College of San Mateo

Building 34 Modernization

San Mateo County Community College District 729 Heinz Avenue Berkeley, CA 94710 510.649.8295 fax 510.649.3008 PROJECT TEAM GENERAL SITE PLAN (SEE SHEET C1.01 FOR ADDITIONAL INFORMATION) **VICINITY MAP** SCALE: 1" = 120'-0" NOT TO SCALE CONSULTANTS MAPQUEST Designer / Builder PROJECT Pankow Special Projects **BOUNDARY UON** 2101 Webster Street, Suite 1500 DSA DSA Oakland, CA 94612 APPLICATION **APPLICATION** LOT Tel: 510.893.5170 #19726 #19726 #19726 FAX: 510.893.8950 Architects Noll & Tam Architects 729 Heinz Avenue, Suite 7 CORP BLDG. 12 Berkeley, California 94710 289 YARD Tel: 510.649.8295 DSA APPLICATION FAX: 510.649.3008 SITEWORK DSA APPLICATION Structural Engineers #01-110097 KPFF Consulting Engineers 1160 Battery Street, Suite 300 San Francisco, California 94111 Tel: 415.989.1004 FAX: 415.989.1552 DSA APPLICATION #01-110095 Civil Engineers REN. 12/31/11 255 Shoreline Drive, Suite 200 Redwood City, CA 94065 Tel: 650.482.6300 FAX: 650.482.6399 CONSTRUCTION DOCUMENTS CODE COMPLIANCE SCOPE OF WORK **COLLEGE OF** Design-Build Mechanical SAN MATEO ACCO Engineered Systems 2007 CBC, TITLE 24 CCR (WITH 2007 AMMENDS.) 1. CONSTRUCT APPARATUS STORAGE IN EXISTING BUILDING: 1133 Aladdin Avenue BUILDING 34 A. INSTALL EXTERIOR 12'-0" x 14'-0" OVERHEAD DOORS San Leandro, CA 94577 1. Part 1 Building Standards Administrative Code **MODERNIZATION** B. INSTALL EXTERIOR SINGLE LEAF DOOR Tel: 510.346.4300 C. INSTALL VEHICLE EXHAUST SYSTEM SMCCCD FAX: 510.347.1317 Part 2 California Building Code (CBC) D. INSTALL PRE-FABRICATED MEZZANINE 3401 CSM Drive *NOTE: VEHICLES STORED IN APPARATUS STORAGE ARE FOR TRAINING PURPOSES ONLY San Mateo, CA 94402 Part 3 California Electrical Code (CEC) CONSTRUCT MAIL / RECEIVING SPACE IN EXISTING BUILDING WITH EXTERIOR DOUBLE-LEAF DOOR College of San Mateo CONSTRUCT WALL AND DOUBLE-LEAF INTERIOR DOOR OPENING FOR SECURE STORAGE IN EXISTING BUILDING Design-Build Plumbing 1700 W. Hillsdale Blvd. CONSTRUCT WALL AND DOUBLE-LEAF INTERIOR DOOR OPENING FOR ITS MEDIA SERVICES CENTER IN EXISTING BUILDING Part 4 California Mechanical Code 5. CONSTRUCT WALL FOR INFORMATION TECHNOLOGY WAREHOUSE San Mateo, CA 94402 L.J. Kruse 6. CONSTRUCT VESTIBULE FOR INFORMATION TECHNOLOGY WAREHOUSE AND EXISTING CHILLER PLANT SHEET TITLE Part 5 California Plumbing Code 920 Pardee Street **COVER SHEET** Berkeley, CA 94710 Part 6 California Energy Code Tel: 510.644.0260 FAX: 510.849.9909 Part 9 California Fire Code ARCHITECT'S STATEMENT REVISIONS Part 12 California Referenced Standards NO. DATE DESCRIPTION Design-Build Electrical With the exception of the General (G Series) and Architectural (A Series) these drawings and/or specifications State Fire Marshal Regulations National Reference Standards Cupertino Electric, Inc. and/or calculations for the items listed on G0.01 have been prepared by other design professionals or consultants 1470 Caesar Chavez who are licensed and/or authorized to prepare such drawings in this state. These documents have been examined ADA Code of Federal Regulations including Amendments San Francisco, CA 94142 by me for design intent and appear to meet the appropriate requirements of Title 24, California Code of Regulations ASD(AISC) Manual of Steel Construction, 13th Edition Tel: 415.970.3442 and the project specifications prepared by me. FAX: 415.970.3434 ACI-318-05 Code & Commentary The items listed above have been coordinated with my plans and specifications and are acceptable for incorporation 2002 NFPA 13 Installation of Sprinkler Systems into the construction of this project for which I am the individual designated to be in general responsible charge. 2003 NFPA 14 Installation of Standpipe, Private Hydrant The Statement of General Conformance "shall not be construed as relieving me of my rights, duties, and and Hose Systems MARCH 11, 2011 responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344" of 2002 NFPA 17A to a UL 300 for Class I Hood Fire Suppression System. (Wet Chemical Extinguishing Systems) DRAWN СВ the Title 24, Part 1. (Title 24, Part 1, Section 4-317 (b)) CHECKED JC 2002 NFPA 24 Installation of Private Fire Service Mains LOCAL FIRE AUTHORITY REVIEW and Their Appurtenances SCALE The accepted drawings are listed on Sheet G0.01. 2002 NFPA 72 National Fire Alarm Code

Christopher Noll, Principal

Expiration Date: 12/31/11

NOLL & TAM Architects

CA License No C15916

N&T JOB NO.: 2901.4

SHEET NUMBER

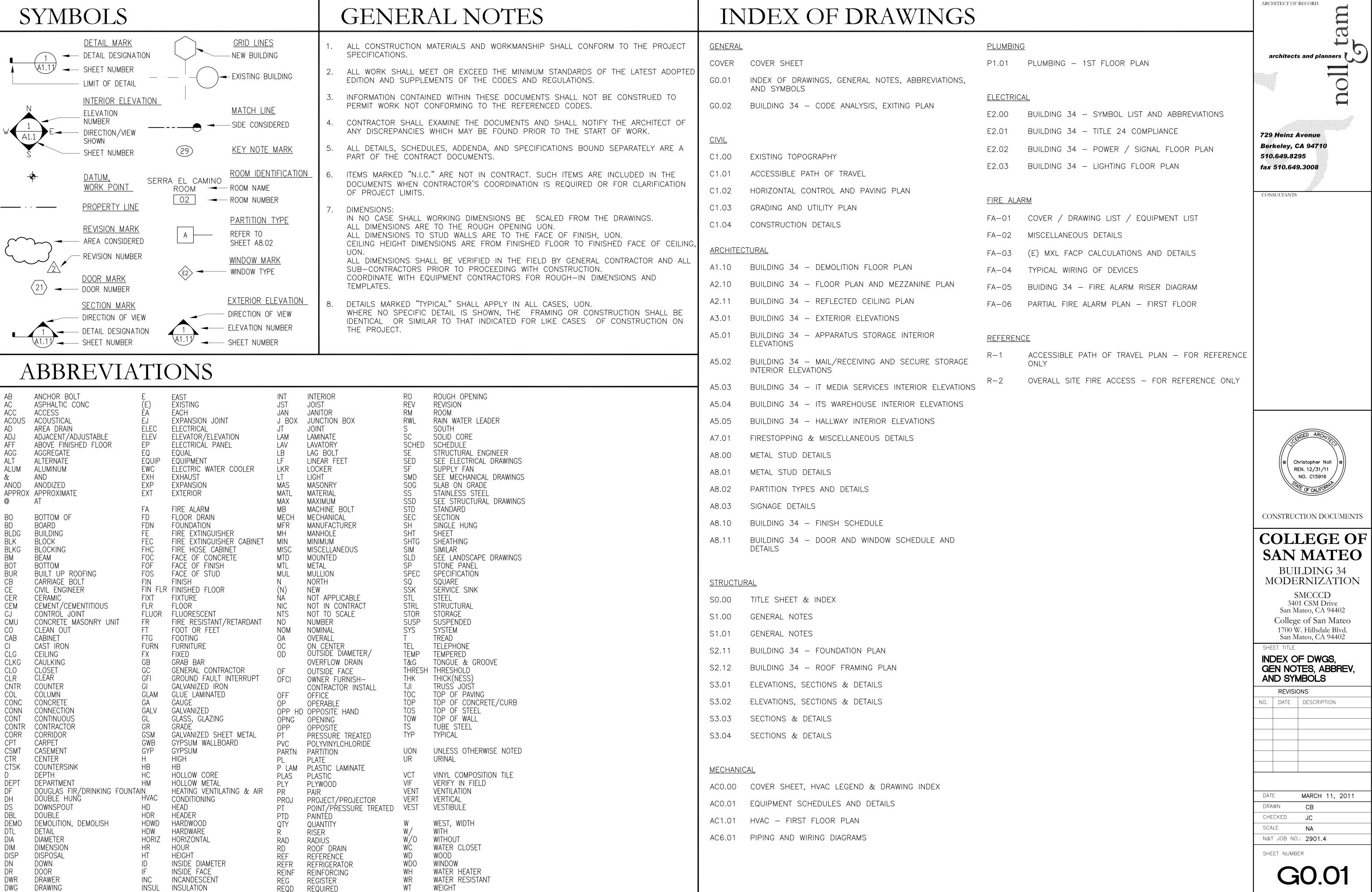
COVER

SEE SHEET R-2

CAMPUS ACCESSIBILITY

NFPA 90A, 2002 Edition

SEE SHEET R-1



RESILIENT

ARCHITECT OF RECORD architects and planners 729 Heinz Avenue Berkeley, CA 94710 510.649.8295 fax 510.649.3008

Christopher Noll

REN. 12/31/11

NO. C15916

SMCCCD

MARCH 11, 2011

CB

JC

CODE ANALYSIS - California Building Code, 2007 Edition

BUILDING 34

Existing Conditions

Existing Structure: Type VB Fire Suppression Sprinkler System: Unsprinklered CBC 903.2: Sprinklers not required for B Occupancy Fire Alarm System: Consists of a Siemens MXL (District Standard) Fire Alarm Control Panel that is tied to the Main Campus Fire Alarm Control Panel.

<u>Occupancy</u>

CBC Chapter 3 Article 304.1

Mixed Use Occupancy $-\underline{S-1}$: Apparatus Storage $-\underline{Motor}$ Vehicle Repair

<u>B</u>: Community College — Information Technology Storage and Campus Mail Sorting and

Per CBC Table 508.3.3 no separation is required between S-1 and B Occupancies

Additional Occupancies - none:

Table 508.2 defines spaces such as refrigerant machinery rooms as Incidental Use Areas to the main building occupancy. The existing Chiller Plant is therefore a Incidental Use Area requiring a 1-hour separation from the rest of the building.

Allowable Building Area

Building Area total below horizontal roof projection per CBC 502.1: 11,144 SF CBC Chapter 5 Table 503

Basic Allowable Floor Area (B and S-1 Occ): 9,000 SF per story for two stories

Area Modifications per CBC 506.2

Allowable Area for Frontage = [(frontage>20' open space/building perimeter) - 0.25 (30/30) =[(422 LF/422 LF)-0.25](1) = 0.75

Allowable Area for B and S-1 occupancies = 9,000 SF x 1.75 = 15,750 SF > 11,144 SF = 0K

Fire Resistant Rating Requirements

CBC Table 601

Fire Resistive Rated Construction: Bearing walls -Exterior = 0 hours

Non-bearing walls - 0 hours

Floor construction - 0 hours Roof construction - 0 hour

Allowable Openings

CBC Table 704.8 — Maximum Area of Exterior Wall Openings No limit where Fire Separation Distance is greater than 30 feet

Required Separation of Occupancies

CBC Chapter 5 Table 508.2 Incidental Use Areas: Chiller Plant (Refrigerant Machinery Rooms) = 1-hour separation

Occupant Load

Gross Floor Area inside exterior walls per CBC 1002.1: 10,591 SF Net Floor Area excluding corridors, mechanical and toilet rooms per CBC 1002.1:

Total Occupant Load: 77 Occupants

CBC Chapter 10 Table 1004.1.1

1) Wet Break room: 106 SF (net)/15 SF per occupant = 8 occupants - 1means of egress required and provided

Egress Requirements

provided

Egress Width for Building Exits: Occupant Load x 0.2 inches AREA A - APPARATUS STORAGE: 11 x 0.2 = 3 inches required and 36 inches

AREA B - MAIL RECEIVING: 6 x 0.2 = 1.2 inches required and 72 inches provided AREA C - BALANCE OF BUILDING: $64 \times 0.2 = 12.8$ inches required and 108inches provided

