

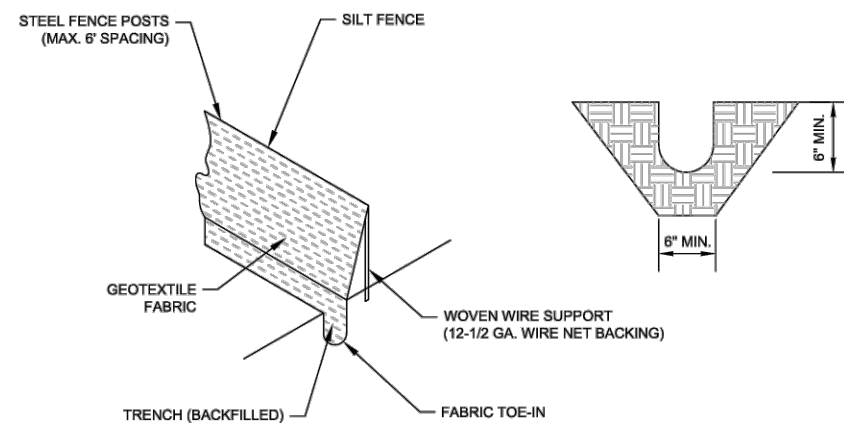
Date: Sep 13, 2016, 3:03pm User: D5_gphpr
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GENERAL NOTES

- THE INSTALLER SHALL FOLLOW THE REQUIREMENTS FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROLS, INSPECTION AND MAINTENANCE PROCEDURES LISTED IN THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) POLLUTION PREVENTION PLAN.
- THE INSTALLER AND ALL SUBCONTRACTORS SHALL COMPLETE THE POLLUTION PLAN CERTIFICATION.
- A COPY OF THE POLLUTION PREVENTION PLAN SHALL BE KEPT AT THE CONSTRUCTION SITE FROM THE TIME CONSTRUCTION BEGINS UNTIL THE SITE IS FINALLY STABILIZED.
- INSPECTION AND MAINTENANCE FORMS SHALL BE COMPLETED AS REQUIRED IN THE POLLUTION PLAN.
- THE STORM WATER POLLUTION PREVENTION PLAN AND ALL OTHER RECORDS REQUIRED BY THE PERMIT SHALL BE RETAINED FOR THREE YEARS AFTER COMPLETION OF FINAL SITE STABILIZATION.
- THE POLLUTION PREVENTION PLAN AND ASSOCIATED RECORDS MUST BE MADE AVAILABLE UPON REQUEST TO THE EPA'S DIRECTOR, OR ANY STATE OR LOCAL AGENCY WHO IS APPROVING EROSION AND SEDIMENTATION CONTROL PLANS AND TO THE OWNER AND ENGINEER.

GENERAL NOTES

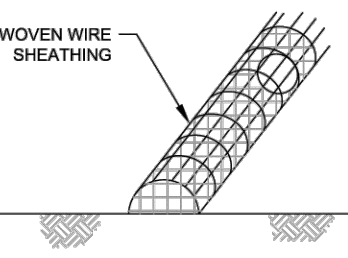
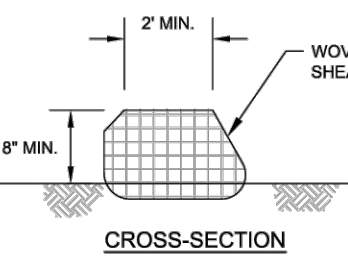
- STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE MINIMUM ONE FOOT.
- THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPACE OR MECHANICAL TRENCHER SO THAT THE DOWN SLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (E.G. PAVEMENT), WEIGHT FABRIC FLAP WITH WASHED GRAVEL ON UP-HILL SIDE TO PREVENT FLOW UNDER FENCE.
- THE TRENCH MUST BE A MINIMUM OF 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAD IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
- SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST.
- INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
- ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS NOT TO CONTRIBUTE TO ADDITIONAL EROSION.



