

mahlum



DRAFT

Departure Committee

Robert Eagle Staff Middle School Field Lighting
18 April 2018



Agenda

Project Overview

Departures Requested

Setbacks

Committee Clarifying Questions

Public Comment

Committee Recommendation

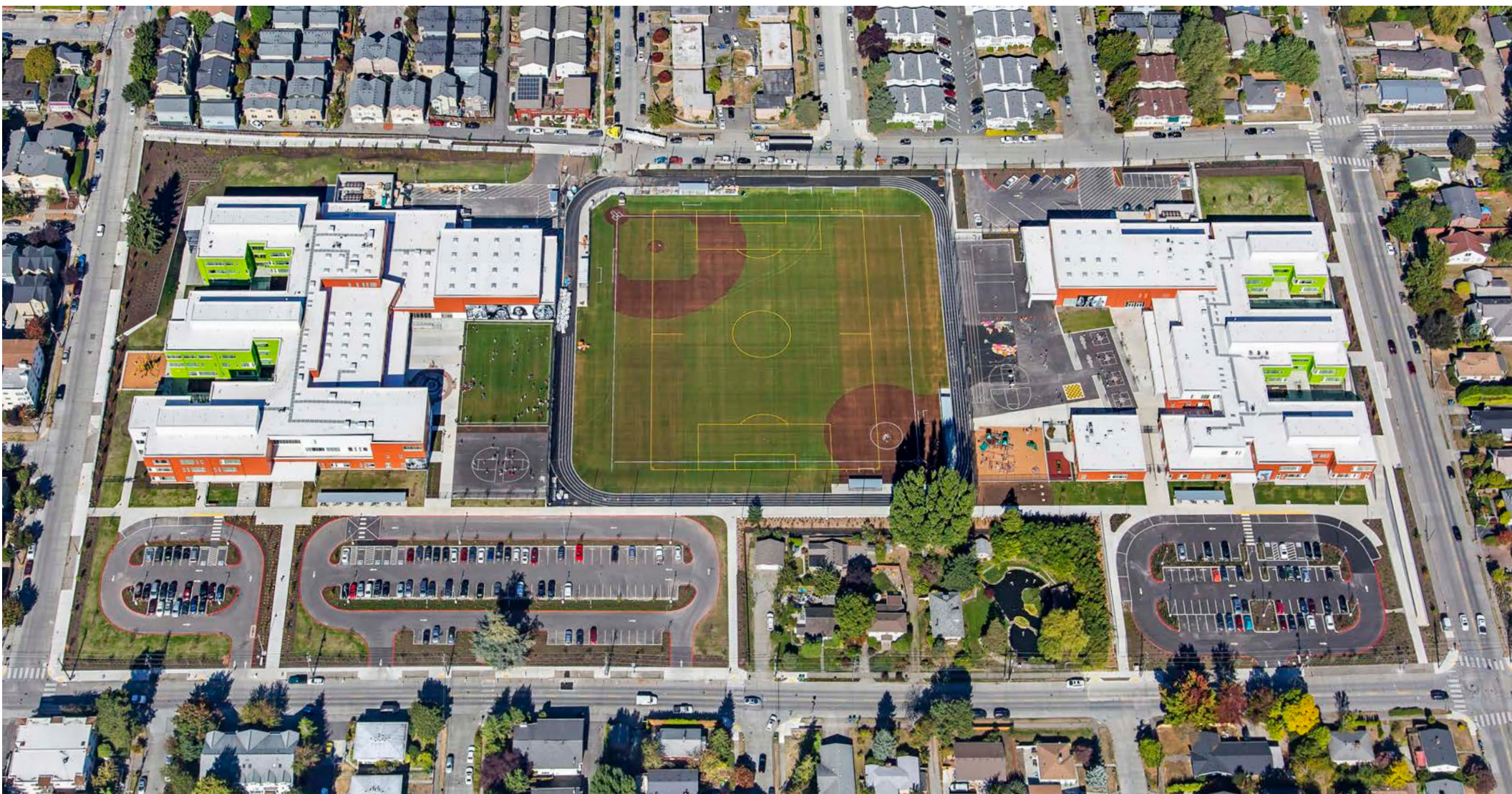
Project Overview

DRAFT

WHY IS FIELD LIGHTING PROPOSED NOW?

- Bell time changes adopted by School Board in 2016 and 2017
 - Later start and end times for middle and high schools (typically 8:55 a.m. - 3:45 p.m.)
 - Affected school athletics (later practices and games)
 - Affected youth sports and community use (after school athletics, typically evening)
- Voter-approved funding for several athletic field upgrades in 2016
 - Buildings, Technology and Academics/Athletics IV (BTA IV, 2016) Capital Levy included funds to upgrade athletic field and add lighting at Robert Eagle Staff
 - Original budget for Cascadia ES and Robert Eagle Staff MS (BEX IV, 2013) did not include synthetic turf or field lighting

