3" = 1'-0"

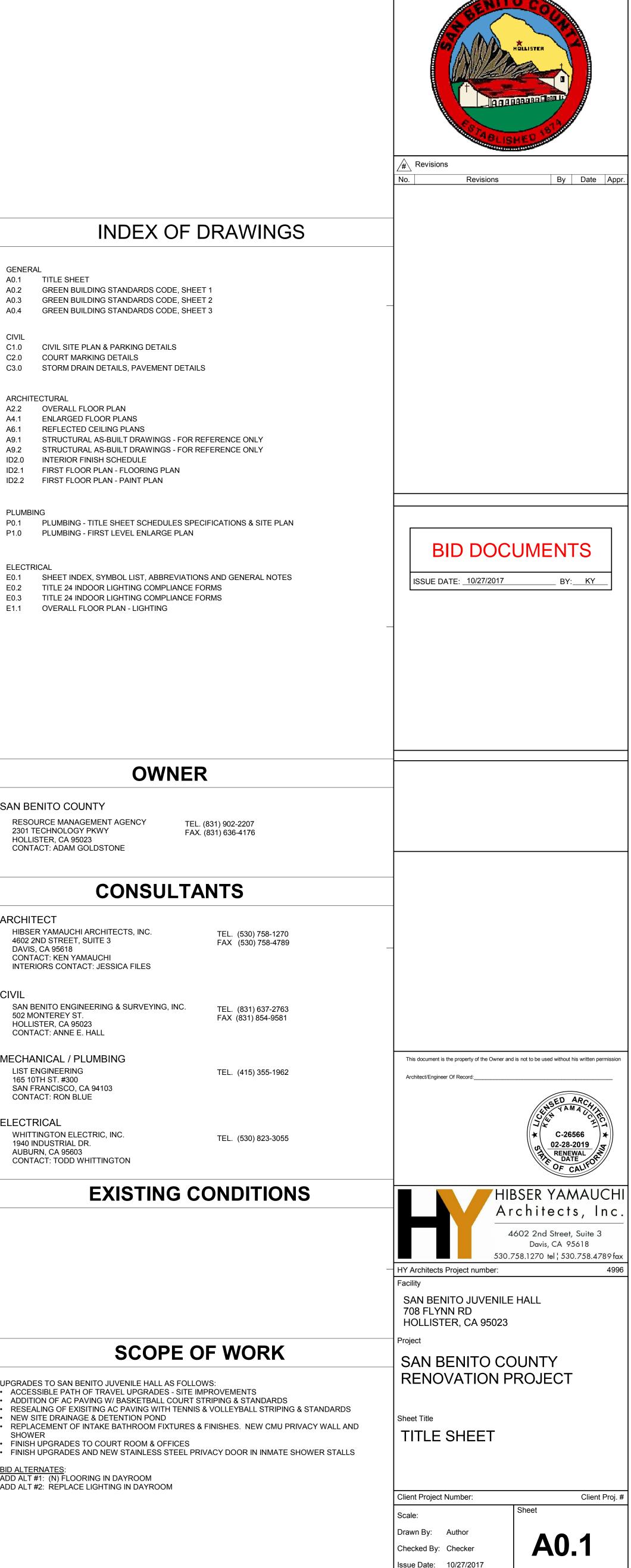
SAN BENITO COUNTY JUVENILE HALL SAN BENITO COUNTY RENOVATION PROJECT

708 FLYNN RD

1/4" = 1'-0"

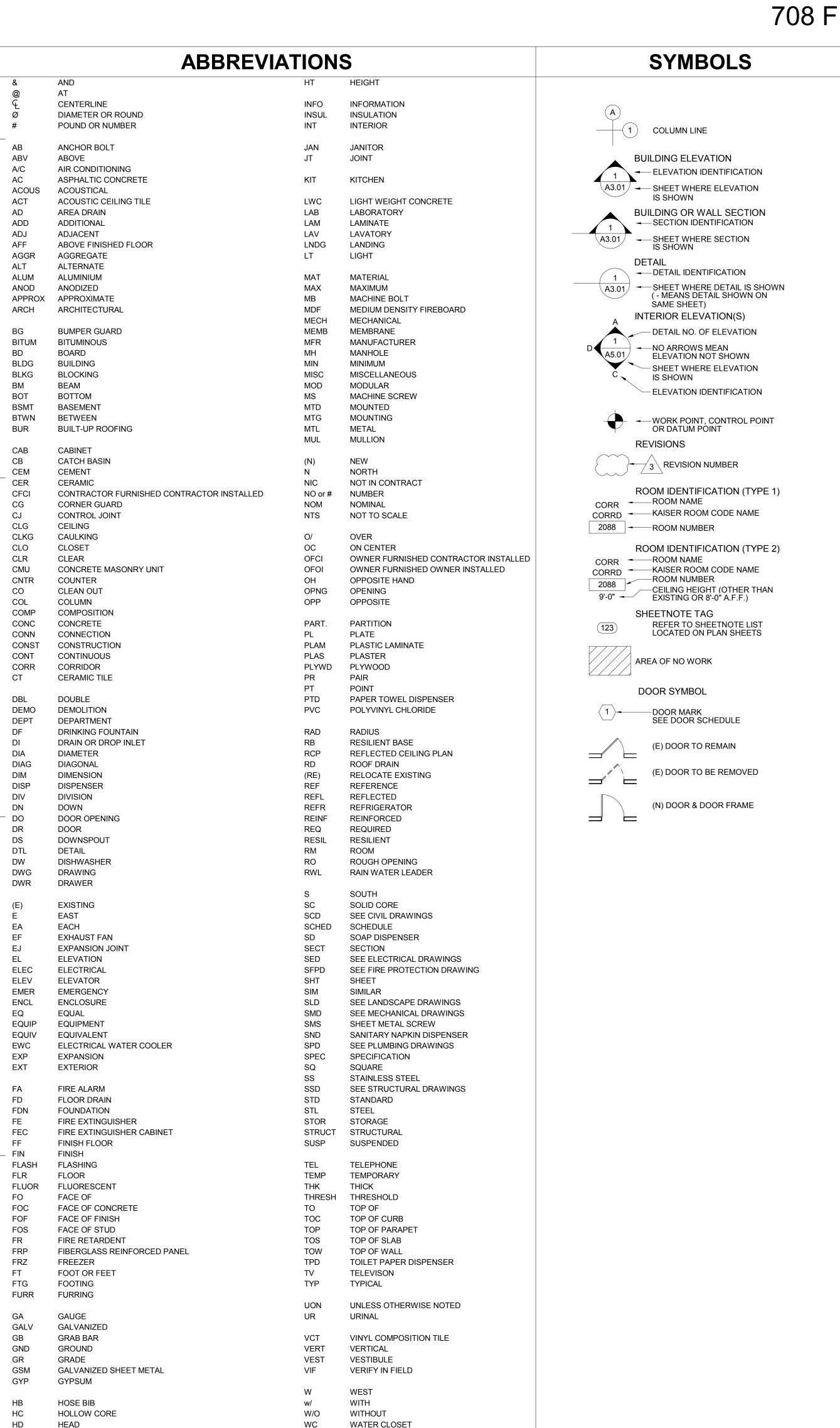
HOLLISTER, CA 95023

1" = 1'-0"