NOT TO SCALE

PROPERTY OF CRYSTAL CLEAR SPECIAL UTILITY DISTRICT	SILT FENCE DETAILS	M&S ENGINEERING CONSULTING ENGINEERS, P.C. 110257 PROFESSIONAL ENGINEER	APPROVED JUNE 2015	REVISION JUNE 2015
			SHEET # 1	OF 1

Date: Sep 13, 2016, 2:59pm User: D5_gphpr
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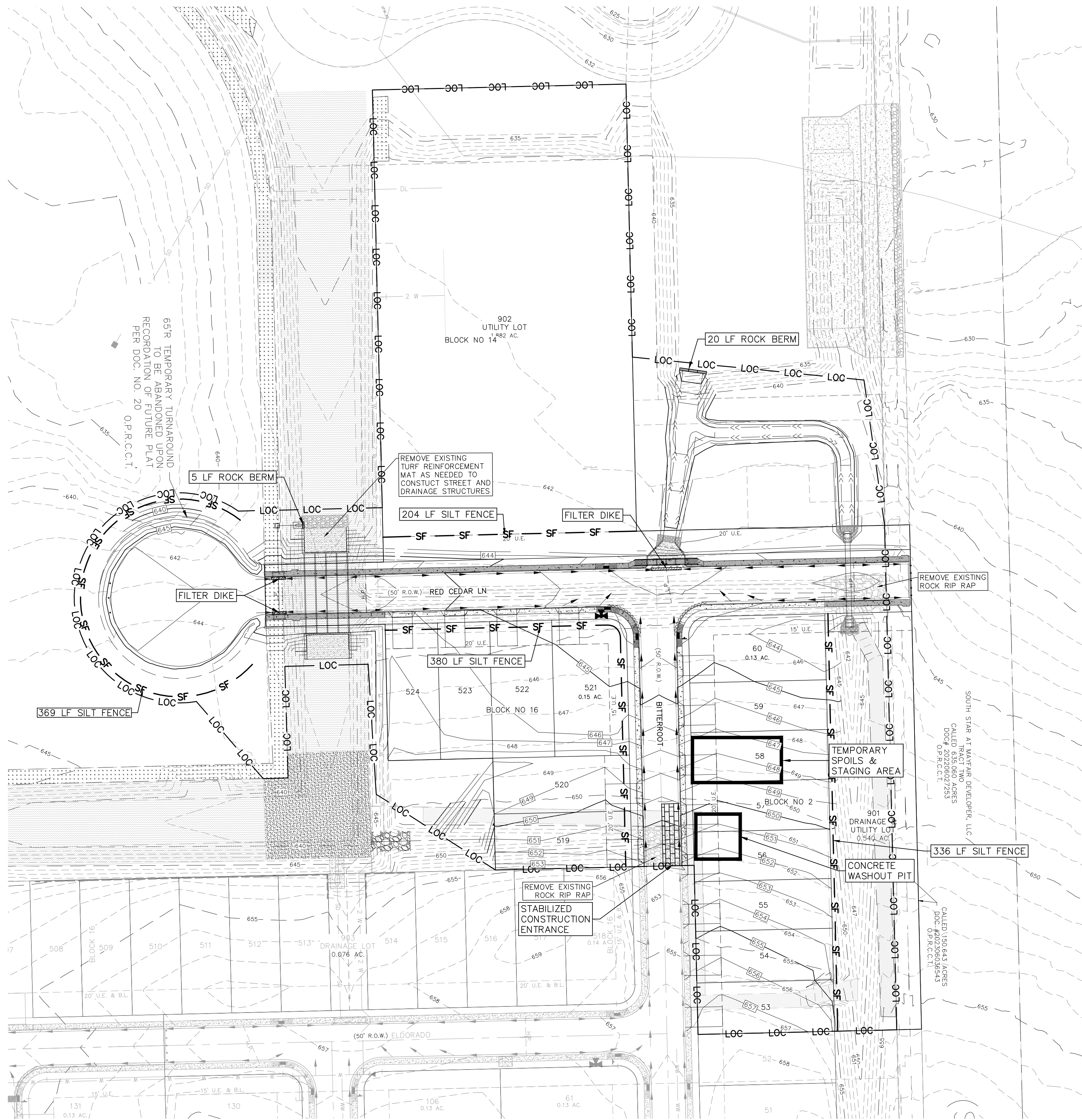


