

FACILITY CONDITION ASSESSMENT

DLR GROUP

1650 Spruce Street, Suite 300

Riverside, California 92507

Kevin Fleming



FACILITY CONDITION ASSESSMENT

of

MANHATTAN BEACH MIDDLE SCHOOL

1501 North Redondo Avenue

Manhattan Beach, California 90266

PREPARED BY:

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EMG Project #: 112851.15R-007.017

Date of Report: April 20, 2015

On-Site Date: February 19, 2015

Immediate Repairs Report
Manhattan Beach Middle School
4/20/2015



Report Section	ID	Cost Description	Quantity	Unit	Unit Cost	Subtotal	Deficiency Repair Estimate *
1.2	327998	Balcony study to determine slope of balconies and proper drainage	1	EA	\$4,500.00	\$4,500	\$4,500
3.2	328894	ADA, Wrap drain pipes below accessible lavatory	2	EA	\$120.00	\$240	\$240
6.3	327987	Roof leaks, minor repairs	5	EA	\$500.00	\$2,500	\$2,500
Immediate Repairs Total							\$7,240

* Location Factor (1.0) included in totals.

Replacement Reserves Report

Manhattan Beach Middle School



4/20/2015

Report Section	Location Description	ID	Cost Description	Lifespan (EUL)	E	Age	RUL	Quantity	Unit	Unit Cost	Subtotal	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Deficiency Repair Estimate										
1.2	Upper level balconies	327998	_0001 Balcony study to determine slope of balconies and proper drainage	0	0	0	1	EA	\$4,500.00	\$4,500	\$4,500																					\$4,500										
3.2	Common restroom	328894	C1031 ADA, Wrap drain pipes below accessible lavatory	0	0	0	2	EA	\$120.00	\$240	\$240																					\$240										
5.2	Paved playground	327986	G2022 Patch, Repair and Seal Coat asphalt driveway	15	5	10	96700	SF	\$0.50	\$48,350												\$48,350										\$48,350										
5.2	Parking areas and driveways	327985	G2022 Patch, Repair and Seal Coat asphalt driveway	15	5	10	46700	SF	\$0.50	\$23,350												\$23,350										\$23,350										
6.3	Building roofs	327988	B3011 Replace Existing EPDM Roof with PVC Membrane Roofing	20	17	3	945	SQ	\$1,135.17	\$1,072,736				\$1,072,736																		\$1,072,736										
6.3	Gym roof	327987	B3011A Roof leaks, minor repairs	0	0	0	5	EA	\$500.00	\$2,500	\$2,500																					\$2,500										
6.4	Building exteriors	327989	B2011 General painting cost per SF, minor prep work, single story bldg. (up to 15 feet)	10	5	5	30000	SF	\$2.42	\$72,600					\$72,600												\$72,600					\$145,200										
7.4	Electrical Rooms	328666	D5011 Replace Main Dry transformer 500KVA	30	17	13	3	EA	\$14,590.00	\$43,770												\$43,770										\$43,770										
7.5	Outside Classrooms	328667	D1011 Replace hydraulic elevator cylinder and casing, up to 4-stories	30	17	13	2	EA	\$55,200.00	\$110,400												\$110,400										\$110,400										
7.6	Building C	328670	D5037 Fire alarm panel	15	10	5	1	EA	\$4,304.43	\$4,304					\$4,304																	\$4,304										
8.1	Interior walls	327999	B2011 General painting cost per SF, minor prep work, single story bldg. (up to 15 feet)	10	6	4	60000	SF	\$2.42	\$145,200					\$145,200												\$145,200					\$290,400										
8.1	Interior walls	328000	B2011 General painting cost per SF, minor prep work, single story bldg. (up to 15 feet)	10	6	4	60000	SF	\$2.42	\$145,200					\$145,200												\$145,200					\$290,400										
8.1	Gymnasium	328008	C3024 Sand and refinish hardwood floor	10	5	5	10000	SF	\$5.50	\$55,000					\$55,000												\$55,000					\$110,000										
8.1	Cafeteria, auditorium, etc	328004	C3024 Replace Vinyl tile	18	12	6	1000	SY	\$67.75	\$67,750					\$67,750																	\$67,750										
8.1	Classrooms, library, etc	328002	C3025 Replace carpet, standard commercial, medium traffic	8	5	3	7500	SY	\$59.90	\$449,250				\$449,250								\$449,250								\$449,250	\$1,347,750											
8.2	Kitchen	328676	E1093A Replace ice machine 50lbs/day	15	10	5	1	EA	\$2,851.00	\$2,851					\$2,851																	\$2,851										
8.2	Kitchen	328671	E1093A Replace Walk In Refrigerator	15	10	5	1	EA	\$11,500.00	\$11,500					\$11,500																	\$11,500										
8.2	Kitchen	328672	E1093A Replace walk in Freezer 8'x12'	20	17	3	1	EA	\$14,880.32	\$14,880				\$14,880																		\$14,880										
8.2	Kitchen	328673	E1093A Replace Star Max - 36" Open Burner Restaurant Range	20	17	3	1	EA	\$6,500.00	\$6,500				\$6,500																		\$6,500										
8.2	Kitchen	328674	E1093A Replace Vulcan-Hart (VC66GC) - 40" Gas Double Deck Convection Oven	20	17	3	3	EA	\$12,000.00	\$36,000				\$36,000																		\$36,000										
8.2	Kitchen	328675	E1094 Microwave	10	5	5	1	EA	\$249.21	\$249					\$249												\$249					\$498										
8.3	Classrooms	328678	D3041 Gas-fired furnace 85 to 100 MBH with AC	25	17	8	7	EA	\$2,372.00	\$16,604									\$16,604													\$16,604										
8.3	Elect. and Elev. Eqmmt. Rooms	328683	D3041 Split ductless system, cooling only, single zone, wall mount, 4 ton cooling, replace	15	10	5	5	EA	\$3,782.00	\$18,910					\$18,910																	\$18,910										
8.3	Classrooms	328677	D3041 Gas-fired furnace 85 to 100 MBH no AC	25	17	8	39	EA	\$1,698.00	\$66,222									\$66,222													\$66,222										
8.3	Buildings B and C	328679	D3052 Package units, gas heat, 20 ton cooling	15	8	7	7	Each	\$32,763.00	\$229,341								\$229,341														\$229,341										
8.3	Buildings B and C	328682	D3052 Package Units, gas heat, 7.5-ton cooling	15	10	5	5	EA	\$12,557.00	\$62,785					\$62,785																	\$62,785										
8.3	Modular Classrooms	328684	D3052 Heat Pump air to air, 4 Ton, Replace	20	17	3	8	EA	\$5,725.00	\$45,800				\$45,800																		\$45,800										
8.3	Buildings B and	328680	D3052 Package units, gas heat,10 ton cooling	15	10	5	4	EA	\$16,637.00	\$66,548					\$66,548																	\$66,548										
8.4	Kitchen	328690	D2023 Commercial gas-fired domestic water heater, 140 to 200 MBH input	15	10	5	1	EA	\$10,089.01	\$10,089					\$10,089																	\$10,089										
8.4	Locker Room Showers	328685	D3021 Replace water boiler, gas 550 to 765 MBH	30	17	13	1	EA	\$17,800.00	\$17,800												\$17,800										\$17,800										
8.5	Throughout School	328691	D5021 Fluorescent fixture 80 W	20	17	3	1192	EA	\$229.51	\$273,576					\$273,576																	\$273,576										
8.5	Gymnasium	328692	D5021 Metal Halide light, replace, 500W	20	17	3	24	EA	\$884.51	\$21,228					\$21,228																	\$21,228										
Totals, Unescalated												\$7,240	\$0	\$0	\$1,919,970	\$290,400	\$304,837	\$67,750	\$229,341	\$82,826	\$0	\$71,700	\$449,250	\$0	\$171,970	\$290,400	\$127,849	\$0	\$0	\$0	\$449,250	\$4,462,783										
Location Factor (1.00)												\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Totals, Escalated (3.0% inflation, compounded annually)												\$7,240	\$0	\$0	\$2,098,003	\$326,848	\$353,389	\$80,897	\$282,061	\$104,921	\$0	\$96,359	\$621,867	\$0	\$252,544	\$439,256	\$199,185	\$0	\$0	\$0	\$787,763	\$5,650,332										

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CERTIFICATION

DLR Group retained EMG to perform this Facility Condition Assessment in connection with its Facilities Master Planning Project for the Manhattan Beach Unified School District at Manhattan Beach Middle School, 1501 North Redondo Avenue, Manhattan Beach, California, the "Property". It is our understanding that the primary interest of DLR Group is to locate and evaluate materials and building system defects that might significantly affect the value of the property and to determine if the present Property has conditions that will have a significant impact on its continued operations.

The conclusions and recommendations presented in this report are based on the brief review of the plans and records made available to our Project Manager(s) during the site visit, interviews of available property management personnel and maintenance contractors familiar with the Property, appropriate inquiry of municipal authorities, our Project Manager's walk-through observations during the site visit, and our experience with similar properties.

No testing, exploratory probing, dismantling or operating of equipment or in depth studies were performed unless specifically required under Section 2 of this report. This assessment did not include engineering calculations to determine the adequacy of the Property's original design or existing systems. Although walk-through observations were performed, not all areas were observed (See Section 4.2 for areas observed). There may be defects in the Property, which were in areas not observed or readily accessible, may not have been visible, or were not disclosed by management personnel when questioned. The report describes property conditions at the time that the observations and research were conducted.

Any reuse or distribution of this report without such consent shall be at DLR Group's and the recipient's sole risk, without liability to EMG.

Prepared by: Scott Lattimer, Project Manager
Valentin Tinajero, Project Manager

Reviewed by:



Kathleen Sullivan, Technical Report Reviewer for
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1. EXECUTIVE SUMMARY

1.1. PROPERTY INFORMATION AND GENERAL PHYSICAL CONDITION

The property information is summarized in the table below. More detailed descriptions may be found in the various sections of the report and in the Appendices.