2 exits required for 77 Occupants and 4 provided

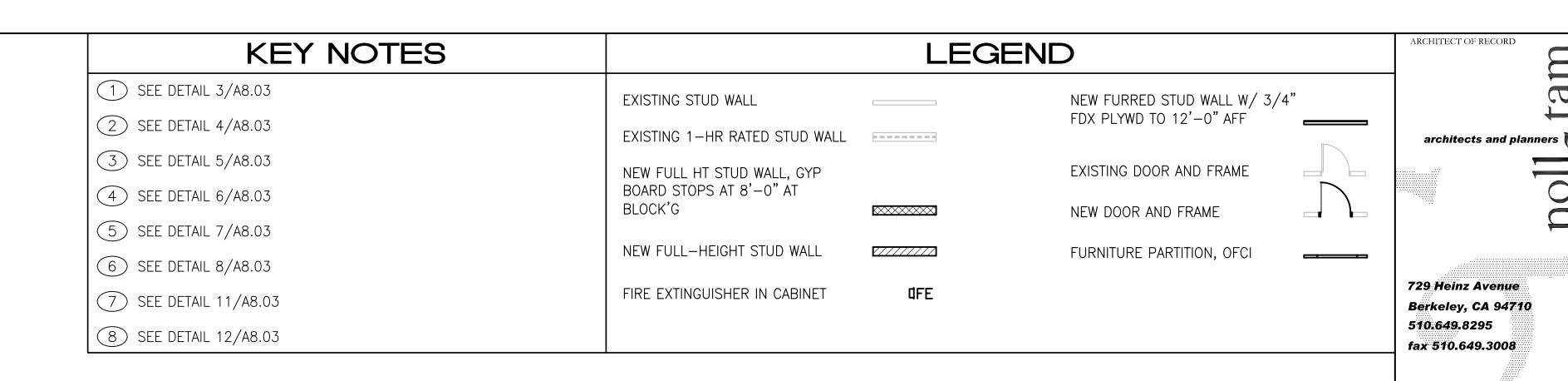
CBC 1014.3

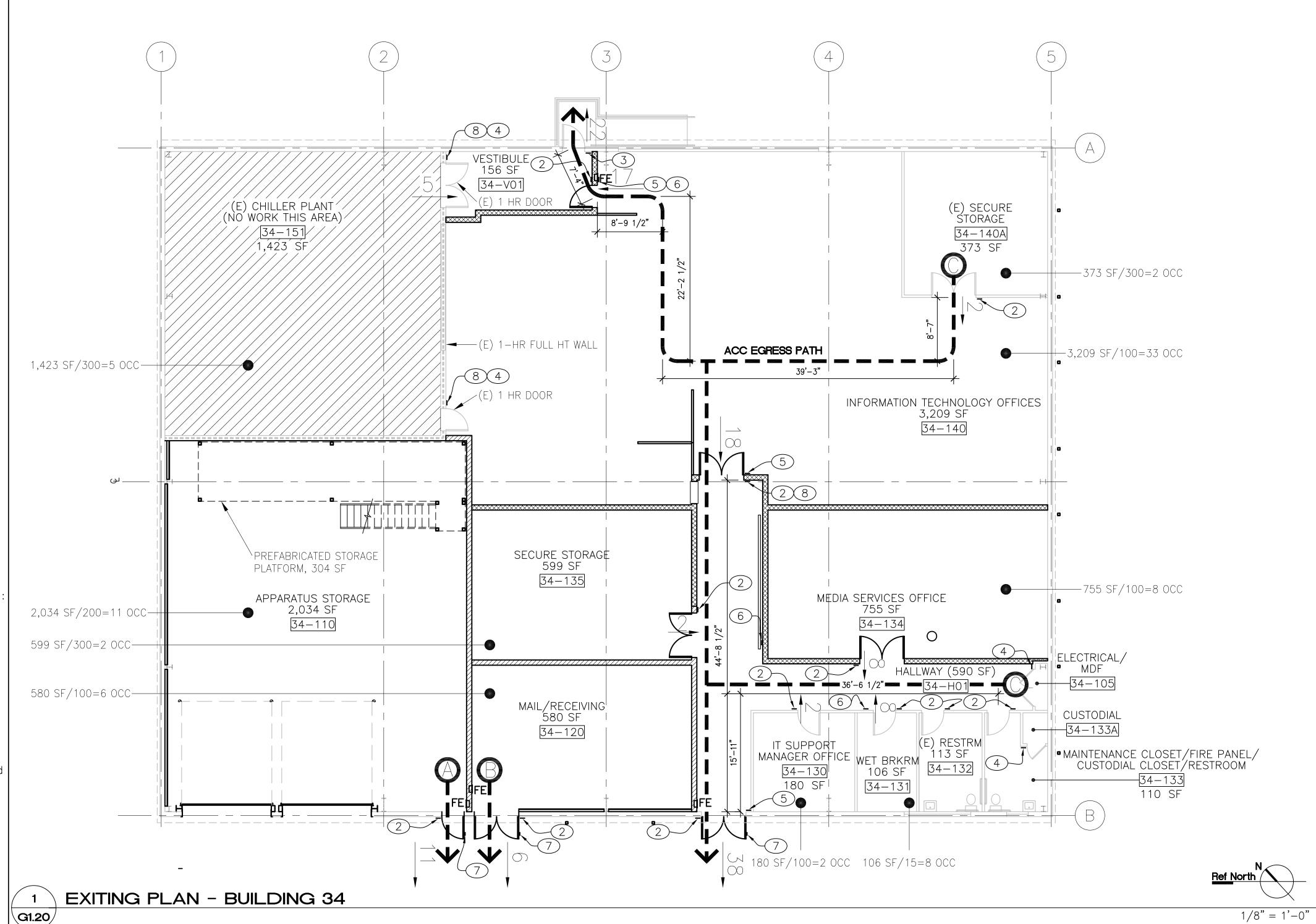
Maximum allowable length of Common Path of Egress Travel: 75 feet maximum (Non-Sprinklered Building)

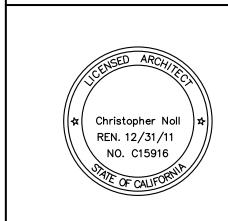
Maximum proposed length of Common Path of Egress Travel: 52 feet <75

CBC Table 1016.1

Exit Access Travel Distance: 200 feet maximum (Non—Sprinklered Building) Maximum proposed length of Exit Access Travel Distance: 87 feet < 200







CONSULTANTS

am

CONSTRUCTION DOCUMENTS

COLLEGE OF SAN MATEO

BUILDING 34 **MODERNIZATION**

> 3401 CSM Drive San Mateo, CA 94402 College of San Mateo 1700 W. Hillsdale Blvd. San Mateo, CA 94402

SMCCCD

SHEET TITLE **BUILDING 34-**CODE ANALYSIS, EXITING PLAN

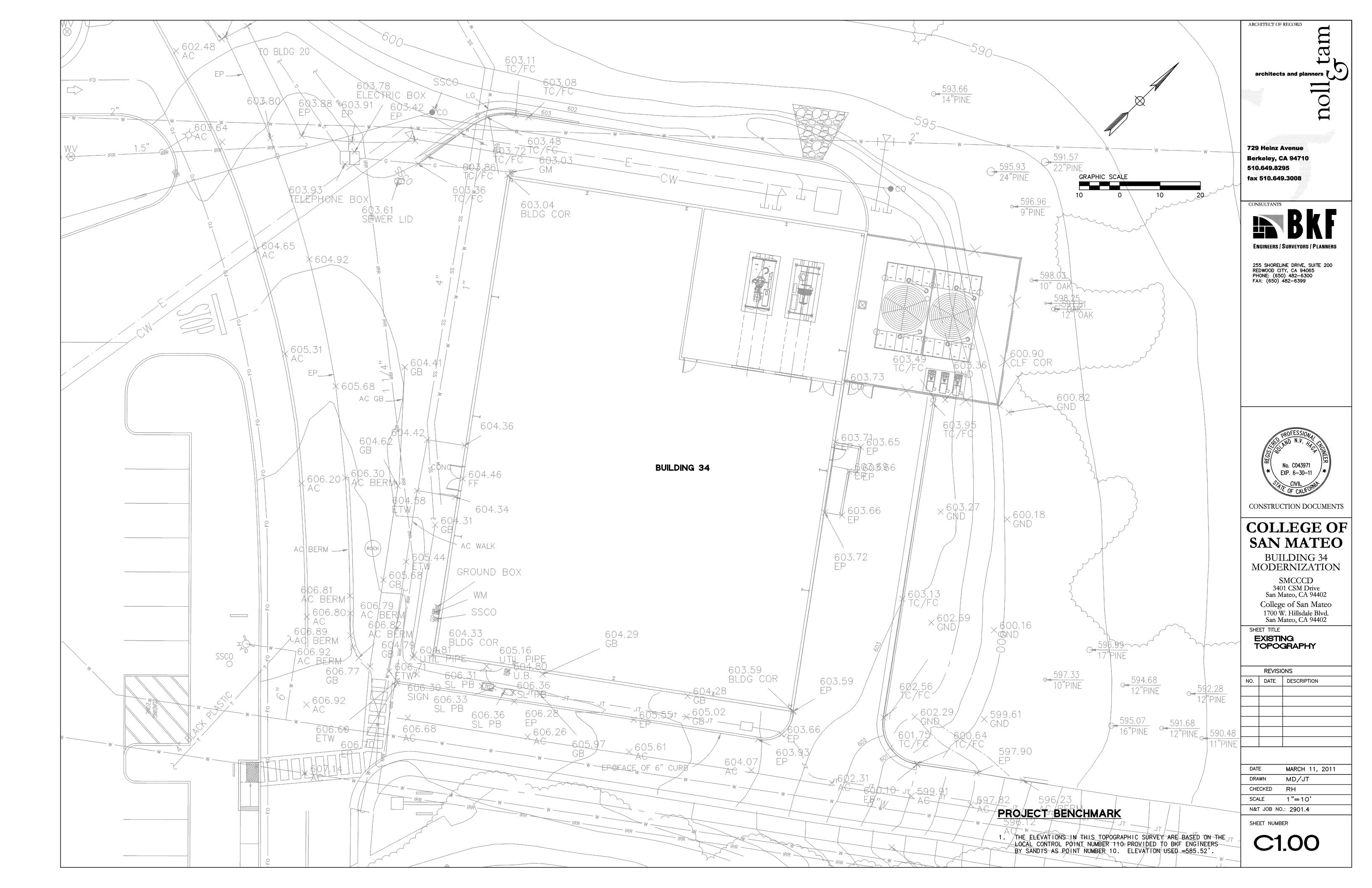
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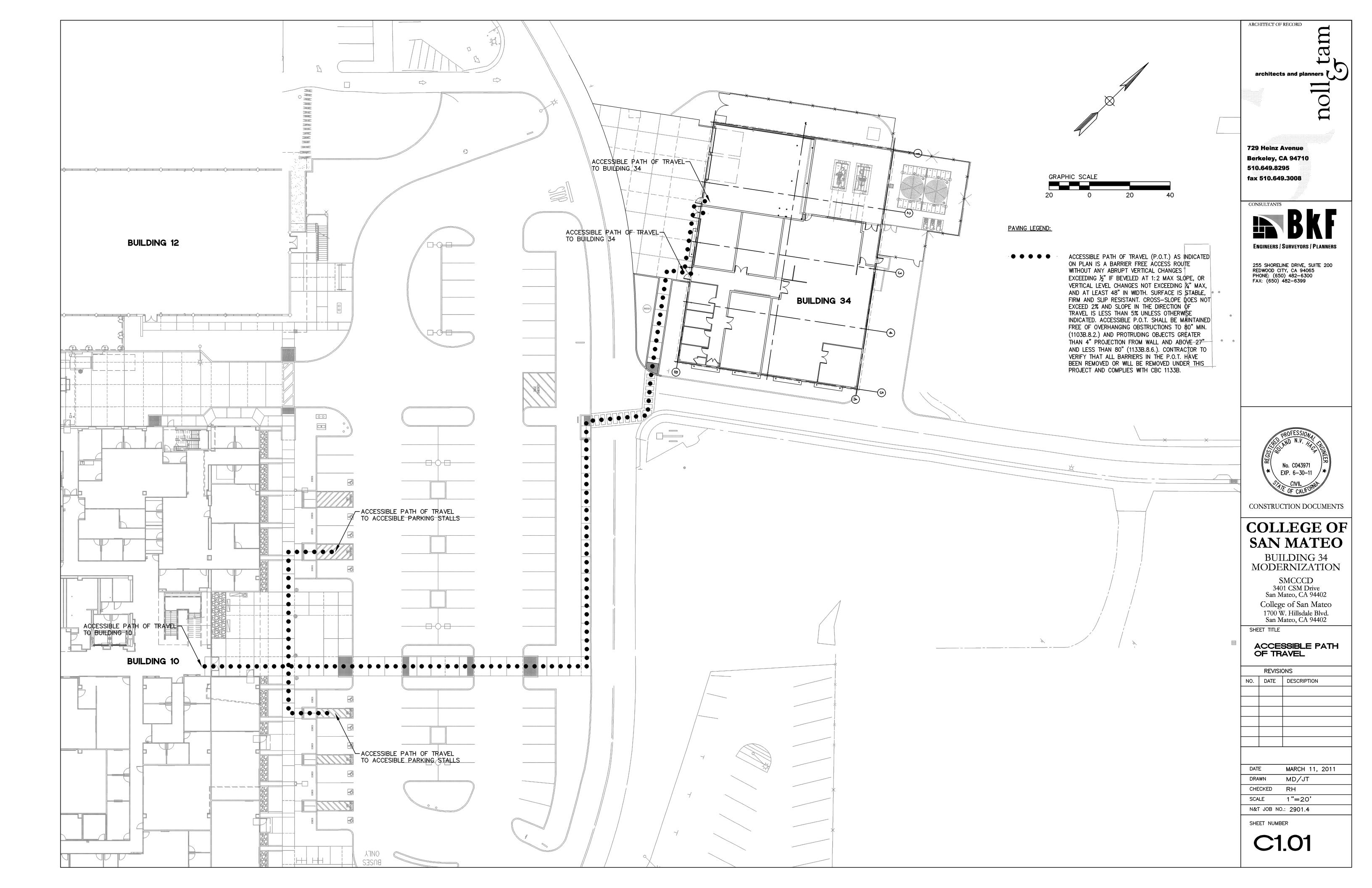
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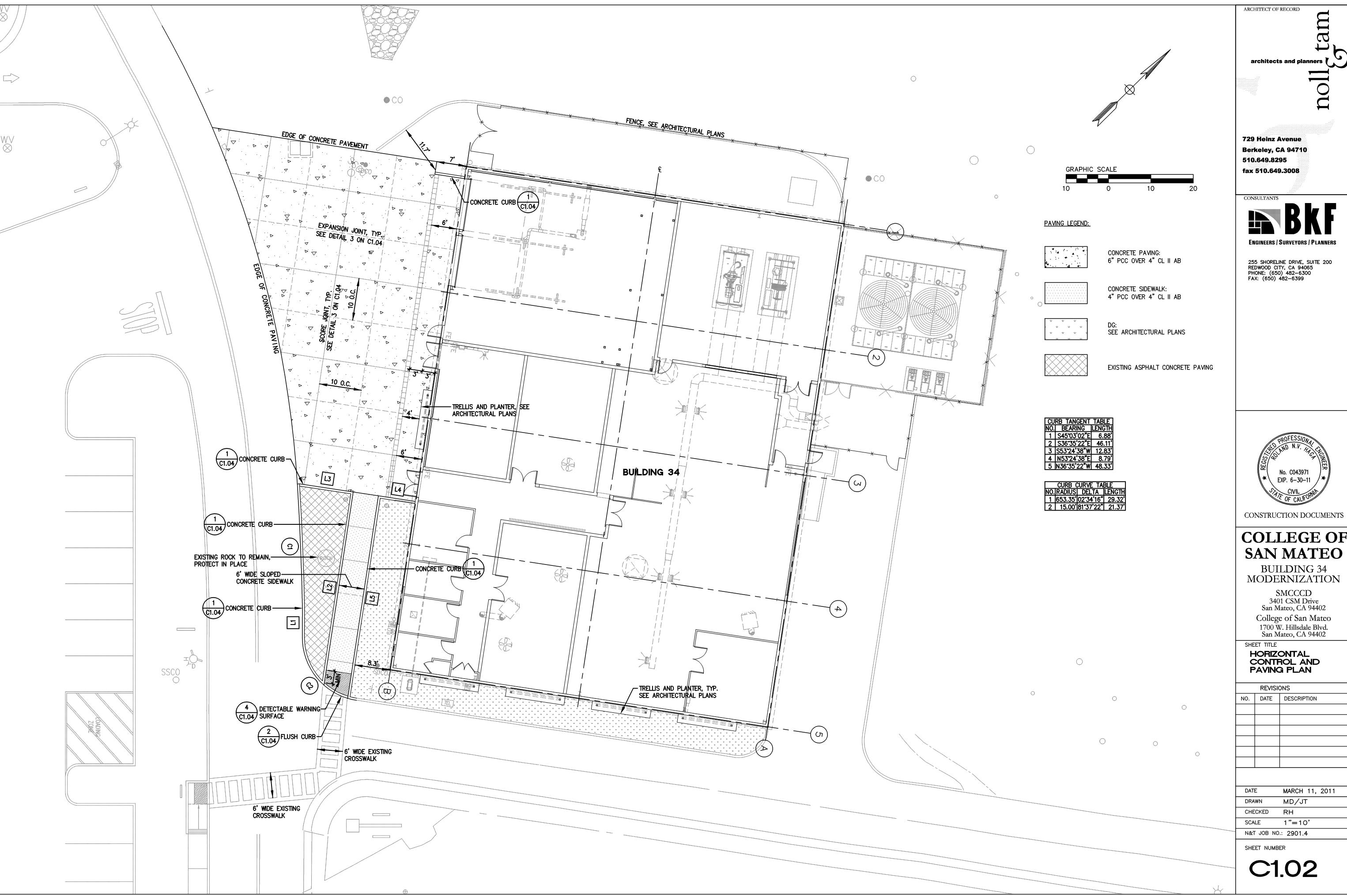
MARCH 11, 2011 CHECKED JC 1/8" = 1'-0"SCALE N&T JOB NO.: **2901.4**