Existing Site Aerial



Project Overview

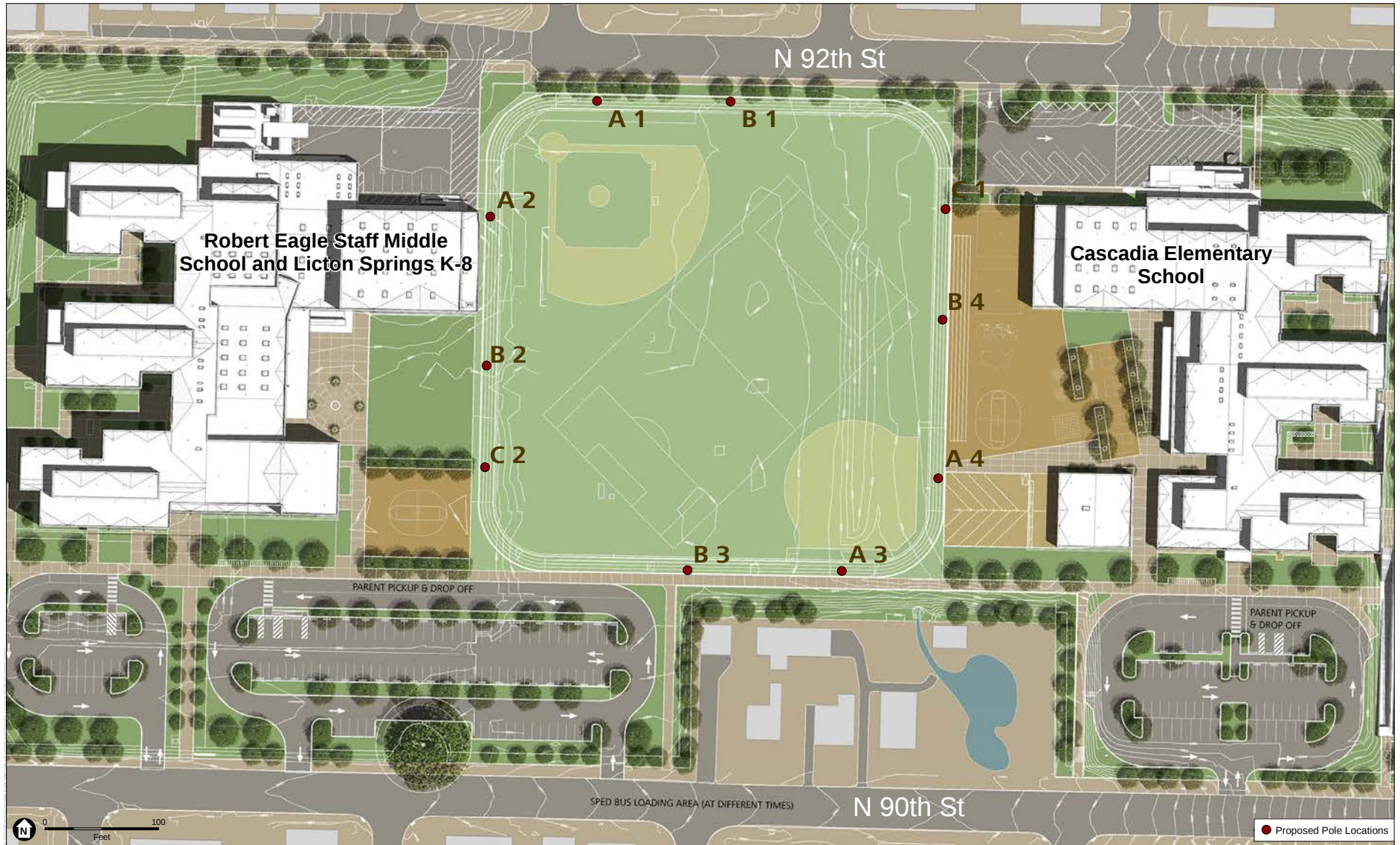
The existing turf playfield is approximately square, 380' x 390', and surrounded by a 15' wide running track. **Ten proposed poles** will be evenly distributed around the perimeter of the track. There are three set along the track's west edge, and three along the track's east edge; there are two along the south edge and two along the north edge. The poles vary between eighty and ninety feet in height and have either four or five flood lights mounted to them.



