US 190 (S MILITARY ROAD) TURTLE CREEK BOULEVARD to US 190 (E GAUSE BOULEVARD)

Stage 0 Feasibility Study

June 2019

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ST. TAMMANY PARISH GOVERNMENT

RPC REGIONAL PLANNING COMMISSION FOR THE PARISHES OF LOUISIANA

RPC Task No. SL-1.19M • SPN H.972314.1
BKI No. 19.005

JUNE 2019

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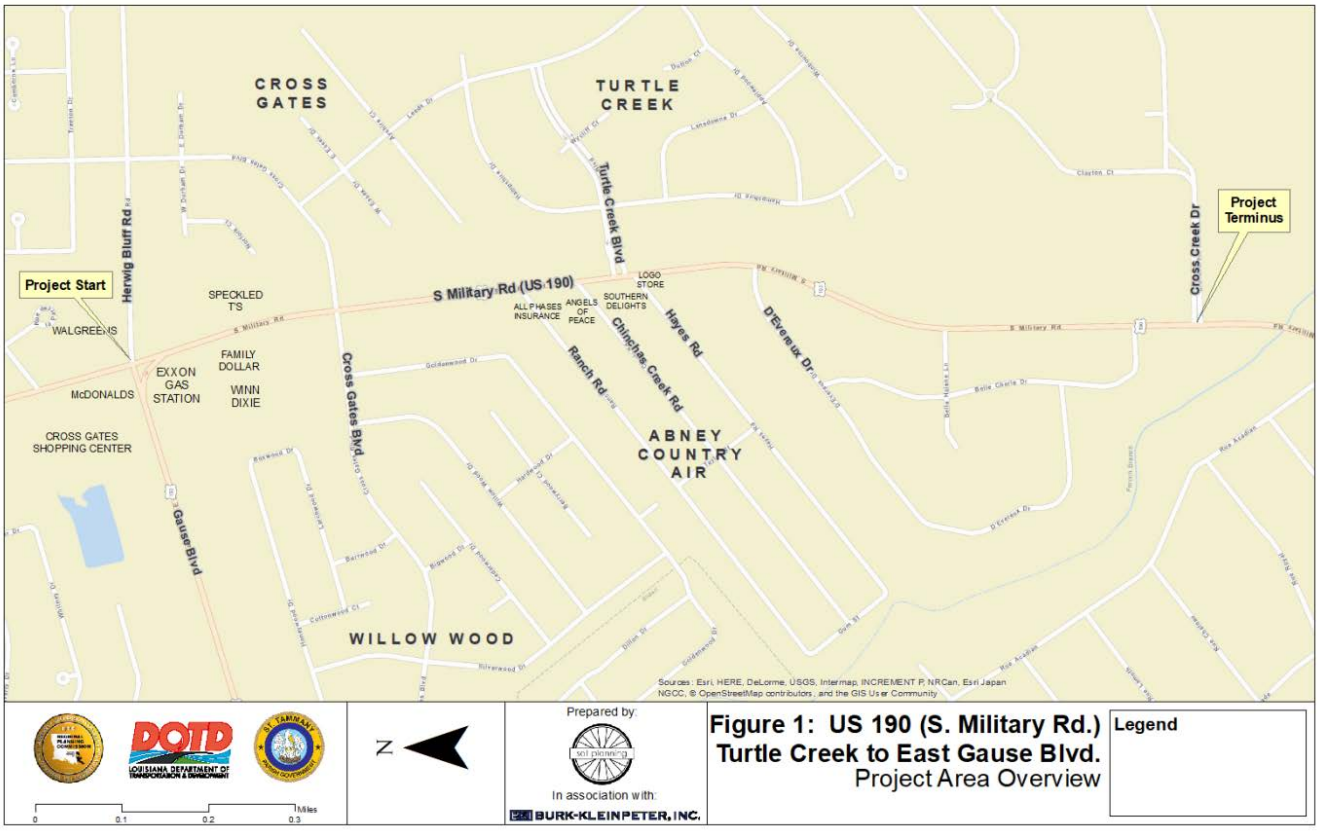
INTRODUCTION

Project Overview

This Stage 0 Feasibility Study was undertaken by the Regional Planning Commission to evaluate the feasibility of complete streets and general roadway improvements along and adjacent to S. Military Rd. (US 190) between Turtle Creek Blvd. and E. Gause Blvd. (US 190) in the Slidell Urbanized Area. The consultant team of Burk-Kleinpeter, Inc. and Soll Planning, LLC, were engaged to perform a field evaluation, identify "complete streets" improvements and evaluate the feasibility and cost to implement identified concepts for the 0.6-mile corridor.

Following the initial field evaluation and data gathering phase of work, the team was asked to extend the project for an additional 0.7-mile to terminate at Cross Creek Dr. The extended project area is shown in Figure 1, below.

Figure 1. US 190 (S. Military Rd.) Turtle Creek to East Gause Blvd.



Project Area Description

The project study area is 1.3 miles of roadway located within the Slidell UZA. It is largely a single-family residential area, with a commercial node at its northern terminus, and a segment of multifamily housing near the north end. The posted speed limit is 45 mph. The apparent right of way is 80' wide. The pavement, configured as a three-lane section with continuous center turn lane, is approximately 38' wide, with two 12' travel lanes and a 14' continuous travel lane. The roadway widens at the Gause intersection to provide two through lanes northbound and a left turn lane.

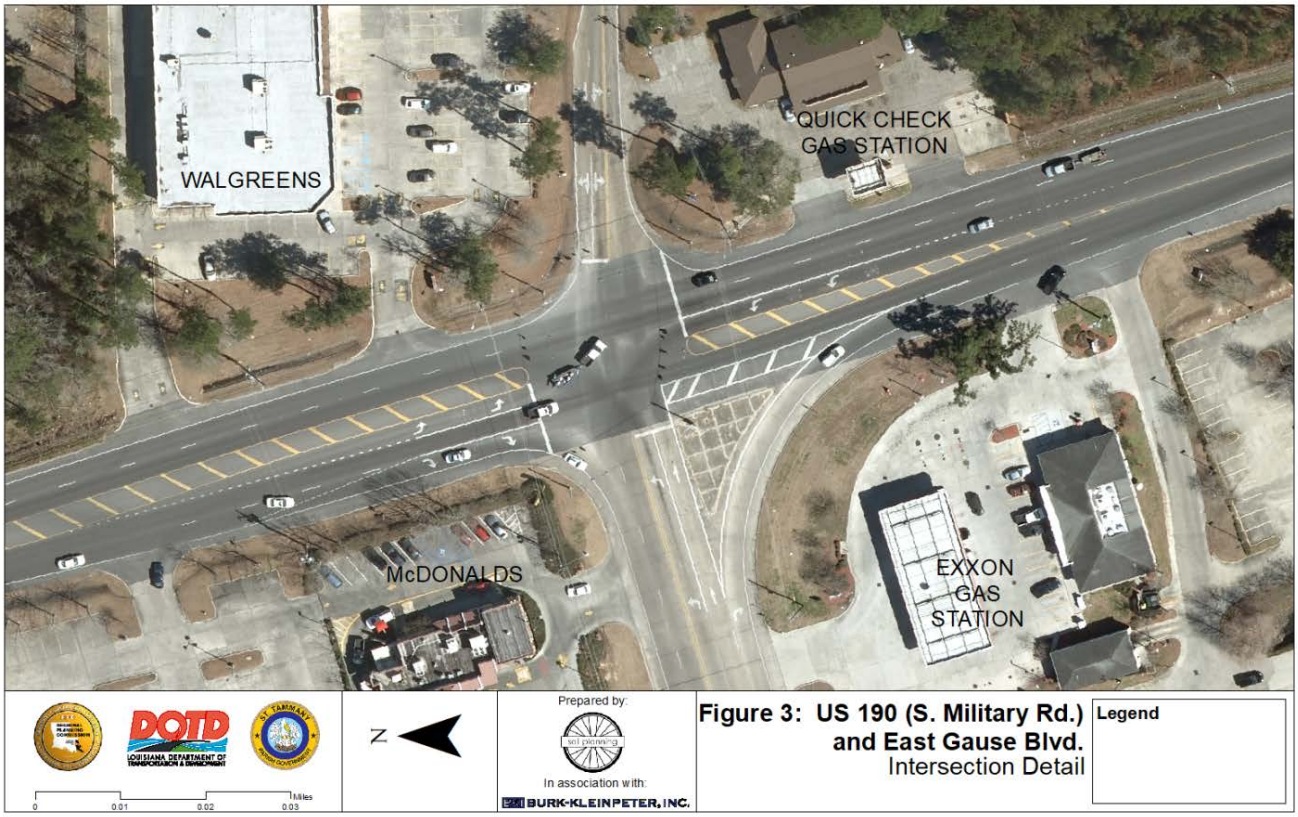
Figure 2. Photo of Corridor (looking south)

The intersection of E. Gause Blvd. and S. Military Rd. contains several trip generators for vehicular, bicycle and pedestrian traffic alike. Figure 3 (next page) shows the intersection in detail.

These generators include:

- Walgreens (northeast corner)
- McDonalds (northwest corner)
- Quick Check Gas Station and convenience store (southeast corner)
- Exxon gas station (southwest corner)
- Winn Dixie/Action Physical Therapy and Sports Medicine/Family Dollar (southwest corner/south of Exxon)
- Cross Gates Shopping Center (northeast corner/northwest of McDonalds)

Figure 3. US 190 (S. Military Rd.) and E. Gause Blvd. Intersection Detail.



Between E. Gause Blvd. and Cross Gates Blvd., there are approximately 13 multifamily apartment complexes on the both sides of the roadway. Cross Gates Blvd. is a major point of entry for the Willow Wood Subdivision on the west side of the roadway and a major point of entry for the Cross Gates Subdivision on the east side of the roadway. Turtle Creek Blvd. is a major entry point for the Turtle Creek Subdivision (east side of roadway). Honey Island Elementary School and Cypress Cove Elementary School are both located on the east side of the roadway just north of the southern project terminus. There are numerous vacant parcels adjacent to the highway on the east side, primarily zoned for Multi-family Commercial (A-6). There are a few neighborhood commercial businesses on the west side opposite Turtle Creek Blvd.

Purpose of the Project

Complete Streets are designed and operated to balance the safety for users of all ages and abilities, including people driving, walking, riding a bicycle or using transit. The purpose of this project is to improve conditions for people walking and bicycling along and across S. Military Rd. (US 190) between Cross Creek Dr. and E. Gause Blvd. (US 190). Another project objective is to create safe transitions at its terminal points, as many individual user trips extend beyond the immediate study area. All pedestrian improvements will need to comply with the Americans with Disabilities Act (ADA).

Need for the Project

This project is necessary to create a safe, comfortable, healthy, and convenient opportunity for people who live in the single family and multifamily housing along the corridor, to walk or bike to access the many shopping, eating and employment opportunities in their immediate area. The project would remove barriers that prevent them from currently accessing these locations on foot or on bike. Likewise, there are many children who live in the Turtle Creek, Cross Gates and Willow Woods subdivisions who attend Honey Island and Cypress Creek Elementary Schools. Complete streets improvements are necessary to create an alternative for parents driving children to and from school each morning and afternoon.

Community Participation and Coordination

A Project Management Committee (PMC) was formed and met three times during the project. The PMC consisted of representatives from the Regional Planning Commission (RPC), St. Tammany Parish Government Planning Department, Louisiana Department of Transportation and Development (LA DOTD), District 62, and State Senator Sharon Hewitt. School Board officials were also contacted to be informed about the project and gather their initial feedback. Meeting Summaries and Communication Summaries are included as **Appendix A**.

SITE INVESTIGATION, DATA COLLECTION & ANALYSIS

Complete Streets Analysis

The project consultant prepared a memorandum in April 2019 summarizing the Complete Streets objectives for the corridor and evaluated three alternatives previously prepared by the LA DOTD as options for improvements to the corridor. The alternatives considered included:

Alternative 1: Alternative 1 is to reuse the existing pavement section and restripe the roadway, eliminating the center turn lane and striping 7' shoulders. This alternative would cost roughly $500,000 and would require a traffic study to make sure that it would not cause issues with turning movements.

Alternative 2: Alternative 2 is to pave 5' shoulders. In 2000, the existing shoulders were paved, and the roadway widened to three lanes. The additional asphalt needed to create the 5' shoulders today would require building back up the foreslope and moving the ditch out. This may require acquisition of right of way. The cost estimate for the improvement is $1 million, not including real estate.

Alternative 3: Alternative 3 is to keep the existing roadway section as is, and to add a 10' shared use path on one or both sides of the roadway. This alternative is estimated at $1.5 million per side.

Of the three alternatives, the team concluded that the two alternatives that included a shoulder as a facility for walking and bicycling would not sufficiently meet the complete streets objectives of the project. Only the alternative which included a shared use path would sufficiently address the needs identified for the corridor. **Appendix B** contains the Complete Streets Memo.

Traffic Data Collection

The project consultant team performed a series of Traffic Data Collection on the corridor, several intersections and driveway counts. Raw traffic data is included in **Appendix C**.

Concurrent 48-hour traffic counts at three locations were performed at three locations:

- US 190 (S. Military Rd.) between US 190 (E. Gause Blvd.) and Cross Gates Blvd.
- US 190 (S. Military Rd.) between Cross Gates Blvd. and Turtle Creek Blvd.
- US 190 (S. Military Rd.) between Turtle Creek Blvd. and D'Everaux Dr.

Counts were performed on February 26, 2019 and February 27, 2019. AADT was determined to be approximately 11,640 vehicles per day based on the locations and time when data was collected.

Turning Movement Count Data was collected at three intersections along the corridor:

- US 190 (S. Military Rd.) at Cross Gates Blvd.
- US 190 (S. Military Rd.) at US 190 (E. Gause Blvd.)
- US 190 (S. Military Rd.) at Turtle Creek Blvd.

Driveway counts in intervals of 15 minutes were collected in the AM and PM at 28 locations throughout the corridor. There are no known developments anticipated to be constructed on the corridor in the immediate future which would significantly impact the traffic conditions of the corridor. The west side of the roadway had more than twice the number of vehicles entering and exiting driveways (244) than the east side of the roadway (104). As anticipated, the bulk of the driveway movements occurred at the larger commercial establishments (Exxon, Winn Dixie, and Family Dollar).

Stage Zero Environmental Checklist and Preliminary Scope and Budget Worksheet

The Stage Zero Environmental Checklist was completed for the original project study area (East Gause Blvd to Turtle Creek). No known environmental conditions or limitations were identified during this research to hinder the project's progress.

The Checklist and Preliminary Scope and Budget Worksheet are included in **Appendix D** of this report.

CONCEPTAL DEVELOPMENT & EVALUATION

Corridor Improvements

To improve pedestrian and bicycle access along the corridor, the following improvements have been identified. Example photos are shown in Figure 4, while an overview of the improvements is shown mapped on Figure 5.

US 190 (S. Military Rd.) at US 190 (E. Gause Blvd.) intersection

- High Visibility Crosswalks on the northbound and westbound legs of the intersection
- Pedestrian signal heads / pedestrian phase
- ADA accessible curb ramps

US 190 (S. Military Rd.) from US 190 (E. Gause Blvd.) to approximately Turtle Creek Blvd.

- East Side: 5ft. sidewalk (concrete)
- West Side: 10 ft. shared use path (concrete)

US 190 (S. Military Rd.) in vicinity of Turtle Creek Blvd

- High intensity Activated CrossWalk (HAWK) signal, High Visibility Crosswalk

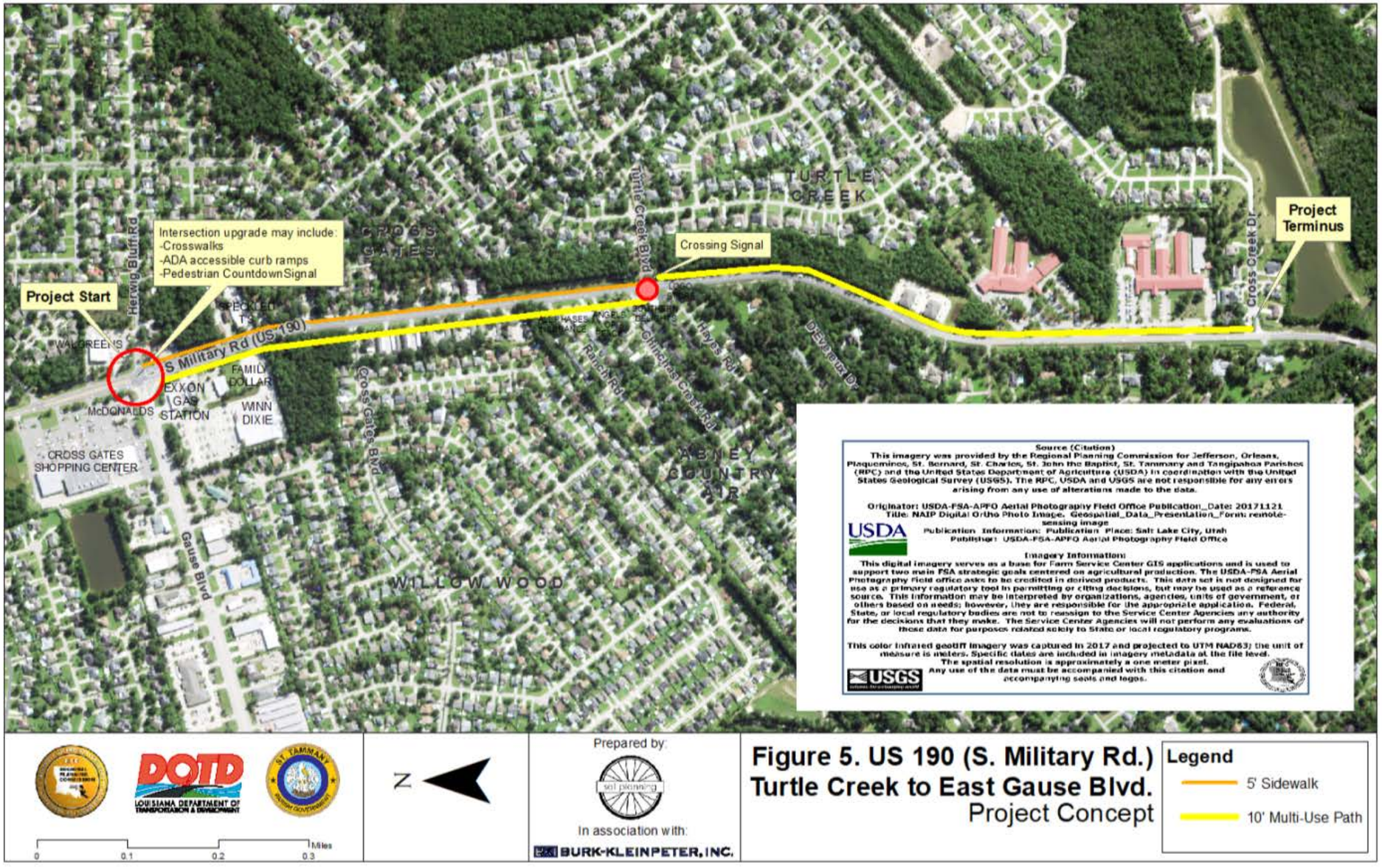
US 190 (S. Military Rd.) from Turtle Creek Blvd. to Cross Creek Blvd.

- East Side: 10 ft. shared use path

Figure 4. Examples of Facility Types

Upper Left: High Visibility Crosswalk (source: NACTO.org), upper right: Pedestrian Countdown Signal Head (source: Soll Planning), Lower Left: 10ft concrete shared use path (source: Soll Planning), Lower Right: HAWK signal (source: FHWA.dot.gov)

Figure 5. US 190 (S. Military Rd.) Proposed Improvement Overview



Initial Order of Magnitude Cost Estimate

Table 1 below is the abbreviated cost estimate description for the US 190 (S. Military Rd) Project. Cost details are based upon the project as described and unit costs for comparable construction activities and materials for the previous quarter as released by LA DOTD.

Table 1. Initial Order of Magnitude Cost Estimate

Construction Description	Cost
Roadway/Multi-Use Path	$2,073,408.63
Drainage	$1,264,164.33
Contingency (25%)	$834,393.24
Engineering/Survey/Geotech	$417,000.00
Total Estimated Cost	**$4,588,966.20**

Prepared by Burk-Kleinpeter, Inc., 2019

Cost estimates prepared for this Stage 0 Feasibility Study include an initial estimate for the enclosure of existing ditches and installation of a 30" pipe to create areas for the construction of the shared-use path. This approach assumes a standard price for installation of pipes based upon comparable projects. Identification of the final pipe dimensions would occur during project design with the benefit of a full drainage analysis. Completion of a drainage analysis was not a part of the project scope of work assigned under this work task during the Stage 0 Feasibility Study. The cost information provided should be considered an initial estimate, suitable for project planning purposes only.

NEXT STEPS

Federal funding sources have yet to be identified for the project. Local matching funds will also need to be identified in the future as well. St. Tammany Parish will be required to enter into a maintenance agreement with LA DOTD for the ongoing maintenance associated with the facility at the appropriate time. A drainage study is recommended to identify the appropriate size pipe necessary.

Appendices

A. Project Management Committee Meeting Summaries

B. Complete Streets Memorandum

C. Raw Traffic Data

D. Stage 0 Environmental Checklist and Preliminary Budget Worksheet

E. Conceptual Plan and Cost Estimate Data

Appendix A:
Project Management Committee Meeting Summaries

US 190 (S Military Rd): Turtle Creek Blvd to US 190 (East Gause Blvd)

RPC Task No. SL-1.19M, SPN H.972314.1

M E E T I N G S U M M A R Y

Date:	3/13/2019	
Meeting Location:	X	St. Tammany Parish Development Conference Room; 21454 Koop Dr., Ste. 1B, Mandeville, LA 70471 (Project Kickoff Meeting)
Participants:	Sharon Hewitt – State Senate; Jeff Roesel, Tom Haysley – RPC;	
	Jay Watson, Erin Stair (via phone) – St. Tammany Parish Government;	
	Larry Sharp – DOTD; Ellen Soll – Soll Planning; Colleen Stephens – BKI	

Summary:
The purpose of this kickoff meeting is to formally notify all team members, clients, and stakeholders that the project has begun and to ensure everyone has a common understanding of the project and their roles. Items from the established agenda were discussed. A summary of the general discussion and responsibilities assigned follows.

I. Introductions

Jeff (RPC) introduced the project and informed the group that the project came about based on previous discussions with Senator Hewitt. The project is to get and better define the parameters of the area and to determine costs. Tom (RPC) asked Sen. Hewitt to describe the impetus for the project. Sen. Hewitt explained that it has been long discussed that parents want a safe route to school for their children from area neighborhoods to schools. There have been recent deaths in the area, people walking in the middle of the road after dark, as well as other crashes involving bicycles and pedestrians. Councilman Bill Borchert's wife, Laura Borchert, introduced the idea of a side path along the roadway for walking and biking.

Sen. Hewitt noted that the two schools south of the project area are K-1, and 2nd-3rd grade schools. School crossing guards are present at the schools to assist crossing if the new lane is placed on the other side. She expressed that a wide shoulder is not an adequate solution due to the speed of vehicles, lack of lighting, and age of kids walking. She indicated that based on her conversations and observations (she lives in the area), separation between the road and the bike/pedestrian lane is necessary.

Senator Hewitt suggested that others that might be considered for inclusion in future Project Management Committee meetings are Laura Borchert, Margot Gulotta, Cm. Bellisario, and Cm. Blanchard. She further stated that Cm. Bellisario and Blanchard represent area neighborhoods, and that they have monthly meetings. These meetings could possibly serve as public meeting events for the purpose of the project. Sen. Hewitt asked to be notified in advance if the team plans neighborhood meeting events.

II. Project Overview

- The project schedule was reviewed, and the team committee was briefed on the work that has been done, and informed that turning movement counts and 15-minute driveway counts will take place prior to the next PMC meeting.
- Field visual inspection notes were reported.
- Project data needs were made known. Ellen (Soll Planning) requested a traffic signal inventory (TSI) for the Gause intersection, and any count data available for the area from DOTD. Right-of-way, zoning, water/sewer, and utility information will be needed from St. Tammany Parish, as well as crash data and aerial photography from RPC. Erin (St. Tammany) will need to request this information from GIS Dept. As-built plans are available on DOTD home page via Public Information Request. Colleen (BKI) requested information on future developments in the area. Sen. Hewitt mentioned that Cm.s Bellisario & Blanchard are interested in roundabouts at the Gause and Fremaux intersections. There is the possibility of development in the bluffs area and outside the Turtle Creek subdivision, although there are currently no plans.

III. Conclusion

The committee adjourned until the next PMC meeting, tentatively scheduled Wednesday, April 24th.

US 190 (S Military Rd): Turtle Creek Blvd to US 190 (East Gause Blvd) RPC Task No. SL-1.19M, SPN H.972314.1
Wednesday, March 13, 2019 • 2:00 pm
St. Tammany Parish Development Conference Room; 21454 Koop Dr., Ste. 1B, Mandeville, LA 70471 (Project Kickoff Meeting)

Please Print

Name	Representing	Email
Colleen Stephens	BKI	cstephens@bkiusa.com
Ellen Soll	Soll Planning	ellen@sollplanning.com
Jay Watson	STPG	Jwatson@stpgov.org
JEFF ROESEL	RPC	jroesel@norpc.org
Tom Hayley	RPC	thayley@norpc.org
Sharon Hewitt	State Senate	hewitts@legis.la.gov
LARRY SHARP	DOTD	Larry.Sharp@LA.Gov

US 190 (S Military Rd): Turtle Creek Blvd to US 190 (East Gause Blvd)

RPC Task No. SL-1.19M, SPN H.972314.1

M E E T I N G S U M M A R Y

Date:	5/10/2019	
Meeting Location:	X	St. Tammany Parish Development Conference Room; 21454 Koop Dr., Ste. 1B, Mandeville, LA 70471 (Project Kickoff Meeting)
Participants:	Sharon Hewitt – State Senate; Jeff Roesel, Tom Haysley – RPC;	
	Erin Bivona – St. Tammany Parish Government;	
	Jennifer Branton– DOTD; Ellen Soll – Soll Planning; Ed Elam, Colleen Stephens – BKI	

Summary:
The purpose of this meeting is to review inventory findings and report on progress of task items from the project scope. Items from the established agenda were discussed. A summary of the general discussion and responsibilities assigned follows. BKI and Soll Planning provided a series of handouts to the meeting attendees which were incorporated into the overall discussion.

I. Introductions

Senator Hewitt started discussion by making a suggestion of extending the corridor for study south along S. Military Road beyond the limits in the current contract issued by RPC. The point made was the system of improvements needs to reach both of the St. Tammany Parish Schools in the area, with all improvements ending south of these schools at Cross Creek Drive. This creates a better connection between residents and businesses, and allows the path to get students to schools. Senator Hewitt emphasized the need for a physical separation between the roadway and the path along the corridor, given the observed speed and distribution of traffic on the roadway.

Jeff (RPC) introduced the meeting and agenda items. It was confirmed that all team members had received and reviewed the minutes of the March 13th Kickoff meeting.

II. Project Overview

- Meeting attendees reviewed a checklist of initial data collected in the corridor, as per the current scope of services. The findings of these data collection tasks (and observations completed) were reviewed with the committee.
- Ellen (Soll Planning) reviewed the outcomes of the Complete Streets assessment and discussed what common standard practices would assign to the roadway to meet observed needs. (Note: This assessment memo will be distributed to the RPC after the meeting.) The three alternatives previously provided by DOTD were evaluated to determine their feasibility for meeting the complete streets objectives of the project. Meeting participants agreed with the conclusion that neither of the two alternatives that include the use of a shoulder to accommodate pedestrian and bicycle trips would be adequate, therefore all further discussion centered around various alternatives that include a separate facility for bicycles and pedestrians (primarily a 10' shared use path).
- Using the maps to depict the corridor and potential alternative(s), the discussion focused on the possibility of installing a traffic signal at the Turtle Creek entrance rather than a HAWK signal at Ranch Road to facilitate crossings of the corridor. DOTD will review this option, as well as see if Turtle Creek Boulevard is on the list of locations to be studied for a traffic signal installation.
- Colleen (BKI) reviewed the outcome of the Stage 0 Environmental Checklist and its preliminary findings of no significance.
- Ed (BKI) and Ellen (Soll) led a discussion of the existing and potential cross-sections with right-of-way requirements. It was discussed that the evaluation led to the identification of alternatives which stayed as much as possible in the existing S. Military Road right-of-way to avoid potential impacts to adjacent homes and apartment complexes. In addition, BKI presented the preliminary information on cost for project implementation, given the conversion of existing open ditches to create area for shared-use path and sidewalks instead of pursuing additional right-of-way acquisition.
- Details are needed for cost estimates, drainage should be separate from other costs with clarification of disclaimers for drainage study results; landscaping and other aesthetic features are not included in cost estimates. Options discussed included pads with benches, and the path being engaged with the landscape. Mention was made of possible maintenance of the path by homeowners' &/or civic associations; e.g., Keep Slidell Beautiful, Camellia Club.

III. Potential Recommendations

Initial suggestions for the corridor were reviewed based upon the maps provided. At the time of Stage 0, no final recommendations are made, just an initial finding of potential feasibility.

IV. Conclusion

The committee scheduled the next, final meeting of the PMC for Monday, June 10th and adjourned.

US 190 (S Military Rd): Turtle Creek Blvd to US 190 (East Gause Blvd) RPC Task No. SL-1.19M, SPN H.972314.1
Friday, May 10, 2019 • 9:30 am
St. Tammany Parish Development Conference Room; 21454 Koop Dr., Ste. 1B, Mandeville, LA 70471 (Inventory Findings Meeting)

Please Print

Name	Representing	Email
Sharon Hewitt	Senator	hewitts@legis.la.gov
Jennifer Branton	DOTD	Jennifer.Branton@la.gov
Colleen Stephens	BKI	
EQ Elem	BKI	
Ellen Soll	Soll Planning	~~ellensoll@~~ ellen@soll planning.com
Erin Bivona	JTPG	estair@jtpgov.org
Tom Haysler	RPC	thaysler@norpc.org
JEFF ROESEL	RPC	jroesel@norpc.org

US 190 (S Military Rd): Turtle Creek Blvd to US 190 (East Gause Blvd)

RPC Task No. NO.19.005, RPC Task No. SL-1.19M, SPN H.972314.1

M E E T I N G S U M M A R Y

Date: 6/10/2019

Meeting Location: [X] St. Tammany Parish Development Conference Room; 21454 Koop Dr., Ste. 1B, Mandeville, LA 70471

Participants: Jeff Roesel, Tom Haysley – RPC; Erin Bivona – St. Tammany Parish Government; Jennifer Branton– DOTD; Ellen Soll – Soll Planning; Ed Elam, Maryam Izadi – BKI

The purpose of this final meeting was to review the progress and findings based on the project scope. Items provided in agenda were discussed. BKI and Soll Planning prepared a package of documents for the attendees. A summary of discussion and recommendations are listed as follows.

- Since previous TAC meeting, the RPC and project consultant team agreed to a change in scope to extend the project limits to Cross Creek Dr.
- BKI discussed the coordination with the Cameron Tipton of the St. Tammany Parish School Board. Future phases should include the Director of Transportation for the School Board. A summary of the phone conversation will be included in the final report.
- Overall project cost provides a starting point for developing the project further in the future.
- Cost estimates included a 30” drainage pipe – likely that this pipe will be larger to accommodate drainage needs as a result of the tidal influence in the area created by the Lake, Gulf and Pearl River.
- Attendees discussed about the alternative ways to accommodate the shared path. For example, opportunities might exist to place the path adjacent to the ditch along US 190 if agreed to by property owner during platting/development review process.
- The proposed and acceptable material for the shared path is concrete since it has a lower cost for long-term maintenance and also is compatible to the climate.
- Regarding to the desired signals, DOTD would prefer a rectangular rapid flash beacon to a HAWK signal. RRFBs are in the $2,000 - $3,000 range, however depending on the distance to the side road (Turtle Creek), it may be necessary to include an additional warning element for the side road traffic.
- DOTD reported that the signal at Gause can be updated to accommodate pedestrian phase. The bulk of the cost would be for the pedestrian signal heads and poles, which usually range from $5,000 - $10,000.
- In addition to the federal funding, local match is required. St. Tammany Parish will also need to sign a maintenance agreement.
- Deadline for attendees’ comments on documents is June 21, 2019. RPC will coordination with Senator Hewitt to ensure that she is up to date on the project and can have the opportunity to provide her input in the designated time frame so that the project team may finish on time.

Sign-In Sheet

US 190 (S Military Rd): Turtle Creek Blvd to US 190 (East Gause Blvd) RPC Task No. SL-1.19M, SPN H.972314.1

Project Management Committee Meeting, Monday, June 10, 2019 • 9:30 am

St. Tammany Parish Development Conference Room; 21454 Koop Dr., Ste. 1B, Mandeville, LA 70471

Please Print

Name	Representing	Email
Ellen Soll	Soll Planning	ellensoll@ ellen@sollplanning.com
Jeff Roesel	RPC	jroesel@norpc.org
Tom Haysley	RPC	thaysley@norpc.org
Jennifer Branton	DOTD	Jennifer.Branton@la.gov
Maryam Izadi	BKI	mizadi@ukibsa.com
Ed Elam	BKI	eelam@bkiusa.com
Erin Bivona	STPG	estair@stpgov.org

BURK-KLEINPETER, INC.

ENGINEERS, PLANNERS, ENVIRONMENTAL SCIENTISTS
4176 CANAL STREET, NEW ORLEANS, LA 70119
(504) 486-5901 - (504) 488-1714

RECORD OF TELEPHONE CONVERSATION

Job No. : NO.19.005 **Conversation Date:** 5/28/2019

Job Title: US 190 (S. MILITARY RD.): TURTLE CREEK BLVD TO US 190 (E. GAUSE BLVD.)
Stage 0 Feasibility Study
Highway Planning/Complete Streets Improvements
Slidell Urbanized Area, Louisiana
RPC Task No. SL-1.19M

	Individual	Organization	Telephone Number
To:	Cameron Tipton	St. Tammany Parish SB	985/898-3287
From:	Ed Elam	BKI	504/483-6281

Subject: US 190 S Military Road

Time: **3:50** [ ] a.m. [X] p.m.

Notes:
This purpose of this phone call was to coordinate with the St. Tammany Parish School Board relative to the proposed shared-use path along S Military Road from Gause Boulevard to Turtle Boulevard. This call was prompted due to the change in project scope to extend the project south of Turtle Creek Boulevard to Cross Creek Boulevard.. Further coordination with the school board would be required in the future, but in summary:
In summary,

- Future plans for the shared-use path along S Military Road would take into account the traffic patterns and driveway layouts of the Honey Island and Cypress Cove Elementary Schools.
- Coordination with school principals would be warranted to discuss potential shared-use path design features and potential for interaction with the school campuses.
- It would be best for the shared use path to stay within the apparent right-of-way of the S Military Road corridor and not meander up to the school buildings. This maintains separation of existing vehicles from pedestrian and cyclists arriving at or departing from the schools.
- Connections provided between the shared use path along S Military Road and the adjacent school campuses (to encourage walking and cycling between home and school) need to be clearly defined.
- The proposed shared path may include landings or gathering spots, as discussed at the last project management committee meeting. Depending on location, these landings or gathering spots could be used by students boarding school buses. Coordination for landing location would occur with the STSB Office of Transportation (Steve Alfonso, 985/848-3382) during project design to identify where loading activity takes place along S Military Road.
- Any landscaping added along the path area in front of the schools should not diminish sight lines for traffic leaving the site driveways.
- It was noted that the large wooded area between the schools is a wetland.

Action required:
None – further coordination required during project development

Copies to: Stage 0 Feasiblity Study Report

Appendix B:
Complete Streets Memorandum

soll planning
PO Box 24197
New Orleans, LA 70184
(504) 610-3765
www.sollplanning.com

MEMORANDUM

To: Ed Elam, Burk-Kleinpeter, Inc.

From: Ellen Soll, Soll Planning, LLC

Date: April 8, 2019

Re: Complete Streets Analysis for US 190 (S. Military Rd.): Turtle Creek Blvd. to US 190 (East Gause Blvd.)

Introduction

In March 2019, Soll Planning, LLC, Burk-Kleinpeter, Inc. and the New Orleans Regional Planning Commission conducted a site visit to assess Complete Street configurations for the US 190 (S. Military Rd.) corridor from Turtle Creek Blvd. to US 190 (East Gause Blvd). This memorandum outlines the Complete Streets objectives for the corridor based on national best practices and input from the Project Management Committee (PMC), and provides analysis of the possible configurations for complete streets design elements to be constructed in the corridor. This information will be provided to the PMC to determine local and agency preferences, so that a concept can be further refined for additional study.

Complete Streets Overview

Complete Streets are designed and operated to enable safe access for users of all ages and abilities, including people driving, walking, riding a bicycle or using transit. At first glance, this often means adding a sidewalk or bicycle facility to ensure that people can walk or bicycle along a roadway, but there are some additional Complete Streets objectives that needed to ensure the right facilities are included in a project, so that people may get from where they are to where they need to go safely. Non-infrastructure recommendations may also further the complete streets goals. Key Complete Streets objectives are:

Complete Streets are context sensitive. A complete street in an urban setting will be very different from one in a rural setting. Adjacent land use is a critical consideration in determining the appropriate facility type required to safely accommodate all users of a particular roadway. Even within areas generally considered rural, there are destinations and uses that generate trips of all types.

Speed and Volume: Speeding is a major factor in all types of crashes, and higher speeds increase the severity of injury in the event of a pedestrian being struck by a vehicle. The selection of appropriate Complete Streets roadway improvements will include consideration for the existing speed (and potential future roadway speed), and traffic volume. Reducing speed through traffic

Figure 1. Impact Speed and a pedestrian's risk of severe injury or death (Tefft 2011)

Source: FHWA, Small Town and Rural Multimodal Networks, 2016

calming is a method to reduce the risks associated with higher speeds. When speed reductions are not possible, physical separation between pedestrians and vehicles is necessary to reduce potential conflicts.

Complete Streets are part of a Network: An individual complete street project can improve safety within a given corridor; however many users may continue their journey beyond the confines of the project. Safe transitions at end points are necessary, as well as identification of non-infrastructure opportunities to continue the network beyond the project study area.

"Along" and "Across" for all Users. People on foot and on bike may need to access destinations on both sides of the roadway, so crossings may be necessary at strategic locations or set intervals, appropriate to the roadway context, speed and volume of traffic. Complete Street improvements should balance safety for all users of the roadway, including people driving, and people of all abilities. Pedestrian improvements will need to comply with the Americans with Disabilities Act (ADA).

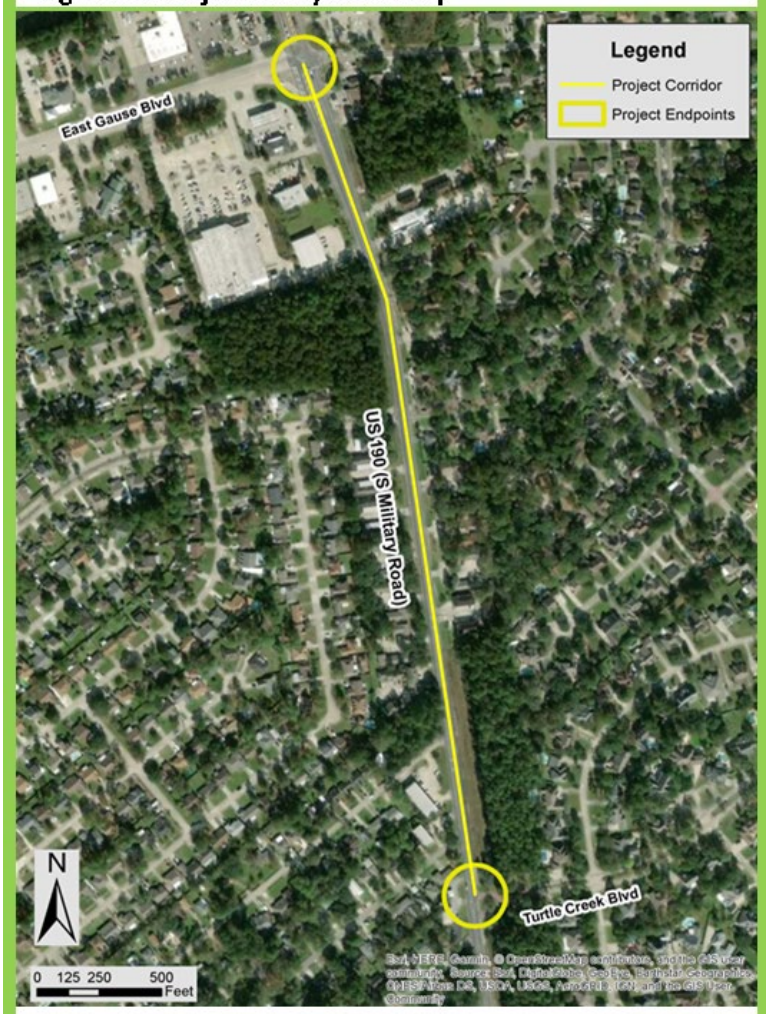
Corridor Overview

The Project Study area extends 0.6 miles on S. Military Rd. (US 190) from Gause Blvd (US 190) to Turtle Creek Blvd. The posted speed limit is 45 mph. The apparent right of way is 80' wide. The 2015 AADT for the corridor is 10,204.[1] Updated ADT information is being collected as part of this study. The pavement, configured as a three-lane section with continuous center turn lane, is approximately 38' wide, with two 12' travel lanes and a 14' continuous travel lane. The roadway widens at the Gause intersection to provide two through lanes northbound and a left turn lane. The existing roadway (three-lane) section is shown in Appendix A, along with as built plans from its 1960 construction (as a two-lane roadway).

Gause Blvd. Intersection to Speckled T's Driveway: The traffic signal at Gause Blvd. and S. Military Rd. is an isolated signal and it does not have a pedestrian activation button or phase on the existing timing plan, nor are crosswalks marked on any of the approaches.

There are several destinations located at the junction of Gause Blvd. and Military Rd. which are generators of pedestrian, bicycle and vehicular

Figure 2. Project Study Area Map



Prepared by Burk-Kleinpeter, Inc. 2019

[1] Louisiana Department of Transportation and Development (LA DOTD). Estimated Annual Average Daily Traffic Routine Traffic Counts. http://wwwapps.dotd.la.gov/engineering/tatv/.

trips. These include the Walgreens on the northeast corner of the intersection, the McDonalds on the northwest corner of the intersection, the Quick Check Gas Station and convenience store on the southeast corner of the intersection, and the Exxon gas station on the southwest corner of the intersection. South of the Exxon on the west side is an access driveway for Winn Dixie and Blockbuster Video, followed by a second Winn Dixie access and Family Dollar shared driveway. On the east side of the roadway is a driveway to a small (five unit) multi-family complex and a restaurant called Speckled T's.

Speckled T's to Cross Gates Blvd.: In the segment between Speckled T's. and Cross Gates Blvd., there are three multifamily apartment complexes on the east side of the highway, while the west side of the road is vacant. Cross Gates Blvd. is a major point of entry for the Willow Wood Subdivision on the west side of the roadway and a major point of entry for the Cross Gates Subdivision on the east side of the roadway.

Cross Gates Blvd. to Turtle Creek Blvd.: The segment between Cross Gates Blvd. and Ranch Rd. contains additional multi-family housing on both sides of the roadway (six driveways on the west side and four driveways on the east side). From Ranch Rd. to Turtle Creek Blvd., there are some commercial/office uses on the west side of the roadway, while the east side is vacant. Ranch Road and Chinchas Creek Road provide access to a small single family residential neighborhood on the west side of the roadway. Finally, Turtle Creek Blvd., on the east side of the highway, which serves as the southern terminus of the project study area, is a major access point for the large Turtle Creek single family residential subdivision.

Driveway and side road counts for each side of the roadway are roughly even, with 13 driveways and 3 road crossings on the west side and 12 driveways and 2 road crossings on the east side. Fifteen minute driveway traffic counts and peak hour intersection turning movement counts are being collected as part of this study.

Beyond the Corridor: To the north of the Gause Blvd. intersection, the three-lane roadway continues as LA 1090. Approximately 0.25 miles north of the Gause Blvd., Cross Gates Family Fitness is located on the east side of the roadway. This is a very large destination gym/lifestyle center, with a preschool, daycare, physical therapy, multiple swimming pools, etc. It is a major contributor of vehicular trips in the area. Beyond Cross Gates Family Fitness, the character of the area is consistent with the project study area.

To the south of Turtle Creek Blvd., US 190 continues to its junction with US Hwy 190E (Business) for an additional 1.57 miles. It becomes increasingly rural/vacant, with the exception of Cypress Grove and Honey Island Elementary Schools, both located on the east side of the roadway. There are two creek crossings in this segment of roadway, over the French Branch and Doubloon Branch. There are seven road crossings on the west side, and two on the east side.

Previously Identified Alternatives

LADOTD identified several options for the corridor. These are discussed below, and included in Appendix A.[2]

Alternative 1: Alternative 1 is to reuse the existing pavement section and restripe the roadway, eliminating the center turn lane and striping 7' shoulders. This alternative would cost roughly $500,000 and would require a traffic study to make sure that it would not cause issues with turning movements.

Alternative 2: Alternative 2 is to pave 5' shoulders. In 2000, the existing shoulders were paved and the roadway widened to three lanes. The additional asphalt needed to create the 5' shoulders today would require building back up

[2] Plans and cost estimates prepared by LA DOTD ran from Cross Gates Blvd. and LA 1090 to US 190 Bus. (2.6 miles). They were proposed options for the crown of the roadway, intersections and crossings were not addressed.

the foreslope and moving the ditch out. This may require acquisition of right of way. The cost estimate for the improvement is $1 million, not including real estate.

Alternative 3: Alternative 3 is to keep the existing roadway section as is, and to add a 10' shared use path on one or both sides of the roadway. This alternative is estimated at $1.5 million per side.

Complete Streets Evaluation of Alternatives

The first and second alternatives would include a paved shoulder as a means of accommodating bicyclists and pedestrians to travel. According to the FHWA Small Towns and Rural Multimodal Networks Guide, this is an acceptable facility type for the speed, volume, network type and land use type, if a facility with greater separation is not available. However, for a roadway with traffic volumes (AADT) over 8,500, an 8-foot shoulder is recommended by that guide. Additional features that can make this facility type more comfortable are contrasting colored pavement (to increase awareness), a buffer (to increase separation), and bicycle-tolerable rumble strip design (to allow access into the roadway for bicyclists and keep vehicles in their lane). While a shoulder can be an acceptable accommodation for an occasional adult pedestrian, given the two elementary schools located south of the project study area, it may not provide the type of comfortable walking environment that would enable children to access the two schools on foot.

The third alternative is to include a bi-directional shared use path adjacent to the existing roadway. According to the FHWA Small Towns and Rural Multimodal Networks Guide, sidepaths can offer a high quality experience for users of all ages and abilities as compared to on-roadway facilities in heavy traffic environments, allow for reduced roadway crossing distances, and maintain rural and small town community character. It is the preferred facility type for the speed, volume, network types and adjacent land use of the project study area. The minimum recommended pathway width is 10 ft., though in constrained conditions or low volume situations, an 8 ft. width may suffice. While a sidepath may be the ideal design solution for the roadway, operational and safety concerns exist where sidepaths cross roadways and driveways. For roadways with a posted speed limit of 35-45 mph, a 6.5 ft. to 16.5 ft. separation distance is recommended at crossings by the Small Town and Rural Multimodal Networks Guide. A sidepath is the most expensive design solution for the corridor, as right of way would need to be acquired to provide space for the improvement.

A sidepath on both sides of the roadway (henceforth, Alternative 3A) would provide the most convenient option for people walking and bicycling, as trips on the roadway tend to generate at various start and end points, rather than at one particular origin and one particular destination. This alternative would have the greatest cost. A sidepath on the west side of the roadway (henceforth Alternative 3B) may have some immediate term advantage (over the east side), as the Winn Dixie may generate more trips than destinations on the east side within the corridor, though those trips originate on both sides of the roadway. A sidepath on the east side of the roadway, however (henceforth Alternative 3C) would better serve the two elementary schools, and Cross Gates Family Fitness, when considering trips that originate or terminate beyond the corridor. As noted in the FHWA Small Towns and Rural Multimodal Networks Guide, the preferred facilities near schools should provide as much separation as possible between children and motor vehicles.

All of the above mentioned alternatives will require improvements to the US 190 (Gause Blvd) intersection and periodic crossings for people walking and biking. With a posted speed limit of 45 mph, and AADT over 10,000, crossings on this roadway may require enhancements such as striping, signage, and signalization (FHWA Small Town and Rural Multimodal Networks Guide, page 4-7). For conceptual design discussion purposes, the following crossing elements are included in all alternatives (need sign off from BKI engineering):

1. Upgrades to traffic signal at Gause Blvd. and US 190 (Military Rd.) to accommodate bicycle and pedestrian movements (ex. Pedestrian Signal Heads and Pedestrian Phase, Crosswalk Striping, and Transitional Infrastructure).
2. Enhanced crossing at Cross Gates Blvd and Turtle Creek Blvd. (HAWK or PHB).

Table 1, shows how each of the available alternatives meets project objectives. A four color scale is used to compare anticipated cost (dark green for lowest cost, to dark red for highest anticipated cost) and a five color scale is used to identify whether the alternative is anticipated to have a neutral effect on the variable (yellow dot), a moderate positive effect (light green dot), a significant positive effect (dark green dot), a moderate negative effect (light red), or a significant negative effect (dark red).

Table 1: Complete Streets Analysis of Proposed Alternatives[3]

Alt.	Description	Cost Estimate	Context Appropriate (Land Use)	Network / Transitions	Speed / Volume (or Physical Separation)	ALONG			ACROSS		
						Bicycles	Peds /All Abilities	Vehicles	Bicycles	Peds /All Abilities	Vehicles
1	Restripe Roadway, Eliminates CTL, 7' shoulder on both sides										
2	Pave 5' shoulders on both sides										
3a	Side Path both sides										
3b	Side Path west side										
3c	Side Path east side										

Lowest Cost
Highest Cost

Significant Positive Impact
Moderate Positive Impact
No Impact Anticipated
Moderate Negative Impact
Significant Negative Impact

Prepared by Soll Planning, LLC

Interpretation

Alternative 1 would eliminate the existing center turn lane, which made presumably was put in place to reduce rear end crashes and facilitate left turn movements. The 7 ft. shoulder it would provide would marginally improve conditions for bicyclists traveling along the roadway, but does little to improve conditions for children and will not channelize crossings.

Alternative 2 adds a 5ft. shoulder, which is not an adequate separation for bicycles or pedestrians, nor would it channelize crossings.

Alternative 3a best addresses the needs of residents on both sides of the roadway, and provides the greatest opportunity to improve opportunities for non-motorized travel in the project study area.

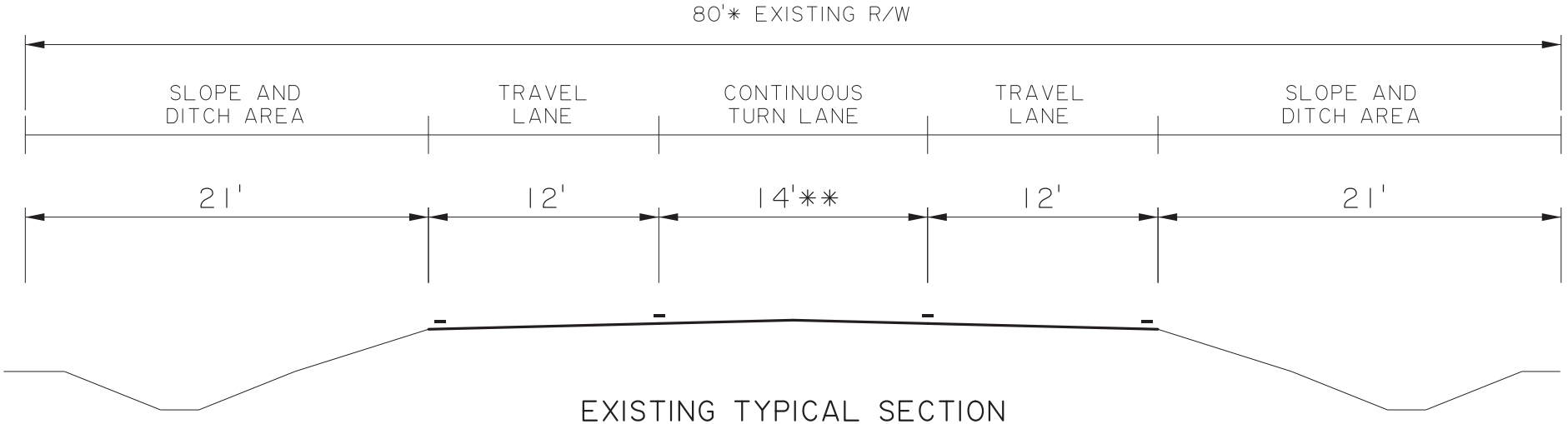
Alternative 3b and 3c both provide improved facilities for those traveling through the corridor, or for people walking and biking to a destination on the same side of the roadway. When considering a one-side solution, driveway counts and future plans (beyond the corridor) will provide additional insight into whether the east or west side of the roadway is more viable.

[3] Cost estimates are based on previously reported numbers by LA DOTD, and do not reflect project team prepared estimates.

Appendix A

LA 1090 S Military Rd. Existing Typical Section (2018)
Plans of the Proposed State Highway LA 1090 (1960)
LA 1090 S. Military Rd. Alternative 1 (2018)
LA 1090 S. Military Rd. Alternative 2 (2018)
LA 1090 S. Military Rd. Alternative 3 (2018)

LA 1090 - S. MILITARY RD.
MINOR ARTERIAL A.D.T. 10,300
C.S. 852-26 45 M.P.H.



EXISTING TYPICAL SECTION
L.M. 0.00 - L.M. 2.58

* 110' R/W FROM 2.07 - 2.30
** NO TURN LANE ON 24' x 100' BRIDGE @ FRENCH BRANCH (L.M. 0.77)

DISTRICT 62 DESIGN

LA 1090
EXISTING TYPICAL

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGNED / CHECKED	MAF / JDB	PARISH	ST. TAMMANY
DETAILED / CHECKED		CONTROL SECTION	852-26
SERIES NUMBER		STATE PROJECT	

SHEET NUMBER: —

SHEET NO.	DESCRIPTION
1	Title Sheet & Layout Map
2-3-3a	Typical Sections & Details
4-7	Summary Sheets
8	Summary of Drainage Structures
9	Sub Grade Soil Survey
101-105	General Bridge Plans & Details

STANDARD PLAN	REVISION DATE
C-S-170	7-10-59
C-M-97	2-25-55
S-M-15	5-49
C-M-00	2-?-55
CC-33-20	3-60
CC-188-20	5-60
R-F-12	
R-M-25	
R-M-14	
R-S-21	
R-S-24	
R-S-24a	

Total Sheets: 27

STATE OF LOUISIANA

DEPARTMENT OF HIGHWAYS

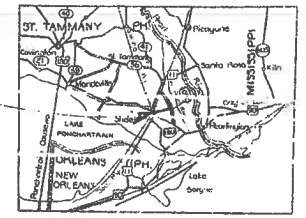
PLANS OF PROPOSED

STATE HIGHWAY

Roll # 11.17
2ND. Qtr.

852-26-02 | St. Tammany | 1

STATE PROJECT 852-26-02

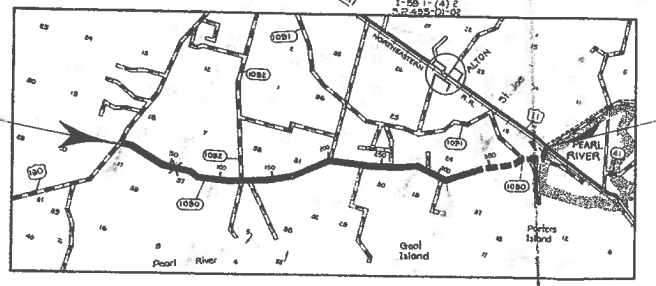


VICINITY MAP

STATE PROJECT NO. 852 - 26 - 02
JUNCTION US 190 - PEARL RIVER HWY.
ST. TAMMANY PARISH
La. 1090

STATION 10 + 00
BEG. STATE PROJECT 852-26-02

STATION 404 + 54.80
END STATE PROJECT 852-26-02



EXCEPTION = 10.28'
STA. 10 + 00 to
STA. 10 + 10.28

EXCEPTION = 12.00'
STA. 404 + 42.80 to
STA. 404 + 54.80

EQUATION = +100.00'
STA. 82 + 00 L.B.=
STA. 81 + 00 L.A.

EQUATION = -6.71'
STA. 278 + 58.65 L.B.=
STA. 278 + 65.34 L.A.

EQUATION = -68.65'
STA. 306 + 62.51 L.B.
STA. 307 + 31.14 L.A.

EQUATION = -14.22'
STA. 378 + 22.16 L.B.=
STA. 378 + 36.38 L.A.

SCHEDULE OF REVISIONS

DATE	REVISION	DATE	RECOMMENDED	DATE	APPROVED
[illegible]	[illegible]	[illegible]	W.P.B.		
7-6-60	Grade Adjustment	7-6-60	W.P.B.		
[illegible]	[illegible]	[illegible]	W.P.B.		
[illegible]	[illegible]	[illegible]	W.P.B.		

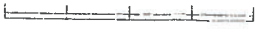
TYPE OF CONSTRUCTION:
Bituminous Surface Treatment

DELIVERY POINTS:
Slidell & Pearl River on Southern R.R.

DATUM USED: U.S.C. & G.S.
MAG. VAR.: 6° E
BEARINGS ARE True
TRANSIT BOOKS: 47-392 - 47-393
LEVEL BOOKS: 47-366 - 47-406
SCALES PLAN:
PROFILE: HOR.
VERT.

