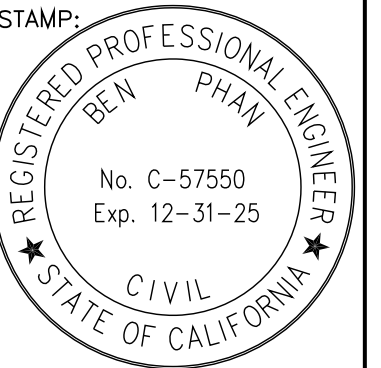


VMJ'S DEVELOPMENT

2-STORY DUPLEX & 1-STORY TWO ADUs.

729-731 W. 4TH AVE., LA HABRA, CA 90631

DESIGNED BY:
S.L.P. DESIGN & ASSOCIATES
 960 N. TUSTIN ST., SUITE 326
 ORANGE, CA 92667
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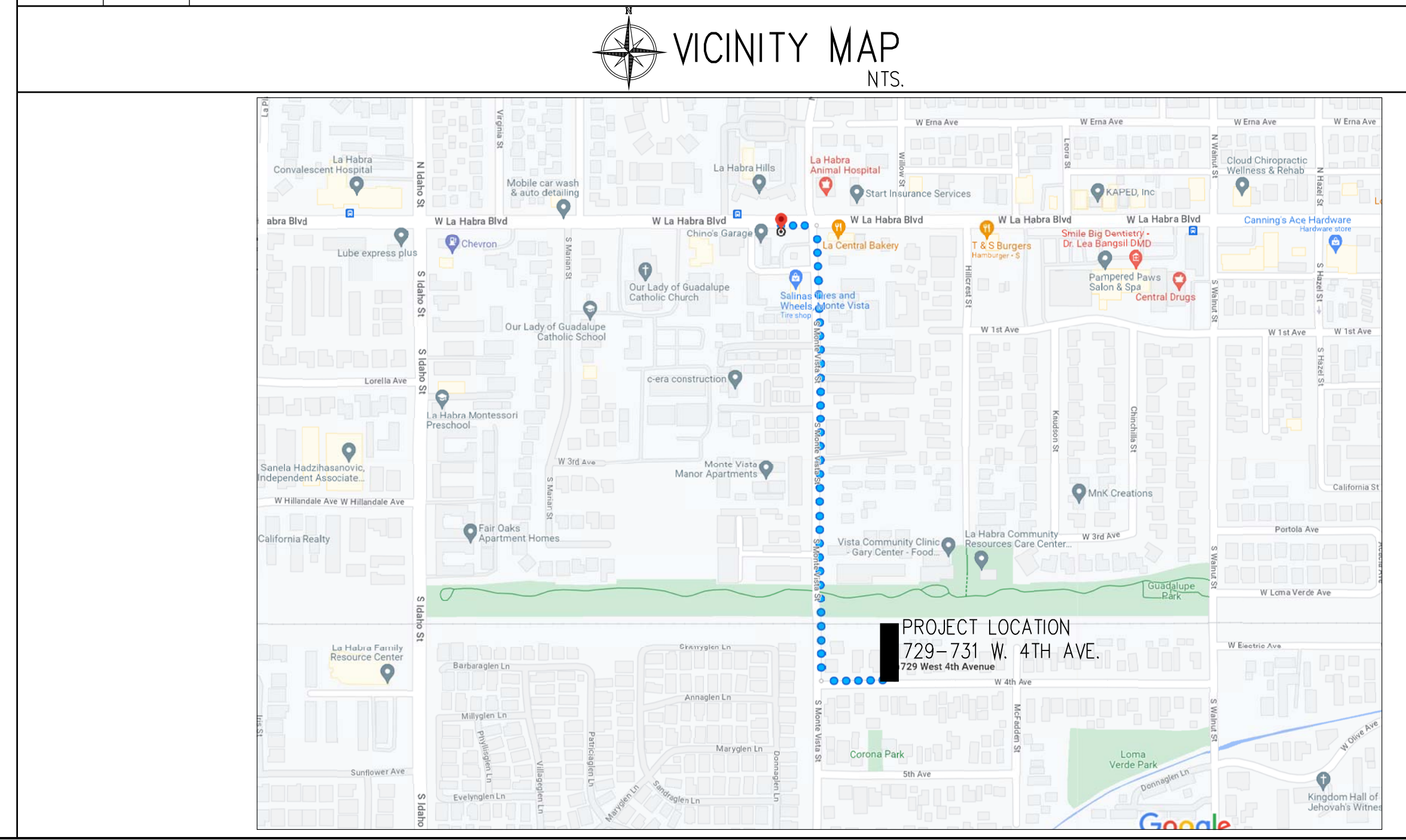
PROJECT NAME:
VMJ'S DEVELOPMENT
2-STORY DUPLEX & 1-STORY TWO ADUs.
 729-731 W. 4TH AVE.
 LA HABRA, CA 90631

SHEET TITLE	
01	---
02	---
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REVISIONS	
▲	NOV. 30, 2023
▲	JUL. 07, 2024
▲	---
▲	---

DATE	MAY 04, 2023
JOB NO.	DOCLH792-686
DRAWN	PP.
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SCALE	AS NOTED
SHEET	T.0
OF	--- SHEETS

DRAWING SYMBOLS	CONTACT INFORMATION	PROJECT INFORMATION	SHEET INDEX																																																																																				
<ul style="list-style-type: none"> ① DOOR NUMBER Ⓐ WINDOW NUMBER Ⓐ/11 SECTION NUMBER Ⓐ/11 SHEET NUMBER Ⓐ/11 DETAIL NUMBER Ⓐ/11 SHEET NUMBER Ⓐ/11 REVISION W/ CLOUD AROUND REVISED AREA Ⓐ 01 Ⓢ NOTE SYMBOL ○ GROUND COVER ☀ SHRUBS ⊕ EXIST. WELL TREE TO REMAIN ⊕ NORTH SIGN ⊕ LAVATORY ⊕ WATER CLOSET ⊕ URINE ⊕ SINGLE DOOR ⊕ DOUBLE DOOR ⊕ WINDOW ⊕ EXIST. WALL TO REMAIN ⊕ EXIST. WALL TO BE REMOVED ⊕ NEW WALL ⊕ WOOD, FRAMING (CONTINUOUS MEMBER) ⊕ WOOD, FRAMING (INTERRUPTED MEMBER) ⊕ EARTH ⊕ CONCRETE ⊕ PLYWOOD ⊕ GYPSUM BOARD, PLASTER ⊕ STUCCO ⊕ INSULATION, BATT 	<p>OWNER: VMJ CO LLC/MICHELE CORTES 2651 SATURN ST., BREA, CA 92821 E-MAIL: cortesvinceniii@gmail.com TEL: (562) 688-9508</p> <p>APPLICANT: STEVEN LETRAN 960 N. TUSTIN ST., STE. 326, ORANGE, CA 92867 E-MAIL: STEVEN@SLPDESIGN.COM TEL: (714) 388-8996</p>	<p>PROJECT ADDRESS: 729-731 W. 4TH AVE., LA HABRA, CA 90631</p> <p>PROJECT DATA: APN: 298-051-03 LOT: 24 TRACT: 362 ZONE: R.2 LOT SIZE: 7,808 SF. OCCUPANCY: R-3/U TYPE OF CONSTRUCTION: V-B WITH AUTOMATIC SPRINKLER SYSTEM</p> <p>APPLICABLE 2022 CRC, CBC, CMC, CPC, CEC & OCFA CODES. 2012 CALIFORNIA ENERGY CODE, 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CG), AND CITY OF LA HABRA MUNICIPAL CODES. PROVIDE NEW AN AUTOMATIC SPRINKLER SYSTEM PER NFPS 13D IN SEPARATED PERMIT</p> <p>PROJECT STATISTICS: Ⓢ</p> <p>EXISTING: (TO BE DEMOLISHED) EXIST. 3 HOUSES LIVING AREAS ----- 2,287 SF. EXIST. 1-CAR GARAGE ----- 227 SF.</p> <p>PROPOSED A 2-STORY DUPLEX & 2 ADUs: UNIT 1: 2 BEDROOMS/3 BATHROOMS a. 1ST. FLOOR: +LIVING AREA -----486 SF. +PORCH AREA -----4 SF. +2-CAR GARAGE AREA -----471 SF. +GARAGE PORCH AREA -----26 SF. b. 2ND. FLOOR: +LIVING AREA -----999 SF. +DECK & BALCONY AREA -----94 SF.</p> <p>TOTAL LIVING AREA -----1,485 SF. PORCH AREAS -----30 SF. 2-CAR GARAGE AREA -----471 SF. DECK & BALCONY AREA -----94 SF.</p> <p>UNIT 2: 2 BEDROOMS/3 BATHROOMS a. 1ST. FLOOR: +LIVING AREA -----486 SF. +PORCH AREA -----4 SF. +2-CAR GARAGE AREA -----471 SF. +GARAGE PORCH AREA -----26 SF. b. 2ND. FLOOR: +LIVING AREA -----999 SF. +DECK & BALCONY AREA -----94 SF.</p> <p>TOTAL LIVING AREA -----1,485 SF. PORCH AREAS -----30 SF. 2-CAR GARAGE AREA -----471 SF. DECK & BALCONY AREA -----94 SF.</p> <p>ADU 1: 2 BEDROOMS/1 BATHROOM TOTAL LIVING AREA -----587 SF.</p> <p>ADU 2: 2 BEDROOMS/1 BATHROOM TOTAL LIVING AREA -----587 SF.</p> <p>TOTAL: BUILDING 01 AREA ----- 4,160 SF. BUILDING 02 AREA ----- 1,174 SF.</p> <p>REQUIRED PARKING STALL: (2.5x2) + 1 = 6 STALLS Ⓢ PROVIDED PARKING STALL: 2(GARAGE)+2(PARKING) = 6 STALLS REQUIRED USABLE YARD AREA: 1,000 SF. PROVIDED USABLE YARD AREA: 618 + 300 + (85x2) = 1,088 SF.</p> <p>LOT COVERAGE: (486+30+587)x2 = 2,206 SF. 2,206 / 7,808 x 100 = 28.25% < 35%</p> <p>PARKING REQUIREMENT: NO ADDITIONAL PARKING REQUIRED SINCE THE PROJECT LOCATES 0.4 MILES FROM THE LA HABRA-MONTE VISTA BUS STOP / ID. 4362.</p>	<table border="1"> <thead> <tr> <th>NUM.</th> <th>SHEET</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td>01</td><td>T.0</td><td>PROJECT INFORMATION</td></tr> <tr><td>02</td><td>T.1</td><td>PROJECT'S PERSPECTIVE AND COLORED ELEVATIONS</td></tr> <tr><td>03</td><td>T.2</td><td>PROJECT'S MATERIALS</td></tr> <tr><td>04</td><td>TS.1</td><td>TOPO SURVEY PLAN</td></tr> <tr><td>05</td><td>A.1</td><td>PROPOSED SITE PLAN</td></tr> <tr><td>06</td><td>A.1a</td><td>APPARATUS APPROVED PLAN AND FIRE APPROVED LETTER</td></tr> <tr><td>07</td><td>A.1b</td><td>VEHICLE PARKING & GARAGE TURNING PLANS</td></tr> <tr><td>08</td><td>A.1c</td><td>VEHICLE PARKING TURNING PLAN AND BLOCK WALL</td></tr> <tr><td>09</td><td>A.2</td><td>1ST FLOOR PLAN AND DOOR & WINDOW SCHEDULE</td></tr> <tr><td>10</td><td>A.3</td><td>2ND. 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	GENERAL NOTE																																																																																						
	<p>1. THERE SHALL BE NO TRENCHES OR EXCAVATIONS 5 FEET OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, OR OBTAIN PERMIT FROM STATE OF CALIFORNIA, DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (CAL/OSHA). THIS PERMIT AND ANY OTHER SAFETY PERMIT SHALL BE OBTAINED PRIOR TO COMMENCE OF ANY WORK.</p> <p>2. HOUSE NUMBER TO BE VISIBLE AND LEGIBLE FROM STREET. (MIN. 4" HIGH BY 3/4" WIDE) CRC 319--PAINT CURB TO MATCH EXISTING TO ADD NEW ADDRESS</p> <p>3. DEPUTY INSPECTORS ARE REQUIRED TO BE REGISTERED WITH THE CITY OF WESTMINSTER.</p> <p>4. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER'S AUTHORIZED AGENT PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OR RESPONSIBILITY SHALL CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION. (2019 BC 1704.4)</p> <p>5. SEPARATE PERMIT(S) IS/ARE REQUIRED FOR ACCESSORY BUILDING, LANDSCAPE, PATIO COVERS, FENCES, SWIMMING POOL, RETAINING WALL, DEMOLITION.</p> <p>6. SEPARATE PERMIT REQUIRED--ALL SYSTEMS TO BE INTEGRATED WITH IN NEW STRUCTURE. PERMIT MUST BE OBTAINED PRIOR ROUGH INSPECTION OF FRAMING, MECHANICAL, ELECTRICAL AND PLUMBING.</p> <p>7. CONTRACTOR AGREES TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER/DEVELOPER, COUNTY OF LOCAL JURISDICTION AND THE PROJECT DESIGNERS HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER/DEVELOPER, COUNTY OF LOCAL JURISDICTION, OR THE PROJECT DESIGNERS.</p> <p>8. THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL PARTICULATES, CONSTRUCTION WASTE MATERIALS, OR WASTE WATER GERNERATED ON CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED CONVEYED OR DISCHARGED INTO THE STREET, GUTTER, OR STORM DRAIN SYSTEMS</p>																																																																																						
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	<p>PROPOSED NEW 2-STORY DUPLEX AND 2 DETACHED ADUs: -4,144 SF. LIVING AREA. -976 SF. GARAGE AREA. -44 SF. PORCH AREA. -188 SF. DECK AREA</p>																																																																																						
	DEFERRED ITEMS																																																																																						
	<p>1. SOLAR PV SYSTEM 2. FIRE SPRINKLER SYSTEM 3. NEW APPROACH DRIVEWAY</p> <p>(***) Deferred submittals to be reviewed by project Architect or Engineer of record and certified prior to submittal for plan review.</p>																																																																																						



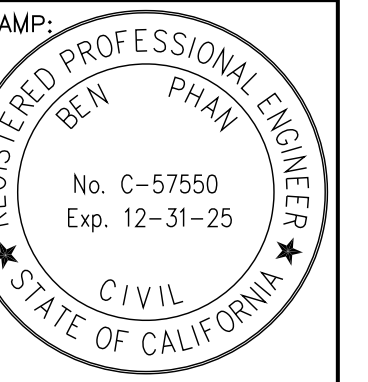


PERSPECTIVE

DESIGNED BY:

S.L.P. DESIGN & ASSOCIATES

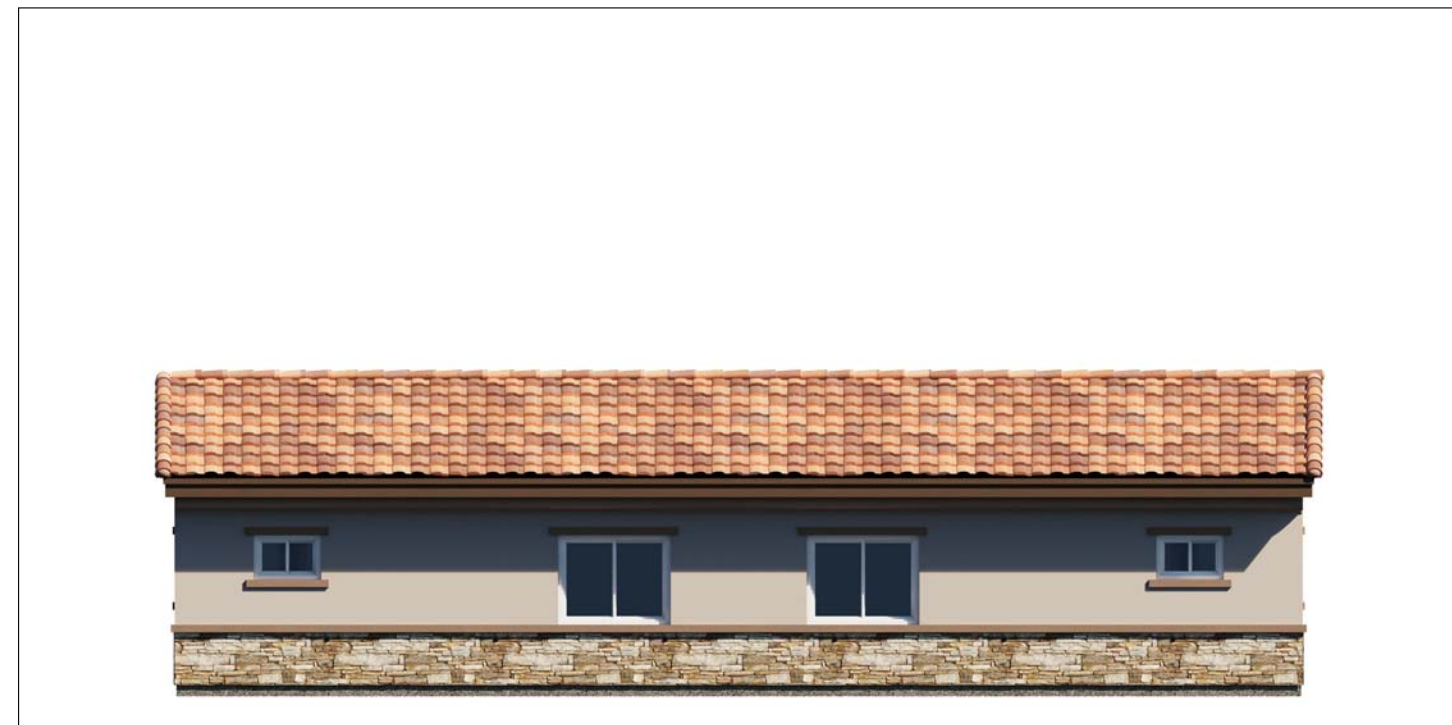
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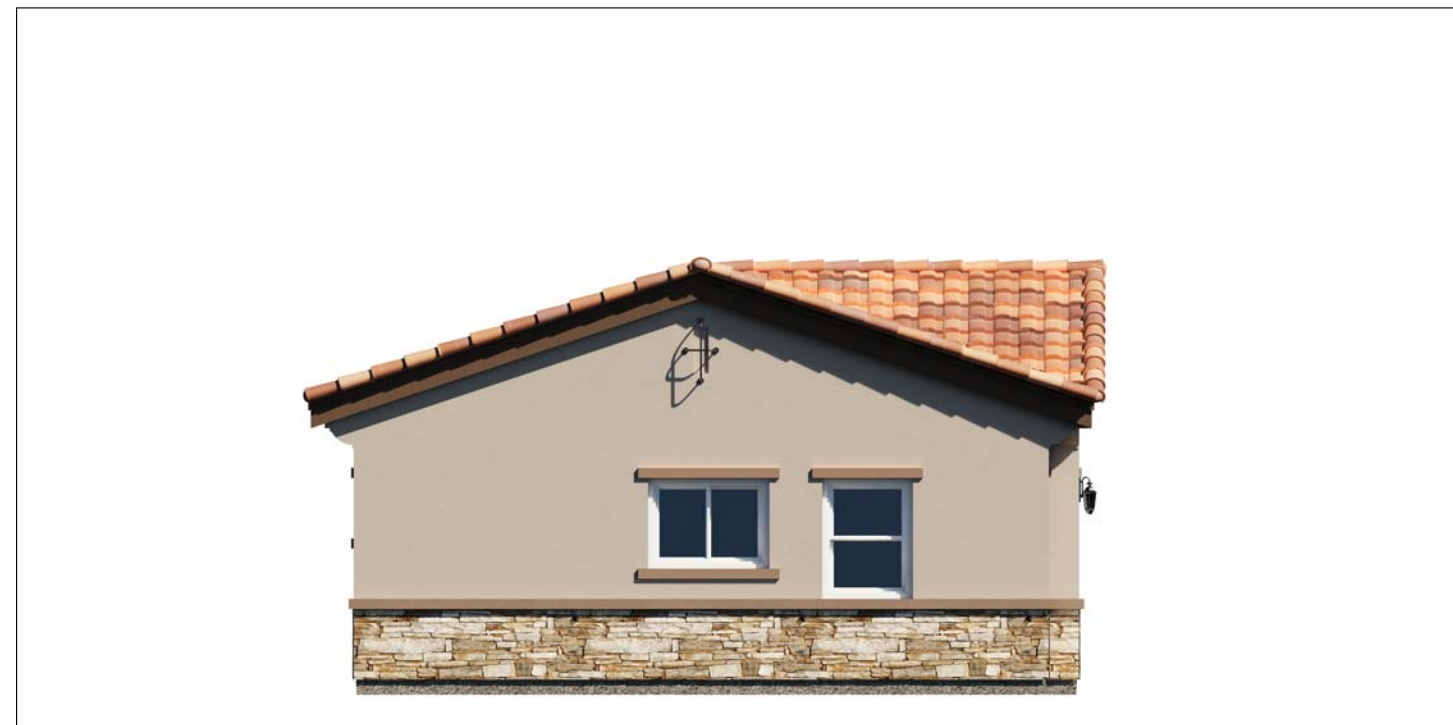
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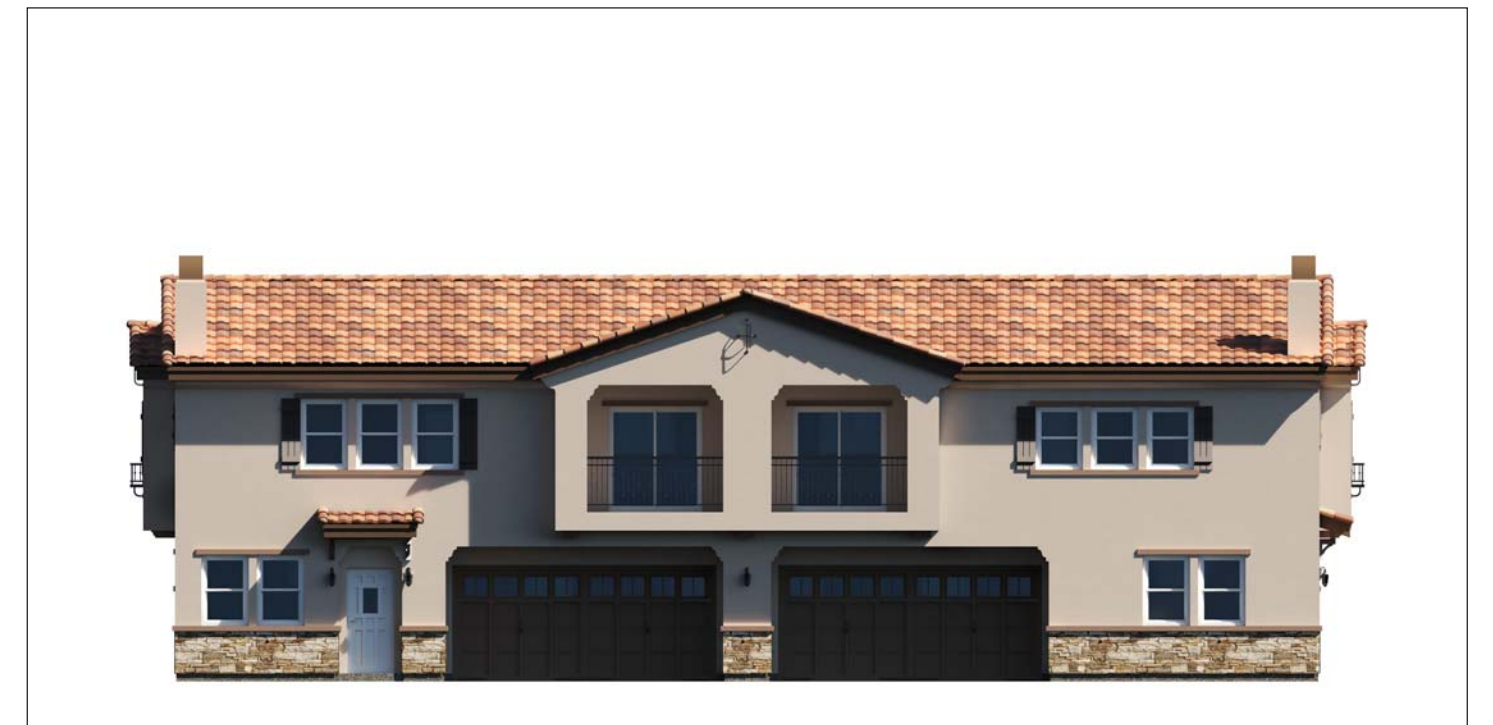
ADU - NORTH ELEVATION



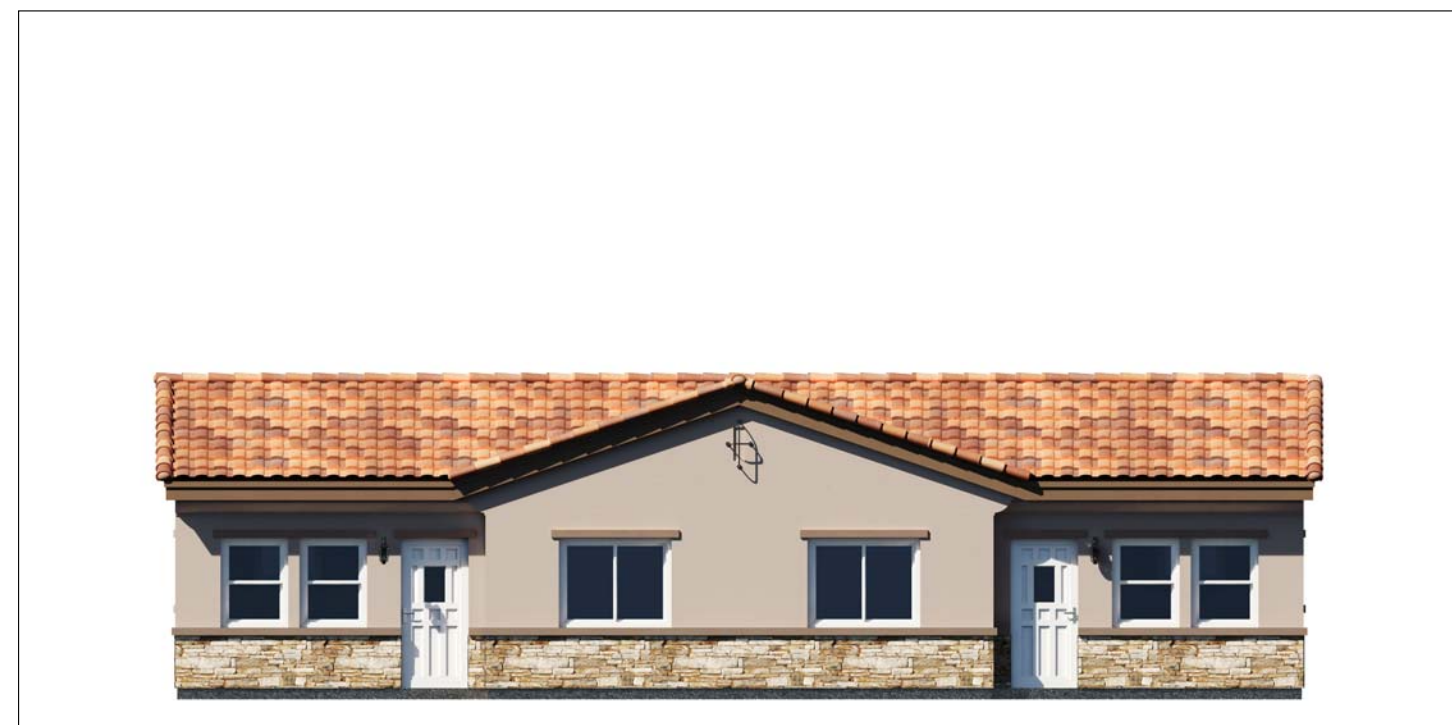
ADU - WEST ELEVATION



NORTH ELEVATION



WEST ELEVATION



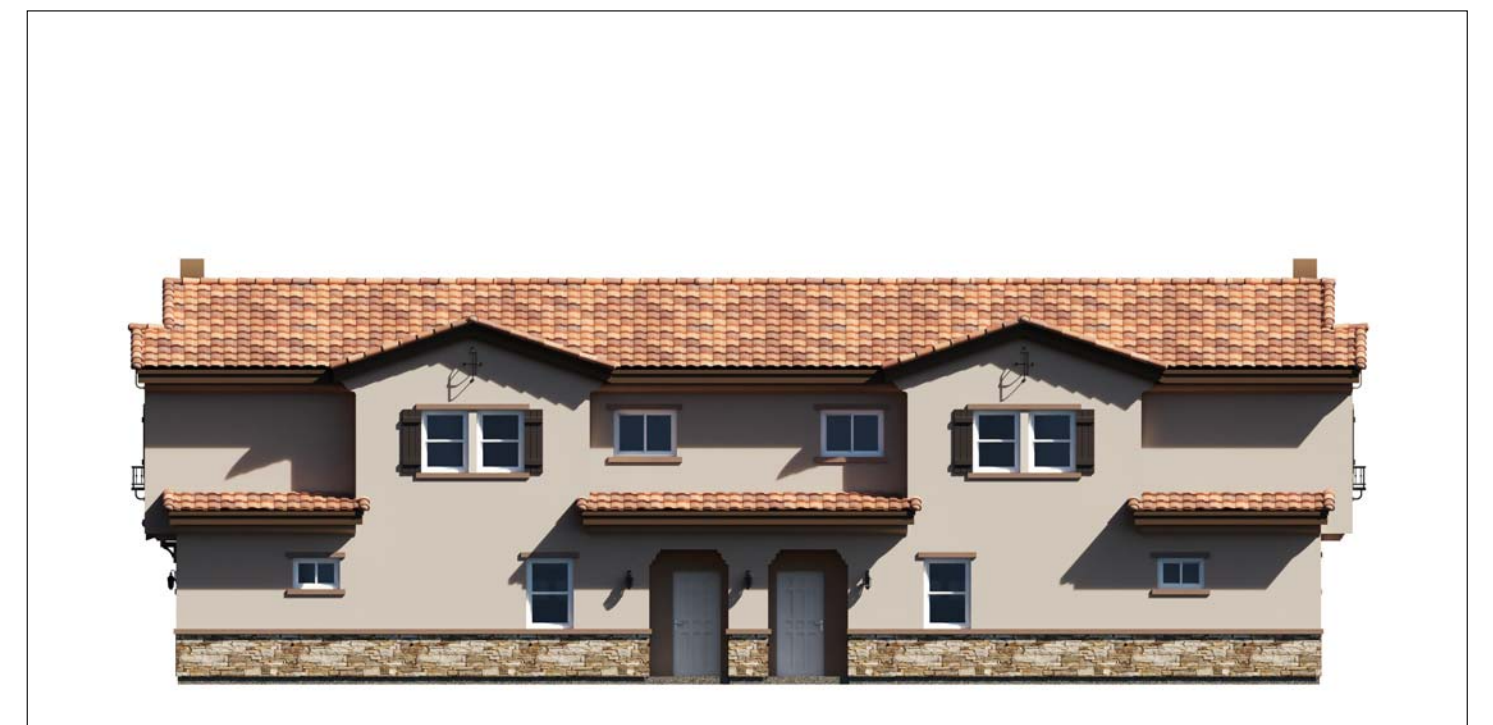
ADU - SOUTH ELEVATION



ADU - EAST ELEVATION



SOUTH ELEVATION



EAST ELEVATION

SHEET TITLE	
01	---
02	---
03	---
04	---

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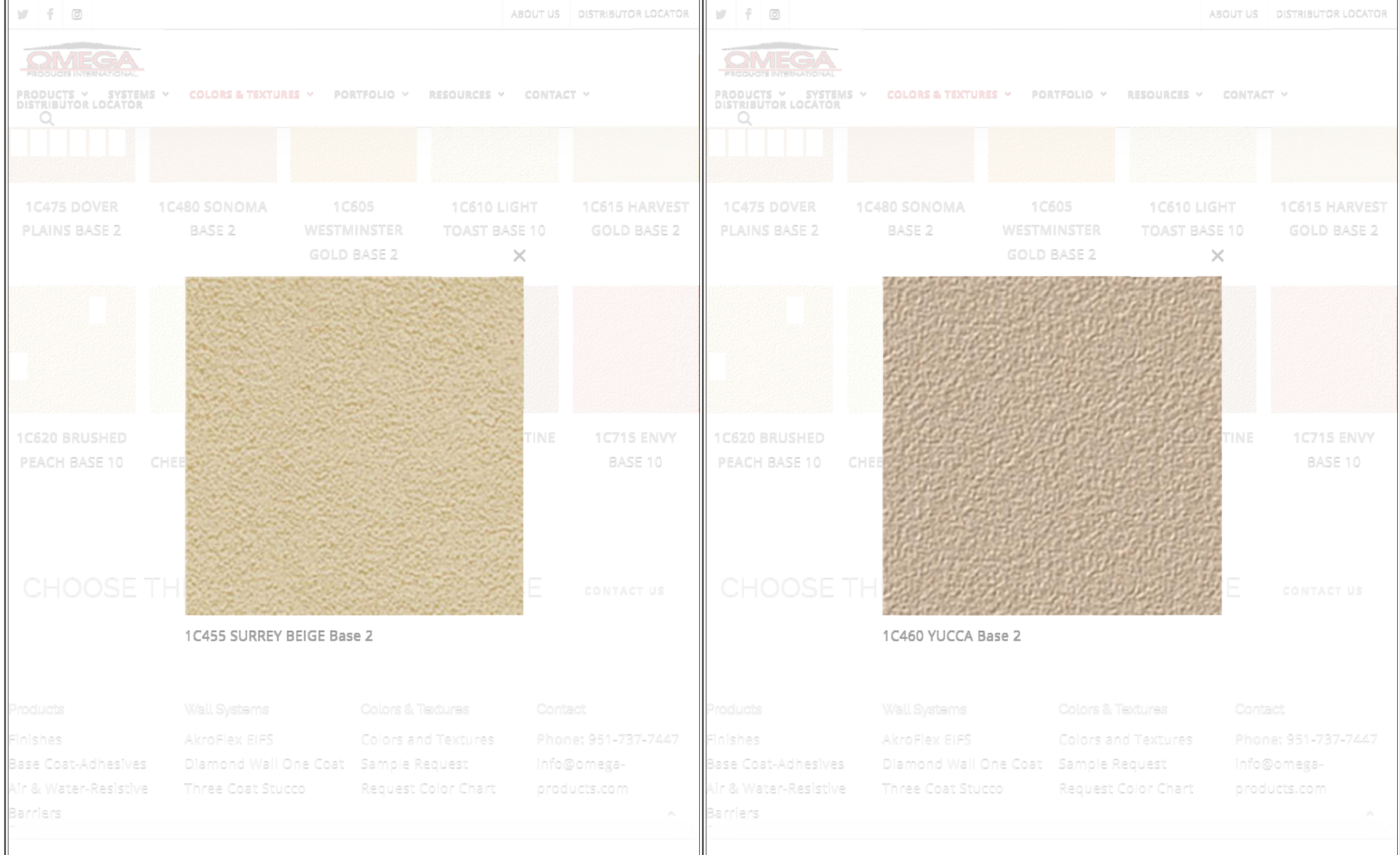
3636 Piedmont Blend

Profile	Weight	Description	Category
Capistrano	Conventional	Blend of Terracotta, Maroon, Brown	Conventional

Regions Available

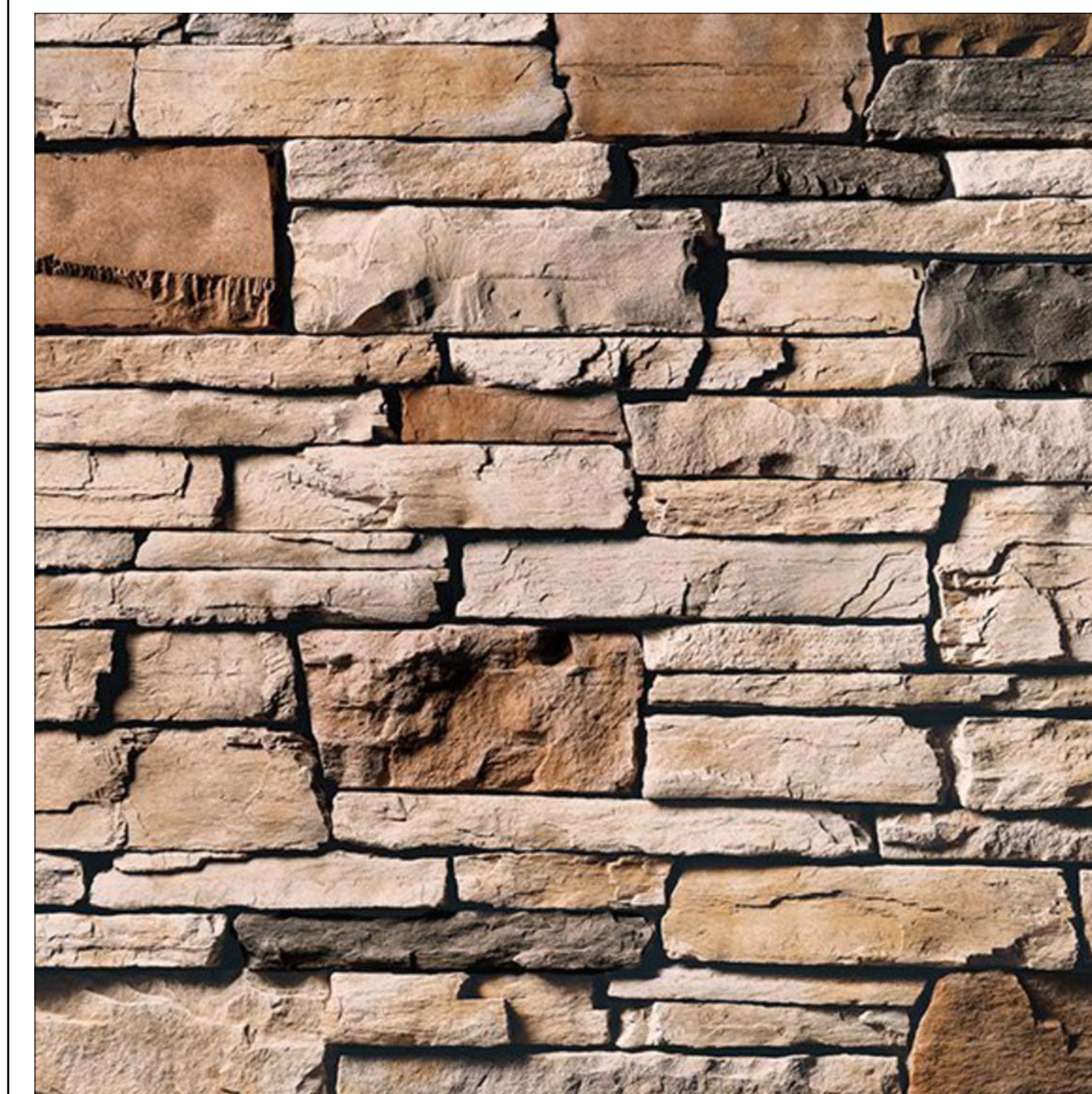
California, Great Plains, Hawaii, Intermountain, Pacific Northwest, Southwest

Ref	Aged Ref. (3 yr)	EMI	Aged EMI. (3 yr)	SRI	Aged SRI (3 yr)	CRRC
0.18	0.19	0.5	0.54	16	19	0918-0055



(C) STUCCO EAVE MOLDING AND EXTERIOR WALL STUCCO TYP. BY OMEGA STUCCO, 1C455 SURREY BEIGE-BASE 2

(E) STUCCO BRACKET AND STUCCO DOOR/WINDOW TRIM TYP. BY OMEGA STUCCO, 1C460 YUCCA-BASE 2



(K) CULTURED STONE VENEER BY OWEN CORNING ICBO #NER-358 NATURAL BROWN-COUNTRY LEDGESTONE-ASPEN



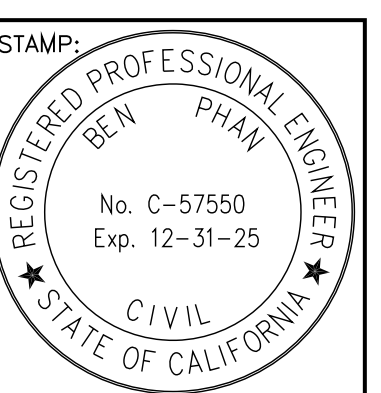
(N) MBS MID AMERICA 4 BOARD & BATTEN JOINED VINYL SHUTTER 010-MUSKET BROWN

(A) CONCRETE COOL TILE CLASS "B" BY EAGLE ROOFING TILE INC., ICC ESR-1,900 OR EQUAL CAPISTRANO - 3636 PIEDMONT BLEND

(B) PAINTED WOOD FASCIA, METAL CHIMNEY SPARK ARRESTOR, AND WOODEN BRACKET BY SHERWIN WILLIAM, SW-7041, VAN DYKE BROWN

(J) METAL PAINTED GARAGE DOOR TYP. BY SHERWIN WILLIAM, SW-7039, VIRTUAL TAUPE

DESIGNED BY:
S.L.P. DESIGN & ASSOCIATES
960 N. TUSTIN ST., SUITE 326
ORANGE, CA 92667
TEL: (714)-602-3595
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EMAIL: INFO@SLPDESIGNINC.COM



PROJECT NAME:

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SCALE	AS NOTED
SHEET	T.2
OF --- SHEETS	

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1 SITE PLAN LEGEND

No.	DESCRIPTION	SIZE	QTY.	No.	DESCRIPTION	SIZE	QTY.
1	SELECT ONE OF THE FOLLOWING SPECIES : CARROTWOOD, CALIFORNIA SYCAMORE, PALM BRADFORD PEAR, ORNAMENTAL PLUM, CRAPEMYRTLE OR AMERICAN SWEETGUM.	20 GAL.		17	CONC. WALKWAY		
2	SHRUBS	5 GAL.		18	UTILITY BOXES		
3	GROUND COVER	FLATS		19	SPRINKLER IRRIGATION SYSTEM CONTROL BOX		
4	LAWN : MARATHON THREE	SOD		20	USE FEBCO MODEL 765 BACKFLOW PREVENTION		
5	PLANTER BOUNDARY			21	EXIST. WATER METER TO REMAIN		
6	CONCRETE SURFACE			22	CONSTRUCT DRAIN INLET		
7	EXIST. STRUCTURE TO BE DEMOLISHED			23	INSTALL NEW CURB DRAIN PER SEPARATE ENCROACHMENT PERMIT		
8	PROPOSED STRUCTURE			24	TANKLESS WATER HEATER, 7 FT. HIGH MIN. ON WALL		
9	DRIVEWAY APPROACH PER CITY APPROVED			25	42"x42" CONDENSER CONCRETE PAD PER UNIT		
10	BUILDING ADDRESS NUMBER TO COMPLY WITH CRC R319			26	TRANSFORMERS IS SCREENED ON ALL SIDES FROM PUBLIC VIEWS BY LANDSCAPE		
11	6" HIGH CONCRETE BLOCK WALL, SEE DET. SPEC. ON SHEET A.1c			27	NEW WATER METER		
12	NEW WATER METER PER CITY STANDARD			28	CONCRETE DRIVEWAY		
13	3" HIGH CONCRETE BLOCK WALL			29	MAILBOXES PER U.S. POST OFFICE STANDARDS		
14	EXIST. GUAVA OR AILANTHUS ALTISSIMA TREE TO BE REMOVED			30	TRASH AREA		
15	INSTALL DOWNSPOUT			31	DRAIN TO BE CONNECTED TO SEWER LINE		
16	6" CONC. CURB TYP.			32	4" DIA. METAL BOLLARD FOR PROTECTION FROM VEHICLE, SEE DET. 01		

1 FLOOR PLAN INFORMATION

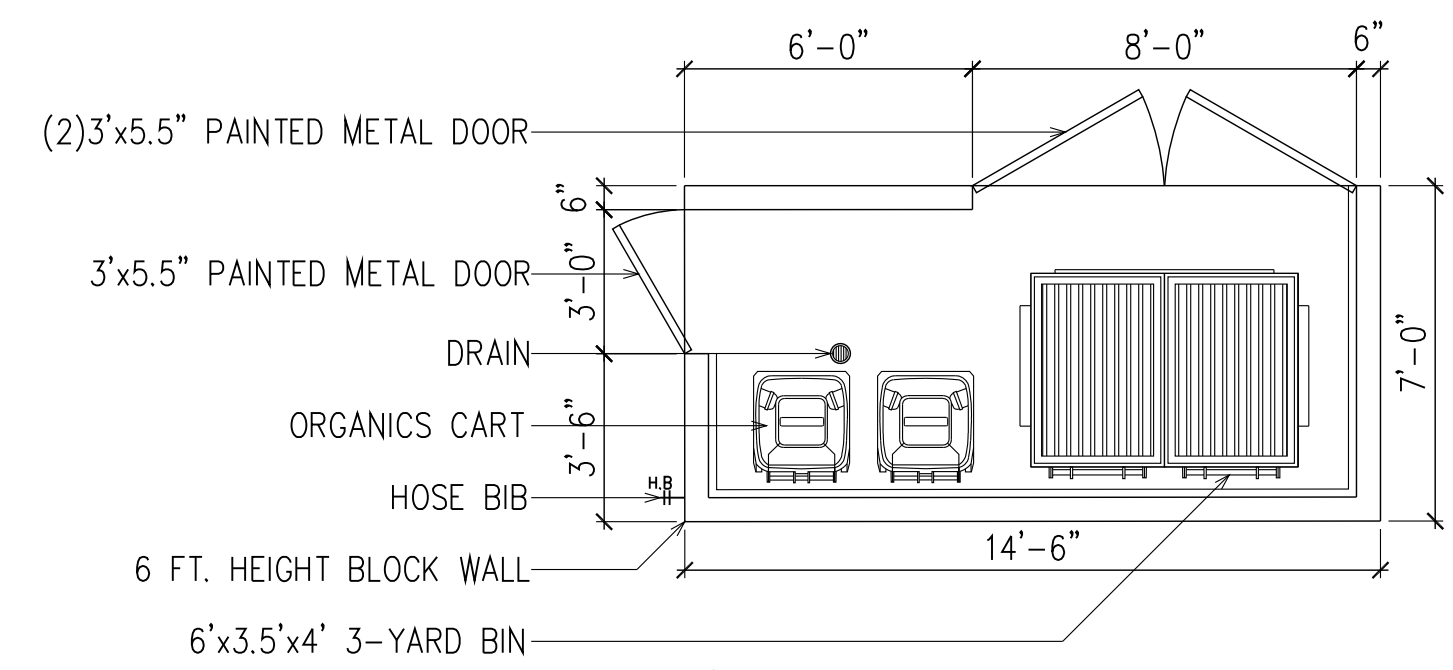
UNIT No.	STORY	BEDRM. #	BATHRM. #	LIVING AREA	FOOTING AREA	GARAGE AREA	PORCH & DECK	PARKING REQUIRED	PARKING PROVIDED	PRIVATE OPEN SPACE	COMMON OPEN SPACE
01	02	02	03	1st 486 SF 2nd 1,031 SF	508 SF	471 SF	115 SF	2.5	03	85 SF	309 SF
	02	02	03	1st 486 SF 2nd 1,031 SF							
ADU 1	01	02	01	1st 587 SF 2nd 00 SF	587 SF	00 SF	00 SF	00	00	00 SF	00 SF
	ADU 2	01	02	01								1st 587 SF 2nd 00 SF
TOTAL	02	10	08	4,208 SF	2,190 SF	942 SF	230 SF	05	06	470 SF	618 SF

1 HATCH LEGEND

- PRIVATE USABLE YARD
- COMMON USABLE YARD
- LAWN AREAS
- NO PARKING/PATH OF TRAVEL

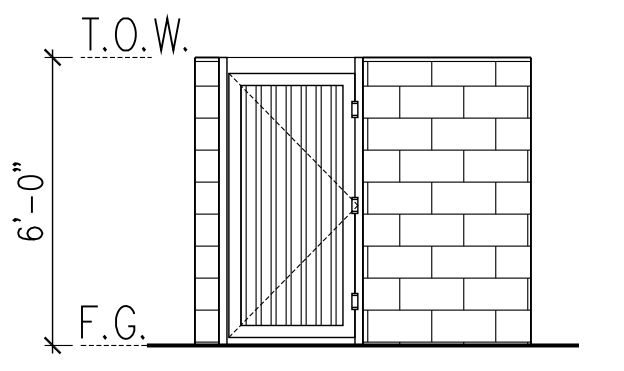
1 NOTES

- ALL NEW UTILITIES WILL BE UNDERGROUND PER CITY STANDARD.
- NEW APPROACH DRIVEWAY IS SEPARATED PERMIT.
- NO CONSTRUCTION MATERIAL WILL BE PERMITTED TO BE STORED WITHIN THE PUBLIC RIGHT-OF-WAY.

