

Needham Mews | 692 Greendale Avenue



Development Team

Developer: Mill Creek Residential Trust

Architect: The Architectural Team, Inc.

Civil Engineer: Tetra Tech

Landscape Architect: Stantec

Presented to: Needham Zoning Board of Appeals

Thursday, July 18, 2013

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PLAN REFERENCES

"PLAN OF LAND NEEDHAM, MASS" DATED JAN. 3, 2002 PREPARED BY NEEDHAM SURVEY ASSOCIATES, INC.

"PLAN OF LAND NEEDHAM—MASS" DATED JUNE 10, 2000 PREPARED BY NEEDHAM SURVEY ASSOCIATES, INC.

"TOWN OF NEEDHAM, MASS DEPT. OF PUBLIC WORKS, EASEMENT TO BE ACQUIRED IN NEEDHAM, MASS, GREENDALE AVE TO ROUTE 128" DATED JUNE 1999.

"PLAN OF LAND IN NEEDHAM, MASS" DATED SEPT. 18, 1937 BY E. WORTHINGTON ENGINEER, PLAN BOOK 2199 PAGE 225.

"PLAN OF LAND IN NEEDHAM, MASS SHOWING DRAIN EASEMENT TO BE ACQUIRED BY THE TOWN" DATED OCTOBER 26, 1960 BY CHENEY ENGINEERING CO., INC. PLAN BOOK 306 NO. 791-1950.

STATE LAYOUT NO. 4548, 1957 DISCONTINUANCE OF STATE HIGHWAY ON GREENDALE AVENUE.

"PLAN OF LAND IN NEEDHAM, MASS" DATED JULY 20, 1961 BY CHENEY ENGINEERING CO., PLAN NO. 13 OF 1962 PLAN BOOK 3557 PAGE 484.

STATE LAYOUT NO. 4092, 1963 ALTERATION ROUTE 128

LOCUS INFORMATION

ASSESSORS MAP 19 PARCELS 42, 43 & 44

LOCUS IS WITHIN FEMA FLOOD ZONE X AS SHOWN ON COMMUNITY PANEL #5021C0037E DATED JULY 17, 2012.

ZONING SUMMARY

ZONING DISTRICT: 3RA SINGLE RESIDENCE A

M/N LOT SIZE: 43,960 S.F.

M/N LOT FRONTAGE: 150'

M/N FRONT SETBACK: 30'

M/N SIDE SETBACK: 25'

M/N REAR SETBACK: 15'

MAX. BUILDING HEIGHT: 32'

OWNERS OF RECORD

ASSESSORS MAP 18, PARCELS 43 & 44
VINCENT P. & MARY D. BORGIS
692 GREENDALE AVENUE
NEEDHAM, MA 02192

ASSESSORS MAP 19, PARCELS 42
CHRISTOPHER A. MACDONALD
744 GREENDALE AVENUE
NEEDHAM, MA 02192

REFERENCE

ASSESSORS MAP 15, PARCELS 43 & 44
DEED BOOK 2985 PAGE 600

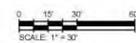
ASSESSORS MAP 15, PARCEL 42
DEED BOOK 3473 PAGE 325

NOTE:

1 HARDY STREET AS SHOWN ON THIS PLAN IS A SO-CALLED "ANCIENT TOWN WAY"; IT IS PRESENTLY UNPASSABLE. IN SOME SECTIONS IT WAS TAKEN BY THE MASSACHUSETTS HIGHWAY DEPARTMENT FOR THE CONSTRUCTION OF ROUTE 128 AND IN OTHER SECTIONS IT HAS BEEN ABANDONED BY TOWN MEETING ACTION. IT HAS NO LAYOUT. THIS PLAN SHOWS THE REMNANT CHAIN PATH STILL PHYSICALLY VISIBLE ON THE GROUND AS LOCATED BY FIELD SURVEYS.

