February 1, 2024

David Hartnagel, Chair Stow Zoning Board of Appeals Town Building 380 Great Road Stow, MA 01775

Re: Stow Acres Country Club, Randall Road - Proposed Relocation of the Driving Range and Snack Bar

Dear Members of the Zoning Board of Appeals,

In response to our meeting on January 11, 2024, several items were requested by the Board for further review. The following items are being provided as requested:

- 1. Rendering of the remaining two sides of proposed buildings.
- 2. Plan showing elevation of the driving range bay side of the building.
- 3. Plan showing abutters and approximate distance to proposed driving range buildings.
- 4. Current and proposed hours of operation.
- 5. Lighting plan and specifications showing that lighting for the driving range technology would light approximately 150 feet down into the driving range using 4 fixtures. Four fixtures are at +/- 2-foot elevation off the ground in front of the driving range. This lighting is required for the camera-based system (TopGolf) that is being proposed in the driving range bays in order to capture the information from the golf balls as they are being hit into the driving range. We can comply with Section 3.8.1 General Use Regulations Pertaining to All Districts, but we would need to mount the lights at a much higher elevation off the ground (35'). This would satisfy Section 3.8.1.5.6 which states that no light above the horizontal. Under Section 3.8.1.5.4 we would propose the mitigating factor of allowing us to mount these at the 2' level off the ground but light would go above the horizontal because the fixtures would be facing upward instead of the normal lights facing downward.

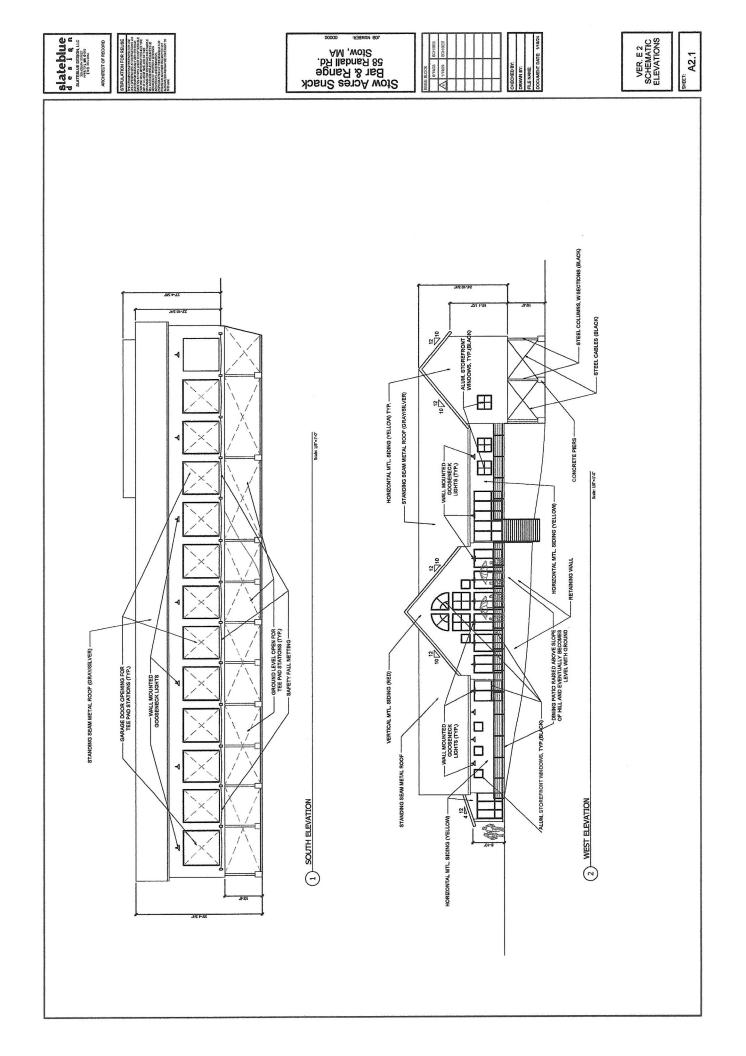
We hope that this information is helpful in your analysis of our project.

