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FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

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CITY OF ELK GROVE

DEPARTMENT OF PUBLIC WORKS 8401 LAGUNA PALMS WAY • ELK GROVE, CALIFORNIA 95758

IMPROVEMENT PLANS FOR:

DRY WELLS AS LOW IMPACT DEVELOPMENT **IMPROVEMENTS PROJECT WDR019**

To Be Supplemented By:

City of Elk Grove Improvement Standards & Standard Drawings, Latest Edition City of Elk Grove Standard Construction Specifications, Latest Edition State of California Department of Transportation, Standard Plans & Specifications, 2006





CITY OF ELK GROVE DEPARTMENT OF PUBLIC WORKS 8401 LAGUNA PALMS WAY ELK GROVE, CALIFORNIA 95758 916.683.7111



DRY WELLS AS IMPR

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DETAILS: 9. DRY WELL DETAIL

	APPROVED BY:	
	Richard R. CARTER, P.E #C55382 CAPITAL PROGRAM MANAGER	<u>6-18-14</u> DATE
	SUBMITTED BY:	
	JENNIFER MAXWELL, P.E #C54366 CIP SERVICE MANAGER	<u> </u>
	REVIEWED BY:	
	JOHN R. SCOTT CONTRACT MANAGER, MAINTENANCE & C	<u>6-18-14</u> DATE OPERATIONS
	PREPARED BY:	
	FERNANDO DUENAS, P.E #C64070 DESIGN ENGINEER	<u>6.18.14</u> DATE
S LOW IMPACT DEVELO	DATE: JUNE SCALE:	2014 1
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TITLE SHEET	PROJEC	

CITY OF ELK GROVE GENERAL NOTES:

- 1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CITY OF ELK GROVE STANDARD CONSTRUCTION SPECIFICATIONS AND IMPROVEMENT STANDARDS. WHERE INCONSISTENCIES EXIST. THE LATEST EDITION SHALL TAKE PRECEDENCE.
- 2. PUBLIC SAFETY AND TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 6-13 OF THE STANDARD CONSTRUCTION SPECIFICATIONS AND AS DIRECTED BY THE CITY INSPECTOR. SAFE VEHICULAR AND PEDESTRIAN ACCESS SHALL BE PROVIDED AT ALL TIMES DURING CONSTRUCTION.
- 3. THE CONTRACTOR SHALL NOTIFY THE CITY OF ELK GROVE CONSTRUCTION INSPECTION OFFICE TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK. THE CONTRACTOR SHALL NOT START ANY GRADING UNTIL THE CITY COMPLETES A PRE-CONSTRUCTION MEETING. PLEASE CALL (916) 478-2212 TO SCHEDULE A PRE-CONSTRUCTION MEETING.
- 4. THE CITY OF ELK GROVE IS A MEMBER OF THE UNDERGROUND SERVICE ALERT (U.S.A.) ONE-CALL PROGRAM. THE CONTRACTOR OR ANY SUB-CONTRACTOR FOR THIS CONTRACT SHALL NOTIFY MEMBERS OF U.S.A. TWO WORKING DAYS IN ADVANCE OF PERFORMING AND EXCAVATION WORK BY CALLING 811 OR 1-800-227-2600.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 6. EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH SECTION 11 OF THE CITY OF ELK GROVE IMPROVEMENT STANDARDS.
- 7. THE TYPES, LOCATIONS, SIZES, AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED, BUT ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION, SIZE AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION, WHICH MAY INCLUDE POTHOLING.

CITY OF ELK GROVE DRAINAGE NOTES:

- 1. ALL CONSTRUCTION AND MATERIALS FOR DRAINAGE SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF ELK GROVE IMPROVEMENT STANDARDS AND STANDARD CONSTRUCTION SPECIFICATIONS. WHERE DISCREPANCIES EXIST, APPROPRIATE NOTES SHALL BE ADDED TO THE PLANS, TAKING PRECEDENCE OVER THE STANDARD CONSTRUCTION SPECIFICATIONS.
- 2. THE MINIMUM COVER REQUIREMENTS DURING CONSTRUCTION FOR TEMPORARY CONSTRUCTION VEHICLE LOADING SHALL BE 4-FEET FOR METAL AND PLASTIC PIPE AND 3-FEET FOR REINFORCED CONCRETE PIPE.
- 3. THE CONTRACTOR SHALL PLACE THE PROPER STRENGTH PIPE IF TRENCH CONDITIONS ENCOUNTERED DIFFER FROM THE DESIGN TRENCH.
- 4. STORM DRAIN PIPES IN THE PUBLIC RIGHT-OF-WAY (ROW) AND DRAINAGE EASEMENTS SHALL CONFORM TO THE STANDARD CONSTRUCTION SPECIFICATIONS: DRAINAGE PIPE MATERIAL SHALL CONFORM TO SECTION 36 AND SECTION 50
 - (EXCLUDING 50-20, WHICH IS NOT ALLOWED). DRAINAGE MANHOLES SHALL CONFORM TO SECTION 39.
- 5. STORM DRAIN PIPES SHALL BE TESTED IN CONFORMANCE WITH THE STANDARD CONSTRUCTION SPECIFICATIONS:
 - DRAINAGE PIPES, INCLUDING DRAIN INLET LATERALS, SHALL BE TESTED IN CONFORMANCE WITH SECTION 38-9.
 - STORM DRAIN MANHOLES SHALL BE TESTED IN CONFORMANCE WITH SECTION 39-4.01.
- 6. RESILIENT CONNECTORS, IN CONFORMANCE WITH SECTION 39-2.01 AND STANDARD DRAWING (STD. DWG.) SD-7 OF THE STANDARD CONSTRUCTION SPECIFICATIONS, ARE REQUIRED BETWEEN PRE-CAST MANHOLE AND PIPE AND BETWEEN PRE-CAST DROP INLET AND PIPE. WATER STOPS ARE REQUIRED FOR PIPE TO CAST-IN-PLACE MANHOLE / DROP INLET CONNECTIONS.
- 7. EROSION CONTROL STRUCTURES (STD. DWGS. SD-26, SD-27, SD-28.1, SD-28.2, SD-28.3 AND SD-28.4) SHALL BE CLASS B CONCRETE, NOT GROUTED COBBLE.
- 8. ALL DRAINAGE INLETS IN THE PUBLIC ROW AND DRAINAGE EASEMENTS SHALL HAVE A PERMANENT STORM DRAIN MESSAGE "NO DUMPING - FLOW TO CREEK" OR OTHER APPROVED MESSAGE CONSISTENT WITH SECTION 11-15 AND STD. DWGS. SQ-10.1 AND SQ-10.2 OF THE CITY OF ELK GROVE IMPROVEMENT STANDARDS.

