

FED. AID DIST. NO.	STATE	FED. AID PROJECT	FISCAL YEAR
10	OHIO	409-C	1929

1  
20

S.H. (I.C.H.) 21  
FULTON

SEC. S-1  
COUNTY

STATE OF OHIO  
DEPARTMENT OF HIGHWAYS  
**TOLEDO-ANGOLA ROAD**  
SH. (I.C.H.) NO. 21      SEC. S-1      PET. NO. 6469  
**FULTON COUNTY**  
GORHAM TOWNSHIP      MAR. 1928

The Standard Specifications of the State of Ohio, Department of Highways, in force on date of contract, will govern this improvement.  
I hereby approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and that detours will be provided as shown on the plan and estimates.

Approved: L. W. Bates  
Date, 7-16-1928 Resident District Deputy Director

Approved: M. J. Abraham  
Date, 7-11-28. Resident Division Deputy Director

Approved: H. H. Wynn  
Date, 7/28/28 Ad. Chief Engineer  
Bureau of Construction

Approved: \_\_\_\_\_  
Date, \_\_\_\_\_ Chief Engineer  
Bureau of Maintenance

Approved: \_\_\_\_\_  
Date, \_\_\_\_\_ Chief Engineer  
Bureau of Bridges

Approved: Robt. D. Bright  
Date, 7/28/28 Chief Engineer

Approved: Harry J. Kirk  
Date, 7/28/28 Director of Highways

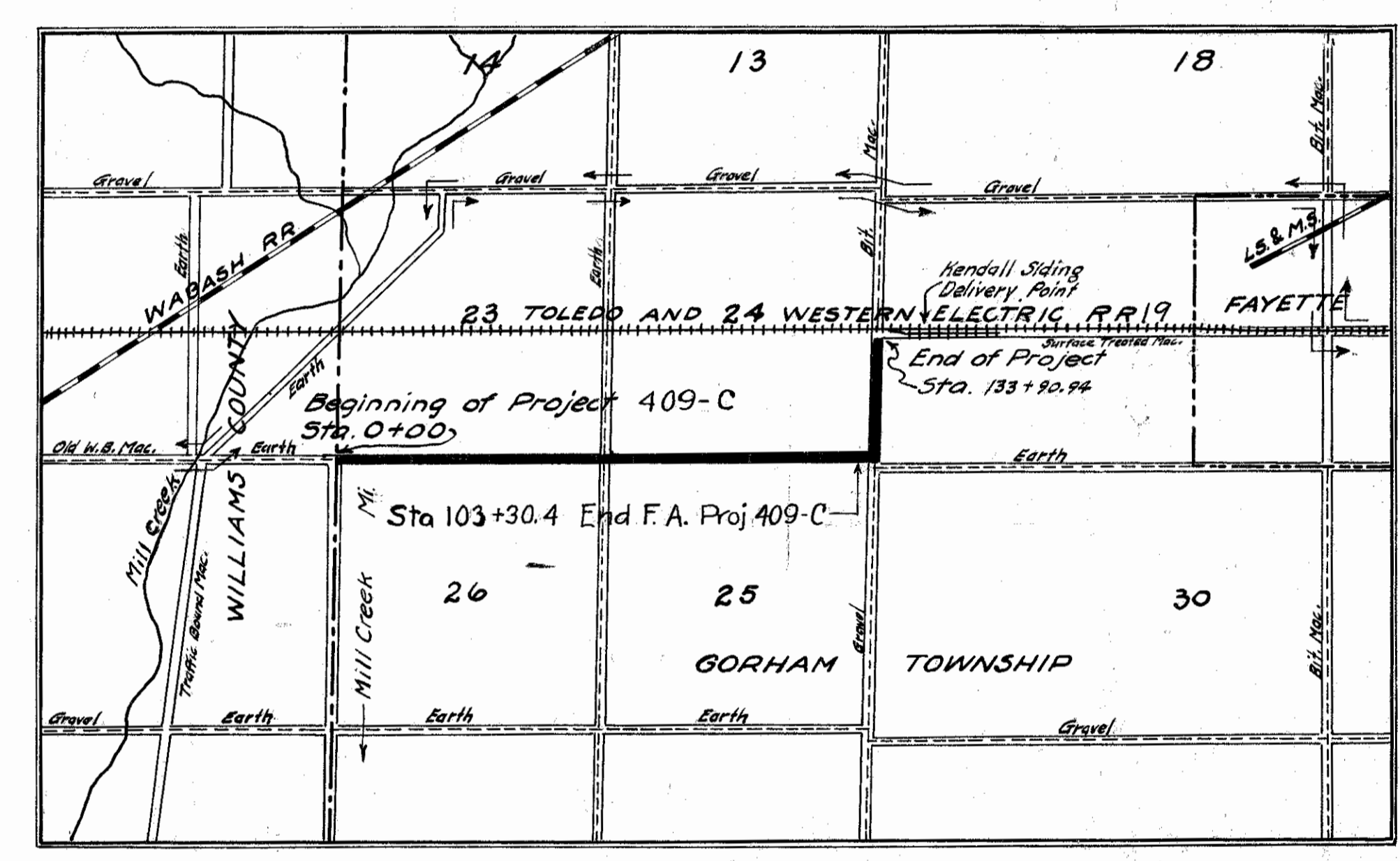
Recommended for Approval: \_\_\_\_\_  
Date, \_\_\_\_\_ District Engineer  
Bureau of Public Roads

