



November 2, 2001

MEMORANDUM**TO:** Montgomery County Planning Board**VIA:** Jeffrey Zyontz, Chief
County-wide Planning DivisionRichard C. Hawthorne, Chief
Transportation PlanningJudy Daniel, Team Leader
Community-Based Planning**FROM:** Larry Cole: 301-495-4528, for the Park and Planning Department**PROJECT:** Woodfield Road Extended
CIP Project No.500151**REVIEW TYPE:** Mandatory Referral No. MR# 01805-DPW&T-1**APPLICANT:** Montgomery County Department of
Public Works and Transportation**APPLYING FOR:** Plan Approval**COMMUNITY-BASED PLANNING TEAM AREA:** Rural

RECOMMENDATION: APPROVAL WITH COMMENTS TO DPWT

The following comments are recommended on the proposed project (see Attachment 1: Vicinity Map):

1. Construct sidewalks along both sides of Ridge Road south of Woodfield Road Extended.
2. Construct an off-road bike path along the east side of Ridge Road north of Woodfield Road Extended.

3. Consider installing a mountable curb along Ridge Road north of the proposed Woodfield Road Extended intersection.
4. Construct all intersections to be ADA-compatible and align crosswalks to provide the shortest, safest crossings.
5. Where guardrails are proposed adjacent to sidewalks, they should be located between the sidewalk and curb per AASHTO recommendations.
6. Construct handicap ramps and a leadwalk at the northern post office driveway.
7. Alter the grade of the proposed driveway to the stormwater management pond to better accommodate the proposed bikeway.
8. Provide eight-foot landscape panels along Woodfield Road Extended where not constricted by wetlands or adjacent homes.
9. Consider planting street trees closer to the Woodfield Road Extended/Faith Lane intersection, the Post Office driveway, and the driveway to the stormwater management pond.
10. Provide landscape plans for Ridge Road to staff for review.

PROJECT DESCRIPTION

This project would construct a 3,600-foot extension of Woodfield Road in Damascus from its current terminus north of Main Street to Ridge Road (MD 27). An off-road bike path would be constructed along the east side of the road for its entire length. A sidewalk would be constructed along the west side of the road for short sections at the northern and southern project limits.

The existing Faith Lane intersection on Ridge Road would be removed and Faith Lane realigned to intersect with the new Woodfield Road Extended.

Approximately 2,600 feet of Ridge Road would be reconstructed to add a southbound turn lane to Woodfield Road Extended and an acceleration lane from Woodfield Road Extended to northbound Ridge Road.

STAFF ANALYSIS

This project would implement the recommendation of the Damascus Master Plan to build an extension of Woodfield Road on the east side of the town of Damascus. This road would provide a direct connection between MD 124 at MD 108 and Ridge Road to the north and would relieve traffic congestion in the town by eliminating some of the through traffic. Attachment 2, from the facility planning Project Prospectus, shows the

existing and projected level of service (LOS) for traffic at five intersections in the area surrounding the project.

Ridge Road

The horizontal and vertical alignment of Ridge Road would be improved for a distance of 2,100 feet north of the proposed intersection with Woodfield Road Extended (see Attachment 3). A vacant house would be purchased and demolished to improve sight distance. These changes should improve safety in general for drivers along this section of road, and in particular should greatly reduce the likelihood of rear-end collisions with vehicles waiting to make a left turn onto Woodfield Road Extended.

Twelve-foot travel lanes and four-foot shoulders would be provided in the reconstructed area of Ridge Road (see Attachment 4a). The proposed shoulders will provide a measure of safety for drivers and will accommodate on-road bicycle use.

The proposed intersection of Ridge Road and Woodfield Road Extended will define the border between the northern edge of Damascus and the more rural area of the agricultural reserve. While maintaining the existing open-section roadway is preferred, vertical face concrete curb is proposed through this area to limit impacts on adjacent residences. Beyond a concern that vertical face curb is an urban material that would seem inappropriate in this area, staff is also concerned that it may not reflect how people drive through this area. Vertical face curb is not recommended by the American Association of State Highway and Transportation Officials (AASHTO) for higher speed areas because of the chance that an errant vehicle could vault the curb.

While the posted speed of Ridge Road north of the intersection is anticipated to continue to be 40 mph, the proposed improvements to the alignment of the road may mean that the number of vehicles going faster than the speed limit may increase. *Staff recommends that the installation of a mountable curb be considered on Ridge Road north of the proposed intersection with Woodfield Road Extended.* South of the intersection, where the existing posted speed of 30 mph is anticipated to remain, there is not the same concern that vehicles will vault the curb.

The installation of curbs is proposed along this segment of Ridge Road, but normally where we have curbs, we also construct sidewalks and plant street trees. None are proposed in the current plans, however. *South of the proposed intersection, staff recommends that sidewalks be installed on both sides of Ridge Road. North of the intersection, headed toward the rural area, staff recommends that an off-road bike path be constructed on the east side of Ridge Road, a location that will tie well into the proposed bikeway on the north side of Woodfield Road Extended.*

The proposed pedestrian crossings at the proposed Ridge Road/Woodfield Road Extended intersection need to be improved. While no crosswalk striping is yet shown, the two proposed handicap ramps are not aligned to take advantage of the proposed traffic island in the northeast quadrant. There also needs to be a ramp on the west side of Ridge Road to receive the legal pedestrian crossing here to meet ADA. *Staff*

recommends that the crosswalks at all intersections be aligned to provide the shortest, safest crossing.

Woodfield Road Extended

At the church driveway/Faith Lane intersection on Woodfield Road Extended (see Attachment 3), the pedestrian crossing needs to be improved via properly aligned handicap ramps and adequate sidewalks to provide access to adjacent properties. *Staff recommends that the project include sidewalks tying into the church parking lot, and also along Faith Lane within the limits of curb construction* so that residents of Faith Lane are not forced to walk along the curb in the intersection.

