

SR 2003 SUGAR RUN ROAD INTERSECTION PROJECT

T.W. ENGINEERING, INCORPORATED OCTOBER 18, 2023



AGENDA

- Project Description
- Purpose & Need Statement
- Existing Conditions/Photos
- Proposed Design
- Safety Enhancements
- During Construction
- Traffic Detours
- Next Steps
- Questions



PROJECT DESCRIPTION

SR 2003 Sugar Run Road Intersection Project Franklin Township



Existing Structure:

- Concrete encased steel I-beams
- Single Span = 17 ft
- Clear width = 47.5 ft
- Out-to-out width = 55 ft
- Built in 1937
- Deck, Superstructure, Substructure – all rated 5, Fair Condition
- No weight limit posted

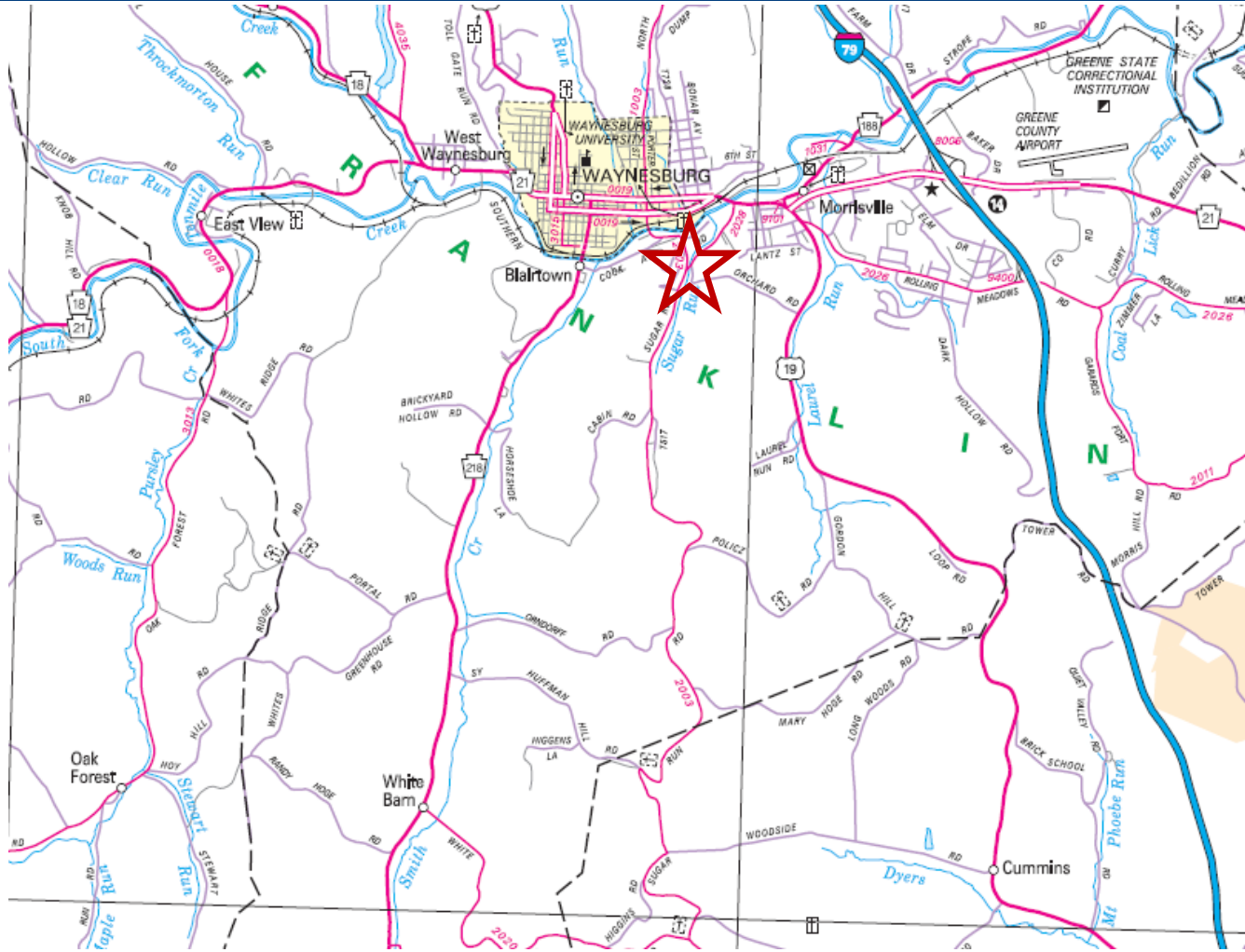


PROJECT PURPOSE AND NEED

The Sugar Run Road intersection is operationally deficient. Stopped, turning, and through traffic, along with a sight distance limitation, add to the overall conflicting characteristics of the intersection. Mitigation of these features will enhance safety and mobility to the motoring public.



