIAL FERTILIZER — — — 0.79 TONS
ITEM 659 - REPAIR SEEDING & MULCHING — — — 918 S.Y.

PIPE UNDERDRAINS

THE FOLLOWING UNDERDRAIN QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY TO BE USED WHERE AND AS DIRECTED BY THE ENGINEER:

603, 6" SMALL PIPE UNDERDRAINS — — — 1,000 L.F.
603, 8" CONDUIT, TYPE F (OUTLETS) — — — 100 L.F.

THE NECESSARY BENDS REQUIRED FOR INSTALLATION IS ESTIMATED TO BE 10 EACH TO BE INCLUDED IN THE PRICE BID FOR ITEM 603

GENERAL NOTES

STATE	COUNTY	PROJECT
5	OHIO	

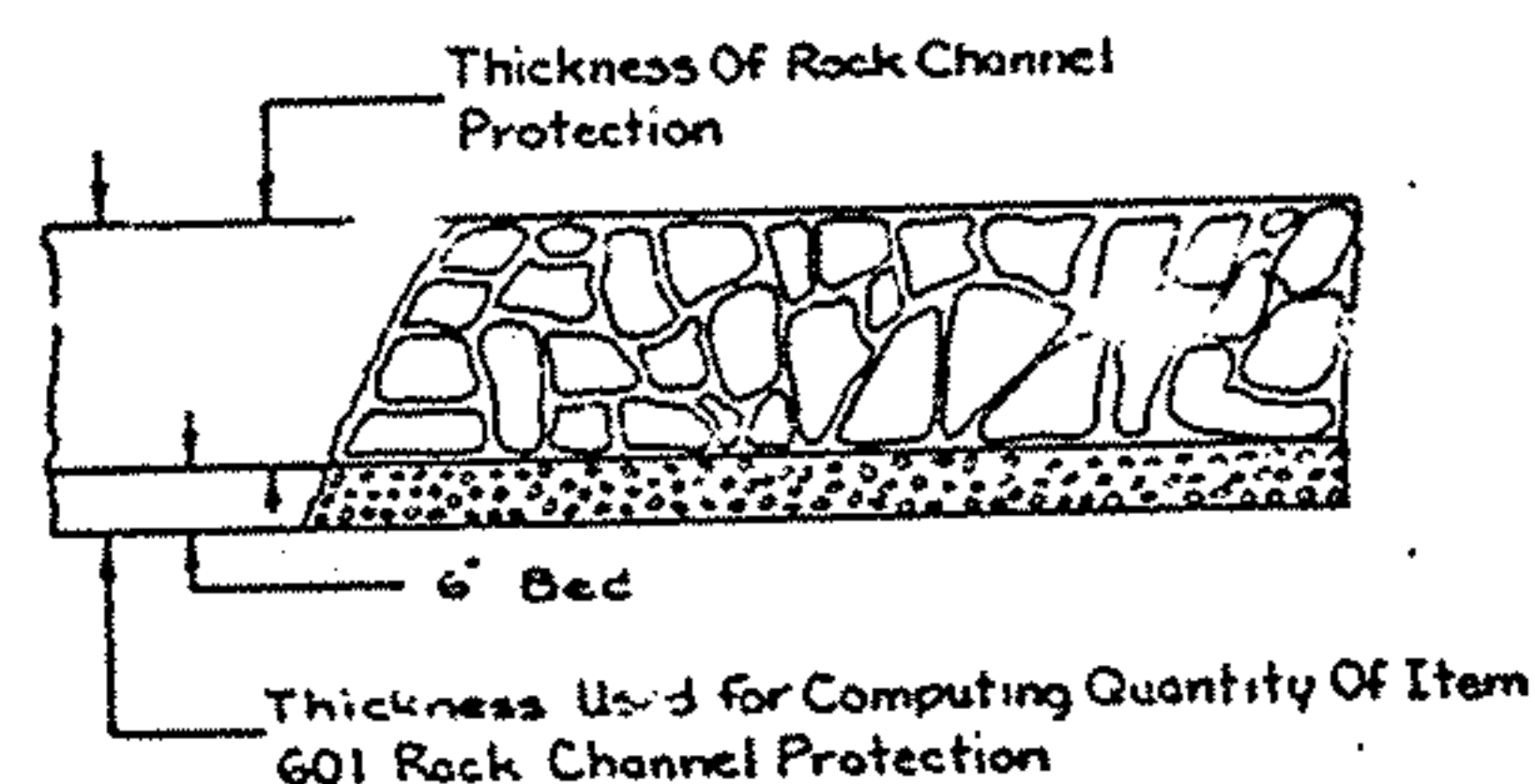
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ITEM 505 AGGREGATE DRAINS AT 20' INTERVALS (A.C. 40 AT S.R. 93)
AGGREGATE DRAINS SHALL BE PLACED AT 20' INTERVALS ON EACH SIDE OF NORMAL CROWNED SECTIONS AND AT TWENTY-FIVE (25) FOOT INTERVALS ON THE LOW SIDE ONLY OF SUPERELEVATED SECTIONS, EXCEPT WHERE ITEM 605 PIPE UNDERDRAINS HAVE BEEN PROVIDED.
AGGREGATE DRAINS ADJACENT TO REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT SHALL BE PLACED AT EACH JOINT JOINT. OUTSIDE EDGE OF NORMAL SECTIONS AND ON THE LOW SIDE OF SUPERELEVATED SECTIONS.
AN AGGREGATE DRAIN SHALL BE PLACED AT THE LOW POINT OF EACH SAG VERTICAL CURVE. SEE SHEET 25.
AN ESTIMATED QUANTITY OF 500 LIN. FT. OF AGGREGATE DRAINS IS CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

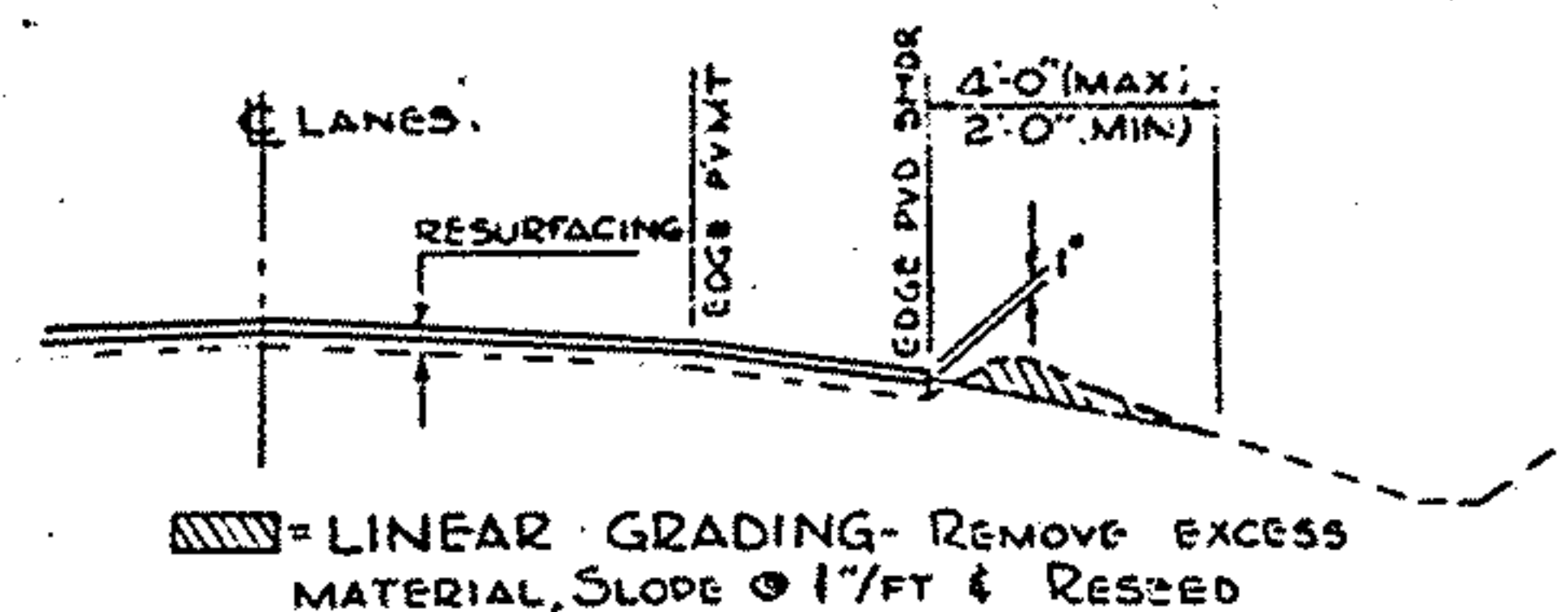
ROCK CHANNEL PROTECTION, TYPE A

IN PLACES WHERE CULVERT EXTENSIONS ARE PLACED OVER EXISTING DUMP ROCK, THE EXISTING DUMP ROCK SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL AS PER 603.03.
IN PLACES WHERE ROCK CHANNEL PROTECTION IS PLACED ADJACENT TO EXISTING DUMP ROCK THE 6" BED SHALL BE USED AS SHOWN IN THE FOLLOWING DETAIL.

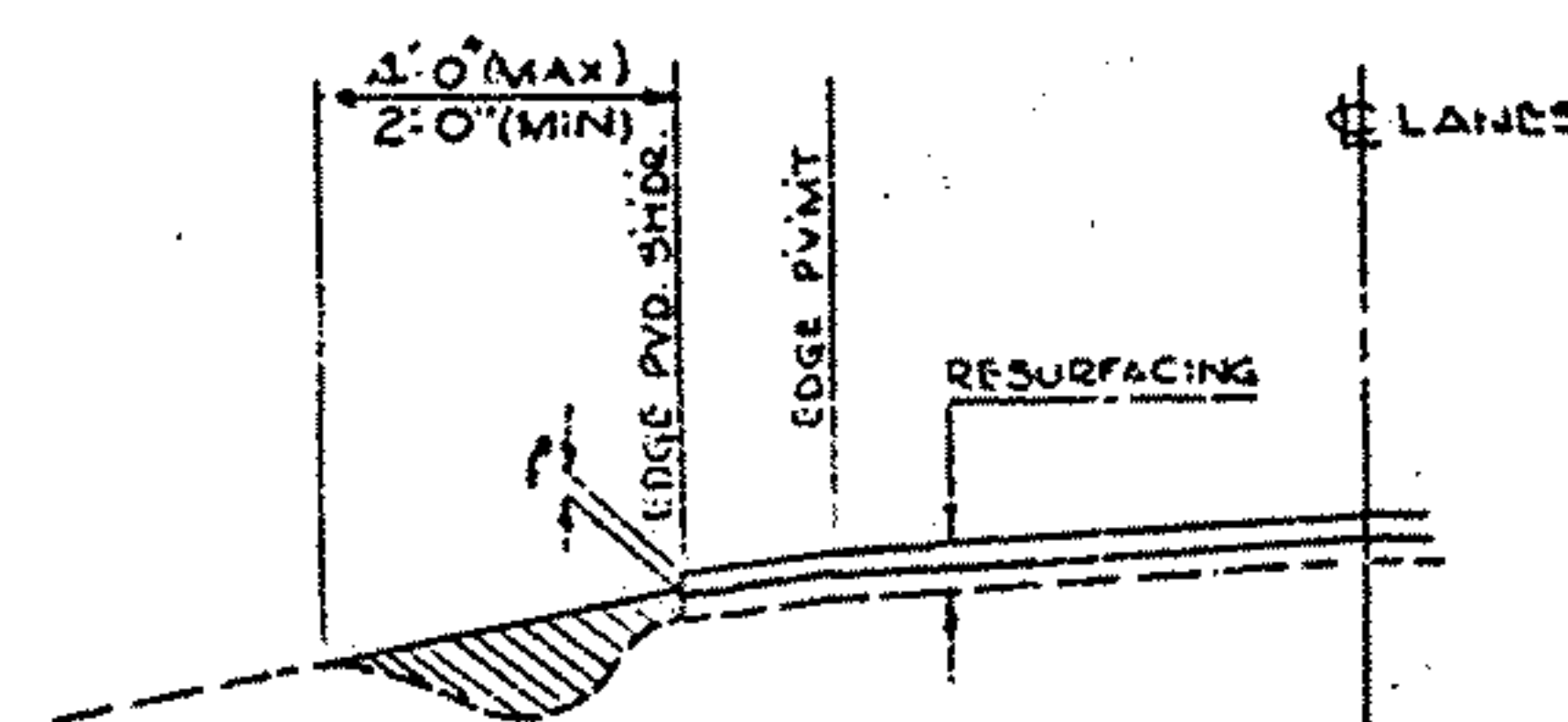


ITEM 203 LINEAR GRADING, AS PER PLAN

ANY ACCUMULATION OF EARTH OR DEBRIS ON THE SHOULDER SHALL BE REMOVED OR ADDED TO PROVIDE POSITIVE DRAINAGE ACROSS THE SHOULDER. LOCATIONS TO BE AS DIRECTED BY THE ENGINEER AND SHALL BE ONLY IN AREAS WHERE NO EXISTING OR PROPOSED GUARD RAIL IS LOCATED. THE DISTURBED OR GRADED AREA SHALL BE RESEDED. A DETAIL SHOWING THE LINEAR GRADING IS SHOWN BELOW. PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID FOR ITEM 203 LINEAR GRADING. AN ESTIMATED QUANTITY OF 850 STA. LINEAR GRADING HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.
ONE UNIT OF LINEAR GRADING SHALL BE 100 FT. LONG AND 2 FT. MINIMUM TO 4 FT. MAXIMUM IN WIDTH.



TYPICAL SHOULDER (OUTSIDE)



TYPICAL SHOULDER (INSIDE)

DIMENSIONS FOR PAVEMENT REPAIRS (FULL & PARTIAL DEPTH)

THE DIMENSIONS FOR THE CONCRETE PAVEMENT REPLACEMENTS ARE APPROXIMATE. THE FIELD DIMENSIONS FOR THE REPLACEMENTS MAY BE ADJUSTED BY THE ENGINEER AND FINAL PAYMENT QUANTITIES SHALL BE ON ACTUAL COMPLETED WORK DIMENSIONS.

MAINTENANCE OF TRAFFIC

THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS AND RAMPS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

- TWO LANE DIRECTIONAL TRAFFIC SHALL BE MAINTAINED ON THE EXISTING PAVEMENT AT ALL TIMES WITHOUT INTERRUPTION DURING CONSTRUCTION OF THE WORK EXCEPT UNDER THE CONDITIONS SPECIFIED BELOW.
 - ERECTION OR REMOVAL OF OVERHEAD SIGN SUPPORT SPANS AND/OR WORK ON OVERHEAD SIGNS THAT ARE OVER THE PAVEMENT.
 - CONSTRUCTION WORK WHICH REQUIRES MEN AND/OR EQUIPMENT TO OCCUPY ONE OR MORE THROUGH LANES. THIS WORK SHALL NOT BEGIN UNTIL TRAFFIC CONTROL PLANS (AS SUBMITTED BY THE CONTRACTOR, ARE APPROVED BY THE ENGINEER.
 - NO MORE THAN ONE LANE OF DIRECTIONAL TRAFFIC IN EACH DIRECTION SHALL BE CLOSED AT ALL TIMES. THE CONTRACTOR SHALL SET UP AND OPERATE HIS EQUIPMENT IN SUCH A MANNER AS TO ENCLOSE UPON THE TRAVELED WIDTH OF THE PAVEMENT TO A MINIMUM EXTENT. TRAFFIC SHALL NOT BE CROSSED OVER THE MEDIAN AT ANY TIME.
 - THERE SHALL BE NO LANE RESTRICTIONS AT ANY TIME DURING SATURDAYS, SUNDAYS, HOLIDAYS OR THE DAY PREVIOUS TO AND AFTER A NATIONAL HOLIDAY.
 - IN AREAS OF PARTIAL DEPTH AND FULL DEPTH PAVEMENT REPAIR, THE CONTRACTOR SHALL LIMIT THE LENGTH OF THE REMOVAL TO THE LENGTH THAT CAN BE REPLACED DURING THE SAME WORKING DAY, EXCEPT WITHIN THE LIMITS OF BRIDGE DECK REPAIR AND WATERPROOFING.
 - THE CONTRACTOR SHALL PROVIDE THE SERVICES OF ONE (1) SPECIAL DUTY STATE HIGHWAY PATROLMAN WITH A PATROL CAR FOR THE EXCLUSIVE PURPOSE OF CONTROLLING THROUGH TRAFFIC IN EACH OF THE FOLLOWING SITUATIONS:
 - ERECTION OR REMOVAL OF OVERHEAD SIGNS AND SUPPORTS.
 - ANY CONSTRUCTION WORK REQUIRING MEN AND/OR EQUIPMENT TO OCCUPY ONE OR MORE THROUGH LANES.
- TEMPORARY CLOSURES OF ALL LANES MAY BE REQUIRED IN (A) AND (B) ABOVE. THESE CLOSURES SHALL BE HELD TO A MAXIMUM OF TEN (10) MINUTES AT ANY ONE TIME AND ANY SUCCEEDING CLOSURE SHALL NOT BEGIN UNTIL THE TRAFFIC HAS BEEN CLEARED FROM THE PREVIOUS CLOSURE. THE PATROLMAN REQUIRED FOR THE CLOSURES OF ALL LANES SHALL CONSTANTLY MOVE WITH THE BACKUP OF TRAFFIC SO THAT HE IS ALWAYS IN A POSITION ON THE SHOULDER NEAR THE END OF THE LINE OF TRAFFIC STOPPED FOR THE CLOSURE, TO ASSIST IN CONTROLLING TRAFFIC AND INFORMING DRIVERS AS TO THE NATURE OF THE DELAY.
- INFORMATION REGARDING ARRANGEMENTS AND PAYMENTS BY THE CONTRACTOR FOR THE SPECIAL DUTY PATROL SERVICES MAY BE OBTAINED BY CONTACTING OHIO HIGHWAY PATROL, 660 EAST 12TH STREET, COLUMBUS, OHIO - TELEPHONE (614) 466-2333.
- IF, AFTER CONTACTING THE OHIO HIGHWAY PATROL, IT IS DETERMINED THAT THEY CANNOT SUPPLY THE SPECIAL DUTY PATROLMAN, THEN AN AUTHORIZED MUNICIPAL OR COUNTY POLICE OFFICER EQUIPPED WITH A MARKED AND FLASHER-LIGHT EQUIPPED OFFICIAL POLICE OR PATROL CAR SHALL BE PROVIDED. AN ESTIMATED QUANTITY OF 1000 HOURS, ITEM "SPECIAL" PATROLMAN WITH PATROL CAR HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THIS WORK.
- IN AREAS OF LANE CLOSURES THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING THE SHOULDERS TO AN ELEVATION NOT LESS THAN ONE (1) INCH BELOW EXISTING PAVEMENT ELEVATION AND MAINTAINING THE SHOULDERS IN A SAFE CONDITION DURING THE DURATION OF LANE CLOSING OR OTHER LANE RESTRICTION.
 - AN ESTIMATED QUANTITY OF 300 C.Y., ITEM 410 TRAFFIC COMPACTED SURFACE, TYPE A OR B HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE IN MAINTAINING SHOULDERS.
 - DURING THE TIME OF LANE CLOSURES FOR 24 HOURS OR MORE, THE CONTRACTOR SHALL HAVE SOMEONE ON THE PROJECT TWENTY-FOUR HOURS A DAY TO MAINTAIN SIGNS AND WARNING DEVICES.
 - A FLASHING ARROW BARRICADE (ITEM 844) SHALL BE USED FOR TRAFFIC CONTROL WHENEVER THERE IS A LANE RESTRICTION.
 - ALL TRAFFIC CONTROL DEVICES REQUIRED INSIDE THE WORK LIMITS, EXCEPT REGULATORY SIGNS, SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
 - THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL FLAGS, FLAGMEN, MATCHMEN, BARRICADES, SIGN SUPPORTS AND INCIDENTALS RELATED THERETO AND SHALL BE UTILIZED IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, LATEST REVISION.
 - TEMPORARY SIGNS IN THE MEDIAN AND WHEREVER ELSE PRACTICAL SHALL BE MOUNTED ON SUPPORT POSTS FIXED TO EXISTING GUARD RAIL POSTS. WHERE THIS IS NOT POSSIBLE, EASELS OR BARRELS WITH A SUPPORT POST ATTACHED AND FILLED TO 1/2 CAPACITY WITH AGGREGATE SHOULD BE USED. BARRELS SHALL BE REFLECTORIZED WITH REFLECTIVE SHEETING, TYPE F IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 010.
 - IN ORDER TO MAINTAIN ADEQUATE TRAFFIC CONTROL AT ALL TIMES, A MINIMUM OF TWO (2) MAJOR GUIDE SIGNS SHALL BE IN PLACE AT ALL TIMES TO DIRECT MOTORISTS TO APPROPRIATE EXITS OR THROUGH ROADWAYS. THE ERECTION OF ANY TEMPORARY SIGNS NECESSARY DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - BECAUSE OF QUANTITY OF PAVEMENT REPAIR ON THIS PROJECT, CONTRACTOR SHOULD PERFORM PORTION OF THE CONTRACT IN THE INITIAL PHASE.
 - ALL OF THE ABOVE MAINTENANCE OF TRAFFIC SHALL BE PAID FOR UNDER THE FOLLOWING:
 - ITEM 614 MAINTAINING TRAFFIC, LUMP SUM.
 - ITEM SPEC. PATROLMAN WITH PATROL CAR, 1,000 HOURS.
 - ITEM 410 TRAFFIC COMPACTED SURFACE, TYPE A OR B, 300 CU. YD.

ITEM 202 REMOVAL OF GROUND MOUNTED SIGN INSTALLATIONS FOR STORAGE OR RE-USE

THIS WORK SHALL CONSIST OF THE REMOVAL OF SIGN INSTALLATIONS AS SHOWN ON THE PLANS.

WORK SHALL CONSIST OF THE REMOVAL OF SIGN SUPPORTS, SIGNS AND FOUNDATIONS AND DISPOSAL OF SURPLUS MATERIAL.

TO ASSURE MAINTENANCE OF ADEQUATE TRAFFIC CONTROL AT ALL TIMES, NO SIGNS SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

ALL SIGNS, SUPPORTS AND ACCESSORIES REMOVED SHALL BE STORED WITHIN THE LIMITS OF THE PROJECT AT LOCATIONS APPROVED BY THE ENGINEER FOR REMOVAL BY STATE FORCES.

~~IF ANY SIGN IS TO BE RE-USED ON THE PROJECT SHALL BE RE-ERECTED ON THE SAME LOCATION AS SHOWN IN THE PLAN. THE ERECTION OF THE SIGN AND NEW SIGN SHALL BE COVERED UNDER THE SIGN SIGNING ITEMS.~~

REMOVAL OF GROUND MOUNTED SIGN INSTALLATIONS WILL INCLUDE ALL MATERIAL AND EQUIPMENT NECESSARY TO PERFORM THE REQUIRED WORK AS ABOVE.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

1. ITEM 202 "REMOVAL OF GROUND MOUNTED MAJOR SIGN INSTALLATIONS FOR STORAGE OR RE-USE" AT THE CONTRACT BID PRICE PER EACH, FOR SIGNS FORTY FEET OR GREATER.

2. ITEM 202 "REMOVAL OF GROUND MOUNTED SIGN INSTALLATIONS FOR STORAGE OR RE-USE" AT THE CONTRACT BID PRICE PER EACH, FOR SIGNS LESS THAN FORTY SQUARE FEET.

ITEM 203 REMOVAL OF OVERHEAD SIGN INSTALLATION FOR STORAGE

THIS WORK SHALL CONSIST OF THE REMOVAL OF THE OVERHEAD SIGN INSTALLATIONS AS SHOWN IN THE PLAN.

WORK SHALL CONSIST OF THE REMOVAL OF SIGNS, SIGN SUPPORTS AND FOUNDATIONS AND THE DISPOSAL OF SURPLUS MATERIAL.

ALL SIGNS, SUPPORTS AND ACCESSORIES REMOVED SHALL BE STORED WITHIN THE LIMITS OF THE PROJECT AT LOCATIONS APPROVED BY THE ENGINEER FOR PICK-UP BY STATE FORCES.

TO ASSURE MAINTENANCE OF ADEQUATE TRAFFIC CONTROL AT ALL TIMES, NO SIGNS SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

PAYMENT FOR REMOVAL OF OVERHEAD SIGN INSTALLATIONS WILL INCLUDE ALL NECESSARY LABOR AND EQUIPMENT NECESSARY TO PERFORM THE REQUIRED WORK AS INDICATED ABOVE.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

ITEM 202 "REMOVAL OF OVERHEAD SIGN INSTALLATIONS FOR STORAGE" AT THE CONTRACT BID PRICE PER EACH.

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614 EXISTING SIGNS

EXISTING SIGNS LOCATED WITHIN THE ROADWORK AREAS WHICH ARE NECESSARY FOR INTERIM OR PERMANENT TRAFFIC CONTROL SHALL BE REMOVED AND RE-ERECTED IN LOCATIONS INDICATED BY THE PLANS OR AS APPROVED BY THE ENGINEER. STOP SIGNS SHALL BE MAINTAINED AT ALL TIMES WHILE TRAFFIC IS MAINTAINED. THE COST OF REMOVAL, REERECTION AND SUBSEQUENT REMOVAL IF REQUIRED, WILL BE CONSIDERED A SUBSIDIARY WORK ITEM, THE COST OF WHICH WILL BE INCLUDED IN THE PRICE BID FOR THE ROADWAY ITEMS. THE SIGNS WHICH ARE TO BE RE-ERECTED OUTSIDE THE PAVED BERMS SHALL BE LOCATED WITH THE CENTER LINE OF SUPPORT ON THE POINT OF INTERSECTION (P.I.) OF THE SHOULDER.

844 DRIVE POSTS

DRIVE POSTS SHALL BE STEEL IN ACCORDANCE TO 712.20

844 SIGNS FURNISHED BY THE STATE

THE CONTRACTOR SHALL SUBMIT, IN TRIPPLICATE, A SCHEDULE FOR SIGN ERECTION TO THE ENGINEER AT LEAST 10 CALENDAR DAYS PRIOR TO THE START OF ANY SCHEDULED ERECTION WORK. THE SCHEDULE SHALL INCLUDE PROPOSED DATES, SIGN NUMBERS AND DELIVERY POINT. THE ENGINEER WILL FURNISH COPIES OF THE SCHEDULE TO THE DISTRICT TRAFFIC ENGINEER AND TO THE ENGINEER OF PUBLIC SERVICES, 25 S. FRONT STREET, COLUMBUS, OHIO 43215.

105 COOPERATION BETWEEN CONTRACTORS

A SEPARATE CONTRACTOR MAY BE REQUIRED TO INSTALL OR ERECT TRAFFIC CONTROL DEVICES WITHIN THE WORK LIMIT OF THIS PROJECT FROM ITS COMPLETION.

THE CONTRACTOR SHALL COOPERATE WITH THE SEPARATE CONTRACTOR IN ACCORDANCE WITH 105.07 TO ARRANGE A MUTUALLY ACCEPTABLE WORK SCHEDULE. SUBJECT TO THE APPROVAL OF THE ENGINEER, ANY PROPOSED CHANGES TO THIS WORK SCHEDULE SHALL BE SUBMITTED TO THE AFFECTED PARTIES AND THE ENGINEER A MINIMUM OF 7 DAYS PRIOR TO THE PROPOSED START OF WORK. ANY COORDINATION BETWEEN CONTRACTORS INVOLVING WORK SCHEDULES, WORK AREAS OR WORK METHODS WILL BE RESOLVED BY THE ENGINEER.

COMPENSATION FOR THE ABOVE
PAY ITEMS INCLUDED WITHIN THE

VARIOUS

ITEM 404-ASPHALT CONCRETE 1 1/2"

① MAIN LINE PAVEMENT

a) 654+53.5 to 918+94.58 (bk) = 26441.08 LF
 917+27.79 (ah) to 1129+94.09 (bk) = 21266.30 LF
 0+12.64 (ah) to 0+52.64 = 40.00 LF

Total = 47747.38 LF

Area = 47747.38 x 48 ÷ 9

= 254652.69 SY

b) Additional Pav't (N.B.)

652+00 to 654+53.5 = 253.5 LF

Area = 253.5 x 24 ÷ 9

= 676.0 SY

② MAIN LINE SHOULDER

a) Outside Shoulder - Rt.

= 39352.97 SY

b) Outside Shoulder - Lt.

= 39935.83 SY

c) Inside Shoulder - Rt.

= 15642.56 SY

d) Inside Shoulder - Lt.

= 15571.39 SY

③ RAMP TERMINALS INCL. RAMP EXTENSIONS

a) Ramp A

= 2404.53 SY

b) Ramp B

= 2300.31 SY

c) Ramp C

= 3101.73 SY

d) Ramp D

= 2344.05 SY

e) Ramp E

= 501.95 SY

f) Ramp F

= 932.52 SY

g) Ramp G

= 856.98 SY

h) Ramp H

= 952.28 SY

④ RAMP EXTENSIONS

a) Ramp A

= 3669.6 SY

b) Ramp B

= 2933.69 SY

c) Ramp C

= 2744.19 SY

d) Ramp D

= 3414.74 SY

⑤ REST AREA ACCELERATION LANE

a) Ramp A

= 720.04 SY

b) Ramp B

= 138.89 SY

c) Ramp C

= 194.44 SY

d) Ramp D

= 312.50 SY

e) Ramp E

= 319.44 SY

⑥ REST AREA ACCELERATION LANE

a) Ramp A

= 1120.22 SY

b) Ramp B

= 1287.13 SY

c) Ramp C

= 1171.84 SY

d) Ramp D

= 1175.51 SY

⑦ ADDITIONAL AREA ON STRUCTURES NOT INCLUDED

a) Str. No. 1248-L&R

= 870.4 SY

b) Str. No. 1644-L&R

= 497.86 SY

⑧ FEATHERING

a) At Bagin Project (S.B.) Lane

= 2.8 CY

b) At Grade Intersections

= 10.4 CY

c) At Ramp Terminals

= 56 CY

Total SY = 399796.28 SY

ITEM 404 = 399796.28 SY

ITEM 402-ASPHALT CONCRETE 1 1/4"

① MAIN LINE PAVEMENT

a) Total Of 1-a From 404 = 47747.38 LF

Deductions: 712.2 LF-Str. No. 1248

112 LF-Str. No. 1644 ÷ 50 LF-Feathering = 874.2 LF

Total = 46873.18 LF

Area = 46873.18 x 48 ÷ 9

= 249952.29 SY

b) Total SY Of 1-b From 404

= 676.0 SY

② Total Of 2 From 404

= 110502.75 SY

③ Total Of 3 From 404

= 10150.62 SY

④ Total Of 4 From 404

= 3243.73 SY

⑤ Total Of 5 From 404

= 12762.22 SY

⑥ X-OVERS 2(360.02+14.25)

= 748.54 SY

⑦ Total Of 7 From 404

= 965.27 SY

⑧ Total Of 8 From 404

= 4754.7 SY

⑨ FEATHERING

a) At Bagin Project (S.B.) Lane

= 2.8 CY

b) At Grade Intersections

= 4.0 CY

c) At Ramp Terminals

= 2.0 CY

Total SY = 393794.12 SY

ITEM 402 = (393794.12 x 1.25 ÷ 36) + 0.9 + 4.0 + 7.0 = 3680.3 C.Y.

ITEM 407-TACK COAT 0.10 GAL./SY.

COVER AGGREGATE 7 LB./SY.

① Total Of 1 From 402

= 250666.29 SY

② Total Of 2 From 402

= 10150.62 SY

③ Total Of 3 From 402

= 12762.22 SY

④ Total Of 4 From 402

= 965.27 SY

⑤ Total Of 5 From 402

= 4754.7 SY

⑥ FEATHERING

a) At Bagin Project (S.B.) Lane 40 LF x 24 ÷ 9

= 106.67 SY

b) At Structures 50 LF x 48 ÷ 9

= 266.67 SY

c) At Ramp Terminals 4(30 x 16 ÷ 9)

= 213.33 SY

d) At Grade Intersections

= 405.0 SY

Total SY = 280290.78 SY

ITEM 407-TACK COAT = 280290.78 x 0.10 = 28029.078 GAL.

COVER AGGREGATE = 280290.78 x 7 ÷ 2000 = 981.0 TON

ITEM 409-COVER AGGREGATE 0.008 CY/SY

BITUMINOUS MATERIAL 0.008 GAL/SY

① Total Of 2 From 404

= 110502.75 SY

② Total Of 3 From 404

= 3243.73 SY

③ Total Of 4 From 404

= 10150.62 SY

④ Total Of 5 From 404

= 12762.22 SY

⑤ Total Of 6 From 404

= 965.27 SY

⑥ Total LF Of Guard Rail - 24138

= 1261.90 SY

Area = 24138 x 24 ÷ 9

= 1261.90 SY

Total SY = 1261.90 SY

ITEM 409-COVER AGG. = 1261.90 x 0.008 = 1009.3 CY

BIT. MAT'L = 1261.90 x 0.008 = 3784.79 GAL.

