### TREANORHL

### 4249 CHEENEY ROAD, SANTA CLARA, CALIFORNIA HISTORIC RESOURCE EVALUATION – POTENTIAL IMPACTS

JANUARY 17, 2023



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Project Name: Cheeney Townhomes HRE
Project #: HP0826.1901.00
January 17, 2023

### 1. INTRODUCTION & METHODOLOGY

David J. Powers has requested an evaluation of a proposed project located at 4249 Cheeney Street for potential effects to historic resources adjacent to and within 200 feet of the project site. Located approximately 90 feet north of the project site, the building at 2086 Agnew Road (APN 104-12-028) is identified as a locally designated property on the City of Santa Clara's Historic Preservation and Resource Inventory. This report provides a project description, impacts analysis, and mitigation measures pertaining to the proposed project's potential effects on 2086 Agnew Road.

The proposed project was reviewed in October 2019, and since then the design has changed. This updated report takes the latest designs, dated December 15, 2022, from MFA Engineers and Associates, into consideration.

TreanorHL conducted a site visit on January 9, 2023; and reviewed the Santa Clara Historic Preservation and Resource Inventory, Santa Clara City Code Chapter 18.106 Historic Preservation, the DPR form for 2086 Agnew Road, and drawings from MFA Engineers and Associates.



Figure 1. Aerial view of the area; the project site at 4249 Cheeney Street outlined in red and 2086 Agnew Road marked with a star (Google Earth, imagery date March 2022).

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Figure 2. The project site at 4249 Cheeney Street, looking north (Imagery date January 2023).

### 2. 2086 AGNEW ROAD

The building at 2086 Agnew Road is locally designated as a historic resource. Listed on the City of Santa Clara's Historic Preservation and Resource Inventory, the Agnew School was constructed ca. 1890 and "served the surrounding community until 1927 when it was permanently closed." The building has been used as a residence ever since.<sup>1</sup>

Set back approximately 25 feet from the sidewalk, this tall one-story building is T-shaped in plan. The wood-frame structure has horizontal wood siding and a shingle-clad front-facing gabled and hipped roof with an enclosed cornice and a profiled frieze. A brick chimney pierces the roof at the center. The primary window type is wood-sash double-hung with simple wide trim. On the front (north) façade, a partial-width, central gabled porch with square pillars shelters the main entrance, which consists of a single wood door. The porch is raised on a concrete platform with three steps on all sides. A pair of double-hung windows flank each side of the porch. The detached garage at the southeast corner of the parcel is reached by an asphalt driveway. A two-story accessory unit is located to the southwest of the main house.

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<sup>&</sup>lt;sup>1</sup> City of Santa Clara 2010-2035 General Plan, "8.9 Historic Preservation and Resource Inventory;" City of Santa Clara/Planning, 2086 Agnew Road DPR Form, 1992.



Figure 3. The building at 2086 Agnew Road, view of the north and east facades (Imagery date Janaury 2023).



Figure 4. The building at 2086 Agnew Road, view of the north and west facades (Imagery date January 2023).

Character-defining features of the property include the following:

Tall one-story, T-shaped massing

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- Wood-frame construction
- Front-facing gabled (front) and hipped (rear) roof
- Horizontal wood siding
- Symmetrical front (north) façade
- Central partial-width gabled porch with square pillars
- Raised entry platform
- Double-hung wood-sash windows with simple trim

### 3. PROJECT DESCRIPTION

The project site consists of two adjacent parcels at 4249 Cheeney Street (APN 104-12-025 and 104-12-026) in the Agnew Village neighborhood of the City of Santa Clara. The 150' by 150' site is currently vacant with no existing buildings or infrastructure. Vegetation is grassy with bushes and a handful of small trees. The surrounding lots contain one- or two-story single-family houses, scattered outbuildings, and driveways. A group of two-story townhomes are located immediately east of the project site.

The project proposes nine units of two-story single-family residential townhouses, each with a two-car garage. The garages are accessed by an L-shaped paved surface drive dividing the two rows of buildings. To the north is a set of five townhomes with asphalt-clad front gabled roofs, and to the south, along Cheeney Street, is a set of four units with hipped roofs. Each unit is roughly rectangular in plan and clad in cement plaster and board-and-batten siding. A mix of operable and fixed windows are on all the units.

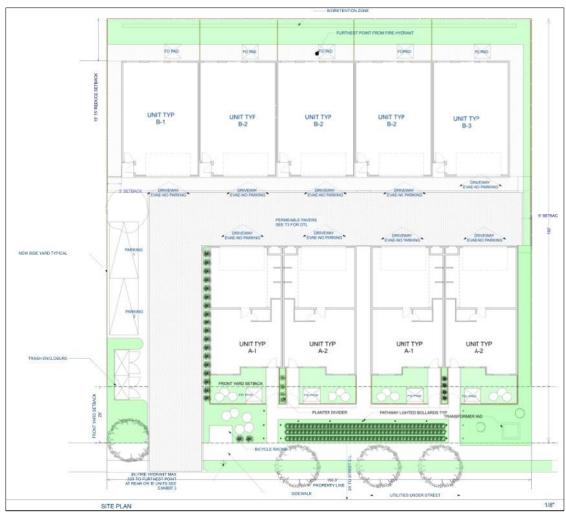


Figure 5. The proposed project, site plan (MFA Construction and Engineering, December 2022).

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Figure 6. The proposed project, elevations (MFA Construction and Engineering, December 2022).



Figure 7. The proposed project, elevations (MFA Construction and Engineering, December 2022).

### 4. IMPACTS AND MITIGATION MEASURES

Historical resources include properties eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, or a local register of historical resources (as defined in Public Resources Code §5020.1(k)). As discussed above, 2086 Agnew Road is listed on the *Historic Preservation and Resource Inventory* of Santa Clara. According to Public Resources Code §15064.5(b), a project

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would have a significant effect on a historic resource if it would "cause a substantial adverse change in the significance" of that resource. Specifically, "[s]ubstantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired."

In case of new construction, the Secretary of the Interior's Standards are applied to determine the compatibility of the proposed project with the existing historic resource. Of the ten Standards for Rehabilitation, only #9 and #10 apply to new construction.

- 9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
  - The proposed development does not significantly alter the immediate surroundings of the property. The density and the scale of the proposed buildings are appropriate with the height of the historic resource at 2086 Agnew Road. The proposed design is modern with simple, cubic forms; therefore, it is easily distinguished from the historic. The proposed materials; i.e. wood and cement plaster, are compatible with the adjacent historic resource and its vicinity. Overall, the project at 4249 Cheeney Street will be compatible with the massing, size, scale, and architectural features of the historic resource at 2086 Agnew Road. Therefore, the proposed project complies with Standard 9.
- 10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.
  - The proposed development will be constructed approximately 90 feet south of the historic resource at 2086 Agnew Road. The project will not diminish the integrity of the subject building or its surroundings. If new construction were to be removed in the future, the essential form and integrity of the historic property will be unimpaired. Therefore, the proposed project complies with Standard 10.

### 5. CONCLUSION

The revised December 2022 project proposed at 4249 Cheeney Street is consistent with the Secretary of the Interior's Standards for Rehabilitation and will not have any impacts on the historic resource at 2086 Agnew Road. The proposed project would not cause 2086 Agnew Road to lose its current historic status as a locally designated resource. The proposed development would be contemporary but compatible with the historic resource and its surroundings. The integrity of the historic resource would not be impaired. The construction of the project would not have a direct impact on 2086 Agnew Road. The proposed project would not have an indirect impact on 2086 Agnew Road from construction activities (i.e. vibration) since the historic resource is not immediately adjacent to the development.

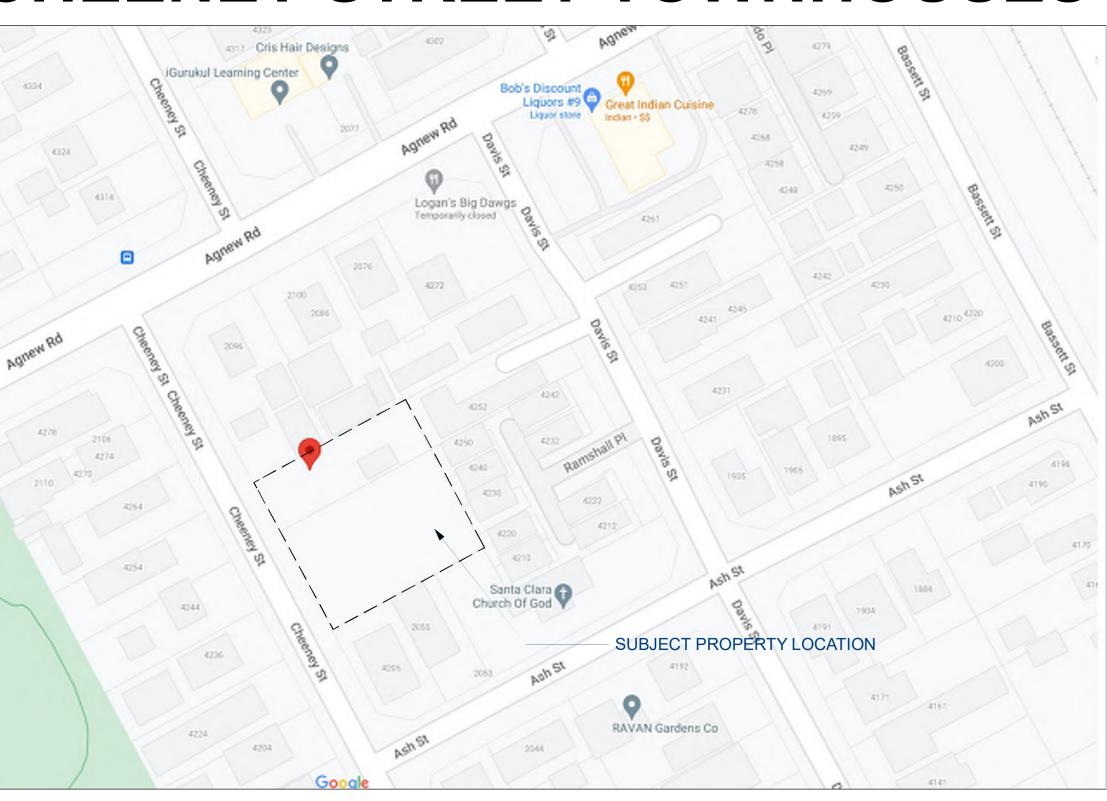
Project Name: Cheeney Townhomes HRE Project #: HP0826.1901.00 January 17, 2023

### **APPENDIX**

MFA Engineers & Associates, Cheeney St. Townhouses Plans, 4249 Cheeney St, Santa Clara, CA 95054, 12/19/2022

SYMBOLS:		Д	BBREVIATIO	NS:		APPL	ICABLE CODES:
BUILDING LAYOUT POINT	BLP	A A.C. ACOUS AC.T. AC.P. A.D.	Aspahlt Concrete Acoustical Acoustical Tile Acoustical Panel Area Drain	LB./# L.F. LKR. LT. LG.	Pound Linear Feet Locker Light Large	BUILDING MECHANICAL PLUMBING ELECTRICAL	2019 CALIFORNIA BUILDING CODE (CBC) 2019 CALIFORNIA MECHANICAL CODE (CMC) 2019 CALIFORNIA PLUMBING CODE (CPC) 2019 CALIFORNIA ELECTRICAL CODE (CEC)
DATUM POINT ELEVATION	<b>—</b>	ADJ. AGGR. A.F.F. AL./ALUM.	Adjustable Aggregate Above Finished Floor Aluminum	MAT. M.B. M.C.	Material Machine Bolt Medicinal Cabinet	FIRE PREVENTION	2019 CALIFORNIAN FIRE CODE (CFC) AND LOCAL ORDINANCE
MATCH LINE		& ANG./< APPROX.	And Angle Approximate	MD. MECH. MEMB.	Medium Mechanical Membrane	ENERGY ACCESSIBILITY:	2019 CALIFORNIA T-24- CALIFORNIA ENERGY CODE MORE STRINGENT OF CALIFORNIA BUILDING CODE OR APPLICABLE FEDERAL LAWS
PROPERTY LINE		ARCH. ASPH. @	Architectural Asphalt At	MET. MFR. MH.	Metal Manufacturer Manhole		CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) CITY OF SANTA CLARA, CA MUNICIPAL CODE
DIM. @ F.O.S./STRUC.		B BKG. BD. BITUM.	Backing Board Bituminous	MIN. MIR. MISC.	Minimum Mirror Miscellaneous		
DIM. @ CENTER LINE DIM. @ F.O.F./CLEAR		BLDG. BLKG. BM.	Building Blocking Beam	M.O. MTD. MUL.	Masonry Opening Mounted Mullion	S	SHEET INDEX:
(N) OR REQUIRED	+9'-0"	B.O. BOT. B.U.	Bottom of Bottom Built-up	N (N) N.I.C.	North New Not In Contract	<u>GENERA</u>	<u>L</u>
(E) ELEVATION POINT	+9'-0"	C CAB. C.BA. C.B.	Cabinet Carpet Base Catch Basin	NO./# NOM. N.T.S.	Number Nominal Not to Scale	G0.0 COVER S	
	A	CEM. CER. C.I. C.J.	Cement Ceramic Cast Iron Construction/Control Joint	O 0/ 0.A. 0.C.	Over Overall On Center	ARCHITE	S AND MATERIALS
COLUMN GRID	1	Ç CLG. CLKG.	Center Line Ceiling Caulking	O.D. O.H. O.F.D. OBS.	Outside Diameter (Dim.) Opposite Hand Overflow Drain Obscure		
		CLO. CLR. C.O.	Closet Clear Clean out	OFF. OPNG. OPP.	Office Opening Opposite	A1.1 LEVI	E PLAN EL 1 FLOOR PLAN
DETAIL NO. SHEET NO.	4 A6	COL. CONC. CONN.	Column Concrete Connection	P.C. P.G.B.	Painted Concrete Painted Gypsum Board	A1.3 ROC	EL 2 FLOOR PLAN OF PLAN VATIONS - A UNITS
WALL SECTION NO.	7	CONSTR. CONT. CONTR. CORR.	Construction Continuous Contractor Corridor	PKG. PRCST. PL.	Parking Pre-Cast Plate	A2.1 ELE	VATIONS - B UNITS E SECTIONS
SHEET NO.	A8/	CPT. C.P. C.SQ.	Carpet Cement Plaster Carpet Square	P.LAM. PLAS. PLYWD.	Plastic Laminate Paster Plywood	CIVIL	
BUILDING SECTION	9 A2	CTSK. C.M.U./CMU CNTR.	Countersink Conc. Masonry Unit Counter	PR. PT. P.T.D.	Pair Point Paper Towel Dispenser		
	1	C.T. CTR. C.W.	Ceramic Tile Center Curtain Wall	P.T.D/R. PTN.	Combination Paper Towel Dispenser & Receptacle Partition	C2 DEM	E SHEET  OLITION PLAN  AND POST DEVELOPMENT PLAN
INTERIOR ELEVATION 4	$\begin{pmatrix} 9 \\ A2 \end{pmatrix}$ 2	D DAT. DBL. DEPT.	Datum Double Department	P.T.R. <b>Q</b> QTY. Q.T.	Paper Towel Receptacle Quantity	C4 STO	RM WATER CONTROL PLAN AND SECTIONS ADING AND DRAINAGE PLAN
DOOR NO.	3 /#	D.F. DET. DIA.	Drinking Fountain Detail Diameter	D R.	Quarry Tile Riser	C6 BUIL	LITY PLAN
DOOR TYPE	Ä	DIM. DISP. DKG.	Dimension Dispenser Decking	RAD. R.B4 R.B6 R.D.	Radius 4" Rubber Top Set Base 6" Rubber Top Set Base Roof Drain	C8 ERO	SION CONTROL PLAN SION CONTROL DETAILS
WINDOW NO.	5	DN. D.O. D.P.	Down Door Opening Dimension Point	REF. REFR. REINF.	Reference Refrigerator Reinforced		TATIVE MAP TATIVE MAP - EXISTING SITE CONDITIONS
REVISION NO.	<u>/</u> 3	DR. DWR. DS. D.S.P.	Door Drawer Downspout Dry Standpipe	REQ. RESIL. R.F.	Required Resilient Resilient Flooring	LANDSCA	APE
ROOM NAME ROOM NO.	ENTRY 100	DWG.	Drawing East	RFG. RGTR. RHWS.	Roofing Register Round Head Wood Screw	L1.1 PRE	LIMINARY PLANTING PLAN
EARTH		(E) EA. E.J. EL./ELEV.	Existing Each Expansion Joint Elevation	RM. RND. R.O. RWD.	Room Round Rough Opening Redwood		E INVENTORY PLAN
POROUS FILL/		ELEC. ELEV. EMER.	Electrical Elevator Emergency	R.W.L.	Rain Water Leader South	ELECTRI	<u>CAL</u>
GRAVEL/ROCK	, , , , , , , , , , , , , , , , , , ,	ENCL. E.P. EQ.	Enclosure Electrical Panelboard Equal	S S.C. S.C.D. S.CONC.	Solid Core Seat Cover Dispenser Sealed Concrete		ELINE DIAGRAM, PANEL & FAULT SCHEDULES
SAND/MORTAR/ CEMENT PLASTER		EQUIP. E.W.C. EXPO. EXP.	Equipment Electrical Water Cooler Exposed Expansion	SCHED. S.D. SECT. SH.	Schedule Soap Dispenser Section Shelf	E1.01 LUM E2.00 SITE	IINAIRE SCHEDULE E PLAN
CONCRETE	44	EXT.  F.A.	Exterior Fire Alarm	SHR. SHT. SIM.	Shower Sheet Similar		ICAL UNIT POWER PLAN ICAL UNIT POWER PLAN
MASONRY WALL		F.D. FDN.	Furnished by Owner Floor Drain Foundation	SHT.MET. SM. S.N.D.	Sheet Metal Small Sanitary Napkin Dispenser	<u>MECHAN</u>	ICAL
BRICK/BRICK VENEER/		F.E. F.E.C. F.F. F.G.	Fire Extinguisher Fire Extinguisher Cab. Finish Floor Fixed Glass	SD.INSUL. SPEC. SQ.	Sound Insulation Specification Square	M0.0 LEG	END, GENERAL NOTES, DRAWINGS INDEX
PAVER		F.H.C. FHWS. FIN.	Fire Hose Cabinet Flat Head Wood Screw Finish	S.S.P. S.S.D. S.SK. S.STL.	See Structural Plans See Structural Drawings Service Sink Stainless Steel	M0.3 MEC	DJECT NOTES CHANICAL SCHEDULES
QUARRY/ CERAMIC TITLE		FL. FLASH. FLUOR.	Floor Flashing Fluorescent	STA. STD. STL.	Statilless Steel Station Standard Steel	M2.1 HVA	C PLAN - FIRST FLOOR C PLAN - SECOND FLOOR C PLAN - ROOF
PLYWOOD		F.O.C. F.O.F. F.O.M. F.O.S.	Face of Concrete Face of Finish Face of Masonry	STOR. STRUC. SUSP.	Storage Structure/Structural Suspended	M7.0 TITL	E 24 COMPLIANCE FORMS E 24 COMPLIANCE FORMS
ROUGH WOOD		FRPF. FR. FRG.	Face of Studs Fireproof Frame Framing	S.V. SYM. SYS.	Sheet Vinyl Symmetrical System	M7.2 TITL	E 24 COMPLIANCE FORMS
		F.S. F.S.R. FT.	Full Size Fire Sprinkler Riser Foot or Feet	T TRD. T.B. T.C.	Tread Towel Bar Top of Curb	PLUMBIN	<u>IG</u>
FINISH WOOD		FTG. FURR. FUT./(F)	Footing Furring Future	TEL. TEMP. TER. T.&G.	Telephone Temporary Terrazzo Tongue & Groove		END, NOTES, AND DRAWING INDEX ES AND CALCULATIONS
METAL		G GALV. G.B.	Gauge Galvanized Grab Bar	T.G.B. THK. T.O.	Textured Gypsum Board Thick Top of	P002 SCH P200 UND	EDULES AND CALCULATIONS DERSLAB WASTE AND VENT PLAN
GYPSUM BOARD		G.CONC. GL. GND. GR.	Gunite Concrete Glass Ground Grade	T.O.C. T.P.D. T.V.	Top of Concrete Toilet Paper Dispenser Television Top of Wall	P202 LEVI	EL 1 WASTE & VENT PLAN EL 2 WASTE & VENT PLAN OF PLUMBING PLAN
PROTECTION BOARD		GYP.  HB. H.C.	Gypsum Hose Bibb Hollow Core	T.O.W. TYP.	lop of Wall Typical Unfinished	P301 LEVI P302 LEVI	EL 1 SUPPLY PLAN EL 2 SUPPLY PLAN
ACOUSTICAL TILE		H.D. HDCP. HDWD.	Hot Dipped Handicapped Hardwood	U U.O.N. UR.	Unless Otherwise Noted Urinal	P501 SUP	STE & VENT RISER DIAGRAM PLY RISER DIAGRAM
		HDWR. H.M. HORIZ. HR.	Hardware Hollow Metal Horizontal Hour	VCR VCT VERT.	Vinyl Carpet Reducer Vinyl Composition Tile Vertical	P700 DETA P701 DETA	
GLASS WATERPROOFING/		HGT. I.D. IN.	Height Inside Diameter Inch or Inches	VEST. V.T. V.W.C.	Vestibule Vinyl Tile Vinyl Wall Convering		
FLASHING		IN. INCL. INSUL. INT.	inch of inches Include Insulation Interior	W W/ W.C.	West With Water Closet		
BLANKET OR BATT INSULATION		J JAN.	Janitor	WD. WDW.	Wood Window		

### CHEENEY STREET TOWNHOUSES



### PROJECT TEAM:

1190 PARK AVE

SAN JOSE, CA 95126

MARUTI BUILDERS, INC. 859 ALISAL CT. MILPITAS, CA 95051

T. (408) 431-7003 F. 000-000-000 maruti@builders.com

LC ENGINEERING

SAN JOSE, CA 95112

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T. (408) 806-7187

SUITE 270

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**CIVIL ENGINEER:** 

598 E SANTA CLARA STREET

ALI ABIANI

SAUL FLORES/JUAN C. NAVARRO T. (408) 710-6725/(408)205-9812 saul@groundzerosj.com

MFA CONSTRUCTION AND ENGINEERING

### **LANDSCAPE ARCHITECT:** GROUND ZERO CONSTRUCTION, INC.

SAN JOSE, CA 95120 SAUL FLORES T. (408) 680-2929 F. 000-000-000 saul@groundzerosj.com

7076 KINDRA HILL DRIVE

### **MEP ENGINEERING:**

ROBISON ENGINEERING, INC 19401 40TH AVENUE COURT LYNWOOD, WA 98036

JON ROBISON T. 206.364.3343 jrobison@robisonengineering.com

### PROJECT SUMMARY AND SCOPE OF WORK:

THE PROJECT SITE IS A 22,500 SQUARE FEET COMBINED LOTS IN THE AGNEW'S VILLAGE NEIGHBORHOOD OF THE CITY OF SANTA CLARA. ADJACENT PARCELS 104-12-025 AND 104-12-026 FROM THE SITE WHICH HAS A150' LONG WESTERN FRONTAGE ALONG CHEENEY STREET

THE 150' X 150' PROJECT SITE IS CURRENTLY VACANT WITH NO EXISTING BUILDINGS OR INFRASTRUCTURE, UTILITIES RUN BELOW CHEENEY STREET, WITH ABOVE GROUND POWER LINES COLINEAR WITH THE SIDEWALK.

THE PROPOSED PROJECT RECEIVED EARLY CONSIDERATION APPROVAL FOR REASSIGNMENT OF USE DESIGNATION FROM VERY LOW DENSITY RESIDENTIAL TO LOW DENSITY RESIDENTIAL, ALLOWING FOR UP TO 9 UNITS ON THIS HALF ACRE SITE. THE SCHEME INTRODUCES 9 TOTAL DWELLING UNITS; EACH UNIT CONTAINS A 2-CAR GARAGE AND DRIVEWAY ACCESS VIA A PERMEABLE PAVED SURFACE LOT.

THE PROPOSED TOWNHOMES WOULD CONTAIN APPROXIMATELY 15,520 TOTAL SQUARE FEET OF INTERIOR HABITABLE SPACES, EACH OWNERSHIP UNIT AT ROUGHLY 1,724 SQUARE FEET IN AREA. EACH DWELLING IS TWO STORY AND HAS 3 BEDROOMS AND 2-1/2 BATHS.

### DDO IEOT DATA MATDIX

**GUEST PARKING SPACES PROVIDED: 2** 

PROJECT DATA MATE	RIX:	
	AREA	LOT COVERAGE
LOT	22,500 SF	
LEVEL 1 (SITE TOTAL)	10,121 SF	44.9%
LEVEL 2 (SITE TOTAL)	10,134 SF	-
BUILDING TOTAL	20,255 SF	
PAVING (PERMEABLE)	6,300 SF	28%
IMPERMEABLE SURFACE (PAVING & BUILDING SLAB)	12,187 SF	54%
LANDSCAPE	4,016 SF	17%
GUEST PARKING SPACES REQUIRED: 2		

### MFA

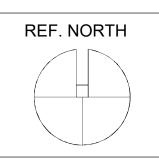
**ENGINEERS & ASSOCIATES** 

370 GRAND PARK CIRCLE SAN JOSE, CA 95136 Tel: (408) 509-3461 aliabiani@sbcglobal.net



12/19/2022 DATE: PROJECT No. 39-071322

**COVER SHEET** 



(C)2022

MFA CONSTRUCTION AND ENGINEERING



PINK CRAPE MYRTLE



TUPELO



YEW PINE

LITTLE GEM MAGNOLIA



AMBER MONROVIA



ELIJAH BLUE FESCUE



SISKIYOU BLUE FESCUE



CEMENT PLASTER - PAINTED LIGHT TAN



BOARD AND BATTEN SIDING - PAINTED LIGHT GREY



### VIEW 2 FACING TYPE 'B' UNITS



MFA

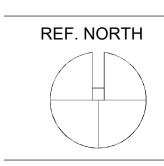
**ENGINEERS & ASSOCIATES** 

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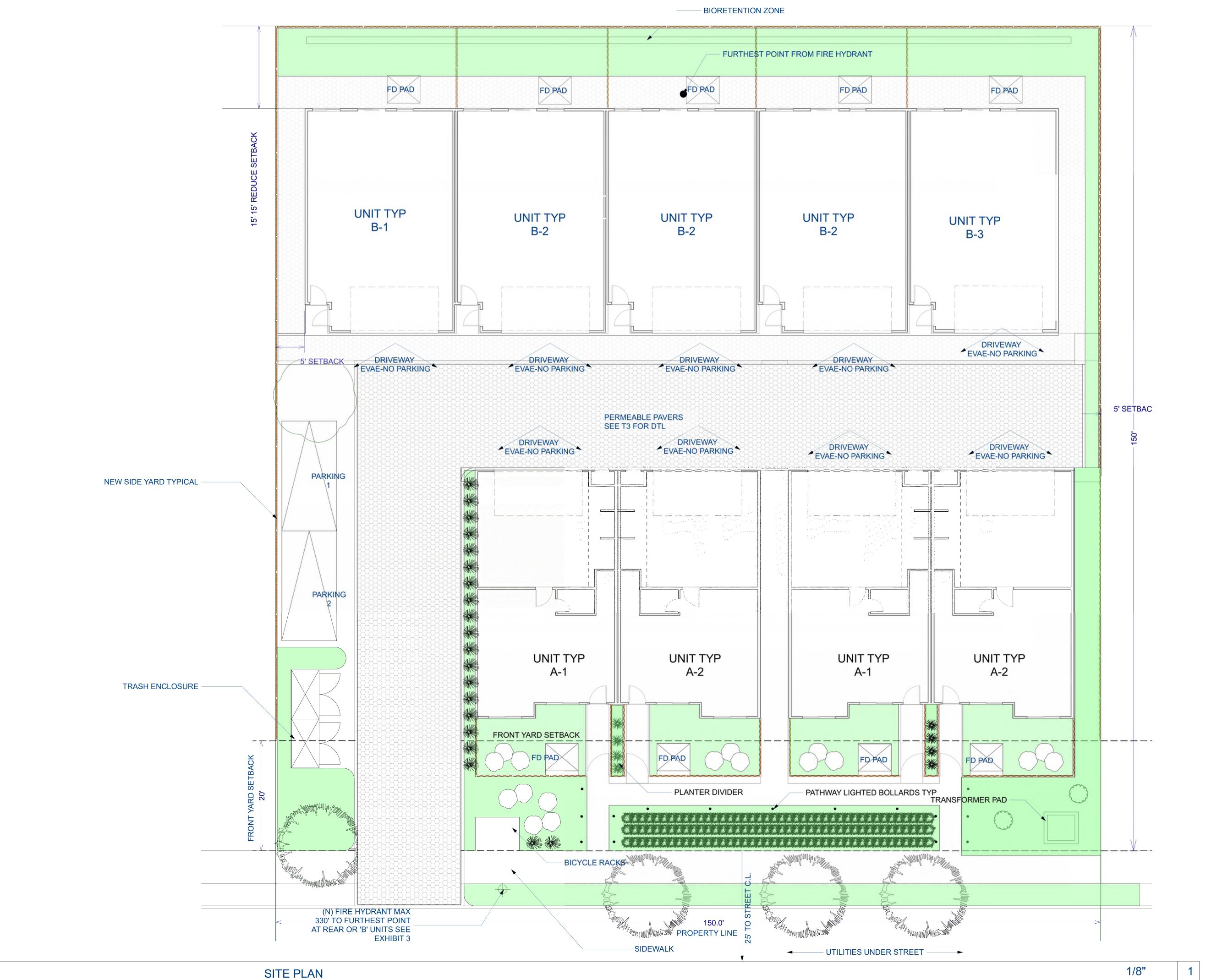


DATE:	12/17/2022		
PROJECT No.	39-071322		

3D VIEWS AND **MATERIALS** 



G1.0



MFA

**ENGINEERS & ASSOCIATES** 

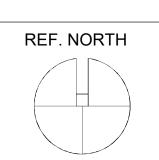
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HEENEY ST TOWNHOUSES

DATE:	12/15/2022
PROJECT No.	39-071322

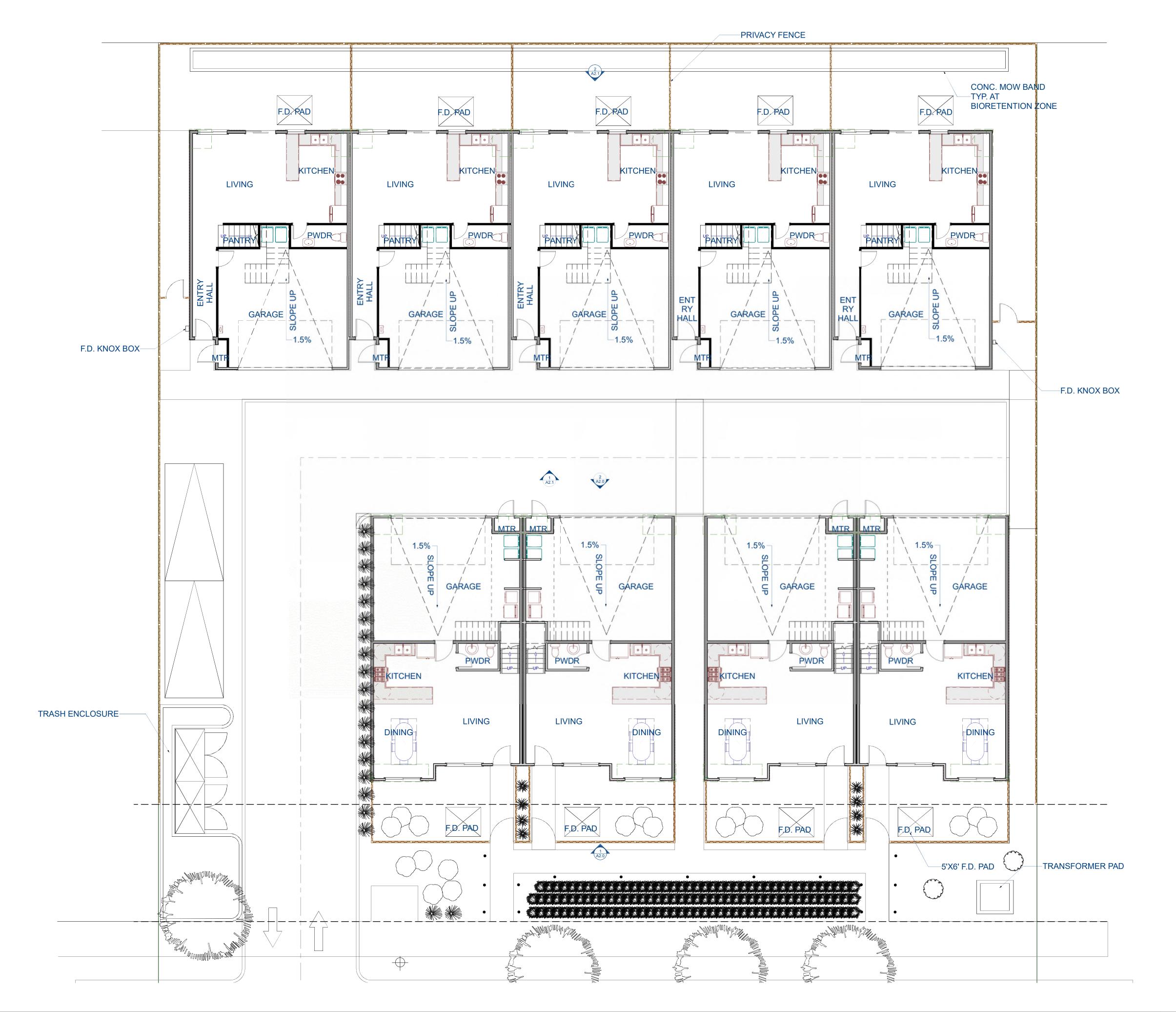
SITE PLAN



**A1.0** 

C)2022

MFA CONSTRUCTION AND ENGINEERING





**ENGINEERS & ASSOCIATES** 

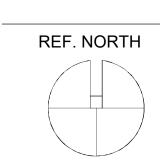
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SHEENEY ST TOWNHOUSES

DATE:	12/16/2022
PROJECT No.	39-071322

LEVEL ONE



A1.1

C)2022

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### MFA

**ENGINEERS & ASSOCIATES** 

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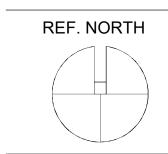


### TOWNHOUSES

TENEY ST TOWN

DATE:	12/15/2022
PROJECT No.	39-071322

### **LEVEL TWO**



**A1.2** 

C)2022

MFA CONSTRUCTION AND ENGINEERING

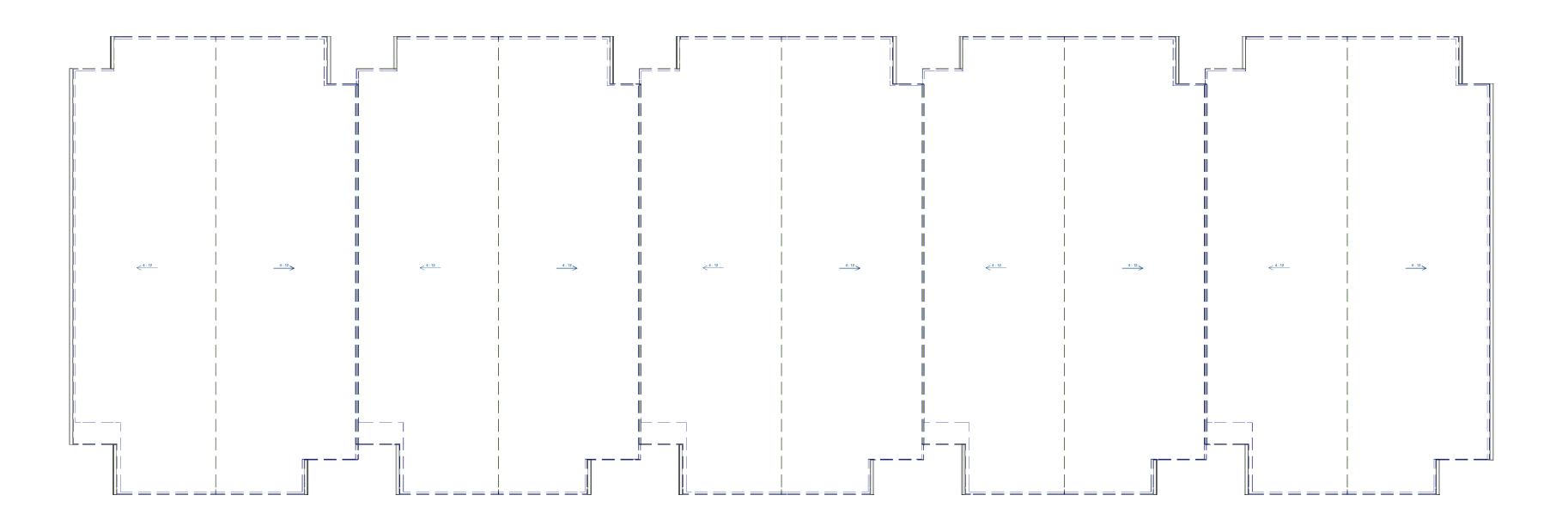


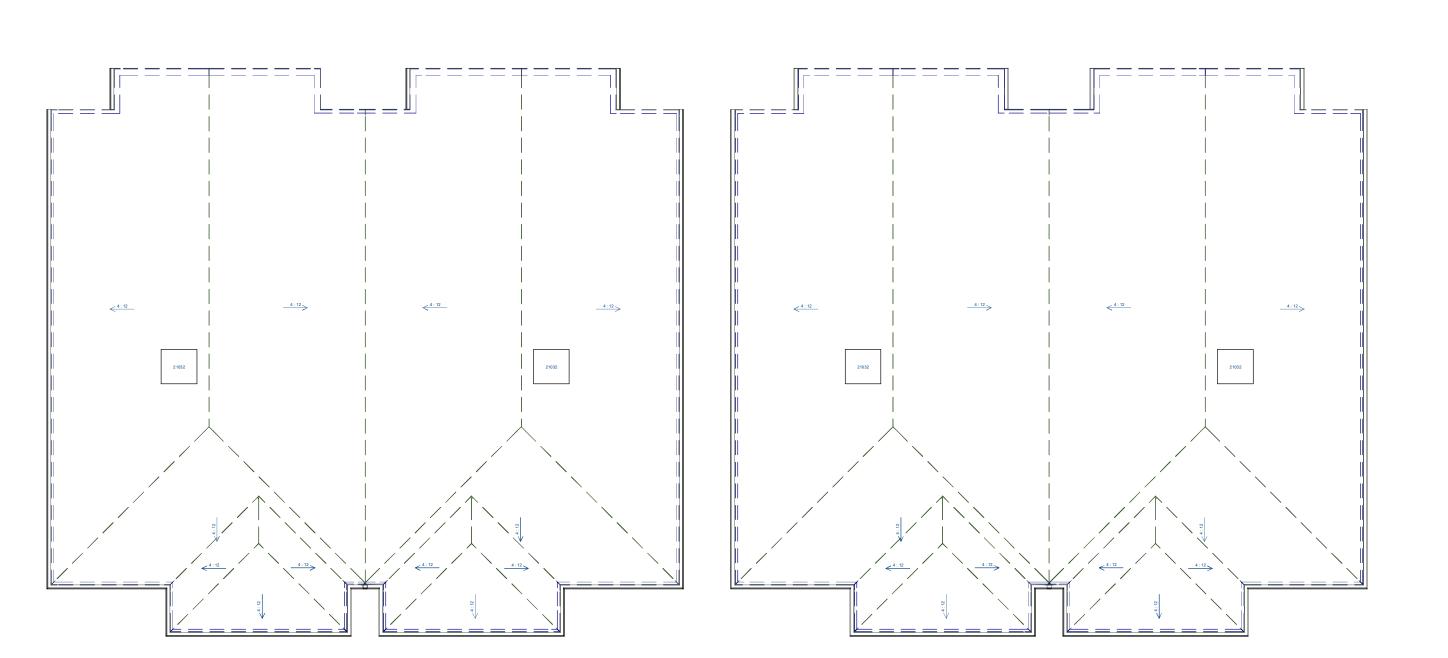


1 A2.0

LEVEL TWO

1/8"







**ENGINEERS & ASSOCIATES** 

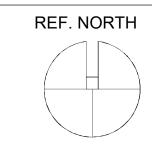
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## ENEY ST TOWNHOUSI

DATE:	12/15/2022
PROJECT No.	39-071322

### **ROOF PLAN**



A1.3

### MFA

**ENGINEERS & ASSOCIATES** 

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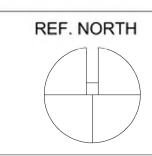
REAR ELEVATION UNITS 'A'

## CHEENEY ST TOWNHOUSES

PRESIDENTIAL ASPHALT SHINGLES
TO T.O.R.

DATE:	12/15/2022
PROJECT No.	39-071322

ELEVATIONS UNITS 'A'



**A2.0** 

### MFA

**ENGINEERS & ASSOCIATES** 

370 GRAND PARK CIRCLE SAN JOSE, CA 95136 Tel: (408) 509-3461 aliabiani@sbcglobal.net



- DARK GREY BOARD AND BATTEN



- 3-COAT STUCCO OVER 2-LAYERS OF GRADE 'D' BUILDING PAPER ACRYLIC SMOOTH FINISH

REAR ELEVATION UNITS 'B'

3/16



3-COAT STUCCO OVER 2-LAYERS OF GRADE
- 'D' BUILDING PAPER ACRYLIC SMOOTH **FINISH** 

DATE:

PROJECT No.

