MATRIX OF SITE PLANNING CONSIDERATIONS
GUND PARTNERSHIP 2/8/06

	Option 1 Walnut Street	Option 2 Elm Road	Option 3 Center of Site	Option 3a Hybrid
Program Metrics				
Flat area available for fields and parking	801K sf	913K sf	978K sf	925K sf
Field and court orientation	Fair- all fields and courts could have good orientation except for the football stadium. Tennis courts are not together.	Fair- all fields and courts could have good orientation except for the football stadium	Best - all fields and courts could have good orientation. Fields are proximate to the building. Tennis courts are not together	Good- all fields and courts could have good orientation
Outdoor Gathering spaces				
	Poor - Limited available terrace space. Students may gather on Walnut	Fair - Outdoor space in center of site oriented to fields on one side and parking on the other	Best - Generous terrace overlooks stadium in bowl. Court oriented to theater and front fields	Poor - Limited available terrace space is mostly at parking lot on Lowell
Parking				
Parking spaces	410 spaces	483 spaces	370 spaces	374 spaces
Parking Aesthetics	Poor - Parking lots line Walnut and Lowell Streets	Poor - Parking in front of Lowell street façade and along Walnut	Best - Spreads out parking	Poor - Parking in front of Lowell street façade and along Walnut
Conflict with site features				
Conflict with Underground structures	Poor - Built over culvert, tunnels and possibly remaining foundations.	Fair - Avoids culvert and some tunnels. Built over some tunnels and possibly remaining foundation	Good - Avoids culvert and tunnels. Built over possibly remaining foundation.	Best - Avoids all underground structures
Conflict with flood area	Poor - Building is in potential flood area.	Best - Building is out of potential flood area	Best - Building is out of potential flood area	Best - Building is out of potential flood area
Conflict with existing building - Phasing	Best - All new construction. Farthest from existing school	Good - All new construction.	Good - All new Construction	Poor - Need to build near existing building and schedule swing space

MATRIX OF SITE PLANNING CONSIDERATIONS

GUND PARTNERSHIP 2/8/06

	Option 1 Walnut Street	Option 2 Elm Road	Option 3 Center of Site	Option 3a Hybrid
Sustainability Issues				
Solar Orientation	Good - 3 wings face north or south	Best - Majority of school faces north or south.	Good - 3 wings face north or south. Compact shape allows articulation of facades for best exposure.	Poor - facades face predominantly east and west. Narrow shape limits opportunities for façade articulation
Energy	Good - Ability to use passive solar heating	Good - Ability to use passive solar heating	Best - Ability to use passive solar heating. Reduced exposed façade and roof limits heat loss and heat gain	Poor - limited ability to use passive solar. Long narrow floor plate increase building envelope loads.
Air Quality	Poor - Air intakes likely to be near sources of pollutants (traffic, cars)	Poor - Air intakes likely to be near sources of pollutants (traffic, cars)	Best - Air intakes can be isolated from likely sources of pollutants (traffic, cars)	Good - Air intakes likely to be away from sources of pollutants (traffic, cars)
Shadows on neighborhood	Good - Shadows have limited impact on neighborhood	Poor - Shadows have significant impact on neighborhood	Best - Shadows have minimal impact on neighborhood	Good - Shadows have limited impact on neighborhood
Stormwater/Site Imperviousness/Green Space	Poor - Increase in paved area increases stormwater runoff.	Poor - Increase in paved area increases stormwater runoff.	Best - limited building footprint maximizes green space, reduces site imperviousness, creating improved stormwater management opportunities.	Good - no net increase in paved area, limits impact on runoff
Relation to prevailing Winds	Good - Portions of the building can capture warm breezes. Field to the west allow microclimate cooling of breeze. Neighborhood may block breezes to north section of building.	Poor - Orientation captures cool weather winds, but does not take advantage of prevailing winds in milder weather.	Best - Building can take full advantage of warm breezes. Field to the west allow microclimate cooling of breeze.	Good - Portions of the building can capture warm breezes. Neighborhood may block some breezes
Possible Daylighting of Stream	Poor - Building conflicts with existing culvert	Best - Building does not impact existing culvert	Best - Building does not impact existing culvert	Best - Building does not impact existing culvert
LEED Issues - Parking Capacity	Poor - Increase in number of parking spaces conflicts with LEED goals	Poor - Increase in number of parking spaces conflicts with LEED goals	Best - No net increase in parking, per LEED goals	Best - No net increase in parking, per LEED goals
LEED Issues - Urban Heat Island	Poor - Increased paved area adds to heat island effect	Poor - Increased paved area adds to heat island effect	Best - limited footprint, with portion of building underground reduces heat island producing surfaces	Good - no net increase in paved area, limits impact on heat island effect
LEED Issues - Light Pollution	Good - Credit can be achieved, but light trespass to neighbors may be tricky issue	Good - Credit can be achieved, but light trespass to neighbors may be tricky issue	Best - Building location minimizes light trespass issues.	Good - Credit can be achieved, but light trespass to neighbors may be tricky issue
LEED Issues - Building Reuse	Poor- Scheme does not attempt to reuse existing building	Poor - Scheme does not attempt to reuse existing building	Poor- Scheme does not attempt to reuse existing building	Good - Some opportunities for building reuse exist.
Renewable Energy Opportunities	Good - All Schemes provide opportunities for wind and solar	Good - All Schemes provide opportunities for wind and solar	Good - All Schemes provide opportunities for wind and solar	Good - All Schemes provide opportunities for wind and solar

MATRIX OF SITE PLANNING CONSIDERATIONS
GUND PARTNERSHIP 2/8/05

	Option 1 Walnut Street	Option 2 Elm Road	Option 3 Center of Site	Option 3a Hybrid
Scale Issues				
	Poor - Though only 3 stories, building jumps up scale at Walnut street	**Good** - Building has short end to Walnut and Lowell streets, but is over scaled when viewed from the north on Walnut and Elm streets.	**Best** - Building held back from streets and has 1/3 of mass hidden in ground	**Poor** - Building preserves big featureless forms on Lowell Street
Traffic Access				
Traffic Impact on surroundings	**Good** - Access is distributed to multiple points so as not to unduly burden any single abutter constituency. .	**Good** - Access is distributed to multiple points so as not to unduly burden any single abutter constituency.	**Good**- Access is distributed to multiple points so as not to unduly burden any single abutter constituency. Walnut Street access is concentrated at one location to make delays predictable for through traffic, safer for pedestrians and school users, and reduce overall friction on Lowell Avenue and Walnut Street.	**Best** - Access is distributed to multiple points so as not to unduly burden any single abutter constituency. Lowell Avenue access is concentrated at one location to make delays predictable for through traffic, safer for pedestrians and school users, and reduce overall friction on Lowell Avenue.
Access to Newton at large	**Best** - Takes advantage of natural access desire line and most capable transportation infrastructure	**Good** - Takes advantage of natural access desire line and most capable transportation infrastructure.	**Good** - Takes advantage of natural access desire line and most capable transportation infrastructure.	**Fair** - Building is removed from Walnut Street and does not take advantage of natural access desire line and most capable transportation infrastructure.
Access to program on Site	**Poor** - Direct access to Athletic complex is necessarily limited for parking and busses.	**Fair** - Potential conflict between school and athletics busses on Elm St.	**Best** - No apparent access problems	**Best** - No apparent access problems