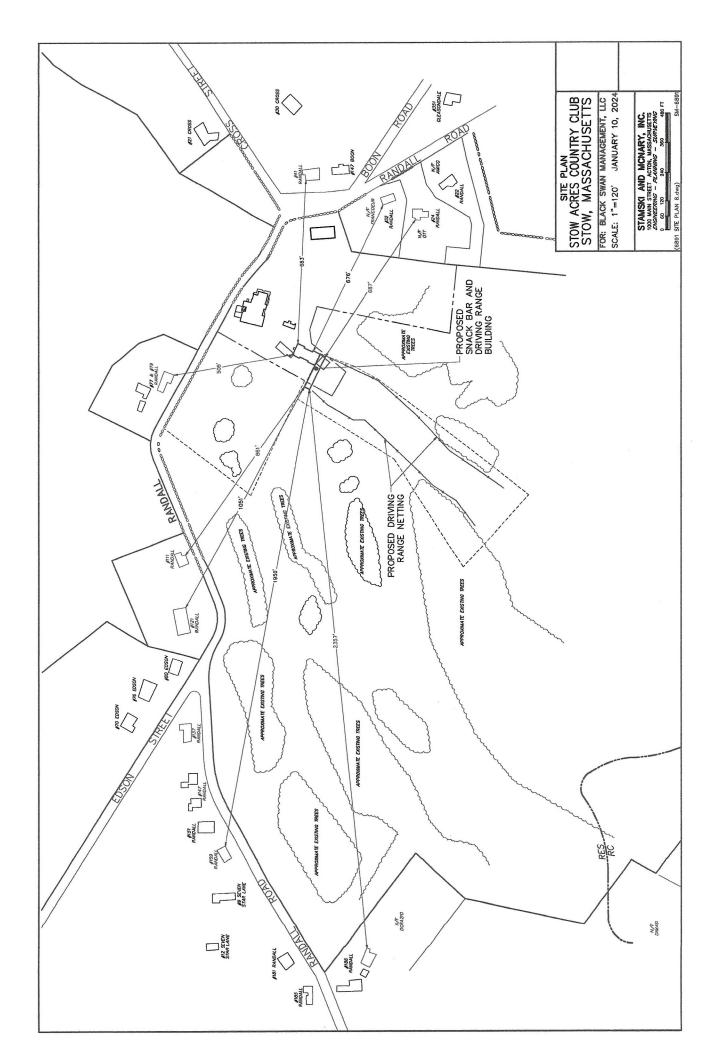
Very truly yours,

Peter I. Brown

Stow Holdings LLC







### **Stow Acres**

# **Hours of Operation**

### Grille Room

The current hours of operation are as follows, plus or minus depending upon the weather.

There are no current restrictions on our hours of operation regarding the grille room and we could, if we so desired, be open year-round.

Current:

March & October/November:

7:00 AM to 6:00 PM

April & September:

6:00 AM to 9:00 PM

May thru August:

6:00 AM to 10:00 PM

December, January, February:

Closed

# **Proposed Hours of Operation Grille Room and Driving Range**

January thru December:

6:00 AM to 10:00 PM

Deawn By: Scale:
Checked By:
Scale:

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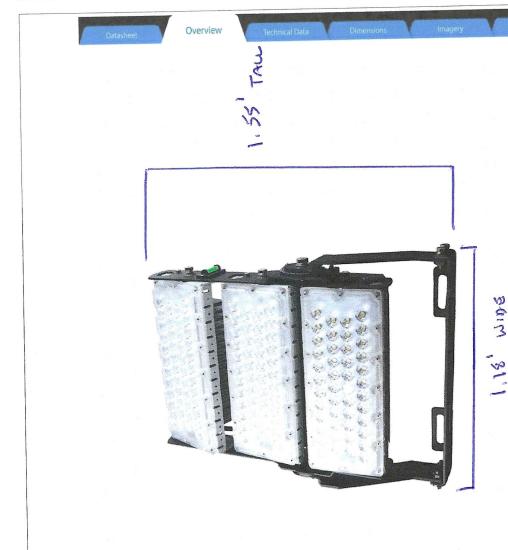
Stow Acres Luminaire:Galaxy-300-TTX-US

Qty:4
Mounting Height: 4 x berm mount 2ft
Calc Summary: Ground Horizontal - 0av / 67max Fc
vertical perimeter 0-35 ft - 0 av/ 0 max Fc
vertical perimeter 1 0-35ft - 0av/0max Fc

In order to produce the design set out herein ("the Design") Exled Ltd has relied solely on the documents and information supplied by you (if supplied). By you acceptance and/or use of the design you agree to warrant her a finformation in the Customer Documents is correct in all respects and nowthistisharing the fact that Exled Lid Lighting department has made a commercially reasonable endeavor to ensure the information set forth herein are provided to you on an 'as is' basis and Exled makes no warranty or representation regarding with respect therether AS SUCH, EXLED LTD HEREYE EXPRESS. INSTIGN ANY AND WARRANTIES, WHETHER EXPRESS. IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, THE IMPLIED ROF MERCANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT RESPECTING THIS PROPOSAL OR ANY OF ITS CONTENTS Exled Ltd accepts no liability for any loss (however caused) sustained by you or any or your employees, agents, representatives, affiliates or third parties as a result of any error or ormsson in this proposal.

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The Galaxy TTX range provides mid power LED ground mounted illumination specifically designed for goil outheld applications. Precise Optics, Top spec Philips or Osram LEDs for very high luman efficiency, combined with excellent thermal management and a corrosion resistant coating, make the Galaxy range a

DS\_GALAXY-300-TTX

class leading product.

