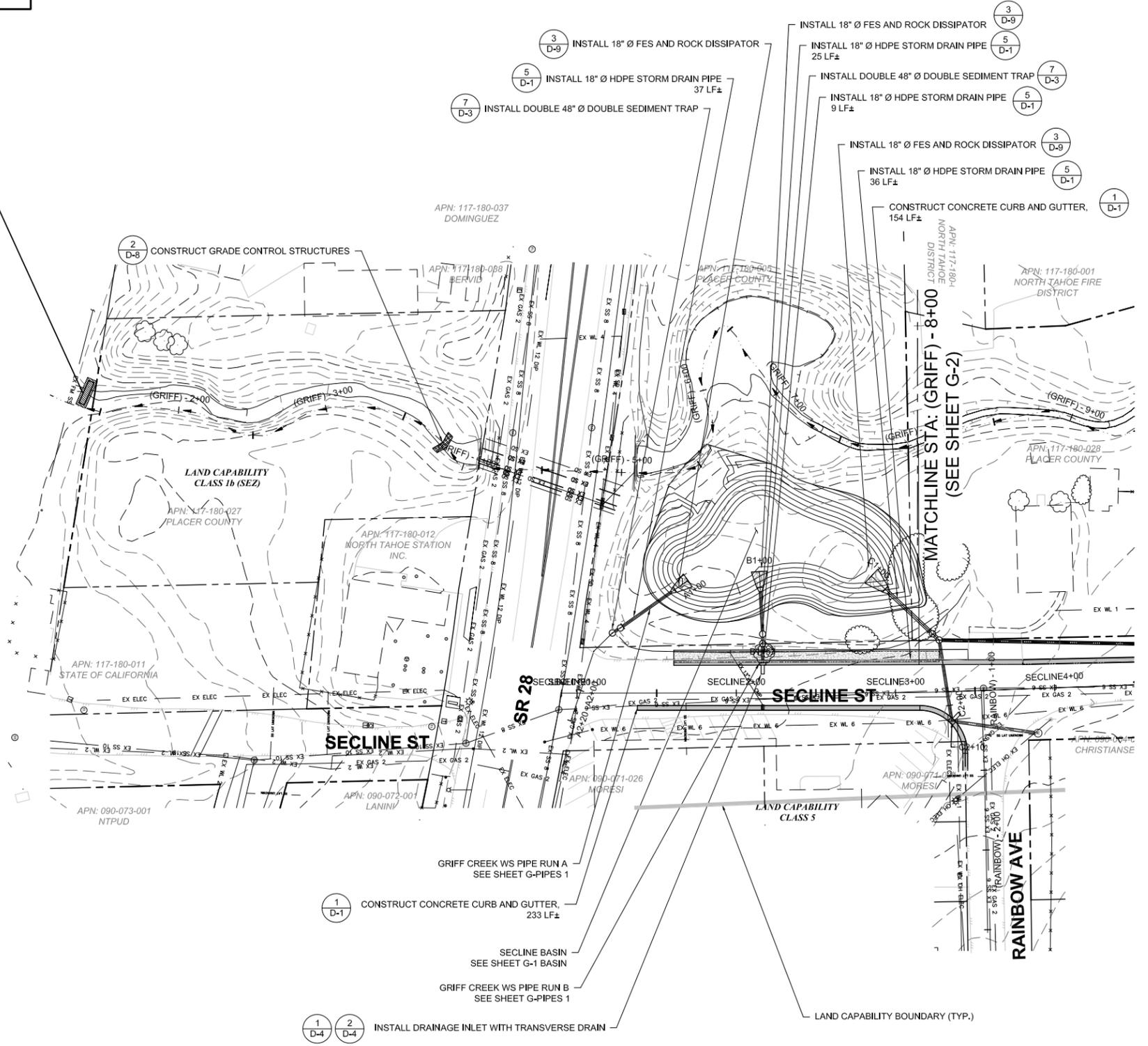


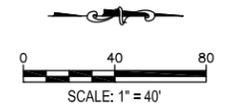
CAUTION! ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NEED TO BE POTHOLED PRIOR TO CONSTRUCTION.

50% DESIGN PLANS  
NOT FOR CONSTRUCTION

REMOVE AND DISPOSE OF EXISTING FOOT BRIDGE



NOTE:  
THERE ARE NO MODIFICATIONS TO THE FLOWLINE OF GRIFF CREEK ON SHEET G-1



REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :  
REGISTERED CIVIL ENGINEER  
DATE: \_\_\_\_\_

DESIGNED: CMD  
DRAWN: CMD  
CHECKED: SP  
DATE: 01/2010  
ROAD NUMBER: N/A



PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS

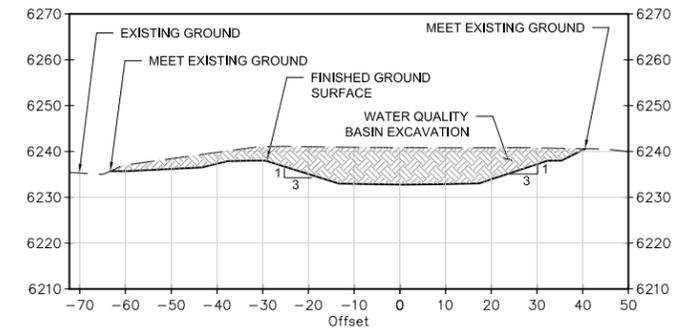
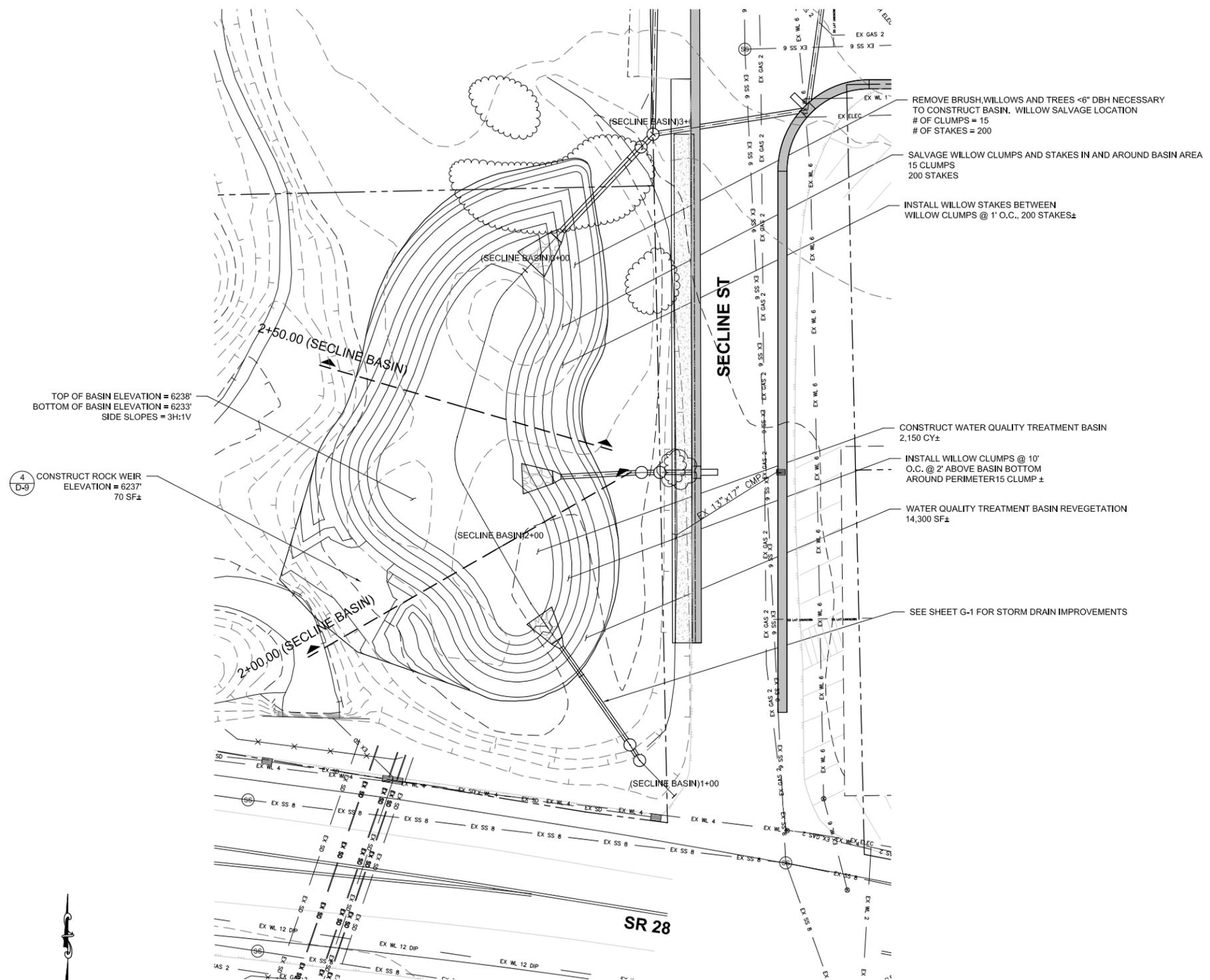


**KINGS BEACH WATERSHED & SEZ  
IMPROVEMENT PROJECT**  
GRIFF CREEK WATERSHED (SECLINE ST.)  
PLACER COUNTY, CALIFORNIA

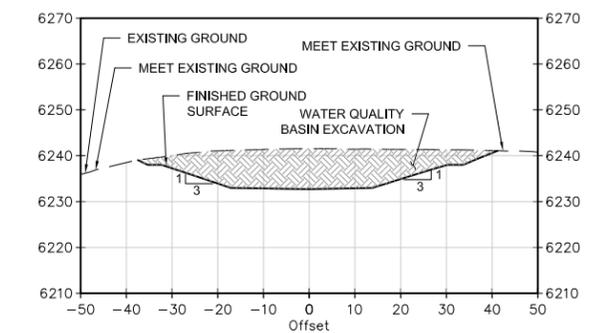
SHEET  
G-1  
W.O. No. 3128703

CAUTION! ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NEED TO BE POTHOLED PRIOR TO CONSTRUCTION.

50% DESIGN PLANS  
NOT FOR CONSTRUCTION



SECLINE BASIN SECTION 2+00.00



SECLINE BASIN SECTION 2+50.00

TOP OF BASIN ELEVATION = 6238'  
BOTTOM OF BASIN ELEVATION = 6233'  
SIDE SLOPES = 3H:1V

4  
D-9  
CONSTRUCT ROCK WEIR  
ELEVATION = 6237'  
70 SF±

REMOVE BRUSH, WILLOWS AND TREES <6" DBH NECESSARY TO CONSTRUCT BASIN. WILLOW SALVAGE LOCATION  
# OF CLUMPS = 15  
# OF STAKES = 200

SALVAGE WILLOW CLUMPS AND STAKES IN AND AROUND BASIN AREA  
15 CLUMPS  
200 STAKES

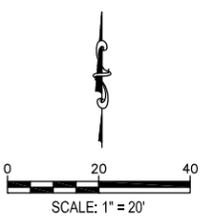
INSTALL WILLOW STAKES BETWEEN WILLOW CLUMPS @ 1' O.C., 200 STAKES±

CONSTRUCT WATER QUALITY TREATMENT BASIN  
2,150 CY±

INSTALL WILLOW CLUMPS @ 10' O.C. @ 2' ABOVE BASIN BOTTOM AROUND PERIMETER 15 CLUMP±

WATER QUALITY TREATMENT BASIN REVEGETATION  
14,300 SF±

SEE SHEET G-1 FOR STORM DRAIN IMPROVEMENTS



HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 20'

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :	DESIGNED: CMD	DRAWN: ALM
REGISTERED CIVIL ENGINEER	CHECKED: SP	DATE: 01/2010
DATE:	ROAD NUMBER: N/A	



PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS

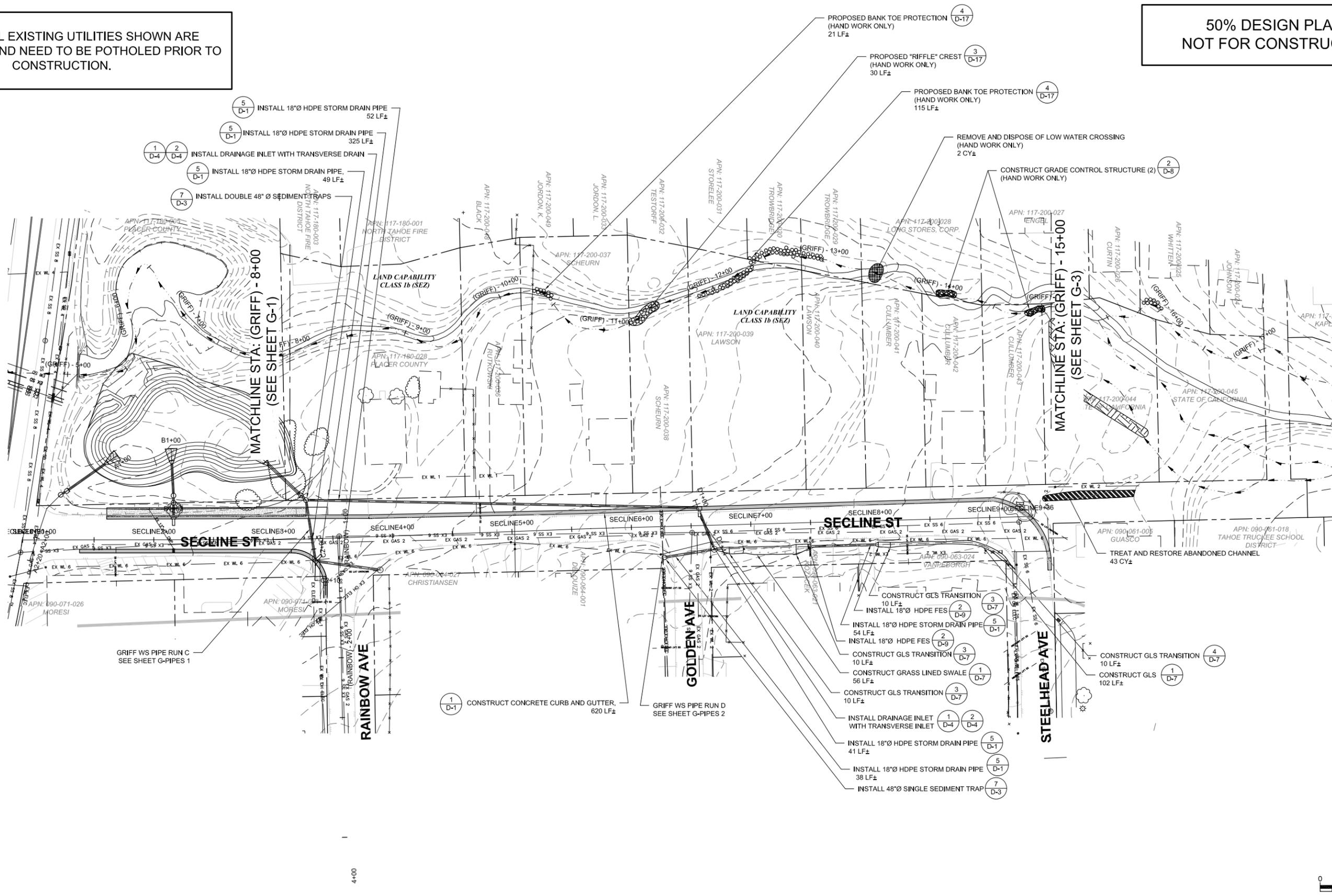


KINGS BEACH WATERSHED AND SEZ  
IMPROVEMENT PROJECT  
GRIFF WATERSHED (SECLINE BASIN)  
PLACER COUNTY, CALIFORNIA

SHEET  
G-1 Basin  
W.O. No. 3128703

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50% DESIGN PLANS  
NOT FOR CONSTRUCTION



REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF:	DESIGNED: CMD	DRAWN: CMD
REGISTERED CIVIL ENGINEER	CHECKED: SP	DATE: 01/2010
DATE:	ROAD NUMBER: N/A	

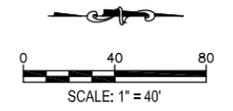


PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS



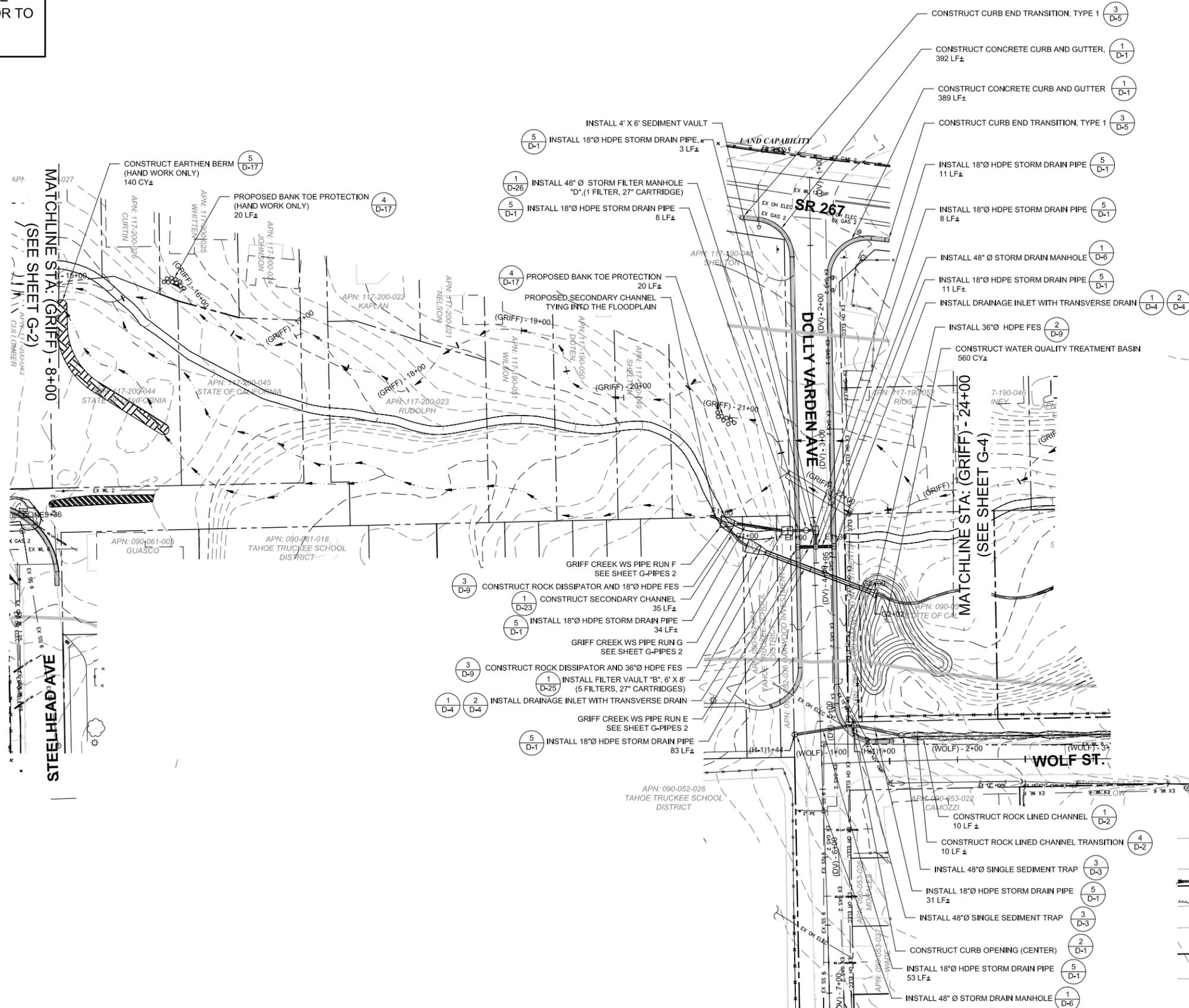
**KINGS BEACH WATERSHED & SEZ  
IMPROVEMENT PROJECT**  
GRIFF CREEK WATERSHED (SECLINE ST.)  
PLACER COUNTY, CALIFORNIA

SHEET	G-2
W.O. No.	3128703



CAUTION! ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NEED TO BE POTHOLED PRIOR TO CONSTRUCTION.

50% DESIGN PLANS  
NOT FOR CONSTRUCTION



REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :  
REGISTERED CIVIL ENGINEER  
DATE:

DESIGNED: CMD  
DRAWN: CMD  
CHECKED: SP  
DATE: 01/2010  
ROAD NUMBER: N/A



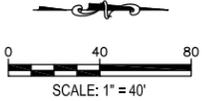
PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS



1048 Ski Run Boulevard  
South Lake Tahoe, CA 96150  
(530) 542-0201 Main

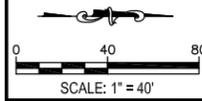
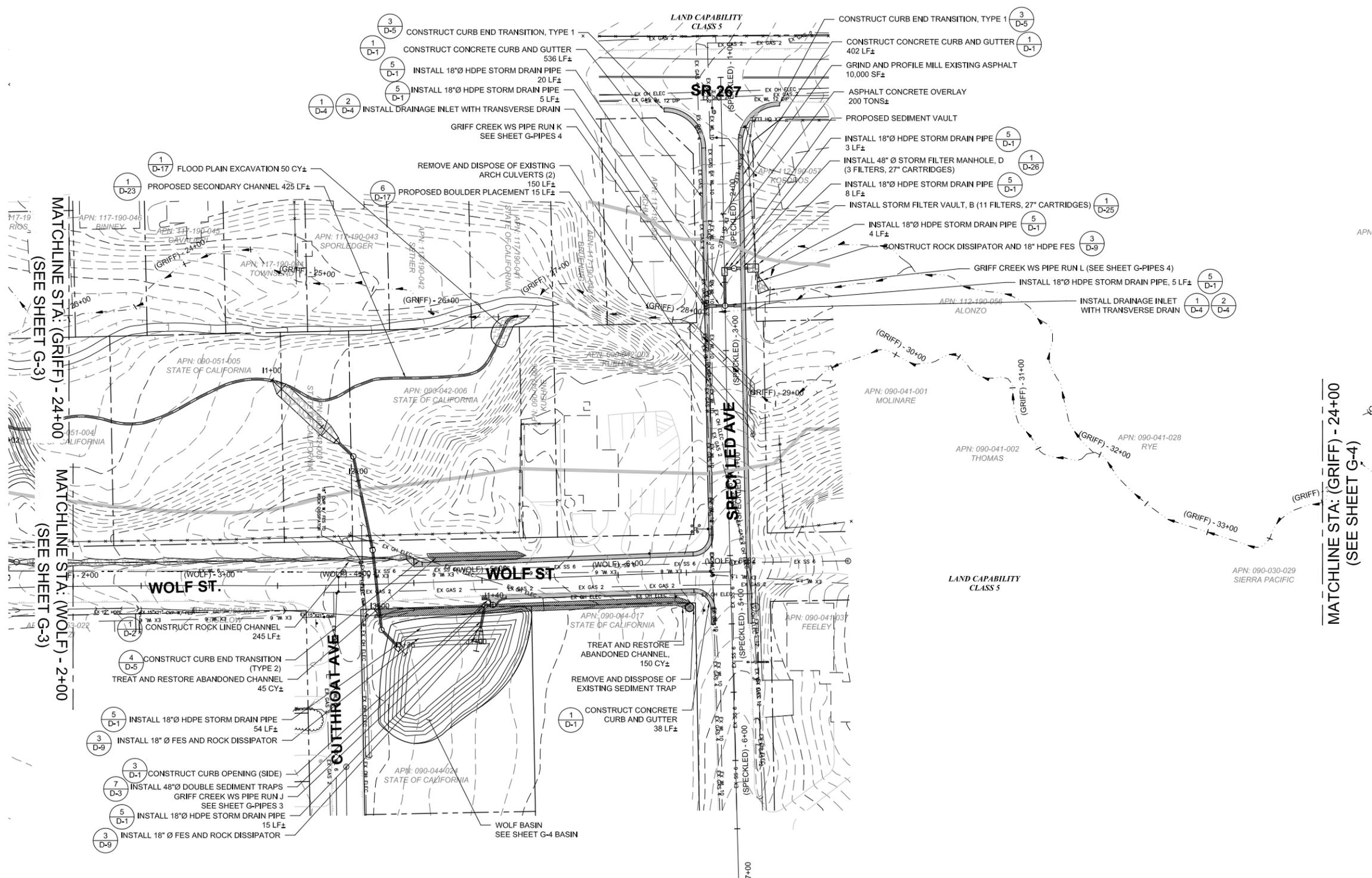
**KINGS BEACH WATERSHED & SEZ  
IMPROVEMENT PROJECT**  
GRIFF CREEK WATERSHED (GRIFF CREEK)  
PLACER COUNTY, CALIFORNIA

SHEET  
G-3  
W.O. No. 3128703



CAUTION! ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NEED TO BE POTHoled PRIOR TO CONSTRUCTION.

