April 24, 2018 (Revised June 8, 2018)

For: Meher Archive Collective, (MAC)
Asheville, North Carolina

FEASIBLITY ANALYSIS SUMMARY

SUMMARY OF SUITABILITY OF 53 RED OAK SCHOOL ROAD PROPERTY FOR MAC COLLECTIVE

SUBJECT: 53 Read Oak School Road property which includes a 1928 era school building comprised of a reinforced concrete foundation, brick masonry bearing walls, concrete and steel floor structures with a steel and wood framed roof system. The roof is sheathed with wood boards. The building sits on six relatively flat acres on a hilltop approximately six miles from the heart of Weaverville, NC.

This summary outline addresses the potential and drawbacks for the use of this property with a strong focus on the existing masonry school building as a potential site for the location of the archive operations for the Meher Archive Collective, MAC, centered in the Asheville, North Carolina area.

This main school building is the primary asset of this property. This report will offer strategies to maximize the potential that exists with this substantial and delightful edifice. Fundamentally the school building offers definite, strong and positive culturally shared imagery. I believe this image has a positive resonance with our socio-(symbol-based) shared visual language relating to buildings in general and buildings of this type. This building type offers institutional identity. The image presented by the main school building may be characterized as offering these attributes: Substantive; Extensive; Approachable; Serious; Friendly; Non-aggresive and; Not too imposing.

OUTLINE SUMMARY:

1 SITE SUMMARY: The property is ideally situated at the top of all adjacent grades in a hilly region six miles north of Weaverville, NC just ½ mile east of highway 25, a major divided four lane highway that is always accessible except in the most severe weather conditions. It should be noted that in the best tradition of civic architecture development of that time, (late 1920's), the best sites were secured for the placement of institutional buildings such as this one, The Red Oak School Building. This site can fairly be described as a premium location with exceptional site drainage and large amounts of flat grades with optimum exposure to prevailing winds and breezes being at

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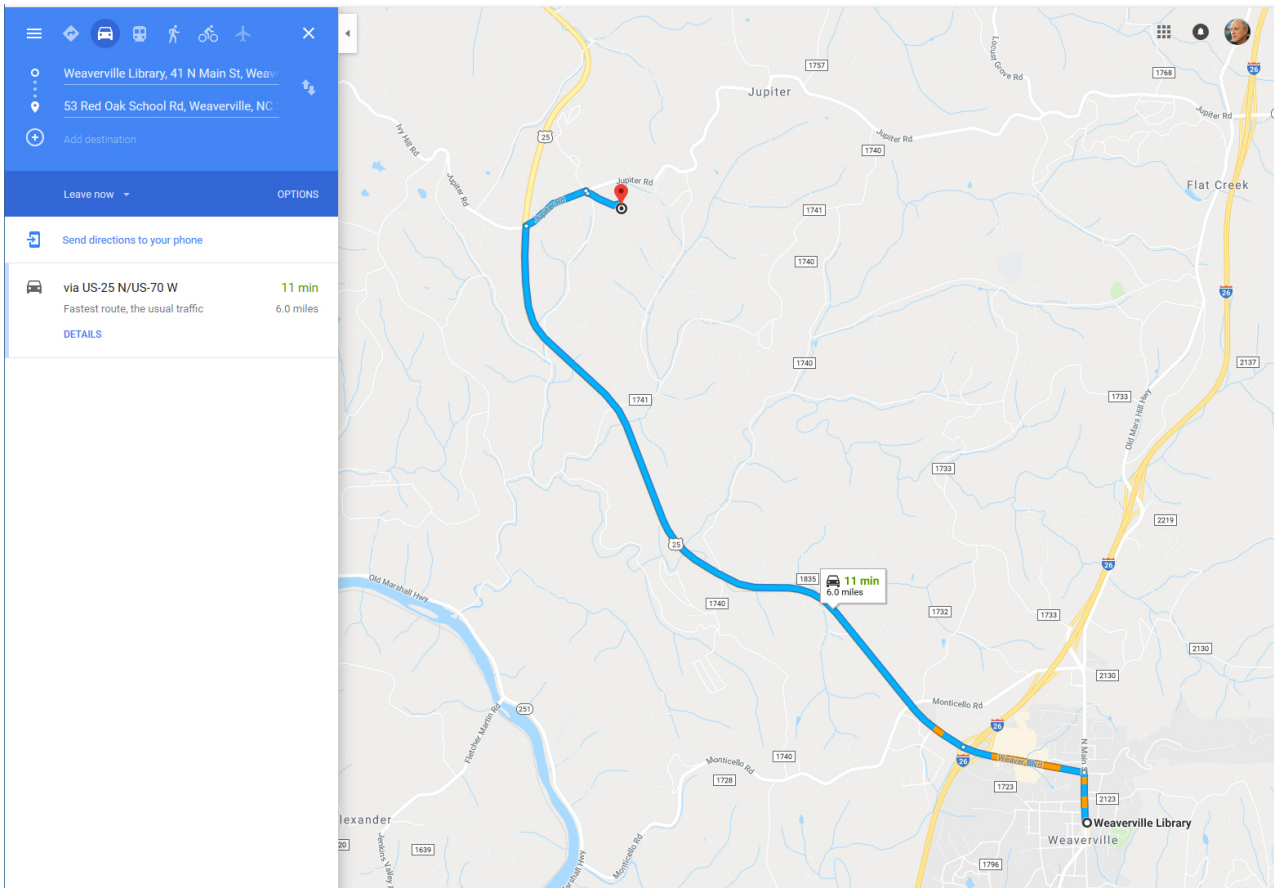
the highest point relative to adjacent grades and hilltops. Note that the school building was commissioned into use in 1928. It was originally commissioned as an all boys public school.