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CITY OF ELK GROVE EROSION & SEDIMENT CONTROL NOTES:

- 1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE CITY OF ELK GROVE IMPROVEMENT STANDARDS, CURRENT EDITION (OCTOBER 2007), AND THE CITY OF ELK GROVE EROSION AND SEDIMENT CONTROL GUIDELINES, DATED OCTOBER 2007.
- 2. EROSION CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE INSTALLED AND MAINTAINED ALL YEAR ROUND.
- 3. ALL DRAINAGE INLETS IMMEDIATELY DOWNSTREAM OF THE WORK AREAS AND WITHIN THE WORK AREAS SHALL BE PROTECTED WITH SEDIMENT CONTROL AND INLET FILTER BAGS, YEAR ROUND. INLET FILTER BAGS SHALL BE REMOVED FROM THE DRAINAGE INLETS UPON ACCEPTANCE OF THE PUBLIC IMPROVEMENTS BY THE CITY.
- 4. ALL STABILIZED CONSTRUCTION ACCESS LOCATIONS SHALL BE CONSTRUCTED PER STANDARD DRAWING SQ-1. WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES PAVED AREAS, THE STABILIZED ACCESS SHALL BE MAINTAINED ON A YEAR ROUND BASIS UNTIL THE COMPLETION OF THE CONSTRUCTIONS.
- 5. ALL AREAS DISTURBED DURING CONSTRUCTION, BY GRADING, TRENCHING, OR OTHER ACTIVITIES, SHALL BE PROTECTED FROM EROSION.
- 6. SENSITIVE AREAS AND AREAS WHERE EXISTING VEGETATION IS BEING PRESERVED SHALL BE PROTECTED WITH CONSTRUCTION FENCING. SEDIMENT CONTROL BMPs SHALL BE INSTALLED WHERE ACTIVE CONSTRUCTION AREAS DRAIN INTO SENSITIVE OR PRESERVED VEGETATION AREAS.
- 7. SEDIMENT CONTROL BMPs SHALL BE PLACED ALONG THE PROJECT PERIMETER WHERE DRAINAGE LEAVES THE PROJECT. SEDIMENT CONTROL BMPs SHALL BE MAINTAINED YEAR ROUND UNTIL THE CONSTRUCTION IS COMPLETE OR THE DRAINAGE PATTERN HAS BEEN CHANGED AND NO LONGER LEAVES THE SITE.
- 8. THE FOLLOWING AREAS ON ALL PROJECTS ARE TO RECEIVE HYDROSEEDING OR OTHER EROSION CONTROLS:
 - FOR RESIDENTIAL PROJECTS; LOT FRONT YARDS BEHIND THE SIDEWALK THE FIRST 18 FEET OR TOP OF SLOPE (WHICHEVER IS GREATER)
 - FOR RESIDENTIAL PROJECTS; SIDEYARDS BEHIND THE SIDEWALK THE FIRST 7.5
 - FEET OR TOP OF SLOPE (WHICHEVER IS GREATER). FOR ALL COMMERCIAL PROJECTS; ALL NON ACTIVE DISTURBED SOIL AREAS MUST BE STABILIZED.
 - SLOPES ALL SLOPES GREATER THAN 10:1
- 9. ALL NON-ACTIVE DISTURBED SOIL AREAS MUST BE STABILIZED WITH EROSION CONTROLS WITHIN 14 CALENDAR DAYS OR PRIOR TO A FORECASTED RAIN EVENT (WHICHEVER COMES FIRST).