50% DESIGN PLANS  
NOT FOR CONSTRUCTION



REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :	DESIGNED: CMD	DRAWN: CMD
REGISTERED CIVIL ENGINEER	CHECKED: SP	DATE: 01/2010
DATE:	ROAD NUMBER: N/A	



PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS

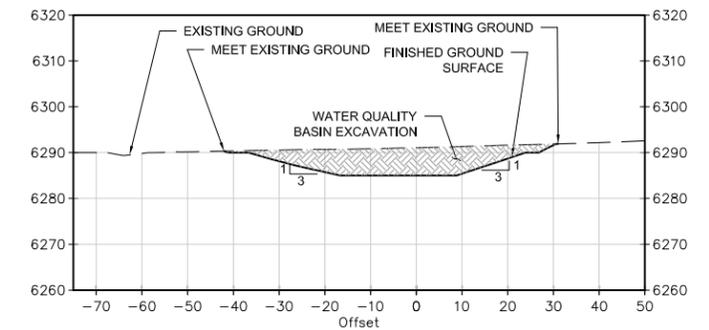
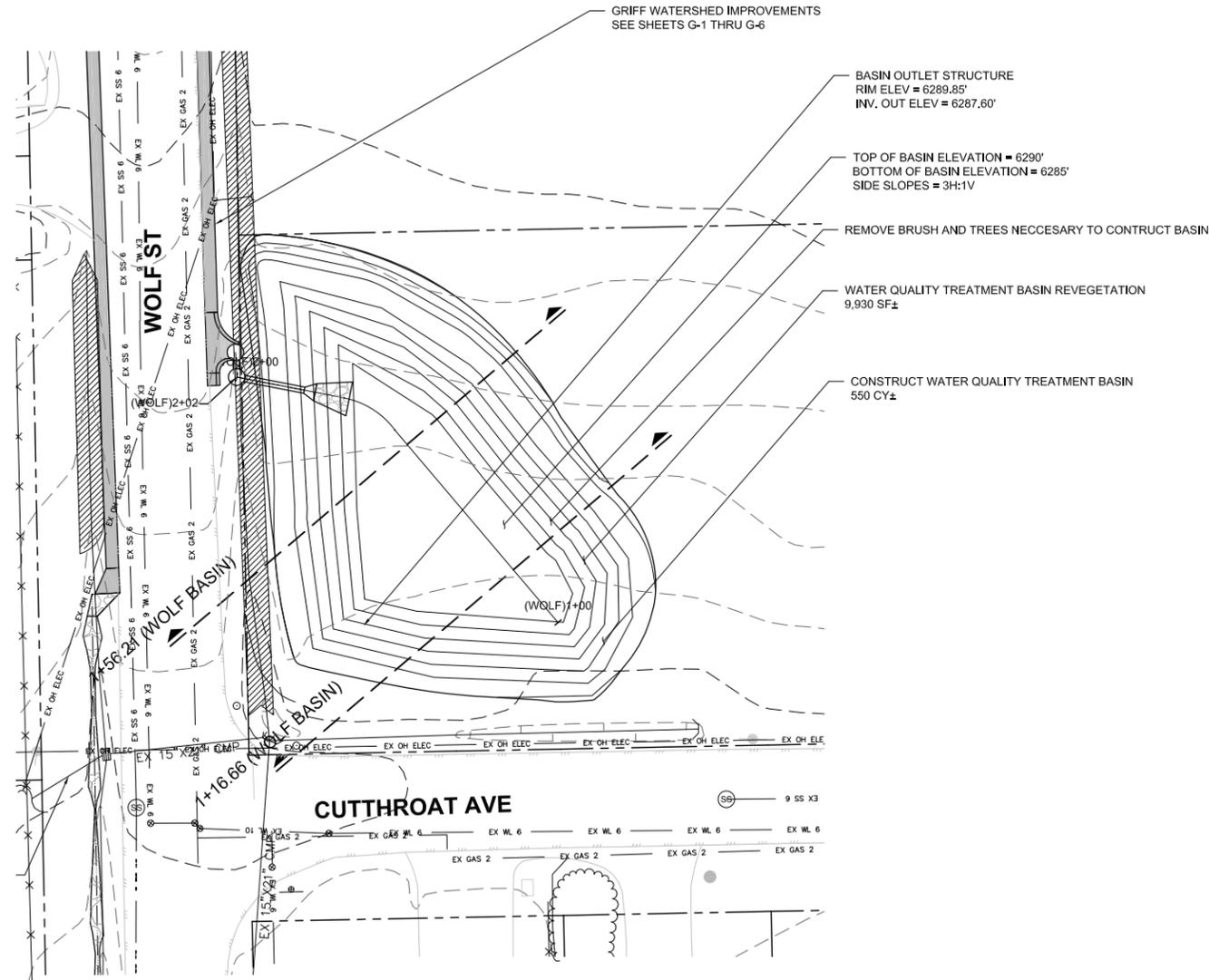


**KINGS BEACH WATERSHED & SEZ IMPROVEMENT PROJECT**  
**GRIFF CREEK WATERSHED (WOLF ST.)**  
**PLACER COUNTY, CALIFORNIA**

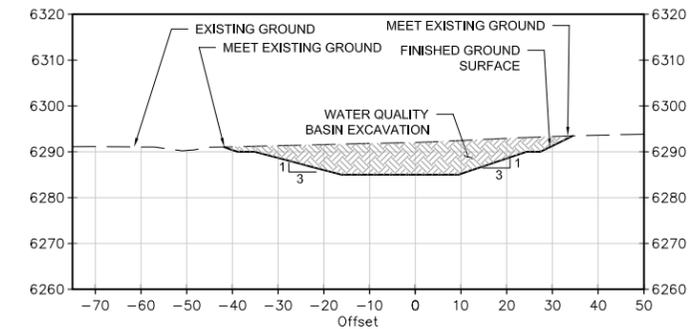
SHEET  
G-4  
W.O. No. 3128703

CAUTION! ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NEED TO BE POTHOLED PRIOR TO CONSTRUCTION.

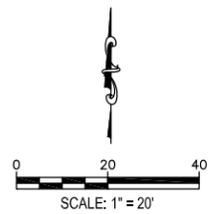
50% DESIGN PLANS  
NOT FOR CONSTRUCTION



WOLF BASIN SECTION 1+16.66



WOLF BASIN SECTION 1+56.21



HORIZONTAL SCALE: 1" = 20'  
VERTICAL SCALE: 1" = 20'

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :	DESIGNED: CMD	DRAWN: ALM
REGISTERED CIVIL ENGINEER	CHECKED: SP	DATE: 01/2010
DATE:	ROAD NUMBER: N/A	



PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS

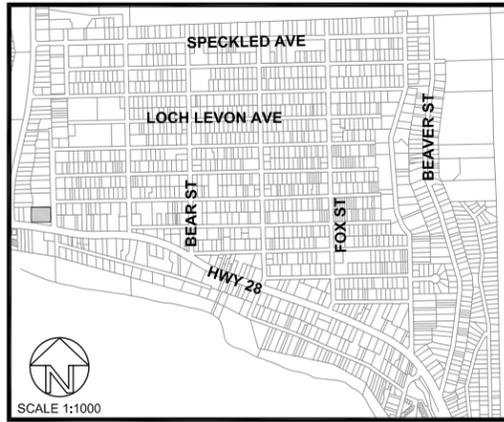


1048 Ski Run Boulevard  
South Lake Tahoe, CA 96150  
(530) 542-0201 Main

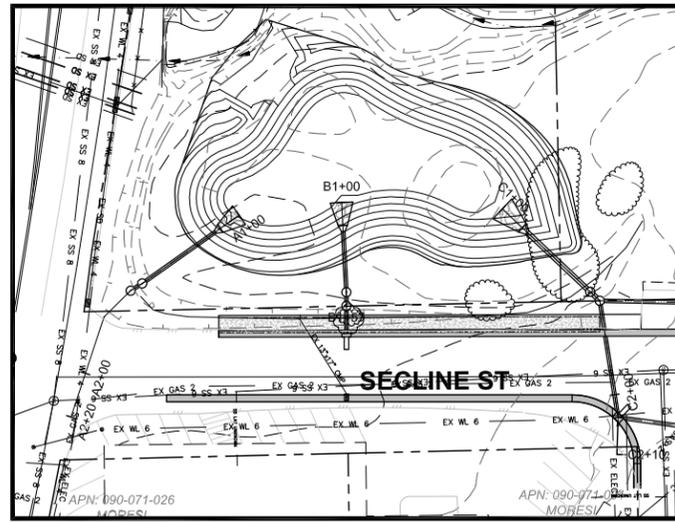
KINGS BEACH WATERSHED AND SEZ  
IMPROVEMENT PROJECT  
GRIFF WATERSHED SECLINE BASIN  
PLACER COUNTY, CALIFORNIA

SHEET	G-4 Basin
W.O. No.	3128703

50% DESIGN PLANS  
NOT FOR CONSTRUCTION



INDEX MAP FOR  
PIPE RUNS A, B, & C

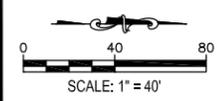
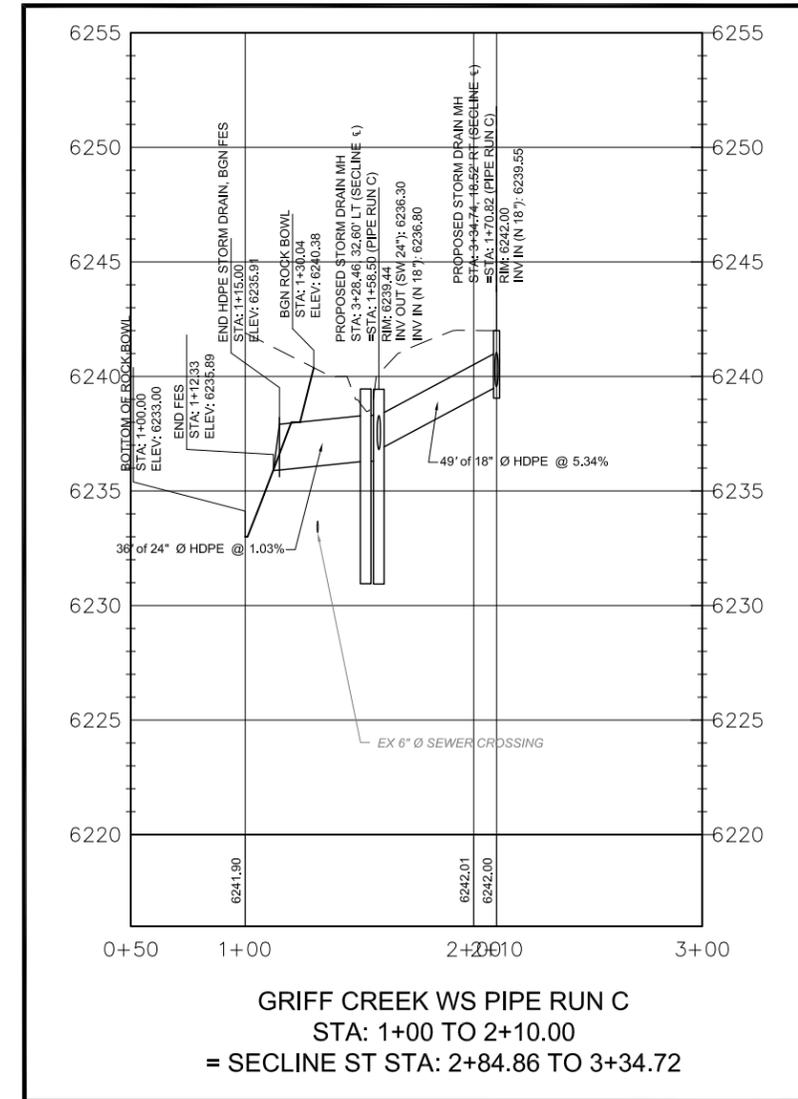
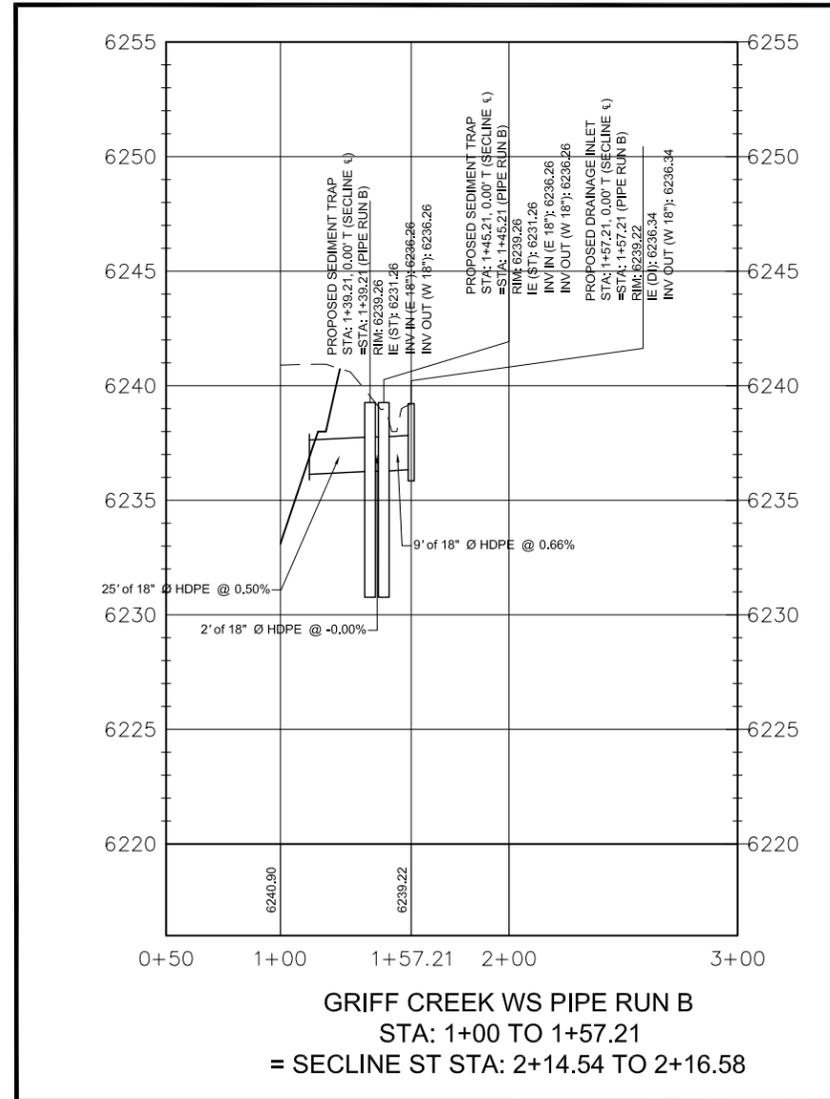
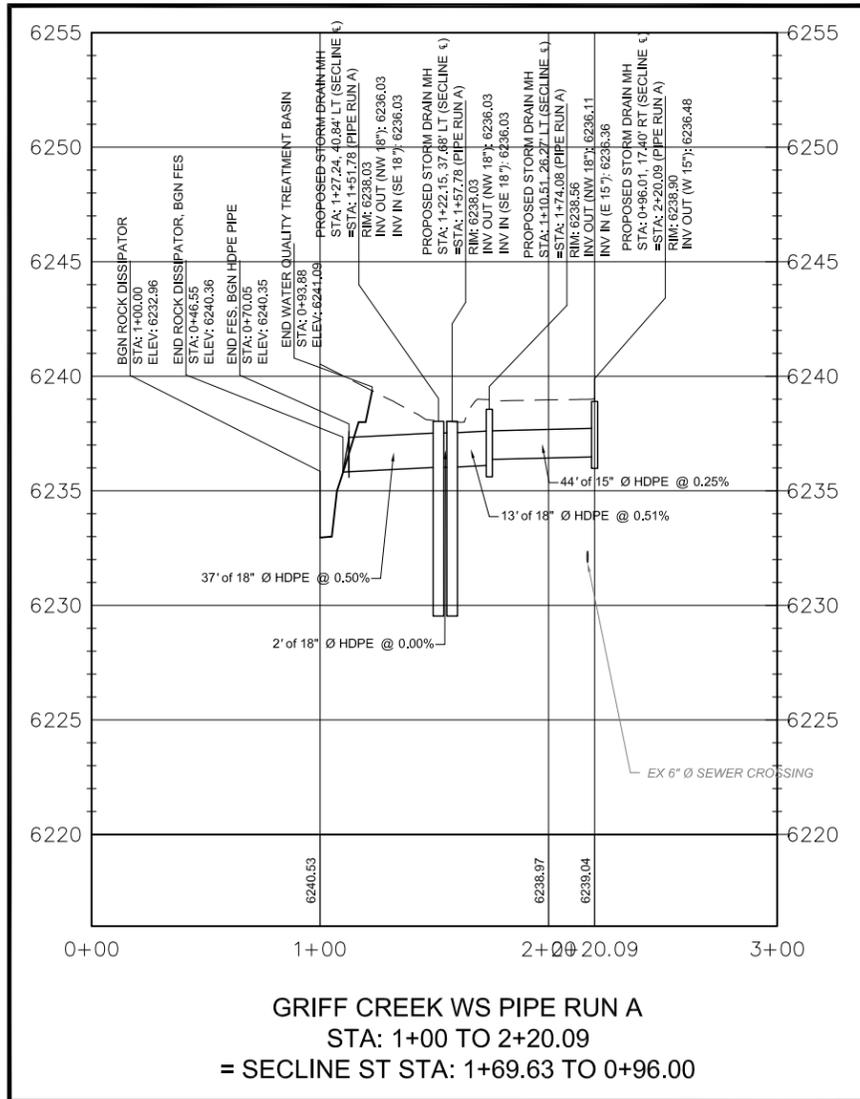


CAUTION! ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NEED TO BE POTHOLED PRIOR TO CONSTRUCTION.

GRIFF CREEK WS PIPE RUN A  
SECLINE ST  
STA: 1+00 TO 2+20

GRIFF CREEK WS PIPE RUN B  
SECLINE ST  
STA: 1+00 TO 1+57

GRIFF CREEK WS PIPE RUN C  
SECLINE ST  
STA: 1+00 TO 2+10



REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF:	DESIGNED: ALM	DRAWN: ALM
REGISTERED CIVIL ENGINEER	CHECKED: SP	DATE: 01/2010
DATE:	ROAD NUMBER: N/A	

PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS

**ENTRIX**  
KINGS BEACH AND SEZ  
WATERSHED IMPROVEMENT PROJECT  
GRIFF CREEK WS (SECLINE ST)  
PLACER COUNTY, CALIFORNIA

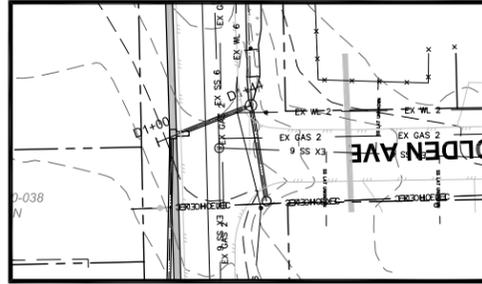
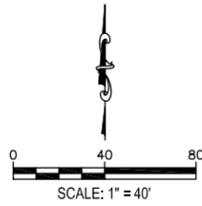
1048 Ski Run Boulevard  
South Lake Tahoe, CA 96150  
(530) 542-0201 Main

SHEET	1
W.O. No.	3128703

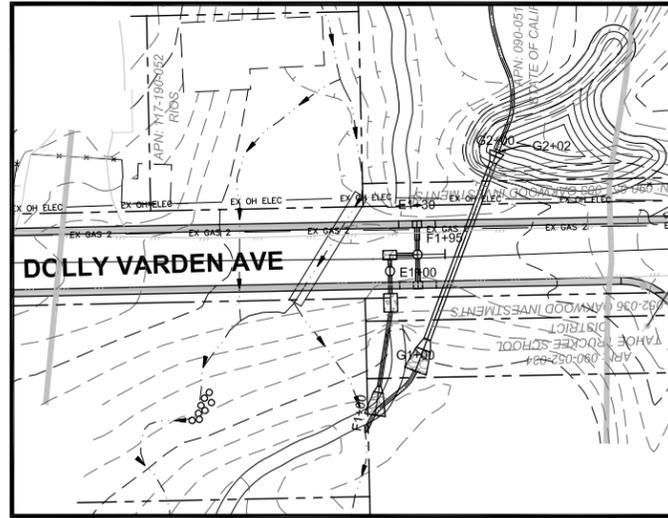
50% DESIGN PLANS  
NOT FOR CONSTRUCTION



INDEX MAP FOR PIPE RUNS  
D, E, F, G, & H



GRIFF CREEK WS PIPE RUN D  
SECLINE ST  
STA: 1+00 TO 1+45

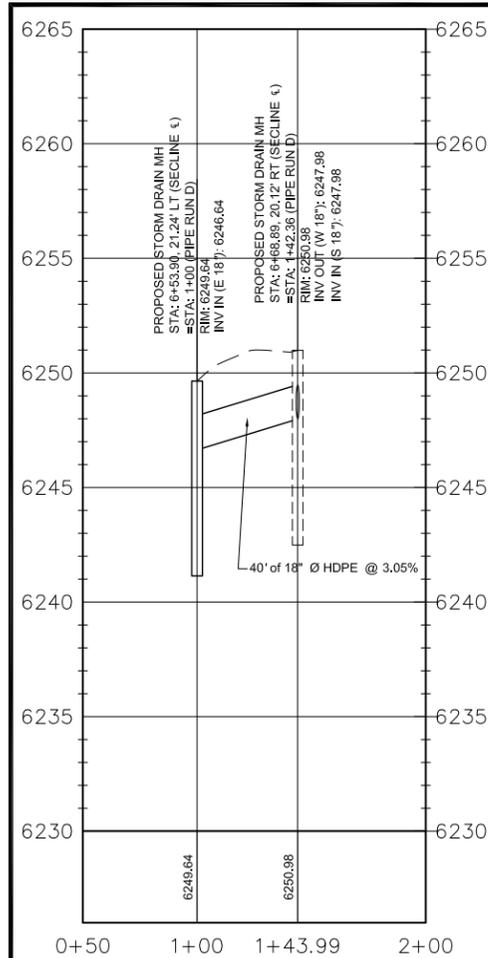


GRIFF CREEK WS PIPE RUN E  
DOLLY VARDEN AVE  
STA: 1+00 TO 1+30

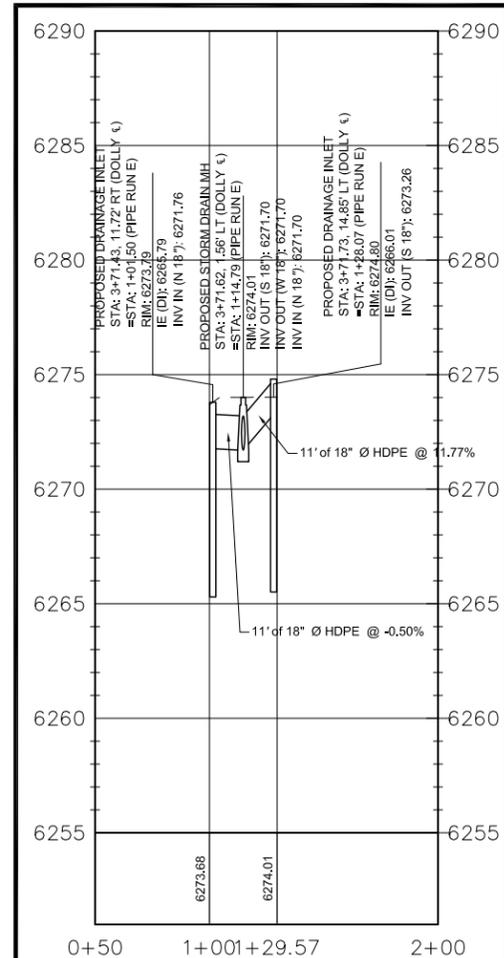
GRIFF CREEK WS PIPE RUN F  
DOLLY VARDEN AVE  
STA: 1+00 TO 1+95

GRIFF CREEK WS PIPE RUN G  
DOLLY VARDEN AVE  
STA: 1+00 TO 2+02

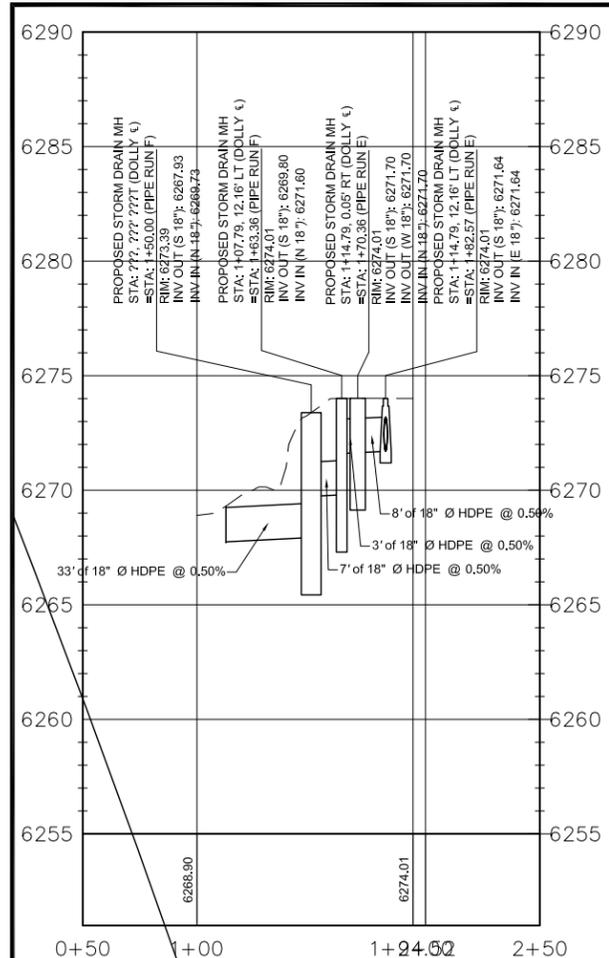
CAUTION! ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NEED TO BE POTHOLED PRIOR TO CONSTRUCTION.



