ROSS COUNTY ROS-159-4.10	OHIO	1/30
M-3V00(4)	FHWA REGION 5 FEDERAL PROJECT	

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
ROS-159-4.10
SPRINGFIELD TOWNSHIP
GREEN TOWNSHIP
ROSS COUNTY

PLAN NO. 12

DESIGN DESIGNATION

CURRENT ADT (1989)	= 10030
DESIGN YEAR ADT (2010)	= 12040
DHV	= 1204
D	= .55
T	= .04
DESIGN SPEED	= 55 MPH
LEGAL SPEED	= 55 MPH
FUNCTIONAL CLASSIFICATION	= Urbanization

DESIGN EXCEPTION	APPROVAL DATE
None	

MICROFILMED
NOV 12 1993

CONVENTIONAL SIGNS

County Line — — — - — — - — —
Township Line — — — — — —
Section Line - - - - - - - - -
Corporation Line ⁚⁚⁚⁚⁚ or ////////
Fence Line (existing) —X——X— (proposed) —X——X—
Center Line 200 + 201 +
Trees, Stumps, (to be removed)
Utility Poles: Telephone, Power, Light.
Limited Access (only) ——L/A——
Right of Way (only) ——RW——
Limited Access & Right of Way ——LA & RW——
Existing Right of Way —— —— ——
Property Line ——PL—— (in existing fence) —X—PL—X—
Railroad ▬▭▬▭ or +++++++
Guardrail (existing) —○— —○— (proposed) —●— —●—

INDEX OF SHEETS

Title Sheet 1
Typical Section 2
General Notes & Details 3, 3A, 3B, 3C, 3D, 3E
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General Summary 5
Quantities & Details 6
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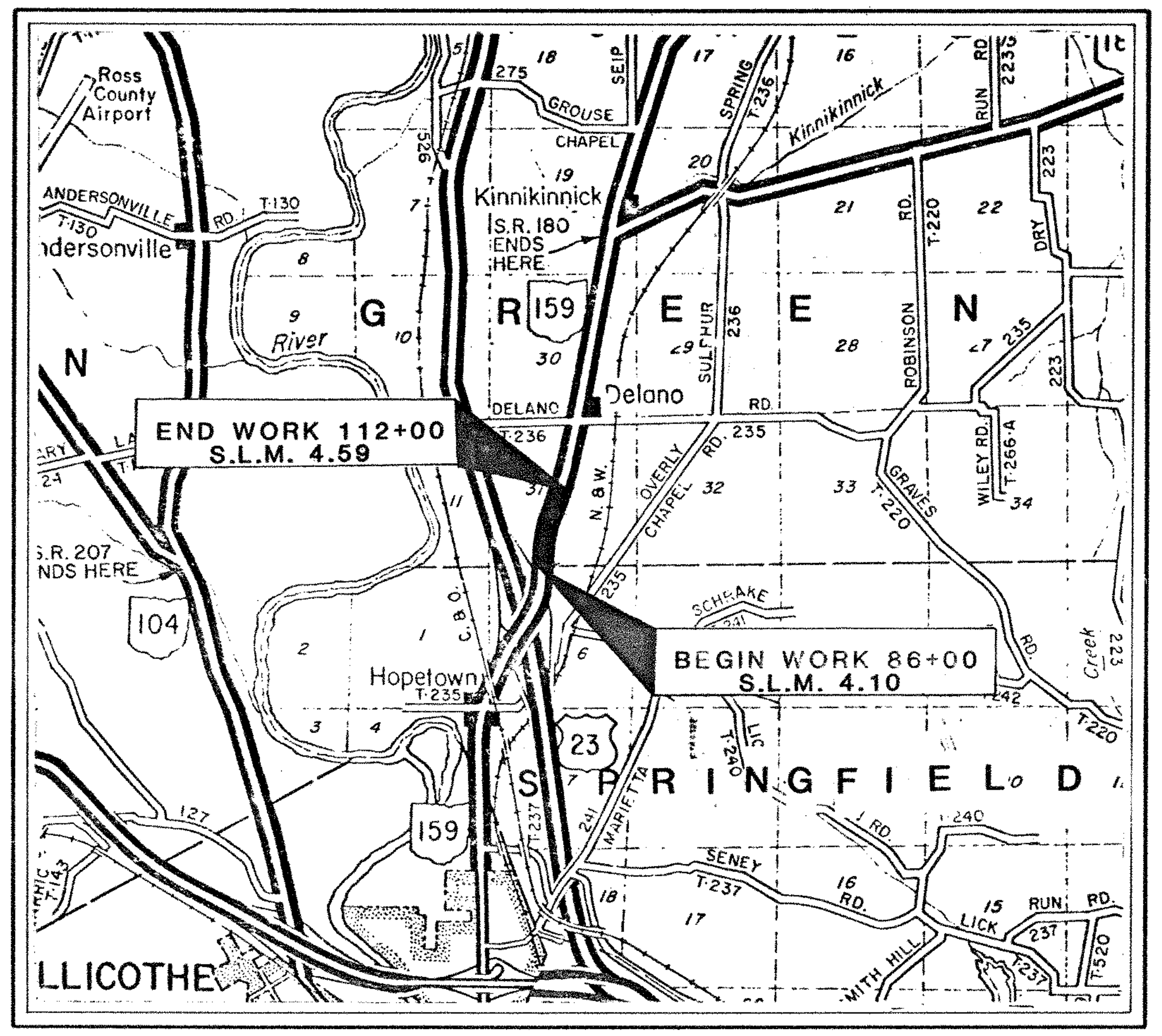
Storm Sewer 24
Traffic Control 25-26
Right of Way 27-30

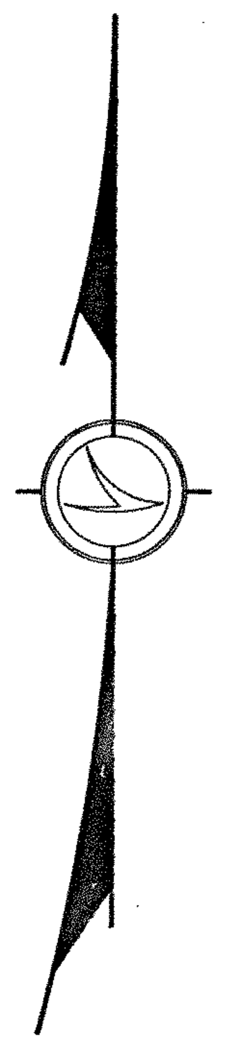
LINE DATA

Begin Project = Station 86+00 SLM 4.10
End Project = Station 112+00 SLM 4.59
Net Length of Project = 2600.00 Lin Ft or 0.49 Mile



LOCATION MAP

SCALE IN MILES
0 1 2 3 4



Portion to be improved ▬▬▬
State & Federal Routes ═══
Other Roads ───

SCALES

Plan 0 20' 40'
Profiles: Horizontal, Vertical
Cross Section: Horizontal 0 10' 20', Vertical 0 10' 20'

UNDERGROUND UTILITIES
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Call... 800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

1989 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.

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

SUPPLEMENTAL SPECIFICATIONS		
847	10-17-83	
947	10-17-83	
931	6-18-85	

Approved Keith C. Swaringen
Date 6-7-89 District Deputy Director of Transportation

Approved
Date Engineer, Bureau of Bridges and Structural Design

Approved James R. Longenecker
Date 8-15-89 Deputy Director, Operations

Approved Bernard B. Hurst
Date 8-17-89 Director, Department of Transportation

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

BP-5 10-01-87	MT-97.10 4-29-88	TC-52.20 4-03-79		
BP-6 10-01-87	MT-99.10 11-14-86			
	MT-99.20 4-29-88			
CB-458A 5-01-79				
HW-4A 4-01-80	TC-41.20 3-26-79			
HW-4B 4-01-80	TC-42.10 8-19-77			
	TC-42.20 3-26-79			
MC-1 6-13-69	TC-52.10 4-03-79			
MC-4 7-26-76				
MC-10 5-01-76				
MC-11 8-01-78				

BN

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
APPROVED
DIVISION ADMINISTRATOR DATE

Plan Prepared By:
DISTRICT NO. 9
OHIO DEPARTMENT OF TRANSPORTATION

SEAL

Project: ROS-159-4.10
Date of Letting 19 ,Contract No.

NORRIS ZF2:[357,102]R159_396T.DGN;1 2-JUN-1989 13:24

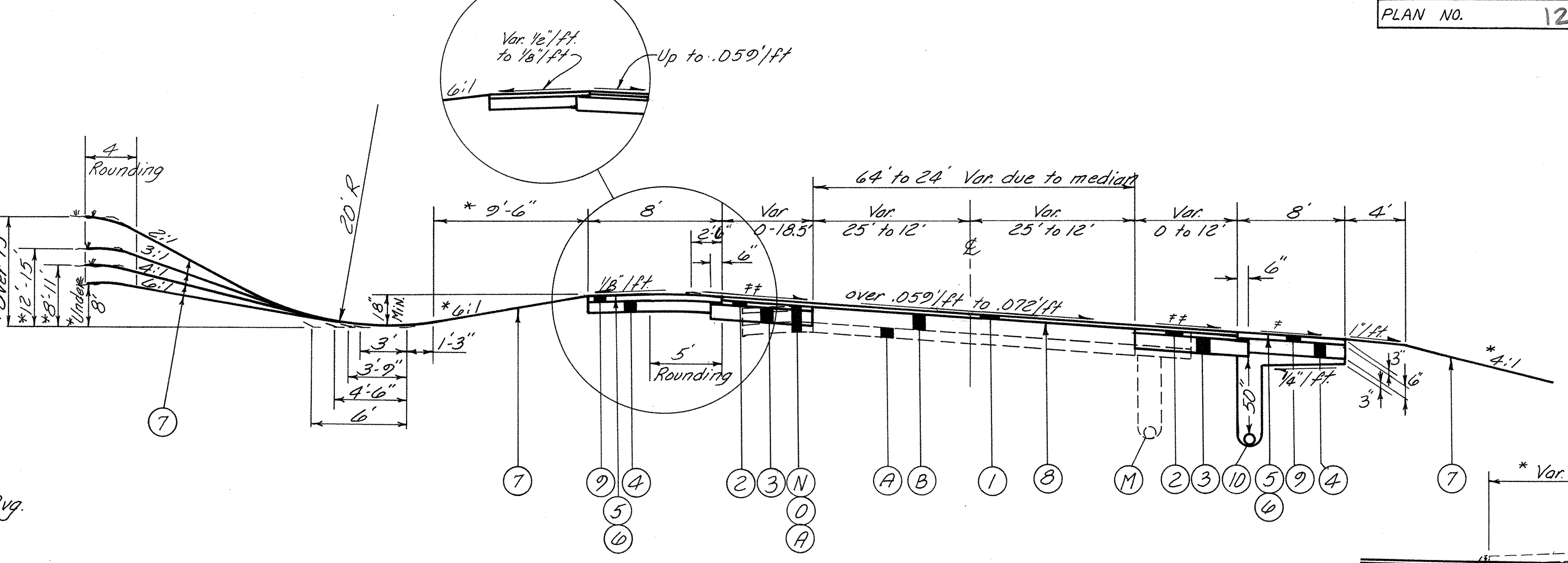
FHWA REGION	STATE	PROJECT		
5	OHIO			

ROSS COUNTY
ROS - 159 - 4.10

PLAN NO. 12

LEGEND (Proposed)

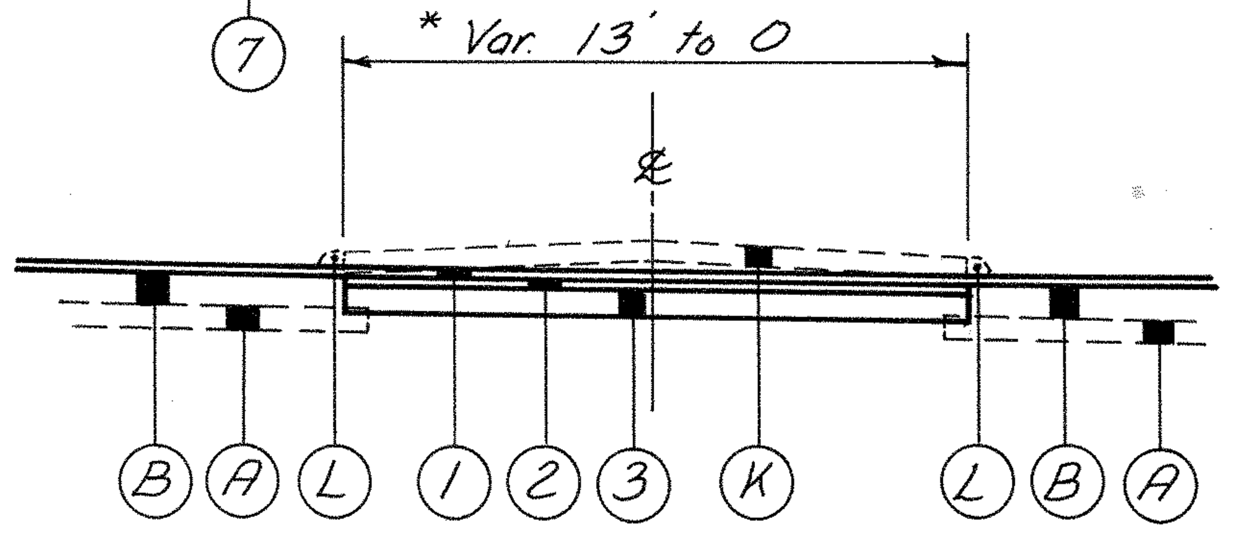
①	404	1¼"	Asphalt Concrete, AC-20
②	402	1¾"	Asphalt Concrete, AC-20
③	301	9"	Bituminous Aggregate Base: AC-20
④	304	6"	Aggregate Base
⑤	408		Bituminous Prime Coat
⑥	409		Seal Coat Bituminous Material at 0.3 Gal/S.Y. using Nº 8 Cover Aggregate at 0.008 C.Y./S.Y.
⑦	659		Seeding and Mulching
⑧	407		Tack Coat
⑨	301	3"	Bituminous Aggregate Base: AC-20
⑩	605	6"	Deep Pipe Underdrain
⑪	617		Compacted Aggregate Type "B" ¾" Avg.



The above Typical Section applies to the following stations:

STA. 86+50 to STA. 97+73.89

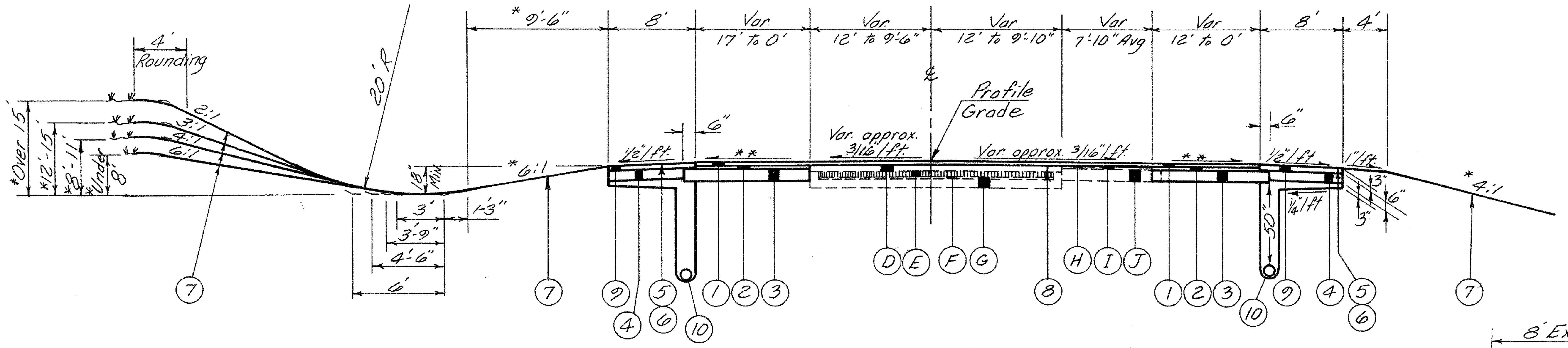
S.L.M. 4.10 to 4.31



DETAIL of MEDIAN AREA
Sta 86+05 to 89+25

LEGEND (Existing)

Ⓐ	310	6"	Subbase
Ⓑ	451	9"	Reinforced Concrete Pavement
Ⓒ			Not Used
Ⓓ		5"	Bituminous Material
Ⓔ		4"	Brick
Ⓕ		2"	Sand
Ⓖ		6"	Concrete
Ⓗ	404	1¼"	Asphalt Concrete
Ⓘ	403	1¼"	Asphalt Concrete
Ⓙ	301	8"	Bituminous Aggregate Base
Ⓚ		4"	Concrete
Ⓛ			Curb, Type 2-A
Ⓜ	605	6"	Pipe Underdrain
Ⓝ	301	3"	Bituminous Aggregate Base
Ⓞ	304	6"	Aggregate Base



* or as shown on cross-sections

* * same as existing approximatly 3/16"/ft.

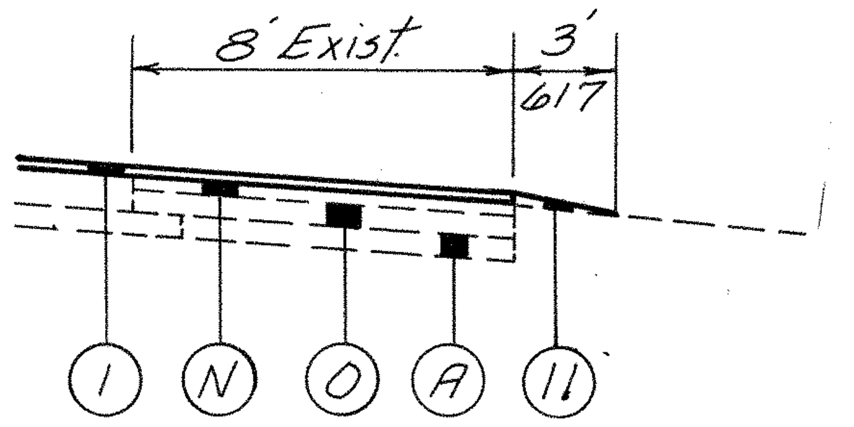
# ½"/ft or same as pavement which ever is greater.

# # same as existing .072'/ft. max.

The above Typical Section applies to the following stations

STA. 97+73.89 to STA. 111+64

S.L.M. 4.31 to 4.58



BERM DETAIL
Sta. 86+50 to 89+85

CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

ROSS COUNTY
ROS-159-4.10
PLAN NO. 12

GENERAL NOTES

FIELD OFFICE

THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 300 SQ. FT. OF FLOOR SPACE. PAYMENT SHALL BE AT THE LUMP SUM PRICE BID FOR ITEM 619, FIELD OFFICE.

ROUNDING OF CORNERS SHOWN ON CROSS SECTIONS

THE ROUNDED CORNERS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS SECTIONS, EVEN THOUGH OTHERWISE SHOWN ON THESE PLANS.

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

MONUMENTS

MONUMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS SHOWN ON STANDARD CONSTRUCTION DRAWING MC-1. FOR LOCATIONS SEE SHEET NO. 27.

SEEDING

QUANTITIES FOR SEEDING ARE CALCULATED FOR THE SOIL AREAS BETWEEN 10 FEET OUTSIDE THE WORK LIMITS, AS SHOWN ON THE CROSS SECTIONS, OR TO THE RIGHT-OF-WAY LINE, IF SUCH LINE IS LESS THAN 10 FEET FROM THE WORK LIMITS.

WATERING PERMANENT SEEDED AREAS

THE FOLLOWING ESTIMATED QUANTITY IS TO BE USED, AS DIRECTED BY THE ENGINEER, TO PROMOTE GROWTH AND TO CARE FOR THE PERMANENT SEEDED AREAS IN ACCORDANCE WITH 659.09:

659	WATER	5 M-GAL.

TEMPORARY SOIL EROSION AND SEDIMENT CONTROL

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED, TO BE USED AS DIRECTED BY THE ENGINEER, FOR TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES:

207	TEMPORARY SEEDING AND MULCHING	3500	SQ.YD.
207	STRAW OR HAY BALES	100	EACH
659	MOWING	39	M-SQ.FT.
659	COMMERCIAL FERTILIZER	0.20	TON
659	REPAIR SEEDING AND MULCHING	877	SQ.YD
659	WATER	1	M-GAL.

407 TACK COAT

PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

WATER FOR DUST CONTROL

MATERIALS FOR DUST CONTROL, TO BE USED AS DIRECTED BY THE ENGINEER, ARE PROVIDED AS FOLLOWS:

616	WATER	50 M-GAL.

ITEM 304 AGGREGATE BASE, AS PER PLAN

MATERIALS FURNISHED FOR THIS ITEM SHALL EXCLUDE ALL SLAG EXCEPT GRANULATED SLAG OR AIR-COOLED BLAST FURNACE SLAG.

TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS

REFERENCES TO SUPPLEMENTAL SPECIFICATIONS 857, 858, 957, 958, AND 961 ON THE TRAFFIC CONTROL STANDARD CONSTRUCTION DRAWINGS IN THESE PLANS SHALL BE CONSIDERED TO READ AS RESPECTIVE REFERENCES TO ITEMS 630, 631, 633, 730, 731, AND 733.

UTILITY OWNERSHIP

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT:

CHILLICOTHE TELEPHONE COMPANY
58 EAST MAIN STREET
CHILLICOTHE, OHIO 45601
(614) 774-3371
(NOT OUPS MEMBER)

CHILLICOTHE WATER DEPARTMENT
35 SOUTH PAINT STREET
CHILLICOTHE, OHIO 45601
(614) 773-2191
(NOT OUPS MEMBER)

COLUMBIA GAS OF OHIO
843 PIATT AVENUE
CHILLICOTHE, OHIO 45601
(614) 773-1151
(OUPS MEMBER)

COLUMBUS SOUTHERN POWER COMPANY
215 NORTH FRONT STREET
COLUMBUS, OHIO 43215
(614) 464-7911
(OUPS MEMBER)

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
Call... 800-362-2764 (Toll free)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR PAVEMENT WIDENING SHALL BE PERFORMED ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES AND SHALL BE COMPLETED TO A DEPTH 1.75 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF THE WORK DAY. EXCEPT FOR A SHORT LENGTH OF A WORK SECTION (25 FEET OR LESS) AT THE END OF THE TRENCH, NO TRENCH WILL BE LEFT OPEN OVERNIGHT. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING WILL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

ITEM 614 MAINTAINING TRAFFIC

THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES IN ACCORDANCE WITH THE REQUIREMENTS OF ITEM 614, THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, PLAN NOTES AND DETAILS, AND AS DIRECTED AND APPROVED BY THE ENGINEER. TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF THE EXISTING AND COMPLETED PAVEMENTS; HOWEVER, ONE-WAY TRAFFIC OPERATIONS, CONTROLLED BY FLAGGERS IN ACCORDANCE WITH THE OHIO MANUAL AND STANDARD CONSTRUCTION DRAWING MT-97.10, MAY BE USED DURING CONSTRUCTION OF THE NORTHERLY END OF THE PROJECT. [redacted] LANE CLOSURES IN ACCORDANCE WITH THE OHIO MANUAL AND THE NOTES AND DETAILS SHOWN ON SHEETS 3D AND 3E MAY BE USED DURING CONSTRUCTION OF THE BALANCE OF THE PROJECT. FLAGGERS SHALL BE USED DURING DAYLIGHT ONLY.

TRAFFIC BEING MAINTAINED SHALL NOT BE DIRECTED ONTO THE EXISTING OR PROPOSED BERMS.

DURING TRENCHING FOR AND INSTALLATION OF PROPOSED STORM SEWERS, TRAFFIC SHALL BE MAINTAINED BY USE OF STEEL PLATES.

TEMPORARY PAVEMENT MARKINGS MEETING THE REQUIREMENTS OF STANDARD CONSTRUCTION DRAWING MT-99.10 SHALL BE PROVIDED AT ALL TIMES.