Revit Version: 2017

Sheet 1 of 200



WOOD

WINDOW

WATER HEATER

WHERE OCCURS

WATERPROOF

WD

1/8" = 1'-0"

GRAPHIC SCALES:

HDWD

HDWR

HORIZ

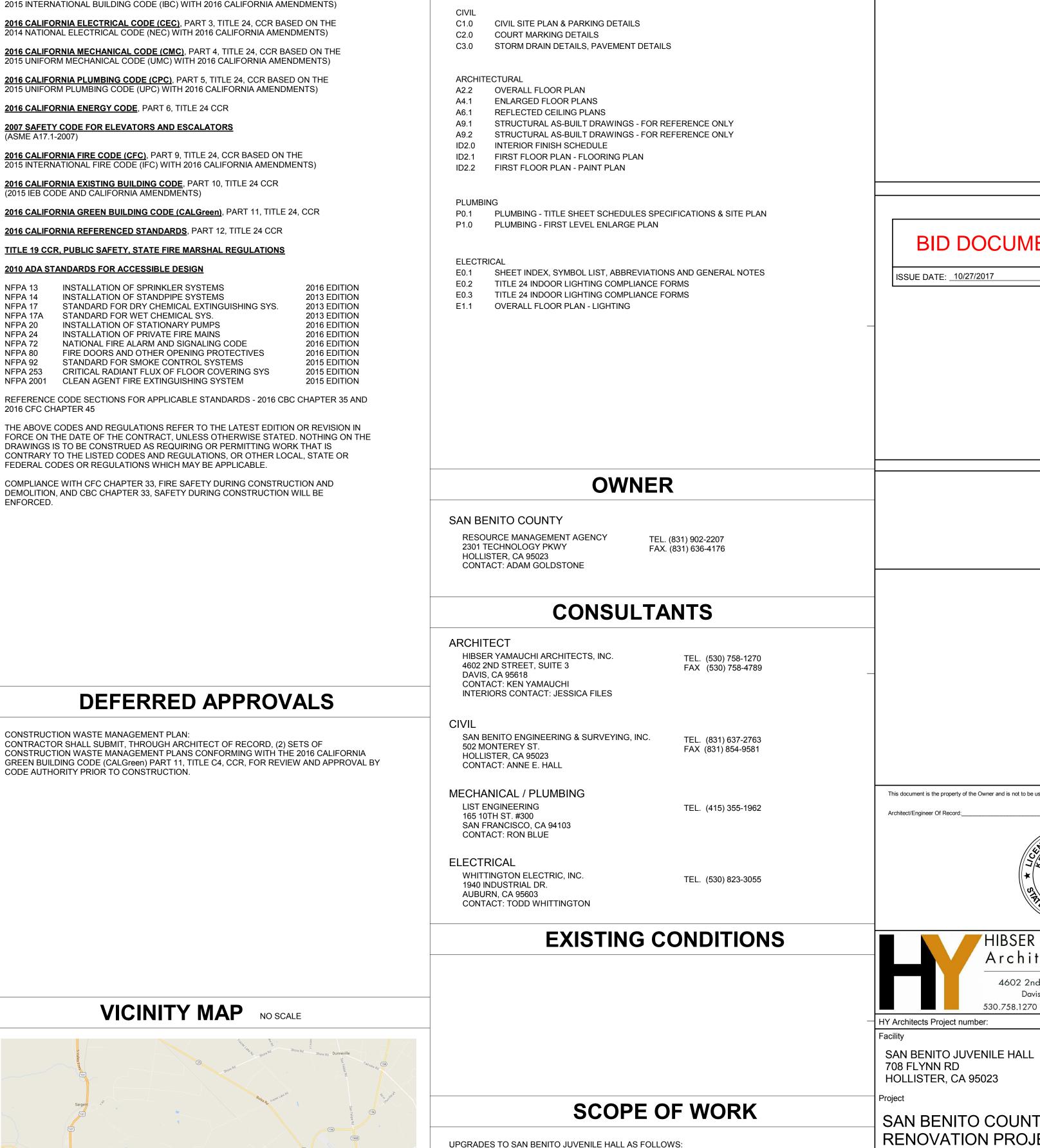
HR

HARDWOOD

HORIZONTAL

HOUR

GENERAL NOTES APPLICABLE CODES . IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO SEE TO IT THAT ALL MATERIALS AND/OR ALL WORK PERFORMED UNDER THIS CONTRACT IS TO CONFORM TO THE FOLLOWING WORK DESCRIBED, DEPICTED OR DETAILED WITHIN THESE DOCUMENTS, BE FURNISHED AND OR CODES AND REGULATIONS: INSTALLED REGARDLESS OF THE LOCATION OF THAT MATERIAL OR WORK WITHIN THE DOCUMENTS OR OMISSION (WHETHER DELIBERATE OR ACCIDENTAL) OF THAT MATERIAL OR WORK BY A 2016 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, , TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR) ALL CONTRACTORS. WHETHER THE GENERAL OR SUB. SHALL CONSIDER THESE DOCUMENTS IN **2016 CALIFORNIA BUILDING CODE (CBC)**, PART 2, TITLE 24, CCR BASED ON THE THEIR ENTIRETY, DISCREPANCIES OR CONTRADICTIONS BETWEEN PORTIONS OF THESE DOCUMENTS FOR CLARIFICATION. OTHERWISE EITHER DESCRIPTION OR INSTRUCTION SHALL BE IN FORCE UNTIL ONE IS OMITTED BY THE ARCHITECT, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING TEMPORARY FENCING AND TO PROVIDE FOR THE SAFETY OF STUDENTS, FACULTY AND STAFF AROUND THE WORK, UNTIL THE COMPLETION OF THE WORK UNLESS OTHERWISE DETERMINED BY THE ARCHITECT OR THE CONTRACTOR IS RESPONSIBLE TO REPAIR AND/OR REPLACE ALL DISTRICT PROPERTY DAMAGED DURING THE COURSE ON THE WORK, ESPECIALLY BUT NOT LIMITED TO ASPHALT PAVING AROUND THE SITE, STAGING AREA OR PATH OF TRAVEL TO EITHER. THE CONTRACTOR SHALL LIMIT HIS/HER ACTIVITY TO THE AREA DESCRIBED WITHIN THE DOCUMENTS SO AS TO LIMIT HIS/HER LIABILITY FOR DAMAGED PROPERTY UNLESS OTHERWISE PERMITTED BY THE ALL WORK SHALL BE IN ACCORDANCE WITH REQUIREMENTS OF ALL APPLICABLE CODES. SEE LIST CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION EXCEPT DSA APPROVAL. ALL DIMENSIONS SHALL BE FACE OF STUD, UNLESS OTHERWISE NOTED, DIMENSIONS NOTED AS "CLR" MEAN CLEAR DIMENSION TO FACE OF FINISH. VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES FOUND. ALL ITEMS IN THESE DRAWINGS ARE NEW UNLESS OTHERWISE NOTED. 0. SCHEDULE ALL WORK OUTSIDE THE "EXTENT OF WORK" SET FORTH IN THESE DOCUMENTS WITH THE CONSTRUCTION MANAGER INCLUDING ACCESS AND STORAGE. THE CONSTRUCTION SCHEDULE SHALL BE APPROVED BY THE OWNER PRIOR TO THE START OF CONSTRUCTION 1. ALL UTILITIES REQUIRED FOR THE CONTINUOUS OPERATION OF ALL EXISTING FACILITIES TO REMAIN MUST BE MAINTAINED IN SERVICE AT ALL TIMES. ANY SHUT DOWNS FOR NEW CONNECTIONS MUST BE COORDINATED WITH THE CONSTRUCTION MANAGER TWO WEEKS PRIOR TO THE REQUESTED 2. THE CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OR REPLACEMENT OF ANY ITEMS DAMAGED OR DISTURBED DURING THE COURSE OF THE WORK. INSTALLATION SHALL MATCH EXISTING IN KIND, 3. THE CONTRACTOR SHALL CONTAIN ALL DUST AND DEBRIS TO THE CONSTRUCTION AREA. BROOM CLEAN ALL SIDEWALKS AND DRIVEWAYS EACH DAY. KEEP DIRT AND DUST TO A MINIMUM. 4. ALL REMODELED ITEMS LISTED TO BE SALVAGED FOR THE OWNER SHALL BE DELIVERED TO A PLACE OF STORAGE AS DIRECTED BY THE OWNER. ALL OTHER ITEMS MUST BE DISPOSED OF OFF SITE IN A 15. ALL WORK SHALL BE EXECUTED IN A CAREFUL AND ORDERLY MANNER WITH THE LEAST POSSIBLE DISTURBANCE TO THE PUBLIC AND TO OCCUPANTS OF EXISTING BUILDINGS. 16. THE CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR THE SAFETY OF ALL PERSONS ON OR ABOUT THE CONSTRUCTION SITE, IN ACCORDANCE WITH APPLICABLE LAWS AND CODES. GUARD ALL HAZARDS IN ACCORDANCE WITH THE SAFETY PROVISIONS OF THE LATEST MANUAL OF ACCIDENT PREVENTION PUBLISHED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA. A. COORDINATION WITH OTHER CONTRACTS: IF ANY PART OF THIS CONTRACTOR'S WORK DEPENDS UPON THE WORK OF A SEPARATE CONTRACTOR, THIS CONTRACTOR SHALL INSPECT SUCH OTHER WORK AND PROMPTLY REPORT IN WRITING TO THE CONSTRUCTION MANAGER ANY DEFECTS IN SUCH OTHER WORK THAT RENDER IT UNSUITABLE TO RECEIVE THE WORK OF THIS CONTRACTOR FAILURE OF THIS CONTRACTOR TO SO INSPECT AND REPORT SHALL CONSTITUTE AN ACCEPTANCE OF THE OTHER CONTRACTOR'S WORK, EXCEPT AS TO DEFECTS WHICH MAY DEVELOP IN OTHER CONTRACTOR'S WORK AFTER EXECUTION OF THIS CONTRACTOR'S WORK. B. COORDINATION SCHEDULE: PORTIONS OF WORK UNDER THIS CONTRACTOR'S WORK MUST BE COMPLETED ON SCHEDULE IN ORDER FOR OTHER NOT-IN-CONTRACT WORK TO BE COMPLETED BY OTHERS. COORDINATION WITH THE CONSTRUCTION MANAGER AND STRICT ADHERENCE TO THE COMPLETION DATES FOR DESIGNATED PORTIONS OF WORK ARE IMPERATIVE. SEE 7. DEMOLITION IS NOT NECESSARILY LIMITED TO ONLY WHAT IS SHOWN ON THIS OR OTHER DRAWINGS OR AS OUTLINED IN THE SPECIFICATIONS. THE INTENT IS TO INDICATE GENERAL SCOPE OF DEMOLITION REQUIRED TO COMPLETE THE PROJECT WITH THE CONSTRUCTION DOCUMENTS. 18. OF PARTICULAR IMPORTANCE IS THE NEED FOR CONTRACTOR TO ASSURE THAT ALL PERSONS ENTERING A POSSIBLY HAZARDOUS AREA, INCLUDING SUPERINTENDENTS, WORKERS, SUBCONTRACTORS, OTHER CONTRACTORS, AND OTHER PERSONS NOT UNDER CONTRACTUAL CONTROL TO THE CONTRACTOR, ARE AWARE OF PROCEDURES. 19. SPECIAL ATTENTION IS CALLED TO THE REQUIREMENT OF THE CONTRACTOR TO COMPLY WITH DSA REQUIREMENTS IN GENERAL AND WITH REGULATIONS INVOLVING ASBESTOS IN PARTICULAR. THESE REGULATIONS ARE STATED IN SECTION 5208, ASBESTOS REGULATIONS, OF TITLE 8, CALIFORNIA CODES OF REGULATIONS. THIS SECTION STIPULATES THAT THE CONTRACTOR MUST INITIATE REPORTS, TESTS, SIGNS AND OTHER ACTIVITIES UNDER CERTAIN JOB CONDITIONS. 20. ALL PIPE AND DUCT PENETRATIONS THROUGH FIRE RATED CONSTRUCTION SHALL BE FIRE STOPPED AND SEALED TO MAINTAIN THE REQUIRED RATING. 21. DETAIL DRAWINGS WITH REFERENCES TO FIRE-RATED ASSEMBLIES OR CONSTRUCTION WHICH HAVE BEEN TESTED BY UNDERWRITERS LABORATORIES, THE CALIFORNIA BUILDING CODE OR ANY OTHER APPROVED TESTING AGENCY, SHALL BE CONSTRUED TO INDICATE ALL CONSTRUCTION AND PROCEDURES CONTAINED IN THE REFERENCED ASSEMBLY FOR CONSTRUCTION. 2. CONTRACTOR TO MAINTAIN CONTEMPORANEOUSLY RECORDED "AS-BUILT" INFORMATION OF ALL WORK, WHICH SHALL BE MARKED IN COLOR ON THE DRAWINGS AND SPECIFICATIONS. A SCANNED PDF OF THE "AS-BUILT" DRAWINGS AND SPECFICATIONS SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE PRIOR TO FINAL APPLICATION FOR PAYMENT. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.



ACCESSIBLE PATH OF TRAVEL UPGRADES - SITE IMPROVEMENTS

NEW SITE DRAINAGE & DETENTION POND

<u>BID ALTERNATES</u>: ADD ALT #1: (N) FLOORING IN DAYROOM

PROJECT LOCATION:

HOLLISTER, CA 95023

708 FLYNN RD

ADD ALT #2: RÉPLACE LIGHTING IN DAYROOM

FINISH UPGRADES TO COURT ROOM & OFFICES

1 1/2" = 1'-0"

