ABBRE	EVIATIONS					SCOPE OF WORK
&	AND	Н	HIGH	REV	REVISION	SCOPE OF WORK SUMMARY:
@	AT ANOLIOP POLT	H.B.	HOSE BIBB	RGH	ROUGH	DEMOLITION OF OFFICE WALL & SUSPENDED CEILINGS, & CARPETING. RELOCATION OF (2) DOORS.
A.B.	ANCHOR BOLT	H.M.	HOLLOW METAL	RM BW	ROOM	CONSTRUCTION OF NEW OFFICE WALL, SUSPENDED CEILINGS AND CARPETING. PAINTING
A.C. A.F.F.	ASPHALT CONCRETE ABOVE FINISHED FLOOR	HDW HDWD	HARDWARE HARDWOOD	RW	REDWOOD	RELOCATION OF EXISTING FURNITURE.
ACCOUS	ACCOUSTICAL	HGT	HEIGHT	S.B.	SPLASH BLOCK	REPLACEMENT OF AIR REGISTERS, INSTALLATION OF TRANSFER GRILL AND ACOUSTICAL BOOTS.
ADJ	ADJUSTABLE	HORIZ	HORIZONTAL	S.R.	SPRINKLER RISER	DEMO NON-LED LIGHTING, INSTALLATION OF NEW LED LIGHTING. RELOCATE (E) RECEPTACLE
ALT	ALTERNATE	HR	HOUR	SAT	SUSPENDED ACOUS TILE	RELOCATION OF EXISTING FIRE ALARM DEVICE.
ASP	ASPHALT	HTR	HEATER	SCHED	SCHEDULE	
ATTEN	ATTENUATION	HVAC	HEATING, VENTING & AIR CONDITIONING	SECT	SECTION	
B. ROD	BACKER ROD		CONDITIONING	SH SHT	SHELF SHEET	
B.F.E.	BASE FLOOR ELEVATION	I.D.	INSIDE DIMENSION	SIM	SIMILAR	PUIL DING CODE (SEE G1.02 FOR ENTIRE CODE ANALYSIS):
B.F.P.D.	BACKFLOW PREVENTION	IN or "	INCH	SLNT	SEALANT	BUILDING CODE (SEE G1.02 FOR ENTIRE CODE ANALYSIS):
	DEVICE	INSUL	INSULATION	SMS	SHEET METAL SCRE	CONSTRUCTION TYPE:
BD	BOARD	INT	INTERIOR	SPECS	SPECIFICATIONS	II-B FULLY SPRINKLERED
BET	BETWEEN BUILDING	INV	INVERT	SS	STAINLESS STEEL	
BLDG BM	BEAM	JAN. CLO.	JANITOR CLOSET	STD STRUCT	STANDARD STRUCTURAL	USE OR OCCUPANCIES:  B BUSINESS: OFFICES/STAFF
J.W.	32,	JST	JOIST	SUSP	SUSPENDED	A3 ASSEMBLY: PUBLIC SERVICE TRAINING ROOM
C.B.U.	CEMENTITIOUS BACKER	JT	JOINT	SVS	SERVICE SINK	S-1 REPAIR GARAGE
	UNIT					S-2 PARTS STORAGE AND MEZZANINE
C.I. C.M.U.	CAST IRON CONCRETE MASONRY UNIT	K.P.	KICK PLATE	T&B	TOP & BOTTOM	TOTAL AREA: 21,133 SF
C.IVI.O.	CERAMIC TILE	KD	KNOCK-DOWN	T&G	TONGUE AND GROOVE	PROJECT AREA: 455 SF
CAB	CABINET	L.F.C.	LAB FURNISHING	T.O. TB	TOP OF - TACKBOARD	OCCUPANT LOAD:
CEM	CEMENT	L.I .O.	CONTRACTOR	TEL	TELEPHONE	BUILDING: OCCUPANT LOAD: ADMINISTRATION BUILDING 173
CER	CERAMIC	LAB	LABORATORY	THK	THICK	VEHICLE MAINTENANCE BUILDING 144
CL	CENTERLINE	LAM	LAMINATED	TS	TUBE STEEL	SEE G1.02 FOR ADDITIONAL OCCUPANT LOAD INFORMATION
CLG	CEILING	LAV	LAVATORY	TYP	TYPICAL	BUILDING ADDRESS:
COL	COLUMN COMPOSITION	LB/# LG	POUNDS LONG			12650 EAST IMPERIAL HIGHWAY
CONC	CONCRETE	LT/LGT	LIGHT	U.B.C.	UNIFORM BUILDING CODE	NORWALK, CA 90650
CONN	CONNECTION	21/201		U.N.O.	UNLESS NOTED OTHERWISE	AIN: 8045-001-902
CONST	CONSTRUCTION	M.C.	MECHANICAL	UNF	UNFINISHED	
CONT	CONTINUOUS		CONTRACTOR			
CSK	COUNTERSUNK OR	M.O.	MASONRY OPENING	V.I.F.	VERIFY IN FIELD	
D.F.	DOLLOL AC FID	M.T.	METAL TRIM OR METAL THRESHOLD	V.JT	V-JOINT	
D.F. D.S.	DOUGLAS FIR DOWN SPOUT	MAT'L	MATERIAL	V.T.R.	VENT THROUGH ROOF	DEFERRED APPROVALS
D.G. DEMO	DEMOLISH	MAX	MAXIMUM	VCT VENT	VINYL COMPOSITION TILE VENTILATION OR	
DET	DETAIL	MECH	MECHANICAL	VLINI	VENTILATION OR VENTILATE	1. A SEPARATE FIRE SPRINKLER PERMIT IS REQUIRED FOR ALL MODIFICATIONS TO EXISTING FIRE
DIA or Ø	DIAMETER	MET	METAL	VERT	VERTICAL	SPRINKLERS. PLANS SHALL BE SUBMITTED TO THE FIRE DEPARTMENT FOR APPROVAL.
DIAG	DIAGONAL	MFR MIN	MANUFACTURER MINIMUM	VEST	VESTIBULE	
DIM	DIMENSION  DITTO OR DEPENT	MISC	MISCELLANEOUS	VOL	VOLUME	
DO DR	DITTO OR REPEAT DOOR	MTD	MOUNTED	W	WIDE OR WEST	PATH OF TRAVEL
DWG	DRAWING	MTL	METAL	W.C.	WATER CLOSET	
DWR	DRAWER	<b>4.</b> 0		W.H.	WATER HEATER	THE PATH OF TRAVEL (P.O.T.) AS VERIFIED BY THE PROJECT ARCHITECT, IS:
		(N)	NEW	W.I.	WROUGHT IRON	1. A COMMON BARRIER FREEACCESSIBLE ROUTE FROM THE PUBLIC SIDEWALK AND FROM THE
(E)	EXISTING	N.A. N.I.C.	NOT APPLICABLE NOT IN CONTRACT	W.P.	WATERPROOF	NEAREST DISABLED PARKING SPACES THROUGH THE PRIMARY ENTRANCE OF THE BUILDING TO THE SPECIFIC AREA OF ALTERATION OR ADDITION AND INTO THE ACCESSIBLE TOILETS SERVING
E.C. E.J.	ELECTRICAL CONTRACTOR EXPANSION JOINT	N.R.	NON-RATED	W.S.	WET STANDPIPE OR WOOD SCREW	THE SPECIFIC AREA OF ALTERATION OR ADDITION AND INTO THE ACCESSIBLE TOILETS SERVING THE ALTERATION OR ADDITION,
E.J. E.P.	ELECTRICAL PANEL	N.T.S.	NOT TO SCALE	W/	WITH	
E.W.	EACH WAY	NAT	NATURAL	WD	WOOD	2. AT LEAST 48" WIDE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2 BEVELED AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1/4" VERTICAL.
E.W.C.	ELECTRICAL WATER	NO.	NUMBER	WG	WIRE GLASS	
	COOLER	0.0	ON CENTER	WNSCT	WAINSCOT	3. THE PATH IS SLIP RESISTANT, STABLE, FIRM AND SMOOTH,
EA EL	EACH ELEVATION	O.C. O.D.	OUTSIDE DIMENSION			4. PASSING SPACES AT LEASE 60"x60" ARE LOCATED NOT MORE THAN 200' APART,
ELEC	ELECTRICAL	O.F.	OWNER FURNISHED			5. CONTINUOUS GRADIENTS HAVE 60" LEVEL AREAS NOT MORE THAN 400' APART,
ELEV	ELEVATOR	O.F.C.I.	OWNER FURNISHED			5. CONTINUOUS GNADIENTS HAVE OU LEVEL ANEAS NOT MORE THAN 400 AFART,
ENV	ENVELOPE	0.5.5.	CONTRACTOR INSTALLED			6. CROSS SLOPE DOES NOT EXCEED 2%,
EQ	EQUAL	O.F.O.I.	OWNER FURNISHED, OWNER INSTALLED			7. SLOPE IN ANY DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED AS A
EQUIP	EQUIPMENT	O.H.	OVERHEAD			RAMP,
EXIST EXP	EXISTING EXPOSED	O.S.B.	ORIENTED STRAND BOARD			8. MAINTAIN POT FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM, PROTRUDING OBJECTS
EXT	EXTERIOR	OBS	OBSCURE			GREATER THAN 4" PROJECTION FROM WALL OR EDGE AND 27" ABOVE FINISH GRADE.
		OFD	OVERFLOW DRAIN			
F.D.	FLOOR DRAIN	OPNG OPP	OPPOSITE			
F.E.	FIRE EXTINGUISHER	OPP	OPPOSITE			
F.F.	FINISH FLOOR OR	P.B.	PUSH BUTTON			
F.G.	FACTORY FINISH FINISH GRADE	P.G.	PAINT GRADE			
F.G. F.H.	FIRE HYDRANT	P.I.P.	POURED-IN-PLACE			
F.H.C.	FIRE HOSE CABINET	P.J.	PANEL JOINT			
F.L.	FLOW LINE	P.LAM	PLASTIC LAMINATE			
F.O.B.	FACE OF BRICK	P.O.C.	POINT OF CONNECTION			
F.O.S.	FACE OF STUD	P.V.C. PAN	POLY VINYL CHLORIDE PANEL			
F.O.W.	FACE OF WALL	PARTN	PARTITION			
FIN FLR	FINISH/ 'ED FLOOR	PL	PLATE			
FLUOR	FLUORESCENT	PLAS	PLASTER			
FT or '	FEET	PLYWD	PLYWOOD			
FUT	FUTURE	POL	POLISHED			
		PSI ptn	POUND PER SQUARE-INCH			
G.I.	GALVANIZED IRON	PTD	PAINTED			
G.S.B.	GYPSUM SHEATHING BOARD	R.D.	ROOF DRAIN			
G.W.B.	GYMPSUM WALLBOARD	R.O.	ROUGH OPENING			
G.VV.B. GA	GAUGE	RAD	RADIUS			
GALV	GALVANIZED	RD	ROUND			
GL	GLASS	REF	REFRIGERATOR OR			
GYP	GYPSUM	REQ'D	REFERENCE REQUIRED			
		こととと	NEWOUNED			

# NORWALK TRANSIT SYSTEM 12650 EAST IMPERIAL HIGHWAY NORWALK, CA 90650

# OPERATIONS DEPARTMENT RECONFIGURATION

**BACKCHECK REVIEW** 7/23/2021

#### **APPLICABLE CODES SHEET INDEX** ALL WORK PERTAINING TO AND ALL MATERIALS SUPPLIED FOR EXECUTING AND COMPLETING GENERAL THIS CONTRACT SHALL COMPLY WITH PROVISIONS SPECIFIED IN THE CONTRACT DOCUMENTS G1.00 COVER SHEET AND WITH ALL APPLICABLE LAWS, REGULATIONS AND ORDINANCES GOVERNING WORK G1.01 GENERAL NOTES AND LEGENDS INCLUDING, BUT NOT NECESSARILY LIMITED TO THOSE OF: G1.02 BUILDING CODE ANALYSIS G1.20 FORMS 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), Part 1, Title 24 C.C.R. 2022 CALIFORNIA BUILDING CODE (CBC), Part 2, Title 24 C.C.R. 2022 CALIFORNIA ELECTRICAL CODE (CEC), Part 3, Title 24 C.C.R. ARCHITECTURAL 2022 CALIFORNIA MECHANICAL CODE (CMC), Part 4, Title 24 C.C.R. A1.01 SITE PLAN 2022 CALIFORNIA PLUMBING CODE (CPC), Part 5, Title 24 C.C.R. A1.10 SITE DETAILS 2022 CALIFORNIA ENERGY CODE, TITLE 24, Part 6 Title 24 C.C.R. A2.10 FIRST FLOOR PLAN (OVERALL) 2022 CALIFORNIA ENERGY STANDARDS. Title 24 C.C.R. A2.21 PARTIAL FLOOR PLANS 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CGBC), Part 11, Title 24 C.C.R. 2022 CALIFORNIA FIRE CODE (CFC), Part 9, Title 24 C.C.R. A2.31 PARTIAL REFLECTED CEILING PLANS 2022 CALIFORNIA REFERNCED STANDARDS CODE (CRSC), Part 12, Title 24 C.C.R. A7.20 ACCESSIBILITY DETAILS A7.21 ACCESSIBILITY DETAILS NFPA 13 AUTOMATIC SPRINKLER SYSTEMS, 2022 EDITION A7.22 ACCESSIBILITY DETAILS NFPA 14 STANDPIPE SYSTEMS, 2024 EDITION A7.60 ACOUSTICAL CEILING TILE DETAILS NFPA 20 STATIONARY PUMPS, 2022 EDITION NFPA 24 PRIVATE FIRE MAIN, 2022 EDITION A8.01 DOOR SCHEDULE, FINISH SCHEDULE, AND WALL DETAILS NFPA 72 NATIONAL FIRE ALARM CODE, (CALIFORNIA AMENDED), 2022 EDITION A9.01 FURNITURE FLOOR PLAN NFPA 253 CRITICAL RADIANT FLUX OF FLOOR COVERINGS, 2023 EDITION NFPA 2001 CLEAN AGENT FIRE EXTINGUISHING SYSTEMS, 2022 EDITION MECHANICAL AMERICANS WITH DISABILITIES ACT (ADA) M-1.01 MECHANICAL FRONT SHEET ALL APPLICABLE CODES OF THE CITY OF NORWALK AND THE COUNTY OF LOS ANGELES. M-1.02 MECHANICALMECHANICAL SYMBOLS AND ABBREVIATIONS M-1.03 MECHANICAL SCHEDULES M-1.04 FIRST FLOOR OVERALL PLAN M-2.10 MECHANICAL FLOOR PLANS M-3.10 MECHANICAL DETAILS M-3.11 MECHANICAL DETAILS M-3.12 MECHANICAL SPECIFICATIONS M-3.13 MECHANICAL SPECIFICATIONS ELECTRICAL E0.01 ELECTRICAL FRONT SHEET E1.01 ELECTRICAL DEMOLITION AND POWER PLANS E1.02 ELECTRICAL DEMOLITION AND LIGHTING PLANS E2.01 ELECTRICAL SPECIFICATIONS E3.01 ELECTRICAL T-24 COMPLIANCE FORMS - INDOOR

# PROJECT TEAM

KEVIN O'BRIEN

C23472

3/1/2024 11:00:51 AM

CITY OF NORWALK

Norwalk Transit System Janet Welde

jwelde@norwalkca.gov

Architect: LCDG 630 N. Rosemead Blvd, Ste 400

Pasadena CA, 91107

Kevin O'Brien, AIA, Principal in Charge x 102 kobrien@lcdg.com

Budlong & Associates 315 Arden Ave, Suite 23 Glendale CA, 91203

Checked By RL

818-638-8780

Eric Melendez, Mechanical Designer

eric@budlong.com

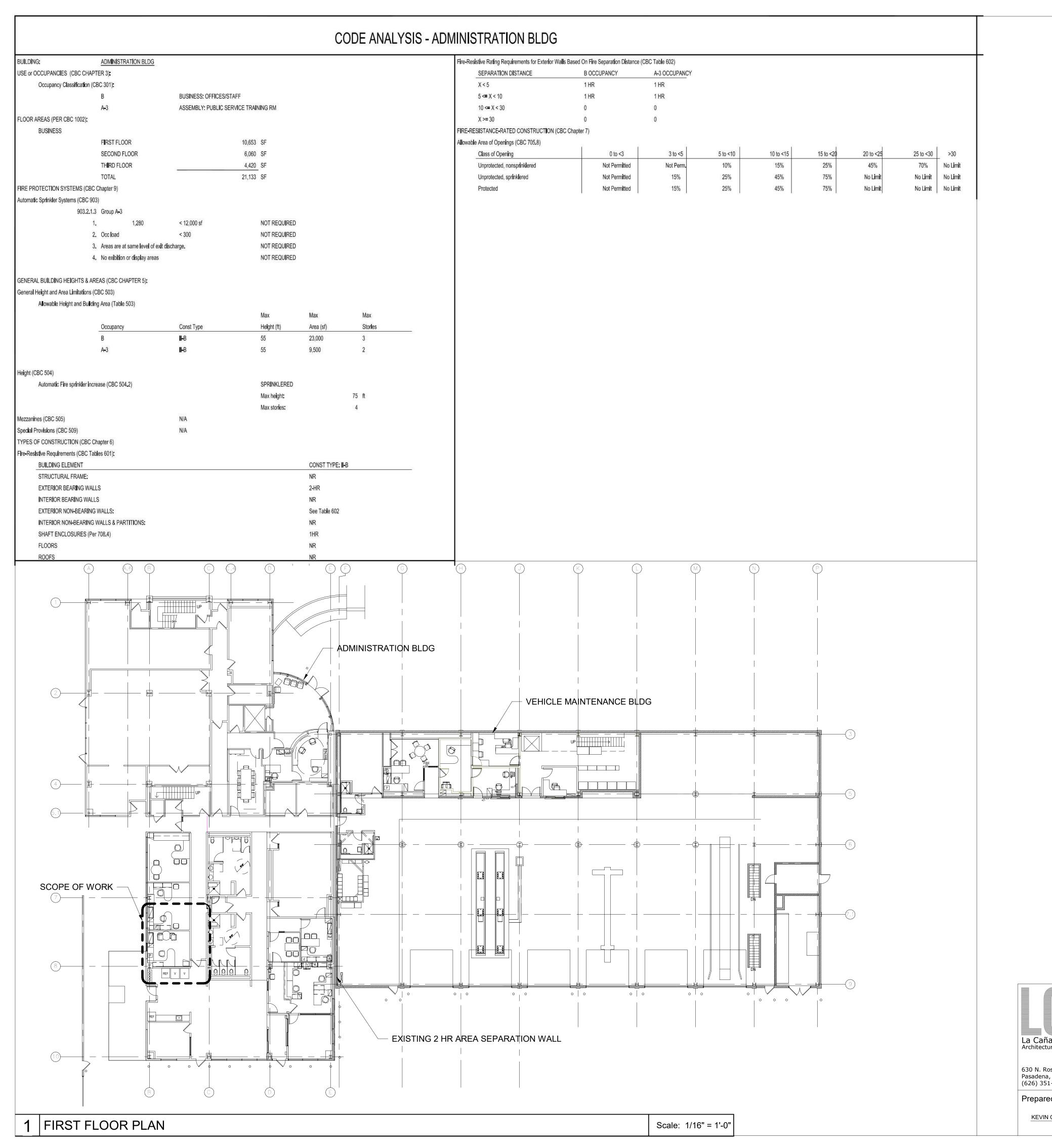
CITY OF engineering division REVISIONS TITLE: **COVER SHEET** La Cañada Design Group Architecture Planning Interiors NORWALK TRANSIT SYSTEM MAINTENANCE OFFICE 630 N. Rosemead Blvd, Suite 400
Pasadena, California 91107

OF CALIFORNIA

OF CALIFORNIA Approved 0655 (626) 351-4301 www.lcdg.com CITY ENGINEER FIELD BOOK REF Prepared Under the Supervision of: G1.00