Recommended for Approval: \_\_\_\_\_  
Date, \_\_\_\_\_ Chief Engineer  
Bureau of Public Roads

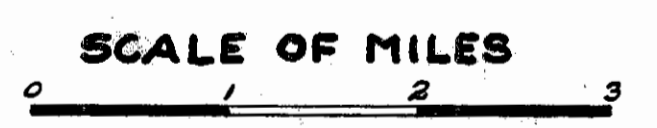
Approved: \_\_\_\_\_  
Date, \_\_\_\_\_ Chief of Bureau

**CONVENTIONAL SIGNS**

State Line	-----
County Line	-----
Township Line	-----
Section Line	-----
Property Line not fenced	-----
Center Line	-----
City or Village Line	-----
Fence	-----
Telephone or Telegraph	TTTTT
Steam Railroad	-----
Electric Line	-----
Guard Rail	-----
Drain Pipe - new	-----
Drain Pipe - old	-----



**LOCATION PLAN**



PORTION TO BE IMPROVED  
DETOURS SHOWN THUS  
IMPROVED ROAD

We, the Commissioners of Fulton County, hereby approve these plans and certify that the right-of-way 60 feet wide is available for the construction, maintenance and repair of the above highway.

M. C. Zappan  
Edwin Russell  
M. C. Batsford

Date July 12-1928 County Commissioners

**SCALES**

Plan	1"=100'
Profile (Vertical)	1"=10'
Profile (Horizontal)	1"=100'
Cross Sections	1"=5'

**INDEX OF SHEETS PROJECT TRACING**

Title Page	p. 1
Typical Cross Section	p. 2
Plans and Profile	p. 3-7
Cross Sections	p. 8-15
Structural Plans	p. 16-19
Summary Sheet	p. 20

**SUPPLEMENTAL PRINTS OF STRUC. STDS.**

Drawing Number	95, 98 or 100
" "	300, 301, 305

CONSTRUCTION BUREAU  
JUN 21 1955  
GROUND PHOTOLAB

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# TYPICAL SECTIONS

Note - Cross-sections are drawn and excavation calculated for type "C" pavement (9"-7"-9" concrete)

<b>Concrete</b>	<b>Bituminous Macadam</b>
1560 sq. in. = Total end area.	216" x 3" = 648 sq. in. = Total end area of top course.
127 sq. in. = Total area above line EE (Dr. 120)	223 sq. in. = End area above line EE. (Dr. 120)
1433 sq. in. = End area below line EE.	648 - 223 = 425 sq. in. = Area top course below line EE.
18'-0" = 216" = Width of pavement.	425 ÷ 216 = 1.97 in. = average depth of top course below line EE.
1433 ÷ 216 = 6.63 in. = .553 ft. = average depth of pavement below line EE.	1.97 + 9" = 10.97 in. = .914 ft. = Average depth entire pavement below line EE.

