

MEMORANDUM

DATE: June 29, 2022

TO: Robert Rosa, Chairman
Rockland Board of Appeals
242 Union Street
Rockland, MA 02370

FROM: Robert J. Michaud, P.E. – Managing Principal
Daniel A. Dumais, P.E. – Senior Project Manager

RE: **Response to Comments**
Proposed Marijuana Establishment
1015 Hingham Street, Rockland MA

MDM Transportation Consultants, Inc. (MDM) has prepared the following response to a transportation-related comment as issued in a letter by Amory Engineers, P.C. dated June 17, 2022. To facilitate review, the specific comment is paraphrased with the corresponding response.

In summary, field measurements indicate that the available sight lines looking east and west from the proposed driveway onto Hingham Street exceed the minimum recommended sight line criteria from AASHTO. Furthermore, the ideal ISD can also be achieved with maintenance of vegetation located within the right-of-way to the west of the Site along the 1001 Hingham Street frontage.

Amory Engineers, P.C. Comments

Comment 1: *"We measured the sight distance to the west (traffic heading eastbound) to be about 315 feet, which is the intersection with Commerce Road. We note that the traffic Memorandum, dated May 29, 2020, prepared by MDM Transportation Consultants, Inc., indicated that the required sight distance in that direction is 360 feet and MDM reported that the available sight distance was greater than 500 feet, which it is clearly less than. Based on the required sight distance, the sight distance is currently inadequate as it is restricted by utility poles and vegetation."*

Response: MDM has reviewed of the “As-Built” plan prepared by Bracken Engineering and proposed right-turn-only exit restriction recommended by the Town onto Hingham Street. MDM recommends pavement markings and signage to enhance the restriction and to provide driver guidance to the traffic signal at Commerce Road for left turns as shown in **Exhibit 1**.

The initial sight line study was conducted when vegetation was maintained or had not overgrown and based on the preliminary design plan. As part of this review and response, the actual SSD was measured in the field on Monday, June 20, 2022, using AASHTO standards for driver’s eye (3.5 feet) and object height equivalent to the taillight height of a passenger car (2.0 feet) for the eastbound and westbound Hingham Street approaches to the intersection. **Table R1** presents a summary of the available SSD for the Hingham Street segment approaches to the proposed site driveway and AASHTO’s recommended SSD for the regulatory speed limits.

TABLE R1
STOPPING SIGHT DISTANCE SUMMARY
HINGHAM STREET APPROACH TO CONSTRUCTED SITE DRIVEWAY

Approach/ Travel Direction	Available SSD	AASHTO Recommended ¹	
		Regulatory Speed Limit ²	Criteria Satisfied
<i>Eastbound</i>	500+ Feet	360	Yes
<i>Westbound</i>	500+ Feet	305	Yes

¹Recommended sight distance based on AASHTO, A Policy on Geometric Design of Highways and Streets. Based on driver height of eye of 3.5 feet to object height of 2.0 feet and adjustments for roadway grade.

²Regulatory Speed Limit is 45 mph EB and 40 mph WB.

As summarized in **Table R1** analysis results indicate that the existing available sight lines exceed AASHTO’s recommended SSD criteria for the proposed site driveway based on the regulatory travel speeds along Hingham Street.

General observations of driver behavior reported by AASHTO, cites that “field observations of vehicle stopping positions found that, where necessary, drivers will stop with the front of their vehicle 6.5 ft or less from the edge of the major road traveled way. Measurements of passenger cars indicate that the distance from the front of the vehicle to the driver’s eye for the current U.S. passenger car population is nearly always 8 ft or less.” Per AASHTO guidance above the available ISD was also measured in the field using AASHTO standards for driver’s eye (3.5 feet), object height (3.5 feet) and two decision points: 8 feet (minimum criteria) and 14.5 feet (standard criteria) from the edge of the travel way.