GENERAL

A0.1 TITLE SHEET

GREEN BUILDING STANDARDS CODE, SHEET 1

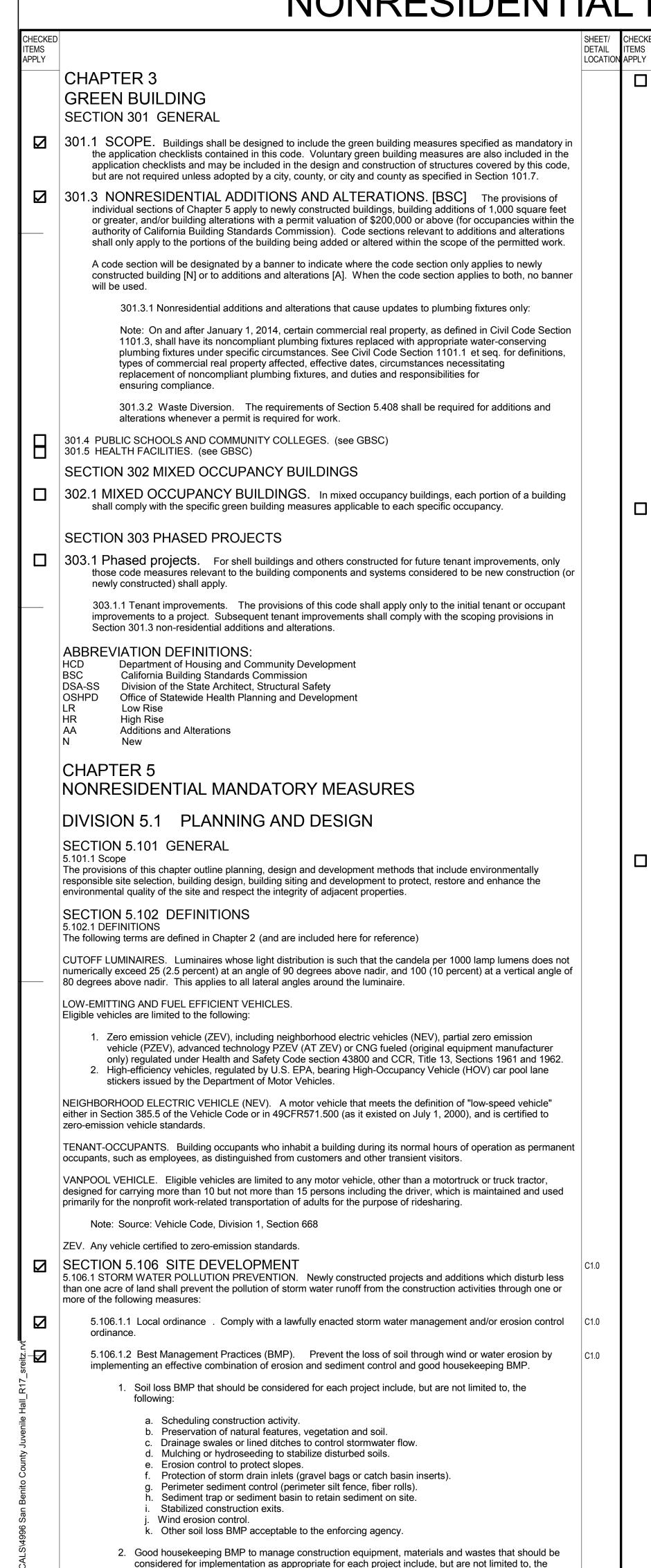
GREEN BUILDING STANDARDS CODE, SHEET 2

GREEN BUILDING STANDARDS CODE, SHEET 3

#\ Revisions

GRAPHIC SCALES:

2016 CALIFORNIA GREEN BUILDING STANDARDS CODE NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (INCLUDING JANUARY 1, 2017 ERRATA)



a. Material handling and waste management.

b. Building materials stockpile management.

f. Spill prevention and control.

e. Vehicle and equipment cleaning performed off site.

Management of washout areas (concrete, paints, stucco, etc.).

g. Other housekeeping BMP acceptable to the enforcing agency.

d. Control of vehicle/equipment fueling to contractor's staging area.

THE TOTAL WILL TOOLSEO, O		_
	SHEET/ DETAIL LOCATION	CHI ITE APF
5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2		
5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.		
5.106.4.1.1 Short-term bicycle parking. If the project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. Exception: Additions or alterations which add nine or less visitor vehicular parking spaces.		
5.106.4.1.2 Long-term bicycle parking. For new buildings with 10 or more tenant-occupants or for additions or alterations that add 10 or more tenant-occupants or for additions or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicle parking spaces being added, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and shall meet one of the following:		
 Covered, lockable enclosures with permanently anchored racks for bicycles; Lockable bicycle rooms with permanently anchored racks; or Lockable, permanently anchored bicycle lockers. 		
Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.		

shall be convenient from the street or staff parking area and shall meet one of the following: 1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bicycle lockers. 5.106.5.2 DESIGNATED PARKING FOR CLEAN AIR VEHICLES. In new projects or additions or alterations

that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting,

5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed

with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities

5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections

accessed with a minimum of four two-bike capacity racks per new building.

fuel-efficient and carpool/van pool vehicles as follows:

201 AND OVER

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently

5.106.4.2.1 and 5.106.4.2.2

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
25-50	3
51-75	6
76-100	8
101-150	11
151-200	16

5.106.5.2.1 - Parking stall marking. Paint, in the paint used for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle: CLEAN AIR / VAN POOL / EV

AT LEAST 8% OF TOTAL

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces.

5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the California Building Code, the California Energy Commission (CEC) and as follows:

5.106.5.3.1 Single charging space requirements. [N] When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.

suitable cabinet, box, enclosure or equivalent.

2. A listed raceway capable of accommodating a 208/240 -volt dedicated branch circuit. 3. The raceway shall not be less than trade size 1."

4. The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and listed

5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.

5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.

2. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and

into listed suitable cabinet(s), box(es), enclosure(s) or equivalent. 3. Plan design shall be based upon 40-ampere minimum branch circuits

4. Electrical calculations shall substantiate the design of the electrical system, to include the

rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage. 5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the

required number of dedicated branch circuit(s) for the future installation of the EVSE.

5.106.5.3.3 EV charging space calculations. [N] Table 5.106.5.3.3 shall be used to determine if

single or multiple charging space requirements apply for the future installation of EVSE.

Exceptions: On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:

> 1. Where there is insufficient electrical supply. 2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the

TABLE 5.106.5.3.3		
TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES	
0-9	0	
10-25	1	
36-50	2	
51-75	4	
76-100	5	
101-200	7	
201 AND OVER	6% of total ¹	

1. Calculation for spaces shall be rounded up to the nearest whole number.

Designated parking for clean air vehicles.

5.106.5.3.4 [N] Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE". 5.106.5.3.5 [N] Future charging spaces qualify as designated parking as described in Section 5.106.5.2

1. The California Department of Transportation adopts and publishes the California Manual on Uniform Traffic Control Devices (California MUTCD) to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives number 13-01. www.dot.ca.gov/hq/traffops/policy/13-01.pdf.

2. See Vehicle Code Section 22511 for EV charging spaces signage in off-street parking

3. The Governor's Office of Planning and Research published a Zero-Emission Vehicle

Community Readiness Guidebook which provides helpful information for local governments, residents and businesses. www.opr.ca.gov/docs/ZEV_Guidebook.pdf.

5.106.8 LIGHT POLLUTION REDUCTION. [N] Outdoor lighting systems shall be designed and installed to comply

1. The minimum requirements in the California Energy Code for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and 2. Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and

3. Allowable BUG ratings not exceeding those shown in Table 5.106.8, or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

facilities and for use of EV charging spaces.

1. Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.

3. Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6. 4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.

Note: [N] See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

> 2. Water collection and disposal systems. French drains.

4. Water retention gardens.

Swales.