Property Information	
Address:	1501 North Redondo Avenue, Manhattan Beach, California, 90266
Year constructed:	1998
Current owner of property:	Manhattan Beach Unified School District
Management Point of Contact:	Paul Ruta Director of Maintenance and Operations 310.318.7345 x5302 pruta@mbusd.org
Property type:	Middle School
Site area:	11.5 Acres
Gross floor area:	83,100 Square Feet
Net Leasable area:	N/A
Number of buildings:	Three buildings
Number of stories:	Two story
Parking type and number of spaces:	104 spaces in open lots
Building construction:	Steel construction
Bay Column Spacing:	N/A
Interior vertical clearance:	Approximately 10 Feet
Roof construction:	Flat roofs with built-up membrane
Exterior Finishes:	Stucco finish
Heating and/or Air Conditioning:	Permanent Classrooms: Furnace heating, no cooling Modular Classrooms: Heat pump heating and cooling Gymnasium, kitchen, and office areas: Rooftop package AC unit cooling and heating Electrical and elevator machine rooms: Split AC unit cooling
Fire and Life/Safety:	Fire sprinklers, hydrants, smoke detectors, alarms, and extinguishers
Dates of visit:	February 17, 2015
Point of Contact (POC):	Paul Ruta, Director of Maintenance and Operations
Assessment and Report Prepared by:	Scott Lattimer Valentin Tinajero

Property Information	
Reviewed by:	Kathleen Sullivan Technical Report Reviewer

Generally, the property appears to have been constructed within industry standards in force at the time of construction. The property appears to have been well maintained in recent years and is in good overall condition.

According to property management personnel, the property has had a limited capital improvement expenditure program over the past three years, primarily consisting of adding three additional portable classrooms to the campus. Supporting documentation was not provided in support of these claims but some of the work is evident.

According to property management personnel, major capital expenditures planned for next year include installing air conditioning units to all classrooms.

1.2. SPECIAL ISSUES AND FOLLOW-UP RECOMMENDATIONS

As part of the FCA, a limited assessment of accessible areas of the building(s) was performed to determine the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. Property personnel were interviewed concerning any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Sampling is not a part of this assessment.

There are no visual indications of the presence of mold growth, conditions conducive to mold growth, or evidence of moisture in representative readily accessible areas of the property.

- It is recommended that a plumber inspect the grease traps and sewer lines to ensure that they have been properly maintained.
- It is recommended that the school district ensure that the commercial kitchen exhaust vents are cleaned regularly to avoid grease fires.

The following issues should be considered:

- Verify that all warranties are transferable.
- Verify that any alterations, installations, or other improvements since the project was first constructed and occupied have been properly permitted and approved by municipal agencies.
- Verify that no defective materials or equipment are used at the property.

Copies of the documents listed below should be obtained:

- All roof, equipment and system warranties/guarantees and transfers. Manufacturers often levy a warranty transfer fee and require that the equipment or system be in pristine condition in order to provide such transfers. This requirement often necessitates upgrades, repairs, or servicing.
- All available site and building construction drawings and specifications.
- All government documents such as Certificates of Occupancy, permits, zoning variances, easements, tax receipts, and other pertinent records.

The following issue requires additional study:

- The balconies show signs of deterioration. An in-depth balcony study is recommended to determine the exact cause of the failure. A professional engineer must be retained to analyze the existing condition, provide recommendations and, if necessary, estimate the scope and cost of any required repairs. The cost to retain an engineer is included in the Replacement Reserves Report. The cost for any possible subsequent repairs is not included in the cost tables.

1.3. OPINIONS OF PROBABLE COST

Cost estimates are attached at the front of this report (following the cover page).

These estimates are based on Invoice or Bid Document/s provided either by the Owner/facility and construction costs developed by construction resources such as *R.S. Means* and *Marshall & Swift*, EMG's experience with past costs for similar properties, city cost indexes, and assumptions regarding future economic conditions.

Opinions of probable costs should only be construed as preliminary, order of magnitude budgets. Actual costs most probably will vary from the consultant's opinions of probable costs depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions, and whether competitive pricing is solicited, etc. ASTM E2018-08 recognizes that certain opinions of probable costs cannot be developed within the scope of this guide without further study. Opinions of probable cost for further study should be included in the PCR.

1.3.1. Methodology

Physical Needs Assessment:

Based upon site observations, research, and judgment, along with referencing Expected Useful Life (EUL) tables from various industry sources, EMG opines as to when a system or component will most probably necessitate replacement. Accurate historical replacement records, if provided, are typically the best source of information. Exposure to the elements, initial quality and installation, extent of use, the quality and amount of preventive maintenance exercised, etc., are all factors that impact the effective age of a system or component. As a result, a system or component may have an effective age that is greater or less than its actual chronological age. The Remaining Useful Life (RUL) of a component or system equals the EUL less its effective age. Projections of Remaining Useful Life (RUL) are based on continued use of the Property similar to the reported past use. Significant changes in tenants and/or usage may affect the service life of some systems or components.

Where quantities could not be derived from an actual take-off, lump sum costs or allowances are used. Estimated costs are based on professional judgment and the probable or actual extent of the observed defect, inclusive of the cost to design, procure, construct and manage the corrections.

The evaluation period identified in this report is defined as 20 years.

The physical condition of building component to be repaired is typically defined as being in one of five categories: Priority One through Five. For the purposes of this report, the following definitions are used:

Priority One - These items are to be addressed as Immediate. Items in this category require immediate action and include corrective measures to:

1. Correct life safety and/or code hazards
2. Repair item permitting water leaks into the building or structure
3. Repair mold or mildew conditions
4. Down unit repairs
5. Further study investigations

Priority Two - These items are to be addressed within the next 1 year. Items in this category require corrective measures to:

1. Return a system to normal operation
2. Stop deterioration to other systems
3. Stop accelerated deterioration
4. Replace items that have reached or exceeded their useful service life

5. ADA/CBC deficiencies

Priority Three - These items are to be addressed within the next 2-3 years. Items in this category, if not corrected expeditiously, will become critical in the next several years. Items in this category include corrective measures to:

1. Stop intermittent interruptions
2. Correct rapid deterioration
3. Replace items that will reach or exceed their useful service life
4. Correct functionality and/or aesthetic issues that are not critical

Priority Four - These items are to be addressed within the next 3-5 years. Items in this category include conditions requiring appropriate attention to preclude predictable deterioration or potential downtime and the associated damage or higher costs if deferred further.

Priority Five - These items are to be addressed within 6-20 years. Items in this category represent a sensible improvement to the existing conditions. These are not required for the most basic function of the facility; however, Priority 5 projects will improve overall usability and/or reduce long-term maintenance costs.

1.3.2. Immediate Repairs and Short Term Costs

Immediate repairs are opinions of probable costs that require immediate action as a result of: (1) material existing or potential unsafe conditions, (2) material building or fire code violations, or (3) conditions that, if not addressed, have the potential to result in, or contribute to, critical element or system failure within one year or will most probably result in a significant escalation of its remedial cost.

Short term costs are opinions of probable costs to remedy physical deficiencies, such as deferred maintenance, that may not warrant immediate attention, but that require repairs or replacements, which should be undertaken on a priority basis in addition to routine preventive maintenance. Opinions of probable costs may include costs for testing, exploratory probing, and further analysis should this be deemed warranted by the consultant. The performance of such additional services is beyond the FCA scope of work. Generally, the time frame for such repairs is within one to two years. Short Term costs are included in the Replacement Reserves Report.

1.3.3. Replacement Reserves

Replacement Reserves are for recurring probable expenditures, which are not classified as operation or maintenance expenses. The replacement reserves should be budgeted for in advance on an annual basis. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, Replacement Reserves may also include components or systems that have an indeterminable life but, nonetheless, have a potential for failure within an estimated time period.

Replacement Reserves exclude systems or components that are estimated to expire after the reserve term and are not considered material to the structural and mechanical integrity of the subject property. Furthermore, systems and components that are not deemed to have a material effect on the use of the Property are also excluded. Costs that are caused by acts of God, accidents, or other occurrences that are typically covered by insurance, rather than reserved for, are also excluded.

Replacement costs are solicited from ownership/property management, EMG's discussions with service companies, manufacturers' representatives, and previous experience in preparing such schedules for other similar facilities. Costs for work performed by the ownership's or property management's maintenance staff are also considered.

EMG's reserve methodology involves identification and quantification of those systems or components requiring capital reserve funds within the assessment period. The assessment period is defined as the effective age plus the reserve term. Additional information concerning system's or component's respective replacement costs (in today's dollars), typical expected useful lives, and remaining useful lives were estimated so that a funding schedule could be prepared. The Replacement Reserves Schedule presupposes that all required remedial work has been performed or that monies for remediation have been budgeted for items defined in the Immediate Repairs Report.

2. PURPOSE AND SCOPE

2.1. PURPOSE

EMG was retained by the client to render an opinion as to the Property's current general physical condition on the day of the site visit.

Based on the observations, interviews and document review outlined below, this report identifies significant deferred maintenance issues, existing deficiencies, and material code violations of record at municipal offices that affect the Property's use. Opinions are rendered as to its structural integrity, building system condition and the Property's overall condition. The report also notes building systems or components that have realized or exceeded their typical expected useful lives.

The physical condition of building components is typically defined as being in one of three categories: Good, Fair, and Poor. For the purposes of this report, the following definitions are used:

- Good = Satisfactory as-is. Requires only routine maintenance during the assessment period. Repair or replacement may be required due to a system's estimated useful life.
- Fair = Satisfactory as-is. Repair or replacement is required due to current physical condition and/or estimated remaining useful life.
- Poor = Immediate repair, replacement, or significant maintenance is required.

2.2. SCOPE

The standard scope of the Facility Condition Assessment includes the following:

- Visit the Property to evaluate the general condition of the building and site improvements, review available construction documents in order to familiarize ourselves with, and be able to comment on, the in-place construction systems, life safety, mechanical, electrical, and plumbing systems, and the general built environment.
- Identify those components that are exhibiting deferred maintenance issues and provide cost estimates for Immediate, Short Term, and Replacement Reserves based on observed conditions, maintenance history and industry standard useful life estimates. This will include the review of documented capital improvements completed within the last five-year period and work currently contracted for, if applicable.
- Provide a full description of the Property with descriptions of in-place systems and commentary on observed conditions.
- Provide a general statement of the Subject property's compliance with the Americans with Disability Act (ADA). Compliance with Title 24 California Building Code, Chapter 11B and other California Building Code chapters referenced in Chapter 11B, was not surveyed. This report does not constitute a full accessibility survey, but identifies exposure to selected ADA accessibility issues and the need for further accessibility review.
- Perform a limited assessment of accessible areas of the building(s) for the presence of mold, conditions conducive to mold growth, and/or evidence of moisture. EMG will also interview Project personnel regarding the presence of any known or suspected mold, elevated relative humidity, water intrusion, or mildew-like odors. Potentially affected areas will be photographed. Sampling will not be considered in routine assessments.
- List the current utility service providers.
- Review maintenance records and procedures with the in-place maintenance personnel.