LOCATION MAP



EXISTING CONDITION



EXISTING CONDITION



EXISTING CONDITION



EXISTING CONDITION



PROPOSED DESIGN

Alternatives Analysis

- Elongated Roundabout
- Circular Roundabout
- Plus intersection
- T intersection

Single lane circular roundabout chosen as preferred design alternative

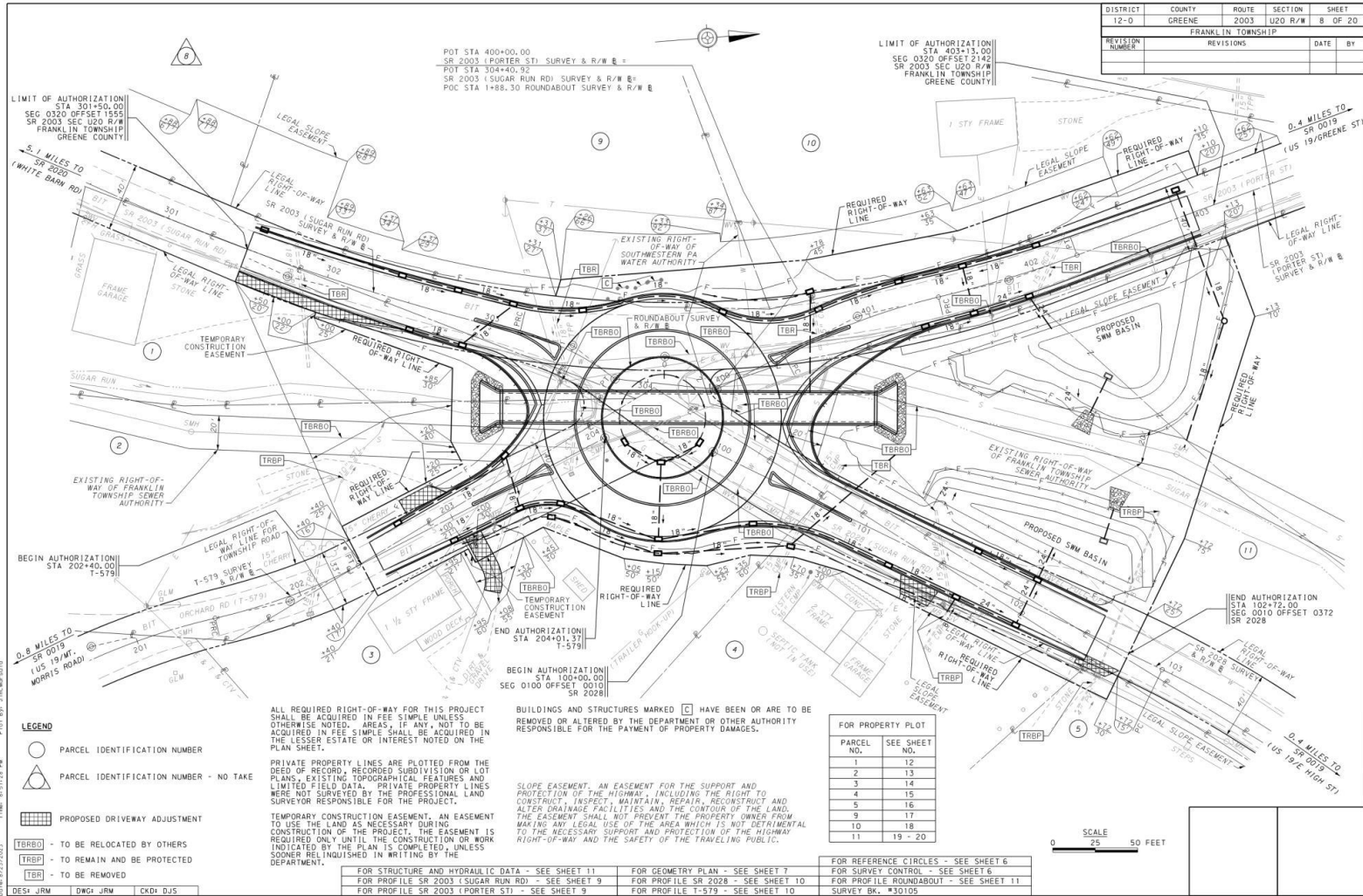
- 25 mph approaches and circulating traffic
- 18 ft circulatory roadway
- 16 ft truck apron
- 140 ft inscribed circle diameter
- Design vehicle is a PA modified WB-62 for all state roads, motor home towing a boat for T-579
- Meets all roundabout design guidelines

