

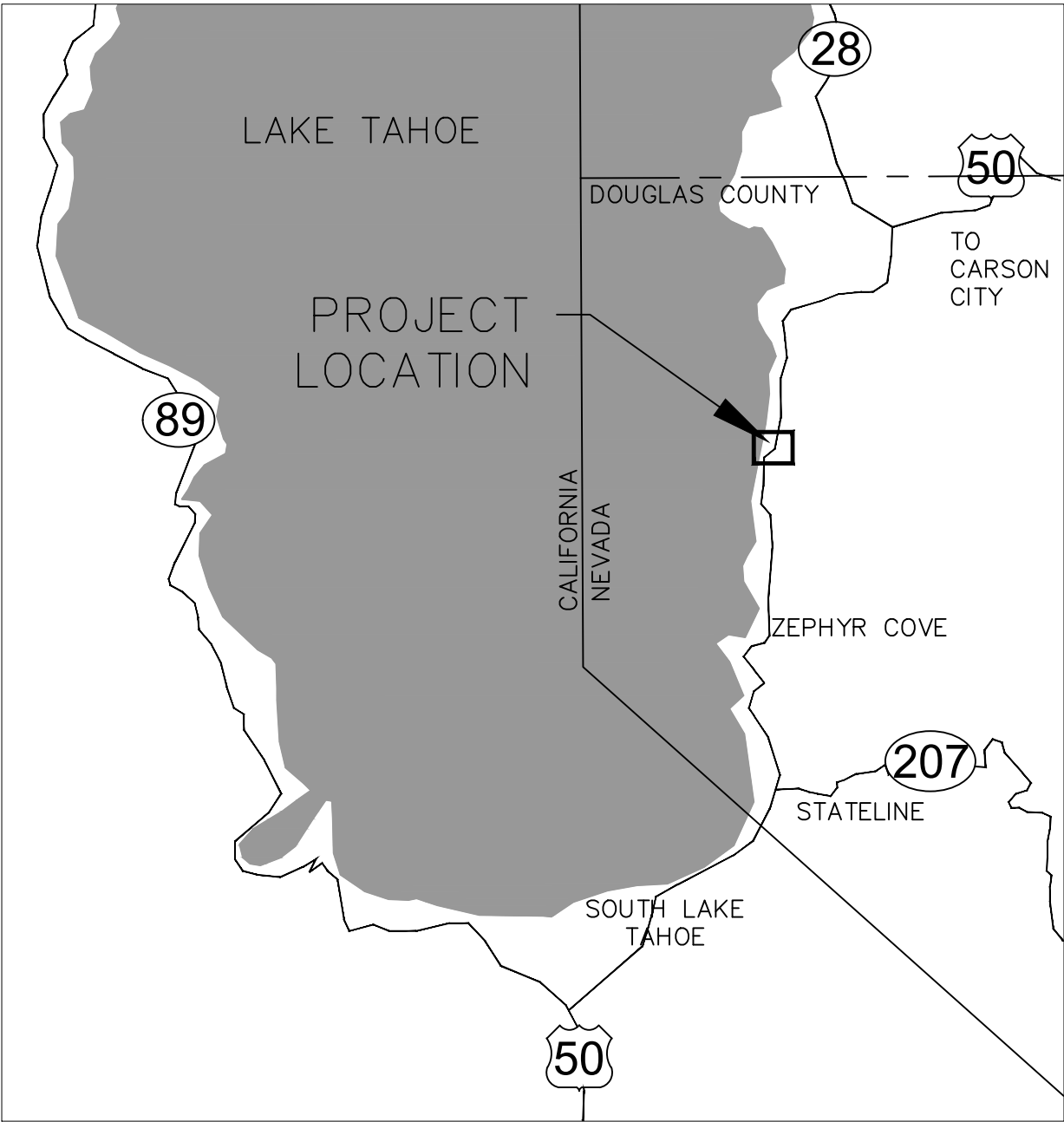
NEVADA TAHOE CONSERVATION DISTRICT  
PITTMAN TERRACE WATER QUALITY  
IMPROVEMENT PROJECT  
IN THE COUNTY OF DOUGLAS  
EIP #01.01.01.17



PLAN

SCALE: 1" = 150'


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VICINITY MAP

NOT TO SCALE

ENGINEER:

  
MEGHAN C. KELLY, P.E.  
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STATE OF NEVADA, NO. 20851  
NEVADA TAHOE CONSERVATION DISTRICT  
400 DORLA CT.  
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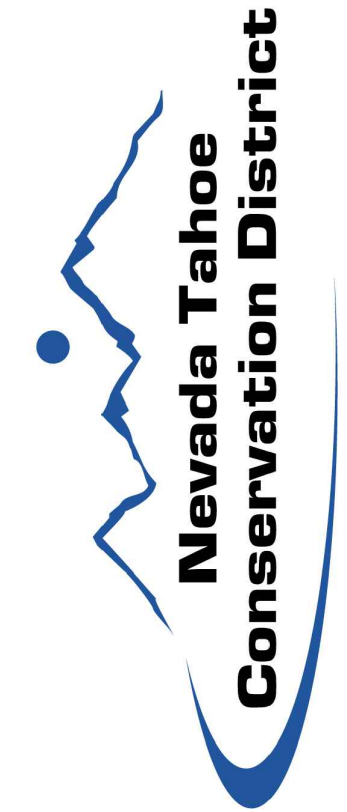
4/10/18

DATE

APPROVAL:

ERIK NILSSEN, P.E.  
DOUGLAS COUNTY ENGINEER

DATE



TITLE  
PITTMAN TERRACE WATER QUALITY  
IMPROVEMENT PROJECT

DESIGNED/DRAWN
MBG/CFW
CHECKED
MCK
DATE
04/2018
SCALE
AS SHOWN
PROJECT
PT
SHEET





GENERAL NOTES

1. ALL IMPROVEMENTS SHALL BE ACCOMPLISHED UNDER THE APPROVAL, INSPECTION, AND TO THE SATISFACTION OF NEVADA TAHOE CONSERVATION DISTRICT (NTCD), DOUGLAS COUNTY, & THE NEVADA DEPARTMENT OF TRANSPORTATION (NDOT). IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND ALL WORK AND MATERIALS SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION ("ORANGE BOOK" OR "STANDARD SPECIFICATIONS"). ALL WORK AND MATERIALS NOT IN CONFORMANCE WITH THESE AMENDED SPECIFICATIONS AND DETAILS ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS OBLIGATED TO BE FAMILIAR WITH APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS NOT DISCUSSED IN THE GENERAL NOTES. THE CONTRACT SPECIAL TECHNICAL PROVISIONS SHALL SUPERSEDE THOSE OF THE STANDARD SPECIFICATIONS WHERE DISCREPANCIES OCCUR.
2. ONE WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK, CONSTRUCTION OR INSTALLATIONS ASSOCIATED WITH THIS PERMIT, THE PERMITTEE SHALL NOTIFY THE DOUGLAS COUNTY INSPECTOR AT (775)782-6237OF INTENT TO BEGIN AND REQUEST/SCHEDULE PRECONSTRUCTION MEETING AT THE PROJECT SITE WITH DOUGLAS COUNTY CONSTRUCTION INSPECTOR. FAILURE TO PROVIDE PROPER INSPECTION NOTIFICATION AS PRESCRIBED ABOVE SHALL RESULT IN THIS PERMIT BECOMING INVALID AND WORK BEING STOPPED.
3. CONTRACTOR'S SHALL COMPLY WITH THE REQUIREMENTS TO OBTAIN THE NECESSARY SITE IMPROVEMENT PERMITS AND SHALL COMPLY WITH THE SITE IMPROVEMENT PERMIT CONDITIONS AS FOUND ON THE BACK OF THE PERMIT FORM.
4. THE APPROVED PLAN, PERMIT AND INSPECTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES
5. THE CONTRACTOR IS ADVISED THAT DAMAGE TO PUBLIC SERVICES OR SYSTEMS AS A RESULT OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AND INSPECTED BY THE ENGINEERING INSPECTOR. UNLESS OTHERWISE APPROVED BY THE COUNTY, ALL REPAIRS SHALL BE DONE WITHIN 24 HOURS. THE CONTRACTOR IS ADVISED THAT ANY COSTS RELATED TO REPAIR OR REPLACEMENT OF DAMAGED PUBLIC SERVICES AND SYSTEMS AS A RESULT OF CONTRACTOR'S ACTIVITIES SHALL BE BORNE BY THE CONTRACTOR.
6. CONTRACTOR SHALL MAINTAIN A SET OF PLANS ON SITE SHOWING "AS CONSTRUCTED" CHANGES. UPON COMPLETION, CONTRACTOR SHALL SUPPLY NDOT, DOUGLAS COUNTY, AND NTCD A SET OF "AS BUILT" PLANS. SEE SPECIAL PROVISIONS.
7. MOBILIZATION/STAGING AND STORAGE AREAS ARE TO BE SECURED BY THE CONTRACTOR AND APPROVED BY TRPA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF MOBILIZATION SITES, INCLUDING PLACEMENT AND MAINTENANCE OF BMPS.
8. PRIOR TO STARTING WORK, THE CONTRACTOR SHALL INSTALL TEMPORARY BMP MEASURES AT LOCATIONS WHERE NEEDED TO CONTROL EROSION AND WATER POLLUTION DURING THE CONSTRUCTION OF THE PROJECT. THE BMP MEASURES SHALL REMAIN IN PLACE AND FUNCTIONAL UNTIL A FUNCTIONAL CONDITION FOR THE DURATION OF THE CONSTRUCTION. DURING CONSTRUCTION ENVIRONMENTAL PROTECTION DEVICES, SUCH AS EROSION CONTROL, DUST CONTROL, AND VEGETATION PROTECTION DEVICES SHALL BE MAINTAINED AT ALL TIMES. SILT FENCE OR SEDIMENT LOGS WILL BE REQUIRED AT OTHER LOCATIONS AS SHOWN ON THE DRAWINGS OR STAKED IN THE FIELD BY THE ENGINEER. ALL EROSION CONTROL MEASURES SHALL MEET OR EXCEED TRPA REQUIREMENTS.
9. ALL EXISTING VEGETATION SHALL BE PRESERVED UNLESS SPECIFICALLY IDENTIFIED BY THE ENGINEER FOR REMOVAL. BMP'S TO PROTECT VEGETATION SHALL BE INSTALLED BY THE CONTRACTOR IF REQUIRED BY TRPA. CONTRACTOR TO REVEGETATE ANY AREAS OUTSIDE THE DISTURBED AREA SHOWN ON THE PLANS WITH PLANTS APPROVED BY TRPA AT THEIR OWN EXPENSE.
10. NTCD WILL PROVIDE ONE SET OF CONSTRUCTION STAKES AT NTCD'S EXPENSE. ADDITIONAL CONSTRUCTION STAKES WILL BE PROVIDED AT THE CONTRACTOR'S EXPENSE. LIMITS FOR ALL ITEMS OF WORK SHALL BE STAKED IN THE FIELD BY THE ENGINEER. THESE LIMITS AND THE RESULTING TREATMENT LENGTH/AREAS MAY VARY FROM THOSE SHOWN ON THE DRAWINGS. PAYMENT FOR ITEMS OF WORK WILL BE MADE FOR THE AMOUNT AUTHORIZED BY THESE FIELD STAKED LIMITS AND THE SPECIAL TECHNICAL PROVISIONS.
11. UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. WHERE EXCAVATION IS NECESSARY, THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (USA) AND ALL AFFECTED UTILITY COMPANIES TO LOCATE ALL BURIED UTILITIES AT LEAST 48 HOURS PRIOR TO EXCAVATION. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES FOR RELOCATION OF UTILITIES AS REQUIRED BY THE WORK. WHENEVER CONNECTIONS TO OR CLEARANCE FROM ANY UTILITY IS REQUIRED, THE CONTRACTOR SHALL POTHOLE TO VERIFY THE LOCATION, SIZE AND MATERIAL OF THE UTILITY PRIOR TO CONSTRUCTION. NOTE THAT MANY OF THE UTILIZES ARE PRIVATE AND MAY NOT BE IDENTIFIED BY USA.
12. ASPHALT REPLACEMENT SHALL INCORPORATE A 4% ±1% CROSS SLOPE BETWEEN THE SAWCUT AND THE NEW ROADSIDE TREATMENT. NEW ROADSIDE FLOW CONVEYANCES SHALL INCORPORATE SUCH GRADE AS NECESSARY TO GUARANTEE WATER CONTINUES TO FLOW IN THE PRESENT DIRECTION, WITHOUT PONDING OR BREAKOUTS.
13. ANY DAMAGE DONE BY THE CONTRACTOR OR HIS SUBCONTRACTORS TO PRIVATE PROPERTY AND/OR OUTSIDE OF THE NOTED LIMITS OF WORK IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND/OR HIS SUBCONTRACTORS.
14. THE CONTRACTOR WILL PROVIDE INITIAL TESTING AND INSPECTION OF WORK AND MATERIAL AT CONTRACTOR'S EXPENSE. THE COST OF REMOVAL AND/OR REPLACEMENT OF ANY DEFECTIVE WORK OR MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR. THE COST OF RETESTING AND/OR INSPECTING OF REPLACED WORK AND MATERIAL IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR. SUCH COSTS WILL BE DEDUCTED FROM ANY MONEYS DUE OR WHICH MAY BECOME DUE TO THE CONTRACTOR.
15. STANDARD WORK DAYS SHALL BE MONDAY THROUGH FRIDAY. SATURDAY AND SUNDAY MAY BE WORKED ON OCCASION ONLY TO MAKE UP FOR WEATHER DELAYS OR OTHER SCHEDULE DELAYS WITH TRPA APPROVAL. NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
16. NOISE SHALL BE REDUCED BY THE MANDATORY USE OF MUFFLERS ON ALL CONSTRUCTION VEHICLES AND EQUIPMENT. WHERE FEASIBLE, SOLENOIDAL PAVEMENT BREAKERS WILL BE USED IN LIEU OF AIR POWERED JACK HAMMERS. NOISE GENERATING ACTIVITIES WILL BE LIMITED TO THE HOURS OF 8:00 AM TO 6:30 PM.
17. ALL STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING OPERATIONS. ALL OPERATIONS SHALL COMPLY WITH PERMIT REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE A WATER TRUCK TO WATER AREAS AS NECESSARY TO CONTROL DUST. THE CONTRACTOR WILL PROVIDE SWEEPING PER SPECIFICATION.
18. ALL TREES AND NATURAL VEGETATION TO REMAIN ON THE SITE SHALL BE PROTECTED PER TRPA.
19. SOIL AND CONSTRUCTION MATERIAL SHALL NOT BE TRACKED OFF THE CONSTRUCTION SITE. GRADING OPERATIONS SHALL CEASE IN THE EVENT THAT A DANGER OF VIOLATING THIS CONDITION EXISTS.
20. LOOSE SOIL MOUNDS OR SURFACES SHALL BE PROTECTED FROM WIND OR WATER EROSION BY BEING APPROPRIATELY COVERED WHEN CONSTRUCTION IS NOT IN ACTIVE PROGRESS OR WHEN REQUIRED BY TRPA.
21. EXCAVATED MATERIAL SHALL BE STORED UPGRADE FROM THE EXCAVATED AREA WHENEVER POSSIBLE. NO MATERIAL SHALL BE STORED IN ANY STREAM ENVIRONMENT ZONE (SEZ) OR WET AREA.
22. ONLY EQUIPMENT OF A SIZE AND TYPE THAT WILL DO THE LEAST AMOUNT OF DAMAGE, UNDER PREVAILING SITE CONDITIONS, AND CONSIDERING THE NATURE OF THE WORK TO BE PERFORMED, WILL BE USED.
23. NO WASHING OF VEHICLES OR HEAVY EQUIPMENT, INCLUDING CEMENT MIXERS, SHALL BE PERMITTED ANYWHERE ON THE SUBJECT PROPERTY UNLESS AUTHORIZED BY TRPA IN WRITING.
24. NO VEHICLE OR HEAVY EQUIPMENT SHALL BE ALLOWED IN A STREAM ENVIRONMENT ZONE OR WET AREA EXCEPT AS AUTHORIZED BY TRPA.
25. ALL CONSTRUCTION SHALL BE WINTERIZED BY OCTOBER 15 TO REDUCE THE WATER QUALITY IMPACTS ASSOCIATED WITH WINTER WEATHER.
26. THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE IN, THE NDOT RIGHT-OF-WAYS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SYSTEM.
27. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LONGER THAN 24 HOURS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS BEEN TEMPORARILY OR PERMANENTLY CEASED.

28. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMP'S WEEKLY, PRIOR TO A FORECASTED RAIN EVENT AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS FROZEN GROUND CONDITIONS OF SOSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO STORM WATER GENERAL PERMIT NVR100000, SECTION 1.B.1.g. AND THE PROJECT SWPPP
25. TRAFFIC CONTROL AND LANE CLOSURES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND PER NDOT STANDARD SPECIFICATIONS OR DOUGLAS COUNTY STANDARDS WHERE APPICABLE. THE CONTRACTOR SHALL OBTAIN AND MAINTAIN ALL APPLICABLE PERMITS. ANY ROAD CLOSURES REQUIRE THE CONTRACTOR TO OBTAIN A ROAD CLOSURE PERMIT FROM DOUGLAS COUNTY.
26. ACCESS TO HOMES AND PUMP STATIONS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF CONSTRUCTION
27. IF A FIRE HYDRANT IS NEEDED TO OBTAIN CONSTRUCTION WATER, THE CONTRACTOR SHALL OBTAIN A FIRE HYDRANT METER FROM DOUGLAS COUNTY PUBLIC WORKS OR APPLICABLE WATER PURVEYOR AND PAY ALL APPLICABLE FEES AND CHARGES.
28. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MINIMUM COMPRESSIVE STRENGTH @ 28 DAYS; (CURB AND GUTTER TRANSITION ONLY, ALL UNEXPOSED CONCRETE MAY BE 3000 PSI), MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. ALL MATERIALS SHALL CONFORM TO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION SECTION 202.
29. REINFORCING STEEL SHALL BE GRADE 40 AND 1.5 INCHES MINIMUM CLEAR COVER.
30. ALL STORM DRAIN PIPE AND STRUCTURES SHALL BE CLEANED OF SEDIMENT AND DEBRIS PRIOR TO ISSUANCE OF A NOTICE OF COMPLETION OR CERTIFICATE OF OCCUPANCY.
31. FRAMES AND GRATES SHALL BE MATCHED TO ACHIEVE A CLOSE TOLERANCE FIT, WITH MINIMAL GAPS, AS APPROVED BY THE STORM DRAIN UTILITY.
32. GRATES SHALL BE PLACED OUTSIDE OF THE PEDESTRIAN TRAVELED WAY. GRATE OPENINGS SHALL NOT EXCEED 0.5 INCHES IN WIDTH OR 4 INCHES IN LENGTH. GRATES SHALL BE TRAFFIC RATED AND ADA COMPLIANT.
33. SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL, OR AS DETERMINED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE COUNTY.
34. FILL AREAS SHALL BE CLEARED OF ALL VEGETATION AND DEBRIS, SCARIFIED, AND BE APPROVED BY THE ENGINEER OF RECORD PRIOR TO THE PLACING OF FILL.

ABBREVIATIONS

NOT ALL ABBREVIATIONS LISTED ARE USED IN THESE PLANS

A.B.	AGGREGATE BASE	MDD	MAXIMUM DRY DENSITY
AC.	ACRE	MJ	MECHANICAL JOINT
AC OR A.C.	ASPHALT CONCRETE OR ASBESTOS CEMENT	MI.	MILE
@	AT	MIN.	MINIMUM
APPROX.	APPROXIMATE	MISC.	MISCELLANEOUS
AVG.	AVERAGE	N	NORTH
AWWA	AMERICAN WATER WORKS ASSOCIATION	NAC	NEVADA ADMINISTRATIVE CODE
BC	BEGIN CURVE	N.I.C.	NOT IN CONTRACT
BGN	BEGIN	NDOT	NEVADA DEPT OF TRANSPORTATION
C&G	CURB AND GUTTER	NTCD	NEVADA TAHOE CONSERVATION DISTRICT
CATV	CABLE TELEVISION	N.T.S.	NOT TO SCALE
C.B.	CATCH BASIN	NO.	NUMBER
CBM	CHANNEL BED MATERIAL	OC	ON CENTER
CL	CENTERLINE	OD	OUTSIDE DIAMETER
CLF	CONSTRUCTION LIMIT FENCE	OFF	OFFSET
CLR.	CLEAR	OG	ORIGINAL GRADE
CO.	CLEAN OUT	OH(E/T)	OVERHEAD ELECTRIC OR TELEPHONE LINES
CONST.	CONSTRUCT	±	PLUS OR MINUS
CF	CUBIC FEET	PT.	POINT
CMP	CORRIGATED METAL PIPE	PCC	POINT OF COMPOUND CURVE, PORTLAND CEMENT
CMAP	CORRIGATED METAL ARCH PIPE	PC	POINT OF CURVATURE
CY	CUBIC YARD	PI	POINT OF INFLECTION
DBH	DIAMETER AT BREAST HEIGHT	PIP	PROTECT IN PLACE
DEG	DEGREE(S)	PVC	POLYVINYL CHLORIDE
D.G.	DECOMPOSED GRANITE	PWMT	PAVEMENT
DI	DROP INLET	PQC	POINT ON CURVE
DIA.	DIAMETER	POS	POSITIVE
DR	DIMENSION RATIO	PRC	POINT OF REVERSE CURVE
DWG	DRAWING	PSI	POUNDS PER SQUARE INCH
DW, DWY	DRIVEWAY	PL	PROPERTY LINE
EA.	EACH	PO	PUSH ON
EASE.	EASEMENT	PUE	PUBLIC UTILITY EASEMENT
EG	EXISTING GRADE	R	RADIUS
ELEC	ELECTRIC	RCP	REINFORCED CONCRETE PIPE
EP	EDGE OF PAVEMENT	REVEG	REVEGATATION
ELEV. OR EL.	ELEVATION	RLC	ROCK LINED CHANNEL
EC	END CURVE	RT,R	RIGHT
EWEF	EACH WAY EACH FACE	R/W, ROW	RIGHT-OF-WAY
EX.	EXISTING	S	SLOPE OR SOUTH
FG	FINISH GRADE	SD	STORM DRAIN
FH	FIRE HYDRANT	SDMH	STORM DRAIN MANHOLE
FCA	FLANGE COUPLER ADAPTER	SDR	STANDARD DIMENSION RATIO
FES	FLARED END SECTION (METAL)	SF	SQUARE FOOT/FEET
FF	FILTER FENCE	SHT	SHEET
FL.	FLOWLINE	STA	STATION
FLG	FLANGED	STD	STANDARD
FT.	FOOT, FEET	SS	SANITARY SEWER, STAINLESS STEEL
FTG	FOOTING	SSCO.	SANITARY SEWER CLEAN OUT
FV	FLUSH VALVE	SSMH	SANITARY SEWER MANHOLE
*	DEGREE	SSPWC	STANDARD SPECIFICATIONS FOR PUBLIC WORKS
G	GAS	SWPPP	STORM WATER POLLUTION PREVENTION PLAN
GV	GATE VALVE	SY	SQUARE YARD
GB	GRADE BREAK	TBC	TOP BACK OF CURB
HDPE	HIGH DENSITY POLYETHYLENE	TOC	TOP OF CURB
HDPE-NP	NON-PERFORATED HIGH DENSITY POLYETHYLENE	TRPA	TAHOE REGIONAL PLANNING AGENCY
HDPE-P	PERFORATED HIGH DENSITY POLYETHYLENE	TW	TOP OF WALL
HP	HIGH POINT	(TYP)	TYPICAL
HOR., HORIZ.	HORIZONTAL	UGE	UNDERGROUND ELECTRIC LINES
HWY	HIGHWAY	UGT	UNDERGROUND TELEPHONE LINES
IN.	INCH	VC	VERTICAL CURVE
IE	INVERT ELEVATION	VG	VALLEY GUTTER
IRR.	IRRIGATION	VPC	VERTICAL POINT OF CURVATURE
L	LEFT	VPI	VERTICAL POINT OF INFLECTION
LEN.	LENGTH	VPT	VERTICAL POINT OF TANGENT
LF	LINEAR FEET	W	WATER
LID	LOW IMPACT DEVELOPMENT	WL	WATERLINE
LP	LOW POINT	W	WEST
LS	LUMP SUM	W/	WITH
MH	MANHOLE	WM	WATER METER
MAX.	MAXIMUM		