CITY OF ELK GROVE SUPPLEMENTAL NOTES:

- 1. WHENEVER THE WORK AREA IS ADJACENT TO A TRAFFIC LANE AND THERE IS A CUT. DITCH OR TRENCH MORE THAN 2 INCHES DEEP, THE CONTRACTOR SHALL MAINTAIN CONTINUOUS BARRICADES SPACED AT APPROXIMATELY 20-FOOT INTERVALS FOR THE FIRST 100 FEET FROM THE BEGINNING OF THE CUT. DITCH OR TRENCH. AND APPROXIMATELY 50-FOOT INTERVALS THEREAFTER. IF THE CUT, DITCH OR TRENCH IS MORE THAN TEN FEET FROM A TRAFFIC LANE. THE BARRICADE SPACING MAY BE GREATER BUT SHALL NOT EXCEED 200 FEET
- 2. UNLESS SPECIFICALLY SET FORTH AS SPECIAL PROVISIONS. ALL MARKED LANES OF TRAFFIC SHALL BE UNOBSTRUCTED IN EACH DIRECTION DURING THE PEAK TRAFFIC HOURS OF 7:00 TO 8:00 A.M. AND 3:30 TO 6:00 P.M. A TRAFFIC LANE SHALL BE CONSIDERED UNOBSTRUCTED IF IT IS SURFACED WITH ASPHALT AND IS AT LEAST TEN FEET WIDE.
- 3. A TRAFFIC CONTROL PLAN SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE CITY OF ELK GROVE CONSTRUCTION INSPECTION FOR REVIEW AT LEAST 15 DAYS PRIOR TO COMMENCEMENT OF ANY WORK. AN ENCROACHMENT PERMIT OR PLAN APPROVAL MUST FIRST BE OBTAINED PRIOR TO ANY WORK COMMENCING WITHIN THE CITY RIGHT-OF-WAY.



CITY OF ELK GROVE DEPARTMENT OF PUBLIC WORKS 8401 LAGUNA PALMS WAY ELK GROVE, CALIFORNIA 95758

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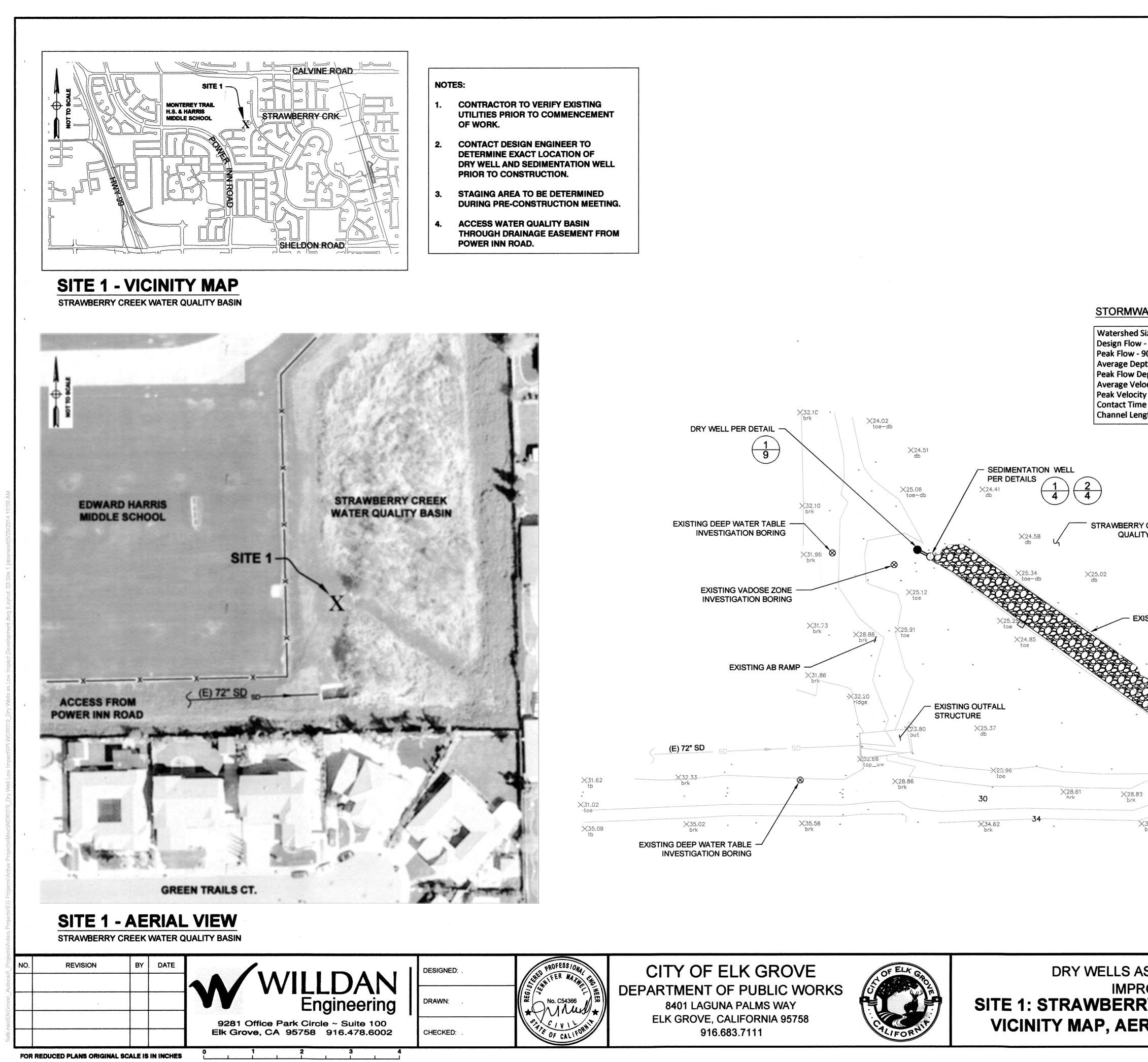
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ABBREVIATIONS LIST: AB – aggregate base ac- acre brk – break cfs – cubic feet per second CLR – clearance dia – diameter (ϕ) DI – drain inlet (E) – existing Elev – elevation ft – feet fps - feet per second gd – ground inv. – invert min – minimum/ minutes N.A.P.O.T.C. - not a part of this contract 0.C. – on center PVC – polyvinyl chloride RC- reinforced concrete pipe SD – storm drain (Typ) – typical