REGION	STATE	PROJECT
5	OHIO	

STA - 21-12.38
 WKY - 21-0.00



ITEM 305-PORT. CEM. CONC. BASE

① Total Of 7 From 404

= 965.27 SY

② RAMP EXTENSIONS

a) Ramp A

= 779.88 SY

b) Ramp C

= 901.96 SY

c) Ramp D

= 305.7 SY

Total SY = 2952.81 SY

ITEM 305 = 2952.81 SY

ITEM 310 SUB-BASE - 6"

① X-OVERS 2(360.02+28.48)

= 777.0 SY

② GORE REPLACEMENT

a) Ramp B - SR 93

= 127.73 SY

b) Ramp D - SR 93

= 178.89 SY

c) Ramp A - Rest Area

= 287.5 SY

d) Ramp D - Rest Area

= 293.89 SY

③ RAMP EXTENSIONS

a) Ramp A

= 675.79 SY

b) Ramp C

= 803.71 SY

c) Ramp D

= 27.0 SY

Total SY = 3387.71 SY

ITEM 310 = 3387.71 SY

ITEM 310 = 3387.71 SY

ITEM 411 CRUSHED AGGREGATE E 4

① Total LF Guard Rail

= 24138 LF

ITEM 411 = 24138 x 24 ÷ 9 = 6437.33 SY

ITEM 411 = 24138 x 24 ÷ 9 = 6437.33 SY

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ITEM 411 = 24138 x 24 ÷ 9 = 6437.33 SY

GENERAL SUMMARY

TYPE CODE 6706 UNLESS OTHERWISE SHOWN

FHWA REGION	STATE	PROJECT	
5	OHIO		

9/43

STA - 21 - 12.39
WAY - 21 - 0.00

[illegible]

GENERAL SUMMARY

TYPE CODE 6706 UNLESS OTHERWISE SHOWN

FORM NO 100	STATE	PROJECT
5	OHIO	

STA - 0+12.5
WAY - 21 - 0.00

[illegible]

GENERAL COMMENTS

TRAFFIC CONTROL GENERAL SUMMARY

COMPLETED BY JBD DATE 1-20-77
CHECKED BY KAG DATE 1-27-77

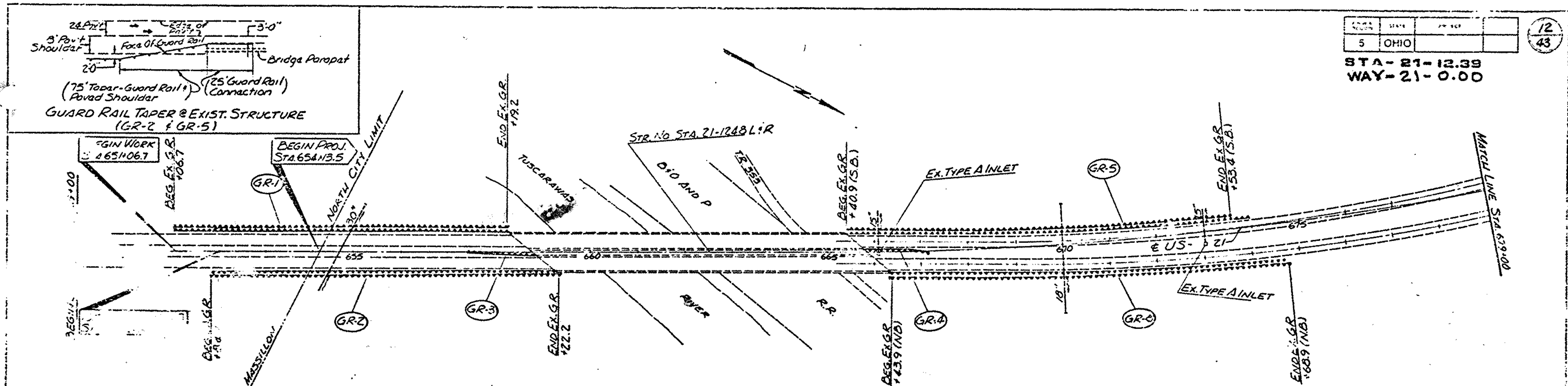
FHWA REGION	STATE	PROJECT
5	OHIO	

STA-21-12.39
WAY-21-0.00

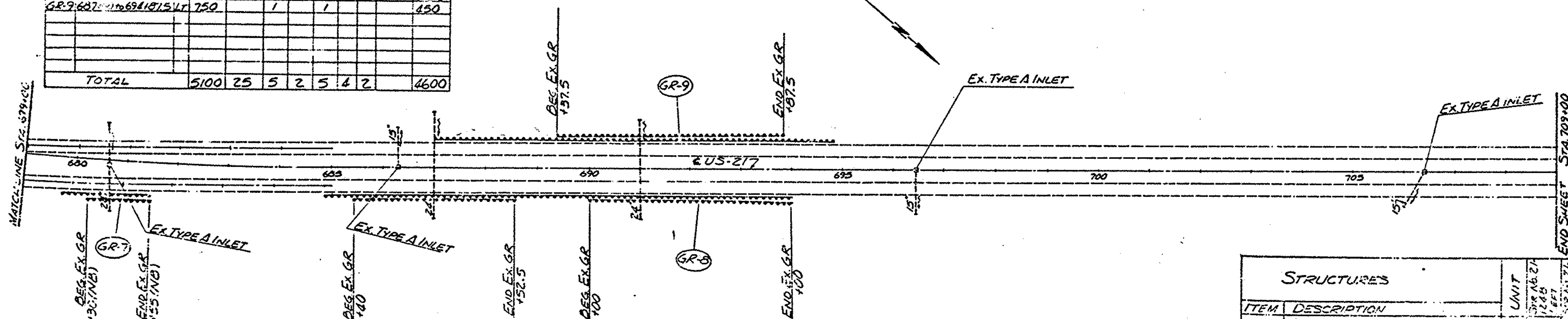
11
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ITEM	QUANT	UNIT	TYPE CODE 6706	DESCRIPTION	LINE
621	37.53	MILES	EDGE LINES		1
621	17.99	MILES	LANE LINES 6 INCH		2
621	0.42	MILES	LANE LINES 4 INCH		3
621	0.14	MILES	CENTER LINES		4
621	4621	LN.FT.	CHANNELIZING LINES		5
621	384	LN.FT.	STOP LINES 24 INCH		6
621	1540	LN.FT.	BROAD TRANSVERSE LINES 24 INCH		7
621	2	EACH	LANE ARROWS		8
621	105	LN.FT.	CURB MARKINGS		9
202	4	EACH	REMOVAL OF GROUND MOUNTED SIGN INSTALLATIONS FOR STORAGE		10
202	2	EACH	REMOVAL OF OVERHEAD SIGN INSTALLATIONS FOR STORAGE		11
202	3	EACH	REMOVAL OF GROUND MOUNTED MAJOR SIGN INSTALLATIONS FOR STORAGE		12
844	857.5	SQ.FT.	SIGNS ERECTED EXTRA SHEET		13
844	15.6	CU.YD.	CONCRETE FOR EMBEDDED FOUNDATIONS		14
844	199	LN.FT.	GROUND MOUNTED SUPPORTS, NO. 6 STEEL POST, DRIVEN		15
844	90	LN.FT.	GROUND MOUNTED SUPPORTS, 8 W 17		16
844	97	LN.FT.	GROUND MOUNTED SUPPORTS, 10 W 21		17
844	124	LN.FT.	GROUND MOUNTED SUPPORTS, 12 W 31		18
844	6	EACH	BREAKAWAY BEAM CONNECTIONS		19
SPEC	1000	HOURS	PATROLMAN WITH PATROL CAR		20
619	LUMP	LUMP	FIELD OFFICE		21
623	LUMP	LUMP	CONSTRUCTION LAYOUT STAKES		22
614	LUMP	LUMP	MAINTAINING TRAFFIC		23

STA - 21-12.39
WAY - 21-0.00



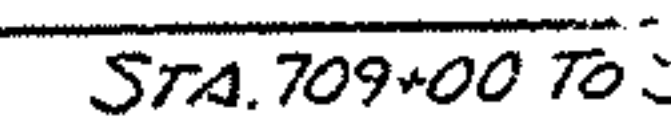
STA. TO STR.	MAN.	SIDE	GUARD RAIL TYPE	GUARD RAIL TYPE	ANCHOR ASSEMBLY	TYPE	TERM	ASSY	STORAGE
651+06.7 to 658+12.2	LT	700							712.5
658+12.2 to 659+50.2	RT	737.5							737.5
659+55.5 to 659+56.6	E	112.5							112.5
659+56.6 to 667+10.8	E	112.5							112.5
667+10.8 to 671+10.8	E	862.5							862.5
671+10.8 to 671+166.9	E	812.5							812.5
671+166.9 to 681+155.5	E	137.5							137.5
681+155.5 to 681+22.2	RT	875							875
681+22.2 to 681+191.5	LT	750							750
TOTAL		5100	25	5	2	5	4	2	4600



STRUCTURES		UNIT	QTY	TOTAL
ITEM	DESCRIPTION			
S16	VERTICAL EXTENSION OF STRUCTURE EXPANSION JOINTS	LF	94	94
SPEC.	MEMBRANE WATERPROOFING	SY	732	732
404	ASPHALT CONCRETE (AC 20) (Two Lifts @ 1 1/4" each)	CY	160	160
SPEC.	PATCHING CONCRETE BRIDGE DECKS (TYPE A)	SY	100	100

STA. 639+00

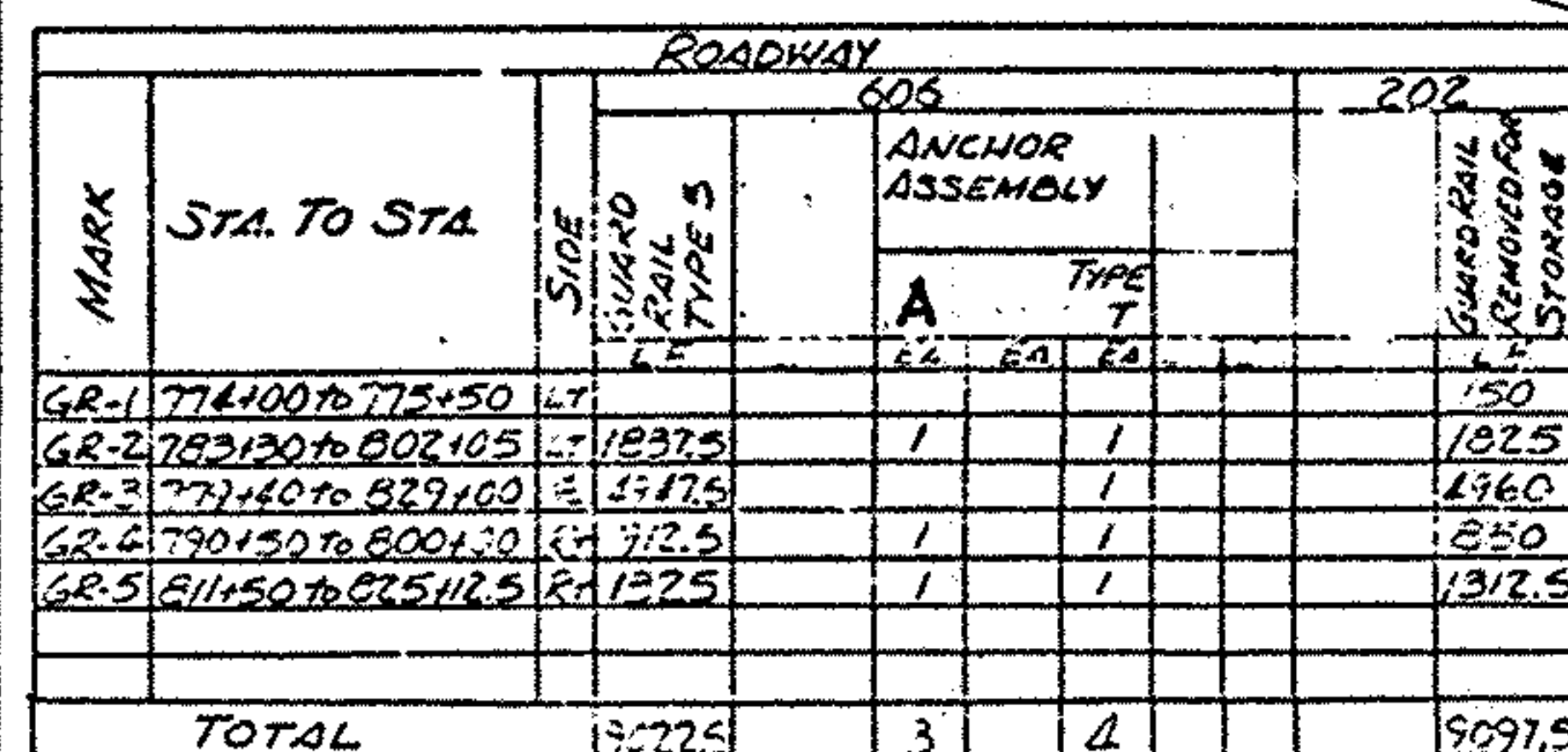
STA- 21-12.39
WAY- 21- 0.00



STA - 21 - 12.38
WAY - 21 - 0.00



FOR DRAINAGE DETAIL SEE SHEET 20



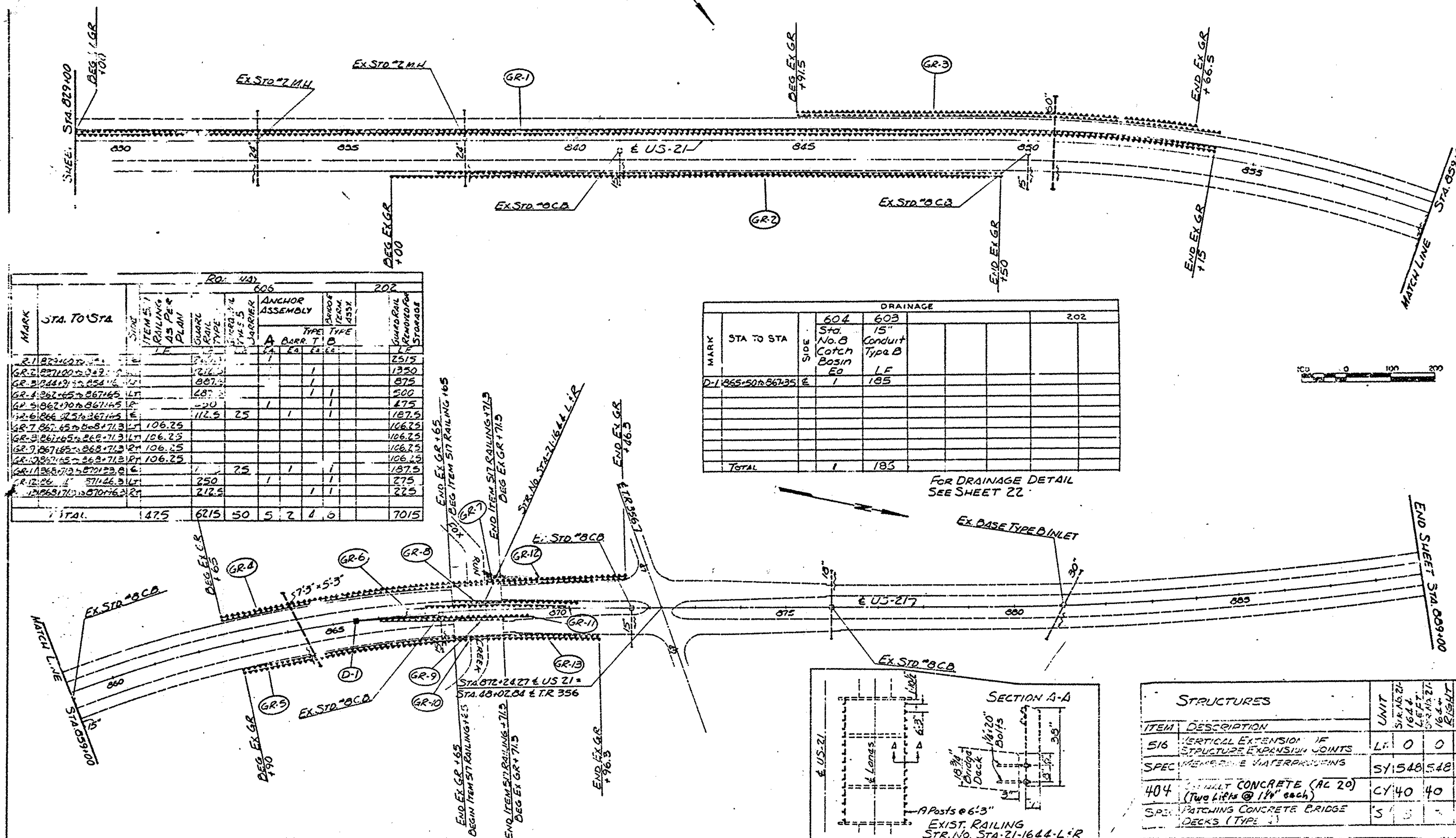
STA. 769+00 TO STA. 824+00

DATE _____
PAGE _____

AREA	STATE	PROJECT
5	OHIO	

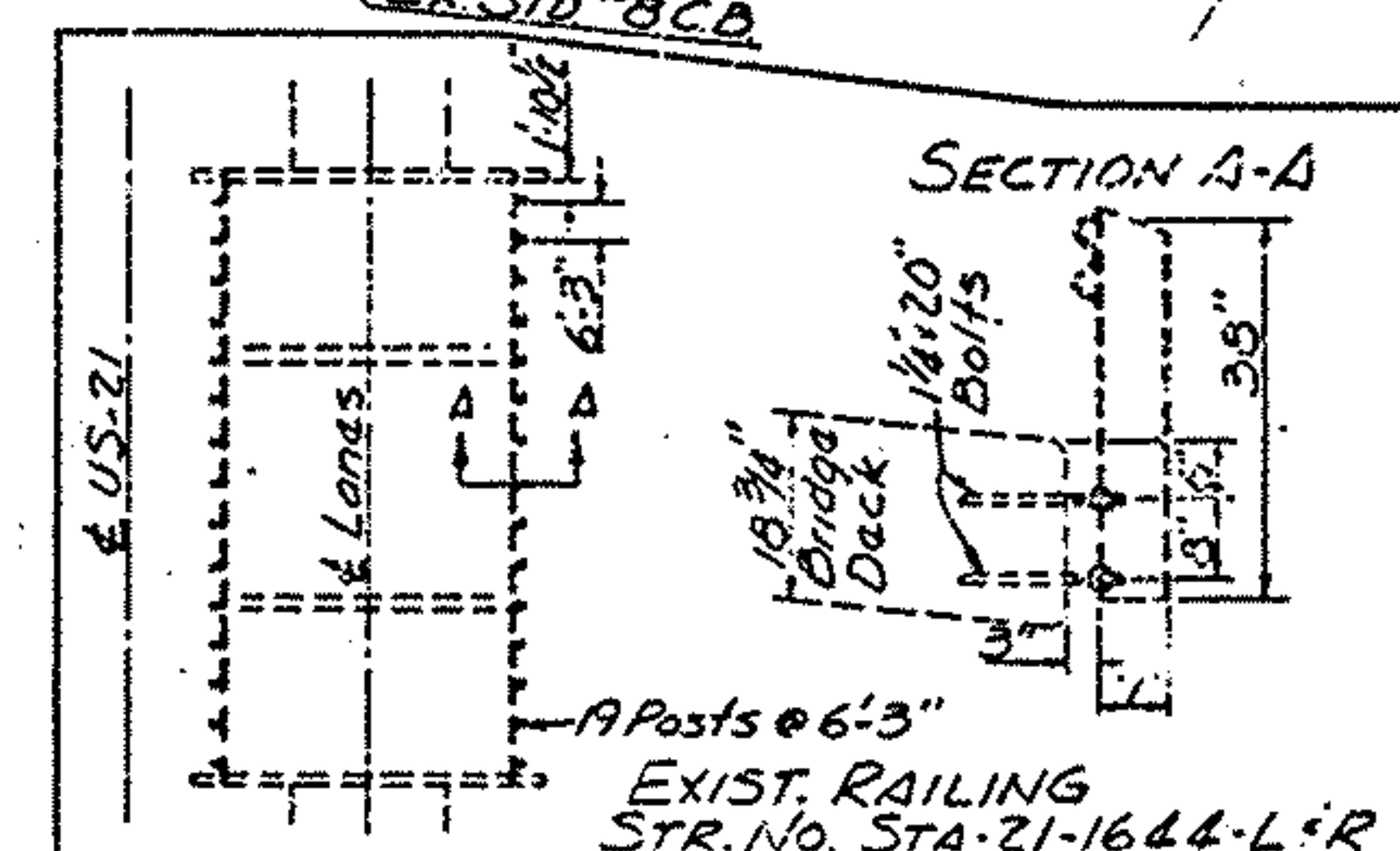
15
43

STA - 21-12.39
WAY - 21-0.00



		DRAINAGE			
MARK	STA TO STA	SIDE	604	603	202
			Sta. No. 8 Catch Basin	15" Conduit Type B	
	D-1 865-50 to 867-35	E	1	185	
TOTAL			1	185	

FOR DRAINAGE DETAIL
SEE SHEET 22



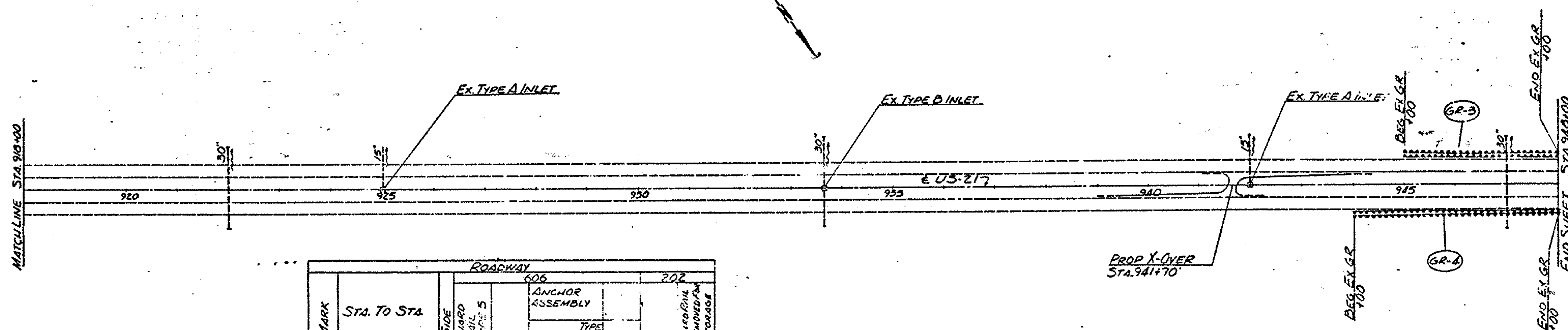
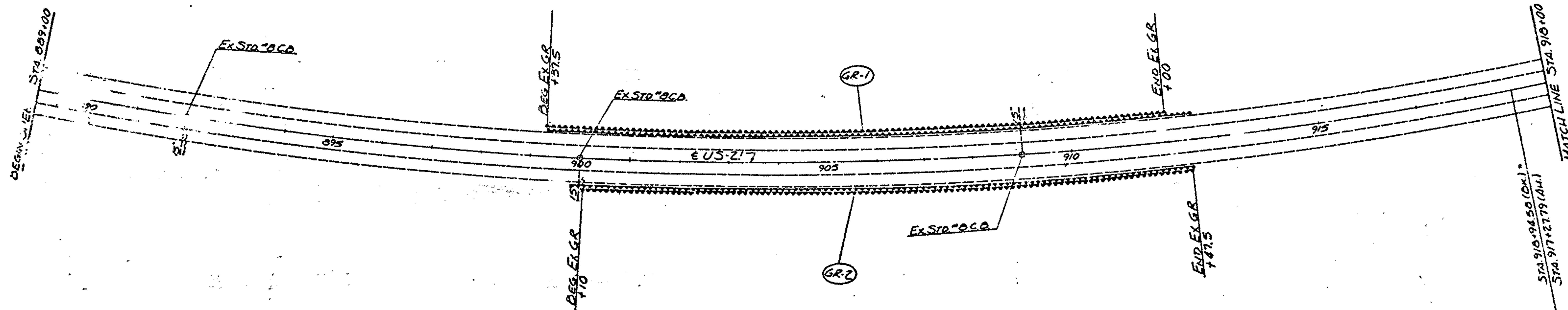
STRUCTURES		UNIT	STA. 21-12.39 16.44 LEFT	STA. 21-0.00 16.44 RIGHT	SHEET TOTAL
ITEM	DESCRIPTION				
516	VERTICAL EXTENSION OF STRUCTURE EXPANSION JOINTS	LF	0	0	0
SPEC	MEMBRANE WATERPROOFING	SY	548	548	1096
404	PORTLAND CONCRETE (AL 20) (Two lifts @ 18" each)	CY	40	40	80
SPEC	PATCHING CONCRETE BRIDGE DECKS (TYPE 1)	S	5	5	10

STA. 21-12.39 TO STA. 21-0.00

FED. AID PROJ. NO.	STATE	PROJECT
5	OHIO	

16
43

STA - 21-12.39
WAY - 21-0.00

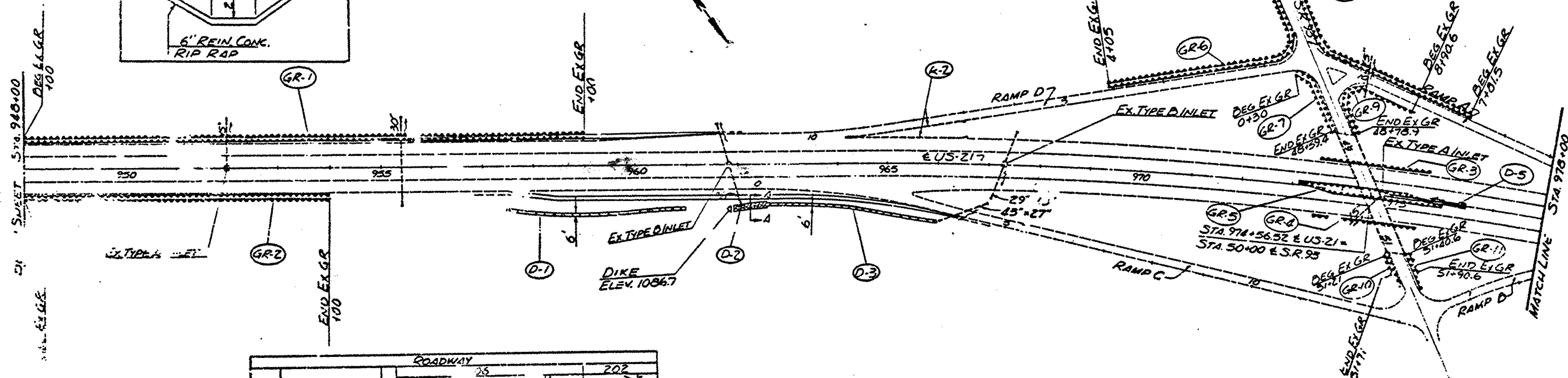
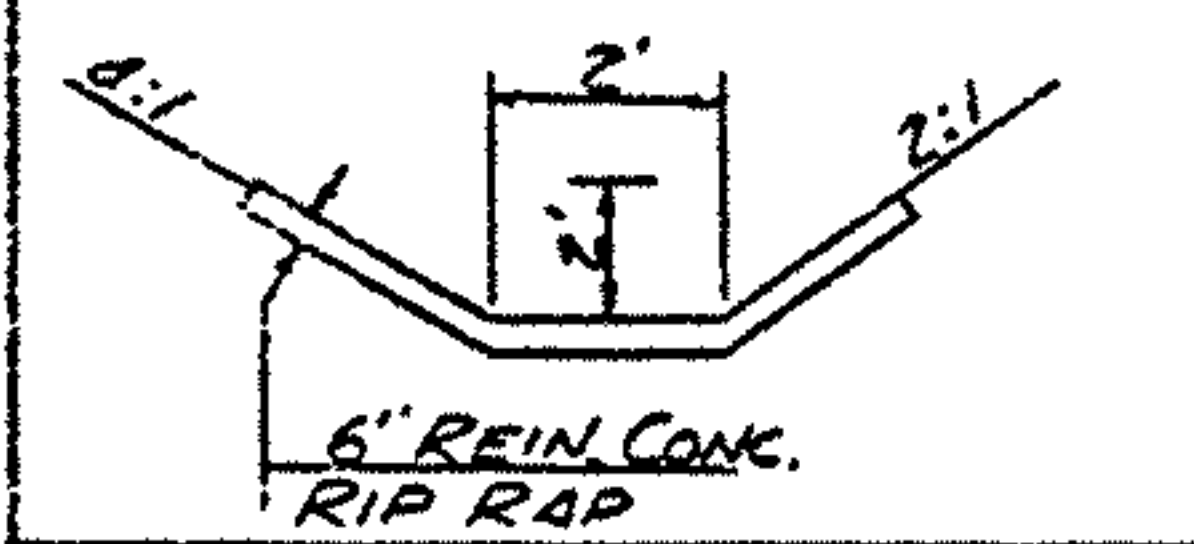


ROADWAY											
MARK		STA. TO STA.		SIDE	GUARD RAIL TYPE	606				702	
						ANCHOR ASSEMBLY		TYPE		GUARD RAIL REMOVED FOR	
											A
					LF	EA	FA	LF			
GR-1		899+37.5 to 912+50		LT	1275	1		1		1262.5	
GR-2		899+37.5 to 912+47.5		RT	1225	1		1		1237.5	
GR-3		915+00 to 940+00		LT	2875			1		200	
GR-4		940+00 to 945+00		RT	375	1				100	

FOR X-OVER DETAILS SEE SHEET 28
FOR X-OVER QUANTITIES SEE SHEET 8

STA. 89+00 TO STA. 919+00

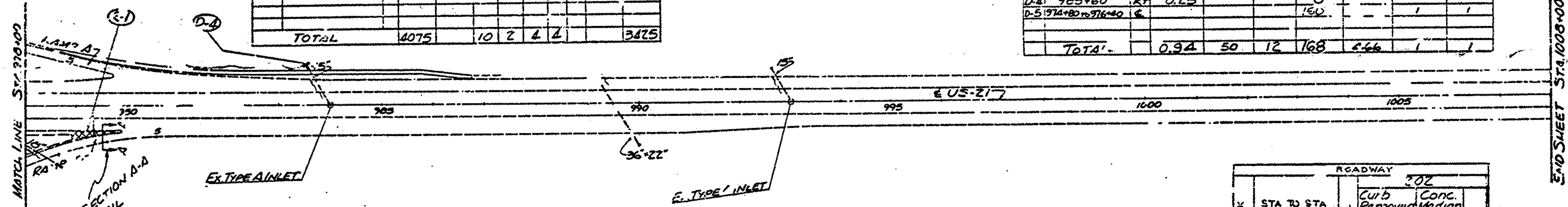
SECTION A-A



ROADWAY											
MARK	ST. TO STA	SIDE	GUARD RAIL TYPE	ANCHOR ASSEMBLY					25	202	Guard Rail Removed for Storage
				TYPE							
				A	BARR.	T	H				
				EA	EA	EA	EA	EA			
GR-1	945+00 to 959+00	L	1075								1100
GR-1	948+00 to 954+00	R	587.5								600
GR-2	973+52 to 975+65	L	175								
GR-2	973+65 to 975+60.5	R	175								
GR-5	973+12.3 to 975+100	E	475			2					
GR-6	46+00 to 46+05		612.5								
GR-7	0+30 to 45+87.4		150								650
GR-8	2+15 to 41+00		575			2					612.5
GR-9	40.6 to 49+06.9		100								225
GR-10	50+93 to 51+93	R	75								50
GR-11	51+26 to 52+12.6	L	75								50
TOTAL			4075			10	2	4	2		3475

SR 95 to RAMP 1
RAMP 1 to SR 99
RAMP 1 to SR 99
RAMP 1 to SR 99
ALONG SR 99
ALONG SR 99

DRAINAGE									
MARK	STA TO STA	SIDE	602	601	603	605	604	606	607
			Conc. Masonry	6" Rain. Conc. Rip Rap	36" Conduit Type A (706.02)	15" Conduit Type A (170.07)	36" Conduit Type A (170.07)	36" Conduit Type A (170.07)	36" Conduit Type A (170.07)
D-1957-501-961400Rt			cy	54	45	65	57	57	57
D-3967-201-962150Rt			0.65	50	12				
D-3967-501-966400Rt						8			
D-4983-60	Rt	0.25				150			
D-5974-801-97640	L								
TOTAL			0.94	50	12	168	546		



PROF. GORE: SEE SECTION A-A
GORE REPLACEMENT DETAIL
SHEET NO. 25

FOR DRAINAGE DETAILS
SEE SHEETS 23 & 24

FOR RAMP EXTENSION
DETAILS, SEE SHEETS 15/25

		ROADWAY		
		302		
MATK	STA TO STA	SIDE	Curb Removed Type	Conc. Median Removed
R-1	RAM	B	SL	SY
R-2	RAM	C	SL	A
			SL	
	TOTAL		P60	17

2nd 2003+00 To 5th 2003+00

STA-21-12.39
WAY-21-0.00

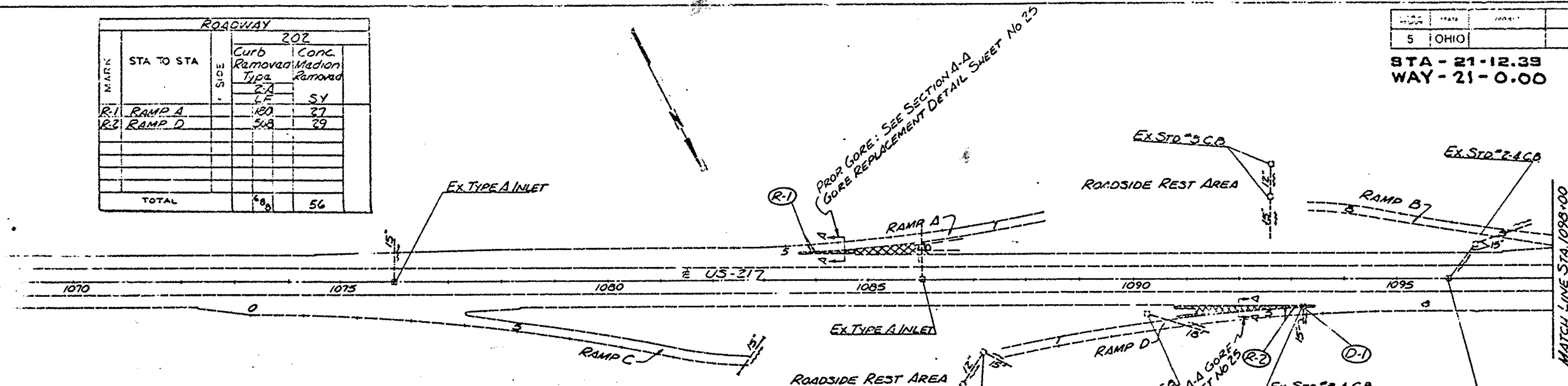


ROADWAY							PDE	
MARK	STA. TO STA.	SIDE	GUARD RAIL TYPE	ANCHOR ASSEMBLY	TYPE		Spec. Rail Reviewed	
					A	T		
					LF	FT		
GR-1	1015+30 to 1021+50	RT	613.5				650	
GR-2	1041+00 to 1046+00	LT	525				560	
GR-3	1049+52 to 1046+00	LT	350				100	
GR-4	1014+17 to 1057+50	RT	1532				100	
GR-5	1049+25 to 1054+00	LT	450				580	
TOTAL			3657.5	0	4		373	

STA. 1008+00 TO STA. 1062+00

STA - 21-12.39
WAY - 21-0.00

ROADWAY			
MARK	STA TO STA	Curb Removed Type	Conc. Median Removed
R1	RAMP A	2A	SY
R2	RAMP D	5A	29
TOTAL		8	56

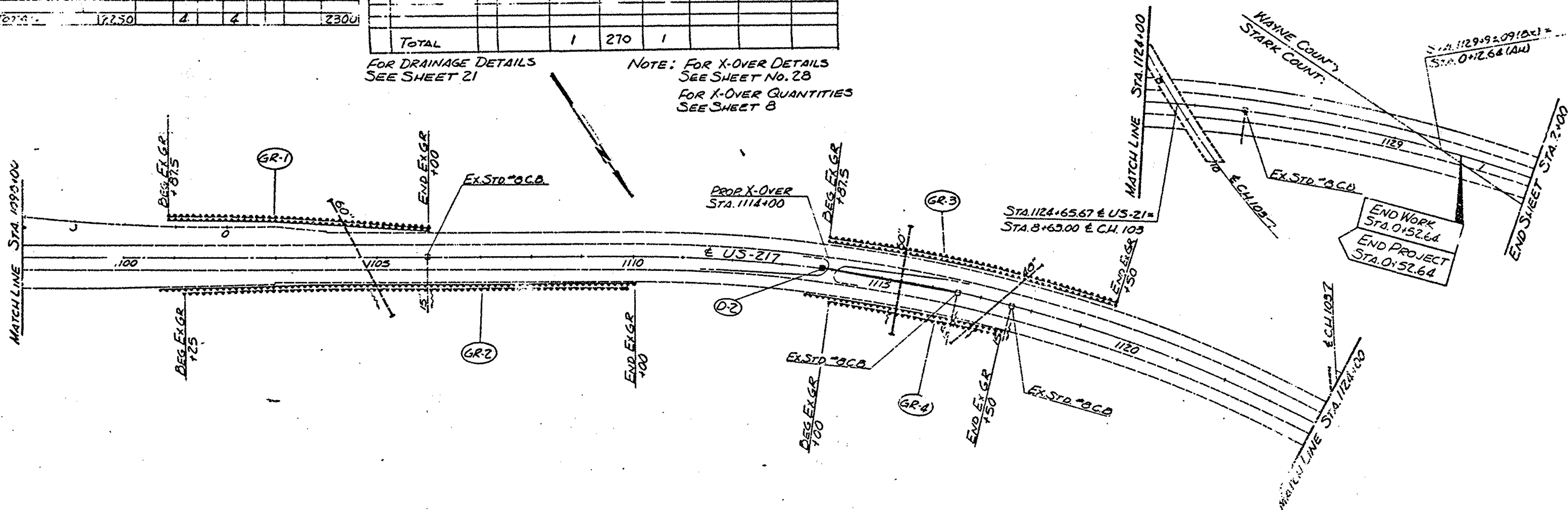


ROADWAY			
MARK	STA TO STA	ANCHOR ISSEMBLY	WATERCOURSE REMOVED STORAGE
GR-1	1070-1075	A	42.5
GR-2	1075-1080	A	37.5
GR-3	1080-1085	A	362.5
GR-4	1085-1090	A	350
TOTAL		4	2300