PHILIPS LUMILEDS



The Galaxy TTX is the latest generation high power LED luminaires with a circuit watt efficiency of +135 lumens per watt. The externally rated drivers can be remotely mounted if required.

5 year warranty

 Design eliminates unwanted light spill Ideal for use in urban / rsidential areas

 Used by the leading venues Very long service life

Latest LED and Optical Technology

Features:

Each of the lensed 100w modules can be almed individually to give an exceptional light uniformity. Robust construction and corroslon proof coating make this fixture suitable for harsh weather climates.







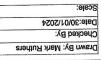




LM-79

For more information about the product featured in this datasheet please contact the experts at Exled. Call 01453 756 361, email sales@exled.co.uk or visit exled.co.uk

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PER- FIXTONE

36,600

Power (Watts)

DS\_GALAXY-300-TTX

10° / 25° / 30° / 45° / 60° / 90° / 120°

4000K / 5000K / 6500K

Black or Grey Powder Coating

9941

Finish IP Rating

Philips Lumileds / Osram

100-277VAC

Lumen Output Weight (KG) Input Voltage LED Chip

1-10v / Dali Optional

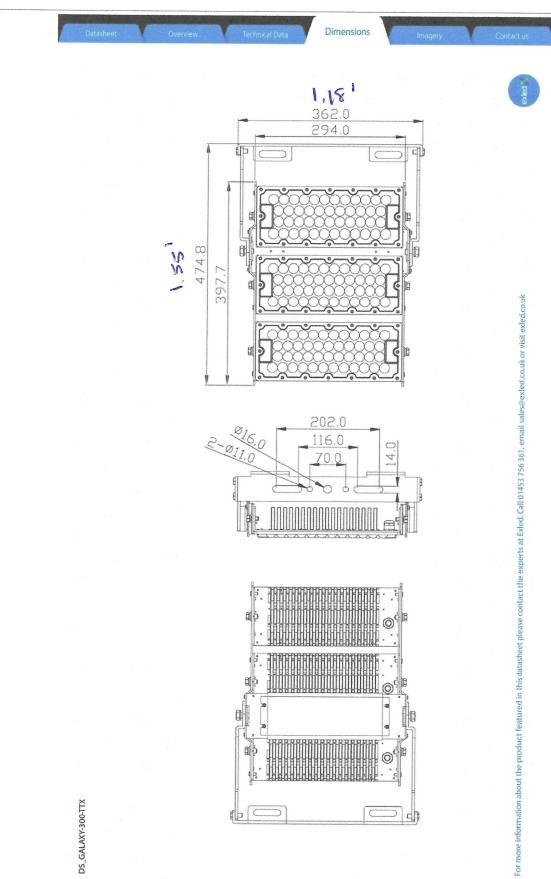
Dimmable Options

For more information about the product featured in this datasheet please contact the experts at Exled. Call 01453 756 361, email sales@exled.co.uk or visit exled.co.uk

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Scale:
Date:01/02/2024
Checked By:
Date:01/02/2024



Luminaire Schedule	edule								
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	,	2000 TI WILLIAM 1900 WAY 1900	-	4			Lumens	Watts	Watts
- 0.0	4	GALAXY-300-11X-US(50K) IESZ00	Single	GALAXY-300W-TTX-US-LV(XXK)	EXLED	0.900	36507	299.7	1198.8

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2	GALAXY-300-TTX-US(50K) IES200		186	2	239,741	-
4	GALAXY-300-TTX-US(50K) IES200	368	171	2	245,099	0
9	GALAXY-300-TTX-US(50K) IES200		154	2	246.195	0
8	GALAXY-300-TTX-US(50K) IES200		137	2	246.195	c

Calculation Summary							and a contract of the property of the contract
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Ground Horizontal -Fc	Illuminance	-F	0	52	0	AN	c
Perimeter vertical	Illuminance	Fc	0	0	0	A	AZ
Perimeter vertical_1	Illuminance	E.	0	0	C	AN	A Z