$$12x = 19y + \{2[0.5(.667-y)]\}$$

$$12x = 19y + .667 - y \text{ or } 12x - 18y = .667$$

$$x + y + .553 = .914 \text{ or } x + y = .361$$

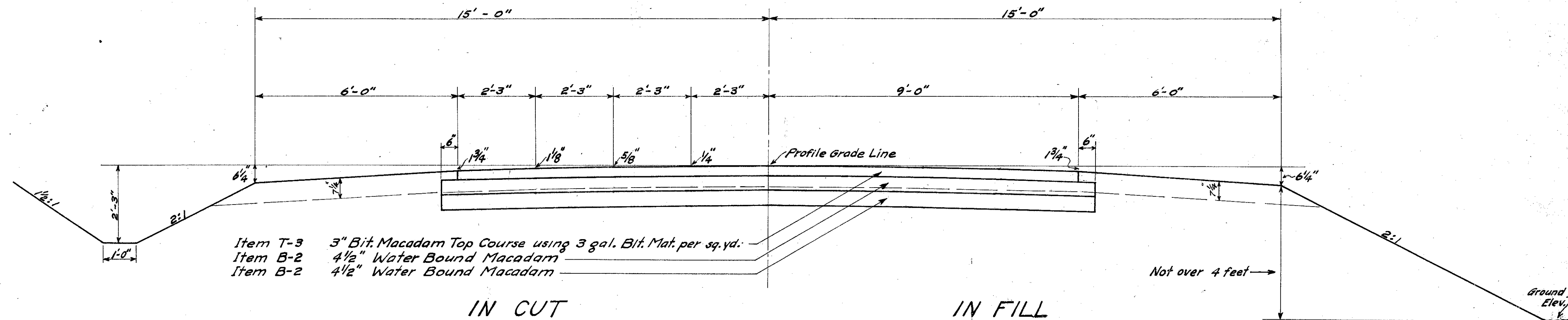
$$19x + 18y = 6.498$$

$$12x - 18y = .667$$

$$30x = 7.165 \text{ or } x = .239$$

$$.239 + .0625 = .30 \text{ amount of grade is to be raised if type M(B) pavement is built. Excavation remains the same for either type.}$$

← From Const. Dr. No 121



- Item T-3 3" Bit. Macadam Top Course using 3 gal. Bit. Mat. per sq. yd.
- Item B-2 4 1/2" Water Bound Macadam
- Item B-2 4 1/2" Water Bound Macadam

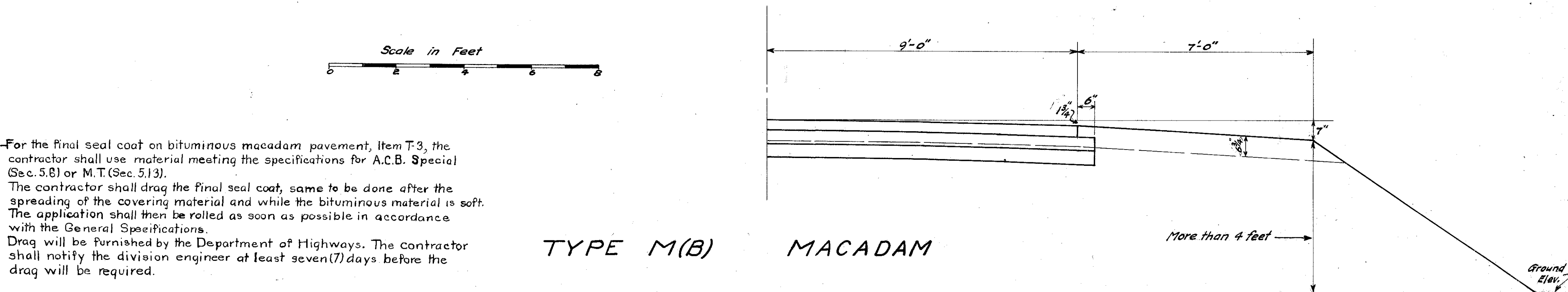


Note - Rough grading will be completed to the cross-section indicated by the broken line for all types of pavement. All earth below the broken line for the width of the pavement and the full width of the berms shall be scarified to the depth of the sub-grade and parallel to the slope of the broken line before any excavated material is placed on the shoulders. The sub-grade shall then be prepared as provided for in the specifications for the type of pavement to be built and the material removed from the subgrade or adjacent thereto to be placed on the shoulders.