1.1 The property address is 53 Red Oak School Road, Weaverville, North Carolina 28787.

1.2 The site is located six miles north of the town center of Weaverville, North Carolina just off Jupiter Road.



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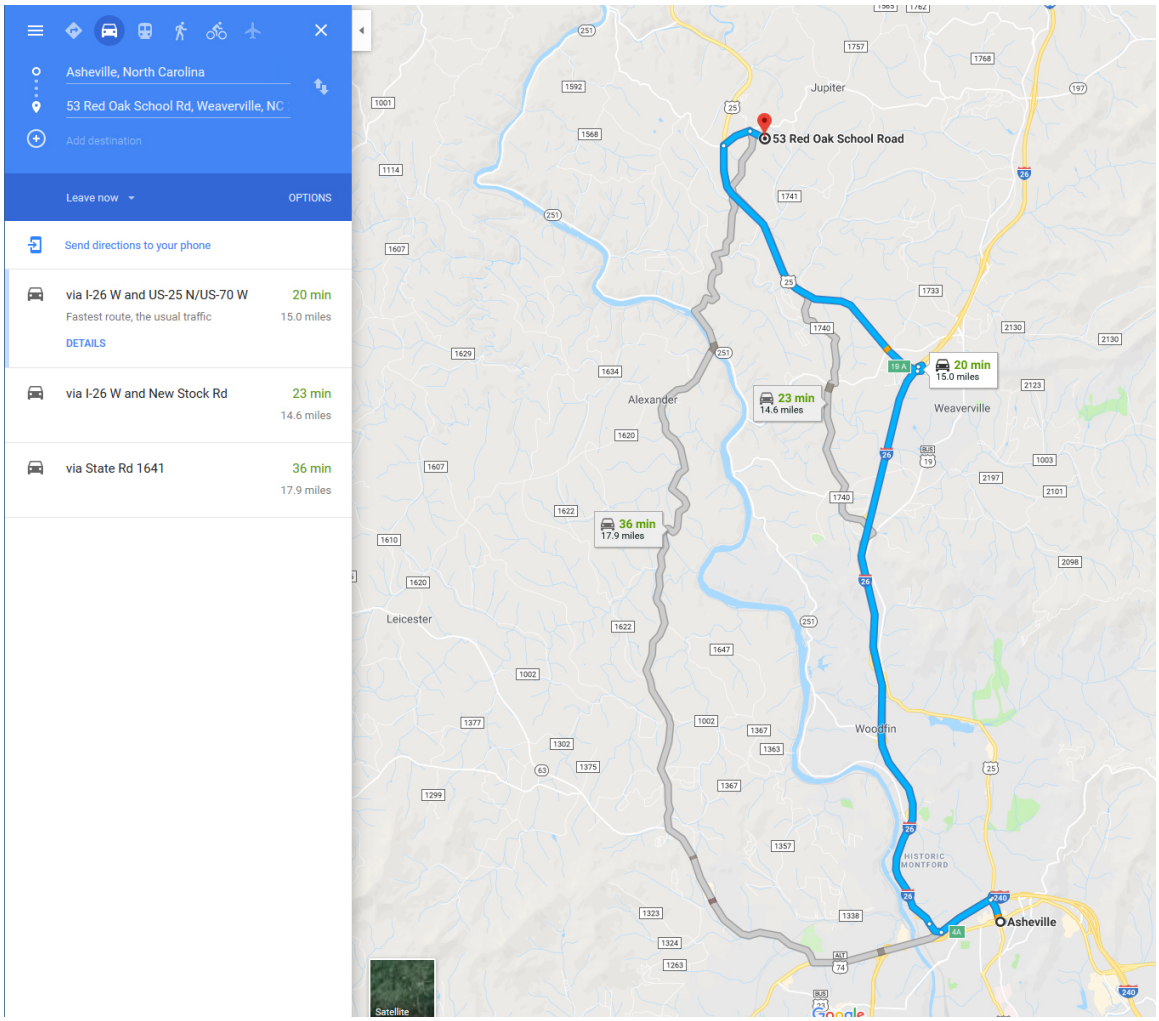
1.3 The property is located 15 miles north of the town center of Asheville, North Carolina. A twenty minute drive away.



1.4 Geology:

1.4.1 The site is situated within a very stable and very geologically old part of the world with substantial rock subgrades and substrata. Seismic ground motion

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acceleration is charted at a very stable designation of 8, (a factored equivalent to g-force or gravitational force.) The worst of these seismically active areas around the world are graded as high as level 150, (and even above.) The "New Madrid" fault, for instance, north of Memphis, Tennessee is rated with a seismic zone of over 125. This Weaverville near site is geologically ideal for an archive structure.

1.5 Climate: Those familiar with the Asheville, North Carolina climate understand how equitable this climate is and how it offers four distinct and enjoyable seasons. The climate is typical of a temperate forest ecosystem at elevation.

1.5.1 Elevation: The elevation of the site is approximately 2,200 feet above sea level.

1.5.2 Rainfall: Average rainfall amounts are around 37 inches per year. This is just below the national average of 39 inches per year. In contrast Myrtle Beach average rainfall amounts are above 50 inches per year.

1.5.3 Snowfall: This location is subject to snowfall, at times substantial, but the moderating influences of latitude invariably melts away snowfall in a matter of days if not hours. See average chart below.

1.5.4 Humidity: Humidity levels are typical of most North Carolina cities with an average high of 90% in the early morning and an average low of around 50% in the evening. This dramatic swing is due to the elevation of this area. Because

of the elevation, the evening and nighttime temperatures drop dramatically compared with coastal regions. As the temperature drops the amount of moisture in a given air sample remains the same, but the relative humidity rises (as the capacity for a colder sample of air to hold water vapor drops.) Fog is manifest when an air sample reaches it dew point and that given air sample becomes super saturated, (it can hold no more water vapor in suspension), even though the given amount of water vapor in the air sample remains the same in absolute volume. It is the temperature of that air sample that shifts the "relative" humidity level.

1.5.5 Storm and wind Exposure: Tornadoes are extremely rare in the Asheville, NC area. Out of a sampling of all towns and cities in North Carolina, Asheville ranks as the 887th most likely community for a tornado storm event, (out of a total of 951 locales.) The US tornado index average is 136.46, with a higher number indicating a greater likelihood of a tornado occurring. Asheville's index is 45. 45, (very low.)

1.5.5.1 Also, clearly Asheville is free from the threat of hurricanes. The applicable building code requires exterior elements to be designed to meet the forces exerted for typical wind ratings for a given area. In the Asheville area, these wind rating forces are designated at the lowest end of the scale,

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being the standard minimum design parameter for non-residential structures.

1.5.5.2 Coastal area wind ratings designated by building code, (Myrtle Beach being a prime and pertinent example), necessitate that exterior construction assemblies for all exterior elements meet much more stringent requirements. These exterior elements, (walls, structure, siding, doors, windows, roofs, overhangs, gutters, copings, awnings, etc.), are typically much more expensive to implement.