- Observe a representative sample of the interior tenant spaces/units, including vacant spaces/units, in order to gain a clear understanding of the property’s overall condition. Other areas to be observed include the exterior of the property, the roofs, interior common areas, and mechanical, electrical and elevator equipment rooms.
- Appropriate inquiries of municipal officials regarding the existence of pending unresolved building or fire code violations on file, and a determination of the current zoning category, flood hazard area, and seismic zone for the Property.
- Provide recommendations for additional studies, if required, with related budgetary information.
- Tenant responsibility for maintenance, repair or replacement of finishes, fixtures, or equipment is not addressed by this scope of services.
- Provide an Executive Summary at the beginning of this report with cost estimates as a quick, user-friendly summary of the Property’s condition and the assigned costs by category. These costs are tied to the report sections where reference to the issues are clearly defined and expanded.

2.3. PERSONNEL INTERVIEWED

The following personnel from the facility and government agencies were interviewed in the process of conducting the FCA:

Name and Title	Organization	Phone Number
Paul Ruta Director of Maintenance and Operations	Manhattan Beach Unified School District	310.318.7345 x5302
Records Request	State of California Division of the State Architect DSA Los Angeles Basin Regional Office	213.897.3995
Records Request	Manhattan Beach Fire Department Fire Prevention Bureau	310.802.5206

The FCA was performed with the assistance of Paul Ruta, Director of Maintenance and Operations, Manhattan Beach Unified School District, the on-site Point of Contact (POC), who was cooperative and provided information that appeared to be accurate based upon subsequent site observations. The on-site contact is completely knowledgeable about the subject property and answered most questions posed during the interview process. The POC’s management involvement at the property has been for approximately five years.

2.4. DOCUMENTATION REVIEWED

Prior to the FCA, relevant documentation was requested that could aid in the knowledge of the subject property’s physical improvements, extent and type of use, and/or assist in identifying material discrepancies between reported information and observed conditions. The review of submitted documents does not include comment on the accuracy of such documents or their preparation, methodology, or protocol. The Documentation Request Form is provided in Appendix E.

Although Appendix E provides a summary of the documents requested or obtained, the following list provides more specific details about some of the documents that were reviewed or obtained during the site visit.

- Partial original construction documents by HMC Group, dated 3/17/1997.

2.5. PRE-SURVEY QUESTIONNAIRE

A Pre-Survey Questionnaire was sent to the POC prior to the site visit. The questionnaire is included in Appendix E. Information obtained from the questionnaire has been used in preparation of this report.

2.6. WEATHER CONDITIONS

Clear, with temperatures in the 70s (°F) and light winds.

3. CODE INFORMATION AND ACCESSIBILITY

3.1. CODE INFORMATION, FLOOD ZONE AND SEISMIC ZONE

A written request for compliance with the State Architects Office was submitted, and a copy of the request is included in Appendix C. Significant information will be forwarded upon receipt.

A written request for compliance with the Manhattan Beach Fire Department was submitted, and a copy of the request is included in Appendix C. Significant information will be forwarded upon receipt.

According to the Flood Insurance Rate Map, published by the Federal Emergency Management Agency (FEMA) and dated September 26, 2008, the property is located in Zone X, defined as areas outside the 500-year flood plain with less than 0.2% annual probability of flooding. Annual Probability of Flooding of Less than one percent.

According to the 1997 Uniform Building Code Seismic Zone Map of the United States, the property is located in Seismic Zone 4, defined as an area of high probability of damaging ground motion.

According to the Wind Zone Map, published by the Federal Emergency Management Agency (FEMA), the property is located in Zone I and is not located in a Hurricane-Susceptible Region or Special Wind Region.

3.2. ADA ACCESSIBILITY

Generally, Title II of the Americans with Disabilities Act (ADA) applies to State and local government entities. Title II Subtitle A protects qualified individuals with disabilities from discrimination on the basis of disability in services, programs, and activities provided by state and local government entities. Title II extends the prohibition on discrimination established by section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. 794, to all activities of state and local governments, regardless of Federal financial assistance. All state and local government facilities must be maintained and operated in compliance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG). In addition, in the state of California, compliance with the California Building Code (CBC) Chapter 11 *Accessibility to Public Buildings, Public Accommodations, Commercial Buildings, and Publicly Funded Housing* is required.

During the FCA, a limited visual observation for accessibility compliance was conducted. The scope of the visual observation was limited to those areas set forth in EMG's Abbreviated ADA Checklist, provided in Appendix D of this report. It is understood by the Client that the limited observations described herein does not comprise a full Accessibility Compliance Survey, and that such a survey is beyond the scope of EMG's undertaking for this report. The Abbreviated ADA Checklist targets key areas for compliance with 2010 ADA Standards for Accessible Design, and does not include California Building Code accessibility requirements. A full Accessibility Compliance Survey conducted by EMG would include both ADA and State of California accessibility requirements. For the FCA, only a representative sample of areas was observed and, other than those shown on the Abbreviated ADA Checklist, actual measurements were not taken to verify compliance.

The facility generally appears to be accessible as stated within the defined priorities of Title II of the Americans with Disabilities Act.

Restrooms

1. Wrap drain pipes below lavatory with insulation; protect against contact with hot, sharp, or abrasive surfaces.

A full ADA Compliance Survey may reveal some aspects of the property that are not in compliance.

Corrections of these conditions should be addressed from a liability standpoint, but are not necessarily code violations. The Americans with Disabilities Act Accessibility Guidelines concern civil rights issues as they pertain to the disabled and are not a construction code, although many local jurisdictions have adopted the Guidelines as such. The cost to address the achievable items noted above are detailed in the Replacement Reserves Report. Unless Life/Safety (Immediate Repair) is a concern, the accessible improvements are defined as short term improvements (Year 1).

4. EXISTING BUILDING ASSESSMENT

4.1. BUILDING/SPACE TYPES

All 83,100 square feet of the building are owned by the Manhattan Beach School District, and occupied by the Manhattan Beach Middle School.

The following table identifies the reported space types and mix at the subject property.

Space Types and Mix			
Quantity	Type	Vacant Spaces	Down Spaces
53	Classroom	0	0
1	Office	0	0
1	Mixed Use	0	0
1	Library	0	0
1	Gymnasium	0	0
25	Restrooms	0	0
82	TOTAL	0	0

4.2. BUILDINGS/SPACES OBSERVED

The entire facility was observed in order to gain a clear understanding of the property’s overall condition. Other areas accessed included the exterior of the property and grounds.

Roof access was not available for observation during the site visit; therefore all roof observations were completed from the ground.

5. SITE IMPROVEMENTS

5.1. UTILITIES

The following table identifies the utility suppliers and the condition and adequacy of the services.

Site Utilities		
Utility	Supplier	Condition and Adequacy
Sanitary sewer	City of Manhattan Beach, Utilities Division	Good
Storm sewer	City of Manhattan Beach, Utilities Division	Good
Domestic water	City of Manhattan Beach, Utilities Division	Good
Electric service	Southern California Edison	Good
Natural gas service	Southern California Gas	Good

Observations/Comments:

- The utilities appear to be adequate for the property. There are no unique, on-site utility systems such as emergency electrical generators, septic systems, water or waste water treatment plants, or propane gas tanks.

5.2. PARKING, PAVING, AND SIDEWALKS

The main entrance drive is located along North Redondo Avenue on the north side of the property. Additional entrance drives are located along the other adjacent public streets. The parking areas, drive aisles, and service drives are paved with asphaltic concrete. The entrance driveway aprons are paved with concrete.

Based on a physical count, parking is provided for 104 cars. The parking ratio is 1.25 spaces per thousand square feet of floor area. All of the parking stalls are located in open lots. There are six handicapped-accessible parking stalls, three of which are reserved for vans.

The sidewalks throughout the property are constructed of cast-in-place concrete. Cast-in-place concrete steps with metal handrails are located at grade changes.

The curbs and gutters are constructed of cast-in-place concrete. Surface runoff is directed to landscaped areas, which border the paved areas.



Observations/Comments:

- The property does not have a dedicated paving repair and maintenance contractor. On-site personnel maintain the paving and flatwork or a contractor is retained when required.

- The asphalt pavement is in good condition. There are no significant signs of cracks or surface deterioration. In order to maximize the pavement life, pothole patching, crack sealing, seal coating, and re-striping of the asphalt paving will be required during the assessment period. The cost of this work is included in the Replacement Reserves Report.
- The concrete pavement is in good condition. There are no significant signs of cracks or surface deterioration. Epoxy sealing of minor cracks will be required during the assessment period as part of the property management's routine maintenance program.
- The concrete curbs and sidewalks throughout the property are in good condition. Routine cleaning and maintenance will be required during the assessment period.

5.3. DRAINAGE SYSTEMS AND EROSION CONTROL

Storm water from the roofs, landscaped areas, and paved areas flows into on-site inlets and catch basins with underground piping connected to the municipal storm water management system.

Observations/Comments:

- There is no evidence of storm water runoff from adjacent properties. The storm water system appears to provide adequate runoff capacity. There is no evidence of major ponding or erosion.

5.4. TOPOGRAPHY AND LANDSCAPING

The property is generally flat in nature.

The landscaping consists of trees, shrubs, and grasses. Flower beds are located throughout the site.

Landscaped areas are irrigated by an in-ground sprinkler system, which consists of underground piping, shut-off valves, pop-up sprinkler heads, and automatic timers.

Surrounding properties are primarily residential developments.

Reinforced concrete retaining walls are located at grade changes adjacent to exterior stairwells and landscaping.



Observations/Comments:

- The topography and adjacent uses do not appear to present conditions detrimental to the property.
- The landscape materials are in good condition and will require routine maintenance during the assessment period.
- The underground irrigation system appears to be in good working order. Replacement of sprinkler heads and minor repairs will be required during the assessment period. This work is considered to be routine maintenance.
- The retaining walls are in good condition. Routine maintenance will be required during the assessment period.

5.5. GENERAL SITE IMPROVEMENTS

Property identification is provided by a monument sign adjacent to the main entrance drive. Street address numbers are displayed on the exterior elevations.

Site lighting is provided by metal street light standards. The light standards are spaced along the drive aisles throughout the parking areas. Metal pole-mounted light fixtures are located along walkways and drive aisles throughout the property.

Exterior building illumination is provided by light fixtures surface-mounted on the exterior walls.

A perimeter fence is located along the property lines. The fence is constructed of both chain link with metal posts and painted metal tube steel.

Dumpsters are located in the parking area and are placed on concrete pads. The dumpsters are enclosed by concrete partition wall and are accessed by metal gates.



Observations/Comments:

- The property and tenant identification signs are in good condition. Routine maintenance will be required during the assessment period.
- The exterior site and building light fixtures are in good condition. Routine maintenance will be required during the assessment period.
- The site fencing is in good condition and will require routine maintenance during the assessment period. Scraping and painting is considered to be routine maintenance.
- The dumpsters are owned and maintained by the refuse contractor. The dumpster enclosures, slabs, and gates are in good condition and will require routine maintenance during the assessment period.

