

# CULVER CITY CITYWIDE STORMWATER CAPTURE

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## UTILITY COMPANY CONTACTS

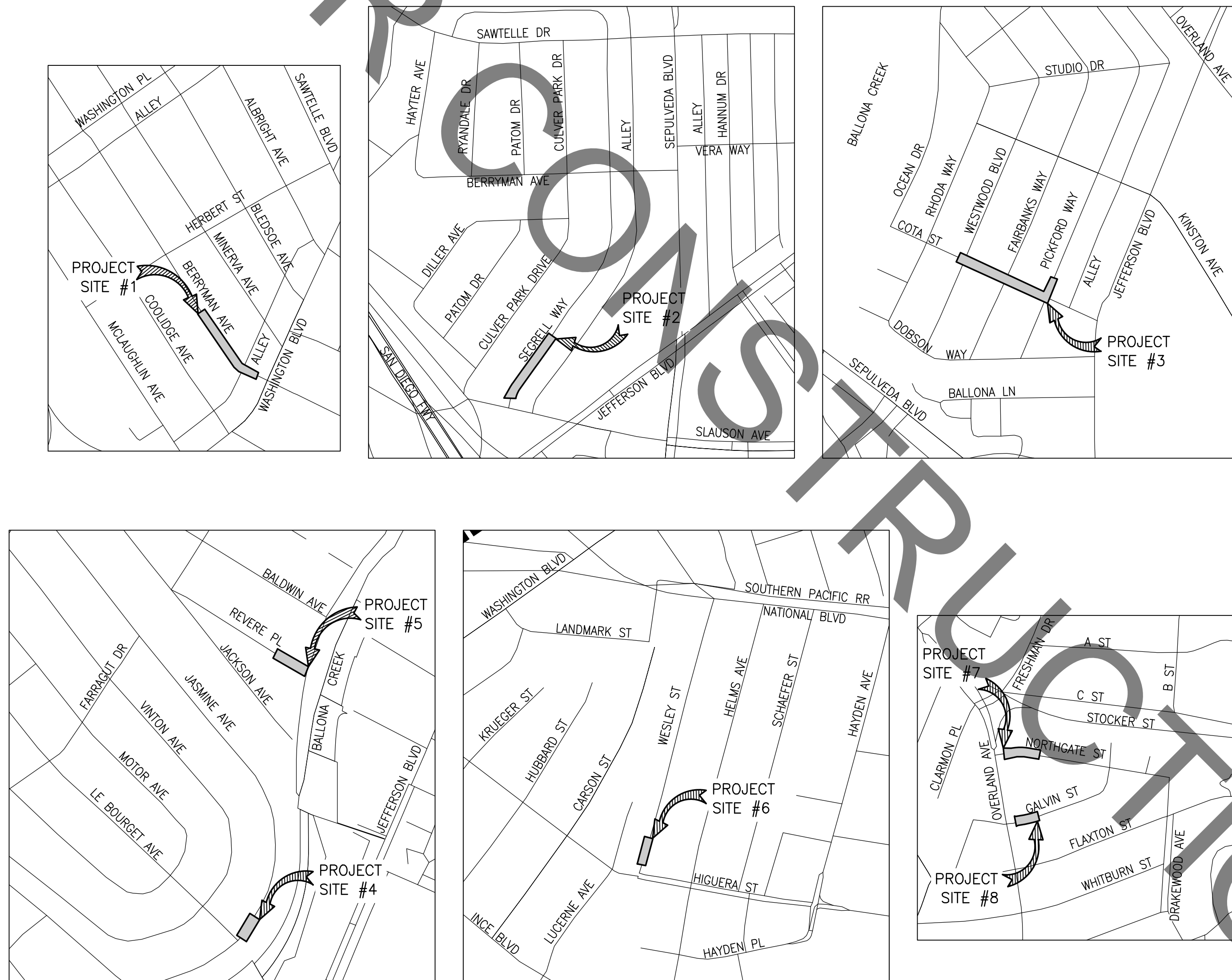
COMPANY	CONTACT	PHONE NO.
AT&T DISTRIBUTION	GRACY CORONA	(626) 463-5833
CCI SYSTEMS (SPECTRUM)	CHRISTINA HURKMANS	(800) 338-9299
CITY OF CULVER CITY	YANNI DEMITRI	(310) 253-5600
CROWN CASTLE	LOUIS VICTORIO	(925) 201-5802
FIRELINE BROADBAND	DAVE HENDRIE	(323) 896-7724
FRONTIER	FRONTIER CALL CENTER	(800) 921-8106
GOLDEN STATE WATER	BENJAMIN MENDOZA	(213) 219-5725
LUMEN	PHILIP P. MARTIN	(949) 527-0953
MCSOCAL - MCI (VERIZON BUSINESS)	FIBER SECURITY DEPARTMENT	(800) 624-9675
SHELL OIL PIPELINE - NORTH	KATHERINE THOMAS	(626) 244-4533
SOUTHERN CALIFORNIA EDISON METRO WEST DISTRIBUTION	SOUTHERN CALIFORNIA EDISON PERSONNEL	(800) 611-1911
SOUTHERN CALIFORNIA EDISON METRO WEST TRANSMISSION	SOUTHERN CALIFORNIA EDISON PERSONNEL	(800) 611-1911
SOUTHERN CALIFORNIA EDISON TRANS TELECOM	TCC	(800) 655-8844
SOUTHERN CALIFORNIA GAS COMPANY - DISTRIBUTION	DANNY GARCIA	(213) 231-8183
SOUTHERN CALIFORNIA GAS COMPANY - TRANSMISSION	DIEGO CASTILLO	(747) 203-9830
SPRLAS - SENTINEL PEAK RESOURCES	GEORGE RODRIGUEZ	(323) 855-3204
TING FIBER INC	JEREMY LUYMES	(970) 779-4978

## ENGINEER'S NOTICE TO CONTRACTOR

THE ESTIMATED QUANTITY FOR EACH SPECIFIC ITEM OF THE WORK DESIGNATED ON THE PLANS SHALL BE CONSIDERED AS APPROXIMATE ONLY AND NO GUARANTEE IS MADE THAT THE QUANTITIES WHICH CAN BE DETERMINED BY COMPUTATIONS, BASED ON THE DETAILS AND DIMENSIONS SHOWN ON THESE PLANS, WILL EQUAL THE ESTIMATED QUANTITIES. THE ESTIMATE OF QUANTITIES IS PROVIDED BY THE ENGINEER ONLY FOR THE CONVENIENCE OF THE CITY. ANY ITEM OF WORK, OR PORTION THEREOF, REQUIRED BY THESE PLANS WHICH IS NOT SPECIFICALLY LISTED IN THE ESTIMATE OF QUANTITIES SHALL BE CONSIDERED AS INCLUDED IN THE OTHER ITEMS OF WORK.

## VERTICAL DATUM

NORTH AMERICAN VERTICAL DATUM OF 1988.



## ABBREVIATIONS

AC	ASPHALT CONCRETE	LACFCD	LOS ANGELES COUNTY FLOOD CONTROL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	LF	LINEAR FEET
BC	BEGINNING OF CURVE	MH	MANHOLE
BCR	BEGINNING OF CURB RETURN	OC	ON CENTER
BM	BENCH MARK	PCC	PORTLAND CEMENT CONCRETE
CAB	CRUSHED AGGREGATE BASE	PCF	POUNDS PER CUBIC FEET
CB	CATCH BASIN	PR	PROPOSED
CIP	CAST IRON PIPE	PSI	POUNDS PER SQUARE INCH
CL	CENTERLINE	PVC	POLYVINYL CHLORIDE
CLSM	CONTROLLED LOW STRENGTH MATERIAL	RCP	REINFORCED CONCRETE PIPE
CMB	CRUSHED MISCELLANEOUS BASE	RD	ROAD
CONC	CONCRETE	R/W	RIGHT-OF-WAY
DIP	DUCTILE IRON PIPE	SCE	SOUTHERN CALIFORNIA EDISON
DWY	DRIVEWAY	SD	STORM DRAIN
EC	END OF CURVE	SF	SQUARE FEET
ECR	END OF CURB RETURN	SPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
ELEC	ELECTRICAL CONDUIT	SS	SANITARY SEWER
ELEV	ELEVATION	ST	STREET
EX.	EXISTING	STA	STATION
FG	FINISH GRADE	STD	STANDARD
FC	FIRE HYDRANT	TC	TOP OF CURB
FIB OPT	FIBER OPTICS LINE	TELE	TELECOMMUNICATION
FL	FLOW LINE	TYP.	TYPICAL
FS	FINISH SURFACE	W.A.T.C.H	WORK AREA TRAFFIC CONTROL HANDBOOK
GSW	GOLDEN STATE WATER		
HDPE	HIGH DENSITY POLYETHYLENE INSIDE DIAMETER		
IN	INCHES		
INV.	INVERT		

## LEGEND

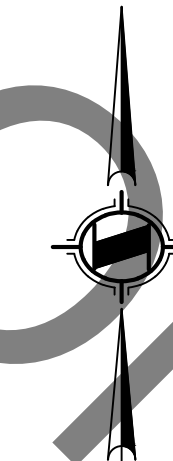
---	GAS	---	EXISTING GAS LINE
---	SS	---	EXISTING SANITARY SEWER LINE
---	SD	---	EXISTING STORM DRAIN LINE
---	W	---	EXISTING WATER LINE
---	COM	---	EXISTING TELECOMMUNICATIONS LINE
---	E	---	EXISTING ELECTRICAL LINE
---	O	---	EXISTING OIL LINE
---	FIB	---	EXISTING FIBER
---	TEL	---	EXISTING TELEPHONE LINE
---	E	---	EXISTING ELECTRICAL LINE
---	OHE	---	EXISTING OVERHEAD ELECTRICAL LINE
---		---	CITY BOUNDARY
---		---	STREET CENTERLINE

## SYMBOLS

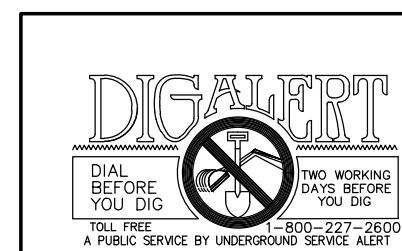
(23)	CONTOUR
---	DRIVEWAY
⊕	FIRE HYDRANT
⊙	GAS VALVE
⊙	GUY POLE
⊙	GUY WIRE
⊙	MANHOLE
⊙	OTHER TREE
⊙	PALM TREE
⊙	PARKING METER
⊙	POWER POLE
⊙	PULL BOX
⊙	STREET CENTERLINE
⊙	STREET LIGHT
⊙	TRAFFIC SIGNAL
⊙	TRAFFIC SIGNAL BOX
⊙	Vault
⊙	WATER VALVE

## LOCATION MAP

SCALE: 1"=500'



CITY OF CULVER CITY PUBLIC WORKS DEPARTMENT	
CULVER CITY CITYWIDE STORMWATER CAPTURE	
TITLE SHEET	
APPROVED BY: YANNI DEMITRI, P.E., T.E.	SHEET T-1
PUBLIC WORKS DIRECTOR/CITY ENGINEER	DATE
Sheet 1 of 15 Sheets	



PLANS PREPARED UNDER THE SUPERVISION OF:	△
KATHRYN (KATIE) HARREL, P.E.	△
Project Number: PZ497	△
Drawing No.	NO.

NO.	REVISION	BY	APPR.	DATE

**GENERAL NOTES:**

- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- PRIOR TO COMMENCING CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD. IF THE FIELD CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.
- NOTES AND DETAILS ON THESE PLANS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.
- THE WORK SHOWN ON THESE PLANS REQUIRES THE PRIME CONTRACTOR TO POSSESS A VALID CALIFORNIA CLASS A CONTRACTOR'S LICENSE.

**EXISTING & PROPOSED UTILITIES**

- INFORMATION ON LOCATION, SIZES AND DEPTH OF THE EXISTING UTILITIES WAS TAKEN FROM EXISTING DRAWINGS AND DATA, AND IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE PLANS AND SHALL VERIFY SITE CONDITIONS PRIOR TO THE ORDERING OF MATERIALS AND COMMENCING WORK.
- ANY UTILITY INVESTIGATION DONE BY EXPLORATORY EXCAVATION POTHOLING SHALL USE VACUUM EXTRACTION OR HAND EXCAVATION METHODS ONLY.
- BEFORE CONSTRUCTION IS STARTED, CONTRACTOR SHALL COORDINATE WITH THE OWNER OF EACH UTILITY AND DEFINE THE REQUIREMENTS AND METHODS TO ACCOMMODATE THE PROTECTION, TEMPORARY SUPPORT, ADJUSTMENT, OR RELOCATION OF ANY UTILITIES AFFECTED BY THE PROPOSED WORK.
- IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO ADJUST TO FINISHED GRADE EXISTING SEWER AND STORM DRAIN MAINTENANCE HOLE COVERS AND ANY OTHER UTILITY BOX COVERS AND FURNISH AND INSTALL CONCRETE COLLARS AS REQUIRED TO MATCH PROPOSED PAVEMENT.
- THE CONTRACTOR SHALL BE COGNIZANT OF OVERHEAD LINES AT ALL TIMES.

**JOB SITE**

- ALL FIRE HYDRANTS, WATER CONTROL VALVES, AND MAINTENANCE HOLES SHALL BE KEPT FREE FROM OBSTRUCTIONS AND AVAILABLE FOR USE AT ALL TIMES.
- IN CASE OF SUSPENSION OF WORK FROM ANY CAUSE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS AND SHALL PROPERLY STORE THEM IF NECESSARY AND SHALL ERECT TEMPORARY STRUCTURES WHERE NECESSARY. CITY WILL NOT BE HELD RESPONSIBLE FOR THE CARE OR PROTECTION OF ANY MATERIAL OR PARTS OF THE WORK PRIOR TO FINAL ACCEPTANCE, UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL MAINTAIN AND CLEAN, IF NECESSARY, ALL EXISTING ONSITE AND/OR ADJACENT STORM DRAIN INLETS AFFECTED BY CONSTRUCTION DURING THE COURSE OF CONSTRUCTION AND UNTIL THE WORK IS ACCEPTED BY THE CITY.
- ALL CONSTRUCTION DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF AT APPROVED DISPOSAL SITE. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION AND DISPOSAL OF MATERIAL.

**SURVEY & LAYOUT**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL PERMIT CORNER MARKERS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR REPLACING ANY SURVEY MONUMENTS THAT ARE DISTURBED DURING CONSTRUCTION. PROPERTY CORNER MARKERS AND SURVEY MONUMENTS DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RE-ESTABLISHED BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF CALIFORNIA.
- THE PROPOSED GRADE IS THE FINAL GRADE AND NOT THE ROUGH GRADE. THE CONTRACTOR SHALL SUBTRACT THE THICKNESS OF THE PAVED SECTION TO ARRIVE AT THE ROUGH GRADE ELEVATION.
- CONSTRUCTION STAKING FOR IMPROVEMENTS SHOWN ON THESE PLANS SHALL BE PERFORMED BY A PROFESSIONAL LAND SURVEYOR, POSSESSING A VALID STATE OF CALIFORNIA LAND SURVEYOR LICENSE.

**PUBLIC HEALTH, SAFETY & WELFARE**

- CONTRACTOR SHALL COMPLY WITH ALL LOCAL SOUND CONTROL AND NOISE LEVEL RULES, REGULATIONS AND ORDINANCES, INCLUDING BUT NOT LIMITED TO ALL APPLICABLE PROVISIONS OF CHAPTER 9.07 OF THE CULVER CITY MUNICIPAL CODE.

**MISCELLANEOUS**

- AT LEAST 72 HOURS SHALL ELAPSE FROM THE TIME CONCRETE IS PLACED BEFORE VEHICULAR TRAFFIC IS PERMITTED TO TRAVEL ON IT, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- IN AREAS SHOWN ON THESE PLANS TO BE CONSTRUCTED OR RECONSTRUCTED AND WHERE EXISTING PAVEMENT OR SUBGRADE IS FOUND TO BE UNSTABLE, THE CONTRACTOR SHALL REMOVE AND REPLACE THE TOP 3 FEET OF SUBGRADE WITH CRUSHED MISCELLANEOUS BASE (CMB) AND COMPACT TO 90% OF MAX. DRY DENSITY OBTAINABLE AS MEASURED BY ASTM D-1157. IF SHALLOW UTILITIES PREVENT REMOVAL OF 3 FEET OF SUBGRADE SOIL, AN APPROVED WOVEN GEOFABRIC OR GEOGRID SHALL BE USED TO PROVIDE STRENGTH TO THE SUBGRADE.

- SAWING OF JOINTS SHALL BEGIN AS SOON AS THE CONCRETE HAS SUFFICIENTLY HARDENED TO PERMIT SAWING WITHOUT RAVELING, BUT NOT EXCEEDING TWELVE (12) HOURS AFTER PLACEMENT OF CONCRETE. PLACEMENT OF CONCRETE SHALL BE SCHEDULED TO BEGIN AND BE COMPLETED IN SUFFICIENT TIME TO ALLOW SAWING OF JOINTS AS PREVIOUSLY STATED.
- CONCRETE SHALL HAVE A STRENGTH OF 4,000 PSI.
- ALL FILL SOILS OR SOILS DISTURBED OR OVER-EXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED TO 90% MAXIMUM DENSITY AS DETERMINED BY SOIL COMPACTION TEST D-1157.
- AUTOCAD FILES OF THIS PROJECT'S PLANS SHALL BE PROVIDED TO THE CONTRACTOR.

**DESIGN & CONSTRUCTION STANDARDS:**

- THE FOLLOWING STANDARD PLANS & SPECIFICATIONS ARE APPLICABLE TO THIS PROJECT:
  - STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SPPWC), 2021 (OR LATEST) EDITION AND SUPPLEMENTS.
  - STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC), 2021 EDITION.
  - LOS ANGELES COUNTY STANDARD PLANS REF. 3080-3, 2008 EDITION.

**PUBLIC NOTIFICATION REQUIREMENTS:**

- THE CONTRACTOR SHALL PROVIDE THE FOLLOWING PUBLIC NOTICES PRIOR TO BEGINNING CONSTRUCTION ON THE PROJECT:
  - UPON RECEIVING THE NOTICE TO PROCEED DATE, THE CONTRACTOR SHALL ISSUE A NOTICE BY U.S. MAIL, PREPARED OR APPROVED BY THE CITY, NOTIFYING RESIDENTS AND BUSINESSES WITHIN 500 FEET OF THE PROJECT LIMITS ABOUT THE SCHEDULED WORK.
  - 2 WEEK PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR SHALL PREPARE AND DISTRIBUTE A NOTICE APPROVED BY THE CITY TO RESIDENTS AND BUSINESSES IMMEDIATELY ADJACENT TO THE PROJECT LIMITS.
  - CONTRACTOR SHALL PREPARE AND INSTALL/PLACE A PROJECT SIGN ON ALUMINUM BACKING AND MOUNTED ON TWO (2) 4X4 WOODEN POSTS WITHIN THE PROJECT LIMITS. THE SIGN SHALL PROVIDE INFORMATION REGARDING THE PROJECT, CONSTRUCTION DATES AND TIMES, ALONG WITH GENERAL AND EMERGENCY CONTACT INFORMATION. LETTERS USED ON THE SIGN SHALL BE 4-6 INCHES HIGH.

**GRADING NOTES:**

- NO WORK SHALL BE STARTED IN OR ABOUT A GRADING PROJECT WITHOUT FIRST NOTIFYING THE ENGINEER.
- NO GRADING WORK, INCLUDING IMPORT AND EXPORT, SHALL BE DONE OUTSIDE OF CITY SPECIFIED CONSTRUCTION HOURS. EXCEPT IN EMERGENCIES, A HAUL ROUTE SHALL BE PREPARED BY THE CONTRACTOR SATISFACTORY TO THE PUBLIC WORKS DEPARTMENT, ENGINEERING DIVISION.
- NO PERSON SHALL, WHEN HAULING ANY EARTH, SAND, GRAVEL, ROCK, STONE, DEBRIS, PAPER OR ANY OTHER SUBSTANCE OVER ANY PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE, ALLOW SUCH MATERIALS TO BLOW OR SPILL OVER AND UPON THE PUBLIC STREET, ALLEY OR OTHER PUBLIC PLACE OR ADJACENT PRIVATE PROPERTY.
- THE LOADING OR DUMPING OF EXCESS SOIL SHALL BE APPROVED BY THE ENGINEER PRIOR TO STARTING EXCAVATION.
- IF AT ANY STAGE OF WORK ON AN EXCAVATION OR FILL THE ENGINEER DETERMINES THAT FURTHER WORK AS AUTHORIZED BY AN EXISTING PERMIT IS LIKELY TO ENDANGER ANY PROPERTY OR PUBLIC WAY THE ENGINEER MAY REQUIRE, AS A CONDITION TO ALLOW THE WORK TO CONTINUE, THAT PLANS FOR SUCH WORK BE AMENDED TO INCLUDE ADEQUATE SAFETY PRECAUTIONS.
- INSPECTIONS OF EXCAVATION AND FILLS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER WHEN THE GRADING OPERATION IS READY FOR EACH OF THE FOLLOWING INSPECTIONS:
  - INITIAL MEETING/ INSPECTION: WHEN THE PERMITEE IS READY TO BEGIN WORK, BUT BEFORE GRADING OR BRUSHING IS STARTED, A MEETING SHALL BE HELD AT THE PROJECT SITE WITH THE CONTRACTOR AND THE INSPECTOR TO DISCUSS THE APPROVED PLANS, AND THE SEQUENCE OF THE GRADING OPERATION.
  - EXCAVATION INSPECTION: AFTER THE EXCAVATION IS STARTED, BUT BEFORE THE VERTICAL HEIGHT DEPTH OF THE EXCAVATION EXCEEDS TEN FEET.
  - FILL INSPECTION: AFTER THE FILL PLACEMENT IS STARTED, BUT BEFORE THE VERTICAL HEIGHT OF THE LIFT EXCEEDS TEN FEET.
  - DRAINAGE DEVICE INSPECTION: AFTER FORMS AND PIPE ARE IN PLACE, BUT BEFORE ANY CONCRETE IS PLACED.
  - FINAL: WHEN ALL WORK, INCLUDING INSTALLATION OF ALL DRAINAGE STRUCTURES AND OTHER PROTECTIVE DEVICES, HAS BEEN COMPLETED AND THE AS-GRADED PLAN AND REQUIRED REPORTS HAVE BEEN SUBMITTED.
- THE CONTRACTOR SHALL OBTAIN A PERMIT FROM CALIFORNIA DIVISION OF INDUSTRIAL SAFETY FOR THE CONSTRUCTION OF TRENCHES OR EXCAVATIONS WHICH ARE FIVE FEET OR DEEPER. SHEETING, SHORING, AND BRACING FOR THE TRENCH EXCAVATION SHALL CONFORM TO THE REQUIREMENTS OF "CONSTRUCTION SAFETY ORDERS," TITLE 8, DIVISION OF INDUSTRIAL SAFETY, STATE OF CALIFORNIA.
- A COPY OF THE APPROVED PLANS MUST BE IN THE POSSESSION OF A RESPONSIBLE PERSON AND AVAILABLE AT THE SITE AT ALL TIMES.
- WORK SHALL BE PERFORMED IN ACCORDANCE WITH THIS PLAN SET, TECHNICAL SPECIFICATIONS, PROVISIONS OF THE STANDARD SPECIFICATIONS

FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AND ALL REFERENCES.