LAYOUT MAP

SCALE 1 INCH = 5280 FEET



LENGTH OF PROJECT

DESCRIPTION	ALGEBRAIC SUM OF ALL EQUATIONS	GROSS LENGTH	EXCEPTION	BRIDGE LENGTH		ROADWAY LENGTH	
STA. TO STA.	FEET	FEET	FEET	FEET	MILES	FEET	MILES
10+00 - 404+54.80	-79.59	35575.41	5745.32	100	0.019	33550.09	6.356
TOTAL LENGTH OF BRIDGES				100	0.019		
TOTAL LENGTH OF ROADWAY						33550.09	6.356
TOTAL MILES (NET)						6.369	

RECOMMENDED FOR APPROVAL
BRIDGE DESIGN ENGINEER

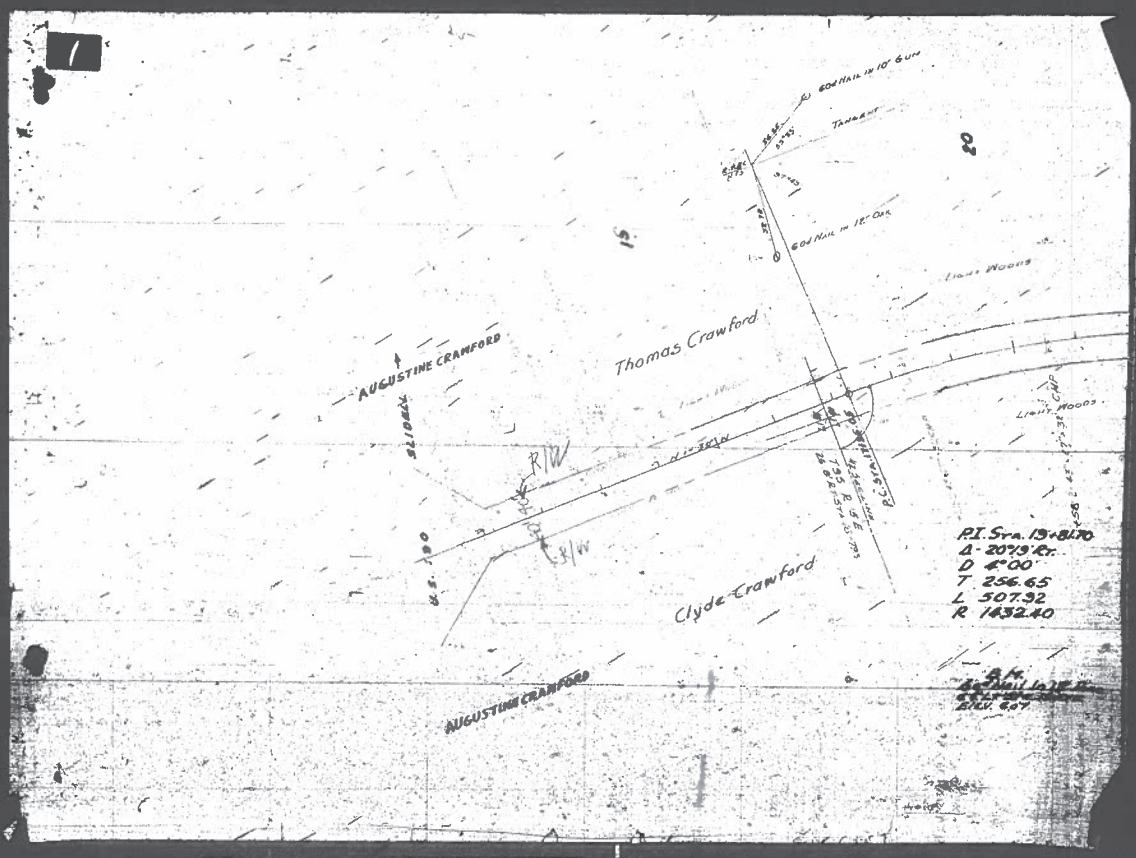
RECOMMENDED FOR APPROVAL
W. P. Bryan
ROAD DESIGN ENGINEER
5-20-60

RECOMMENDED FOR APPROVAL
J. B. Vaiter
ASSIST. CHIEF ENGINEER (OPSVN)
5-20-60

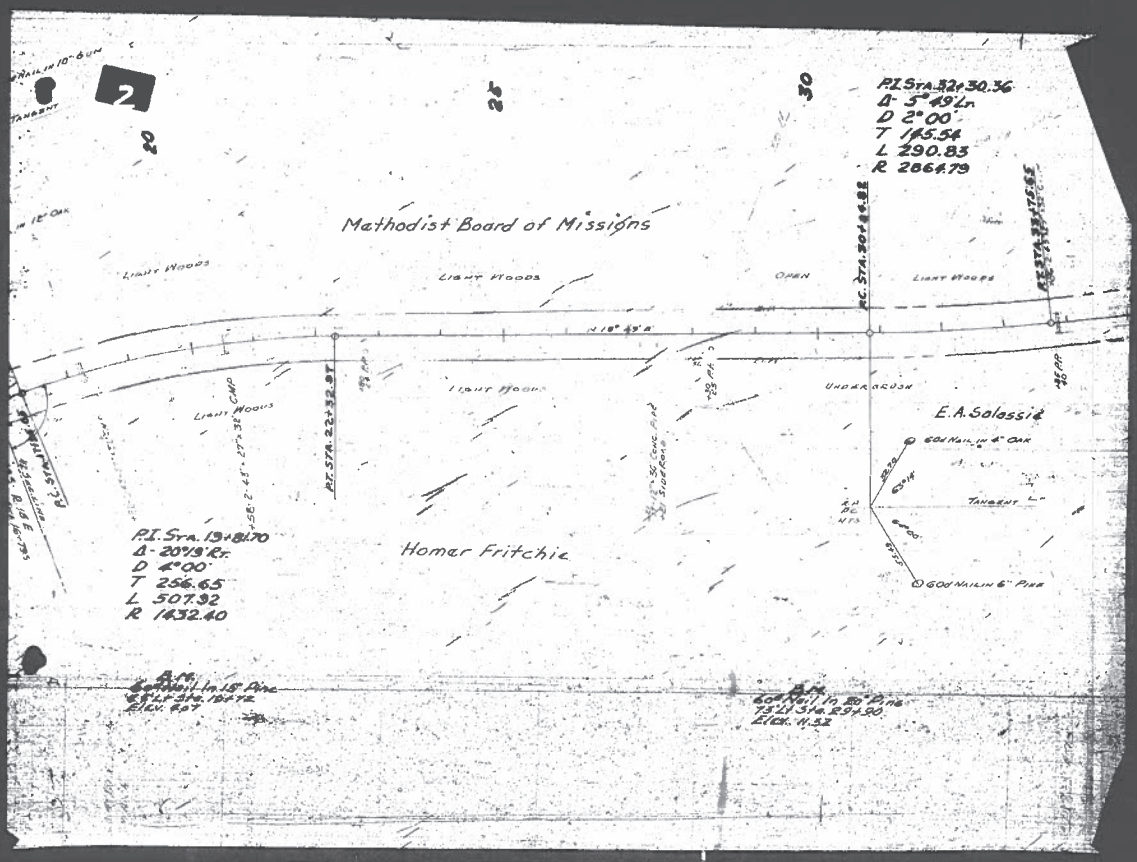
APPROVED
E. J. Jones
CHIEF ENGINEER
5-20-60

RECOMMENDED FOR APPROVAL DATE
DISTRICT ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

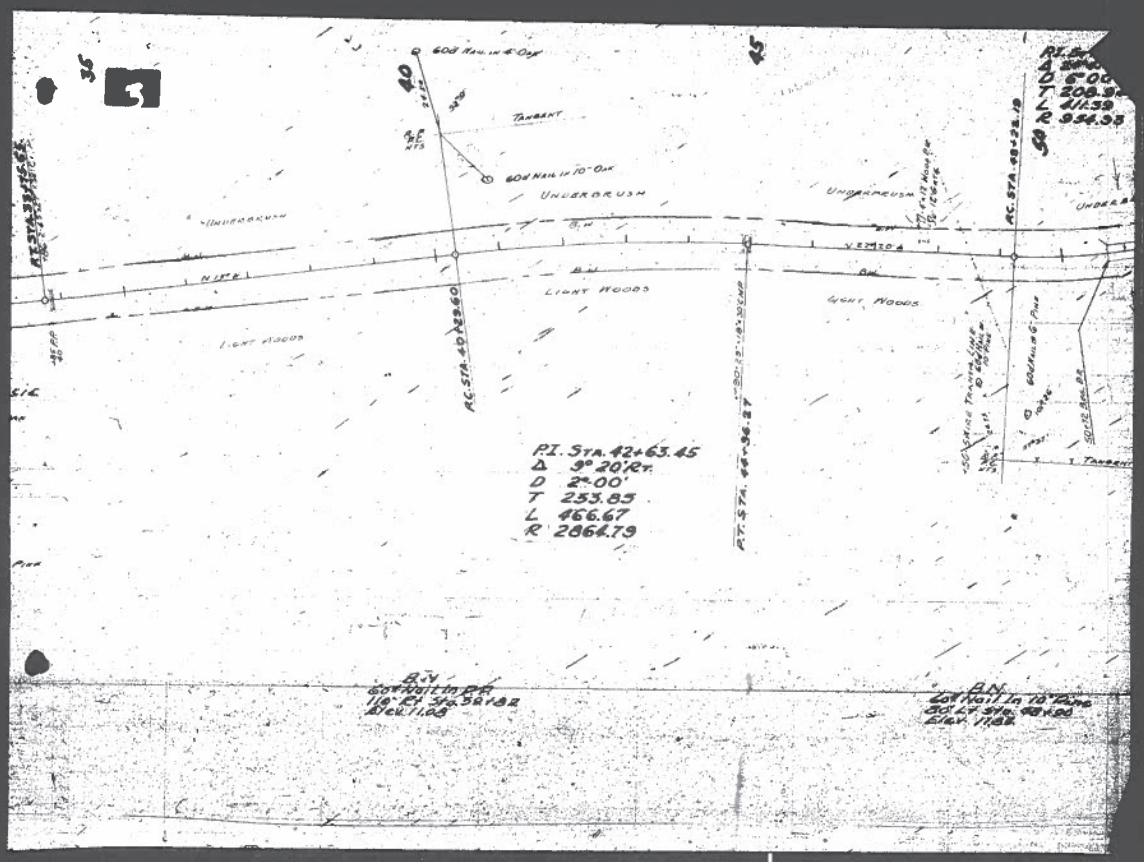
APPROVED DATE
DIVISION ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS


1
60d Nail in 10" Gum
Tangent
60d Nail in 12" Oak
Light Woods
Thomas Crawford
AUGUSTINE CRAWFORD
R/W
C&W
Clyde Crawford
AUGUSTINE CRAWFORD
P.I. Sta. 13+81.70
Δ - 20°19' Rt.
D 4°00'
T 256.65
L 507.92
R 1432.40
1
2
3
4
5
6

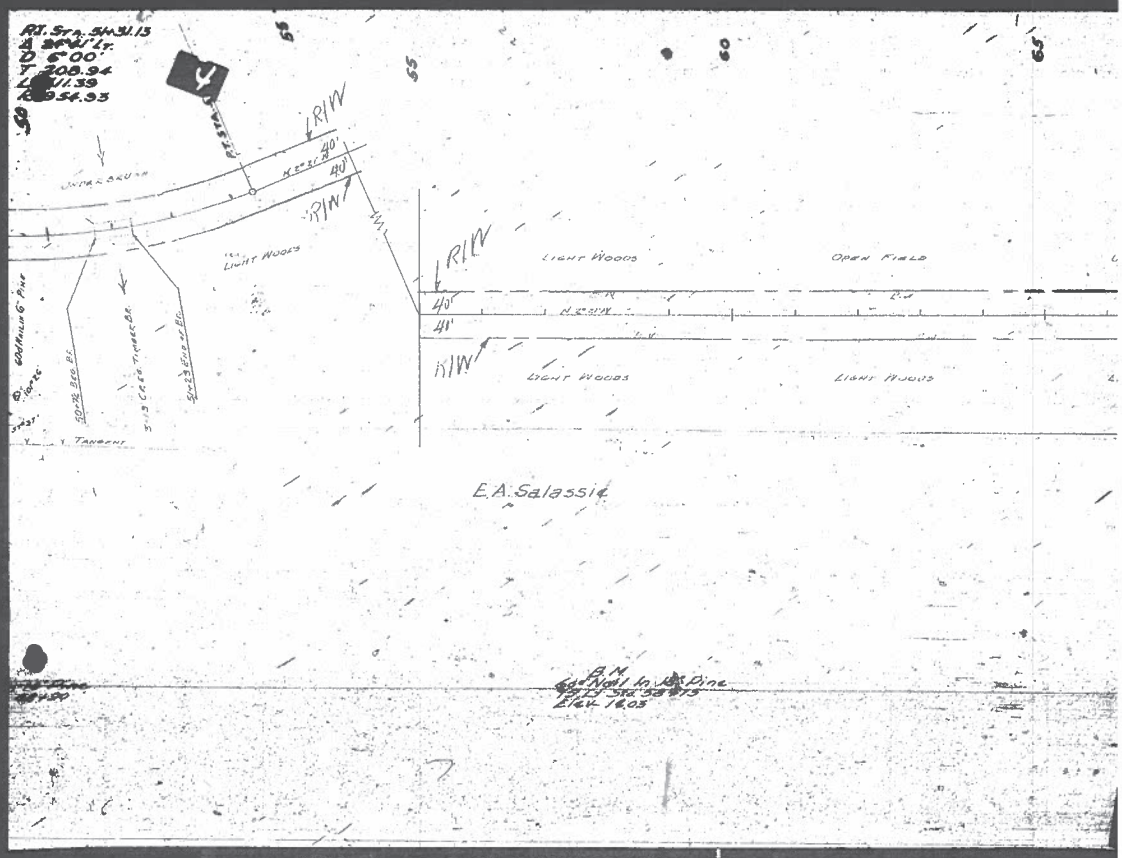
RIGHT OF WAY


2
Methodist Board of Missions
Light Woods
Open
Under Brush
E.A. Solassie
Homer Fritchie
P.I. Sta. 32+30.36
Δ- 5° 49' Lt.
D 2° 00'
T 145.54
L 290.83
R 2864.79
P.I. Sta. 13+81.70
Δ- 20° 19' Rt.
D 4° 00'
T 256.65
L 507.92
R 1432.40
P.I. Sta. 22+32.87
N 18° 45' E
Tangent
60d Nail in 4" Oak
60d Nail in 6" Pine

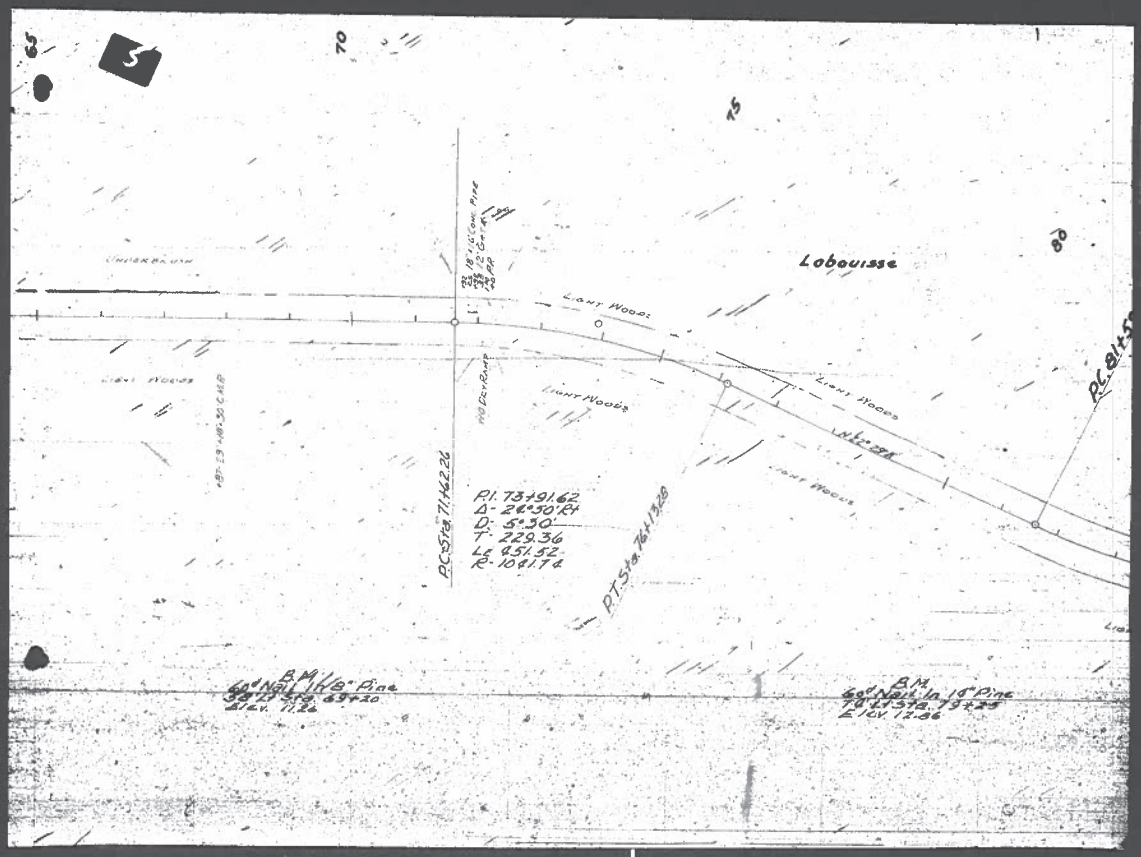
RIGHT OF WAY


35
40
45
60d Nail in 6" Oak
Tangent
60d Nail in 10" Oak
Underbrush
Light Woods
P.I. Sta. 42+63.45
Δ 9° 20' Rt.
D 2°00'
T 253.83
L 466.67
R 2864.79
P.C. Sta. 40+09.60
P.T. Sta. 45+36.27
P.C. Sta. 45+25.19
B.M.
60d Nail in RR
119' Rt. Sta. 42+82
Elev. 1108
B.M.
60d Nail in 10" Pine
250' Lt. Sta. 45+20
Elev. 1158
1 2 3 4 5 6

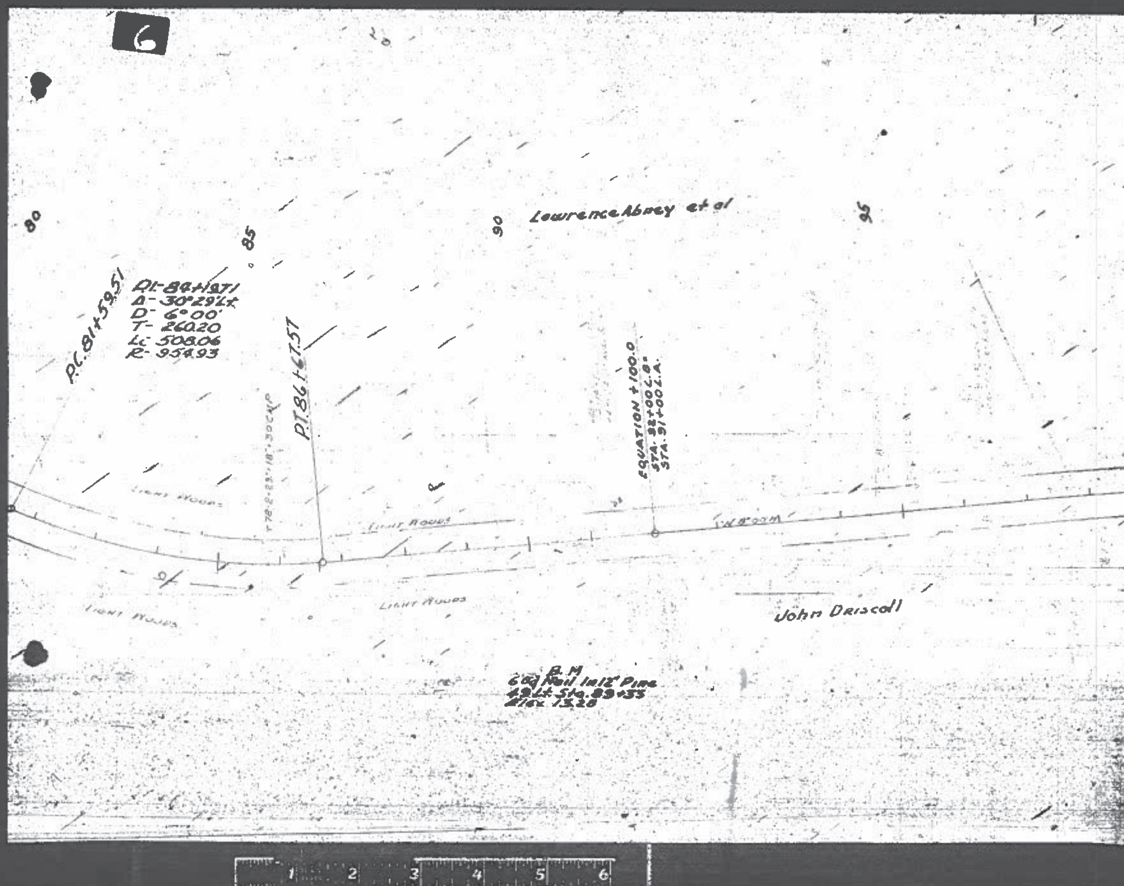
RIGHT OF WAY


Rt. Sta. 5+31.13
Δ 24°41' Lt.
D 6°00'
T 208.94
L 411.39
R 954.93
RIW
40'
N 42°31' W
LIGHT WOODS
OPEN FIELD
E.A. Salassi
P.N.
Elev. 76.05

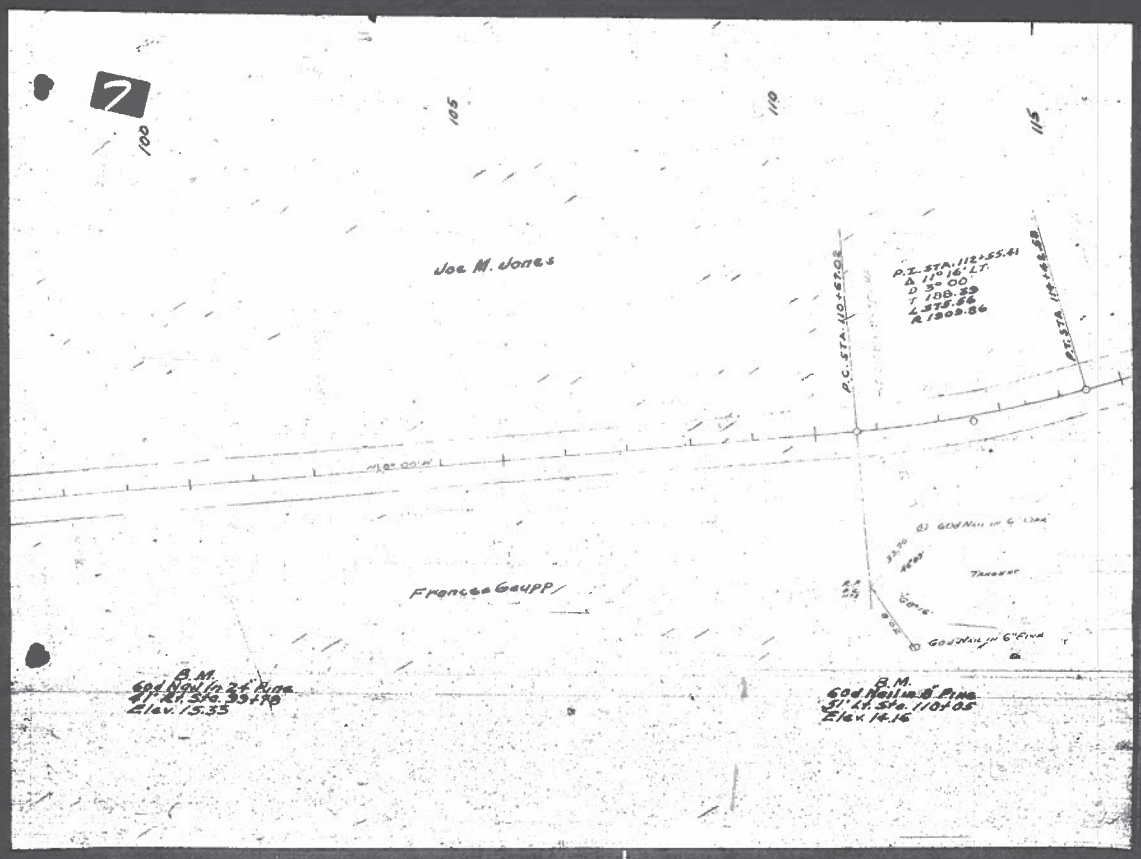
RIGHT OF WAY

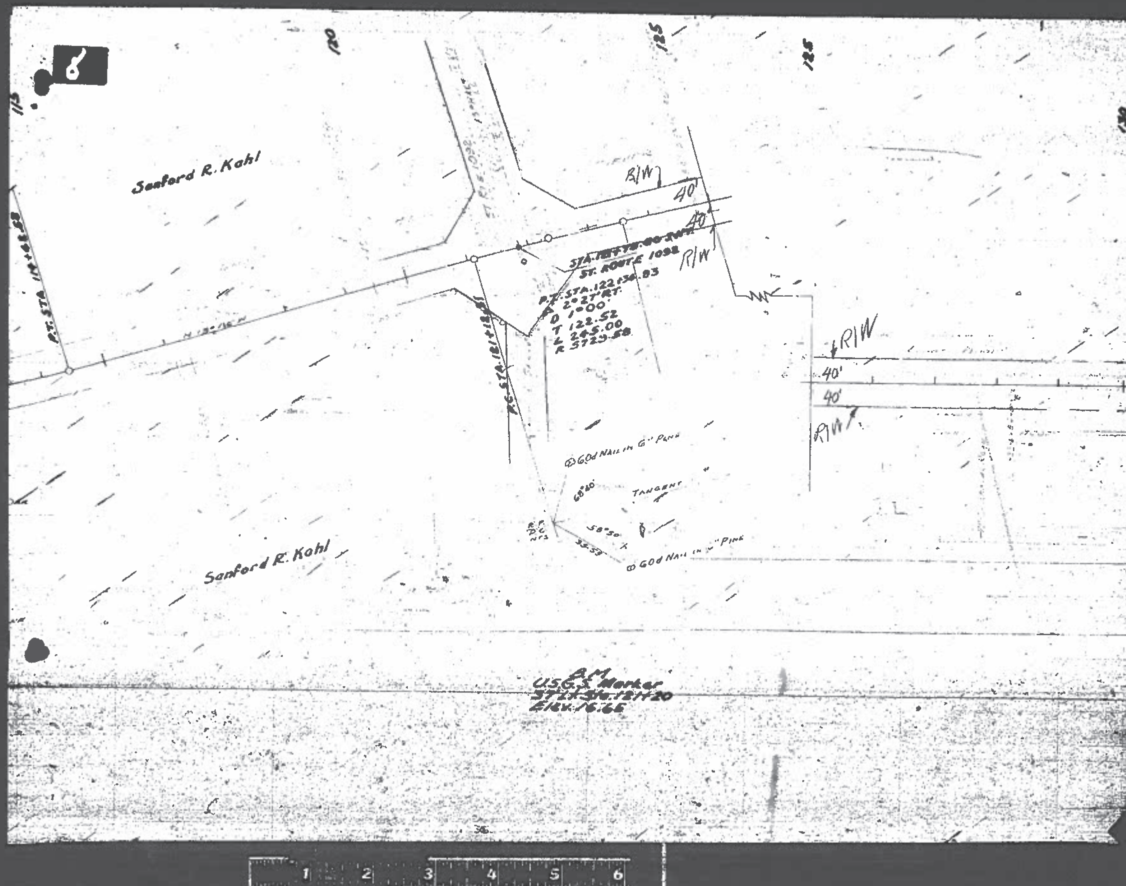

5
70
75
80
Lobouisse
Light Woods
PI. 73+91.62
Δ- 26°30' Rt
D- 5°30'
T- 229.36
Lc 951.52
R- 1041.74
PC Sta 71+62.26
PT Sta 76+13.78
B.M.
60" Nail in 16" Pine
Sta 73+42.69+20
Elev. 11.22
B.M.
60" Nail in 16" Pine
Sta 73+42.73+29
Elev. 12.86

RIGHT OF WAY


6
80
85
90
95
Lawrence Abney et al
P.C. 81+59.51
P.I. 84+19.71
Δ - 30°29' Lt.
D - 6°00'
T - 260.20
Lc 508.06
R - 954.93
P.T. 86+67.57
EQUATION +100.0
STA. 88+00 L.B.=
STA. 91+00 L.A.
Light Woods
Light Woods
Light Woods
Light Woods
John Driscoll
B.M.
60d Nail in 12" Pine
49 Lt. Sta. 89+35
Elev. 75.28

RIGHT OF WAY

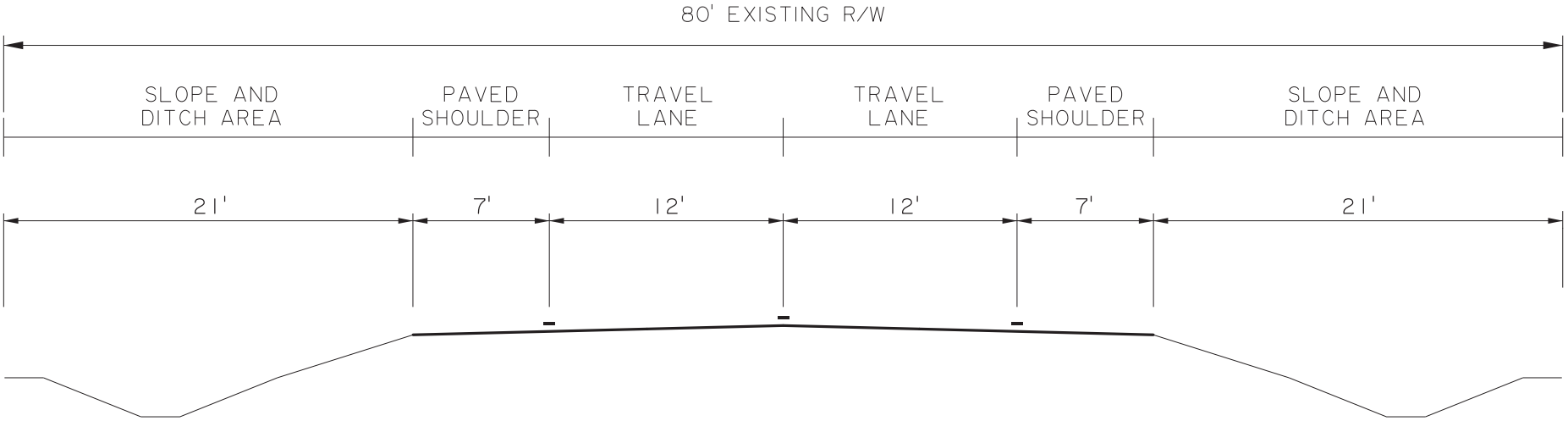

7
100
105
110
115
Joe M. Jones
P.I. STA. 112+55.41
Δ 11° 16' LT.
D 3° 00
T 188.39
L 375.56
R 1908.86
P.C. STA. 110+67.02
P.T. STA. 114+42.58
Frances Gaupp
B.M.
60d Nail in 24" Pine
21' Rt. Sta. 33+19
Elev. 15.35
B.M.
60d Nail in 8" Pine
21' Rt. Sta. 110+05
Elev. 14.16
RIGHT OF WAY



8
Sanford R. Kohl
Sanford R. Kohl
R/W
40'
40'
R/W
ST. ROUTE 1032
P.T. STA. 122+36.83
D 1°00'
T 122.52
L 245.00
R 5729.58
R/W
40'
40'
R/W
TANGENT
B.M.
U.S.G.S. Marker
Elev. 16.66

RIGHT OF WAY

LA 1090 - S. MILITARY RD.
MINOR ARTERIAL A.D.T. 10,300
C.S. 852-26 45 M.P.H.



ALTERNATE 1
RESTRIPING TO ELIMINATE CONTINUOUS TURN LANE AND PARTIAL WIDENING

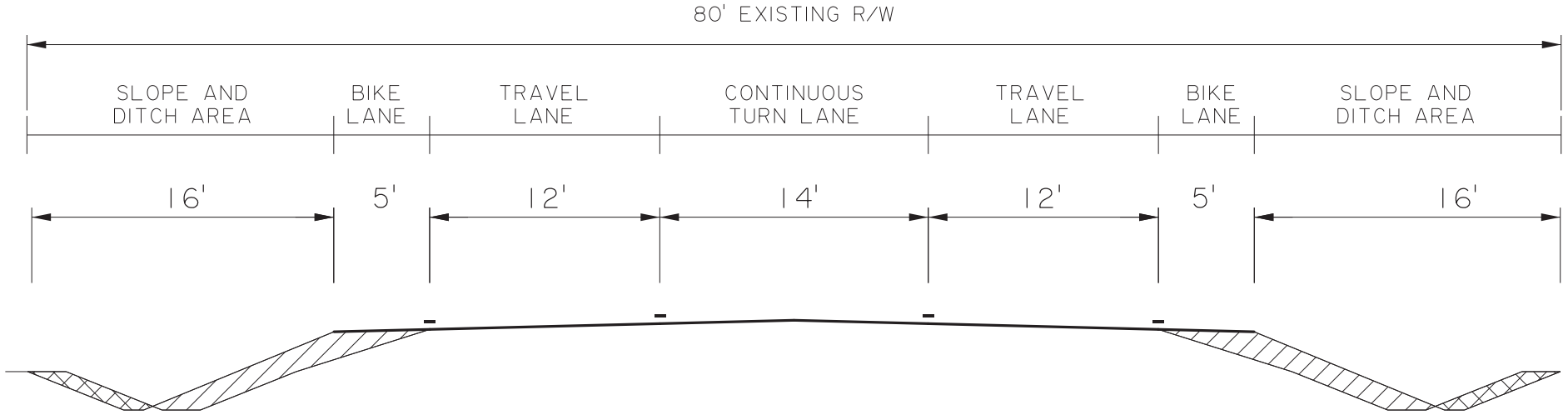
DISTRICT 62 DESIGN

LA 1090
ALT. 1 - RESTRIPE & WIDEN

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGNED	MAF
CHECKED	JDB
DETAILED	
CHECKED	
SERIES NUMBER	
PARISH	ST. TAMMANY
CONTROL SECTION	852-26
STATE PROJECT	
SHEET NUMBER	2

LA 1090 - S. MILITARY RD.
MINOR ARTERIAL A.D.T. 10,300
C.S. 852-26 45 M.P.H.



ALTERNATE 2
WIDEN & PAVE 5' SHOULDERS

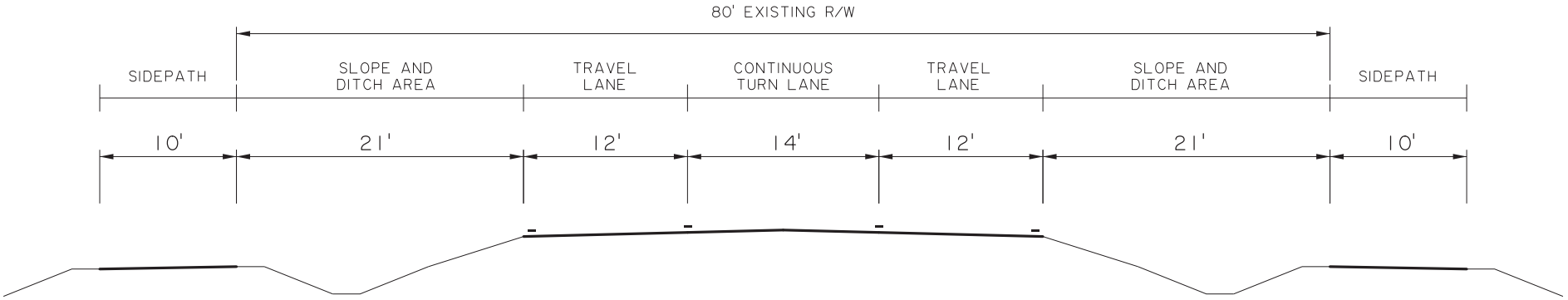
DISTRICT 62 DESIGN

LA 1090
ALT. 2 - PAVE SHOULDERS

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGNED / CHECKED	MAF / JDB
DETAILED / CHECKED	
SERIES NUMBER	
PARISH	ST. TAMMANY
CONTROL SECTION	852-26
STATE PROJECT	
SHEET NUMBER	3

LA 1090 - S. MILITARY RD.
MINOR ARTERIAL A.D.T. 10,300
C.S. 852-26 45 M.P.H.



ALTERNATE 3
10' SIDEPATH

DOTD DISTRICT 62 DESIGN	LA 1090 ALT. 3 - SIDEPATH	DESIGNED MAF / CHECKED JDB	PARISH ST. TAMMANY
		DETAILED CHECKED	CONTROL SECTION 852-26
		SERIES NUMBER	STATE PROJECT
	NO. DATE REVISION OR CHANGE ORDER DESCRIPTION BY		SHEET NUMBER 4

Appendix C:
Raw Traffic Data

Weekly Volumes

Unit ID: 17032432

Location: Military Rd NB

Week of 02/26/2019

Start Time	02/26 Tue	02/27 Wed	02/28 Thu	03/01 Fri	03/02 Sat	03/03 Sun	03/04 Mon	Average
	NB	NB	NB	NB	NB	NB	NB	NB
00:00	9	10	-	-	-	-	-	10
01:00	8	12	-	-	-	-	-	10
02:00	7	6	-	-	-	-	-	7
03:00	7	12	-	-	-	-	-	10
04:00	32	25	-	-	-	-	-	29
05:00	54	54	-	-	-	-	-	54
06:00	178	188	-	-	-	-	-	183
07:00	383	421	-	-	-	-	-	402
08:00	508	527	-	-	-	-	-	518
09:00	327	250	-	-	-	-	-	289
10:00	275	230	-	-	-	-	-	253
11:00	283	271	-	-	-	-	-	277
12:00	305	334	-	-	-	-	-	320
13:00	309	308	-	-	-	-	-	309
14:00	345	365	-	-	-	-	-	355
15:00	467	511	-	-	-	-	-	489
16:00	530	525	-	-	-	-	-	528
17:00	535	545	-	-	-	-	-	540
18:00	340	436	-	-	-	-	-	388
19:00	227	270	-	-	-	-	-	249
20:00	173	191	-	-	-	-	-	182
21:00	84	108	-	-	-	-	-	96
22:00	50	60	-	-	-	-	-	55
23:00	27	30	-	-	-	-	-	29
Lane Total	5463	5689	-	-	-	-	-	5582
Day Total	5463	5689	-	-	-	-	-	5582
AM Peak	07:48	07:44	-	-	-	-	-	08:00
AM Count	536	564	-	-	-	-	-	518
PM Peak	16:35	15:37	-	-	-	-	-	17:00
PM Count	577	602	-	-	-	-	-	540

ADT: 5577

AADT: 5577

Weekly Volumes

Unit ID:

Location: S Military Rd (US 190)

Week of 02/26/2019

Start Time	02/26 Tue	02/27 Wed	02/28 Thu	03/01 Fri	03/02 Sat	03/03 Sun	03/04 Mon	Average
	SB	SB	SB	SB	SB	SB	SB	SB
00:00	8	14	-	-	-	-	-	11
01:00	16	18	-	-	-	-	-	17
02:00	3	6	-	-	-	-	-	5
03:00	5	4	-	-	-	-	-	5
04:00	20	19	-	-	-	-	-	20
05:00	70	76	-	-	-	-	-	73
06:00	165	160	-	-	-	-	-	163
07:00	380	408	-	-	-	-	-	394
08:00	367	388	-	-	-	-	-	378
09:00	301	318	-	-	-	-	-	310
10:00	303	330	-	-	-	-	-	317
11:00	366	391	-	-	-	-	-	379
12:00	376	387	-	-	-	-	-	382
13:00	367	377	-	-	-	-	-	372
14:00	385	416	-	-	-	-	-	401
15:00	526	548	-	-	-	-	-	537
16:00	602	613	-	-	-	-	-	608
17:00	644	606	-	-	-	-	-	625
18:00	495	488	-	-	-	-	-	492
19:00	359	363	-	-	-	-	-	361
20:00	240	309	-	-	-	-	-	275
21:00	158	181	-	-	-	-	-	170
22:00	86	96	-	-	-	-	-	91
23:00	45	37	-	-	-	-	-	41
Lane Total	6287	6553	-	-	-	-	-	6427
Day Total	6287	6553	-	-	-	-	-	6427
AM Peak	07:27	07:27	-	-	-	-	-	07:00
AM Count	474	530	-	-	-	-	-	394
PM Peak	16:48	16:36	-	-	-	-	-	17:00
PM Count	671	657	-	-	-	-	-	625

ADT: 6422

AADT: 6422

Weekly Volumes

Unit ID:

Location: Military Road SB

Week of 02/26/2019

Start Time	02/26 Tue	02/27 Wed	02/28 Thu	03/01 Fri	03/02 Sat	03/03 Sun	03/04 Mon	Average
	SB	SB	SB	SB	SB	SB	SB	SB
00:00	9	12	-	-	-	-	-	11
01:00	17	10	-	-	-	-	-	14
02:00	3	4	-	-	-	-	-	4
03:00	6	1	-	-	-	-	-	4
04:00	26	19	-	-	-	-	-	23
05:00	84	81	-	-	-	-	-	83
06:00	175	167	-	-	-	-	-	171
07:00	391	411	-	-	-	-	-	401
08:00	382	419	-	-	-	-	-	401
09:00	296	305	-	-	-	-	-	301
10:00	282	301	-	-	-	-	-	292
11:00	353	384	-	-	-	-	-	369
12:00	353	368	-	-	-	-	-	361
13:00	346	354	-	-	-	-	-	350
14:00	337	390	-	-	-	-	-	364
15:00	471	508	-	-	-	-	-	490
16:00	532	554	-	-	-	-	-	543
17:00	581	539	-	-	-	-	-	560
18:00	429	408	-	-	-	-	-	419
19:00	313	300	-	-	-	-	-	307
20:00	191	263	-	-	-	-	-	227
21:00	138	159	-	-	-	-	-	149
22:00	72	85	-	-	-	-	-	79
23:00	37	30	-	-	-	-	-	34
Lane Total	5824	6072	-	-	-	-	-	5957
Day Total	5824	6072	-	-	-	-	-	5957
AM Peak	07:28	07:26	-	-	-	-	-	07:00
AM Count	506	556	-	-	-	-	-	401
PM Peak	16:38	16:38	-	-	-	-	-	17:00
PM Count	601	574	-	-	-	-	-	560

ADT: 5950

AADT: 5950

Weekly Volumes

Unit ID:

Location: S Military Rd (US 190)

Week of 02/26/2019

Start Time	02/26 Tue	02/27 Wed	02/28 Thu	03/01 Fri	03/02 Sat	03/03 Sun	03/04 Mon	Average
	SB	SB	SB	SB	SB	SB	SB	SB
00:00	8	14	-	-	-	-	-	11
01:00	16	18	-	-	-	-	-	17
02:00	3	6	-	-	-	-	-	5
03:00	5	4	-	-	-	-	-	5
04:00	20	19	-	-	-	-	-	20
05:00	70	76	-	-	-	-	-	73
06:00	165	160	-	-	-	-	-	163
07:00	380	408	-	-	-	-	-	394
08:00	367	388	-	-	-	-	-	378
09:00	301	318	-	-	-	-	-	310
10:00	303	331	-	-	-	-	-	317
11:00	365	391	-	-	-	-	-	378
12:00	376	387	-	-	-	-	-	382
13:00	367	377	-	-	-	-	-	372
14:00	384	416	-	-	-	-	-	400
15:00	525	548	-	-	-	-	-	537
16:00	602	612	-	-	-	-	-	607
17:00	644	605	-	-	-	-	-	625
18:00	494	487	-	-	-	-	-	491
19:00	359	363	-	-	-	-	-	361
20:00	240	309	-	-	-	-	-	275
21:00	158	181	-	-	-	-	-	170
22:00	86	96	-	-	-	-	-	91
23:00	45	37	-	-	-	-	-	41
Lane Total	6283	6551	-	-	-	-	-	6423
Day Total	6283	6551	-	-	-	-	-	6423
AM Peak	07:27	07:27	-	-	-	-	-	07:00
AM Count	474	530	-	-	-	-	-	394
PM Peak	16:48	16:36	-	-	-	-	-	17:00
PM Count	671	657	-	-	-	-	-	625

ADT: 6419

AADT: 6419

Weekly Volumes

Unit ID:

Location: Military Rd SB

Week of 02/26/2019

Start Time	02/26 Tue	02/27 Wed	02/28 Thu	03/01 Fri	03/02 Sat	03/03 Sun	03/04 Mon	Average
	NB	NB	NB	NB	NB	NB	NB	NB
00:00	11	12	-	-	-	-	-	12
01:00	16	9	-	-	-	-	-	13
02:00	3	3	-	-	-	-	-	3
03:00	7	3	-	-	-	-	-	5
04:00	28	29	-	-	-	-	-	29
05:00	84	92	-	-	-	-	-	88
06:00	187	180	-	-	-	-	-	184
07:00	382	402	-	-	-	-	-	392
08:00	384	411	-	-	-	-	-	398
09:00	268	295	-	-	-	-	-	282
10:00	253	279	-	-	-	-	-	266
11:00	314	354	-	-	-	-	-	334
12:00	310	341	-	-	-	-	-	326
13:00	317	306	-	-	-	-	-	312
14:00	287	360	-	-	-	-	-	324
15:00	403	432	-	-	-	-	-	418
16:00	464	474	-	-	-	-	-	469
17:00	500	466	-	-	-	-	-	483
18:00	360	352	-	-	-	-	-	356
19:00	263	242	-	-	-	-	-	253
20:00	153	206	-	-	-	-	-	180
21:00	115	125	-	-	-	-	-	120
22:00	60	73	-	-	-	-	-	67
23:00	30	22	-	-	-	-	-	26
Lane Total	5199	5468	-	-	-	-	-	5340
Day Total	5199	5468	-	-	-	-	-	5340
AM Peak	07:28	07:28	-	-	-	-	-	08:00
AM Count	501	545	-	-	-	-	-	398
PM Peak	16:36	16:41	-	-	-	-	-	17:00
PM Count	507	492	-	-	-	-	-	483

ADT: 5335

AADT: 5335

Weekly Volumes

Unit ID:

Location: Military Rd

Week of 02/26/2019

Start Time	02/26 Tue	02/27 Wed	02/28 Thu	03/01 Fri	03/02 Sat	03/03 Sun	03/04 Mon	Average
	NB	NB	NB	NB	NB	NB	NB	NB
00:00	9	9	-	-	-	-	-	9
01:00	7	9	-	-	-	-	-	8
02:00	5	6	-	-	-	-	-	6
03:00	7	9	-	-	-	-	-	8
04:00	25	19	-	-	-	-	-	22
05:00	36	46	-	-	-	-	-	41
06:00	127	130	-	-	-	-	-	129
07:00	297	349	-	-	-	-	-	323
08:00	457	499	-	-	-	-	-	478
09:00	282	224	-	-	-	-	-	253
10:00	251	242	-	-	-	-	-	247
11:00	261	303	-	-	-	-	-	282
12:00	275	344	-	-	-	-	-	310
13:00	300	290	-	-	-	-	-	295
14:00	327	344	-	-	-	-	-	336
15:00	481	516	-	-	-	-	-	499
16:00	518	506	-	-	-	-	-	512
17:00	527	492	-	-	-	-	-	510
18:00	325	406	-	-	-	-	-	366
19:00	214	246	-	-	-	-	-	230
20:00	159	177	-	-	-	-	-	168
21:00	84	103	-	-	-	-	-	94
22:00	52	63	-	-	-	-	-	58
23:00	28	28	-	-	-	-	-	28
Lane Total	5054	5360	-	-	-	-	-	5212
Day Total	5054	5360	-	-	-	-	-	5212
AM Peak	07:48	07:50	-	-	-	-	-	08:00
AM Count	480	519	-	-	-	-	-	478
PM Peak	15:44	15:37	-	-	-	-	-	16:00
PM Count	588	599	-	-	-	-	-	512

ADT: 5208

AADT: 5208

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: NO.19.005

Peak Period:

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 7:00 AM End Time: 7:15 AM

SB APPROACH VOL: 62

Buses	0	0	0
Trucks	0	2	0
	6 R	54 T	0 L

Street: **Cross Gates Blvd.**

Buses	Trucks			Peds	0			Trucks	Buses
0	0	15	L				R 7	0	0
0	0	0	T	Peds 0		Peds 0	T 1	0	0
1	0	6	R				L 4	0	0
				Peds	0				

EB APPROACH VOL: 22

WB APPROACH VOL: 12

	L 7	T 98	R 2
Trucks	0	0	0
Buses	2	9	1

NB APPROACH VOL: 119

Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 215 215

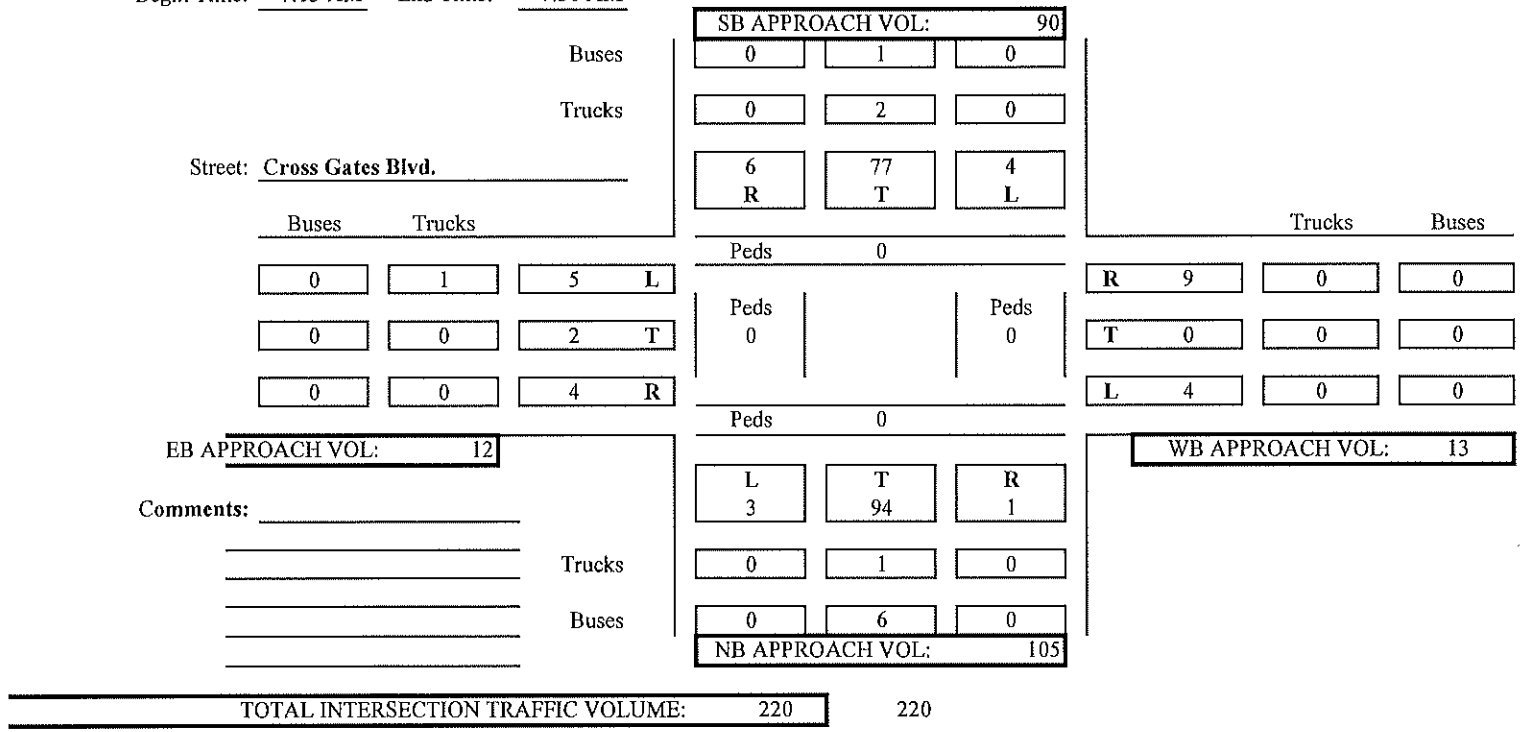
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 7:15 AM End Time: 7:30 AM



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 220 220

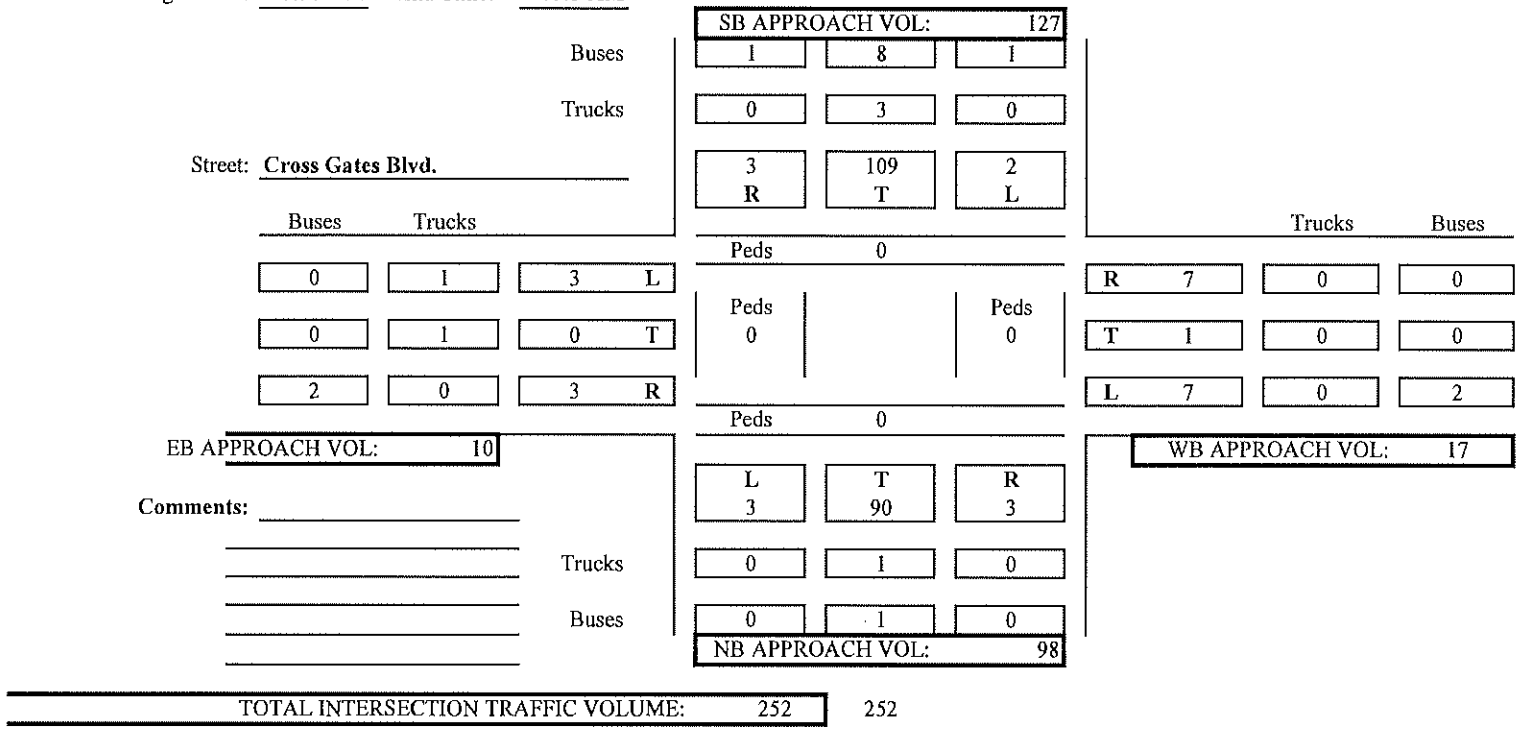
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 7:30 AM End Time: 7:45 AM



TOTAL INTERSECTION TRAFFIC VOLUME: 252 252

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 7:45 AM End Time: 8:00 AM

SB APPROACH VOL: 140

Buses	1	8	0
Trucks	2	1	0
	3 R	124 T	1 L

Street: **Cross Gates Blvd.**

Buses	Trucks			Peds 0		Trucks	Buses
0	0	5	L		R 4	0	0
0	0	0	T	Peds 0	Peds 0	T 0	0	0
0	0	12	R			L 5	0	1
				Peds 1			

EB APPROACH VOL: 17

WB APPROACH VOL: 10

Comments:

	L 1	T 115	R 1
Trucks	0	0	0
Buses	0	8	0

NB APPROACH VOL: 125

TOTAL INTERSECTION TRAFFIC VOLUME: 292 292

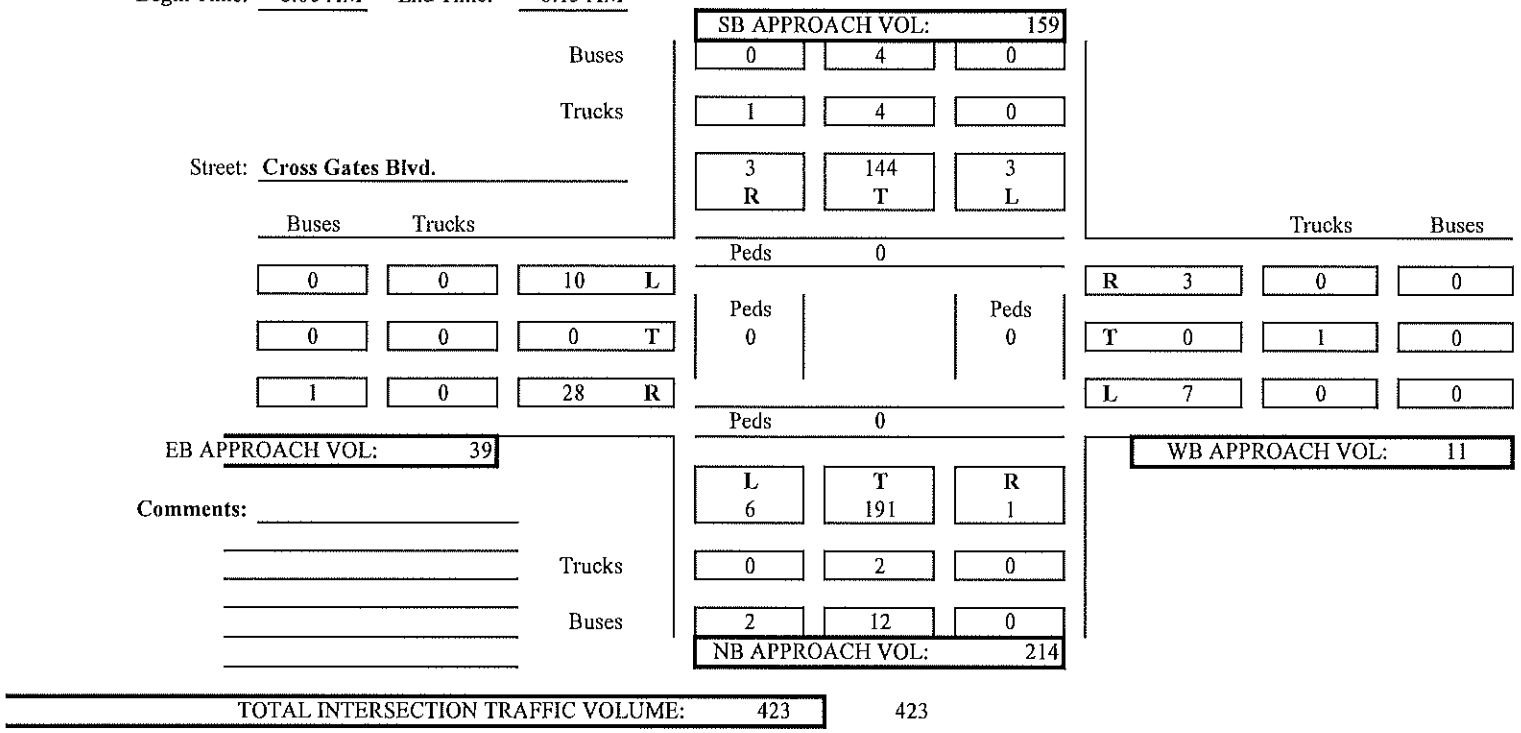
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 8:00 AM End Time: 8:15 AM



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 423 423

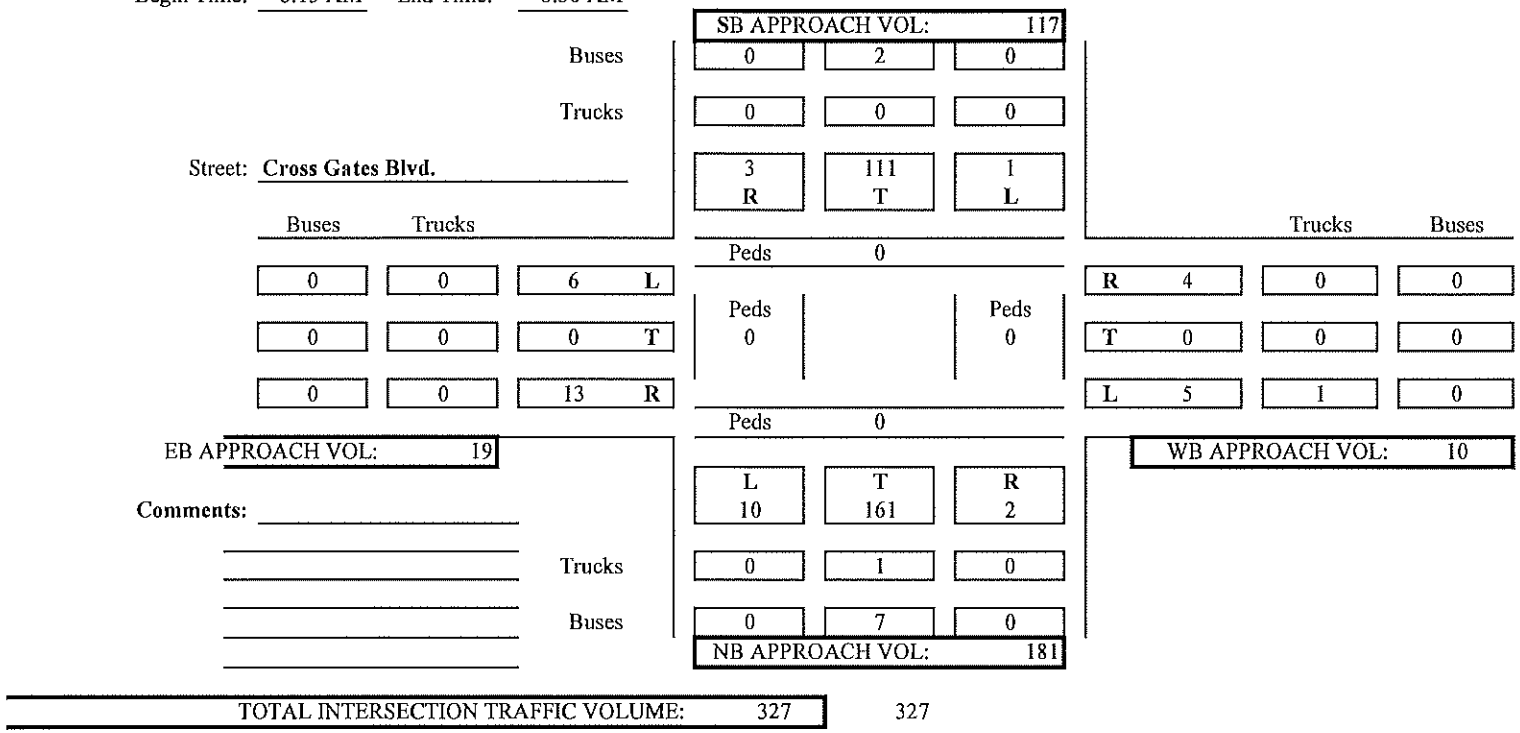
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 8:15 AM End Time: 8:30 AM



TOTAL INTERSECTION TRAFFIC VOLUME: 327 327

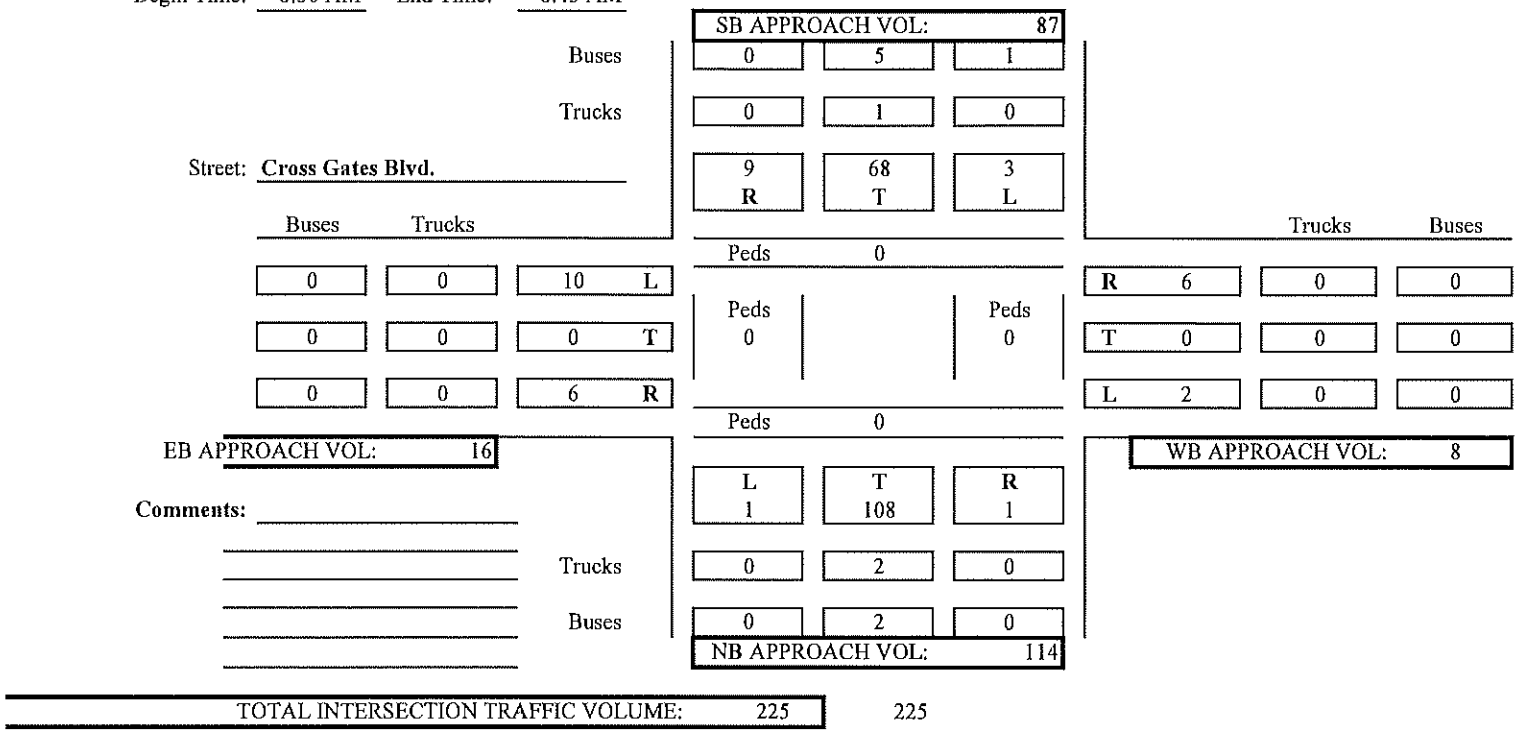
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 8:30 AM End Time: 8:45 AM



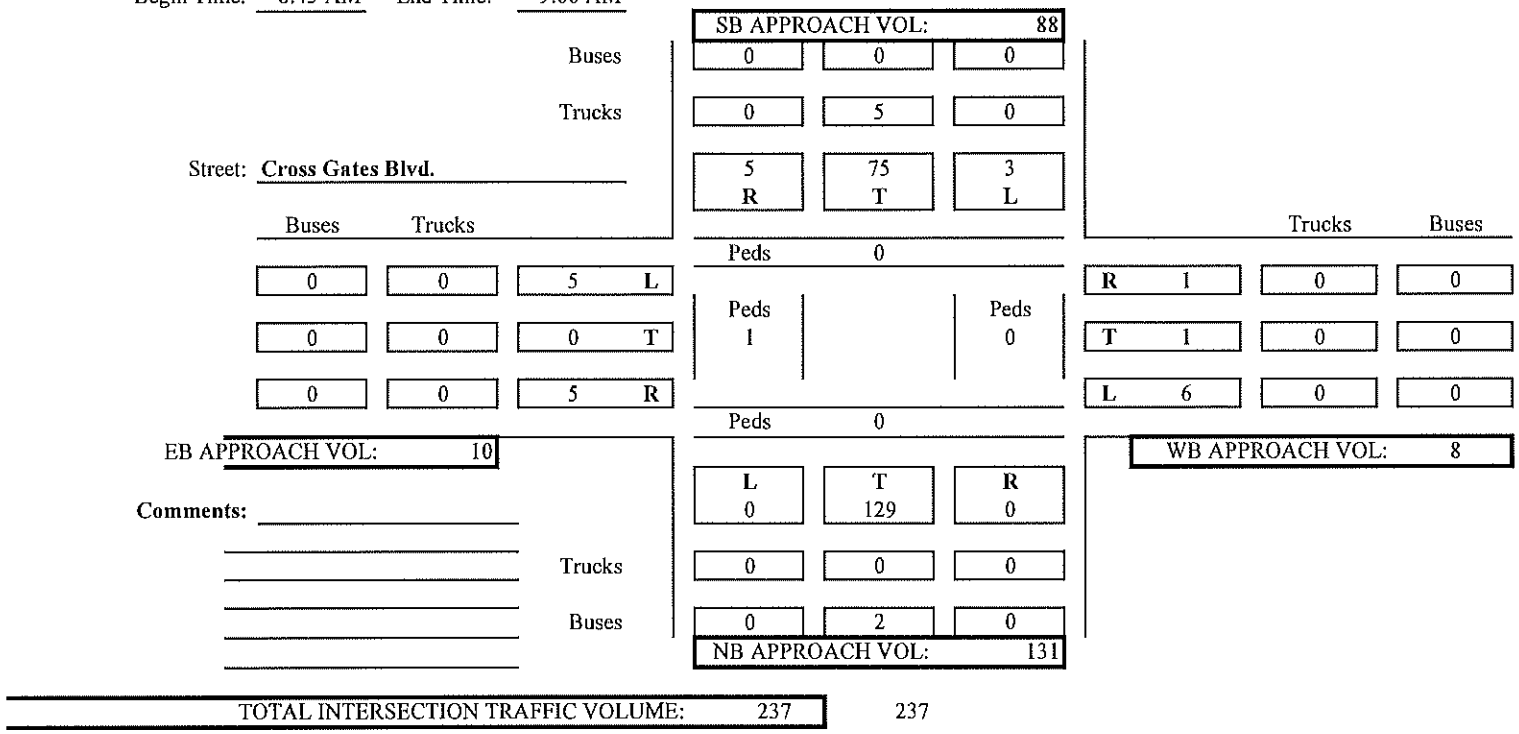
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: NO.19.005

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 8:45 AM End Time: 9:00 AM



Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Peak Period:

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 4:00 PM End Time: 4:15 PM

SB APPROACH VOL: 145

Buses	0	6	0
Trucks	0	0	0
	11 R	120 T	8 L

Street: **Cross Gates**

Buses	Trucks			Peds	0		Trucks	Buses
0	0	8	L			R 5	0	0
0	0	0	T	Peds 0	Peds 1	T 1	0	0
0	0	3	R			L 0	0	0
				Peds	0			

EB APPROACH VOL: 11

WB APPROACH VOL: 6

Comments:

	L 4	T 124	R 4
Trucks	0	4	0
Buses	0	4	1

NB APPROACH VOL: 141

TOTAL INTERSECTION TRAFFIC VOLUME: 303 303

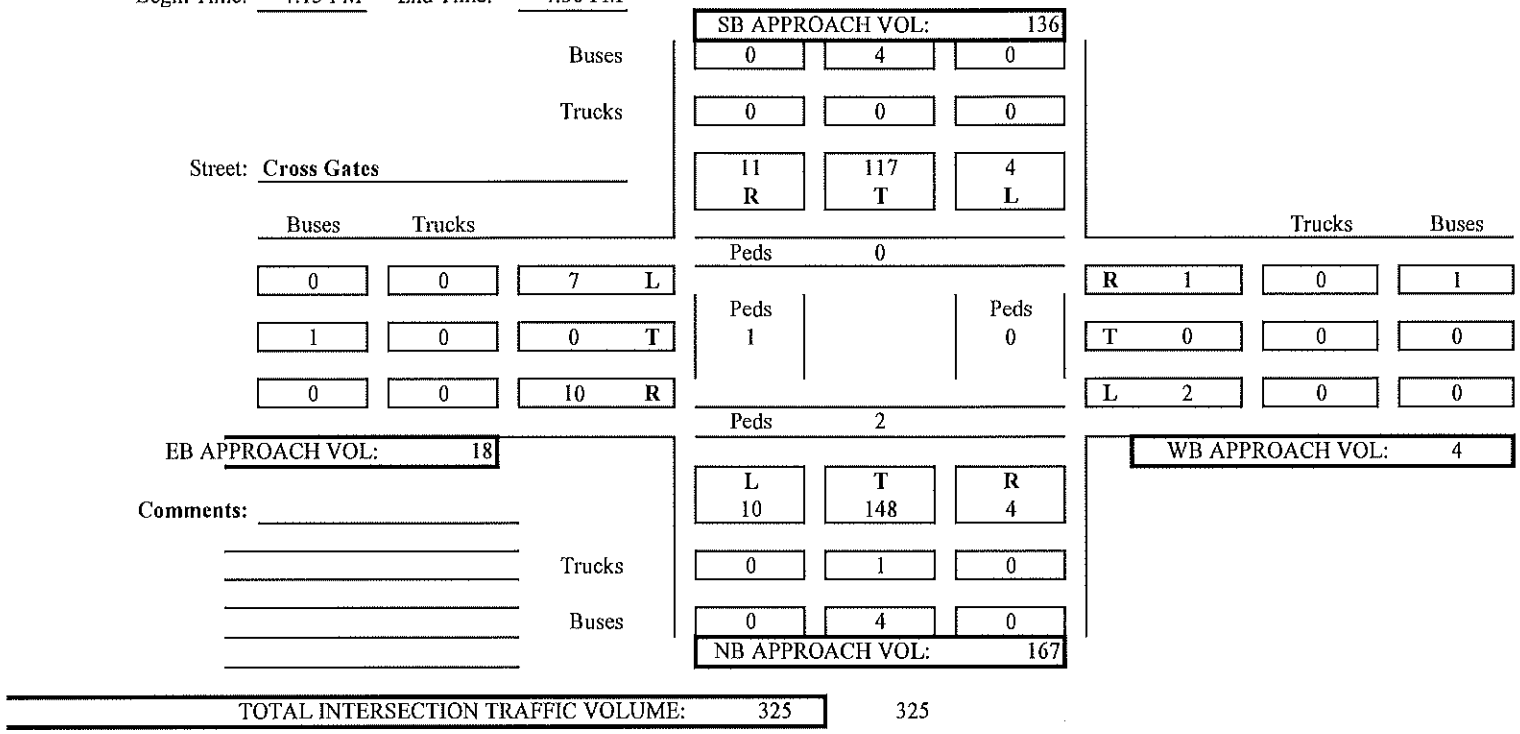
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: NO.19.005

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 4:15 PM End Time: 4:30 PM



Street: **Cross Gates**

Buses Trucks Trucks Buses

Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 325 325

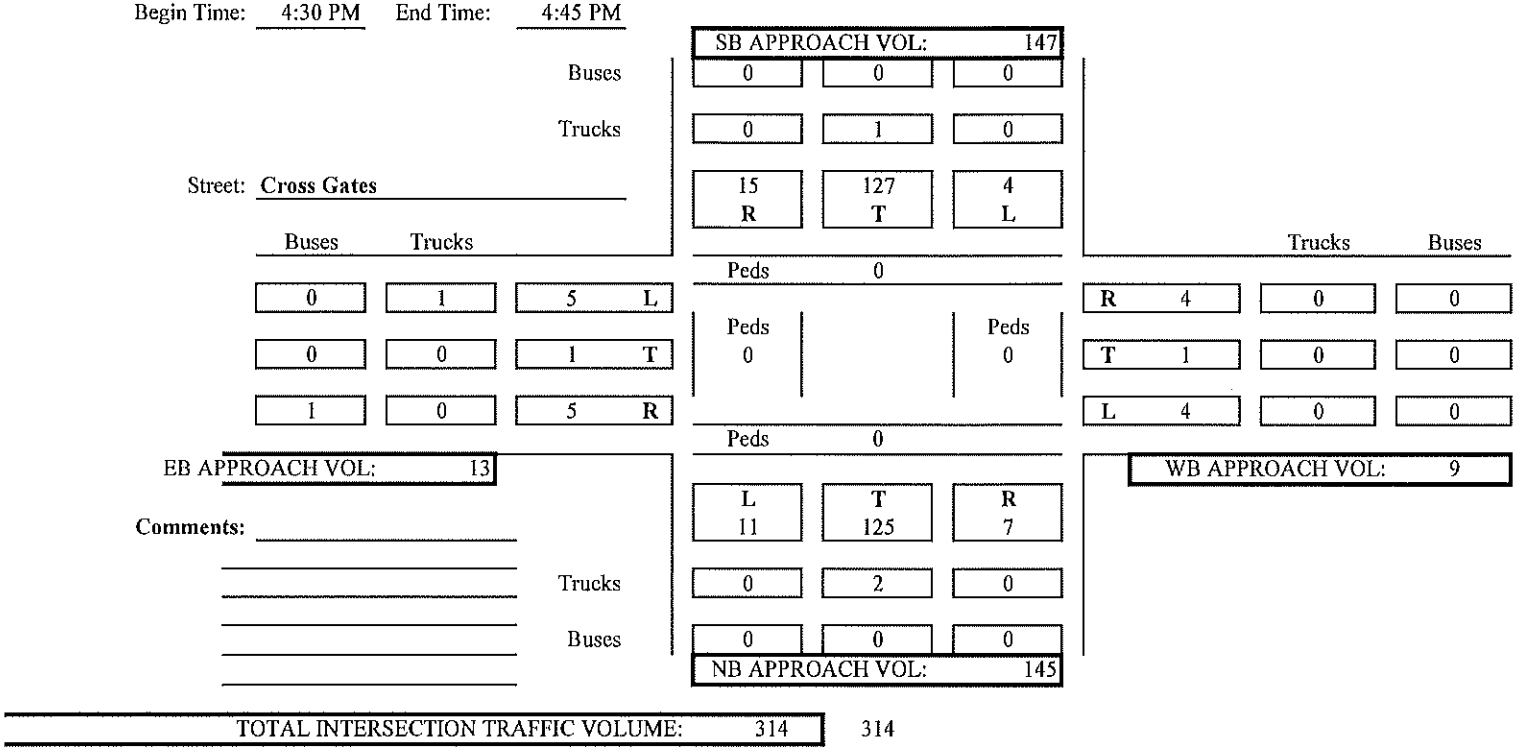
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 4:30 PM End Time: 4:45 PM



TOTAL INTERSECTION TRAFFIC VOLUME: 314 314

Peak-Hour Traffic Count Summary Sheet

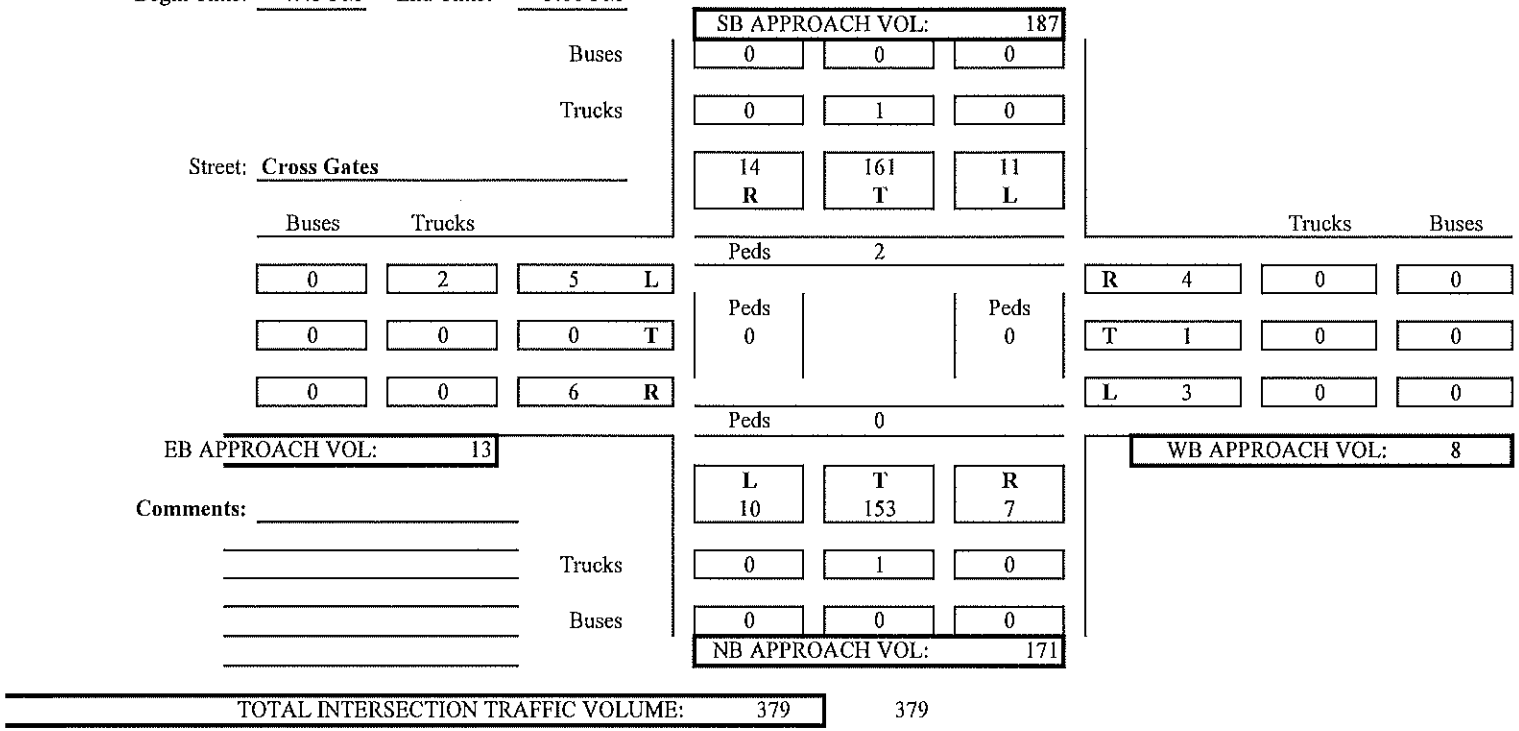
Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Count Date: 5/1/2019

Begin Time: 4:45 PM End Time: 5:00 PM

Street: **Military Rd.**

N



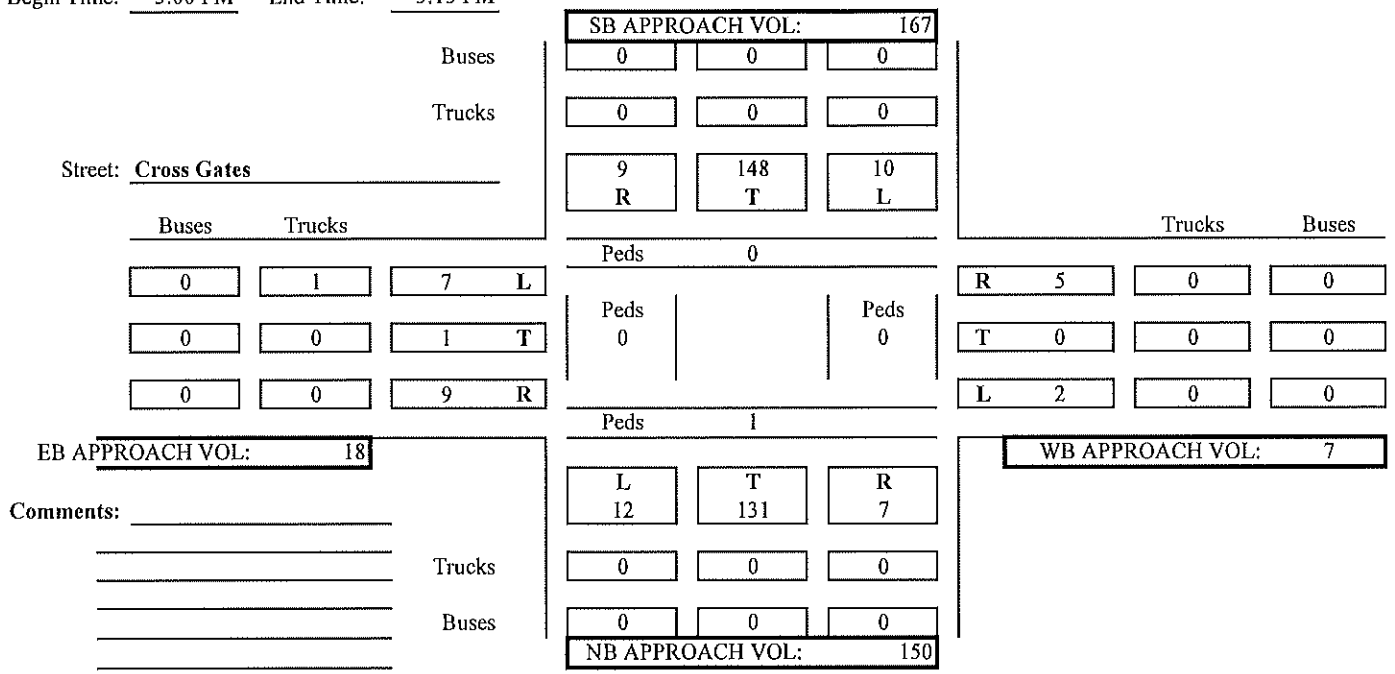
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 5:00 PM End Time: 5:15 PM



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 342 342

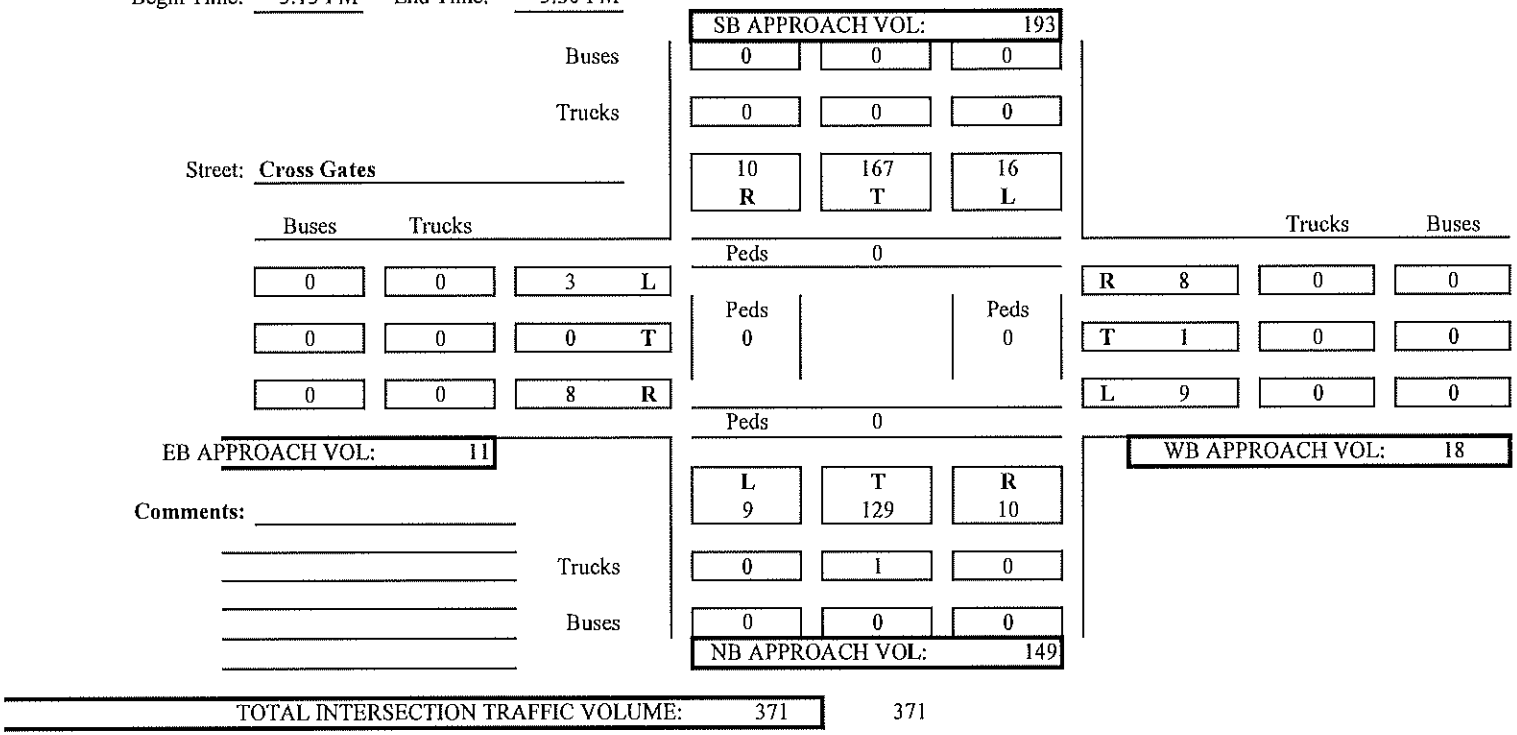
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 5:15 PM End Time: 5:30 PM



TOTAL INTERSECTION TRAFFIC VOLUME: 371 371

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Count Date: 5/1/2019

Begin Time: 5:30 PM End Time: 5:45 PM

Street: **Military Rd.**

Street: **Cross Gates**

	Buses	Trucks		
EB	0	0	17	L
	0	0	1	T
	0	0	13	R
EB APPROACH VOL: 31				

Comments:

SB APPROACH VOL: 169			
Buses	0	0	0
Trucks	0	0	0
	16 R	149 T	4 L
Peds	1		
Peds 0			Peds 1
Peds	0		
Buses	0	0	0
Trucks	0	0	0
	L 13	T 140	R 5
NB APPROACH VOL: 158			

	Trucks	Buses	
R	6	0	0
T	1	0	0
L	1	0	0

WB APPROACH VOL: 8

TOTAL INTERSECTION TRAFFIC VOLUME: 366 366

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.**

Count Date: 5/1/2019

Begin Time: 5:45 PM End Time: 6:00 PM

			SB APPROACH VOL: 164					
		Buses	0	0	0			
		Trucks	0	2	0			
Street: **Cross Gates**			18 R	140 T	4 L			
Buses	Trucks		Peds 1			Trucks	Buses	
0	0	8 L				R 4	0	0
0	0	0 T	Peds 0		Peds 0	T 0	0	0
0	0	10 R				L 4	2	0
			Peds 0					
EB APPROACH VOL: 18						WB APPROACH VOL: 10		
			L 15	T 133	R 3			
Comments:		Trucks	0	0	0			
		Buses	0	0	0			
			NB APPROACH VOL: 151					

TOTAL INTERSECTION TRAFFIC VOLUME: 343 343

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd Traffic Study** Job No.: **NO.19.005**

Peak Period:

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 7:00 AM End Time: 7:15 AM

SB APPROACH VOL: 145

Buses	3	1	0
Trucks	0	0	0
	99 R	39 T	3 L

Street: **Gause Blvd.**

Buses	Trucks			Peds	0		Trucks	Buses
1	0	22	L			R	2	0	0
1	0	8	T	Peds 0	Peds 0	T	43	0	0
0	1	15	R			L	3	0	0
				Peds	0				

EB APPROACH VOL: 48

WB APPROACH VOL: 48

Comments:

	L 60	T 41	R 2
Trucks	0	0	0
Buses	5	4	0

NB APPROACH VOL: 112

TOTAL INTERSECTION TRAFFIC VOLUME: 353 353

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd Traffic Study** Job No.: NO.19.005

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 7:15 AM End Time: 7:30 AM

Street: **Gause Blvd.**

SB APPROACH VOL: 146

Buses	0	0	0
Trucks	0	0	0
	98 R	46 T	2 L
Peds	0		

Buses	Trucks			Peds	Trucks	Buses
1	0	45	L	0	R 3	0 0
0	0	10	T	0	T 51	0 1
1	0	36	R	0	L 4	0 0

EB APPROACH VOL: 93

WB APPROACH VOL: 59

Peds 0

L 63	T 44	R 3
1	0	0
4	1	0

NB APPROACH VOL: 116

Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 414 414

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N ↑

Count Date: 4/17/2019

Begin Time: 7:30 AM End Time: 7:45 AM

SB APPROACH VOL: 155

SB	R	T	L
Buses	0	3	0
Trucks	0	0	1
Volume	96	55	0

Street: **Gause Blvd.**

EB	Buses	Trucks	Volume
L	3	0	39
T	1	0	7
R	5	0	75

EB APPROACH VOL: 130

WB	Volume	Trucks	Buses
R	5	0	0
T	20	0	1
L	5	0	0

WB APPROACH VOL: 31

Peds 0 (north leg); Peds 0 (west leg); Peds 0 (east leg); Peds 0 (south leg)

NB	L	T	R
Volume	53	36	1
Trucks	1	0	0
Buses	0	0	0

NB APPROACH VOL: 91

Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 407 407

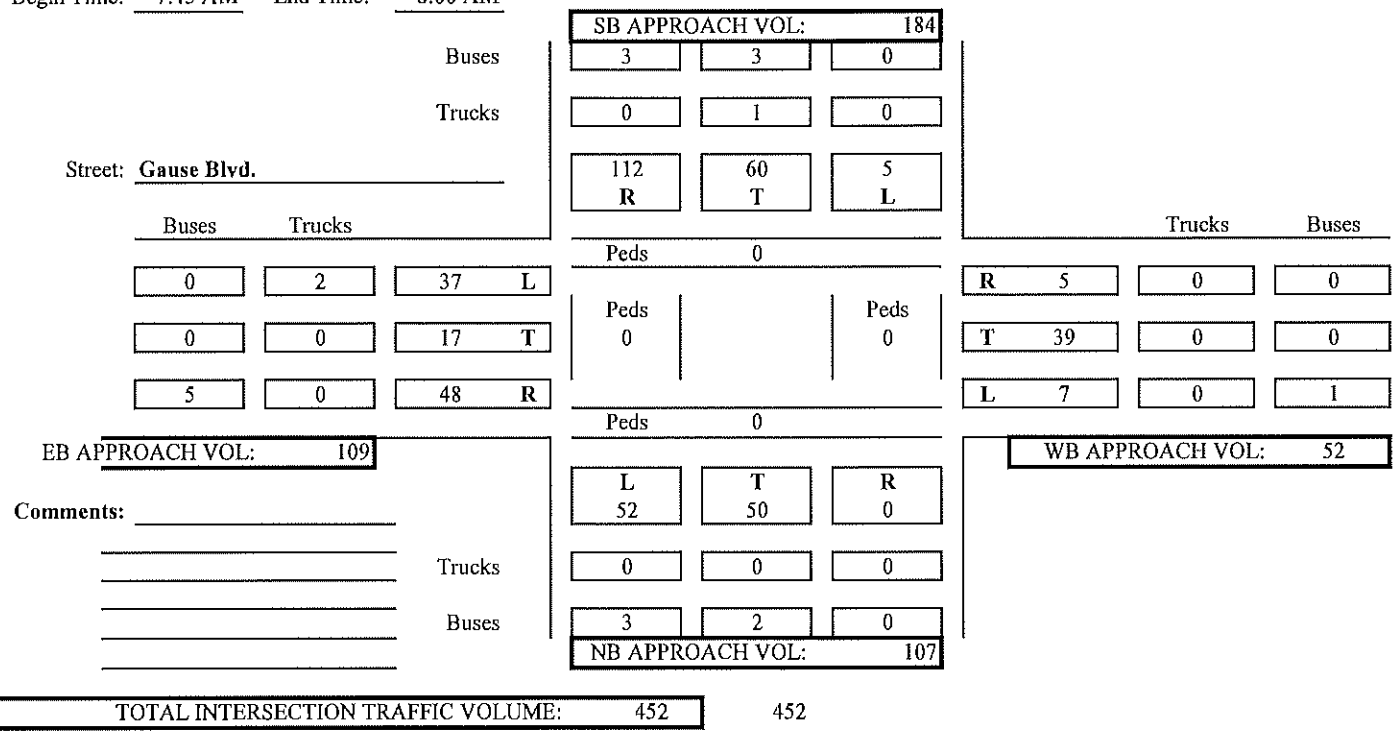
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 7:45 AM End Time: 8:00 AM



TOTAL INTERSECTION TRAFFIC VOLUME: 452 452

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 8:00 AM End Time: 8:15 AM

SB APPROACH VOL: 200

Buses: 1	2	0
Trucks: 1	0	0
114 R	79 T	3 L
Peds: 0		

Street: **Gause Blvd.**

Buses	Trucks		
1	0	62	L
1	1	17	T
1	0	68	R

Peds: 0 | Peds: 0

Peds: 0

EB APPROACH VOL: 151

L 52	T 65	R 1
Trucks: 0	0	0
Buses: 5	6	1

NB APPROACH VOL: 130

Trucks	Buses		
0	0	R	2
0	1	T	27
0	1	L	5

WB APPROACH VOL: 36

Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 517 517

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd Traffic Study** Job No.: **NO.19.005**

Count Date: 4/17/2019

Begin Time: 8:15 AM End Time: 8:30 AM

Street: **Military Rd.** N

Street: **Gause Blvd.**

				SB APPROACH VOL:		163					
			Buses	1	0	0					
			Trucks	1	0	0					
				96 R	62 T	3 L					
Buses	Trucks			Peds 0					Trucks	Buses	
1	1	49 L						R 3	0	0	
0	1	12 T		Peds 0		Peds 0		T 29	1	2	
1	0	27 R						L 5	0	0	
				Peds 0							
EB APPROACH VOL:		92						WB APPROACH VOL:		40	
				L 53	T 93	R 0					
Comments:			Trucks	0	0	0					
			Buses	5	0	1					
				NB APPROACH VOL:		152					

TOTAL INTERSECTION TRAFFIC VOLUME: 447 447

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.**

Count Date: 4/17/2019

Begin Time: 8:30 AM End Time: 8:45 AM

				SB APPROACH VOL: 122				
			Buses	2	1	0		
			Trucks	1	0	0		
Street: **Gause Blvd.**				86 R	29 T	3 L		
Buses	Trucks			Peds 0			Trucks	Buses
1	0	56 L		Peds 0		Peds 0	R 3	0	0
0	0	13 T					T 26	0	0
4	0	33 R					L 4	0	0
				Peds 0				
EB APPROACH VOL: 107							WB APPROACH VOL: 33	
				L 63	T 52	R 2		
Comments:			Trucks	1	0	0		
			Buses	2	0	0		
				NB APPROACH VOL: 120				

TOTAL INTERSECTION TRAFFIC VOLUME: 382 382

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 8:45 AM End Time: 9:00 AM

				SB APPROACH VOL: 170				
			Buses	0	0	0		
			Trucks	1	0	1		
Street: **Gause Blvd.**				111 R	55 T	2 L		
Buses	Trucks			Peds 0			Trucks	Buses
1	1	74 L		Peds 0		Peds 0	R 4	0	0
0	1	18 T					T 20	0	0
1	0	37 R					L 7	0	0
EB APPROACH VOL: 133				Peds 0			WB APPROACH VOL: 31		
				L 69	T 54	R 6			
Comments:			Trucks	0	0	0			
			Buses	0	0	0			
				NB APPROACH VOL: 129					

TOTAL INTERSECTION TRAFFIC VOLUME: 463 463

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Peak Period:

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 4:00 PM End Time: 4:15 PM

SB APPROACH VOL: 146

	L	T	R
Buses	1	0	0
Trucks	0	1	0
	77 R	60 T	7 L
Peds	0		

Street: **Gause**

Buses	Trucks		
2	0	103	L
3	0	28	T
3	0	66	R

Peds 0 | Peds 0 | Peds 0

EB APPROACH VOL: 205

	L	T	R
	58	77	6
Trucks	0	0	0
Buses	2	0	0

NB APPROACH VOL: 143

	Trucks	Buses
R 6	0	0
T 19	0	3
L 9	0	1

WB APPROACH VOL: 38

Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 532 532

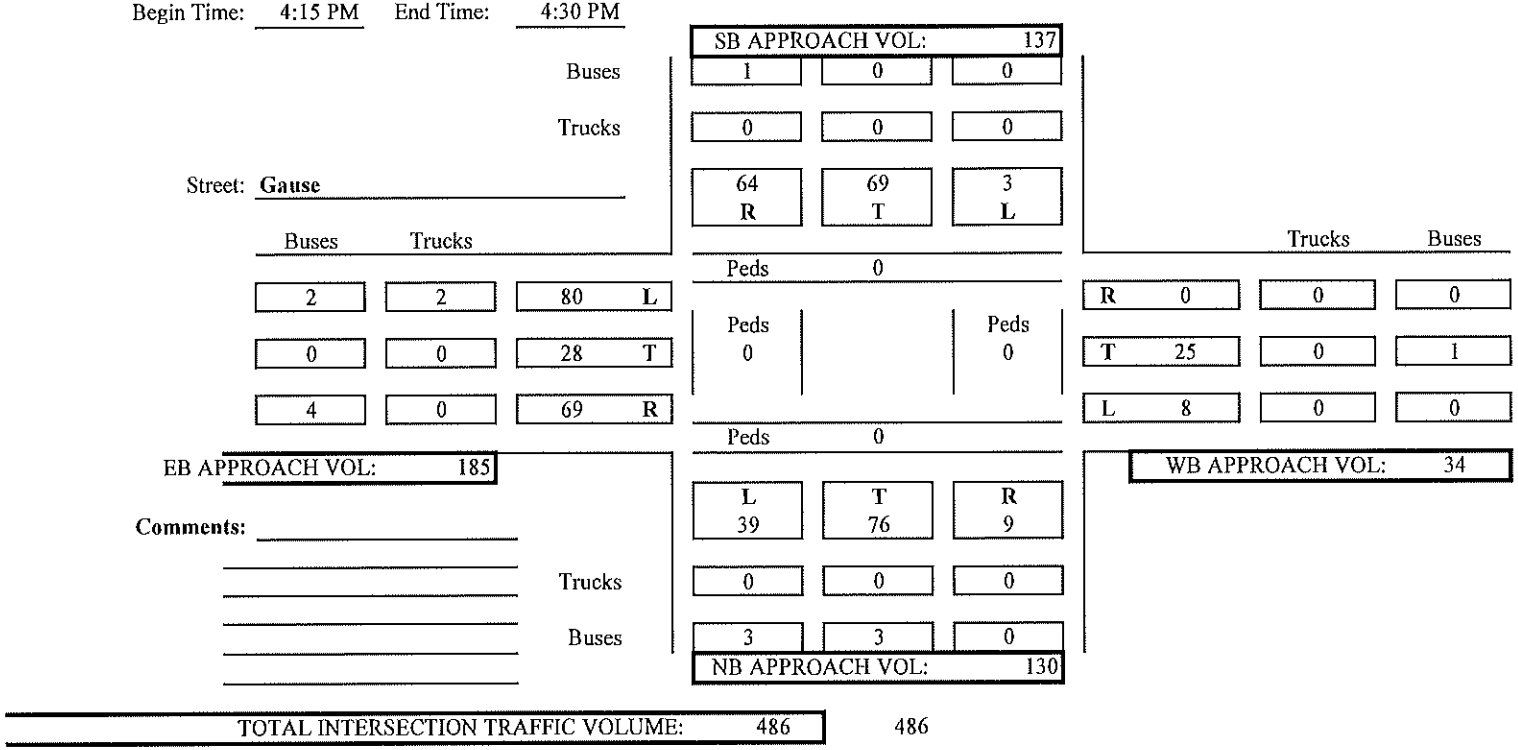
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 4:15 PM End Time: 4:30 PM



TOTAL INTERSECTION TRAFFIC VOLUME: 486 486

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Count Date: 4/17/2019

Begin Time: 4:30 PM End Time: 4:45 PM

Street: **Military Rd.**

N

Street: **Gause**

				SB APPROACH VOL: 155				
			Buses	0	0	0		
			Trucks	0	0	0		
				69 R	79 T	7 L		
Buses	Trucks			Peds 0			Trucks	Buses
0	0	97 L					R 2	0	0
0	0	44 T		Peds 0		Peds 0	T 22	0	0
0	0	67 R					L 9	0	0
				Peds 0					
EB APPROACH VOL: 208							WB APPROACH VOL: 33		
				L 58	T 62	R 10			
			Trucks	0	0	0			
			Buses	1	0	0			
				NB APPROACH VOL: 131					

Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 527 527

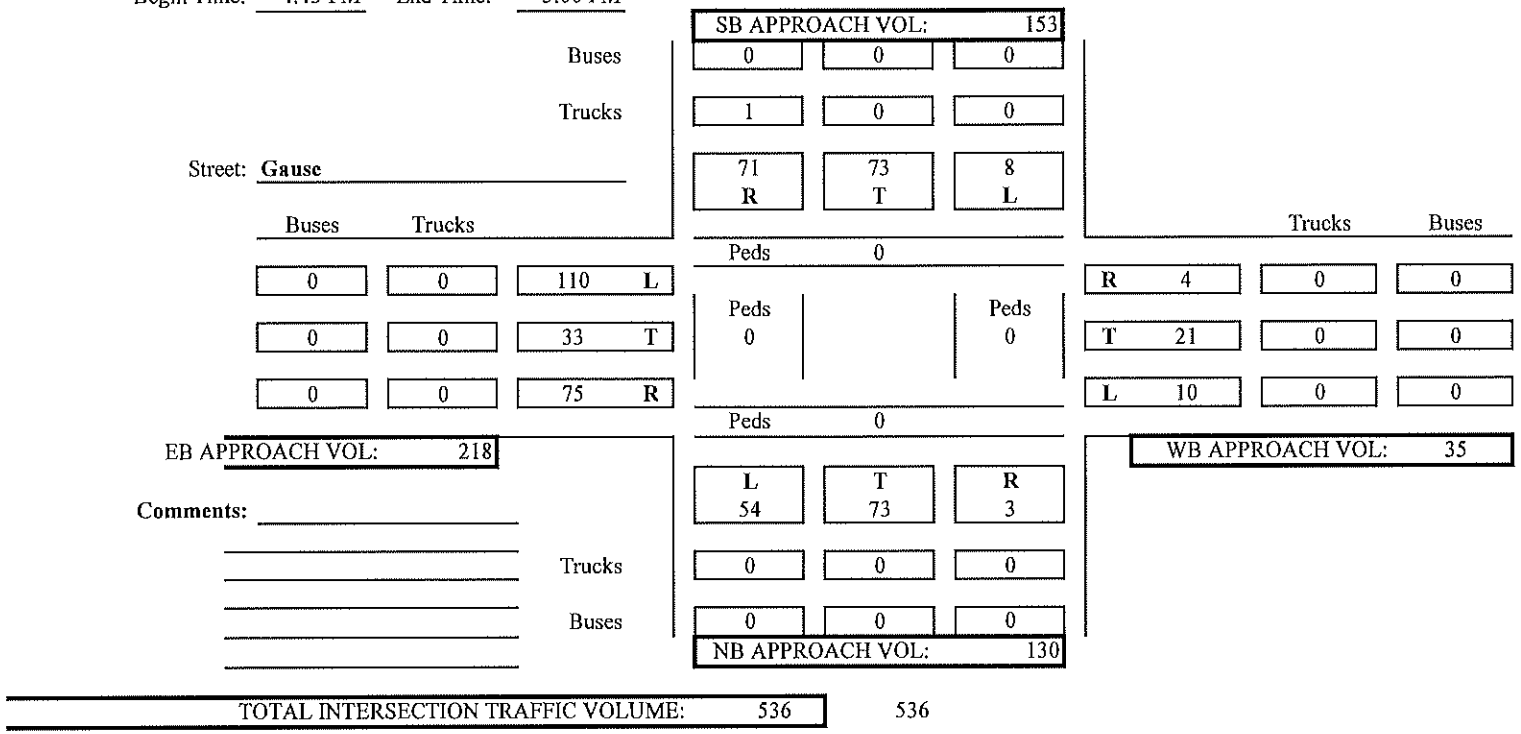
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 4:45 PM End Time: 5:00 PM



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 536 536

Peak-Hour Traffic Count Summary Sheet

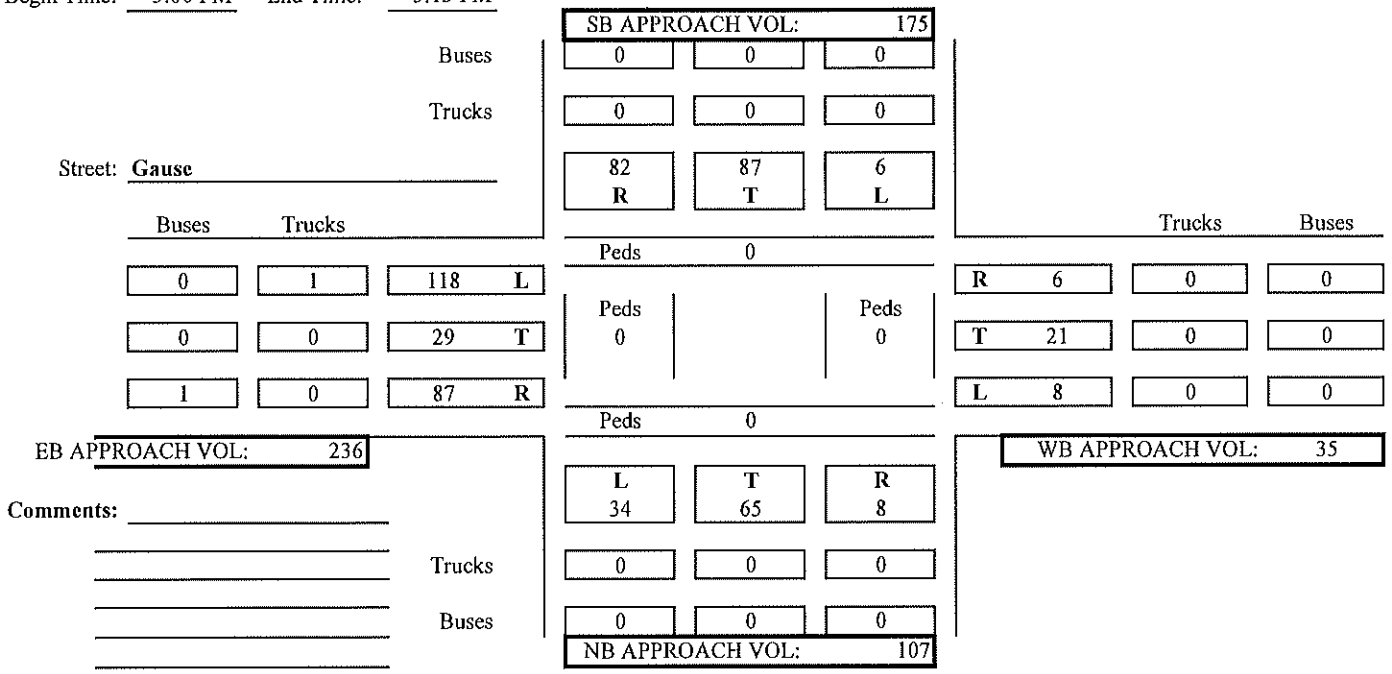
Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 5:00 PM End Time: 5:15 PM

Street: **Gause**



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 553 553

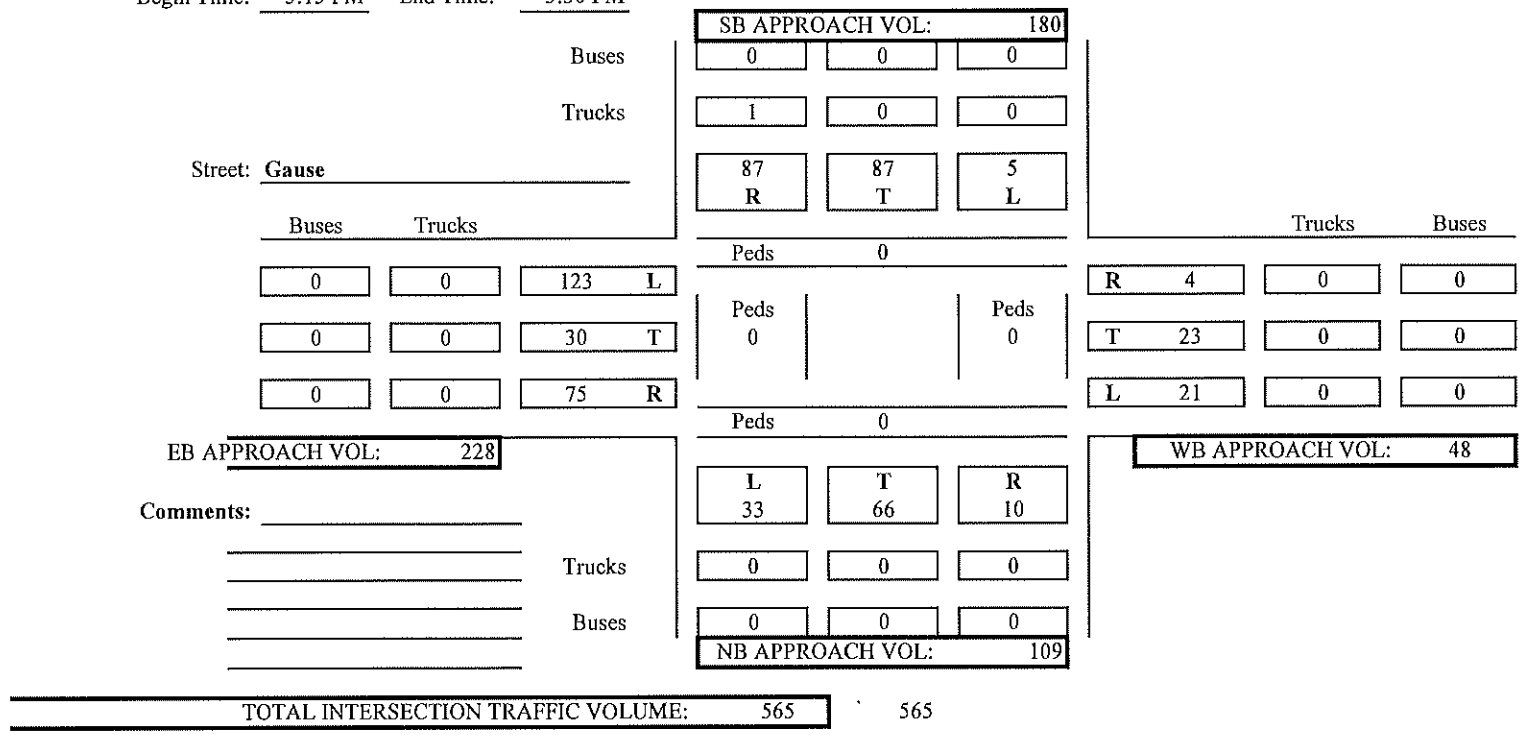
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 5:15 PM End Time: 5:30 PM



TOTAL INTERSECTION TRAFFIC VOLUME: 565 565

Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Count Date: 4/17/2019

Begin Time: 5:30 PM End Time: 5:45 PM

Street: **Military Rd.**

N

Street: **Gause**

			SB APPROACH VOL: 147					
		Buses	0	0	0			
		Trucks	0	0	0			
			79 R	65 T	3 L			
Buses	Trucks		Peds 0			Trucks	Buses	
0	0	83 L				R 2	0	0
0	0	29 T	Peds 0		Peds 0	T 31	0	0
0	0	63 R				L 17	0	0
			Peds 0					
EB APPROACH VOL: 175						WB APPROACH VOL: 50		
			L 55	T 68	R 6			
		Trucks	0	0	0			
		Buses	0	0	0			
			NB APPROACH VOL: 129					

Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 501 501

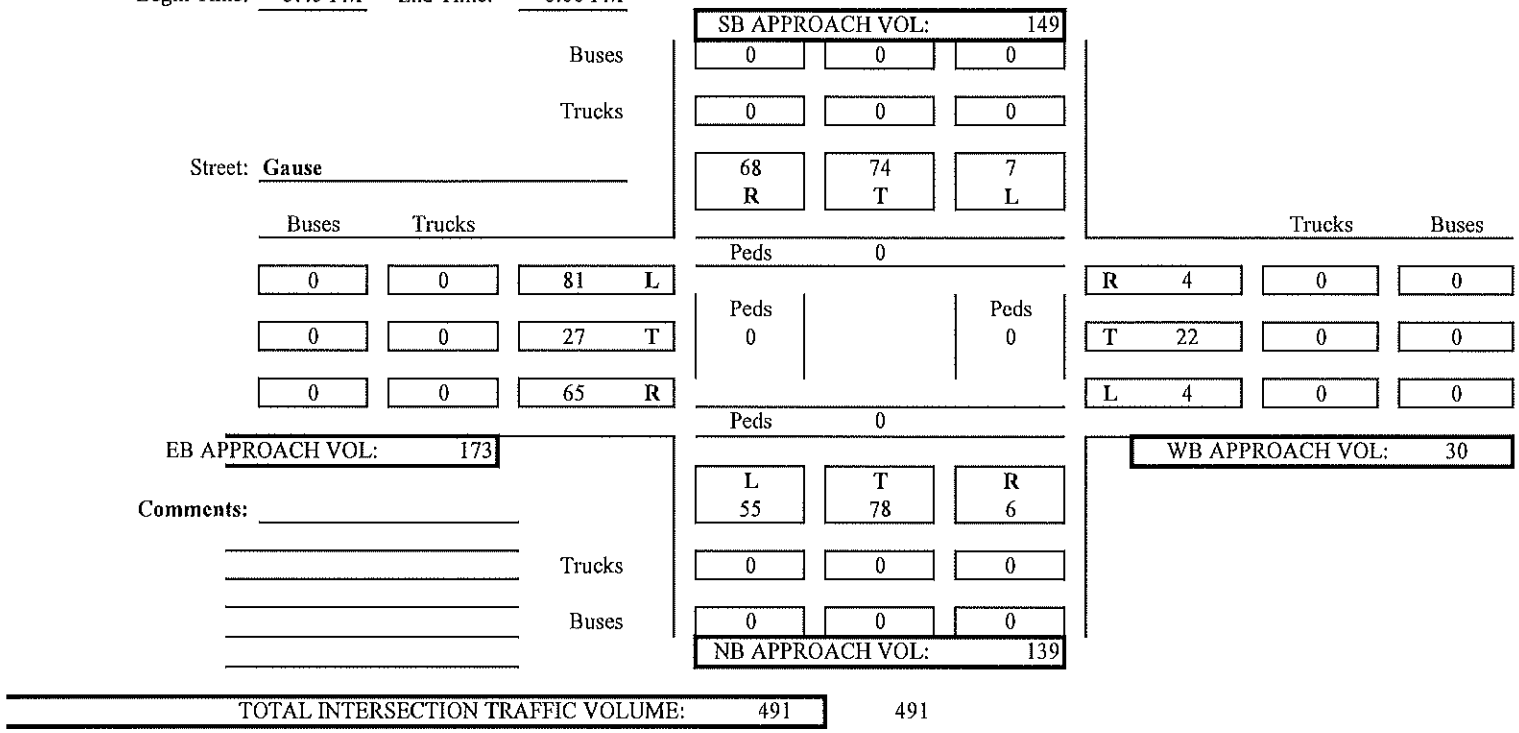
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 4/17/2019

Begin Time: 5:45 PM End Time: 6:00 PM



TOTAL INTERSECTION TRAFFIC VOLUME: 491 491

Peak-Hour Traffic Count Summary Sheet

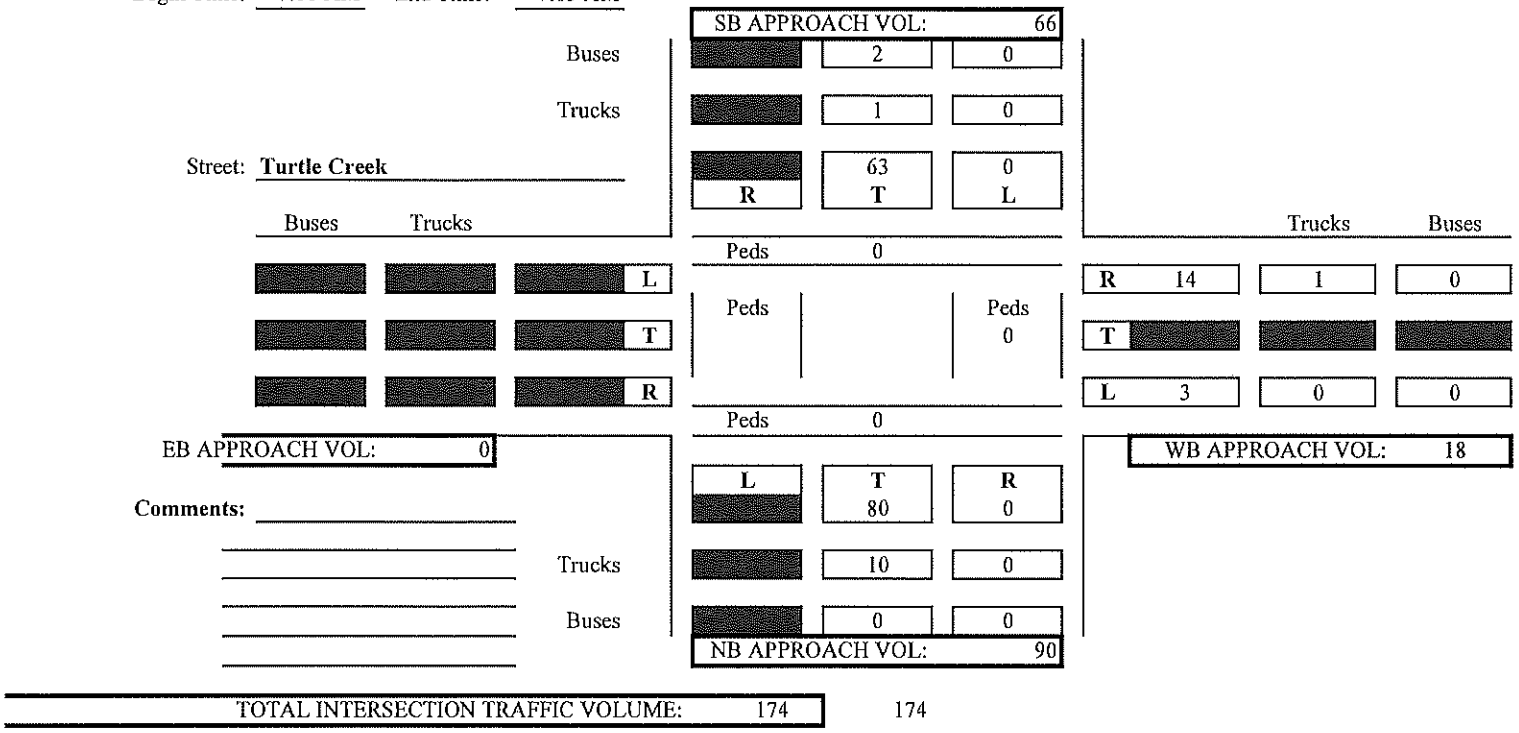
Job Name: **Military Rd. Traffic Study** Job No.: **No.19.005**

Peak Period:

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 7:00 AM End Time: 7:15 AM



TOTAL INTERSECTION TRAFFIC VOLUME: 174 174

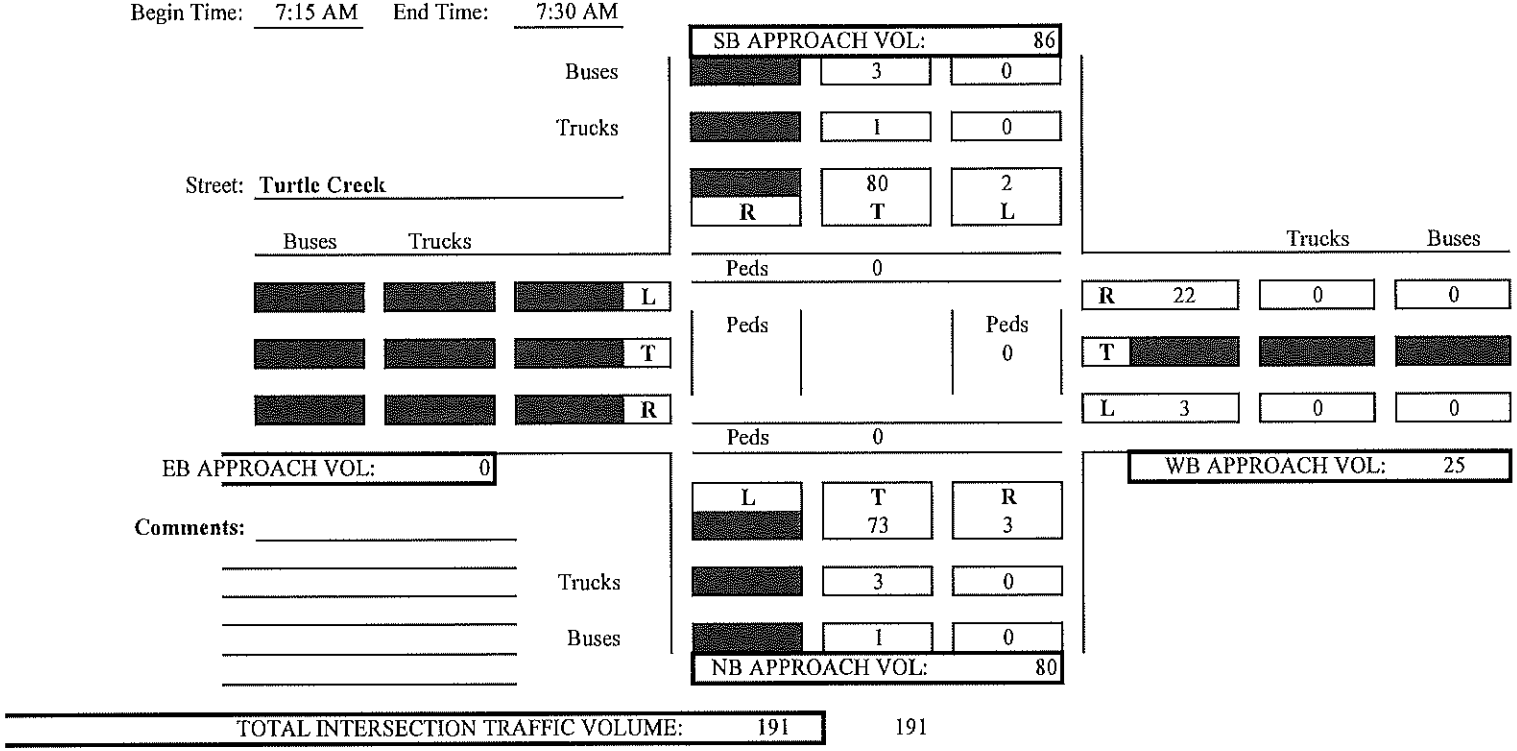
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **No.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 7:15 AM End Time: 7:30 AM



TOTAL INTERSECTION TRAFFIC VOLUME: 191 191

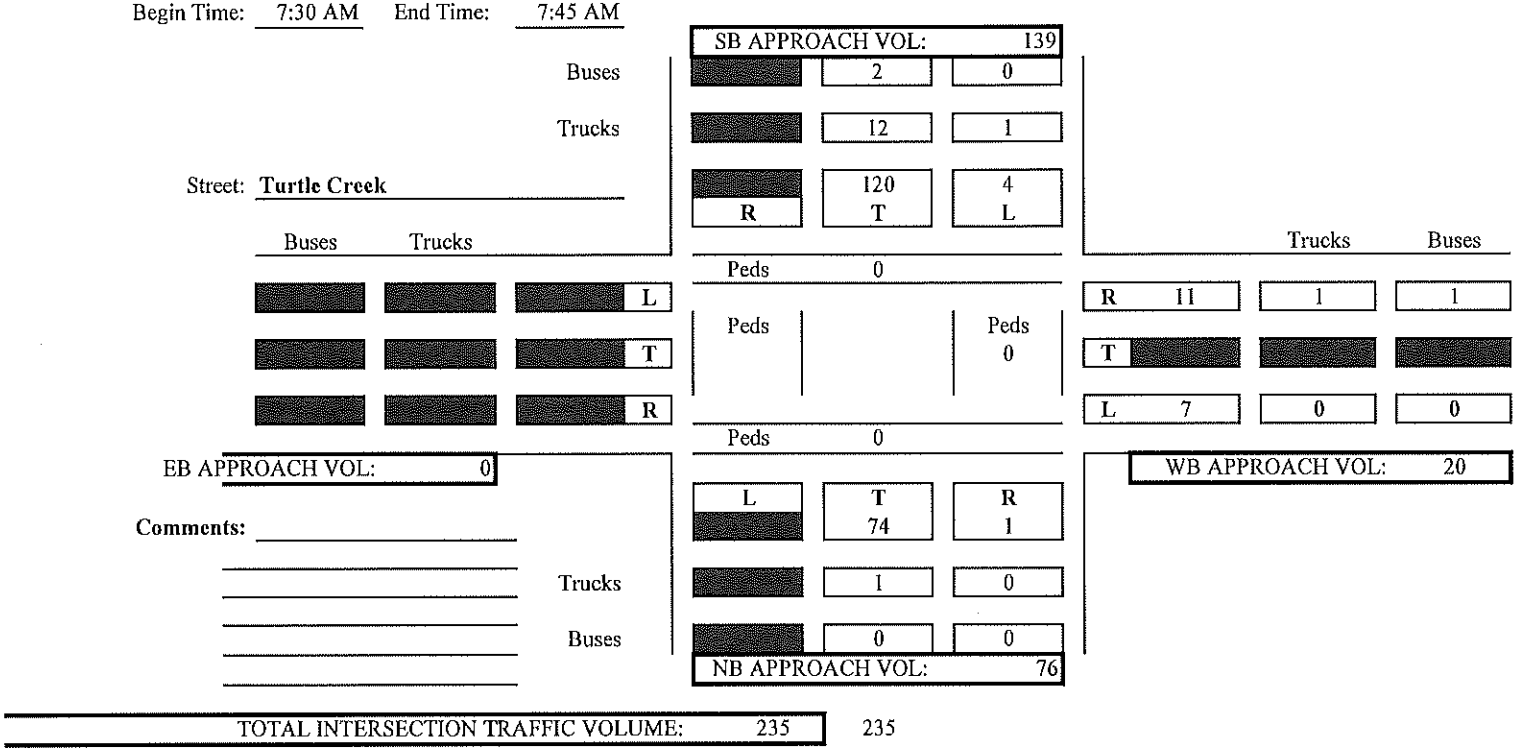
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **No.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 7:30 AM End Time: 7:45 AM



TOTAL INTERSECTION TRAFFIC VOLUME: 235 235

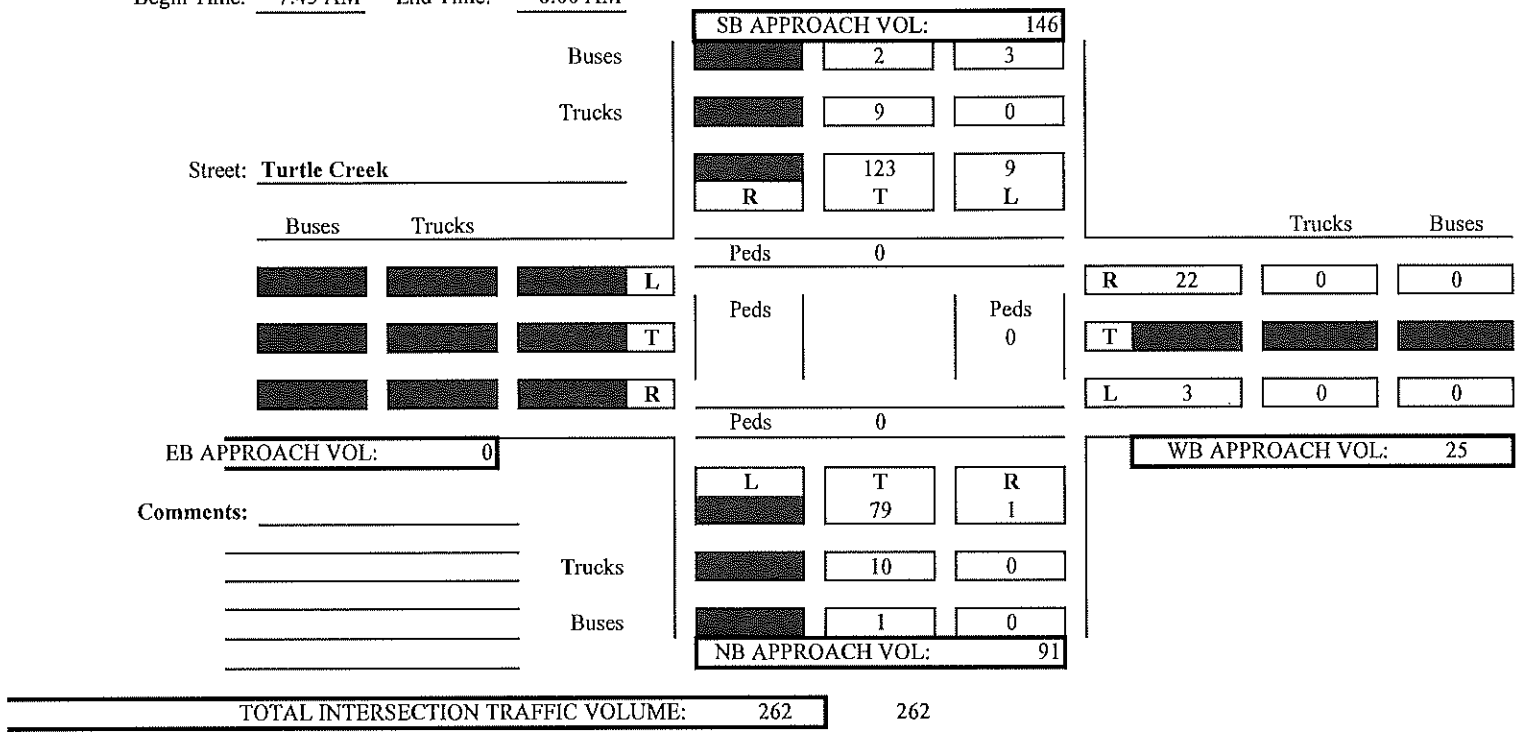
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **No.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 7:45 AM End Time: 8:00 AM



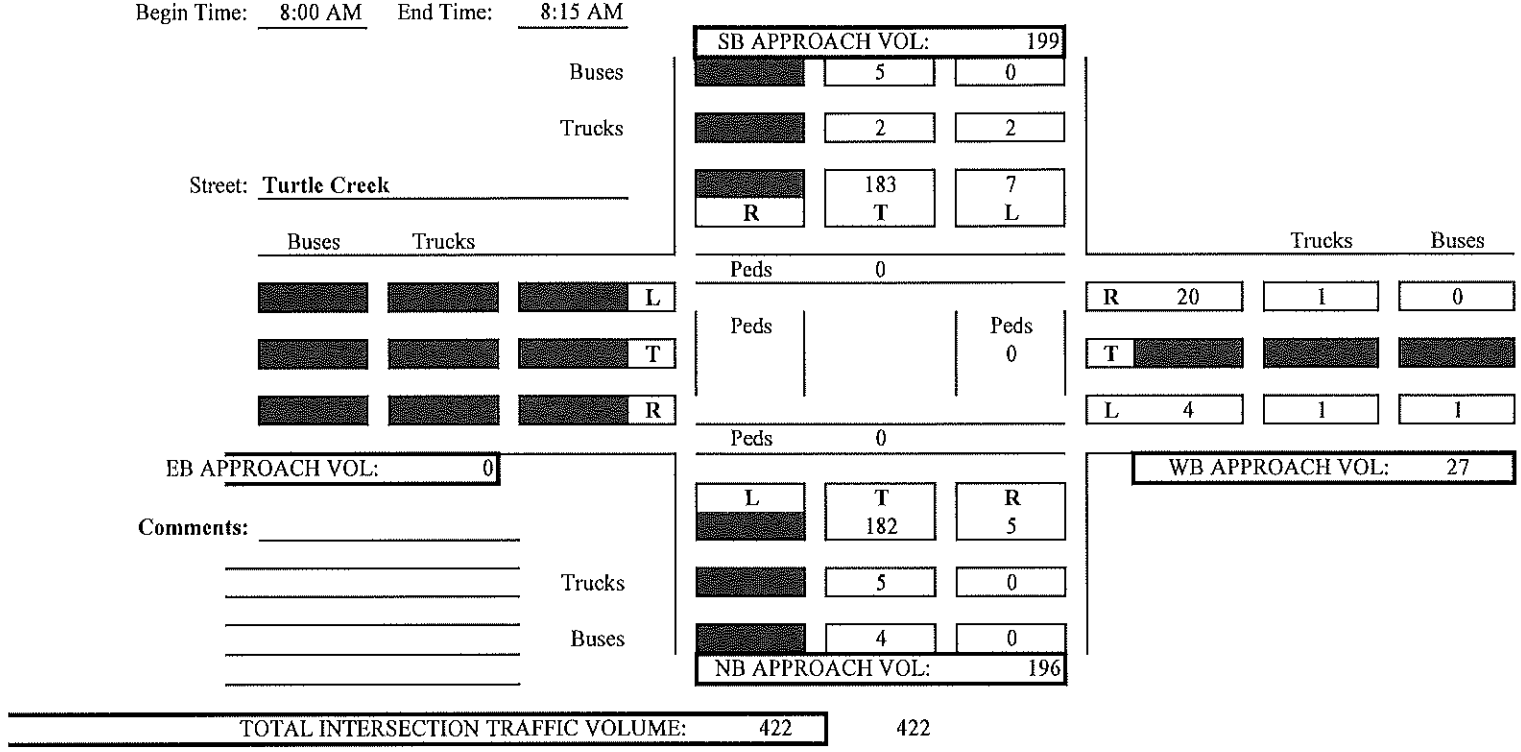
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **No.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 8:00 AM End Time: 8:15 AM