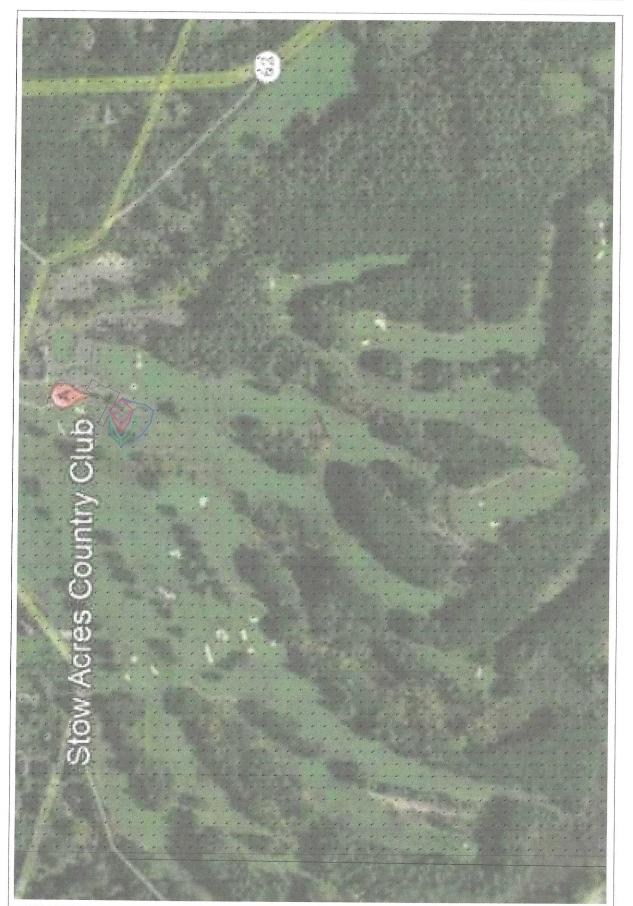
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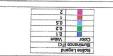
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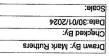
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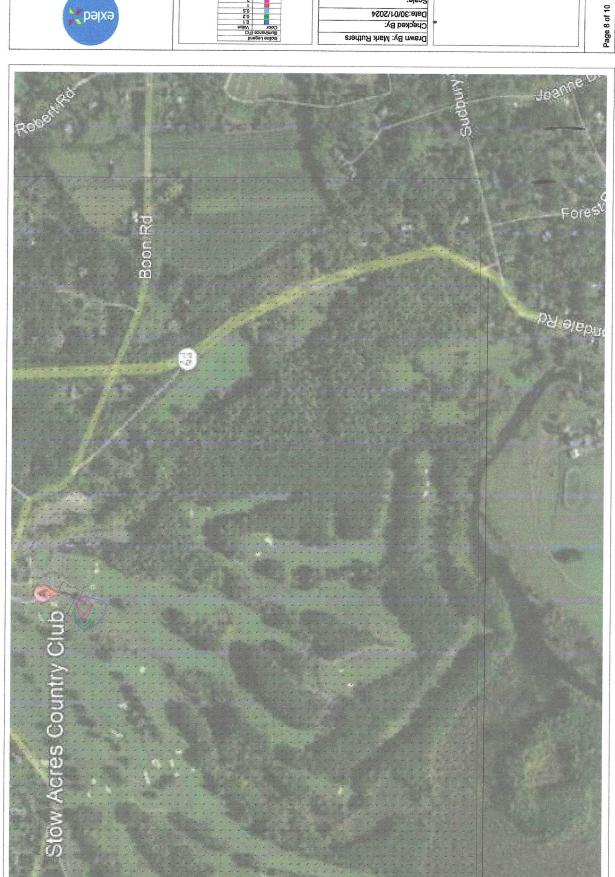


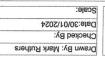




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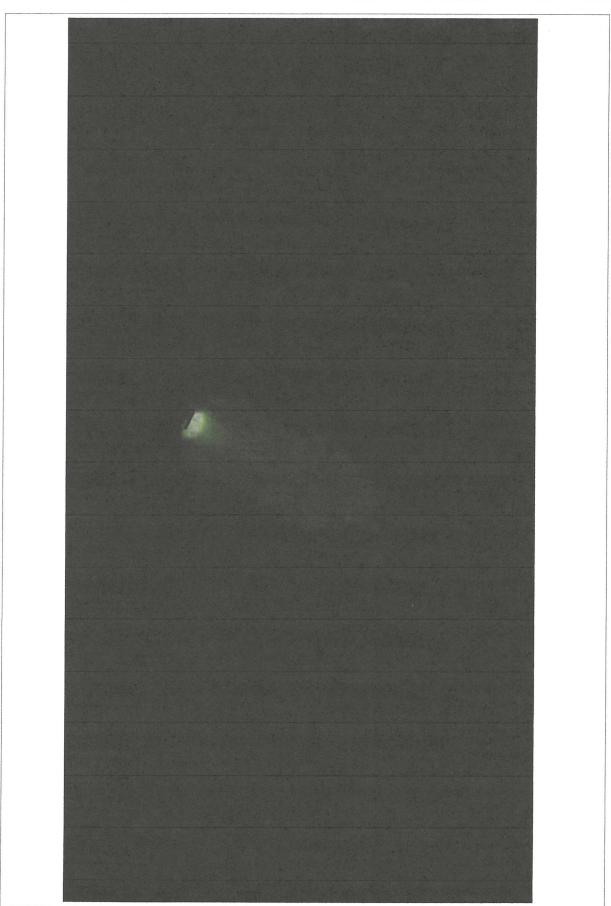