REF. NORTH A2.1

**ELEVATIONS** 

UNITS 'B'

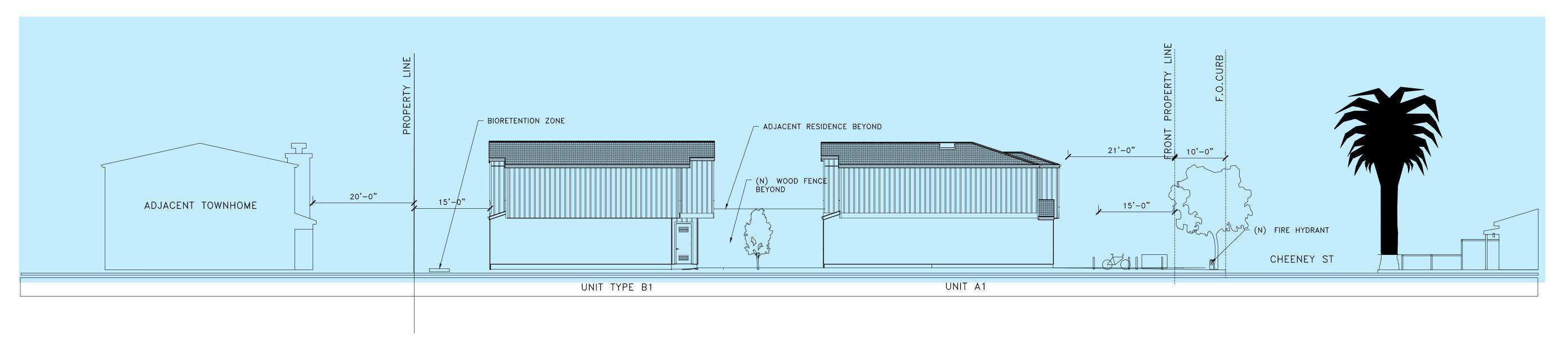
C2022

MFA CONSTRUCTION AND ENGINEERING

12/15/2022

39-071322

## ADJACENT RESIDENCE AND OUTSULDING ADJACENT RESIDENCE ADJACENT RESIDENCE RESIDENCE



### MFA

ENGINEERS & ASSOCIATES
370 GRAND PARK CIRCLE
SAN JOSE CA, 95136
TEL: (408) 509-3464
alialbiani@sbcglobal.net

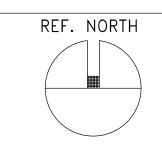


### CHEENEY ST TOWNHOUSES 4249 CHEENEY ST. SANTA CLARA, CA 95054

	REVISION	DATE
1		
2		
<u>3</u>		

DATE:	August 23, 2022
PROJECT No.	10-042122

### SITE SECTIONS



**A3.0** 

SITE SECTION N-S

3/32"

### GRADING AND DRAINAGE IMPROVEMENTS

### STANDARD GRADING NOTES

- PRIOR TO COMMENCEMENT OF ANY EARTHWORK/GRADING ACTIVITIES. THE PERMITTEE SHALL ARRANGE A PRE-CONSTRUCTION ION MEETING. THE MEETING SHALL INCLUDE THE CITY OF WATSONVILLE GRADING INSPECTOR, THE GRADING CONTRACTOR AND THE PROJECT SOILS ENGINEER. THE PERMITTEE OR REPRESENTATIVE SHALL ARRANGE THE PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTHWORK / GRADING ACTIVITIES.
- APPROVAL OF THIS PLAN APPLIES ONLY TO THE EXCAVATION, PLACEMENT AND COMPACTION OF NATURAL EARTH MATERIALS. THIS APPROVAL DOES NOT CONFER ANY RIGHTS OF ENTRY TO EITHER PUBLIC PROPERTY OR THE PRIVATE PROPERTY OF OTHERS. APPROVAL OF THIS PLAN ALSO DOES NOT CONSTITUTE APPROVAL OF ANY IMPROVEMENTS. PROPOSED IMPROVEMENTS ARE SUBJECT TO REVIEW AND APPROVAL BY THE RESPONSIBLE AUTHORITIES AND ALL OTHER REQUIRED PERMITS SHALL BE OBTAINED.
- IT SHALL BE THE RESPONSIBILITY OF THE PERMITTEE TO IDENTIFY, LOCATE AND PROTECT ALL UNDERGROUND FACILITIES.
- THE PERMITTEE SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHTS-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC, SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
- ALL GRADING AND EARTHWORK ACTIVITIES SHALL BE PERFORMED IN SUCH A MANNER AS TO COMPLY WITH STANDARDS ESTABLISHED BY THE BAY AREA AIR QUALITY MANAGEMENT DISTRICT FOR AIRBORNE
- ALL WATER WELL LOCATIONS ON SITE SHALL BE MAINTAINED OR ABANDONED ACCORDING TO CURRENT REGULATIONS ADMINISTERED BY THE CITY WATER DISTRICT.
- THIS PLAN DOES NOT APPROVE REMOVAL OF TREES. APPROPRIATE TREE REMOVAL PERMITS SHALL BE OBTAINED FROM THE COMMUNITY DEVELOPMENT DEPARTMENT. ANY REQUIRED TREE PROTECTION MEASURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
- THE PROJECT CIVIL ENGINEER: LC ENGINEERING, 598 F SANTA CLARA STREET #270, SAN JOSE, CA 95112 HAS DESIGNED THIS PROJECT TO COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED BY:
- ALL GRADING AND EARTHWORK ACTIVITIES SHALL CONFORM TO THE APPROVED PLANS AND SPECIFICATIONS ALL GRADING AND EARTHWORK ACTIVITIES SHALL BE OBSERVED AND APPROVED BY THE SOILS ENGINEER. THE SOILS ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO ANY GRADING OR EARTHWORK ACTIVITIES. UNOBSERVED OR UNAPPROVED WORK SHALL BE REMOVED AND REPLACED UNDER OBSERVATION OF THE PROJECT SOILS ENGINEER.
- 10. ALL CONSTRUCTION SITES ARE TO BE WINTERIZED WITH APPROPRIATE EROSION CONTROL MEASURES IN PLACE FROM OCTOBER 15TH TO APRIL 15TH OF EACH YEAR.
- GRADING ACTIVITIES ARE ONLY ALLOWED MONDAY THROUGH FRIDAY, 7:30 AM TO 6:00 PM.
- 12. ALL GRADING SHALL COMPLY WITH THE CITY OF SANTA CLARA STANDARD SPECIFICATIONS, AND CHAPTER 18 AND APPENDIX 33 OF THE UNIFORM BUILDING 11/26/2018.
- 13. THE DESIGN SHOWN HEREON IS NECESSARY AND REASONABLE AND DOES NOT RESTRICT ANY HISTORIC DRAINAGE FLOWS FROM ADJACENT PROPERTIES NOR INCREASE DRAINAGE TO ADJACENT PROPERTIES.
- 14. THE EXISTENCE AND APPROXIMATE LOCATIONS OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN ON THESE PLANS WERE DETERMINED BY THE ENGINEER OF WORK BY SEARCHING THE AVAILABLE PUBLIC RECORDS. THEY ARE SHOWN FOR GENERAL INFORMATION ONLY.
- 15. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY UTILITY LOCATIONS WITH THE APPROPRIATE AGENCY. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES, STRUCTURES AND ANY OTHER IMPROVEMENTS FOUND AT THE WORK SITE.
- 16. ALL ROOF DOWNSPOUTS TO BE DIRECTED AWAY FROM HOME TO SUITABLE DRAINAGE FACILITY VIA DOWNSPOUTS, PAVEMENT AND COLLECTION PIPES THAT DISCHARGE DIRECTLY TO THE STORM DRAIN SYSTEM.
- 17. EROSION CONTROL PLANTING AND OTHER SILT RETENTION OR EROSION CONTROL MEASURES MAY BE REQUIRED IN ALL GRADED AREAS. SEE LANDSCAPE PLAN, IF APPLICABLE, FOR DETAILS OF PLANTING.
- DRAINAGE, INCLUDING ALL ROOF AND PATIO DRAINS, SHALL BE DIRECTED AWAY FROM THE STRUCTURE. IT SHALL BE THE OWNER'S AND CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE DRAINAGE SYSTEM FACILITIES SHOWN HEREON ARE KEPT CLEAR OF OBSTRUCTIONS AND THE CONTRACTOR SHALL PROVIDE UNDERGROUND PIPES AND REGRADE AREAS THAT WILL NOT DRAIN AFTER FINAL GRADING. THE GROUND ADJACENT TO THE BUILDING SHALL SLOPE AWAY WITH A MINIMUM SLOPE OF 2%.
- 19. THIS PLAN IS A PART OF PROJECT PLANS. SEE ARCHITECT AND LANDSCAPE PLANS. IF APPLICABLE, FOR DETAILS AND DIMENSIONS. FENCES AND WALLS ARE NOT A PART OF THESE PLANS.
- 20. SOIL ENGINEER TO PROVIDE FINAL LETTER OF INSPECTION AT COMPLETION OF THE GRADING IN ACCORDANCE WITH APPENDIX J. 2016 OF THE UNIFORM BUILDING CODE.
- 21. CONTRACTOR SHALL GRADE EVENLY BETWEEN SPOT ELEVATIONS SHOWN.
- 22. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE O.S.H.A. REGULATIONS.
- 23. CONTRACTOR TO VERIFY ALL EXISTING INVERT ELEVATIONS FOR STORM DRAIN CONSTRUCTION PRIOR TO ANY SITE WORK. SHOULD DISCREPANCIES EXIST BETWEEN THE ACTUAL ELEVATIONS AND LOCATIONS OF EXISTING STORM DRAIN CONNECTIONS AND THOSE AS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL NOTIFY ENGINEER OF WORK BEFORE ADJUSTING THE DESIGN.
- 24. CONTRACTOR SHALL UNCOVER AND EXPOSE ALL EXISTING UTILITY, SEWER AND STORM DRAIN LINES WHERE THEY ARE TO BE CROSSED ABOVE OR BELOW BY THE NEW FACILITY BEING CONSTRUCTED IN ORDER TO VERIFY THE GRADE AND TO ASSURE THAT THERE IS SUFFICIENT CLEARANCE. HE OR SHE SHALL CALL THE ENGINEER OF WORK REGARDING POTENTIAL CONFLICTS BEFORE FIELD WORK BEGINS.
- 25. EARTHWORK QUANTITIES SHOWN ON THESE PLANS ARE ONLY TO BE USED TO DETERMINE THE AMOUNT OF THE GRADING PERMIT.
- 26. ADJUSTMENTS TO BUILDING PAD ELEVATIONS OR PARKING LOT GRADES TO ACHIEVE EARTHWORK BALANCE SHALL BE MADE ONLY WITH APPROVAL OF THE ENGINEER.
- 27. SOIL ENGINEER WILL NOT DIRECTLY CONTROL THE PHYSICAL ACTIVITIES OF THE CONTRACTOR OR ANY SUBCONTRACTORS OF THE CONTRACTOR OR SUBCONTRACTOR'S WORKMEN'S ACCOMPLISHMENT OF WORK ON THE PROJECT. CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR WORKING CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
- 28. DURING THE PROGRESS OF THE WORK. THE CONTRACTOR SHALL KEEP THE PREMISES OCCUPIED BY HIM IN A NEAT AND CLEAN CONDITION. DISPOSING OF REFUSE IN A SATISFACTORY MANNER AS OFTEN AS DIRECTED, OR AS MAY BE NECESSARY SO THAT THERE SHALL AT NO TIME BE ANY UNSIGHTLY ACCUMULATION OF RUBBISH.
- 29. IF HUMAN REMAINS ARE DISCOVERED DURING THE CONSTRUCTION, UNLESS THE CORONER HAS NOTIFIED THE PERMITTEE IN WRITING THAT THE REMAINS DISCOVERED HAVE BEEN DETERMINED NOT TO BE NATIVE AMERICAN, THE PERMITTEE SHALL NOTIFY ALL PERSONS ON THE COUNTY'S NATIVE AMERICAN NOTIFICATION LIST OF SUCH DISCOVERY. SUCH NOTIFICATION SHALL BE SENT BY FIRST CLASS U.S. MAIL WITHIN SEVEN (7) DAYS OF THE DATE ON WHICH THE PERMITTEE NOTIFIED THE CORONER AND SHALL STATE THAT THE CORONER HAS BEEN NOTIFIED IN ACCORDANCE WITH CALIFORNIA STATE LAW.
- 30. ANY ABANDONED UNDERGROUND PIPES EXPOSED DURING CONSTRUCTION SHALL BE REMOVED, ADEQUATELY PLUGGED. OR A COMBINATION OF BOTH IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY/COUNTY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL UTILITIES. FOR LOCATION OF UNDERGROUND UTILITIES, OR FOR EMERGENCY ASSISTANCE, CALL: UNDERGROUND SERVICE ALERT (USA)
- 32. THE CONTRACTOR SHALL ADVISE THE OWNER OF APPROPRIATE MAINTENANCE PROCEDURES OF DRAINAGE SYSTEM.

- 33. ON GRADED SITES. THE TOP OF ANY EXTERIOR FOUNDATION SHALL EXTEND ABOVE THE ELEVATION OF 1. CONSTRUCTION SITE SHALL BE ENCLOSED BY 6' OPAQUE FENCE AT ALL TIMES DURING THE STREET GUTTER AT POINT OF DISCHARGE OR THE INLET OF AN APPROVED DRAINAGE DEVICE A MINIMUM OF 12 INCHES (305 mm) PLUS 2%. THE BUILDING OFFICIAL MAY APPROVE ALTERNATE ELEVATIONS, PROVIDED IT CAN BE DEMONSTRATED THAT REQUIRED DRAINAGE TO THE POINT OF DISCHARGE AND AWAY FROM THE STRUCTURE IS PROVIDED AT ALL LOCATIONS ON THE SITE.
- COMPLIANCE WITH THE LOCAL NON-POINT SOURCE ORDINANCE CONCERNING DISCHARGE OF MATERIALS TO THE STORM DRAINAGE SYSTEM SHALL BE THE RESPONSIBILITY OF THE GRADING CONTRACTOR.
- 35. ALL CONSTRUCTION SHALL COMPLY WITH SECTION 24 OF THE STATE OF CALIFORNIA ADMINISTRATIVE CODE AND CHAPTERS 10 AND 11 OF THE 2016 UNIFORM BUILDING CODE.

### DUST CONTROL

- ALL EXPOSED OR DISTURBED SOIL SURFACES SHALL BE WATERED AS NECESSARY, BUT NOT LESS THAN TWICE DAILY TO CONTROL DUST.
- AREAS OF DIGGING AND GRADING OPERATIONS SHALL BE CONSISTENTLY WATERED TO CONTROL DUST.
- GRADING OR OTHER DUST-PRODUCING ACTIVITIES SHALL BE SUSPENDED DURING PERIODS OF HIGH WIND WHEN DUST IS READILY VISIBLE IN THE AIR.
- 4. STOCKPILES OF SOIL, DEBRIS, SAND, OR OTHER DUST-PRODUCING MATERIALS SHALL BE WATERED OR
- THE CONSTRUCTION AREA AND THE SURROUNDING STREETS SHALL BE SWEPT (NO WATER) AS NECESSARY, BUT NOT LESS THAN TWICE DAILY.

- TREE SIZES AND TYPES ARE APPROXIMATE AND SHOULD BE VERIFIED BY A CERTIFIED ARBORIST.
- THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THIS MAP WERE BASED ON MARKINGS MADE IN THE FIELD BY OTHERS. THERE MAY BE OTHER UNDERGROUND UTILITIES THAT EXIST ON THIS SITE THAT ARE NOT SHOWN ON THIS PLAN. CLEARLY DEFINED MARKINGS THAT EXISTED AT THE TIME OF THE SURVEY WERE LOCATED AND ARE SHOWN ON THIS PLAN.
- PRIOR TO REQUESTING A FOUNDATION INSPECTION BY THE CITY, THE GEOTECHNICAL ENGINEER OR CIVIL ENGINEER WHO PREPARED THE SOIL INVESTIGATION SHALL PROVIDE A FIELD REPORT (IN WRITING) WHICH SHALL STATE THE FOLLOWING:
  - A. THE BUILDING PAD WAS PREPARED AND COMPACTED IN ACCORDANCE WITH THE SOIL REPORT AND SPECIFICATIONS.
  - B. THE FOUNDATION AND/OR PIER EXCAVATION, DEPTH AND BACKFILL MATERIALS, AND DRAINAGE (IF APPLICABLE) SUBSTANTIALLY CONFORM TO THE SOIL REPORT AND APPROVED PLANS.
- PRIOR TO FINAL INSPECTION FOR ANY BUILDING OR STRUCTURE, THE GEOTECHNICAL ENGINEER OR CIVIL ENGINEER WHO PREPARED THE SOIL INVESTIGATION SHALL ISSUE A FINAL REPORT STATING THE COMPLETED PAD, FOUNDATION, FINISH GRADING, AND ASSOCIATED SITE WORK SUBSTANTIALLY CONFORM TO THE APPROVED PLANS, SPECIFICATIONS, AND INVESTIGATION.

### �BENCHMARK B−8A

ELEVATION = 13.77'. LOCATED AT AGNEW ROAD, SOUTH SIDE, OPPOSITE GARRITY, CHISELED CROSS ON TOP OF CATCH BASIN HOOD.

### BASIS OF BEARINGS

THE BEARINGS SHOWN ON THIS MAP ARE BASED ON THE CENTERLINE OF CHEENEY STREET, AS FOUND MONUMENTED AS N28'14'30"W SHOWN ON PARCEL MAP. RECORDED IN BOOK 476 OF MAPS, AT PAGE 37, SANTA CLARA COUNTY RECORDS.

### SCOPE OF WORK

- 1. DEMOLISH EXISTING DRIVEWAY, BRICKS, SHED AND REMOVE TREES
- 2. REMOVE EXISTING CURB & GUTTERS, DRIVEWAY APPROACH AND SIDEWALK, UTILITIES. RELOCATE EXISTING POWER POLES WITHIN RIGHT OF WAY
- 3. 9 TOWNHOUSE DEVELOPMENT AND 10 LOT SUBDIVISION
- 4. GRADE DRIVEWAY & HOUSES; INSTALL DRAINAGE FACILITIES, EROSION AND SEDIMENT CONTROL, DRIVEWAY AND DRIVEWAY APPROACH, DRAINAGE IMPROVEMENTS; & SEED ALL DISTURBED AREAS.
- 5. CONSTRUCT CURB & GUTTERS, DRIVEWAY APPROACH AND SIDEWALK WITHIN
- 6. INSTALL UTILITY LINES AND SERVICES ON-SITE AND WITHIN RIGHT OF WAY
- 7. THE DEVELOPER IS RESPONSIBLE FOR THE INSTALLATION OF THE WORK PROPOSED ON THE EROSION CONTROL PLAN. THE ENGINEER OF RECORD IS RESPONSIBLE FOR THE DESIGN OF THE EROSION CONTROL PLANS AND ANY MODIFICATIONS OF THE EROSION CONTROL PLANS TO PREVENT ILLICIT DISCHARGES FROM THE SITE DURING CONSTRUCTION

### PROJECT NOTES:

- CONSTRUCTION. 2. NO CONSTRUCTION MATERIAL, EQUIPMENT, PORTABLE TOILETS, TRASH CONTAINERS, OR DEBRIS SHALL BE PLACED IN THE PUBLIC RIGHT-OF-WAY.
- A TRASH CONTAINER SHALL BE MAINTAINED ON SITE AT ALL TIMES AND DEBRIS ON SITE
- WHICH COULD OTHERWISE BLOW AWAY, SHALL BE REGULARLY COLLECTED AND PLACED IN 4. ALL CONSTRUCTION DEBRIS (WOOD SCRAPS AND OTHER DEBRIS, WHICH CANNOT BLOW AWAY)
- SHALL BE PILED WITHIN THE PROPERTY LINES OF THE PROJECT IN A NEAT AND SAFE MANNER. 5. THE PROJECT SHALL HAVE A SIGNAGE VIEWABLE FROM THE PUBLIC STREET THAT INDICATES THE HOURS OF CONSTRUCTION AS: MON- FRI FROM 7:30 AM TO 6 PM. SATURDAYS FROM
- OBTAIN AN ENCROACHMENT PERMIT FROM PUBLIC WORKS PRIOR TO THE START OF ANY DRIVEWAY APPROACH DEMOLITION OR CONSTRUCTION AT THE STREET. CONTACT PUBLIC WORKS ENGINEER FOR INFORMATION REGARDING OBTAINING AN ENCROACHMENT PERMIT.
- 7. ALL ELECTRIC LINES, COMMUNICATION LINES AND APPURTENANCES, INCLUDING ALL PUBLIC UTILITY, CATV AND TELEGRAPH SYSTEMS, SHALL BE LOCATED AND INSTALLED UNDERGROUND. PRIOR TO REQUESTING A FOUNDATION INSPECTION BY THE CITY, THE GEOTECHNICAL ENGINEER OR CIVIL ENGINEER WHO PREPARED THE SOIL INVESTIGATION SHALL PROVIDE A FIELD REPORT (IN WRITING) WHICH SHALL STATE THE FOLLOWING:
  - THE BUILDING PAD WAS PREPARED AND COMPACTED IN ACCORDANCE WITH THE SOIL REPORT AND SPECIFICATIONS.
  - THE FOUNDATION AND/OR PIER EXCAVATION. DEPTH AND BACKFILL MATERIALS. AND DRAINAGE (IF APPLICABLE) SUBSTANTIALLY CONFORM TO THE SOIL REPORT AND APPROVED PLANS.
- 9. PRIOR TO FINAL INSPECTION FOR ANY BUILDING OR STRUCTURE, THE GEOTECHNICAL ENGINEER OR CIVIL ENGINEER WHO PREPARED THE SOIL INVESTIGATION SHALL ISSUE A FINAL REPORT STATING THE COMPLETED PAD, FOUNDATION, FINISH GRADING, AND ASSOCIATED SITE WORK SUBSTANTIALLY CONFORM TO THE APPROVED PLANS, SPECIFICATIONS, AND INVESTIGATION.
- 10. PRIOR TO THE COMMENCEMENT OF ANY EARTHWORK OR GRADING ACTIVITIES, INCLUDING BASEMENT EXCAVATION AND TRENCHING THAT EXCEEDS 5 FOOT IN DEPTH, THE PERMITTEE SHALL ARRANGE A PRE-CONSTRUCTION MEETING. THE MEETING SHALL INCLUDE THE CITY OF WATSONVILLE GRADING INSPECTOR. THE GRADING CONTRACTOR AND THE PROJECT SOILS ENGINEER. the PERMITTEE OR REPRESENTATIVE SHALL ARRANGE THE PRE-CONSTRUCTION MEETING AT LEAST 48 HOURS PRIOR TO THE START OF ANY EARTHWORK/ GRADING ACTIVITIES.
- 11. EXCAVATION CUTS EXCEEDING 5 FEET TYPICALLY REQUIRE A DOSH PERMIT. ALL EXCAVATIONS MUST CONFORM TO APPLICABLE OSHA AND CAL OSHA REQUIREMENTS. CONTACT CALIFORNIA DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH (DOSH) FOR INFORMATION ABOUT REQUIRED PERMITS. AT THE PRE-CONSTRUCTION MEETING, THE EXCAVATION CONTRACTOR SHALL SUBMIT PROOF, TO THE CITY BUILDING INSPECTOR, THAT SHOWS HE OR SHE HAS RECEIVED SUCH A PERMIT FROM DOSH.
- 12. PRIOR TO ANY GRADING, SCRAPING OR TRENCHING WITHIN/ UNDER THE CANOPY OF A PROTECTED TREE, A CERTIFIED ARBORIST SHALL BE RETAINED TO PROVIDE SUPERVISION AND RECOMMENDATIONS TO MINIMIZE POSSIBLE DAMAGE TO THE TREE. THE PROPOSED TRENCHING SHALL BE APPROVED BY THE CITY OF WATSONVILLE PLANNING DEPARTMENT PRIOR TO COMMENCING DIGGING.

 PROJECT NAME: CHEENEY STREET TOWNHOUSES

2. ASSESSOR PARCEL NO: 104-12-025 & 104-12-026

SITE ADDRESS: CHEENEY STREET, SANTA CLARA, CA 95054

LOT AREA: 0.2± ACRES (GROSS AREA)

5. OWNER: GROUND ZERO CONSTRUCTION

ADDRESS: 101 SOUTH SANTA CRUZ AVE, UNIT 33192, LOS GATOS, CA 95031

TELEPHONE: (408)-710-6725

6. ENGINEER: NINH M LE, PE

ADDRESS: 598 E SANTA CLARA ST #270, SAN JOSE, CA 95112 TELEPHONE: (408)-806-7187

7. SURVEYOR: TOM H. MILO

ADDRESS: 2250 BOHANNON DRIVE, SAN CLARA, CA 95050

TELEPHONE: (408)-761-5867

RM-3 MULTIPLE RESIDENTIAL-HIGH DENSITY EXISTING ZONING:

PROPOSED ZONING: NO CHANGE VACANT

10. EXISTING USE: 11. PROPOSED USE: RESIDENTIAL

12. PROPOSED NUMBER OF LOTS: 9 LOT

- 13. ALL DIMENSIONS AND PROPOSED GRADING ARE PRELIMINARY AND SUBJECT TO
- FINAL DESIGN 14. PROPOSED WATER, SANITARY SEWER, AND STORM DRAIN WILL BE CONSTRUCTED AS PER LOCAL AGENCY STANDARDS.
- 15. WATER: SANTA CLARA WATER AND UTILITIES
- 16. SEWER: SANTA CLARA WATER AND UTILITIES
- 17. STORM: SANTA CLARA WATER AND UTILITIES
- 18. GAS & ELECTRIC: PG&E 19. TELEPHONE:
- 20. CABLE TV: COMCAST
- 21. IF EXISTING WATER METER IS NOT BEING USED, IT SHALL BE REMOVED AND CAPPED AT MAIN
- 22. IF EXISTING INLETS ARE NOT BEING USED, THEY SHALL BE REMOVED AND CAPPED
- 23. REMOVE ALL EXISTING IMPROVEMENT WITHIN THE PROPERTY LIMITS

EARTHWORK QUANTITIES

IMPORT 148 CY

EXPORT \_\_\_\_\_O\_CY

 $CUT = 21 CY ; MAXIMUM CUT DEPTH = 0.50'\pm$ 

FILL = 169 CY; MAXIMUM CUT DEPTH =  $0.66'\pm$ 

EARTHWORK QUANTITIES AS SHOWN ON THE PLAN IS FOR

INFORMATION ONLY. CONTRACTOR TO CALCULATE HIS/HER

OWN EARTHWORK QUANTITIES FOR BIDDING PURPOSE.

### SHEET INDEX:

SHEET C1: TITLE SHEET SHEET C2: DEMOLITION PLAN

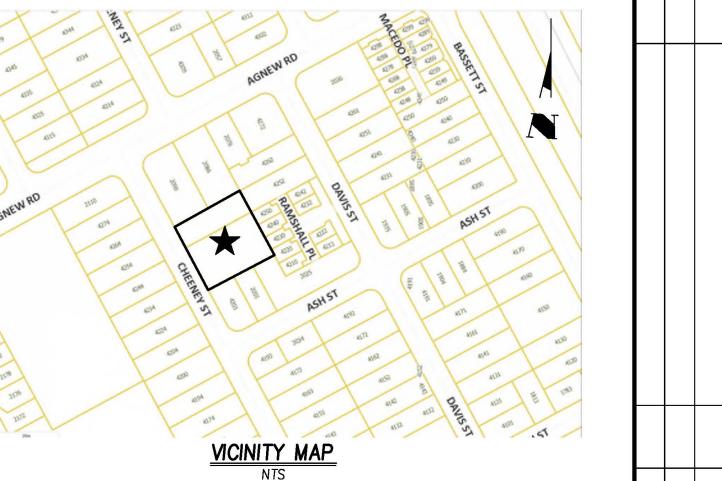
SHEET C3: PRE & POST DEVELOPMENT PLAN SHEET C4: STORMWATER CONTROL PLAN

SHEET C5: GRADING AND DRAINAGE PLAN

SHEET C6: BUILDING CROSS SECTIONS & DETAILS SHEET C7: UTILITY PLAN

SHEET C8: EROSION CONTROL PLAN SHEET C9: EROSION CONTROL DETAILS





CED

COP

CSD

FA

**ELEV** 

EM

**EOH** 

MW

NTS

OH

**PSDRE** 

PWLE

**PVMT** 

PVC

RW

SS

STA

TYP

WLK

WM

LIP OF GUTTER

MONUMENT WELL

ORIGINAL GROUND

PAD ELEVATION

PROPERTY LINE

POWER POLE

**PAVEMENT** 

RADIUS

STATION

SIDEWALK

TOP OF BANK

TOP OF CURB

TOP OF GRATE

TOP OF WALL

TYPICAL

WATER

**VEGETATED** 

WALKWAY

WATER METER

WATER VALVE

PAVEMENT FINISH GRADE

PUBLIC SERVICE EASEMENT

SANITARY SEWER/LATERAL

SILICON VALLEY POWER

PRIVATE SANITARY SEWER EASEMENT

UNDERGROUND ELECTRICAL EASEMENT

PRIVATE WATER LINE EASEMENT

PRIVATE STORM DRAIN

RELEASE EASEMENT

POLYVINYL CHLORIDE

RETAINING WALL

RIGHT OF WAY

STORM DRAIN

NOT TO SCALE

**OVERHEAD** 

MAXIMUM

MANHOLE

MINIMUM

LANDSCAPED AREA

<del></del>								ᅩ
	NTS							
LEGEND & ABBREVIATIONS			<u> </u>		<u> </u>			_
AGGREGATE BASE	•	BENCHMARK						
ASPHALT CONCRETE		BOUNDARY						
BUILDING	CB	CATCH BASIN						L
BUILDING SETBACK LINE				z	3 年	DATE		
BOTTOM OF WALL/BACK OF WALK		COBBLE ROCK ENERGY DISSIPATOR		12/02/22	DATE 12 /02 /22	<u>'</u> į ≦		
COBBLE ROCK ENERGY DISSIPATOR CURB & GUTTER	0 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	CONCRETE			2/6	<u>,  </u>		
CENTERLINE	<del></del>	CONTOUR: EXISTING		-	-	-		
SANITARY SEWER CLEANOUT	<del></del>	CONTOUR: PROPOSED OR NEW						
CURB OPENING	100.46	DESIGN GRADE						
CONCRETE		DOWNSPOUT WITH SPLASHBLOCK						
CITY STANDARD DETAIL		DOWNSPOUT WITH SPLASHBLOCK					NOTED	
DRAINAGE INLET	DIV ⊗	DIVERSION VALVE					윈	
DOWNSPOUT	<b>S.</b> 4	EXTENDABLE BACKWATER VALVE				V	AS	
DRIVEWAY EASEMENT	M	(SEE PROJECT NOTES)			<u>S</u>	I¥	삙	L
ELEVATION		DRAINAGE SWALE		PT	DES PT	DRAWN	SCALE	0
ELECTRIC METER		EASEMENT LINE						_
FLECTRIC OVERHEAD								
	1.70 <b>OR (101.70)</b>	EXISTING ELEVATION				<b>-</b> I	_	
EDGE OF PAVEMENT	-X-X-	EXISTING FENCE					#270	
EXISTING	· (·)~	EXISTING TREE TO BE REMOVED				<b>7</b>	#2	
EMERGENCY VEHICLE ACCESS EASEMENT FACE OF CURB		EXISTING TREE TO REMAIN			7	<b>▘</b> ▮	あ <sub></sub>	
FOUND					Z	-		V
FINISH ELEVATION OF SUBFLOOR	<u>LEMI</u>	ELECTRICAL METER			_	7	Clara S	2
GROUND FINISH GRADE	•	FOUND IRON PIPE AT PROPERTY CORNER			0		<del>ر</del> ة م	ח
FIRE HYDRANT		FILTER FABRIC ROLLS				-	ta C	Í
FLOW LINE	<u> </u>	GAS METER			Ш		Santa	
GARAGE SLAB ELEVATION/GAS LINE	G∨						38	ŭ
GAS METER		GAS VALVE			Ш		E Sant	כ
HIGH POINT	~~~	GRADE TO DRAIN				5		
INVERT IRON PIPE	-0	GUY POLE					598	ğ
JOINT TRENCH	Ć	GUY WIRE ANCHOR			<b>_</b>	<b>=</b>	-/ 0	٠
LID OF OUTTED					0.00	=		

FXISTING FIRE HYDRANT HYDRANT: PROPOSED OR NEW INLET 6"x6" GRATE OTHERWISE NOTED JOINT POLE LIGHTING LIGHTING POLE OVERLAND FLOW DIRECTION

PGE BOX POST CONSTRUCTION STORM WATER POLLUTION CONTROL MEASURE PROJECT SITE RETAINING WALL — — — RIGHT OF WAY

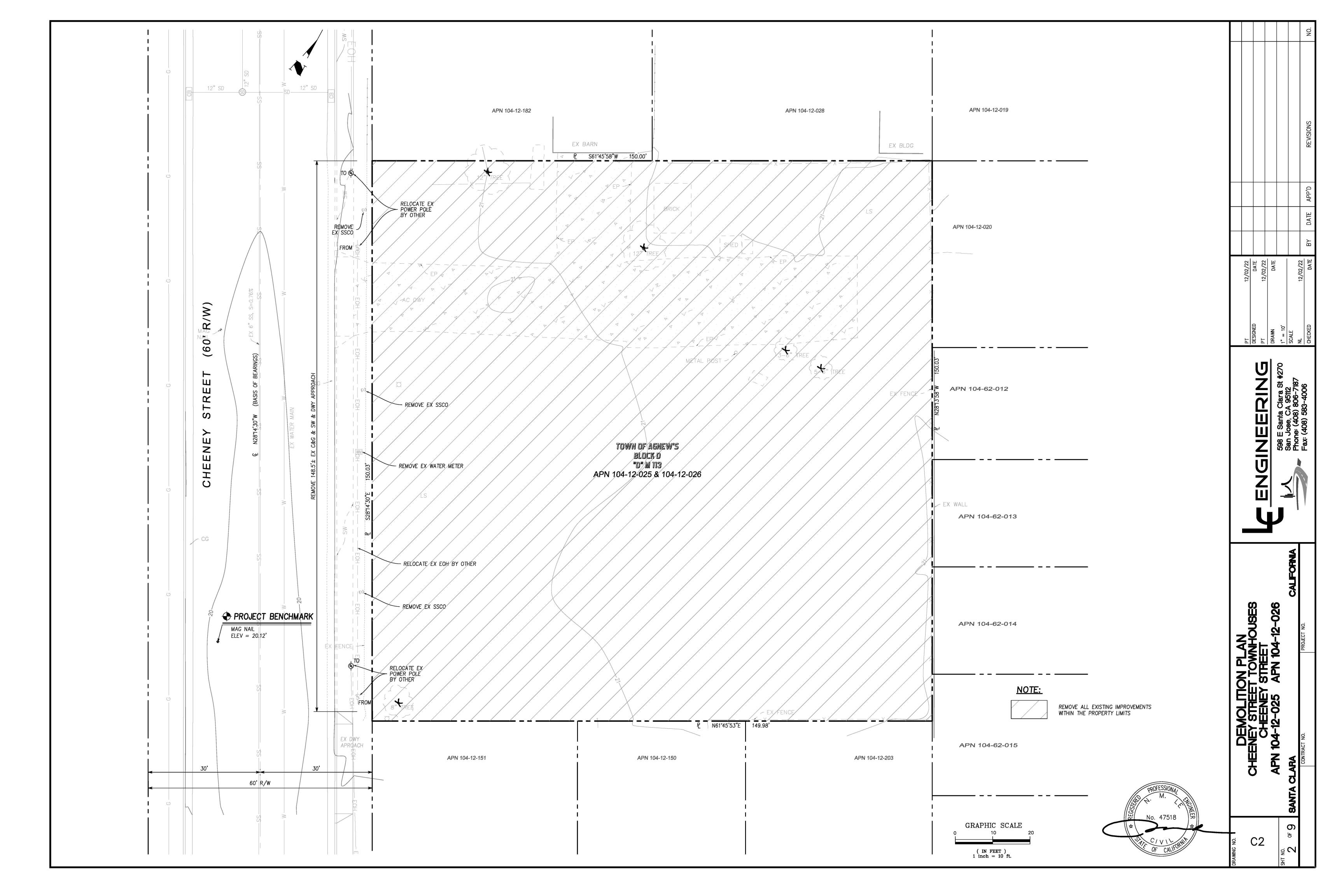
SANITARY SEWER CLEAN OUT MANHOLE SANITARY SEWER MANHOLE STORM DRAIN MANHOLE

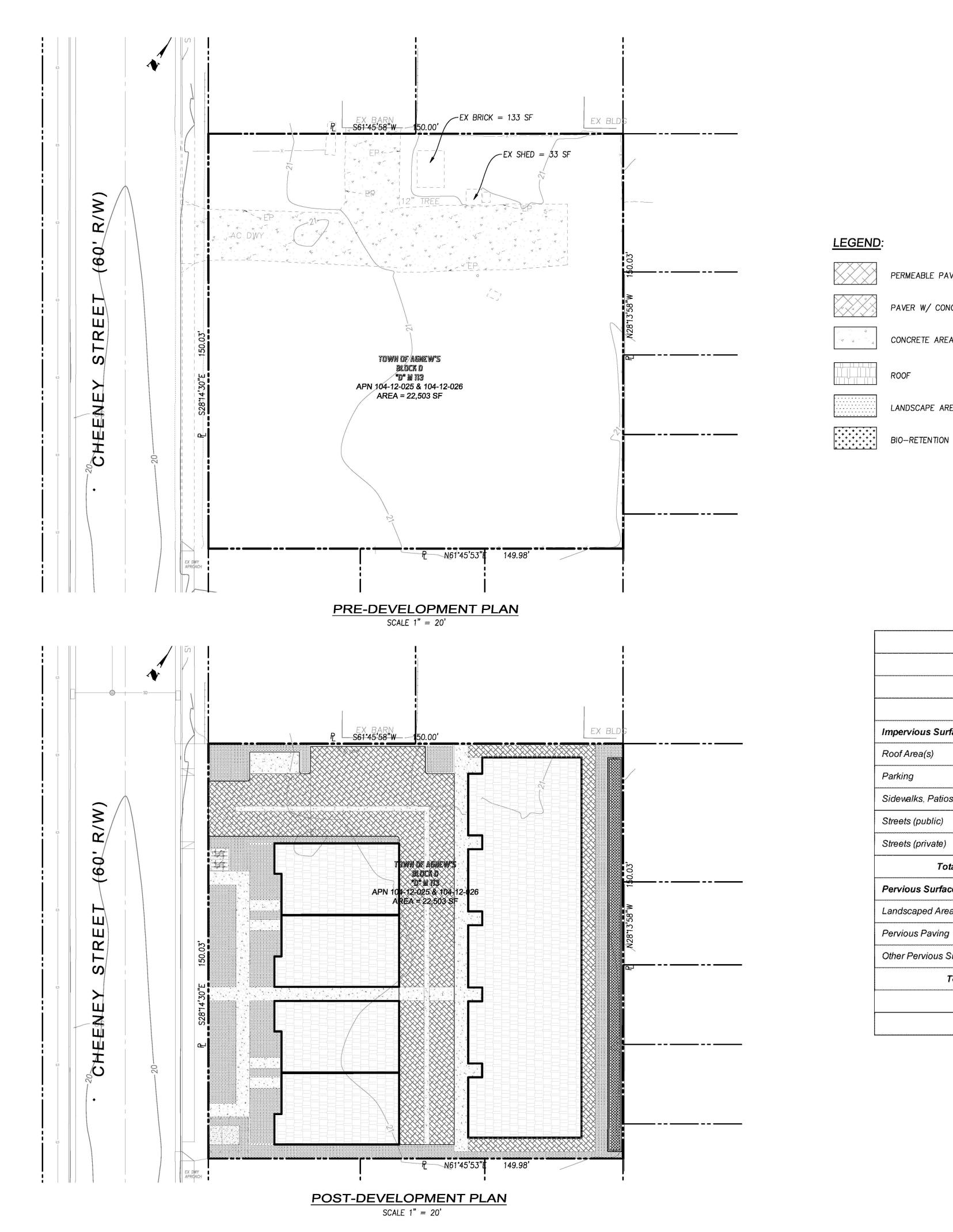
TELEPHONE BOX TOP OF FILL TOE OF FILL TOP OF CUT TOE OF CUT

-----W ------ UTILITY: EXISTING —— w — UTILITY: PROPOSED OR NEW WATER METER

WATER VALVE WELL

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### PRE - DEVELOPMENT

NO.	SURFACE AREA	IMPERVIOUS	PERVIOUS
1	CONCRETE DRIVEWAY	3,410 SF	
2	SHED & BRICK	166 SF	
3	LANDSCAPING		18,928 SF
	TOTAL	3,576 SF	18,928 SF

### POST - DEVELOPMENT

PERMEABLE PAVER AREA

CONCRETE AREA

LANDSCAPE AREA

ROOF

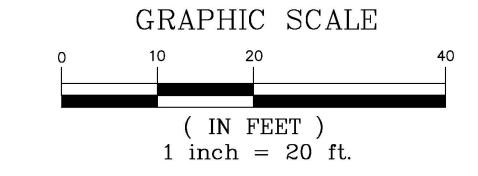
PAVER W/ CONCRETE BELOW

NO.	SURFACE AREA	IMPERVIOUS	PERVIOUS
1	BUILDING	10,017 SF	
2	CONCRETE AREA	2,061 SF	
3	PAVER W/ CONCRETE BELOW	885 SF	
4	PERMEABLE PAVER DRIVEWAY		3,772 SF
5	PERMEABLE PAVER WALKWAY		1,148 SF
6	LANDSCAPING		4,621 SF
	TOTAL	12,963 SF	9,541 SF

### SUMMARY

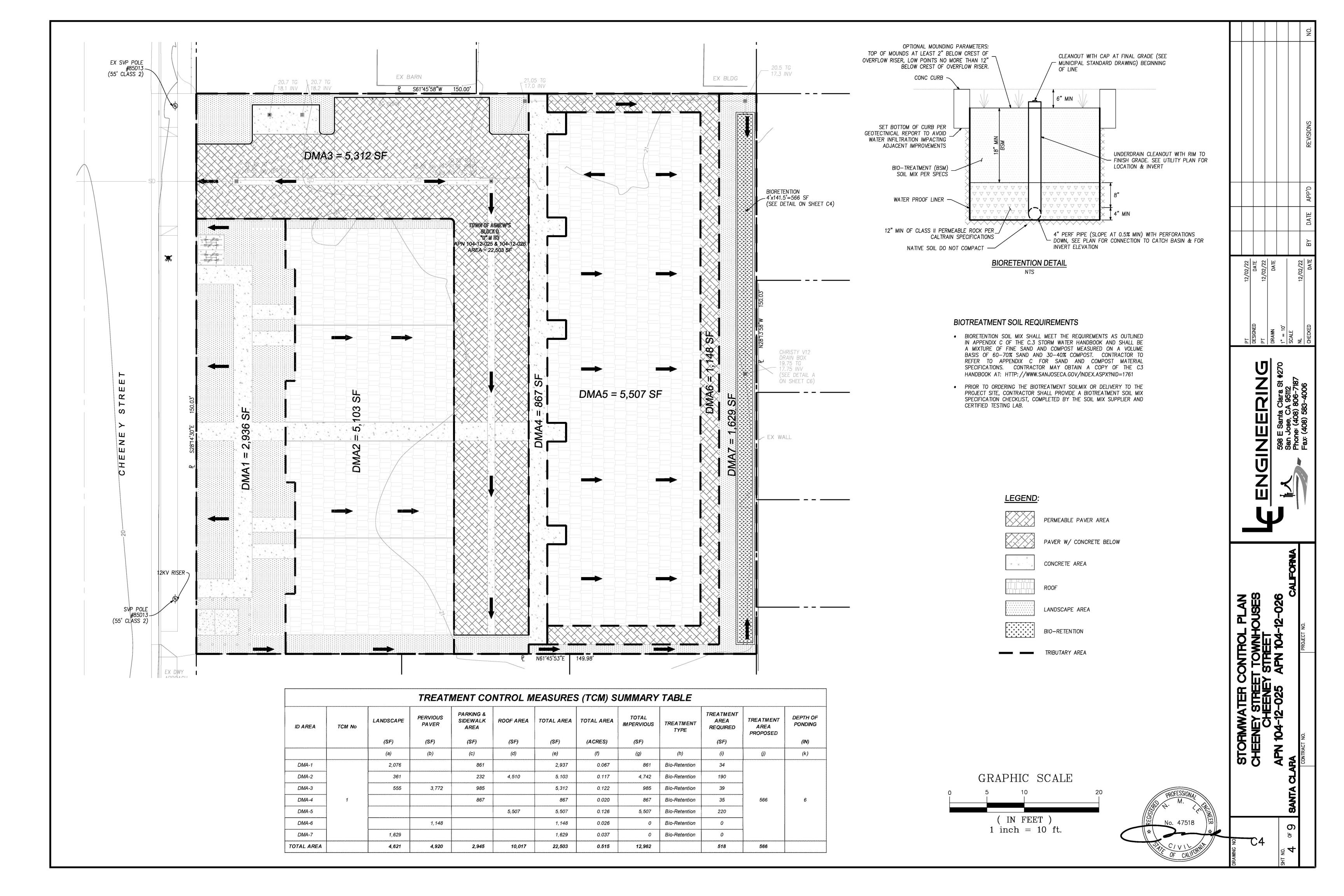
JOINIMAN					
DESCRIPTION	IMPERVIOUS	PERVIOUS			
PRE-DEVELOPMENT	3,576 SF	18,928 SF			
POST-DEVELOPMENT	12,963 SF	9,541 SF			
DIFFERENCE	9,387 SF	-9, <b>3</b> 87 SF			

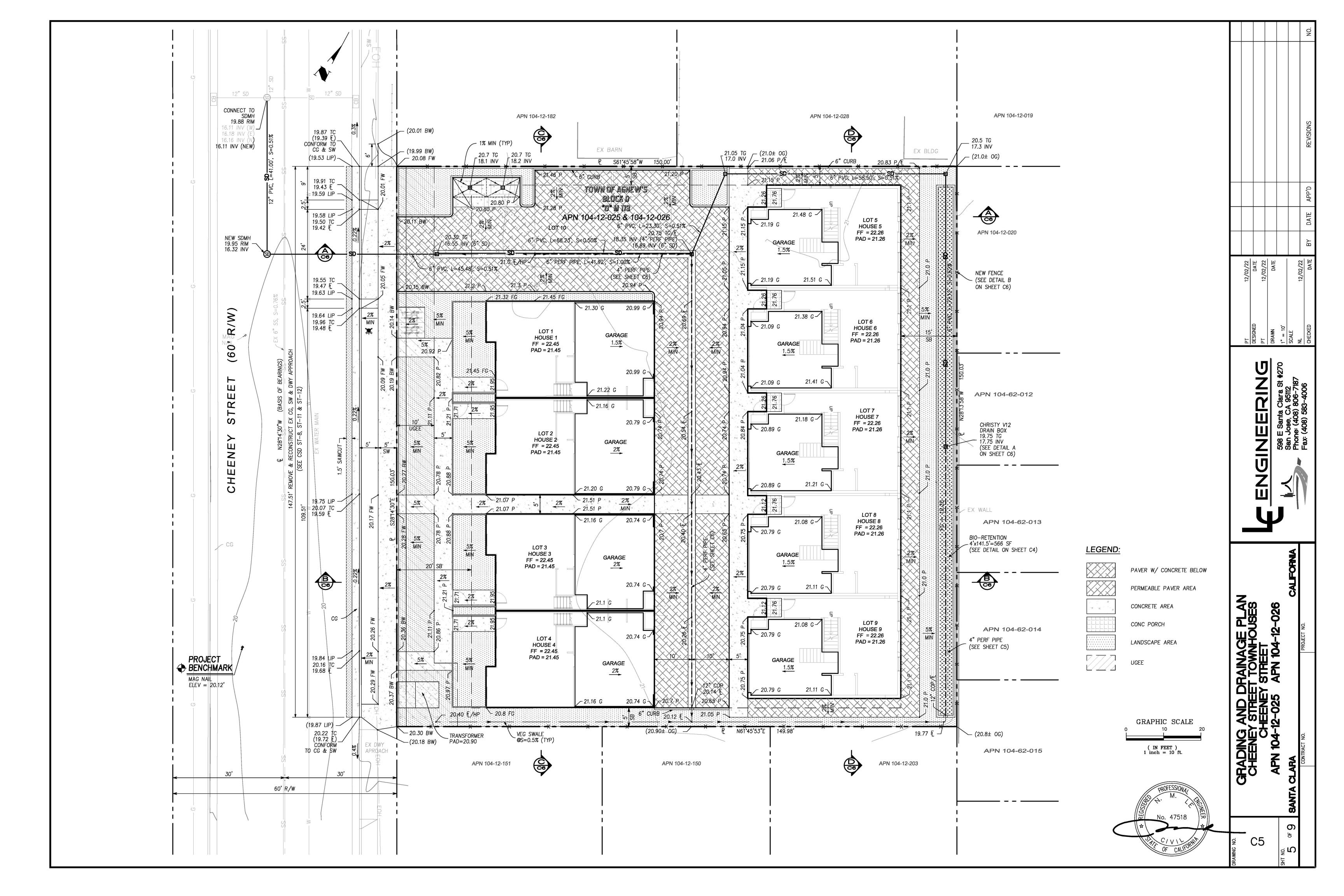
	Project F	Phase Number: (N/A, 1, 2, 3, etc.)	1
Total Site (acres):	0.52	Total Area of Site Disturbed (acres):	0.468
	Existing Condition of Site Area	Proposed Condition of Site Area	Disturbed (square feet)
Impervious Surfaces	Disturbed (square feet)	Replaced	New
Roof Area(s)	0	0	10,017
Parking	3,410	0	0
Sidewalks, Patios, Paths, etc.	166	166	2,780
Streets (public)	0	0	0
Streets (private)	0	0	0
Total Impervious Surfaces:	3,576	166	12,797
Pervious Surfaces			
Landscaped Areas	18,927	4,621	0
Pervious Paving	0	0	4,920
Other Pervious Surfaces (green roof, etc.)	0	0	0
Total Pervious Surfaces:	18,927	4,621	4,920
	Total Proposed Replace	d + New Impervious Surfaces:	12,963
	Total Proposed Repla	ced + New Pervious Surfaces:	9,541