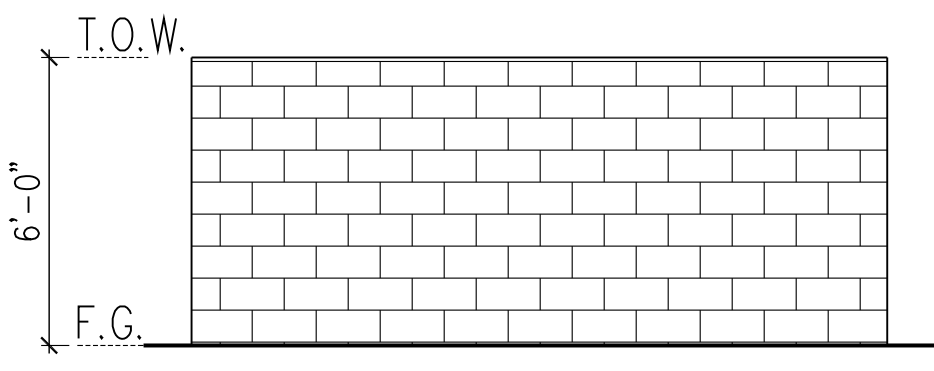


TRASH ENCLOSURE

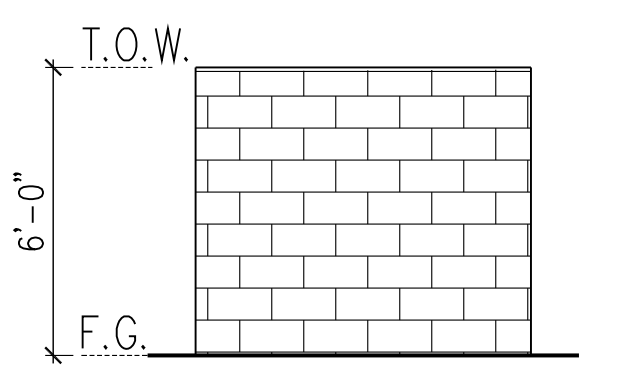
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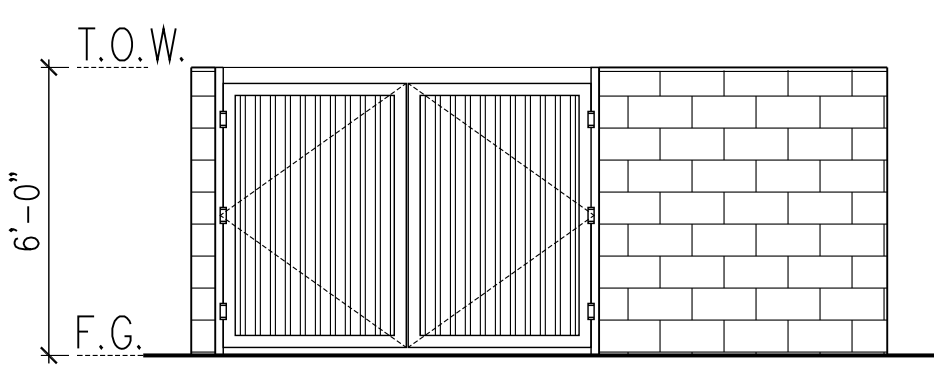
NORTH ELEVATION
SCALE : 1/4"=1'-0"
TRASH ENCLOSURE



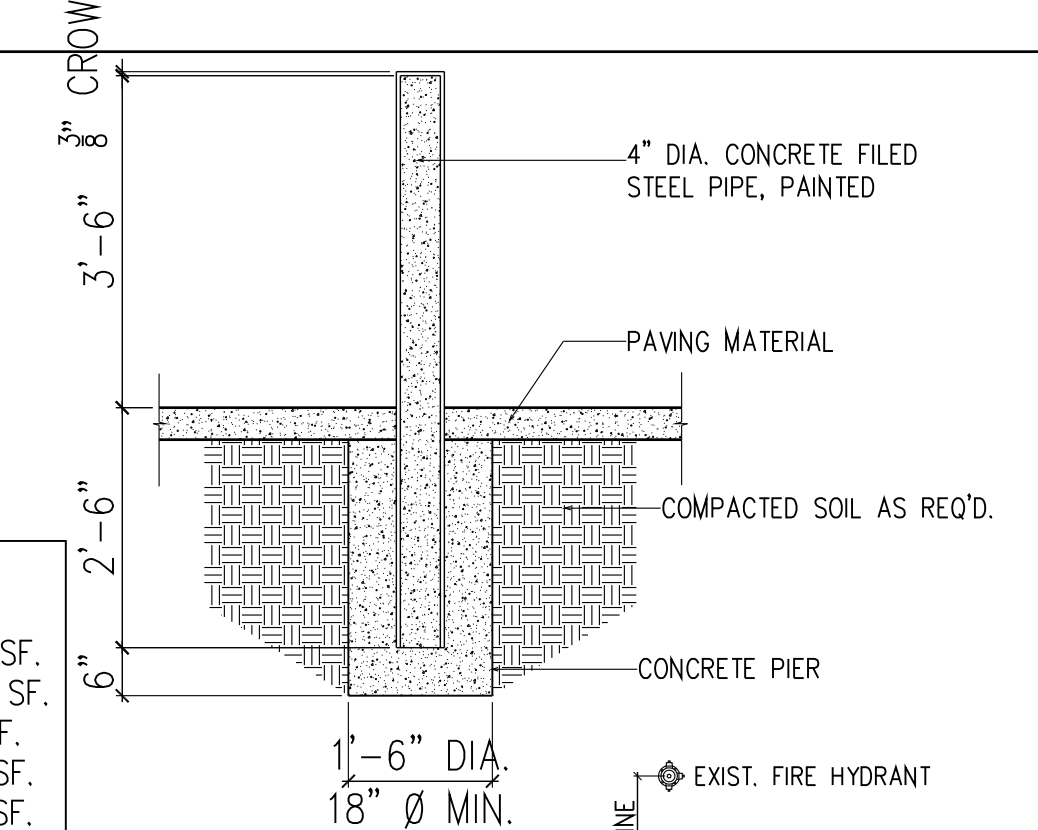
WEST ELEVATION
SCALE : 1/4"=1'-0"
TRASH ENCLOSURE



SOUTH ELEVATION
SCALE : 1/4"=1'-0"
TRASH ENCLOSURE

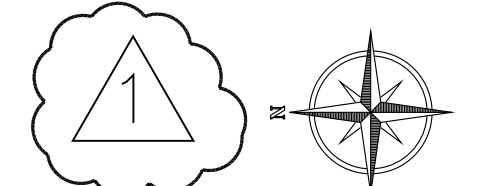
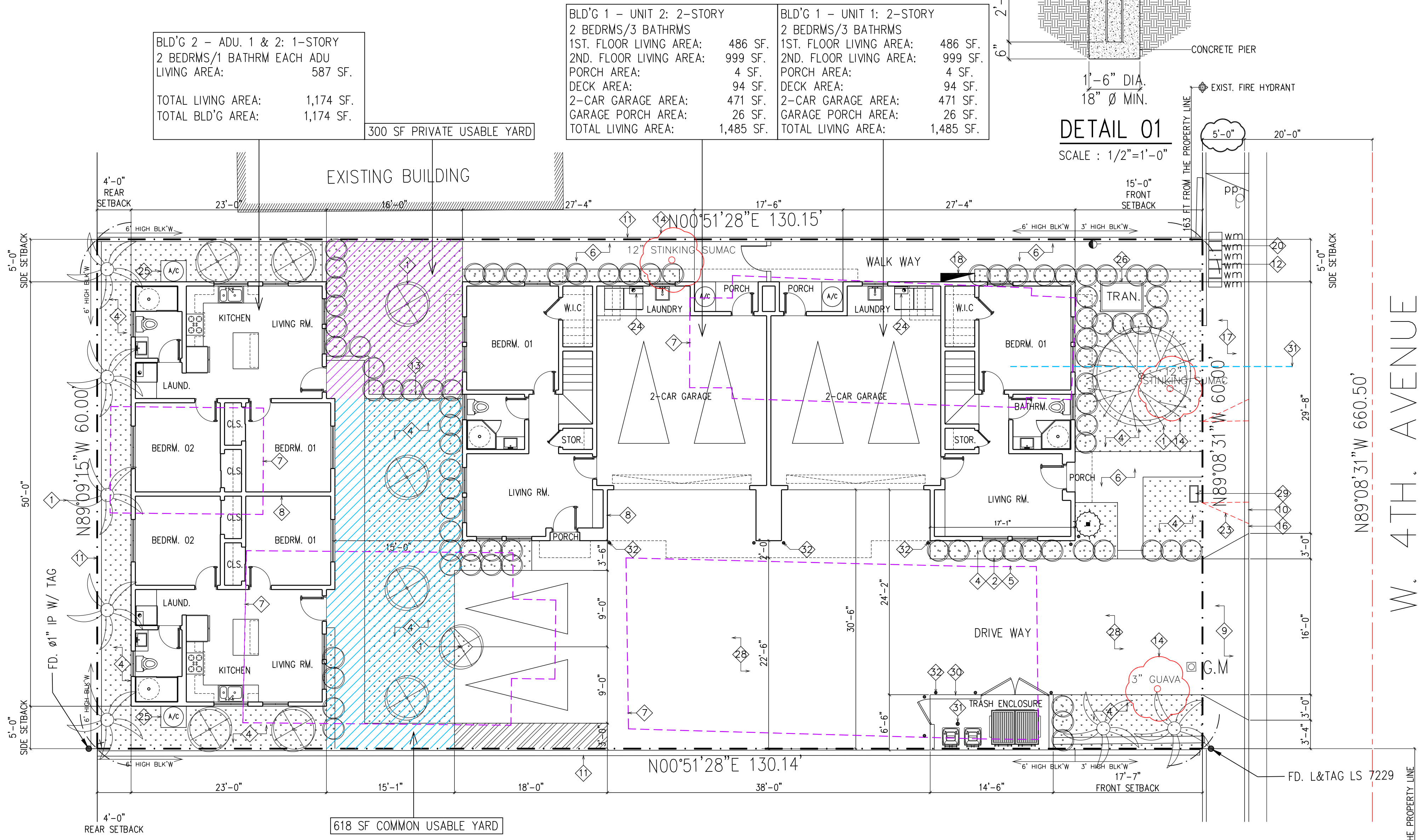


EAST ELEVATION
SCALE : 1/4"=1'-0"
TRASH ENCLOSURE



DETAIL 01

SCALE : 1/2"=1'-0"

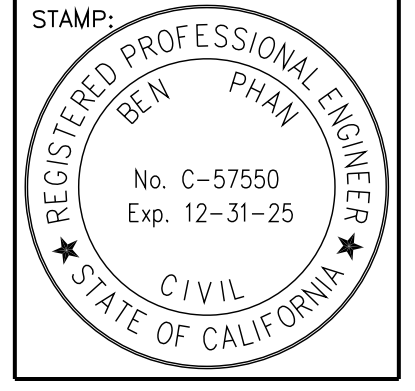


PROPOSED SITE PLAN

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

EXIST. FIRE HYDRANT ON THE OPPOSITE SIDEWALK

DESIGNED BY:
S.L.P. DESIGN & ASSOCIATES
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EMAIL: INFO@SLPDESIGN.COM



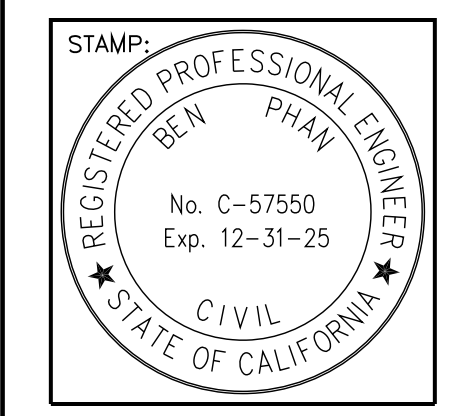
PROJECT NAME:
**VMJS DEVELOPMENT
2-STORY DUPLEX & 1-STORY TWO ADUS.**
729-731 W. 4TH AVE.
LA HABRA, CA 90631

SHEET TITLE	
01	---
02	---
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04	---

REVISIONS	
▲	NOV. 30, 2023
▲	JUL. 07, 2024
▲	---
▲	---

DATE	MAY 04, 2023
JOB NO.	DOCLH792-686
DRAWN	PP.
CHECKED	SL.
SCALE	AS NOTED
SHEET	A.1
OF	--- SHEETS

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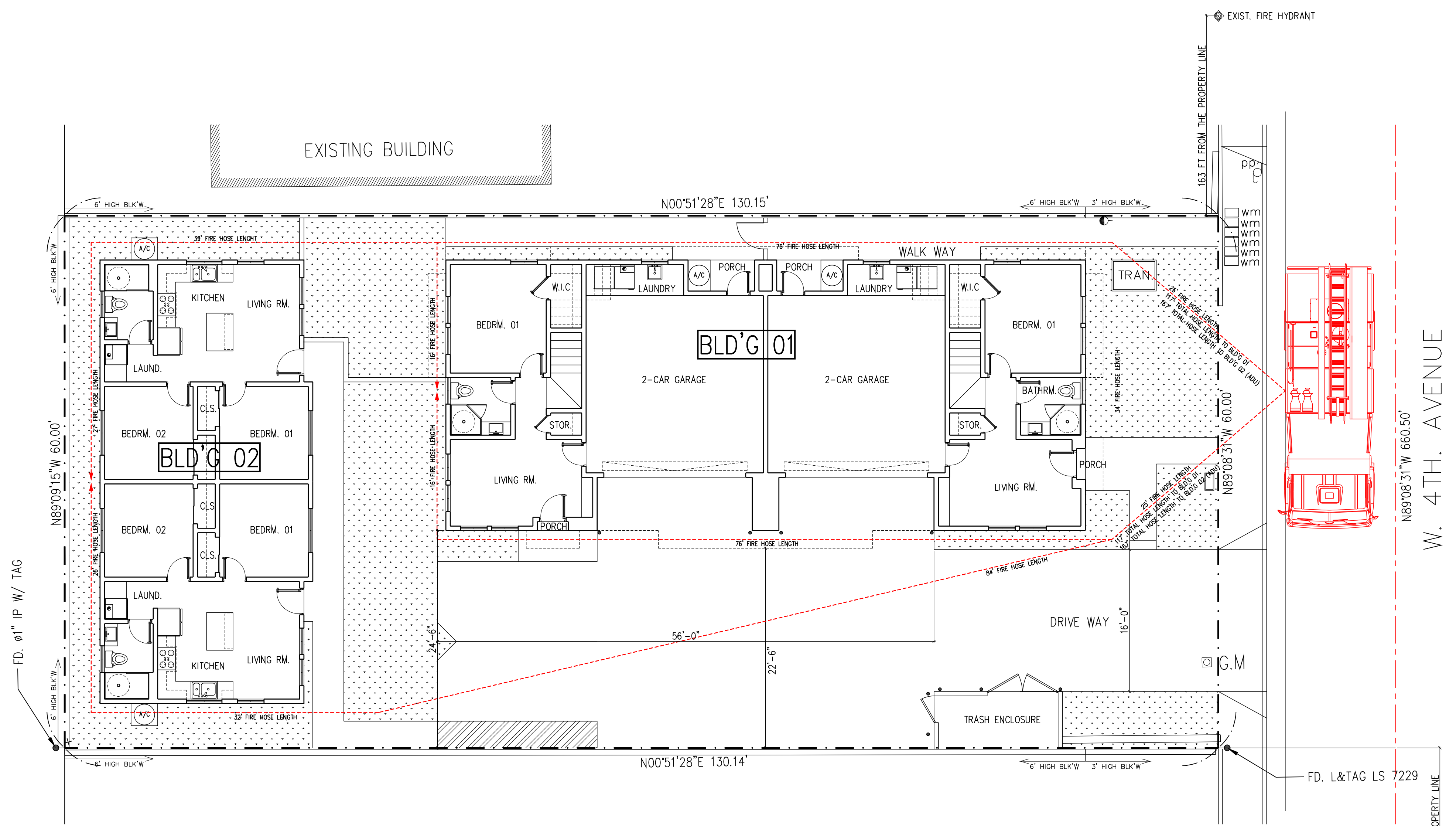


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OF	--- SHEETS



County of Los Angeles
 Fire Department
 Fire Prevention Division
 Land Development Unit
APPROVED
 ACCESS REQUIREMENT ONLY
Claudia Soiza
 07/02/2024

County of Los Angeles
 Fire Department
 Fire Prevention Division
 Land Development Unit
APPROVED
 FIRE HYDRANT LOCATION ONLY
Claudia Soiza
 07/02/2024

**COUNTY OF LOS ANGELES FIRE DEPARTMENT
 FIRE PREVENTION DIVISION**
 Land Development Unit
 5823 Rickenbacker Road
 Commerce, CA 90040
 Telephone (323) 890-4243, Fax (323) 890-9783

PROJECT: DR 2PH24-006
 LOCATION: 729-731 W. 4th Ave. La Habra

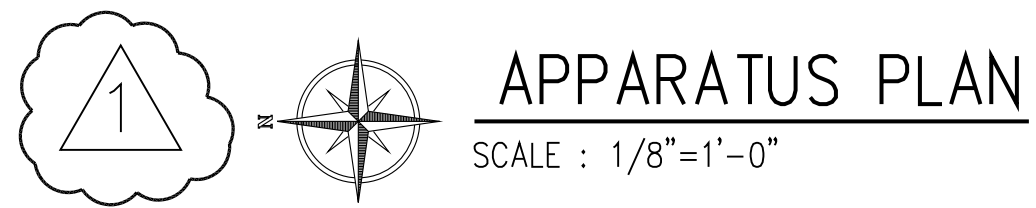
THE FIRE DEPARTMENT RECOMMENDS CLEARANCE OF THIS PROJECT TO PROCEED TO ADMINISTRATIVE HEARING AS PRESENTLY SUBMITTED WITH THE FOLLOWING CONDITIONS OF APPROVAL.

PROJECT CONDITIONS OF APPROVAL

Review and approval by the County of Los Angeles Fire Department, Fire Prevention Engineering Section Building Plan Check Unit is required for this project prior to building permit issuance. Contact the Fire Prevention Engineering Unit at 323.890.4125 for additional Fire Department requirements and EPICLA submittal instructions.

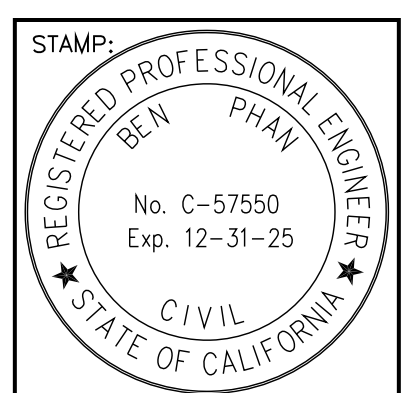
For any questions regarding this report, please contact FPEA Claudia Soiza at 323 890-4243 or at Claudia.soiza@fire.lacounty.gov

Reviewed by: Claudia Soiza Page 1 Date: July 2nd, 2024



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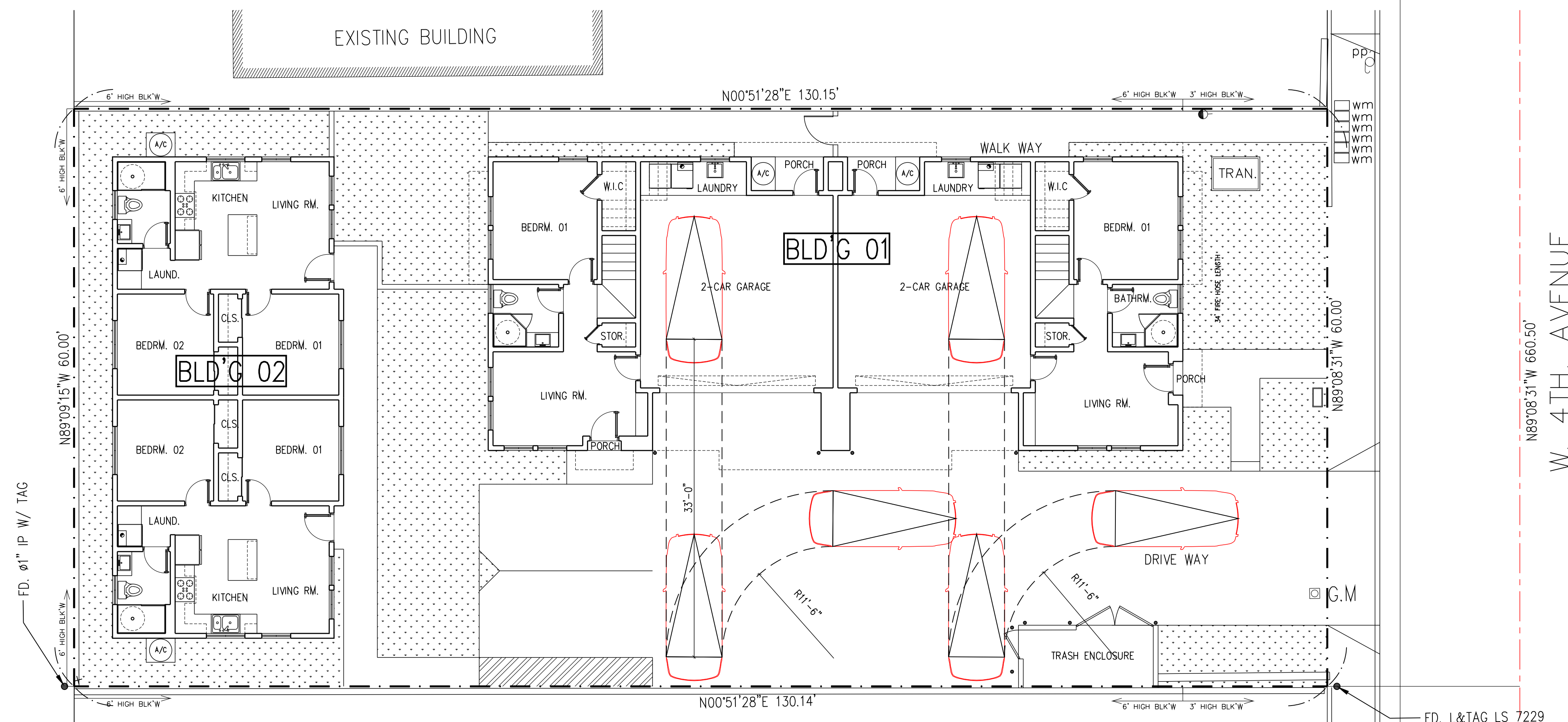


PROJECT NAME:
**VMJ'S DEVELOPMENT
 2-STORY DUPLEX & 1-STORY TWO ADUS,**
 729-731 W. 4TH AVE.
 LA HABRA, CA 90631

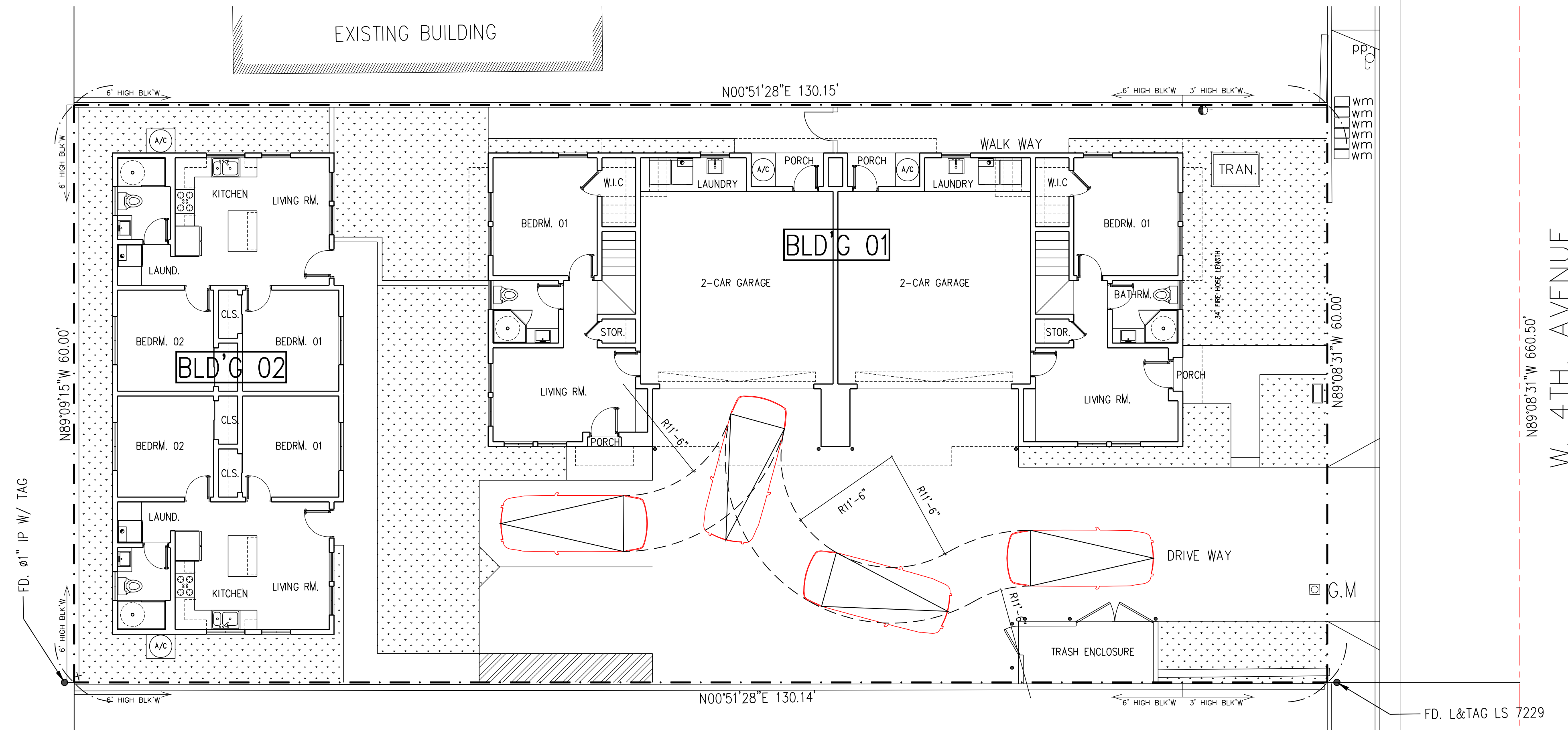
SHEET TITLE	
01	---
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SCALE	AS NOTED
SHEET	A.1b
OF --- SHEETS	

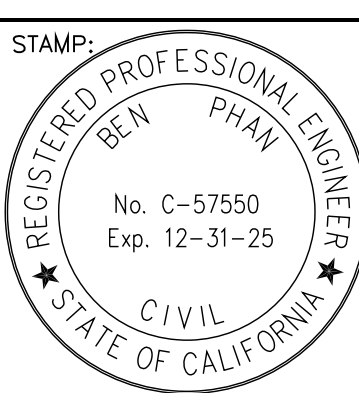


VEHICLE GARAGE TURNING PLAN
 SCALE : 1/8"=1'-0"



VEHICLE PARKING TURNING PLAN
 SCALE : 1/8"=1'-0"

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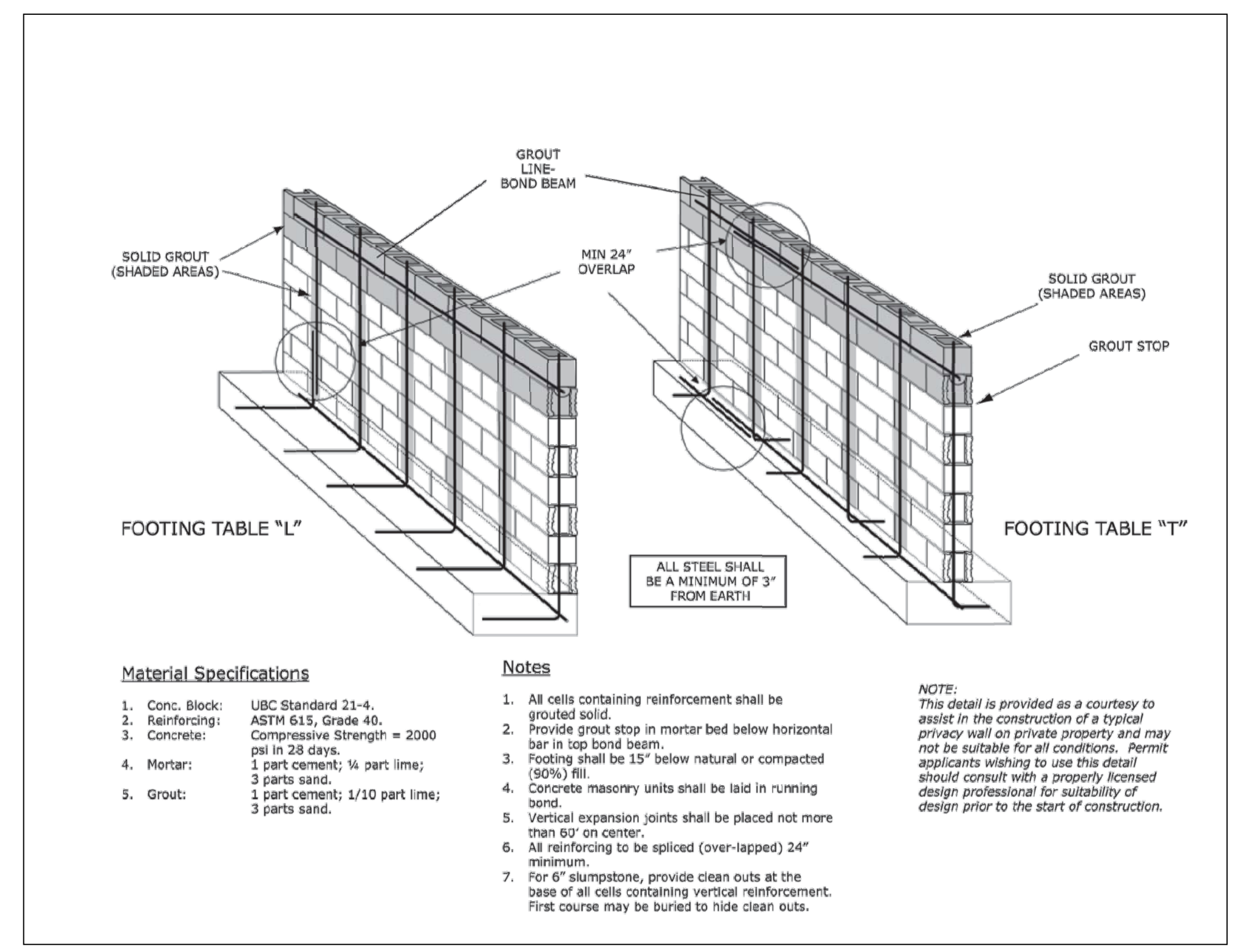
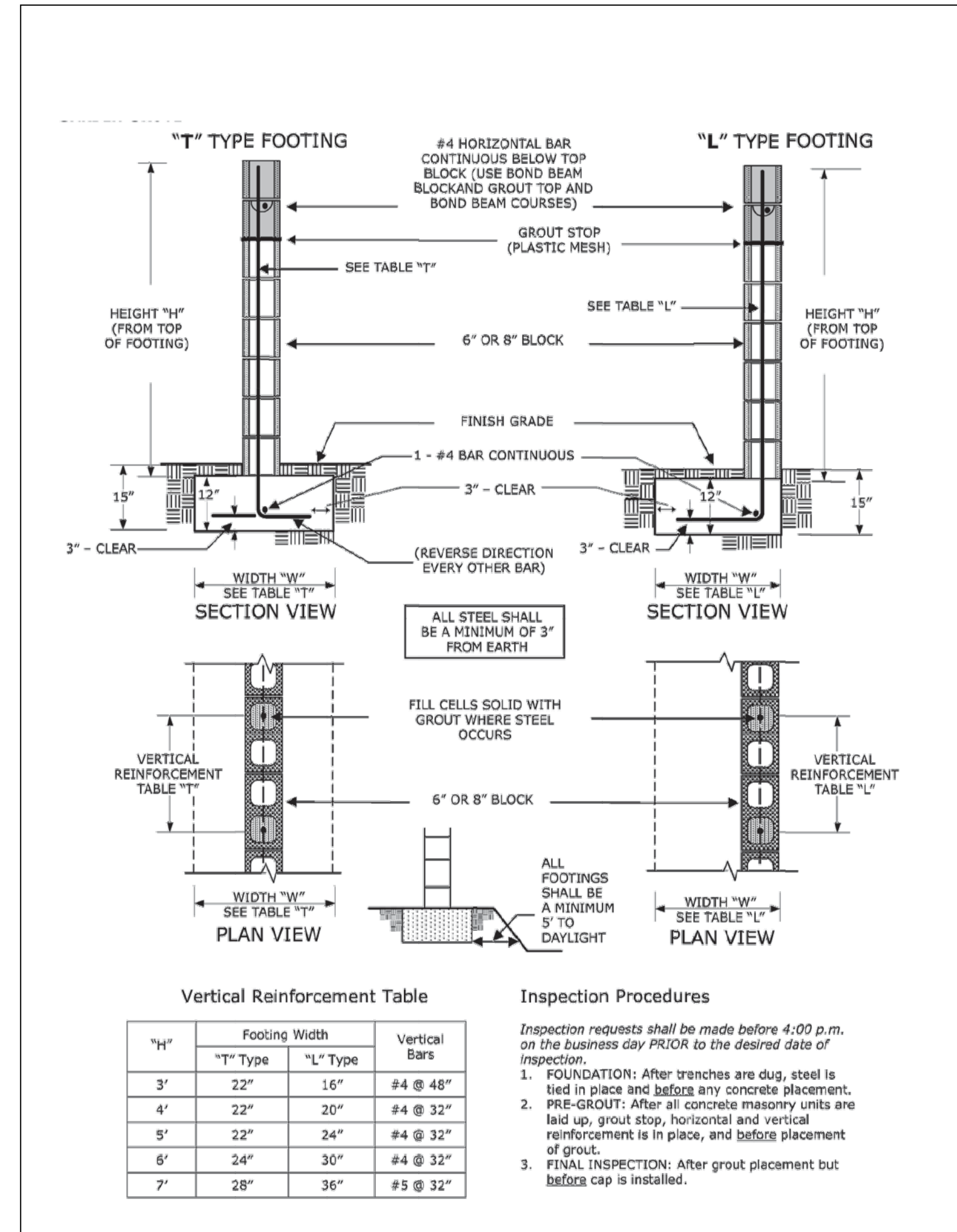


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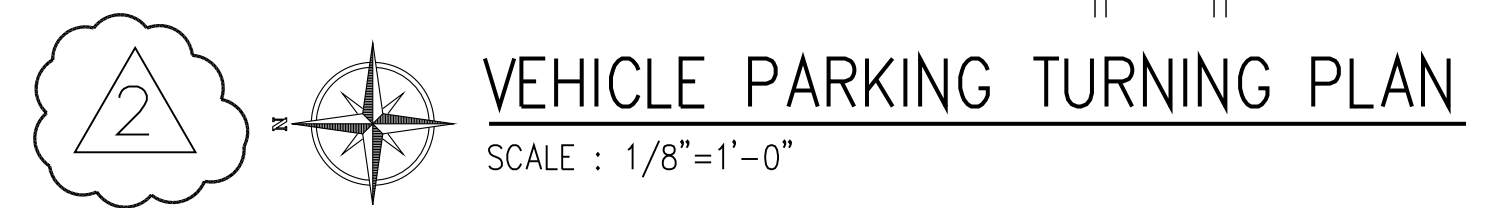
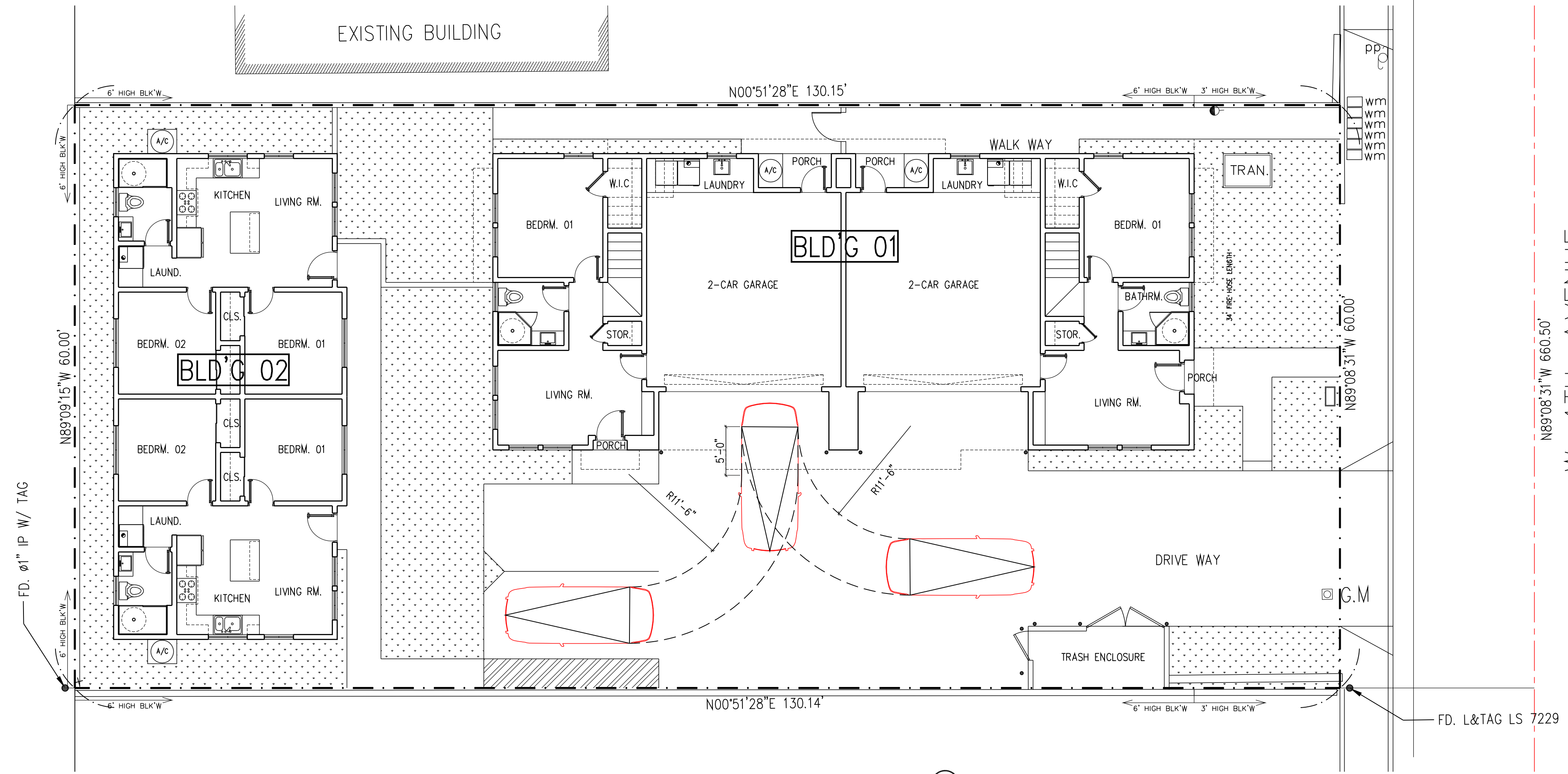
SHEET TITLE	
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SHEET	A.1c
OF --- SHEETS	



BLOCK WALL DETAILS & SPECIFICATIONS 2



DOOR SCHEDULE							
	WIDTH	HEIGHT	THK.	H.C./S.C.	TYPE	MATERIAL	REMARK
①	3'-0"	6'-8"	1 3/4"	S.C.	ENTRANCE DOOR	COMPOSITE & TEMP. GLASS	SEE OWNER FOR STYLE
②	2'-8"	6'-8"	1 3/4"	S.C.	20 MIN.	STEEL OR COMPOSITE	SEE OWNER FOR STYLE
③	2'-8"	6'-8"	1 3/4"	S.C.	SLAB DOOR	WOOD	SEE OWNER FOR STYLE
④	2'-8"	6'-8"	1 3/4"	S.C.	SLAB DOOR	WOOD	SEE OWNER FOR STYLE
⑤	2'-0"	6'-8"	1 3/4"	S.C.	SLAB DOOR	WOOD	SEE OWNER FOR STYLE
⑥	2'-6"	6'-8"	1 3/4"	S.C.	SLAB DOOR	WOOD	SEE OWNER FOR STYLE
⑦	(2) 3'-0"	6'-8"	1 3/4"	S.C.	SLIDING DOOR	VINYL & TEMP. GLASS	SEE OWNER FOR STYLE
⑧	16'-0"	7'-0"	1 3/4"	S.C.	GARAGE DOOR	STEEL & TEMP. GLASS	ROLLING UP W/ REMOTE, SEE OWNER FOR STYLE
⑨	2'-8"	6'-8"	1 3/4"	S.C.	GARAGE ENTRY DOOR	STEEL OR COMPOSITE	SEE OWNER FOR STYLE

WINDOW SCHEDULE									
	WIDTH	HEIGHT	TYPE	FRAME	U-FACTOR	SHGC	REMARK		
A	3'-0"	4'-6"	S.HUNG	VINYL	0.30	0.23			
B	3'-0"	2'-0"	SLIDING				TEMP. GLASS		
C	3'-0"	2'-0"	SLIDING				OBSCURED TEMP. GLASS		
D	5'-0"	4'-0"	SLIDING						
E	4'-0"	3'-0"	S.HUNG				TEMP. GLASS		
F	3'-0"	4'-0"	S.HUNG						

INTERIOR FINISHING SCHEDULE											
ROOM	FLOOR	BASE	WALLS		CEILING		HEIGHT	MAX. SPACING OF FRAMING MEMBERS	MAX. SPACING OF FASTENERS	REMARKS	
			MATERIAL	FIN.	MATERIAL	FIN.					
DINING RM.	PORCELAIN TILE	CONC.	5/8" GYP. BD.	1	5/8" GYP. BD.	1	9'-0"	16"	7" AT CEIL. 12" AT WALL		
KITCHEN	PORCELAIN TILE			2		2	9'-0"			GREEN BOARD WATER RESISTANT DRYWALL AS REQUIRED	
BATHROOMS	PORCELAIN TILE			2		2	9'-0"			GREEN BOARD/WONDER BOARD/JAMES HARDIE AS REQUIRED	
BEDROOMS	ENGINEERED WOOD			1		1	9'-0"				
LIVING ROOM	PORCELAIN TILE			1		1	9'-0"				
LAUNDRY	PORCELAIN TILE			2		2	9'-0"			GREEN BOARD WATER RESISTANT DRYWALL AS REQUIRED	
GARAGE	CONCRETE		5/8" TYP. "X" GYP. BD.	1	5/8" TYP. "X" GYP. BD.	1	9'-6"			5/8" TYP. "X" GYP. BD.	

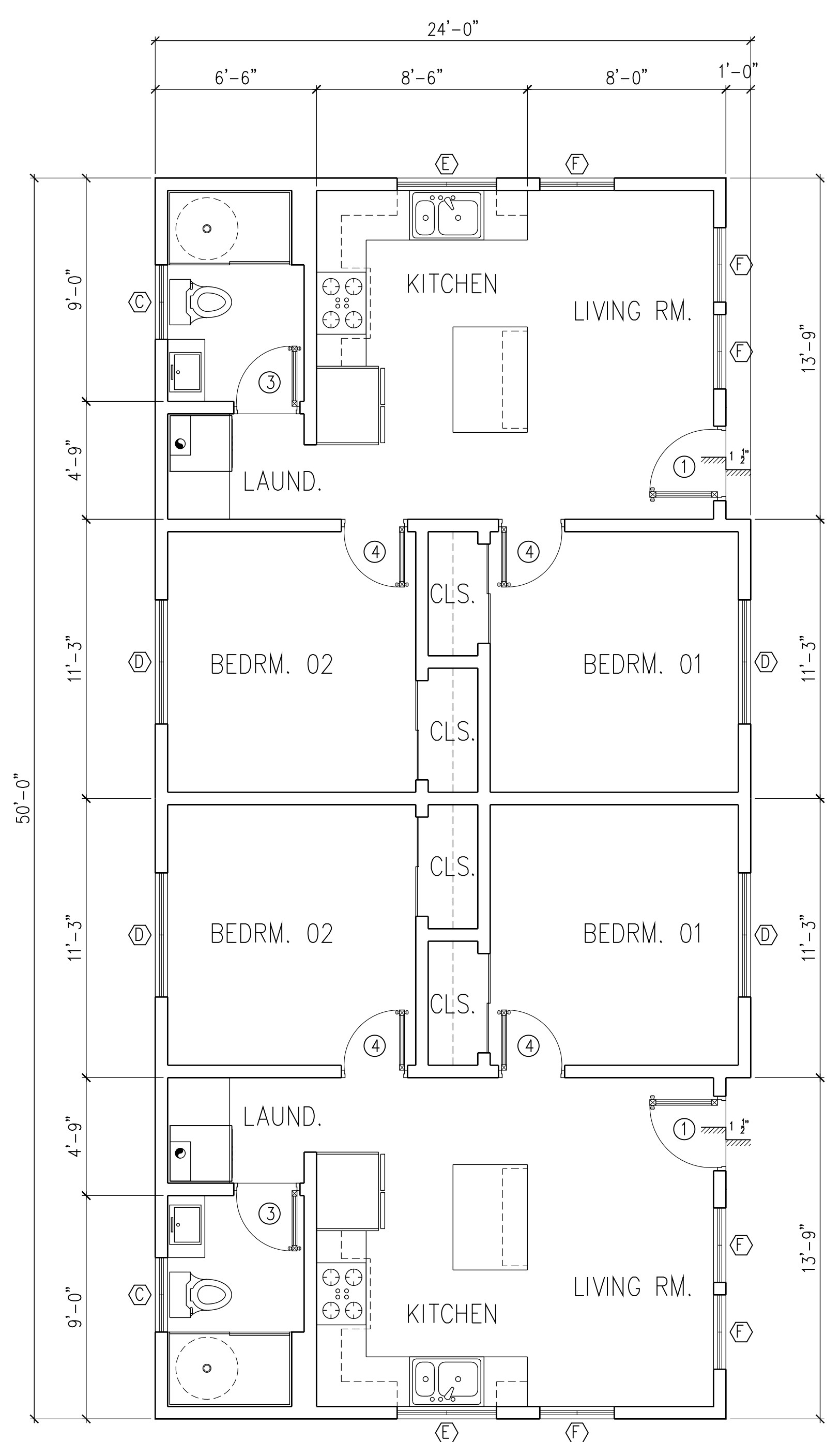
ADUs OPENING IN FIRE WALL RATIO

1. FIRE WALL AREA: 50' x 9' = 450 SF.
 2. OPENING AREA: [(3'x2') + (5'x4')] x 2 = 52 SF.
 OPENED WALL RATIO:
 $\frac{52}{450} \times 100 = 11.56\% < 25\%$

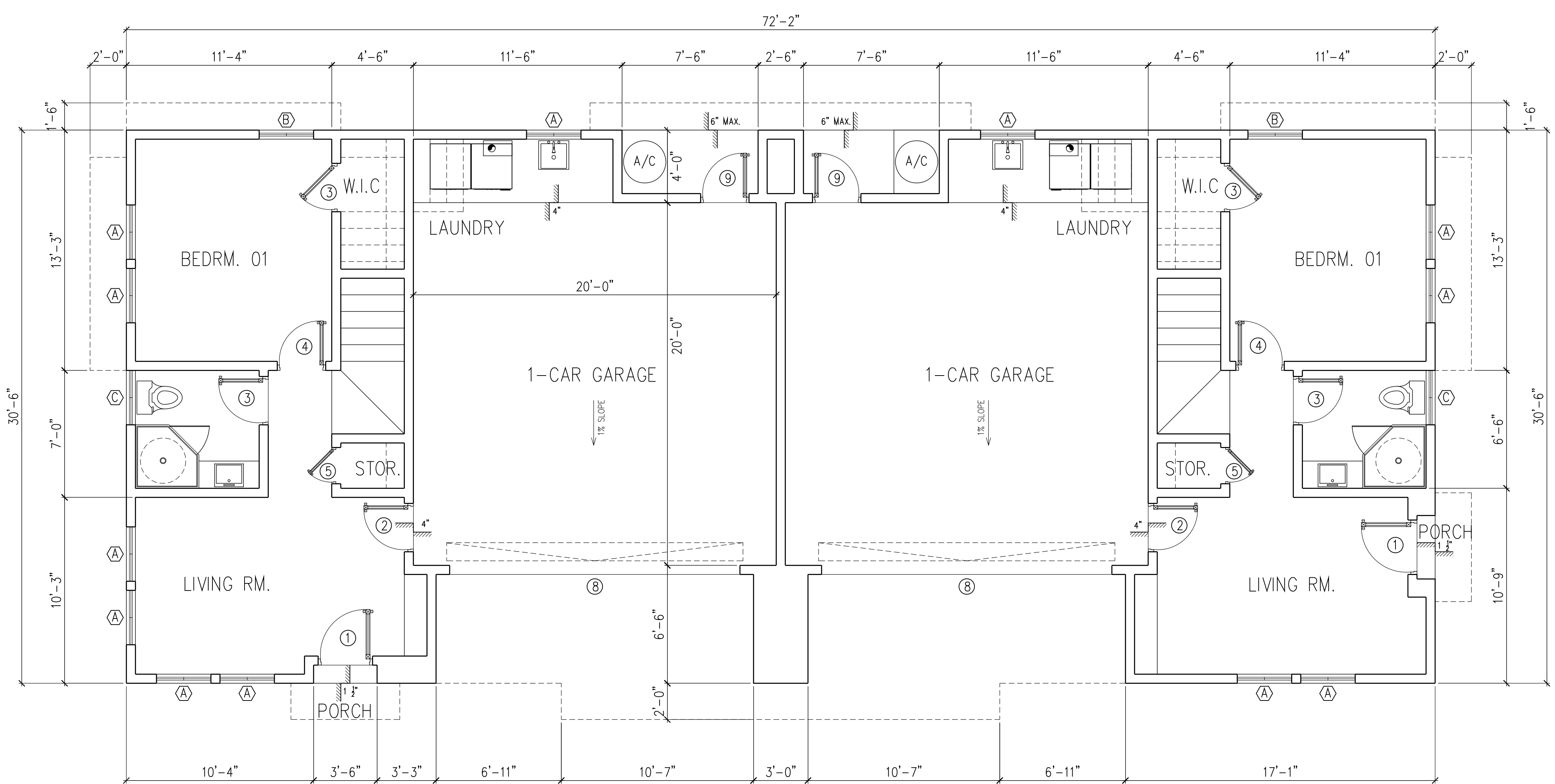
FINISHING KEY :
 1. Sealed and painted w/ 1-coat flat vinyl.
 2. Undercoat and finish w/ semi-gloss enamel.
 3. Sprayed simulated acoustic plaster.
 4. Tape drywall joints.
NOTES :
 - Wardrobes and closets finished w/ semi-gloss paint.
 - Floor finishes change at centerline of door.
 - Paint grills and registers same as adjacent walls.

GYP. BD.	APPLICATION	SIZE OF NAILS
1/2"	CEILING	13 gage, 1 3/8" long, 19/64" head; 0.098" dia, 1 1/4" long, annular-ringed; 5d cooler nail, 0.086" dia, 1 5/8" long, 15/64" head; or gypsum board nail, 0.086" dia, 1 5/8" long, 9/32" head
1/2"	WALL	13 gage, 1 5/8" long, 19/64" head; 0.098" dia, 1 3/8" long, annular-ringed; 6d cooler nail, 0.092" dia, 1 7/8" long, 1/4" head; or gypsum board nail, 0.0915" dia, 1 7/8" long, 19/64" head.

(a). For application without adhesive, a pair of nails spaced not less than 2 inches apart or more than 2 1/2" apart may be used with the pair of nails spaced 12" on center.
 (b). Screws shall be accordance with section R702.3.6. Screws for attaching gypsum board to structural insulated panels shall penetrate the wood structural panel facing not less than 7/16".
 (d). Type "X" gypsum board for garage ceilings beneath habitable rooms shall be installed perpendicular to the ceiling framing and shall be fastened at maximum 6" O.C. by min. 1 7/8" 6d nails or equivalent drywall screws.