626-351-4301

#### **GENERAL NOTES DEMOLITION NOTES DEMOLITION PLAN LEGEND** FLOOR PLAN LEGEND 1. WORK INCLUDES THE SELECTIVE DEMOLITION, REMOVAL, AND DISPOSAL OF REMOVED Room name I - GENERAL CONDITIONS Room name MATERIALS AS SHOWN IN DRAWINGS TO OBTAIN DESIRED DESIGN INTENT **ROOM NAME AND** I - 1. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW THE PLANS AND COORDINATE THE WORK PRIOR TO 101 NUMBER **ROOM NAME AND NUMBER** 101 THE COMMENCEMENT OF ANY PORTION OF THE WORK. 2. ITEMS TO BE REMOVED SHALL BE REMOVED IN THEIR ENTIRETY. ITEMS TO BE DEMOLISHED SHALL BE DEMOLISHED TO THE EXTENT REQUIRED TO FACILITATE NEW WORK. ALL DEMOLISHED I - 2. THE CONTRACTOR IS THE PERSON OR ENTITY IDENTIFIED AS SUCH IN THE OWNER/CONTRACTOR AGREEMENT AND IS URINAL, PROTECT IN PLACE DOOR NUMBER. SEE DOOR SCHEDULE ON MATERIALS SHALL BE REMOVED FROM SITE. REFERRED TO THROUGHOUT THE CONTRACT DOCUMENTS AS IF SINGULAR IN NUMBER AND MASCULINE IN GENDER. THE TERM CONTRACTOR MEANS THE CONTRACTOR, HIS AUTHORIZED REPRESENTATIVE, AND/OR HIS SUB-CONTRACTORS. DEMOLISH URINAL 3. PROPERLY STORE AND PROTECT ALL SALVAGED ITEMS FOR LATER REINSTALLATION. WINDOW TYPE, SEE WINDOW SCHEDULE I - 3. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE PROJECT ON WHICH THE ON A8.01 4. REMOVED ITEMS MAY BE COATED WITH LEAD CONTAINING PAINT. GYPSUM BOARD AND GLAZING WORK IS PERFORMED AND FOR THE SAFETY OF ALL PERSONS AND/OR PROPERTY DURING THE PERFORMANCE OF THE CONTRACT (X)KEYED CONSTRUCTION NOTE, REFER TO **PUTTY ARE ASBESTOS CONTAINING** $\langle \chi \rangle$ STOREFRONT, SEE STOREFRONT TYPES KEYNOTE LEGEND I - 4. PROTECT ALL WORK, MATERIALS AND EQUIPMENT FROM DAMAGE FROM ANY CAUSE WHATSOEVER INCLUDING INCLEMENT 5. AT JUNCTURE OF WORK TO REMAIN AND WORK DEMOLISHED, MAKE STRAIGHT, PLUMB, EVEN WEATHER. DEMOLISH (E) EXTERIOR PLASTER CEILING ACCESSORY SYMBOL I - 5. PROVIDE ADEQUATE AND PROPER STORAGE FACILITIES DURING THE PROGRESS OF THE WORK. 6. UTILITIES, PIPING AND SERVICES TO BE PROPERLY DISCONNECTED AND CAPPED OR RELOCATED AS REQUIRED. VERIFY REQUIREMENTS WITH UTILITY COMPANIES AND CODE I - 6. CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY SIGNAGE AROUND EXTERIOR OF THE TEMPORARY FENCE WALL TYPE SYMBOL, SEE WALL TYPE DEMOLISH (E) 1X1 ACOUSTIC CEILING TILE REQUIREMENTS. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR INDICATING THAT THE SITE ACCESS IS RESTRICTED TO CONSTRUCTION WORKERS ONLY. LEGEND SYSTEM ADDITIONAL REMOVAL AND DEMOLITION INFORMATION. I -7. GENERAL CONTRACTOR MUST PROVIDE TEMPORARY TOILETS FOR ALL WORKERS ON THE SITE AND REGULARLY MAINTAIN **KEYED CONSTRUCTION NOTE** 7. HAVE EMERGENCY SHUT-OFF PROCEDURES IN PLACE PRIOR TO START OF DEMOLITION. THE WALL, PROTECT IN PLACE CLEANLINESS THROUGHOUT THE DURATION OF THE PROJECT. GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL FAMILIARIZE THEMSELVES WITH ALL SHUT-OFF VALVE LOCATIONS ON SITE AND HAVE PROPER TOOLS READILY AVAILABLE TO DEMOLISH WALL II - CODE COMPLIANCE OPERATE VALVES. II - 1. ALL WORK SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR). 5' - 0" EXT. 4' - 6" INT DOOR, PROTECT IN PLACE 8. PROTECT ALL EXISTING WORK TO REMAIN. PREVENT DAMAGE TO BUILDING STRUCTURE, STEEL II - 2. BUILDING CONSTRUCTION IS DESIGNED TO CONFORM TO THE REQUIREMENTS OF THE CBC 2022 EDITION, THE CALIFORNIA -2' - 0" EXT, 1' - 6" INT FIREPROOFING, BUILDING UTILITY LINES, ETC. PROTECT ADJACENT CONSTRUCTION AND AREAS ADMINISTRATIVE CODE, TITLE 24, STATE FIRE MARSHAL, CAL-OSHA, REGULATIONS FOR THE ACCOMMODATION OF THE PHYSICALLY FROM DUST, DEBRIS AND DAMAGE, PROVIDE AIR TIGHT DUST SHIELD. HANDICAPPED. AND MUNICIPAL. STATE OR FEDERAL ORDINANCES. CODES AND/OR REGULATIONS. REFER TO SHEET G1.00 FOR APPLICABLE CODES. **DEMOLISH DOOR** 9. WHERE WALL IS REMOVED, CAP OFF AND CONCEAL AFFECTED UTILITIES WITHIN REMAINING FLOOR CLEARANCE AT WALL CAVITY. PROVIDE ADDITIONAL FRAMING AND FINISH MATERIAL TO ACCOMMODATE THE TYP 3' WIDE DOOR II - 3. ALL INTERIOR FINISHES SHALL CONFORM TO THE STATE FIRE MARSHALL FLAME SPREAD RATING REQUIREMENTS AND CBC PORTION OF WALL TO REMAIN. PATCH CHAPTER B. WINDOW, PROTECT IN PLACE AND REPAIR ADJACENT WALL, FLOOR AND CEILING FINISHES TO MATCH SURFACE, TEXTURE AND COLOR. II - 4. ALL FLOOR SURFACES IN PUBLIC AREAS SHALL BE NON-SLIP IN COMPLIANCE WITH DIVISION 18 OF THE HEALTH AND SAFETY CODE OF THE STATE OF CALIFORNIA. **DEMOLISH WINDOW** 10. ABANDONED FLOOR AND WALL PENETRATIONS ARE TO BE CAPPED OFF AND PATCHED TO MATCH SURFACE. TEXTURE AND COLOR OF ADJACENT SURFACES. II - 5. A. EXIT DOORS SHALL BE OPERABLE FROM INSIDE WITHOUT THE USE OF KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. 5' DIA. TURNING RADIUS LAVATORY, PROTECT IN PLACE 11. AT COMPLETION OF DEMOLITION LEAVE SPACES AND SURFACES BROOM CLEAN AND FREE OF B. MAXIMUM EFFORT TO OPERABLE DOORS SHALL BE NOT EXCEED 8-1/2 POUNDS FOR EXTERIOR DOORS AND 5 POUNDS FOR DEMOLISHED MATERIALS. INTERIOR DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE 30" x 48" FLOOR CLEARANCE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE **DEMOLISH LAVATORY** ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED NOT TO EXCEED 15 POUNDS. (E) WALL WATER CLOSET, PROTECT IN PLACE II - 6. PENETRATIONS THROUGH RATED WALLS AND FLOORS SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE STUD WALL PASSAGE OF FLAMES AND HOT GASES WHEN SUBJECTED TO THE REQUIREMENTS OF THE TEST STANDARD SPECIFIC FOR FIRE STOPS ASTEM-E-184. SEE SPECIFICATION REQUIREMENTS. DEMOLISH WATER CLOSET CONCRETE WALL II - 7. ALL DUCT PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE PROVIDED WITH APPROVED FIRE DAMPERS. SYMBOL LEGEND REFLECTED CEILING PLAN LEGEND CMU WALL II - 8. COORDINATE ALL UNDERGROUND UTILITIES WITH COLUMN FOOTINGS AND BUILDING FOOTING. PENETRATION OF PIPES. CONDUITS, DUCT, ETC. IN BUILDING ELEMENTS REQUIRING PROTECTED OPENINGS PER CHAPTER 7 SHALL BE A TESTED ASSEMBLY LIGHT FIXTURE 1 HR RATED WALL APPROVED BY THE STATE FIRE MARSHAL & COMPLY WITH UBC STANDARD #7-1. SUBMIT SHOP RAWINGS DETAILS FURNISHED BY THE MANUFACTURER OF THE FIRE STOP MATERIAL WHICH CONFORMANCE AND SHALL BE PECIFIED FOR EACH PENETRATION WITH **COLUMN GRID LINES** TROFFER LIGHT - LENS - 2' X 4' 2 HR RATED WALL ALL VARIABLES DEFINED. THESE FINAL AND APPROVED DRAWINGS SHALL BE READILY AVAILABLE TO THE DISTRICT INSPECTOR AT **NUMBER** ALL TIMES AT THE PROJECT SITE. LINE OF ITEM ABOVE **LETTER EXIT SIGN** SCOPE OF WORK II - 9. TOILET ROOMS SHALL BE PROVIDED WITH ONE (1) COMPLETE AIR CHANGE EVERY FIVE (5) MINUTES; TWELVE (12) PER HOUR. EMERGENCY PACK FIXTURE PER CBC 1006.3 **III - CONSTRUCTION REQUIREMENTS** DETAIL REFERENCE DOOR III - 1. ALL GYPSUM BOARD SHALL BE TYPE 'X' FIRE RESISTANT. DETAIL NUMBER \* REFERENCE ELECTRICAL DRAWINGS FOR \AX.XX/¬ SHEET WHERE DRAWN III - 2. PROVIDE ALL NECESSARY BLOCKING, BACKING PLATES, FRAMING, SUPPORTS AND ANCHORING DEVICES AS EQUIRED FOR (E) DOOR FIXTURE SCHEDULE AND PLANS THE INSTALLATION OF LIGHT FIXTURES, ELECTRICAL UNITS, MECHANICAL EQUIPMENT, TOILET ACCESSORIES AND SPECIAL **BUILDING SECTION** EQUIPMENT. • WINDOW **MECHANICAL** SECTION NUMBER III - 3. PROVIDE PROPER SLEEVING AND CAULKING TO ALL PLUMBING AND ELECTRICAL CONDUITS AND PIPES PASSING THROUGH AX.XX/~ SHEET WHERE DRAWN LIGHT/EXHAUST FIXTURE (E) WINDOW SLAB ON GRADE AND CONCRETE OR MASONRY WALLS. RETURN AIR GRILLE III - 4. PATCH AND REPAIR ALL SURFACES DAMAGED DURING CONSTRUCTION OR DEMOLITION, MATCH EXISTING FINISHES. LAVATORY. REF PLUMBING DRAWINGS WALL SECTION III - 5. UNLESS OTHERWISE INDICATED, SLOPE FINISH GRADE AWAY FROM BUILDING AT 1/4" PER FT. **CEILING DIFFUSER** SECTION NUMBER (E) LAVATORY √AX.XX/ <del>-</del> III - 6. MINIMUM THICKNESS OF UNREINFORCED CONC. WALKS AND SLABS IS 4".PROVIDE CONTROL JOINTS AS SHOWN. WHERE SHEET WHERE DRAWN **EXHAUST GRILLE** CONTROL JOINTS ARE NOT SHOWN PROVIDE JOINTS IN SQUARES SAME WIDTH OF WALK. PROVIDE COLD JOINTS IN CONCRETE WATER CLOSET, REF PLUMBING DRAWINGS PAVED AREAS WHERE SHOWN OR AT MAXIMUM SPACING OF 20'-0", SEE SPECS. EXTERIOR SLAB AND WALKS SHALL HAVE <u>CEILING</u> EXPANSION JOINTS ONLY WHERE SHOWN ON DRAWINGS. CONCRETE CURBS SHALL HAVE EXPANSION JOINTS AT 40'-0" O.C. MAX **DETAIL SECTION** AND ALIGNED WITH WALK CONSTRUCTION JOINTS TYPICALLY. (E) WATER CLOSET **O** 1 x 1 ACOUSTICAL CEILING TILE SYSTEM ✓ x \ → SECTION NUMBER III - 7. FIELD VERIFY THE EXACT LOCATION OF BELOW GROUND PIPING AND UTILITIES IN THE IMMEDIATE VICINITY OF THE WORK, \AX.XX/<del>-</del> SHEET WHERE DRAWN URINAL, PER PLUMBING DRAWINGS WHETHER SHOWN ON DRAWINGS OR NOT. MARK ALL EXISTING PIPING AND UTILITIES AFFECTED BY THE WORK USING AN UNDERGROUND PIPE LOCATOR TO LOCATE POSITION OF PIPES AND CONDUITS AND BY SPRAY PAINTING OF PIPES AND CONDUITS 2 x 2 ACOUSTICAL CEILING TILE SYSTEM ON THE SURFACE. THE CONTRACTOR SHALL ADD THE EXISTING UNDERGROUND UTILITIES FOUND DURING BLUESTAKING TO (E) URINAL DRAWINGS FOR RECORD. CONTRACTOR SHALL RESPONSIBLE FOR ANY DAMAGE THAT MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE ANY AND ALL UNDERGROUND UTILITIES. EXTERIOR PLASTER, FINISH AS SCHEDULED **EXTERIOR ELEVATION** III - 8. FOR CABINETS THAT REQUIRED LOCKS, ALL SUCH LOCKS SHALL BE KEYED ALIKE. SHEET WHERE DRAWN $X \mid AX.XX \mid X$ **IV - DRAWINGS ELEVATION NUMBER** GYPSUM BOARD, FINISH AS SCHEDULED IV - 1. THE INFORMATION CONTAINED WITHIN THE CONTRACT DOCUMENT SET IS GIVEN SO AS TO ADEQUATELY CONVEY THE DESIGN INTENT. IT IS NOT MEANT TO BE EXHAUSTIVE IN SCOPE OR TOTALLY COMPREHENSIVE IN DETAIL NOR IS IT MEANT TO BE ALL INCLUSIVE OF THE MATERIALS/LABOR TO PRODUCE THE JOB AS INTENDED. **INTERIOR ELEVATION** WOOD CEILING, FINISH AS SCHEDULED <( AX.XX )>X **⊸** IV - 2. ALL DRAWINGS, NOTES, SYMBOLS, ETC. WITHIN THE CONTRACT DOCUMENT SET ARE INTENDED TO CONVEY THE DESIGN **ELEVATION NUMBER** INTENT. NO DRAWING, NOTE, SYMBOL, ETC. SHALL SUPERSEDE ANOTHER. ALL CONFLICTS THAT ARISE SHALL BE REPORTED IN SHEET WHERE DRAWN **CEILING HEIGHT** WRITING TO THE ARCHITECT FOR CLARIFICATION/ RESOLUTION WITHIN THE DESIGN INTENT. IV - 3. ALL WORK IS TO BE CONSIDERED NEW UNLESS NOTED AS (E), EXISTING, SALVAGE OR RELOCATE. CASEWORK DESCRIPTION CEILING ACCESS HATCH XX/XXXXXUNIT HEIGHT IV - 4. REFER TO STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES AND CITY OF REQUIREMENTS. engineering WI UNIT NUMBER CHSED ARCHITECT WIDTH division IV - 5. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. BENCH MARK/WORK POINT TITLE: **REVISIONS GENERAL NOTES AND LEGENDS** IV - 6. VERIFY DIMENSIONS AND LOCATIONS OF ALL OPENINGS, BASES AND SPECIAL PROVISIONS REQUIRED FOR EQUIPMENT, NORWALK TRANSIT SYSTEM La Cañada Design Group PLUMBING FIXTURES, DUCTS, PIPING, CONDUIT, FINISH HARDWARE, ETC. 3/1/2024 CODE UPDATE Ren. 11/30/25 MAINTENANCE OFFICE MATCHLINE IV - 7. ALL WALL DIMENSIONS ARE TO FACE OF STUD (FOS). ALL CLEAR DIMENSIONS (EXTERIOR AND INTERIOR) ARE FROM FACE OF PROJECT NO. Approved " NO C2341 630 N. Rosemead Blvd, Suite 400 FINISH (FOF) TO FACE OF FINISH (FOF), U.N.O. REFERRED DRAWING VIEW Pasadena, California 91107 F OF CALIFOR 0655 (626) 351-4301 www.lcdg.com ITY ENGINEER 57908 IV - 8. FINISH FLOOR ELEVATIONS REFER TO: TOP OF CONCRETE SLAB UNDER CARPET OR RESILIENT FLOORING OR WHERE FIELD BOOK REF Prepared Under the Supervision of: EXPOSED AT FIRST LEVEL AND TOP OF LIGHTWEIGHT CONCRETE TOPPING AT SECOND LEVEL. TOP OF CERAMIC TILE SET AT +1/4" **NORTH ARROW** G1.01 ABOVE FINISH CONCRETE SLAB KEVIN O'BRIEN C23472 3/1/2024 11:03:40 AM PLAN REF Drawn By AS Checked By RL SHEET OF



CENSED ARCHITCE	engineering division	CITY OF			TS Operations TI_23_2024 012;
La Cañada Design Group Architecture Planning Interiors  Ren. 11/30/25	REVISIONS   DATE   BY	BUILDING CODE ANALYSIS  NORWALK TRANSIT SYSTEM  MAINTENANCE OFFICE			Operations/655 N
630 N. Rosemead Blvd, Suite 400 Pasadena, California 91107 (626) 351-4301 www.lcdg.com		Approved  CITY ENGINEER RCE	57908 DATE	PROJECT NO.	0655 NTA (
Prepared Under the Supervision of:	FIELD BOOK REF	Recommended	DATE	DRAWING NO.	G1.02
KEVIN O'BRIEN C23472 3/1/2024 11:04:31 AM PLOT DATE	PLAN REF	Drawn By AS	Checked By RL	SUEET	OcalPr



COMMUNITY DEVELOPMENT DEPARTMENT BUILDING DIVISION 12700 NORWALK BOULEVARD NORWALK, CA 90651-1030 (562) 929-5733

12650 EAST IMPERIAL HIGHWAY

PERMIT NUMBER

21060299

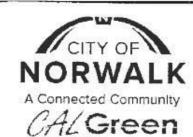
DATE

Pre-Project Waste Diversion Plan (non-shaded portion). Indicate diversion method with an 'X' in appropriate column along with the name of vendor/facility. Calculate anticipated diversion and landfill percentage of each material type. If you are sending mixed construction debris to a transfer station for sorting, enter the same destination for all materials in the mix. List deconstructed items for reuse on-site (donated / sold), on the next page. Include the approximate weight in the column for reusable items.

Post-Project Waste Diversion Report (shaded portion). Enter actual weight in pounds for each category. Calculate weight column total and diversion rate. Keep all receipts for final report.

WASTE DIVERSION PLAN (FOR PLAN CHECK ONLY)						WASTE DIVERSION REPORT (FOR FINAL INSPECTION ONLY)						
MATERIAL		ANTICIPATED					ACTUAL (See weight conversion factors next page) DIVERSION RAT				ERSION RATE.	
		DIVERSION			WASTE DIV		DIVE	RTED MATERIALS ALL METHODS	WASTE			
	REUSE	RECYCLE	COMPOST	ESTIMATE % OF EACH MATERIAL	VENDOR/FACILITY	LANDFILLED	ESTIMATED % OF LAND DFILL MATERIAL	DIVERTED	VENDOR/FACILITY	(lbs)	TOTAL DIVERTED + LANDFILLED	
ASPHALT	100000000000000000000000000000000000000		N/A	100%					BOLTEN CHIMOLOGIC CONTRACTOR			100% REQUIRED
CONCRETE	COLUMN TO THE STATE OF THE STAT	0.835401419000140	N/A	100%								100% REQUIRED
DIRT & ROCK (From previously undeveloped lots)			N/A	100%								100% REQUIRED
AT LEAST 65% DIVERSION OF THE FOLL OF MATERIALS BELOW. CARDBOARD	OWING MAT	ERIALS. I	DIVERSIC	ON BASED ON	AMOUNT OF THE CON	ABINED	TOTALWEIGHT	Α		В		
CARPET, PADDING/FOAM BRICK, MASONRY, TILE					5:							
METALS		-	-						i militar si ultra di Paglio e di Agra di Agra di Paglio di Paglio di Paglio di Paglio di Paglio di Paglio di Paglio di Agradia di Paglio di			
PLANT DEBRIS												
SHEETROCK (Not painted)	- 6				-				Surgering 2.0 Hzz Beech describes and south			
CLEAN WOOD				73		.24		e billiod R.Hi	PARTICLE TO SERVICE AND ARREST	CHERMAN		
CEILING TILE		Ĭ			Ĩ.							
PAINTED WOOD, PAINTED, DRYWALL, PLYWOOD												
REUSABLE ITEMS									(COMPLETE REUSE LIST NEXT			
ROOFING											ANGULI	TOTAL%
OTHER DEBRIS - OTHER DEBRIS					1,000,000						TOTAL (lbs)	DIVERTED A/(A+B) X 100
PERSONAL PROPERTY OF THE PROPERTY OF THE PERSON OF THE PER	CONTRACTOR DESCRI	CONTRACTOR	SEC. 124 FEET 1-1	WELL BURNLESS CO.	PERCONAGO DE LA CONTRACTOR DE LA CONTRAC	11000000	TOTAL		Particle of the second			makes to the self-time.

Page 3 of 4



COMMUNITY DEVELOPMENT DEPARTMENT BUILDING DIVISION 12700 NORWALK BOULEVARD NORWALK, CA 90651-1030 (562) 929-5733

12650 EAST IMPERIAL HIGHWAY

PERMIT NUMBER

21060299

Reusable items such as cabinets, built-ins, framing lumber, siding, etc. are encouraged to be reused on-site. Please list accordingly.

ITEM	USE LO	CATION	OFF-SITE BENEFACTOR OR DECONSTRUCTION COMPA
	☐ ON-SITE	☐ OFF-SITE	
	☐ ON-SITE	☐ OFF-SITE	
7-10	☐ ON-SITE	☐ OFF-SITE	

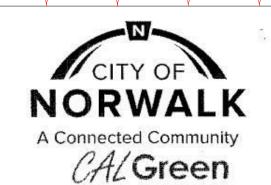
# WEIGHT CONVERSION FACTORS

Use the following conversion factors as well as receipts from previous jobs to help you with your estimated diversion for the Waste Diversion Plan. The Waste Diversion Report is a record of your actual diversion and disposal. The Waste Diversion Report and receipts from landfills, transfer stations and recyclers must be available for review at your final building inspection.

Asphalt paving, crushed = 1,380 lbs / cubic yard	Concrete, scraps, loose = 1,855 lbs / cubic yard		
Asphalt/shingles comp, loose = 418.5 lbs / cubic yard	Earth, loose = 2,052 lbs / cubic yard		
Brick, laid flat = 20 lbs / square foot flat	Fiberglass insulation, loose = 17 lbs / cubic yard		
Brick, loose = 120 lbs / cubic foot, 3,200 lbs / cubic yard	Sheetrock scrap, loose = 393.5 lbs / cubic yard		
Ceramic tile, scrap, loose = 1,214 lbs / cubic yard	Rock, crushed = 2,570 lbs / cubic vard		

Please submit three (3) copies of this worksheet with your building permit application and this worksheet shall be electronically placed / made a part of plans.

Page 4 of 4



COMMUNITY DEVELOPMENT DEPARTMENT BUILDING DIVISION 12700 NORWALK BOULEVARD NORWALK, CA 90651-1030 (562) 929-5733

# Construction and Demolition (C & D) Debris Waste Reduction and Recycling Plan (WRRP)

This form must be complete for the following types of projects:

- Newly constructed building and demolition projects shall divert from landfills at least 65% of the construction materials generated during project.
- All locally permitted additions and alterations to non-residential buildings or structures shall divert from landfills
- at least 65% of nonhazardous construction and demolition materials.
   Additions and alterations to residential buildings that increase the structure's conditioned area, volume or size are also required to meet the 65% minimum diversion requirement

WRRP must be submitted and APPROVED prior to issuance of building permits. Incomplete forms will be returned to applicant and may delay issuance of permit(s). Each building requires a separate WRRP. Deliver WRRP with permit application to the Building Division permit counter, 12700 Norwalk Boulevard. Norwalk, California 90650. Allow 5-10 business days for WRRP processing. You may call (562) 929-5733 or email <a href="mailto:Building@norwalkca.gov">Building@norwalkca.gov</a> with inquiries regarding this form.

#### DO NOT ATTACH ADDITIONAL ITEMS

la .		Email Address:		200
Mailing Address:		City:	State	:Zip Code:
Phone Number:		Fax Number:	-	
For lines 1, 2 and 3, plea	se check only 1 item for each	1:		
1) Project Type:	☐ New Construction	Addition/Alteration		☐ Demolition
2) Building Type:	Non-residential	N		☐ Apartment/Multi-Family
3) Tenant Improvement	(check one): XYes	□No		
4) Size of Project:	455 sq. ft.	Project Valuation: \$ 30,00	00	
5) Estimated Start Date	1 1	Estimated Completion Date	1	/
5) Compliance method (	Check one and provide requir	red information)		
☐ Waste Diversion Pl	an Worksheet	☐ Green Halo Sys	tem trackin	g number (if not using Workshee
	t (i.e.: renovate warehouse,			
<ol> <li>Briefly describe projection remodel office, etc.)</li> </ol>	•			
입사에 보면 사용 시간 회사 시간에 가득하면 하면 보다고 보고 있다. 그렇게 하는 것이 되지 않고 있다고 있다.				
remodel office, etc.)	te material be handled to		5.00 E:	
remodel office, etc.)  B) How will scrap or wast ensure salvage, re-use	te material be handled to e orrecycling? nd sub-contractors be notified	2000 2000 2000 2000 2000 2000 2000 200	53%	

Adjusted cost of construction does not include the cost of alterations to path of travel elements required to be upgraded outside the area of alteration, structural repair, or addition

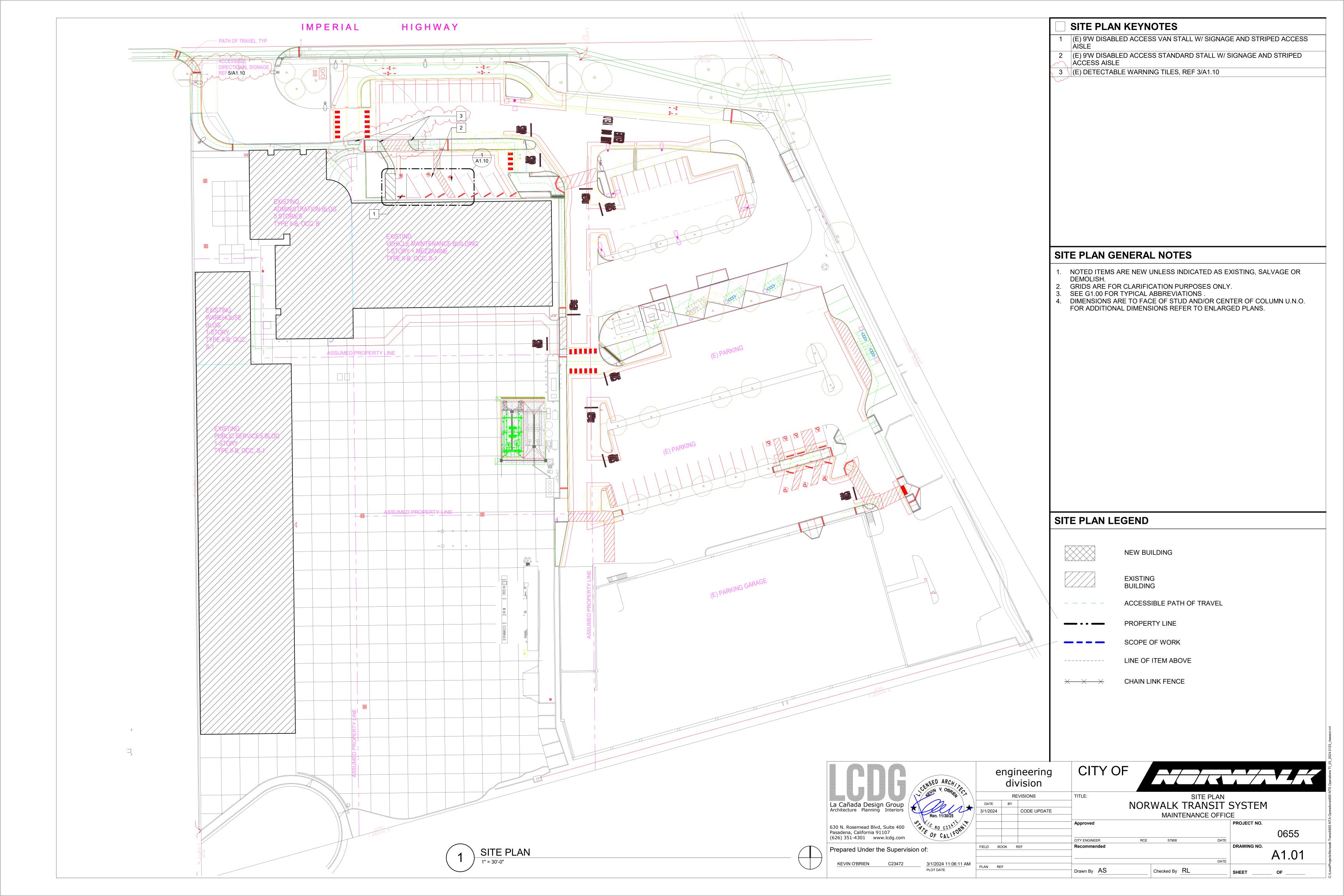
# Summary of Accessible Upgrades – Form A