1.5.5.3 It should also be noted that the main school building being situated at the top of a hill enjoys great wind and breeze exposure. Should the electricity fail for any reason, the building would be able to access these prevailing breezes for natural ventilation.

1.5.6 Flooding exposure: This site is not subject to any conceivable flooding threat. This is in obvious contrast to coastal areas where hurricanes are common.

1.5.7 Forest Fire hazard: The site is cleared around the main school building. The cleared manicured lawns and fields together with the exterior fire proof construction will insure that any forest fire on adjacent land will not threaten the structure and the valuable archive materials housed within.

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1.5.8 Solar Radiation: Total global radiation is the measure of the average available solar radiation for powering any solar electric panel installation. The data for Asheville is just above the national average. When compared to areas in New Mexico or Arizona it is roughly speaking about 70% as efficient. That is quite high and indicates the viability of solar electric panels as a source of energy for the building and campus. It should also be noted the extensive existing flat roof portions at the existing school building. This infrastructure is ideal for the installation of solar panels, being above the tree limbs and out of harms way being well above ground level.

LOCATIONS	Roswell, NM	Asheville, NC	New York, NY
MONTHS	TOTAL GLOBAL RADIATION Btuh/sq. ft.	TOTAL GLOBAL RADIATION Btuh/sq. ft.	TOTAL GLOBAL RADIATION Btuh/sq. ft.
January	1046.5	721.7	500.4
February	1372.7	971.4	721
March	1807.4	1306	1037.7
April	2217.6	1667.6	1363.9
May	2459.2	1804.4	1636.2
June	2610.3	1854.5	1710.3
July	2440.6	1776.1	1687.8
August	2241.8	1626.7	1483.3
September	1913	1360.8	1213.7
October	1527.1	1147.4	895.3
November	1131.4	848.8	532.9
December	951.9	657.6	404

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YEARLY AVERAGE	1810	1311.9	1098.9
% DIFFERENCE COMPARED TO Roswell NM	100.00%	72.48%	60.71%

1.5.9 Weather averages for Asheville, North Carolina:

MONTH	Average high and low temperatures for that month	Days of rain per month	Average precipitation amounts in inches.	Average amounts of snow per month
January	47° / 28°	7 days	2.87	3 inches
February	50° / 30°	7 days	3.23	4 inches
March	59° / 38°	8 days	3.35	3 inches
April	68° / 46°	7 days	3.03	2 inches
May	75° / 53°	8 days	3.27	1 inch
June	82° / 61°	9 days	3.39	0
July	85° / 64°	9 days	3.35	0
August	84° / 64°	8 days	3.43	0
September	78° / 58°	6 days	3.23	0
October	68° / 46°	5 days	2.13	0
November	58° / 38°	6 days	2.91	0
December	50° / 31°	7 days	2.76	0
TOTALS			36.95	

1.6 Ground slope as it effects the school: The school building, (the major built element on the site), sits at the highest grades on the six acre site and the highest grades of adjacent property. All rain water naturally moves away from the building

except at the sunken outdoor steps leading to the boiler and utility rooms at basement level. These steps are located at the rear of the building. Most of the site is relatively flat as it has been graded for some time to provide for athletic fields, basketball courts and other site improvements. The plenitude of flat land making up the six plus acre site is a highly valuable asset to the property. This topography offer a lot of flexibility for developing the site to meet the expanding needs of this community.

1.7 The drive lanes are in adequate condition. A circular drive surrounds the school building providing easy access to all faces of the building.

1.8 Parking is limited to approximately 30 paved spaces. There is plenty of square footage available to expand parking to meet any eventual capacity requirements.

1.9 The main school building is sited to ordinal directions as follows:

1.9.1 The classroom wing is roughly oriented at its long axis, (the direction of interior hallways), from North-Northeast to South-Southwest.

1.9.2 The Gymnasium wing is shifted slightly east, at 15 degrees to the classroom wing. This Gymnasium wing long axis is around 10 degrees clockwise from a perfect north to south long axis orientation.

1.9.2.1 This orientation minimizes solar heat gain exposure. It is a perfect siting for this building type and building program for this reason.

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1.9.2.2 This orientation also maximizes even daylighting exposure for both wings.

1.10 The property includes a small two bedroom wood framed home that presently serves as a caretaker's cabin. It is in reasonable condition with a new roof.

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1.11 There is an outdoor basketball court that could service overflow parking.

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1.12 There are several utility outbuildings including a concessions building with bathrooms at the edge of the substantial athletic fields.

1.14 Aerial photos of the site:

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2 Programming elements and desired area sizes for meeting archive building concept while meeting best practices for this building type.

2.1 The school building offers complete short term and tremendous long term expansion potential for meeting the needs for receiving, processing, archiving, sharing and storage of any type of archive material. The net square footage is in excess of 23,000 square feet.

2.2 Additional programming space for the Greater Asheville Meher Baba community: The school additionally offers, (because of the exceptional quantity of square footage), the potential for accommodating meeting spaces with dedicated meeting rooms for ongoing current meetings and gatherings within the greater Asheville area Meher Baba community.

2.3 Programming for large assemblies: The existing gymnasium/assembly space, which also features a stage, back of stage and projection/control room, offers the potential for accommodating large gatherings for performances and even wedding events in inclement weather. A good bit of work is required to bring this space up to an acceptable standard both in fit and finish and for acoustical performance as a presentation space. This space, when improved, will be able to host the ongoing Meher Baba Music Sahavas program. Such large gatherings will require additional surface parking at the site.

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2.4 Phased Construction: Because the building is of exceptionally sound construction, divided into two distinct wings and under a good roof (mostly), this allows the MAC collective the opportunity to phase in elements of the programming as budgets and manpower allow. For example, the renovation of the gymnasium can wait for a later date when resources are available. Certain aspects of building code life safety features however demand that elements of the total infrastructure be completed for any initial occupancy. These elements provide for essential life safety code requirements.

3 Construction Element Considerations: The existing school building is ideal as an archive structure. The existing construction is fire proof and non-combustible. The structural elements of the existing building are substantial and in very good condition. They will provide decades if not centuries of service provided the roof and exterior window and door openings are properly maintained along with the HVAC systems.