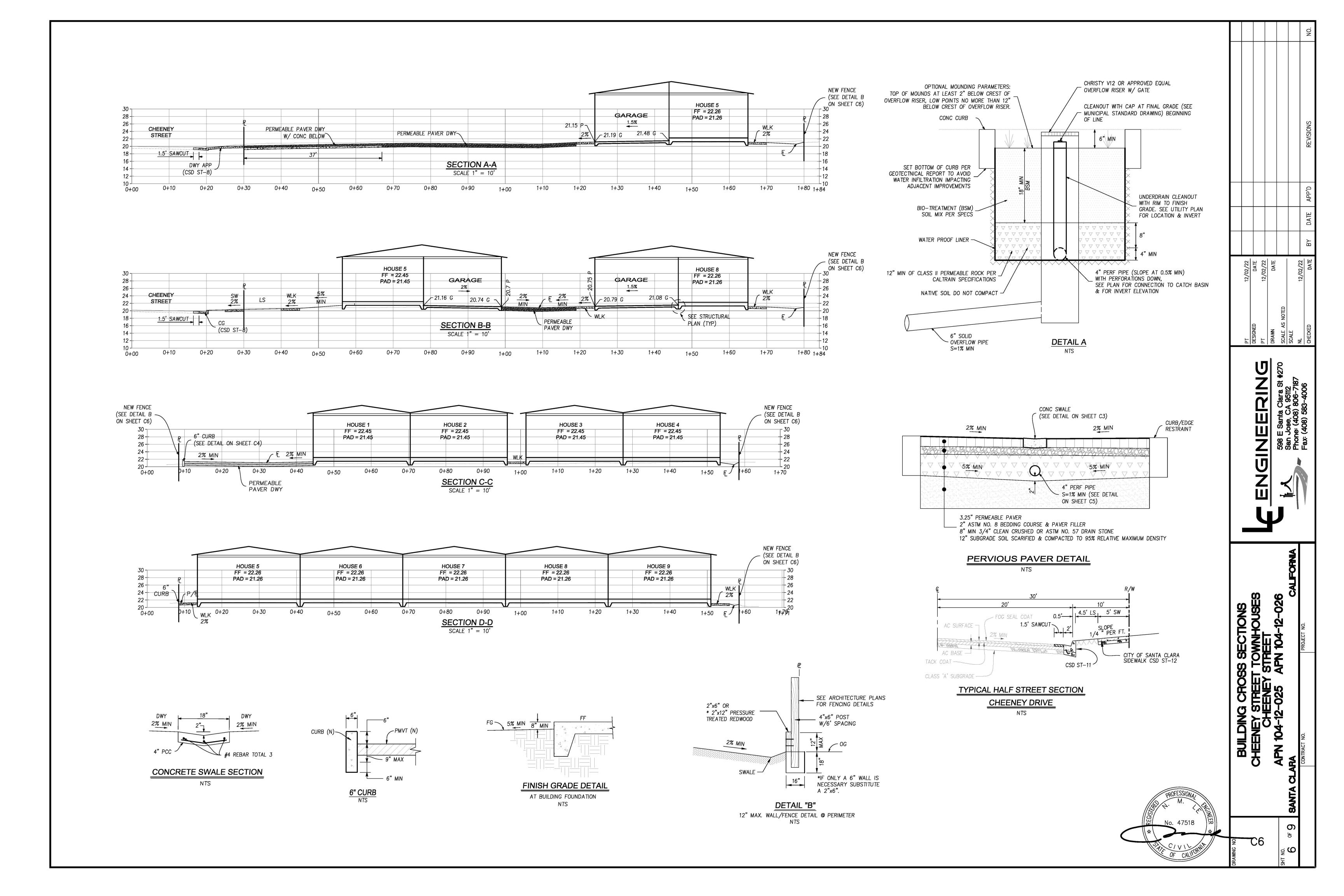


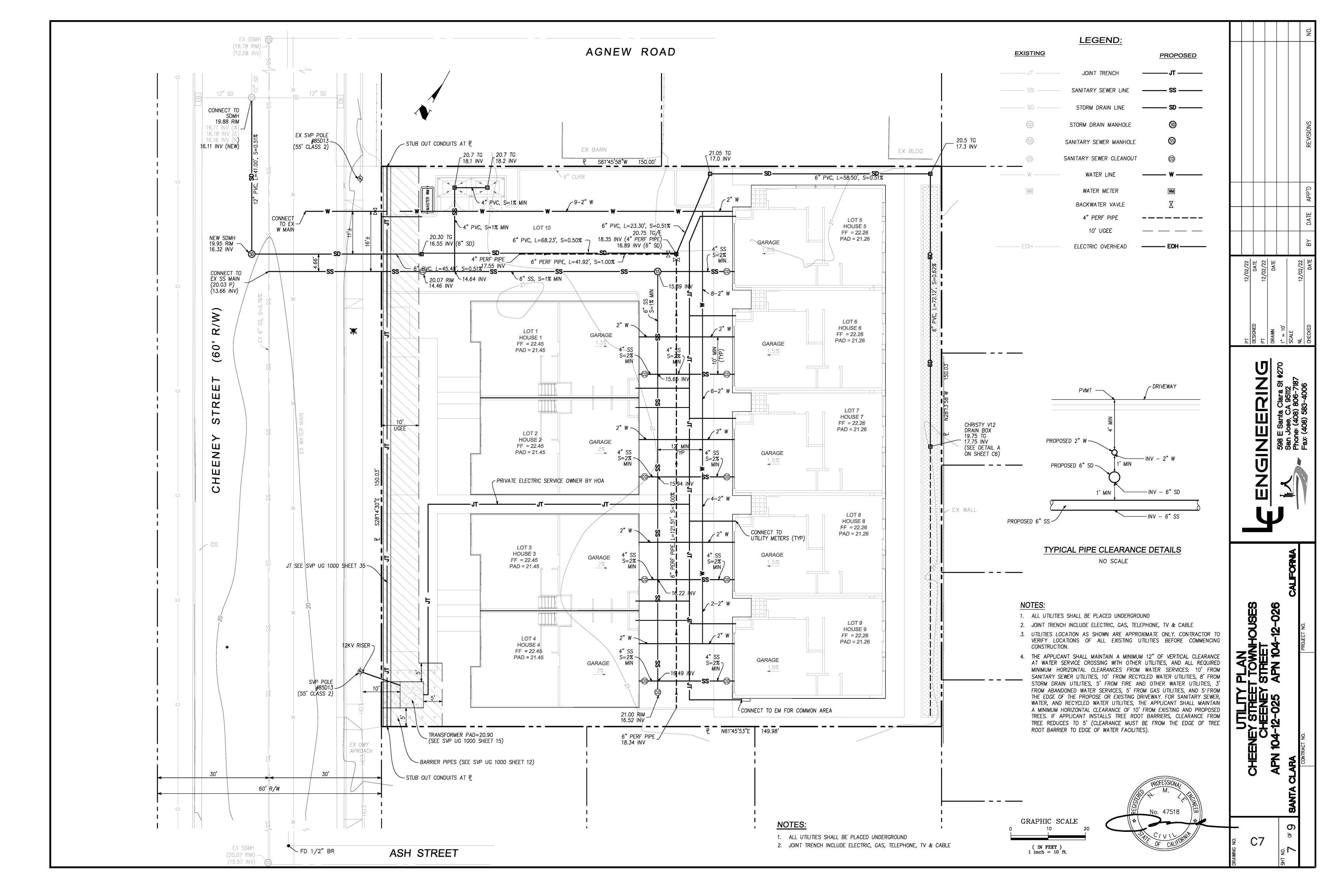


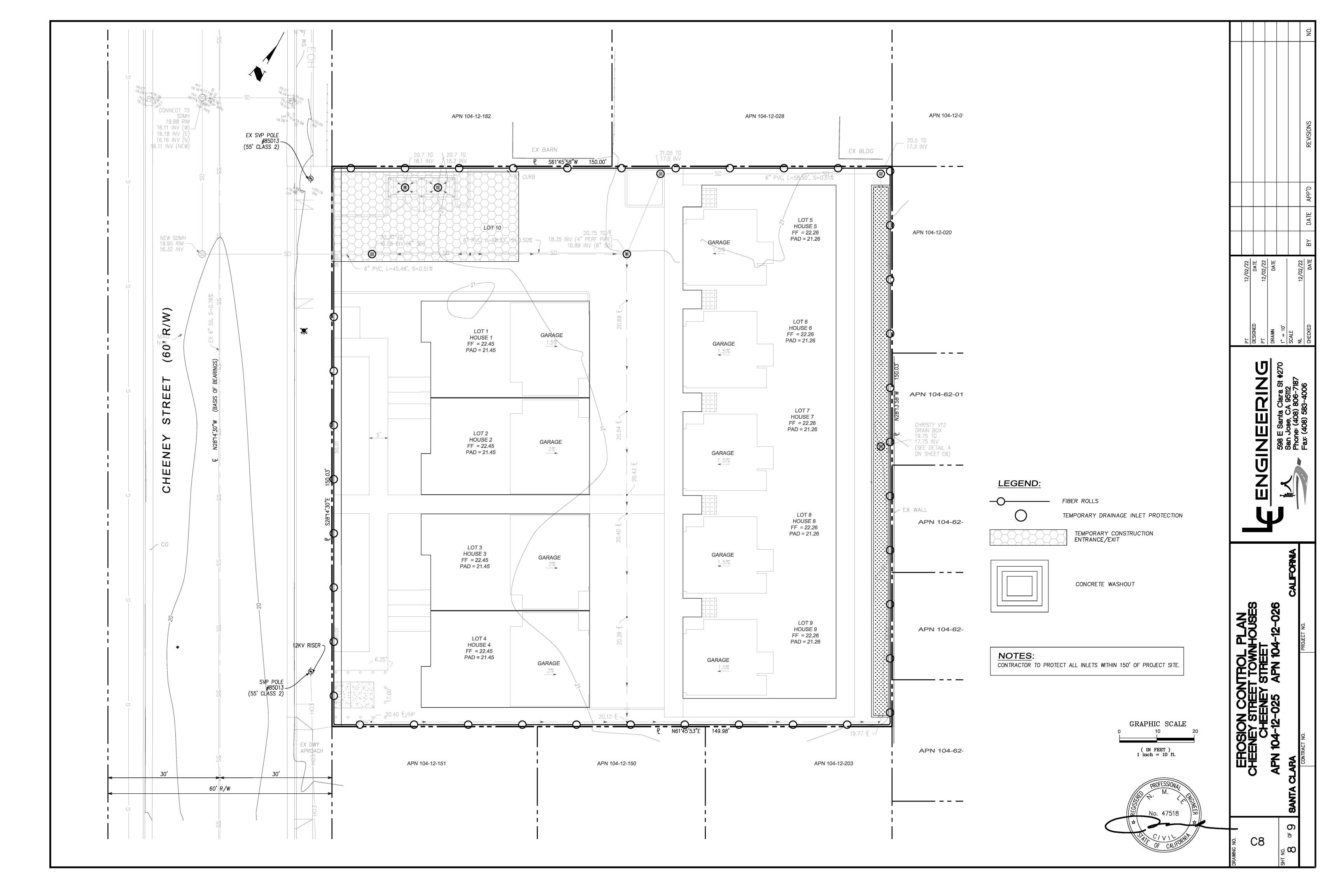
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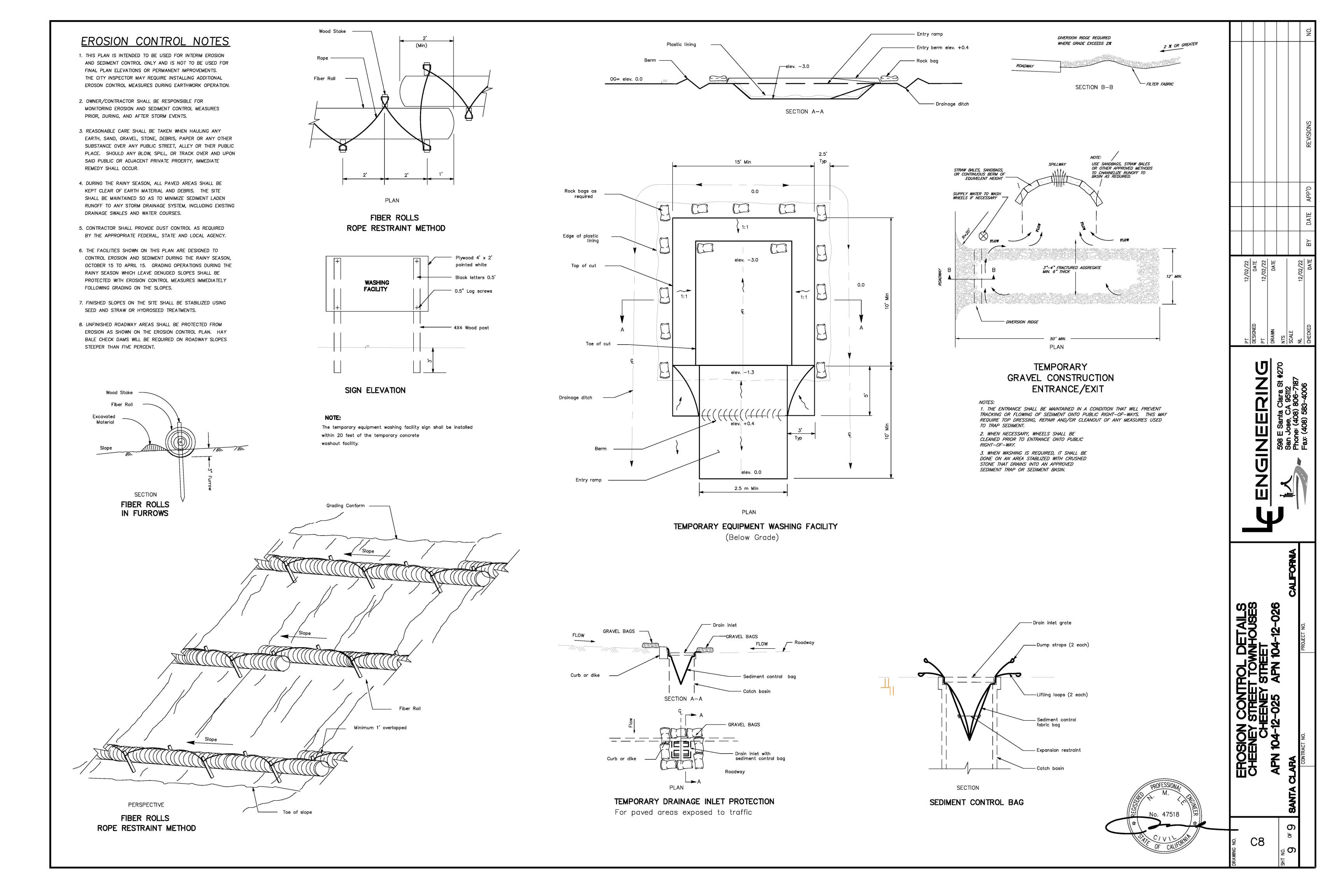


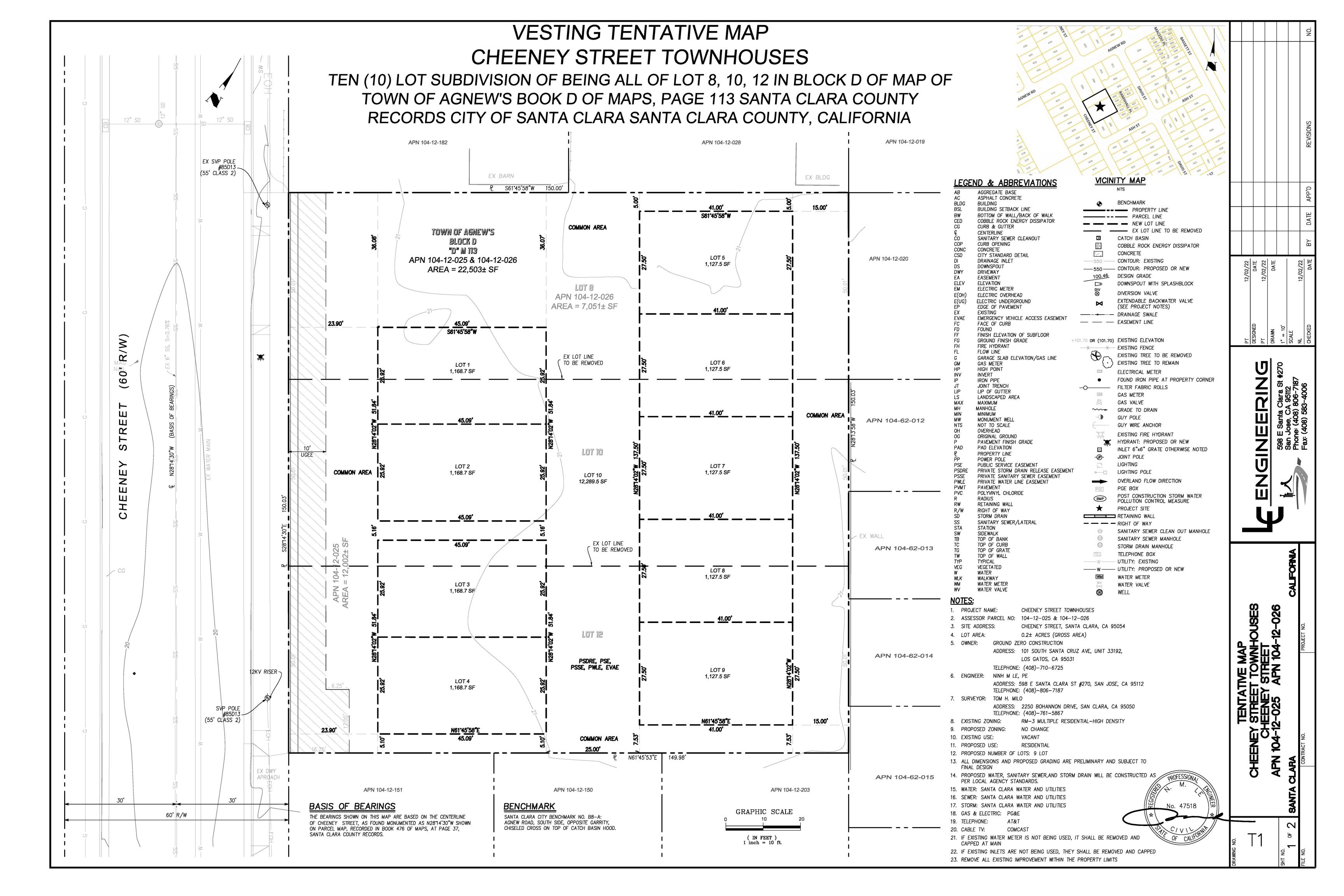


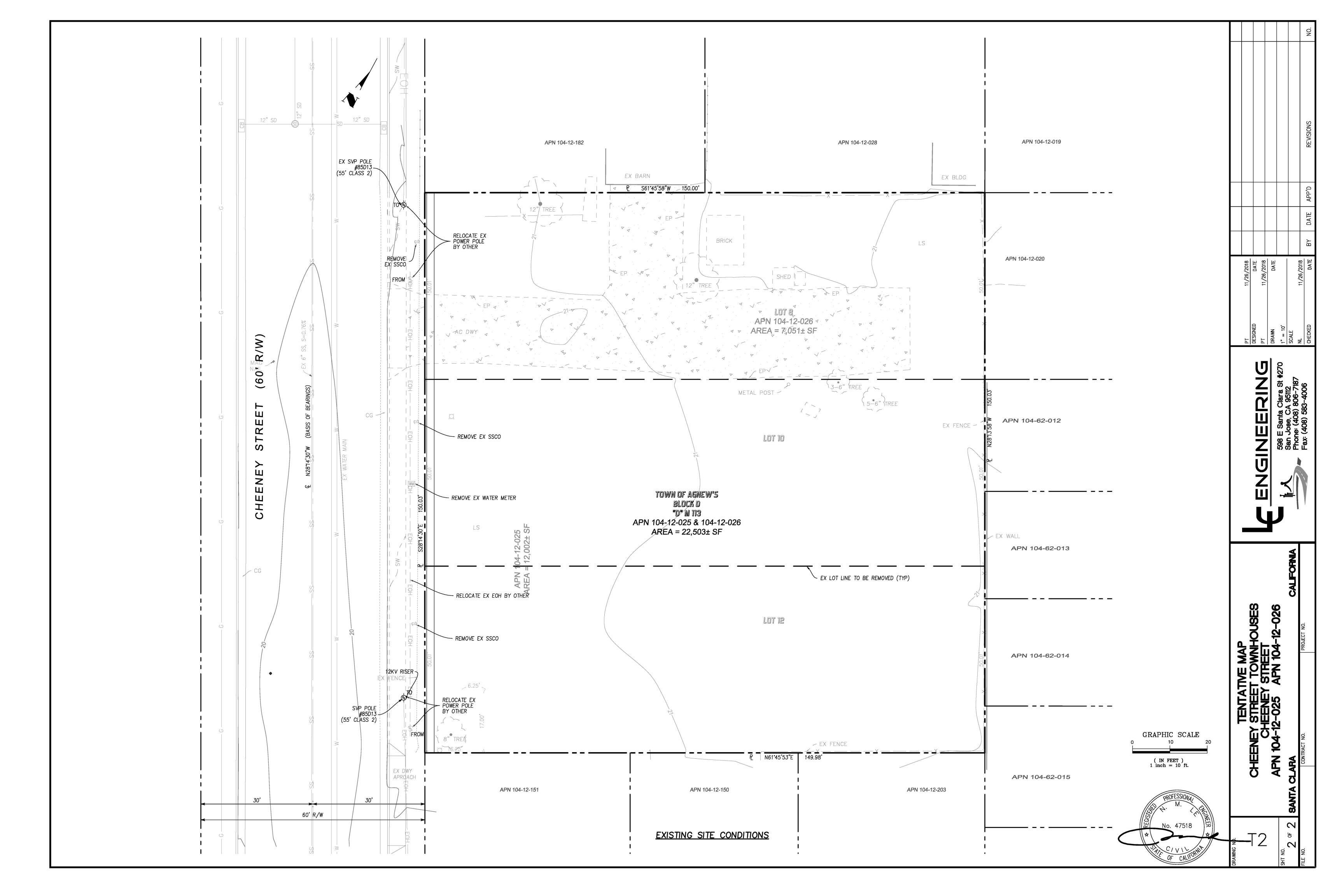


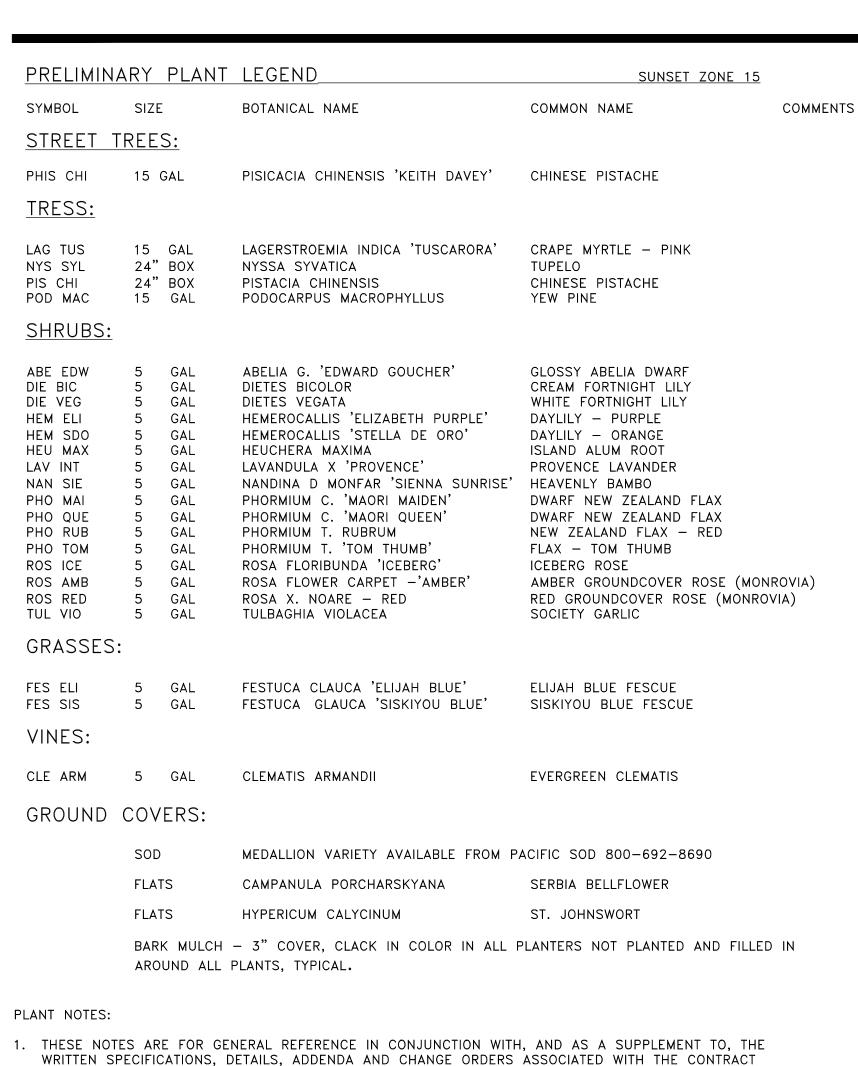












- DOCUMENTS.
- 2. CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
- 3. CONTRACTOR SHALL BECOME FAMILIAR WITH THE LOCATION OF ALL EXISTING AND FUTURE UNDERGROUND SERVICES AND IMPROVEMENTS WHICH MAY CONFLICT WITH WORK TO BE DONE. CONTACT UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 PRIOR TO DIGGING. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY SHOULD CONFLICTS ARISE.
- 4. FINE GRADING, HEADERS AND IRRIGATION COVERAGE SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLANTING OPERATIONS.
- 5. CONTRACTOR SHALL LAY OUT PLANT MATERIAL PER PLAN AND FACE TO GIVE BEST APPEARANCE OR RELATION TO ADJACENT PLANTS, STRUCTURES OR VIEWS. CONTRACTOR TO OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- 6. PLANT MATERIALS SHALL NOT BE INSTALL IN AN AREA WHICH WILL COST HARM TO ADJACENT STRUCTURES OF OBSTRUCT IRRIGATION SPRAY PATTERN. NOTIFY THE OWNER'S REPRESENTATIVE SHOULD CONFLICTS ARISE.
- 7. PRIOR TO PLANTING INSTALLATION, CONTRACTOR SHALL OBTAIN APPROVAL OF PLANT LAYOUT FROM OWNER'S REPRESENTATIVE. PLANT LOCATIONS ARE DIAGRAMMATIC AND MAY BE ADJUSTED ON THE FIELD AT THE OWNER'S REPRESENTATIVE'S REQUEST.
- 8. CONTRACTOR SHALL COORDINATE PLAT LOCATION TO DRIP TUBING LOCATION AND ADJUST PLANTING AS NECESSARY TO ACHIEVE BEST RESULTS.
- 9. ALL NON-TURF AREAS SHALL BE MULCHED WITH A MINIMUM 3" LAYER OF BARK MULCH. UNLESS OTHERWISE NOTED, FINISH GRADE OF PLANTING AREAS SHALL BE 3" BELOW ADJACENT PAVING. TAPER 3" DEPTH BARK MULCH TOP DRESSING TO 1/2" BELOW ADJACENT PAVING (1-1/2)" DEPTH) WITHIN 2-FEET OF PAVING. CONTRACTOR SHALL SUBMIT A SAMPLE TO THE CITY FOR REVIEW AND APPROVAL PRIOR TO MULCH DELIVERY TO THE SITE. FOR FURTHER INFORMATION, SEE SPECIFICATIONS.
- 10. GROUND COVERS SHALL BE PLANTED EVENLY AND CONTINUOUSLY UNDER TREE AND SHRUB MASSES.
- 11. CONTRACTOR SHALL USE A NATURAL PRE-EMERGENT, SUCH AS CORN WEED BLOCKER OR COMPARABLE, AND SHALL APPLY ACCORDING TO THE MANUFACTURES DIRECTIONS PRIOR TO APPLYING MULCH.
- 12. ALL NEWLY PLANTED MATERIAL SHALL BE THOROUGHLY SOAKED WITH WATER WITHIN 3 HOURS OF PLANTING.
- 13. 30 DAYS AFTER PLANTING, CONTRACTOR SHALL RE-STAKE AND STRAIGHTEN TREES AS NEEDED.
- 14. BENEATH PROPOSED SOD, EXCAVATE EXISTING SOIL TO A DEPTH OF 12" BELOW PROPOSED FINISHED GRADE. REPLACE WITH IMPORTED LOAN SOIL AND BRING TO FINISHED GRADE.
- 15. THE CONTRACTOR SHALL PROVIDE FOR IN THEIR BID FOR A BASE AMENDMENT FOR SOIL AMENDMENT. AFTER ROUGH GRADING OF THE SITE A SOIL NUTRIENT TEST WILL BE CONDUCTED OF VARIOUS PLANTED AREAS AND THE PLANTED AREAS SHALL BE AMENDED BASED ON THIS SOILS REPORT.

### MODEL WATER EFFICIENCY LANDSCAPE ORDINANCE COMPLIANCE

I AGREE TO COMPLY WITH THE REQUIREMENTS OF THE WATER EFFICIENCY LANDSCAPE ORDINANCE AND SUBMIT A COMPLETE LANDSCAPE DOCUMENTATION TITLE 23 CH. 2.7 SECTION 492.3

I HAVE AND COMPLY WITH THE CRITERIA OF THE MODEL WATER EFFICIENCY LANDSCAPE ORDINANCE AND HAVE APPLIED THEM FOR THE EFFICIENCY USE OF THE WATER IN THE LANDSCAPE DESIGN PLAN

ENGINEERING PLANS ENGINEERING PLANS  $(\cdot)(\cdot)$ VEGETATED SWALE SEE CIVIL ENGINEERING PLANS 1 NYS SYL VEGETATED SWALE SEE CIVIL ENGINEERING PLANS 1 LAG TUS -2 LAG TUS PLANTING SHALL CONFORM TO -CITY TRIANGLE OF SAFETY REQUIREMENTS, REFER TO CIVIL' ENGINEERING' PLANS 16' ROOF BARRIER -WHERE TREES, ABUT PUBLIC SIDEWALK, - 3 PIS CHI 35'-0" 35'-0"

BIO-RETENTION DEVICE, SEE CIVIL

DRAINAGE BASIN, SEE CIVIL

CHEENEY STREET

**ENGINEERS & ASSOCIATES** 370 GRAND PARK CIRCLE SAN JOSE CA, 95136 TEL: (408) 509-3464 alialbiani@sbcglobal.ne



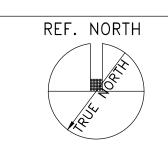
WNHOUSE

$\triangle$	REVISION	DATE
1		
2		
3		

DATE: August 23, 2022 PROJECT No. 10-042122

LANDSCAPE PLAN







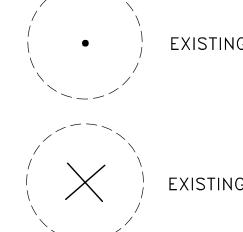
MODEL WATER EFFICIENCY TURF ALLOWANCE CALCULATION

3,504 S.F. TOTAL LANDSCAPE AREA 876 S.F. TOTAL TURF AREA ALLOWED (25%) 286 S.F. TOTAL PROPOSED TURF AREA FOR PROJECT

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MFA CONSTRUCTION AND ENGINEERING

	TREE	INVENTO	RY LEGEND		
TREE #	TREE SPECIES BOTANICAL NAME	TREE SPECIES COMMON NAME	SIZE DBH @ 54"	STD OR MULTI TRUNK	TREE TO BE REMOVED
79	MALUS SPECIES	APPLE	4", 3", 3"	MULTI	YES
80	LIGUSTRUM SPECIES	PRIVET	2",1"	MULTI	YES
81	LIGUSTRUM SPECIES	PRIVET	2"	STD	YES
82	LIGUSTRUM SPECIES	PRIVET	3",2"	MULTI	YES
83	JUNGLANS REGIA	ENGLISH WALNUT	2"	STD	YES
84	PERSIA AMERICANA	AVOCADO	4"	STD	YES
85	PERSIA AMERICANA	AVOCADO	4",3"	MULTI	YES
86	PERSIA AMERICANA	AVOCADO	3"	STD	YES
87	PERSIA AMERICANA	AVOCADO	0'-4", 0'-5", 0'-4"	MULTI	YES
88	PERSIA AMERICANA	AVOCADO	5",5",4",4"	MULTI	YES
89	PHOENIX CCANARIENSIS	DATA PALM	NA	STD	YES
90	JUGLANS REGIA	ENGLISH WALNUT	3",3",2"	MULTI	YES
91	CELTIS SPECIES	HACKBERRY	3"	STD	YES
92	SCHINUS TEREBINTHIFOLIUS	BRAZILIAN PEPER	3",3",3"	MULTI	YES
93	JUGLANS HINDSII	BLACK WALNUT	5"	STD	YES
94	CITRUS SPECIES	ORANGE	12"	STD	YES



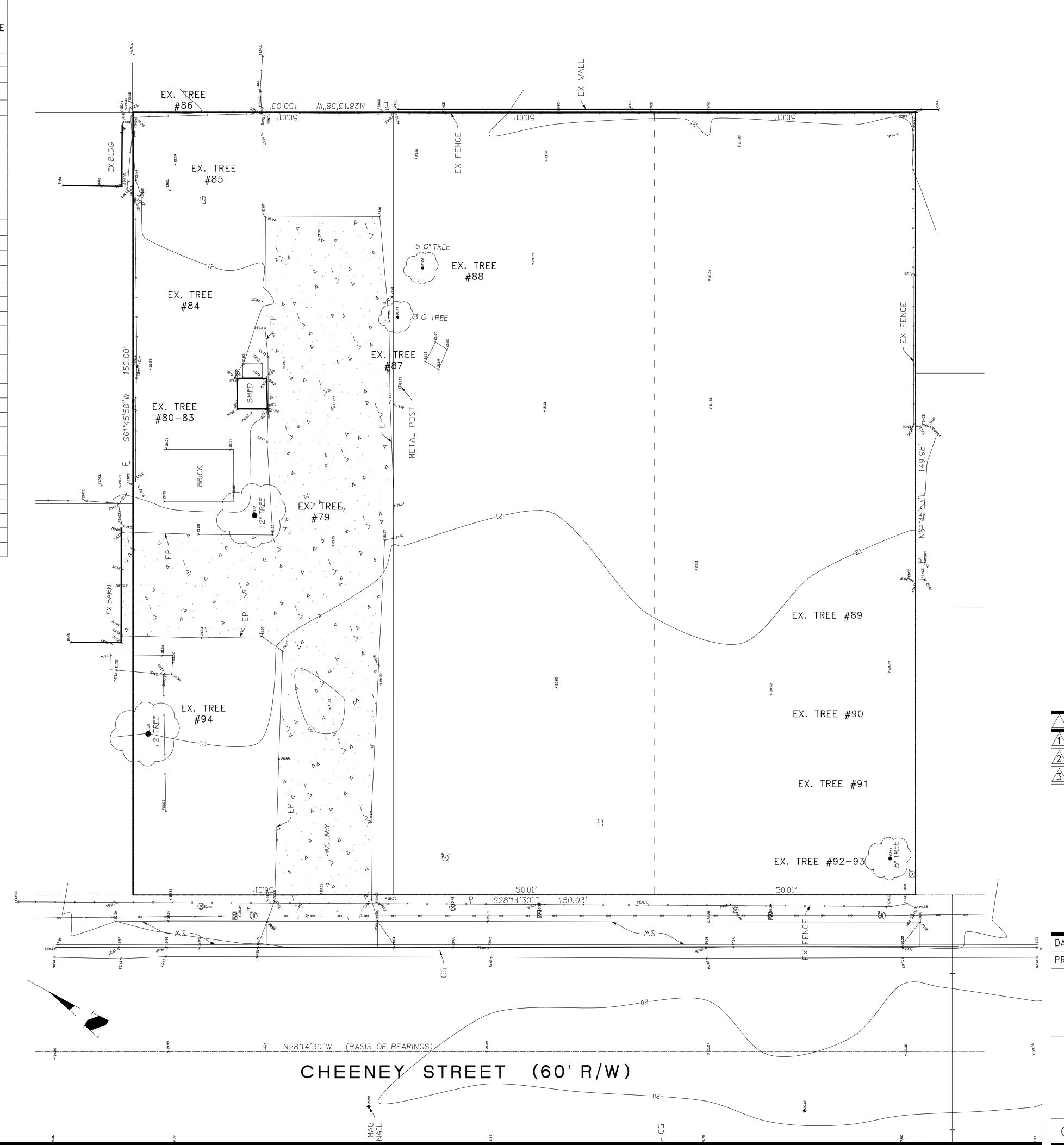
EXISTING TREES TO REMAIN

EXISTING TREES INTENDED FOR REMOVAL

UNK- UNKNOWN INFORMATION TO BE DETERMINED TBD — TO BE DETERMINED

NOTE: 1. ALL TREES HERE SHOWN HAVE BEEN SURVEYED BY A LICENSED SURVEYOR. ALL TREE SPECIES HAVE BEEN IDENTIFIED BY A LICENSED ARBORIST.

2. ALL TREES DIAMETERS HAVE BEEN MEASURES 54" ABOVE GRADE BY A LICENSED ARBORIST



MFA

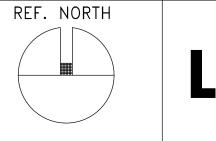
**ENGINEERS & ASSOCIATES** 370 GRAND PARK CIRCLE SAN JOSE CA, 95136 TEL: (408) 509-3464 alialbiani@sbcglobal.net

# **SHANNOUSES**

	REVISION	DATE
1		
<u>^2</u>		
$\sqrt{3}$		

August 23, 2022 DATE: PROJECT No. 10-042122

### TREE INVENTORY PLAN



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### LEGEND

### GENERAL NOTES

NEW CONDUIT AND WIRE CONCEALED IN WALL OR ABOVE CEILING

NEW CONDUIT AND WIRE CONCEALED UNDERFLOOR OR UNDERGROUND

EXISTING CONDUIT AND WIRE CONCEALED IN WALL OR ABOVE CEILING

EXISTING CONDUIT AND WIRE CONCEALED UNDERFLOOR OR UNDERGROUND

HOMERUN SHOWING GROUND, HOT, AND NEUTRAL

LIGHT FIXTURES - SEE LIGHT FIXTURE SCHEDULE

\$ SINGLE POLE, SINGLE THROW SWITCH

THREE-WAY LIGHT SWITCH

\$PIR OCCUPANCY SENSOR SWITCH, PROXIMITY INFRA-RED

SWITCH WITH MOTION SENSOR

Q JUNCTION BOX

DUPLEX RECEPTACLE

QUAD RECEPTACLE

SIMPLEX RECEPTACLE, GROUNDED

DUPLEX RECEPTACLE, ISOLATED GROUND

DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTION (GFCI)

GFCI DUPLEX RECEPTACLE, GFCI WITH WEATHERPROOF—IN—USE COVER

FLOOR BOX WITH DUPLEX RECEPTACLE

SPECIAL PURPOSE RECEPTACLE AS NOTED

DUPLEX RECEPTACLE WITH USB PLUGS

DSD FIRE ALARM SYSTEM DUCT MOUNT SMOKE DE

FIRE ALARM SYSTEM SMOKE DETECTOR

FIRE ALARM SYSTEM DUCT MOUNT SMOKE DETECTOR

120V CONNECTION TO FIRE/SMOKE DAMPER

DISCONNECT SWITCH, FUSED

DISCONNECT SWITCH, UN-FUSED

■ TELEPHONE OUTLET, AT 18" UNLESS OTHERWISE NOTED

→ TELEPHONE/DATA OUTLET

FLOOR BOX WITH TELEPHONE/DATA OUTLET

COMBINATION FLOORBOX: DUPLEX RECEPTACLE AND TELEPHONE/DATA OUTLET

PANELBOARD

THERMOSTAT

T TRANSFORMER

PHOTO SENSOR

OCCUPANCY SENSOR

X FLAG NOTE

REVISION NUMBER

FOH

FRONT OF HOUSE

GROUND FAULT CIRCUIT INTERRUPTER

REVISION CLOUD

SOME SYMBOLS NOT USED IN THIS PROJECT.

POS

PWR

- 1. PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, NATIONAL ELECTRICAL SAFETY CODE, LOCAL CODES, ORDINANCES AND REQUIREMENTS OF UTILITY COMPANIES FURNISHING SERVICES TO INSTALLATION.
- 2. PROVIDE ITEMS NECESSARY TO COMPLETE ELECTRICAL SYSTEMS. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EVERY CONDUIT, BOX, CONDUCTOR OR SIMILAR ITEMS FOR A COMPLETE INSTALLATION.
- 3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BID AND DETERMINE CONDITIONS WHICH MAY AFFECT BID. ANY ITEMS NOT FULLY UNDERSTOOD SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO BIDDING.
- 4. WHEREVER THE WORD "PROVIDE" IS USED, IT MEANS, "FURNISH AND INSTALL COMPLETE AND READY FOR USE."
- 5. COORDINATE LOCATION OF ELECTRICAL WITH OTHER TRADES.
- 6. REFER TO MECHANICAL DRAWINGS FOR CHARACTERISTICS (SIZE, LOCATION, ETC.) OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.
- 7. PROVIDE CONDUCTORS AND RACEWAYS PER NATIONAL ELECTRICAL CODE.
- 8. REFER TO ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES, RECEPTACLES, SWITCHES, AND ALL OTHER ELECTRICAL DEVICES.
- 9. PROVIDE LIGHT FIXTURES WITH PROPER FITTING, FLANGES, MOUNTING SUPPORTS AND ACCESSORY ITEMS. ALL FIXTURES SHALL BE UL LISTED FOR CONDITIONS OF USE.

### MATERIALS AND METHODS

- PROVIDE RACEWAY AND WIRING ROUTED CONCEALED WITHIN BUILDING STRUCTURE WHERE POSSIBLE. WHERE RACEWAY CANNOT BE CONCEALED, IT SHALL BE INSTALLED PER PROJECT MANAGER'S DIRECTION. PROVIDE EMT CONDUIT INSIDE BUILDING.
- 2. EXPOSED CONDUIT ROUTING: CONDUITS MAY BE ROUTED EXPOSED IN MECHANICAL AND ELECTRICAL ROOMS ONLY. EXPOSED CONDUITS SHALL BE SECURED A MINIMUM OF 6" ABOVE FLOOR.
- 3. OUTDOOR EXPOSED CONDUIT ROUTING: CONDUITS ROUTED ON ROOF OR EXPOSED TO WEATHER SHALL BE EMT OR LIQUID—TIGHT FLEX. PROVIDE WATER—TIGHT CONNECTIONS AND FITTINGS. PROVIDE PVC ELECTRICAL CONDUIT UNDERGROUND AND ON ROOF.
- 4. CLEARANCES: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET.
- 5. CONNECTIONS: PROVIDE GRS, METALLIC FLEX, OR LIQUIDTITE FLEX CONDUITS FOR CONNECTIONS TO MOTORS OR MOTORIZED EQUIPMENT.
- 6. WIRING: PROVIDE MINIMUM #12 AWG WIRE SIZE AND MINIMUM 3/4" CONDUIT FOR ALL BRANCH CIRCUITRY.
- 7. WIRING: PROVIDE MINIMUM #10 AWG CONDUCTOR SIZE IN 120V BRANCH CIRCUIT RUNS OVER 75' IN LENGTH.
- 8. WIRING: POWER WIRING SHALL BE COPPER, THWN/THHN, INSULATED FOR 600V. ALUMINUM CONDUCTORS PERMITTED FOR FEEDERS 100 AMPS OR LARGER. INCREASE WIRE AND CONDUIT SIZE TO EQUAL OR EXCEED DESIGNED COPPER RATING.
- 9. DISCONNECTS: PROVIDE DISCONNECTS, FUSED AND UNFUSED, SHOWN AND REQUIRED BY CODE FOR EQUIPMENT FURNISHED UNDER ELECTRICAL AND MECHANICAL SCOPES OF WORK.

- 10. FUSES: PROVIDE FUSES PER EQUIPMENT NAMEPLATE UNLESS OTHERWISE INDICATED . FUSES SHALL BE PROVIDED WITH REJECTION TYPE FUSE HOLDERS.
- 11. SUPPORT: SUPPORT LIGHT FIXTURES FROM BUILDING STRUCTURE. DO NOT SUPPORT FIXTURES FROM SUSPENDED CEILING.
- 12. LABELS: ELECTRICAL PANEL, TIME SWITCH, DISCONNECT, STARTER, CONTRACTOR, PULL BOX, ETC. ENCLOSURES SHALL BE PERMANENT LABELED TO IDENTIFY ITS DESIGNED OR UNIT SERVED
- 13. PAINTING: ELECTRICAL ENCLOSURES IN PUBLIC AREA SHALL BE PAINTED TO MATCH ADJUSTMENT WALL
- 14. COVERPLATES: PROVIDE AS FOLLOWS. SUBMIT SAMPLE OF EACH FOR APPROVAL.

  a. MECHANICAL AND ELECTRICAL ROOMS: GALVANIZED STEEL

  b. ALL OTHER AREAS: TO MATCH SURROUNDING SURFACE
- 15. HOME RUN NEUTRALS MAY BE COMBINED AT CONTRACTORS OPTION UNLESS CIRCUIT IS DEDICATED.
- 16. NEUTRAL CONDUCTORS: NEUTRAL MAY BE OMITTED ON EQUIPMENT CONNECTIONS IF CONTRACTOR VERIFIES THAT A NEUTRAL IS NOT REQUIRED FOR OPERATION OR CONTROL OF EQUIPMENT.
- 17. MULTIWIRE BRANCH CIRCUITS: PROVIDING POWER TO MORE THAN ONE DEVICE OR EQUIPMENT ON THE SAME YOLK SHALL HAVE MEANS TO DISCONNECT SIMULTANEOUSLY ALL UNGROUNDED CONDUCTORS SUPPLYING THESE DEVICES AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES PER NEC 210.4(B). AS—BUILT PANEL SCHEDULES SHALL SHOW ALL MULTIPOLE BREAKERS INSTALLED TO MEET THIS REQUIREMENT.