Examples of Proposed Poles



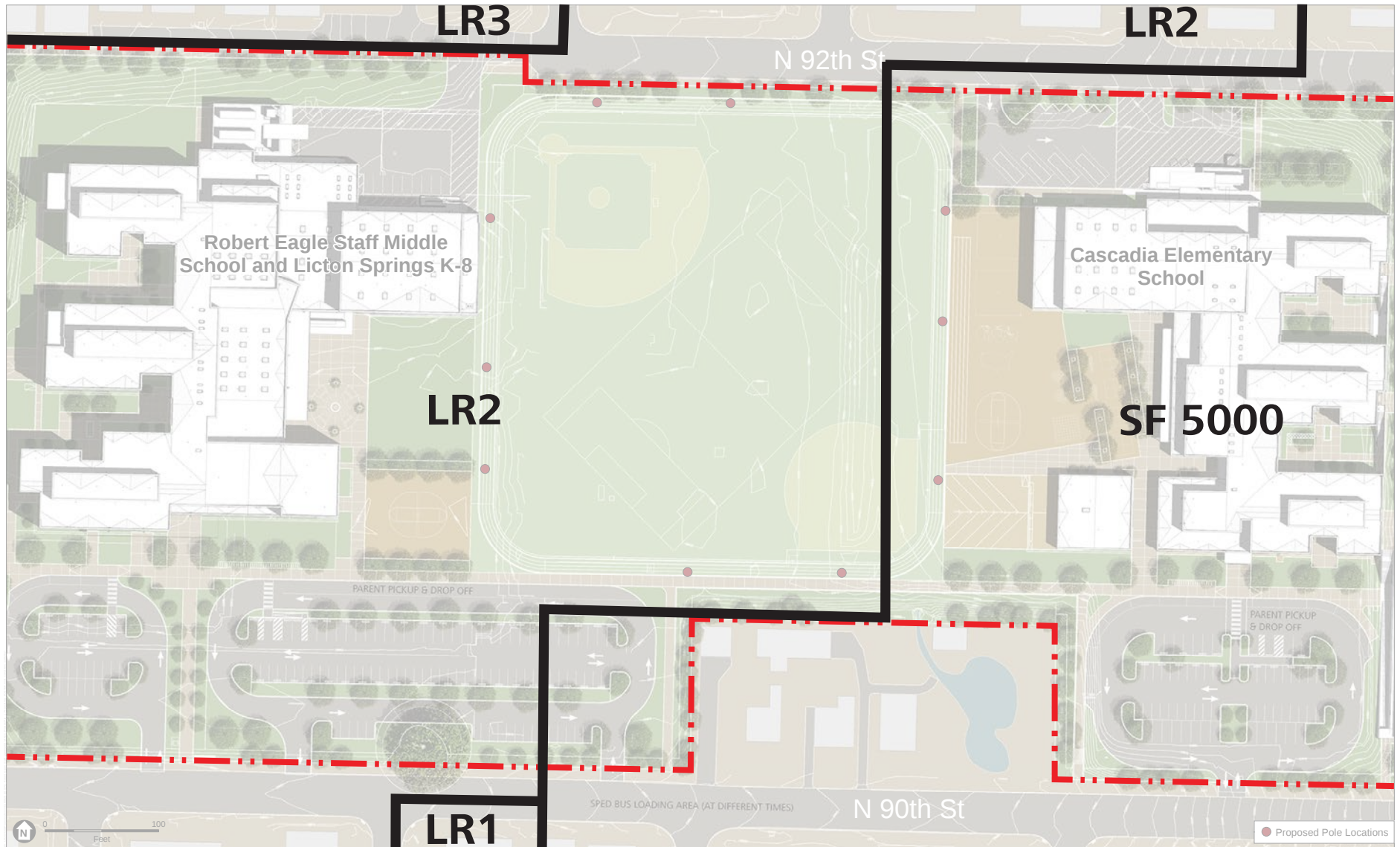
Proposed Light Pole Locations



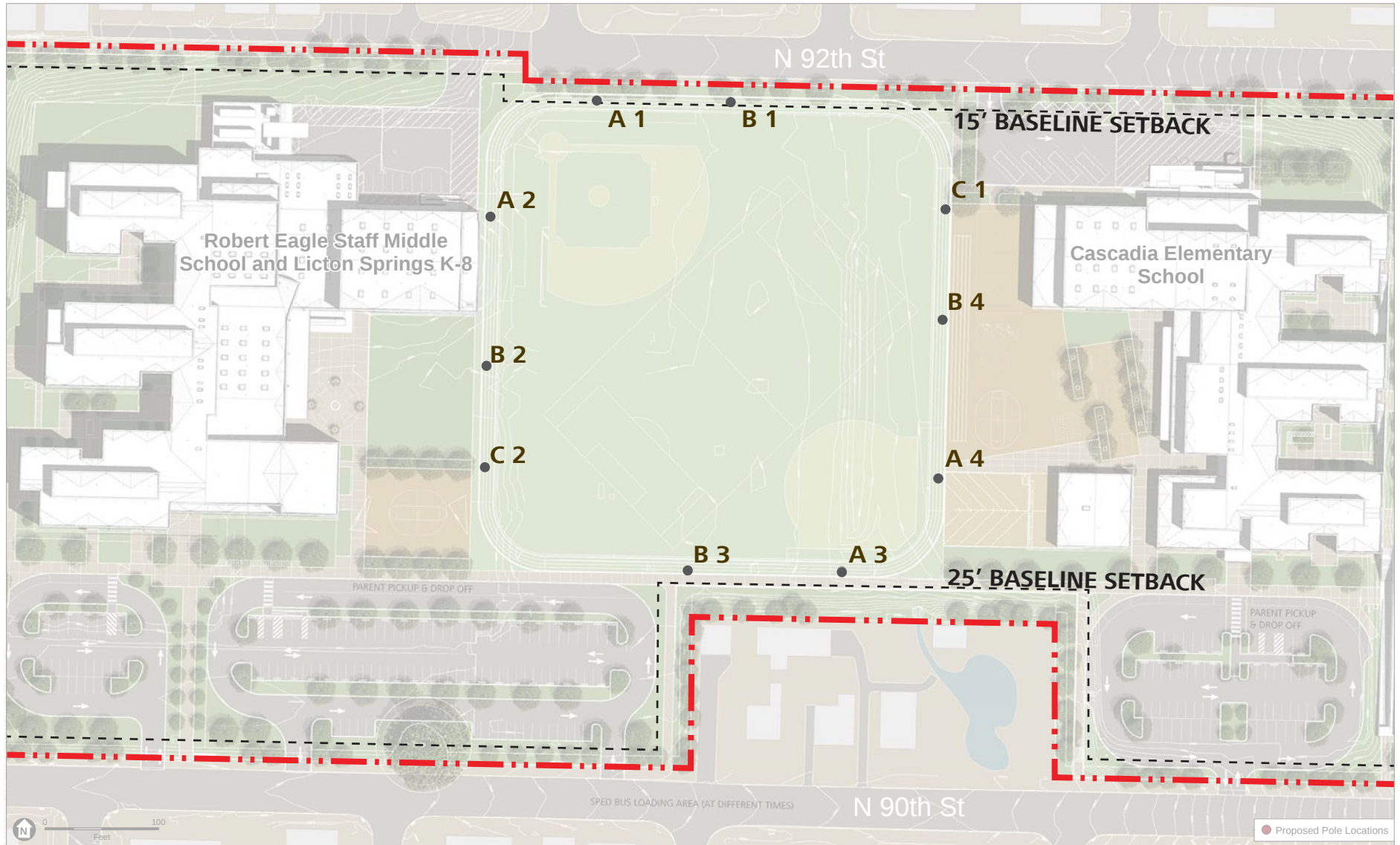
Departures Requested:

Setbacks

Existing Zoning



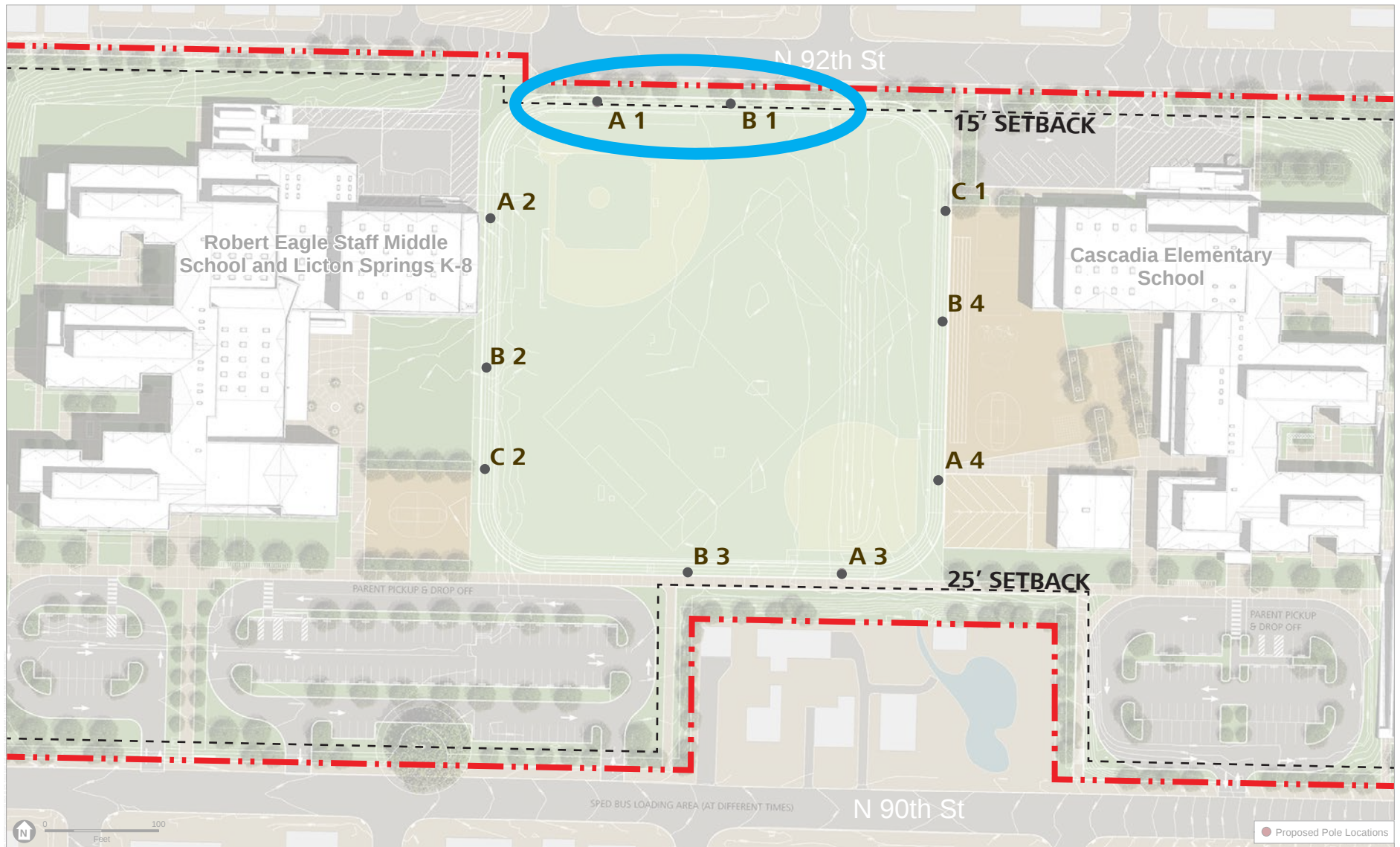
Baseline Setbacks (per Land Use Code)