6. BUILDING ARCHITECTURAL AND STRUCTURAL SYSTEMS

6.1. FOUNDATIONS

Based on structures of similar size, configuration, and geographic location, it is assumed that the foundations consist of conventional reinforced concrete spread footings, which support wall and column loads.

Observations/Comments:

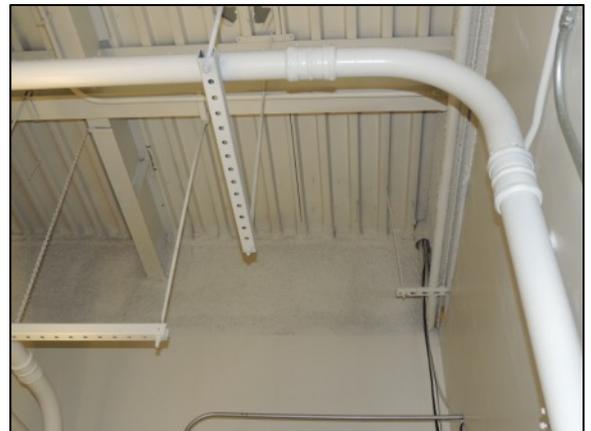
- The foundations and footings could not be directly observed during the site visit. There is no evidence of movement that would indicate excessive settlement.

6.2. SUPERSTRUCTURE

Each building has structural steel columns, which support the upper floor and roof diaphragms. The upper floors have concrete-topped metal decks and are supported by steel beams.

Observations/Comments:

- The superstructure is exposed in some locations, which allows for limited observation. Walls and floors appear to be plumb, level, and stable. There are no significant signs of deflection or movement.



6.3. ROOFING

The primary roofs are classified as flat roofs. The roofs are finished with a mineral-surfaced cap sheet over a multi-ply bituminous built-up membrane. The roofs are insulated with rigid insulation boards.

The exterior perimeter walls extend above the surface of the roofs, creating parapet walls. The roof membrane turns up the sides of the parapet walls and terminates at sheet metal copings. The roofs have sheet metal flashing elements.

Storm water is drained from the roofs by internal drains. The drains discharge to the underground storm drainage system.



Observations/Comments:

- The property does not have a dedicated roof repair and maintenance contractor. On-site personnel maintain the roofs or a contractor is retained when required.
- The roof finishes are original per the owner's representative. Information regarding roof warranties or bonds were requested but are not available.
- The roof membranes are in good condition. Based on their estimated Remaining Useful Life (RUL), the roof membranes will require replacement during the assessment period. The cost of this work is included in the Replacement Reserves Report.
- According to the owner's representative, there are active roof leaks primarily isolated to the gymnasium. The cost of this work is included in the Immediate Repairs Report.
- There is no evidence of roof deck or insulation deterioration. The roof substrate and insulation should be inspected during any future roof repair or replacement work.
- There is no evidence of fire retardant treated plywood (FRT).
- The roof flashings are in good condition and will require routine maintenance during the assessment period.
- The parapet walls and copings are in good condition and will require routine maintenance during the assessment period.
- Roof drainage appears to be adequate. Clearing and minor repair of drain system components should be performed regularly as part of the property management's routine maintenance program.
- The roof vents are in good condition and will require routine maintenance during the assessment period.

6.4. EXTERIOR WALLS

The exterior walls are clad with a metal-framed curtain wall system. The curtain wall system is anchored to the superstructure. The spandrels are clad with an exterior insulation and finish system (EIFS).

Horizontal and vertical bands of sealant are installed at glazing joints, spandrel panel joints, and at joints between finish transitions.

Building sealants (caulking) are located between dissimilar materials, at joints, and around window and door openings.

**Observations/Comments:**

- The exterior finishes are in good condition. Painting and patching will be required during the assessment period. The cost of this work is included in the Replacement Reserves Report.
- The curtain wall system is in good condition. Based on its estimated Remaining Useful Life (RUL), the curtain wall's sealant system will require replacement during the assessment period. The cost of this work is included in the Replacement Reserves Report.
- The sealant is flexible, smooth, and in good condition and will require routine maintenance during the assessment period.

6.5. EXTERIOR AND INTERIOR STAIRS

The exterior stairs are constructed of reinforced concrete. The handrails and balusters are constructed of metal.

Observations/Comments:

- The exterior stairs, balusters, and handrails are in good condition and will require routine maintenance during the assessment period.



6.6. EXTERIOR WINDOWS AND DOORS

The windows are metal-framed units with operable panes of tinted glazing.

The windows are a part of the metal-framed curtain wall system described in Section 6.4.

The service doors are painted metal doors set in metal frames. The doors have cylindrical locksets with lever handle hardware.

Observations/Comments:

- There is no evidence of window leaks or window condensation. The windows are in good condition and will require routine maintenance during the assessment period.
- The exterior doors and door hardware are in good condition and will require routine maintenance during the assessment period.



6.7. PATIO, TERRACE, AND BALCONY

Patios are located throughout the common areas and serve as an outdoor lounge and dining areas.

The upper level has exterior exit balconies providing access to the upper floor spaces. The balcony decks are sheathed with plywood and are topped with concrete. The balcony decks are finished with a liquid-applied elastomeric membrane. The balconies have painted metal guardrails.

Observations/Comments:

- The patio slabs are in good condition. There are no significant signs of movement, settlement, or cracking.
- The balcony decks are in fair to poor condition. Severe deterioration was observed on the second floor courtyard and walkways in the location above the main office. See Section 1.2.
- The balcony guardrails are in good condition and will require routine maintenance during the assessment period.



6.8. COMMON AREAS, ENTRANCES, AND CORRIDORS

Not applicable. There are no interior common areas.

7. CENTRAL MECHANICAL AND PLUMBING SYSTEMS

7.1. CENTRAL HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

There are no central HVAC systems. See Section 8.3. for descriptions and comments regarding the individual building or classroom HVAC systems.

7.2. BUILDING PLUMBING AND DOMESTIC HOT WATER

The plumbing systems include the incoming water service, the cold water piping system, and the sanitary sewer and vent system. The risers and the horizontal distribution piping are copper. The soil piping is cast iron, and the vent systems are PVC.

The water meter is located in a vault adjacent to the public street. There is one water meter.

There are no central hot water systems. See Section 8.4. for descriptions and comments regarding individual building or classroom hot water systems.



The restrooms have commercial-grade fixtures and accessories including water closets and lavatories.

Observations/Comments:

- The water and sewage piping is in good condition. These systems will require routine maintenance.
- The water pressure appears to be adequate.
- There is no evidence that the property uses polybutylene piping for the domestic water distribution system.
- The accessories and fixtures in the restrooms are in good condition. These components will require routine maintenance.

7.3. BUILDING GAS DISTRIBUTION

Gas service is supplied from the gas main on the adjacent public street. The gas meter and regulator is located along the exterior wall of the school. The gas distribution piping within each building is malleable steel (black iron).

Observations/Comments:

- The pressure and quantity of gas appear to be adequate.
- The gas meter and regulator appear to be in fair condition and will require routine maintenance during the assessment period.

Only limited observation of the gas distribution piping can be made due to hidden conditions. The gas piping appears to be in good condition.

7.4. BUILDING ELECTRICAL

The electrical supply lines run underground to a main pad-mounted transformer, which feeds an electrical meter located in the first floor electrical room of Building A.

The main transformer provides 2500 amps, with 480Y/277 volt three-phase, four-wire alternating current (AC).

There are three additional transformers, one in each electrical room at Buildings A, B and C. Each of these transformers provides 800 amps, with 208Y/120 volt three-phase, four-wire alternating current (AC).

The electrical wiring is copper, installed in metallic conduit.

Circuit breaker panels are located throughout the campus.



Observations/Comments:

- The on-site electrical systems up to the meter are owned and maintained by the respective utility company.
- The electrical service and capacity appear to be adequate for the property's demands.
- The switchgear, circuit breaker panels, and electrical meters appear to be in good condition and will require routine maintenance during the assessment period.
- The three smaller transformers at each of the buildings are in good condition. Based on their estimated Remaining Useful Life (RUL), replacement is recommended during the reserve term. The estimated cost for this work is included in the Replacement Reserves Report.

7.5. BUILDING ELEVATORS AND CONVEYING SYSTEMS

There are two hydraulic passenger elevators. The elevators were manufactured by Dover Elevators. Each elevator has a rated capacity of 2,500 pounds and a speed of 100 fpm. The elevator machinery is located in a room adjacent to the shaft.

Each elevator cab has vinyl-tiled floors, plastic-laminated wood wall panels, and recessed ceiling light fixtures. The doors are fitted with electronic safety stops. Emergency communication equipment is provided in each cab.



Observations/Comments:

- The elevators are serviced by Dover Elevators on a routine basis. The elevator machinery and controls are the originally installed system.
- The elevators appear to provide adequate service. Based on its estimated Remaining Useful Life (RUL), the elevator equipment will require replacement during the assessment period. The cost of this work is included in the Replacement Reserves Report.

- The elevators are inspected on an annual basis by the municipality, and a certificate of inspection is displayed in the elevator cabs. The inspection certificate has expired. It is common for inspections to occur behind schedule. A new inspection should be scheduled as soon as possible.
- The emergency communication equipment in the elevators appears to be functional and will require routine maintenance during the assessment period.
- The finishes in the elevator cabs appear to be in fair condition. Based on their estimated Remaining Useful Life (RUL), some of the cab finishes will require replacement during the assessment period. The cost to replace the finishes is relatively insignificant, and the work can be performed as part of the property management's routine maintenance program. The cost of this work is not included in the cost tables.

7.6. FIRE PROTECTION AND SECURITY SYSTEMS

The fire protection system consists of a wet-pipe sprinkler system, a wet standpipe with fire department hose valves and connections, portable fire extinguishers, smoke detectors, pull stations, alarm horns, and strobe light alarms. Siamese connections are located on the exterior of the buildings.

Pull stations, alarm horns, and strobe light alarms are located throughout the school. Hard-wired smoke detectors are located throughout the classrooms. Cafeteria and office buildings are equipped with illuminated exit signs. The nearest fire hydrants are located along the public streets bordering the property.



Fire sprinkler risers are located in a fire protection equipment room. The system is equipped with a back flow preventer.

A central fire alarm panel, located in Building C, monitors the pull stations and smoke detectors. The alarm panel also sounds the alarm and automatically notifies the monitoring service or the fire department in the event of trouble.