- FILL PLACEMENT AREAS SHALL BE INSPECTED AND APPROVED BY THE CONSULTANT GEOLOGIST AND SOILS ENGINEER PRIOR TO PLACEMENT OF ANY FILL.
- EXCAVATION SHALL BE DONE UNDER THE SUPERVISION OF A SOILS ENGINEER WHO SHALL CERTIFY THAT ALL FILL HAS BEEN PROPERLY PLACED AND WHO SHALL SUBMIT A FINAL COMPACTION REPORT FOR ALL FILLS OVER ONE FOOT DEEP.
- THE EXISTING TOPOGRAPHY AS DELINEATED ON THESE DRAWINGS SHALL BE UTILIZED AS THE BASIS FOR ALL EARTHWORK COMPUTATIONS. SAID TOPOGRAPHY SHALL BE PRESUMED TO BE ACCEPTABLE TO ALL INTERESTED PARTIES UNLESS A DEVIATION IS FOUND PRIOR TO THE START OF GRADING IN ANY SPECIFIC AREAS. ANY DEVIATION SO DETERMINED SHALL BE PROMPTLY TRANSMITTED TO ALL INTERESTED PARTIES.
- OVER-EXCAVATION AND/OR EXCESS BACKFILLING OR DUPLICATION OF GRADING ACTIVITIES IS NOT A BASIS FOR ADDITIONAL COMPENSATION. THIS ALSO APPLIES WHERE MATERIAL IS TO BE REMOVED AND REPLACED TO REDUCE MOISTURE CONTENT.

**CULVER CITY GENERAL UTILITY NOTES:**

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK) AND ANY AMENDMENTS THERETO, THE LATEST EDITION OF THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK STANDARD PLANS), OTHER CITY STANDARDS, AND TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR/CITY ENGINEER, OR HIS/HER DESIGNEE.
- TRAFFIC CONTROL SHALL BE PER W.A.T.C.H. AND TO THE SATISFACTION OF THE PUBLIC WORKS INSPECTOR.
- LANE CLOSURES ARE PERMITTED ONLY BETWEEN THE HOURS OF 9:00AM AND 3:00PM WEEKDAYS, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER OR HIS/HER DESIGNEE AS PART OF THE CONDITIONS OF APPROVAL OR APPROVED TRAFFIC CONTROL PLANS.
- CONTRACTOR SHALL CALL FOR INSPECTION FOR REPAVING AT 310-253-5611 AT LEAST 48-HOURS IN ADVANCE. FAILURE TO PROPERLY NOTIFY THE PUBLIC WORKS INSPECTOR IS CAUSE FOR REVOCATION OF PERMIT.
- TO MINIMIZE INCONVENIENCE TO TRAFFIC AND THE PUBLIC IN GENERAL, THE CONTRACTOR SHALL SCHEDULE THE CONCRETE PLACEMENT AND/OR ROADWAY PAVEMENT TO BE COMPLETED NO LATER THAN TWO (2) DAYS AFTER THE REMOVAL OPERATIONS, UNLESS APPROVED BY THE PUBLIC WORKS INSPECTOR. SAFE AND ADEQUATE PEDESTRIAN AND VEHICULAR MOVEMENT AT AND AROUND ALL CONSTRUCTION SITES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES. APPROVED BARRIERS AND SIGNS (TRAFFIC FLAGGING PERSONAL, IF NECESSARY), SHALL BE FURNISHED AND UTILIZED BY THE CONTRACTOR TO ENSURE PUBLIC SAFETY AT ALL TIMES.
- APPROVAL OF THIS PLAN BY THE CITY OF CULVER CITY DOES NOT CONSTITUTE A REPRESENTATION OF THE ACCURACY OF THE LOCATION OF THE EXISTENCE OF ANY UNDERGROUND UTILITY, PIPE OR STRUCTURE WITHIN THE LIMITS OF THE PROJECT.
- THE APPLICANT SHALL BE RESPONSIBLE FOR THE EXPENSE AND TO REPAIR OR REPLACE ANY DAMAGED TO THE PUBLIC RIGHT-OF-WAY, TO INCLUDE EXISTING TRAFFIC LOOPS, SIGNAL, LIGHTING, ELECTRICAL SYSTEMS, AND UNDERGROUND INSTALLATIONS (WHETHER OR NOT PHYSICALLY MARKED OR SHOWN ON THE CONTRACT PLANS), DAMAGED CAUSED BY THE CONSTRUCTION OF THE PROPOSED WORK OR PROJECT. SUCH REPAIRS OR REPLACEMENT SHALL BE COMPLETED TO THE SATISFACTION OF THE CITY ENGINEER.
- ALL CONTRACTORS OR SUBCONTRACTORS THAT PERMITEE ENGAGES FOR ANY OR ALL OF THE WORK TO BE COMPLETED BY THE PERMIT, SHALL HAVE A CITY BUSINESS LICENSE, LIABILITY INSURANCE WITH THE CITY NAMED AS ADDITIONALLY INSURED, AND WORKERS' COMPENSATION INSURANCE. THE LIABILITY INSURANCE SHALL HAVE A MINIMUM COVERAGE OF ONE MILLION DOLLARS PER INCIDENT AND TWO MILLION DOLLARS AGGREGATE AND INCLUDE AUTOMOBILE LIABILITY OF ONE MILLION DOLLARS.
- THE CONTRACTOR SHALL NOT DISCHARGE OR PERMIT TO BE DISCHARGED TO ANY STREET, STORM DRAIN, OF ANY APPURTENANCE THEREOF, ANY NON-RAIN WATER OR OTHER LIQUID FROM THE PROJECT SITE OF FROM OPERATIONS PERTAINING TO THE PROJECT SITE, PER NPDES REGULATIONS AND CITY'S STORM WATER POLLUTION ORDINANCE SECTION 5.02.500 ET SEQ.
- CATCH BASINS WITHIN 50 FEET OF WORK AREA SHALL BE PROTECTED WITH PERMEABLE FABRIC AND SANDBAGS PRIOR TO COMMENCING WORK AND MAINTAINED DURING DURATION OF OPERATIONS.
- EXISTING UNDERGROUND LIGHTING, ELECTRICAL SYSTEMS AND UTILITY LINES DAMAGED BY THE CONTRACTOR'S OPERATION SHALL BE REPLACED OR RESTORED IN KIND OR BETTER AT THE PERMITEE'S EXPENSE.
- STOCKPILING OF MATERIAL OR EQUIPMENT IN THE PUBLIC RIGHT OF WAY IS PROHIBITED UNLESS AUTHORIZED BY THE PUBLIC WORKS DIRECTOR/CITY ENGINEER OR HIS/HER DESIGNEE.
- THE PROJECT WORK AREA SHALL BE KEPT CLEAN, SAFE, AND SANITARY CONDITION. AT THE END OF EACH WORK DAY, THE PROJECT WORK AREA SHALL BE SWEEP BY MANUAL OR MECHANICAL MEANS TO THE SATISFACTION OF THE PUBLIC WORKS DIRECTOR/CITY ENGINEER, OR HIS/HER DESIGNEE.
- NO STAGING OF CONSTRUCTION MATERIALS OR CONSTRUCTION VEHICLES ALONG PUBLIC RIGHT OF WAY UNLESS AUTHORIZED BY THE PUBLIC WORKS DIRECTOR/CITY ENGINEER OR HIS/HER DISIGNEE.
- CONSTRUCTION VEHICLES SHALL NOT BE PARKED OVER NIGHT OR DURING NON-OPERATIONAL HOURS ON PUBLIC RIGHT OF WAY.
- CONTRACTOR SHALL CALL FOR INSPECTION AT 310-253-5600 AT LEAST 24 HOURS IN ADVANCE.
- DIG ALERT SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF EXCAVATION.
- ALL SIGNS/STREET LIGHTS EQUIPMENT DAMAGED MUST BE REPAIRED WITHIN 24 HOURS.

- ALL EXISTING UTILITY BOXES SHALL BE ADJUSTED TO GRADE.
- CONTRACTOR TO NOTIFY PUBLIC WORKS INSPECTOR 48-HOURS PRIOR TO COMMENCING WORK IN THE PUBLIC RIGHT-OR-WAY AT 310-253-5612.

**SITE 1 (BERRYMAN AVENUE)**

**BASIS OF BEARINGS**

THE CCS83 GRID BEARING BETWEEN C.S.R.N. STATIONS "P800" AND "WRHS" BEING NORTH 46-03'32" EAST, DISTANCE OF 33188.73 AS DERIVED FROM THE POSITIONS FOR SAID STATIONS, IN SAID EPOCH, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.) EPOCH 2017.5, ON JANUARY 20TH, 2023, WAS USED AS THE BEARINGS FOR THIS SURVEY.

**BENCHMARK**

CULVER CITY QUAD  
BM: 5Y 12519; 2013 ADJ  
NAVD 88 ELEVATION =(23.793) FEET

LEAD & MAG NAIL IN N. CB 1FT W/O ECR @ N.W. COR SEPULVEDA BL & SLAUSON AVE.

**SITE 2 (SEGRELL WAY)**

**BASIS OF BEARINGS**

THE CCS83 GRID BEARING BETWEEN C.S.R.N. STATIONS "P800" AND "WRHS" BEING NORTH 46-03'32" EAST, DISTANCE OF 33188.73 AS DERIVED FROM THE POSITIONS FOR SAID STATIONS, IN SAID EPOCH, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.) EPOCH 2017.5, ON JANUARY 20TH, 2023, WAS USED AS THE BEARINGS FOR THIS SURVEY.

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CULVER CITY QUAD  
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LEAD & MAG NAIL IN N. CB 1FT W/O ECR @ N.W. COR SEPULVEDA BL & SLAUSON AVE.

**SITE 3 (PICKFORD WAY)**

**BASIS OF BEARINGS**

THE CCS83 GRID BEARING BETWEEN C.S.R.N. STATIONS "P800" AND "WRHS" BEING NORTH 46-03'32" EAST, DISTANCE OF 33188.73 AS DERIVED FROM THE POSITIONS FOR SAID STATIONS, IN SAID EPOCH, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.) EPOCH 2017.5, ON JANUARY 20TH, 2023, WAS USED AS THE BEARINGS FOR THIS SURVEY.

**BENCHMARK**

CULVER CITY QUAD  
BM: 5Y 10984; 2013 ADJ  
NAVD 88 ELEVATION =(52.135) FEET

DPW BM TAG IN E. CB 1FT N/O BCR @ N.E. COR JEFFERSON BL & OVERLAND AVE.

**SITE 4 (JASMINE AVENUE)**

**BASIS OF BEARINGS**

THE CCS83 GRID BEARING BETWEEN C.S.R.N. STATIONS "P800" AND "WRHS" BEING NORTH 46-03'32" EAST, DISTANCE OF 33188.73 AS DERIVED FROM THE POSITIONS FOR SAID STATIONS, IN SAID EPOCH, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.) EPOCH 2017.5, ON JANUARY 20TH, 2023, WAS USED AS THE BEARINGS FOR THIS SURVEY.

**BENCHMARK**

CULVER CITY QUAD  
BM: 5Y 10195; 2013 ADJ  
NAVD 88 ELEVATION =(67.628) FEET

RDBM TAG IN W. CB JEFFERSON BL 40FT W/O C/L & 29.5FT N/O C/L PROD RAIN TREE CIRCLE.

**SITE 5 (REVERE PLACE)**

**BASIS OF BEARINGS**

THE CCS83 GRID BEARING BETWEEN C.S.R.N. STATIONS "P800" AND "WRHS" BEING NORTH 46-03'32" EAST, DISTANCE OF 33188.73 AS DERIVED FROM THE POSITIONS FOR SAID STATIONS, IN SAID EPOCH, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.) EPOCH 2017.5, ON JANUARY 20TH, 2023, WAS USED AS THE BEARINGS FOR THIS SURVEY.

**BENCHMARK**

CULVER CITY QUAD  
BM: 5Y 10983; 2013 ADJ  
NAVD 88 ELEVATION =(62.822) FEET

DPW TAG IN E. CB 3.3FT N/O BCR @ N.E. COR OVERLAND AVE & NORTHGATE ST.

**SITE 6 (WESLEY STREET)**

**BASIS OF BEARINGS**

THE CCS83 GRID BEARING BETWEEN C.S.R.N. STATIONS "P800" AND "WRHS" BEING NORTH 46-03'32" EAST, DISTANCE OF 33188.73 AS DERIVED FROM THE POSITIONS FOR SAID STATIONS, IN SAID EPOCH, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.) EPOCH 2017.5, ON JANUARY 20TH, 2023, WAS USED AS THE BEARINGS FOR THIS SURVEY.

**BENCHMARK**

CULVER CITY QUAD  
BM: 5Y 10987; 2013 ADJ  
NAVD 88 ELEVATION =(63.375) FEET

LEAD & FLT HEAD SPK IN W. CB @ BCR S.W. COR JEFFERSON BL & HOLDREGE AVE.  
(N. END C.B.)

**SITE 7&8 (NORTHGATE & GALVIN STREET)**

**BASIS OF BEARINGS**

THE CCS83 GRID BEARING BETWEEN C.S.R.N. STATIONS "P800" AND "WRHS" BEING NORTH 46-03'32" EAST, DISTANCE OF 33188.73 AS DERIVED FROM THE POSITIONS FOR SAID STATIONS, IN SAID EPOCH, PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (C.S.R.C.) EPOCH 2017.5, ON JANUARY 20TH, 2023, WAS USED AS THE BEARINGS FOR THIS SURVEY.

**BENCHMARK**

CULVER CITY QUAD  
BM: 5Y 1086; 2013 ADJ  
NAVD 88 ELEVATION =(81.261) FEET

L & SPK IN N.W. COR CB 30.8FT S/O BCR @ S.W. COR JEFFERSON BL & DUQUESNE AVE.

CITY OF CULVER CITY  
PUBLIC WORKS DEPARTMENT

CULVER CITY  
CITYWIDE STORMWATER CAPTURE

GENERAL NOTES

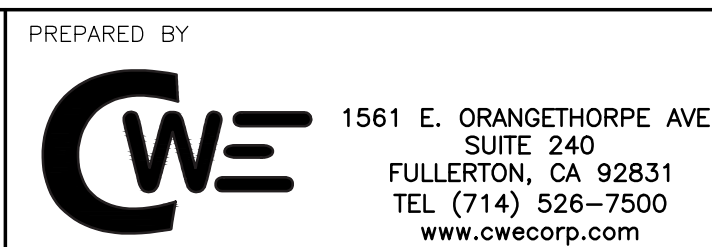
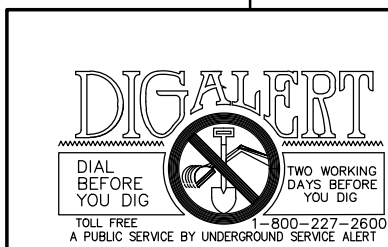
APPROVED BY: JAVIER DE LA CRUZ, P.E.

SHEET  
C - 1

SENIOR CIVIL ENGINEER

DATE

Sheet 2 of 15 Sheets



PLANS PREPARED UNDER THE SUPERVISION OF:

KATHRYN (KATIE) HARREL, P.E.

Project Number: PZ497

Drawing No.



NO.

REVISION

BY

APPR.

DATE

**SOCALGAS DISTRIBUTION**

- SOCALGAS MAINS AND SERVICE LATERALS ARE TO BE PROTECTED IN PLACE.
- ANY DAMAGE TO GAS COMPANY FACILITIES MUST BE REPORTED IMMEDIATELY TO OUR CALL CENTER AT 1-(800)427-2200.
- THE DEPTHS OF SOCALGAS FACILITIES VARY AND CAN ONLY BE CONFIRMED BY POT HOLING, OR SOME OTHER ACCEPTABLE METHOD OF TAKING ELEVATIONS.
- IF GAS CONSTRUCTION IS REQUESTED OR REQUIRED IT WILL BE AT THE CONTRACTOR'S EXPENSE AND MAY INVOLVE SUBSTANTIAL CONSTRUCTION TIME.
- UNDERGROUND SERVICE ALERT (USA), (800)442-4133 OR (800)227-2600, MUST BE NOTIFIED 72 HOURS PRIOR TO COMMENCING WORK. PLEASE KEEP SOCALGAS INFORMED OF CONSTRUCTION SCHEDULES, PRE-CONSTRUCTION MEETINGS, ETC., SO THAT WE CAN SCHEDULE OUR WORK ACCORDINGLY.

**SOCALGAS TRANSMISSION**

- SOCALGAS TRANSMISSION OPERATES AND MAINTAINS HIGH PRESSURE NATURAL GAS LINE(S) WITHIN THE LIMITS OF THE PROJECT.
- S143.5 OF GENERAL ORDER 112 F ISSUED BY THE CALIFORNIA PUBLIC UTILITIES COMMISSION PROHIBITS A BUILDING OR OTHER ENCROACHMENT TO BE CONSTRUCTED WITHIN THE PIPELINE RIGHT-OF-WAY THAT WOULD HINDER MAINTENANCE ACTIVITIES ON THE PIPELINE OR CAUSE A LENGTHY DELAY IN ACCESSING THE PIPELINE FACILITIES DURING AN EMERGENCY.
- DO NOT PROCEED WITH ANY GRADING, EXCAVATION OR OTHER CONSTRUCTION ACTIVITY WITHIN THE PIPELINE EASEMENT AREA AND/OR WITHIN TEN FEET (10') OF THE PIPELINE. THIS LETTER DOES NOT CONSTITUTE CLEARANCE FOR ANY CONSTRUCTION WORK NEAR OR AROUND SOCALGAS' TRANSMISSION PIPELINE(S).
- CONSIDERATION MUST BE GIVEN TO THE SAFETY OF SOCALGAS' TRANSMISSION PIPELINE(S) DURING THE CONSTRUCTION STAGES.
- THE CONTRACTOR SHALL PROVIDE FINAL GRADING PLANS AND CONSTRUCTION PROFILES TO THE START OF CONSTRUCTION.
- IF A CONFLICT IS IDENTIFIED AND CAN ONLY BE RESOLVED BY THE RELOCATION OF SOCALGAS TRANSMISSION FACILITIES, WHICH RELOCATION MAY OR MAY NOT BE AT THE EXPENSE OF SOCALGAS, PLEASE BE ADVISED THAT THE PROJECTED TIMETABLE FOR THE COMPLETION OF THIS RELOCATION CAN TAKE A YEAR OR LONGER. THIS INCLUDES PLANNING, DESIGN, MATERIAL PROCUREMENT, CATHODIC PROTECTION, PERMIT, ENVIRONMENTAL ISSUES, CONSTRUCTION AND CAPACITY CONSTRAINTS.
- ALL WORK WITHIN SOCALGAS' EASEMENT(S) AND/OR WITHIN 10' OF THE PIPELINE(S) MUST BE OBSERVED BY SOCALGAS TRANSMISSION FIELD REPRESENTATIVE. NO WORK IS AUTHORIZED WITH THE REPRESENTATIVE. ARRANGEMENTS FOR THE REQUIRED STAND-BY CAN BE MADE BY CALLING DISTRICT FIELD OPERATIONS SUPERVISOR - LUISITO CANLAS AT (818)205-8518. TWO WEEKS MINIMUM ARE NEEDED TO SCHEDULE A REPRESENTATIVE ON STANDBY. PLAN ACCORDINGLY.
- PLEASE CALL DIGALERT AT 811 TO HAVE A SOCALGAS TRANSMISSION FIELD REPRESENTATIVE LOCATED AND MARK OUR ACTIVE UNDERGROUND FACILITIES AT NO COST.
- REFER TO DOCUMENT CONTROL PLAN FILE #0939-25-317 ON ALL CORRESPONDENCE. FOR ANY CORRESPONDENCE DIRECTED TO THE SOCALGAS TRANSMISSION DEPARTMENT IN CONNECTION WITH THIS PROJECT, PLEASE CONTACT DIEGO CASTILLO AT DCASTILLO@SOCALGAS.COM.

**SOCALGAS TRANSMISSION GENERAL REQUIREMENTS**

THE FOLLOWING ARE GENERAL REQUIREMENTS PROVIDED WHEN PERFORMING WORK NEAR SOCALGAS HIGH PRESSURE LINES. NOTIFY SOCALGAS TRANSMISSION DEPARTMENT ABOUT ANY QUESTIONS OR CONFLICTS.

COMMUNICATION IS TO BE MAINTAINED WITH SOCALGAS TO ADDRESS ALL CONFLICTS. THE PROJECT MAY REQUIRE MORE REQUIREMENTS THAT NEED TO BE DISCUSSED.

- CONSIDERATION MUST BE GIVEN TO THE SAFETY OF SOCALGAS PIPELINE(S) DURING ALL PROJECT STAGES.
- SOCALGAS MUST HAVE CONTINUOUS AND UNINTERRUPTED ACCESS TO THE PIPELINE(S) AND EASEMENT(S). IN ADDITION, SOCALGAS CONDUCTS ROUTING PATROLS AND SURVEYS OF THE PIPELINE(S); SOCALGAS NEEDS DRIVABLE ACCESS ALONG THE PIPELINE(S)/EASEMENT(S).
- BURIED PIPELINES MUST HAVE A MINIMUM COVER OF 3 FEET AND A MAXIMUM COVER OF 7 FEET BELOW FINISHED GRADE. NO CHANGE OF GRADE WHATSOEVER, EVEN WITHIN THESE PARAMETERS, SHALL BE MADE WITHOUT PRIOR APPROVAL OF SOCALGAS.
- PRIOR TO SOCALGAS APPROVING ENCROACHMENT ONTO ITS EASEMENT(S), SOCALGAS MUST BE FURNISHED WITH FINAL GRADING PLANS SHOWING THE DEPTH OF THE PIPELINE(S) BELOW THE EXISTING SURFACE AND THE DEPTH OF THE PIPELINE(S) BELOW THE PROPOSED FINISHED GRADE. THESE ELEVATIONS MUST MEET SOCALGAS' REQUIREMENT FOR BURIED PIPELINES.
- NO PERMANENT STRUCTURES, SUCH AS BUILDINGS, BLOCK WALLS, FOUNDATIONS, GATES, ETC., SHALL BE CONSTRUCTED WITHIN THE EASEMENT OR OVER THE PIPELINE(S).
- THERE SHALL BE NO PLANTING OF TREES OR OTHER DEEP-ROOTED PLANTS WITHIN THE EASEMENT(S) OR OVER THE PIPELINE(S).
- SUBSTRUCTURES SHALL CROSS PERPENDICULAR TO THE EASEMENT(S). SUBSTRUCTURE CROSSINGS MUST PROVIDE A MINIMUM OF 18-INCHES VERTICAL CLEARANCE FROM THE PIPELINE(S). ADDITIONAL SEPARATION IS REQUIRED FOR LEACH LINES, FUEL LINES, ETC.