SHEET NUMBER

G0.02









Berkeley, CA 94710



255 SHORELINE DRIVE, SUITE 200 REDWOOD CITY, CA 94065 PHONE: (650) 482-6300 FAX: (650) 482-6399



COLLEGE OF SAN MATEO

BUILDING 34 MODERNIZATION

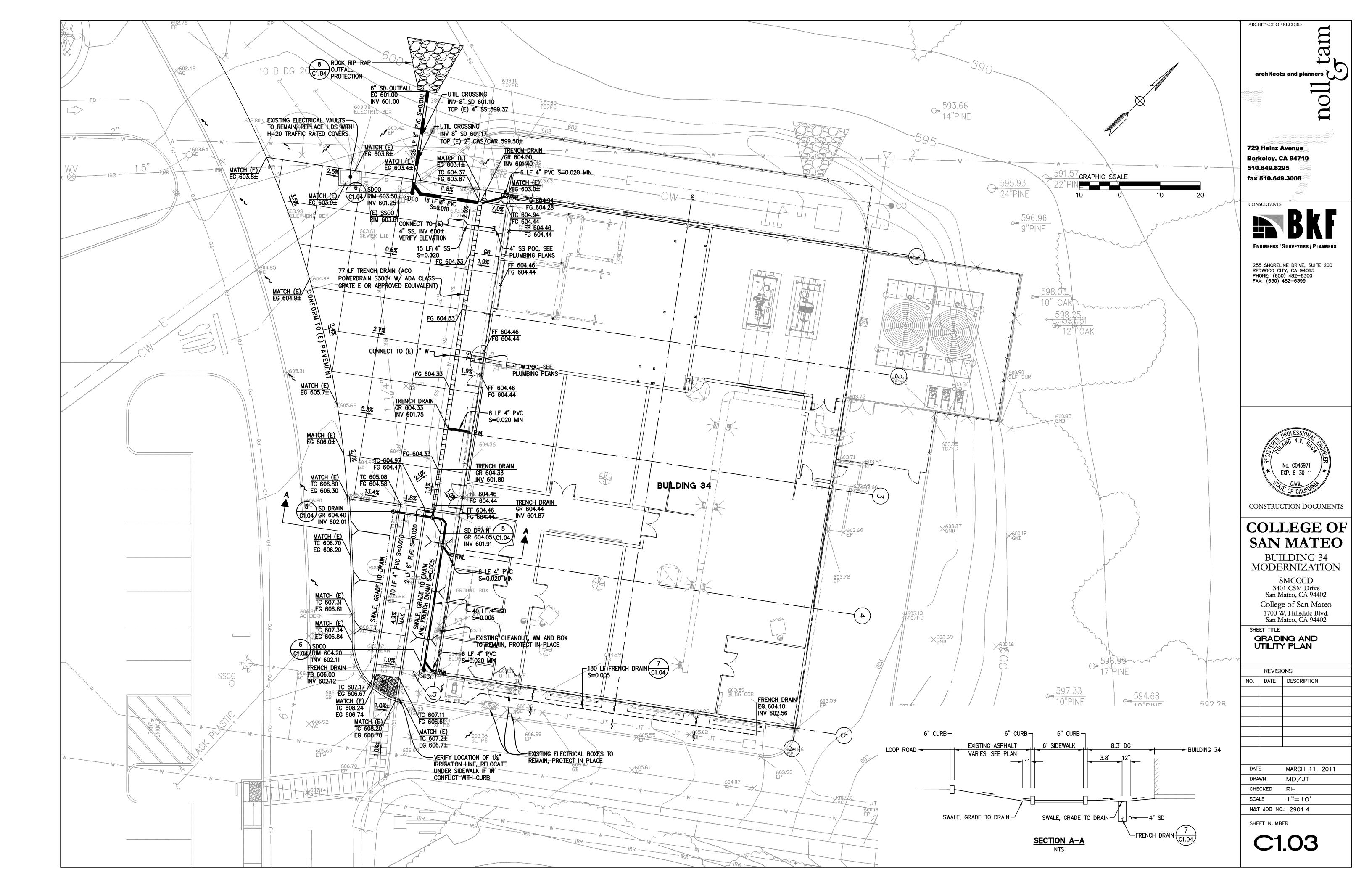
College of San Mateo 1700 W. Hillsdale Blvd. San Mateo, CA 94402

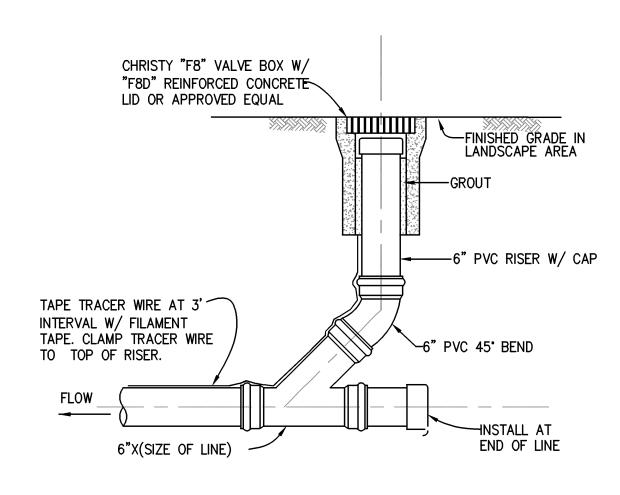
HORIZONTAL CONTROL AND PAVING PLAN

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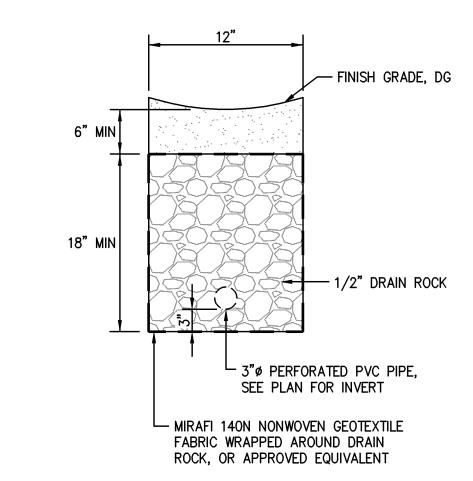
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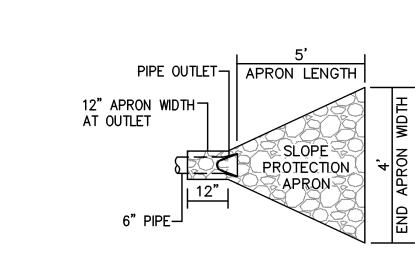
C1.02





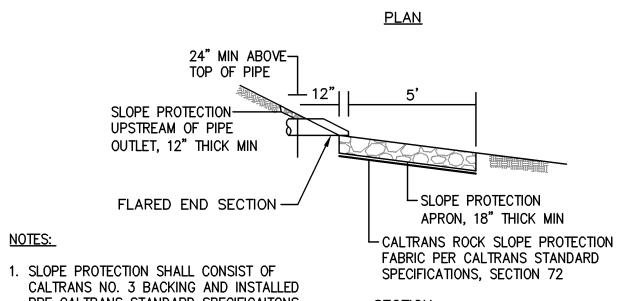






FRENCH DRAIN

NTS

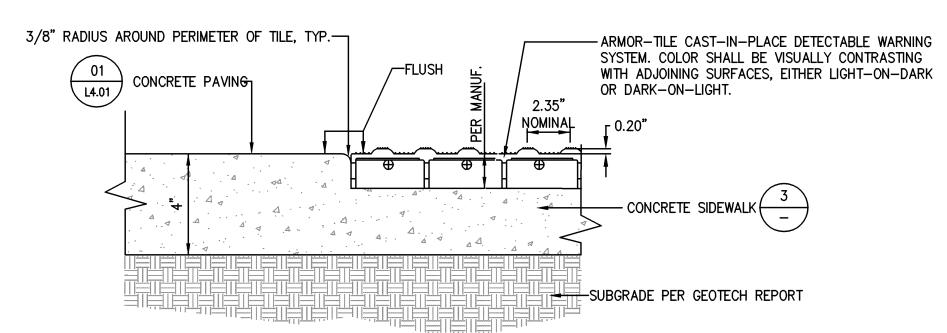


ROCK RIP-RAP

NTS

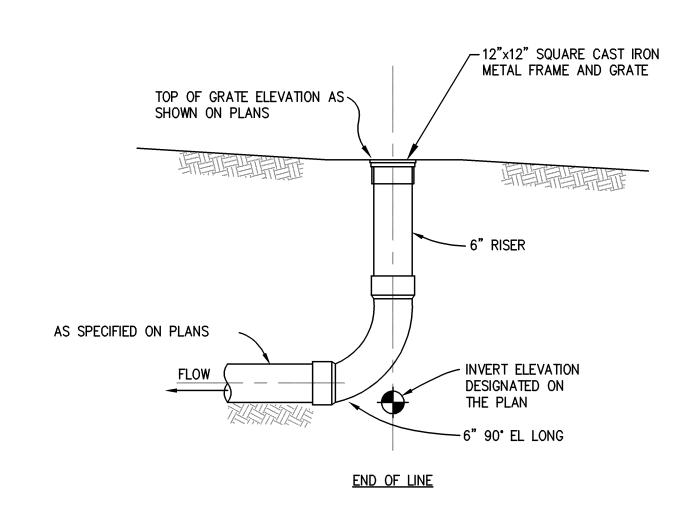
PRE CALTRANS STANDARD SPECIFICAITONS. <u>SECTION</u>

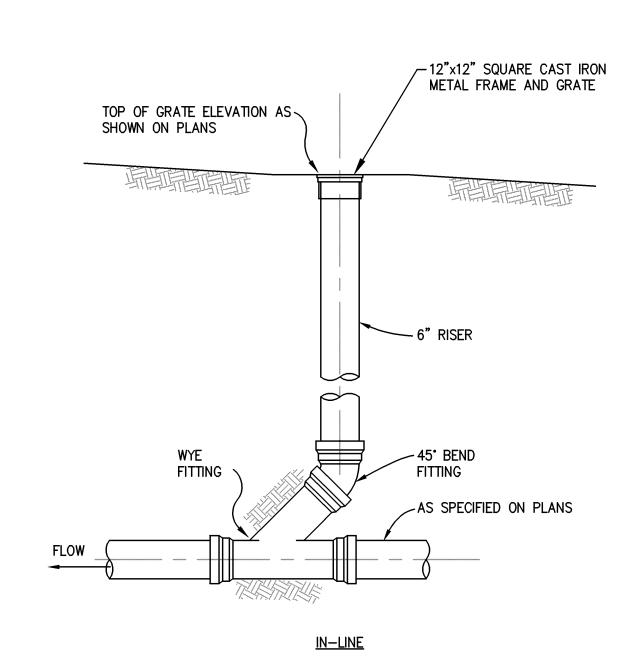
NOTES:



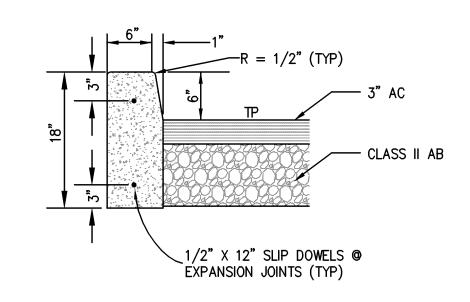
- 1. FINISH SURFACE OF CAST-IN-PLACE TILE SHALL BE FLUSH WITHIN # TOLERANCE TO ADJACENT TILE PANELS OR CONCRETE PAVING. BOLT ADJACENT TILE PANELS TOGETHER AS NECESSARY PRIOR TO INSTALLATION TO ENSURE FLUSH CONDITION.
- 2. REFER TO ARMOR-TILE MANUFACTURER'S DETAILS AND INSTALLATION INSTRUCTIONS FOR MORE INFORMATION.
- 3. THE COLOR OF THE DETECTABLE WARNING SURFACE IN ALL AREAS IS "ARMOR-TILE CAST IN PLACE DETECTABLE WARNING SYSTEM," COLOR DARK GRAY, FEDERAL COLOR NO. 36118.

DETECTABLE WARNING SURFACE

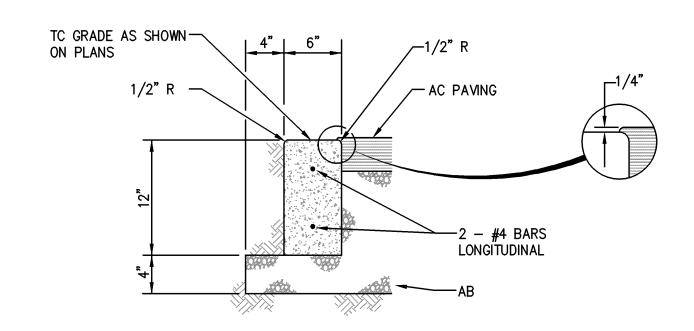




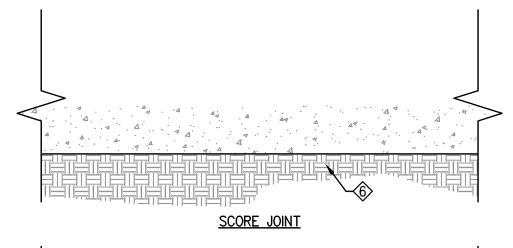


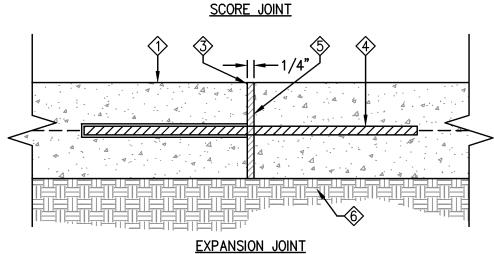






FLUSH CURB **—** / NTS

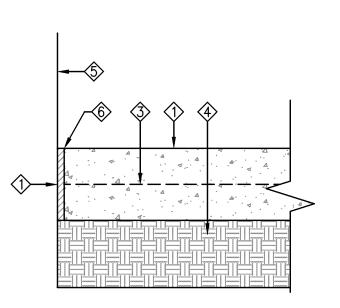




- (1) CONCRETE SIDEWALK/PAVING.
- 4" WIDE TOOLED JOINT. TOOLED JOINT TO BE 14 DEPTH OF SLAB MIN. TYP.
- ③ 1/8" RADIUS, TYPICAL ALL EDGES
- 4 1/2" X 18" SMOOTH DOWEL WITH PAPER SLEEVES AND CORK AT ONE END @ 24" O.C. FOR PEDESTRIAN.
- \$\mathcal{1}\mathcal{2}\mathcal{1}\mathcal{2
- BASE MATERIAL AND COMPACTED SUBGRADE PER GEOTECHNICAL REPORT.

NOTES;

- 1. BREAK STEEL AT EXPANSION JOINT.
- 2. LOCATE COLD JOINTS ONLY AT EXPANSION JOINT OR SCORE JOINT LOCATIONS AS INDICATED ON LAYOUT PLAN. LOCATE COLD JOINTS AT EXPANSION JOINTS WHERE POSSIBLE. IF COLD JOINTS ARE LOCATED AT SCORE JOINT LOCATIONS AS SHOWN ON LAYOUT PLAN, REBAR CAN BE EXTENDED THROUGH THE JOINT AND STEEL DOWELS CAN BE ELIMINATED.



EXPANSION JOINT AT VERTICAL EDGE

- (1) CONCRETE WALK.
- ② ¼" EXPANSION MATERIAL TO BE FLUSH WITH FINISH SURFACE, TYP.
- STEEL REINFORCEMENT PER CONCRETE WALK.
- BASE MATERIAL AND COMPACTED SUBGRADE PER GEOTECHNICAL REPORT.
- **S** VERTICAL SURFACE.
- ♠ 1/8" EASED EDGE, TYPICAL ALL EDGES.

