TRANSPORTATION IMPACT STATEMENT

Whittier Field
Block 405, Lots 1,7,8 & 11
City of Camden, Camden County, NJ

Submitted To:
City of Camden
520 Market Street
Camden NJ 08101

Whittier Field
KCNAX23001
November 5, 2024

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Pennoni

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Introduction

Pennoni Associates, Inc. has completed a Transportation Impact Statement (TIS) associated with the proposed multi-purpose field and parking lot on Block 405, Lots 1, 7, 8, and 11, located the southeast corner of 7th Street and Kaighns Avenue in the City of Camden, Camden County, New Jersey. The proposed development consists of a multi-purpose field for soccer and football with bleachers with seating for up to 600, a press box, changing and bathroom facilities, and a 75-space parking lot. The location of the proposed development is shown in **Figures 1 and 2**.

Existing Roadway Facilities

The existing roadways within the study area are summarized below:

- **Kaighns Avenue (CR 607**) - Kaighns Avenue (CR 607) is an east-west oriented Urban Minor Arterial roadway. Kaighns Avenue (CR 607), adjacent to the site and east of 7th Street, is 39 feet wide and designated as a one-way westbound with two (2) travel lanes and with parking and sidewalks on both sides of the roadway. Kaighns Avenue west of 7th Street is designated as two-way with a single lane in each direction and parking and sidewalks on both sides of the roadway. The posted speed limit on 7th Street is 25 MPH.

- **7th Street** – 7th Street is a north-south oriented local roadway. 7th Street, adjacent to the site and south of Kaighns Avenue, is 37 feet wide and designated as a one-way southbound with one (1) travel lane and with parking and sidewalks on both sides of the roadway. 7th Street north of Kaighns Avenue is designated as two-way with a single lane in each direction and parking and sidewalks on both sides of the roadway. The posted speed limit on 7th Street is 25 MPH.

- **6th Street** – 6th Street is a north-south oriented local roadway. 6th Street is 28 feet wide and designated as a one-way northbound with one (1) travel lane and with parking and sidewalks on both sides of the roadway. The posted speed limit on 6th Street is 25 MPH.

- **Atlantic Avenue** - Atlantic Avenue is an east-west oriented Major Collector roadway and designated as two-way. Atlantic Avenue consists of one travel lane and a shoulder in each direction. The posted speed limit on Atlantic Avenue is 25 MPH.

- **Liberty Street**– Liberty Street is an east-west oriented local roadway. Liberty Street is 28 feet wide and designated as a two-way with one (1) travel lane in each direction with sidewalks and parking permitted on both sides of the roadway. The posted speed limit on Liberty Street is 25 MPH.

- **Mechanic Street** – Liberty Street is an east-west oriented local roadway. Liberty Street is 30 feet wide and designated as a two-way with one (1) travel lane in each direction and with parking and sidewalks on both sides of the roadway. The posted speed limit on Liberty Street is 25 MPH.

Public Transportation

There are New jersey Transit bus stops located within walking distance of the proposed site. There is a bus top on the corner of Kaighns Avenue and 7th Street for Route 452(Camden - Cramer Hill). There is also a bus stop at the corner of Atlantic Avenue and Broadway, approximately ¼ mile from the site, which services the following bus lines:

- 401 (Camden-Salem)
- 402 (Camden-Pennsville)
- 410 (Camden-Bridgeton)
- 412 (Camden-Glassboro/Sewell)
- 450 (Camden-Cherry Hill Mall)
- 453 (Camden-Ferry Avenue, PATCO)
- 457 (Camden-Moorestown Mall)

In the City of Camden, approximately 70% of households have one or no vehicles, compared to a statewide average of 48% and residents are likely to have a higher reliance on transit, walking, and other modes of travel.

Build Conditions

Development Description

The proposed development consists of a multi-purpose field for soccer and football with bleachers with seating for up to 600, a press box, changing and bathroom facilities, and a 75-space parking lot. The site is accessed via a full movement driveway located across from Mechanic Street.

The site plan of the proposed multi-purpose field is shown in **Figure 3**.