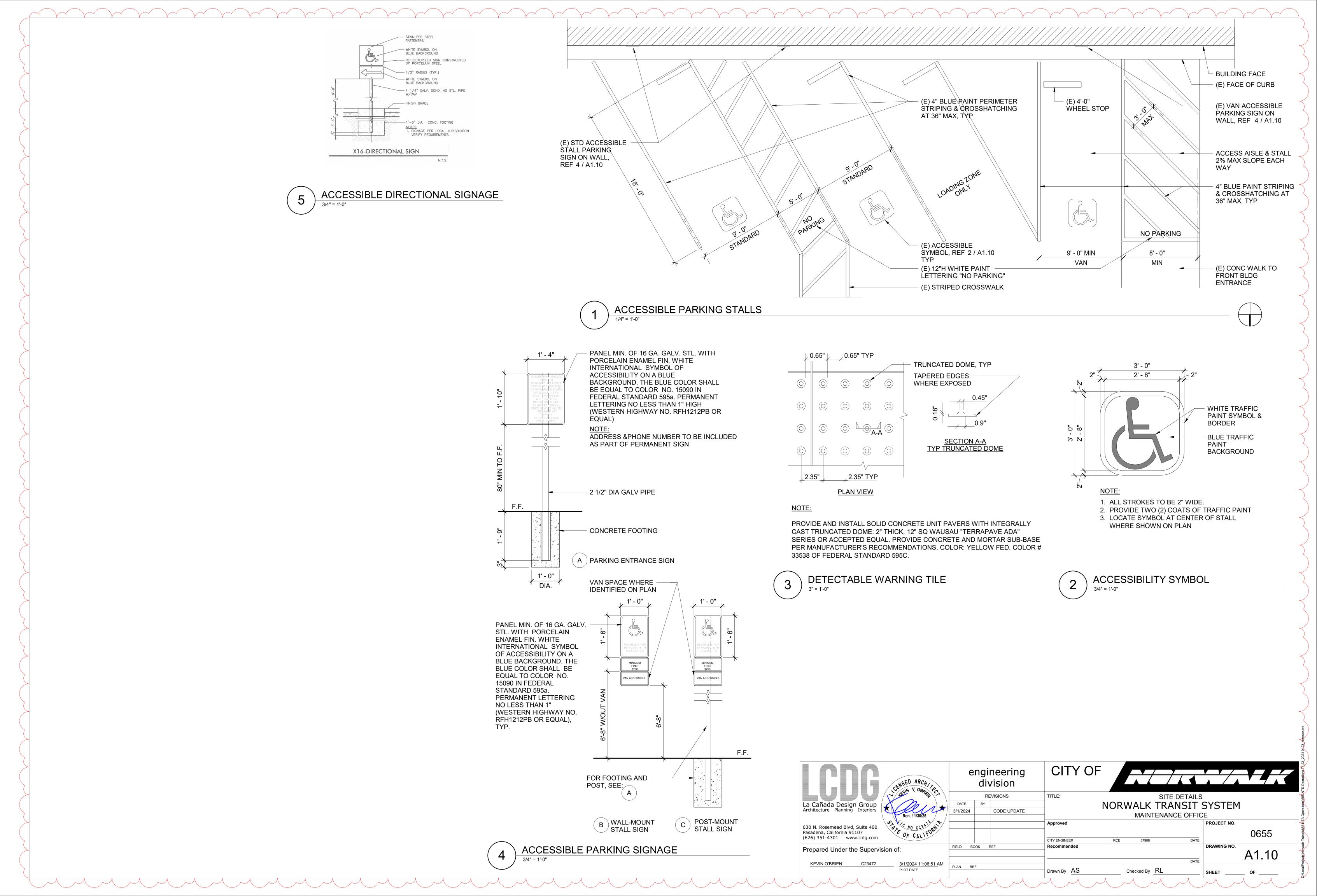
Project Address: 12650 EAST IMPERIAL HIGHWAY  Project Description/Location:  Type: ☑Alteration ☐ Structural Repair ☐ Addition				Permit Number: 21060299				
				Permit Valuation: \$30,000 *Adjusted Cost of Proposed Construction:				
	PATH OF TRAVEL REQUIR	REMENTS	FOR AREA OF ALTER	ATION, STRUCTUI	RAL REPAIR, OI	R ADDITIO	DN .	
Acc	essible Features	access	xisting feature meet ibility standards of er 11B of the current	Will this feat replaced or a meet Chapte current CBC	altered to er 11B of the		ow much will be o make this featur ble?	
1. Accessible	e entrance	\	/ES	NO		\$	31.550	
2. Accessibl	e route to the altered area	\	/ES	NO		\$		
Accessible     a unisex in	e restroom for each sex or restroom	)	/ES	NO	7301	\$		
4. Accessibl	e telephones	· \	/ES	NO	1000 P	\$		
5. Accessibl	e drinking fountains		/ES	NO		\$		
6. Other (Ar	ny of the below)			NO	7 350 350 3105			
A. Access	ible parking spaces	1	/ES	NO		\$	30000	
B. Signs	CANADA DA	\	/ES	NO	7078X	\$	11:00	
C. Alarms		\	/ES	NO		\$	1188	
D. Other:		1	10	YES	37404	\$	600.00	
Cost of All Fea	tures Provided (A)	Summary of costs of Accessible Features Nos. 1-6 provided above.		\$	600.00			
Adjusted Cost (B)	of Proposed Construction	Construction cost for all proposed work on this permit application <u>except</u> Accessible Features Nos. 1-6 provided above.			\$	29,400.00		
Percentage Up	grades Provided (A / B)	Cost of all Features Provided / Total Cost on Same Path of Travel.					2 %	
Description of	Access Features Provided:	Tactile	e exit signs				- ONU-	
TVV.			100.10 200.10			2011		
Applicant Cert	ification ne above information is true	and corr	ect to the best of my	knowledge and be	lief.	W.		
Signature:	7///		Date: 7/23/21	Company:	La Canad	da Desig	n Group	
Name:(print)	Kevin O'Brien			Address:	630 N Rosemead Blvd, Ste 400			
Title:	Architect of Record	2000. 20 2005		City, State Zip:	Pasadena CA 91107			
Agent for:   X Owner □ Architect □ Engineer □ Contractor			☐ Contractor	Phone No.:	626-351-4301			

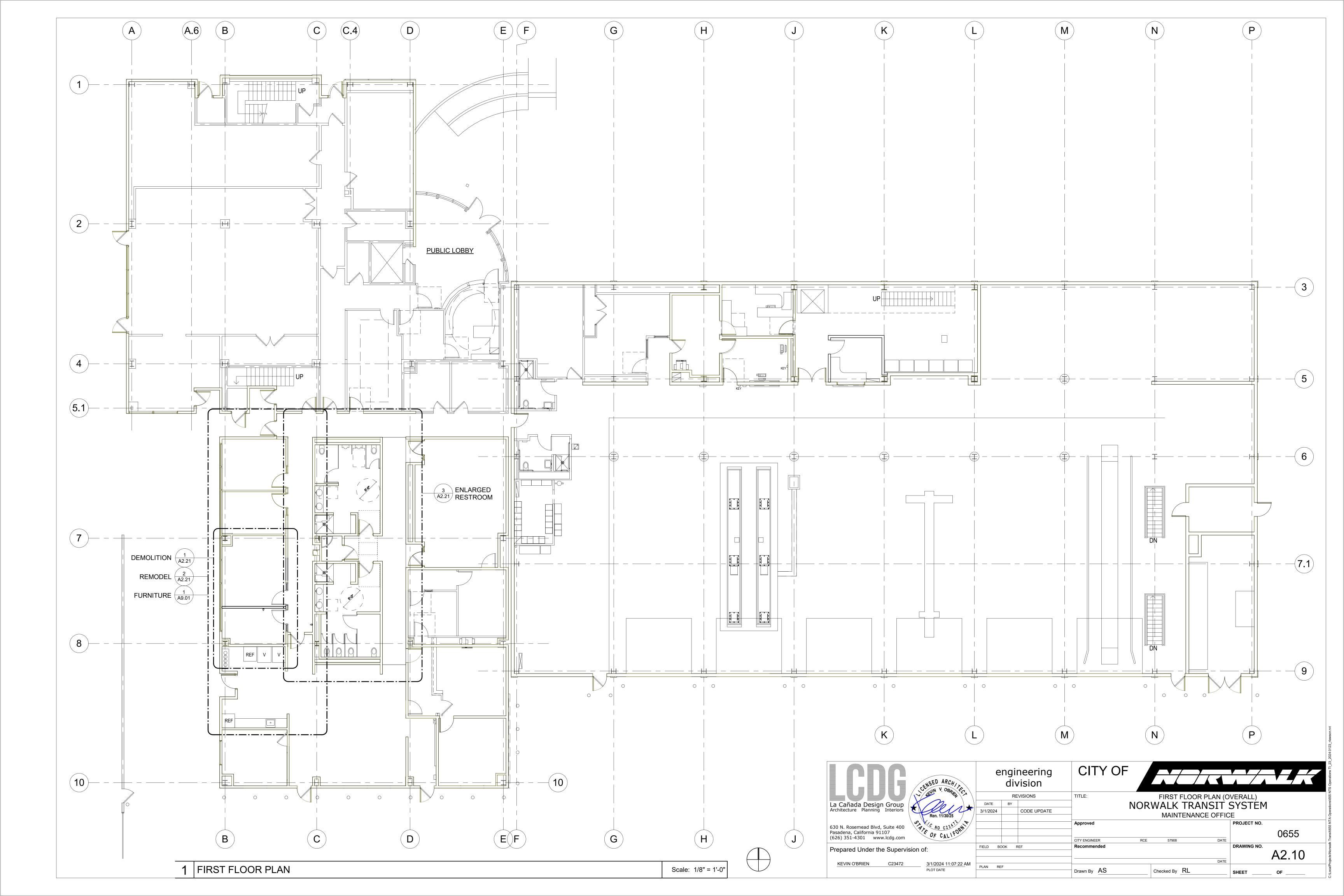
\*If an area has been altered without providing an accessible path of travel to that area, and subsequent alterations of that area or a different area on the same path of travel are undertaken within three years of the original alteration, the total cost of alterations to the areas on that path of travel during the preceding three-year period shall be considered in determining whether the cost of making that path of travel accessible is disproportionate.

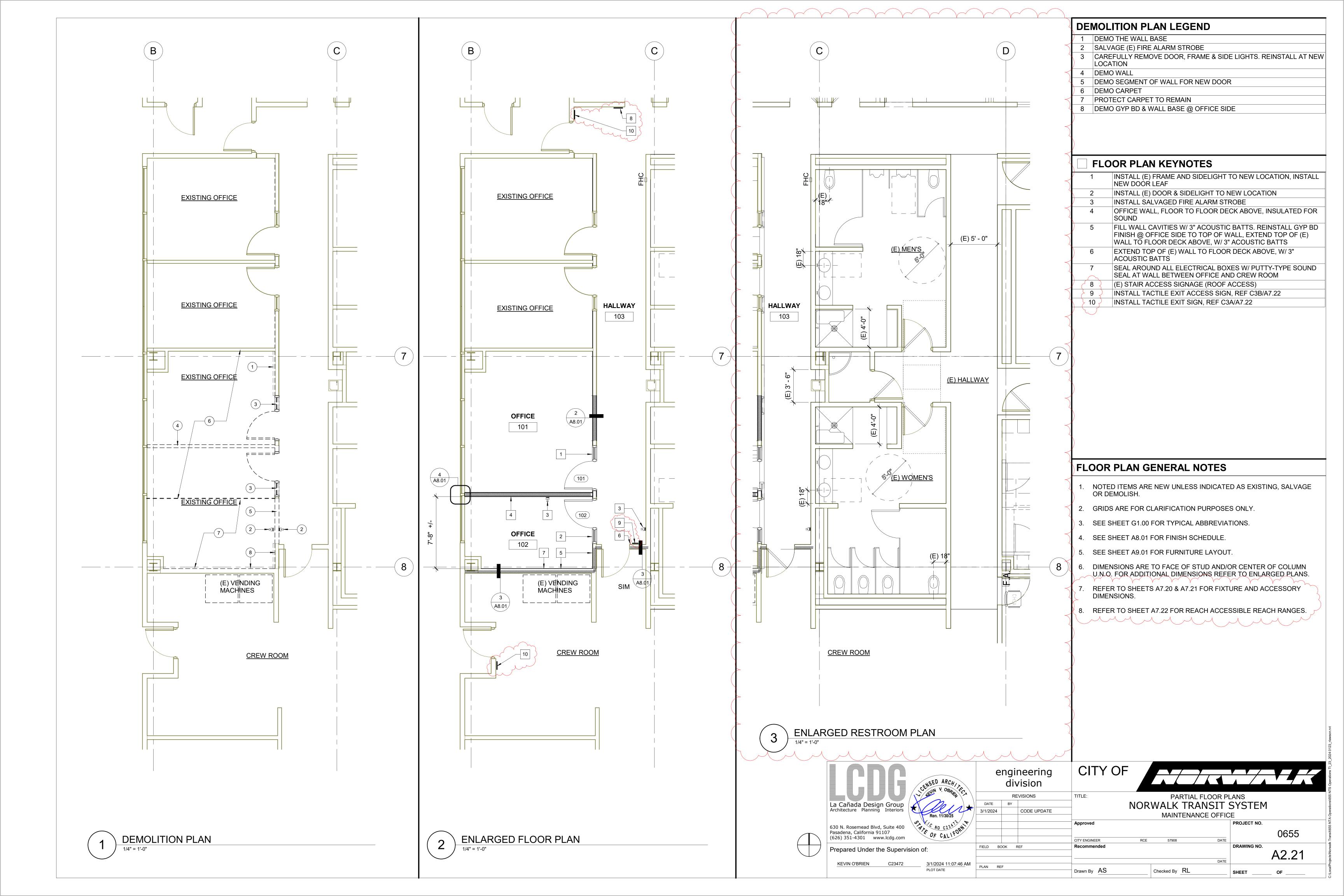
CITY OF engineering division REVISIONS TITLE: NORWALK TRANSIT SYSTEM La Cañada Design Group Architecture Planning Interiors MAINTENANCE OFFICE 630 N. Rosemead Blvd, Suite 400 Pasadena, California 91107 (626) 351-4301 www.lcdg.com **Approved** PROJECT NO. 0655 FIELD BOOK REF Prepared Under the Supervision of: G1.20 KEVIN O'BRIEN C23472 3/1/2024 11:05:32 AM

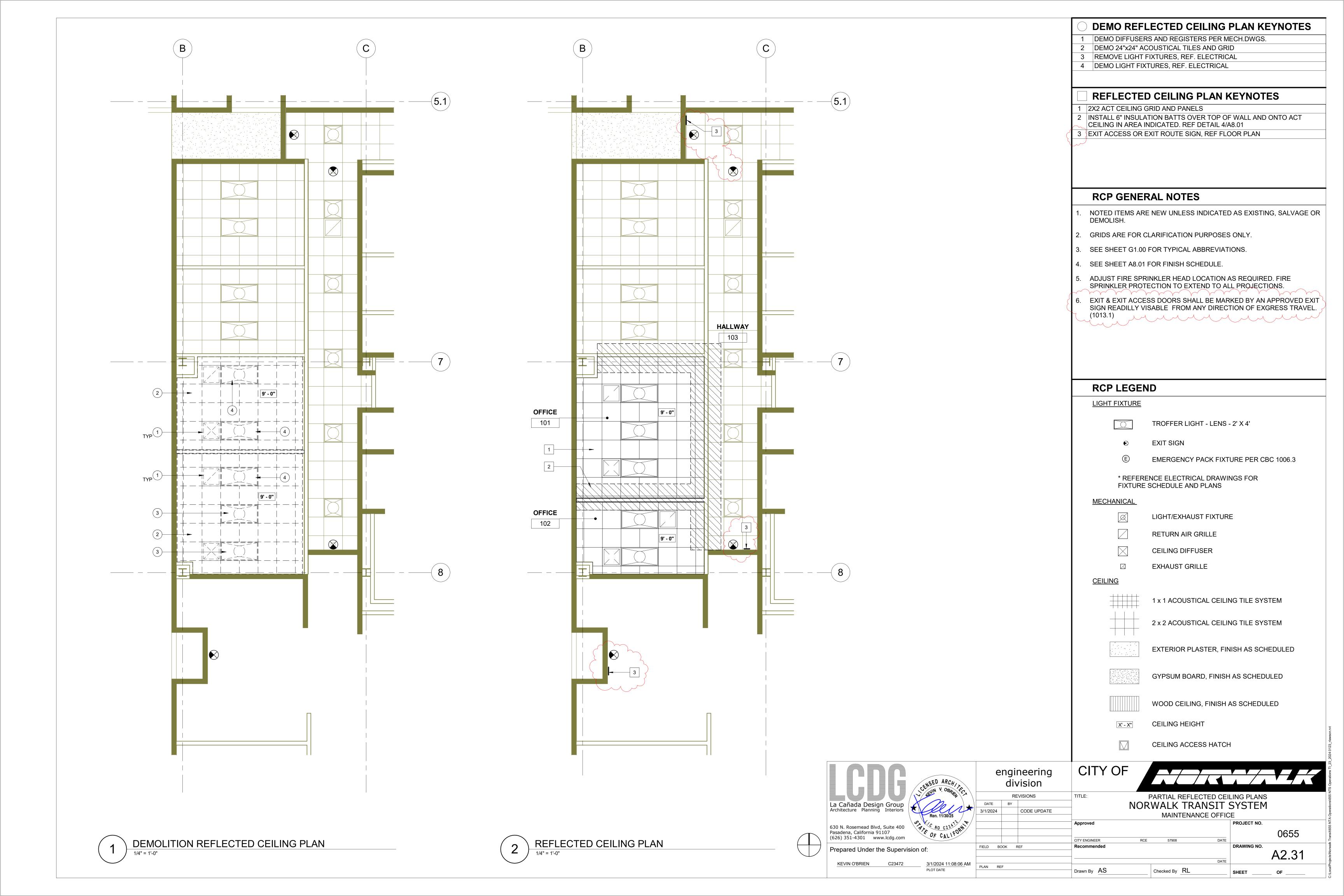
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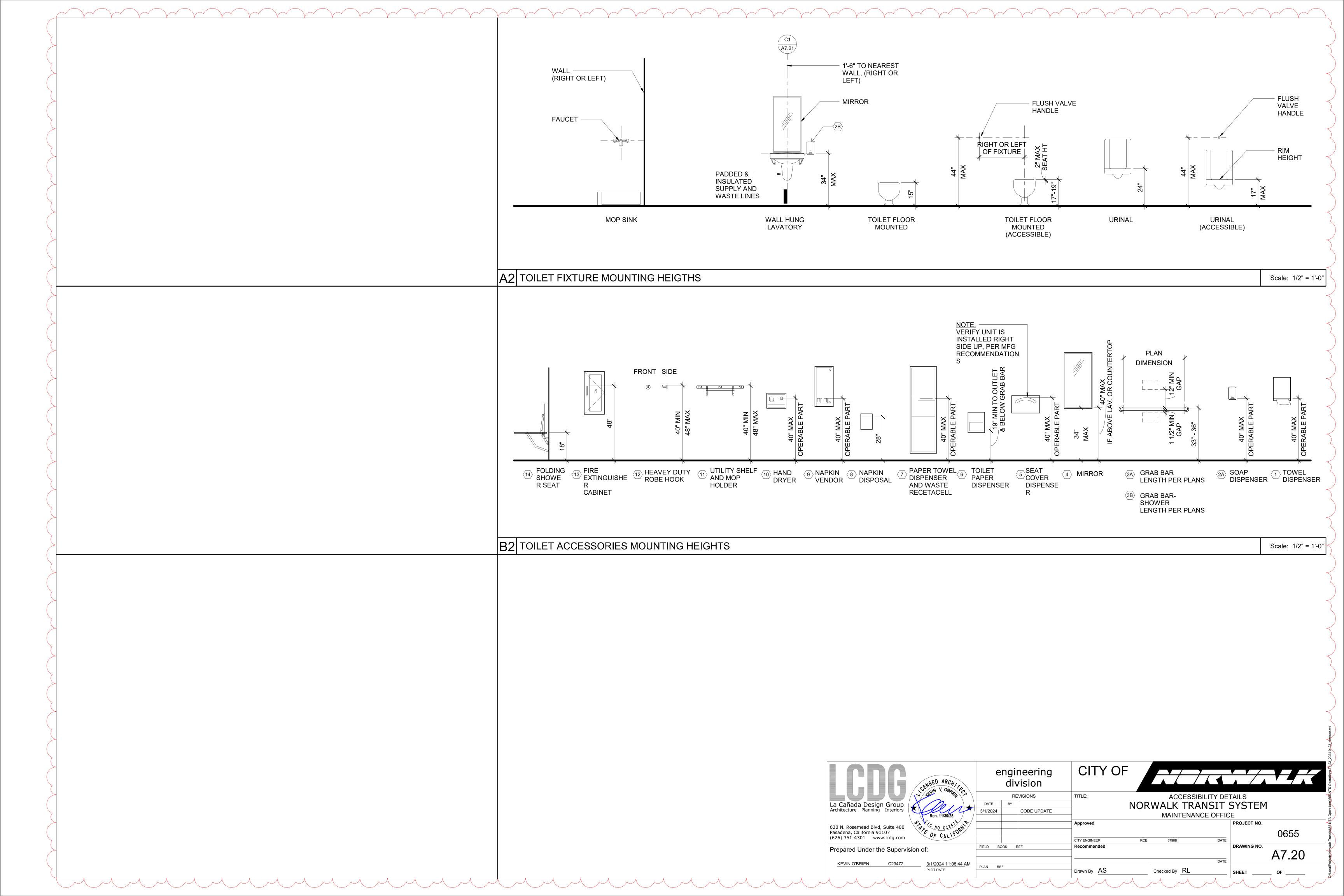