NOTES:

SCORE AND EXPANSION JOINTS

NTS

1. PROVIDE EXPANSION JOINT @ ALL VERT. SURFACES.

ARCHITECT OF RECORD

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COLLEGE OF SAN MATEO

BUILDING 34 MODERNIZATION SMCCCD

3401 CSM Drive San Mateo, CA 94402 College of San Mateo 1700 W. Hillsdale Blvd. San Mateo, CA 94402

SHEET TITLE CONSTRUCTION

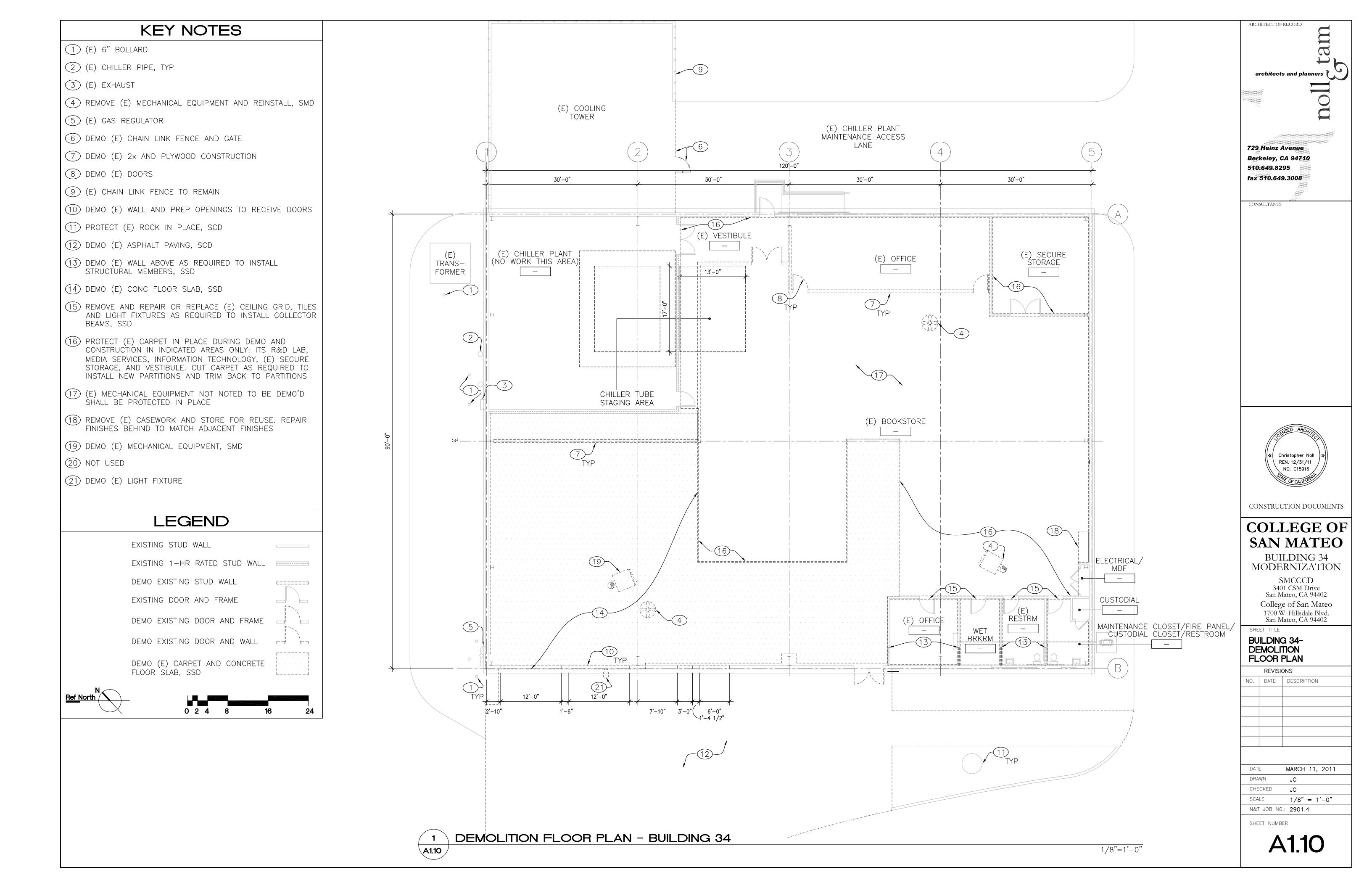
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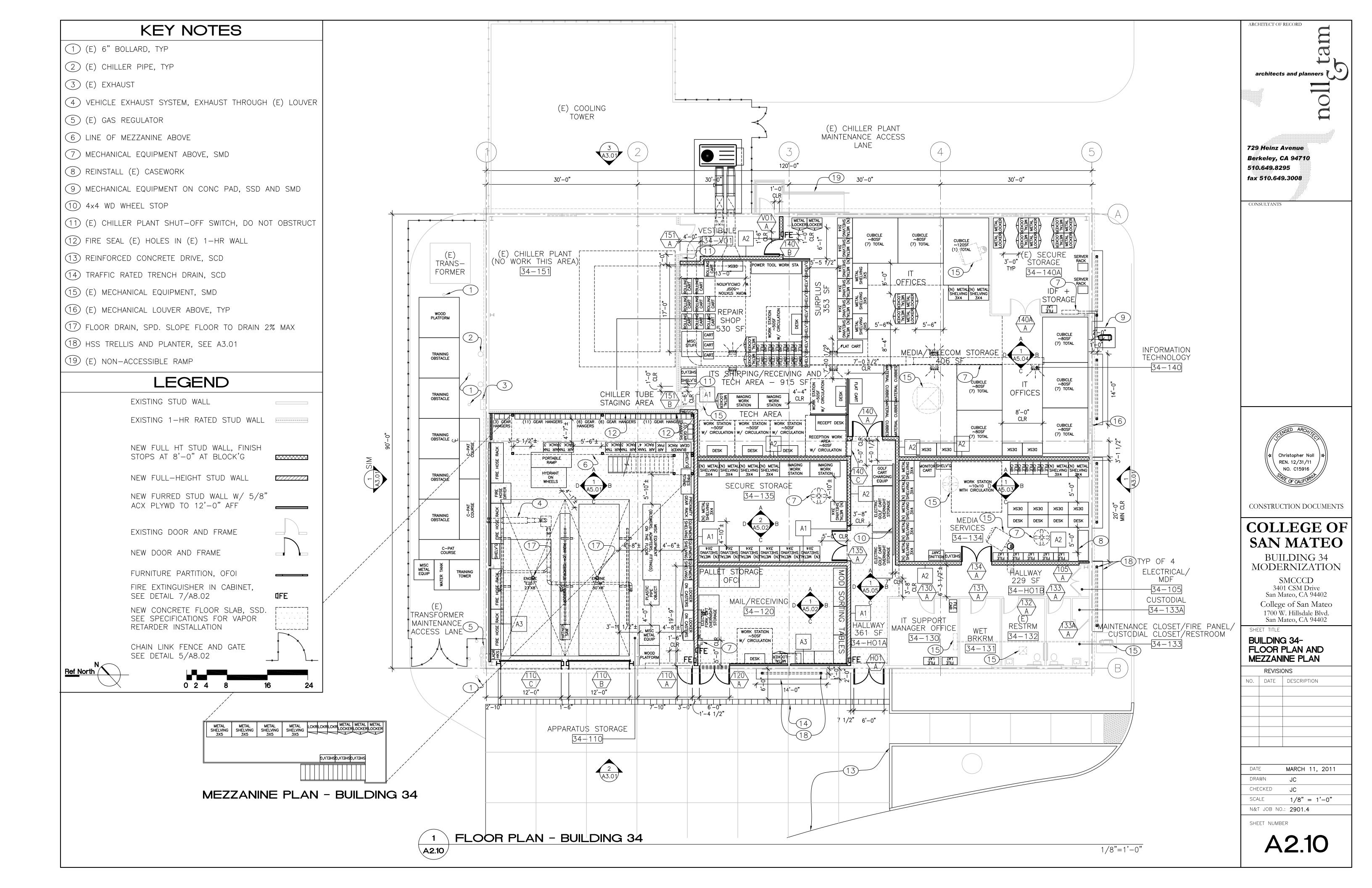
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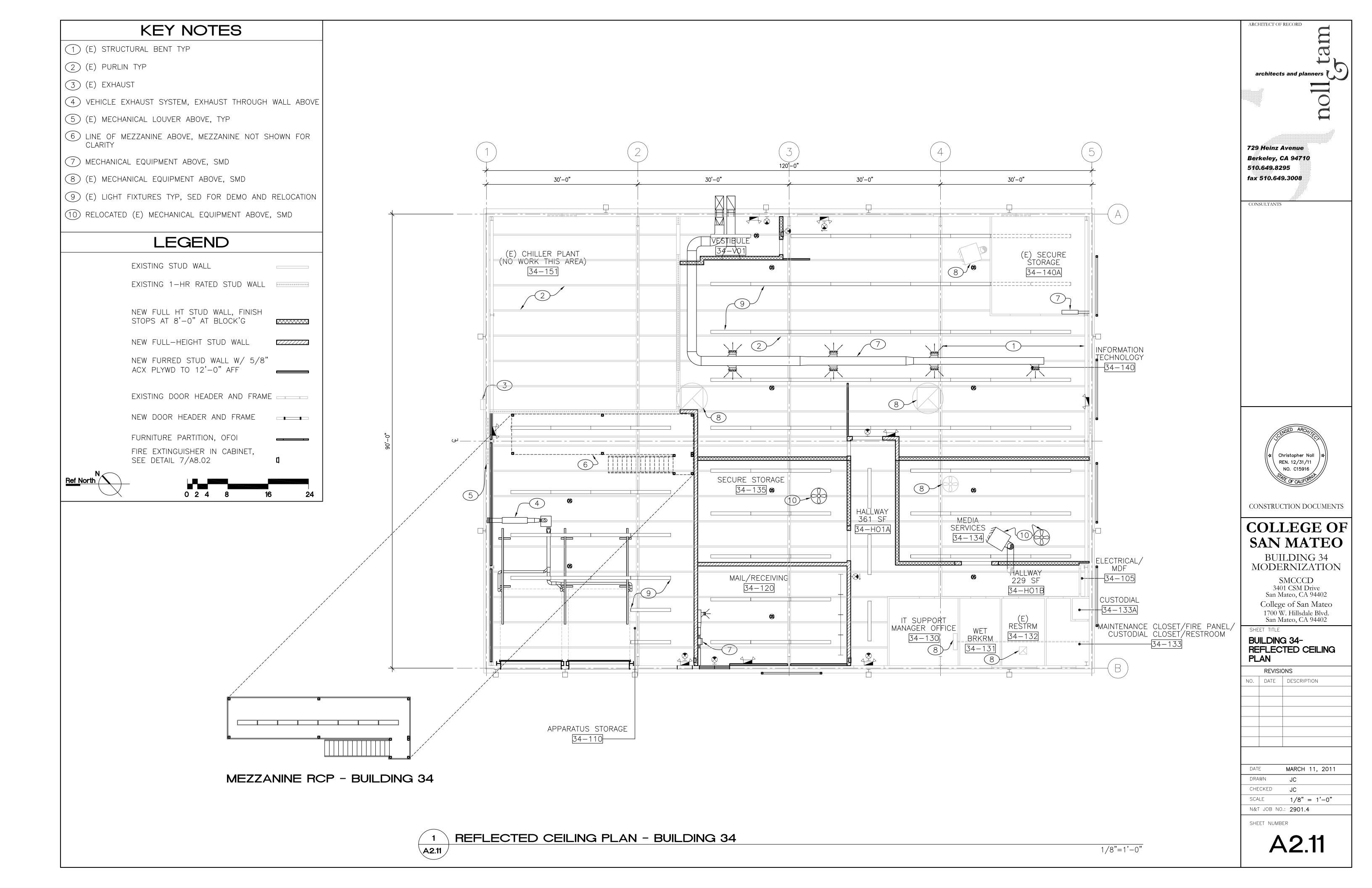
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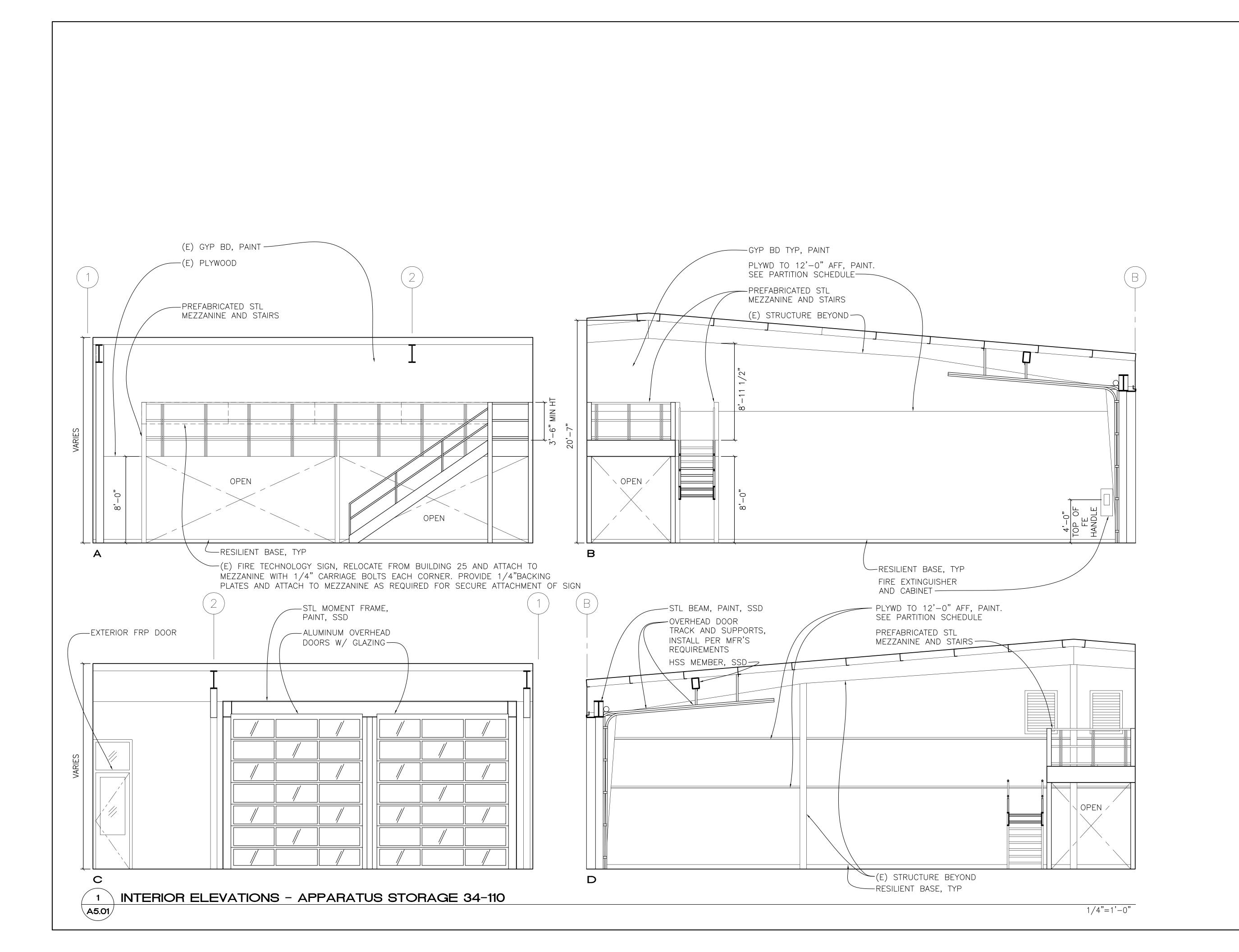