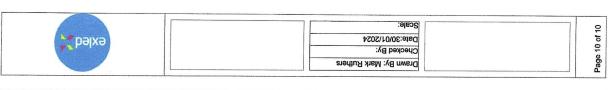


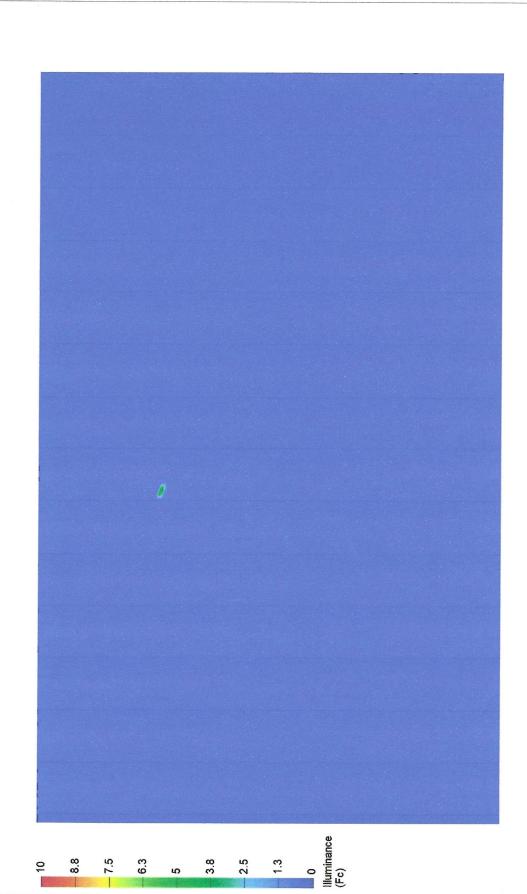




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#### 3.7 Refuse Disposal District Uses

The REFUSE Disposal District is intended to provide for the safe and sanitary disposal of REFUSE which is generated within the Town of Stow.

- 3.7.1 Uses permitted, subject to special permit granted by the Planning Board:
  - 3.7.1.1 All uses permitted in the Industrial District, subject to all requirements and limitations contained in this Bylaw for construction or use in the Industrial District, or otherwise applicable to all districts or any overlying district.
- 3.7.2 Uses permitted, subject to special permit granted by the Select Board, collectively or individually called a "refuse disposal facility" for REFUSE:

Such special permit may be granted by the Select Board only upon making such findings as are necessary therefor under Chapter 40A of the Massachusetts General Laws, as amended, and on such further terms, conditions, safeguards and limitations on time or use as are necessary and appropriate therefor. Provided, however, that only one such permit shall exist at any time, except that two or more may be issued for "refuse disposal facilities" located adjacent to an existing "refuse disposal facility for which a special permit under this section has been granted, or, if at the sole discretion of the Select Board, a need exists for the issuance of more than one such permit for non-adjacent site during a transition period from use of one site to another.

Such special permit shall lapse within two (2) years from the issuance thereof if a substantial use or construction has not commenced, except that for good cause shown, the Select Board may in their sole discretion grant an extension thereof. Such special permit shall limit the intended use to a "refuse disposal facility" for municipal purposes, to be used solely by the Town of Stow.

- 3.7.2.1 Sanitary landfill;
- 3.7.2.2 REFUSE transfer station;
- 3.7.2.3 REFUSE incinerator; and
- 3.7.2.4 Any other facility for treating or disposing of REFUSE.
- 3.7.3 Uses permitted subject to Site Plan Approval by the Planning Board:
  - 3.7.3.1 COMMERCIAL SOLAR PHOTOVOLTAIC RENEWABLE ENERGY INSTALLATIONS.

#### 3.8 General Use Regulations Pertaining to All Districts

- 3.8.1 Pertaining to all Districts:
  - 3.8.1.1 BUILDING construction All BUILDINGS shall be constructed as prescribed by the State Building Code.
  - 3.8.1.2 Odor, dust and smoke No such offensive emissions shall be discernible beyond the property line or, in the case of an industrial park development or of multiple use of the property, beyond one hundred (100) feet of the BUILDING generating the emission, except that in no case shall the discharge from any source exceed the following limits:

- Smoke measured at the point of discharge into the air shall not exceed a density of No. 1 on the Ringlemen Smoke Chart as published by the U. S. Bureau of Mines, except that a smoke of a density not darker than No. 2 on the Ringlemen Chart may be emitted for not more than three (3) minutes in any one (1) hour.
- 2. Lime dust, as Ca0, measured at the property line of any LOT on which the activity creates such dust, shall not exceed ten (10) micrograms per cubic meter of air.
- Total particulate matter measured at all stacks or other points of emission to the air shall not exceed thirty (30) grams per hour per acre of land included in the LOT.
- Odors shall not exceed the smallest values given in Table III (Odor Thresholds) in Chapter 5 of the "Air Pollution Manual" Manufacturing Chemists Association, Inc., Washington, D.C., 1951.
- 5. All measurements of air pollution shall be by the procedures, and with equipment, approved by the BUILDING INSPECTOR, which procedures and equipment shall be of the latest generally recognized development and design readily available.
- 3.8.1.3 Noise The noise generated on any LOT, measured at any point beyond the property lines of the LOT on which the noise source is located, shall not cause the total sound level to be more than three (3) decibels above the natural ambient sound level except as provided below:
  - 1. For not more than five (5) minutes in any one (1) hour the noise generated shall not cause the total sound level to be more than ten (10) decibels above the natural ambient sound level.
  - 2. For not more than sixty (60) minutes in any seven (7) day period the noise generated shall not cause the total sound level to be more than thirty (30) decibels above the natural ambient sound level.
  - Noise making devices which are maintained and are utilized strictly to serve as safety warning devices are excluded from these regulations.

Measurements shall be conducted by personnel approved by the BUILDING INSPECTOR using the "A" weighting on a standard commercial total sound level instrument approved by the BUILDING INSPECTOR. For the purpose of this Bylaw the natural sound level shall be assumed to be forty (40) decibels above 0.0002 microbar during hours of daylight, and thirty (30) decibels above 0.0002 microbar at all other times.

- 3.8.1.4 Heat, glare, vibration, and radiation No heat, glare, or vibration shall be discernible without instruments from the outside of any STRUCTURE, and no radiation shall be discernible from the outside of the STRUCTURE with or without instruments.
- 3.8.1.5 Exterior lighting No exterior lighting, or other street lighting approved by the Select Board, shall shine on adjacent properties or towards any STREET in such a manner as to create a nuisance or hazard.
  - 3.8.1.5.1 The INITIAL DESIGN LIGHT OUTPUT of all exterior lighting on a LOT shall be subject to a cap of 25,000 lumens/acre or 10,000 lumens, whichever is greater. Fixtures under an opaque covering such as a canopy or in a parking garage shall count as 0.25 of their output if 5-10 feet from the nearest edge, 0.1 at 10-30 feet and 0 for more than 30 feet.

- 3.8.1.5.2 A Special Permit from the Planning Board is required when installing new fixtures or replacing existing fixtures and the total resulting INITIAL DESIGN LIGHT OUTPUT would be more than 100,000 lumens on any LOT. However, a Special Permit shall not be required when replacing existing fixtures with FULL-CUTOFF fixtures and the total INITIAL DESIGN LIGHT OUTPUT of the replacement fixtures is less than half the total INITIAL DESIGN LIGHT OUTPUT of the removed fixtures The Special Permit application shall show the location, type and output of all fixtures. The Planning Board shall impose mitigating conditions to protect abutters not only from DIRECT LIGHT but also reflected light, and shall limit the total light output and hours of use to that which is reasonably necessary. The Planning Board shall require remediation of existing lighting.
- 3.8.1.5.3 Lighting of athletic fields shall be only by Special Permit from the Planning Board, and shall be exempt from the 25,000 lumens/acre cap. The Planning Board shall require full engineering plans with a design average illuminance of no more than 200 lux. No DIRECT LIGHT shall shine off the LOT containing the field. Athletic field lighting shall be illuminated only while in use and shall not be illuminated between 10 p.m and sunrise under any circumstances. All lighting fixtures shall be set back 500 feet from any RESIDENTIAL or RECREATION/CONSERVATION LOT, and 200 feet from any other LOT.
- 3.8.1.5.4 The Planning Board may issue a Special Permit for lighting that does not conform to the conditions of the table in Section 3.8.1.5.6 up to 4,000 additional lumens of nonconforming lighting if the lighting is found to provide a public benefit. The Planning Board shall impose mitigating conditions such as limiting lighting levels, hours of operation, and requiring shielding to protect abutters from unwanted light.
- 3.8.1.5.5 Shining lasers in excess of 5 mW at wavelengths within the range of human vision or searchlighs into the sky, for advertising or any other purpose, is prohibited. Airfield beacons required by the FAA are exempt from this prohibition.
- 3.8.1.5.6 Each EXTERIOR LIGHT fixture shall comply with the following specific conditions:

Fixture-Sp	pecific Conditions
Fixture Type:	Conditions:
All EXTERIOR LIGHT Fixtures with a rated	Must be FULL-CUTOFF FIXTUREs.
output of 2,000 lumens or more (other than PUBLIC STREETLIGHTs)	Must be installed in the proper orientation so as to emit no light above the horizontal.
	Must be no more than 35 feet above ground.
	Must not be used to illuminate a LOT, which is across any STREET.
EXTERIOR LIGHT Fixtures (other than PUBLIC STREETLIGHTS) with an INITIAL DESIGN LIGHT OUTPUT of more than 4,000 lumens	Must comply with all above conditions and:  Must not shine DIRECT LIGHT onto any other LOT or STREET located within a RESIDENTIAL or RECREATION-CONSERVATION district.  Must not shine DIRECT LIGHT onto any body of water not on the same LOT as the fixture.

