



CITY OF CAMBRIDGE
INTEROFFICE CORRESPONDENCE

To Robert Healy, City Manager

Date Oct. 28, 1991

From Lauren M. Preston *LMP* Deputy Traffic Director

Reference

Subject Council Order #42 dated 6/3/41 Ref: Intersection of Vassal Lane, Huron Avenue and Appleton Street.

Enclosed is a copy of our traffic study analysis for the intersection of Huron Avenue, Appleton Street and Vassal Lane.

LMP:rd.

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OFFICE OF THE CITY MANAGER

HURON AVENUE, APPLETON STREET, AND VASSAL LANE INTERSECTION ANALYSIS

The Department of Traffic and Parking has conducted a traffic study to determine what measures can be taken to improve the safety of the intersection of Huron Avenue, Appleton Street, and Vassal Lane.

The data collected as a result of this study is summarized in the following pages along with our conclusion and recommendations.

I INTRODUCTION

There have been several studies in the past dealing with issues from parking to speeding. The result of the studies have shown that at the approach to the business section of Huron Avenue the speeds decrease, the accidents increase, the turning movements increase, and the demand for parking increases.

The intersection of Huron Avenue, Appleton Street, and Vassal Lane borders several businesses, however is not part of the business district mentioned previously. This intersection is expansive and as a result cars cue up within the intersection to turn on to Huron Ave. Another problem is the frequency of drivers making U-Turns within the intersection.

Appleton street (from Brattle Street to Huron Avenue) and Huron Avenue are both two directional roadways while Appleton Street (from Huron Avenue to Concord Avenue) and Vassal Lane are one directional. Vassal Lane feeds into Huron Avenue and Appleton Street feeds into Concord Avenue. There are two bus stops on Huron Avenue. The eastbound stop is east of Appleton Street and the westbound stop is west of Vassal Lane. Parking is allowed on both sides of all streets; Vassal Lane and Appleton Street both are restricted to resident parking, Huron Avenue has no restriction where parking is permitted.

II ACCIDENTS

The number of reportable accidents at this intersection was supplied by the Cambridge Police Department. A comparison with previous reports on file is listed below.

DATES	NUMBER OF ACCIDENTS
7/1/85 - 5/10/87	2
1/1/88 - 11/14/88	3
1/1/90 - 5/1/91	1

III SPEED STUDY

Spot speed checks were taken on Huron Avenue near Vassal Lane and resulted in the following data.

	AVERAGE SPEED	85TH PERCENTILE
Eastbound traffic	29 MPH	32 MPH
	29 MPH	34 MPH
Westbound traffic	30 MPH	34 MPH
	29 MPH	33 MPH

The posted speed for Huron Avenue is 25 MPH. These speed checks have been forwarded to the Police Department for their use.

IV SIGHT DISTANCE

Drivers stopped on Appleton Street at Huron Avenue have a difficult time seeing on coming vehicles due to the parked vehicles and the curve of the roadway. A site diagram was constructed and it was determined that by clearing 50 feet on Huron Avenue west of Appleton street the site distance could be doubled.

Presently drivers inch their way out onto Huron Avenue in an attempt for safe passage. Their exit is made more difficult by the cars cued up by Vassal Lane. This cuing accross the intersection also makes the site clearance for vehicles exiting Vassle Lane poor.

V CONCLUSION AND RECOMMENDATIONS

By reviewing files and observing the present layout and travel patterns it was determined that there are three characteristics which need improvement. These are speeds, sight distance, and intersection geometry. The speed checks done through our department have been forwarded to the Traffic Division of the police department for enforcement.

To improve the sight distance the Department of Traffic

and Parking will be installing a 50 foot corner clearance. This will increase the sight distance to 114 feet. There is presently the regulatory 20 foot corner clearance that does not require signing.

In order to aid in the safety of this area, it is proposed to decrease the open space of the intersection. By bringing Vassal Lane into Huron Avenue at a right angle and extending the curb line of Huron Avenue, most hazardous traffic maneuvers would be eliminated. Vassal Lane drivers would be forced to slow down due to the right turn approach at Huron Avenue. At this point they would be required to make either a 90 degree left or right turn. The possibility of cars cuing two or three abreast entering Huron Avenue would then be eliminated. The safest intersection geometry is that where streets intersect at a right angles. This provides drivers the highest level of visibility in both directions.

This proposal is being reviewed by the Public Works Department engineers. It is recommended that temporary channelization be installed for a trial period during which plans could be developed to construct a permanent channelized area.