Min. Setbacks w/ Departure (per Land Use Code)



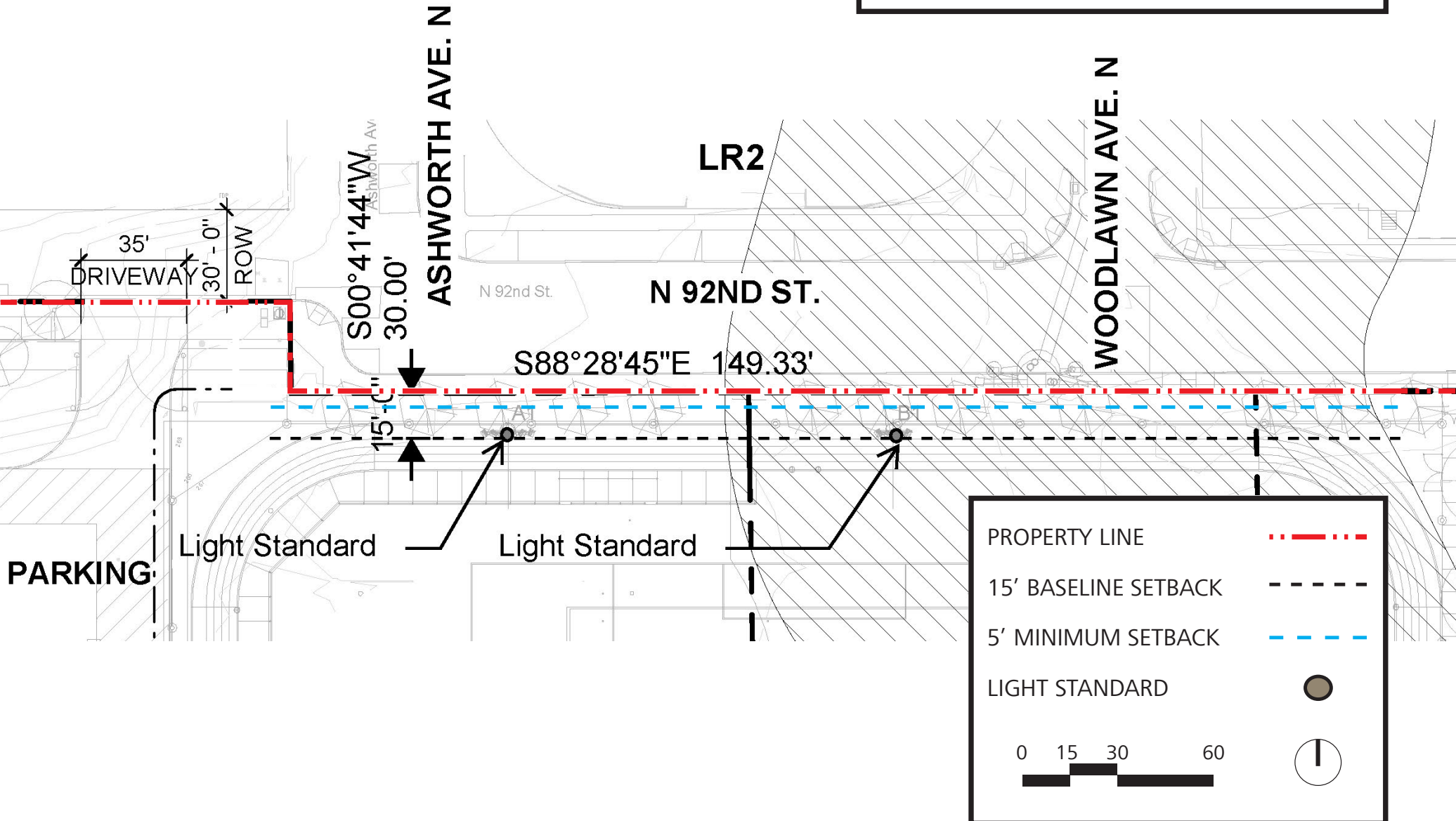
Area of Requested Departure



DRAFT

Departure Requested: Setbacks, Public Schools

DEPARTURE REQUESTED FOR SETBACK
REDUCE MINIMUM SETBACK FROM 15' TO 5'



DRAFT

Alternatives Evaluated

- **Eliminate the two non-conforming poles.**
- **No departure. Locate poles >15' from property line.**

DRAFT

15' Baseline Setback per SMC 23.51B.002.E.4.a
5' Minimum Setback per SMC 23.51B.002.E.5.a



DRAFT

Lighting Poles as Proposed (w/ Departure)