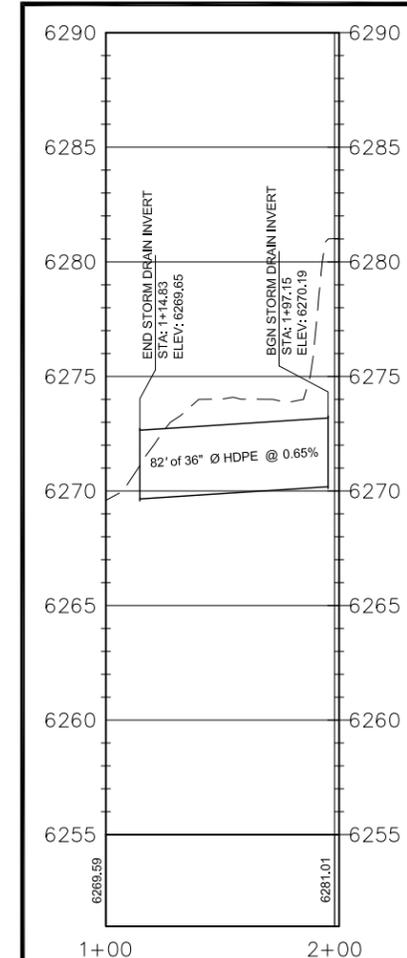
GRIFF CREEK WS PIPE RUN D  
STA: 1+00 TO 1+43.99  
= SECLINE ST STA: 6+53.89 TO 6+68.89



GRIFF CREEK WS PIPE RUN E  
STA: 1+00 TO 1+29.57  
= DOLLY VARDEN AVE  
STA: 3+71.43 TO 3+71.74



GRIFF CREEK WS PIPE RUN F  
STA: 1+00 TO 1+94.52  
= DOLLY VARDEN STA: 3+52.16 TO 3+83.62



GRIFF CREEK WS PIPE RUN G  
STA: 1+00 TO 2+01.58  
= DOLLY VARDEN AVE  
STA: 3+69.24 TO 4+07.95

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF:  
REGISTERED CIVIL ENGINEER  
DATE:

DESIGNED: CMD  
DRAWN: CMD  
CHECKED: SP  
DATE: 01/2010  
ROAD NUMBER: N/A



PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS



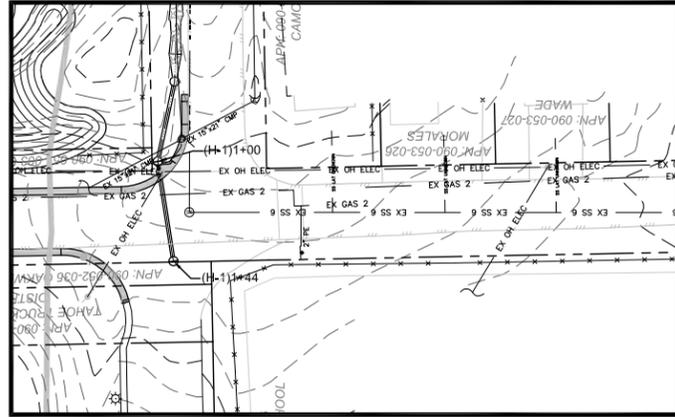
1048 Ski Run Boulevard  
South Lake Tahoe, CA 96150  
(530) 542-0201 Main

KINGS BEACH AND SEZ  
WATERSHED IMPROVEMENT PROJECT  
GRIFF CREEK WS  
PLACER COUNTY, CALIFORNIA

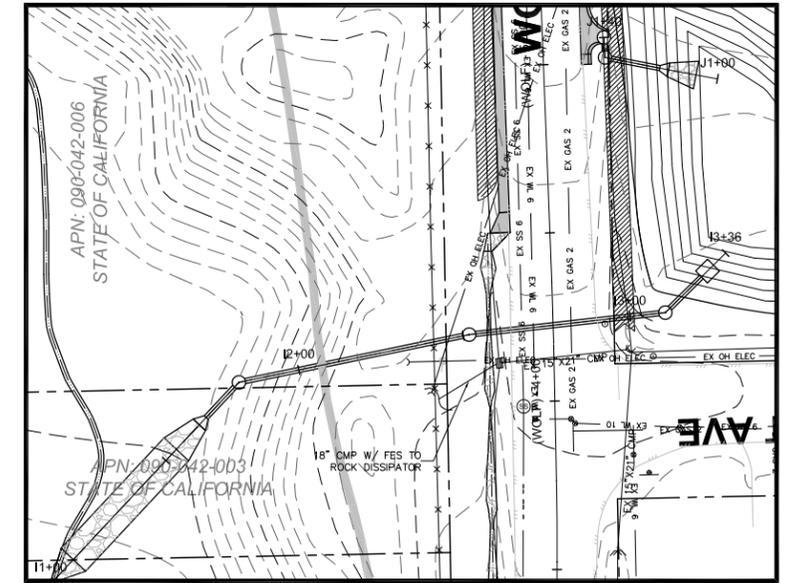
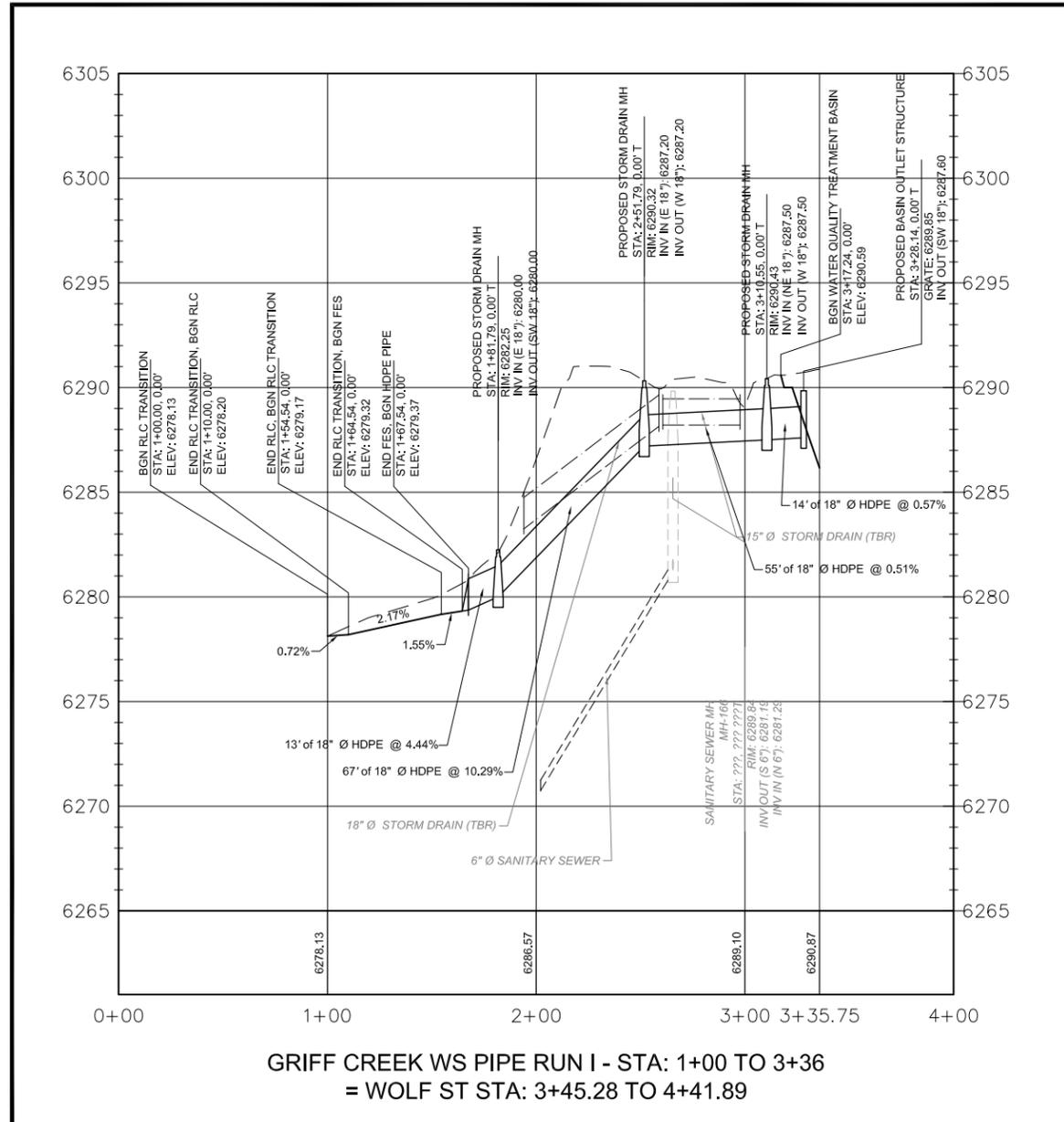
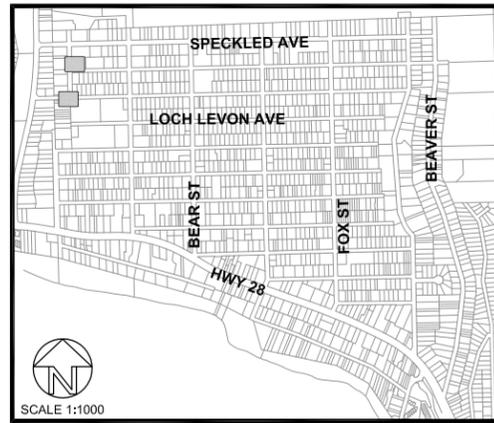
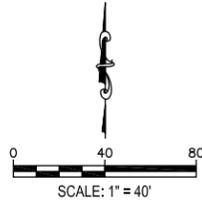
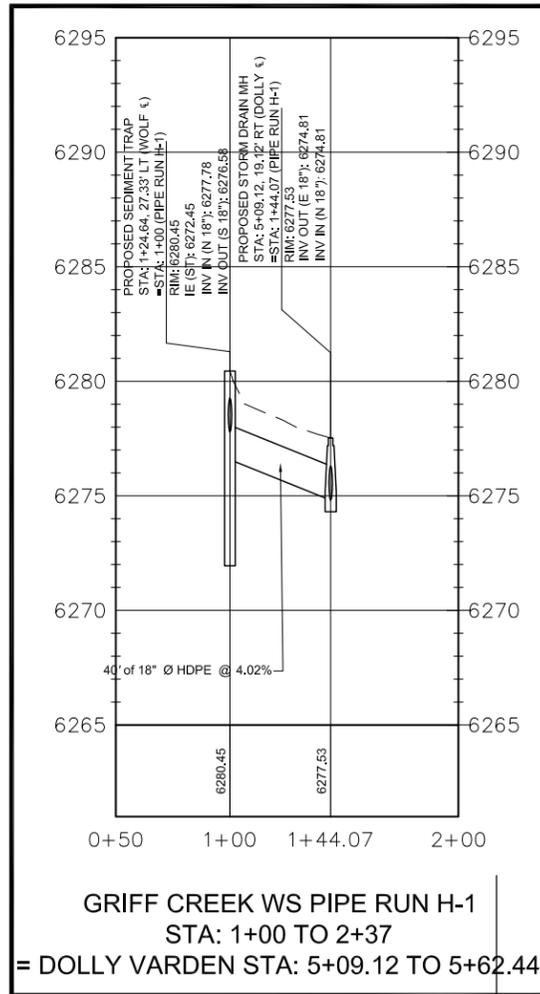
SHEET  
2  
W.O. No. 3128703

50% DESIGN PLANS  
NOT FOR CONSTRUCTION

CAUTION! ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE AND NEED TO BE POTHOLED PRIOR TO CONSTRUCTION.

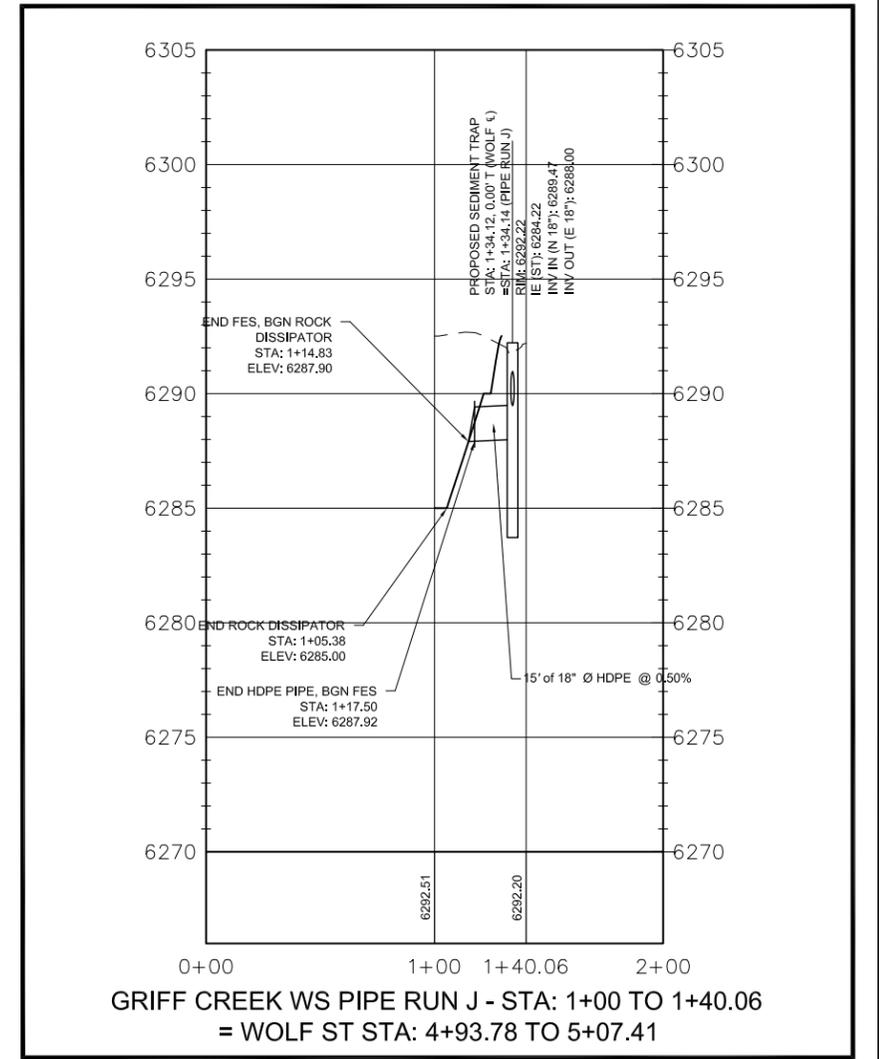


GRIFF CREEK WS PIPE RUN H-1  
DOLLY VARDEN AVE.  
STA: 1+00 TO 2+37



GRIFF CREEK WS PIPE RUN I  
WOLF ST - STA: 1+00 TO 3+36

GRIFF CREEK WS PIPE RUN J  
WOLF ST - STA: 1+00 TO 1+40



REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :	DESIGNED: CMD	DRAWN: CMD
REGISTERED CIVIL ENGINEER	CHECKED: SP	DATE: 01/2010
DATE: _____	ROAD NUMBER: N/A	



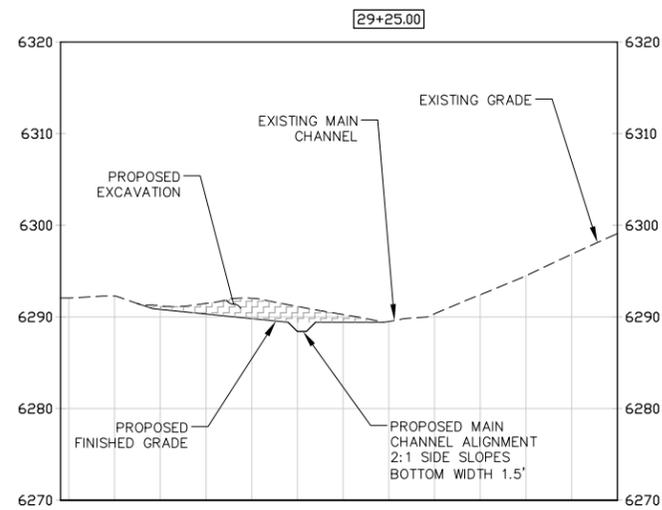
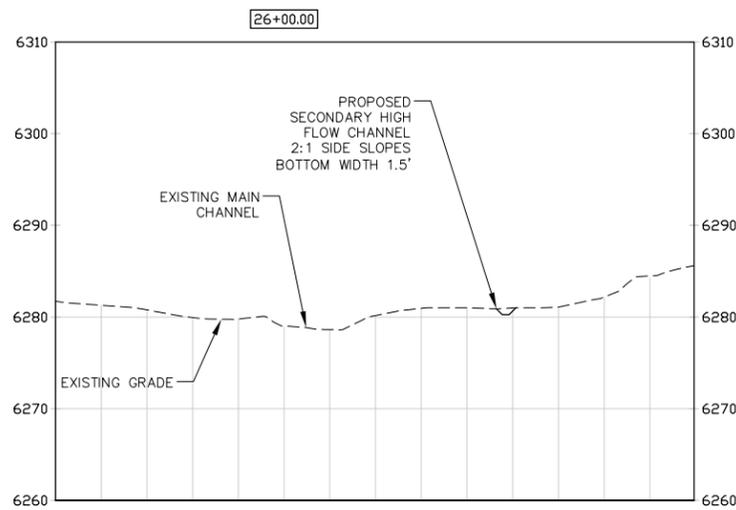
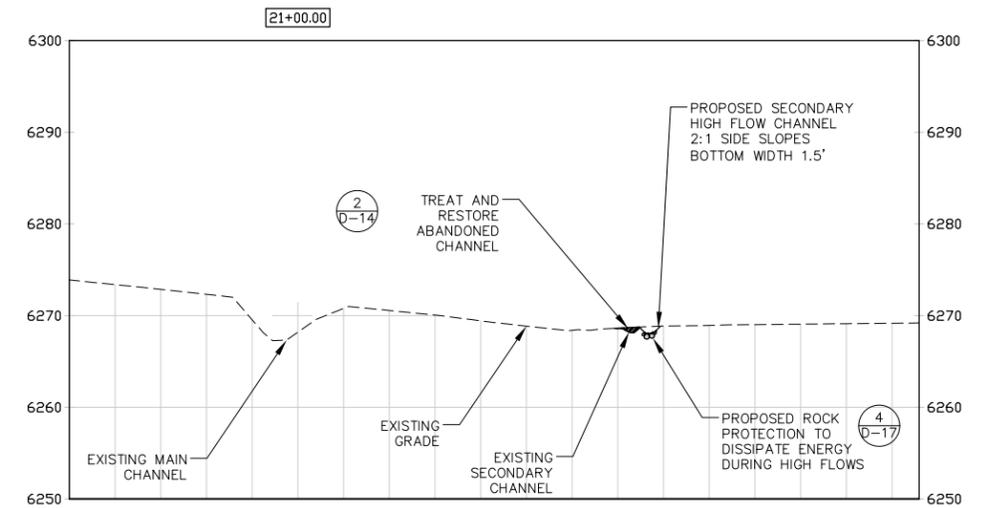
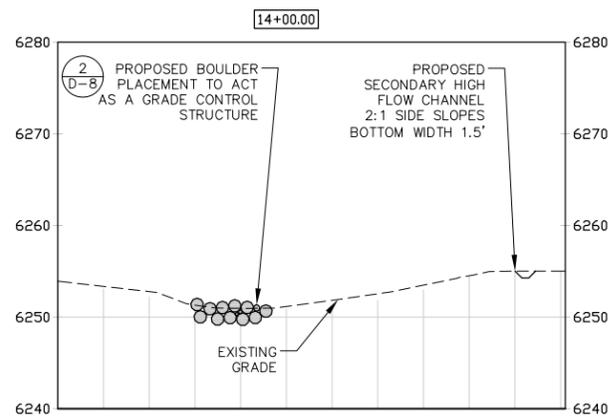
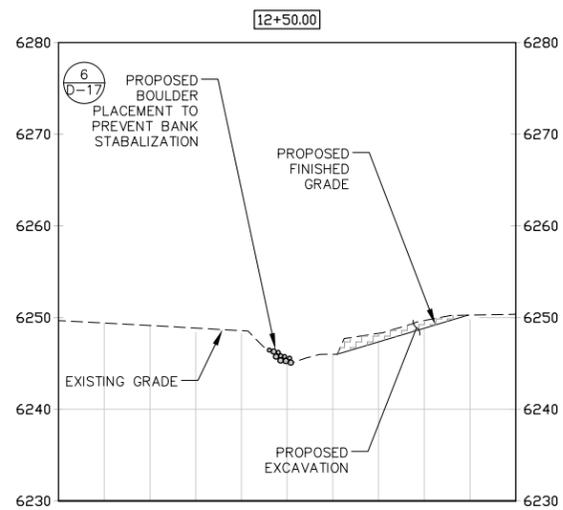
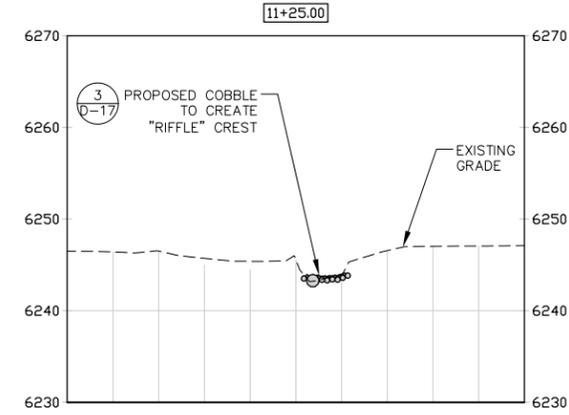
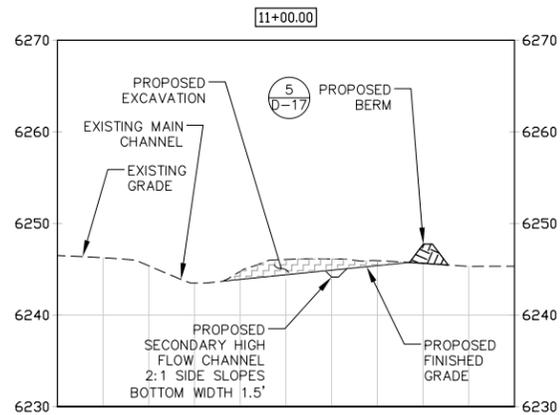
PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS



KINGS BEACH AND SEZ  
WATERSHED IMPROVEMENT PROJECT  
GRIFF CREEK WS  
PLACER COUNTY, CALIFORNIA

SHEET	3
W.O. No.	3128703

50% DESIGN PLANS  
NOT FOR CONSTRUCTION



HORIZONTAL SCALE 1"=20'  
VERTICAL SCALE 2:1

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :  
REGISTERED CIVIL ENGINEER  
DATE: \_\_\_\_\_

DESIGNED: CMD  
DRAWN: CMD  
CHECKED: SP  
DATE: 01/2010  
ROAD NUMBER: N/A



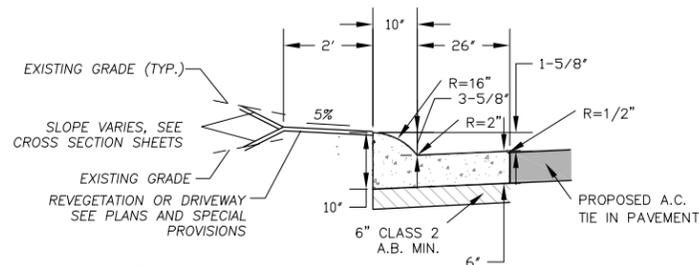
PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS



1048 Ski Run Boulevard  
South Lake Tahoe, CA 96150  
(530) 542-0201 Malh

**KINGS BEACH WATERSHED & SEZ  
IMPROVEMENT PROJECT  
GRIFF CREEK WATERSHED (SECTIONS)  
PLACER COUNTY, CALIFORNIA**

SHEET  
G-5  
W.O. No. 3128703

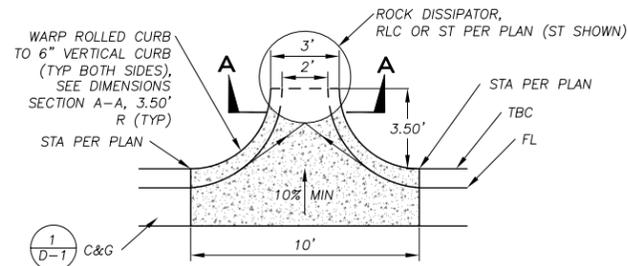


NOTES:

1. STRUCTURAL THICKNESSES ARE MINIMUM. INCREASED SECTIONS MAY BE REQUIRED BASED ON ACTUAL SOIL CONDITIONS, OR PROJECT APPROVALS.
2. UNSUITABLE MATERIALS TO BE REMOVED & REPLACED W/SUITABLE MATERIAL.