THE FOLLOWING ESTIMATED QUANTITIES, TO BE USED AS DIRECTED BY THE ENGINEER FOR MAINTAINING TRAFFIC, HAVE BEEN CARRIED TO THE GENERAL SUMMARY. PAYMENT FOR ALL REQUIREMENTS OF THE TEMPORARY MAINTENANCE AND CONTROL OF TRAFFIC SHALL BE INCLUDED IN THE LUMP SUM OR UNIT PRICES BID FOR THE ITEMS ENUMERATED BELOW:

614	MAINTAINING TRAFFIC	LUMP
614	TEMPORARY CENTER LINES, CLASS II	0.88 MILE
614	TEMPORARY CHANNELIZING LINES, CLASS I	740 L.F.
614	TEMPORARY STOP LINES, CLASS I	118 L.F.
614	TEMPORARY LANE LINES, CLASS I	0.52 MILE

659 COMMERCIAL FERTILIZER

17544 X 9/1000 X 20/2000=	1.58 TON
FROM TEMP. SOIL EROSION & SEDIMENT CONT.	0.20 TON
TOTAL	1.78 TON

659 AGRICULTURAL LIMING

17544 X 9/1000 X 100/2000=	7.89 TON

ITEM 202 RAISED PAVEMENT MARKERS REMOVED

EXISTING RAISED PAVEMENT MARKERS IN THE PROJECT AREA ARE TO BE REMOVED FOR STORAGE AS PER 202.071. AN ESTIMATED QUANTITY OF 206 EACH IS CARRIED TO THE GENERAL SUMMARY.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC.

REMOVAL OF TREES OR STUMPS

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS OF THIS PROJECT SHALL BE REMOVED UNDER THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING, EXCEPT THAT THOSE TREES FOR WHICH PROTECTION AND PRESERVATION WORK IS INDICATED ELSEWHERE IN THESE PLANS SHALL NOT BE REMOVED.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	No. TREES	No. STUMPS	TOTAL
18"	0	0	0
30"	1	0	1
48"	0	0	0
60"	0	0	0

THE ABOVE ESTIMATE IS APPROXIMATE AND THE STATE OF OHIO RESERVES THE RIGHT TO ORDER THE REMOVAL OF ADDITIONAL TREES OR STUMPS OUTSIDE OF THE LIMITS OF CONSTRUCTION BUT WITHIN THE RIGHT-OF-WAY AND/OR EASEMENT LINES. PAYMENT FOR THE REMOVAL OF THESE ADDITIONAL TREES OR STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

CONDUIT END TREATMENT

IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, CONCRETE RIPRAP, ROCK CHANNEL PROTECTION, SODDING, ETC.

EXISTING GAS LINE

THE EXISTING GAS LINE SHOWN ON THE PLANS IS 6 INCH STEEL WITH A MAXIMUM OPERATING PRESSURE OF 48 PSI.

COMPLETION DATE

The completion date set on this contract is 4-30-89. The contractor is required to use all resources available to have the job completed by this date. Double shifts, overtime or weekend work may be needed to complete the project. The contractor is expected to work during the winter shut-down period in order to complete this project. Once the project begins the contractor must expedite his work, but at the same time perform all work under the specification requirements.

DB 10/6/89 REV

GENERAL NOTES

FHWA REGION	STATE	PROJECT	
5	OHIO		

3A
30

PLAN NO. 12

INITIAL PAVEMENT MARKINGS
FOR RESURFACED SECTIONS
GENERAL NOTES

621 Layout and Premarking

In accordance with 621.05 the Contractor shall "T" no-passing zones in accordance with a no-passing zone log provided by the Engineer.

847 Layout and Premarking

In addition to the requirements of 847.04, premarking for auxiliary markings shall be located from schematic forms provided by the Engineer.

Markings shall not be applied over existing markings except when applying initial permanent markings over temporary markings of fast-dry paint. Temporary markings other than fast-dry paint shall be removed and the surface prepared to the satisfaction of the Engineer before permanent markings are applied.

621 and 847 Auxiliary Pavement Marking

For this project, auxiliary markings shall be defined as: Stop lines, crosswalk lines, transverse lines, railroad and school symbol markings, lane arrows, word on pavement, curb and island markings, parking lot stall markings and dotted lines except when used to extend edge lines.

847 Material Application Temperature

The Contractor shall provide a calibrated temperature sensing device which will accurately measure the temperature of the extruded thermoplastic material when it makes contact with the pavement. A temperature of 400°F to 440°F at point of application to road surface must be maintained at all times.

847 Material Application Rates

In addition to the requirements of 847 the minimum application rates shall be as follows:

Pounds Per Mile of Line	Width of Line (Inches)			
	4	8	12	24
Solid Line	2340	4680	7020	14040
Dashed Line	585	1170	1755	3510

133 Pounds Per 100 Square Feet

947.02 Thermoplastic Pavement Markings

Glass beads intermixed or dropped on 947.02 thermoplastic pavement marking material shall meet the following specification:

Sieve No.	% Retained
16	3 Max
20	5 to 20
40	65 to 95
50	0 to 5

Refractive Index: 1.50 to 1.60

Roundness: 80% Min

Coating: Adhesion Promoting

The application rate of drop-on beads shall be a uniform 25 pounds of beads for each 100 square feet of thermoplastic material surface area.

862 Raised Pavement Markers

This Contract may include sections of roadway where plowable prismatic raised pavement markers are to be installed in the pavement. Raised pavement marker placement for a resurfaced section shall begin after the permanent pavement marking for that resurfaced section is completed and dry.

FHWA REGION	STATE	PROJECT	
5	OHIO		

3B
30

PLAN NO. 12

INITIAL PAVEMENT MARKINGS FOR RESURFACED SECTIONS GENERAL NOTES

In addition to the requirements of 621 and 847 the following shall apply:

621 and 847 Materials

The materials used on this project shall either be 621 fast dry traffic paint or 847 thermoplastic material approved by prequalification.

The Contractor shall provide storage for all materials and shall transport materials to the site where used. Glass beads shall be kept dry during storage and prior to use.

The Laboratory will furnish the names of manufacturers and code numbers from its approved list of prequalified white and yellow paint upon request.

621 and 847 Special Equipment

The Contractor's striper shall be equipped with an odometer graduated to 1/100 of a mile. The Engineer shall determine the degree of accuracy of the Contractor's odometer and establish an adjustment factor as may be required to accurately determine the pay item quantities. The Engineer shall periodically check the odometer's operation to assure maintenance to accurate measurements.

Failure of the odometer to function properly shall be cause to stop the work until the odometer is made to function properly. On short projects the Engineer may approve alternate methods to accurately measure the length of the various types of markings applied. If measurement of the work has to be done by the Department, the cost of the Department labor and equipment plus 10 percent shall be deducted from payment due the Contractor for the work. When measuring lane, edge and/or center line marking, the odometer shall be started at the first marked line and remain in operation, until the end of the section being marked, where it shall be shut off and the reading of the odometer recorded.

Electrical foot counters shall be provided and installed in the application equipment used to apply long line markings. The counters shall individually tabulate the amount of footage applied for each line, whether solid or dashed. The counters shall be a six digit type with a reset feature.

The Contractor shall use an accurate dashing mechanism, capable of being easily adjusted, to place lane or center line markings as specified in the plans or as directed by the Engineer.

Provision for the described special equipment by the Contractor shall be incidental to the application.

621 Material Quantity Measurement

The quantity of marking material or glass beads per unit of measurement will be computed by the Engineer at the end of each day's work. A day's applied mileage of less than 2 miles may be included in the next day's applied markings for the purpose of computing marking material and bead application rates.

The Contractor shall provide a calibrated measuring device acceptable to the Engineer for measuring material in the striper tanks.

The quantity of marking material used shall be determined by measuring the marking material in the tanks before and after marking material is applied. The Contractor shall cooperate with the Engineer in providing measurements whenever requested. The marking material application rate shall be determined by dividing the total gallons used by the appropriate marking length as determined from the foot counter as described within the Special Equipment Section of these notes. Any determination of pay deduction resulting from shortages in marking quantities shall be based on the measurements obtained by this method. The amount of glass beads applied will be ascertained by the Engineer by observation and from information supplied by the Contractor as to the quantity used.

847 Material Quantity Measurement

The quantity of marking material or glass beads per unit of measurement will be computed by the Engineer at the end of each day's work. A day's applied quantity of less than 100 pounds of marking material may be included in the next day's applied markings for the purpose of computing marking material and bead application rates.

The Contractor shall provide a calibrated measuring device acceptable to the Engineer for measuring material in the striper tanks.

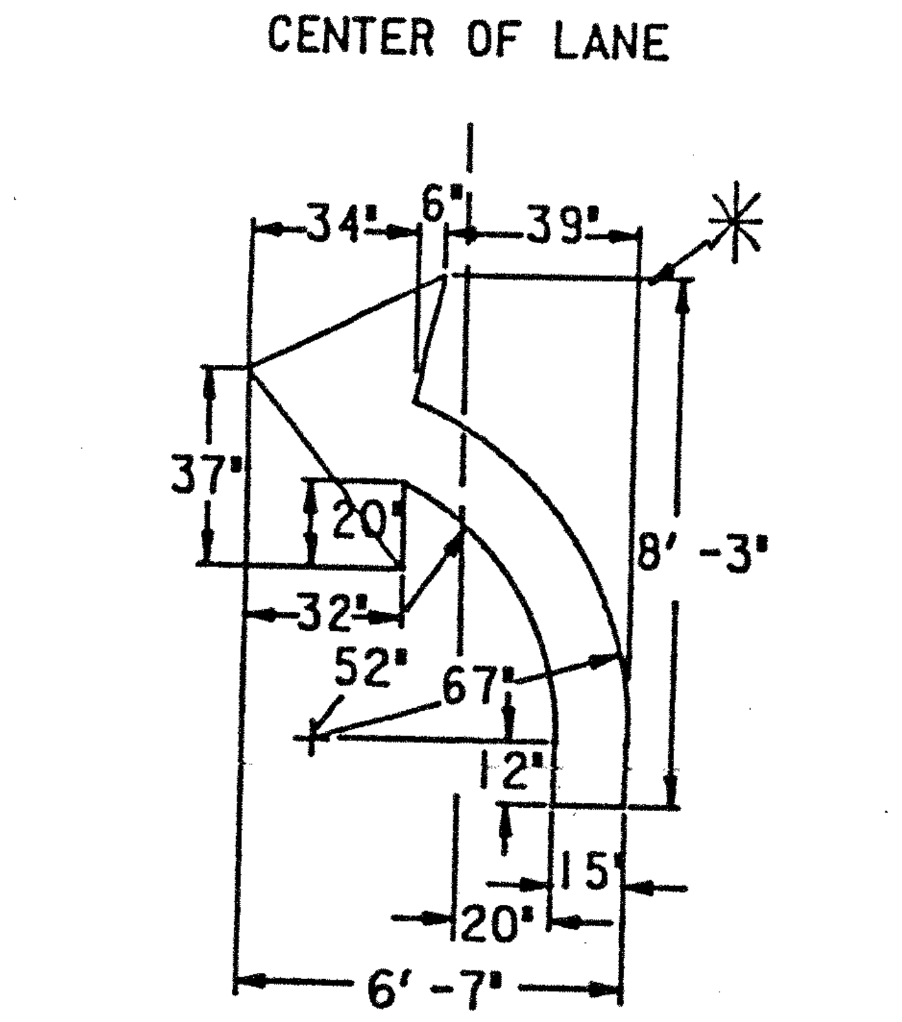
The quantity of marking material used shall be determined by measuring the marking material before and after marking material is applied. The Contractor shall provide measurements whenever requested by the Engineer. The marking material application rate shall be determined by dividing the total pounds of thermoplastic material used by the appropriate marking length as determined from the foot counter as described within the Special Equipment Section of these notes. Any determination of pay deduction resulting from shortages in marking quantities shall be based on the measurements obtained by this method. The amount of glass beads applied shall by ascertained by the Engineer by observation and from information supplied by the Contractor as to quantity used.

WORD AND SYMBOL MARKING DETAILS

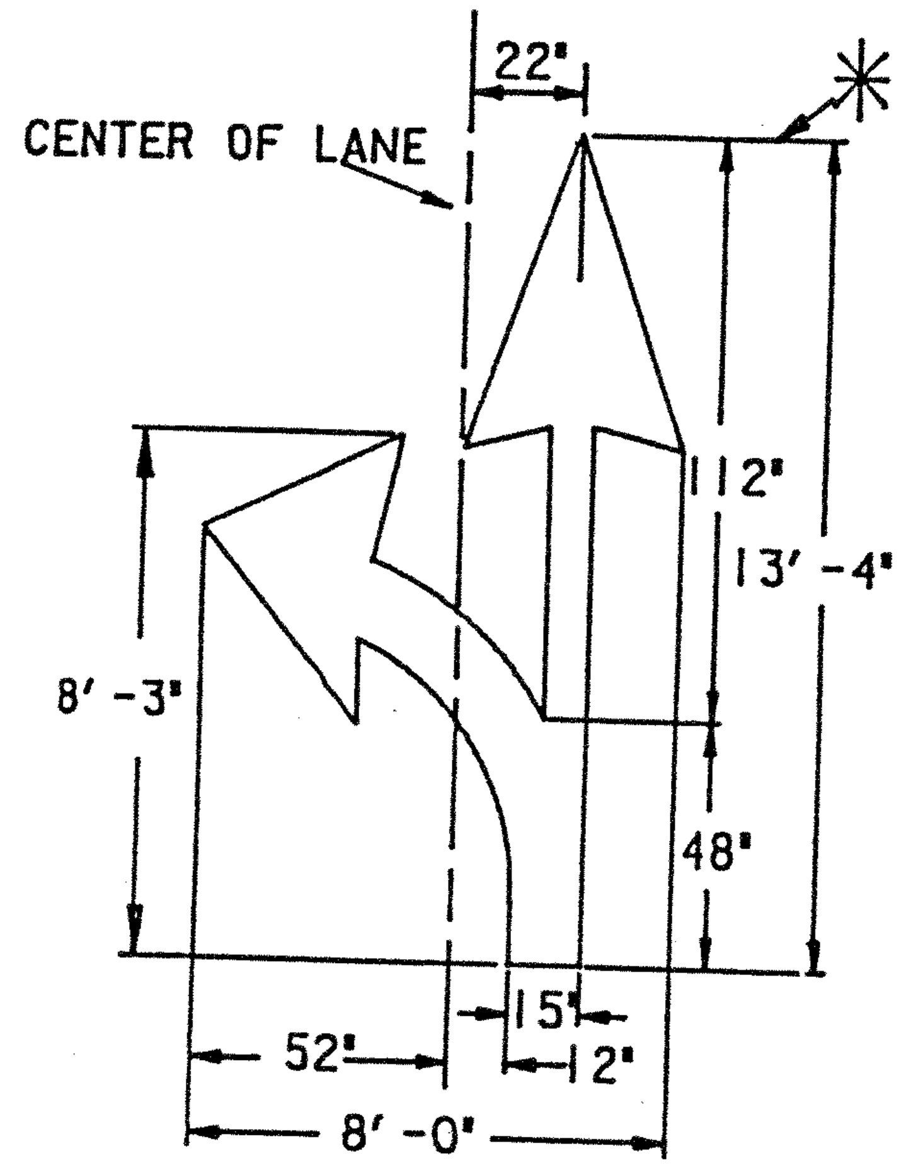
FED RD DIVISION	STATE	PROJECT	
5	OHIO		

3C
30

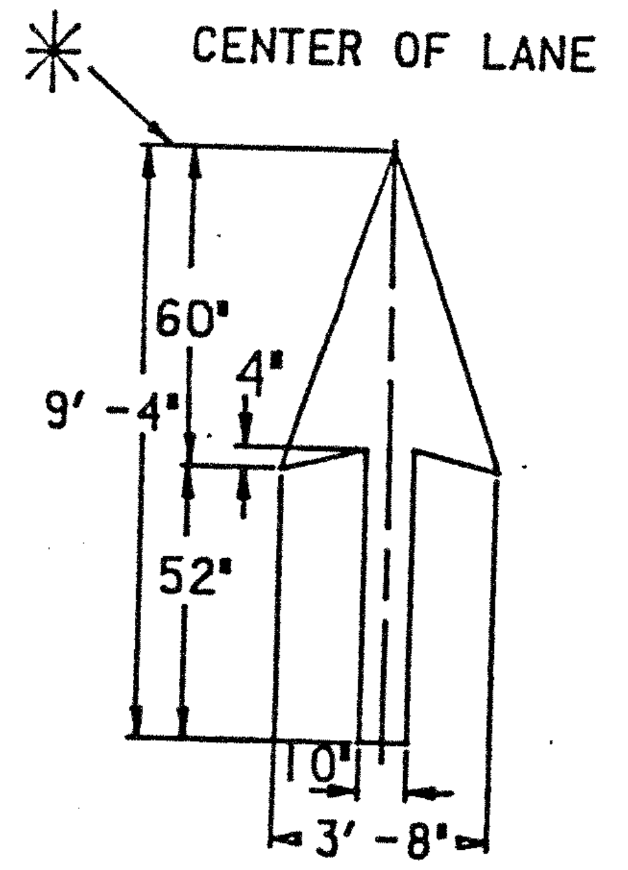
PLAN NO. 12



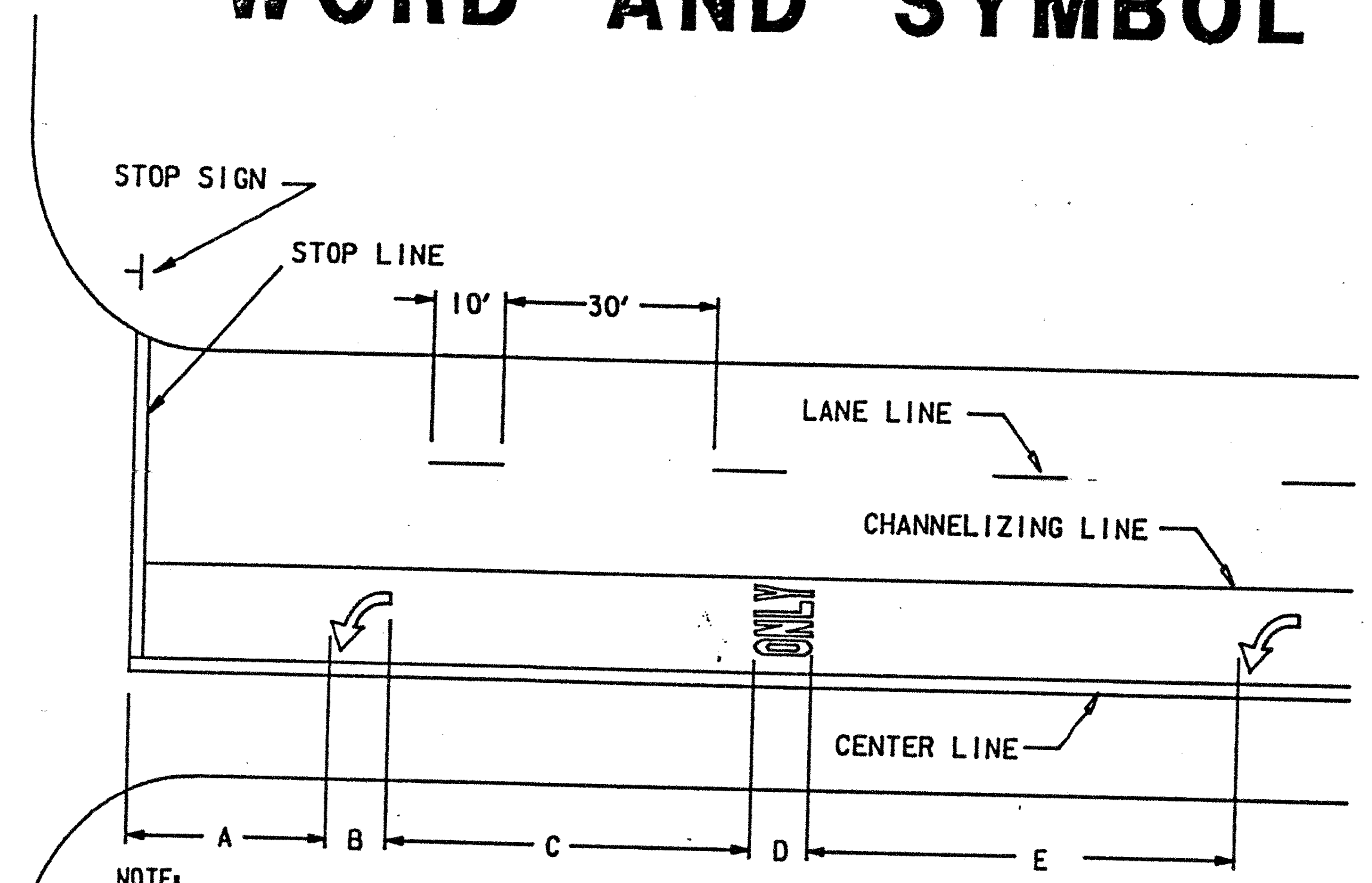
TURN ARROW
(LEFT ARROW SHOWN
RIGHT ARROW OPPOSITE)



COMBINED ARROW
THREE HEAD DIRECTIONAL ARROWS
CAN BE ACHIEVED BY THE COMBINATION
OF TURN ARROWS.