w/ - with

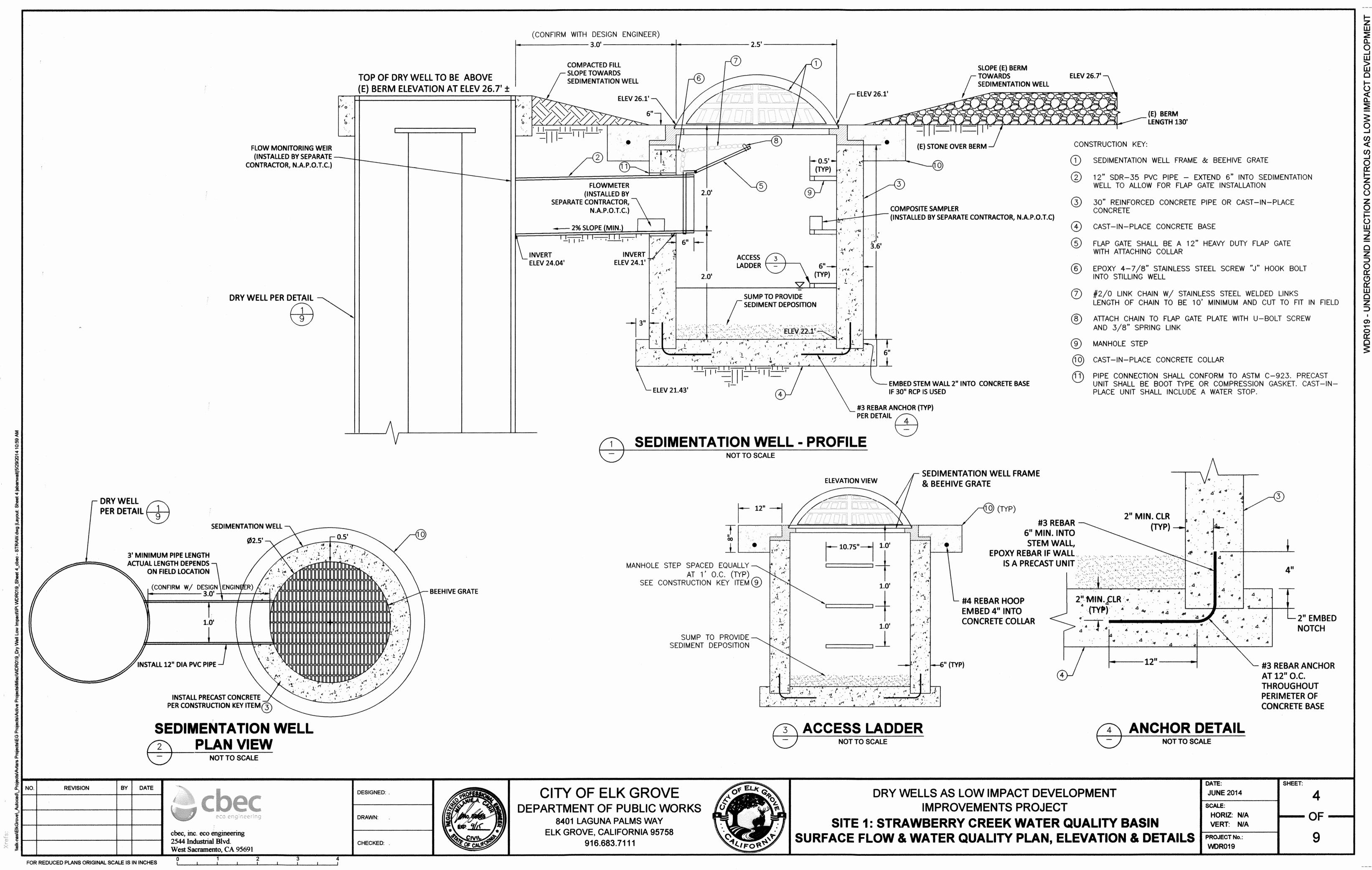
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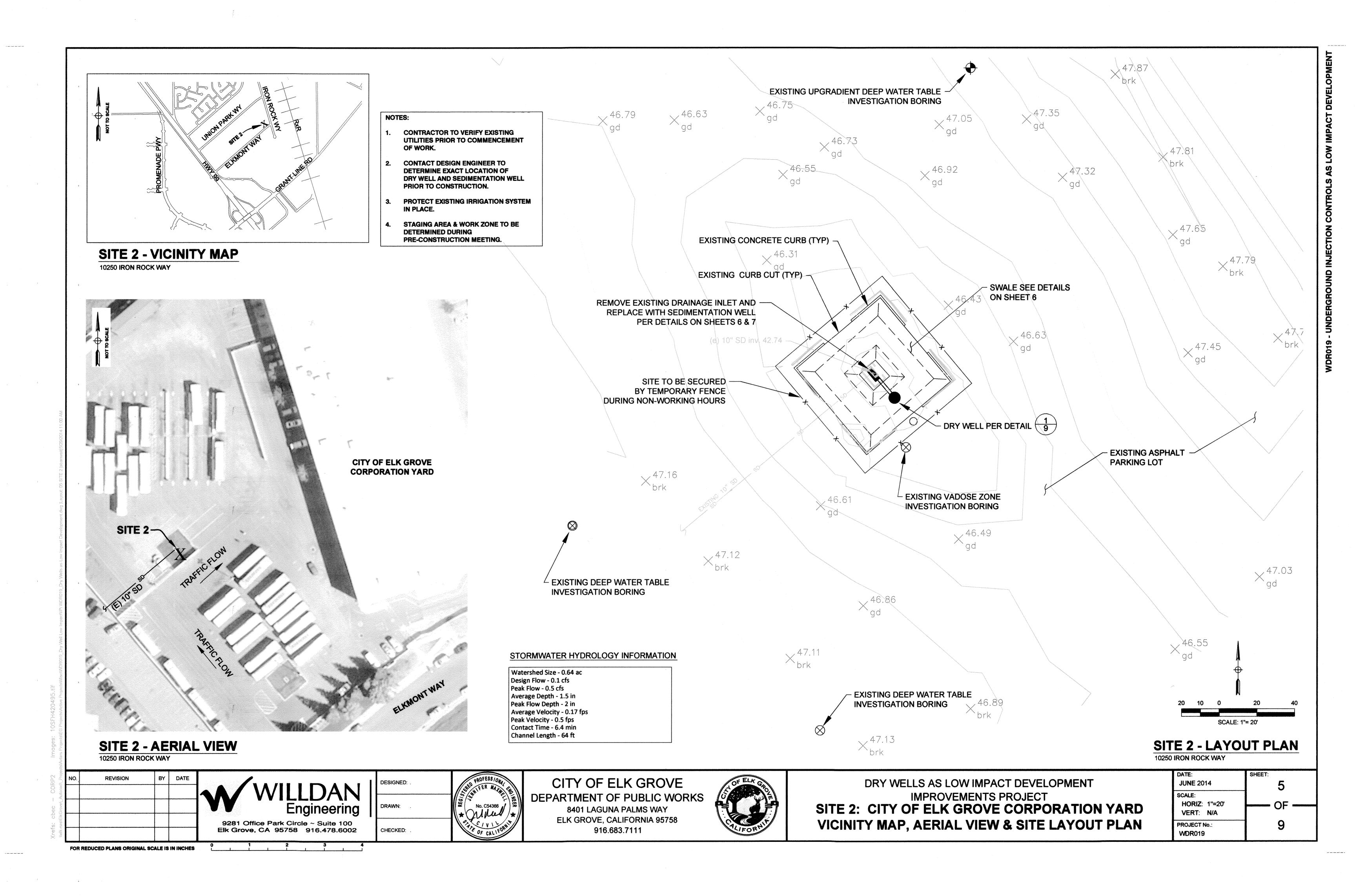