TOTAL INTERSECTION TRAFFIC VOLUME: 422 422

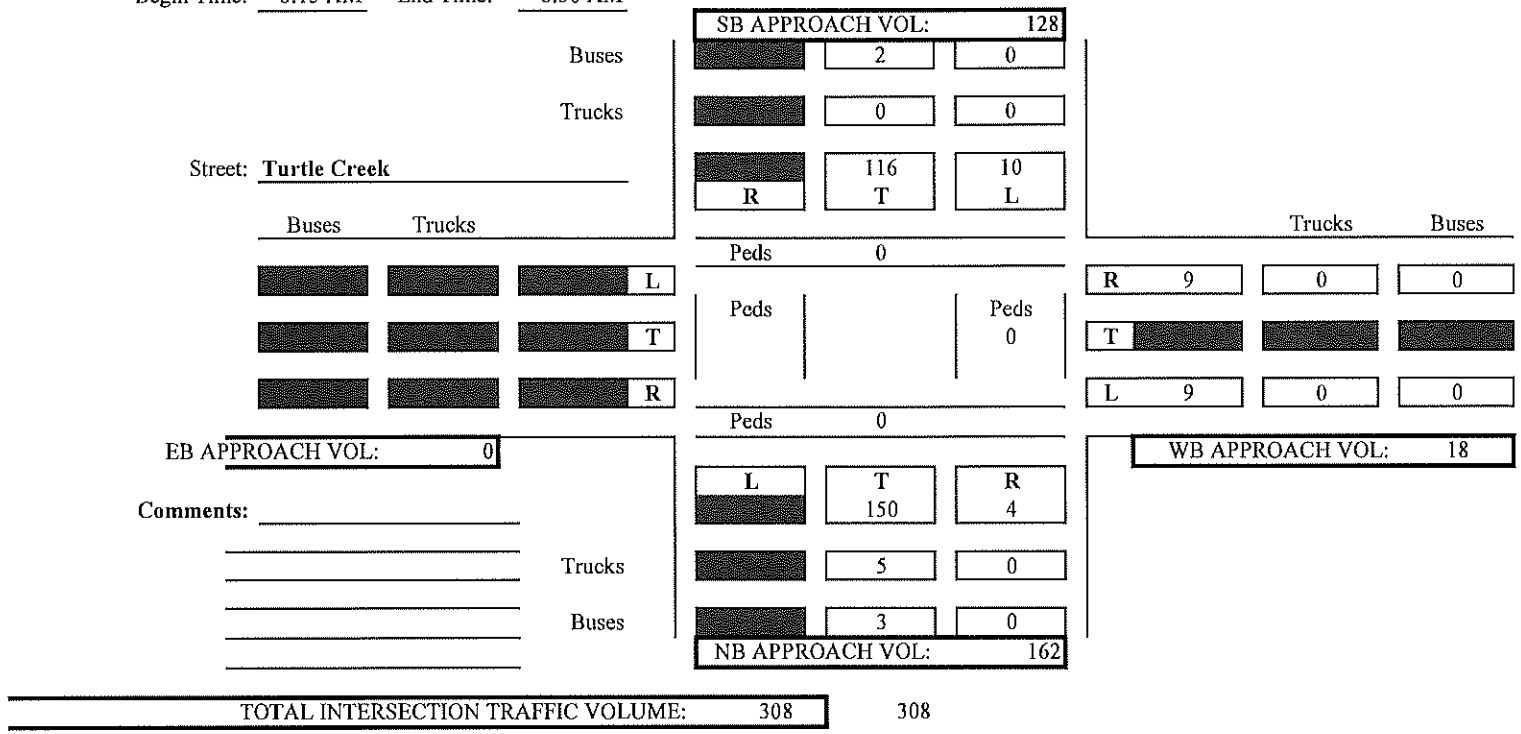
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **No.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 8:15 AM End Time: 8:30 AM



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 308 308

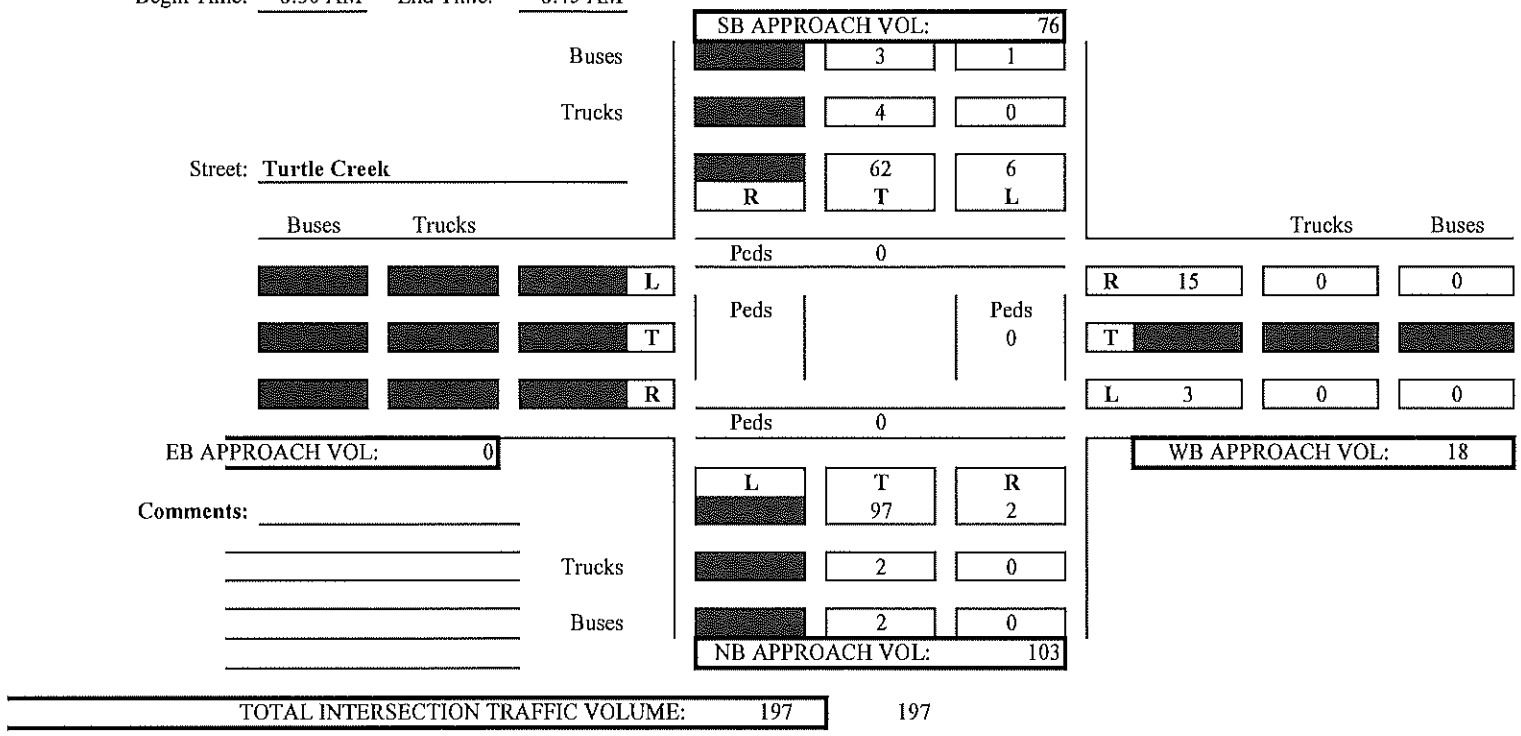
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **No.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 8:30 AM End Time: 8:45 AM



TOTAL INTERSECTION TRAFFIC VOLUME: 197 197

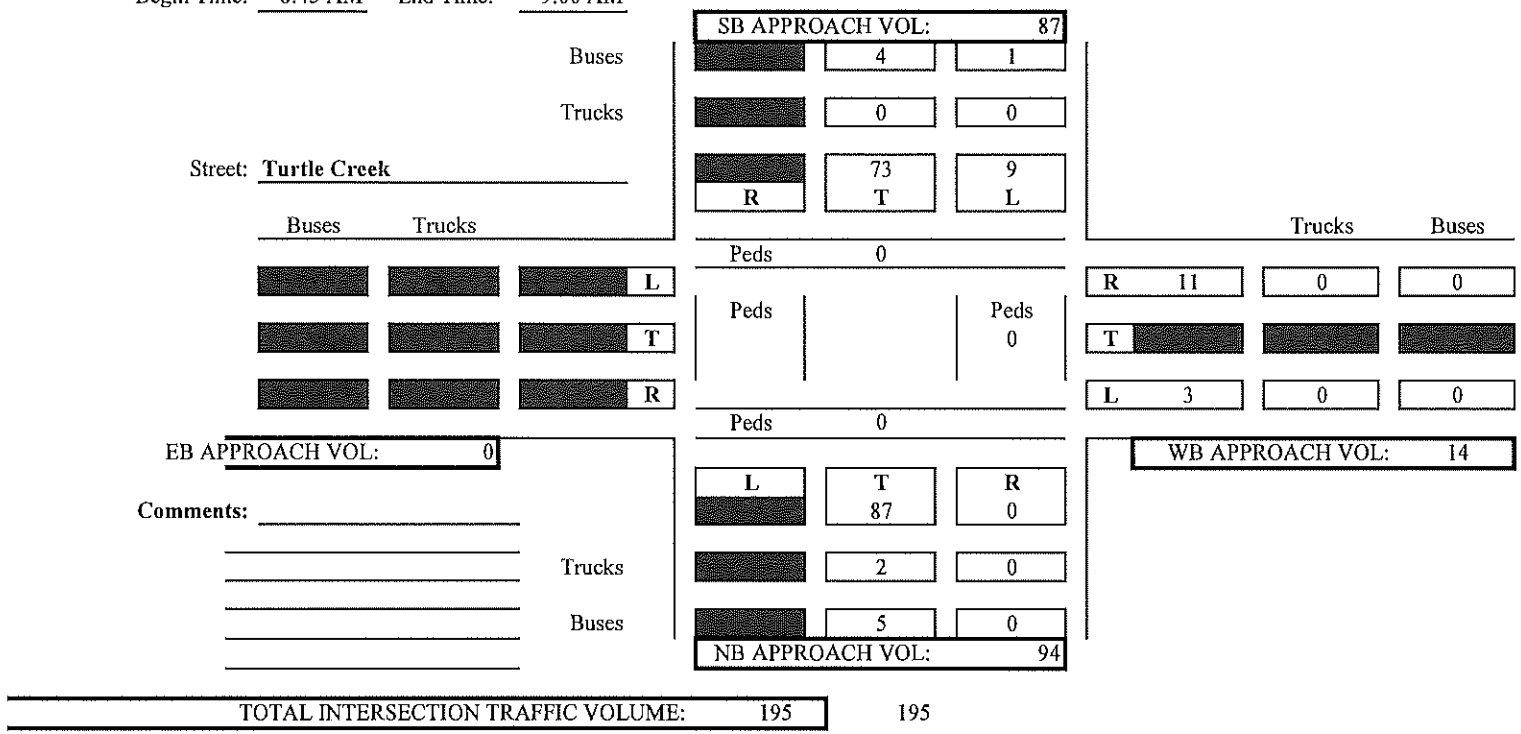
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **No.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 8:45 AM End Time: 9:00 AM



Peak-Hour Traffic Count Summary Sheet

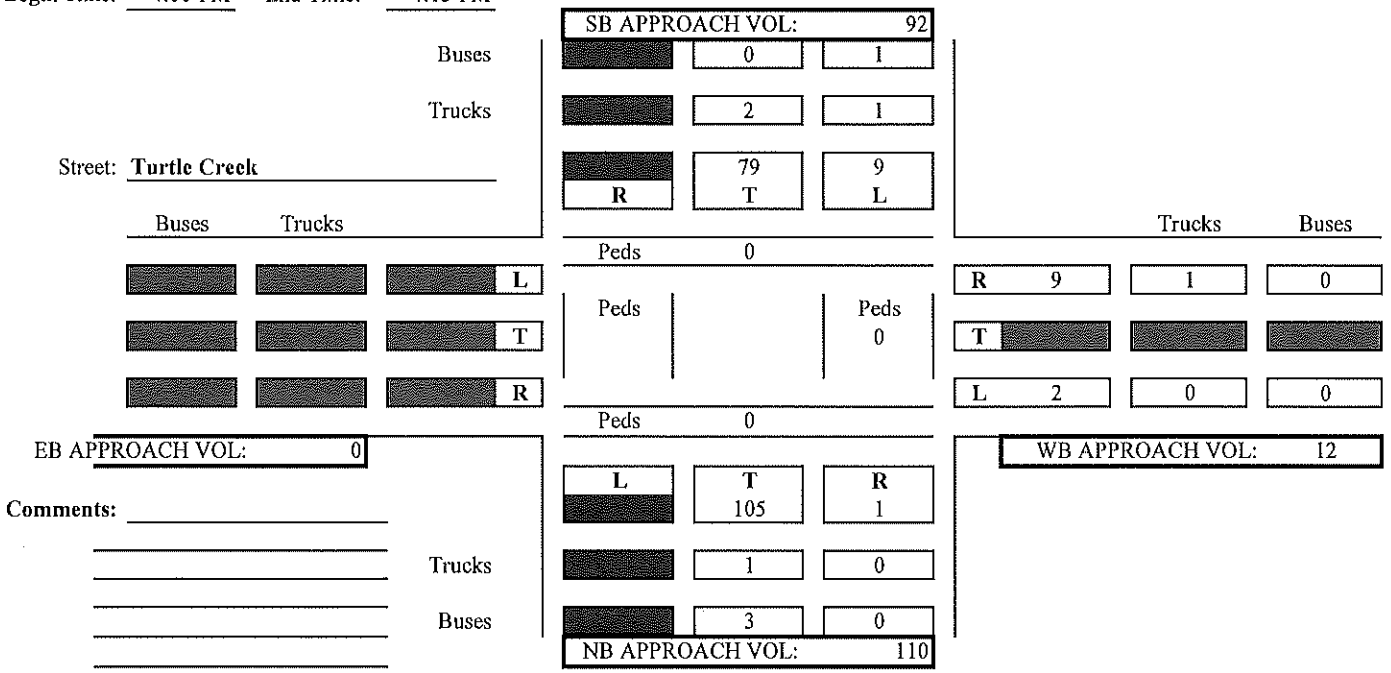
Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Peak Period:

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 4:00 PM End Time: 4:15 PM



TOTAL INTERSECTION TRAFFIC VOLUME: 214 214

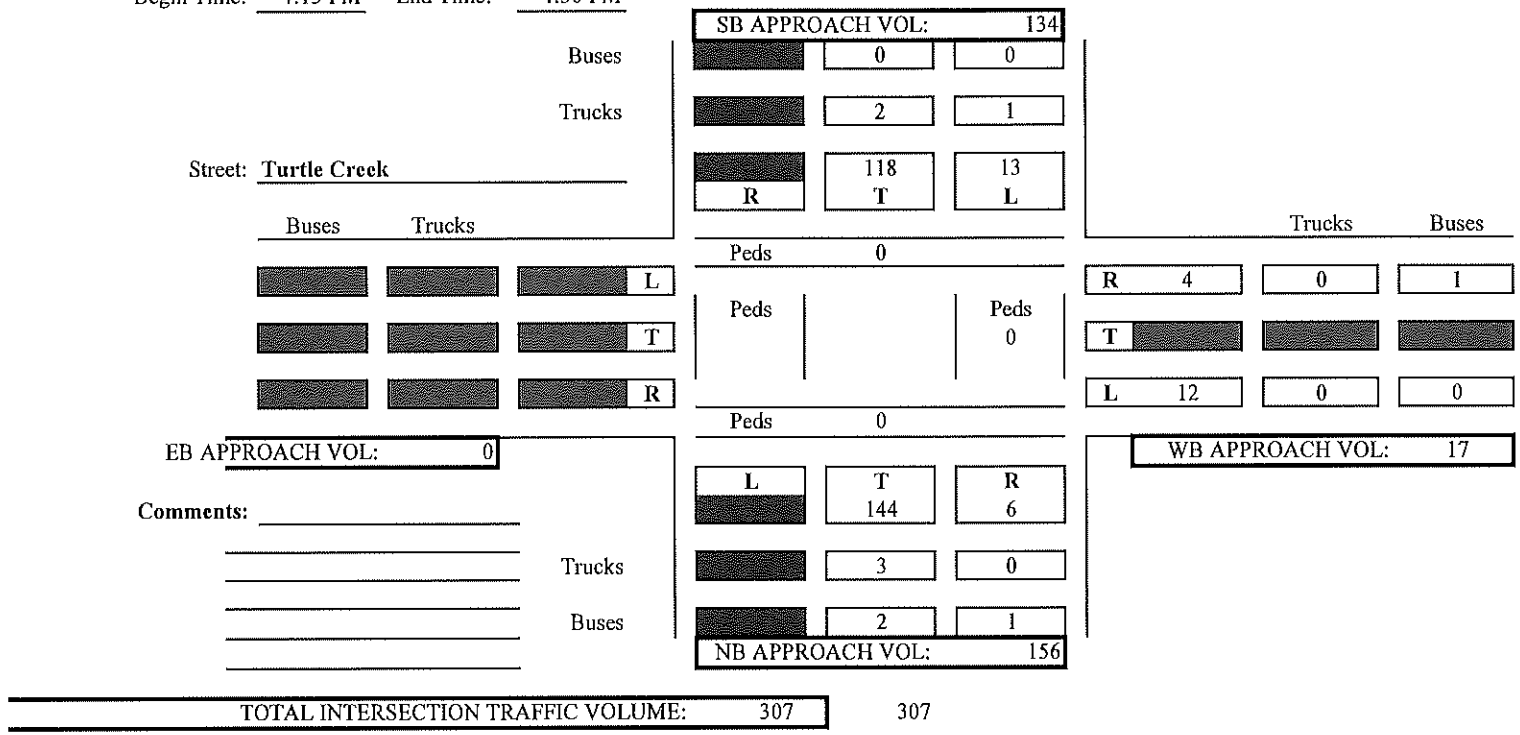
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 4:15 PM End Time: 4:30 PM



TOTAL INTERSECTION TRAFFIC VOLUME: 307 307

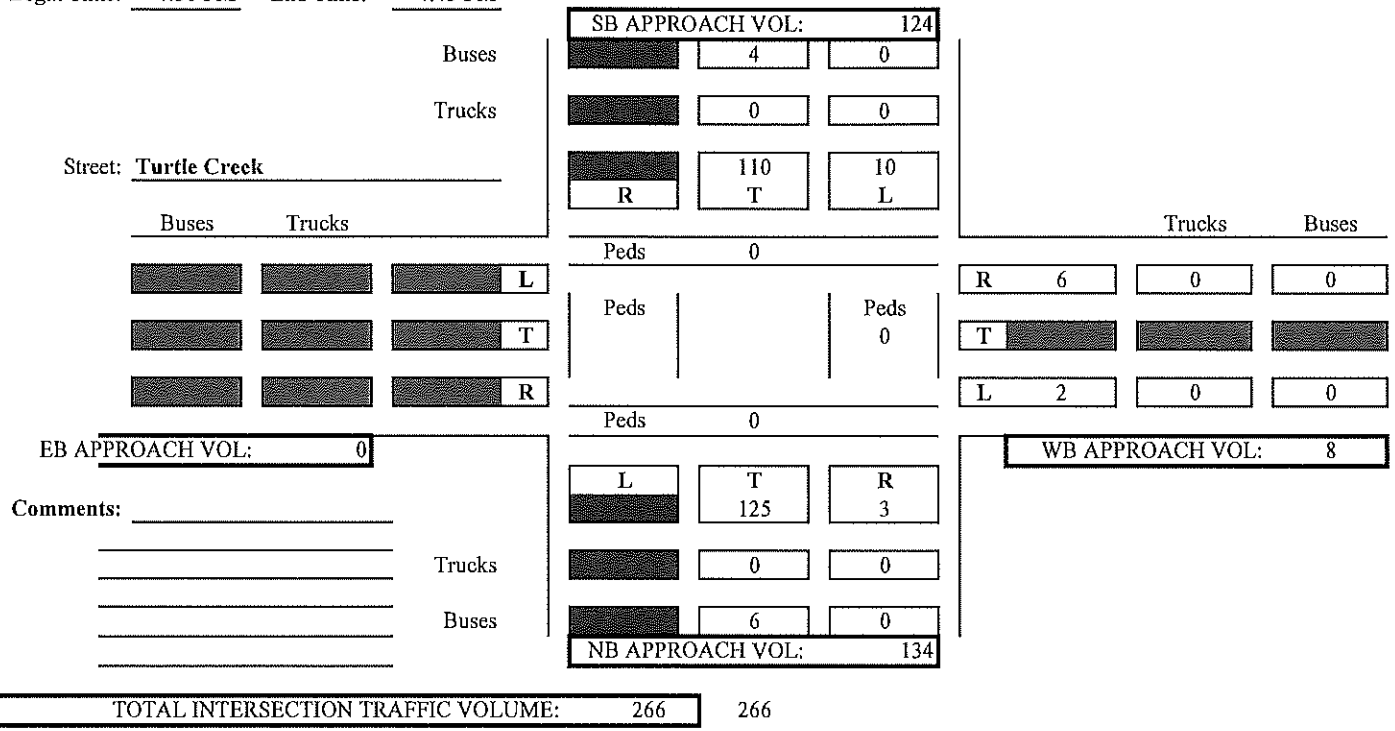
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 4:30 PM End Time: 4:45 PM



TOTAL INTERSECTION TRAFFIC VOLUME: 266 266

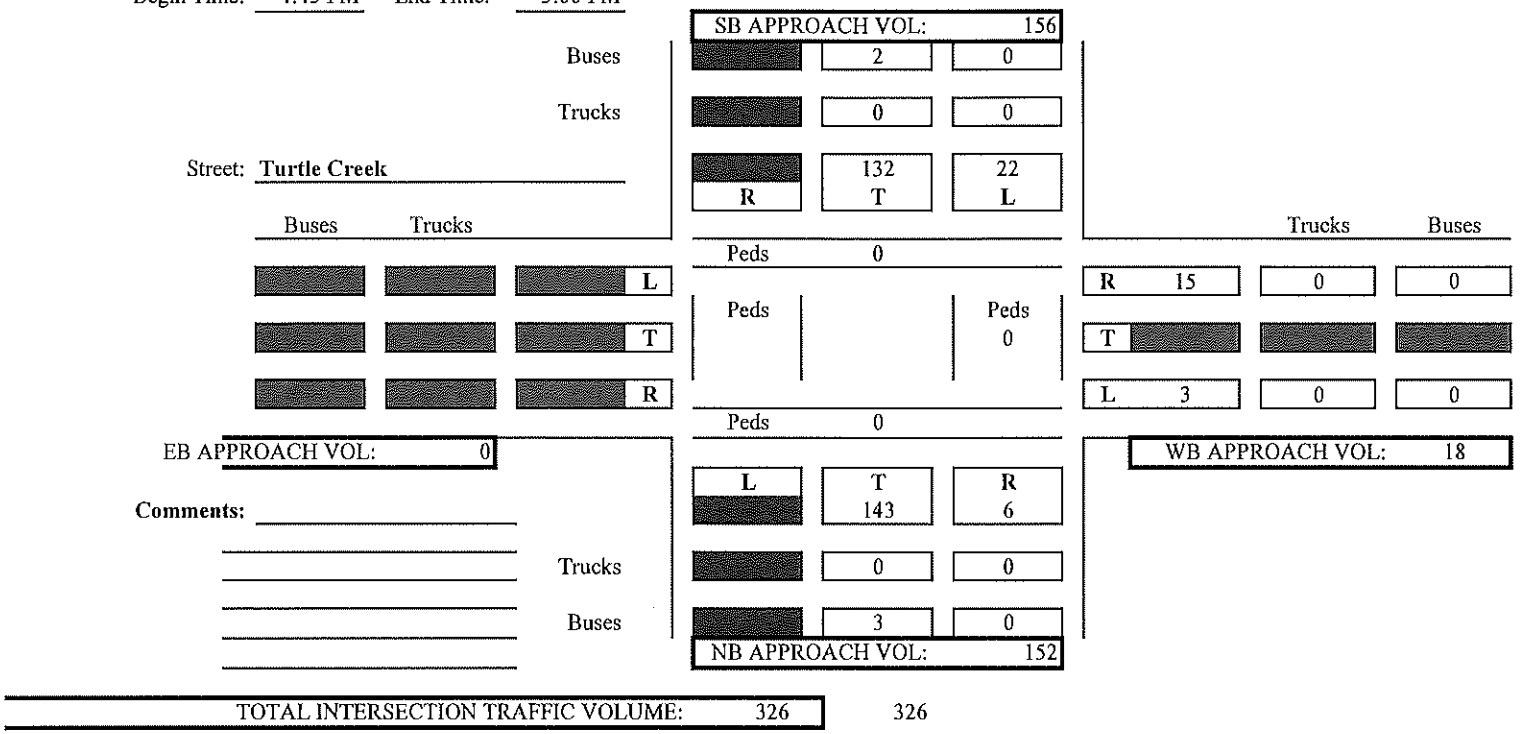
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 4:45 PM End Time: 5:00 PM



TOTAL INTERSECTION TRAFFIC VOLUME: 326 326

Peak-Hour Traffic Count Summary Sheet

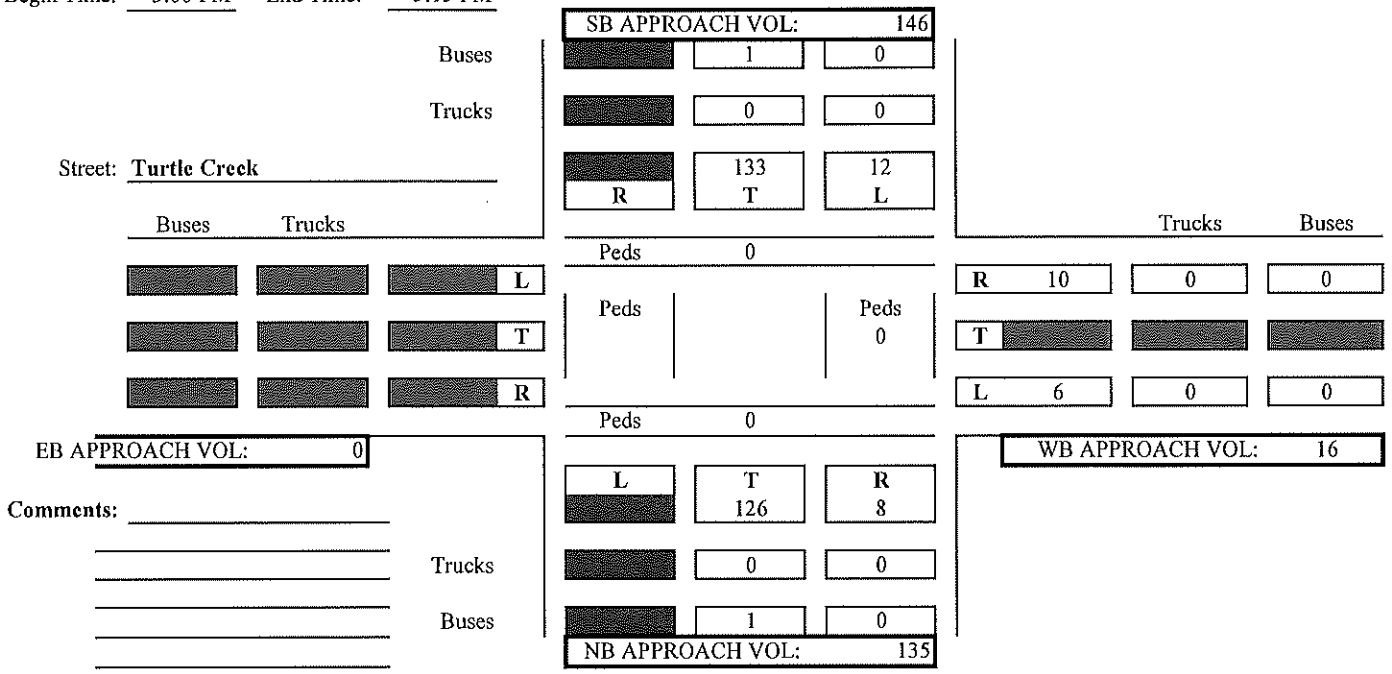
Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 5:00 PM End Time: 5:15 PM

Street: **Turtle Creek**



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 297 297

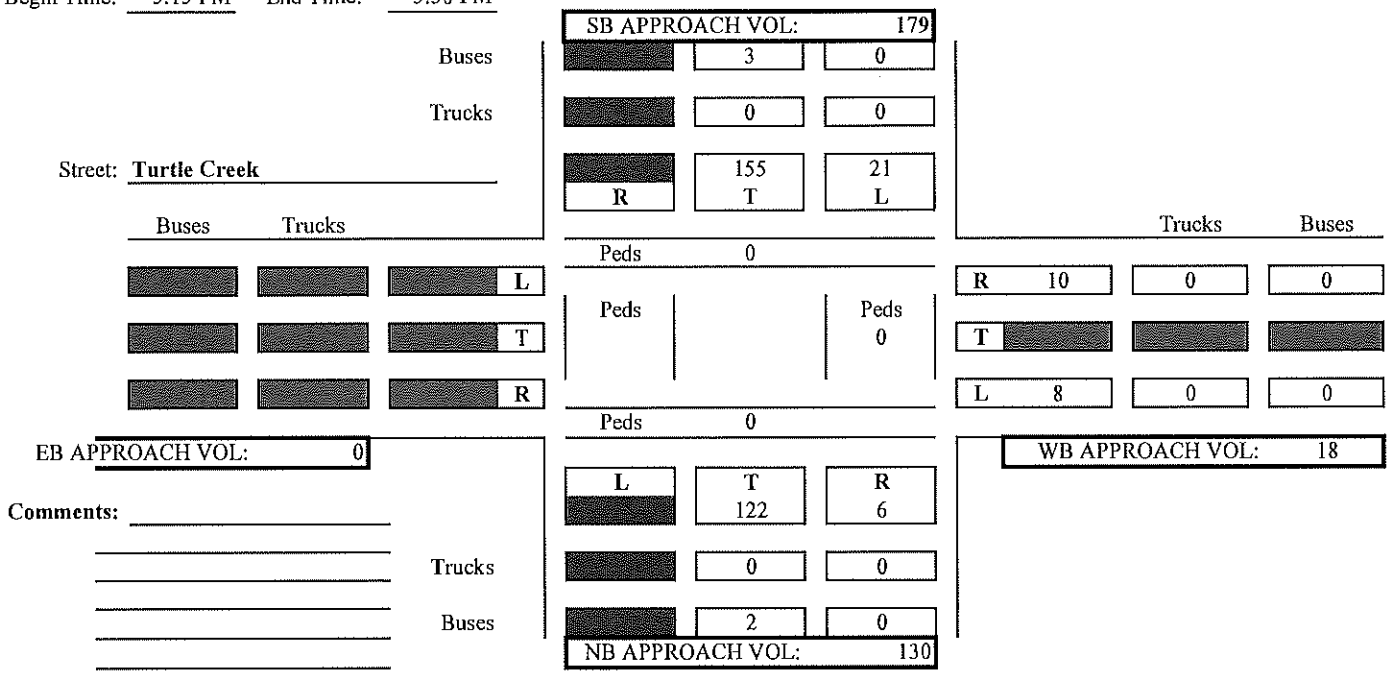
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 5:15 PM End Time: 5:30 PM



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 327 327

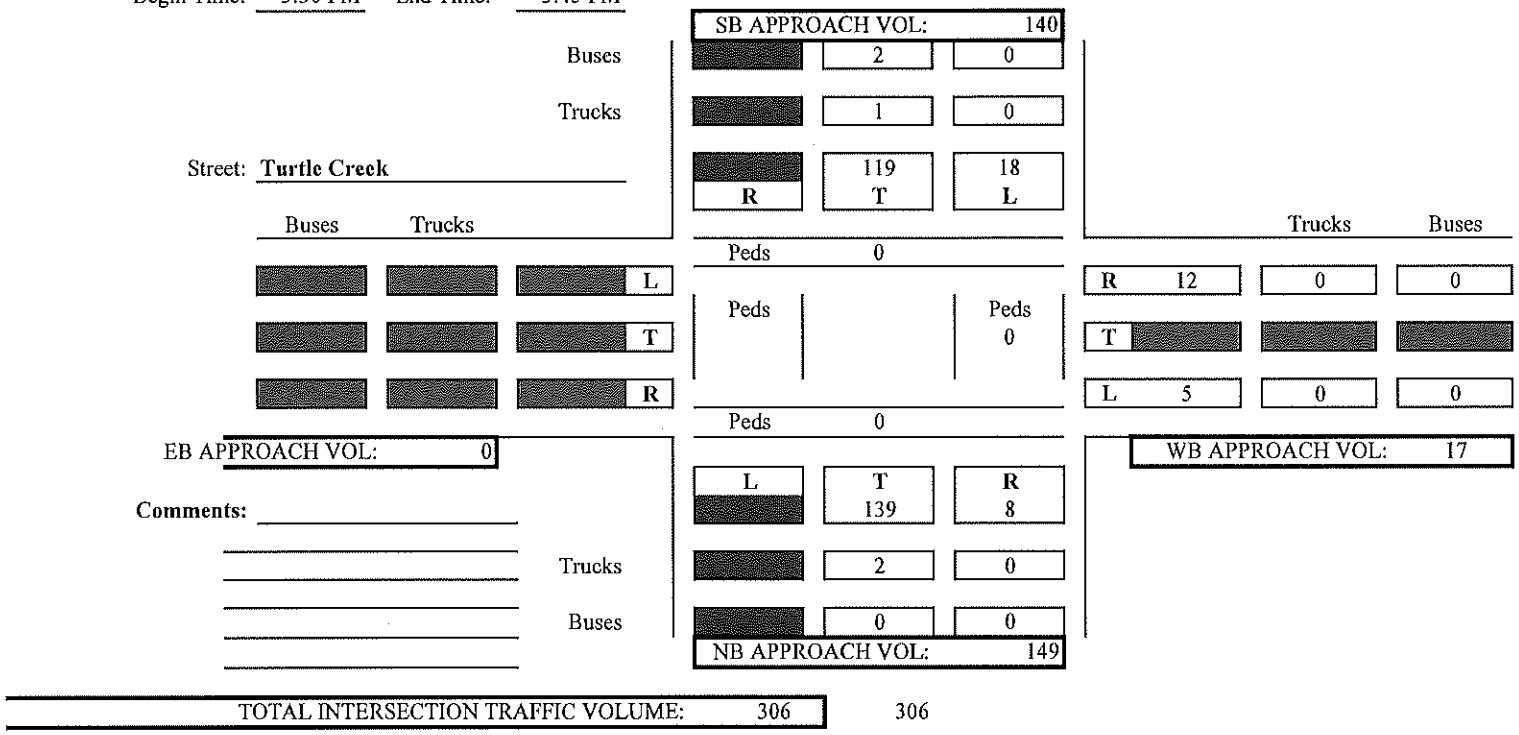
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: NO.19.005

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 5:30 PM End Time: 5:45 PM



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 306 306

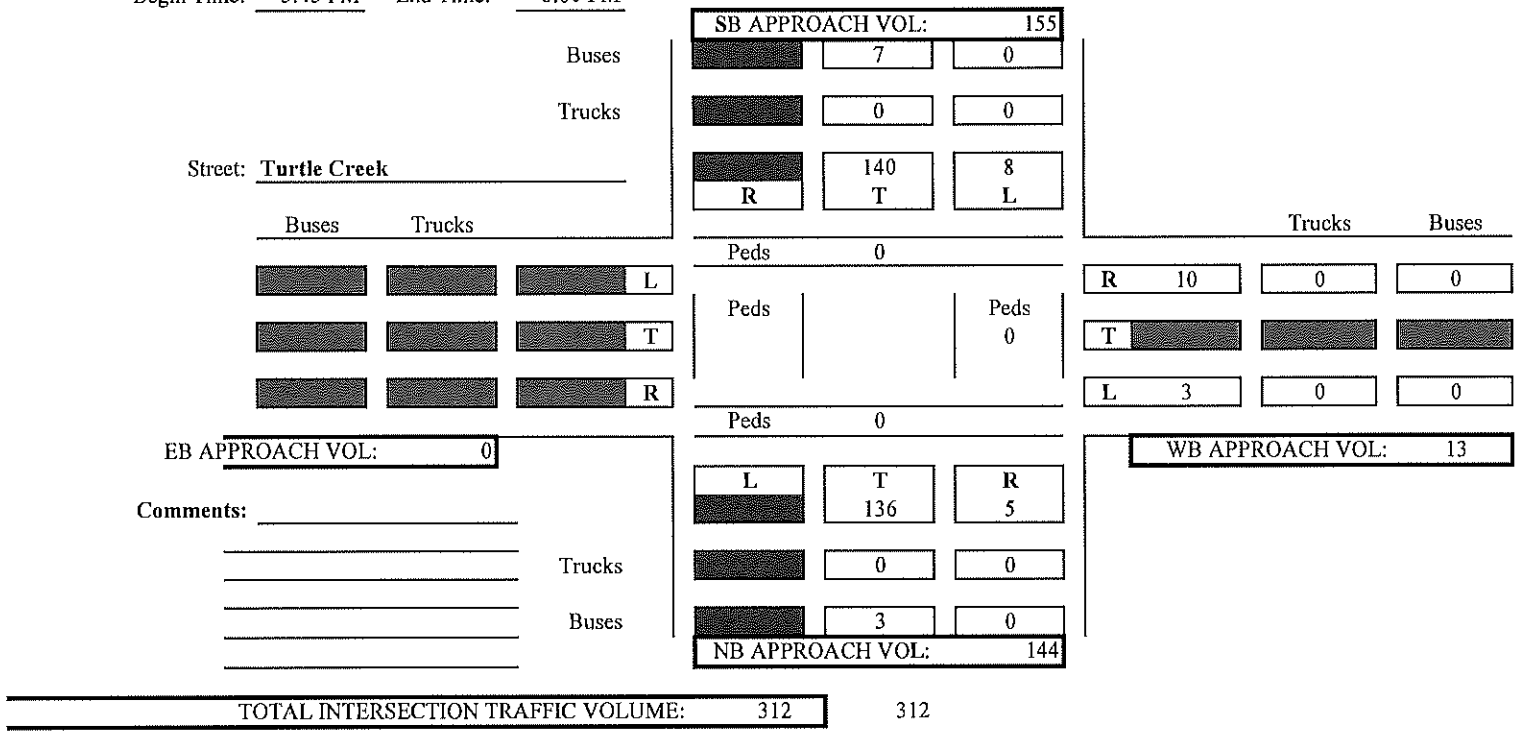
Peak-Hour Traffic Count Summary Sheet

Job Name: **Military Rd. Traffic Study** Job No.: **NO.19.005**

Street: **Military Rd.** N

Count Date: 5/1/2019

Begin Time: 5:45 PM End Time: 6:00 PM



Comments:

TOTAL INTERSECTION TRAFFIC VOLUME: 312 312

Time Period	Total Departure Count (Vehicles)	Queue Length (Vehicles)	Arrival Volume (Vehicles)
Eastbound Gause Blvd.			
7:00 AM - 7:15 AM	48	0	48
7:15 AM - 7:30 AM	93	4	93+4+97
7:30 AM - 7:45 AM	130	0	130-4=126
7:45 AM - 8:00 AM	109	2	109+2=111
8:00 AM - 8:15 AM	151	8	151+8-2=157
8:15 AM - 8:30 AM	92	1	92+1-8=85
8:30 AM - 8:45 AM	107	4	107+4-1=110
8:45 AM - 9:00 AM	132	3	132+3-4=131
Westbound Herwig Bluff Rd.			
7:00 AM - 7:15 AM	48	4	48+4+52
7:15 AM - 7:30 AM	59	2	59+2-4+57
7:30 AM - 7:45 AM	31	4	31+4-2=33
7:45 AM - 8:00 AM	52	0	52-4=48
8:00 AM - 8:15 AM	36	3	36+3=39
8:15 AM - 8:30 AM	40	3	40+3-3=40
8:30 AM - 8:45 AM	33	0	33-3=30
8:45 AM - 9:00 AM	31	0	31
Northbound Military Rd.			
7:00 AM - 7:15 AM	112	4	112+4+116
7:15 AM - 7:30 AM	116	0	116-4+112
7:30 AM - 7:45 AM	91	2	91+2+93
7:45 AM - 8:00 AM	107	19	107+19-2=124
8:00 AM - 8:15 AM	130	10	130+10-19=121
8:15 AM - 8:30 AM	152	11	152+11-10=153
8:30 AM - 8:45 AM	120	4	120+4-11=113
8:45 AM - 9:00 AM	129	3	129+3-4=128
Southbound Military Rd.			
7:00 AM - 7:15 AM	142	0	142
7:15 AM - 7:30 AM	146	0	146
7:30 AM - 7:45 AM	155	0	155
7:45 AM - 8:00 AM	184	0	184
8:00 AM - 8:15 AM	200	0	200
8:15 AM - 8:30 AM	163	0	163
8:30 AM - 8:45 AM	122	0	122
8:45 AM - 9:00 AM	170	0	170

Time Period	Total Departure Count (Vehicles)	Queue Length (Vehicles)	Arrival Volume (Vehicles)
Eastbound Gause Blvd.			
4:00 PM - 4:15 PM	205	0	205
4:15 PM - 4:30 PM	185	5	185+5=190
4:30 PM - 4:45 PM	208	4	208+4-5=207
4:45 PM - 5:00 PM	218	14	218+14-4=228
5:00 PM - 5:15 PM	236	1	236+1-14+223
5:15 PM - 5:30 PM	228	1	228+1-1=228
5:30 PM - 5:45 PM	175	8	175+8-1=182
5:45 PM - 6:00 PM	173	0	173-8=165
Westbound Herwig Bluff Rd.			
4:00 PM - 4:15 PM	38	1	38+1=39
4:15 PM - 4:30 PM	34	0	34-1=33
4:30 PM - 4:45 PM	33	0	33
4:45 PM - 5:00 PM	35	1	35+1=36
5:00 PM - 5:15 PM	35	2	35+2-1=36
5:15 PM - 5:30 PM	48	7	48+7-2=53
5:30 PM - 5:45 PM	50	1	50+1-7=44
5:45 PM - 6:00 PM	30	0	30-1=29
Northbound Military Rd.			
4:00 PM - 4:15 PM	143	10	143+10=153
4:15 PM - 4:30 PM	130	7	130+7-10=127
4:30 PM - 4:45 PM	131	7	131-7+7=131
4:45 PM - 5:00 PM	130	2	130+2-7=125
5:00 PM - 5:15 PM	107	0	107-2=105
5:15 PM - 5:30 PM	109	9	109+9=118
5:30 PM - 5:45 PM	129	9	129+9-9=129
5:45 PM - 6:00 PM	139	0	139-9=130
Southbound Military Rd.			
4:00 PM - 4:15 PM	146	0	146
4:15 PM - 4:30 PM	137	0	137
4:30 PM - 4:45 PM	155	0	155
4:45 PM - 5:00 PM	153	0	153
5:00 PM - 5:15 PM	175	0	175
5:15 PM - 5:30 PM	180	0	180
5:30 PM - 5:45 PM	147	0	147
5:45 PM - 6:00 PM	149	0	149

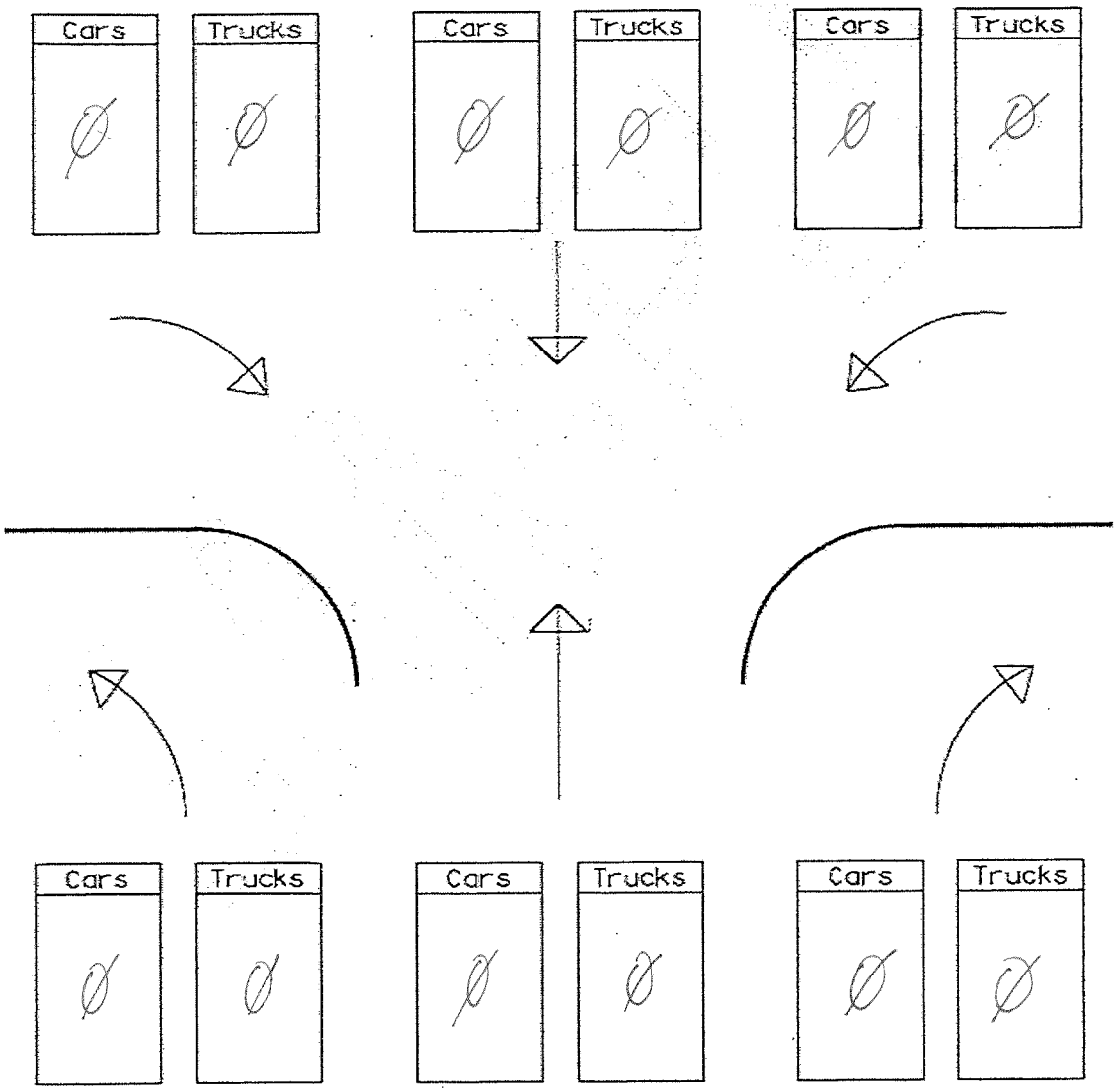
Driveway Counts

Project No. No. 19.005

Location: QUICK CHECK GAS DRIVE #1 MILITARY RD

Time Interval: 7:45 TO 8:00 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



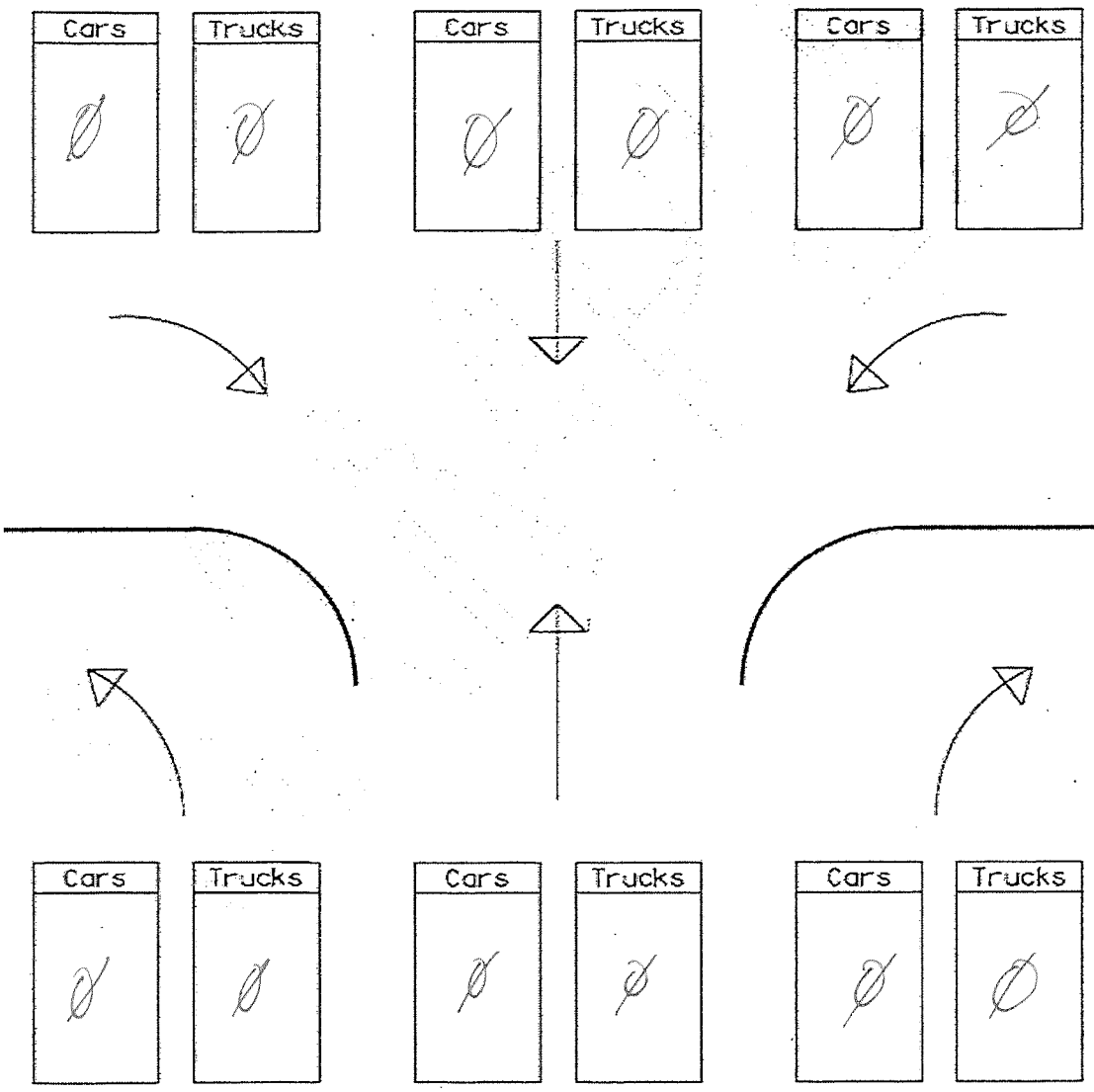
Driveway Counts

Project No. H0.19.005

Location: QUICK CHECK GAS DRIVE #2 MILITARY RD.

Time Interval: 7:45 TO 8:00 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



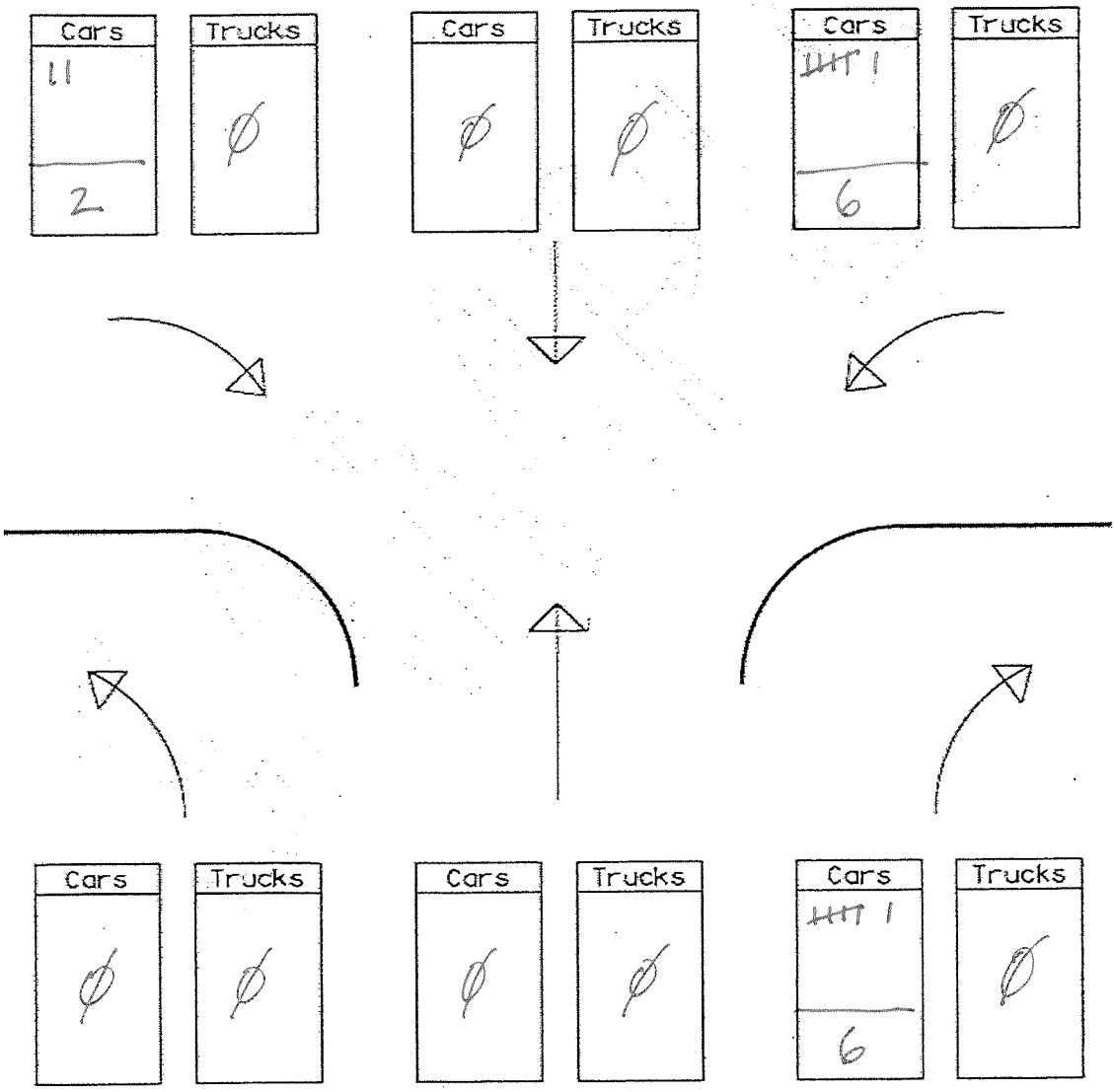
Driveway Counts

Project No. NO. 19.005

Location: EXXON MILITARY RD.

Time Interval: 7:45 TO 8:00 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



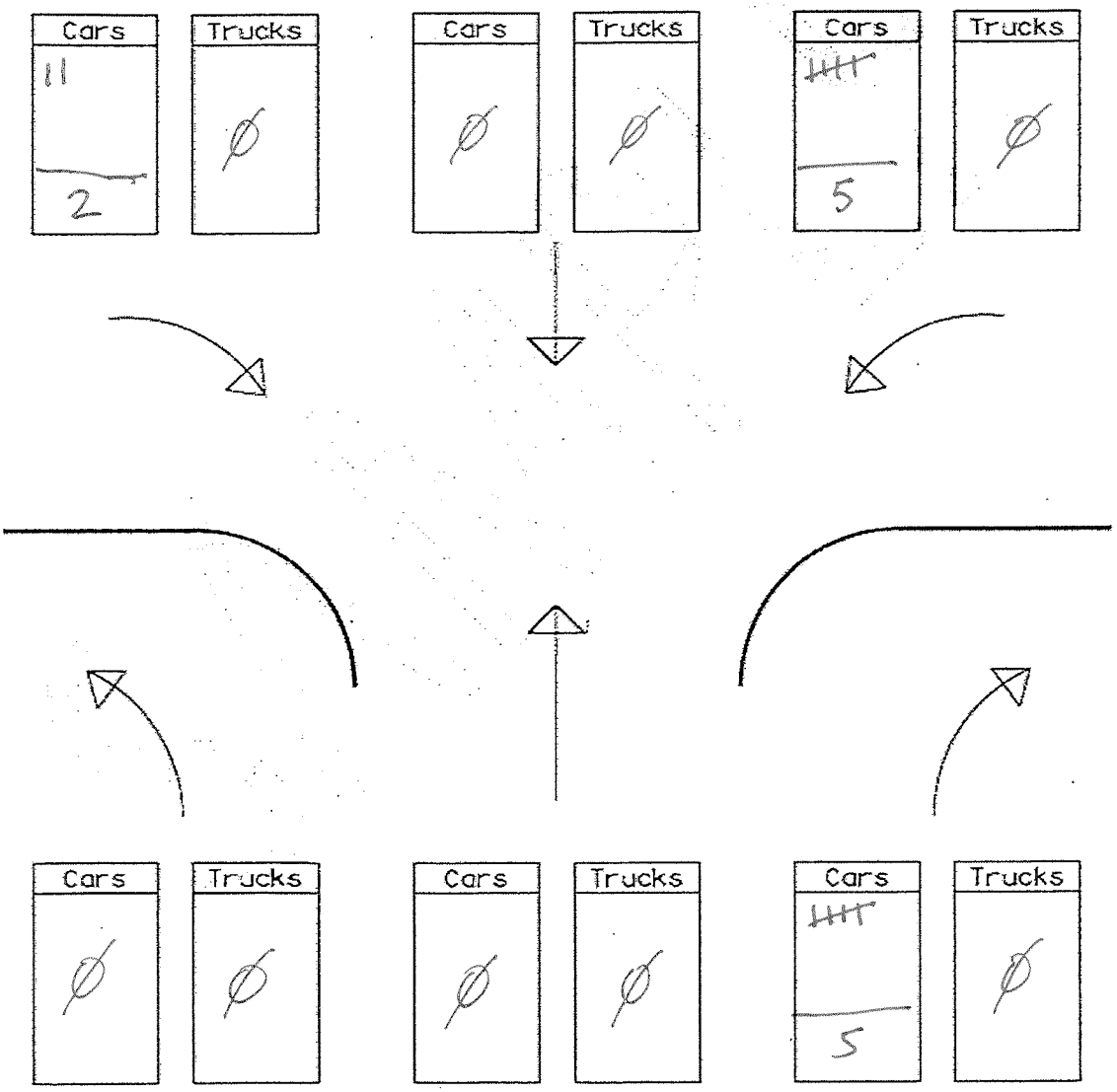
Driveway Counts

Project No. No. 19.005

Location: WINN DIXIE
MILITARY RD

Time Interval: 7:45 TO 6.00 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



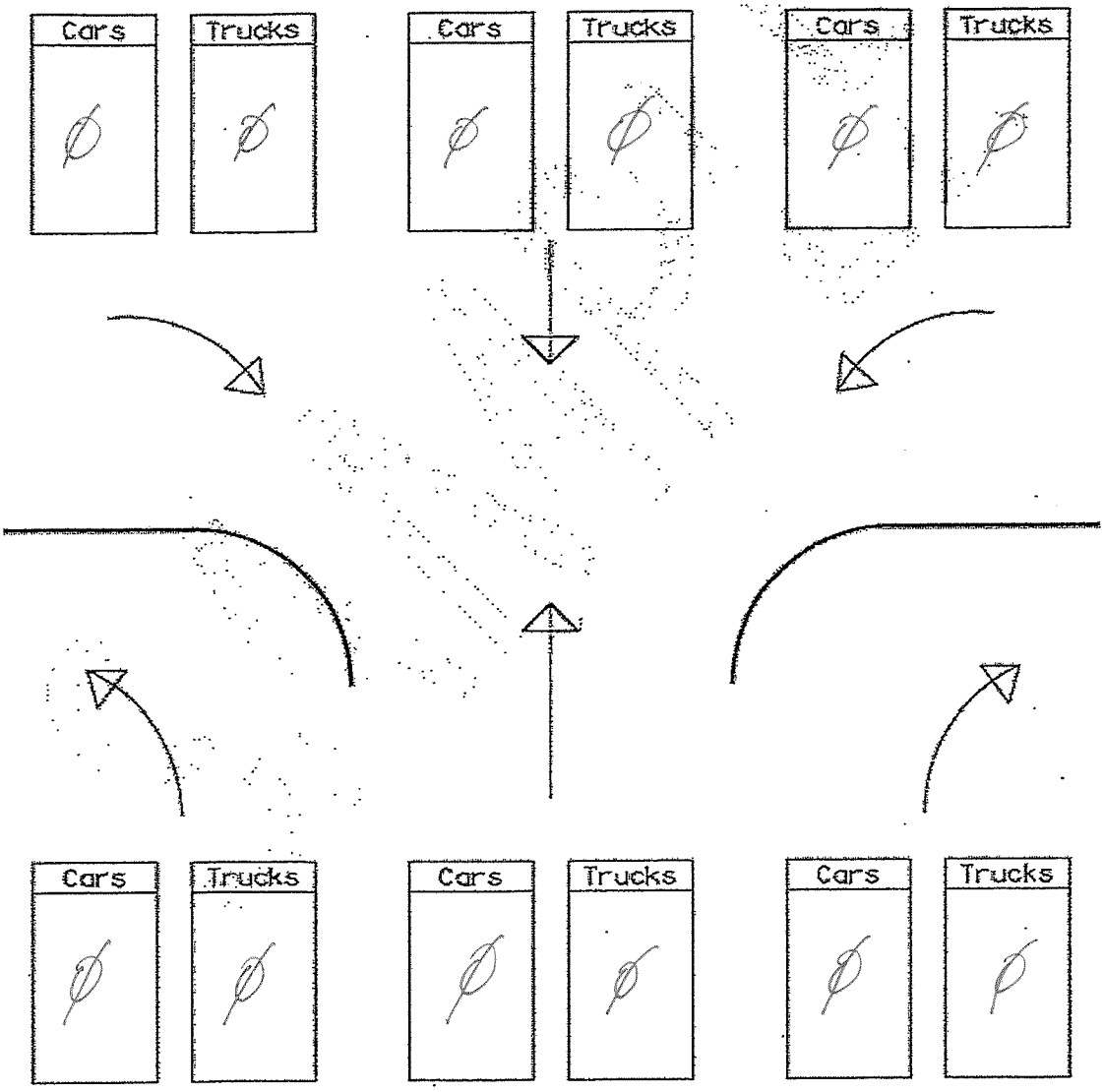
Driveway Counts

Project No. No. 19.005

Location: CROSS GATES APPT #1
MILITARY RD

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



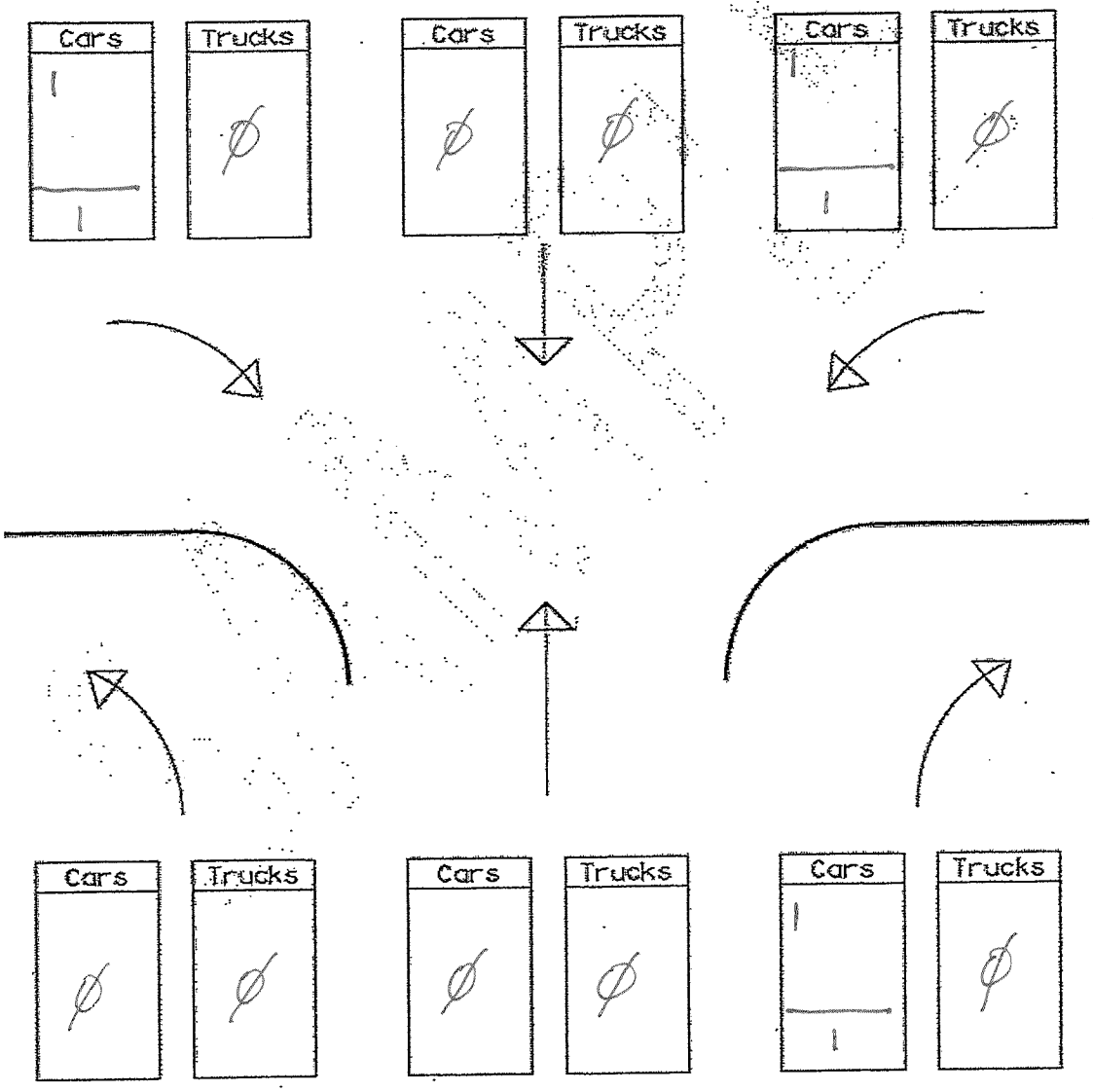
Driveway Counts

Project No. No. 19.005

Location: SPECKLED T'S MILITARY RD.