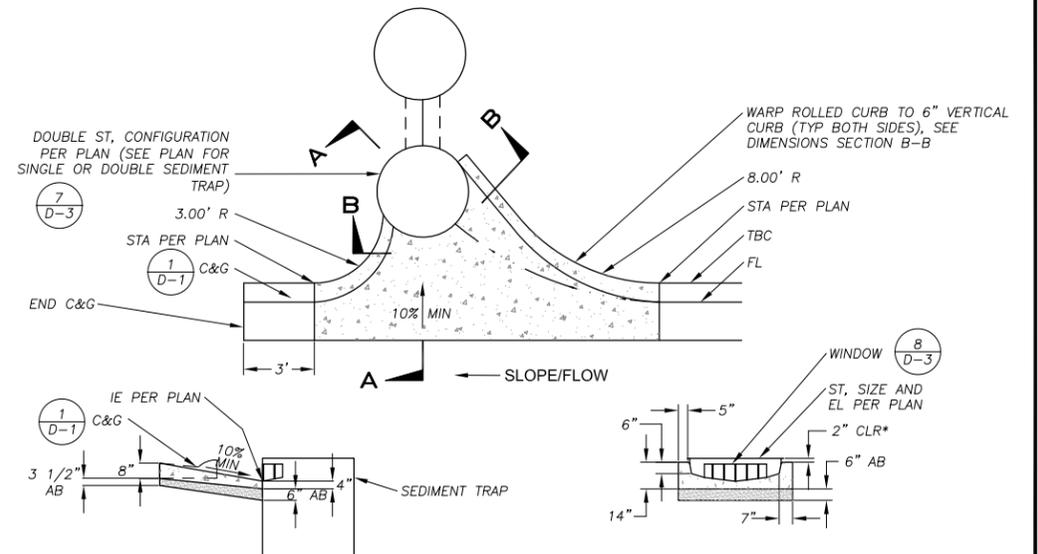
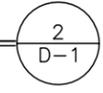
**TYPE 1A: ROLLED CURB AND GUTTER**

NTS



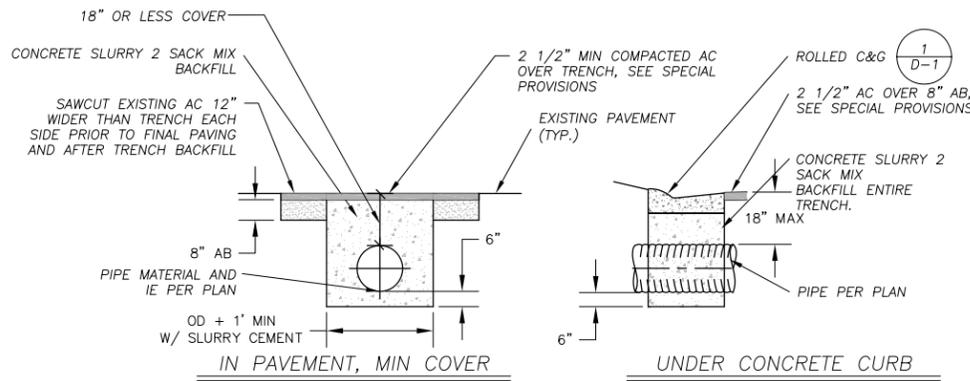
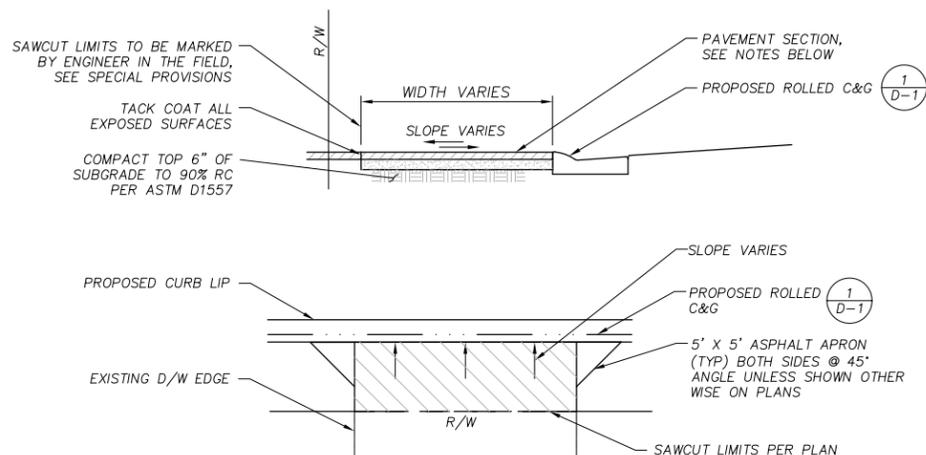
**CURB OPENING CENTER**

NTS



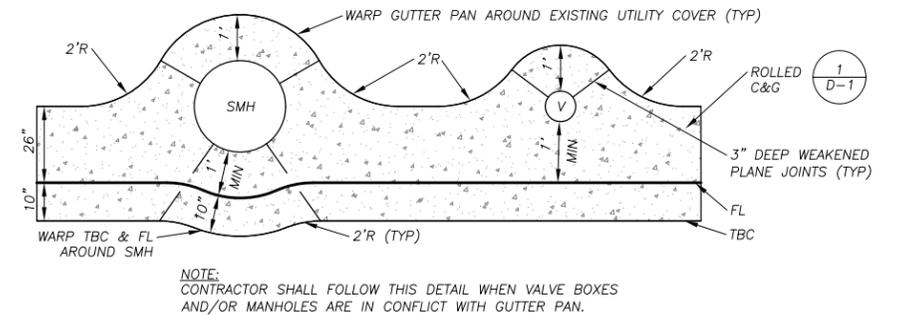
**CURB OPENING SIDE**

NTS



**PIPE TRENCH**

NTS



**CURB & GUTTER AT UTILITY VALVES**

NTS



NOTES:

1. DRIVEWAY PAVEMENT REPLACEMENT TO BE 2 1/2" AC OVER 4" AB @ 95% RC.
2. MATCH WIDTH OF EXISTING DRIVEWAY UNLESS NOTED OTHERWISE ON PLANS.
3. THE ENGINEER SHALL MARK THE SAWCUT LIMITS AT EACH DRIVEWAY.
4. DRIVEWAY PAVING SHALL BE WARPED TO MAINTAIN A SMOOTH TRANSITION AND PREVENT PONDING.
5. FINISHED DRIVEWAY GRADES SHALL BE UNIFORM FROM SAWCUT TO C&G OR EXISTING PAVEMENT.

**DRIVEWAY REPAIR AND REPAVE WITH CURB AND GUTTER**

NTS



CONCRETE NOTES: THIS PAGE

1. THE STRING LINE (FOR CURB AND GUTTER) SHALL BE SET SUFFICIENTLY IN ADVANCE OF THE SCHEDULED POUR, BUT IN NO CASE LESS THAN 2 HOURS, TO ALLOW THE ENGINEER TO CHECK THE LINE AGAINST CUT LINE GRADES AND PROVIDE TIME FOR ADJUSTMENT, IF NECESSARY.
2. CURB AND GUTTER SHALL BE CONSTRUCTED MONOLITHICALLY.
3. LOCATE 1/2" PREMOLDED TRANSVERSE EXPANSION JOINTS OF ASPHALT IMPREGNATED CELOTEX IN CURB AND GUTTER AT 200' INTERVALS, AT CURB RETURNS, AT ANY TRANSITION FROM MACHINE EXTRUDED CURB TO FORMED CURB, AND AT ANY LOCATION WHERE CONCRETE PLACEMENT WILL STOP LONG ENOUGH FOR CONCRETE TO SET PRIOR TO CONTINUING WITH ADDITIONAL CONCRETE. PROVIDE 3" DEEP CRACK (WEAKENED PLANE) JOINT EVERY 10'.
4. ALL CONCRETE FOR THOSE ITEMS SHOWN ON THIS SHEET SHALL BE FINISHED BY BRUSHING WITH A SOFT BRUSH AND SPRAYED UNIFORMLY WITH A CLEAR PIGMENTED CURING COMPOUND CONFORMING TO SECTION 90.7 OF THE STATE STD. SPECIFICATIONS.
5. ALL CURB AND GUTTER SHALL BE WATER TESTED AND SHALL DRAIN WITH NO PONDING. IF PONDING DOES OCCUR, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF A SUFFICIENT AMOUNT OF CURB AND GUTTER TO ELIMINATE THE PONDING. GRINDING OF THE FLOWLINE WILL NOT BE PERMITTED.
6. THE AREA TO BE REGRADED BEHIND THE CURB VARIES. SEE PLAN AND/OR CROSS-SECTION. CONTRACTOR TO GRADE AND PREPARE AREA FOR REVEGETATION. NATIVE MATERIAL IS ACCEPTABLE FOR FILL, EXCLUDING ROCKS LARGER THAN 1 1/2" IN DIMENSION. BACKFILL, REGRADE, AND TOPSOIL MIX PLACEMENT AND COMPACTION, WILL BE INCLUDED IN THE CURB AND GUTTER BID PRICE.
7. SEE SPECIAL PROVISIONS FOR SUBGRADE PREPARATION REQUIREMENTS.

NOTE:

1. ALL BACKFILL IN THE CALTRANS RIGHT-OF-WAY SHALL BE A CONCRETE SLURRY, 2 SACK MIX. NO NATIVE MATERIAL SHALL BE USED IN ANY ASPECT OF THE BACKFILL IN THE CALTRANS RIGHT-OF-WAY. TRENCH AC PATCH IN CALTRANS ROW SHALL BE 12" AB WITH 4" AC IN 2 LIFTS. SEE SPECIAL PROVISIONS FOR BACKFILL REQUIREMENTS.
2. WHERE STORM DRAIN PIPES ARE INSTALLED AT A SLOPE GREATER THAN 5% (AS SHOWN ON THE PROJECT PLANS) CONCRETE CUTOFF WALLS ARE REQUIRED EVERY 200 FEET. SEE SPECIAL PROVISIONS AND DETAIL



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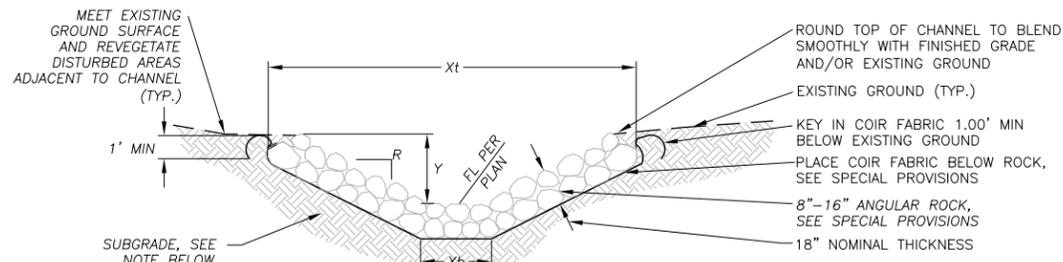
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SEZ IMPROVEMENT PROJECT  
**DETAIL SHEET**  
PLACER COUNTY, CALIFORNIA

SHEET  
D-1  
W.O. No. 3128703

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :	DESIGNED: CMD	DRAWN: CMD
REGISTERED CIVIL ENGINEER	CHECKED: SP	DATE: 01/2010
DATE:	ROAD NUMBER: N/A	

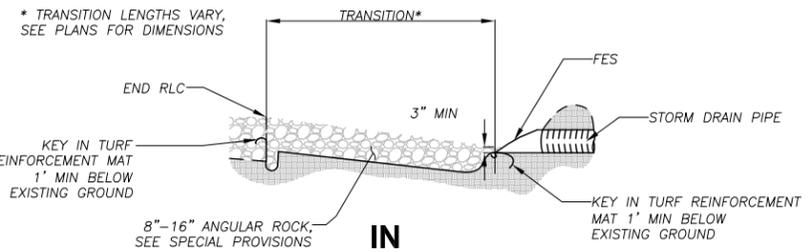
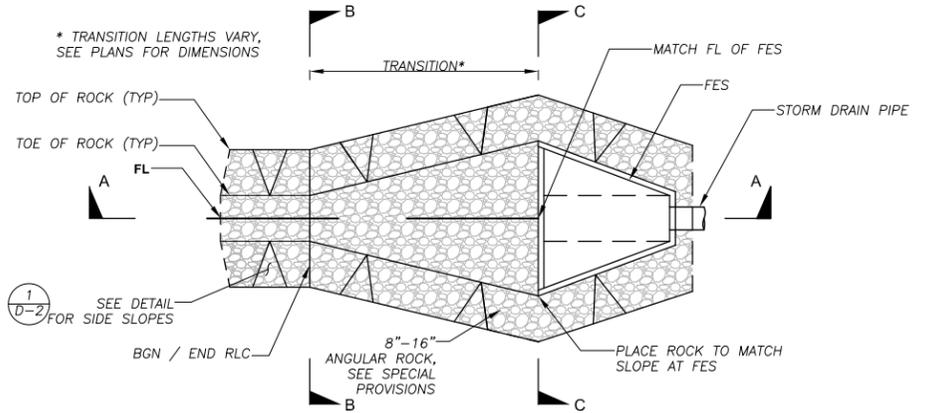


**ROCK LINED CHANNEL**

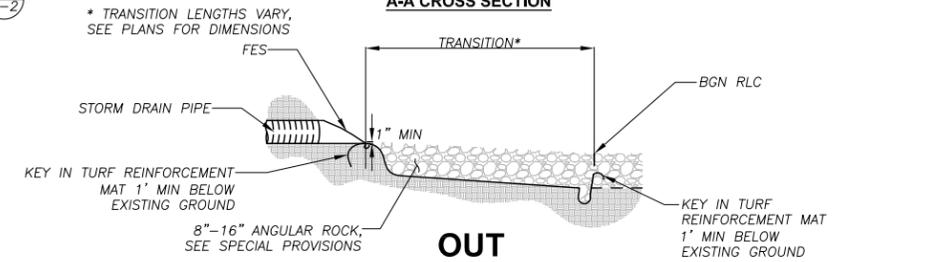
STATION**	WIDTH, X1* (EXCAVATION) X'X'	WIDTH, X2 (EXCAVATION) X'	DEPTH, Y' X'X'	SLOPE RATIO, R
STA (XXXX) XX+XX -XX+XX				2:1
				2:1
				1:1
				2:1
				2:1
				2:1
				2:1

**NOTES:**  
 1. "Y\*" DEPICTS MIN REQ'D DEPTH OF CHANNEL. "X1\*" DEPICTS MIN REQ'D WIDTH OF CHANNEL AND R DEPICTS SIDE SLOPE. HEIGHT/RATIO MAY VARY DEPENDING ON EXISTING TERRAIN. TO MAINTAIN A 2' SHOULDER AT ROADWAYS. SEE PLAN VIEWS AND CROSS-SECTIONS FOR GRADING LIMITS. ACTUAL DIMENSIONS ARE AS SHOWN ON PLAN AND CROSS-SECTION VIEWS.  
 2. SEE SPECIAL PROVISIONS FOR SUBGRADE COMPACTION REQUIREMENTS.  
 3. THE DIMENSIONS DEPICTED IN THIS TABLE ARE MINIMUM DIMENSIONS. ACTUAL DIMENSIONS ARE AS SHOWN ON THE PLANS AND CROSS-SECTIONS.

1  
D-2

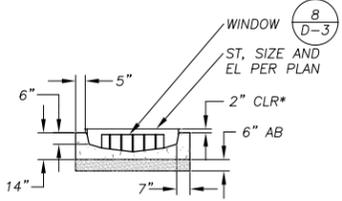
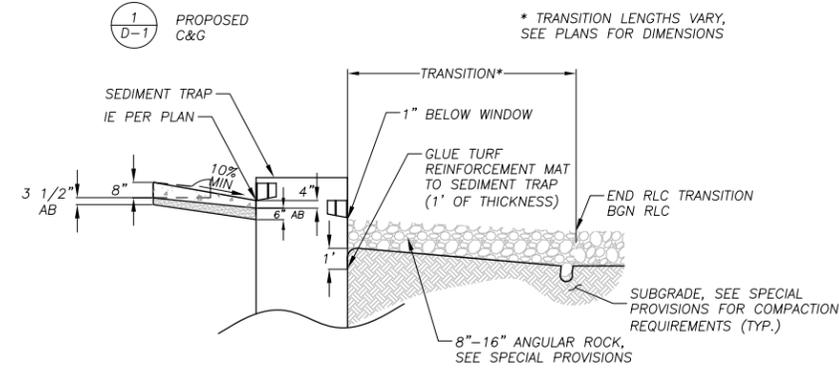
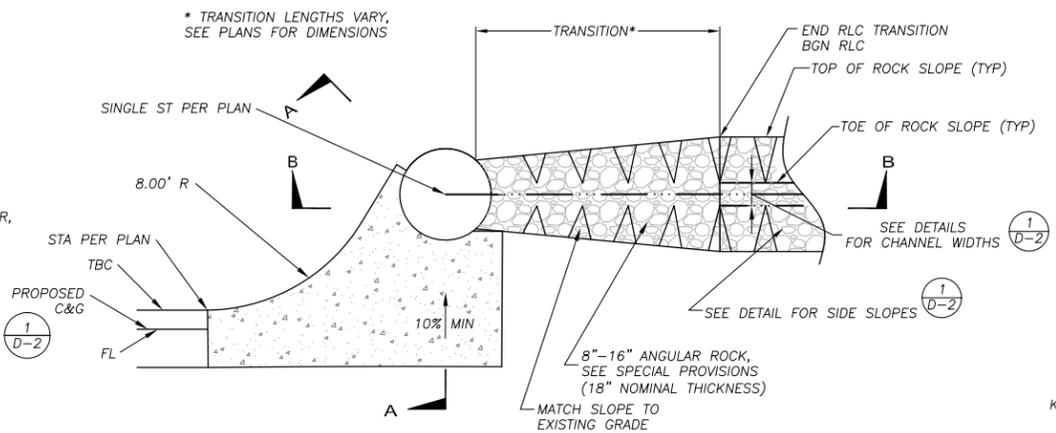
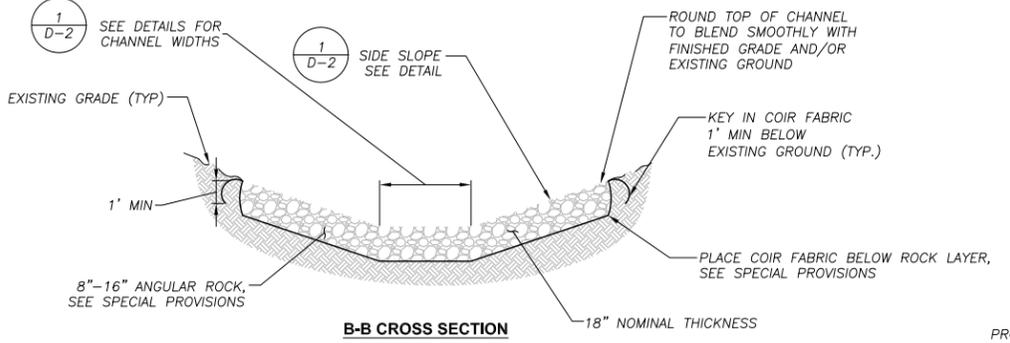


**A-A CROSS SECTION**



**OUT**

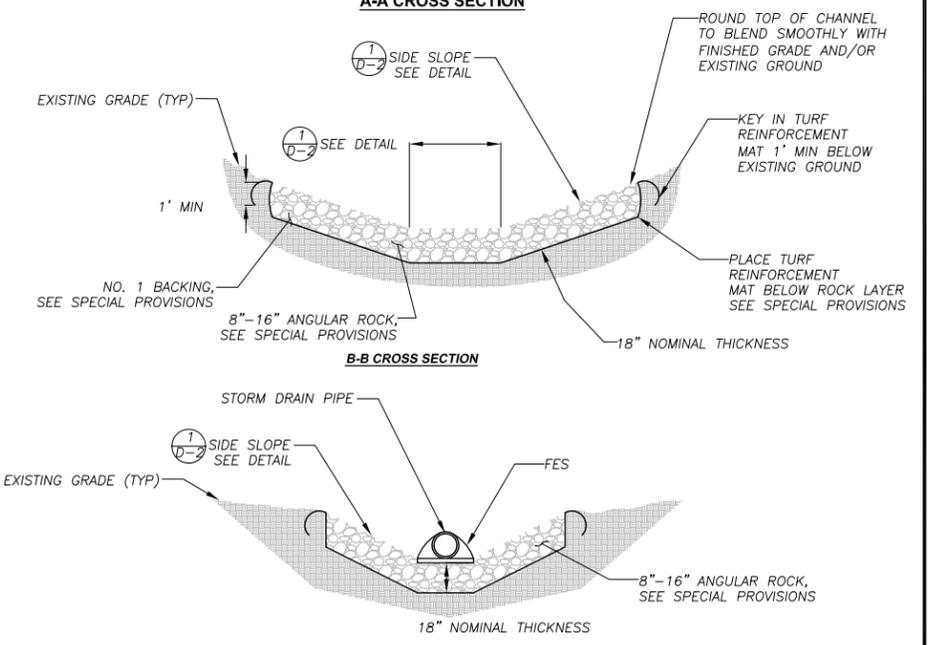
**A-A CROSS SECTION**



\* TYPICAL AT BOTH SEDIMENT TRAPS WHERE TOP OF CURB IS ADJACENT TO RIM

**ROCK LINED CHANNEL TRANSITION TO SEDIMENT TRAP**

3  
D-2



**C-C CROSS SECTION**

**ROCK LINED CHANNEL TRANSITION TO FES**

4  
D-2

NOTES: 1. SEE SPECIAL PROVISIONS FOR SUBGRADE COMPACTION REQUIREMENTS.  
 2. TRANSITION LENGTHS VARY. SEE PLANS FOR ACTUAL LENGTH.