Staff recommends that handicap ramps and leadwalk be constructed to the northern post office driveway. Pedestrians coming from the north are unlikely to continue walking to the proposed crossing at the southern driveway past the post office if that is their destination.

Staff recommends that the grade of the driveway to the stormwater management pond be modified to accommodate the proposed bikeway. The driveway is only a very occasional use whereas the bikeway will be more heavily used and should therefore get preference in the design.

Where guardrails are proposed adjacent to sidewalks, they should be located between the sidewalk and curb per AASHTO (ref. p. 87, Highway Safety Design and Operations Guide, 1997). The guardrails will in this way protect pedestrians as well as prevent vehicles from leaving the roadway.

Landscaping

The County standard for a closed-section arterial road includes eight-foot landscape panels. The Project Prospectus also included eight-foot landscape panels, but the current design includes only six-foot landscape panels (see Attachment 4a). While six-foot panels are the County's minimum width to support the planting of street trees, eight feet would be better for the health of the trees and would provide a better offset for pedestrians and bicyclists on the sidewalk and bike path, particularly given that the previously planned on-road bike lanes, which would have provided greater separation of vehicles from pedestrians, will not now be built (see below). *Staff recommends that DPWT provide eight-foot landscape panels along Woodfield Road Extended where not constricted by wetlands or adjacent homes.*

Street trees are proposed along the length of Woodfield Road Extended. There are a couple of locations where trees are pulled back a bit farther than normal from adjacent intersections or driveways. *Staff recommends that DPWT consider planting trees closer to the Faith Lane intersection, the driveway to the stormwater management pond, and the southern post office driveway.*

No landscaping is proposed for the Ridge Road segment of the project. *Staff recommends that landscaping plans be provided for review once decisions have been made about curb type, and the provision of sidewalks and/or bike path.*

Environmental

This project is subject to the Forest Conservation Law. A Forest Conservation Plan has been submitted to staff and is now being reviewed for approval.

VARIANCES FROM MASTER PLAN AND MONTGOMERY COUNTY ROADWAY STANDARDS

Woodfield Road is classified as an arterial road with a two-to-five lane roadway section in an eighty-foot right-of-way. The Montgomery County standard for a closed-section arterial road has a fifty-foot curb-to-curb width. The proposed project would build the roadway as a two-lane closed section road (with curbs) for most of its length, with a curb-to-curb width of twenty-eight feet, far less than the standard but adequate to handle the projected traffic (see Attachment 4a). The northern end at Ridge Road would have a three-lane section (two travel lanes plus a left-turn lane) and the southern end would have a four-lane section, tying into the existing four-lane section at the post office (see Attachment 4b).

The proposed project would accommodate bikes on-road, but no separate bike lanes would be provided as recommended in the Master Plan. After the Project Prospectus was issued at the end of the facility planning process, a decision was made to provide on-road accommodation via wider curb lanes, and to include an off-road bike path along the east side of Woodfield Road Extended, rather than the marked on-road bike lanes. At the southern end of the project, where sidewalks exist on both sides of Woodfield Road, the proposed eight-foot bike path width would transition to the normal five-foot sidewalk width. Staff believes that the additional off-road bike path would be beneficial and that on-road bicyclist can be adequately accommodated in the wider curb lanes. No sidewalk is needed along the west side of Woodfield Road Extended since there is no adjacent land use at this time that would justify its construction. *Staff believes that the provision of sidewalks and bike paths and on-road bike accommodation along Woodfield Road is acceptable.*

PUBLIC OUTREACH

DPWT has provided sufficient public outreach on this project. Public meetings were held on February 24, 1997, February 19, 1998, and April 5, 2000.

BACKGROUND

The Damascus Master Plan recommends that Woodfield Road be constructed as a two- to five-lane facility from its present terminus near the post office to intersect with Ridge Road. During the development of the February 1993 Amendment to the Master Plan work, three alternatives were considered, shown as Attachment 5. As the Amendment text notes, Alternate A was recommended; however, during the facility