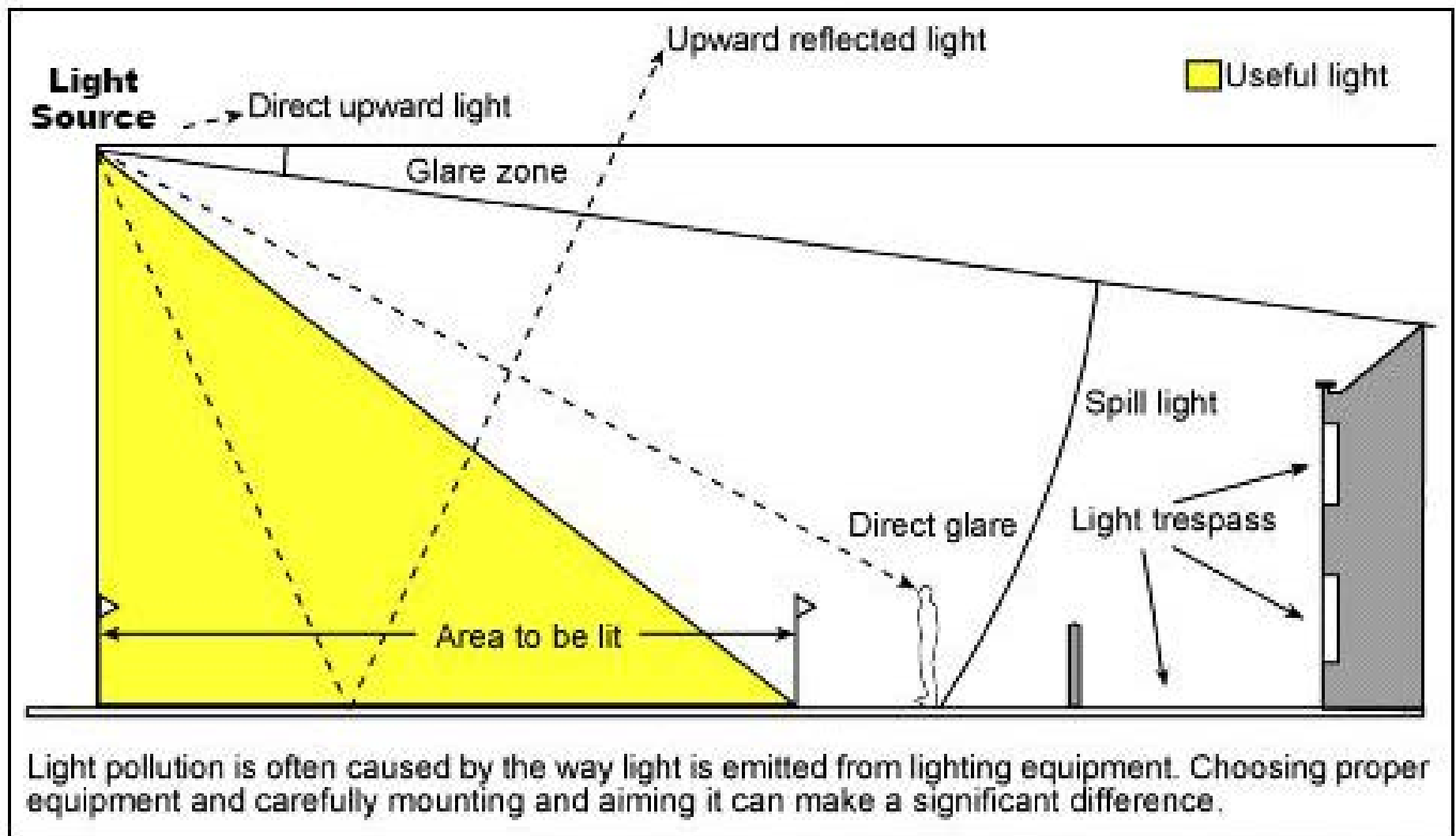
DRAFT

Lighting Poles (w/o Departure)



DRAFT

Proposed Lights - Shielding and Glare Reduction



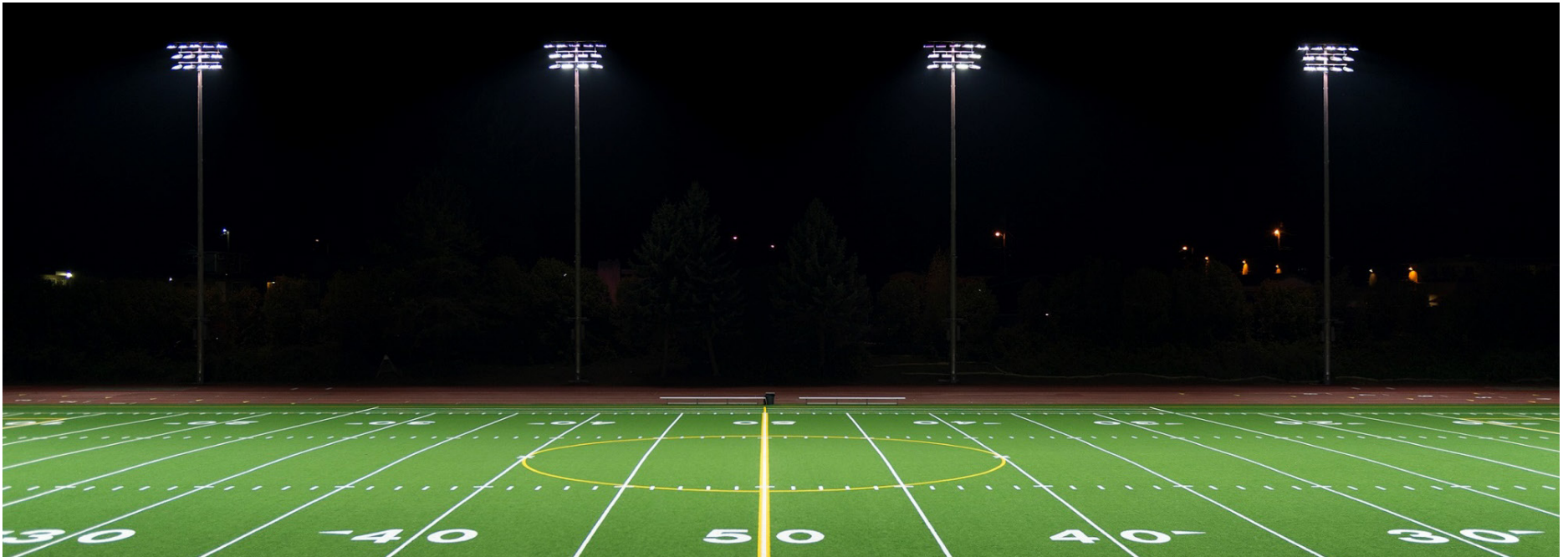
Source: Adapted from The Institution of Lighting Professionals