GENERAL NOTES

- USE ONLY OPEN GRADED ROCK 4-8 INCH DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK 3-6 INCH DIAMETER FOR OTHER CONDITIONS.
- THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 1 INCH OPENING AND MINIMUM WIRE DIAMETER OF 20 GAUGE.
- THE ROCK BERM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE WOVEN WIRE SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
- WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF IN APPROVED SITE AND IN A MANNER AS NOT TO CREATE A STABILIZATION PROBLEM.
- DAILY INSPECTION SHALL BE MADE ON SEVERE SERVICE ROCK BERMS. SILT SHALL BE REMOVED WHEN ACCUMULATION REACHES 6 INCHES.
- WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

NOT TO SCALE

PROPERTY OF CRYSTAL CLEAR SPECIAL UTILITY DISTRICT	ROCK BERM DETAILS	M&S ENGINEERING CONSULTING ENGINEERS, P.C. 110257 PROFESSIONAL ENGINEER	APPROVED JUNE 2015	REVISION JUNE 2015
			SHEET 1	OF 1



THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR WILL AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THEIR FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES, STRUCTURES OR FACILITIES. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES 24-HOURS PRIOR TO COMMENCING CONSTRUCTION.

LEGEND

- 700 EXISTING CONTOURS
- 700 PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
- U.E. UTILITY EASEMENT
- D.E. DRAINAGE EASEMENT
- DRAINAGE FLOW DIRECTION
- SF SILT FENCE
- LOC LIMIT OF CONSTRUCTION
- STABILIZED CONSTRUCTION ENTRANCE
- FILTER DIKE CURB INLET PROTECTION
- ROCK BERM

NOTE:

PER TPDES REQUIREMENTS, DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENT) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

SILT FENCE AT PROPERTY LINE MAY BE SHOWN GRAPHICALLY OFFSET FROM PROPERTY LINE TO AVOID OVERLAP OF LINEWORK. CONTRACTOR SHALL NOT INSTALL EROSION CONTROL MEASURES BEYOND LIMITS OF CONSTRUCTION REGARDLESS OF GRAPHIC REPRESENTATION.

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPES FIRM F-10961
TBPES FIRM 1053600



3/26/2024

EROSION & SEDIMENT CONTROL PLAN

KYNDWOOD SUBDIVISION, UNIT 2A
NEW BRAUNFELS, TEXAS

NO.	REVISION	DESCRIPTION	REVISION DATE

DATE: March 2024

DRAWN BY: MK

DESIGNED BY: MZ

REVIEWED BY: JTS

HMT PROJECT NO.: 337.079

SHEET
C2.01

CONCRETE WASHOUT AREAS

THE PURPOSE OF CONCRETE WASHOUT AREAS IS TO PREVENT OR REDUCE THE DISCHARGE OF POLLUTANTS TO STORMWATER FROM CONCRETE WASTE BY CONDUCTING WASHOUT OFFSITE, PERFORMING ONSITE WASHOUT IN A DESIGNATED AREA, AND TRAINING EMPLOYEES AND SUBCONTRACTORS.

THE FOLLOWING STEPS WILL HELP REDUCE STORMWATER POLLUTION FROM CONCRETE WASTES:

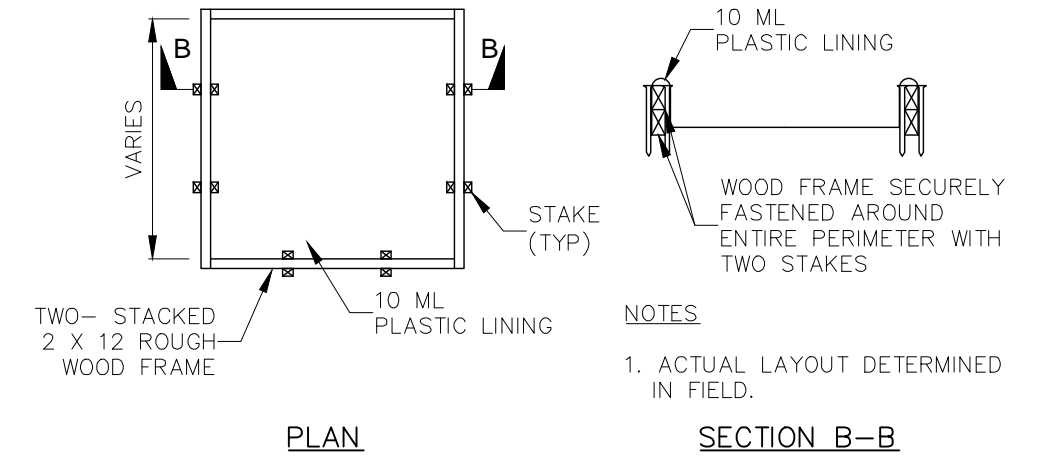
- INCORPORATE REQUIREMENTS FOR CONCRETE WASTE MANAGEMENT INTO MATERIAL SUPPLIER AND SUBCONTRACTOR AGREEMENTS.
- AVOID MIXING EXCESS AMOUNTS OF FRESH CONCRETE.
- PERFORM WASHOUT OF CONCRETE TRUCKS IN DESIGNATED AREAS ONLY.
- DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
- DO NOT ALLOW EXCESS CONCRETE TO BE DUMPED ONSITE, EXCEPT IN DESIGNATED AREAS.