**A-A CROSS SECTION**

**ROCK DISSIPATOR INTO ROCK LINED CHANNEL TRANSITION**

2  
D-2

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :

DESIGNED: CMD DRAWN: CMD

CHECKED: SP DATE: 01/2010

REGISTERED CIVIL ENGINEER

ROAD NUMBER: N/A

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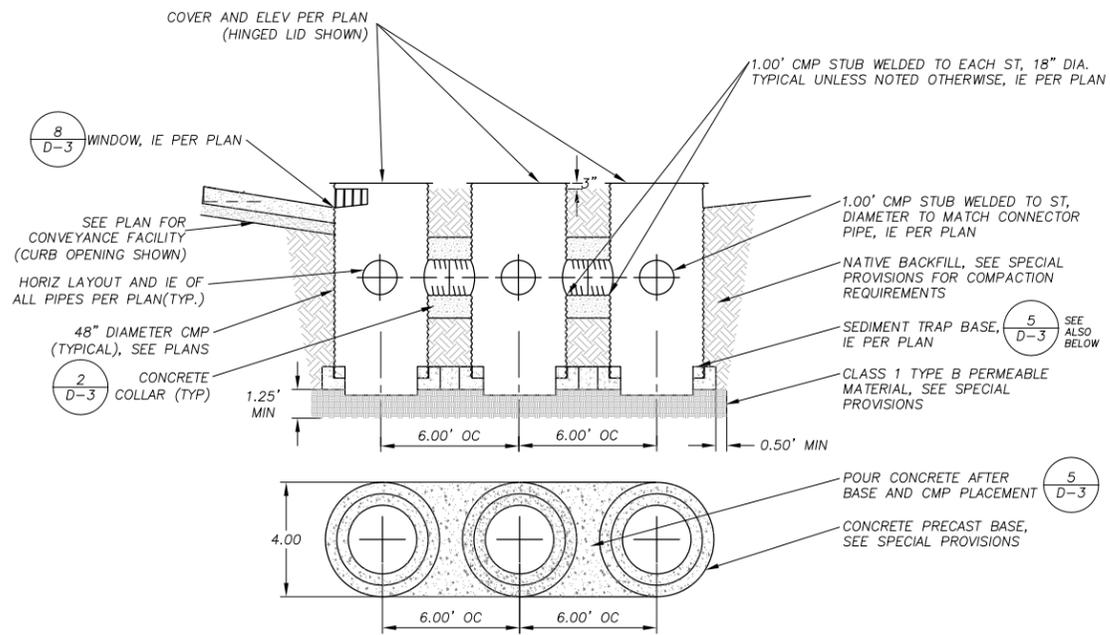
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**DETAIL SHEET**

PLACER COUNTY, CALIFORNIA

SHEET D-2

W.O. No. 3128703

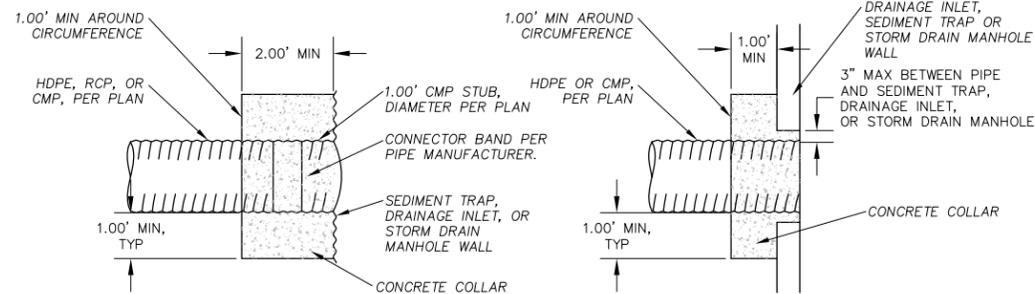


NOTES: 1. SEE SPECIAL PROVISIONS FOR SUBGRADE COMPACTION REQUIREMENTS.  
2. SEE SPECIFICATIONS FOR CONCRETE MATERIAL.

**TRIPLE SEDIMENT TRAP**

NTS

4  
D-3

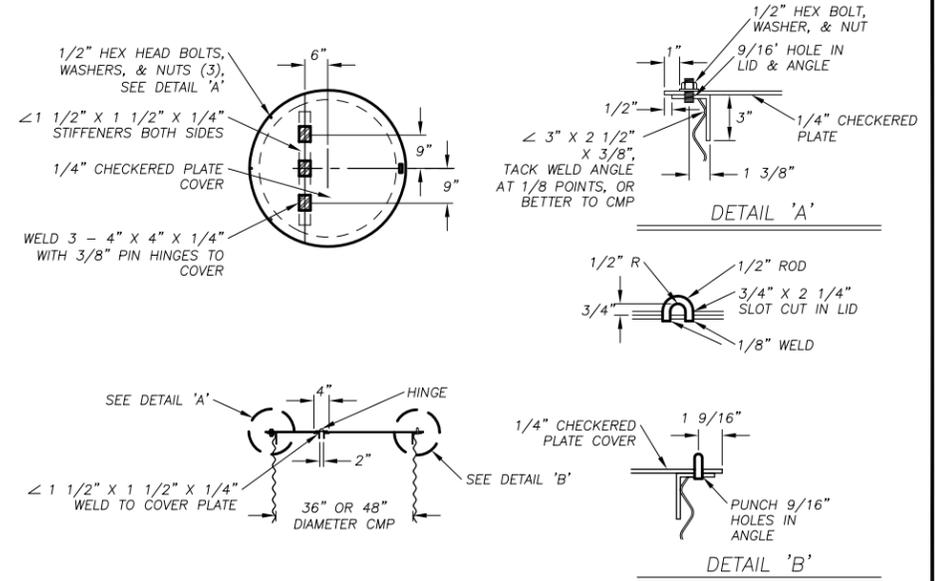


NOTE: SEE SPECIAL PROVISIONS FOR CONCRETE SPECIFICATIONS.

**CONCRETE COLLAR**

NTS

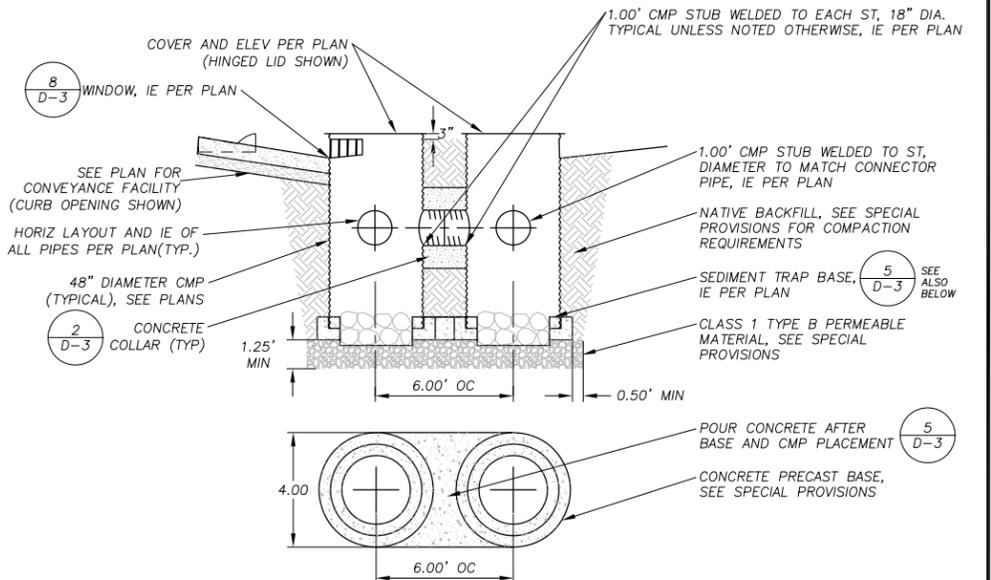
2  
D-3



**HINGED LID**

NTS

6  
D-3

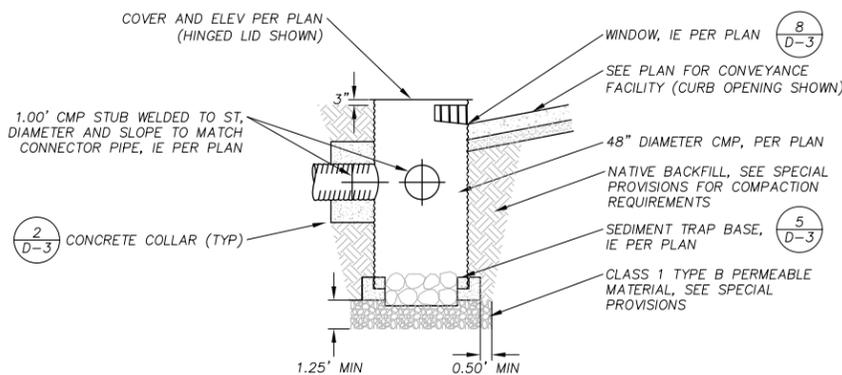


NOTES: 1. SEE SPECIAL PROVISIONS FOR SUBGRADE COMPACTION REQUIREMENTS.  
2. SEE SPECIFICATIONS FOR CONCRETE MATERIAL.

**DOUBLE SEDIMENT TRAP**

NTS

7  
D-3

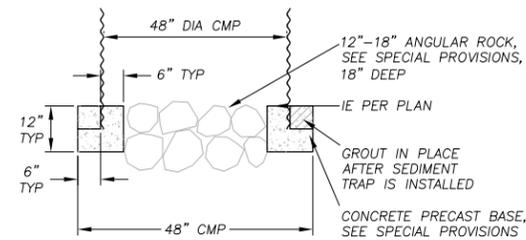


NOTE: SEE SPECIAL PROVISIONS FOR SUBGRADE COMPACTION REQUIREMENTS.

**SINGLE SEDIMENT TRAP**

NTS

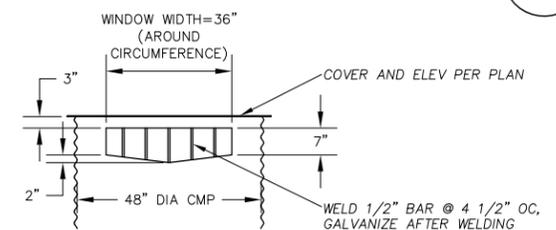
3  
D-3



**SEDIMENT TRAP BASE**

NTS

5  
D-3



**WINDOW**

NTS

8  
D-3

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF:  
REGISTERED CIVIL ENGINEER  
DATE: \_\_\_\_\_

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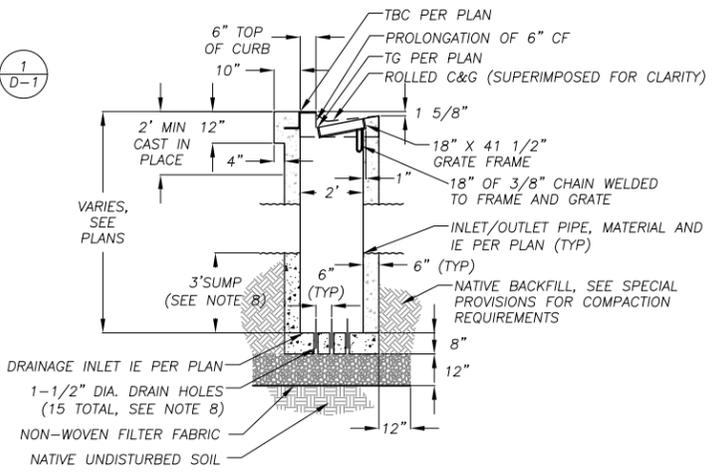
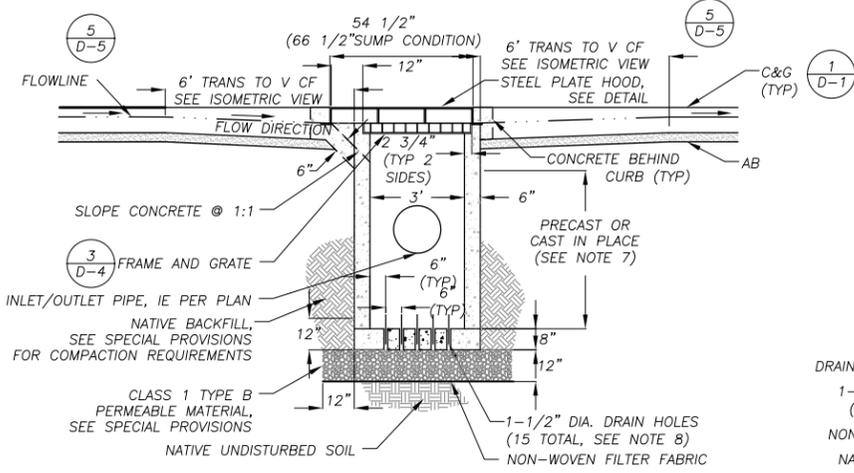
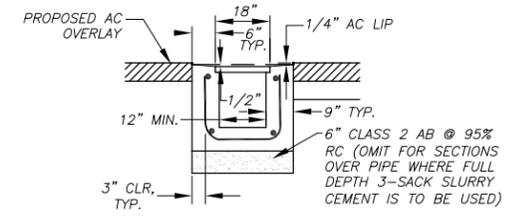
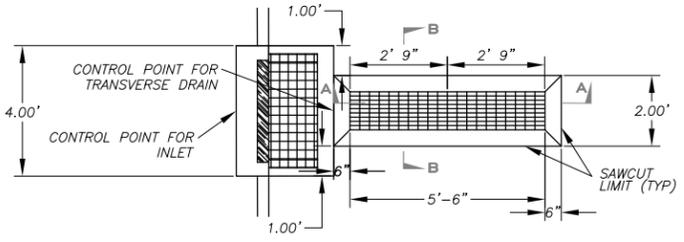
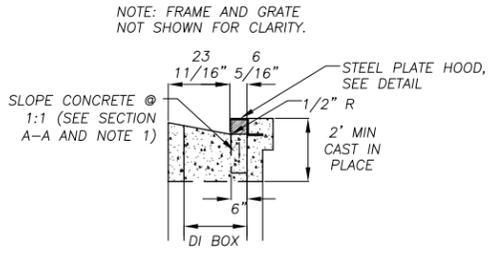
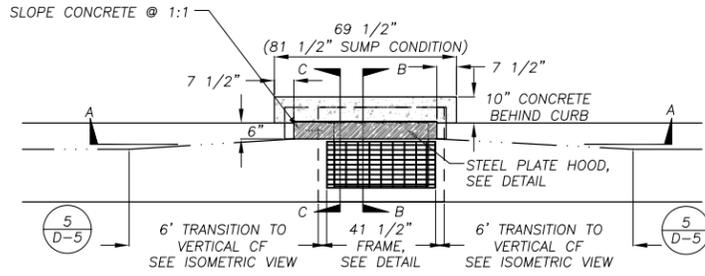
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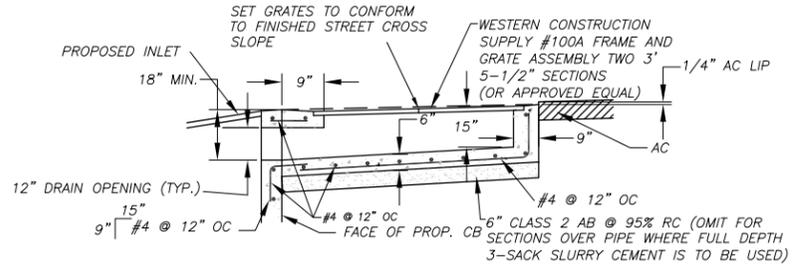
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PLACER COUNTY, CALIFORNIA

SHEET  
D-3  
W.O. No. 3128703



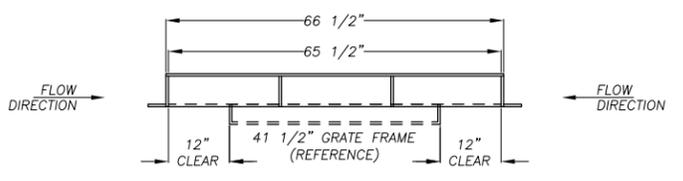
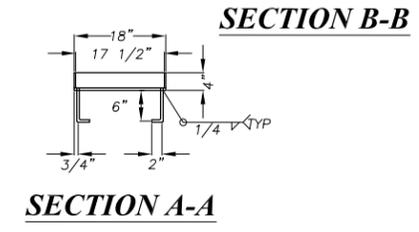
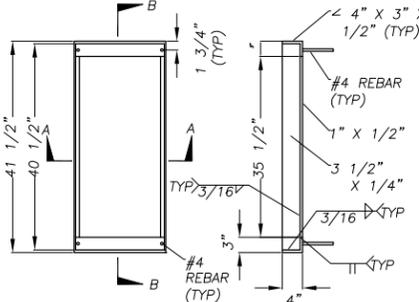
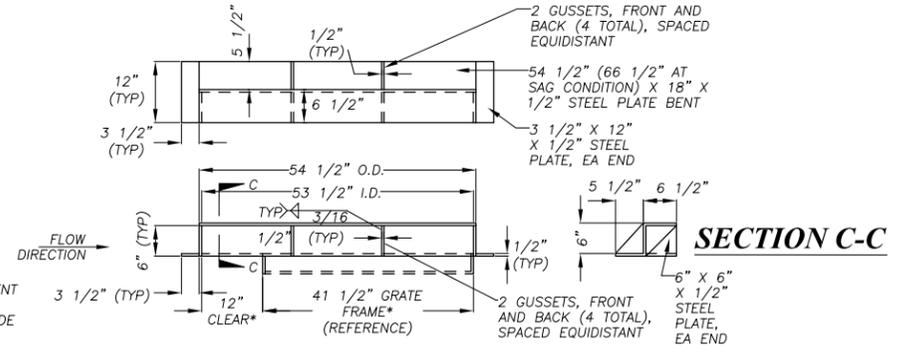
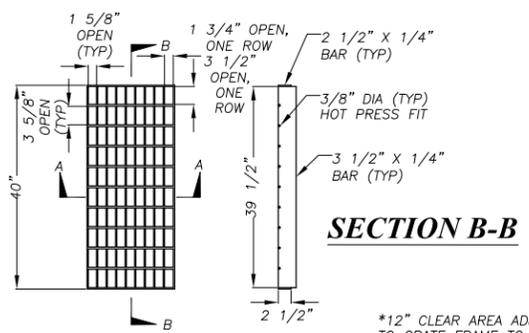
- DRAINAGE INLET NOTES:**
- THE 1:1 SLOPED CONCRETE SECTION IS TO BE POSITIONED ON THE UP SLOPE SIDE OF THE DRAINAGE INLET. AT SAG LOCATIONS THE 1:1 SLOPED CONCRETE SECTION IS TO BE ON BOTH SIDES OF THE DRAINAGE INLET.
  - DEPRESS GUTTER FLOWLINE FROM 3 5/8" TO 6", AS MEASURED FROM TBC, PER 6' CURB TRANSITION DETAIL.
  - FLOOR OF THE DRAINAGE INLET SHALL BE PLACED PRIOR TO OR AT THE SAME TIME AS THE SIDE WALLS, OR TIED WITH REBAR.
  - FRAME AND GRATE SHALL CONFORM TO THE FRAME AND GRATE DETAIL ON THE PLANS, D&L 1-3542, OR EQUAL.
  - DRAINAGE INLET HOOD SHALL BE 1/2" MINIMUM THICKNESS STEEL PLATE.
  - WALL REINFORCING (NOT SHOWN) SHALL BE #4 BARS @ 18" OC EACH WAY, PLACED 1 1/2" CLEAR FROM INSIDE OF BOX. INLET BOTTOM REINFORCING NOT REQUIRED EXCEPT AS NOTED IN NOTE 3, ABOVE.
  - A PRECAST UNIT WITH CAST-IN-PLACE TOP SECTION TO RECEIVE GRATE, FRAME AND HOOD WILL BE AN ACCEPTABLE ALTERNATIVE TO CAST-IN-PLACE UNITS. DRAINAGE INLETS THAT ARE ENTIRELY PRECAST ARE NOT ACCEPTABLE. CAST-IN-PLACE TOP SECTIONS SHALL BE DOWLED INTO THE CURB AND GUTTER WITH 3-#4 BARS, 18" LONG, ON EACH SIDE OF DRAINAGE INLET.
  - WHEN DIRECTED BY ENGINEER, DRAINAGE INLET IE SHALL EQUAL IE OF OUTLET PIPE. CONTRACTOR TO SLOPE DRAINAGE INLET FLOOR TO DRAIN AND OMIT HOLES.



- NOTES:**
- OPENING TO CATCH BASIN TO BE 12" HIGH BY A MINIMUM OF 12" WIDE
  - INLET GRATES AND FRAME SHALL BE GALVANIZED AFTER FABRICATION.
  - GRATES SHALL BE ATTACHED TO FRAME WITH 18" OF 3/16" CHAIN WELDED TO FRAME AND GRATES.

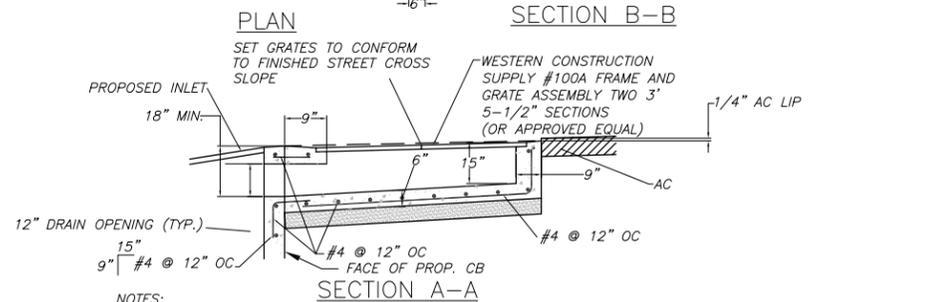
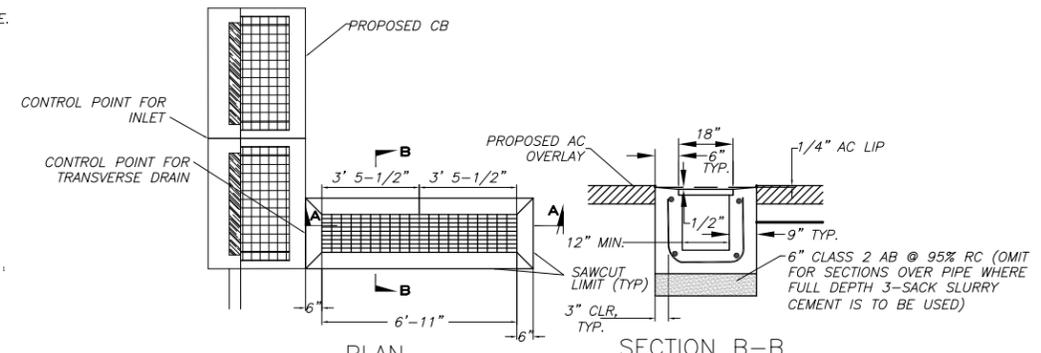
**DRAINAGE INLET**  
NTS

**TRANSVERSE DRAIN**  
NTS



**GRATE & FRAME**  
NTS

**STEEL PLATE HOOD**  
NTS



- NOTES:**
- OPENING TO CATCH BASIN TO BE 12" HIGH BY A MINIMUM OF 12" WIDE
  - INLET GRATES AND FRAME SHALL BE GALVANIZED AFTER FABRICATION.
  - GRATES SHALL BE ATTACHED TO FRAME WITH 18" OF 1/2" CHAIN WELDED TO FRAME AND GRATES.
  - A CATCH BASIN IS CONSIDERED THE SAME THING AS DRAINAGE INLET.