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



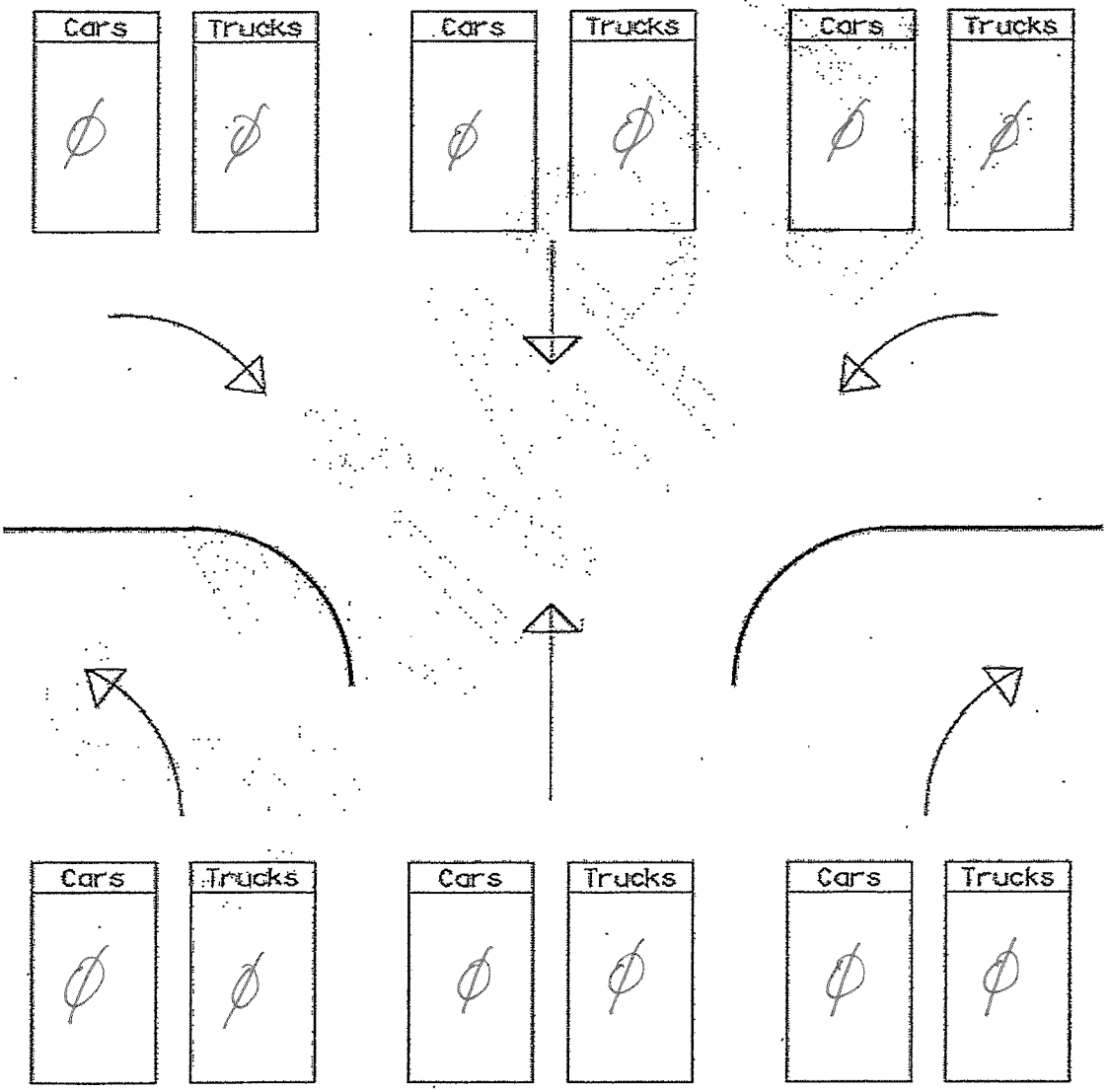
Driveway Counts

Project No. No. 19.005

Location: ACTION PHYSICAL
MILITARY RD.

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



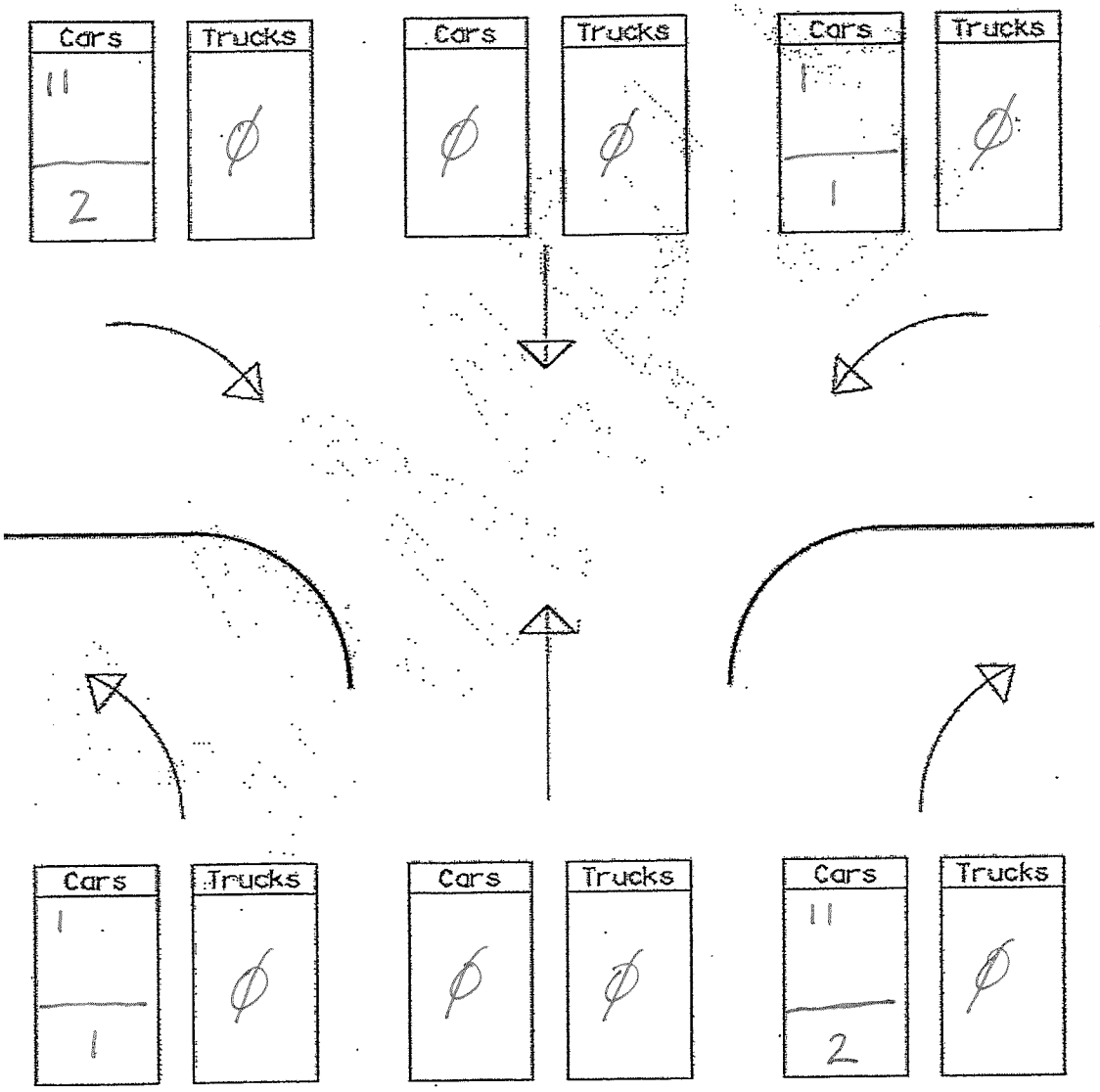
Driveway Counts

Project No. NO. 19.005

Location: Family Dollar
Millerville RD.

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: Colleen Stephens



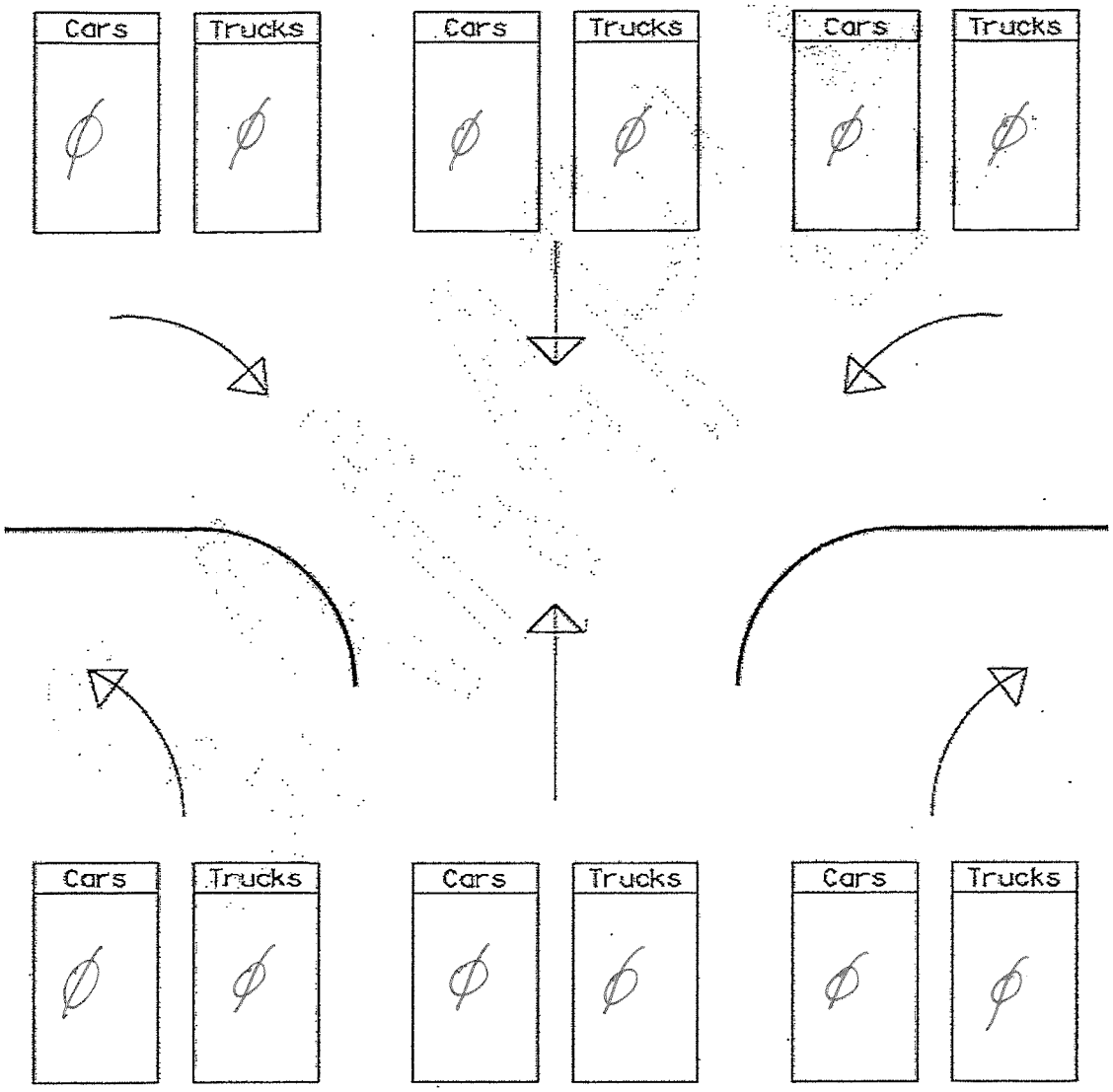
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Appt Drive #2
Military Rd

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: Grayson Dunn



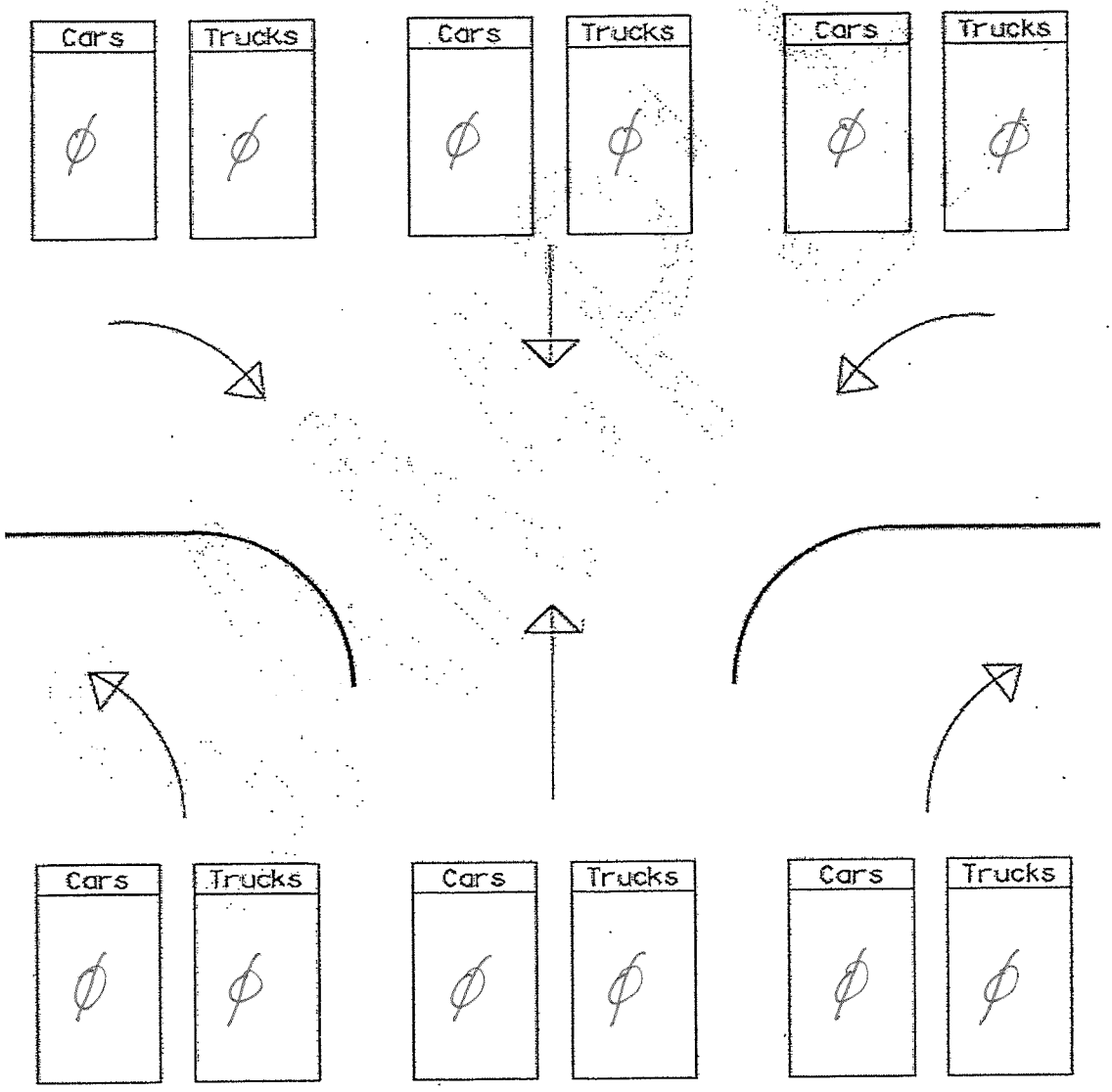
Driveway Counts

Project No. No. 19.005

Location: CROSS GATES APPT DRIVE #3 MILITARY RD

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: GRAYLIN DAVIS



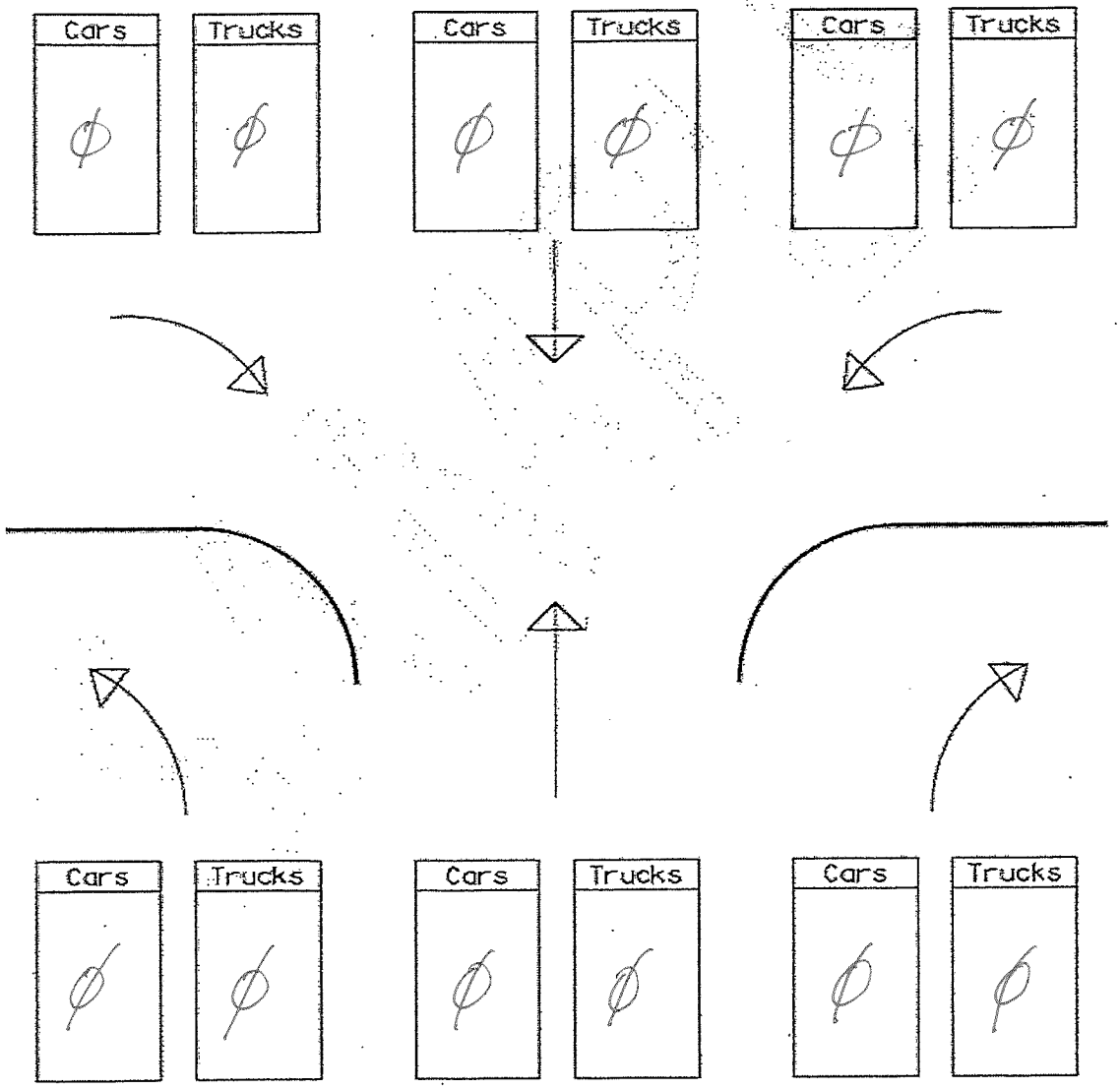
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Appt Drive

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: Graylon Dixon



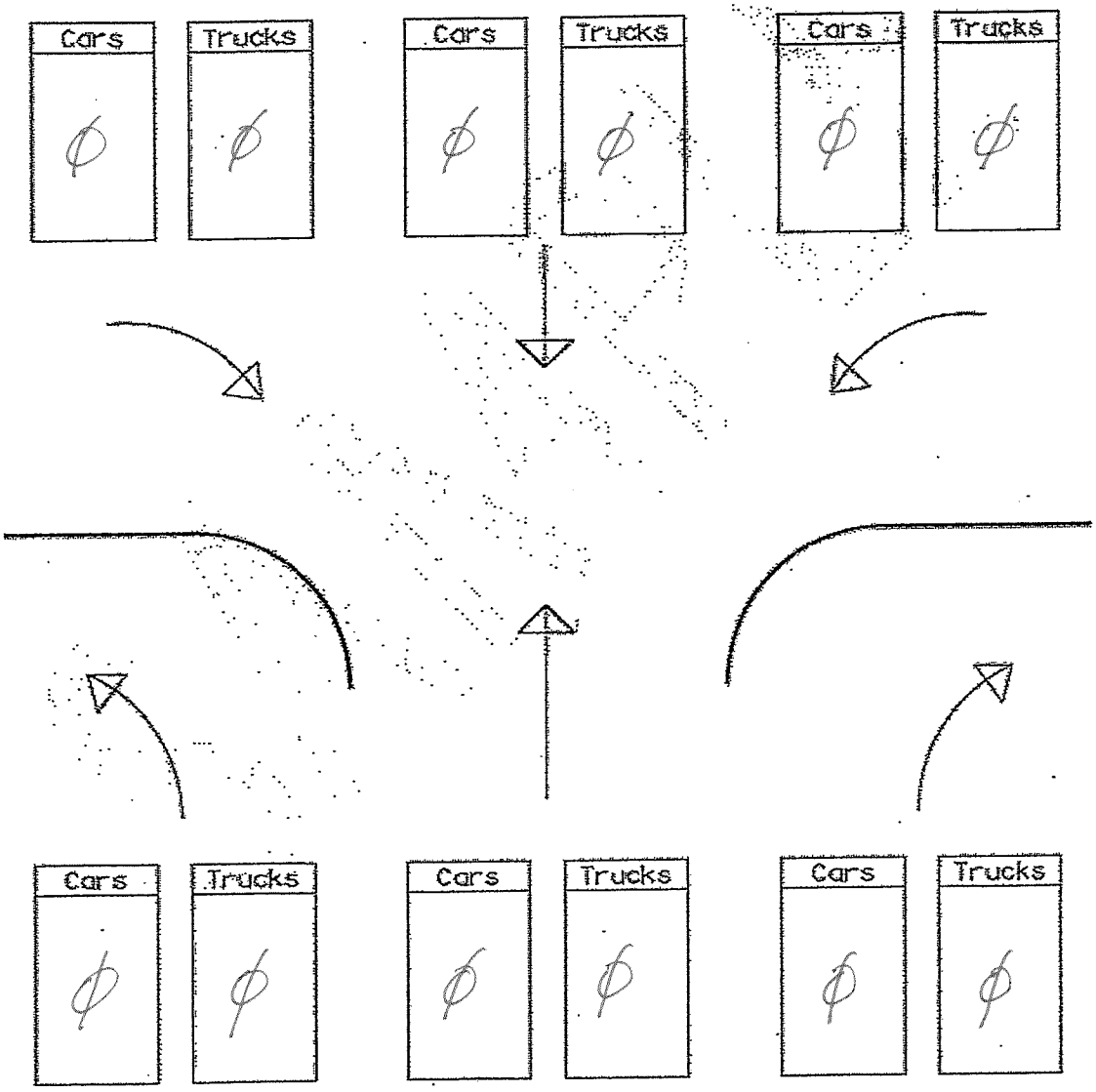
Driveway Counts

Project No. No. 19.005

Location: 281 Cross Gates Military Rd

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: Grayson Davis



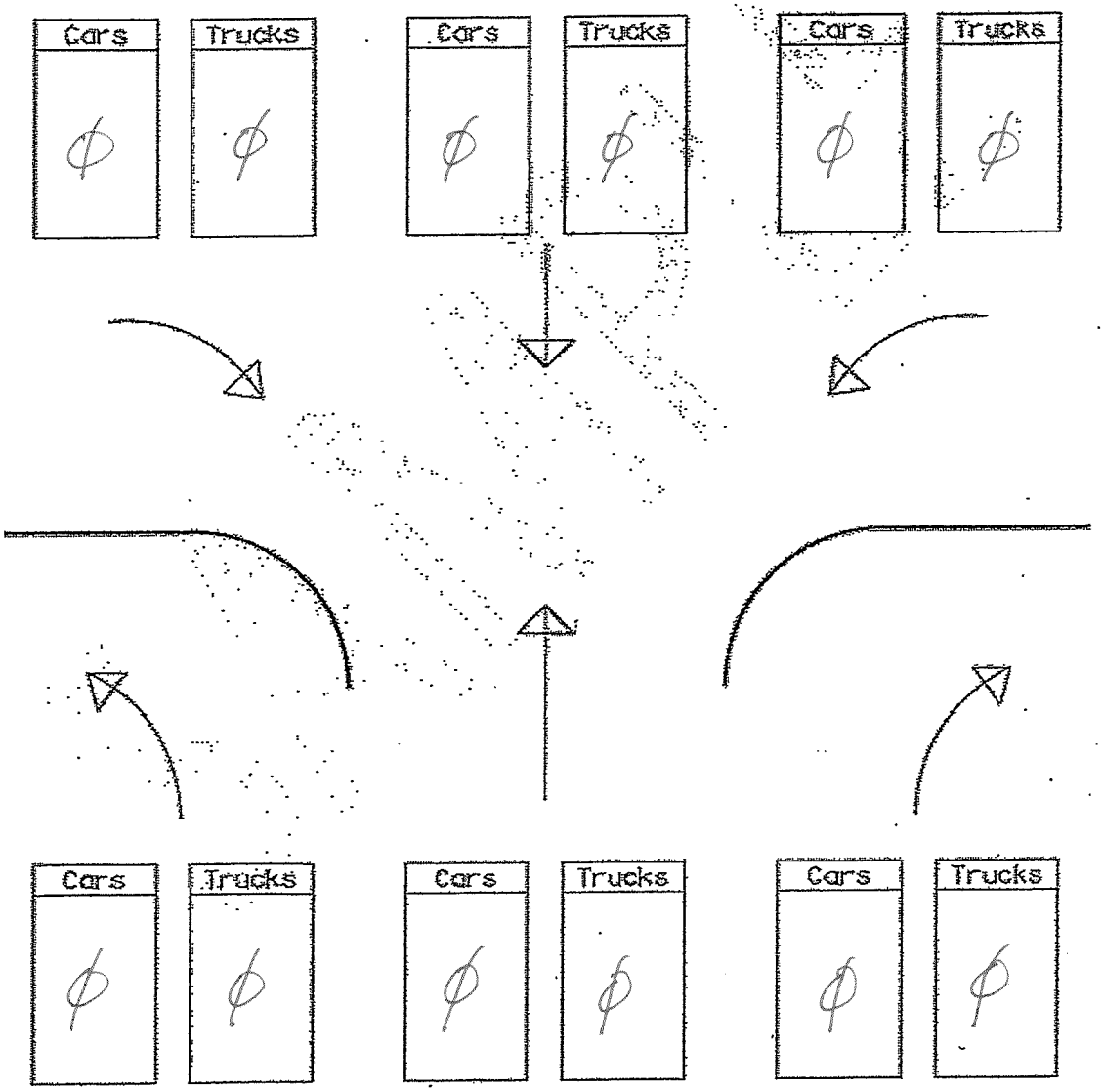
Driveway Counts

Project No. NO.19.005

Location: 278 CROSS GATES
MCILHENNY RD

Time Interval: 7:45 TO 8:00 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



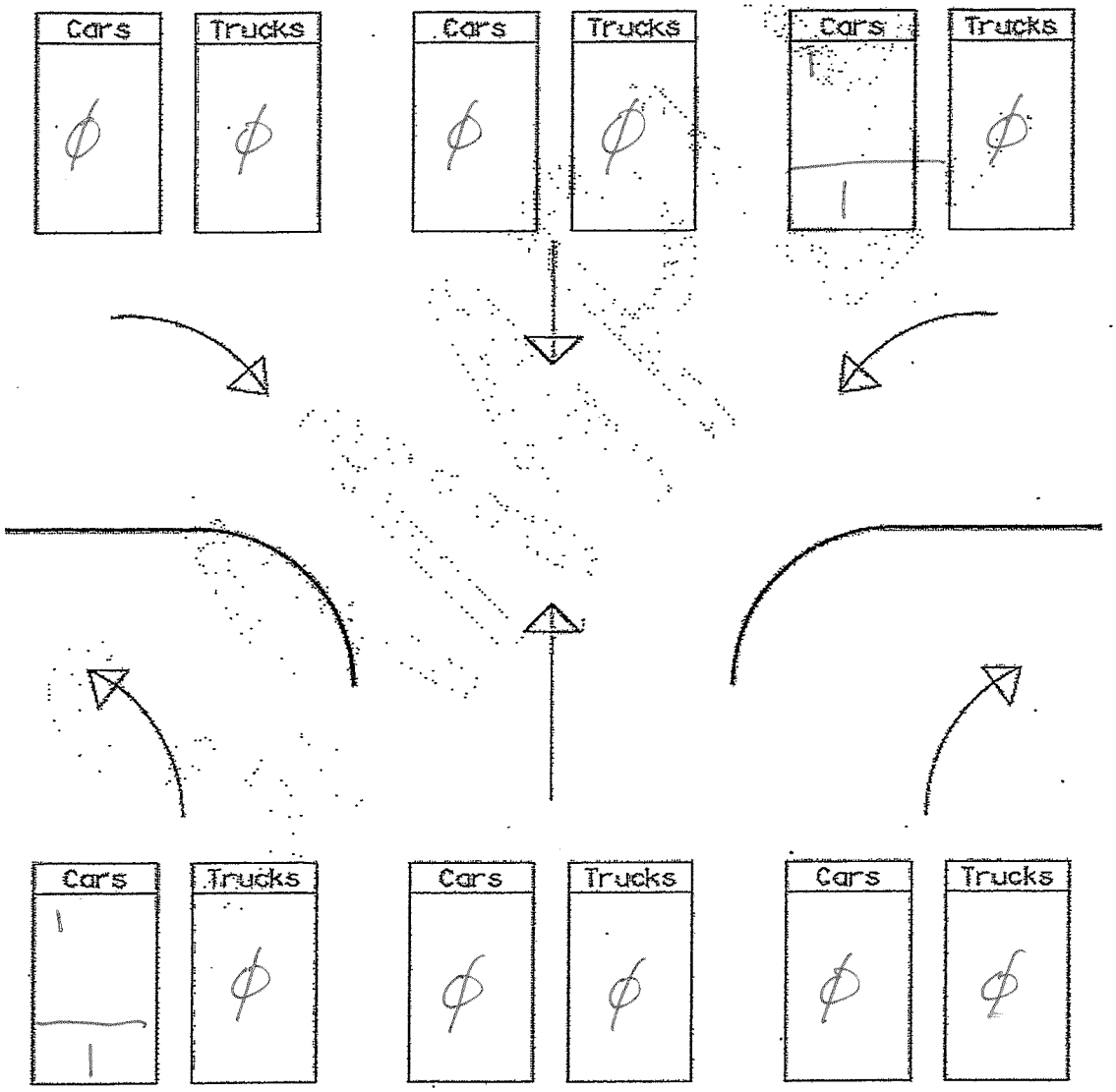
Driveway Counts

Project No. No.19.005

Location: Cross Gates Apt Drive #5

Time Interval: 7:45 TO 8:00 (AM) / PM

Name of Person Counting: Colleen Stephens



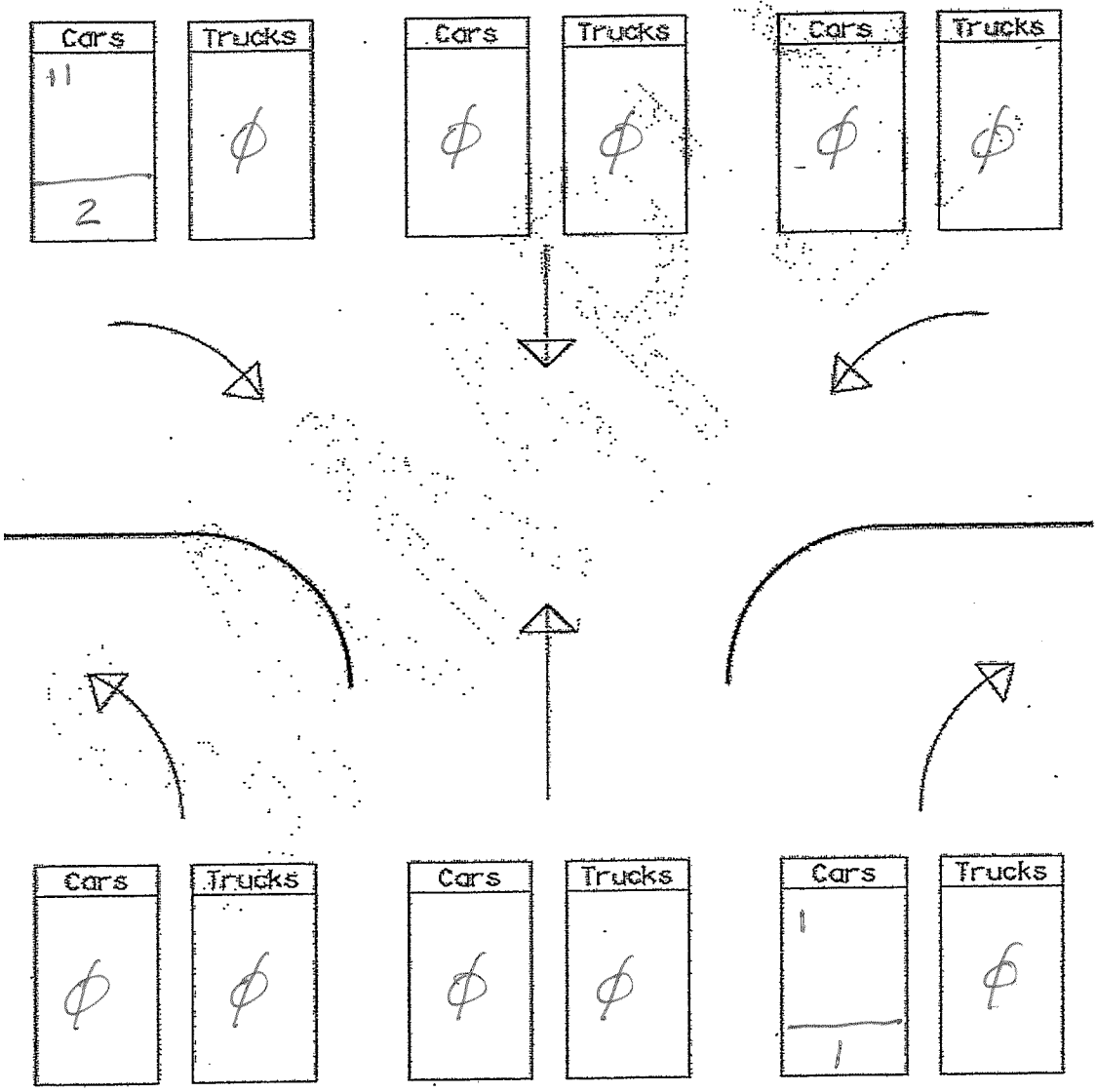
Driveway Counts

Project No. No. 19.005

Location: CROSS GATES ARMY DRIVE @ MCMURRY RD

Time Interval: 7:45 TO 8:00 (AM) / PM

Name of Person Counting: GILLESPIE STEPHENS



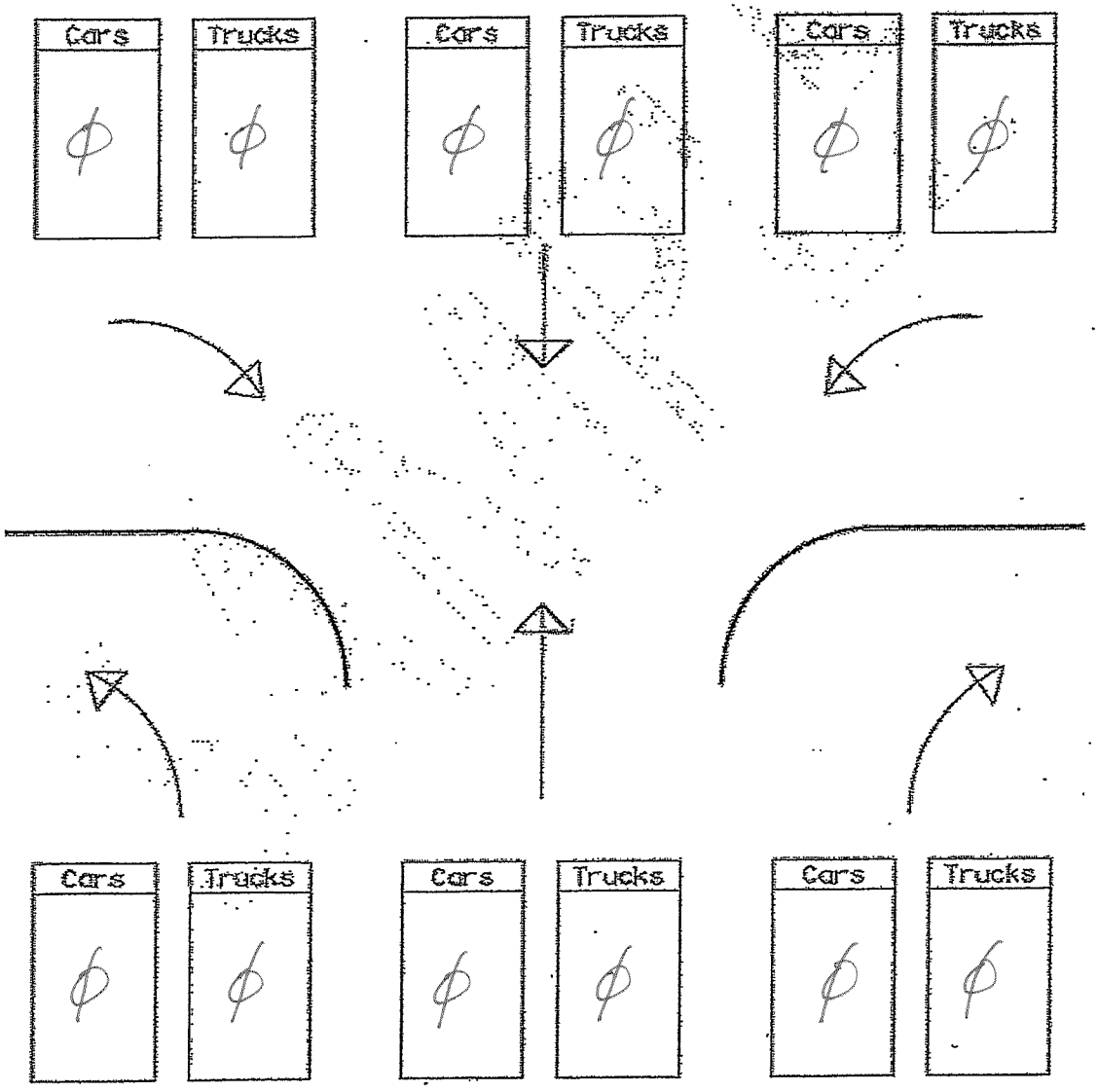
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Drive #7 Military Rd.

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: Gurgen Stepanyan



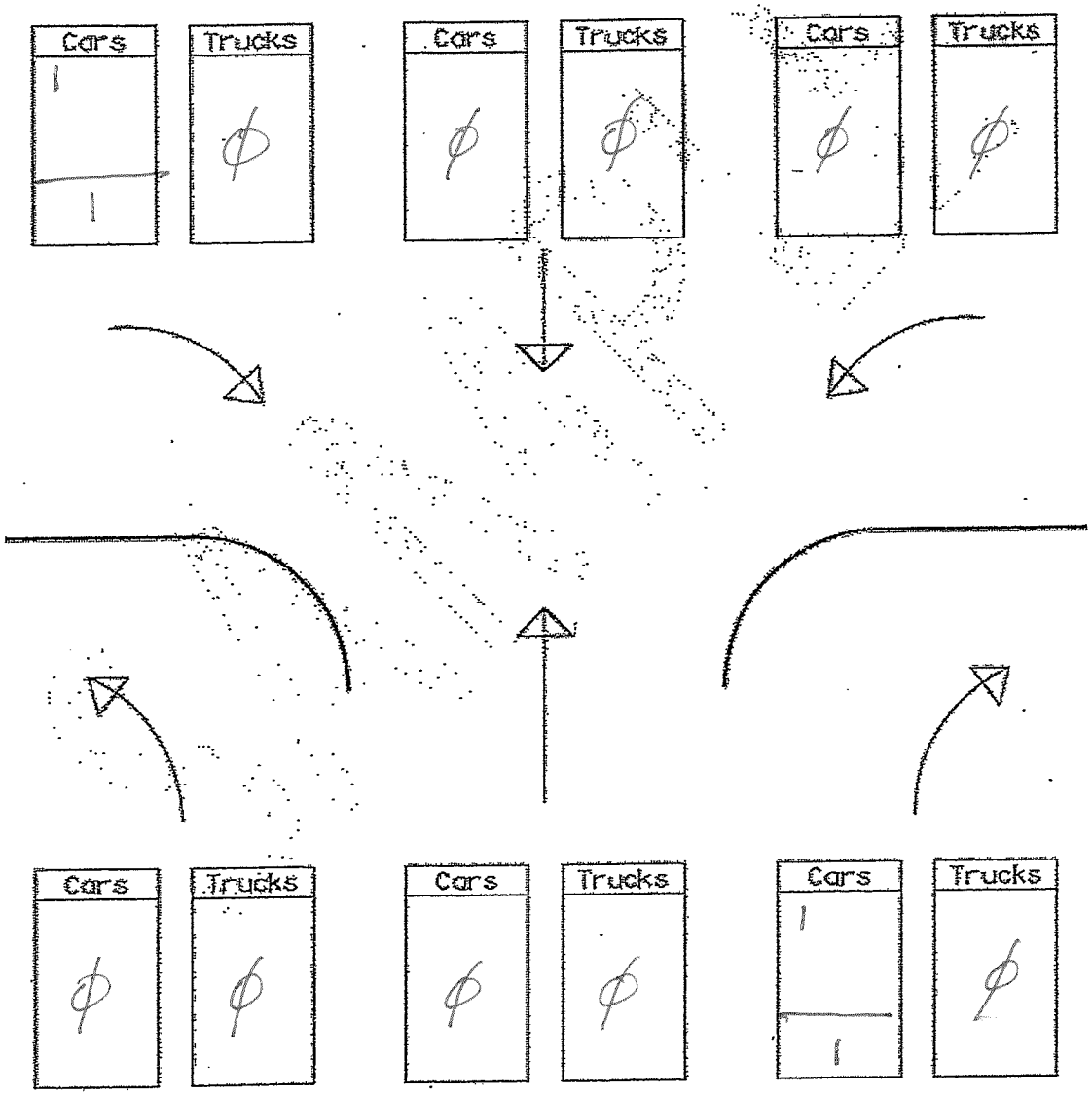
Driveway Counts

Project No. No. 19.005

Location: CROSS GATES APPT DRIVE #8 MILITARY RD.

Time Interval: 8:00 TO 8:15 (AM) / PM

Name of Person Counting: ED ELAM



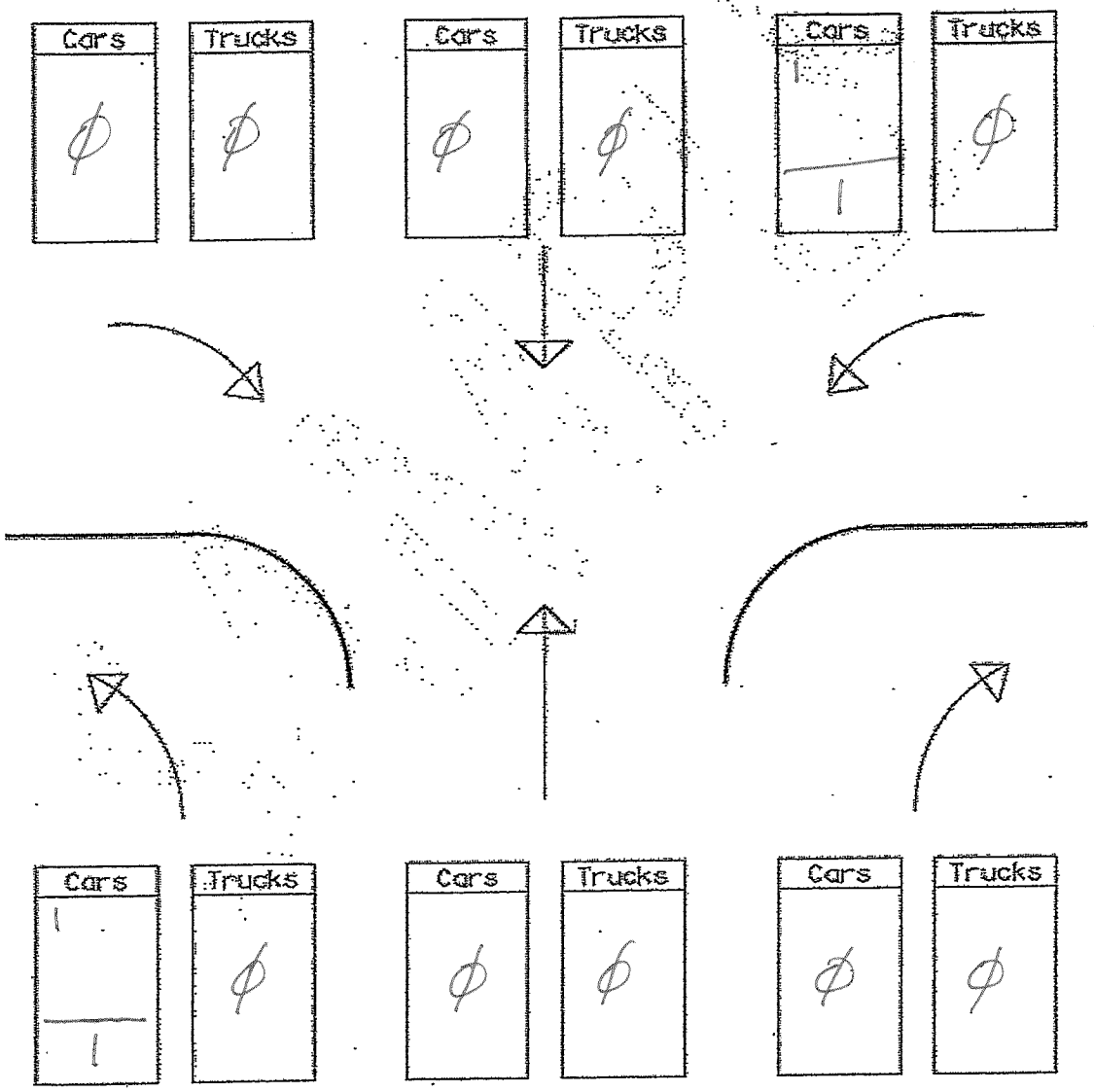
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Apt Drive #9 Millitary Rd

Time Interval: 4:45 TO 5:00 AM / PM

Name of Person Counting: Colleen Scorsone



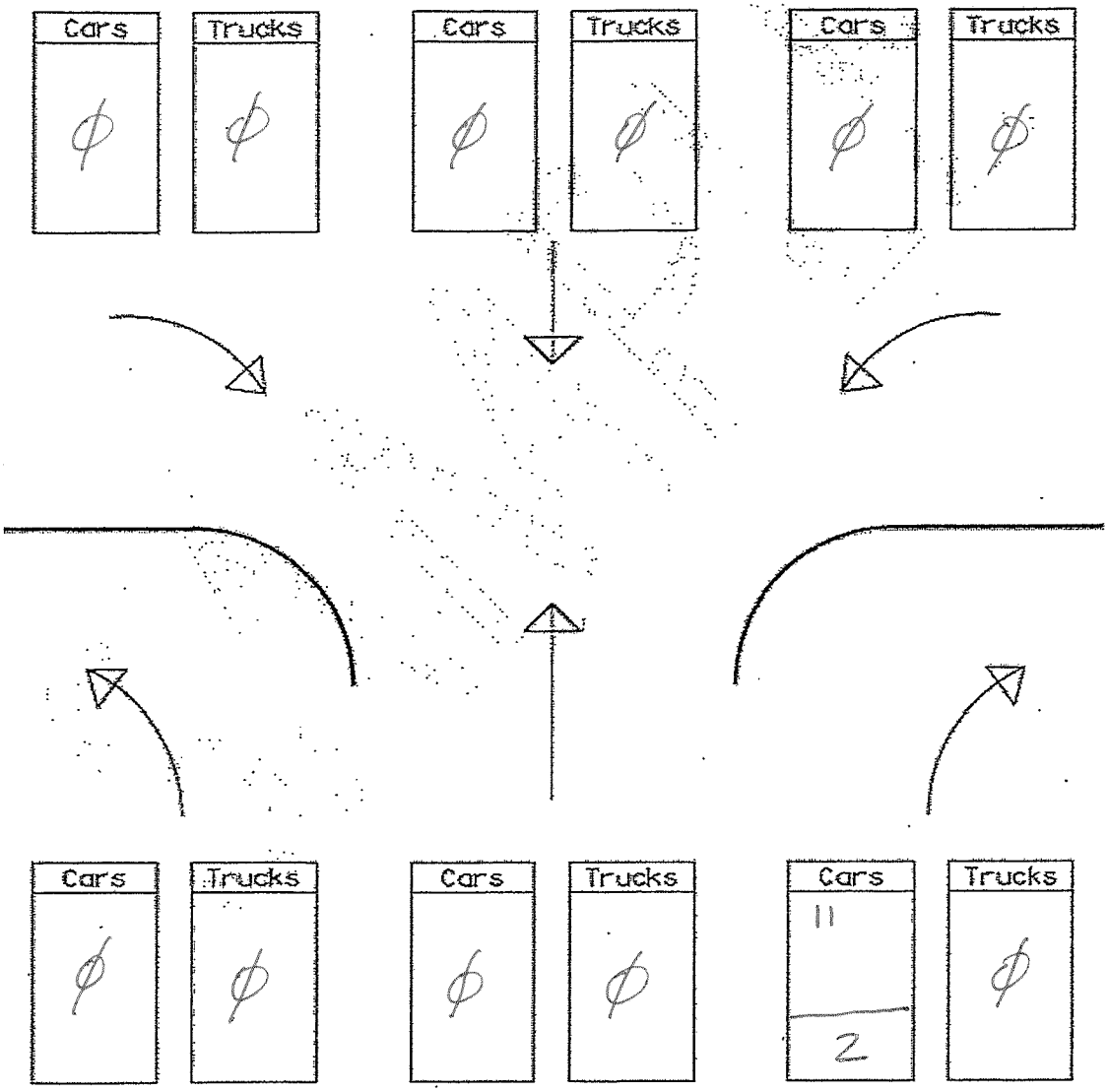
Driveway Counts

Project No. No. 14.005

Location: Cross Games Appt Drive #10 Military Rd

Time Interval: 5:00 TO 5:15 AM / PM

Name of Person Counting: ED ELAM



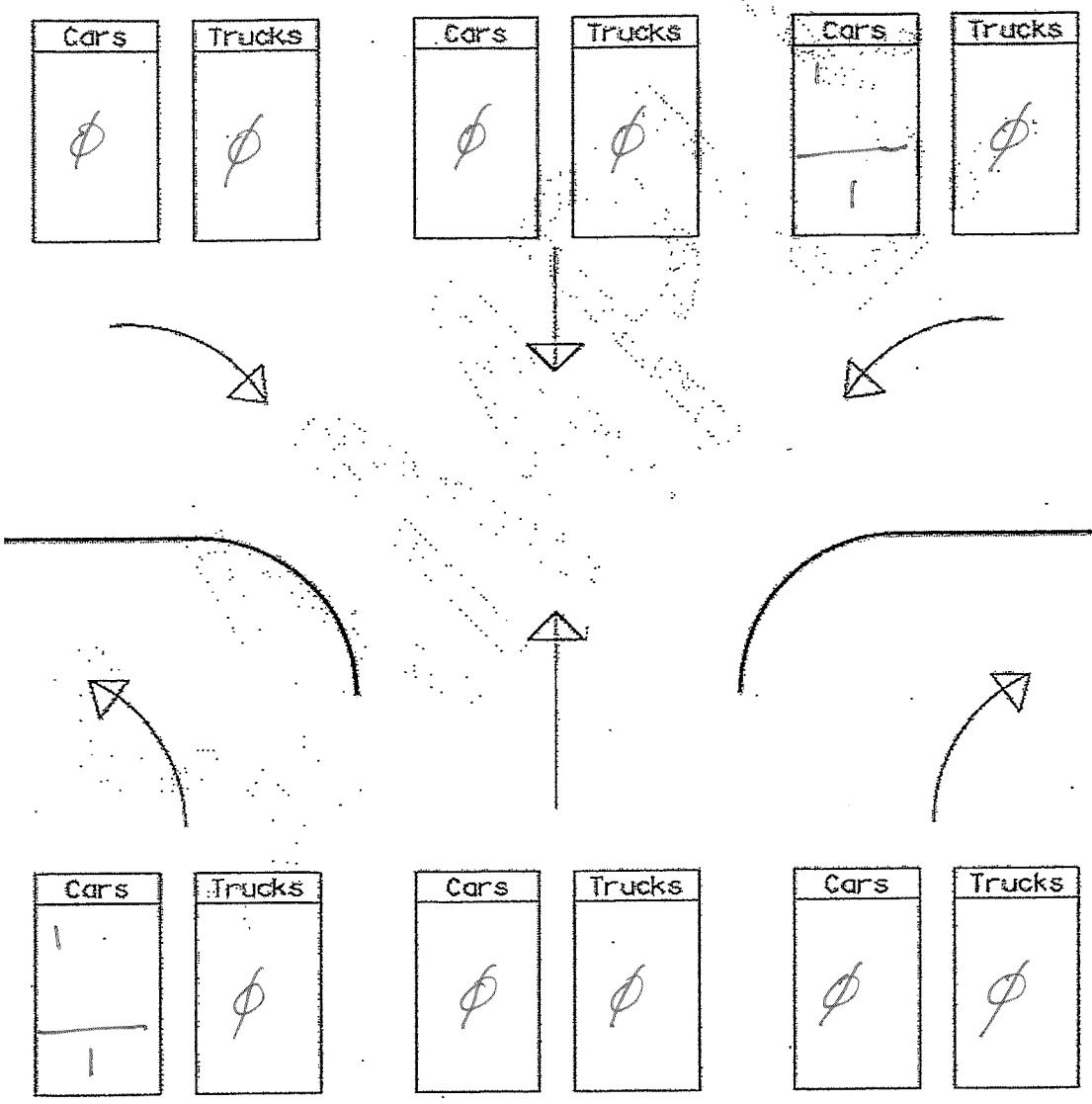
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Apt Drive #11
Military Rd

Time Interval: 5:00 TO 5:15 AM / (PM)

Name of Person Counting: ED Ehrm



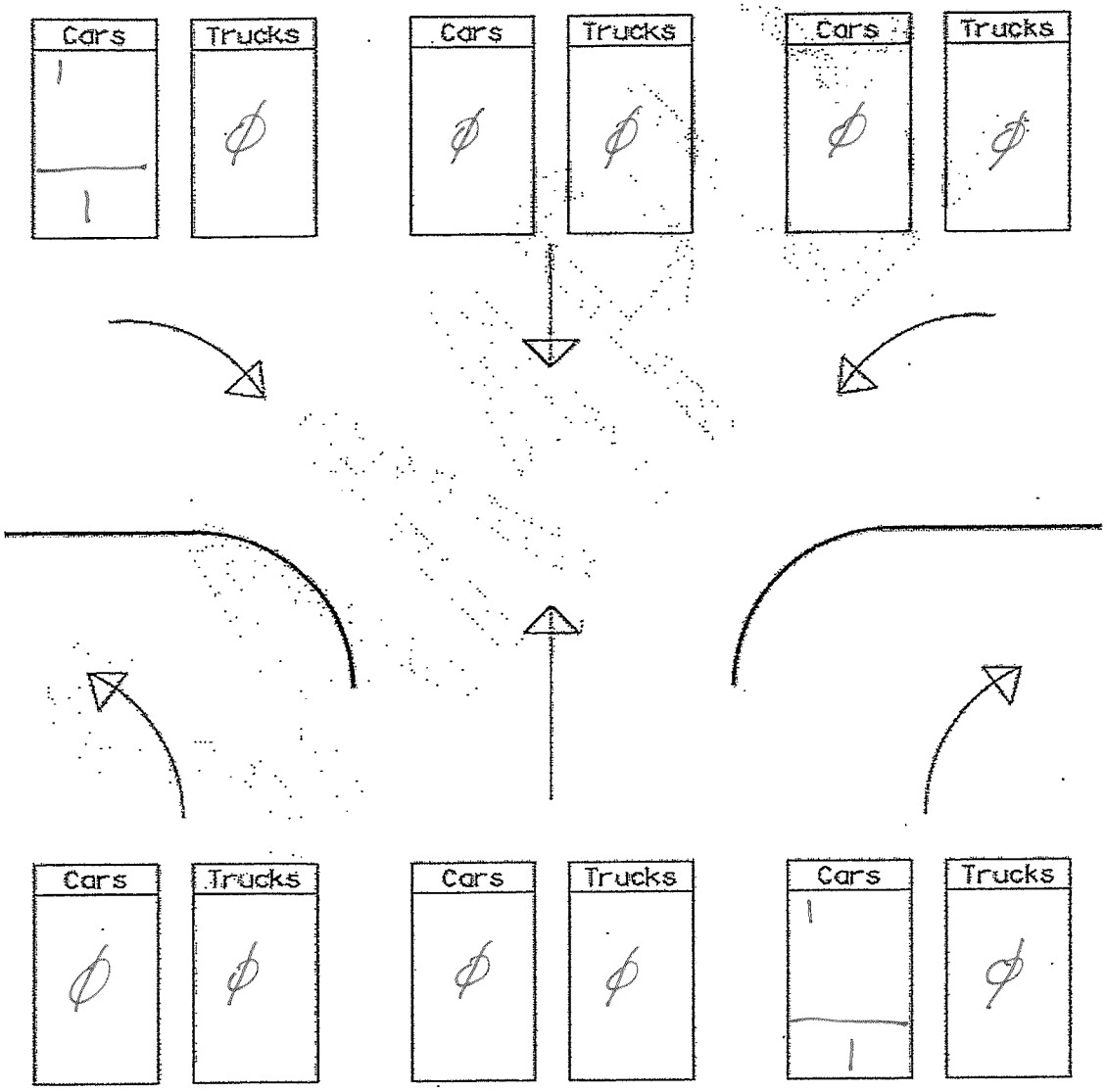
Driveway Counts

Project No. NO-14.005

Location: CROSS GATES APPT DRIVE #12 MILITARY RD

Time Interval: 5:00 TO 5:15 AM / (PM)

Name of Person Counting: ED ELAM



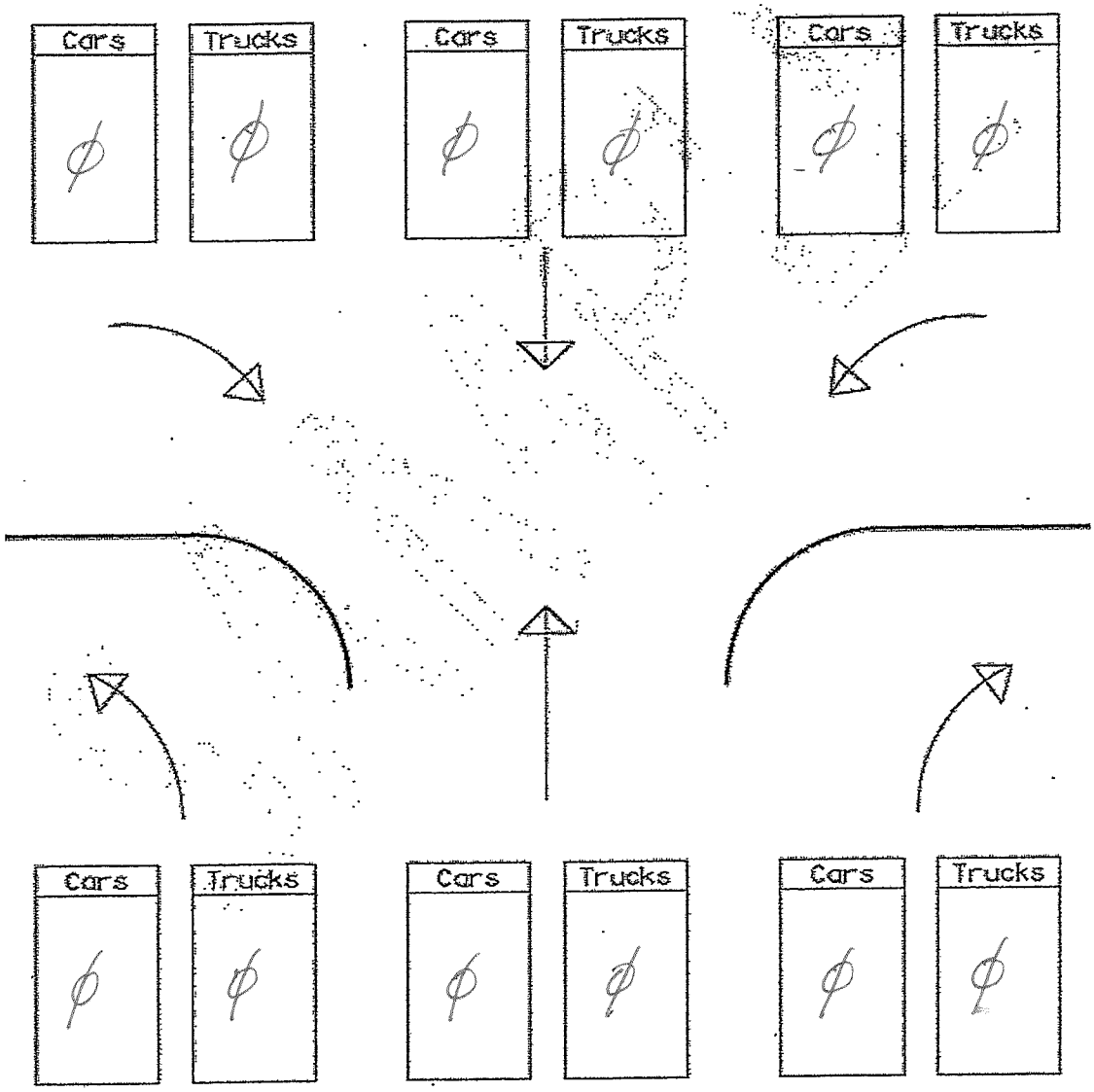
Driveway Counts

Project No. No.19.005

Location: Cross Gates Drive # 13
Military Rd.