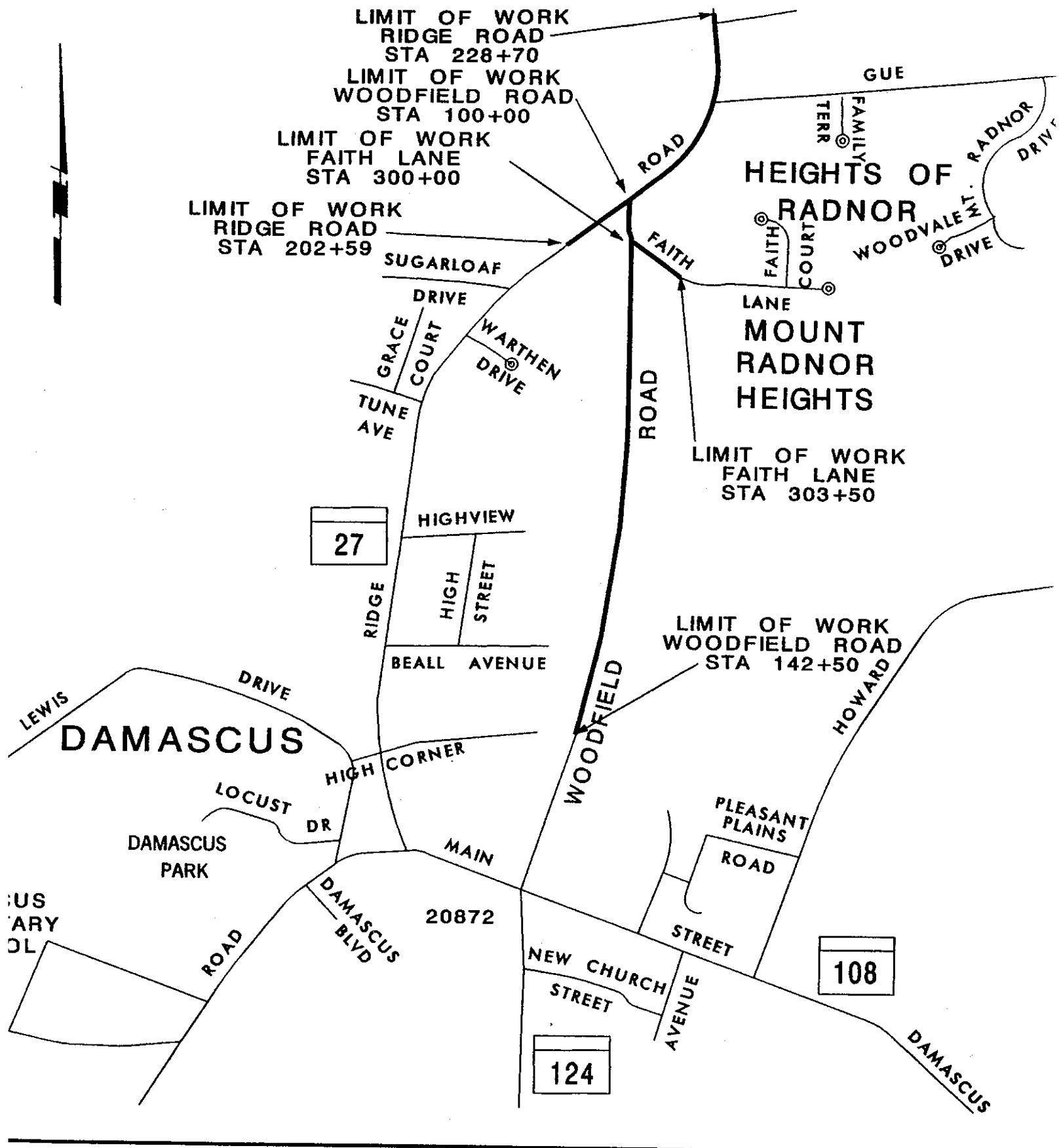
planning of this project, an alignment more closely following a combination of Alternates B and C was found to be more feasible.

After selection of this alternative, there was much public opposition expressed to the design of the proposed Ridge Road/Woodfield Road Extended intersection. DPWT originally proposed to construct a double left-turn lane on southbound Ridge Road that would have required a long concrete median south of the intersection, which would have prevented residents from turning left into and out of their driveways along Ridge Road. The project was revised to include only a single left-turn lane; therefore, no median is required.

Residents also expressed concern about the sharpness of the curve on Ridge Road north of the proposed intersection and how it could contribute to accidents with vehicles waiting to turn left at the new intersection. DPWT responded by increasing the amount of proposed work along Ridge Road north of the proposed intersection with Woodfield Road Extended. The horizontal and vertical alignment of Ridge Road would be improved and a vacant house would be purchased and removed to improve sight distance. *Staff concurs with the proposed safety improvements.*

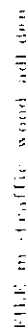
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Attachments