- PARALLEL ENCROACHMENTS WITHIN THE EASEMENT(S) ARE PROHIBITED. IN AREAS WHERE A PARALLEL SUBSTRUCTURE IS BEING CONSTRUCTED OUTSIDE OF THE EASEMENT(S), SOCALGAS REQUIRES FIVE FEET OF SEPARATION, WITH THREE FEET OF UNDISTURBED FILL, IN ORDER TO PROTECT THE INTEGRITY OF OUR FACILITIES AND ALLOW THE FACILITIES TO BE SAGELY ACCESSED DURING INSPECTION, MAINTENANCE, AND REPAIR. ADDITIONAL SEPARATION MAY BE NEEDED FOR LEACH LINES, FUEL LINES, HIGH VOLTAGE ELECTRIC, ETC.
- ALL ENCROACHMENTS ONTO SOCALGAS' EASEMENT(S) MUST HAVE WRITTEN APPROVAL OF SOCALGAS PRIOR TO CONSTRUCTION OR ENCROACHING ONTO THE EASEMENT(S).
- ALL WORK WITHIN THE SOCALGAS EASEMENT(S) AND/OR WITHIN 10 FEET OF THE PIPELINE(S) MUST BE WITNESSED BY A SOCALGAS REPRESENTATIVE, AND NO WORK WILL BE ALLOWED WITHOUT THE SOCALGAS REPRESENTATIVE ON SITE.
- NO HEAVY EQUIPMENT SHALL CROSS THE PIPELINE(S) WITHOUT SOCALGAS' APPROVAL. ADDITIONAL PROTECTIVE MEASURES MAY BE REQUIRED WHERE HEAVY EQUIPMENT IS EXPECTED TO CROSS THE PIPELINE(S).
- NO MECHANICAL EQUIPMENT SHALL OPERATE WITHIN THREE HORIZONTAL FEET OF THE PIPELINE(S), AND ANY CLOSER WORK MUST BE PERFORMED BY HAND.
- NO MECHANICAL EQUIPMENT SHALL OPERATE WITHIN TWO VERTICAL FEET OF THE PIPELINE(S), AND ANY CLOSER WORK MUST BE PERFORMED BY HAND.
- BURIED PIPELINE(S) SHALL NOT BE LEFT EXPOSED, AND EXPOSED PIPELINE(S) SHALL NOT BE BURIED, WITHOUT PRIOR INSPECTION AND APPROVAL BY SOCALGAS. IF THE PIPELINE(S) ARE EXPOSED DURING CONSTRUCTION (E.G. SUBSTRUCTURE CROSSINGS, ETC.), THE PIPELINE MUST BE BACKFILLED WITH SAND OR ZERO-SACK SLURRY ONLY.
- NO VIBRATORY COMPACTION IS PERMITTED OVER THE PIPELINE(S). IN RARE CASES, VIBRATORY COMPACTION MAY BE APPROVED BY SOCALGAS' ENGINEERING DEPARTMENT FOLLOWING REVIEW OF DETAILED SITE CONDITIONS, PIPELINE, DATA, AND EQUIPMENT SPECIFICATIONS.
- ALL CONTRACTORS AND SUBCONTRACTORS MUST BE NOTIFIED OF THE PRESENCE OF THE PIPELINE(S).
- CONTRACTORS AND SUBCONTRACTORS MUST CALL DIGALERT (811) AT LEAST 2 WORKING DAYS PRIOR TO CONSTRUCTION, GRADING, OR EXCAVATION.
- ONCE APPROVED, ENCROACHMENTS WITHIN SOCALGAS' EASEMENT(S) SHALL BE DOCUMENTED IN AN EASEMENT AMENDMENT OR OTHER DOCUMENT, AS DEEMED APPROPRIATE BY SOCALGAS' LAND SERVICES DEPARTMENT.

SOCALGAS RECOMMENDS THE FOLLOWING:

- POTHoles SHOULD BE MADE, AS NECESSARY, TO ESTABLISH THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE PIPELINE(S) WITHIN THE PROJECT AREA, THIS INFORMATION SHOULD BE INDICATED ON THE PLANS, AS NEEDED. CAUTION: SOCALGAS PERSONNEL MUST BE PRESENT DURING POTHOLING OPERATIONS. ARRANGEMENTS FOR SOCALGAS PERSONNEL TO STAND BY DURING POTHOLING ACTIVITIES CAN BE MADE BY CALLING DIGALERT AT 811.
- CONSIDERATION SHOULD BE GIVEN TO BUILDING SETBACKS FROM THE EASEMENT LINES. A MINIMUM 15-FOOT SETBACK IS RECOMMENDED WHENEVER POSSIBLE.
- ALL POTENTIAL BUYERS OR TENANTS OF THE PROPERTY SHOULD BE MADE AWARE OF THE PRESENCE OF THE PIPELINE(S) AND EASEMENT RESTRICTIONS.

**GOLDEN STATE WATER COMPANY**

- THE TYPICAL DEPTH TO THE TOP OF GOLDEN STATE WATER COMPANY PIPELINES IS 36 INCHES TO 42 INCHES WITH SERVICE LINES OFTEN LESS THAN 36 INCHES.
- REFER TO GOLDEN STATE WATER COMPANY STANDARD P-1 TYPICAL UTILITY LOCATION FOR NEW CONSTRUCTION FOR HORIZONTAL CLEARANCES.
- THE CONTRACTOR SHALL COORDINATE WORK WITH GOLDEN STATE WATER COMPANY FOR GOLDEN STATE WATER COMPANY STAFF TO BE PRESENT IN THE FIELD FOR INSPECTIONS AS NEEDED.  
CONTACT BENJAMIN MENDOZA  
PHONE (213) 219-5725  
EMAIL BENJAMIN.MENDOZA@GSWATER.COM
- DAMAGES TO GOLDEN STATE WATER'S WATER LINE SHALL BE REPAIRED BY GOLDEN STATE WATER COMPANY AT THE CONTRACTOR'S EXPENSE.
- EXISTING GOLDEN STATE WATER'S MAIN WATER UTILITY LINES REQUIRE 1-FOOT CLEARANCE.
- EXISTING GOLDEN STATE WATER'S WATER LATERALS SHALL NOT BE ENCASED IN CONCRETE. CONTRACTOR CAN USE PIPE SLEEVE OR PROTECT IN PLACE AS IS.
- THE CONTRACTOR SHALL WORK AROUND GOLDEN STATE WATER'S ABANDONED WATER LINES. THE ABANDONED WATER LINES CAN BE REMOVED.
- WITHIN THE NEW BIORETENTION AREAS, THE CONTRACTOR SHALL PROTECT EXISTING GOLDEN STATE WATER'S WATER METERS.

**SHELL PIPELINE COMPANY LP**

THE CONTRACTOR SHALL PROVIDE DESIGN PLANS AND/OR INFORMATION ON CONSTRUCTION TIMELINES FOR THE PROJECT BEFORE ANY CONSTRUCTION OVER OR AROUND SHELL PIPELINE COMMENCES. THIS INCLUDES THE DESIGN AND CONSTRUCTION OF TEMPORARY ROADS OR WORKS PADS WHERE EQUIPMENT IS TO OPERATE OR CROSS OVER THE PIPELINE. NOTIFY SHELL AT LEAST 48-HOURS PRIOR TO COMMENCEMENT OF WORK NEAR THE PIPELINE.

A SHELL REPRESENTATIVE WILL ERECT TEMPORARY FLAGS MARKING THE PIPELINE LOCATION AND SHALL BE PRESENT DURING ALL ACTIVE WORK PERIODS AS DEFINED IN ITEM 12 BELOW TO OBSERVE EXCAVATION OR OTHER CONSTRUCTION ACTIVITIES NEAR THE PIPELINE. ALL SHELL REPRESENTATIVE ASSOCIATED COST WILL BE REIMBURSED BY THE PROJECT OWNER AND/OR THEIR CONTRACTOR.

ANY WORK PERFORMED NEAR THE PIPELINE WITHOUT THE PRESENCE OF A SHELL REPRESENTATIVE WILL NECESSITATE THAT THE PIPELINE BE EXPOSED FOR INSPECTION AND NEEDED REPAIRS PERFORMED AT THE CONTRACTOR'S OR RESPONSIBLE PARTY'S COST.

**DESIGN AND CONSTRUCTION**

- ALL PIPELINES, UTILITY LINES AND OTHER UNDERGROUND FACILITIES CONSTRUCTED ACROSS A SHELL PIPELINE COMPANY LP ("SHELL") OWNED OR OPERATED PIPELINE ("SHELL PIPELINE") MUST BE INSTALLED WITH A MINIMUM VERTICAL SEPARATION OF 24-INCHES BETWEEN STRUCTURES. ALL FACILITIES CROSSING A SHELL PIPELINE SHALL BE MADE OF, OR ENCASED IN, STEEL PIPE WITH THREADED OR WELDED JOINTS THE ENTIRE WIDTH OF THE SHELL'S RIGHT OF WAY. HORIZONTAL SEPARATIONS WILL BE DETERMINED ON A CASE-BY-CASE BASIS. ELECTRICAL CONDUIT AND CABLES ARE EXCLUDED (PLEASE REFER TO PARAGRAPH 2). ALL WORK AND CLEANUP WILL BE CONDUCTED IN A MANNER ACCEPTABLE TO SHELL'S ON-SITE REPRESENTATIVE.
- ALL UNDERGROUND ELECTRICAL CABLES SHALL BE INSTALLED WITH A MINIMUM VERTICAL SEPARATION OF 24 INCHES BETWEEN STRUCTURES WITH ALL PLANS, WORK AND CLEANUP CONDUCTED IN A MANNER ACCEPTABLE TO SHELL'S ON-SITE REPRESENTATIVE. THE ELECTRICAL CABLE MUST BE ENCLOSED IN CONDUIT (STEEL OR SCHEDULE 80 PVC). IT SHOULD BE COVERED WITH RED REINFORCED CONCRETE WITH A MINIMUM WIDTH OF 6 INCHES ON EACH SIDE AND ABOVE THE CONDUIT, FOR THE ENTIRE WIDTH OF SHELL'S RIGHT OF WAY.
- ALL UNDERGROUND FIBER OPTICAL CABLES SHALL BE INSTALLED WITH A MINIMUM VERTICAL SEPARATION OF 24 INCHES BETWEEN STRUCTURES WITH ALL PLANS, WORK AND CLEANUP CONDUCTED IN A MANNER ACCEPTABLE TO SHELL'S ON-SITE REPRESENTATIVE. HORIZONTAL SEPARATIONS WILL BE DETERMINED ON A CASE-BY-CASE BASIS. IN ADDITION, THE FIBER OPTIC CABLE MUST BE ENCLOSED IN CONDUIT (STEEL OR SCHEDULE 80 PVC).
- ALL PROPOSED ROADS, STREETS, OR DRIVEWAYS SHALL BE CONSTRUCTED WITH A MINIMUM COVER OF 48 INCHES, INCLUDING THE SUB-GRADE, AS MEASURED FROM THE TOP OF THE SHELL PIPELINE TO THE BOTTOM OF THE PAVEMENT (ROAD, STREET, OR DRIVEWAY). IF A SHELL PIPELINE WILL REQUIRE ADJUSTMENT TO ACCOMMODATE A ROADWAY, STREET OR DRIVEWAY CROSSING, THE COST OF ANY SUCH LOWERING OR RELOCATION SHALL BE BORNE BY THE PART OR PARTIES REQUESTING THE ADJUSTMENT. WITH EACH REQUEST INVOLVING ROADS, STREETS OR DRIVEWAYS, SHELL WILL RESERVE THE RIGHT TO EXCAVATE, NO EXPOSE AND INSPECT ITS PIPELINE(S) TO DETERMINE THE NEED FOR PIPE REPLACEMENT, FULL ENCASEMENT, OR HEAVY WALL PIPE. THE COST OF THIS ACTIVITY WILL BE AT THE EXPENSE OF THE REQUESTING PARTY.

**PIPELINE MINIMUM COVER REQUIREMENTS**

- 48 INCHES FROM BOTTOM OF PAVEMENT UNDER A ROAD, STREET, OR DRIVEWAY.
- 36 INCHES UNDER ALL OTHER SURFACES WITHIN THE RIGHT OF WAY.
- ALL ROAD DITCH AND DRAINAGE CANAL/DITCH CROSSINGS SHALL BE CONSTRUCTED WITH A MINIMUM COVER, AND MEASURED FROM THE LOWEST POINT IN ROAD BAR DITCH, TO THE TOP OF PIPE, AS FOLLOWS:  
CONCRETE LINED - 12 INCHES.  
UNLINED - 36 INCHES

- ALL PAVING (OTHER THAN FOR ROAD, DRIVEWAY OR STREET CROSSINGS OF A SHELL PIPELINE, E.G., PARKING LOT) TO BE CONSTRUCTED OVER A SHELL PIPELINE SHALL (A) BE REINFORCED, (B) NO EXCEED 4 INCHES IN THICKNESS, (C) BE SECTIONED IN 10 FOOT BY 15 FOOT PANELS (15' DIMENSION SHALL BE PERPENDICULAR TO THE PIPELINE) WITH APPROPRIATE EXPANSION JOINTS, (D) CONTAIN LIFTING RINGS, AND (E) CONFORM TO THE MINIMUM COVER REQUIREMENTS STIPULATED ABOVE.

SHELL HAVE THE RIGHT TO CUT AND REMOVE ANY PAVEMENT OR OTHER SURFACE STRUCTURES NOW OR HEREAFTER LOCATED OVER OR ACROSS A SHELL PIPELINE, WITHOUT ANY OBLIGATION TO REPAIR, REPLACE, RESURFACE OR DISPOSE OF REMOVED MATERIAL, FOR THE PURPOSE OF EXERCISING ANY RIGHTS GRANTED TO SHELL UNDER THE PIPELINE RIGHTS OF WAY AND EASEMENTS.

- TEMPORARY (HAUL) ROAD CROSSINGS SHALL BE CONSTRUCTED WITH A MINIMUM GROUND COVER (AS MEASURED FROM THE SURFACE OF THE ROAD TO THE TOP OF THE PIPELINE) OF FIVE (5) FEET. A TEMPORARY EARTHEN BERN MAY BE CONSTRUCTED TO MEET THIS REQUIREMENT. WHERE IT IS NECESSARY FOR HEAVY EQUIPMENT TO CROSS THE PIPELINE, ADDITIONAL MEASURES MAY BE NEEDED TO EFFECTIVELY DISTRIBUTE THE WEIGHT OF SUCH EQUIPMENT, FOR EXAMPLE, INSTALLING ADDITIONAL COVER, TIMBER MATTING AND/OR A TEMPORARY BRIDGE FOR PASSAGE OVER THE PIPELINE.

- LAKES OR OTHER BODIES OF WATER SHALL NOT BE CONSTRUCTED OVER THE PIPELINE OR WITHIN THE BOUNDARIES OF THE PIPELINE EASEMENT. ADDITIONALLY, THE SURFACE CANNOT BE DEVELOPED OR CHANGED IN ANY WAY THAT WOULD CAUSE RAINWATER OR RUNOFF TO COLLECT ON THE PIPELINE RIGHT-OF-WAY.
- DIRECTIONAL DRILLING OR BORING SHALL REQUIRE ADDITIONAL DAMAGE PREVENTION MEASURES, WHETHER INSTALLING A CROSSING OR OTHERWISE CONDUCTING SUCH OPERATIONS WITHIN TWENTY (20) FEET OF THE PIPELINE. IT IS SHELL'S OPTION WHETHER PEEPHOLES OR SHEET PILING BE INSTALLED TO AN ELEVATION LOWER THAN THE PIPELINE, BEFORE DRILLING/BORING TO HELP ENSURE IT IS PROTECTION. SHELL REQUIRES CONTINUOUS TRACKING OF THE DRILLING HEAD AS WELL AS USING A PHYSICAL TECHNIQUE (SUCH AS PROBING) TO ASCERTAIN THE EXACT LOCATION OF THE HEAD BEFORE IT CROSSES THE SHELL PIPELINE. SHELL MAY ALSO REQUIRE THAT THE PIPELINE BE EXPOSED WHEN NEAR DRILL/BORE ENTRY OR EXIT POINTS.
- IF SHELL DETERMINED IT IS NECESSARY TO LOWER, ENCASE OR OTHERWISE ADJUST A SHELL PIPELINE BECAUSE OF THE LANDOWNER'S (DEVELOPER, ETC.) CONSTRUCTION ACTIVITY, THE LANDOWNER OR DEVELOPER SHALL REIMBURSE SHELL FOR THE COST OF LOWERING, ENCASEMENT OR OTHER ADJUSTMENT.

**COMMUNICATION AND ADDITIONAL REQUIREMENTS**

- PLEASE NOTIFY MR. BRYAN DAVIDSON, ROW SUPERVISOR, AT 310-629-8848, OF SHELL'S MAINTENANCE DEPARTMENT IN CARSON, CA AT LEAST 48 HOURS PRIOR TO COMMENCING ANY EXCAVATING OR CONSTRUCTION ACTIVITY IN THE VICINITY OF ANY SHELL PIPELINE. EXCAVATORS ARE REQUIRED BY LAW TO CONTACT THE APPROPRIATE ONE-CALL CENTER FOR THEIR STATE PRIOR TO COMMENCING EXCAVATION OR OTHER SUCH CONSTRUCTION ACTIVITY, WHICH MAY IMPACT AN UNDERGROUND FACILITY.

IF YOU ARE UNABLE TO CONTACT THE ABOVE SHELL REPRESENTATIVE, CONTACT THE PIPELINE CONTROL CENTER, AND THE INFORMATION WILL BE RELAYED.

PIPELINE CONTROL CENTER  
24 HOURS  
1-800-852-3602

- NO EXCAVATING OR OTHER CONSTRUCTION ACTIVITY THAT COULD IMPACT THE PIPELINE (E.G., DIRECTIONAL DRILLING, BORING, SHEET PILING, SETTING TRENCH BOXES, ETC.) SHALL BE CONDUCTED WITHIN TEN (10) FEET OF ANY SHELL PIPELINE IN THE ABSENCE OF A SHELL REPRESENTATIVE. NOTICE SHALL BE GIVEN TO SHELL AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO COMMENCING EACH OCCURRENCE OF CONSTRUCTION ACTIVITY WITHIN TEN (10) FEET OF ANY SHELL PIPELINE
- ANY CONTRACTOR, DEVELOPER, ETC. PLANNING BLASTING OPERATIONS WITHIN 5000 FEET OF ANY SHELL PIPELINE SHALL SUBMIT A BLASTING PLAN TO SHELL FOR APPROVAL. THIS PLAN WILL INCLUDE HOLE, DEPTH, DIAMETER, SPACING, BURDEN, DELAY TIMES, MAXIMUM CHARGE WEIGHT PER DELAY, SEQUENCE, EXPLOSIVE TYPE AND BLAST ZONE LOCATION RELATIVE TO THE SHELL PIPELINE. UNDER NO CIRCUMSTANCES WILL BLASTING OR SEISMIC SHOT HOLES BE ALLOWED WITHIN ONE HUNDRED (100) FEET OF ANY SHELL PIPELINE.
- NO SIGNS, MONUMENTS, BUILDING, STRUCTURE, MANHOLES, SHRUBBERY, OR TREES SHALL BE LOCATED WITHIN A SHELL RIGHT OF WAY AND EASEMENT AREA SO THAT THE PIPELINE CAN BE MAINTAINED WITHOUT DAMAGING THESE STRUCTURES OR BEING IMPEDED BY THEM.
- NO EXCAVATIONS SHALL BE MADE ON LAND ADJACENT TO ANY SHELL PIPELINE WHICH WILL IN ANY WAY IMPAIR, WITHDRAW LATERAL SUPPORT, CAUSE SUBSIDENCE, CREATE THE ACCUMULATION OF WATER, OR CAUSE DAMAGE TO THE SHELL PIPELINE OR RIGHT OF WAY.
- NO FENCE SHALL BE PLACED ACROSS A SHELL RIGHT OF WAY WITHOUT WRITTEN PERMISSION FROM SHELL. IF FENCES ARE PERMITTED, 14-FOOT GATES MUST BE INSTALLED ON THE RIGHT OF WAY.
- SIDE CUTTERS SHALL BE REMOVED FROM THE BUCKET OF EXCAVATION EQUIPMENT, AND A BAR SHALL BE INSTALLED ACROSS THE TEETH DURING EXCAVATION IN THE VICINITY OF ANY SHELL PIPELINE.
- NO PAVING IS TO BE PLACED OVER ANY SHELL RIGHT OF WAY WITHOUT WRITTEN PERMISSION FROM SHELL.
- ANY DAMAGE TO EXISTING SHELL PIPELINE MARKERS AND/OR SIGNS, TEST LEADS, VENT PIPES, FENCES, GATES AND/OR ANY OTHER ASSOCIATED PIPELINE APPARATUS RESULTING FROM ANY CONSTRUCTION OPERATIONS SHALL BE REPAIRED TO SHELL'S SATISFACTION OR REPLACED AT THE SOLE COST AND EXPENSE BY THE DAMAGING PARTY WITHIN 15 DAYS AFTER THE DAMAGE HAS OCCURRED.
- ALL WRITTEN REQUESTS SHOULD BE SUPPORTED WITH PLANS AND FORWARDED TO SHELL PIPELINE COMPANY LP  
BRENT COOPER ENCROACHMENT SPECIALIST  
SPLC-ENCROACHMENTS@SHELL.COM  
PHYSICAL ADDRESS:  
150 N DAIRY ASHFORD  
WCK A0226  
HOUSTON, TX 77079

**LOS ANGELES COUNTY FLOOD CONTROL DISTRICT FACILITY'S CONCRETE REMOVAL NOTES:**

WHERE REINFORCEMENT IS REQUIRED TO EXTEND THROUGH THE NEW JOINT, CONCRETE SHALL BE REMOVED IN THE FOLLOWING SEQUENCE:

- A SAWCUT SHALL BE MADE ONE AND ONE-HALF INCHES DEEP AT THE REMOVAL LIMITS. CARE SHALL BE EXERCISED IN SAWING AT THE REMOVAL LIMITS SO AS NOT TO CUT THE REINFORCING STEEL IN THE REMAINING SLAB. THE EXISTING REINFORCING STEEL SHALL BE RETAINED AND EXTENDED INTO THE NEW CONSTRUCTION AS INDICATED ON THE PLANS.
- USING HANDHELD EQUIPMENT, THE CONCRETE SHALL BE CAREFULLY REMOVED FOR THE FULL DEPTH OF THE WALL OR SLAB AND FOR A MINIMUM DISTANCE FROM THE SAWCUT EQUAL TO THE LONGEST EXTENSION OF THE EXISTING BARS TO BE EXTENDED INTO THE NEW CONSTRUCTION. THIS EXTENSION SHALL BE 30 BAR DIAMETERS, UNLESS OTHERWISE SHOWN.
- EXISTING REINFORCEMENT SHALL BE CUT TO THE REQUIRED BAR EXTENSION.
- THE REMAINING CONCRETE MAY BE REMOVED BY ANY SUITABLE METHOD UPON APPROVAL OF THE ENGINEER, WHO SHALL BE THE SOLE JUDGE OF THE USE OF ANY CONCRETE REMOVAL REQUIREMENT. EXPLOSIVES, WRECKING BALL, OR OTHER SIMILAR DEVICES, WHICH ARE LIKELY TO DAMAGE THE CONCRETE TO BE LEFT IN PLACE, SHALL NOT BE USED.

CITY OF CULVER CITY  
PUBLIC WORKS DEPARTMENT

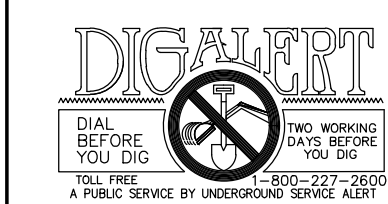
CULVER CITY  
CITYWIDE STORMWATER CAPTURE

**GENERAL NOTES**

APPROVED BY: JAVIER DE LA CRUZ, P.E.

SHEET  
**C - 1A**

SENIOR CIVIL ENGINEER DATE SHEET 3 of 15 Sheets



PLANS PREPARED UNDER THE SUPERVISION OF:

KATHRYN (KATIE) HARREL, P.E.