THIS CLAIMER: THIS DOCUMENT IS PROVIDED AND INTENDED TO BE USED ON AN INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER TO MEET THOSE INDIVIDUAL PROJECT BASIS AND MAY BE MODIFIED BY THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE. THE END USER ASSUMES ALL RESPONSIBILITY ASSOCIATED WITH THE USE OF THIS DOCUMENT, INCLUDING VERIFICATION WITH THE FULL CODE. THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BE MODIFIED BY THE END USER ASSUMES AND MAY BY THE END USER ASSUMES AND MAY BY THE END USER ASSUMES AND MAY BY THE END U

5. Other water measures which keep surface water away from buildings and aid in groundwater

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE

Exception: Additions and alterations not altering the drainage path.

ALLOWABLE RATING	LIGHTING ZONE 1	LIGHTING ZONE 2	LIGHTING ZONE 3	LIGHTING ZONE 4
MAXIMUM ALLOWABLE BACKLIGHT RATING 3		_		
Luminaire greater than 2 mounting heights (MH) from property line	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	B2	В3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	B1	B2	В3	В3
Luminaire back hemisphere is less than 0.5 MH from property line	В0	В0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING				
For area lighting 4	U0	U0	U0	U0
For all other outdoor lighting,including decorative luminaires	U1	U2	U3	U4
MAXIMUM ALLOWABLE GLARE RATING 5				
Luminaire greater than 2 MH from property line	G1	G2	G3	G4
Luminaire front hemisphere is 1-2 MH from property line	G0	G1	G1	G2
Luminaire front hemisphere is 0.5-1 MH from property line	G0	G0	G1	G1
Luminaire back hemisphere is less than 0.5 MH from property line	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the California Energy Code and Chapter 10 of the Callifornia Administrative Code. 2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this

3. If the nearest property line is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met.

4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet *U*-value limits for "all other outdoor lighting". 5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met.

LOCATION APPLY DIVISION 5.2 ENERGY EFFICIENCY

SECTION 5.302 DEFINITIONS

climatological parameters.

1 1/2" = 1'-0"

☐ SECTION 5.201 GENERAL 5.201.1 Scope [BSC-CG]. California Energy Code [DSA-SS] . For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards. DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION

SECTION 5.301 GENERAL 5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which ae two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

5.302.1 Definitions. The following terms are defined in Chapter 2 (and are included here for reference)

volume or cycle duration can be fixed or adjustable. GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or

operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom

METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and

washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least as effective as the MWELO.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5.

POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic puroses, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER. A meter installed subordinate to a site meter. Usually used to measure water intended for one purpose, such as landscape irrigation. For the purposes of CALGreen, a dedicated meter may be considered a submeter. WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWELO).

SECTION 5.303 INDOOR WATER USE 5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 503.1.1 and 503.1.2.

5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows:

1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop. 2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the

a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s). b. Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s). c. Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day. 5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

5.303.3.2 Urinals. The effective flush volume of urinals shall not exceed 0.5 gallons per flush.

5.303.3.3 Showerheads. 5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

5.303.3.4 Faucets and fountains.

5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi].

5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle. 5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi].

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve

5.303.4 COMMERCIAL KITCHEN EQUIPMENT

5.303.4.1 Food Waste Disposers. Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.

Note: This code section does not affect local jurisdiction authority to prohibit or require disposer

5.303.5 AREAS OF ADDITION OR ALTERATION. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building.

5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed Polin accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 GENERAL of the California Plumbing Code and in Chapter 6 of this code.

DETAIL LOCATION

By Date App

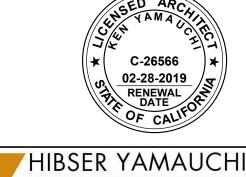
BID DOCUMENTS

ISSUE DATE: 10/27/2017

FIXTURE

SCHEDULI

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Architects, Inc. 4602 2nd Street, Suite 3 Davis, CA 95618 530.758.1270 tel | 530.758.4789 fax HY Architects Project number:

SAN BENITO JUVENILE HALL 708 FLYNN RD HOLLISTER, CA 95023

SAN BENITO COUNTY

RENOVATION PROJECT

GREEN BUILDING

STANDARDS CODE, SHEET 1

Client Proj. #

12" = 1'-0" Drawn By: Author Checked By: Checker

Client Project Number:

Issue Date: 10/27/2017 Revit Version: 2017

Revisions

1 1/2" = 1'-0"

2016 CALIFORNIA GREEN BUILDING STANDARDS CODE

GRAPHIC SCALES:

NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (INCLUDING JANUARY 1, 2017 ERRATA) SHEET/ CHECKE DETAIL ITEMS LOCATION APPLY SHEET/ CHECKED ITEMS SHEET/ DETAIL DETAIL ITEMS LOCATION APPLY LOCATION APPLY LOCATIO DIVISION 5.5 ENVIRONMENTAL QUALITY 5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and SECTION 5.304 OUTDOOR WATER USE SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND requirements of the building appropriate to its phase shall be documented before the design phase of the 5.304.1 SCOPE. The provisions of Section 5.304, Outdoor Water Use reference the mandatory Model Water RECYCLING SECTION 5.501 GENERAL project begins. This documentation shall include the following: Efficiency Landscape Ordinance (MWELO) contained within Chapter 2.7, Division 2, Title 23, California Code of 1. Environmental and sustainability goals. 5.501.1 SCOPE. The provisions of this chapter shall outline means of reducing the quantity of air contaminants that 5.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65% of the are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors. non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or 2. Energy efficiency goals. meet a local construction and demolition waste management ordinance, whichever is more stringent. 3. Indoor environmental quality requirements. 5.304.2 OUTDOOR WATER USE IN LANDSCAPE AREAS EQUAL TO OR GREATER THAN 500 SQUARE FEET. SECTION 5.502 DEFINITIONS 4. Project program, including facility functions and hours of operation, and need for after hours When water is used for outdoor irrigation for new construction projects with an aggregate landscape area equal to or 5.502.1 DEFINITIONS. The following terms are defined in Chapter 2 (and are included here for reference) 5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and operation. greater than 500 square feet requiring a building or landscape permit, plan check or design review, one of the following 5. Equipment and systems expectations. demolition waste management ordinance, submit a construction waste management plan that: ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route. 6. Building occupant and operation and maintenance (O&M) personnel expectations. 1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient 1. A local water efficient landscape ordinance that is, based on evidence in the record, at least as effective in A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter 5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets usage, recycling, reuse on the project or salvage for future use or sale. conserving water as the updated model ordinance adopted by the Department of Water Resouces (DWR) using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting the OPR shall be completed at the design phase of the building project. The Basis of Design document shall 2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or per Government Code Section 65595(c). cover the following systems: adjustments have been made. bulk mixed (single stream). . Identifies diversion facilities where construction and demolition waste material collected will be taken. 2. The California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO) 1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound 1. Heating, ventilation, air conditioning (HVAC) systems and controls. 4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated commencing with Section 490 of Chapter 2.7. Division 2. Title 23. California Code of Regulations. of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, 2. Indoor lighting system and controls. by weight or volume, but not by both. the amount of heat required to melt a ton (2,000 pounds) of ice at 32⁰ Fahrenheit. Water heating system. 5.304.3 OUTDOOR WATER USE IN REHABILITATED LANDSCAPE PROJECTS EQUAL TO OR GREATER THAN 5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable 4. Renewable energy systems. 2,500 SQUARE FEET. Rehabilitated landscape project with an aggregate landscape area equal to or greater than COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), documentation that the percentage of construction and demolition waste material diverted from the landfill 6. Water reuse systems. 2.500 square feet requiring a building or landscape permit, plan check, or design review shall comply with Section except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn. 5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following: Note: The owner or contractor shall make the determination if the construction and demolition waste material 5.304.4 OUTDOOR WATER USE IN LANDSCAPE AREAS OF 2,500 SQUARE FEET OR LESS. Any project with COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium will be diverted by a waste management company. . General project information. an aggregate area of 2,500 square feet of less may comply with the performance requirements of MWELO or conform density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, Commissioning goals. to the prescriptive compliance measures contained in MWELO's Appendix D. 3. Systems to be commissioned. Plans to test systems and components shall include: structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood l-joists or Exceptions to Sections 5.408.1.1 and 5.408.1.2: finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a). a. An explanation of the original design intent. 5.304.5 GRAYWATER OR RAINWATER USE IN LANDSCAPE AREAS. For projects using treated or untreated . Excavated soil and land-clearing debris. b. Equipment and systems to be tested, including the extent of tests. graywater or rainwater captured on site, any lot or parcet within the project that has less than 2,500 square feet of Note: See CCR, Title 17, Section 93120.1. 2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle c. Functions to be tested. landscape and meets the lot or parcel's landscape water requirement (Estimate Total Water Use) entirely with treated d. Conditions under which the test shall be performed. facilities capable of compliance with this item do not exist. or untreated graywater or through stored rainwater captured on site is subject only to Appendix D Section (5). DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 3. Demolition waste meeting local ordinance or calculated in consideration of load recycleing facilities e. Measurable criteria for acceptable performance. 4. Commissioning team information. 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.). 5. Commissioning process activities, schedules and responsibilities. Plans for the completion of 1. DWR's Model Water Efficient Landscape Ordinance, definitions and supporting documents are available at commissioning shall be included. DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, 5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does the following link: http://water.ca.gov/wateruseefficiency/landscapeordinance/ sound power, sound intensity) with respect to a reference quantity. not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement 5.410.2.4 Functional performance testing. [N] Functional performance tests shall demonstrate the correct as approved by the enforcing agency. 2. A water budget calculator is available at the following link: ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, installation and operation of each component, system and system-to-system interface in accordance with the http://water.ca.gov/wateruseefficiency/landscapeordinance/ trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor approved plans and specifications. Functional performance testing reports shall contain information addressing 5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates each of the building components tested, the testing methods utilized, and include any readings and adjustments that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as 3. The MWELO prescriptive compliance measure Appendix D may be found at the following link: Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the California Electrical Code, necessary and shall be accessible during construction for examination by the enforcing agency. http://water.ca.gov/wateruseefficiency/landscapeordinance/ off-road, self-propoelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground In addition, a copy of MWELO Appendix D may be found in Chapter 8 of this code. support equipment, tractors, boats, and the like, are not included. 5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, 5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS [DSA-SS]. For public schools and ELECTRIC VEHICLE CHARGING STATION(S) (EVCSj). One or more spaces intended for charging electric vehicles. including Occupational Safety and Health Act (OSHA) requirements in California Code of Regulations (CCR), 1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the located at www.bsc.ca.gov/Home/CALGreen.aspx may be used to assist in documenting compliance Title 8, Section 5142, and other related regulations. California Department of Water Resoucres Model Water Efficient Landscape Ordinance (MWELO) commencing with ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and with the waste management plan. Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, 2. Mixed construction and demolition debris processors can be located at the California Department of 5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35. power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring Resources Recycling and Recovery (CalRecycle). completed within the systems manual and delivered to the building owner or representative. The Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the 5.408.2 UNIVERSAL WASTE. [A] Additions and alterations to a building or tenant space that meet the scoping systems manual shall include the following: prescriptive measures contained in Appendix D of MWELO. 1. Site information, including facility description, history and current requirements. ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste 2. Site contact information. the fluctuating noise level integrated over the time of period of interest. items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited 5.304.6.1 Newly constructed landscapes. [DSA-SS] New construction projects with an aggregate landscape 3. Basic operations and maintenance, including general site operating procedures, basic Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste area equal to or greater than 500 square feet. troubleshooting, recommended maintenance requirements, site events log. EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may materials shall be included in the construction documents. not be divided or have grade separations at intersections. 