Pre-cast RC Box culvert with pre-cast end sections

- 18 ft span, 6 ft rise, 1 ft depression
- 222 ft length
- No increase to 100-year floodplain



PROPOSED DESIGN



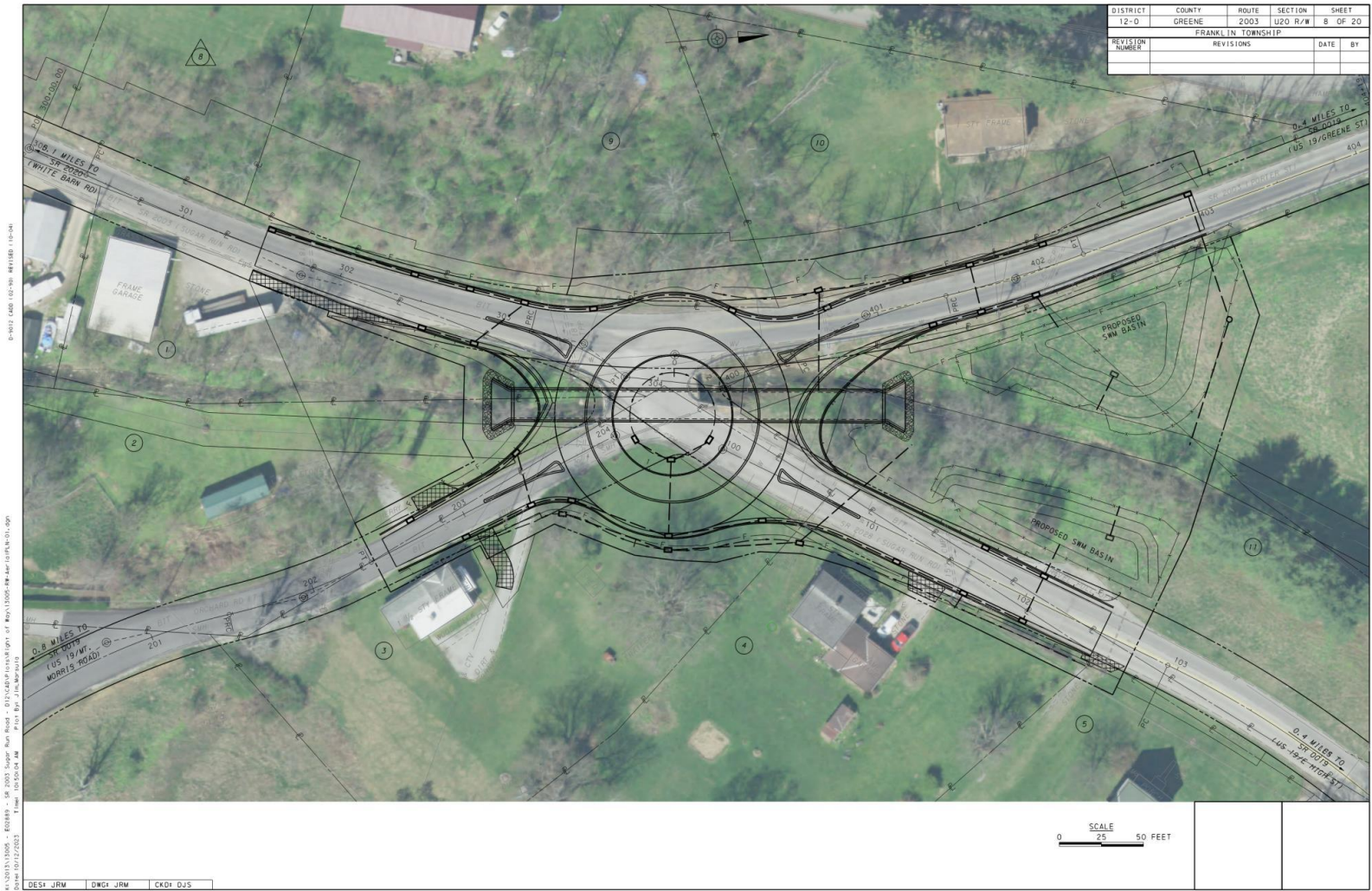
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	GREENE	2003	U20 R/W	8 OF 20