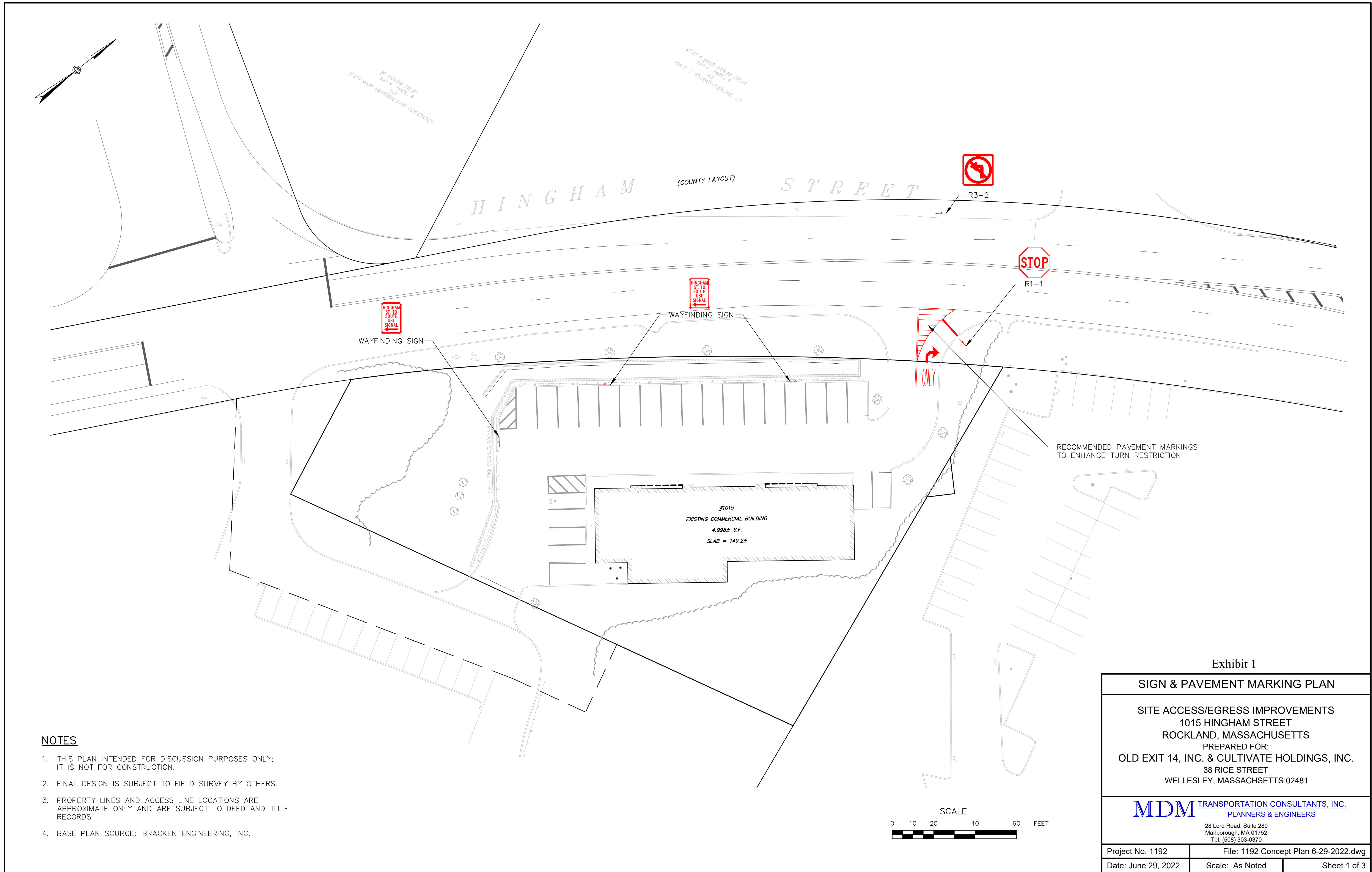


Exhibit 1

SIGN & PAVEMENT MARKING PLAN

SITE ACCESS/EGRESS IMPROVEMENTS
1015 HINGHAM STREET
ROCKLAND, MASSACHUSETTS
PREPARED FOR:
OLD EXIT 14, INC. & CULTIVATE HOLDINGS, INC.
38 RICE STREET
WELLESLEY, MASSACHUSETTS 02481