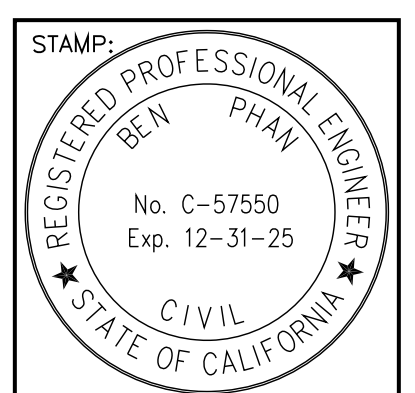


FIRST FLOOR PLAN
 SCALE : 1/4"=1'-0"
 ADU. 1 & 2



1ST. FLOOR PLAN
 SCALE : 1/4"=1'-0"
 UNITS 01 & 02

DESIGNED BY:
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 960 N. TUSTIN ST., SUITE 326
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PROJECT NAME:
VMJS DEVELOPMENT
2-STORY DUPLEX & 1-STORY TWO ADUs.
 729-731 W. 4TH AVE.
 LA HABRA, CA 90631

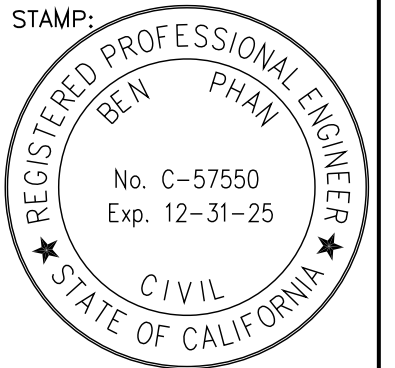
SHEET TITLE	
01	---
02	---
03	---
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REVISIONS	
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SCALE	AS NOTED
SHEET	A.2
OF --- SHEETS	

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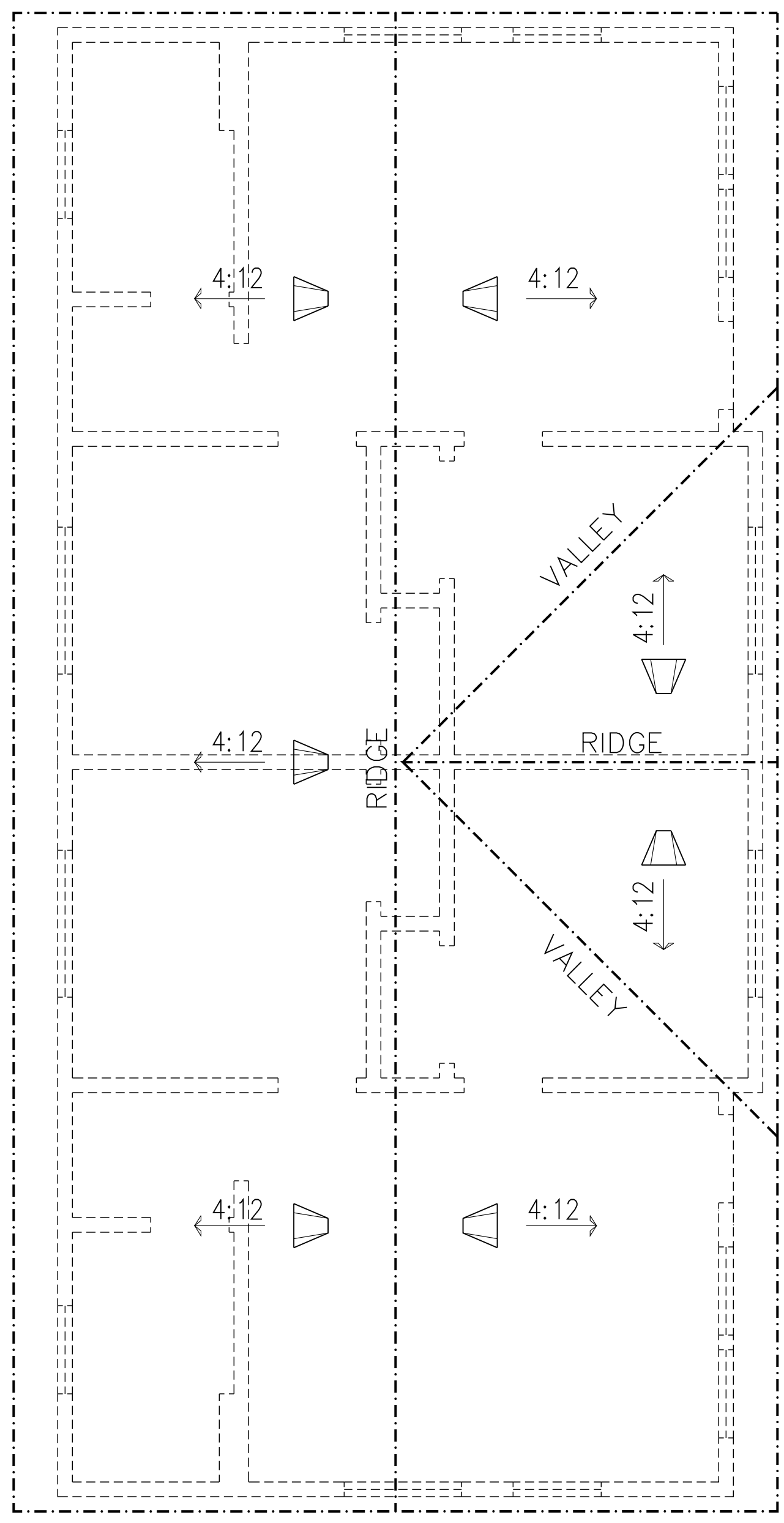
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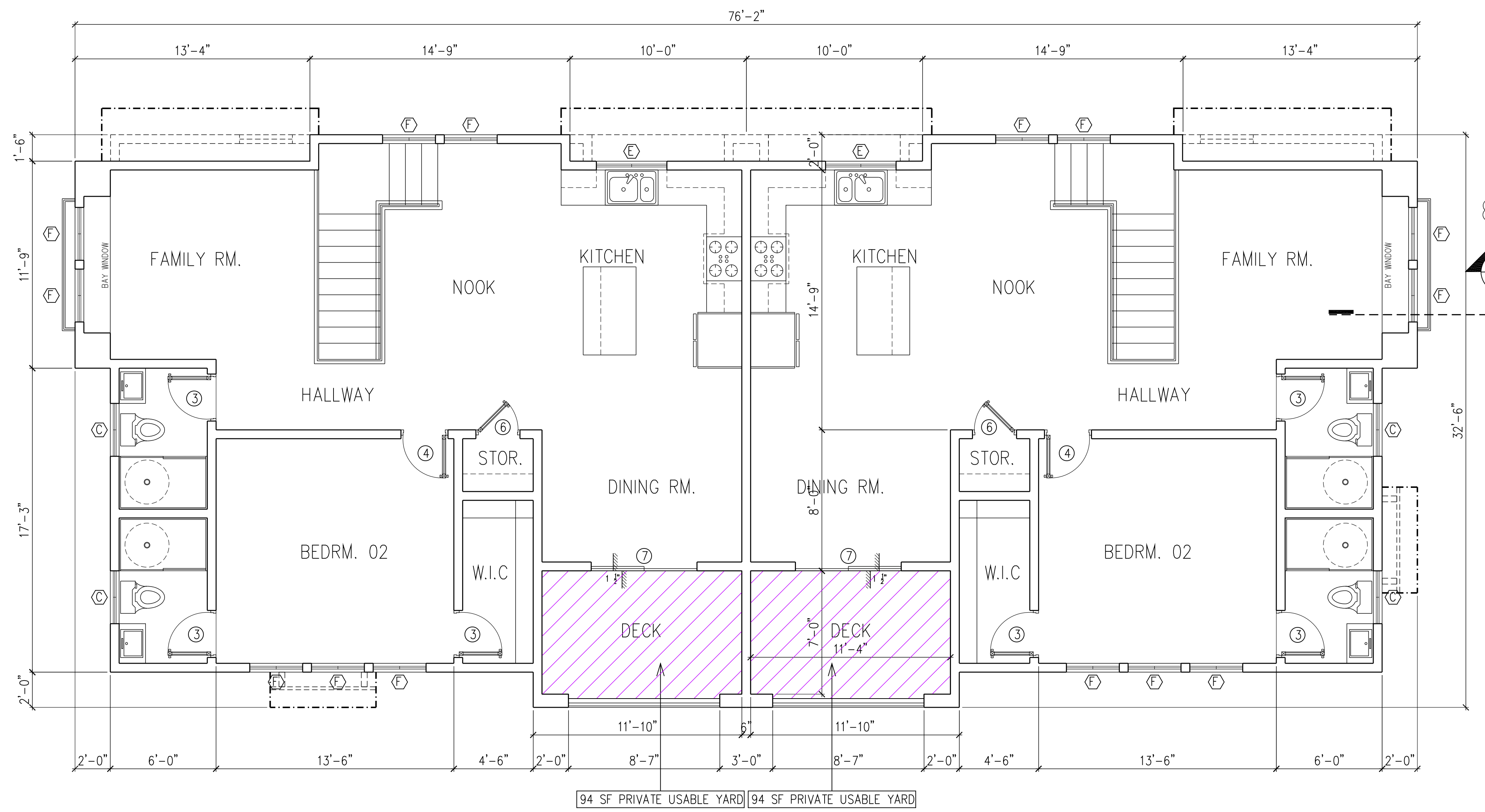
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OF --- SHEETS	

NOTES:
 1. SEE SHEET A.2 FOR DOOR AND WINDOW SCHEDULE.

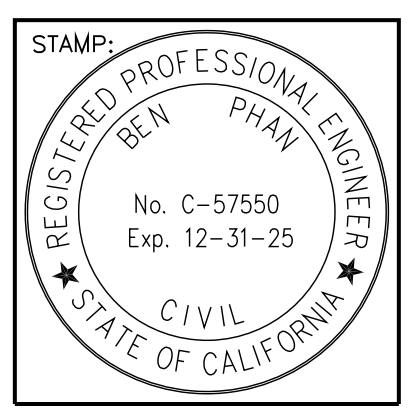


ROOF PLAN
 SCALE : 1/4"=1'-0"
 ADU. 1 & 2



2ND. FLOOR PLAN
 SCALE : 1/4"=1'-0"
 UNITS 01 & 02

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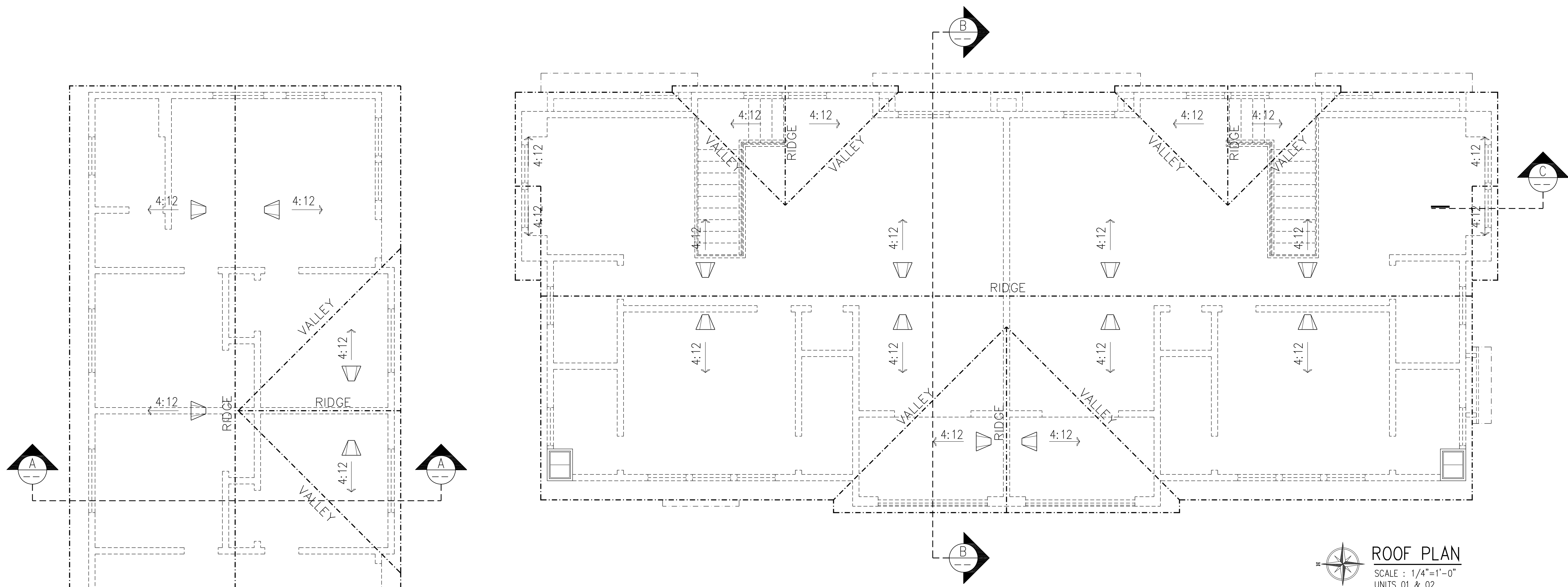


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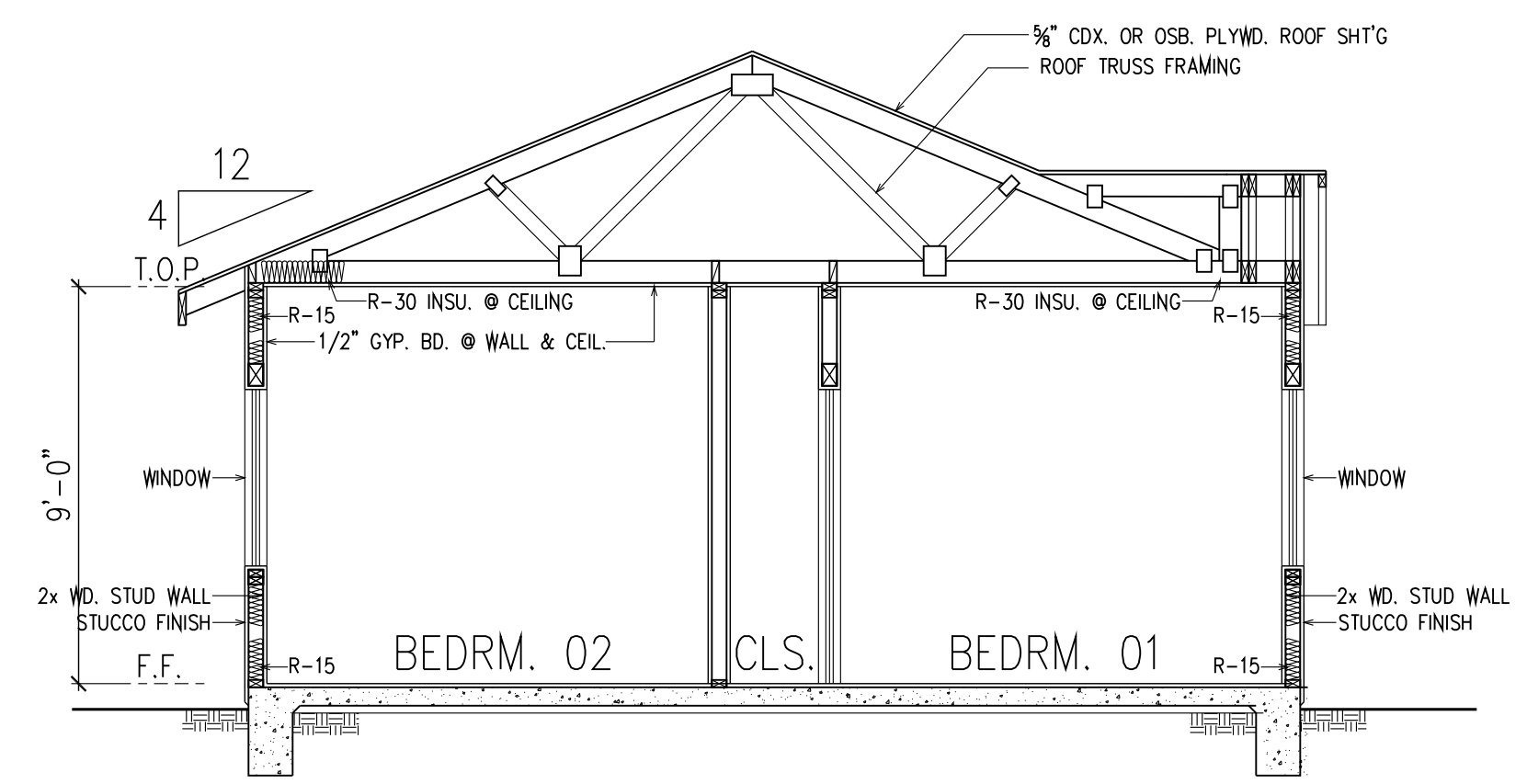
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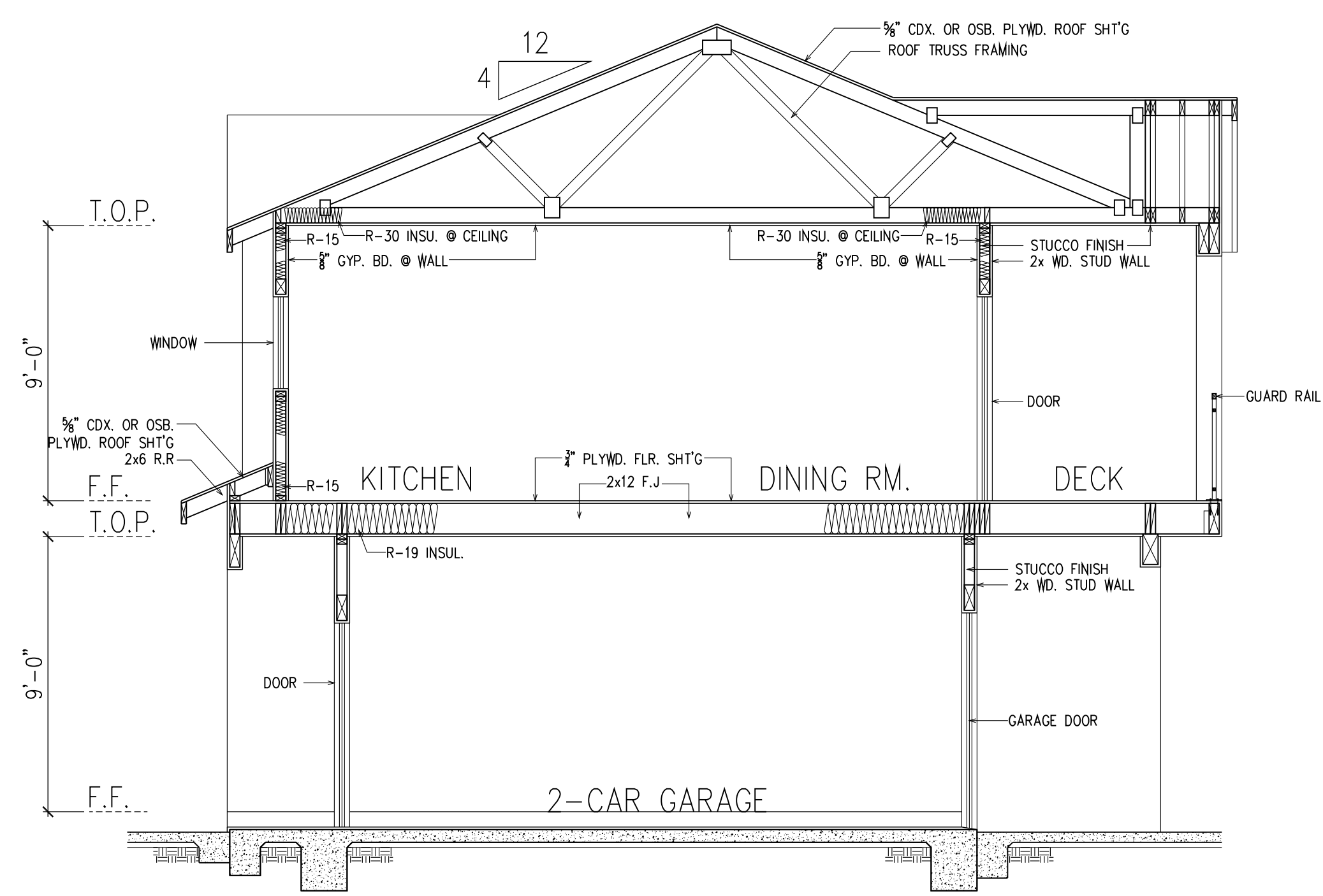


ROOF PLAN
 SCALE : 1/4"=1'-0"
 UNITS 01 & 02

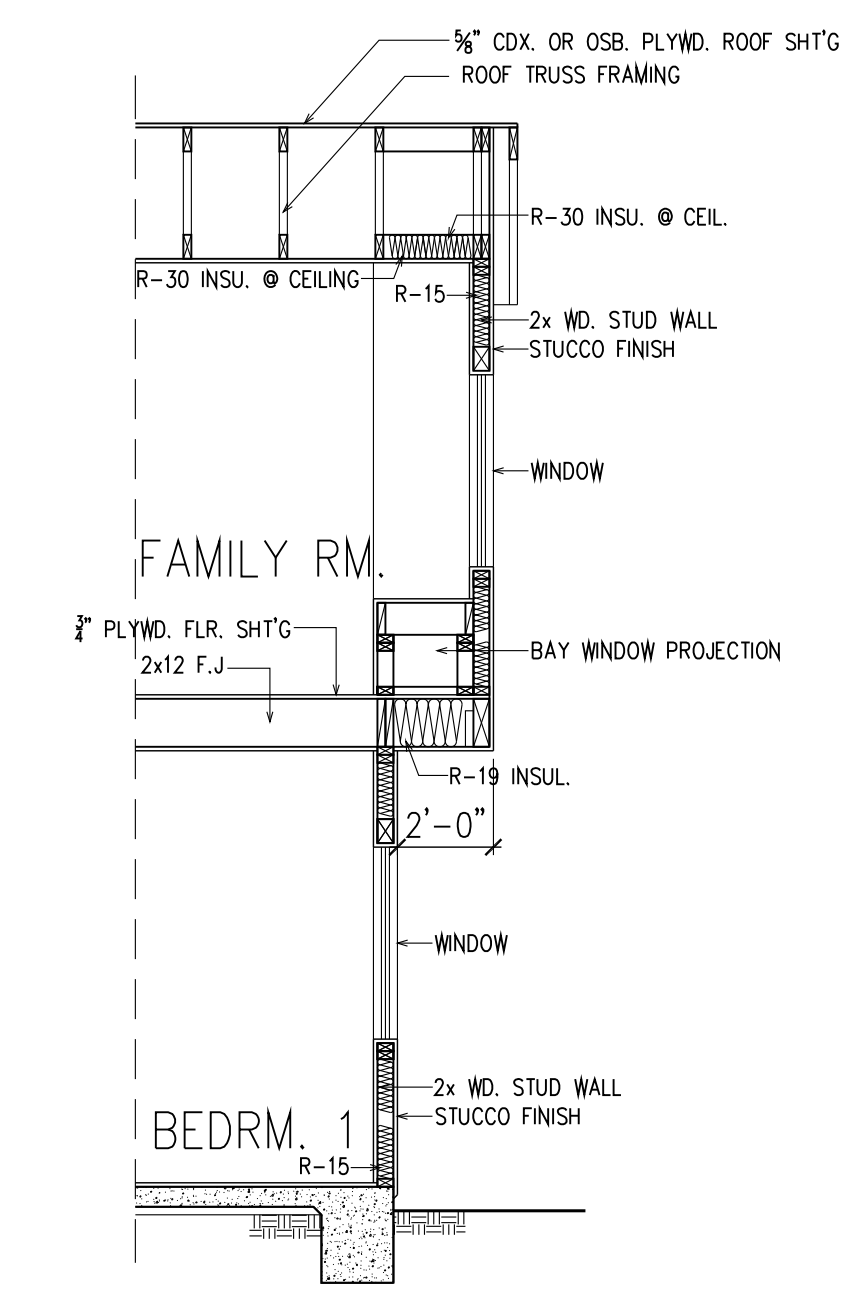
ROOF PLAN
 SCALE : 1/4"=1'-0"
 ADU. 1 & 2



SECTION A-A
 SCALE : 1/4"=1'-0"
 ADU. 1 & 2

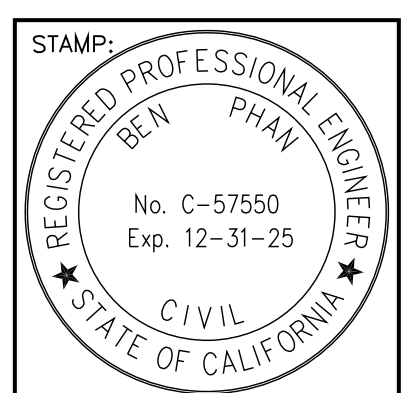


SECTION B-B
 SCALE : 1/4"=1'-0"
 UNITS 1 & 2



SECTION C-C
 SCALE : 1/4"=1'-0"
 UNITS 1 & 2

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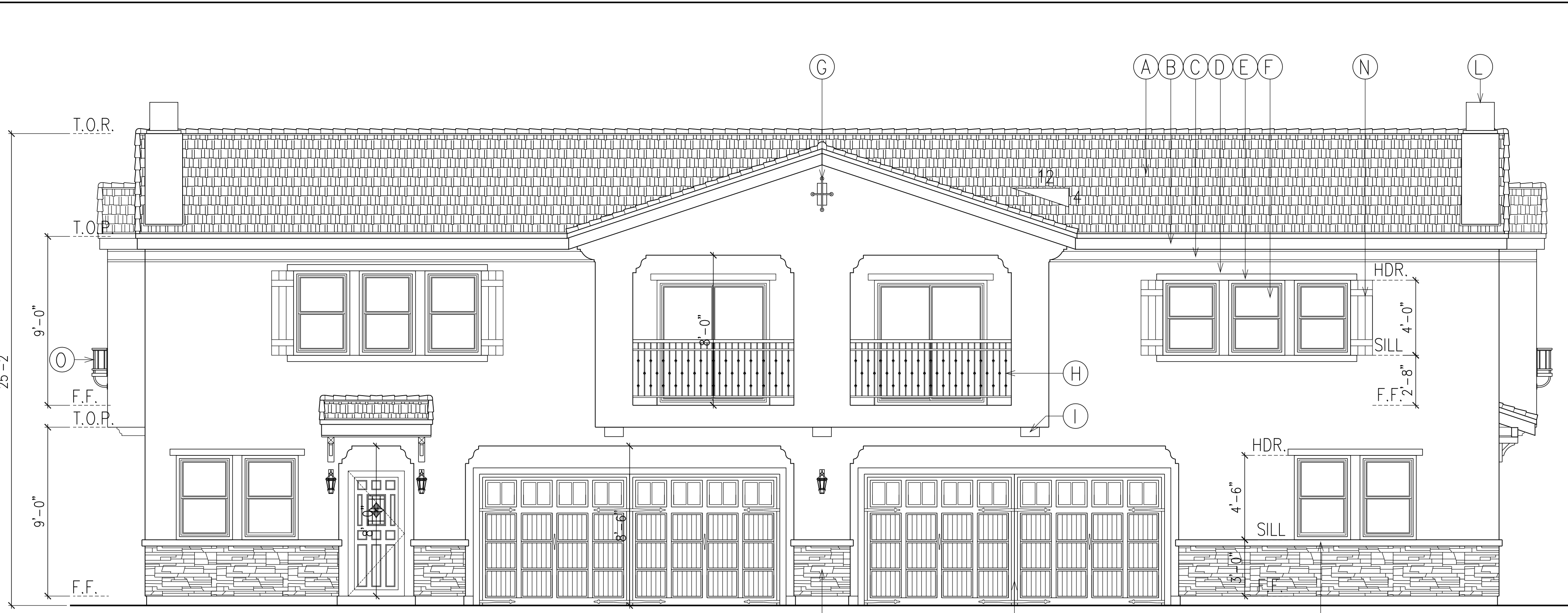


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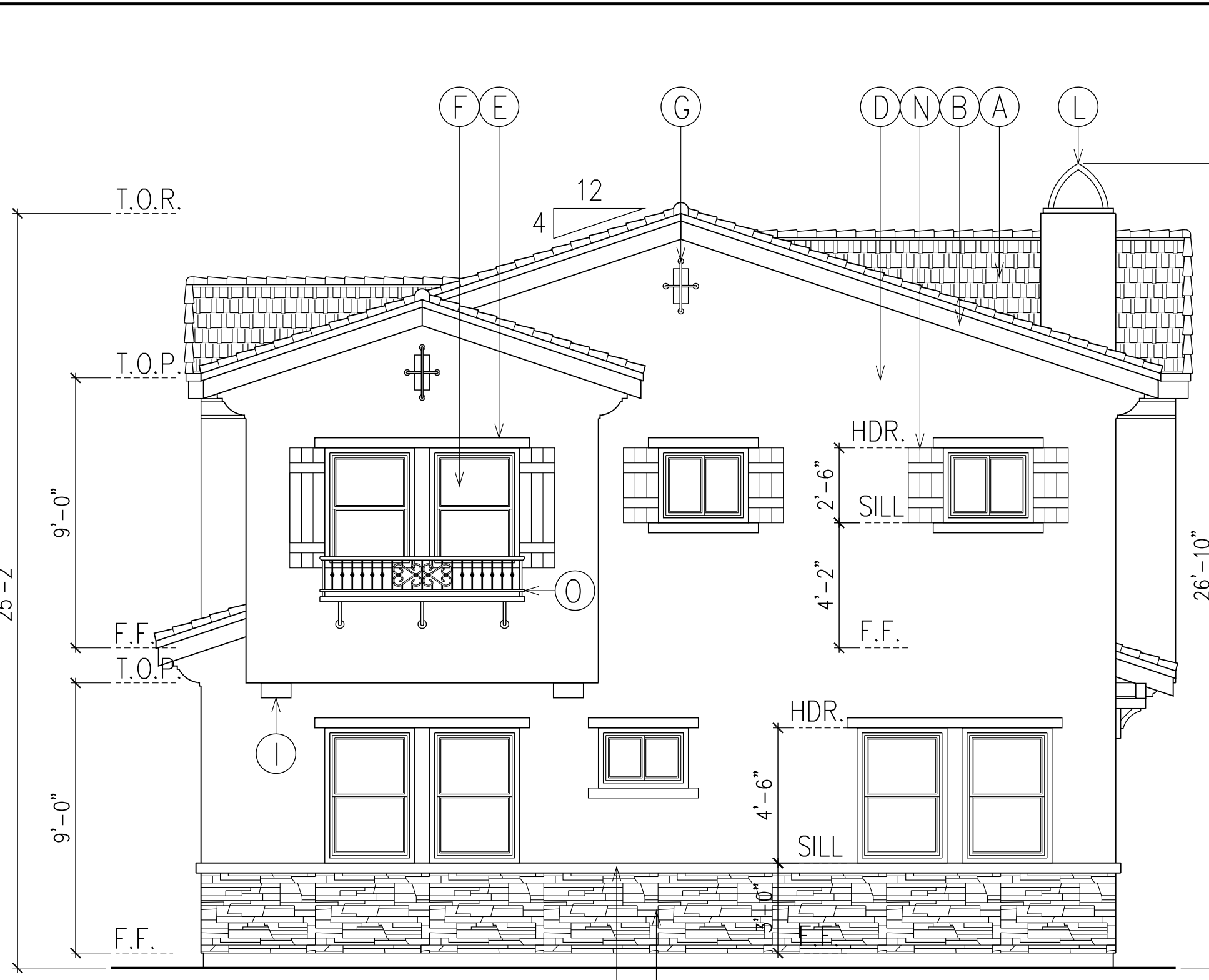
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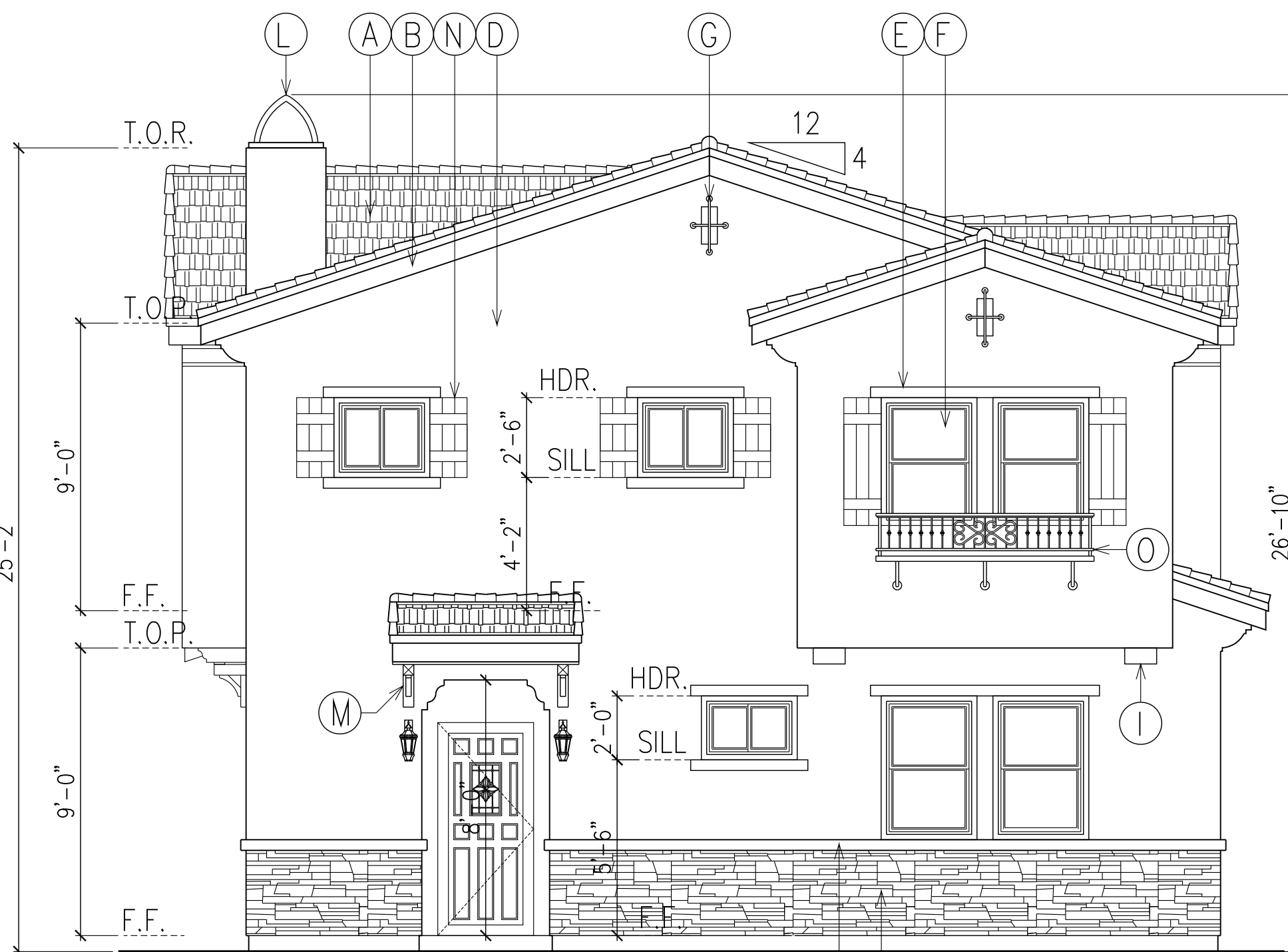
WEST ELEVATION
 SCALE : 1/4"=1'-0"
 UNITS 1 & 2



EAST ELEVATION
 SCALE : 1/4"=1'-0"
 UNITS 1 & 2



NORTH ELEVATION
 SCALE : 1/4"=1'-0"
 UNITS 1 & 2

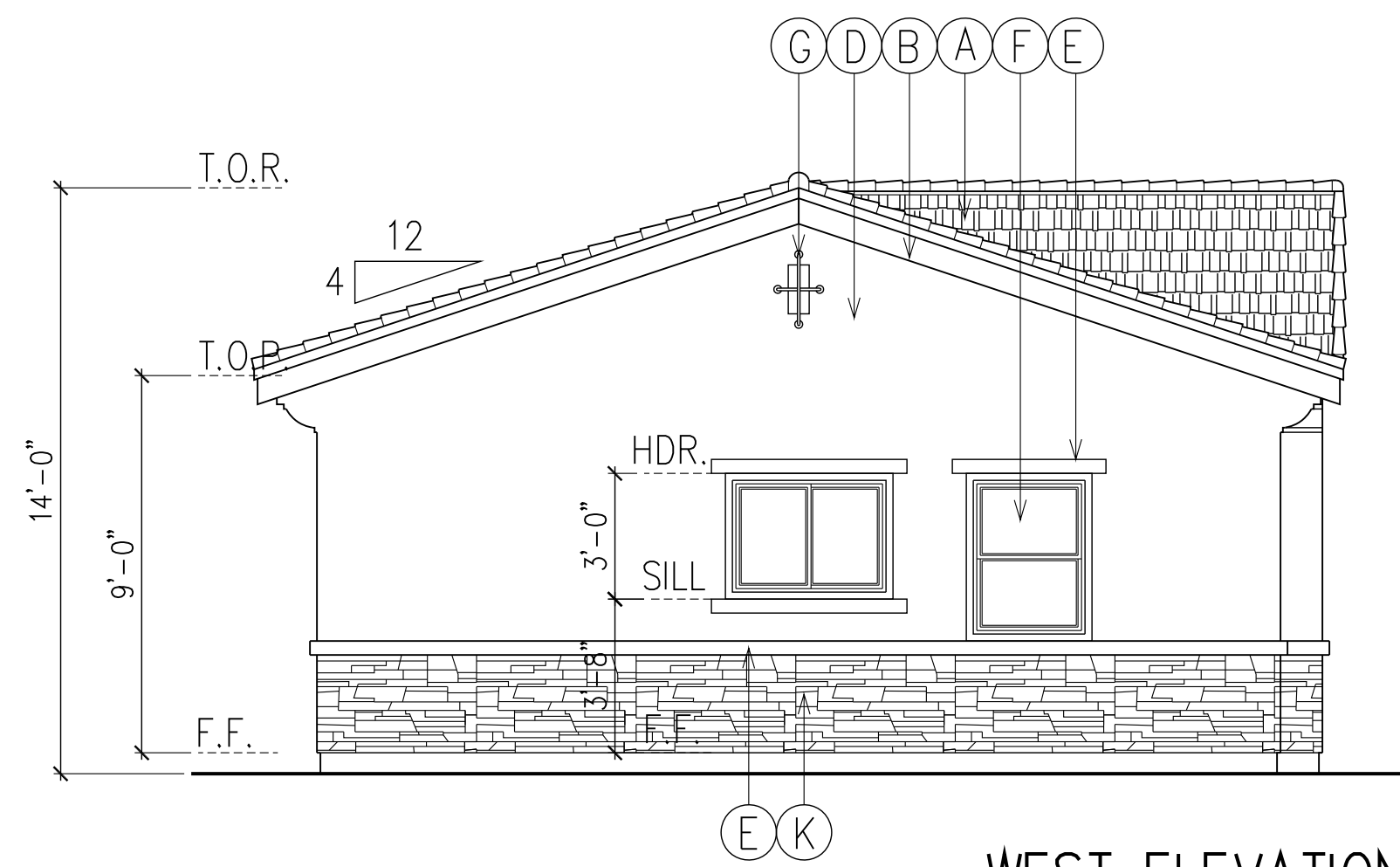


SOUTH ELEVATION
 SCALE : 1/4"=1'-0"
 UNITS 1 & 2

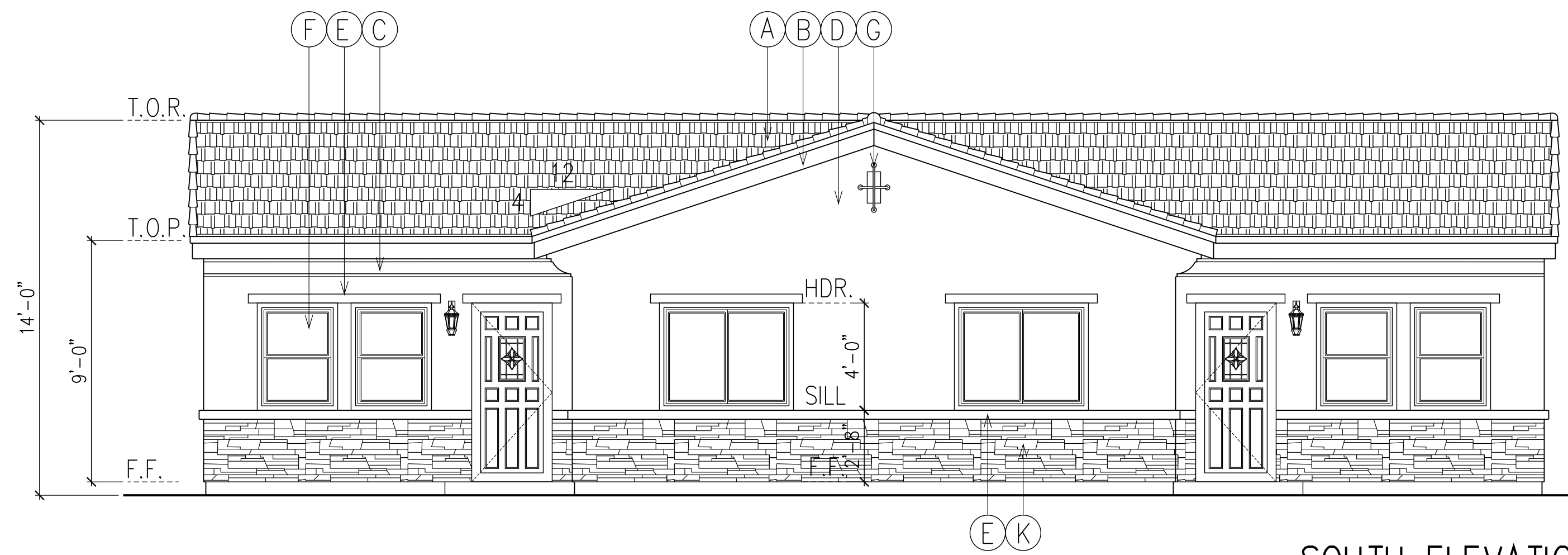
ELEVATION LEGEND

DESCRIPTION	COLOR & NOTES	DESCRIPTION	COLOR & NOTES
(A) CONCRETE COOL TILE CLASS B MIN. OR EQUAL BY EAGLE ROOFING TILE INC., ICC #ESR-1,900	3636 PIEDMONT BLEND CAPISTRANO	(I) STUCCO BRACKET (BY OMEGA STUCCO)	1C460 YUCCA-BASE 2
(B) PAINTED WOOD FASCIA (BY SHERWIN WILLIAM)	SW-7041, VAN DYKE BROWN	(J) MTL. PAINTED GARAGE DOOR (BY SHERWIN WILLIAM)	SW-7039, VIRTUAL TAUPE
(C) STUCCO EAVE MOLDING (BY OMEGA STUCCO)	1C455 SURREY BEIGE-BASE 2	(K) CULTURED STONE VENEER BY OWEN CORNING	NATURAL BROWN
(D) STUCCO TYP. (BY OMEGA STUCCO)	1C455 SURREY BEIGE-BASE 2	(L) PAINTED METAL CHIMNEY SPARK ARRESTOR (BY SHERWIN WILLIAM)	SW-7041, VAN DYKE BROWN
(E) STUCCO DOOR/WINDOW TRIM (BY OMEGA STUCCO)	1C460 YUCCA-BASE 2	(M) PAINTED WOODEN BRACKET	SW-7041, VAN DYKE BROWN
(F) VINYL FRAMED WINDOW TYP.	WHITE	(N) MBS MID AMERICA 4 BOARD & BATTEN JOINED VINYL SHUTTER	010 MUSKET BROWN
(G) PAINTED METAL DECORATIVE CORNICE VENT (BY SHERWIN WILLIAM)	SW-6991, BLACK MAGIC	(O) PAINTED METAL DECORATIVE WINDOW PLANTER (BY SHERWIN WILLIAM)	SW-6991, BLACK MAGIC
(H) PAINTED METAL GUARDRAIL (BY SHERWIN WILLIAM)	SW-6991, BLACK MAGIC		

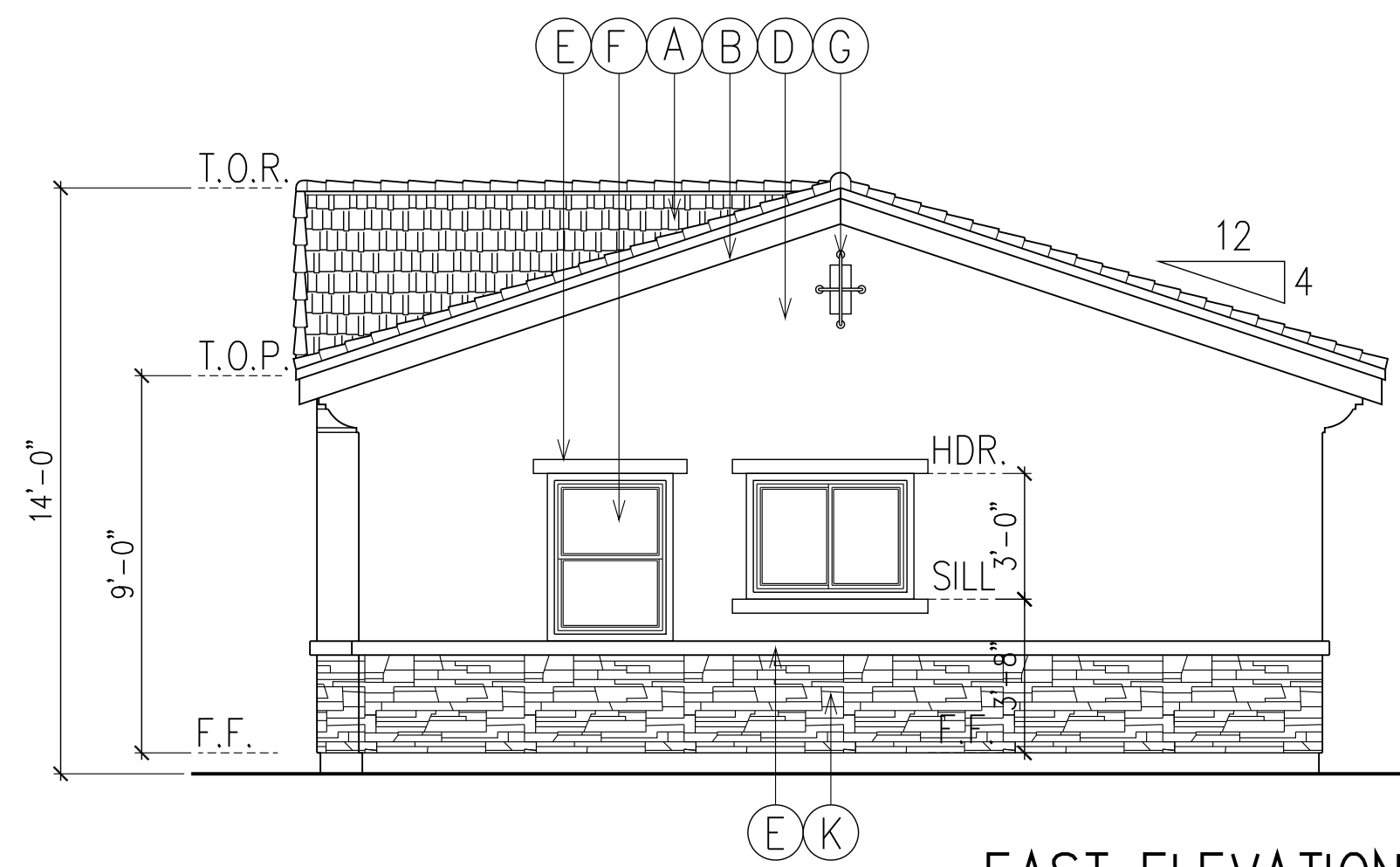
THE DRAWING IS A PROPERTY OF DESIGNER & ASSOCIATES



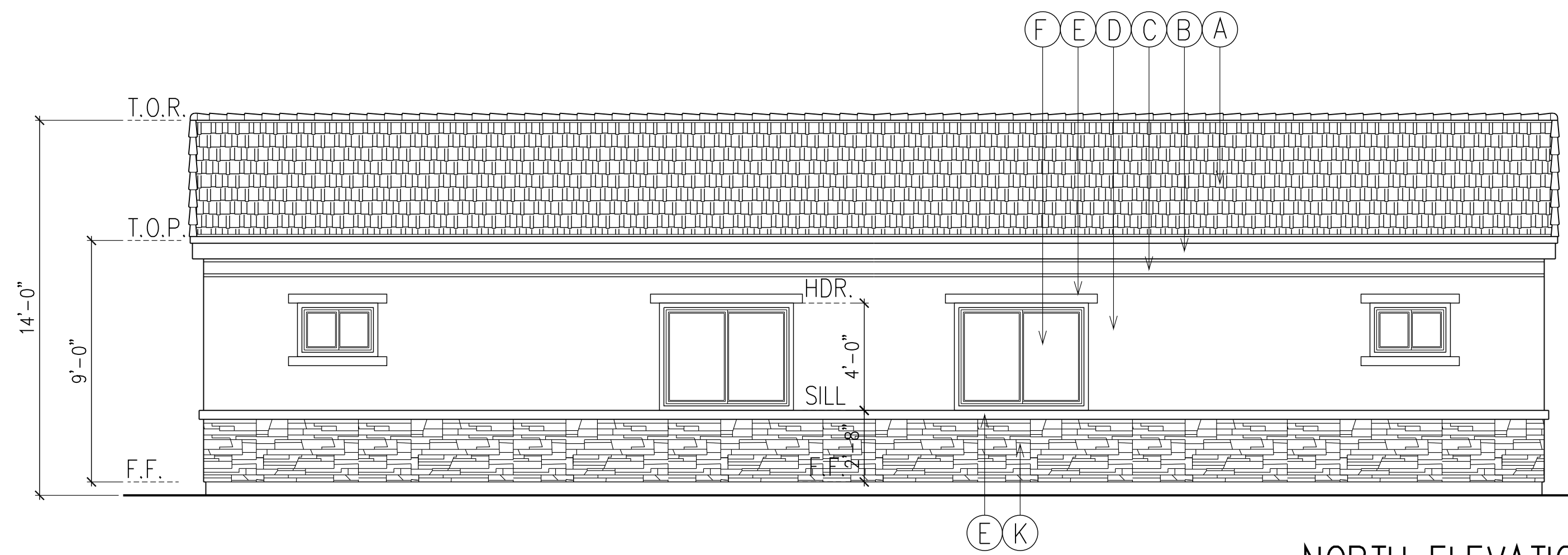
WEST ELEVATION
SCALE : 1/4"=1'-0"
ADU. 1 & 2



SOUTH ELEVATION
SCALE : 1/4"=1'-0"
ADU. 1 & 2



EAST ELEVATION
SCALE : 1/4"=1'-0"
ADU. 1 & 2

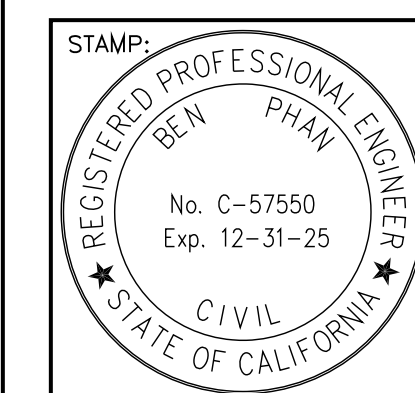


NORTH ELEVATION
SCALE : 1/4"=1'-0"
ADU. 1 & 2

ELEVATION LEGEND

DESCRIPTION	COLOR & NOTES	DESCRIPTION	COLOR & NOTES
(A) CONCRETE COOL TILE CLASS B MIN. OR EQUAL BY EAGLE ROOFING TILE INC., ICC #ESR-1,900	3636 PIEDMONT BLEND CAPISTRANO	(I) STUCCO BRACKET (BY OMEGA STUCCO)	1C460 YUCCA-BASE 2
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(H) PAINTED METAL GUARDRAIL (BY SHERWIN WILLIAM)	SW-6991, BLACK MAGIC		

DESIGNED BY:
S.L.P. DESIGN & ASSOCIATES
960 N. TUSTIN ST., SUITE 326
ORANGE, CA 92667
TEL: (714)-602-3595
FAX: (714)-602-1113
EMAIL: INFO@SLPDDESIGNINC.COM



PROJECT NAME:
**VMJS DEVELOPMENT
2-STORY DUPLEX & 1-STORY TWO ADUS.**
729-731 W. 4TH AVE.
LA HABRA, CA 90631

SHEET TITLE	
01	---
02	---
03	---
04	---

REVISIONS	
▲	NOV. 30, 2023
▲	JUL. 07, 2024
▲	---
▲	---

DATE	MAY 04, 2023
JOB NO.	DOCLH792-686
DRAWN	PP.
CHECKED	SL.
SCALE	AS NOTED
SHEET	A.6
OF --- SHEETS	

LANDSCAPE IMPROVEMENT PLANS

FOR

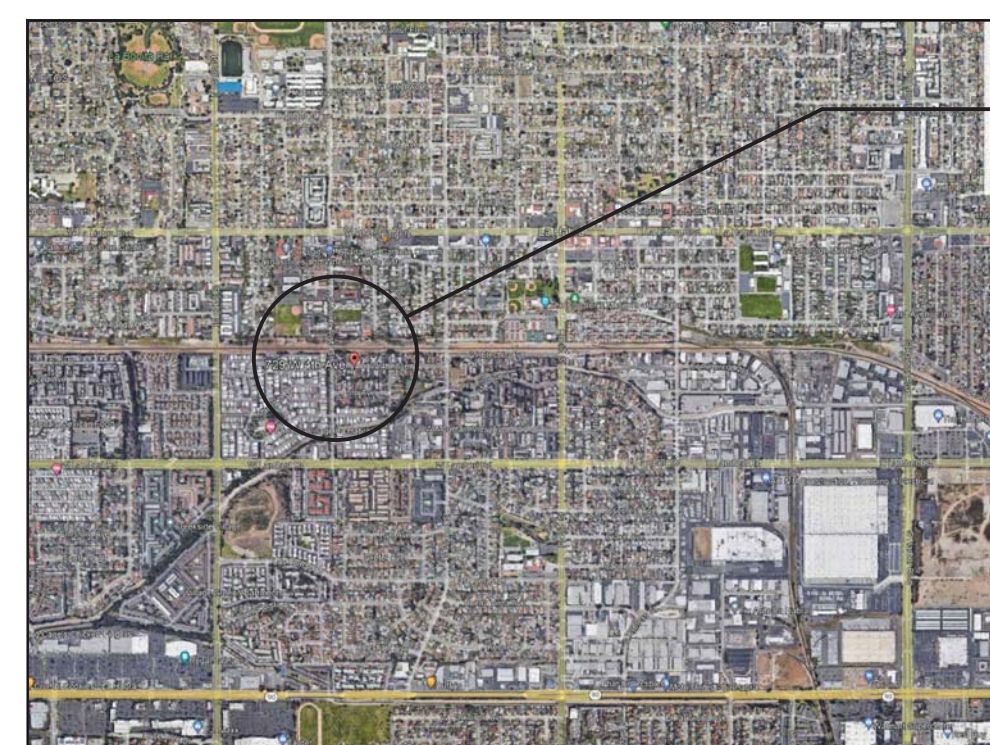
3-STORY DUPLEX & TWO 1-STORY ADU's

729 & 731 W. 4th Avenue

La Habra, CA 90631

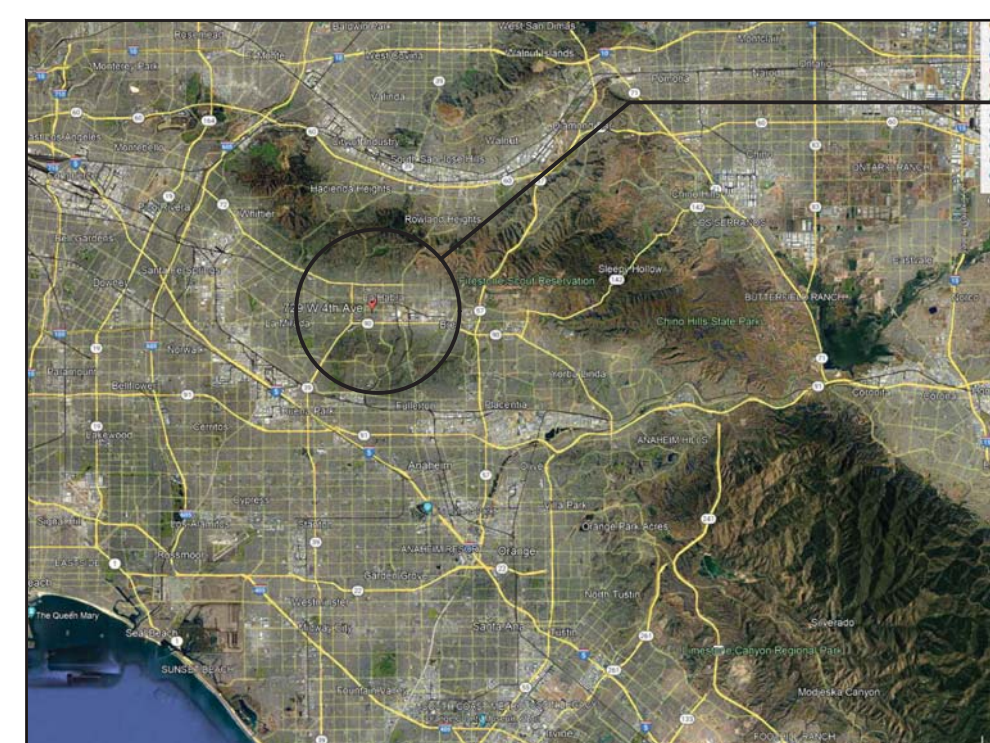
General Notes

- GENERAL** - of this work are hereby incorporated into and made part of the project plans and specifications; and their provisions shall be carried out by the Contractor. Additionally, all work shall be done in accordance with the applicable sections latest edition of the Standard Specifications for Public Works Construction, (Green Book), and the project's specifications, and the 2018 California Building, Plumbing, Mechanical, Electrical and Energy Code.
- HOLD HARMLESS AND INDEMNIFICATION CLAUSE** - The contractor agrees that he shall assume sole responsibility for job site conditions during the course of construction of this project, including the safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours, and that the contractor shall defend, indemnify, and hold that Landscape Architect harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the Landscape Architect.
- DAMAGE RESPONSIBILITY** - The contractor shall assume full responsibility for any damages imposed, intentionally or accidentally, to existing utilities, buildings, or other amenities, due to the actions of the contractors, contractor's employees and/or contractor's subcontractors.
- TRADE COORDINATION** - Construction and installation of all items within these documents shall require close coordination between trades involved in underground and utility installation, and tree location.
- DOCUMENTATION** - These drawings and notes are the property and copyright of Robert A. Garcia, Landscape Architect and shall not be used on any other work.
Written dimensions take preference over scaled dimensions and shall be verified on the job site and any discrepancy shall be brought to the attention of the Owner
- SITE DEBRIS** - The contractor shall keep the premises clean and free of excess equipment, materials and rubbish incidental to his work. All rubble, trash or disposal items resulting from demolition of construction be disposed of at a legal and lawful manner to an approved disposal site. All debris brought onto site shall also be removed by the same party. If debris remains on site for more than 48 hours, unless pre-approved by the city, such debris shall be removed by the property owner at the expense of the party mentioned above.
- LIEN RELEASES** - Unconditional lien releases for labor and material shall be provided by any contractor performing work on the project. Lien releases shall be delivered to the city prior to payment of work mentioned in release.
- FIELD OBSERVATION** - The contractor shall coordinate and verify all in-field layout, dimensioning of work, grades and elevations, and work schedules unless otherwise noted. The contractor shall carefully inspect the site and shall verify all conditions and dimensions prior to proceeding with any work under this contract. Any discrepancies in these documents shall be brought to the attention of the Owner. The contractor shall not willfully implement any work described in these documents which is obviously in error, interferes with existing site features, or cause project complication of harm.
- INSURANCE** - The contractor shall carry and provide written proof of workers compensation insurance for any and all parties of employees involved with his project, as well as provide general liability insurance mentioning the city, and Robert A Garcia, Landscape Architecture as additionally insured in writing prior to start of work as specifically detailed in the specifications.
- MUNICIPAL/COUNTY REQUIREMENTS** - The contractor shall obtain all permits necessary to carry out the scope of work. All permit fees will be paid directly by city. All work shall conform to the documents and related governing codes and/or ordinances. The contractor shall verify property owner a minimum of 2 working days in advance prior to any required inspection.
- SITE SECURITY** - The contractor shall at all times protect his work from damage and theft and replace all damaged or stolen parts at their expense until the work is accepted in writing by the city. Contractor is liable for all damage or injury caused by any work or storage of materials on site. The contractor shall install and maintain 5' height chain link fence with gated access around the entire park during the course of construction.
- EXISTING UTILITIES** - Extreme care shall be exercised in working near existing utilities. The contractor shall verify the location and condition of all utilities and be responsible for any damage. All damage to existing site features outside of the limit of work due to work performed by the contractor of any subcontractor shall be the responsibility of the contractor to reestablish in a timely manner.
- DRAWINGS OF RECORD** - The contractor shall maintain an approved set of plans to be located on the job site in a watertight container at all times. The contractor shall provide and keep up-to-date a complete record drawing noting locations, sizes and types of fixture and equipment. Prints for this purpose may be obtained from the city. The set of drawings shall be kept on the site and shall be used only as the record set. The drawings shall also serve as work progress sheets and the contractor shall make neat and legible annotations thereon as the work proceeds, showing the work as actually installed. These drawings shall be available at all times for inspections and shall be kept in a location designated by the owner. The contractor shall provide the owner with a set of AS-BUILT documents describing variations of enhancements to the original documentation.
- CHANGE ORDERS** - All substitutes and changes to the work described herein shall be submitted to the city in the form of a CHANGE ORDER for written approval.
- GUARANTEE** - Contractor shall provide a minimum 1 year guarantee of all work and materials.
- SUBCONTRACTORS DISCLOSURE** - The contractor shall furnish a listing of all subcontractors, material suppliers and consultants used on the project prior to commencement of work, and shall furnish lien releases of all labor and materials from him/herself, all named in listing and any additional parties not earlier listed. The contractor shall retain the services of only licensed, insured and bonded subcontractors as well as have these subcontractors provide proof of like insurance coverage as the general contractor.
- STORM WATER PROTECTION PLAN** - The contractor shall submit a Storm Water Protection Plan for review by the agency prior to construction. Contractor shall also pull all permits required by local agencies to carry out the storm water protection plan.