3.1 Initial Strategy - Priorities: As an initial strategy, the MAC collective has prioritized the renovation of the classroom wing of the school structure. This will provide for meeting the core programming of the MAC collective, that being the work of archiving precious materials and safely and optimally storing them on site. As a supporting adjunct to this mission, some of the classrooms at the other level are proposed to be made available for monthly rent to certain non-combustible artist endeavors. This approach is seen as a strategy in providing additional

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operating income for the core mission of the MAC collective. The work of renovating the gymnasium is seen as a following priority. An ancillary document is provided as a broad brush basic construction budget for these efforts.

3.2 LEED Considerations: LEED is “green building”. LEED is now a fundamental part of the current “best” practices of architecture in realizing new and improved built space for occupancy. LEED stands for “Leadership in Energy and Environmental Design.” This system of goals and checks is the standard for addressing both the consumption of energy and the effect and use of materials on the environment, (read as embodied energy for any building materiel.)

3.2.1 It is recommended that the criteria available through LEED be referenced for decision making relating to the fundamentally important strategy of building “green”.

3.2.2 The re-purposing of existing buildings is one of the most energy conserving decisions available to any Owner. This strategy alone provides for subatnatial LEED credits.

3.3 Existing gross square footage: Includes exterior and interior walls and partitions.

3.3.1 Partially below grade habitable space: This includes what was the lunchroom and cafeteria for the school. 6318 square feet.

3.3.2 First Floor:

3.3.2.1 Classroom and hallway circulation space: Approximately 5610 square feet.

3.3.2.2 Gymnasium, stage, back of stage and support spaces: Approximately 6750 square feet.

3.3.3 Second Floor:

3.3.3.1 Classrooms: Approximately 5610 square feet.

3.3.3.2 Media rooms, digital archive center and projection booth: 1836 square feet

3.3.4 Attic or level three: Potential for archive storage and mechanical equipment placement (currently unimproved): Approximately 3125 square feet.

3.3.5 Total square footage including the available square footage at level three, (attic provided with substantial improvements), is approximately 29,000 square feet. Usable interior square footage is just under 25,000 square feet including stairs and corridors and other circulation elements.

3.4 Sub-grade Bearing: The foundation sits on a substantial solid sub-grade. There is no indication of any movement or settling of the foundation at all. The foundation walls are constructed of steel reinforced concrete construction. The walls are primarily 16 inches thick, very substantial indeed.

3.5 Exterior walls above grade are four wythe brick masonry load bearing construction. The walls are in exemplary condition for a building of this age. The

mortar is sound and tight. The only certain potential issue is the inevitable rusting of the existing steel angle window and door opening lintels. These need to be protected from direct exposure to rain and other moisture so that they do not have to be replaced. A strategy has been discussed to accomplish this for relative lower costs compared to replacing the lintels. As was the practice at the time of construction, these lintels were not primed and painted, nor were they hot dipped galvanized, (what would be specified by today's standards.)

3.6 Interior load bearing partitions are masonry as well. The hallways are constructed of glazed ceramic fired structural tile block. They could be stripped of paint at the hall side to expose a more pleasing natural glazed finish that would also be a more rugged and durable finish compared with a painted finish. The current color scheme is challenging to endure.

3.7 Floors on Grade: The floors on grade are cast in place concrete slabs. There is little sign of settling of these slabs. They can be ground and sealed to provide for relatively inexpensive floor finishes that are also durable.

3.7.1 They should be sealed to prevent the migration of sub-surface moisture to the interior surface.

3.8 Elevated Floors: The elevated floors are composite steel joist with reinforced concrete slabs cast onto expanded metal lath “decking”. This mode of fireproof floor construction is typical of the construction methodology of that day.

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3.8.1 It should be noted that the existing classroom finished floors consists of solid maple hardwood floors on wood sleepers mortared to the reinforced fireproof concrete slab. These floors have all been refinished. A real plus! They have a delightful natural light maple patina with their age.

3.8.2 The same structural floor system exists at the attic level as on the first and second floor levels except without the added wood flooring. This existing structure will allow for the development of the attic space into a long term safe and secure archive storage area, (with the addition of an elevator.)

3.8.3 Structural modifications required: The introduction of heavy fire proof cabinets will require a resolution of these concentrated loads down to the foundation level through all floor structures below any such loading. Careful planning is necessary to insure that these elements do not interfere with potential future modifications to the layout of spaces.

3.8.4 Floor to floor heights at the classroom wing of the school are as follows;

3.8.4.1 First floor to second floor height is 13'-1”.

3.8.4.2 Second floor to attic level floor height is 12'-0”

3.8.4.3 The attic ceiling height will be in excess of 8'-4”.

3.9 Waterproofing considerations: A more thorough examination of the partially below grade lunch room area needs to be undertaken. This is necessary to ascertain

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if additional waterproofing needs to be provided for those below grade portions of the exterior wall directly adjacent to habitable space.

3.10 Termite control: A thorough termite inspection needs to be contracted.

3.11 Day-lighting Considerations: The original school building was designed for both natural daylighting and natural ventilation. The sizes, heights and extent of the windows marvelously succeeds in providing for daylighting as well as natural ventilation. This is one of the true assets of this building.

3.11.1 The near North-South long axis orientation of the building provides for more even natural light distribution.

3.12 Entry Porte Cochere : A porte cochere is strongly recommended do be built at the existing main entry to the school. It would be placed out over some portion of the existing main drive lane. This will allow for entry and exit into vehicles for those who are less ambulatory. This would be particularly important in inclement weather. This element will also serve to more strikingly mark the main entry to the building and further expand the buildings appeal and identity.

3.13 Elevator: An elevator is strongly recommended to provide access from the first floor to the second and third (or attic). The attic has great potential for the safe and secure storage of archival material.

3.13.1 An elevator is essential to provide for handicapped accessibility to the second floor and even the lower lunchroom.

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3.14 ADA Accessibility: The first floor is currently the only part of the existing school building that is handicapped accessible. An elevator would provide for accessibility at other floor levels.

3.15 Acoustic considerations:

3.15.1 Work spaces should provide for typical low reflected noise levels to insure privacy and the elimination of potentially intrusive adjacent communication distractions.

3.15.2 The acoustic considerations for developing the gymnasium into a proper performance space requires considerable in-depth studies and goal oriented criteria in order to achieve a truly successful hall for live music and theatrical performances. Such a scope is not part of this study.

3.16 Insulation recommendations:

3.16.1 Exterior walls: As an option it is recommended that the exterior walls be furred with 2 ½ inch metal studs. Fiberglass insulation is to be placed in the cavity. This cavity will also provide the necessary room for wiring convenience outlets. This may not be a first priority item but it is best executed at the initial stages of renovation.

