BACKFLOW PREVENTER -----

UTILITY NOTES:

WATER UTILITY NOTES:

- 1. ALL FITTINGS SUBJECT TO AN UNBALANCED HYDROSTATIC FORCE SHALL BE RESTRAINED WITH 2000 PSI CONCRETE THRUST BLOCKS BEARING AGAINST UNDISTURBED SOIL. IN ADDITION, ALL FLEXIBLE JOINTS SHALL BE RESTRAINED WITH ANCHOR BOXES.
- 2. THE CONTRACTOR SHALL FURNISH, INSTALL AND TEST ALL PIPING FOR WATER INSIDE THE DEVELOPMENT, INCLUDING FIRE SERVICE AND HYDRANTS, AND THE DOMESTIC WATER SYSTEM. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ALL THE WATER APPURTENANCES, VALVES WATER METERS (SUB-METERS), FITTINGS, THRUST BLOCKS OR RESTRAINT SYSTEM, AND FINAL CHLORINATION / DISINFECTION OF THE WHOLE WATER DISTRIBUTION SYSTEM OF THE PROJECT IN ACCORDANCE WITH THE WATER DISTRIBUTION SPEC 02510
- 3. PIPING SHALL BE "LISTED" FOR FIRE PROTECTION SERVICE AND COMPLY WITH AWWA STANDARDS, WHERE APPLICABLE. FITTINGS SHALL BE OF AN "APPROVED" TYPE.
- 4. ALL CONTROL VALVES SHALL BE "LISTED" INDICATING TYPE UNLESS A NON-INDICATING VALVE, SUCH AS AN UNDERGROUND GATE VALVE WITH APPROVED ROADWAY BOX COMPLETE WITH T-WRENCH, IS ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION (AHJ).
- 5. DOMESTIC WATER LINE PIPE SIZE 2-1/2" AND SMALLER USE COPPER TUBING, TYPE L HARD. PROVIDE PIPE CORROSION PROTECTION.
- 6. ALL TEES, PLUGS, CAPS, BENDS, AND HYDRANT BRANCHES ON PIPE INSTALLED UNDERGROUND SHALL BE RESTRAINED (PIPE CLAMPS AND TIE-RODS, THRUST BLOCKS, LOCKED MECHANICAL OR PUSH-ON JOINTS, MECHANICAL JOINTS UTILIZING SET SCREW RETAINER GLANDS, OR OTHER APPROVED METHODS) AGAINST MOVEMENT.

STORM DRAINAGE UTILITY NOTES:

- 1. ALL CATCH BASINS AND DRAINAGE INLETS SHALL BE STENCILED WITH "NO DUMPING, DRAINS TO OCEAN" LOGO. PER DETAIL 1 ON SHEET C5.02.
- 2. CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES TO THE CITY ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORK.
- 3. TRENCH EXCAVATION AND BACKFILLING SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS. THE CONTRACTORS SHALL COMPLY WITH ALL APPLICABLE DIVISION OF INDUSTRIAL REGULATIONS (CAL-OSHA) SAFETY STANDARDS.
- 4. COORDINATE WITH PLUMBING PLAN TO VERFIY EXACT LOCATION OF POINT OF CONNECTION BETWEEN PLUMBING AND CIVIL. ADJUST LINE AS REQUIRED.
- 5. MINIMUM STORM DRAIN LINE PIPE SLOPE AT 0.50%.
- 6. DIRECT ROOF DOWNSPOUT TO PLANTER BOX OR CONNECT TO ONSITE STORM DRAINAGE LINE TOWARDS THE BIO-FILTRATION AREAS AS INDICATED ON UTILITY PLAN.

SEWER UTILITY NOTES:

- 1. CONTRACTOR TO COORDINATE WITH CITY OF LOS ANGELES FOR SADDLE CONNECTION TO STREET PER CITY OF LOS ANGELES STANDARD PLAN 27983.
- 2. CONTRACTOR TO FIELD VERIFY EXISTING SEWER LINE CONNECTION, CONDUCT CCTV TO VERIFY PIPE SIZE, INVERT ELEVATION, AND IDENTIFY IF THE EXISTING PIPE IS DAMAGED. IF DAMAGED EXISTING PIPE NEEDS TO BE REPLACED BASED ON THE FINDINGS NEW SEWER 6"0 LATERALS SHALL BE INSTALLED WITH A 1% MINIMUM SLOPE.
- 3. CONTRACTOR TO COORDINATE WITH THE OFF-SITE WORKS DURING INSTALLATION, ADJUST SEWER LINE CONNECTION AS REQUIRED.
- 4. CONTRACTOR TO VERIFY ALL CONDITIONS AND DIMENSIONS AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORK.
- 5. TRENCH EXCAVATION AND BACKFILLING SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARD. THE CONTRACTORS SHALL COMPLY WITH ALL APPLICABLE DIVISION OF INDUSTRIAL REGULATIONS (CAL-OSHA) SAFETY STANDARDS.
- 6. FOR TOP OF RIM, CLEAN OUT COVER ELEVATION, AND MANHOLE COVER ELEVATION, COORDINATE UTILITY PLAN WITH GRADING PLANS; REPORT ANY DISCREPANCIES TO THE CITY ENGINEER PRIOR TO THE COMMENCEMENT OF ANY WORK.
- 7. TEST SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 306 UNDERGROUND CONDUIT CONSTRUCTION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- 8. CONTRACTOR TO VERIFY POINT OF CONNECTION BETWEEN SEWER LATERAL AND BUILDING PLUMBING SEWER LAYOUT AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF ANY