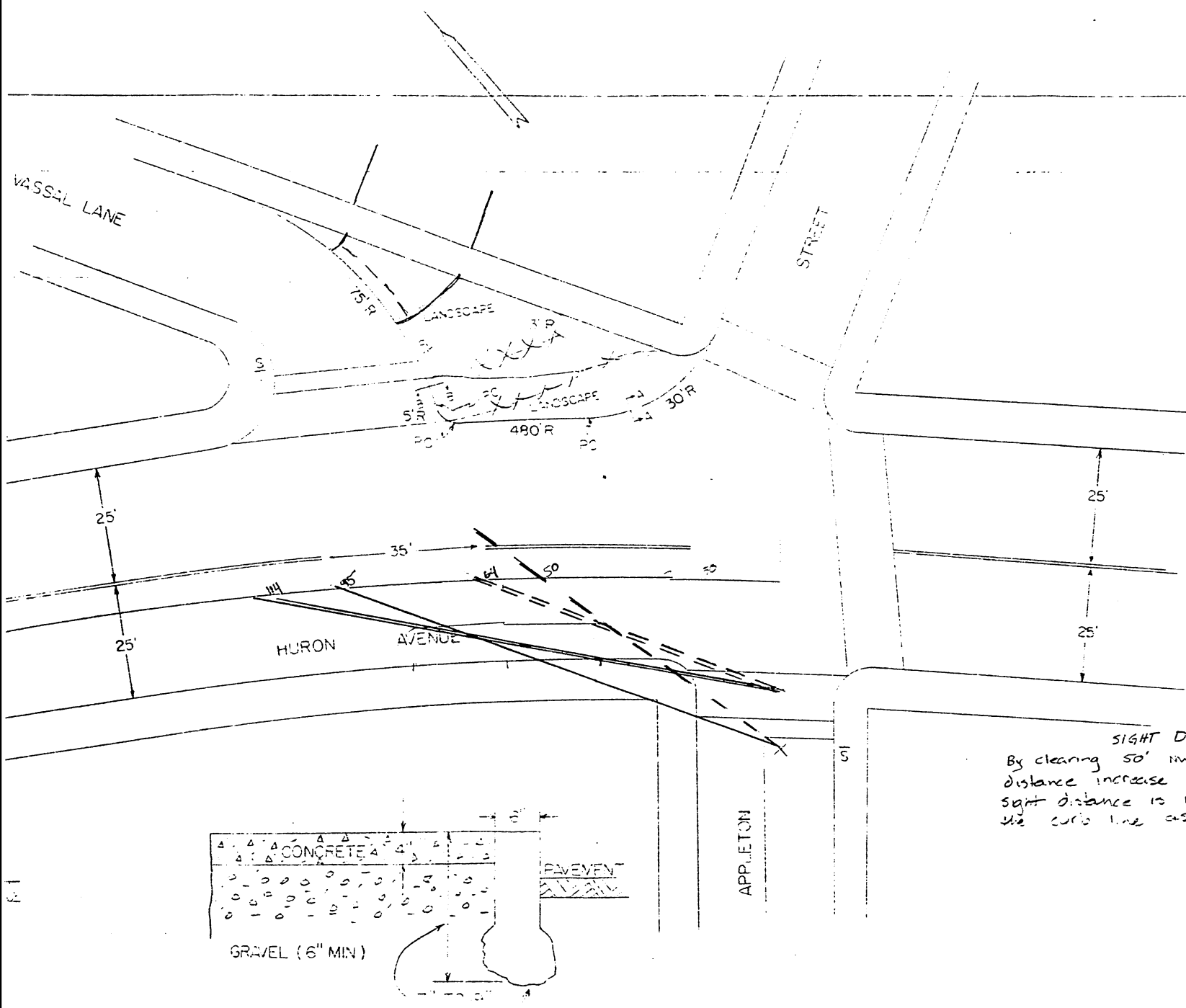
RADAR SPEED CHECK

LOCATION: Hulon Ave AT Atterton Westbound
 DATE: 9/27/94 TIME: 2:25 WEATHER: Good
 LOCATION OF ROAD: Good RECORDER: John Condit

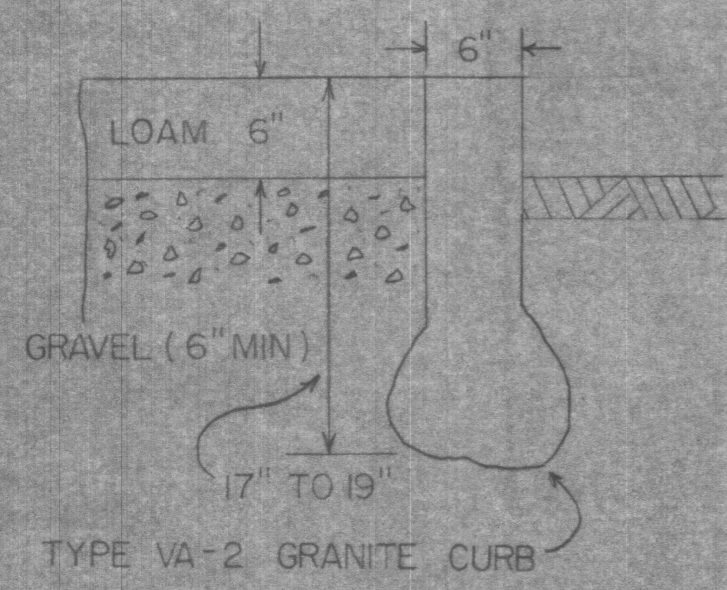
MIN	SEC	QUANT	PRODUCT
0			
1			
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5			
6			
7			
8			
9	✓	1	19
10	✓✓	2	40
11	✓✓✓	3	63
12	✓✓✓✓	4	84
13	✓✓✓✓✓	6	138
14	✓✓✓✓✓	2	48
15	✓✓✓✓✓✓	8	200
16	✓✓✓✓✓✓✓	15	390
17	✓✓✓✓✓✓✓✓	10	270
18	✓✓✓✓✓✓✓✓✓	16	448
19	✓✓✓✓✓✓✓✓✓✓	22	638
20	✓✓✓✓✓✓✓✓✓✓✓	23	690
21	✓✓✓✓✓✓✓✓✓✓	12	372
22	✓✓✓✓✓✓✓	6	192
23	✓✓✓✓✓✓	8	264
24	✓✓✓✓✓	6	204
25	✓✓✓✓✓	6	270
26	✓✓✓✓	4	144
27	✓✓	2	74
28	✓	1	38
29			
30	✓	1	40
31			
32			
33			