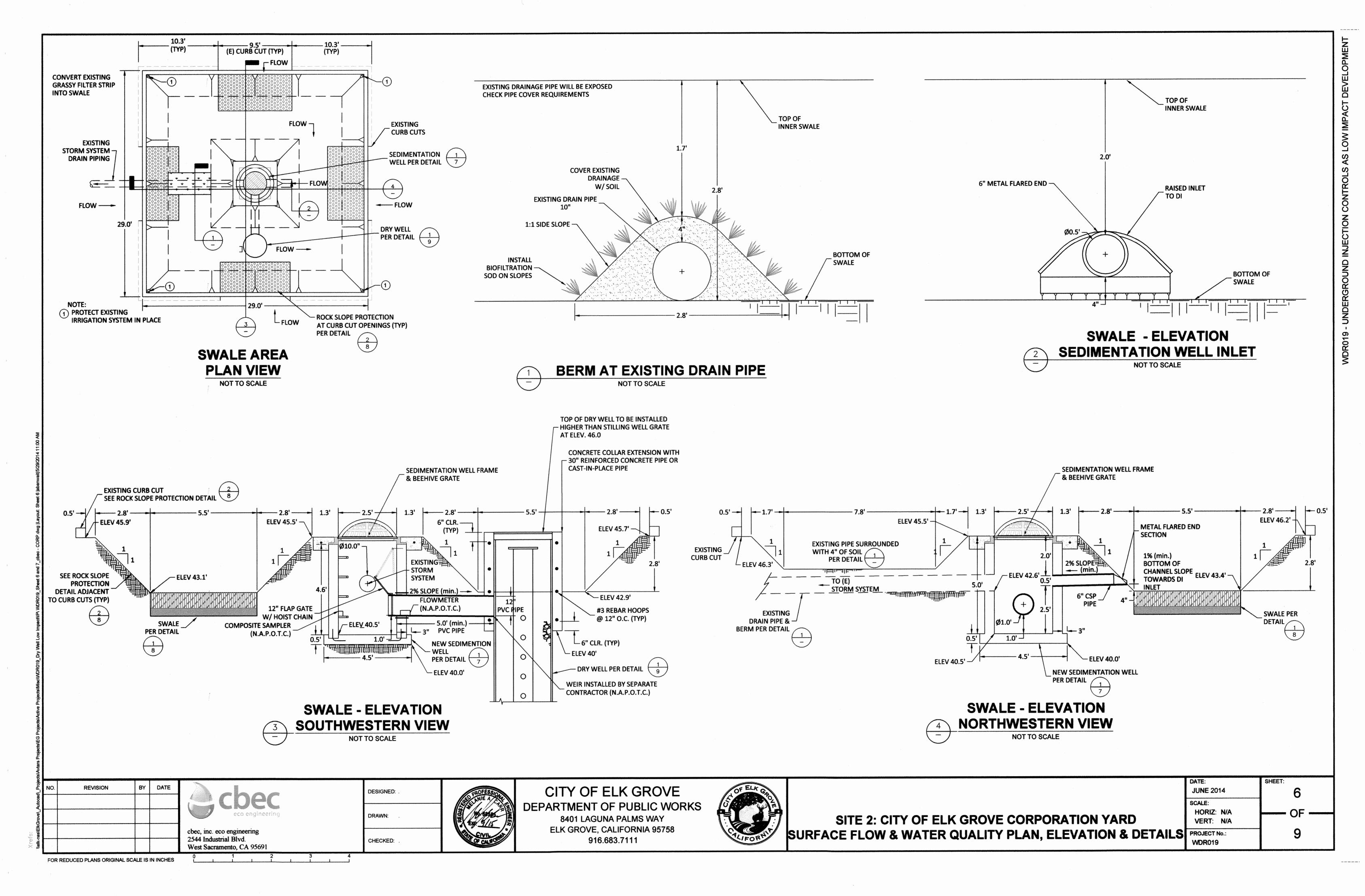
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ATER HYDROLOGY INFORMATION	· · ·		*
- 15 cfs 90 cfs th - 1 ft epth - 2 ft ocity - 0.7 fps y - 2 fps e - 2 min gth - 75 ft	EXISTI	NG UPGRADIENT DEEP W/ INVESTIGAT	
X24.70 STING BERM X24.83 toe-db X24.83 toe-db X33.54 brk X33.94 brk