Trip Generation

The trips generated by the proposed developments were estimated in accordance with the methodology outlined in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition. The Trip Generation Manual defines a trip as a "single or one-direction vehicle movement with either the origin or the destination (exiting or entering) inside a study site".

Currently, the only land use in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition that is directly related to the reflects the proposed mixed-use field is Land Use 488 – "Soccer Complex" which is defined as an outdoor facility that is used for non-professional soccer games which may consist of multiple fields.

Table 1 below provides a breakdown of the estimated vehicular trips generated by the proposed site during a weekday AM peak period, during a weekday PM peak period and a Saturday peak period using the ITE rates for a soccer complex.

Table 1 – ITE Trip Generation Calculation (LUC 488)

Lane Use Description	Fields	Weekday			PM Peak			Saturday		
		In	Out	Total	In	Out	Total	In	Out	Total
LUC 488 – Soccer Complex	1	36	35	71	8	9	17	18	19	37

The NJ State Highway Access Code defines a "significant" increase in traffic as an increase of 100 or more trips in any peak hour. The trip generation calculations indicate that the proposed site will generate, at most, an additional 37 peak hour trips during non-event peak periods, which is not considered a significant increase in traffic on the adjacent roadway network.

Given the size of the facility and the seating provided, the calculated trips utilizing the rates for Land Use 488 – "Soccer Complex" is a reasonable representation of normal daily use, it does not appear to accurately reflect the trips generated during a highly attended event peak.

To identify trips generated by the site for an event peak hour, Pennoni researched applicable data regarding similar land uses and related events.

Table 2 summarizes average vehicle occupancy rates for observed events as described in *Managing Travel for Planned Special Events* published by the Federal Highway Administration (FHWA). Vehicle occupancy rates are described as the number of persons in each vehicle trip which can be used to calculate the total number of vehicle trips when compared to the occupancy of a given event.

Table 2 – Average Vehicle Occupancy Rate

Event	Capacity	Average Vehicle Occupancy Rate
San Francisco Giants baseball games – August 2000	93%	2.80
Anaheim Angels baseball games – July 1997	49%	2.60
Cleveland Indians baseball games – July 1997	99%	2.64
New York Mets baseball game – June 1997	32%	2.31
Denver Broncos football games – 1998/2001	99%	3.00
Average	**74%**	**2.67**

While both baseball games and football games are cited, it is assumed based on the FHWA publication Managing Travel for Planned Special Events that most sporting events, concert events, and other large, planned events will likely garner a vehicle occupancy rate of between 2.00 and 3.00 regardless of the capacity. Utilizing this information and given the 600-seat capacity, estimating approximately 40% of spectators utilizing ridesharing, public transportation, or walking and with an average vehicular occupancy rate of 2.67 spectators per trip, the proposed mixed-use field will generate a total of 134 trips during an event peak.

Pennoni found the *San Diego Association of Governments' (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (SANDAG 2002) which identifies trip rates for sports facilities such as outdoor stadiums, indoor arenas, and racetracks. The published vehicle trip generation for an outdoor stadium is 0.2 trips/seat with the peak hour being the one-hour time prior to the beginning of an event at the facility when patrons are arriving (90% in / 10% out). Approximately the same level of traffic would be generated at the end of an event when patrons are exiting (with the inbound and outbound traffic distribution reversed).

Table 3 below provides a breakdown of the estimated vehicular trips generated by the proposed site during an event peak periods period using the SANDAG 2002 rates for an outdoor stadium.

Table 3 – Event Trip Generation Calculation – SANDAG 2002

Land Use	Seats	Pre-Event Peak			Post-Event Peak		
		In	Out	Total	In	Out	Total
Outdoor Stadium	600	108	12	120	12	108	120

Based on the above trip generations, the proposed multi-purpose field will generate up to 134 trips when a major event is held at the facility, such as a football game. It is expected that such events would typically occur on a on a weekday evening, after the adjacent roadway peak, or on a Saturday afternoon. Although the increase in trips is considered "significant "and exceeds 100 trips in a peak hour, given the events will not coincide peak commuter traffic, it is anticipated that the site traffic will not substantially impact traffic conditions on the adjacent roadway network and intersections.