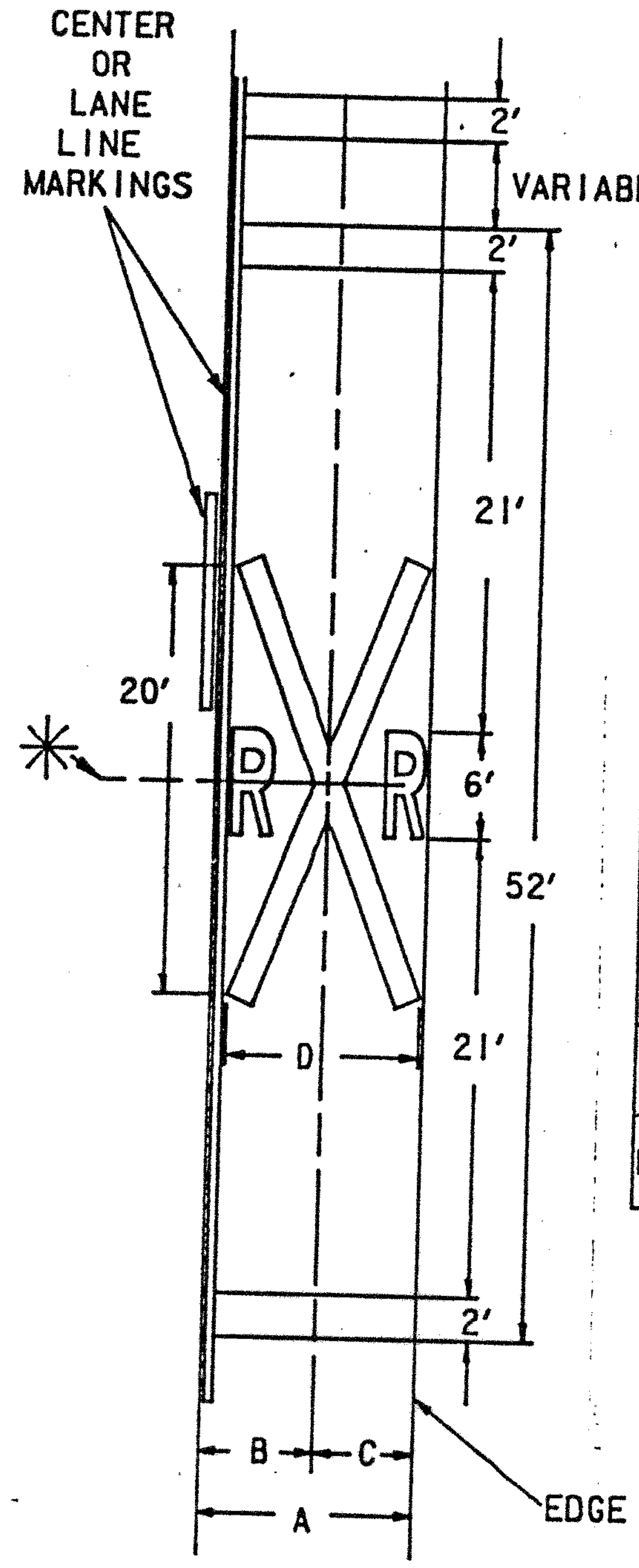


THROUGH ARROW



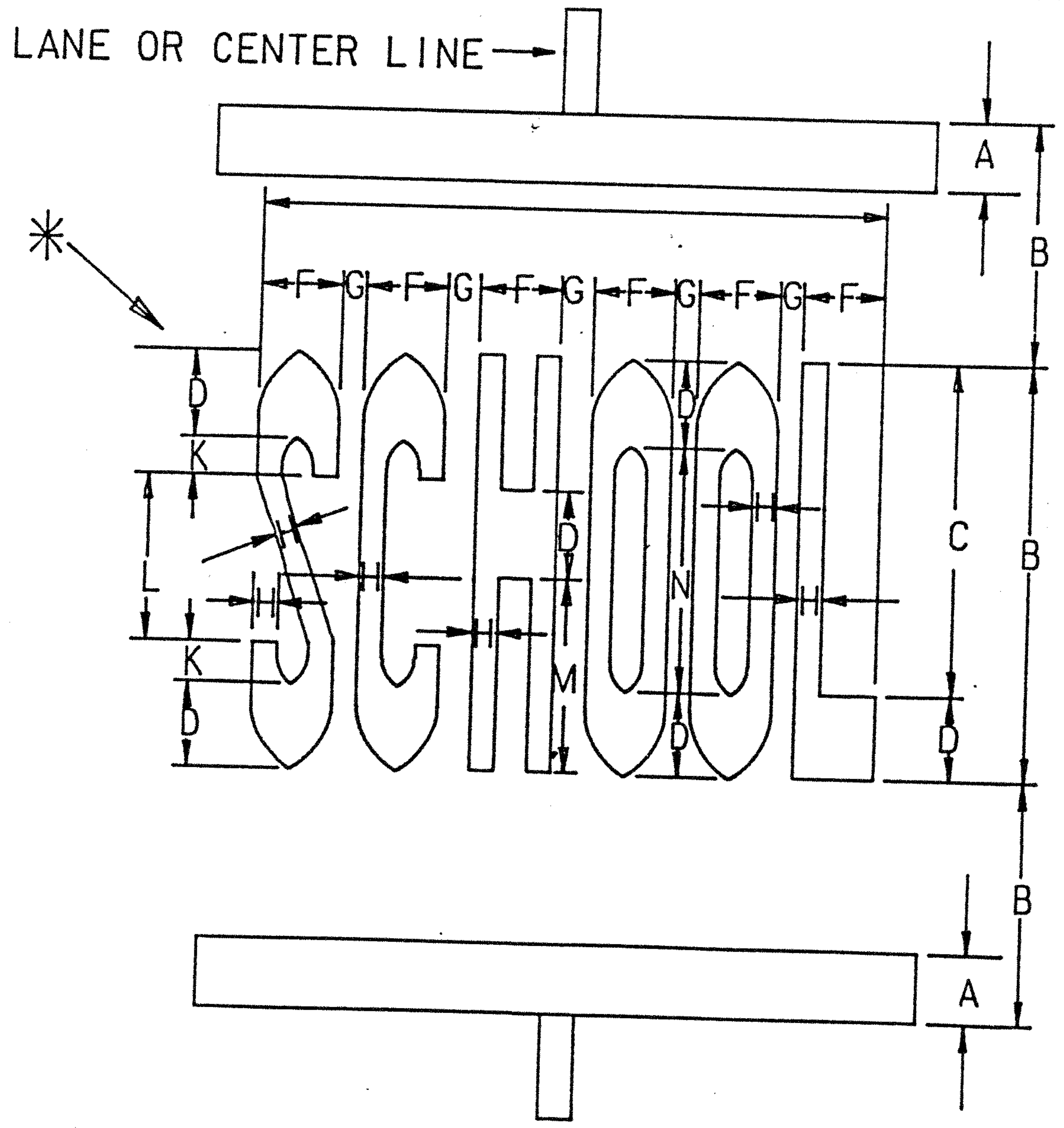
NOTE:
STOP BAR LOCATED MIN. 40' FROM
AT LEAST ONE SIGNAL HEAD WHICH APPLIES
TO THAT APPROACH

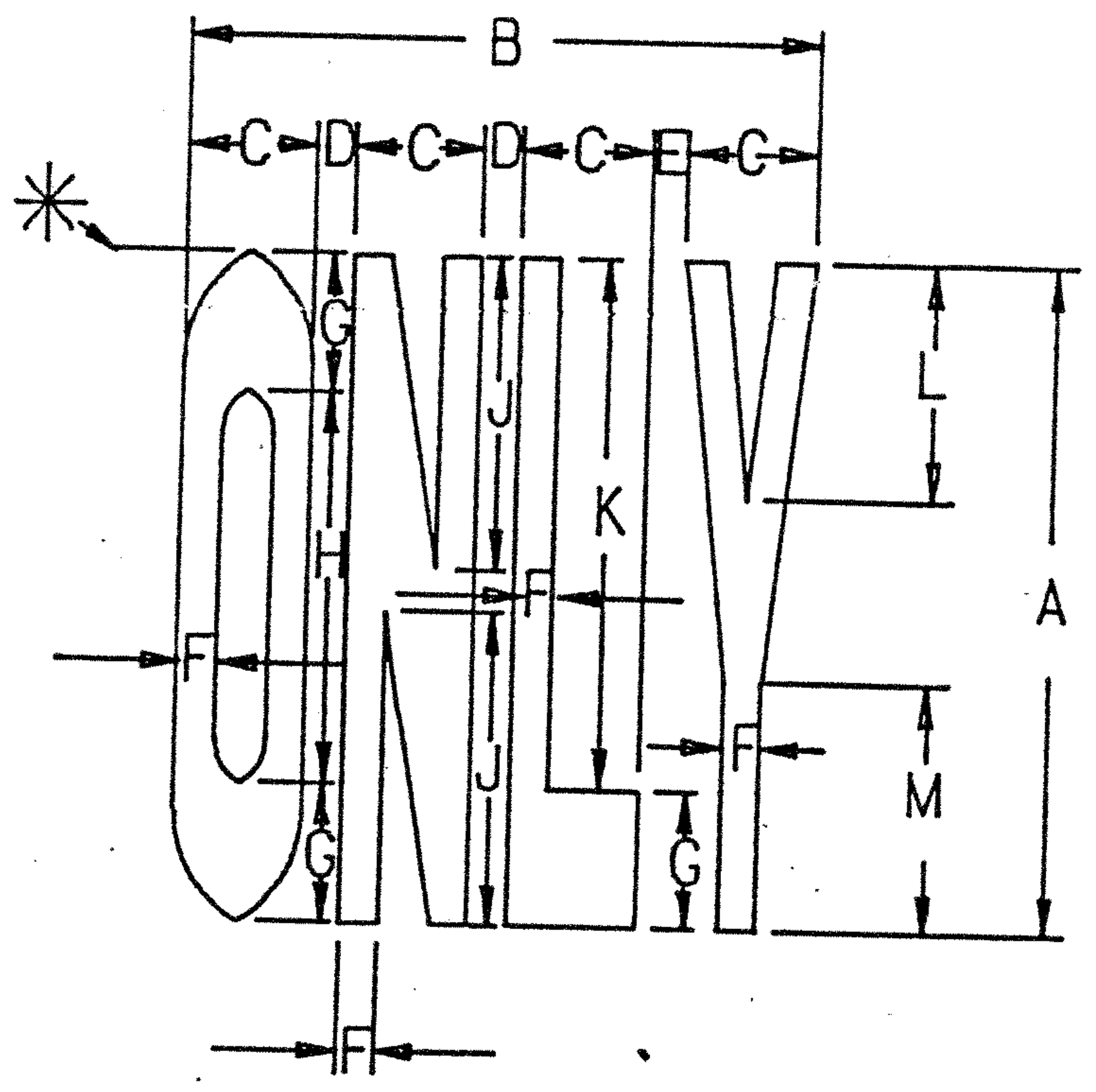
TYPE	DIMENSIONS (FEET)				
	A	B	C	D	E
RURAL	30 MIN.	8.25	32-80	8	32-60
URBAN	10 MIN.	8.25	32-80	6	24-60



A PVMT. WIDTH	DIMENSIONS (INCHES)		
	B	C	D
8'-0"	52	44	84
9'-0"	58	50	96
10'-0"	60	60	96
11'-0"	66	66	96
12'-0"	72	72	120

TYPE	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
RURAL	16	96	76	20	150	20	6	6	8	9	38	45	56
URBAN	16	72	57	15	148	18	8	4.50	9	6.75	28.50	33.75	42





TYPE	DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L	M
RURAL	96	94	20	6	2	6	20	56	45	76	32	36
URBAN	72	90	18	8	2	4.50	15	42	33.75	57	24	27

NOTES

1. PAVEMENT MARKING FOR WORDS, SYMBOLS, ARROWS AND TRANSVERSE LINES FOR WORD 'SCHOOL' OR THE RAILROAD SYSMBOL SHALL BE WHITE REFLECTIVE MATERIAL.

2. TWO TRANSVERSE LINES SHALL BE INCLUDED IN THE PAYMENT FOR EACH WORD 'SCHOOL'. THREE TRANSVERSE LINES SHALL BE INCLUDED IN THE PAYMENT FOR EACH RAILROAD SYMBOL.

3. ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE RAILROAD SYMBOLS SHALL EXTEND ACROSS ALL APPROACH LANES AND SYMBOLS SHALL BE PLACED IN EACH APPROACH LANE.

4. FOR THE RAILROAD SYMBOL, NO PORTION OF ONE TRANSVERSE LINE SHALL BE CLOSER THAN 30 FEET FROM THE NEAREST RAILROAD TRACK RAIL AND THE LINE MAY BE EITHER PARALLEL TO THE TRACK OR PERPENDICULAR TO THE CENTERLINE OF THE ROADWAY. THE OTHER TWO TRANSVERSE LINES AND THE RAILROAD SYMBOL SHALL BE LOCATED FROM THE STATION REFERENCE POINT SHOWN IN THE PLANS.

5. ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE WORD 'SCHOOL' SHALL EXTEND ACROSS ALL APPROACH LANES WITH A SINGLE WORD 'SCHOOL' CENTERED ACROSS THE APPROACH LANES. ON TWO LANE ROADWAYS, THE TRANSVERSE LINES SHALL EXTEND ACROSS THE ROADWAY WITH THE WORD 'SCHOOL' CENTERED ACROSS THE ROADWAY. CENTER OR LANE LINES SHALL NOT PASS THROUGH THE 'SCHOOL' MARKING.

6. THE STOP LINE SHOULD BE PLACED WHERE CROSS-CORNER VISION IS MAXIMUM, IN NO CASE MORE THAN 30 FEET OR LESS THAN 4 FEET FROM NEAREST EDGE OF THE INTERSECTING ROADWAY. FOR NORMAL INTERSECTIONS A MAXIMUM DISTANCE OF 10 FEET IS RECOMMENDED.

IF A MARKED CROSSWALK IS PRESENT THE STOP LINE SHOULD BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK.

7. ** ANY OF THE FOLLOWING STANDARDS FOR LETTER (EXCEPT 'R'), NUMERAL OR SYMBOL DIMENSIONING MAY BE USED:

A.) STANDARD DIMENSIONS SHOWN ON THIS DETAIL (NOMINAL)

B.) STANDARD DIMENSIONS IN ACCORDANCE WITH THE 1977 METRIC EDITION STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING WITH ERRATA.

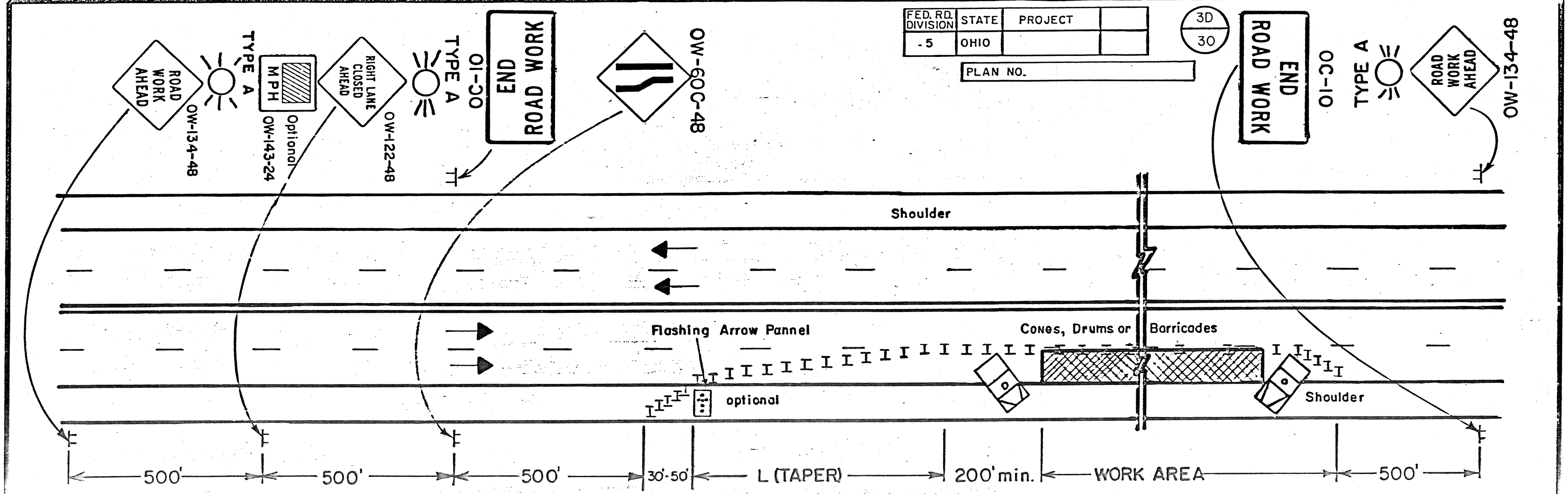
C.) STANDARD DIMENSIONS CONFORMING TO REQUIREMENTS OF SECTION 3B-17 OR AS SHOWN IN FIGURES 3-17, 3-18, 7-2, 7-3, 8-2 OR 9-6 OF THE 1978 NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

** THE LETTER 'R' DIMENSIONS SHALL BE AS SHOWN ON THIS SHEET AND IN THE NMUTCD SECTION 8-2.

✳ INDICATES STATION REFERENCE POINT

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

PLAN NO.



GENERAL NOTES:

1. The taper length (L) shall be in accordance with Section 7F-17 of the OMUTCD. The location of the transition taper and location of the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment. In order to determine the minimum number of channelizing devices for the transition taper see Table 7-5 OMUTCD. For a 55 MPH prevailing speed and a 12 ft. lane, not less than thirteen (13) cones, drums or barricades shall be used to form the lane transition taper in advance of the work area. Not less than five (5) cones, drums or barricades shall be used to form the taper on the shoulder. Cones, drums or barricades shall be spaced approximately 50' to 60' center to center for the first 1000 feet of the work area and at a maximum of 100 to 120 feet for the balance of the work area. Cones, drums or barricades on the return taper shall be spaced at 10' center to center. Cones may be substituted for barricades or drums for short term lane closures. Cones shall be reflectorized, delineated or internally illuminated for short term night lane closures.

2. Type C steady burning barricade warning lights shall be erected on drums or barricades for night lane closures. The maximum spacing shall be identical to the channelizing device spacing requirements described in Note 1.

3. Type A flashing barricade warning lights shown on the "Road Work Ahead" and the "Right Lane Closed Ahead" signs are required whenever a night lane closure is necessary.

4. Some work area locations may require more than just static or conventional signs to enhance communication with the driver. At these locations Portable Changeable Message Signs (PCMS) units are reommended These devices should be located approximately 2000 ft. in advance of a lane closure or other point of required action. See Section 7G-8.1, OMUTCD for further guidance on use of PCMS units.

5. The work vehicles shown at the beginning and end of the work area shall be in place and unoccupied whenever workers are in the work area. These work vehicles shall be removed from the pavement whenever workers are not in the work area. Other protective devices may be used in lieu of the work vehicles shown when approved by the Engineer. The vehicles shall be equipped with a 360° rotating or flashing amber beacon clearly visible a minimum of a ¼ mile.

6. When used, the flashing arrow panel shall meet requirements contained in Section 7G-8, OMUTCD.

OHIO DEPARTMENT OF TRANSPORTATION

CLOSING RIGHT LANE
OF A MULTILANE
UNDIVIDED HIGHWAY

DATE
12/82

PLAN NO.

3E
30

GENERAL NOTES

1. The taper length (L) shall be in accordance with Section 7F-17 of the OMUTCD. The location of the transition taper and location of the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment. In order to determine the minimum number of channelizing devices for the transition taper see Table 7-5 OMUTCD. For a 55 MPH prevailing speed and a 12 foot lane, not less than thirteen (13) cones, drums or barricades shall be used to form the lane transition taper in advance of the work area. Cones, drums or barricades shall be spaced at approximately 50' to 60' centers for the first 1000 feet of the work area and at a maximum of 100 to 120 feet for the balance of the work area. On the return taper these devices shall be spaced at 10 foot center to center. Cones, drums or barricades shall also be placed on the left side of the work area between the closed lane and the opposing traffic. These devices shall be spaced at approximately 50' to 60' centers for 1000 feet starting at the end of the return taper and then at a maximum of 100 to 120 feet back along the remainder of the closed section. Cones may be substituted for barricades or drums for short term lane closures. Cones shall be reflectorized, delineated or internally illuminated for short term night lane closures.

2. Type C steady burning barricade warning lights shall be erected on drums or barricades for night lane closures. The maximum spacing shall be identical to the channelizing device spacing requirements described in Note 1.

3. Type A flashing barricade warning lights shown on the "Road Work Ahead", "Left Lane Closed Ahead" and "Worker Symbol" signs are required whenever a night lane closure is necessary.

4. When used, the flashing arrow panel shall meet requirements contained in Section 7G-8, OMUTCD.

5. The work vehicles shown at the beginning and end of the work area shall be in place and unoccupied whenever workers are in the work area. These work vehicles shall be removed from the pavement whenever workers are not in the work area. Other protective devices may be used in lieu of the work vehicles shown when approved by the Engineer. The vehicles shall be equipped with a 360° rotating or flashing amber beacon clearly visible a minimum of a 1/4 mile. A truck mounted impact attenuetor may be employed.

6. When the work area encroeches upon the left edge of the opposite direction left lane, that lane shall be closed. Traffic control devices (signs, channelizing devices, and optional flashing arrow panel) identical in type, size and placement to primary approach traffic control shall be installed on the opposite direction approach. Work vehicles shall be repositioned accordingly.

7. Some work area locations may require more than just static or conventional signs to enhance communication with the driver. At these locations Portable Changeable Message Signs (PCMS) units are recommended. These devices should be located approximately 2,000 feet in advance of a lane closure or other point of required action. See Section 7G-8.1, OMUTCD for further guidance on use of PCMS units.

BUREAU OF TRAFFIC
OHIO DEPARTMENT OF TRANSPORTATION

CLOSING LEFT LANE
OF A MULTILANE
UNDIVIDED HIGHWAY

DATE
3/84

APPROVED____________

PAVEMENT CALCULATIONS

PLAN NO. 12

FHWA REGION	STATE	PROJECT
5	OHIO	

4
30

ROSS COUNTY
ROS-159-4.10

SEE SHEET NUMBER	LOCATION AND DESCRIPTION	SIDE	404 ASPHALT CONCRETE AC-20 1.25" SQ.YD.	404 ASPHALT CONCRETE AC-20 VAR. SQ.YD.	402 ASPHALT CONCRETE AC-20 1.75" SQ.YD.	304 AGGREGATE BASE 6" SQ.YD.	301 BITUMINOUS AGGREGATE BASE AC-20 3" SQ.YD.	301 BITUMINOUS AGGREGATE BASE AC-20 9" SQ.YD.	203 SUBGRADE COMPACTION SQ.YD.	407 TACK COAT 0.075 GAL./S.Y. SQ.YD.	408 BITUMINOUS PRIME COAT 0.40 GAL./S.Y. SQ.YD.	409 SEAL COAT BITUMINOUS MATERIAL 0.30 GAL./S.Y. SQ.YD.	409 SEAL COAT COVER AGGREGATE NO.8 0.008 C.Y./S.Y. SQ.YD.	617 WATER M. GALS.	617 COMPACTED AGGREGATE TYPE B .75" AVG. SQ.YD.
	MAINLINE														
	PAVEMENT WIDENING														
	86+50-88+90 1056X1/9 (PLANIMETER)	LT.	117		117										
	86+50-88+90 1176X1/9 (PLANIMETER)	LT.						131	131						
	88+90-96+80 11712X1/9 (PLANIMETER)	LT.	1301		1301										
	88+90-96+80 12588X1/9 (PLANIMETER)	LT.						1399	1399						
	96+80-100+10 4950X1/9 (PLANIMETER)	LT.	550		550										
	96+80-100+10 5115X1/9 (PLANIMETER)	LT.						568	568						
	100+10-107+44 8808X1/9 (PLANIMETER)	LT.	979		979										
	100+10-107+44 9175X1/9 (PLANIMETER)	LT.						1019	1019						
	107+44-111+64 2550X1/9 (PLANIMETER)	LT.	283		283										
	107+44-111+64 2760X1/9 (PLANIMETER)	LT.						307	307						
	91+00-101+93.89 6900X1/9 (PLANIMETER)	RT.	767		767										
	91+00-101+93.89 7447X1/9 (PLANIMETER)	RT.						827	827						
	PIPE REPLACEMENT S.R. 159														
	104+23-104+30 49X7X1/9	LT&RT			38			38	38						
	RE-SURFACE EXISTING														
	86+50-96+50 44AVG.X1000X1/9	LT&RT	4889							4889					
	96+50-97+73.89 24X123.89X1/9	LT&RT	330							330					
	97+73.89-101+93.89 30AVG.X420X1/9	LT&RT	1400							1400					
	101+93.89-107+08 36X514.11X1/9	LT&RT	2056							2056					
	107+08-111+64 28X456X1/9	LT&RT	1419							1419					
	BERMS														
	86+50-109+50 8X2300X1/9	LT.					2044				2044	2044	2044		
	86+50-109+50 7.5X2300X1/9	LT.				1917			1917						
	109+50-111+64 6AVG.X214X1/9	LT.					143				143	143	143		
	109+50-111+64 5.5AVG.X214X1/9	LT.				131			131						
	86+50-91+00 450X8X1/9	RT.	400												
	91+00-103+54 1254X8X1/9	RT.					1115				1115	1115	1115		
	91+00-103+54 1254X7.5X1/9	RT.				1045			1045						
	103+54-104+09 0.5X8X55X1/9	RT.					24				24	24	24		
	103+54-104+09 0.5X7.5X55X1/9	RT.				23			23						
	105+56-105+74 0.5X8X18X1/9	RT.					8				8	8	8		
	105+56-105+74 0.5X7.5X18X1/9	RT.				8			8						
	105+74-109+50 376X8X1/9	RT.					334				334	334	334		
	105+74-109+50 376X7.5X1/9	RT.				313			313						
	109+50-111+64 6AVGX214X1/9	RT.					143				143	143	143		
	109+50-111+64 5.5AVGX214X1/9	RT.				131			131						
	86+50-89+85 335X3X1/9	RT.													112
	2X10X1/2000													.01	
	FEATHER AREAS														
	86+00-86+50 (80X50+.5X8X4)1/9	LT&RT		446											
	111+64-112+00 20X28X1/9	LT&RT		62											
	DRIVE LT. STA. 90+26														
	0+44-0+95 (PLANIMETER)	LT.				205	205		205		205	205	205		
	DRIVE RT. STA. 90+26														
	13' FEATHER (PLANIMETER)	RT.		99						99					
	DRIVE LT. STA. 105+08														
	0+32-0+75 (PLANIMETER)	LT.				239	239		239		239	239	239		
	DRIVE RT. STA. 105+08														
	13' FEATHER (PLANIMETER)	RT.		246						246					
	Sub-Total		14491	853	4035	4012	4255	4289	8301	10439	4255	4255	4255	.01	112
	Conv. to C.Y., Gal, Etc.		503.2	14.8	196.2	669	354.6	1072.3	8301	10439	4255	4255	4255		112
	TOTAL		518.0		196.2	669	1426.9		8301	782.9	1702	1276.5	34.0	.01	2.3
	USE		518		196	669	1427		8301	783	1702	1276	34	1	2

CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

GENERAL SUMMARY

ROSS COUNTY
ROS-159-4.10

PLAN NO. 12

* NON-FEDERAL PARTICIPATION

ITEM	SHEET NUMBER							PARTICIPATION	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION
	3	4	6	13	24	26	27						
											PART 1		
201									201		LUMP	LUMP	CLEARING AND GRUBBING
202			50						202		50	LIN.FT.	PIPE REMOVED, 24" AND UNDER
202					89				202		89	LIN.FT.	PIPE REMOVED, OVER 24"
202			240						202		240	SQ.YD.	PAVEMENT REMOVED
202			390						202		390	LIN.FT.	CURB REMOVED
202			841						202		841	LIN.FT.	CURB REMOVED, AS PER PLAN
202			196						202		196	LIN.FT.	CURB AND GUTTER REMOVED
202			1						202		1	EACH	CATCH BASIN ABANDONED
202	206								202		206	EACH	RAISED PAVEMENT MARKERS REMOVED FOR STORAGE
203				7014					203		7014	CU.YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION
203				2562					203		2562	CU.YD.	EMBANKMENT
203		8301							203		8301	SQ.YD.	SUBGRADE COMPACTION
604							8		604		8	EACH	REFERENCE MONUMENT
616	50								616		50	M.GAL.	WATER
207	100								207		100	EACH	STRAW OR HAY BALES
207	3500								207		3500	SQ.YD.	TEMPORARY SEEDING AND MULCHING
659	39								659		39	M.SQ.FT.	MOWING
659	1.78								659		1.78	TON	COMMERCIAL FERTILIZER
659	877								659		877	SQ.YD.	REPAIR SEEDING AND MULCHING
659	6								659		6	M-GAL	WATER
659				17544					659		17544	SQ.YD.	SEEDING AND MULCHING
670			2033						670		2033	SQ.YD.	DITCH EROSION PROTECTION
601					6				601		6	CU.YD.	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER
601			8						601		8	CU.YD.	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER
659	7.89								659		7.89	TON	AGRICULTURAL LIMING
602					0.8				602		0.8	CU.YD.	CONCRETE MASONRY
603					118				603		118	LIN.FT.	36" CONDUIT, TYPE B
603					86				603		86	LIN.FT.	30" CONDUIT, TYPE B
603					30				603		30	LIN.FT.	30" CONDUIT, TYPE C
604					3				604		3	EACH	CATCH BASIN 4-A WITH GRATE "E", WITHOUT APRON, AS PER PLAN
603			168						603		168	LIN.FT.	6" CONDUIT, TYPE F, 707.17, NON-PERFORATED, ASTM 3034 SDR 35 OR SS 931
605			2965						605		2965	LIN.FT.	6" DEEP PIPE UNDERDRAIN
SPECIAL			5						SPECIAL		3	EACH	PRECAST REINFORCED CONCRETE OUTLET
301		1427							301		1427	CU.YD.	BITUMINOUS AGGREGATE BASE, AC-20
304		669							304		669	CU.YD.	AGGREGATE BASE, AS PER PLAN
402		196							402		196	CU.YD.	ASPHALT CONCRETE, AC-20
404		518							404		518	CU.YD.	ASPHALT CONCRETE, AC-20
407		783							407		783	GAL.	TACK COAT
408		1702							408		1702	GAL.	BITUMINOUS PRIME COAT
409		1276							409		1276	GAL.	SEAL COAT BITUMINOUS MATERIAL
409		34							409		34	CU.YD.	SEAL COAT COVER AGGREGATE, NO. 8
617		2							617		2	CU.YD.	COMPACTED AGGREGATE, TYPE B
617		1							617		1	M-GAL.	WATER
621						0.89			621		0.89	MILE	EDGE LINES
621						0.52			621		0.52	MILE	LANE LINES
621						0.88			621		0.88	MILE	CENTER LINES
621						740			621		740	LIN.FT.	CHANNELIZING LINES
847						118		*	847		118	LIN.FT.	STOP LINES, 947.03, TYPE A1, INLAID
621						0.21			621		0.21	MILE	TRANSVERSE LINES
847						8		*	847		8	EACH	LANE ARROWS, 947.03, TYPE A-1, INLAID
847						4		*	847		4	EACH	WORD ON PAVEMENT, "ONLY", 96", 947.03, TYPE A-1, INLAID
630						159.5			630		150.5	SQ.FT.	SIGNS, FLAT SHEET
630						18.75			630		18.75	SQ.FT.	SIGNS, FLAT SHEET, TYPE G
630						295			630		283	LIN.FT.	GROUND MOUNTED SUPPORTS, NO. 3 POST
630						55			630		55	LIN.FT.	GROUND MOUNTED SUPPORTS, NO. 4 POST
630						29			630		29	EACH	REMOVAL OF GROUND MOUNTED SIGN AND STORAGE
630						21			630		21	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL
614	0.88								614		0.88	MILE	TEMPORARY CENTER LINES, CLASS II
614	118								614		118	LIN.FT.	TEMPORARY STOP LINES, CLASS I
614	740								614		740	LIN.FT.	TEMPORARY CHANNELIZING LINES, CLASS I
614	0.52								614		0.52	MILE	TEMPORARY LANE LINES, CLASS II
619	LUMP								619		LUMP	LUMP	FIELD OFFICE
614	LUMP								614		LUMP	LUMP	MAINTAINING TRAFFIC
623	LUMP								623		LUMP	LUMP	CONSTRUCTION LAYOUT STAKES
624	LUMP								624		LUMP	LUMP	MOBILIZATION

\ACAD\R159\GSUM

REV TMR 9/19/89
REV NO 10/20/89

CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

QUANTITIES & DETAILS

ROSS COUNTY
ROS-159-4.10

PLAN NO. 12

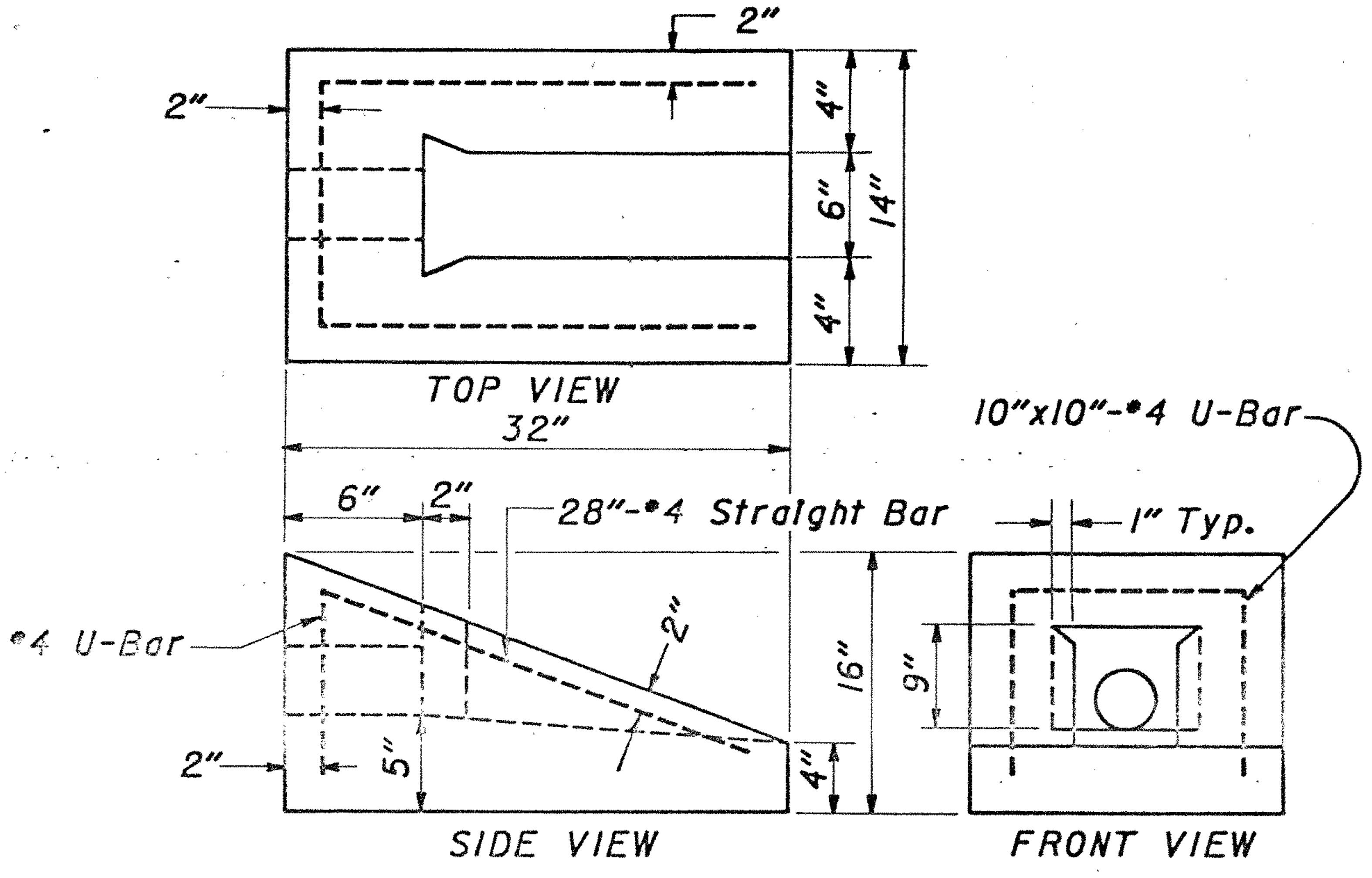
ESTIMATED QUANTITIES																
REF. NO.	STATION TO STATION	SIDE	202 CATCH BASIN ABANDON.	202 ** CURB REMOVED AS PER PLAN	202 CURB REMOVED	202 PAVEMENT REMOVED	202 CURB& GUTTER REMOVED	670 DITCH EROSION PROTECT.	605 6" DEEP PIPE U.D.	SPECIAL PRECAST R.C. OUTLET	603 CONDUIT TYPE F 6"	601 ROCK CH. PROT TYPE C W/FILTER	# 90° BEND	# 45° BEND	202 PIPE REMOVED 24"&UND.	SEE SHEET NO.
			EACH	L.F.	L.F.	SQ.YD.	L.F.	SQ.YD.	L.F.	EACH	L.F.	C.Y.	EACH	EACH	L.F.	
R-1	86+25	LT.	1													7
R-2	86+05-88+00	LT.&RT.			390											7
R-3	86+05-87+95	LT.&RT.	4.32(PLANIM)X400X1/9			192										7
R-4	104+50-104+82	LT.					98									10
R-5	105+21-105+76	LT.					98									11
R-6	107+33	LT.													50	11
R-7	95+25	LT.	43X10X1/9			48										9
R-8	87+95-90+06	LT.		405												7
R-9	90+55-94+75	LT.		436												8
D-1	94+00-104+27	LT.	1027X12X1/9					1369								8-10
D-2	105+45-109+00	LT.	355X10X1/9					394								11
D-3	0+58-0+88 HOSP. DR.	LT.	30X8X1/9					27								10
D-4	0+57-0+77 HOSP. DR.	RT.	20X10X1/9					22								11
D-5	103+50	RT.									35					10
D-6	104+05-104+28	LT.									32					10
D-7	105+44-105+68	LT.									34					11
D-8	106+00	RT.									32					11
D-9	94+10	LT	12X21X1/9					28								8
D-10	94+80	LT.	12X45X1/9					60								8
D-11	95+30	LT.	12X26X1/9					35								9
D-12	96+55	LT	6X24X1.5X1/27									8				9
D-13	97+40	LT.	12X37X1/9					49								9
D-14	98+50	LT.	12X37X1/9					49								9
D-15	107+35	LT.	6 × 27 × 1.5 × 1/27								35	9				
D-16	98+00	RT.								1						
UD-1	91+00-103+50	RT.							1250	1			2			8-10
UD-2	98+50-104+05	LT.							555	1				1		9-10
UD-3	105+68-111+64	LT.							596					1		11-12
UD-4	106+00-111+64	RT.							564				1			11-12
	TOTALS *		1	841	390	240	196	2033	2965	3	168	17			50	

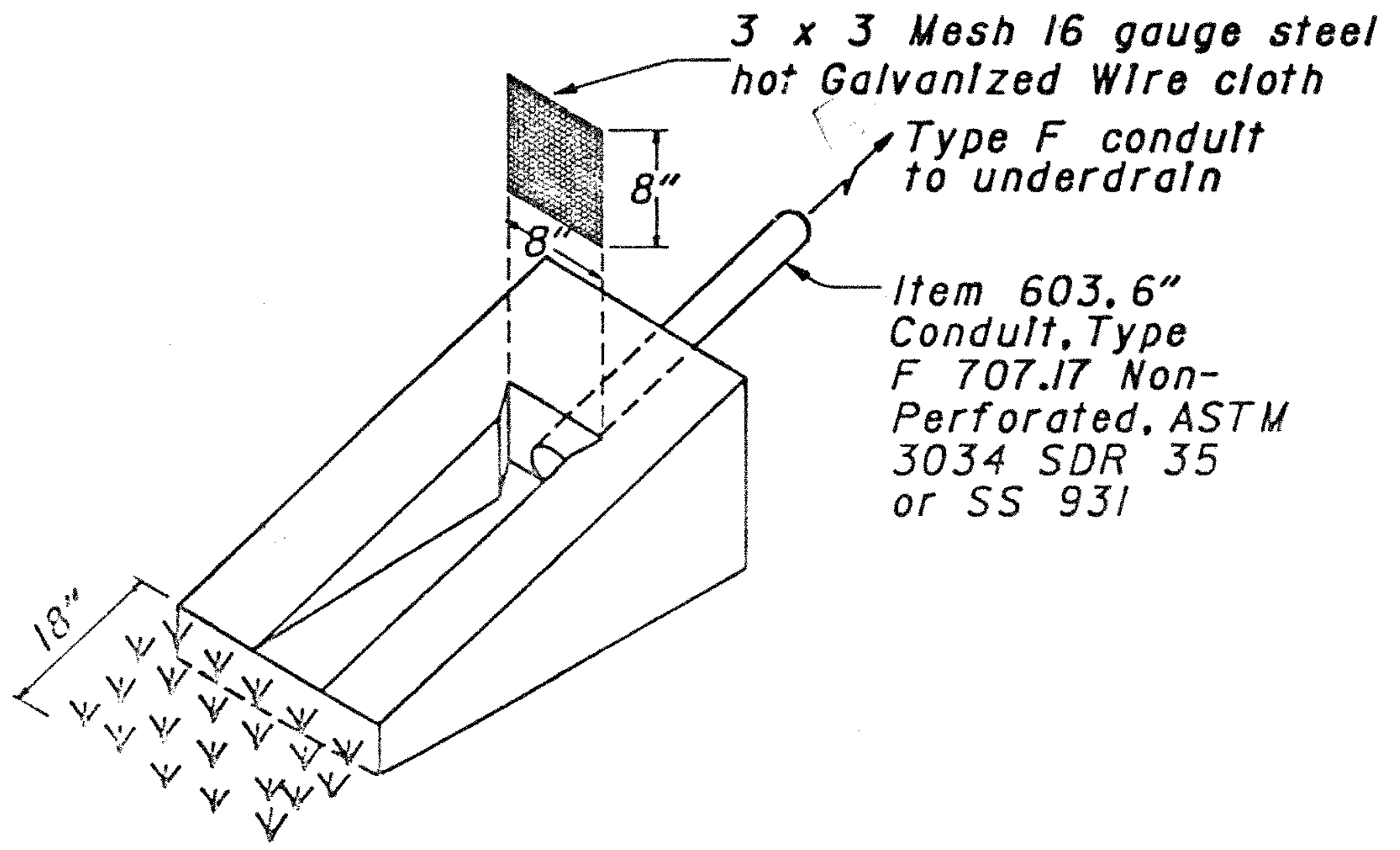
* QUANTITIES CARRIED TO GENERAL SUMMARY SHEET 5.

NOT A PAY ITEM, FOR INFORMATION ONLY

ITEM SPECIAL - PRECAST REINFORCED CONCRETE OUTLET

The Concrete outlet shall meet the requirements of Item 604 in the Construction & Materials Specifications. Payment shall be made on an Each basis. Payment shall include the cost of the ***Sod & Wire Mesh.***

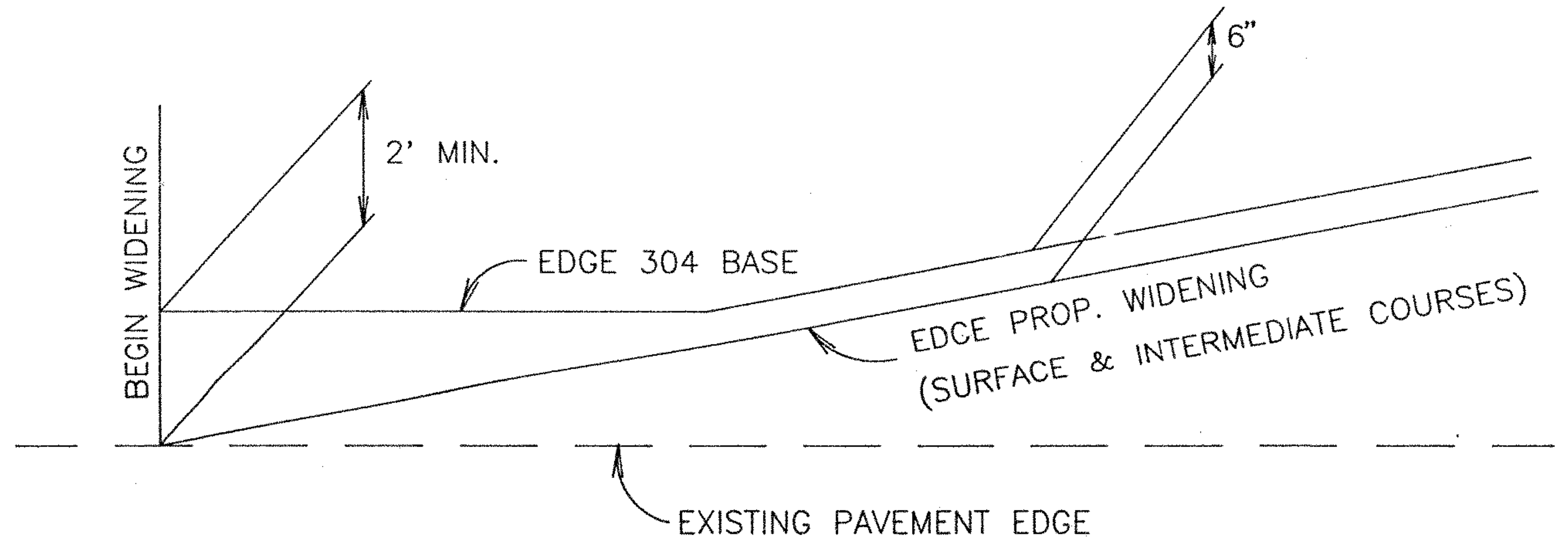



3 x 3 Mesh 16 gauge steel hot Galvanized Wire cloth
Type F conduit to underdrain
8"
8"
Item 603, 6" Conduit, Type F 707.17 Non-Perforated, ASTM 3034 SDR 35 or SS 931
18"

NOTE: The Sod shall be in accordance with Item 660 and staked at each corner approximately 3 inches in from the edge.

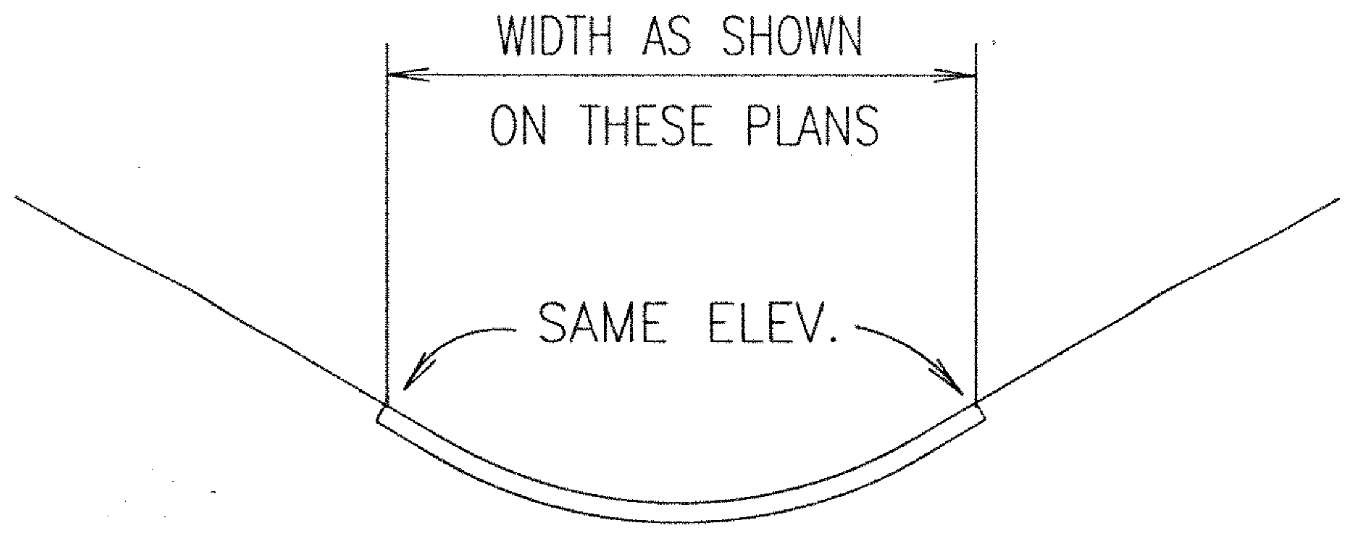
**202 CURB REMOVED,AS PER PLAN

THIS ITEM CONSISTS OF REMOVING AN EXISTING ASPHALT CURB WHICH HAS BEEN PLACED ON A **CONCRETE PAVE**MENT. THE CURB IS SUBSTANTIALLY EQUAL TO TYPE I ASPHALT CURB AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-5. THE UNIT PRICE BID PER **LINEAL FOOT FOR ITEM 202 CUR**B REMOVED, AS PER PLAN SHALL CONSTITUTE **FULL COMPENSATION** FOR REMOVING AND DISPOSING OF THIS CURB.



DETAIL

SHOWING MINIMUM BASE WIDENING



DETAIL

EROSION PROTECTION

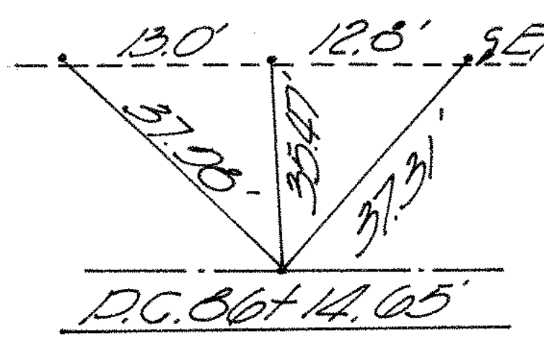
REV RB 10/20/89

CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

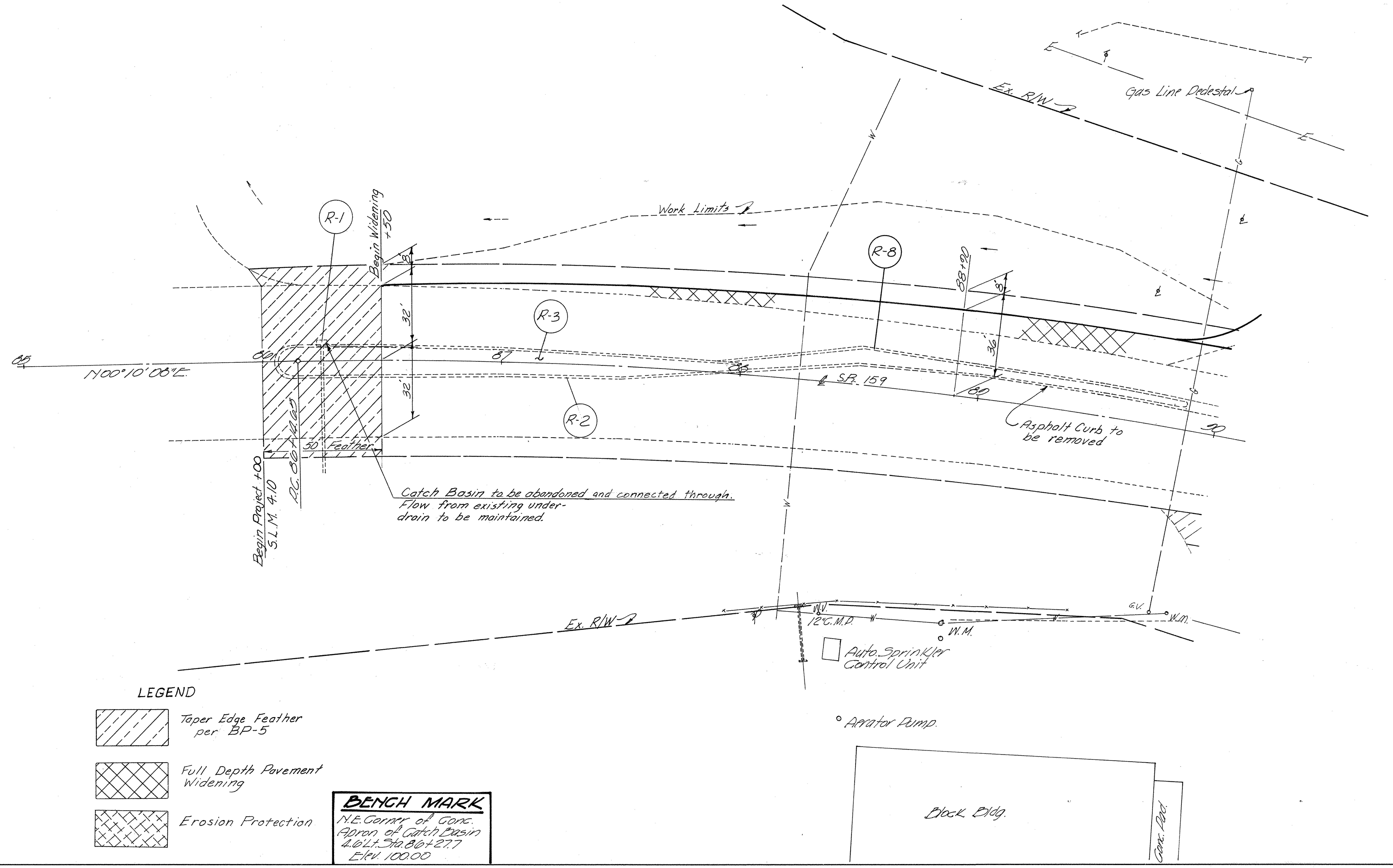
7
30

ROSS COUNTY
ROS-159- 4.10

PLAN NO. 12



CURVE DATA
P.I. Sta. 92+12.75
Δ = 34°46'38" Rt.
Dc = 3°00'
R = 1909.86'
L = 1159.24'
T = 598.10'
E = 91.46'



Catch Basin to be abandoned and connected through. Flow from existing underdrain to be maintained.