DRAINAGE			
MARK	STA TO STA	SIDE	202
D-1	1093-125	RT	
D-2	1113-180	LT	270
TOTAL		1	270

FOR DRAINAGE DETAILS
SEE SHEET 21

NOTE: FOR X-OVER DETAILS
SEE SHEET No. 28
FOR X-OVER QUANTITIES
SEE SHEET 8



STA. 1068+00 TO STA. 2+00

STA.	Seeding		End Area		Cu. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb.
735+00	0	183	0	0		31
735+30	33	367	0	17		80
734+00	33	467	0	26		137
733+00	51	5	0	48	4	139
732+00	50	428	2	27	9	67
731+00	27	75	3	9	3	9
730+50	0		0	0		
	208				16	463

END EARTHWORK
Sta. 736+00

END EARTHWORK
Sta. 756+00

Sta. 21-12.39
WAY-21-0.00

20
43

STA.	Seeding		End Area		Cu. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb.
776+00	0	294	0	0		283
775+00	53	294	0	152		283
774+00	0		0	0		
		588				566

STA.	Seeding		End Area		Cu. Yds.	
	L.F.	S.Y.	Cut	Fill	Exc.	Emb.
756+00	0	261	0	0		74
755+00	47	600	0	40	1	324
754+00	61	667	4	135	15	543
753+00	39	667	4	161	19	567
752+00	61	689	6	156	16	580
751+00	30	653	19	141	31	443
750+00	0		13	98	74	
			3848		170	2707

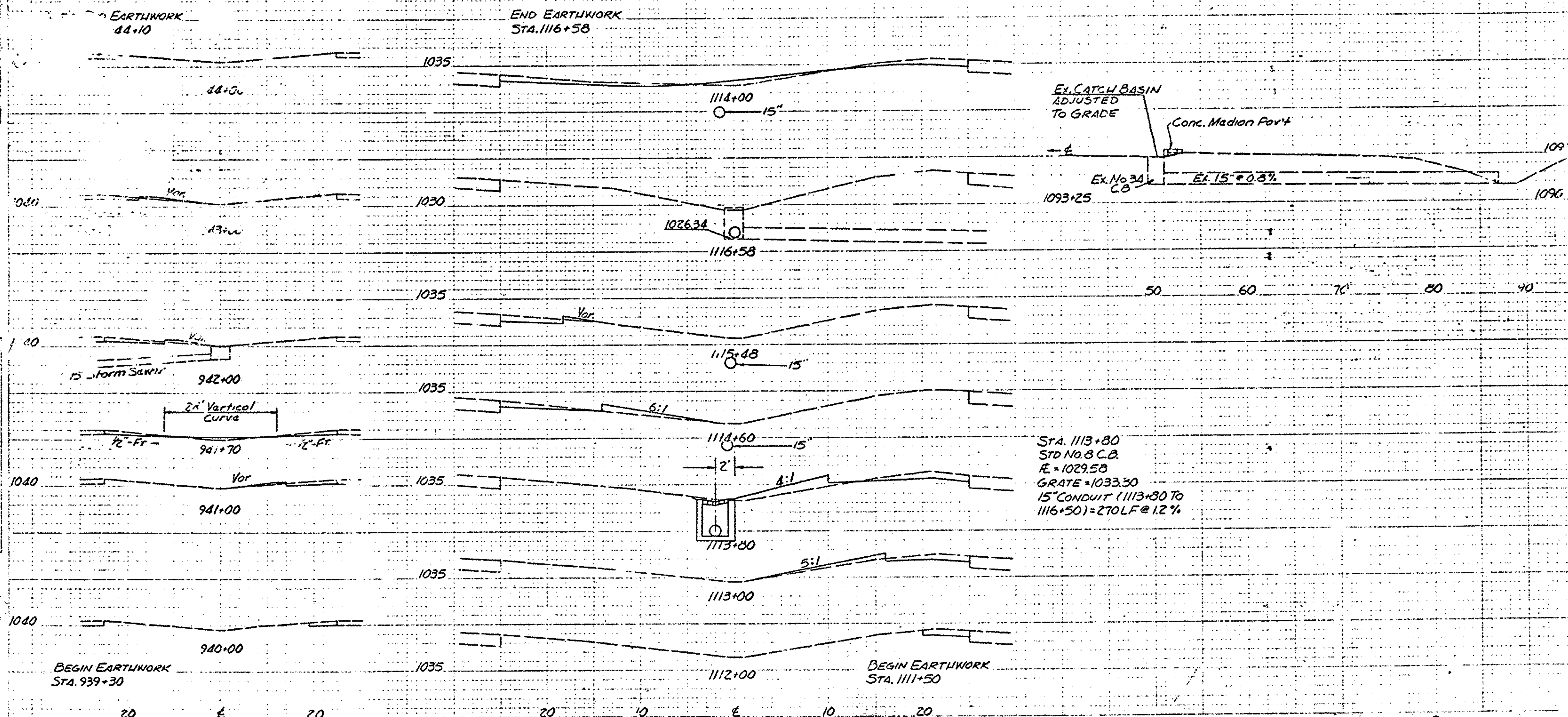
CROSS-SECTIONS

Sta.	Sizing End Area Cu Yds.					
	LF	SY	Cut	Fill	Exc	Emb
944+10	7	1		0		1
944+00	2		1			7
943+00	19	178	3			13
942+00	13	39	4			3
941+70	0	58	9			11
941+00	15	94	3			7
940+00	2	8	1			
939+30	0					
	495		17	45		

Sta.	Sizing End Area Cu Yds.					
	LF	SY	Cut	Fill	Exc	Emb
1116+58	0	48		0		2
1115+48	8	112	1			9
1114+60	15	50	5	16		11
1114+00	0	19	5			5
1113+80	17	155	8	4		19
1113+00	18	111	5			11
1112+00	2	6	1			1
1111+50	0					
	504		20	58		

STA - 21-12.38
WAY - 21-0.00

21
43



Sta.	Sanding		End Area		Cu. Yds.	
	LF	SY	Cut	Fill	Exc.	Emb.
667+50	0	28	0	5		
667+00	10	28	5	5		
666+50	0		0			
658+00	0	23	0	1		
657+55	9	28	5	5		
657+00	0		0			
		107				19

Sta.	Sanding		End Area		Cu. Yds.	
	LF	SY	Cut	Fill	Exc.	Emb.
976+50	0	75	0	19		
976+00	27	300	20	74		
975+00	28	306	20	74		
974+00	28	300	20	72		
973+00	26	72	19	18		
972+50	0		0			
870+75	0	75	0	25		
870+00	18	172	18	39		
869+00	13	22	3	2		
868+70	0		0			
867+35	0	55	0	13		
867+00	28	306	20	130		
866+00	27	75	50	47		
865+50	0		0			
		758				513

STA - 21 - 12.39
WAY - 21 - 0.00

22
23

END EARTHWORK
STA. 870+75

BEGIN EARTHWORK
STA. 868+70

END EARTHWORK
STA. 976+50

Sta 976+50
Type - 8 C.B.
E = 1109.00
Grate = 1106.02

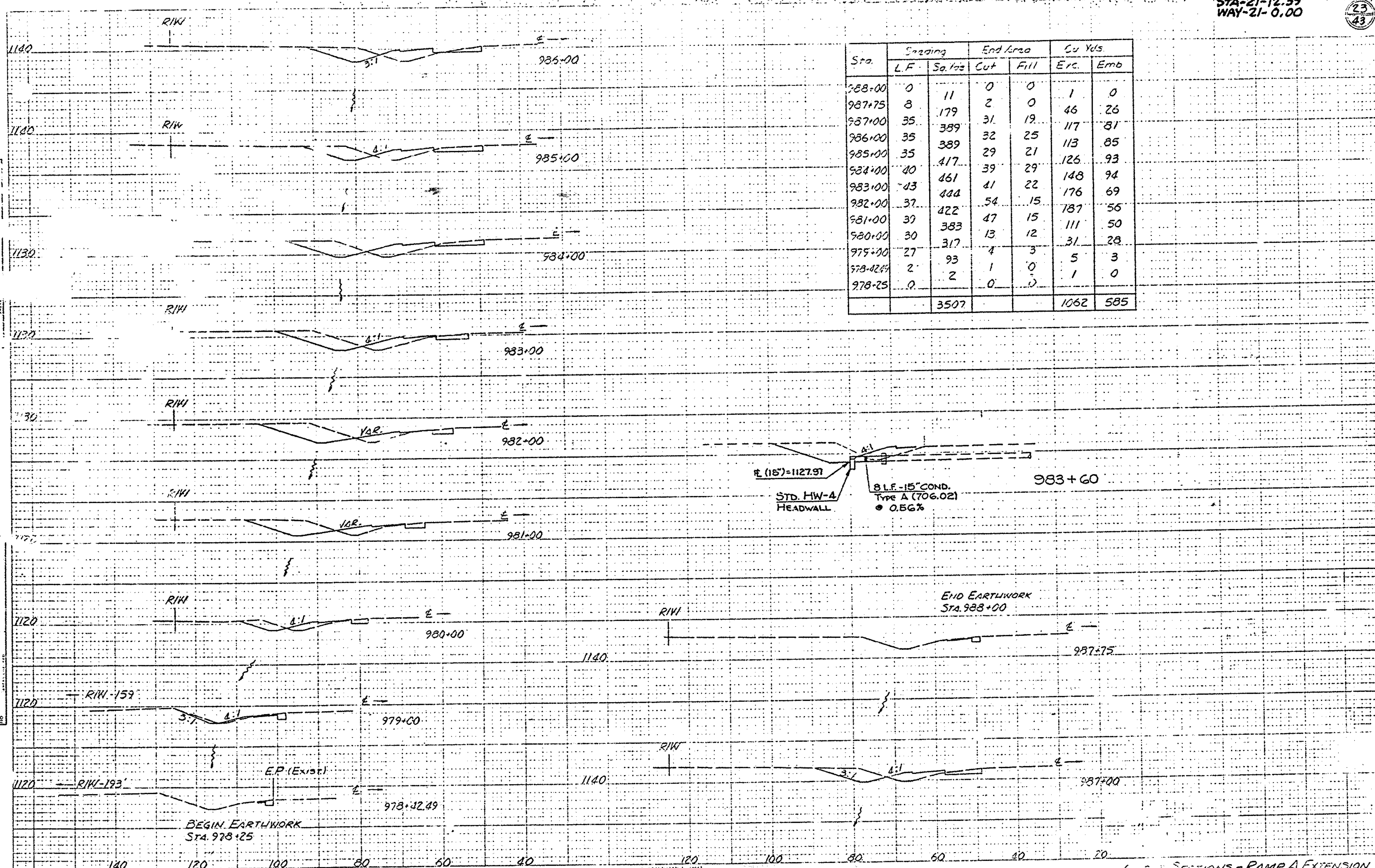
Ex. C.B.
Sta 974+50
E = 1102.82

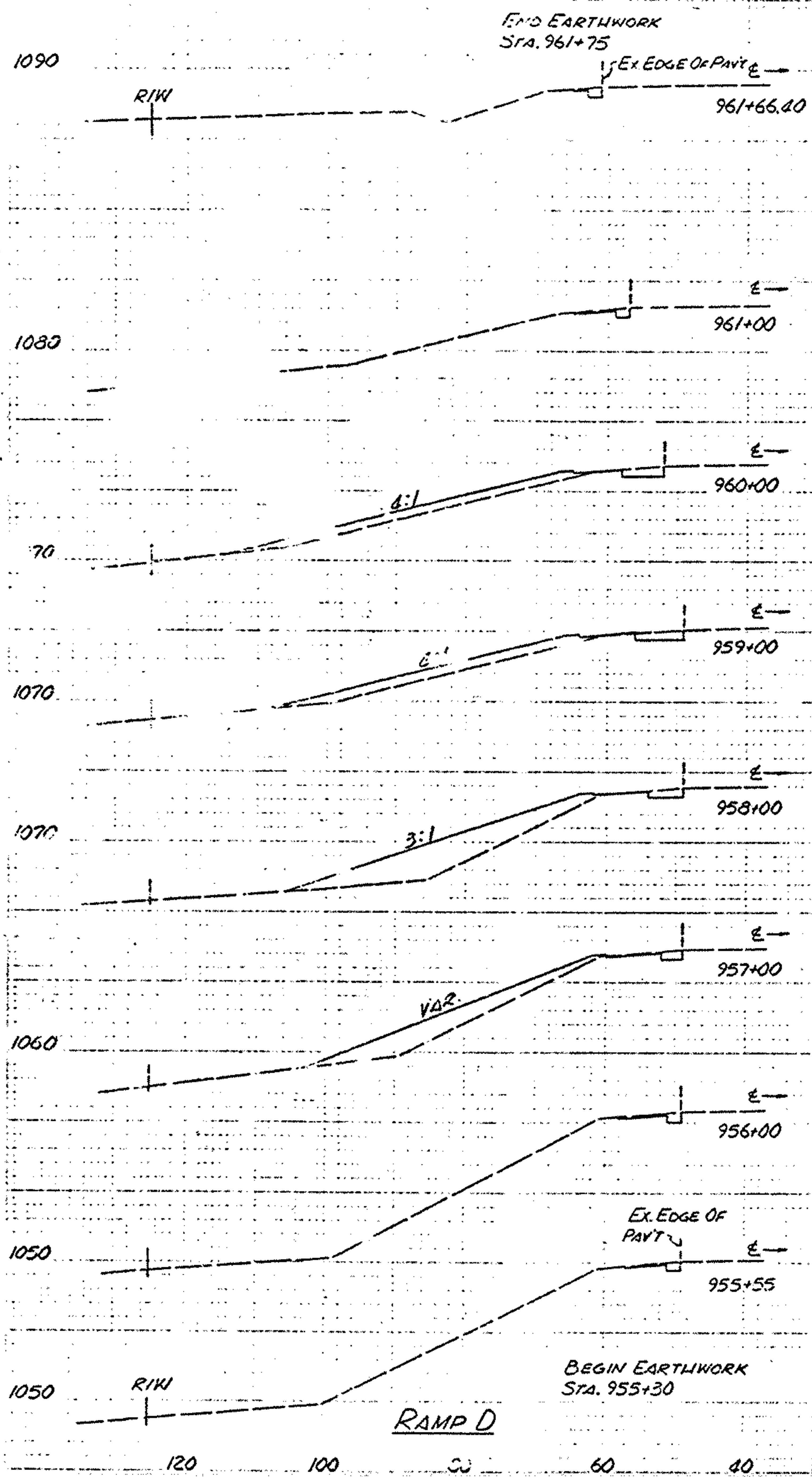
STA 865+50 - Std No. 8 C.B.
E = 945.46
Grate = 948.2

185 LF
15" Conduit
Type B @ 1.75%

PLATE 3 - FULL CROSS SECTION FULL LINE
TO FIELDING MEDIAN, TRUCK RAMP
PRINTED IN U.S.A.

CROSS-SECTION IS - MEDIAN

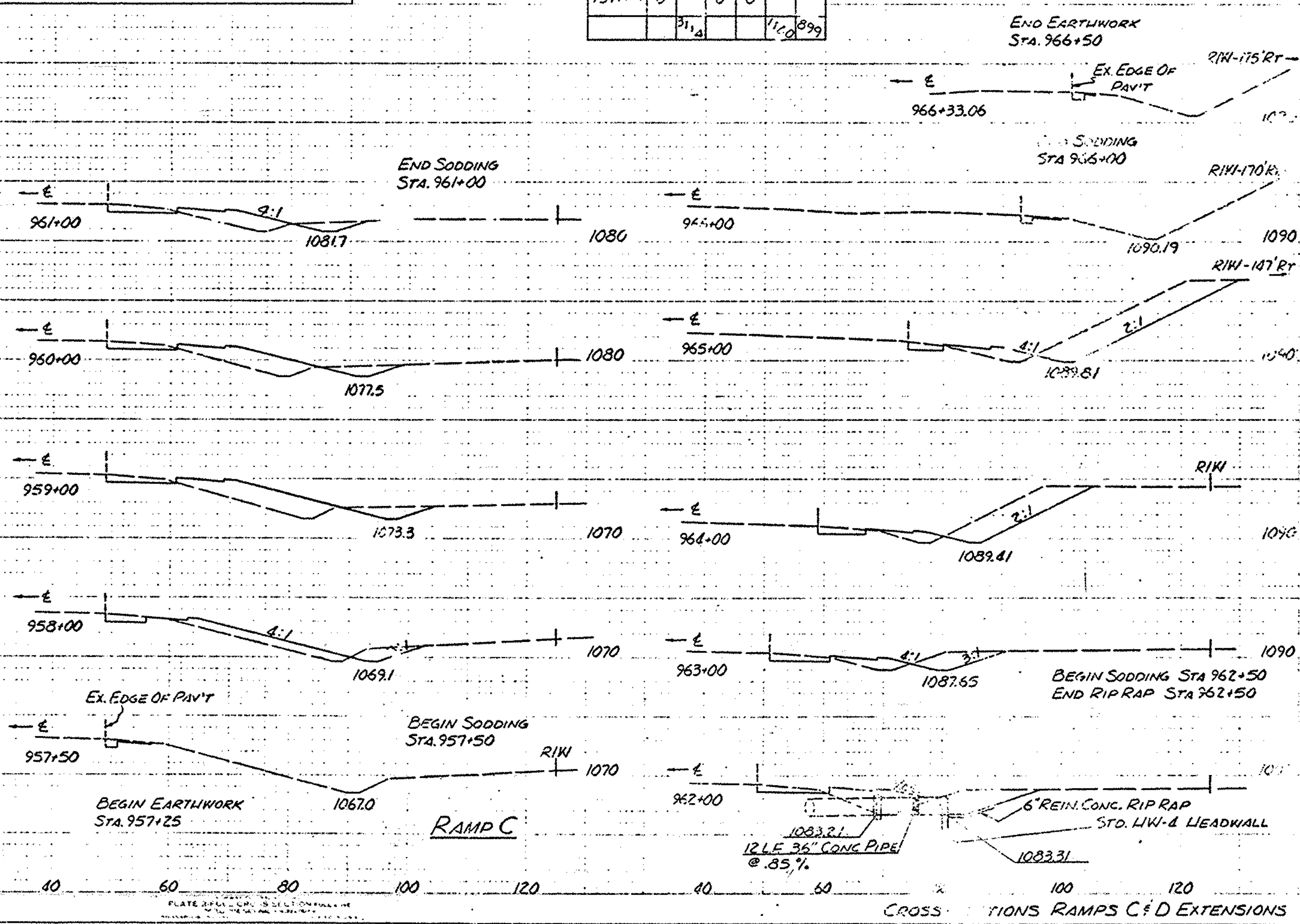




Sta.	Sloping End Area		Cu Yds.	
	L.F.	S.Y.	Cut	Fill
961+75	0	2	0	0
961+55.1	4	44	1	0
961+00	8	339	2	0
960+00	53	556	0	45
959+00	47	528	0	50
958+00	48	528	0	114
957+00	47	317	2	75
956+00	10	45	2	0
955+55	8	11	1	0
955+30	0	0	0	0
		2370	22	1052

Sta.	Sloping End Area		Cu Yds.	
	L.F.	S.Y.	Cut	Fill
966+50	0	4	0	0
966+33	4	22	1	0
966+00	8	305	1	0
965+00	47	461	116	18
964+00	36	333	74	12
963+00	24	300	27	16
962+00	30	317	36	18
961+00	27	339	11	33
960+00	34	411	13	51
959+00	40	467	17	66
958+00	44	144	16	38
957+50	8	11	1	0
957+25	0	0	0	0
		3114	110	899

STA - 21-12.53
WAY - 21-0.00



CROSS SECTIONS RAMP C & D EXTENSIONS

= PROPOSED PAVEMENT WIDENING
 = PROPOSED PAVED SHOULDER

EXIST. RAMP A CURVE DATA

P.I. = 3+66.94
 Δ = 11°45'03"
 D = 04'00"
 R = 1432.39
 T = 147.40'
 L = 293.77'

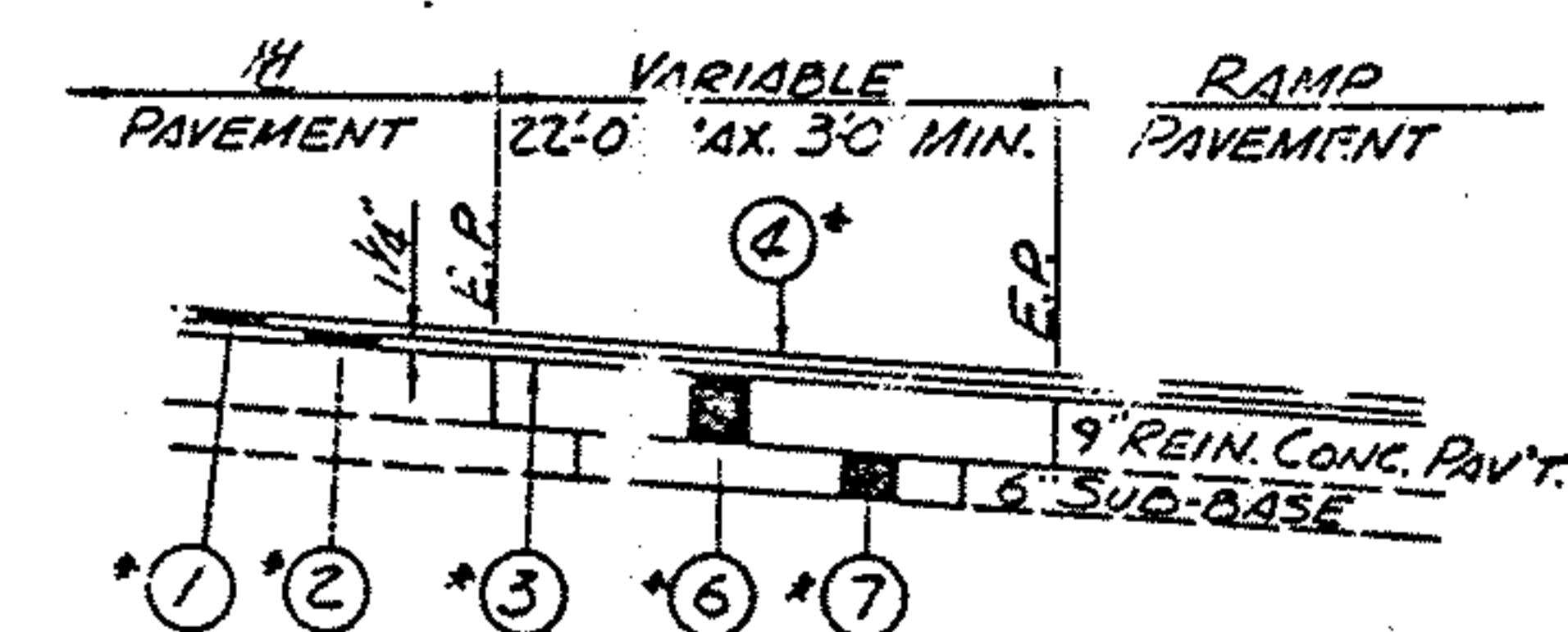
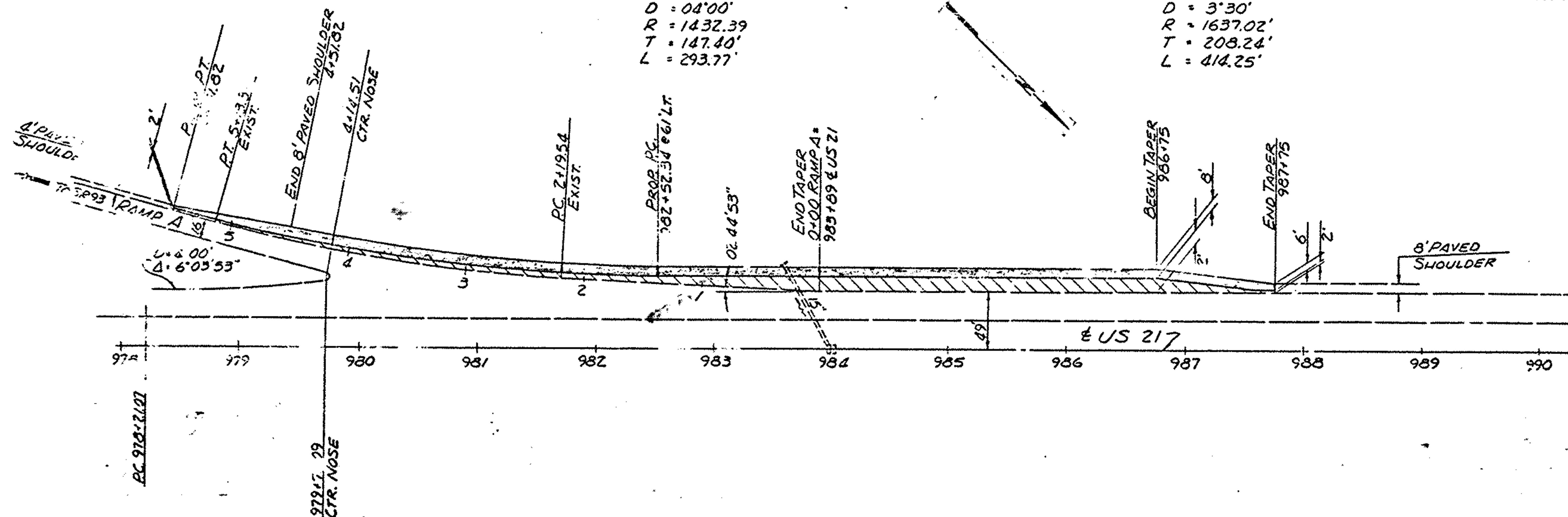
PROP. RAMP A CURVE DATA

P.I. = 980+44.10 @ 61' LT.
 Δ = 14°29'56"
 D = 3'30"
 R = 1637.02'
 T = 208.24'
 L = 414.25'

FED. HIGHWAY DIST. NO.	STATE	PROJECT
5	OHIO	

STA - 21-12.33
 WAY - 21-0.00

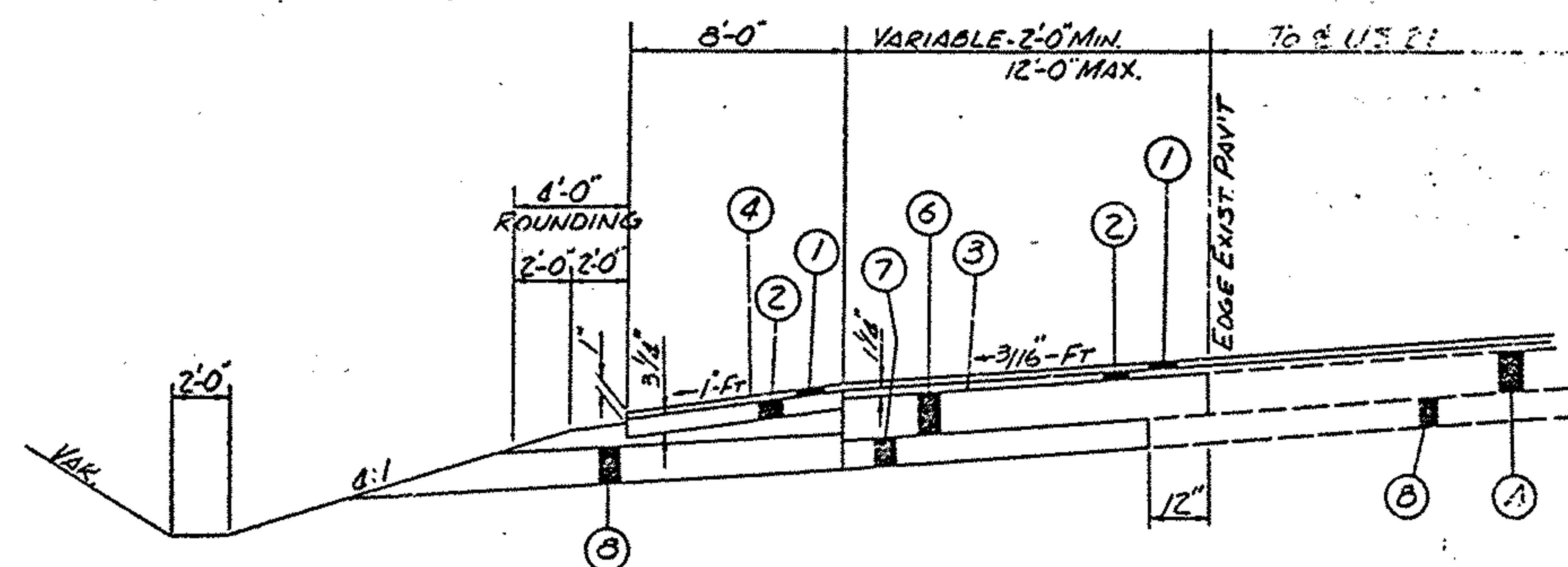
25
43



* SEE LEGEND AT RIGHT

SECTION A-A

GORE REPLACEMENT DETAIL



- ① 404-1 1/4" Asphalt Concrete, AC-20
- ② 402-Asphalt Concrete, AC-30
- ③ 407-Tack Coat: 702.04, SS-1, SS-1h, MS-2 or RS-1 or 702.02, RC-250, Applied at the rate of 0.10 Gal. per Sq. Yd.
- ④ 407-Cover Aggregate
- ⑤ 409-Seal Coat using 0.008 C.Y. No. 8 Cover Aggregate per S.Y. and 0.30 Gal. Bituminous Mat'l. 702.05, RT-9 or RT-10, 702.02, MC-800 or MC-3000; 702.03 CBAE 800 or 702.04, RS-1, RS-2, CRS-1 or CRS-2
- ⑥ 305-Portland Cement Concrete Base (T-9")
- ⑦ 310-6" Sub-Base
- ⑧ 605-Aggregate Drains
- ⑨ Exist. 9" Reinforced Portland Cement Concrete Pavement
- ⑩ Exist. 6" Aggregate Drains

FJWA REGION	STATE	PROJECT
5	OHIO	

26
43

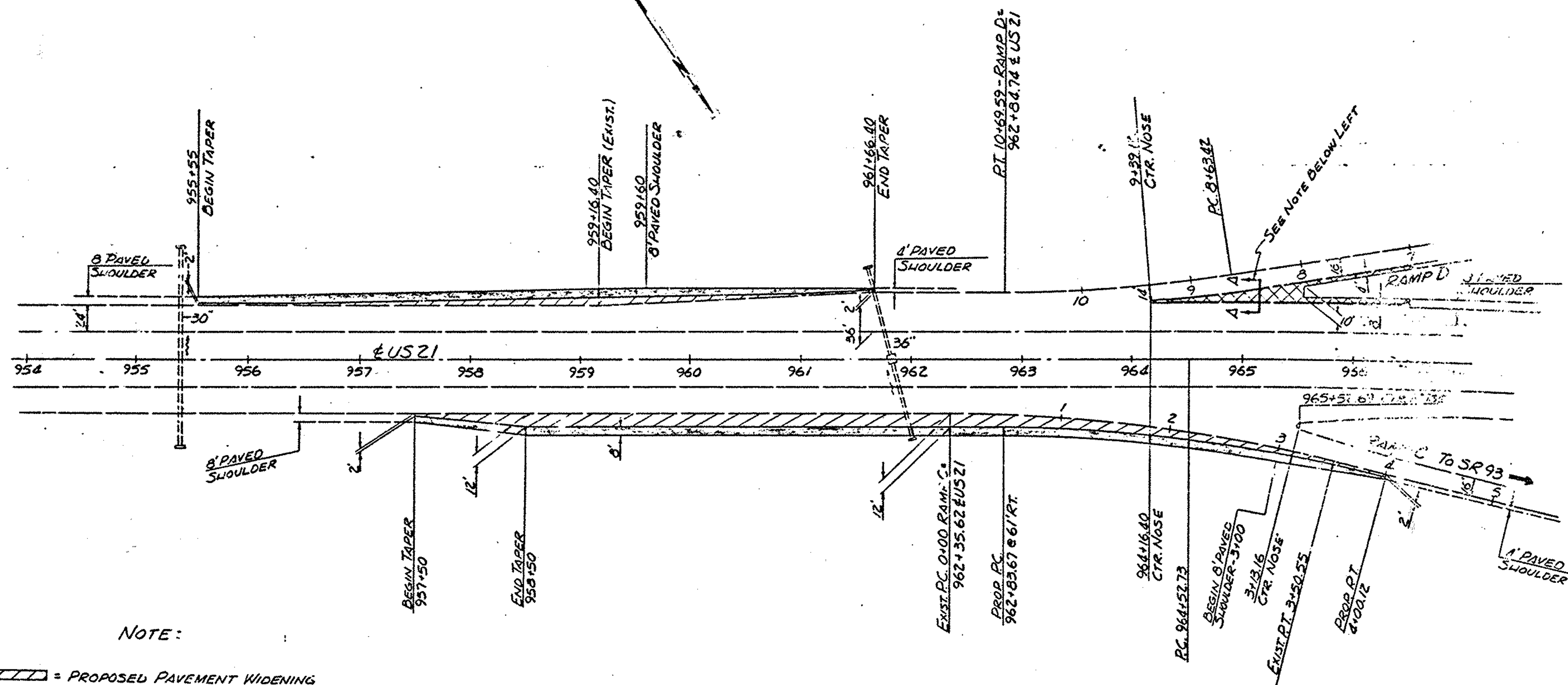
STA - 21-12.39
WAY - 21-0.00

EXIST. CURVE DATA RAMP D

PI. 9+66.68
 $\Delta = 8'14'48''$
 $D = 4'00'$
 $R = 1432.39'$
 $T = 103.26'$
 $L = 206.17'$

EXIST. CURVE DATA RAMP C

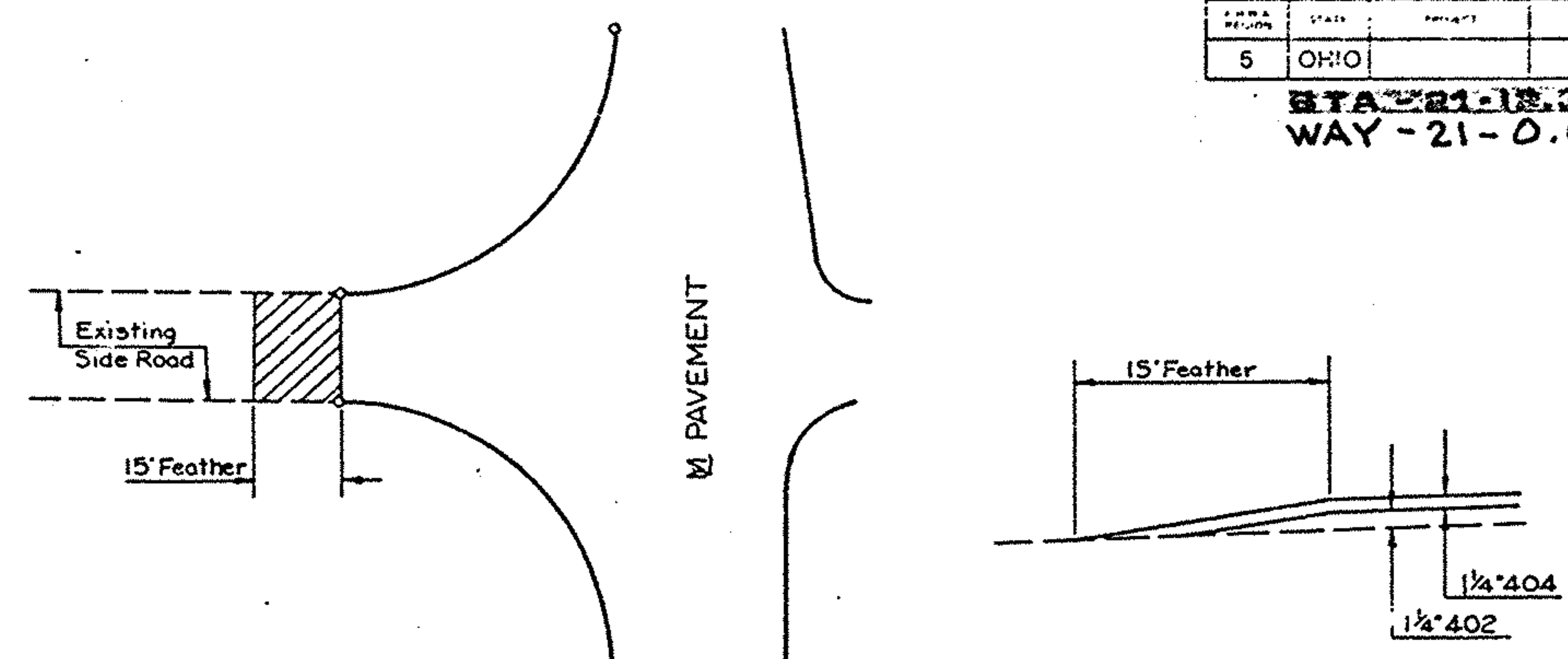
PI. 1+76.16
 $\Delta = 14'01'19''$
 $D = 4'00'$
 $R = 1432.39'$
 $T = 176.16'$
 $L = 350.55'$