DRAFT

Proposed Lights - Shielding and Glare Reduction



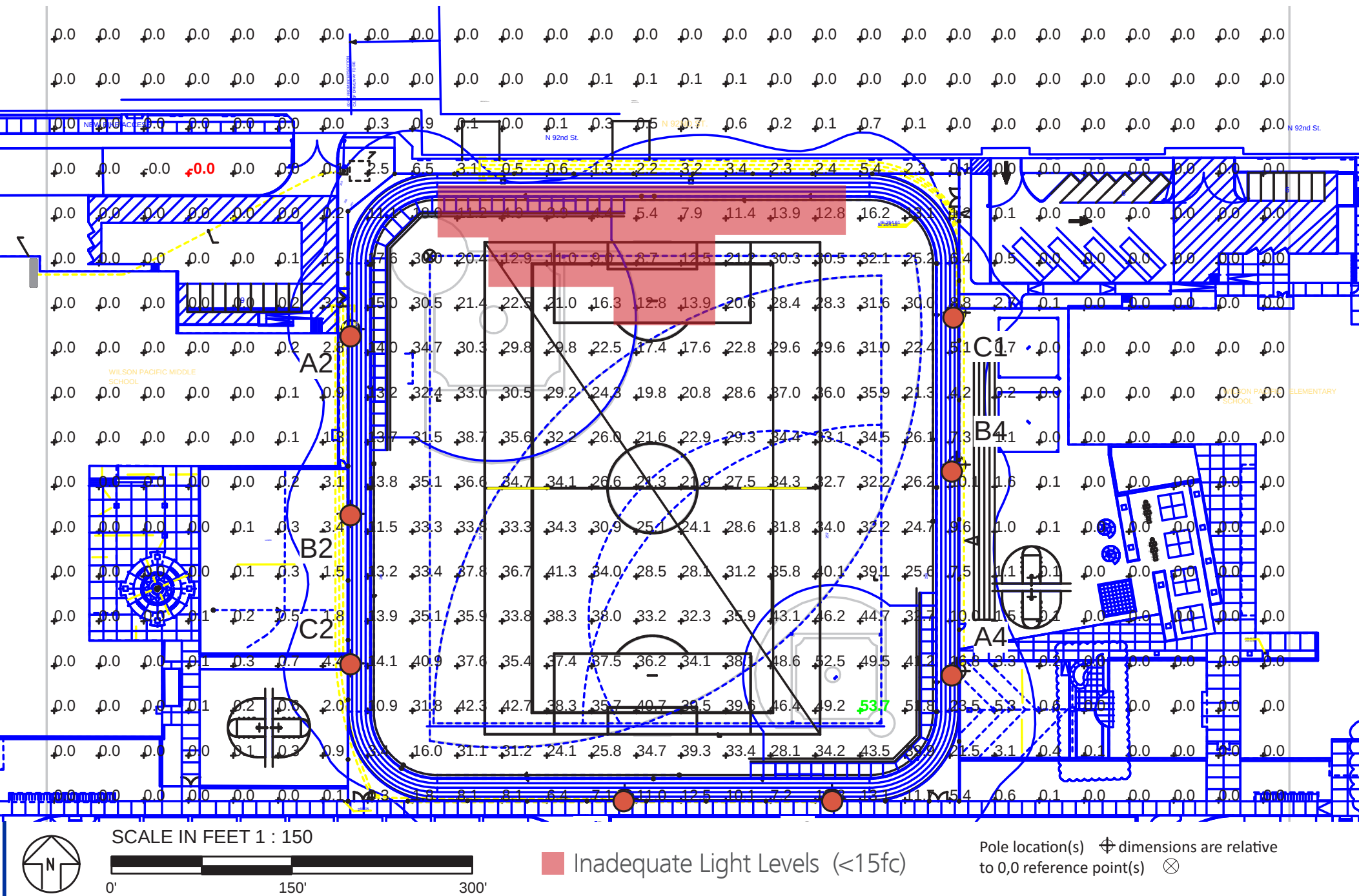
TRADITIONAL LIGHTING



PROPOSED LIGHTING

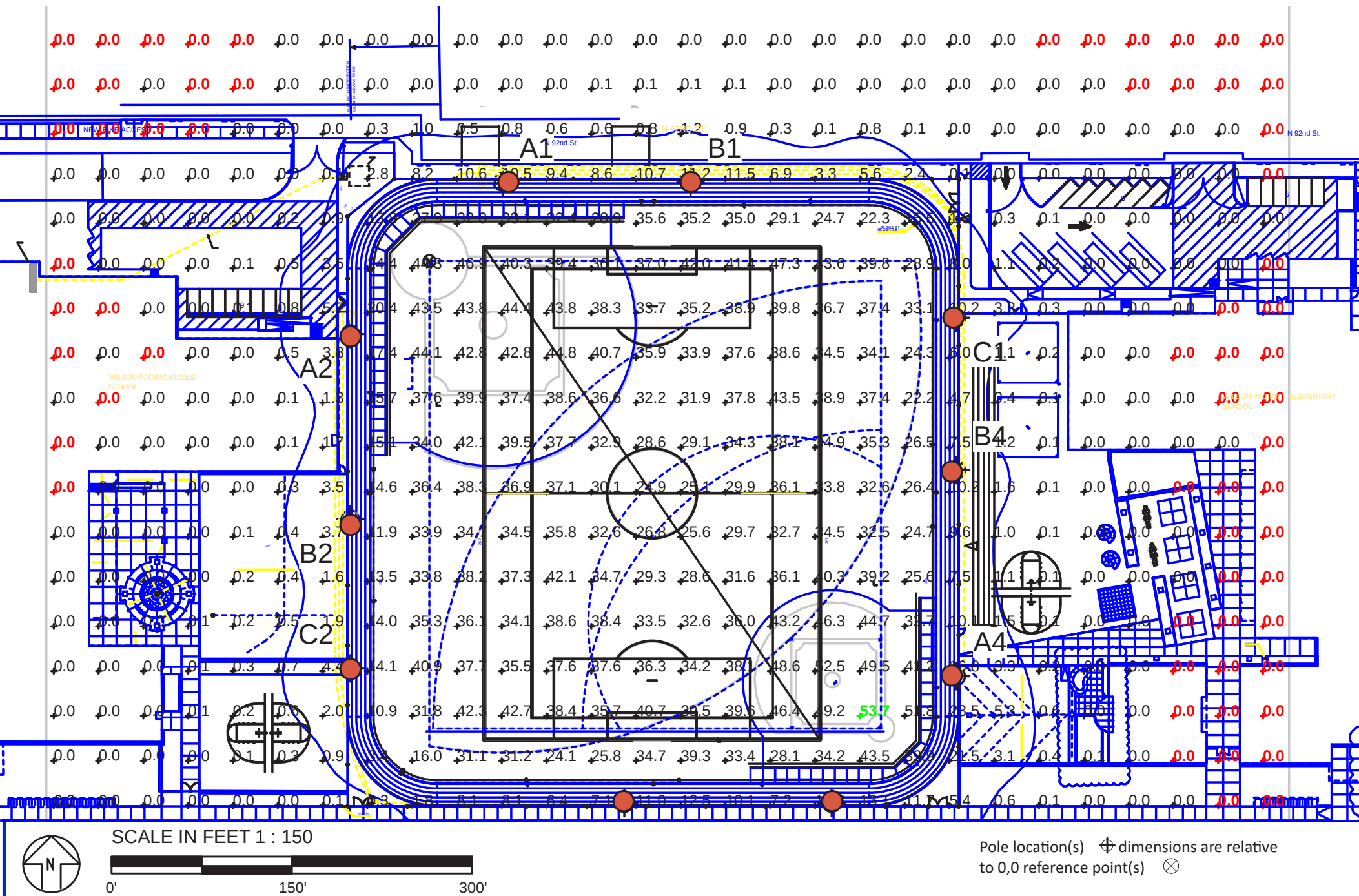
DRAFT

Light Levels - No Poles



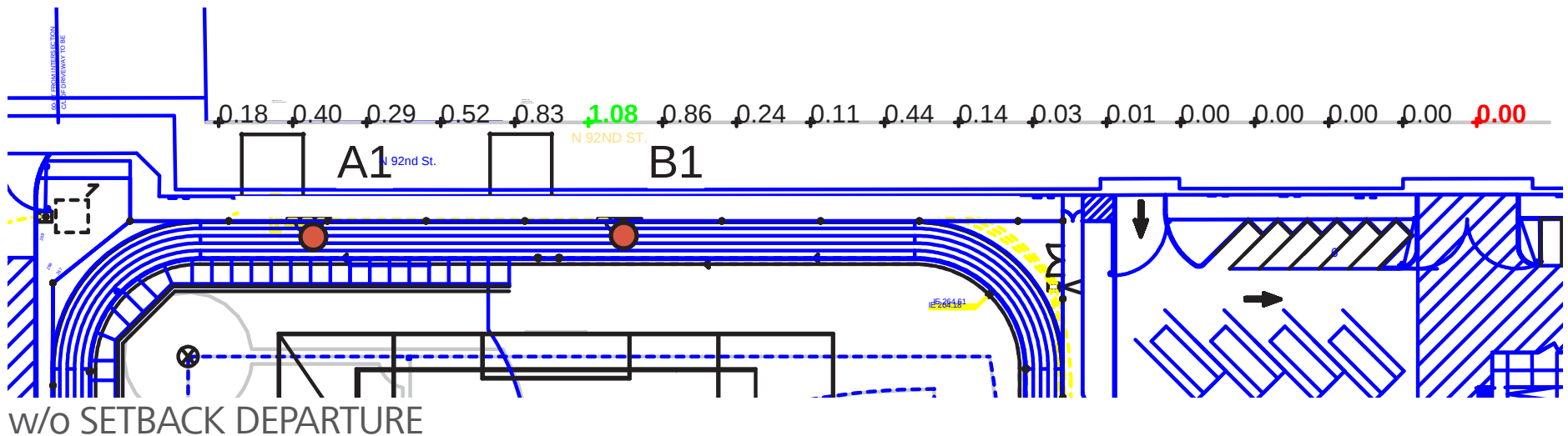
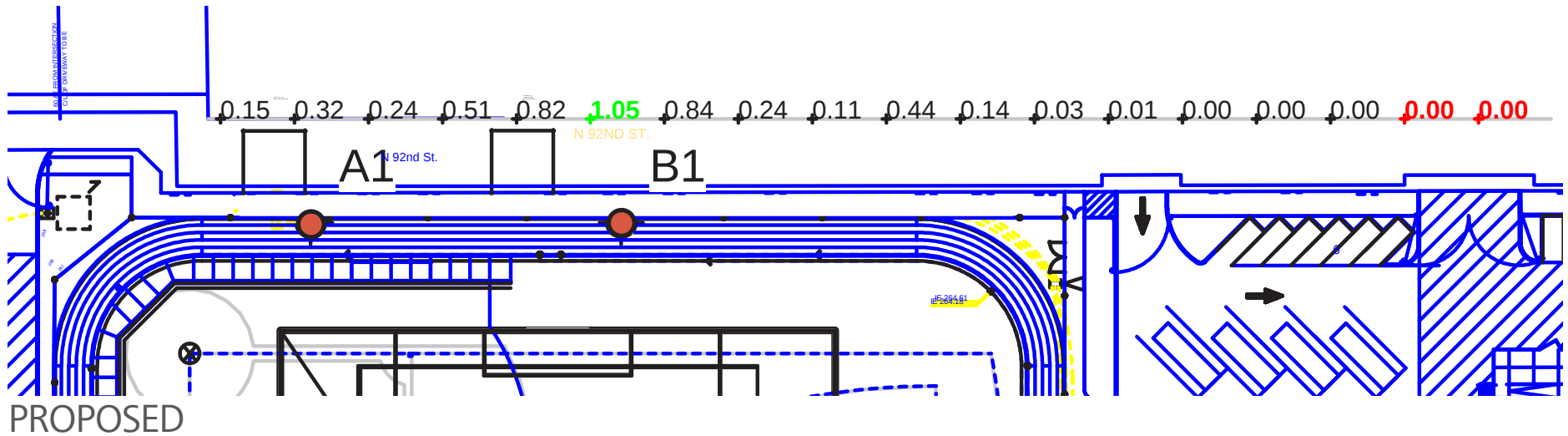
DRAFT

Light Levels - Proposed Poles (w/ Departure)



DRAFT

Light Levels - Neighboring Property Line (vertical)



Alternatives Evaluated

- **Eliminate the two non-conforming poles.**
 - Creates unsafe lighting condition on field.
 - No significant change to light impacts on adjacent properties.
- **No departure. Locate poles >15' from property line.**
 - Pole in middle of track compromise its function.
 - Pole on field would present a safety hazard for play.
 - Expensive to relocate and rebuild track.
 - Utilities under track expensive to move.
 - No perceptible difference in neighboring light levels.

DRAFT

Departure Requested: Setbacks, Public Schools

SETBACKS

SMC 23.51B.002 -
SMC 23.51B.002.E.4 -

**PUBLIC SCHOOLS IN RESIDENTIAL ZONES
SETBACKS FOR ADDITIONS TO EXISTING PUBLIC