Time Interval: 5:00 TO 5:15 AM / (PM)

Name of Person Counting:



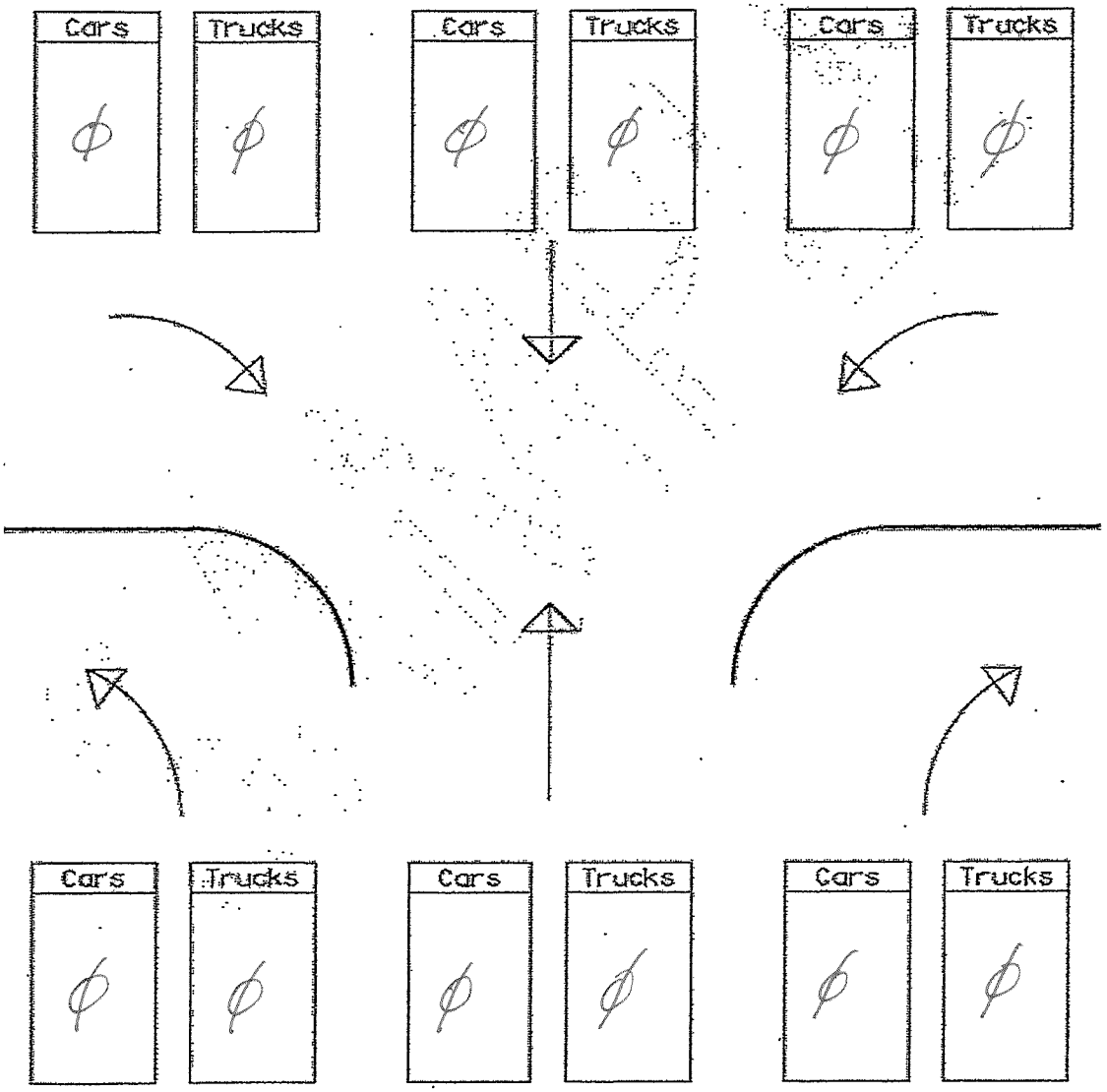
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Apt Drive #14 Military Rd

Time Interval: 5:00 TO 5:15 AM / PM

Name of Person Counting: Kesten Hamner



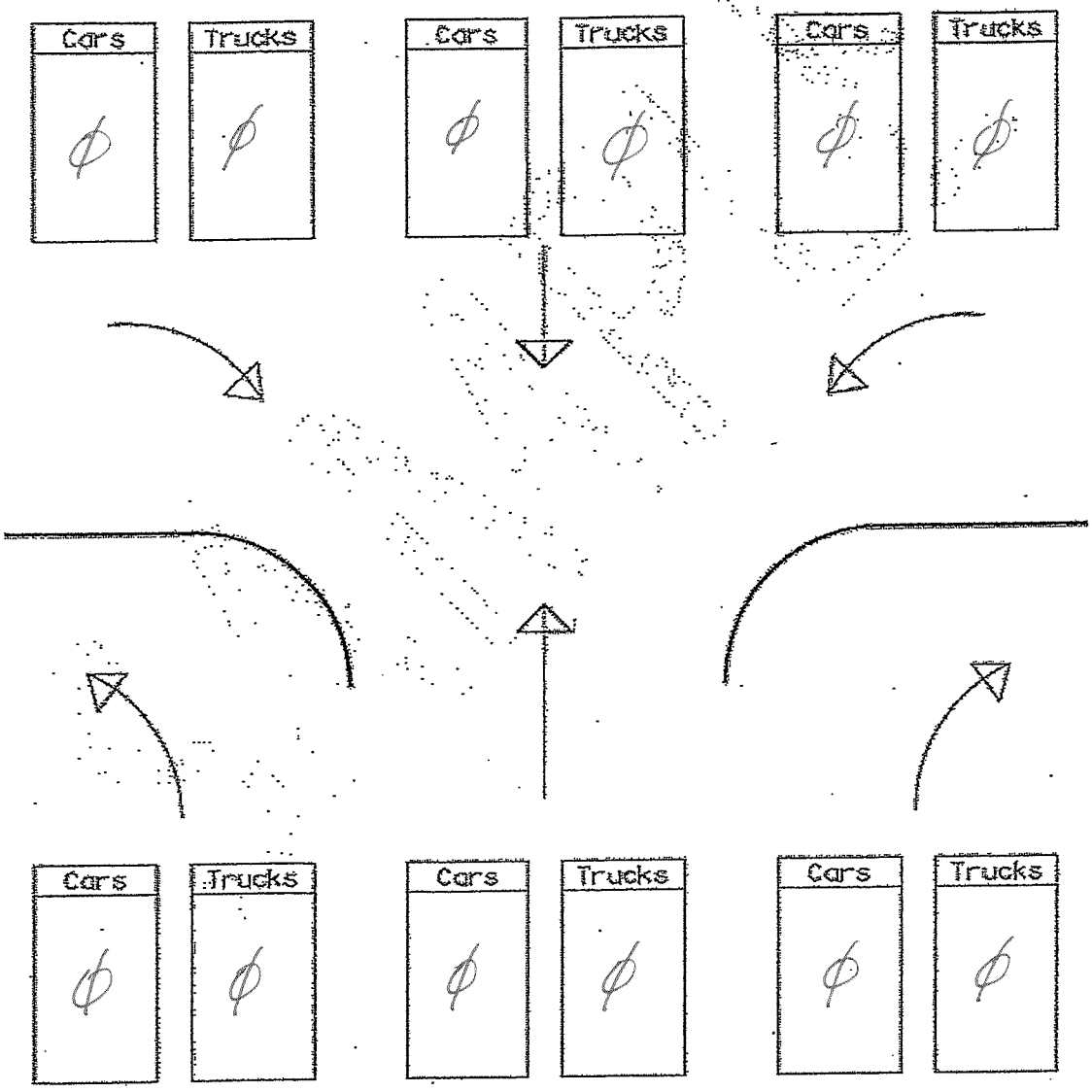
Driveway Counts

Project No. NO.19.005

Location: STRIP MALL (RANCH + MILITARY CORNER)

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: ED EZELL



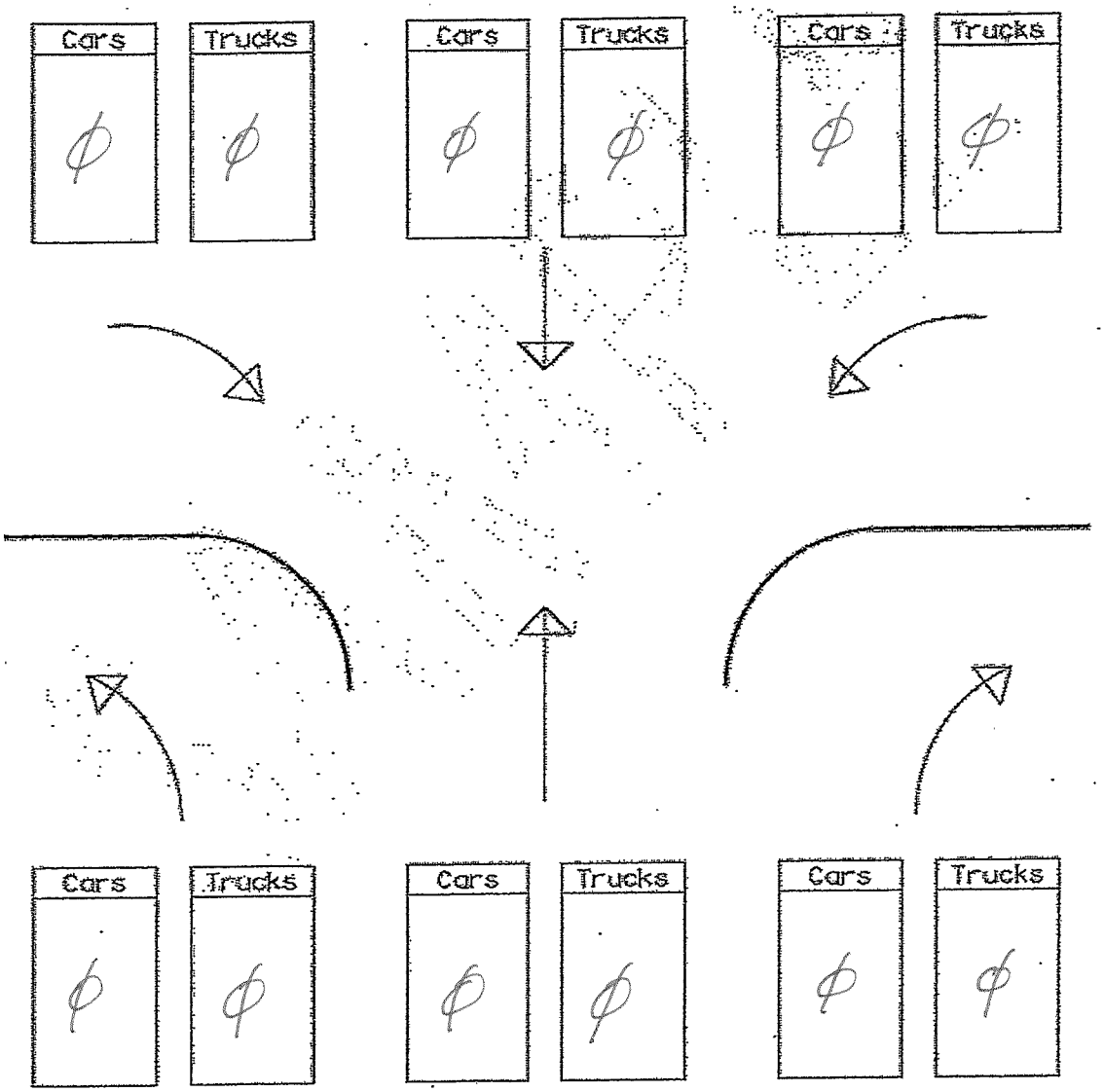
Driveway Counts

Project No. NO. 19.005

Location: ANGELS OF PEACE
MILITARY RD.

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: ED EZELL



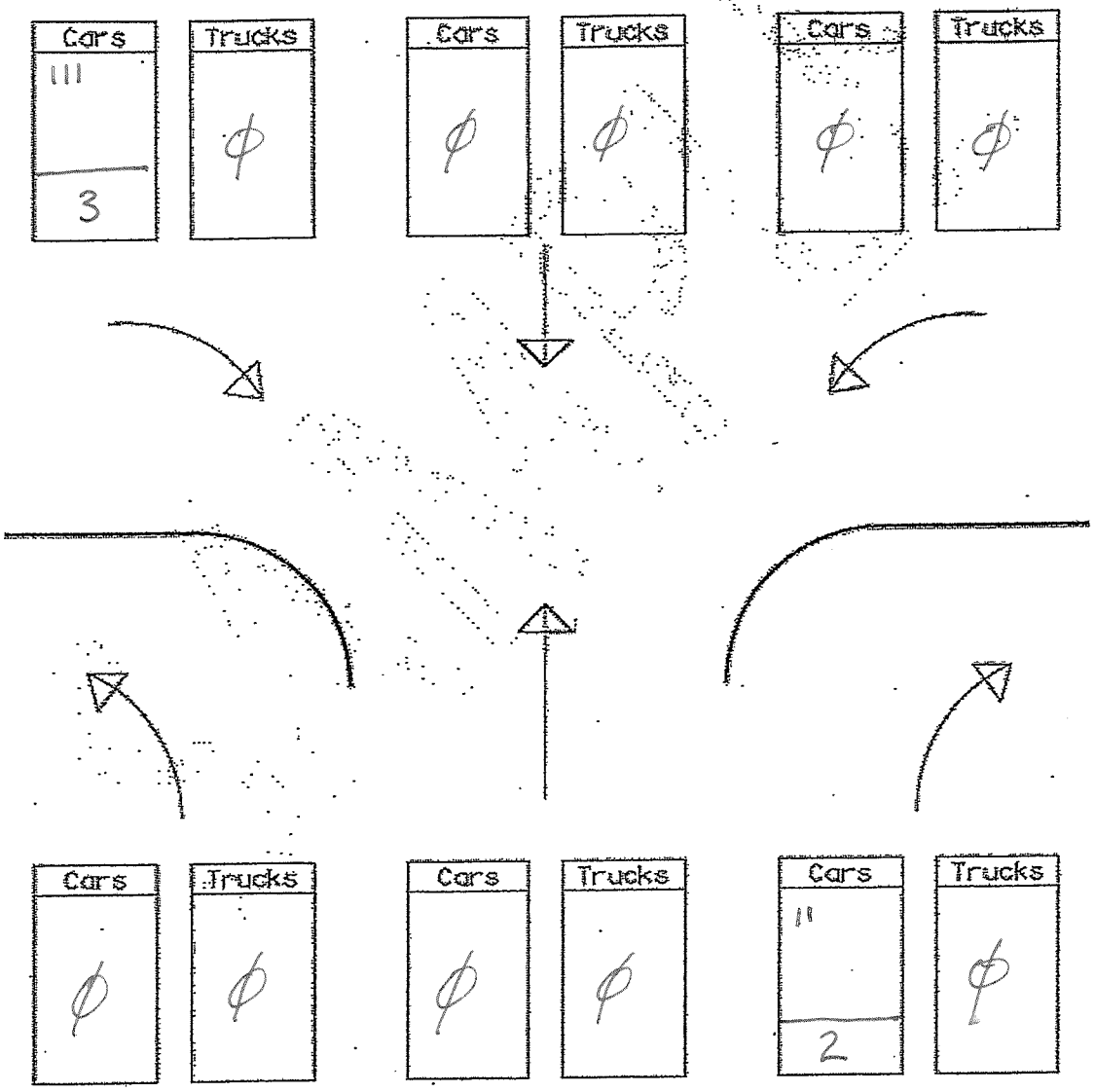
Driveway Counts

Project No. No. 19.005

Location: SNO BALLS
MILITARY RD.

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: KESTER HOUSTON



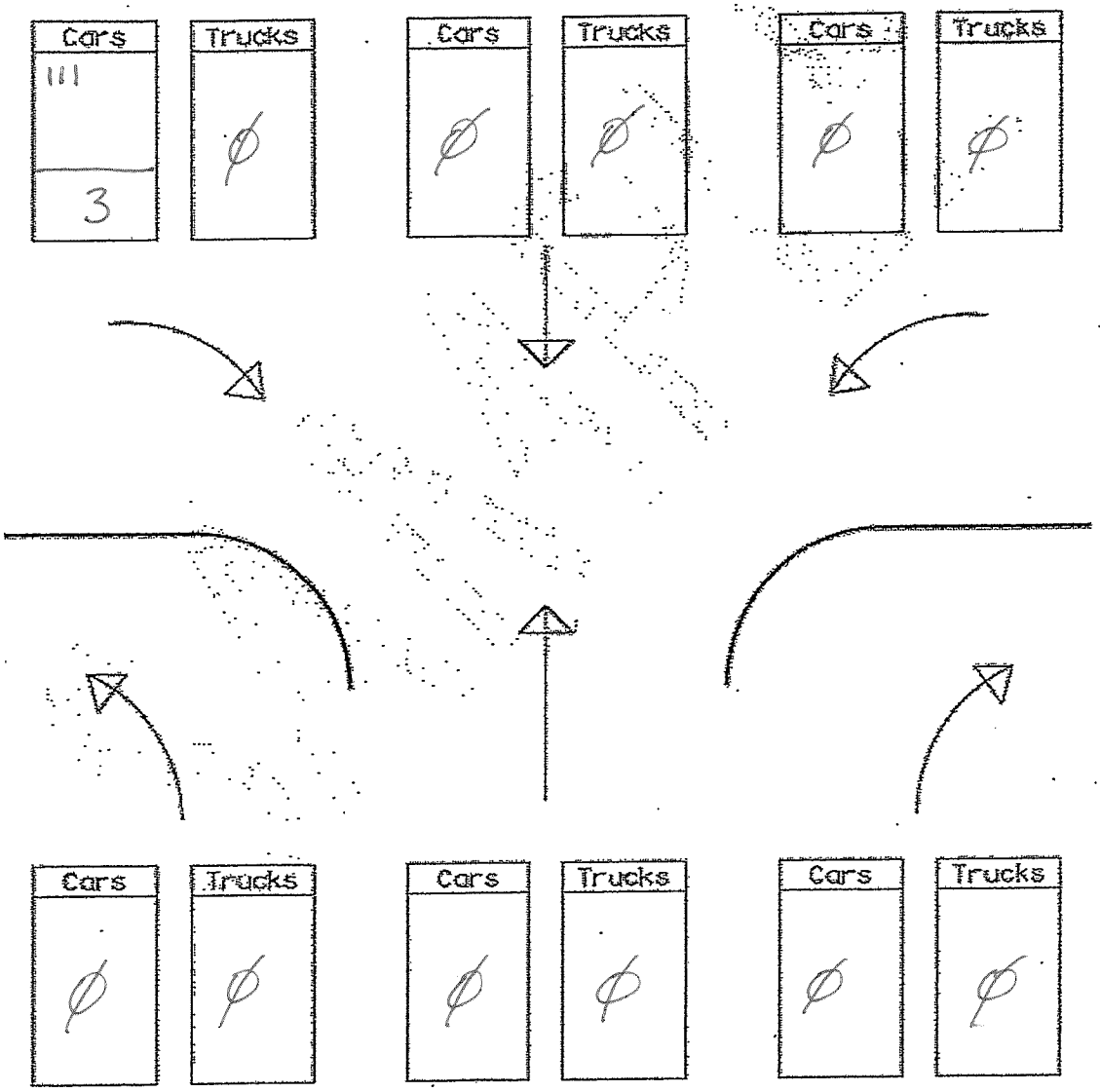
Driveway Counts

Project No. NO. 19.005

Location: LOGO STONE
MILITARY RD.

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: _____



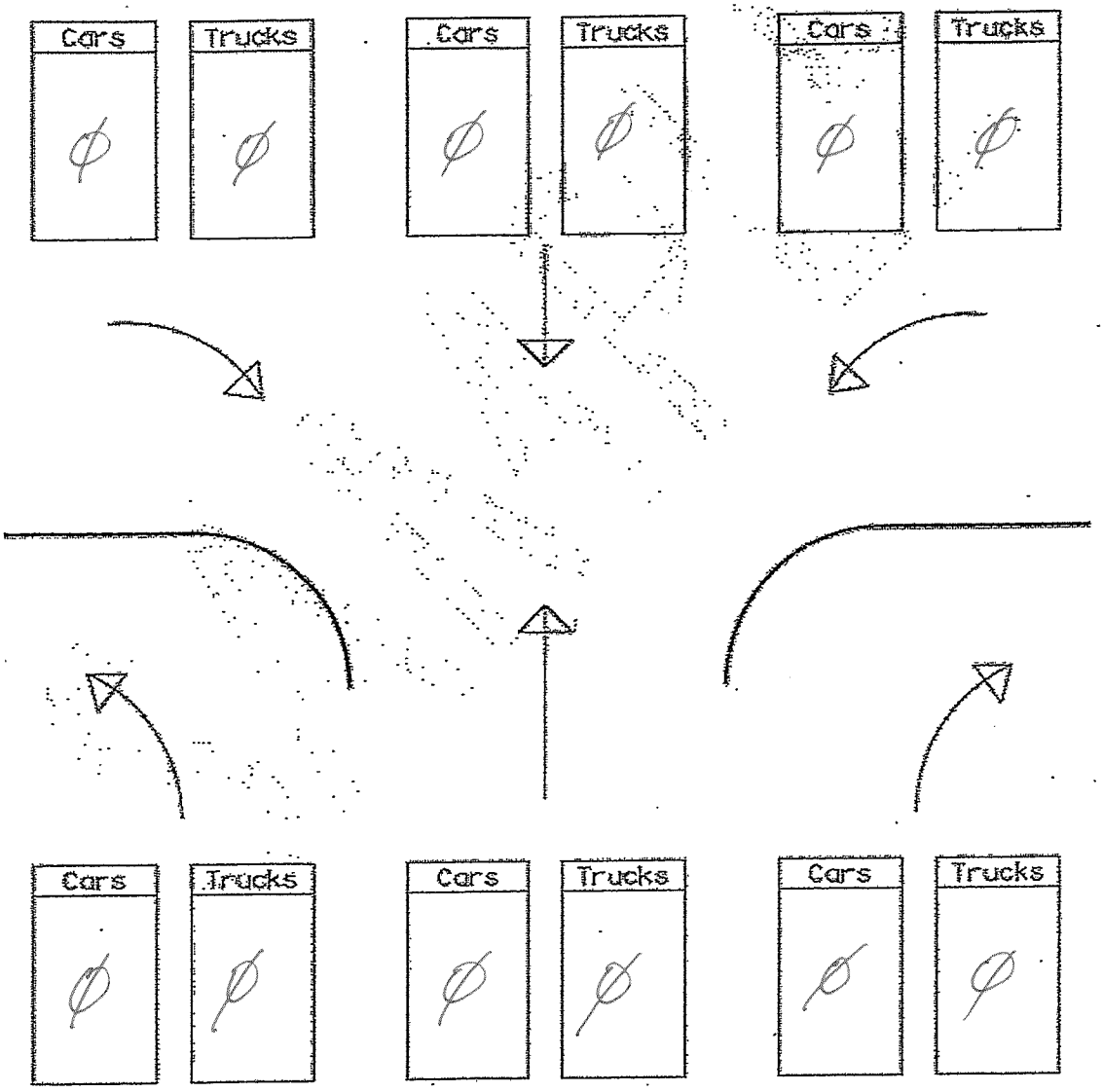
Driveway Counts

Project No. No. 19.005

Location: 40898 HAYES MILITARY RD.

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: KEITH HARRIS



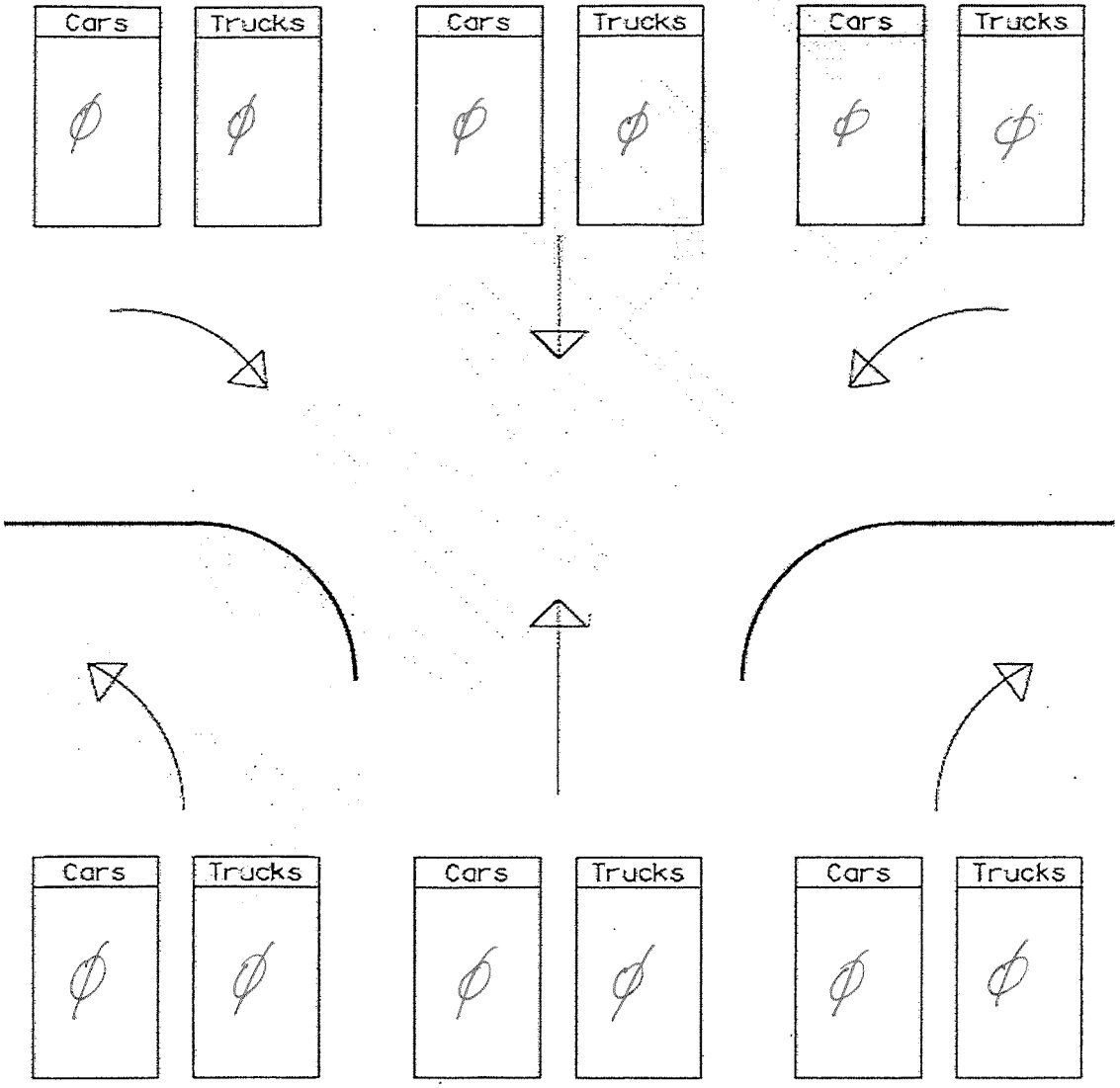
Driveway Counts

Project No. No. 19.005

Location: QUICK CHECK GAS STATION (MILITARY RD) DRIVE #1

Time Interval: 4:30PM TO 4:45 AM / (PM)

Name of Person Counting: KESTER HOLLIER



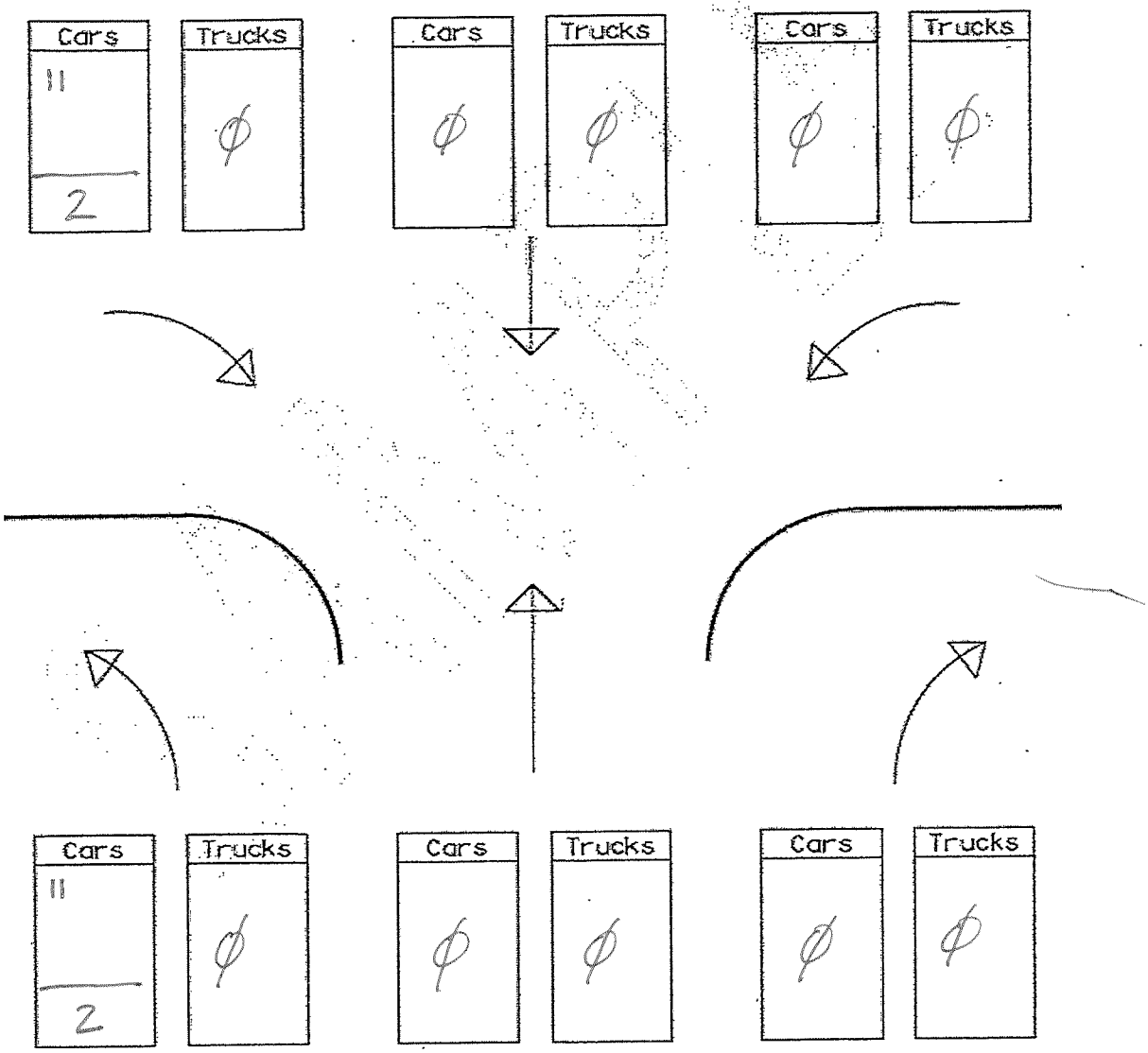
Driveway Counts

Project No. No. 19.005

Location: QUICK CHECK GAS STATION #2 (MILITARY RD)

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: KESTER HOWLETT



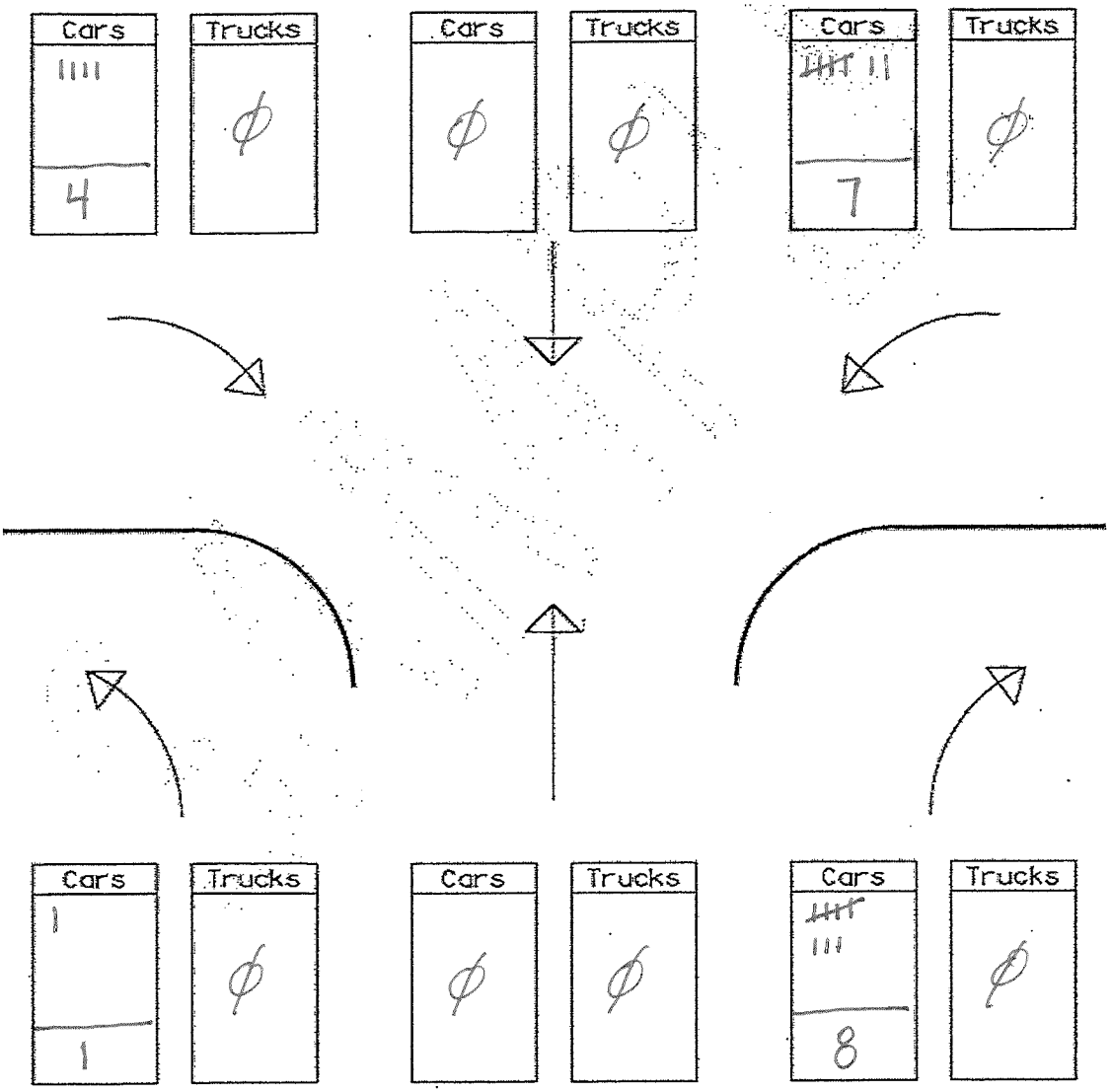
Driveway Counts

Project No. NO.19.005

Location: EXXON GAS STATION (MILITARY RD.)

Time Interval: 4:30 TO 4:45 AM / PM

Name of Person Counting: KESTER HOLLIER



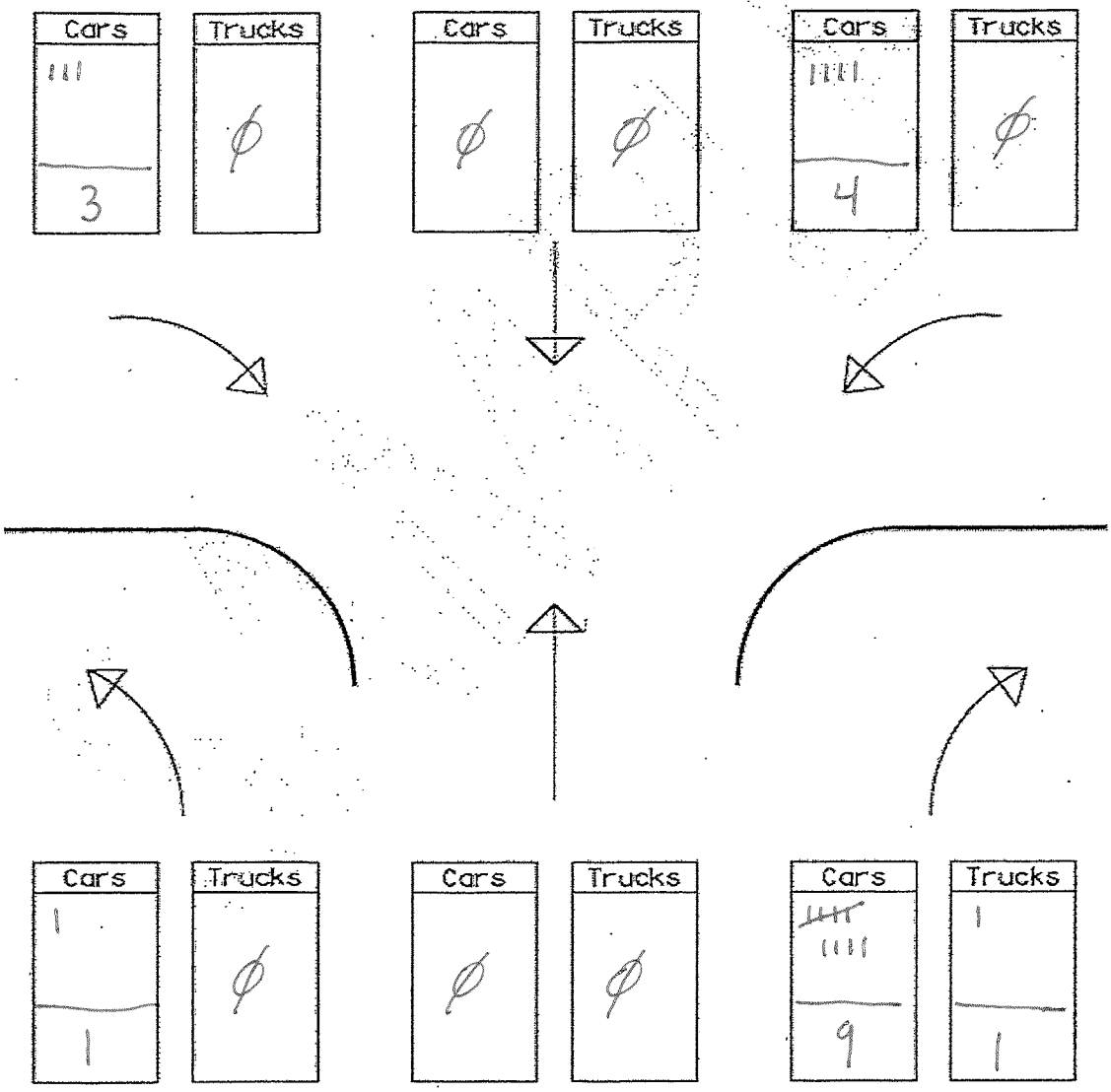
Driveway Counts

Project No. NO. 19.005

Location: WINN DIXIE
MILITARY RD.

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: KESTER KOLLER



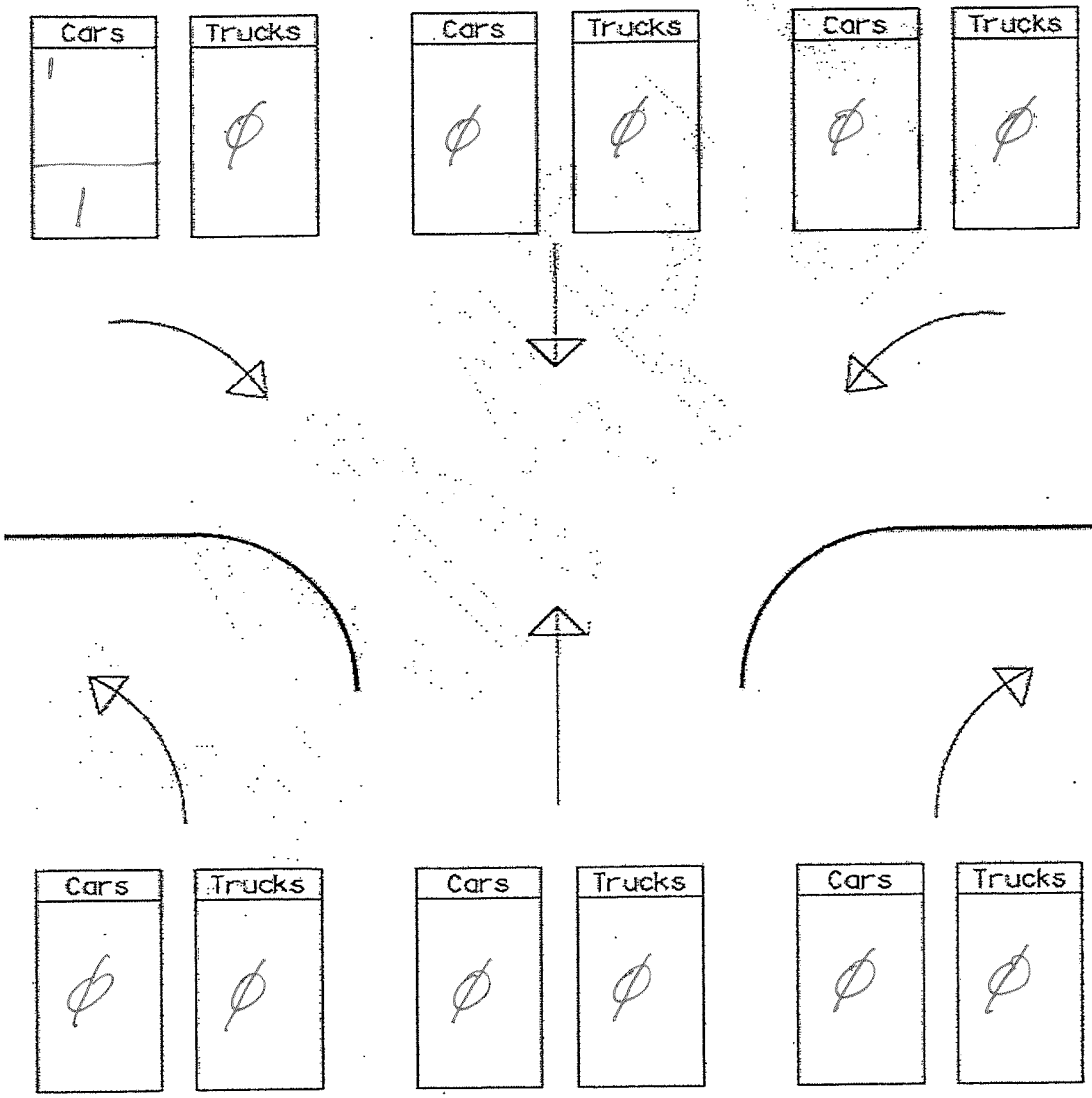
Driveway Counts

Project No. NO. 19.005

Location: CROSS GATES APPT. DRIVE #1
MILITARY RD

Time Interval: 5:00 TO 5:15 AM / (PM)

Name of Person Counting: KESTER HARRIS



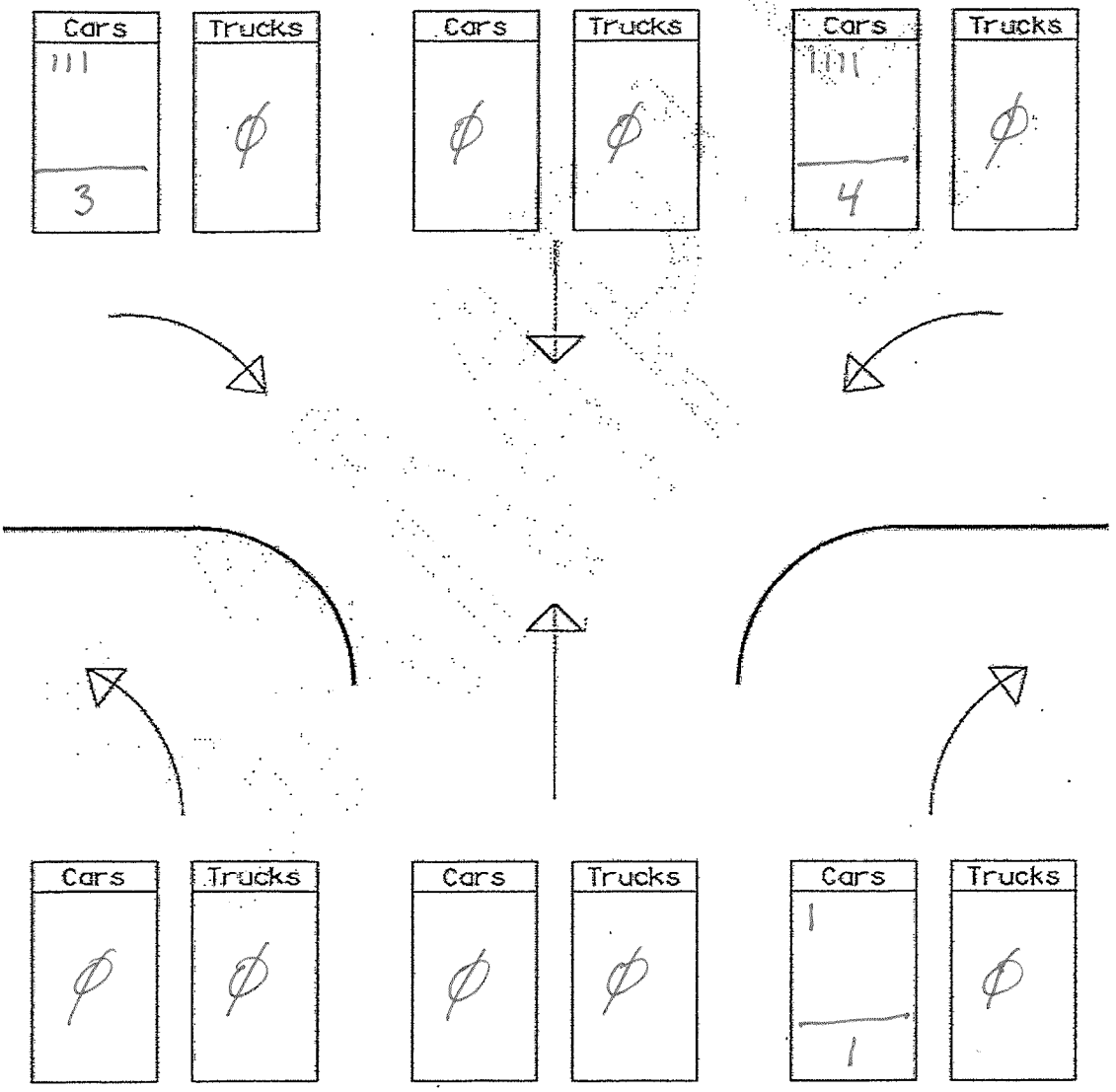
Driveway Counts

Project No. No. 19.005

Location: SPECKLED Ts
MILITARY RD

Time Interval: 5:00 TO 5:15 AM / PM

Name of Person Counting: KESTER HOLDER



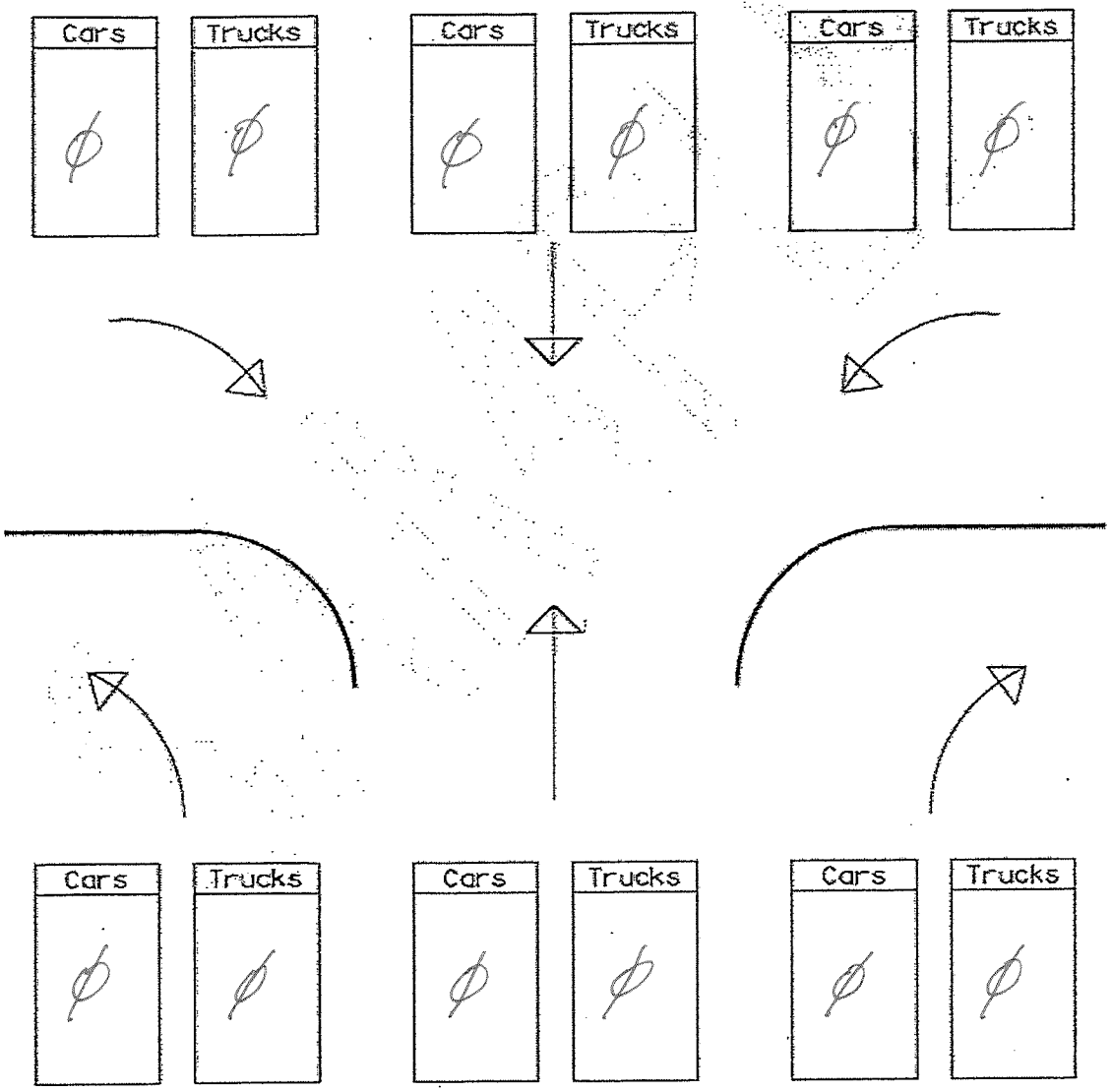
Driveway Counts

Project No. NO.19.005

Location: ACTION PHYSICAL
MILITARY RD.

Time Interval: 5:00 TO 5:15 AM / (PM)

Name of Person Counting: KESTER HALLIER



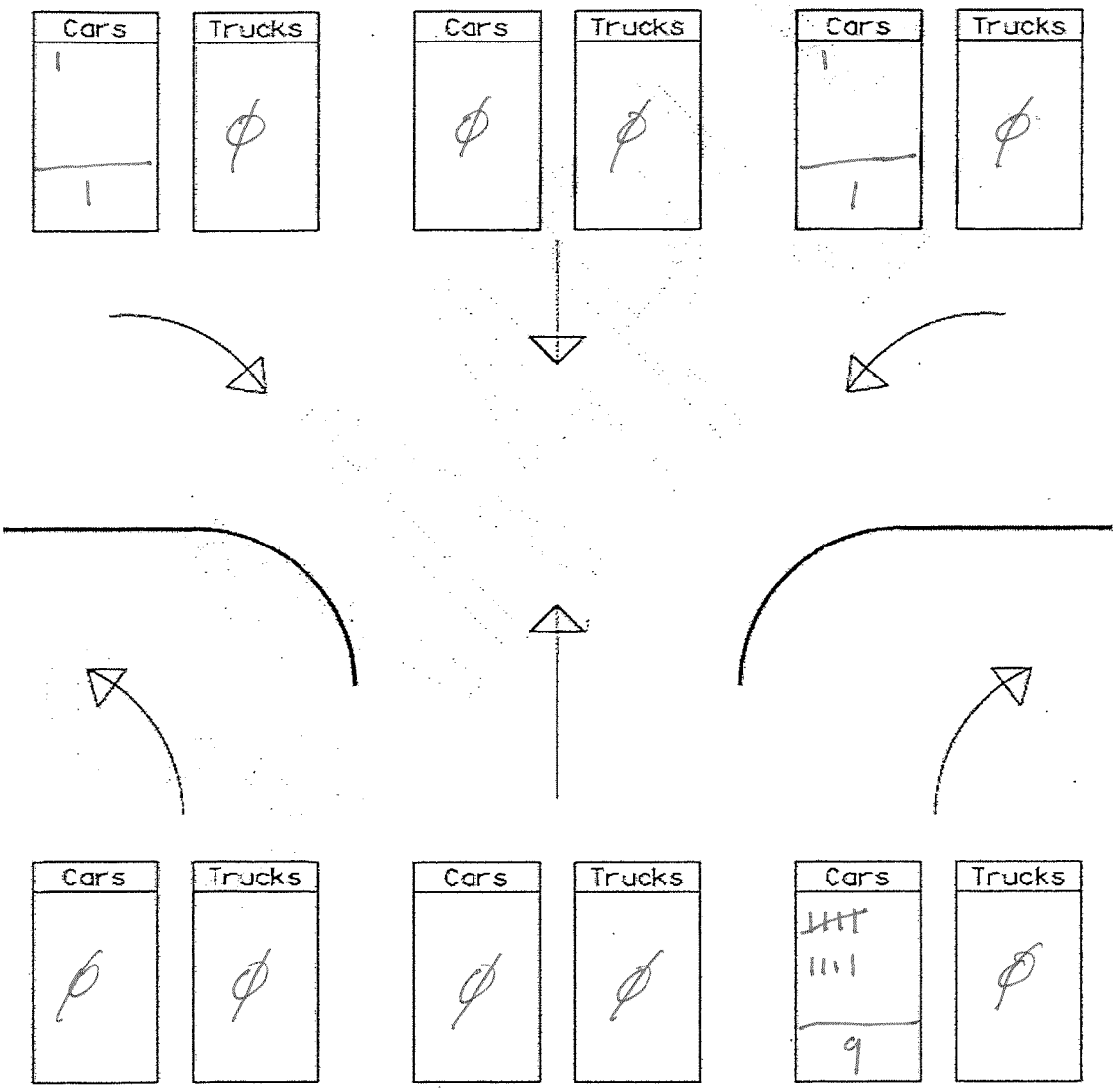
Driveway Counts

Project No. No. 19.005

Location: FAMILY DOLLAR
MILITARY RD.

Time Interval: 5:00 TO 5:15 AM / PM

Name of Person Counting: KESTER HARRISON



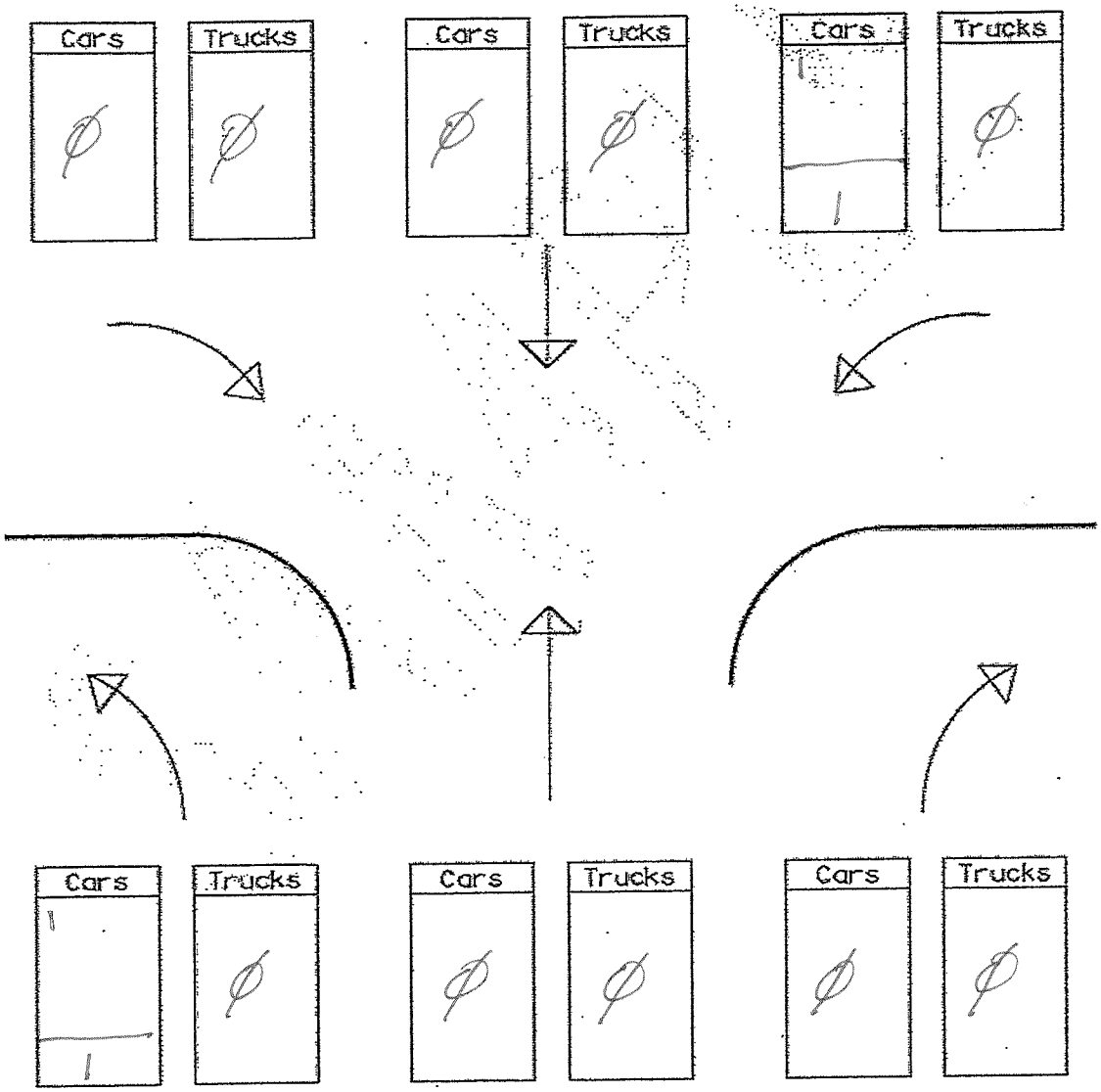
Driveway Counts

Project No. No. 19.005

Location: CROSS GATES APPT. DRIVE #2
MILITARY RD

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: GRALYN DUNN



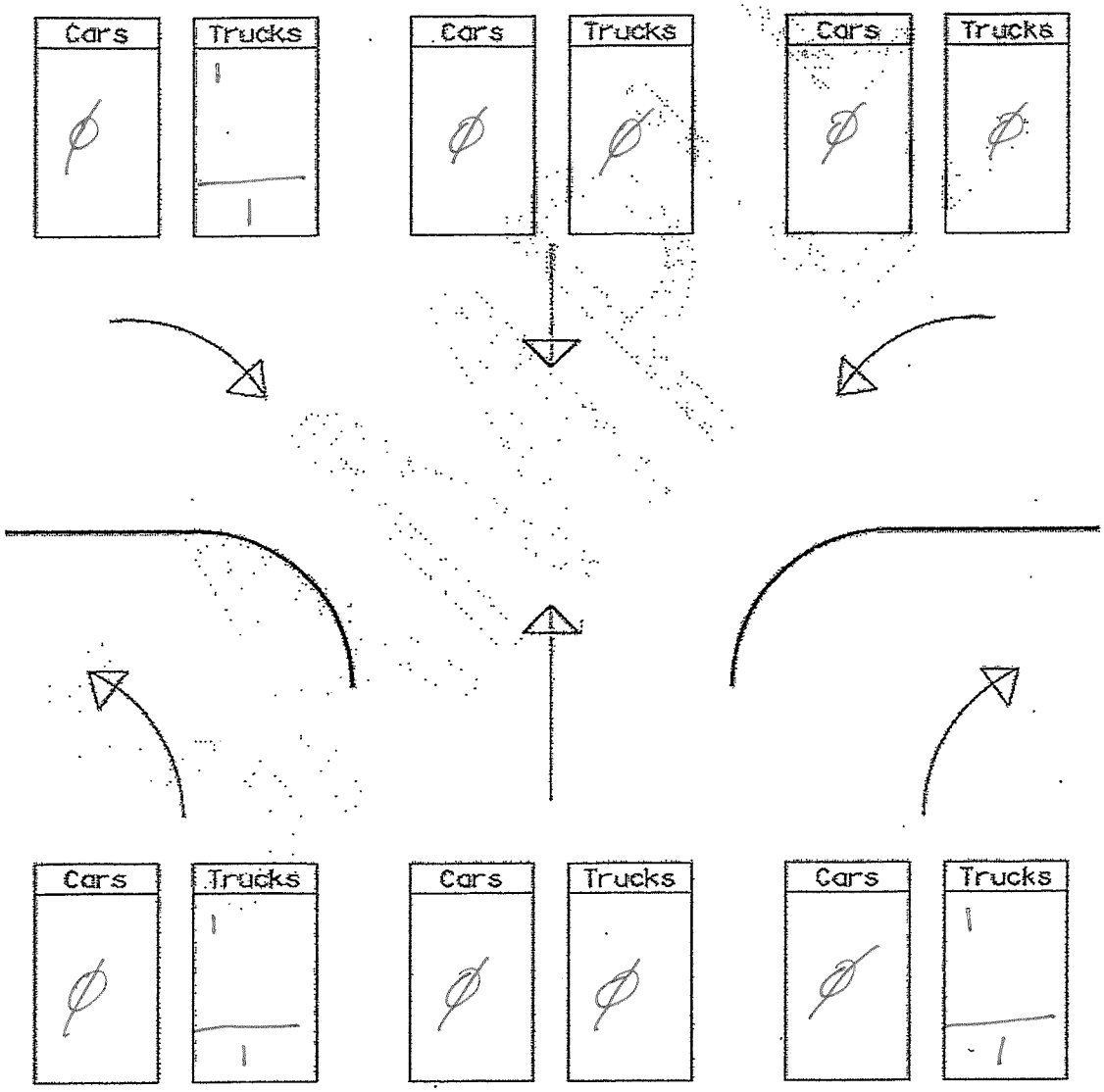
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Appt Drive #3 Military Rd

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: Gralyn Dunn



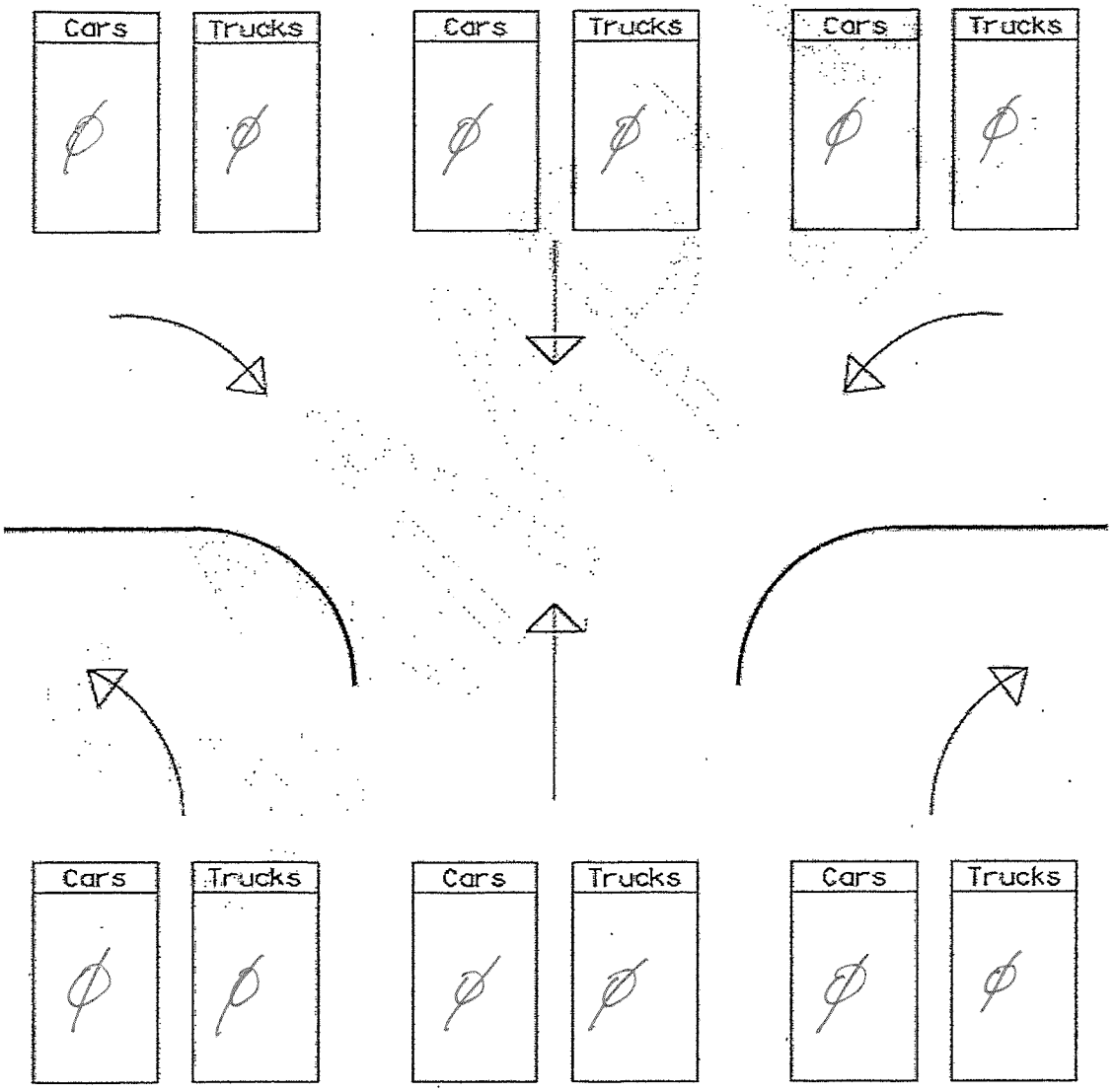
Driveway Counts

Project No. NO. 19.005

Location: CROSS GATES APPT DRIVE thy MILITARY RD

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: GRACYN DENT



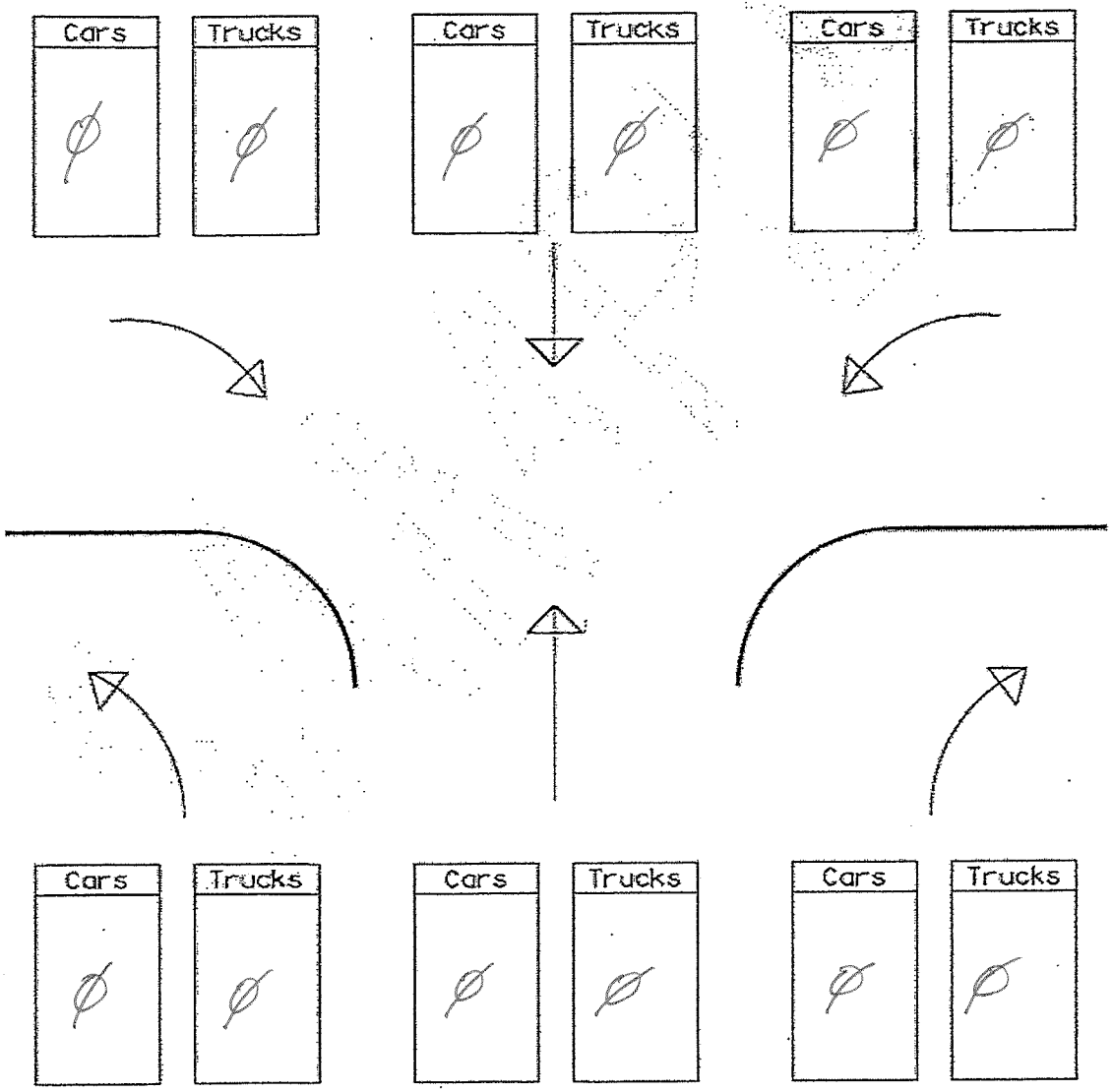
Driveway Counts

Project No. No.19.005

Location: 281 Cross Gates Drive

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: Graysen Dunn



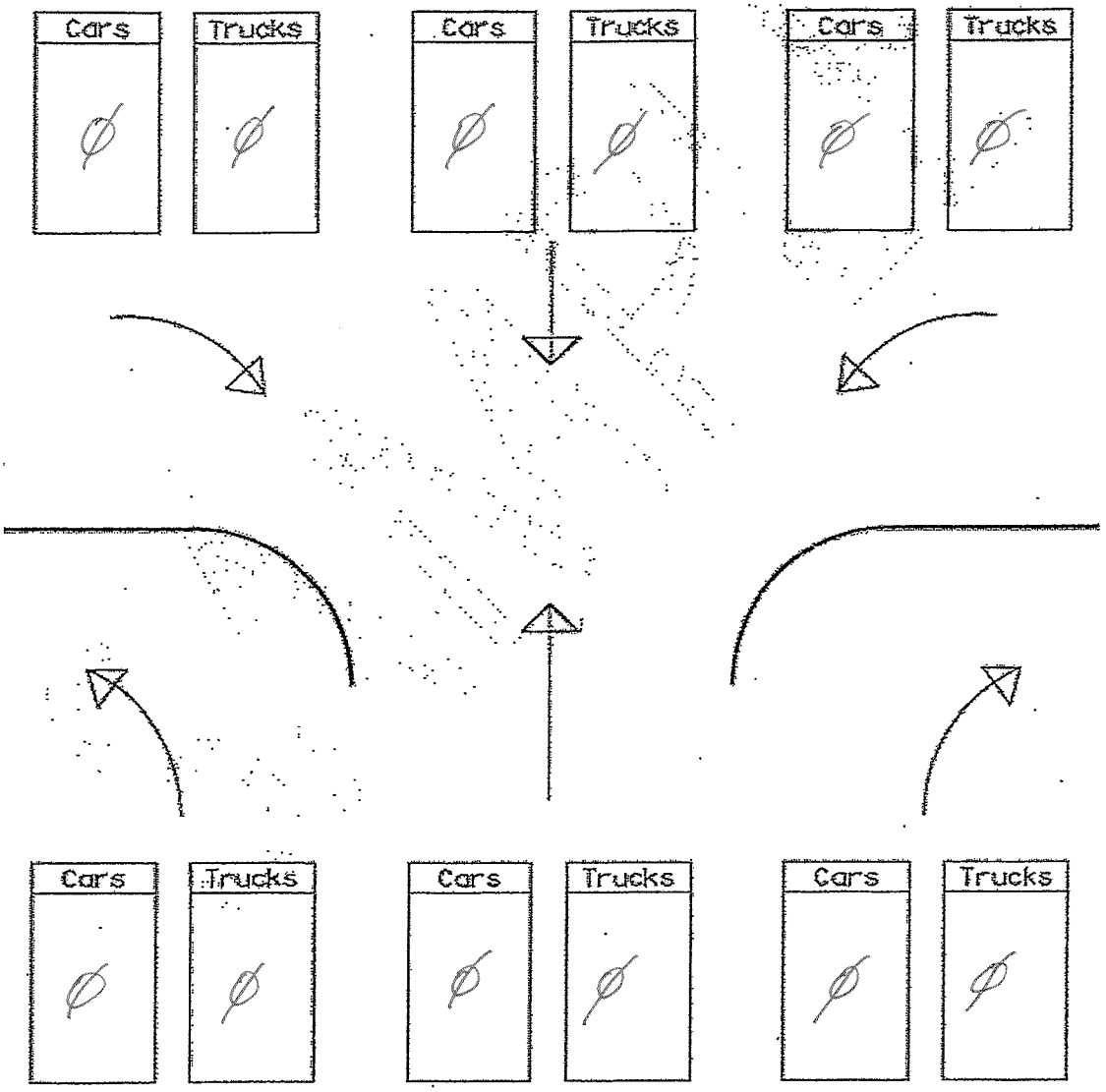
Driveway Counts

Project No. No. 19.005

Location: 278 Cross GATES
MILITARY RD.