LEGEND

- UTILITY POLE
- WATER VALVE
- FIRE HYDRANT
- BENCHMARK
- CATCH BASIN
- SEWER MANHOLE
- GAS VALVE
- DRAIN MANHOLE
- NEW OR FORMERLY
- EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- OVERHEAD WIRES
- WATER LINE
- GAS LINE
- SEWER
- STORM DRAIN



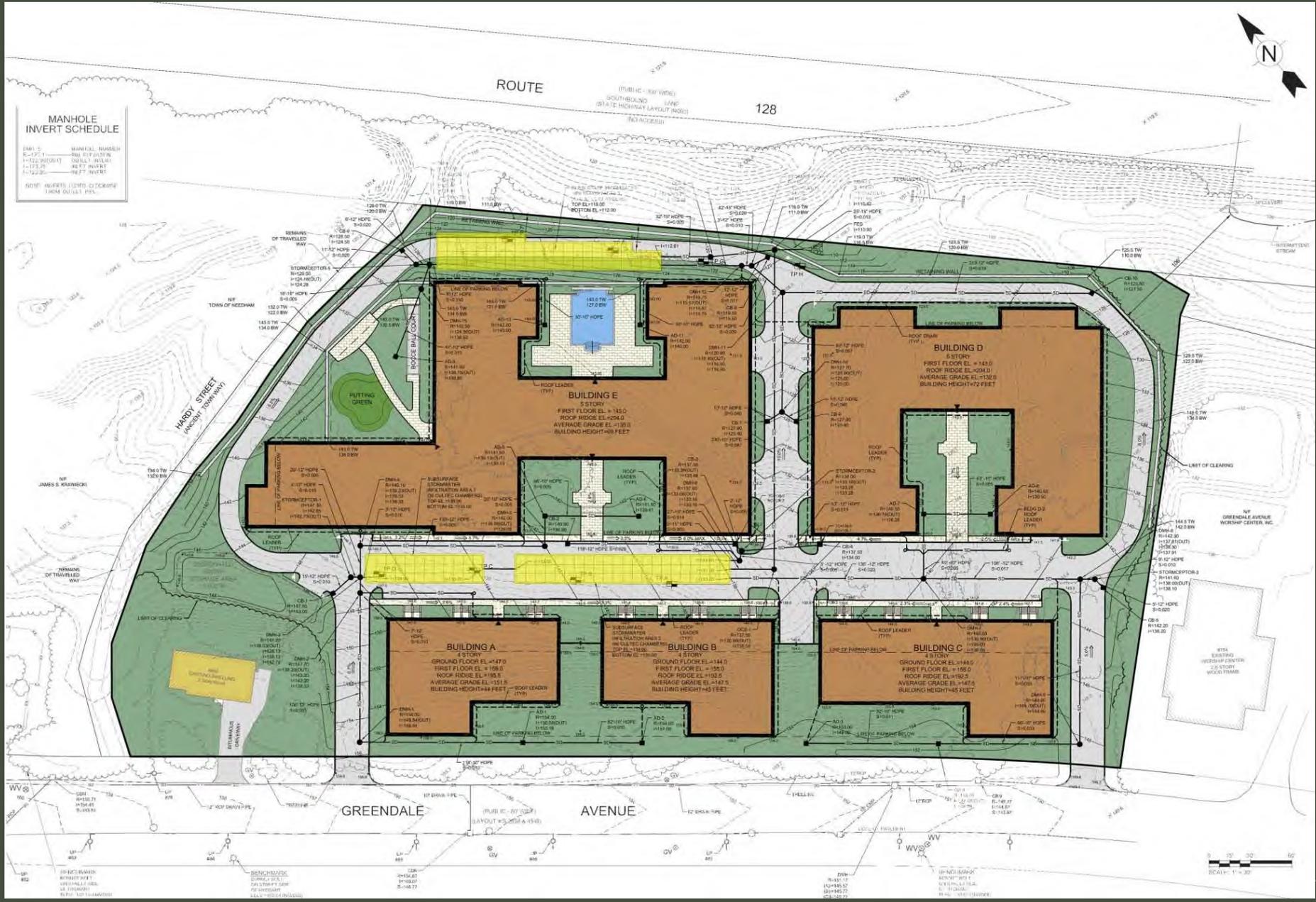
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MANHOLE INVERT SCHEDULE

MANHOLE NUMBER	MANHOLE INVERT
1-122.00(04)	OUTLET INVERT
1-123.25	ADULT INVERT
1-122.00	PIPE FIT INVERT

NOTE: ALL PIPES 12" DIA. UNLESS OTHERWISE NOTED.