LEGEND

▨ Taper Edge Feather per BP-5

▦ Full Depth Pavement Widening

▩ Erosion Protection

BENCH MARK
N.E. Corner of Conc.
Apron of Catch Basin
4.6' Lt. Sta. 86+27.7
Elev. 100.00

STA. 85+00 TO STA. 90+00

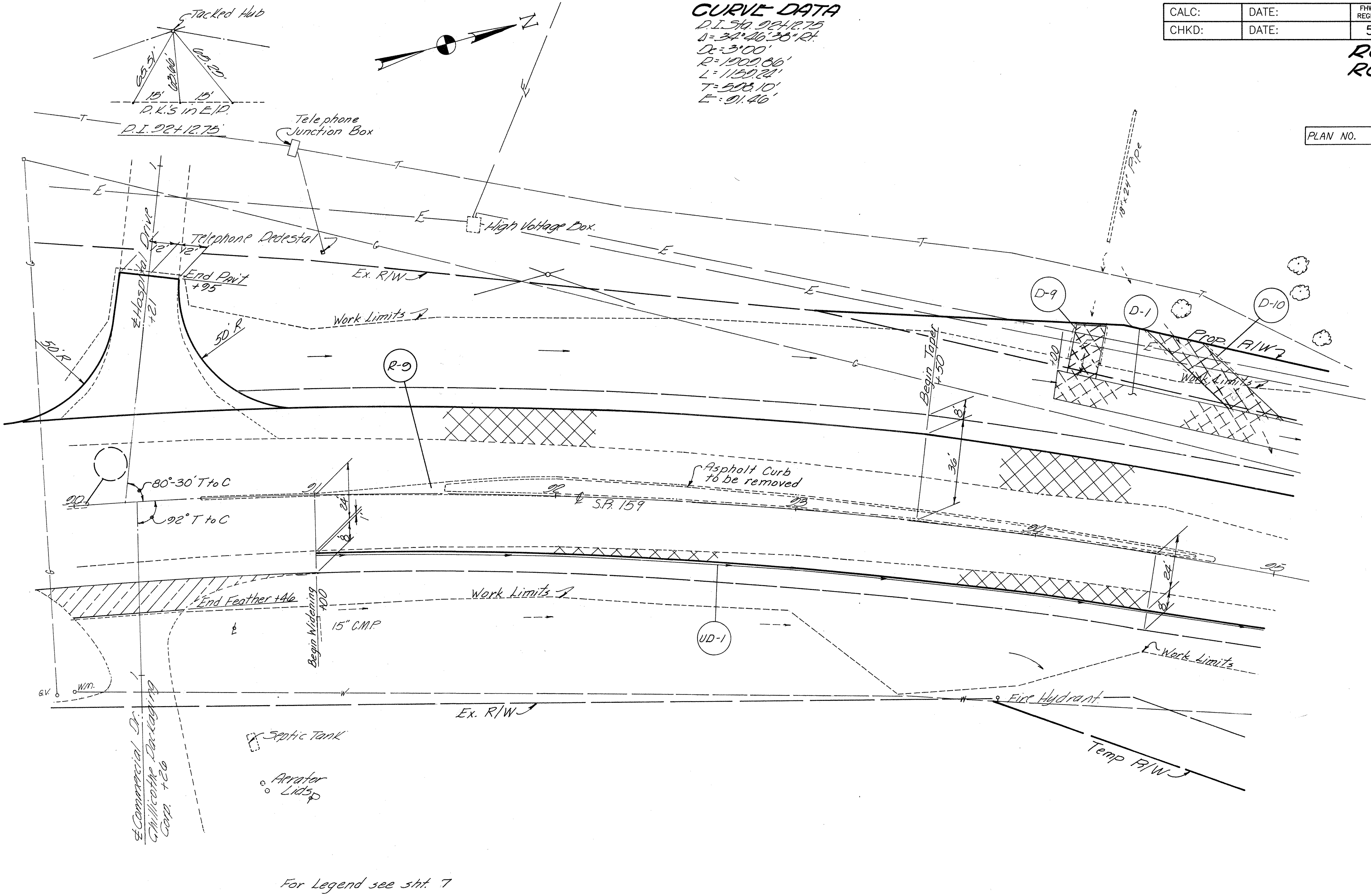
CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

ROSS COUNTY
ROS-159-4.10

PLAN NO. 12

CURVE DATA

P.I. Sta. 92+12.75
Δ=34°46'38" Rt.
Dc=3°00'
R=1909.86'
L=1159.24'
T=598.10'
E=91.46'



For Legend see sht. 7

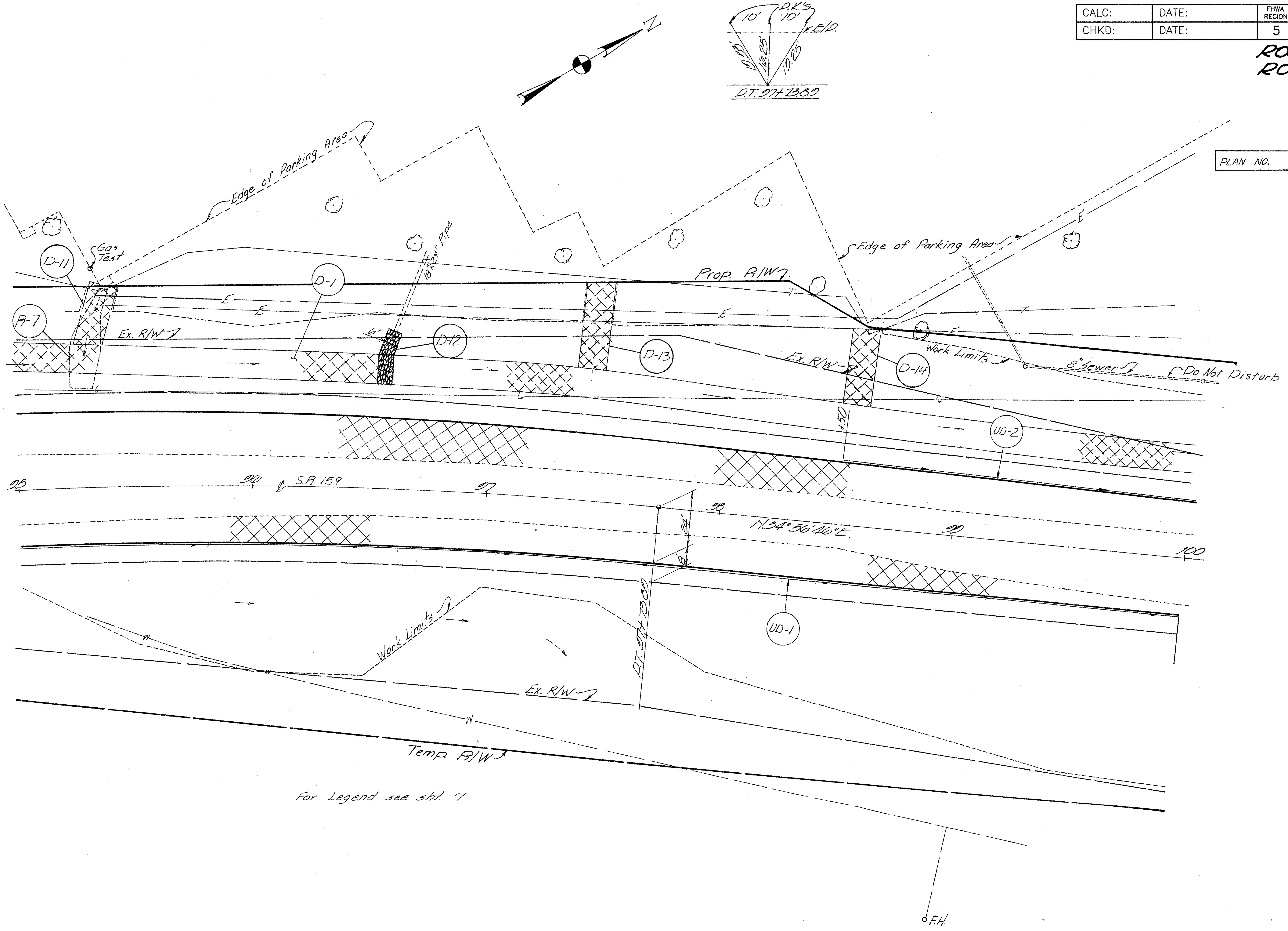
BENCH MARK
N.E. Corner of Conc. Foundation
High Voltage Box
107.5' Lt. Sta. 91+67.5
Elev. 102.05

STA. 90+00 TO STA. 95+00

CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

ROSS COUNTY
ROS-159-4.10

PLAN NO. 12



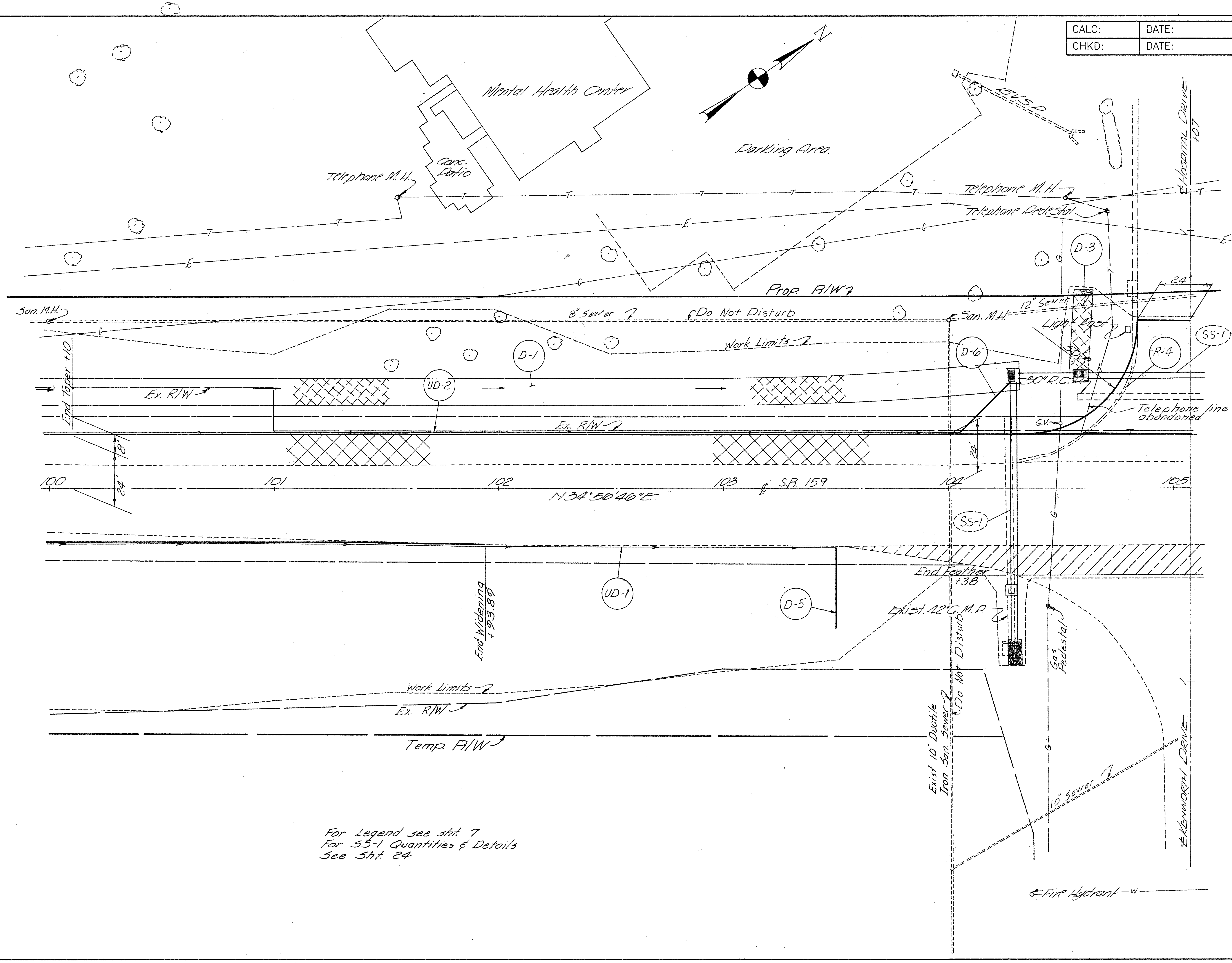
For Legend see sht. 7

CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

10
30

ROSS COUNTY
ROS-159-4.10

PLAN NO. 12



For Legend see sht. 7
For SS-1 Quantities & Details
See Sht. 24

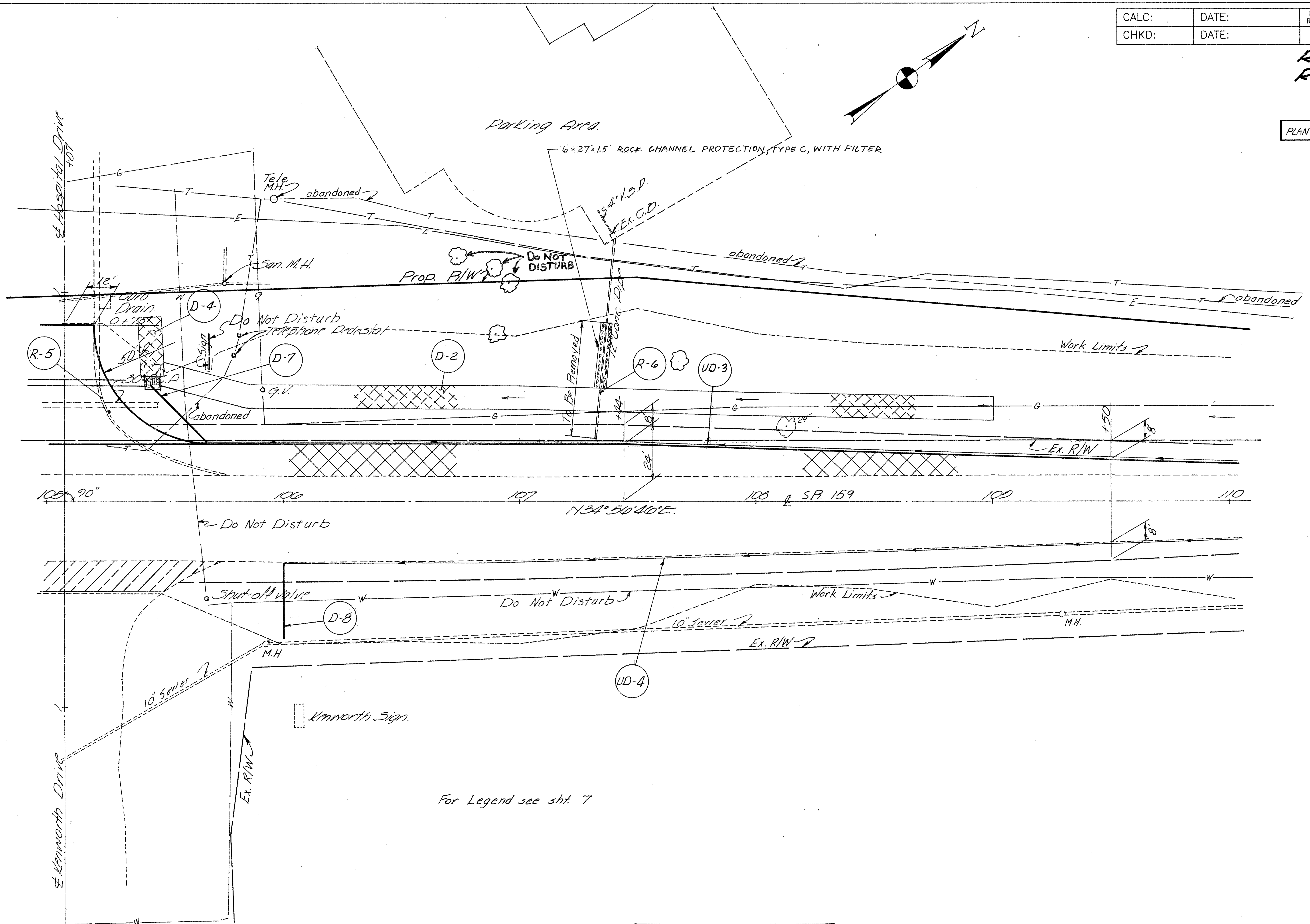
STA. 100+00 TO STA. 105+00

CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

11/30

ROSS COUNTY
ROS-159-4.10

PLAN NO. 12



For Legend see sht. 7

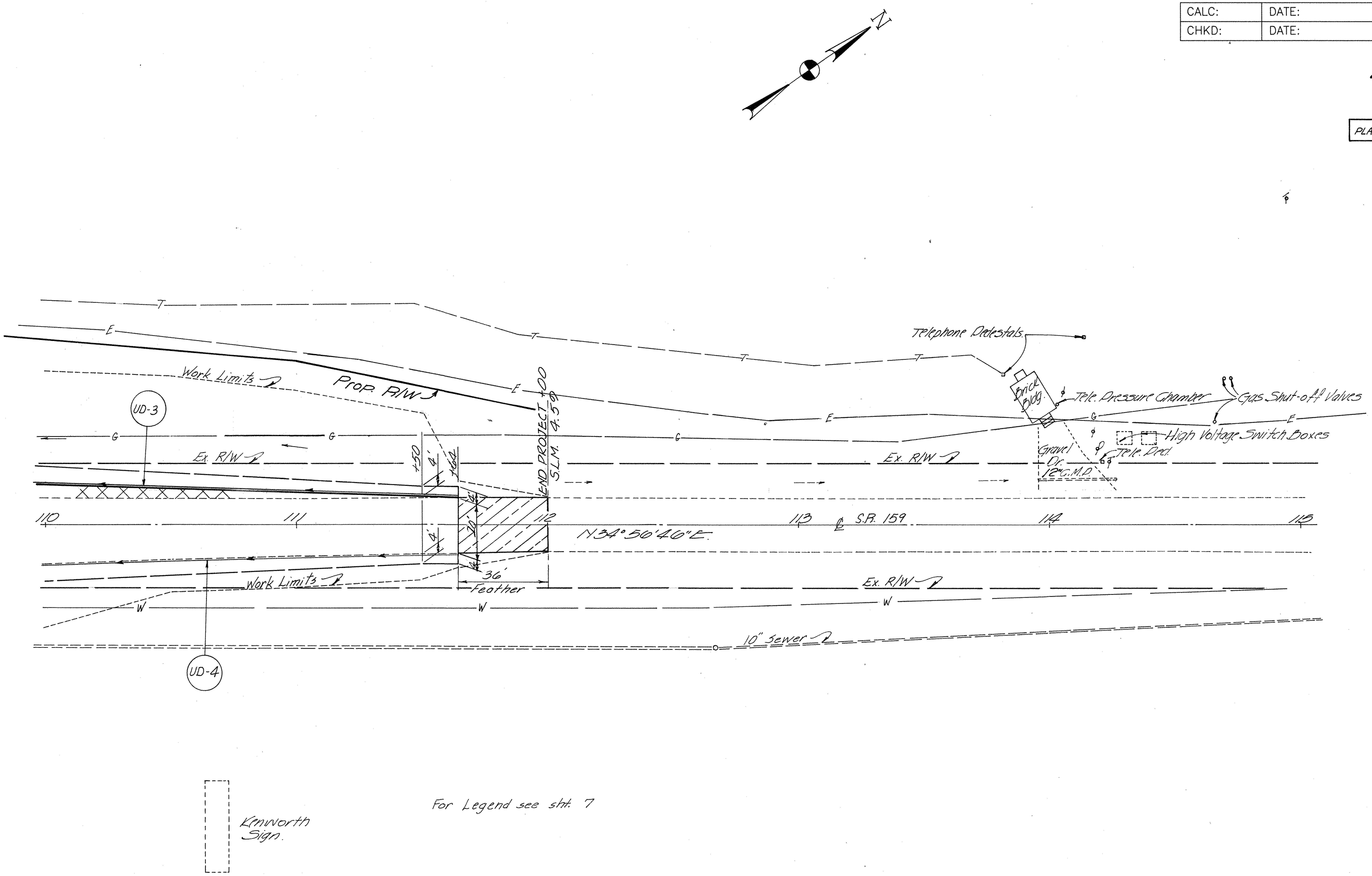
BENCH MARK
S.W. Corner of Brick Entrance
Wall Sign (Kenworth)
84.60' Rt. Sta. 106+04.40
Elev. 82.64

STA. 105+00 TO STA. 110+00

CALC:	DATE:	FHWA REGION	STATE	PROJECT
CHKD:	DATE:	5	OHIO	

ROSS COUNTY
ROS-159-4.10

PLAN NO. 12



For Legend see sht. 7

STA. 110+00 TO STA. 115+00

CALC. BY ______ DATE ______
CHKD. BY ______ DATE ______

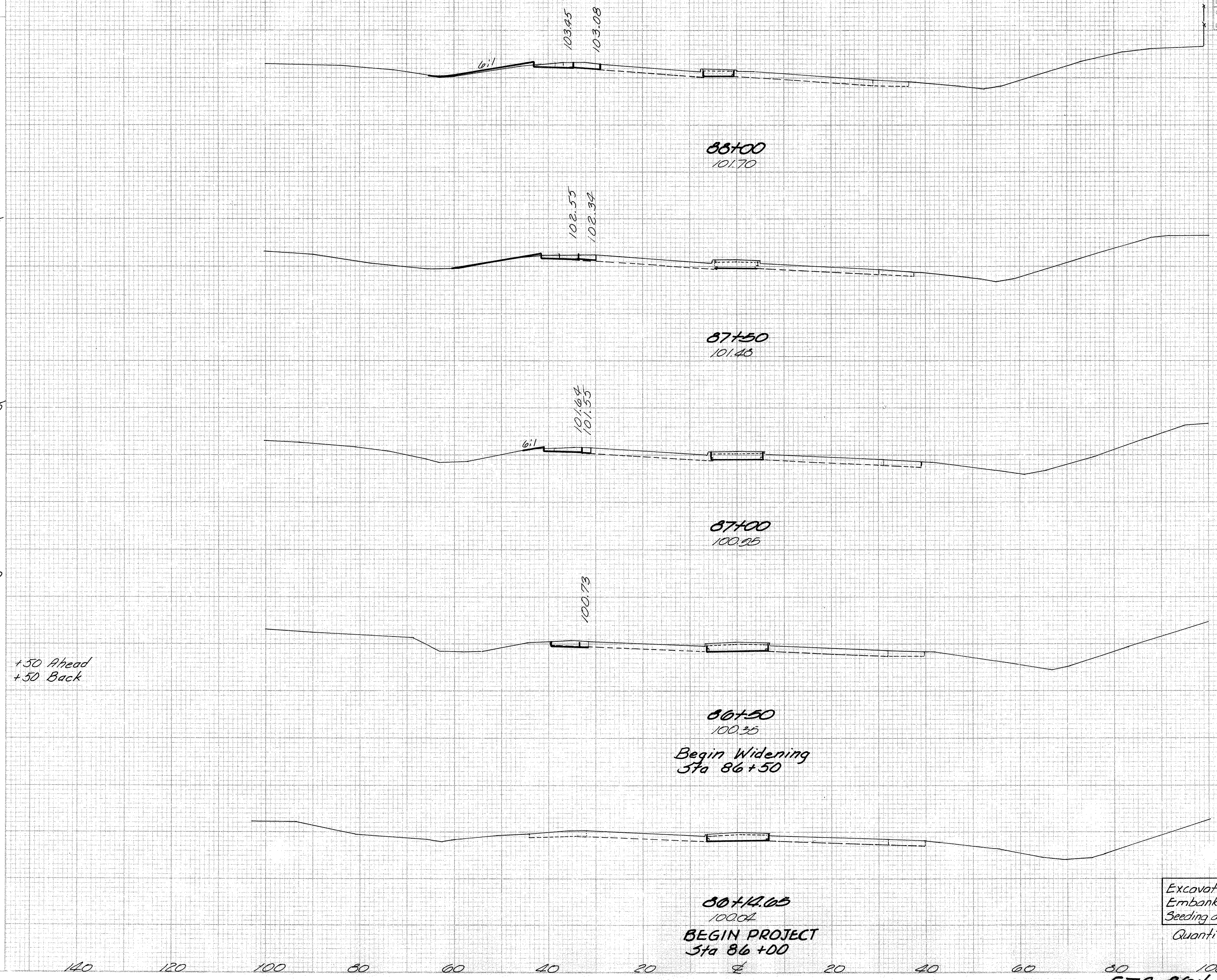
ROSS COUNTY
ROS-159-4.10

OHIO
FHWA REGION 5
13 / 30

PLAN NO. 12

SEEDING	
END WIDTH	SQ. YDS.
33	
	175
30	
	125
15	
	69
10	
0	

+50 Ahead
+50 Back



Excavation	7014	C.Y.
Embankment	2562	C.Y.
Seeding and Mulching	17,544	S.Y.