ARCHITECT OF RECORD SHEET NOTES 1. REFER TO FINISH SCHEDULE FOR EXTERIOR PAINT 729 Heinz Avenue Berkeley, CA 94710 510.649.8295 fax 510.649.3008 CONSULTANTS EXTERIOR PAINT EP1, TYP EXTERIOR PAINT EP2, TYP-BUILDING 34 EXTERIOR ELEVATION - EAST -CONC TYP A3.01 1/8"=1'-0" -ALUMINUM OVERHEAD DOORS -EXTERIOR FRP DOORS SUNSHADE TYP WITH GLAZING Christopher Noll EXTERIOR PAINT EP2, TYP-REN. 12/31/11 CONSTRUCTION DOCUMENTS BUILDING 34 MODERNIZATION SMCCCD 3401 CSM Drive San Mateo, CA 94402 +0'-0" (E) LIGHT FIXTURE, EXTERIOR COURTESY PHONE RELOCATE HERE AND DOORBELL REMOVE (E) DISPLAY CASE -CONC TYP [AND SEAL ANY College of San Mateo —(E) LIGHT FIXTURE, TYP **BUILDING 34 EXTERIOR ELEVATION - WEST** 1700 W. Hillsdale Blvd. PENETRATIONS IN (E) SIDING San Mateo, CA 94402 1/8"=1'-0" A3.01 SHEET TITLE **BUILDING 34-**EXTERIOR PAINT EP1, TYP-**EXTERIOR ELEVATIONS** (B) EXTERIOR PAINT EP2, TYP--(E) MECH LOUVERS TYP BLDG ID NUMBER 12'-0" 12'-0" 8'-6" 12'-0" 4'-3"4'-3" 12'-0" 8'-6" 8'-6" 8'-6" AT NORTHWEST AND SOUTHWEST CORNERS OF BUILDING +0'-0" FIN FLOOR -4×4 GALV HSS FRAME W/ 2×4 INTERMEDIATE (E) LIGHT FIXTURE, TYP SOUTH ELEV ONLY BUILDING 34 EXTERIOR ELEVATION - SOUTH SHEET NUMBER FRAMING TYP SOUTH ELEVATION ONLY, INFILL W/ STL GRID. PAINT TO MATCH BRONZE STOREFRONT FINISH A3.01 A3.01 NORTH ELEVATION SIMILAR 1/8"=1'-0"

COLLEGE OF SAN MATEO

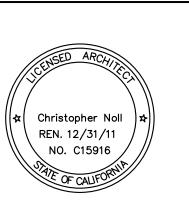
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N&T JOB NO	 :: 2901.4





ARCHITECT OF RECORD



CONSTRUCTION DOCUMENTS

COLLEGE OF SAN MATEO

BUILDING 34 MODERNIZATION

SMCCCD 3401 CSM Drive San Mateo, CA 94402 College of San Mateo 1700 W. Hillsdale Blvd. San Mateo, CA 94402

SHEET TITLE

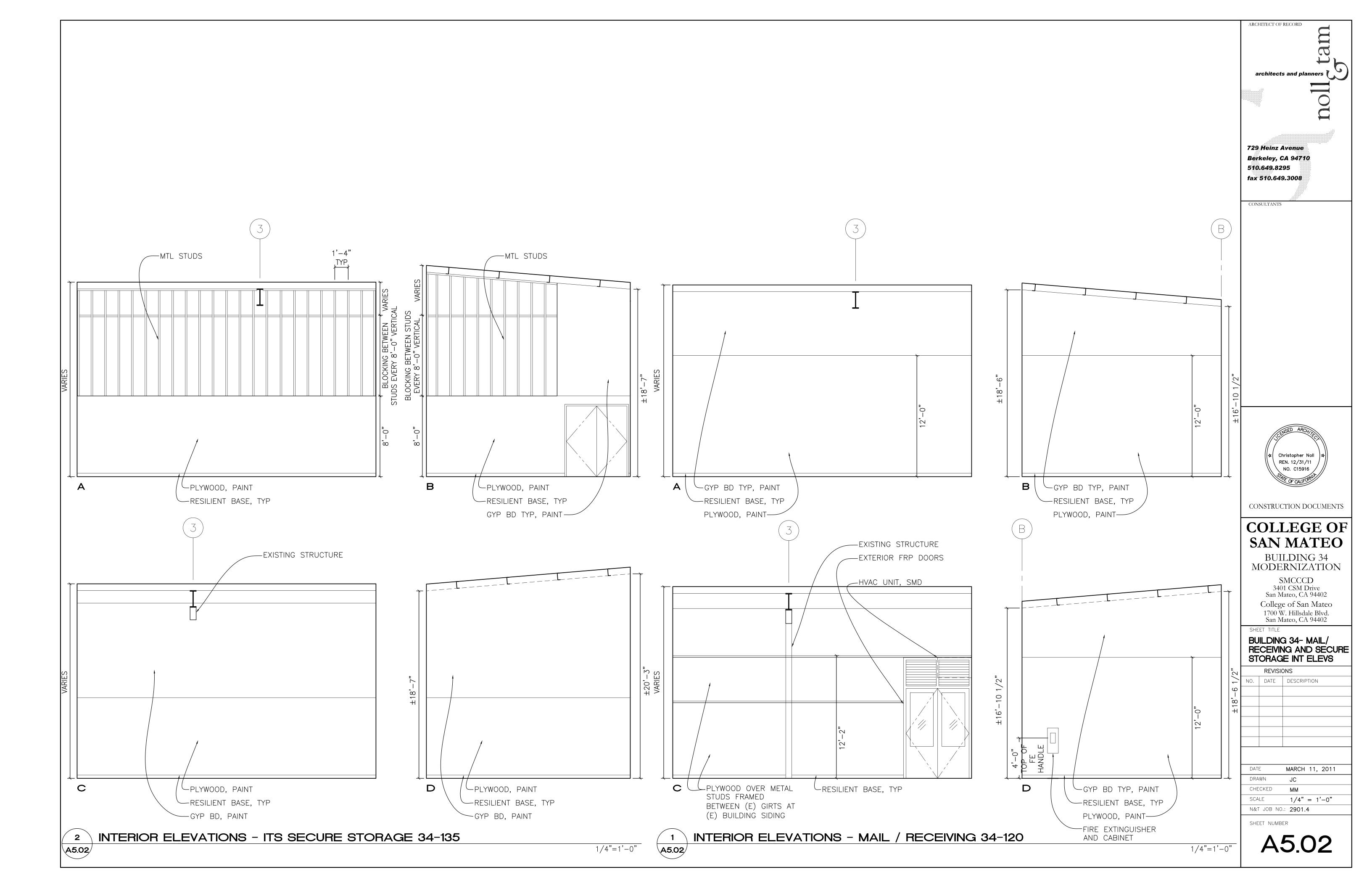
BUILDING 34-APPARATUS STORAGE INTERIOR ELEVATIONS

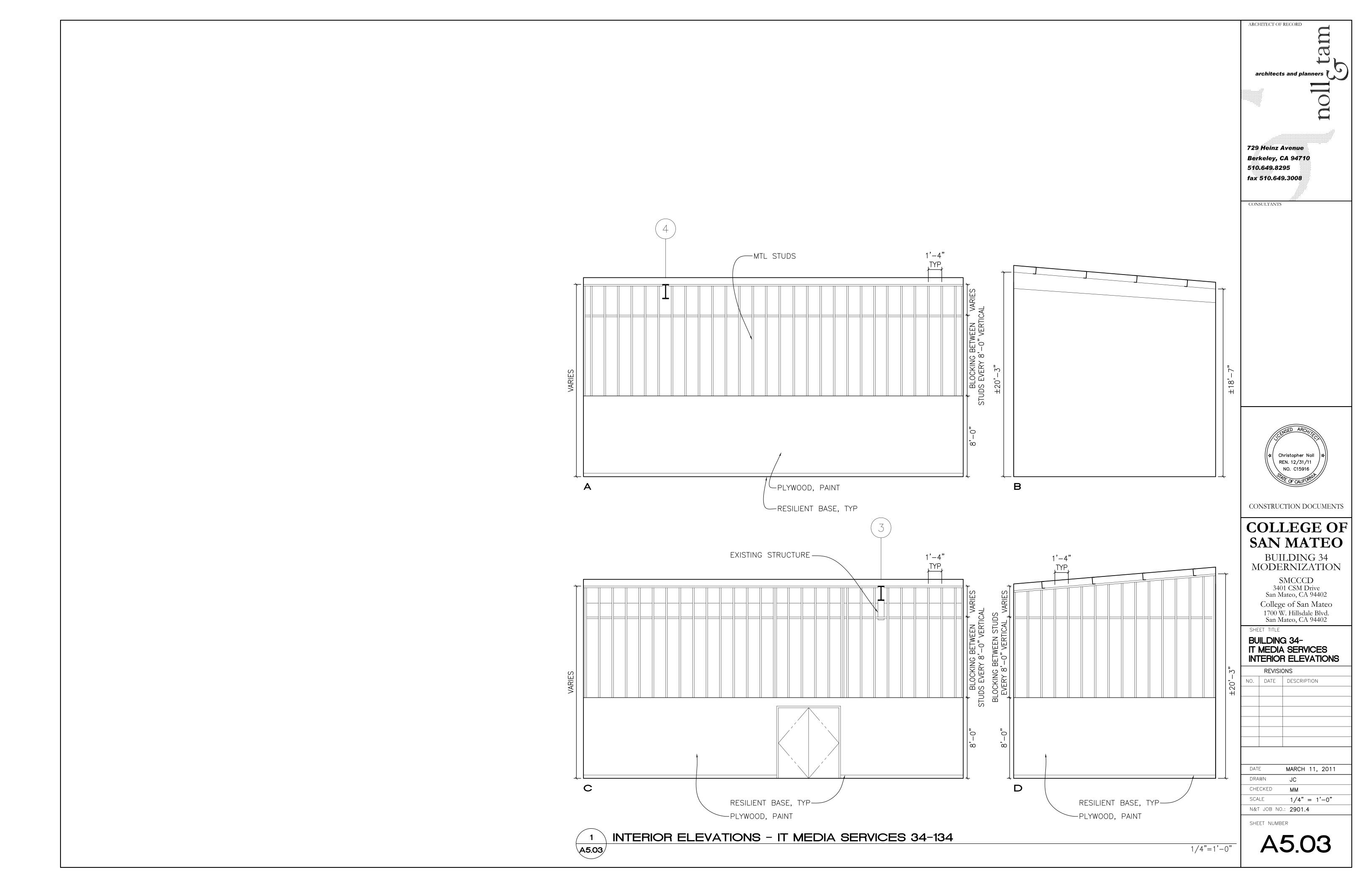
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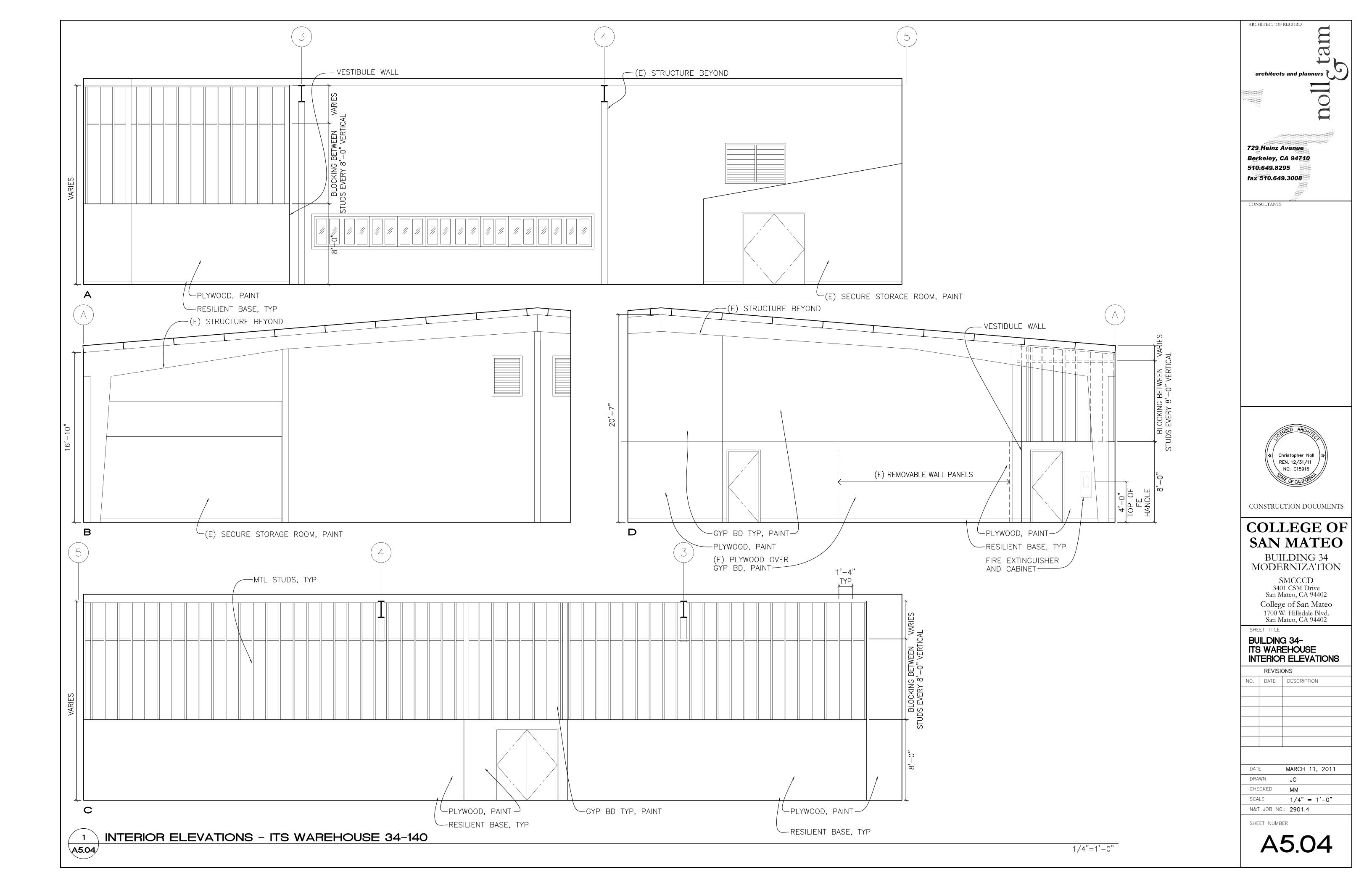
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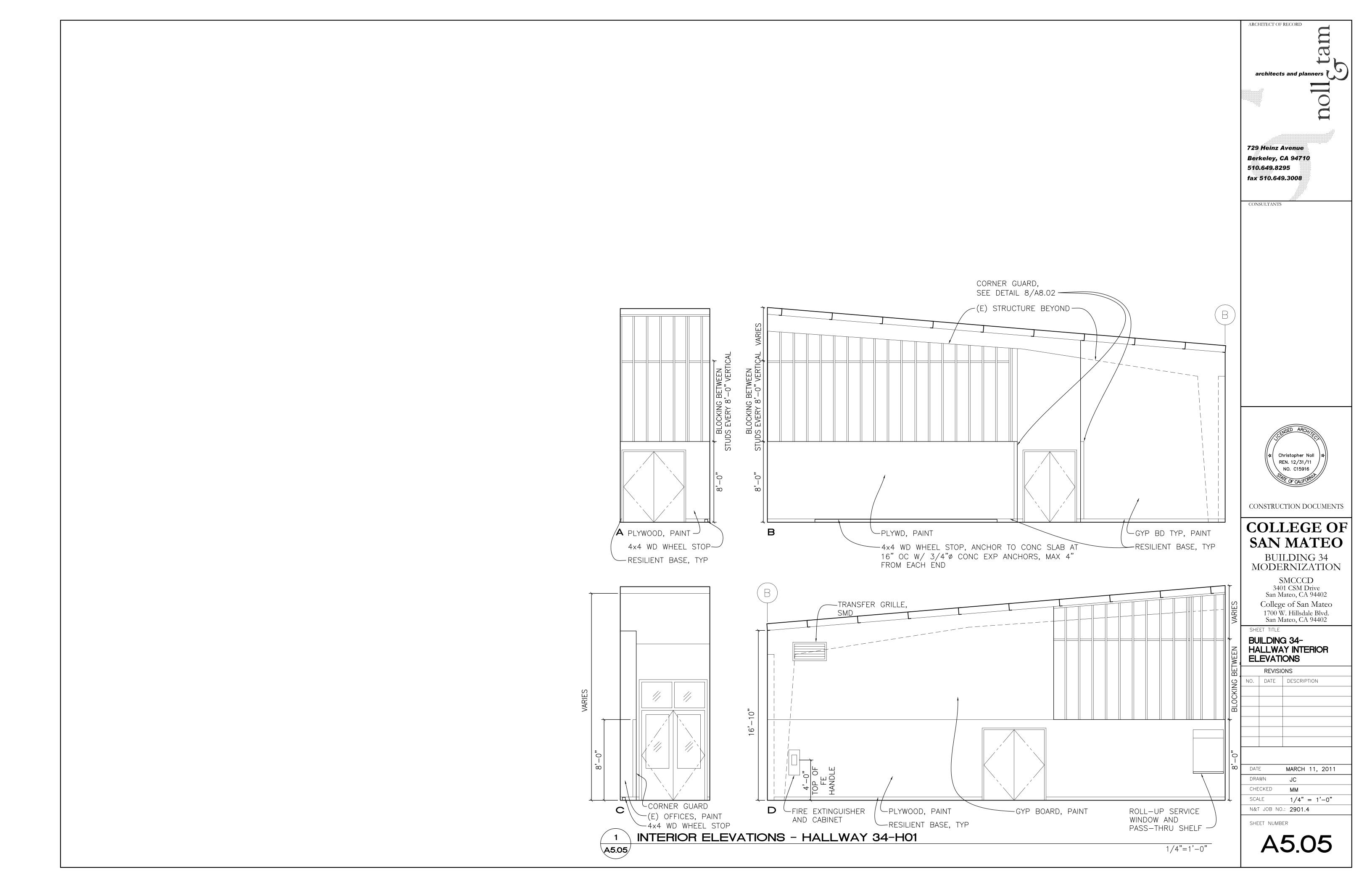
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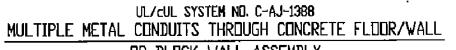
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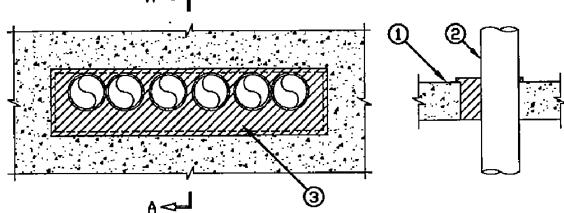