LEGEND

NOTE: LEGENDS PROVIDED ON INDIVIDUAL PLAN SHEETS OVERRIDE THIS LEGEND

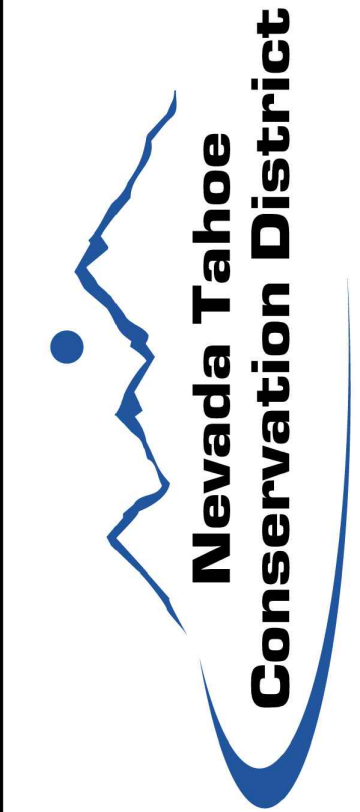
EXISTING	PROPOSED
MAJOR CONTOUR	MAJOR CONTOUR
MINOR CONTOUR	MINOR CONTOUR
EXISTING MAJOR CONTOUR LABEL	PROPOSED MAJOR CONTOUR LABEL
EXISTING ALIGNMENT	PROPOSED ALIGNMENT(ROAD CENTERLINE)
EXISTING GRADE (SECTION VIEW)	GRADING DAYLIGHT LINE/GRADING LIMIT
PROPERTY LINE	GRADING LINE/FEATURE LINE
EXISTING FENCE	PROPOSED GRADE (SECTION VIEW)
OR	CONSTRUCTION LIMIT FENCE
STORM DRAIN LINE	FILTER FENCE
CATCH BASIN	SEDIMENT ROLL
STORM DRAIN MANHOLE	EROSION CONTROL BLANKET
WATER LINE	STAGING AREA
WATER METER/ VALVE	PROPOSED PIPE
SANITARY SEWER LINE	PROPOSED CONCRETE
SANITARY SEWER MANHOLE	PROPOSED VEGETATION/WILLOW
OVERHEAD ELECTRIC LINE	ROCK LINED CHANNEL (PLAN VIEW)
POWER POLE	SEDIMENT REMOVAL
UNDER GROUND TELEPHONE LINES	ROCK (SECTION VIEW)
OVERHEAD TELEPHONE LINES	ROCK DISSIPATER
UNDERGROUND FIBER OPTIC LINES	
UNDERGROUND GAS LINES	
DRAINAGE	PROJECT BOUNDARY
TREE	PROPOSED FENCE (TYPE SPECIFIED ON PLAN)
FIRE HYDRANT	
CURB	
OR	
CONCRETE	
CONTROL POINT	
BUILDING	
PRIVATE DRIVEWAY	
SIGN	
ROCK LINED CHANNEL	
EXISTING ROCK WALL	
125-382-13	ASSESSOR PARCEL NUMBER
JOHN A. SMITH	OWNER (PRIVATE LOT)

UTILITIES

CABLE TELEVISION	CHARTER COMMUNICATIONS, (775) 588-1077
NATURAL GAS	N/A
ELECTRIC	NV ENERGY, (775) 834-4444
STORM DRAIN	DOUGLAS COUNTY PUBLIC WORKS (775) 782-9989
SEWER	DOUGLAS COUNTY SEWER IMPROVEMENT DISTRICT (775) 588-3558
WATER	PRIVATE SYSTEMS
PHONE	FRONTIER (775) 782-0966
USA DIGS	(800) 642-2444 OR 811

HORIZONTAL AND VERTICAL PROJECTION

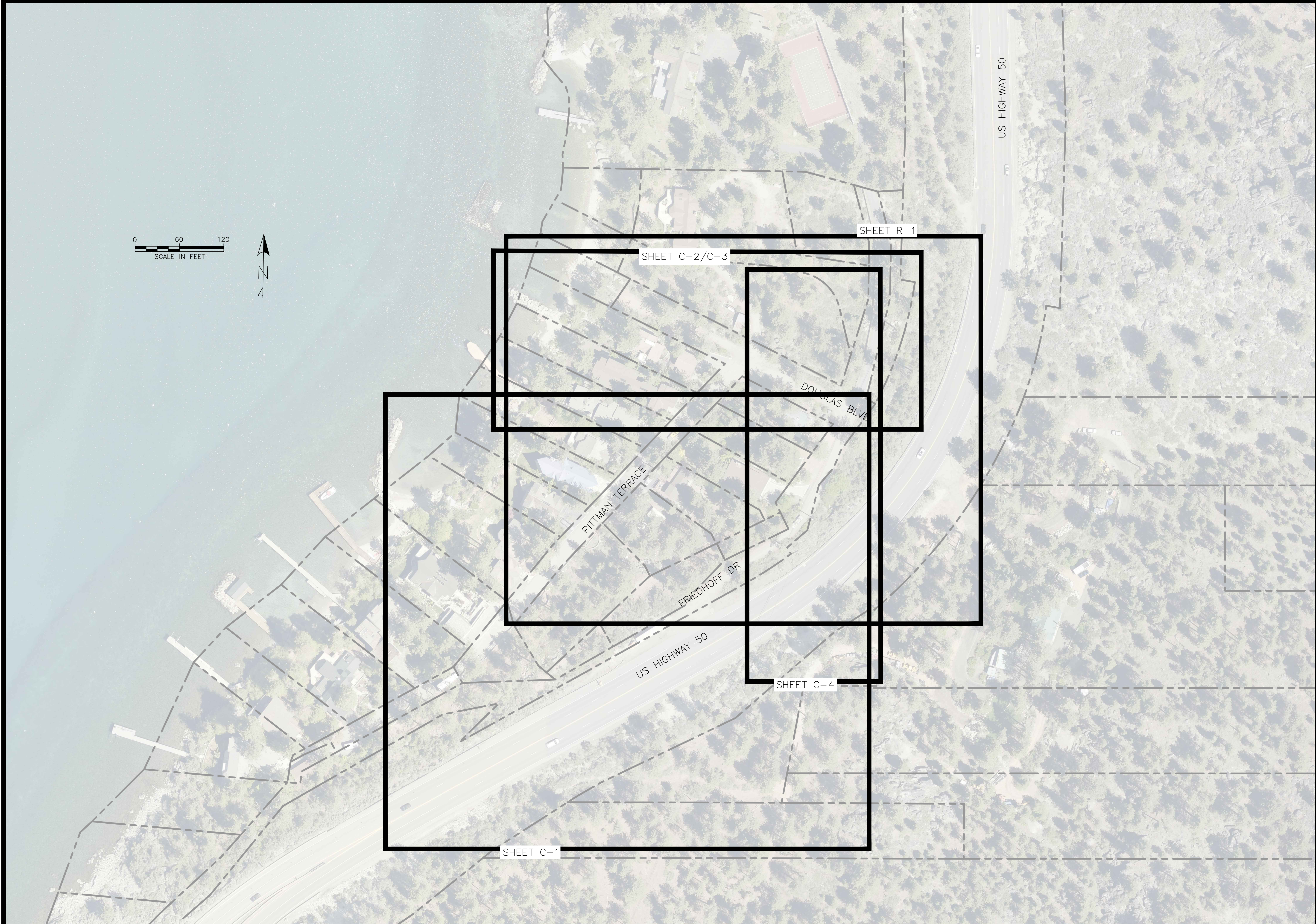
VERTICAL CONTROL IS DATUM NAVD 88 (US FEET);  
HORIZONTAL CONTROL IS HORIZONTAL DATUM NAD 83 STATE PLANE COORDINATE SYSTEM  
NEVADA ZONE WEST (U.S. FEET).



GENERAL NOTES  
PITTMAN TERRACE WATER QUALITY  
IMPROVEMENT PROJECT

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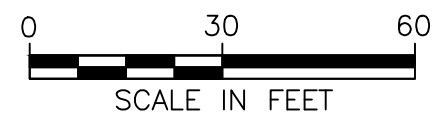
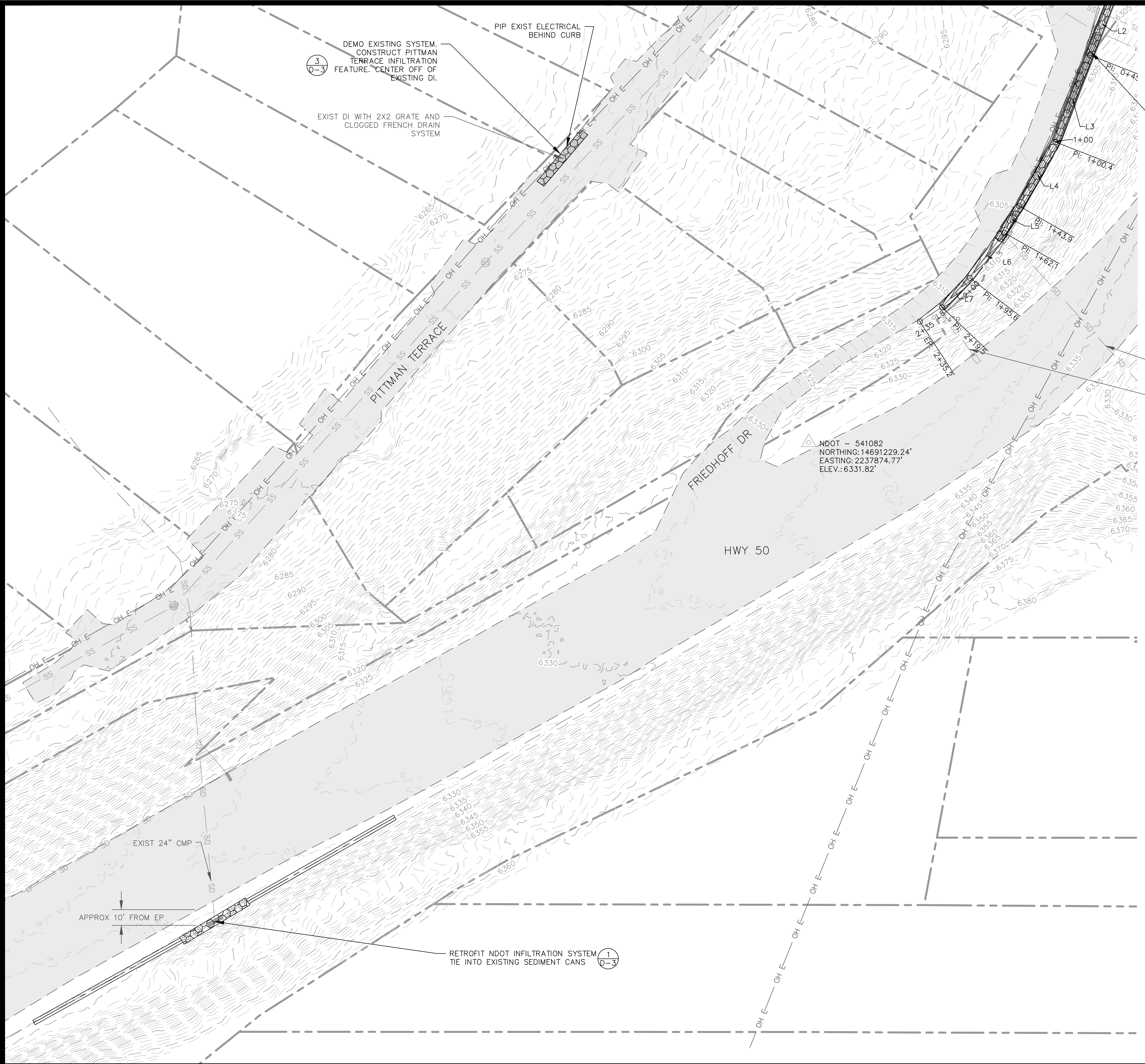
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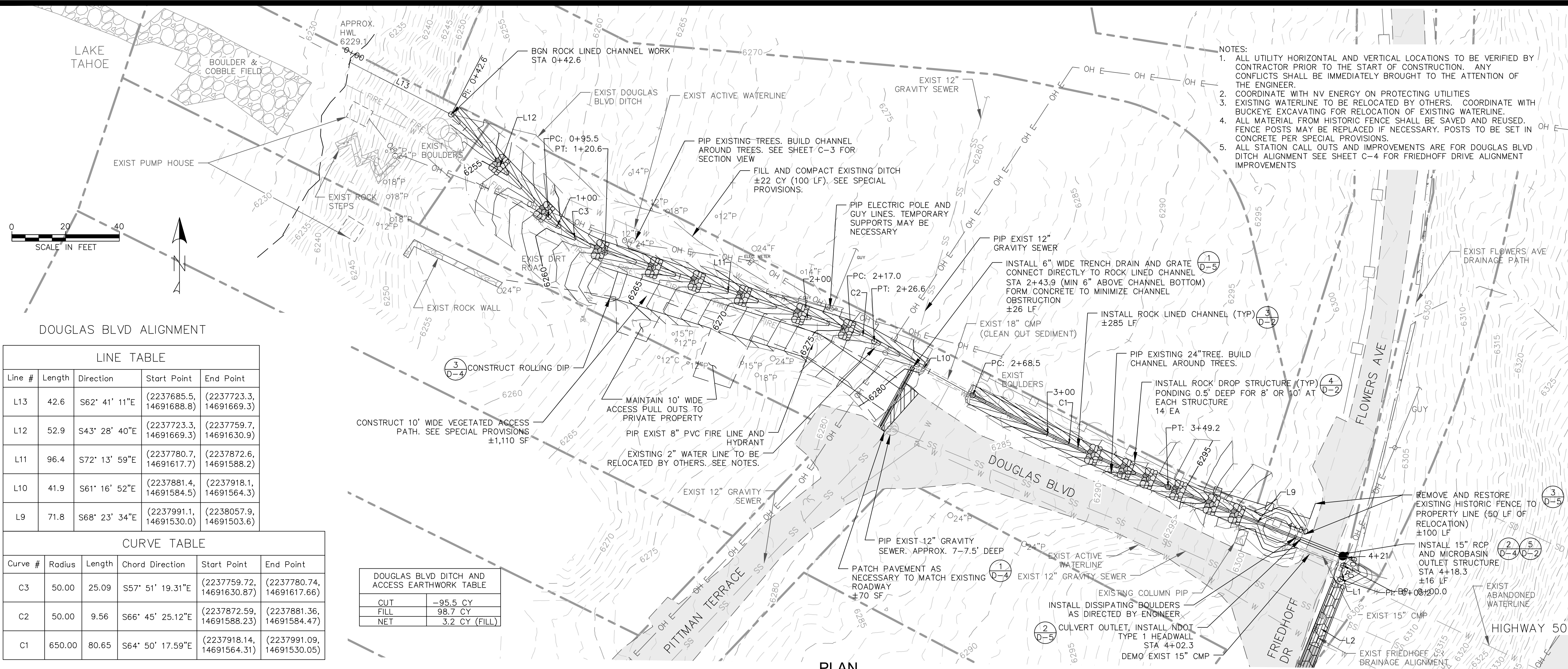
**HIGHWAY 50 IMPROVEMENTS  
PITTMAN TERRACE WATER QUALITY  
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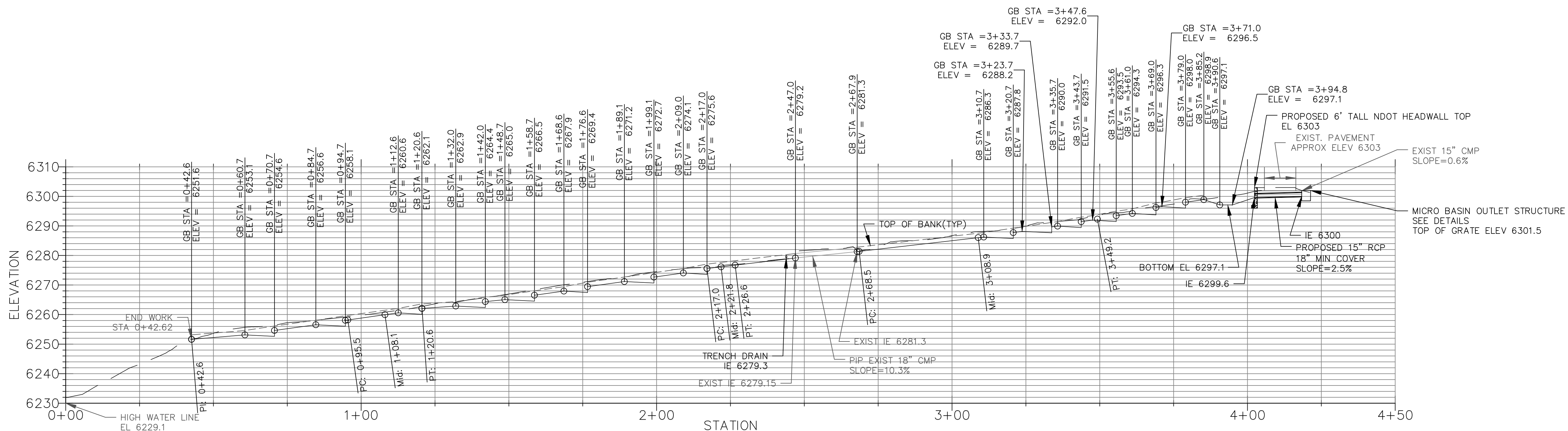
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**C-1**  
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PLAN  
SCALE: 1" = 20'



**Nevada Tahoe  
Conservation District**

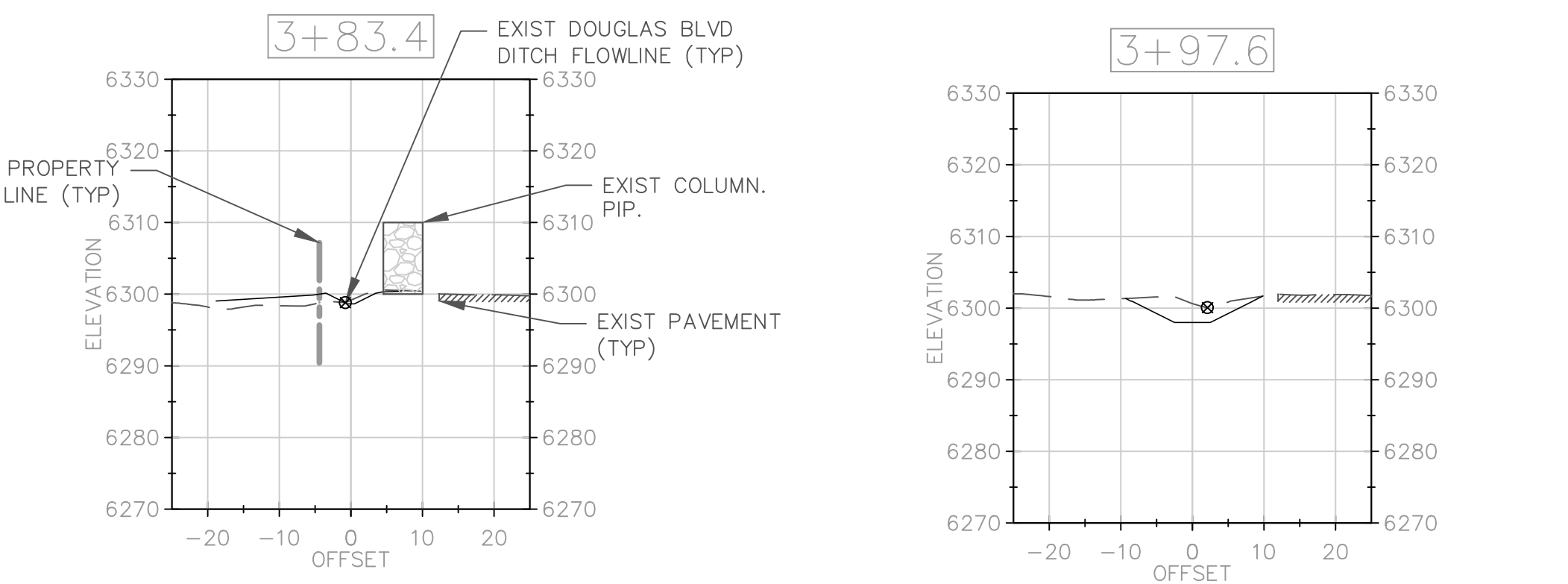
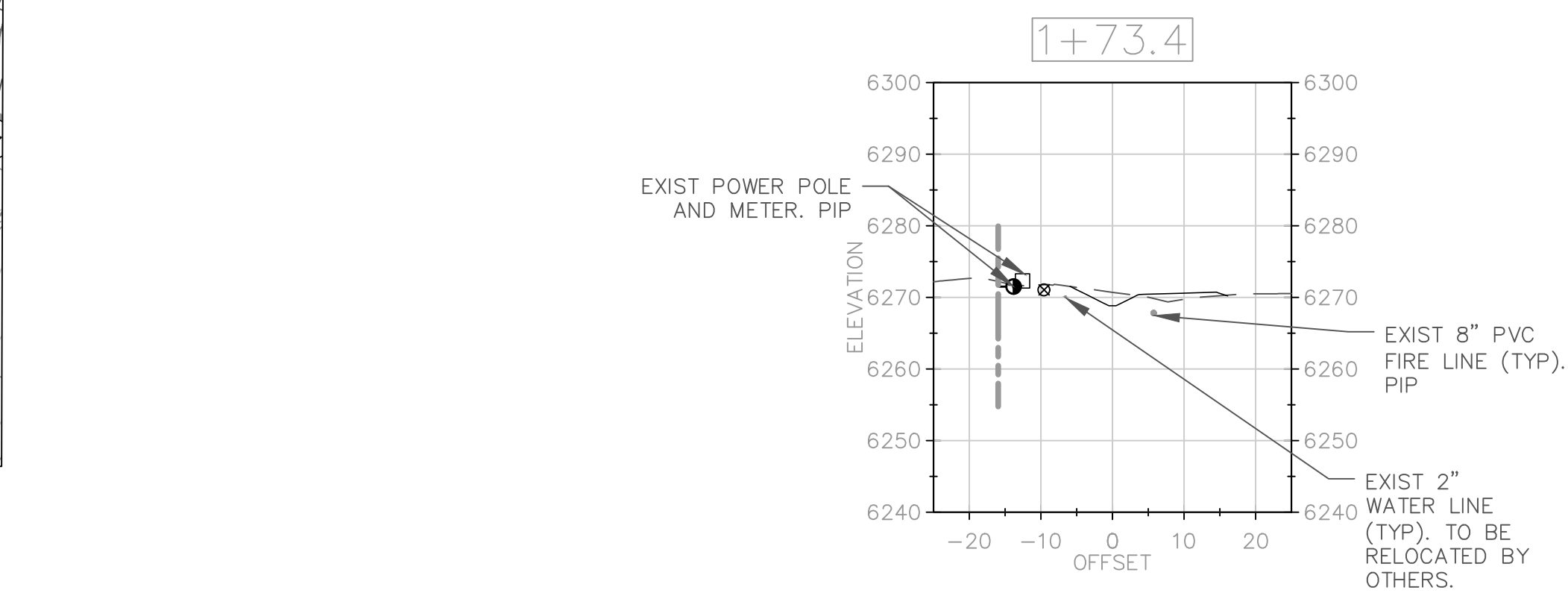
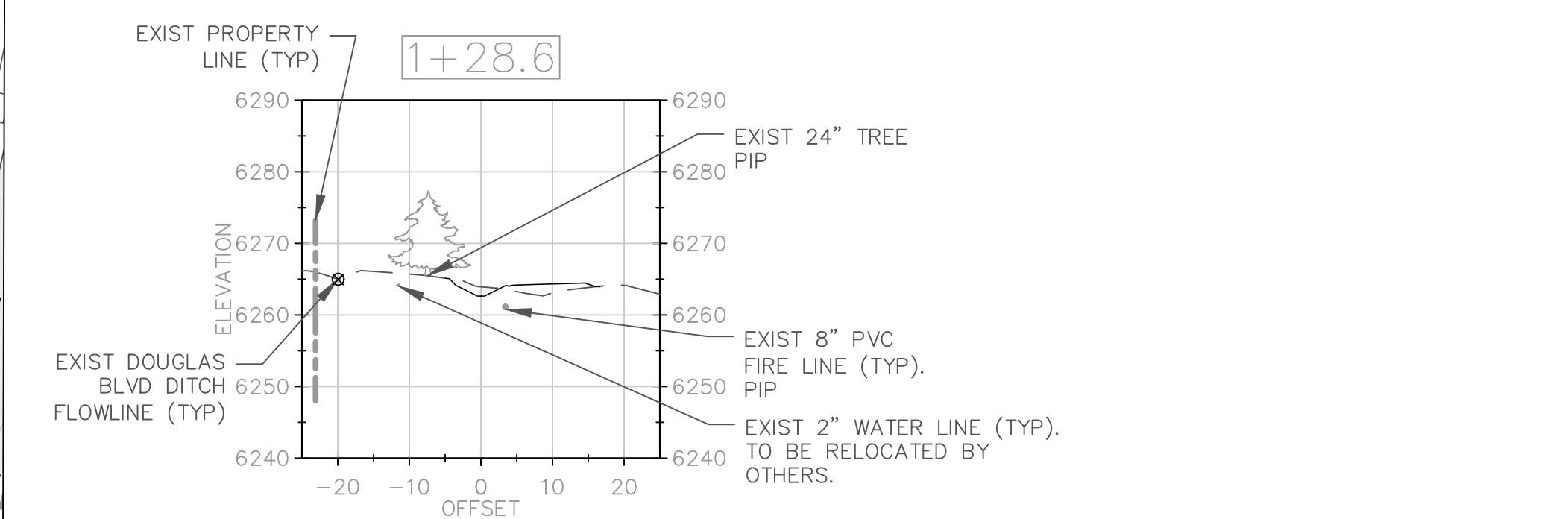
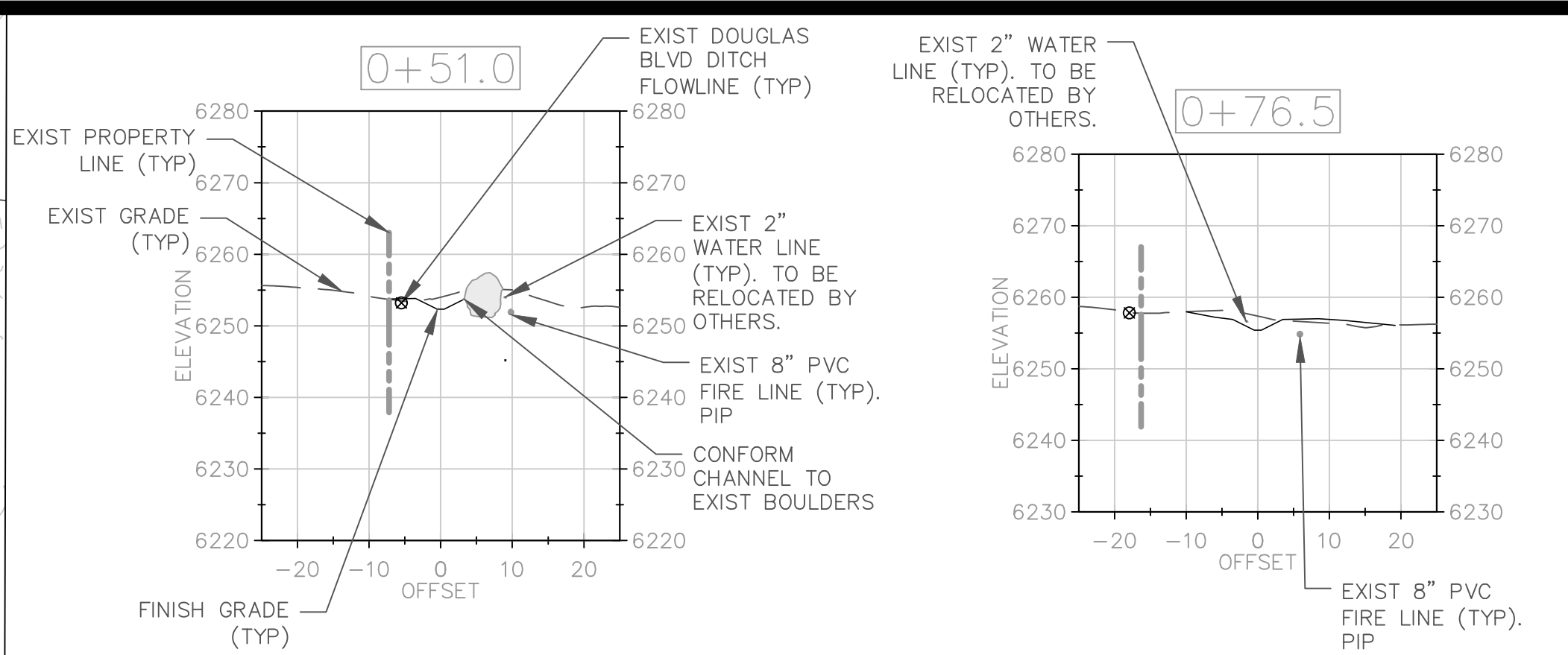
MEGHAN C. KELLY  
Exp: 6/30/2019  
CIVIL  
No. 20851