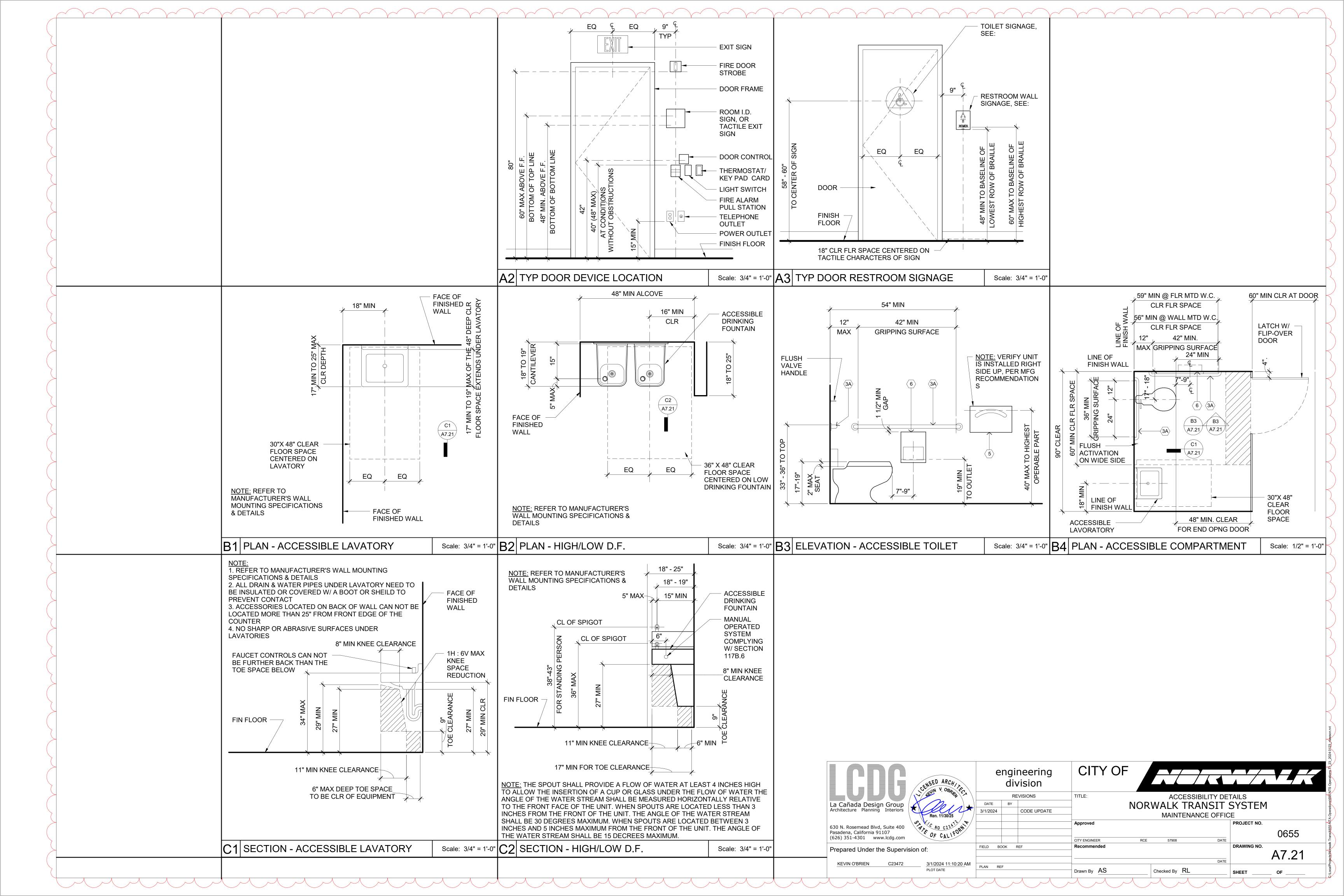


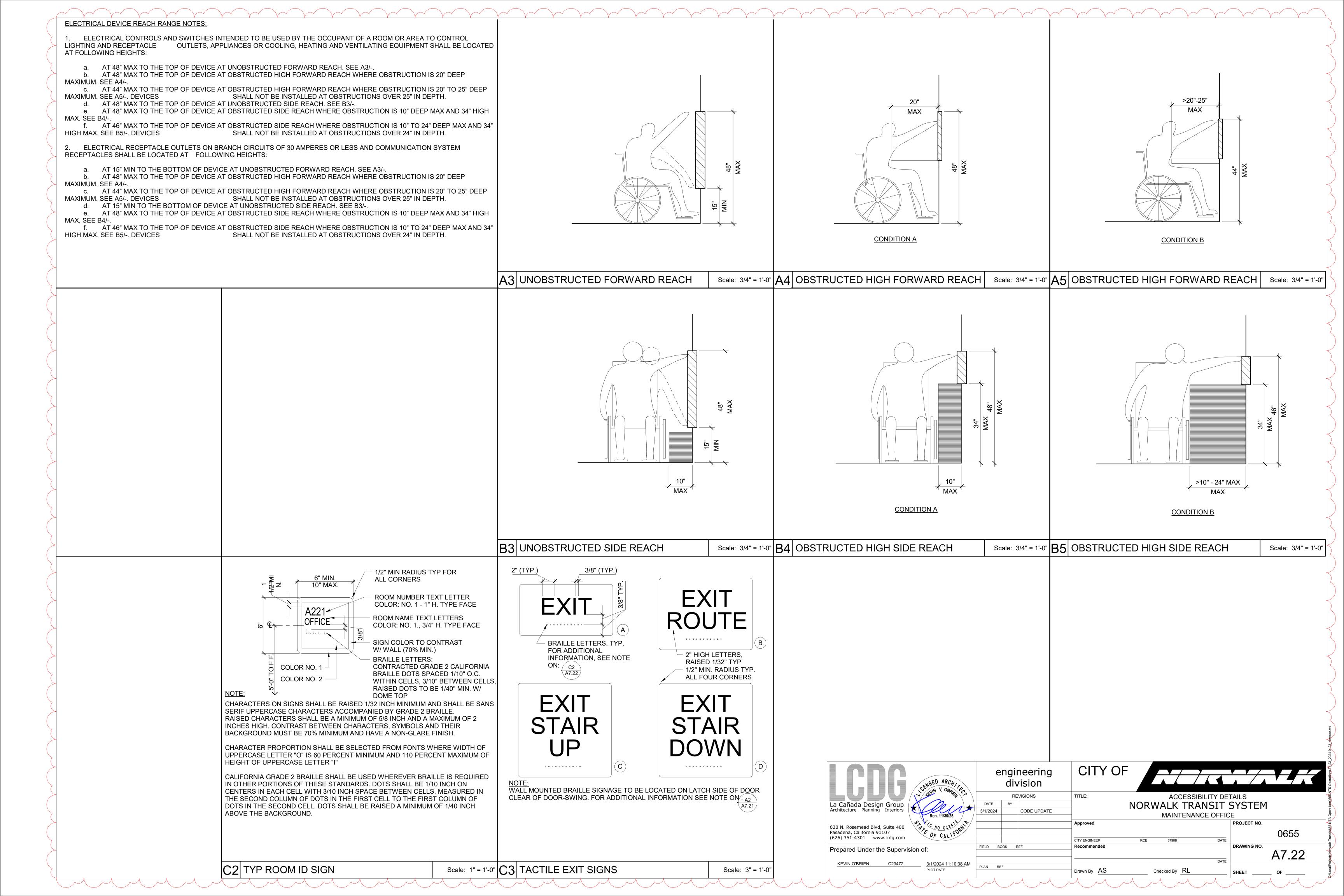


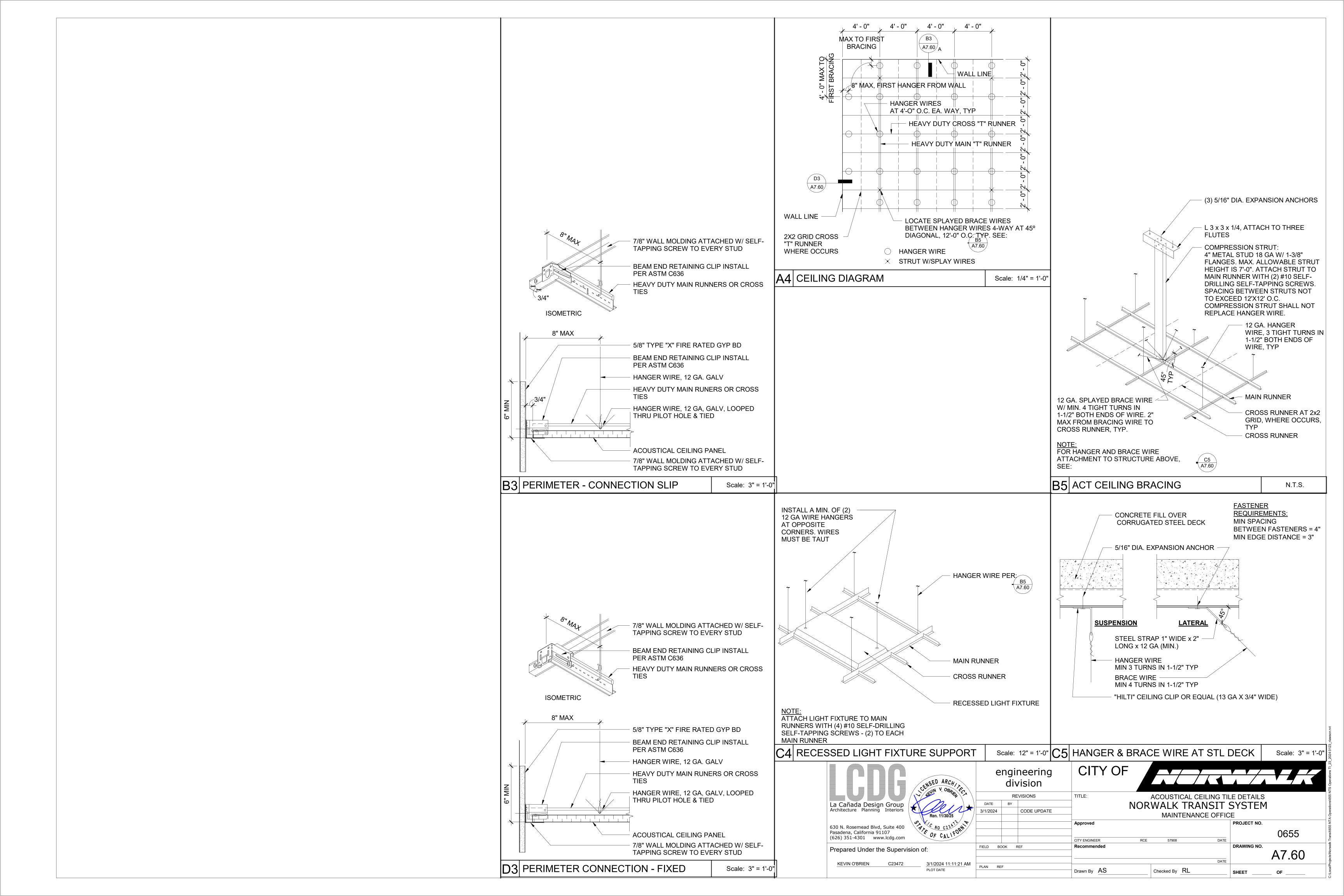


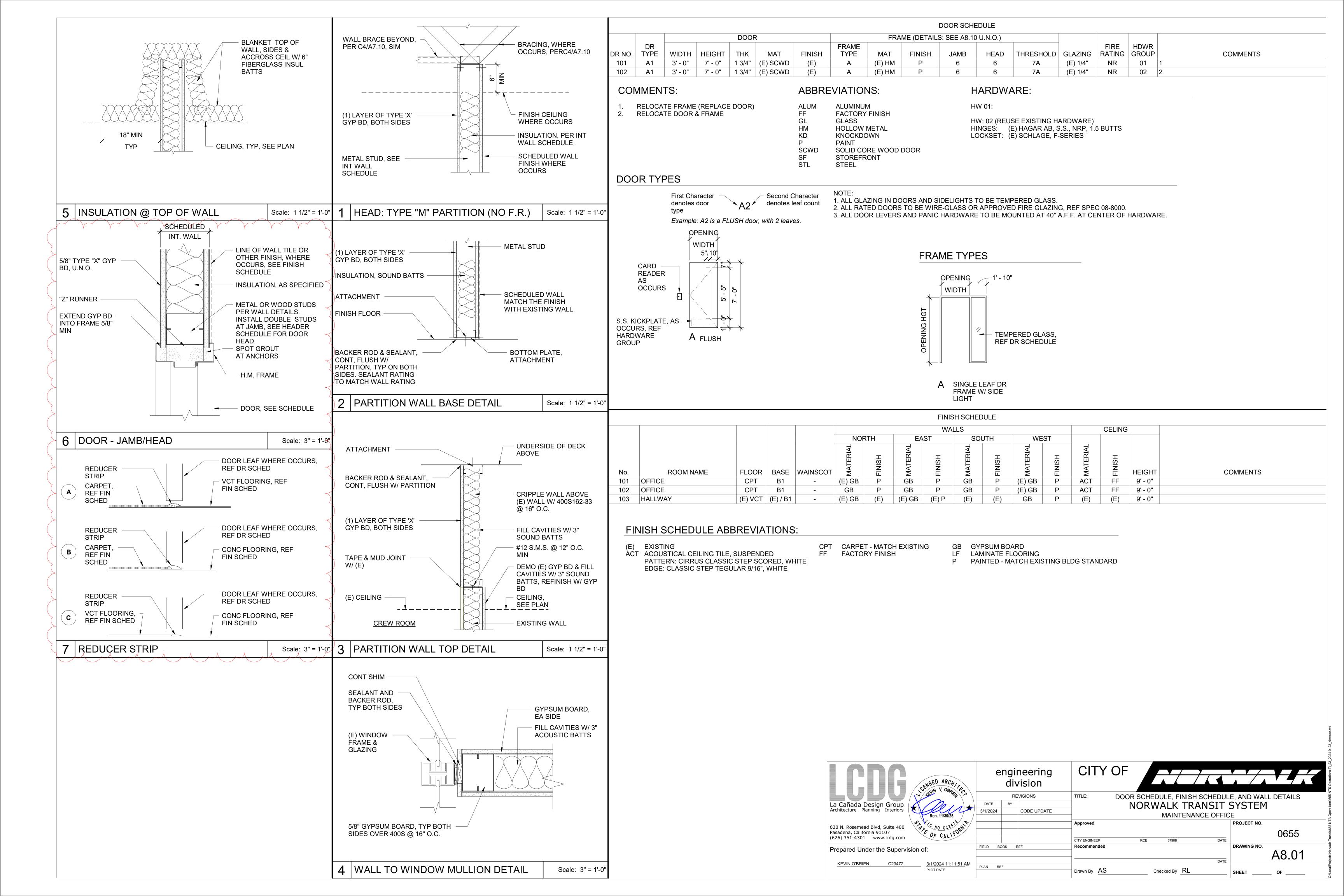


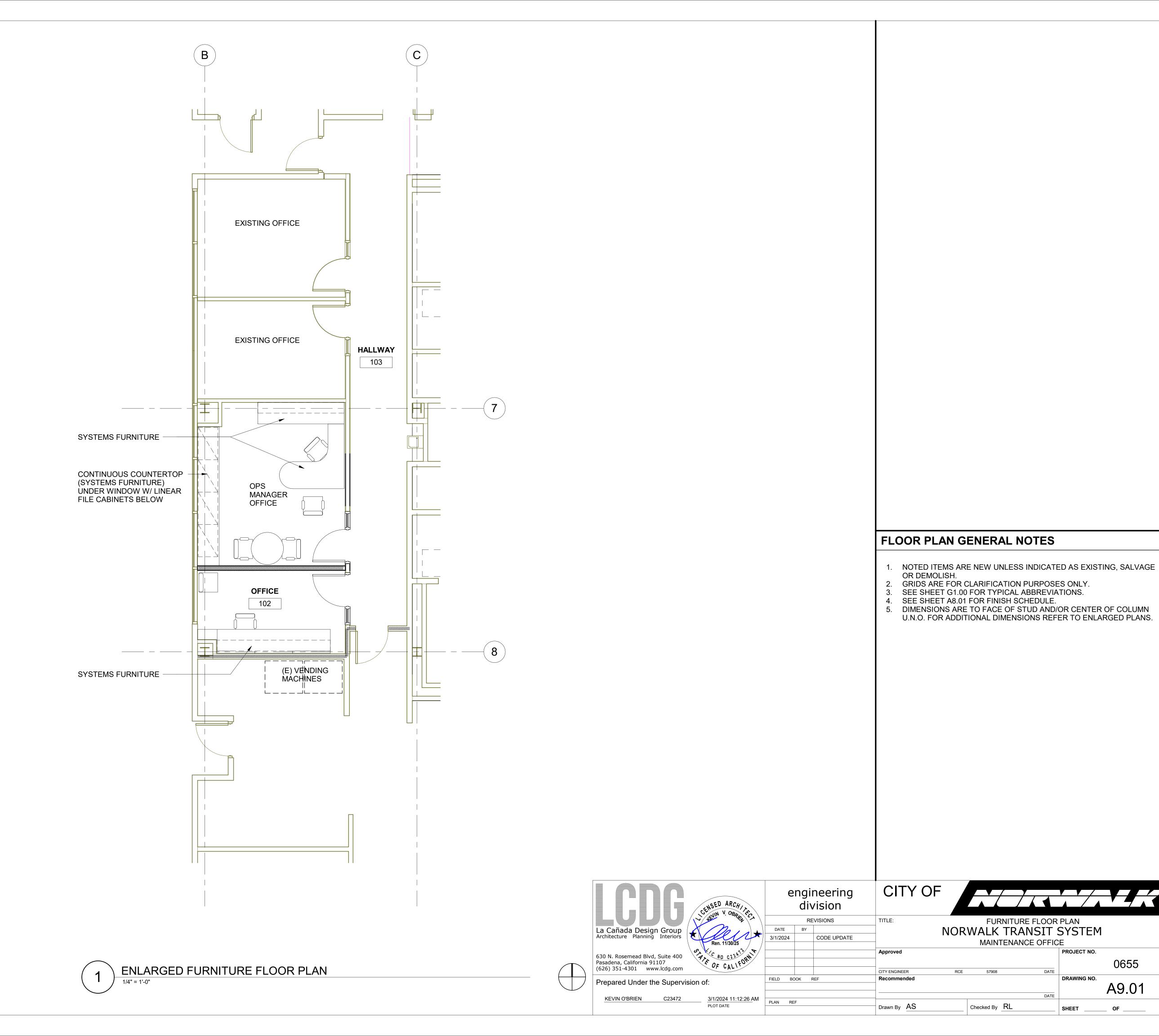












PROJECT NO.

SHEET

0655

A9.01

# **GENERAL NOTES**

- ALL DUCTWORK AND ROOF PENETRATION SHALL BE COORDINATED WITH EXISTING STRUCTURAL JOISTS AND BEAMS. PROVIDE OFFSETS IN PIPES AND DUCTS TO AVOID CUTTING OF BEAMS AND JOISTS UNLESS INDICATED ON STRUCTURAL DRAWINGS.
- 2. MAINTAIN CLEAR ACCESS TO SERVICE EQUIPMENT AND OTHER ACCESSORIES REQUIRING SERVICE, VISUAL INSPECTION OR HAND OPERATION. WHERE INDICATED OR REQUIRED, PROVIDE ACCESS PANELS OF THE TYPE SELECTED TO SUIT MATERIALS IN WHICH INSTALLED.
- 3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LATEST APPLICABLE CODES AND REGULATIONS PER CALIFORNIA AND OTHER AUTHORITIES HAVING JURISDICTION.
- THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND SHOULD NOT BE SCALED EXISTING CONDITIONS AND MAKE ADJUSTMENTS TO DIMENSIONS AS NECESSARY TO COMPLETE THE WORK.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND SHALL ARRANGE FOR ALL INSPECTIONS AS REQUIRED.
- CONTRACTOR SHALL THOROUGHLY EXAMINE PREMISES AND OBSERVE ALL CONDITIONS AND CIRCUMSTANCES UNDER WHICH THE WORK SHALL BE PERFORMED. NO ALLOWANCES WILL BE MADE FOR ERRORS OR NEGLIGENCE IN THIS RESPECT.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE IMPORTANCE OF PROPER SCHEDULING AND PHASING OF THE WORK SO AS TO CAUSE MINIMUM DISTURBANCE TO THE ACTIVITIES IN THE OTHER FLOORS AND AREAS WHICH REMAIN OCCUPIED THROUGHOUT THE DURATION OF THE CONTRACT. THE CONTRACTOR'S WORK SCHEDULE SHALL BE SUBMITTED TO AND APPROVED BY OWNER.
- CONTRACTOR SHALL PERFORM WORK ONLY AFTER THE GATHERING OF EXACT FIELD DIMENSIONS OF THE BUILDING STRUCTURE AND CEILINGS ETC. WHICH MAY AFFECT THE INSTALLATION OF THE NEW SYSTEMS.
- OTHER CONTRACTOR SHALL FULLY COORDINATE ALL WORK WITH OTHER TRADES TO ASSURE ALL WORK CAN BE PROPERLY INSTALLED WITHOUT INTERFERENCE OR DELAY.
- 10. CLEAN UP ALL WASTE AND DEBRIS AT THE END OF EACH WORKING DAY AND AT THE COMPLETION OF THE JOB.
- 11. PRIOR TO STARTING WORK, SUBMIT SHOP DRAWINGS FOR ALL MECHANICAL EQUIPMENT & DUCTWORK PER SPECIFICATIONS.
- 12. EXACT LOCATIONS OF ALL CEILING DIFFUSERS. REGISTERS, AND GRILLES SHALL BE COORDINATED WITH LIGHTING. CEILING DIFFUSERS SHALL HAVE A MINIMUM OF 36" FROM ANY FIRE ALARM DEVICES.
- 13. CONTRACTOR SHALL MOUNT AND CONNECT EACH ITEM OF EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION. CMC CHAPTER 6 AND CBC SECTION 1632.
- 14. ALL OPENINGS IN WALLS, CEILINGS, AND FLOORS RESULTING FROM DUCT DEMOLITION SHALL BE CLOSED AND FINISHED TO MATCH THE SURROUNDING.
- 15. COORDINATE WITH PLUMBING TO PROVIDE CONDENSATE DRAIN LINES FOR ALL COOLING COILS.
- 16. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED PER TITLE-24 AND CALIFORNIA ENERGY CODE REQUIREMENT.
- 17. PROVIDE VOLUME DAMPERS AT EACH BRANCH TAKE-OFF FROM MAIN SUPPLY RETURN. AND EXHAUST DUCT SERVING EACH AIR DEVICE.
- 18. PROVIDE DIFFUSERS AND GRILLES WITH BLOW PATTERNS INDICATED ON THE DRAWING.
- 19. WHEN REMOVING EXISTING DUCTWORK, GRILLES, ETC., PATCH AND SEAL (WEATHER TIGHT IF NECESSARY) ALL WALL OPENINGS. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS

# 20. ALL EQUIPMENT WITH MOVING PARTS SHALL BE PROVIDED WITH FLEXIBLE DUCT AND PIPE CONNECTIONS.

- 21. CONTRACTOR SHALL VERIFY ALL CLEARANCES AND AVAILABLE SPACE FOR DUCTWORK PRIOR TO ORDERING AND/OR FABRICATING MATERIAL
- 22. DRAWINGS SHALL BE USED ONLY FOR GENERAL DUCT ROUTING AND AIR DISTRIBUTION. ACCESS DOORS SHALL BE PROVIDED ON ALL FIRE DAMPERS, AUTOMATIC DAMPERS, MANUAL DAMPERS, AND BYPASS DAMPERS
- 23. NOTE THE CRITICAL SPACE AVAILABLE ABOVE CEILINGS. PROVIDE TRANSITION PIECES AT CROSSOVERS, UNDER BEAMS, OVER/UNDER PIPES, AS REQUIRE ACCOMMODATE DUCTS WITHIN SPACE AVAILABLE, PROVIDING EQUIVALENT DUCT SIZE TO THE DIMENSION SHOWN. COORDINATE CLOSELY WITH OTHER SECTIONS TO REDUCE NECESSITY OF TRANSITIONS TO A MINIMUM. NO ADDITIONAL COSTS WILL BE PAID FOR ANY REQUIRED TRANSITIONS OR OTHER SPECIAL CHANGE SHAPE PIECES.
- 24. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL HAVE ALL AIR SYSTEMS BALANCED TO INDICATED AIR FLOW QUANTITIES BY A CERTIFIED AABC BALANCING CONTRACTOR, PROVIDE POST-CONSTRUCTION AIR BALANCE REPORT.
- 25. MAXIMUM LENGTH OF RUN OF FLEXIBLE DUCT SHALL NOT EXCEED 5'-0" FEET
- 26. REPAIR CEILING AND WALL SURFACES AFTER INSTALLATION AND INSPECTION OF NEW MECHANICAL DUCTWORK, FANS, ETC. ARE INSTALLED. PAINT OR INSTALL NEW TILE TO MATCH EXISTING CONDITION AND SURROUNDINGS, VERIFY WITH ARCHITECT. PATCH AND/OR REPAIR ROOF SYSTEM IF ANY DEMOLITION WORK FOR MECHANICAL SYSTEM AFFECTED THE ROOF.
- 27. CONTRACTOR SHALL PROVIDE "YOUNG" REGULATORS IN LIEU OF VOLUME DAMPERS IN HARD CEILING AREAS AT EACH BRANCH TAKE-OFF FROM MAIN SUPPLY, RETURN AND EXHAUST DUCT SERVING EACH AIR DEVICE. ALL MANUAL VOLUME DAMPERS MAY NOT BE SHOWN ON PLANS. PROVIDE AS STATED.
- 28. THE SEISMIC ANCHORAGE OF MECHANICAL AND ELECTRICAL EQUIPMENT SHALL CONFORM TO C.C.R TITLE 24, OF SECTION 16 AND 16A CBC-2022 AND ASCE 7-10. A COPY OF THE GUIDELINES PUBLISHED BY SMACNA SHALL BE PROVIDED BY THE CONTRACTOR AND KEPT ON THE JOB SITE AT ALL TIMES.
- 29. ANY EQUIPMENT, DUCTWORK, OR PIPING INSTALLED MORE THAN 1 FT FROM THE LOCATION SHOWN ON THE DRAWINGS SHALL BE CLEARLY DOCUMENTED ON THE FIELD. CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS THAT CLEARLY SHOW THE LOCATION OF THE THE EQUIPMENT BEFORE THAN COMPLETION OF THE PROJECT ALL EXPENSE RELATING TO VERIFY THE AS-BUILT DRAWINGS BY THE DISTRICT OR ITS REPRESENTATIVE(S) DUE TO INACCURATE OR INCOMPLETE RECORD SHALL BE BORN BY THE CONTRACTOR.
- 30. CONTRACTOR HAS THE OPTION TO CHANGE DUCT TO ROUND AS LONG AS INTERIOR ASPECT RATIO IS MAINTAINED, AND SPACE ALLOWS.
- 31. RECORD PLANS "AS BUILTS" THROUGHOUT CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN A CLEAN, UNDAMAGED SET OF PRINTS OF DRAWINGS AND SHOP DRAWINGS ON SITE. RED LINE THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. FOR CLOSE OUT, THE CONTRACTOR SHALL INCORPORATE THE CHANGES IN AUTOCAD FORMAT INTO THE APPROPRIATE ORIGINAL DRAWINGS. SIMPLE ATTACHMENTS SUCH AS REFERENCING CHANGE ORDERS, SHOP DRAWINGS, RFC'S OR RFI'S ARE NOT ACCEPTABLE.
- 32. ALL THERMOSTATS SHALL BE PROVIDED WITH COMMERCIALLY AVAILABLE COVERS TO PREVENT VANDALISM AND TAMPERING.
- 33. ALL DUCTWORK INSTALLATION SHALL BE DONE IN ACCORDANCE WITH LATEST SMACNA GUIDELINES

# INDOOR AIR QUALITY DURING CONSTRUCTION

TEMPORARY VENTILATION DURING CONSTRUCTION SHALL BE PROVIDED IN ACCORDANCE WITH THE FOLLOWING.

VENTILATION DURING CONSTRUCTION SHALL BE ACHIEVED THROUGH OPENING IN THE BUILDING SHELL USING FANS TO PRODUCE NOT LESS THAN THREE AIR CHANGES PER HOUR.

POLLUTANT CONTROL

- 2. THE SUPPLY AND RETURN HVAC SYSTEM OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC SHEET METAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST OR DEBRIS THAT CAN COLLECT IN THE SYSTEM.
- 3. THE BUILDING WILL BE OCCUPIED DURING DEMOLITION AND CONSTRUCTION, VENTILATION SHALL BE PROVIDED IN ACCORDANCE WITH THE CONTROL MEASURES OF THE SMACNA IAQ GUIDELINES FOR OCCUPIED **BUILDINGS DURING CONSTRUCTION**
- 4. THE PERMANENT HVAC SYSTEM SHALL NOT BE USED DURING CONSTRUCTION TO CONDITION AND VENTILATE THE BUILDING WITHIN THE REQUIRED TEMPERATURE RANGE FOR MATERIAL AND EQUIPMENT INSTALLATION. WHERE REQUIRED, A SUPPLEMENTAL HVAC SYSTEM SHALL BE USED DURING CONSTRUCTION.

# **DEMOLITION NOTES**

WORK UNDER THIS SECTION: THE WORK UNDER THIS SECTION SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE ALL DEMOLITION AS INDICATED AND SPECIFIED

# WORK:

REMOVAL OF THE EXISTING HVAC MECHANICAL SYSTEMS AND MECHANICAL EQUIPMENT AS INDICATED AND/OR AS DIRECTED ON THE PLANS. ALL REFRIGERANT AND OILS CONTAINED IN SPLIT SYSTEMS (INCLUDING PIPING, ETC.) SHALL BE EVACUATED FROM SYSTEM AND RECYCLED PER EPA REQUIREMENTS PRIOR TO DECONSTRUCTION OR REMOVAL FROM ORIGINAL INSTALLATION. UNDER NO CIRCUMSTANCES SHALL REFRIGERANT BE ALLOWED INTO THE ATMOSPHERE (NO PURGING).

# **MATERIALS:**

- ALL MATERIALS, RUBBISH AND DEBRIS SHALL BE PROMPTLY REMOVED FROM THE BUILDINGS AND FROM THE SITE. ACCUMULATION OF SAME SHALL NOT BE PERMITTED.
- THE CONTRACTOR SHALL PROTECT PART OF ALL STRUCTURES NOT INCLUDED IN ALTERATION. ANY DAMAGE RESULTING DUE TO ALTERATION SHALL BE REPAIRED AND/OR REPLACED TO THE ORIGINAL CONDITION AS APPROVED BY THE OWNERS REPRESENTATIVE.
- ANY ITEMS REMOVED TO BE REUSED ARE TO BE PROTECTED AND REINSTALLED IN UNDAMAGED AND WORKABLE CONDITION.

# **MEASURES:**

- PROTECTION MEASURES SHALL BE IN EFFECT PRIOR TO COMMENCEMENT OF ANY DEMOLITION WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLETELY ISOLATE HIS WORK FROM ADJACENT IN-SERVICE AREAS OF THE BUILDING
- UTILITY SHUT DOWN MUST BE COORDINATED WITH OAR AND SCHOOL FOR A MINIMUM OF 48 HOURS IN ADVANCE.
- THE LOCATION AND ACTIVE/INACTIVE STATUS OF ALL EXISTING UTILITIES IN THE IMMEDIATE AREA OF THE WORK MUST BE VERIFIED PRIOR TO ANY **CUTTING OPERATIONS.**
- DEBRIS FROM DEMOLITION SHALL BE COLLECTED AND REMOVED AT THE BEGINNING OF THE FOLLOWING WORK DAY. ROUTING OF ANY DEBRIS THROUGH ANY PORTION OF THE EXISTING BUILDING SHALL BE DONE UNDER STRICT OBSERVATION OF THE OWNERS AUTHORIZED REPRESENTATIVE (OAR) AND SCHOOL. ONLY THOSE ROUTES AND TIMES DESIGNATED BY OAR AND SCHOOL SHALL BE ALLOWED.
- THIS SITE SHALL REMAIN IN OPERATION WHILE THIS WORK IS BEING DONE, COORDINATE WITH THE PROJECT MANAGER FOR THE PHASING OF THIS WORK SO NOT TO INTERFERE WITH THE NORMAL OPERATION OF THIS SITE.
- AFTER DEMOLITION COORDINATE FOR THE PATCHING OF ALL WALL, FLOOR AND ROOF OPENINGS IN ACCORDANCE WITH PROJECT MANAGER AND SCHOOL. SEE ALL ARCHITECTURAL DRAWINGS FOR DETAILS.