OR BLOCK WALL ASSEMBLY F-RATING = 2-HR. T-RATING = 0-HR.

TOP VIEW

SECTION A-A

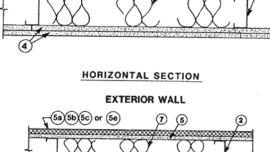


1. Concrete floor or vall assembly (2-hr. fire-rating) : A. LIGHTVEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR VALL (MIN. 4-1/2' THICK). B. ANY UL/ULC CLASSIFIED CONCRETE BLOCK VALL. 2. PENETRATING ITEMS TO BE ONE OR MORE OF THE FOLLOWING I A MAXIMUM 4' NOMINAL DIAMETER STEEL CONDUIT.

B. MAXIMUM 4" NUMINAL DIAMETER EMT. 3. MINIMUM 5' DEPTH HILTI OP 620 FIRE FOAM EXTENDING 1/2" ABOVE THE TOP SURFACE OF THE FLOOR OR BOTH SURFACES OF VALL AND OVERLAPPING THE CONCRETE 1/2' ON ALL SIDES OF OPENING.

NOTES : 1. MAXIMUM SIZE OF OPENING = $32^{\circ} \times 7^{\circ}$. , ANNULAR SPACE BETWEEN CONDUITS = MINIMUM 0', MAXIMUM 1/2'. 3, ANNULAR SPACE BETVEEN CONDUITS AND PERIPHERY OF OPENING = MINIMUM 0°, MAXIMUM 2-3/4°.

Design No. U425 (For Exterior Walls, Ratings Applicable For Exposure To Fire On Interior Face Only (See Items 4 and 5) Bearing Wall Rating — 45 Min, 1, 1-1/2 or 2 HR. (See Items 2 and 4)



1. Steel Floor and Ceiling Tracks — (Not Shown) — Top and bottom tracks of wall assemblies shall consist of steel members, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min No. 20 GSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, that provide a sound structural connection between steel studs, and to adjacent assemblies such as a floor, ceiling, and/or other walls. Attached to floor and ceiling assemblies with steel fasteners spaced not greater than 24 in. O.C.

HORIZONTAL SECTION

Steel Studs — Corrosion protected steel studs, min No. 20 MSG (0.0329 in., min bare metal thickness) steel or min 3-1/2 in. wide, min No. 20 GSG (0.036 in. thick) galv steel or No. 20 MSG (0.033 in. thick) primed steel, cold formed, shall be designed in accordance with the current edition of the Specification for the Design of Cold-Formed Steel Structural Members by the American Iron and Steel Institute. All design details enhancing the structural integrity of the wall assembly, including the axial design load of the studs, shall be as specified by the steel stud designer and/or producer, and shall meet the requirements of all applicable local code agencies. The max stud spacing of wall assemblies shall not exceed 24 in. OC (or 16 in. OC - See Item 5c). Studs attached to floor and ceiling tracks with 1/2 in. long Type S-12 steel screws on both sides of studs or by welded or bolted connections designed in accordance with the AISI specifications.

3. Lateral Support Members — (Not shown) — Where required for lateral support of studs, support may be provided by means of steel straps, channels or other similar means as specified in the design of a

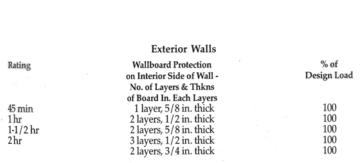
particular steel stud wall system.

4. Gypsum Board* — Gypsum wallboard bearing the ULI Classification Marking as to Fire Resistance. Applied vertically with joints between layers staggered. Outer layer of 3 layer construction may be applied horizontally. The thickness and number of layers and percent of design load for the 45 min, 1 hr, 1-1/2 hr and 2 hr ratings are as follows:

Rating	Wallboard Protection Both Sides of Wall - No. of Layers & Thkns	% of Design Load
45 min 1 hr 1-1/2 hr 2 hr	of Board In. Each Layers *1 layer, 1/2 in. thick *1 layer, 5/8 in. thick *2 layers, 1/2 in. thick *2 layers, 5/8 in. thick or *3 layers, 1/2 in. thick *2 layers, 3/4 in. thick	100 100 100 80 100

tings applicable to assemblies serving as exterior walls where Classified fire resistive gypsum sheathing type wallboard is substituted on the exterior face.

\A7.01



panies of 1/2 in. or 5/8 in. thick wallboard. See below for Classified Company of 3/4 in. thick wallboard.

CANADIAN GYPSUM COMPANY —Type IP-X3, ULTRA-CODE, ULTRACODE SHX or ULTRACODE WRX. UNITED STATES GYPSUM CO — Type IP-X3, ULTRA-CODE, ULTRACODE SHX or ULTRACODE WRX.

YESO PANAMERICANO S A DE C V — Type IP-X3,
ULTRACODE, ULTRACODE SHX or ULTRACODE WRX. 4A. Gypsum Board* — (As an alternate to 5/8 in. thick wallboards in Item — Nom 3/4 in. thick.

CANADIAN GYPSUM COMPANY —Types AR, IP-AR.

UNITED STATES GYPSUM CO—Types AR, IP-AR.

YESO PANAMERICANO S A DE C V —Types AR, IP-AR.

5. Gypsum Sheathing — For exterior walls, 1/2 or 5/8 in. thick exterior regular gypsum sheathing applied vertically and attached to studs and runner tracks with 1 in. long Type S-12 bugle head screws spaced 12 in. OC. along studs and tracks. One of the following exterior facings are to oe applied over the gypsum sheathing.

A. Siding, Brick, or Stucco — Aluminum siding, steel siding, brick veneer, or stucco attached to studs over gypsum sheathing and

meeting the requirements of local code agencies. When a min 3-3/4 in. thick brick veneer facing is used, the Exterior Wall Rating is applicable with exposure on either face. Brick veneer wall attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick. B. Mineral and Fiber Boards* — Exterior hard board paneling, chemically treated over gypsum sheathing with primed or finished face, 7/16 in. thick by 48 in. wide. Attached to studs over gypsum sheathing with 1-7/8 in. long bugle-head TEK fasteners 16 in. OC at the intermediate supports Or, exterior lap siding, chemically treated, 7/16 in. thick by 8 in. or 12 in. wide. Attached to studs with 1-7/8 in. long, bugle-head Type TEK fasteners at

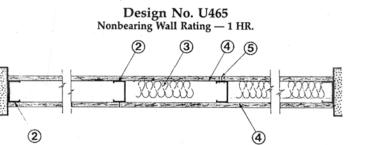
each lap. Panels lapped minimum 1 in. MASONITE CORP —Type FT. C. Cementitious Backer Units* — 1/2 or 5/8 in. thick, square edge boards, attached to steel studs over gypsum sheathing with 1-5/8 in. long, Type S-12, corrosion resistant, wafer head steel screws, spaced 8 in. OC. Studs spaced a max of 16 in. OC. Joints covered with glass fiber mesh tape.
UNITED STATES GYPSUM CO—Durock Exterior Cement

 Board or Durock Brand Cement Board.
 Molded Plastic* — Solid vinyl siding mechanicaly secured to framing members in accordance with manufacturer's recommended installation

ASSOCIATED MATERIALS INC ALSIDE, DIV OF HEARTLAND BUILDING PRODUCTS INC NEBRASKA PLASTICS INC

Fasteners — (Not Shown) — Screws used to attach wallboard to studs: self-tapping bugle head sheet steel type, spaced 12 in. O.C. First layer Type S-12 by 1 in. long for 1/2 and 5/8 in. thick wallboards and 1-1/4 in. long for 3/4 in. thick wallboards. Second layer Type S-12 by 1-5/8 in. long for 1/2 and 5/8 in. thick wallboards and 2-1/4 in. long for 3/4 in. thick wallboards. Third layer Type S-12 by 1-7/8 in. long. 7. Batts and Blankets* — Placed in stud cavities of all exterior walls. May or may not be used in interior walls. Any glass fiber or mineral wool batt material bearing the UL Classification Marking as to Fire esistance, of a thickness to completely fill stud cavity. See Batts and Blankets (BZJZ) Category for names of Classified Compa-

8. Joint Tape and Compound — (Not Shown) — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw neads of outer layer. Perforated paper tape, 2 in. wide, embedded in first layer of compound over all joints of outer layer.
*Bearing the UL Classification Mark



1. Floor and Ceiling Runners — (not shown) — Channel shaped runners, 3-5/8 in. wide (min), 1-1/4 in. legs, formed from min No. 25 MSC (min No. 20 MSG when Item 4C is used) galv steel, attached to floor

and ceiling with fasteners spaced 24 in. OC max.

2. Steel Studs — Channel shaped, 3-5/8 in. wide (min), 1-1/4 in. legs, 3/8 in. folded back returns, formed from min No. 25 MSG (min No. 20 MSG when Item 4C is used) galv steel spaced 24 in. OC max.

3. Batts and Blankets* — (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity.

See Batts and Blankets (BZJZ) category for names of Classified companies.

4. Gypsum Board* — 5/8 in. thick, 4 fit wide, attached to steel studs and flagger and calling track with 1 in 1 and Time Contact and the standard of the condensation of the floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints

oriented vertically and staggered on opposite sides of the assembly. When attached to item 6 (furring channels), wallboard is screw attached to furring channels with 1 in. long, Type S steel screws spaced

AMERICAN GYPSUM CO—Type AG-C.
BEIJING NEW BUILDING MATERIALS CO LTD—Type

BPB AMERICA INC BPB CELOTEX —Type 1.

CANADIAN GYPSUM COMPANY —Types AR, C, IP-AR, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

CONTINENTAL GYPSUM COMPANY —Types CG-C, CG5-5, G-P GYPSUM CORP, SUB OF

GEORGIA-PACIFIC CORP — Types 5, 9, C, DGG, DS, GPFS6. JAMES HARDIE GYPSUM INC — Type Max "C" or Fire X. LAFARGE GYPSUM, DIV OF LAFARGE CORP — Types LGFC2, LGFC2A, LGFC6, LGFC6A, NATIONAL GYPSUM CO —Types FSK-C, FSK-G, FSW-C,

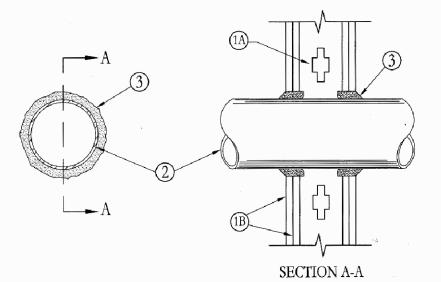
PABCO GYPSUM, DIV OF PACIFIC COAST BUILDING PRODUCTS INC —Type PG-C. REPUBLIC GYPSUM CO—Type RG-C. SIAM GYPSUM INDUSTRY CO LTD —Type EX-1 STANDARD GYPSUM L L C — Type SG-C TEMPLE-INLAND FOREST PRODUCTS CORP —Type TG-C UNITED STATES GYPSUM CO —Type AR, C, FRX-G, IP-AR, IP-X2, IPC-AR, SCX, SHX, WRC or WRX. YESO PANAMERICANO S A DE C V — Type AR, C, IP-AR, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

WESTROC INC —Type Westroc Fireboard. 4A. Gypsum Board* — (As an alternate to Item 4) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4 with screw length increased to

CANADIAN GYPSUM COMPANY —Types AR, IP-AR. UNITED STATES GYPSUM CO —Types AR, IP-AR. YESO PANAMERICANO S A DE C V —Types AR, IP-AR. 4C. Gypsum Board* — (As an alternate to Item 4, 4A and 4B) — 5/8 in thick gypsum panels, installed as described in Item 4 with Type S-12 teel screws. The length and spacing of the screws as specified under

CANADIAN GYPSUM COMPANY —Type FRX. UNITED STATES GYPSUM CO -Type FRX. Joint Tape and Compound — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. 6. Furring Channel — (Optional-Not Shown) — Resilient 25 MSG galv steel furring channels spaced vertically max 24 in. OC, flange portion attached to each intersecting stud with 1/2 in. long type S-12 panhead steel screws. Not for use with Type FRX gypsum panels.
*Bearing the UL Classification Mark

System No. W-L-1001 January 18, 1999 (Formerly System No. 147) F Ratings - 1, 2, 3 and 4 Hr (See Items 2 and 3 T Ratings – 0, 1, 2, 3, and 4 Hr (See Item 3) L Rating At Ambient - less than 1 CFM/sq ft L Rating At 400 F - less than 1 CFM/sq ft



Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs - Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

B. Gypsum Board* - Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 13-1/2 in.

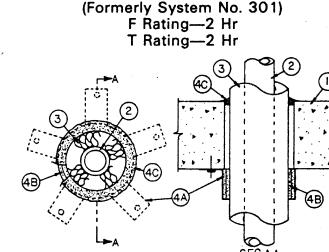
2. Pipe or Conduit - Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, nom 12 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) Class 50 (or heavier) ductile iron pressure pipe, nom 6 in. diam (or smaller) steel conduit, nom 4 in. diam (or smaller) steel electrical metallic tubing, nom 6 in. diam (or smaller) Type L or (or heavier) copper tubing or nom 1 in. diam (or smaller) flexible steel conduit. When copper pipe is used, max F Rating of firestop system (Item 3) is 2 h. Steel pipes or conduits larger than nom 4 in. diam may only be used in walls constructed using steel channel studs. A max of one pipe or conduit is permitted in the firestop system. Pipe or conduit to be installed near center of stud cavity width and to be rigidly supported on both sides of wall assembly.

