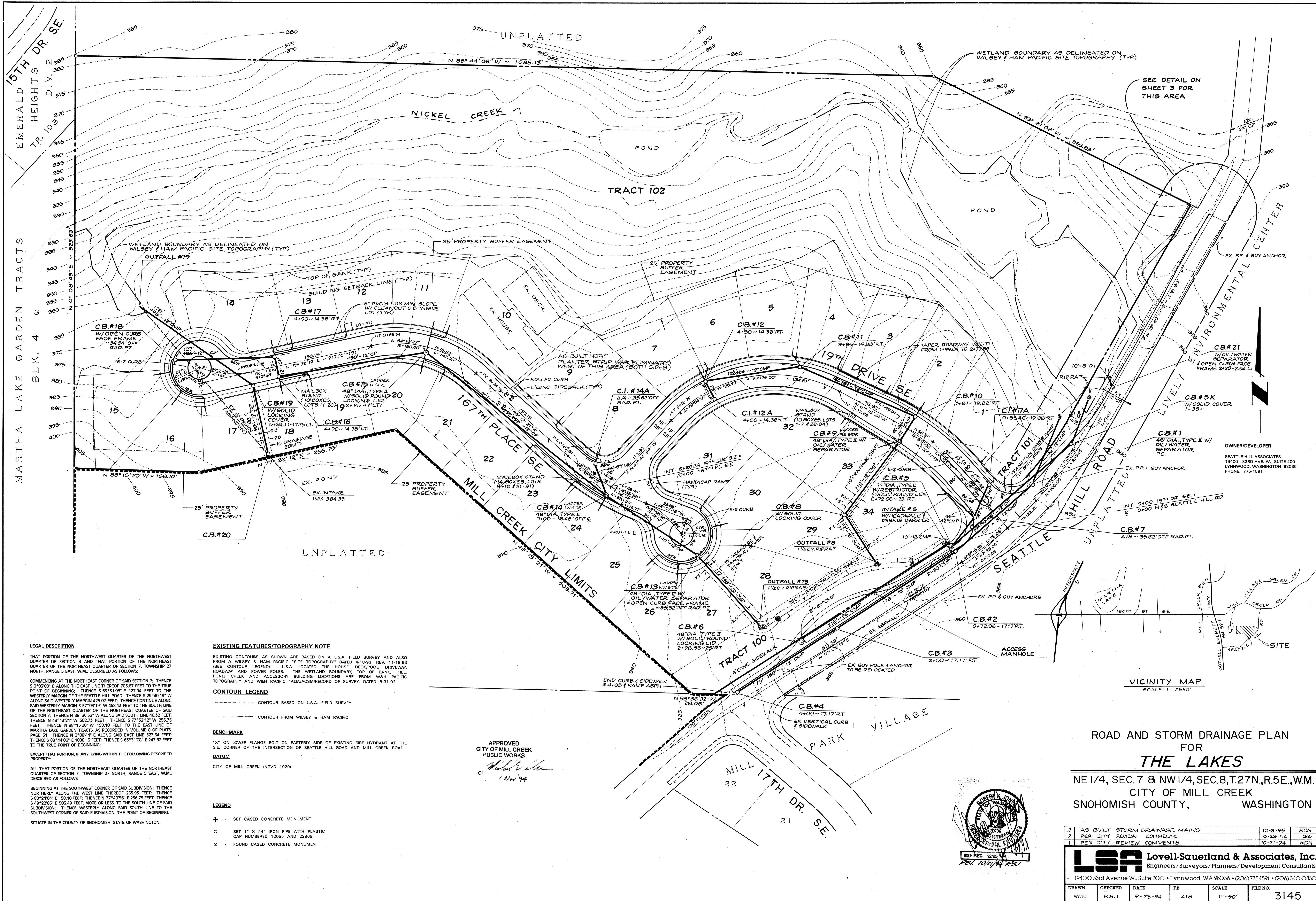
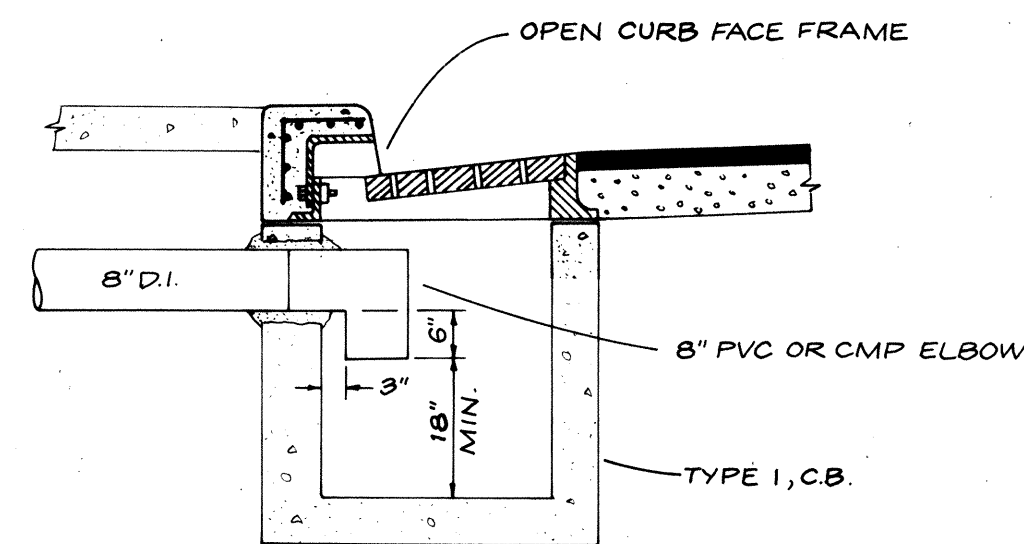