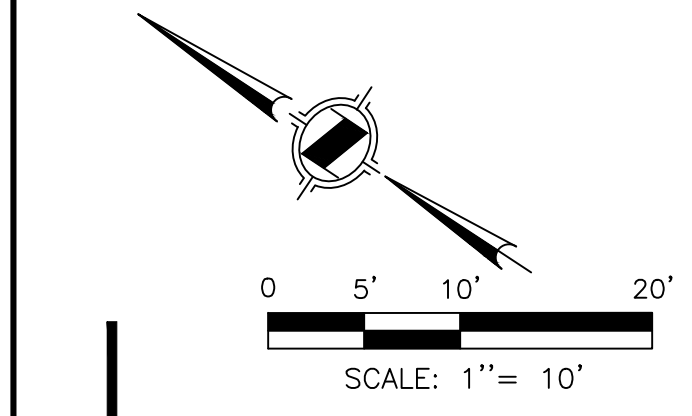
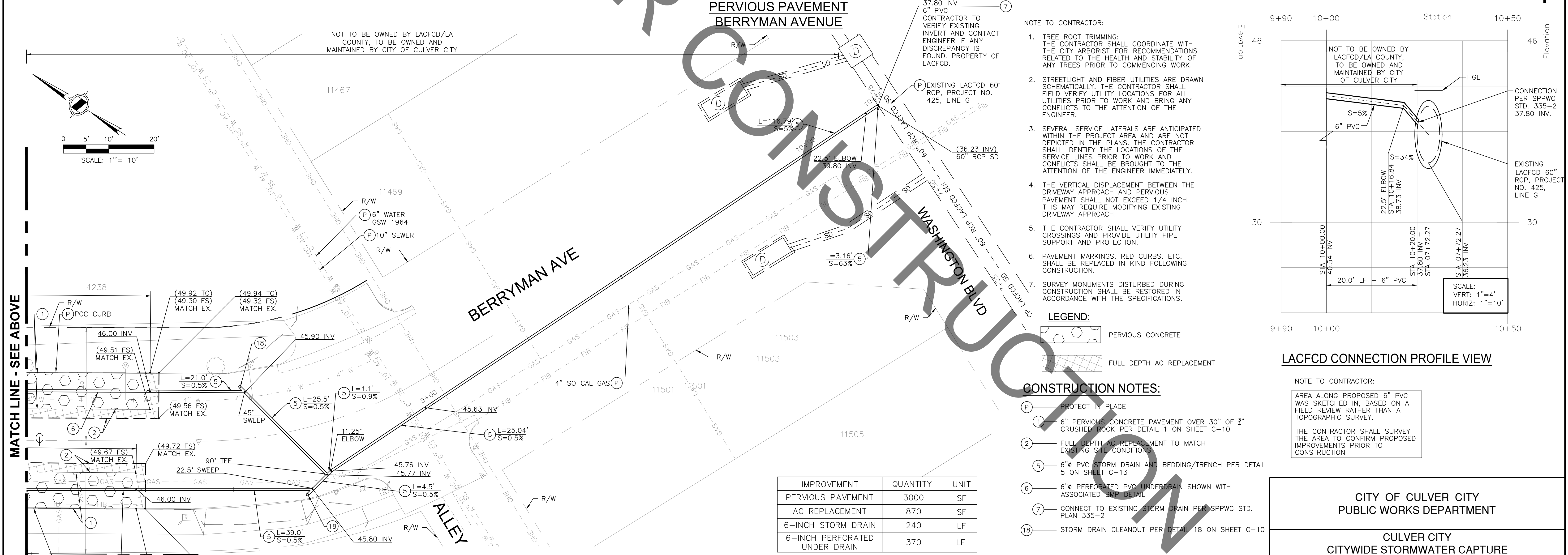
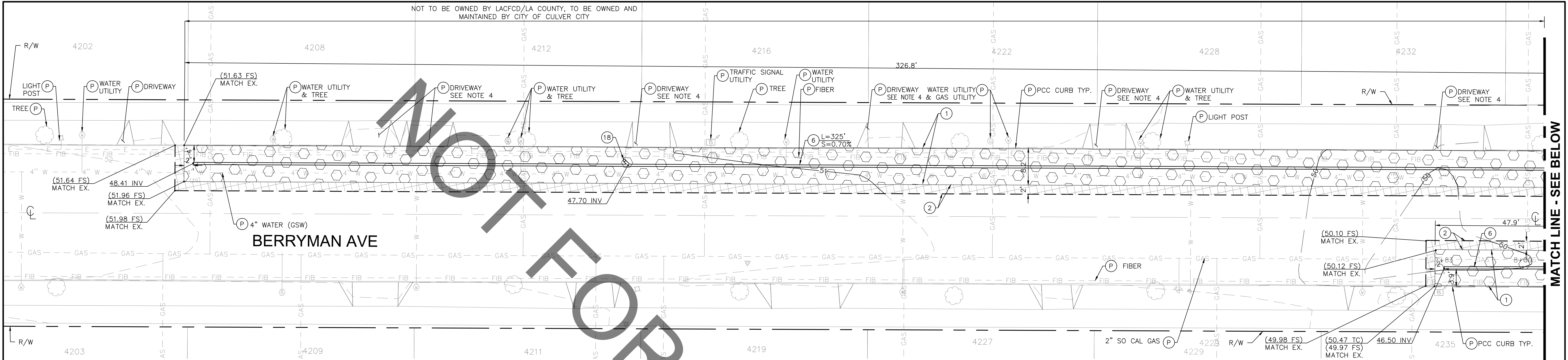
Project Number: PZ497

Drawing No.

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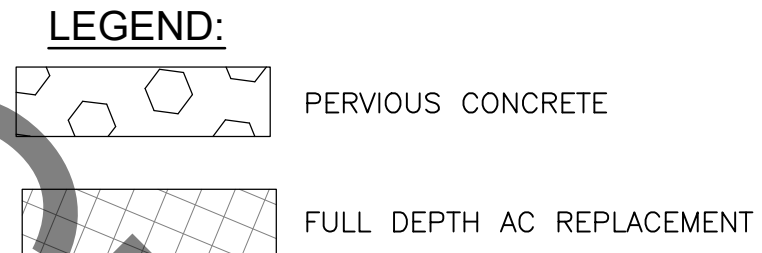
REVISION

BY APPR. DATE



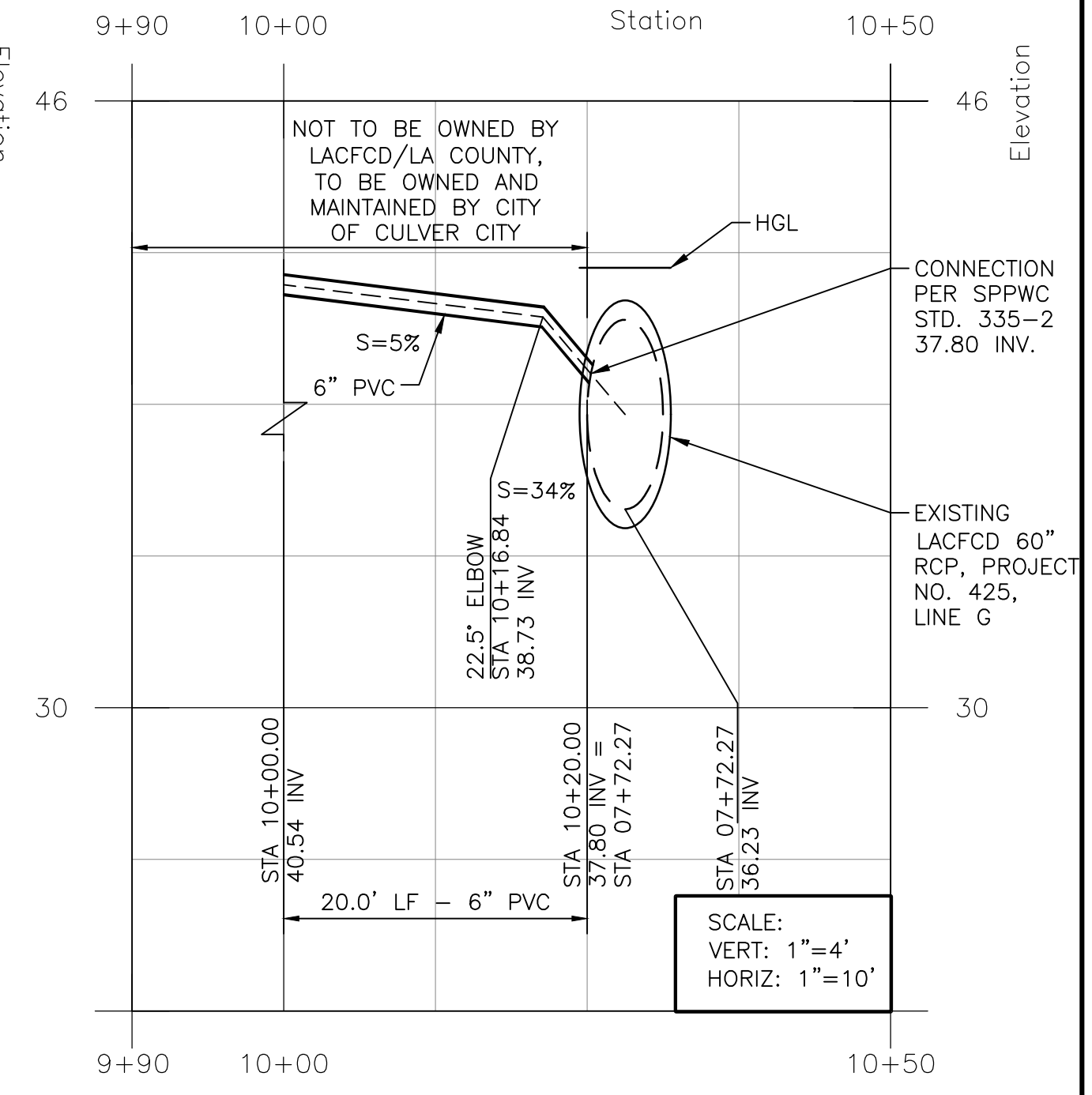
**PERVIOUS PAVEMENT  
BERRYMAN AVENUE**

- NOTE TO CONTRACTOR:**
- TREE ROOT TRIMMING: THE CONTRACTOR SHALL COORDINATE WITH THE CITY ARBORIST FOR RECOMMENDATIONS RELATED TO THE HEALTH AND STABILITY OF ANY TREES PRIOR TO COMMENCING WORK.
  - STREETLIGHT AND FIBER UTILITIES ARE DRAWN SCHEMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY UTILITY LOCATIONS FOR ALL UTILITIES PRIOR TO WORK AND BRING ANY CONFLICTS TO THE ATTENTION OF THE ENGINEER.
  - SEVERAL SERVICE LATERALS ARE ANTICIPATED WITHIN THE PROJECT AREA AND ARE NOT DEPICTED IN THE PLANS. THE CONTRACTOR SHALL IDENTIFY THE LOCATIONS OF THE SERVICE LINES PRIOR TO WORK AND CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
  - THE VERTICAL DISPLACEMENT BETWEEN THE DRIVEWAY APPROACH AND PERVIOUS PAVEMENT SHALL NOT EXCEED 1/4 INCH. THIS MAY REQUIRE MODIFYING EXISTING DRIVEWAY APPROACH.
  - THE CONTRACTOR SHALL VERIFY UTILITY CROSSINGS AND PROVIDE UTILITY PIPE SUPPORT AND PROTECTION.
  - PAVEMENT MARKINGS, RED CURBS, ETC. SHALL BE REPLACED IN KIND FOLLOWING CONSTRUCTION.
  - SURVEY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS.



- CONSTRUCTION NOTES:**
- (P) PROTECT IN PLACE
  - (1) 6" PERVIOUS CONCRETE PAVEMENT OVER 30" OF 3/4" CRUSHED ROCK PER DETAIL 1 ON SHEET C-10
  - (2) FULL DEPTH AC REPLACEMENT TO MATCH EXISTING SITE CONDITIONS
  - (5) 6" PVC STORM DRAIN AND BEDDING/TRENCH PER DETAIL 5 ON SHEET C-13
  - (6) 6" PERFORATED PVC UNDERDRAIN SHOWN WITH ASSOCIATED BMP DETAIL
  - (7) CONNECT TO EXISTING STORM DRAIN PER SPPWC STD. PLAN 335-2
  - (18) STORM DRAIN CLEANOUT PER DETAIL 18 ON SHEET C-10

IMPROVEMENT	QUANTITY	UNIT
PERVIOUS PAVEMENT	3000	SF
AC REPLACEMENT	870	SF
6-INCH STORM DRAIN	240	LF
6-INCH PERFORATED UNDER DRAIN	370	LF



**LACFCF CONNECTION PROFILE VIEW**

**NOTE TO CONTRACTOR:**

AREA ALONG PROPOSED 6" PVC WAS SKETCHED IN, BASED ON A FIELD REVIEW RATHER THAN A TOPOGRAPHIC SURVEY.

THE CONTRACTOR SHALL SURVEY THE AREA TO CONFIRM PROPOSED IMPROVEMENTS PRIOR TO CONSTRUCTION

		PREPARED BY: 1561 E. ORANGETHORPE AVE. SUITE 240 FULLERTON, CA 92831 TEL (714) 526-7500 www.cwecorp.com	PLANS PREPARED UNDER THE SUPERVISION OF: KATHRYN (KATIE) HARREL, P.E.				
		Project Number: PZ497 Drawing No.	NO.	REVISION	BY	APPR.	DATE



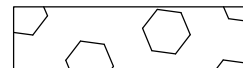


NOT TO BE OWNED BY LACFCO/LA COUNTY. TO BE OWNED AND MAINTAINED BY CITY OF CULVER CITY

COTA ST

COTA ST

WESTWOOD BLVD.

**LEGEND:**

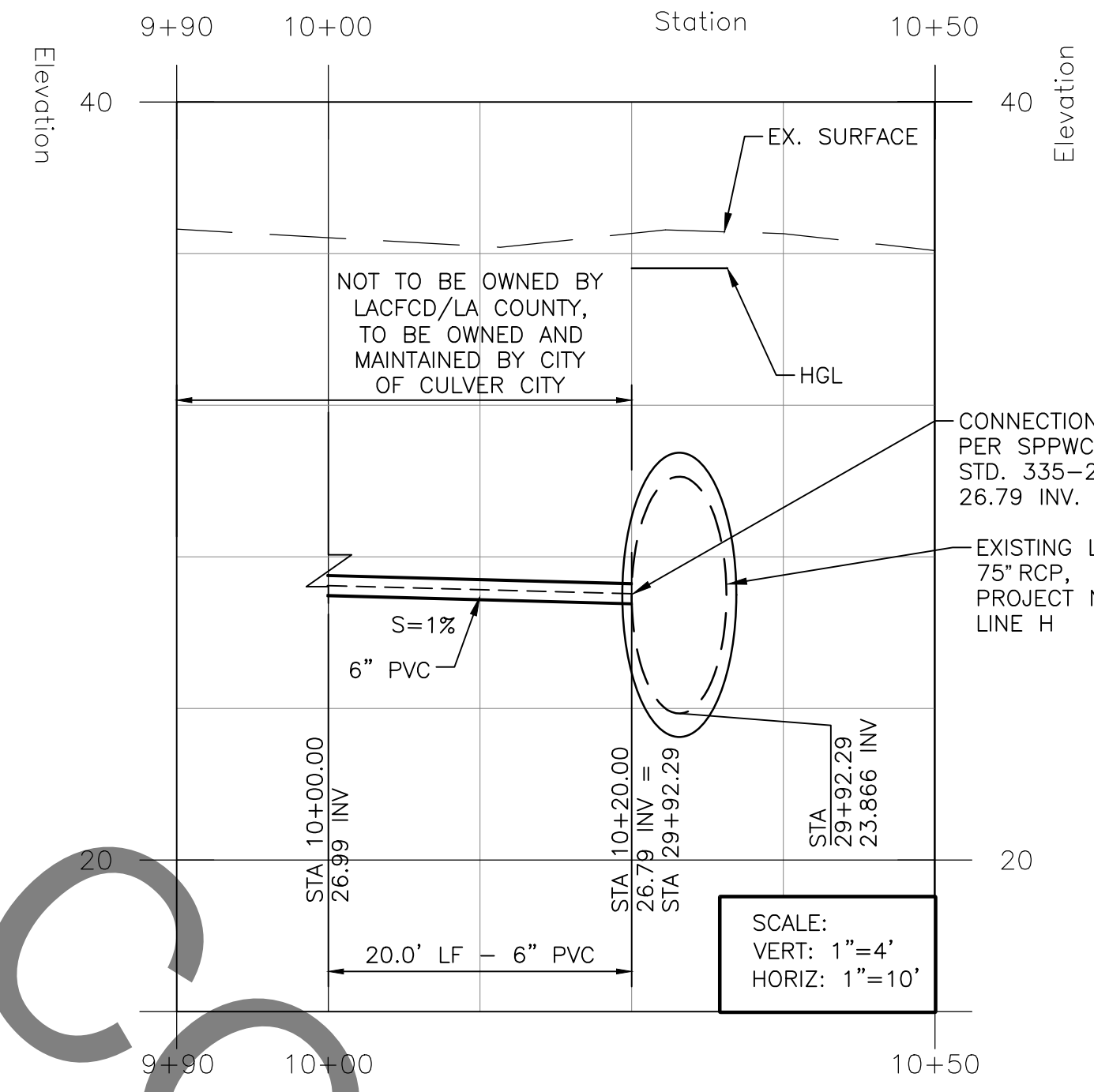
-  PERVIOUS CONCRETE
-  FULL DEPTH AC REPLACEMENT
-  BIORETENTION

**CONSTRUCTION NOTES:**

- (P) — PROTECT IN PLACE
- ① — 6" PERVIOUS CONCRETE PAVEMENT OVER 30" OF 3/4" CRUSHED ROCK PER DETAIL 1 ON SHEET C-10
- ② — FULL DEPTH AC REPLACEMENT TO MATCH EXISTING SITE CONDITIONS
- ③ — BIORETENTION PER DETAIL 3 ON SHEET C-11
- ④ — CURB CUT & PCC SWALE INTO BIORETENTION PER DETAIL 4 ON SHEET C-11
- ⑤ — 6" PVC STORM DRAIN AND BEDDING/TRENCH PER DETAIL 5 ON SHEET C-13
- ⑥ — 6" PERFORATED PVC UNDERDRAIN SHOWN WITH ASSOCIATED BMP DETAIL
- ⑦ — CONNECT TO EXISTING STORM DRAIN PER SPPWC STD. PLAN 335-2
- ⑭ — PCC CURB PER SPPWC STD. PLAN 120-3, TYPE A1-6
- ⑮ — PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2-6
- ⑰ — LOCAL DEPRESSION PER DETAIL 17 ON SHEET C-11
- ⑱ — STORM DRAIN CLEANOUT PER DETAIL 18 ON SHEET C-10
- ⑲ — STORM DRAIN CLEANOUT TO BE PLACED 250' NW OF PROPOSED CLEANOUT ALONG COTA ST.

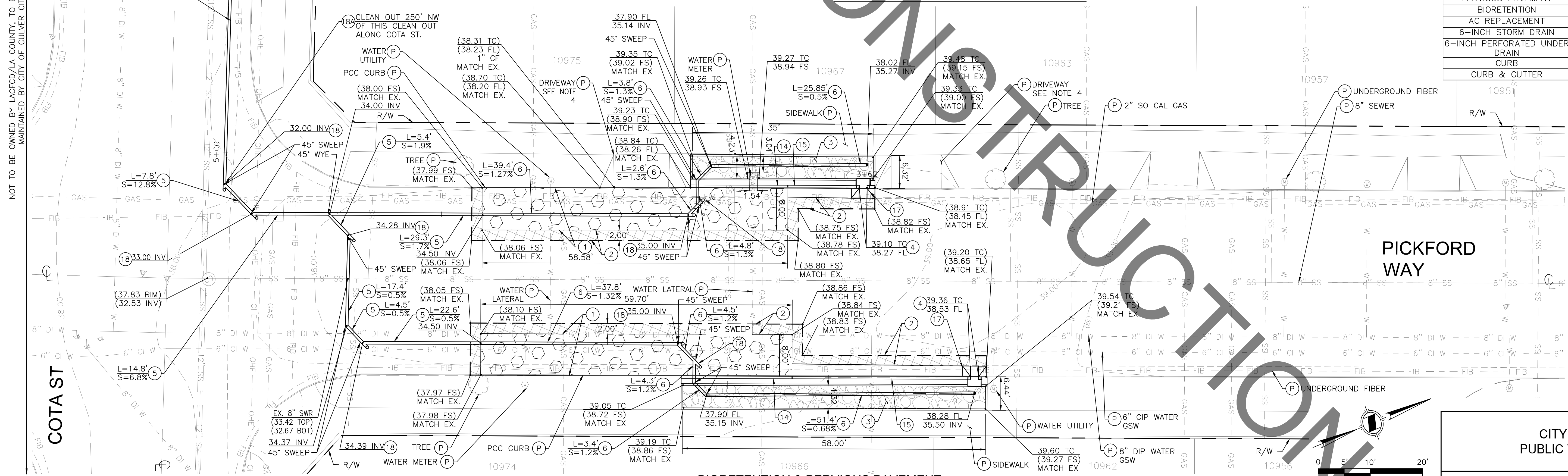
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7. SURVEY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS.



LACFCO CONNECTION PROFILE VIEW 2

IMPROVEMENT	QUANTITY	UNIT
PERVIOUS PAVEMENT	960	SF
BIORETENTION	400	SF
AC REPLACEMENT	410	SF
6-INCH STORM DRAIN	640	LF
6-INCH PERFORATED UNDER DRAIN	190	LF
CURB	60	LF
CURB & GUTTER	50	LF



BIORETENTION & PERVIOUS PAVEMENT PICKFORD WAY

CITY OF CULVER CITY  
PUBLIC WORKS DEPARTMENT  
CULVER CITY  
CITYWIDE STORMWATER CAPTURE  
SITE 3  
PICKFORD WAY

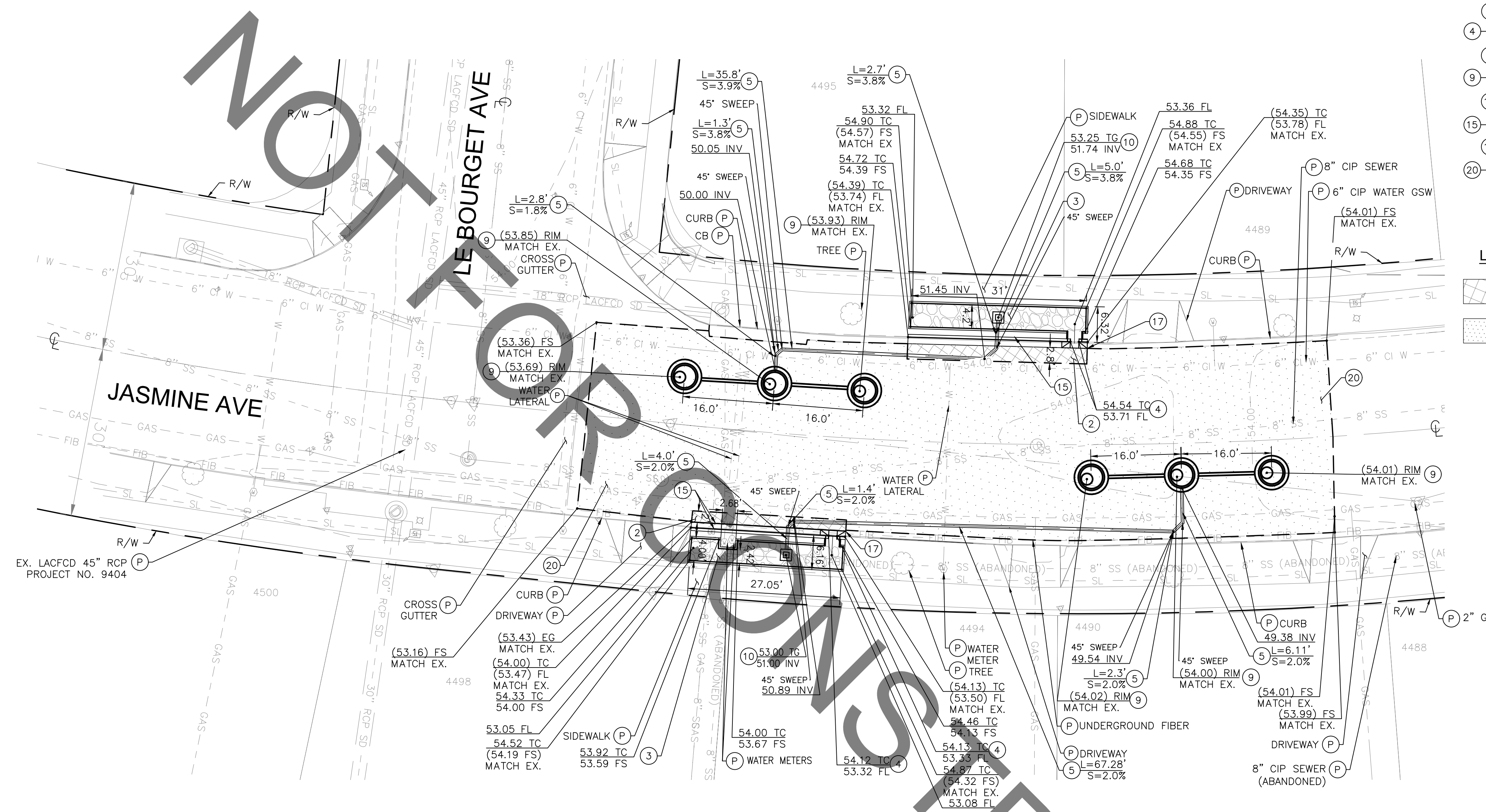
PREPARED BY  
**CWE**  
1561 E. ORANGETHORPE AVE.  
SUITE 240  
FULLERTON, CA 92831  
TEL (714) 526-7500  
www.cwecorp.com

PLANS PREPARED UNDER THE SUPERVISION OF:  
KATHRYN (KATIE) HARREL, P.E.  
Project Number: PZ497  
Drawing No. NO.