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: COLLEEN SEARGENT



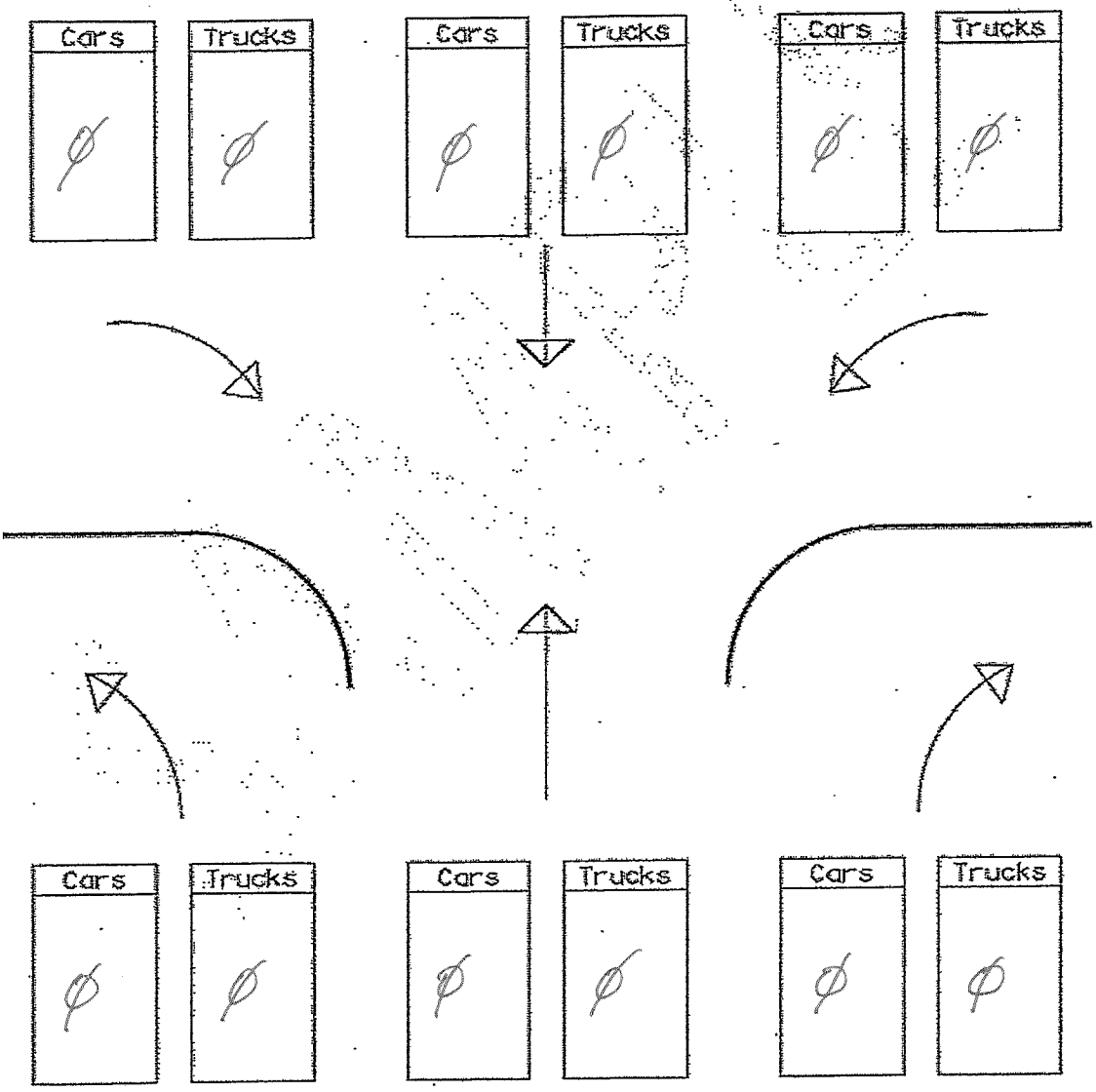
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Apt Drive #5
Military Rd.

Time Interval: 4:30 TO 4:45 AM / (PM)

Name of Person Counting: Colleen Stephens



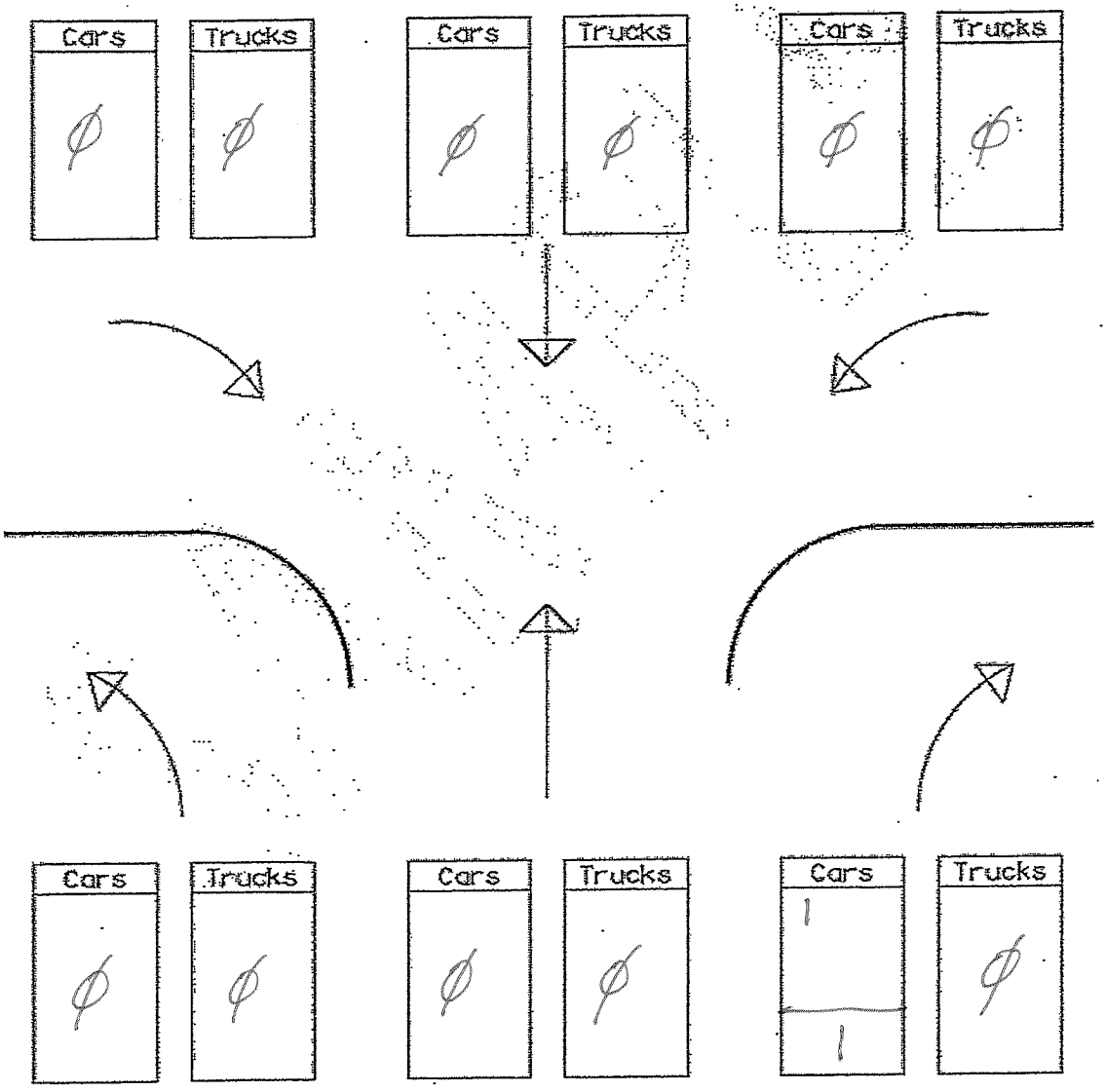
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Appt. Drive #6 Mighway 80

Time Interval: 4:30 TO 4:45 AM / PM

Name of Person Counting: Lawrence Stephens



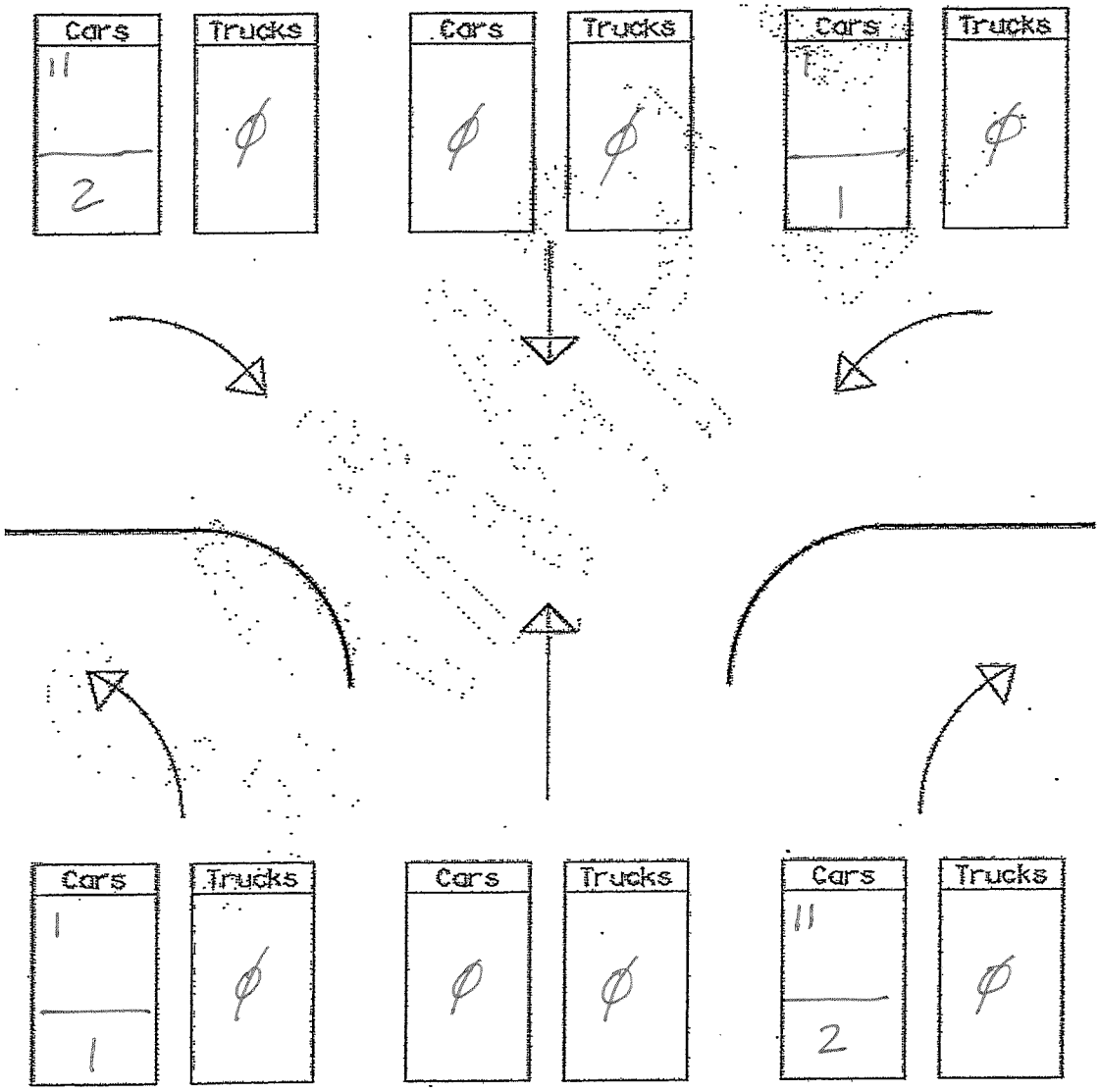
Driveway Counts

Project No. NO. 19.005

Location: CROSS GATES ADPT DRIVE #7 MILITARY RD.

Time Interval: 4:45 TO 5:00 AM / PM

Name of Person Counting: GOLDEN STORMONT



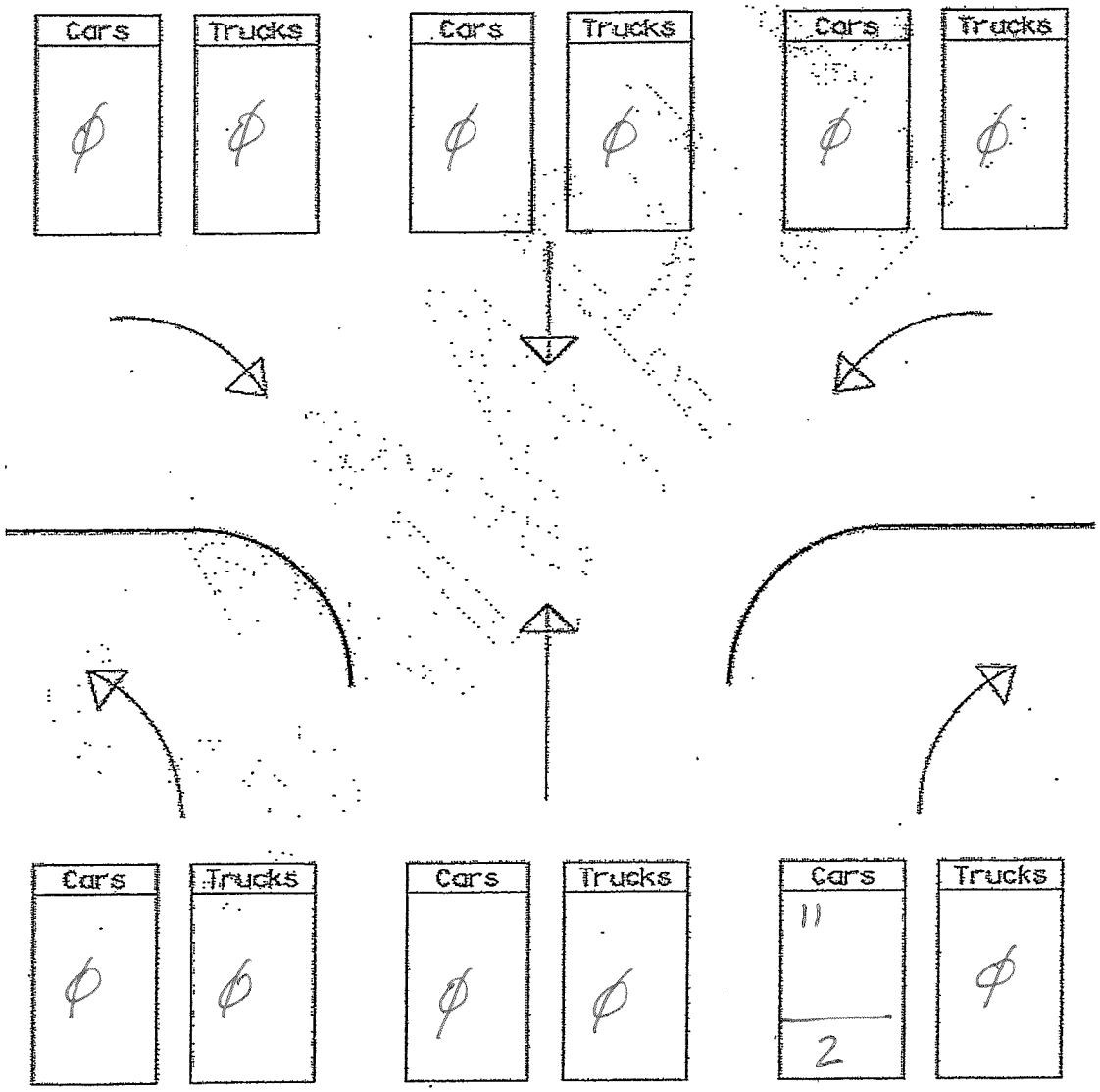
Driveway Counts

Project No. No. 19.005

Location: Gross Gates Apart Drive #8 Military Rd

Time Interval: 5:00 TO 5:15 AM / PM

Name of Person Counting: Ed Elam



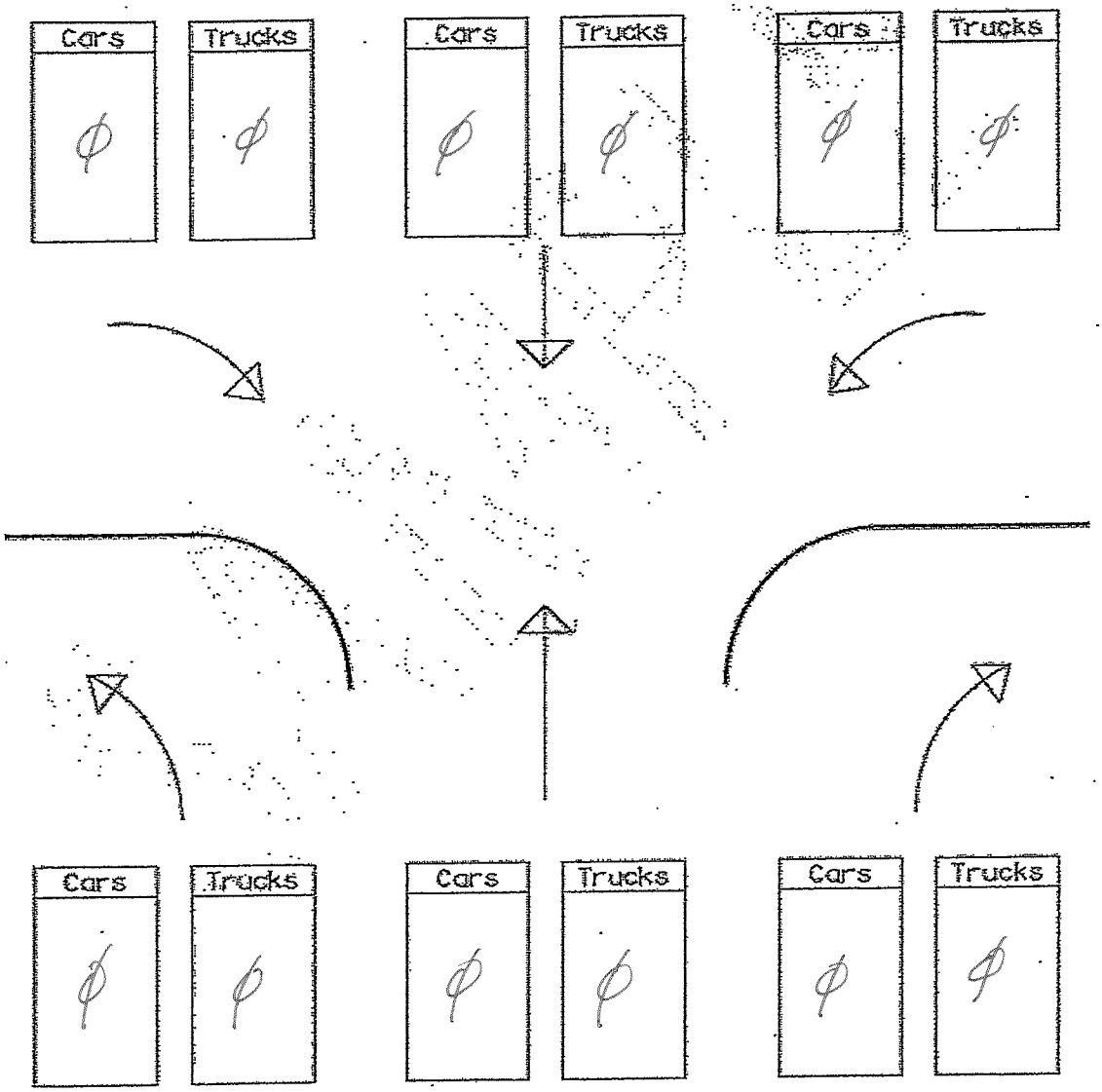
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Drive #9
Military Rd

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: Colleen Stephens



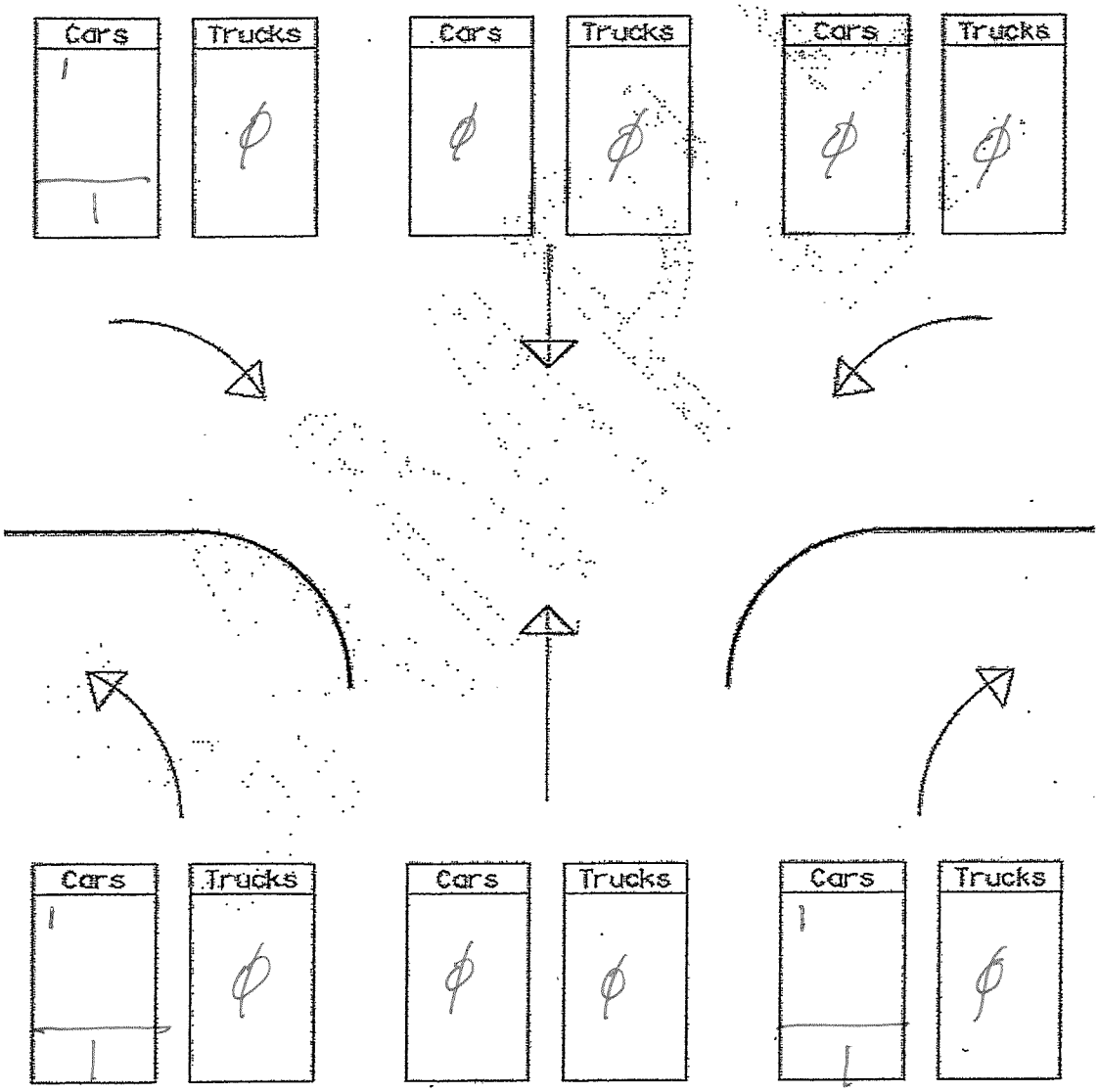
Driveway Counts

Project No. No. 19.005

Location: Cross Gates Road Trucks #10 Military Rd

Time Interval: 8:00 TO 8:45 AM / PM

Name of Person Counting: ED ELAM



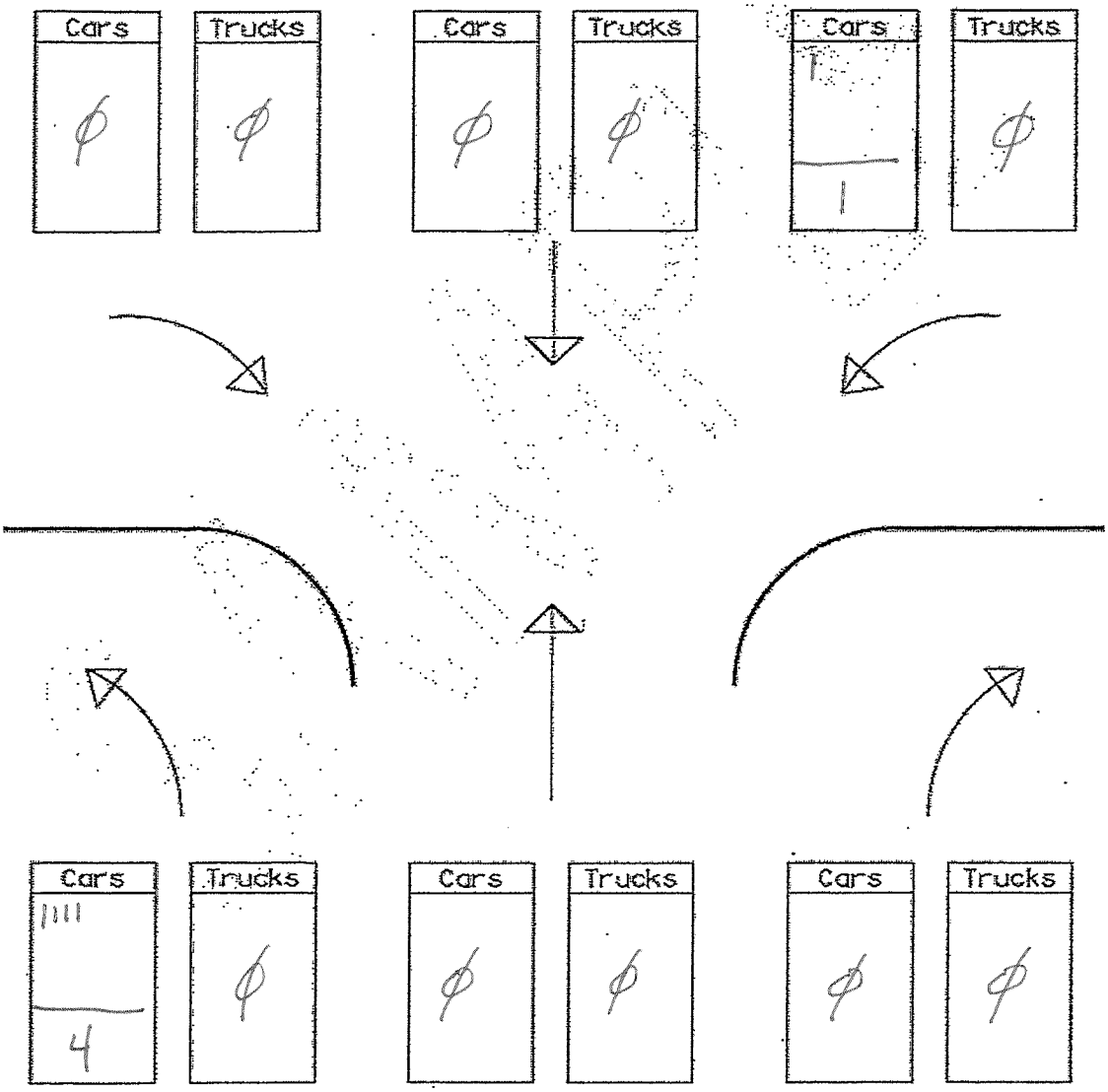
Driveway Counts

Project No. No. 19.005

Location: CROSS GATES APPT DRIVE #11 MILLIKEN RD

Time Interval: 8:00 TO 8:15 (AM) / PM

Name of Person Counting: ED EZAM



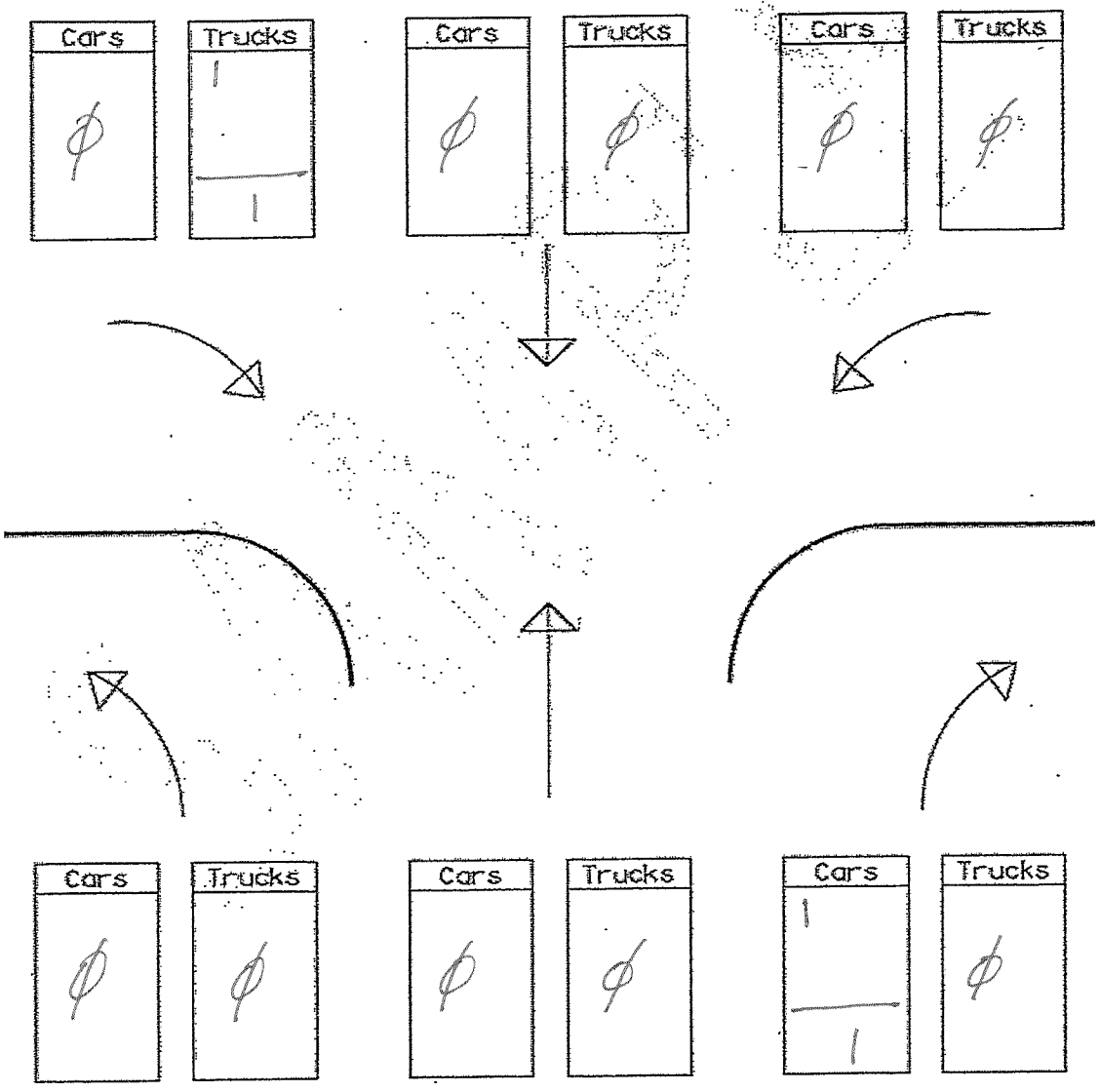
Driveway Counts

Project No. NO. 19.005

Location: Cross Gates Appt Drive #12
McKinney RD

Time Interval: 8:00 TO 8:15 (AM) / PM

Name of Person Counting: ED ELAM



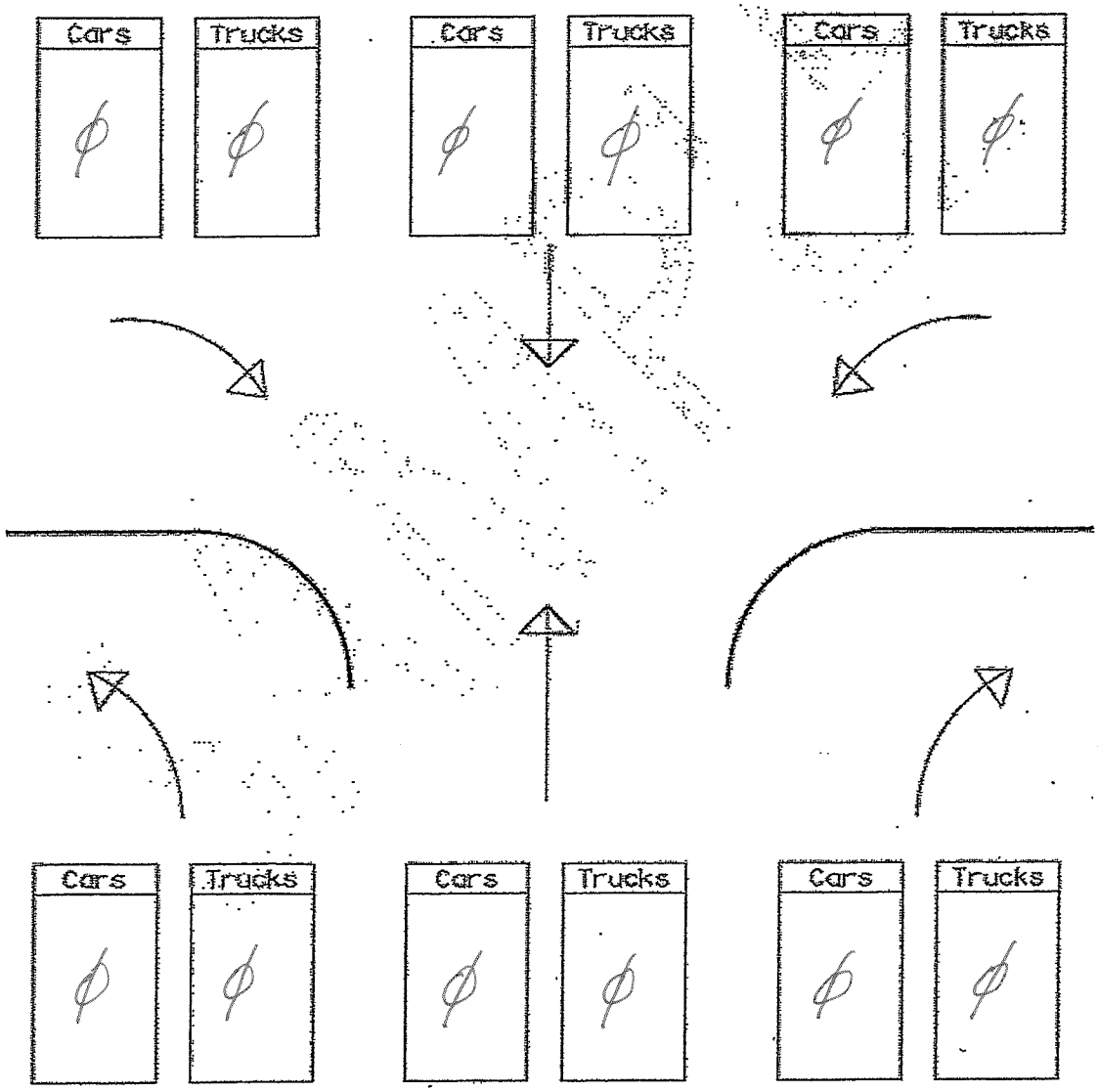
Driveway Counts

Project No. No. 19.005

Location: CROSS GATES APPT DRIVE #13
MILITARY RD

Time Interval: 6:30 TO 8:15 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



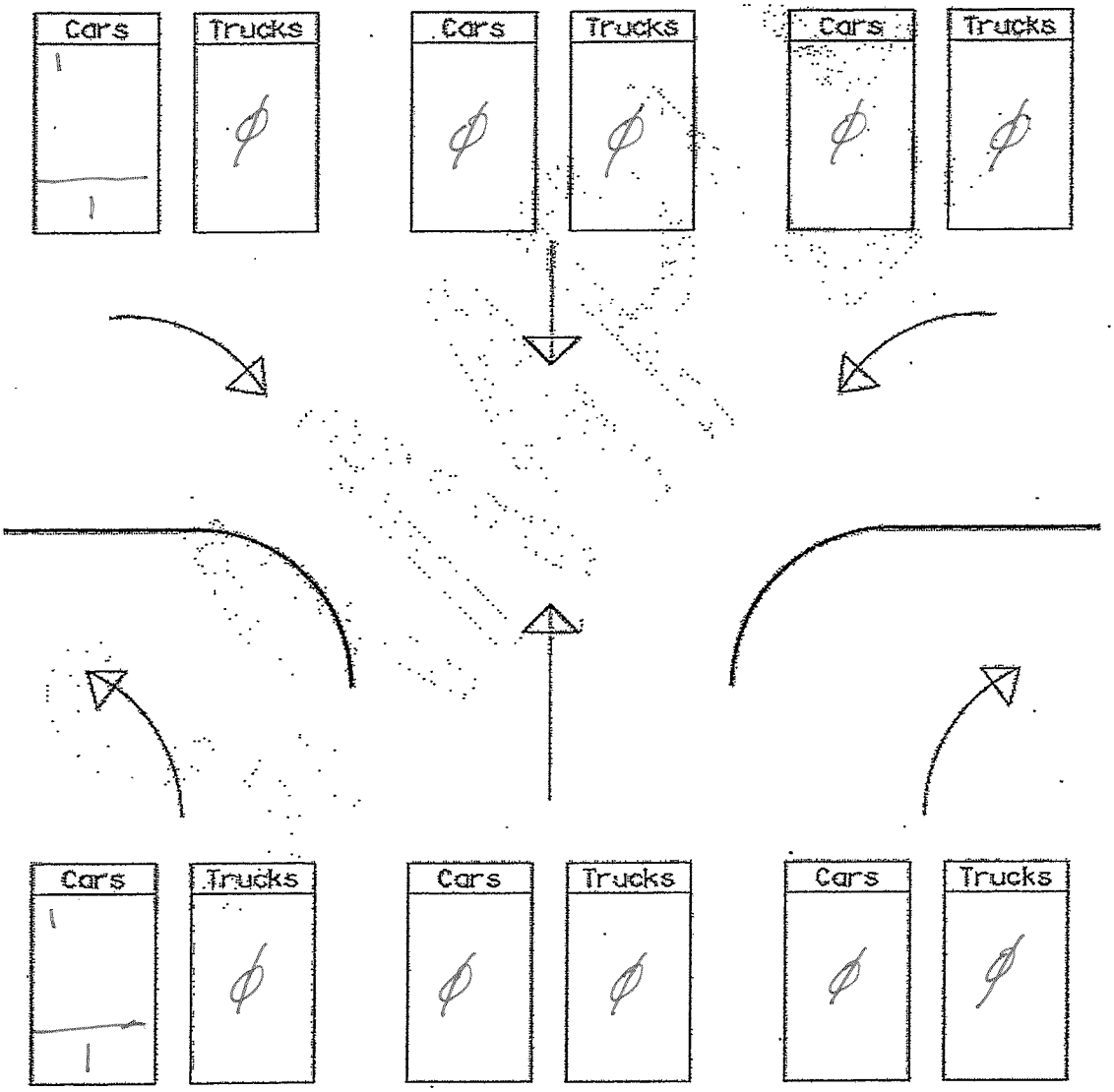
Driveway Counts

Project No. No. 19.005

Location: CROSS GATES APPT DRIVE #14 MILITARY RD

Time Interval: 8:00 TO 8:15 AM / PM

Name of Person Counting: COLLEEN STEPHENS



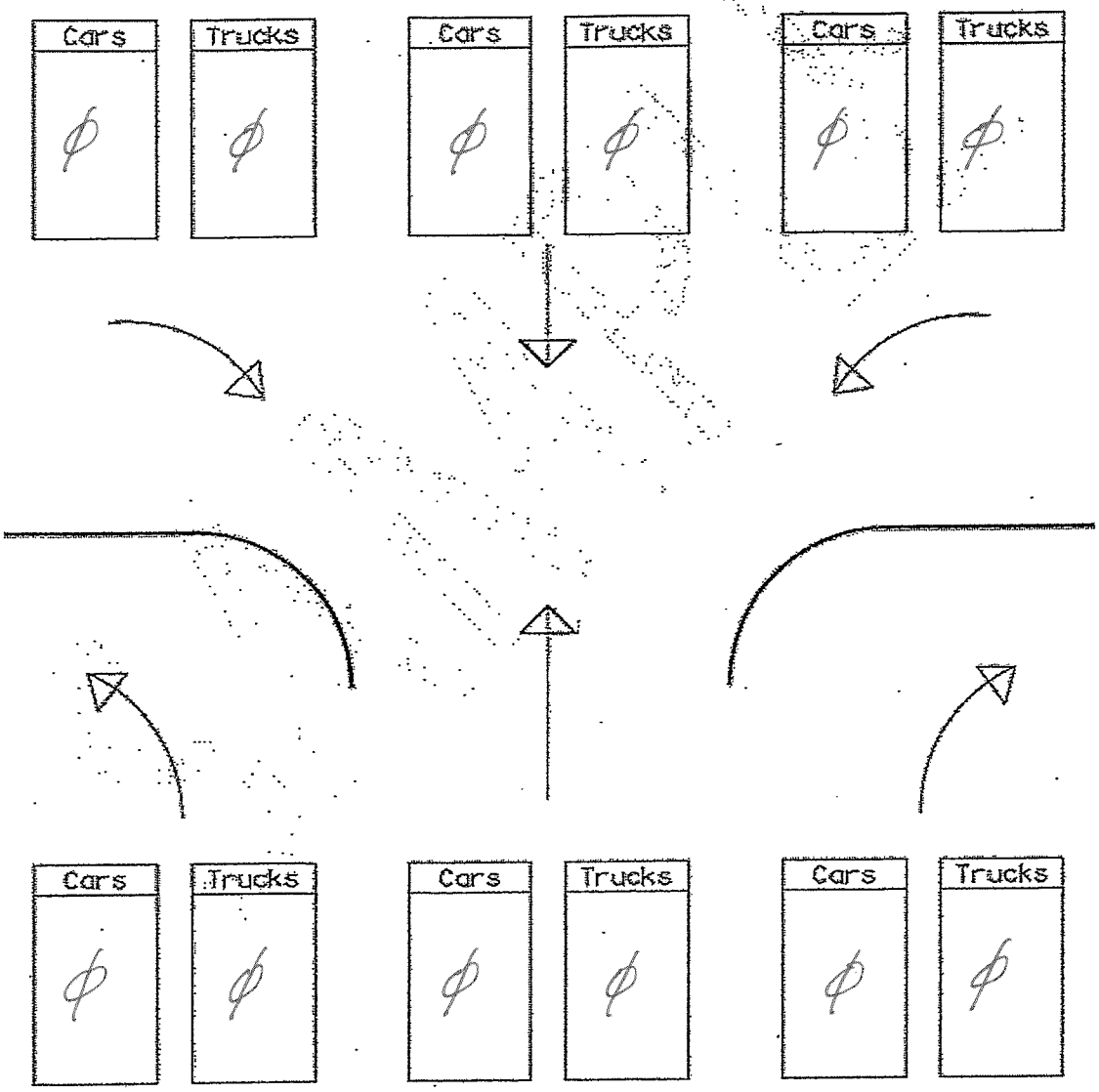
Driveway Counts

Project No. No. 19.005

Location: STRIP MALL (CORNER AT RANCH & MILITARY)

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: ED EZAM



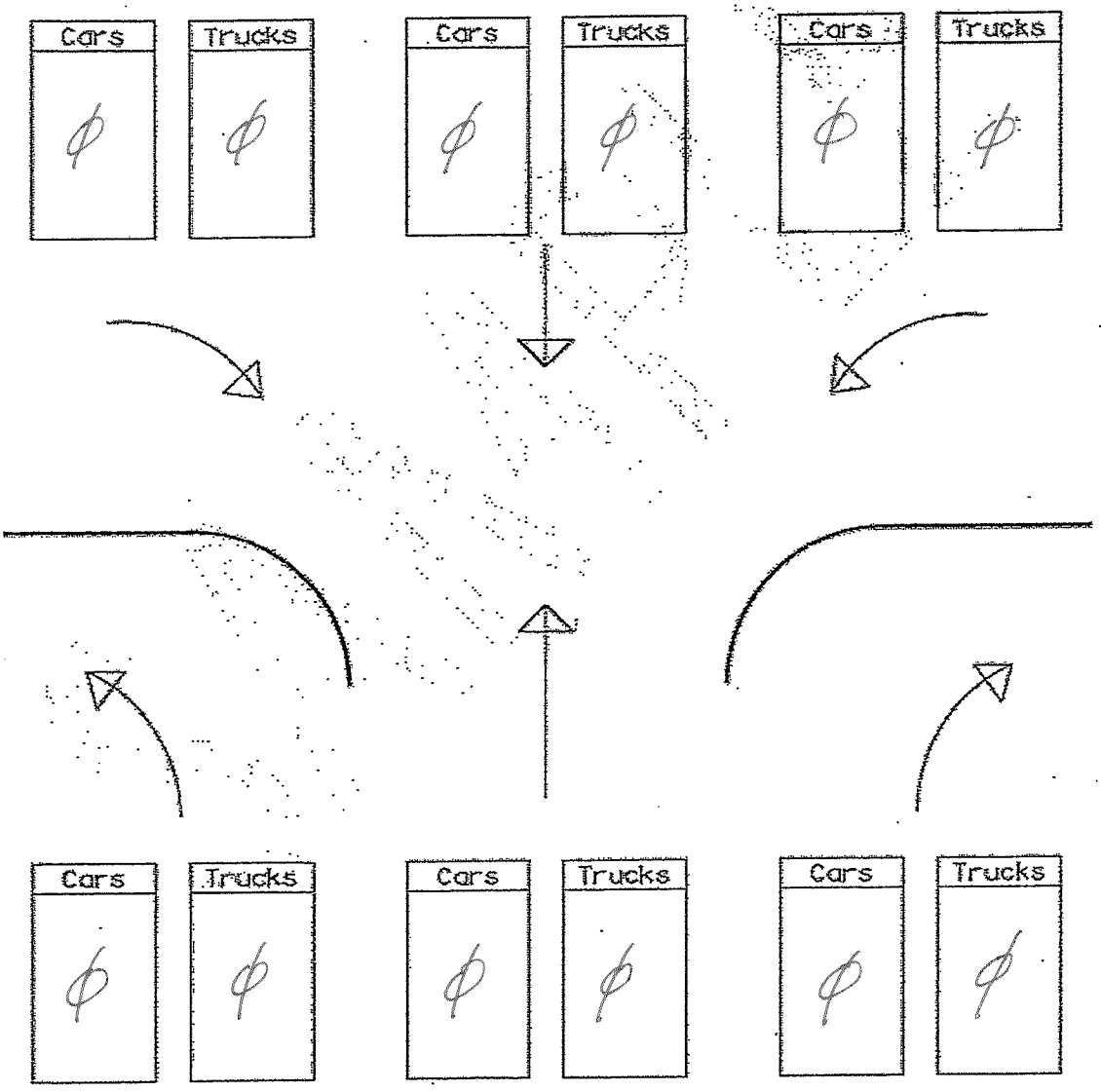
Driveway Counts

Project No. NO. 19.005

Location: ANGELS OF PEACE
MCCLUNG RD

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: GD ELAM



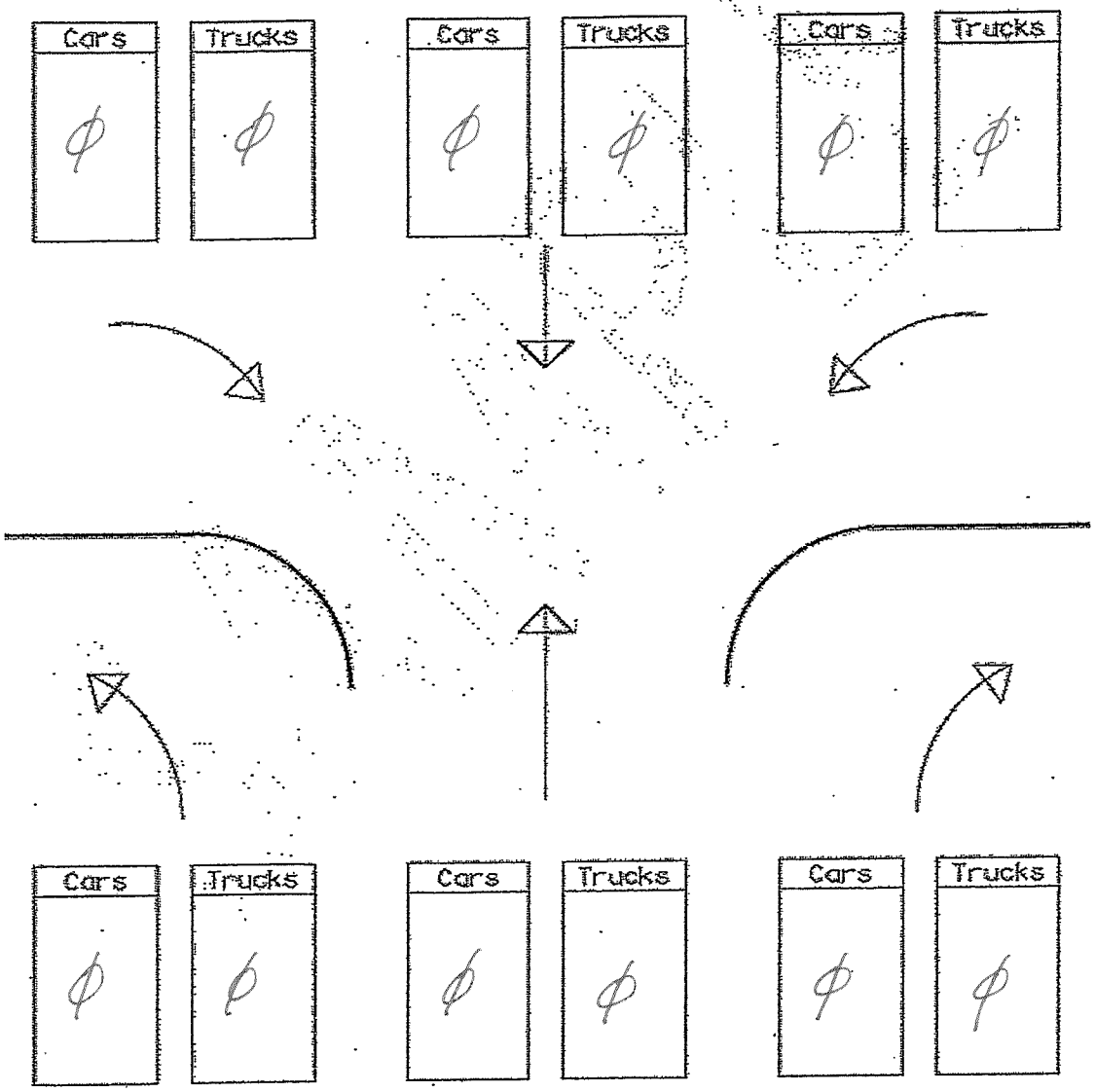
Driveway Counts

Project No. No. 19.005

Location: SNO BALLS
MILITARY RD.

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



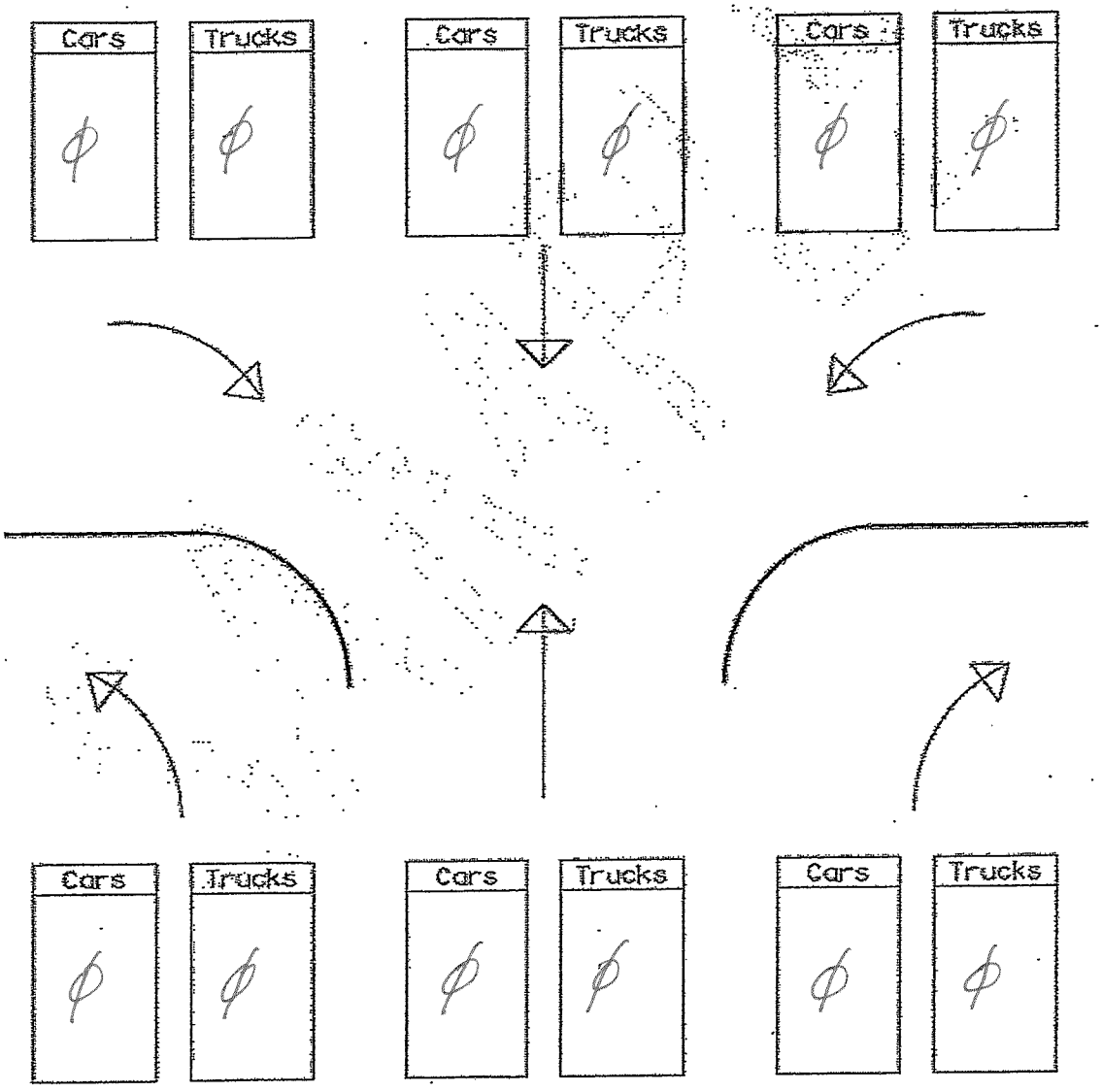
Driveway Counts

Project No. No. 19.005

Location: Logo Stone
Military Rd.

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: Colleen Stephens



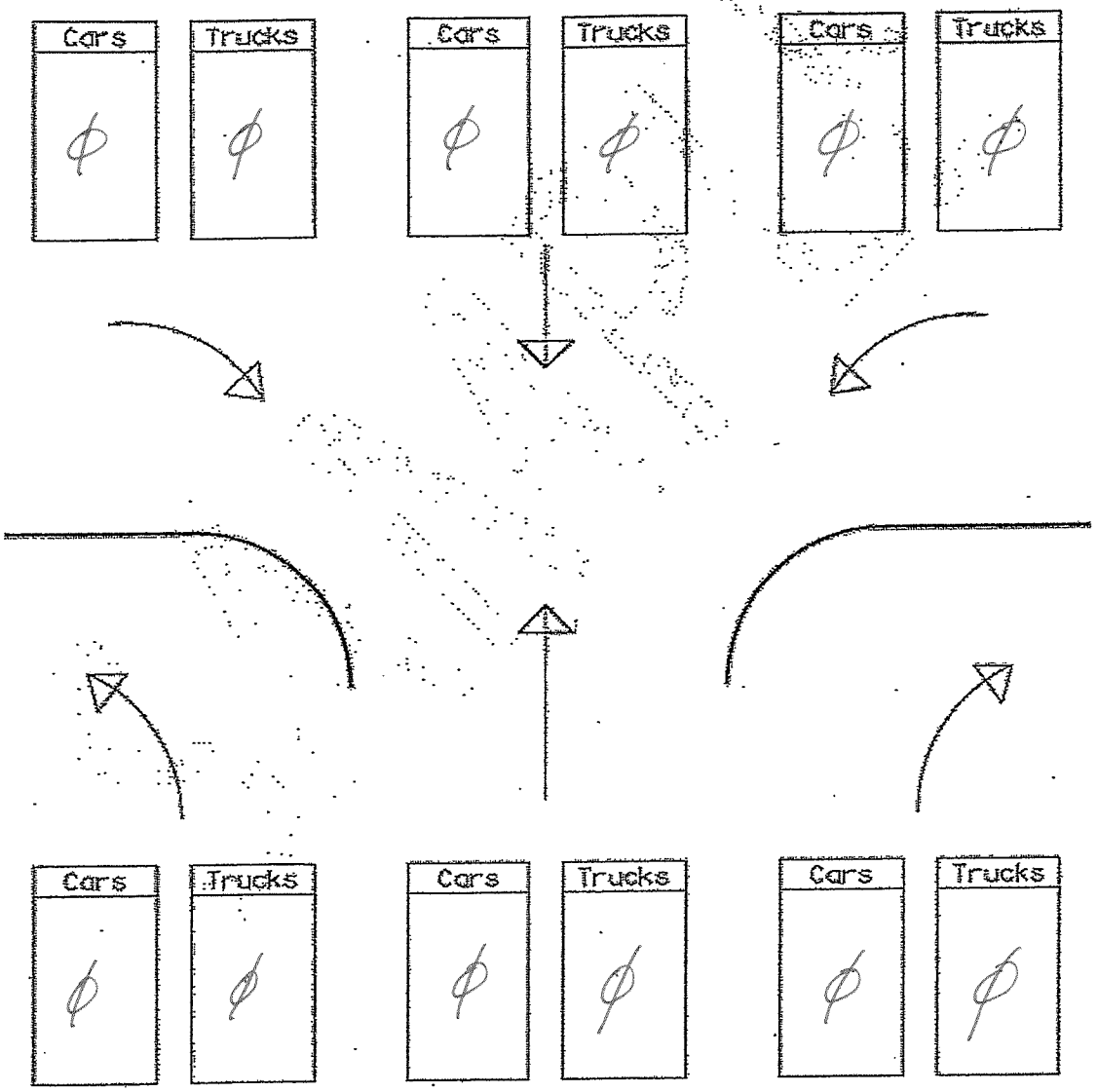
Driveway Counts

Project No. NO. 14.005

Location: 40898 HAMES MILITARY RD.

Time Interval: 7:30 TO 7:45 (AM) / PM

Name of Person Counting: COLLEEN STEPHENS



Appendix D:
Stage 0 Environmental Checklist and Preliminary Budget Worksheet

STAGE 0
Environmental Checklist

Route US 190 Parish: St. Tammany

C.S. 852.26 Begin Log mile 1.406 End Log mile 2.118

ADJACENT LAND USE: residential, commercial

Any property owned by a Native American Tribe?
(Y or (N) or Unknown) If so, which Tribe? N/A

Any property enrolled into the Wetland Reserve Program?
(Y or (N) or Unknown) If so, give the location N/A

Are there any other known wetlands in the area?
(Y or (N)) If so, give the location N/A

Community Elements: Is the project impacting or adjacent to any (if the answer is yes, list names and locations):
(Y or (N)) Cemeteries N/A
(Y or (N)) Churches N/A
((Y) or N) Schools Adjacent to Honey Island Elementary School and Cypress Cove Elementary School
(Y or (N)) Public Facilities (i.e., fire station, library, etc.) N/A
(Y or (N)) Community water well/supply N/A

Section 4(f) issue: Is the project impacting or adjacent to any (if the answer is yes, list names and locations):
(Y or (N)) Public recreation areas N/A
(Y or (N)) Public parks N/A
(Y or (N)) Wildlife Refuges N/A
(Y or (N)) Historic Sites N/A

Is the project impacting, or adjacent to, a property listed on the National Register of Historic Places? (Y or (N)) **Is the project within a historic district or a national landmark district?** (Y or (N)) If the answer is yes to either question, list names and locations below:
N/A

Do <u>you know</u> of any threatened or endangered species in the area? (Y or (N))
If so, list species and location. N/A

Does the project impact or adjacent to a stream protected by the Louisiana Scenic Rivers Act? (Y or (N)) If yes, name the stream. N/A

Are there any Significant Trees as defined by EDSM I.1.1.21 within proposed ROW? (Y or (N)) If so, where? N/A

What year was the existing bridge built? N/A

Are any waterways impacted by the project considered navigable? (Y or (N)) If unknown, state so, list the waterways: N/A

Hazardous Material: Have you checked the following DEQ and EPA databases for potential problems? (If the answer is yes, list names and locations.)
(Y or (N)) Leaking Underground Storage Tanks
(Y or (N)) CERCLIS
(Y or (N)) ERNS
(Y or (N)) Enforcement and Compliance History

STAGE 0
Environmental Checklist

Underground Storage Tanks (UST): Are there any Gasoline Stations or other facilities that may have UST on or adjacent to the project? (Y or N) Y
If so, give the name and location: Exxon 101 S Military Rd, Slidell, LA 70461; Quick Serve 100 S Military Rd, Slidell, LA 70461

Any chemical plants, refineries or landfills adjacent to the project? (Y or N) N **Any large manufacturing facilities adjacent to the project?** (Y or N) N **Dry Cleaners?** (Y or N) N If yes to any, give names and locations: N/A

Oil/Gas wells: Have you checked DNR database for registered oil and gas wells? (Y or N) Y List the type and location of wells being impacted by the project. N/A

Are there any possible residential or commercial relocations/displacements? (Y or N) N
How many? N/A

Do you know of any sensitive community or cultural issues related to the project? (Y or N) N
If so, explain N/A

Is the project area population minority or low income? (Y or N) N 13.8% minority; 5.8% poverty

What type of detour/closures could be used on the job? Possible driveway closures or modifications during construction.