FOR ONSITE WASHOUT:

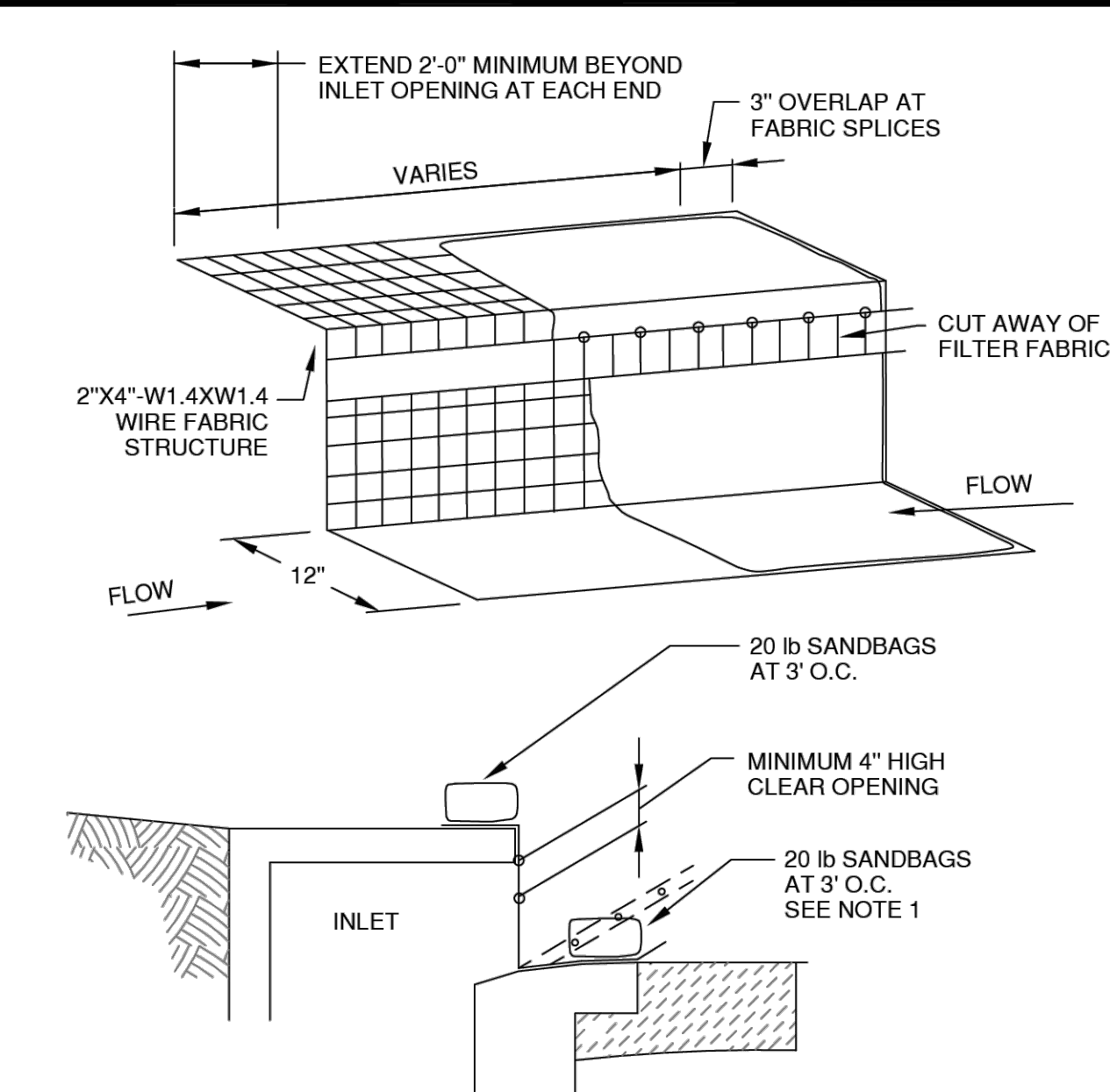
- LOCATE WASHOUT AREA AT LEAST 50 FEET FROM SENSITIVE FEATURES, STORM DRAINS, OPEN DITCHES, OR WATER BODIES. DO NOT ALLOW RUNOFF FROM THIS AREA BY CONSTRUCTING A TEMPORARY PIT OR BERMED AREA LARGE ENOUGH FOR LIQUID AND SOLID WASTE.
- WASH OUT WASTES INTO THE TEMPORARY PIT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED PROPERLY.