85 PERCENTILE SPEED = 33

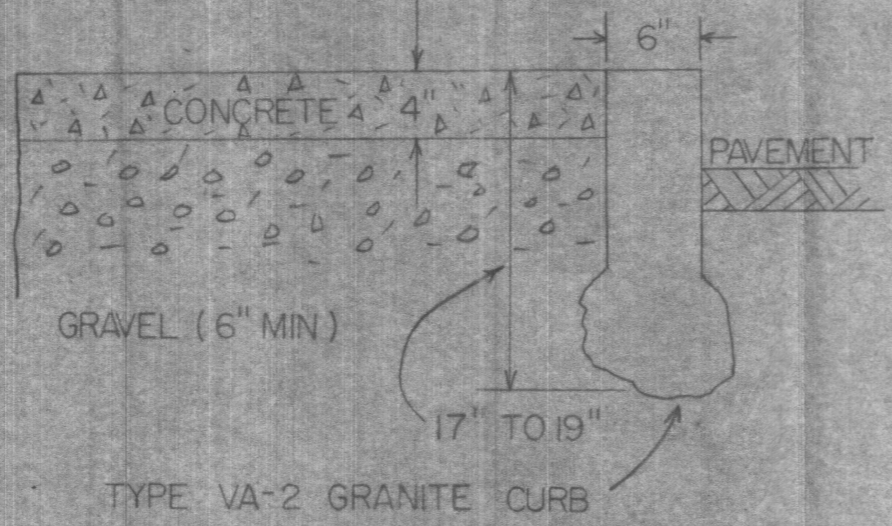
TOTAL AVERAGE 158 4570
28.92



SIGHT DISTANCE DIAGRAM
 By clearing 50' NW of Appleton as shown sight distance increase from 64' to 114' at the stop line. sight distance is increased from 64' to 114' from the curb line as shown



SECTION A-A
TYPICAL PLANTING AREA



SECTION B-B
TYPICAL CONCRETE WALK

NO.	DATE	DESCRIPTION	DRAWN	CHKD	REC'M	APPVD	DATE
REVISIONS ABOVE							
ISLAND CHANNELIZATION HURON AVE. AT VASSAL LANE							
DRAWN	INITIAL	DATE	DEPARTMENT OF TRAFFIC AND PARKING CITY OF CAMBRIDGE			DRAWING NO. CH C 1421 SCALE 1" = 20' SHEET NO. 1 OF 1	
TRACED	CMY	6/10/10					
CHECKED	PDS	4/22/10					
REC'M APP.							
APPROVED							



City of Cambridge

1991

42.

IN CITY COUNCIL
June 3, 1991

MAYOR WOLF

WHEREAS: There have been a number of accidents at the intersection of Appleton Street, Huron Avenue, and Vassal Lane; now therefore be it

ORDERED: That the City Manager be and hereby is requested to have the Traffic and Parking Department do a study of the intersection of Appleton Street, Huron Avenue, and Vassal Lane and report back to this City Council with recommendations to improve safety there.

In City Council June 3, 1991.

Adopted by the affirmative vote of nine members.

Attest:- Joseph E. Connarton, City Clerk.

A true copy; *Joseph E. Connarton*

ATTEST:-

..... Joseph E. Connarton, City Clerk.



CITY OF CAMBRIDGE
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6.

EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

November 4, 1991

To The Honorable, The City Council:

Please find attached a response to Awaiting Report Item No. 14, regarding a traffic study of the intersection of Appleton Street, Huron Avenue and Vassal Lane, received from Lauren M. Preston, Deputy Director of the Traffic & Parking Department.

Very truly yours,

Robert W. Healy
City Manager

RWH/mev
attachments

CONSENT AGENDA # 6 S-1217

Awaiting Report Item # 14 regarding a traffic study of the intersection of Appleton street, Huron Avenue and Vassal Lane.

In City Council,

November 4, 1991

11/4/91 No action taken
11/18/91 Placed on file