Fill, Void or Cavity Material* - Caulk - Caulk fill material installed to completely fill annular space between pipe or conduit and gypsum wallboard and with a min 1/4 in. diam bead of caulk applied to perimeter of pipe or conduit at its egress from the wall. Caulk installed symmetrically on both sides of wall assembly. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

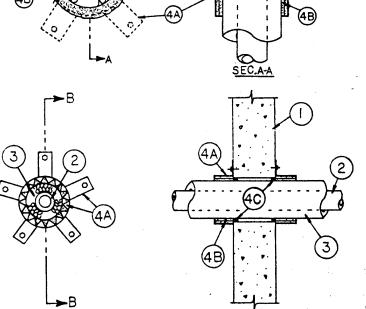
Max Pipe or Conduit Diam In.	Annular Space In.	F Rating Hr	T Rating Hr
1	0 to 3/16	1 or 2	0+, 1 or 2
1	1/4 to 1/2	3 or 4	3 or 4
4	0 to 1-1/2	1 or 2	0
6	1/4 to 1/2	3 or 4	0
12	3/16 to 3/8	1 or 2	0

+When copper pipe is used, T Rating is 0 h. MINNESOTA MINING & MFG CO - CP 25WB+ *Bearing the UL Classification Marking

This material was extracted by 3M Fire Protection Products from the 2002 edition of the UL Fire Resistance Directory.



System No. CAJ5037



1. Floor or Wall Assembly—Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manu-

2. Through Penetrants—One metallic pipe, conduit or tubing to be centered within the firestop system. Pipe, conduit, or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe—Nom 2 in. diam (or smaller) Schedule 5 (or heavier) steel pipe.

B. Conduit—Nom 2 in. diam (or smaller) electrical metallic tubing or steel conduit. 3. Pipe Covering*—Nom 1-1/2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. A nom annular space of 3/8 in. is required within the firestop system.

See Pipe and Equipment Covering—Materials* (BRGU) category in Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

4. Firestop System—The firestop system shall consist of the following:

A. Steel Collar—Collar fabricated from precut 0.016 in. thick (30 MSG) galv sheet steel available from the wrap strip manufacturer. Collar shall be nom 2 in. deep by max 6-1/4 in. diam with min five 1-1/2 in. wide by 2 in. long anchor tabs for securement to the concrete floor or wall. Retainer tabs, 3/4 in. wide by 1/2 in. long and located opposite the anchor tabs are folded 90 degree toward pipe surface to maintain a 1/2 in. annular space around the pipe and to retain the wrap strips. Steel collar tightened around wrap strips and pipe using a min 1/2 in. wide by 0.028 in. thick stainless steel hose clamp installed at midheight. Collar secured to concrete surface with 1/4 in. diam by min 1 in. long bolts and steel expansion lags in conjunction with min 3/4 in. diam washers or min 0.145 in. diam by min 1-1/4 in. long powder actuated steel fasteners with 5/8 in. diam heads. In floor assemblies, one collar is used on the bottom of the concrete floor only. In wall assemblies, a collar is used on both surfaces of the concrete wall.

B. Fill, Void or Cavity Material*—Wrap Strip—Nom 1/4 in. thick intumescent material faced on one side with aluminum foil, supplied in 2 in. wide strips. In floor assemblies, two layers of wrap strips are wrapped around the pipe covering (foil side exposed). The two layers of wrap strips are individually wrapped around the pipe covering with the ends butted and held in place with aluminum tape. Butted ends in successive layers shall be staggered. After the second layer is in place, the assembly is wrapped with a single wire to permanently hold the strips in place. The upper edges shall abut the bottom surface of the concrete floor. In wall assemblies, the two layers wrap strip are installed on each side of the concrete wall.

Hilti Construction Chemicals, Inc.—Type CS2420 Wrap C. Fill, Void or Cavity Material*-Sealant-Min 1/4 in. thickness of fill material applied within annulus on top surface of floor or with both surfaces of wall. Additional fill material

to be installed on the top surface of floor such that a min 1/8 in. crown is formed around the penetrating item and lapping beyond the periphery of the opening. Hilti Construction Chemicals, Inc.—Type CS240 Sealant

*Bearing the UL Classification Marking

CONSTRUCTION DOCUMENTS **COLLEGE OF**

Christopher Noll

REN. 12/31/11

NO. C15916

ARCHITECT OF RECORD

729 Heinz Avenue Berkeley, CA 94710

fax 510.649.3008

510.649.8295

CONSULTANTS

architects and planners

SAN MATEO BUILDING 34 **MODERNIZATION**

SMCCCD 3401 CSM Drive San Mateo, CA 94402 College of San Mateo 1700 W. Hillsdale Blvd.

San Mateo, CA 94402 SHEET TITLE

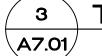
FIRESTOPPING + MISC DETAILS

	ONS	
NO.	DATE	DESCRIPTION

MARCH 11, 2011 DRAWN TC CHECKED ММ AS NOTED N&T JOB NO.: 2901.4

SHEET NUMBER

TYPICAL EXTRIOR PARTITION - 1 HR RATING



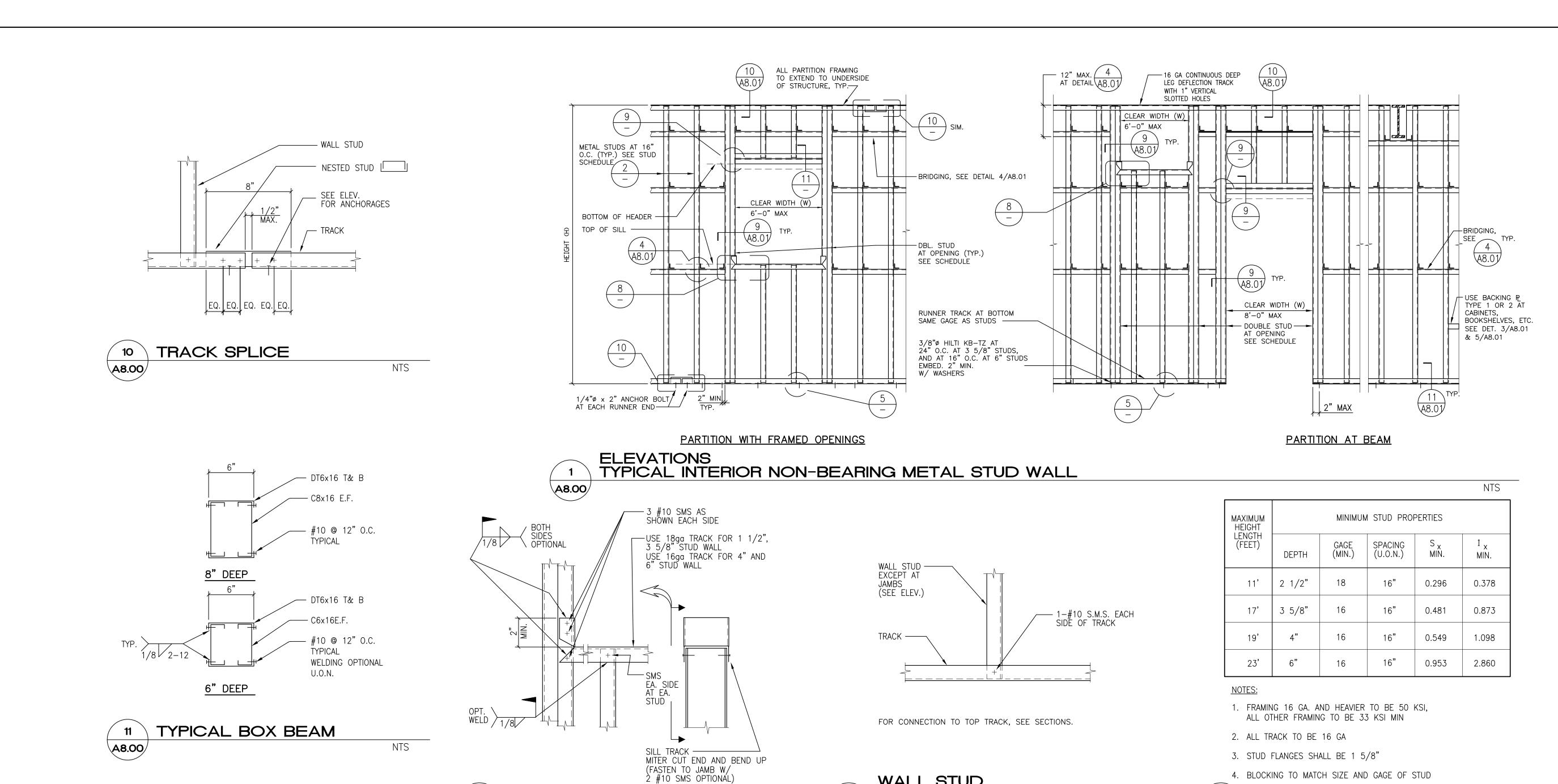
NTS

TYPICAL INTERIOR PARTITION

TYPICAL THROUGH PENETRATION \A7.01/ METAL STUD/ GYPSUM BOARD WALL

TYPICAL THROUGH PENETRATION ∖A7.01*/*

CONCRETE FLOOR OR WALL



NTS

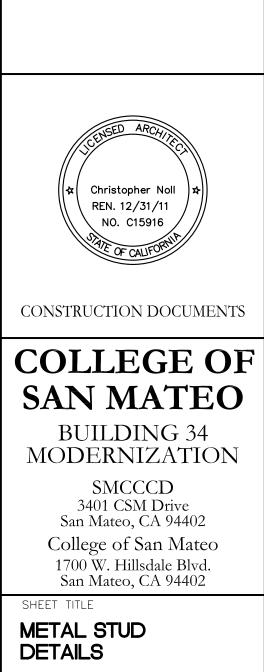


	© PIPE OR ELE CONDUIT IN S.P.D., S.E.C	WALL
L2x2x16GA —— ANGLE EA. END W/ 2 #12 SMS		BLOCKING SAME DEPTH AS STUD, 16GA, SEE FOR OPENING IN BLOCKING

6	TYPICAL BLOCKING DETAIL ® PIPE IN WALL	
A8.00		NTS

4. BLOCKING TO MATCH SIZE AND GAGE OF STUD





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Berkeley, CA 94710

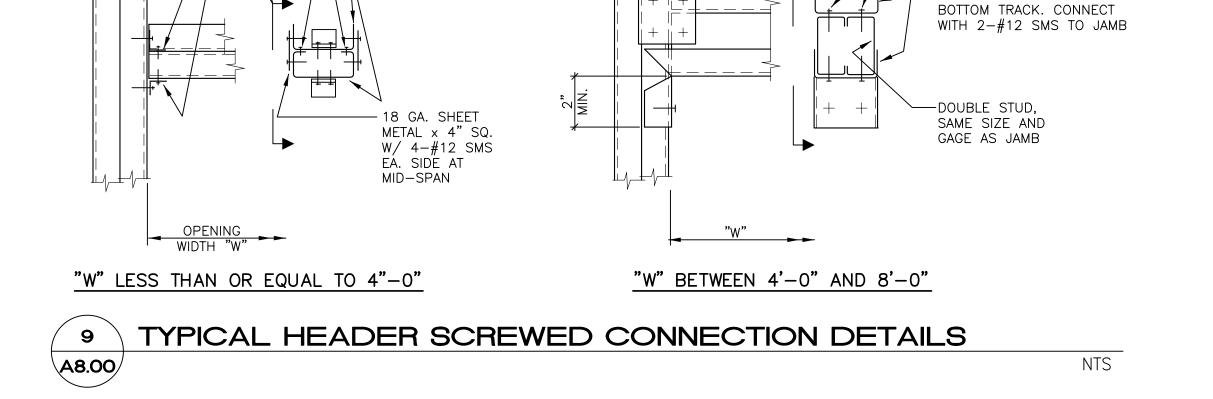
SHEET TITLE METAL STUD

	DETAILO			
	ONS			
NO.	DATE	DESCRIPTION		

DATE	MARCH 11, 2011
DRAWN	JM
CHECKED	MM
SCALE	AS NOTED
N&T JOB NO.:	2901.4

SHEET NUMBER

A8.00



- 2"x 2" x 16 GA. SHEET METAL ANGLE

EÁ. ENĎ AT TOP & BOTT.

W/ 4-#12 SMS

— TRACK & STUD

USE SAME SIZE AND GAGE AS JAMB.

[∞]24" O.C.

SILL DETAIL

18 GA. x 4" SQUARE

- #12 SMS AT 24" O.C.