PROJECT SITE

LOCATION MAP



PROJECT SITE

VICINITY MAP



Sheet Index

Sheet No.	Sheet ID.	Title
1	T	Cover Sheet
2	LP.1	Planting Plan
3	LPD.1	Planting Details
4	LI.1	Irrigation Plan
5	LID.1	Irrigation Details
6	LID.2	Irrigation Details
7	LLC.1	Irrigation Legend and Calculations
8	LSA.1	Irrigation Schedule and Audit
9	LHZ.1	Hydrozone Plan
10	LSM.1	Soil Management Plan
11	LS.1	Specifications
12	LS.2	Specifications

CONSTRUCTION NOTES:
 1. THIS PROJECT WILL COMPLY WITH: 2022 CBC, CPC, AND 2022 CEC AND 2022 TITLE 24 ENERGY REGULATIONS AND ALL CITY ORDINANCES.
 2. THE HOUSE STREET NUMBER WILL BE VISIBL FROM THE STREET.
 3. THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL PARTICULATES, CONSTRUCTION WASTE MATERIALS, OR WASTE WATER GENERATED ON CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED CONVEYED OR DISCHARGED INTO THE STREET, GUTTER, OR STORM DRAIN SYSTEMS.

HOLD HARMLESS AND INDEMNIFICATION CLAUSE
 CONTRACTOR AGREES TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER/DEVELOPER, COUNTY OF LOCAL JURISDICTION AND THE LANDSCAPE ARCHITECT HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER/DEVELOPER, COUNTY OF LOCAL JURISDICTION, OR THE LANDSCAPE ARCHITECT.

REVISIONS	DATE:

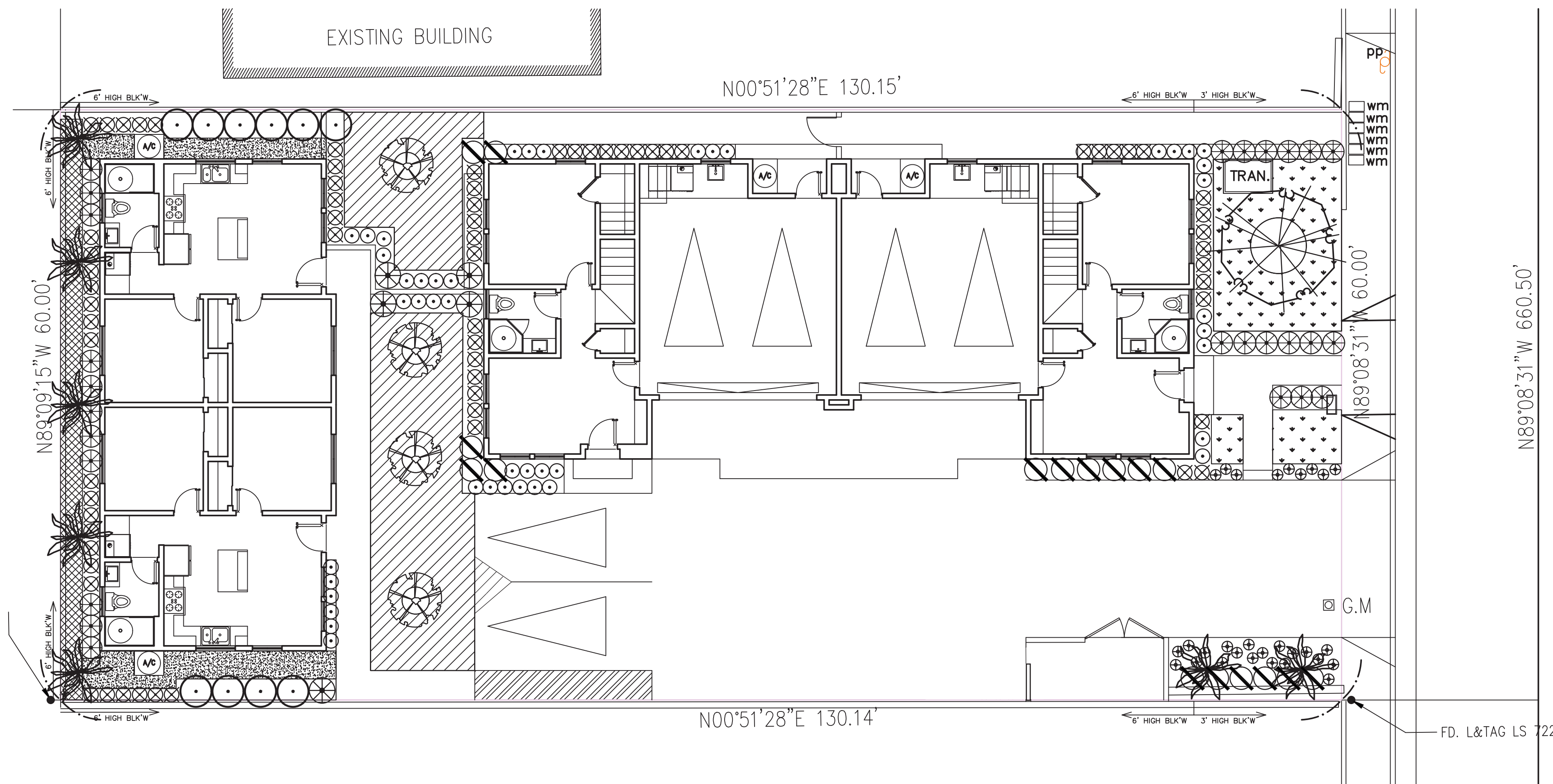


3-Story Duplex & Two 1-Story ADU's
 729 & 731 W. 4th Avenue
 La Habra, CA 90631

COVER SHEET

DATE:
8-22-2023
 DRAWN BY:
RAG
 JOB NO:
 SCALE:
PER PLAN

SHEET NO.
T
 1 OF 12 SHEETS



PLANT MATERIALS LIST

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QTY	
TREES				
	ARBUTUS MARINA, MULTI MARINA ARBUTUS	24" BOX	1	L/.3
	MAGNOLIA GRANDIFLORA 'LITTLE GEM' MARINA ARBUTUS	24" BOX	3	L/.3
	SYAGRUS ROMANZOFFIANA QUEEN PALM	15 GAL	7	M/.5
	LAURUS NOBILIS SWEETBAY LAUREL	15 GAL	10	L/.3
	SANSEVIERIA MOTHER IN LAW'S TONGUE	5 GAL	45	L/.3
	LEYMUS CONDENSAUS 'CANYON PRINCE' CANYON PRINCE WILD RYE	5 GAL	68	L/.3
	EUPHORBIA POLYCHROMA CUSHION SPURGE	5 GAL	26	L/.3
	ALOE SPP 'STRIATA' CORAL ALOE	5 GAL	5	L/.3
	JUNCUS PATENS CALIFORNIA GREY RUSH	1 GAL	29	L/.3
	LEUCADENDRON spp, HYBRIDS and cvs. SAFARI SUNSET CONEBUSH	5 GAL	17	L/.3
GROUNDCOVER (TO COVER 100% WITHIN 2 YEARS)				
	DYMONDIA MARGARETEA 'SILVER CARPET' DYMONDIA	FLATS @ 6" O.C.	515 S.F.	L/.3
	TRACHELOSPERMUM MULTIFLORUM STAR JASMINE	FLATS @ 12" O.C.	135 S.F.	L/.3
	UC VERDE BUFFALO GRASS	SOD	255 S.F.	L/.3

REVISIONS	DATE:

Underground Service Alert

 Call: TOLL FREE
 1-800-422-4133
 TWO WORKING DAYS BEFORE YOU DIG



3-Story Duplex & Two 1-Story ADU's
 729 & 731 W. 4th Avenue
 La Habra, CA 90631

PLANTING PLAN

HOLD HARMLESS AND INDEMNIFICATION CLAUSE
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 4. ALL EXISTING LANDSCAPE AND HARDSCAPE WILL BE REMOVED FROM THE BACK YARD AS DESCRIBED IN THE CALLOUTS. EXISTING ELEMENTS TO BE PROTECTED IN PLACE ARE IDENTIFIED IN THE CALLOUTS.



DATE:
8-22-2023
 DRAWN BY:
RAG
 JOB NO:
 SCALE:
PER PLAN

SHEET NO.
LP.1
 2 OF 12 SHEETS

PLANTING NOTES

1. ALL WORK PERFORMED SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE JURISDICTIONS. CONTRACTORS SHALL OBTAIN ALL NECESSARY PERMITS, INSPECTIONS AND APPROVAL REQUIRED FOR THIS WORK.
2. FINISH GRADES SHALL BE WITHIN TWO (2) INCHES BELOW CURB AND/OR PAVING GRADE IN SHRUB AREA, AND ONE (1) INCH BELOW CURB AND/OR PAVING GRADE IN LAWN AREAS.
3. ALL TREE DELIVERIES MUST BE COORDINATED WITH THE GENERAL CONTRACTOR.
4. ALL TREE LOCATIONS ARE TO BE REVIEWED AND APPROVED BY THE OWNERS AND THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
5. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATIONS OF UNDERGROUND UTILITY LINES IN THE FIELD PRIOR TO ANY EXCAVATION. REQUEST APPROVAL FROM THE OWNER AND THE LANDSCAPE ARCHITECT FOR ANY DEVIATION IN PLANT MATERIAL LOCATIONS.
6. ALL PLANTINGS PLANS ARE DIAGRAMMATIC, AND THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ENSURE THAT THE ROOTBALLS OF NEW AND EXISTING TREES ARE NOT DISTURBED.
7. ALL VINES AND ESPALIERS ARE TO BE REMOVED FROM STAKES OR TRELLISES AND ATTACHED TO WALLS WITH APPROVED DEVICES.
8. ALL GROUND COVERS SHALL EXTEND BENEATH ALL PLANT MATERIAL.
9. ALL ON-CENTER SPACINGS FOR SHRUB AND GROUND COVERS ARE TRIANGULAR SPACINGS. (SEE DETAIL).

SOIL TESTING REQUIREMENTS

SOIL TESTING FOR AGRICULTURAL SUITABILITY IS REQUIRED FOR ALL LANDSCAPE AREAS. REFER TO SPECIFICATIONS PART 3-30 SOIL PREPARATION AND FINISH GRADING, 3.03 SOIL AMENDMENTS. TEST RESULTS SHALL BE SUBMITTED TO THE CITY BEFORE DELIVERY OF SOIL AMENDMENTS.

NOTES:

1. THE CONTRACTOR SHALL SUBMIT A SOIL SAMPLE FORM AND 3 SOIL SAMPLES PRIOR TO START OF CONSTRUCTION FOR TESTING OF EXISTING SOIL NUTRIENTS AND SOIL SUITABILITY (SEE A AND B THIS SHEET).
2. THE CONTRACTOR, AFTER GRADING SHALL AGAIN SUBMIT A SOIL SAMPLE FORM AND 3 SAMPLES OF THE POTENTIAL IMPORT TOPSOIL FOR TESTING FOR HORTICULTURAL SUITABILITY, FERTILITY AND PHYSICAL CHARACTERISTICS. (SEE A AND C THIS SHEET)
3. THE CONTRACTOR SHALL REFER TO SHEET 12, SPECIFICATIONS 3.2, PART 3-SOIL PREPARATION AND FINISH GRADING, 3.03 SOIL AMENDMENT AND 3.04 SOIL PREPARATION, WAYPOINT ANALYTICAL (FORMALY SOIL & PLANT LABORATORY, INC.)

SOIL PREPARATION & BACKFILL MIX SPECIFICATIONS

THE FOLLOWING SPECIFICATIONS ARE TO BE USED FOR COST ALLOWANCES ONLY. FINAL SOIL PREPARATION AND BACKFILL MIX REQUIREMENTS TO BE BASED ON RESULTS OF REQUIRED SOIL TESTS. (REFER TO SPECIFICATIONS PLANTING SPECIFICATIONS 3.03 AND 3.04)

SOIL PREPARATION: (PER 1000 SQUARE FEET)

ALLOW FOR A MINIMUM OF 4 CUBIC YARDS/1000 SQUARE FEET NITROGEN STABILIZED ORGANIC AMENDMENT (AS SPECIFIED IN SECTION 02821, PAR 2.01)

ALLOW FOR A MINIMUM OF 200#/1000 SQUARE FEET 'GRO-POWER PLUS' WITH 4% SULFUR

BROADCAST UNIFORMLY AND ROTOTILL INTO UPPER FOUR (4) TO SIX (6) INCHES OF SOIL.

MODEL BACKFILL MIX FOR TREES AND SHRUBS. (PER CUBIC YARD)

4 PARTS BY VOLUME NITROGEN STABILIZED ORGANIC AMENDMENT

6 PARTS BY VOLUME SITE SOIL

18# 'GRO-POWER PLUS' WITH 4% SULFUR PER CUBIC YARD OF MIX

APPLICATION RATE TABLE

GRO-POWER 7 GRAM PLANTING TABLETS, 12-8-8 WITH 20% HUMUS AND 4% HUMIC ACID

PLANT SIZE:

1 GALLON - 2 TABLETS

2 GALLON - 3 TABLETS

5 GALLON - 6 TABLETS

15 GALLON - 12 TABLETS

20"-24" BOX - 15 TABLETS

SPECIMEN TREES & SHRUBS - 4 TABLETS FOR EVERY INCH OF CALIPER

NOTE: PLACE TABLET(S) NO HIGHER THAN 1/3 OF THE WAY UP ON THE ROOTBALL SPACED EQUALLY AROUND THE PERIMETER OF THE ROOTBALL APPROXIMATELY 2" FROM THE ROOT TIPS

FINISH GRADING

1. FINISH GRADING SHALL CONSIST OF FINISHING SURFACES BY RAKING SMOOTHLY AND EVENLY, AND REMOVING AND OFF SITE DISPOSAL OF ALL EXTRANEOUS MATTER TO FACILITATE NATURAL RUN-OFF OF WATER.
2. FINISH GRADES SHALL ALLOW FOR THE LATER ADDITION OF SOIL AMENDMENTS AND TAKE INTO ACCOUNT THE DISPLACEMENT OF EXISTING SOIL BY CONTAINER PLANTING. IF NECESSARY, EXISTING SOIL SHALL BE REMOVED IN ORDER TO ACHIEVE THE FOLLOWING FINAL GRADES.
 - A. SHRUB AND GROUNDCOVERS AREAS: TWO (2) INCHES BELOW THE GRADE OF ADJACENT PAVEMENT, WALKS, CURBS, OR HEADERS.
 - B. LAWN AREAS: ONE (1) INCH BELOW THE GRADE OR ADJACENT PAVEMENT, WALKS, CURBS, OR HEADERS.
3. SOIL AREAS ADJACENT TO BUILDINGS, PAVING AND WATER FEATURES SHALL SLOPE AWAY FROM THE STRUCTURE TO ALLOW A NATURAL RUN-OFF OF WATER, AND SURFACE DRAINAGE SHALL BE DIRECTED AS INDICATED ON THE DRAWINGS BY REMODELING SURFACES TO FACILITATE THE NATURAL RUN-OFF WATER. LOW SPOTS AND POCKETS SHALL BE GRADED TO DRAIN PROPERLY.
4. CONTRACTOR IS TO FINISH GRADE WITH PROPER SLOPE TO DRAINS. ALL FLOW LINES, DESIGNATED OR NOT, SHALL BE GRADED AND MAINTAINED TO ALLOW FREE FLOW OF SURFACE WATER, AND SHALL CONFORM TO THE INTENT OF ALL PLANS AND SECTIONS AFTER THOROUGH SETTLEMENT AND COMPACTION OF SOIL.

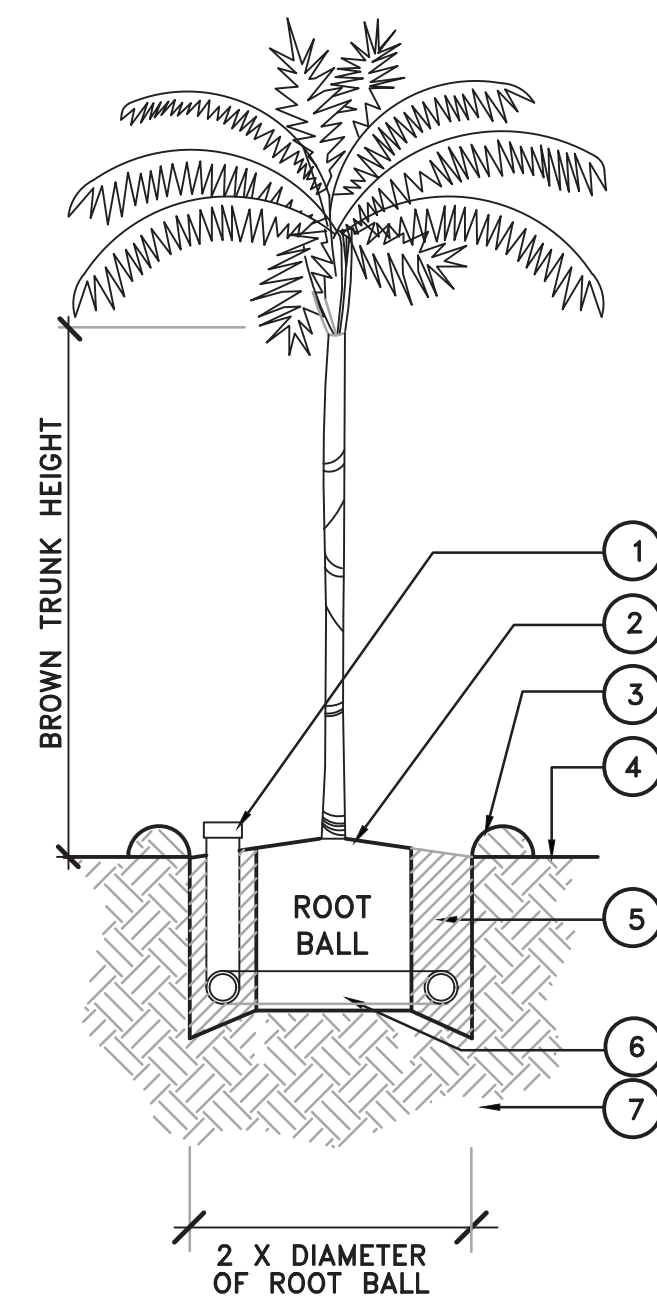
FINE GRADING

1. ALL SOIL AREAS SHALL BE COMPACTED AND SETTLED BY APPLICATION OF IRRIGATION TO A MINIMUM DEPTH OF TWELVE (12) INCHES PRIOR TO PLANTING.
2. AFTER THE FOREGOING DEEP WATERING MINOR MODIFICATIONS TO GRADE MAY BE REQUIRED TO ESTABLISH THE FINAL GRADE. THESE AREAS SHALL NOT BE WORKED UNTIL THE MOISTURE CONTENT HAS BEEN REDUCED TO A POINT WHERE WORKING IT WILL NOT DESTROY THE SOIL STRUCTURE.
3. ALL PLANTING AREAS SHALL BE FINE GRADED TO A SMOOTH, EVEN, AND UNIFORM PLANE WITH NO ABRUPT CHANGE OF SURFACE.

PROTECTION OF EXISTING SPECIMEN TREES

1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXISTING SPECIMEN TREES THAT ARE TO REMAIN IN THE PROJECT, AND SHALL TAKE ALL NECESSARY PRECAUTIONS REQUIRED TO ASSURE THAT THEY ARE PROTECTED FROM DAMAGE BY WORKERS AND EQUIPMENT.
2. WHERE IT IS NECESSARY TO EXCAVATE IN CLOSE PROXIMITY TO EXISTING SPECIMEN TREES, ALL POSSIBLE CAUTION SHALL BE EXERCISED TO AVOID INJURY TO ROOTS, LIMBS AND TRUNK. EXCAVATION CLOSE TO TREES SHALL BE BY HAND. TUNNELING UNDER ROOTS TWO (2) INCHES AND LARGER SHALL BE ALLOWED ONLY AFTER DISCUSSION WITH AND APPROVAL BY THE CERTIFIED CONSULTING ARBORIST.
3. EXCAVATION IN THE VICINITY OF TREES SHALL BE CLOSED WITHIN 24 HOURS. WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE EXCAVATION ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH MOIST BURLAP OR CANVAS.
4. THE CONTRACTOR SHALL INSURE THAT NO FOREIGN MATERIAL AND/OR LIQUID, SUCH AS PAINT, CONCRETE, CEMENT, OIL, TURPENTINE, ACID OR THE LIKE, BE ALLOWED TO CONTAMINATE ANY SOIL WITHIN THE DRIFLINE (I.E., THE OUTSIDE EDGE OF FOLIAGE OVERHANG) OF ANY TREE. IF SUCH CONTAMINATION SHOULD OCCUR, THE CONTRACTOR SHALL REMOVE SOIL AS DIRECTED BY THE CERTIFIED CONSULTING ARBORIST AND REPLACE IT WITH ACCEPTABLE SOIL AT NO EXPENSES TO THE OWNER.
5. ALL DAMAGE TO EXISTING SPECIMEN TREES SHALL BE REPAIRED AT THE GENERAL CONTRACTOR'S EXPENSE BY A LICENSED TREE SURGEON OR OTHER APPROVED PERSONNEL AS APPROVED BY THE CERTIFIED CONSULTING ARBORIST.
6. THE EXISTING IRRIGATION SYSTEM AT ALL EXISTING SPECIMEN TREES SHALL BE MAINTAINED IN WORKING ORDER FOR THE DURATION OF CONSTRUCTION. ANY DAMAGE TO THE EXISTING IRRIGATION SYSTEM SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSES TO THE OWNER.

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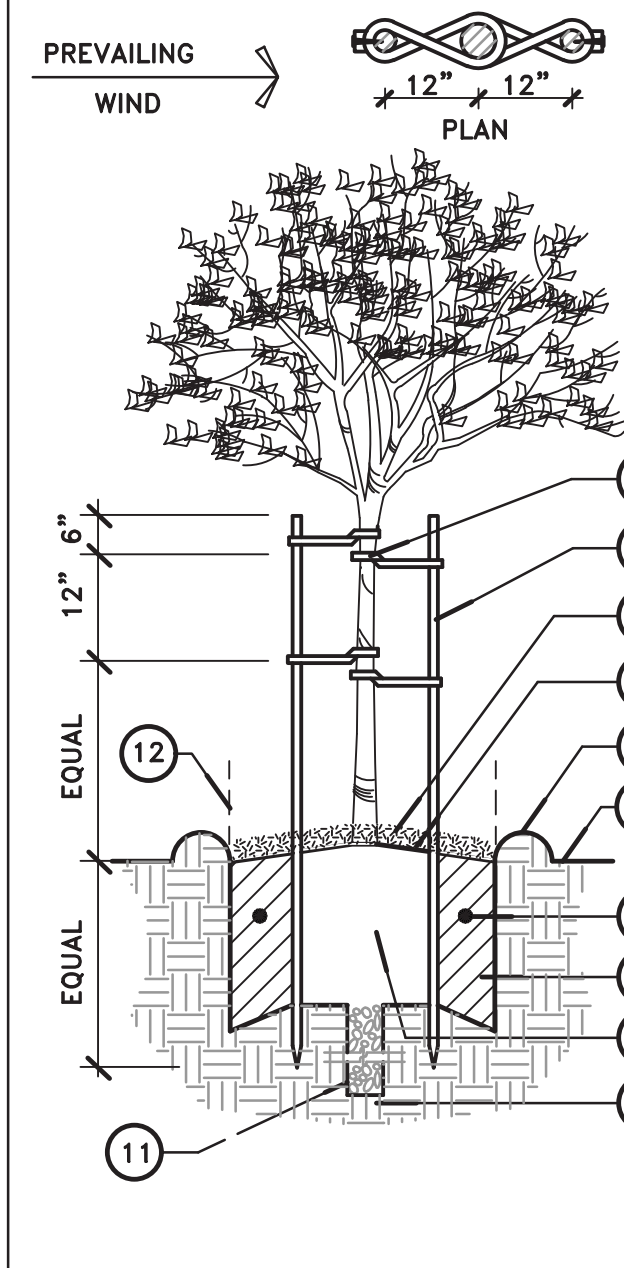


- LEGEND**
- 1 4" DIAMETER VERTICAL PERFORATED DRAIN PIPE. CONNECT TO PIPE AT BASE OF PIT AND CAP AT SURFACE. WRAP PIPE WITH FILTER FABRIC.
 - 2 TOP OF ROOT BALL TO BE 1" ABOVE FINISH GRADE.
 - 3 3 INCH HIGH WATERING BASIN
 - 4 FINISH GRADE
 - 5 MEDIUM GRADE PLASTER SAND BACKFILL, WATER JETTED INTO HOLE FOR MAXIMUM STABILITY.
 - 6 4 INCH DIAMETER FLEXIBLE PERFORATED DRAIN PIPE ENCIRCLING BASE OF PLANTING PIT. CONNECT TO VERTICAL PIPE. WRAP PIPE WITH FILTER FABRIC.
 - 7 NATIVE SUBGRADE

NOTE:
 1. ALL PALM TREES ARE TO BE BOXED (UNLESS OTHERWISE NOTED ON PLAN). CONTRACTOR SHALL HAVE A SOIL AGRONOMIST PREPARE A DETAILED SOIL ANALYSIS AT TREE PLANTING LOCATIONS AND INSTALL ALL PALMS FOLLOWING THE RECOMMENDATIONS OF THE REPORT.
 2. APPLY "OSMOCOTE" SLOW-RELEASE FERTILIZER ON SURFACE OF PLANTING PIT PER MANUFACTURER'S DIRECTION.

G PALM TREE PLANTING

NOT TO SCALE

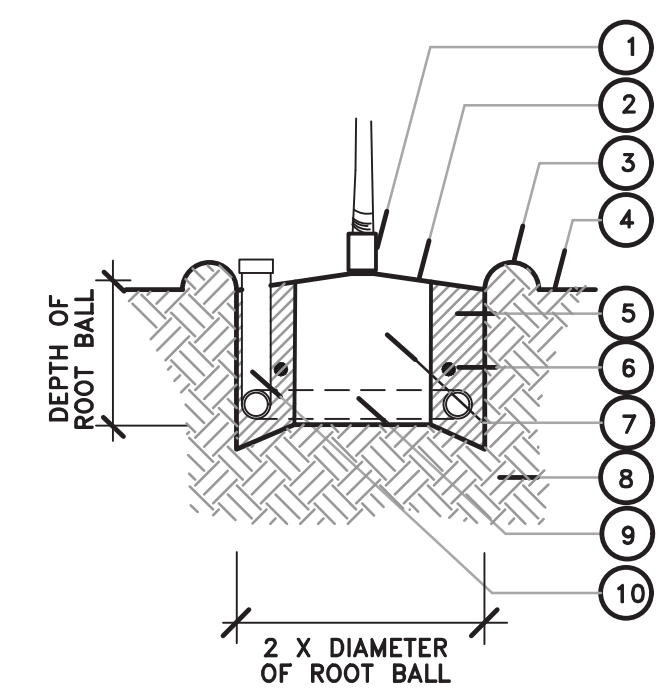


1. 'CINCH-TIE' BY V.I.T. CO. (619) 673-1760
2. LODGEPOLE PINE STAKE COPPER NAPHTHENATE IMPREGNATED, 2-1/2" DIA. x 12" LONG FOR 24" BOX AND SMALLER.
3. 2" LAYER OF MULCH
4. TOP OF ROOT BALL TO BE 1" ABOVE FINISH GRADE
5. 3" HIGH WATER BASIN SEE SPECS
6. FINISH GRADE
7. PLANTING TABLET - SEE SCHEDULE FOR QTY.
8. BACKFILL MIX - SEE SOILS REPORT
9. ROOTBALL
10. NATIVE SUBGRADE
11. SUMP - REFER TO DETAIL
12. END OF TURF

NOTE:
 1. MIN. TWO TIES (TOP & BOTTOM) REQUIRED. USE THIRD TIE WHEN NECESSARY TO HOLD TREE IN UPRIGHT POSITION. TIES TO BE SECURED TO AVOID SLIPPAGE (WRAP STAKE TO FORM FIGURE EIGHT, NAIL W/ (1) GALV. NAIL THROUGH EACH TIE INTO POLE.
 2. SEE DETAIL H, THIS SHEET FOR TREE DRAINAGE.

FOR 24" AND 36" BOX TREES

D TREE PLANTING



- 1 (1) 8" 'ARBOR GUARD' FOR EACH TREE IN TURF BY DEEP ROOT CORP. (714) 898-0563.
- 2 TOP OF ROOT BALL TO BE 1" ABOVE FINISH GRADE.
- 3 3" HIGH WATER BASIN
- 4 FINISH GRADE
- 5 BACKFILL MIX - SEE SOILS REPORT.
- 6 PLANTING TABLET - SEE SCHEDULE FOR QTY.
- 7 ROOTBALL
- 8 NATIVE SUBGRADE
- 9 4" DIA. FLEXIBLE PERFORATED DRAIN PIPE ENCIRCLING BASE OF PLANTING PIT. CONNECT TO VERTICAL PIPE. SURROUND PIPE WITH FILTER FABRIC.
- 10 4" DIA. VERTICAL PERFORATED DRAIN PIPE. CONNECT TO PIPE AT BASE OF PIT AND CAP AT SURFACE. SURROUND PIPE WITH FILTER FABRIC.

E TREE PLANTING W/DRAINAGE

PLANTING TABLET SCHEDULE

GRO-POWER PLANTING TABLETS FOR CONTAINER-GROWN PLANTS		
1 GALLON	CONTAINER RECEIVES	. . . . . 2-3 TABLETS
3 GALLON	CONTAINER RECEIVES	. . . . . 3-6 TABLETS
5 GALLON	CONTAINER RECEIVES	. . . . . 6-9 TABLETS
7 GALLON	CONTAINER RECEIVES	. . . . . 8-10 TABLETS
10 GALLON	CONTAINER RECEIVES	. . . . . 10-12 TABLETS
15 GALLON	CONTAINER RECEIVES	. . . . . 12-15 TABLETS
20"-24" BOX	RECEIVES	. . . . . 14-16 TABLETS
30" BOX	RECEIVES	. . . . . 16-18 TABLETS
36" BOX	RECEIVES	. . . . . 18-20 TABLETS
42" BOX	RECEIVES	. . . . . 20-22 TABLETS
48" BOX	RECEIVES	. . . . . 22-24 TABLETS
60" BOX	RECEIVES	. . . . . 32-36 TABLETS
LARGER SIZES: FOR EACH 1/2" CALIPER USE: 3-4 TABLETS		

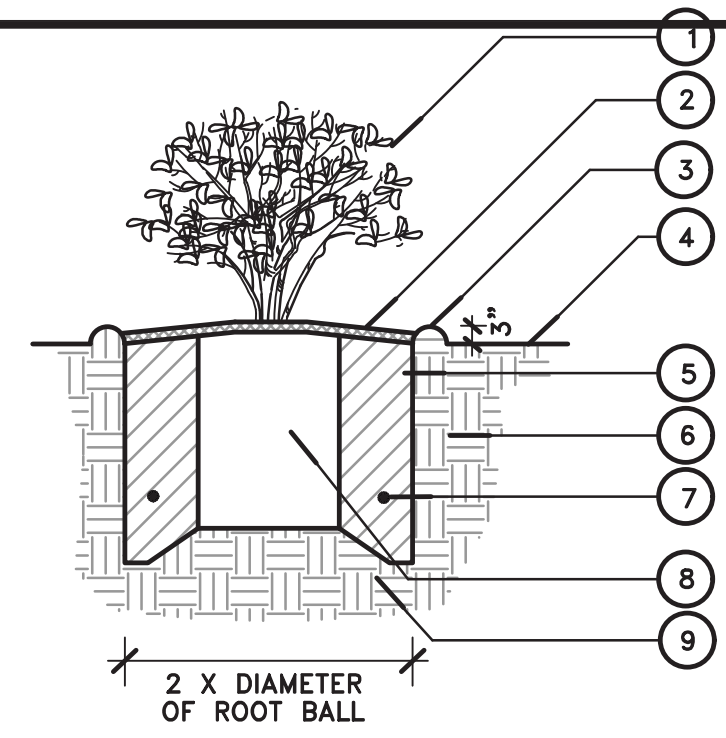
SOD LAWN

SOD LAWN SHALL BE MARATHON II" TURF TYPE TALL FESCUE. AVAILABLE FROM SOUTHLAND SOD FARMS (805) 488-3585.

SOILS REPORT

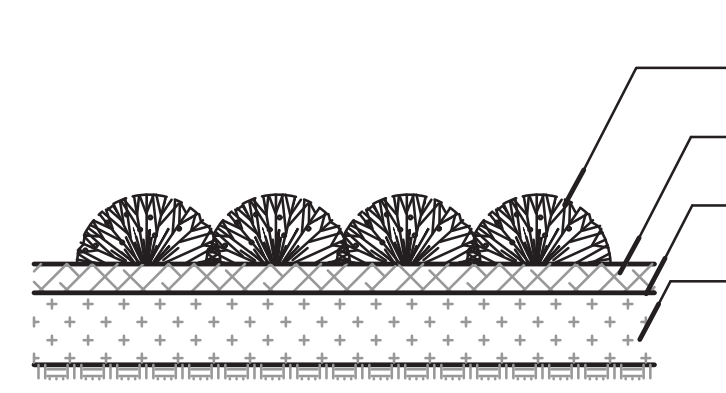
AT THE CONCLUSION OF ROUGH GRADING AN AGRONOMIC SOILS REPORT SHALL BE PREPARED BY THE OWNER AND FURNISHED TO THE CONTRACTOR, AND ALL RECOMMENDATIONS FROM SUCH REPORT SHALL BE INCORPORATED BY THE CONTRACTOR INTO INSTALLATION OF ALL PLANTING AREAS.

F



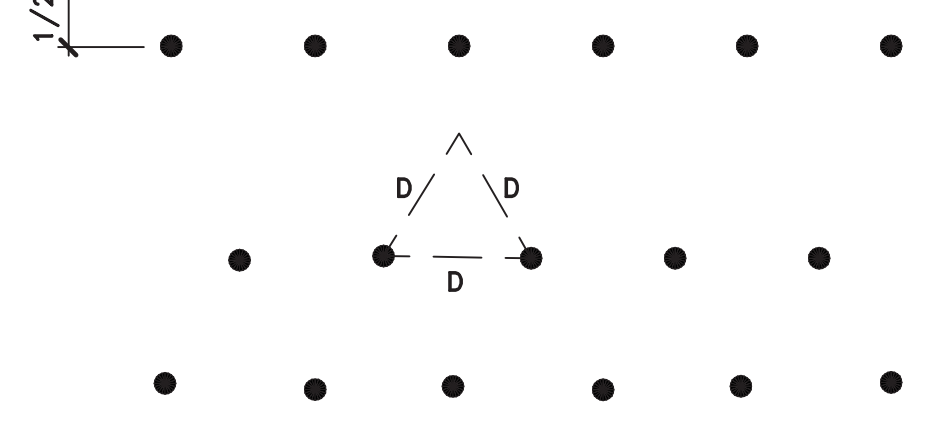
1. 1, 5, OR 15 GALLON SHRUB
2. 2" LAYER OF MULCH
3. 3" WATER BASIN
4. FINISH GRADE
5. AMENDED SOIL FOR PLANTING - SEE SOILS REPORT
6. PLANT PIT EXCAVATION
7. PLANTING TABLETS - SEE SCHEDULE FOR QTY.
8. ROOTBALL
9. NATIVE SUBGRADE

A SHRUB PLANTING



1. GROUND COVER PLANT FROM FLATS OR LINERS
2. 2" DEEP MULCH
3. FINISH GRADE
4. PREPARED BACKFILL (SEE SPECIFICATIONS FOR TYPE AND DEPTH.)

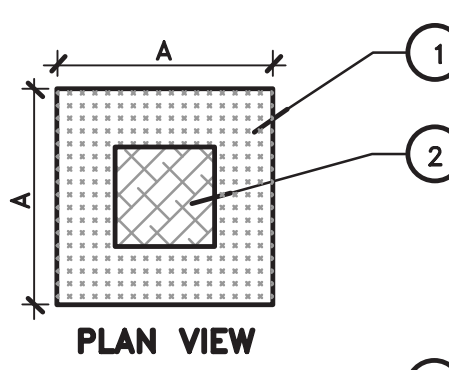
EDGE OF PAVING, SIDEWALK, WALL, OR CURB



NOTE: LOCATE PLANTS SPACED EQUAL DISTANCE (D) FROM EACH OTHER AS SHOWN. D - AS NOTED ON PLAN.

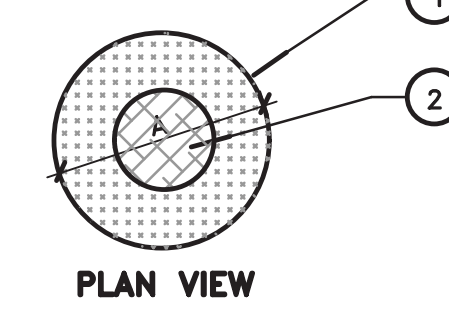
B GROUNDCOVER PLANTING

CONTAINER SIZE	A WIDTH	B DEPTH
1 GALLON	12"	12"
5 GALLON	26"	22"
15 GALLON	36"	24"
24" BOX	48"	28"
30" BOX	54"	33"
36" BOX	66"	44"
48" BOX	84"	60"



FOR BOX TREES

1. PLANT PIT TO BE SQUARE - SEE ABOVE FOR DIMENSIONS.
2. ROOTBALL



FOR CONTAINER PLANTS

1. PLANT PIT TO BE ROUND. - SEE ABOVE FOR DIMENSIONS.
2. ROOTBALL

C PLANT PIT DIMENSION

REVISIONS	DATE:

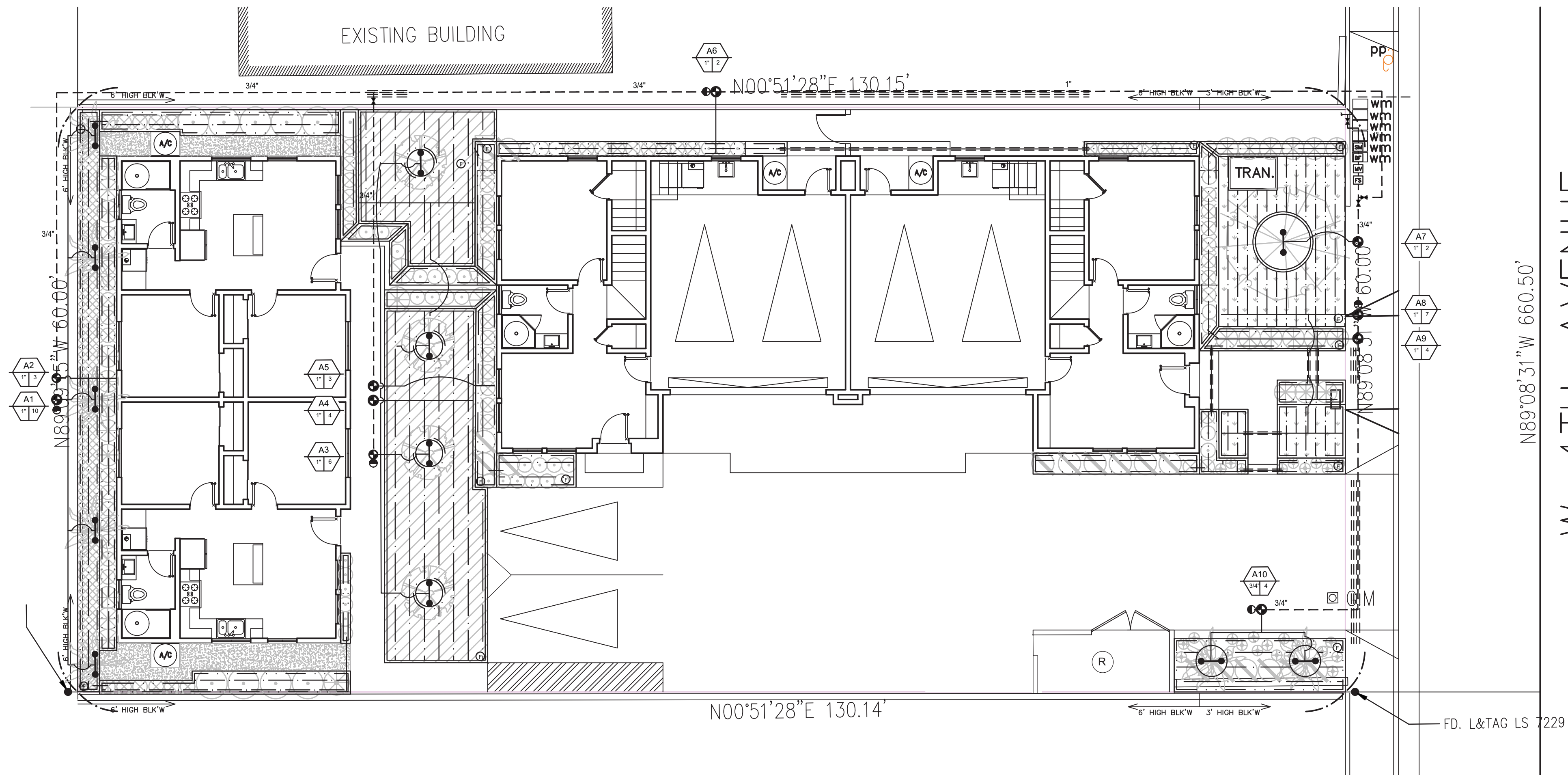
Underground Service Alert
 Call: TOLL FREE
 1-800-422-4133
 TWO WORKING DAYS BEFORE YOU DIG



3-Story Duplex & Two 1-Story ADU's
 729 & 731 W. 4th Avenue
 La Habra, CA 90631

PLANTING DETAILS

DATE: 8-22-2023
DRAWN BY: RAG
JOB NO:
SCALE: PER PLAN



IRRIGATION NOTES:

- The Irrigation contractor shall obtain a copy of the latest edition of the "Rules and Regulations for Potable Water Service". These rules and regulations are incorporated into and made a part of the irrigation specifications, and their provisions shall be carried out by the contractor.
- Anything contained in the irrigation specifications shall not be construed to conflict with any of the Rules and Regulations or requirements of the same. Irrigation specifications and drawings call for described materials and workmanship, however alternative material and special identification may be used when approved.
- The Irrigation Plan is diagrammatic. All irrigation equipment shown within paved areas is for design clarification only and shall be installed in planting areas only.
- Do not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that obstructions, grade differences or differences in the area dimensions exist. Such obstructions or differences should be notified. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.
- The irrigation system design is based on the minimum operating pressure and the maximum flow demand shown on the irrigation drawings at each point of connection. The irrigation contractor shall verify water pressure prior to construction. Report any difference between the water pressure indicated on the drawings and the actual pressure reading at the irrigation point of connection. In the event pressure differences are not reported prior to the start of construction, the irrigation contractor shall assume full responsibility for any revisions necessary.
- Automatic controllers shall be of the size and type indicated on the plans and installed where shown. Control wires shall be sleeved in electrical conduit to the mainline. Electrical service to the controller shall be provided by others. It shall be the responsibility of the irrigation contractor to make the final hook-up from the electrical outlet to the automatic controller.
- All controller wire shall be AWG-UF direct burial type, and all splices and connections shall be made with 3M DBY connectors or approved equal. All wire shall be installed with two feet of extra wire coiled at the end of each wire run.
- Irrigation equipment, including backflow prevention device, shall be installed at the approximate location indicated on the Plan and approved prior to installation. Installation shall conform to all codes, regulations and manufacturers' specifications.
- All valves (remote control, ball, quick coupler) shall be installed in a precast valve box with tan locking lid (manufactured by Brooks, Rain Bird or equal). The lids shall be embossed with 2-inch high initials designating the contents of the valve box (i.e., RVC, BV, QCV, etc.).
- All mainline, lateral lines and irrigation wire shall be installed in SCH 40 PVC pipe sleeving where they pass under dirt roads and paved areas. Mainlines and lateral lines shall be sleeved in SCH 40 PVC pipe twice the diameter of the working line. Irrigation control wire shall be sleeved in SCH 40 PVC pipe 1-inch diameter per ten strand direct burial wire.
- Irrigation contractor shall guarantee the entire irrigation system to be free of defects in workmanship and materials before final acceptance.
 - All risers shall be SCH 40 PVC pipe.
 - All pipe fittings shall be PVC SCH 40, except as noted in Details.
 - Use Teflon tape or Teflon pipe dope on all PVC male pipe threads on all sprinkler swing joint valves and on all riser threads.
- All pressure mainlines shall be buried 24-36-inches deep, and all non-pressure laterals 12 inches deep. Trench backfill shall be free of any material that may damage irrigation pipe or equipment. In the event of backfill settlement, contractor shall perform required repairs at his own cost.
- The contractor shall not allow or cause any of his work to be covered until it has been inspected, tested and approved.
- Prior to backfilling irrigation trenches: All mainlines in the system shall be capped and pressure tested at 150 psi for a period of two hours. Any leaks found shall be corrected by removing the leaking pipe or fittings and installing new material in its place.
- When the irrigation system is completed, the contractor shall perform a coverage test to ensure complete and adequate coverage of the planting areas. The contractor shall furnish all materials and perform all work required to correct inadequacies of coverage at his own cost.

PIPE SIZE LEGEND

0-7 GPM	3/4" MIN.	31-50 GPM	2"
8-12 GPM	1"	51-70 GPM	2-1/2"
12-22 GPM	1-1/4"	71-100 GPM	3"
23-30 GPM	1-1/2"		

1/2" PIPE IS NOT ALLOWED. MINIMUM SIZE PIPE TO BE 3/4".

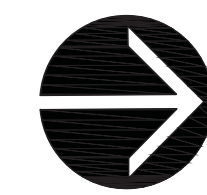
IRRIGATION PLANS ARE DESIGNED AS DIAGRAMMATIC AND APPROXIMATE. ALL IRRIGATION EQUIPMENT, SPRINKLERS AND PIPE ARE TO BE INSTALLED IN LANDSCAPED AREA ONLY. NO IRRIGATION EQUIPMENT SHALL BE LOCATED IN THE HARDSCAPE. THE IRRIGATION CONTRACTOR SHALL ENSURE THERE IS NO OVERSPRAY ONTO HARDSCAPE, STREETS, WALLS OR ANY OTHER HARDSCAPE / STRUCTURE.

HOLD HARMLESS AND INDEMNIFICATION CLAUSE

CONTRACTOR AGREES TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER/DEVELOPER, COUNTY OF LOCAL JURISDICTION AND THE LANDSCAPE ARCHITECT HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER/DEVELOPER, COUNTY OF LOCAL JURISDICTION, OR THE LANDSCAPE ARCHITECT.