SCHOOL STRUCTURES ON EXISTING PUBLIC
SCHOOL SITES**

a. ADDITIONS TO EXISTING PUBLIC SCHOOL STRUCTURES ON EXISTING PUBLIC SCHOOL SITES ACROSS A STREET OR ALLEY FROM LOTS IN RESIDENTIAL ZONES SHALL PROVIDE EITHER THE SETBACK OF THE PREVIOUS STRUCTURE ON THE SITE OR THE MINIMUM SETBACKS ACCORDING TO THE HEIGHT OF THE SCHOOL AND THE DESIGNATION OF THE FACING RESIDENTIAL ZONE AS SHOWN IN TABLE E FOR 23.51B.002, WHICHEVER IS LESS.

TABLE E FOR 23.51B.002 MINIMUM SETBACKS FOR ADDITIONS ON AN EXISTING PUBLIC SCHOOL SITE LOCATED ACROSS A STREET OR ALLEY FROM LR2/LR3. FOR FACADE HEIGHTS GREATER THAN 50', 15' MINIMUM SETBACK REQUIRED.

DEPARTURE REQUESTED SETBACKS

SMC 23.51B.002.E.5 -

DEPARTURES

DEPARTURES FROM SETBACK REQUIREMENTS MAY BE GRANTED OR REQUIRED PURSUANT TO THE PROCEDURES AND CRITERIA SET FORTH IN CHAPTER 23.79 AS FOLLOWS:

a. THE MINIMUM AVERAGE SETBACK MAY BE REDUCED TO 10' AND THE MINIMUM SETBACK TO 5 FEET FOR STRUCTURES OR PORTIONS OF STRUCTURES ACROSS A STREET OR ALLEY FROM LOTS IN RESIDENTIAL ZONES.

