GENERAL NOTES

1. ALL BURRED ENDS OF (WATER AND GAS) PIPING AND TUBING SHALL BE REAMED TO THE FULL BORE OF THE PIPE OR TUBE AND ALL CHIPS SHALL BE REMOVED (SEE CALIFORNIA PLUMBING CODE, 2007 EDITION, SECTION 310.3). ADDITIONALLY, TOOLS USED IN CUTTING OR REAMING SHALL BE KEPT FREE FROM OIL OR GREASE AND WHERE SUCH CONTAMINATION HAS OCCURRED, THE ITEMS AFFECTED SHALL BE REWORKED AND RINSED.

2. OFFSET PIPES AS REQUIRED TO CLEAR MECHANICAL DUCTWORK AND STRUCTURAL FOOTINGS.

3. FURNISH AND INSTALL A SHUT-OFF VALVE, PLUG COCK OR STOP AT EACH PIECE OF EQUIPMENT FURNISHED BY OTHERS REQUIRING WASTE & WATER.

4. VENT THRU ROOF SHALL BE INSTALLED AT LEAST 10'-0" AWAY FROM ANY FRESH AIR INTAKE OR TERMINATED 3'-0" ABOVE ANY FRESH AIR INTAKE AND COORDINATE WITH MECHANICAL DRAWINGS.

5. SEAL AND FLASH ALL PENETRATIONS THROUGH ROOF WATERTIGHT. FLASHING SHALL BE ELMDOR / STONEMAN 900 SERIES, 4 POUND SEAMLESS LEAD WITH 6" SKIRT. INSTALL PER MANUFACTURERS RECOMMENDATIONS AND FLASH PER ROOFING MATERIAL MANUFACTURERS RECOMMENDATIONS.

6. PROVIDE AND INSTALL NEW TEES AND WYES AT EACH WATER OR SEWER POINT OF CONNECTION.

7. ALL PIPE BRANCH CONNECTIONS SHALL OFFSET. NO "BULL HEAD" CONNECTIONS WILL BE ALLOWED.

8. CLEANOUT ALL WASTE, VENT AND SOIL PIPING UPON COMPLETION OF WORK BY ALL TRADES.

9. ALL VALVES SHALL BE ACCESSIBLE, PROVIDE ACCESS PANELS FOR ALL VALVES IN WALL AND IN HARD CEILING. VALVES SHALL BE POSITIONED SO THAT THE DOOR IN THE ACCESS PANEL CAN BE CLOSED WITH THE VALVE HANDLE IN ANY POSITION.

10. BEFORE COMMENCEMENT OF WORK, CONTRACTOR SHALL VERIFY EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF UTILITIES AND PIPING AND SHALL IMMEDIATELY NOTIFY ARCHITECT OF ANY DISCREPANCIES.

11. INSTALL ALL PLUMBING TO AVOID INTERFERENCE WITH OTHER UTILITIES, ELECTRICAL, MECHANICAL EQUIPMENT, DUCTS AND STRUCTURAL FRAMING. COORDINATE WORK WITH ALL TRADES.

12. ALL WATER OUTLETS FOR FIXTURES AND EQUIPMENT SHALL BE PROVIDED WITH A LINE SIZE SHUT-OFF VALVE OR STOP, TYPE AS SPECIFIED.

13. THE CONTRACTOR SHALL RECORD ON 'RECORD' DRAWINGS ALL SIZES, LOCATIONS, MATERIALS, DEPTH OF BURIED PIPING, PLUGGED TEES, FUTURE CONNECTIONS, AND ALL CHANGES IN PIPING FROM THAT SHOWN ON DRAWINGS AND SUBMIT SUCH SET TO ARCHITECT AT COMPLETION OF WORK.

14. MINIMUM COVER OVER PIPE SHALL BE 1'-6" UNDER BUILDING SLAB AND 3'-0" AT GRADE, UNLESS NOTED OTHERWISE.

15. ALL PIPING SHALL BE SUPPORTED FROM STRUCTURAL MEMBERS ONLY AND NOT FROM ROOFING (DECKING OR BUILT-UP).

16. UNDERGROUND CAST IRON SOIL TYPE WATER SERVICE CAST OR DUCTILE IRON PIPE. VALVES AND FITTINGS SHALL BE ENCASED IN A 8 MIL POLYETHYLENE TUBE OR WRAPPED PER AWWA STANDARD C105 OR ANSI 21.5 ISOLATE CAST OR DUCTILE IRON PIPING FROM OTHER NON-CATHODICALLY PROTECTED PIPING, IF SOIL IS CORROSIVE TO PIPING.