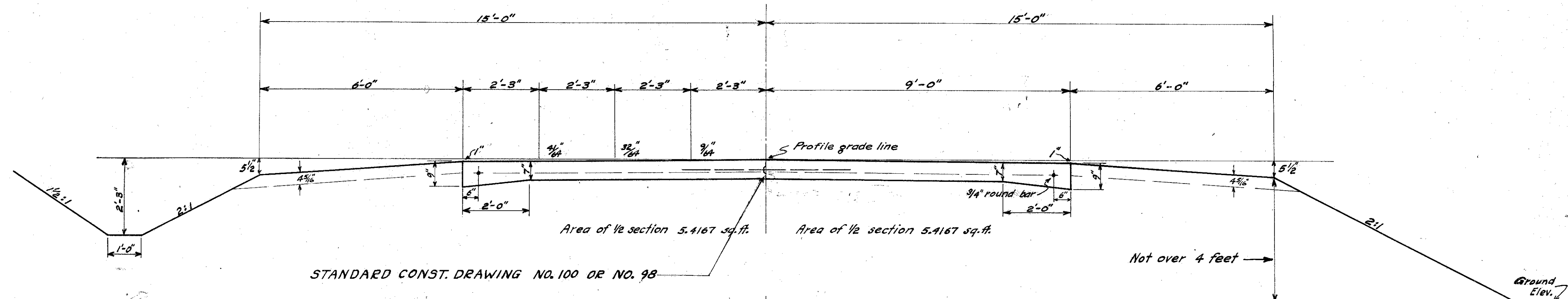
Note: - For the final seal coat on bituminous macadam pavement, Item T-3, the contractor shall use material meeting the specifications for A.C.B. Special (Sec. 5.8) or M.T. (Sec. 5.13). The contractor shall drag the final seal coat, same to be done after the spreading of the covering material and while the bituminous material is soft. The application shall then be rolled as soon as possible in accordance with the General Specifications. Drag will be furnished by the Department of Highways. The contractor shall notify the division engineer at least seven (7) days before the drag will be required.

### CONSTRUCTION NOTES

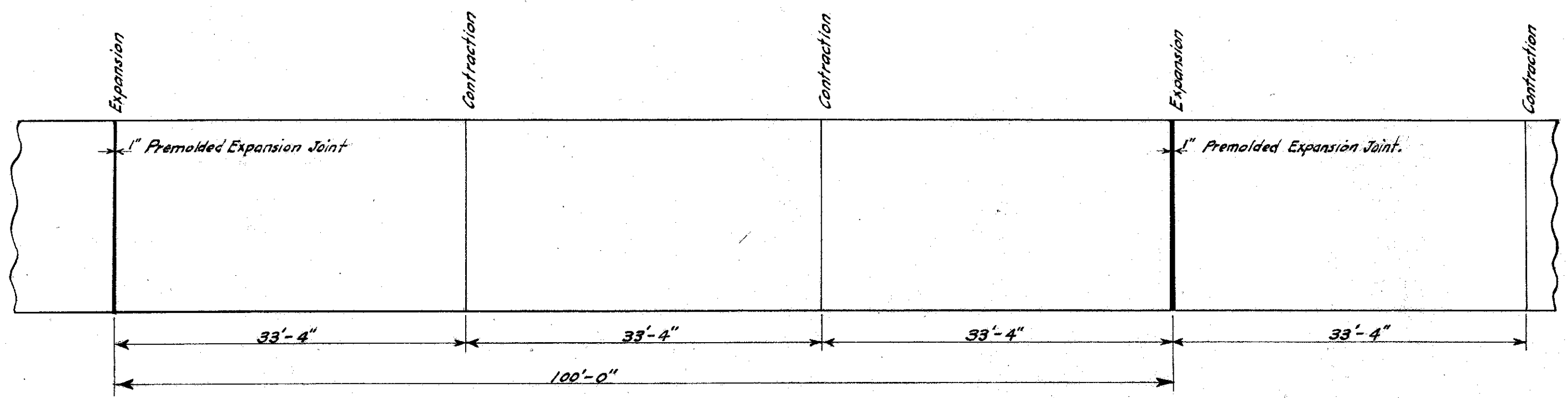
- Berms, Slopes and Ditches shall be finished to conform to cross-sections as shown for each station and put in shape for immediate seeding.
- There shall be no open ditches along Yards and Drives and where the new grade is finished above the present grade at yards and drives the slope shall be continued back to conform with the berm slope.
- Contractor shall connect all lateral drains with tile providing the land-owner does the extra excavating and furnishes the necessary tile at the time the contractor is laying the tile under his contract. Care shall be taken not to damage any side drains along open ditches.
- All materials removed from roadway which are not to be used as per contract shall be piled neatly on right of way, not more than 300 feet from place of removal, for the County Commissioners.
- All monuments or land-markers found by Contractor during progress of work shall not be disturbed until Engineer has established witnesses to same.
- Joints where size of tile change, special connections, lateral connections and up stream ends of tile drains shall be thoroughly sealed and covered with concrete.
- Contractor shall remove no trees within limits of right-of-way unless he is directed to do so by the Engineer in charge.