X33.94 brk X33.94 brk X33.94 brk X33.94		20 10 0	20 40
S LOW IMPACT DEVELOP OVEMENTS PROJECT	STRAWBERR	- LAYOUT F Y CREEK WATER QUALI DATE: JUNE 2014 SCALE: HORIZ: 1"= 20'	generation and a strain the second statistic strates
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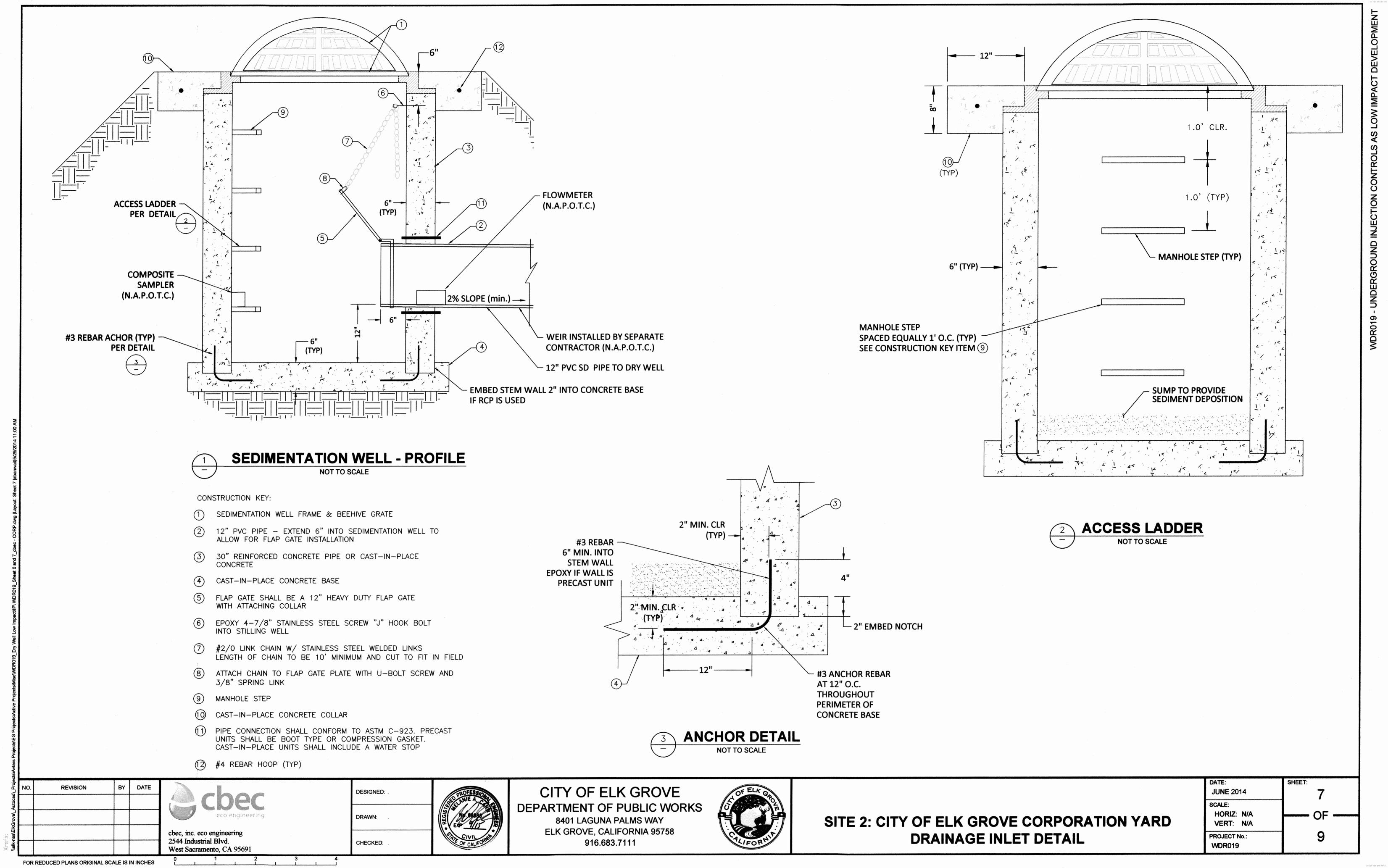