Observations/Comments:

- Information regarding fire department inspections is included in Section 3.1.
- The pull stations and alarm horns appear to be in good condition and will require routine maintenance during the assessment period.
- Smoke detector replacement is considered to be routine maintenance.
- Exit sign replacement is considered to be routine maintenance.
- The fire sprinklers appear to be in good condition and are inspected by a qualified contractor on a routine basis. The fire sprinklers will require routine maintenance during the assessment period.

- The central alarm panel appears to be in good condition and is serviced regularly by a qualified fire equipment contractor. Equipment testing is not within the scope of a Facility Condition Assessment. Based on inspection documents displayed by the panel, the central alarm panel has been inspected within the last year. Fire alarm panels contain sophisticated electronic circuits that are constantly energized. Over time, circuit components deteriorate or become obsolete. Even though an alarm panel may continue to function well past its estimated design life, replacement parts may become difficult to obtain and in many cases the alarm panel will not communicate with new devices it is supposed to monitor. Based on its estimated Remaining Useful Life (RUL), replacement is recommended during the reserve term. The estimated cost of this work is included in the Replacement Reserves Report. Note that replacement of a fire alarm panel or other components may trigger a requirement to update to a fully automatic system to comply with current codes.

8. INTERIOR SPACES

8.1. INTERIOR FINISHES

The following table generally describes the interior finishes in tenant units:

Typical Tenant Unit Finishes			
Room	Floor	Walls	Ceiling
Office Area	Carpet	Painted drywall	Suspended T-bar system with acoustical tiles
Classrooms	Carpet	Painted drywall	Suspended T-bar system with acoustical tiles
Modular Classrooms	Carpet	Wall panels	Suspended T-bar system with acoustical tiles
Cafeteria	Vinyl tile	Painted drywall	Suspended T-bar system with acoustical tiles
Kitchens	Sealed concrete	Painted drywall	Suspended T-bar system with acoustical tiles
Restrooms	Ceramic tile	Painted drywall	Painted drywall

The interior doors are painted metal doors set in metal frames. The interior doors have cylindrical locksets with lever handle hardware.

Observations/Comments:

- The interior finishes are in good condition.
- Based on the estimated Remaining Useful Life (RUL), the carpet and vinyl flooring will require replacement over the assessment period. The gymnasium's wood floor will need to be sanded and refinished over the assessment period. Repainting will be required during the assessment period. The cost of this work is included in the Replacement Reserves Report.
- The interior doors and door hardware are in good condition and will require routine maintenance during the assessment period.



8.2. COMMERCIAL KITCHEN EQUIPMENT

The kitchen includes the following major appliances, fixtures, and equipment:



Appliance	Comment
Refrigerators	Walk-in
Freezers	Walk-in
Ranges	Gas
Ovens	Gas
Griddles / Grills	No
Fryers	No
Hood	Exhaust ducted to exterior
Dishwasher	No
Microwave	Yes
Ice Machines	Yes
Steam tables	No
Work tables	Stainless steel
Shelving	Stainless steel

Observations/Comments:

- The kitchen appliances appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), some of the kitchen appliances will require replacement during the assessment period. The cost of this work is included in the Replacement Reserves Report.

8.3. HVAC

Heating is provided in the permanent classrooms by individual gas-fired furnaces. There are a total of 46 gas-fired units, with an average capacity of 90 MBH. The furnaces are located in mechanical closets within the space they serve. Most permanent classrooms are not cooled.

Heating and cooling is provided to the gymnasium, multipurpose room, kitchen, and administration office areas by rooftop package AC units, equipped with gas heating. There are a total of 16 rooftop package AC units, ranging from 5 to 17-1/2 ton capacity.

Split AC systems provide cooling to electrical rooms, elevator equipment rooms, and several classrooms by split AC units. The systems serving the classrooms are integrated into the classroom heating furnace system. There are a total of 12 split AC units, with capacities ranging from 1.5 to 5 tons.

Heat pumps provide cooling and heating to the portable classrooms. There are a total of eight heat pump units with 3.5-tons cooling capacity each. The heat pumps use R-22 as a refrigerant.

Air distribution is provided to supply air registers by ducts concealed above the ceilings. Return air grilles are located in each space. The heating and cooling system are controlled by local thermostats.

The bathrooms are ventilated by mechanical exhaust fans. Low capacity ventilation fans are mounted on the roof and are connected by concealed ducts to each ventilated space.

Observations/Comments:

- The property does not have a dedicated HVAC repair and maintenance contractor. School District personnel maintain the HVAC equipment or a contractor is retained when required.
- Maintenance personnel were contacted to provide information on maintenance practices and recent replacements. According to the maintenance personnel, most of the mechanical equipment was installed in 1998. Records of filter replacements and annual furnace maintenance have been maintained since the units were installed in 1998.
- The HVAC equipment appears to be in fair condition. Based on its estimated Remaining Useful Life (RUL), the equipment will require replacement during the assessment period. The cost of this work is included in the Replacement Reserves Report.
- The mechanical ventilation system and equipment appear to be in fair condition and will require routine maintenance during the assessment period. Equipment or component replacements can be performed as part of the property management's routine maintenance program.

8.4. PLUMBING

Most classrooms include at least one faucet. Most of these are not provided with hot water.

A gas-fired water heater with a rated input of 197,000 BTUH provides domestic hot water to the cafeteria kitchen. A gas-fired water boiler with a rated input of 720,000 BTUH provides domestic hot water to the locker room showers. Several electric point-of-use water heaters provide domestic hot water to classroom faucets throughout the school. Several electric 40-gallon water heaters provide domestic hot water to janitor closets throughout the school.

Observations and Comments

- The classroom accessories and fixtures are in good condition. These components will require routine maintenance.
- The pressure and quantity of hot water appear to be adequate.
- The gas-fired water heater and boiler appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), the water heater and boiler will require replacement during the assessment period. The cost of this work is included in the Replacement Reserves Report.
- The electric point-of-use and 40-gallon water heaters appear to be in good condition. Based on their estimated Remaining Useful Life (RUL), these water heaters will require replacement during the assessment period. The cost of this work is minor, and can be included as part of the routine maintenance requirements. This cost is not included in the Replacement Reserves Report.

8.5. ELECTRICAL

The electrical service to each classroom ranges upward from 100 amps. A circuit breaker panel inside each classroom supplies the HVAC system, receptacles, and light fixtures.

The classrooms have fluorescent light fixtures. The gymnasium has metal halide light fixtures.

Observations and Comments

- The electrical service to each classroom appears to be adequate.
- The interior light fixtures appear to be in good condition. Based on the Remaining Useful Life (RUL), the light fixtures will need to be replaced during the assessment period. The cost for this work is included in the Replacement Reserves Cost Report.

8.6. FURNITURE, FIXTURES AND EQUIPMENT (FF&E)

The school's furniture, fixtures and equipment (FF&E) consist of casework, marker and tack boards, screens and projectors, shelving, desks, tables and chairs, computers, task lights, fire extinguishers and bleachers.

The school's FF&E vary in age and are in good condition. Based on the estimated Remaining Useful Life (RUL), the FF&E will require replacement over the assessment period. This work is considered routine maintenance and is part of the school's operational expense.

The fire extinguishers are serviced annually and appear to be in good condition. The fire extinguishers were serviced and inspected within the last year.

9. OTHER STRUCTURES

A total of eight modular classrooms are located on at the south-west area of the property. The modular classrooms are pre-manufactured wood structures set on concrete slabs. The exteriors are clad with wood siding and have flat roofs.

A total of four maintenance and storage sheds are located at the south-east area of the property. The sheds are pre-manufactured wood structure set on asphalt pavement.

Observations/Comments:

- The modular classrooms are in good to fair condition and will require routine maintenance during the assessment period.
- The maintenance and storage sheds are in good to fair condition and will require routine maintenance during the assessment period.



10. APPENDICES

APPENDIX A: Photographic Record

APPENDIX B: Site Plan

APPENDIX C: Supporting Documentation

APPENDIX D: EMG Abbreviated ADA Checklist

APPENDIX E: Pre Survey Questionnaires and Documentation Request Checklist

APPENDIX F: Terminology

**APPENDIX A:
PHOTOGRAPHIC RECORD**



EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #1:	Main entry sign
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Photo #2:	Main entry
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Photo #3:	Office area
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Photo #4:	Office area
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Photo #5:	Gymnasium/Multipurpose
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Photo #6:	Classrooms
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EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #7:	Portable classrooms
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Photo #8:	Portable classrooms
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Photo #9:	Courtyard
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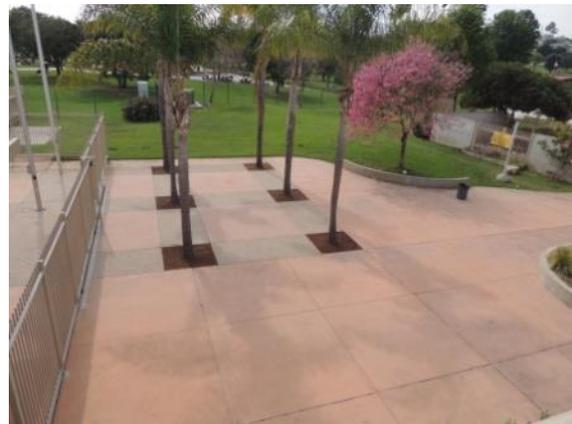


Photo #10:	Courtyard
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Photo #11:	Classroom staircase
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Photo #12:	Elevator tower
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EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #13:	Covered walkway
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Photo #14:	Turf fields
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Photo #15:	Tennis courts
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Photo #16:	ADA parking
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Photo #17:	Parking lot
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Photo #18:	Site drainage
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EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #19:	ADA ramp
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Photo #20:	Second floor balcony
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Photo #21:	Second floor balcony floor issues
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Photo #22:	Roofing
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Photo #23:	Roof drains
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Photo #24:	Roof drains
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EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #25:	Front office
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Photo #26:	Private office
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Photo #27:	Back office
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Photo #28:	Nurse's office
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Photo #29:	Library
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Photo #30:	Gymnasium
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EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #31:	Multipurpose
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Photo #32:	Stage
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Photo #33:	Serving line
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Photo #34:	Serving line
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Photo #35:	Kitchen
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Photo #36:	Kitchen pantry
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EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #37:	Production studio
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Photo #38:	Staff workroom
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Photo #39:	Science room
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Photo #40:	Classroom
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Photo #41:	Classroom
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Photo #42:	Portable Classroom
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EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #43:	Portable classroom
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Photo #44:	Gas regulator
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Photo #45:	Main transformer
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Photo #46:	Main electric meter
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Photo #47:	Typical building electrical panel
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Photo #48:	Typical classroom lighting
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EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #49:	Kitchen equipment
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Photo #50:	Typical split AC unit
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Photo #51:	Hot water boiler for locker room showers
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Photo #52:	Typical furnace unit
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Photo #53:	Typical AC unit
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Photo #54:	Typical rooftop package AC unit
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EMG PHOTOGRAPHIC RECORD

Project No.: 112851.15R-007.017

Project Name: Manhattan Beach Middle School



Photo #55:	Typical rooftop condensing units
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Photo #56:	Fume exhaust fans
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Photo #57:	Elevator
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Photo #58:	Elevator equipment room
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Photo #59:	Typical bathroom fixtures
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Photo #60:	Fire riser
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**APPENDIX B:
SITE PLAN**

Site Plan



EMG

Source:
Middle School Master Site Plan
By
3270 Inland Empire Blvd.
Ontario, CA 91764

Project Number:
112851.15R-007.017



Date: 1.16.1997

Project Name:
Manhattan Beach Middle School

Not drawn to scale. The north arrow indicator is an approximation of 0° North.