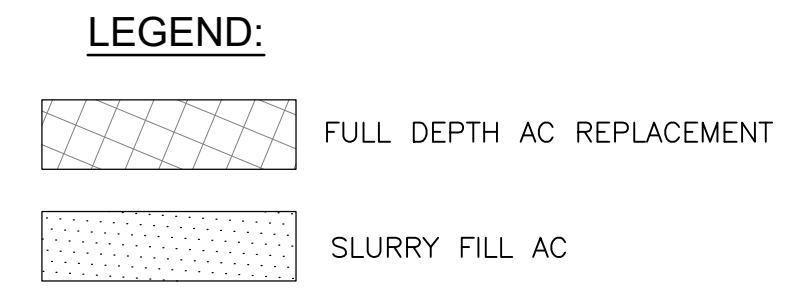
REVISION	BY	APPR.	DATE

APPROVED BY: JAVIER DE LA CRUZ, P.E.  
SENIOR CIVIL ENGINEER  
DATE

SHEET  
C-4  
Sheet 6 of 15 Sheets



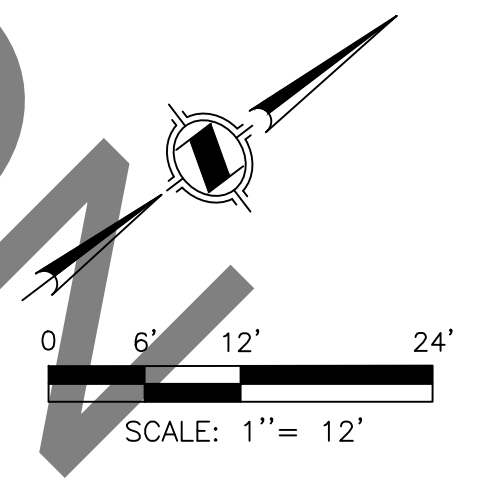
- CONSTRUCTION NOTES:**
- (P) — PROTECT IN PLACE
  - (2) — FULL DEPTH AC REPLACEMENT TO MATCH EXISTING SITE CONDITIONS
  - (3) — BIORETENTION PER DETAIL 3 ON SHEET C-11
  - (4) — CURB CUT & PCC SWALE INTO BIORETENTION PER DETAIL 4 ON SHEET C-11
  - (5) — 6" PVC STORM DRAIN AND BEDDING/TRENCH PER DETAIL 5 ON SHEET C-13
  - (9) — DRYWELL SYSTEM PER DETAIL 9 ON SHEET C-12
  - (10) — 12" X 12" PRECAST CONCRETE CATCH BASIN WITH GRATE INLET
  - (15) — PCC CURB AND GUTTER PER SPPWC STD. PLAN 120-3, TYPE A2-6
  - (17) — LOCAL DEPRESSION PER DETAIL 17 ON SHEET C-11
  - (20) — SLURRY SEAL EXISTING AC TO EXTENT SHOWN ON PLANS



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**BIORETENTION & DRYWELLS  
JASMINE AVEUNE**

IMPROVEMENT	QUANTITY	UNIT
DRYWELL	4	EA
BIORETENTION	230	SF
AC REPLACEMENT	130	SF
6-INCH STORM DRAIN	190	LF
SLURRY FILL AC	4330	SF
CURB & GUTTER	60	LF



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FULLERTON, CA 92831  
TEL (714) 526-7500  
www.cwecorp.com

PLANS PREPARED UNDER THE SUPERVISION OF:

KATHRYN (KATIE) HARREL, P.E.

Project Number: PZ497

Drawing No. NO.

NO.	REVISION	BY	APPR.	DATE

CITY OF CULVER CITY  
PUBLIC WORKS DEPARTMENT

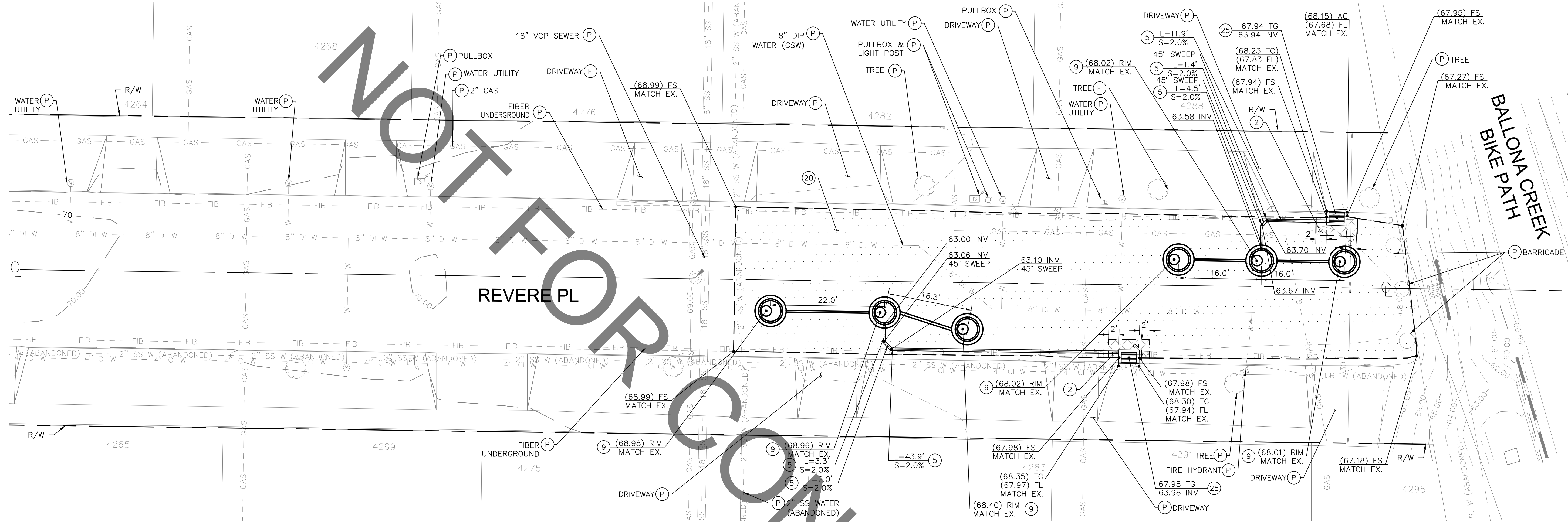
CULVER CITY  
CITYWIDE STORMWATER CAPTURE

SITE 4  
JASMINE AVEUNE

APPROVED BY: JAVIER DE LA CRUZ, P.E.  
SENIOR CIVIL ENGINEER

SHEET  
**C - 5**  
Sheet 7 of 15 Sheets

NOT FOR CONSTRUCTION



**DRYWELLS  
REVERE PLACE**

**LEGEND:**

- FULL DEPTH AC REPLACEMENT
- SLURRY FILL AC

**NOTE TO CONTRACTOR:**

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**CONSTRUCTION NOTES:**

- (P) — PROTECT IN PLACE
- (2) — FULL DEPTH AC REPLACEMENT TO MATCH EXISTING SITE CONDITIONS
- (5) — 6" PVC STORM DRAIN AND BEDDING/TRENCH PER DETAIL 5 ON SHEET C-12
- (9) — DRYWELL SYSTEM PER DETAIL 9 ON SHEET C-12
- (20) — SLURRY SEAL EXISTING AC TO EXTENT SHOWN ON PLANS
- (25) — CURBSIDE GRATING CATCH BASIN PER SPPWC STD. PLAN 303-4

IMPROVEMENT	QUANTITY	UNIT
DRYWELL	4	EA
AC REPLACEMENT	50	SF
6-INCH STORM DRAIN	110	LF
SLURRY FILL AC	3550	SF

CITY OF CULVER CITY  
PUBLIC WORKS DEPARTMENT

CULVER CITY  
CITYWIDE STORMWATER CAPTURE

**SITE 5  
REVERE PLACE**

APPROVED BY: JAVIER DE LA CRUZ, P.E.  
SENIOR CIVIL ENGINEER

SHEET  
**C - 6**  
Sheet 8 of 15 Sheets

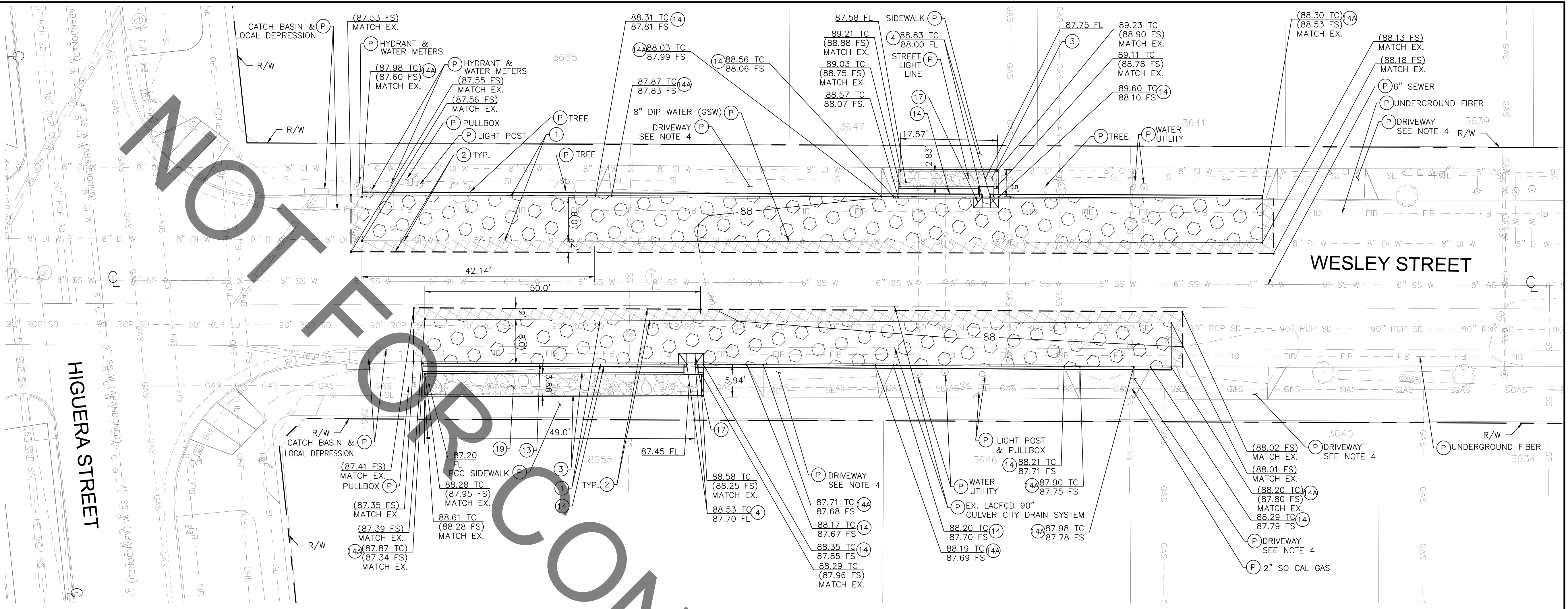
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PREPARED BY

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SUITE 240  
FULLERTON, CA 92831  
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www.cwecorp.com**

PLANS PREPARED UNDER THE SUPERVISION OF:	
▲	KATHRYN (KATIE) HARREL, P.E.
Project Number: PZ497	
Drawing No.	NO.

▲					
▲					
▲					
NO.	REVISION	BY	APPR.	DATE	



**BIORETENTION & PERVIOUS PAVEMENT  
WESLEY STREET**

**CONSTRUCTION NOTES:**

- (P) — PROTECT IN PLACE
- (1) — 6" PERVIOUS CONCRETE PAVEMENT OVER 30" OF 3/4" CRUSHED ROCK PER DETAIL 1 ON SHEET C-10
- (2) — FULL DEPTH AC REPLACEMENT TO MATCH EXISTING SITE CONDITIONS
- (3) — BIORETENTION PER DETAIL 3 ON SHEET C-11
- (4) — CURB CUT & PCC SWALE INTO BIORETENTION PER DETAIL 4 ON SHEET C-11
- (14) — PCC CURB PER SPPWC STD. PLAN 120-3, TYPE A1-6
- (14A) — PCC CURB PER SPPWC STD. PLAN 120-3, MATCH EX. CF
- (17) — LOCAL DEPRESSION PER DETAIL 17 ON SHEET C-11
- (19) — REMOVE EXISTING BRICK PAVER IN PATH OF PROPOSED BIORETENTION

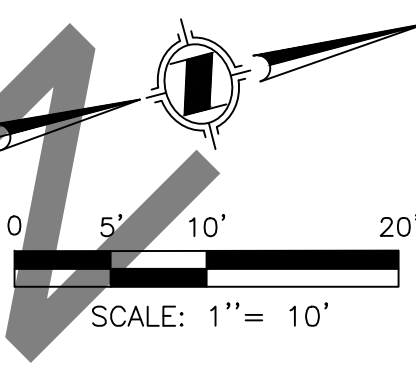
**LEGEND:**

- PERVIOUS CONCRETE
- FULL DEPTH AC REPLACEMENT
- BIORETENTION

**NOTE TO CONTRACTOR:**

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5. THE CONTRACTOR SHALL VERIFY UTILITY CROSSINGS AND PROVIDE UTILITY PIPE SUPPORT AND PROTECTION.
6. PAVEMENT MARKINGS, RED CURBS, ETC. SHALL BE REPLACED IN KIND FOLLOWING CONSTRUCTION.
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IMPROVEMENT	QUANTITY	UNIT
PERVIOUS PAVEMENT	2340	SF
BIORETENTION	250	SF
AC REPLACEMENT	690	SF
CURB	300	LF



CITY OF CULVER CITY  
PUBLIC WORKS DEPARTMENT

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CULVER CITY  
CITYWIDE STORMWATER CAPTURE

---

SITE 6  
WESLEY STREET

APPROVED BY: JAVIER DE LA CRUZ, P.E. SHEET C-7  
SENIOR CIVIL ENGINEER DATE Sheet 9 of 15 Sheets

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PLANS PREPARED UNDER THE SUPERVISION OF:

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Project Number: PZ497

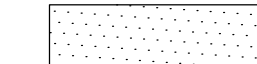
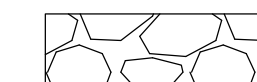
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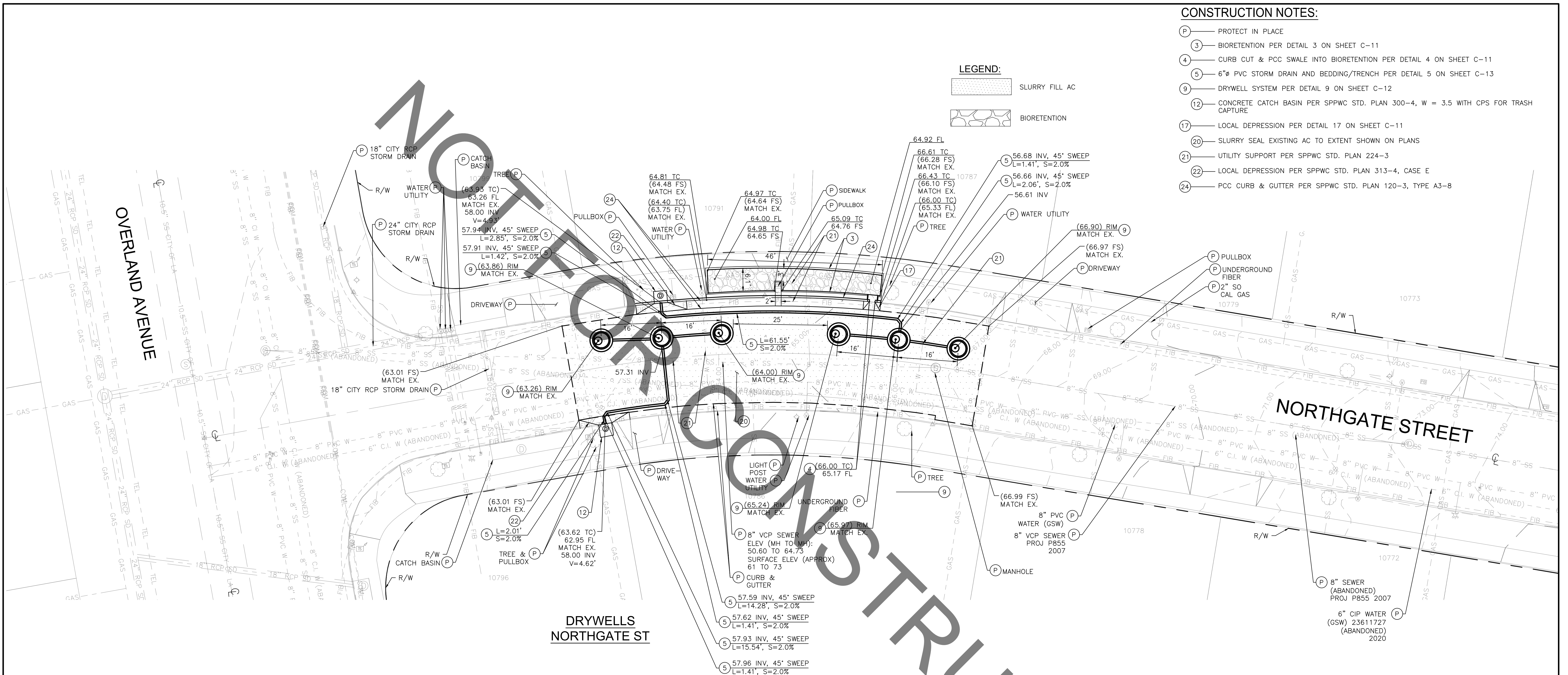
NO.	REVISION	BY	APPR.	DATE

**CONSTRUCTION NOTES:**

- (P) — PROTECT IN PLACE
- (3) — BIORETENTION PER DETAIL 3 ON SHEET C-11
- (4) — CURB CUT & PCC SWALE INTO BIORETENTION PER DETAIL 4 ON SHEET C-11
- (5) — 6" PVC STORM DRAIN AND BEDDING/TRENCH PER DETAIL 5 ON SHEET C-13
- (9) — DRYWELL SYSTEM PER DETAIL 9 ON SHEET C-12
- (12) — CONCRETE CATCH BASIN PER SPPWC STD. PLAN 300-4, W = 3.5 WITH CPS FOR TRASH CAPTURE
- (17) — LOCAL DEPRESSION PER DETAIL 17 ON SHEET C-11
- (20) — SLURRY SEAL EXISTING AC TO EXTENT SHOWN ON PLANS
- (21) — UTILITY SUPPORT PER SPPWC STD. PLAN 224-3
- (22) — LOCAL DEPRESSION PER SPPWC STD. PLAN 313-4, CASE E
- (24) — PCC CURB & GUTTER PER SPPWC STD. PLAN 120-3, TYPE A3-8

**LEGEND:**

-  SLURRY FILL AC
-  BIORETENTION

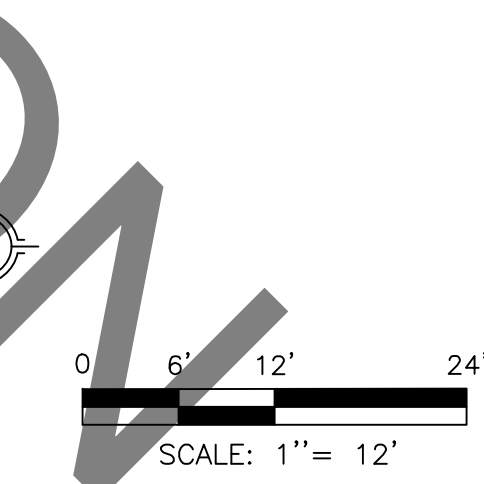


**DRYWELLS  
NORTHGATE ST**

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IMPROVEMENT	QUANTITY	UNIT
DRYWELL	4	EA
BIORETENTION	270	SF
SLURRY FILL AC	2820	SF
6-INCH STORM DRAIN	110	LF
CURB & GUTTER	70	LF



CITY OF CULVER CITY  
PUBLIC WORKS DEPARTMENT

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CULVER CITY  
CITYWIDE STORMWATER CAPTURE

---

SITE 7  
NORTHGATE STREET


---

APPROVED BY: JAVIER DE LA CRUZ, P.E.

SHEET  
**C - 8**

Senior Civil Engineer      DATE      Sheet 10 of 15 Sheets

PREPARED BY



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SUITE 240  
FULLERTON, CA 92831  
TEL (714) 526-7500  
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PLANS PREPARED UNDER THE SUPERVISION OF:

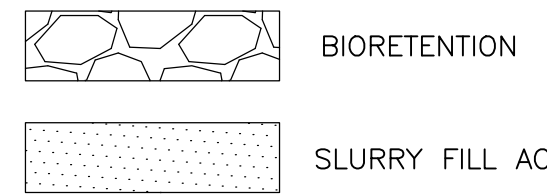
KATHRYN (KATIE) HARREL, P.E.

Project Number: PZ497

Drawing No. NO.