# CODE STANDARDS

#### CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING PARTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR):

PART 1 2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE

PART 2 2022 CALIFORNIA BUILDING CODE (CBC) VOLUME 1 AND 2 PART 3 2022 CALIFORNIA ELECTRICAL CODE (CEC)

PART 4 2022 CALIFORNIA MECHANICAL CODE (CMC)

PART 5 2022 CALIFORNIA PLUMBING CODE (CPC)

PART 6 2022 CALIFORNIA ENERGY CODE (CEC)

PART 7 CURRENTLY VACANT PART 8 2022 CALIFORNIA HISTORICAL BUILDING CODE

2022 CALIFORNIA FIRE CODE (CFC)

PART 10 2022 CALIFORNIA EXISTING BUILDING CODE PART 11 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE

2022 CALIFORNIA REFERENCED STANDARDS PART 12

#### PARTIAL LIST OF APPLICABLE STANDARDS:

NFPA 13, AUTOMATIC SPRINKLER SYSTEMS (CALIFORNIA AMENDED) 2022 EDITION NFPA 14, STANDPIPE SYSTEMS (CALIFORNIA AMENDED) 2024 EDITION 2024 EDITION NFPA 17, DRY CHEMICAL EXTINGUISHING SYSTEM 2024 EDITION NFPA 17A, WET CHEMICAL SYSTEMS NFPA 20, STATIONARY PUMPS 2022 EDITION NFPA 24, PRIVATE FIRE MAINS (CALIFORNIA AMENDED) 2022 EDITION NFPA 72, NATIONAL FIRE ALARM CODE (CALIFORNIA AMENDED) 2022 EDITION (NOTE: SEE UL STANDARD 1971 FOR "VISUAL DEVICES") NFPA 80, FIRE DOOR AND OTHER OPENING PROTECTIVE 2022 EDITION NFPA 253, CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS 2023 EDITION NFPA 2001 CLEAN AGENT FIRE EXTINGUISHING SYSTEMS 2022 EDITION REFERENCE CODE SECTION FOR NFPA STANDARDS-2001 CBC (SFM) 3504.1

# THERMOSTAT NOTES

#### THE THERMOSTAT SHALL COMPLY WITH THE FOLLOWING:

- ALL THERMOSTATS SHALL BE EQUIPPED WITH DIGITAL DISPLAY, TEMPERATURE SET-POINT ADJUSTMENTS AND OVERRIDE CAPABILITY.
- 2. ALL THERMOSTATS SHALL BE EQUIPPED WITH PASSIVE INFRARED (PIR) MOTION SENSORS FOR OCCUPANCY DETECTION EXCEPT FOR THE MDF ROOMS.
- 3. WHERE THERMOSTAT HAS TO BE LOCATED ON THE OUTSIDE WALL, THERMAL PADDING SHALL BE PROVIDED.
- 4. THERMOSTAT SHALL BE COMPATIBLE WITH THE EXISTING ROOF TOP UNIT.

# SHEET INDEX

MECHANICAL FRONT SHEET M-1.01 MECHANICAL SYMBOLS AND ABBREVIATIONS

MECHANICAL SCHEDULES M-1.03

FIRST FLOOR OVERALL PLAN

MECHANICAL FLOOR PLANS

MECHANICAL DETAILS

**MECHANICAL DETAILS** 

MECHANICAL SPECIFICATIONS.

MECHANICAL SPECIFICATIONS





La Cañada Design Group 630 N. Rosemead Blvd, Suite 400 Pasadena, California 91107 (626) 351-4301 www.lcdg.com

KEVIN O'BRIEN

DATE BY

C23472

CITY OF

engineering

division

3/1/2024

PLAN REF

FIELD BOOK REF

REVISIONS

CODE UPDATE

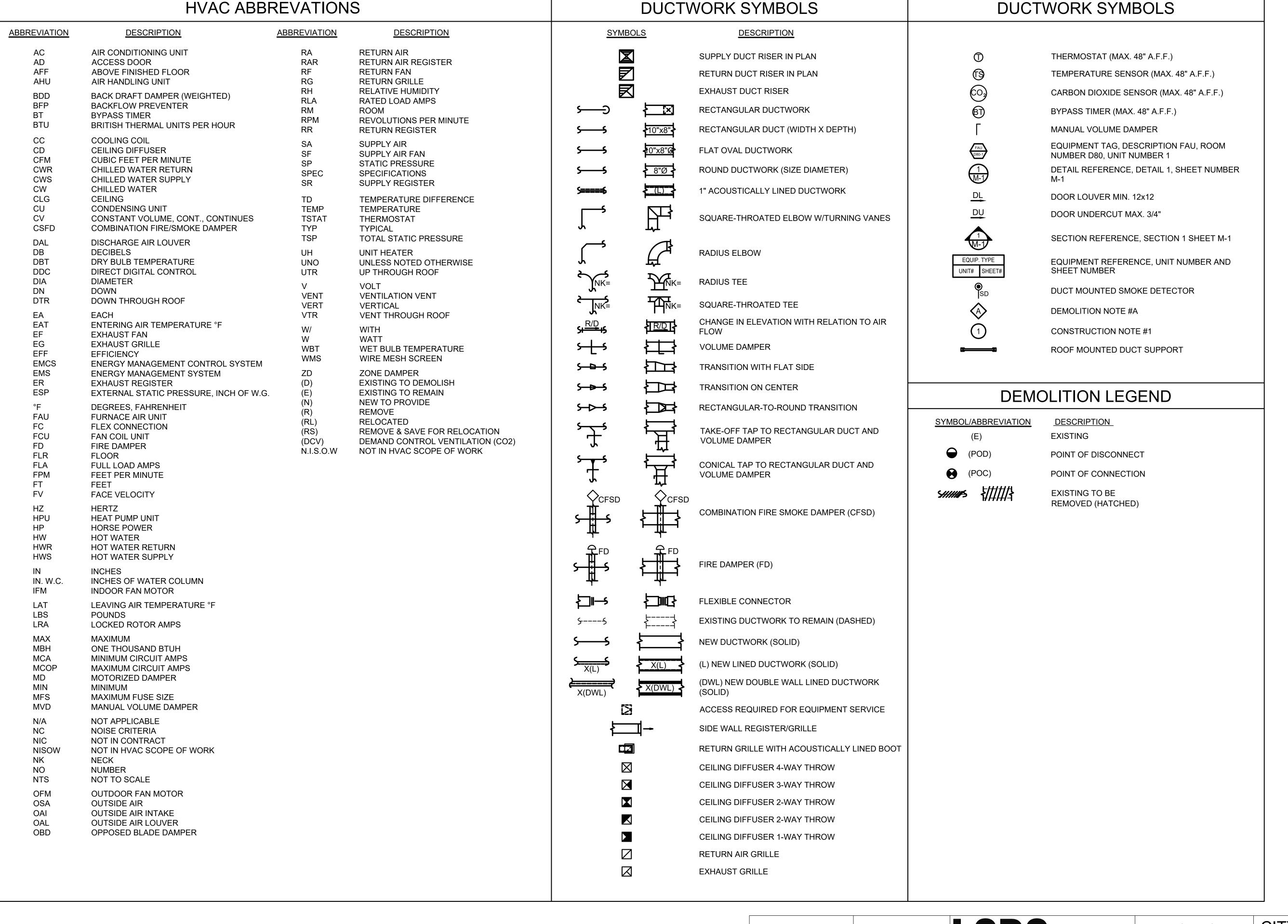
TITLE: MECHANICAL FRONT SHEET

Checked By

NORWALK TRANSIT SYSTEM OPERATIONS DEPARTMENT RECONFIGURATION **Approved** PROJECT NO.

RCE 57908 CITY ENGINEER DATE DRAWING NO. Recommende

M-1.01 SHEET \_\_\_\_\_ OF \_\_\_\_







Registration



KEVIN O'BRIEN

DATE BY 3/1/2024 FIELD BOOK REF

CITY OF engineering TITLE:

MECHANICAL SYMBOLS & ABBREVIATIONS

REVISIONS NORWALK TRANSIT SYSTEM CODE UPDATE OPERATIONS DEPARTMENT RECONFIGURATION PROJECT NO. **Approved** 

RCE 57908 CITY ENGINEER DRAWING NO. Recommended

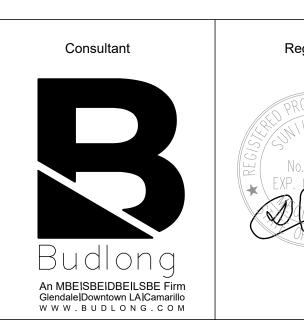
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division

M-1.02 SHEET \_\_\_\_\_ OF \_\_\_\_

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0 - 125	6x6	10x10	>500	<20	CFM RAN	IGE	NECK SIZE	DIFFUSE SIZE		CK OCITY	NC
126 - 200	8x8	12x12	>500	<20	0 - 125	+	6x6	24x24	-	500	<2
201 - 350	10x10	14x14	>500	21	126 - 27	5	9x9	24x24	>!	500	23
351 - 500	12x12	16x16	>500	23	276 - 50	0	12x12	24x24	>!	500	27
501 - 675	14x14	18x18	>500	24	501 - 77	5	15x15	24x24	>!	500	30
676 - 875	16x16	20x20	>500	26	776 - 112	25	18x18	24x24	>!	500	31
876 - 1100	18x18	22x22	>500	27	1126 - 15	25	21x21	24x24	>!	500	34
1101 - 1375	20x20	24x24	>500	27	NOTES:						<u> </u>
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CFM RANGE	NECK SIZE	DIFFUSER SIZE	NECK VELOCITY	NC	SPACIN	G) <b>T</b>					_
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126 - 200	8x8	24x24	>500	<20	0 - 75		6x6	8x8	>4	100	21
201 - 350	10x10	24x24	>500	21	76 - 150	)	8x8	10x10	>4	100	24
351 - 500	12x12	24x24	>500	23	151 - 22	:5	10x10	12x12	>4	100	26
501 - 675	14x14	24x24	>500	24	226 - 35	60	12x12	14x14	>4	100	28
676 - 875	16x16	24x24	>500	26	351 - 47	5	14x14	16x16	>4	100	29
876 - 1100	18x18	24x24	>500	27	476 - 65	0	16x16	18x18	>4	100	31
1101 - 1375	20x20	24x24	>500	27	651 - 102	25	20x20	22x22	>4	100	33
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101 - 150	8"Ø	18-1/2"Ø	>500	<20	0 - 75	6x6			>400	2	1
151 - 250	10"Ø	24-1/4"Ø	>500	<20	76 - 150	8x8			>400		4
251 - 375	10 Ø	24-1/4 Ø	>500	<20	151 - 225	10x1	_	_	>400		6
376 - 600	15"Ø	35-1/2"Ø	>500	<20	226 - 350	12x1			>400		8
601 - 875	18"Ø	35-1/2"Ø	>500	<20	351 - 475	14x1	_	_	>400		9
876 - 1200	21"Ø	46-1/4"Ø	>500	<20	476 - 650	16x1	_	_	>400	3	
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La Cañada Design Group Architecture Planning Interiors
630 N. Rosemead Blvd, Suite 400 Pasadena, California 91107 (626) 351-4301 www.lcdg.com
Prepared Under the Supervision of:
KEVIN O'BRIEN C23472
PLOT DATE

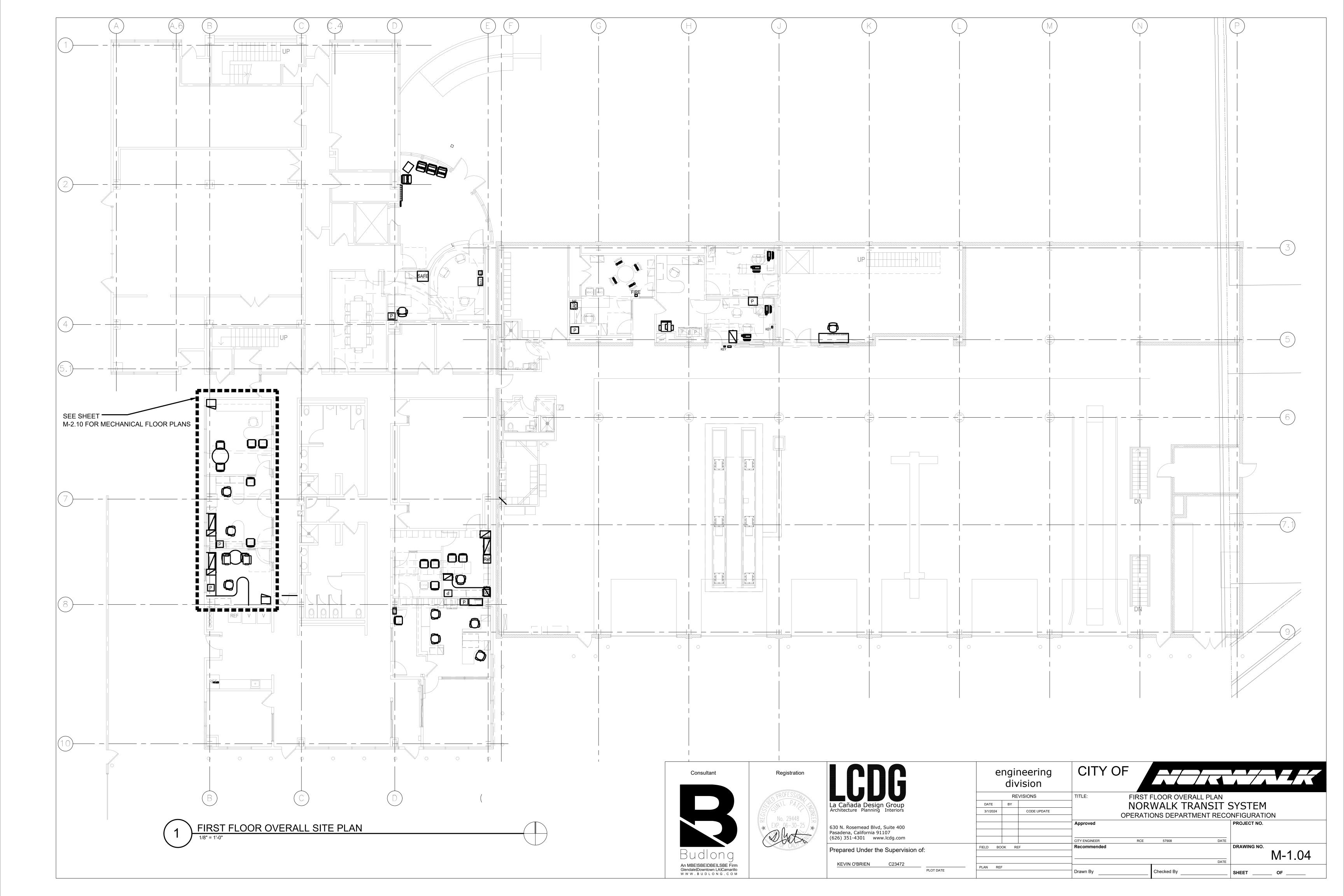
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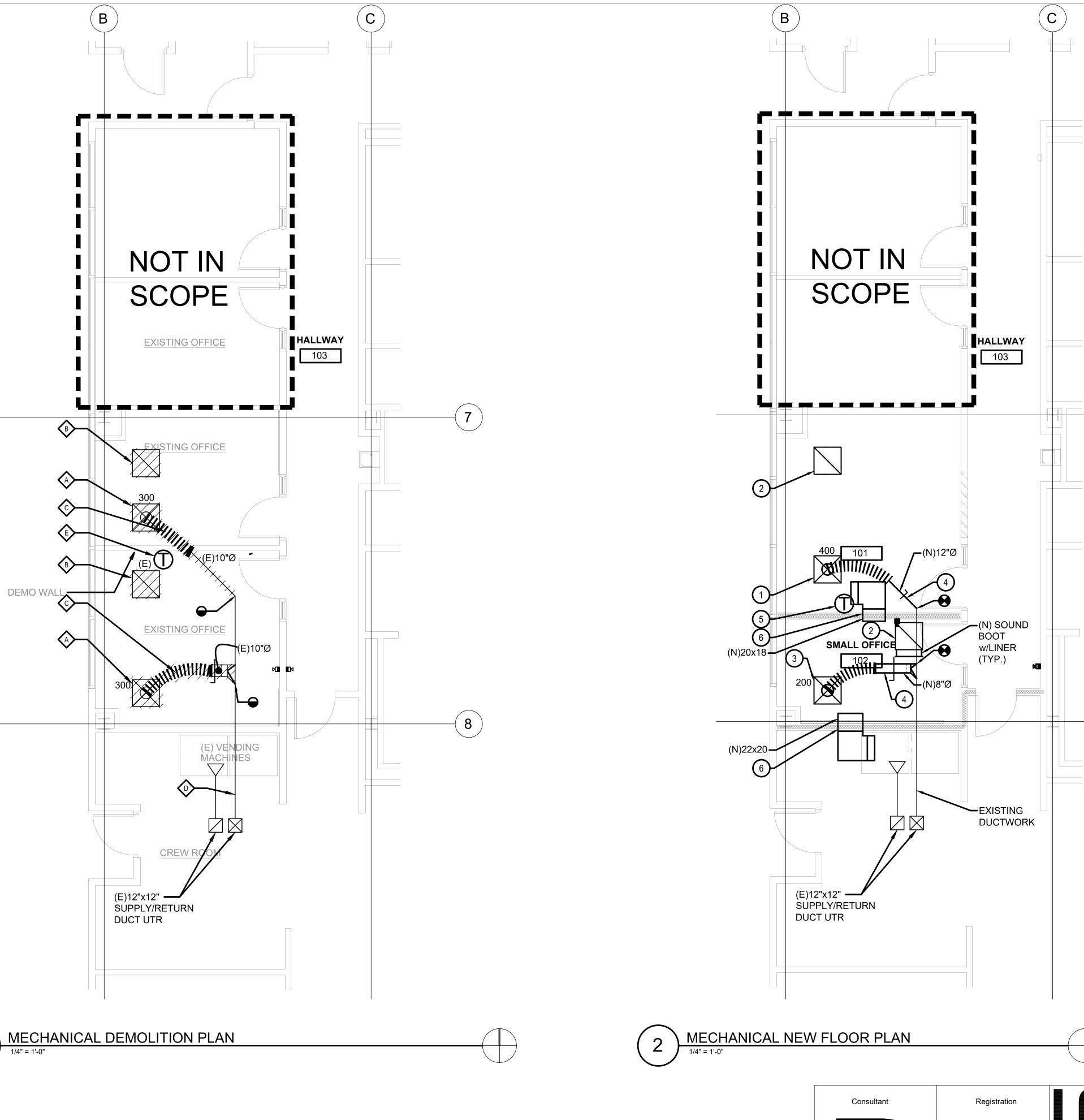
DATE 3/1/2024

# TITLE: MECHANICAL SCHEDULES NORWALK TRANSIT SYSTE

M-1.03

REVISIONS		TITLE:	MECHANICAL SCHEDULES		
BY			NORWALK TRANSIT S	SYSTEM	
	CODE UPDATE				
			OPERATIONS DEPARTMENT RECO		
		Approved		PROJECT NO.	





# **GENERAL NOTES**

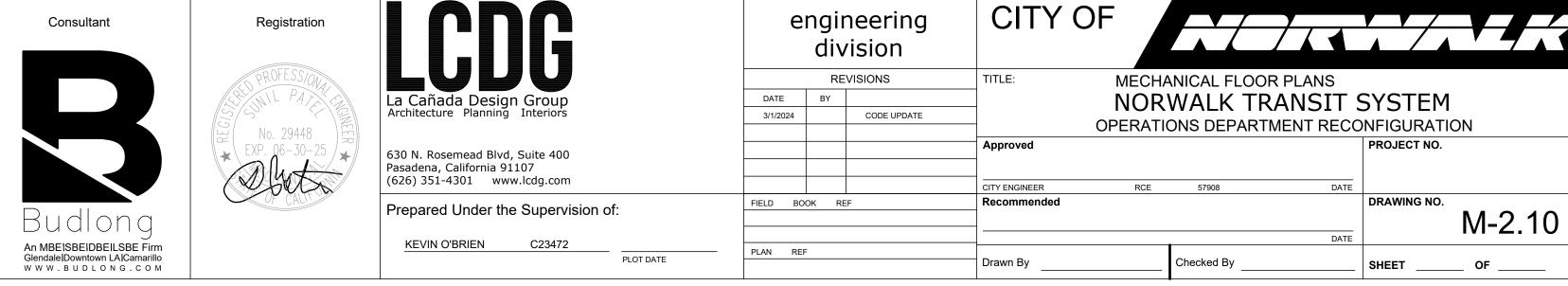
- . ALL EXISTING DUCTWORK AND EQUIPMENT TO REMAIN UNLESS OTHERWISE NOTED.
- 2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DUCTWORK PRIOR TO DEMOLITION AND NOTE ANY DISCREPANCIES.
- 3. CONTRACTOR SHALL TEST AND BALANCE ALL REGISTERS TO NEW CFM'S AS INDICATED ON THE NEW FLOOR PLANS.
- 4. CONTRACTOR SHALL PATCH AND REPAIR ALL DUCT AT POINT OF DISCONNECTS

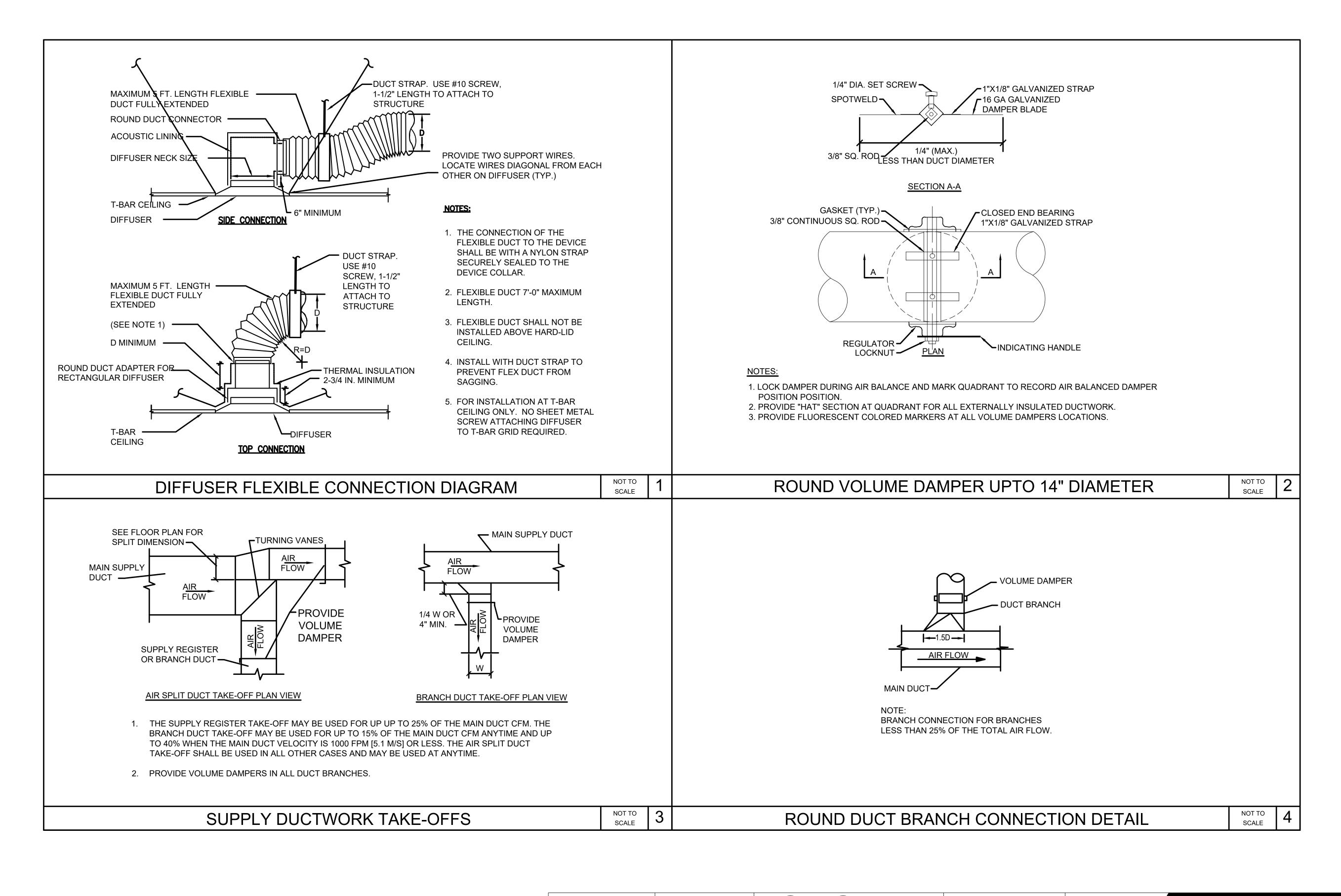
# DEMOLITION KEYNOTES

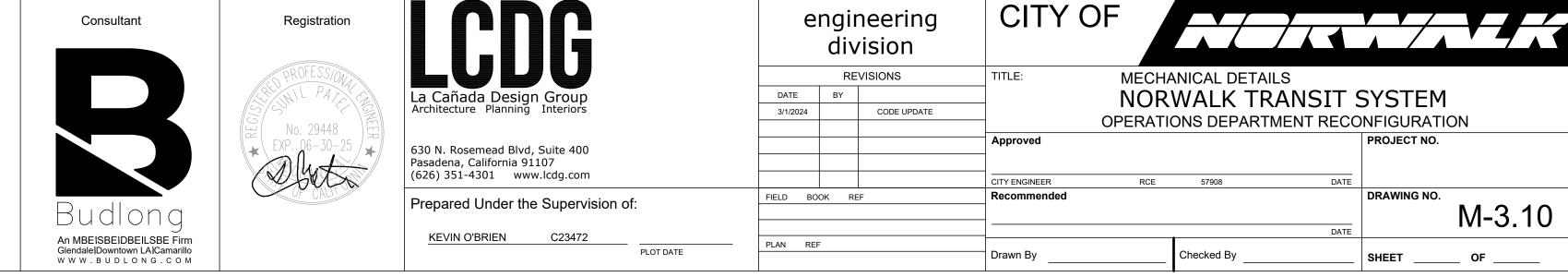
- REMOVE EXISTING 24"X24" SUPPLY DIFFUSER WITH ALL RELATED ACCESSORIES
- REMOVE EXISTING 24"X24" PERFORATED RETURN GRILLE WITH ALL RELATED ACCESSORIES
- REMOVE EXISTING DUCTWORK AT POINT OF DISCONNECT.
- > EXISTING DUCTWORK TO REMAIN.
- REMOVE AND RELOCATE THE EXISTING THERMOSTAT WITH ALL RELATED ACCESSORIES.