3.16.2 Roof: As the flat roof is to be replaced it is recommended that a rigid foam insulation layer be build up above the existing roof sheathing. This will form the primary and most effective insulation layer for the building. Greater

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insulation will pay big dividends for minimizing the need for added energy sources to maintain ideal heating and cooling temperatures within.

3.16.2.1 The reflectivity of the top surface of this flat roofing will be designated to meet LEED requirements of 78% SRI, (solar reflective index.) This will greatly reduce the thermal energy demands for cooling performance of the spaces below during the cooling season. It will also make working on the roof tolerable during the summer months. Details and performance criteria will be developed in concert with the construction team and material supplier to insure the best cost benefit ratio for a high performance roofing system.

3.16.2.2 Additionally insulation will be added to the floor deck and/or the rafter framing cavity at the sloping portion of the roof. That insulation may be spray applied foam at the rafters and rafter cavities. Further analysis is necessary.

3.16.3 Foundation: If waterproofing is to be added at the foundation adjacent to habital spaces that are partially below grade, (like the commercial kitchen and lunch roon, then rigid foundation insulation is to be added as part of the overall waterproofing assembly.

3.17 Roofing: The flat roof is to be replaced in its entirety. Other parts of the sloping roof are to be repaired and augmented.

3.17.1 Sloped Roof: The sloped roofing was replaced relatively recently. Some areas of the sloped roof are missing shingles and need to be repaired. All the metal flashing at the sloped roof needs to be replaced and in some cases provided where it is missing.

3.17.1.1 Roof overhang extensions are recommended for the entire perimeter of the roof. This will require removal of approximately two feet of existing roofing in order to install new roof framing overhangs. This new framing will extend the roof 18 to 24 inches beyond the face of the existing exterior wall. The current detail positions the termination of the roof at the exact exterior face of the exterior wall. This change will insure that any ice damage occurs well outside the perimeter of the exterior wall and further will protect the second floor steel angle lintels from any further deterioration thus eliminating the need for their replacement, (which would be an inevitability in a few years.)

3.17.1.2 Again, it is strongly recommended that minimal framed awnings with roofing material similar the the sloped roof be installed at exterior masonry openings at level one. The addition of these small roof/awning forms that mimic the new added overhang at the roof above will protect the existing steel angle lintels at the first floor level.

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3.17.1.3 Replacement of the exterior steel angle lintels over exterior window and door openings would be very costly, with an estimate of cost factor of over three to four time the cost of this remediation strategy of installed overhangs.

3.17.1.3.1 The appearance of the exterior brick masonry will suffer with any replacement of steel angle support lintels.

3.17.2 Flat Roof: The flat roof system is to be replaced in its entirety. The new system is to feature tapered sloping rigid board roof insulation as part of the overall assembly.

3.17.2.1 The roofing to conform with LEED requirements for SRI of equal to or greater than 78%.

3.17.3 Gutters and Downspouts: All gutters and downspouts need to be replaced. Their replacement will be executed at the time of the installation of the overhangs over the entire perimeter of the building.

3.17.3.1 A minimum 7 inch SMACNA style “B” heavy gauge aluminum gutter is specified with a suitable earth tone finish. Downspouts are to be 5 x 6 inch rectangular in shape to match gutters in material, gauge and color.

4 Environmental operating systems required and desired for a best practices for material archive building type:

4.1 Water supply systems: The existing fully functioning deep water well system is ideal for the meeting the needs of the programming desired. An inspection of the existing infrastructure is highly recommended. The water out of the ground is an ideal source for human consumption.

4.2 Heating, Ventilating and Air Conditioning Systems, HVAC: A thorough heating and cooling analysis via an ASHRAE manual J analysis, is required to determine thermal loading for the different areas of the building. This method will insure proper sizing for all HVAC equipment. Proper sizing is essential to managing comfort, air quality and humidity.

4.2.1 Fresh air changes shall be part of this analysis determining performance requirements.

4.2.2 General: All new HVAC systems are required. It is recommended that these air handlers be highly efficient.

4.2.2.1 Two highly rated systems are recommended: The Carrier model Infinity® 98 Gas Furnace With Greenspeed™ Intelligence; and The Ruud Ultra Series Modulation U98V Gas Furnace. These systems provide variable speed blower motors with low startup current, highly efficient heat exchangers and highly efficient compressor/condenser companion units. The RUUD unit is considered to be highly reliable. The approach here is to provide the best systems while being respectful of overall budget considerations. Large

commercial HVAC equipment would be prohibitively expensive as an initial expense.

4.2.2.2 Fuel Source for Heating: Propane is recommended. A large propane tank is currently provided at the site.

4.2.2.2.1 Additional tank(s) are likely to be required.

4.2.2.2.2 Investigate and fully account for all anticipated BTUH requirements for the building, including all new HVAC systems in place and a fully functioning commercial kitchen. Base capacity needs on a this thorough analysis.

4.2.3 Classroom Wing Requirements:

4.2.3.1 Each system will temper half of the classroom spaces at each floor level, approximately 3500 square feet for each.

4.2.3.2 Additional systems are required for administrative offices and the entry area at level one as well as the digital lab.

4.2.3.3 Six HVAC systems will fully manage climate control throughout the entry and classroom wing of the existing school building.

4.2.3.4 Locate air handlers at the newly developed level three floor level.

4.2.3.5 Condensing PVC air intake and venting to be placed at the flat roof area above.

4.2.3.6 Mount compressor/condenser units at the flat roof on raised galvanized steel racks. This rack system will be integrated into the new flat roofing system.

4.2.3.7 Duct routing will be through fire rated shafts with fusible link fired dampers when exiting rated shafts. The shafts in concept will be part of the third floor area, (open to that area.)

4.2.4 Gymnasium: More discussion with commercial HVAC contractors is needed to determine the most efficient approach to providing HVAC treatment to this large volume of space.

4.2.4.1 It is essential that air flow rates be very slow as to eliminate any noise from air flow disrupting any performance that might take place. This duct sizing will be quite large to achieve this necessary low noise criteria.

4.2.4.2 It is recommended that these mechanical systems be mounted at ground level on slabs to insure isolation of the mechanical equipment from this assembly space. Small enclosures are necessary for these air handling units and related ducting.