Quantities carried to Sht. No. 5

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
	20	7		
			39	7
	22	1		
			41	2
	22	1		
			44	1
	26	0		
			39	0
	16	0		
			15	0
86+00	0	0		

STA. 86+14.65 TO STA. 88+00

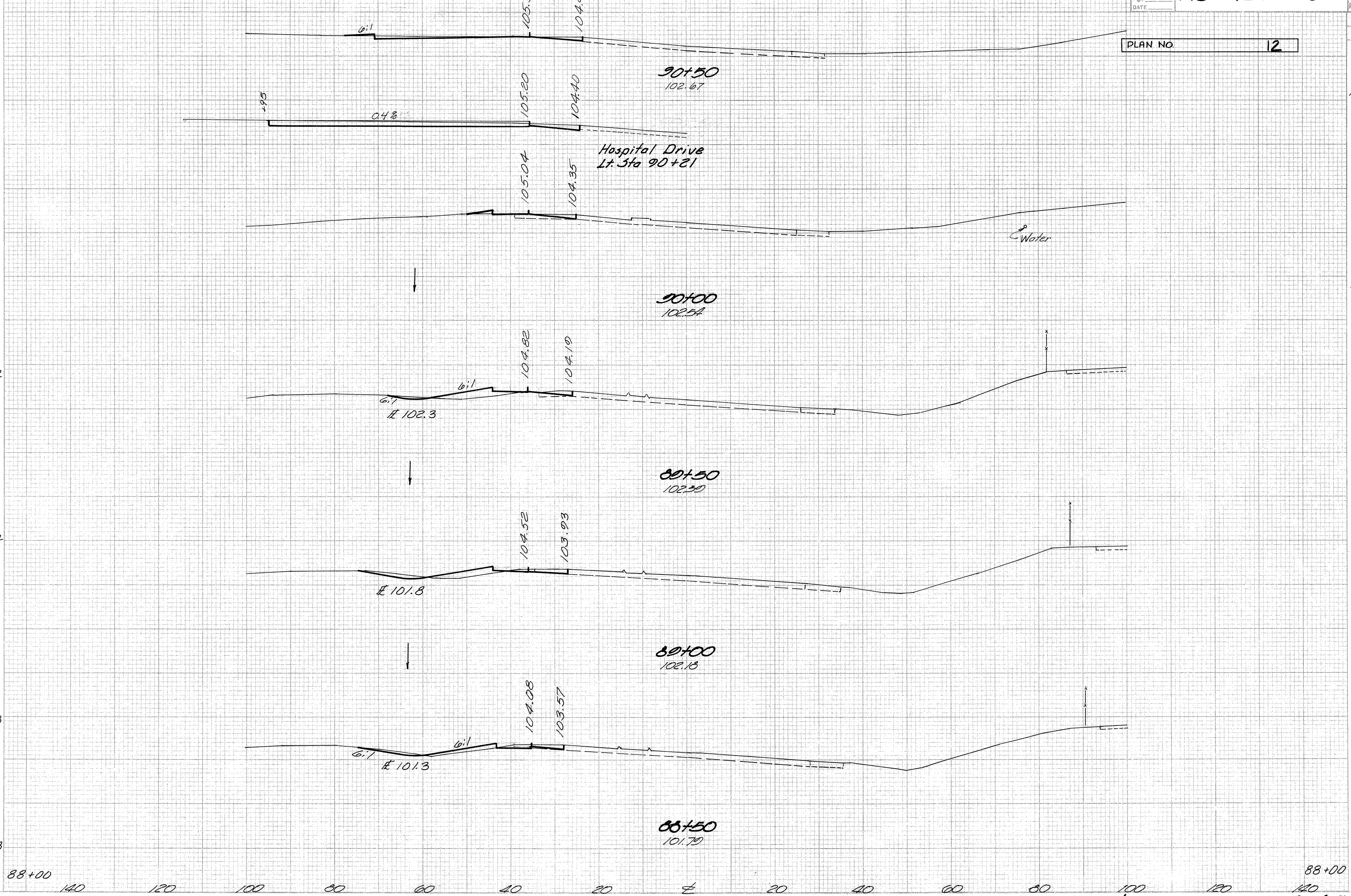
CALC.
BY
DATE
CHKD.
BY
DATE

ROSS COUNTY
ROS-159-4.10

OHIO
FHWA REGION 5

14
30

PLAN NO. 12



SEEDING END WIDTH	SEEDING SQ. YDS	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
17		15	2		
	92			19	4
16		5	2		
	142			10	21
35		6	21		
	214			24	37
42		20	19		
	233			32	29
42		15	12		
	208			32	18
33		20	7		

STA. 88+50 TO STA. 90+50

ROSS COUNTY
ROS-159-4.10

OHIO

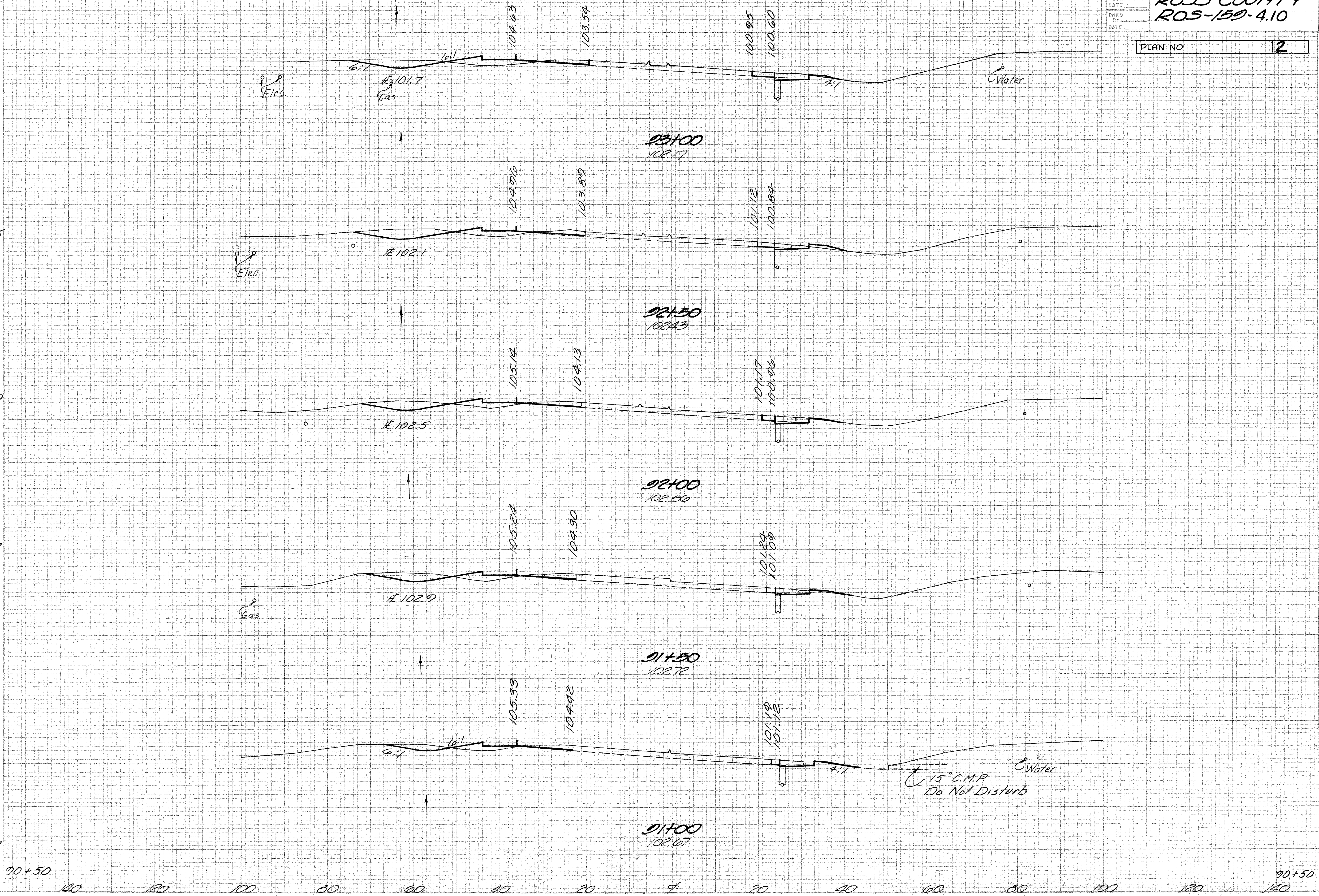
FHWA REGION 5

15
30

CALC. BY
DATE
CHKD. BY
DATE

PLAN NO. 12

SEEDING END WIDTH	SEEDING SQ. YDS.
58	
	325
59	
	319
56	
	317
58	
	311
54	
	197
17	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
48	24		
		96	44
56	23		
		100	37
52	17		
		90	31
45	17		
		70	30
31	15		
		43	16
15	2		

STA. 91+00 TO STA. 93+00

ROSS COUNTY
ROS-159-4.10

OHIO
FHWA REGION 5

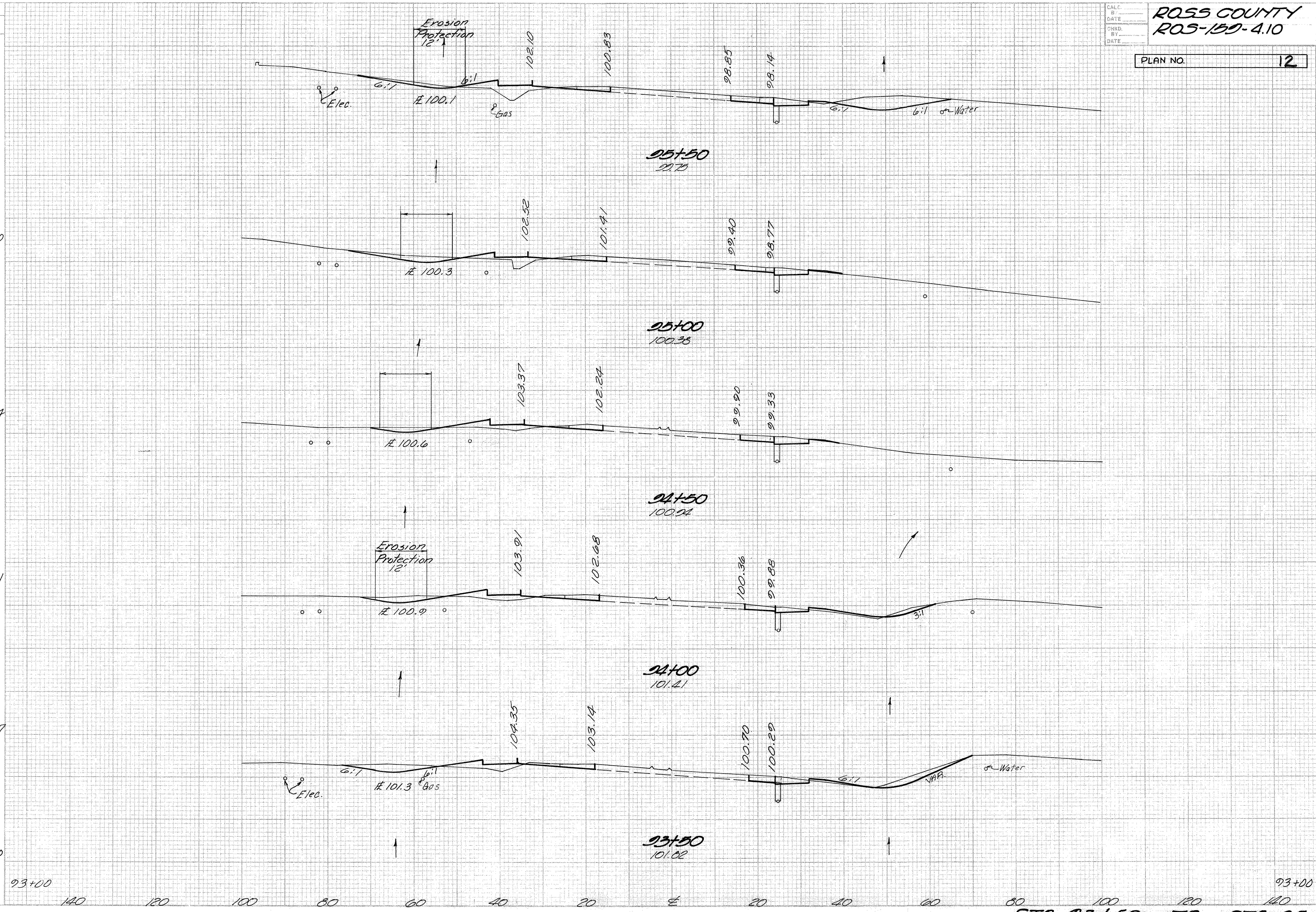
16
30

CALC. BY / DATE / CHKD. BY / DATE

PLAN NO. 12

SEEDING

END WIDTH	SQ YDS
75	
	350
51	
	264
44	
	331
75	
	497
104	
	450
58	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
91	34		
		133	52
53	22		
		90	40
44	21		
		88	47
51	30		
		116	48
74	22		
		113	43
48	24		

STA. 93+50 TO STA. 95+50

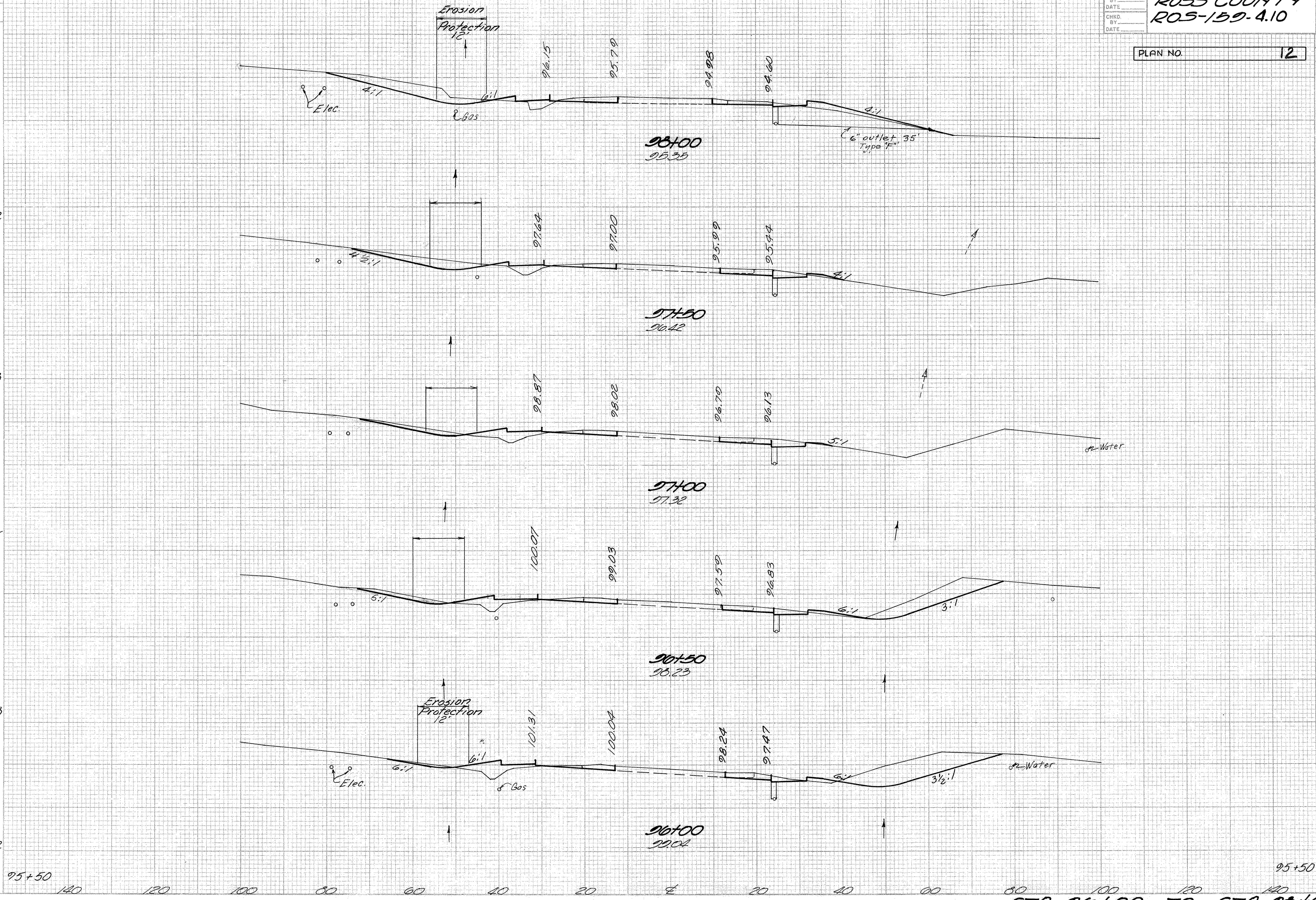
CALC. BY
DATE
CHKD. BY
DATE

ROSS COUNTY
ROS-159-4.10

OHIO
FHWA REGION 5

17
30

PLAN NO. 12



Station	Seeding End Width	Seeding Sq Yds	End Area Cut	End Area Fill	Volume Cut	Volume Fill
98+00	88		93	37		
		392			156	51
97+50	53		75	18		
		283			118	43
97+00	49		52	28		
		375			173	55
96+50	86		135	31		
		453			271	60
96+00	77		158	34		
		422			231	63
95+50	75		91	34		

STA. 96+00 TO STA. 98+00

ROSS COUNTY
ROS-159-4.10

OHIO
FHWA REGION 5

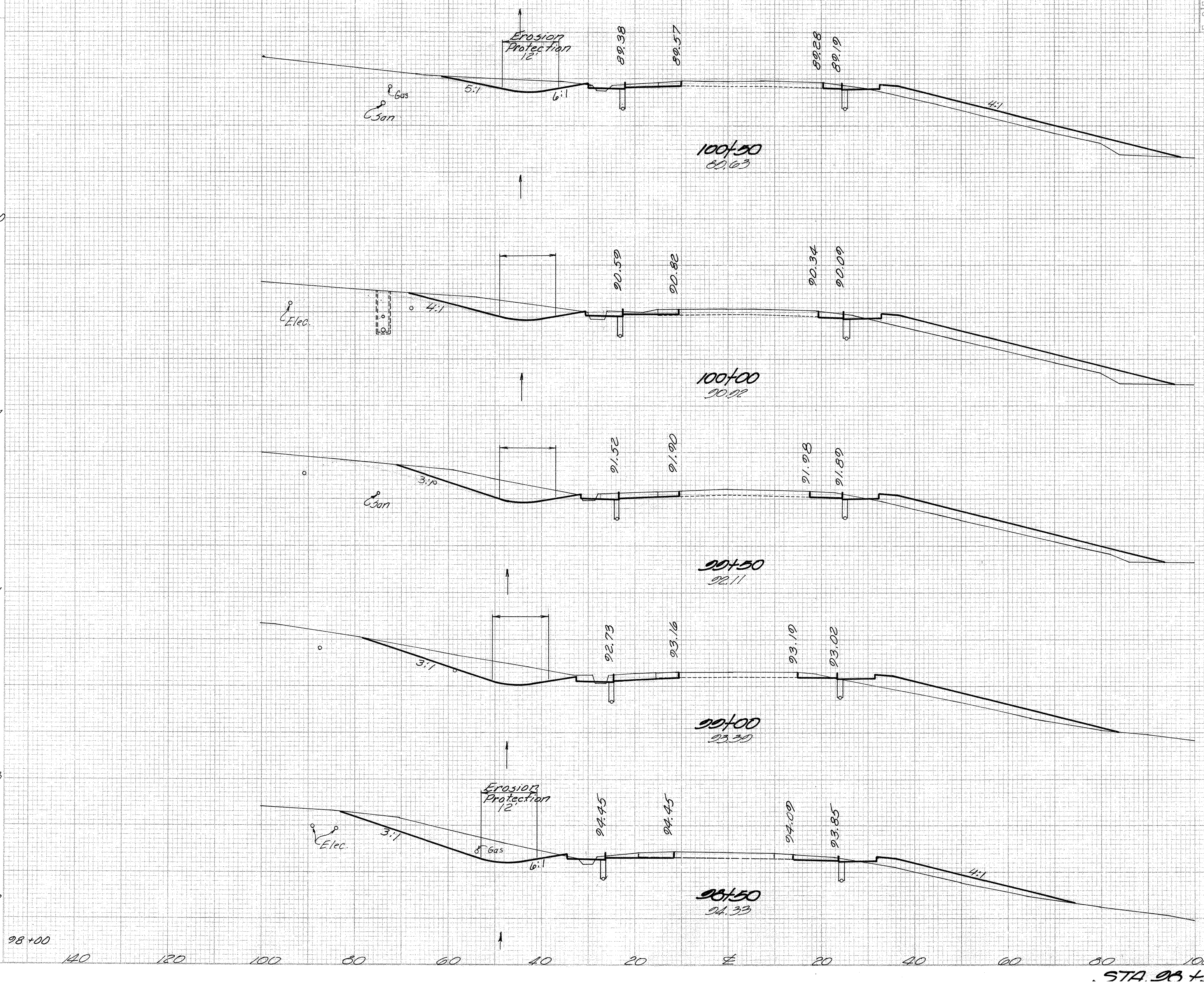
18/30

CALC. BY ___ DATE ___
CHKD. BY ___ DATE ___

PLAN NO. 12

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
106	600	61	106	153	197
110	617	104	107	219	190
112	611	133	98	261	193
108	583	149	110	287	159
102	528	161	62	235	92
88		93	37		