CONSTRUCTION NOTES:

- THIS PROJECT WILL COMPLY WITH: 2022 CBC, CMC, CPC, AND 2022 CEC AND 2022 TITLE 24 ENERGY REGULATIONS AND ALL CITY ORDINANCES.
- THE HOUSE STREET NUMBER WILL BE VISIBLE FROM THE STREET.
- THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL PARTICULATES, CONSTRUCTION WASTE MATERIALS OR WASTE WATER GENERATED ON CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED CONVEYED OR DISCHARGED INTO THE STREET, GUTTER, OR STORM DRAIN SYSTEMS.
- ALL EXISTING LANDSCAPE AND HARDSCAPE WILL BE REMOVED FROM THE BACK YARD AS DESCRIBED IN THE CALLOUTS. EXISTING ELEMENTS TO BE PROTECTED IN PLACE ARE IDENTIFIED IN THE CALLOUTS.



NORTH
SCALE: 3/32" = 1'-0"

REVISIONS	DATE:

Underground Service Alert
Call: TOLL FREE
1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG



3-Story Duplex & Two 1-Story ADU's
729 & 731 W. 4th Avenue
La Habra, CA 90631

IRRIGATION PLAN

DATE:	8-22-2023
DRAWN BY:	RAG
JOB NO:	
SCALE:	PER PLAN

SHEET NO.
LI.1
4 OF 12 SHEETS

REVISIONS	DATE:

Underground Service Alert
 Call: TOLL FREE
 1-800-422-4133
 TWO WORKING DAYS BEFORE YOU DIG

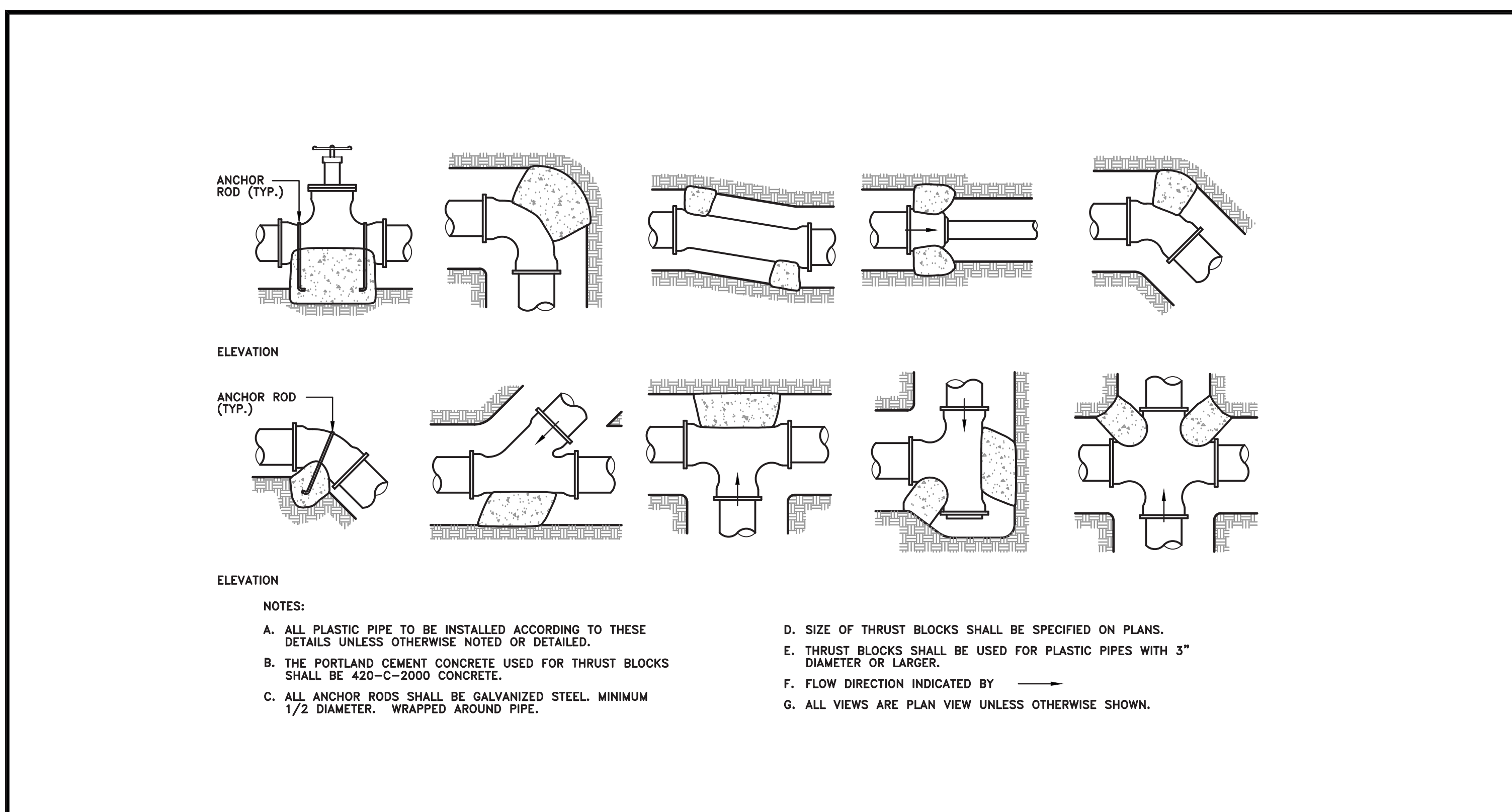


3-Story Duplex & Two 1-Story ADU's
 729 & 731 W. 4th Avenue
 La Habra, CA 90631

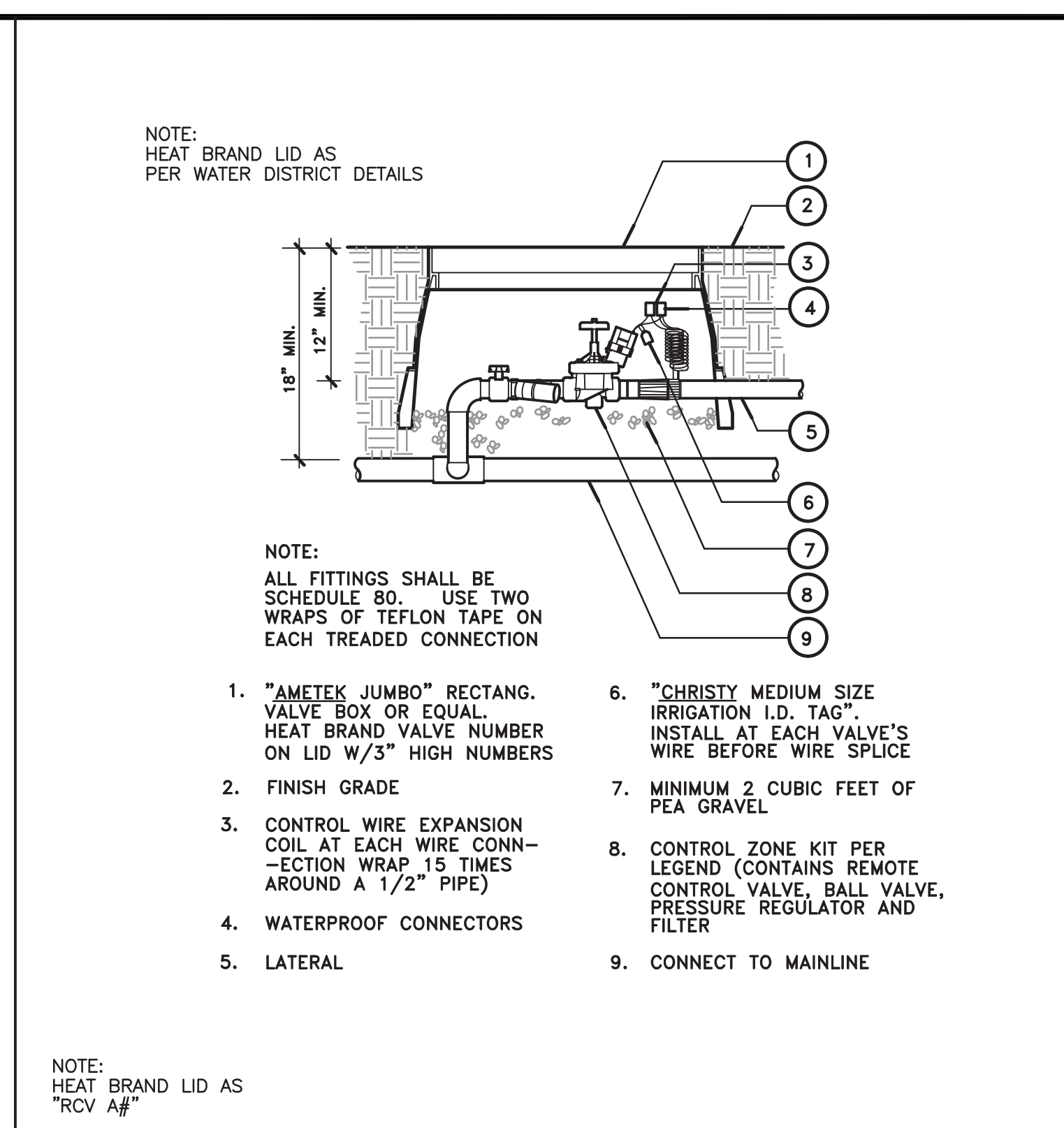
IRRIGATION DETAILS

DATE:	8-22-2023
DRAWN BY:	RAG
JOB NO:	
SCALE:	PER PLAN

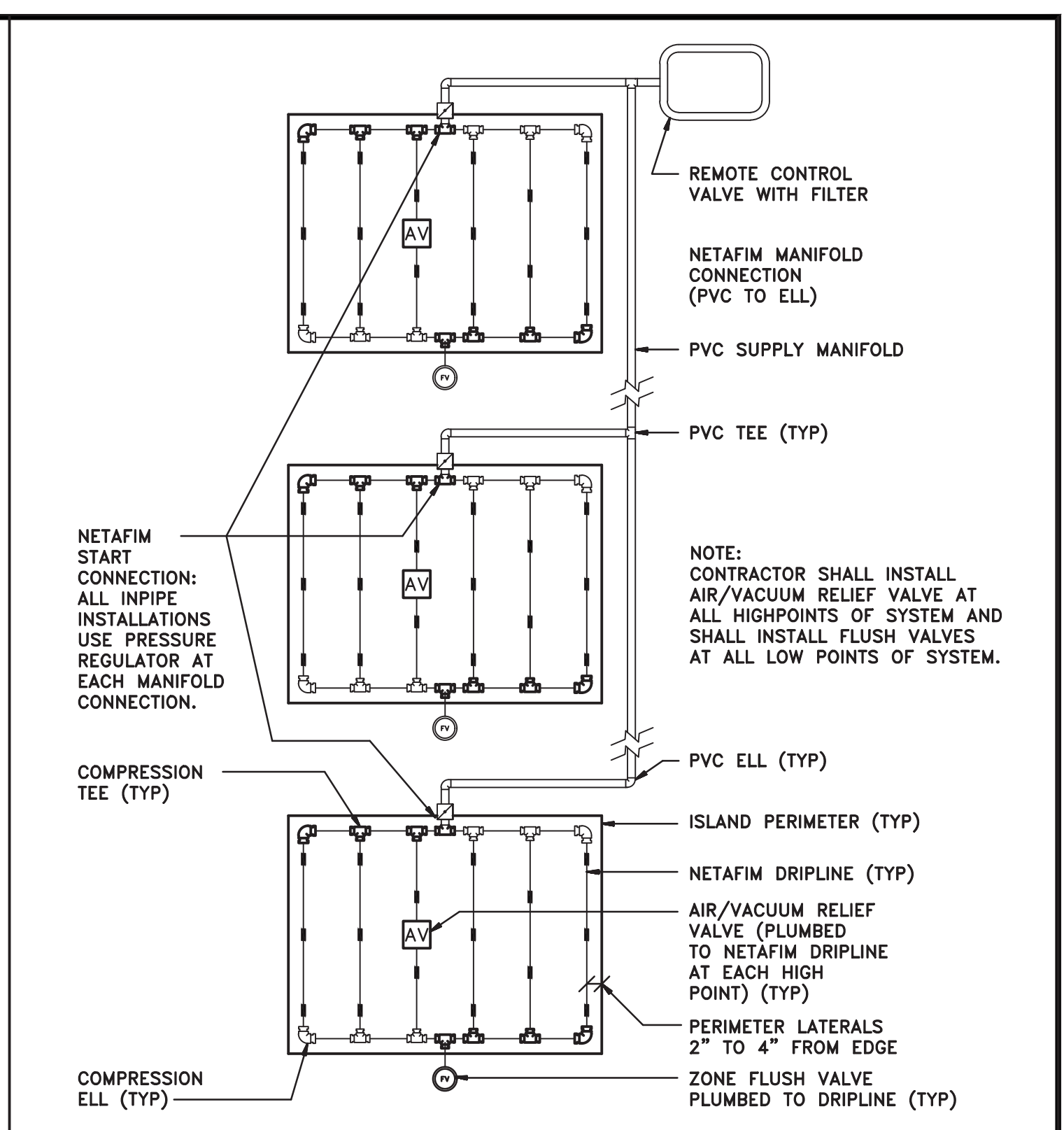
SHEET NO.
LID.1
 5 OF 12 SHEETS



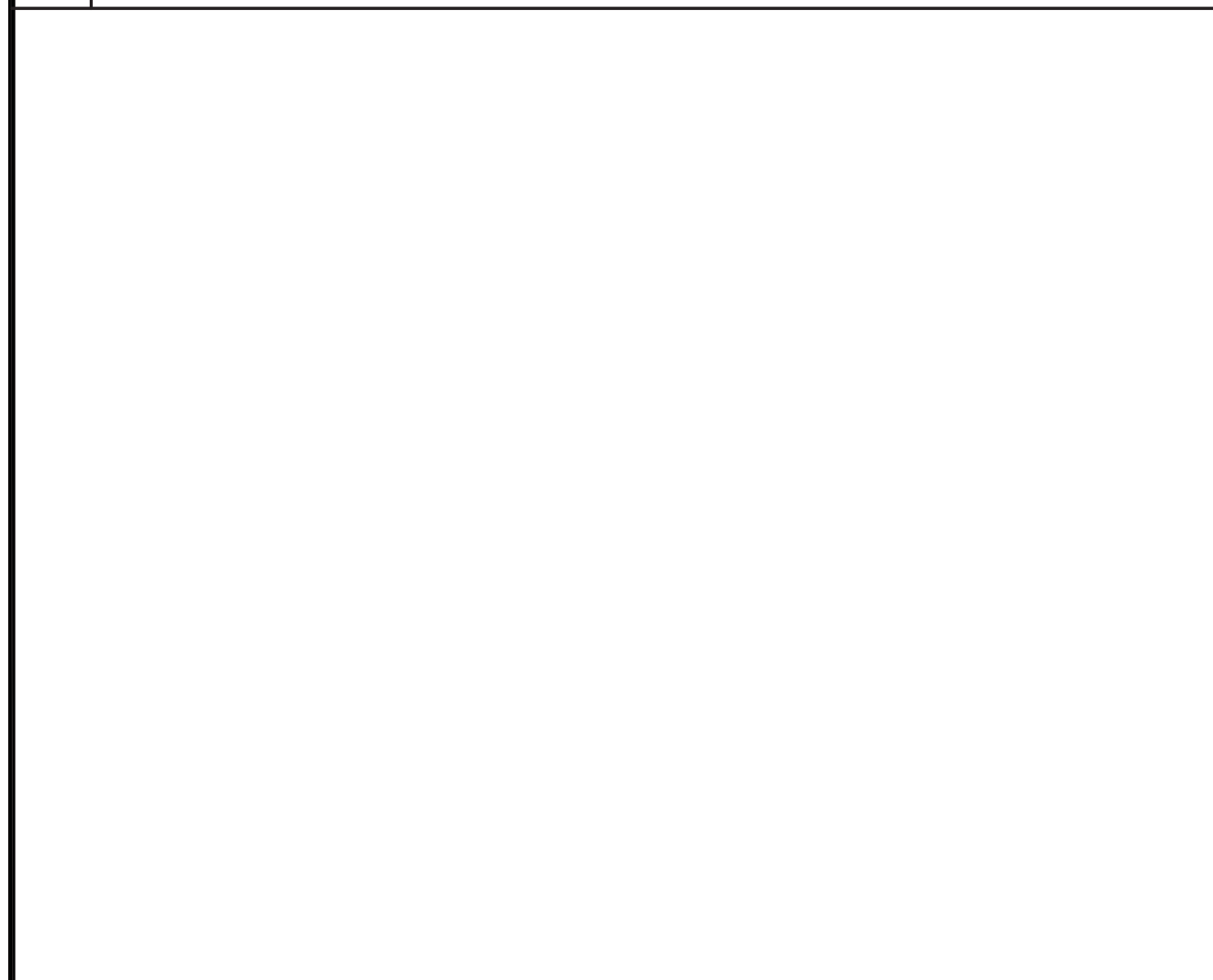
G THRUST BLOCKS FOR PLASTIC PIPE



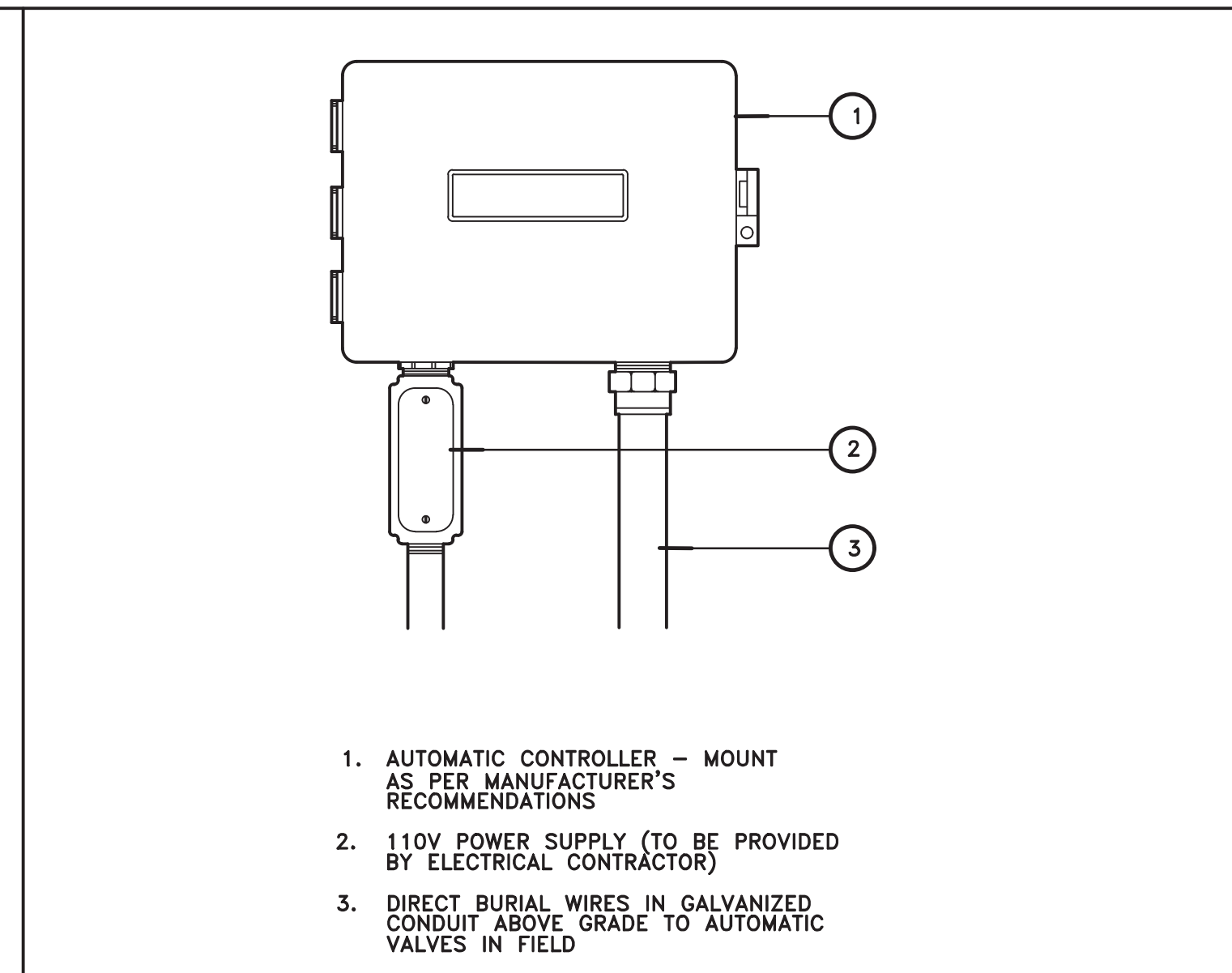
D CONTROL ZONE VALVE KIT



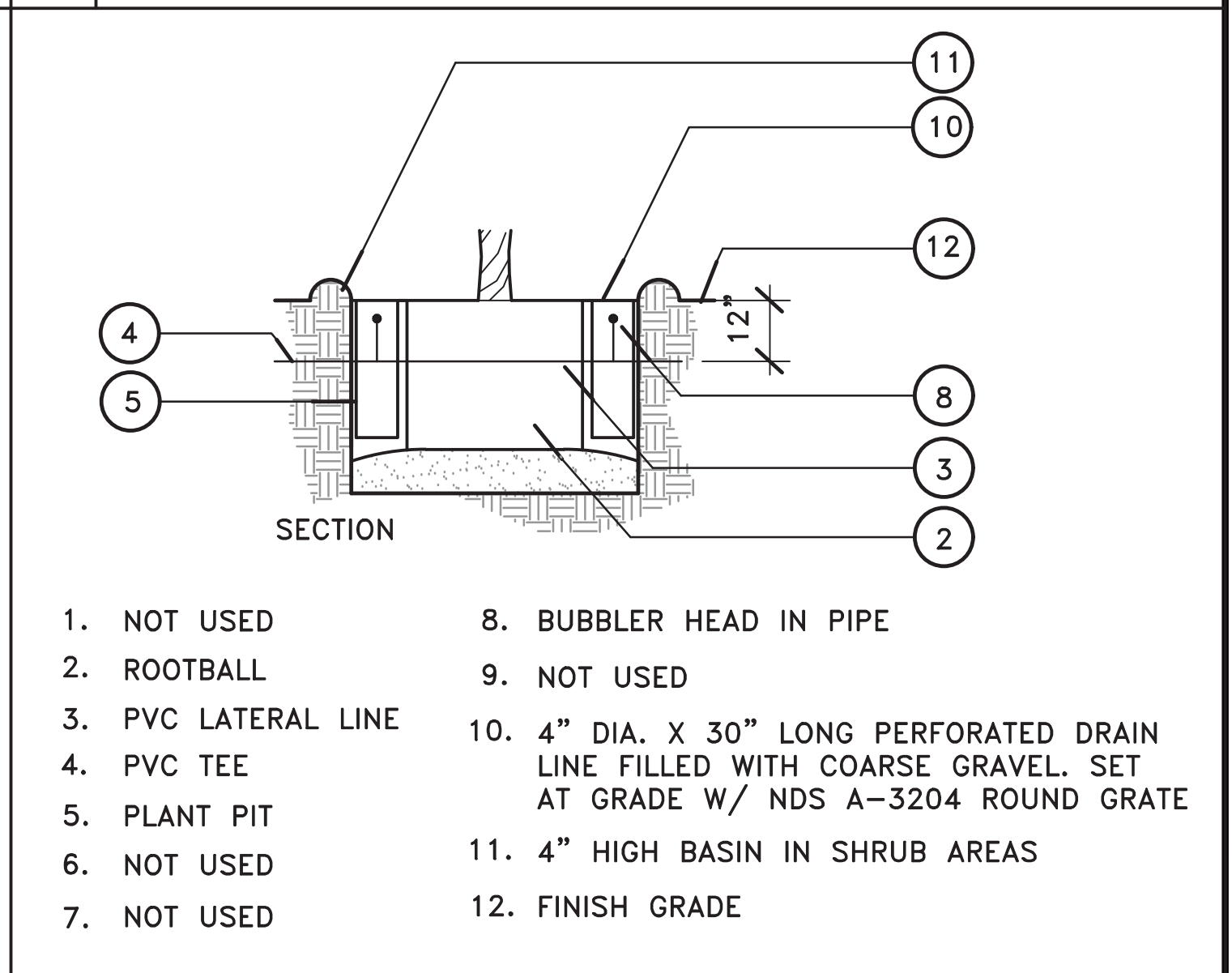
A DRIPLINE LAYOUT



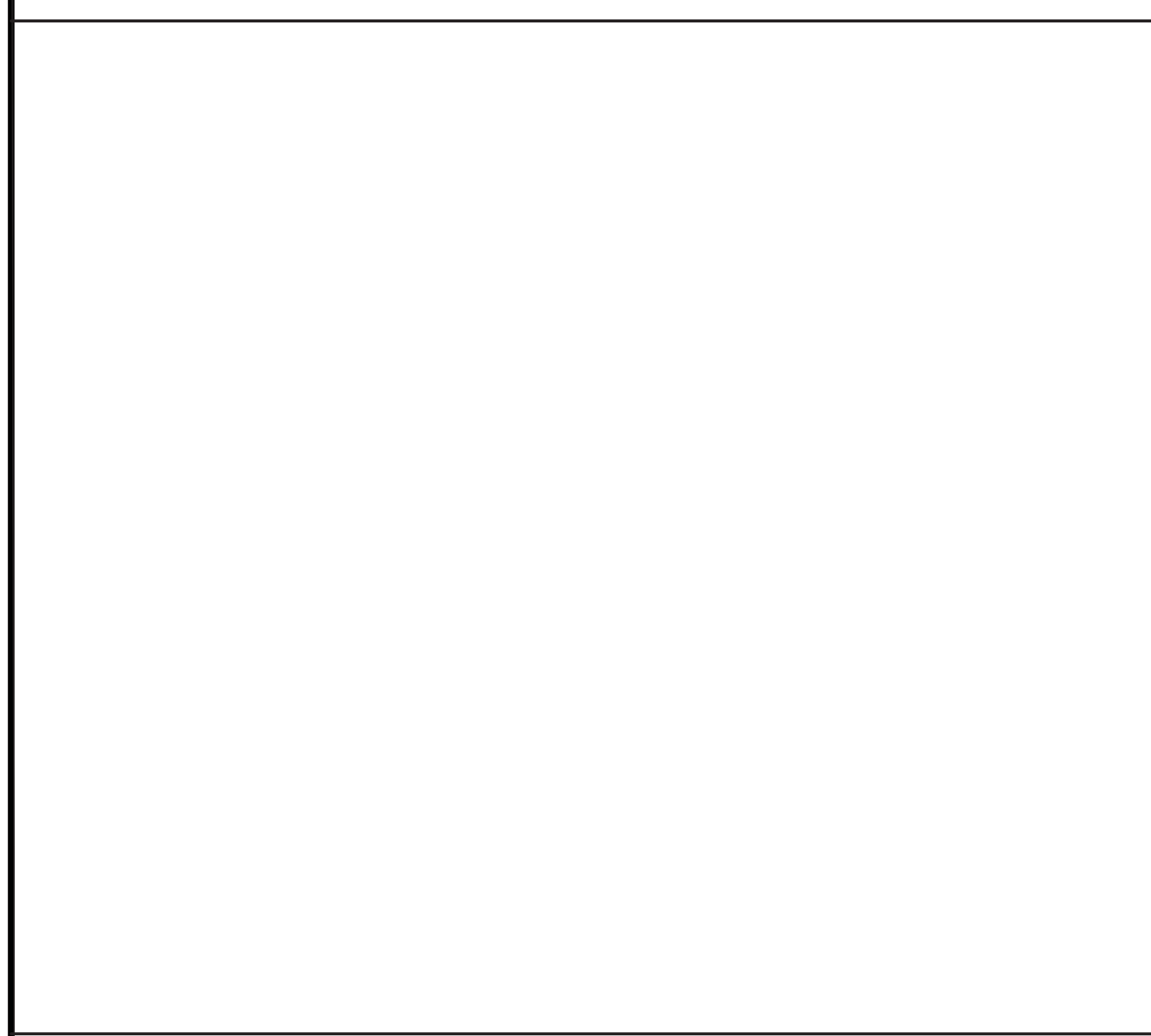
H IRRIGATION ENCLOSURE (WALL MOUNT)



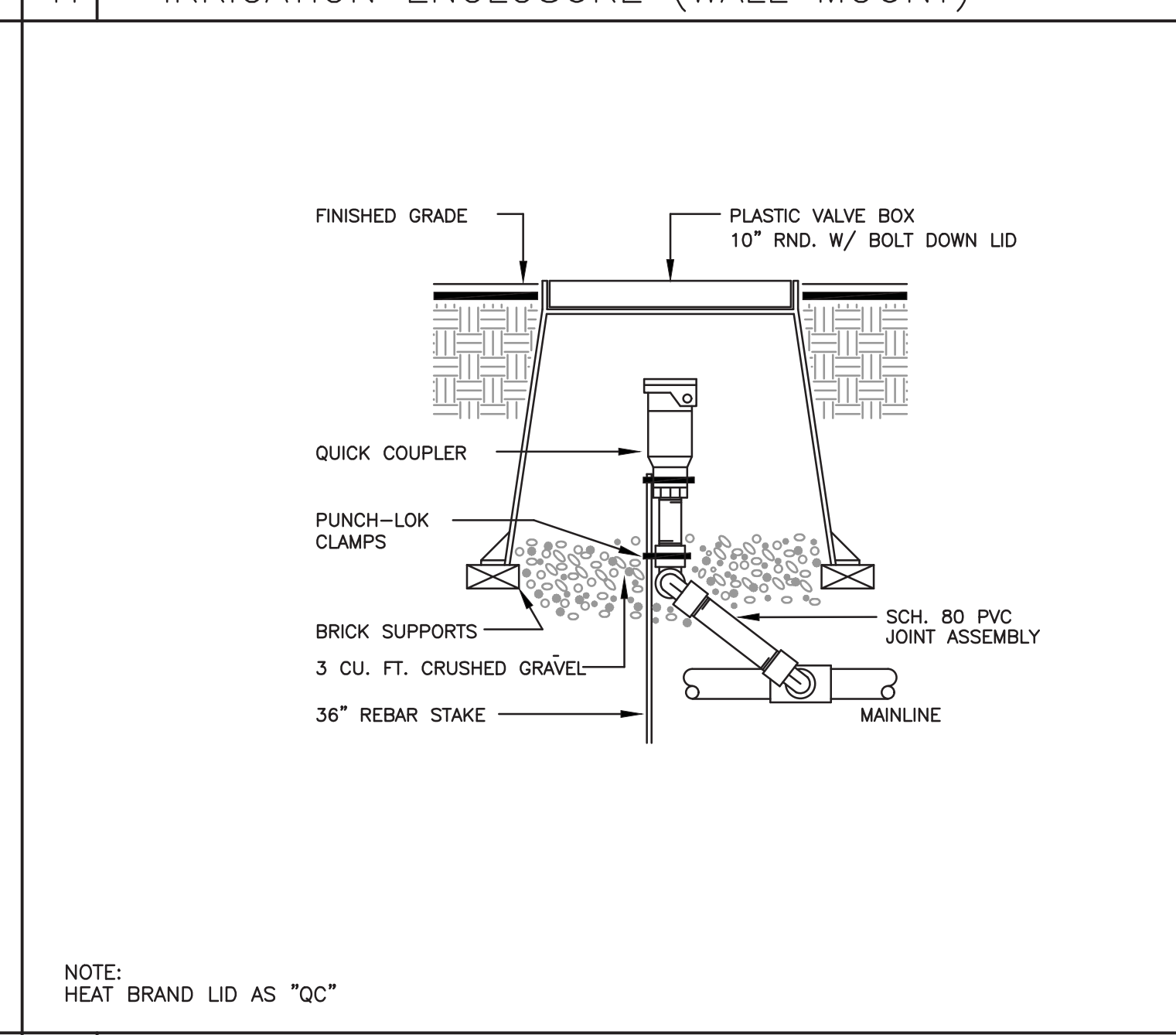
E BACKFLOW PREVENTER



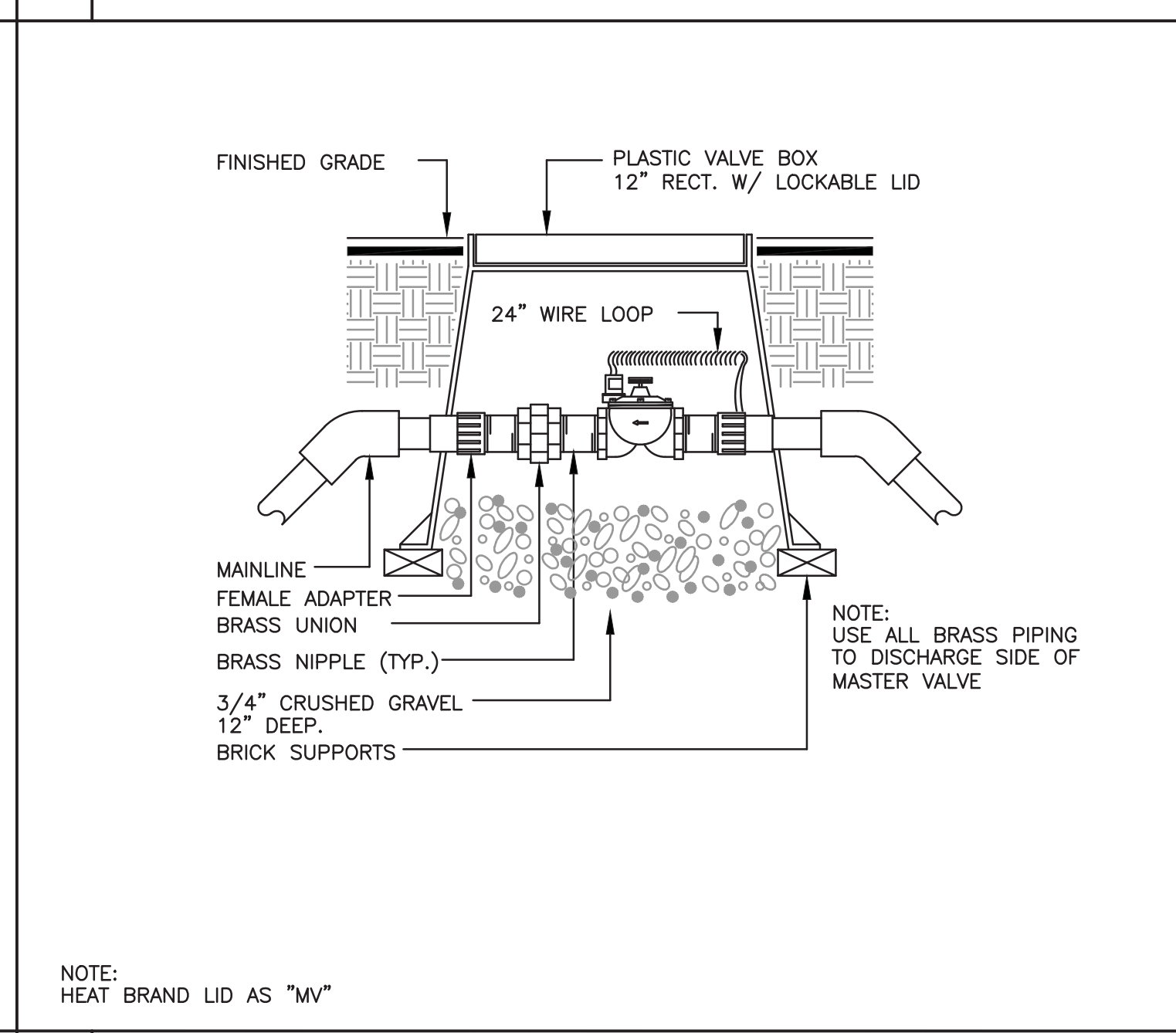
B TREE BUBBLER



I QUICK COUPLER



F MASTER VALVE



C REMOTE CONTROL VALVE

REVISIONS	DATE:

Underground Service Alert
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 1-800-422-4133
 TWO WORKING DAYS BEFORE YOU DIG