BELOW GRADE CONCRETE WASHOUT FACILITIES ARE TYPICAL. THESE CONSIST OF A LINED EXCAVATION SUFFICIENTLY LARGE TO HOLD EXPECTED VOLUME OF WASHOUT MATERIAL. ABOVE GRADE FACILITIES ARE USED IF EXCAVATION IS NOT PRACTICAL. TEMPORARY CONCRETE WASHOUT FACILITY (TYPE ABOVE GRADE) SHOULD BE CONSTRUCTED AS SHOWN ON THE DETAILS AT THE END OF THIS SECTION, WITH SUFFICIENT QUANTITY AND VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS. PLASTIC LINING MATERIAL SHOULD BE A MINIMUM OF 10 MIL IN POLYETHYLENE SHEETING AND SHOULD BE FREE OF HOLES, TEARS, OR OTHER DEFECTS THAT COMPROMISE THE IMPERMEABILITY OF THE MATERIAL.

WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, THE HARDENED CONCRETE SHOULD BE REMOVED AND DISPOSED OF. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE REMOVED FROM THE SITE OF THE WORK AND DISPOSED OF HOLES, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE TEMPORARY CONCRETE WASHOUT FACILITIES SHOULD BE BACKFILLED AND REPAIRED.



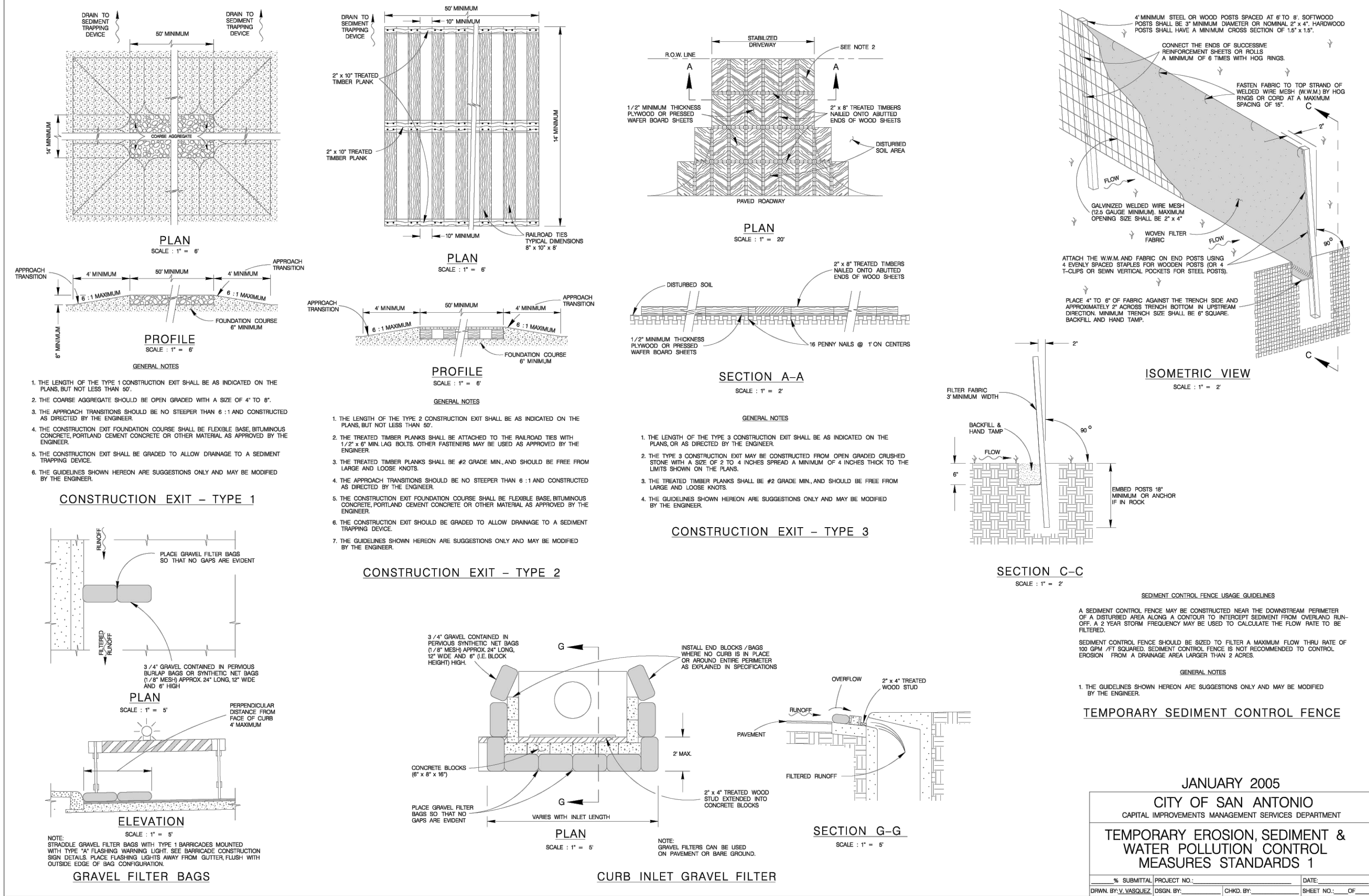
CONCRETE WASHOUT PIT DETAIL
TYPE "ABOVE GRADE"