Fixture-Sp	pecific Conditions
Fixture Type:	Conditions:
EXTERIOR LIGHT Fixtures (other than PUBLIC STREETLIGHTS) with an INITIAL DESIGN LIGHT OUTPUT of more than 10,000 lumens	Must comply with all above conditions and:  Must not shine DIRECT LIGHT onto any other LOT located within any district.  Must not shine DIRECT LIGHT onto any STREET.  Must not shine DIRECT LIGHT onto any body of water.
PUBLIC STREETLIGHTS	Must be FULL-CUTOFF FIXTURES.  Must be installed in the proper orientation so as to emit no light above the horizontal.  Must be no more than 35 feet above ground.  Must not shine DIRECT LIGHT onto any DWELLING.
All floodlights, spotlights, or similar EXTERIOR LIGHT FIXTURE that are not full cutoff	Must be aimed at least 45 degrees below horizontal.

3.8.1.5.7 The following table provides exemptions to both fixture-specific conditions and the cap in 3.8.1.5.1

Ex	cemptions
Situation:	Exemption:
Emergency Lighting Fixtures	Emergency lighting fixtures operated by a public safety agency are exempt. Lighting fixtures with an INITIAL LIGHT OUTPUT of less than 200 lumens, which are intended to signal the location of emergency services, rather than provide illumination and which are authorized by a public safety agency, are exempt.
Greenhouse Lighting Fixtures for the purpose of supporting plant growth.	Exempt from the 25,000 lumens per acre requirement.  Exempt from the 100,000 lumen Special Permit requirement (Section 3.8.1.5.2).
Lighting fixtures required by the FAA	Lighting fixtures required to comply with FAA requirements may be installed, but shall not emit more light above horizontal or shine more DIRECT LIGHT onto any other LOT than is required to comply with the FAA regulations.

Ex	cemptions
Situation:	Exemption:
Seasonal Holiday Lighting	Seasonal holiday lighting may be installed and illuminated, provided that it is illuminated for no more than 90 days in any 270 day period. (This allows nonconforming holiday lighting even if the property is not eligible for the nonconforming fixture exemption. Conforming holiday lighting is not restricted in any way.)

- 3.8.1.6 Screening, surfacing, parking, and SIGNS As provided in the sign section and Parking Section of this Bylaw.
- 3.8.1.7 Waste disposal and water supply Regulations of the State Board of Health and the Stow Board of Health shall be met and shall be indicated on a site plan, when a site plan is required.
- 3.8.1.8 Scientific Uses Uses, whether or not on the same parcel as activities permitted as a matter of right, accessory to activities permitted as a matter of right, which activities are necessary in connection with scientific research or scientific development or related production, may be permitted upon the issuance of a special permit granted by the Planning Board provided the granting authority finds that the proposed ACCESSORY USE does not substantially derogate from the public good.
- 3.8.1.9 Drainage When a subdivision approval or a Site Plan Approval or a Special Permit is required drainage shall be designed so that the following conditions shall be met during and after construction and development:
  - 1. Pre-development surface water runoff rates and volumes shall not be increased;
  - 2. Pre-development erosion and sedimentation rates shall not be increased; and
  - 3. No building permit, special permit or subdivision approval shall be granted if these conditions cannot be met.
- 3.8.1.10 Erosion control Site design, materials and construction processes shall be designed to avoid erosion damage, sedimentation or uncontrolled surface water run-off. An Erosion Control Special Permit from the Planning Board shall be required where proposed development will result in any of the following conditions:
  - 1. Grading or construction which will result in SLOPES of twenty-five percent (25%) or greater on twenty five percent (25%) or more of the LOT area;
  - 2. Grades will result in slopes of 25% or greater on thirty-two thousand (32,000) square feet or more on a single parcel, even if less than 25% of the LOT area;
  - 3. Grading and construction on over thirty-two (32,000) square feet of a PARCEL, or SITE, including SITEs in which multiple PARCELs are part of the same development proposal.

An Erosion Control Special Permit Shall only be granted under demonstration that adequate provisions have been made to protect against erosion, soil instability, and

uncontrolled degradation. Applications and plans for such special permits shall be referred to Conservation Commission.