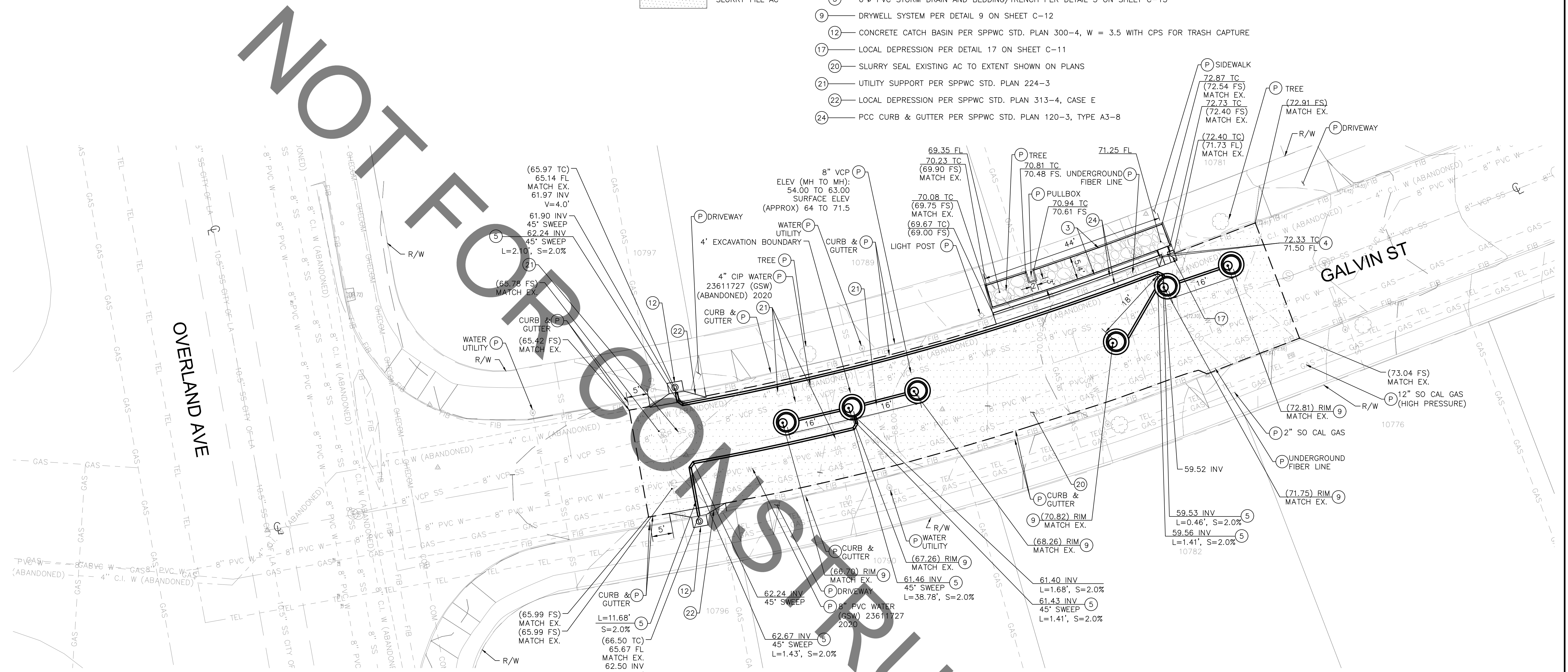
REVISION	BY	APPR.	DATE

**LEGEND:**



**CONSTRUCTION NOTES:**

- (P) — PROTECT IN PLACE
- (3) — BIORETENTION PER DETAIL 3 ON SHEET C-11
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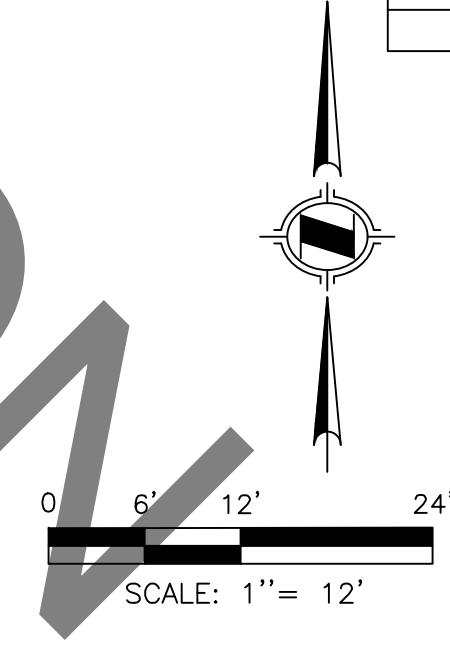


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1. TREE ROOT TRIMMING:  
THE CONTRACTOR SHALL COORDINATE WITH THE CITY ARBORIST FOR RECOMMENDATIONS RELATED TO THE HEALTH AND STABILITY OF ANY TREES PRIOR TO COMMENCING WORK.
2. STREETLIGHT AND FIBER UTILITIES ARE DRAWN SCHEMATICALLY. THE CONTRACTOR SHALL FIELD VERIFY UTILITY LOCATIONS FOR ALL UTILITIES PRIOR TO WORK AND BRING ANY CONFLICTS TO THE ATTENTION OF THE ENGINEER.
3. SEVERAL SERVICE LATERALS ARE ANTICIPATED WITHIN THE PROJECT AREA AND ARE NOT DEPICTED IN THE PLANS. THE CONTRACTOR SHALL IDENTIFY THE LOCATIONS OF THE SERVICE LINES PRIOR TO WORK AND CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
4. THE CONTRACTOR SHALL VERIFY UTILITY CROSSINGS AND PROVIDE UTILITY PIPE SUPPORT AND PROTECTION.
5. PAVEMENT MARKINGS, RED CURBS, ETC. SHALL BE REPLACED IN KIND FOLLOWING CONSTRUCTION.
6. SURVEY MONUMENTS DISTURBED DURING CONSTRUCTION SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATIONS.

IMPROVEMENT	QUANTITY	UNIT
DRYWELL	4	EA
BIORETENTION	240	SF
SLURRY FILL AC	4200	SF
6-INCH STORM DRAIN	180	LF
CURB & GUTTER	50	LF



**CITY OF CULVER CITY  
PUBLIC WORKS DEPARTMENT**

**CULVER CITY  
CITYWIDE STORMWATER CAPTURE**

**SITE 8  
GALVIN STREET**

APPROVED BY: JAVIER DE LA CRUZ, P.E.

SENIOR CIVIL ENGINEER

SHEET  
**C-9**  
Sheet 11 of 15 Sheets

PREPARED BY

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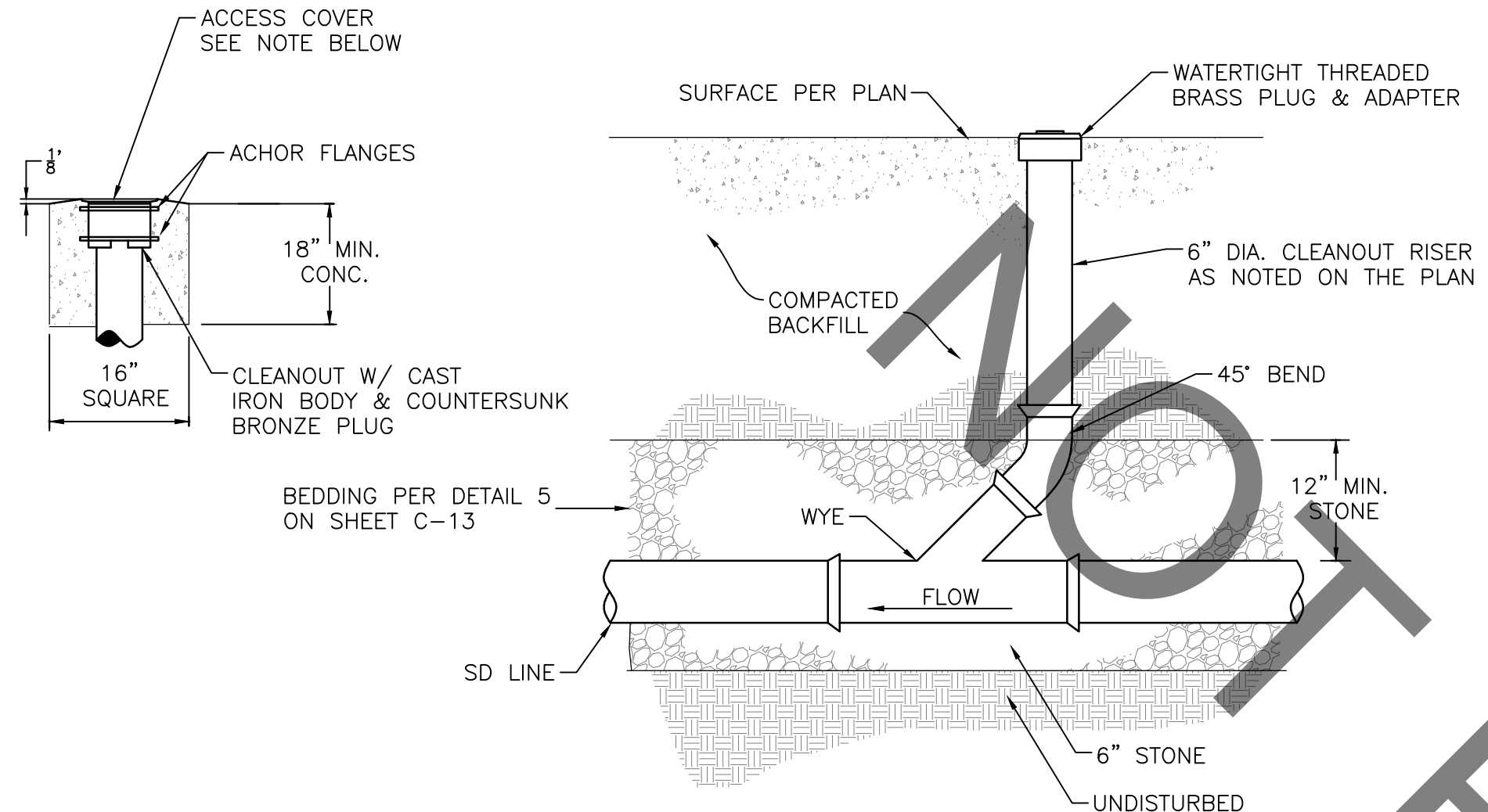
PLANS PREPARED UNDER THE SUPERVISION OF:

KATHRYN (KATIE) HARREL, P.E.

Project Number: PZ497

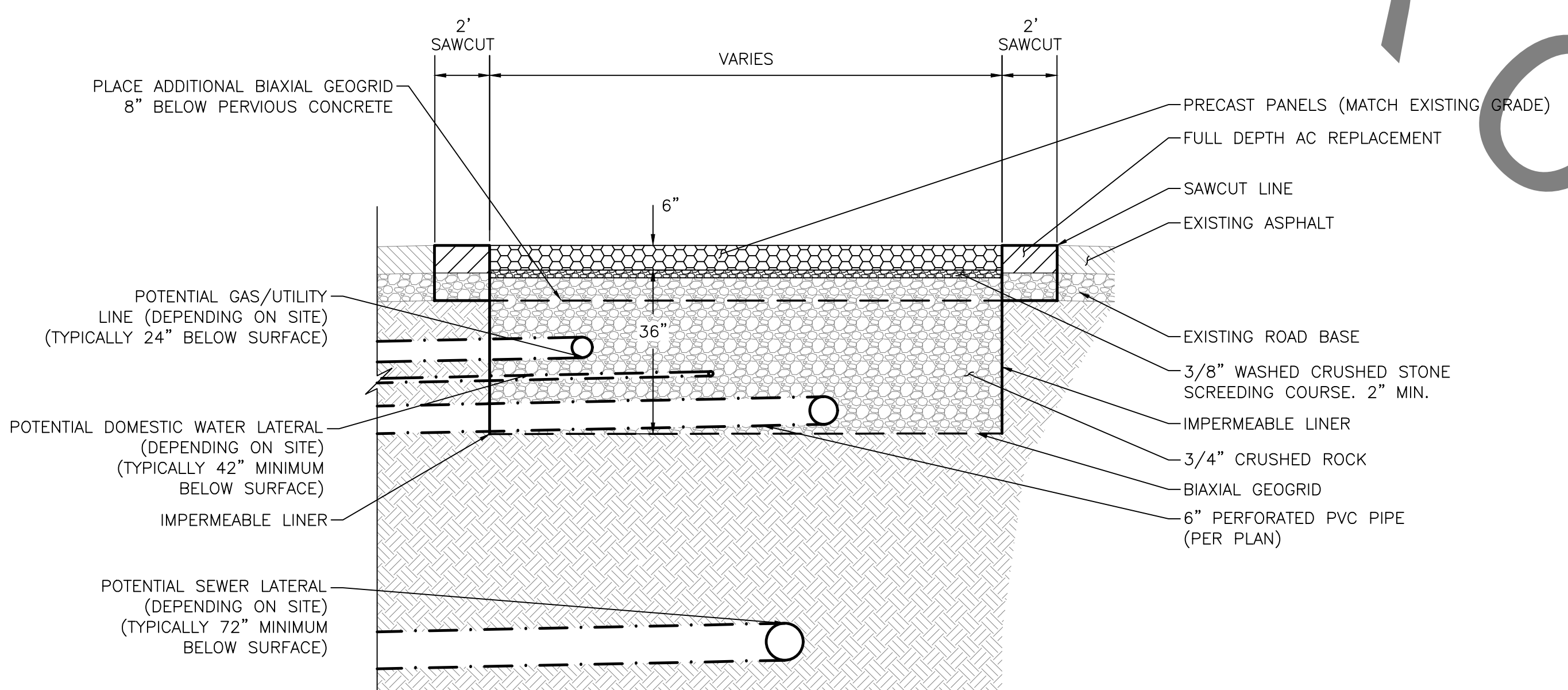
Drawing No. NO.

NO.	REVISION	BY	APPR.	DATE



- NOTES:**
1. WATTS SERIES CO-300-MF EPOXY COATED CAST IRON ACCESS HOUSING WITH TWO FIXED ANCHOR FLANGES, EXTRA HEAVY DUTY DUCTILE ACCESS COVER AND 6-1/2" CLEAR BOTTOM ACCESS OR AGENCY APPROVED EQUAL (MUST BE TRAFFIC RATED).
  2. CONTRACTOR TO FIELD VERIFY ALL EXISTING INVERT ELEVATION & NOTIFY ENGINEER OR OWNER OF ANY DISCREPANCIES PRIOR TO START OF CONSTRUCTION.
  3. CONTRACTOR SHALL FIELD VERIFY PROPOSED/ EXISTING UTILITY CROSSING & NOTIFY ENGINEER OR OWNER OF ANY DISCREPANCIES PRIOR TO START OF CONSTRUCTION.

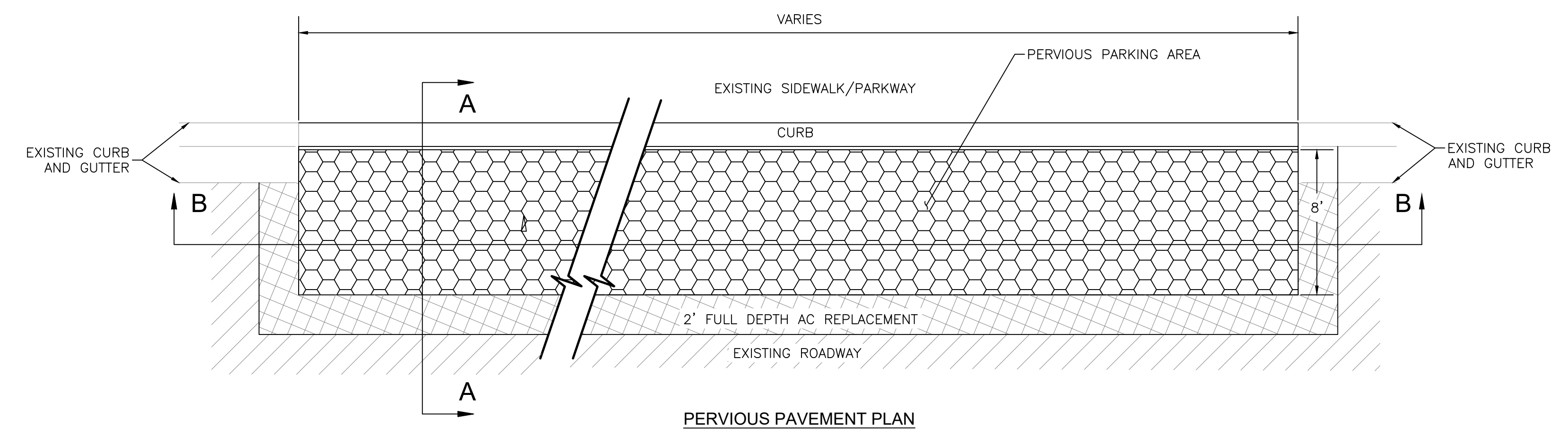
**18 SD CLEANOUT DETAIL**  
NOT TO SCALE



**PERVIOUS PAVEMENT GENERAL SECTION B-B**

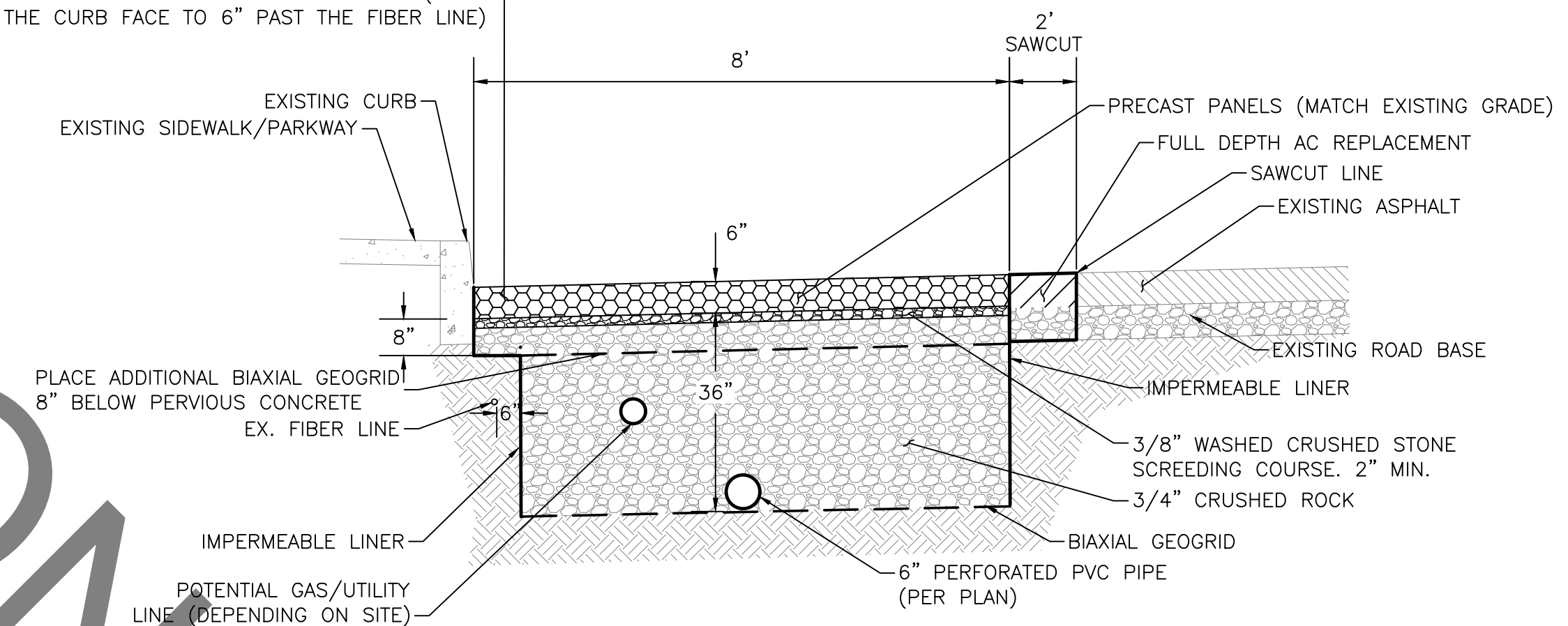
**NOTES:**

1. IF INFILTRATION IS NOT FEASIBLE, ONE OR MORE UNDERDRAIN MAY BE ADDED TO THE CROSS SECTION, SUCH THAT TREATED RUNOFF CAN BE COLLECTED AND DISCHARGED DOWNSTREAM. UNDERDRAINS WILL REQUIRE A CONNECTION TO THE NEAREST DOWNSTREAM CATCH BASIN, SHOWN IN THE SHEETS FOR EACH SPECIFIC LOCATION.
2. UTILITIES (OTHER THAN FIBER AND ACTIVE WATER LINES) MAY BE LOCATED WITHIN THE PERVIOUS PAVEMENT ROCK BASE, AS DEPICTED IN THE GENERAL DETAIL ABOVE. UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED IN THE PLANS.
3. IF AN ACTIVE WATER LINE WILL BE LOCATED WITHIN THE ROCK BASE, THEN THE ROCK BASE MUST BE MODIFIED AS DEPICTED HEREON. AN IMPERMEABLE LINER MUST BE PLACED 1' AWAY FROM THE WATER LINE (MEASURED PERPENDICULAR TO THE WATER LINE) AND THE ROCK BASE SHALL BE REDUCED, SUCH THAT THE WATER LINE IS NOT WITHIN THE ROCK BASE. ABANDONED WATER LINES DO NOT REQUIRE THE MODIFICATIONS DESCRIBED IN THIS NOTE.



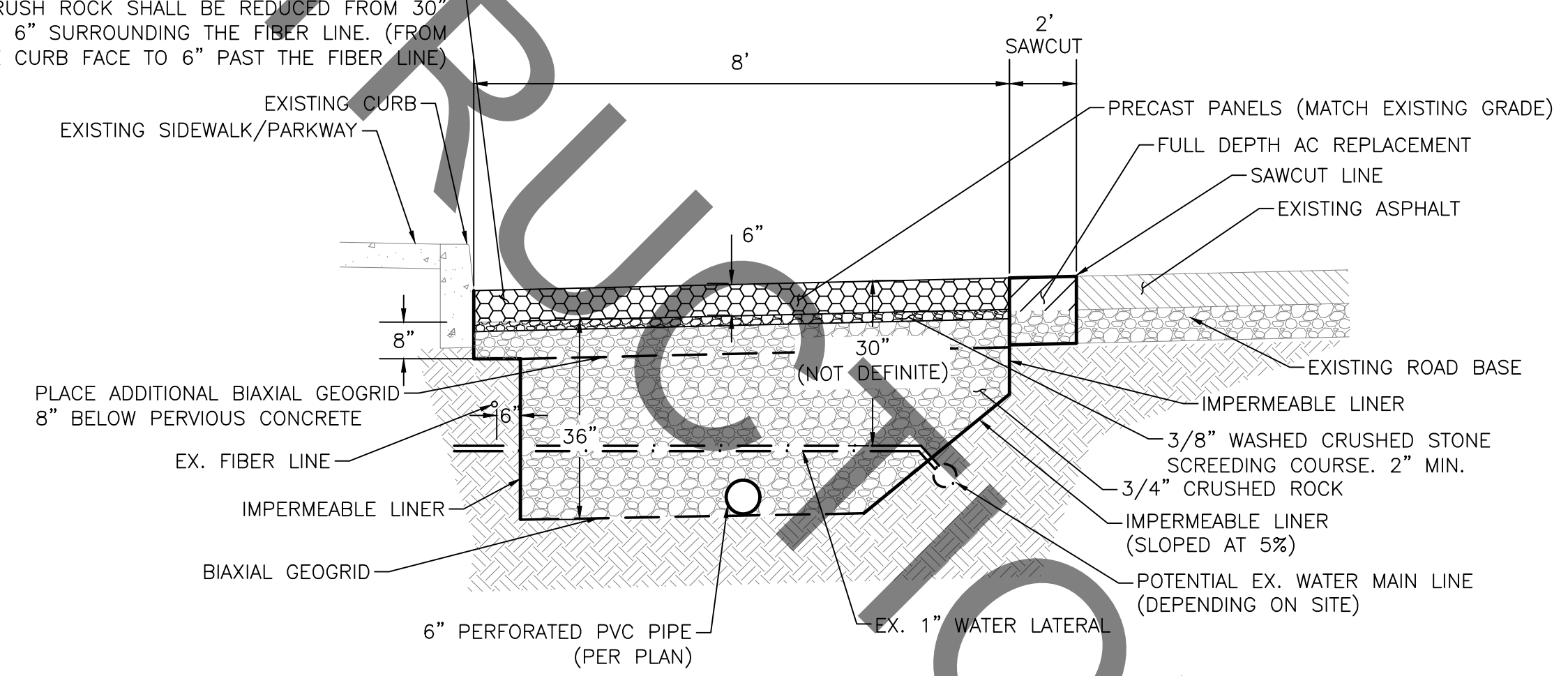
**PERVIOUS PAVEMENT PLAN**

THE LOCATION OF EXISTING FIBER LINES RELATIVE TO THE CURB FACE VARIES BY SITE. THE PERVIOUS PAVEMENT SECTION SHALL BE MODIFIED SURROUNDING THE FIBER LINE. THE CRUSHED ROCK SHALL BE REDUCED FROM 30" TO 6" SURROUNDING THE FIBER LINE. (FROM THE CURB FACE TO 6" PAST THE FIBER LINE)