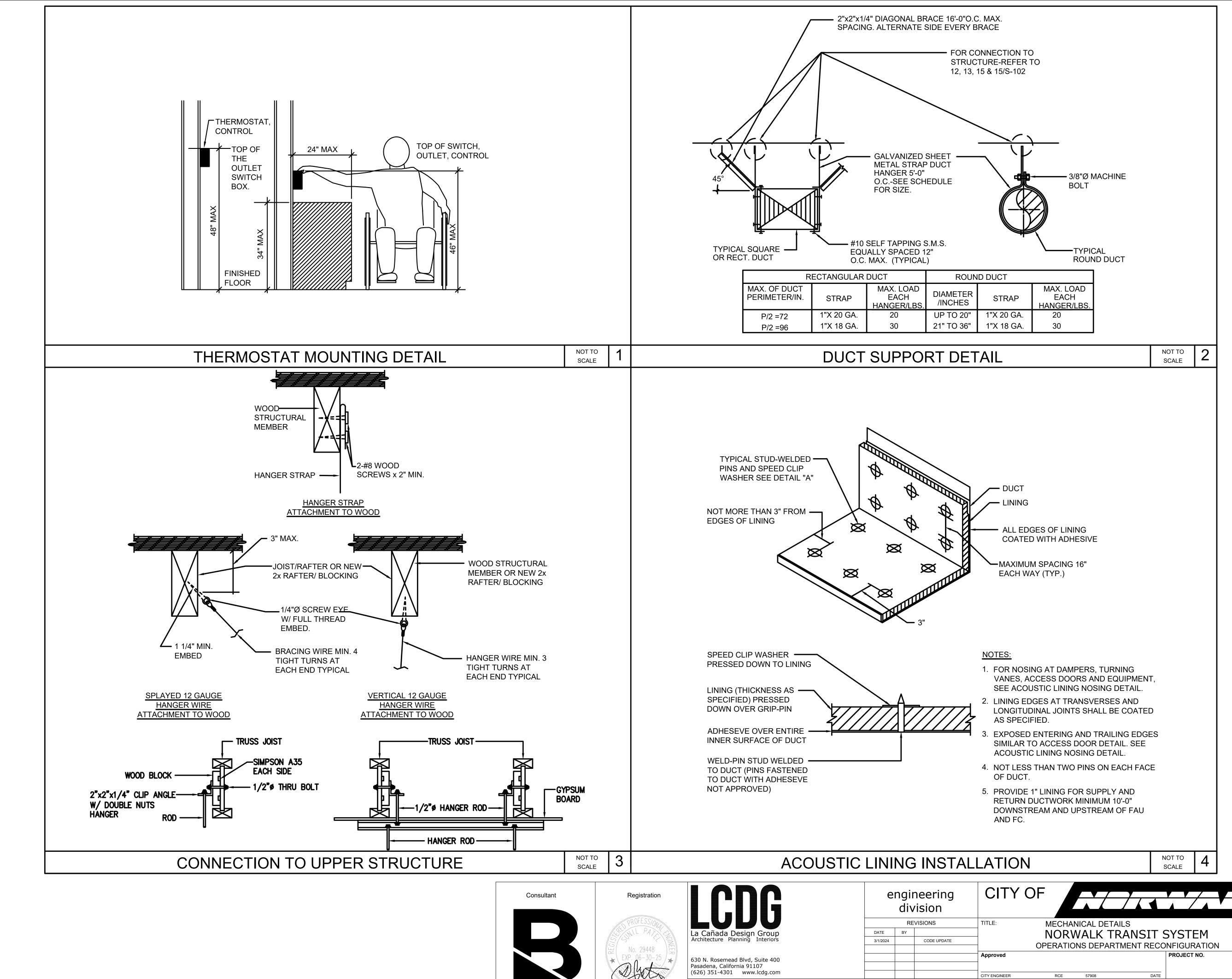
# CONSTRUCTION KEYNOTES

- 1 PROVIDE 24"X24" SUPPLY CEILING DIFFUSER (4 WAY) WITH 12"Ø NECK SIZE.
- PROVIDE 24"X24" RETURN CEILING REGISTER.
- PROVIDE 24"X24" SUPPLY CEILING DIFFUSER (4 WAY) WITH 8"Ø NECK SIZE.
- CONNECT NEW DUCT WITH EXISTING DUCTWORK FROM POINT OF CONNECTION.
- 5 RELOCATED THERMOSTAT
- 6 PROVIDE ACOUSTIC SEALANT AT PENETRATION.













Prepared Under the Supervision of:

C23472

FIELD BOOK REF DRAWING NO. Recommended PLAN REF Checked By Drawn By SHEET \_\_\_\_\_ OF \_\_\_\_

M-3.11

#### 1.00 GENERAL

1.01 GENERAL REQUIREMENTS A. DRAWINGS AND GENERAL PROVISIONS OF CONTACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS APPLY TO THIS SECTION

#### 1.02 PRINCIPAL WORK IN THIS SECTION

#### A. GENERAL REQUIREMENTS:

- 1. THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, DESIGN DOCUMENTS, AND THIS SPECIFICATION AS APPLICABLE ARE PART OF THIS CONTRACT.
- 2. RELATED DOCUMENTS: ARCHITECTURAL AND OTHER DISCIPLINE SPECIFICATIONS, EQUIPMENT SPECIFICATION PACKAGE, GENERAL. SPECIAL AND SUPPLEMENTARY CONDITIONS, SHALL FORM A PART OF THESE SPECIFICATIONS.
- 3. SCOPE OF WORK: PROVIDE ALL REQUIRED LABOR, MATERIALS, EQUIPMENT AND CONTRACTOR'S SERVICES NECESSARY FOR COMPLETE AND SAFE INSTALLATION OF WORK IN CONFORMITY WITH REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION; AS INDICATED ON DRAWINGS AND/OR HEREIN SPECIFIED OR DESCRIBED.
- 4. SITE CLEANLINESS: KEEP SITE FREE FROM THIS SECTION'S SURPLUS MATERIAL. TOOLS AND RUBBISH AT ALL TIMES DURING CONSTRUCTION PERIOD AND, UPON COMPLETION, LEAVE SITE IN CLEAN CONDITION.
- 5. SITE SECURITY: PROTECT THIS SECTION'S MATERIALS AND EQUIPMENT FROM ALL DAMAGE DUE TO FIRE, THEFT, VANDALISM, WEATHER, ETC.
- 6. DAMAGE TO OTHER WORK: REPAIR ANY DAMAGE CAUSED BY THIS SECTION TO WORK OF OTHER SECTIONS.
- 7. DAMAGE TO FIREPROOFING: REPAIR ANY DAMAGED FIREPROOFING CAUSED BY THIS SECTION TO INTEGRITY OF ORIGINAL CONSTRUCTION.
- 8. SITE SAFETY: CONTRACTOR AGREES THAT HE AND HIS SUBCONTRACTORS AND HIS AND THEIR AGENTS AND EMPLOYEES WILL PROVIDE AND MAINTAIN A SAFE PLACE TO WORK AND THAT HE AND THEY WILL COMPLY WITH ALL LAWS AND REGULATIONS OF ANY GOVERNMENTAL AUTHORITY HAVING JURISDICTION THEREOF, AND CONTRACTOR AGREES TO INDEMNIFY, DEFEND AND HOLD HARMLESS, ENGINEER, OWNER AND ARCHITECT FROM AND AGAINST ANY LIABILITY, LOSS, DAMAGE OR EXPENSE, INCLUDING ATTORNEY'S FEES, ARISING FROM A FAILURE OR ALLEGED FAILURE ON THE PART OF CONTRACTOR, THE SUBCONTRACTORS AND HIS AND THEIR AGENTS, SERVANTS AND EMPLOYEES TO PROVIDE AND MAINTAIN A SAFE PLACE TO WORK OR TO COMPLY WITH ALL LAWS AND REGULATIONS OF ANY GOVERNMENTAL AUTHORITY HAVING JURISDICTION THEREOF.

# VERIFICATION OF EXISTING:

- a. BEFORE SUBMITTING BID, BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AND OF THE PRESENT INSTALLATIONS TO WHICH CONNECTIONS MUST BE MADE OR WHICH MUST BE CHANGED OR ALTERED. THE INTENT OF THE WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN, AND NO CONSIDERATION WILL BE GRANTED BY REASON OF LACK OF FAMILIARITY ON THE PART OF THE CONTRACTOR WITH ACTUAL PHYSICAL CONDITIONS. REQUIREMENTS. AND PRACTICES AT THE SITE..
- 10.REQUIREMENTS OF OTHER SECTIONS: CAREFULLY CHECK THE DOCUMENTS OF OTHER SECTIONS TO ASCERTAIN THE REQUIREMENTS OF ANY INTERFACING MATERIALS OR EQUIPMENT BEING FURNISHED AND/OR INSTALLED BY THAT SECTION, WHICH RELATE TO THIS SECTION, AND PROVIDE THE PROPER INSTALLATION AND/OR CONNECTION.
- 11.INFORMATION TRANSFER: TRANSMIT ALL INFORMATION REQUIRED FOR WORK BEING PERFORMED BY OTHER SECTIONS IN AMPLE TIME FOR THE PROPER INSTALLATION AND CONNECTION, AND FOR THE PROVISION OF ALL OPENINGS REQUIRED IN FLOORS AND WALLS.
- 12.HOLES AND STRUCTURE: FIELD DRILLING AND CUTTING OF HOLES IN BUILDING STRUCTURE REQUIRED FOR WORK UNDER THIS SECTION SHALL BE COORDINATED THROUGH THE GENERAL CONTRACTOR AND APPROVED BY OWNER AND BUILDING STRUCTURAL ENGINEER. ALL SUCH CO-ORDINATION, DRILLING, CUTTING AND REINFORCING COSTS SHALL BE BORNE BY THIS CONTRACTOR.
- 13. SLEEVES: FURNISH AND SET ALL SLEEVES FOR THE PASSAGE OF DISTRIBUTION SYSTEM THROUGH WALLS, ROOF AND FLOORS AND ELSEWHERE AS WILL BE REQUIRED FOR THE PROPER PROTECTION OF EACH COMPONENT PASSING THROUGH BUILDING SURFACES. COORDINATE THIS WORK WITH THE GENERAL CONTRACTOR IN ORDER TO PROPERLY EXPEDITE AND PERFORM THIS WORK.
- 14.PASSAGE OF EQUIPMENT: CHECK THE DIMENSIONAL REQUIREMENTS OF EQUIPMENT OF THIS SECTION TO ENSURE THAT SUCH EQUIPMENT CAN PASS THROUGH THE NECESSARY AREAS TO REACH ITS ULTIMATE INSTALLED LOCATION. INCLUDE IN BID COSTS

- FOR ALL WORK REQUIRED, INCLUDING ANY WORK REQUIRED TO MOVE THE EQUIPMENT THROUGH THE SITE TO THIS FINAL LOCATION, INCLUDING ANY DISMANTLING AND RE-ASSEMBLY.
- 15. SIGNAGE: PROVIDE SIGNAGE REQUIRED BY CODES AND AUTHORITIES HAVING JURISDICTION.
- 16. WARRANTY: SUBMIT A SINGLE GUARANTEE STATING THAT ALL PORTIONS OF THE WORK ARE IN ACCORDANCE WITH CONTRACT REQUIREMENTS. GUARANTEE ALL WORK AGAINST FAULTY AND IMPROPER MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY OWNER, EXCEPT THAT WHERE GUARANTEES OR WARRANTIES FOR LONGER TERMS ARE SPECIFIED BY CONTRACT, SUCH LONGER TERM SHALL APPLY.
- 17. RECTIFICATION: AT NO ADDITIONAL COST TO THE OWNER, WITHIN 24 HOURS AFTER NOTIFICATION, CORRECT ANY DEFICIENCIES, WHICH OCCUR DURING THE GUARANTEE PERIOD, ALL TO THE SATISFACTION OF THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY SUCH DEFICIENCIES AND REPAIR THEREOF AND REIMBURSE THE OWNER FOR ALL COSTS INCURRED.

## B. GENERAL ITEMS:

- 1. ACCESS DOORS PANELS: PROVIDE CONCEALED EQUIPMENT INCLUDING CONTROLS, VALVES, ETC., REQUIRING ACCESS, WITH ADEQUATELY SIZED ACCESS DOORS/PANELS. IN REMOVABLE TYPE CEILING, PROVIDE ACCESS TILE IDENTIFICATION ONLY. SEE PARAGRAPH 2.09 HEREIN.
- 2. CUTTING AND PATCHING FOR MECHANICAL WORK.
- 3. INSULATION: FURNISH INSULATION FOR ALL EQUIPMENT AND DISTRIBUTION SYSTEM THAT PERMIT HEAT LOSS OR GAIN OR WILL FORM CONDENSATION. REPLACE ANY DAMAGED OR REMOVED INSULATION ON EXISTING SYSTEMS.
- 4. COORDINATE ALL NEW WORK WITH EXISTING INSTALLATIONS.

#### 1.03 SUBMITTALS

- 1. PROVIDE SIX (6) COPIES OF SUBMITTAL MATERIAL WITH DESCRIPTIVE DATA FOR ALL PRODUCTS AND MATERIALS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING, PRIOR TO INSTALLATION. ALL SUBMITTALS SHALL BE HIGHLIGHTED TO INDICATE SPECIFIC PRODUCTS OR MATERIALS BEING USED.
- 2. SUBMIT PRODUCT DATA, DRAWINGS, TEST REPORTS FOR THE FOLLOWING ITEMS PER THIS DIVISION'S GENERAL PROVISIONS:
- COORDINATED LAYOUT PLANS, SHOWING WORK OF ALL TRADES, INCLUDING BUT NOT LIMITED TO DUCTWORK; HVAC, PLUMBING, FIRE PROTECTION PIPING; ELECTRICAL CONDUITS AND BUS DUCTS; EQUIPMENT.
- a. DUCTWORK ACCESSORIES.
- b. DUCTWORK TYPICAL CONSTRUCTION.
- c. DUCT SEALING.
- d. FLEXIBLE DUCTING.
- e. DAMPERS.
- f. INSULATION AND ACOUSTICAL LINING.
- g. PIPE AND PIPING ACCESSORIES INCLUDING VALVES AND FITTINGS.
- h. DIFFUSERS, GRILLES AND REGISTERS
- i. CERTIFIED ACOUSTICAL TEST PERFORMANCE DATA, FOR DIFFUSERS, REGISTERS, GRILLES AND TERMINAL AIR UNITS.
- . AIR TEST AND BALANCE REPORTS. k. DAMPER MOTORS.
- I. THERMOSTATS AND ALL CONTROL DEVICES.
- m. VIBRATION ISOLATION. n. ONE SET OF AS-BUILT DRAWINGS AND CAD CD.

CONFORM TO REFERENCE STANDARDS.

# 1.04 QUALITY ASSURANCE

- A. QUALITY AND GAUGES OF MATERIALS: 1. QUALITY OF MATERIALS:
  - a. NEW, BEST OF THEIR RESPECTIVE KINDS, FREE FROM DEFECTS AND LISTED BY UNDERWRITERS' LABORATORIES, INC., OR BEARING THEIR LABEL. MATERIALS AND EQUIPMENT OF SIMILAR APPLICATION: SAME MANUFACTURE, EXCEPT AS NOTED.

# 1.05 PERMITS AND INSPECTIONS

- 1. THE CONTRACTOR SHALL SECURE ALL APPROVALS AND PAY ALL FEES FOR ALL WORK INSTALLED. CERTIFICATE SHALL BE DELIVERED TO OWNER BEFORE FINAL PAYMENT WILL BE MADE.
- 2. PROVIDE ALL REQUIRED LABOR, MATERIALS, EQUIPMENT, AND SERVICES NECESSARY FOR A COMPLETE AND SAFE INSTALLATION OF HVAC IN FULL CONFORMITY WITH REQUIREMENTS OF ALL AUTHORITIES HAVING JURISDICTION; ALL AS INDICATED ON DRAWINGS AND/OR HEREIN SPECIFIED FOR THE SYSTEMS INCLUDED. WORK SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER. INCLUDE ALL COSTS FOR PERMITS, LICENSES, CERTIFICATES. FILING AND INSPECTION REQUIRED BY AUTHORITIES HAVING JURISDICTION.

# 1.06 DESCRIPTION

1. SPECIFICATIONS ARE OF SIMPLIFIED FORM AND INCLUDE INCOMPLETE SENTENCES. WORDS OR PHRASES SUCH AS "THE CONTRACTOR SHALL," "SHALL BE," "FURNISH," "PROVIDE," "A," "AN," "THE," AND "ALL" HAVE BEEN OMITTED FOR BREVITY.

- 2. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS. MAINTAIN HEADROOM AND SPACE CONDITIONS.
- 3. THE WORK DOES NOT SHOW ALL OFFSETS, DROPS AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICES FOR ROUTING OF DISTRIBUTION SYSTEM TO AVOID OBSTRUCTIONS. EXACT LOCATIONS SUBJECT TO APPROVAL OF ARCHITECT.
- 4. SCOPE OF WORK: LABOR, MATERIALS, EQUIPMENT, SERVICES AND FEES NECESSARY FOR COMPLETE SAFE INSTALLATION IN CONFORMITY WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION: AS INDICATED ON DRAWINGS AND HEREIN SPECIFIED.

# 1.07 JOB CONDITIONS

- A. CONNECTIONS TO EXISTING WORK:
- 1. INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES.
- 2. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES AS REQUIRED WITH NECESSARY TEMPORARY CONNECTIONS BETWEEN NEW AND EXISTING WORK.
- B. TEMPORARY SHUTDOWNS OF EXISTING SERVICES: AT NO ADDITIONAL CHARGES.
- 2. AT TIMES NOT TO INTERFERE WITH NORMAL OPERATION OF EXISTING FACILITIES.
- 3. ONLY WITH WRITTEN CONSENT OF OWNER
- 4. CONNECT NEW WORK TO EXISTING WORK IN NEAT AND ACCEPTABLE MANNER. RESTORE EXISTING DISTURBED WORK TO ORIGINAL CONDITION INCLUDING MAINTENANCE OF WIRING CONTINUITY AS REQUIRED.
- C. REMOVAL AND RELOCATION OF EXISTING WORK:
- DISCONNECT, REMOVE OR RELOCATE MATERIAL, EQUIPMENT. DUCTWORK, PIPING AND OTHER WORK NOTED AND REQUIRED BY REMOVAL OR CHANGES IN EXISTING CONSTRUCTION. WHERE EXISTING PIPES, CONDUITS AND/OR DUCTS, WHICH ARE TO REMAIN, PREVENT INSTALLATION OF NEW WORK AS INDICATED, RELOCATE OR ARRANGE FOR RELOCATION, OF EXISTING PIPES, CONDUITS AND/OR DUCTS.
- 2. PROVIDE NEW MATERIAL AND EQUIPMENT REQUIRED FOR RELOCATED EQUIPMENT.
- 3. PLUG OR CAP ACTIVE PIPING OR DUCTWORK BEHIND OR BELOW FINISH.
- 4. DO NOT LEAVE LONG DEAD-END BRANCHES. CAP OR PLUG AS CLOSE AS POSSIBLE TO ACTIVE LINE
- 5. DISPOSE OF REMOVED MATERIAL AND EQUIPMENT AS DIRECTED.

#### 1.08 PRODUCT DELIVERY, STORAGE AND HANDLING MOVING OF EQUIPMENT:

1. WHERE NECESSARY, SHIP IN CRATED SECTIONS OF SIZE TO PERMIT PASSING THROUGH AVAILABLE SPACES.

# B. ACCESSIBILITY:

- 1. FOR OPERATION, MAINTENANCE AND REPAIR.
- 2. MINOR DEVIATIONS: PERMISSIBLE
- 3. CHANGES OF MAGNITUDE OR INVOLVING EXTRA COST: NOT PERMISSIBLE WITHOUT REVIEW.
- 4. GROUP CONCEALED MECHANICAL EQUIPMENT REQUIRING ACCESS WITH EQUIPMENT FREELY ACCESSIBLE THROUGH ACCESS DOORS.

# 1.09 MAINTENACE MANUALS AND AS-BUILT DRAWINGS

- 1. PROVIDE FOUR (4) COPIES OF OPERATING AND MAINTENANCE MANUAL FOR OWNER'S USE FOR EACH PIECE OF EQUIPMENT. EACH ITEM SHALL BE CROSS-REFERENCED AND NUMBERED WITH AS-BUILT DRAWING DESCRIPTIONS.
- 2. AS-BUILT DRAWINGS: DELIVER TO OWNER, ONE SET OF REPRODUCIBLES, AUTO-CAD CD, AND ONE BOUND SET OF BLUEPRINTS AND PANEL SCHEDULES SHOWING WORK AS ACTUALLY INSTALLED.

# 1.10 SEISMIC SUPPORT

- 1. CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER TO DESIGN ALL SEISMIC SUPPORTS REQUIRED FOR THE PROJECT.
- 2. CONTRACTOR SHALL SUPPORT AND BRACE ALL HVAC SYSTEMS IN ACCORDANCE WITH SEISMIC CODE REQUIREMENTS.

# 2.00 PRODUCTS

# 2.01 DUCTWORK

A. GENERAL: ALL SAFING, DUCTS, DAMPERS, ACCESS DOORS, JOINTS, HANGERS, STIFFENERS, FIRE DAMPERS AND FIRE RETARDING

MATERIALS, IN ACCORDANCE WITH REQUIREMENTS OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION CHAPTER 6 OF CALIFORNIA MECHANICAL CODE, AND ALL OTHER AUTHORITIES HAVING JURISDICTION AND AS DESCRIBED HEREIN. ALL SHEET METAL WORK SHALL HAVE A PRESSURE CLASSIFICATION AS FOLLOWS, UNLESS OTHERWISE SPECIFIED.

#### DUCTWORK: UNLESS OTHERWISE SPECIFIED.

- 1. COLD ROLLED "COMMERCIAL" QUALITY HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM NO. M525-67.
- C. AIR CONDITIONING SYSTEMS.
- D. VENTILATION SYSTEMS.
- 1. DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
- 2. FITTINGS: SAME GAUGE AND CONSTRUCTION AS DUCTS.
- 3. DUCT SUPPORTS. 4. DUCTS WITH TRANSVERSE AND LONGITUDINAL BRACINGS IN
- ACCORDANCE WITH SMACNA. E. UNEQUAL ELBOWS ARE NOT ACCEPTABLE, EXCEPT RADIUS BRANCH
- TURNING VANES: GALVANIZED STEEL, DOUBLE WIDTH TURNING VANES.
- G. ACOUSTICAL TURNING VANES:

DUCTWORK WITH THROAT.

TURNING VANE: SHALL BE DOUBLE WALL ACOUSTIC TYPE MANUFACTURED BY DUCTMATE INDUSTRIES. MINIMUM 14 GAUGE FILLED WITH 1.3 LB INSULATION TO ABSORB NOISE AND CONFORM WITH SMACNA DIMENSIONAL AND GAUGING REQUIREMENTS.

#### 2.02 AIR OUTLETS AND INLETS

- 1. ALL DIFFUSERS, GRILLES AND REGISTERS SHALL BE OF TYPE AND CAPACITY AS INDICATED ON DRAWINGS. STEEL AND/OR EXTRUDED ALUMINUM CONSTRUCTION WITH BAKED ENAMEL FINISH COLOR AS SELECTED BY ARCHITECT. DIFFUSERS TO HAVE NO VISIBLE SCREW HEADS OR CONNECTORS. RETURN GRILLES REGISTERS SIMILAR TO SUPPLY.
- 2. SUITABLE FOR OPERATION AT 5 PERCENT EXCESS AND 25 PERCENT LESS THAN NOTED CAPACITY. MANUFACTURER SHALL BE RESPONSIBLE FOR EXAMINING APPLICATION OF EACH OUTLET AND SHALL GUARANTEE THAT EACH WILL PROVIDE REQUIRED NC LEVELS AND COMFORT SPACE CONDITIONS WITHOUT DRAFTS THROUGHOUT OPERATING RANGE.
- 3. AIR OUTLETS AND FRAME TYPE SUITABLE FOR MOUNTING IN CEILING AND WALL TYPES INDICATED ON PLANS.
- 4. SQUARE AND RECTANGULAR CEILING DIFFUSERS: WITH DIRECTIONAL PATTERN TYPE REMOVABLE CORE. PROVIDE AIR DISCHARGE IN ONE TO FOUR DIRECTIONS. AS NOTED.
- 5. PERFORATED DIFFUSERS: SQUARE AND RECTANGULAR TYPE. SUPPLY AIR DIFFUSERS SHALL BE PROVIDED WITH AIR PATTERN ADJUSTMENT WITH CONCEALED HINGES AND CATCHES FOR FACE PLATES.
- 6. REGISTERS AND GRILLES:
- RETURN AND EXHAUST REGISTERS WITH VOLUME DAMPER.

# 2.04 SUPPORTS AND ANCHORS

- A. DUCT HANGERS AND SUPPORTS:
- PER SMACNA GUIDELINES.
- a. SUPPORT HORIZONTAL DUCTS WITH HANGERS OF SIZE AND SPACING AS INDICATED IN PERTINENT SMACNA DUCT CONSTRUCTION STANDARDS
- 2. HORIZONTAL DUCT SUPPORTS:
- a. INSTALL HANGERS AT EACH CHANGE IN DIRECTION OF DUCT b. STRAP HANGERS:
- 3. EXTEND STRAP DOWN BOTH SIDES OF DUCTS.
- 4. TURN UNDER BOTTOM ONE INCH MINIMUM.
- 5. METAL SCREW HANGERS TO:
- a. BOTTOM OF DUCT. b. UPPER AND LOWER SIDES OF DUCTS.
- c. NOT MORE THAN 12 INCHES ON CENTER.
- B. ANGLE HANGERS:
- 1. PROVIDE ANGLE HANGERS FORMED BY EXTENDED VERTICAL BRACING ANGLES.

CITY OF engineering Consultant Registration division TITLE: MECHANICAL SPECIFICATIONS REVISIONS DATE BY NORWALK TRANSIT SYSTEM La Cañada Design Group 3/1/2024 CODE UPDATE OPERATIONS DEPARTMENT RECONFIGURATION PROJECT NO. Approved 630 N. Rosemead Blvd, Suite 400 Pasadena, California 91107 (626) 351-4301 www.lcdg.com CITY ENGINEER RCE 57908 DRAWING NO. FIELD BOOK REF Recommende Prepared Under the Supervision of: M-3.12 KEVIN O'BRIEN C23472 An MBEISBEIDBEILSBE Firm PLAN REF Checked By Drawn By SHEET \_\_\_\_\_ OF \_\_\_\_ W W W . B U D L O N G . C O M





#### 2.05 INSULATION AND LINING A. MATERIALS:

- 1. INSULATION, JACKETS, FACINGS, ADHESIVES, COATINGS, AND ACCESSORIES FIRE HAZARD RATING BY UNDERWRITERS LABORATORIES, INC. STEINER TUNNEL TEST METHOD FOR FIRE HAZARD CLASSIFICATION OF BUILDING MATERIALS, STANDARD UL
- 723, ASTM E-84, NFPA-225.
- a. FLAMESPREAD: MAXIMUM 25. b. FUEL CONTRIBUTED AND SMOKE DEVELOPED: MAXIMUM 50.
- c. FLAMEPROOFING TREATMENTS SUBJECT TO DETERIORATION DUE TO MOISTURE OR HUMIDITY
- b. NOISE CONTROL: 1. UNLESS OTHERWISE NOTED, ALL ROOM NC LEVELS SHALL BE 20 OR LESS. B. DUCTS LINED AS REQUIRED.
- 2. ALL INSULATION APPLIED ACCORDING TO MANUFACTURER'S PUBLISHED RECOMMENDATIONS.
- 3. INSULATE ALL EXISTING AND NEW DUCTWORK AND EQUIPMENT, **EXCEPT AS FOLLOWS:**
- a. RETURN AIR DUCTS IN CONDITIONED SPACES AND EXHAUST
- AIR DUCTS, EXCEPT WHERE INDICATED. b. WHERE SOUND LINING IS OF MINIMUM THICKNESS SPECIFIED
- FOR INSULATION.