## TYPE M(B) MACADAM



STANDARD CONST. DRAWING NO. 100 OR NO. 98



DETAIL OF JOINT SPACING  
Joints as per Standard Construction Drawing No. 95

## TYPE C CONCRETE Item T-7

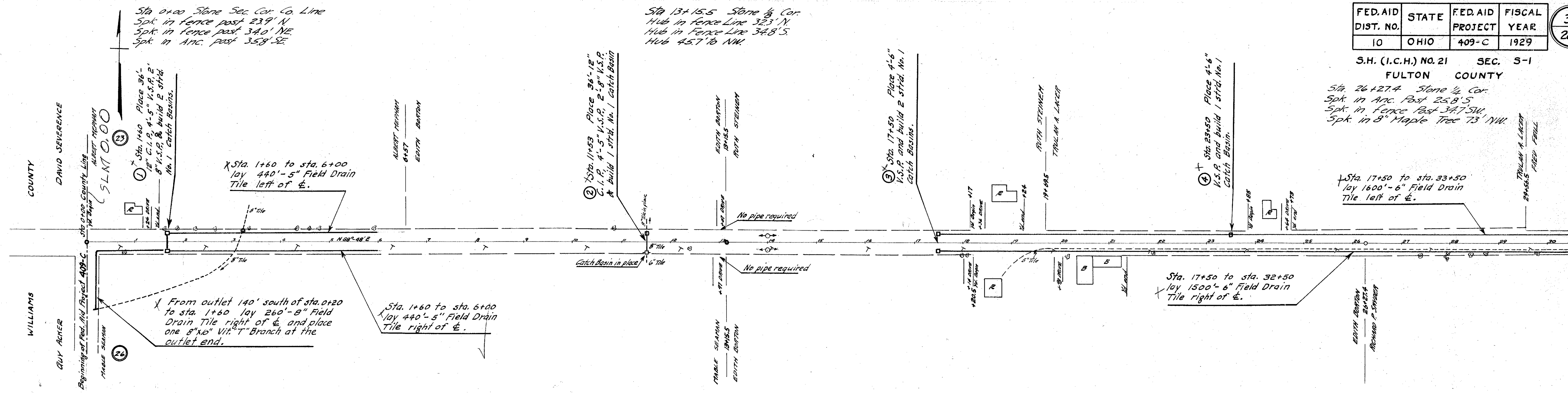
Note - Transverse construction joints of standard tongue and groove design shall be placed across the pavement at the end of the days work or when it is necessary to suspend the work for a period of more than thirty (30) minutes.

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3  
20

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Sta. 26+27.4 Stone 1/4 Cor.  
Spk in Arc. Post 25.8'S  
Spk in Fence Post 347.5W  
Spk in 8" Maple Tree 73' NW