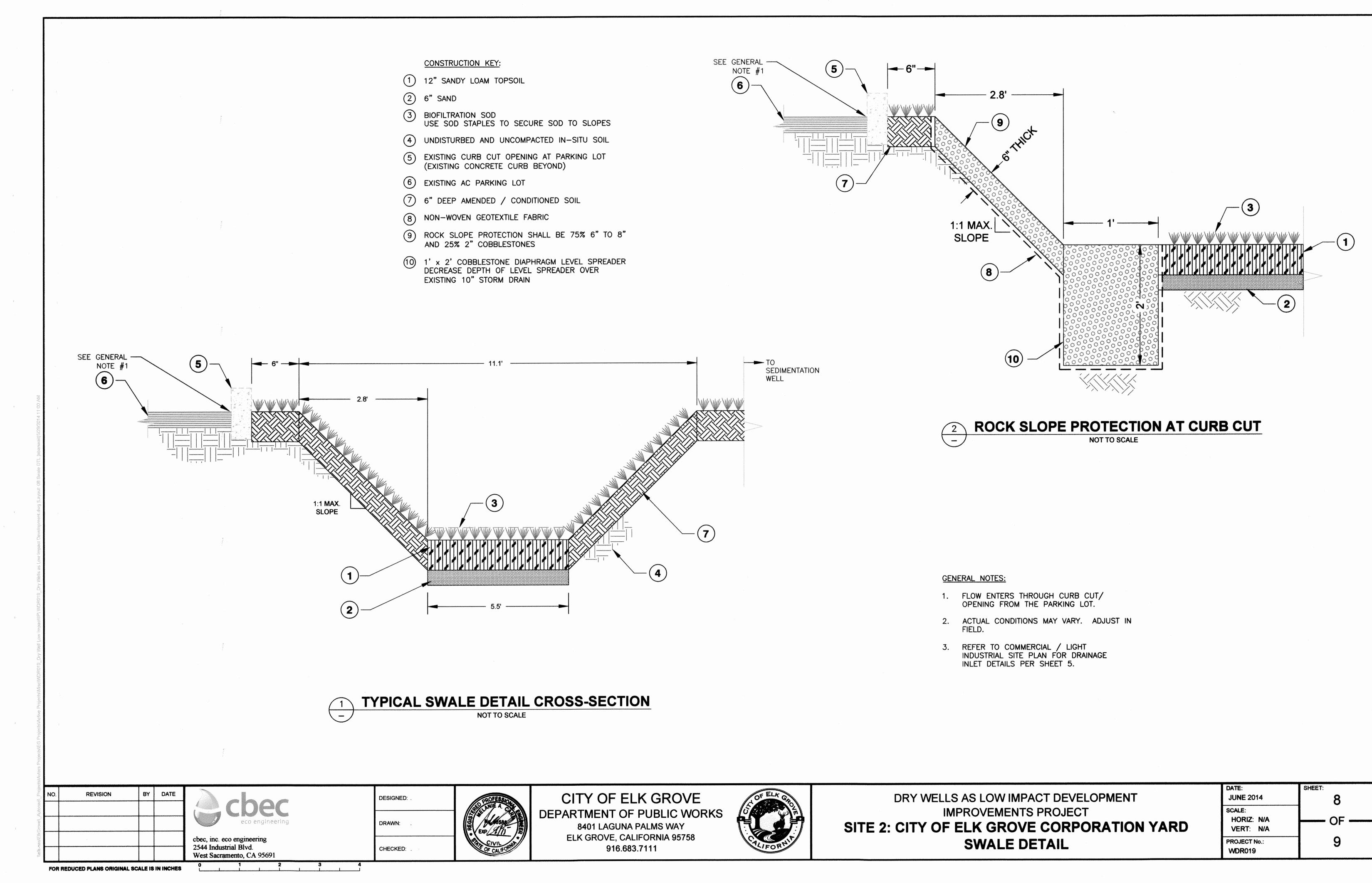
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NO	TES:	
1.	ROCK MUST COME FROM C THOROUGHLY WASHED BE	CLEAN SOURCES AND MUST BE FORE PLACEMENT.
2.		A SUPPLIER MUST BE WASHED AT THE PIT ERY TO THE DRY WELL SITE.
3.	BEFORE PLACEMENT OF REWASHED ROCK CONDITION	OCK CONTACT DESIGN ENGINEER TO VERIFY I.
4.		NSIST OF SILICA SAND AND BE FREE FROM PS, BALLS OF CLAY OR ADHERENT FILMS OF
	THE PERCENTAGE COMPOSISHALL CONFORM TO THE F	SITION BY WEIGHT OF DRY WELL SAND OLLOWING GRADATIONS:
	SIEVE SIZE	PERCENTAGE PASSING BY WEIGHT
	0.1319 INCHES (#6)	90-100
	0.0929 INCHES (#8)	4-35
	0.0787 INCHES (#10)	0-10