DEPARTURE REQUESTED *FOR 5' MINIMUM SETBACK*

Committee Clarifying Questions

Public Comment

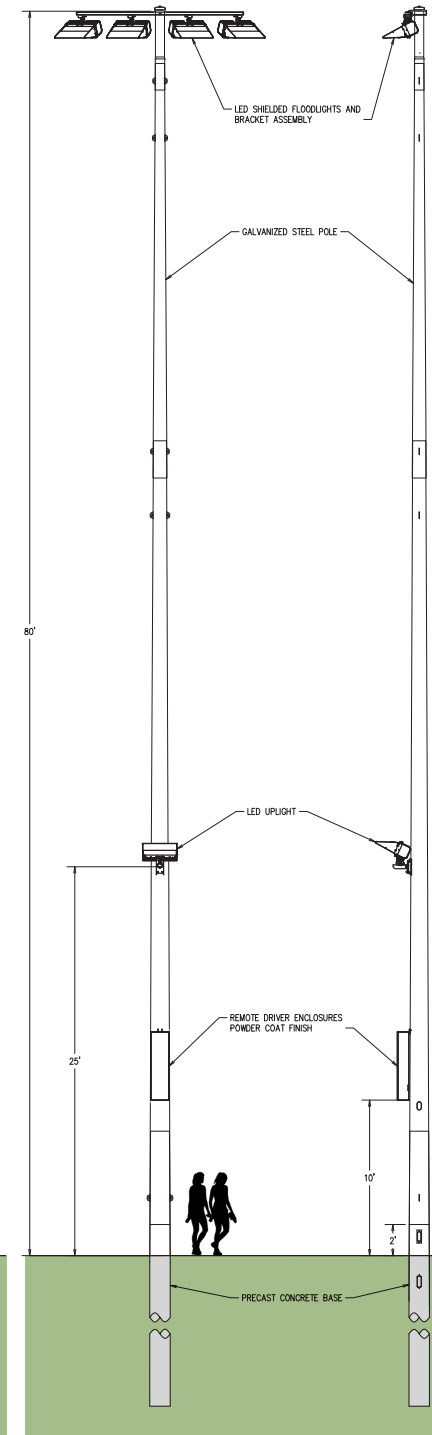
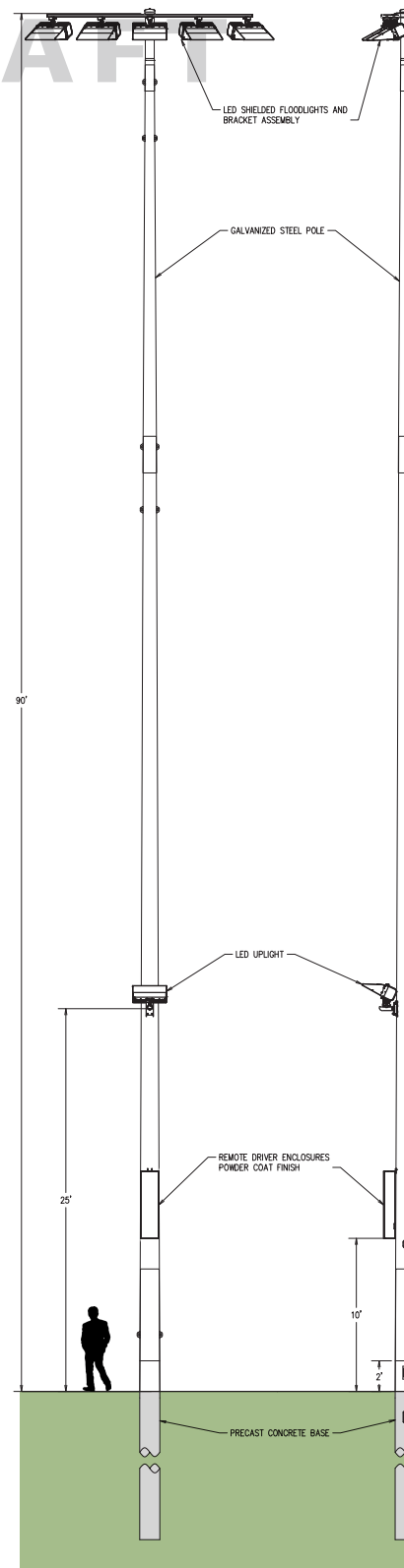
Committee Recommendation

DRAFT

Proposed Light Poles

POLE AND FLOODLIGHT SCHEDULE

POLE	HEIGHT	FLOODLIGHTS	UPLIGHTS	TOTAL
A1	80'-0"	4	1	5
A2	90'-0"	5	1	6
A3	80'-0"	4	1	5
A4	90'-0"	5	1	6
B1	90'-0"	4	1	5
B2	90'-0"	5	1	6
B3	80'-0"	4	1	5
B4	80'-0"	5	1	6
C1	90'-0"	5	1	6
C2	90'-0"	5	1	6
TOTAL		46	10	56



SEPA Findings – Transportation

Elements Evaluated in Transportation Study

- Activities previously expected to occur on fields
- Existing traffic volumes and patterns
- Traffic operations (PM peak & early evening)
- Existing parking conditions
- Future traffic conditions in the area without project
- Potential added activities with lights
- Net increase in trips and parking due to field lights
- Impacts to traffic operations
- Impacts to parking conditions

SEPA Findings – Transportation

Analysis Findings – Existing Conditions

- Fields are shared resource, but specific program element of RESMS. Activities include PE, baseball, softball, soccer, ultimate, and track
- Expected use for practice by Lincoln High School (e.g. high school football practice)
- Middle school athletics on weekday afternoons, 2:30 and 5:30 P.M., and Saturdays
 - Ultimate and girls' soccer in fall
 - Boys soccer and track in spring
 - No outdoor scholastic sports during winter months

SEPA Findings – Transportation

Analysis Findings – Existing Conditions

- Non-scholastic field use (when not reserved for scholastic uses)
 - Little-league baseball, softball, soccer, ultimate, and lacrosse (typical weekdays after 5:30 P.M.; extended hours late spring and summer)
 - Can occur until about 6:00 P.M. in Feb., extend until 9:00 P.M. by May
 - Weekend use 9:00 A.M. - 4:00 P.M. early spring; until 7:00 P.M. by May
- Traffic volumes
 - Most locations decline by 12% to 25% during hour after PM peak
 - Declines by 29% to 53% during 7:00 to 8:00 P.M.
- Parking
 - On-street: utilization 57%-60% (>400 unused) early evening; 65%-67% later (>335 unused)
 - On-site: 240 spaces total; 190 unused early evening in Sept. 2017

SEPA Findings – Transportation

Analysis Findings – Future with Project

- Fields to continue to be used by schools on site
 - Joint-Use Agreement with SPR allows shared use: until as late as 5:30 or 6:45 P.M. for some activities;
 - SPR scheduled activities until 10 P.M.
 - Same activities as currently occur; could occur later
- Traffic volumes
 - Estimated increase of 85 PM peak trips (25 in, 60 out) (possible later LHS practice departure and SPR activity arrival).
 - Estimated increase of 60 early evening trips (30 in, 30 out) reflecting concurrent arrival/departure of SPR activity.
 - Only new during part of the year (~Oct. – early Mar.); natural light allows for field use during these times without field lights

SEPA Findings – Transportation

Analysis Findings – Future with Project

- Operations
 - Negligible changes in delay (4 seconds or less) at study area intersections
- Parking
 - Peak demand 100 - 140 vehicles during short period between activities;
 - 30 - 95 vehicles during activities.

SEPA Findings – Transportation

Analysis Findings – Conclusions

- Same types of activities, occurring later
- Some traffic increases in evening; similar to existing but occurring more frequently
- No significant adverse impact to traffic operations
- Project-related parking demand can be accommodated in on-site lots
- Some demand may occur on street (10-15 cars) on N 92nd Street; unused spaces (23 to 32 observed) can accommodate