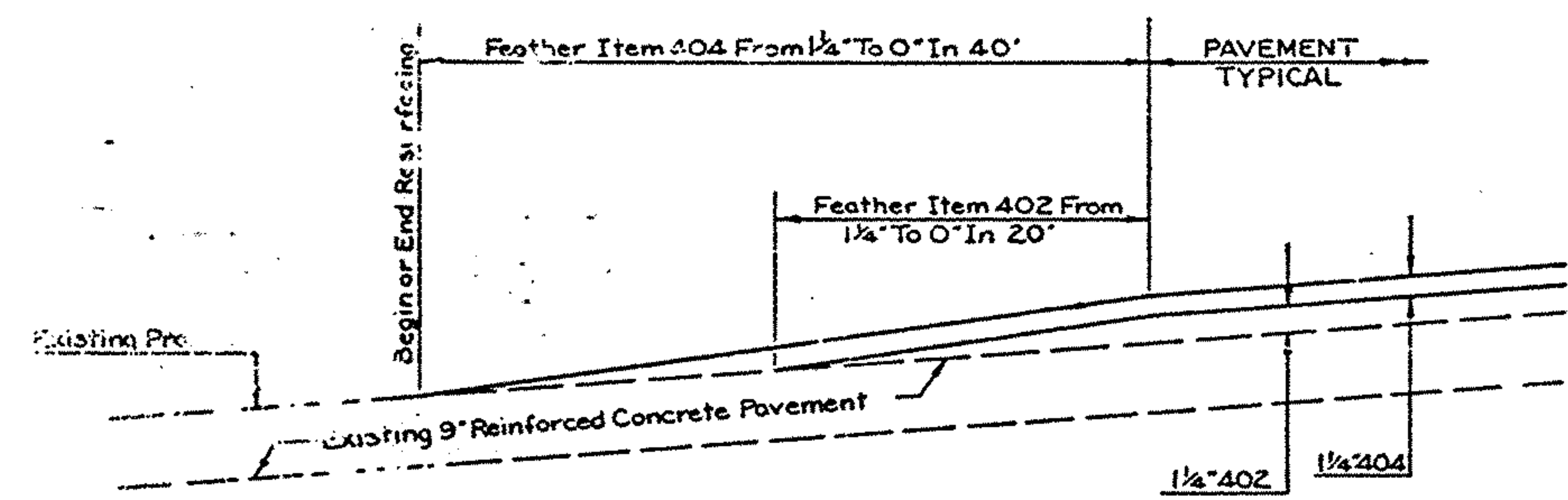
NOTE:

- = PROPOSED PAVEMENT WIDENING
- = PROPOSED PAVED SHOULDER
- = PROPOSED GORE (SEE GORE REPLACEMENT DETAIL FOR TYPICAL SECTION SHEET No. 25)

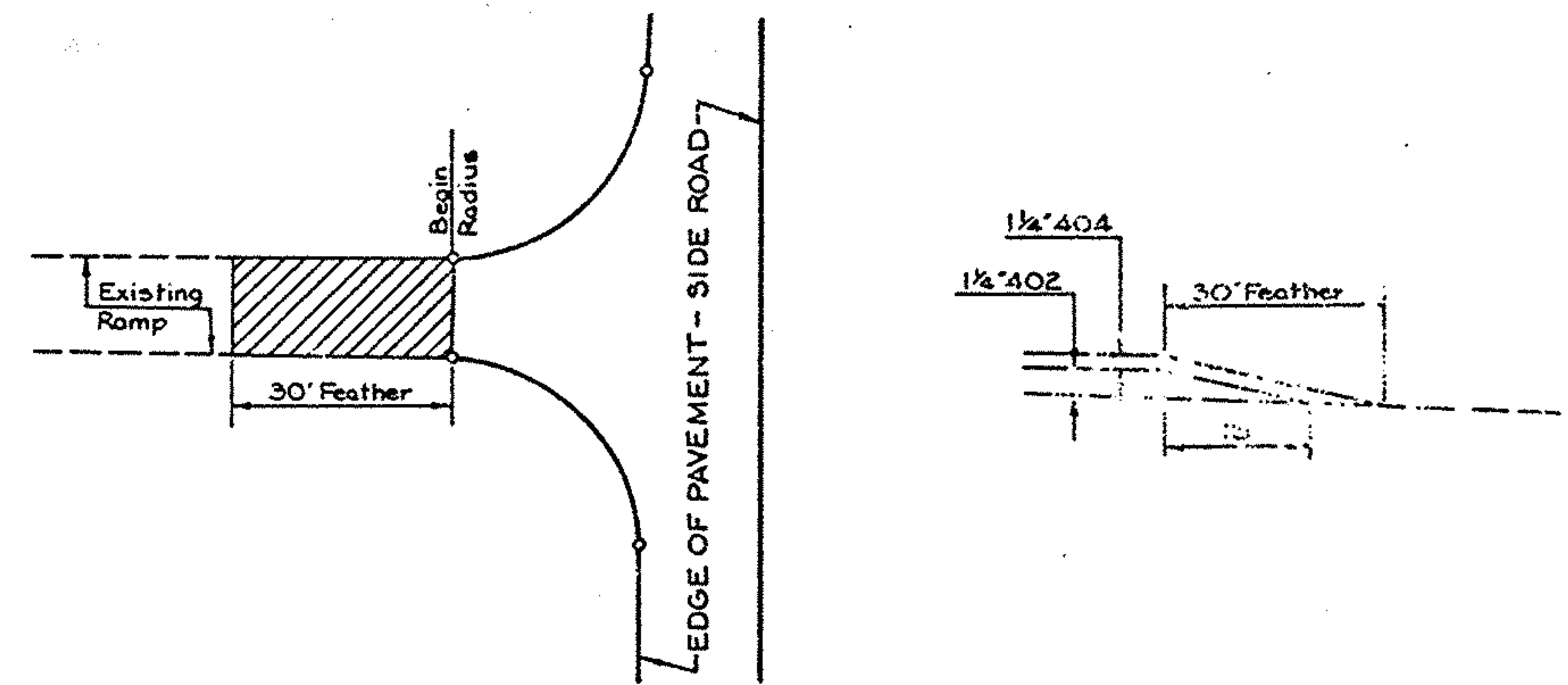
PROP. CURVE DATA RAMP C
PI. 964+59.83 @ 61' RT.
 $\Delta = 14'01'19''$
 $D = 4'00'$
 $R = 1432.39'$
 $T = 176.16'$
 $L = 350.55'$



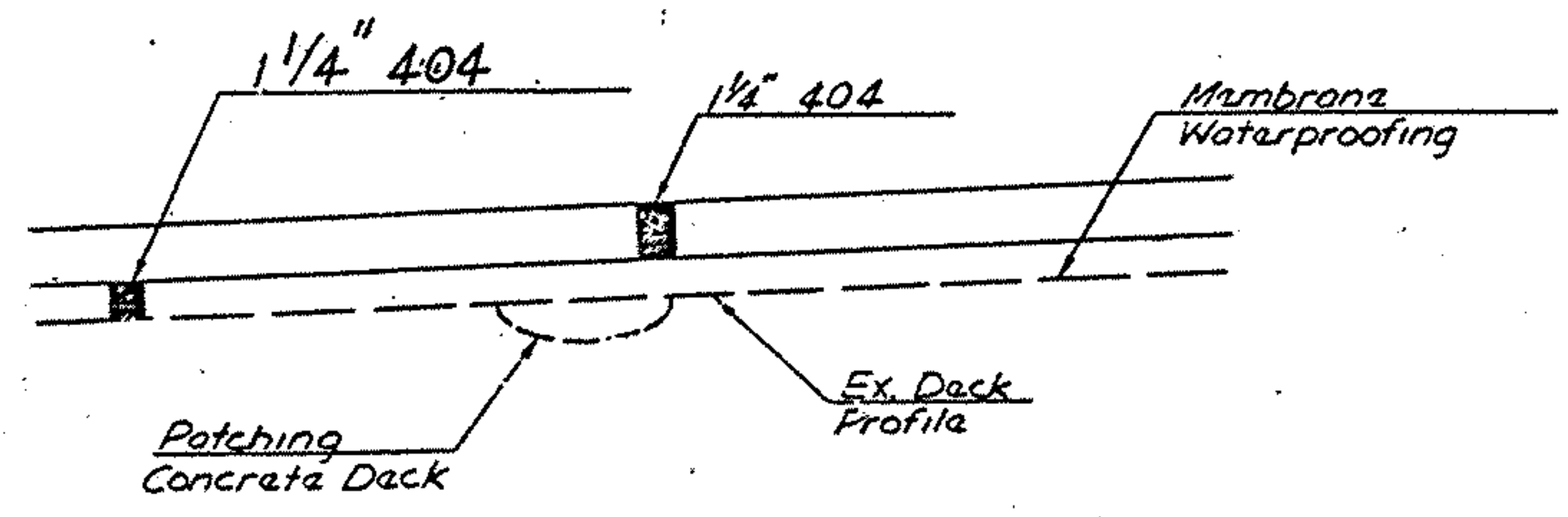
FEATHER AT INTERSECTIONS (AT GRADE)



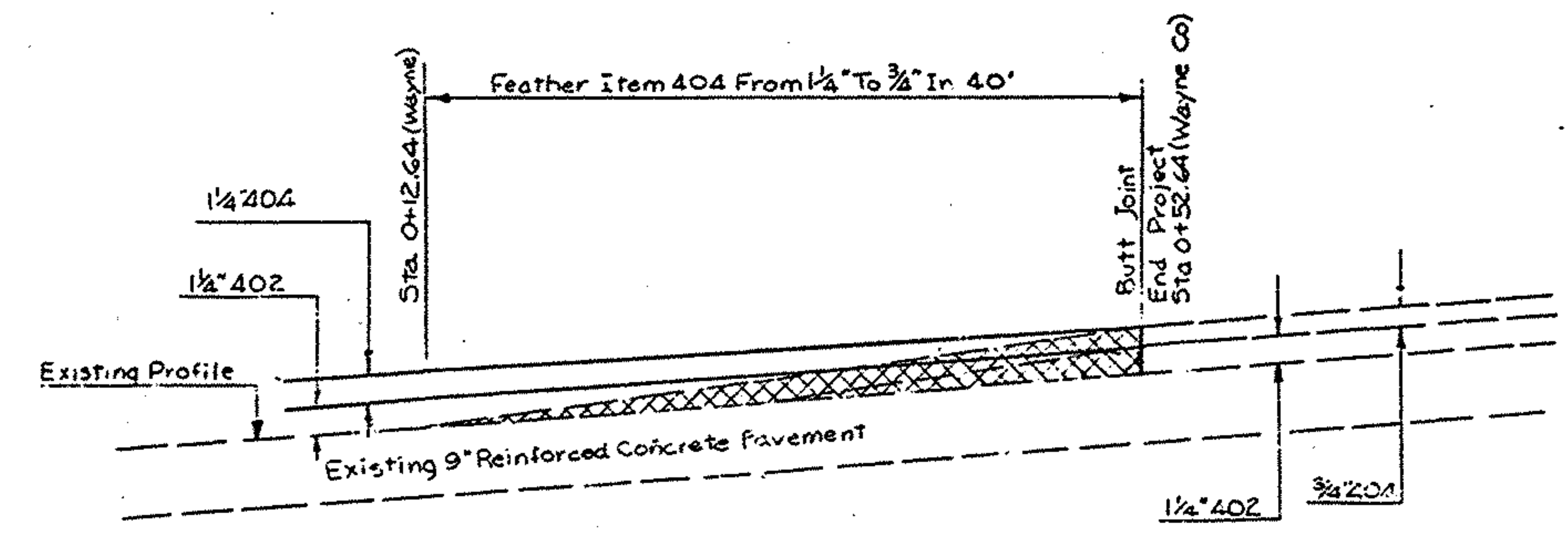
FEATHER AT BEGIN-
NING RESURFACING



FEATHER AT RAMP TERMINALS



TYPICAL STRUCTURE
RESURFACING

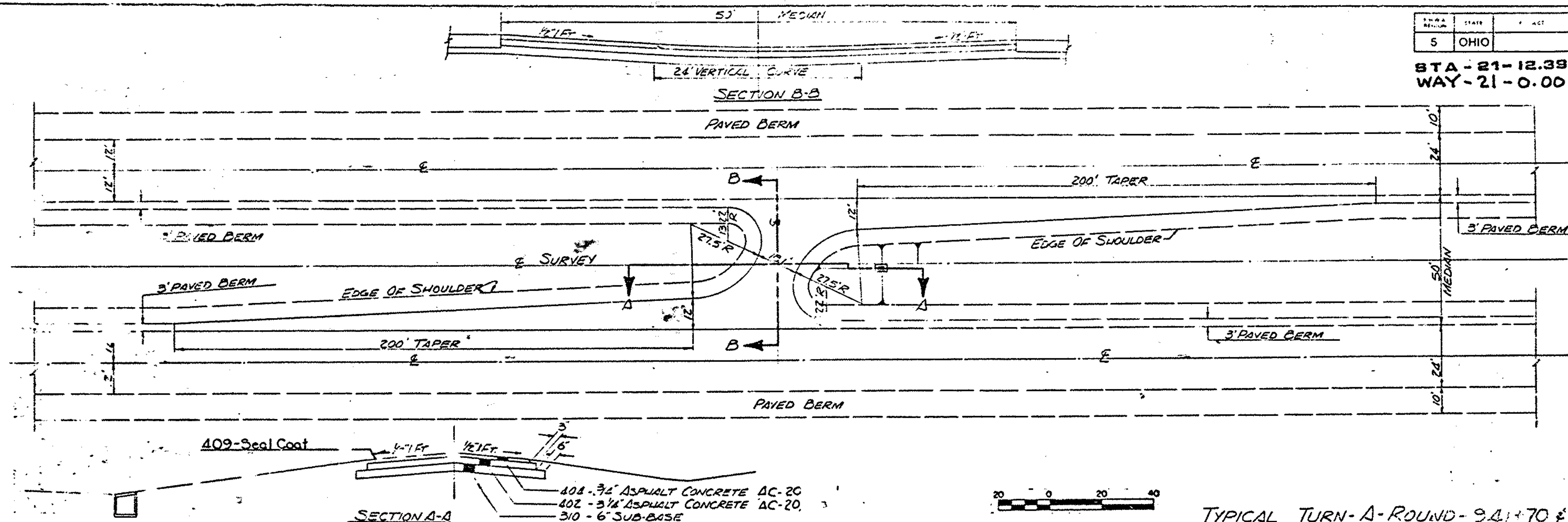


BUTT JOINT AT END
RESURFACING

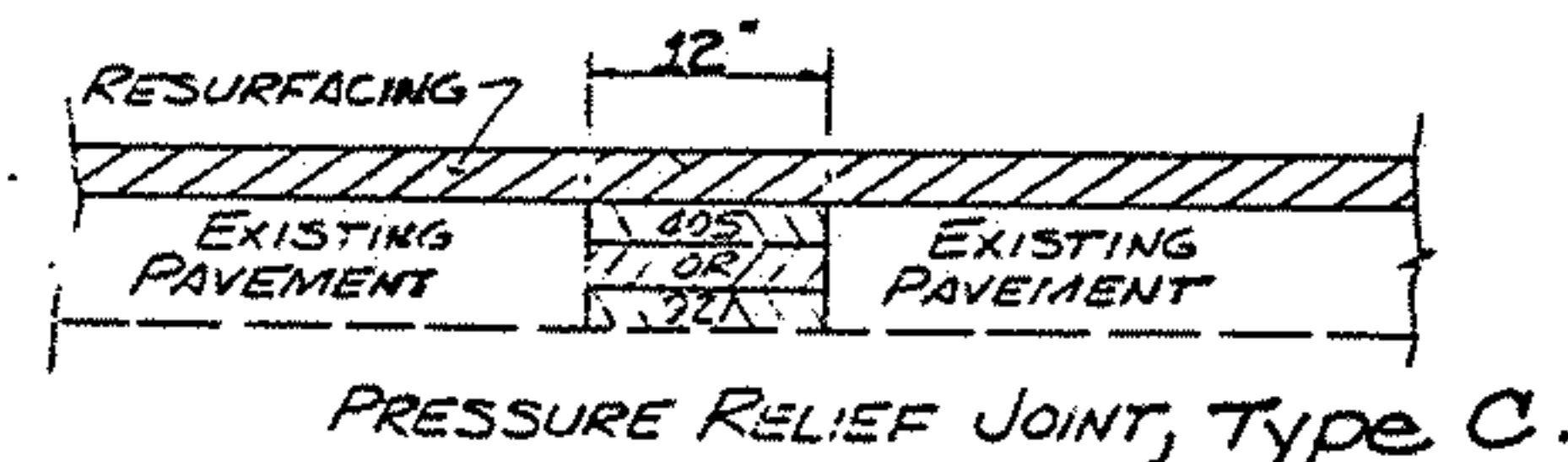
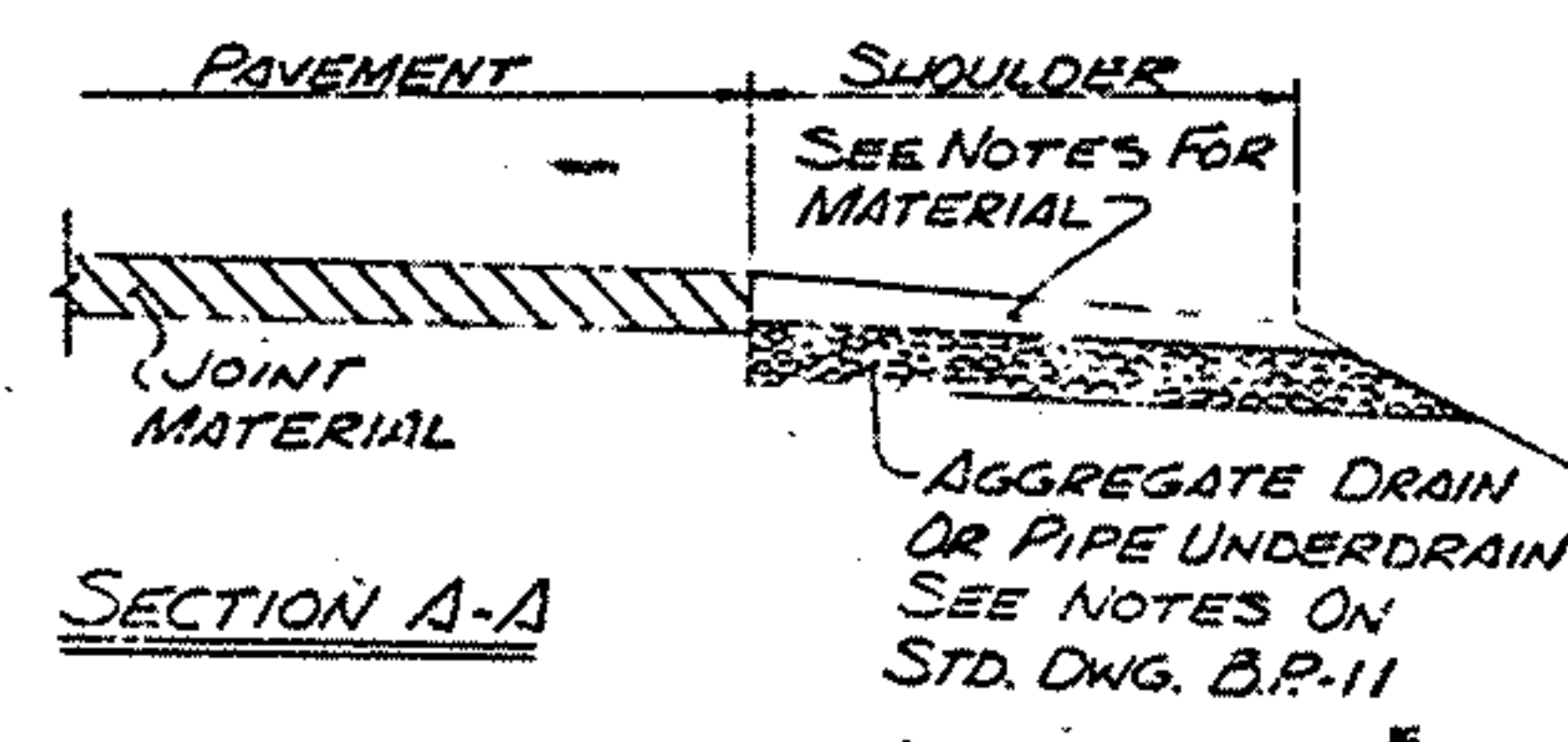
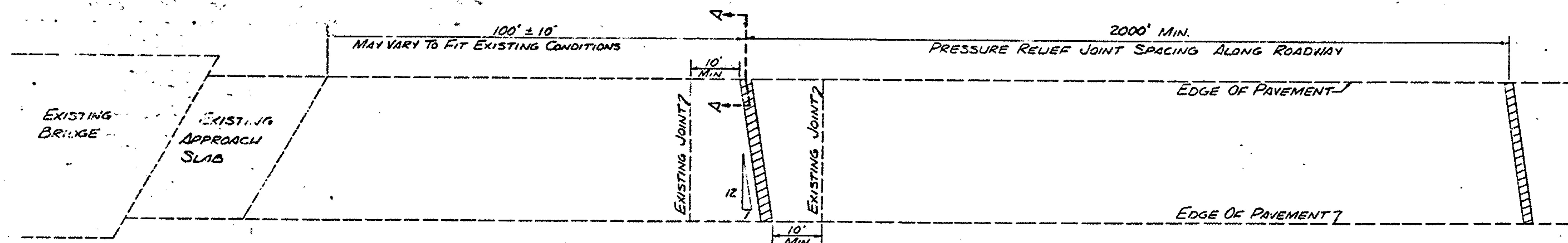
SECTION	STATE	F. ACT
5	OHIO	

28
43

BTA-21-12.39
WAY-21-0.00

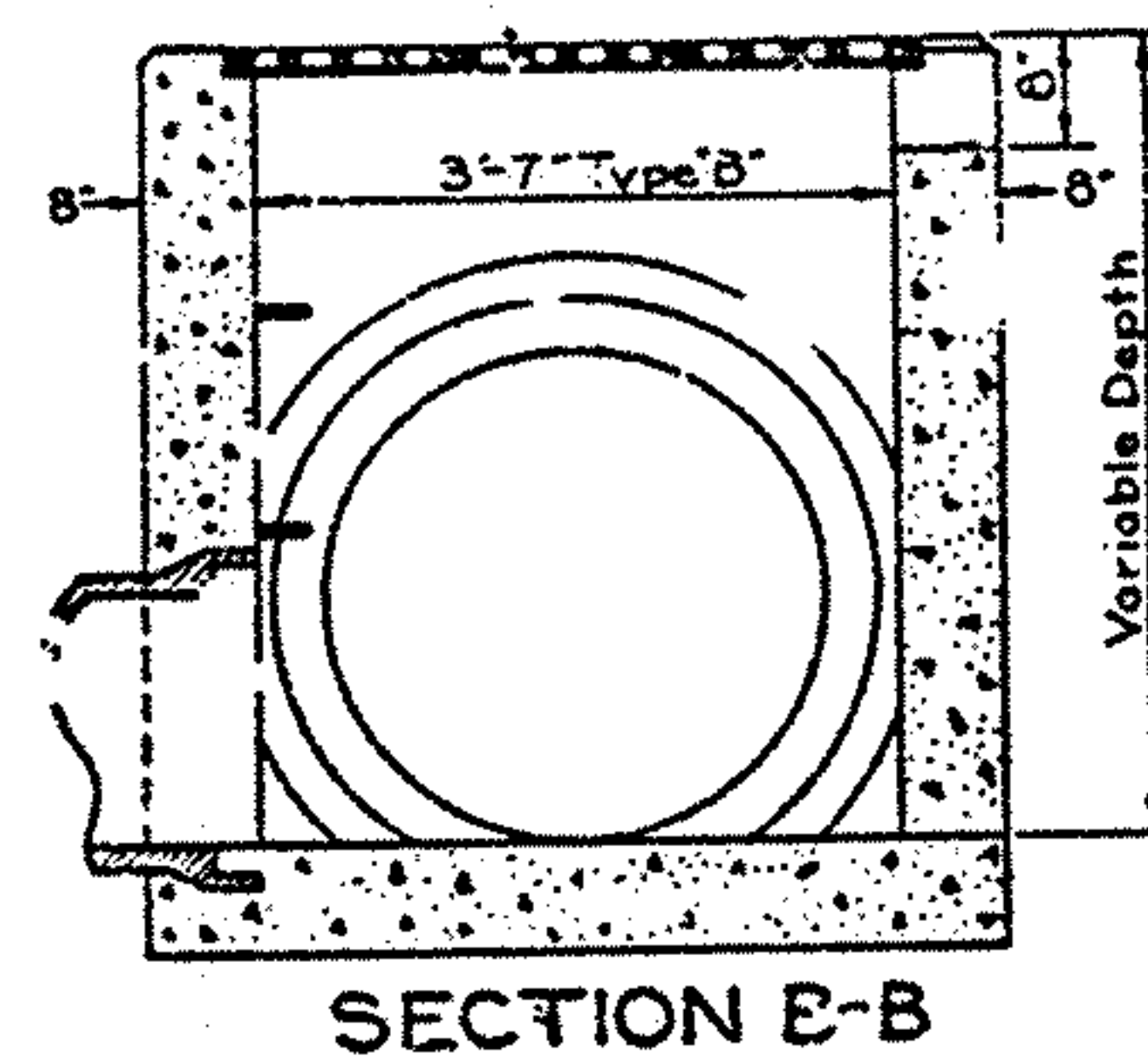
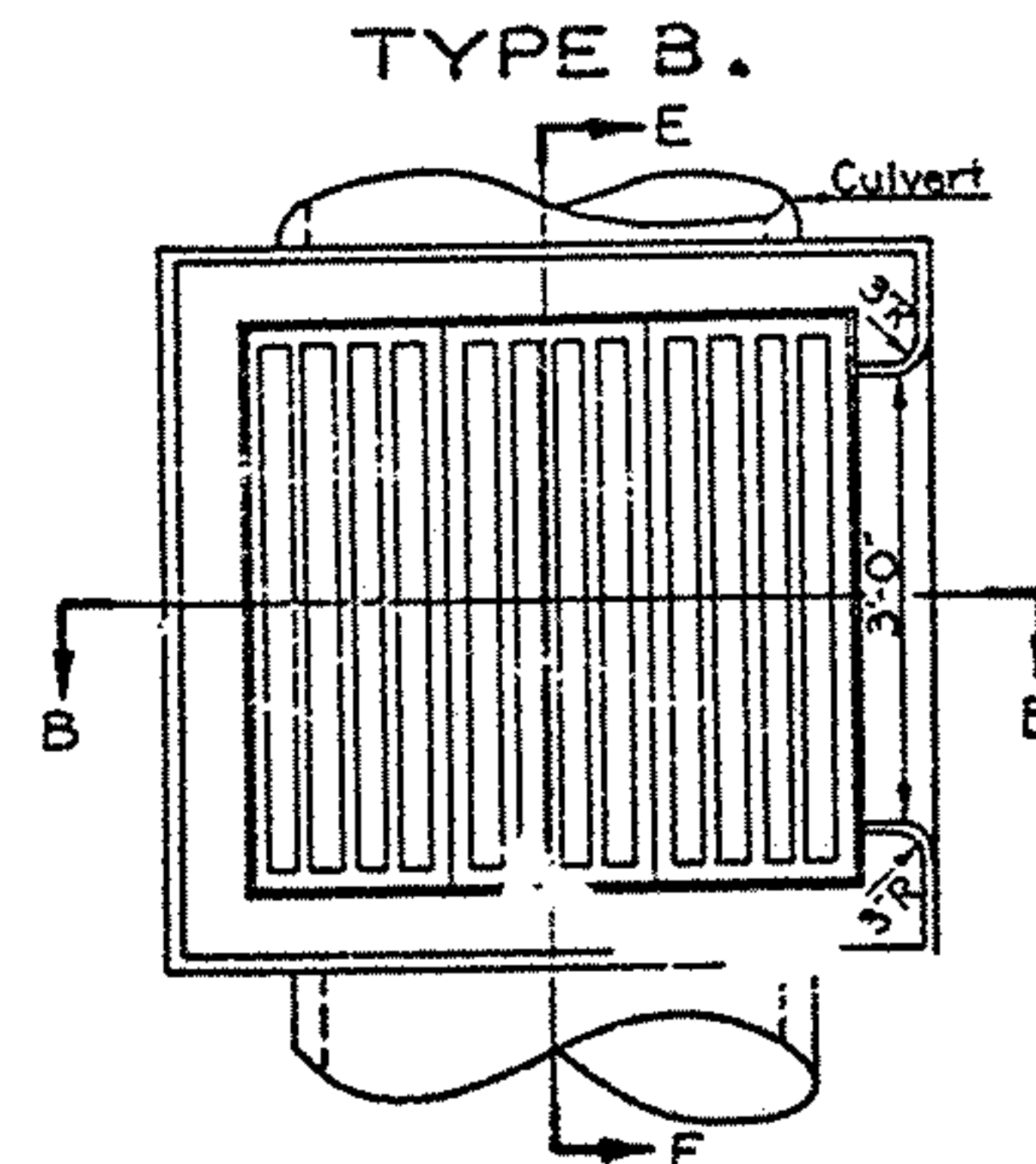
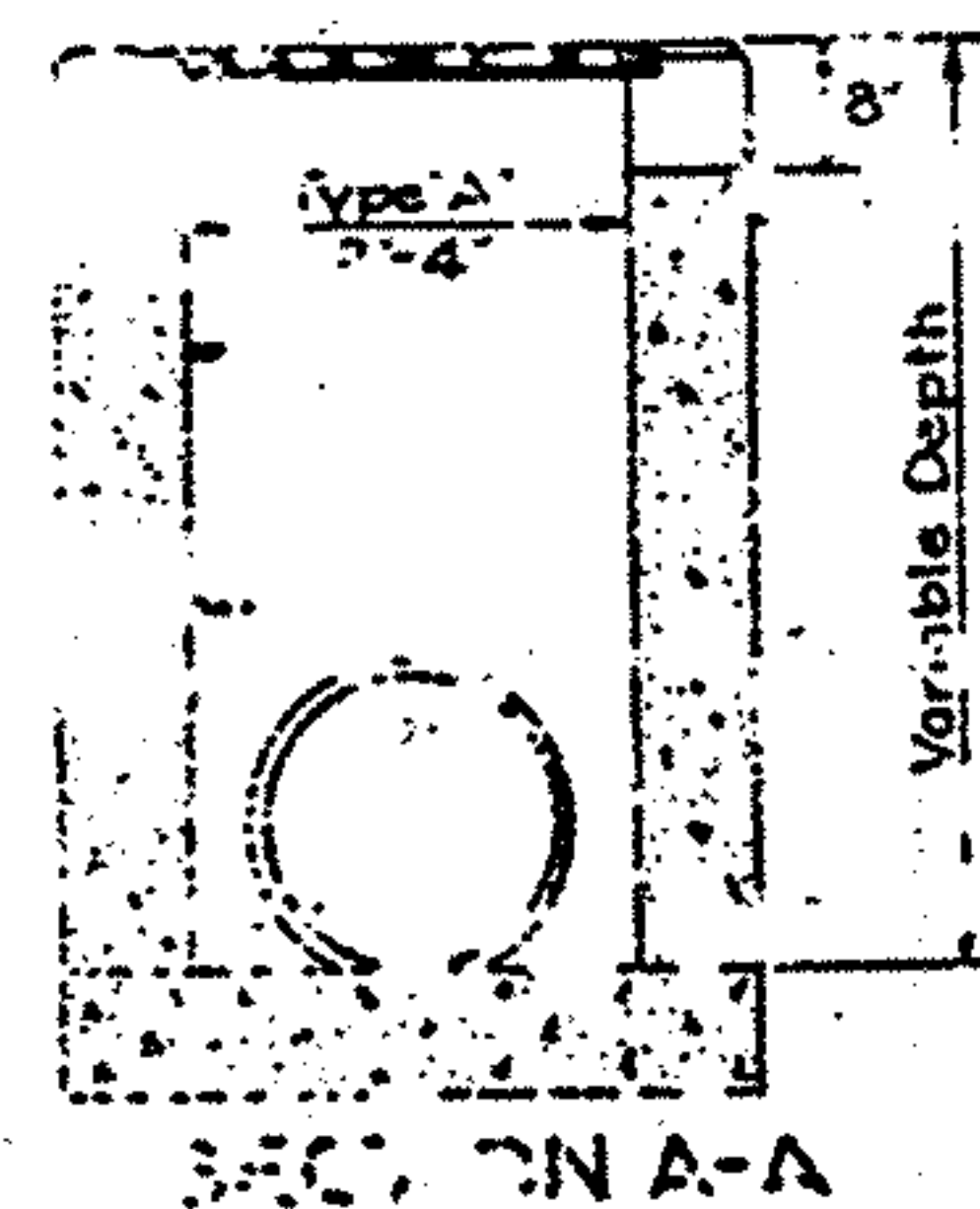
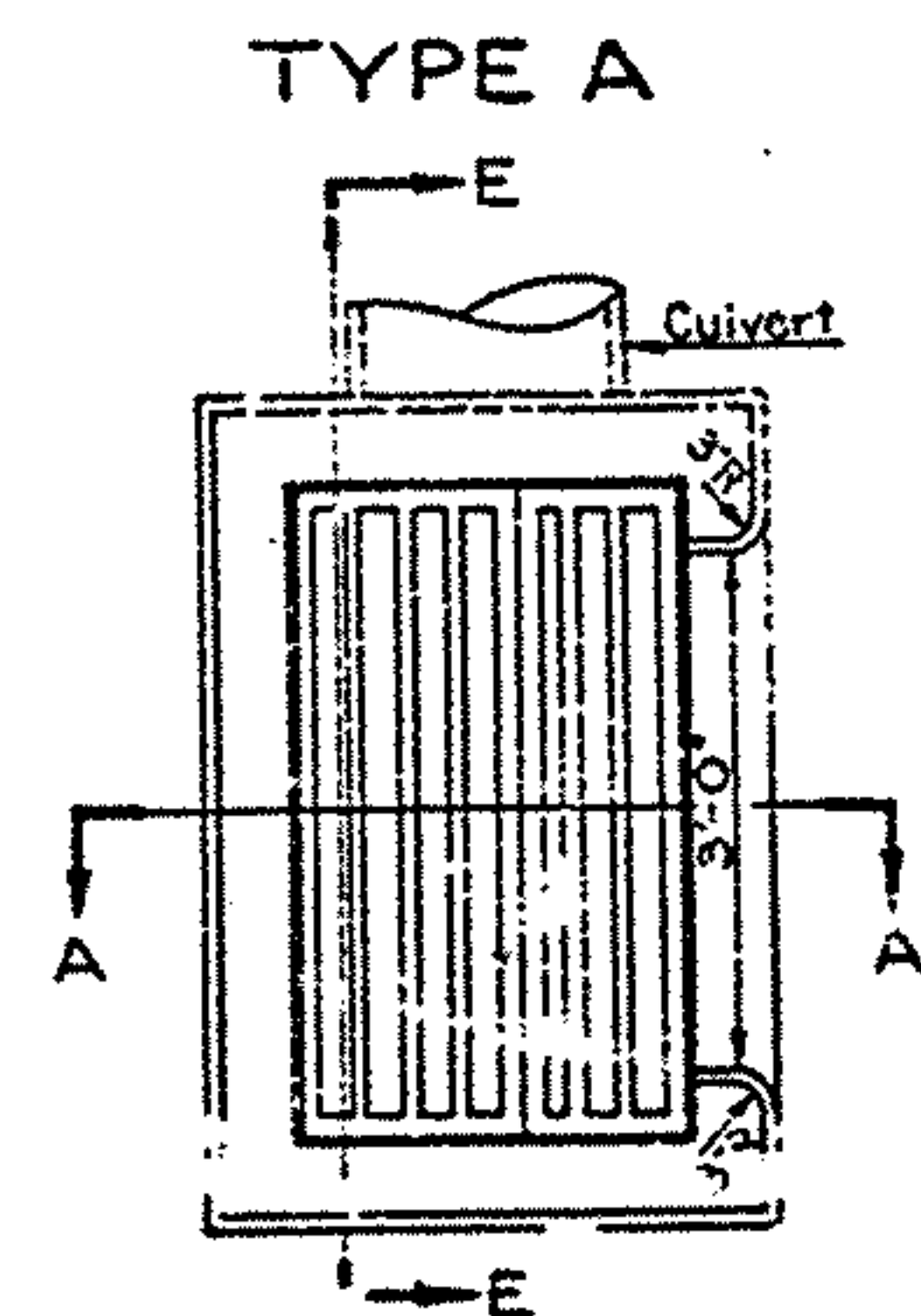