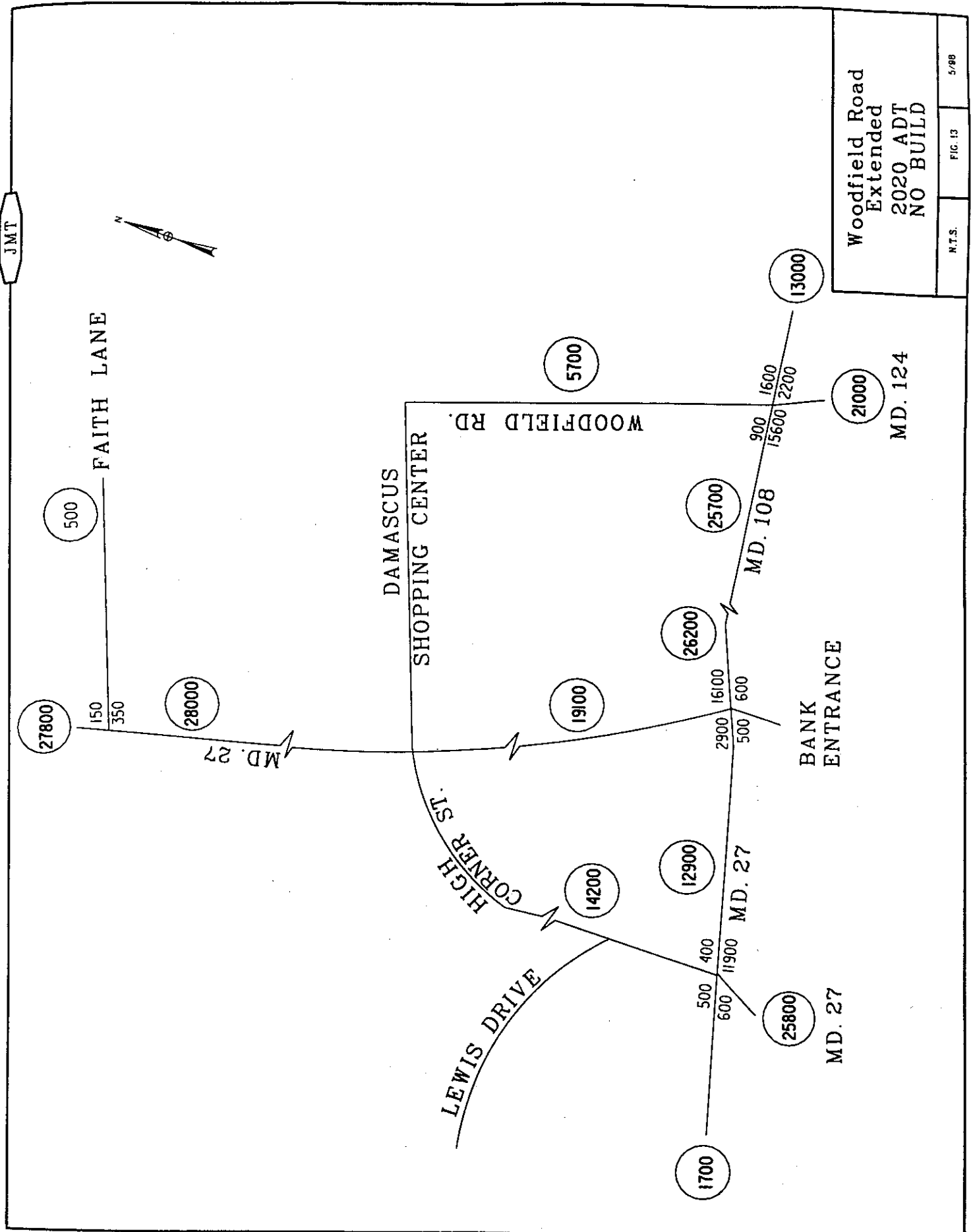
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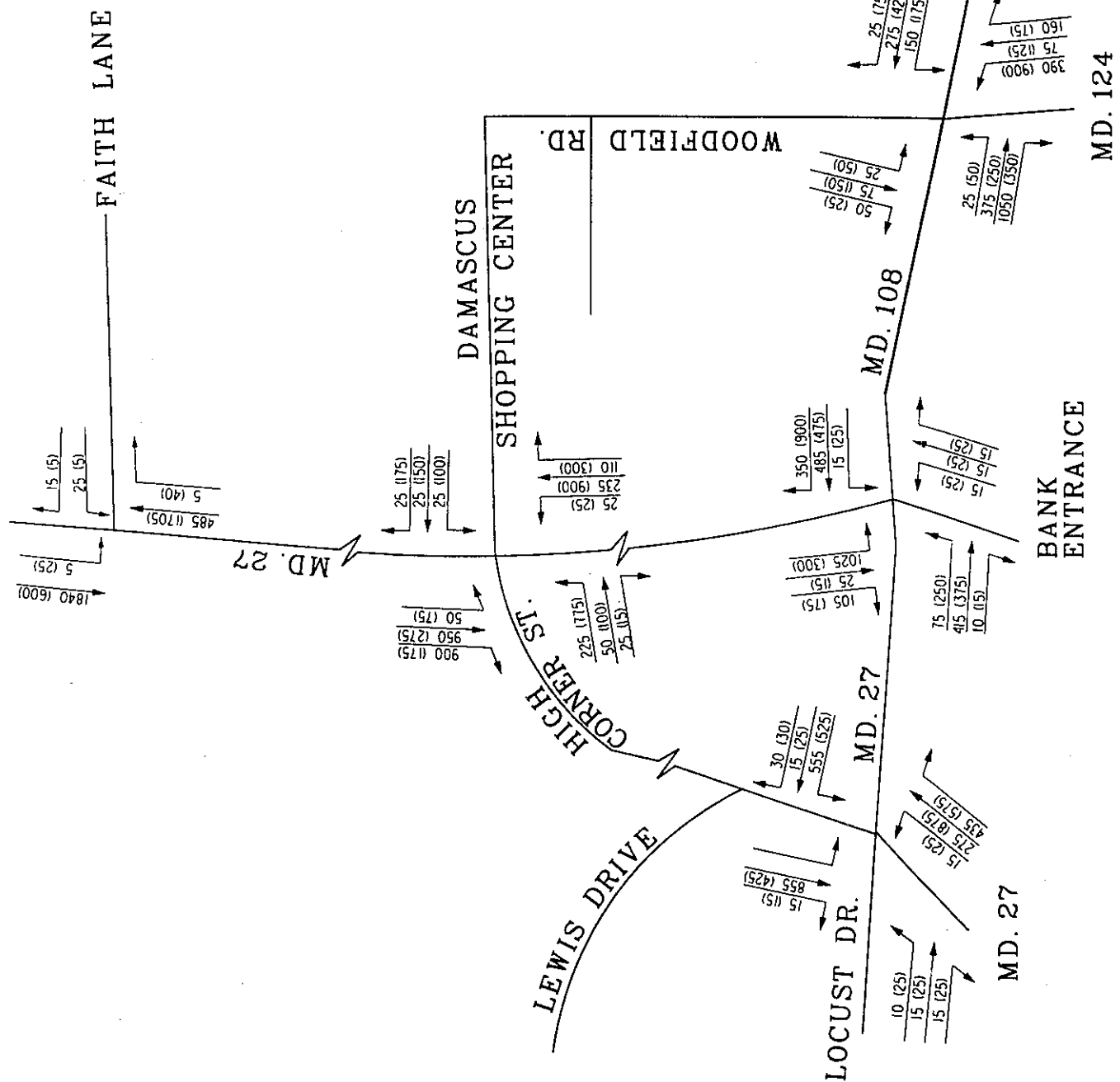
VICINITY MAP

SCALE : 1"= 1000'





JMT



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| Woodfield Road Extended | | |
| 2020 NO BUILD AM (PM) PEAK HOUR TRAFFIC | | |
| N.T.S. | FIG. 14 | 5/98 |