**PERVIOUS PAVEMENT GENERAL SECTION A-A**

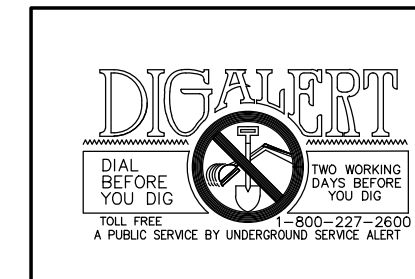
THE LOCATION OF EXISTING FIBER LINES RELATIVE TO THE CURB FACE VARIES BY SITE. THE PERVIOUS PAVEMENT SECTION SHALL BE MODIFIED SURROUNDING THE FIBER LINE. THE CRUSH ROCK SHALL BE REDUCED FROM 30" TO 6" SURROUNDING THE FIBER LINE. (FROM THE CURB FACE TO 6" PAST THE FIBER LINE)



**PERVIOUS PAVEMENT DETAIL WITH WATER LINE DETAIL SECTION A-A**

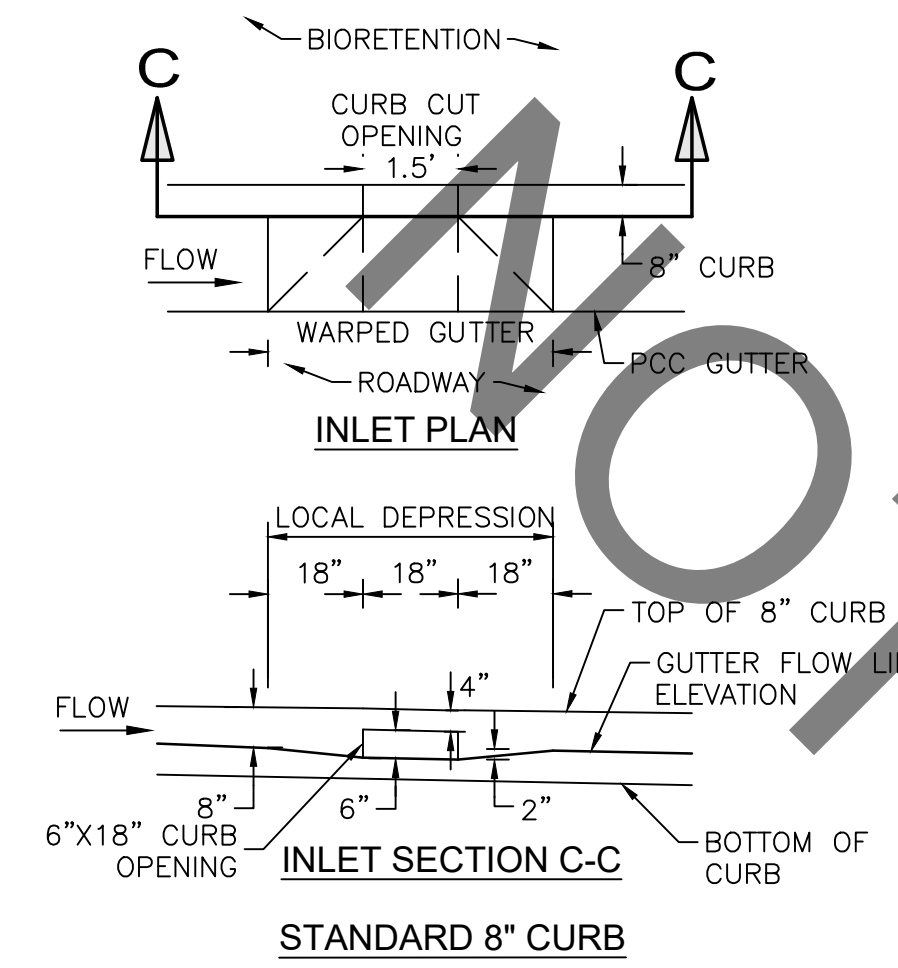
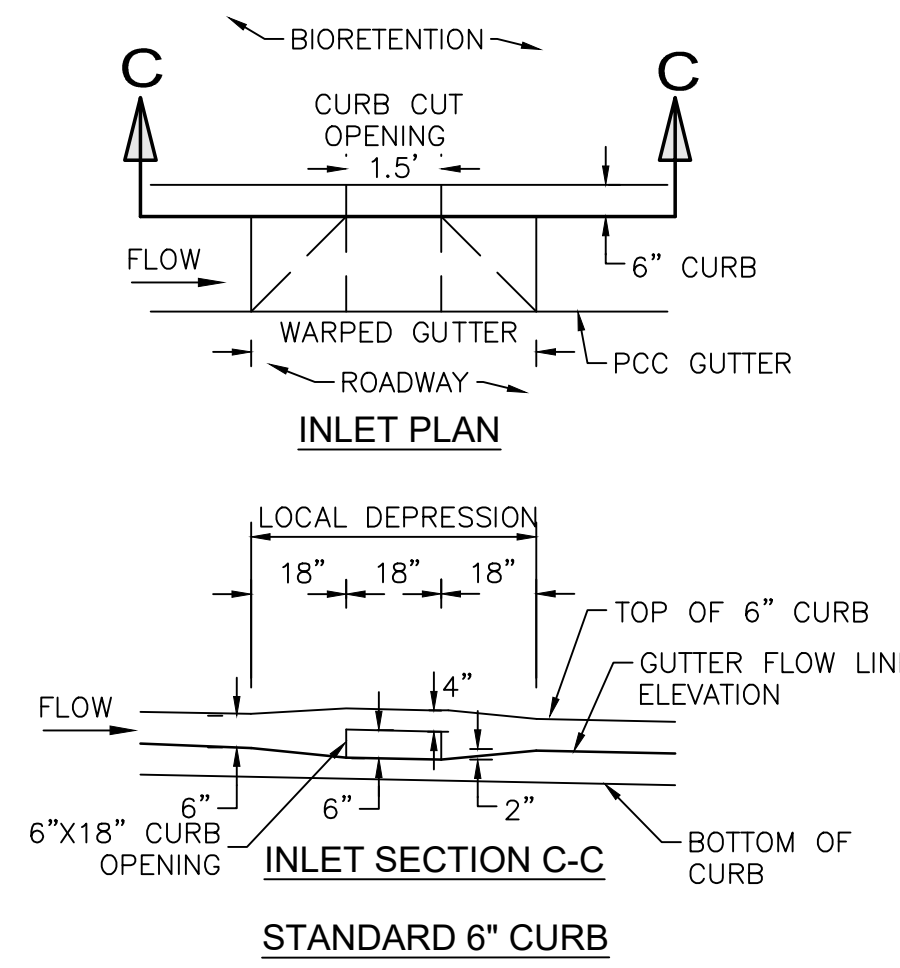
**1 PERVIOUS PAVEMENT DETAIL**  
NOT TO SCALE

<b>CITY OF CULVER CITY PUBLIC WORKS DEPARTMENT</b>	
<b>CULVER CITY CITYWIDE STORMWATER CAPTURE</b>	
<b>PERVIOUS PAVEMENT</b>	
APPROVED BY: JAVIER DE LA CRUZ, P.E. SENIOR CIVIL ENGINEER	SHEET <b>C-10</b> Sheet 12 of 15 Sheets

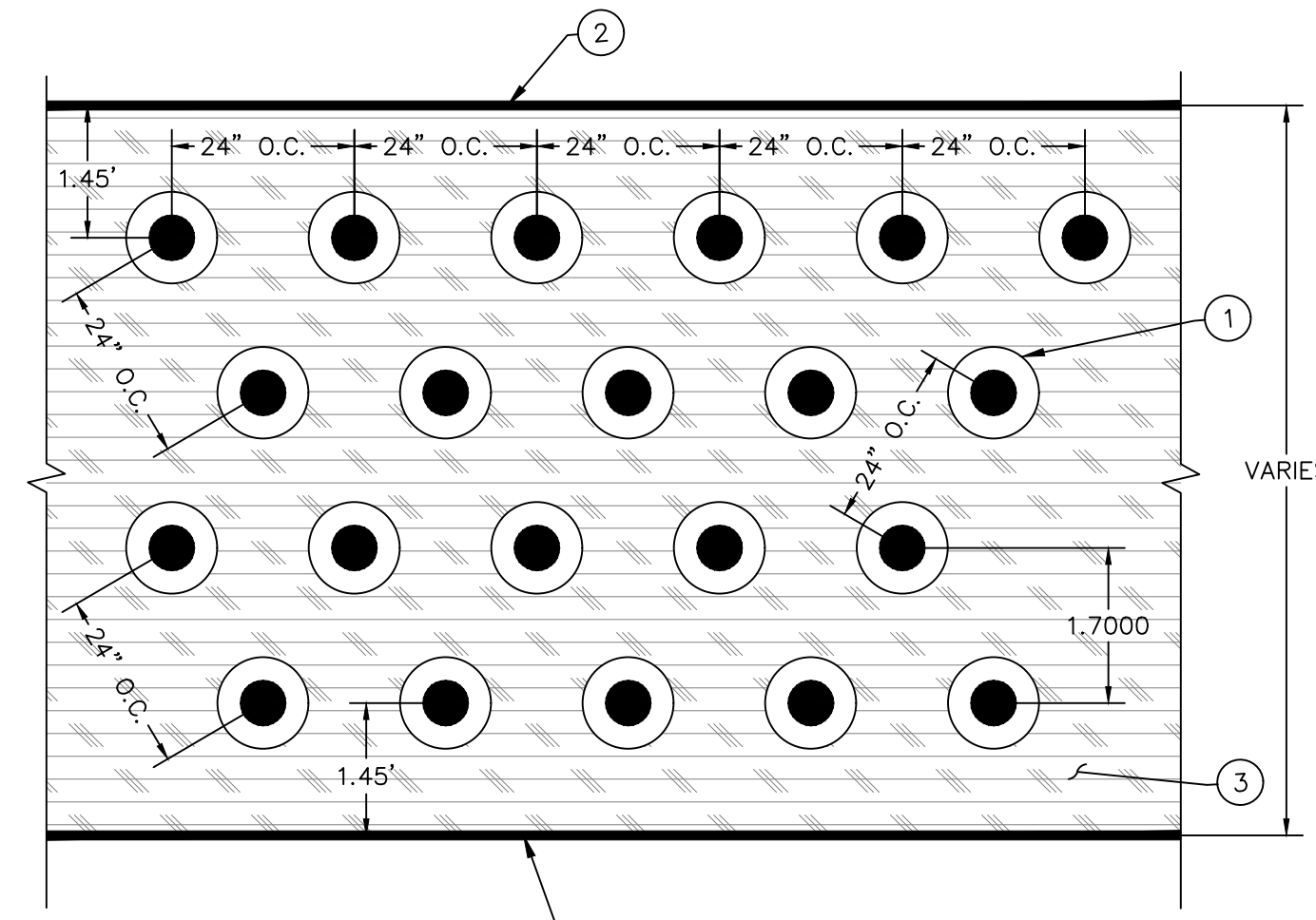


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PLANS PREPARED UNDER THE SUPERVISION OF: KATHRYN (KATIE) HARREL, P.E.				
Project Number: PZ497				
Drawing No.	NO.	REVISION	BY	APPR. DATE



17 LOCAL DEPRESSION DETAIL  
NOT TO SCALE



- ① PLANT PER PLANT LEGEND HEREON - TRIANGULATED ROWS
- ② CONCRETE CURB PER BIORETENTION DETAIL HEREON
- ③ MULCH PER SPECIFICATIONS.

GROUND COVER SPACING

**PLANTING LEGEND**

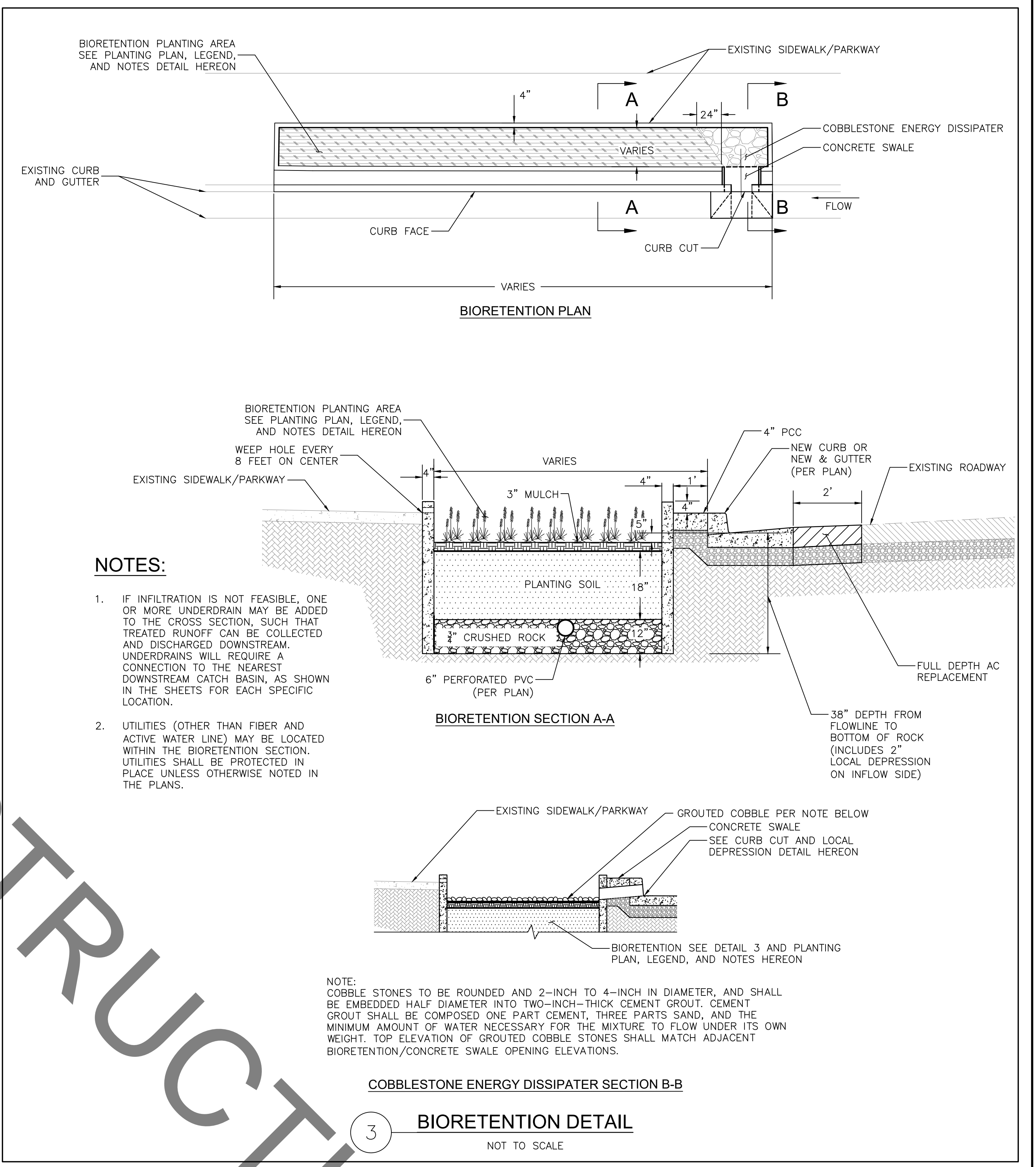
#	LOCATION	SHEET	BOTANICAL NAME	SIZE
1	11558 SEGRELL WAY	C-3	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.
2	11559 SEGRELL WAY	C-3	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.
3	10967 PICKFORD WAY	C-4	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.
4	10966 PICKFORD WAY	C-4	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.
5	4495 JASMINE AVE	C-5	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.
6	4494 JASMINE AVE	C-5	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.
7	3647 WESLEY ST	C-7	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.
8	8655 HIGUERA ST	C-7	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.
9	10791/10787 NORTHGATE ST	C-8	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.
10	10781 GALVIN ST	C-9	ROSA CALIFORNICA	LINERS AT 24 IN. O.C.

**PLANTING NOTES:**

1. ALL PLANTING WORK SHALL BE DONE IN ACCORDANCE WITH THESE DRAWINGS AND THE SPECIFICATIONS.
2. PLANT QUANTITIES SHOWN ON THE PLANS AND LEGENDS ARE FOR THE CONTRACTOR'S CONVENIENCE IN ESTIMATING ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE PLANT MATERIAL FOR EACH SYMBOL SHOWN ON THE PLANTING PLANS.
3. THE PLANTING DETAILS ARE DIAGRAMMATIC. MINOR ADJUSTMENTS IN PLANT LOCATIONS MAY BE MADE AT THE DISCRETION OF THE RESIDENT ENGINEER.
4. ALL PLANT MATERIAL SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
5. ALL NURSERY TYING MATERIAL AND MARKING TAPES SHALL BE REMOVED AT THE TIME OF PLANTING.
6. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO VERIFY THE EXACT LOCATIONS OF EXISTING UTILITIES TO ENSURE THAT THERE IS NO DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE TO REPAIR AND REPLACE EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
7. THE CONTRACTOR IS RESPONSIBLE FOR BECOMING FAMILIAR WITH THE PLANS AND COORDINATING WITH OTHER TRADES AS NECESSARY.
8. THE CONTRACTOR SHALL NOTIFY THE RESIDENT ENGINEER OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE BUILT CONDITIONS.
9. SOIL SHOULD BE IRRIGATED TO FIELD CAPACITY PRIOR TO PLANTING.

**PLANTING PLAN, LEGEND, AND NOTES**

NOT TO SCALE



**NOTES:**

1. IF INFILTRATION IS NOT FEASIBLE, ONE OR MORE UNDERDRAIN MAY BE ADDED TO THE CROSS SECTION, SUCH THAT TREATED RUNOFF CAN BE COLLECTED AND DISCHARGED DOWNSTREAM. UNDERDRAINS WILL REQUIRE A CONNECTION TO THE NEAREST DOWNSTREAM CATCH BASIN, AS SHOWN IN THE SHEETS FOR EACH SPECIFIC LOCATION.
2. UTILITIES (OTHER THAN FIBER AND ACTIVE WATER LINE) MAY BE LOCATED WITHIN THE BIORETENTION SECTION. UTILITIES SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED IN THE PLANS.

NOTE:  
COBBLE STONES TO BE ROUNDED AND 2-INCH TO 4-INCH IN DIAMETER, AND SHALL BE EMBEDDED HALF DIAMETER INTO TWO-INCH-THICK CEMENT GROUT. CEMENT GROUT SHALL BE COMPOSED ONE PART CEMENT, THREE PARTS SAND, AND THE MINIMUM AMOUNT OF WATER NECESSARY FOR THE MIXTURE TO FLOW UNDER ITS OWN WEIGHT. TOP ELEVATION OF GROUTED COBBLE STONES SHALL MATCH ADJACENT BIORETENTION/CONCRETE SWALE OPENING ELEVATIONS.

COBBLESTONE ENERGY DISSIPATER SECTION B-B

**BIORETENTION DETAIL**

NOT TO SCALE

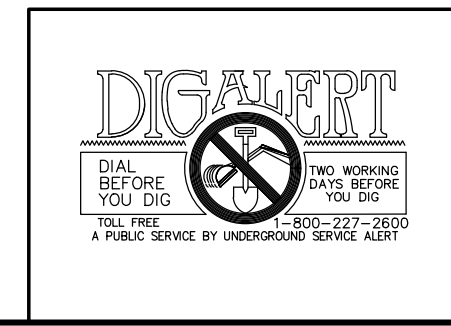
CITY OF CULVER CITY  
PUBLIC WORKS DEPARTMENT

CULVER CITY  
CITYWIDE STORMWATER CAPTURE

BIORETENTION

APPROVED BY: JAVIER DE LA CRUZ, P.E.  
SENIOR CIVIL ENGINEER

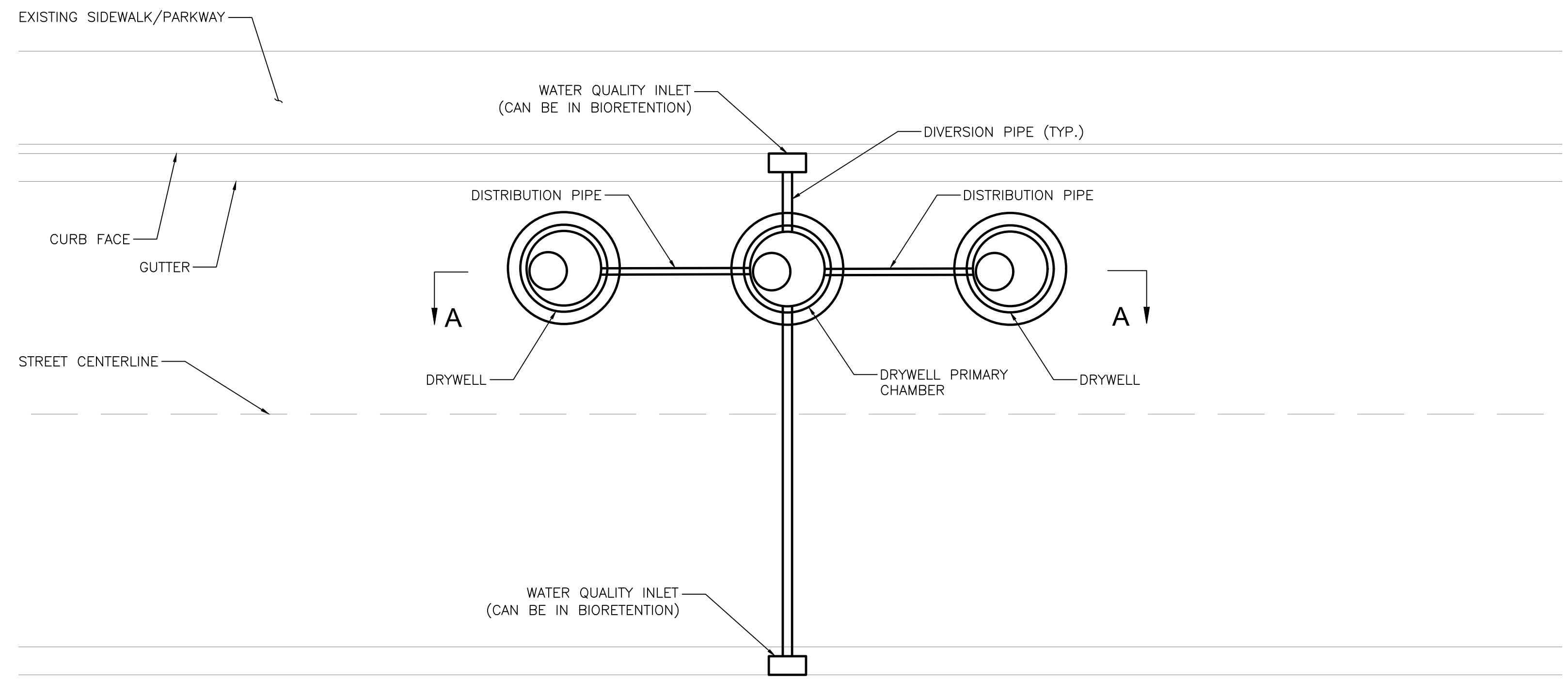
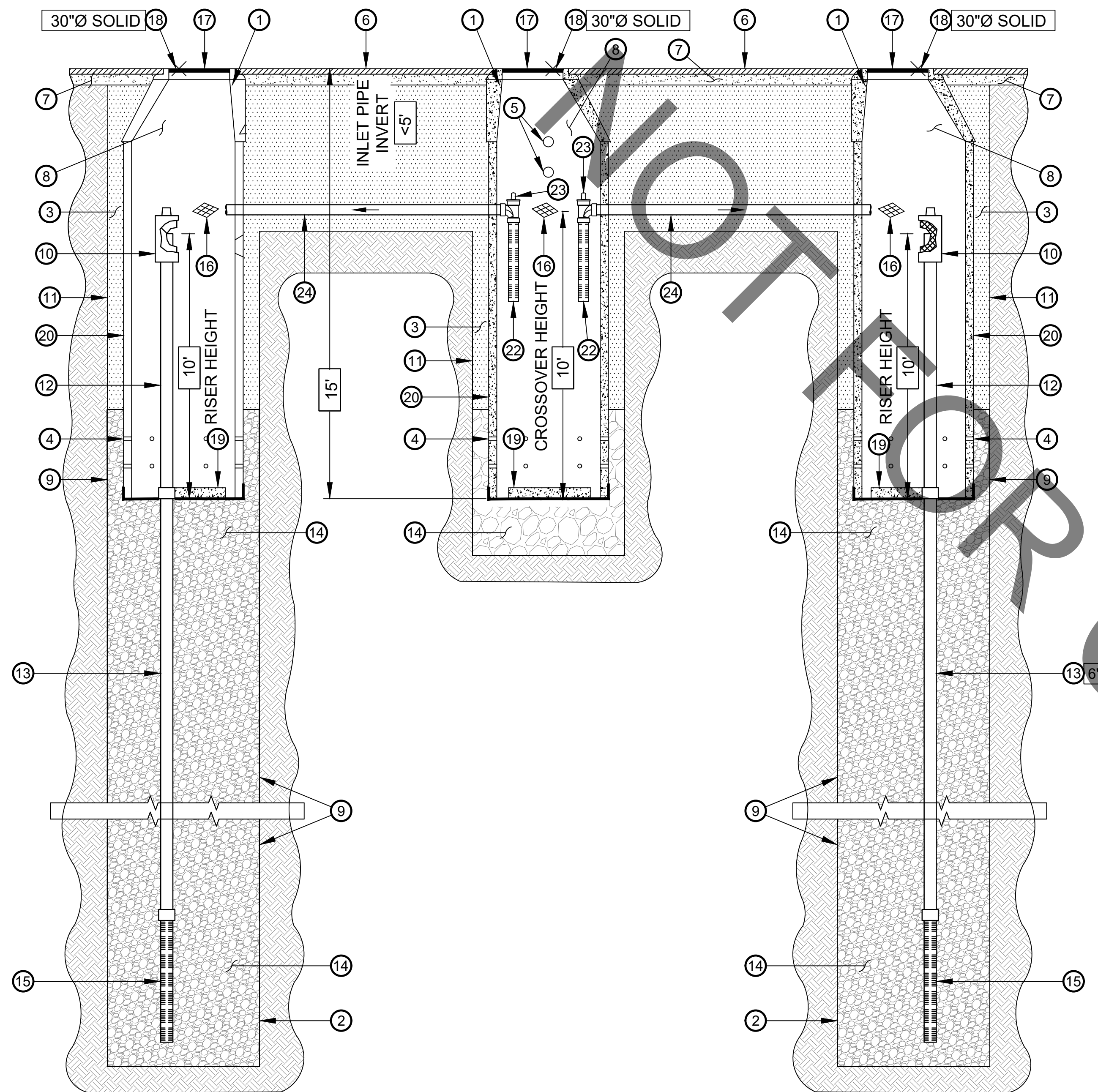
SHEET  
**C-11**  
Sheet 13 of 15 Sheets



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PLANS PREPARED UNDER THE SUPERVISION OF:  
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Project Number: PZ497  
Drawing No.