#### B. TYPE OF INSULATION:

- 1. DUCT LINING: 1-INCH THICK, 1½ LB. DENSITY COATED ON AIR SIDE WITH A FIRE RESISTANT BLACK NEOPRENE COATING. MANVILLE LINACOUSTIC. FOR THE FOLLOWING DUCTWORK:
- a. ALL DUCTWORK WITHIN MECHANICAL ROOMS AND NOT LESS THAN 25 FEET FROM FAN FOR SUPPLY AND 20 FEET FROM FAN FOR RETURN DUCTWORK.
- b. AIR TRANSFER DUCTS.
- c. MINIMUM 2 INCHES THICK FOR ALL MIXED AIR PLENUMS, EXCEPT WHERE MOISTURE CARRY-OVER FROM OUTDOOR AIR LOUVER WILL OCCUR.
- d. WHERE DUCT LINING IS SPECIFIED.
- 2. MINIMUM INSULATION PROVIDED SHALL BE AS REQUIRED BY THE CURRENT CALIFORNIA ADMINISTRATIVE CODE TITLE 24 FOR THE MOST RESTRICTIVE CONDITION.

#### TESTING, ADJUSTING AND BALANCING FOR HVAC

#### OVERVIEW

- A. PURPOSE: PREFERENCES AND REQUIREMENTS ARE INDICATED IN THIS DOCUMENT.
- B. FOR OTHER RELATED REQUIREMENTS, REFER TO COMMISSIONING STANDARD GUIDELINES SEPARATE OF THIS DOCUMENT.
- C. THE FOLLOWING TABLE SUMMARIZES THE TYPES OF PARTICULAR REQUIREMENTS IDENTIFIED WITHIN THIS SECTION:

# REQUIREMENTS PREFERENCES DISALLOWED ITEMS ITEM REQUIRING

LISTED	LISTED	LISTED	COMMISSIONING
X	X	X	X

# 2. PROCEDURAL REQUIREMENTS

- A. DESIGN CONSIDERATIONS SPECIFIC TO COMPONENTS IN THIS SECTION:
- REQUIRED:
- a) SUBMIT THE ENGINEER'S TEST & AIR BALANCE SPECIFICATION FOR REVIEW TO THE ARCHITECT/ENGINEER AT 100% DD WITH PROPOSED PROCEDURES FOR ALL CENTRAL HVAC SYSTEMS AS A MEANS OF QUALIFYING PROPOSED CONTRACTORS AND CONFIRMING EXTENT AND APPROPRIATENESS OF SERVICES TO BE PROVIDED.
- b) THE TAB CONTRACTOR SHALL BE A SUB-CONTRACTOR TO THE GENERAL CONTRACTOR AND SHALL MAINTAIN A LIST OF DEFICIENCIES FOR THE GENERAL CONTRACTOR, WITH REVIEW BY OWNER'S REPRESENTATIVE ON DEMAND.
- c) THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THE TAB CONTRACTOR AND CORRECT ANY SYSTEM DEFICIENCY IDENTIFIED WITH THE GENERAL CONTRACTOR'S TAB AGENT.
- d) THE PROCEDURE AND RESULTS FOR ITEMS IN THIS SECTION ARE TO BE RETAINED BY THE MECHANICAL CONTRACTOR FOR DELIVERY TO THE OWNER/DESIGN CONSULTANT ON REQUEST.
- e) TAB AGENT SHALL SUBMIT A PRE-WORK SET OF TAB FORMS FILLED IN WITH ALL DESIGN DATA FOR SYSTEMS TO BE TESTED.
- f) TESTING PROCEDURES, AS OUTLINED WITHIN INITIAL TAB CONTRACTOR SUBMITTAL, SHALL BE SPECIFIC TO SYSTEM

- AND DISTRIBUTION TYPES, AS APPLICABLE TO INDIVIDUAL PROJECT DESIGN. REFERENCES TO GENERIC PROCEDURES AND SYSTEMS THAT DO NOT APPLY SHALL BE REMOVED, AND ANY NON-TRADITIONAL PROCEDURES HIGHLIGHTED FOR SUBSEQUENT REVIEW AND APPROVAL.
- 2. PREFERRED: NO PREFERENCES
- 3. DISALLOWED:
- g) THE TAB CONTRACTOR SHALL NOT BE A SUB-CONTRACTOR TO THE MECHANICAL CONTRACTOR.
- QUALITY ASSURANCE REQUIREMENTS BEYOND STANDARD 1 YEAR WARRANTY: AABC CERTIFICATE OF GUARANTEE.
- 1. PRODUCT REQUIREMENTS

# A. TAB:

MANUFACTURERS:

- a) REQUIRED:
- 1) ONLY AABC CERTIFIED TESTING, ADJUSTING AND BALANCING AGENCIES ARE ALLOWED.
- b) PREFERRED:
- 1) AMERICAN AIR BALANCE
- 2) APPROVED EQUAL
- c) DISALLOWED: NONE
- 2. COMPONENT CHARACTERISTICS:
- a) REQUIRED: NO REQUIREMENTS
- b) PREFERRED: NO PREFERENCES c) DISALLOWED: NONE
- 3. INSTALLATION REQUIREMENTS

- A. REQUIRED:
- 1. BALANCE AIR FLOWS TO THE FOLLOWING TOLERANCES:

SYSTEM	TOLERANCE	COMMENTS
SUPPLY DIFFUSER THAT RETURN	0 TO +10% OF +/- 5% OF DESIGN	DESIGN DOCUMENT INTENDED ROOM
EXHAUST	0 TO -10% OF DESIGN	PRESSURIZATION WITH REGARD TO ADJACENT SPACES HAS BEEN ACHIEVED.

#### 2. BALANCE WATER FLOWS TO THE FOLLOWING TOLERANCES:

SYSTEM	TOLERANCE	COMMENTS
PUMPS	0 TO +10% OF	
	DESIGN	

- **EQUIPMENT** 0 TO 5% OF DESIGN
- 3. PROVIDE ROOM NC LEVEL TESTING TO CONFIRM HVAC NOISE LEVELS ARE WITHIN REQUIREMENTS.
- 5. EVALUATION OR COMMISSIONING
- A. LIST OF ITEMS OR SYSTEMS REQUIRING TESTING. EVALUATION, VERIFICATION, OR COMMISSIONING: NONE.
- B. DOCUMENTATION REQUIRED:
- 1. 75%, 95%, 100% TESTING ADJUSTING AND BALANCING REPORTS.
- 2. CONTINUOUS SYSTEM DEFICIENCY REPORT ON SITE.
- 3. IN-PERSON WITNESSING: PROVIDE RANDOM SAMPLING OF THE FOLLOWING ITEMS AS WITNESSED BY THE OWNER'S REPRESENTATIVE:
- a) 10% OF DIFFUSERS OR GRILLES

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La Cañada Design Group 630 N. Rosemead Blvd, Suite 400 Pasadena, California 91107 (626) 351-4301 www.lcdg.com Prepared Under the Supervision of:

KEVIN O'BRIEN C23472

engineering division REVISIONS DATE BY

3/1/2024

PLAN REF

FIELD BOOK REF

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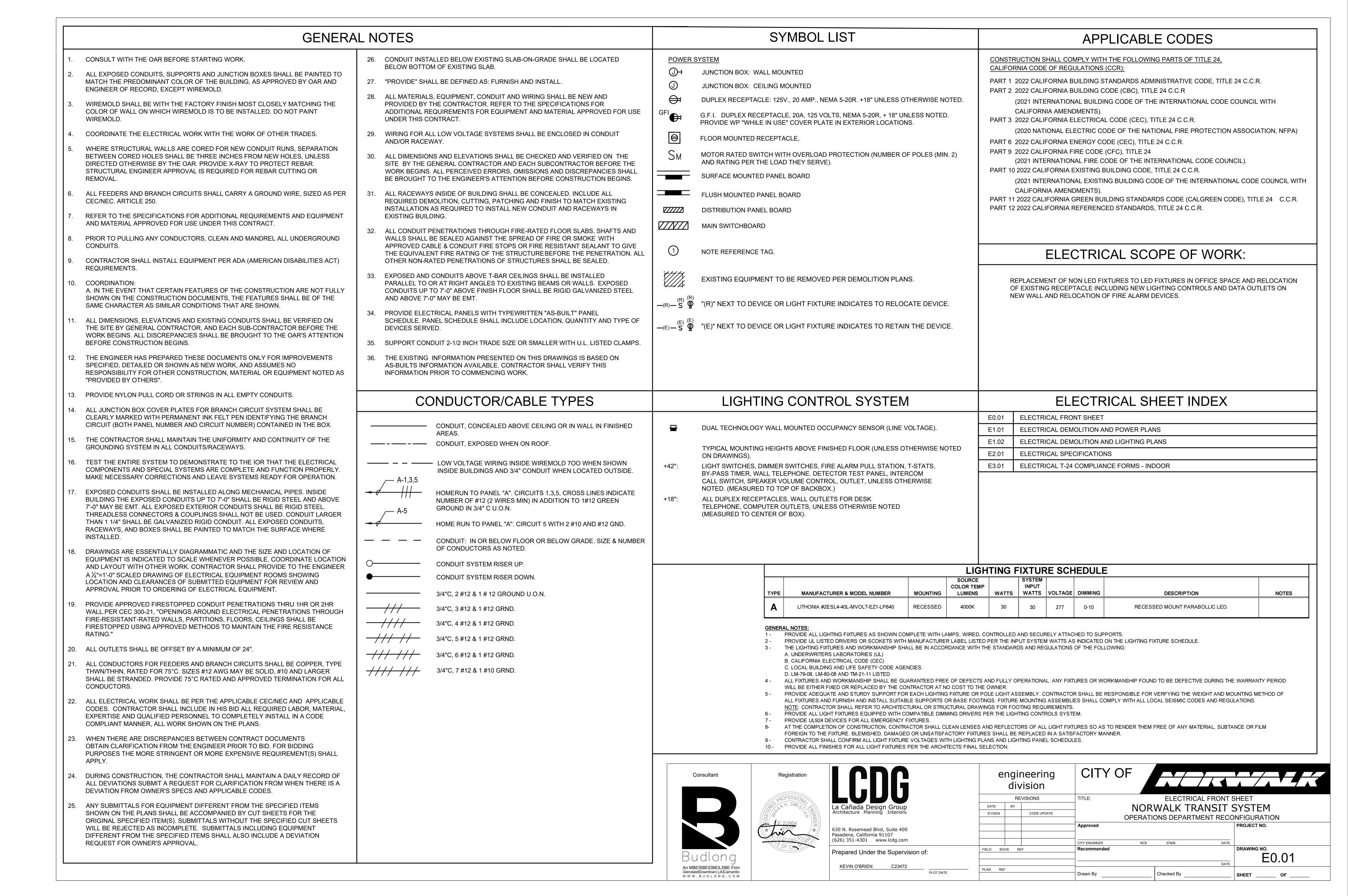
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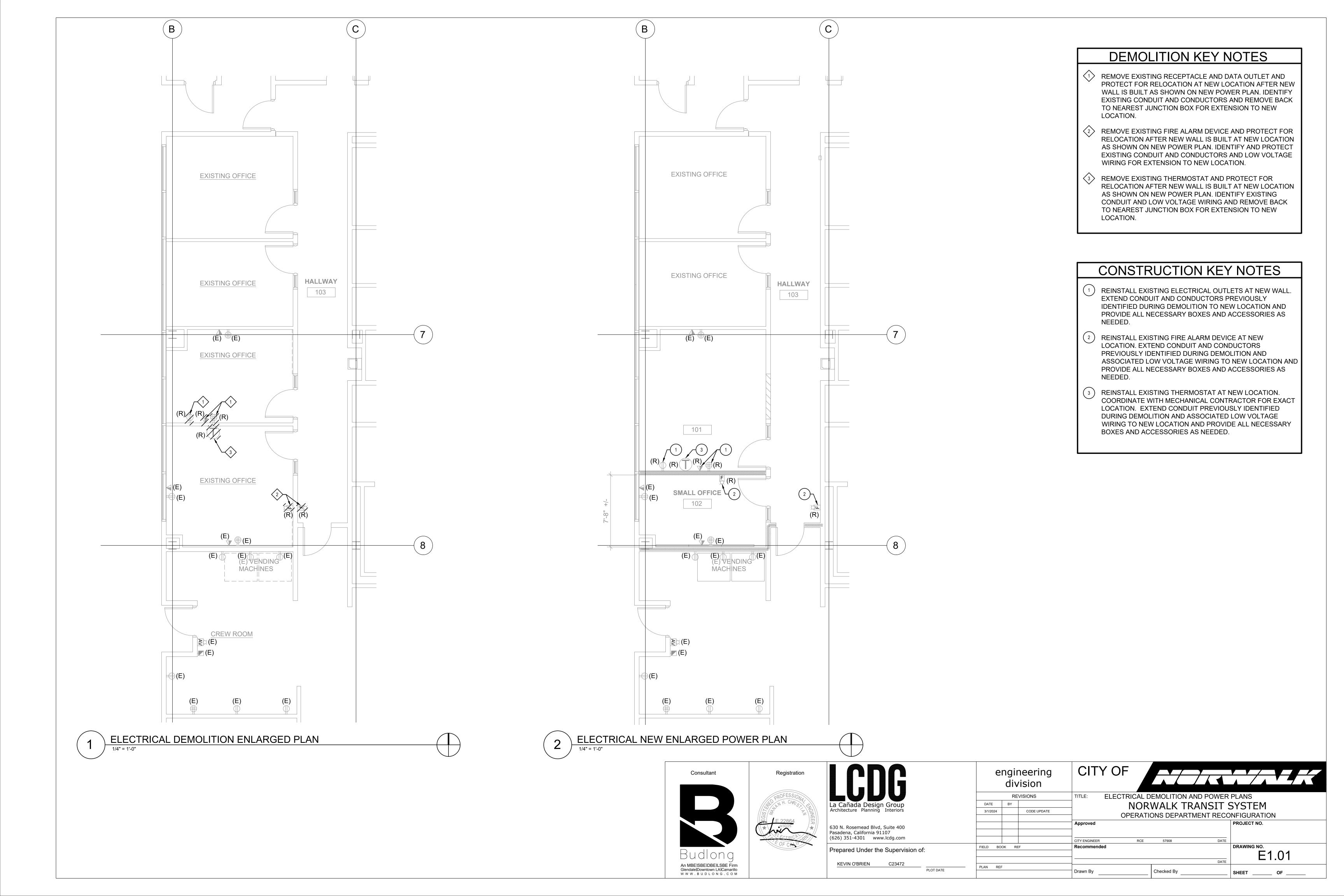
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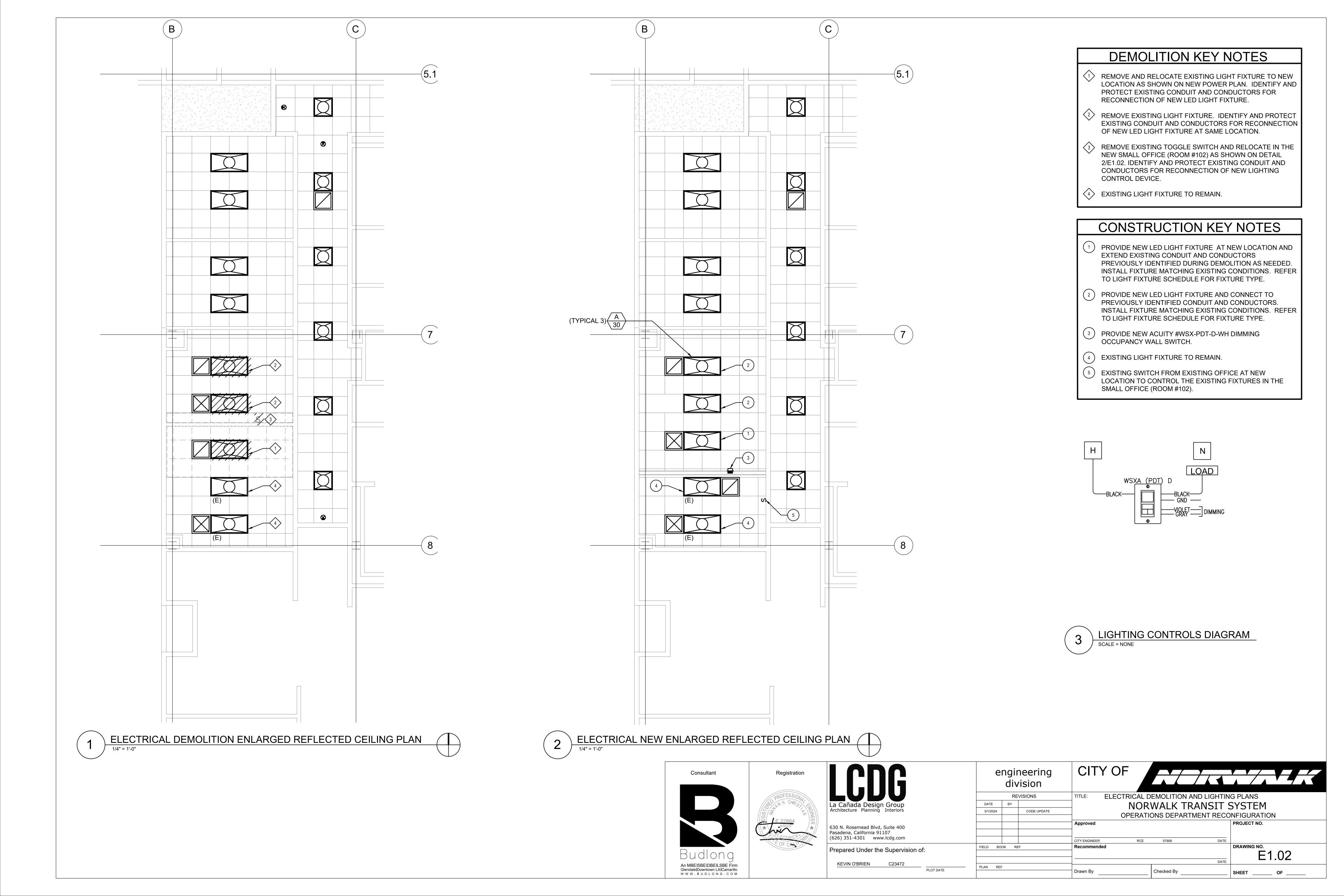
NORWALK TRANSIT SYSTEM OPERATIONS DEPARTMENT RECONFIGURATION PROJECT NO.

CITY ENGINEER RCE 57908 DRAWING NO. Recommended

M-3.13Checked By SHEET \_\_\_\_\_ OF \_\_\_\_







# ELECTRICAL SPECIFICATIONS

#### 1.00 SCOPE

- FURNISH ALL LABOR AND FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT FOR A COMPLETE AND OPERATING ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS AND/OR SPECIFIED HEREINAFTER.
- REMOVE ABANDONED CONNECTORS, CABLE, RECEPTACLES, TELEPHONE OUTLETS AND ALL OUTLET BOXES, CONDUIT AND WIRE THROUGHOUT THE ENTIRE AREA.
- FURNISH, INSTALL AND CONNECT CONTROL CABLE AND CONNECTORS AS NOTED ON DRAWINGS.
- INSTALL AND CONNECT ALL OWNER FURNISHED EQUIPMENT AS NOTED. COORDINATE WITH OWNER BEFORE INSTALLATION.

#### 1.01 GENERAL

- PROVIDE ALL EQUIPMENT, MATERIAL, LABOR. SERVICE, HOISTING, SUPPORT AND SUPERVISION FOR ALL WORK SHOWN ON THE ELECTRICAL DRAWINGS AND AS SPECIFIED.
- THE ENTIRE WORK PROVIDED SHALL BE CONSTRUCTED AND FINISHED IN EVERY RESPECT IN A WORKMANLIKE AND SUBSTANTIAL MANNER. FURNISH AND INSTALL ALL WORK AS MAY BE NECESSARY TO COMPLETE THE SYSTEMS IN ACCORDANCE WITH THE BEST TRADE PRACTICE AND TO THE SATISFACTION OF THE OWNER. THE ENTIRE INSTALLATION SHALL BE READY IN EVERY RESPECT FOR SATISFACTORY AND EFFICIENT OPERATION WHEN COMPLETE.
- THE DRAWINGS SHOW VARIOUS CONDUIT AND WIRING SYSTEMS SCHEMATICALLY AND PROVIDE CIRCUIT NUMBERS FOR REFERENCE ONLY. BALANCE ALL PANELBOARDS AND RECORD ALL CIRCUIT NUMBERS ON AS-BUILT DRAWINGS.
- SUBMIT A SINGLE GUARANTEE STATING THAT ALL PORTIONS OF THE WORK ARE IN ACCORDANCE WITH CONTRACT REQUIREMENTS. GUARANTEE ALL WORK AGAINST FAULTY AND IMPROPER MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY THE OWNER EXCEPT THAT WHERE GUARANTEES OR WARRANTIES FOR LONGER TERMS ARE SPECIFIED BY CONTRACT, SUCH LONGER TERM SHALL APPLY. AT NO ADDITIONAL COST TO THE OWNER, WITHIN 24HOURS AFTER NOTIFICATION, CORRECT ANY DEFICIENCIES WHICH OCCUR DURING THE GUARANTEE PERIOD, ALL TO THE SATISFACTION OF THE OWNER.
- PROVIDE ALL MATERIAL AND EQUIPMENT AND MAKE THE FINAL CONNECTIONS TO ALL EQUIPMENT.

#### 1.02 CODES AND PERMITS

- ALL WORK SHALL BE DONE IN FULL COMPLIANCE WITH THE CALIFORNIA ELECTRIC CODE AND ALL LOCAL CODES OR ORDINANCES HAVING JURISDICTION.
- ALL EQUIPMENT AND MATERIALS SHALL BE NEW EXCEPT WHERE SPECIFICALLY NOTED TO BE REUSED AND LISTED BY THE UNDERWRITER'S LABORATORIES, INC., MANUFACTURED IN ACCORDANCE WITH ASME, NEMA ANSI OR IEEE STANDARDS, AND APPROVED BY ALL AUTHORITIES HAVING JURISDICTION.
- SECURE AND PAY FOR ALL NECESSARY APPROVALS, PERMITS, INSPECTIONS, ETC., AND DELIVER THE OFFICIAL RECORDS OF THE GRANTING OF PERMITS TO THE OWNER WITHOUT ADDITIONAL COST TO THE OWNER.

# 1.03 COORDINATION

- COORDINATE THE WORK OF THIS SECTION WITH THE WORK OF OTHER SECTIONS IN AMPLE TIME FOR THE PROPER INSTALLATION AND CONNECTION AND FOR THE PROVISION OF ALL OPENINGS REQUIRED IN FLOORS AND WALLS.
- CAREFULLY CHECK SPACE REQUIREMENTS WITH OTHER TRADES TO INSURE THAT ALL EQUIPMENT AND MATERIALS CAN BE INSTALLED IN THE SPACES ALLOTTED THERETO. INSTALL ALL WORK TO AVOID OBSTRUCTIONS AND TO PRESERVE HEADROOM AND CEILING HEIGHT REQUIREMENTS.
- CAREFULLY CHECK THE DOCUMENTS WITH OTHER TRADES TO ASCERTAIN THE REQUIREMENTS OF ANY MATERIALS OR EQUIPMENT BEING FURNISHED AND/OR INSTALLED BY THAT SECTION AND PROVIDE THE PROPER INSTALLATION AND/OR CONNECTIONS INCLUDING ANY CONTROL WIRING REQUIRED.
- BEFORE FABRICATION AND INSTALLATION OF SPECIAL SYSTEM OUTLETS VERIFY THE FINAL DESIRED LOCATION OF EQUIPMENT WITH OWNER.

# 1.04 CLEANING PREMISES

THE CONTRACTOR SHALL KEEP ALL PARTS OF THE BUILDING AND SITE FREE FROM ANY ACCUMULATIONS OF RUBBISH OR WASTE MATERIALS CAUSED BY HIS WORKMEN, AND SHALL REMOVE SUCH ACCUMULATIONS FROM THE BUILDING, SITE AND PROPERTY. JOB SITE SHALL BE CLEANED AT THE END OF EACH WORKING DAY.

#### 1.05 RECORD DRAWINGS

KEEP UP TO DATE. A COMPLETE SET OF AS BUILT MYLARS TO INDICATE ANY CHANGES FROM THE ORIGINAL DRAWINGS. UPON COMPLETION OF THE INSTALLATION, FURNISH A COMPLETE SET OF AS-BUILT MYLARS. THESE DRAWINGS SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL. AFTER APPROVAL THEY SHALL BECOME THE PROPERTY OF THE OWNER. FINAL PAYMENT WILL BE WITHHELD UNTIL RECEIPT OF THE APPROVED DRAWINGS.

#### 1.06 PROTECTION & SAFEGUARDS

THE CONTRACTOR SHALL ERECT AND MAINTAIN SUITABLE BARRIERS, PROTECTIVE DEVICES, LIGHTS AND WARNING SIGNS WHERE REQUIRED FOR THE PROTECTION OF THE PUBLIC AND EMPLOYEES ABOUT THE BUILDING. HE SHALL BE FULLY RESPONSIBLE FOR ANY LOSS OR INJURY TO PERSONS OR PROPERTY RESULTING FROM HIS NEGLECT OF THESE PRECAUTIONS, HIS OWN CARELESSNESS, OR THE CARELESSNESS OR NEGLECT OF HIS EMPLOYEES, OR HIS SUB-CONTRACTOR AND/OR THEIR EMPLOYEES.