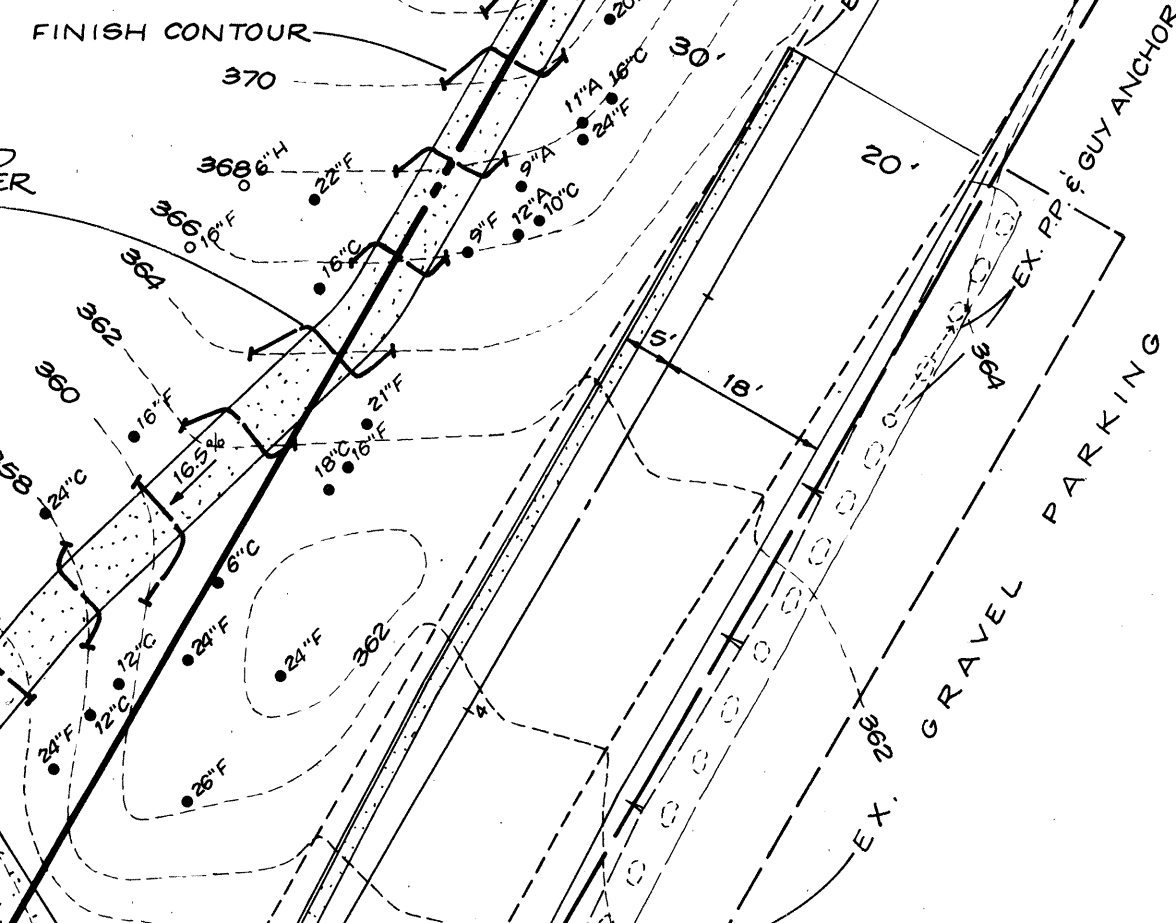