**DOUGLAS BLVD DRAINAGE  
PITTMAN TERRACE WATER QUALITY  
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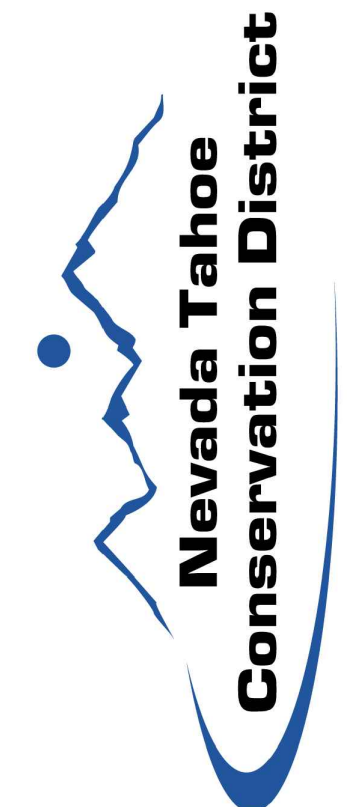




- NOTES:
1. ALL UTILITY HORIZONTAL AND VERTICAL LOCATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY CONFLICTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
  2. COORDINATE WITH NV ENERGY ON PROTECTING UTILITIES.
  3. EXISTING WATERLINE TO BE RELOCATED BY OTHERS. COORDINATE WITH BUCKEYE CONSTRUCTION FOR RELOCATION OF EXISTING WATERLINE.
  4. LOCATION OF ABANDONED WATERLINE ON UPSTREAM PORTION OF DOUGLAS BLVD DITCH (STA 3+00 AND HIGHER) IS UNKNOWN AND IS THEREFORE NOT SHOWN IN CROSS SECTIONS. CONTRACTOR TO TAKE CARE DURING EXCAVATION AND INFORM ENGINEER OF ANY CONFLICT IMMEDIATELY/
  5. ALL STATION CALL OUTS ARE FOR DOUGLAS BLVD DITCH ALIGNMENT

### DOUGLAS BLVD SECTIONS

SCALE: HORIZ: 1" = 20'; H: V = 1:1

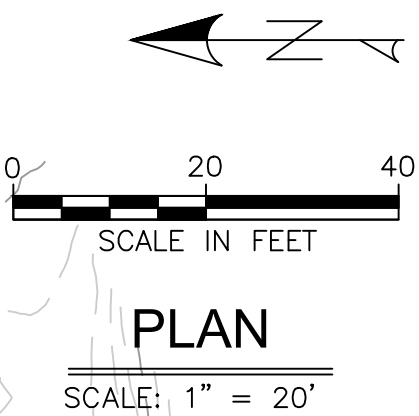
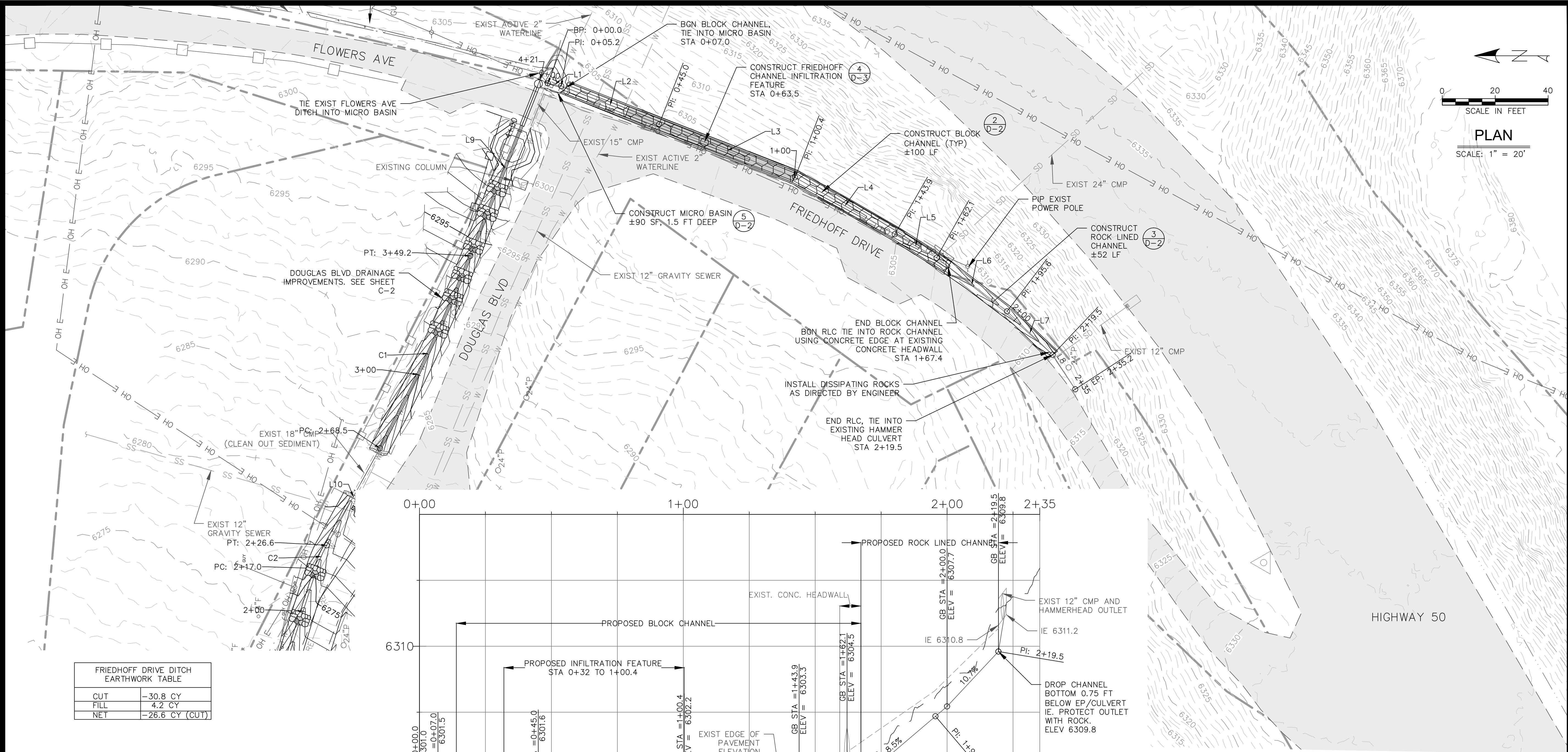


### DOUGLAS BLVD SECTIONS PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

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PROJECT
PT

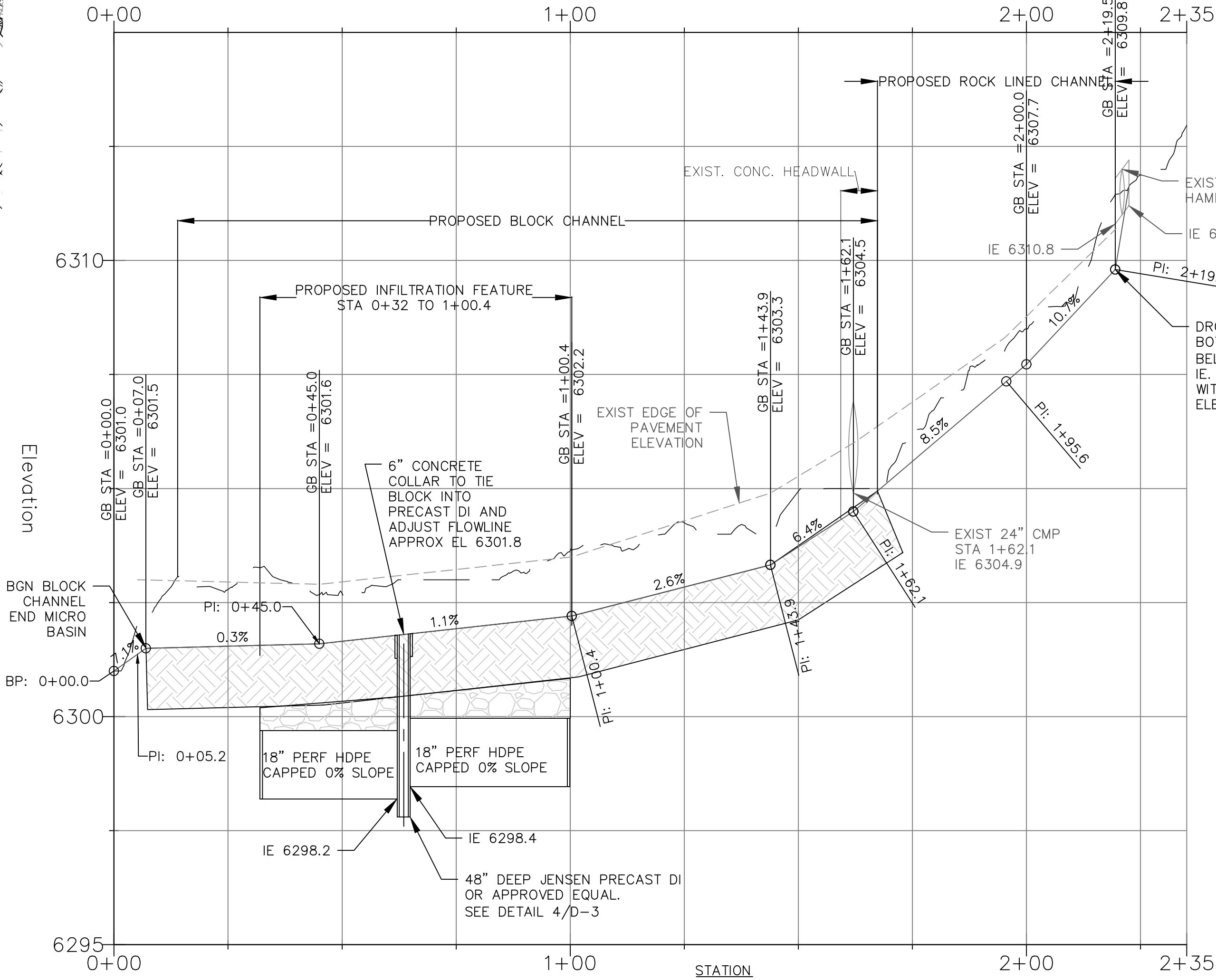
SHEET  
**C-3**  
7 OF 14





FRIEDHOFF DRIVE DITCH EARTHWORK TABLE	
CUT	-30.8 CY
FILL	4.2 CY
NET	-26.6 CY (CUT)

FRIEDHOFF DRIVE ALIGNMENT LINE TABLE				
Line #	Length	Direction	Start Point	End Point
L1	5.2	S11° 17' 51"W	(2238056.5, 14691500.6)	(2238055.5, 14691495.6)
L2	39.9	S21° 26' 49"W	(2238055.5, 14691495.6)	(2238040.9, 14691458.5)
L3	55.3	S21° 14' 19"W	(2238040.9, 14691458.5)	(2238020.9, 14691406.9)
L4	43.5	S29° 46' 57"W	(2238020.9, 14691406.9)	(2237999.3, 14691369.1)
L5	18.2	S29° 16' 11"W	(2237999.3, 14691369.1)	(2237990.4, 14691353.2)
L6	33.5	S37° 16' 09"W	(2237990.4, 14691353.2)	(2237970.1, 14691326.6)
L7	23.9	S43° 30' 07"W	(2237970.1, 14691326.6)	(2237953.6, 14691309.2)
L8	15.7	S56° 56' 02"W	(2237953.6, 14691309.2)	(2237940.5, 14691300.7)



- NOTES:
1. ALL UTILITY HORIZONTAL AND VERTICAL LOCATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. ANY CONFLICTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
  2. ROCK LINED AND BLOCK CHANNEL ALONG FRIEDHOFF DRIVE SHALL FOLLOW THE EXISTING EDGE OF PAVEMENT AND BE INSTALLED BELOW THE EDGE OF PAVEMENT AND WITH THE DIMENSIONS PER DETAIL SHEETS. PROFILE ELEVATIONS ARE GIVEN FOR GUIDENCE. ACTUAL INSTALLATION WILL DEPEND ON BEST FIT AND BE INITIALLY STAKED OUT BY NTCD.
  3. ALL STATION CALL OUTS AND IMPROVEMENTS ARE FOR FRIEDHOFF DRIVE DITCH ALIGNMENT. SEE SHEET C-2 FOR DOUGLAS BLVD ALIGNMENT IMPROVEMENTS.
  4. NET CUT TO BE USED IN "COMPACT AND FILL EXISTING DITCH" ADJACENT TO DOUGLAS BLVD. SEE SHEET C-2

**Nevada Tahoe Conservation District**

PROFESSIONAL ENGINEER - STATE OF NEVADA  
MEGHAN C. KELLY  
Exp: 6/30/2019  
CIVIL  
No. 20851

**FRIEDHOFF DRIVE DRAINAGE  
PITTMAN TERRACE WATER QUALITY  
IMPROVEMENT PROJECT**

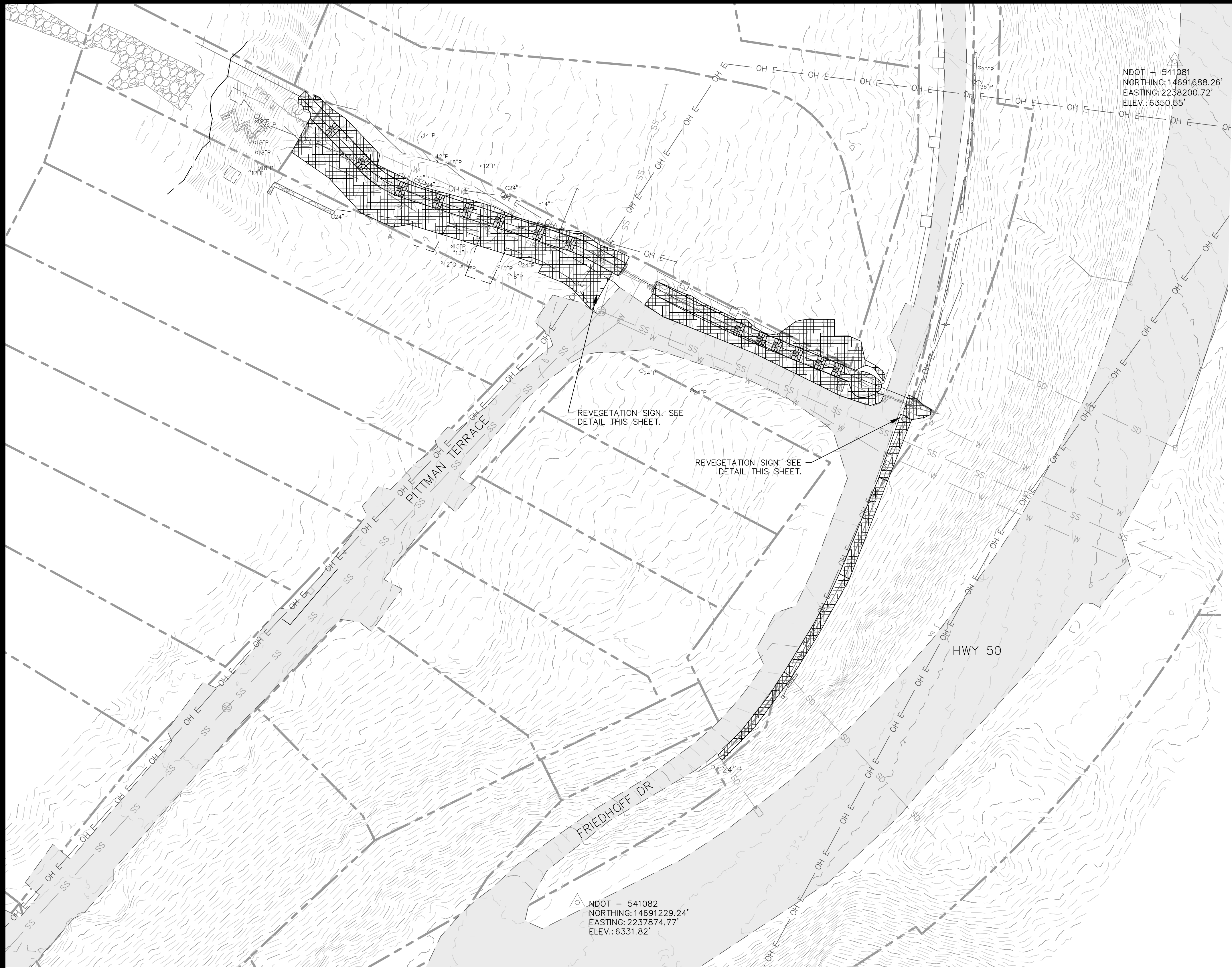
DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	04/2018
SCALE	AS SHOWN
PROJECT	PT

SHEET

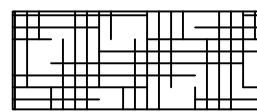
**C-4**

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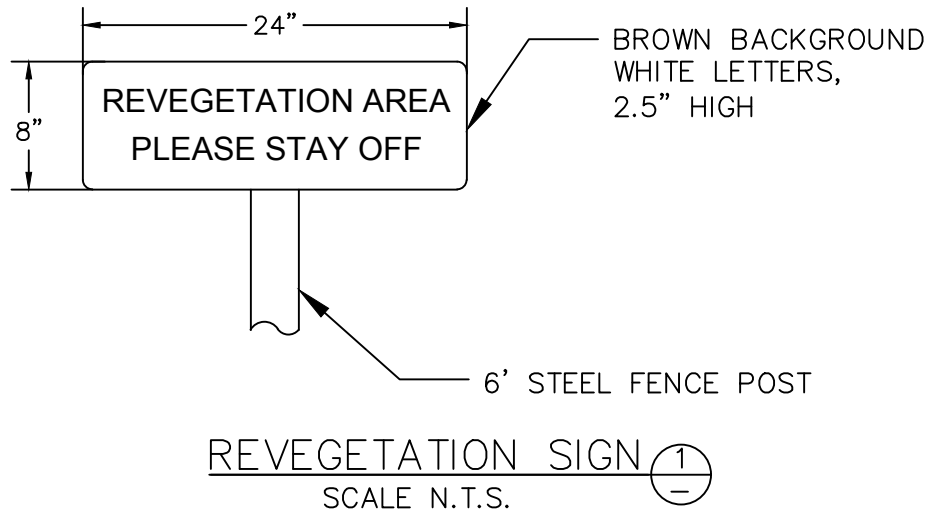


REVEGETATION LEGEND

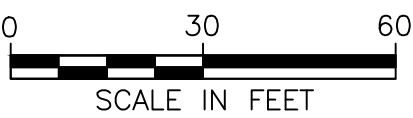


TREATMENT TYPE 1: UPLAND (±8,930 SF)

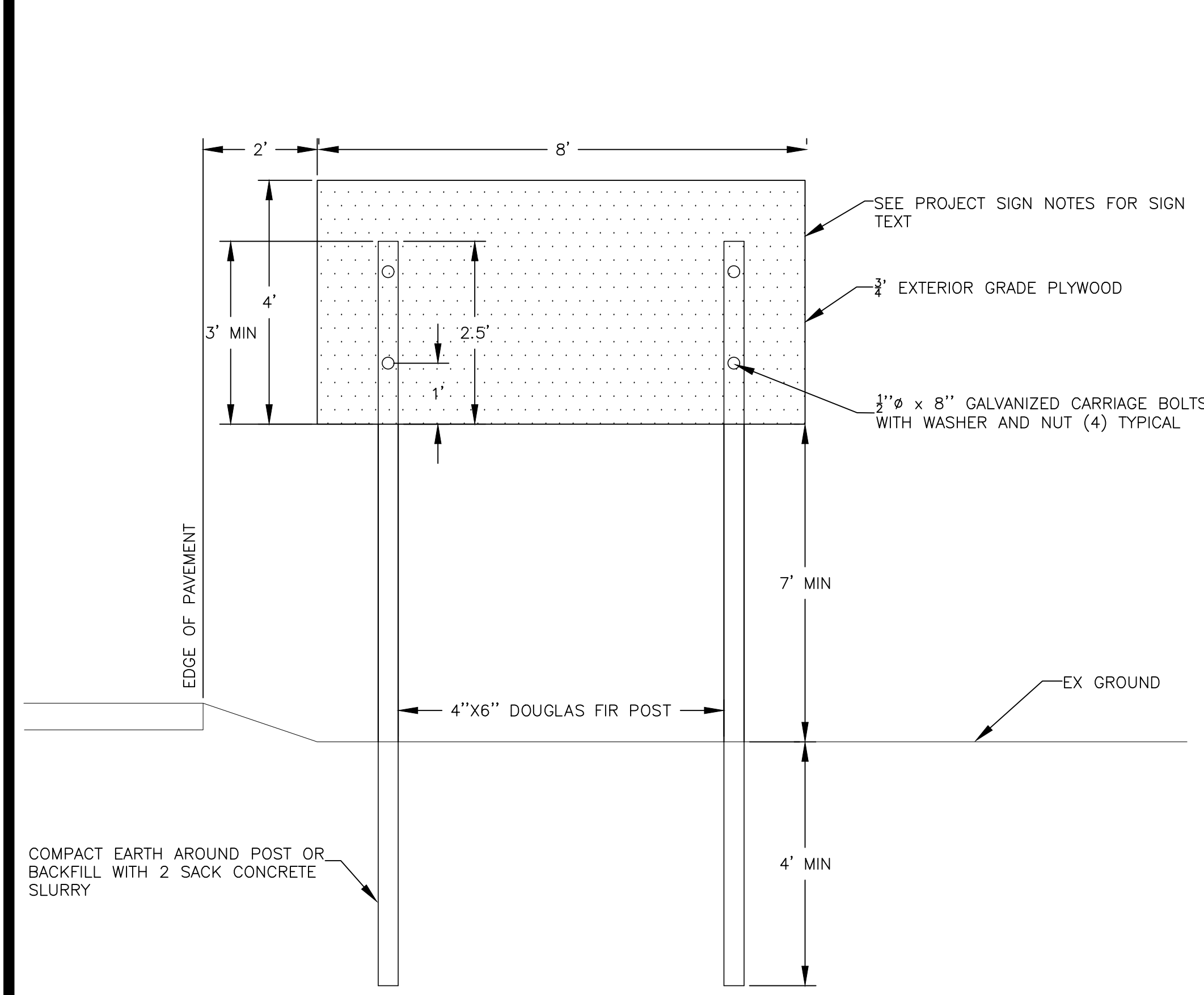
NOTES:  
1. SEE SPECIAL PROVISIONS FOR REVEGETATION DETAILS.