TYPICAL TURN-A-ROUND- 9.41+70 # 1114+00



ITEM	N.B. L.F.	S.B. L.F.	TOTAL L.F.
SPECIAL, PRESSURE RELIEF JOINTS TYPE C	672	672	1,344
605 AGGREGATE DRAINS	336	336	672

TYPICAL PRESSURE RELIEF JOINT

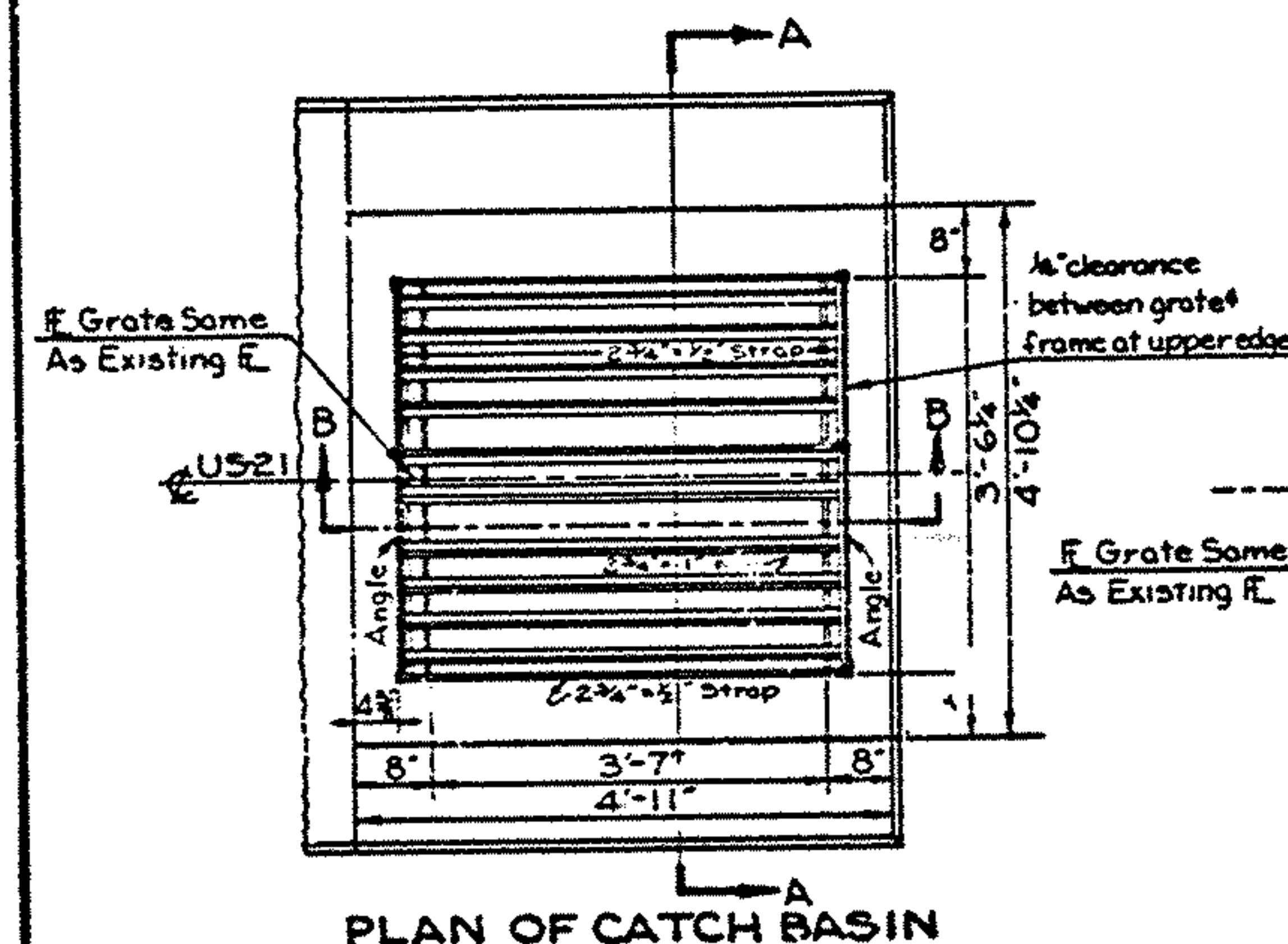


CATCH BASINS RECONSTRUCTED TO GRADE

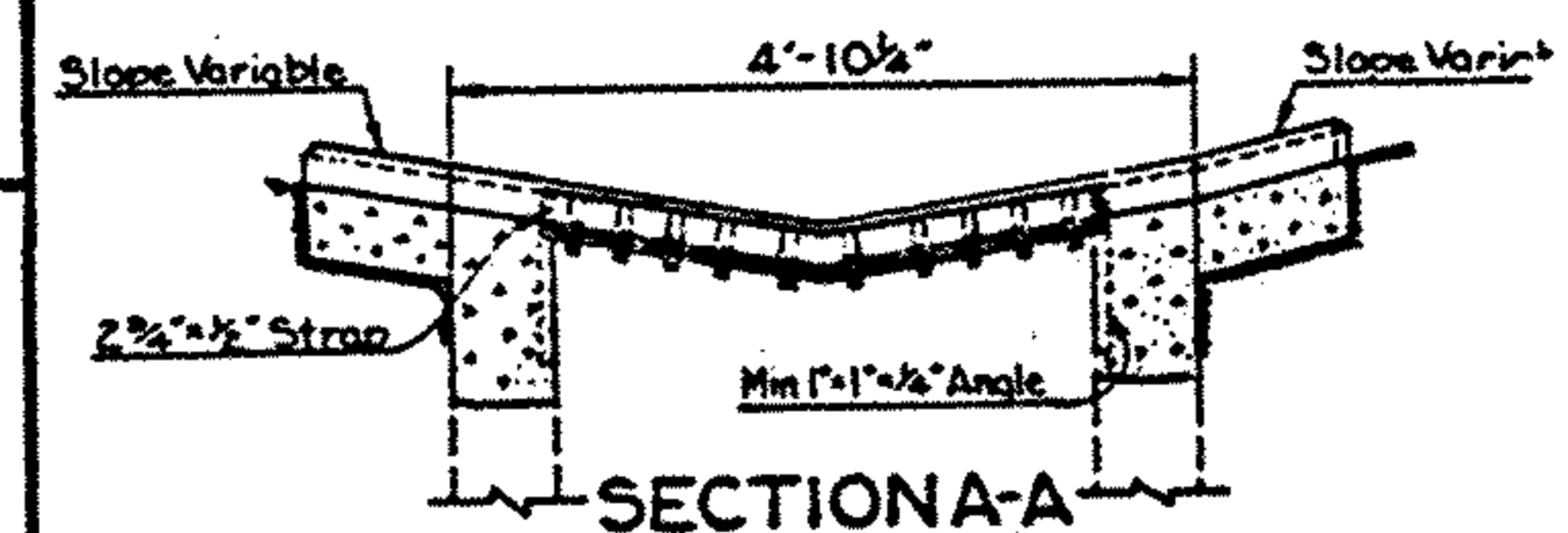
STA	TYPE
666 + 10	
673 + 00	A
680 + 70	A
686 + 35	A
696 + 50	A
881 + 10	B
925 + 00	A
931 + 70	B
942 + 00	A
952 + 00	A
961 + 80	B
967 + 30	B
012 + 0	C
1076 + 00	A
1086 + 00	A
TOTAL =	15 EA.

- NOTES: 1. Type 1 Catch Basin To Be Used With Ex. Catch Basin Type B & D. Type 2 To Be Used With Ex. Type A & C.
2. Grate Frame Shall Be Of Structural Steel In Accordance With 711.01 & 513. Minimum Weight Of Frame To Be 86 lbs. For Type 1 And 71 lbs. For Type 2. Minimum Weight Of Grate To Be 384 lbs. For Type 1 & 286 lbs. For Type 2.
3. For Details Not Shown, See Standard Drawing CB-8.
4. All Earthwork To Be Included With The Unit Price Bid, Catch Basins Reconstructed To Grade, As Per Plan.

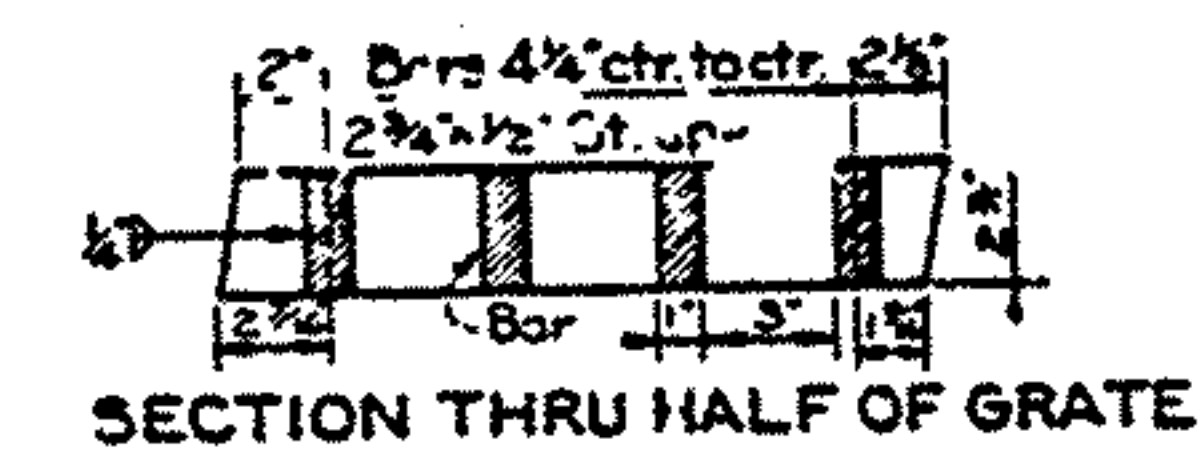
TYPE 1



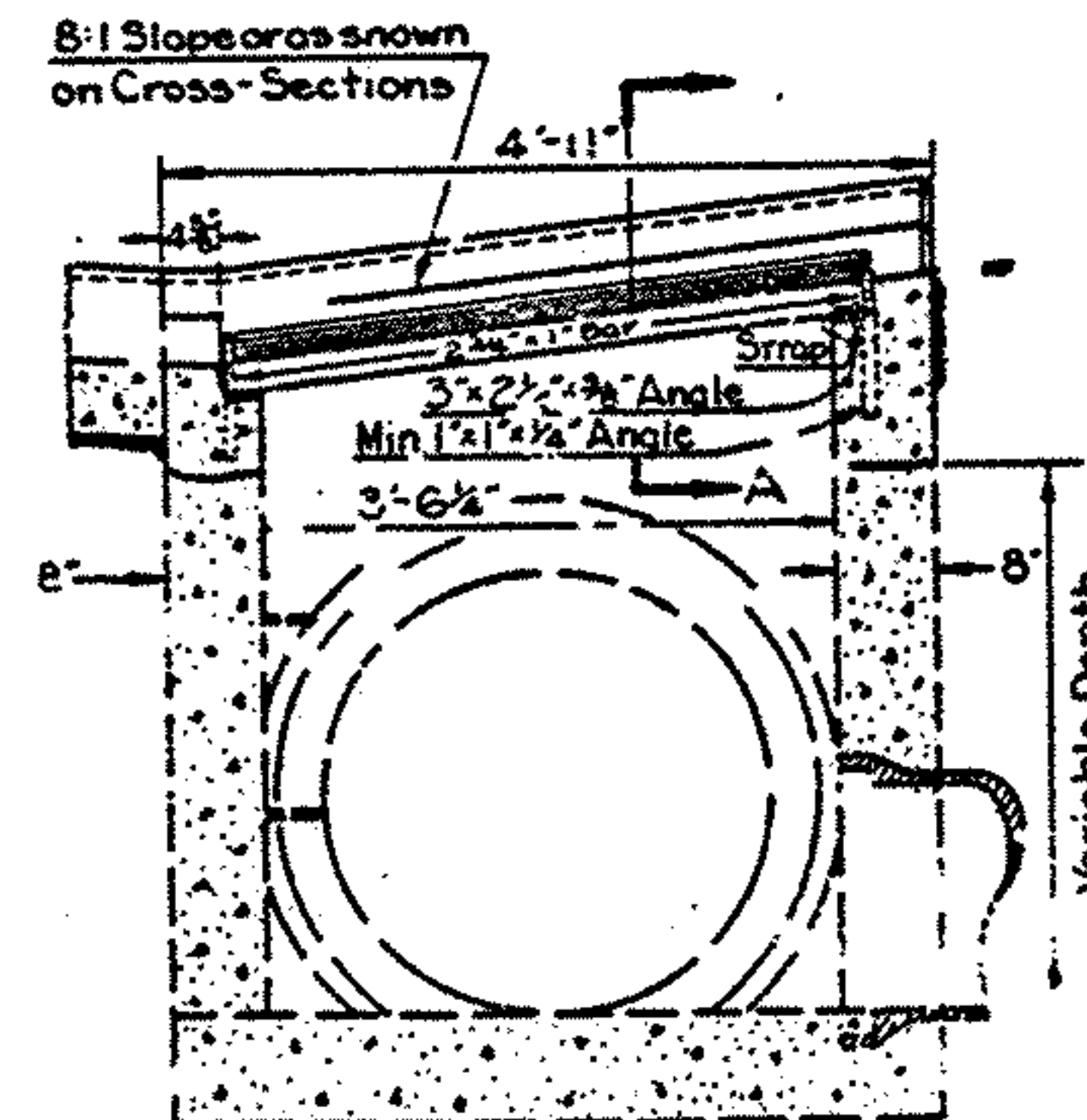
PLAN OF CATCH BASIN



SECTION A-A

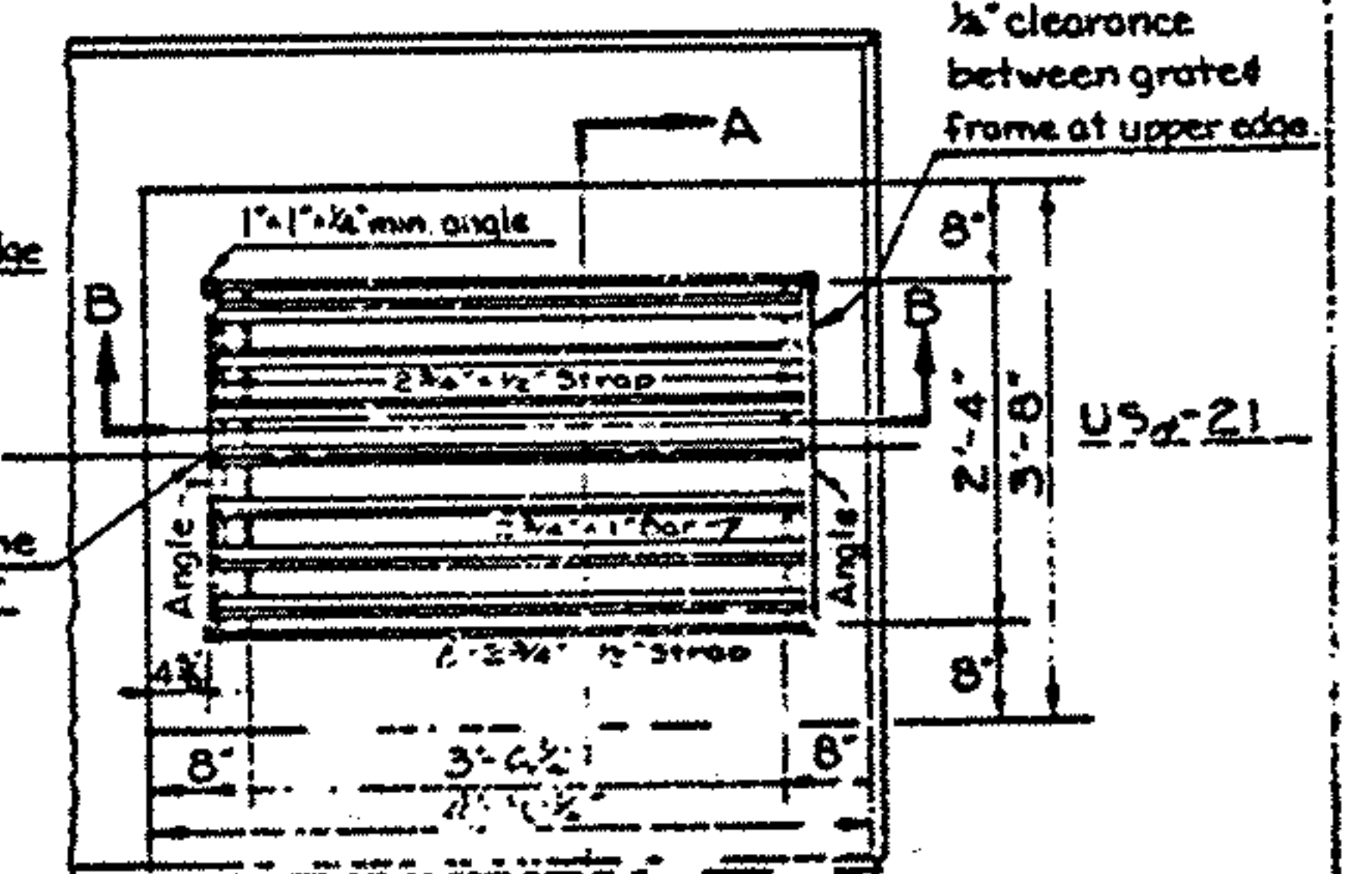


SECTION THRU HALF OF GRATE

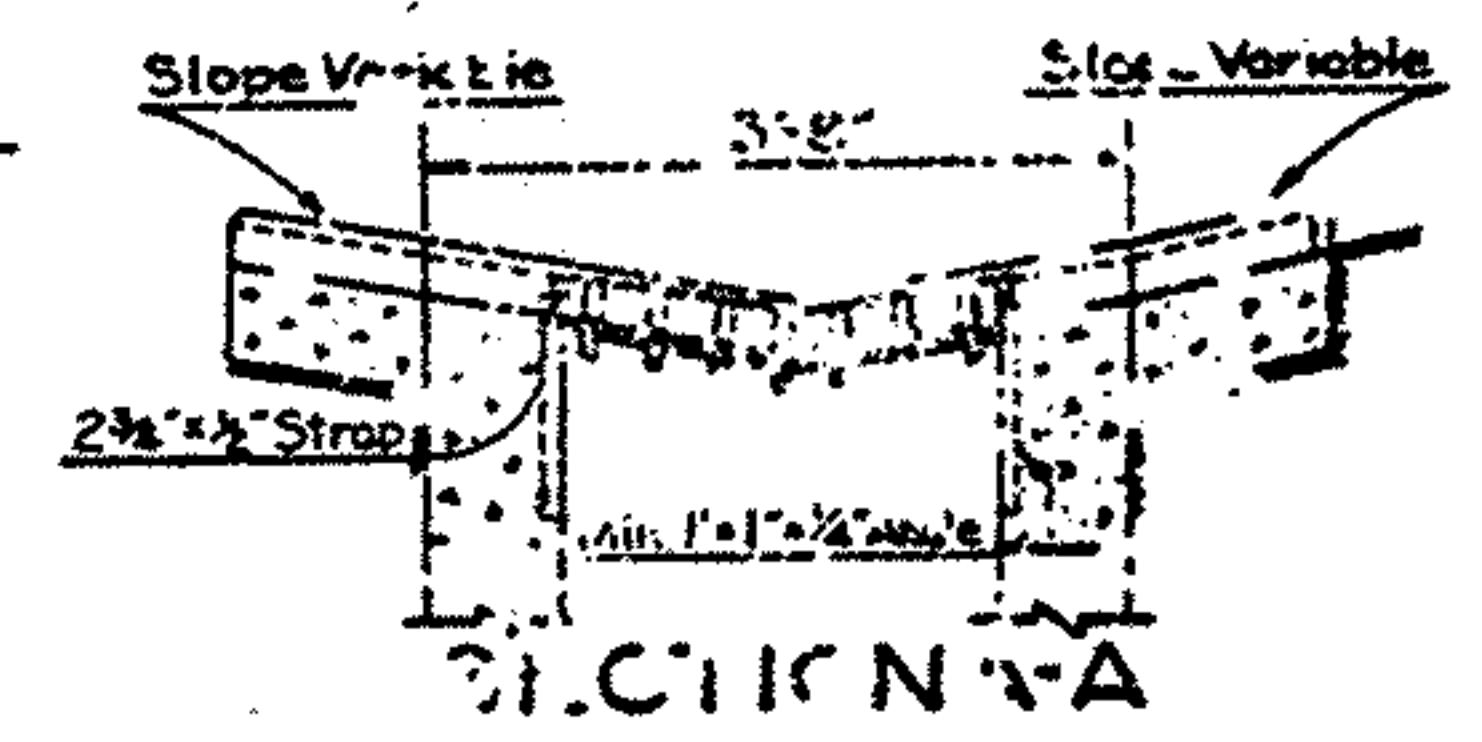


SECTION B-B
CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN

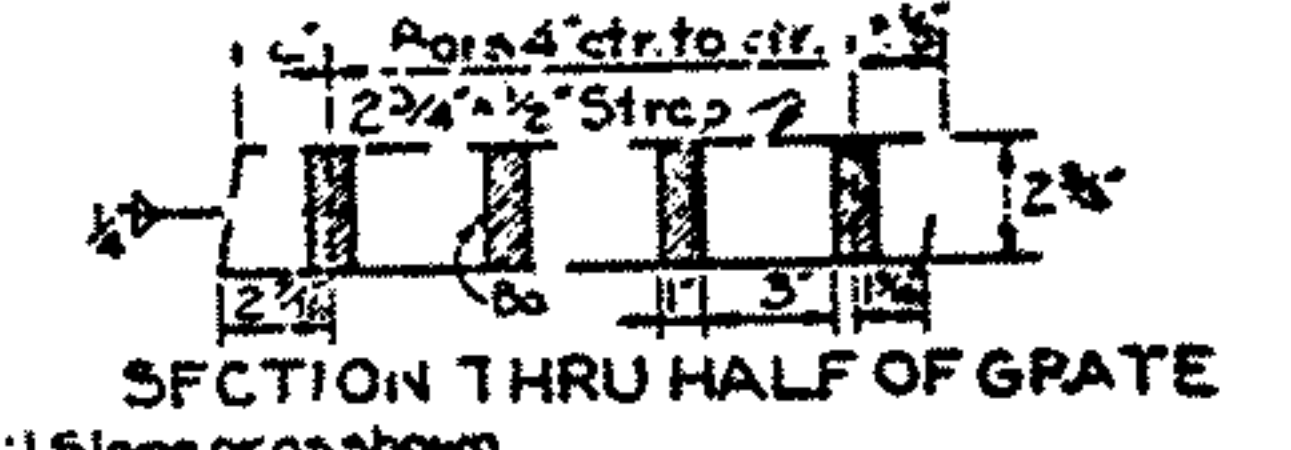
TYPE 2



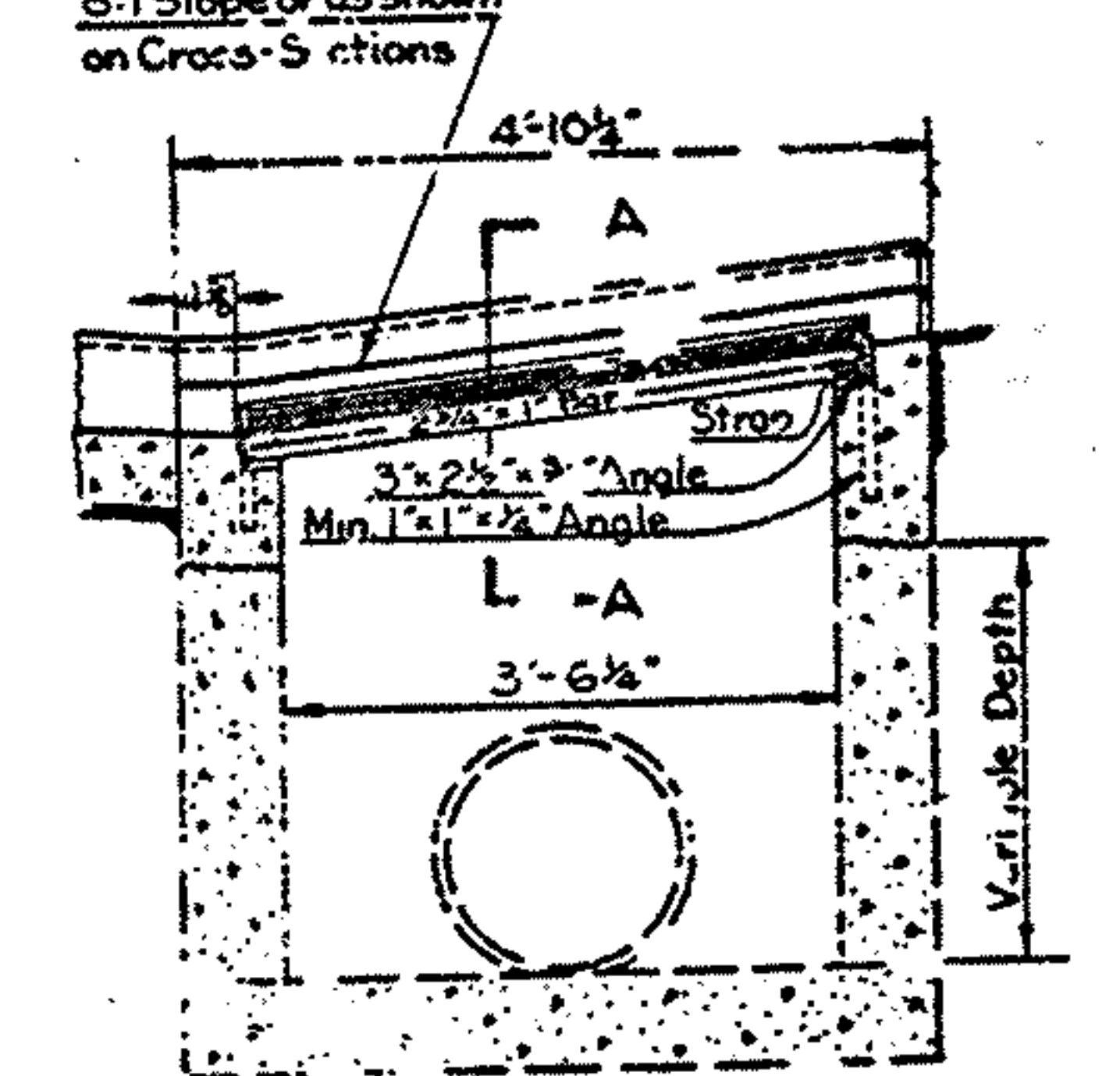
PLAN OF CATCH BASIN



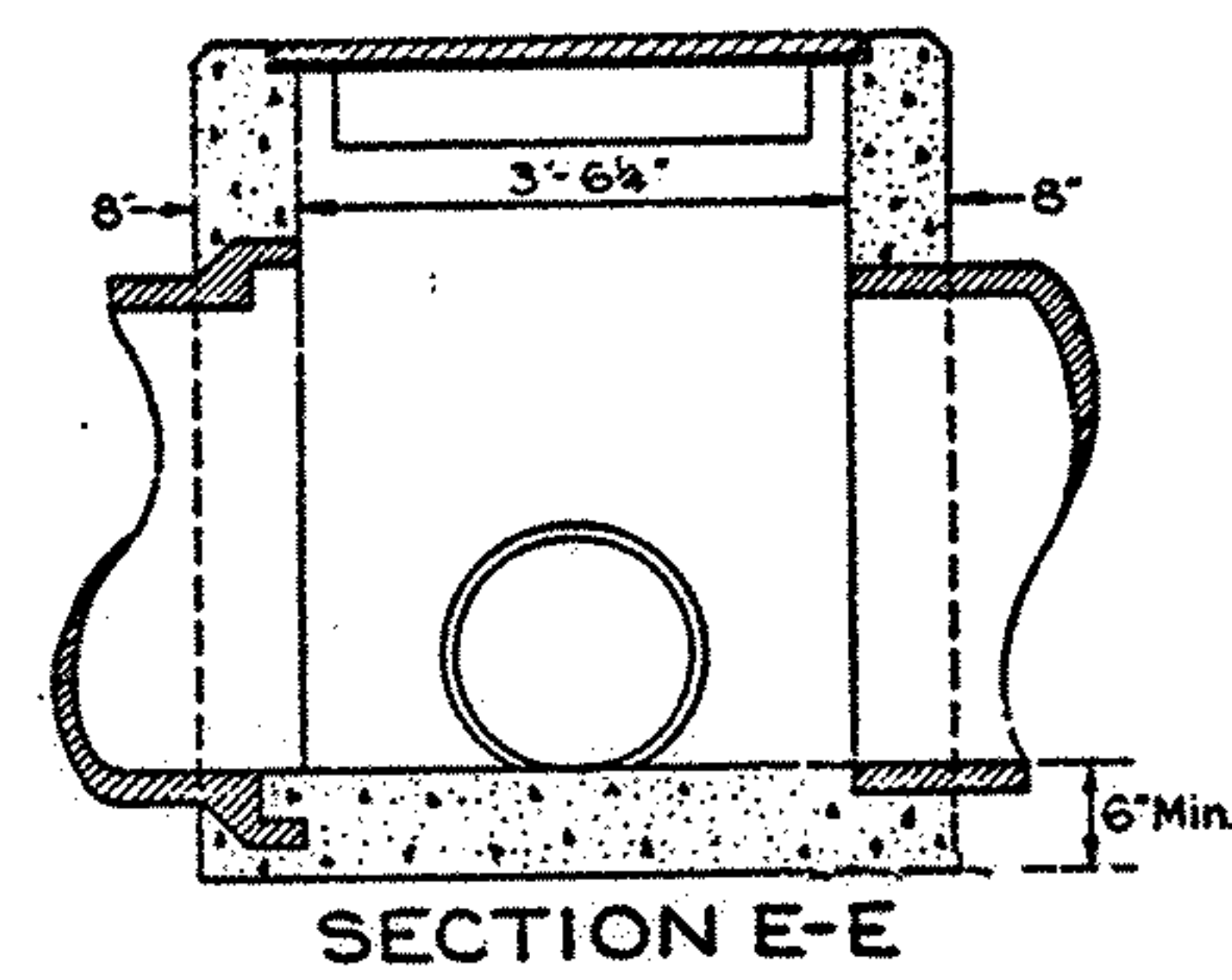
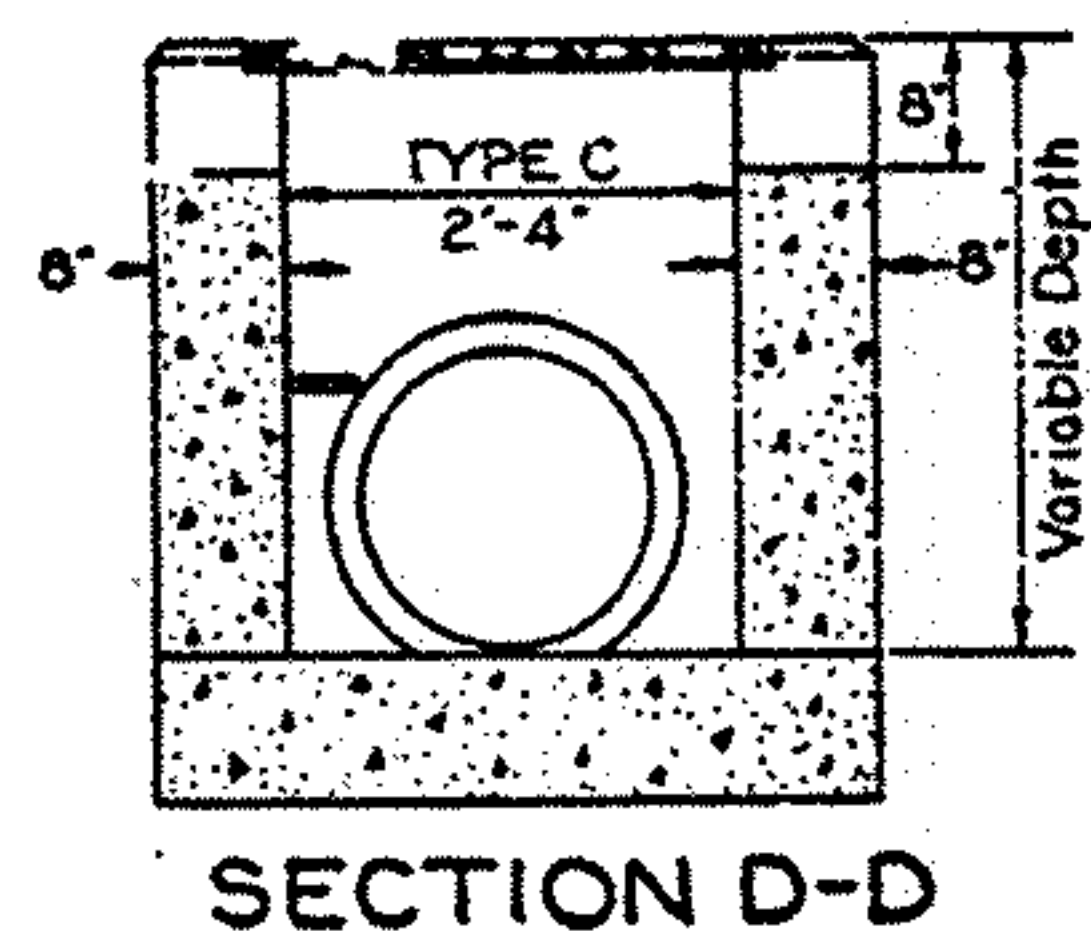
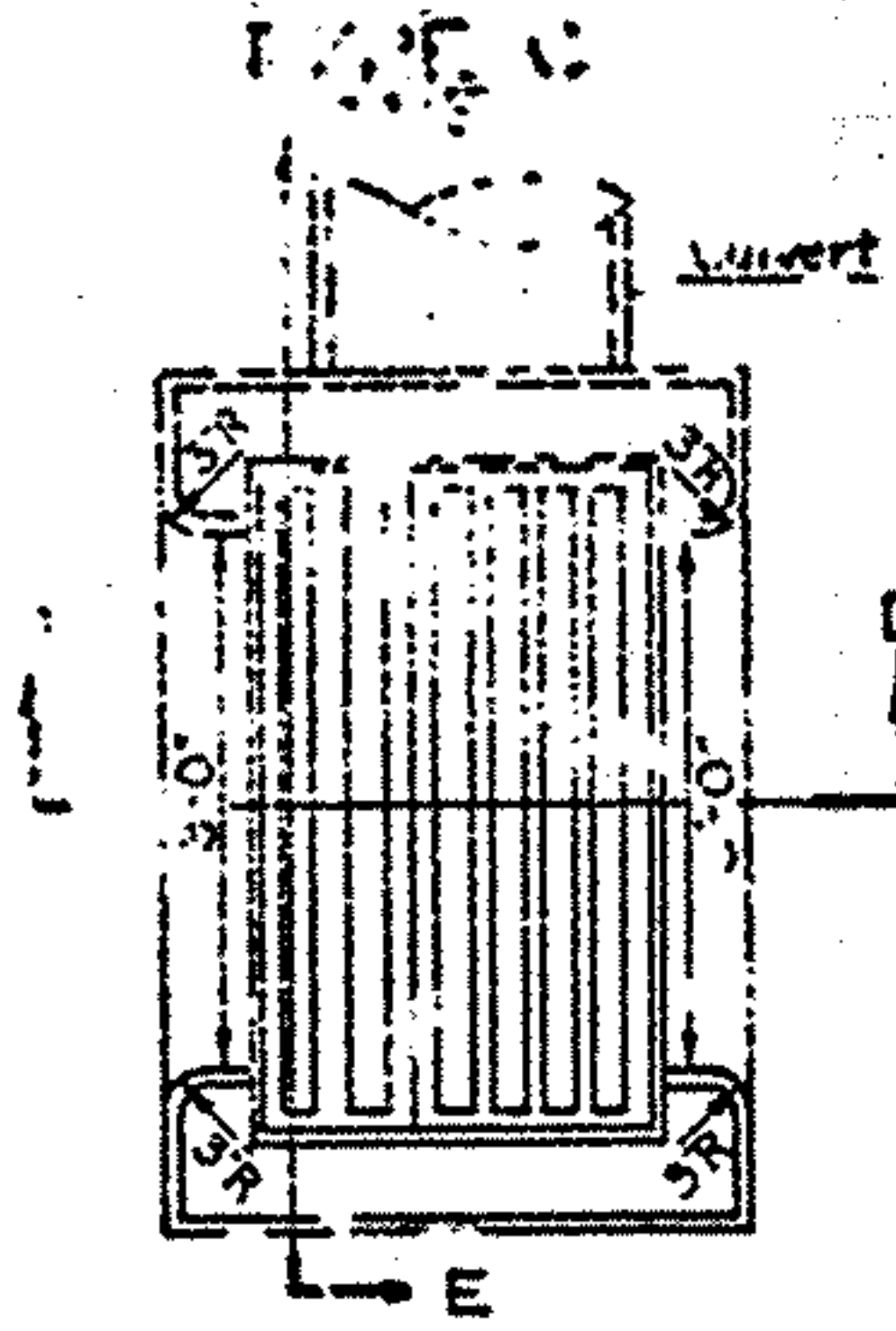
SECTION A-A