FRANKLIN TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	

14-12615313006 - 402189 - 1P 2003 Sugar Run Rd - 48730009 (SUGAR RUN RD) - 48730005 (FRANKLIN TOWNSHIP) - 48730001 (GREENE COUNTY) - 48730000 (FRANKLIN TOWNSHIP) - 48730000 (GREENE COUNTY) - 48730000 (FRANKLIN TOWNSHIP) - 48730000 (GREENE COUNTY)



PROPOSED DESIGN

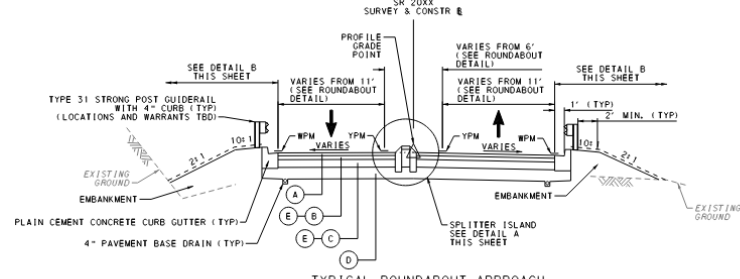
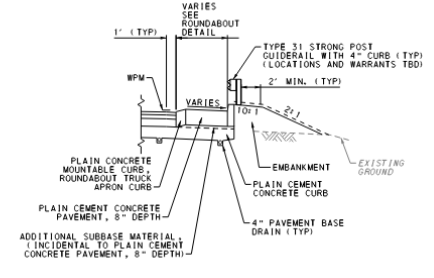
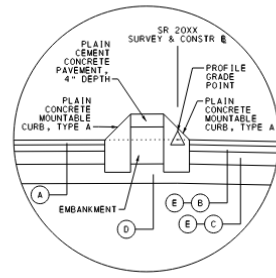
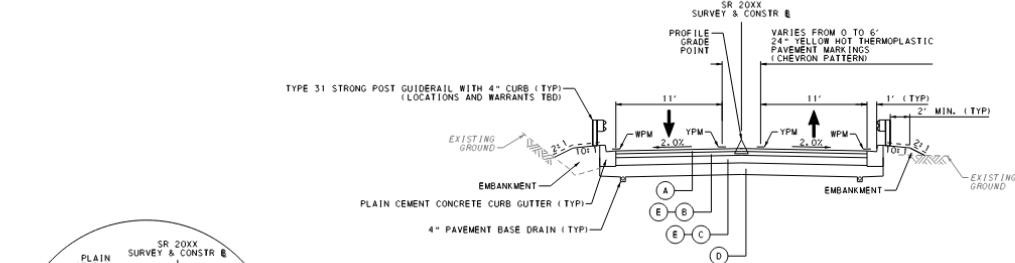


PROPOSED DESIGN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	GREENE	2003	U20	4 OF 11
FRANKLIN TOWNSHIP				
REVISION	SHEET	REVISIONS	DATE	BY

D-1012 (400) (10-20) REVISED (10-04)

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 11/20/12 11:24:24



- LEGEND**
- (A) - SUPERPAVE ASPHALT MIXTURE DESIGN, WMA WEARING COURSE
 - (B) - SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BINDER COURSE
 - (C) - SUPERPAVE ASPHALT MIXTURE DESIGN, WMA BASE COURSE
 - (D) - SUBBASE (NO. 2A)
 - (E) - ASPHALT TACK COAT (TO BE APPLIED BETWEEN A, B, AND C)
- SEEDING AND SOIL SUPPLEMENTS - FORMULA D, INCLUDING MULCH
- WPM - 6" WHITE WATERBORNE PAVEMENT MARKINGS
 YPM - 6" YELLOW WATERBORNE PAVEMENT MARKINGS