On-Site Date:
February 26, 2015

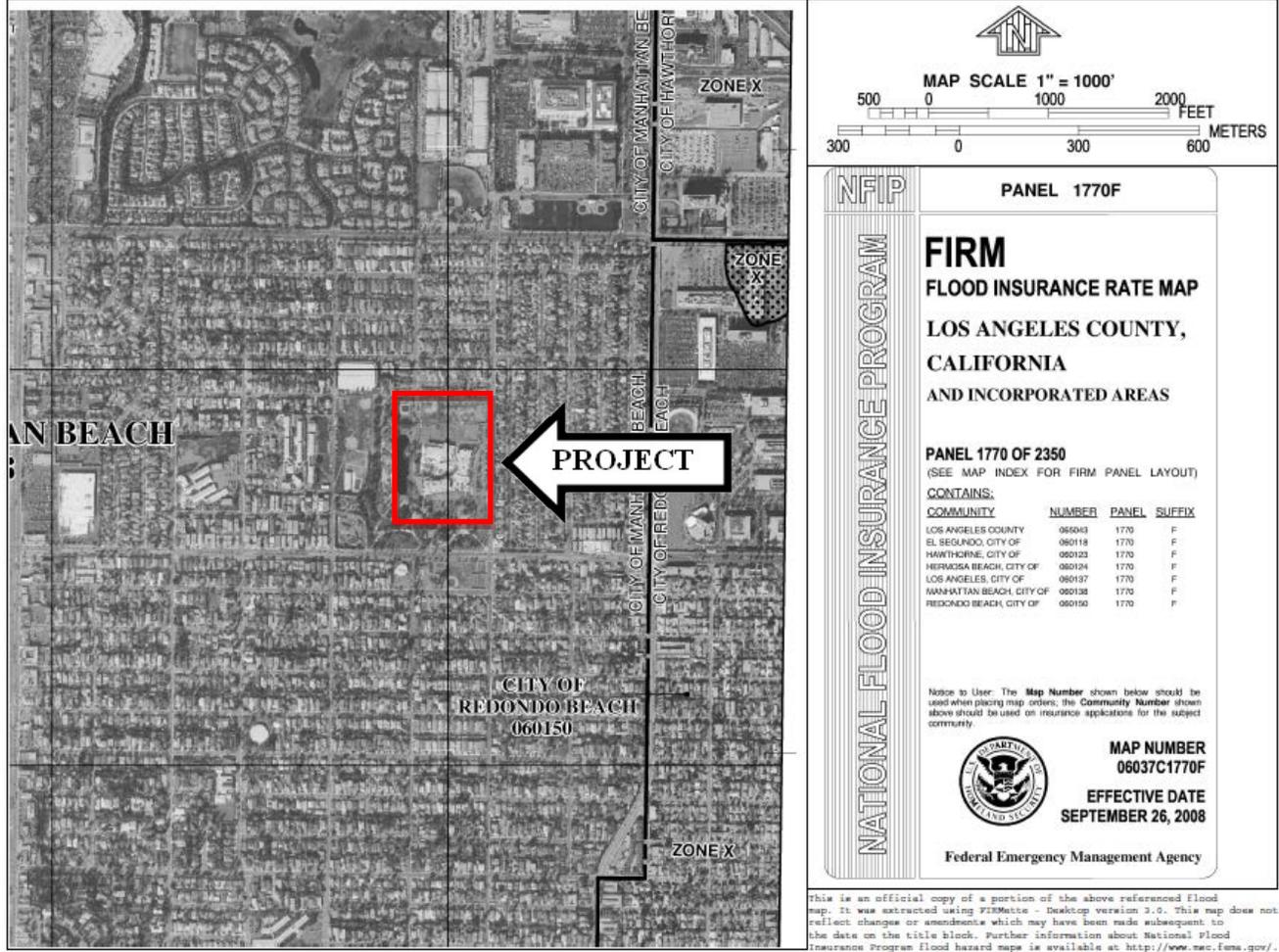
Aerial Site Plan



	Source: Google Maps www.google.com/maps	Project Number: 112851.15R-007.017
	 Not drawn to scale. The north arrow indicator is an approximation of 0° North.	Project Name: Manhattan Beach Middle School

**APPENDIX C:
SUPPORTING DOCUMENTATION**

Flood Map



	<p>Source:</p> <p>FEMA Map Number:06037C1770F Dated: September 26, 2008</p>	<p>Project Number:</p> <p>112851.15R-007.017</p>
	<p>Project Name:</p> <p>Manhattan Beach Middle School</p>	<p>On-Site Date:</p> <p>February 27, 2015</p>
	<p>Not drawn to scale. The north arrow indicator is an approximation of 0° North.</p>	



Building, Fire & Planning Request for Information

To: State of California
Division of the State Architect
DSA Los Angeles Basin Regional Office
Douglas Humphrey, Regional Manager

Date: March 27, 2015
Phone #: 213.897.3995
Fax #: 213.897.3159

Re: Manhattan Beach Middle School
1501 North Redondo Avenue
Manhattan Beach, CA 90266

EMG Project No: 112851.15R-007.017

Project Manager: Scott Lattimer

Dear Mr. Humphrey:

EMG is an engineering firm currently conducting a property condition survey of the above-referenced property. As part of the due-diligence process, we are submitting this letter to obtain information specific to the property. We request your assistance by providing us with the following information concerning the site and buildings:

- 1. Date of last BUILDING inspection
2. Date of last FIRE inspection
3. Are there any OUTSTANDING building code violations?
4. Are there any OUTSTANDING fire code violations?
5. Are there any OUTSTANDING zoning code violations?
6. How often is the subject property inspected?
7. What is the zoning designation for the subject property?
8. Is the subject property, in general, a conforming use?
9. Is the original Certificate of Occupancy or Permit on file?



**Building, Fire & Planning
Request for Information**

Responses may be faxed directly to our office, at 410.785.6220, or mailed to our corporate offices:

EMG
Attn: Mark Surdam, Senior Engineering Consultant
222 Schilling Circle, Suite 275
Hunt Valley, Maryland 21031

If **outstanding** violations are on file, please provide copies of the reports/citations. Please note the EMG Project Number on all correspondence. If you need additional information to complete this request, please contact me at 800.733.0660. Thank you for your prompt attention to this matter.

Sincerely,

Scott Lattimer
Project Manager



Fire Department:
Request for Information

To: Manhattan Beach Fire Department
Fire Prevention Bureau
Chief Robert Espinosa

Date: March 27, 2015
Phone #: 310.802.5206
Fax #: 310.802.5201

Re: Manhattan Beach Middle School
1501 North Redondo Avenue
Manhattan Beach, CA 90266

EMG Project No: 112851.15R-007.017

Project Manager: Scott Lattimer

Dear Chief Espinosa:

EMG is an engineering firm currently conducting a property condition survey of the above-referenced property. As part of the due-diligence process, we are submitting this letter to obtain information specific to the property. We request your assistance by providing us with the following information concerning the site and buildings:

- 1. Date of last fire department inspection ____/____/____
mo. day year
- 2. Are there any OUTSTANDING fire code violations? YES / NO
(circle one)
- 3. How often is the subject property inspected? annually / biennially / other
(circle one)

Responses may be faxed directly to our office, at 410.785.6220, or mailed to our corporate offices:

EMG
Attn: Mark Surdam, Senior Engineering Consultant
222 Schilling Circle, Suite 275
Hunt Valley, Maryland 21031

If **outstanding** violations are on file, please provide copies of the reports/citations. Please note the EMG Project Number on all correspondence. If you need additional information to complete this request, please contact me at 800.733.0660. Thank you for your prompt attention to this matter.

Sincerely,

Scott Lattimer
Project Manager

**APPENDIX D:
EMG ABBREVIATED ADA CHECKLIST**

Property Name: Manhattan Beach Middle School

Date: March 19, 2015

Project Number: 112851.15R-007.017

EMG Abbreviated ADA Checklist					
	Building History	Yes	No	N/A	Comments
1.	Has the management previously completed an ADA review?		✓		Not disclosed
2.	Have any ADA improvements been made to the property?	✓			
3.	Does a Barrier Removal Plan exist for the property?		✓		Not disclosed
4.	Has the Barrier Removal Plan been reviewed/approved by an arms-length third party such as an engineering firm, architectural firm, building department, other agencies, etc.?			✓	
5.	Has building ownership or management received any ADA related complaints that have not been resolved?		✓		Not disclosed
6.	Is any litigation pending related to ADA issues?		✓		Not disclosed
	Parking	Yes	No	N/A	Comments
1.	Are there sufficient parking spaces with respect to the total number of reported spaces?	✓			
2.	Are there sufficient van-accessible parking spaces available (96" wide/ 96" aisle for van)?	✓			
3.	Are accessible spaces marked with the International Symbol of Accessibility? Are there signs reading "Van Accessible" at van spaces?	✓			
4.	Is there at least one accessible route provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading zones, if provided, and public streets and sidewalks?	✓			
5.	Do curbs on the accessible route have depressed, ramped curb cuts at drives, paths, and drop-offs?	✓			
6.	Does signage exist directing you to accessible parking and an accessible building entrance?	✓			