#### 1.07 SHOP DRAWINGS

WITHIN THIRTY (30) DAYS AFTER AWARD OF THE GENERAL CONTRACT, THE CONTRACTOR SHALL SUBMIT SIX (6) PRINTS OF ALL REQUIRED SHOP DRAWINGS AND BROCHURES. SHOP DRAWINGS AND BROCHURES WILL BE REQUIRED FOR THE FOLLOWING EQUIPMENT. SWITCHBOARDS, PANELBOARDS, CIRCUIT BREAKERS, LIGHT FIXTURES AND ANY SPECIAL EQUIPMENT. EQUIPMENT INSTALLED WITHOUT APPROVAL THEREOF SHALL BE DONE AT THE RISK OF THE CONTRACTOR AND THE COST FOR REMOVAL OF SUCH EQUIPMENT OR RELATED WORK WHICH IS JUDGED UNSATISFACTORY FOR ANY REASON SHALL BE AT THE EXPENSE OF THIS CONTRACTOR.

#### 1.08 EXISTING CONDITIONS

- BEFORE SUBMITTING BID BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AT THE BUILDING AND OF THE PRESENT INSTALLATIONS TO WHICH CONNECTIONS MUST BE MADE OR WHICH MUST BE CHANGED OR ALTERED. THE INTENT OF THE WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREINAFTER AND NO CONSIDERATION WILL BE GRANTED BY REASON OF LACK OF FAMILIARITY ON THE PART OF THE CONTRACTOR WITH ACTUAL PHYSICAL CONDITIONS AT THE SITE.
- WHERE SPECIFICALLY CALLED FOR ON THE DRAWING OR WHEN PERMISSION IS SPECIFICALLY GIVEN BY THE OWNER, EXISTING EQUIPMENT AND MATERIAL MAY BE REUSED. SALVAGEABLE MATERIAL, UNLESS OTHERWISE INSTRUCTED BY HE OWNER, SHALL BECOME THE PROPERTY OF THE ONTRACTOR AND BE REMOVED FROM THE SITE.

### 1.09 CUTTING & PATCHING

THE CONTRACTOR SHALL DO ALL DRILLING, CUTTING, AND PATCHING OF GENERAL CONSTRUCTION WORK EXISTING OR NEW, ROUGH FINISH AND TRIM WHICH MAY BE REQUIRED FOR THE INSTALLATION OF ALL OF HIS WORK. ALL PATCHING SHALL BE OF THE SAME MATERIALS, WORKMANSHIP AND FINISH AS THE ORIGINAL WORK, AND SHALL ACCURATELY MATCH ALL SURROUNDING WORK.

# 1.11 GROUNDING SYSTEM

- ALL ELECTRICAL EQUIPMENT AND SYSTEMS SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND TITLE 24, CALIFORNIA ADMINISTRATIVE CODE. PART 3. SERVICE ENTRANCE EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE UTILITY COMPANY'S REQUIREMENTS.
- GROUNDING SHALL BE AS INDICATED ON THE DRAWINGS AND BONDED TO THE COLD WATER PIPING SYSTEM.
- PROVIDE A GROUNDING CONDUCTOR, WHICH SHALL BE IN ADDITION TO THE THE CIRCUIT CONDUCTORS INDICATED. IN EACH NONMETALLIC CONDUIT USED FOR LIGHTING AND POWER CIRCUITS.
- ALL SYSTEM GROUNDING CONDUCTORS SHALL BE COPPER. ALL GROUND CONNECTIONS SHALL BE ACCESSIBLE AND MADE WITH COPPER ALLOY FITTINGS.

#### 1.13 PANELBOARDS

LIGHTING PANELBOARDS SHALL BE WESTINGHOUSE TYPE WES 120/208V-3 PHASE AND 480/277V OR EQUAL BY SQUARE D, CUTLER HAMMER, GENERAL ELECTRIC OR SYLVANIA. THE CIRCUIT BREAKERS SHALL BE BOLT ON TYPE AND SHALL HAVE THE NUMBER OF POLES INDICATED ON THE DRAWINGS. TIE HANDLES WILL NOT BE ALLOWED. PROVIDE AN ENGRAVED PHENOLIC NAMEPLATE FOR ALL PANELS.

#### 1.14 WIRING DEVICES

- THE CATALOG NUMBERS OF ALL WIRING DEVICES, UNLESS OTHERWISE SPECIFIED ARE THOSE OF THE HUBBELL COMPANY, OR AS NOTED TO ESTABLISH THE QUALITY DESIRED. EQUAL EQUIPMENT BY GENERAL ELECTRIC, BRYANT, SIERRA, SLATER, LEVITON OR A&H WILL BE ACCEPTABLE.
- FURNISH AND INSTALL WALL SWITCHES AT EACH LOCATION INDICATED ON THE DRAWINGS. WHERE MORE THAN ONE SWITCH OCCURS AT LOCATION, THEY SHALL BE INSTALLED UNDER A MULTIPLE GANG

PLATE. SWITCH HANDLE SHALL BE WHITE COLOR. SWITCHES

HANDLES SHALL BE WHITE COLOR. SWITCHES SHALL BE A.C. QUIET

- TYPE RATED 20 AMPERES AT 120 AND/OR 277 VOLTS. HUBBELL #1221. FURNISH AND INSTALL CONVENIENCE RECEPTACLE AT EACH LOCATION INDICATED ON THE DRAWINGS. RECEPTACLE SHALL BE
- PLATES FOR WIRING DEVICES SHALL BE WHITE OR AS SELECTED BY ARCHITECT.

# 1.15 OUTLET BOXES

JUNCTION BOXES SHALL BE 4 BY 4 BY 2-1/8 INCHES DEEP WITH COVERS UNLESS OTHERWISE NOTED OR REQUIRED BY CODE. JUNCTION BOXES ABOVE SUSPENDED CEILINGS FOR LIGHTING AND FOR DATA/COMMUNICATION SYSTEMS SHALL BE 4-11/16 BY 2-1/8 INCHES DEEP MINIMUM, TO BE INSTALLED ADJACENT TO RECESSED FIXTURE IN SUCH MANNER AS TO BE ACCESSIBLE THROUGH THE OPENING IN THE CEILING IN WHICH THE FIXTURE IS INSTALLED.

#### 1.16 LIGHTING FIXTURES

- FURNISH AND INSTALL UNDERWRITERS LABORATORIES, INC. LISTED LIGHTING FIXTURES AS INDICATED ON DRAWINGS.
- ALL FIXTURES SHALL BE FURNISHED COMPLETE WITH LAMPS.
- THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL FIXTURE SUPPORTS FOR ALL FIXTURES.

#### 1.17 CONDUIT, EMT AND FITTINGS

- RACEWAYS LARGER THAN 3-INCH SHALL BE GALVANIZED RIGID STEEL UNLESS OTHERWISE SPECIFIED.
- RIGID METAL RACEWAYS SHALL BE INSTALLED IN WET LOCATIONS, IN OR UNDER CONCRETE SLABS ON GRADE WITH OR WITHOUT VAPOR BARRIER, IN CONCRETE WALLS AND COLUMNS, IN CONCRETE SLABS, WALLS AND COLUMNS EXPOSED TO THE WEATHER WITH OR WITHOUT VAPOR BARRIERS; WHERE EXPOSED IN AREAS OPEN TO THE WEATHER, WHERE EXPOSED ON WALLS AND COLUMNS UP 6 FEET ABOVE THE FLOOR, EXCEPT IN ELECTRICAL OR TELEPHONE RISER CLOSETS; AND IN MECHANICAL ROOMS IN SIZES LARGER THAN 1-IN UP TO 7-FEET 0 INCHES ABOVE FINISHED FLOOR.
- ELECTRICAL METALLIC TUBING IN SIZES UP TO 3-INCH MAY BE INSTALLED IN INTERIOR SPACES WHERE RIGID RACEWAY IS NOT REQUIRED. AND WHERE PERMITTED BY THE LOCAL CODE AUTHORITIES HAVING JURISDICTION.
- JOIN ELECTRICAL METALLIC TUBING WITH WATERTIGHT STEEL COMPRESSION TYPE THREADLESS FITTINGS THROUGHOUT. USE CONNECTORS OF FACTORY PRE INSULATED TYPE IN ALL SIZES. EMT FITTINGS USING SET SCREWS ARE NOT ACCEPTABLE. EMT CONNECTIONS SHALL BE OF MALLEABLE IRON OR STEEL.
- FLEXIBLE RACEWAY SHALL BE STEEL AND SHALL BE USED FOR REMOVABLE LIGHTING FIXTURES IN FURRED CEILING SPACES AND AT LOCATIONS AS SHOWN, USE FACTORY PRE INSULATED FITTINGS OF THE TYPE APPROVED AS GROUNDING CONNECTORS. PROVIDE GROUNDING WIRE IN ALL NON-LIQUID TIGHT FLEXIBLE RACEWAY SIZED ACCORDING TO CODE. MAXIMUM LENGTH OF FLEXIBLE RACEWAYS SHALL BE 6-FEET.
- SURFACE RACEWAY SHALL BE WIREMOLD #AL3100. PROVIDE DIVIDER WHERE SHOWN FOR COMBINATION POWER & DATA/COMM.

#### 1.18 CONDUCTORS

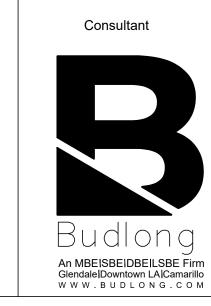
- ALL CONDUCTORS SHALL BE COPPER WITH THHN 90 DEGREE C INSULATION.
- CONDUCTORS SHALL BE CONTINUOUS FROM OVER-CURRENT PROTECTIVE DEVICE TO TERMINAL OR FARTHEST OUTLET. NO JOINTS SHALL BE MADE EXCEPT IN PULL, JUNCTION OR OUTLET BOXES.
- JOINTS IN WIRES SMALLER THAN NO.6 SHALL BE MADE WITH IDEAL SUPER WIRE NUTS OR SCOTCH TYPE "R", "Y" OR "B" SPRING CONNECTORS. JOINTS IN WIRES NO. 6 AND LARGER SHALL BE MADE WITH APPROVED SOLDERLESS CONNECTORS. ALL JOINTS IN CABLES NO. 6 AND LARGER SHALL BE INSULATED AND TAPED.
- NEUTRAL CONDUCTORS SHALL NOT BE BROKEN AT ANY DUPLEX RECEPTACLE, LIGHTING FIXTURE OR SIMILAR WIRING DEVICE IN MULTI-WIRE (3 WIRE OR 4 WIRE) CIRCUITS. GROUNDED NEUTRAL SHALL NOT DEPEND ON DEVICE CONNECTIONS FOR CONTINUITY. NEUTRAL WIRES CAN BE SPLICED TOGETHER WITH PIGTAIL TO NEUTRAL TERMINAL ON RECEPTACLE, LIGHTING FIXTURE OR SIMILAR DEVICE. IF DEVICE OR FIXTURE IS REMOVED, NEUTRAL WILL REMAIN

#### 1.19 EQUIPMENT CONNECTIONS

MAKE CONNECTIONS TO ALL MOTORS. MOTOR CONTROLLERS AND ELECTRICALLY OPERATED EQUIPMENT WHETHER FURNISHED AS A PART OF THIS CONTRACT OR FURNISHED BY THE OWNER FOR INSTALLATION UNDER THIS CONTRACT. FURNISH AND INSTALL ALL CONDUITS AND CONDUCTORS REQUIRED FOR THESE CONNECTIONS AND FOR CONTROL WIRING AS INDICATED BY ELECTRICAL IN OTHER SECTIONS.

#### 1.20 DISCONNECT SWITCHES AND CONTROL WIRING

- FURNISH AND INSTALL HORSE POWER RATED DISCONNECT SWITCHES FOR ALL MOTORS, CONTROL CIRCUITS AND OTHER ELECTRICAL EQUIPMENT AS REQUIRED BY CODE WHETHER OR NOT SHOWN ON THE DRAWINGS. A DISCONNECT SWITCH SHALL BE LOCATED WITHIN SIGHT FROM THE CONTROLLER DISCONNECT LOCATION. WHERE A MOTOR IS NOT WITHIN SIGHT FROM THE CONTROLLER DISCONNECT LOCATION AN ADDITIONAL DISCONNECTING SWITCH SHALL BE PROVIDED WITHIN SIGHT OF THE MOTOR LOCATION.
- THE ELECTRICAL CONTRACTOR SHALL VERIFY WITH THE MECHANICAL CONTRACTOR FOR ITEMS, DEVICES OR EQUIPMENT THAT THE ELECTRICAL CONTRACTOR IS TO FURNISH, INSTALL AND/OR CONNECT FOR THE HEATING, VENTILATING, AIR CONDITIONING AND PLUMBING SYSTEM DEVICES UNDER THIS CONTRACT.







KEVIN O'BRIEN

REVISIONS DATE BY 3/1/2024

PLAN REF

FIELD BOOK REF

engineering

division

CODE UPDATE

**ELECTRICAL SPECIFICATIONS** TITLE: Approved

CITY OF

NORWALK TRANSIT SYSTEM **OPERATIONS DEPARTMENT RECONFIGURATION** PROJECT NO.

CITY ENGINEER RCE 57908 Recommended

DRAWING NO.

Checked By Drawn By SHEET \_\_\_\_\_ OF \_\_\_\_

					T		
STATE OF CALIFORNIA		STATE OF CALIFORNIA			STATE OF CALIFORNIA		
Indoor Lighting NRCC-LTI-E	CALIFORNIA ENERGY COMMISSION	Indoor Lighting NRCC-LTI-E		CALIFORNIA ENERGY COMMISSION	Indoor Lighting NRCC-LTI-E		CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE  This document is used to demonstrate compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance of the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6 and §141.0(b)2 for indoor leading to the complex part of the complex	NRCC-LTI-E liahtina scopes usina the prescriptive	CERTIFICATE OF COMPLIANCE Project Name: NORWAL	TRANSIT SYSTEM Report Page:	NRCC-LTI-E (Page 2 of 7)	CERTIFICATE OF COMPLIANCE Project Name:	NORWALK TRANSIT SYSTEM Report Page:	NRCC-LTI-E (Page 3 of 7)
path.  Project Name:  NORWALK TRANSIT SYSTEM Report Page:	(Page 1 of 7)	Project Address: 1265	D E. Imperial Hwy. Date Prepared:	4/26/2021	Project Address:	12650 E. Imperial Hwy. Date Prepared:	4/26/2021
Project Address: 12650 E. Imperial Hwy. Date Prepared:	4/26/2021	C. COMPLIANCE RESULTS			F. INDOOR LIGHTING FIXTURE SCHEDULE		
A. GENERAL INFORMATION		If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Except			LITHONIA	No 30 Mfr. Spec 3	No. OO D
01 Project Location (city)     Norwalk     04 Total Conditioned Floor Area (ft²)       02 Climate Zone     8     05 Total Unconditioned Floor Area (ft²)	200	Lighting in         Allowed Lighting Power per §140.6(b)           01         02         03         04	Adjusted Lighting Power per §140.6(s)           05         06         07	O8 Compliance Results 09	A/30 ZESL4-40L-INVOL1-EZ1-LP840 INO A/30		NO 90 L L
03 Occupancy Types Within Project (select all that apply): 06 # of Stories (Habitable Above Grade)	1	conditioned and unconditioned Area Area Category Tailored	Adjustments		<sup>1</sup> FOOTNOTE: Design Watts for small aperture and color changing lo	Total Designed Watts: CONDIT	
☑ Office     ☐ Retail     ☐ Warehouse     ☐ Hotel/Motel     ☐       ☐ Parking Garage     ☐ High-Rise Residential     ☐ Relocatable     ☐ Healthcare     ☐	spaces must not be combined for compliance per \$\frac{140.6(c)1}{5140.6(c)2}\$ Spaces must not be compliance per \$\frac{5140.6(c)1}{5140.6(c)2}\$ Spaces must not be compliance per \$\frac{5140.6(c)1}{5140.6(c)2}\$ Spaces must not be complete Area Category Additional \$\frac{5140.6(c)2}{5140.6(c)26}\$ (+)	B =   Designed   Control Credits =	al Adjusted (Watts) 05 must be >= 08	this adjustment, the permit applicant should enter full rated wattage in column 05. <sup>2</sup> Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not			
		§140.6(b)1 (+)	(Watts) (Watts) (1-) Ad	fincludes §140.6 ljustments	the lamp.	onjirm wattage usea jor compilance per <u>\$130.0(c)</u> wattage	usea must be the maximum ratea for the luminaire, not
B. PROJECT SCOPE  This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or		(See Table I) (See Table I) (See Table J) (See Table D) (S	K)         (See Table F)         (See Table P)           =         140         ≥         90         0         =	90 COMPLIES	G. MODULAR LIGHTING SYSTEMS		
§141.0(b)2 for alterations.  Scope of Work  Conditioned Spaces  Unconditioned Spaces		Unconditioned         =         ≥         =			This section does not apply to this project.		
01 02 03 04 05		Controls Compliance (See Table H for Details)  Rated Power Reduction Compliance (See Table Q for Details)  COMPLIES			H. INDOOR LIGHTING CONTROLS (Not including PAFs)		
My Project Consists of (check all that apply):  Calculation Method Area (ft²) Calculation Method Area (ft²)  New Lighting System		D. EXCEPTIONAL CONDITIONS			This table includes lighting controls for conditioned and uncondition compliance is achieved. The lighting controls section of the Compli		
□ New Lighting System - Parking Garage	Area Category Method 0	This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.			Building Level Controls  01	02	03
✓ Altered Lighting System     Area Category Method     200     A       Total Area of Work (ft²)     200	E. ADDITIONAL REMARKS			Mandatory Demand Response §110.12(c)  Shut-off controls §130.1(c)  Pass Fail			
	<u>'</u>	This table includes remarks made by the permit applicant to the Authority F	aving Jurisdiction.		Not Required <= 10,000 SF See Area/Space Level Controls		
		F. INDOOR LIGHTING FIXTURE SCHEDULE			Area Level Controls	06 07 08 09	0 10 11 12
		This table includes all permanent designed lighting and all portable lighting  Designed Wattage: Conditioned Spaces	in offices.			Primar	(5)
		01 02 03 04	05 06 07 08	09 10	Complete Building or Area Area Description Category Primary Function	Area Controls   Multi-Level   Shut-Off Controls   lit	Daylighting Systems Field Inspector
		Name or Item Complete Luminaire Modular Aperture & (Track) Fixture	Watts per How is Wattage India Number Excluded per determined of Luminaires \$140.6(a)3	Design Watts Field Inspector	Area	\$130.1(a) \$130.1(b) \$130.1(c) Daylig \$130.	IIIIB   \$140 C/d\
		Tag Description (Track) Fixture Color Change <sup>1</sup>	determined of cumulates \$140.0(u)2	Pass Fail	OFFICE 101 Office 250 square feet or less	Manual Dimmer Occupancy Sensor N/	
						ON/OFF Similar Secupation Sensor 147	
Registration Number: Registration Date/Time:	Registration Provider: Energysoft	Registration Number:	Registration Date/Time:	Registration Provider: Energysoft	Registration Number:	Registration Date/Time:	Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003 Schema Version: rev 20200601	Report Generated: 2021-04-26 04:23:29	CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	Report Version: 2019.1.003 Schema Version: rev 20200601	Report Generated: 2021-04-26 04:23:29	CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	e Report Version: 2019.1.003 Schema Version: rev 20200601	Report Generated: 2021-04-26 04:23:29
STATE OF CALIFORNIA  Indoor Lighting		STATE OF CALIFORNIA Indoor Lighting			STATE OF CALIFORNIA Indoor Lighting		
NRCC-LTI-E  CERTIFICATE OF COMPLIANCE	CALIFORNIA ENERGY COMMISSION  NRCC-LTI-E	NRCC-LTI-E  CERTIFICATE OF COMPLIANCE		CALIFORNIA ENERGY COMMISSION  NRCC-LTI-E	NRCC-LTI-E  CERTIFICATE OF COMPLIANCE		CALIFORNIA ENERGY COMMISSION  NRCC-LTI-E
Project Name:  NORWALK TRANSIT SYSTEM Report Page:  Project Address:  12650 E. Imperial Hwy. Date Prepared:	(Page 4 of 7) 4/26/2021		TRANSIT SYSTEM Report Page:  0 E. Imperial Hwy. Date Prepared:	(Page 5 of 7) 4/26/2021	Project Name: Project Address:	NORWALK TRANSIT SYSTEM Report Page:  12650 E. Imperial Hwy. Date Prepared:	(Page 6 of 7) 4/26/2021
riojest radicus.	472072021	1 Toject Address	o E. Imperior IIII). Date i Veporeo.	1,20,2022	r toject Address.	12000 E. IIII perior IIII y	4242022
H. INDOOR LIGHTING CONTROLS (Not including PAFs)	12	O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE	MERCHANDISE		U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTAN		
*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.  EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1  Plan Sh	13 neet Showing Daylit Zones:	This section does not apply to this project.			Selections have been made based on information provided in this of Additional Remarks. These documents must be provided to the built of	ding inspector during construction and any with "-A" in the f	orm name must be completed through an Acceptance
to <u>§130.1(d)2</u>	Secondary Control	P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT)  This section does not apply to this project.	STMENT FACTOR (PAF))		Test Technician Certification Provider (ATTCP). For more information Yes No	n visit: http://www.energy.ca.gov/title24/attcp/providers.htt Form/Title	Field Inspector
I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS	ditional lighting never allowances per					occupancy sensors and automatic time switch controls.	Pass Fail
Each area complying using the Complete Building or Area Category Methods per §140.6(b) are included in this table. Column 06 indicates if add §140.6(c) or adjustments per §140.6(a) are being used.	aitional lighting power allowances per	Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS  This section does not apply to this project.			NRCA-LTI-03-A - Must be submitted for	utomatic daylight controls.	
Conditioned Spaces         01         02         03         04         05         06		R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS			NRCA-LTI-04-A - Must be submitted for NRCA-LTI-05-A Must be submitted for	lemand responsive lighting controls. institutional tuning power adjustment factor (PAF)	
Area Description  Complete Building or Area Category Primary Function Area  (W/ft²)  Allowed Density (Watts)  Area (ft²)  Allowed Wattage (Watts)  Area Category PAF		This section does not apply to this project.					
Function Area (W/ft²) (Watts) Area Category PAF  OFFICE ZONE Office 250 square feet or less 0.7 200 140 No No		S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)					
TOTALS: 200 140 See Tables J, or P for detail		This section does not apply to this project.					
J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM		T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION					
This section does not apply to this project.		Selections have been made based on information provided in this document. If any selection have been changed by permit applicant, an explanation should be included in Table E.  Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at					
K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE  This section does not apply to this project.		https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/ Field Inspector					
L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY		Yes No NRCI-LTI-01-E - Must be submitted for all building	Form/Title	Pass Fail			
This section does not apply to this project.			ontrol system, or for an Energy Management Control System (EMG				
M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING		NRCI-LTI-04-E - Must be submitted for two interle	cked systems serving an auditorium, a convention center, a confe	erence room, a			
This section does not apply to this project.		multipurpose room or a theater to be recognized  NRCI-LTI-05-E- Must be submitted for a Power Ad	for compliance. justment Factor (PAF) to be recognized for compliance.				
N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS			vattage installed in a video conferencing studio to be recognized	for compliance.			
This section does not apply to this project.							
Registration Number: Registration Date/Time:	Registration Provider: Energysoft	Registration Number:	Registration Date/Time:	Registration Provider: Energysoft	Registration Number:	Registration Date/Time:	Registration Provider: Energysoft
CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance Report Version: 2019.1.003	Report Generated: 2021-04-26 04:23:29	CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance	Report Version: 2019.1.003	Report Generated: 2021-04-26 04:23:29	CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance		Report Generated: 2021-04-26 04:23:29
Schema Version: rev 20200601			Schema Version: rev 20200601			Schema Version: rev 20200601	· · · · · · · · · · · · · · · · · · ·
STATE OF CALIFORNIA							
Indoor Lighting NRCC-LTI-E	CALIFORNIA ENERGY COMMISSION						
CERTIFICATE OF COMPLIANCE   Project Name:   NORWALK TRANSIT SYSTEM   Report Page:	NRCC-LTI-E (Page 7 of 7)						
Project Address: 12650 E. Imperial Hwy. Date Prepared:	4/26/2021						
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT							
I certify that this Certificate of Compliance documentation is accurate and complete.							
Documentation Author Name: Guillermo Acuna  Company:  Signature Date:							
Budlong & Associates 2021-04-26 Address: 315 Arden Ave, Suite CEA/ HERS Certification (if applicable):							
City/State/Zip: Glendale CA 912  RESPONSIBLE PERSON'S DECLARATION STATEMENT  Phone: (818) 638-8780							
I certify the following under penalty of perjury, under the laws of the State of California:  1. The information provided on this Certificate of Compliance is true and correct.							
<ol> <li>I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Com</li> <li>The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Com</li> </ol>							
of Title 24, Part 1 and Part 6 of the California Code of Regulations.  4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable con plans and specifications submitted to the enforcement agency for approval with this building permit application.	mpliance documents, worksheets, calculations,						
plans and specifications submitted to the enforcement agency for approval with this building permit application.  5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made availal inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the							
Responsible Designer Name: Manan Christian							
Company: Date Signed: Budlong & Associates 2021-04-26							
Address: License: 400 W Ventura Blvd Ste#240 E22864							
City/State/Zip: Phone: Camarilo CA 90310 8059874001						onginooring	CITY OF
10003074001		•	I	ı			



Registration Number:

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance

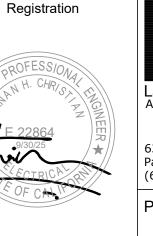
Registration Date/Time:

Report Version: 2019.1.003

Schema Version: rev 20200601

Registration Provider: Energysoft

Report Generated: 2021-04-26 04:23:29



CITY OF engineering division ELECTRICAL T-24 COMPLIANCE FORMS - INDOOR TITLE: REVISIONS NORWALK TRANSIT SYSTEM La Cañada Design Group Architecture Planning Interiors DATE BY 3/1/2024 CODE UPDATE OPERATIONS DEPARTMENT RECONFIGURATION PROJECT NO. Approved 630 N. Rosemead Blvd, Suite 400 Pasadena, California 91107 (626) 351-4301 www.lcdg.com CITY ENGINEER RCE 57908 DATE DRAWING NO. Recommended FIELD BOOK REF Prepared Under the Supervision of: E3.01 KEVIN O'BRIEN C23472 PLOT DATE PLAN REF Drawn By Checked By