NOT TO SCALE



NOTES:

- WHERE MINIMUM CLEARANCES CAUSE TRAFFIC TO DRIVE IN THE GUTTER, THE CONTRACTOR MAY SUBSTITUTE A 1" X 4" BOARD SECURED WITH CONCRETE NAILS 3" O.C. NAILED INTO THE GUTTER IN LIEU OF SANDBAGS TO HOLD THE FILTER DIKE IN PLACE. UPON REMOVAL, CLEAN ANY DIRT/DEBRIS FROM NAILING LOCATIONS, APPLY CHEMICAL SANDING AGENT AND APPLY NON-SHRINK GROUT FLUSH WITH SURFACE OF GUTTER.
- A SECTION OF FILTER FABRIC SHALL BE REMOVED AS SHOWN ON THIS DETAIL OR AS DIRECTED BY THE ENGINEER OR DESIGNATED REPRESENTATIVE. FABRIC MUST BE SECURED TO WIRE BACKING WITH CLIPS OR HOG RINGS AT THIS LOCATION.
- DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN DEPTH REACHES 2".
- CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORM-WATER BEGINS TO OVER-TOP THE CURB.
- INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT IS STABILIZED.

	DRAWN BY: H Shadrock		STANDARD DRAWING: FILTER DIKE CURB INLET PROTECTION	
	APPROVED BY:	UPDATED: 4-29-03	SCALE: N.T.S.	SHEET: 1 OF 1
NEW BRAUNFELS UTILITIES WATER SYSTEMS ENGINEERING		DRAWING NO.: 505		