90% DESIGN PLANS  
NOT FOR CONSTRUCTION



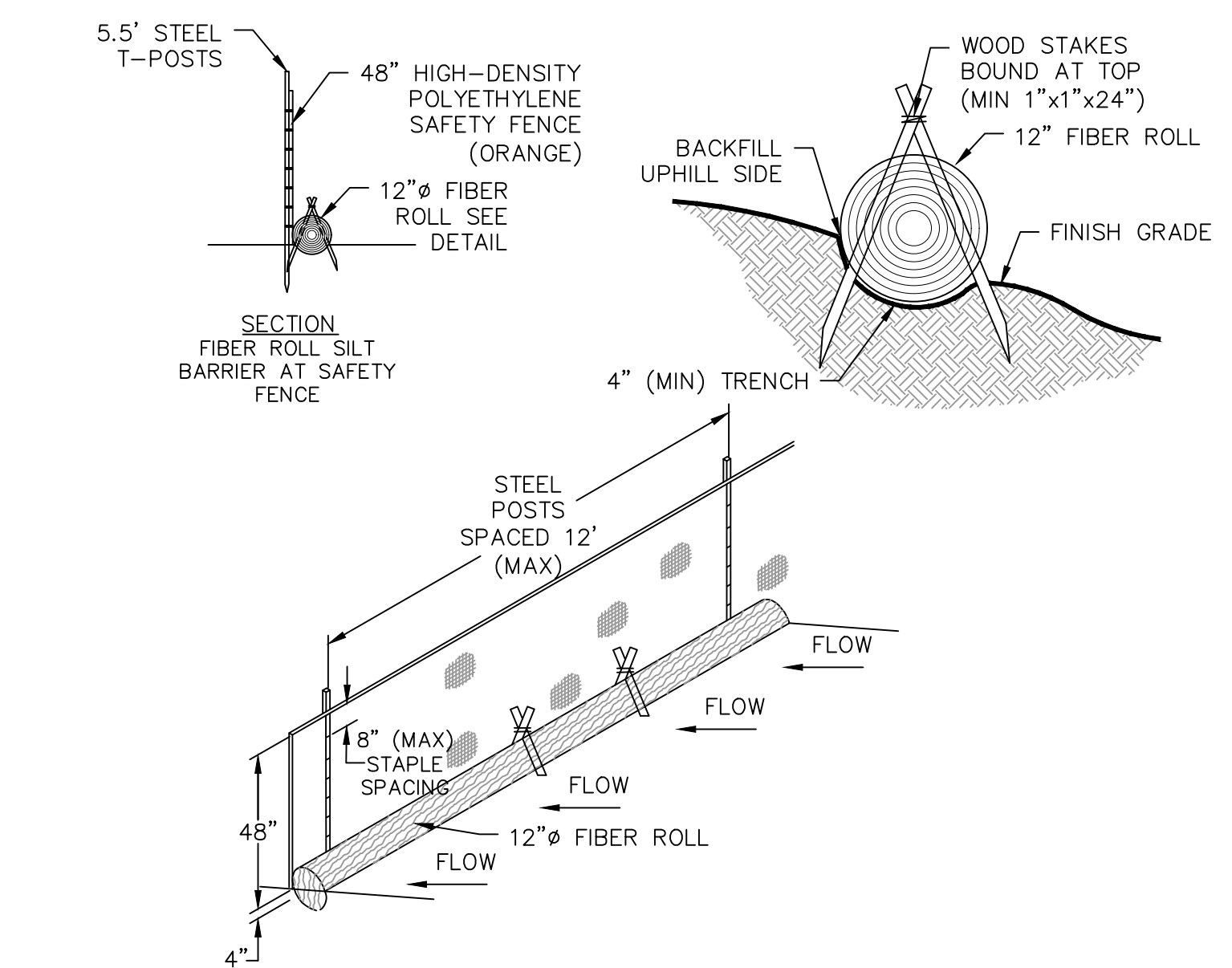




TEMPORARY PROJECT SIGN

SCALE: N.T.S.

1  
D-1



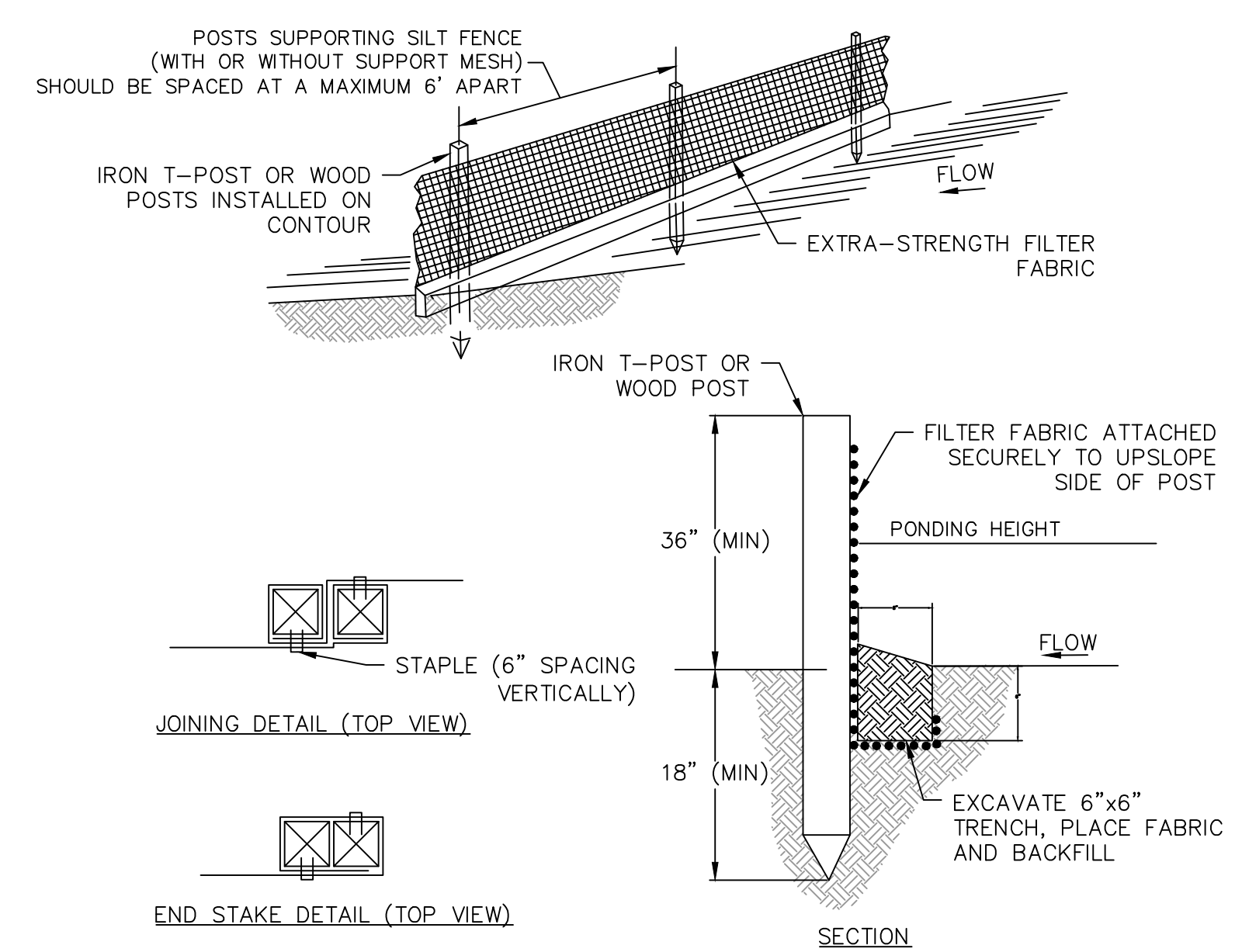
FIBER ROLL NOTES:

1. FIBER ROLL SHALL NOT BE MADE FROM STRAW. FIBER ROLLS SHALL BE BOUND BY HIGH STRENGTH COIR NETTING, AND HAVE A MINIMUM WEIGHT OF 5 LBS PER LINEAL FOOT.
2. ORANGE SAFETY FENCE IS INTENDED TO PROTECT FIBER ROLLS FROM COMPRESSION BY VEHICLES, CONSTRUCTION EQUIPMENT, EXT. FENCES SHALL BE HIGH DENSITY POLYETHYLENE WITH A MESH OPENING OF APPROXIMATELY 1 INCH BY 4 INCHES AND A MINIMUM HEIGHT OF 4 FEET. SAFETY FENCE MAY BE OMITTED IN LOW TRAFFIC AREAS.
3. FIBER ROLL SILT BARRIER SHALL BE INSTALLED ALONG CONTOUR AND ON SLOPES 5H:1V OR FLATTER UNLESS OTHERWISE APPROVED BY TRPA.
4. THE INSTALLATION CONFIGURATION SHALL PREVENT RUNOFF FROM LEAVING THE SITE OR ENTERING A WATERCOURSE WITHOUT PASSING THROUGH A SILT BARRIER.
5. THE MAXIMUM LENGTH OF SLOPE DRAINING TO THE SILT BARRIER SHALL BE 100 FEET.
6. FIBER ROLL SHALL BE INSTALLED BY SHAPING A 4 INCH DEEP FURROW TO MATCH THE SHAPE OF THE LOG, SECURING IN FURROW WITH WOOD STAKES, AND TAMPING THE GROUND AROUND THE FIBER ROLL TO FILL VOIDS BETWEEN THE LOG AND THE GROUND.

FIBER ROLL SILT BARRIER

SCALE: N.T.S.

2  
D-1



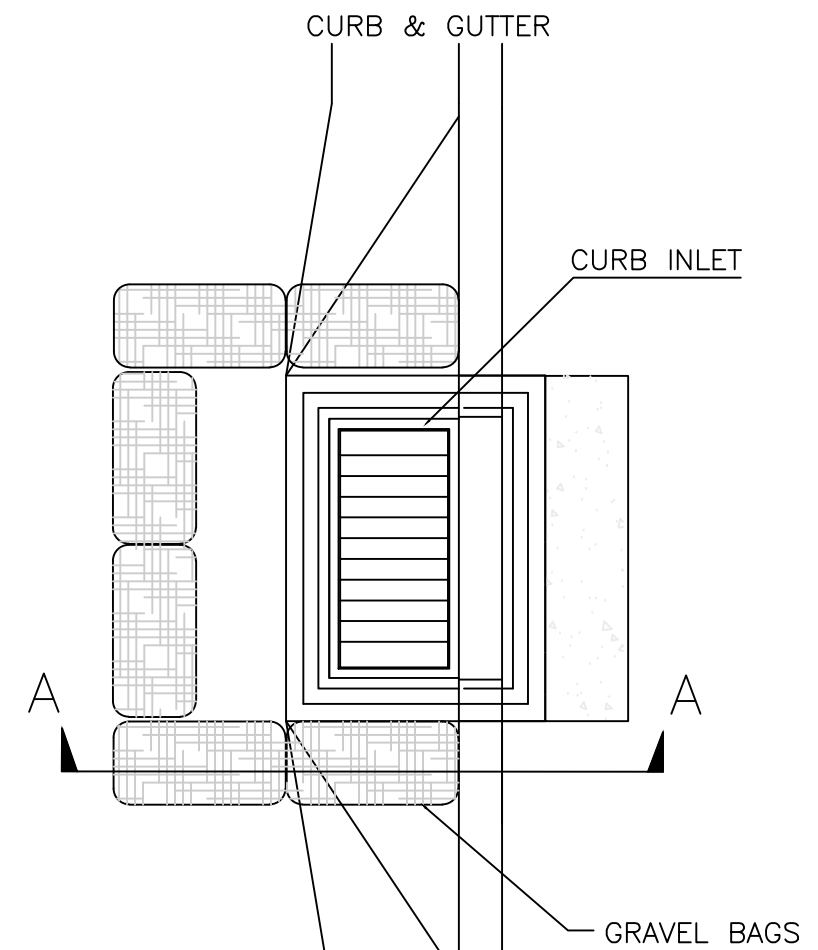
SILT FENCE NOTES:

1. USED IN AREAS WHERE SHEET FLOW OCCURS.
2. DO NOT USE IN STREAMS, CHANNELS, OR ANYWHERE FLOW IS CONCENTRATED. DO NOT USE SILT FENCES TO DIVERT FLOW.
3. DO NOT USE BELOW SLOPES SUBJECT TO CREEP, SLUMPING, OR LANDSLIDES.
4. SILT FENCE SHOULD BE WOVEN POLYPROPYLENE WITH A MINIMUM WIDTH OF 36 INCHES AND A MINIMUM TENSILE STRENGTH OF 100 LB FORCE.
5. INSTALL ALONG A LEVEL CONTOUR SO WATER DOES NOT POND MORE THAN 1.5 FEET AT ANY POINT ALONG THE SILT FENCE.
6. THE MAXIMUM LENGTH OF SLOPE DRAINING TO ANY POINT ALONG THE SILT FENCE SHOULD BE 200 FEET OR LESS.
7. THE MAXIMUM SLOPE PERPENDICULAR TO THE FENCE LINE SHOULD BE 1:1.
8. PROVIDE SUFFICIENT ROOM FOR RUNOFF TO POND BEHIND THE FENCE AND TO ALLOW SEDIMENT REMOVAL EQUIPMENT TO PASS BETWEEN THE SILT FENCE AND TOES OF SLOPES OR OTHER OBSTRUCTIONS.
9. TURN THE ENDS OF THE FILTER FENCE UPHILL TO CREATE A "J" SHAPE, TO PREVENT STORMWATER FROM FLOWING AROUND THE FENCE.
10. LEAVE AN UNDISTURBED OR STABILIZED AREA IMMEDIATELY DOWN SLOPE FROM THE FENCE WHERE FEASIBLE.
11. SILT FENCES SHOULD REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED.
12. REMOVE SEDIMENT WHEN DEPOSITS REACH APPROXIMATELY 1/3 HEIGHT OF BARRIER.

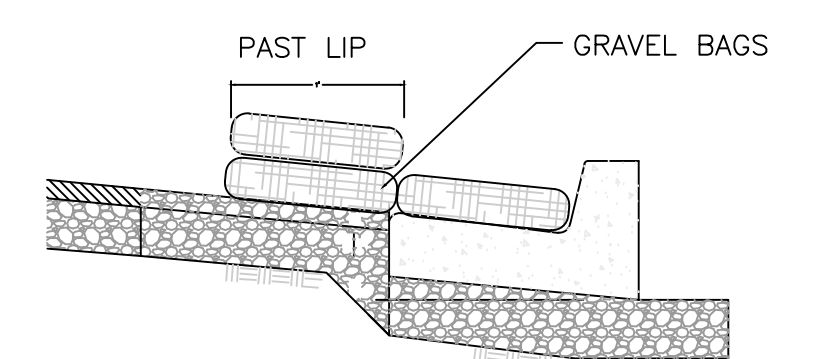
FILTER FENCE SILT BARRIER

SCALE: N.T.S.

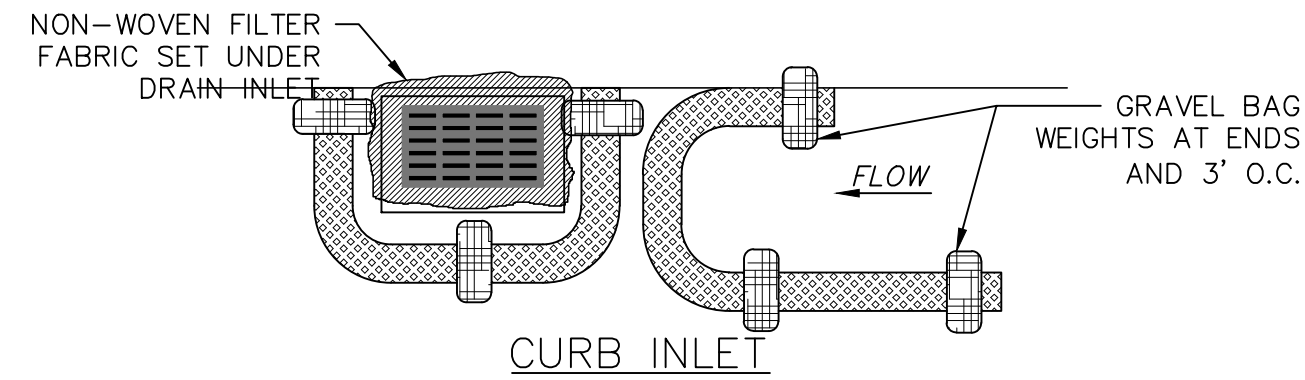
3  
D-1



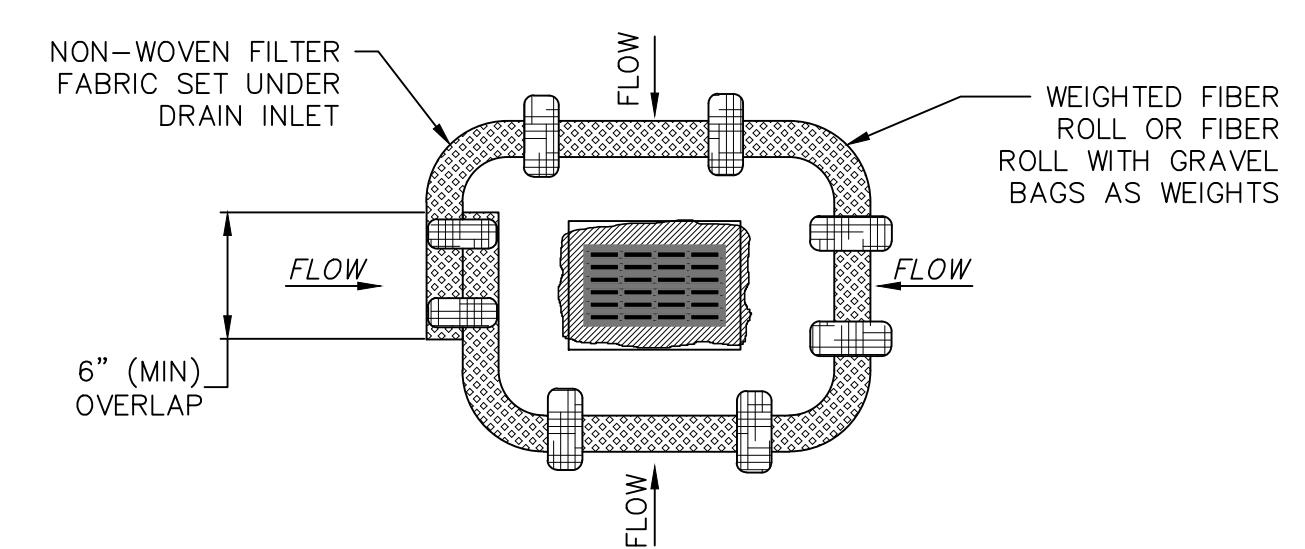
ALTERNATE CURB INLET



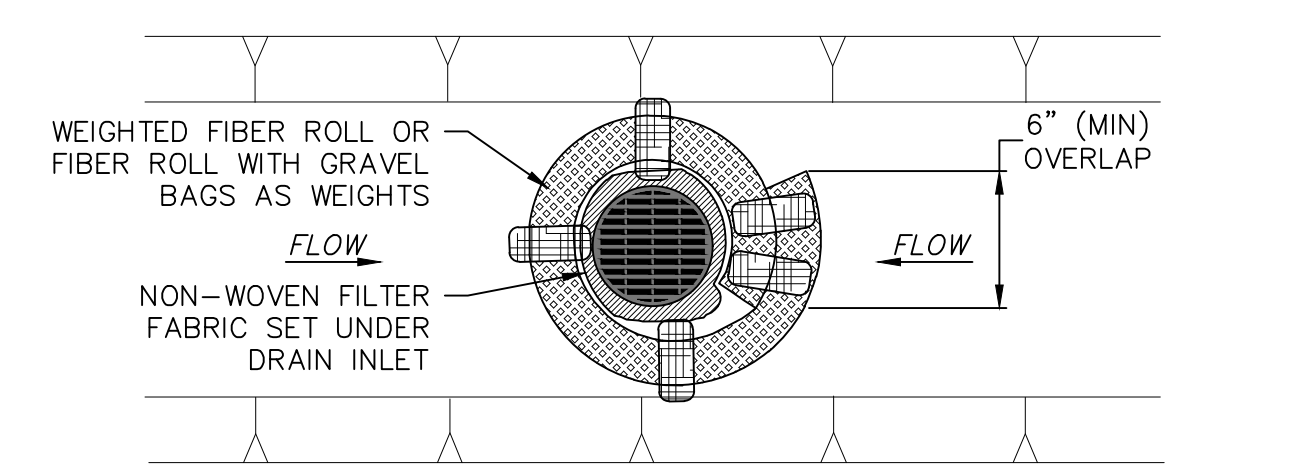
SECTION A-A



CURB INLET



SHEET FLOW INLET

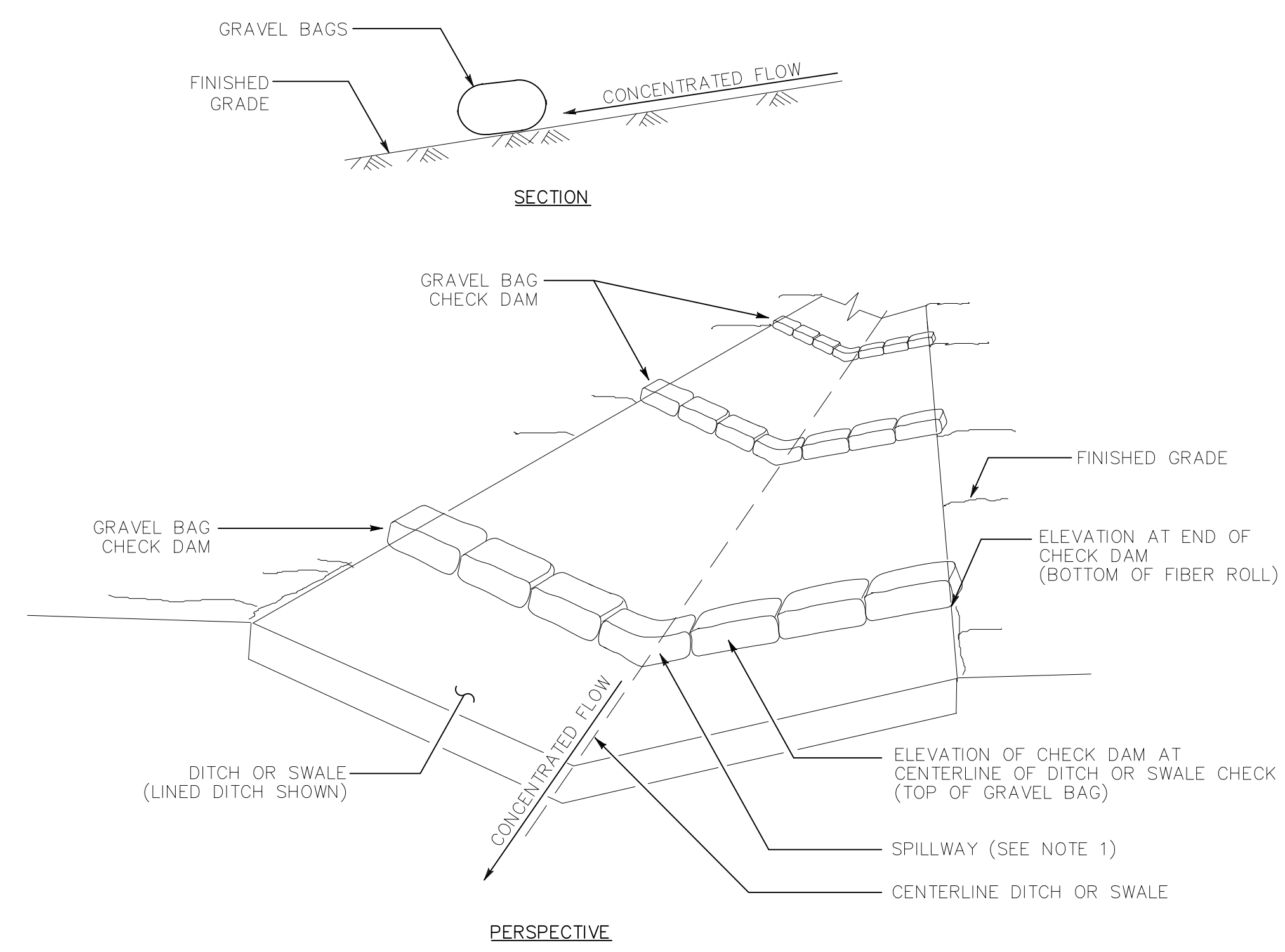


DRAINAGE DITCH INLET

DI PROTECTION

SCALE: N.T.S.