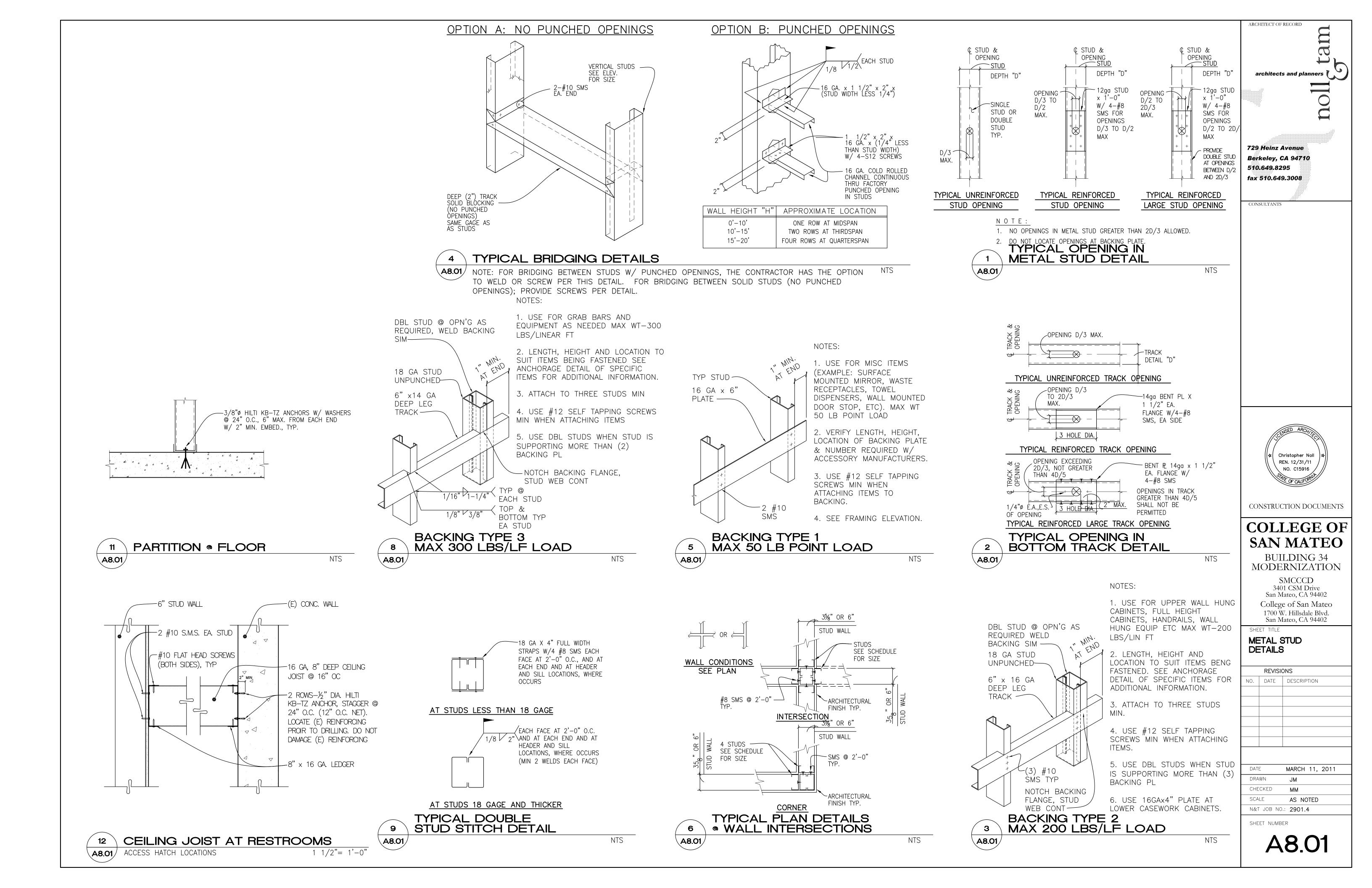
MITER CUT & BEND DOWN

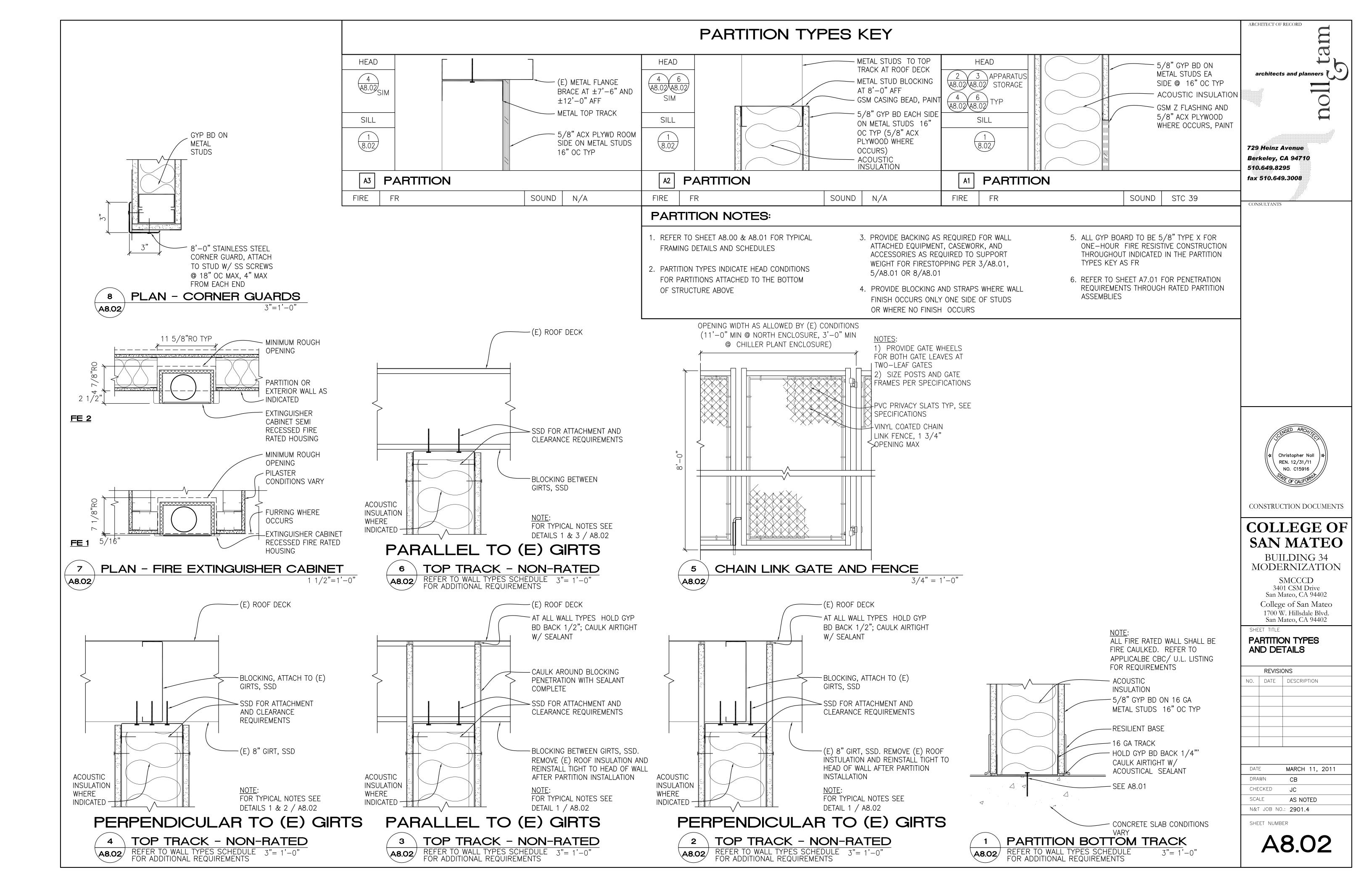
SHEET METAL W/

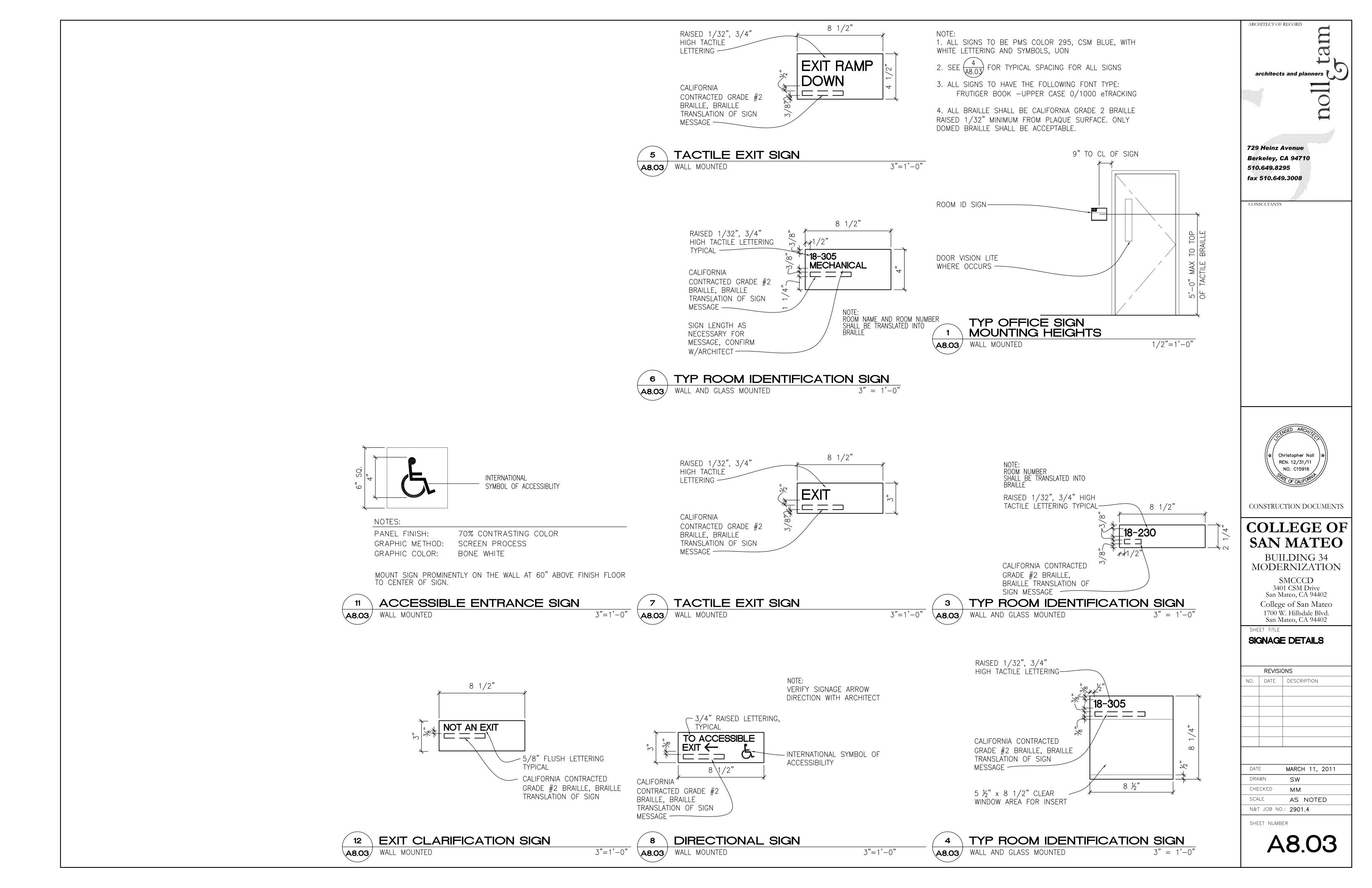
TOP & BOTTOM

4-#12 SMS

\00.8A







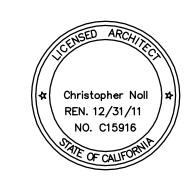
ROOM FINISH KEY				ROOM FINISH SCHEDULE												
ITEM	MATERIAL	DESCRIPTION REFER TO SPECIFICATIONS FOR REQUIREMENTS	NO.	POOM	FLOOR	BASE	WALLS							WAINS-	DEMARKS	
	IVIATERIAL			ROOM	PLOOK		NORTH	COLOR	EAST	COLOR	SOUTH	COLOR	WEST	COLOR	СОТ	REMARKS
CG 1	3" CORNER GUARD	STAINLESS STEEL	34-H01A	HALLWAY (ENTRY)	CONC 2	RES 1	GB 4 / PT 1 PLY 1 / PT 2	P1	PLY 1 / PT 2	P1	GB 0 / PT 1 PLY 1 / PT 2	P1	GB 0 / PT 1	P1	PLY 1	CG, SEE 1/A5.05 FOR LOCATIONS
			34-H01B	HALLWAY (MEDIA)	CPT A	RES 1	-	-	PLY 1 / PT 2	P1	GB 0 / PT 1	P1	GB 0 / PT 1	P1	PLY 1	CG, SEE 1/A5.05 FOR LOCATIONS
CONC 1	CONCRETE	SEALER, COMPLY WITH SLIP RESISTANCE REQUIREMENTS	34-V01	VESTIBULE	CPT A	RES 1	GB 0 / PT 1	P1	-	-	PLY 1 / PT 2	P1	PLY 1 / PT 2	P1	PLY 1	
CONC 2	INTEGRAL COLOR CONCRETE, COLOR TBD	SEALER, COMPLY WITH SLIP RESISTANCE REQUIREMENTS														
			34-105	ELECTRICAL/ MDF	-	-	-	-	-	-	-	-	-	-	-	
CPT A	TEXTURED LOOP CARPET	EXISTING BROADLOOM, PROTECT IN PLACE. EXPOSED EDGES TO BE TRIMMED AND FIRMLY ATTACHED TO FLOOR WITH EDGE STRIP ALONG PATHS OF TRAVEL, 1/2" MAXIMUM HEIGHT OF PILES	34-110	APPARATUS STORAGE	CONC 2	RES 1	PLY 1 / PT 2	P1	GB 0 / PT 1 GB 0 / PT 2	P1	GB 4 / PT 1 PLY 1 / PT 2	P1	-	-	PLY 1	
			34-120	MAIL/ RECEIVING	CONC 2	RES 1	GB 4 / PT 1 PLY 1 / PT 2	P1	GB 4 / PT 1 PLY 1 / PT 2	P1	GB 4 / PT 1 PLY 1 / PT 2	P1	PLY 1 / PT 2	P1	PLY 1	
GB 0	EXISTING FINISH	PREPARE FOR PAINT	34-130	IT SUPPORT MANAGER OFFICE	-	-	GB 0 / PT 1	P1	GB 0 / PT 1	P1	GB 0 / PT 1	P1	-	-	-	
BB 1	5/8" TYPE X GYPSUM BOARD	TAPE AND SAND	34-131	(E) WET BREAKROOM	-	-	GB 0 / PT 1	P1	GB 0 / PT 1	P1	GB 0 / PT 1	P1	-	-	-	
B 2	NOT USED	NOT USED	34-132	(E) RESTROOM	-	-	GB 0 / PT 1	P1	GB 0 / PT 1	P1	GB 0 / PT 1	P1	GB 0 / PT 1	P1	-	
B 3	5/8" TYPE X GYPSUM BOARD	LEVEL 3 FINISH	34-133	(E) MAINTENANCE CLOSET/ FIRE PANEL/ CUSTODIAL CLOSET/ RESTROOM	-	-	GB 0 / PT 1	P1	GB 0 / PT 1	P1	GB 0 / PT 1	P1	GB 0 / PT 1	P1	-	
GB 4	5/8" TYPE X GYPSUM BOARD	LEVEL 4 FINISH	34-133A	(E) CUSTODIAL	-	-	GB 0 / PT 1	P1	GB 0 / PT 1	P1	-	-	GB 0 / PT 1	P1	-	
B 5	5/8" TYPE X GYPSUM BOARD	LEVEL 5 FINISH	34-134	MEDIA SERVICES	CPT A	-	PLY 1 / PT 2	P1	PLY 1 / PT 2	P1	-	-	PLY 1 / PT 2	P1	PLY 1	
B 6	5/8" TYPE X SILICONE IMPREGNATED GYPSUM BOARD	LEVEL 5 FINISH WHERE EXPOSED. TAPE AND SAND AT AREAS TO RECEIVE TILE OR FRP	34-135	SECURE STORAGE	CPT A	RES 1	GB 4 / PT 1 PLY 1 / PT 2	P1	PLY 1 / PT 2	P1	GB 4 / PT 1 PLY 1 / PT 2	P1	GB 4 / PT 1 PLY 1 / PT 2	P1	PLY 1	
GB 7	5/8" TYPE X WATER RESISTIVE GYPSUM BOAR	RD LEVEL 5 FINISH	34-140	INFORMATION TECHNOLOGY	CPT A	RES 1	GB 0 / PT 1 GB 4 / PT 1 PLY 1 / PT 2	P1	GB 0 / PT 1 PLY 1 / PT 2	P1	GB 0 / PT 1	P1	GB 4 / PT 1 PLY 1 / PT 2	P1	PLY 1	
			34-140A	(E) SECURE STORAGE	-	-	-	-	-	-	-	-	-	-	-	
LY 1	5/8" ACX PLYWOOD	PREPARE FOR PAINT, PT 2 (SEMIGLOSS)	34-151	(E) CHILLER PLANT	-	-	-	-	-	-	-	-	-	-	-	
RP 1	FRP WAINSCOT															
T 1	PAINT EGGSHELL	COLOR AS SCHEDULED														
PT 2	PAINT SEMIGLOSS	COLOR AS SCHEDULED														
1	PAINT	KELLY MOORE "OW-27 BONE"														
 EP1	PAINT	TBD	-													
	PAINT															
EP2	FAINI	KELLY MOORE "FAIR FIELDSTONE"														
DEC 4	A" DECICLIENT TOD CET DAGE	COLOR AS SPECIFIED														
RES 1	4" RESISLIENT TOP SET BASE	COLOR AS SPECIFIED														
	NOT A DDI ICA DI E		-													
	NOT APPLICABLE															
													1		1	

GENERAL NOTES

- INTERIOR FINISH PER CFC CHAPTER 8. INTERIOR WALL AND CEILING FINISH SHALL MEET THE REQUIREMENTS OF CFC TABLE 803.3 FOR A NON-SPRINKLERED BUILDING.
- CONTRACTOR SHALL NOT PREP FOR PAINT OR PAINT EXISTING PERIMETER BUILDING METAL SIDING OR EXISTING STEEL FRAMING EXCEPT AS DIRECTED BY DISTRICT.



CONSULTANTS



CONSTRUCTION DOCUMENTS

COLLEGE OF SAN MATEO

BUILDING 34 MODERNIZATION

SMCCCD 3401 CSM Drive San Mateo, CA 94402 College of San Mateo 1700 W. Hillsdale Blvd. San Mateo, CA 94402

SHEET TITLE

BUILDING 34-

BUILDING 34-FINISH SCHEDULE

	REVISIONS								
NO.	DATE	DESCRIPTION							
DAT	E	MARCH 11, 2011							

DATE MARCH 11, 2011

DRAWN CB

CHECKED MM

SCALE NA

N&T JOB NO.: 2901.4

SHEET NUMBER

A8.10