	Ramps	Yes	No	N/A	Comments
1.	If there is a ramp from parking to an accessible building entrance, does it meet slope requirements? (1:12)	✓			
2.	Are ramps longer than 6 ft complete with railings on both sides?	✓			
3.	Is the width between railings at least 36 inches?	✓			
4.	Is there a level landing for every 30 ft horizontal length of ramp, at the top and at the bottom of ramps and switchbacks?	✓			
	Entrances/Exits	Yes	No	N/A	Comments
1.	Is the main accessible entrance doorway at least 32 inches wide?	✓			
2.	If the main entrance is inaccessible, are there alternate accessible entrances?			✓	
3.	Can the alternate accessible entrance be used independently?			✓	
4.	Is the door hardware easy to operate (lever/push type hardware, no twisting required, and not higher than 48 inches above the floor)?	✓			
5.	Are main entry doors other than revolving door available?	✓			
6.	If there are two main doors in series, is the minimum space between the doors 48 inches plus the width of any door swinging into the space?			✓	
	Paths of Travel	Yes	No	N/A	Comments
1.	Is the main path of travel free of obstruction and wide enough for a wheelchair (at least 36 inches wide)?	✓			
2.	Does a visual scan of the main path reveal any obstacles (phones, fountains, etc.) that protrude more than 4 inches into walkways or corridors?		✓		
3.	Are floor surfaces firm, stable, and slip resistant (carpets wheelchair friendly)?	✓			
4.	Is at least one wheelchair-accessible public telephone available?			✓	
5.	Are wheelchair-accessible facilities (toilet rooms, exits, etc.) identified with signage?	✓			
6.	Is there a path of travel that does not require the use of stairs?	✓			

	Paths of Travel	Yes	No	N/A	Comments
7.	If audible fire alarms are present, are visual alarms (strobe light alarms) also installed in all common areas?	✓			
	Elevators	Yes	No	N/A	Comments
1.	Do the call buttons have visual signals to indicate when a call is registered and answered?	✓			
2.	Are there visual and audible signals inside cars indicating floor change?	✓			
3.	Are there standard raised and Braille marking on both jambs of each host way entrance?	✓			
4.	Do elevator doors have a reopening device that will stop and reopen a car door if an object or a person obstructs the door?	✓			
5.	Do elevator lobbies have visual and audible indicators of car arrival?	✓			
6.	Does the elevator interior provide sufficient wheelchair turning area (51" x 68")?	✓			
7.	Are elevator controls low enough to be reached from a wheelchair (48 inches front approach/54 inches side approach)?	✓			
8.	Are elevator control buttons designated by Braille and by raised standard alphabet characters (mounted to the left of the button)?	✓			
9.	If a two-way emergency communication system is provided within the elevator cab, is it usable without voice communication?	✓			
	Restrooms	Yes	No	N/A	Comments
1.	Are common area public restrooms located on an accessible route?	✓			
2.	Are pull handles push/pull or lever type?	✓			
3.	Are there audible and visual fire alarm devices in the toilet rooms?	✓			
4.	Are corridor access doors wheelchair-accessible (at least 32 inches wide)?	✓			
5.	Are public restrooms large enough to accommodate a wheelchair turnaround (60" turning diameter)?	✓			
6.	In unisex toilet rooms, are there safety alarms with pull cords?			✓	
7.	Are stall doors wheelchair accessible (at least 32" wide)?	✓			



	Restrooms	Yes	No	N/A	Comments
8.	Are grab bars provided in toilet stalls?	✓			
9.	Are sinks provided with clearance for a wheelchair to roll under (29" clearance)?	✓			
10.	Are sink handles operable with one hand without grasping, pinching or twisting?	✓			
11.	Are exposed pipes under sink sufficiently insulated against contact?		✓		Additional pipe wrap required
12.	Are soap dispensers, towel, etc. reachable (48" from floor for frontal approach, 54" for side approach)?	✓			
13.	Is the base of the mirror no more than 40" from the floor?	✓			



**APPENDIX E:
PRE SURVEY QUESTIONNAIRES AND
DOCUMENTATION REQUEST CHECKLIST**

PHYSICAL NEEDS ASSESSMENT: PRE-SURVEY QUESTIONNAIRE

This questionnaire must be completed by the property owner, the owner's designated representative, or someone knowledgeable about the subject property. **The completed form must be presented to EMG's Field Observer prior to or on the day of the site visit.** If the form is not completed, EMG's Project Manager will require **additional time** during the on-site visit with such a knowledgeable person in order to complete the questionnaire. During the site visit, EMG's Field Observer may ask for details associated with selected questions. This questionnaire will be utilized as an exhibit in EMG's final Property Condition Report.

Name of person completing questionnaire: _____

Association with property: _____

Length of association with property: _____

Date Completed: _____

Phone Number: _____

Property Name: _____

MBUSD MANHATTAN BEACH MIDDLE SCHOOL

EMG Project Number: _____

Directions: Please answer all questions to the best of your knowledge and in good faith. Please provide additional details in the Comments column, or backup documentation for any Yes responses.

INSPECTIONS		DATE LAST INSPECTED	LIST ANY OUTSTANDING REPAIRS REQUIRED
1	Elevators	Last year	
2	HVAC, Mechanical, Electric, Plumbing	as needed	
3	Life-Safety/Fire	annually	
4	Roofs	as needed	
QUESTION		RESPONSE	
5	List any major capital improvement within the last three years.	added 3 portables	
6	List any major capital expenditures planned for the next year.	install AC units all classrooms	
7	What is the age of the roof(s)?	17 years	
8	What building systems (HVAC, roof, interior/exterior finishes, paving, etc.) are the responsibilities of the tenant to maintain and replace?	NONE	

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", Unk indicates "Unknown")						
QUESTION		RESPONSE				COMMENTS
		Y	N	Unk	NA	
9	Are there any unresolved building, fire, or zoning code issues?		✓			
10	Are there any "down" or unusable units?		✓			
11	Are there any problems with erosion, stormwater drainage or areas of paving that do not drain?		✓			
12	Is the property served by a private water well?		✓			
13	Is the property served by a private septic system or other waste treatment systems?		✓			
14	Are there any problems with foundations or structures?		✓			
15	Is there any water infiltration in basements or crawl spaces?		✓			
16	Are there any wall, or window leaks?		✓			
17	Are there any roof leaks?	✓				System needs roofing + gutters
18	Is the roofing covered by a warranty or bond?		✓			
19	Are there any poorly insulated areas?		✓			
20	Is Fire Retardant Treated (FRT) plywood used?		✓			
21	Is exterior insulation and finish system (EIFS) or a synthetic stucco finish used?		✓			
22	Are there any problems with the utilities, such as inadequate capacities?		✓			
23	Are there any problems with the landscape irrigation systems?		✓			
24	Has a termite/wood boring insect inspection been performed within the last year?		✓			
25	Do any of the HVAC systems use R-11, 12, or 22 refrigerants?		✓			
26	Has any part of the property ever contained visible suspect mold growth?		✓			

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", Unk indicates "Unknown")						
QUESTION		RESPONSE				COMMENTS
		Y	N	Unk	NA	
27	Is there a mold Operations and Maintenance Plan?		✓			
28	Have there been indoor air quality or mold related complaints from tenants?		✓			
29	Is polybutylene piping used?		✓			
30	Are there any plumbing leaks or water pressure problems?		✓			
31	Are there any leaks or pressure problems with natural gas service?		✓			
32	Does any part of the electrical system use aluminum wiring?		✓			
33	Do Residential units have a less than 60-Amp service?				✓	
34	Do Commercial units have less than 200-Amp service?				✓	
35	Are there any recalled fire sprinkler heads (Star, GEM, Central, Omega)?		✓			
36	Is there any pending litigation concerning the property?		✓			
37	Has the management previously completed an ADA review?	✓				Denying install of portables
38	Have any ADA improvements been made to the property?	✓				ADA Parking upgrade + renovated domes
39	Does a Barrier Removal Plan exist for the property?			✓		
40	Has the Barrier Removal Plan been approved by an arms-length third party?			✓		
41	Has building ownership or management received any ADA related complaints?		✓			
42	Does elevator equipment require upgrades to meet ADA standards?		✓			
43	Are there any problems with exterior lighting?		✓			
44	Are there any other significant issues/hazards with the property?		✓			

Mark the column corresponding to the appropriate response. Please provide additional details in the Comments column, or backup documentation for any Yes responses. (NA indicates "Not Applicable", Unk indicates "Unknown")

QUESTION		RESPONSE				COMMENTS
		Y	N	Unk	NA	
45	Are there any unresolved construction defects at the property?		✓			

Signature of person interviewed or completing form

Date

REQUEST FOR DOCUMENTATION

On the day of the site visit, provide EMG's Field Observer the documents listed below. Signify which documents will be copied, available for review at the site, not available, or not applicable by placing a check mark in the appropriate columns. Also provide this completed checklist.

		Copies Provided	Reviewed at Site	Not Available	Not Applicable
1	Maintenance Contractor List. Provide the company name, phone number, and contact person of all maintenance contractors who serve the property, such as mechanical contractors, roof contractors, fire sprinkler and fire alarm testing contractors, and elevator contractors.	✓			
2	Construction Documents (Blueprints). Provide all available construction documents for the original construction of the building or for any tenant improvement work or other recent construction work.				
3	Site plan. Provide a site plan, preferably 8 1/2" X 11", which depicts the arrangement of buildings, roads, parking stalls, and other site features.				
4	Certificates of Occupancy and original Building Permits.				
5	Tenant List. For commercial properties, provide a tenant list, which identifies the names of each tenant, vacant tenant units, the floor area of each tenant space, and the gross and net leasable area of the building(s).				
6	Apartment Unit Summary. For apartment properties, provide a summary of the apartment unit types and quantities, including the floor area of each apartment unit as measured in square feet.				
7	Hotel and Nursing Home Room Summary. For hotel or nursing home properties, provide a summary of the room types and room type quantities, including the floor area of each room type.				
8	Occupancy Percentage. Provide the current occupancy percentage and typical turnover rate records (for commercial and apartment properties).				
9	Inspection Documents and Certificates. Fire, building, and health department inspection reports and elevator inspection certificates.				
10	Warranties. Roof and HVAC warranties, or any other similar relevant documents.				
11	Utility Companies. The names of the local utility companies which serve the property, including the water, sewer, electric, gas, and phone companies.				
12	Capital Improvement Summary. A summary of recent (over the last 5 years) capital improvement work which describes the scope of the work and the cost of the improvements.				
13	Proposed Improvements. Pending contracts or proposals for future improvements.				
14	Historical Costs. Costs for repairs, improvements, and replacements.				
15	Records. Records of system and material ages (roof, MEP, paving, finishes, furnishings).				
16	Brochures or Marketing Information.				
17	Appraisal, either current or previously prepared.				
18	Previous reports pertaining to the physical condition of property.				
19	ADA survey and status of improvements implemented.				
20	Litigation. Current / pending litigation related to property condition.				



**APPENDIX F:
TERMINOLOGY**

The following are definitions of terms utilized in this report.