FILE NO. 15-0000-0000-0000

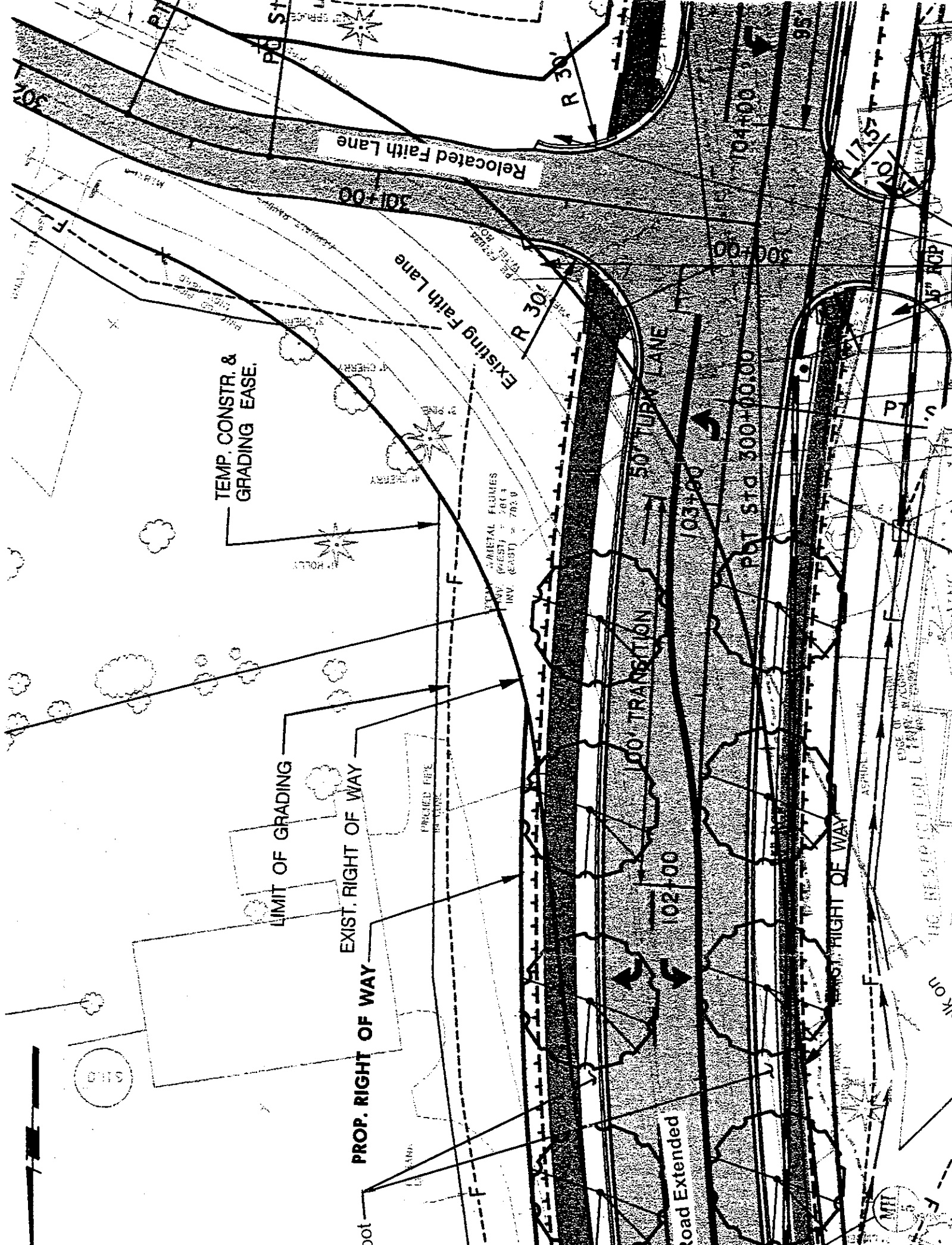
TABLE 6

LEVEL OF SERVICE CHART

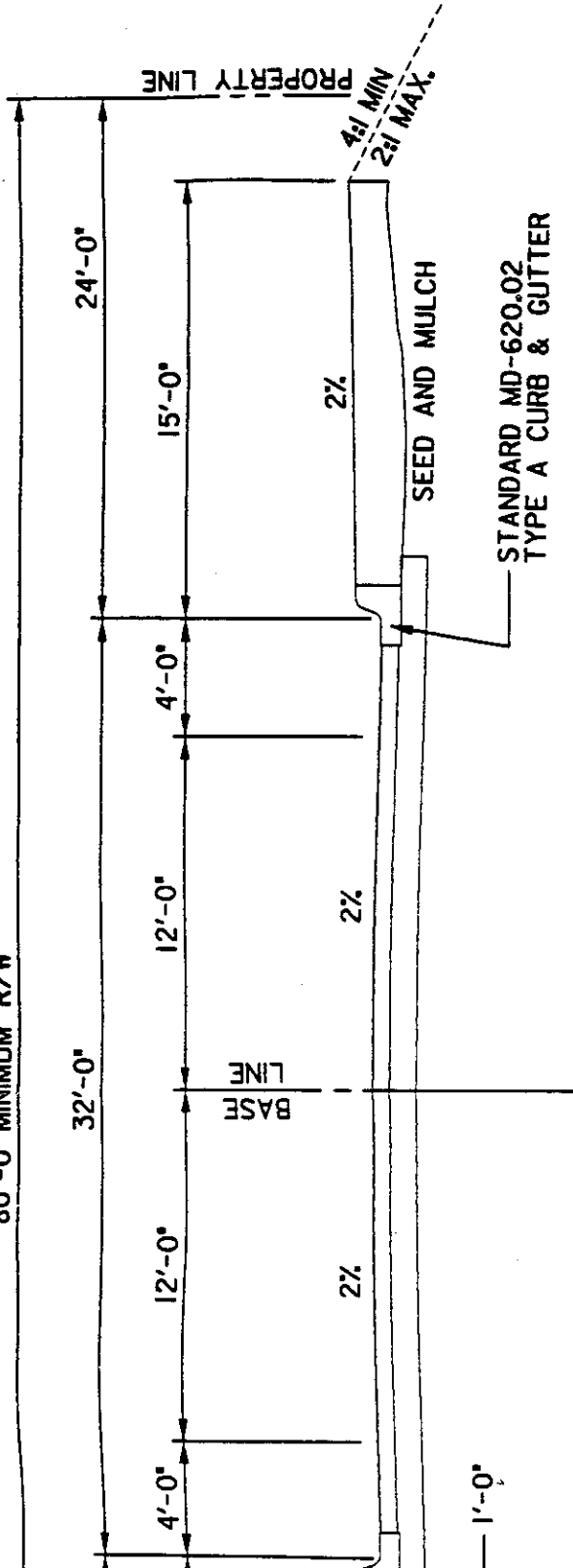
WOODFIELD ROAD EXTENDED (A-12)