4  
D-1



TEMPORARY CHECK DAM NOTES:

1. CHECK DAM DIMENSIONS TO BE VERIFIED BY CIVIL ENGINEER.
2. ONLY CLEAN/WASHED GRAVEL MUST BE USED IN BAGS
3. SAND BAGS MAY BE REPLACED WITH GRAVEL BAGS BY APPROVAL OF CIVIL ENGINEER.

TEMPORARY CHECK DAM

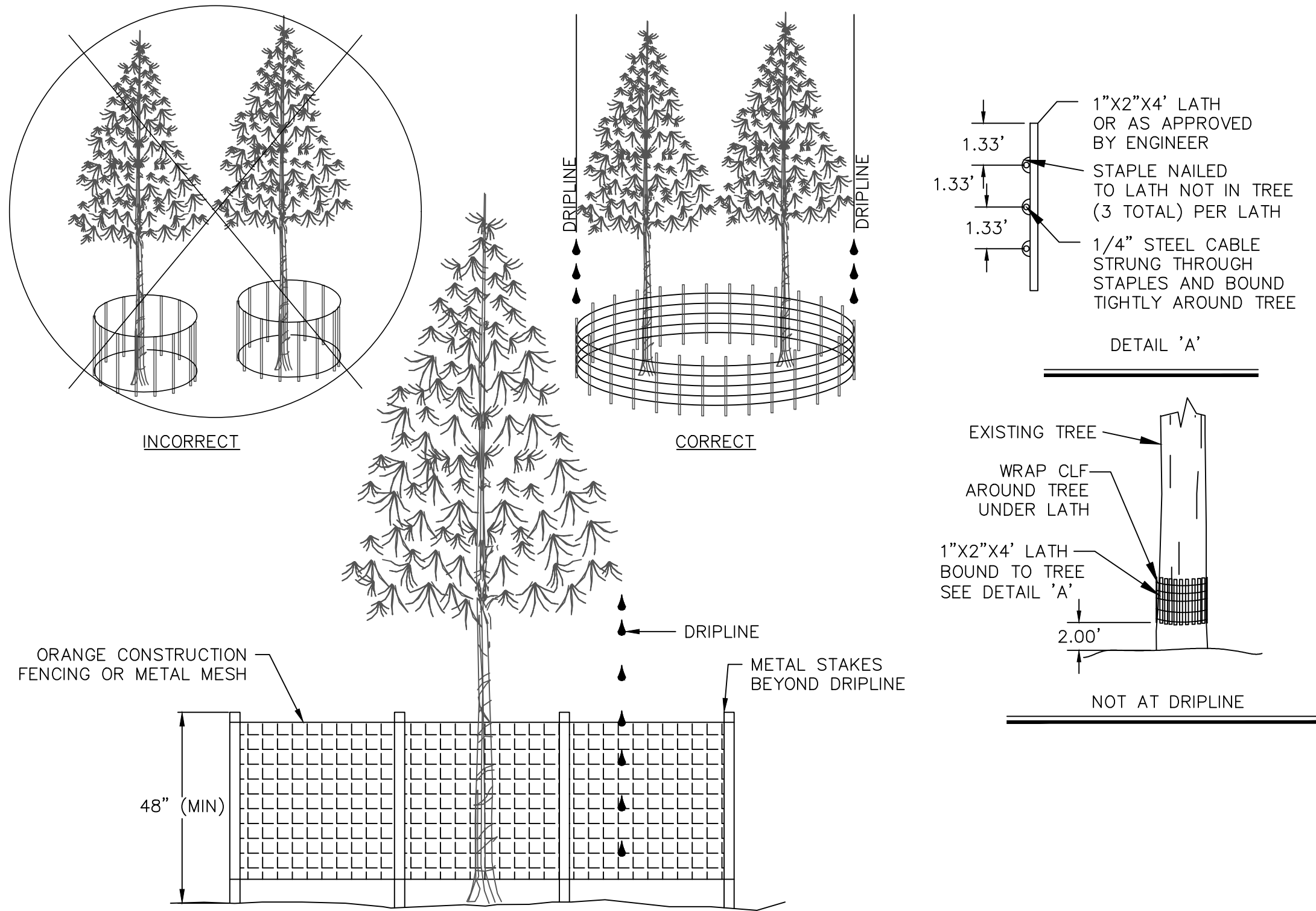
SCALE: N.T.S.

5  
D-1

DI PROTECTION NOTES:

1. FIBER ROLL DRAIN INLET PROTECTION SHALL USE A MIN. 12" DIAMETER ROLL AND BE INSTALLED BEFORE CONSTRUCTION BEGINS.
2. GRAVEL BAGS SHALL BE FILLED WITH 3/4" DIA, CLEANED, WASHED GRAVEL. SAND BAGS ARE NOT AN ACCEPTABLE SUBSTITUTE.
3. INSPECT AND REPAIR FIBER ROLLS EACH DAY AND AFTER EACH STORM EVENT. REMOVE SEDIMENT WHEN ONE THIRD OF THE FILTER DEPTH HAS BEEN FILLED. REMOVED SEDIMENT SHALL BE DISPOSED OF PROPERLY.
4. SEDIMENT AND GRAVEL DEPOSITED ON ROADWAYS SHALL BE IMMEDIATELY REMOVED.
5. IN HIGH TRAFFIC AREAS, MARK DRAIN INLET PROTECTION WITH VISIBLE BARRIERS SUCH AS SAFETY CONES.
6. REMOVE DRAIN INLET PROTECTION AFTER THE SURROUNDING AREA HAS BEEN STABILIZED.
7. ADDITIONAL OR OVERLAPPING GRAVEL BAGS MAY BE NECESSARY AS DIRECTED BY ENGINEER FOR PROPER FUNCTIONING OF BMP.



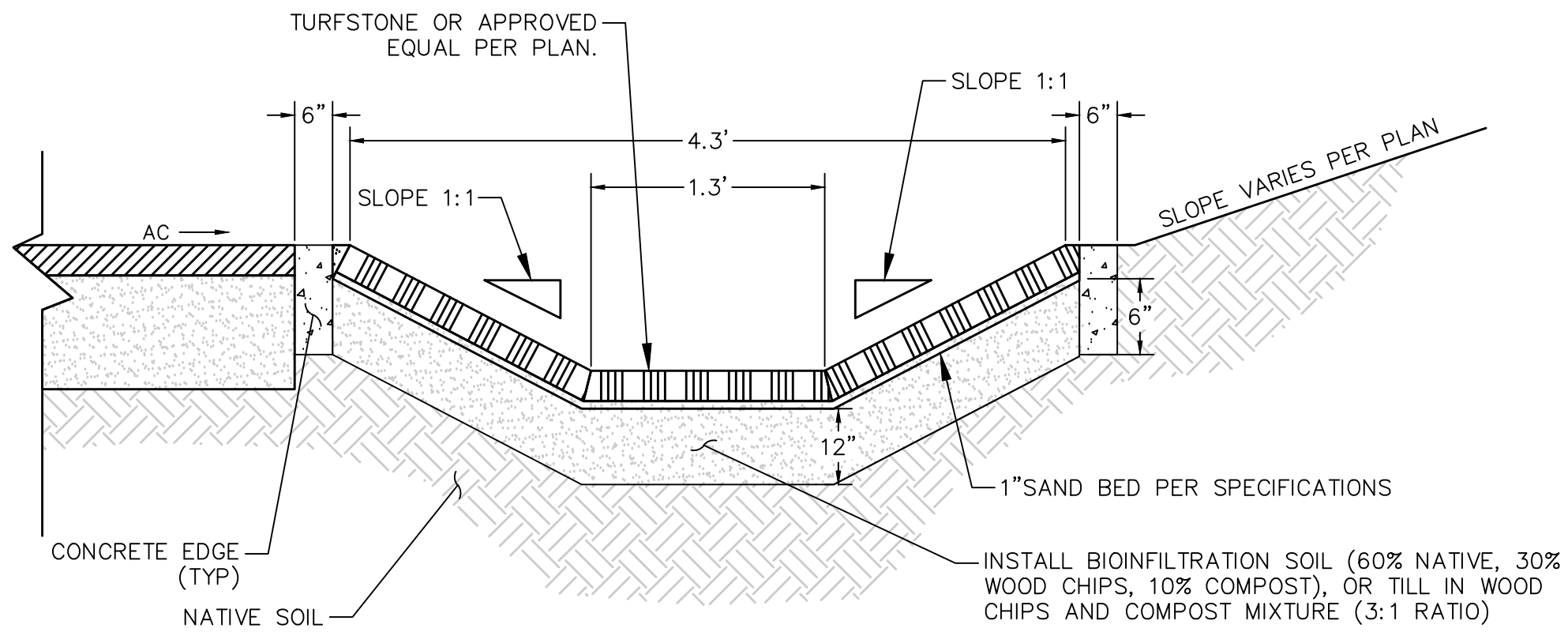


- CLF AND TREE PROTECTION NOTES:**
- DO NOT PERMIT PERSONNEL, CONSTRUCTION MATERIALS, OR EQUIPMENT, TEMPORARY OR OTHERWISE, WITHIN PROTECTIVE FENCING.
  - VEGETATION PROTECTION IS REQUIRED FOR ALL PROJECTS AS A CONDITION OF PROJECT APPROVAL.
  - METAL OR WIRE MESH FENCING MAY BE REQUIRED.
  - CALCULATE THE PROTECTIVE PERIMETER FOR SHIELDING LARGER SPECIMEN TREES MEASURING OVER 30" DBH AS FOLLOWS: COMPUTE THE PROTECTIVE RADIUS BY ADDING ONE FOOT, AS MEASURED OUT FROM THE TREE BOLE, FOR EVERY INCH IN DBH. (E.G. A TREE WITH A 30" DBH WOULD RECEIVE A 30' PROTECTIVE PERIMETER)
  - CLF AND TREE PROTECTION FENCE SHALL BE A MINIMUM OF 48" HIGH. FOR TREES WITH DRIPLINES THAT OVERHANG THE CONSTRUCTION AREAS, THE LOCATION OF THE TREE PROTECTION FENCE SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER AND/OR THE TRPA AT THE PREGRADE MEETING.
  - THE DETAIL SHOWN IS FOR TREE PROTECTION. MATERIAL AND SPACING SHOWN ALSO APPLIES TO CLF.
  - QUANTITY OF FILTER FENCE AND CONSTRUCTION LIMIT FENCE DOES NOT INCLUDE MINIMUM LIMITS FOR TREE PROTECTION. TREE PROTECTION FENCING TO BE PER DETAIL THIS SHEET AND/OR AS DETERMINED IN THE FIELD.

### CONSTRUCTION LIMIT AND TREE PROTECTION FENCING

SCALE: N.T.S.

1  
D-2



- BLOCK CHANNEL NOTES:**
- SEE REVEGETATION PLAN AND SPECIAL PROVISIONS FOR REVEGETATION DETAILS
  - SAWCUT PAVEMENT ON FRIEDHOFF DRIVE TO CREATE SMOOTH TRANSITION BETWEEN ROAD AND CHANNEL. SEE STREET CUT REPAIR DETAIL 1/D-4.
  - CONCRETE EDGE TO BE INSTALLED ON UPSTREAM AND DOWNSTREAM EDGE OF BLOCK CHANNEL AS WELL AS ALONG THE SIDES OF THE CHANNEL AS SHOWN.

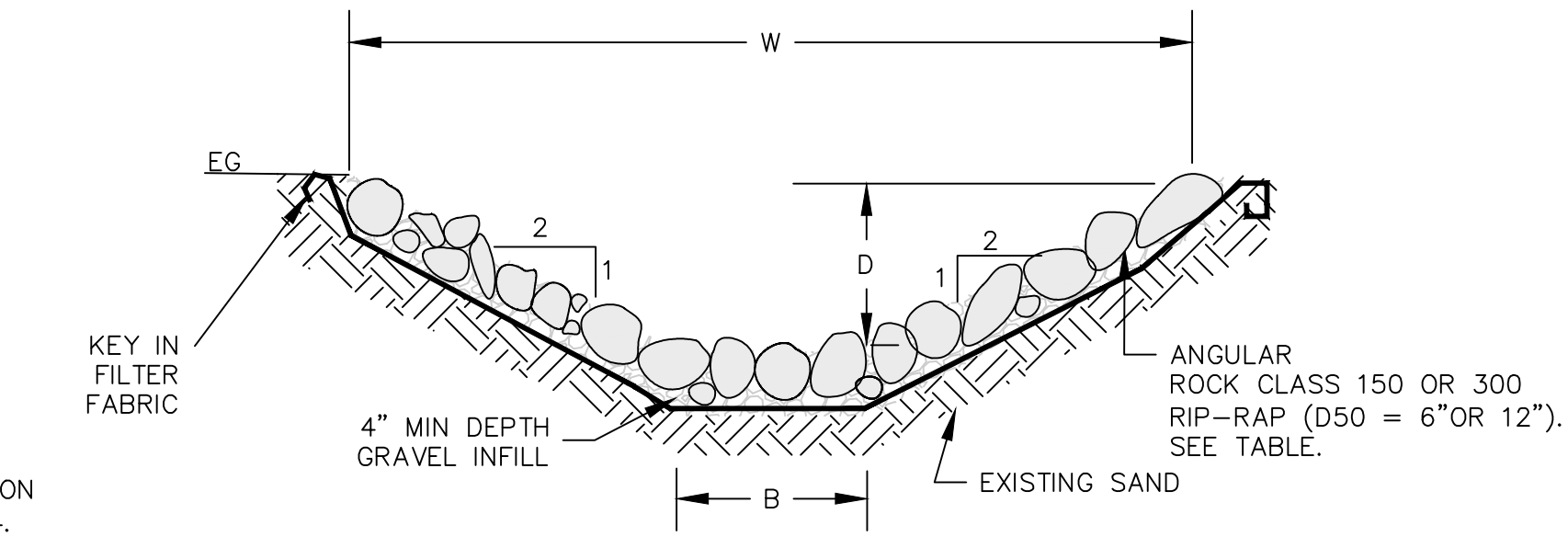
### BLOCK CHANNEL

SCALE: N.T.S.

2  
D-2

ROCK LINED CHANNEL TABLE						
ALIGNMENT NAME	BGN STATION [FT]	END STATION [FT]	W [FT]	B [FT]	D [FT]	RIP RAP
FRIEDHOFF DR.	1+67.4	2+19.5	3.5	0.5	0.75	CLASS 150
DOUGLAS BLVD.	2+67.9	3+85.2	7.0	1	1.5	CLASS 300
DOUGLAS BLVD.	3+85.2	3+90.6	TRANSITION			CLASS 300
DOUGLAS BLVD.	3+90.6	4+20.3	17.0	5.0	2.0	CLASS 300

- RLC NOTES:**
- SEE REVEGETATION PLAN AND SPECIAL PROVISIONS FOR REVEGETATION DETAILS
  - SAWCUT PAVEMENT ON FRIEDHOFF DRIVE TO CREATE SMOOTH TRANSITION BETWEEN ROAD AND CHANNEL. SEE STREET CUT REPAIR DETAIL 1/D-4.

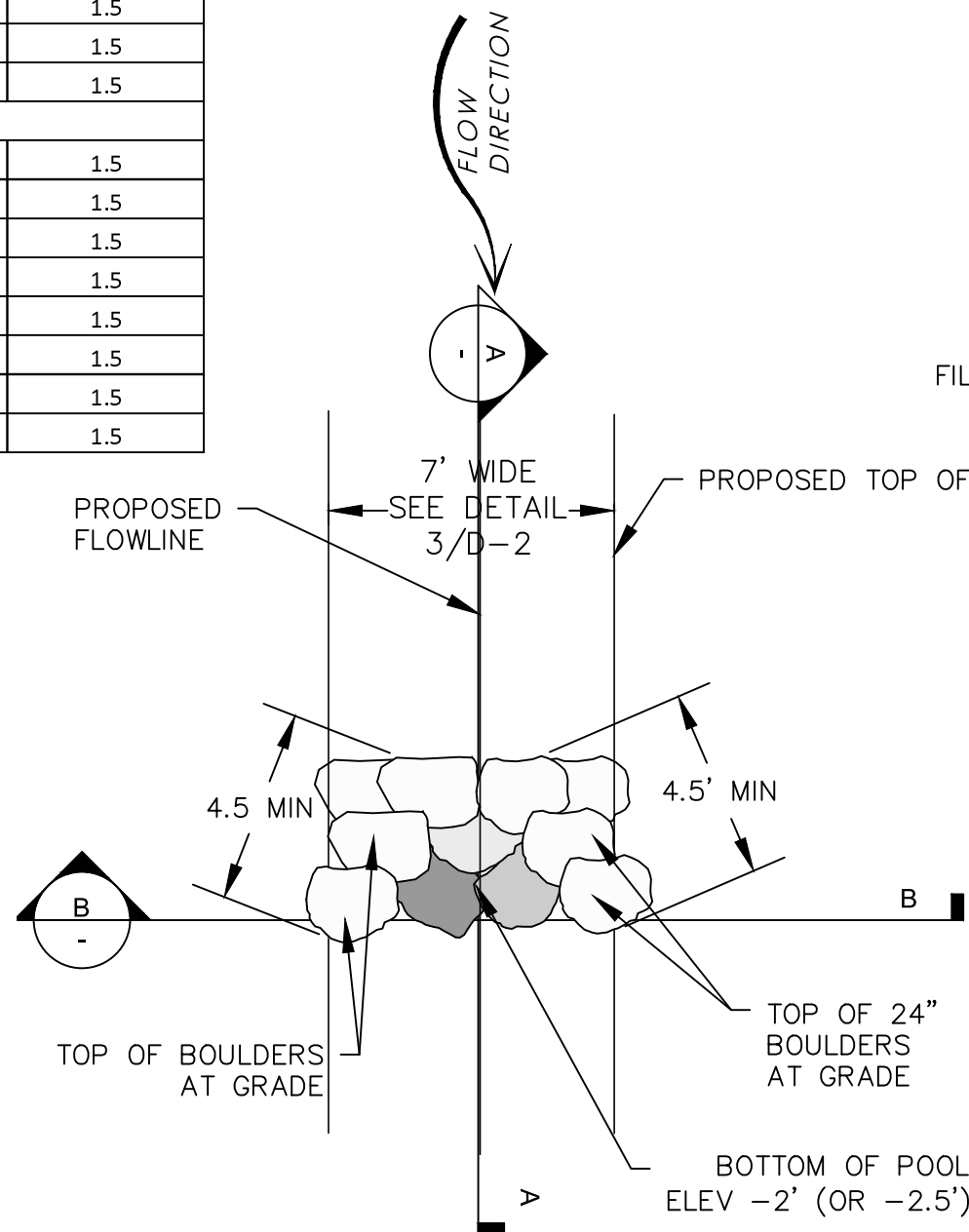


### ROCK LINED CHANNEL

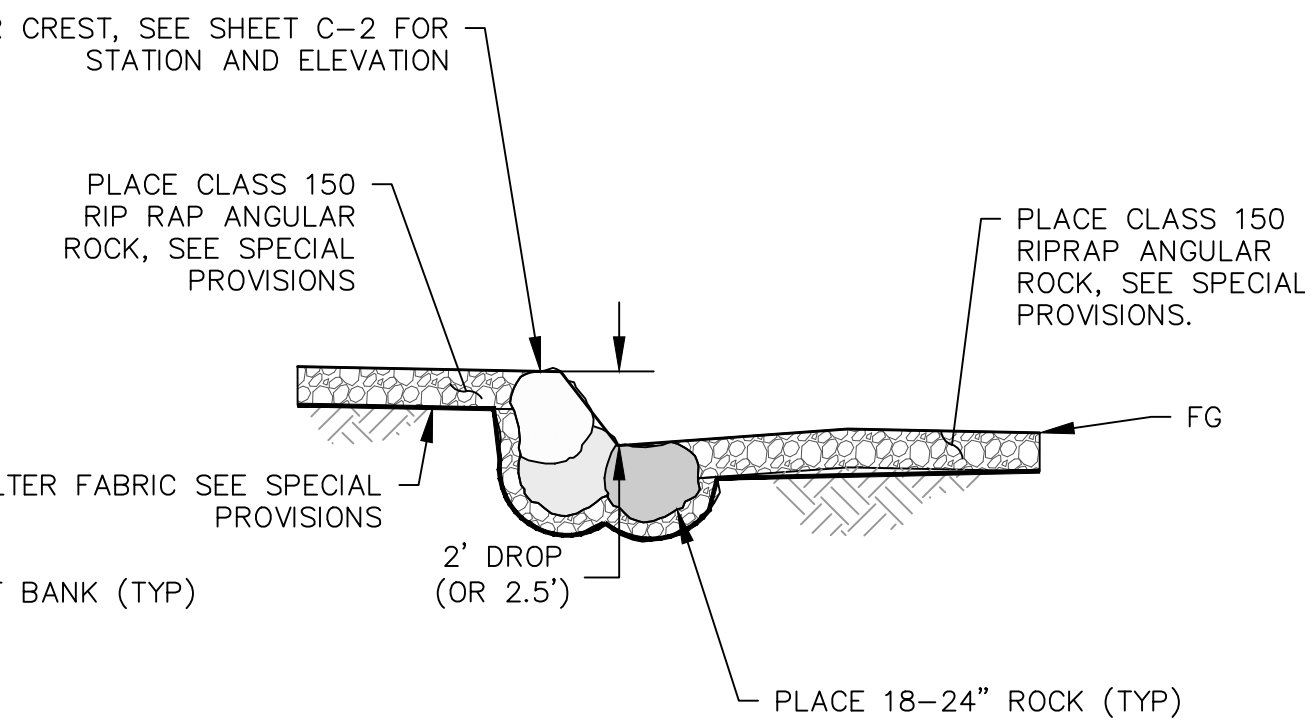
SCALE: N.T.S.