### SPECIAL SYSTEMS

- 1. FIRE ALARM SYSTEM:
  PROVIDED AND INSTALLED BY FIRE ALARM CONTRACTOR. FIRE ALARM CONTRACTOR SHALL
  DESIGN AND PROVIDE COMPLETE, OPERATING, AND CODE COMPLIANT FIRE ALARM
  CONTRACTOR SHALL SUBMIT FULL SET OF PLANS INDICATING DEVICE LOCATIONS, WIRING,
  CONNECTIONS AND SPECIAL MOUNTING DETAILS TO THE FIRE MARSHALL.
- 2. SOLAR PHOTOVOLTAIC SYSTEM:
  SOLAR CONTRACTOR SHALL DESIGN AND PROVIDE COMPLETE, OPERATING AND CODE
  COMPLIANT SOLAR SUBMIT FULL SET OF PLANS INDICATING DEVICE LOCATIONS, WIRING,
  CONNECTIONS, AND SPECIAL MOUNTING DETAILS TO THE CITY BUILDING DEPARTMENT.
  SOLAR CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REQUIRED FOR
  INTERCONNECTION OF SOLAR PV SYSTEM WITH UTILITY GRID.

### ADA REQUIREMENTS

- 1. RECEPTACLE OUTLETS SHALL BE LOCATED 18' AFF UNLESS NOTED OTHERWISE
- 2. LIGHT SWITCHES SHALL BE INSTALLED WITHIN 34-48 INCHES OF THE FLOOR.
- 3. PUBLIC TELEPHONES MUST COMPLY WITH CBC 117B.2 FOR CLEARANCES AND FEATURES.

### INDEX OF DRAWINGS

		INCL	LUDE SET	D IN
DWG	DESCRIPTION	PERMIT SET 12/08/2022		
E000	COVER SHEET, GENERAL NOTES, & INDEX	Х		
E100	ONE-LINE DIAGRAM, FAULT, & PANEL SCHEDULES	X		
E1.01	LUMINAIRE SCHEDULE	X		
E2.00	SITE PLAN	X		
E3.00	TYPICAL UNIT POWER PLAN	X		
E3.01	TYPICAL UNIT POWER PLAN	X		



19401 40TH AVE W., SUITE 302 LYNNWOOD, WA 98036 206-364-3343 TEL REI PROJECT NO.: 590-054 CONTACT: ARIK ESPINELI

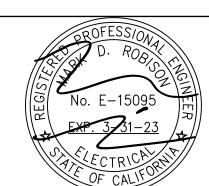


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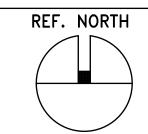
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DATE: DECEMBER 8. 2022
PROJECT No. 590-054

COVER SHEET, GENERAL NOTES, & INDEX



E0.00

### **ABBREVIATIONS**

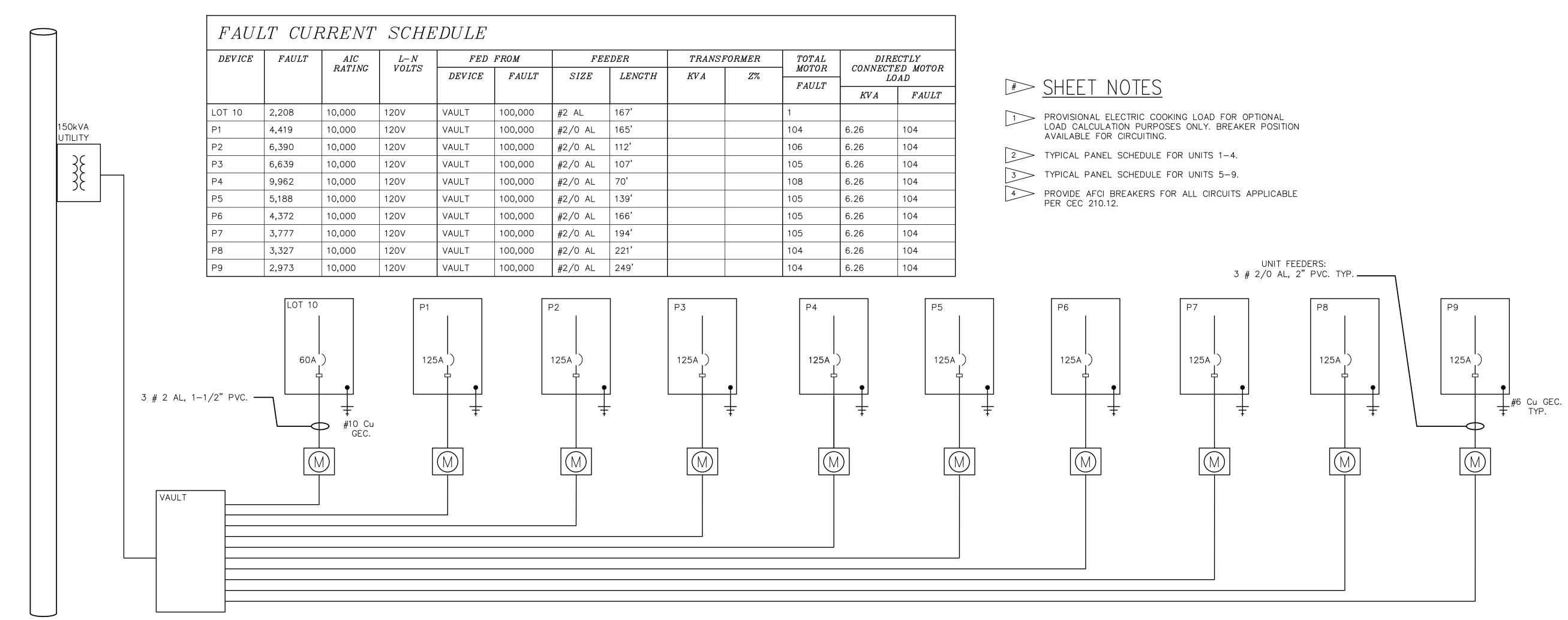
A AC AFF AIC AL AMP AWG BKR BLDG BOH C CKT CO CT Cu CW DSD EF ELEC EMT	AMPERE ALTERNATING CURRENT, ABOVE COUNTER ABOVE FINISHED FLOOR AMPS INTERRUPTING CAPACITY ALUMINUM AMPERE AMERICAN WIRE GAUGE BREAKER BUILDING BACK OF HOUSE COIL or CONDUIT CIRCUIT CONDUIT/RACEWAY ONLY CURRENT TRANSFORMER COPPER COOL WHITE DUCT SMOKE DETECTOR EXHAUST FAN ELECTRICAL ELECTRICAL ELECTRICAL	GND GRS HID HP KCMIL KEC KVA KW LTG MFR MIN MLO MS N (N) NEC NEMA NT NTS OC	GROUND GALVANIZED RIGID STEEL HIGH INTENSITY IDISCHARGE HEAT TRACE THOUSAND CIRCULAR MILLS KITCHEN EQUIPMENT CONTRACTOR KILOVOLT AMPERES KILOWATT LIGHTING MANUFACTURER MINIMUM MAIN LUGS ONLY MOTION SENSOR NEUTRAL NEW NATIONAL ELECTRICAL CODE (NFPA-70) NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NEON TRANSFORMER NOT TO SCALE OCCUPANCY SENSOR	QTY RECEPT RI RM RTU SPEC SW SWBD SWGR TYP UG UL UON V W WW WY WY WY XFMR XFR	QUANTITY RECEPTACLE ROUGH—I N ROOM ROOFTOP UNIT SPECIFICATIONS SWITCH SWITCHBOARD SWITCHGEAR TYPICAL UNDERGROUND UNDERWRITERS LABORATORIES UNLESS OTHERWISE NOTED VOLTS WATTS WARM WHITE WATERPROOF WITHOUT TRANSFOMER TRANSFER
ELEC	ELECTRICAL	NTS	NOT TO SCALE		
				XFR	
EQUIP	EQUIPMENT	PB	PUSHBUTTON	Z	IMPEDANCE OR ZONE
(E)	EXISTING	PIR	PROXIMITY INFRARED		
FLŔ	FLOOR	PNL	PANEL POINT OF CONNECTION		
FLUOR	FLUORESCENT	POC	POINT OF CONNECTION		

POINT OF SCALE

POWER

OTE	ROM	LUSH	BUS AM	<b>240/120</b> MPS <b>125</b> NL <b>100%</b>		3W		AIC <b>as no</b> Main Bkr Lugs <b>stai</b>		SHCEDULE	
KT #	CKT BKR	CIRCUIT DESCRIPTION	I		KVA	CKT #	CKT BKR	CIRCUIT DESCRIPTION	)N		KVA
1	20/1	CO/SD, LIGHTING, RE		0.753	В	2	20/1	FAN/LIGHT COMBO,		1.36	В
3	20/1	SMOKE EXHAUST FAN, GARA LIGHTING, RECEPTAC			1.7	4	20/1	LIGHTING, RECEPTA	CLE		0.92
5 7	30/2	EV CHARGER	<b>LL</b>	2.88	2.88	6 8	20/1 20/1	EXHAUST FAN, LIGH		CLE	0.63
9 11 3	20/1 30/2 I	WASHER DRYER		1.5	2.5	10 12 14	20/1 20/1 -/2	GAS STOVE LIGHTING, RECEPTA ELECTRIC COOKING		0.1	0.8
5	20/1 20/1	SPARE EXHAUST FAN, LIGHT		0.394	0	16 18	 20/1	RECEPTACLE	7	0.18	4
19 21 23	20/1 20/1 20/1	DISHWASHER, DISPOS KICTHEN KICTHEN, REFRIG	DAL	1.5	1.8	20 22 24	20/2     25/2	GAS WATER HEATE SOLAR BREAKER	к	0	0.1
25 27	20/1 20/1	HOOD LIGHTING, RECEPTAC	LE	0.4	0.78	26 28	20/2	FC, OAC		0	2.1
29	20/1	LIGHTING, RECEPTAC	LE	0.925		30	ĺ	TOTAL 0011150	TED 1814 DV DV	2.1	40:
LIGH SMAI LAUI APPI ELEC	TING AN LL—APPL NDRY LIANCES CTRIC CO		CONN KVA  6.78  2, (3)  1.5 12.7 8	) 261 SF 3 VA/SF)		UF O\ MAX TOTA	P TO 10 /ER 10 K HEATING L LOAD	CONN KVA  D  KVA 10  VA 22.3  OR COOLING	CALC KVA  10 8.94 4.27 23.2 96.7 A	(100%) (40%)	(3))
SMAI LAUI APPI	LL—APPL NDRY LIANCES CTRIC CO	LIANCE	6.78 <sup>2</sup> , (3 3 1.5 12.7				F) UF OV MAX TOTA	F) UP TO 10 OVER 10 K MAX HEATING TOTAL LOAD	GENERAL LOAD  F)  UP TO 10 KVA  OVER 10 KVA  22.3  MAX HEATING OR COOLING	GENERAL LOAD  F) UP TO 10 KVA 10 10  OVER 10 KVA 22.3 8.94  MAX HEATING OR COOLING 4.27  TOTAL LOAD 23.2	GENERAL LOAD  F) UP TO 10 KVA 10 10 (100%)  OVER 10 KVA 22.3 8.94 (40%)  MAX HEATING OR COOLING 4.27 (220.82(C))  TOTAL LOAD 23.2

	$\frac{3}{3}$											
ROOM MOUN FED F	ITING <b>FL</b> FROM	USH	VOLTS BUS AMI NEUTRAL	PS <b>125</b>	1	W		AIC <b>as no</b> Main bkr Lugs <b>stan</b>		SHCED	OULE	
CKT	CKT			LOAD	KVA	CKT	CKT				LOAD	KVA
#	BKR	CIRCUIT DESCRIPTION		Α	В	#	BKR	CIRCUIT DESCRIPTION	N		Α	В
1	20/1	CO/SD, LIGHTING, RE	1.41		2	30/2	DRYER			2.5		
3	20/1	GARAGE DOOR, LIGH	TING, RECEPTACLE		1.32	4	1					2.5
5	20/1	KICTHEN	1.5		6	20/1	GAS STOVE			0.1		
7	20/1	KICTHEN, KITCHEN, F	4.0	1.5	8	20/1	SPARE			2 00	0	
9	20/1 20/1	DISHWASHER, DISPOS	PAL	1.8	0.4	10 12	30/2 I	EV CHARGER			2.88	2.8
13	20/1	SPARE		0	0.4	14	-/2	ELECTRIC COOKING	I OAD		4	2.0
15	20/1	EXHAUST FAN, LIGHT		0.394	16	ĺ					4	
17	20/1	LIGHTING, RECEPTACI	0.925					0.18				
19	20/1	LIGHTING, RECEPTACI		0.925	20	20/2	SPARE				0	
21	20/1	EXHAUST FAN, LIGHT		0.409	4.70	22		001 40 0054450			0	
23 25	20/1	FAN/LIGHT COMBO, I		1.01	1.72	24 26	25/2	SOLAR BREAKER			0	0
27	20/1 20/1	EXHAUST FAN, LIGHT	1.5	0.618	28 28	20/2	FC, OAC			2.1	2.1	
29	20/1	WASHER			30							
							TOTAL CONNECTED KVA BY PHASE			HASE	20.3	18.
OPTIC	DNAL DW	ELLING UNIT CALCULA	TION (NEC 220.82) CONN KVA					CONN KVA	A CALC KVA			
LIGH	ITING AN	D RECEPTACLES		261 SF VA/SF)	)		RAL LOAP TO 10		10	(100	%)	
SMALL-APPLIANCE 3		· ·	,,			/ER 10 K		8.94	(40%	,		
		1.5			MAX HEATING OR COOLING		,		82(C)(	1))		
			12.7	TOTAL LOAD			LLOAD		23.1	•		
ELECTRIC COOKING MOTORS			8				NCED LC	)AD	96.4 A			
MUT	UK2		0.4									

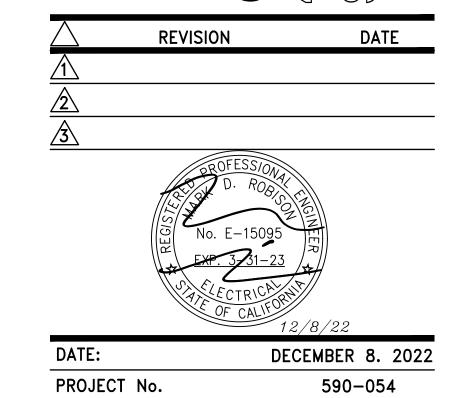


ONE-LINE DIAGRAM

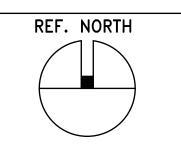




## NEW DEVELOPMENT: CHEENEY ST TOWNHOUSES 1249 CHEENEY ST. SANTA CLARA, CA 95054



### ONE-LINE DIAGRAM, PANEL & FAULT SCHEDULES



E1.00

١.	nel OT	10	ROOM MOUNTING <b>SURFACE</b> FED FROM <b>VAULT</b> NOTE <b>NEMA 3R ENCLO</b>	BUS NEU	AMF	240/120V PS 60 100%	2P 3W	AIC <b>10,000</b> Main BKR <b>60</b> Lugs <b>standard</b>
CKT #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION		CK1 #	CKT BKR	LOAD KVA	CIRCUIT DESCRIPTION
1 3 5 7 9 11 13 15 17 19 21 23	20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	0 0 0 0 0 0 0 0 0	SPARE		2 4 6 8 10 12 a 14 b 16 a 18 c 20 a 22 b 24	20/1 20/1 20/1 20/1 20/1 20/1 20/1 20/1	0 0 0 0 0 0 0 0 0 0 0	SPARE
		-	CONN CALC KVA KVA		BAL PH	AL LOAD ANCED L ASE A ASE B		CALC KVA 0 0 A 0.00% 0.00%

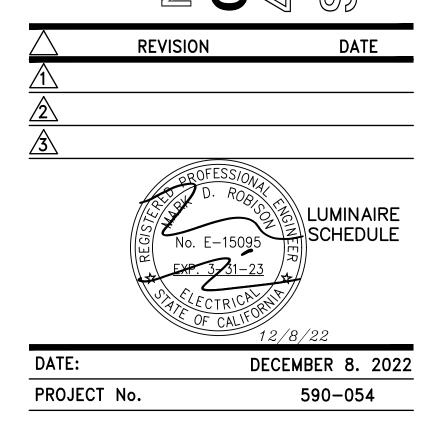
CALLOUT	SYMB0L	MOUNTING	DESCRIPTION	MODEL	VOLTAGE	LAMPING	WATTAGE	NOTES
L1	0	CEILING	GEN. LED LIGHT	TBD	120	(1) LED	14	
L2	ю	WALL	GEN. LED LIGHT	TBD	120	(1) LED	14	
L3		CEILING	LED DOWNLIGHT	TBD	120	(1) LED	25	
L5	<b>——</b>	CEILING	8' LED STRIP	TBD	120	(1) LED	40	
L6	0	CEILING	4" LED DOWNLIGHT	TBD	120	(1) LED	15	
L7	δ	WALL	EXT. LED LIGHT	TBD	120	(1) LED	15	W/ INTEGRAL PHOTOCEL AND MOTION SENSOR
L8	H	WALL	LED VANITY LIGHT	TBD	120	(1) LED	25	
L10	0	CEILING	WET RATED LED SHOWER LIGHT	TBD	120	(1) LED	20	
L11	\ \ \ \ \ \	CEILING	FAN/LIGHT COMBO	TBD	120	(1) LED	100	

DEVICE	1	FEEDER		BRANCH CIRC	UIT	TOTAL	FEEDER  VOLTAGE DROF	
	VOLTAGE DROP	WIRE SIZE	LENGTH	MAX VOLTAGE DROP	WIRE SIZE	VOLTAGE DROP		
UTILITY	0%		_	_	_	0%	0%	
VAULT	0%	(3)#400kcm AL	il	-	_	0%	0%	
LOT 10	0%	#2 AL	167'	_	_	0%	0%	
P1	2.1%	#2/0 AL	165'	1.42% (CKT 2)	#12	3.52%	2.1%	
P2	1.43%	#2/0 AL	112'	1.42% (CKT 2)	#12	2.85%	1.43%	
Р3	1.37%	#2/0 AL	107'	1.42% (CKT 2)	#12	2.8%	1.37%	
P4	0.78%	#2/0 AL	61'	1.42% (CKT 2)	#12	2.2%	0.78%	
P5	1.77%	#2/0 AL	139'	1.79% (CKT 9)	#12	3.56%	1.77%	
P6	2.12%	#2/0 AL	166'	1.79% (CKT 9)	#12	3.91%	2.12%	
P7	2.47%	#2/0 AL	194'	1.79% (CKT 9)	#12	4.26%	2.47%	
P8	2.82%	#2/0 AL	221'	1.79% (CKT 9)	#12	4.61%	2.82%	
P9	3.18%	#2/0 AL	249'	1.79% (CKT 9)	#12	4.96%	3.18%	

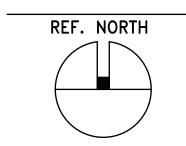




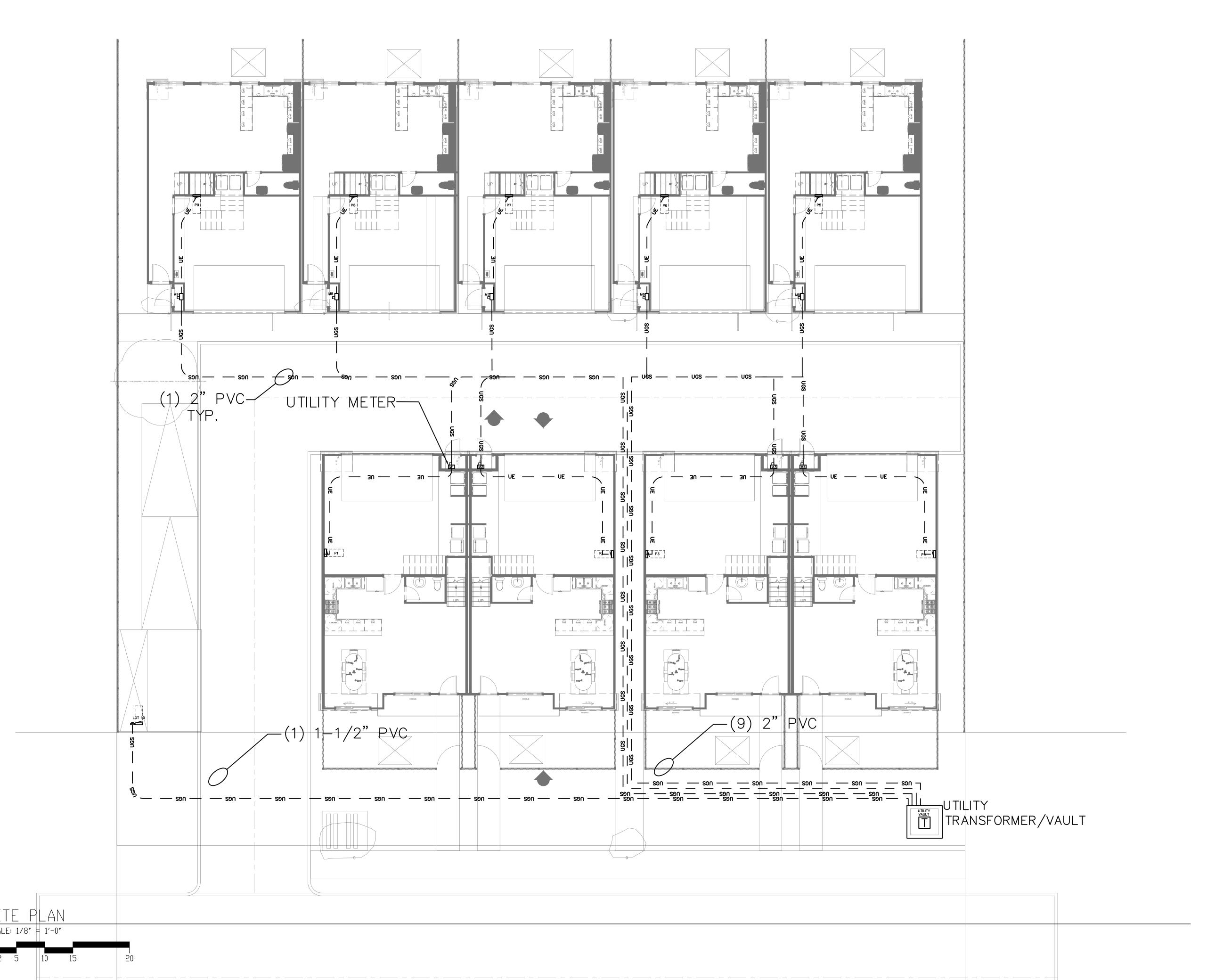
## ENEVELOPMENT: ENEX ST TOWNHOUSE CHEENEY ST.



**LUMINAIRE SCHEDULE** 



E1.01





CONSTRUCTION INC.
GENERAL CONTRACTOR & ENGINEER
101 South Santa Cruz Ave., #33192

Los Gatos, CA 95030

### ST TOWNHOUSES

REVISION DATE

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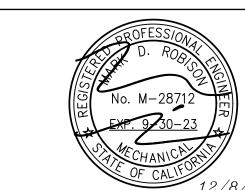
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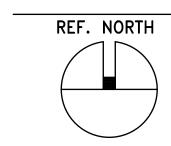
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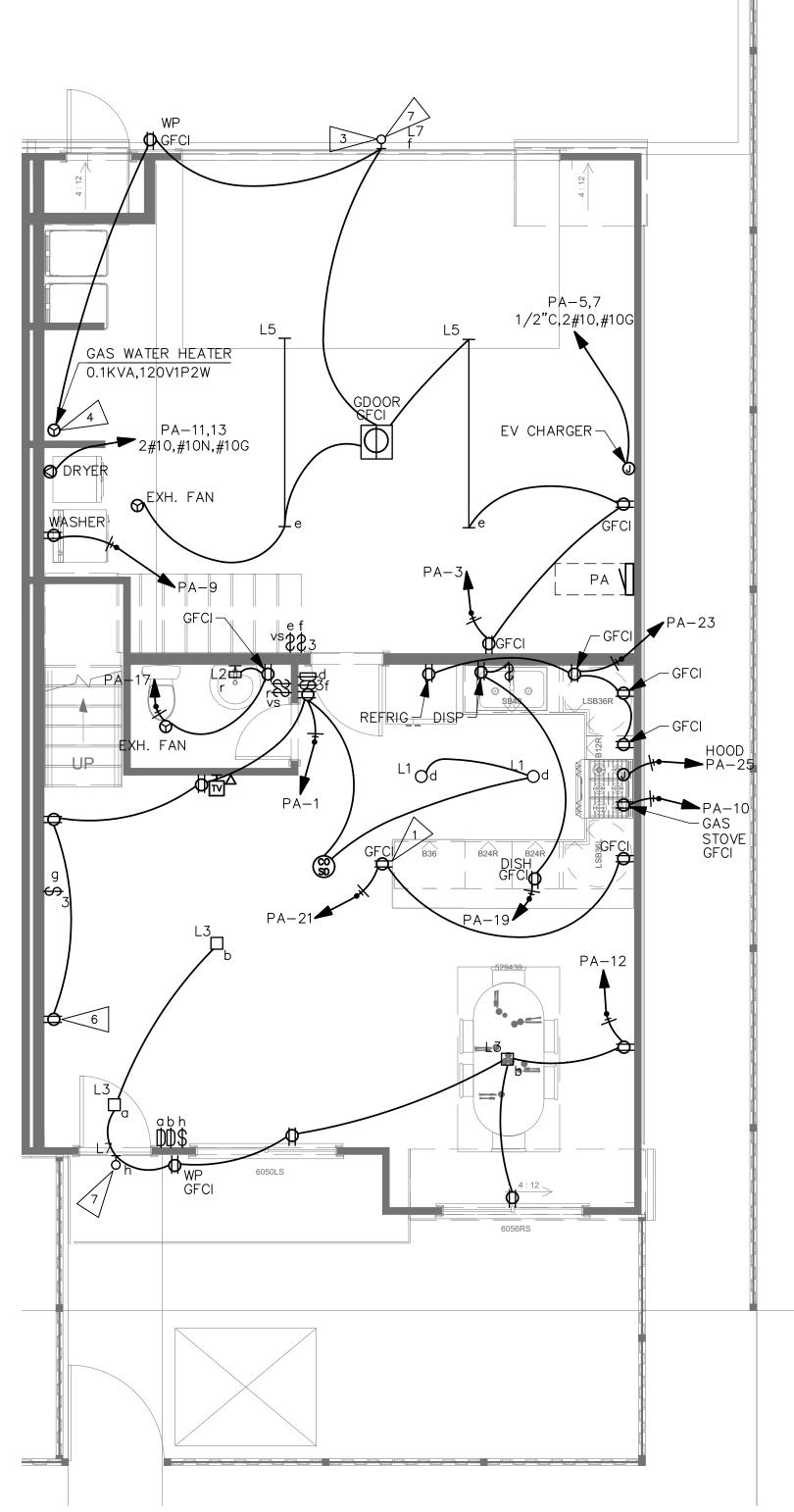
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 DECEMBER 8. 2022

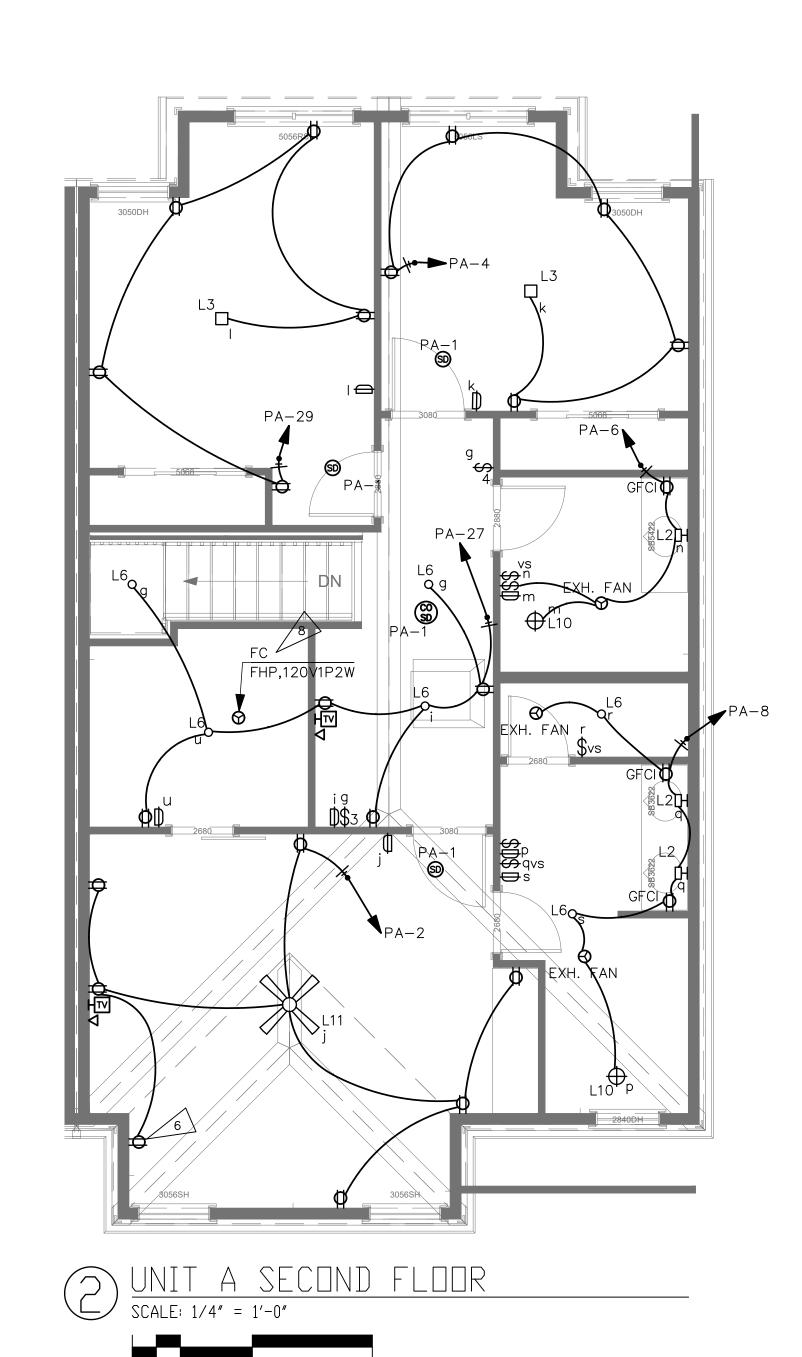
 PROJECT No.
 590-054

SITE PLAN



E2.00







 $\overline{\text{SCALE: } 1/4'' = 1'-0''}$ 

OAC 4KVA,240V2P2W PA-28,30

6" MAX COUNTERTOP OVERHANG FROM BASE CABINET.
MOUNT RECEPTACLE WITHIN 12" OF COUNTERTOP
SURFACE.

4:12

2 REQUIRED SOLAR READY ZONE PER TITLE 24 110.10.

3 ALL OPENINGS AROUND PENETRATIONS THROUGH EXTERIOR WALLS AND SILL PLATES SHALL BE SEALED FOR RODENT PROOFING. TYP.

TIE TO GARAGE CIRCUIT IF GAS WATER HEATER REQUIRES ELECTRICAL CONNECTION.

5 PROVIDE DOUBLE HASP LOCKING ARRANGEMENT OR UTILITY LOCK BOX FOR UNIT UTILITY ROOM DOORS.

6 PROVIDE TAMPER PROOF RECEPTACLES PER CBC 406.12.

OUTDOOR LIGHTING SHALL BE INTEGRALLY CONTROLLED BY BOTH PHOTOCELL CONTROL AND MOTION SENSOR

8 FC POWER FED FROM OUTDOOR UNIT

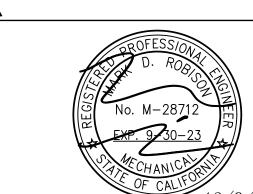




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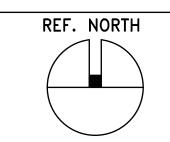
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REVISION DATE



DATE:	DECEMBER 8. 2022
PROJECT No.	590-054

### TYPICAL UNIT POWER PLAN



E3.00

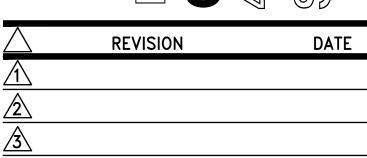


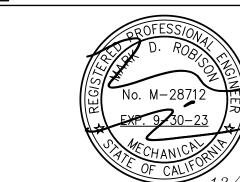


CONTACT: ARIK ESPINELI

CONSTRUCTION INC. GENERAL CONTRACTOR & ENGINEER 101 South Santa Cruz Ave., #33192 Los Gatos, CA 95030

WELOPMENT: **EY ST TOWNHOUSE**HEENEY ST.

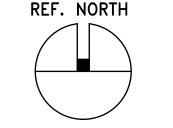


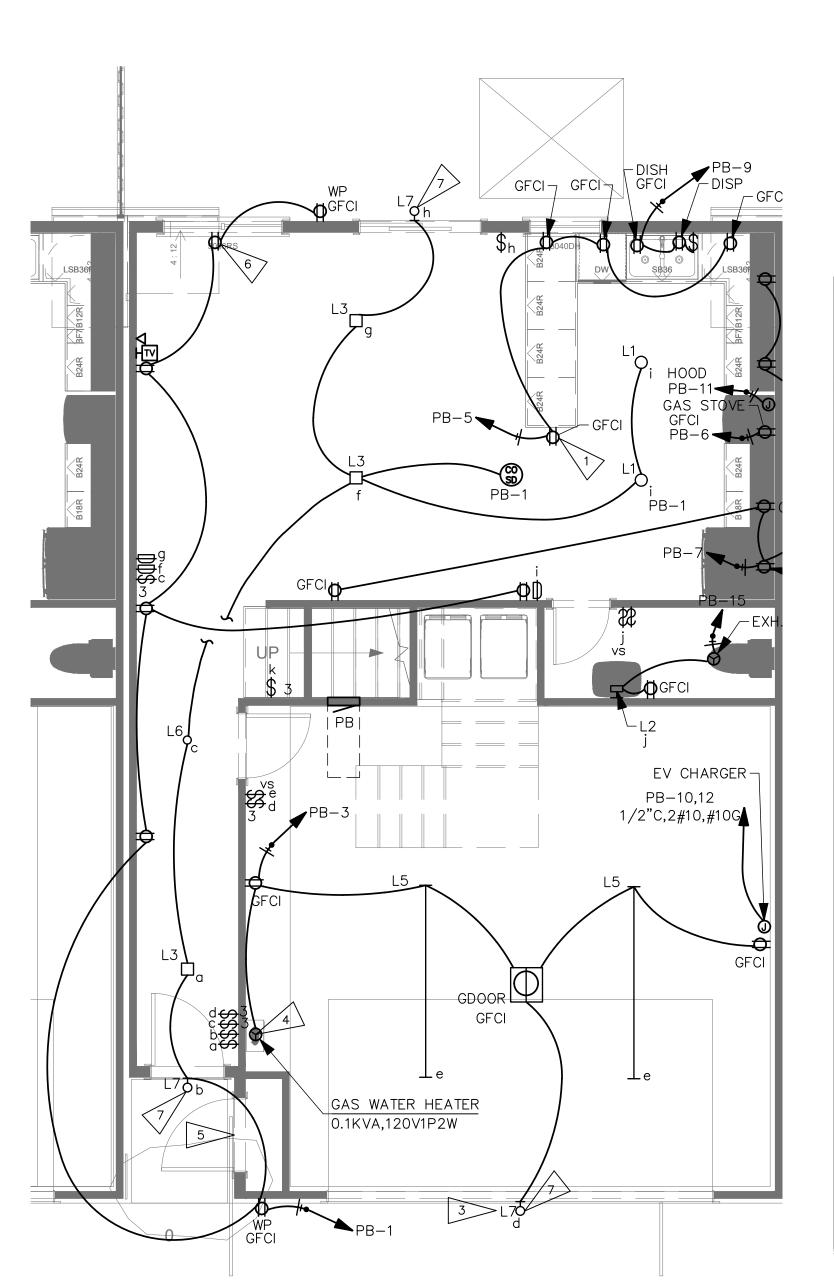


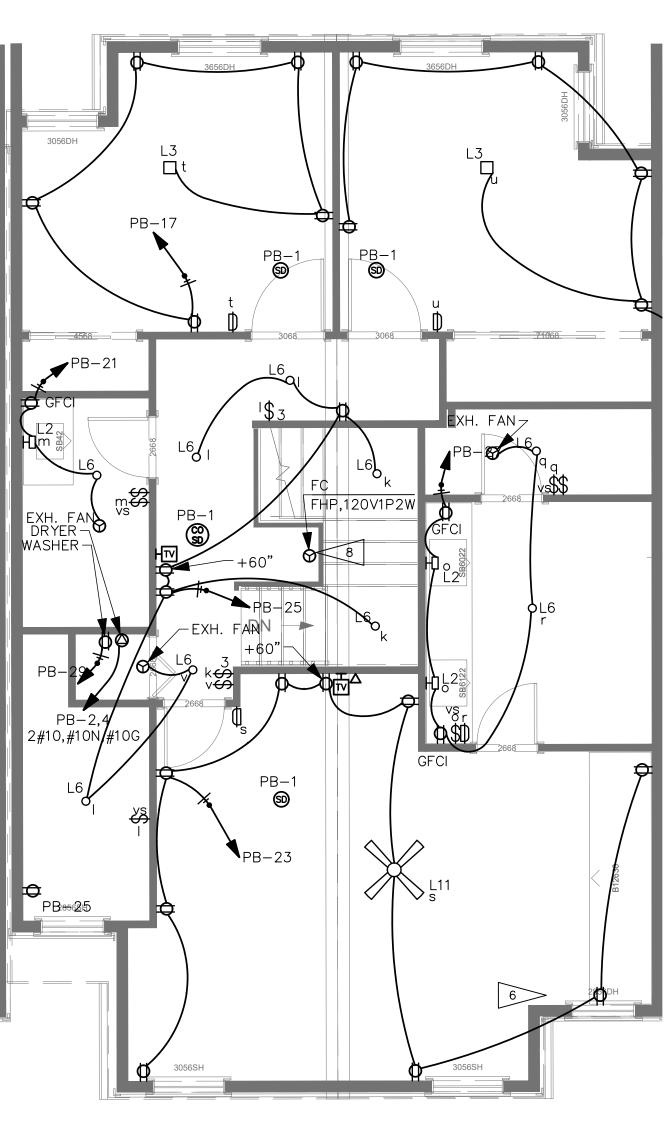
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	PROJECT	No.	590-	-05	4

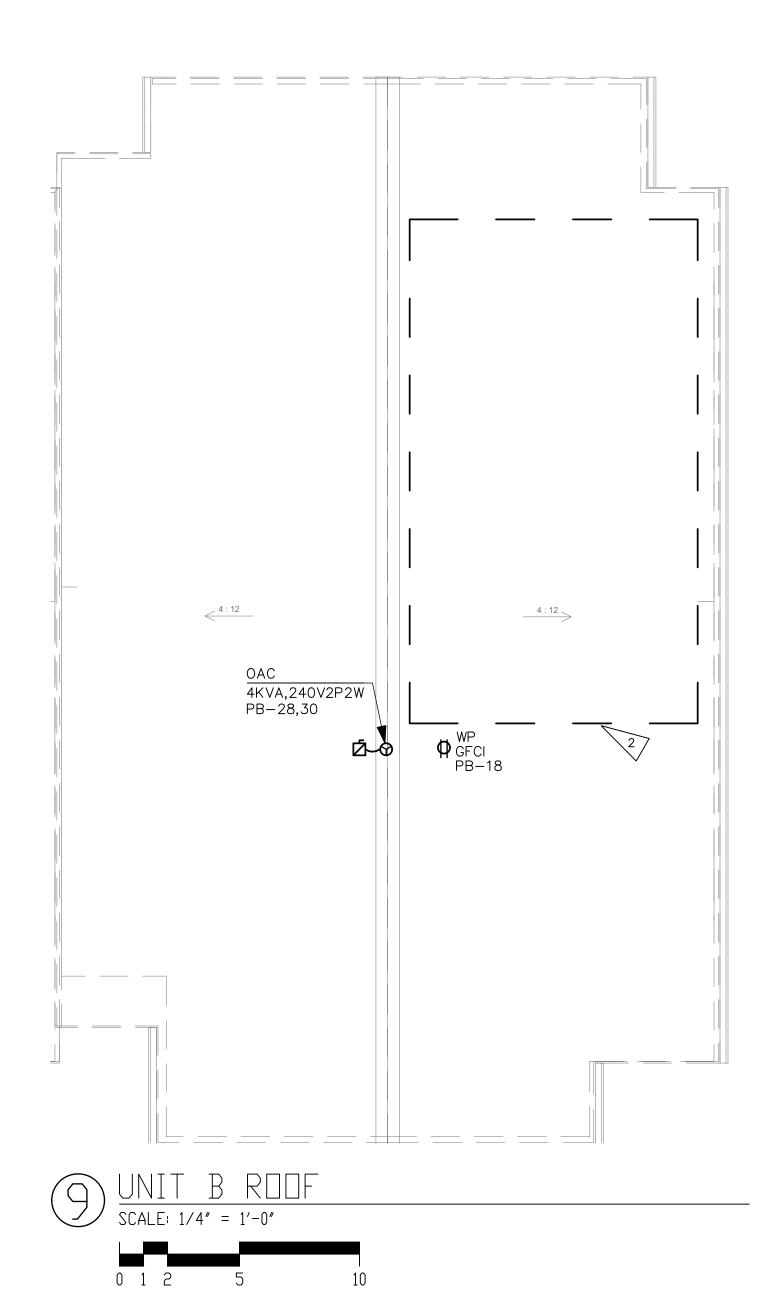
### **TYPICAL UNIT POWER PLAN**

E3.01









#> SHEET NOTES

1 6" MAX COUNTERTOP OVERHANG FROM BASE CABINET. MOUNT RECEPTACLE WITHIN 12" OF COUNTERTOP SURFACE.

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8 FC POWER FED FROM OUTDOOR UNIT

SCALE: 1/4'' = 1'-0''

SCALE: 1/4'' = 1'-0''

REF. NORTH

### GENERAL NOTES - MECHANICAL

REFERENCE TO RELATED WORK: "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL, LANDSCAPE, OR KITCHEN), OR ITEM BASED ON A SPECIFIC

MANUFACTURER'S DIMENSIONS (VERIFY).

- 2. ELECTRICAL CHARACTERISTICS: REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS (VOLTAGES, ETC. OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.
- CODES: COMPLETE INSTALLATION OF THE MECHANICAL SYSTEM SHALL BE PER THE APPLICABLE BUILDING, MECHANICAL, ENERGY, PLUMBING, FIRE, AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL
- PREPARE AND SUBMIT FOR REVIEW A SHOP DRAWING BASED ON FINAL STRUCTURAL SHOP DRAWINGS FOR LOCATING AND ROUTING ALL DUCTWORK, DAMPERS, EQUIPMENT, PIPING, ETC. A. COORDINATE FLOOR AND BEAM PENETRATIONS WITH
  - STRUCTURAL B. COORDINATE FINAL LOCATION AND ROUTING WITH CEILING, LIGHTS, WALLS, FIRE SPRINKLER PIPING,
  - AND OTHER TRADES WORK. C. INCLUDE ADDITIONAL OFFSETS, ELBOWS, ROUTING, EQUIVALENT DUCT SIZING EXCHANGE, RELOCATING, ETC. AS REQUIRED FOR A COMPLETE OPERATING
  - MECHANICAL SYSTEM. D. PROVIDE SHOP DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.
- MECHANICAL CONTRACTOR SHALL LOCATE AND COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT WITHIN THE STRUCTURE.
- ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE ALL ACCESS DOORS ON SHOP DRAWINGS PRIOR TO BEGINNING OF CONSTRUCTION. ACCESS DOORS IN FIRE RATED STRUCTURE SHALL BE FIRE RATED. VERIFY ACCESS DOOR LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO BIDDING.
- RATED PENETRATION: DUCT PENETRATIONS THROUGH RATED ENCLOSURES SHALL BE FIRE/SMOKE DAMPERED PER THE LATEST EDITION OF THE UNDERWRITERS LABORATORIES(UL) FIRE RESISTANCE WITH HOURLY RATINGS FOR THROUGH-PENETRATION FIRE STOPS SYSTEM VOLUME #2, OR SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S UL LISTINGS (3M OR EQUIVALENT). DETERMINE REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO BID.
- 8. EXHAUST OUTLETS: SOURCE-SPECIFIC FANS SHALL BE VENTED TO OUTDOORS WITH A MINIMUM 3' CLEARANCE BETWEEN VENT OUTLETS AND BUILDING OPENINGS, AND 10' MINIMUM BETWEEN VENT OUTLETS AND MECHANICAL AIR INTAKES.
- ROOF PENETRATIONS: SEE ARCHITECTURAL DRAWINGS FOR ROOF CAP, ROOF CURB, ROOF DRAIN, AND VTR
- 10. EXPOSED PIPING: PROVIDE CHROME PLATING FOR EXPOSED PIPING IN FINISHED ROOMS.
- 11. PENETRATIONS: PROVIDE ESCUTCHEON PLATES FOR EXPOSED PIPING PENETRATIONS AND SHEET METAL FLASHING FOR EXPOSED DUCTWORK PENETRATIONS.
- TO AIR SHAFTS AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN AIR PLENUMS.

12. SHAFT AND PLENUM CONNECTIONS: SEAL CONNECTIONS

- 13. LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF MECHANICAL WORK TO PROVIDE CLEARANCES OVER LIGHTING FIXTURES FOR REMOVAL AND REPLACEMENT.
- 14. CABLE TRAYS: DUCTWORK AND PIPING INSTALLED ADJACENT TO ELECTRICAL CABLE TRAYS SHALL ALLOW MINIMUM ACCESS OF 6" ABOVE AND TO THE SIDE OF CABLE TRAYS.
- 15. MOTORS: COMPLY WITH ENERGY CODE ENFORCED BY AHJ FOR MINIMUM EFFICIENCIES UNDER FULL LOAD.
- 16. ACCESS CLEARANCES FOR MAINTENANCE AND REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET. COORDINATE LOCATIONS OF MECHANICAL WORK AND WORK OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES FOR SERVICE AND MAINTENANCE.