SECTION THRU HALF OF GRATE



SECTION B-B
CATCH BASIN RECONSTRUCTED TO GRADE, AS PER PLAN



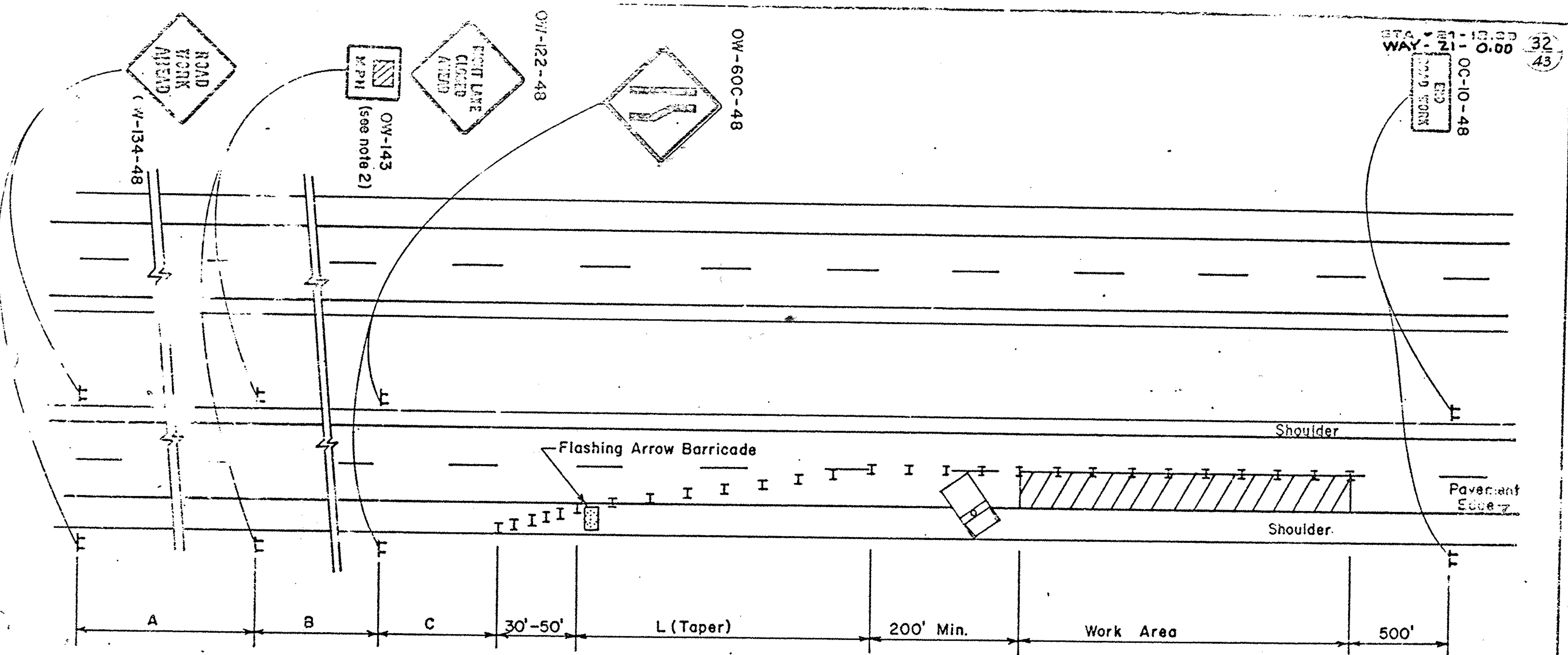
TYPE A, B, C
EXISTING MEDIAN CATCH BASIN

PARTIAL DEPTH PAVT PATCHING - EACH & JOINT = 40' x 15' = 100 SY
EACH TRANSVERSE JOINT = 12' x 5' = 45 SY

PAVEMENT REPLACEMENT QUANTITIES

STA - 21-12.39
WAY - 21-0.00

LEFT SIDE										RIGHT SIDE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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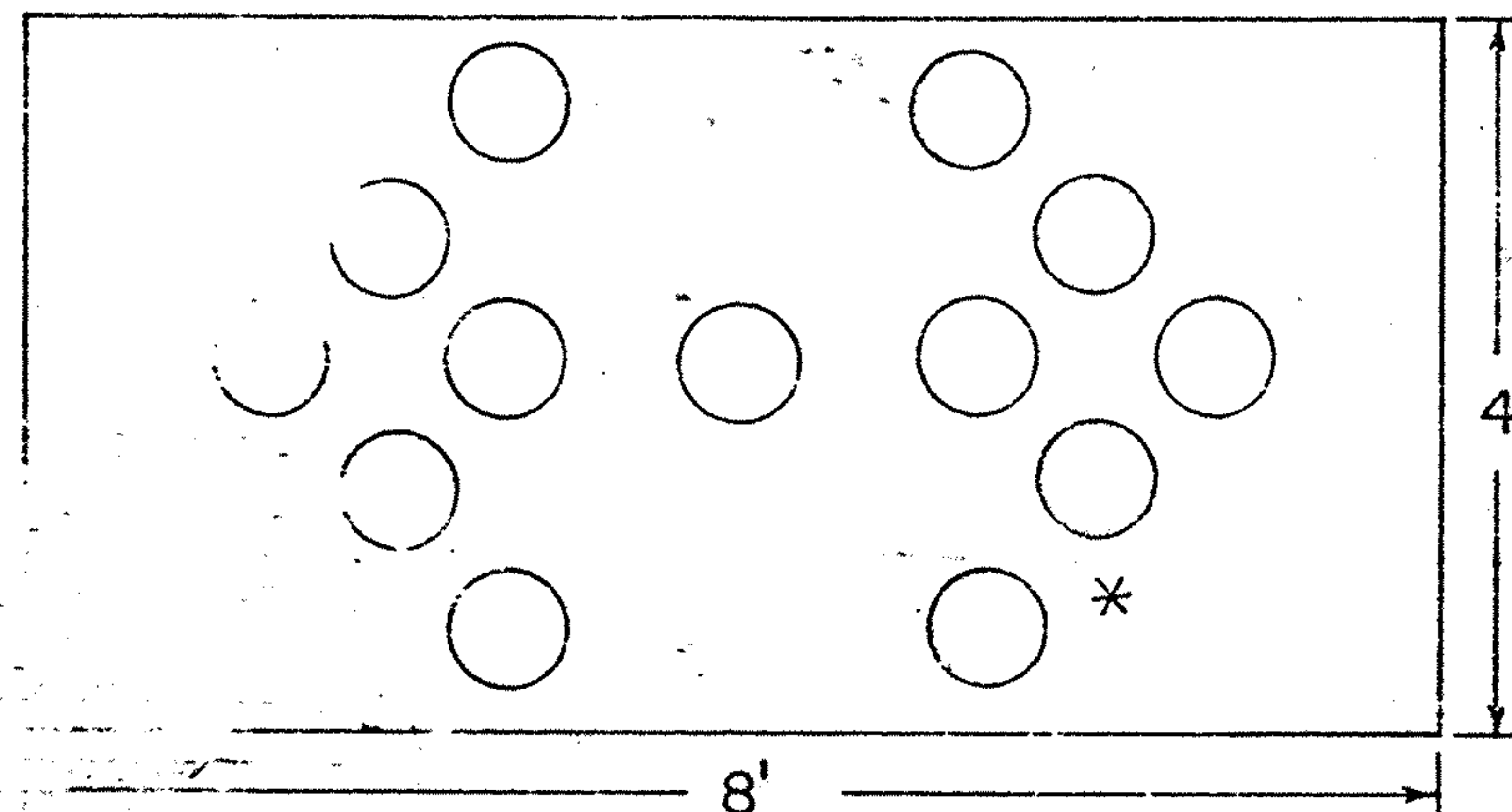
STA 11-12.00
WAY 21-0.00
OC-10-48
END
ROAD WORK
32
43

GENERAL NOTES

1. TRAFFIC CONTROL SHALL BE AS REQUIRED IN THE PROPOSAL AND AS DESCRIBED BELOW AND IN CONFORMANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
2. THE POSTED ADVISORY SPEED SHALL BE AS DIRECTED BY THE ENGINEER.
3. THIRTEEN (13) DRUMS OR BARRICADES SHALL BE USED TO FORM THE LANE TRANSITION TAPER IN ADVANCE OF THE WORK AREA. FIVE (5) CHANNELIZING DEVICES SHALL BE USED TO FORM THE TAPER ON THE SHOULDER. CONES, DRUMS, OR BARRICADES SHALL BE SPACED AT 50 FOOT CENTERS FOR THE FIRST 1000 FEET OF THE WORK AREA AND AT A MAXIMUM OF 100 FEET FOR THE BALANCE OF THE WORK AREA. CONES MAY BE SUBSTITUTED FOR BARRICADES OR STEEL DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONLY.
4. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES. THE OW-138 ARROW SIGN MAY ALSO BE USED TO SUPPLEMENT THE CHANNELIZATION.
5. BEFORE TRAFFIC CONTROL DEVICES INSTALLED FOR MAINTAINING TRAFFIC ARE REMOVED, ALL SHOULDERS DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED AS PER SECTION 107.12 OF THE SPECIFICATIONS.
6. WHEN WORK IS BEING PERFORMED IN THE LANE ADJACENT TO THE MEDIAN ON A DIVIDED HIGHWAY, "LEFT LANE CLOSED AHEAD" SIGNS SHALL BE SUBSTITUTED FOR "RIGHT LANE CLOSED AHEAD" SIGNS AND THE OW-60C SIGNS SHALL BE SUBSTITUTED FOR THE OW-60C SIGNS.
7. THE FLASHING ARROW BARRICADE SHALL BE IN ACCORDANCE WITH APPLICATION STANDARD DRAWING 7D-1.
8. PAYMENT FOR PROVIDING, ERECTING, MAINTAINING, AND REMOVING SIGNS, BARRICADES, CONES, MARKERS, ETC., SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614-MAINTAINING TRAFFIC.

DISTANCE	A	B	C	L
URBAN	200	200	200	425
MAJOR STANDARD	500	500	500	600
FREEMWAY AND EXPRESSWAY	2600	1600	1000	720

OHIO DEPARTMENT OF TRANSPORTATION	
CLOSING ONE LANE OF A FOUR LANE DIVIDED HIGHWAY	
APPROVED	DATE 9/1/71
AS 71-1	



* Optional Lights are Shaded

GENERAL NOTES

1. THE FLASHING ARROW BARRICADE SHALL BE ERECTED WITH THE BOTTOM OF THE PANEL A MINIMUM OF 8' ABOVE THE PAVEMENT. A SINGLE-HEADED ARROW SHALL HAVE A MINIMUM OF 9 LIGHTS WHILE A DOUBLE-HEADED ARROW SHALL HAVE A MINIMUM OF 13 LIGHTS. LIGHTS SHALL BE 12 VOLT, TYPE 4412-A PAR 46 AMBER LENS OR EQUIVALENT, WITH FLAT BLACK STEEL VISORS. LIGHTS SHALL FLASH AT A RATE OF 25 TO 35 CYCLES PER MINUTE WITH A 50 PERCENT DWELL TIME. LIGHTS SHALL FLASH SIMULTANEOUSLY OR SEQUENTIALLY TO INDICATE DIRECTION OF VEHICLE MOVEMENT REQUIRED. AN AUTOMATIC DIMMER SHALL BE USED TO DIM LIGHTS AT NIGHT. THE PANEL SHALL BE PAINTED FLAT BLACK.
2. THE FLASHING ARROW BARRICADE SHALL BE EQUIPPED WITH A LIGHT ON THE BACKSIDE OF THE PANEL WHICH WILL INDICATE THAT THE ELECTRIC ARROW IS FLASHING. A SECOND LIGHT MAY BE INSTALLED THAT WOULD INDICATE THAT THE GENERATOR IS WORKING.
3. THE FLASHING ARROW BARRICADE SHALL CONFORM TO SUPPLEMENTAL SPECIFICATIONS 844.11.

BUREAU OF TRAFFIC CONTROL OHIO DEPARTMENT OF TRANSPORTATION	
FLASHING ARROW BARRICADE	DATE 9/76
APPROVED	ENGINEER OF TRAFFIC
CR600EX	AS 70-1

621 PAVEMENT MARKING SUB-SUMMARY

COMPLETED BY JBD DATE 1-19-77
CHECKED BY JBG DATE 1-20-77

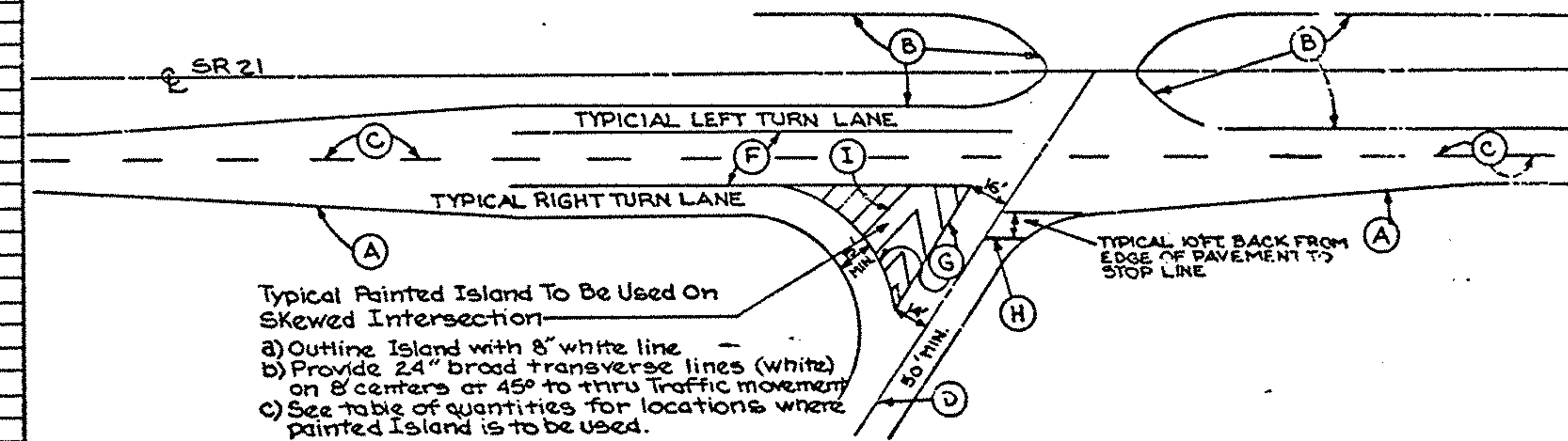
FHWA REGION	STATE	PROJECT
5	OHIO	

STA-21-12.59
WAY-21-0.00

35
43

LOCATION	SIDE	STATION		EDGE LINES (WHITE)	EDGE LINES (YELLOW)	LANE LINES 6"	CENTER LINES DOUBLE-SOLID	LANE LINES 4"	CHANNELIZING LINES (WHITE)	CHANNELIZING LINES (WHITE) (ISLAND OUTLINE)	STOP LINES 24"	BROAD TRANSVERSE LINES (WHITE) 24"	CURB MARKING (WHITE)	LANE ARROWS
		FROM	TO	(LIN. FT.)	(LIN. FT.)	(LIN. FT.)	(LIN. FT.)	(LIN. FT.)	(LIN. FT.)	(LIN. FT.)	(LIN. FT.)	(LIN. FT.)	(LIN. FT.)	(EACH)
SR 21	R+	652+00	652+00	213	213	213								
SR 21	L+	654+13	654+13	20834	20834	20834								
SR 21@Forty Corners L+R		758+30	759+35	105	210	210			105	210	40	110		
Forty Corners L+R		760+17	760+17	600			230							
SR 21@Forty Corners L+R		761+35	761+35	118	236	236			118	170	40	90	105	
SR 21	L+R	871+12	871+12	21954	21954	21954			172					
SR 21@Butter Bridge L+R		871+98	871+98	86	172	172					100			
Butter Bridge L+R		871+98	871+98	460			130							
SR 21@Butter Bridge L+R		873+68	873+68	118	236	236			236					
SR 21	L+R	873+68	873+68	17474	17474	17474								
SR 21	R+	961+05	961+05	295	295	295		295						
SR 21	L+	964+00	964+00	150	150	150				300		200		
SR 21	L+	962+85	962+85	180	180	180		95						
SR 21	L+	965+50	965+50	530	265	265			265					
SR 21	L+R	978+80	978+80	2660	2660	2660								
SR 21	L+	979+75	979+75	95	95	95								
SR 21	L+	979+75	979+75	150	150	150				300		200		
SR 21	L+	981+25	981+25	295	295	295		295						
SR 21	L+	984+20	984+20	260	260	260								
SR 21	L+	985+80	985+80	600	300	300			300					
SR 21	R+	988+80	988+80	500	500	500		500						
RAMP A SR 21	L+R	4+15	4+15	685	685					70				
RAMP B SR 21	L+R	3+80	3+80	368	368					70				
RAMP C SR 21	L+R	13+50	13+50	1036	1036									
RAMP D SR 21	L+R	8+00	8+00	788	788									
SR 21	L+R	1012+10	1012+10	5060	5060	5060								
SR 21@Arcadio L+R		1012+10	1013+25	115	230	230			25	205	52	160		
Arcadio L+R		1013+25	1013+77	525			200							
SR 21@Arcadio L+R		1013+77	1015+00	123	246	246			25	205	52	160		
SR 21	L+R	1015+00	1015+45	5290	5290	5290								
SR 21@Marshallville L+R		1041+45	1042+70	125	250	250			185	180	52	110		
Marshallville L+R		1042+70	1043+85	590			180							
SR 21@Marshallville L+R		1043+85	1044+50	115	230	230			160	180	52	110		
SR 21	L+R	1074+45	1074+45	5990	5990	5990								
SR 21(Ramp A) L+R		1074+45	1075+80	270	270	270		135						
SR 21(Ramp C) L+R		1075+80	1077+30	300	300	300			300			200		
SR 21	L+R	1077+30	1078+35	210	210	210								
SR 21(Ramp A) L+R		1078+35	1082+50	830	830	830		415						
SR 21(Ramp A) L+R		1082+50	1085+90	1020	680	680			340					
SR 21	L+R	1085+90	1090+80	980	980	980								
SR 21(Ramp D) L+R		1090+80	1094+20	1020	680	680			340					
SR 21(Ramp D) L+R		1094+20	1097+15	590	590	590		245						
SR 21	L+R	1097+15	1098+05	180	180	180								
SR 21(Ramp B) L+R		1098+05	1099+55	300	300	300			300			200		
SR 21(Ramp B) L+R		1099+55	1101+30	350	350	350		175						
SR 21	L+R	1101+30	1129+94	5728	5728	5728								
SR 21	L+R	0+13	0+53	100	100	100								
SUB-TOTAL				100315	97850	94973	740	2205	2271	2350				
TOTAL TO GENERAL SUMMARY				37.53 MI.	17.99 MI.	17.99 MI.	0.14 MI.	0.42 MI.	4621	3.4	1540	105	2	

TYPICAL PAVEMENT MARKINGS (NO SCALE)

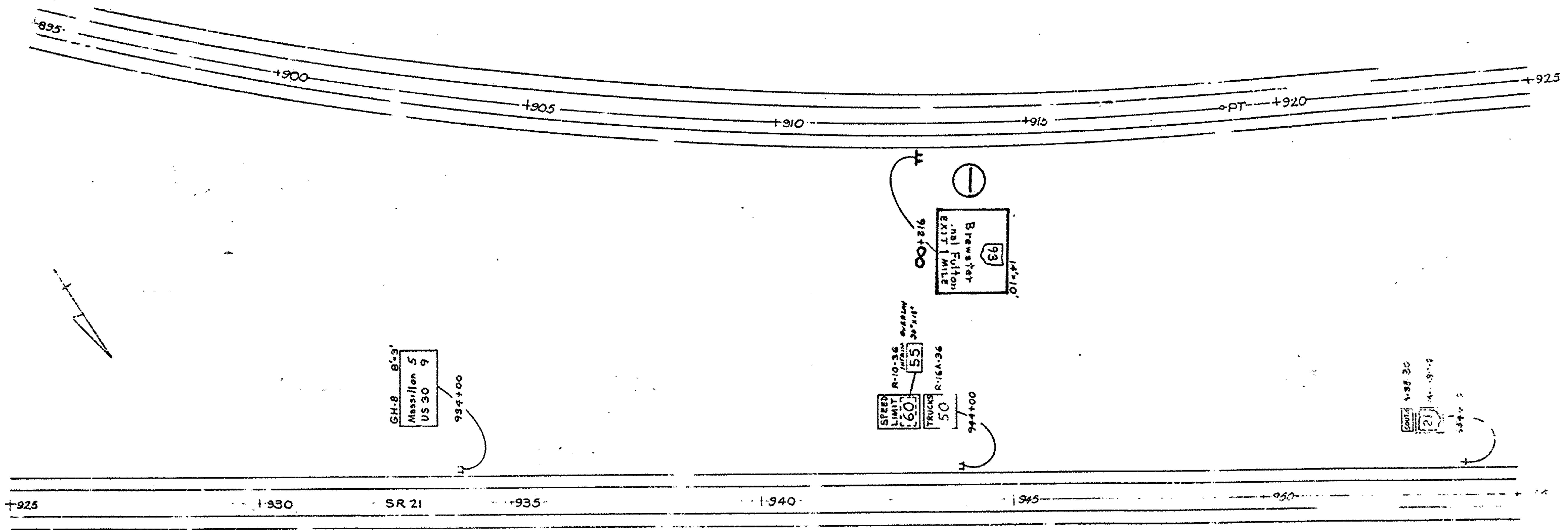


- A EDGE LINES (WHITE)
- B EDGE LINES (YELLOW)
- C LANE LINES 6\" or 4\" as shown in table
- D CENTER LINES (Double Solid)
- E CENTER LINES (Double Solid and Broken)
- F CHANNELIZING LINES
- G CHANNELIZING LINES (Island Outline)
- H STOP LINES 24"
- I BROAD TRANSVERSE LINES 24\" (WHITE)

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO	STATE	

STA-21-8.00 WAY-21-0.00
SUM-21-0.00
STA-21-12.39
WAY-21-0.00

36
43



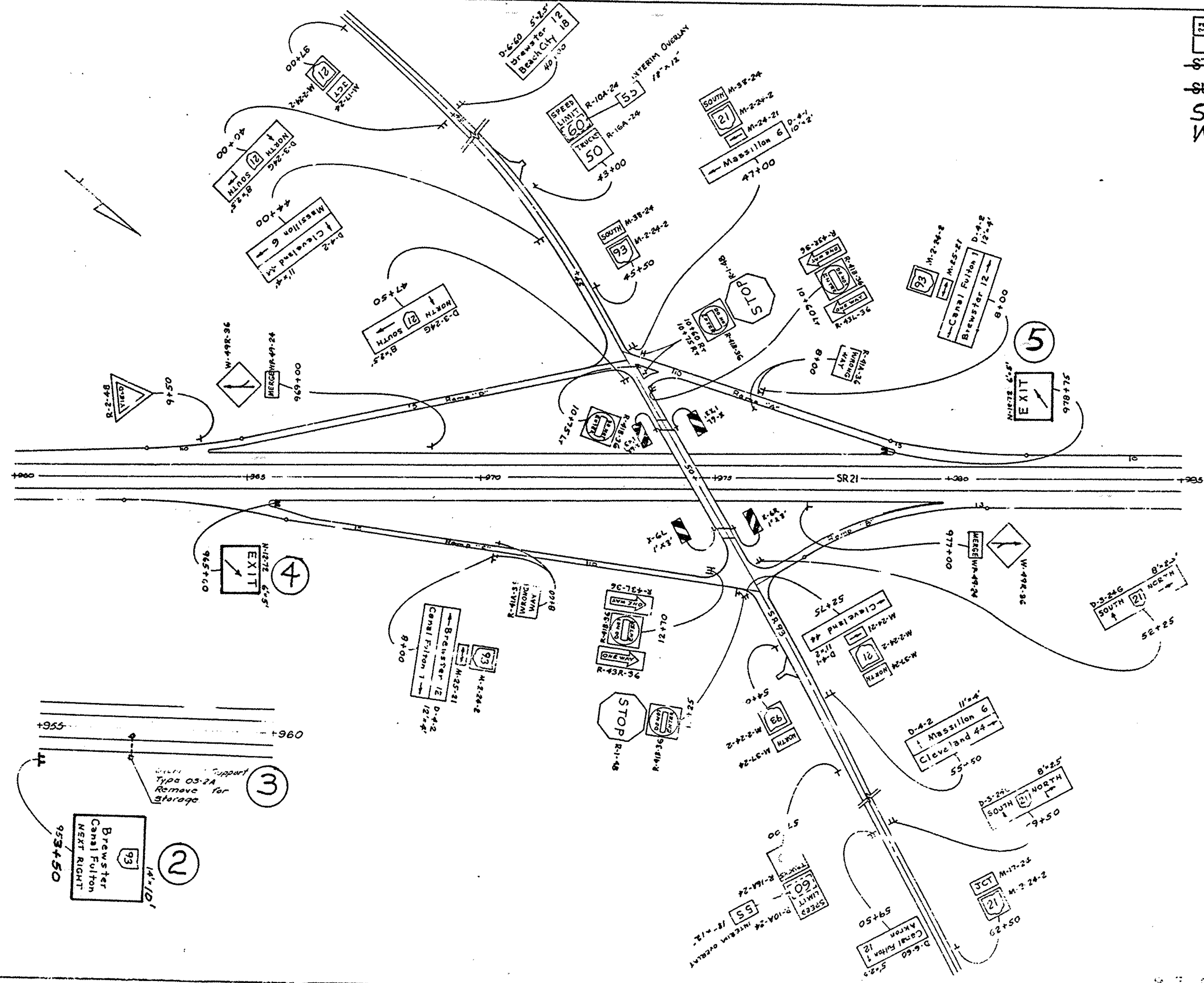
Note:
For quantities
See Sheet

20' +00- 355+00

FED. RD. DIST.	STATE	PROJECT
5	OHIO	STATE

57
43

~~STA 21+8.00 WAY 21+000~~
~~SUM 21+000~~
STA-21-12.39
WAY-21-0.00

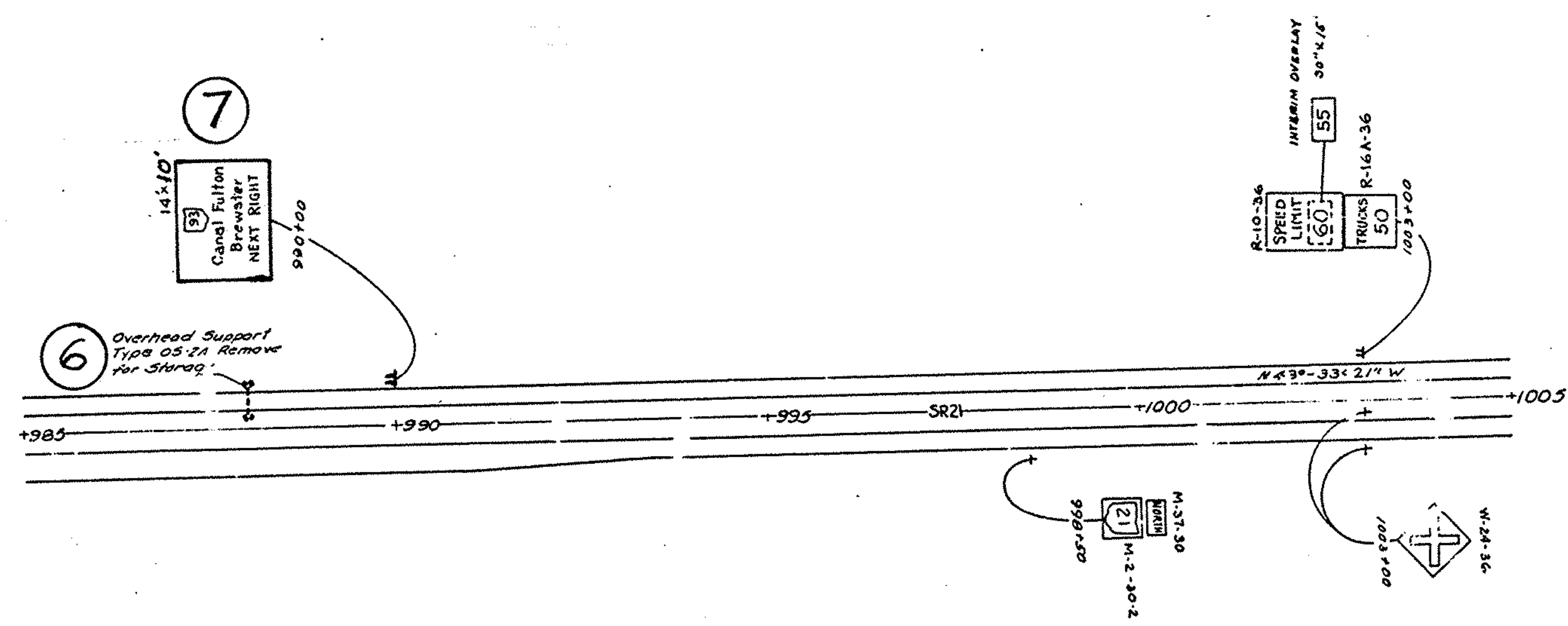


Note:
See quantities
See sheets

FED. RD. DIVISION	STATE	PROJECT
5	OHIO	STATE

38
43

STA-21-8.00 WAY-21-0.00
~~SUM-21-0.00~~
 STA-21-12.39
 WAY-21-0.00



Note:
 For Quantities
 See Sheet

FED. RD. DIVISION	STATE	PROJECT
5	OHIO	STATE

39
43

STA 21+0.00 WAY 21+0.00
SUM 21+0.00
STA 21+12.39
WAY 21+0.00

14' x 10'
Canal Fill-in
Sewer
EXIT 1 MILE

RA-11-12 11' x 4' 5"
REST AREA
1 MILE
PHONE
6' x 2'

ARCADIA ST D-11-72
6' x 11.5'