- 4. Where 3.8.1.10.1, 3.8.1.10.2, 3.8.1.10.3 and 3.8.1.10.5 apply, all slopes exceeding fifteen percent (15%) resulting from site grading shall be covered with topsoil to a depth of at least six inches and planted with vegetative cover sufficient to prevent erosion.
- 5. No area totaling one acre or more on any parcel or contiguous parcels in the same ownership shall have existing vegetation clear-stripped or be filled six inches or more so as to destroy existing vegetation unless in conjunction with agricultural activity or unless within STREETS which are either public or designated on an approved subdivision plan or unless a special permit is approved by the Planning Board on the condition that run-off will be controlled, erosion prevented and either a constructed surface or cover vegetation will be provided not later than the first full spring season immediately following completion of the stripping operation. No stripped area or areas which are allowed by special permit shall remain through the winter without temporary cover of winter rye or similar plant material being provided for soil control, except in the case of agricultural activity when such temporary cover would be infeasible.
- 6. The BUILDING INSPECTOR shall require information of the applicant as necessary for him to ensure compliance with these requirements, including if necessary, elevation at key locations, description of vegetative cover and the nature of impoundment basins proposed, if any.
- 7. Where resultant site grades will exceed fifteen percent (15%) the Town shall require a performance bond to ensure compliance with these requirements.
- 8. Where 3.8.1.10.1, 3.8.1.10.2, 3.8.1.10.3 and 3.8.1.10.5 apply, hillside areas shall be retained with vegetative cover as follows:

Average Slope	Minimum % of Land to Remain in Vegetation
10.0 - 14.9	25
15.0 - 19.9	40
20.0 - 24.9	55
25.0 - 29.9	70
30.0 +	85

- 9. Before a project disturbs one acre or more of land, either by itself or as part of a larger development, and storm water could run off the site in a directed manner (via a culvert, ditch, storm sewer system, roadway, storm dug channel, etc) and reach a surface water (pond, stream, wetland, etc.), a copy of the Stormwater Pollution Prevention Plan (SWPP) and the Notice of Intent filed with the Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) shall be submitted to the Planning Board.
- 3.8.1.11 Special Provisions to Enhance Access for Handicapped Persons Attempts to provide and improve handicapped access on LOTS with established residential or non-

residential uses often create conflicts with various dimensional requirements of this Bylaw. Therefore, the following partial exemptions shall apply in order to facilitate the installation of handicapped parking spaces, handicapped access ramps and other amenities designed to improve access for the handicapped to existing BUILDINGs and STRUCTURES. The requirements listed in (1) through (3) below may be reduced only to the degree necessary to be consistent with the requirements of the Massachusetts Architectural Access Board.

- 1. Any minimum number of required parking spaces.
- 2. Any minimum required OPEN SPACE.
- 3. Any minimum required FRONT, SIDE and REAR YARD.
- 4. No special permit shall be required for the installation of handicapped access amenities and for the implementation of any exemption provided herein.
- 5. All proposed handicapped access amenities and any of the exemptions provided herein shall be approved by the BUILDING INSPECTOR prior to any work or construction.
- 3.8.1.12 Wireless Communication Facility A transmission facility for the purpose of personal wireless communication services such as satellite dishes or antennae, with or without a BUILDING that shelters associated electronic or mechanical equipment.
- 3.8.2 Use Regulations Pertaining to the Business, Commercial, and Industrial Districts
  - 3.8.2.1 Storage All materials, supplies and equipment shall be stored in accord with Fire Prevention Standards of the National Board of Fire Underwriters and shall be screened from view from public ways or abutting properties by an opaque FENCE or screening at least six (6) feet but not more than twenty (20) feet high.
  - 3.8.2.2 No open burning is permitted, unless in an incinerator of a type approved by the Select Board.
- 3.8.3 Use Regulations Pertaining to the Residential District
  - 3.8.3.1 Exterior lighting shall conform with the requirements of Section 3.8.1.5, except that the use of exterior lighting by a commercial or business activity or operation during the period from one-half hour after sunset to one-half hour before sunrise shall not be permitted. This provision shall not preclude the use of emergency lighting required by a public agency in the performance of its duties, lighting of SIGNS in conformance with the general regulations included in Section 6.3.1, customary holiday lighting or low level illumination of entranceways, exits and driveways.

Signs shall not be illuminated unless the business is open to the general public and employees are present and ready to receive customers, and shall not be illuminated between 9 p.m. and 7 a.m. Any fixture with an INITIAL DESIGN LIGHT OUTPUT of more than 2,000 lumens shall not be considered low level illumination. Any peak illuminance on the ground, a building or a sign, of more than 10 lux shall not be considered low level illumination.

3.8.4 CRAFT MARIJUANA CULTIVATOR COOPERATIVEs, as defined in M.G.L. c.94G Section 1(i), shall be prohibited in the Town of Stow.