### COORDINATION REQUIREMENTS

1. PIPING: COORDINATE WITH STRUCTURAL FOR EXACT

CONTRACTOR SUBSTITUTIONS & REVISIONS

CONTRACTOR SUBSTITUTIONS & REVISIONS: PLEASE SUBMIT PROPOSALS FOR SUBSTITUTIONS OR REVISIONS

DATA AND/OR SPECIFICATION FOR THAT ITEM ARE CONSIDERED PART OF SPECIFICATION. ENGINEERING COSTS

PERMITTING COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR OTHER COSTS ASSOCIATED WITH UNFORESEEN

FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIAL OR DOING WORK. FOR EQUIPMENT THAT IS

SCHEDULED BY MANUFACTURER'S NAME AND CATALOG DESIGNATIONS, THE MANUFACTURER'S PUBLISHED

FOR REVISING MEP PLANS SHALL BE ADDRESSED IN THE COST ANALYSIS OF THE SUBSTITUTION

PROPOSAL. CONTRACTOR TO COORDINATE WITH ENGINEER AND DETERMINE ASSOCIATED DESIGN AND

LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH STRUCTURAL AND AT THE SITE PRIOR AND DURING THE CONSTRUCTION.

**GENERAL NOTES** 

- DUCTWORK: LOCATE AND COORDINATE THE EXACT LOCATION OF DUCTWORK WITH STRUCTURAL PLANS AND WITH THE GENERAL CONTRACTOR PRIOR TO INSTALLATION OF ANY STRUCTURE OR EQUIPMENT COORDINATE WITH FRAMING CONTRACTOR TO ASSURE JOIST SPACES LINE UP WHEN DUCTWORK MUST PASS THROUGH DIFFERENT JOIST SPACES.
- ADJUSTMENTS: ALL EQUIPMENT, MOTORS, FANS GAS BURNERS, IGNITION DEVICES, DRIVES, ETC. SHALL BE ADJUSTED AND BALANCED TO OPERATE AT SPECIFIED RATINGS AS REQUIRED FOR THIS PROJECT SITE AND ACCOUNTING FOR ELEVATION ABOVE SEA LEVEL.
- 4. APPROVALS: MECHANICAL AND PLUMBING EQUIPMENT SHALL BE APPROVED FOR INSTALLATION IN THE PROJECT LOCATION AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS TO MEET ALL ENERGY, POLLUTION, ENVIRONMENTAL, SEISMIC, ETC. CODES AND REGULATIONS. THE CONTRACTOR SHALL COORDINATE WITH HIS MANUFACTURE SUPPLIERS AND SHALL INCLUDE ALL COSTS REQUIRED TO MEET THESE REQUIREMENTS IN HIS BID.
- 5. FIRE PROTECTION: CONTRACTOR SHALL PROVIDE A FULLY DESIGNED FIRE PROTECTION SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA AND LOCAL CODES. PROVIDE DESIGN, PERMITS, MATERIALS, INSTALLATION, TESTING AND ALL OTHER FOR A FULLY OPERATIONAL SYSTEM. LOCATION OF ALL PIPING TO BE COORDINATED WITH OTHER TRADES.
- FIREPLACES: COORDINATE WITH THE GENERAL CONTRACTOR TO DETERMINE GAS FIREPLACE FLUE AND COMBUSTION AIR DUCTWORK REQUIREMENTS PRIOR TO BIDDING.

### **PIPING NOTES**

- DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES AT PIPING CONNECTIONS TO EQUIPMENT, COILS, TRAPS, CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW DISASSEMBLY FOR MAINTENANCE.
- REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.
- OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT.
- DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.
- REFRIGERANT PIPING: PROVIDE SIZING & INSTALLATION IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- CONDENSATE DRAIN: PROVIDE A P-TRAP FOR EACH HVAC UNIT CONDENSATE PAN WITH PLUG TEES FOR CLEANING. CONDENSATE DRAINS SHALL BE DISCHARGED TO AN INDIRECT WASTE OR OUTSIDE.

### INSULATION/LINING NOTES

1. ENERGY CODE: AS A MINIMUM. COMPLY WITH THICKNESSES AND TYPES LISTED IN ENERGY CODE ENFORCED BY AHJ.

### PLAN NOTES

- DUCTWORK SHALL BE METALLIC DUCTWORK
- TEST AND BALANCE WORK SHALL BE PERFORMED BY AN INDEPENDENT TEST AND BALANCE AGENCY. PROVIDE (3) COPIES OF TEST AND BALANCE REPORT TO OWNER.
- COORDINATE DUCTWORK WITH MISCELLANEOUS OBSTRUCTIONS IN CEILING SPACE.
- RESTROOM EXHAUST SHALL BE A MINIMUM OF 10' FROM ANY MECHANICAL OUTSIDE AIR INTAKES.
- ROUTE DUCTWORK UNDERNEATH JOISTS UON.
- TRANSITION DUCT UNDER BEAMS AND DUCTS. FIELD VERIFY AVAILABLE CEILING CAVITY DIMENSIONS.
- 7. COORDINATE MOUNTING HEIGHT OF DIFFUSERS WITH ARCHITECTURAL PLANS.

### SHEET METAL NOTES

- REFERENCE: SMACNA HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE, CURRENT EDITION.
- 2. CLEARANCE: COORDINATE DUCTWORK WITH

### MISCELLANEOUS OBSTRUCTIONS IN CEILING SPACE.

- ROUND ELBOWS AND OFFSETS: FULL RADIUS (R/D =1.5), 5-PIECE SEGMENTED OR STAMPED. REFER TO SMACNA HVAC FIG 2-7, 3-3. DO NOT USE ANGLED OFFSET (TYPE 1). MITERED OFFSET (TYPE 2) MAY BE USED UP TO 30 DEGREE OFFSET ANGLE.
- ROUND TEES AND LATERALS: CONICAL TEE PER SMACNA HVAC FIG 3-5; DO NOT USE STRAIGHT TEE; DO NOT USE CONICAL SADDLE TAP FOR EXPOSED DUCTWORK IN FINISHED SPACES. 90-DEGREE TEE WITH OVAL TO ROUND TAP, LATERAL, AND 45-DEGREE RECTANGULAR LEAD-IN PER SMACNA HVAC FIG 3-4.
- RECTANGULAR ELBOWS AND OFFSETS: FULL RADIUS WHERE SPACE PERMITS, R/W = 1.5; OTHERWISE USE SQUARE CORNER ELBOW WITH TURNING VANES.
- RECTANGULAR DIVIDED FLOW FITTINGS: USE GENERALLY, EXCEPT BRANCHES TO TERMINALS; SMACNA HVAC FIG 2-5, TYPES 1, 2, 4A, AND 4B. DO NOT USE TYPE 3.
- TURNING VANES: H.E.P. MANUFACTURER OR APPROVED HIGH EFFICIENCY PROFILE AIRFOIL TYPE FOR RECTANGULAR SQUARE THROAT ELBOWS. ACOUSTICAL TYPE FOR RETURN AIR MITERED ELBOWS.
- TAKEOFFS TO OPENINGS: CONICAL TYPE WITH VOLUME DAMPER FOR ROUND DUCT BRANCHES PER SMACNA HVAC FIG 2-6, MINIMUM INLET DIAMETER 2 INCHES LARGER THAN DUCT SIZE. 45 DEGREE ENTRY FITTING FOR RECTANGULAR DUCT BRANCHES PER SMACNA HVAC FIG 2-6.
- FLEXIBLE CONNECTIONS: PROVIDE AT EACH DUCT CONNECTION TO FANS, PACKAGED HVAC EQUIPMENT, EXTERNALLY ISOLATED AIR HANDLING UNITS, FAN COIL UNITS, AND SIMILAR EQUIPMENT. EXCEPTION: EQUIPMENT IN CORRIDOR CEILING SPACES WHERE FIRE RATING IS REQUIRED.

- ATTACHMENTS: AIR DISTRIBUTION OUTLETS AND LOUVERS SHALL HAVE ALL REQUIRED ACCESSORIES AND ATTACHMENTS FOR A COMPLETE CONNECTION TO THE SPECIFIC TYPE OF STRUCTURE THAT THEY ARE BEING EXTERIOR BRICKS, GWB WALLS, GWB CEILING, ETC.
- (CLASS-1), DUCTWORK THROUGH FIRE RATED STRUCTURE AND FLOOR SHALL BE MIN. 26 GA. STEEL MAXIMUM LENGTH OF FLEXIBLE DUCTS SHALL BE 5'-0", UNLESS OTHERWISE NOTED ON DRAWINGS. DUCTWORK
- VOLUME DAMPERS: PROVIDE AN ACCESSIBLE MANUAL EXHAUST OPENING, LOCATED AS FAR UPSTREAM AS POSSIBLE FROM THE OPENING. PROVIDE A MANUAL VOLUME DAMPER FOR BRANCH MAINS SERVING MORE THAN ONE OPENING. VOLUME DAMPERS IN NON-ACCESSIBLE CEILINGS SHALL HAVE A CONTROL ARM EXTENDED TO AN ACCESSIBLE LOCATION.
- 5. FILTER CLEARANCE: PROVIDE ADEQUATE CLEARANCE FOR
- 7. FIRE RATINGS: RATED FLOOR/CEILING JOINT SPACES PROTECTED TO MAINTAIN THE 1-HOUR FLOOR/CEILING PENETRATING THE 1-HOUR ROOF/CEILING OR FLOOR/CEILING ASSEMBLY SHALL HAVE ACCESSIBLE CEILING FIRE DAMPERS. ALTERNATIVELY, THE EXHAUST DUCTWORK SHALL BE ROUTED INSIDE A RATED SHAFT JURISDICTIONS.
- CORRIDOR THERMOSTAT: PROVIDE TAMPERPROOF THERMOSTATS IN CORRIDORS. DO NOT PROVIDE PLASTIC GUARDS TO MAKE THE THERMOSTATS TAMPERPROOF. PROVIDE BLANK SECURABLE THERMOSTAT COVERS.

CONTRACTORS SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES. REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS, AND ON-SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK. PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIAL CHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED, BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THOUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT THE

THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE MINIMUM TIME INDICATED:

4 HOURS

ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE ORDERS.

MECHANICAL SHEET METAL PLUMBING / PIPING **ELECTRICAL** SPRINKLER

GENERAL CONTRACTOR

4 HOURS 4 HOURS 2 HOURS ALL SESSIONS

### **ABBREVIATIONS**

AIR CONDITIONING UNIT ABOVE FINISHED FLOOR AUTHORITY HAVING JURISDICTION AHU AIR HANDLING UNIT ACCESS PANEL BDD BACKDRAFT DAMPER BHP BRAKE HORSEPOWER **BTUH** BRITISH THERMAL UNIT PER HOUR COMMON

CAP CAPACITY CC COOLING COIL CD CEILING DIFFUSER CFM CUBIC FEET PER MINUTE CLG CEILING, COOLING CO CLEANOUT COMB COMBUSTION CONT CONTINUE, CONTROL COP COEFFICIENT OF **PERFORMANCE** 

**CWS** SUPPLY **CWR** RETURN DIAMETER

DB DIM **DIMENSION** DISCH DISCHARGE DN DOWN EΑ EXHAUST AIR EAT

EER EXHAUST FAN EFF **EFFICIENCY** EG **ELEC ELECTRIC** ESP EXH

MTD

OSA

OBD

**OPNG** 

OD

PD

POC

PRV

**PSIG** 

RA

RD

REF

RF

RG

RPM

SA

SF

SG

TYP

UH

UON

VENT

VTR

SCH

SENS

SMACNA

MOUNTED

DIAMETER

IN GAUGE

RETURN AIR

ROOF DRAIN

REFERENCE

RELIEF FAN

SUPPLY AIR

SCHEDULE

SENSIBLE

SQUARE

**TYPICAL** 

RETURN GRILLE

SUPPLY GRILLE

SHEET METAL AND AIR

SCREENED OPENING

STATIC PRESSURE STAINLESS STEEL SANITARY SEWER

TRANSFER GRILLE

VENT THRU ROOF

WASTE, WATT, WIDE

UNIT HEATER

NATIONAL ASSOCIATION

UNLESS OTHERWISE NOTED

VENTILATION, VENTILATOR

WET BULB (TEMPERATURE)

**OPENING** 

PUMP

OUTDOOR AIR

OPPOSED BLADE DAMPER

PRESSURE DROP, PUMPED

PRESSURE REDUCING VALVE

POINT OF CONNECTION

POUNDS PER SQUARE

REVOLUTIONS PER MINUTE

SUPPLY FAN, SQUARE FOOT

CONDITIONING CONTRACTORS

OUTSIDE DIMENSION OR

- ATTACHED TO. THIS INCLUDES, BUT IS NOT LIMITED TO, DUCTWORK: DUCTWORK SHALL BE SMOOTH SHEET METAL
- SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
- VOLUME DAMPER FOR EACH SUPPLY, RETURN, OSA, AND
- SEISMIC: PROVIDE SEISMIC RESTRAINTS FOR MECHANICAL EQUIPMENT, PIPING, AND DUCTWORK PER SMACNA AND LOCAL REGULATIONS.
- CHANGING AIR FILTERS.
- DUCTWORK AND PIPING OUTSIDE OF MECHANICAL ROOMS SHALL BE CONCEALED, COORDINATE WITH THE GENERAL CONTRACTOR TO FUR-OUT AS REQUIRED.
- HAVING DUCTWORK INSIDE THEM SHALL BE FIRE/SMOKE RATING PER LOCAL JURISDICTIONS. EXHAUST DUCTWORK TO PROTECT THE CEILING/ROOF RATING PER THE LOCAL
- FIRESTOP: PIPE, DUCT AND CONDUIT PENETRATIONS THROUGH RATED ASSEMBLIES SHALL BE FIRE AND SMOKE STOPPED PER CODE.

### PRE-CON MEETING NOTES

OR ROOF SMOKE DETECTOR **TERMINALS VOLUME DAMPER** -DIFFUSER/GRILLE TYPE, AND CD-12x12 OR NUMBER OR SIZE FIRE/SMOKE DAMPER (--◀ = 400 - DESIGN CFM (WHERE APPLICABLE) +FSD HORIZ DUCT, -- - - = VERT DUCT), CEILING DIFFUSER (FLOW ARROWS 2-HR RATED, UON CHILLED/CONDENSER WATER SHOWN FOR NON SYMMETRICAL FIRE DAMPER (--◀ = HORIZ AIRFLOW) FD DUCT, -- VERT DUCT), 2-HR CHILLED/CONDENSER WATER RATED, UON CEILING RETURN/EXHAUST GRILLE DRY BULB, DECIBEL LINEAR DIFFUSER, CEILING OR WALL 90° ELBOW, R/D OR R/W=1.5 MOUNTED (FLOW ARROWS SHOWN FOR NON SYMMETRICAL AIRFLOW) SQUARE CORNER ELBOW WITH WALL SUPPLY GRILLE (SG) ENTERING AIR TEMPERATURE TURNING VANES ENERGY EFFICIENCY RATIO WALL RETURN/EXHAUST GRILLE TAKE-OFF OR TEE (RG, EG) EXHAUST GRILLE TRANSFER GRILLE (TG), DUCT CONNECTED. WALL MOUNTED W/ 90' CONICAL TAKE-OFF EXTERNAL STATIC PRESSURE OPTIONAL CFM SHOWN **EXHAUST** RANSFER GRILLE, CEILING EXT EXTERIOR, EXTERNAL MOUNTED WITH FULL-SIZED LINED 45' LATERAL TAKE-OFF **FAHRENHEIT** DUCT CONNECTION FCU FAN COIL UNIT TRANSITION OR REDUCER (FOT = **PIPING** FLR FLOOR FLAT ON TOP, FOB = FLAT ON FPM FEET PER MINUTE CONDENSATE DRAINAGE BOTTOM) **FPS** FEET PER SECOND NATURAL GAS - STD. PRESSURE FSD FIRE/SMOKE DAMPER WYE FITTING NATURAL GAS - MEDIUM PRESSURE GAL GALLONS PIPE CAP GPM GALLONS PER MINUTE 90' RECTANGULAR TAKE-OFF WITH GRD GRILLES, REGISTERS, PIPE PLUG 45° TAPER **DIFFUSERS GWB** GYPSUM WALLBOARD HDFLANGE HORIZ HORIZONTAL 90' DIVERGING RECTANGULAR TEE, GATE VALVE (EXISTING ONLY) HP HORSEPOWER EITHER RADIUS OR TURNING VANES HPU HEAT PUMP UNIT BALL VALVE HEAT RECOVERY UNIT HRU PRESSURE REDUCING VALVE (PRV) HVAC HEATING, VENTILATING, PARALLEL FLOW BRANCH AND AIR CONDITIONING BREAK IN PIPING OR DUCTWORK CONNECTION, EITHER RADIUS OR HVUHEATING & VENTILATION TURNING VANES RAIN LEADER (RL) HWR HOT WATER RETURN OVERFLOW RAIN LEADER (OL) FLEXIBLE DUCT \_\_\_\_OL\_\_\_\_ HOT WATER SUPPLY HWS ROUND DUCT INDICATOR — CHECK VALVE HEAT EXCHANGER  $\mathsf{HX}$ INDIRECT DRAIN, INSIDE DIAMETER DRAWINGS ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, KW KILOWATT LONG, LENGTH AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT POUND MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO THOUSAND BTU PER HOUR MBH MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS MECH **MECHANICAL** MCA MIN. CIRCUIT AMPACITY AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, MOCP MAX. OVER CURRENT OFFSETS. AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM. PROTECTION

**EQUIPMENT** 

(H)

TYPICAL EQUIPMENT DESIGNATION

(EXHAUST FAN SHOWN)

DUCT SMOKE DETECTOR

ROOM THERMOSTAT OR

TRANSMITTER

TEMPERATURE TRANSMITTER

CARBON MONOXIDE SENSOR

ROOM HUMIDISTAT OR HUMIDITY

### DRAWING INDEX

**SYMBOLS** 

18x12

UP

DOWN

><

DOWN

<u>DUCTWORK</u>

**PRESSURE** 

DUCT (1ST FIGURE = SIDE SHOWN

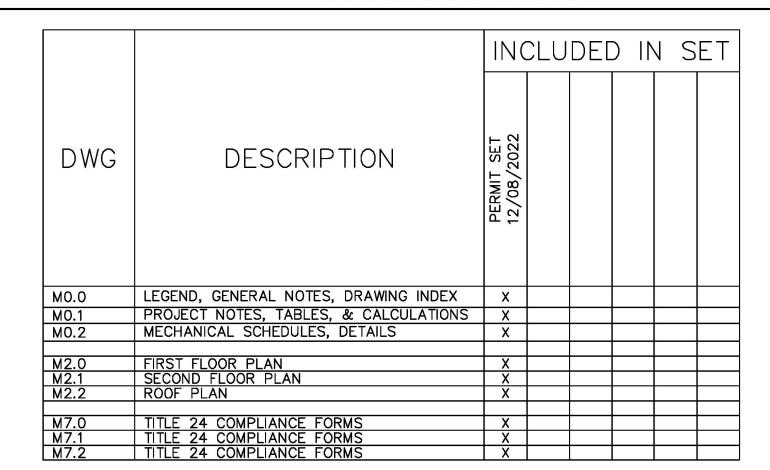
2ND FIGURE = SIDE NOT SHOWN)

DUCT SECTION, POSITIVE PRESSURE

DUCT PENETRATION THRU FLOOR

DUCT SECTION, NEGATIVE

ROUND DUCT SECTION





LYNNWOOD, WA 98036

206-364-3343 TEL

REI PROJECT NO.: 590-054

CONTACT: ARIK ESPINELI

CONSTRUCTION INC. GENERAL CONTRACTOR & ENGINEER 101 South Santa Cruz Ave., #33192 Los Gatos, CA 95030

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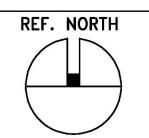
DATE **REVISION** 

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DATE: PROJECT No. DECEMBER 8. 2022

590-054

**LEGEND, GENERAL NOTES DRAWING INDEX** 



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ISSUES RESULTING FROM SUBSTITUTIONS OR REVISIONS.

### **PROJECT NOTES**

### PROJECT NOTES

- 1. THE PERSON WITH OVERALL RESPONSIBILITY FOR CONSTRUCTION OR THE PERSON RESPONSIBLE FOR THE INSTALLATION OF REGULATED FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES SHALL POST, OR MAKE AVAILABLE WITH THE BUILDING PERMIT(S) ISSUED FOR THE BUILDING, THE REQUIRED INSTALLATION CERTIFICATE(S) FOR FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES REGULATED BY THE APPLIANCE EFFICIENCY REGULATIONS OR PART 6. SUCH INSTALLATION CERTIFICATE(S) SHALL BE MADE AVAILABLE TO THE ENFORCEMENT AGENCY FOR ALL APPROPRIATE INSPECTIONS. THESE CERTIFICATES SHALL:
- 1.1. IDENTIFY FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES REQUIRED TO VERIFY COMPLIANCE WITH THE APPLIANCE EFFICIENCY REGULATIONS AND PART 6.
- 1.2. INCLUDE A STATEMENT INDICATING THAT THE FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES CONFORM TO THE APPLIANCE EFFICIENCY REGULATIONS AND PART 6 AND THE REQUIREMENTS FOR SUCH FEATURES, MATERIALS, COMPONENTS, OR MANUFACTURED DEVICES GIVEN IN THE PLANS AND SPECIFICATIONS APPROVED BY THE LOCAL ENFORCEMENT AGENCY.
- 1.3. STATE THE NUMBER OF THE BUILDING PERMIT UNDER WHICH THE CONSTRUCTION OR INSTALLATION WAS PERFORMED.
- 2. AFTER INSTALLING WALL, CEILING, OR FLOOR INSULATION, THE INSTALLER SHALL MAKE AVAILABLE TO THE ENFORCEMENT AGENCY OR POST IN A CONSPICUOUS LOCATION IN THE BUILDING A CERTIFICATE SIGNED BY THE INSTALLER STATING THAT THE INSTALLATION IS CONSISTENT WITH THE PLANS AND SPECIFICATIONS DESCRIBED IN SEC. 10–103 (A) 2. THE CERTIFICATE SHALL ALSO STATE THE MANUFACTURER'S NAME, MATERIAL IDENTIFICATION, AND THE INSTALLED R-VALUE.
- 3. WITHIN 90 DAYS AFTER ISSUANCE OF CERTIFICATE OF OCCUPANCY RECORD DRAWINGS SHALL BE PROVIDED TO THE OWNER. IF ANY CHARACTERISTIC IS MATERIALLY CHANGED BEFORE FINAL CONSTRUCTION AND INSTALLATION, SUCH THAT THE BUILDING MAY NO LONGER COMPLY WITH PART 6, THE BUILDING MUST BE BROUGHT INTO COMPLIANCE, AND SO INDICATED ON AMENDED PLANS AND CERTIFICATE OF COMPLIANCE THAT SHALL BE SUBMITTED FOR PLAN APPROVAL.
- 4. THE BUILDER SHALL PROVIDE THE BUILDING OWNER OR THE PERSON(S) RESPONSIBLE FOR BUILDING MAINTENANCE (IN CASE OF MULTI-TENANT OR CENTRALLY OPERATED BUILDINGS) AT OCCUPANCY THE FOLLOWING:
- 4.1. OPERATING INFORMATION: THE APPROPRIATE CERTIFICATE(S) OF COMPLIANCE AND A LIST OF THE FEATURES, MATERIALS, COMPONENTS, AND MECHANICAL DEVICES INSTALLED IN THE BUILDING AND INSTRUCTIONS ON HOW TO OPERATE THEM EFFICIENTLY.
- 4.2. MAINTENANCE INFORMATION: REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY STATED AND INCORPORATED ON A READILY ACCESSIBLE LABEL. THE LABEL MAY BE LIMITED TO IDENTIFYING THE OPERATION AND MAINTENANCE MANUAL.
- 4.3. VENTILATION INFORMATION: A DESCRIPTION OF THE QUANTITIES OF OUTDOOR AND RECIRCULATED AIR THAT THE VENTILATION SYSTEMS ARE DESIGNED TO PROVIDE TO EACH AREA.
- 5. ANY ROOFING PRODUCT USED AS A COOL ROOF SHALL BE CERTIFIED AND LABELED IN ACCORDANCE WITH THE REQUIREMENTS OF SEC. 10—113 BY THE COOL ROOF RATING COUNCIL (CRRC) AND MEET CONDITIONS SET IN SEC. 118
- 6. DUCT SYSTEMS USED WITH BLOWER TYPE EQUIPMENT WHICH ARE PORTIONS OF A HEATING, COOLING, ABSORPTION, EVAPORATIVE COOLING OR OUTDOOR AIR VENTILATION SYSTEM SHALL BE SIZED IN ACCORDANCE WITH CHAPTER 17 OF THE CALIFORNIA MECHANICAL CODE.
- 7. SUPPLY AIR, RETURN AIR, AND OUTSIDE AIR FOR HEATING, COOLING, OR EVAPORATIVE COOLING SYSTEMS SHALL BE CONDUCTED THROUGH DUCT SYSTEMS CONSTRUCTED OF METAL AS SET FORTH IN THE ANSI/SMACNA 006-2006 HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE, OR ANOTHER APPROVED DUCT CONSTRUCTION STANDARD.
- 8. MATERIALS EXPOSED WITHIN DUCTS OR PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME—SPREAD INDEX NOT GREATER THAN TWENTY—FIVE (25) AND A SMOKE DEVELOPED INDEX NOT GREATER THAN FIFTY (50) WHEN TESTED AS A COMPOSITE PER APPLICABLE TESTING STANDARD.
- WHEN FIRE DETECTION OR ALARM SYSTEMS ARE PROVIDED FOR THE BUILDING, ANY REQUIRED SMOKE DETECTORS SHALL BE SUPERVISED BY SUCH SYSTEMS AND SHALL BE CAPABLE OF ACTIVATING THE FIRE ALARM SYSTEM.
- 10. REFRIGERANT SERVICE PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING TYPE TAMPER RESISTANT CAPS OR SHALL BE PROTECTED FROM UNAUTHORIZED ACCESS BY AN ACCEPTABLE MEANS.
- 11. ALL APPLIANCES DESIGNED TO BE FIXED IN POSITION SHALL BE SECURELY FASTENED IN PLACE PER BUILDING CODE REQUIREMENTS OR APPLICABLE MANUFACTURER INSTALLATION REQUIREMENTS.
- 12. ROOF MOUNTED EQUIPMENT SHALL BE LABELED AS TO THE SPACE IT SERVES.
- 13. AT THE TIME OF ROUGH INSTALLATION, OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING, AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER ACCEPTABLE METHODS TO REDUCE THE AMOUNT OF DUST, WATER, AND DEBRIS WHICH MAY ENTER THE SYSTEM.
- 14. PRIOR TO PERMIT BEING FINALED, A COMPLETE REPORT OF THE COMMISSIONING PROCESS SHALL BE PROVIDED TO THE OWNER OR OWNER'S REPRESENTATIVE AND FORM 5.410 VERIFICATION SHALL BE COMPLETED AND PROVIDED TO THE INSPECTOR.

### THROUGH PENETRATIONS FOR 4" DUCT

PER EXCEPTION TO CBC SECTION 717.6.1, A DUCT IS PERMITTED TO PENETRATE THREE FLOORS OR LESS WITHOUT A FIRE DAMPER AT EACH FLOOR, PROVIDED IT MEETS ALL OF THE FOLLOWING REQUIREMENTS:

- THE DUCT SHALL BE CONTAINED AND LOCATED WITHIN THE CAVITY OF A WALL AND SHALL BE CONSTRUCTED OF STEEL NOT LESS THAN 0.019 INCH (26 GAGE) IN THICKNESS.
- 2. THE DUCT SHALL OPEN INTO ONLY ONE DWELLING OR SLEEPING UNIT AND THE DUCT SYSTEM SHALL BE CONTINUOUS FROM THE UNIT TO THE EXTERIOR OF THE BUILDING.
- THE DUCT SHALL NOT EXCEED 4—INCH NOMINAL DIAMETER AND THE TOTAL AREA OF SUCH DUCTS SHALL NOT EXCEED 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF FLOOR AREA.
- 4. THE ANNULAR SPACE AROUND THE DUCT IS PROTECTED WITH MATERIALS THAT PREVENT THE PASSAGE OF FLAME AND HOT GASES SUFFICIENT TO IGNITE COTTON WASTE WHERE SUBJECTED TO ASTM E 119 TIME—TEMPERATURE CONDITIONS UNDER A MINIMUM POSITIVE PRESSURE DIFFERENTIAL OF 0.01 INCH (2.49 Pa) OF WATER AT THE LOCATION OF THE PENETRATION FOR THE TIME PERIOD EQUIVALENT TO THE FIRE—RESISTANCE RATING OF THE CONSTRUCTION PENETRATED.
- 5. GRILLE OPENINGS LOCATED IN A CEILING OF A FIRE—RESISTANCE—RATED FLOOR/CEILING OR ROOF/CEILING ASSEMBLY SHALL BE PROTECTED WITH A LISTED CEILING RADIATION DAMPER INSTALLED IN ACCORDANCE WITH SECTION 716.6.2.1.

MAXIMUM VENT AREA CALCULATIONS AT MAX: (8) 4¢ PIPES SINGLE PIPE = 12.5 SQ. IN. 8 \* 12.5 = 100 SQ. IN. MAX

8 \* 12.5 = 100 SQ. IN. MA

VENTS SHALL NOT EXCEED 100 SQ. IN. PER 100 SF OF FLOOR AREA.

### NATURAL VENTILATION

UNIT A:
MINIMUM OPENABLE AREA PER IMC 402.2:
1600 SF MAX. X 4% = 64 SF

ENTRANCE DOOR: 30 SF OPERABLE WINDOW: 243 SF TOTAL OF 273 SF OF OPEN AREA

MINIMUM OPENABLE AREA PER IMC 402.2: 1619 SF MAX. X 4% = 64.76 SF

ENTRANCE DOOR: 30 SF PATIO DOOR: 46.76 SF OPERABLE WINDOW: 202.98 SF TOTAL OF 279.74 SF OF OPEN AREA

### 2019 CALIFORNIA DUCT INSULATION SCHEDULE (1)(2)(3)(5)(6)(7)(8)

D\_VALUE VADOD DETADDED

SERVICE	MATERIAL	R-VALUE (MIN.INSTALLED)	VAPOR RETARDER REQUIRED
SUPPLY & RETURN AIR DUCTS IN EXTERIOR SPACE	MINERAL-WOOL BLANKET	8.0	YES
SUPPLY & RETURN AIR DUCTS IN UNVENTED ATTIC ABOVE INSULATED CEILING SPACE	MINERAL-WOOL BLANKET	8.0	YES
SUPPLY & RETURN AIR DUCTS IN VENTED ATTIC SPACE	MINERAL-WOOL BLANKET	8.0	YES
SUPPLY & RETURN AIR DUCTS IN UNCONDITIONED AND CRAWL SPACE	MINERAL-WOOL BLANKET	8.0	YES
SUPPLY AIR DUCTS ENCLOSED IN CONDITIONED SPACE	N/A	0.0	N/A
SUPPLY AIR DUCTS BURIED AND OTHER SPACES NOT LISTED ABOVE	MINERAL-WOOL BLANKET	4.2	N/A
ROUND & RECTANGULAR EXHAUST AIR DUCTS IN UNCONDITIONED SPACE	MINERAL-WOOL BLANKET	N/A	N/A
ROUND & RECTANGULAR SUPPLY AIR DUCTS, EXPOSED WITHIN CONDITIONED SPACE	MINERAL-WOOL BLANKET	N/A	N/A
ROUND & RECTANGULAR RETURN AIR DUCTS, EXPOSED WITHIN CONDITIONED SPACE	MINERAL-WOOL BLANKET	N/A	N/A
OUTSIDE AIR DUCTS WITHIN CONDITIONED SPACE, ATTIC SPACE OR CONCEALED IN CEILING	MINERAL-WOOL BLANKET	4.0	YES (9)
OUTSIDE AIR DUCTS WITHIN PARKING, CRAWL SPACE	MINERAL-WOOL BLANKET	N/A	N/A

### NOTES:

- (1) DUCT INSULATION SHALL COMPLY WITH CMC AND CEC.
- (2) VAPOR RETARDER SHALL BE INSTALLED ONLY ON SUPPLY AND OUTSIDE AIR DUCTS.
- (3) INSULATION SHALL BE PROTECTED PER 2019 CEC SECTION 120.4
- (4) PER 2019 CMC SECTION 604.1.2 INSULATION SHALL HAVE A MAXIMUM FLAME SPREAD INDEX OF 25 MAXIMUM SMOKE DEVELOPED INDEX OF 50 HAVE LISTING OF ASTM E84 OR UL 723.
- (5) DETERIORATION: FIELD APPLIED JACKET SHALL BE PROVIDED ON INSULATION
- EXPOSED TO OUTDOOR ELEMENTS (UV & MOISTURE).

  (6) ACOUSTIC: INSULATION SHALL BE DUCT LINER ON MIXING BOX AND FIRST 5 FEET OF DUCTWORKS FROM MECHANICAL UNITS. INSULATION ON ALL OTHER DUCTS SHALL BE DUCT WRAPPING.
- (7) DUCT LINER: PER 2019 CMC SECTION 604.1.1, DUCT LINER SHALL HAVE MOLD, HUMIDITY AND EROSION-RESISTANT SURFACE LISTED PER UL 181. PROVIDE LINER FASTENER AS RECOMMENDED BY MANUFACTURER/NAIMA IN COMPLIANCE WITH CODE.
  FOR HILTON™ PROJECTS, DUCT LINER SHALL BE CLOSED CELL ELASTOMERIC TYPE. (K-FLEX OR
- EQUIVALENT.)

  (8) ADDITIONAL PROVISIONS: INSULATION MATERIAL & THICKNESS ARE BASED ON CODE MINIMUM REQUIREMENT ONLY. ADDITIONAL PROVISIONS SHALL BE PROVIDED BY CONTRACTOR AS REQUIRED BY LOCAL AUTHORITIES, MANUFACTURER'S INSTRUCTION, OWNER, BRAND STANDARD AND PROJECT
- (9) CONDENSATION: INSULATION & VAPOR RETARDER IS REQUIRED BY ENGINEERING BASED ON BEST PRACTICE.

### APPLICABLE CODES

2019 CALIFORNIA BUILDING CODE (CBC)
2019 CALIFORNIA MECHANICAL CODE (CMC)

2019 CALIFORNIA PLUMBING CODE (CPC)
2019 CALIFORNIA ELECTRICAL CODE (CEC)

2019 CALIFORNIA ENERGY CODE (CENC) 2019 CALGREEN BUILDING CODE



19401 40TH AVE W., SUITE 302 LYNNWOOD, WA 98036 206-364-3343 TEL REI PROJECT NO.: 590-054 CONTACT: ARIK ESPINELI

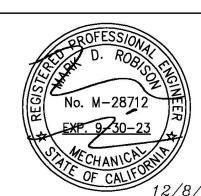


# EW DEVELOPMENT: HEENEY ST TOWNHOUSES 249 CHEENEY ST. ANTA CLARA, CA 95054

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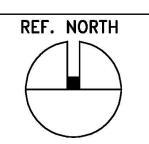
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PROJECT No.

DECEMBER 8, 2022

590-054

### **PROJECT NOTES**



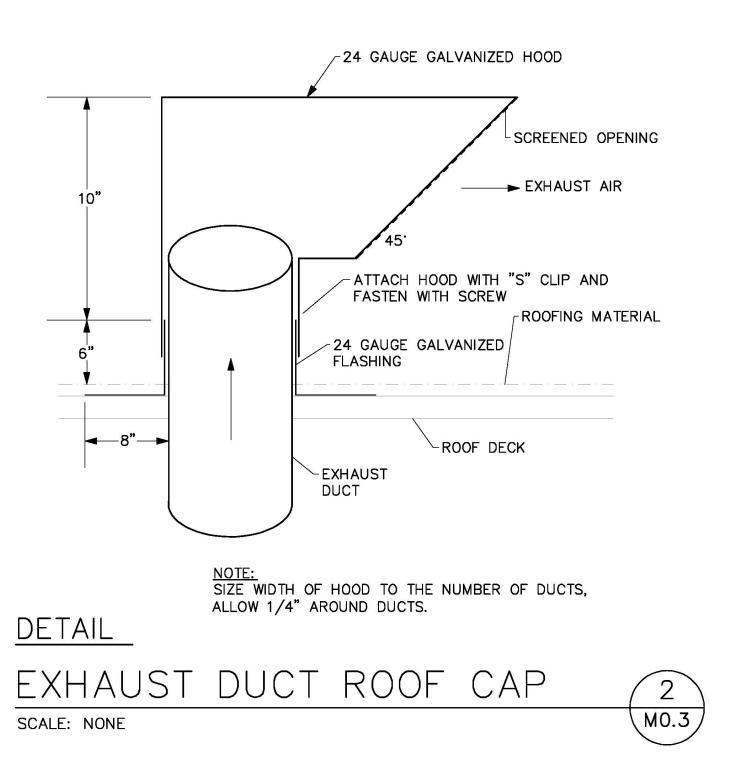
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### **DETAILS**

### -FLOOR ABOVE CEILING EXHAUST FAN MOUNTING BRACKETS SHALL BE ADJUSTABLE TO ALLOW FLUSH MOUNTING IN CEILING. HANGER RODS SUPPORTED FROM STRUCTURE ABOVE FAN TO BE FURNISHED WITH BACKDRAFT DAMPER-SHEETMETAL DUCT-

### CEILING EXHAUST FAN

DETAIL (MO.3) SCALE: NONE



### MECHANICAL SCHEDULES

	SF	PLIT HEAT	PUMP S	SCHED	ULE -	INDO	DOR	UNIT		
EQUIP NO.	SERVICE	MOUNTING/ DISCHARGE	AIRFLOW, CFM	W	VOLTAGE	TRICAL MCA		WEIGHT, LBS	BASIS OF DESIGN (1)	CONNECTED OUTDOOR UNIT
FC-1	2-TON SYSTEM	HORIZONTAL	798	230	(2)	(2)	(2)	82	DAIKIN FDMQ24RVJU	HP-1
NOTES:	(1) REFRIGERANT SHALL BE R-410A.				•			•		

		SPLIT HEAT	PUN	1P SCHEDUL	_E —	OUTDOO	R UN	11T			
FOUID NO	CED//OF	TOTAL COOLING	CEED	TOTAL HEATING	HSPF	ELEC	CTRICAL		WEIGHT,	BASIS OF DESIGN	CONNECTED INDOOR
EQUIP NO.	SERVICE	CAPACITY, BTUH	SEER CAPACITY, BTUH	HSPF	VOLTAGE	МСА	моср	LBS	(1)(2)(3)	UNIT	
HP-1	BLDG 1 UNITS	21,800	18.6	24,000	10	230V/1P	16.9	20	108	DAIKIN RX24RMVJUA	FC-1

ARI LISTED WITH ALL STANDARD FEATURES, INSTALLATION ACCESSORIES AND COMPRESSOR SHORT CYCLING PROTECTION. FILTER DRIER, REFRIGERANT LINE FILTER, LIQUID SOLENOID VALVE, AND SAFETY PRESSURE SWITCHES. INSTALL REFRIGERANT TUBING IN STRICT ACCORDANCE WITH MANUFACTURER'S NOTES: RECOMMENDATIONS.

REFRIGERANT SHALL BE R-410A.

(2) POWERED BY OUTDOOR UNIT

	FAN SCHEDULE								
EQUIP NO.	SERVICE	MOUNTING	AIRFLOW, CFM	ESP. IN WG-	ELECTRI VOLTAGE	CAL HP	OPERATION	WEIGHT, LBS	BASIS OF DESIGN (1)(2)
BEF-1	UNIT BATHROOM	CEILING MOUNTED	100	0.3	115V/1P	FHP	(4)	10	GREENHECK SP-AP0511W (3)
NOTES:	(1) PROVIDE BACKDRAFT DAM	PERS ON EXHAUST FAN	S.						

(2) VIBRATION ISOLATION: FANS < 125 LBS RUBBER ISOLATORS, FANS > 125 LBS SPRING ISOLATORS

(3) ENERGY STAR CERTIFIED

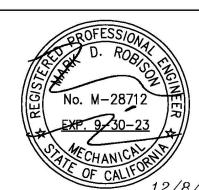
(4) FAN CAN BE ACTIVATED BY BOTH HUMIDITY SENSOR AND WALL SWITCH.





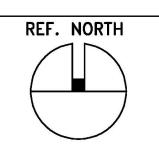
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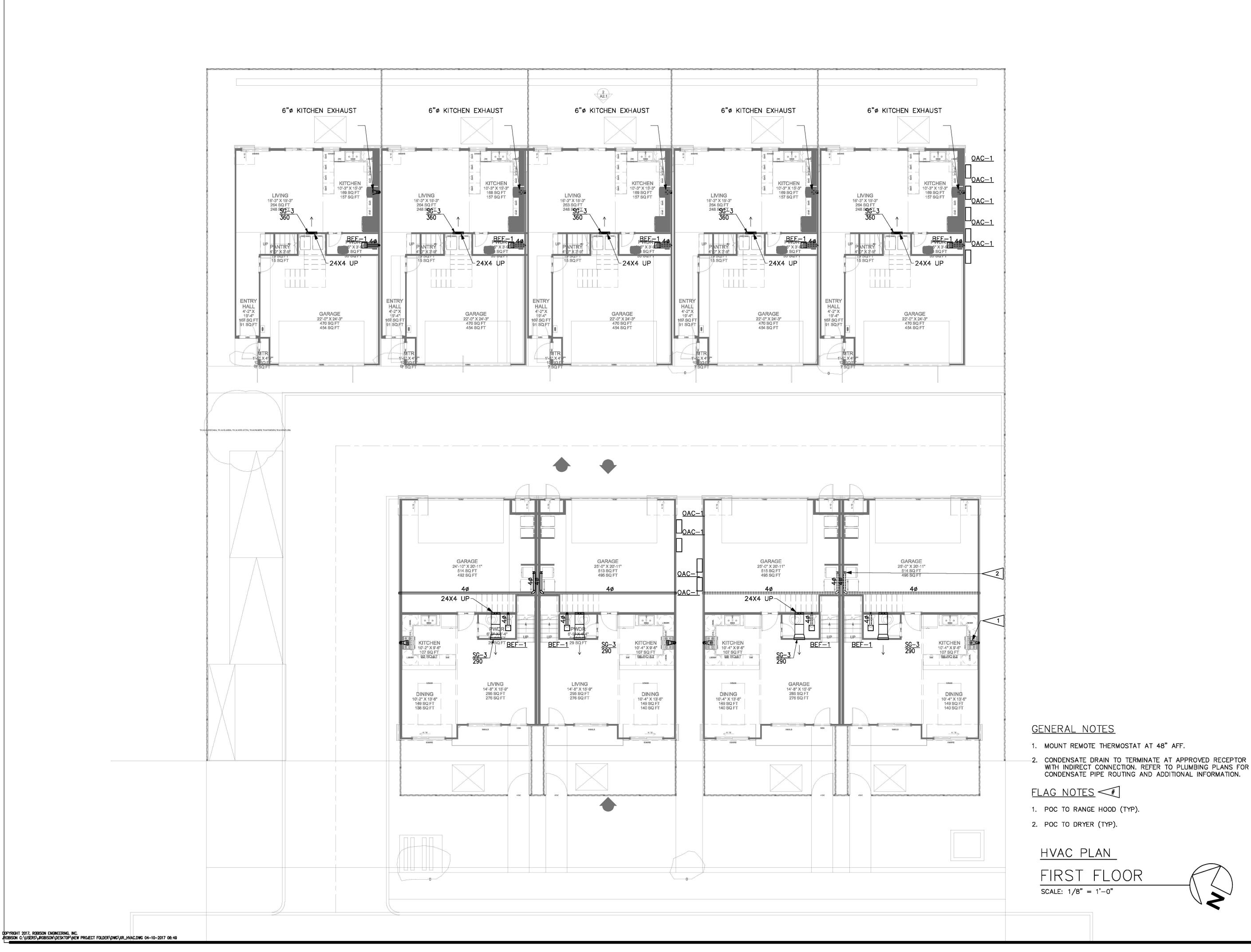
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**MECHANICAL SCHEDULES** 



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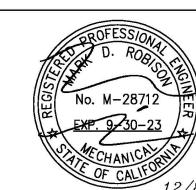




CONTACT: ARIK ESPINELI



# ALENEY ST TOWNHOUSES ABCHEENEY ST. ANTA CLARA, CA 95054



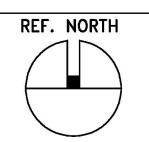
DATE:

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PROJECT No.

590-054

**HVAC PLAN - FIRST FLOOR** 



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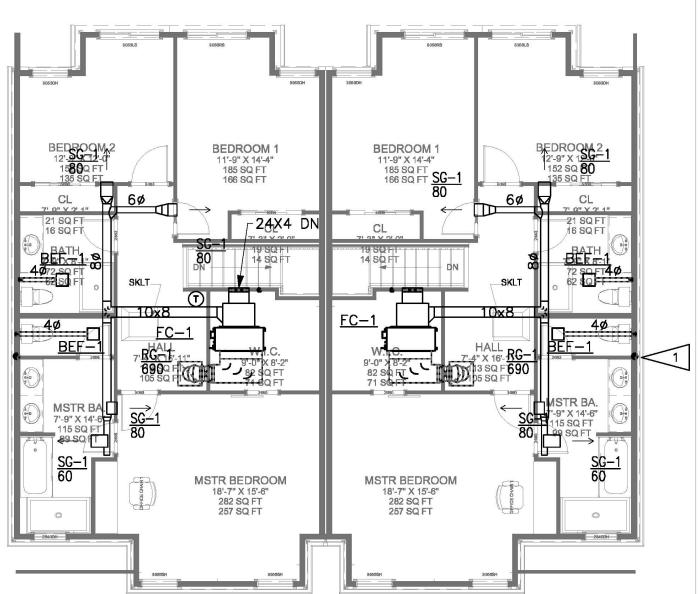
BEDROOM 1 11'-9" X 14'-4" 182 SQ FT 166 SQ FT SG-1

BEDROOM 1 11'-9" X 14'-4" 182 SQ FT 166 SQ FT

MSTR BEDROOM 18'-7" X 15'-6" 280 SQ FT 257 SQ FT

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GENERAL NOTES

- 1. MOUNT REMOTE THERMOSTAT AT 48" AFF.
- 2. CONDENSATE DRAIN TO TERMINATE AT APPROVED RECEPTOR WITH INDIRECT CONNECTION. REFER TO PLUMBING PLANS FOR CONDENSATE PIPE ROUTING AND ADDITIONAL INFORMATION.