Did you notice anything of environmental concern during your site/windshield survey of the area? If so, explain below.
There were no environmental concerns noted.

Colleen Stephens, Burk-Kleinpeter, Inc.
Point of Contact

504.483.6248
Phone Number

4/22/19
Date

STAGE 0
Environmental Checklist

General Explanation:

To adequately consider projects in Stage 0, some consideration must be given to the human and natural environment which will be impacted by the project. The Environmental Checklist was designed knowing that some environmental issues may surface later in the process. This checklist was designed to obtain basic information, which is readily accessible by reviewing public databases and by visiting the site. It is recognized that some information may be more accessible than other information. Some items on the checklist may be more important than others depending on the type of project. It is recommended that the individual completing the checklist do their best to answer the questions accurately. Feel free to comment or write any explanatory comments at the end of the checklist.

The Databases:

To assist in gathering public information, the previous sheet includes web addresses for some of the databases that need to be consulted to complete the checklist. As of February 2011, these addresses were accurate.

Note that you will not have access to the location of any threatened or endangered (T&E) species. The web address lists only the threatened or endangered species in Louisiana by Parish. It will generally describe their habitat and other information. If you know of any species in the project area, please state so, but you will not be able to confirm it yourself. If you feel this may be an issue, please contact the Environmental Section. We have biologist on staff who can confirm the presence of a species.

Why is this information important?

Land Use? Indicator of biological issues such as T&E species or wetlands.

Tribal Land Ownership? Tells us whether coordination with tribal nations will be required.

WRP properties? Farmland that is converted back into wetlands. The Federal government has a permanent easement which cannot be expropriated by the State. Program is operated through the Natural Resources Conservation Service (formerly the Soil Conservation Service).

Community Elements? DOTD would like to limit adverse impacts to communities. Also, public facilities may be costly to relocate.

Section 4(f) issues? USDOT agencies are required by law to avoid certain properties, unless a prudent or feasible alternative is not available.

Historic Properties? Tells us if we have a Section 106 issue on the project. (Section 106 of the National Historic Preservation Act) See http://www.achp.gov/work106.html for more details.

Scenic Streams? Scenic streams require a permit and may require restricted construction activities.

Significant Trees? Need coordination and can be important to community.

Age of Bridge? Section 106 may apply. Bridges over 50 years old are evaluated to determine if they are eligible for the National Register of Historic Places.

Navigability? If navigable, will require an assessment of present and future navigation needs and US Coast Guard permit.

Hazardous Material? Don't want to purchase property if contaminated. Also, a safety issue for construction workers if right-of-way is contaminated.

Oil and Gas Wells? Expensive if project hits a well.

Relocations? Important to community. Real Estate costs can be substantial depending on location of project. Can result in organized opposition to a project.

Sensitive Issues? Identification of sensitive issues early greatly assists project team in designing public involvement plan.

Minority/Low Income Populations? Executive Order requires Federal Agencies to identify and address disproportionately high and adverse human health and environmental effects on minority or low income populations. (Often referred to as Environmental Justice)

Detours? The detour route may have as many or more impacts. Should be looked at with project. May be unacceptable to the public.

Louisiana Governor's Office of Indian Affairs:
http://www.indianaffairs.com/tribes.htm

Louisiana Wetlands Reserve Program:
http://www.nrcs.usda.gov/programs/wrp/states/la.html

Community Water Well/Supply
http://sonris.com/default.htm

Louisiana Department of Wildlife and Fisheries – Wildlife Refuges
http://www.wlf.louisiana.gov/refuges
http://www.fws.gov/refuges/profiles/ByState.cfm?state=LA
http://www.fws.gov/refuges/refugelocatormaps/Louisiana.html

U.S. Fish & Wildlife Service – National Wetlands Inventory:
http://www.fws.gov/wetlands/

Louisiana State Historic Sites:
http://www.crt.state.la.us/parks/ihistoricsiteslisting.aspx

National Register of Historic Places (Louisiana):
http://nrhp.focus.nps.gov/natreghome.do?searchtype=natreghome
http://www.nationalregisterofhistoricplaces.com/la/state.html

National Historic Landmarks Program:
http://www.nps.gov/history/nhl/

Threatened and Endangered Species Databases:
http://www.wlf.louisiana.gov/wildlife/louisiana-natural-heritage-program

Louisiana Scenic Rivers:
http://www.wlf.louisiana.gov/wildlife/scenic-rivers
http://media.wlf.state.la.us/experience/scenicrivers/louisiananaturalandscenicriversdescriptions/
http://www.legis.state.la.us/lss/lss.asp?doc=104995

Significant Tree Policy (EDSM I.1.1.21)
http://notes1/ppmemos.nsf
(Live Oak, Red Oak, White Oak, Magnolia or Cypress, aesthetically important, 18" or greater in diameter at breast height and has form that separates it from surrounding or that which may be considered historic.)

CERCLIS (Superfund Sites):
http://www.epa.gov/superfund/sites/cursites/
http://www.epa.gov/enviro/html/cerclis/cerclis_query.html

ERNS - Emergency Response Notification System - Database of oil and hazardous substances spill reports: http://www.epa.gov/region4/r4data/erns/index.htm

Enforcement & Compliance History (ECHO)
http://www.epa-echo.gov/echo/

DEQ – Underground Storage Tank Program Information:
http://www.deq.louisiana.gov/portal/tabid/2674/Default.aspx
Leaking Underground Storage Tanks:
http://www.deq.state.la.us/portal/tabid/79/Default.aspx

SONRIS – Oil and Gas Well Information & Water Well Information
http://sonris.com/default.htm

Environmental Justice (minority & low income)
http://www.fhwa.dot.gov/environment/ej2000.htm

Demographics
http://www.census.gov/

FHWA's Environmental Website
http://www.fhwa.dot.gov/environment/index.htm

Additional Databases Checked

Other Comments:

STAGE 0
Preliminary Scope and Budget Checklist

A. Project Background

District 62 Parish St. Tammany

Route S. Military Road Control Section 852.26

Begin Log Mile 1.406 End Log Mile 2.118

Project Category (Safety, Capacity, etc.): Enhancement (Bicycle and Pedestrian)

Date Study Completed: June 28, 2019

Describe the existing facility:

Functional classification: Minor Arterial Number and width of lanes: 2-12 ft lanes, 1-14ft TWLTL

Shoulder width and type: N/A Mode: N/A

Access control: None ADT: 10,300 Posted Speed: 45

Describe any existing pedestrian facilities (ADA compliance should be considered for all improvements that include pedestrian facilities): None

Describe the adjacent land use: Multifamily and single-family residential, commercial at intersections, vacant and two school facilities

Who is the sponsor of the study? New Orleans Regional Planning Commission (RPC) and St. Tammany Parish

List study team members: Burk-Kleinpeter, Inc., Soll Planning LLC.

Will this project be adding miles to the state highway system (new alignment, new facility)? If yes, has a transfer of ownership been initiated with the appropriate entity? No

Are there recent, current or near future planning studies or projects in the vicinity? Yes

If yes, please describe the relationship of this project to those studies/projects. DOTD District 62 looked at several cross-section concepts for adding pedestrian and bicycle facilities along this stretch of S. Military Road. These concepts were consulted as part of this project's evaluation of alternatives.

Provide a brief chronology of these planning study activities: 2018 – DOTD District 62 looks at potential concepts for improvements; February-June 2019 – Stage 0 Feasibility Study completed through RPC with input from St. Tammany Parish, State Senator Sharon Hewitt and DOTD District 62.

B. Purpose and Need

State the Purpose (reason for proposing the project) and Need (problem or issue)/Corridor Vision and a brief scope of the project. Also, identify any additional goals and objectives for the project.

Purpose: Improve conditions for people walking and bicycling along and across S. Military Rd. (US 190) between Cross Creek Dr. and E. Gause Blvd. (US 190); Create safe transitions at its terminal points, as many individual user trips extend beyond the immediate study area; Create pedestrian improvements will need to comply with the Americans with Disabilities Act (ADA).

Need: Create a safe, comfortable, healthy, and convenient opportunity for people who live in the single family and multifamily housing along the corridor, to walk or bike to access the many shopping, eating and employment opportunities in their immediate area. The project would remove barriers that prevent them from currently accessing these locations on foot or on bike.

C. Agency Coordination

Provide a brief synopsis of coordination with federal, tribal, state, and local environmental, regulatory and resource agencies.

No SOV has been issued on this project. Coordination took place with St. Tammany Parish School Board to identify future coordination steps to manage access between any ped/bike facilities with the school.

What transportation agencies were included in the agency coordination effort?

DOTD District 62

Describe the level of participation of other agencies and how the coordination effort was implemented.

DOTD District 62 provided comments through the evaluation of alternatives and these comments were incorporated into the analysis and recommendations.

C. Agency Coordination (Continued)

What steps will need to be taken with each agency during NEPA scoping?
DOTD processes need to be followed for project development through NEPA work completed during the Stage 1 project development activity.

D. Public Coordination

Provide a synopsis of the coordination effort with the public and stakeholders; include specific timelines, meeting details, agendas, sign-in sheets, etc. (if applicable).
Three meetings with Stakeholders occurred during project development. Appendix A contains documentation of meetings including attendance and meeting summary reports.

E. Range of Alternatives – Evaluation and Screening

Give a description of the project concept for each alternative studied.

What are the major design features of the proposed facility (attach aerial photo with concept layout, if applicable).
Please see Appendix E of this report for the initial concept. Appendix B includes an evaluation of initial alternatives as part of a general complete streets evaluation.

Will design exceptions be required? Unknown

What impact would this project have on freight movements? No. Project along state highway, pedestrian crossing would stop traffic to facilitate demand-actuated crossings.

Does this project cross or is it near a railroad crossing? No

DOTD's "Complete Streets" policy should be taken into consideration. Per the policy, any exception for not accommodating bicyclists, pedestrians and transit users will require the approval of the DOTD chief engineer. For exceptions on Federal-aid highway projects, concurrence from FHWA must also be obtained. In addition any exception in an urbanized area, concurrence from the MPO must also be obtained.

- Describe how the project will implement the policy or include a brief explanation of why implementing the policy would not be feasible. Please see Appendix B for the Complete Streets evaluation

How are Context Sensitive Solutions being incorporated into the project? Project will occur in existing corridor right-of-way (as identified by DOTD District 62). This minimizes impacts to adjacent structures and access to parking areas used by businesses and multifamily residential units along corridor.

Was the DOTD's "Access Management" policy taken into consideration? If so, describe how. No

Were any safety analyses performed? If so describe results. No

Are there any abnormal crash locations or overrepresented crashes within the project limits? Unknown

E. Range of Alternatives – Evaluation and Screening (Continued)

What future traffic analyses are anticipated? Pedestrian Survey/Study, Crash Analysis, Traffic Study as per DOTD requirements

Will fiber optics be required? If so, are there existing lines to tie into? Unknown

Are there any future ITS/traffic considerations? Coordination of any pedestrian signals with existing signals in corridor may be required.

What is the required Transportation Management Plan (TMP) level as defined by EDSM No. VI.1.1.8? _____
Please attach documentation required for Stage 0 for this level TMP.

Was Construction Transportation Management/Property Access taken into consideration? No

Were alternative construction methods considered to mitigate work zone impacts? No

Describe screening criteria used to compare alternatives and from what agency the criteria were defined.
Complete Streets evaluation (Appendix B) identified variables used in conducting an initial screening of alternatives. These variables were part of the discussion with Stakeholders to help eliminate project alternatives from further consideration.

Give an explanation for any alternative that was eliminated based on the screening criteria.
Alternatives which required right-of-way acquisition removed from further consideration given the land use characteristics of corridor. Complete Streets evaluation (Appendix B) identified variables used in conducting an initial screening of alternatives. These variables were part of the discussion with Stakeholders to help eliminate project alternatives from further consideration.

Which alternatives should be brought forward into NEPA and why? At close of project, stakeholders (RPC, DOTD District 62, St. Tammany Parish and State Senator Sharon Hewitt) support moving ahead the concept shown in Appendix E, given further review of area drainage (see unresolved issues).

Did the public, stakeholders and agencies have an opportunity to comment during the alternative screening process? Stakeholders participated in the development of the Stage 0 including St. Tammany Parish, RPC, DOTD District 62 and State Senator Sharon Hewitt.

Describe any unresolved issues with the public, stakeholders and/or agencies.
Cost and scope of drainage improvements require refinement following completion of a hydraulic analysis.

Additional considerations for this project include incorporation of landscaping and other amenities (benches, lights, etc.) financed through local initiative.

F. Planning Assumptions and Analytical Methods

What is the forecast year used in the study? 2019

What method was used for forecasting traffic volumes? None – this project focused on pedestrian improvements as per the scope provided by the RPC and St. Tammany Parish.

Are the planning assumptions and the corridor vision/purpose and need statement consistent with the long-range transportation plan? Yes

What future year policy and/or data assumptions were used in the transportation planning process as they are related to land use, economic development, transportation costs and network expansion? Consultation with St. Tammany Parish's current zoning ordinance and comprehensive plan.

G. Potential Environmental Impacts

See the attached Stage 0 Environmental Checklist

H. Cost Estimate

Provide a cost estimate for each feasible alternative:

- Engineering Design: $417,000
- Additional Traffic Analyses: $150,000
- Environmental Processing: $100,000
- Mitigation:
- R/W Acquisition: (C of A if applicable)
- Utility Relocations: $1,265,000
- Construction (including const. traffic management): $2,628,000

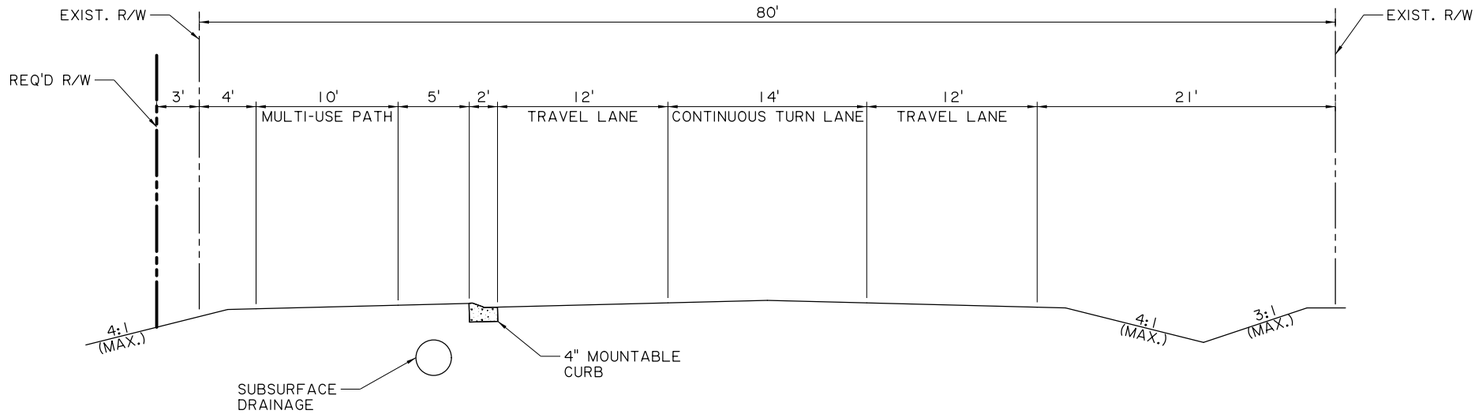
TOTAL PROJECT COST **$4,560,000**

I. Expected Funding Source(s) (Highway Priority Program, CMAQ, Urban Systems, Fed/State earmarks, etc.) **Urban Systems**

ATTACH ANY ADDITIONAL DOCUMENTATION

Disposition (circle one): (1) Advance to Stage 1 (2) Hold for Reconsideration (3) Shelve

Appendix E:
Conceptual Plan and Cost Estimate Data



TYPICAL SECTION
(GAUSE BLVD. TO TURTLE CREEK BLVD.)

SHEET NUMBER

PARISH	CONTROL SECTION	STATE PROJECT
ST. TAMMANY	852-26	

DESIGNED CHECKED	DETAILED CHECKED	SERIES NUMBER
		1 OF 2

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

BKI

PROPOSED TYPICAL SECTIONS
GAUSE-TURTLE CREEK

US 190 - S. MILITARY RD.

STATE OF LOUISIANA

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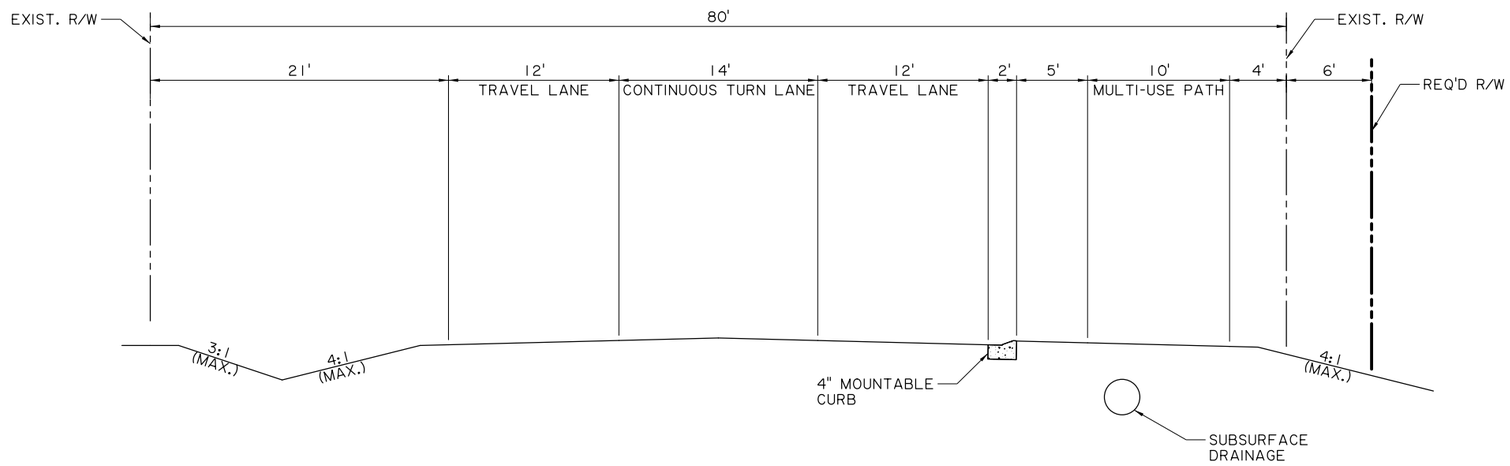
6/17/2019

10:3



TYPICAL SECTION
(TURTLE CREEK BLVD. TO CROSS CREEK DR.)

SHEET NUMBER			
PARISH	ST. TAMMANY		
CONTROL SECTION	852-26		
STATE PROJECT			
DESIGNED			
CHECKED			
DETAILED			
CHECKED			
SERIES NUMBER	2 OF 2		
BY	REVISION OR CHANGE ORDER DESCRIPTION	NO.	DATE

PROPOSED TYPICAL SECTIONS
TURTLE CREEK-CROSS CREEK

US 190 - S. MILITARY RD.

BKI

STATE OF LOUISIANA

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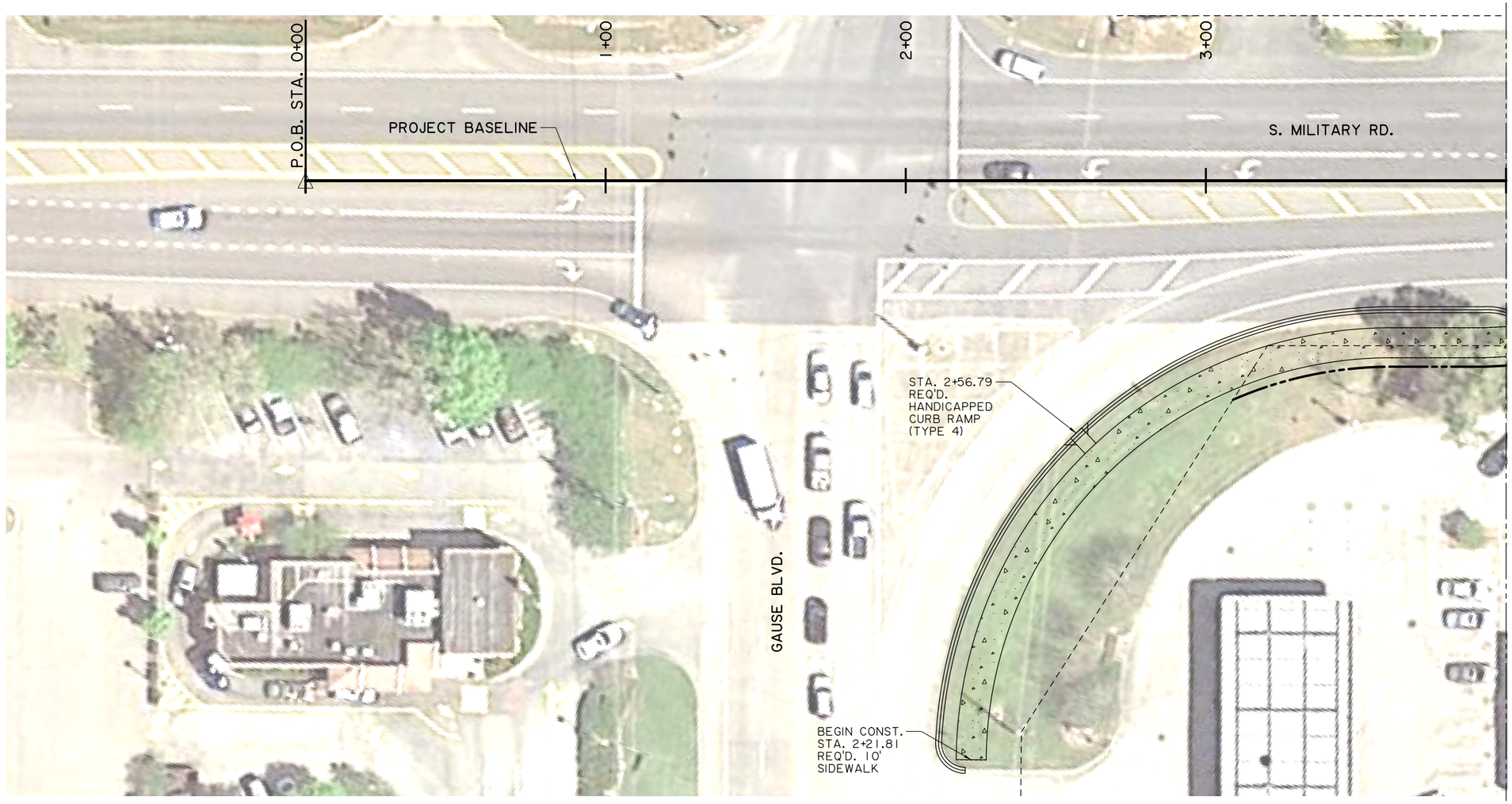
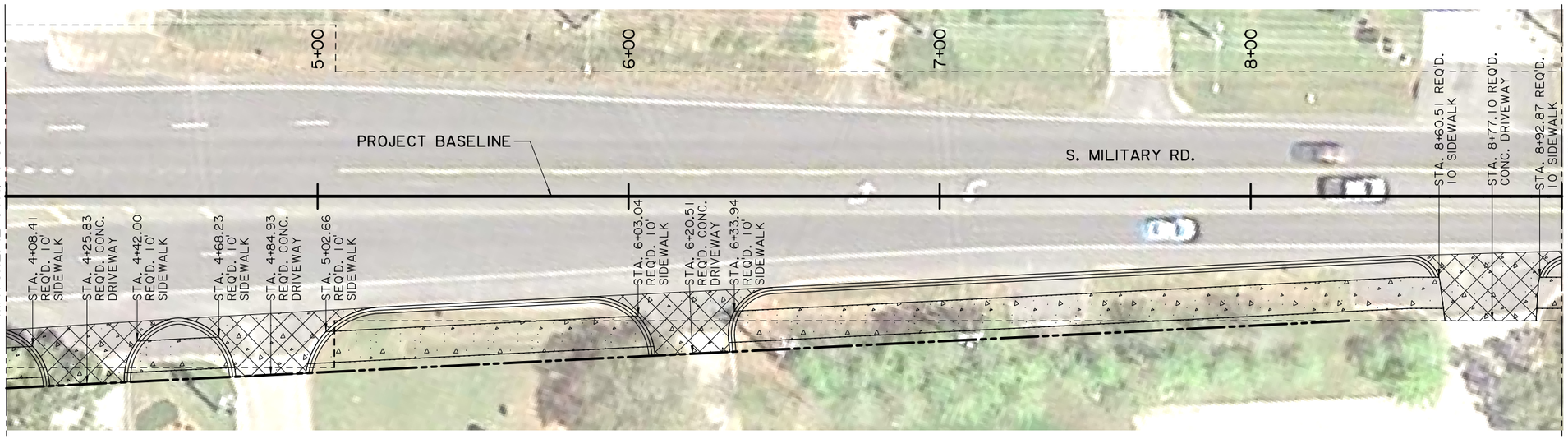




N Scale : 1" = 20'

LEGEND:

- PROPOSED CONCRETE WALKS AND DRIVES
- REMOVAL OF EXISTING WALKS AND DRIVES
- APPARANT RIGHT OF WAY
- REQUIRED RIGHT OF WAY

N Scale : 1" = 20'

SHEET NUMBER		
PARISH: ST. TAMMANY	CONTROL SECTION: 852-26	STATE PROJECT:
DESIGNED: KH CHECKED: EE	DETAILED: LB CHECKED: KH	SERIES NUMBER: 1 OF 7

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

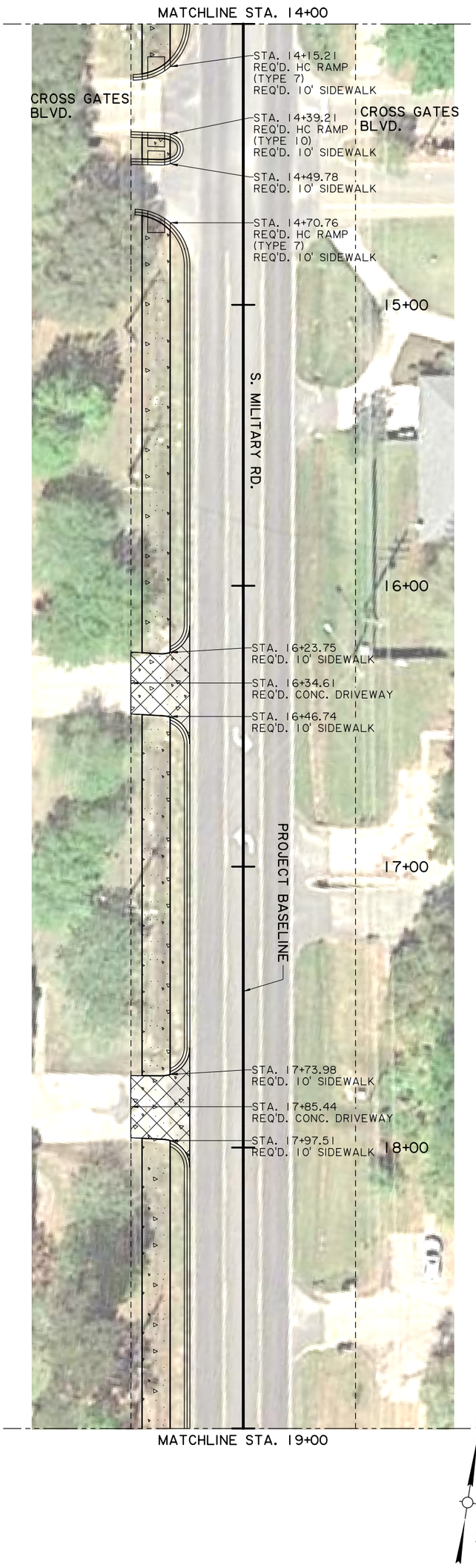
STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

BKI

S. MILITARY RD.

PROJECT LAYOUT

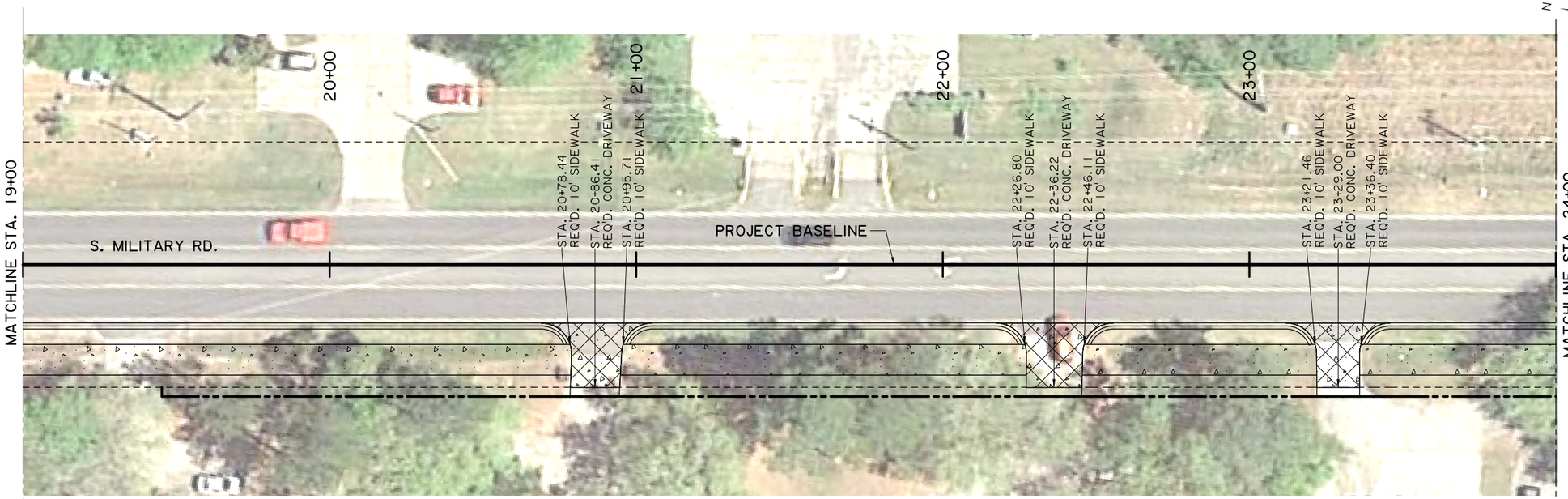
US 190 - S. MILITARY RD.

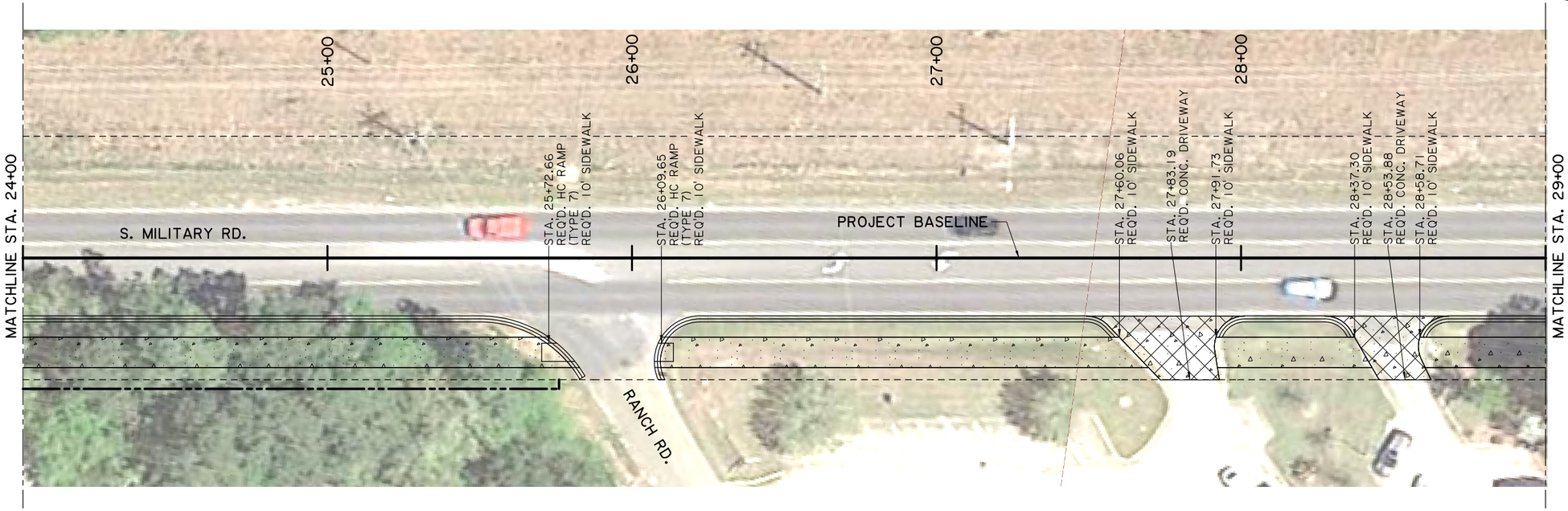


LEGEND:

- PROPOSED CONCRETE WALKS AND DRIVES
- REMOVAL OF EXISTING WALKS AND DRIVES
- APPARANT RIGHT OF WAY
- REQUIRED RIGHT OF WAY

BKI	S. MILITARY RD.	STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT		DESIGNED KH	PARISH	ST. TAMMANY	SHEET NUMBER
	PROJECT LAYOUT			CHECKED EE			
	US 190 - S. MILITARY RD.			DETAILED LB	CONTROL SECTION	852-26	
				CHECKED KH			
			NO. DATE REVISION OR CHANGE ORDER DESCRIPTION BY	SERIES NUMBER 2 OF 7	STATE PROJECT		





LEGEND:

- PROPOSED CONCRETE WALKS AND DRIVES
- REMOVAL OF EXISTING WALKS AND DRIVES
- APPARANT RIGHT OF WAY
- REQUIRED RIGHT OF WAY

SHEET NUMBER	
PARISH	ST. TAMMANY
CONTROL SECTION	852-26
STATE PROJECT	
DESIGNED	KH
CHECKED	EE
DETAILED	LB
CHECKED	KH
SERIES NUMBER	3 OF 7

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

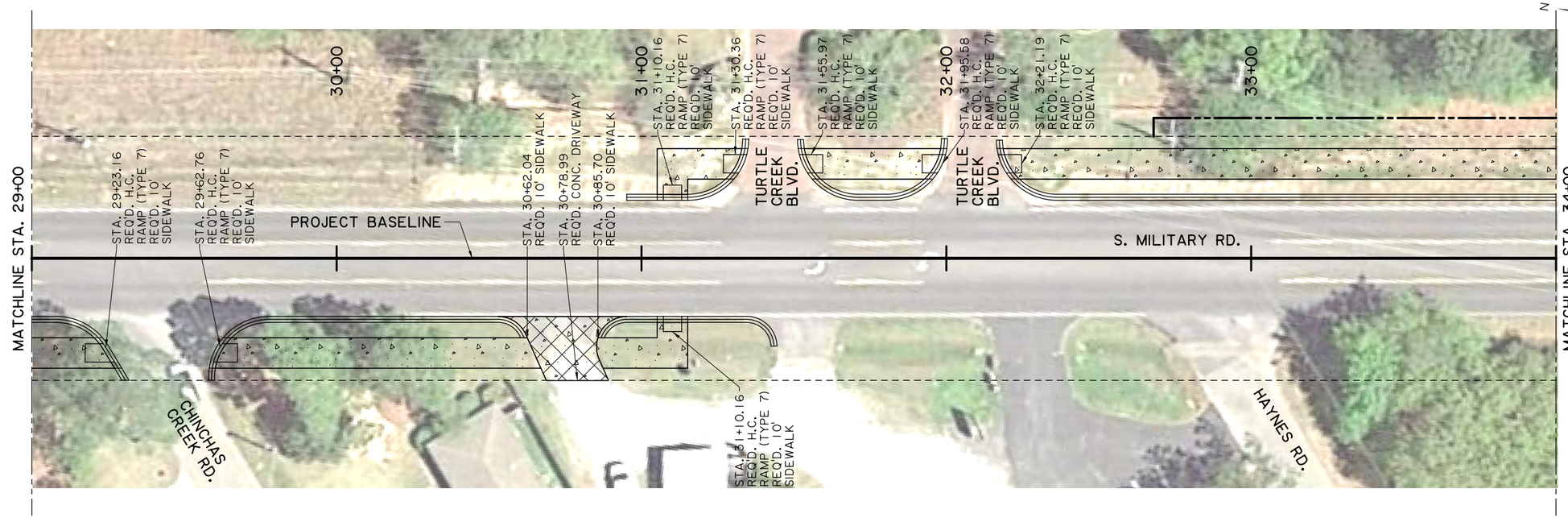
STATE OF LOUISIANA — DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

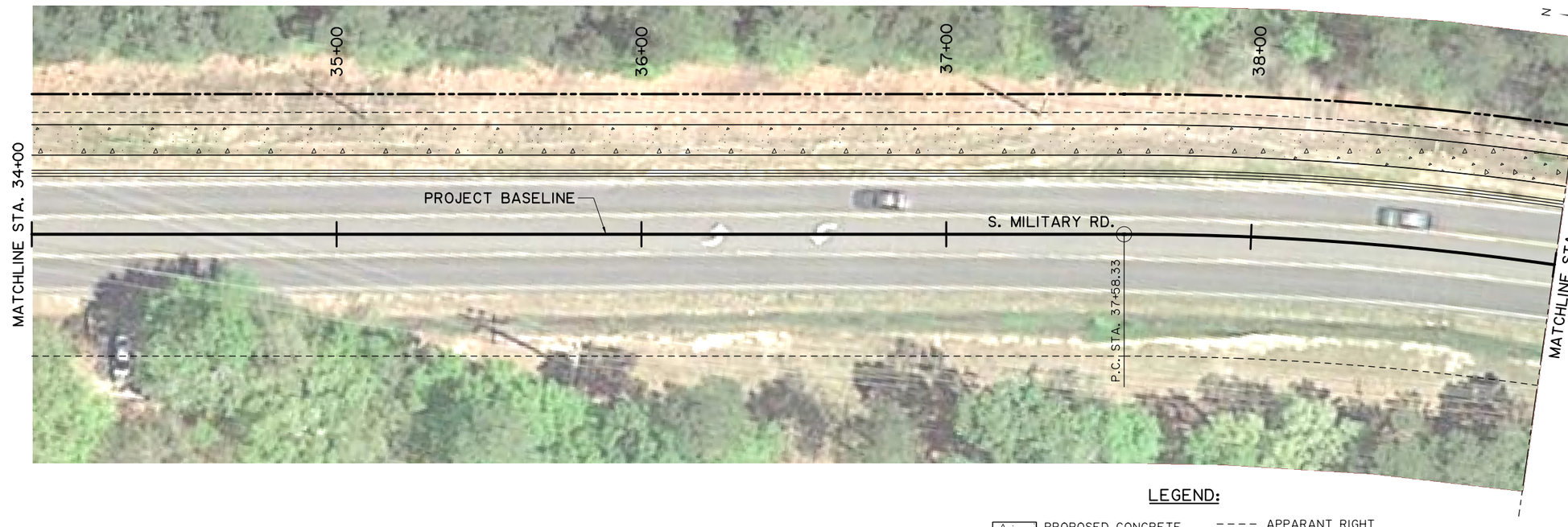
S. MILITARY RD.

PROJECT LAYOUT

US 190 - S. MILITARY RD.

BKI





LEGEND:

- PROPOSED CONCRETE WALKS AND DRIVES
- REMOVAL OF EXISTING WALKS AND DRIVES
- APPARANT RIGHT OF WAY
- REQUIRED RIGHT OF WAY

SHEET NUMBER	
PARISH	ST. TAMMANY
CONTROL SECTION	852-26
STATE PROJECT	
DESIGNED	KH
CHECKED	EE
DETAILED	LB
CHECKED	KH
SERIES NUMBER	4 OF 7

NO.	REVISION OR CHANGE ORDER DESCRIPTION	DATE	BY

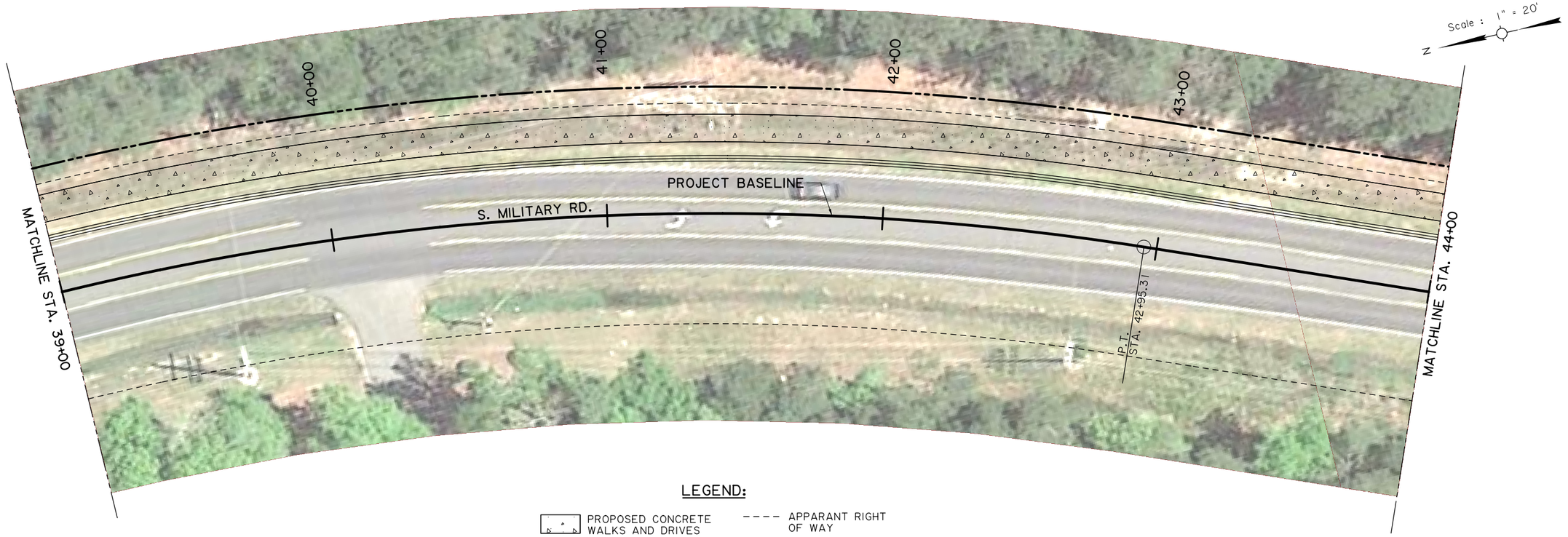
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

S. MILITARY RD.

PROJECT LAYOUT

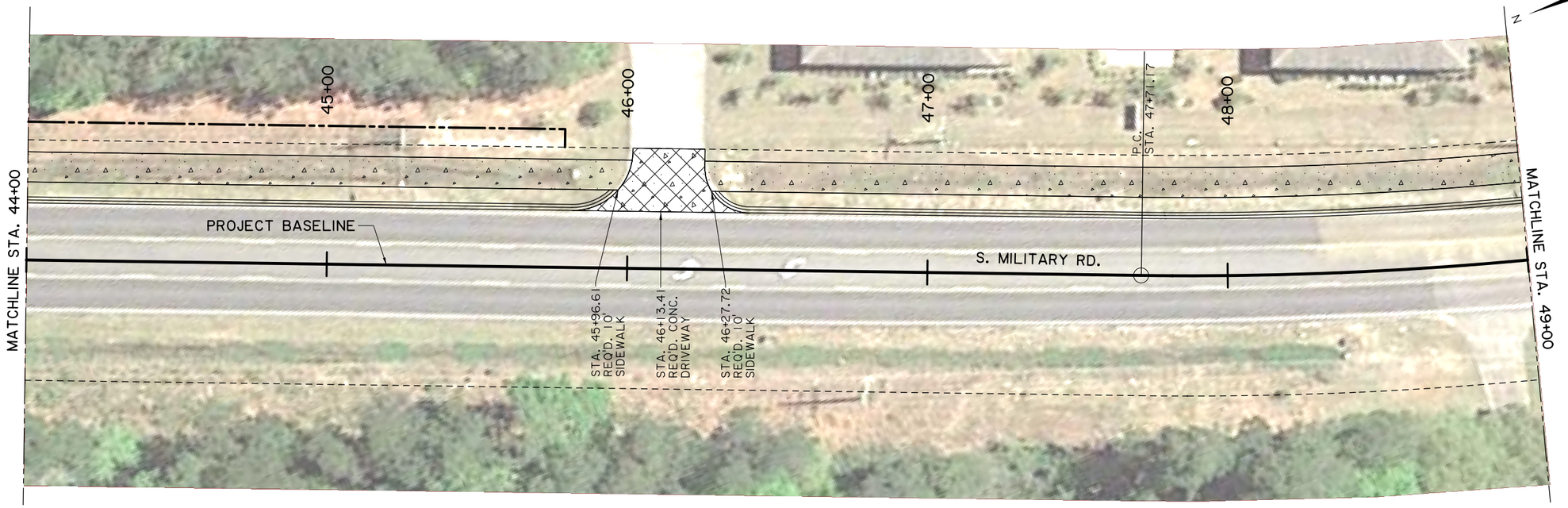
US 190 - S. MILITARY RD.

BKI



LEGEND:

- PROPOSED CONCRETE WALKS AND DRIVES
- REMOVAL OF EXISTING WALKS AND DRIVES
- APPARANT RIGHT OF WAY
- REQUIRED RIGHT OF WAY



SHEET NUMBER		
PARISH	CONTROL SECTION	STATE PROJECT
ST. TAMMANY	852-26	
DESIGNED KH CHECKED EE	DETAILED LB CHECKED KH	SERIES NUMBER 5 OF 7

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

S. MILITARY RD.

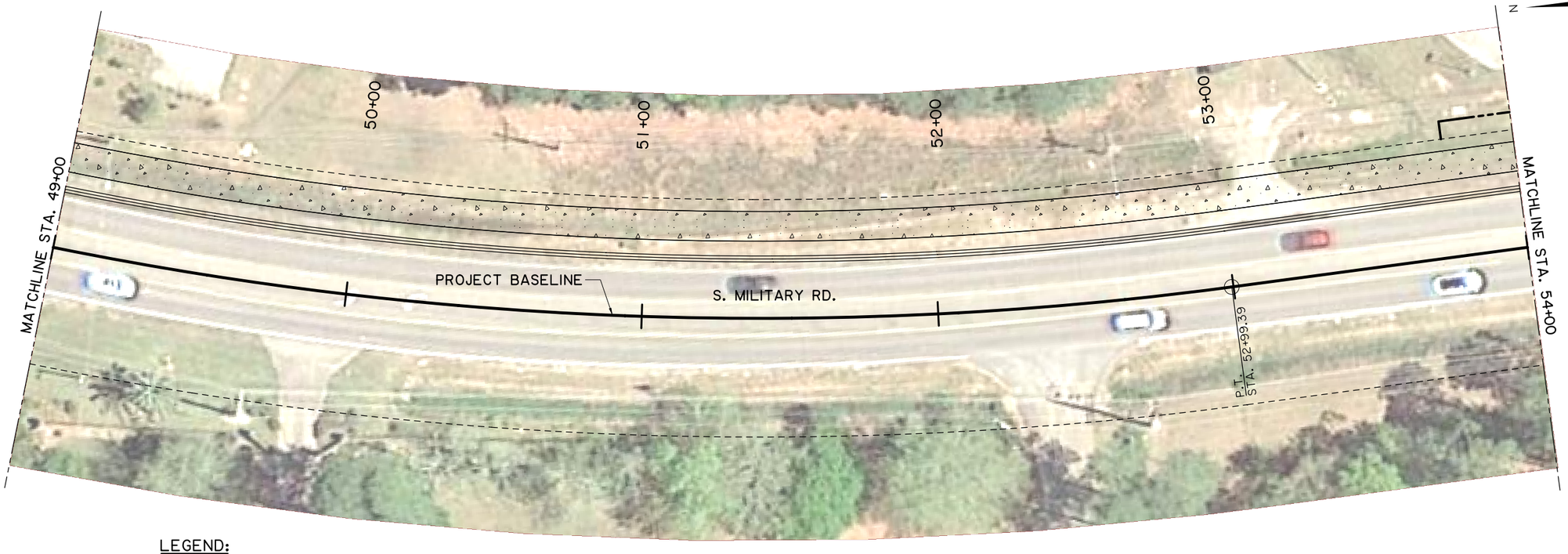
PROJECT LAYOUT

US 190 - S. MILITARY RD.

BKI

Scale : 1" = 20'

N



LEGEND:

- PROPOSED CONCRETE WALKS AND DRIVES
- REMOVAL OF EXISTING WALKS AND DRIVES
- APPARANT RIGHT OF WAY
- REQUIRED RIGHT OF WAY

Scale : 1" = 20'

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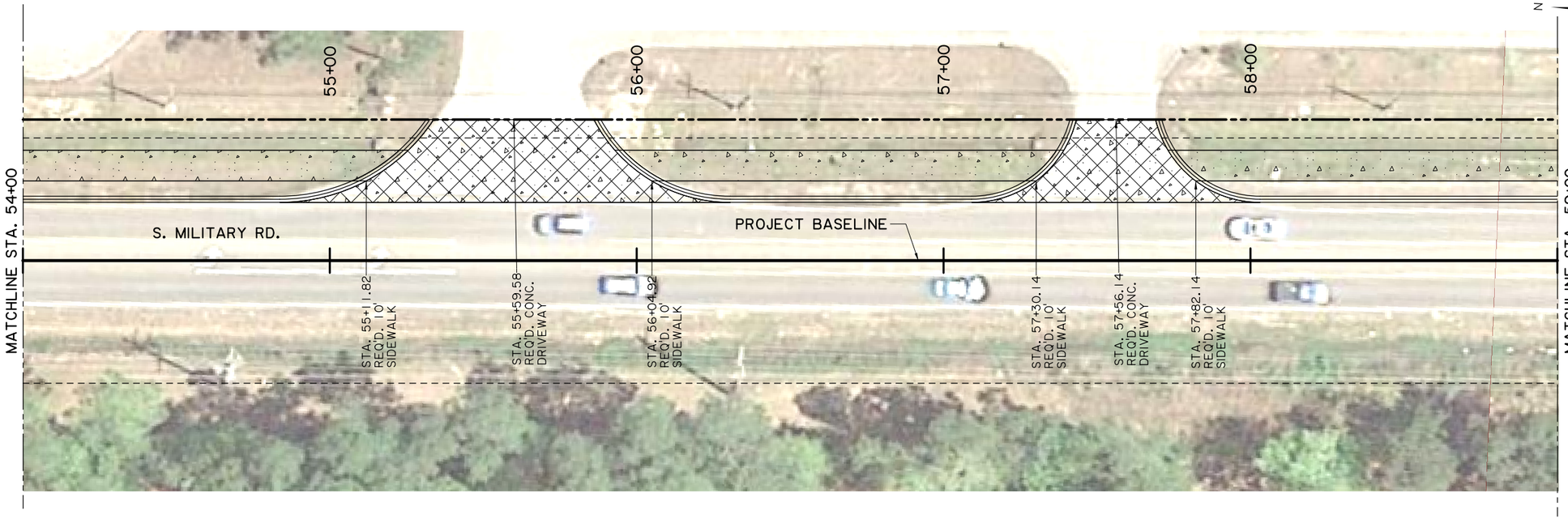


SHEET NUMBER	
PARISH	ST. TAMMANY
CONTROL SECTION	852-26
STATE PROJECT	
DESIGNED	KH
CHECKED	EE
DETAILED	LB
CHECKED	KH
SERIES NUMBER	6 OF 7

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

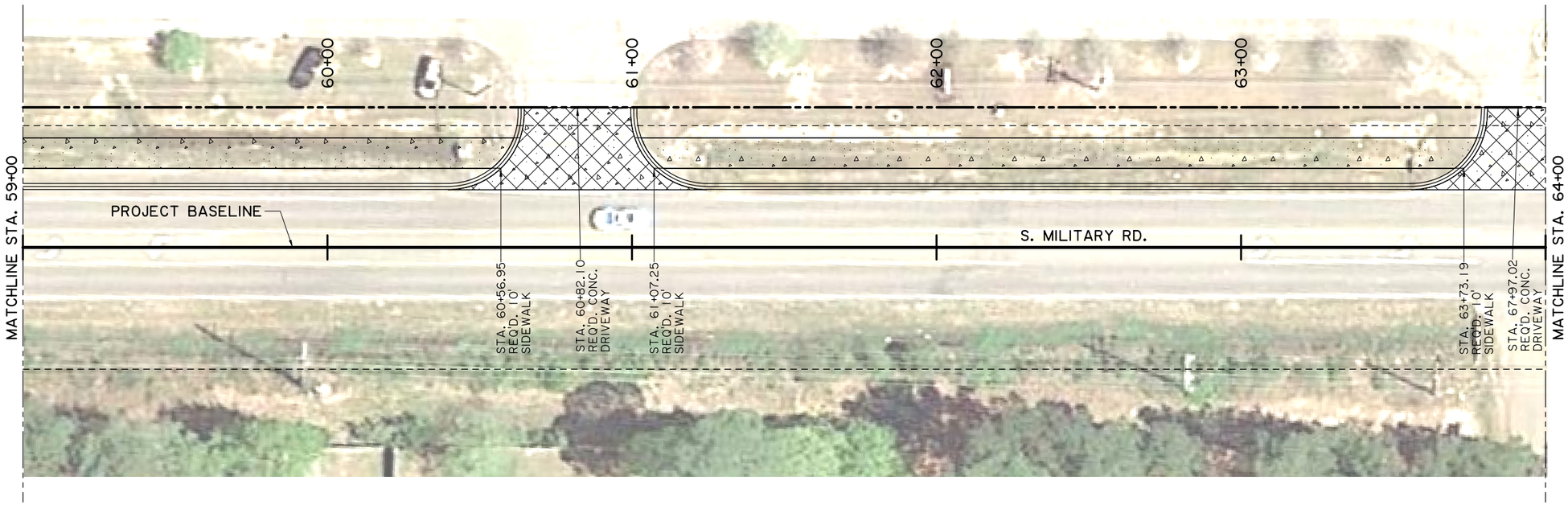
BKI

S. MILITARY RD.

PROJECT LAYOUT

US 190 - S. MILITARY RD.

Scale : 1" = 20'



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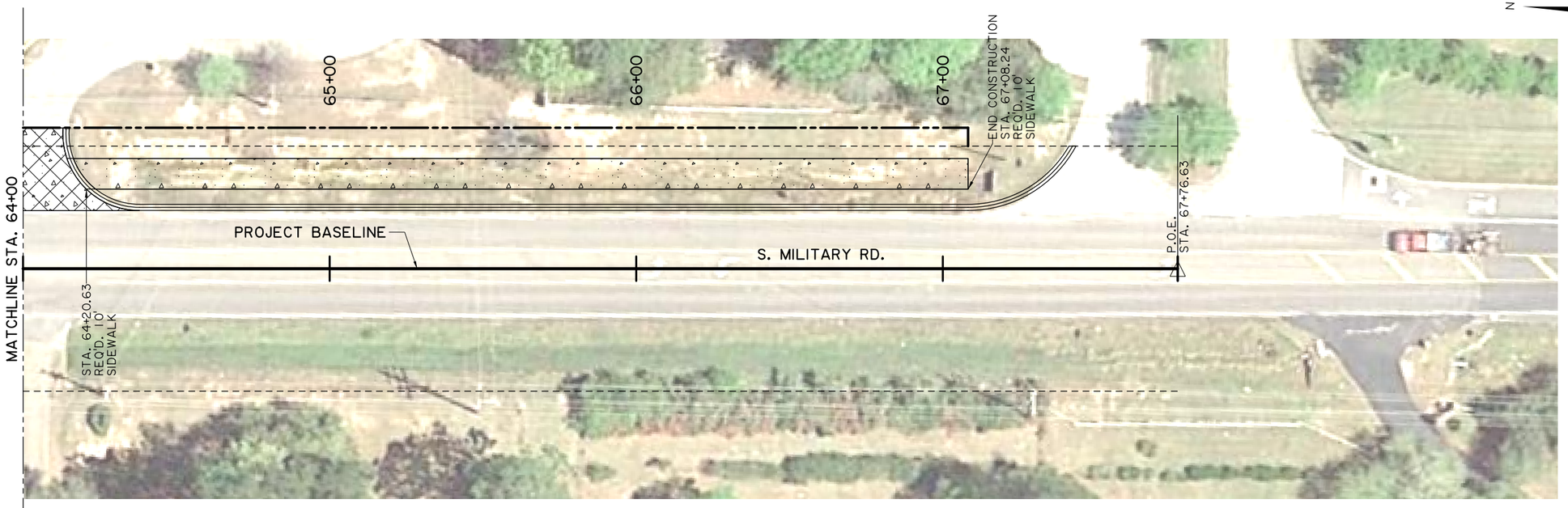

LEGEND:

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- REMOVAL OF EXISTING WALKS AND DRIVES
- APPARANT RIGHT OF WAY
- REQUIRED RIGHT OF WAY

SHEET NUMBER	
PARISH	ST. TAMMANY
CONTROL SECTION	852-26
STATE PROJECT	
DESIGNED	KH
CHECKED	EE
DETAILED	LB
CHECKED	KH
SERIES NUMBER	7 OF 7

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

BKI

S. MILITARY RD.

PROJECT LAYOUT

US 190 - S. MILITARY RD.

Detailed Cost Estimate

Bid Item Number	Item Description	Unit	Quantity	Unit Price	Quantity Price
201-01-00100	Clearing and Grubbing	ACRE	0.97	$ 2,000.00	$ 1,940.00
202-02-02000	Removal of Asphalt Drives	SQYD	474	$ 17.34	$ 8,219.16
202-02-06100	Removal of Concrete Walks and Drives	SQYD	1174	$ 12.91	$ 15,156.34
202-02-32120	Removal of Pipe (Side Drain)	LNFT	791	$ 13.36	$ 10,567.76
202-02-38240	Removal of Signs and Supports	EACH	14	$ 136.18	$ 1,906.52
203-01-00100	General Excavation	CUYD	2542	$ 13.03	$ 33,122.26
203-03-00100	Embankment	CUYD	7704	$ 14.10	$ 108,626.40
203-10-00100	Cleaning Existing Ditches	LNFT	6100	$ 5.38	$ 32,818.00
204-06-00100	Temporary Silt Fencing	LNFT	12800	$ 2.27	$ 29,056.00
302-02-08020	Class II Base Course (8" Thick) (Crushed Stone)	SQYD	2250	$ 98.60	$ 221,850.00
502-01-00100	Asphalt Concrete	TON	3019	$ 85.32	$ 257,581.08
509-01-00100	Milling Asphalt Pavement	SQYD	27445	$ 2.39	$ 65,593.55
701-05-01080	Side Drain Pipe (30" RCP/PP/CMP)	LNFT	2234	$ 125.00	$ 279,250.00
701-05-01100	Side Drain Pipe (36" RCP/PP/CMP)	LNFT	2234	$ 150.00	$ 335,100.00
701-05-01120	Side Drain Pipe (42" RCP/PP/CMP)	LNFT	2234	$ 170.00	$ 379,780.00
702-03-00500	Catch Basins (CB-06)	EACH	32	$ 4,107.01	$ 131,424.32
706-01-00100	Concrete Walk (4" Thick)	SQYD	7445	$ 50.83	$ 378,429.35
706-02-00200	Concrete Drive (6" Thick)	SQYD	1648	$ 70.78	$ 116,645.44
706-04-00100	Handicapped Curb Ramps	EACH	48	$ 1,540.84	$ 73,960.32
707-03-00100	Combination Concrete Curb and Gutter	LNFT	6700	$ 36.75	$ 246,225.00
708-01-00100	Right-of-Way Monument	EACH	12	$ 201.59	$ 2,419.08
713-01-00100	Temporary Signs and Barricades	LUMP	-	$ 73,514.23	$ 73,514.23
726-01-00100	Bedding Material	CUYD	1117	$ 85.25	$ 95,224.25
727-01-00100	Mobilization	LUMP	-	$ 176,434.15	$ 176,434.15
729-01-00100	Sign (Type A)	SQFT	126	$ 31.71	$ 3,995.46
729-22-00100	Square Tubing Post with 2-1/4" Anchor	EACH	14	$ 115.00	$ 1,610.00
731-02-00100	Reflectorized Raised Pavement Markers	EACH	373	$ 5.11	$ 1,906.03

732-01-02040	Plastic Pavement Striping (8" Width) (Thermoplastic 125 mil)	LNFT	276	$ 2.45	$ 676.20
732-01-02080	Plastic Pavement Striping (24" Width) (Thermoplastic 125 mil)	LNFT	150	$ 7.88	$ 1,182.00
732-02-02000	Plastic Pavement Striping (Solid Line) (4" Width) (Thermoplastic 90 mil)	MILE	4.925	$ 2,665.00	$ 13,125.13
732-02-02040	Plastic Pavement Striping (Solid Line) (8" Width) (Thermoplastic 90 mil)	MILE	0.058	$ 9,476.72	$ 549.65
732-03-02000	Plastic Pavement Striping (Broken Line) (4" Width) (Thermoplastic 90 mil)	MILE	2.463	$ 954.49	$ 2,350.91
732-04-01080	Plastic Pavement Legends and Symbols (Arrow - Left Turn)	EACH	31	$ 226.43	$ 7,019.33
736-01-00100	Trenching and Backfilling	LNFT	150	$ 5.26	$ 789.00
736-03-00100	Jacking or Boring for Conduit (3 inch HPDE, Sch 80)	LNFT	175	$ 9.53	$ 1,667.75
736-04-10250	Signal Pole (Single Mast Arm, 25ft)	EACH	1	$ 9,125.34	$ 9,125.34
736-04-23525	Signal Pole (Dual Mast Arm, 35ft-Arm 1, 25ft-Arm 2)	EACH	1	$ 14,635.00	$ 14,635.00
736-05-30000	Signal Heads (3 Section, 12 inch Led Lens, R, Y, G)	EACH	6	$ 1,028.21	$ 6,169.26
736-05-31001	Signal Hds (3 Sec, 12 inch Led Lens, LT. R, LT. Y, LT. G)	EACH	1	$ 999.05	$ 999.05
736-06-00100	Signal Service	EACH	1	$ 1,779.69	$ 1,779.69
736-08-00102	Signal Controller (980 ATC, Type 2)(Furnish & Install)	EACH	1	$ 5,462.34	$ 5,462.34
736-10-00300	Underground Junction Box (Type F)	EACH	4	$ 812.83	$ 3,251.32
736-10-00500	Underground Junction Box (Type H)	EACH	1	$ 1,003.00	$ 1,003.00
736-11-00200	Conduit (2" HDPE, Schedule 80)	LNFT	120	$ 2.80	$ 336.00
736-11-00300	Conduit (3" HDPE, Schedule 80)	LNFT	205	$ 5.63	$ 1,154.15
736-12-02006	Conductor (2c, #6 awg)	LNFT	275	$ 3.60	$ 990.00
736-12-06014	Conductor (6c, #14 awg)	LNFT	565	$ 2.46	$ 1,389.90
736-12-10014	Conductor (10c, #14 awg)	LNFT	400	$ 2.98	$ 1,192.00
736-15-02400	Signal Support (Pedestal Foundation Only)	EACH	2	$ 1,328.29	$ 2,656.58
736-15-03600	Signal Support (Foundation, 36 inch Minimum Diameter)	EACH	2	$ 2,648.78	$ 5,297.56
736-17-00000	Video Detection Cabinet Components	EACH	1	$ 9,500.00	$ 9,500.00
736-18-00000	Video Detection Camera	EACH	3	$ 2,500.00	$ 7,500.00
736-19-00000	Video Camera Cable	LNFT	260	$ 3.50	$ 910.00
736-21-00000	LED Pedestrian Countdown Signal Head	EACH	4	$ 1,078.09	$ 4,312.36
736-22-00000	Pedestrian Push Button	EACH	4	$ 276.41	$ 1,105.64
739-01-00100	Hydro-Seeding	ACRE	0.97	$ 2,124.37	$ 2,060.64
740-01-00100	Construction Layout	LUMP	-	$ 58,811.39	$ 58,811.39
740-02-00100	Utility Oversight and Coordination	LUMP	-	$ 88,217.08	$ 88,217.08

BURK-KLEINPETER, INC.
4176 Canal Street
New Orleans, LA 70119
http://www.bkiusa.com/

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P.O. Box 24197
New Orleans, LA 70184
http://sollplanning.com/