128

GREENDALE AVENUE

SCALE: 1" = 30'

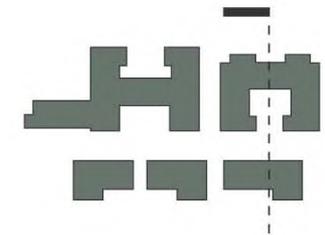
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West Site Section



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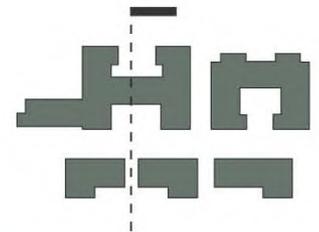
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East Site Section

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STREET / SHADE TREE



Acer rubrum 'Armstrong'



Acer rubrum 'October Glory'



Acer saccharum 'Green Mountain'



Betula nigra 'Heritage'



Gleditsia Triacanthos inermis 'Skline'



Platanus acerfolio 'Bloodgood'



Quercus palustris



Ulmus americana 'Heritage'

EVERGREEN TREE



Abies concolor



Abies koreana



Picea cembra



Picea glauca



Picea omorika



Pinus nigra



Pinus strobus

ORNAMENTAL TREE



Acer pennsylvanicum



Betula platyphylla japonica 'Whitespire'



Cersis canadensis



Cornus kousa



Halesia carolina



Malus 'Sugra Tyme'



Pyrus calleryana 'Aristocrat'



Quercus palustris 'Green Pilar'

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EVERGREEN SHRUBS



Azalea 'Delaware Valley White'



Buxus microphylla 'Green Velvet'



Ilex glabra 'Compacta'



Juniperus pfitzeriana



Kalmia latifolia



Rhododendron 'Boule de Neige'



Rhododendron PJM 'Checkmate'



Taxus cuspidata 'Greenwave'

DECIDUOUS SHRUBS



Clethra anifolia 'Sixteen Candles'



Cornus alba 'Ivory Halo'



Fothergilla gardenii



Hydrangea macrophylla 'Endless Summer'



Itea virginica 'Henry's Garnet'



Spirea japonica 'Shirobi'



Viburnum dentatum 'Blue Muffin'

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LED AREA LIGHTS - PATRIOT® (XPT3)



LED lighting facts®
A Program of the U.S. DOE

Light Output (Lumens) 15793
Watts 186.5
Lumens per Watt (Efficacy) 85

Color Accuracy
Color Rendering Index (CRI) 68

Light Color
Correlated Color Temperature (CCT) 5320 (Daylight)

Warm White 3700K 9000K Bright White 4500K Daylight 6500K

LED Lumen Maintenance Projection at 25,000 Hours at 25°C Ambient* 94.32%
Warranty** Yes

All results, except LED Lumen Maintenance, are according to IESNA LM-79-2009 Approval Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

* Based on TM-21 projections for the light source.
** See www.lightingfacts.com/products for details.

Registration Number: KGGN-ZS30K4 (1/15/2012)
Model Number: XPT3 FT LED 128 450 CW UE
Type: Outdoor area/wallwash fixture



US patent 7828456, 7952293, 8002428, 8177386 and CAN 2736757 and MX patent 29631 and ISRL 49679 and AUS 2008312668 and US & Int'l. patents pending

SMARTTEC™ THERMAL CONTROL - Sensors in both optical and driver enclosure reduce driver current when ambient temperatures exceed 50°C. Current is lowered in imperceptible 5% increments every 5 minutes until safe operating temperature is reached.