| INTERSECTION | 1996 | | 2005 BUILD | | 2010 BUILD | | 2020 NO BUILD | | 2020 BUILD | |
|--|------|----|------------|----|------------|----|---------------|---------|------------|----|
| | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| MD 27/Lewis/Locust Drive | B | A | B | A | C | B | E | C | E | C |
| MD 27/MD 108 | B | A | A | A | A | A | F(1.10) | C | A | A |
| MD 108/MD 124 | A | A | A | A | B | C | D | F(1.03) | D | D |
| MD 27/High Corner Street | A | C | A | A | A | B | D | F(1.12) | A | C |
| MD 27/Woodfield Road Ext./ Faith Lane | D | E | A | B | A | C | F(1.17) | F(1.10) | B | D |

N/A-NOT APPLICABLE

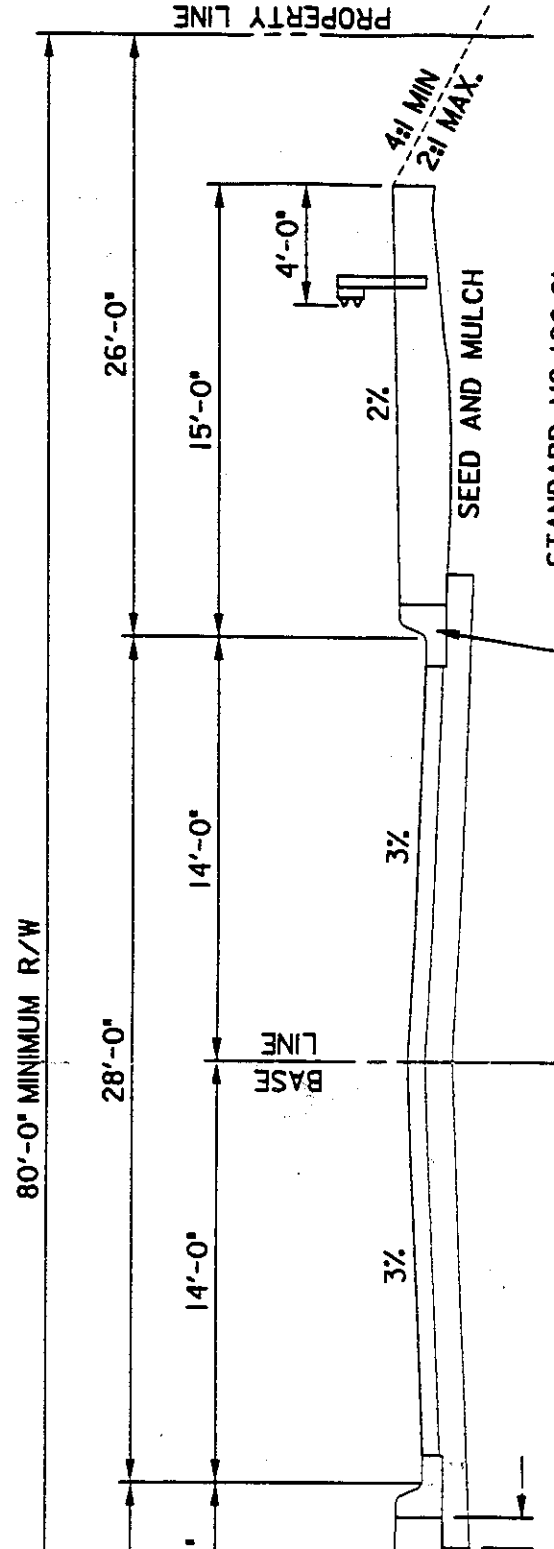


80'-0" MINIMUM R/W

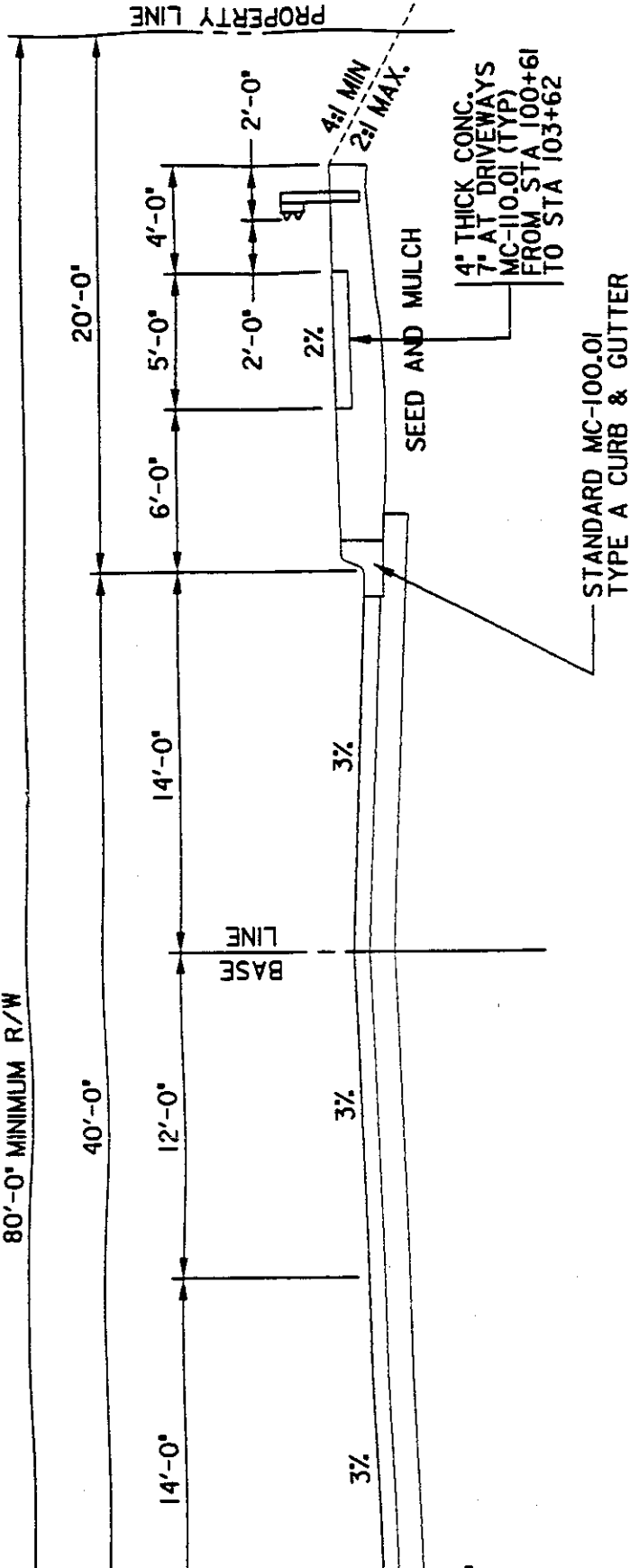


RIDGE ROAD

Typical Two-Lane Section



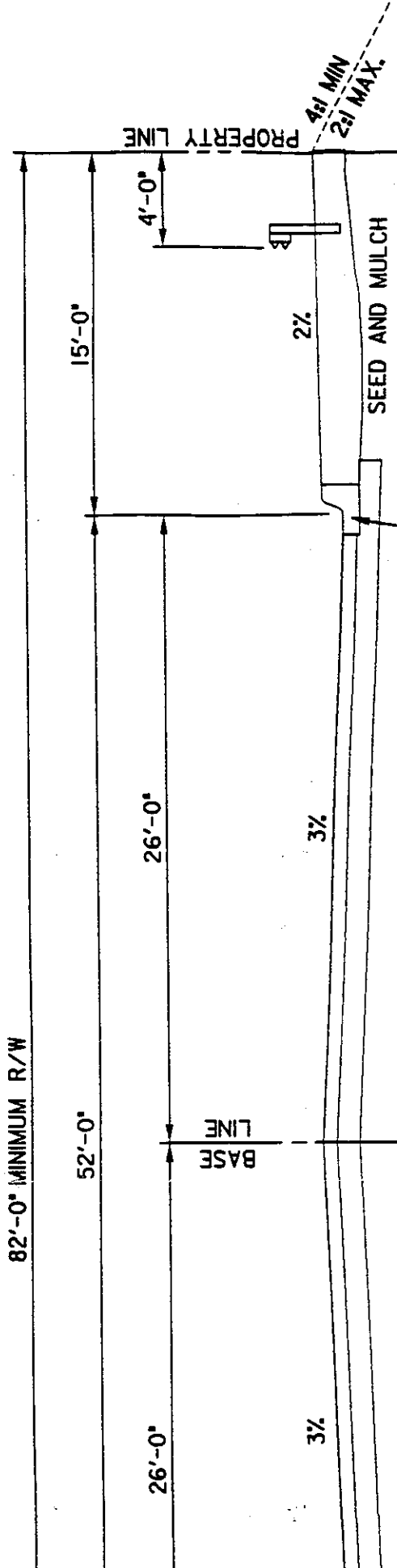
80'-0" MINIMUM R/W



WOODFIELD ROAD EXTENDED

Three-Lane Section at Northern End

82'-0" MINIMUM R/W



2. ALIGNMENT OF A-12

Detailed review of the A-12 alignment in the vicinity of Faith Lane revealed that, due to the expansion of the Evangelical Lutheran Church and its parking lot, the construction of A-12 will result in a roadway that takes either the part of the Church property on which the parking lot is located or a house that fronts on Faith Lane. The alignment is buildable, but alternate alignments that could be built without impact to the existing structures or improved property are also possible. An alignment that meets that requirement appears to be available south of the Church. All three alignments (labeled A, B, and C) are shown on Illustration 2. This Amendment recommends Alternate A, as shown on Illustration 2, as the alignment for the intersection of A-12 and MD 27.