17. WHERE METALLIC PIPING PENETRATES CONCRETE STRUCTURE, SUCH AS FLOOR OR WALL, RUBBER SEALS, OR OTHER DIELECTRIC MATERIAL SHALL BE USED TO PREVENT PIPE CONTACT WITH CONCRETE AND REINFORCING STEEL.

18. ON ANY TYPE OF UNDERGROUND PIPING, BARE STEEL APPURTENANCES SUCH AS BOLTS, JOINTS, FLANGES, FITTINGS, HARNESS, OR FLEXIBLE COUPLINGS SHOULD BE COATED WITH A COAL TAR OR RUBBER BASED PLASTIC AFTER ASSEMBLY.

19. ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS AND THOSE SHOWN ON THE RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE CONTRACTOR BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, AND TO HOLD UNDERSIGN HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED OR SHOWN ON RECORDS EXAMINED. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURE TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED.

20. ALL UNDERGROUND PIPING ADJACENT TO OR PENETRATE STRUCTURAL FOUNDATIONS SHALL COMPLY TO STRUCTURAL DETAIL(S).

21. CONTRACTOR SHALL INSTALL WALL CLEANOUTS TO ALL URINALS, SINKS, LAVATORIES AND DRINKING FOUNTAINS.

22. CONTRACTOR SHALL VERIFY EXACT LOCATION OF EXISTING LINES, LATERALS AND WYES BEFORE STARTING. SHOULD IT BE NECESSARY TO RE-ROUTE LINES DUE TO CONDITIONS FOUND ON THE SITE OR IF INDICATED P.O.C. CANNOT BE MADE TO THE LINES AS FOUND, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT BEFORE INSTALLING ANY WORK WHICH MAY BE AFFECTED.

23. FOR INFORMATION AND EXACT LOCATION OF MECHANICAL UNITS SEE MECHANICAL DRAWINGS.

24. ALL EXISTING PLUMBING LINES SHOWN ARE TAKEN FROM EXISTING DRAWINGS WHICH INDICATE APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS TO INCLUDE IN HIS BID TO PERFORM FIELD INVESTIGATION TO PIN POINT THE EXACT LOCATION AS REQUIRED FOR DEMOLITION OR MAKING NEW CONNECTION.

25. INTERRUPTION OF EXISTING SERVICES: THE CONTRACTOR'S ATTENTION IS CALLED TO THE PRESENCE OF EXISTING, CONDUIT, PIPING, ETC. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER AND APPROVED REPAIR OF ANY AND ALL DAMAGE CAUSED BY HIM OR HIS WORK TO EXISTING BUILDINGS, CONDUIT, PIPING, PLANTS, ETC. NEW WORK AND INSTALLATIONS SHALL BE MADE WITH MINIMAL INTERRUPTIONS OF SERVICES TO EXISTING BUILDINGS. ANY INTERRUPTIONS REQUIRED SHALL BE SCHEDULED TO MINIMIZE INCONVENIENCE TO THE OWNER, AND AT TIMES AS APPROVED IN ADVANCE BY THE ARCHITECT. NEW WORK AND INSTALLATIONS SHALL NOT IMPAIR THE PROPER FUNCTIONING OF THE EXISTING FACILITY. THE COMPLETED PROJECT SHALL BE A PROPERLY FUNCTIONING ENTITY THROUGHOUT. FURNISH ALL LABOR AND MATERIALS REQUIRED TO RELOCATE, REMOVE, REINSTALL, RECONNECT, REPLACE, ETC., ANY EXISTING PIPING TO ACCOMMODATE THE WORK. MATERIALS SHALL BE AS SPECIFIED UNLESS OTHERWISE APPROVED IN WRITING BY THE ARCHITECT. CONTRACTOR SHALL INCLUDE IN HIS BID ANY EXTRA WORK REQUIRED TO MINIMIZE SHUTDOWN TIME.

26. WHERE EQUIPMENT IS NOTED AND/OR SHOWN TO BE REMOVED AND/OR RELOCATED, THIS REMOVAL AND/OR RELOCATION SHALL INCLUDE ALL PIPING, SUPPORT, TRIM, ETC. CONSIDERED TO BE A FUNCTIONING PART OF THE ITEM.

27. ALL EXISTING PIPING AND EQUIPMENT THAT IS REMOVED SHALL BE DISPOSED OF AS DIRECTED BY THE OWNER'S REPRESENTIVE.

28. REMOVE ALL UNUSED PIPING BACK TO SOURCE AND CAP OR PLUG.

29. UNLESS SPECIFICALLY SHOWN ON THESE PLANS NO STRUCTURAL MEMBER SHALL BE CUT, NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT.