MDM TRANSPORTATION CONSULTANTS, INC.
PLANNERS & ENGINEERS

28 Lord Road, Suite 280
Marlborough, MA 01752
Tel: (508) 303-0370

Project No. 1192	File: 1192 Concept Plan 6-29-2022.dwg
Date: June 29, 2022	Scale: As Noted
	Sheet 1 of 3

Sight line triangles for the site driveway have been graphically shown on the “As-Build” plan provided by Bracken Engineering to confirm that minimum sight line criteria are met. A plan view of the ISD profiles for the proposed site driveway are illustrated in **Exhibit 2** for a decision point 8 feet back and **Exhibit 3** for a decision point 14.5 feet back. **Table R2** presents a summary of the available ISD for the departure from the proposed site driveway and AASHTO’s minimum and ideal ISD recommendations.

TABLE R2
INTERSECTION SIGHT DISTANCE SUMMARY
CONSTRUCTED SITE DRIVEWAY DEPARTURE TO HINGHAM STREET

View Direction	Available ISD	AASHTO Minimum ¹	AASHTO Ideal ²
		Regulatory Speed Limit ²	Regulatory Speed Limit ²
<i>Looking East</i>	500+ Feet	305 Feet	445 Feet
<i>Looking West</i>	360+ Feet/430± Feet ³	360 Feet	430 Feet

¹ Recommended sight distance based on AASHTO, A Policy on Geometric Design of Highways and Streets. Based on driver height of eye of 3.5 feet and an object height of 3.5 feet. Minimum value as noted represents SSD per AASHTO guidance. Adjustments for driveway grade have been made as needed.

² Regulatory Speed Limit is 45 mph EB and 40 mph WB.

³ A greater ISD can be achieved maintenance of vegetation located within the right -of-way to the west of the Site along the 1001 Hingham Street frontage. The initial sight line study was conducted when vegetation was maintained or had not overgrown.

The results of the ISD analysis presented in **Table R2** indicate that the available sight lines looking east and west from the proposed driveway onto Hingham Street exceed the minimum recommended sight line criteria from AASHTO. As shown, the ideal ISD can also be achieved with maintenance of vegetation located within the right-of-way to the west of the Site along the 1001 Hingham Street frontage. MDM recommends that any plantings or physical landscape features that are located within driveway sight lines should also be maintained at a height of 2 feet or less above the adjacent existing roadway grade to ensure unobstructed lines of sight or in the case of the tree plantings within the sight line triangle areas should have a canopy height maintained and pruned to a height of 5 feet to 7 feet above the ground. Several photographs from the site visit are provided in the **Attachments** for reference.