C.B.#21 W/OIL/WATER SEPARATOR
NTS.

SIDEWALK TO BE ALIGNED & GRADED SO THAT CONIFER TREES CAN BE SAVED



TRACT 102

WETLAND BOUNDARY

KEYSTONE WALL & PEDESTRIAN HANDRAIL FROM 1+75 TO 3+40

HAND DIG SHALLOW BIOFILTRATION SWALE

OUTFALL #21

FIELD FORM BLOCK WHERE PIPES PROTRUDE THRU WALL

OUTFALL #5
1+97 ~ 20' LT.

PLACE 1 1/2 CY RIPRAP @ OUTFALL (6\"/>

OUTFALL #1
1+55 ~ 40' LT.

C.B.#21
W/OIL/WATER SEPARATOR
OPEN CURB FACE FRAME
(SEE DETAIL THIS SHEET)
2+25 ~ 2+54' LT.

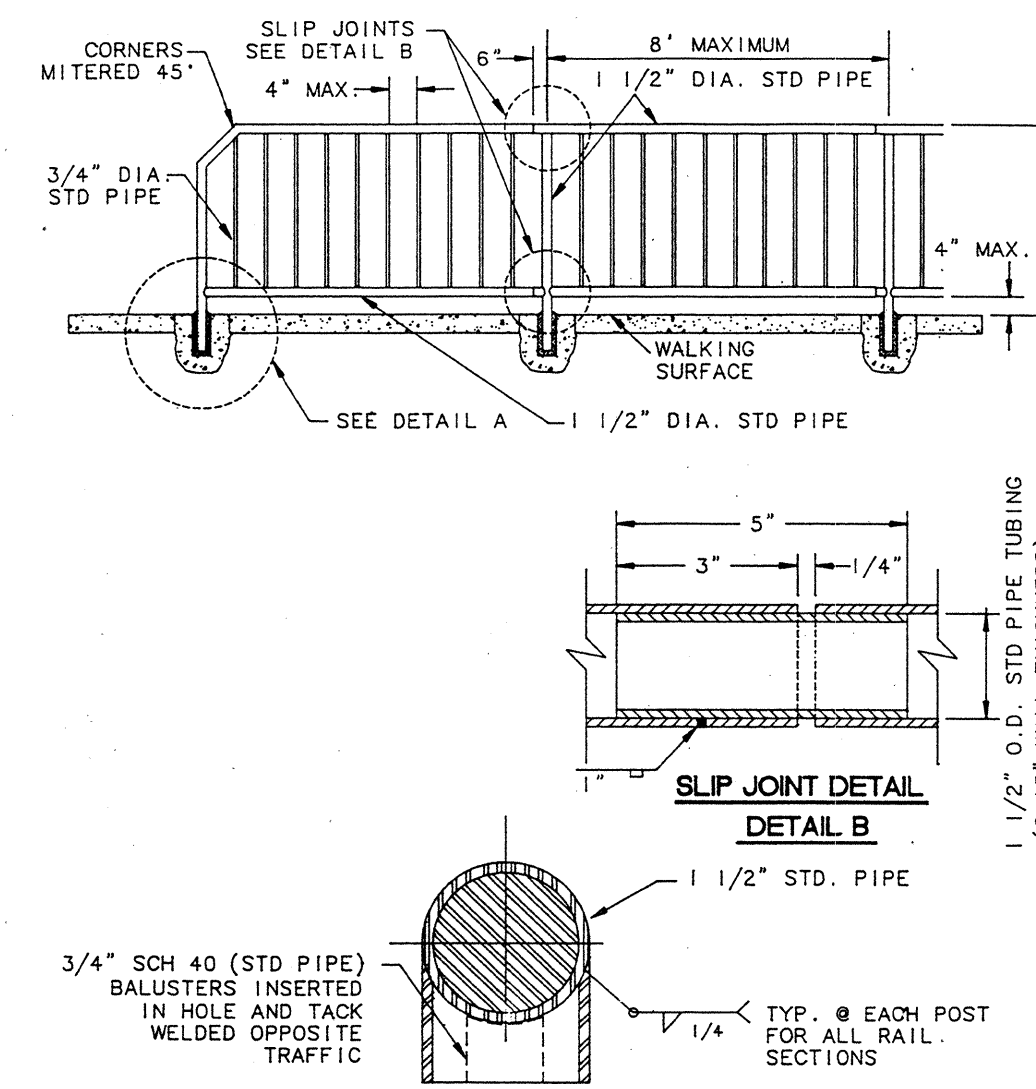
EXTEND EX. 12\"/>

C.B.#5X
W/ SOLID COVER
1+35 ~

C.B.#1
48\"/>

NOTE: WALL BASE SHALL BE A MINIMUM OF 24\"/>

SCALE: 1\"/>



NOTES:
1. MATERIAL FOR PEDESTRIAN HANDRAIL SHALL BE ALUMINUM (ASTM B-429) OR GALVANIZED STEEL (ASTM 120) AS APPROVED BY THE CITY ENGINEER.

PEDESTRIAN RAIL (ALUMINUM)

ALUMINUM PEDESTRIAN RAIL SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS AND STANDARD DRAWING NO. 325.
ALUMINUM PEDESTRIAN RAIL SHALL BE NATURAL ALUMINUM COLOR.