3  
D-2

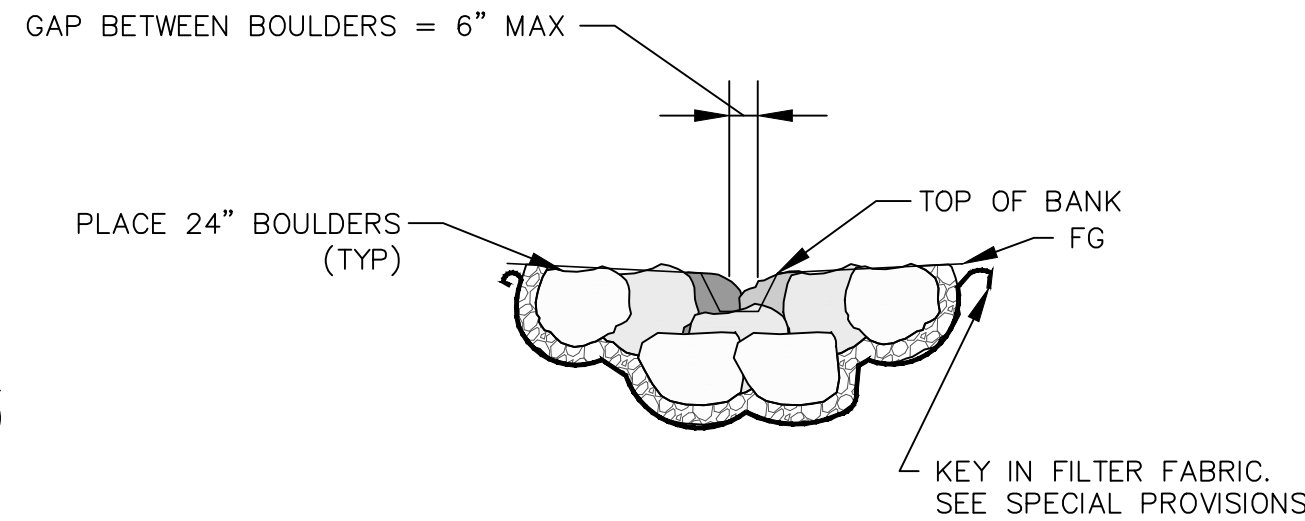
ROCK DROP STRUCTURE TABLE				
CREST STATION [FT]	CREST ELEVATION [FT]	POOL LENGTH [FT]	INITIAL POOL DROP [FT]	OVERALL DROP [FT]
3+79.0	6298.0	8.0	2.0	1.5
3+69.0	6296.3	8.0	2.5	2.0
3+55.6	6293.5	8.0	2.0	1.5
3+43.4	6291.5	8.0	2.0	1.5
3+33.7	6289.7	10.0	2.0	1.5
3+20.7	6287.8	10.0	2.0	1.5
STA 2+67.9 THRU 2+47.0: CULVERT				
2+17.0	6275.6	8.0	2.0	1.5
1+99.1	6272.7	10.0	2.0	1.5
1+76.6	6269.4	8.0	2.0	1.5
1+58.7	6266.5	10.0	2.0	1.5
1+42.0	6264.4	10.0	2.0	1.5
1+20.6	6262.1	8.0	2.0	1.5
0+94.7	6258.1	10.0	2.0	1.5
0+70.7	6254.6	10.0	2.0	1.5



PLAN



SECTION A-A  
PROFILE VIEW

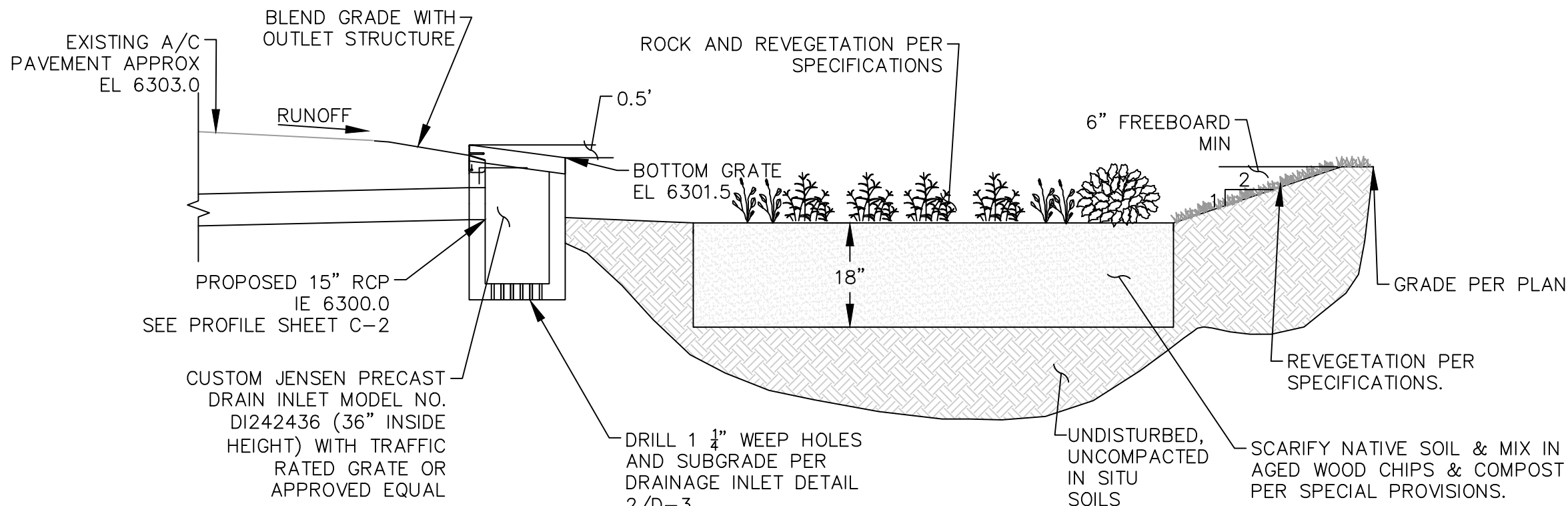


SECTION B-B  
SECTION VIEW

### ROCK DROP STRUCTURE

4

D-2



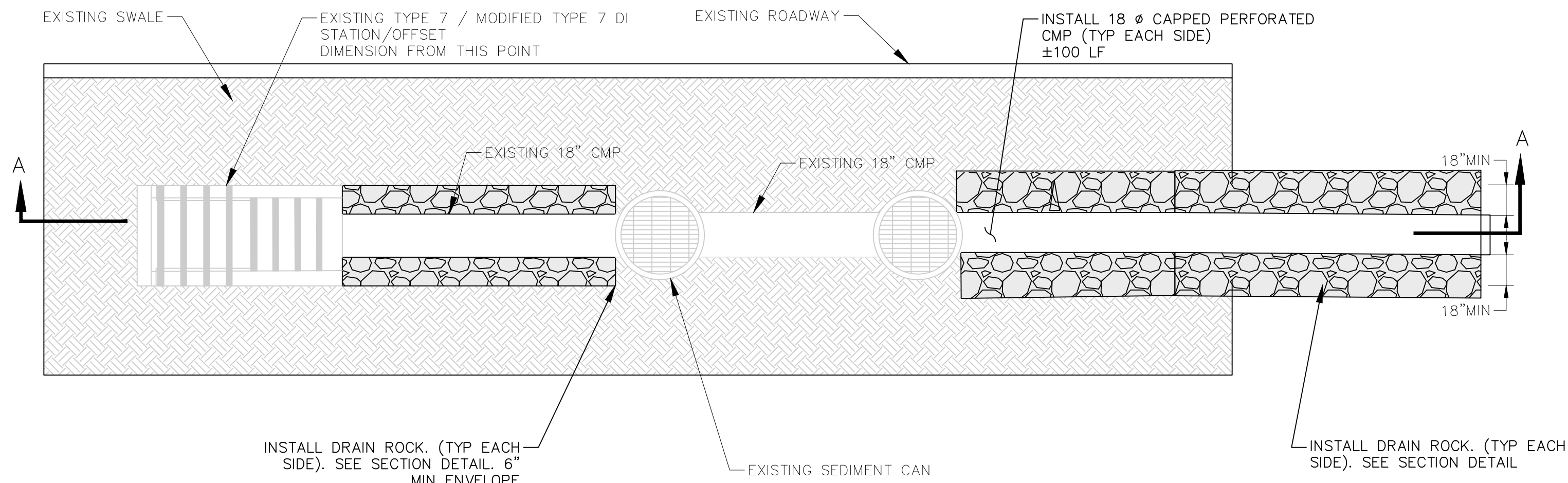
### MICRO BASIN

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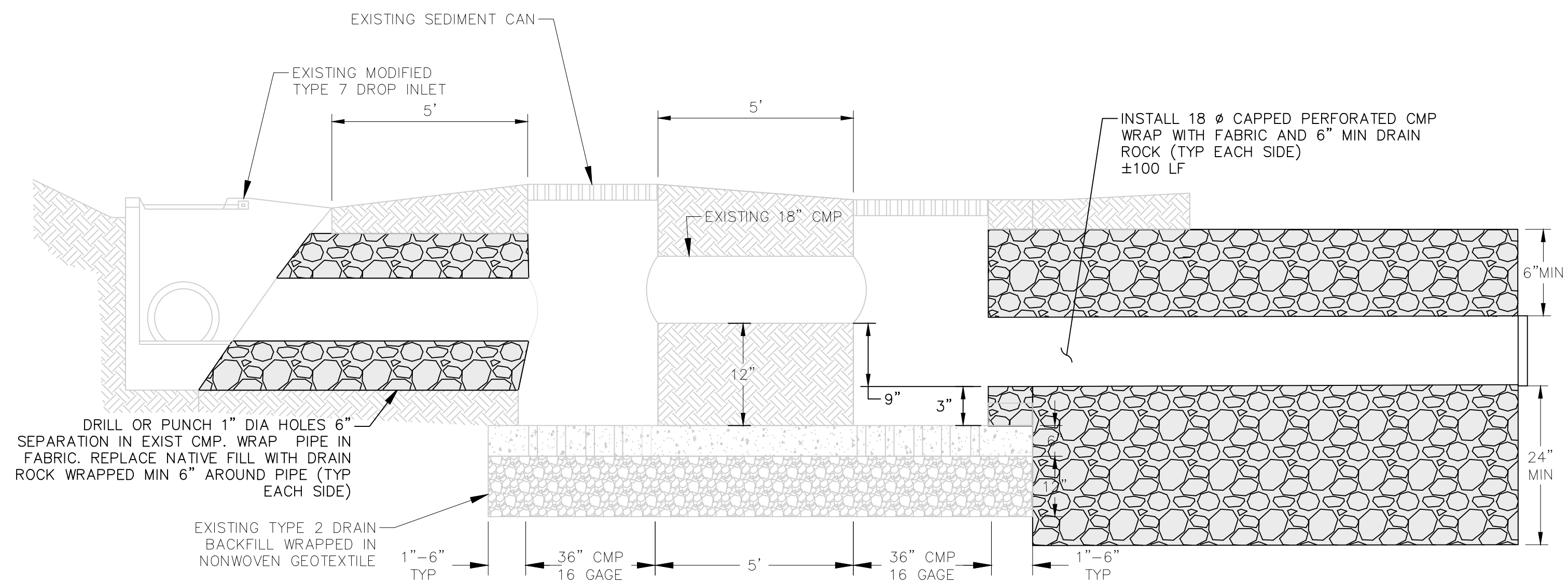
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D-2





PLAN



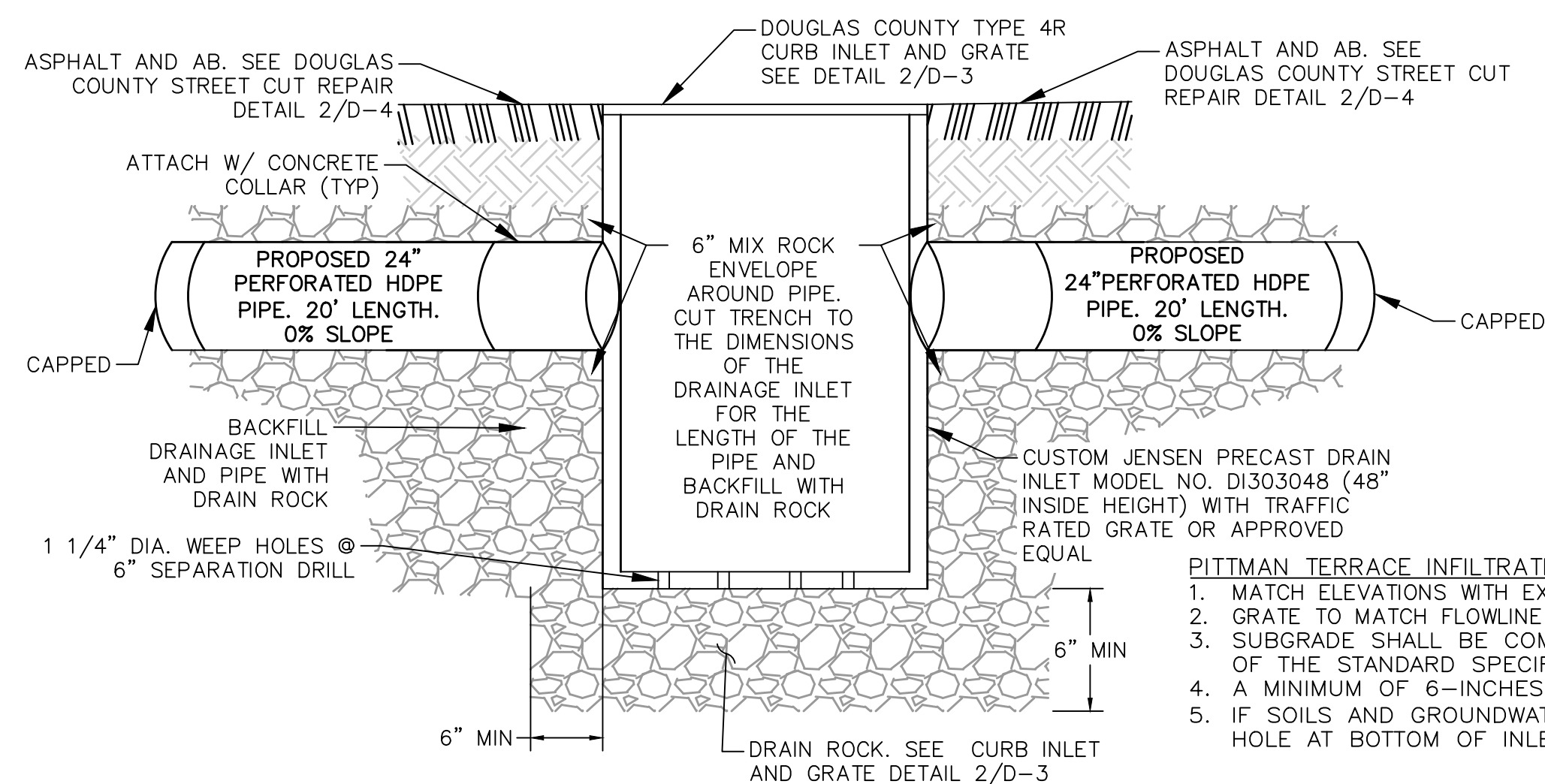
SECTION A-A

- NDOT RETROFIT NOTES:**
1. THIS DETAIL ONLY REPRESENTS HALF OF THE FEATURE. DOUBLE SEDIMENT TRAPS EXIST ON BOTH SIDES OF THE EXISTING DI. THE 100 FOOT PIPE EXTENSION SHALL BE ON BOTH SIDES OF THE FEATURE.
  2. EXISTING PIPE MAY BE REPLACED WITH PERFORATED PIPE INSTEAD OF PERFORMING IN PLACE

RETROFIT NDOT INFILTRATION SYSTEM

SCALE: N.T.S.

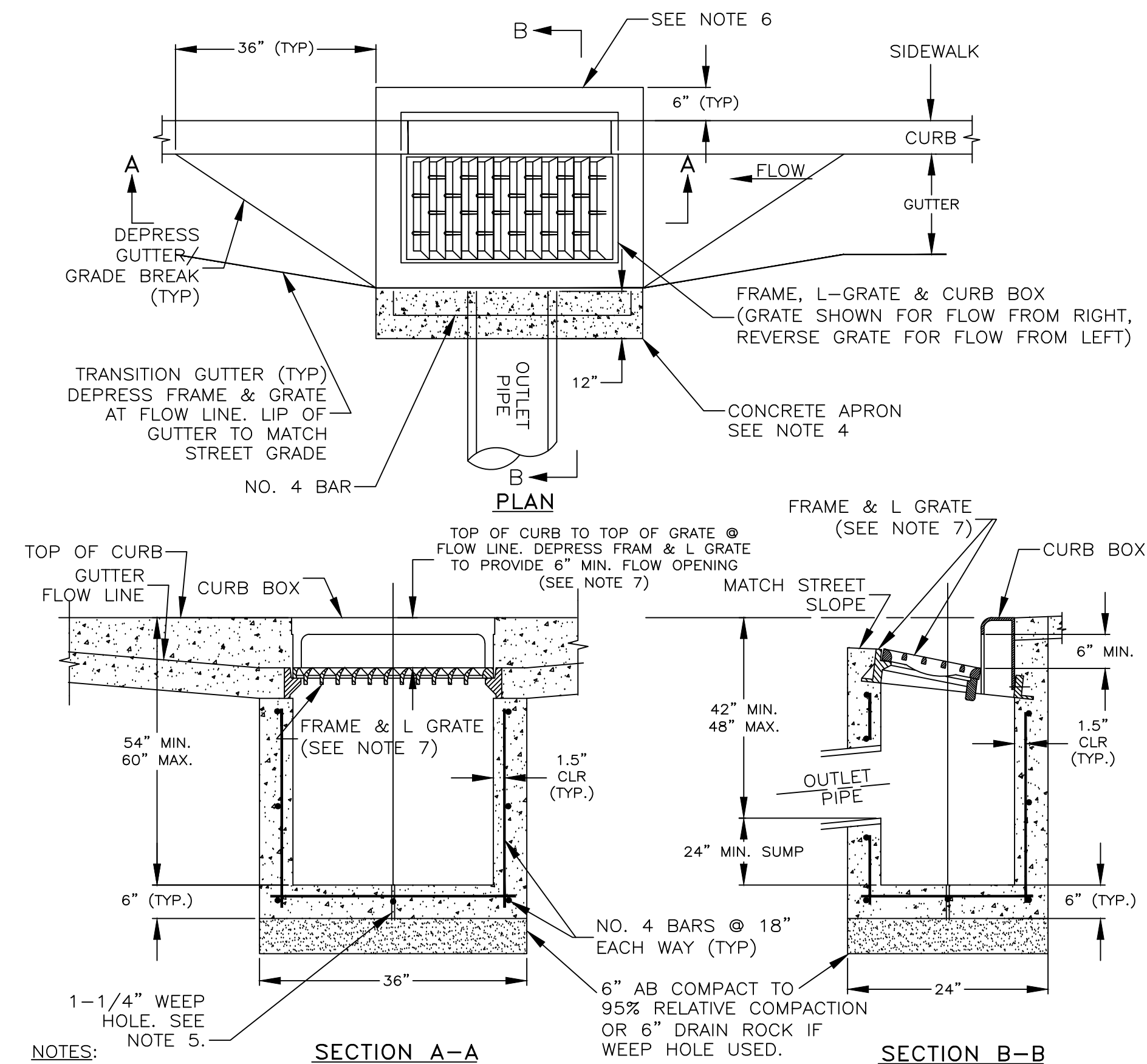
1  
D-3



PITTMAN TERRACE INFILTRATION FEATURE

SCALE: N.T.S.

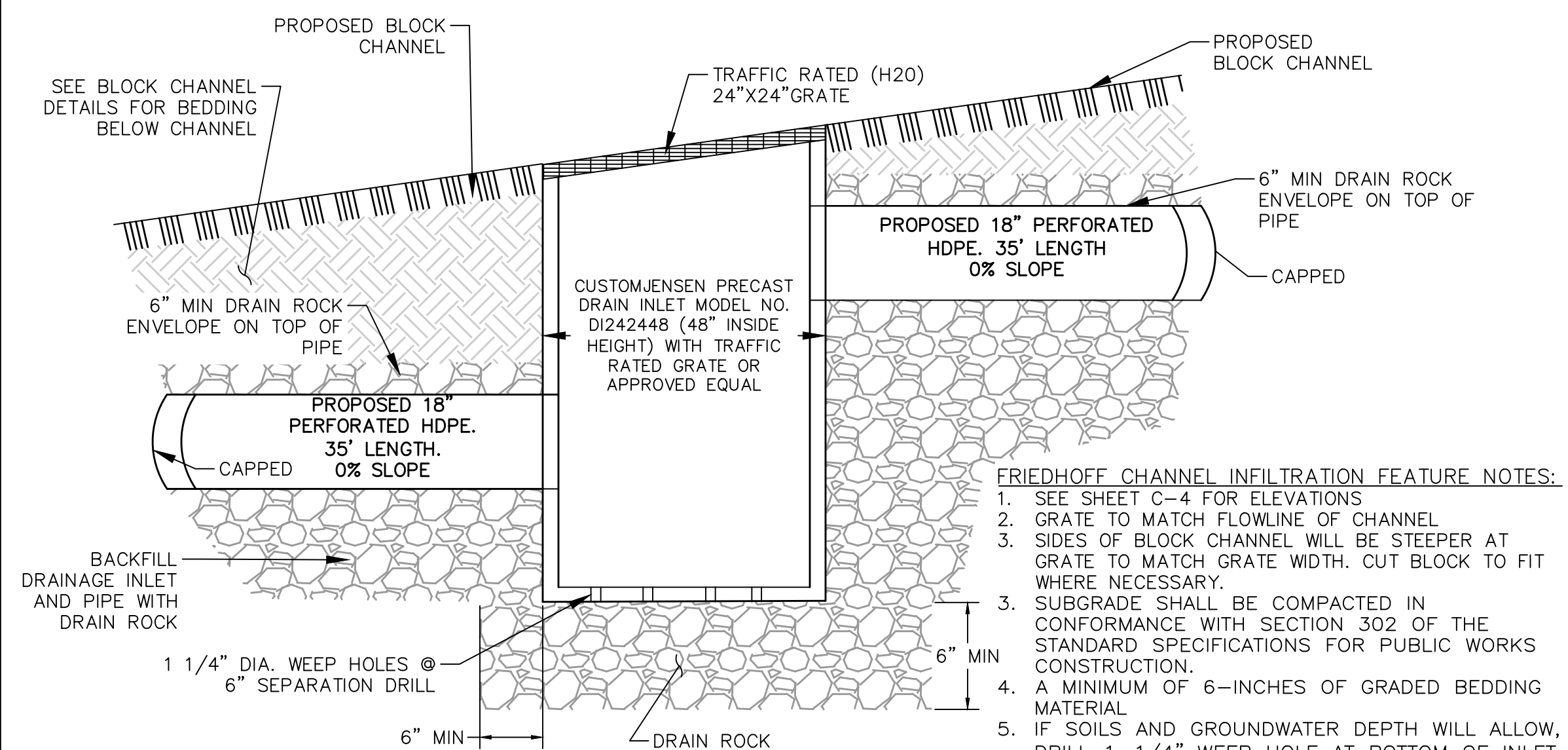
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D-3



DOUGLAS COUNTY TYPE 4R CURB INLET

SCALE: N.T.S.