OCCUPANCY SENSING (IMS) - Optional integral passive infrared motion sensor activates switching of luminaire light levels. High level light is activated and increased to full bright in 1-2 seconds upon detection of motion. Low light level (30% maximum drive current) is activated when target zone is absent of motion activity for ~2 minutes and ramps down (10-15 seconds) to low level to allow eyes time to adjust. Sensor is located on the rear of optical assembly. Sensor optic has a detection cone of approximately 45°. Examples of detection - occurs 30' out from a 30' mounting height pole; occurs 20' out from a 20' mounting height pole.

EXPECTED LIFE - Minimum 60,000 hours to 100,000 hours depending upon the ambient temperature of the installation location. See LSI web site for specific guidance.

LEDS - Select high-brightness LEDs in Cool White (5250°K nominal) or Neutral White (4100°K nominal) color temperature. 70 CRI (nominal)

DISTRIBUTION/PERFORMANCE - Type 3, 5 and FT. Exceptional uniformity with full cutoff creates bright environment at lower light levels. Improved backlight cutoff minimizes light trespass.

HOUSING - One-piece, die-cast aluminum in a multi-radiused, rectangular shape with mounting arm cast in as an integral part of the housing. All hardware is stainless steel or electro-zinc plated steel.

OPTICAL UNIT - Clear tempered optical grade flat glass lens sealed to die-cast aluminum door assembly. Secures to housing with stainless steel hinge bracket. Integral over-center latch allows easy tool-less access to driver. Optic provided with catch mechanism to limit door swing. One-piece extruded silicone gasket seals optical assembly against the housing.

MOUNTING - Use with 5" traditional drilling pattern. Integral cast mounting arm is flat for square pole applications. Use round pole adaptor (RPPC) to mount to round poles. RPPC must be ordered separately. Extruded 6" arm extension is available (but not required for 90° or 120° mounting configurations).

ELECTRICAL - Two-stage surge protection (including separate surge protection built into electronic driver) meets IEEE C62.41.2-2002, Location Category C. Available with universal voltage power supply 120-277VAC (UE-50/60Hz input) and 347-480VAC. Optional twistlock photocell receptacle is available. Photocell must be ordered separately. Fixture Watts (nominal): 350mA - 144, 450mA - 188.

DRIVER - Available in 350mA and 450mA drive currents. (Drive currents are factory programmed). Components are fully encased in potting material for IP65 moisture resistance. Driver complies with FCC 47 CFR part 15 RF/EMI standard.

OPERATING TEMPERATURE - -40°C to +50°C (-40°F to +122°F)

FINISH - Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling.

WARRANTY - LSI LED fixtures carry a limited 5-year warranty.

PHOTOMETRICS - Application layouts are available upon request. Contact LSI Applications Group at lighting.apps@lsi-industries.com

SHIPPING WEIGHT (in carton) - 56 lbs / 25.4 Kg

LISTING - ETL listed to U.S. and Canadian safety standards. Suitable for wet locations.

This product, or selected versions of this product, meet the standards listed below. Please consult factory for your specific requirements.



LED AREA LIGHTS - PATRIOT® (XPT3)

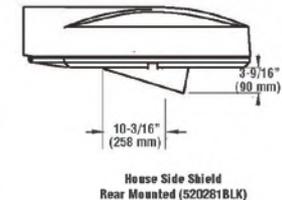
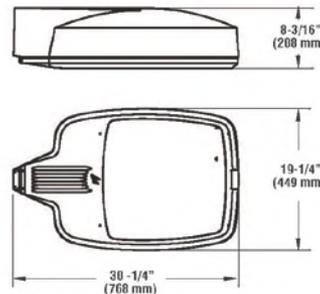
LUMINAIRE ORDERING INFORMATION										
TYPICAL ORDER EXAMPLE: XPT3 FT LED 128 450 CW UE WHT PCR										
Prefix	Distribution	Light Source	# of LEDs	Drive Current	Color Temperature	Input Voltage	Finish	Options		
XPT3 - LED Patriot	3 - Type III 5 - Type V FT - Forward Throw ¹	LED	128	350 - 350mA 450 - 450mA	CW - Cool White NW - Neutral White	UE - Universal Voltage (120-277V) 347-480V	BLK - Black BRZ - Bronze GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SIV - Satin Verde Green WHT - White	PCR - Photoelectric Control "Backpack" TB - Terminal Block IMS - Integral Motion Sensor		

NOTE:
1 - This is a non-flip-rotatable optic. For retrofit applications in which the original metal halide product was retrofit and LED version will require a non-standard orientation, consult factory.
2 - Photocell must be ordered separately - see Accessories.