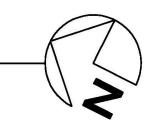
FLAG NOTES

- 1. 4" EXHAUST DUCT UP THROUGH ROOF
- 2. POC TO DRYER (TYP).

HVAC PLAN

SECOND FLOOR

SCALE: 1/8" = 1'-0"





CONTACT: ARIK ESPINELI



# IEW DEVELOPMENT: HEENEY ST TOWNHOUSE; 249 CHEENEY ST. ANTA CLARA, CA 95054

REVISION DATE

A

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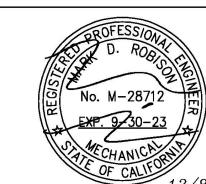
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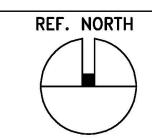


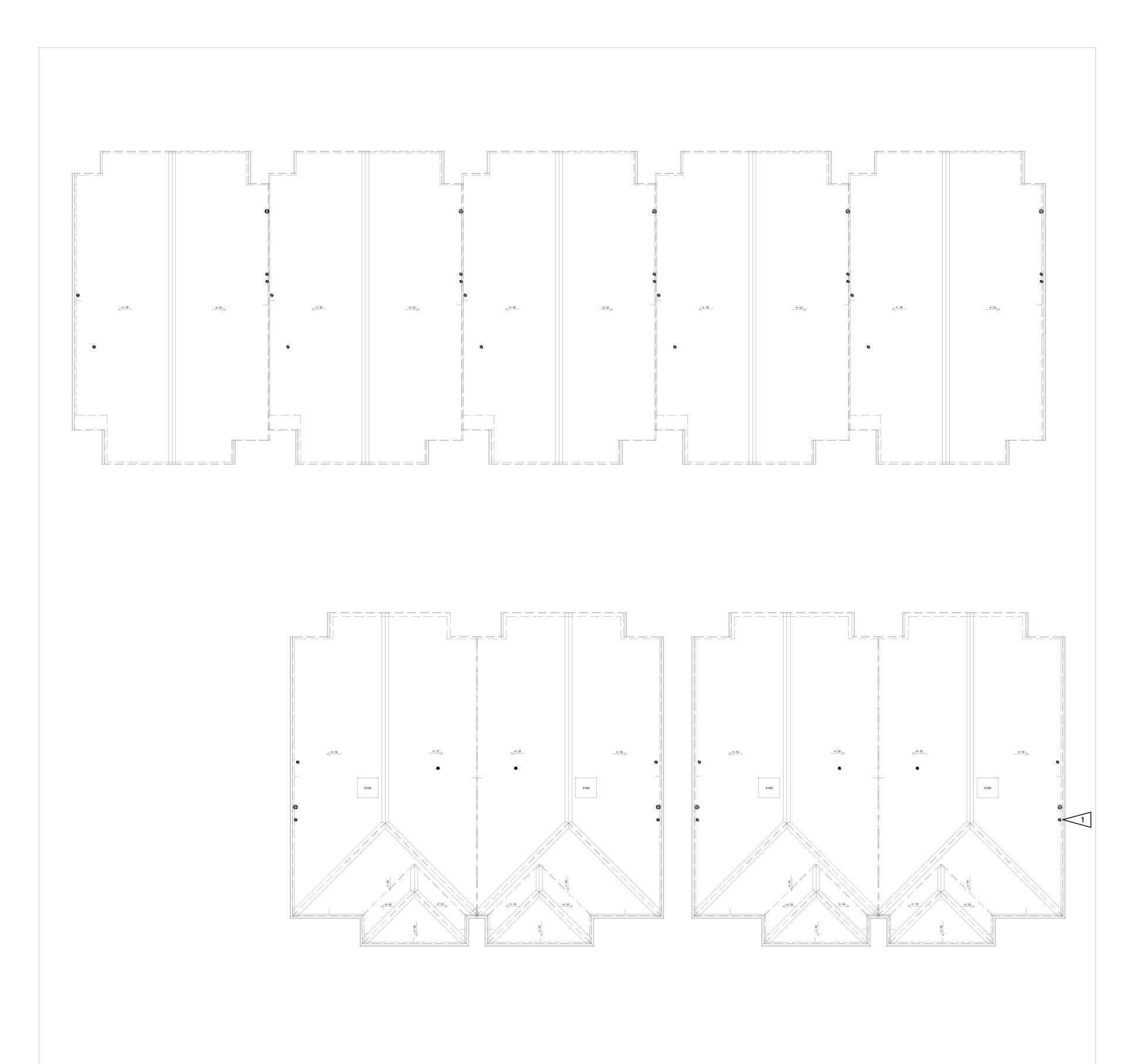
DATE:
PROJECT No.

DECEMBER 8. 2022 590-054

**M2.1** 

**HVAC PLAN - SECOND FLOOR** 





0AC-1

OPYRIGHT 2017, ROBISON ENGINEERING, INC. JROBISON C:\USERS\JROBISON\DESKTOP\NEW PROJECT FOLDER\DWG\XR\_HVAC.DWG 04-10-2017 06:49





### HOUSE BEST OF THE PROPERTY OF

IEW DEVELOPMENT:
THEENEY ST TOWNHO
AND CHEENEY ST.



 DATE:
 DECEMBER 8. 2022

 PROJECT No.
 590-054

**HVAC PLAN - ROOF** 

REF. NORTH

M2.2

FLAG NOTES

 4ø BATHROOM EXHAUST VENT TERMINATION. PROVIDE VENT CAP SEE DETAIL MO.3/2 (TYP).

HVAC PLAN

ROOF

SCALE: 1/8" = 1'-0"

Schema Version: rev 20200901

CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES Calculation Description: Title 24 Analysis

Calculation Date/Time: 2022-12-08T15:08:23-08:00 Input File Name: Cheeny Townhomes.ribd19x

CF1R-PRF-01E (Page 3 of 16)

The following are features that must be installed as condition for meeting the modeled energy performance for this computer analysis.

Non-standard duct location (any location other than attic)

HERS FEATURE SUMMARY

REQUIRED SPECIAL FEATURES

detail is provided in the building tables below. Registered CF2Rs and CF3Rs are required to be completed in the HERS Registry Building-level Verifications:

Indoor air quality ventilation

Enclosure air leakage for each dwelling unit Cooling System Verifications:

Minimum Airflow Verified EER

Verified SEER Fan Efficacy Watts/CFM

Heating System Verifications:

Verified HSPF

Verified heat pump rated heating capacity

HVAC Distribution System Verifications:

Duct leakage testing

Ducts located entirely in conditioned space confirmed by duct leakage testing sestic Hot Water System Verifications: Domestic Hot Water System Verifications:

- None						
BUILDING - FEATURES INFORM	ATION					
01	02	03	04	05	06	07
Project Name	Conditioned Floor Area (ft <sup>2</sup> )	Number of Dwelling Units	Number of Bedrooms	Number of Zones	Number of Ventilation Cooling Systems	Number of Water Heating Systems
CHEENY ST TOWNHOMES	14488	9	27	3	0	9

The following is a summary of the features that must be field-verified by a certified HERS Rater as a condition for meeting the modeled energy performance for this computer analysis. Additional

Registration Number: 422-P010193451A-000-000-0000000-0000 Registration Date/Time: 12/08/2022 15:48 NOTICE: This document has been generated by ConSol Home Energy Efficiency Rating System Services, Inc. (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this document. Report Generated: 2022-12-08 15:09:41 CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Schema Version: rev 20200901

CERTIFICATE OF COMPLIANCE CF1R-PRF-01E Calculation Date/Time: 2022-12-08T15:08:23-08:00 Project Name: CHEENY ST TOWNHOMES Calculation Description: Title 24 Analysis Input File Name: Cheeny Townhomes.ribd19x

ENERGY DESIGN RATING **Energy Design Ratings** Compliance Margins Efficiency<sup>1</sup> (EDR) Total<sup>2</sup> (EDR) Efficiency (EDR) Total<sup>2</sup> (EDR) Standard Design 57.1 29.6 Proposed Design 56.7 29.2 0.4 0.4 RESULT: 3: COMPLIES L: Efficiency EDR includes improvements to the building envelope and more efficient equipment

 Total EDR includes efficiency and demand response measures such as photovoltaic (PV) systems and batteries 3: Building complies when efficiency and total compliance margins are greater than or equal to zero Standard Design PV Capacity: 21.71 kWdc PV System resized to 21.71 kWdc (a factor of 21.707) to achieve 'Standard Design PV' PV scaling

	ENERGY USE SUMMARY							
Energy Use (kTDV/ft²-yr)	Standard Design	Proposed Design	Compliance Margin	Percent Improvement				
Space Heating	13.25	19.4	-6.15	-46.4				
Space Cooling	13.97	9.43	4.54	32.5				
IAQ Ventilation	4.14	4.14	0	0				
Water Heating	16.1	13.91	2.19	13.6				
Self Utilization/Flexibility Credit	n/a	0	0	n/a				
Compliance Energy Total	47.46	46.88	0.58	1.2				

01	02	03	04	05	06	07	08	09	10	11	12
DC System Size (kWdc)	Exception	Module Type	Array Type	Power Electronics	CFI	Azimuth (deg)	Tilt Input	Array Angle (deg)	Tilt: (x in 12)	Inverter Eff. (%)	Annual Solar Acce (%)
21.71	NA	Standard	Fixed	none	true	150-270	n/a	n/a	<=7:12	96	98

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CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES Calculation Description: Title 24 Analysis

Calculation Date/Time: 2022-12-08T15:08:23-08:00 Input File Name: Cheeny Townhomes.ribd19x

CF1R-PRF-01E (Page 4 of 16)

Project Name: CHEENY ST TOWN	<b>HOMES</b>
Calculation Description: Title 24	Analysis
GENERAL INFORMATION	

CERTIFICATE OF COMPLIANCE

Calculation Date/Time: 2022-12-08T15:08:23-08:00

Input File Name: Cheeny Townhomes.ribd19x

CF1R-PRF-01E (Page 1 of 16)

02	03	04	05
Zone Type	Zone Floor Area (ft <sup>2</sup> )	Avg. Ceiling Height	Number of Dweilling Units
Conditioned	3204	8	2
Conditioned	3204	8	2
Conditioned	8080	8	5
	Zone Type Conditioned Conditioned	Zone Type Zone Floor Area (ft²)  Conditioned 3204  Conditioned 3204	Zone Type Zone Floor Area (ft²) Avg. Ceiling Height  Conditioned 3204 8  Conditioned 3204 8

01	02	03
Dwelling Unit Name	Dwelling Unit Type	Zone
DDU-1 -(1/2)	DU-1	Townhome A-1
DDU-1 -(2/2)	DU-1	Townhome A-1
DDU-2 -(1/2)	DU-2	Townhome A-2
DDU-2 -(2/2)	DU-2	Townhome A-2
DDU-3 -(1/5)	DU-3	Townhome B
DDU-3 -(2/5)	DU-3	Townhome B
DDU-3 -(3/5)	DU-3	Townhome B
DDU-3 -(4/5)	DU-3	Townhome B
DDU-3 -(5/5)	DU-3	Townhome B

LLING UNIT T	YPES					
01	02	03	04	05	06	07
Name	CFA (ft2)	Number of Bedrooms	Number in Building	Space Conditioning Systems Assigned	DHW System Name	IAQ Vent Fan Name
DU-1	1602	3	2	DDU-1 1/2   :Heat Pump System 1:Air Distribution System 1:HVAC Fan 1:2:3 DDU-1 2/2   :Heat Pump System 1:Air Distribution System 1:HVAC Fan 1:2:3	DHW Sys 1	Minimum Exhaust IAQ Fan

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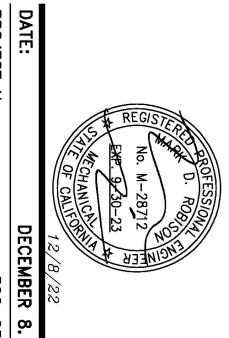
Project Name CHEENY ST TOWNHOMES Run Title Title 24 Analysis Project Location 4249 Cheeney St Standards Version 2019 04 05 City Santa Clara 06 Zip code 95054 07 Software Version EnergyPro 8.3 Climate Zone 09 Front Orientation (deg/ Cardinal) 10 Building Type | Multifamily 11 Number of Dwelling Units Number of Bedrooms 27 12 Project Scope NewConstruction 13 15 Number of Stories 2 Addition Cond. Floor Area (ft<sup>2</sup>) 17 Fenestration Average U-factor 0.39 Existing Cond. Floor Area (ft<sup>2</sup>) n/a Total Cond. Floor Area (ft²) 14488 19 Glazing Percentage (%) 16.17% 18 ADU Conditioned Floor Area n/a ADU Bedroom Count n/a 21 Is Natural Gas Available? Yes 22

COMPLIANCE RESULTS Building Complies with Computer Performance This building incorporates features that require field testing and/or verification by a certified HERS rater under the supervision of a CEC-approved HERS provider. This building incorporates one or more Special Features shown belov

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E 24 COMPLIANCE FORMS

PROJECT 590-054

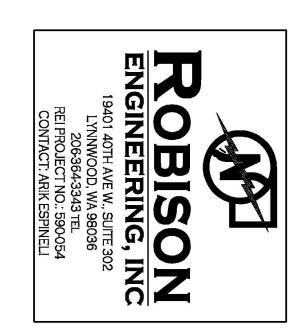


NEW DEVELOPMENT:

**CHEENEY ST TOWNHOUSES** 4249 CHEENEY ST.

SANTA CLARA, CA 95054





CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

CF1R-PRF-01E (Page 12 of 16)

Calculation Description: Tit	le 24 Analysis			Input File	Name: Cheen	y Townhomes.	ribd19x			
SPACE CONDITIONING SYSTEM	иs									
01	02	03	04	05	06	07	08	09	10	11
Name	System Type	Heating Unit Name	Cooling Unit Name	Fan Name	Distribution Name	Required Thermostat Type	Status	Verified Existing Condition	Heating Equipment Count	Cooling Equipment Count
DDU-3 5/5   :Heat Pump System 3:Air Distribution System 3:HVAC Fan 3:2:3	Heat pump heating cooling	Heat Pump System 3	Heat Pump System 3	HVAC Fan 3	Air Distribution System 3	Setback	New	NA	1	1

01	02	03	04	05	06	07	08	09	10	11
IVAC - HEAT PUMPS										
Name	Sustain Time	Number of Units		Heating		Co	oling	Zonally	Compressor	HERS Verification
ivame	System Type	Number of Onits	HSPF/COP	Cap 47	Cap 17	SEER	EER/CEER	Controlled	Type	TIERS VEHICATION
Heat Pump System 1	Central split HP	2	10	21800	15000	18.6	12.5	Not Zonal	Single Speed	Heat Pump System 1-hers-htpump
Heat Pump System 2	Central split HP	2	10	21800	15000	18.6	12.5	Not Zonal	Single Speed	Heat Pump Syste 2-hers-htpump
Heat Pump System 3	Central split HP	5	10	21800	15000	18.6	12.5	Not Zonal	Single Speed	Heat Pump Syste 3-hers-htpump

01	02	03	04	05	06	07	08	09
Name	Verified Airflow	Airflow Target	Verified EER	Verified SEER	Verified Refrigerant Charge	Verified HSPF	Verified Heating Cap 47	Verified Heating Cap 17
Heat Pump System 1-hers-htpump	Required	350	Required	Required	No	Yes	Yes	Yes
Heat Pump System 2-hers-htpump	Required	350	Required	Required	No	Yes	Yes	Yes
Heat Pump System 3-hers-htpump	Required	350	Required	Required	No	Yes	Yes	Yes

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05

Fan Name

HVAC Fan 1

HVAC Fan 1

HVAC Fan 2

HVAC Fan 2

HVAC Fan 3

HVAC Fan 3

HVAC Fan 3

HVAC Fan 3

CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00 Input File Name: Cheeny Townhomes.ribd19x

CF1R-PRF-01E (Page 9 of 16)

Calculation Description:	Title 24 Analysis		Input	File Name: Ch	eeny Townhomes.r	ibd19x	
OPAQUE SURFACE CONSTR	RUCTIONS						
01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-30 Roof Attic	Ceilings (below attic)	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-30	None / None	0.032	Over Ceiling Joists: R-20.9 insul. Cavity / Frame: R-9.1 / 2x4 Inside Finish: Gypsum Board
R-0 Floor No Crawlspace	Interior Floors	Wood Framed Floor	2x12 @ 16 in. O. C.	R-0	None / None	0.196	Floor Surface: Carpeted Floor Deck; Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x12 Ceiling Below Finish: Gypsum Board

	The second secon		
01	02	03	04
Quality Insulation Installation (QII)	High R-value Spray Foam Insulation	Building Envelope Air Leakage	CFM50
Not Required	Not Required	Not Required	n/a

ATER HEATING SYS	TEMS		-					
01	02	03	04	05	06	07	08	09
Name	System Type	Number of Systems in Building	Multi-Family Distribution Type	Dwelling Unit Distribution Type	Water Heater Name (#)	Solar Heating System	Compact Distribution	HERS Verificatio
DHW Sys 1	Domestic Hot Water (DHW)	9	n/a	Standard Distribution System	DHW Heater 1 (1)	n/a	None	n/a

Registration Number: 422-P010193451A-000-000-0000000-0000 Registration Date/Time: 12/08/2022 15:48 HERS Provider: CHEERS NOTICE: This document has been generated by ConSol Home Energy Efficiency Rating System Services, Inc. (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this document. Report Version: 2019.2.000 Report Generated: 2022-12-08 15:09:41 CA Building Energy Efficiency Standards - 2019 Residential Compliance

Schema Version: rev 20200901

CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00

07

Required

Thermostat

Type

Setback

Setback

Setback

Setback

Setback

Setback

Setback

Setback

08

Status

New

New

New

New

New

New

New

New

09

Existing

Condition

NA

NA

NA

NA

NA

NA

NA

NA

10

Equipment

Count

CF1R-PRF-01E

11

Cooling

Equipment

Count

CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES

Slab-on-Grade 2

Slab-on-Grade 3

CF1R-PRF-01E

No

No

80%

80%

Calculation Description: Title 24 Analysis

02

System Type

Heat pump heating cooling

03

Heating Unit

Heat Pump

System 1

System 1

Heat Pump

System 2

System 2

Heat Pump

System 3

System 3

Heat Pump

System 3

Heat Pump

System 3

04

**Cooling Unit** 

Heat Pump

Heat Pump

System 1

Heat Pump

System 2

Heat Pump

Heat Pump

System 3

Heat Pump

System 3

Heat Pump

System 3

Heat Pump

System 3

System 2

System 1

SPACE CONDITIONING SYSTEMS

Name

DDU-1 1/2 | :Heat Pump

System 1:Air Distribution

System 1:HVAC Fan 1:2:3

DDU-1 2/2 | :Heat Pump

System 1:Air Distribution

System 1:HVAC Fan 1:2:3

DDU-2 1/2 | :Heat Pump

System 2:Air Distribution

System 2:HVAC Fan 2:2:3

DDU-2 2/2 | :Heat Pump

System 2:Air Distribution

System 2:HVAC Fan 2:2:3

DDU-3 1/5 | :Heat Pump

System 3:Air Distribution

System 3:HVAC Fan 3:2:3

DDU-3 2/5 | :Heat Pump

System 3:Air Distribution

System 3:HVAC Fan 3:2:3

DDU-3 3/5 | :Heat Pump

System 3:Air Distribution

System 3:HVAC Fan 3:2:3

DDU-3 4/5 | :Heat Pump

System 3:Air Distribution

System 3:HVAC Fan 3:2:3

Input File Name: Cheeny Townhomes.ribd19x

06

Distribution

Name

Distribution

System 1

Distribution

System 1

Distribution

System 2

Distribution

System 2

Distribution

System 3

Distribution

System 3

Distribution

System 3

Distribution

System 3

Calculation Description	on: Title 24 Analysis			Input File Name: Che	eny Townhomes.ribd1	9x	
SLAB FLOORS	,						
01	02	03	04	05	06	07	08
Name	Zone	Area (ft²)	Perimeter (ft)	Edge Insul. R-value and Depth	Edge Insul. R-value and Depth	Carpeted Fraction	Heated
Slab-on-Grade	Townhome A-1	1098	0.1	none	0	80%	No
	-				The state of the s		

none

none

0.1

0.1

01	02	03	04	05	06	07	08
Construction Name	Surface Type	Construction Type	Framing	Total Cavity R-value	Interior / Exterior Continuous R-value	U-factor	Assembly Layers
R-19 Wall Stud	Exterior Walls	Wood Framed Wall	2x6 @ 16 in. O. C.	R-19	None / None	0.074	Inside Finish: Gypsum Board Cavity / Frame: R-19 in 5-1/2 in. (R-18) , 2x6 Exterior Finish: 3 Coat Stucco
Attic RoofTownhome A-1	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
Attic RoofTownhome A-2	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4
attic RoofTownhome B	Attic Roofs	Wood Framed Ceiling	2x4 @ 24 in. O. C.	R-0	None / None	0.644	Roofing: Light Roof (Asphalt Shingle) Roof Deck: Wood Siding/sheathing/decking Cavity / Frame: no insul. / 2x4

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CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES

Calculation Description: Title 24 Analysis

Calculation Date/Time: 2022-12-08T15:08:23-08:00

Input File Name: Cheeny Townhomes.ribd19x

CF1R-PRF-01E (Page 10 of 16)

CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES

1098

2796

Townhome A-2

Townhome B

CF1R-PRF-01E (Page 7 of 16)

VATER HEATERS											
01	02	03	04	05	06	07	08	09	10	11	12
Name	Heating Element Type	Tank Type	# of Units	Tank Vol. (gal)	Energy Factor or Efficiency	Input Rating or Pilot	Tank Insulation R-value (Int/Ext)	Standby Loss or Recovery Eff	1st Hr. Rating or Flow Rate	NEEA Heat Pump Brand or Model	Tank Location or Ambient Condition
DHW Heater 1	Gas	Consumer Instantaneous	9	0	0.96-UEF	<= 200 kBtu/hr	0	n/a	n/a	n/a	n/a

01	02	03	04	05	06	07	08
Name	Pipe Insulation	Parallel Piping	Compact Distribution	Compact Distribution Type	Recirculation Control	Central DHW Distribution	Shower Drain Water Heat Recovery
DDU-1 1/2   DHW Sys 1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required
DDU-1 2/2   DHW Sys 1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required
DDU-2 1/2   DHW Sys 1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required
DDU-2 2/2   DHW Sys 1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required
DDU-3 1/5   DHW Sys 1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required
DDU-3 2/5   DHW Sys 1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required
DDU-3 3/5   DHW Sys 1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required
DDU-3 4/5   DHW Sys 1	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required
DDU-3 5/5   DHW Sys	Not Required	Not Required	Not Required	None	Not Required	Not Required	Not Required

Registration Number: 422-P010193451A-000-000-0000000-0000 Registration Date/Time: 12/08/2022 15:48 HERS Provider: CHEERS Report Generated: 2022-12-08 15:09:41 CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Schema Version: rev 20200901

Calculation Date/Time: 2022-12-08T15:08:23-08:00 Calculation Description: Title 24 Analysis Input File Name: Cheeny Townhomes.ribd19x 02 03 06 07 80 01 Roof Rise (x in 12) Roof Reflectance Construction Roof Emittance **Radiant Barrier** Cool Roof Name Attic RoofTownhome Attic Townhome A-2 Ventilated 0.1 0.85 No No A-2 Attic Townhome B Attic RoofTownhome B No

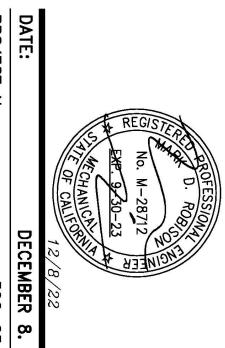
01	02	03	04	05	06	07	08	09	10	11	12	13	14
Name	Туре	Surface	Orientation	Azimuth	Width (ft)	Height (ft)	Mult.	Area (ft²)	U-factor	U-factor Source	SHGC	SHGC Sourc e	Exterior Shading
Fixed Window	Window	S wall	Back	180			1	154	0.3	NFRC	0.25	NFRC	Bug Screen
Glazed Door	Window	S wall	Back	180			1	60	0.45	NFRC	0.23	NFRC	Bug Scree
Fixed Window 2	Window	N wall 2	Front	0			1	216	0.3	NFRC	0.25	NFRC	Bug Scree
Fixed Window 3	Window	S wall 2	Back	180			1	117	0.3	NFRC	0.25	NFRC	Bug Scree
Fixed Window 4	Window	S wall 3	Back	180			1	154	0.3	NFRC	0.25	NFRC	Bug Scree
Glazed Door 2	Window	S wall 3	Back	180		C	1	60	0.45	NFRC	0.23	NFRC	Bug Scree
Fixed Window 5	Window	N wall 4	Front	0	10	-	1	216	0.3	NFRC	0.25	NFRC	Bug Scree
Fixed Window 6	Window	S wall 4	Back	180			1	117	0.3	NFRC	0.25	NFRC	Bug Scree
Operable Window	Window	N wall 5	Front	0			1	252	0.46	NFRC	0.22	NFRC	Bug Scree
Glazed Door 3	Window	N wall 5	Front	0			1	234	0.45	NFRC	0.23	NFRC	Bug Scree
Operable Window 2	Window	N wall 6	Front	0			1	352	0.46	NFRC	0.22	NFRC	Bug Scree
Operable Window 3	Window	S wall 6	Back	180			1	411	0.46	NFRC	0.22	NFRC	Bug Scree

PAQUE DOORS			
01	02	03	04
Name	Side of Building	Area (ft²)	U-factor
Door	S wall 5	152	0.5

Registration Date/Time: 12/08/2022 15:48 HERS Provider: CHEERS Registration Number: 422-P010193451A-000-000-0000000-0000 Report Generated: 2022-12-08 15:09:41 CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Schema Version: rev 20200901

E 24 COMPLIANCE FORMS

DATE: PROJECT 590-054

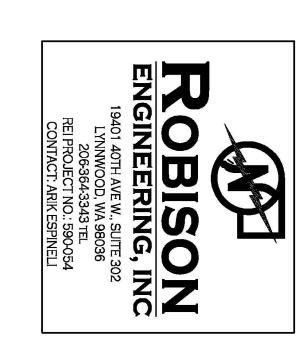


NEW DEVELOPMENT:

**CHEENEY ST TOWNHOUSES** 4249 CHEENEY ST.

SANTA CLARA, CA 95054





CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES

Calculation Date/Time: 2022-12-08T15:08:23-08:00 Input File Name: Cheeny Townhomes ribd19x

CF1R-PRF-01E (Page 15 of 16)

culation Description:	itle 24 Analysis		Input File I	Name: Cheeny Townhome:	s.ribd19x	
(INDOOR AIR QUALITY)	FANS					
01	02	03	04	05	06	07
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASRE	HERS Verificatio
DDU-1 2/2	78	0.35	Exhaust	n/a	n/a	Yes
DDU-2 1/2	78	0.35	Exhaust	n/a	n/a	Yes
DDU-2 2/2	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 1/5	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 2/5	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 3/5	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 4/5	78	0.35	Exhaust	n/a	n/a	Yes
DDU-3 5/5	78	0.35	Exhaust	n/a	n/a	Yes

CHEERS

Yes

HVAC Fan 3

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CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Report Generated: 2022-12-08 15-09-41 Schema Version: rev 20200901

Not Required

total leakage <=

12.0 or leakage to

outdoors <= 6.0

Required

CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES

Air Distribution

System 3-hers-dist

Calculation Date/Time: 2022-12-08T15:08:23-08:00

Not Required

Credit not taken

0.58

CF1R-PRF-01E

Calculation Description: Title 24 Analysis Input File Name: Cheeny Townhomes.ribd19x HVAC DISTRIBUTION - HERS VERIFICATION 03 Low Leakage **Duct Leakage** Verified Duct Verified Duct Low-leakage Air **Ducts Entirely in** Duct Leakage Deeply Buried Name **Buried Ducts** Conditioned Verification Target (%) Location Space

IVAC - FAN SYSTEMS				
01	02	03	04	
Name	Type B B C	Fan Power (Watts/CFM)	Name	
HVAC Fan 1	HVAC Fan	0.58	HVAC Fan 1-hers-fan	
HVAC Fan 2	HVAC Fan	0.58	HVAC Fan 2-hers-fan	

Not Required

FAN SYSTEMS - HERS VERIFICATION	9   1   9   1   1	
01	02	03
Name	Verified Fan Watt Draw	Required Fan Efficacy (Watts/CFM)
HVAC Fan 1-hers-fan	Required	0.58
HVAC Fan 2-hers-fan	Required	0.58
HVAC Fan 3-hers-fan	Required	0.58

01	02	03	04	05	06	07
Dwelling Unit	IAQ CFM	IAQ Watts/CFM	IAQ Fan Type	IAQ Recovery Effectiveness - SRE	IAQ Recovery Effectiveness - ASRE	HERS Verification
DDU-1 1/2	78	0.35	Exhaust	n/a	n/a	Yes

Registration Number: 422-P010193451A-000-000-0000000-0000 Registration Date/Time: 12/08/2022 15:48 HERS Provider: CHEERS NOTICE: This document has been generated by ConSol Home Energy Efficiency Rating System Services, Inc. (CHEERS) using information uploaded by third parties not affiliated with or related to CHEERS. Therefore, CHEERS is not responsible for, and cannot guarantee, the accuracy or completeness of the information contained in this document. CA Building Energy Efficiency Standards - 2019 Residential Compliance Report Version: 2019.2.000 Schema Version: rev 20200901

**HVAC Fan** 

Report Generated: 2022-12-08 15:09:41

HVAC Fan 3-hers-fan

CERTIFICATE OF COMPLIANCE		CF1R-PRF-01
Project Name: CHEENY ST TOWNHOMES	Calculation Date/Time: 2022-12-08T15:08:23-08:00	(Page 16 of 16
Calculation Description: Title 24 Analysis	Input File Name: Cheeny Townhomes.ribd19x	
DOCUMENTATION AUTHOR'S DECLARATION STATEMENT		
<ol> <li>I certify that this Certificate of Compliance documentation is accurate and</li> </ol>	i complete.	
Documentation Author Name:	Documentation Author Signature:	
Arik Espineli	Arik Espineli	
Company:	Signature Date:	
Robison Engineering	12/08/2022	
Address:	CEA/ HERS Certification Identification (If applicable):	
19401 40th Avenue W, Suite 302		
City/State/Zip:	Phone:	
Lynnwood, WA 98036	206-364-3343	
RESPONSIBLE PERSON'S DECLARATION STATEMENT	EW/A	
I certify the following under penalty of perjury, under the laws of the State of Californ	ia:	
	ept respon <mark>sibility for the building</mark> design identified on this Certificate of Compliance.	
	d on this Ce <mark>rtificate of Complianc</mark> e conform to the requirements of Title 24, Part 1 and Part 6 of the Calif	and the second s
<ol><li>The building design features or system design features identified on this of calculations, plans and specifications submitted to the enforcement agen</li></ol>	Certificate of Compliance are consistent with the information provided on other applicable compliance di cy for approval with this building permit application.	ocuments, worksheets,
Responsible Designer Name:	Responsible Designer Signature:	
Asim Drebi	Asim Drebi	
Company:	Date Signed:	
Robison Engineering	12/08/2022	
Address:	License:	
19401 40th Avenue W, Suite 302		
City/State/Zip:	Phone:	
	206-364-3343	

Registration Number: 422-P010193451A-000-000-0000000-00000 Registration Date/Time: 12/08/2022 15:48 HERS Provider: CHEERS

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CERTIFICATE OF COMPLIANCE Project Name: CHEENY ST TOWNHOMES Calculation Description: Title 24 Analysis

Calculation Date/Time: 2022-12-08T15:08:23-08:00 Input File Name: Cheeny Townhomes.ribd19x

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HVAC - DISTRIBUTION SYSTEMS 03 04 07 12 05 06 80 10 11 Duct Ins. R-value **Duct Location** Surface Area Name Design Type Supply Return Supply Return **Duct Leakage** Duct Verification Air Distribution Conditioned Conditio Conditio Sealed and Distribution Non-Verified R-8 R-8 n/a ned Zone ned Zone System 1 space-entirely System 1-hers-dist Air Distribution Conditioned Sealed and Distribution R-8 Non-Verified n/a System 2 space-entirely ned Zone ned Zone System Duct 2-hers-dist Air Air Distribution Conditioned Conditio Conditio Sealed and Distribution Non-Verified R-8 R-8 n/a Bypass space-entirely ned Zone ned Zone System 3 System 3-hers-dist

HVAC DISTRIBUTION	HERS VERIFICATION	1	CH	EER				
01	02	03	04	05	06	07	08	09
Name	Duct Leakage Verification	Duct Leakage Target (%)	Verified Duct Location	Verified Duct Design	Buried Ducts	Deeply Buried Ducts	Low-leakage Air Handler	Low Leakage Ducts Entirely in Conditioned Space
Air Distribution System 1-hers-dist	Yes	total leakage <= 12.0 or leakage to outdoors <= 6.0	Required	Not Required	Not Required	Credit not taken	Not Required	No
Air Distribution System 2-hers-dist	Yes	total leakage <= 12.0 or leakage to outdoors <= 6.0	Required	Not Required	Not Required	Credit not taken	Not Required	No

Registration Number: 422-P010193451A-000-000-0000000-00000 Registration Date/Time: 12/08/2022 15:48 HERS Provider: CHEERS

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E 24 COMPLIANCE FORMS

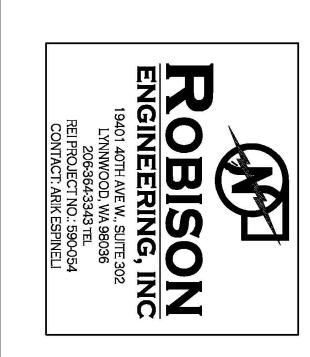
DATE: PROJECT DECEMBER 590-054

NEW DEVELOPMENT:

### **CHEENEY ST TOWNHOUSES**

4249 CHEENEY ST. SANTA CLARA, CA 95054





### **GENERAL NOTES**

### **GENERAL NOTES**

- REFERENCE TO RELATED WORK: "REF" INDICATIONS DENOTE WORK COVERED ELSEWHERE (ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL, LANDSCAPE, OR KITCHEN), OR ITEM BASED ON A SPECIFIC MANUFACTURER'S DIMENSIONS (VERIFY).
- 2. ELECTRICAL CHARACTERISTICS: REFER TO ELECTRICAL DRAWINGS FOR ELECTRICAL CHARACTERISTICS (VOLTAGES, ETC. OF MECHANICAL EQUIPMENT, UNLESS OTHERWISE INDICATED.
- 3. CODES: COMPLETE INSTALLATION OF THE PLUMBING SYSTEM SHALL BE PER THE APPLICABLE BUILDING, MECHANICAL, ENERGY, PLUMBING, FIRE, AND HEALTH CODES AND REGULATIONS AS ADOPTED BY THE LOCAL
- 4. PREPARE AND SUBMIT FOR REVIEW A SHOP DRAWING BASED ON FINAL STRUCTURAL SHOP DRAWINGS FOR LOCATING AND ROUTING ALL EQUIPMENT, PIPING, ETC.
- A. COORDINATE FLOOR AND BEAM PENETRATIONS WITH STRUCTURAL B. COORDINATE FINAL LOCATION AND ROUTING WITH CEILING, LIGHTS
- WALLS, FIRE SPRINKLER PIPING, AND OTHER TRADES WORK. C. INCLUDE ADDITIONAL OFFSETS, ELBOWS, ROUTING, EQUIVALENT DUCT SIZING EXCHANGE, RELOCATING, ETC. AS REQUIRED FOR A
- COMPLETE OPERATING MECHANICAL SYSTEM. D. PROVIDE SHOP DRAWINGS AT NO ADDITIONAL COST TO THE OWNER.
- 5. PLUMBING CONTRACTOR SHALL LOCATE AND COORDINATE EXACT LOCATION OF ALL PLUMBING EQUIPMENT WITHIN THE STRUCTURE.
- ACCESS DOORS: COORDINATE WITH ARCHITECT AND LOCATE ALL ACCESS DOORS ON SHOP DRAWINGS PRIOR TO BEGINNING OF CONSTRUCTION. ACCESS DOORS IN FIRE RATED STRUCTURE SHALL BE FIRE RATED. VERIFY ACCESS DOOR LOCATIONS WITH GENERAL CONTRACTOR PRIOR TO BIDDING.
- 7. ROOF PENETRATIONS: SEE ARCHITECTURAL DRAWINGS FOR ROOF CAP, ROOF CURB, ROOF DRAIN, AND VTR DETAILS.
- 8. EXPOSED PIPING: PROVIDE CHROME PLATING FOR EXPOSED PIPING IN FINISHED ROOMS.
- 9. PENETRATIONS: PROVIDE ESCUTCHEON PLATES FOR EXPOSED PIPING PENETRATIONS AND SHEET METAL FLASHING FOR EXPOSED DUCTWORK PENETRATIONS.
- 10. SHAFT AND PLENUM CONNECTIONS: SEAL CONNECTIONS TO AIR SHAFTS AIRTIGHT. PROVIDE AIRTIGHT SEAL AROUND PENETRATIONS IN AIR PLENUMS.
- 11. LIGHT FIXTURE CLEARANCE: COORDINATE LOCATIONS OF MECHANICAL WORK TO PROVIDE CLEARANCES OVER LIGHTING FIXTURES FOR REMOVAL AND REPLACEMENT.
- 12. CABLE TRAYS: PIPING INSTALLED ADJACENT TO ELECTRICAL CABLE TRAYS SHALL ALLOW MINIMUM ACCESS OF 6" ABOVE AND TO THE SIDE OF CABLE TRAYS.
- 13. MOTORS: COMPLY WITH ENERGY CODE ENFORCED BY AHJ FOR MINIMUM EFFICIENCIES UNDER FULL LOAD.
- 14. ACCESS CLEARANCES FOR MAINTENANCE AND REPLACEMENT: VERIFY PHYSICAL DIMENSIONS OF EQUIPMENT TO ENSURE THAT ACCESS CLEARANCES CAN BE MET. COORDINATE LOCATIONS OF MECHANICAL WORK AND WORK OF OTHER TRADES TO PROVIDE ACCESS CLEARANCES FOR SERVICE AND MAINTENANCE.

### COORDINATION REQUIREMENTS

- 1. IRRIGATION: COORDINATE WITH IRRIGATION CONTRACTOR FOR THEIR WATER SUPPLY REQUIREMENTS AND LOCATIONS.
- 2. GAS: CONTRACTOR/GAS COMPANY SHALL FINALIZE GAS METER AND GAS SERVICE LOCATIONS.
- 3. UTILITIES: COORDINATE WITH SITE UTILITY CONTRACTOR AND CIVIL DRAWINGS FOR UTILITY CONNECTIONS AND EXTENSIONS.
- 4. ROOF DRAINAGE: COORDINATE WITH GENERAL CONTRACTOR FOR ROOF DRAIN AND OVERFLOWS, SCUPPER DRAINS, AND CONDENSATE DRAINS.
- 5. PLUMBING FIXTURES: COORDINATE WITH ARCHITECTURAL AND OTHER TRADES EXACT LOCATION OF ALL PLUMBING FIXTURES.
- 6. PIPING: COORDINATE WITH STRUCTURAL FOR EXACT LOCATION OF ALL STRUCTURAL FRAMING AND FOOTINGS AND FINALIZE THE EXACT ROUTING OF ALL PIPES WITH STRUCTURAL AND AT THE SITE PRIOR AND DURING THE CONSTRUCTION.
- 7. ADJUSTMENTS: ALL EQUIPMENT, MOTORS, FANS GAS BURNERS, IGNITION DEVICES, DRIVES, ETC. SHALL BE ADJUSTED AND BALANCED TO OPERATE AT SPECIFIED RATINGS AS REQUIRED FOR THIS PROJECT SITE AND ACCOUNTING FOR ELEVATION ABOVE SEA LEVEL.
- 8. APPROVALS: MECHANICAL AND PLUMBING EQUIPMENT SHALL BE APPROVED FOR INSTALLATION IN THE PROJECT LOCATION AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS TO MEET ALL ENERGY, POLLUTION, ENVIRONMENTAL, SEISMIC, ETC. CODES AND REGULATIONS. THE CONTRACTOR SHALL COORDINATE WITH HIS MANUFACTURE SUPPLIERS AND SHALL INCLUDE ALL COSTS REQUIRED TO MEET THESE REQUIREMENTS IN HIS BID.
- 9. FIRE PROTECTION: CONTRACTOR SHALL PROVIDE A FULLY DESIGNED FIRE PROTECTION SPRINKLER SYSTEM IN COMPLIANCE WITH NFPA AND

LOCAL CODES. PROVIDE DESIGN, PERMITS, MATERIALS, INSTALLATION, TESTING AND ALL OTHER FOR A FULLY OPERATIONAL SYSTEM. LOCATION OF ALL PIPING TO BE COORDINATED WITH OTHER TRADES.

### PLUMBING NOTES

- CONNECTIONS: PROVIDE PLUMBING FIXTURE CONNECTIONS TO BUILDING WASTE, VENT, COLD WATER, AND HOT WATER SYSTEM IN ACCORDANCE WITH DRAWINGS. MANUFACTURER'S RECOMMENDATIONS. AND LOCAL CODES. CONNECT TO EACH FIXTURE, EQUIPMENT, ETC. WITH ALL ACCESSORIES, VALVES, VACUUM BREAKERS, REGULATORS, UNIONS, ETC AS REQUIRED AND AS RECOMMENDED BY THE MANUFACTURERS. REFER TO PLUMBING FIXTURE CONNECTION SCHEDULE ON PLANS.
- HOT AND COLD: WATER PIPING CONNECTION TO EACH FIXTURE SHALL BE COLD WATER ON THE RIGHT HAND SIDE AND HOT WATER ON THE LEFT HAND SIDE.
- 3. HOT WATER: NON-CIRCULATING HOT WATER PIPE SHALL NOT EXCEED 10' UNLESS OTHERWISE SHOWN ON DRAWINGS.
- 4. VENT STACKS: COORDINATE VENT STACK WITH HVAC EQUIPMENT TO MAINTAIN MINIMUM 10' CLEARANCE FROM OUTSIDE AIR INTAKES.
- CLEANOUTS: PROVIDE CLEANOUTS PER CURRENT CPC AND AS REQUIRED BY LOCAL JURISDICTIONS. CLEANOUTS SHALL BE LOCATED IN WALLS/FLOORS WHERE THEY ARE NOT HIGHLY VISIBLE. FLOOR CLEANOUTS IN CARPETED AREAS TO BE FITTED WITH CARPET INSERTS. LOCATIONS SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL. NOTE: NOT ALL CLEANOUTS ARE SHOWN ON THE PLUMBING DRAWINGS. CLEANOUTS SHALL BE INSTALLED PER 2019 CPC SEC. 707.0 AND
- SUDS RELIEF: PROVIDE SUDS RELIEF IN ACCORDANCE WITH CURRENT CPC.
- 7. SHUT-OFFS: PROVIDE 1/4 TURN BALL VALVE ANGLE STOP SHUT-OFF VALVES AND BRAIDED STAINLESS STEEL FLEX CONNECTORS AT HOT AND COLD WATER SUPPLY TO EACH FIXTURE. EXCEPTION: PROVIDE SCREWDRIVER STOPS AT BATH/SHOWERS
- 8. TUB SPOUTS SHALL BE THREADED (NO PUSH-ON FITTINGS).
- 9. TRAP ARMS: PROVIDE TRAP ARMS SUCH THAT THE MAXIMUM LENGTH WILL NOT EXCEED CODE REQUIREMENTS.
- 10. ADA INSULATION: AT PLUMBING PIPING EXPOSED UNDER LAVATORIES, INSULATE THE EXPOSED PIPING AND TRAPS WITH PRODUCT SPECIFICALLY DESIGNED FOR THIS APPLICATION MEETING ADA REQUIREMENTS. PROVIDE HANDI-LAV GUARD OR EQUIVALENT. OFFSET P-TRAPS TO CLEAR WHEELCHAIR ACCESS.
- 11. GAS EQUIPMENT: GAS EQUIPMENT SHALL BE INSTALLED PER EQUIPMENT LISTINGS, LOCAL CODES, AND NFPA.
- 12. GAS CONNECTIONS: INSTALL FLEXIBLE QUICK DISCONNECT ASSEMBLIES FOR ALL GAS FIRED KITCHEN EQUIPMENT PER LOCAL JURISDICTIONS.
- 13. WATER HAMMER ARRESTORS: PROVIDE AT THE END OF HOT AND COLD WATER LINES SERVING TWO OR MORE FIXTURES; SIZE IN ACCORDANCE WITH PLUMBING AND DRAINAGE INSTITUTE (PDI) REQUIREMENTS. WATER HAMMER ARRESTORS ARE REQUIRED FOR QUICK CLOSING VALVES, SUCH AS LAUNDRY WASHERS, FLUSH VALVES (PUBLIC TOILETS), ETC.
- 14. TRAP PRIMERS: PROVIDE TRAP PRIMERS AND PIPING FOR DRAINS AND FLOOR SINKS. ARRANGE PIPING TO ACHIEVE EQUAL FLOW TO EACH DRAIN AND FLOOR SINK FOR TRAP PRIMERS SERVING MULTIPLE DRAINS AND FLOOR SINKS.
- 15. P-TRAPS: ALL EXPOSED P-TRAPS SHALL BE CHROME-PLATED BRASS.
- 16. PROVIDE BALL VALVES. GATE VALVES SHALL NOT BE USED. NO EXCEPTIONS.
- 17. HOT WATER RECIRCULATING BALANCING VALVES TO BE BELL & GOSSETT CIRCUIT SETTER (OR WATTS EQUIVALENT) WITH INTEGRAL READOUT PORTS, ADJUSTMENT KNOB, DRAIN CONNECTION, AND POSITIVE SHUTOFF.
- 18. DISASSEMBLY PROVISIONS: PROVIDE UNIONS OR FLANGES AT PIPING CONNECTIONS TO EQUIPMENT, COILS, TRAPS, CONTROL VALVES, AND OTHER COMPONENTS TO ALLOW DISASSEMBLY FOR MAINTENANCE.
- 19. REDUCERS: PROVIDE AS REQUIRED FROM LINE PIPE SIZE TO EQUIPMENT, TRAP, COIL, AND CONTROL VALVE CONNECTION SIZES.
- 20. OFFSETS: PROVIDE FOR BRANCH LINES TO EQUIPMENT
- 21. DIELECTRIC UNIONS: PROVIDE AT CONNECTIONS OF DISSIMILAR PIPE.
- 22. VALVE TAGS: PROVIDE VALVE TAGS TO IDENTIFY EACH VALVE AND THE AREA IT SERVES.
- 23. ROOF DRAINS, OVERFLOW DRAINS, AND OTHER RAINWATER PIPING WITHIN THE INTERIOR OF THE BUILDING SHALL BE TESTED IN ACCORDANCE WITH THE 2019 CPC PROVISIONS. STORM DRAIN PIPING WITHIN THE BUILDING SHALL UTILIZE APPROVED DRAINAGE FITTINGS.