2  
D-3

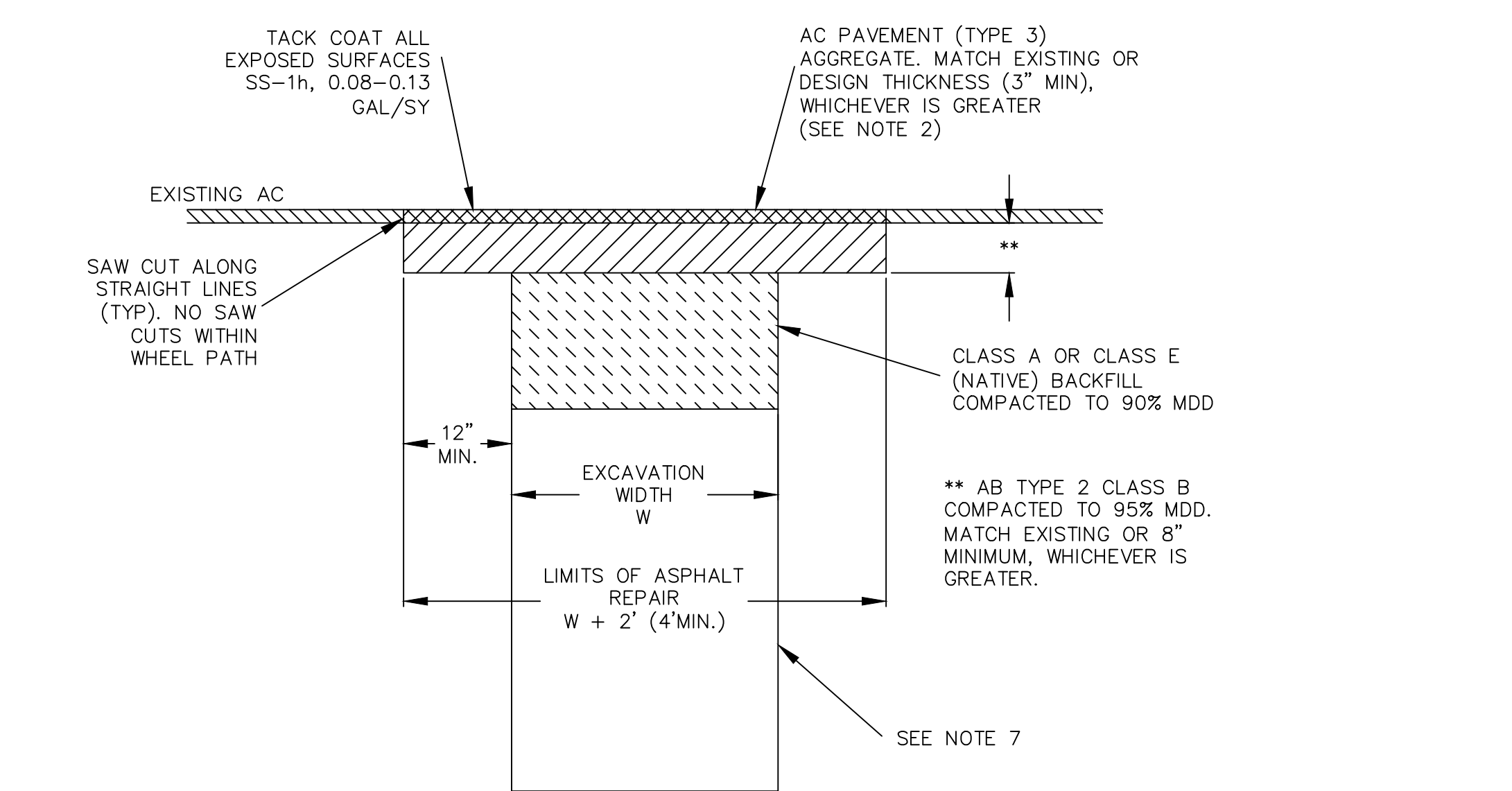


FRIEDHOFF CHANNEL INFILTRATION FEATURE

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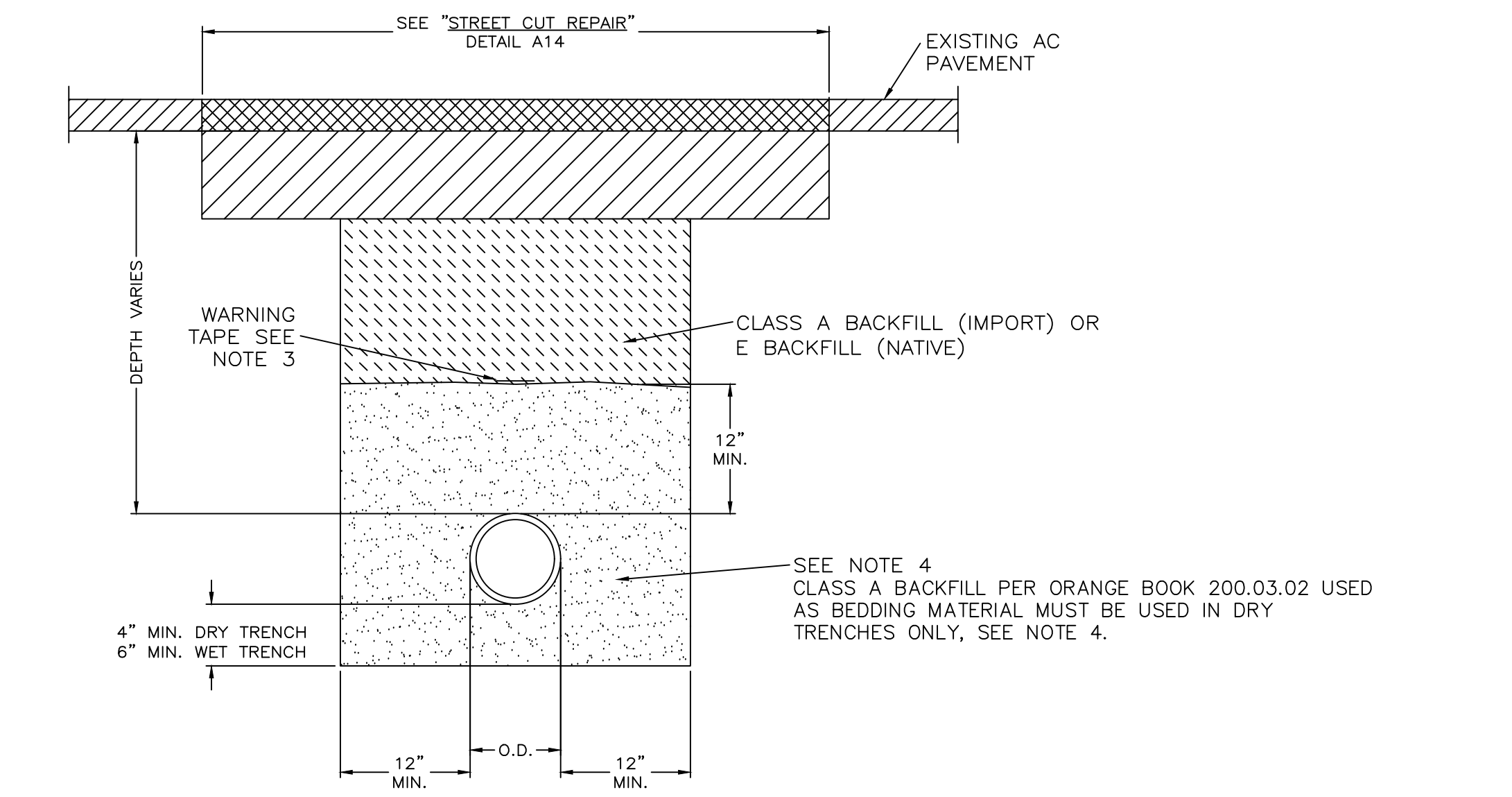
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D-3





**STREET CUT REPAIR NOTES:**  
1. BORE AND JACK OR TRENCHLESS DIRECTIONAL DRILLING IS ALLOWED.  
2. PATCH WIDTH:  
A) PATCHES WILL BE 4 FOOT MINIMUM, ANY DIRECTION.  
B) IF EDGE OF PATCHING IS WITHIN 3 FEET OF EDGE OF PAVEMENT OR LIP OF GUTTER, REMOVE AND REPLACE AC PAVEMENT FROM PATCH TO THAT EDGE.  
C) FOR PATCHING IN PAVEMENT SURFACE THAT IS LESS THAN FIVE (5) YEARS OLD OR PCI>80, ENTIRE TRAVEL LANE WIDTH FOR FULL LENGTH OF PAVEMENT PATCH SHALL RECEIVE 1.5" MILL AND OVERLAY.  
D) PLACE SLURRY SEAL OR CHIP SEAL ON STREETS WITH EXISTING SLURRY SEAL OR CHIP SEAL SURFACE.  
3. SURFACE TOLERANCES FOR AC PAVEMENT REPAIR SHALL CONFORM TO THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK).  
4. ASPHALT CONCRETE CONSTRUCTION MATERIALS AND TESTING SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK).  
5. TYPE 2 CLASS B AGGREGATE BASE SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (ORANGE BOOK).  
6. ASPHALT CEMENT SHALL BE PG 64-28 NV UNLESS OTHERWISE APPROVED BY DOUGLAS COUNTY ENGINEERING. WHEN PG 64-28 NV ASPHALT CEMENT IS NOT USED, NEW ASPHALT CONCRETE SURFACE SHALL BE FOG SEALED.  
7. FOR NON-COUNTY UTILITIES, PIPE ZONE BEDDING PER UTILITY PURVEYOR REQUIREMENTS. BACKFILL PER COUNTY REQUIREMENTS.

**DOUGLAS COUNTY STREET CUT REPAIR** 1  
SCALE: N.T.S. D-4

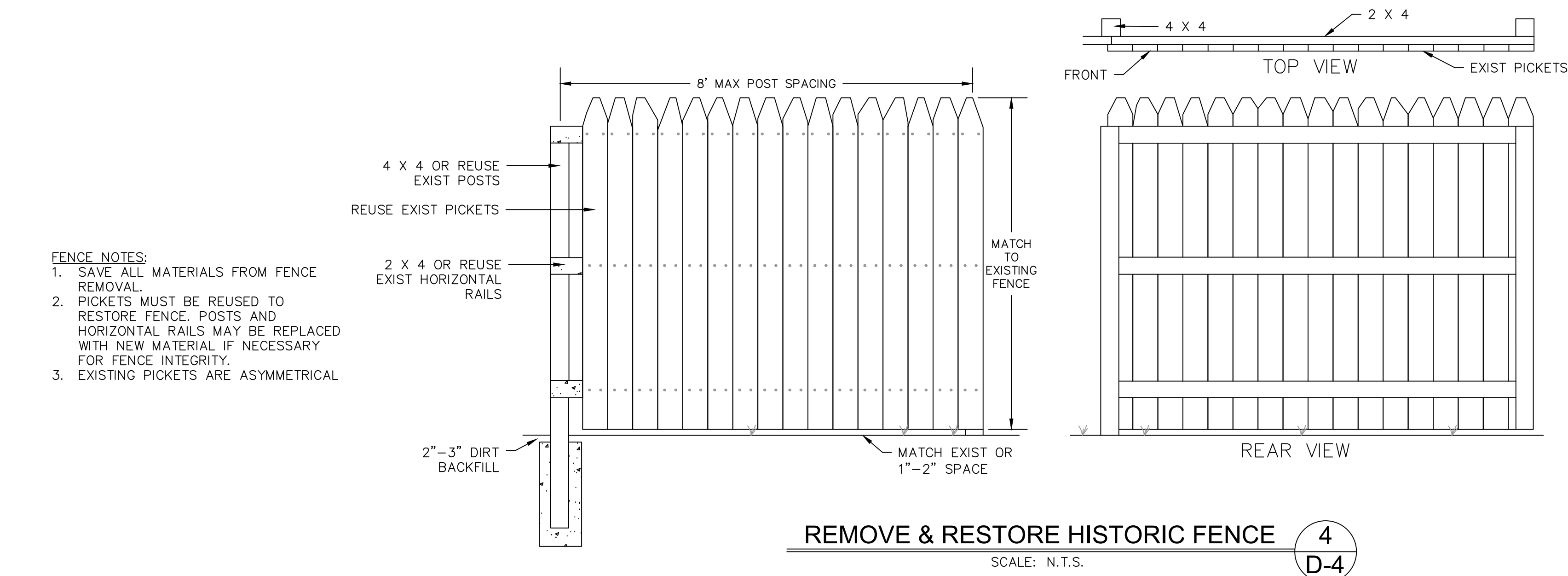
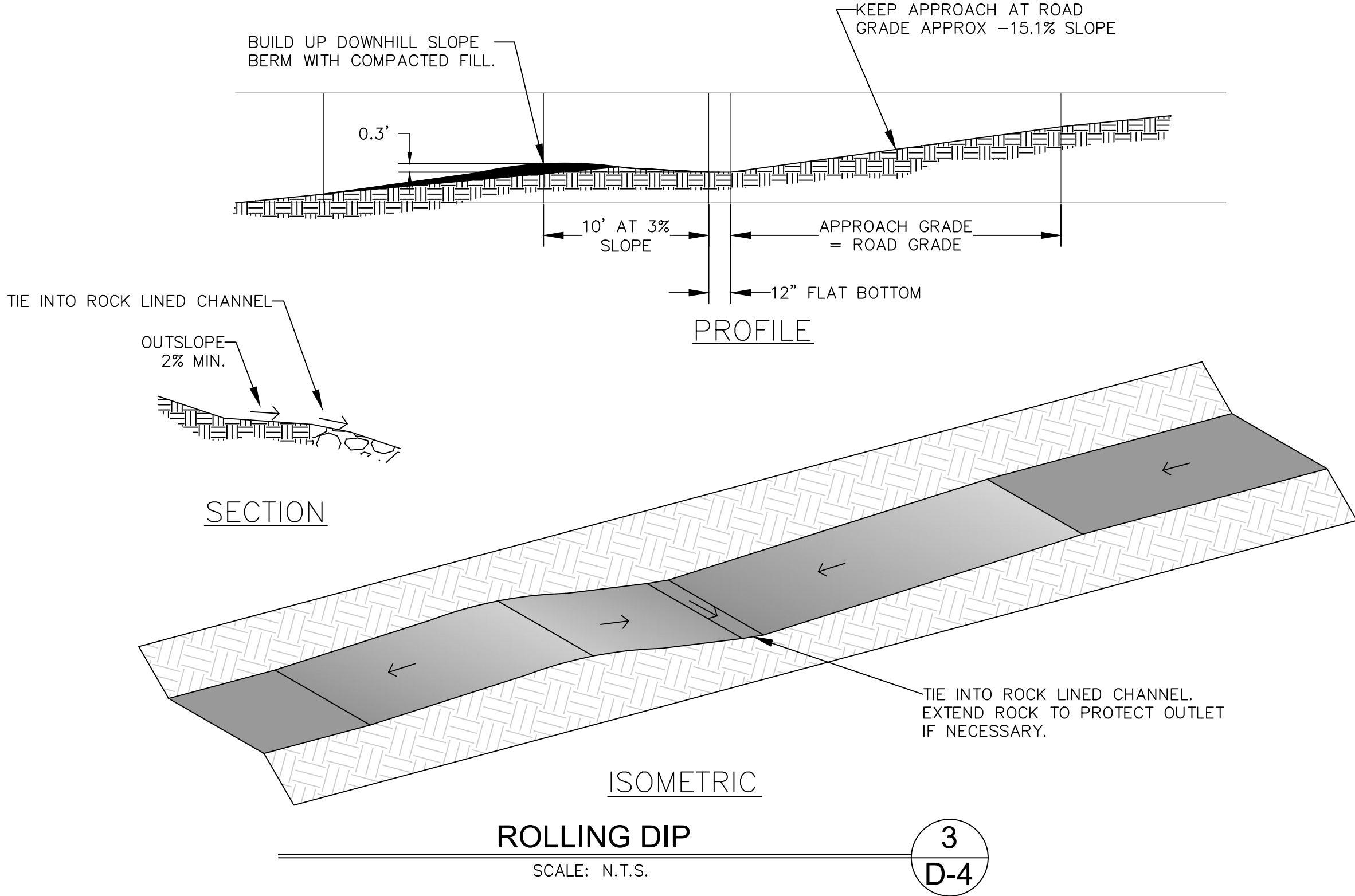


THE FOLLOWING GRADED BEDDING MATERIAL MAY BE USED IN WET TRENCHES:

U.S. STANDARD SIEVE SIZE	PERCENT BY WEIGHT PASSING
1.5"	100%
1"	50-90%
3/4"	30-70%
3/8"	10-40%
#4	5-25%
#200	0-10%

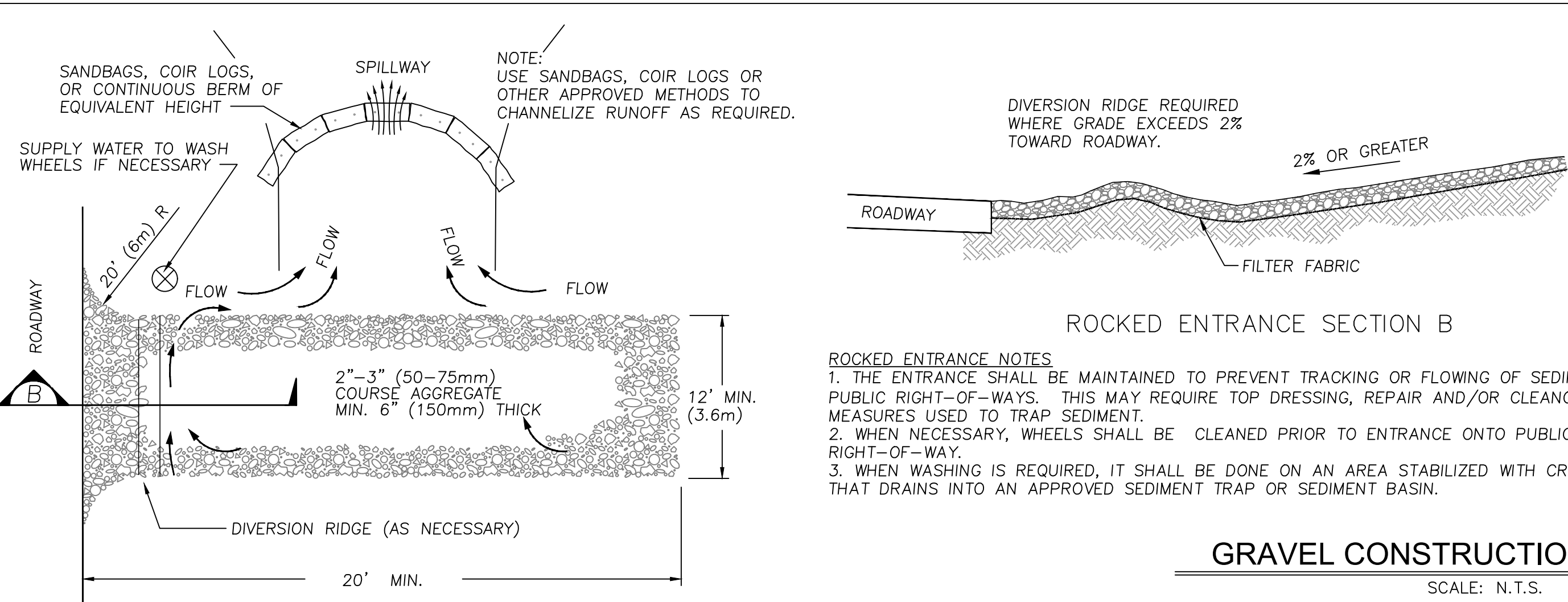
**STORM DRAIN TRENCH NOTES:**  
1. ALL REQUIREMENTS OF THE STORM DRAIN UTILITY ORDINANCE MUST BE MET.  
2. CLASS A AND CLASS E BACKFILL AND BEDDING MATERIAL SHALL CONFORM TO SECTION 200 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. BEDDING AND BACKFILL SHALL BE MECHANICALLY COMPACTED IN CONFORMANCE WITH SECTION 305.10 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.  
3. PLACE WARNING TAPE 1-FOOT ABOVE STORM DRAIN PIPE. WARNING TAPE SHALL READ "CAUTION STORM DRAIN MAIN".  
4. CLASS A BACKFILL AS BEDDING MATERIAL PER ORANGE BOOK 200.03.02. COMPACT OR CONSOLIDATE TO PROVIDE PROPER SUPPORT OF PIPE.  
5. UTILIZE WATER STOP FOR WET TRENCHES.

**DOUGLAS COUNTY STORM DRAIN TRENCH** 2  
SCALE: N.T.S. D-4



**FENCE NOTES:**  
1. SAVE ALL MATERIALS FROM FENCE REMOVAL.  
2. PICKETS MUST BE REUSED TO RESTORE FENCE. POSTS AND HORIZONTAL RAILS MAY BE REPLACED WITH NEW MATERIAL IF NECESSARY FOR FENCE INTEGRITY.  
3. EXISTING PICKETS ARE ASYMMETRICAL

**REMOVE & RESTORE HISTORIC FENCE** 4  
SCALE: N.T.S. D-4



**ROCKED ENTRANCE NOTES**  
1. THE ENTRANCE SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.  
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.  
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

**GRAVEL CONSTRUCTION ENTRANCE** 5  
SCALE: N.T.S. D-4

**Nevada Tahoe Conservation District**

PROFESSIONAL ENGINEER-STATE OF NEVADA  
MEGHAN C. KELLY  
Exp: 8/30/2019  
CIVIL  
No. 20851

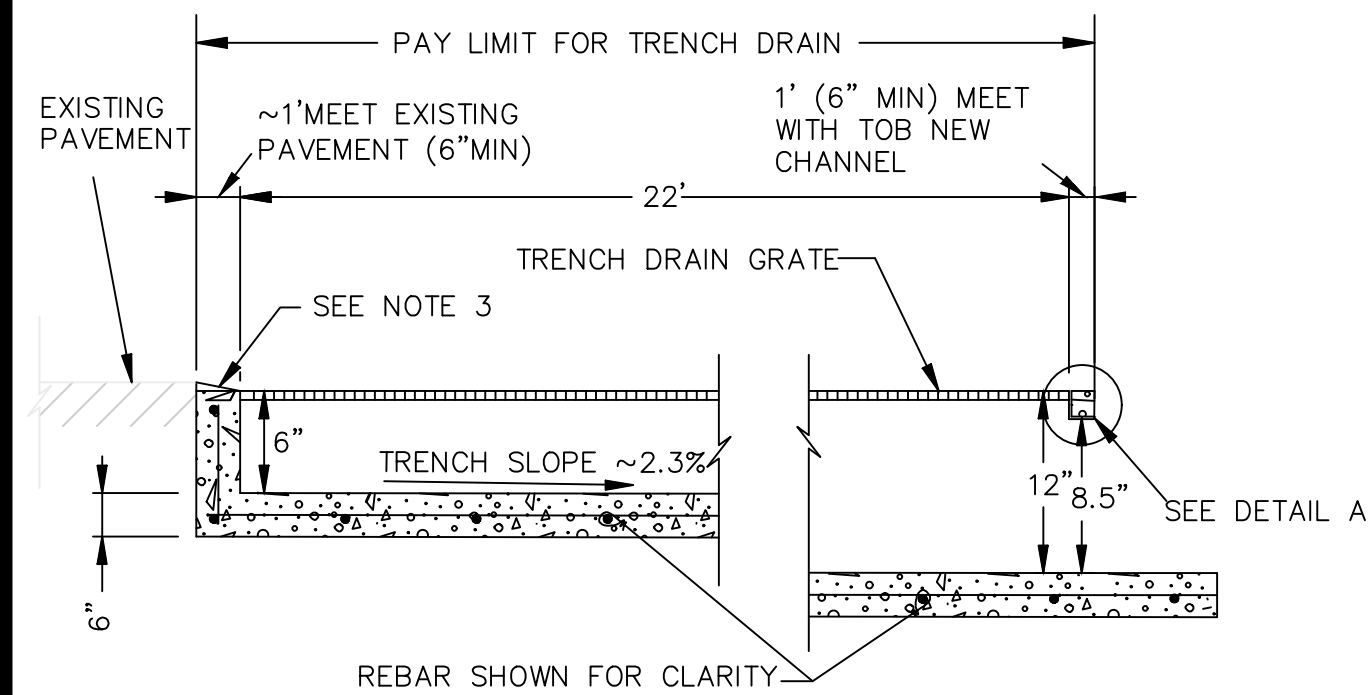
DETAILS

PITTMAN TERRACE WATER QUALITY IMPROVEMENT PROJECT

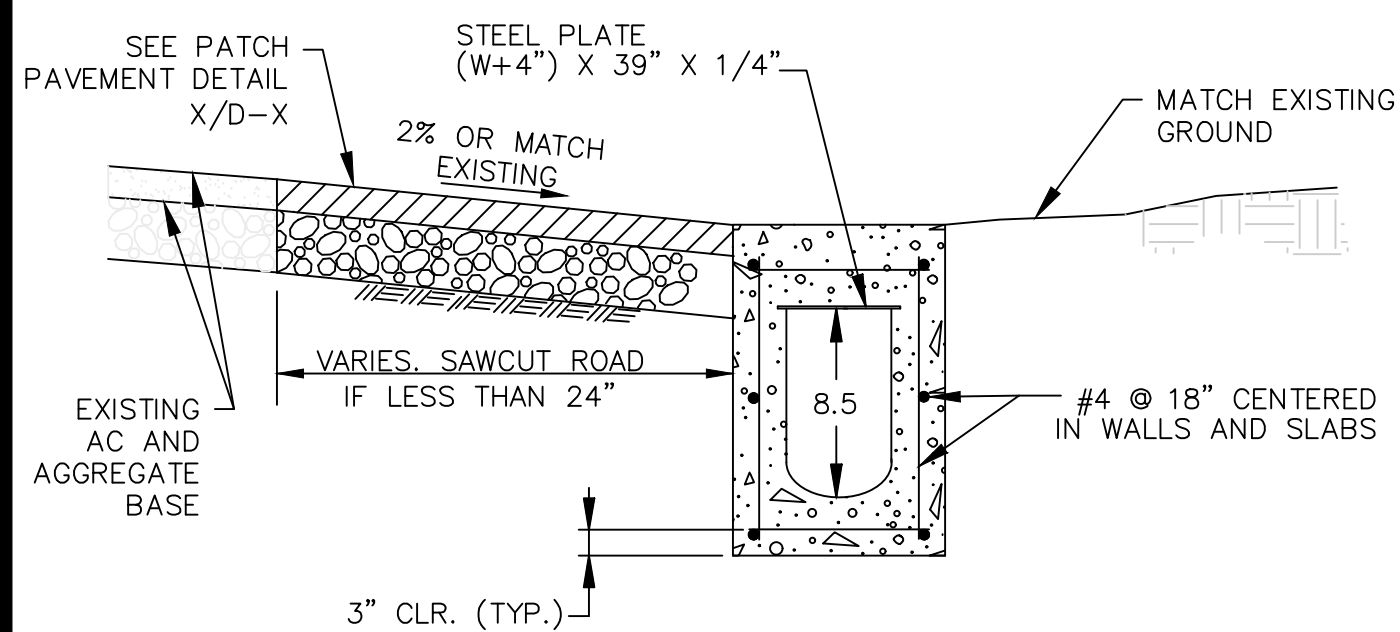
DESIGNED/DRAWN	MBG/CFW
CHECKED	MCK
DATE	04/2018
SCALE	AS SHOWN
PROJECT	PT
SHEET	D-4