LUMINAIRE EPA CHART - XPT3		ACCESSORY ORDERING INFORMATION (Accessories are field installed)			
Beam Angle	Beam Spread	Description	Order Number	Description	Order Number
Single	1.5	PC120 - Photocell	120S14*	XPT3 FT ISSS DM - Extends House Side Shield - Rear Mount	5202S1BLK, etc.
D180°	3.0	PC208-277 - Photocell for 208V, 240V or 277V	120S15*	XPT3 PLS - Polycarbonate Shield	92730
D90°	2.3	PC347 - Photocell	193S16*	RS-30-WM*-CLR - Wall Mount Plate	12311CLR
T90°	3.8	PC480 - Photocell	122S190*	RS-30-EC-S-CLR - Extension Arm	14288CLR
T120°	4.0	RPPC - Round Pole Plate	14134CLR	RS-30-BA-S-CLR - Radius Arm	16501CLR
T120°	4.0	R320 - Single Fusing	R320**	RSU-30-S-19-CLR - Upward Bracket for Round and Square Poles	14419CLR
T120°	4.0	R327 - Single Fusing	R327**		
O90°	4.5	R1206, 242 - Double Fusing	DR206, 242**		
		R1480 - Double Fusing	DR480**		
		R347 - Single Fusing	RS47**		

NOTES:
*Factory installed PCR option required. **Fusing must be located in the hand hole of pole.
**Black only. House Side Shields add to fixture EPA.

DIMENSIONS



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Shielded bollards with symmetrical light output

Post construction: One piece extruded aluminum, $\frac{3}{16}$ " wall thickness with one piece die-cast aluminum top housing and base, internally welded into an assembly.

Lamp enclosure: Removable aluminum top housing for relamping with die-cast aluminum lower stack secured by four (4) socket head stainless steel screws threaded into stainless steel inserts. Assembly is "keyed" for consistent replacement alignment. Clear $\frac{3}{16}$ " thick handblown crystal glass lens with screw neck. Fully gasketed using high temperature silicone rubber O-rings.

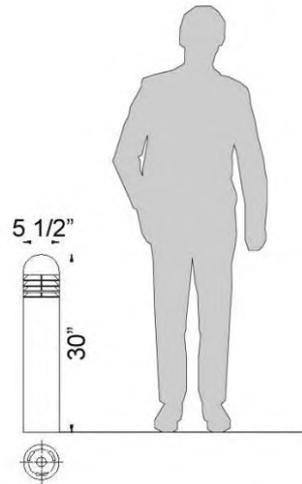
Electrical: Lampholders: H.I.D. are medium base porcelain with nickel plated copper screw shell, rated 4KV. Ballasts are magnetic, and are located on an upright bracket attached to the anchor base and are available in 120V, 208V, 240V or 277V, HPF - specify.

Anchor base: Heavy cast aluminum, slotted for precise alignment. Provided with three expansion anchor bolts provided for installation on an existing concrete pad. Bollards are secured to the post with one socket head stainless steel screw.

Finish: Available in four standard BEGA colors: Black (BLK), White (WHT), Bronze (BRZ), Silver (SLV). To specify, add appropriate suffix to catalog number. Custom colors supplied on special order.

UL listed, suitable for wet locations.
Protection class: IP55.

Type:
BEGA Product:
Project:
Voltage:
Color:
Options:
Modified:



Lamp	Lumen	A	B	Anchorage
8482MH 1	50W ED -17 MH	3800	5 1/2 31 1/2	KH F



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