### INSULATION/LINING NOTES

1. ENERGY CODE: AS A MINIMUM, COMPLY WITH THICKNESSES AND TYPES LISTED IN ENERGY CODE ENFORCED BY AHJ.

DRAWINGS ARE DIAGRAMMATIC, SHOWING THE GENERAL LOCATION, TYPE, LAYOUT, AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS. REFER TO MANUFACTURER'S STANDARD INSTALLATION DRAWINGS FOR EQUIPMENT CONNECTIONS AND INSTALLATION REQUIREMENTS. PROVIDE DUCTWORK, CONNECTIONS, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY FOR A COMPLETE SYSTEM.

### **ABBREVIATIONS**

<u>PIPING</u>

SANITARY SEWER (SS)

OVERFLOW RAIN LEADER

HOT WATER, POTABLE, 120°F

HOT WATER, POTABLE, TEMPERATURE

HOT WATER CIRCULATING, POTABLE,

TEMPERATURE OTHER THAN 120°F

LOW PRESSURE NATURAL GAS

MEDIUM PRESSURE NATURAL GAS

HOT WATER CIRCULATING (HWC), POTABLE,

CONDENSATE DRAIN

COLD WATER (CW)

OTHER THAN 120°F

120°F

FUEL OIL FILL

FUEL OIL SUPPLY

FUEL OIL RETURN

FUEL OIL VENT

RELIEF VENT

PUMPED WASTE

VENT (V)

\_\_\_\_\_\_

\_\_\_\_\_

— --- — 140 ——

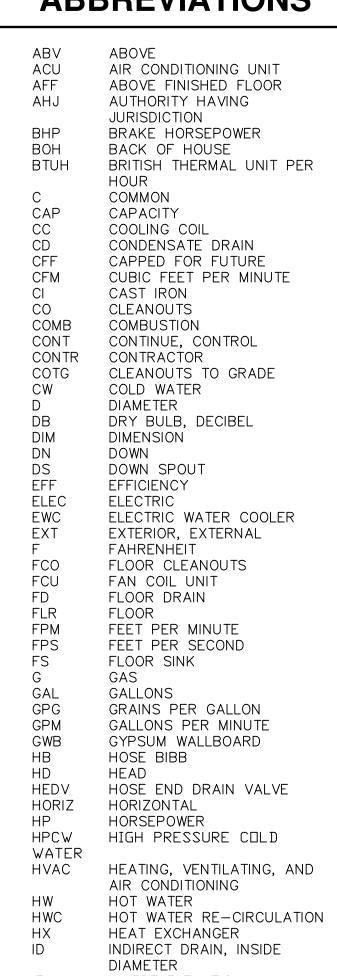
——— FOF ———

— FOV — —

— — RV— —

——— MPG ———

RAIN LEADER



INVERT ELEVATION INCH KS KITCHEN SINK  $\mathsf{KW}$ KILOWATT LONG. LENGTH LAVATORY POUND THOUSAND BTU PER HOUR MECHANICAL MIN. CIRCUIT AMPACITY

MOCP MAX. OVER CURRENT PROTECTION MEDIUM PRESSURE GAS MOUNTED OD OUTSIDE DIMENSION/DIAMETER OVERFLOW DRAIN/DECK OPNG OPENING PUMP PDPRESSURE DROP, PUMPED POINT OF CONNECTION

PRV PRESSURE REDUCING VALVE PRESSURE RELIEF VALVE PUMPED STORM DRAINAGE PUMPED SANITARY SEWER POUNDS PER SQUARE INCH PSIG **GAUGE** ROOF DRAIN REF REFERENCE

RPBP REDUCED PRESSURE BACKFLOW PREVENTER REVOLUTIONS PER MINUTE SCHEDULE SCW SOFTENED COLD WATER

SD STORM DRAIN SF SQUARE FOOT SH SHOWER SO SP STORM OVERFLOW STATIC PRESSURE SR SUDS RELIEF SS STAINLESS STEEL, SANITARY SEWER

VTR

WC

WCO

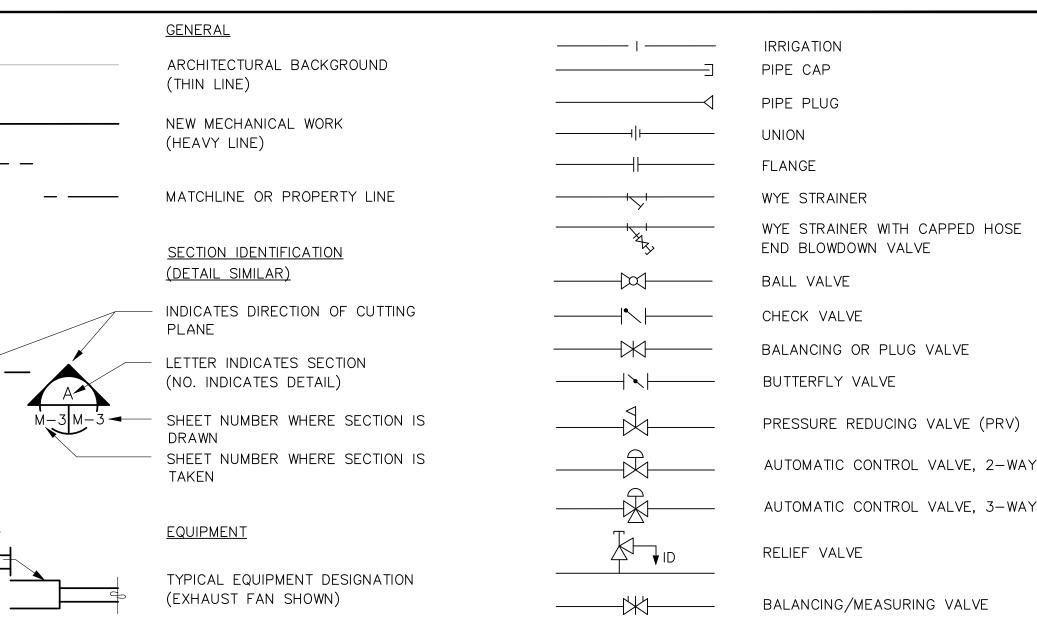
WH

SQ SQUARE TR TEMPERATURE RISER TYP TYPICAL UH UNIT HEATER UNLESS OTHERWISE NOTED UON

VENT THRU ROOF

WASTE, WATT, WIDE WATER CLOSET WALL CLEANOUTS WALL HYDRANT, WATER HEATER WASHING MACHINE

### **SYMBOLS**



### HOSE BIBB BREAK IN PIPING OR DUCTWORK

PRESSURE GAUGE

THERMOMETER PRESSURE / TEMPERATURE TEST PORT

REDUCED PRESSURE BACKFLOW PREVENTER DOUBLE CHECK VALVE ASSEMBLY

FLEXIBLE CONNECTION IN PIPING

VALVE STATION OR ASSEMBLY

INDIRECT DRAIN, PIPE TO DRAIN

PIPE ANCHOR

PIPE SUPPORT

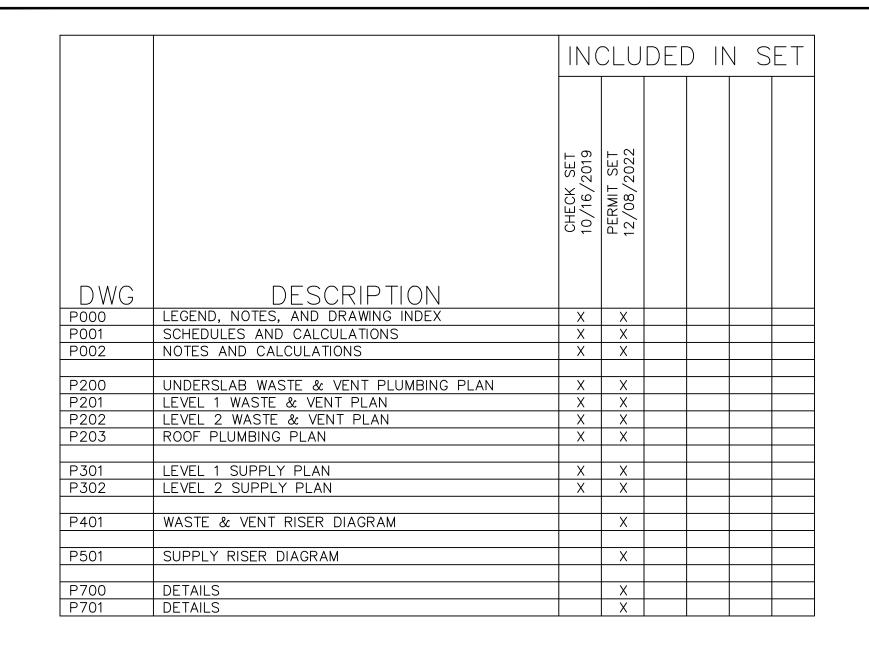
FLOOR DRAIN

PIPE ALIGNMENT GUIDE

### **INDEX OF DRAWINGS**

RPBP

DCVA





LYNNWOOD, WA 98036

206-364-3343 TEL

REI PROJECT NO.: 590-054

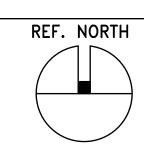
CONTACT: ARIK ESPINELI

CONSTRUCTION INC. GENERAL CONTRACTOR & ENGINEER 101 South Santa Cruz Ave., #33192 Los Gatos, CA 95030

> 6 **W**

**REVISION** DATE DATE: December 8, 2022

> LEGEND, NOTES, AND **DRAWING INDEX**



PROJECT No.

P000

590-054

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### **CONTRACTOR SUBSTITUTIONS & REVISIONS**

CONTRACTOR SUBSTITUTIONS & REVISIONS: PLEASE SUBMIT PROPOSALS FOR SUBSTITUTIONS OR REVISIONS FOR REVIEW AND APPROVAL PRIOR TO ORDERING MATERIAL OR DOING WORK. FOR EQUIPMENT THAT IS SCHEDULED BY MANUFACTURER'S NAME AND CATALOG DESIGNATIONS, THE MANUFACTURER'S PUBLISHED DATA AND/OR SPECIFICATION FOR THAT ITEM ARE CONSIDERED PART OF SPECIFICATION. ENGINEERING COSTS FOR REVISING MEP PLANS SHALL BE ADDRESSED IN THE COST ANALYSIS OF THE SUBSTITUTION PROPOSAL. CONTRACTOR TO COORDINATE WITH ENGINEER AND DETERMINE ASSOCIATED DESIGN AND PERMITTING COSTS. CONTRACTOR SHALL BE RESPONSIBLE FOR OTHER COSTS ASSOCIATED WITH UNFORESEEN ISSUES RESULTING FROM SUBSTITUTIONS OR REVISIONS.

### **APPLICABLE CODES**

THESE DRAWINGS ARE BASED ON THE FOLLOWING CODES:

2019 CALIFORNIA BUILDING CODE (CBC)
2019 CALIFORNIA MECHANICAL CODE (CMC)
2019 CALIFORNIA PLUMBING CODE (CPC)
2019 CALIFORNIA ENERGY CODE (CEC)

### **PRE-CON MEETING NOTES**

CONTRACTORS SHALL ATTEND A PRE—CONSTRUCTION MEETING WITH THE ENGINEER FOR THE PURPOSE OF REVIEWING THE WORK PRIOR TO ORDERING ANY EQUIPMENT OR PERFORMING ANY WORK. THE MEETING SHALL BE LOCATED AT THE PROJECT SITE ON A DATE AND TIME TO BE MUTUALLY AGREED. THE MEETING WILL BE A WORKING SESSION. THE MEETING WILL BE FACILITATED BY THE ENGINEER AND THE AGENDA WILL INCLUDE A DETAILED REVIEW OF THE PLANS AND SPECIFICATIONS, CROSS CHECK WITH OTHER TRADES FOR COORDINATION ISSUES, REVIEW OF PROPOSED PRODUCTS, REVIEW OF PLANNED MEANS AND METHODS, AND ON—SITE INVESTIGATION OF FIELD CONDITIONS RELATIVE TO EXISTING CONDITIONS THAT COULD AFFECT THE WORK. PERSONS ATTENDING THE MEETING SHALL BE KNOWLEDGEABLE OF THE PROJECT AND SHALL BE THE SPECIFIC PERSONS INTENDED TO CONTINUE WITH THE PROJECT THROUGH TO COMPLETION. IF REQUIRED, REVISED PLANS WILL BE ISSUED THROUGH OFFICIAL CHANNELS. CHANGES IN THE BID PRICE WILL BE DISCUSSED, BUT NO CHANGE ORDERS WILL BE ISSUED UNLESS PROCESSED THOUGH OFFICIAL CHANNELS. IT SHALL BE UNDERSTOOD THAT THE ENGINEER HAS NO AUTHORITY TO ISSUE CHANGE ORDERS.

THE FOLLOWING TRADES SHALL BE REPRESENTED FOR THE MINIMUM TIME INDICATED:

MECHANICAL SHEET METAL 4 HOURS
PLUMBING/PIPING 4 HOURS
ELECTRICAL 4 HOURS
SPRINKLER 2 HOURS
GENERAL CONTRACTOR ALL SESSIONS

### **ADDITIONAL PLUMBING NOTES**

- 1. LAVATORY FAUCETS IN PUBLIC RESTROOMS SHALL BE THE SELF-CLOSING OR SELF-CLOSING METERING TYPES.
- 2. NON-REMOVABLE VACUUM BREAKERS SHALL BE PROVIDED AT ALL HOSE BIBBS.
- 3. FLOOR DRAINS OR SIMILAR TRAPS DIRECTLY CONNECTED TO THE DRAINAGE SYSTEM AND SUBJECT TO INFREQUENT USE SHALL BE PROVIDED WITH AN APPROVED AUTOMATIC MEANS OF MAINTAINING THEIR WATER SEALS.
- 4. INSULATION MATERIAL SHALL MEET THE CALIFORNIA QUALITY STANDARDS PER ENERGY EFFICIENCY STANDARDS SEC. 120.3.
- 5. ALL PIPING SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS OF ENERGY EFFICIENCY STANDARDS SEC. 120.3.
  6. SERVICE WATER HEATING SYSTEMS AND EQUIPMENT SHALL COMPLY WITH ENERGY EFFICIENCY STANDARDS SEC. 110.3.
- 7. SWIMMING POOL AND SPA HEATING SYSTEMS AND EQUIPMENT SHALL COMPLY WITH ENERGY EFFICIENCY STANDARDS SEC.
- 8. BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH CPC 2019 SEC. 701.0 AND 903.0.
- 9. ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
  10. CHEMICAL WASTE PIPING SHALL COMPLY WITH CPC 2019 SEC. 811.0.
- 11. ALL STORAGE WATER HEATING EQUIPMENT SHALL BE PROVIDED WITH AN APPROVED, LISTED EXPANSION TANK OR OTHER DEVICE DESIGNED FOR INTERMITTENT OPERATION FOR THERMAL EXPANSION CONTROL PER CPC 2019 SEC. 608.3.
- 12. WATER HEATERS SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENTS DUE TO SEISMIC MOTION PER CPC 2019 SEC. 507.2.
- CPC 2019 SEC. 507.2.

  13. MATERIALS EXPOSED WITHIN A DUCT OR PLENUM SHALL COMPLY WITH CMC 2019 SEC. 601.1.3.
- 14. HVAC EQUIPMENT AND WATER HEATERS SHALL COMPLY WITH CMC 2019 CHAPTER 3.
- 15. MEDIUM PRESSURE GAS PIPING SHALL BE LABELED EVERY FIVE FEET.

  16. BOILERS SHALL COMPLY WITH ALL THE REQUIREMENTS OF CHAPTER 10 OF CMC 2019.
- 17. PROVIDE EXPANSION TANK FOR BOILERS PER SECTION 1005.0 CMC 2019.
  18. ROUTING AND TERMINATION OF FLUE FOR BOILERS SHALL COMPLY WITH CH.8, CMC 2019 AND WITH MANUFACTURERS
- SPECIFICATIONS.

  19. COMBUSTION AIR INTAKE FOR BOILERS SHALL—COMPLY WITH CH. 7, CMC 2019 AND WITH MANUFACTURERS SPECIFICATIONS.

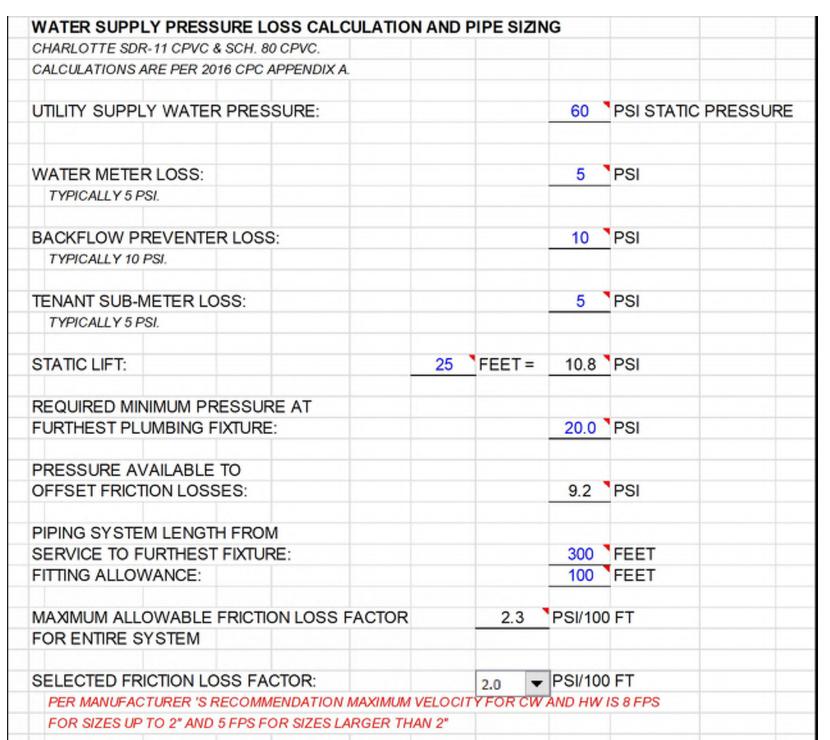
  20. SHOWERS AND TUB/SHOWER COMBINATIONS SHALL BE PROVIDED WITH PRESSURE BALANCE OR THERMOSTATIC MIXING VALVES
- PER 2019 CPC SEC. 408.3.
  21. PLUMBING FIXTURES AND FITTINGS SHALL COMPLY WITH ALL THE REQUIREMENTS LISTED IN TABLES 5.303.2.2 OR 5.303.2.3
  AND IN TABLE 5.303.6 IN THE CALIFORNIA GREEN BUILDING STANDARDS CODE.
- 22. CONTRACTOR SHALL PROVIDE FIRESTOPPING AT PENETRATIONS AS NECESSARY TO RETAIN THE FIRE RATING OF ALL
- ASSEMBLIES. ALL WORK SHALL BE IN COMPLIANCE WITH CODE REQUIREMENTS FOR THE BUILDING CONSTRUCTION TYPE.

  23. FLUSHING PROCEDURES AS OUTLINED IN CPC 604.1.2 SHALL BE OBSERVED ALL ALL PEX PIPING.
- 24. NEW POTABLE WATER SYSTEM SHALL BE DISINFECTED PRIOR TO USE PER 2019 CPC SEC. 609.9.

### BACKFLOW PREVENTION REQUIREMENTS:

PLUMBING CONTRACTOR SHALL PROVIDE REDUCED PRESSURE BACKFLOW PREVENTERS OR OTHER APPROVED BACKFLOW PREVENTION DEVICE WHERE REQUIRED BY HEALTH AUTHORITIES, FOOD SERVICE DRAWINGS, APPLIANCE MANUFACTURER INSTRUCTIONS AND BY CODE.

### WATER PRESSURE CALCULATIONS

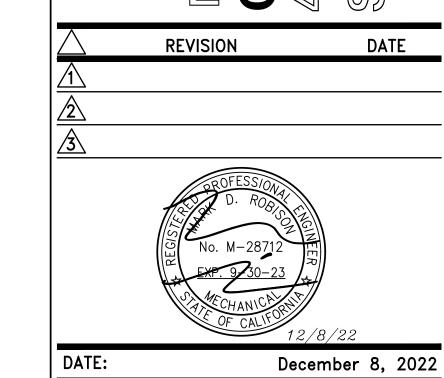


		CP	VC SUPPL	LY PIPE	SIZING	SCHEDUL	Ē			
FL	USH TAN	K CW		Н	TAW TO	(ER	FLUSH VALVE CW			
PIPE SIZE	FLOW, GPM	VEL. FPS	FIXTURE UNITS	FLOW, GPM	VEL. FPS	FIXTURE UNITS	FLOW, GPM	VEL. FPS	FIXTURE UNITS	
1/2"	1.2	2.1	0.2	1.2	2.1	0.2	1.2	2.1		
3/4"	3.3	2.6	3.3	3.3	2.6	3.3	3.3	2.6		
1"	6.4	3.1	7.4	6.4	3.1	7.4	6.4	3.1		
1-1/4"	10.9	3.5	14.8	10.9	3.5	14.8	10.9	3.5		
1-1/2"	16.9	3.9	23.9	16.9	3.9	23.9	16.9	3.9		
2"	34.2	4.6	63.6	34.2	4.6	63.6	34.2	4.6	18.4	
2-1/2"	64.1	5.0	195.7	64.1	5.0	195.7	64.1	5.0	88.5	
3"	100.4	5.0	382.1	100.4	5.0	382.1	100.4	5.0	247.0	
4"	175.4	5.0	780.8	175.4	5.0	780.8	175.4	5.0	742.2	
6"	399.1	5.0	2661.2	399.1	5.0	2661.2	399.1	5.0	2661.2	

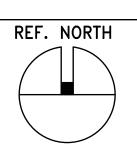




# NEW DEVELOPMENT: CHEENEY ST TOWNHOUSE 4249 CHEENEY ST. SANTA CLARA, CA 95054



**NOTES AND CALCULATIONS** 



P001

590-054

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PROJECT No.

### FIXTURE UNIT COUNTS

FIXTURE UNIT CALCULATIONS												
CALCULATIONS BASED ON 2019 CPC TABLES A103.1 AND 702.1.												
A UNITS												
FIXTURE		FIXTURE U	NITS	•		•	•	TOTAL QTY	TOTAL FIXTURI	EUNITS	•	•
	TOTAL	CW	HW	W/V	1	2	R	OF FIXTURES	SERVICE	CW ONLY	HW ONLY	W/V ONLY
LAVATORY	1	0.75	0.75	1	1	3		4	4	3	3	4
WATER CLOSET (TANK)	2.5	2.5	0	3	1	2		3	7.5	7.5	0	9
SHOWER	2	1.5	1.5	2		2		2	4	3	3	4
BATHTUB	4	3	3	2		1		1	4	3	3	2
CLOTHES WASHER	4	3	3	3	1			1	4	3	3	3
KITCHEN SINK W/ DISHWASHER	3	1.125	2.625	2	1			1	3	1.125	2.625	2
HOSE BIBB	2.5/1	2.5/1	0	0	1			1	2.5	2.5	0	0
									29	23.125	14.625	24
	TOTAL	CW	HW	W/V								
UNIT A FIXTURE UNITS:	29	23.125	14.625	24								
PEAK FLOW:	19.5 GPM											
REQUIRED SERVICE SIZE IN BUILDING:	1-1/2" COPPER			3" @ 2%								
B UNITS												
FIXTURE		FIXTURE UNITS			TO			TOTAL QTY	TOTAL FIXTURE UNITS			•
	TOTAL	CW	HW	W/V	1	2	R	OF FIXTURES	SERVICE	CW ONLY	HW ONLY	W/V ONLY
LAVATORY	1	0.75	0.75	1	1	3		4	4	3	3	4
WATER CLOSET (TANK)	2.5	2.5	0	3	1	2		3	7.5	7.5	0	9
SHOWER	2	1.5	1.5	2		2		2	4	3	3	4
BATHTUB	4	3	3	2		1		1	4	3	3	2
CLOTHES WASHER	4	3	3	3		1		1	4	3	3	3
KITCHEN SINK W/ DISHWASHER	3	1.125	2.625	2	1			1	3	1.125	2.625	2
HOSE BIBB	2.5/1	2.5/1	0	0	1			1	2.5	2.5	0	0
									29	23.125	14.625	24
	TOTAL	CW	HW	W/V								
UNITB FIXTURE UNITS:	29	23.125	14.625	24								
PEAK FLOW:	19.5 GPM											
REQUIRED SERVICE SIZE IN BUILDING:	1-1/2" COPPER			3" @ 2%								

### PLUMBING EQUIPMENT SCHEDULES

DOMESTIC WATER HEATER SCHEDULE - GAS (1)											
EQUIP NO.	SERVICE	DHW FLOW RATE GPM	WEIGHT, LBS	ENERGY FACTOR	MAX GAS CONSUMPTION (BTU)	DIMENSIONS LxHxW (IN)	ELECTRICAL	BASIS OF DESIGN			
WH-1	TOWNHOMES	11	64	0.96	199K	18.5x26.4x11.5	84W 120V 60HZ	RINNAI RU199iN			

NOTES: (1) SEE DETAIL 1, P7.00 FOR WATER HEATER PIPING DIAGRAM.

(2) WATER HEATER RECOVERY AND POWER REQUIREMENT ARE BASED ON NON-SIMULTANEOUS OPERATION.

SUB-METER										
EQUIP NO.	SERVICE	CONNECTION SIZE	DESIGN FLOW/MAX FLOW (GPM)	PRESSURE LOSS (PSI)	BASIS OF DESIGN	NOTES				
CWM-1	DCW SUPPLY	3/4"	15/30	6	NEXT CENTURY M201C	1				

### NOTES:

1. ALL DOMESTIC WATER EQUIPMENT SHALL BE NSF-61 LISTED.

PIPE MATERIALS SCHEDULE (1)				
PIPE TYPE	MATERIAL	JOINT	NOTES	
UNDERGROUND WATER SERVICE ENTRANCE PIPING	COPPER, TYPE K.	SOLDERED	(2)	
ABOVE GROUND WATER DISTRIBUTION PIPING	PEX, CPVC	SOLVENT CEMENT	(4)	
UNDERGROUND WASTE AND VENT PIPING	SCHEDULE 40 SOLID CORE PVC	SOLVENT CEMENT		
ABOVE GROUND WASTE AND VENT PIPING	CAST IRON	HUBLESS COUPLINGS		
UNDERGROUND STORM PIPING	SCHEDULE 40 SOLID CORE PVC	SOLVENT CEMENT		
ABOVE GROUND STORM PIPING	CAST IRON	HUBLESS COUPLINGS		
CONDENSATE DRAIN PIPING	COPPER, TYPE M.	SOLDERED	(3)	
NATURAL GAS PIPING	STEEL PIPE, ASTM A 53; TYPE E OR S; GRADE B; SCHEDULE 40	THREADED, WELDED, OR MEGAPRESS		

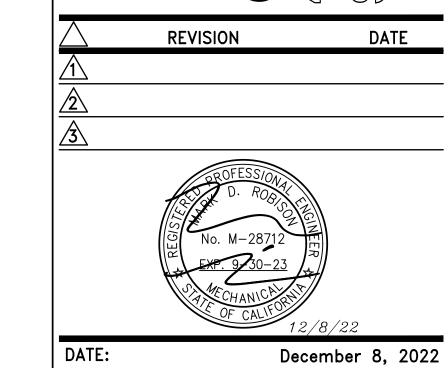
NOTES:(1) ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.

- (2) PLASTIC WRAP UNDERGROUND WATER SUPPLY PIPING TO PREVENT CORROSION.
- (3) CPVC IS ACCEPTABLE FOR CONDENSATE PIPING IN LIEU OF COPPER IF APPROVED BY AHJ.
- (4) PROVIDE THERMAL EXPANSION LOOPS FOR ALL CPVC PIPING PER MANUFACTURER REQUIREMENTS.

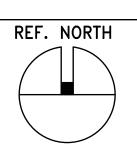




# NEW DEVELOPMENT: CHEENEY ST TOWNHOUSES 4249 CHEENEY ST. SANTA CLARA, CA 95054



SCHEDULES AND CALCULATIONS

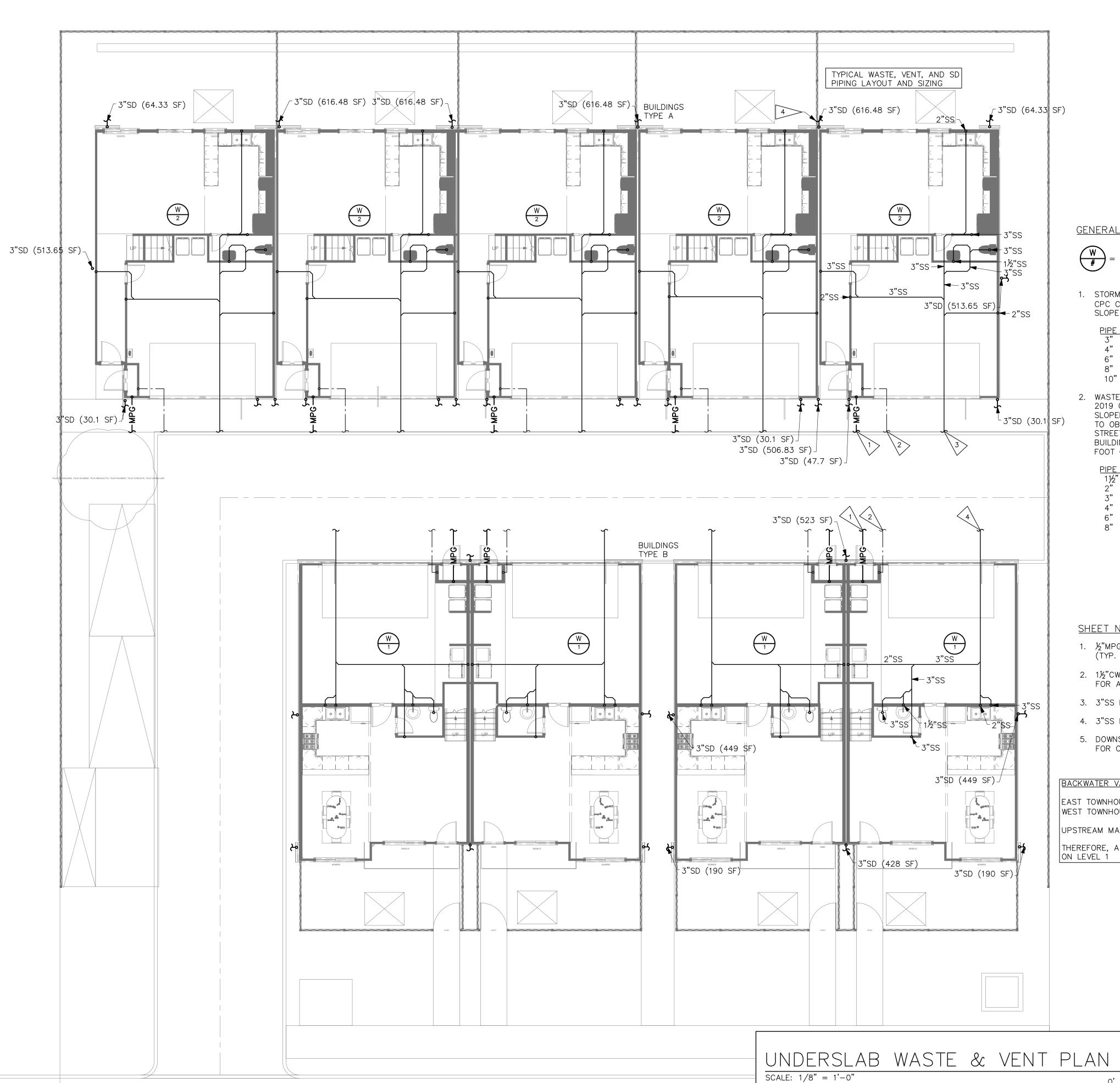


P002

590-054

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PROJECT No.





CONTACT: ARIK ESPINELI

### GENERAL NOTES:

W = WASTE/VENT RISER IDENTIFICATION (I.E. RISER "#").
REFER TO P400 SERIES FOR RISER DETAILS AND

1. STORM DRAIN: STORM DRAINAGE PIPING SIZED PER 2019 CPC CHAPTER 11, FOR 1.5"/HR RAINFALL RATE, AT 1/8"/FT SLOPE UNLESS NOTED OTHERWISE:

PIPE SIZE	1% HORI	ZONTAL	VERTICAL
3"	2,192	SF	5,866 SF
4"	5,013	SF	12,266 SF
6"	14,266	SF	36,000 SF
8"	30,666	SF	77,333 SF
10"	55.200	SF	SF

2. WASTE & VENT: WASTE & VENT PIPING IS SIZED PER 2019 CPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" OR 2% UON. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO A STRUCTURAL FEATURES OF THE BUILDING. DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL OF AHJ.

PIPE SI	ZE VERT.	2% HORIZ.	VENT
1½"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
<b>3"</b>	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6 <b>"</b>	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

### SHEET NOTES: X

- 1.  $\frac{1}{2}$  MPG POC. SEE CIVIL PLANS FOR CONT. IN JOINT TRENCH (TYP. FOR ALL TOWNHOUSES)
- 2. 11/2"CW POC. SEE CIVIL DRAWINGS FOR CONTINUATION. (TYP. FOR ALL TOWNHOUSES.)
- 3. 3"SS POC AT 2% SLOPE. IE = 19.739' (BASED ON 6" SOG)
- 4. 3"SS POC AT 2% SLOPE. IE = 20.08' (BASED ON 6" SOG)
- 5. DOWNSPOUT POC TO SITE PLAN SD PIPING. SEE CIVIL PLANS FOR CONT. (TYP. FOR ALL DOWNSPOUTS.)

### BACKWATER VALVE ANALYSIS

EAST TOWNHOUSES LEVEL 1 FF = 22.26' WEST TOWNHOUSES LEVEL 1 FF = 22.45'

UPSTREAM MANHOLE RIM =20.07'

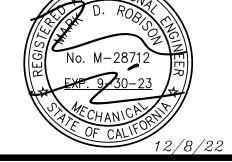
THEREFORE, A BACKWATER VALVE IS NOT REQUIRED FOR FIXTURES



Los Gatos, CA 95030

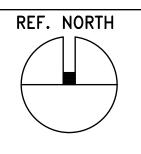
### TOWNHOUSES CHEENE

**REVISION** DATE



DATE: December 8, 2022 PROJECT No. 590-054

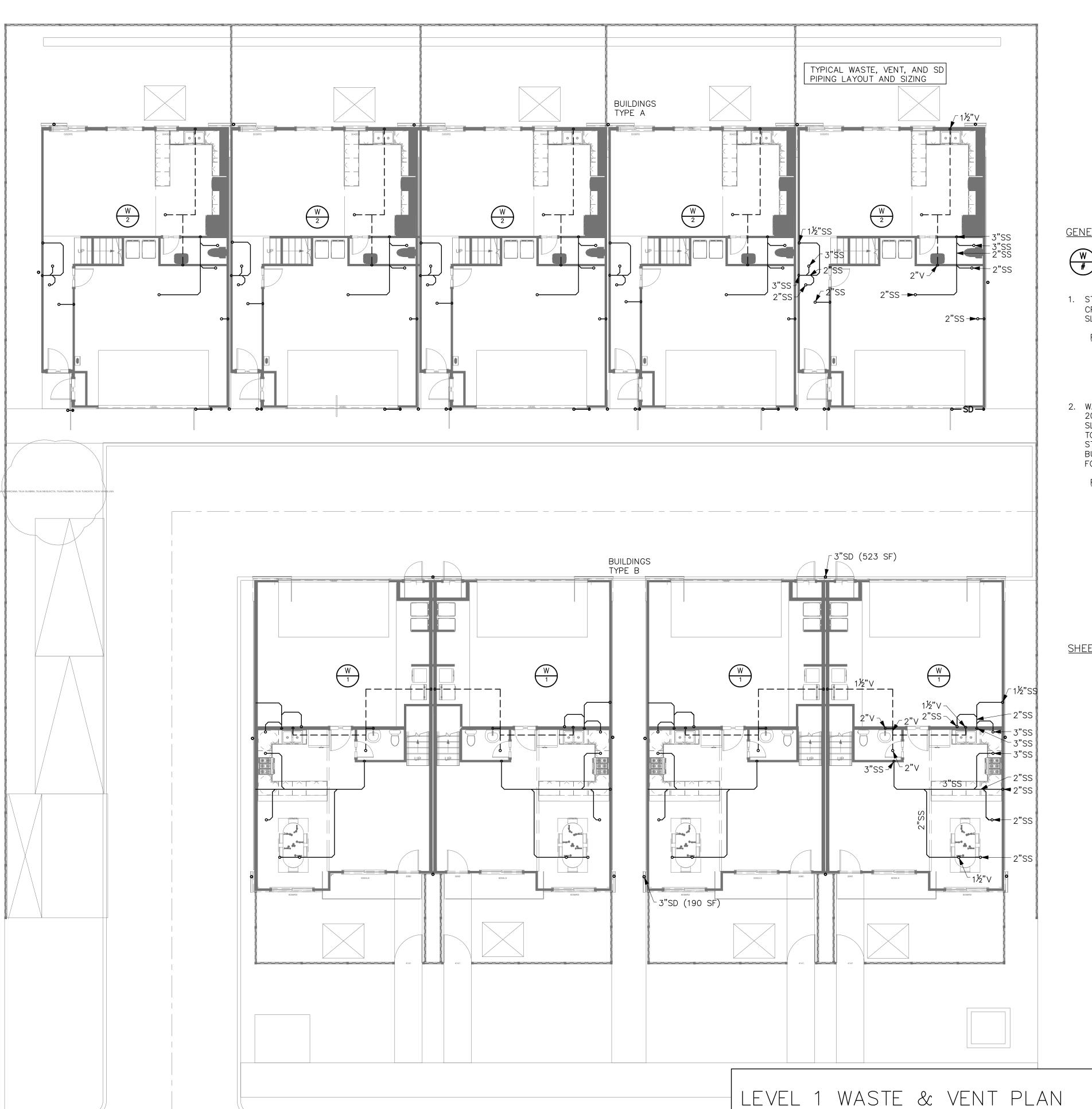
### **UNDERSLAB WASTE & VENT PLAN**



P200

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SCALE: 1/8" = 1'-0"



CONTACT: ARIK ESPINELI

GENERAL NOTES:

W = WASTE/VENT RISER IDENTIFICATION (I.E. RISER "#").
REFER TO P400 SERIES FOR RISER DETAILS AND

1. STORM DRAIN: STORM DRAINAGE PIPING SIZED PER 2019 CPC CHAPTER 11, FOR 1.5"/HR RAINFALL RATE, AT %"/FT SLOPE UNLESS NOTED OTHERWISE:

PIPE SIZE	1% HORI	ZONTAL	VERTICAL
3"	2,192	SF	5,866 SF
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6"	14,266	SF	36,000 SF
8"	30,666	SF	77,333 SF
10"	55,200	SF	SF

2. WASTE & VENT: WASTE & VENT PIPING IS SIZED PER 2019 CPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" OR 2% UON. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO A STRUCTURAL FEATURES OF THE BUILDING. DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL OF AHJ.

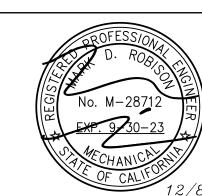
PIPE SIZ	ZE VERT.	2% HORIZ.	VENT
1½"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

SHEET NOTES: X



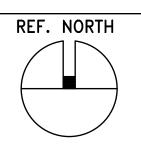
Los Gatos, CA 95030

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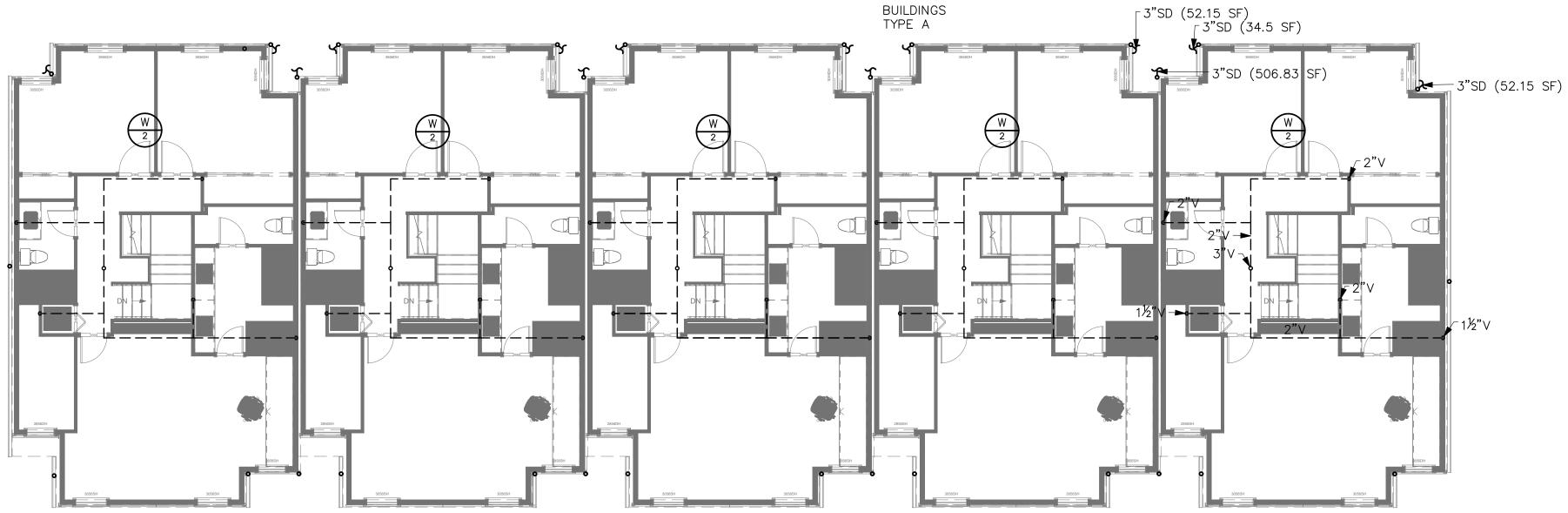
**LEVEL 1 WASTE & VENT PLAN** 

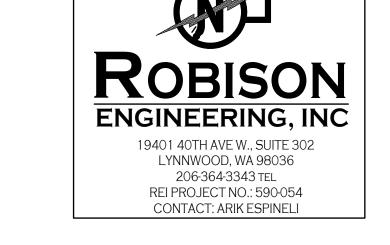


P201

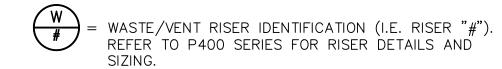
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### TYPICAL WASTE, VENT, AND SD PIPING LAYOUT AND SIZING





### GENERAL NOTES:



1. STORM DRAIN: STORM DRAINAGE PIPING SIZED PER 2019 CPC CHAPTER 11, FOR 1.5"/HR RAINFALL RATE, AT 1/8"/FT SLOPE UNLESS NOTED OTHERWISE:

PIPE SIZE	1% HORI	ZONTAL	VERTICAL
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4"	5,013	SF	12,266 S
6"	14,266	SF	36,000 S
8"	30,666	SF	77,333 S
1∩"	55 200	CE.	51

2. WASTE & VENT: WASTE & VENT PIPING IS SIZED PER 2019 CPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" OR 2% UON. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO A STRUCTURAL FEATURES OF THE BUILDING. DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL OF AHJ.