**DOUBLE DRAINAGE INLET WITH TRANSVERSE DRAIN**  
NTS

REVISION	NUMBER	DATE	DESCRIPTION	BY

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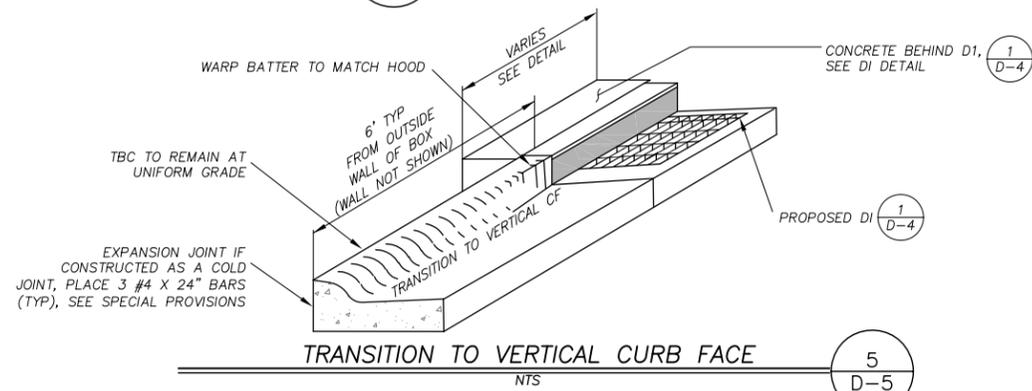
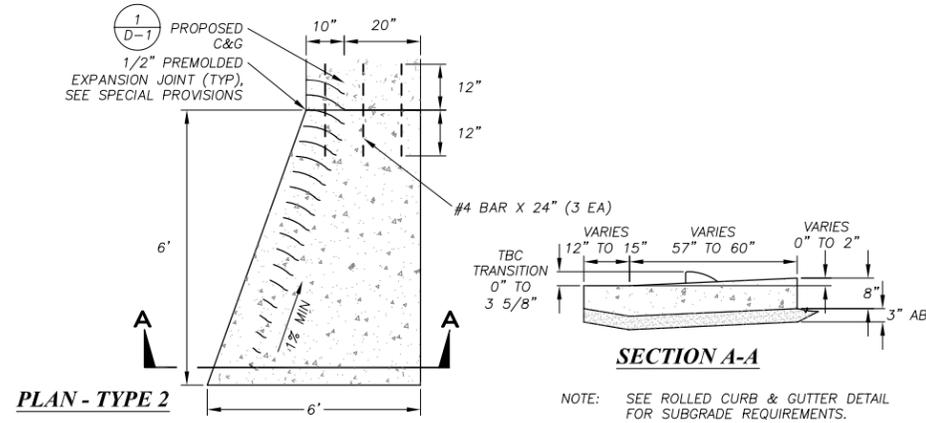
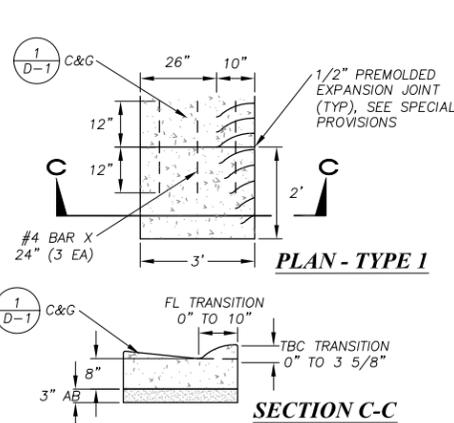
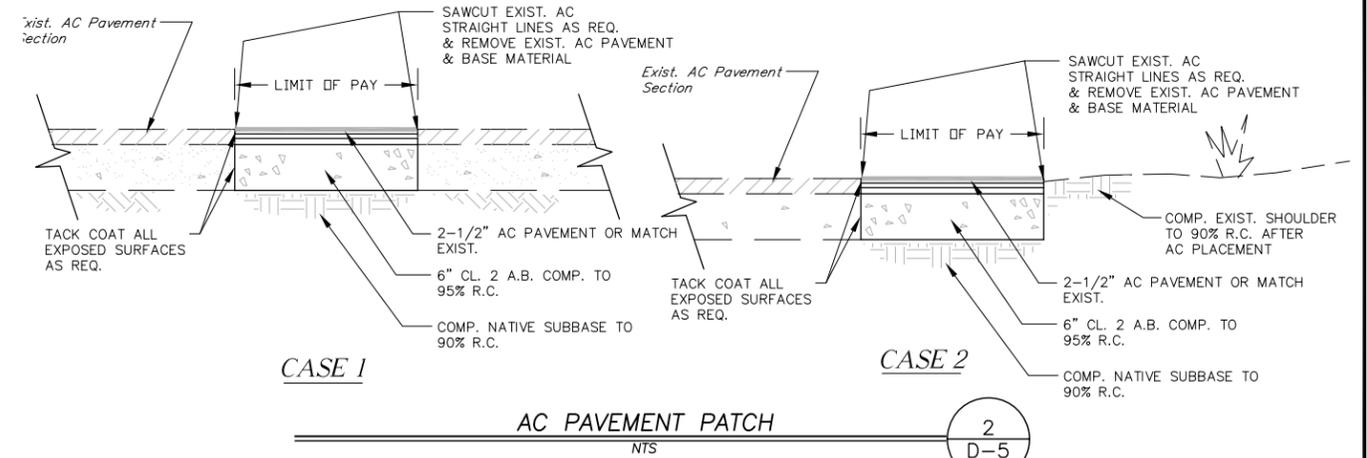
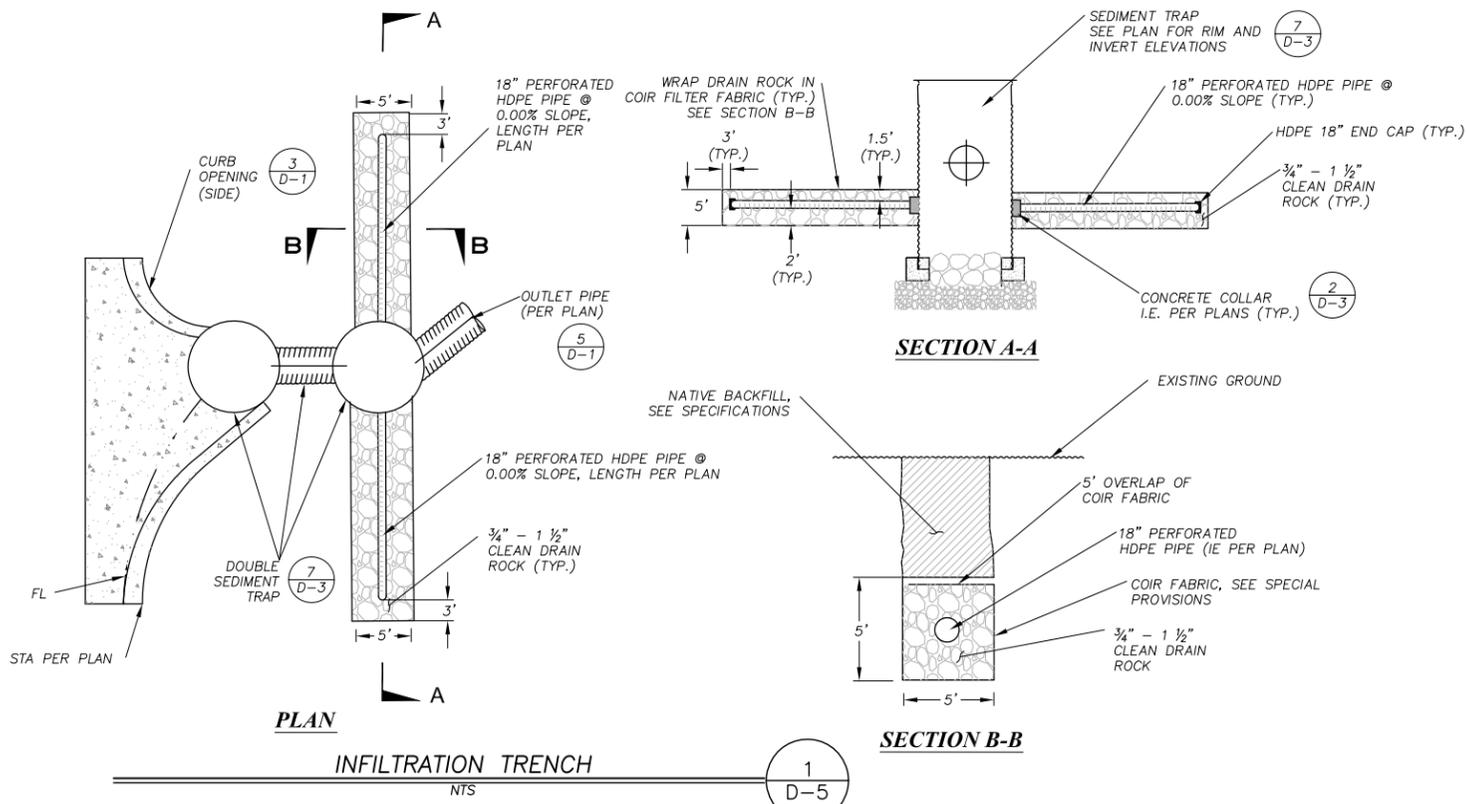


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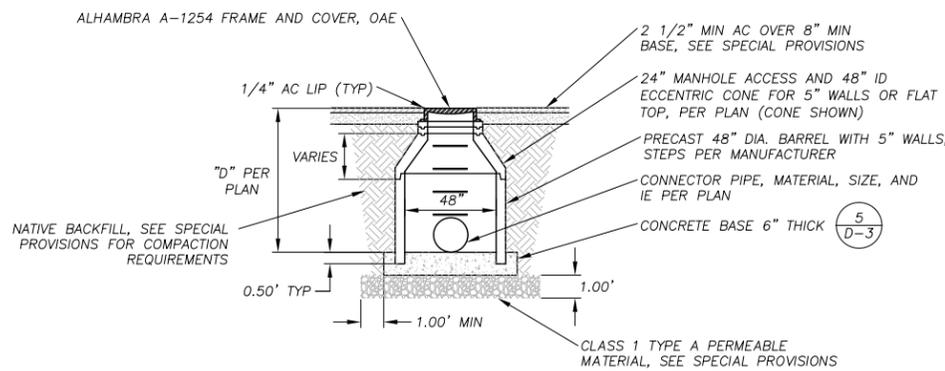
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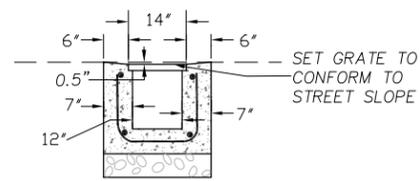
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**DETAIL SHEET**  
PLACER COUNTY, CALIFORNIA

SHEET	D-5
W.O. No.	3128703

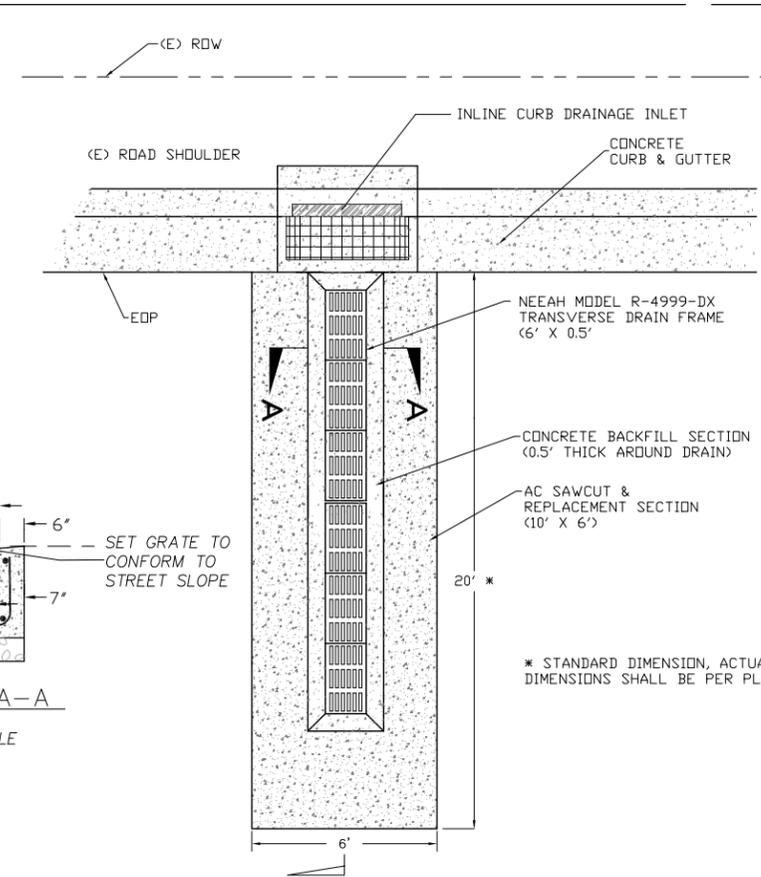


- NOTES:
1. BARREL, CONE, AND FLAT TOP REINFORCEMENT PER MANUFACTURER'S REQUIREMENT, SEE SPECIAL PROVISIONS.
  2. SEE SPECIAL PROVISIONS FOR SUBGRADE COMPACTION REQUIREMENTS.

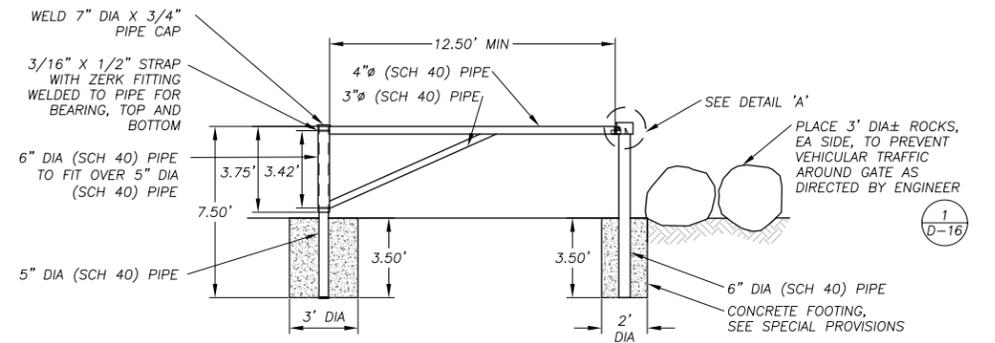
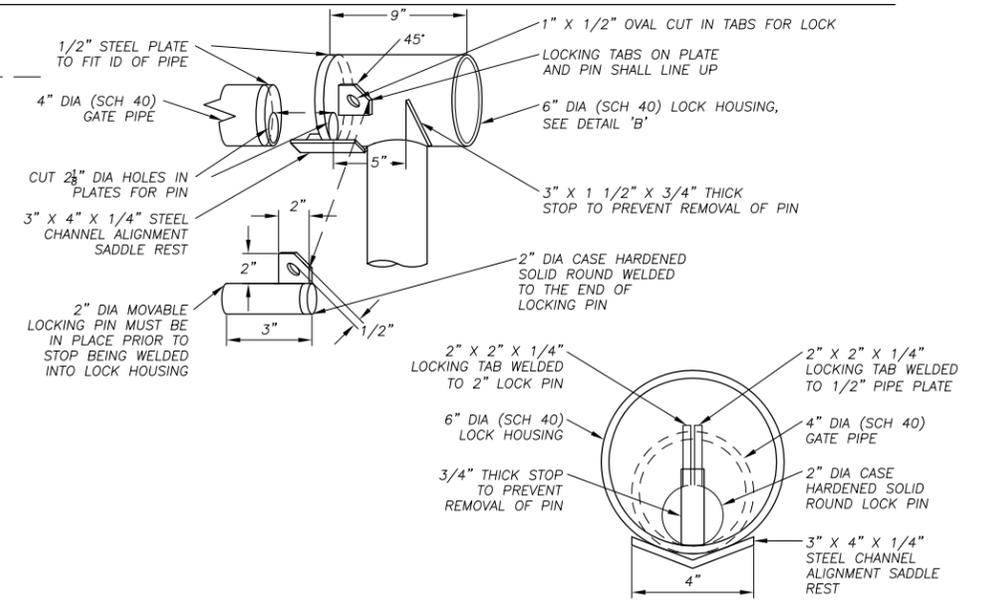
**48" DIA. STORM DRAIN MANHOLE**  
NTS  
1  
D-6



SECTION A-A  
NO SCALE

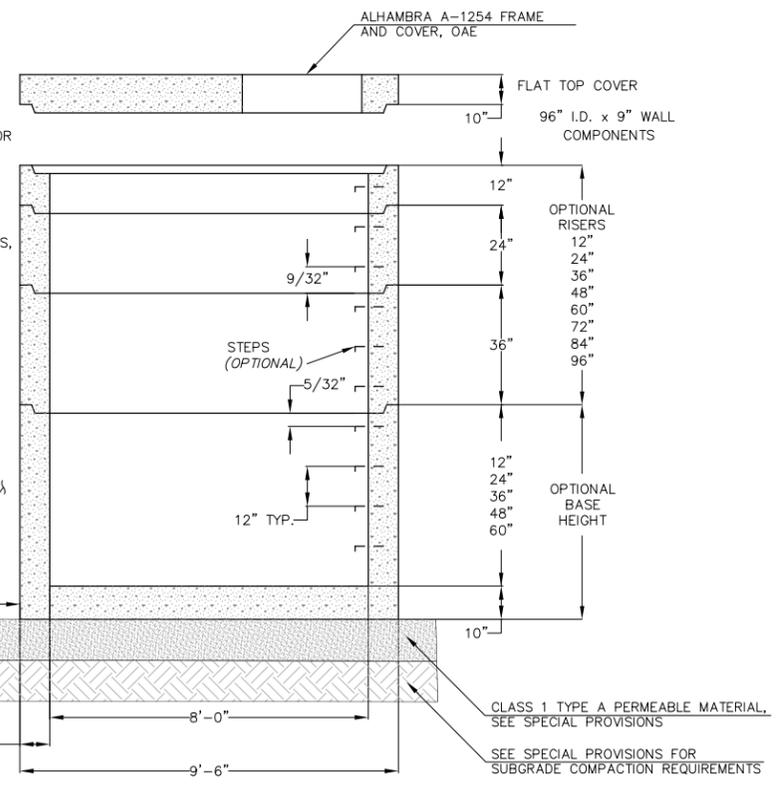


**SLOT DRAIN**  
NTS  
2  
D-6

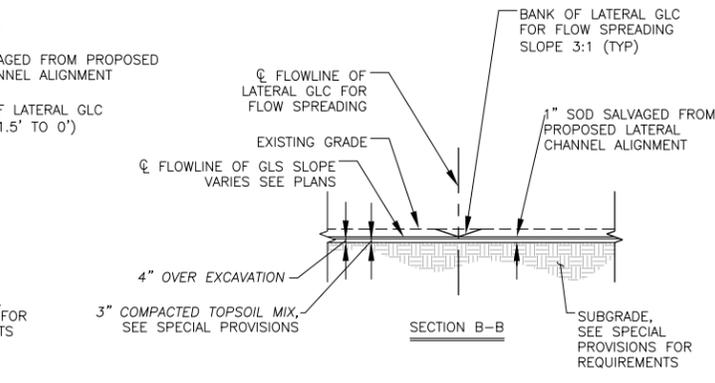
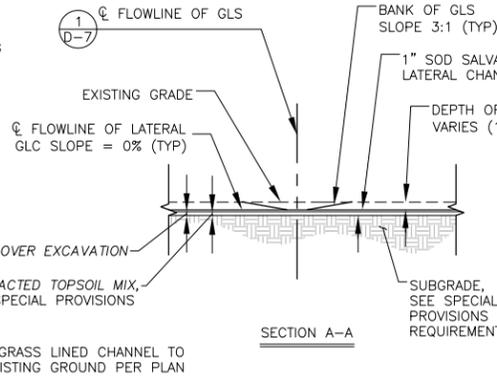
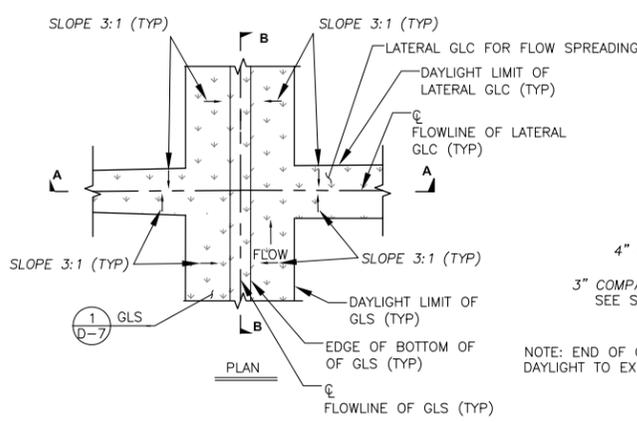


**ACCESS GATE**  
NTS  
3  
D-6

- NOTES:
1. PIPE OPENINGS SHALL BE AS SHOWN ON PLAN VIEW (IE) AND HC SHEETS (HORIZONTAL ALIGNMENT) AND PER SPECIAL PROVISIONS
  2. MANHOLE REQUIREMENTS AND SPECIAL PROVISIONS
  3. FOR COMPLETE DESIGN AND PRODUCT INFORMATION, CONTACT JENSEN PRECAST, COOK CONCRETE, OR EQUIVALENT PRECAST PROVIDER.
  4. CUSTOM SQUARE, RECTANGULAR AND ROUND OPENINGS AVAILABLE.
  5. MANHOLE COMPONENTS SHALL CONFORM TO CURRENT SPECIFICATIONS, ASTM C-478 AND AASHTO NO. M199-93.



**96" DIA. STORM DRAIN MANHOLE**  
NTS  
4  
D-6



**LATERAL GRASS LINED CHANNEL**  
NTS  
5  
D-6

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF:  
REGISTERED CIVIL ENGINEER  
DATE:

DESIGNED: CMD  
DRAWN: CMD  
CHECKED: SP  
DATE: 01/2010  
ROAD NUMBER: N/A



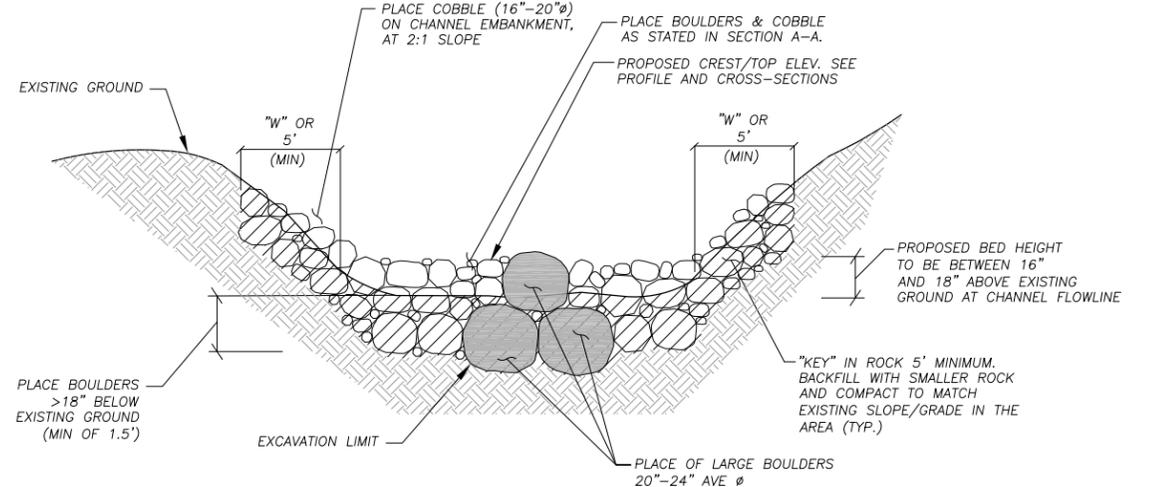
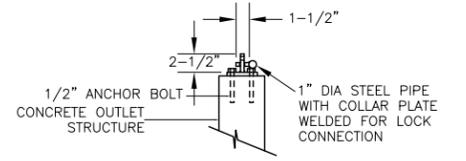
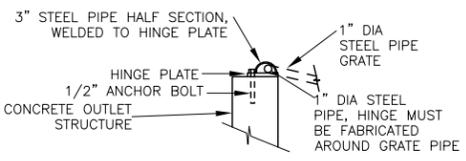
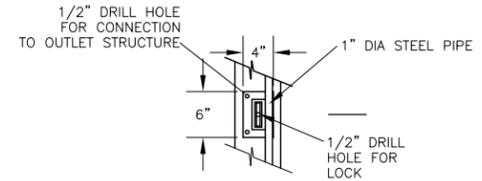
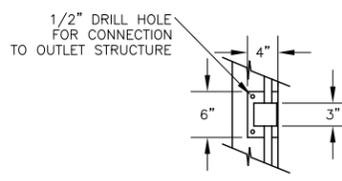
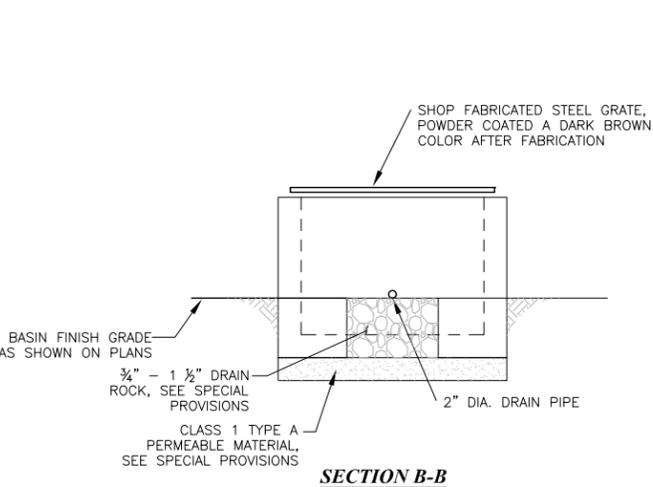
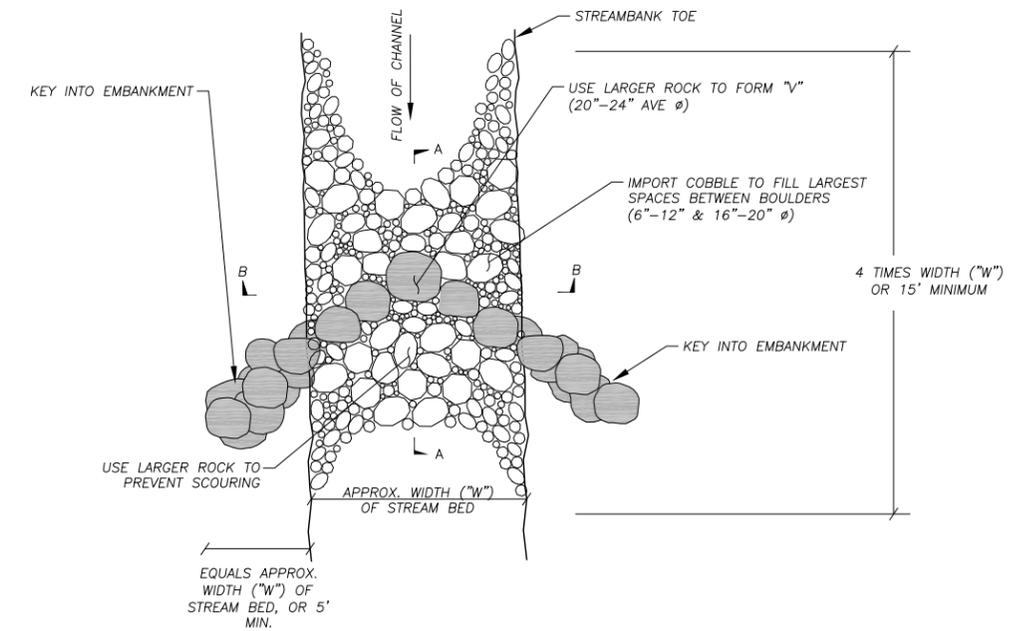
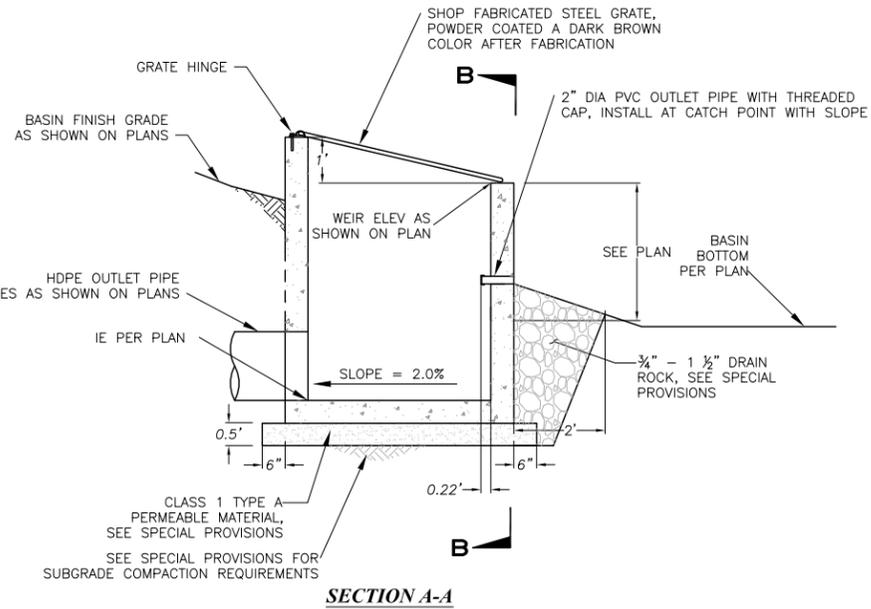
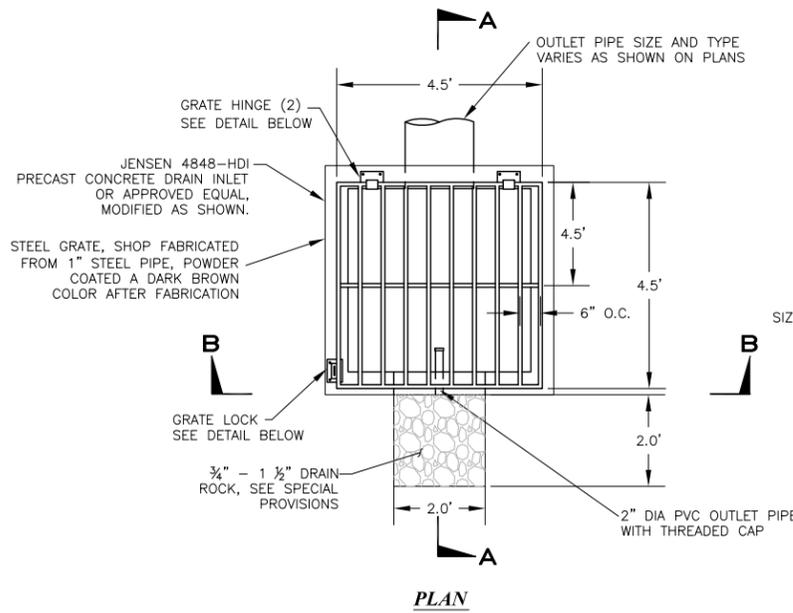
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**DETAIL SHEET**  
PLACER COUNTY, CALIFORNIA

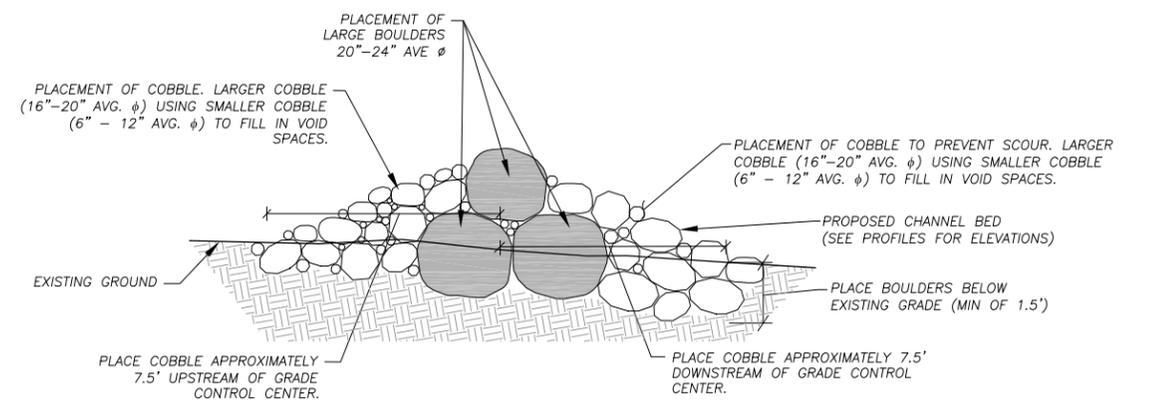
SHEET  
D-6  
W.O. No. 3128703





**BASIN OUTLET STRUCTURE**

1  
D-8



**GRADE CONTROL STRUCTURE**

2  
D-8

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :  
REGISTERED CIVIL ENGINEER  
DATE:

DESIGNED: CMD  
DRAWN: CMD  
CHECKED: SP  
DATE: 01/2010  
ROAD NUMBER: N/A



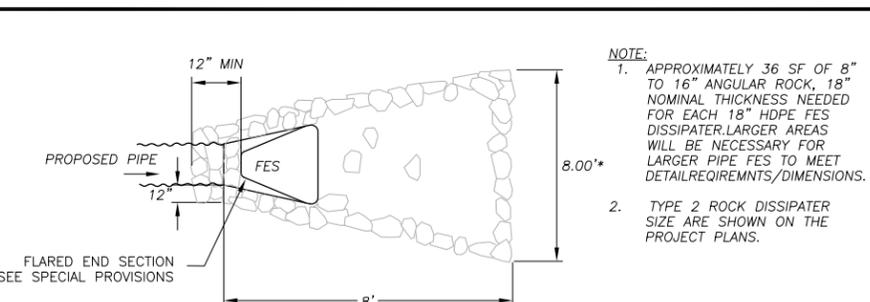
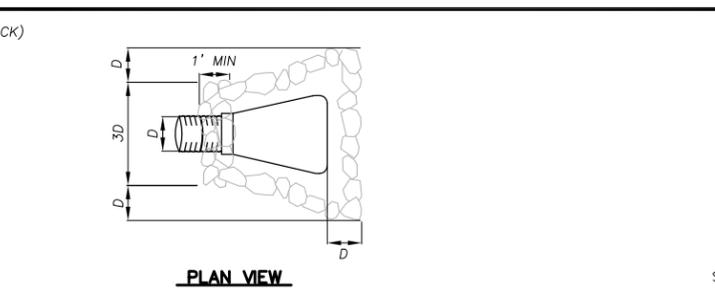
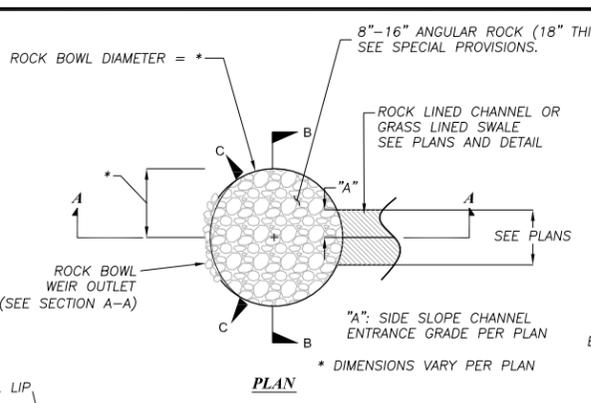
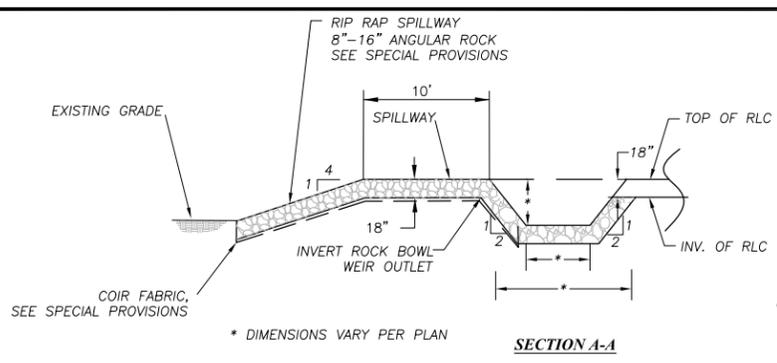
PLACER COUNTY  
DEPARTMENT OF PUBLIC WORKS



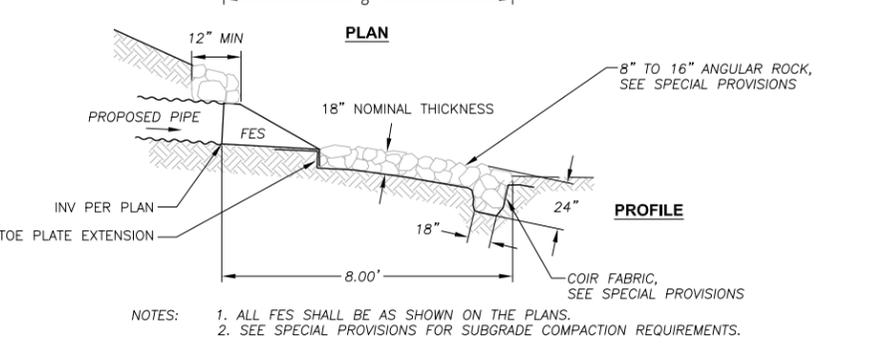
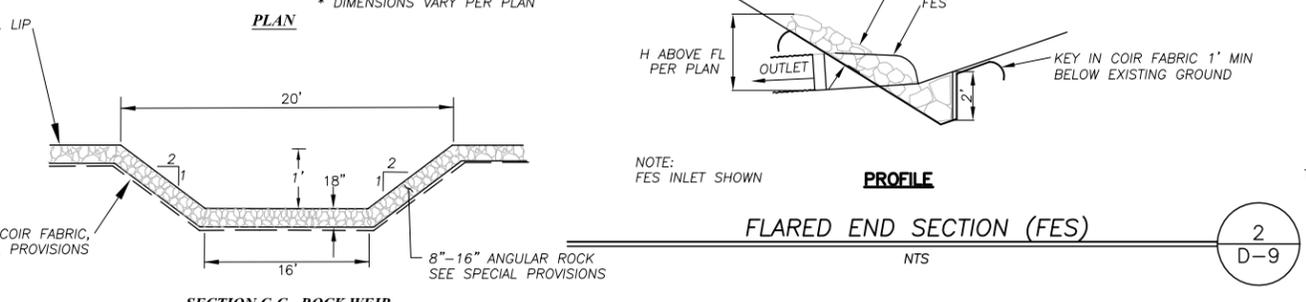
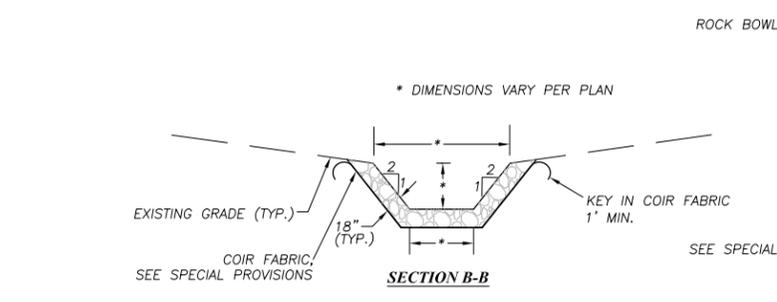
1048 Shi Run Boulevard  
South Lake Tahoe, CA 96150  
(530) 542-0201 Main

KINGS BEACH WATER QUALITY AND  
SEZ IMPROVEMENT PROJECT  
**DETAIL SHEET**  
PLACER COUNTY, CALIFORNIA

SHEET  
D-8  
W.O. No. 3128703



**NOTE:**  
 1. APPROXIMATELY 36 SF OF 8" TO 16" ANGULAR ROCK, 18" NOMINAL THICKNESS NEEDED FOR EACH 18" HDPE FES DISSIPATER. LARGER AREAS WILL BE NECESSARY FOR LARGER PIPE FES TO MEET DETAIL REQUIREMENTS/DIMENSIONS.  
 2. TYPE 2 ROCK DISSIPATER SIZE ARE SHOWN ON THE PROJECT PLANS.



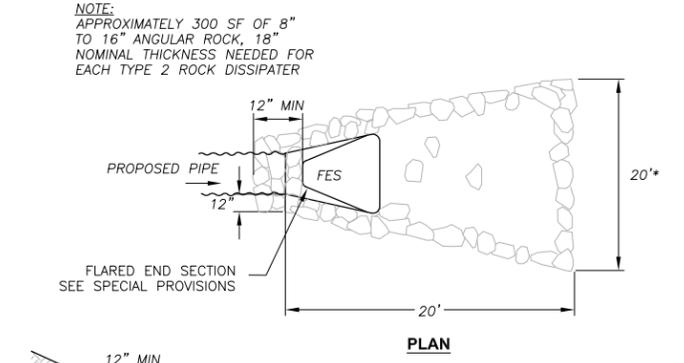
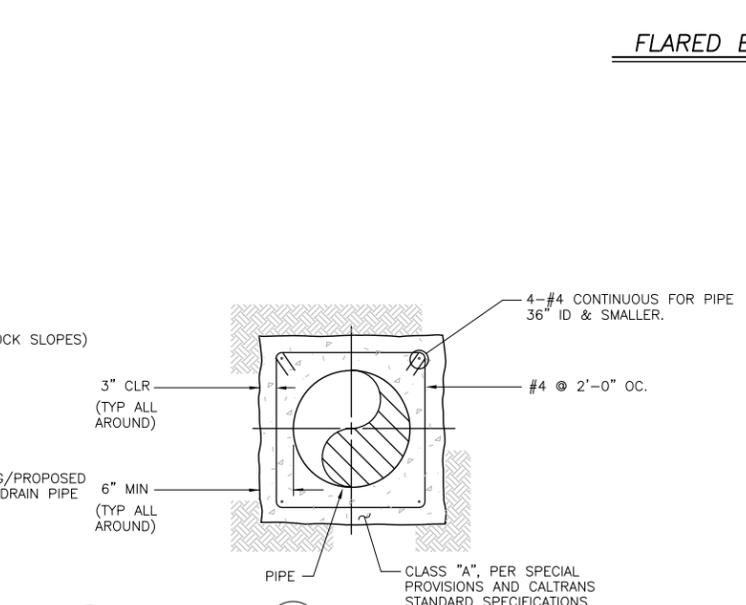
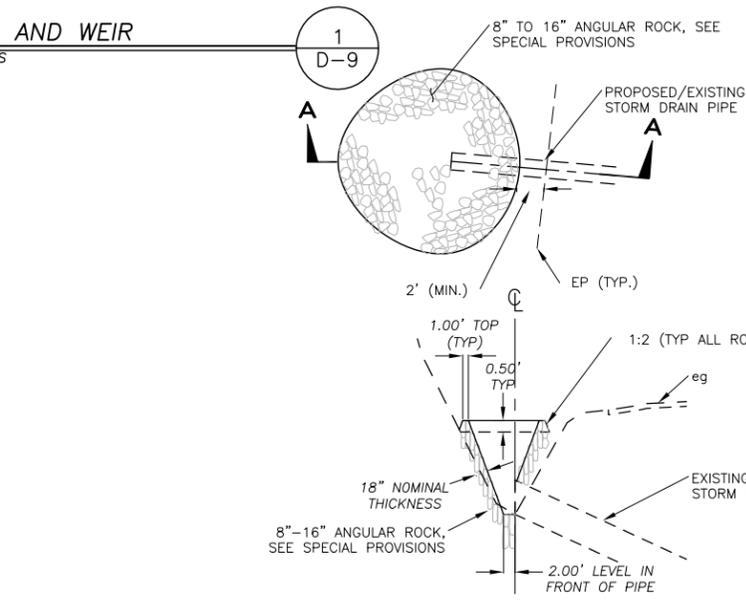
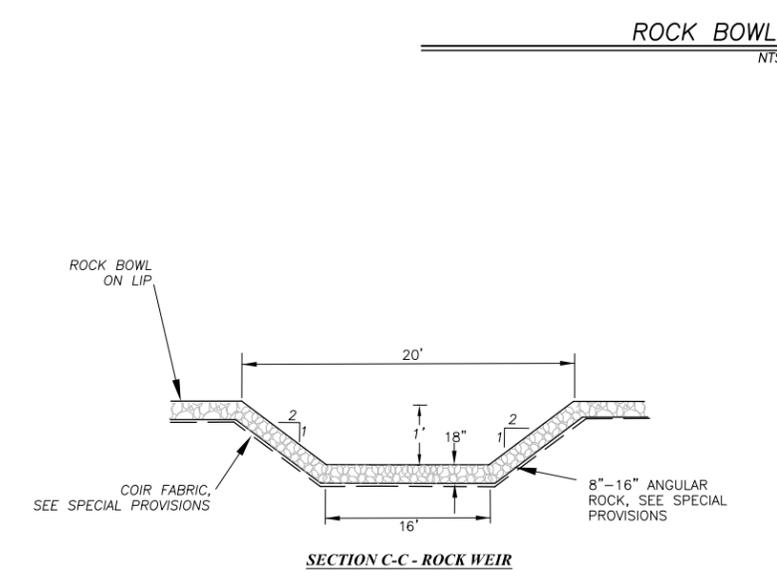
**NOTES:**  
 1. ALL FES SHALL BE AS SHOWN ON THE PLANS.  
 2. SEE SPECIAL PROVISIONS FOR SUBGRADE COMPACTION REQUIREMENTS.

**ROCK BOWL AND WEIR**  
 NTS

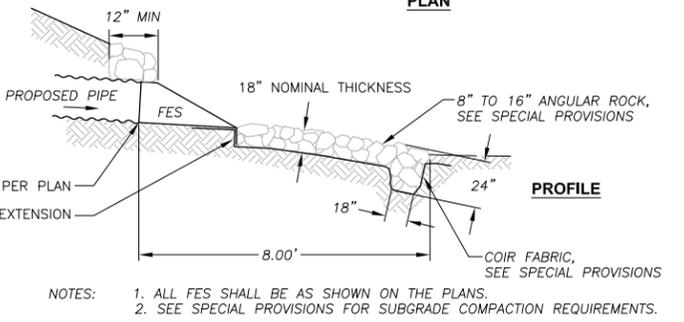
1  
 D-9

**FLARED END SECTION (FES) AND ROCK DISSIPATOR**  
 NTS

3  
 D-9



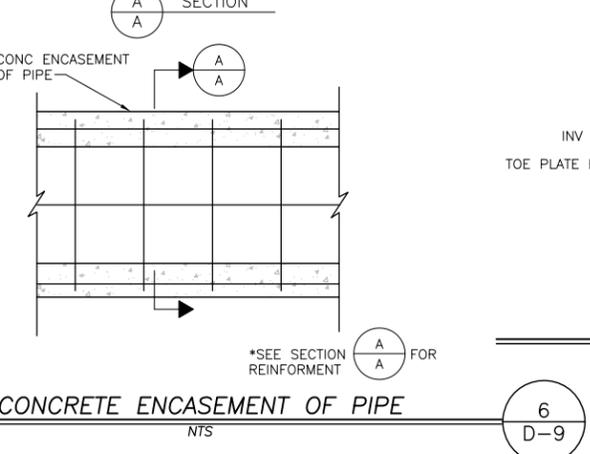
**NOTE:**  
 APPROXIMATELY 300 SF OF 8" TO 16" ANGULAR ROCK, 18" NOMINAL THICKNESS NEEDED FOR EACH TYPE 2 ROCK DISSIPATOR



**NOTES:**  
 1. ALL FES SHALL BE AS SHOWN ON THE PLANS.  
 2. SEE SPECIAL PROVISIONS FOR SUBGRADE COMPACTION REQUIREMENTS.