4.2.5 Lunchroom: This system can duplicate the systems at the classroom wing. Two such units will be required.

4.2.5.1 These units are to be mounted at the exterior of the building adjacent to the lunch room area.

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4.3 Dehumidification / humidification systems:

4.3.1 Dehumidificiation will be handled through the refrigeration cycle of the air conditioning system built within the HVAC systems.

4.3.2 Humidification may not be required. More consultation with archivists is necessary to determine its need.

4.3.2.1 Humidification systems are helpful to control static electricity in dry climates. Certain materials may require such a controlled environment, such as digital archiving.

4.4 Plumbing systems: All interior plumbing piping is to be new. Abandon and remove existing plumbing.

4.4.1 Provide new bathrooms and any additional bathing rooms, (showers), per code requirements for capacities assuming a fully occupied facility. This requires an analysis of the assembly space at the gymnasium as well as a thorough analysis of the intended uses for the classroom wing.

4.4.2 Provide water fountains per code requirements.

4.5 Sewage disposal system: An existing septic system with a large leach field is active and functioning.

4.5.1 Contract for an inspection of the system to determine its condition and efficacy. A large part of the near part of the athletic field accommodates the leach field for this sewage management system.

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4.6 Storm Water management: The main school building is ideally situated to insure that all storm water runs away from the building. However is it essential that all storm water from roofs be directed away from the foundation.

4.6.1 Replace in ground roof leader piping with new schedule 40 PVC piping. The original clay tile piping is to be **abandoned completely!** Provide clean-outs at downspout connections. Insure that all downspouts are connected to this piping system. Bury piping with warning tape placed at half the depth of the trench. Extend piping to daylight. Provide vermin screen blocks at terminations. Terminate at precast catch basins.

4.7 Electrical requirements: Up-size the overall electrical service from Duke Power.

4.7.1 Investigate the availability of three phase current. If available, provide for a 400 amp three phase new service. If not provide an equivalent single phase series of power service drops.

4.7.2 Provide for the following remotely located breaker panels.

4.7.2.1 Level three servicing the HVAC systems and ancillary power needs at that level. Three phase current.

4.7.2.2 HVAC equipment powering the Gymnasium and lunchroom areas. Three phase current.

4.7.2.3 Level one classrooms. Single phase current. Power and lighting needs.

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4.7.2.4 Level two classrooms. Single phase current. Power and lighting needs.

4.7.2.5 Lunchroom. Single phase current.

4.7.2.6 Gymnasium. Single phase current for house lighting. Three phase current for special theatrical lighting . This panel will provide for stage lighting mounted above the stage and above the audience in front of the stage.

4.7.2.6.1 This panel will also provide power for special lighting equipment and controls located at the projection booth at the upper rear area of the space.

4.7.2.7 Commercial kitchen. Three phase current powering existing commercial equipment.

4.8 Solar panel electrical generation: This is a very viable option for this site and climate, (as outlined above), as a strategy for managing long term operating costs. Further investigation is needed.

4.8.1 Are tax incentives viable and available?

4.8.2 The flat portions of the roof provides an exceptional location for the panels, being above tree limb lines and away from human tampering and potentially damaging actions.

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4.9 Grid autonomous emergency power systems: As a long term strategy for ensuring the highest standards for safe-keeping of highly valued archived material, a propane powered generator should be considered for critical archival preservation functions.

4.9.1 These units are reasonably inexpensive and reliable.

4.9.2 Such a unit would be best mounted at ground level.

4.9.3 Such a system would be powered by propane gas.

4.10 Interior artificial lighting considerations: Certain areas will be enhanced by ornamental fixtures, such as at the entry. Other areas will be best served by highly efficient fluorescent lighting.

4.10.1 Ornamental lighting: At entry and other stand out areas of the building and at the new exterior Porte Cochere.

4.10.2 Hallways: Indirect cove lighting by continuous strip fluorescent tubes.

4.10.2.1 Owner may exercise an option for surface mounted lighting as an initial cost saving measure.

4.10.3 Offices and meeting rooms: An array of troffer mounted light fixtures in suspended metal grid systems with acoustic tile panels. There are other options available to consider if the suspended ceiling systems are not embraced as an ideal or at least practical aesthetic approach. However, some aspect of the

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ceiling system will have to be part of a floor/ceiling rated assembly providing for the necessary fire ratings for this building type.

4.10.4 Lunchroom. Surface mounted fluorescent fixtures.

4.10.5 Gymnasium: This area will require extensive study to optimize the range of lighting treatments that any quality performance space features. The house lights will be the least challenging aspect of this future study.

4.10.6 Emergency and illuminated exit signs are required.

4.11 Exterior lighting: Discussion are needed to determine desired nighttime illumination levels. Attractive lower cost alternatives are available using wood poles in an aesthetic manner of array and configuration.

4.12 Fire suppression systems: Certain collections of the archive will need to be protected from any eventuality. A dedicated halon limited area fire suppression system is recommended for just his type of application.

4.12.1 If the third floor area is dedicated as archive storage at some point, then a dedicated limited area sprinkler system is recommended and may be code required.

4.12.2 Further study of the assembly space at the gymnasium will examine the need for sprinkler systems within that area. The mezzanine and the area under the mezzanine will be required to have a sprinkler array.

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4.12.3 Provide fire extinguishers as required by code and where the users feel it is prudent to do so.

4.13 Fire alarm and detection systems: Such a comprehensive system is required to be installed and fully functioning at all areas of habitable space withing the building for gaining initial occupancy of this building.

4.13.1 Secure the services of a reputable contractor who is well versed with the code requirements of such commercial systems.

4.14 Security systems: A security system is highly recommended to help insure the security of the collection.

4.14.1 A manager or managers will be best suited to managing such a system on an ongoing basis.

4.14.2 The entire security of the building and campus should be taken into consideration when designing and selecting such security systems.

4.14.3 Live digital cameras are recommended as a vital part of comprehensive security system.

4.15 Termite control considerations: Secure a thorough inspection to determine risk and treatment options moving forward.

5 Interior finishes:

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5.1 Handicap accessibility: An elevator is highly recommended for providing handicapped accessibility. Both the gymnasium and the first floor levels are fully handicapped accessible.

5.1.1 Paved handicapped accessible parking is provided at the front of the building.

5.1.2 New bathrooms will provide for handicapped accessibility.

5.1.3 Water fountains are required to be handicapped accessible.

5.2 Stairs: The existing stairs meet exiting capacity and rating requirements short of the needed fire doors at the entry and exists to the stairs. These doors and related hardware will need to be replaced and/or provided where not existing.