TYPICAL SECTIONS
 NOT TO SCALE

DES: JRM DWG: JRM CKD: EJS



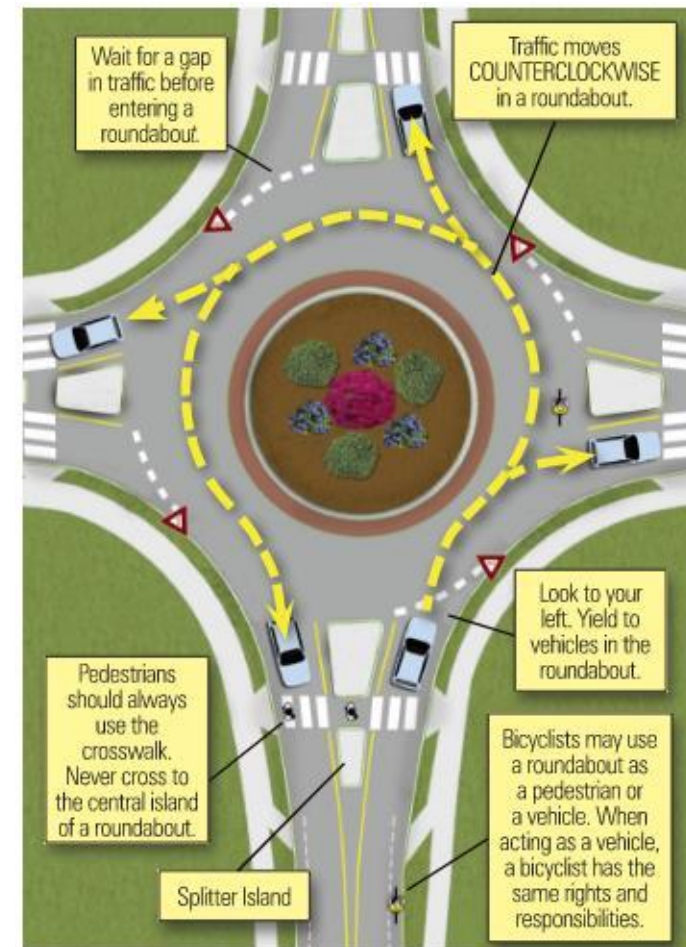
ROUNDAABOUT BENEFITS

Improved Safety

- Eliminates left turn conflict points
- Promotes slower speeds (about 25 mph)
- Easier decision making
- 90% reduction in fatal crashes
- 75% fewer injury-causing crashes

Reduced delay

- 30% more capacity than typical signalized intersections
- Continuously flowing traffic