TERMINOLOGY	
Actual Knowledge	Information or observations known first hand by EMG.
ADA	The Americans with Disabilities Act
Ancillary Structures	Structures that are not the primary improvements of the Property but which may have been constructed to provide support uses.
Appropriate Inquiry	A requests for information from appropriate entity conducted by a Freedom of Information Letter (FOIL), verbal request, or by written request made either by fax, electronic mail, or mail. A good-faith one time effort conducted to obtain the information in light of the time constraints to deliver the FCA.
ASTM	American Society for Testing and Materials
Base Building	That portion of the building (common area) and its systems that are not typically subject to improvements to suit tenant requirements.
Baseline	A minimum scope level of observation, inquiry, research, documentation review, and cost estimating for conducting a Facility Condition Assessment as normally conducted by EMG.
BOMA	Building Owners and Managers Association
Building	Referring to the primary building or buildings on the Property, which are within the scope of the FCA as defined under Section 2.
Building Codes	A compilation of rules adopted by the municipal, county and/or state governments having jurisdiction over the Property that govern the property's design and/or construction of buildings.
Building Department Records	Information concerning the Property's compliance with applicable Building, Fire and Zoning Codes that is readily available for use by EMG within the time frame required for production of the Facility Condition Assessment.
Building Systems	Interacting or interdependent components that comprise a building such as structural, roofing, side wall, plumbing, HVAC, water, sanitary sewer and electrical systems.
BUR	Built Up Roof
Client	The entity identified on the cover of this document as the Client.
Commercial Real Estate	Real property used for industrial, retail, office, agricultural, other commercial, medical, or educational purposes, and property used for residential purposes that has more than four (4) residential dwelling units.
Commercial Real Estate Transaction	The transfer of either a mortgage, lease, or deed; the re-financing of a commercial property by an existing mortgagee; or the transferring of an equity interest in commercial property.
Component	A piece of equipment or element in its entirety that is part of a system.
Consultant	The entity or individual that prepares the Facility Condition Assessment and that is responsible for the observance of, and reporting on the physical condition of Commercial Property.
Dangerous or Adverse Conditions	Situations which may pose a threat or possible injury to the Project Manager, or those situations which may require the use of special protective clothing, safety equipment, access equipment, or any precautionary measures.
Deferred Maintenance	Deficiencies that result from postponed maintenance, or repairs that have been put off until a later time and that require repair or replacement to an acceptable condition relative to the age of the system or property.
Dismantle	To take apart; disassemble; tear down any component, device or piece of equipment that is bolted, screwed, secured, or fastened by other means.
DWV	Drainage Waste Ventilation



TERMINOLOGY	
EIFS	Exterior Insulation and Finish System
EMS	Energy Management System
Engineering	Analysis or design work requiring extensive formal education, preparation and experience in the use of mathematics, chemistry, physics, and the engineering sciences as provided by a Professional Engineer licensed to practice engineering by any state of the 50 states.
Expected Useful Life (EUL)	The average amount of time in years that a system or component is estimated to function when installed new.
FEMA	Federal Emergency Management Agency
FFHA	Federal Fair Housing Act
Fire Department Records	Information generated or acquired by the Fire Department having jurisdiction over the Property, and that is readily available to EMG within the time frame required for production of the FCA.
FIRM	Flood Insurance Rate Maps
FM	Factory Mutual
FOIA	U.S. Freedom of Information Act (5 USC 552 et seq.)
FOIL	Freedom of Information Letter
FRT	Fire Retardant Treated
Guide	A series of options or instructions that do not recommend a specific course of action.
His	Referring to either a male or female Project Manager, or individuals interviewed by the Project Manager.
HVAC	Heating, Ventilating and Air Conditioning
IAQ	Indoor Air Quality
Immediate Repairs	Physical deficiencies that require immediate action as a result of: (i) existing or potentially material unsafe conditions, (ii) significant negative conditions impacting tenancy/marketability, (iii) material building code violations, or (iv) poor or deteriorated condition of critical element or system, or (v) a condition that if left "as is", with an extensive delay in addressing same, has the potential to result in or contribute to critical element or system failure within one (1) year.
Interviews	Interrogatory with those knowledgeable about the Property.
Material	Having significant importance or great consequence to the asset's intended use or physical condition.
MEP	Mechanical, Electrical, and Plumbing
NFPA	National Fire Protection Association
Observations	The results of the Project Manager's Walk-through Survey.
Observe	The act of conducting a visual, unaided survey of items, systems or conditions that are readily accessible and easily visible on a given day as a result of the Project Manager's walk-through.
Obvious	That which is plain or evident; a condition that is readily accessible and can be easily seen by the Project Manager as a result of his Walk-through without the removal of materials, moving of chattel, or the aid of any instrument, device, or equipment.
Owner	The entity holding the deed to the Property that is the subject of the FCA.
FCA	Facility Condition Assessment, the Purpose and Scope of which is defined in Section 2. of this report.



TERMINOLOGY	
Physical Deficiency	<p>Patent, conspicuous defects, or significant deferred maintenance of the Property's material systems, components, or equipment as observed during the Project Manager's Walk-through Survey.</p> <p>Material systems, components, or equipment that are approaching, have realized, or have exceeded their typical Expected Useful Life (EUL); or, that have exceeded their useful life result of abuse, excessive wear and tear, exposure to the elements, or lack of proper or adequate maintenance.</p> <p>This definition specifically excludes deficiencies that may be remedied with routine maintenance, miscellaneous repairs, normal operating maintenance, and conditions that do not present a material deficiency to the Property.</p>
PML	Probable Maximum Loss
Practically Reviewable	Information that is practically reviewable means that the information is provided by the source in a manner and form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data.
Practice	A definitive procedure for performing one or more specific operations or functions that does not produce a test result.
Primary Improvements	The site and building improvements that are of fundamental importance with respect to the Property.
Project Manager	The individual Professional Engineer or Registered Architect having a general, well rounded knowledge of all pertinent site and building systems and components that conducts the on site visit and walk-through observation.
Property	The site and building improvements, which are specifically within the scope of the FCA to be prepared in accordance with the agreement between the Client and EMG.
Readily Accessible	Those areas of the Property that are promptly made available for observation by the Project Manager without the removal of materials or chattel, or the aid of any instrument, device, or equipment at the time of the Walk-through Survey.
Reasonably Ascertainable	Information that is publicly available, provided to EMG's offices from either its source or an information research/retrieval concern, practically reviewable, and available at a nominal cost for either retrieval, reproduction or forwarding.
Recreational Facilities	Spas, saunas, steam baths, swimming pools, tennis courts, playground equipment, and other exercise, entertainment, or athletic facilities.
Remaining Useful Life (RUL)	<p>The consultant's professional opinion of the number of years before a system or component will require replacement or reconditioning. The estimate is based upon observation, available maintenance records, and accepted EUL's for similar items or systems.</p> <p>Inclement weather, exposure to the elements, demand on the system, quality of installation, extent of use, and the degree and quality of preventive maintenance exercised are all factors that could impact the RUL of a system or component. As a result, a system or component may have an effective age greater or less than its actual age. The RUL may be greater or less than its Expected Useful Life (EUL) less actual age.</p>
Replacement Costs	Costs to replace the system or component "in kind" based on Invoices or Bid Documents provided by the current owner or the client, construction costs developed by construction resources such as <i>Means</i> and <i>Dodge</i> , EMG's experience with past costs for similar properties, or the current owner's historical incurred costs.
Replacement Reserves	Major recurring probable expenditures, which are neither commonly classified as an operation or maintenance expense. Replacement Reserves are reasonably predictable both in terms of frequency and cost. However, they may also include components or systems that have an indeterminable life but nonetheless have a potential liability for failure within the reserve term.
RTU	Rooftop Unit



TERMINOLOGY	
RUL	Remaining Useful Life (See definition)
Short Term Repair Costs	Opinions of Costs to remedy Physical Deficiencies, such as deferred maintenance, that may not warrant immediate attention, but requiring repairs or replacements that should be undertaken on a priority basis, taking precedence over routine preventive maintenance work within a zero to one year time frame. Included are such Physical Deficiencies resulting from improper design, faulty installation and/or substandard quality of original system or materials. Components or systems that have realized or exceeded their Expected Useful Life (EUL) that may require replacement to be implemented within zero to one-year time frame are also included.
Shut-Down	Equipment or systems that are not operating at the time of the Project Manager's Walk-through Survey. Equipment or systems may be considered shutdown if it is not in operation as a result of seasonal temperatures.
Significant	Important, material, and/or serious.
Site Visit	The visit to the property by EMG's Project Manager including walk-through visual observations of the Property, interviews of available project personnel and tenants (if appropriate), review of available documents and interviews of available municipal personnel at municipal offices, all in accordance with the agreement for the Facility Condition Assessment.
Specialty Consultants	Practitioners in the fields of engineering, architecture; or, building system mechanics, specialized service personnel or other specialized individuals that have experience in the maintenance and repair of a particular building component, equipment, or system that have acquired detailed, specialized knowledge in the design, assessment, operation, repair, or installation of the particular component, equipment, or system.
Structural Component	A component of the building, which supports non-variable forces or weights (dead loads) and variable forces or weights (live loads).
Suggested Remedy	A preliminary opinion as to a course of action to remedy or repair a physical deficiency. There may be alternate methods that may be more commensurate with the Client's requirements. Further investigation might make other schemes more appropriate or the suggested remedy unworkable. The suggested remedy may be to conduct further research or testing, or to employ Specialty Consultants to gain a better understanding of the cause, extent of a deficiency (whether observed or highly probable), and the appropriate remedy.
Survey	Observations as the result of a walk-through scan or reconnaissance to obtain information by EMG of the Property's readily accessible and easily visible components or systems.
System	A combination of interacting or interdependent components assembled to carry out one or more functions.
Technically Exhaustive	The use of measurements, instruments, testing, calculations, exploratory probing or discover, and/or other means to discover and/or troubleshoot Physical Deficiencies, develop scientific or Engineering findings, conclusions, and recommendations. Such efforts are not part of this report unless specifically called for under Section 2.2.
Term	Reserve Term: The number of years that Replacement Reserves are projected for as specified in the Replacement Reserves Cost Estimate.
Timely Access	Entry provided to the Project Manager at the time of his site visit.
UST	Underground Storage Tank



TERMINOLOGY

Walk-through Survey	The Project Manager's site visit of the Property consisting of his visual reconnaissance and scan of readily accessible and easily visible components and systems. This definition connotes that such a survey should not be considered in depth, and is to be conducted without the aid of special protective clothing, exploratory probing, removal of materials, testing, or the use of special equipment such as ladders, scaffolding, binoculars, moisture meters, air flow meters, or metering/testing equipment or devices of any kind. It is literally the Project Manager's walk of the Property and observations.
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