5.3 Flooring: The flooring mostly remains serviceable throughout the school building.

5.3.1 The existing flooring at the classroom wing is in very serviceable condition. The current owner has refinished the hardwood maple floors throughout the building. These floors are light in color providing pleasing light reflectivity. They add a brightness to each classroom / meeting space.

5.3.2 The gymnasium flooring needs to be examined for viability and overall aesthetic quality.

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5.3.3 There appears to me some asbestos VCT tile flooring in the commercial kitchen. This will have to be mitigated and removed in a proper and approved manner.

5.4 Wall Finishes and Interior Trim: Repair surfaces at walls and trim and provide new painted finishes.

5.4.1 Repair or replace trim, molding and casing to match existing as required before painting.

5.4.2 There will be shafts fitted into the corners of classrooms. These shafts will provide routing for new duct-work to both levels. These shafts are to be integrated into the layouts of each classroom and meeting space to minimize intrusion into the overall plan and layout.

5.4.3 Exterior wall furring and insulation. New drywall to be provided at furring at exterior walls. Investigate the salvaging and re-installation of existing trim and baseboards. If impractical provide new material to match existing in configuration and dimension. Provide painted finish for all trim.

5.5 Ceiling assemblies at classrooms:

5.5.1 In order to maintain the necessary fire rating of the floor assemblies at elevated structural slabs, a rated ceiling component will need to be installed or maintained.

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5.5.1.1 The original plaster ceilings handily meet these requirements. Their continuity will have to be established and maintained apart from any decorative ceiling finish.

5.5.1.2 Lay-in acoustic tile ceilings can be an aesthetic option for office and meeting room spaces.

5.5.1.3 Gypsum board ceilings are an option. But they do not provide the acoustic performance criteria of lay-in systems.

5.6 Fire Separation Assemblies: Provide for a continuous horizontally and vertically complete fire separation assembly between the classroom wing, including entry vestibule area, and the gymnasium, lunchroom and supported ancillary spaces.

5.6.1 This separation assembly will allow the more stringent requirements of the assembly space to not be imposed as a code requirement on the classroom wing.

5.7 Doors:

5.7.1 As a long term goal, the re-imaged front entry will create a more aesthetically pleasing entry and will further enhance the experience of arriving and passing through the main entry.

5.7.1.1 Again, a substantial Porte Cochere covering will only add to and enhance the already substantive image of this edifice.

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5.7.2 Other exterior doors: Examine other exterior doors with an eye toward maximizing the aesthetic image of the facade. Opportunities may present themselves in the long run. Also examine doors to insure their security and exiting (code requirement) functionality.

5.7.3 Classroom doors: Augment to the face of existing wood doors to meet the rating requirements.

5.7.3.1 This may be as simple as providing wood panels were the glass lights exist.

5.7.3.2 Some further code related research is needed with regard to this issue.

5.7.4 Fire Stair Doors: Replace and/or provide these doors to provide one and one half hour rated and labeled fire doors and enclosure at all required fire stairs.

5.7.4.1 Provide complying panic hardware that meets all code exiting and other requirements.

5.7.5 Doors at Fire Separation Assemblies: Provide one and one half hour rated double egress doors with complying panic hardware.

5.8 Exterior Windows: Almost all exterior windows have been replaced. The few that have not may be repaired and painted or replaced at the Owner's discretion.

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5.8.1 It is noted that the baked finish of the aluminum surround flashing at these new windows is peeling off. Investigation to determine how to repaint that flashing in an effective manner to remove this eyesore.

5.8.2 The replacement windows are of vinyl construction. It should be recognized that these windows have a shelf life of 25 to 30 years. After that time it is my recommendation that the replacement windows be constructed to AAMA Heavy Commercial standards. Such windows feature painted or anodized heavy gauge aluminum frames. They also feature high performance standards for air infiltration and storm wind loading resistance. A well constructed heavy commercial aluminum window will last in excess of 50 years.

5.9 Elevators: An elevator is strongly recommended to be installed. The elevator will service the lower lunch room as well as the first, second and third floor levels.

5.9.1 It will provide handicapped accessibility to all floor levels.

5.10 Amplified sound systems:

5.10.1 Gymnasium: Such a system is understood to be an integral component to a fully functioning multi-use performance space. A comprehensive analysis of the gymnasium as a performance space is predicated in determining the needs for such an amplified sound system.

5.10.2 Determine if a building wide audio announcement system is desired and recommended for all halways and occupied rooms.

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5.11 Building telecommunication systems: This will be an Owner/User decision and investigation.

5.12 Internet connectivity and in building distribution: This will be an Owner/User decision and investigation.

5.13 Commercial Kitchen: The existing equipment, if functioning, is sufficient to equip a commercial kitchen layout.

5.13.1 The flooring and floor within that space needs to be demolished and replaced with an approved floor that meets current local health code requirements and client needs.

5.13.2 A re-planning of this kitchen is a necessary step to insuring its optimal layout.

5.13.3 The commercial kitchen could support a catering business tenant or support a more elaborate wedding venue, (in conjunction with the renovated gymnasium performance space).

5.13.4 These improvements support ancillary ventures that could provide ongoing operating income for the core mission of the MAC collective.

6 Considerations for parking including the assembly space as part of a long range phased plan of development:

6.1 This will also identify site development considerations.

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6.2 Earthwork: Permeable parking areas created from mixed graded crushed stone set in prepared beds with geotextile fabric stabilization.

6.2.1 This strategy insures the best practice of mitigating ground water runoff and aquifer rejuvenation.

6.3 Basic and optimal parking requirements:

6.3.1 Existing parking may be adequate for initial occupancy.

6.3.2 A study based on long term full occupancy should address overall parking needs.

6.3.3 The relatively flat site supports the expansion of parking needs.

6.4 Opportunities for vegetation enhancement: There is plenty of land for those with horticultural talents to “dig in”!

6.4.1 The entry way presents a sparse appearance. This area is recommended as a priority for enhancing both the appearance of the campus.

6.4.1.1 The enhancement of this area also serves to establish a greater site security and an identifiable imageabilty to the MAC campus.

6.4.2 Investigate and plan for ideal locations for:

6.4.2.1 Permanent gardens and plantings. This may include herb gardens that support food preparation.

6.4.2.2 Visual planting enhancements to the school building while being respectful of an damage mature planting could exert to the structure.