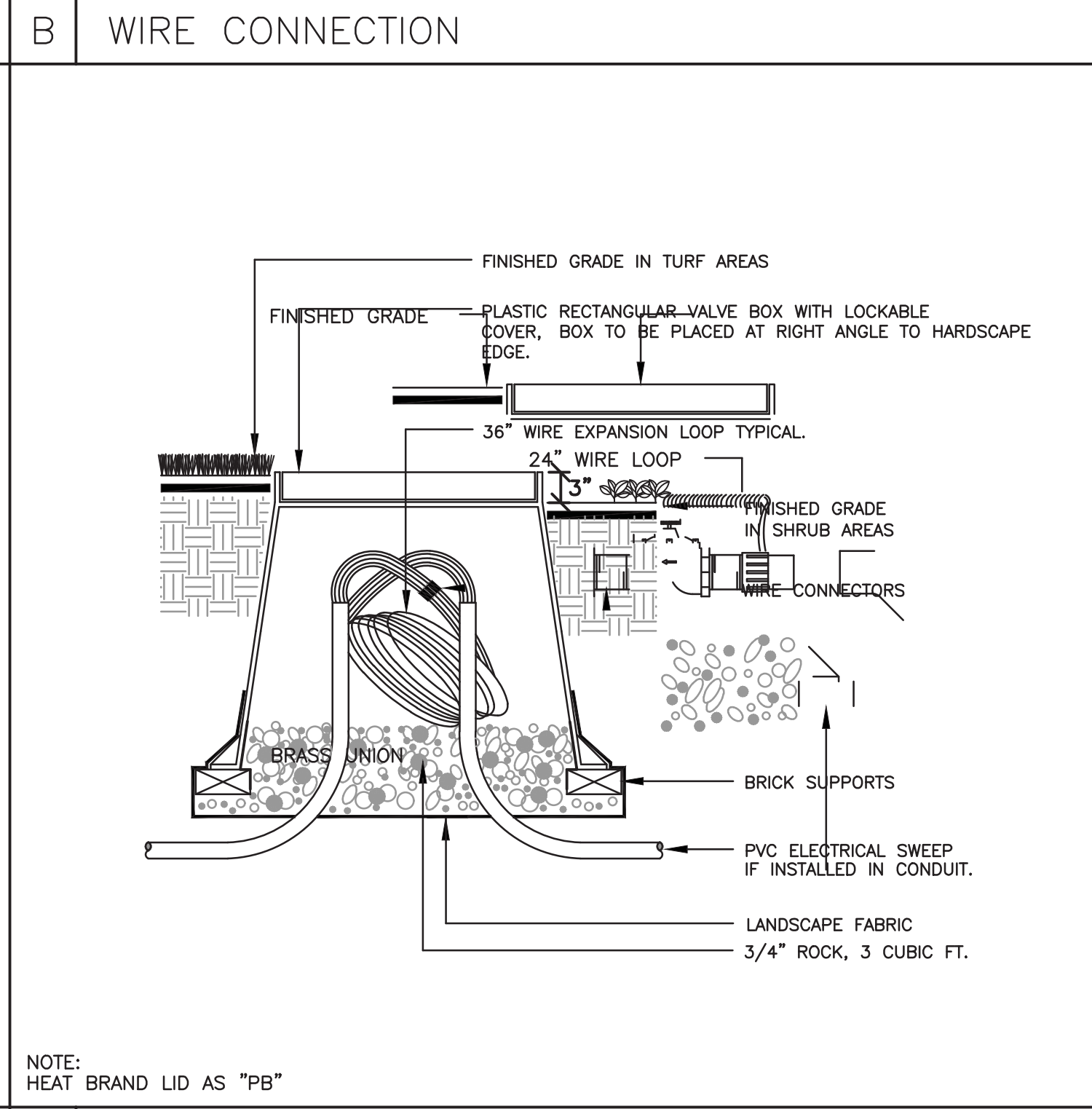
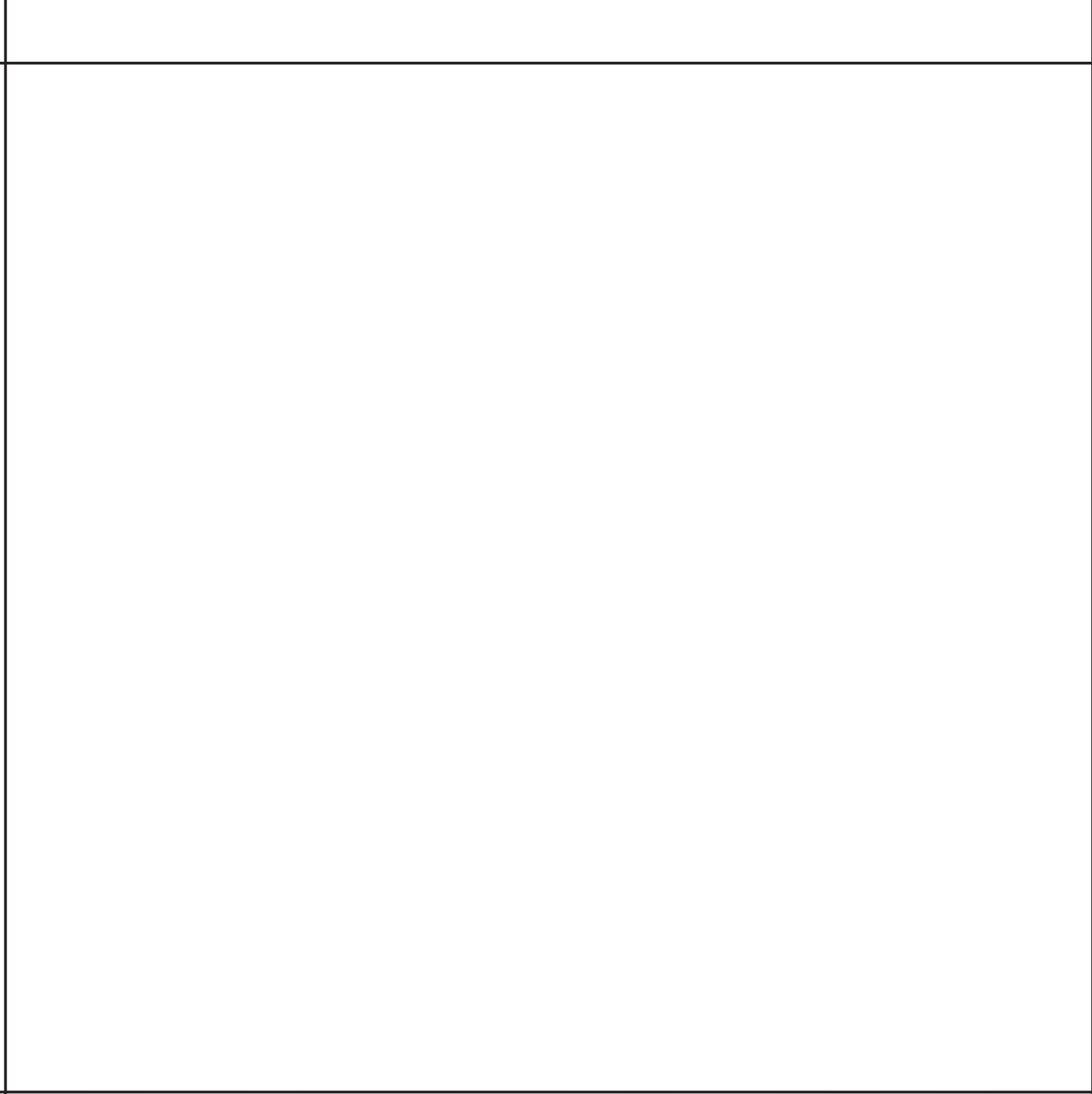
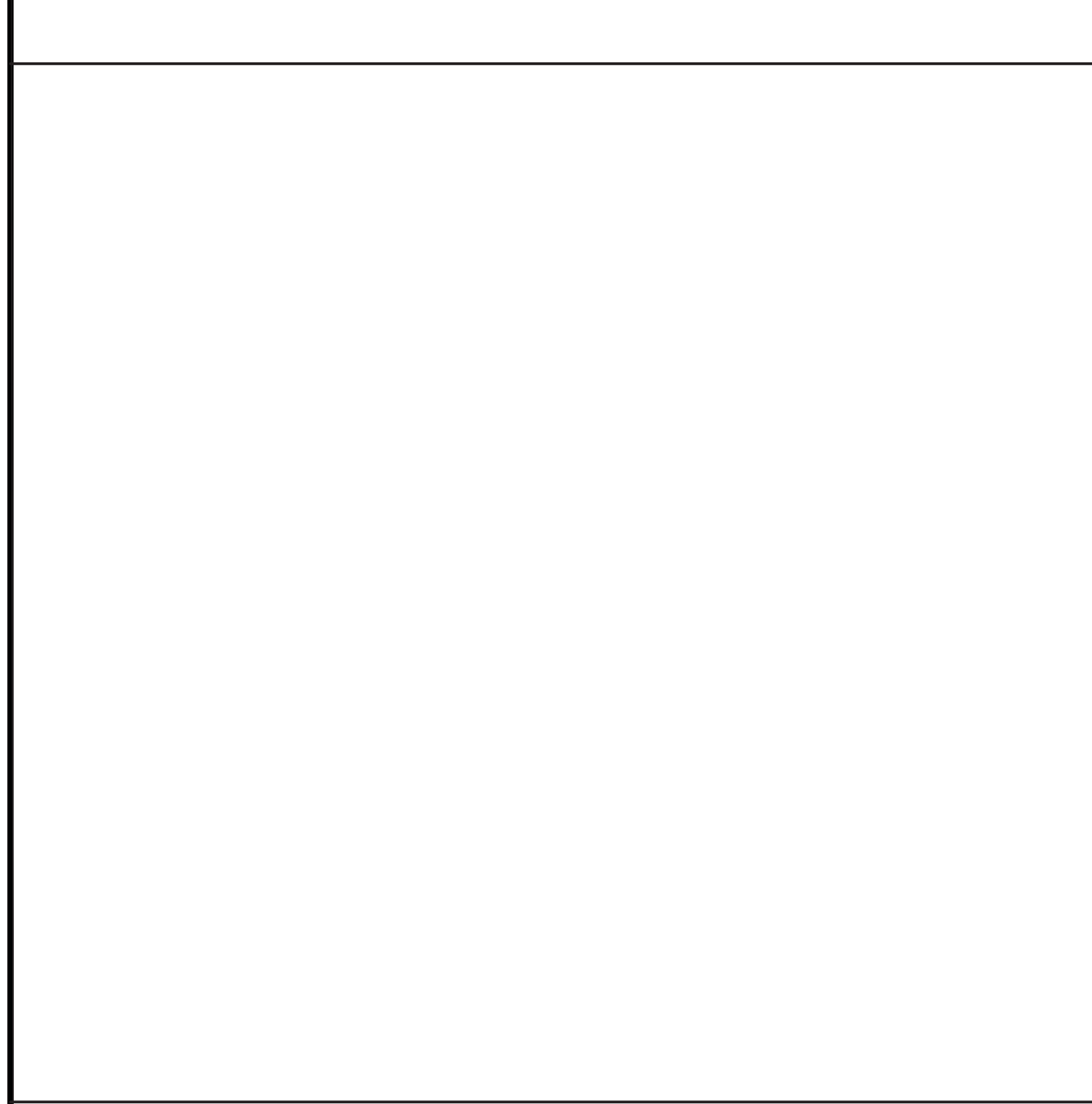
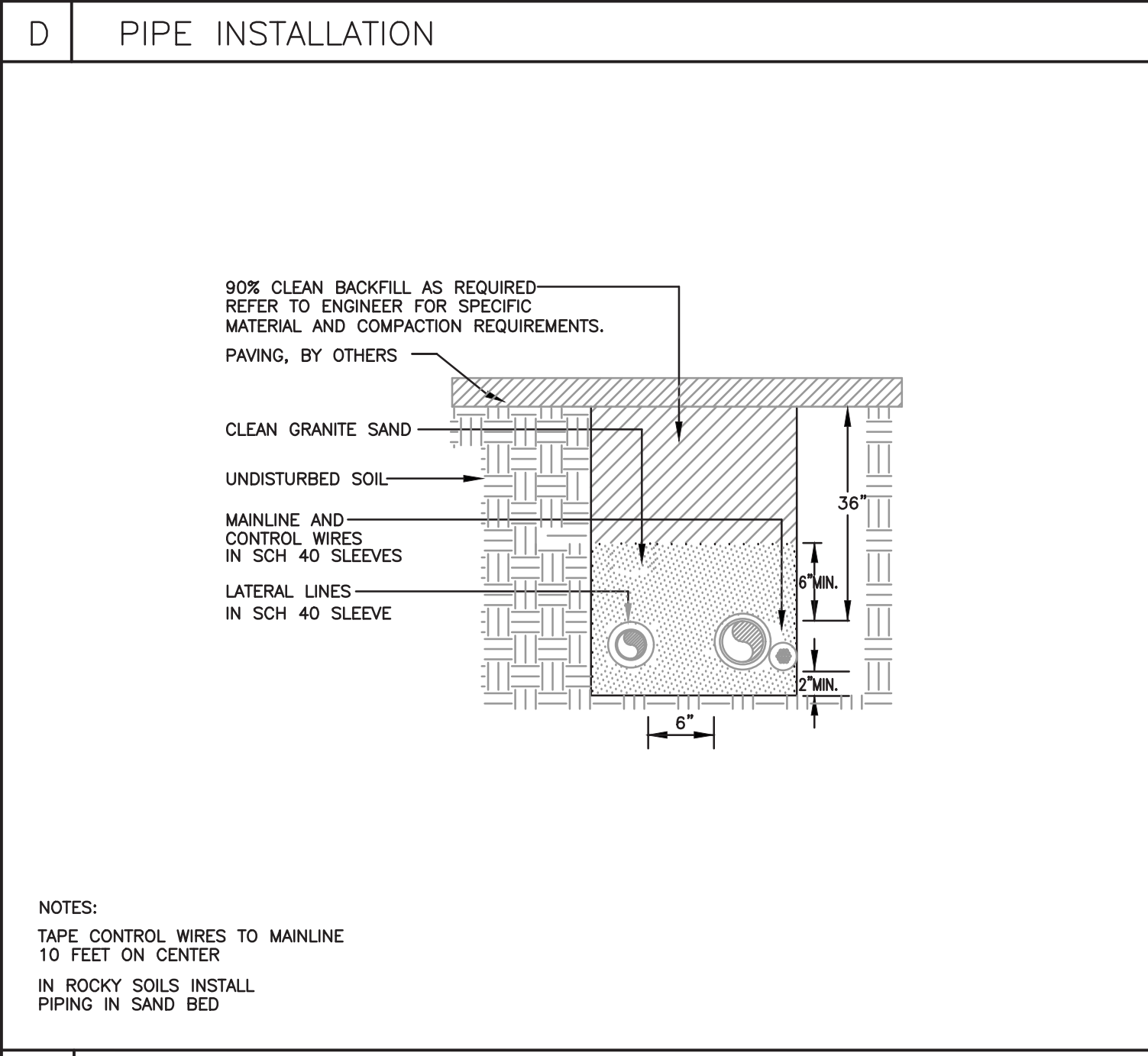
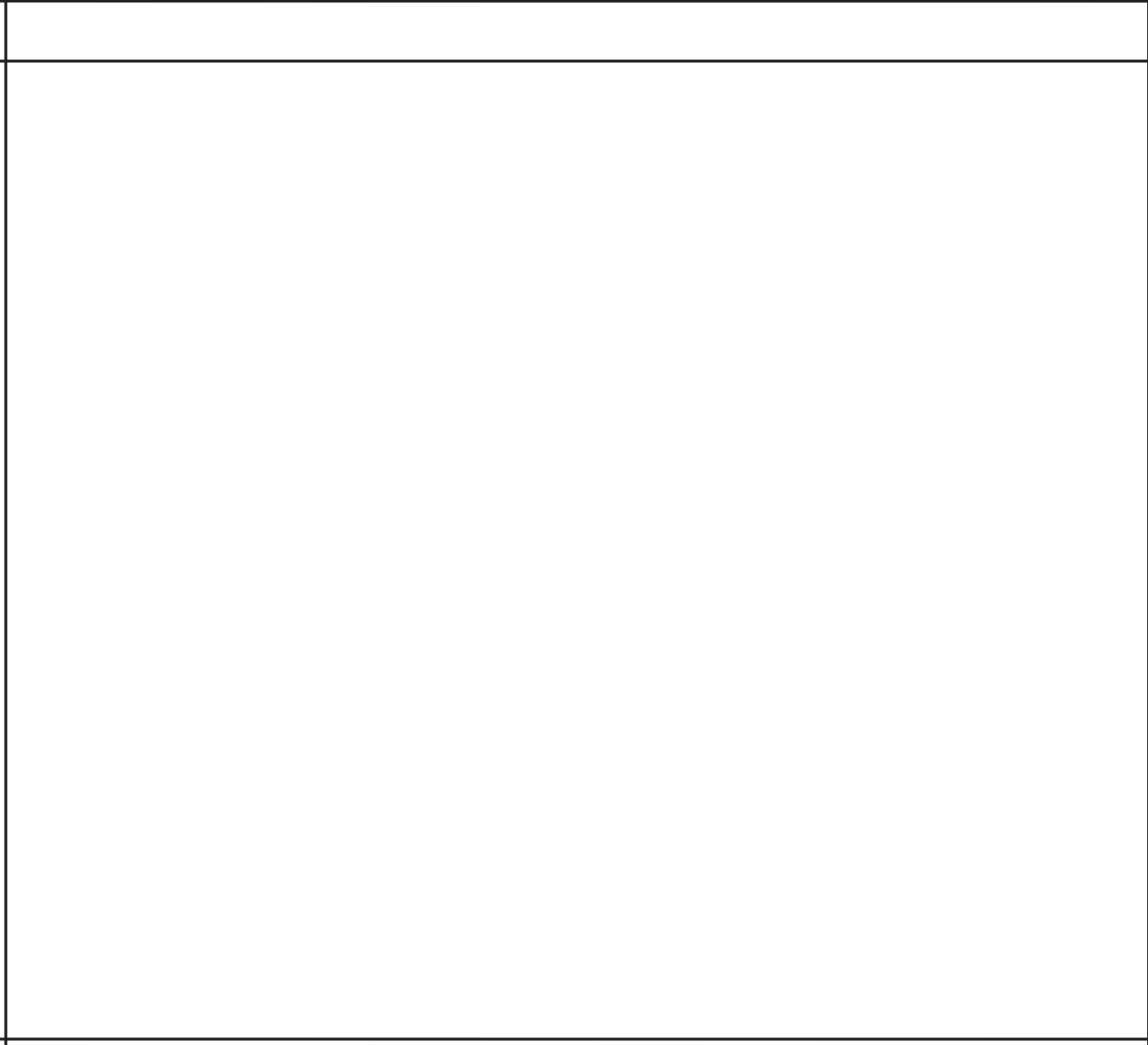
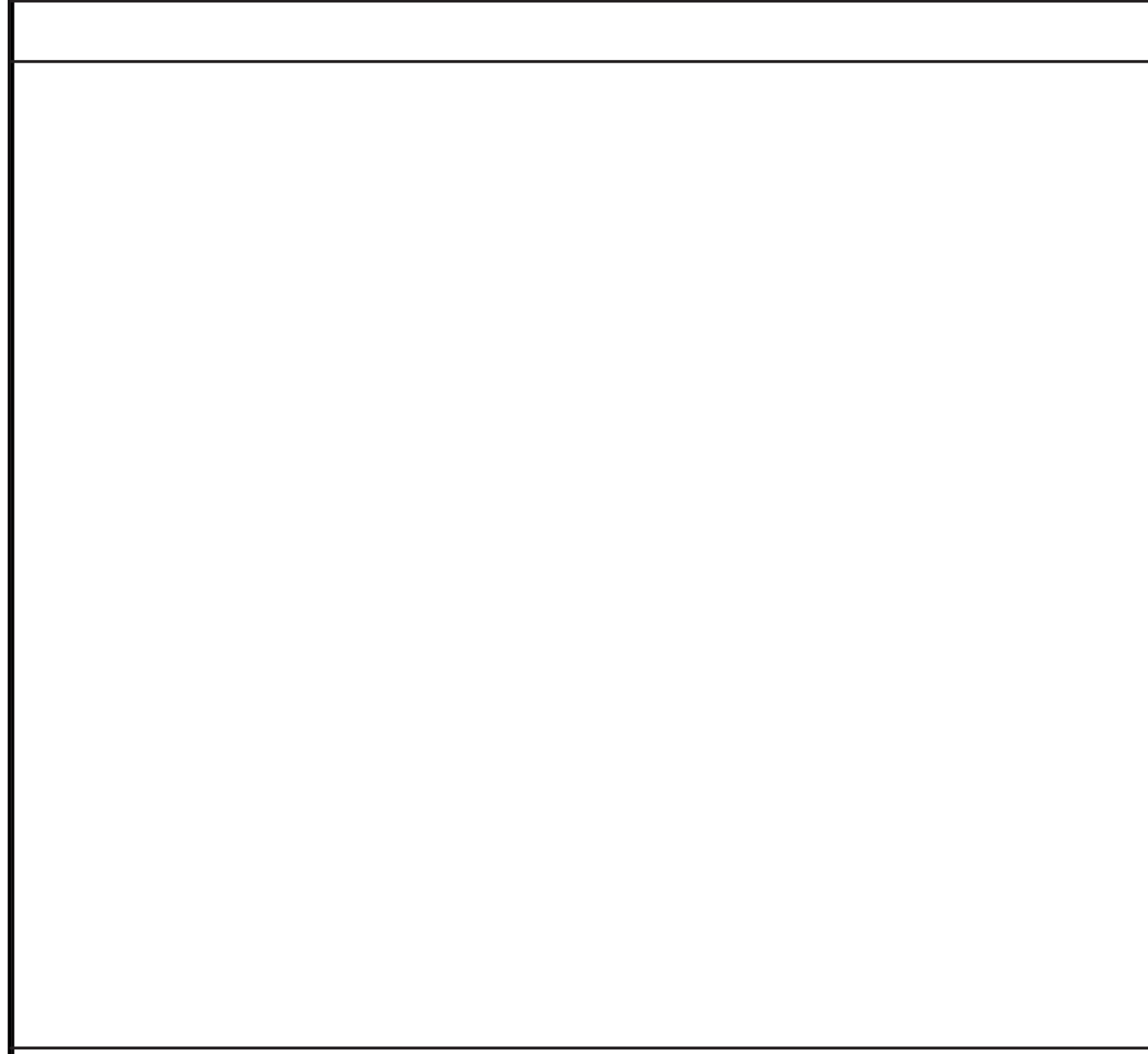
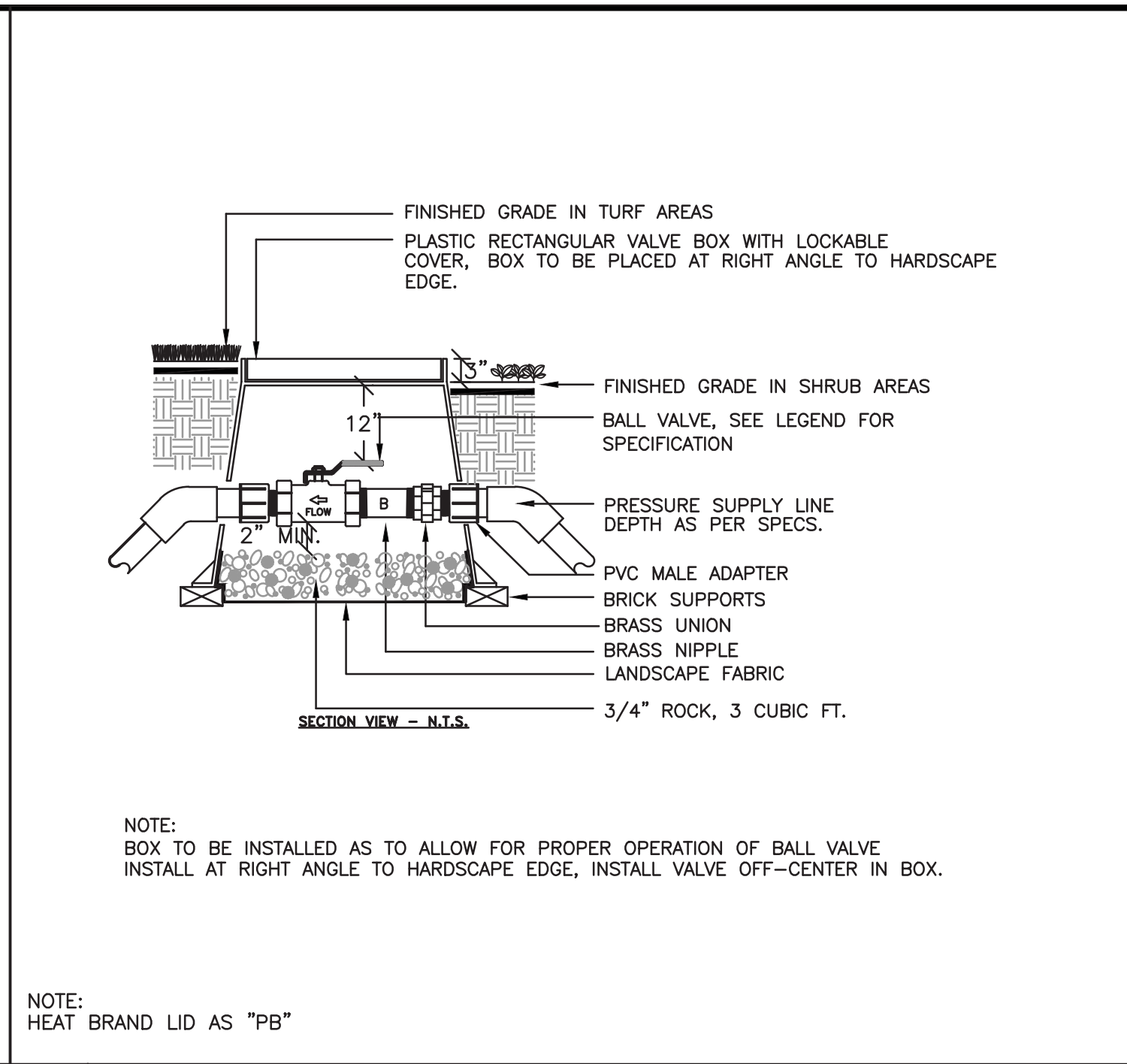
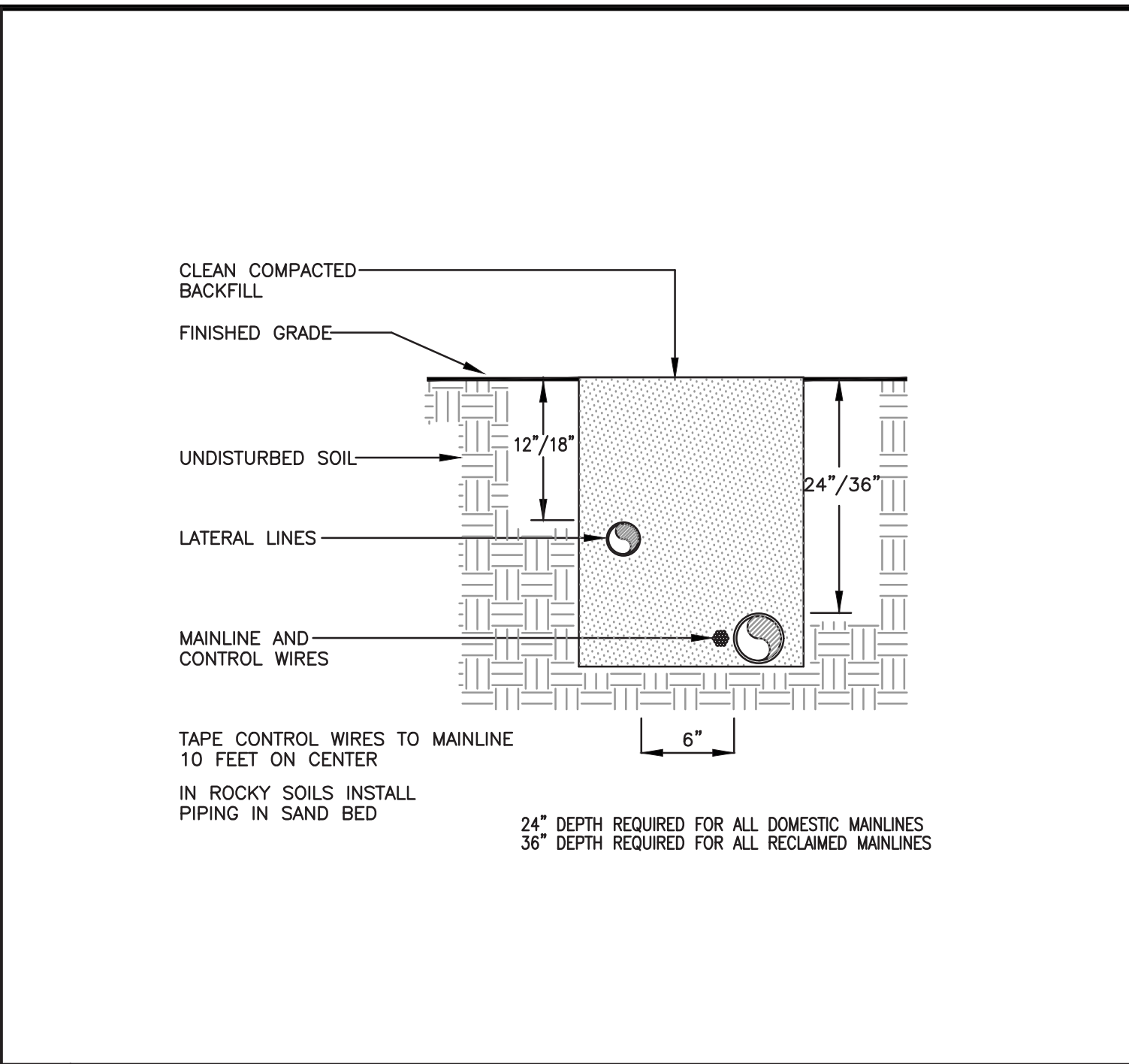
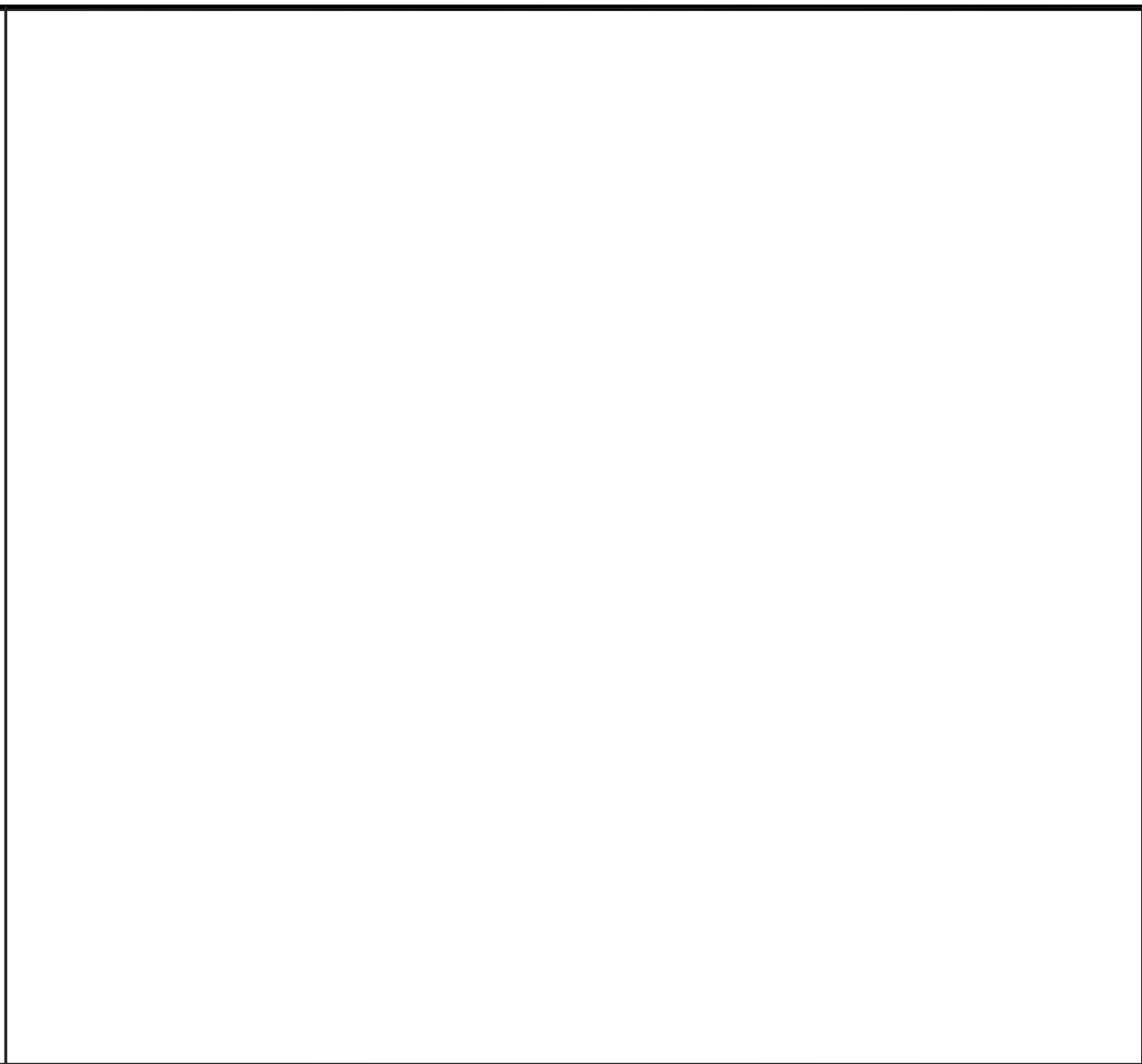
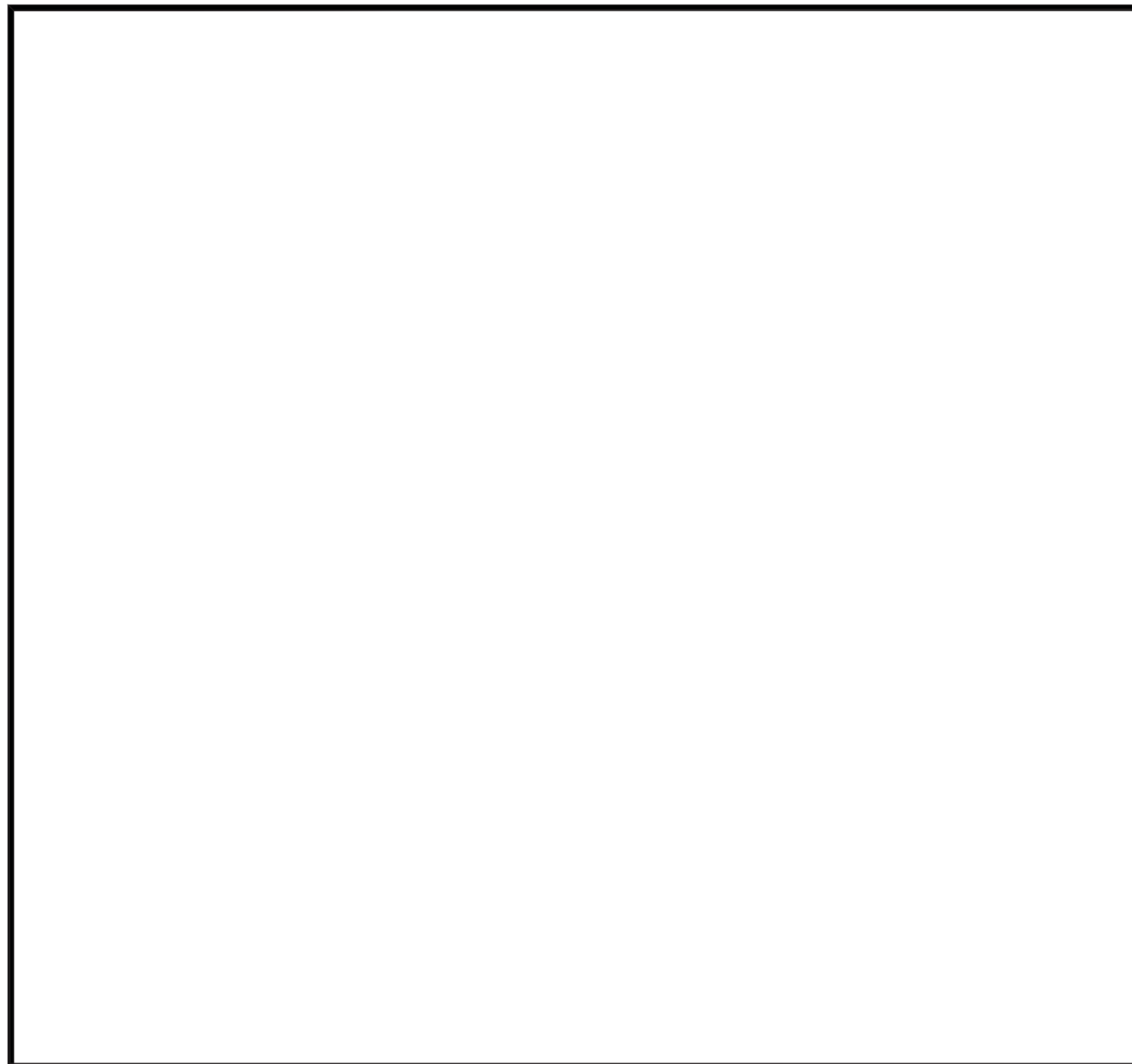


3-Story Duplex & Two 1-Story ADU's
 729 & 731 W. 4th Avenue
 La Habra, CA 90631

IRRIGATION DETAILS

DATE:	8-22-2023
DRAWN BY:	RAG
JOB NO:	
SCALE:	PER PLAN

SHEET NO.
LID.2
 6 OF 12 SHEETS



Appendix C: Water Efficient Landscape Worksheet

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required item of the Landscape Documentation Package.

Reference Evapotranspiration (ET_o): .504

Landscape Area Sector Type [] Residential [] Non-Residential (select one)

	Hydrozone #/Planting Description	Location	Plant Factor ^b (PF)	Irrigation Method ^d	Irrigation Efficiency ^c (IE)	ETAF (PF/IE)	Landscape Area (sq-ft)	ETAF x Area	Estimated Total Water Use ^e (ETWU)
Regular Landscape Area									
1	A	A7	L/2	B	.77	.26	25	6.5	203.11
2	B	A10	M/5	B	.77	.26	200	52.0	1,624.90
3	C	A8	L/2	D	.81	.25	280	70.0	2,187.36
4	D	A9	L/2	D	.81	.25	340	85.0	2,656.08
5	E	A6	L/2	D	.81	.25	100	25.0	781.20
6	F	A3	L/2	B	.77	.26	30	7.8	243.73
7	G	A4	L/2	D	.81	.25	350	87.5	2,734.20
8	H	A5	L/2	D	.81	.25	280	70.0	2,187.36
9	I	A2	L/2	D	.81	.25	320	80.0	2,499.84
10	J	A1	M/5	B	.77	.26	40	10.4	324.98
11									
12									

Average	Total	Total
.254	1965	494.20
Average ETAF for Regular Landscape Areas (circle one):	In Compliance	Not In Compliance

Special Landscape Area

SLA-1	SLA-2	SLA-3	SLA-4	SLA-5

Totals		
Total Landscape Area	1965	
Site wide ETAF	.254	
ETWU Total	15,442.76	
Maximum Allowed Water Allowance (MAWA)	33,771.276	

DOMESTIC WATER METER 'A'
IRRIGATION PRESSURE CALCULATION-BUBBLER

UNITS	SIZE	TYPE	DESCRIPTION	GPM	UNIT PSI LOSS
1	1"	DISC	WATER METER	10.0	.70
1	3/4"	BRASS	SUB WATER METER	10.0	1.60
1	3/4"	BRASS	BACKFLOW	10.0	10.00
1	3/4"	BRASS	MASTER VALVE	10.0	1.80
1	3/4"	BRASS	FLOW SENSOR	10.0	2.00
1	3/4"	BRASS	AUTOMATIC VALVE	10.0	1.80
2	3/4"	BRASS	GATE VALVE	10.0	2.00
180	3/4"	SCH 40	MAINLINE	10.0	13.79
10	3/4"	SCH 40	LATERAL LINE	10.0	0.78
				34.47	
MISC	FITTINGS	ALLOWANCE			3.45

STATION: A-1	COMPONENT LOSSES:	37.92
STATIC PRESSURE: 72.00	MIN. REQ'D BY HEAD:	30.00
MAX. GPM DEMAND: 10.0	ELEV. LOSS/GAIN:	0.00
	TOTAL PRESSURE REQ'D:	67.92
	RESIDUAL PRESSURE:	4.08

IRRIGATION PRESSURE CALCULATION-DRIP

UNITS	SIZE	TYPE	DESCRIPTION	GPM	UNIT PSI LOSS
1	1"	DISC	WATER METER	3.0	.10
1	3/4"	BRASS	SUB WATER METER	3.0	.30
1	3/4"	BRASS	BACKFLOW	3.0	10.00
1	3/4"	BRASS	MASTER VALVE	3.0	1.40
1	3/4"	BRASS	FLOW SENSOR	3.0	2.00
1	3/4"	BRASS	AUTOMATIC VALVE	3.0	1.40
2	3/4"	BRASS	GATE VALVE	3.0	2.00
180	3/4"	SCH 40	MAINLINE	3.0	1.51
10	3/4"	SCH 40	LATERAL LINE	3.0	0.84
				19.55	
MISC	FITTINGS	ALLOWANCE			1.96

STATION: A-2	COMPONENT LOSSES:	21.51
STATIC PRESSURE: 72.00	MIN. REQ'D BY HEAD:	30.00
MAX. GPM DEMAND: 3.0	ELEV. LOSS/GAIN:	0.00
	TOTAL PRESSURE REQ'D:	51.51
	RESIDUAL PRESSURE:	20.49

GENERAL IRRIGATION NOTES

STATIC PRESSURE

MINIMUM STATIC PRESSURE SHALL BE 72 PSI AT THE METER.

MINIMUM WATER METER SIZE 3/4" CONTRACTOR SHALL VERIFY PRESSURE READING PRIOR TO STARTING WORK AND REPORT TO LANDSCAPE ARCHITECT IF PRESSURE IS BELOW 70 PSI. IF PRESSURE EXCEEDS 75 PSI CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF A LINE SIZE WILKENS 500 SERIES PRESSURE REDUCING VALVE.

IRRIGATION SYSTEM LAYOUT

DUE TO THE SCALE OF THESE DRAWINGS THE CONTRACTOR SHOULD BE AWARE OF THE POSSIBILITY THAT THE NEED FOR MINOR ADJUSTMENTS TO THE IRRIGATION SYSTEM MAY BE NECESSARY TO PROVIDE PROPER COVERAGE. THESE ADJUSTMENTS COULD INCLUDE NOZZLE CHANGES AND/OR ADDITION OR DELETION OF INDIVIDUAL HEADS TO COMPENSATE FOR CHANGES MADE ON THE SITE. THE CONTRACTOR SHALL LOCATE ALL VALVES, LATERAL LINE AND MAINLINE IN PLANTING AREAS.

SLEEVING

SLEEVES SHALL BE PLACED UNDER ALL DRIVEWAYS AND WALKS WHERE IRRIGATION LATERAL, MAINLINE, AND WIRE WILL CROSS. SLEEVES SHALL BE PVC SCH. 40, MINIMUM BURY 24" DEEP. MINIMUM DISTANCE PAST EDGE OF DRIVEWAY OR CONCRETE WALK SHALL BE 24". WATER AND WIRE SHALL NOT BE PLACED IN THE SAME SLEEVE.

CONTRACTOR IS RESPONSIBLE TO SLEEVE ALL PIPE AND VALVE WIRES CROSSING STREETS, DRIVEWAYS, HARDSCAPE, ETC. SLEEVE SHALL BE A MINIMUM 2x THE DIAMETER OF THE PIPE SLEEVED.

PRESSURE COMPENSATING SCREEN

CONTRACTOR SHALL INSTALL ONE (1) RAINBIRD PRESSURE COMPENSATING SCREEN PER HEAD IN ALL IRRIGATION INSTALLATIONS. USE OF THE SCREENS WILL AID IN RADIUS REDUCTION, OVERSPRAY CONDITIONS AND FOGGING IN ALL PRESSURE SITUATIONS.

"WATER CONSERVATION CONCEPT STATEMENT"

THE SYSTEM IS DESIGNED TO ACHIEVE CONSERVATION AND EFFICIENCY IN WATER USE BY PROVIDING ANTI-DRAIN VALVES, FOR LOW HEAD DRAINAGE, RAIN CHECK INTERRUPT SWITCH TO PREVENT THE SYSTEM FROM ACTIVATING WHEN RAINING, PRESSURE COMPENSATING SCREENS TO PREVENT OVERSPRAY AND REDUCE WATER USAGE IN SMALLER PLANTING AREAS, AND LOW GALLONAGE HEADS TO REDUCE WATER CONSUMPTION.

WIRE NOTE

ALL LEAD WIRES TO BE #14 GAUGE, AND BLACK IN COLOR. ALL COMMON WIRE TO BE #14 GAUGE AND WHITE WITH COLORED STRIPE DIFFERING PER CONTROLLER. TWO (2) EXTRA WIRES SHALL BE PROVIDED FOR EACH GROUP OF FIVE (5) VALVES AND LOOPED IN A NEARBY VALVE BOX WITH 2' MINIMUM COIL.

IRRIGATION LEGEND (Domestic Water)

F, H, T, Q	MANUFACTURER	DESCRIPTION	PATTERN	RADIUS	GPM	PSI
	NETAFIM	NETAFIM DRIPLINE 12" OC-TURF, 18"-GC/SHRUBS				
	NETAFIM	NETAFIM DRIPLINE LATERAL LINE FEEDER CONNECTORS 12" OC, NOT SHOWN ON PLANS				
	NETAFIM	NETAFIM DRIP FLUSH VALVE AT END OF SYSTEM				
	RAINBIRD	RAINBIRD DEEP ROOT WATERING SYSTEM 1404 2 PER TREE	F	3'	1.00	30
		1" LANDSCAPE IRRIGATION WATER METER - EXISTING				
		3/4" LANDSCAPE IRRIGATION SUB-WATER METER - NEW, PLACE IN RECTANGULAR VALVE BOX				
	FEBCO	3/4" BACKFLOW - FEBCO MODEL 825Y IN ALLSPEC ENCLOSURE MODEL VB-SS-3630 (CONFIRM SIZE)				
	WATTS	3/4" MASTER VALVE - WATTS MODEL 813 (NORMALLY CLOSED), PLACE IN RECTANGULAR VALVE BOX				
	CALSENSE	3/4" FLOW SENSOR - CALSENSE TEE MOUNTED SENSOR. PLACE IN RECTANGULAR VALVE BOX CONNECT TO CONTROLLER, NEW				
	RAINBIRD	RAINBIRD MEDIUM FLOW CONTROL ZONE KIT WITH PR FILTER, FLOW CONTROL, SIZE PER PLAN PLACE IN RECTANGULAR VALVE BOX				
	RAINBIRD	AUTOMATIC VALVE - RAINBIRD PEB SERIES, SIZE PER PLAN PLACE IN RECTANGULAR VALVE BOX				
	RAINBIRD	RAINBIRD 3RC-3/4" QUICK COUPLER IN ROUND VALVE BOX				
		RAIN SENSOR, SEE CONTROLLER MODEL FOR MODEL TYPE				
	RAINBIRD	RAINBIRD ESP-SMTe CONTROLLER, 13 STATION				
	NIBCO	BRASS LINE GATE VALVE - NIBCO T-113, PLACE IN ROUND VALVE BOX				
		PRESSURE MAINLINE - SCHEDULE 40 - 1 1/4"				
		LATERAL LINE - PVC SCHEDULE 40 - MINIMUM 12" BURY				
		PIPE SLEEVE - PVC SCHEDULE 40				
		CONTROLLER STATION				
		GALLONS PER MINUTE				
		VALVE SIZE				

HOLD HARMLESS AND INDEMNIFICATION CLAUSE

CONTRACTOR AGREES TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER/DEVELOPER, COUNTY OF LOCAL JURISDICTION AND THE LANDSCAPE ARCHITECT HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER/DEVELOPER, COUNTY OF LOCAL JURISDICTION, OR THE LANDSCAPE ARCHITECT.

Appendix B: Certification of Landscape Design

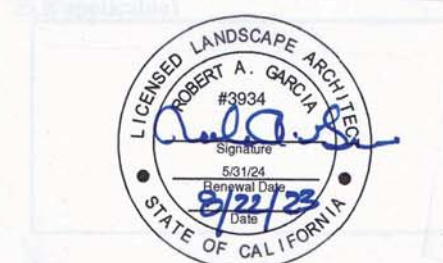
CERTIFICATION OF LANDSCAPE DESIGN

I hereby certify that:

- I am a professional appropriately licensed in the State of California to provide professional landscape design services.
- The landscape design and water use calculations for the property located at 729-731 4th St, La Habra, CA 90631 (provide street address or parcel number(s)) were prepared by me or under my supervision.
- The landscape design and water use calculations for the identified property comply with the requirements of the City of La Habra Water Efficient Landscape Ordinance (Municipal Code Section 18.16) and the City of La Habra Guidelines for Implementation of the City of La Habra Water Efficient Landscape Ordinance.
- The information I have provided in this Certificate of Landscape Design is true and correct and is hereby submitted in compliance with the City of La Habra Guidelines for Implementation of the City of La Habra Water Efficient Landscape Ordinance.

ROBERT A. GARZA Print Name Date 8/22/23
Robert A. Garza Signature License Number #2834
27962 Hill Circle Laguna Hills, CA 92653 Address
(714) 399-7170 Telephone REGAR@CSH.PAC.COM E-mail Address

Landscape Design Professional's Stamp



Appendix E: Certificate of Completion

LANDSCAPE INSTALLATION CERTIFICATE OF COMPLETION

I hereby certify that:

- I am a professional appropriately licensed in the State of California to provide professional landscape design services for 729-731 4th St, La Habra, CA 90631 (project name, mailing address and telephone).
- The landscape project for the property located at 729-731 4th St, La Habra, CA 90631 (provide street address or parcel number(s)) was installed by me or under my supervision.
- The landscaping for the identified property has been installed in substantial conformance with the approved Landscape Documentation Package and complies with the requirements of the City of La Habra Water Efficient Landscape Ordinance (Municipal Code Section 18.16) and the City of La Habra Guidelines for Implementation of the City of La Habra Water Efficient Landscape Ordinance for the efficient use of water in the landscape.
- The following elements are attached hereto:
 - Irrigation scheduling parameters used to set the controller;
 - Landscape and irrigation maintenance schedule;
 - Irrigation audit report; and
 - Soil analysis report, if not submitted with Landscape Documentation Package, and documentation verifying implementation of the soil report recommendations.
- The site installation complies with the following:
 - The required irrigation system has been installed according to approved plans and specifications and if applicable, any prior approved irrigation system alternatives.

Yes No
 - Sprinklers comply with ASABE/ICC 802-2014 Landscape Irrigation Sprinkler & Emitter Standard.

Yes No
- The information I have provided in this Landscape Installation Certificate of Completion is true and correct and is hereby submitted in compliance with the City of La Habra Guidelines for Implementation of the City of La Habra Water Efficient Landscape Ordinance.

Print Name _____ Date _____

Signature _____ License Number _____
 Address _____
 Telephone _____ E-mail Address _____

Landscape Design Professional's Stamp (If Appropriate)



REVISIONS	DATE:



3-Story Duplex & Two 1-Story ADU's
 729 & 731 W. 4th Avenue
 La Habra, CA 90631

IRRIGATION LEGEND
 AND CALCS

DATE:	8-22-2023
DRAWN BY:	RAG
JOB NO:	
SCALE:	PER PLAN

SHEET NO.
LLC.1
 7 OF 12 SHEETS

Establishment Schedule						Permanent Schedule						Permanent Schedule Landscape Data																																																																																																																																																																													
<p><i>When the landscape is new, schedule the Weathermatic smart controller for Watering mode: "Basic". This means the controller will execute your schedule, not an automatic one. After 1 year, switch to Water mode: "Smart". This will ensure that the new plants are watered correctly while they are getting established.</i></p>						<p><i>When the landscape is new, schedule the Weathermatic smart controller for Watering mode: "Basic". This means the controller will execute your schedule, not an automatic one. After 1 year, switch to Water mode: "Smart". This will ensure that the new plants are watered correctly while they are getting established.</i></p>						<p>Landscape data for Smart Controller After Plants are Established</p>																																																																																																																																																																													
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REVISIONS	DATE:

Underground Service Alert



Call: TOLL FREE
1-800-422-4133

TWO WORKING DAYS BEFORE YOU DIG



3-Story Duplex & Two 1-Story ADU's
729 & 731 W. 4th Avenue
La Habra, CA 90631

IRRIGATION SCHEDULES,
AUDIT AND MAINTENANCE

WATER AUDIT NOTE

THE CONTRACTOR WILL CONDUCT AN IRRIGATION AUDIT USING A CERTIFIED IRRIGATION AUDITOR AFTER THE FINAL FIELD OBSERVATION HAS BEEN COMPLETED AND ALL IRRIGATION COMPONENTS INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND THE IRRIGATION SYSTEM IS ACCEPTED BY THE PROJECT ARCHITECT FOR MAINTENANCE.

THE IRRIGATION AUDIT WILL BE CONDUCTED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

- PLACE FLAGS AT EACH HEAD IN THE ZONE.
- MEASURE SPACING AND MARK MID-POINTS BETWEEN HEADS.
- PLACE WATER MEASURING RECEPTACLES.
- TAKE READINGS OF WATER LEVEL IN RECEPTACLES AND RECORD RESULTS.
- MEASURE HEAD PRESSURE IN EACH ZONE AND RECORD RESULTS.
- AFTER COMPLETING ZONE ADVANCE TO NEXT ZONE AND REPEAT PROCEDURE.
- SUBMIT THE RESULTS OF THE AUDIT TO THE PROJECT ARCHITECT.

THE IRRIGATION MAINTENANCE SCHEDULE TASKS LISTED BELOW ARE INTENDED AS MINIMUM STANDARDS AND MORE FREQUENT ATTENTION MAY BE REQUIRED DEPENDING ON THE PARTICULAR SITE CONDITIONS.

MAINTENANCE TASK	FREQUENCY
1. CONTROLLER CABINET - OPEN CABINET AND CLEAN OUT DEBRIS AND REPLACE BATTERY AS NECESSARY. CHECK WIRING AND REPAIR AS NEEDED AND CHECK CLOCK AND RESET, IF NECESSARY.	QUARTERLY
2. IRRIGATION SCHEDULE - ADJUST SCHEDULE FOR SEASONAL VARIATIONS AND OTHER CONDITIONS WHICH MAY AFFECT THE AMOUNT OF WATER NEEDED TO MAINTAIN PLANT HEALTH ADJUST AS NECESSARY.	MONTHLY
3. POC - VISUALLY INSPECT COMPONENTS FOR LEAKS, PRESSURE SETTINGS, SETTLEMENT OR OTHER DAMAGE AFFECTING THE OPERATION OF A COMPONENT REPAIR AS NEEDED.	QUARTERLY
4. REMOTE CONTROL VALVES, ISOLATION VALVES AND QUICK COUPLER VALVES VISUALLY INSPECT FOR LEAKS, SETTLEMENT, WIRE CONNECTIONS AND PRESSURE SETTINGS. REPAIR OR ADJUST AS NEEDED.	QUARTERLY
5. MAINLINE AND LATERALS VISUALLY INSPECT FOR LEAKS OR SETTLEMENT OF TRENCH.	QUARTERLY
6. SPRINKLERS VISUALLY CHECK FOR ANY BROKEN MISSED OR CLOGGED HEADS. HEADS WITH INCORRECT ARC, INADEQUATE COVERAGE OR OVERSPRAY AND LOW HEAD DRAINAGE REPAIR AS NEEDED.	WEEKLY
7. FILTERS AND STRAINERS VISUALLY CHECK FOR LEAKS, BROKEN FITTING. CLEAN AND FLUSH SCREENS.	MONTHLY

WATER AUDIT NOTE

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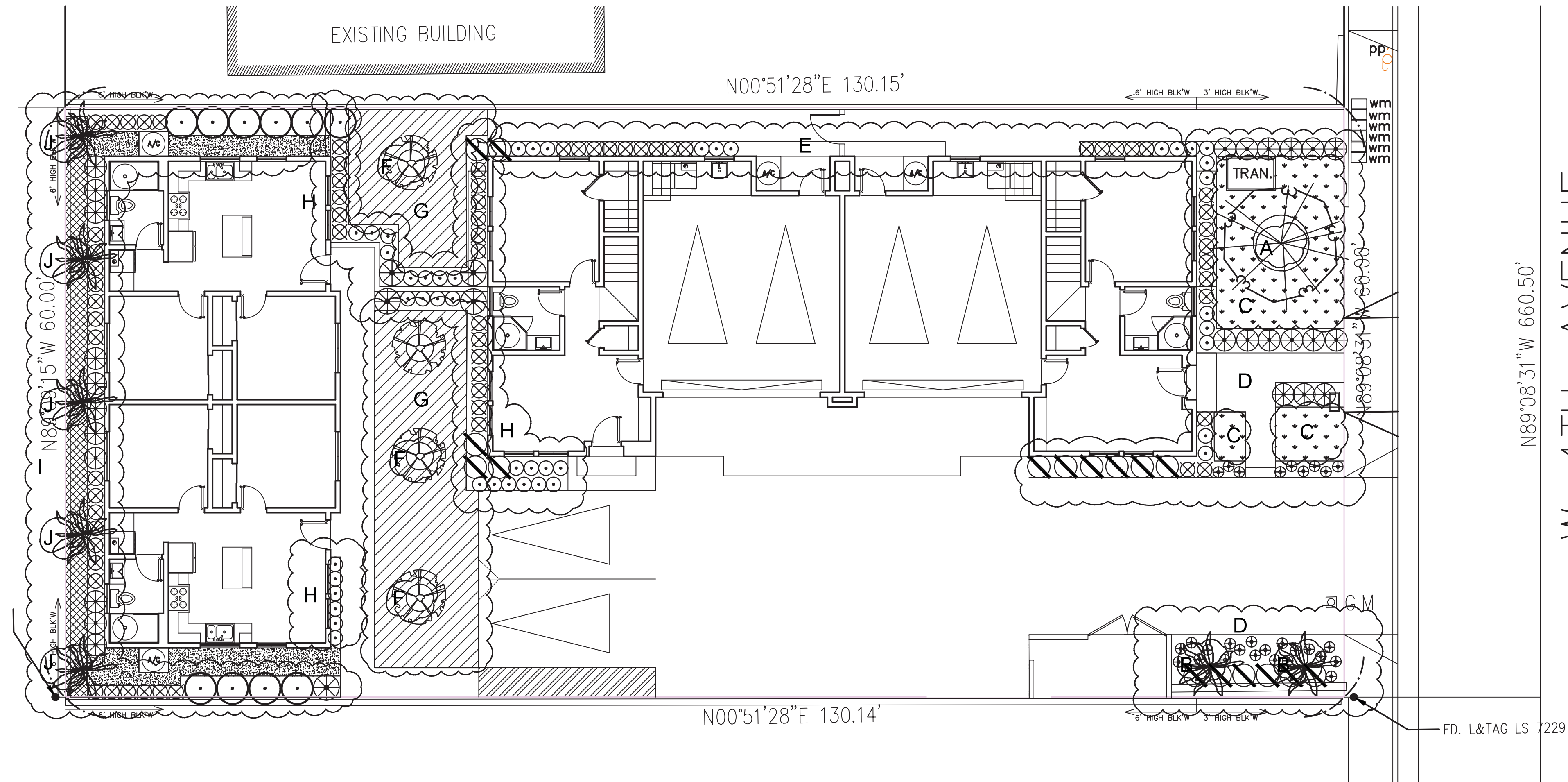
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DATE:	8-22-2023
DRAWN BY:	RAG
JOB NO:	
SCALE:	PER PLAN

SHEET NO.
LSA.1
8 OF 12 SHEETS



W. 4TH. AVENUE

HYDRO ZONE	SQ FT	% OF TOTAL LS AREA	PLANT TYPE	PLANT FORM	HYDROZONE BASIS	HYDROZONE DESCRIPTION	EXPOSURE	IRRIGATION METHOD	IRRIGATION DEVICE MANUF/MODEL/NUMBER	ZONE PRESSURE	PRECIP RATE	ZONE GPM	CONTROLLER STATION
A	25	1.27%	L	24B	SU	TREES	SUN-MOST OF DAY	B	RAINBIRD BUBBLER	30	.63	2.0	A7
B	200	10.18%	M	15G	SU	PALM	SUN-MOST OF DAY	B	RAINBIRD BUBBLER	30	.63	6.0	A10
C	280	14.25%	L	SOD	SU	TURF	SUN-MOST OF DAY	D	RAINBIRD DRIP	30	.63	7.0	A8
D	340	17.30%	L	1G/5G/15G	SU	SHRUBS	SUN-MOST OF DAY	D	RAINBIRD DRIP	30	.63	4.0	A9
E	100	5.09%	L	1G/5G/15G	SU	SHRUBS	SUN-MOST OF DAY	D	RAINBIRD DRIP	30	.63	2.0	A6
F	30	1.53%	L	24B	SU	TREES	SUN-MOST OF DAY	B	RAINBIRD BUBBLER	30	.63	6.0	A3
G	350	17.81%	L	FLATS	SU	GROUNDCOVER	SUN-MOST OF DAY	D	RAINBIRD DRIP	30	.63	4.0	A4
H	280	14.25%	L	1G/5G/15G	SU	SHRUBS	SUN-MOST OF DAY	D	RAINBIRD DRIP	30	.63	3.0	A5
I	320	16.29%	L	F/1G/5G/15G	SU	SHRUBS/GC	SUN-MOST OF DAY	D	RAINBIRD DRIP	30	.63	4.0	A2
J	40	2.03%	M	15G	SU	PALMS	SUN-MOST OF DAY	B	RAINBIRD BUBBLER	30	.63	10.0	A1
T	TURF			SE	SEED								
H	HIGH			SO	SOD			PL	PLANT TYPE	D	DRIP		
M	MEDIUM			F	FLAT			IR	IRRIGATION METHOD	S	SMALL ROTOR		
LVL	LOW, VERY LOW			P	PLUG			SU	SUN EXPOSURE	L	LARGE ROTOR		
O	OTHER			Q	QUART			SO	SOIL TYPE	B	BUBBLER		
				1G	1 GALLON			SL	SLOPE	M	MICROSPRAY		
				5G	5 GALLON			O	OTHER	O	OTHER		
				15G	15 GALLON					SP	SPRAY		
				24	24 BOX								
				36	36 BOX								
				48	48 BOX								

* BASED ON WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (WUCOLS) PUBLISHED BY STATE OF CA DEPT OF WATER RESOURCES

HOLD HARMLESS AND INDEMNIFICATION CLAUSE
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CONSTRUCTION NOTES:
 1. THIS PROJECT WILL COMPLY WITH: 2022 CBC, CMC, CPC, AND 2022 CEC AND 2022 TITLE 24 ENERGY REGULATIONS AND ALL CITY ORDINANCES.
 2. THE HOUSE STREET NUMBER WILL BE VISIBLE FROM THE STREET.
 3. THE DISCHARGE OF POLLUTANTS TO ANY STORM DRAINAGE SYSTEM IS PROHIBITED. NO SOLID WASTE, PETROLEUM BYPRODUCTS, SOIL PARTICULATES, CONSTRUCTION WASTE MATERIALS, OR WASTE WATER GENERATED ON CONSTRUCTION SITES OR BY CONSTRUCTION ACTIVITIES SHALL BE PLACED CONVEYED OR DISCHARGED INTO THE STREET, GUTTER, OR STORM DRAIN SYSTEMS.
 4. ALL EXISTING LANDSCAPE AND HARDSCAPE WILL BE REMOVED FROM THE BACK YARD AS DESCRIBED IN THE CALLOUTS. EXISTING ELEMENTS TO BE PROTECTED IN PLACE ARE IDENTIFIED IN THE CALLOUTS.



SCALE: 3/32" = 1'-0"

REVISIONS	DATE:

Underground Service Alert
 Call: TOLL FREE
 1-800-422-4133
 TWO WORKING DAYS BEFORE YOU DIG



3-Story Duplex & Two 1-Story ADU's
 729 & 731 W. 4th Avenue
 La Habra, CA 90631

HYDROZONE PLAN

DATE:
8-22-2023
 DRAWN BY:
RAG
 JOB NO:
 SCALE:
PER PLAN

SHEET NO.
LHZ.1
 9 OF 12 SHEETS

WALLACE LABORATORIES, LLC
 365 Coral Circle
 El Segundo, CA 90245
 phone (310) 615-0116 fax (310) 640-6863

August 22, 2023

Robert A Garcia, thegarcias4@aol.com
 Robert A Garcia, Landscape Architecture
 27962 Milt Circle
 Laguna Niguel, CA 92677

RE: Soil Management Report
 729 & 731 4th St., La Habra
 Front of Property, 8", Our ID No. 23-233-12, received August 18, 2023

Dear Robert,

The pH is moderately alkaline at 7.41. The salinity is moderate at 1.35 millimho/cm.

Nitrogen, phosphorus, potassium, manganese, zinc, copper, boron and magnesium are high. Zinc is higher than desired at 37 parts per million. Iron and sulfur are moderate. Plant-available lead is moderate at 23 parts per million.

The optimal level for zinc is several parts per million. Sensitive plants such as woody plants commonly need plant available zinc below about 30 parts per million. Herbaceous plants generally need zinc below about 50 parts per million. Excessive zinc causes stunting, dieback and discoloration. Zinc interferes with root functions. High zinc restricts the uptake of potassium and other micronutrients.

Normally, plant-available lead should be less than about 30 parts per million for good plant vigor.

Since heavy metals do not normally migrate through the soil profile, deeper soil is expected to be more suitable.

The effects of heavy metals are cumulative and the concurrent presence of them increases their toxicity. The threshold concentrations may need to be reduced.

Available sodium is moderate. SAR (sodium adsorption ratio) is 1.4.

The texture is loam. Based on the non-gravel fraction, it contains 46.6% sand, 29.3% silt and 24.0% clay. The gravel content is 1.9%.

Soil organic matter is good at 8.04% on a dry weight basis. The carbon:nitrogen ratio is good at 12.2.

The estimated rate of water percolation based on Soil Water Characteristics version 6.02.74 model developed by Keith Saxton of the USDA is moderate at 1.12 inches per hour for normal soil compaction. The model is based on the soil texture, percent gravel and percent soil organic matter.

Soil Analyses Plant Analyses Water Analyses

Continuation, August 22, 2023, page 2

Recommendations

Use a plant palette which is tolerant of heavy metals or else use a more suitable soil. Deeper soil may be more suitable.

Apply agricultural gypsum at 10 pounds per 1,000 square feet or at the rate of 1/2 pound per cubic yard.

Normally irrigate deeply but not frequently.

For site maintenance, apply Yara or Simplot calcium ammonium nitrate (27-0-0) at 4 pounds per 1,000 square feet about once per quarter.

Monitor the site with periodic soil and leaf tissue testing. Adjust the maintenance program as needed.

Sincerely,

Garn Wallace

Garn A. Wallace, Ph. D.
 GAW:n

Soil Analyses Plant Analyses Water Analyses

WALLACE LABS		SOILS REPORT		Print Date	Aug 21, 2023	Receive Date	8/18/23
365 Coral Circle		Location		23-233-12			
El Segundo, CA 90245		Requester		Robert A Garcia, Landscape Architecture			
(310) 615-0116		Graphic Interpretation		* very low, ** low, *** moderate, **** high, ***** very high			
ammonium bicarbonate/DTPA		Sample ID Number		23-233-12			
extractable - mg/kg soil		Sample Description		Front of Property, 8"			
interpretation of data		elements		graphic			
low medium high		phosphorus		38.62 *****			
0-7 8-15 over 15		potassium		349.55 *****			
0-60 60-120 121-180		iron		5.54 *****			
0-4 4-10 over 10		manganese		17.63 *****			
0-0.5 0.6-1 over 1		zinc		36.69 *****			
0-1 1-1.5 over 1.5		copper		6.05 *****			
0-0.2 0.3-0.5 over 0.5		boron		1.05 *****			
0-0.2 0.2-0.5 over 1		calcium		518.88 *****			
		magnesium		280.84 *****			
		sodium		117.91 ***			
		sulfur		70.07 ***			
		molybdenum		0.19 *****			
		nickel		1.55 *****			
		aluminum		n.d. *			
The following trace elements may be toxic		arsenic		0.03 *			
The degree of toxicity depends upon the pH of the soil, soil texture, organic matter, and the concentrations of the individual elements as well as to their interactions.		barium		0.76 *			
		cadmium		0.85 *			
		chromium		0.04 *			
		cobalt		0.31 *			
		lead		23.48 ***			
		lithium		0.24 *			
		mercury		n.d. *			
		selenium		n.d. *			
		silver		n.d. *			
The pH optimum depends upon soil organic matter and clay content-		strontium		3.00 **			
for clay and loam soils		tin		n.d. *			
under 5.2 is too acidic		vanadium		0.97 **			
8.5 to 7 is ideal							
over 9 is too alkaline		Saturation Extract					
The ECe is a measure of the soil salinity:		pH value		7.41 ***			
1-2 affects a few plants		ECe (millimho/cm)		1.35 ***			
2-4 affects some plants		calcium		140.6			
>4 affects many plants		magnesium		42.0			
		sodium		71.5			
		potassium		31.3			
		cation sum		14.4			
problems over 150 ppm		chloride		81			
good 20 - 30 ppm		nitrate as N		72			
		phosphorus as P		2.3			
toxic over 800		sulfate as S		74.9			
		anion sum		12.2			
toxic over 1 for many plants		boron as B		0.38 **			
increasing problems start at 3		SAR		1.4 *			
est. gypsum requirement-lbs/1,000 square feet				24			
		calculated per colation rate inches/hour		1.12			
soil texture		loam		gravel > 2 mm			
sand		46.6%		1.9%			
silt		29.3%		gravel > 1/4 inch			
clay		24.0%		0.0%			
lime (calcium carbonate)		no		gravel > 1/2 inch			
Total nitrogen		0.329%		0.0%			
Total organic carbon		4.019%					
carbon:nitrogen ratio		12.2					
organic matter based on carbon		8.04%					
moisture content of soil		6.3%					
half saturation percentage		27.1%					

Elements are expressed as mg/kg dry soil or mg/l for saturation extract.
 pH and ECe are measured in a saturation paste extract, nd means not detected.
 Analytical data determined on soil fraction passing a 2 mm sieve.