D-7-72 6' x 11'
Canal Fill-in
Sewer
EXIT 1 MILE

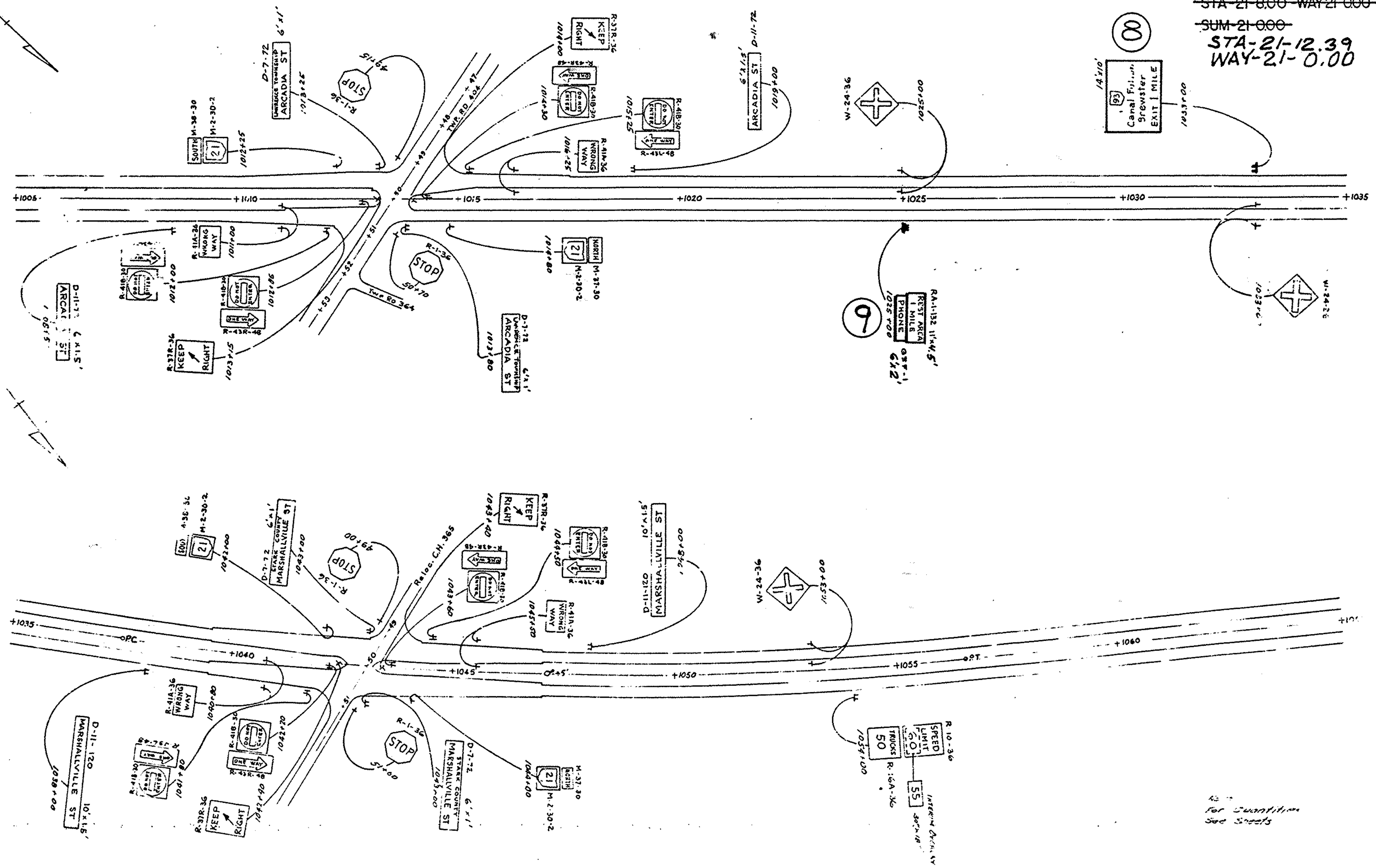
MARSHALLVILLE ST
5' x 10' 02-11-D

D-7-72 6' x 11'
STAR COUNTY
MARSHALLVILLE ST

D-11-120 10' x 15'
MARSHALLVILLE ST

42-11
For Quantities
See Sheets

1005+00-1065+00

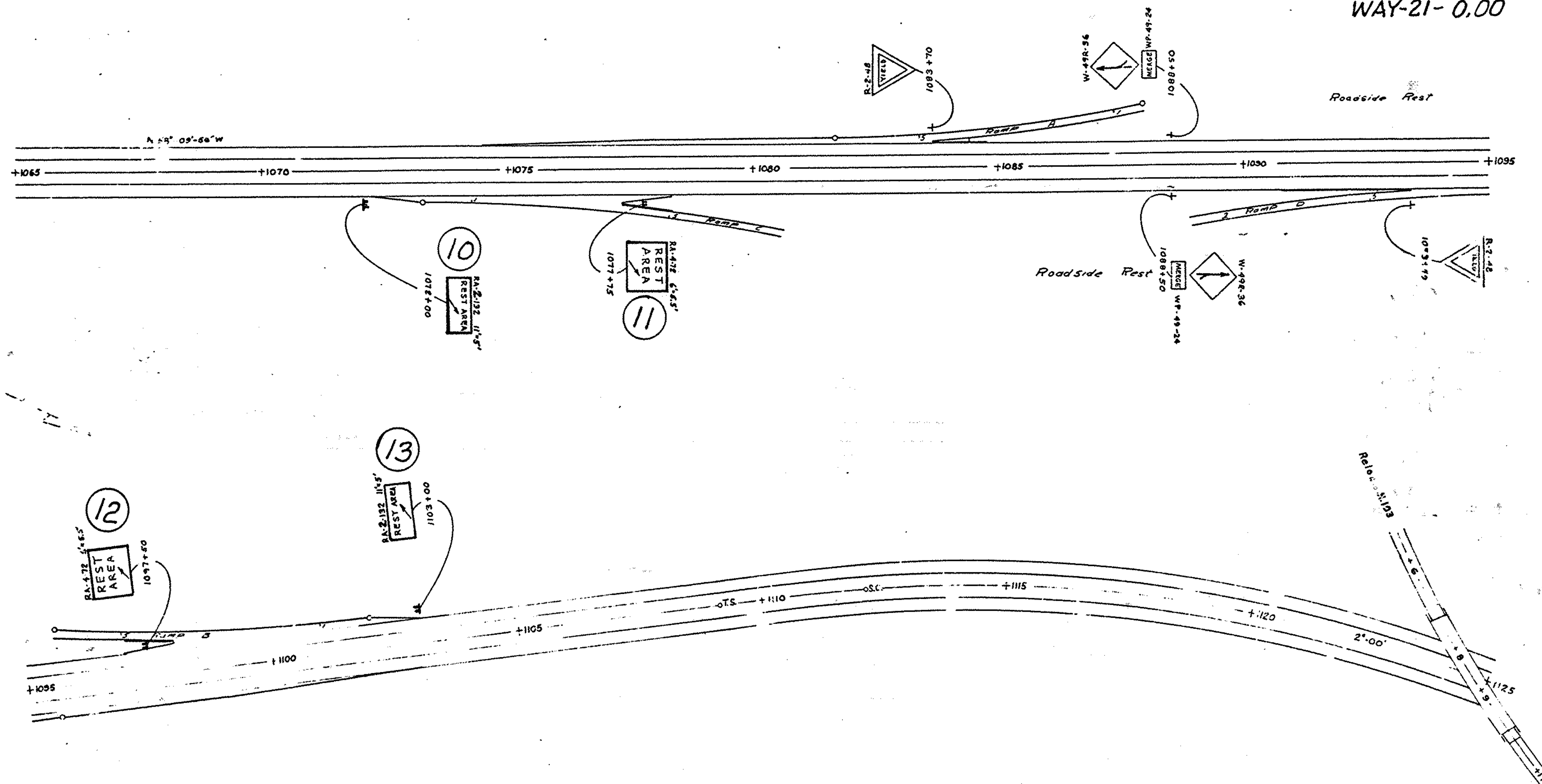


FED. RD. DIVISION	STATE	PROJECT	
5	OHIO	STATE	

40
43

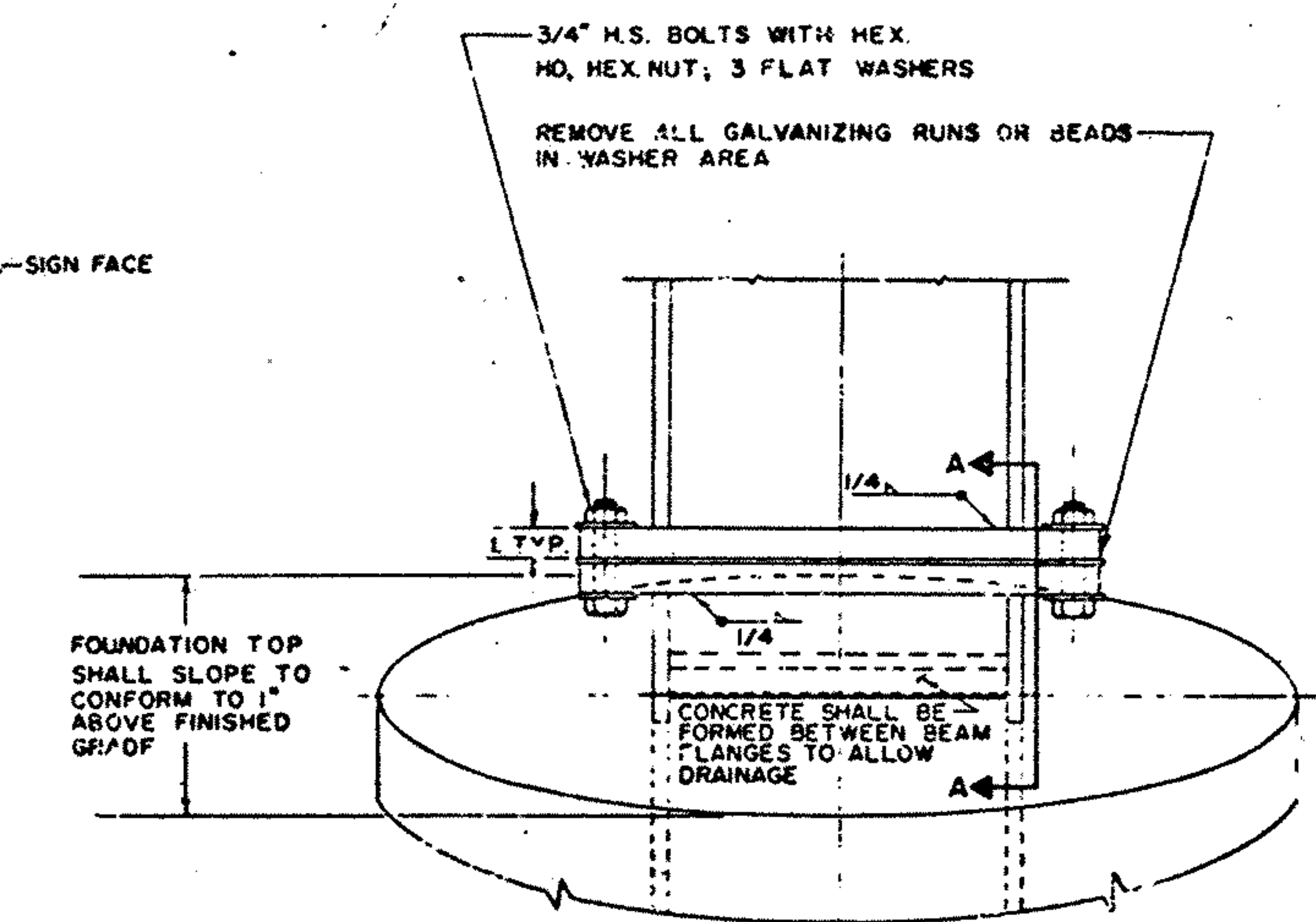
~~STA 21 8.00 WAY 21 0.00~~

~~SUM-21-0.00~~
STA-21-12.39
WAY-21-0.00



n.
 For Quantities
 See Sheet

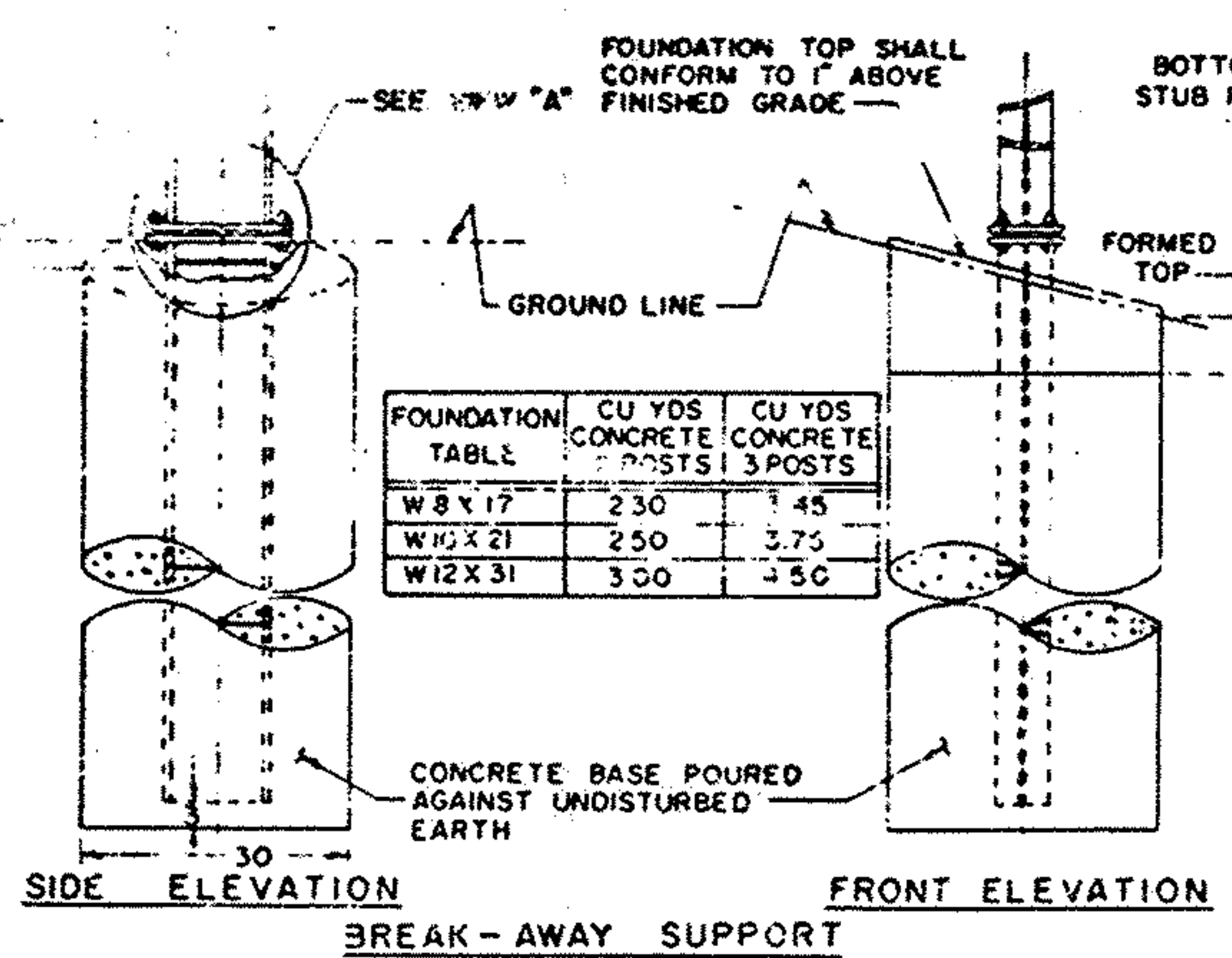
1065+00-1125+00



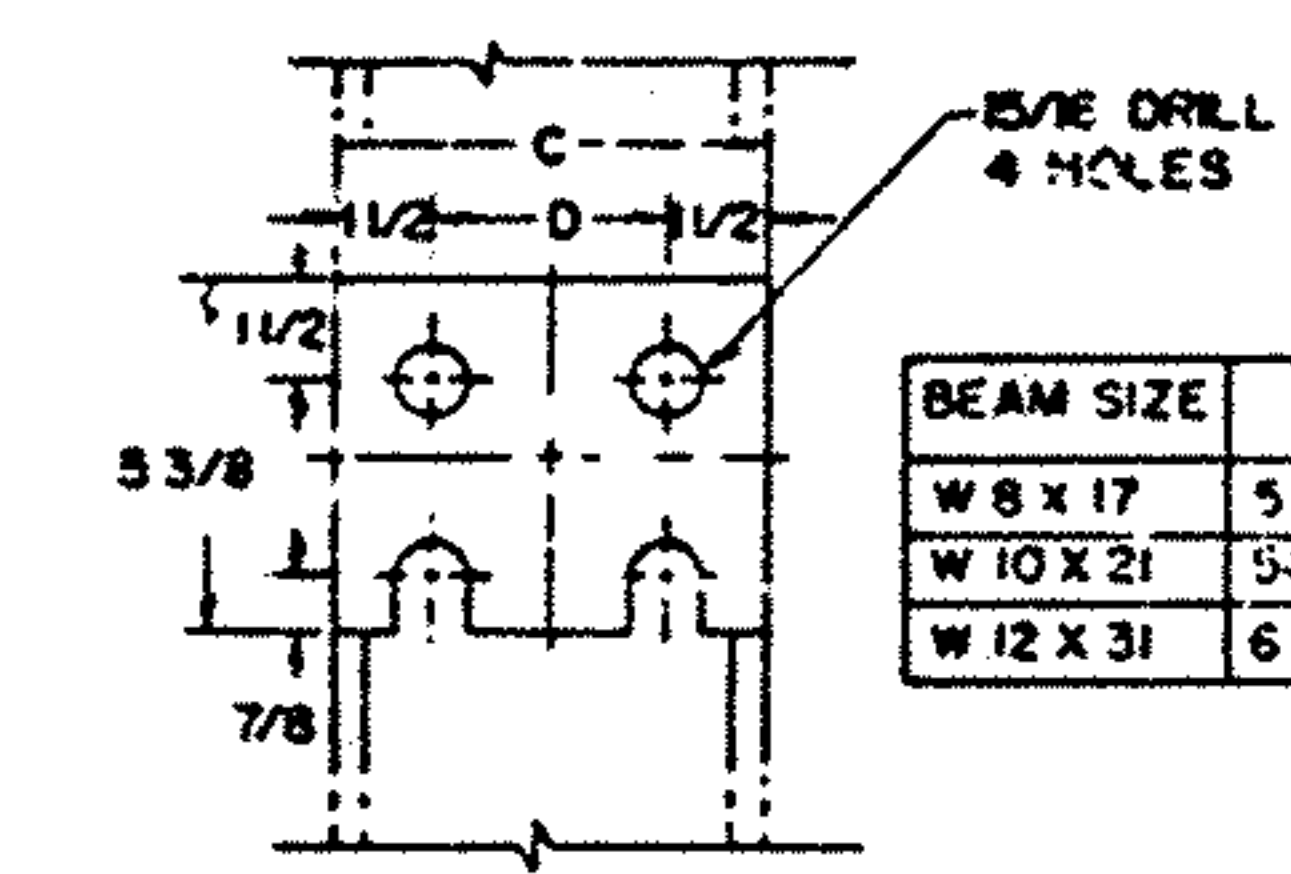
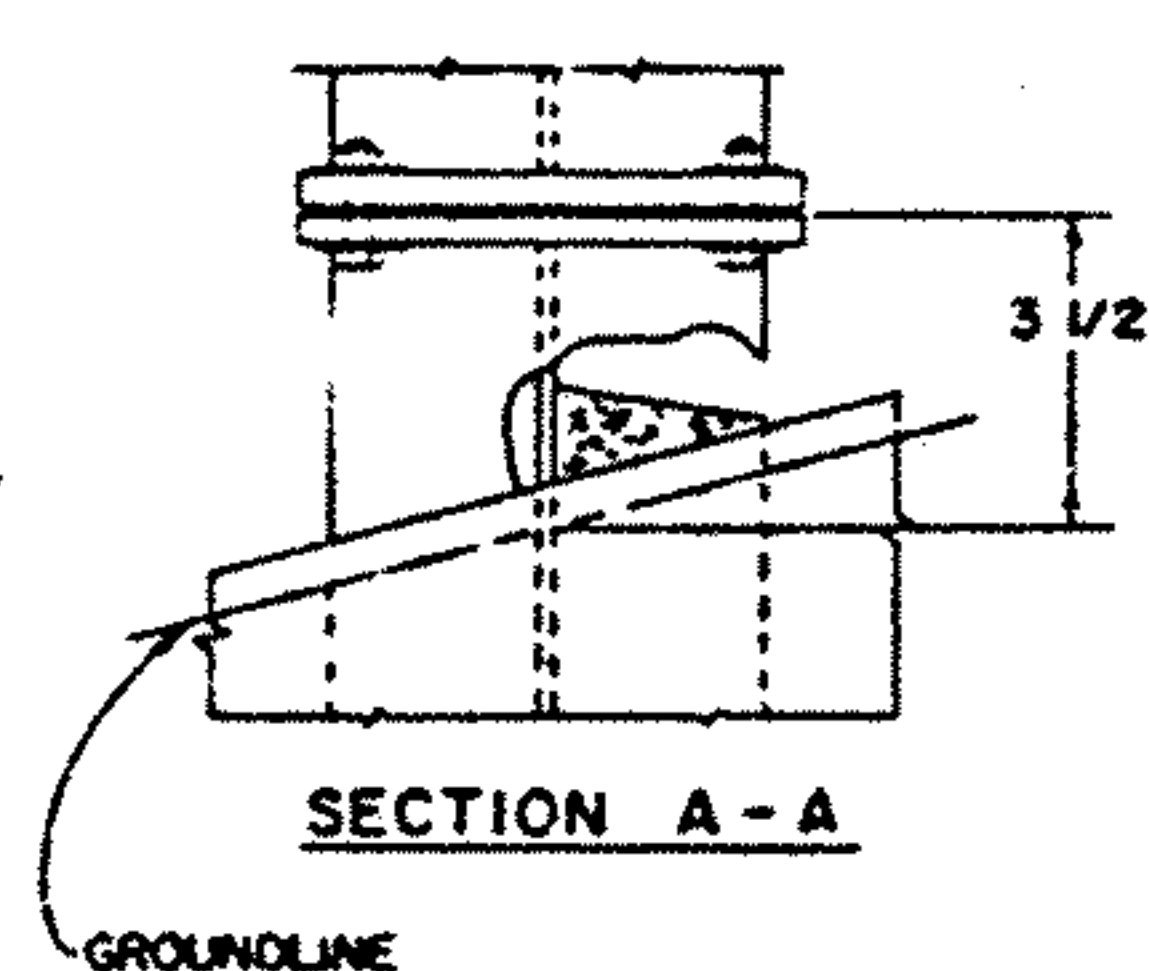
BOLTING PROCEDURE
1. ASSEMBLE POST TO STUD BOLTS & ONE FLAT WASHER ON EACH BOLT BETWEEN PLATES.
2. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE W/12" TO 15" WRENCH TO BED & TO CLEAN BOLT THREADS. LOOSEN EACH BOLT IN TURN & RETIGHTEN BOLTS IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE OF 750 IN. LBS.
3. BURR THREADS AT JUNCTION: W/12" USING A CENTER PUNCH TO PREVENT NUT LOOSENING.
NOTE: TIGHTEN THE H.S. BOLTS IN THE BASE CONNECTION ONLY TO GIVEN TORQUE DO NOT OVER TIGHTEN

VIEW "A" ROTATED 180°

BREAKAWAY SIGN SUPPORT
BASE PLATE ORIENTATION

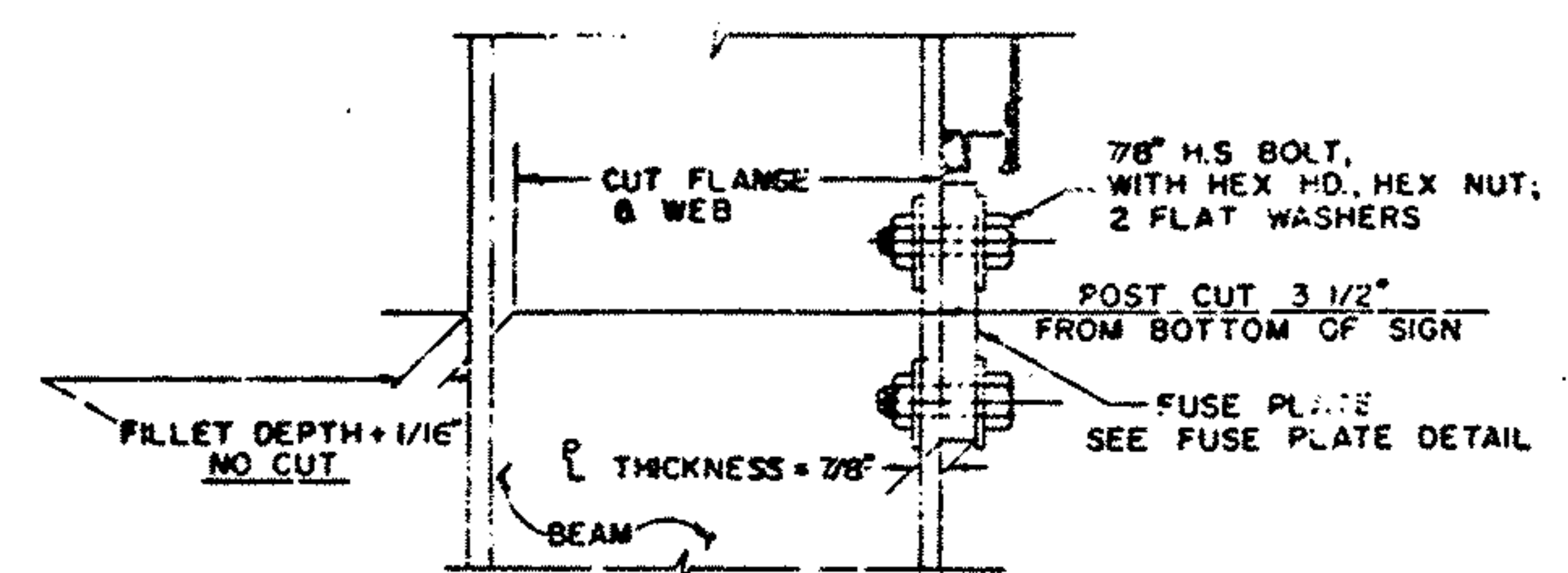


FOUNDATION TABLE	CU YDS CONCRETE 2 POSTS	CU YDS CONCRETE 3 POSTS
W 8 X 17	2.30	1.45
W 10 X 21	2.50	3.75
W 12 X 31	3.00	4.50

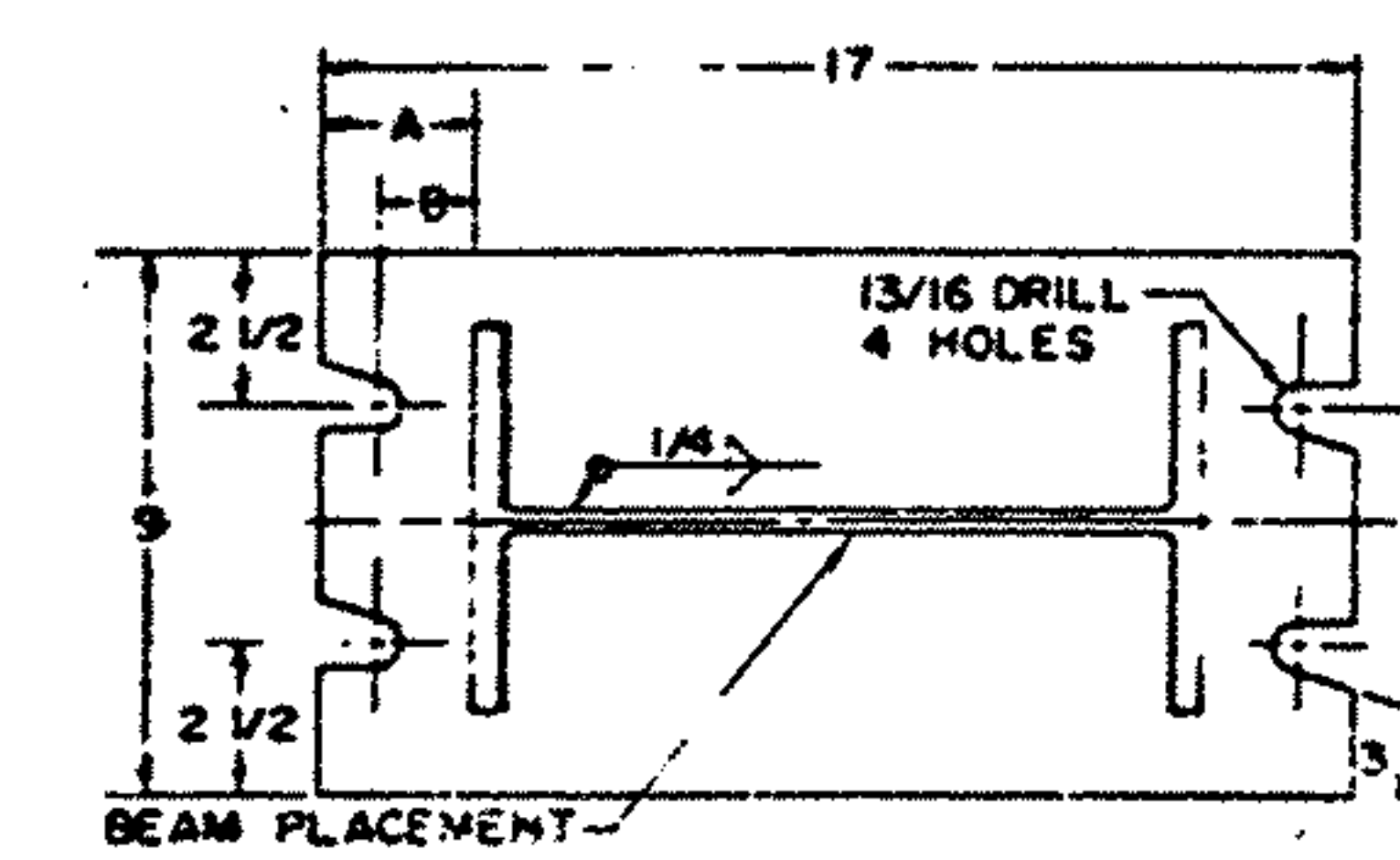


BEAM SIZE	C	D
W 8 X 17	5 1/4"	2 1/4"
W 10 X 21	5 3/4"	2 3/4"
W 12 X 31	6 1/2"	3 1/2"

FUSE PLATE DETAIL

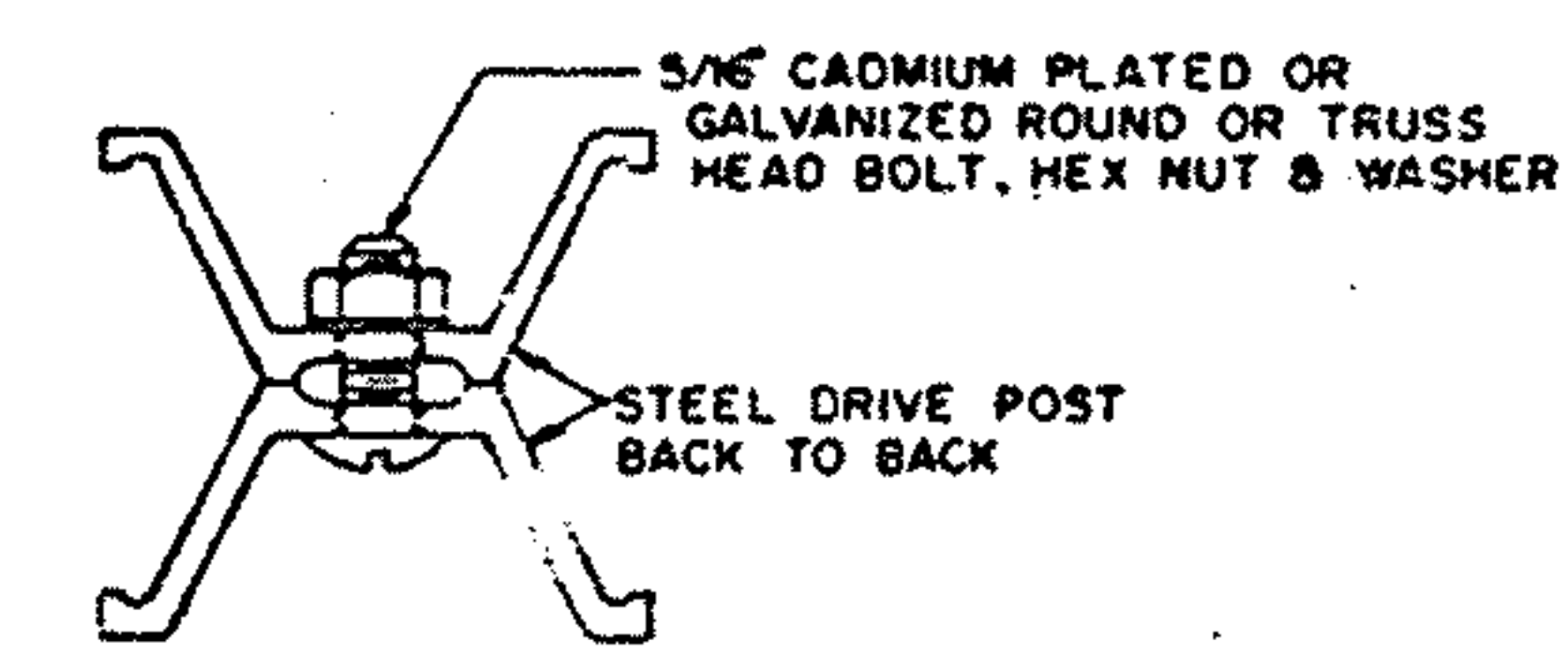


FABRICATOR NOTE: ALL FRICTION FUSE BOLTS SHALL BE TIGHTENED IN THE SHOP FOLLOWING A METHOD APPROVED BY THE ENGINEER. TIGHTENING SHALL BE TO SUCH A DEGREE AS TO OBTAIN MINIMUM RESIDUAL TENSION IN EACH BOLT OF 36,050 LBS.
NOTE: INSTALL FUSE PLATE WITH NOTCHES TOWARD BASE
DETAIL "B"

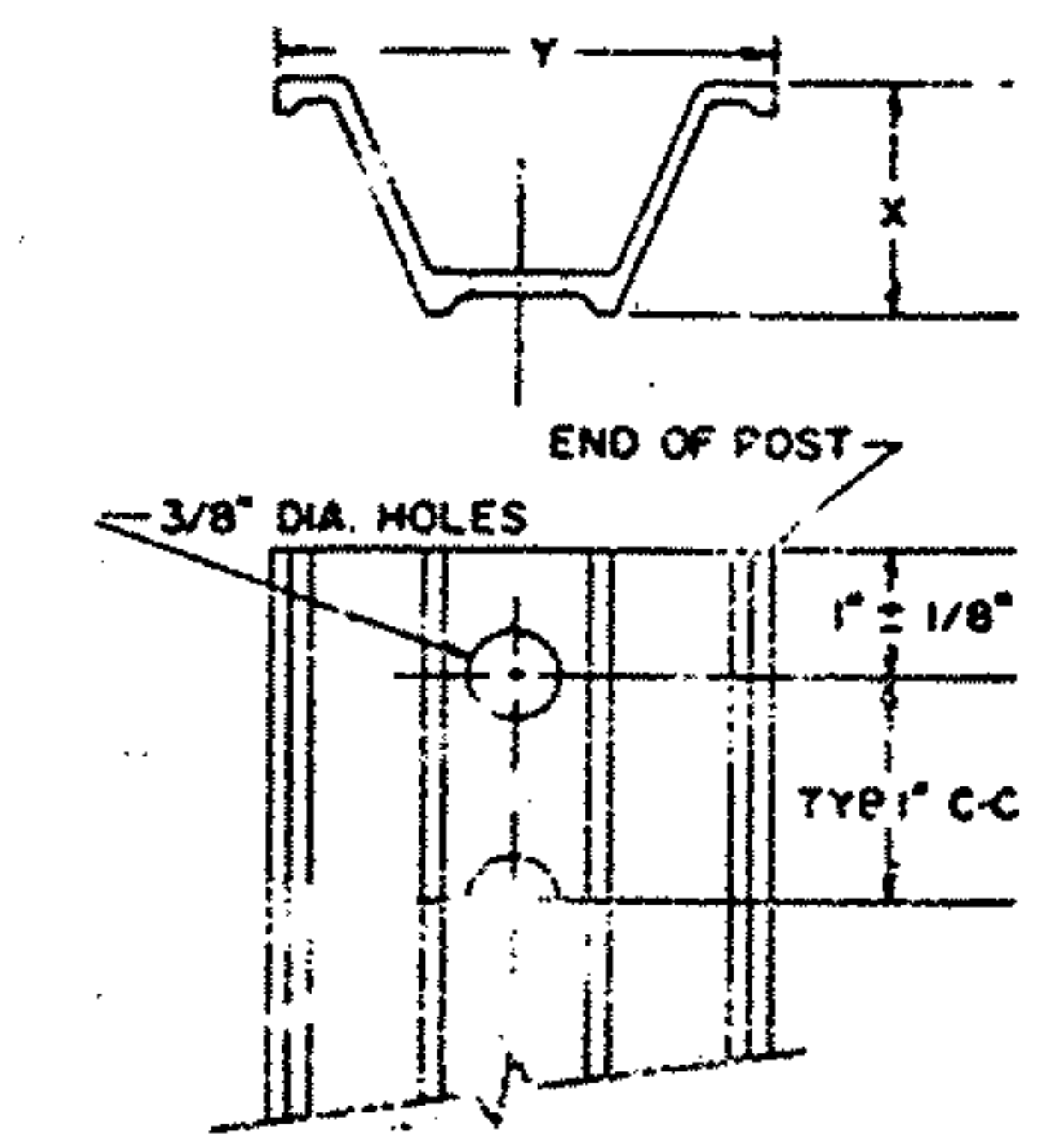


BEAM SIZE	A	B
W 8 X 17	4 1/2"	3 5/8"
W 10 X 21	3 1/2"	2 5/8"
W 12 X 31	2 1/2"	1 5/8"

BASE PLATE DETAIL
(TOP VIEW)



6# BEAM DETAIL



WEIGHT PER FOOT	X 3/32"	Y 1/8"
2.00	1 5/32"	3 1/2"
3.00	1 7/8"	3 1/2"
4.00	2"	3 5/8"

DRIVE POST DETAIL

SUPPLEMENTING THE DRIVE POST SECTION, THE FOLLOWING ALTERNATE POST SECTIONS MAY BE FURNISHED. ANY ALTERNATE SECTION FURNISHED SHALL MEET THE FOLLOWING REQUIREMENTS: WEIGHT SHALL BE APPROXIMATELY AS DETAIL, AND HAVE A MOMENT OF INERTIA EQUAL TO OR GREATER THAN THE SECTION DETAILED. THE REQUIREMENTS OF 712.21 RELATIVE TO MAXIMUM WEIGHT TOLERANCE ARE HEREBY WAIVED. NO ALTERNATE SECTION FURNISHED SHALL EXCEED THE WEIGHT OF THE CORRESPONDING SECTION BY MORE THAN 2%.