PIPE SI	ZE VERT.	2% HORIZ.	<u>VENT</u>
1½"	2 DFU	1 DFU	8 DFU
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6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

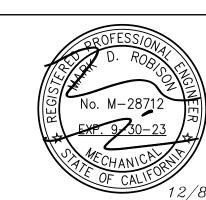
SHEET NOTES: X

### GENERAL CONTRACTOR & ENGINEER 101 South Santa Cruz Ave., #33192

Los Gatos, CA 95030

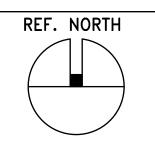
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DATE:	December	8, 2022
PROJECT No.	590-	-054

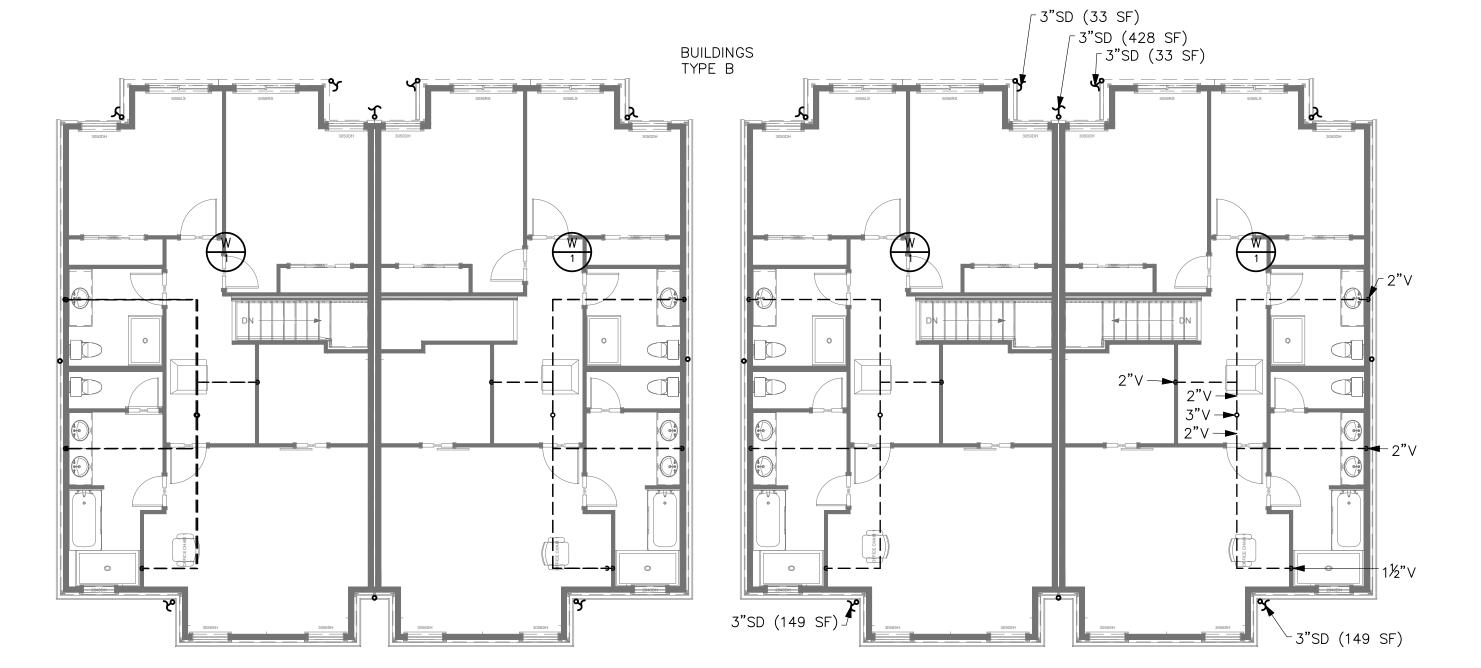
### **LEVEL 2 WASTE & VENT PLAN**



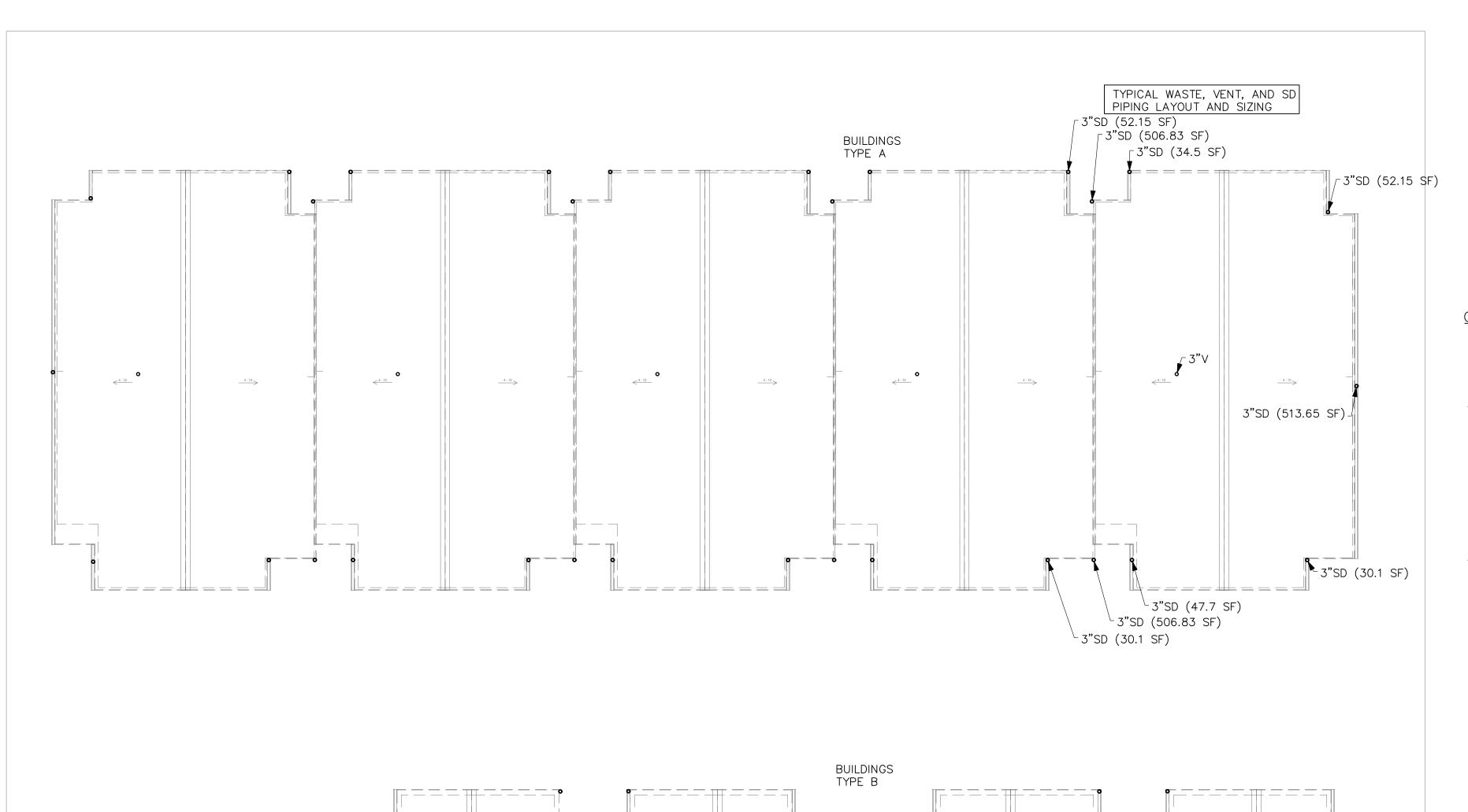
**P202** 

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LEVEL 2 WASTE & VENT PLAN SCALE: 1/8" = 1'-0"





### GENERAL NOTES:

W = WASTE/VENT RISER IDENTIFICATION (I.E. RISER "#").
REFER TO P400 SERIES FOR RISER DETAILS AND SIZING.

1. STORM DRAIN: STORM DRAINAGE PIPING SIZED PER 2019 CPC CHAPTER 11, FOR 1.5"/HR RAINFALL RATE, AT %"/FT SLOPE UNLESS NOTED OTHERWISE:

PIPE SIZE	1% HORI	ZONTAL	VERTICAL
3"	2,192	SF	5,866 SF
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10"	55,200	SF	SF

2. WASTE & VENT: WASTE & VENT PIPING IS SIZED PER 2019 CPC TABLE 703.2. DRAINAGE PIPING SHALL BE SLOPED AT 1/4" OR 2% UON. WHERE IT IS IMPRACTICAL TO OBTAIN A SLOPE OF 2% DUE TO THE DEPTH OF THE STREET SEWER OR TO A STRUCTURAL FEATURES OF THE BUILDING. DRAINAGE PIPING MAY BE SLOPED AT 1/8" PER FOOT OR 1% WITH APPROVAL OF AHJ.

PIPE SIZ	<u>ZE VERT.</u>	2% HORIZ.	<u>VENT</u>
1½"	2 DFU	1 DFU	8 DFU
2"	16 DFU	8 DFU	24 DFU
3"	48 DFU	35 DFU	84 DFU
4"	256 DFU	172 DFU	256 DFU
6"	1,380 DFU	576 DFU	1,380 DFU
8"	3,600 DFU	2,112 DFU	3,600 DFU

SHEET NOTES: X

### GENERAL CONTRACTOR & ENGINEER 101 South Santa Cruz Ave., #33192

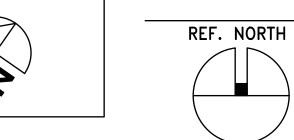
Los Gatos, CA 95030

### EVELOPMENT: NEY ST TOWNHOUSES SHEENEY ST. CHEENE

REVISION	DATE
D. ROBIGOZIONAL No. M-28712	
	D. ROBOCKIES No. M-28712

	12/0/22	
DATE:	December	8, 2022
PROJECT No.	590-	-054

### **ROOF PLUMBING PLAN**



**P203** 

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\_\_3"SD (449 SF)∫

<sup>7</sup> 3"SD (149 SF)





### GENERAL NOTES:

S = WASTE/VENT RISER IDENTIFICATION (I.E. RISER "#").
REFER TO P400 SERIES FOR RISER DETAILS AND SIZING.



### 

SHEET NOTES: X

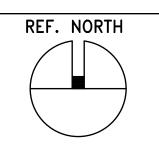
- 1. PEX MANIFOLD FOR SUPPLY PIPING. SEE DETAIL 1,P701.
- 2. 2" CW DOWN. PROVIDE WATER SHUTOFF VALVE (TYP.)
- 3. ½" MPG DOWN

REVISION DATE

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	12/8/22
DATE:	December 8,

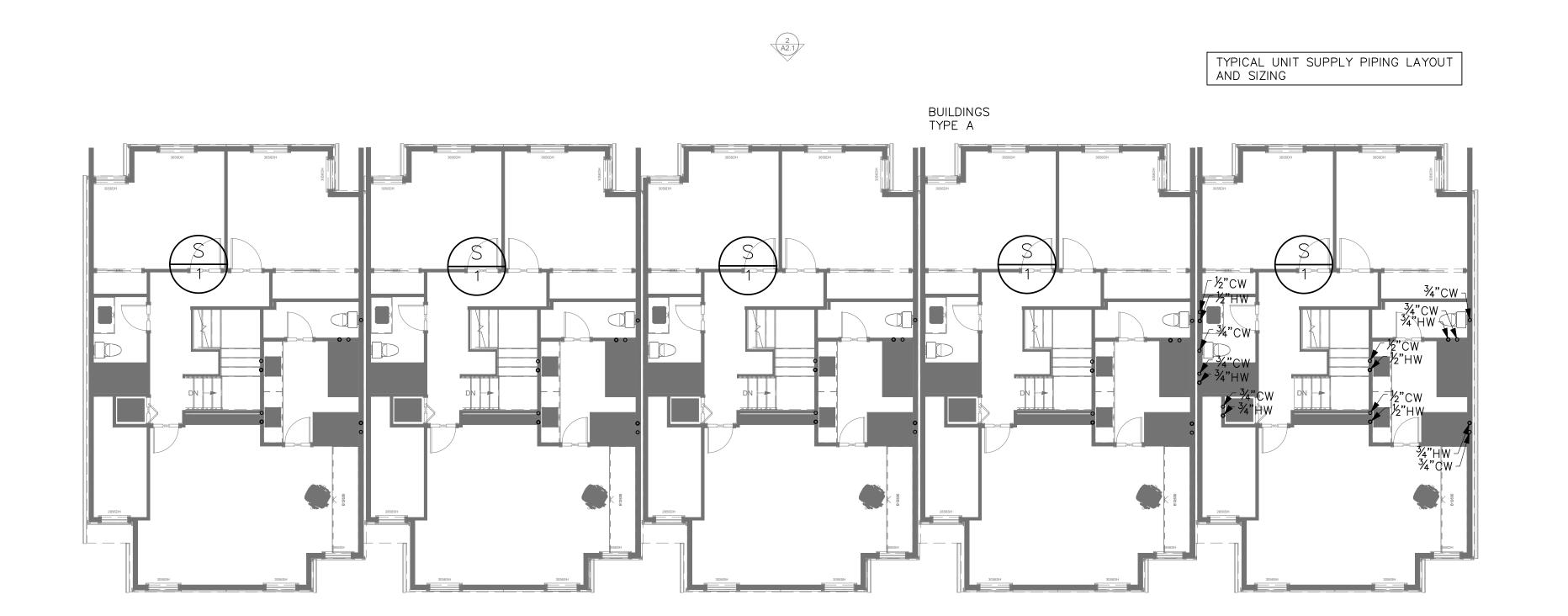
DATE: December 8, 2022
PROJECT No. 590-054

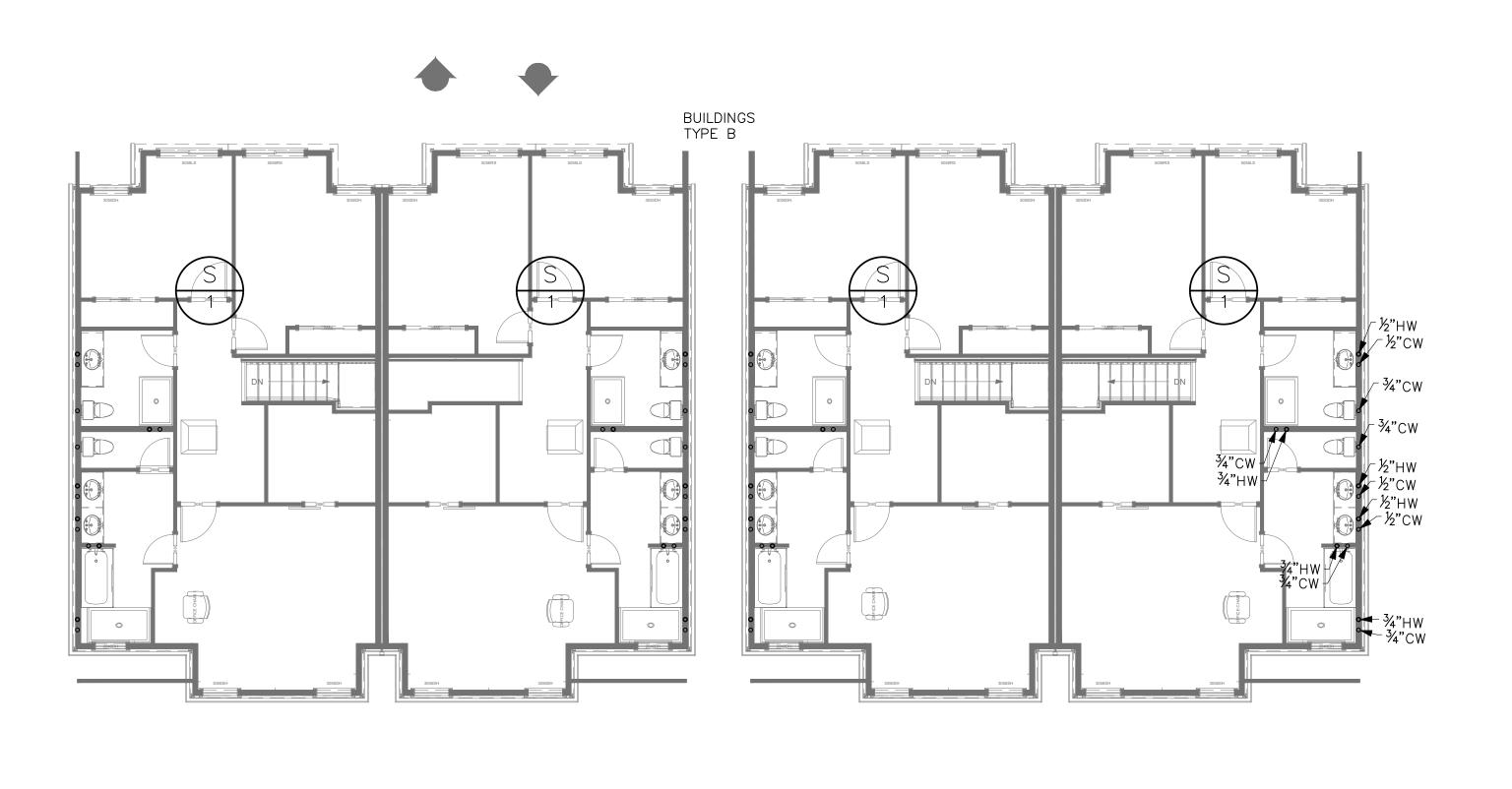
### **LEVEL 1 SUPPLY PLAN**



P301

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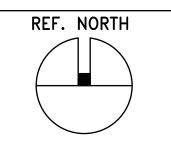




### CHEENEY ST TOWNHOUSES 4249 CHEENEY ST. SANTA CLARA, CA 95054

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	No. M-28712  EXP. 9/30-23  OF CALIFO	EFR STATES
DATE:		December 8, 2022

### **LEVEL 2 SUPPLY PLAN**

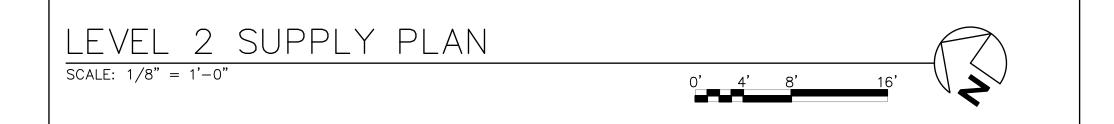


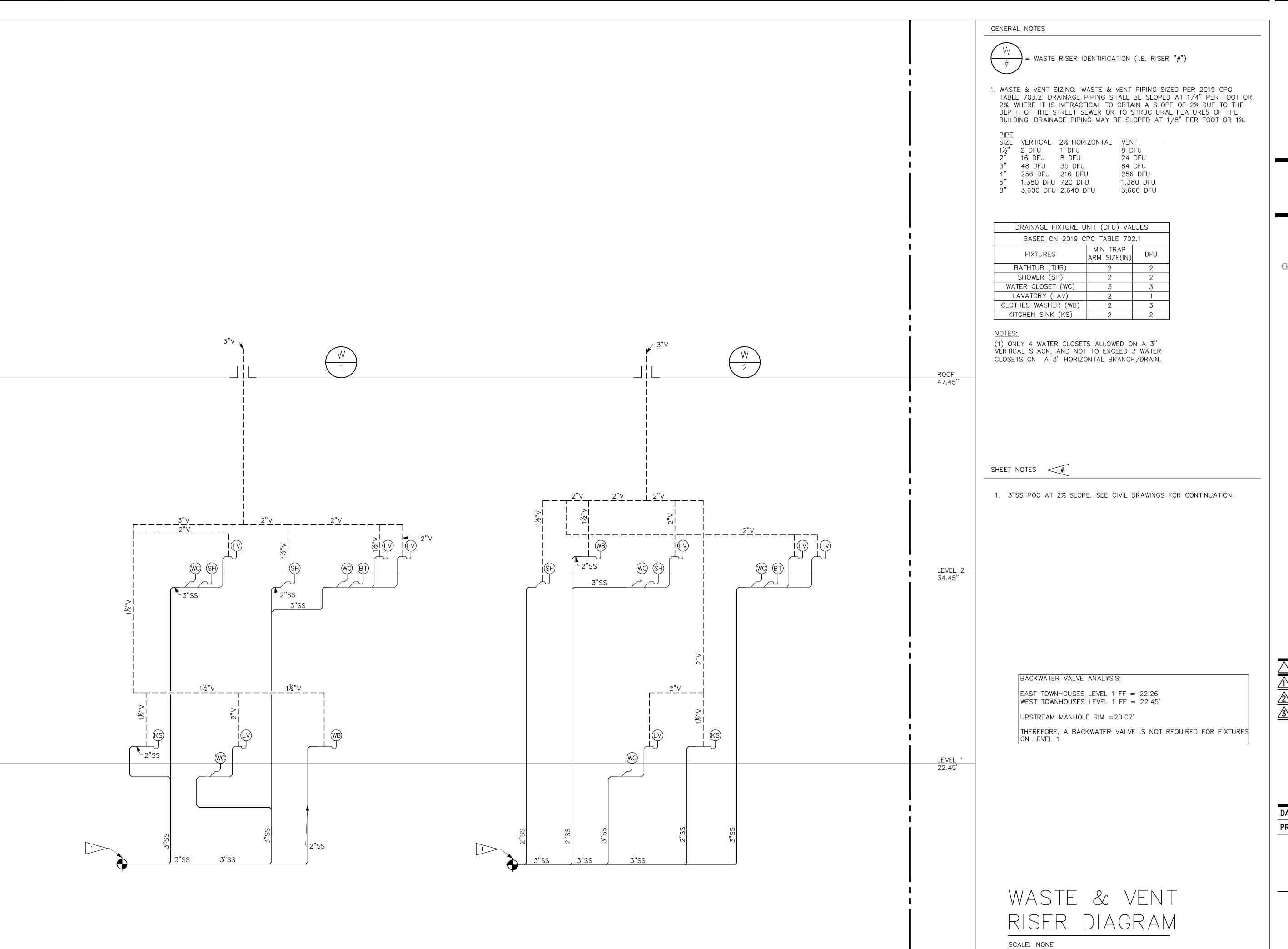
P302

590-054

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PROJECT No.







REI PROJECT NO.: 590-054 CONTACT: ARIK ESPINELI

CONSTRUCTION INC.
GENERAL CONTRACTOR & ENGINEER
101 South Santa Cruz Ave., #33192
Los Gatos, CA 95030

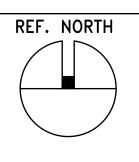
# NEW DEVELOPMENT: CHEENEY ST TOWNHOUSES 1249 CHEENEY ST. SANTA CLARA, CA 95054

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	No. M-28712  EXP. 9 30-23  MECHANICA IN 12  OF CALIFORN  12	ER .

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PROJECT No.

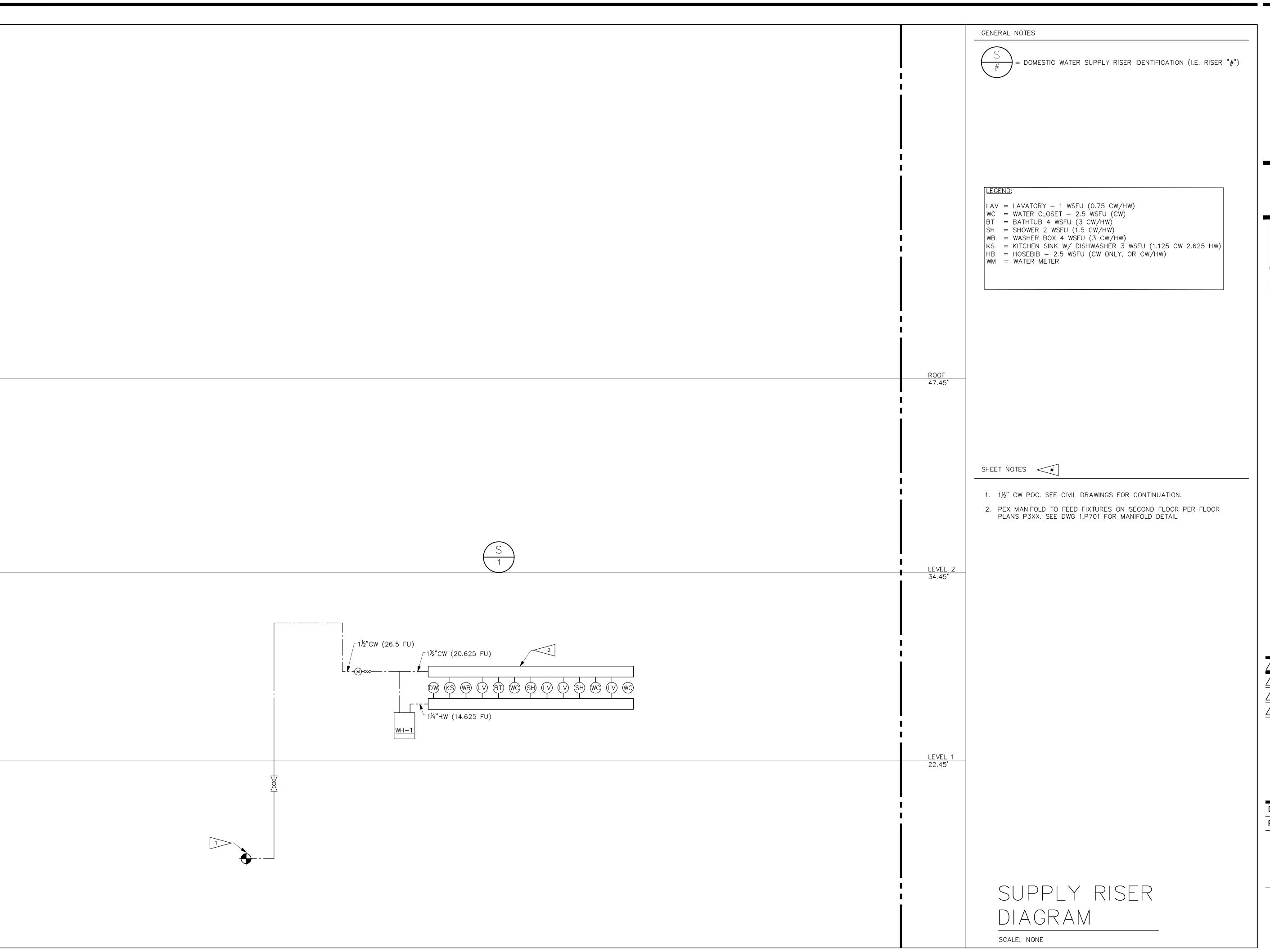
December 8, 2022 590-054

### WASTE & VENT RISER DIAGRAM



P401

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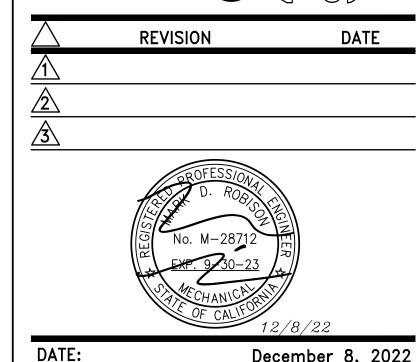




CONTACT: ARIK ESPINELI

CONSTRUCTION INC.
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101 South Santa Cruz Ave., #33192
Los Gatos, CA 95030

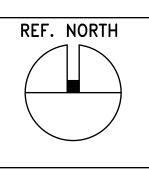
# NEW DEVELOPMENT: CHEENEY ST TOWNHOUSES 4249 CHEENEY ST. SANTA CLARA, CA 95054



 DATE:
 December 8, 2022

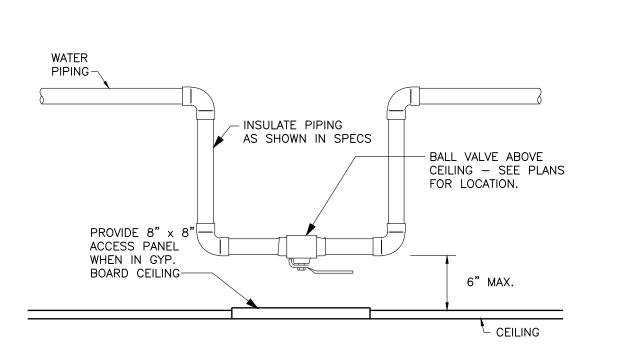
 PROJECT No.
 590-054

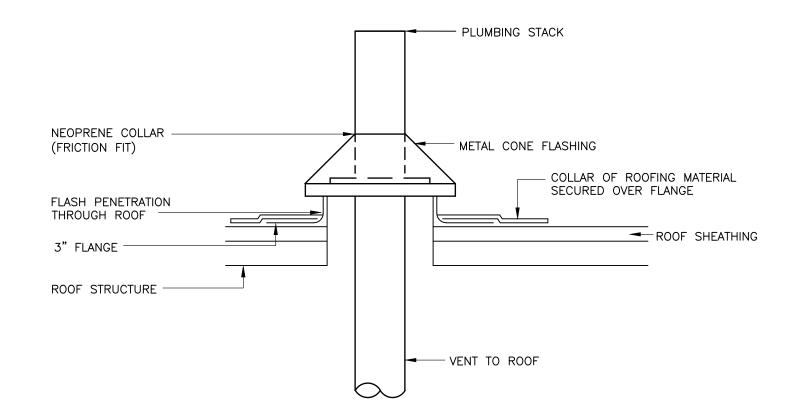
### **SUPPLY RISER DIAGRAM**



P501

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- THROUGH-SLAB

SLEEVE OR WRAP

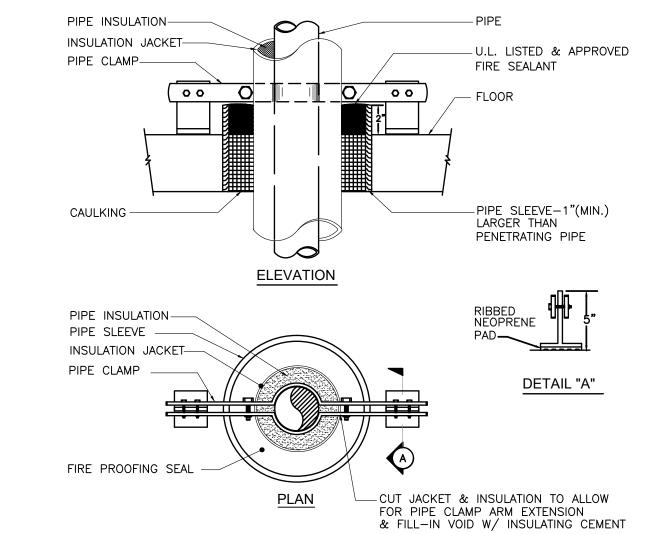
PIPING TO PROTECT

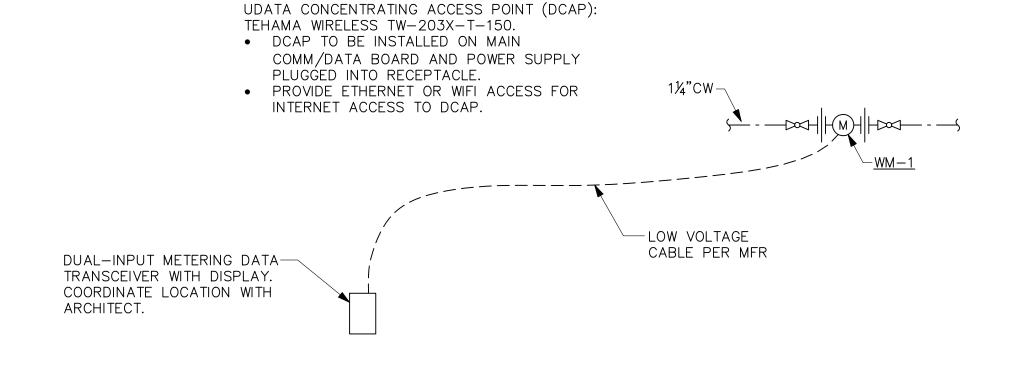
AGAINST BREAKAGE

PENETRTION

PER CODE



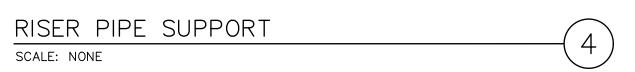




### PIPE SLAB PENETRATION SCALE: NONE

CONCRETE FLOOR -

OR WALL



### WATER SUB-METER

EQUIPMENT SCHEDULE

METER MODEL M201C, 3/4").

TW-165A-PP.

TW-191X.

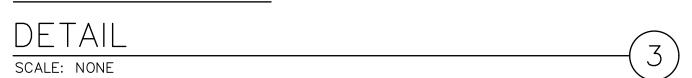
WATER METER (NEXT CENTURY MULTI-JET WATER

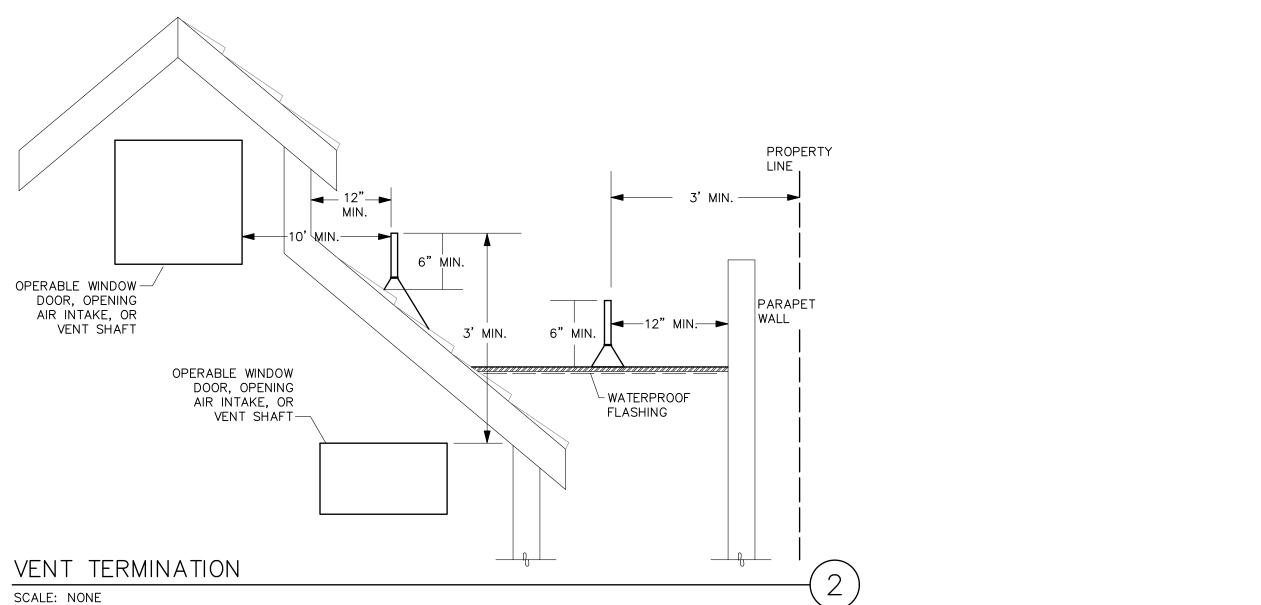
TRANSCEIVER: WIRELESS METERING DATA TRANSCEIVER DUAL INPUT WITH DISPLAY, WITH

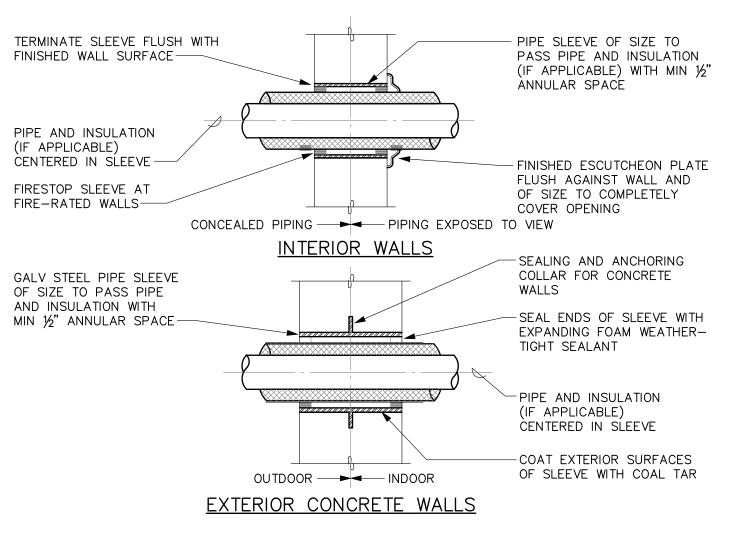
WIRELESS REPEATERS: TEHAMA COMPATIBLE

REPEATERS; QUANTITY TWO. TEHAMA WIRELESS

BATTERIES. TEHAMA WIRELESS MODEL







### PIPE SLEEVES THROUGH WALLS SCALE: NONE

### CONSTRUCTION INC. GENERAL CONTRACTOR & ENGINEER 101 South Santa Cruz Ave., #33192 Los Gatos, CA 95030

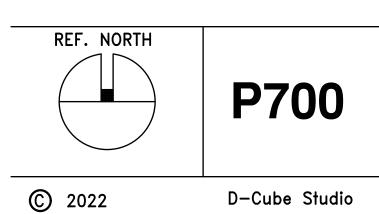
### CHEENEY ST TOWNHOUSES 4249 CHEENEY ST. SANTA CLARA CA 95054

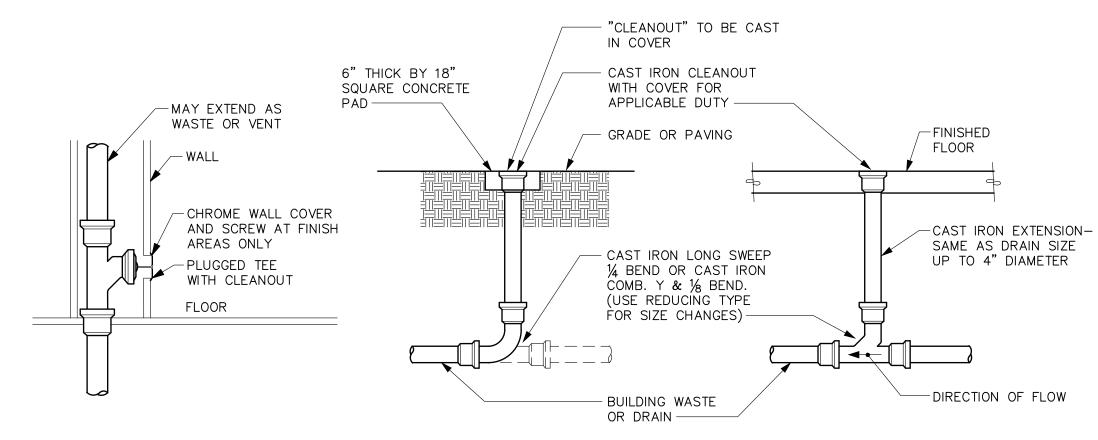
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DATE:	Dece	ember	8,	2022

**DETAILS** 

590-054

PROJECT No.



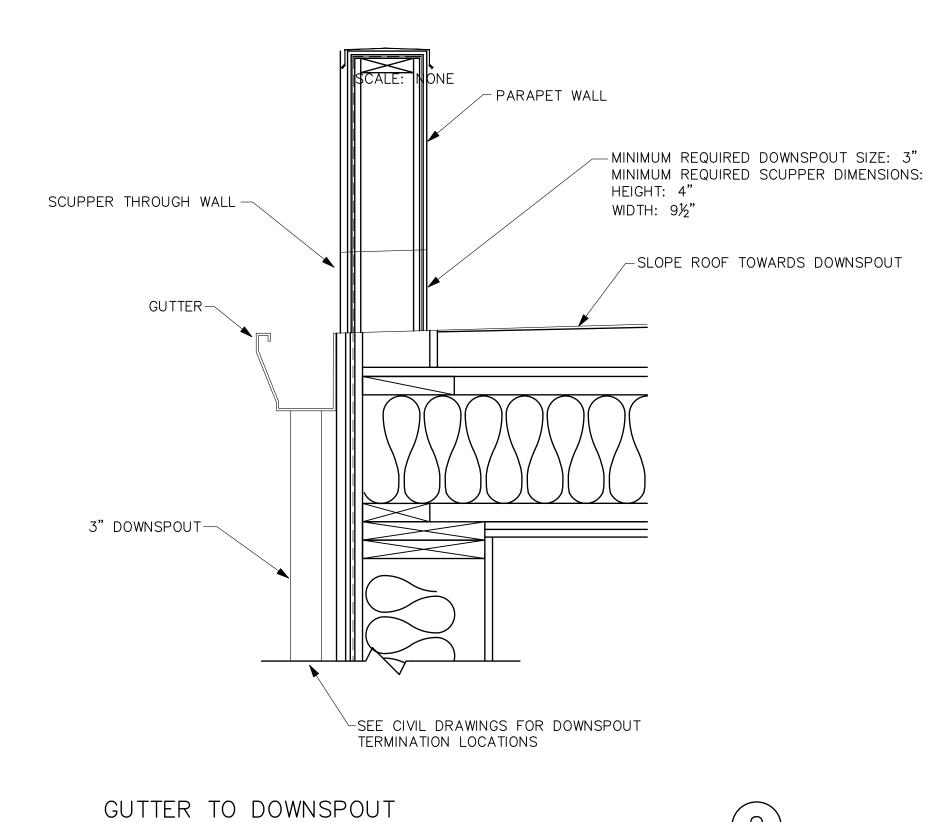


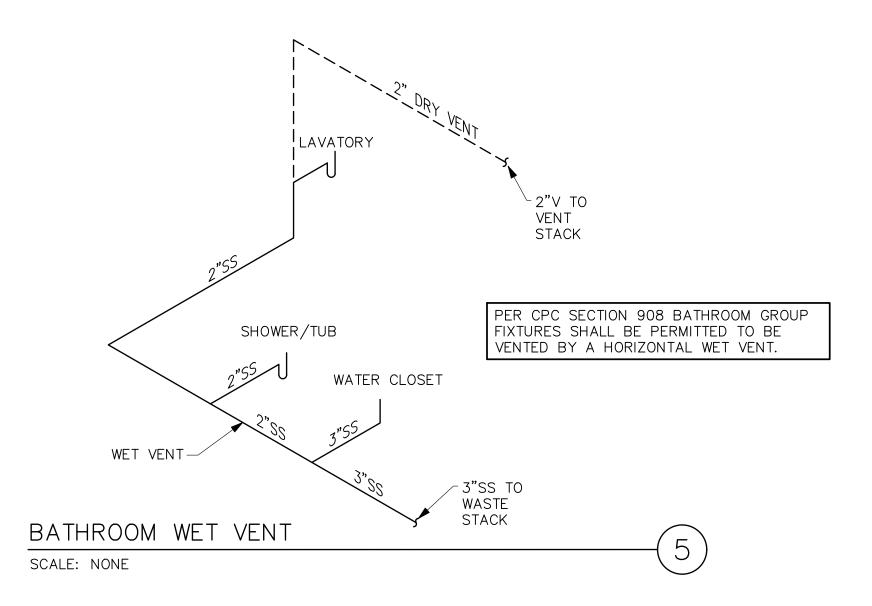
INTERIOR WALL CLEANOUT (WCO) EXTERIOR CLEANOUT TO GRADE (COTG) INTERIOR FLOOR CLEANOUT (FCO) (LIGHT TRAFFIC AREA)

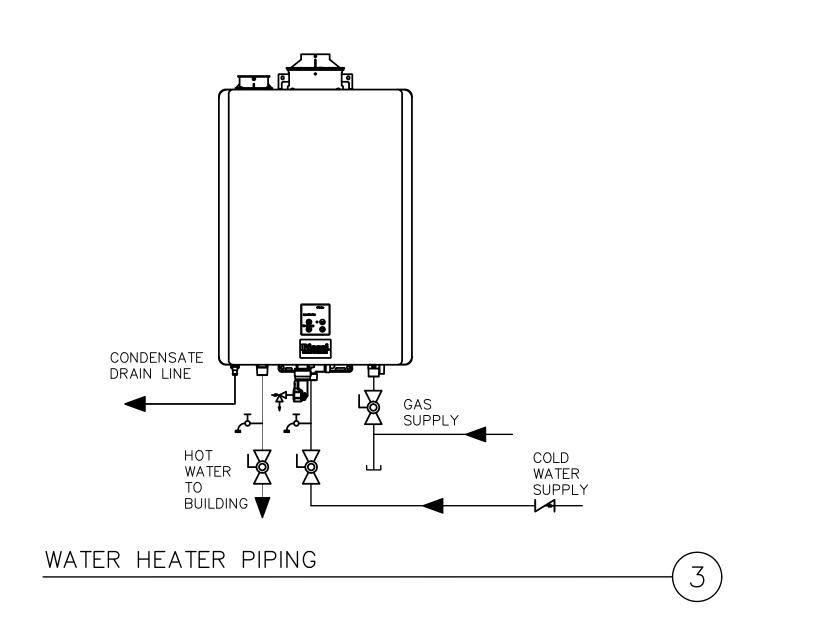
SCALE: NONE

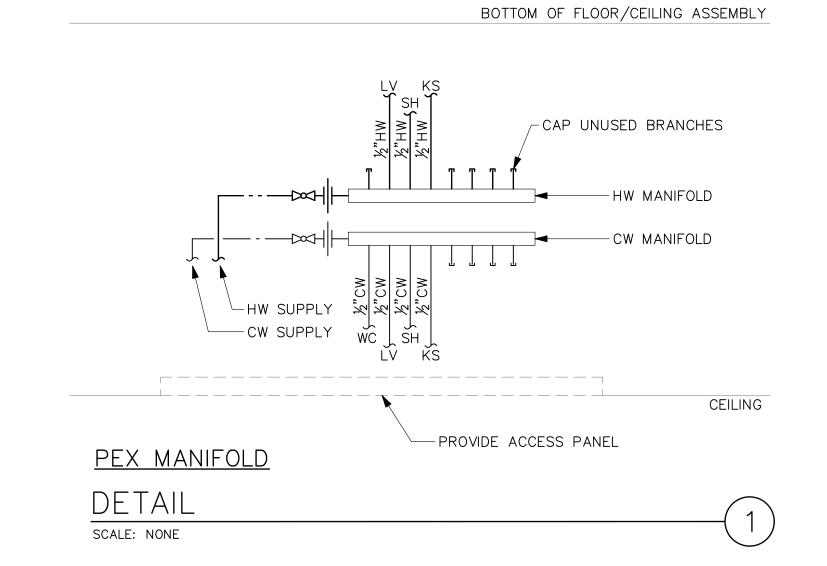
CLEANOUTS

SCALE: NONE













### CHEENEY ST TOWNHOUSES 4249 CHEENEY ST. SANTA CLARA, CA 95054

A REVIS	SION DATE
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REGISTER STATES	D. ROBIO No. M-28712 MECHANICA RIVE OF CALIFORNIA 12/8/22
DATE:	December 8, 2022
PROJECT No.	590-054

### **DETAILS**