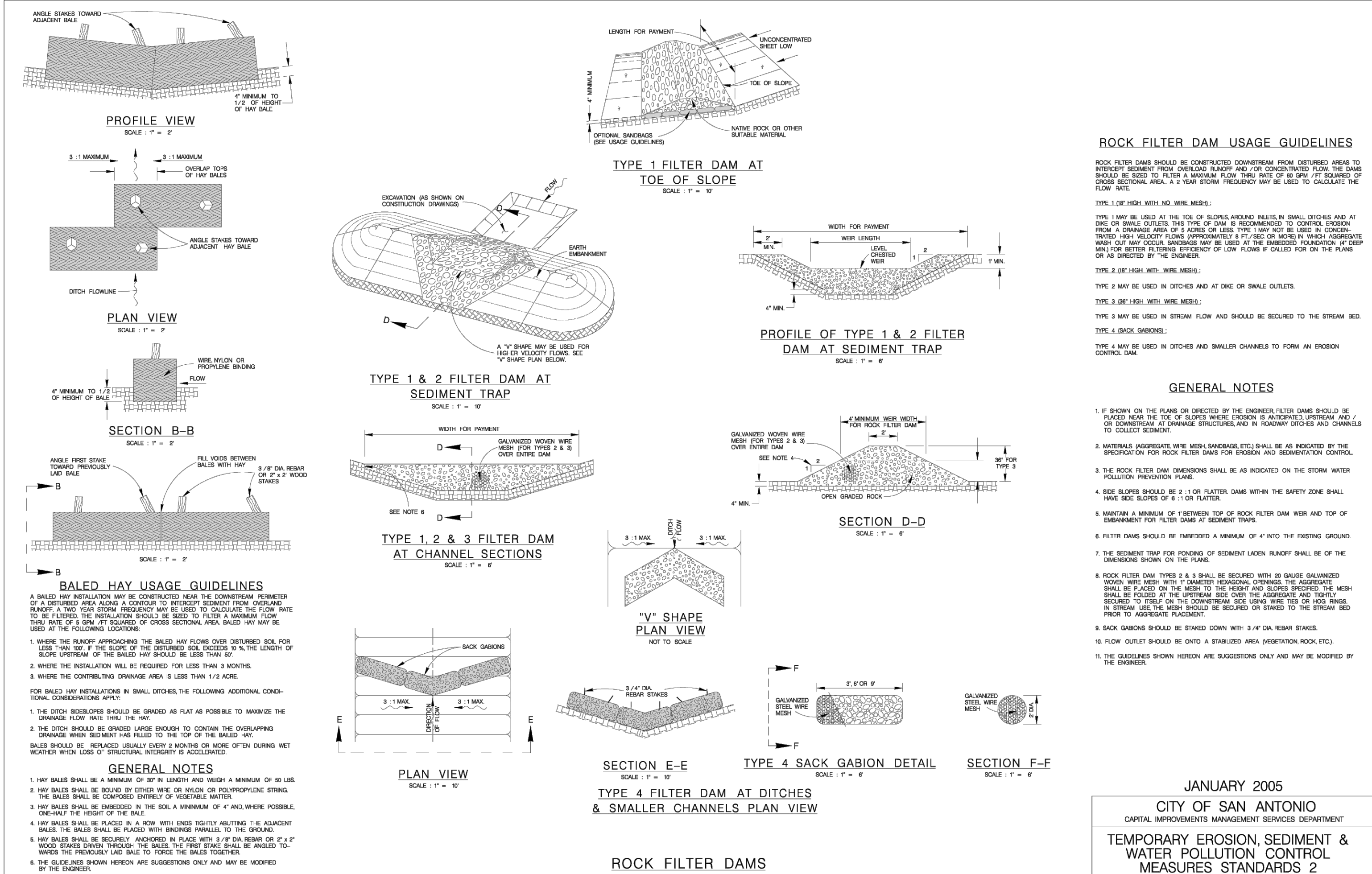


LEGEND

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- 700 PROPOSED CONTOURS
- B.L. BUILDING SETBACK LINE
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- SF SILT FENCE
- LOC LIMIT OF CONSTRUCTION
- STABILIZED CONSTRUCTION ENTRANCE
- FILTER DIKE CURB INLET PROTECTION
- ROCK BERM