COMPLETED ALUMINUM RAILING UNITS SHALL BE ANODIZED AFTER FABRICATION CONFORMING TO THE REQUIREMENTS OF THE ALUMINUM ASSOCIATION STANDARD FOR ANODIZED ARCHITECTURAL ALUMINUM, CLASS I ANODIC COATING, AA-622-A41.

WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR ALUMINUM STRUCTURES" OF THE ALUMINUM ASSOCIATION. ALL EXPOSED WELDS SHALL BE GROUND FLUSH WITH ADJACENT SURFACES.

THE BASE METAL FOR ALUMINUM RAILING SHALL BE ASA ALLOY DESIGNATION 6063-T6. PIPE AND TUBING SHALL BE EXTRUDED CONFORMING TO THE REQUIREMENTS OF ASTM B 429. PLATES AND SHEETS SHALL BE ROLLED CONFORMING TO ASTM B 209, AND RODS, BARS OR SHAPES SHALL BE EXTRUDED CONFORMING TO ASTM B 221.

HORIZONTAL RAILS AND VERTICAL SUPPORT POSTS SHALL BE 1 1/2 INCH DIAMETER STANDARD PIPE AND BALUSTERS SHALL BE 3/4 INCH DIAMETER STANDARD ALUMINUM PIPE. RAILS, POSTS, AND BALUSTERS SHALL BE MACHINE CUT TO PROVIDE A UNIFORM LENGTH PRIOR TO ASSEMBLY.

RAILING SHALL BE ERECTED AND ADJUSTED, IF NECESSARY, TO ASSURE A CONTINUOUS LINE AND GRADE.

PEDESTRIAN RAIL (GALVANIZED STEEL)