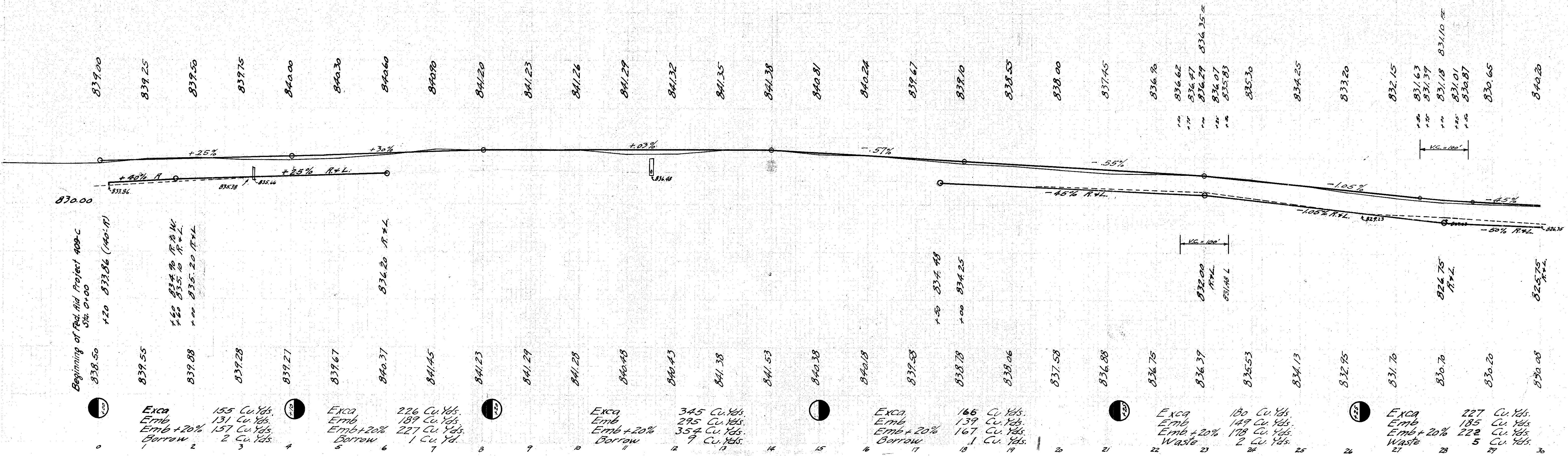


X Sta. 0+00 10 cu. yds. stone to be spread evenly 8" thick on traveled roadway of approaches; 5 cu. yds. on road to south, 5 cu. yds. on road to west.

B.M. R.R. Spk in Phone Pole 120' South of Sta 0+25 Elev 837.97

B.M. Spk in Elm Tree 28' Left of Sta 10+85 Elev 840.55

B.M. Spk in Maple Tree 38' Left of Sta 24+40 Elev 836.85



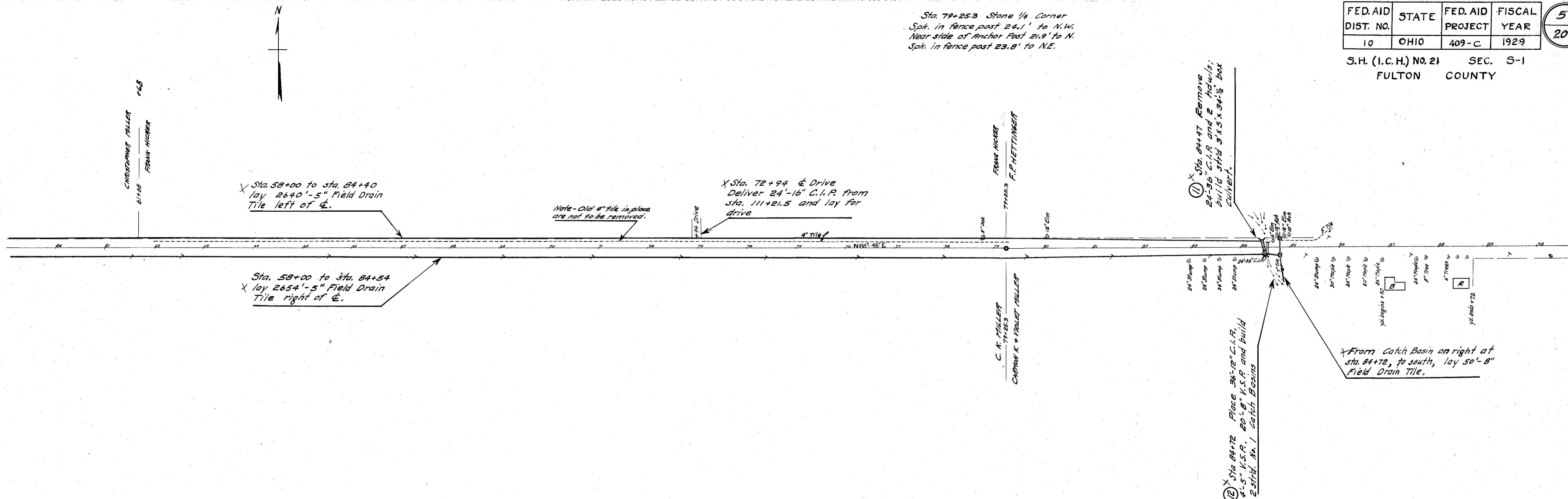


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5  
20

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Sta. 79+25.3 Stone 1/4 Corner  
Spk. in fence post 24.1' to N.W.  
Near side of Anchor Post 21.9' to N.  
Spk. in fence post 23.8' to N.E.



B.M. Spk. in fence post 50' to north at sta. 61+68  
Elev. 828.01

B.M. Spk. in fence post 40' to north at sta. 72+85.  
Elev. 827.34

B.M. Spk. in Maple Tree 27' to south at sta. 86+19.  
Elev. 817.46