SEQUENCE OF CONSTRUCTION

- INSTALL EROSION CONTROLS PER APPROVED PLAN.
 - TEMPORARY CONTROLS TO BE INSPECTED AND MAINTAINED WEEKLY AND PRIOR TO ANTICIPATED RAINFALL EVENTS, AND AFTER RAINFALL EVENTS, AS NEEDED, CONTRACTOR/OWNER SHALL PROVIDE A CONTACT NAME AND NUMBER FOR EROSION CONTROL ISSUES.
 - CONDUCT DEMOLITION ACTIVITIES, IF APPLICABLE.
 - CONSTRUCT DRAINAGE IMPROVEMENTS, IF APPLICABLE.
 - CONSTRUCT CURB INLET PROTECTION AT THE TIME OF CURB INLET INSTALLATION.
 - CONSTRUCT DEVELOPMENT PER APPROVED PLANS.
 - INSTALL STREETScape AND/OR LANDSCAPING IMPROVEMENTS.
 - CONTRACTOR TO VEGETATE ANY DISTURBED AREAS ONCE FINAL GRADING IS COMPLETE, AND ESTABLISH A MIN. OF 70% VEGETATION PRIOR TO COMPLETION. PER TPDES REQUIREMENTS, DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.
 - REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.
- NOTE:
CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENT) AND SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES IN 21 DAYS, PER TPDES REQUIREMENTS.



ROCK FILTER DAM USAGE GUIDELINES

ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF AND FOR CONCENTRATED FLOW. THE DAMS SHOULD BE DESIGNED TO FILTER A MINIMUM FLOW THRU RATE OF 80 GPM / FT SQUARED OF FLOW RATE. A 2:1 SIDE SLOPE FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

- TYPE 1 (SEE DETAIL WITH WIRE MESH): TYPE 1 MAY BE USED AT THE TOE OF SLOPES AROUND INLETS IN SMALL DITCHES AND AT DOWNSIDE OF GRADE CUTTERS. THIS TYPE OF DAM IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 4 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS APPROXIMATELY 8:1:1 OR GREATER, IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDWICHES MAY BE USED AT THE IMMEDIATE FOUNDATION OF DITCH WEIRS FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- TYPE 2 (SEE DETAIL WITH WIRE MESH): TYPE 2 MAY BE USED IN DITCHES AND AT DOWNSIDE OF GRADE CUTTERS.
- TYPE 3 (SEE DETAIL WITH WIRE MESH): TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.
- TYPE 4 (SEE DETAIL WITH WIRE MESH): TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

GENERAL NOTES

- IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED UPSTREAM AND 2. OR CONCENTRATION AT DRAINAGE STRUCTURES AND IN GADWAY DITCHES AND CHANNELS.
- MATERIALS: UNWEATHERED WIRE MESH (SANDWICHES ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL.
- THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE EROSION WATER POLLUTION PREVENTION PLANS.
- SIDE SLOPES SHOULD BE 2:1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6:1 OR FLATTER.
- MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
- FILTER DAMS SHOULD BE EMBOSSED A MINIMUM OF 4" INTO THE EXISTING GROUND.
- THE SEDIMENT TRAP FOR FLOODING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
- ROCK FILTER DAMS SHOULD BE SECURED WITH 3/4" DIA. HEAVY RINGS. GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER REINFORCING OPENINGS THE AGGREGATE SHALL BE PLACED ON THE WEIR TO THE HEIGHT AND SLOPE SPECIFIED. THE WIRE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO THE STRUCTURE. THE WIRE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
- SACK GABIONS SHOULD BE STAKED DOWN WITH 3/4" DIA. HEAVY RINGS.
- FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION ROCK, ETC.).
- THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

JANUARY 2005

CITY OF SAN ANTONIO CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT	
TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 2	
% SUBMITTAL PROJECT NO.:	DATE:
DRAWN BY: V. MENDOZA	CHECKED BY: _____
SHEET NO.:	OF

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EROSION DETAILS

REVISION	DESCRIPTION	DATE
NO.		

DATE: **March 2024**

DRAWN BY: **MK**

DESIGNED BY: **MZ**

REVIEWED BY: **JTS**

HMT PROJECT NO.: **337.079**

SHEET

C2.02

290 S. CASTELL AVE., STE. 100
NEW BRAUNFELS, TX 78130
TBPELS FIRM F-10961
TBPELS FIRM 1053600



3/26/2024

KYNDWOOD SUBDIVISION, UNIT 2A
NEW BRAUNFELS, TEXAS