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REVISIONS	DATE:



3-Story Duplex & Two 1-Story ADU's
 729 & 731 W. 4th Avenue
 La Habra, CA 90631

SOIL MANAGEMENT PLAN

DATE: 8-22-2023
 DRAWN BY: RAG
 JOB NO:
 SCALE: PER PLAN

SHEET NO. LSM.1
 10 OF 12 SHEETS

IRRIGATION SPECIFICATIONS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Provide all labor, materials, transportation, and services necessary to furnish and install the Irrigation System as shown on the Drawings and described herein.
- B. Standards: All work and materials shall comply with governing codes, safety orders, standards, and regulations.

1.02 QUALITY ASSURANCE & REQUIREMENTS

- A. Permits and Fees: The Contractor shall obtain and pay for any and all permits and all observations as required.
- B. Manufacturer's Directions: Manufacturer's directions and detailed drawings shall be followed in all cases where the manufacturers of articles used in this Contract furnish directions covering points not shown in the Drawings and Specifications.
- C. Ordinances and Regulations: All local, municipal and state laws, and rules and regulations governing or relating to any portion of this work are hereby incorporated into and made a part of these Specifications, and their provisions shall be carried out by the Contractor. Anything contained in these Specifications shall not be construed to conflict with any of the above rules, regulations, or requirements of the same. However, when these Specifications and Drawings call for or describe materials, workmanship, or construction of a better quality, higher standard, or larger size than is required by the above rules and regulations, the provisions of these Specifications and Drawings shall take precedence.
- D. Explanation of Drawings:

1. Due to the Scale of the Drawings, it is not possible to indicate all offsets, fitting, sleeves, etc., which may be required. The Contractor shall carefully investigate the structural and finished conditions affecting all of his work and plan his work accordingly, furnished such fittings, etc., as may be required to meet such conditions. Drawings are generally diagrammatic and indicative of the work to be installed. The work shall be installed in such a manner as to avoid conflicts between the irrigation system, planting and architectural features.
2. All work called for on the Drawings by notes or not specifically mentioned in the specifications.
3. The Contractor shall not willfully install the irrigation system as shown on the Drawings when it is obvious in the field that obstructions, grade differences, or discrepancies in area dimensions exist that might not have been considered engineering. Such obstructions or differences should be brought to the attention of the Landscape Architect. In the event this notification is not performed, the Contractor shall assume full responsibility for any revision necessary.

1.03 SUBMITTALS

A. Material list:

1. The Contractor shall furnish the articles, equipment, materials, or processes specified by name in the Drawings and Specifications. No substitution will be allowed without prior written approval by the City.
2. Complete material list shall be submitted prior to performing any work. Material list shall include the manufacturer, model number, and description of all materials and equipment to be used. Although manufacturer and other information may be different, the following is a guide to proper submittal format:

Item No.	Description	Manufacturer	Model No.
1	Backflow Preventer	Febco	825Y
2	Automatic Controller	Calsense	ETI-DTR2
3	Master Valve	Clayval	136ACSKC-24V
4	Etc.	Etc.	Etc.

Irrigation submittal must be specific and complete. All items must be listed and should include solvent, primer, wire, connectors, valve, boxes, etc. No copies of manufacturer's literature (catalog cuts) are required as submittal information.

3. The Contractor may submit substitutions for equipment and materials listed on the Drawings by following procedures as outlined in Section 1.05 of the Irrigation Specifications.
4. Equipment or materials installed or furnished without prior approval of the City may be rejected and the Contractor may be required to remove such materials from the site at his own expense.
5. Approval of any item, alternative or substitute indicates only that the product or products apparently meet the requirements of the Drawings and Specifications on the basis of the information or samples submitted.
6. Manufacturer's warranties shall not relieve the Contractor of his liability under the guarantee. Such warranties shall only supplement the guarantee.

B. RECORD DRAWINGS:

1. The Contractor shall provide and keep up-to-date a complete record set of blue-line ozalid prints which shall be corrected daily, showing every change from the original Drawings and Specifications and the exact installed locations, sizes, and kinds of equipment. Prints for this purpose may be obtained from the City at cost. This set of drawings shall be kept on the site and shall be used only as a record set.
2. The Contractor shall make neat and legible notations on the record drawing progress sheets daily as the work proceeds, showing the work as actually installed. For example, should a piece of equipment be installed in a location that does not match the plan, the Contractor must indicate that equipment has been relocated in a graphic manner so as to match the original symbols as indicated in the irrigation legend. The relocated equipment and dimensions will then be transferred to the original record drawing plan at the proper time.

3. Before the date of the final observation, the Contractor shall transfer all information from the "record drawing" prints to a sepiya mylar or similar mylar material. Arrangements shall be made through the city for obtaining said sepiya mylar or similar mylar material. All work shall be in waterproof India ink and applied to the mylar by a technical pen made expressly for use on mylar material. Such pen shall be similar to those manufactured by Rapidograph, Kuffel & Esser, or Faber Castell. The dimensions shall be made as to be easily readable even on the final controller chart (see Section C). The original mylar "record drawing" plan shall be submitted to the City for approval prior to the completion of the controller chart.

4. The Contractor shall dimension from two (2) permanent points of reference, such as building corners, sidewalk edges, road intersections, etc., the location of the following items:
- Connection to existing water lines.
 - Connection to existing electrical power.
 - Gate valves.
 - Routing of sprinkler pressure lines (dimension max. 100' along routing).
 - Sprinkler control valves.
 - Routing of control wiring and locations of all splice boxes.
 - Quick coupling valves.
 - Stub-outs for future connections.
 - Other related equipment as directed by the City.
5. On or before the date of the final field observation, the Contractor shall deliver the corrected and completed sepiyas to the City. Delivery of the sepiyas will not relieve the Contractor of the responsibility of furnishing required information that may be omitted from the prints.

C. Controller Charts:

1. As-built drawings shall be approved by the Owner before controller charts are prepared.
2. Provide one controller chart for each controller sequence.
3. The chart shall show the area controlled by the automatic controller and shall be the maximum size which the controller door will allow.
4. The chart is to be a reduced drawing of the actual installed system. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when reduced.
5. The chart shall be a black line or blue-line ozalid print and a different color shall be used to indicate the area of coverage for each station.
6. When completed and approved, the chart shall be hermetically sealed between two pieces of plastic, each piece being a minimum 20 mils.
7. These charts shall be completed and approved prior to the final field observation of the irrigation system.

D. Operation and Maintenance Manuals:

1. Prepare and deliver to the Owner within ten calendar days prior to completion of construction, two hard-cover, three ring binders containing the following information:
- Index sheet which states Contractor's name, address, and telephone number, and which lists each installed equipment and material item including names and addresses of manufacturer's local representatives.
 - Catalog and parts sheets on every material and equipment item installed under this Contract.
 - Guarantee statement.
 - Complete operating and maintenance instructions on all major equipment.
2. In addition to the above mentioned maintenance manuals, provide the Owner's maintenance personnel with instructions for major equipment and show evidence in writing to the Owner at the conclusion of the project that this service has been rendered.

E. Equipment to be Furnished:

1. Supply as a part of this contract the following tools:
- Two (2) sets of special tools required for removing, disassembling and adjusting each type of sprinkler and valve supplied on this project.
 - Two (2) four-foot valve keys for operation of gate valves.
 - Two (2) keys for each automatic controller.
 - One (1) quick coupler key and matching hose swivel for every five (5) or fraction thereof of each type of quick coupling valve installed.
2. The above mentioned equipment shall be turned over to the Owner at the conclusion of the project. Before final observation can occur, evidence that the Owner has received material must be provided to the Owner.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Handling of PVC pipe and fittings: The Contractor is cautioned to exercise care in handling, loading, unloading, and storing PVC pipe and fittings. All PVC pipe shall be transported in a vehicle which allows the length of pipe to lie flat so as not to subject it to undue bending or a concentrated external load at any point. Any section of pipe that has been dented or damaged will be discarded, and if installed, shall be replaced with new piping.

1.05 SUBSTITUTIONS

- A. If the Contractor wishes to substitute any equipment or materials for the equipment or materials listed on the Drawings and Specifications, he may do so by providing the following information to the City and Owner for approval:
- Provide a statement indicating the reason for making the substitution. Use a separate sheet of paper for each item to be submitted.
 - Provide descriptive catalog literature, performance charts and flow charts for each item to be substituted.

3. Provide the amount of cost savings if the substituted item is approved.

- B. The City and the Owner shall have the sole responsibility in accepting or rejecting any submittal item as an approved equal to the equipment and materials listed on the Drawings and Specifications.

1.06 GUARANTEE (1 YEAR IRRIGATION WARRANTY)

- A. The guarantee for the irrigation system shall be made in accordance with the attached form. The General Conditions and Supplementary Conditions of these Specifications shall be filed with the City prior to acceptance of the irrigation system.
- B. A copy of the Guarantee form shall be included in the operations and maintenance manual.
- C. The guarantee form shall be re-typed onto the Contractor's letterhead and shall contain the following information:

GUARANTEE FOR IRRIGATION SYSTEM

We hereby guarantee that the irrigation system we have furnished and installed is free from defects in materials and workmanship, and the work has been completed in accordance with the Drawings and Specifications, ordinary wear and tear, unusual abuse, or neglect excepted. We agree to repair or replace any defects in material or workmanship which may develop during the period of one year from date of acceptance and also to repair or replace any damage resulting from the repairing or replacing of such defects at no additional costs to the Owner. We shall make such repairs or replacements within a reasonable time, as determined by the Owner, after receipt of written notice. In the event of our failure to make such repairs or replacements within a reasonable time after receipt of written notice from the Owner, we authorize the Owner to proceed to have said repairs or replacements made at our expense and we will pay the costs and charges therefore upon demand.

PROJECT: _____

LOCATION: _____

SIGNED: _____

ADDRESSED: _____

PHONE: _____ DATE OF ACCEPTANCE: _____

PART 2 - PRODUCTS

2.01 MATERIALS

- A. General: Use only new materials of brands and types noted on drawings, specified herein, or approved equals.

B. PVC Pressure Main Line Pipe and Fittings:

- Pressure main line piping for sizes 2" and larger shall be PVC Class 315.
- Class 315 pipe shall be made from an NSF approved Type I, Grade I, PVC compound conforming to ASTM resin specification D1784. All pipe must meet requirements as set forth in Federal Specification PS-22-70, with an appropriate standard dimension (S.D.R.) (Solvent-weld Pipe).
- Pressure main line piping for sizes 1-1/2" and smaller shall be PVC Schedule 40 with solvent welded joints.
- Schedule 40 pipe shall be made from NSF approved Type I, Grade 1 PVC compound conforming to ASTM resin specification D1785. All pipe must meet requirements as set forth in Federal Specification PS-21-70.
- PVC solvent-weld fittings shall be Schedule 40, 11-1 NSF approved conforming to ASTM test procedure D2466.
- Solvent cement and primer for PVC solvent-weld pipe and fittings shall be of type and installation methods prescribed by the manufacturer.
- All PVC pipe must bear the following markings:
 - Manufacturer's name
 - Nominal pipe size
 - Schedule or class
 - Pressure rating in P.S.I.
 - NSF (National Sanitation Foundation) approval
 - Date of extrusion
- All fittings shall bear the manufacturer's name or trademark, material designation, size, applicable I.P.S. schedule and NSF seal of approval.

C. PVC Non-Pressure Lateral Line Piping:

- Non-pressure buried lateral line piping shall be PVC Schedule 40 with solvent-weld joints when installed in planting areas.
- Non-pressure lateral line piping installed under paved areas shall be PVC Schedule 40 with solvent welded joints.
- Pipe shall be made from NSF approved, Type I, Grade II PVC compound conforming to ASTM resin specification D1784. All pipe must meet requirements set forth in Federal Specification PS-22-70 with an appropriate standard dimension ratio.
- Except as noted in paragraphs 1, 2, and 3 of this section (2.01B), all requirements for non-pressure lateral line pipe and fittings shall be the same as for solvent-weld pressure main line pipe and fittings as set forth in section 2.01B of the Specifications.

D. Brass Pipe and Fittings:

- Where indicated on the Drawings, use red brass screwed pipe conforming to Federal Specification #WW-P-351.
- Fittings shall be red brass conforming to Federal Specification #WW-P-460.

E. Copper Pipe and Fittings:

- Pipe: Type K, hard tempered.
- Fittings: wrought copper, solder joint type.
- Joints shall be soldered with silver solder, 45% silver, 15% copper, 16% zinc, 24% cadmium, solidus at 1125° F, and liquidus at 1145° F.

F. Valves:

- Ball Valves (1-1/2" and smaller)
 - Ball valves shall be a 125 lb SWP bronze valve with screw-in bonnet, nonrising stem, and solid wedge disc, with a stainless steel handle.
 - Ball valves shall be similar to those manufactured by Nibco or approved equal.
 - All Ball valves shall be installed per detail.
- Resilient Wedge Gate Valve (2" and larger)
 - Resilient Wedge Gate valves shall be epoxy coated cast iron and equipped with a 2" operating nut.
 - Resilient Wedge Gate valves shall be No. 403 RT-RW as supplied by Watts or approved equal.
 - All Resilient Wedge Gate valves shall be installed per detail.

G. Quick Coupling Valves:

- Quick coupling valves shall have a brass, two-piece body designed for working pressure of 150 P.S.I.
- Quick coupling valve shall be operable with a quick coupler key. Key size and type shall be as shown on the Drawings.

H. Backflow Prevention Units:

- Backflow prevention unit shall be of size and type indicated on the irrigation drawings. Install backflow prevention units in accordance with the Drawings.
- Wye strainers at backflow prevention units shall have a bronzed screwed body with 60 mesh monel screen and shall be similar to Bailey #100B or approved equal.
- All pressure main line piping between the point of connection and the backflow preventer shall be installed as required by local code. The Contractor shall verify with the local governing body as to material type and installation procedures prior to start of construction. Submit shop drawing for approval.

I. Check Valves:

- Swing check valves 2" and smaller shall be 200 pound W.O.G. bronze construction with replaceable composition, neoprene, or rubber disc and shall meet or exceed Federal Specification WW-V-51D, Class A, Type IV.
- Anti-drain valves shall be of heavy duty virgin PVC construction with F.L.P. thread inlet and outlet. Internal parts shall be stainless steel and neoprene. Anti-drain valve shall be field adjustable against draught from 5 to 40 feet of head. Anti-drain valve shall be similar to the Valcoon "ADV" or approved equal.

J. Control Wiring:

- Except as noted otherwise, connections between the automatic controllers and the electric control valves shall be made with direct burial copper wire AWG-U.F. 600 volt. Control wiring installed in control wire conduit within structure shall be made with AWG-TW solid copper wire. Pilot wires shall be a different color wire for each automatic controller. Common wires shall be white with a different color stripe for each automatic controller. Install in accordance with valve manufacturer's specifications and wire chart. In no case shall wire size be less than #14.
- Wiring shall occupy the same trench and shall be installed along the same route as pressure supply or lateral lines wherever possible.
- Where more than one (1) wire is placed in a trench, the wiring shall be taped together at intervals of fifteen (15) feet.
- An expansion curl shall be provided within three (3) feet of each wire connection. Expansion curl shall be of sufficient length at each splice connection at each electric control valve, so that in case of repair, the valve bonnet may be brought to the surface without disconnecting the control wires. Control wires shall be laid loosely in trench without stress or stretching wire conductors.
- All splices shall be made with Scotch-Lok #3576 Connector Sealing Packs, Rainbird Snap-Tile wire connectors, or approved equal. Make only one splice with each connector sealing pack.
- Field splices between the automatic controller and electric control valves will not be allowed without prior approval of the City.

K. Automatic Controller:

- Automatic controller(s) shall be of size and type shown on the Drawings.
- Final location of automatic controller(s) shall be approved by the Landscape Architect and Owner.
- Unless otherwise noted on the Drawings, the 120 volt electrical power to each automatic controller location is to be furnished by others. The final electrical hook-up shall be the responsibility of the Contractor.

L. Electric Control Valves:

- All electric control valves shall be the same size and type shown on the Drawings.
- All electric control valves shall have a manual flow adjustment.
- Provide and install one control valve box for each electric control valve.

M. Control Valve Boxes:

- Use 10" x 10-3/4" round box for all gate valves. Carson Industries #910-12B with purple bolt-down cover or approved equal. Extension sleeve shall be PVC with minimum size of six (6) inches.
- Use 9-1/2" x 16" x 11" rectangular box for all electric control valves. Carson Industries # 1419-12B with purple bolt-down cover or approved equal.
- Use 6" diameter x 8-3/4" deep round plastic valve box for all quick coupling valves. Carson Industries # 608-12 with purple flex-lock cover or approved equal.

N. Sprinkler Heads:

- All sprinkler heads shall be of the same size, type, and deliver the same rate of precipitation with the diameter (or radius) of throw, pressure, and discharge as shown on the Drawings and/or specified in these special provisions.
- Spray heads shall have a screw adjustment.
- Riser units shall be fabricated in accordance with the details shown on the drawings.
- Riser nipples for all sprinkler heads shall be the same size as the riser opening in the sprinkler body.
- All sprinkler heads of the same type shall be the same manufacturer.

O. Sleeving:

- Sleeving under hardscape or paved areas for mainline, lateral lines or control wiring shall be Schedule 40 P.V.C. or approved equal.

P. Vandal Resistant Controller Enclosure:

- Controller enclosure shall be of size and type shown on the Irrigation Drawings and Irrigation Detail sheet.
- A backboard shall be secured to the controller enclosure housing to provide a base for mounting the automatic sprinkler controller and terminal strip.
- A 117 volt duplex box shall be provided with an On/Off switch, and a 117 volt receptacle. Metal conduit shall run from the 117 volt supply to the controller housing. All power within the housing shall be properly phased.
- A terminal strip shall be provided, clearly indicating the proper points of connection of all appropriate wiring (station valves, master valve, common, central control).

Q. Miscellaneous Irrigation Equipment:

- Refer to the Irrigation Plans for sizes and types of miscellaneous irrigation equipment.
- All miscellaneous irrigation equipment shall be as specified or approved equal.

PART 3 - EXECUTION

3.01 OBSERVATION OF SITE CONDITIONS

- A. All scaled dimensions are approximate. The Contractor shall check and verify all size dimensions and receive approval from the City prior to proceeding with work under this Section.
- B. Exercise extreme care in excavating and working near existing utilities. The Contractor shall be responsible for damages to utilities which are caused by his operations or neglect. Check existing utilities drawings for existing utility locations. Contact Dig Alert (or similar service).
- C. Coordinate installation of sprinkler materials including pipe, so there shall be no interference with utilities or other construction or difficulty in planting trees, shrubs, and ground covers.
- D. The Contractor shall carefully check all grades to satisfy himself that he may safely proceed before starting work on the irrigation system.

3.02 PREPARATION

A. Physical layout:

- Prior to installation, the Contractor shall stake out all pressure supply lines, routing and location of sprinkler heads.
- All layout shall be approved by the City prior to installation.

B. Water Supply:

- The irrigation system shall be connected to water supply point(s) of connection as indicated on the Drawings.
- Connections shall be made at the approximate location(s) shown on the Drawings. The Contractor is responsible for minor changes caused by actual site conditions.

C. Electrical Supply:

- Electrical connections for any and all automatic controllers shall be made to electrical point(s) of connection as indicated on the Drawings.
- Connections shall be made at the approximate location(s) shown on the Drawings. The Contractor is responsible for minor changes caused by actual site conditions.

3.03 INSTALLATION

A. Trenching:

- Dig trenches straight and support pipe continuously on bottom of trench. Lay pipe to an even grade. Trenching excavation shall follow layout indicated on the Drawings and as noted.
- Provide for a minimum of twenty-four (24) inches cover for all irrigation lines installed under paving or hardscaping.
- Provide for a minimum of twenty-four (24) inches cover for all pressure supply lines of three (3) inches or larger in diameter.

HOLD HARMLESS AND INDEMNIFICATION CLAUSE

CONTRACTOR AGREES TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER/DEVELOPER COUNTY OF LOCAL JURISDICTION AND THE LANDSCAPE ARCHITECT HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER/DEVELOPER, COUNTY OF LOCAL JURISDICTION, OR THE LANDSCAPE ARCHITECT.

REVISIONS	DATE:



3-Story Duplex & Two 1-Story ADU's
729 & 731 W. 4th Avenue
La Habra, CA 90631

SPECIFICATIONS

DATE: 8-22-2023
DRAWN BY: RAG
JOB NO:
SCALE: PER PLAN

SHEET NO.
LS.1
11 OF 12 SHEETS

IRRIGATION SPECIFICATIONS (continued)

E. Line Clearance:

- All lines shall have a minimum clearance of six (6) inches from each other and twelve (12) inches from lines of other trades, with the exception of the control wire sleeve(s) which shall be installed adjacent to pressure supply line. Parallel lines shall not be installed directly over one another.

F. Automatic Controller Assembly:

Install as per manufacturer's instructions. Remote control valves shall be connected to controller in numerical sequence as shown on the Drawings.

G. High Voltage Wiring for Automatic Controller:

- 120 volt power connection to the automatic controller shall be provided by the Contractor.
- All electrical work shall conform to local codes, ordinances, and union authorities having jurisdiction.

H. Remote Control Valves:

- Install where shown on the Drawings. Where grouped together, allow at least twelve (12) inches between adjacent valve boxes. Install each remote control valve in a separate valve box.

I. Flushing of System:

- After all new sprinkler pipe lines and risers are in place and connected, all necessary diversion work has been completed, and prior to installation of sprinkler heads, the control valves shall be opened and full head of water used to flush out the system.
- Sprinkler heads shall be installed only after flushing of the system has been accomplished to the complete satisfaction of the City.

J. Sprinkler Heads:

- Install the sprinkler heads as designated on the Drawings. Sprinkler heads to be installed in this work shall be equivalent in all respects to those itemized.
- Spacing of heads shall not exceed the maximum indicated on the Drawings. In no case shall the spacing exceed the maximum recommended by the manufacturer.

3.04 TEMPORARY REPAIRS

The City reserves the right to make temporary repairs as necessary to keep the sprinkler system equipment in operating condition. The exercise of this right by the City shall not relieve the Contractor of his responsibilities under the terms of the guarantee as herein specified.

3.05 EXISTING TREES

Where it is necessary to excavate adjacent to existing trees, the Contractor shall use all possible care to avoid injury to trees and tree roots. Excavation in areas where two (2) inch and larger roots occur shall be done by hand. All roots two (2) inches and larger in diameter, except directly in the path of pipe or conduit, shall be tunneled under and shall be heavily wrapped with burlap to prevent scarring or excessive drying. Where a ditching machine is run close to trees having roots smaller than two (2) inches in diameter, the wall of the trench adjacent to the tree shall be hand trimmed, making clean cuts through. Roots one (1) inch and larger in diameter shall be painted with two coats of Tree Seal, or equal. Trenches adjacent to tree should be closed within twenty-four (24) hours; and where this is not possible, the side of the trench adjacent to the tree shall be kept shaded with burlap or canvas.

3.06 FIELD QUALITY CONTROL

A. Adjustment of the System:

- The Contractor shall flush and adjust all sprinkler heads for optimum performance and to prevent overspray onto walks, roadways, and buildings as much as possible.
- If it is determined that adjustments in the irrigation equipment will provide proper and more adequate coverage, the Contractor shall make such adjustments prior to planting. Adjustments may also include changes in nozzle sizes and degrees of arc as required.
- Lowering raised sprinkler heads by the Contractor shall be accomplished within ten (10) days after notification by the City.
- All sprinkler heads shall be set perpendicular to finished grades unless otherwise designated on the Drawings.
- Rain Bird DV valves will be set per manufacturers specification so that each lateral operates at design pressure.

B. Testing of Irrigation System:

- The Contractor shall request the presence of the City in writing at least 48 hours in advance of testing.
- Test all pressure lines under hydrostatic pressure of 150 pounds per square inch and prove watertight.
Note: Testing of pressure main lines shall occur prior to installation of the electric control valves.
- All piping under paved areas shall be tested under hydrostatic pressure of 150 pounds per square inch and proven watertight prior to paving.
- Sustain pressure in lines for not less than six (6) hours. If leaks develop, replace joints and repeat test until entire system is proven watertight.
- All hydrostatic tests shall be made only in the presence of the General Contractor and the City. No pipe shall be backfilled until it has been observed, tested, and approved in writing.
- Furnish necessary force pump and all other test equipment.
- When the irrigation system is completed, perform a coverage test in the presence of the City to determine if the water coverage for planting areas is complete and adequate. Furnish all materials and perform all work required to correct any inadequacies of coverage due to deviations from the Drawings, or where the system has

been willfully installed as indicated on the Drawings when it is obviously inadequate, without bringing this to the attention of the City. This test shall be accomplished before any ground cover is planted.

- Upon completion of each phase of work, the entire system shall be tested and adjusted to meet site requirements.

3.07 MAINTENANCE

- The entire irrigation system shall be under full automatic operation for a period of seven (7) days prior to any planting.
- The City reserves the right to waive or shorten the operation period.

3.08 CLEAN-UP

Clean-up shall be made as each portion of work progresses. Refuse and excess dirt shall be removed from the site, all walks and paving shall be bloomed or washed down, and any damage sustained on the work of others shall be repaired to its original condition.

3.09 FINAL SITE OBSERVATION PRIOR TO ACCEPTANCE

- The Contractor shall operate each system in its entirety for the City at time of final observation. Any Items deemed not acceptable by the City shall be reworked to the complete satisfaction of the City.
- The Contractor shall show evidence to the City that the City has received all accessories, charts, record drawings, and equipment as required before final site observation can occur.

3.10 SITE OBSERVATION SCHEDULE

- The Contractor shall be responsible for notifying the City in advance for the following observation meetings, (verify with city) according to the time indicated:
 - Pre-Job Conference - 7 days
 - Pressure supply line installation - 24 hours
 - Lateral line and sprinkler installation - 24 hours
 - Automatic controller installation - 24 hours
 - Control wire installation - 24 hours
 - Pressure supply line and lateral line testing - 48 hours
 - Coverage test - 48 hours
 - Final observation - 7 days

- When observations have been conducted other than the City show evidence in writing of when and by whom these observations were made.
- No site observations will commence without "As-Built" record drawings. The contractor shall not call for a site visit without "As-Built" record drawings, without completing previously noted corrections, or without preparing the system for said visit.

PLANTING SPECIFICATIONS

PART 1 - GENERAL

1.01 Scope of Work:

Contractor shall provide all materials, labor and equipment incidental to and necessary for completing all work, as indicated on the drawings, as reasonably implied, or as delineated in the Specifications as follows.

1.02 Standards:

All work and materials shall comply with governing codes, safety orders, standards, and regulations, and meet the minimum requirements of the governing agencies.

1.03 Quality Assurance:

- All Contractors performing Site Development work, must be licensed in accordance with the laws of the State of California.
- Contractor shall provide the Landscape Architect and the City with a list of Subcontractors and Material Suppliers expected to be employed during the course of construction.
- Contractor shall obtain and keep in force Public Liability and Property Damage Insurance, during entire course of the Construction Contract. The amount of insurance shall be determined by City.
- Prior to start of site development work, the Contractor shall notify the Landscape Architect and City to give starting and completion dates. Contractor shall also supply the Landscape Architect and City with the name and telephone number of the person in charge of the work.

1.04 Responsibilities and Coordination:

- Permits: The Contractor shall obtain and pay for all permits and inspections required by governing authorities for the work to be performed.
- Existing Conditions: The Contractor shall verify all conditions and dimensions shown on the plans at the site prior to commencement of any work under this contract. The Contractor shall verify the location and depth of all underground utilities prior to start of work.
- Temporary Utilities: The Contractor shall apply for and pay all cost incurred for all temporary utilities such as water, electrical power and gas as required by him for the construction of the project. Temporary services shall be coordinated with the City and other contractors on the job site.
- Survey, Reference Points, and Elevations: The Contractor is responsible for establishing all surveys, reference points and elevations required by him, and shown on plans for proper execution of site construction.
- Traffic: The Contractor is responsible for all temporary traffic barriers and detours required by him for the construction of the project. All temporary traffic barriers and detours shall conform to all conditions required by the City or governing authorities.

1.05 Defective and Unauthorized Work:

All work which is determined by inspection to be defective in its construction or deficient in any of the requirements of the plans and specifications, shall be remedied or removed, and replaced by the Contractor at his own expense in a manner acceptable to the Landscape Architect and City.

1.06 Inspections:

The Contractor shall arrange for inspections by notifying the Landscape Architect, City and governing authorities, 24 hours prior to time of inspection, unless otherwise noted. Inspections shall be as listed below, but not necessarily in this order. Only the inspection pertaining to the project scope of work will apply:

Rough Grading,
Drain Lines and Catch Basins,
Irrigations (main line pressure, coverage & system operations test),
Soil Preparation and Finish Grading,
Plant Material (delivery & placement),
Substantial Completion Inspection (at completion of landscape improvements) - 7 Days,
Final Inspection (after maintenance period) - 7 days.

The contractor shall arrange a Preconstruction job conference with the Landscape Architect and City a minimum of seven (7) days prior to the beginning work.

1.07 Guaranties: 1 Year Warantee

- Plant Materials: All trees, shrubs, ground cover, bedding plants and lawn shall be guaranteed from date of final acceptance of landscape construction for periods as follows:

Trees 24" box & larger = 1 year
Trees 15 gal. & smaller = 1 year
Shrubs All sizes = 1 year
Ground Cover = 1 year
Bedding Plant = 1 year
Lawn (seed) = 1 year
Lawn (seed) = 1 year

Guarantees begin after the project acceptance by City and at the end of the 180-day maintenance period. Landscape Contractor shall replace and plant all materials which have died within the time span stated above, at no cost and within 5 days from receiving written notice from the Landscape Architect or City. If dead material is not replaced and planted within the 5 day period, City may replace dead material with new material and charge the Landscape Contractor for all expenses incurred.

- Construction Materials: The contractor shall guarantee all workmanship and materials for all site development, for a period of one year from date of final acceptance of project.

1.08 Material and Labor Releases:

Upon completion of the work, the Contractor shall present to the City, signed copies of all labor and materials releases for all work performed under Site Development.

1.09 Disposal and Clean-up:

Remove all waste materials (including excavated material classified as unacceptable soil material), trash and debris generated or encountered during the course of landscape construction, and legally dispose of it. During the course of the work, remove surplus materials from the site and leave premises in a neat and clean condition. Clean up and remove all remaining debris and surplus materials upon completion of work, leaving the premises neat and clean. The site shall be cleaned upon the request of the inspector.

PART 2 - EXECUTION

2.01 Protection:

Keep all plant material delivered to site in a healthy condition for planting. Plants shall not be allowed to dry out. Bare root stock shall be separated and heeled-in, in moist earth or other suitable material until planting. Balled and burrapped plants shall have root ball covered with moist sawdust, wood chips or other suitable material until planting.

2.02 Installation:

Detailed layout of plants within the planting areas shall be performed by Contractor and approved by the Landscape Architect and City prior to planting.

Soil excavated from planting holes shall be amended to backfill around trees and shrubs using the following mixture:

Native, On-Site Soil with rock no greater than 3" in diameter
Gro Power Plus, 5-3-1 @ 15 lbs/cy
Iron Sulfate @ 2 lbs/cy

(To be used for bidding purposes only, verify with Agronomic Soils Test.)

After backfilling, construct a 3" earthen berm to form watering basin around each plant, to allow thorough water-in and establishment.

Prior to installation of turf and ground cover, remove water basins from around trees and shrubs. Berms in turf areas to be removed prior to City acceptance.

PART 3 - SOIL PREPARATION AND FINISH GRADING

3.01 Scope of Work:

- Provide all materials and equipment, and perform all work necessary for and incidental to the soil preparation and finish grading of all planting and lawn areas as shown on plans, as reasonably implied, or as delineated in the specifications.
- Furnishing, placement and grading, of topsoil for backfilling of planters if required.
- Cleaning and finish grading of planters areas and planting areas.

3.02 Topsoil:

- Existing on-site soils listed as 'acceptable' under 'Site Grading' specification.
- Topsoil imported to site for use as fill, backfill in planters and mounding, shall be sandy textured. Silt plus clay content of this soil shall be no greater than 15% by weight. The boron content of this soil shall be no greater than 1 part per million as measured on the saturation extract. The sodium absorption ratio (SAR) shall not exceed 3.0 millimhos per centimeter at 25 C. In order to ensure conformance, samples of the imported soil shall be submitted to an agronomic soils

testing laboratory, approved by the project Landscape Architect for analysis prior to use. Result of testing to be delivered to City for approval. Soil test to include analysis and recommendations.

3.03 Soil Amendments:

All soil amendments shall be as specified in the Agronomic Suitability/Fertility soils report furnished by the Contractor

3.04 Soil Preparation:

All work on irrigation system shall be complete and inspected for recommended approval and, fine grading completed, prior to rototilling and prior to soil amendment work.

After rough grades have been established, prepare all lawn and planting areas by hilling or cross ripping to a depth of 12". All rock and debris more than 2" in diameter shall be removed from the site, except for areas that are to be sodded, in which all rock and debris more than 1" in diameter shall be removed.

Apply, spread, and rototill in all soil amendments as recommended to a depth of 6". Water area thoroughly after rototilling is complete. Incorporate evenly into the top 4" to 6" the following for each 1,000 square feet of planting area:

4 cubic yards of nitrated Redwood or Fir shaving or equal.
200 lbs. of Gro-Power or approved equal.

The above soil conditioning are minimal quantities only and should be used only for bidding purpose, because soil conditions may change drastically from the time these specifications were developed to the time the actual soil conditioning take place. Therefore, the Contractor shall obtain his own soils analysis at a rate of one per every 25,000 square feet of planted area. These soil tests shall be conducted by an approved Agronomic soils testing laboratory approved by the project Landscape Architect and City. Copies of the soil test to be provided during the Pre-construction job conference.

3.05 Finish Grading:

After rototilling operations are complete, grade areas to establish finish grades for planting. All flow lines shall be maintained and proper tolerances shall be met after settlement at the end of the project maintenance period.

Finish grading shall leave surface of the ground uniformly smooth and free of abrupt grade change.

3.06 Coordination:

Weed abatement work shall be coordinated with the installation of the irrigation system rototilling and soil amendment work, and planting. (See Weed Abatement section).

PART 4 - TREES AND SHRUBS

4.01 Scope of Work:

Provide all material, equipment, and labor necessary to install all trees and shrubs as shown on plans, as reasonably implied and as delineated in the specifications.

4.02 Products

- Nomenclature - Plant names indicated on the drawings conform to the "Standard Plant Names" established by the American Joint Committee on Horticulture. Except for names covered therein, the established custom of the nursery is followed.

- Condition - Plants shall be symmetrical, typical for variety and species, sound, healthy, vigorous, free from plant disease, insect pests, or their eggs, and shall have healthy, normal root systems, well-filling their container, but not to the point of being root bound. Plants shall not be pruned at anytime, and in no case shall trees be topped.

- Trees and shrubs shall be growing at a recognized nursery in accordance with good horticulture practices and shall be of the size and caliper normally associated with the container size specified on plans. Removal of all tags, labels, nursery stakes and ties from all plant material prohibited until the approval of the Landscape Architect or City.

- All plant material delivered to the site showing signs of damage or disease or is insufficient in size to carry out the intent of the planting plan will not be accepted and will be replaced at Contractor's expense.

- Sizes of Plants - Shall be as stated on the Plan. Container stock (1-gallon, 5-gallon, and 15-gallon) shall have been grown in containers for at least one (1) year, but not over two (2) years.

- Substitutions - Substitutions for indicated plant material will be permitted provided the substitute materials are approved in advance by the City, and are made at no additional cost to the City. Except for authorized variations, all substitute plant materials shall conform to the requirements of these specifications.

- Plants Not Approved - Plants not approved are to be removed from site immediately and replaced with suitable plants. The City reserves the right to reject entire lots of plants represented by defected samples.

- Stake all trees, as per details immediately after planting to prevent wind damage.

- Plant trees that are to be located in lawn or ground cover areas after finish grades are first established and allow at least 7 calendar days prior to installation of said lawns or ground cover to provide for thorough watering of trees. All planting holes shall be excavated as defined on appropriate details.

4.03 Soil Amendments:

Soil amendments shall be as recommended in the Agronomic soils report

4.04 Trees Stakes:

Tree stakes shall be lodge pole pine tree stakes. See tree staking detail on plans for further information.

PART 5 - GROUND COVER AND BEDDING PLANTS

5.01 Scope of Work:

Provide all materials and equipment and perform all work necessary for and incidental to installing all ground cover and bedding plants, as shown on plans, as reasonably implied, or delineated in the specifications.

5.02 Bedding Plants:

Perennials and Annuals: Provide healthy container grown plants from a recognized nursery, and of the species and variety shown on plans.

5.03 Ground Cover:

Ground Cover: Provide ground cover of the species shown on plans. Ground cover shall be established and well rooted in flats or similar containers.

5.04 Mulch:

Mulch: Shall be of compacted wood chip fiber.

5.05 Coordination:

- Do not have plants delivered to the job site until site conditions are ready for planting. If planting is delayed, keep plant roots moist and place in a sheltered location protected from the sun, wind and other damaging elements.

- Soil preparation and fine grading shall be completed and trees and shrubs installed prior to bedding plants and ground cover planting.

5.06 Installation:

Plant ground cover and bedding plants in moist soil and space as indicated on plans.

Each plant shall be planted with its proportionate amount of soil so as to minimize root disturbance. Soil moisture shall be such that soil does not crumble when removing plants from container.

Regrade planter areas after planting, to restore smooth finish grade and to insure proper surface drainage. A 4" layer of mulch material shall be spread over the entire planter area after grade is established. Watering shall begin immediately after mulching. (Grading shall accommodate the mulch)

5.07 Protection:

Erect temporary fencing or barriers to protect planted areas from damage prior to final acceptance.

PART 6 - WEED ABATEMENT

6.01 Scope of Work:

Provide all material, equipment, and labor necessary to perform all work as indicated on plans, as reasonably implied, and as delineated in the specifications.

6.02 Quality Assurance:

- The Applicator of all weed control materials shall be licensed by the State of Utah as a Pest Control Operator and a Pest Control Advisor in addition to any subcontractor licenses that are required.
- All materials and methods must conform to Federal, State, and Local Regulations.

6.03 Submittal:

Prior to the installation of any weed control materials, the Landscape Contractor shall submit to the Landscape Architect/City a list of the weed control materials and quantities per acre intended for use in controlling the weed types prevalent and expected on the site, as supplied by the Pest Control Advisor. Pest Control Advisor shall furnish the Landscape Contractor and Landscape Architect and City data to demonstrate the compatibility of the weed control materials and methods with the intended planting and seed varieties present.

6.04 Responsibility and Coordination:

- Landscape Contractor is responsible for the erection of all signs and barriers required to prevent intrusion into the treated areas and to notify the public.
- No material or methods shall affect the landscape planting or hydroseed germination. No material or method shall render the job site unusable for more than 10 days from date of application.

6.05 Non-Selective Herbicides:

Non-selective contact herbicide and/or non-selective systemic herbicides (as recommended by the Pest Control Advisor)

6.06 Selective Herbicides:

Selective pre-emergent herbicides compatible with seed mixtures (as recommended by the Pest Control Advisor)

6.07 Weed Eradication:

If in the opinion of the Pest Control Advisor, perennial grasses and weeds existing in the planting areas will require control prior to removal, spray these areas per Pest Control Advisor's recommendations.

- Prior to the installation of the irrigation system remove and clear all weeds and deleterious materials from planting areas. Allow herbicide to kill all weeds. Rake or hoe off all dead weeds to a depth of 1" - 2" below the surface of the soil. Physically remove all weeds from the site.

PART 7 - LANDSCAPE MAINTENANCE (1 YEAR MAINTENANCE PERIOD)

7.01 Scope of Work:

Provide all materials, labor and equipment necessary for, or incidental to, performing all maintenance requirements as reasonably implied or as delineated in the specifications including, but not limited to the following:

- Maintain all plants and planted areas. Keep planted areas free of weeds and debris. Prune trees and shrubs. Fertilized all plants and planted areas. Irrigation. Insecticide spraying.

7.02 Fertilizers:

- Commercial fertilizers with an analysis of 5-3-1-Gro-Power Plus, and 12-8-8 Gro-Power Controlled Release Nitrogen, as designated herein, or approved substitute as required by the Agronomic soils report. Available from Gro Power (909) 393-3744.
- Ammonium Sulfate: Granular form containing not less than 21% nitrogen and 24% sulfur and shall be registered as an agricultural mixer, with the State Department of Agriculture in compliance with Article 2 - "Fertilizer Materials," Section 1030 of the Agricultural Code.

7.03 General:

Maintenance shall start immediately after landscape irrigation and planting.

Maintain all plants and planted areas on a continuous basis as they are installed during the progress of the work, and continue to maintain them until final acceptance of total project. Replace any dead or dying plants as directed by the Landscape Architect and City representative.

- Irrigation: Operate irrigation system on an established program to maintain all plants and planted areas in a healthy condition. Irrigation system run-off shall be kept to a minimum. Damage to irrigation system resulting from maintenance and equipment and/or maintenance personnel, shall be restored to its original condition at no cost to the City. Failure of any part of the irrigation system shall be brought to the attention of the City. No repairs other than emergency repairs shall be accomplished without written permission from the City.

- Weed Control: Keep all planted areas free of weeds and debris by cultivating areas at intervals not to exceed 10 calendar days.

The Contractor may elect to remove such concentrations of weeds manually or by an approved herbicide program.

- Pest Control: Spray all plants and planted areas at beginning of maintenance program and as may become necessary thereafter by an approved method of pest control, to keep all plants and planted areas free of insects and disease. Method shall be reviewed by the City prior to any applications. Pest Control shall include Gopher control.

- Pruning: Prune all plants as designated and directed by Landscape Architect, at start of maintenance program and continue to prune plants as directed or as may become necessary until the end of the maintenance program.

Remove trash weekly. Edge ground cover to keep in bounds and trim top growth as necessary to achieve and overall even appearance. Exterminate gophers and moles; repair damage.

PART 8 - ACCEPTANCE OF PROJECT

8.01 General:

Upon completion of installation, a maintenance period of a minimum of 1 YEAR for all landscaped areas is required prior to final acceptance of the work by the City. The Commencement date for the maintenance period shall commence upon written approval for all phases of planting installation by the City Public Works Inspector. Maintenance period shall be adequate to verify plant characteristics and establishment.

- Two inspections shall be made that affect the establishment period: The first after all plantings have been completely installed in order to approve the beginning of the establishment period, and the second at the end of the establishment period. If plantings are not acceptable at the end of the 1 YEAR period, due to defective maintenance, then continue establishment until all work meets with the Specifications and can be approved.

- At termination of establishment period all plant material shall be live, healthy, undamaged, and free of infestation. Inferior plantings shall be replaced and brought to a satisfactory condition before final acceptance of work will be made. All areas shall be neatly raked and free of weeds.

REVISIONS	DATE:

STANDARD GRADING NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE GRADING CODE OF THE CITY OF LA HABRA, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION HEREINAFTER REFERRED TO AS "GREEN BOOK", THE MOST RECENT EDITION, AND SPECIAL REQUIREMENTS OF THE PERMIT.
- NO GRADING SHALL BE STARTED WITHOUT FIRST NOTIFYING THE BUILDING INSPECTOR AND OBTAINING THE REQUIRED PERMITS.
- THE GRADING CONTRACTOR SHALL NOTIFY THE BUILDING INSPECTOR FOR INSPECTION AND OBTAIN APPROVAL OF THE COMPLETED GRADING.
- THE DESIGN ENGINEER SHALL SUBMIT TO THE BUILDING OFFICIAL A FINAL GRADING CERTIFICATE IN ACCORDANCE WITH CITY REQUIREMENTS. THE FINAL GRADING CERTIFICATE SHALL BE SUBMITTED TO THE CITY AT THE COMPLETION OF THE GRADING OPERATION AND PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- ALL ROUGH GRADE PADS SHALL BE CONSTRUCTED 5' MINIMUM OUTSIDE OF THE BUILDINGS.
- CUT SLOPES SHALL BE NO STEEPER THAN 2" HORIZONTAL TO 1" VERTICAL.
- FILL SLOPES SHALL BE NO STEEPER THAN 2" HORIZONTAL TO 1" VERTICAL AND SHALL HAVE NOT LESS THAN 90% COMPACTION TO THE FINISHED SURFACE.
- FILLS SHALL BE COMPACTED THROUGHOUT TO 90% DENSITY AS DETERMINED BY ASTM STANDARD D1557 AND CERTIFIED BY A SOILS ENGINEER, GEOTECHNICAL ENGINEER, OR ENGINEERING GEOLOGIST.
- DUST SHALL BE CONTROLLED BY DAILY WATERING.
- SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
- SUBGRADE SHALL BE PREPARED PRIOR TO THE CASTING OF CONCRETE SLABS TO THE SATISFACTION OF THE SOILS ENGINEER AND THE BUILDING INSPECTOR.
- ELEVATIONS SHOWN IN PARENTHESES AND DASHED CONTOUR LINES ARE EXISTING.
- CLEAR AND REMOVE ALL DELETERIOUS VEGETATION, SUCH AS TREES, LOGS, ROOTS, BRUSH, GRASS, WEEDS, AND OTHER OBJECTIONABLE MATERIAL PRIOR TO COMMENCING GRADING.
- ALL MATERIALS REMOVED SHALL BE TAKEN FROM THE BUILDING SITE AND DISPOSED OF IN A LAWFUL MANNER BY THE CONTRACTOR.
- AREAS OVER WHICH FILLS ARE TO BE PLACED SHALL FIRST BE SCARIFIED TO PROVIDE A BOND BETWEEN THE EXISTING GROUND AND THE MATERIAL TO BE DEPOSITED THEREON.
- FILL MATERIALS SHALL BE PLACED IN HORIZONTAL LAYERS SUCH THAT THE COMPACTED THICKNESS OF EACH LAYER DOES NOT EXCEED 8" INCHES.
- AT THE TIME OF COMPACTION, THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL BE SUCH THAT THE SPECIFIED RELATIVE COMPACTION WILL BE OBTAINED AND FILL WILL BE FIRM, HARD, AND UNVEILING. SUBGRADE SHALL BE COMPACTED TO 90% RELATIVE COMPACTION.
- IF WET CLAY OR EXPANSIVE, ORGANIC SOIL IS ENCOUNTERED, IT SHALL BE REMOVED TO A SUFFICIENT DEPTH AND AREA THAT WHEN SUITABLE MATERIAL IS IMPORTED AND SUBSTITUTED FOR THAT MATERIAL WHICH WAS REMOVED, 90% RELATIVE COMPACTION OF THE SUBGRADE CAN BE OBTAINED.
- SUBGRADE SHALL BE PREPARED SUCH THAT IT DOES NOT VARY BY MORE THAN 0.10 FOOT FROM THE SPECIFIED GRADE OR CROSS-SECTION.

WATER GENERAL NOTES

- ALL UTILITY INSTALLATIONS SHALL CONFORM TO MOST RECENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREEN BOOK") AND THE CITY OF LA HABRA PUBLIC WORKS STANDARD PLANS ON FILE IN THE CITY ENGINEERS OFFICE.
- ALL MATERIALS SHALL CONFORM TO THE LATEST REVISION OF AWWA STANDARDS.
- ALL WATER CONNECTIONS AND WATER SUPPLIED EQUIPMENT SHALL CONFORM TO THE CALIFORNIA CODE OF REGULATIONS, TITLE 17 AND RELATED REFERENCES AND TO THE CITY OF LA HABRA MUNICIPAL CODE 14.16.080 PERTAINING TO CROSS CONNECTION. FOR INFORMATION, CONTACT THE WATER QUALITY TECHNICIAN IN THE UTILITIES DIVISION OF THE PUBLIC WORKS DEPARTMENT.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL ASCERTAIN THE CORRECTNESS OF WATER SERVICE LOCATION WITH THE DEVELOPMENT. ANY DEVIATION FROM LOCATION SHOWN ON THESE PLANS SHALL BE REPORTED TO THE ENGINEER FOR ADJUSTMENT PRIOR TO CALLING FOR ANY CONSTRUCTION STAKING.
- CONTRACTOR SHALL EXPOSE ALL JOINT CONNECTION POINTS TO THE EXISTING WATER SYSTEM FOR VERIFICATION OF LOCATION, ELEVATION AND DIAMETER BEFORE CONSTRUCTION.
- GRADE STAKES ARE TO BE SET EVERY 50 FEET FOR WATER LINES AND EVERY 25 FEET FOR SEWER LINES.
- ALL WATER LENGTHS ARE CALCULATED ON THE HORIZONTAL DISTANCE ALONG THE CENTERLINE OF THE WATER MAIN.
- FIRE HYDRANTS ARE TO BE INSTALLED AND OPERATIONAL PRIOR TO DELIVERY OF COMBUSTIBLE MATERIALS TO THE PROJECT SITE.
- NO FACILITY SHALL BE BACKFILLED UNTIL INSPECTED BY THE CITY INSPECTOR. ALL PIPE, FITTINGS, AND VALVES SHALL BE PROPERLY BEDDED WITH SAND AND COMPACTED IN MULTIPLE LIFTS TO A MINIMUM COVER OF 12" OF SAND.
- WATER MAINS AND APPURTENANCES SHALL BE INSTALLED PRIOR TO PAVING.
- CONTRACTOR SHALL ADJUST VALVE BOXES TO GRADE AFTER COMPLETION OF PAVING. ALL VALVE RISERS SHALL BE CLEAN AND FREE OF DEBRIS.
- ALL PLASTIC PIPES, SIZES 4"-12", SHALL BE C-900 POLYVINYL CHLORIDE (PVC), CLASS 200 DR 14. THE PIPE MUST BE IN COMPLIANCE WITH AWWA STANDARD NO. C-900-97 OR ITS LATEST VERSION. ALL PLASTIC PIPES, SIZES 14"-18", SHALL BE C-905 POLYVINYL CHLORIDE (PVC) C 235 DR 18 AND MUST BE IN COMPLIANCE WITH AWWA STANDARD NO. C-905-97 OR ITS LATEST VERSION.
- INSTALLATION OF C-900 POLYVINYL CHLORIDE (PVC) PIPE SHALL BE IN COMPLIANCE WITH AWWA MANUAL NO. M23. A METALLIC TYPE DETECTABLE MARKING TAPE (IE: TYPE III BY LINEGUARD, INC. OR APPROVED EQUIVALENT) SHALL BE PLACED ONE (1) FOOT ABOVE WATER MAINS, FIRE HYDRANT AND FIRE SERVICE MAINS.
- SHUTDOWN OF EXISTING WATERLINES TO FACILITATE THE CONNECTION OF NEW FACILITIES SHALL BE COORDINATED WITH THE CITY OF LA HABRA WATER DEPARTMENT WITHIN 48 HOURS PRIOR TO THE START OF CONSTRUCTION. SHUTDOWNS ARE LIMITED TO TUESDAY THROUGH FRIDAY.
- ALL WATER MAINS SHALL BE INSTALLED WITH 36" MINIMUM COVER TO TOP OF PIPE. PROVIDE 12" CLEARANCE BETWEEN PIPES AT CROSSING. (OR CONCRETE ENCASE THE SEWER OR RECLAIMED WATER LINES).
- SEE PUBLIC WORKS STANDARD SPECIFICATIONS AND PLANS FOR SERVICE CONNECTIONS ON C-900 OR C-905 POLYVINYL CHLORIDE (PVC) PIPE. ALL SERVICE CONNECTIONS ON ASBESTOS CEMENT PIPE TO HAVE BRONZE DOUBLE STRAP SADDLES AT MAINLINE.
- FLARE TYPE FITTINGS SHALL BE SUED FOR ALL COPPER CONNECTIONS.
- ALL HOT TAPS FOR SERVICE CONNECTIONS (3/4" - 2") TO THE CITY MAIN SHALL BE A MINIMUM TO TWO (2) FEET FROM ANY COLLAR JOINT OR FITTING.
- ALL IRON FITTINGS SHALL BE CEMENT MORTAR LINED AND COATED AND CONFORM TO AWWA STANDARDS C110 OR C133.
- ALL FITTINGS AND VALVES SHALL BE RESTRAINED TO THE PIPE WITH UNIFLANGE SERIES T-300C RESTRAINERS OR APPROVED EQUIVALENT.
- ALL BOLTS INSTALLED UNDERGROUND SHALL BE 316 STAINLESS STEEL AND COATED WITH 3M TAR COATED HEC-244 BITUMASTIC 50 TYPE COATINGS AND WRAPPED WITH 10 MIL TAPE OR VISQUEEN PROTECTIVE SHEETING.
- C-900/C-905 POLYVINYL CHLORIDE (PVC) PIPELINES SHALL BE PRESSURE TESTED AT MINIMUM OF 175 PSI FOR A PERIOD OF TWO (2) HOURS IN CONFORMANCE WITH AWWA MANUAL NO. M23.
- BEFORE BEING PLACED IN SERVICE, ALL WATER MAINS SHALL BE DISINFECTED WITH CHLORINE GAS OR CALCIUM HYPOCHLORITE TABLETS (5G TABLETS ATTACHED BY A FOOD GRADE ADHESIVE) IN ACCORDANCE WITH AWWA STANDARD NO. 651-05 OR ITS LATEST REVISION. WATER SAMPLES SHALL BE TAKEN FOR BACTERIOLOGICAL ANALYSIS. COLIFORM TEST BY STANDARD PLATE COUNT (SPC) BY A STATE OF CALIFORNIA HEALTH DEPARTMENT CERTIFIED LABORATORY. SAMPLE LOCATIONS WILL BE DETERMINED BY THE CITY OF LA HABRA WATER DEPARTMENT. TWO (2) CONSECUTIVE SETS OF SAMPLES, TAKEN AT LEAST 24 HOURS APART, SHALL BE COLLECTED FROM THE NEW MAIN.
- CONTRACTOR SHALL BE RESPONSIBLE FOR INCORPORATING AND MAINTAINING BEST MANAGEMENT PRACTICES (BMP'S) IN THE DRAINAGE, FLOODING AND DE-CHLORINATION OF WATER MAINS IN COMPLIANCE WITH THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD NPDES (NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM) REGULATIONS.
- ALL FIRE HYDRANTS INSTALLED IN SINGLE FAMILY (R-1) DEVELOPMENTS SHALL HAVE 4" OPENINGS. ALL OTHER DEVELOPMENTS SHALL HAVE 5" OPENINGS. SEE CITY.