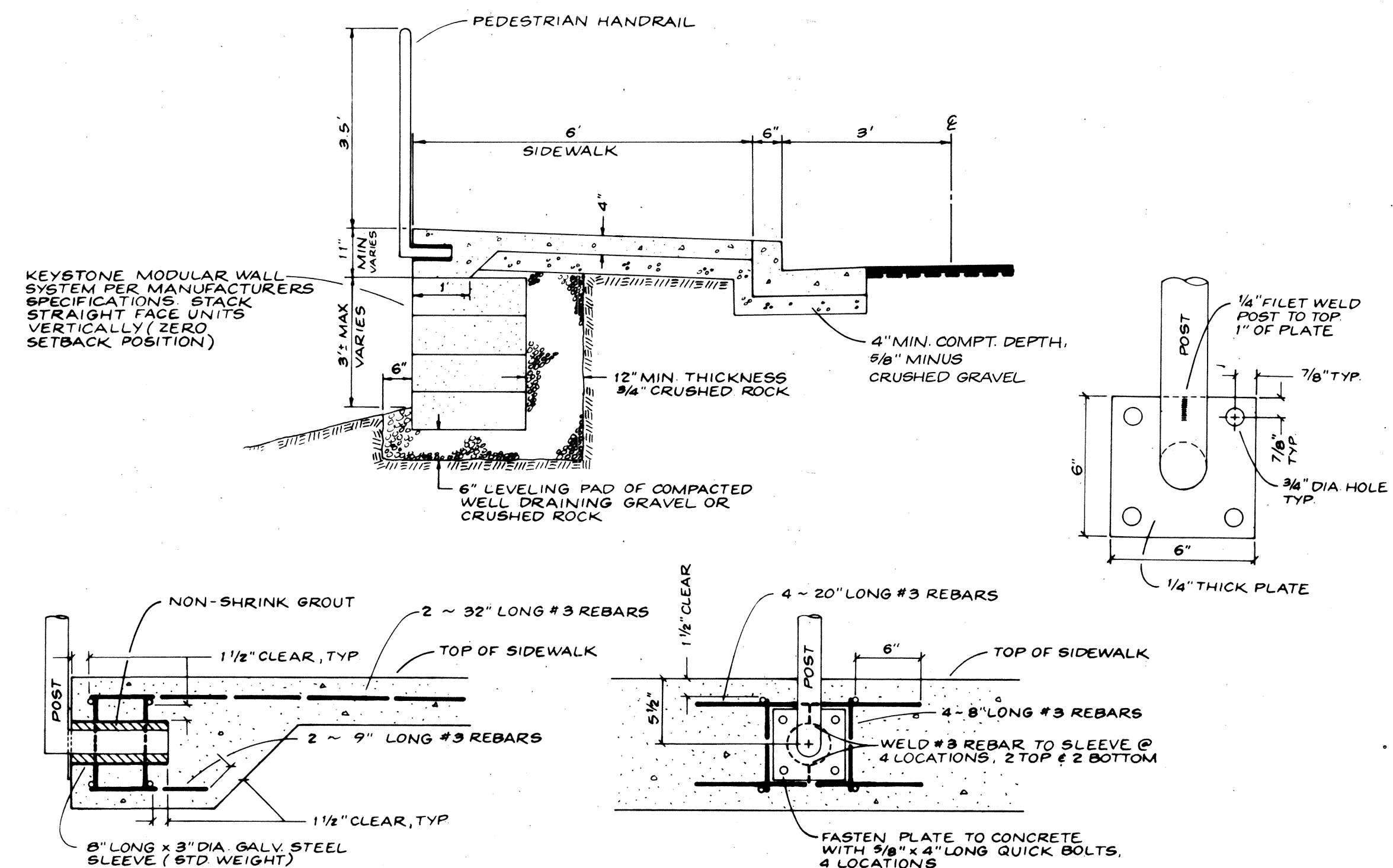
GALVANIZED PEDESTRIAN RAIL SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS AND STANDARD DRAWING NO. 325.

STEEL RAILINGS MATERIALS SHALL BE WELDED OR SEAMLESS STEEL PIPE CONFORMING TO THE REQUIREMENTS OF ASTM A 120, STRUCTURAL STEEL CONFORMING TO ASTM A 36, OR TUBULAR SECTIONS OF HOT ROLLED MILD STEEL, CONFORMING TO ASTM A 501. ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.1. AFTER FABRICATION EACH SECTION OF RAILING SHALL BE HOT-DIPPED GALVANIZED WITH A MINIMUM ZINC COATING OF 2 OUNCES PER SQUARE FOOT. ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.

FIELD WELDS SHALL BE GALVANIZED WITH SUCH MATERIALS AS "GALVALLOY" OR GALVICON. PAINTING OF WELDS WILL NOT BE PERMITTED.

HORIZONTAL RAILS AND VERTICAL SUPPORT POSTS SHALL BE 1 1/2 INCH DIAMETER AND BALUSTERS SHALL BE 3/4 INCH DIAMETER STANDARD WEIGHT GALVANIZED STEEL PIPE. RAILS, POSTS, AND BALUSTERS SHALL BE MACHINE CUT TO PROVIDE A UNIFORM LENGTH PRIOR TO ASSEMBLY.

RAILING SHALL BE ERECTED AND ADJUSTED, IF NECESSARY, TO ASSURE A CONTINUOUS LINE AND GRADE.