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6.4.2.3 Where appropriate, plantings can augment site security considerations.

6.5 Signage and Identification: Necessary scope. This will provide an opportunity to develop a graphic identity for the MAC collective and its home base.

6.5.1 Signage at the turnoff to Jupiter Road

6.5.2 Signage at the entry to Red Oak School Road just off Lower Flat Creek Road.

6.5.3 Signage at the entry to the property.

6.5.4 Signage at the entry to the building.

6.5.5 Way-finding signage withing the building.

6.5.6 Names of rooms and offices.

6.5.7 Fire escape route diagrams, (required by code).

6.6 Irrigation considerations: Owner/user developed criteria.

7 Specific site considerations:

7.1 Outdoor play areas: Owner/user developed criteria and goals. This study should be part of a comprehensive site study that reconciles all competing interests for land use, including the potential use of the athletic fields for event rental, like weddings, etc. plus parking needs.

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7.2 Site security: Strong consideration should be given to secure the site from vehicular access during non-business hours. Again, site managers will be key to the success in maintaining site security.

7.2.1 Security features offer the opportunity to further develop an institutional identity and campus aesthetic that supports that identity.

7.2.2 The exterior lighting infrastructure can aesthetically mesh well with site control infrastructure such as decorative substantial gates and masonry piers supporting those gates.

8 Regulatory Requirements: Meet these fully as required.

8.1 Zoning implications and strategies: The existing zoning accommodates the proposed uses for this property.

8.2 Building Code Compliance: Aspects of the building that will need to be updated to meet current requirements

8.2.1 Exiting requirements:

8.2.1.1 Rated doors required throughout.

8.2.1.2 All required exits are to feature at a minimum an area of refuge for handicapped individuals incapable of negotiating obstacles such as stairs. A further examination of exits from the gymnasium assembly space is required to determine modifications required to meet this requirement at full occupancy.

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8.2.2 Basic plumbing infrastructure needed.

8.2.3 Electrical:

8.2.3.1 New power outlets shall comply with current code requirements.

8.2.3.2 Provide emergency and exit lighting per code requirements.

8.2.3.3 See power panel outline above in this document.

8.2.4 HVAC infrastructure needed.

8.2.4.1 Electrical infrastructure substantial upgrade needed to power the HVAC systems required.

8.2.5 Roofing: Necessary to secure a weather-tight building.

8.2.6 Fire doors compliance at classrooms and exit stairs.

8.2.7 Emergency and exit lighting

8.3 Fire Code Compliance:

8.3.1 Install fire detection and alarm system to meet these requirements.

8.3.2 Install fire extinguishers.

8.3.3 Post maximum occupancy loads at each room.

8.3.4 Provide fire exit diagrams at each room per requirements.

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IN SUMMARY

The property at 53 Red Oak School Road, Weaverville, NC is an outstanding value for the purposes of the ongoing work of the MAC collective. Here is why:

GENERAL LOCATION:

- As an archive and research center of international importance in this general geographic location, being in the mountainous region of North Carolina, is about as ideal as one could wish for while being located on the Eastern seaboard of the United States.
- This geographic location supports the core mission of the MAC collective archive of establishing and preserving a shared collection for artifacts, writings and other media and memorabilia related to the life Meher Baba and those that knew Him in His life.
- It can serve as a sister site to other established archive institutions dedicated to the life, work and collections around the life and work of Meher Baba. As a sister site it further insures the longevity of the world's collections of this profoundly important material in all its forms comprising the full legacy of Meher Baba and people that knew Him in His life.
- This effort for establishing a permanent archive centered around the life and times of Meher Baba is being made in a most vibrant and active Meher Baba community in North America. The resources this community brings are substantial and diverse and a clear asset to these efforts.
- This geogrpahic location is historically free from major storm threats such as tornadoes and hurricanes.
- The climate is moderate and equitable being in the mountains at altitude while located in the southern latitudes of the USA.
- The location is less than a six hours drive from the Meher Spiritual Center in Myrtle Beach, SC.

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SITE:

- The site is ideally situated at the top of a hill with plenty of flat clear open space.
- The site offers exposure to prevailing breezes providing for exemplary natural ventilation.
- The site is nearby to the community it will serve.
- The site provides opportunities to employ its large flat areas for contracted events as a source of operating income and alternative funding.
- The site is easily made secure by its sighting at the end of a cul-de-sac.
- The site is amenable to solar panel installations and solar exposure.
- The site features its own water source.
- The site provides for flat expansion to meet future demands and needs should they arise.

BUILDING

- The school building is the type of structure required for a “Best Practices” archive building. The school building is built from completely non-combustible material and is by definition massive and inherently fireproof.
- The structure is a massive building as it's load bearing walls are solid masonry and over 16 inches in thickness, boding well for its longevity.
- Not only is the building protected from the inside by it's fire proof construction, it is protected at the exterior by its thick masonry walls. The site is cleared around the building providing a buffer from any forest fire threat.
- The building provides for tremendous square footage expansion potential supporting the core mission of the MAC.
- The budget per square foot for the development of this building is substantially less than the cost per square foot for a new archive structure that meets the requirements for “Best Practices” for an archive type program. Development costs for this space are

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in the range of $66 dollars per square foot. For a new building these costs would minimally be in the range of $225-$250 per square foot.

- This building is a true economic value.
- In the short term the building offers opportunities for artist studio space rental. These rents can initially support the operating income needs of the collective.
- The building, because of its linear plan layout, is readily adaptable to an incremental building improvement strategy.
- The original building planning, that of being an educational facility that accommodated large numbers, is immediately adaptable to current building code requirements for the program needs of the MAC collective. Minimal plan changes are required to bring the building up to code requirements.
- The third floor level is immediately adaptable to long term safe and secure storage of archive material. It's floor structure is designed for full commercial live loading requirements.
- The flat roof area of the school is ideal for the placement of certain mechanical equipment and solar photo-voltaic panels.
- The classrooms can provide for meeting spaces for the Meher Baba community. There are several ongoing weekly meetings here in the community that could be supported in this manner.
- The gymnasium has the potential to support the ongoing Meher Baba Music Sahavas programs that are staged annually here in the area.

END OF REPORT

This Feasibility summary was prepared by Ty Provosty, principal architect, studio ledoux.

Respectfully submitted,

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june 8, 2018