13 OF 14

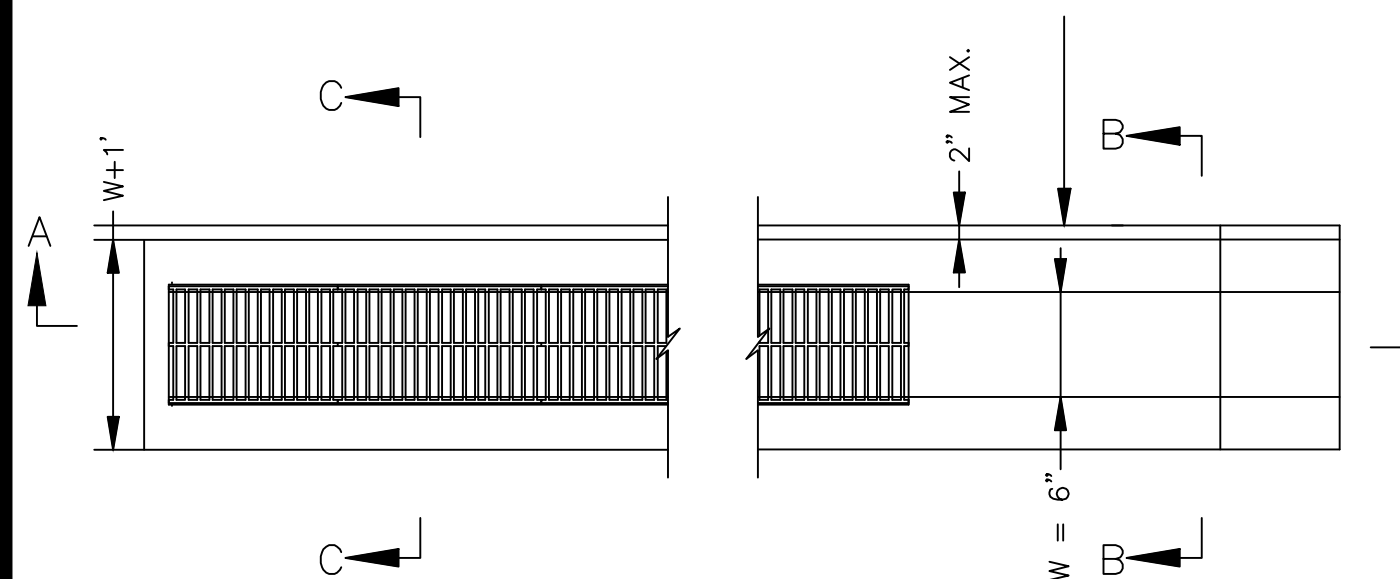




SECTION A-A



SECTION B-B



PLAN

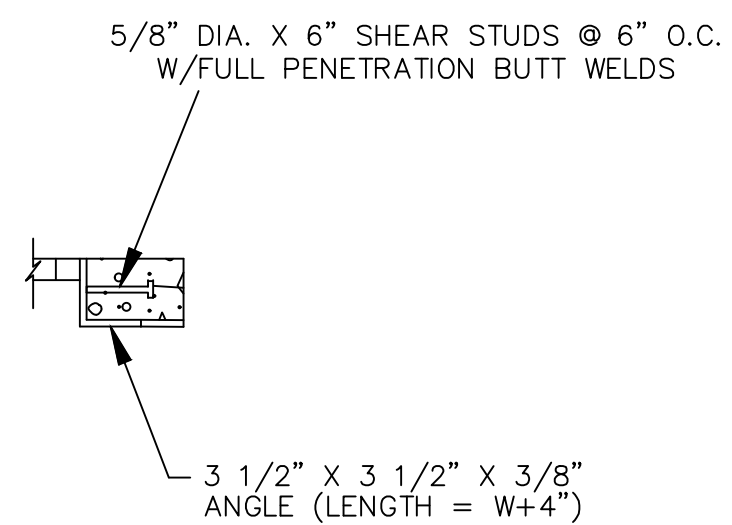
TRENCH DRAIN NOTES:

1. TRENCH DRAIN PRODUCTS SHALL BE ABT TRENCHFORMER OR APPROVED EQUAL. PRODUCTS SHALL BE FROM NDOT QUALIFIED PRODUCT LIST (QPL) FOUND AT [http://www.nevadadot.com/About\\_NDOT/NDOT\\_Divisions/Planning/Research/Qualified\\_Products\\_List.aspx](http://www.nevadadot.com/About_NDOT/NDOT_Divisions/Planning/Research/Qualified_Products_List.aspx)
2. REVISIONS REQUIRE APPROVAL BY THE ENGINEER IN WRITING PRIOR TO CONSTRUCTION.
3. CONSTRUCTION OF THE TRENCH DRAIN SHALL FOLLOW THE MANUFACTURERS RECOMMENDATIONS.
4. TRENCH DRAIN GRATE TO BE 1/4" TO 3/8" BELOW ADJACENT PAVEMENT SURFACE.
5. ALL CONCRETE SHALL BE CLASS A OR AA.
6. GRATE SHALL BE H-20 LOAD RATED AND BICYCLE SAFE.
7. ALL GRATES SHALL BE REMOVABLE. USE TWO-PIECE GRATES THROUGHOUT.
8. TRENCH DRAIN SHALL BE CONNECTED DIRECTLY INTO ROCK LINED CHANNEL. OUTLET SHALL BE AT LEAST 0.5 FT ABOVE CHANNEL FLOWLINE.
9. FORM TRENCH DRAIN OUTLET TO BLEND WITH ROCK LINE CHANNEL SIDE SLOPE.

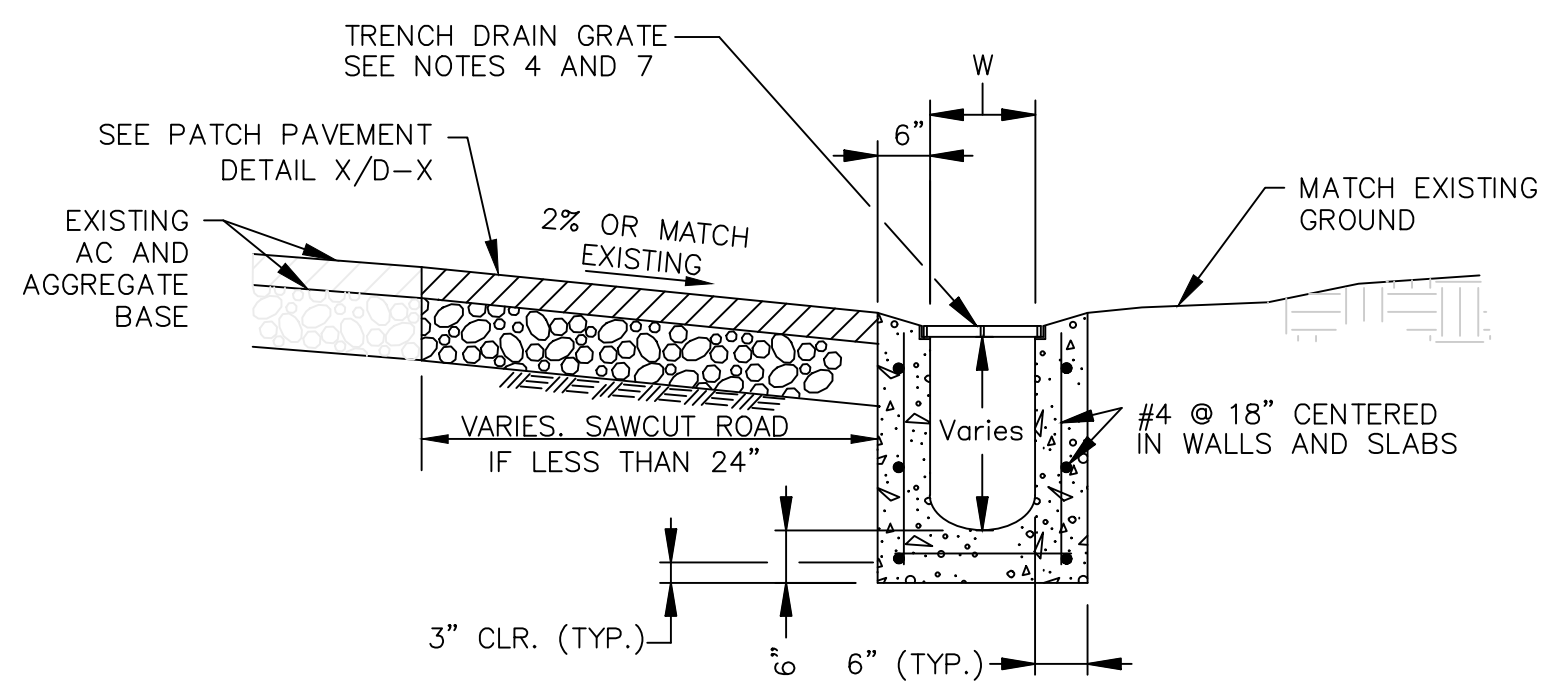
TRENCH DRAIN

SCALE: N.T.S.

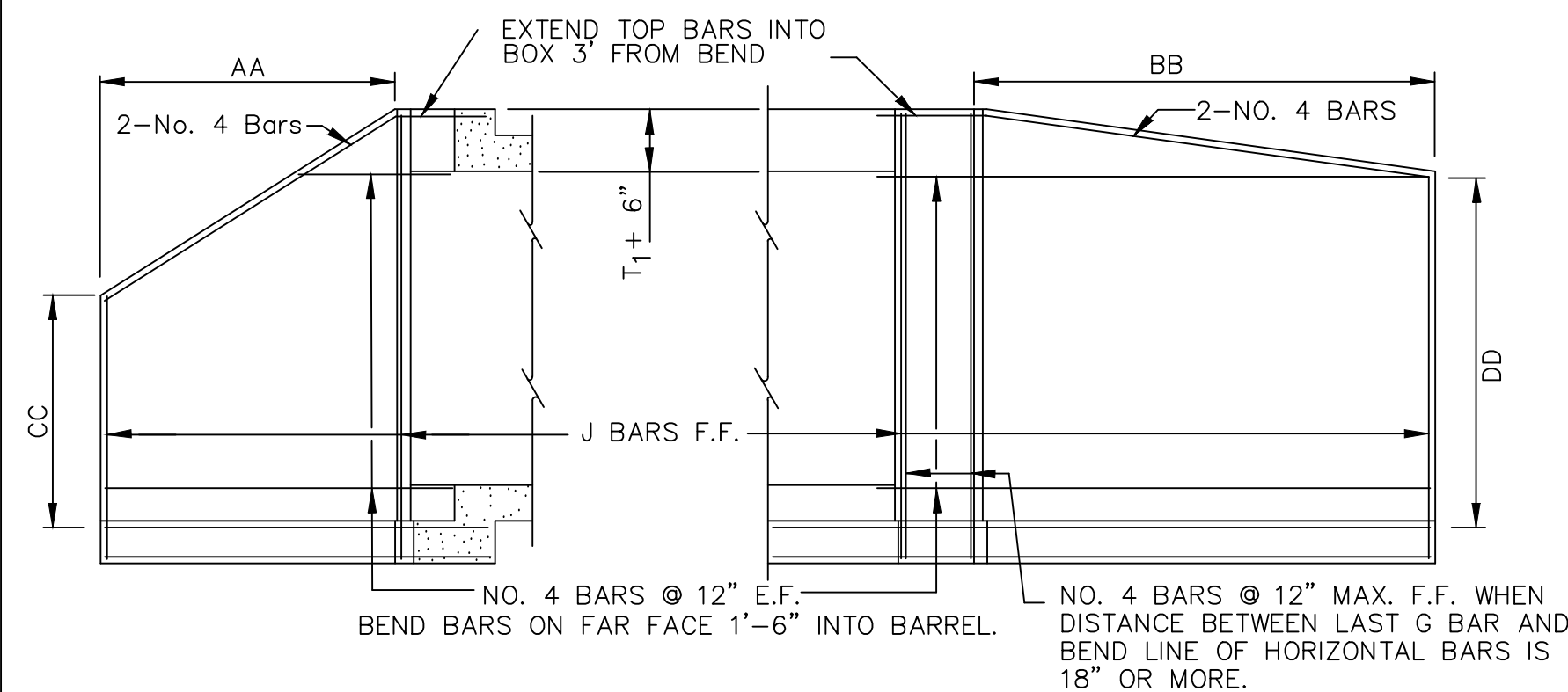
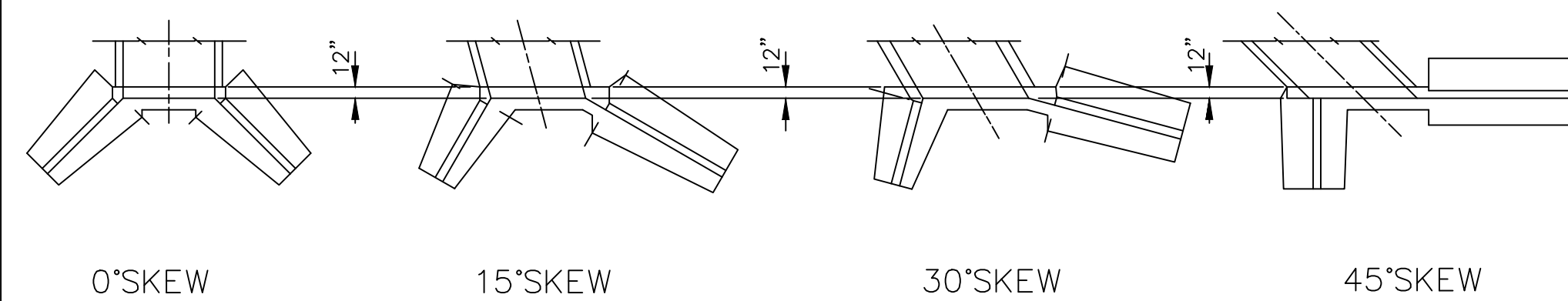
1  
D-5



DETAIL A



SECTION C-C

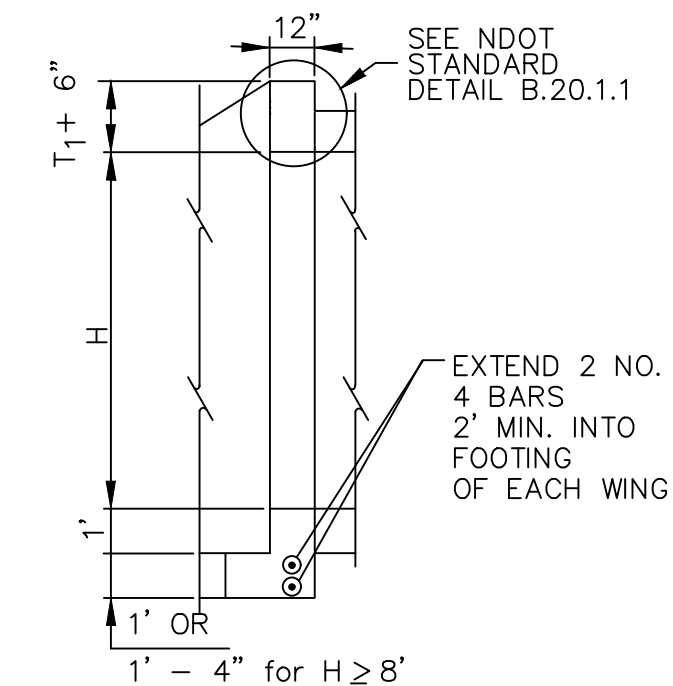


FOR BOXES WITH 0° SKEW BOTH WINGS ARE AS SHOWN FOR WING A.

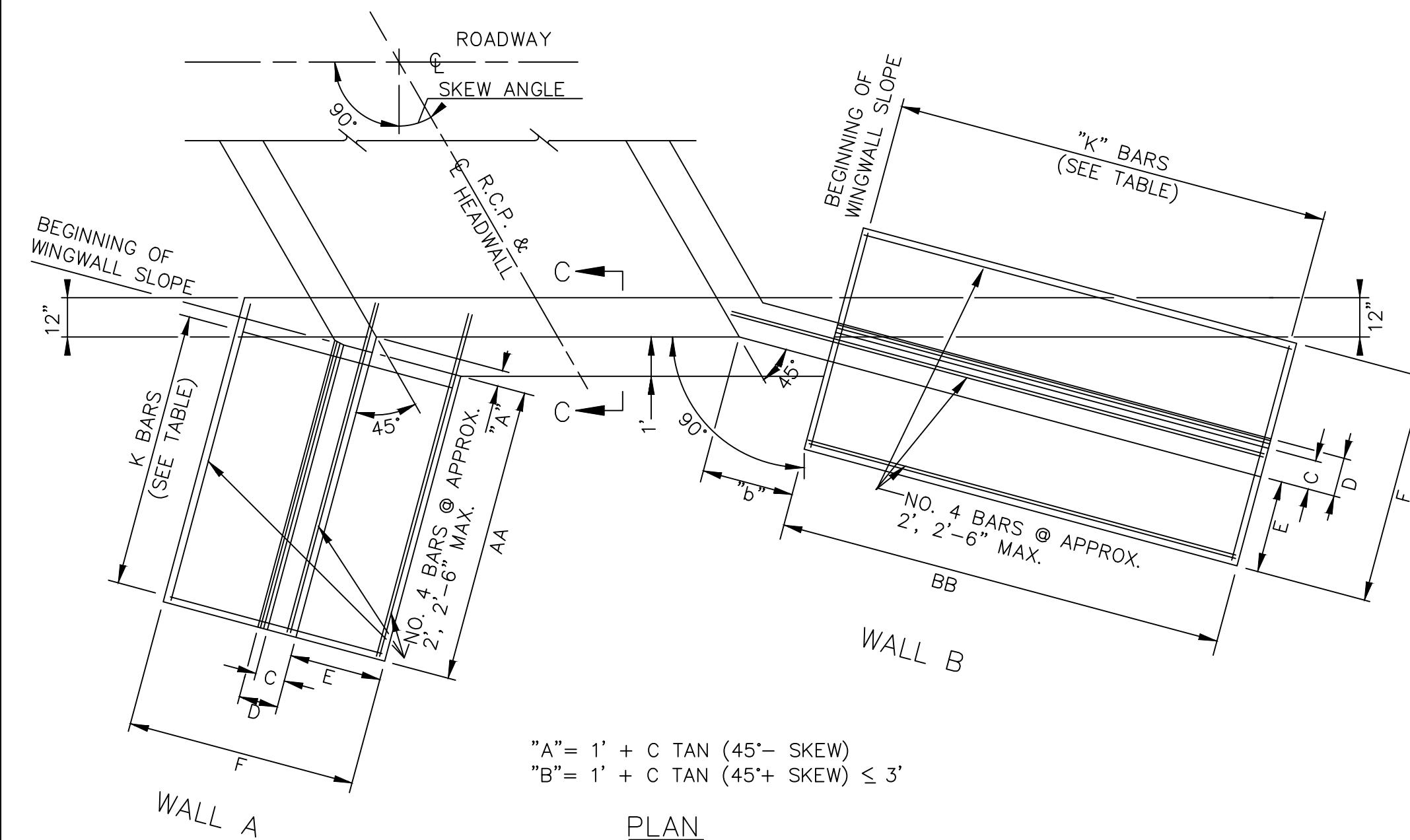
WALL A

WALL B

SECTION

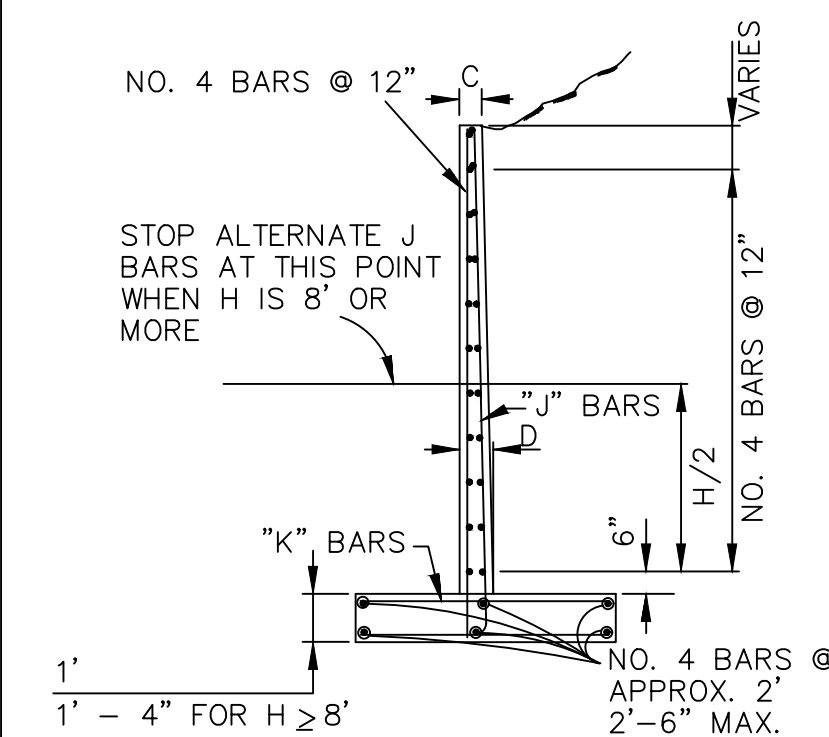


SECTION C-C  
(T<sub>1</sub> = Minimum 9")



"A" = 1' + C TAN (45°- SKEW)  
"B" = 1' + C TAN (45°+ SKEW) ≤ 3'

PLAN



SECTION OF WALLS A AND B

TYPE 1 HEADWALL DIMENSIONS AND REINFORCING STEEL													
0 DEGREE SKEW, H=6'													
H	AA	BB	CC	DD	C	D	J	J	K	K	E	F	
[FT]	[FT IN]	[FT IN]	[FT IN]	[FT IN]	[IN]	[IN]	[SIZE]	[SPACING]	[SIZE]	[SPACING]	[FT IN]	[FT IN]	
6	10 9	10 9	4 10	4 10	8	12	5	6	5	6	1 0	3 3	

NDOT HEADWALL

SCALE: N.T.S.

2  
D-5