Parking

The site of the proposed multi-purpose field is zoned as Office Light Industrial located within the 'Gateway Redevelopment Area". The circulation and parking standards for the site as set forth requires that 1 parking space be provided for every 8 permanent seats at the athletic field.

Based on this the proposed bleachers with a 600-seat capacity, the site is required to provide 75 off-street parking spaces. The proposed parking lot provides the required 75 parking spaces, including 4 handicap spaces and 2 electrical vehicle spaces.

Based on the calculated trip generation, the proposed multi-purpose field can generate up to 134 trips during an event peak period. Given the proposed 75 on-site parking spaces, up to 59 site trips will need to be accommodated by on-street parking during event peaks. On the surrounding roadway network and assuming an average parallel parking space length of 25', there are approximately 79 on-street parking spaces located within 500' of the proposed multi-purpose field.

Table 4 below provides a summary of the available on-street parking immediately adjacent to the site.

Table 4 – On-Street Parallel Parking

Street	Parallel Parking Spaces
Kaighns Avenue between 7th Street and 8th Street	19
7th Street between Kaighns Avenue and Atlantic Avenue	28
Liberty Street between 6th Street and 7th Street	16
Mechanic Street between 6th Street and 7th Street	16
TOTAL	**79**

Noise

A-weighted decibel (dBA) is an expression of the relative loudness of sounds as perceived by the human ear.

The City of Camden Ordinance §518-4 sets a maximum outdoor sound level of 65 dBA for a receiving residential property or residential portion of a multi-use property between the hours of 7:00 AM and 10:00 PM. This maximum noise level does not apply to construction and demolition, but those activities are limited to the hours of 7:00 Am to 6:00 PM on weekdays or between the hours of 6:00 p.m. and 9:00 a.m. on weekends and federal holidays unless the 65 dBA maximum can be met.

During the construction of the proposed multi-purpose field, it is anticipated that noise levels will be slightly elevated. The hours of construction will comply with City of Camden regulations, all motorized equipment will be operated with a muffler, and no blasting will be permitted.

Upon completion, the proposed multi-purpose field the sources of noise from the site will include vehicle traffic, pedestrian activities, soccer and football practices, weekend and evening football and soccer games, and electrical equipment associated with the operation of the site. It is anticipated that the use of the site will be limited to the hours of 7:00 AM – 10:00 PM and that the noise levels will be below 65 dBA at the property line, meeting City noise requirements during use.

Conclusions

The proposed development consists of a multi-purpose field for soccer and football with bleachers with seating for up to 600, a press box, changing and bathroom facilities, and a 75-space parking lot. A summary of the findings of the traffic impact statement is presented below:

- The trip generation calculations indicate that the proposed site will generate, at most, an additional 37 peak hour trips during non-event peak periods, which is not considered a significant increase in traffic on the adjacent roadway network.
- The proposed multi-purpose field will generate up to 134 peak hour trips when a major event is held at the facility, such as a football game. It is expected that such events would typically occur on a on a weekday evening or on a Saturday afternoon. Although the increase in trips is considered “significant “, the events will not coincide peak commuter traffic and will not substantially impact traffic conditions on the adjacent roadway network and intersections.
- The site of the proposed multi-purpose field is zoned as Office Light Industrial located within the ‘Gateway Redevelopment Area.” The proposed parking lot provides the required 75 parking spaces, including 4 handicap spaces and 2 electrical vehicle spaces as set forth in the circulation and parking standards.
- Given the proposed 75 on-site parking spaces, up to 59 site trips will need to be accommodated by on-street parking during event peaks. On the surrounding roadway network and assuming an average parallel parking space length of 25’, there is ample on-street parking to accommodate event peak vehicles.
- The site will meet the meet City of Camden noise requirements between the hours of 7:00 AM – 10:00 PM and noise levels during use will be below 65 dBA at the property line.