5.304.6.2 Rehabilitated landscapes. [DSA-SS] Rehabilitated landscape projects with an aggregate 5. Site equipment inventory and maintenance notes. Note: Refer to the Universal Waste Rule link at: landscape area equal to or greater than 1,200 square feet. FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections. 6. A copy of verifications required by the enforcing agency or this code. http://www.dtsc.ca.gov/LawsRegsPolicies/Regs/upload/OEAR-A_REGS_UWR_FinalText.pdf 7. Other resources and documentation, if applicable. 5.304.3 IRRIGATION DESIGN. In new nonresidential construction with at least 1,000 but not more than 2,500 square GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse 5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. 100 percent of trees, stumps, rocks and associated feet of cumulative landscaped area (the level at which the MWELO applies), install irrigation controllers and sensors gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such which include the following criteria, and meet manufacturer's recommendations. 5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance compound with a GWP of one. material may be stockpiled on site until the storage site is developed. staff for each equipment type and/or system shall be developed and documented in the commissioning 5.304.3.1 Irrigation controllers. Automatic irrigation system controllers installed at the time of final inspection GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Exception: Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation. report and shall include the following: shall comply with the following: Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or 1. System/equipment overview (what it is, what it does and with what other systems and/or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of equipment it interfaces). 1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14. response to changes in plants' needs as weather conditions change. 2. Review and demonstration of servicing/preventive maintenance. 1. If contamination by disease or pest infestation is suspected, contact the County Agricultural 2. Weather-based controllers without integral rain sensors or communication systems that account for 3. Review of the information in the Systems Manual. HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a Commissioner and follow its direction for recycling or disposal of the material. local rainfall shall have a separate wired or wireless rain sensor which connects or communicates 4. Review of the record drawings on the system/equipment. hdrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a 2. For a map of know pest and/or disease guarantine zones, consult with the California Department of with the controller(s). Soil moisture-based controllers are not required to have rain sensor input. GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Food and Agriculture. (www.cdfa.ca.gov) 5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009). Note: More information regarding irrigation controller function and specifications is available from the design and construction phases of the building project shall be completed and provided to the owner or Irrigation Association. LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS with a radius 1.5 times the pipe diameter. 5.410.1 RECYCLING BY OCCUPANTS. Provide readily accessible areas that serve the entire building and are 5.410.4 TESTING AND ADJUSTING. Testing and adjusting of systems shall be required for buildings less than dentified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) COMPLIES 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1. LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, ordinance, if more restrictive. **EFFICIENCY** sec.82.3 (as amended March 10, 2009). 5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project: Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2–1999. SECTION 5.401 GENERAL Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section. HVAC systems and controls. 5.401.1 SCOPE. The provisions of this chapter shall outline means of achieving material conservation and resource MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a 2. Indoor and outdoor lighting and controls. 5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to 3. Water heating systems. resulting in an increase of 30% or more in floor area, shall provide recycling areas on site. techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting. hundreths of a gram (g O³/g ROC). 4. Renewable energy systems. Landscape irrigation systems. Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this SECTION 5.402 DEFINITIONS 6. Water reuse systems. article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of 5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 (and are included here for reference) product (excluding container and packaging). 5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's 5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid Waste Reuse and specifications and applicable standards on each system. PSIG. Pounds per square inch, guage. Recycling Access Act of 1991 (Act). 5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the system serving a building or space is operated for normal use, the system shall be balanced in ozone formation in the troposphere. according to design quantities. CalRecycle's web site. accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National SCHRADER ACCESS VALVES. Access fittings with a valve core installed. Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction 5.410.2 COMMISSIONING. [N] For new buildings 10,000 square feet and over, building commissioning shall be Council National Standards or as approved by the enforcing agency. process, including verifying and documenting that building systems and components are planned, designed, installed, included in the design and construction processes of the building project to verify that the building systems and SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, tested, operated and maintained to meet the owner's project requirements. components meet the owner's or owner representative's project requirements. Commissioning shall be performed in with a radius 1.0 times the pipe diameter. 5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing accordance with this section by trained personnel with experience on projects of comparable size and complexity. All signed by the individual responsible for performing these services. ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food occupancies other than I-occupancies and L-occupancies shall comply with the California Energy Code as prescribed SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet soiled paper waste that is mixed in with food waste. in California Energy Code Section 120.8. For I-occupancies that are not regulated by OSHPD or for I-occupancies or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected 5.410.4.5 Operation and maintenance (O & M) manual. Provide the building owner or representative with and L-occupancies that are not regulated by the California Energy Code Section 100.0 Scope, all requirements in to remote compressor units or condensing units. TEST. A procedure to determine quantitative performance of a system or equipment detailed operating and maintenance instructions and copies of guaranties/warranties for each system. O & M Sections 5.410.2 through 5.410.2.6 shall apply. instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain Commissioning requirements shall include: 5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a) California Building Code Section 1403.2 (Weather Protection) and California Energy Code Section 150, (Mandatory 1. Owner's or Owner representative's project requirements. 5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition Features and Devices), manufacturer's installation instructions or local ordinance, whichever is more stringent. 2. Basis of design. by the enforcing agency. Commissioning measures shown in the construction documents included in that specific regulation is the one that prevails for the specific measure in question. 5.407.2 MOISTURE CONTROL. Employ moisture control measures by the following methods. 4. Commissioning plan. SECTION 5.503 FIREPLACES 5. Functional performance testing. 5.503.1 FIREPLACES. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed 5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures 6. Documentation and training. woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, 7. Commissioning report. 5.407.2.2 Entries and openings . Design exterior entries and/or openings subject to foot traffic or wind-driven Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances. rain to prevent water intrusion into buildings as follows: Exceptions: 5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance 5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water Unconditioned warehouses of any size. Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to 2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within to meet the emission limits. such openings plus at least one of the following: 3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1. SECTION 5.504 POLLUTANT CONTROL 1. An installed awning at least 4 feet in depth. 4. Open parking garages of any size, or open parking garage areas, of any size, within a structure. 5.504.1 TEMPORARY VENTILATION. The permanent HVAC system shall only be used during construction if 2. The door is protected by a roof overhang at least 4 feet in depth. necessary to condition the building or areas of addition or alteration within the required temperature range for Note: For the purposes of this section, unconditioned shall mean a building, area, or room which does not 3. The door is recessed at least 4 feet. material and equipment installation. If the HVAC system is used during construction, use return air filters with a 4. Other methods which provide equivalent protection. provide heating and or air conditioning. Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992 Replace all filters immediately prior to occupancy, or, if the building is 5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane. Informational Notes: occupied during alteration, at the conclusion of construction. 1. IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of 5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for rough installation, or during storage on the construction site and until final startup of the heating, cooling and qualifications of commissioning personnel. AC 476 des not certify individuals to conduct functional ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, performance tests or to adjust and balance systems. plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may collect in the system. 2. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the California Energy Code.