NO.	REVISION	BY	APPR.	DATE
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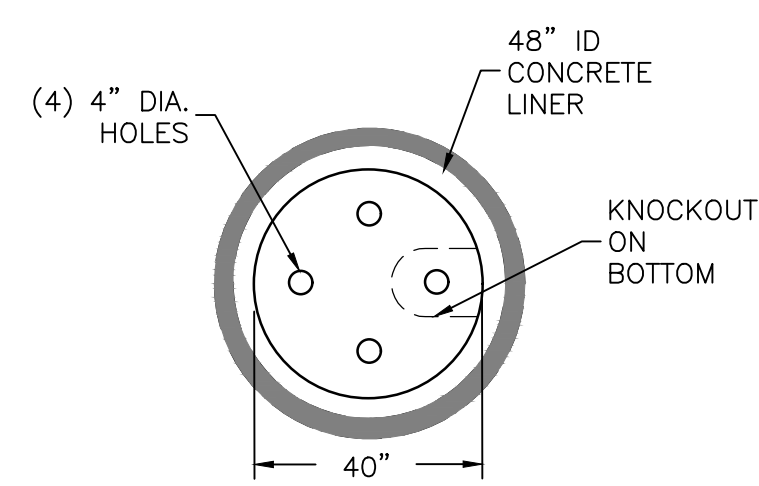
**DRYWELLS  
PLAN VIEW**  
NOT TO SCALE

**ITEM NUMBERS**

1. **MANHOLE CONE** - MODIFIED FLAT BOTTOM.
2. **MIN. 6" Ø DRILLED SHAFT.**
3. **STABILIZED BACKFILL** - TWO-SACK SLURRY MIX.
4. **6 PERFORATIONS MINIMUM PER FOOT, 2 ROWS MINIMUM.**
5. **INLET PIPE/OUTLET PIPE** (BY OTHERS). SEE SEPARATE PLAN FOR INVERT ELEVATIONS.
6. **GRADED BASIN OR PAVING** (BY OTHERS).
7. **COMPACTED BASE MATERIAL**, IF REQUIRED (BY OTHERS).
8. **FREEBOARD DEPTH VARIES** WITH INLET PIPE ELEVATION. INCREASE SETTLING CHAMBER DEPTH AS NEEDED TO MAINTAIN ALL INLET PIPE ELEVATIONS ABOVE RISER PIPE.
9. **NON-WOVEN GEOTEXTILE SLEEVE** - MIRAFI 140 NL. MIN. 6 FT Ø. HELD APPROX. 10 FEET OFF THE BOTTOM OF EXCAVATION.
10. **PUREFLO® DEBRIS SHIELD** - ROLLED 18 GA. STEEL X 24" LENGTH WITH VENTED ANTI-SIPHON AND INTERNAL 0.265" MAX. S.W.O FLATTENED EXPANDED STEEL SCREEN X 12" LENGTH. **FUSION BONDED EPOXY COATED.**
11. **MIN. 6" Ø DRILLED SHAFT.**
12. **RISER PIPE** - SCH. 40 PVC MATED TO DRAINAGE PIPE AT BASE SEAL.
13. **DRAINAGE PIPE** - ADS HIGHWAY GRADE OR SCH. 40 PVC WITH TRI-A COUPLER. SUSPEND PIPE DURING BACKFILL OPERATIONS. DIAMETER AS NOTED.
14. **ROCK** - WASHED, SIZED BETWEEN 3/8" AND 1-1/2".
15. **FLOFAST® DRAINAGE SCREEN** - SCH. 40 PVC 0.120" SLOTTED WELL SCREEN WITH MIN. 32 SLOTS PER ROW/FT. OVERALL LENGTH VARIES, UP TO 120" WITH TRI-B COUPLER.
16. **ABSORBENT** - HYDROPHOBIC PETROCHEMICAL SPONGE. MIN. 128 OZ. CAPACITY. TYPICAL, 2 PER CHAMBER.
17. **FABRIC SEAL** - U.V. RESISTANT GEOTEXTILE - **TO BE REMOVED BY CUSTOMER** AT PROJECT COMPLETION. GRATED ONLY.
18. **BOLTED RING & GRATE/COVER** - DIAMETER & TYPE AS SHOWN. CLEAN CAST IRON WITH WORDING "STORMWATER ONLY" IN RAISED LETTERS. BOLTED IN 2 LOCATIONS AND SECURED TO CONE WITH MORTAR. RIM ELEVATION ±0.02' OF PLANS.
19. **PERFORATED PRECAST CONCRETE BOTTOM SECTION WITH GEOTEXTILE LINER** REFER TO DETAIL "A".
20. **PRE-CAST LINER** - 4000 PSI CONCRETE 48" ID. X 54" ID. CENTER IN HOLE AND ALIGN SECTIONS TO MAXIMIZE BEARING SURFACE.
21. NOT USED.
22. **INTAKE SCREEN** - 6" Ø SCH. 40 PVC 0.120" MODIFIED SLOTTED WELL SCREEN WITH MIN. 32 SLOTS PER ROW/FT. 60" OVERALL LENGTH WITH TRI-C END CAP.
23. **VENTED ANTI-SIPHON INTAKE.**
24. **CONNECTOR PIPE** - 6" Ø SCH. 40 PVC.

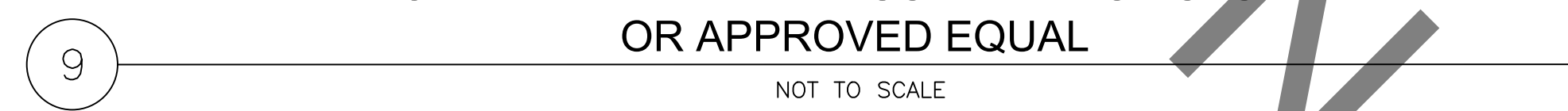
**NOTES:**

1. A MINIMUM OF 10 FEET OF SEPARATION BETWEEN THE INFILTRATION SYSTEM INVERT AND GROUNDWATER WILL BE MAINTAINED. GROUNDWATER WAS ENCOUNTERED 30 FEET BELOW THE SURFACE ON JASMINE PLACE AND 33 FEET BELOW THE SURFACE ON REVERE PLACE (REFER TO GEOTECHNICAL REPORTS)



**DETAIL "A"**  
NOT TO SCALE

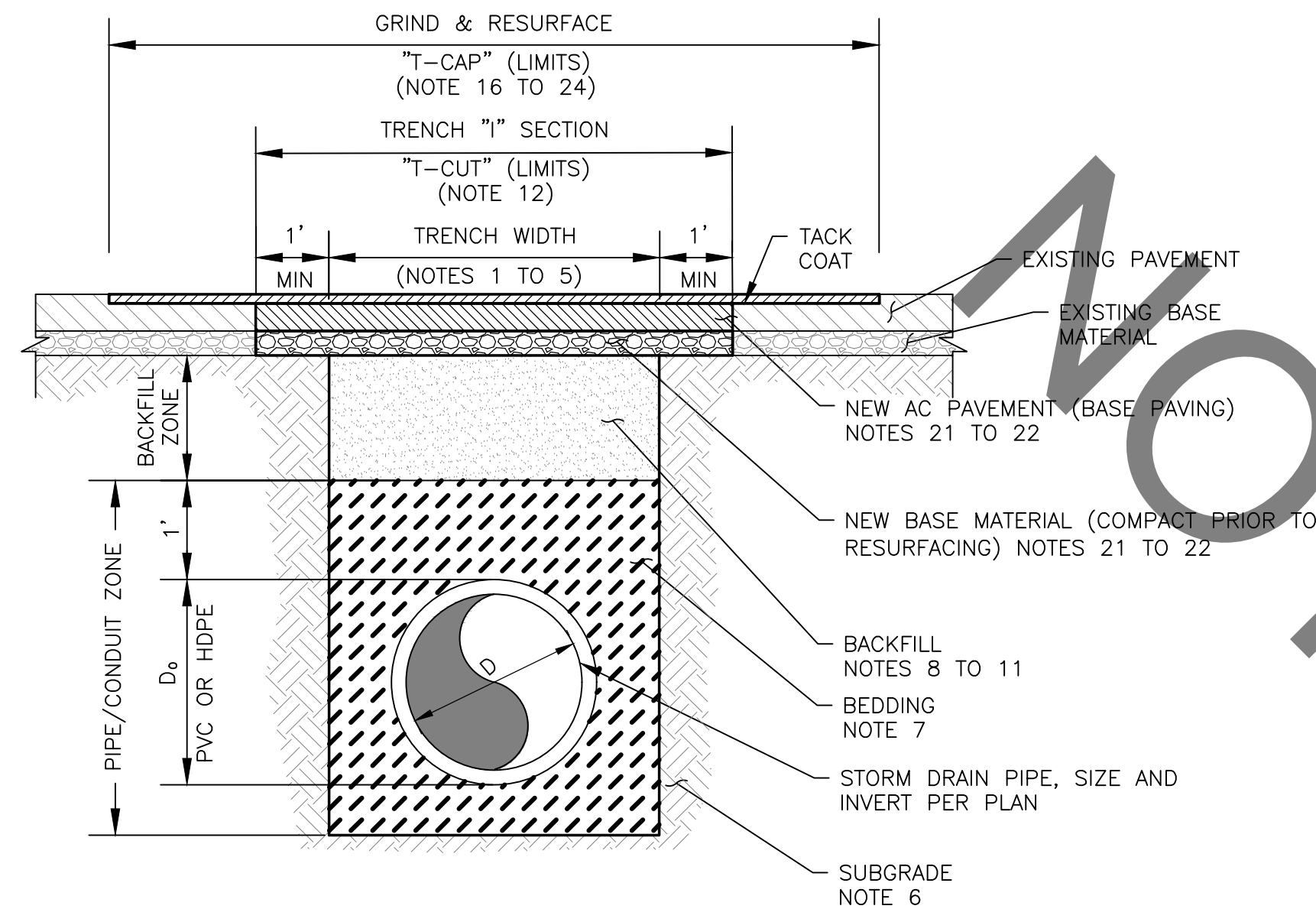
**MODIFIED MAXWELL® PLUS DRAINAGE SYSTEM  
OR APPROVED EQUAL**



NOT TO SCALE

CITY OF CULVER CITY PUBLIC WORKS DEPARTMENT	
CULVER CITY CITYWIDE STORMWATER CAPTURE	
DRYWELLS	
APPROVED BY: JAVIER DE LA CRUZ, P.E. SENIOR CIVIL ENGINEER	SHEET <b>C-12</b> Sheet 14 of 15 Sheets

	PREPARED BY 1561 E. ORANGETHORPE AVE. SUITE 240 FULLERTON, CA 92831 TEL (714) 526-7500 www.cwecorp.com	PLANS PREPARED UNDER THE SUPERVISION OF:	△				
		KATHRYN (KATIE) HARREL, P.E.	△				
	Project Number: PZ497		△				
	Drawing No.	NO.		REVISION	BY	APPR.	DATE



**5 T-TRENCH AND AC PAVING RESTORATION**  
NOT TO SCALE

**NOTES:**

ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) "GREENBOOK".

**LIMITS OF REMOVALS, TRENCH WIDTH:**

- ALL PAVEMENT REMOVED SHALL HAVE STRAIGHT EDGES. CUTS SHALL BE MADE TO A MINIMUM DEPTH OF ONE AND A HALF (1-1/2) INCHES. ALL CUTS SHALL BE NEAT, STRAIGHT, VERTICAL CUTS WITH NO BROKEN EDGES.
- ALL LONGITUDINAL PAVEMENT CUTS SHALL BE UNINTERRUPTED APPROXIMATELY PARALLEL TO THE TRENCH (MAX. 1:6 LONGITUDINAL VARIANCE).
- IF A SAW CUT IN PAVEMENT FALLS WITHIN 1 FOOT OF AN EXISTING CURB, GUTTER, OR EDGE OF PAVEMENT, THE ADDITIONAL PAVEMENT SHALL BE REMOVED AND RECONSTRUCTED.
- WHEN SAW CUTTING PAVEMENT, THE MAXIMUM OVERRUN ALLOWED FOR ANY SAW CUT BEYOND THE BOUNDARY REMOVAL LIMITS OF EXISTING PAVEMENT SHALL BE 2 INCHES.
- TRENCH WIDTH SHALL BE MINIMUM 24 INCHES, UNLESS SLURRY BACKFILL AND BEDDING IS USED, IN WHICH CASE MINIMUM SHALL BE 4 INCHES. MINIMUM 3 INCH SEPARATION SHALL BE MAINTAINED BETWEEN ALL CONDUITS, PIPES, AND TRENCH WALLS. IF SLURRY BEDDING MATERIAL IS USED, 1 INCH IS ACCEPTABLE IN A SINGLE LAYER INSTALLATION, OTHERWISE 2 INCH SEPARATION IS REQUIRED. UNDERCUTTING TRENCH WALLS TO ACQUIRE CLEARANCES IS NOT PERMITTED.

**BEDDING:**

- BEDDING MATERIAL SHALL BE PLACED ON FIRM AND UNYIELDING SUBGRADE PER GREENBOOK SECTION 306. SOFT, SPONGY, UNSTABLE, UNSUITABLE MATERIAL SHALL BE REMOVED AND REPLACED.
- BEDDING SHALL CONFORM TO GREENBOOK REQUIREMENTS AND OTHER APPLICABLE STANDARDS.

**BACKFILL:**

- EXCAVATIONS SHALL BE BACKFILLED WITH AN APPROVED SLURRY MIX, CLSM, CMB, OR CAB. NATIVE SOIL MAY ONLY BE USED WITH CITY ENGINEER'S APPROVAL. CMB, CAB, SOIL SHALL BE COMPACTED TO 90% RELATIVE DENSITY. CMB, CAB SHALL BE WELL GRADED AND HANDLED IN A MANNER TO PREVENT SEGREGATION BY PARTICLE SIZE. SOIL TESTING MAY BE REQUIRED TO BE PROVIDED TO THE FIELD INSPECTOR ON A CASE-BY-CASE BASIS.
- BACKFILL SLURRY MATERIAL SHALL BE PROPERLY CONSOLIDATED. SLURRY MATERIAL FOR TRENCHES DEEPER THAN 5 FEET AND/OR NARROWER THAN 12 INCHES MUST BE CONSOLIDATED WITH VIBRATION.
- BACKFILL MATERIAL SHALL BE MADE SMOOTH AND LEVEL BEFORE PLACING BASE AND PAVEMENT.
- JETTING IS NOT AN APPROVED DENSIFICATION METHOD.

**TRENCH "T" SECTION ("T-CUT"):**

- AFTER THE EXCAVATION HAS BEEN BACKFILLED, THE EXISTING PAVEMENT SHALL BE REMOVED TO A LINE AT LEAST 12-INCHES BACK OF THE FIRM BANKS OF THE TRENCH AND THIS AREA ADJACENT TO THE TRENCH SHALL BE COMPACTED TO 95% RELATIVE DENSITY ("T-CUT"). EXISTING CMB OR CAB BASE MATERIAL IN THIS AREA DOES NOT NEED TO BE REMOVED. "T-CUT" IS NOT REQUIRED IF PROPER SLURRY BACKFILL IS USED, UNLESS UNDERMINING OF ADJACENT PAVEMENT IS PRESENT. IF SLURRY TRENCH WIDTH IS LESS THAN 12 INCHES, EXISTING PAVEMENT SHALL BE REMOVED TO PROVIDE AT LEAST A 12 INCH WIDE OPENING FOR PROPER COMPACTATION OF THE BASE MATERIAL.
- NEW BASE MATERIAL OF CMB, OR CAB, SHALL MATCH THE EXISTING BASE THICKNESS, OR 4-INCHES, WHICHEVER IS GREATER. COMPACT TO 95% RELATIVE DENSITY. THIS REQUIREMENT SHALL ALSO APPLY OVER SLURRY BACKFILLS UNLESS OTHERWISE SPECIFIED IN THE PERMIT.
- NEW ASPHALT CONCRETE SECTION SHALL MATCH EXISTING PAVEMENT THICKNESS PLUS AN ADDITIONAL INCH, OR FULL DEPTH AC PLUS AN ADDITIONAL INCH.
- ASPHALT CONCRETE PAVING WILL OCCUR NO SOONER THAN 42 HOURS AFTER SLURRY BACKFILL OF TRENCH.

**GRIND AND RESURFACE ("T-CAP"):**

WITHIN 30 CALENDAR DAYS AFTER BACKFILLING, ASPHALT CONCRETE SHALL BE COLD MILLED AND RESURFACED AS FOLLOWS:

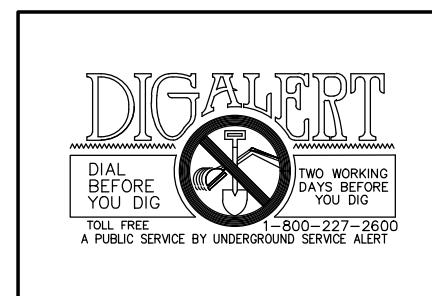
- EXISTING ASPHALT CONCRETE SHALL BE GROUND DOWN ONE AND ONE HALF (1-1/2) INCHES, OR ONE HALF THE EXISTING PAVEMENT THICKNESS, WHICHEVER IS LESS, TO THE "T-CAP" LIMITS.
- WHERE POSSIBLE, "T-CAP" LIMITS SHALL BE FROM DETAIL 1, "EXAMPLES OF GRIND AND RESURFACE "T-CAP" LIMITS". "T-CAP" IS NOT REQUIRED FOR SERVICE CONNECTIONS IN STREETS THAT HAVE NOT BEEN RESURFACED WITHIN THE PAST 25 YEARS AND DO NOT IMPACT BIKE LANES.
- "T-CAP" LIMITS SHALL EXTEND AT LEAST 2 FT BEYOND THE TRENCH "T-CUT" LIMITS. MINIMUM "T-CAP" DIMENSIONS SHALL BE 5 FT X 5 FT.
- "T-CUT" AND CORRESPONDING "T-CAP" (AS APPLICABLE) IS REQUIRED FOR ALL EXCAVATIONS WITH A SURFACE AREA OF 2 SQ. FT OR GREATER.
- WHERE LIMITS OF "T-CUTS", "T-CAP'S", POT HOLES OR CORED HOLES ARE WITHIN 4FT OF EACH OTHER, THE PAVEMENT SURFACE RESTORATION SHALL BE COMBINED, BLENDED AND SQUARED USING "T-CAP'S" TO ENCOMPASS ALL AREAS IN BETWEEN AS SHOWN IN THE DETAIL. "T-CAP" LIMITS FOR POT HOLES AND CORE HOLES SHALL EXTEND A MINIMUM OF 1-FOOT ALL AROUND BEYOND THE HOLES.
- IMPACTED BIKE LANES - "T-CAP" LIMITS SHALL FULLY ENCOMPASS ANY BIKE LANE IMPACTED BY THE TRENCH, AND SHALL HAVE A LENGTH THAT EXTENDS AT LEAST 2 FEET BEYOND THE ASPHALT REMOVAL LIMITS IN THE DIRECTION OF BIKE TRAFFIC.
- WHEN THE "T-CAP" LIMIT IS WITHIN 2 FEET OR LESS FROM A CURB OR GUTTER, THE "T-CAP" LIMIT SHALL EXTEND TO THE CURB OR GUTTER.
- PAVEMENT SHALL BE LEVEL WITH ADJACENT ROADWAY ELEVATIONS AND SHALL PROVIDE A SMOOTH SURFACE PER GREENBOOK SECTION 302-5 AND SUBJECT TO ACCEPTANCE BY THE CITY PUBLIC WORKS INSPECTOR.
- "T-CAP" AND PERMANENT BASE PAVING MAY BE PERFORMED ON THE SAME DAY WHEN FEASIBLE.

**IDENTIFICATION:**

EACH RESURFACING SHALL BE IDENTIFIED WITH A METAL IDENTIFICATION TAG IDENTIFYING THE OWNER, AND YEAR OF CONSTRUCTION. IF THE RESURFACING IS MORE THAN 50 FEET IN LENGTH, PLACE THE TAG NEAR EACH END OF THE RESURFACING AND AT INTERVALS NOT TO EXCEED 50 FEET.

**SURFACE RESTORATION:**

SURFACE RESTORATION SHALL MATCH EXISTING/PROPOSED CONDITIONS WHEN NOT IN PAVED AREA.



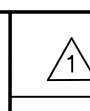
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PLANS PREPARED UNDER THE SUPERVISION OF:

KATHRYN (KATIE) HARREL, P.E.

Project Number: PZ497

Drawing No.



NO.

REVISION

BY APPR. DATE

CITY OF CULVER CITY PUBLIC WORKS DEPARTMENT	
CULVER CITY CITYWIDE STORMWATER CAPTURE	
DETAILS	
APPROVED BY: JAVIER DE LA CRUZ, P.E. SENIOR CIVIL ENGINEER	SHEET <b>C-13</b> Sheet 15 of 15 Sheets