ABBREVIATIONS:		ABBREVIATIONS:	
4C	ASPHALT CONCRETE	N	NORTH
A D	AREA DRAIN	NPR	NEWSPAPER RACK
APWA	AMERICAN PUBLIC WORKS ASSOCIATION		
ARCH	ARCHITECTURAL	OC	ON CENTER
ASPH	ASPHALT	OIE	OUTLET INVERT ELEVATION
		OAR	OWNERS AGENT REPRESENTITIVE
3C	BEGINNING OF CURVE		
BLDG	BUILDING	Р	PROPORTIONED
ВМ	BENCHMARK	PA	PLANTING AREA
3W	BACK OF SIDEWALK	PM	PUNCH MARK ON MANHOLE, PARKING METER
3X	BOTTOM OF RAMP	PCC	PORTLAND CONCRETE CEMENT
3S	BOTTOM OF STEP	PIV	POST INDICATOR VALVE
		PL	PROPERTY LINE
CAB	CRUSHED AGGREGATE BASE	PP	POWER POLE
СВ	CATCH BASIN	PTR	PRELIMINARY TITLE REPORT
CCTV	CLOSED CIRCUIT TELEVISION	PSG	PEDESTRIAN SWING GATE
CEFB	CITY ENGINEER FIELD BOOK	PVC	POLYVINYL CHLORIDE PIPE
CF	CURB FACE	PVMT	PAVEMENT
<u> </u>	CENTERLINE		
Cl	CAST IRON	R	RADIUS (GEOMETRY), RIDGE (GRADING), RECORD (SURVEY)
CLF	CHAIN LINK FENCE	RCP	REINFORCED CONCRETE PIPE
CLR	CLEAR	REF	REFERENCE
СМВ	CRUSHED MISCELLANEOUS BASE	RW	RIGHT OF WAY
CO	CLEANOUT		
CONC	CONCRETE	S	SLOPE, SOUTH, SEWER
СРМ	CONSTRUCTION PROJECT MANAGER	SD	STORM DRAIN
	DIAMETER	SDR	STANDARD PIPE DIMENSION RATIO
DIA	DIAMETER	SSMH	SANITARY SEWER MANHOLE
DIP	DUCTILE IRON PIPE	SDMH	STORM DRAIN MANHOLE
DDSG	DRIVE DOUBLE-LEAF SWING GATE	SLPB	STREET LIGHT PULLBOX
DMH	DRAIN MAINTENANCE HOLE	SPK	SPIKE
DS	DRAIN	SPKR	SPRINKLER
DW	DOMESTIC WATER	SS	SANITARY SEWER
DWG(S)	DRAWING(S)	STA	STATION, STD(S), STANDARD(S)
DWP	DEPARTMENT OF WATER AND POWER	S&W	SPIKE & WASHER
DWY	DRIVEWAY	SW	SIDEWALK
=	TACT.		
E	EAST	Т	TANGENT

END OF CURVE EDISON EDGE OF GUTTER/EXISTING GRADE

ELECTRICAL EL, ELEV ELEVATION EXPANSION JOINT EDGE OF PAVEMENT EXIST. EX EXISTING **EXPANSION**

FIELD BOOK FRENCH DRAIN

FIRE DEPARTMENT CONNECTION FINISH FLOOR ELEVATION FINISH GRADE

> FIRE HYDRANT FLOW LINE FOUNDATION FINISH SURFACE

FEET FIRE WATER

GRADE BREAK

GAS METER GAS VAULT GAS VALVE

HIGH POINT

INVERT ELEVATION INLET INVERT ELEVATION

INVERT IRRIGATION

ITEM NO. ITEM SHOWN ON PTR

MAXIMUM MEASURED

MAINTENANCE HOLE, MANHOLE



TOP OF MOW STRIP TOP OF SLOPE, TOP OF SLAB TOP OF EMBANKMENT TRAFFIC SIGNAL PULLBOX

TOP OF STEP TOP OF WALL TOP OF RAMP TYPICAL

UNDERGROUND

VITRIFIED CLAY PIPE VERIFY IN FIELD VAULT IN VENTS

DOMESTIC WATER, WEST WATER METER

WATER VALVE WATER VAULT

YARD BOX

(W,S,G,E) (WATER, SEWER, GAS, ELECTRICAL)

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