30. ALL PLUMBING WORK SHALL COMPLY WITH T24 PART 5 CCR-2007

31. PROVIDE AND INSTALL FLAME-RETARDANT POLYPROPYLENE CHEMICAL WASTE PIPING FOR LAB SINK WASTE AND VENT LINES.

32. ALL EXISTING GALVANIZED HOT AND COLD WATER PIPING ABOVE FLOOR INCLUDING BRANCHES BELOW FLOOR TO TEACHER'S ISLAND SINK SHALL BE REMOVED AND REPLACED WITH THE FOLLOWING: TYPE "L" COPPER ABOVE FLOOR AND TYPE "K" COPPER BELOW FLOOR.

LEGEND

SYMBOL	ABBREV.	DESCRIPTION
	S OR W	SOIL OR WASTE BELOW GRADE
	S OR W	SOIL OR WASTE ABOVE GRADE
	V	SANITARY VENT
SD	SD	STORM DRAIN BELOW GRADE
	CW	COLD WATER
G	G	FUEL GAS
EW	EW OR ES	EXISTING SOIL OR WASTE BELOW GRADE
EV	EV	EXISTING VENT
ESD	ESD	EXISTING STORM DRAIN
ECW	ECW	EXISTING COLD WATER
EHW	EHW	EXISTING HOT WATER
EG	EG	EXISTING FUEL GAS
CDC		CONDENSATE COPPER PIPE
AW	AW	ACID WASTE
AV	AV	ACID VENT
		EXISTING PIPING TO BE REMOVED
		EXISTING PIPING TO BE ABANDONED
	PT	PLUGGED WYE
		WALL CLEANOUT
		CAPPED LINE
T		PLUGGED TEE
	HB	HOSE-BIBB
		PIPE-UP OR RISER
		PIPE-DOWN OR DROP
		UNION
	SOV/YB	SHUT OFF VALVE IN YARD BOX
	SOV	SHUT OFF VALVE
	GC	GAS COCK
	FCO	FLOOR CLEANOUT
	COTG	CLEANOUT TO GRADE IN YARD BOX
		WALL CLEANOUT
	AVTR	ACID VENT THRU ROOF
	W/	WITH
	CONC.	CONCRETE
	NTS	NOT TO SCALE
	CONT.	CONTINUATION
	FFE	FINISH FLOOR ELEVATION
	FLR.	FLOOR
	GR.	GRADE
	I.E.	INVERT ELEVATION
	CLG.	CEILING
	POC	POINT OF CONNECTION
		DETAIL & SHEET NUMBERS
	ABV.	ABOVE
	AP	ACCESS PANEL
	BEL.	BELOW
	TYP.	TYPICAL
	VTR	VENT THRU ROOF
	(E) OR EXIST.	EXISTING
		FIXTURE TO BE REMOVED
		EQUIPMENT IDENTIFICATION
	POD	POINT OF DISCONNECT
	FD	FLOOR DRAIN W/ TRAP PRIMER
	VCP	VITRIFIED CLAY PIPE
	NIPC	NOT IN PLUMBING CONTRACT

DRAWING LIST

DWG.NO.	DESCRIPTION
P0.1	GENERAL NOTES, LEGEND, APPLICABLE CODES AND DRAWING LIST
P0.2	SCHEDULES
P1.1	SITE PLAN (REFERENCE ONLY)
P2.1	BUILDING 1 DEMOLITION AND REMODEL PLANS
PD2.2	BUILDING 2 DEMOLITION PLAN
P2.2	BUILDING 2 REMODEL PLAN
P2.3	BUILDING 3 DEMOLITION AND REMODEL PLANS
P2.4	BUILDING 4 DEMOLITION AND REMODEL PLANS
P2.5	BUILDING 5 DEMOLITION AND REMODEL PLANS
P2.6	BUILDING 6 DEMOLITION AND REMODEL PLANS
P2.7	BUILDING 7 DEMOLITION AND REMODEL PLANS
P3.1	ENLARGED PLANS
P5.1	DETAILS

SEISMIC BRACING OF PLUMBING SYSTEMS

EQUIPMENT ANCHORAGE NOTE:

ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE ANCHORED OR BRACED TO MEET THE HORIZONTAL AND VERTICAL FORCES PRESCRIBED IN THE 2007 CBC, SECTION 1614A.1.13 AND ASCE 7-05 SECTIONS 13.3, 13.4 13.6, AND CHAPTER 6.

THE ATTACHMENT OF THE FOLLOWING ITEMS SHALL BE DESIGNED TO RESIST THE FORCES PRESCRIBED ABOVE, BUT NEED NOT BE DETAILED ON THE PLANS. THE PROJECT INSPECTOR WILL VERIFY THAT THESE ITEMS HAVE BEEN ANCHORED:

A. EQUIPMENT WEIGHING LESS THAN 400 POUNDS SUPPORTED DIRECTLY ON THE FLOOR OR ROOF.

B. FURNITURE REQUIRED TO BE ATTACHED IN ACCORDANCE WITH ASCE 7-05 SECTION 13.5.

C. TEMPORARY OR MOVABLE EQUIPMENT WITH FLEXIBLE CONNECTION TO POWER OR UTILITIES..

D. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUPPORTED BY VIBRATION ISOLATORS.

E. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE MECHANICAL/ELECTRICAL ENGINEER AND THE FIELD REPRESENTATIVE OF THE DIVISION OF THE STATE ARCHITECT.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO RESIST THE FORCES PRESCRIBED IN ASCE 7-05 SECTION 13.3 AS DEFINED IN ASCE 7-05 SECTION 13.6.8, 13.6.7, AND 13.6.5.5, ITEM 6, AND 2007 CBC 1614A.1.13.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL COMPLY WITH ONE OF THE OSHPD PRE- APPROVALS WITH AN OPA #, SUCH AS MASON INDUSTRIES (OPA 349), OR ISAT (OPA 485) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE ON THE JOBSITE PRIOR TO STARTING HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

GOVERNING CODES

2007 CALIFORNIA ADMINISTRATIVE CODE (CCR – TITLE 24, PART 1)

2007 CALIFORNIA BUILDING CODE (CCR – TITLE 24, PART 2)
BASED ON THE 2006 INTERNATIONAL BUILDING CODE (IBC) & 2007 CA AMENDMENTS

2007 CALIFORNIA ELECTRICAL CODE (CCR – TITLE 24, PART 3)
BASED ON THE 2005 NATIONAL ELECTRICAL CODE (NEC) & 2007 CA AMENDMENTS

2007 CALIFORNIA MECHANICAL CODE (CCR – TITLE 24, PART 4)
BASED ON THE 2006 UNIFORM MECHANICAL CODE (UMC) & 2007 CA AMENDMENTS

2007 CALIFORNIA PLUMBING CODE (CCR – TITLE 24, PART 5)
BASED ON THE 2006 UNIFORM PLUMBING CODE (UPC) & 2007 CA AMENDMENTS

2007 CALIFORNIA ENERGY CODE (CCR – TITLE 24, PART 6)

2004 SAFETY CODE FOR ELEVATORS AND ESCALATORS (ASME A17.1-2004)

2007 CALIFORNIA FIRE CODE (CCR – TITLE 24, PART 9)
BASED ON THE 2006 INTERNATIONAL FIRE CODE (IFC) & 2007 CA AMENDMENTS

2007 CALIFORNIA REFERENCED STANDARDS (CCR – TITLE 24, PART 12)
TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULTIONS

PARTIAL LIST OF APPLICABLE NFPA STANDARDS:

NFPA 13 – AUTOMATIC SPRINKLER SYSTEMS, 2002 EDITION.

NFPA 14 – STANDPIPE SYSTEMS, 2007 EDITION.

NFPA 17 – DRY CHEMICAL EXTINGUISHING SYSTEMS, 2002 EDITION.

NFPA 17A – WET CHEMICAL SYSTEMS, 2002 EDITION.

NFPA 20 – STATIONARY PUMPS, 2003 EDITION.

NFPA 24 – PRIVATE FIRE MAINS, (CALIFORNIA AMENDED) 2007 EDITION.

NFPA 72 – NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED), 2007 EDITION.
(NOTE: SEE UL STANDARD 1971 FOR "VISUAL DEVICES")

NFPA 80 – FIRE DOOR AND OTHER OPENING PROTECTIVES, 2007 EDITION.

NFPA 253 – CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS, 2006 EDITION

NFPA 2001 – CLEAN AGENT FIRE EXTINGUISHING SYSTEMS, 2004 EDITION

REFERENCE CODE SECTION FOR NFPA STANDARDS – 2007 C.B.C. (SFM) 3504.1

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NO. C13165
REN.: MAY. 2011
STATE OF CALIFORNIA

Consultant and Seal

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Agency Approval

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APPL. 04-110031
AC FLS DW SS RH
DATE NOV 24 2009

No.	Date	Revision/Issue
	12/08/08	DSA SUBMITTAL
	02/11/09	DSA SUBMITTAL
	5/11/09	DSA BACKCHECK
	12/15/2011	BID SET

Project Name

MUIR FUNDAMENTAL SCHOOL MODERNIZATION
1951 MABURY ST.
SANTA ANA, CA 92707

Checked By	Drawn By
W.S.H.	A.D.

Sheet Title

GENERAL NOTES, LEGEND, APPLICABLE CODES AND DRAWING LIST

Sheet Number

P0.1

Project Number	Scale
10021-010	NONE

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