98+00



STA. 98+50 TO STA. 100+50

CALC. BY	DATE	CHKD. BY	DATE

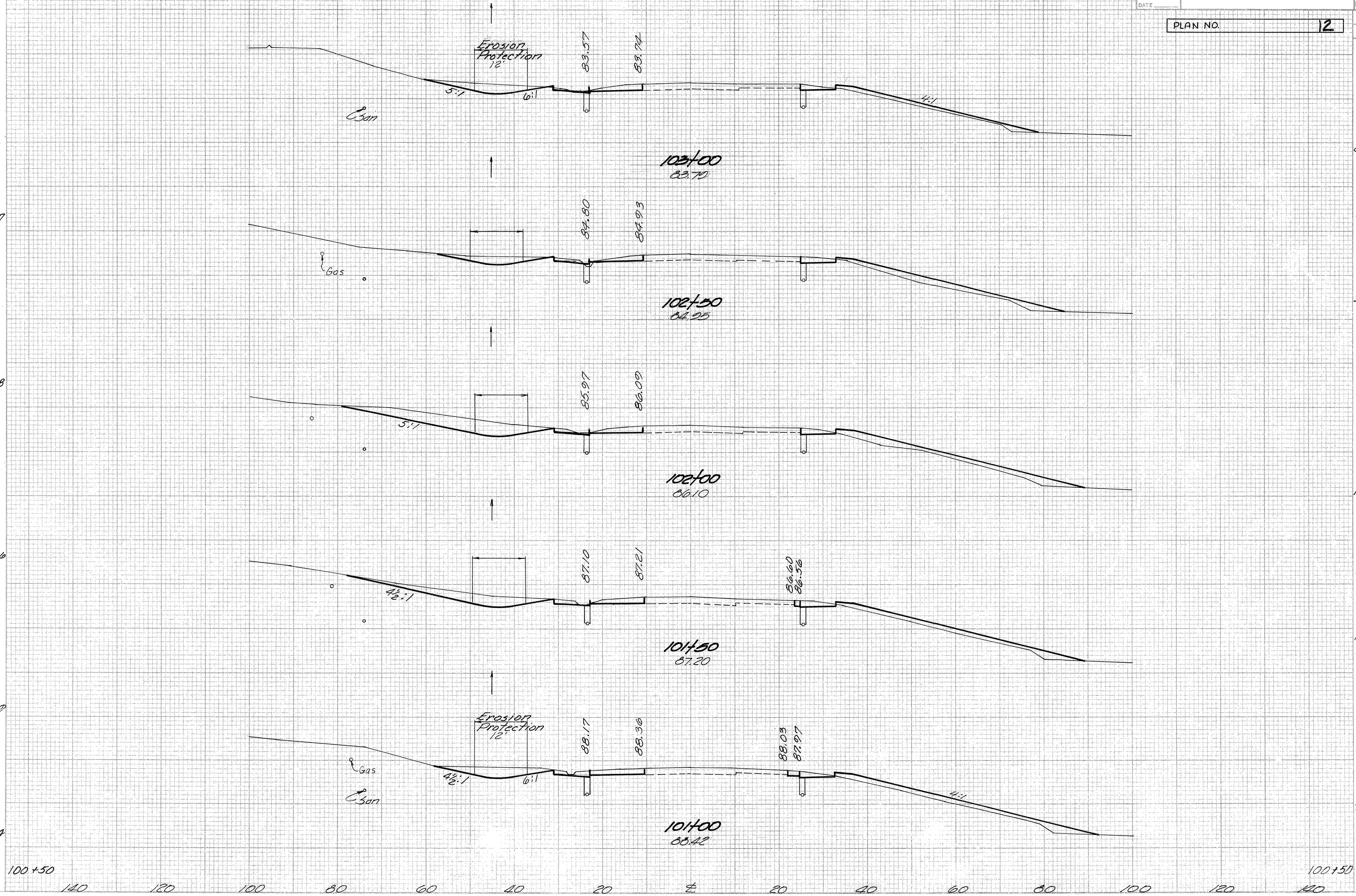
ROSS COUNTY
ROS-159-4.10

OHIO
FHWA REGION 5

19
30

PLAN NO. 2

SEEDING END WIDTH	10 YDS
85	
	497
94	
	578
114	
	636
115	
	589
97	
	564
106	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
63	40		
		105	94
50	62		
		169	122
132	70		
		215	116
100	55		
		163	116
76	70		
		127	163
61	106		

STA. 101+00 TO STA. 103+00

CALC. BY ____ DATE ____
CHKD. BY ____ DATE ____

ROSS COUNTY
ROS-159-4.10

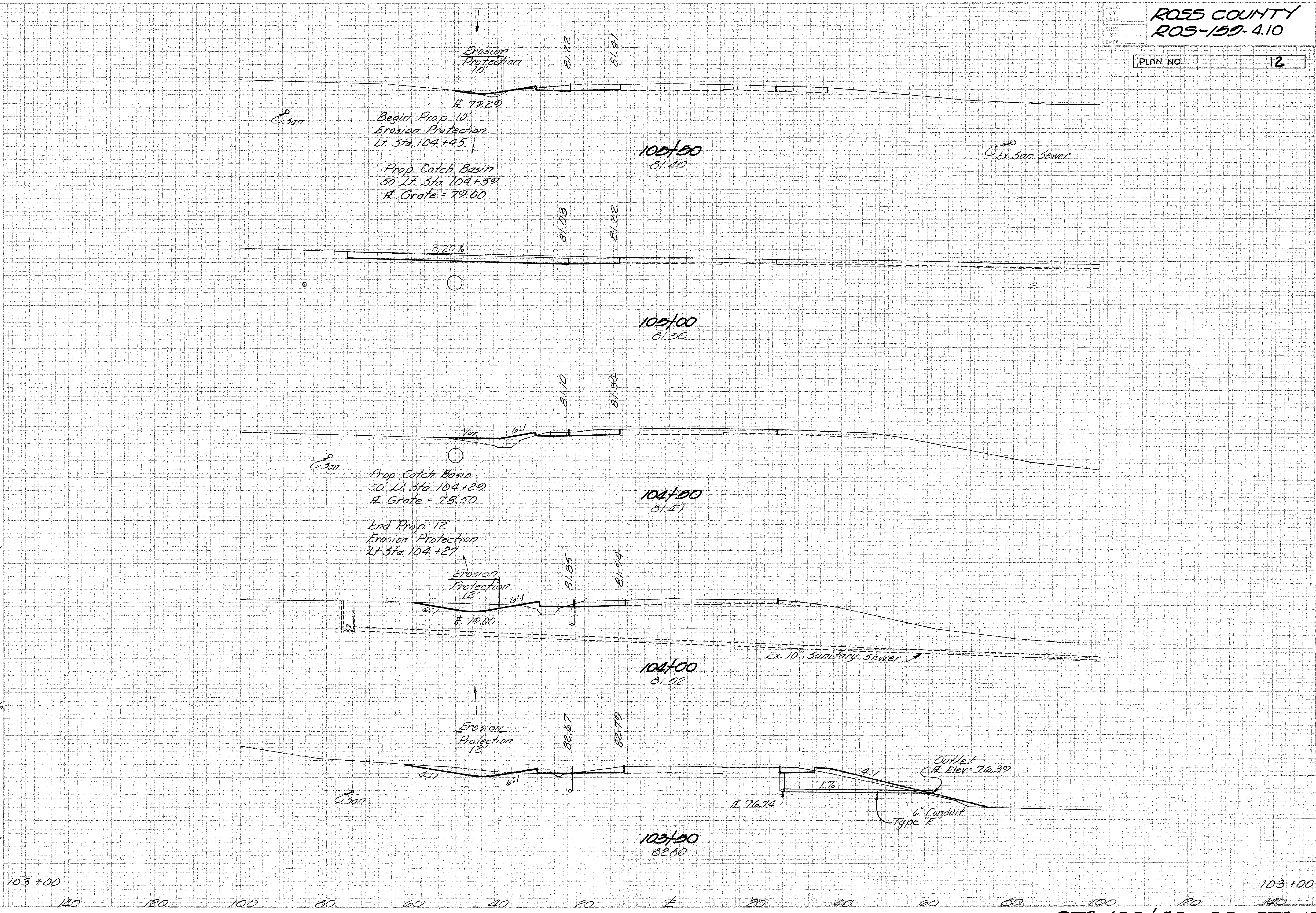
OHIO
FHWA REGION 5

20
30

PLAN NO. 12

SEEDING

END WIDTH	SQ. YDS.
20	
	56
0	
	86
31	
	161
27	
	156
29	
	317
85	



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
24	3		
		118	3
103	0		
		112	23
18	25		
		52	35
38	13		
		70	41
38	31		
		94	66
63	40		

103+00

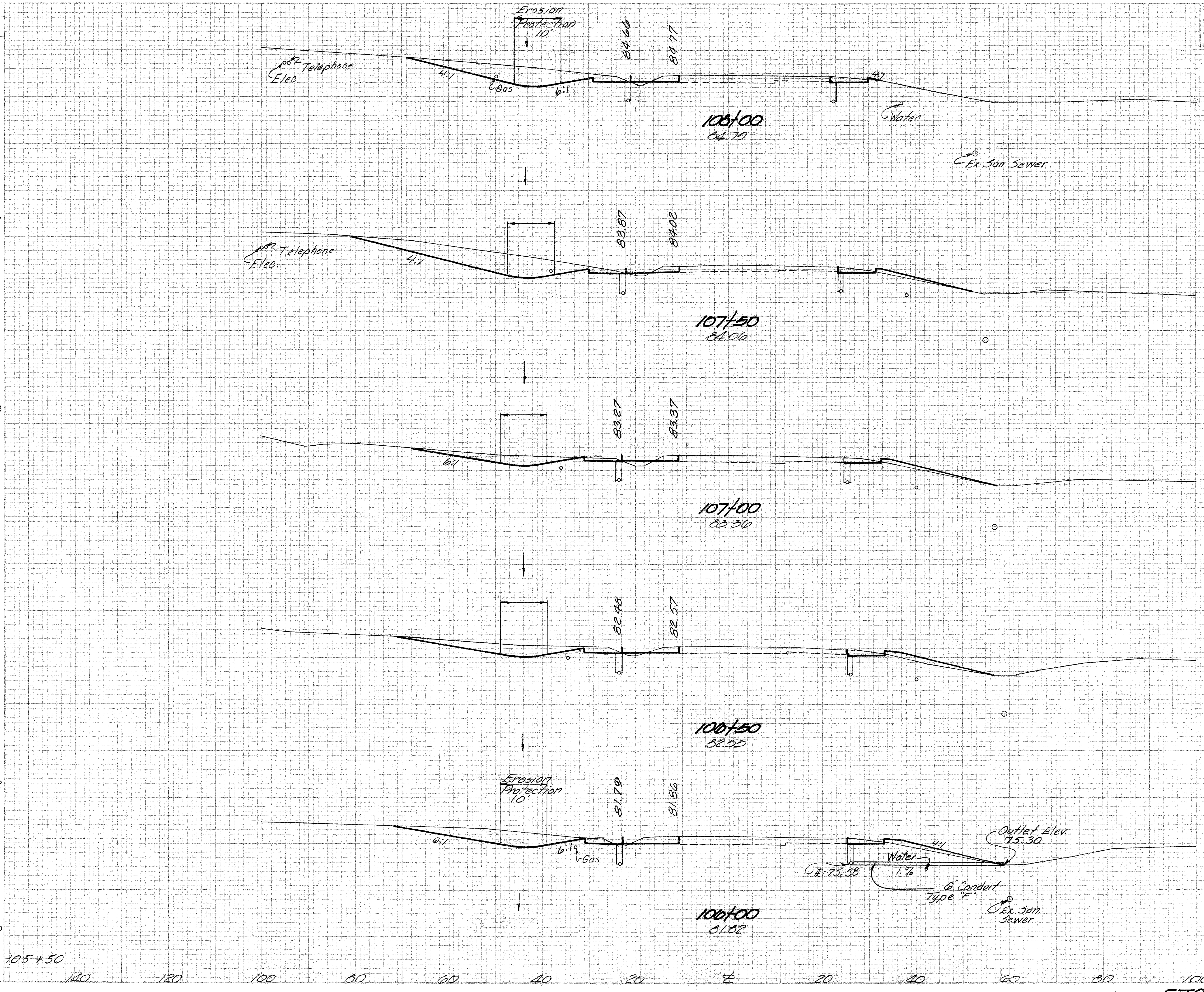
STA. 103+50 TO STA. 105+50

ROSS COUNTY
ROS-159-4.10

OHIO
FHWA REGION 5

21
30

PLAN NO. 12



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
53		128	2		
	378			281	11
83		175	10		
	433			210	22
73		52	14		
	411			122	31
75		80	20		
	422			171	36
77		105	19		
	269			119	20
20		24	3		

STA. 106+00 TO STA. 108+00

CALC. BY	
DATE	
CHKD. BY	
DATE	

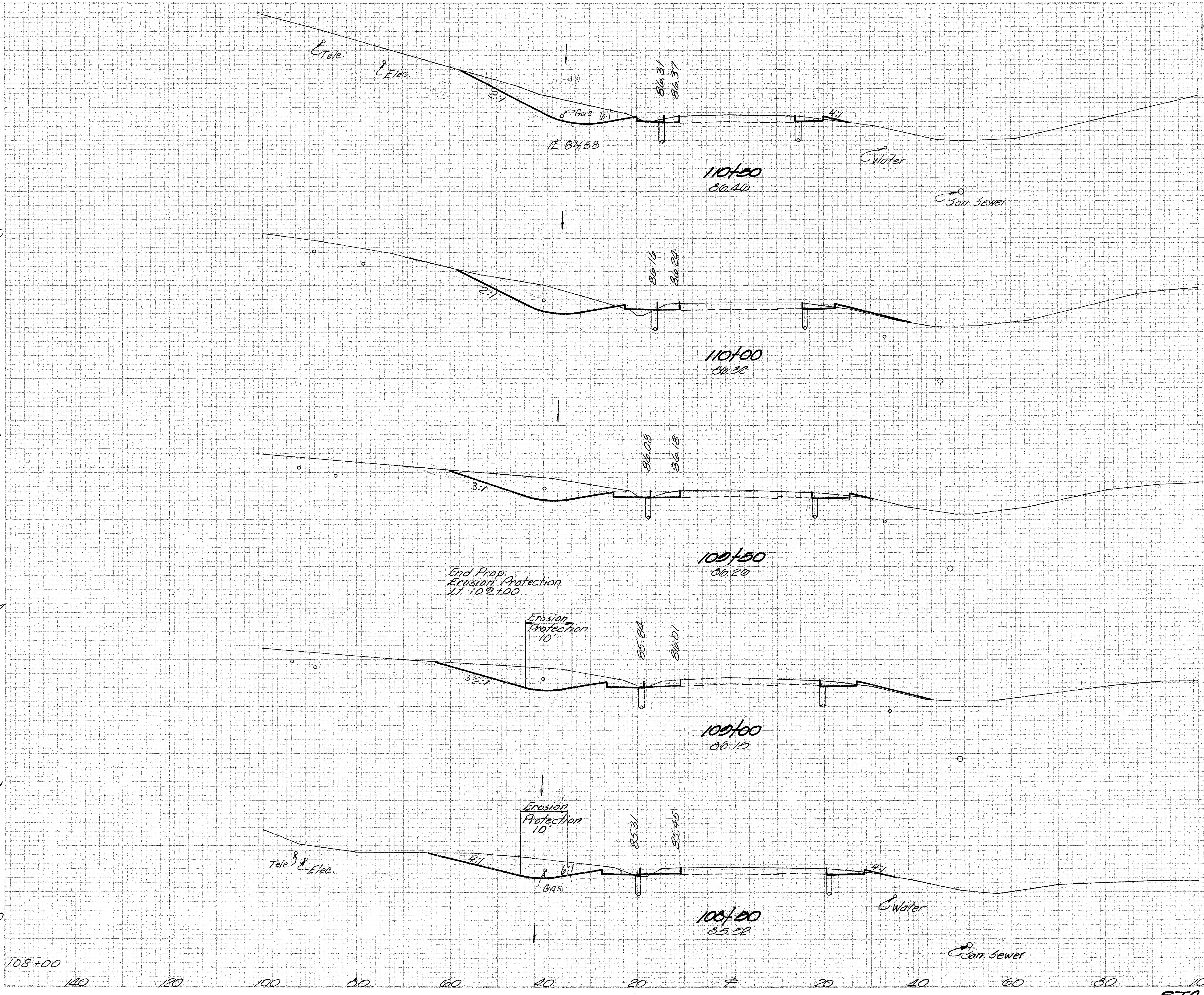
ROSS COUNTY
ROS-159-4.10

OHIO
FHWA REGION 5

22
30

PLAN NO. 12

SEEDING END WIDTH	SEEDING SQ. YDS.
68	
	400
76	
	381
61	
	347
64	
	331
55	
	300
53	



	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
	106	3		
			210	10
	121	8		
			230	10
	127	3		
			244	7
	137	5		
			232	9
	114	5		
			224	6
108+00	128	2		

STA. 108+50 TO STA. 110+50

CALC.
BY
DATE
CHKD.
BY
DATE

ROSS COUNTY
ROS-159-4.10

OHIO
FHWA
REGION 5

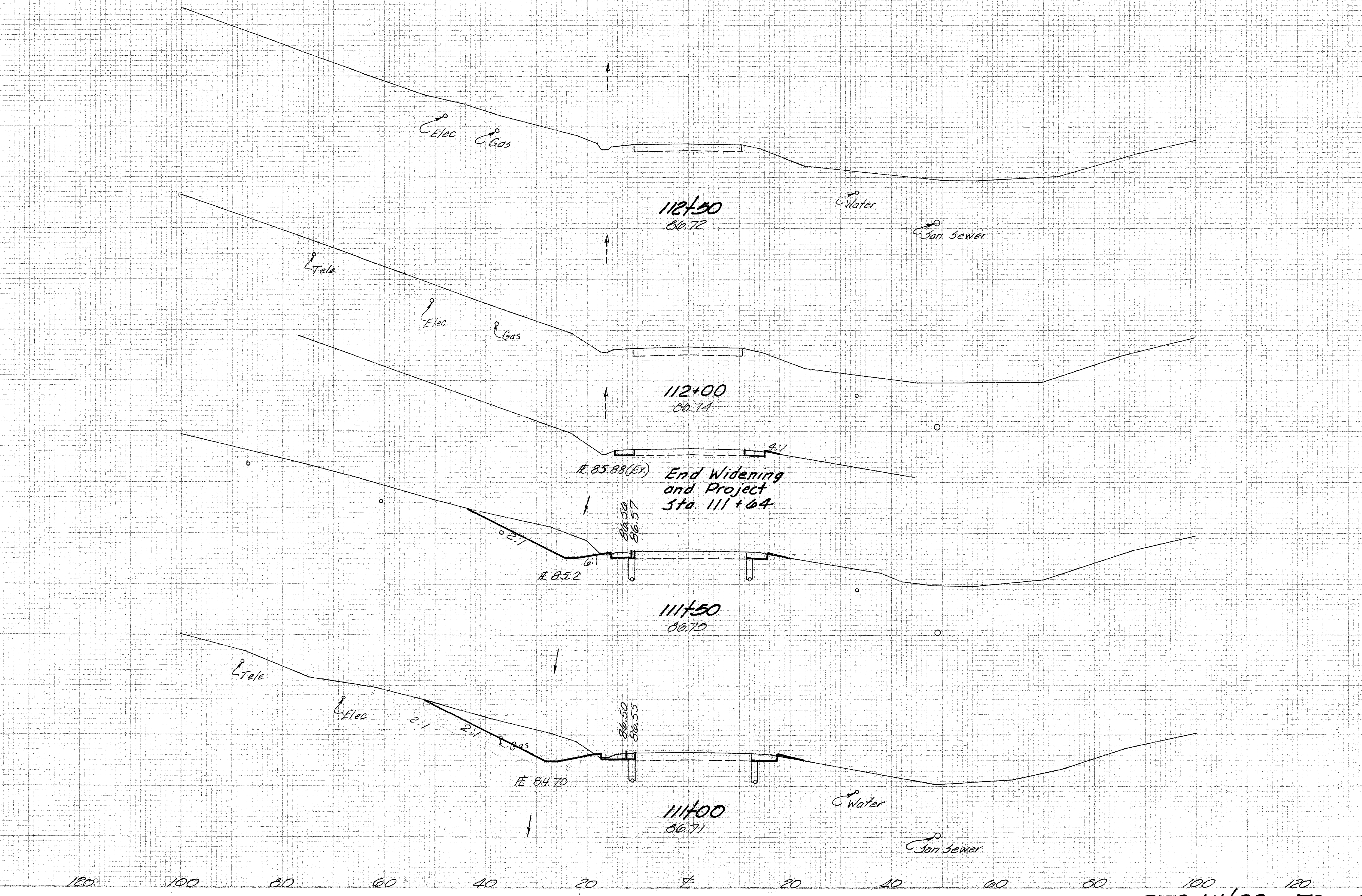
23
30

PLAN NO. 12

SEEDING	
END WIDTH	SQ YDS
0	
10	
	51
55	
	331
64	
	367
68	

Ahead +64
Back +64

110 +50

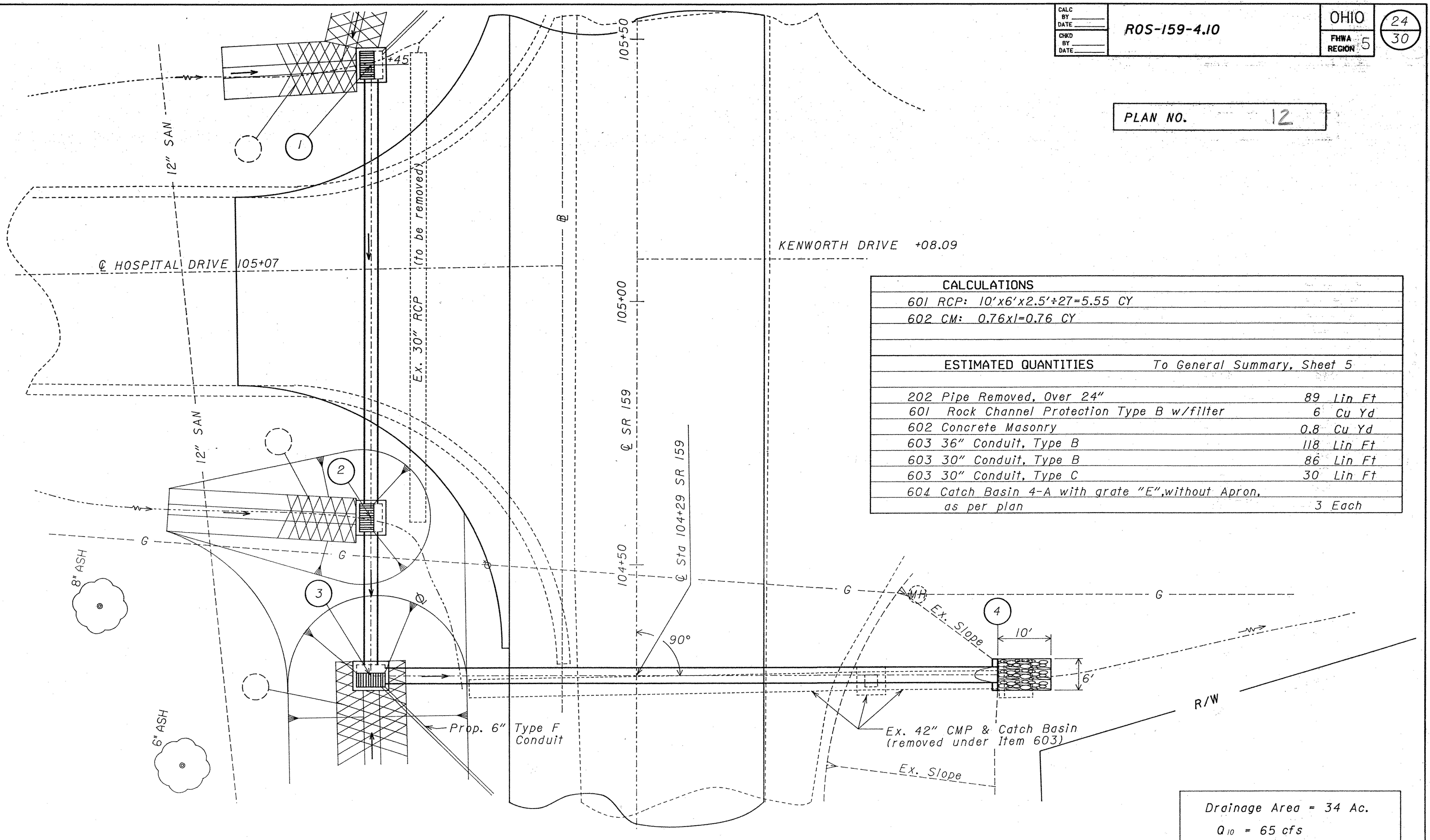


	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
+64 Ahead	0	0		
+64 Back	4	0		
			23	1
	84	1		
			182	4
	113	3		
			203	6
110 +50	106	3		