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CONSULTING ENGINEERS
2 AQUARIUM DRIVE, SUITE 320
CAMDEN, NJ

WHITTIER FIELD
BLOCK 405, LOTS 1, 7, 8 & 11
Camden, New Jersey

FIGURE 1
SITE LOCATION

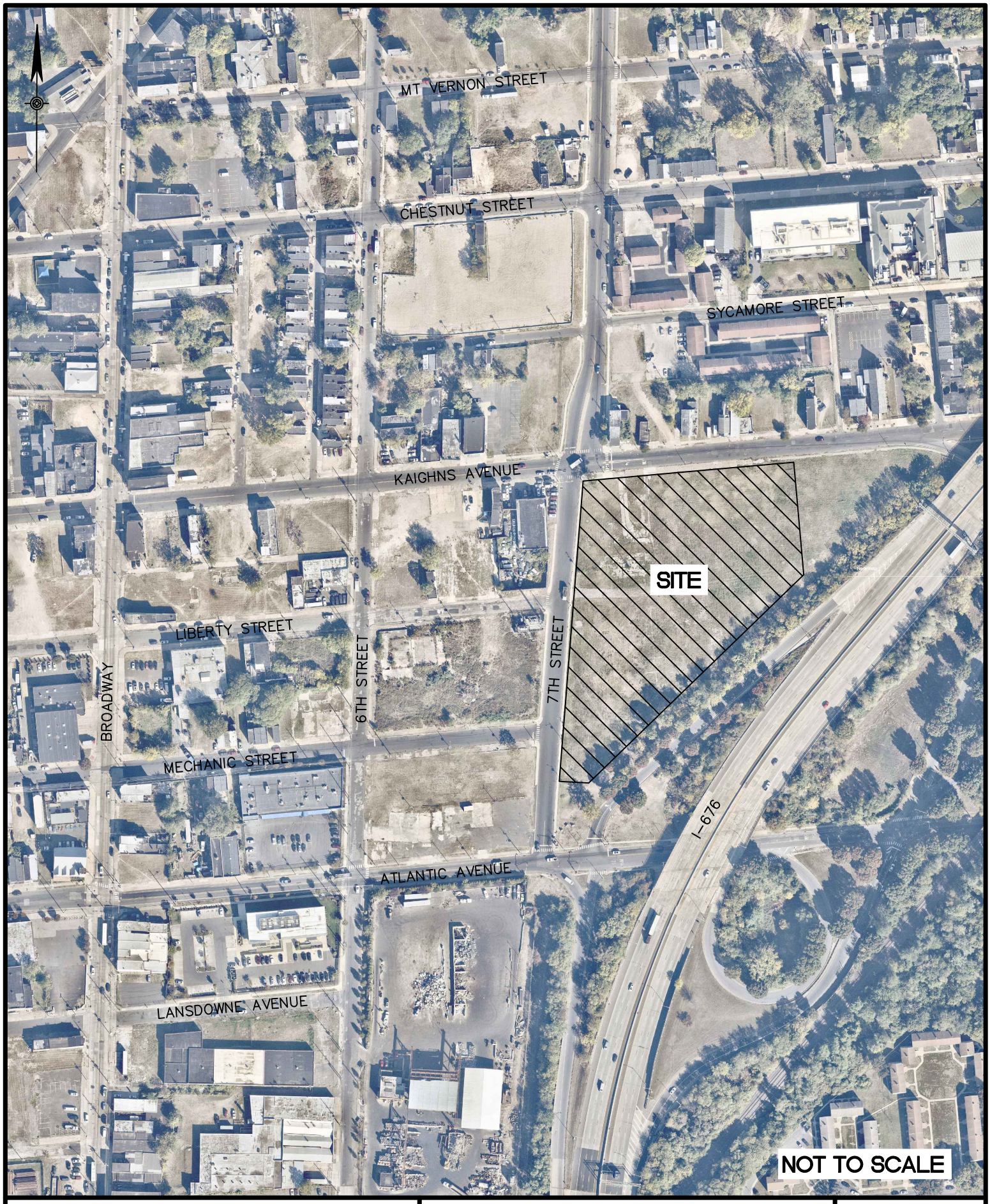

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