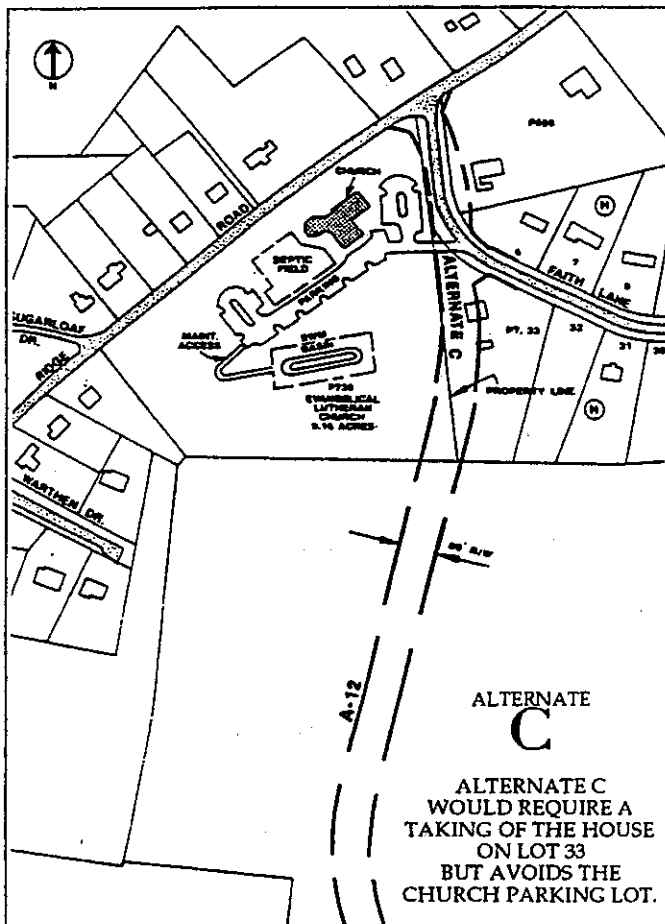
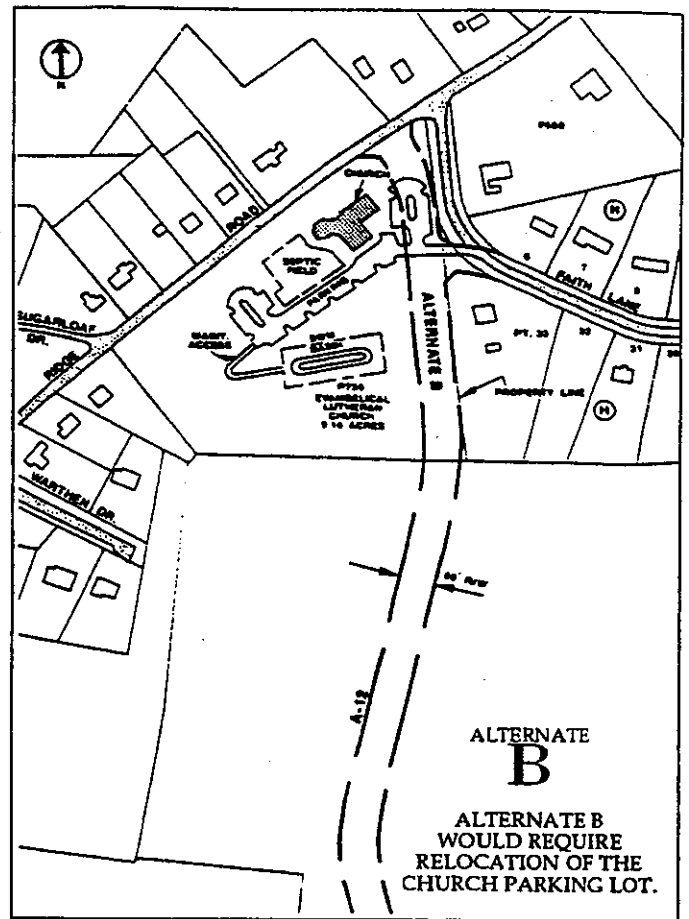
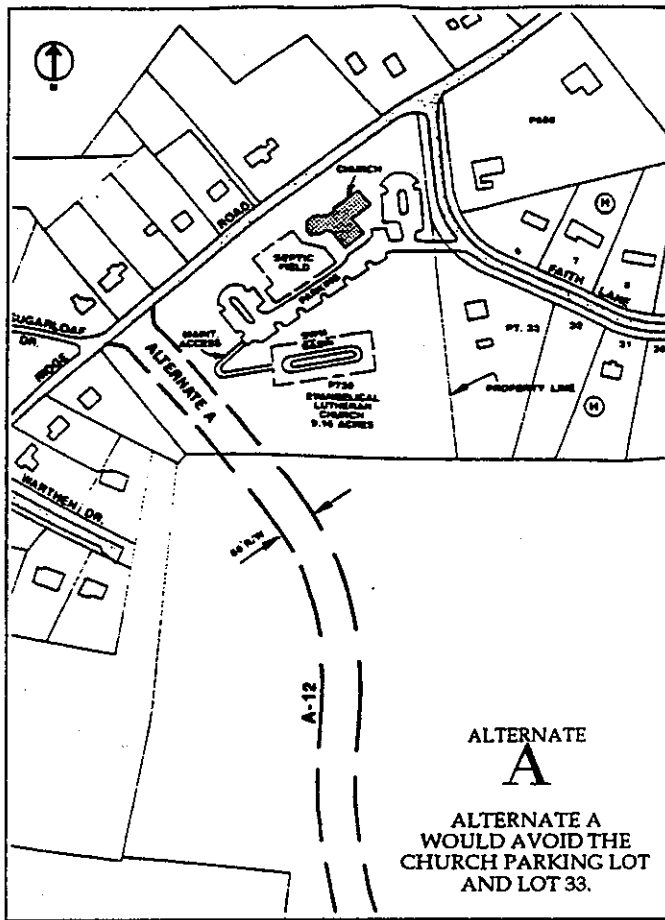


ILLUSTRATION 2:

Details of Possible Alignments for A-12 at Ridge Road