DURING CONSTRUCTION

Staged Construction

Phase 1A – Culvert Construction

- Close SR 2028 and T-579 and detour traffic

Phase 1B – Eastern Roadway Construction

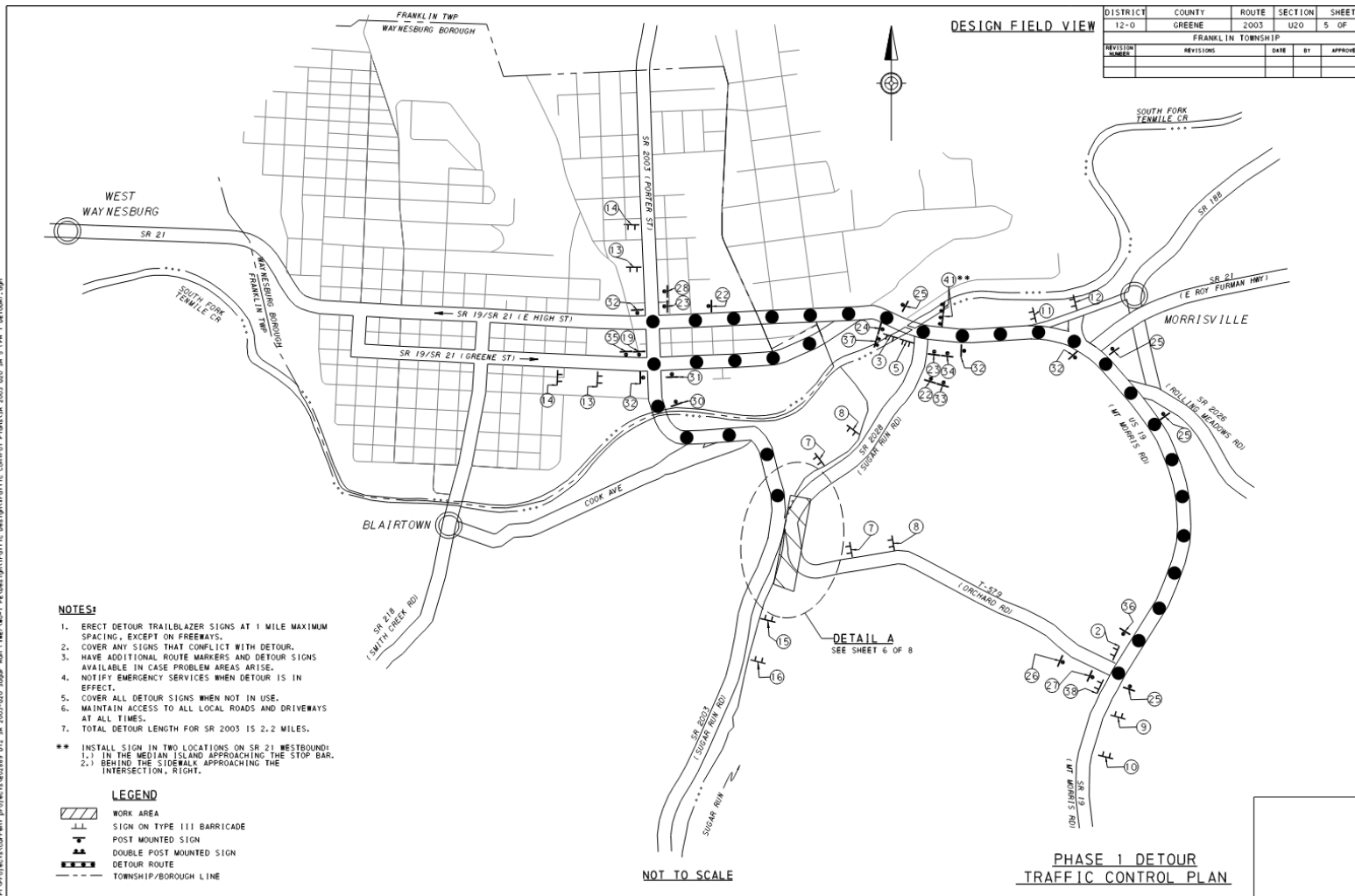
- Continue detours implemented in Phase 1A

Phase 2 - Western Roadway Construction

- Continue detours implemented in Phase 1A
- Close SR 2003 (Sugar Run Rd. and Porter St.) and detour traffic