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SSUE DATE: <u>10/27/2017</u> __ BY:___KY

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C-26566 02-28-2019

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HY Architects Project number:

SAN BENITO JUVENILE HALL 708 FLYNN RD HOLLISTER, CA 95023

SAN BENITO COUNTY RENOVATION PROJECT

GREEN BUILDING STANDARDS CODE, SHEET 2

Client Project Number:

12" = 1'-0" Drawn By: Author

Client Proj. #

Checked By: Checker Issue Date: 10/27/2017 Revit Version: 2017

THE END USER TO BE USED AN A MEANS TO INDICATE AREAS OF COMPLIANCE WITH THE 2016 CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING STANDARDS (CALGREEN) CODE. DUE TO THE VARIABLES BETWEEN BUILDING VERIFICATION WITH THE FULL CODE.

By Date App

DETAIL

#\ Revisions

NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (INCLUDING JANUARY 1, 2017 ERRATA)

	1401414	_	/ \L	
CHECKED ITEMS APPLY			SHEET/ DETAIL LOCATION	CHECKED ITEMS APPLY
	5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.5 5.504.4.6.	04.4.1 through	ID2.0-ID2.2	
	 5.504.4.1 Adhesives, sealants and caulks. Adhesives, sealants, and caulks used on the projet the requirements of the following standards: Adhesives, adhesive bonding primers adhesive primers, sealants, sealant primers and comply with local or regional air pollution control or air quality management district rules whapplicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4. products also shall comply with the Rule 1168 prohibition on the use of certain toxic composition (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethyle aerosol products as specified in subsection 2, below. 2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounits of product, less packaging, which do not weigh more than one pound and do not conthan 16 fluid ounces) shall comply with statewide VOC standards and other requirements, prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17 with Section 94507. 	caulks shall nere 2. Such ounds ne), except for ounds (in sist of more including	ID2.0-ID2.2	
	TABLE 5.504.4.1 - ADHESIVE VOC LIMIT 1,2			
	Less Water and Less Exempt Compounds in Grams per Liter			
	ARCHITECTURAL APPLICATIONS CURRENT VOC LIMIT			
	INDOOR CARPET ADHESIVES 50			
	CARPET PAD ADHESIVES 50			

100

60

50

50

50

50

70

100

50

OUTDOOR CARPET ADHESIVES

WOOD FLOORING ADHESIVES

RUBBER FLOOR ADHESIVES

SUBFLOOR ADHESIVES

COVE BASE ADHESIVES

PLASTIC FOAMS

WOOD

FIBERGLASS

POROUS MATERIAL (EXCEPT WOOD)

CERAMIC TILE ADHESIVES

VCT & ASPHALT TILE ADHESIVES

STRUCTURAL GLAZING ADHESIVES

MULTIPURPOSE CONSTRUCTION ADHESIVES

DRYWALL & PANEL ADHESIVES

GRAPHIC SCALES:

250 SINGLE-PLY ROOF MEMBRANE ADHESIVES SPECIALTY APPLICATIONS 510 PVC WELDING CPVC WELDING 490 325 ABS WELDING 250 PLASTIC CEMENT WELDING 550 ADHESIVE PRIMER FOR PLASTIC CONTACT ADHESIVE 80 SPECIAL PURPOSE CONTACT ADHESIVE 250 STRUCTURAL WOOD MEMBER ADHESIVE 250 TOP & TRIM ADHESIVE SUBSTRATE SPECIFIC APPLICATIONS 30 METAL TO METAL

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168, www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF

IMIT
ms per Liter
CURRENT VOC LIMIT
250
760
300
250
450
420
250
775
500
760
750

COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168. 5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of ID2.0-ID2.2 the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat

or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007

California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or

Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

limits of Regulation 8 Rule 49.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT	COMPOUNDS	1
COATING CATEGORY	CURRENT VOC LIMIT]
FLAT COATINGS	50]
NONFLAT COATINGS	100]
NONFLAT HIGH GLOSS COATINGS	150	1
SPECIALTY COATINGS		1
ALUMINUM ROOF COATINGS	400	1
BASEMENT SPECIALTY COATINGS	400	1
BITUMINOUS ROOF COATINGS	50	1
BITUMINOUS ROOF PRIMERS	350	1
BOND BREAKERS	350	1
CONCRETE CURING COMPOUNDS	350	1
CONCRETE/MASONRY SEALERS	100	1
DRIVEWAY SEALERS	50	1
DRY FOG COATINGS	150	1
FAUX FINISHING COATINGS	350	1
FIRE RESISTIVE COATINGS	350	1
FLOOR COATINGS	100	1
FORM-RELEASE COMPOUNDS	250	1
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500	1
HIGH-TEMPERATURE COATINGS	420	1
INDUSTRIAL MAINTENANCE COATINGS	250	1
LOW SOLIDS COATINGS 1	120	1
MAGNESITE CEMENT COATINGS	450	1
MASTIC TEXTURE COATINGS	100	1
METALLIC PIGMENTED COATINGS	500	1
MULTICOLOR COATINGS	250	1
PRETREATMENT WASH PRIMERS	420	1
PRIMERS, SEALERS, & UNDERCOATERS	100	1
REACTIVE PENETRATING SEALERS	350	1
RECYCLED COATINGS	250	1
ROOF COATINGS	50	1
RUST PREVENTATIVE COATINGS	250	1
SHELLACS:		1
CLEAR	730	1
OPAQUE	550	1
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100	1
STAINS	250	1
STONE CONSOLIDANTS	450	1
SWIMMING POOL COATINGS	340	1
TRAFFIC MARKING COATINGS	100	1
TUB & TILE REFINISH COATINGS	420	1
WATERPROOFING MEMBRANES	250	1
WOOD COATINGS	275	1
WOOD PRESERVATIVES	350	1
ZINC-RICH PRIMERS	340	1
GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEM		4
2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS THE TABLE.	ARE LISTED IN SUBSEQUENT COLUMNS IN	
3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1,		

the enforcing agency. Documentation may include, but is not limited to, the following: Manufacturer's product specification 2. Field verification of on-site product containers

5.504.4.4 Carpet Systems. All carpet installed in the building interior shall meet at least one of the testing and ID2.0-ID2.2 product requirements: 1. Carpet and Rug Institute's Green Label Plus Program.

2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350).

3. NSF/ANSI 140 at the Gold level or higher; 4. Scientific Certifications Systems Sustainable Choice; or 5. Compliant with the Collaborative for High Performance Schools California (CA-CHPS) Criteria Interpretation for EQ 7.0 and EQ 7.1 (formerly EQ 2.2) dated July 2012 and listed in the CHPS High

Performance Product Database 5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1. 5.504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table

5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

Product certifications and specifications. Chain of custody certifications.

5.504.4.5.

3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).

4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S

5. Other methods acceptable to the enforcing agency.

DETAIL LOCATION APPLY TABLE 5.504.4.5 - FORMALDEHYDE LIMITS MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION **CURRENT LIMIT** HARDWOOD PLYWOOD VENEER CORE 0.05 HARDWOOD PLYWOOD COMPOSITE CORE 0.05 PARTICLE BOARD 0.09 0.11 MEDIUM DENSITY FIBERBOARD 0.13 THIN MEDIUM DENSITY FIBERBOARD 2 1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD. AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM). 5.504.4.6 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring, installed ID2.0-ID2.2 resilient flooring shall meet at least one of the following: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program; 2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers,

3. Compliant with the Collaborative for High Performance Schools California (CA-CHPS) Criteria Interpretation for EQ 7. and EQ 7.1 (formerly EQ 2.2) dated July 2012 and listed in the CHPS High Performance Product DataBase; or

4. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children's & Schools 5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring

materials meet the pollutant emission limits. 5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 8. MERV 8 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the

California Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at design air flow. 2. Existing mechanical equipment. 5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL. Where outdoor areas are provided for smoking,

1. An ASHRAE 10% to 15% efficiency filter shall be permitted for an HVAC unit meeting the 2013

prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions. ☐ SECTION 5.505 INDOOR MOISTURE CONTROL

same value shall be included in the operation and maintenance manual.

5.505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code, CCR. Title 24. Part 2. Sections 1203 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures not applicable to low-rise residential occupancies, see Section 5.407.2 of this code. ☐ SECTION 5.506 INDOOR AIR QUALITY

requirements of Section 120.1 (Requirements For Ventilation) of the California Energy Code, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8. 5.506.2 CARBON DIOXIDE (CO₂) MONITORING. For buildings or additions equipped with demand control ventilation. CO₂ sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

5.506.1 OUTSIDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum

SECTION 5.507 ENVIRONMENTAL COMFORT 5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

spaces and public places shall have an STC of at least 40.

a. Lan or CNEL for military airports shall be determined by the facility Air Installation Compatible

b. Ldn or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

2. Within the 65 CNEL or Ldn noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1. Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L_{eq} - 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of

at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30). 5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does

not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation. 5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record. 5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/stc_icc_ratings.pdf. SECTION 5.508 OUTDOOR AIR QUALITY

5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression

equipment shall comply with Sections 5.508.1.1 and 5.508.1.2. 5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO₂), and potentially other refrigerants.

1 1/2" = 1'-0"

refrigerant charge of 5 pounds or less.

rupture or discharge of the relief valve.

controls, valve pilot lines and oil.

5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack. 5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a

5.508.2.1.2.1 Anchorage. One-fouth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure

Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's

recommendations. 5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of

long radius elbows. 5.508.2.2 Valves. Valves Valves and fittings shall comply with the California Mechanical Code and as

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve. 5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc

5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are permitted for use.

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place. 5.508.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem operation.

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-reistant material, such as stainless steel; or be coated to prevent

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device tha indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum. 5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging. 5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and

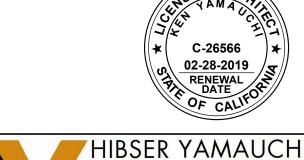
5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

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BID DOCUMENTS

SSUE DATE: <u>10/27/2017</u>



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SAN BENITO COUNTY RENOVATION PROJECT

GREEN BUILDING STANDARDS CODE, SHEET 3

Client Proj. #

Client Project Number:

12" = 1'-0" Drawn By: Author

Revit Version: 2017

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