**ROCK WEIR**  
 NTS

4  
 D-9



**CONCRETE ENCASUREMENT OF PIPE**  
 NTS

6  
 D-9

**ROCK DISSIPATOR, TYPE 2**  
 NTS

6  
 D-9

REVISION	NUMBER	DATE	DESCRIPTION	BY

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DATE:	ROAD NUMBER: N/A	

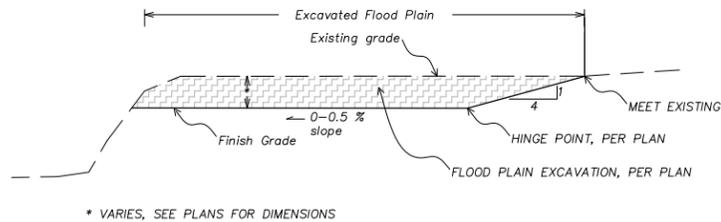
PLACER COUNTY  
 DEPARTMENT OF PUBLIC WORKS

**ENTRIX**

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 (530) 542-0201 Main

**KINGS BEACH WATER QUALITY AND SEZ IMPROVEMENT PROJECT**  
**DETAIL SHEET**  
 PLACER COUNTY, CALIFORNIA

SHEET	D-9
W.O. No.	3128703

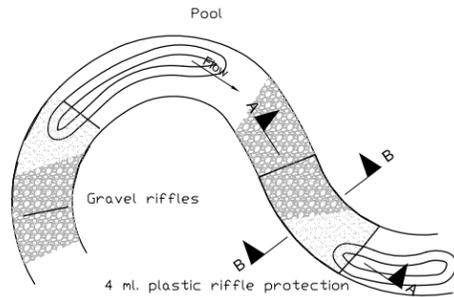


\* VARIES, SEE PLANS FOR DIMENSIONS

**FLOODPLAIN EXCAVATION**

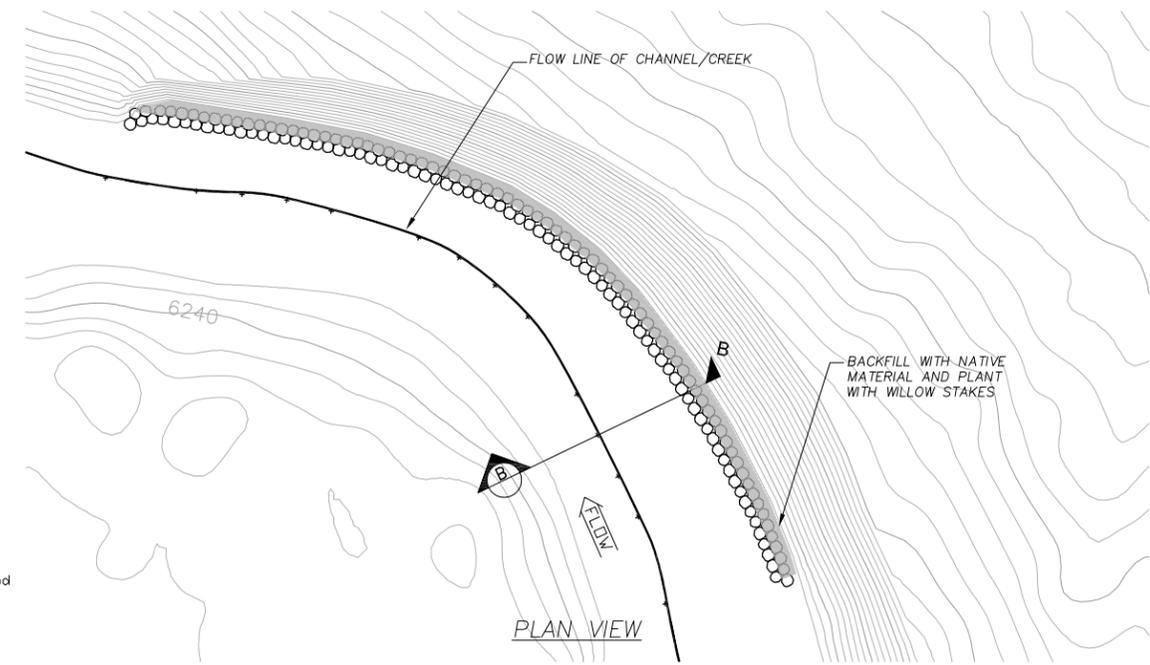
NTS

1  
D-17

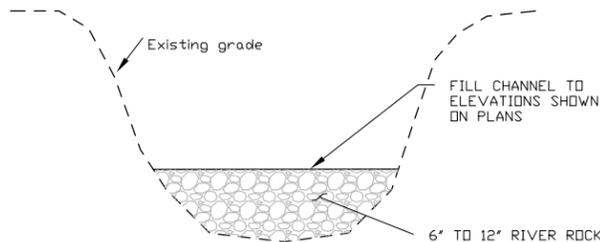


PLAN VIEW

Pool



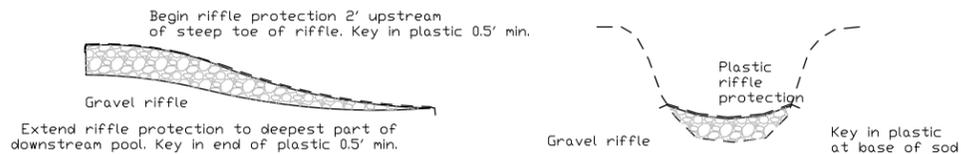
PLAN VIEW



**CHANNEL/CREEK FILL**

NTS

2  
D-17



SECTION A-A

SECTION B-B

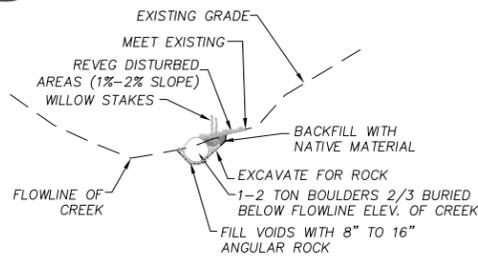
Notes: 1) Riffle protection plastic shall be 4 ml, except at pump outlet, where plastic shall be 6 ml.  
2) Plastic shall be placed such that all pumped water flows on plastic at toes of riffles.

NOT TO SCALE

**RIFLE PROTECTION**

NTS

3  
D-17

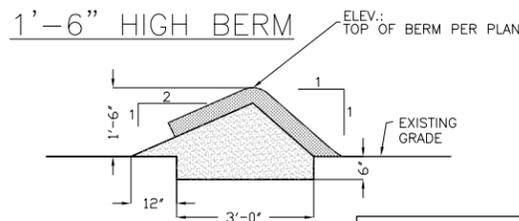


(B) TYPICAL SECTION

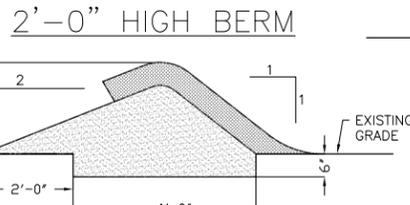
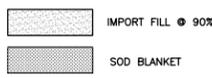
**BOULDER PLACEMENT AT BANK BEND**

NTS

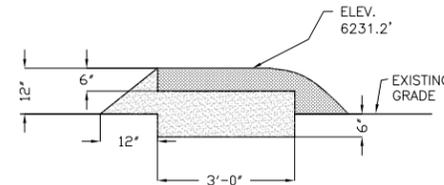
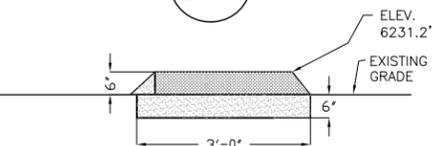
6  
D-17



LEGEND



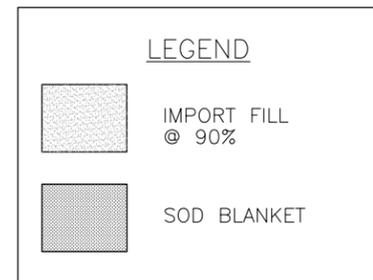
NOTE: Revegetate all denuded areas of berms and cap per revegetation specification.



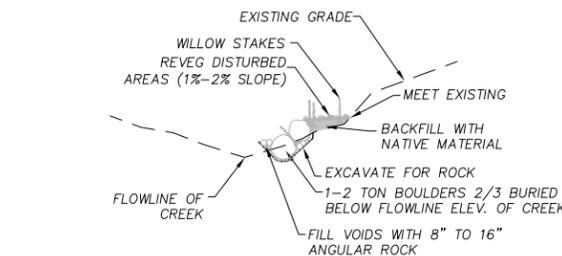
**EARTHEN BERMS**

NTS

5  
D-17



NOTE: Revegetate all denuded areas of berms and cap per revegetation specification.

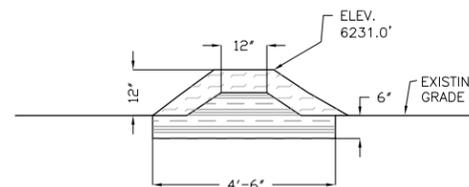


(B) TYPICAL SECTION

**BANK TOE PROTECTION**

NTS

4  
D-17

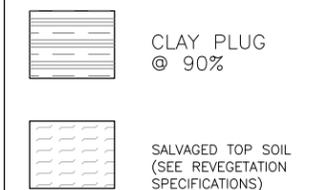


EARTH BERM TABLE

HEIGHT	BASE
12"	4'-0"
1'-6"	5'-6"
2'-0"	7'-0"

NOTE: Revegetate all denuded areas of berms and cap per revegetation specification.

LEGEND



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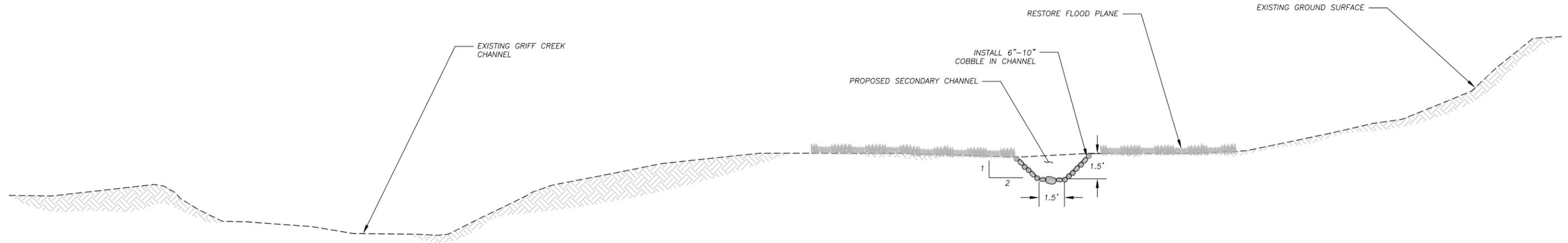
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KINGS BEACH WATER QUALITY AND  
SEZ IMPROVEMENT PROJECT  
**DETAIL SHEET**  
PLACER COUNTY, CALIFORNIA

SHEET	D-17
W.O. No.	3128703



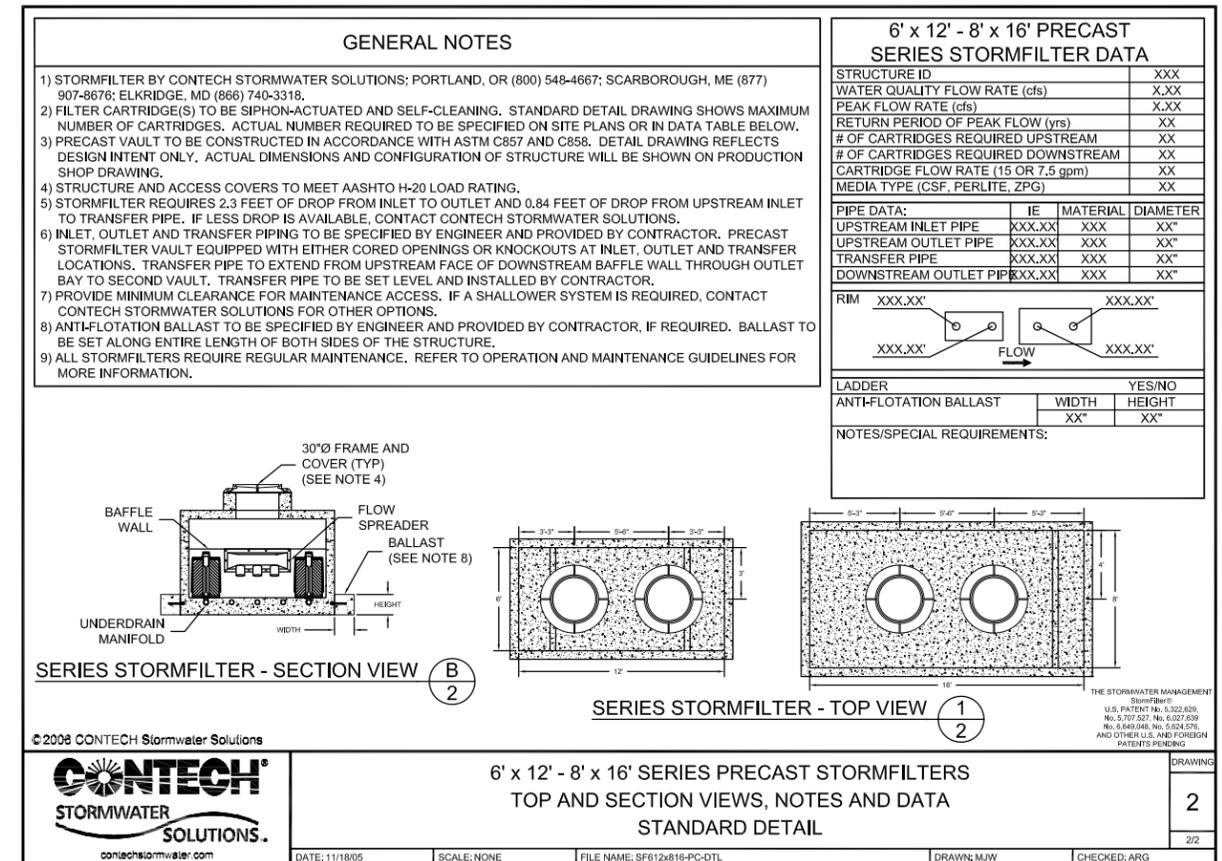
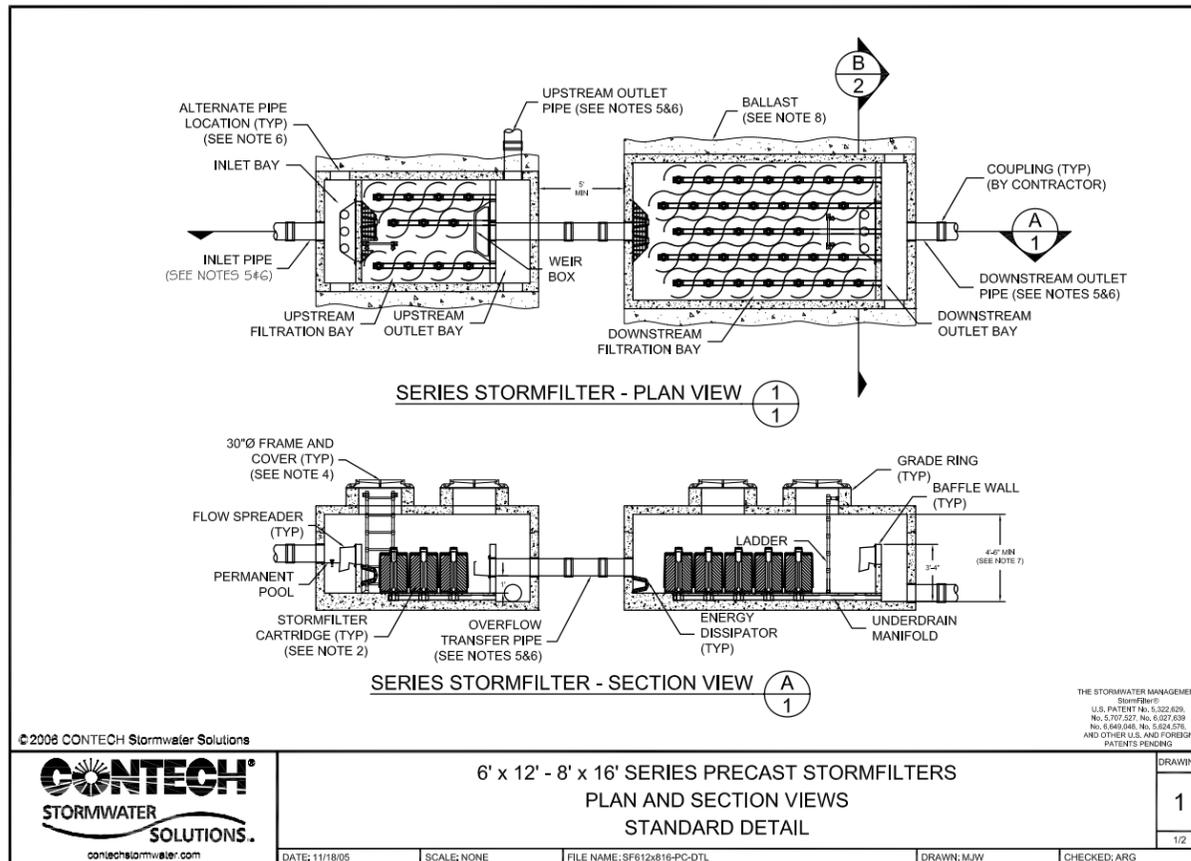
SECONDARY CHANNEL DETAIL

NTS

1  
D-23

REVISION	NUMBER	DATE	DESCRIPTION	BY

PREPARED UNDER THE SUPERVISION OF :  REGISTERED CIVIL ENGINEER DATE: _____	DESIGNED: CMD CHECKED: SP	DRAWN: CMD DATE: 01/2010	 PLACER COUNTY DEPARTMENT OF PUBLIC WORKS	 1048 Ski Run Boulevard South Lake Tahoe, CA 96150 (530) 542-0201 Main	KINGS BEACH WATER QUALITY AND SEZ IMPROVEMENT PROJECT <b>DETAIL SHEET</b> PLACER COUNTY, CALIFORNIA	SHEET D-23
	ROAD NUMBER: N/A					W.O. No. 3128703



STORM FILTER "B" & "C"  
NTS

1  
D-25

REVISION	NUMBER	DATE	DESCRIPTION	BY

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REGISTERED CIVIL ENGINEER	CHECKED: SP	DATE: 01/2010
DATE:	ROAD NUMBER: N/A	



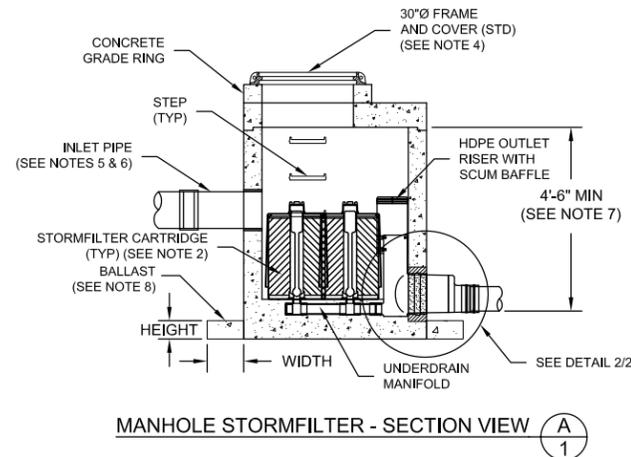
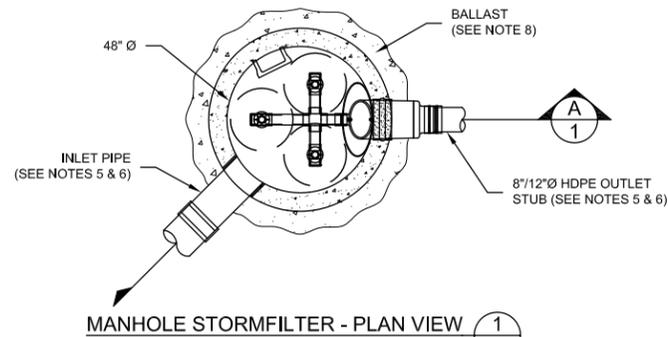
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DEPARTMENT OF PUBLIC WORKS



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KINGS BEACH WATER QUALITY AND  
SEZ IMPROVEMENT PROJECT  
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PLACER COUNTY, CALIFORNIA

SHEET	D-25
W.O. No.	3128703



THE STORMWATER MANAGEMENT  
StormFilter®  
U.S. PATENT No. 5,322,629;  
No. 5,707,527; No. 6,027,639;  
No. 6,649,048; No. 5,624,576,  
AND OTHER U.S. AND FOREIGN  
PATENTS PENDING

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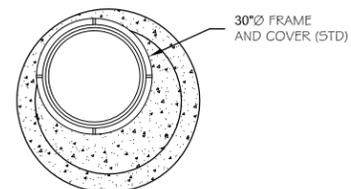
PRECAST 48" MANHOLE STORMFILTER  
PLAN AND SECTION VIEWS  
STANDARD DETAIL

DRAWING  
1  
1/2

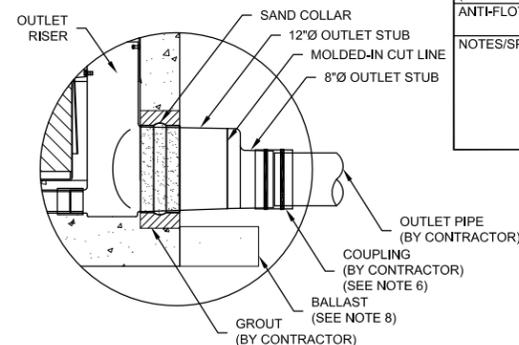
DATE: 09/26/05 SCALE: NONE FILE NAME: MHSF3-48PC-DTL DRAWN: MJW CHECKED: ARG

GENERAL NOTES

- 1) STORMFILTER BY CONTECH STORMWATER SOLUTIONS; PORTLAND, OR (800) 548-4667; SCARBOROUGH, ME (877) 907-8676; ELKCRIDGE, MD (866) 740-3318.
- 2) FILTER CARTRIDGE(S) TO BE SIPHON-ACTUATED AND SELF-CLEANING. STANDARD DETAIL SHOWS MAXIMUM NUMBER OF CARTRIDGES, ACTUAL NUMBER REQUIRED TO BE SPECIFIED ON SITE PLANS OR IN DATA TABLE BELOW.
- 3) PRECAST MANHOLE STRUCTURE TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C478. DETAIL REFLECTS DESIGN INTENT ONLY. ACTUAL DIMENSIONS AND CONFIGURATION OF STRUCTURE WILL BE SHOWN ON PRODUCTION SHOP DRAWING.
- 4) STRUCTURE AND ACCESS COVERS TO MEET AASHTO H-20 LOAD RATING.
- 5) STORMFILTER REQUIRES 2.3 FEET OF DROP FROM INLET TO OUTLET. IF LESS DROP IS AVAILABLE, CONTACT CONTECH STORMWATER SOLUTIONS. MINIMUM ANGLE BETWEEN INLET AND OUTLET IS 45°.
- 6) INLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR. PRECAST MANHOLE STORMFILTER EQUIPPED WITH A DUAL DIAMETER HDPE OUTLET STUB AND SAND COLLAR. EIGHT INCH DIAMETER OUTLET SECTION MAY BE SEPARATED FROM OUTLET STUB AT MOLDED-IN CUT LINE TO ACCOMMODATE A 12 INCH OUTLET PIPE. CONNECTION TO DOWNSTREAM PIPING TO BE MADE USING A FLEXIBLE COUPLING OR ECCENTRIC REDUCER, AS REQUIRED. COUPLING BY FERNCO OR EQUAL AND PROVIDED BY CONTRACTOR.
- 7) PROVIDE MINIMUM CLEARANCE FOR MAINTENANCE ACCESS. IF A SHALLOWER SYSTEM IS REQUIRED, CONTACT CONTECH STORMWATER SOLUTIONS FOR OTHER OPTIONS.
- 8) ANTI-FLOTATION BALLAST TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR, IF REQUIRED. BALLAST TO BE SET AROUND THE PERIMETER OF THE STRUCTURE.
- 9) ALL STORMFILTERS REQUIRE REGULAR MAINTENANCE. REFER TO OPERATION AND MAINTENANCE GUIDELINES FOR MORE INFORMATION.



MANHOLE STORMFILTER - TOP VIEW (1/2)



MANHOLE STORMFILTER - OUTLET DETAIL (2/2)

PRECAST MANHOLE STORMFILTER DATA			
STRUCTURE ID	XXX		
WATER QUALITY FLOW RATE (cfs)	X.XX		
PEAK FLOW RATE (<1 cfs)	X.XX		
RETURN PERIOD OF PEAK FLOW (yrs)	XXX		
# OF CARTRIDGES REQUIRED	XX		
CARTRIDGE FLOW RATE (15 or 7.5 gpm)	XX		
MEDIA TYPE (CSF, PERLITE, ZPG)	XXXXX		
RIM ELEVATION	XXX.XX'		
PIPE DATA:	I.E.	ORIENTATION	MATERIAL DIAMETER
INLET PIPE #1	XXX.XX'	XX°	XXX XX"
INLET PIPE #2	XXX.XX'	XX°	XXX XX"
OUTLET STUB	XXX.XX'	0°	XXX 8"/12"
ECCENTRIC REDUCER (BY CONTRACTOR)	YES/NO	SIZE	
	XXX	XX" x XX"	
ANTI-FLOTATION BALLAST	WIDTH	HEIGHT	
	XX"	XX"	
NOTES/SPECIAL REQUIREMENTS:	PIPE ORIENTATION KEY:		

THE STORMWATER MANAGEMENT  
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U.S. PATENT No. 5,322,629;  
No. 5,707,527; No. 6,027,639;  
No. 6,649,048; No. 5,624,576,  
AND OTHER U.S. AND FOREIGN  
PATENTS PENDING

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PRECAST 48" MANHOLE STORMFILTER  
TOP AND SECTION VIEWS, NOTES AND DATA  
STANDARD DETAIL

DRAWING  
2  
2/2

DATE: 09/26/05 SCALE: NONE FILE NAME: MHSF3-48PC-DTL DRAWN: MJW CHECKED: ARG

STORM FILTER "D"

NTS

1  
D-26

REVISION	NUMBER	DATE	DESCRIPTION	BY

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PLACER COUNTY, CALIFORNIA

SHEET  
D-26  
W.O. No. 3128703