STA. 111+00 TO STA. 112+50

CALC BY ____ DATE ____ CHKD BY ____ DATE ____	ROS-159-4.10	OHIO FHWA REGION 5	24 / 30

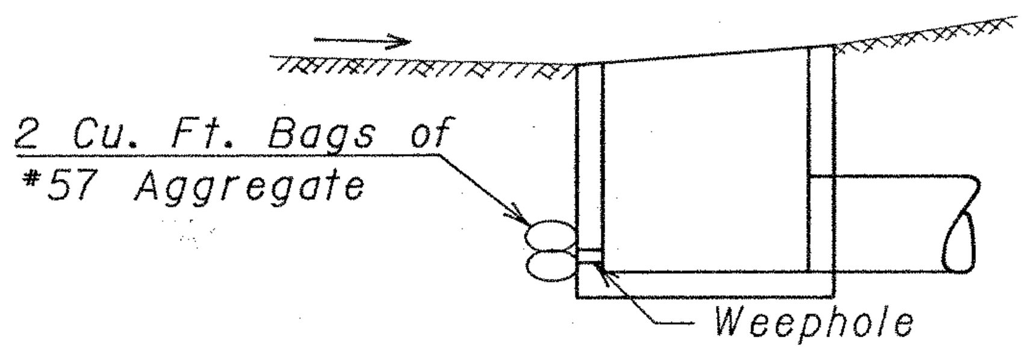
PLAN NO. 12



CALCULATIONS	
601 RCP: 10'x6'x2.5'÷27=5.55 CY	
602 CM: 0.76x1=0.76 CY	
ESTIMATED QUANTITIES To General Summary, Sheet 5	
202 Pipe Removed, Over 24"	89 Lin Ft
601 Rock Channel Protection Type B w/filter	6 Cu Yd
602 Concrete Masonry	0.8 Cu Yd
603 36" Conduit, Type B	118 Lin Ft
603 30" Conduit, Type B	86 Lin Ft
603 30" Conduit, Type C	30 Lin Ft
604 Catch Basin 4-A with grate "E",without Apron,	
as per plan	3 Each

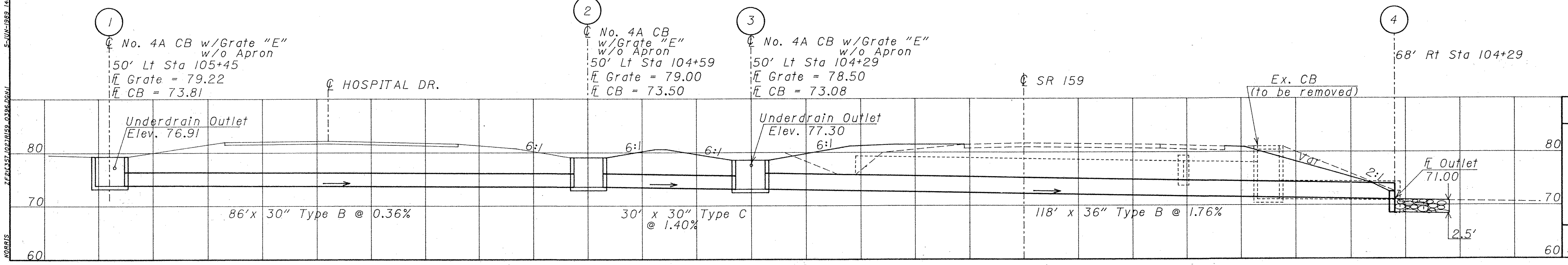
TYPICAL DETAIL

Modified No. 4A CB with weephole



The cost of the bagged aggregate shall be included in the price bid for Item 605.

Drainage Area = 34 Ac.
Q_{10} = 65 cfs
Q_{25} = 81 cfs



0 10 20
FEET

SS-1

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
DISTRICT 9 OFFICE

Proposed Storm Sewer

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
DAN 4/89	DAN 4/89					DAN 6/89

5-JUN-1989 14:09
NORRIS

CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

ROSS COUNTY
ROS-159-4.10

PLAN NO. 12

- Ⓐ 4" WHITE EDGE LINES
- Ⓑ 4" WHITE LANE LINES
- Ⓒ 4" DOUBLE YELLOW CENTER LINES
- Ⓓ WHITE CHANNELIZING LINES, 8"
- Ⓔ STOP LINES
- Ⓕ TRANSVERSE LINES, YELLOW, 24"

LEGEND FOR SIGNS

▨	REMOVAL OF EXISTING SIGN AND STORAGE
⬚	EXISTING
☐	PROPOSED

CALC:	DATE:	FHWA REGION	STATE	PROJECT	
CHKD:	DATE:	5	OHIO		

ROSS COUNTY
ROS-159-4.10

TRAFFIC CONTROL SUB-SUMMARY

PLAN NO. 12

		630 SIGN ERECTION						630	630 GROUND MOUNTED SUPPORT	
REFERENCE NO.	STATION	CODE NO.	SIGN SIZE	SIGNS FLAT SHEET	SIGNS FLAT SHEET TYPE G	REM. OF GROUND MOUNTED SIGN AND STORAGE		REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	NO. 3 POST	NO. 4 POST
			FT.XFT.	S.F.	S.F.	EA.		EA.	LIN. FT.	LIN. FT.
1	89+00	M-8-24	2X1	2		3		1	12.5	
		M-1-24-2	2X2	4						
		M-26-21	1.8X1.2	2.2						
2						1		1		
3	90+10	R-1-30	2.5X2.5		6.25	1		1	11.5	
4	90+80	N-16B-72	3X6	18		5		2		13.5/13.5
5						1		1		
6	87+00	R-31FF-48	4X2.5	10		1		1	11.5/11.5	
7	88+40	N-16A-72	2X6	12		3		2	12/12	
8	89+50	W-60D-36	3X3			1		1		
9	91+10	W-75-36	3X3	9		3		1	14/14	
		D-8Y-8	.7X3	2						
		W-145A	2.5X1.3	3.3						
10	92+75	D-6A-60	5X3.3	16.7		1		1		14/14
11	93+60	R-31C-48	4X2.5	10					12.5/12.5	
12						1		1		
13						1		1		
14	98+50	R-36R-30	2.5X2.5	6.3		1		1	12	
15						1		1		
16	101+55	R-31A-36	3X2.5	7.5		1		1	12/12	
17	104+70	R-1-30	2.5X2.5		6.25	1		1	11.5	
18	105+50	R-1-30	2.5X2.5		6.25	1		1	11.5	
19						1		1		
20	108+45	R-31C-48	4X2.5	10					13/13	
21						1		1		
22	90+75	R-31C-48	4X2.5	10						
23	89+85	R-31FF-48	4X2.5	10					12/12	
24	104+40	R-31A-36	3X2.5	7.5					12/12	
25	105+60	R-31C-48	4X2.5	10					13/13	
TOTAL				150.5	18.75	29		21	283	55

		621	621	621	621	847	847	847	621	614	614	614	614
STATION TO STATION	SIDE	CENTER LINES 4" DOUBLE SOLID	EDGE LINES 4" WHITE	CHANNEL-IZING LINES WHITE 8"	TRANSVERSE LINES YELLOW 24"	STOP LINES 24" 947.03 TYPE A1 INLAID	LANE ARROW 947.03 WHITE TYPE A1 INLAID	WORD ON PAVEMENT 96" 947.03 WHITE TYPE A-1 INLAID	LANE LINES 4" WHITE	TEMPORARY CENTER LINES CLASS 1	TEMPORARY CHANNEL-IZING LINES CLASS 1	TEMPORARY STOP LINES CLASS 1	TEMPORARY LANE LINES CLASS 1
		LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.	LIN.FT.
86+00-89+80	LT.		380										
90+90-104+35	LT.		1345										
105+60-111+64	LT.		604										
86+00-103+70	RT.		1770										
105+75-111+64	RT.		589										
86+35-89+85	LT&RT	700								700			
86+00-89+85	LT.								385				385
90+75-104+40	LT.								1365				1365
105+60-107+45	LT.								185				185
86+00-93+75	RT.								795				795
88+00-89+85	℄			185							185		
90+75-92+60	LT.			185							185		
102+55-104+40	RT.			185							185		
105+60-107+45	℄			185							185		
90+75-104+40	LT&RT	2730								2730			
105+60-111+64	℄&RT	1208								1208			
86+35-88+00	LT&RT				152								
92+60-102+55	LT&RT				875								
107+45-111+00					99								
0+45 HOSP. EMER.						26						26	
0+30 HOSP. MAIN.						50						50	
0+35 KENWORTH						42						42	
88+10	LT.						1						
89+55	LT.						1						
91+05	LT.						1						
92+50	LT.						1						
102+60	RT.						1						
104+10	LT.						1						
105+90	RT.						1						
107+40	RT.						1						
88+80	LT.							1					
91+75	LT.							1					
103+35	RT.							1					
106+50	RT.							1					
SUBTOTAL		4638	4688		1126				2730	4638			2730
CONVERSION		0.88	0.89		0.21				0.52	0.88			0.52
TO GEN. SUMMARY		0.88	0.89	740	0.21	118	8	4	0.52	*0.88	*740	*118	*0.52

*CARRIED TO GENERAL NOTES, SHT. 3
ALL OTHER QUANTITIES CARRIED TO GENERAL SUMMARY, SHT. 5

\ACAD\BUSK\R159TRA1

REV RB 10-20-89

REV THR 9/19/89

CALC BY ____ DATE ____ CHKD BY ____ DATE ____	ROS ~ 159 ~ 4.10	OHIO FHWA REGION 5

27/30

1/4

LOCATION PLAN

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

ROS - 159 - 4.10
SEC.31 T9N R21W
GREEN TOWNSHIP
ROSS COUNTY

0 100 200
SCALE IN FEET

LEGEND

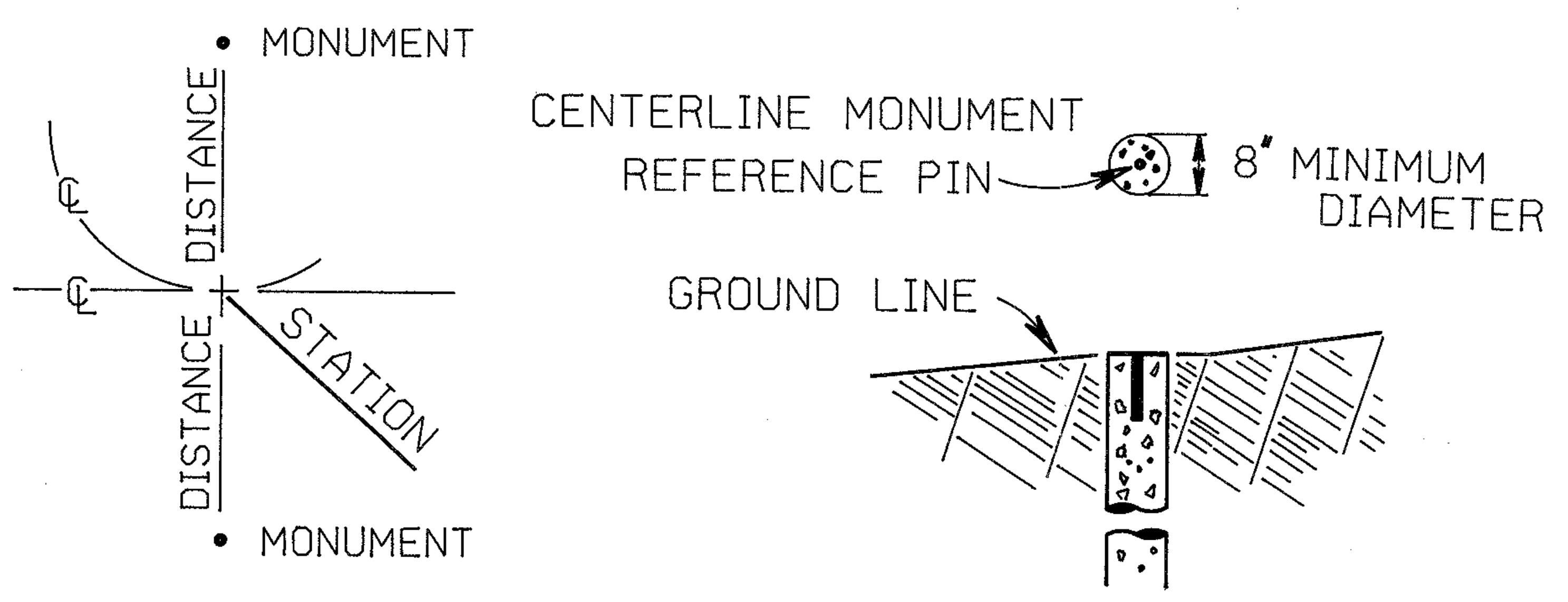
- • IRON PIN (FOUND)
- ⊗ CONCRETE MONUMENT W / "X" MARK (FOUND)

S.R. 159 ℄ CURVE DATA
P.I. 92+12.75
Δ 34° 46' 38" RT.
D_c 3° 00'00"
R 1909.86'
L_c 1159.24'
T 598.10'
E 91.46'

* NOTE *

FOR ADDITIONAL CENTERLINE RECORDING INFORMATION SEE: VOLUME 7 PAGES 36, 36A

DETAIL FOR SETTING MONUMENTS



REFERENCE MONUMENTS TO BE SET AFTER CONSTRUCTION

STATION	DIST. FROM ℄		STATION	DIST. FROM ℄	
	LEFT	RIGHT		LEFT	RIGHT
PC 86+14.65	50.00	50.00	PT 97+73.89	42.00	42.00
103+00	55.00	55.00	108+00	55.00	55.00

DISTRICT DEPUTY DIRECTOR

Keith C. Swearingen DATE: 6-6-89

RECORDED IN THE ROSS COUNTY RECORD
OF PLATS: BOOK 11 PAGE 19 DATE 6-7-89

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE BY THE OHIO DEPARTMENT OF TRANSPORTATION.

DATE: 6/6/89

Robert D Brown P.S. 5629

SYSTEM ZF2U[357,201]ROS159.DGN;1 6-JUN-1989 09:38

TOTAL NUMBER OF:
4 OWNERSHIPS
0 TOTAL TAKES
0 OWNERSHIPS WITH STRUCTURES INVOLVED
0 OWNERSHIPS WITH "P" ITEMS

SUMMARY OF ADDITIONAL RIGHT OF WAY

CALC BY ____ DATE ____
CHKD BY ____ DATE ____
ROS ~ 159 ~ 4.10
OHIO
FHWA REGION **5**
FEDERAL PROJECT
STATE PROJECT 090440
28/30
2/4

PARCEL	OWNER	SHEET NO.	OWNERS RECORD		RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUCTURE	NET RESIDUE		TYPE FUND	REMARKS
			BOOK	PAGE							LEFT	RIGHT		
1	BOARD OF TRUSTEES OF THE CHILLICOTHE HOSPITAL	3,4	361	367	34.95 AC.	2.66 AC.	2.38 AC.	2.35 AC.	0.03 AC.	NO	32.26 AC.	~	STATE	2.38 AC. TAKE FROM AUDITORS PARCEL #1401090024
2-T	COLOMET, INCORPORATED, A CORPORATION	3,4	325	515	23.50 AC.	~	0.46 AC.	~	0.46 AC.	NO	~	~	STATE	NEEDED TO GRADE & SEED SLOPES, NEEDED FOR SIX MONTHS TAKE FROM AUDITORS PARCEL # 14011090027
3	MEDICAL CENTER HOSPITAL	3,4	503	805	20.94 AC.	~	1.09 AC.	~	1.09 AC.	NO	19.85 AC.	~	STATE	0.07 AC. TAKE FROM AUDITORS PARCEL #1401090057 1.02 AC. TAKE FROM AUDITORS PARCEL #1401090050
4	ROSS COUNTY MEDICAL FOUNDATION AN OHIO NON-PROFIT CORPORATION	4	491 482	163 765	170.61 AC.	3.43 AC.	1.53 AC.	0.73 AC.	0.80 AC.	NO	166.38 AC.	~	STATE	1.03 AC. TAKE FROM AUDITORS PARCEL # 1401090136 0.50 AC. TAKE FROM AUDITORS PARCEL #1401090139
5	THE BOARD OF COMMISSIONERS OF ROSS COUNTY, OHIO	3,4												NOT NEEDED

COMPLETION DATE: 6 - 6 - 89

REV.	DATE	DESCRIPTION

ZF2:[357,201]ROS159.DGN;1 6-JUN-1989 09:54

SYSTEM

DIST 9 8-24-87

R/W SUMMARY SHEET

CALC BY DATE	ROS ~ 159 ~ 4.10	OHIO	29/30
CHKD BY DATE		FHWA REGION 5	

R/W PLAN
ROS - 159 - 4.10
ROSS COUNTY

3/4

① BOARD OF TRUSTEES OF THE CHILLICOTHE HOSPITAL

② COLOMET INC, A CORPORATION

③ MEDICAL CENTER HOSPITAL

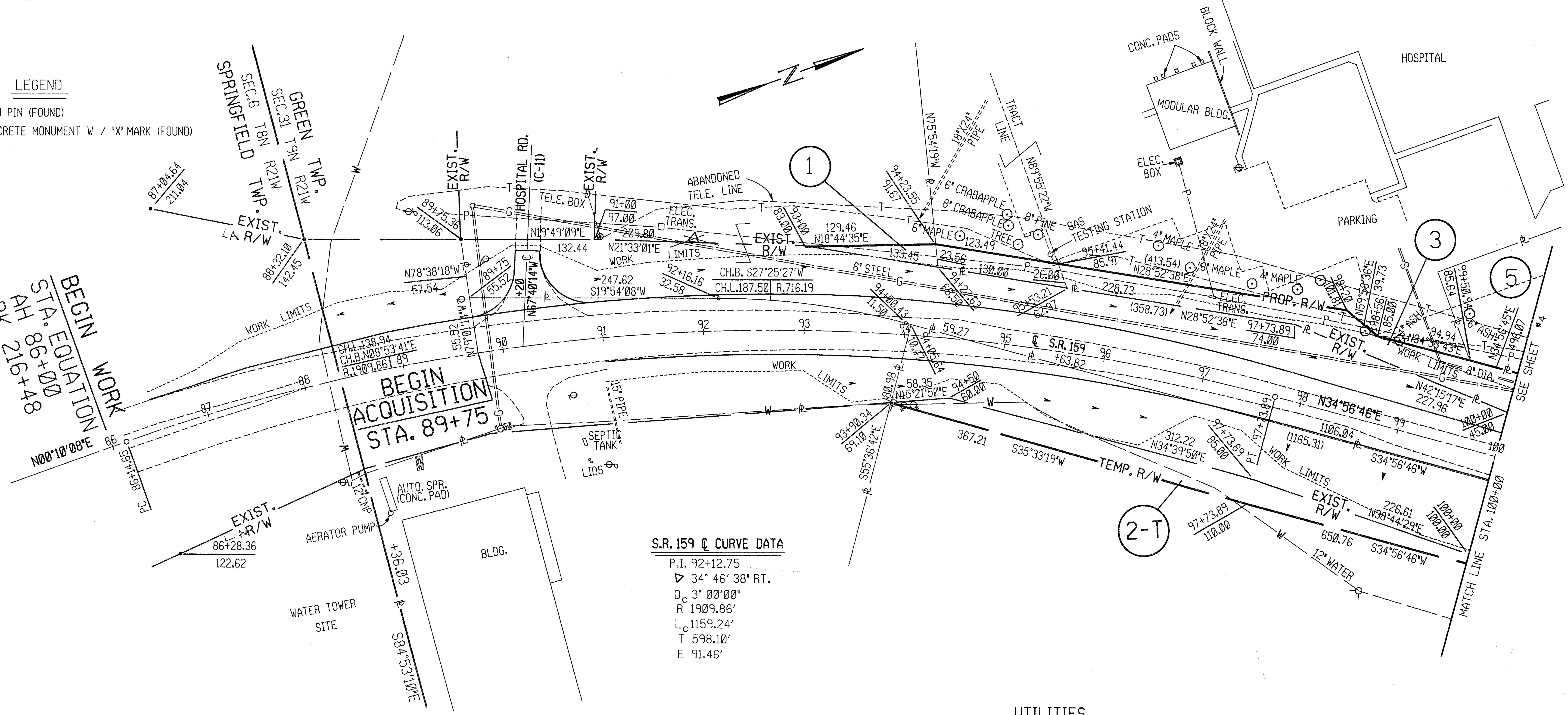
GREEN TOWNSHIP
SEC.31 T9N R21W

0 50 100
SCALE IN FEET

* NOTE *
UTILITIES ARE NOT TO BE DISTURBED LEFT OF CENTERLINE AND BETWEEN STATIONS 93+00 - 104+00

LEGEND

- • IRON PIN (FOUND)
- ⊗ CONCRETE MONUMENT W / "X" MARK (FOUND)



S.R. 159 ℄ CURVE DATA

P.I. 92+12.75
Δ 34° 46' 38" RT.
D_c 3° 00'00"
R 1909.86'
L_c 1159.24'
T 598.10'
E 91.46'

UTILITY LEGEND

—— W ——	══ G ══	- - - T - - -	—— P ——	══ S ══
WATER VALVE ♁ WATER METER ▨ FIRE HYDRANT ♎	GAS VALVE ♁ GAS LINE (PEDESTAL) ○	TELEPHONE (PEDESTAL) ⊛ TELEPHONE (MANHOLE) ○	POWER LINE	SANITARY SEWER (MANHOLE) ○

NOTE: UTILITY LEGEND REPRESENTS UNDERGROUND UTILITIES

UTILITIES

CHILLICOTHE WATER COMPANY
35 SOUTH PAINT STREET
CHILLICOTHE, OHIO 45601
TELEPHONE: 614-773-2191

CHILLICOTHE TELEPHONE COMPANY
58 EAST MAIN STREET
CHILLICOTHE, OHIO 45601
TELEPHONE: 614-774-3371

COLUMBIA GAS OF OHIO
843 PIATT AVENUE
CHILLICOTHE, OHIO 45601
TELEPHONE: 614-773-1151

COLUMBUS SOUTHERN POWER COMPANY
215 NORTH FRONT STREET
COLUMBUS, OHIO 43215
TELEPHONE: 614-464-7911

STATE JOB NUMBER #090440

REVISED	BY	REVISION DESCRIPTION
COMPLETION DATE: 6 - 6 - 89		

MANDA ZF2:[357.201]ROS159.DGN;1 6-JUN-1989 10:10

CALC BY ___ DATE ___ CHKD BY ___ DATE ___	ROS ~ 159 ~ 4.10	OHIO FHWA REGION 5	30/30

R/W PLAN
ROS - 159 - 4.10
ROSS COUNTY

4/4

GREEN TOWNSHIP
SEC.31 T9N R21W

LEGEND

- IRON PIN (FOUND)
- ⊗ CONCRETE MONUMENT W / "X" MARK (FOUND)

① BOARD OF TRUSTEES OF THE CHILLICOTHE HOSPITAL

② COLOMET INC, A CORPORATION

③ MEDICAL CENTER HOSPITAL

④ ROSS COUNTY MEDICAL FOUNDATION, AN OHIO NON-PROFIT CORPORATION

UTILITY LEGEND

—— W ——	══ G ══	- - - T - - -	—— P ——	══ S ══
WATER VALVE ♁ WATER METER ▨ FIRE HYDRANT	GAS VALVE ♁ GAS LINE (PEDESTAL) ○	TELEPHONE (PEDESTAL) ⊛ TELEPHONE (MANHOLE) ○	POWER LINE	SANITARY SEWER (MANHOLE) ○

NOTE: UTILITY LEGEND REPRESENTS UNDERGROUND UTILITIES

STATE JOB NUMBER #090440

REVISED	BY	REVISION DESCRIPTION

COMPLETION DATE: 6 - 6 - 89

ZFR1357 R01 ROS159.DGN 6-JUN-1989 10:00