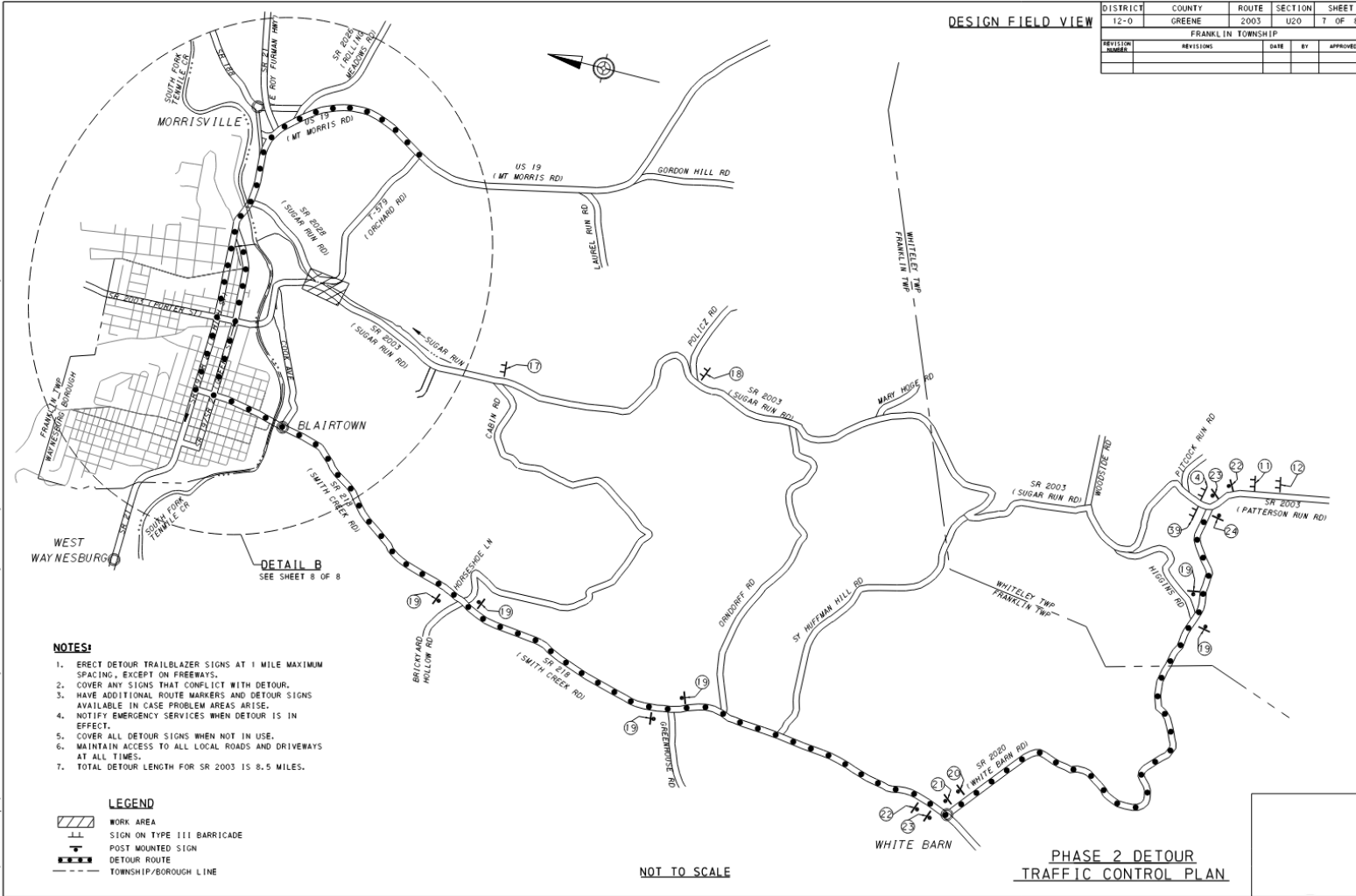
PROPOSED TRAFFIC DETOUR



PROPOSED TRAFFIC DETOUR

DESIGN FIELD VIEW

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	GREENE	2003	U20	7 OF 8
FRANKLIN TOWNSHIP				
REVISION NUMBER	REVISIONS	DATE	BY	APPROVED



NOTES:

1. ERECT DETOUR TRAILBLAZER SIGNS AT 1 MILE MAXIMUM SPACING, EXCEPT ON FREEWAYS.
2. COVER ANY SIGNS THAT CONFLICT WITH DETOUR.
3. HAVE ADDITIONAL ROUTE MARKERS AND DETOUR SIGNS AVAILABLE IN CASE PROBLEM AREAS ARISE.
4. NOTIFY EMERGENCY SERVICES WHEN DETOUR IS IN EFFECT.
5. COVER ALL DETOUR SIGNS WHEN NOT IN USE.
6. MAINTAIN ACCESS TO ALL LOCAL ROADS AND DRIVEWAYS AT ALL TIMES.
7. TOTAL DETOUR LENGTH FOR SR 2003 IS 8.5 MILES.

LEGEND

- WORK AREA
- SIGN ON TYPE III BARRICADE
- POST MOUNTED SIGN
- DETOUR ROUTE
- TOWNSHIP/BOROUGH LINE

NOT TO SCALE

PHASE 2 DETOUR
TRAFFIC CONTROL PLAN

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 PLOT 142 10/11/03 10:45:17 AM 811450
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NEXT STEPS

- Final Design
- Right of Way Acquisition
- Utility Coordination
- Permitting
- Anticipated Let Date is 12/12/2024
- Anticipated Construction in 2026
- Anticipated Construction Cost is \$3.5M-\$4M



QUESTIONS

THANK YOU