NOTES: ALL MATERIALS SHALL CONFORM TO THE SPECIFICATIONS OF OHIO CONSTRUCTION & MATERIALS SPECIFICATIONS OR AS OTHERWISE SPECIFIED.
1. USE FOUNDATIONS 217110 STRUCTURAL STEEL SHAPES & PLATES
2. 317109 H.S. STEEL BOLTS, NUTS & WASHERS
3. ALL DIMENSIONS IN INCHES UNLESS OTHERWISE SHOWN

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF HIGHWAYS
GROUND MOUNTED
SIGN SUPPORTS
GMSS
DATE: 5-10-71
7-12-71
5-23-71
9-15-71
12-20-71
APPROVED: ENGINEER OF TRAFFIC

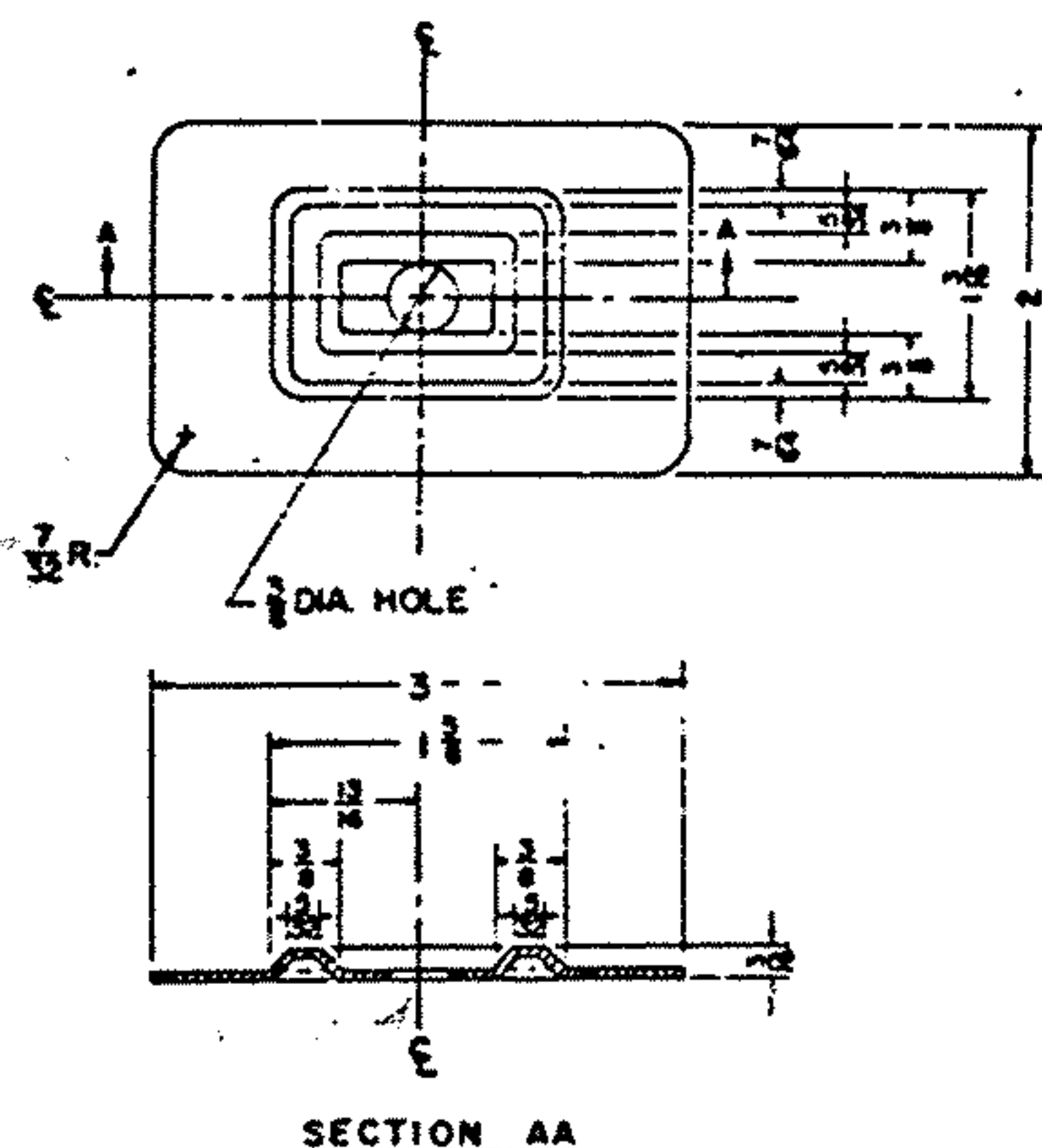
NOTES

- (A) TWO FOOT (2') BEHIND EXISTING GUARD RAIL
(B) TWO FEET (2') FROM THE EDGE OF PAVED
OR TRAVELED SHOULDER WITH A MINIMUM OF
6" FROM EDGE OF ROADWAY PAVEMENT...

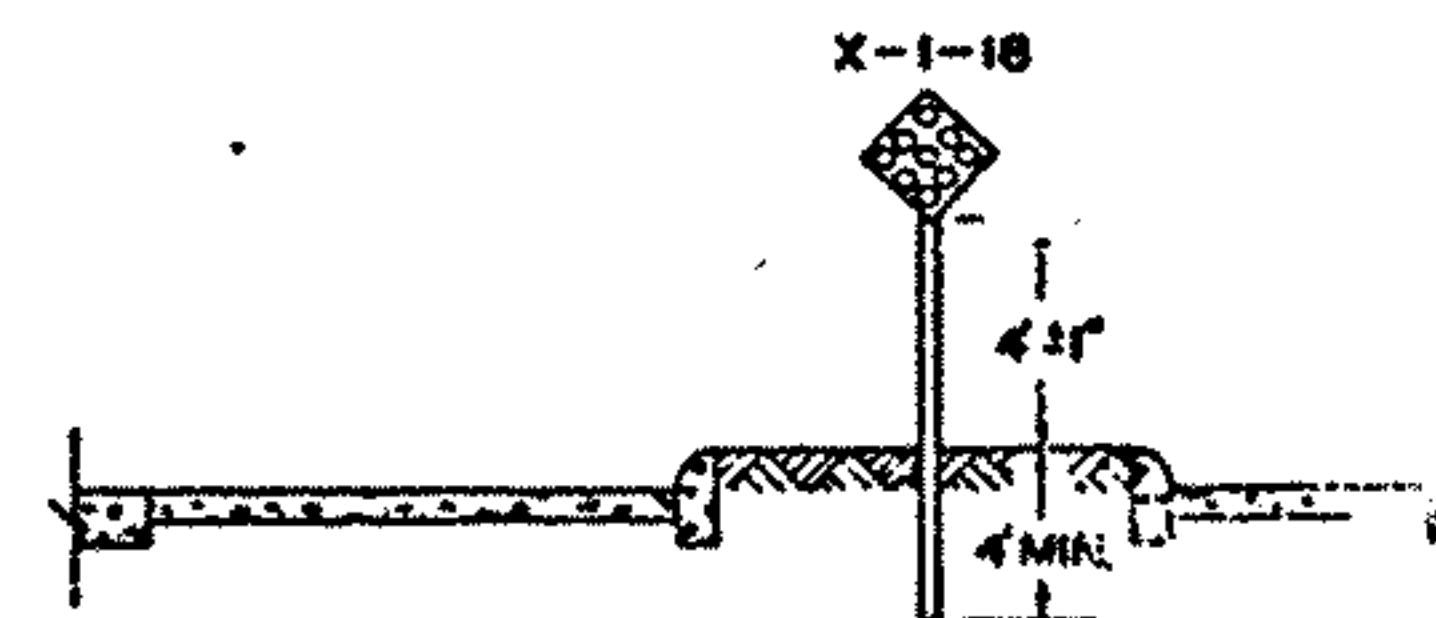
6. HORIZONTAL CLEARANCE SHOWN PERTAIN TO NON-CURBED SECTIONS. SECTIONS WITH UNUSUAL CLEF SHALL HAVE A HORIZONTAL CLEARANCE OF 2'-0" MINIMUM FROM THE CURB FACE TO THE SIGN FACE.

9. SOIL PLATES SHALL BE ATTACHED TO ALL SLG BEAMS BETWEEN POSTS AS DETAILLED ON THIS SHEET, EXCEPT WHERE BEAMS ARE PLACED ON RETE MEDIANS AS COVERED IN NOTE 2.

DATE
9-27-67
7-12-68
5-13-69
3-5-71
12-21-71
3-7-72

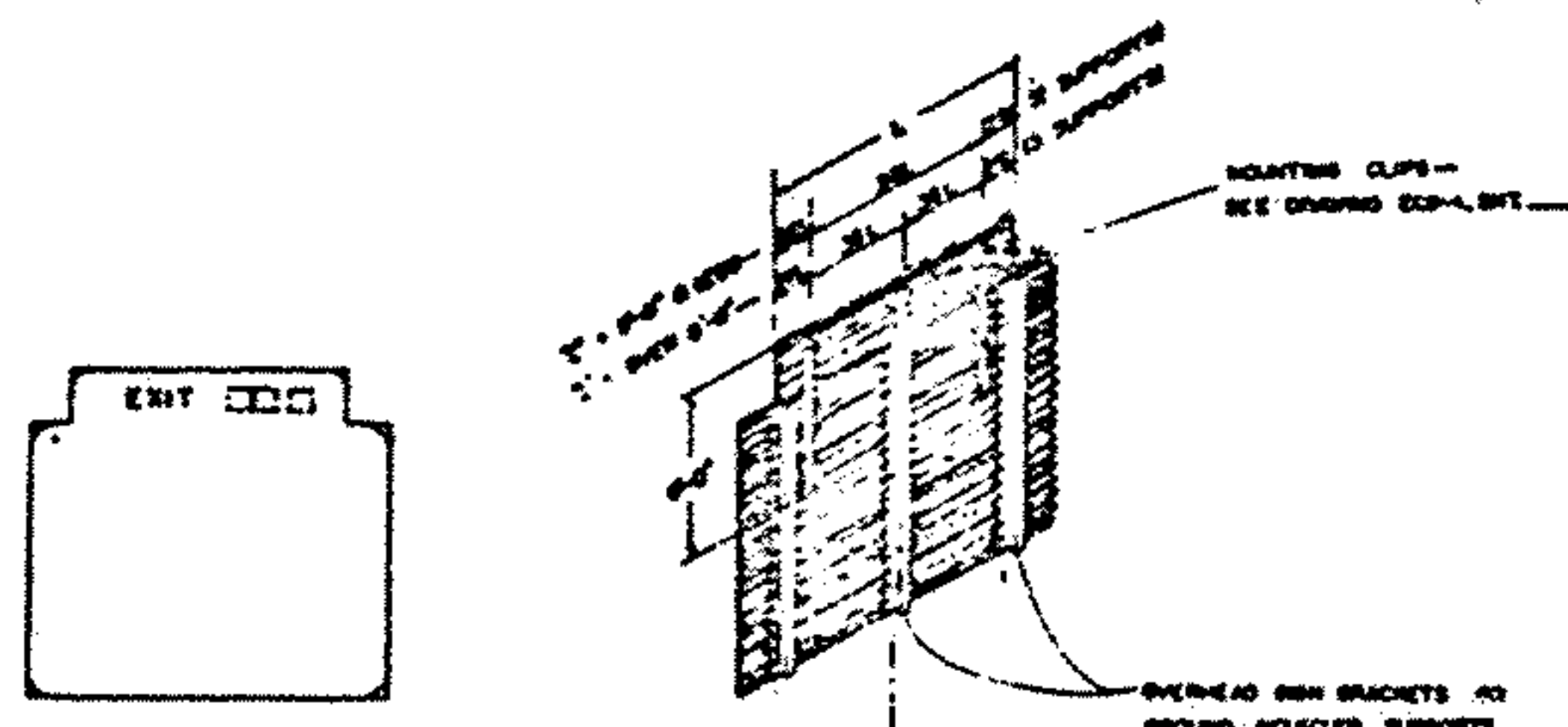
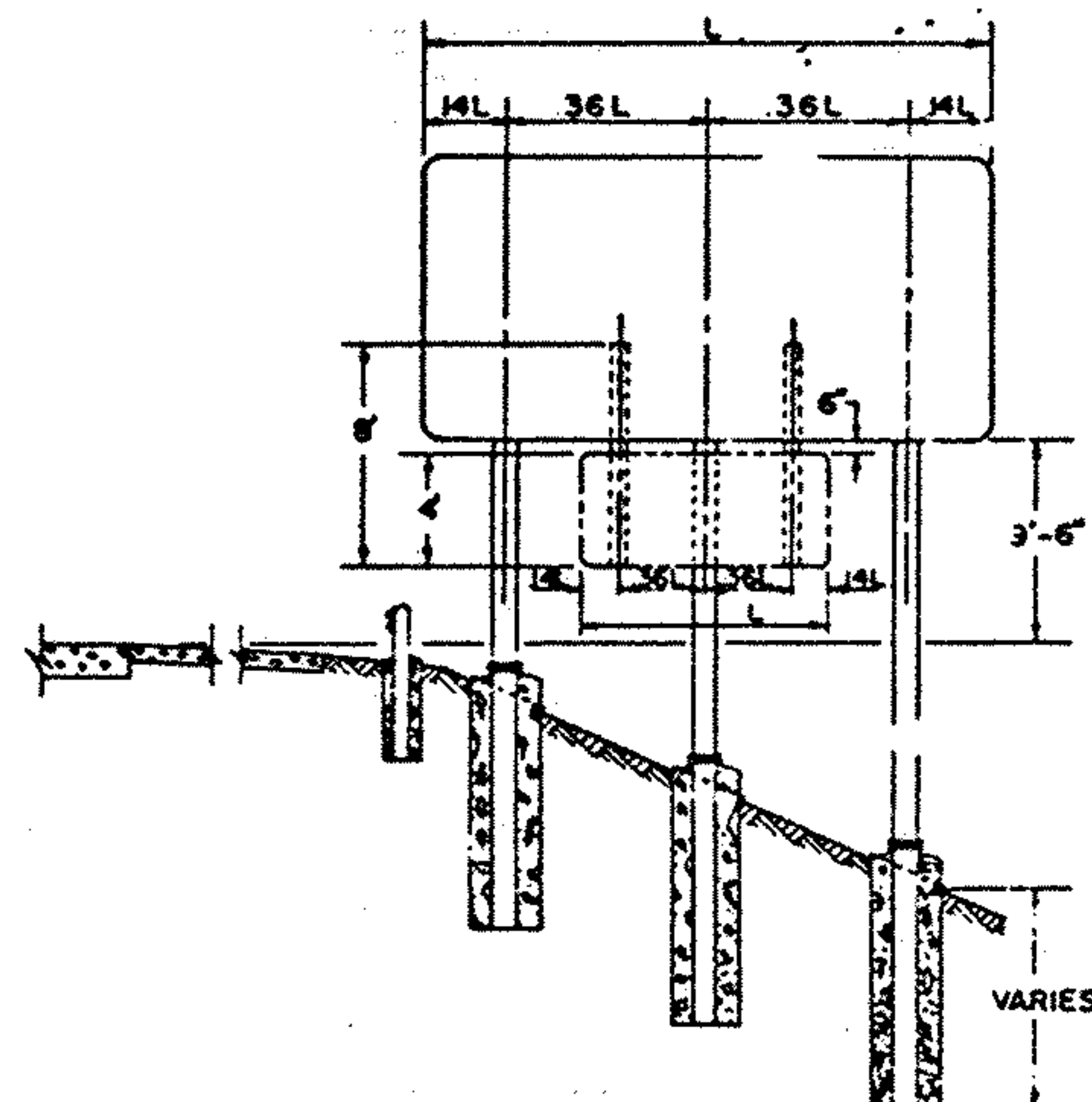
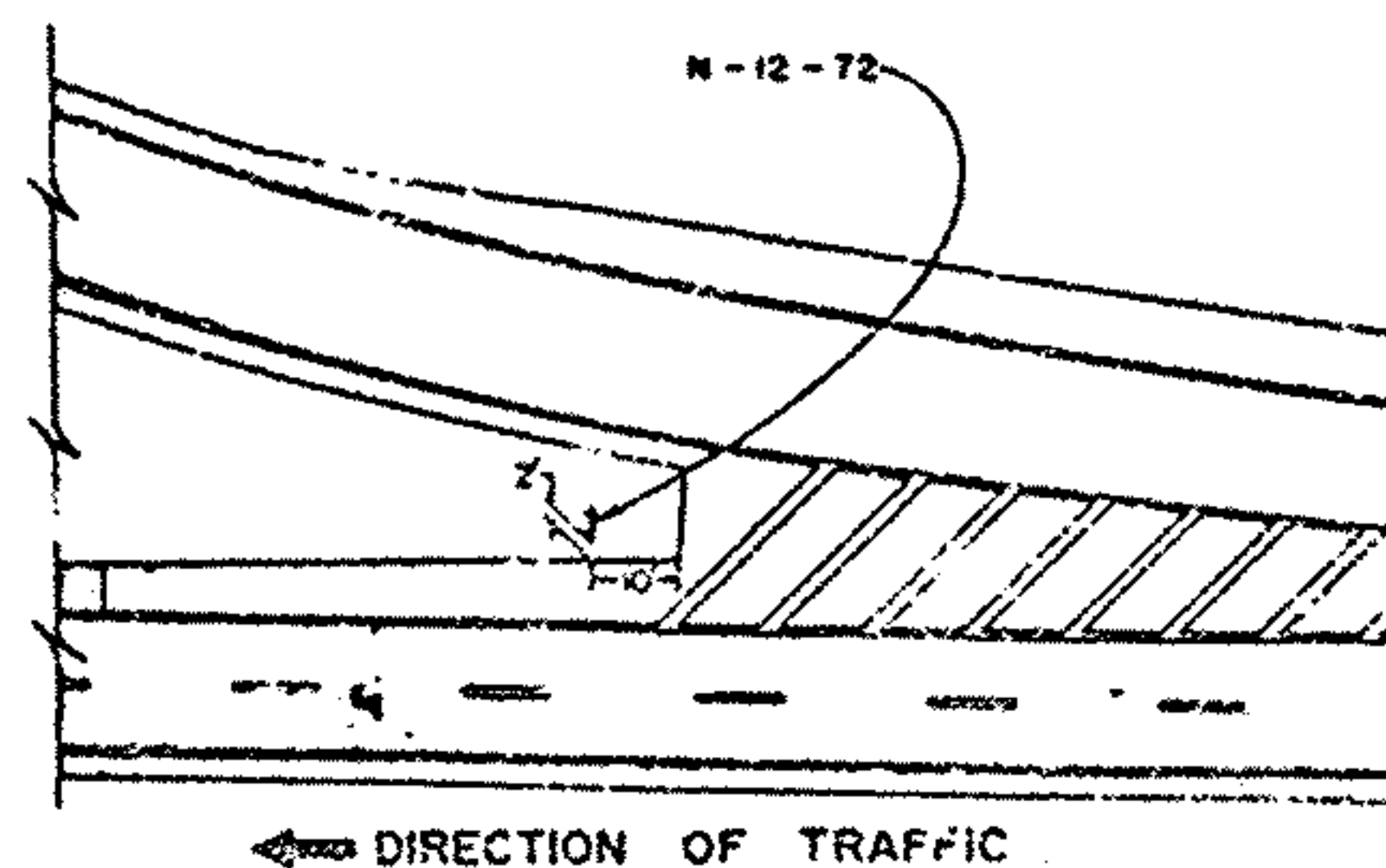


BEARING PLATE DETAIL

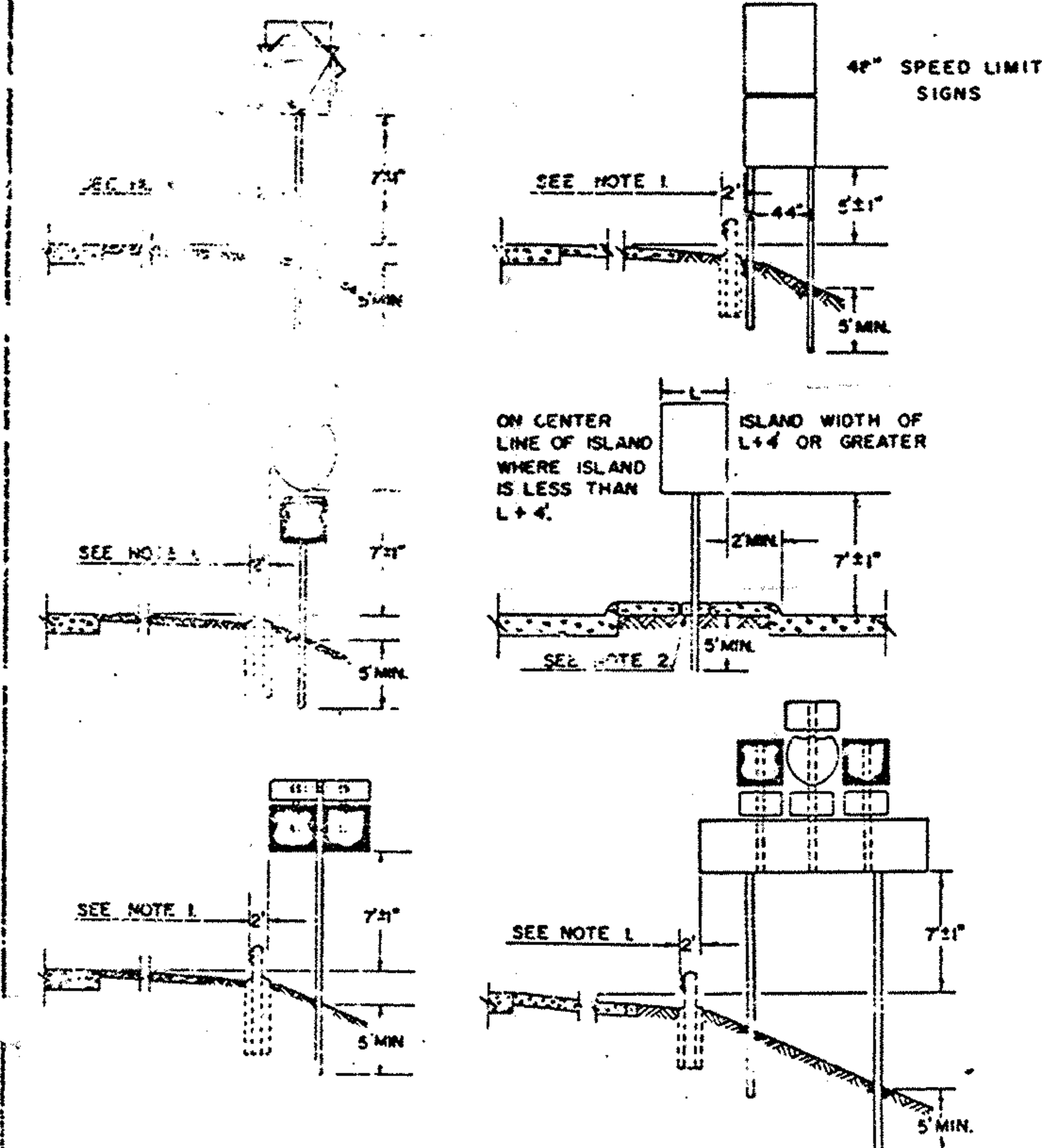


SIGN SUPPORT SPACING

L-FT	2 SUPPORTS		3 SUPPORTS		L-FT	2 SUPPORTS		3 SUPPORTS	
	22	36	14	36		22	36	14	36
3.0	1.10	2.80	0.70	1.60	17.0	1.79	5.52	2.38	6.12
6.0	1.32	3.38	0.94	2.16	18.0	3.96	10.08	2.92	6.48
7.0	1.53	3.92	0.98	2.52	19.0	4.18	10.64	2.68	6.80
8.0	1.76	4.48	1.12	2.88	20.0			2.80	7.20
9.0	1.98	5.04	1.26	3.24	21.0			2.94	7.56
10.0	2.20	5.60	1.40	3.60	22.0			3.08	7.92
11.0	2.42	6.16	1.54	3.96	23.0			3.22	8.28
12.0	2.64	6.72	1.68	4.32	24.0			3.36	8.64
13.0	2.86	7.28	1.82	4.68	25.0			3.50	8.90
14.0	3.08	7.84	1.96	5.04	26.0			3.64	9.36
15.0	3.30	8.40	2.10	5.40	27.0			3.78	9.72
16.0	3.52	8.96	2.24	5.76	28.0			3.92	10.08



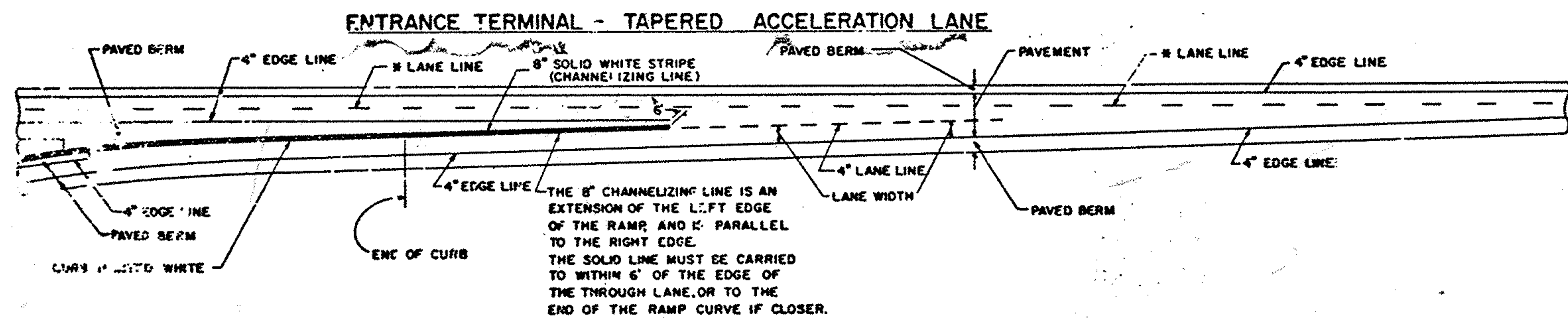
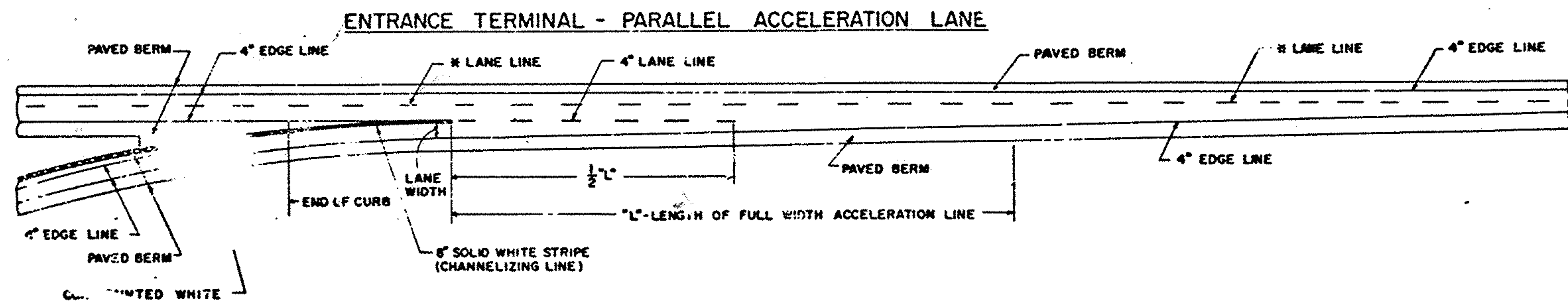
"EXIT" SIGN ATTACHMENT DETAIL



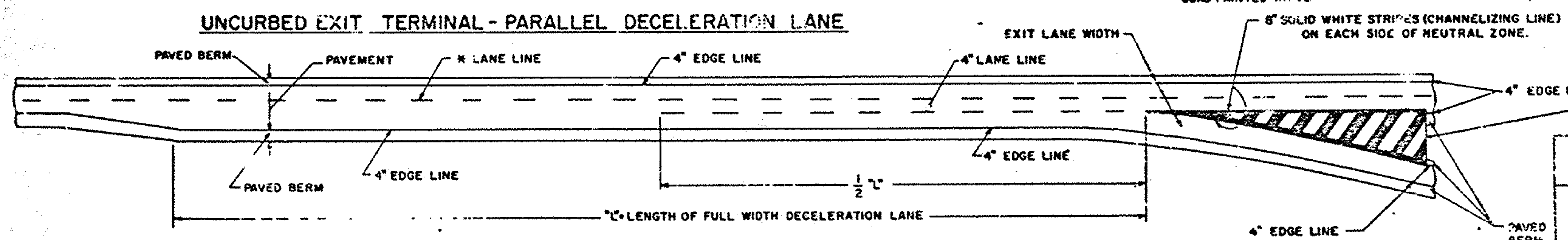
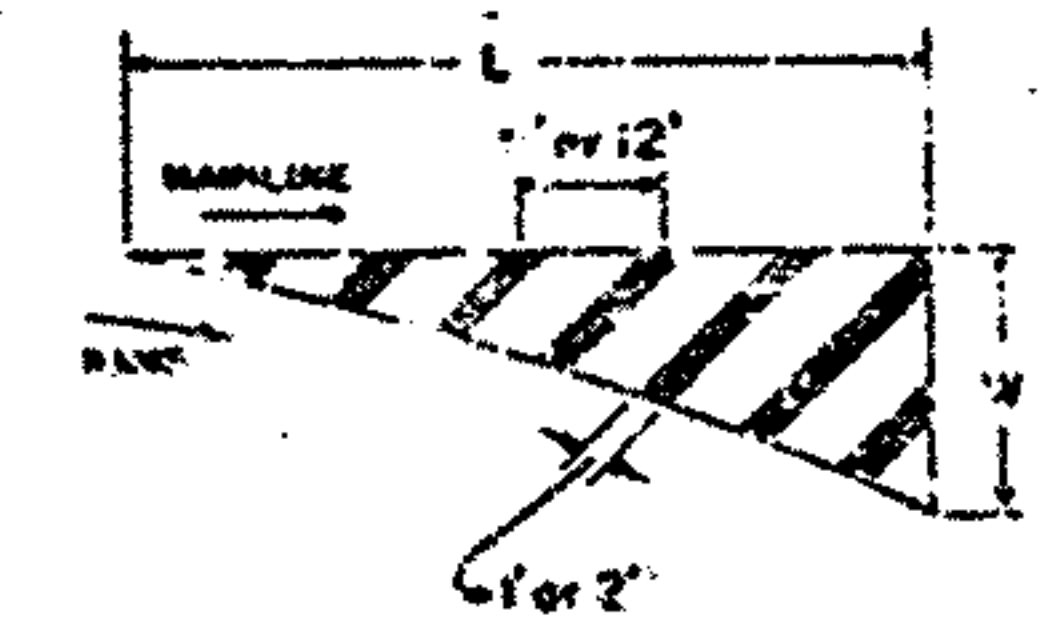
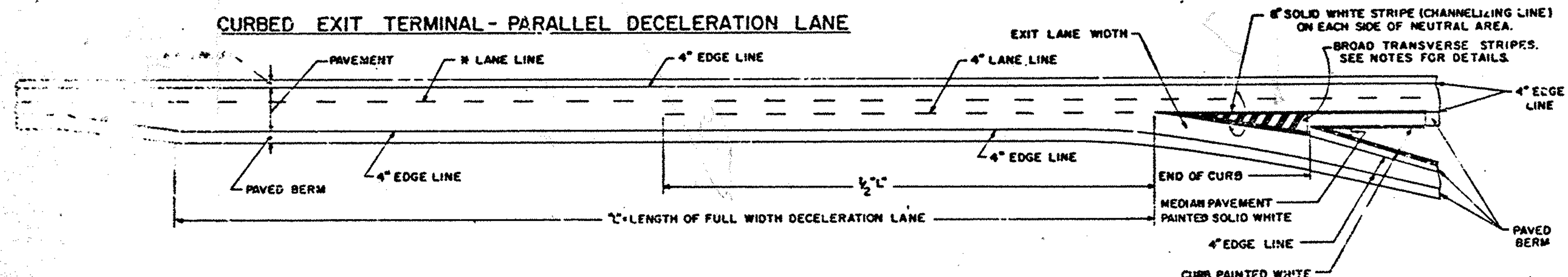
FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

43
43

STA - 21-12.39
WAY-21-0.00



- LANE LINES**
- (A) LANE LINES SHALL BE 6" IN WIDTH ON ALL HIGHWAYS WITH SPEED LIMITS GREATER THAN 60 MPH AND ON ALL FREEWAYS.
 - (B) LANE LINES SHALL BE 4" IN WIDTH ON ALL OTHER HIGHWAYS.
- BROAD TRANSVERSE STRIPES**
- (A) WHEN THE NEUTRAL AREA IS 50' OR MORE IN LENGTH, THE BROAD TRANSVERSE STRIPES SHALL BE 2" IN WIDTH AND SPACED 1' CENTER TO CENTER.
 - (B) WHEN THE NEUTRAL AREA IS 15' TO 50' IN LENGTH, THE BROAD TRANSVERSE STRIPES SHALL BE 1" IN WIDTH AND SPACED 6" CENTER TO CENTER.
 - (C) TRANSVERSE STRIPES SHALL BE AT 45° TO THE MAINLINE.
 - (D) FINAL QUANTITIES SHALL BE BASED UPON 17% FIELD.
 - (E) PRELIMINARY QUANTITIES SHALL BE BASED UPON 17% FIELD.
 - (F) 1" BROAD TRANSVERSE STRIPES - 1' SPACING - 17% FIELD
 - (G) 2" BROAD TRANSVERSE STRIPES - 1' SPACING - 17% FIELD



BUREAU OF TRAFFIC CONTROL OHIO DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING CLASS I, II RAMP TERMINALS	APP. DATE 11-21-73
DRAWN BY: R.C.	AS-2-25.10 (A)(1)(c)