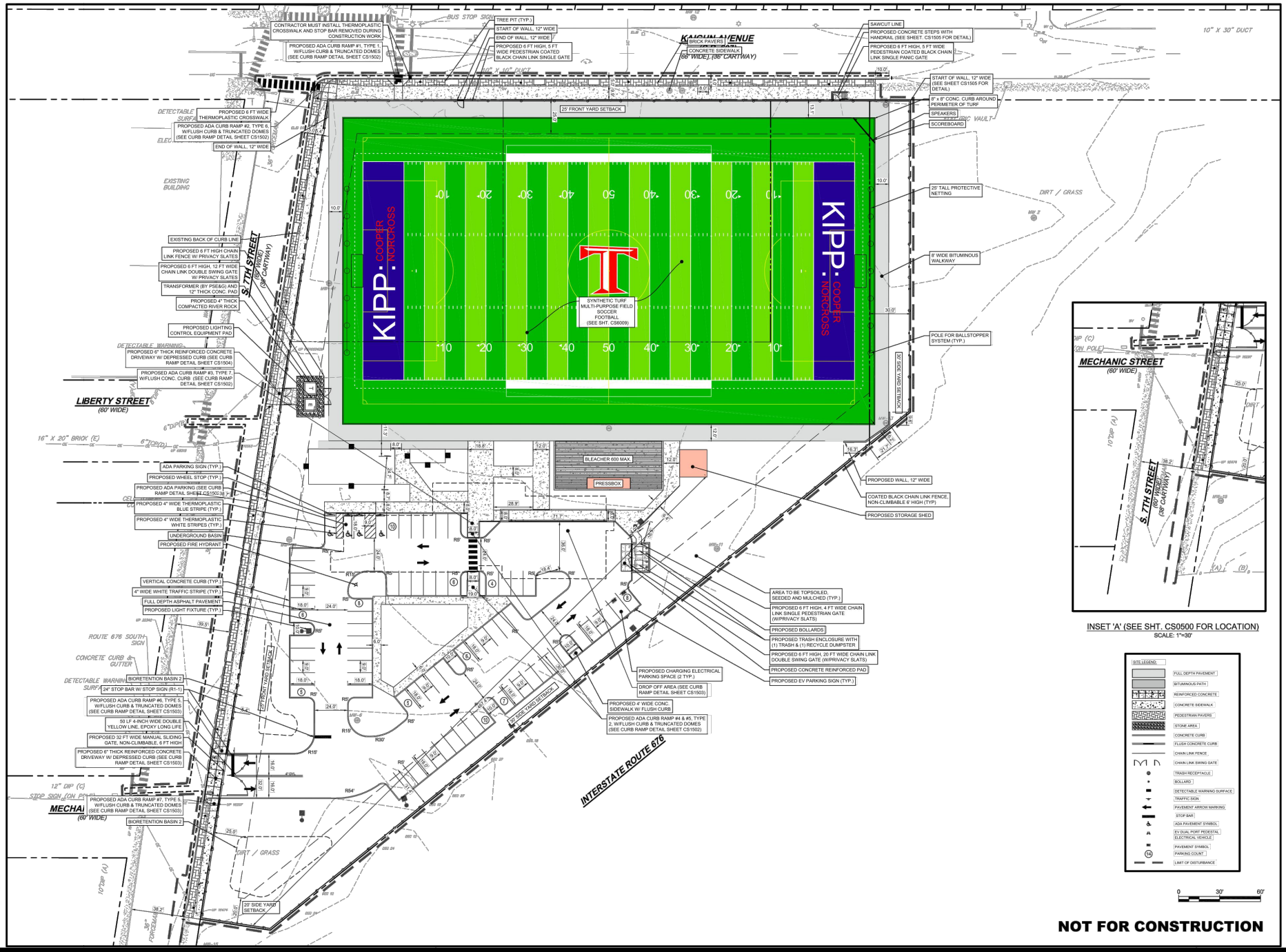
FIGURE 2
STUDY AREA



INSET 'A' (SEE SHT. CS0500 FOR LOCATION)
SCALE: 1"=30'

NOT FOR CONSTRUCTION

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WHITTIER FIELD

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FIGURE 3
SITE PLAN