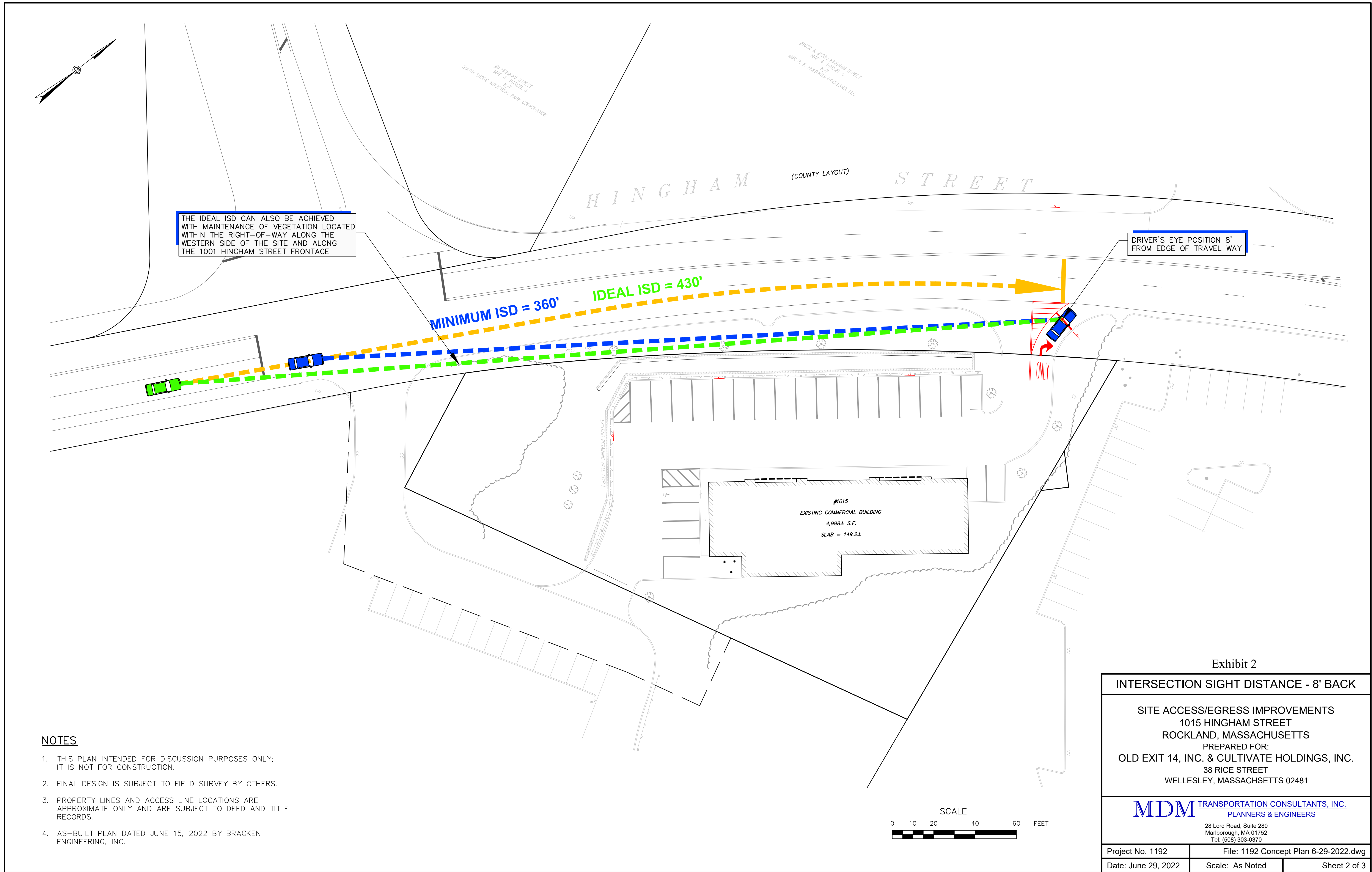


Exhibit 2

INTERSECTION SIGHT DISTANCE - 8' BACK

SITE ACCESS/EGRESS IMPROVEMENTS
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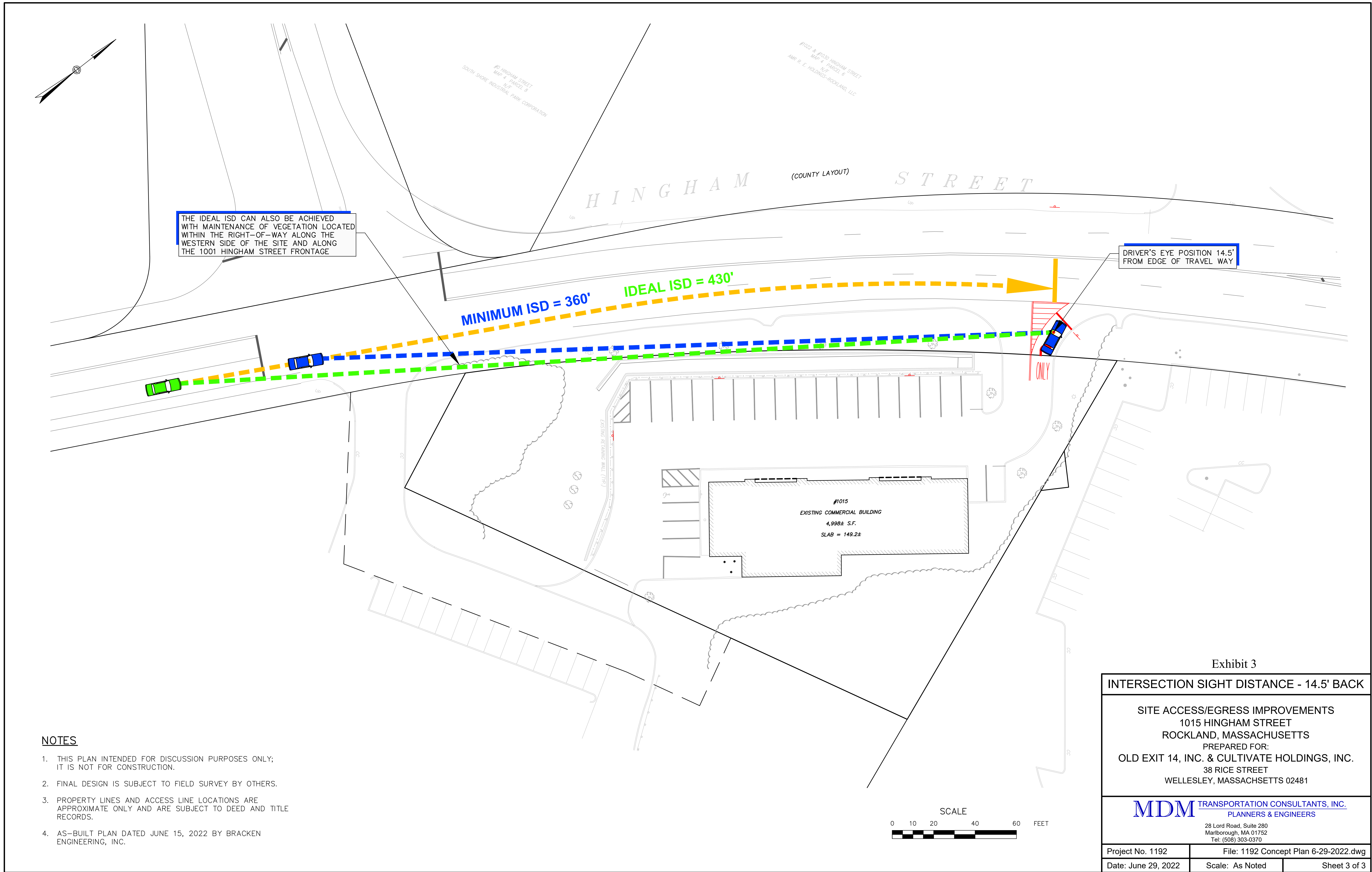


Exhibit 3

INTERSECTION SIGHT DISTANCE - 14.5' BACK

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ISD – 8' Back Looking East



ISD – 8' Back Looking West



06/20/2022 14:59

ISD – 14.5' Back Looking East



ISD – 14.5' Back Looking West



06/20/2022 14:59

ISD From Eastbound Approach – 375'



06/20/2022 15:08

Vegetation To Be Maintained Along Sight Line



Vegetation To Be Maintained Along Sight Line



Site Frontage Along Sight Line Looking West



Site Frontage Along Sight Line Looking West



06/20/2022 15:05