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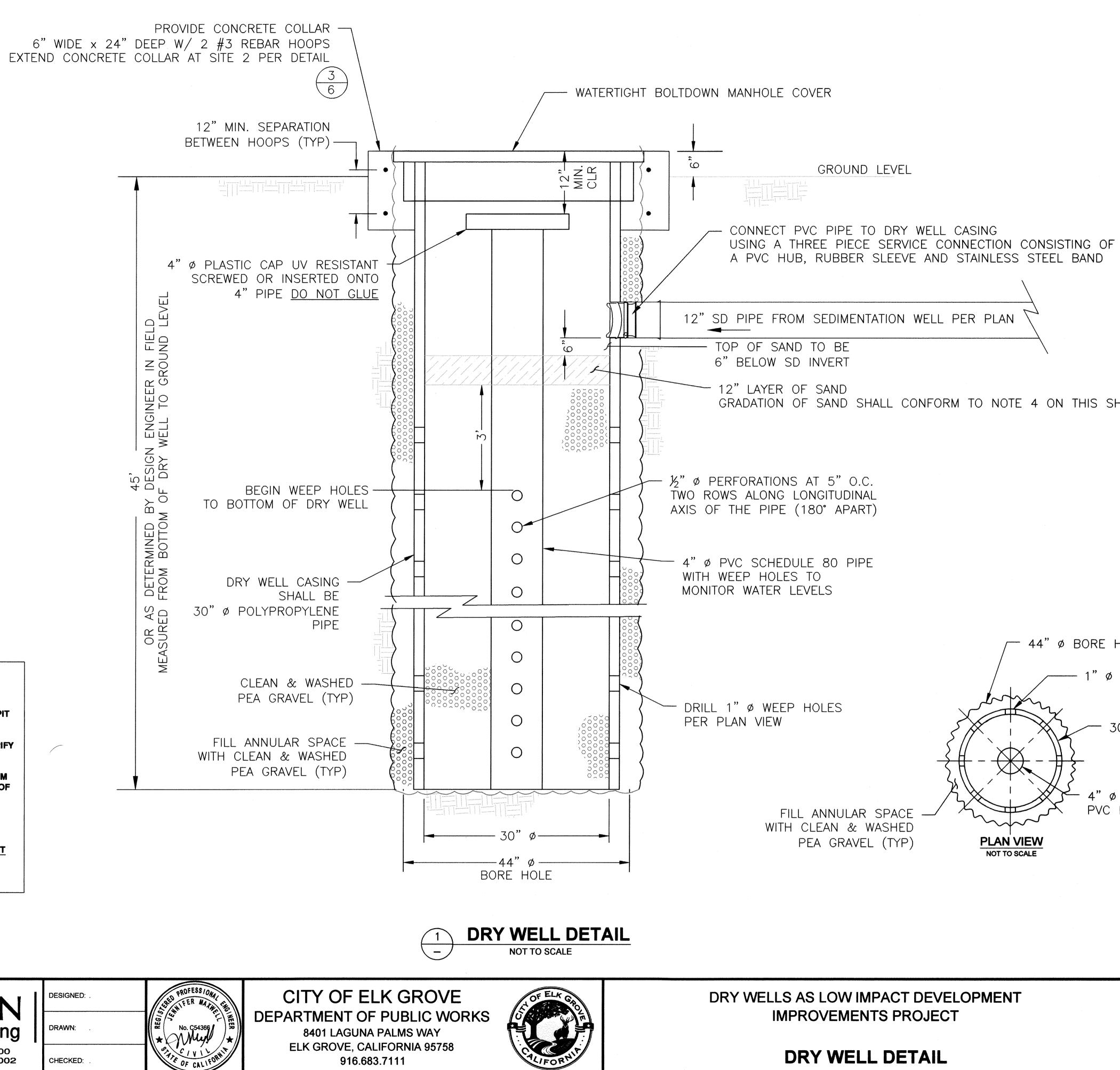
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GRADATION OF SAND SHALL CONFORM TO NOTE 4 ON THIS SHEET 44" Ø BORE HOLE 1" Ø WEEP HOLE (TYP) 30" DRY WELL CASING 4" Ø PERFORATED PVC PIPE FILL ANNULAR SPACE WITH CLEAN & WASHED PEA GRAVEL (TYP) DATE: SHEET: DRY WELLS AS LOW IMPACT DEVELOPMENT **JUNE 2014** 9 **IMPROVEMENTS PROJECT** SCALE: HORIZ: N/A • OF -VERT: N/A DRY WELL DETAIL 9 PROJECT No .: WDR019

GROUND LEVEL