SEPARATE PERMITS (S) IS/ARE REQUIRED FOR RETAINING WALL, WALLS OVER 3 FEET, LIGHT STANDARDS, DEMOLITION, ETC.

SOILS ENGINEER MUST SIGN LETTER CERTIFYING ALL ROUGH GRADING OPERATIONS PERFORMED TO HIS/HER SPECIFICATIONS PRIOR TO ROUGH GRADE FINAL.

SPECIFICATIONS AND PLANS FOR WATER APPURTENANCES MANUAL FOR INSTALLATION REQUIREMENTS

- ALL FIRE HYDRANTS SHALL BE A MINIMUM OF THREE (3) FEET FROM ANY PERMANENT STRUCTURE.
- BREAKAWAY BOLTS ARE REQUIRED ON ALL FIRE HYDRANTS.
- WATER METERS SHALL BE PURCHASED FROM THE CITY OF LA HABRA.
- METER BOXES FOR ALL METERS SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS AND PLANS FOR WATER APPURTENANCES MANUAL FOR METER INSTALLATION.
- METER BOXES ARE TO BE SET WITH 6" MINIMUM DEEP WASHED PEA GRAVEL.
- A BYPASS SHALL BE INSTALLED ON A THREE (3) INCH OR LARGER METER INSTALLATIONS. FOR BYPASS INSTALLATION REQUIREMENTS, SEE STANDARD SPECIFICATIONS AND PLANS FOR WATER APPURTENANCES MANUAL.
- CONTRACTOR SHALL MAINTAIN AND SUBMIT "AS BUILT" PLANS TO THE CITY PRIOR TO FILING OF NOTICE OF COMPLETION. ALL "AS BUILT" CHANGES SHALL BE MAINTAINED ON ONE MASTER COPY AND APPROVED AND INITIALED BY THE CITY PROJECT INSPECTOR PRIOR TO IMPLEMENTATION IN THE FIELD. THE FINAL "AS BUILT" PLANS SHALL BE SUBMITTED ON 24" X 36" MYLAR AND DIGITALLY IN .DWG AND AUTOCAD FORMAT (CONTACT THE CITY'S ENGINEERING DEPARTMENT FOR AUTOCAD VERSION REQUIRED).
- CONTRACTOR PERFORMING ACTUAL WORK ON THE CITY OF LA HABRA WATER LINES OR APPURTENANCES MUST HAVE A C-34 PIPELINE CONTRACTORS LICENSE OR A CLASS A GENERAL ENGINEERING CONTRACTORS LICENSE. ANY DEVIATION MUST BE APPROVED BY WATER SUPERINTENDENT.

SEWER GENERAL NOTES

- ALL UTILITY INSTALLATIONS SHALL CONFORM TO MOST RECENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("GREEN BOOK") AND THE CITY OF LA HABRA PUBLIC WORKS STANDARD PLANS ON FILE IN THE CITY ENGINEERS OFFICE.
- THE CONTRACTOR SHALL OBTAIN A CITY PERMIT FOR ALL WORK DONE IN THE PUBLIC RIGHT-OF-WAY.
- THE CONTRACTOR SHALL EXPOSE ALL JOINT POINTS OF THE EXISTING SEWER SYSTEM FOR VERIFICATION OF LOCATION AND ELEVATION BEFORE CONSTRUCTION.
- CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITY CROSSINGS BEFORE COMMENCING WORK.
- ALL SEWER LENGTHS ARE CALCULATED ON HORIZONTAL DISTANCE ALONG THE CENTERLINE OF THE SEWER.
- GRADE STAKES SHALL BE SET A MINIMUM OF EVERY 25 FEET.
- BEDDING MATERIAL SHALL BE NO. 4 CRUSHED ROCK OR OTHER MATERIAL AS SPECIFIED BY CITY ENGINEER OF LA HABRA.
- ALL PIPE JOINTS AND FITTINGS SHALL BE MECHANICAL-COMPRESSION JOINTS, MANUFACTURED IN ACCORDANCE WITH ASTM C425-60T OF AN APPROVED TYPE.
- ALL SEWER FRAMES AND COVERS SHALL BE LEFT 6" BELOW SUBGRADE. SEWER CONTRACTORS SHALL RAISE THE MANHOLE FRAME AND COVER TO FINISH GRADE UPON COMPLETION OF SURFACING.
- CONTRACTOR SHALL MAINTAIN AND BE REQUIRED TO SUBMIT "AS BUILT" PLANS TO THE CITY PRIOR TO RECEIVING FINAL INSPECTION AND APPROVAL. ALL "AS BUILT" CHANGES SHALL BE MAINTAINED ON ONE MASTER COPY AND APPROVED AND INITIALED BY THE CITY PROJECT INSPECTOR PRIOR TO IMPLEMENTATION IN THE FIELD. THE FINAL "AS BUILT" PLANS SHALL BE SUBMITTED ON 24" X 36" MYLAR AND DIGITALLY IN .DWG AND AUTOCAD FORMAT (CONTACT THE CITY'S ENGINEERING DEPARTMENT FOR AUTOCAD VERSION REQUIRED).
- CONTRACTOR SHALL PROVIDE A CONTINUOUS MOTION TELEVISION INSPECTION ON ALL NEW SEWER MAINS CONSTRUCTED. AT LEAST 1/3 OF ALL JOINTS SHALL BE TELEVISION INSPECTED FOR THE FULL CIRCUMFERENCE OF THE PIPE JOINT. CONTRACTOR SHALL SUPPLY TO THE CITY A DVD OF THE TELEVISION INSPECTION AND A WRITTEN FIELD LOG REPORT SHOWING EXACT LOCATION OF INSPECTION AND THE CONDITION OF THE SEWER LINE, MANHOLES, CLEANOUTS, ETC. CONTRACTOR SHALL SUBMIT THE DVD AND FIELD LOG REPORT PRIOR TO ACCEPTANCE OF THE SEWER IMPROVEMENTS OR ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.

EROSION CONTROL NOTES

- IN CASE OF EMERGENCY, CALL MRS. THUY LE, PROPERTY OWNERS AT PHONE NO. (714) 411-5636.
- DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE CITY ENGINEER OR IN EMERGENCY, BY THE DESIGN OF THE CIVIL ENGINEER OR DESIGNER.
- ALL REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE FIVE DAY RAIN PROBABILITY FORECAST EXCEEDS 40 PERCENT. FORECAST SHALL BE RECEIVED FROM BROADCASTS PROVIDED BY THE UNITED STATES WEATHER SERVICE.
- AFTER A DRAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED AND CHECK BERMS AND DESILTING BASING AND THE BASING PUMPED DRY. ANY GRADE SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING A DRAINSTORM SHALL ALSO BE IMMEDIATELY REPAIRED. FAILURE TO PROVIDE EFFECTIVE MAINTENANCE SHALL MAY RESULT IN PENALTIES.
- GRADED AREAS AROUND THE TRACT PERIMETER, IF APPLICABLE, MUST RAIN AWAY FROM THE FACE OF THE SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
- ALL LOT PIDS SHALL BE DESIGNED TO DRAIN TO AN ACCEPTABLE LOCATION AT A MINIMUM OF 1' FROM THE TRACT PERIMETER.
- DEVICES SHALL BE PROPERLY MAINTAINED IN PLACE UNTIL PROJECT COMPLETION. DAMAGED GRAVEL BAGS SHALL BE REPLACED.
- A GUARD SHALL BE POSTED ON THE SIDE WHENEVER THE DEPTH OF WATER OF ANY DEVICES EXCEEDS 18 INCHES.
- AFTER A DRAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM PUBLIC DRAINS OR PIPES OF ADJACENT PROPERTIES, AND FROM ALL PUBLIC PROPERTIES AND PRIVATE STREETS.

GENERAL NOTES:

- THIS PROJECT SHALL COMPLY WITH THE 2022 CBC, CPC, AND CEC.
- WORKING HOURS ARE 7 AM-8 PM, M-F; 9 AM-8 PM, SATURDAY, NO SUNDAY OR LEGAL HOLIDAY.
- A COMPACTION REPORT AND PAD CERTIFICATION IS REQUIRED PRIOR TO ISSUANCE OF A BUILDING PERMIT.
- ALL PEDESTRIAN AND TRAFFIC CONTROL TO BE PER "WATCH" MANUAL. ENCROACHMENT PERMITS TO BE ISSUED BY PUBLIC WORKS DEPARTMENT AS REQUIRED.
- ALL GRADING INSPECTIONS MUST BE MADE BY THE CONSULTING GEOLOGIST AND GEOTECHNICAL ENGINEER.
- AN AS-GRADED SOILS AND GEOLOGY REPORT MUST BE SUBMITTED AND APPROVED PRIOR TO BUILDING PERMIT ISSUANCE.
- FOUNDATION AND/OR RETAINING WALL EXCAVATIONS MUST BE INSPECTED AND APPROVED BY THE CONSULTING GEOLOGIST AND GEOTECHNICAL ENGINEER PRIOR TO PLACING OF STEEL AND CONCRETE.
- FINAL AS-GRADED REPORT SHALL INCLUDE THE FOLLOWING:
A- FILL COMPACTION AND SHEAR TEST DATA.
B- LOCATION OF THE COMPACTION AND SHEAR TEST DATA PLOTTED ON A COPY OF THE GRADING PLAN.
C- AMOUNT OF NATURAL OR EXISTING FILL REMOVAL IF UNSATISFACTORY MATERIALS HAVE BEEN ENCOUNTERED.
D- VERIFICATION BY THE GEOTECHNICAL ENGINEER THAT THE FILL MATERIALS SHEAR VALUES MET OR EXCEEDED DESIGN VALUES UTILIZED IN THE GEOTECHNICAL REPORT.
E- ITEMS REQUIRED AS PART OF THE CONDITIONS OF GRADING PLAN APPROVAL.
F- ANY CHANGED SUBSURFACE CONDITIONS REQUIRING DESIGN CHANGES.
G- ANALYSES DEMONSTRATING THAT, BASED ON ANY CHANGED DESIGN, THE SITE WILL BE SAFE FOR THE INTENDED USE AND WILL BE IN CONFORMANCE WITH STATE AND COUNTY CODES.
H- THE FINAL AS-GRADED REPORT MUST CONTAIN ALL THE ABOVE DATA AND AN AS-GRADED PLAN SHOWING ORIGINAL AND FINAL TOPOGRAPHIC CONTOUR LINES. THIS REPORT MUST ALSO BE COORDINATED WITH THE GEOLOGY FINAL REPORT AND WILL BE KEPT AS PERMANENT RECORD.

NOTES:

- ALL CONSTRUCTION WORK WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE UNDER SEPARATE PERMIT.
- THE CONTRACTOR SHALL BE FAMILIAR WITH THE PROJECT SOIL REPORT AND ANY SUPPLEMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IMPROVEMENT AND EARTHWORK QUANTITIES. THE IMPROVEMENTS AND EARTHWORK QUANTITIES SHOWN HEREON ARE NOT TO BE USED FOR BIDDING OR ESTIMATING.
- FOR INFORMATION ONLY, BLOCK WALLS TO BE INSPECTED BY OTHERS UNDER A SEPARATE PERMIT. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF THE STRUCTURAL INTEGRITY OF BLOCK WALLS.

LEGEND

XXX.XX (XXX.XX)	PROPOSED ELEVATIONS	BSW	BACK OF SIDEWALK CENTERLINE	INV	INVERT
---	EXISTING ELEVATIONS	CL	CLEANOUT	IRRB	IRRIGATION BOX
---	PROPERTY LINE	CO	CONCRETE	LF	LINEAR FEET
---	ELECTRICAL LINE	CP	SURVEY CONTROL POINT	LS	LINEAR FEET
---	CHAIN LINK FENCE	DCK	TOP OF DECK	LT	LIGHT
---	RECLAIMED WATER	DWNSPT	DOWN SPOUT	OG	ORIGINAL GROUND
---	SEWER LINE	EP	EDGE OF PAVEMENT	POC	POINT OF CONNECTION
---	TELEPHONE LINE	FF	FINISHED GRADE	PS	PIPE SLOPE
---	WATER LINE	FG	FINISHED GRADE	SF	SQUARE FEET
---	BLOCK WALL	FH	FIRE HYDRANT	SGN	SIGN
---	EDGE OF PAVEMENT	FL	FLOW LINE	TC	TOP OF CURB
---	EXISTING BUILDING	FTG	TOP OF FOOTING	TCW	TOP CONC. WALL
---	ASPHALTIC CONCRETE	FS	FINISHED SURFACE	TG	TOP GRATE
---	DRAINAGE DIRECTION	GB	GRADE BREAK	TP	TOP OF PIPE
---	A.C.	GM	GAS METER	TR	TOP OF RAIL
---	CONCRETE	HP	HIGH POINT	TOR	TOP OF RAMP
---	WATER METER	HP	HIGH POINT	WV	WATER VALVE
---	EXISTING TREE	i	SURFACE FLOW DIRECTION	---	LANDSCAPED AREA
---		+	FIRE HYDRANT	---	PORCH
---		+	EXISTING TREE	---	NEW AC

ESTIMATE OF EARTHWORK QUANTITIES

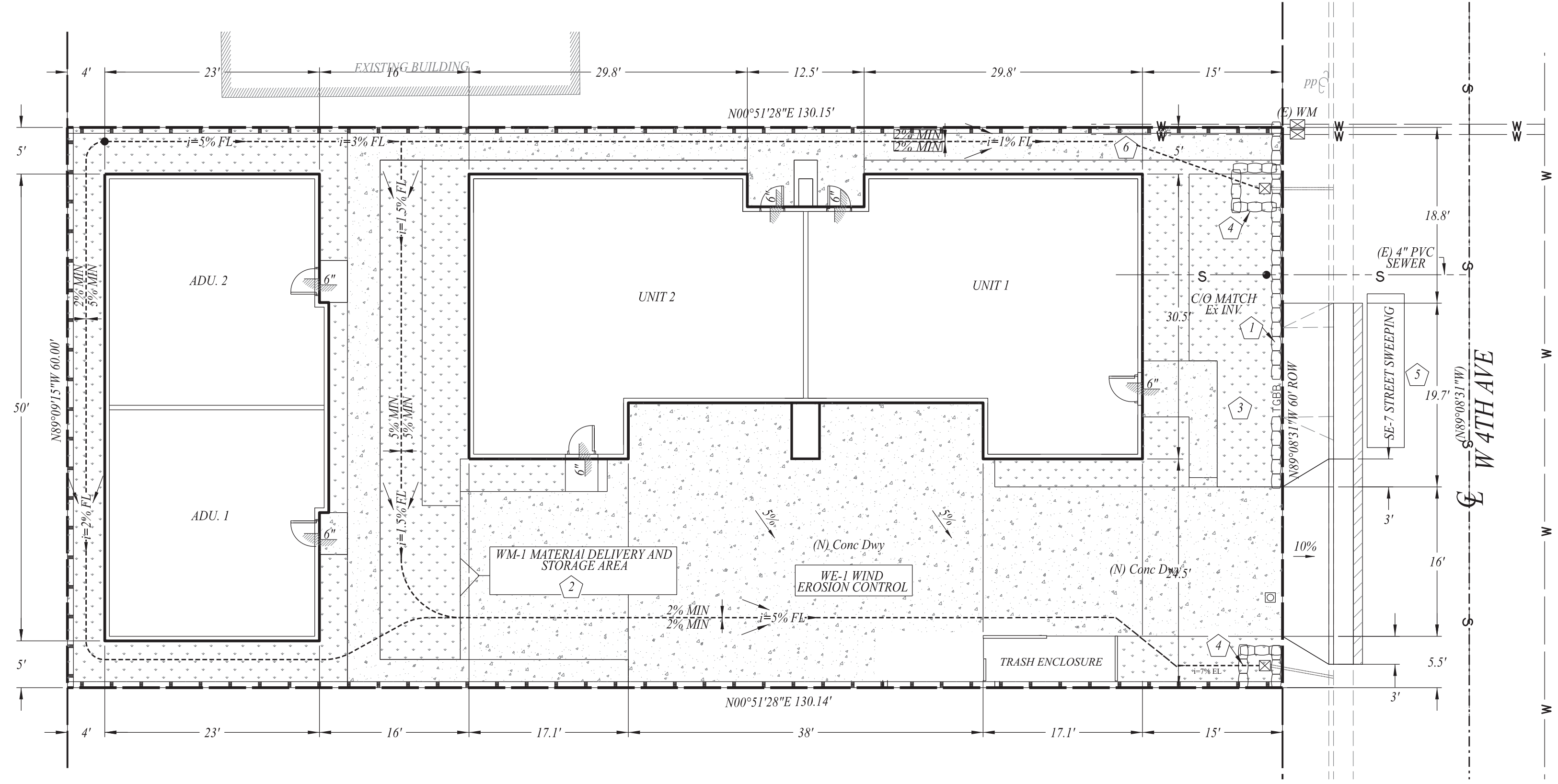
CUT = 10 C.Y. FILL = 25 C.Y.
OVER EXCAVATION = 20 C.Y.
ACREAGE = 0.17 ACRE

NOTES:

THIS PROJECT SHALL COMPLY WITH THE 2022 CBC, CPC, AND CEC.

BASIS OF BEARING

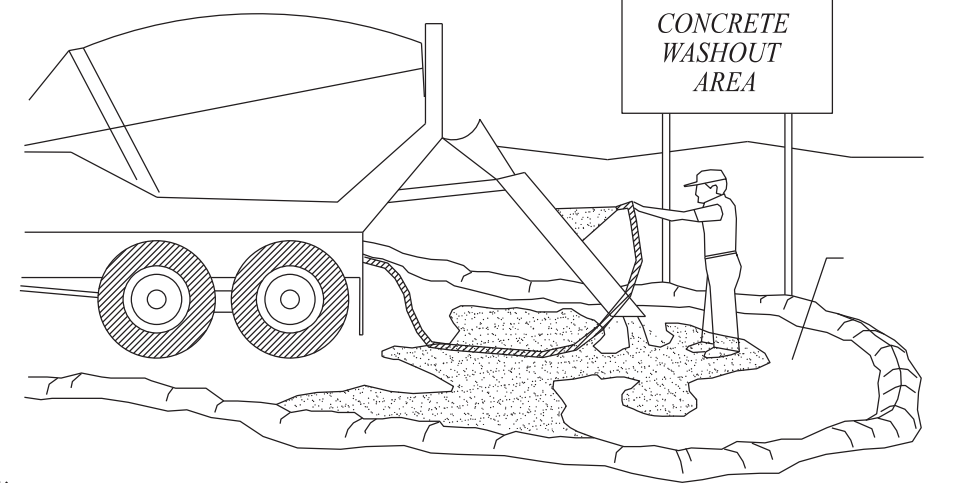
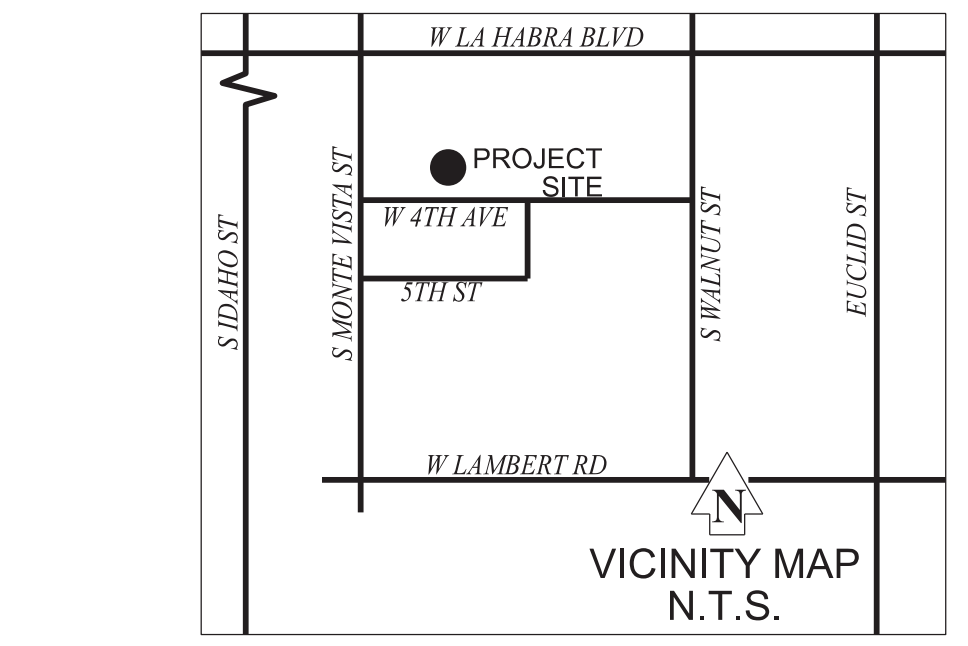
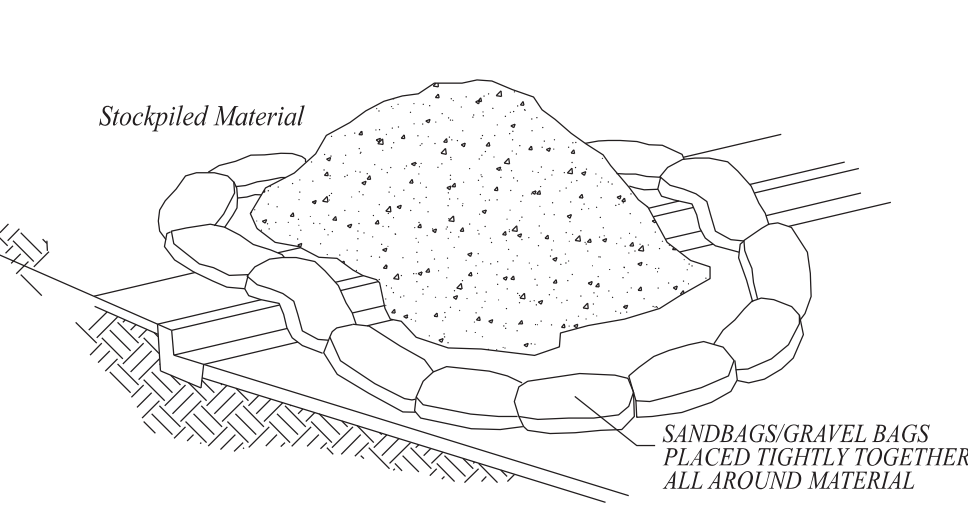
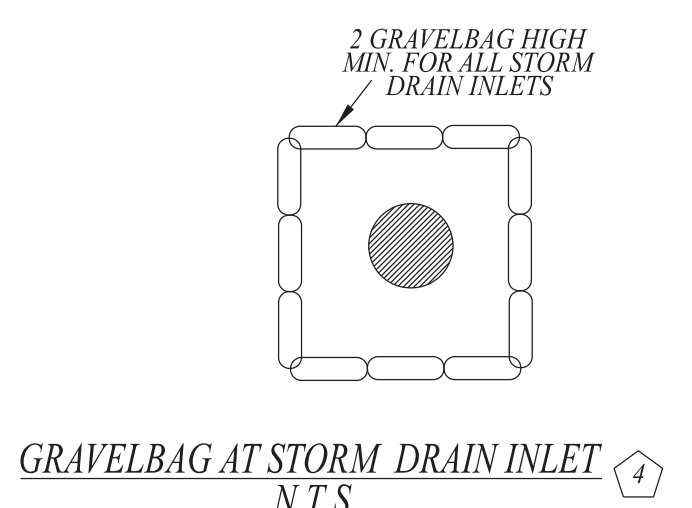
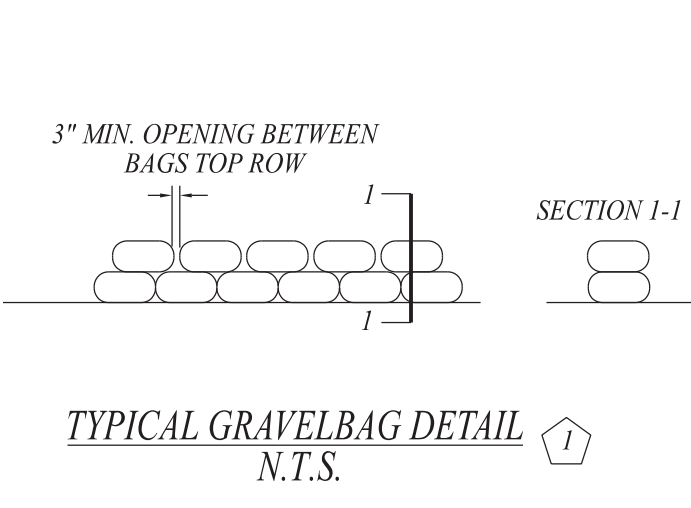
THE BEARING OF THE CENTERLINE OF W 4TH AVE SHOWN AS IN TRACT NO. 632 RECORDED IN BOOK 20, PAGE 20 OF MISCELLANEOUS MAPS SHOWN THEREON AS N 89°04'31" W



EROSION & HORIZONTAL CONTROL PLAN

EROSION CONTROL NOTES

ITEM	DESCRIPTION
1	INSTALL TYPICAL GRAVELBAG PER DETAIL HEREON
2	MATERIAL STORAGE PER DETAIL HEREON
3	CONCRETE WASTE MANAGEMENT PER DETAIL HEREON
4	(SE-10) STORMDRAIN INLET PROTECTION
5	SE-7 STREET SWEEPING
6	WE-1 WIND EROSION CONTROL



Notes:

- Dirt and other construction related materials placed in the street or on other impervious surfaces must be contained with sandbags or other measures to prevent transport to the stormdrain system.
- Any construction material stored or stockpiled on-site shall be protected from being transported by the force of wind or water.

Notes:

- Excess and waste concrete shall not be washed into the street or into a drainage system.
- For washout of concrete and mortar products, a designated containment facility of sufficient capacity to retain liquid and solid waste shall be provided on site.
- Slurry from concrete and asphalt saw cutting shall be vacuumed or contained, dried, picked up and disposed of properly.

Underground Service Alert

Call: TOLL FREE 1-800-422-4133

2/17/2024

TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK

FD 3 3/4" DIA. USCS BRONZED DISK, STAMPED "T 779 1946", SET IN THE WEST SIDE OF SIDEWALK EDGE, LOCATED IN THE NORTHWESTERLY CORNER OF THE INT OF MONTEVISTA DR 0.25 FROM THE CENTERLINE OF LA HABRA BLVD. 16FT. NORTHERLY OF CENTERLINE OF RAILWAY.

ELEV: 272.878/NAV/D88, 2005

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'D

DEVELOPER/OWNER VMJ COMPANY, LLC
2651 SATURN ST
BREA, CA 92821
(714) 528-2900

SOILS ENGINEER N/A

APPROVED BY:

BUILDING DEPT.

APPROVED BY:

PLANNING DEPT.

APPROVED BY:

PUBLIC WORKS DIRECTOR

R.C.E. NO.: EXP. DATE:

LY PHAN, PE
RCE 63381
EXP. 09/30/2024
10820 KEENAN PL.
STANTON, CA 90680

TEL: (714) 487-7037
HDT.CIVIL@YAHOO.COM

REG. PROFESSIONAL ENGINEER
L. Y. PHAN
No. C63381
CIVIL
STATE OF CALIFORNIA

DRAWN BY: KN DATE: 9/2023

DESIGNED BY: LP DATE: 9/2023

CHECKED BY: BT DATE: 9/2023

PREPARED UNDER THE SUPERVISION OF:

DATE: 2/17/2024

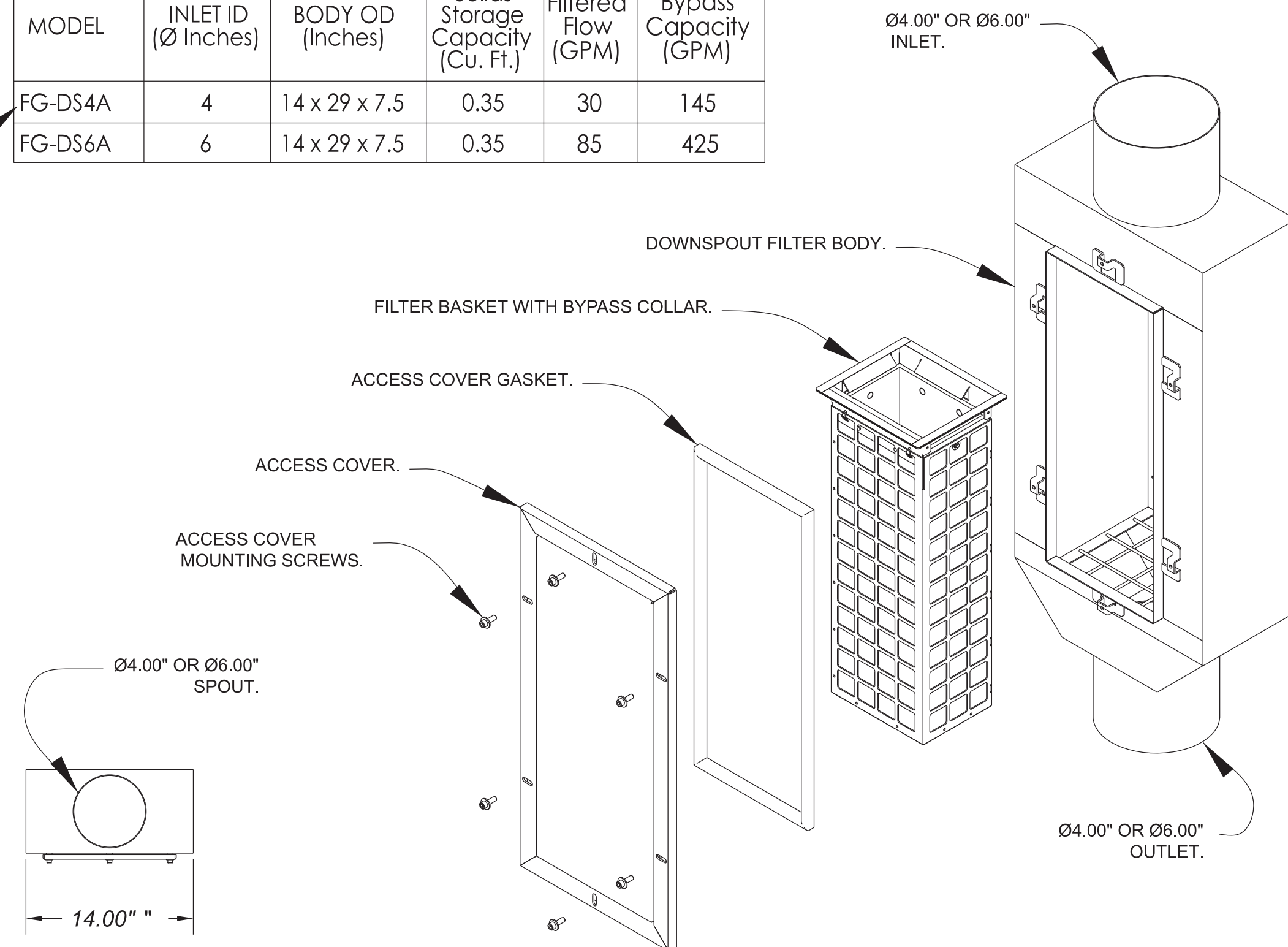
GRADING PLAN

VMJ COMPANY, LLC
729-731 W 4TH AVE
LA HABRA, CA 90631

SHEET 1 OF 2

DSF-0001

MODEL	INLET ID (Ø Inches)	BODY OD (Inches)	Solids Storage Capacity (Cu. Ft.)	Filtered Flow (GPM)	Bypass Capacity (GPM)
FG-DS4A	4	14 x 29 x 7.5	0.35	30	145
FG-DS6A	6	14 x 29 x 7.5	0.35	85	425



NOTES:

1. FloGard® Downspout Filter is available to fit most industry standard downspouts (See Tabulation).
2. Filter Inserts shall have adequate bypass capacity to allow downspout to flow unimpeded at all times.
3. Filter assembly shall be constructed from stainless steel (type 304).
4. Filter medium shall be installed & maintained in accordance with manufacturer recommendations.

FloGard®
Downspout Filter
Ø4.00" & Ø6.00" Sizes

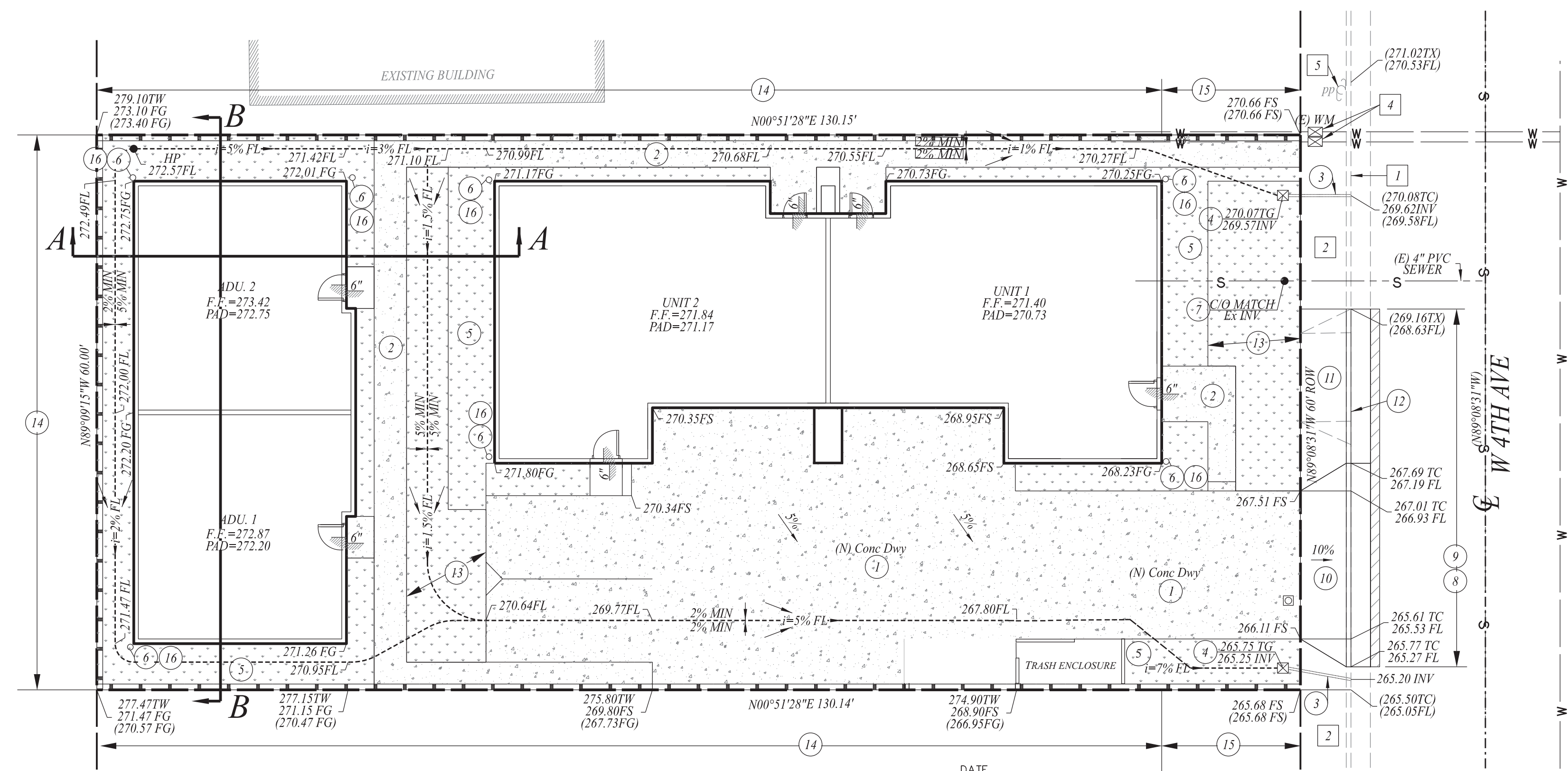
Oldcastle®
Stormwater Solutions
7921 Southpark Plaza, Suite 200 | Littleton, CO | 80120 | Ph: 800.579.8819 | oldcastlestormwater.com
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DRAWING NO. DSF-0001 REV B ECO ECO-0142 DATE JPR 2/11/09 SHEET 1 OF 1
NEW 7/13/16

DOWN SPOUT FILTER DETAIL 16
N.T.S.

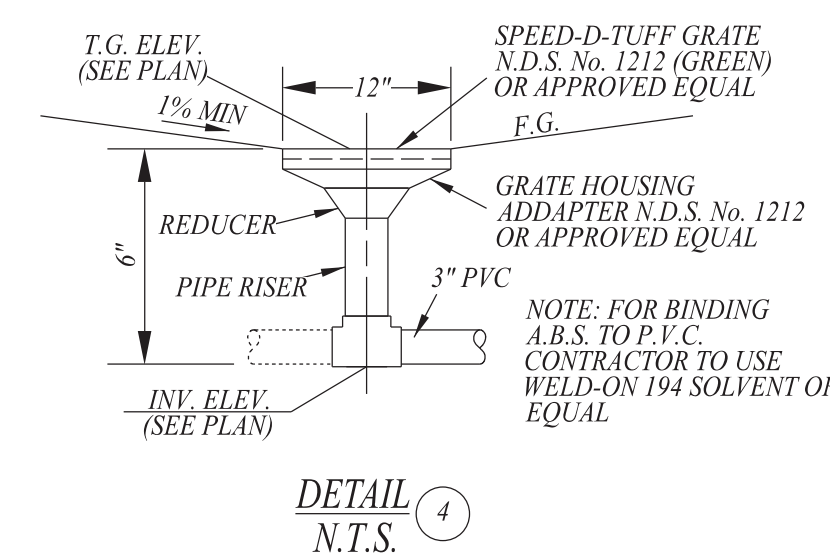
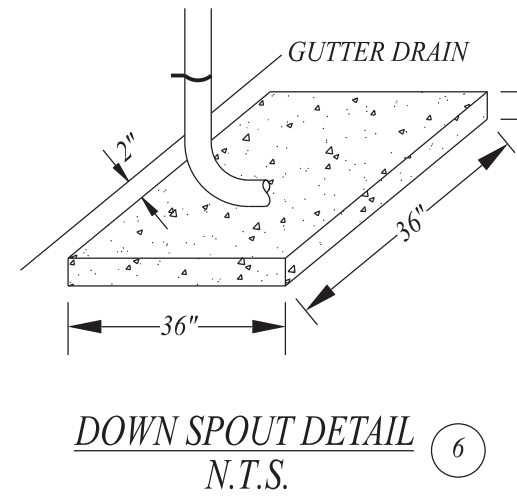
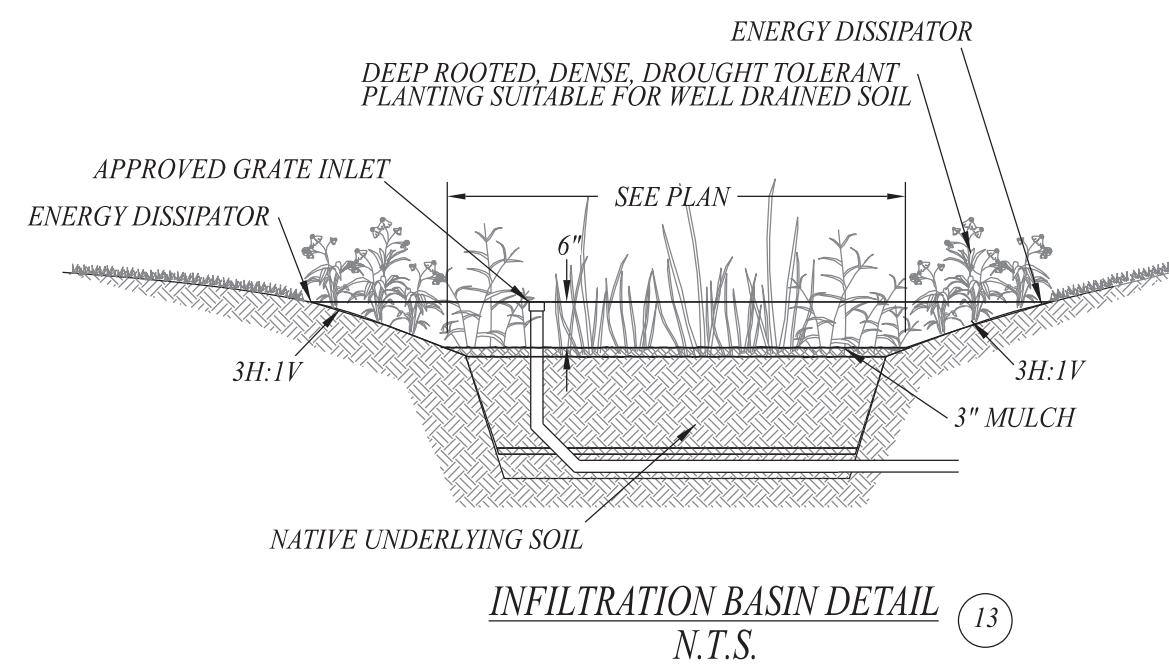
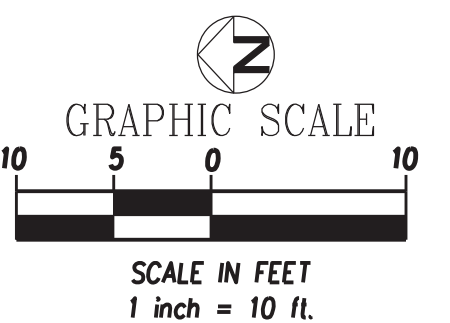
CONSTRUCTION NOTES (PROTECT IN PLACE)

ITEM	DESCRIPTION
1	PROTECT IN PLACE EXISTING CURB AND GUTTER
2	PROTECT IN PLACE EXISTING SIDEWALK
3	PROTECT IN PLACE 4" PVC SEWER LATERAL
4	PROTECT IN PLACE EXISTING WATER METER
5	PROTECT IN PLACE EXISTING POWER POLE

NOTE:
EXISTING BUILDING TO BE DEMOLISHED UNDER SEPARATE PERMIT



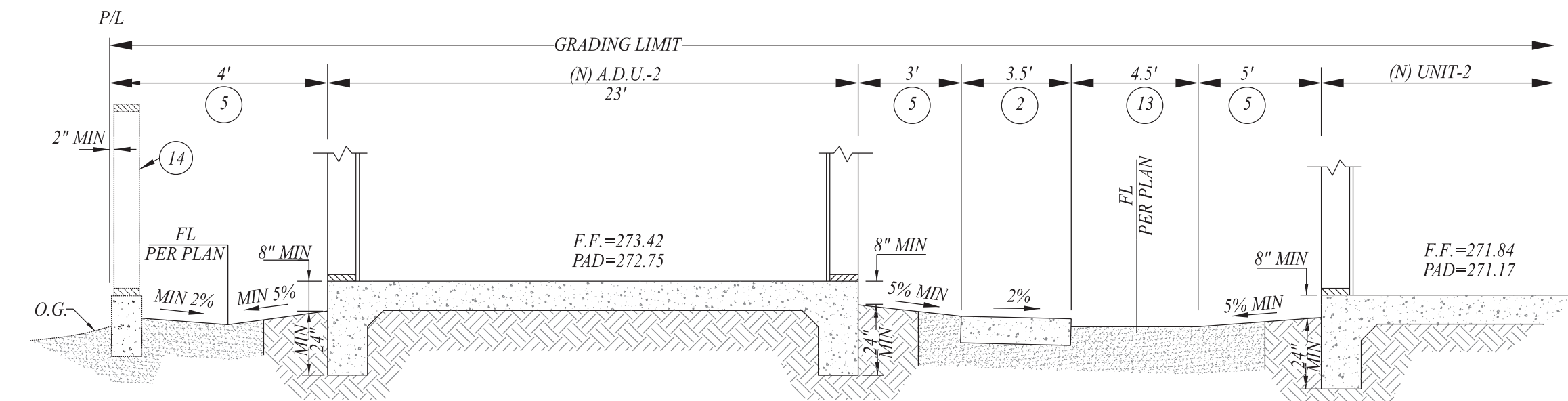
GRADING PLAN



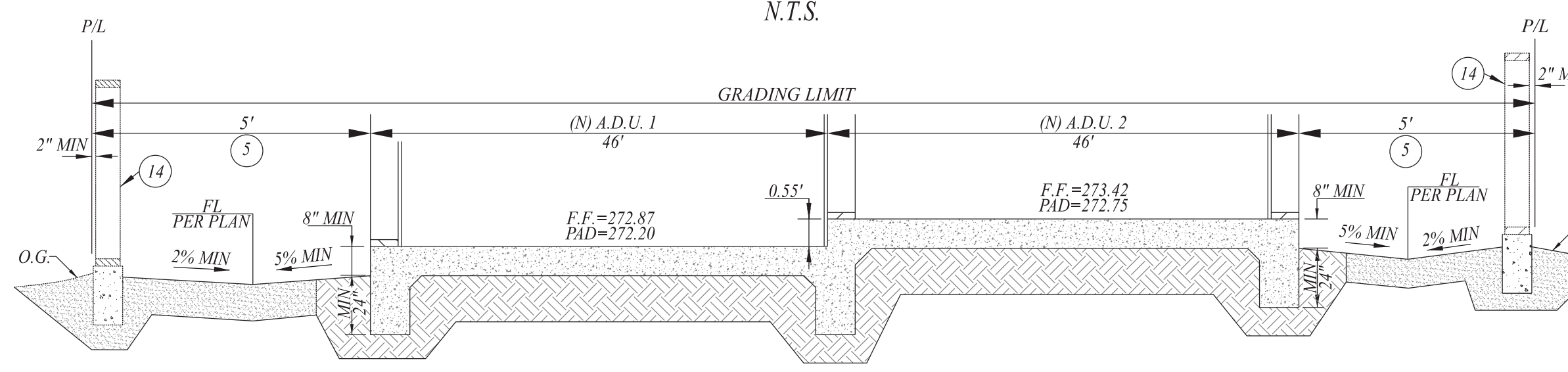
CONSTRUCTION NOTES - ESTIMATED QUANTITIES

ITEM	DESCRIPTION	ON-SITE	OFF-SITE
1	CONSTRUCT NEW 4" THICK CONCRETE DRIVEWAY & PARKING AREA	720 SF	
2	CONSTRUCT NEW 4" THICK CONCRETE WALKWAY	350 SF	
* 3	INSTALL CURB DRAIN WITH 3-1/2" SCH. 80 PVC PIPE PER CITY STD. PLAN		2 EACH
4	CONSTRUCT DRAIN BOX INLET PER DETAIL HEREON	2 EACH	
5	NEW LANDSCAPE AREA	650 SF	
6	INSTALL DOWNSPOUT PER DETAIL HEREON	7 EACH	
7	INSTALL NEW LATERAL CLEAN-OUT PER CITY STD	1 EACH	
* 8	REMOVE EXISTING SIDEWALK, C&G, DRIVEWAY APPROACH		300 SF
* 9	REMOVE & REPLACE FULL DEPTH AC		30 SF
* 10	CONSTRUCT NEW DRIVEWAY APPROACH PER CITY STD		150 SF
* 11	CONSTRUCT NEW CONCRETE SIDEWALK PER CITY STD		100 SF
* 12	CONSTRUCT NEW CONCRETE C&G PER CITY STD		17 LF
13	INFILTRATION BASIN	700 SF	
14	CONSTRUCT NEW 5' BLOCKWALL UNDER SEPARATE PERMIT	290 LF	
15	CONSTRUCT NEW 3' BLOCKWALL UNDER SEPARATE PERMIT	30 LF	
16	INSTALL DOWNSPOUT FILTER PER DETAIL HEREON	7 EACH	

* THE FOLLOWING ITEMS REQUIRE A SEPARATE PUBLIC WORKS ENCROACHMENT PERMIT: 3 9 10 11



SECTION A-A
N.T.S.



SECTION B-B
N.T.S.

Underground Service Alert
Call: TOLL FREE
1-800-422-4133
TWO WORKING DAYS BEFORE YOU DIG

BENCH MARK
FD. 3 3/4" DIA. USCGS BRONZED DISK STAMPED "T 779 1946", SET IN THE WEST SIDE OF SIDEWALK EDGE. LOCATED IN THE NORTHWESTERLY CORNER OF THE INT OF MONTEVISTA DR 0.25 FROM THE CENTERLINE OF LA HABRA BLVD. 16FT. NORTHERLY OF CENTERLINE OF RAILWAY.
ELEV: 272.878/NAV/D88, 2005

REVISIONS

REV.	DATE	BY	DESCRIPTION	APP'D

DEVELOPER/OWNER
VMJ COMPANY, LLC
2651 SATURN ST
BREA, CA 92821
(714) 528-2900

SOILS ENGINEER
N/A

APPROVED BY:
BUILDING DEPT.
PLANNING DEPT.
PUBLIC WORKS DIRECTOR

LY PHAN, PE
RCE 63381
EXP. 09/30/2024
10820 KEENAN PL.
STANTON, CA 90680
TEL: (714) 487-7037
HDT.CIVIL@YAHOO.COM

DRAWN BY: KN
DESIGNED BY: LP
CHECKED BY: BT

DATE: 9/2023
DATE: 9/2023
DATE: 9/2023

PREPARED UNDER THE SUPERVISION OF:

GRADING PLAN

VMJ COMPANY, LLC
729-731 W 4TH AVE
LA HABRA, CA 90631

SHEET **2** OF **2**