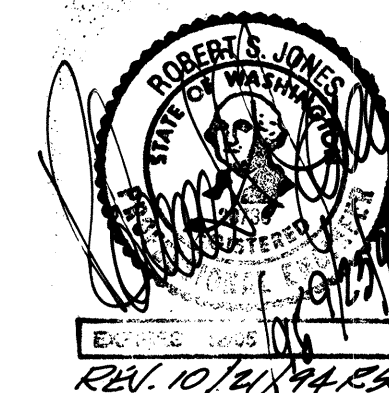
KEYSTONE WALL / PEDESTRIAN HANDRAIL DETAILS

CITY OF MILL CREEK
APPROVED FOR CONSTRUCTION

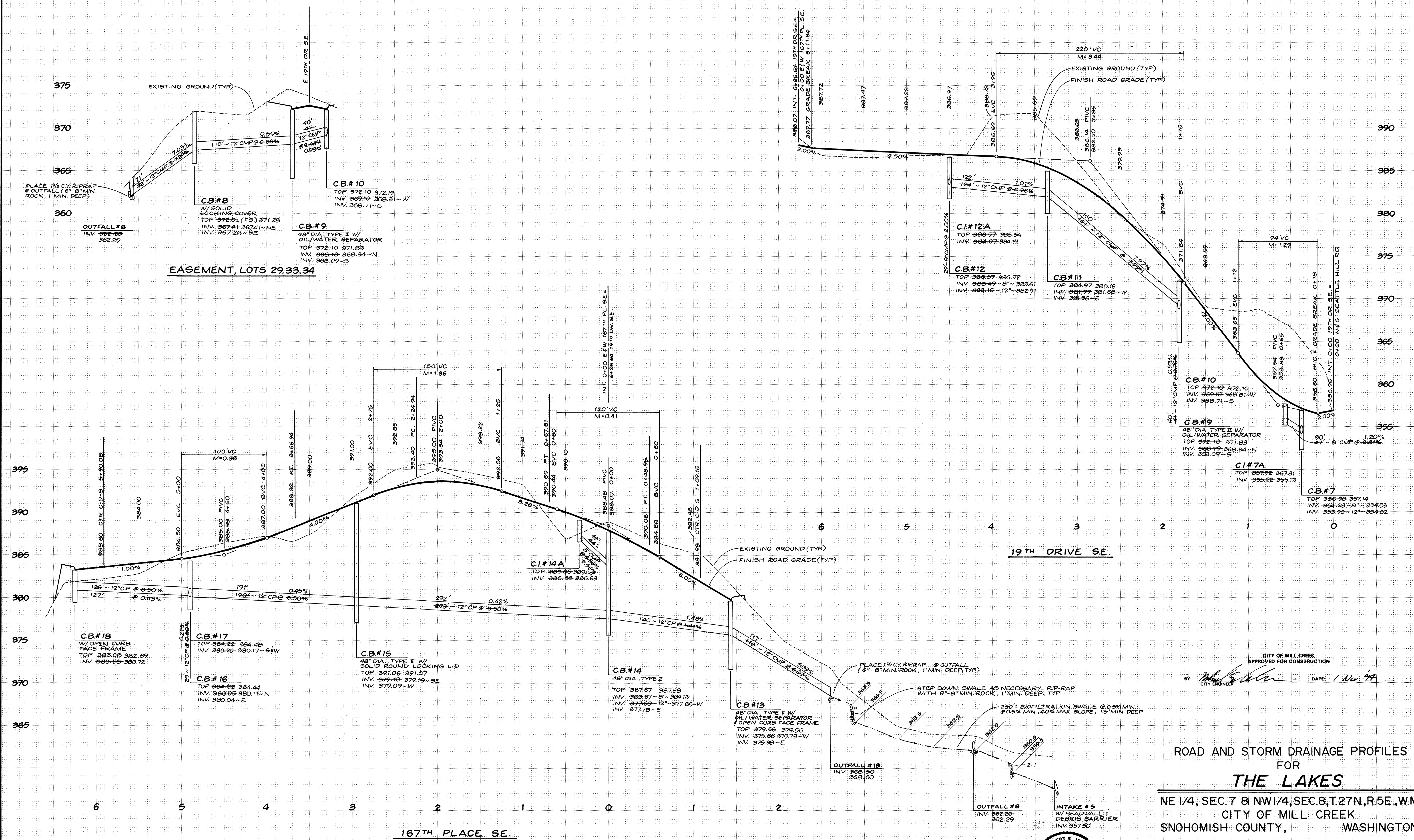
BY: *[Signature]* DATE: 1 Nov 94
CITY ENGINEER

ROAD AND STORM DRAINAGE DETAILS FOR THE LAKES

NE 1/4, SEC. 7 & NW 1/4, SEC. 8, T. 27N, R. 5E, W. M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON



PER CITY REVIEW COMMENTS				10-21-94		RCN
LSA Lovell-Sauerland & Associates, Inc. Engineers / Surveyors / Planners / Development Consultants 19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830						
DRAWN RCN	CHECKED RSJ	DATE 9-23-94	P.S. 418	SCALE 1" = 20'	FILE NO. 3145	

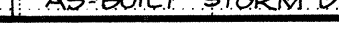


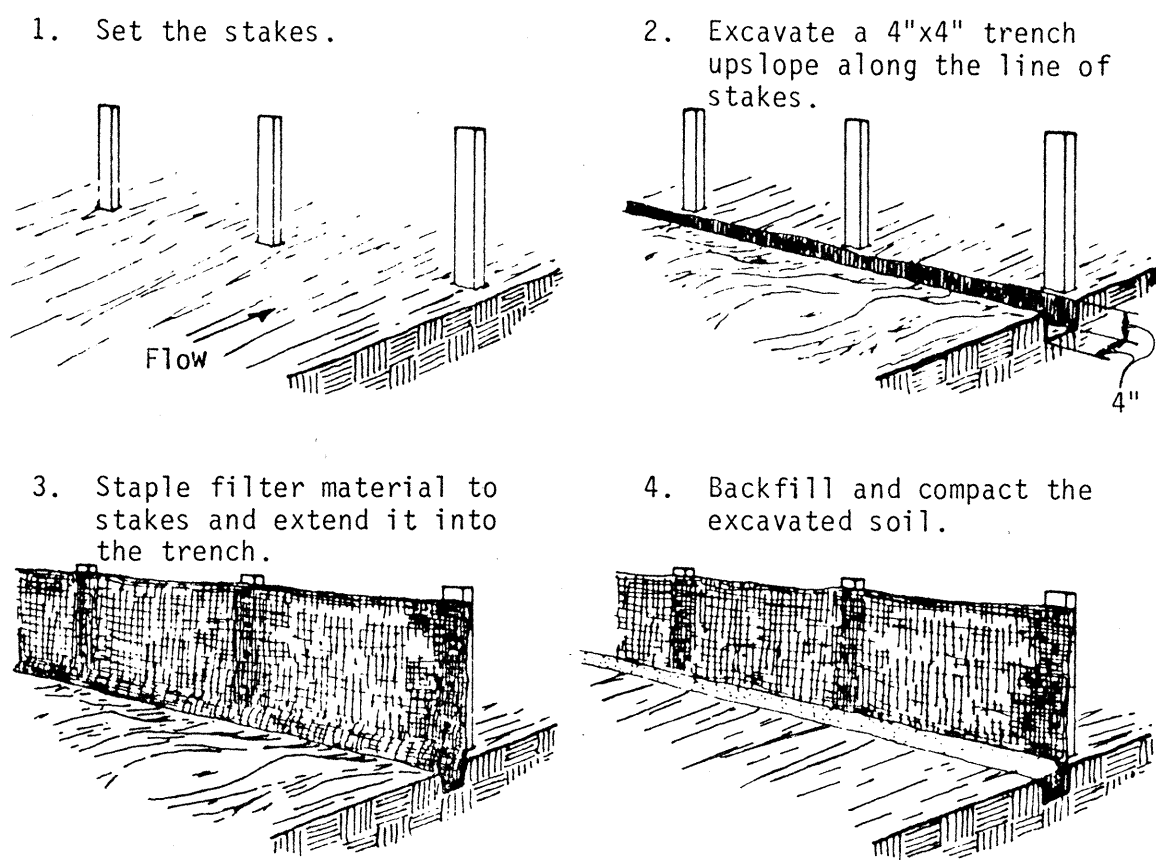
CITY OF MILL CREEK
APPROVED FOR CONSTRUCTION

BY: [Signature] DATE: 1 Nov 99
CITY ENGINEER

ROAD AND STORM DRAINAGE PROFILES
FOR
THE LAKES

NE 1/4, SEC. 7 & NW 1/4, SEC. 8, T. 27N, R. 5E, W. M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

7		AS-BUILT STORM DRAINAGE MAINS		10-8-95		RCN	
		Lovell-Sauerland & Associates, Inc. Engineers / Surveyors / Planners / Development Consultants					
		19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830					
DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.		
RCN	RS J	9-23-94	418	1"=50' HOR 1"=5' VERT.		3145	



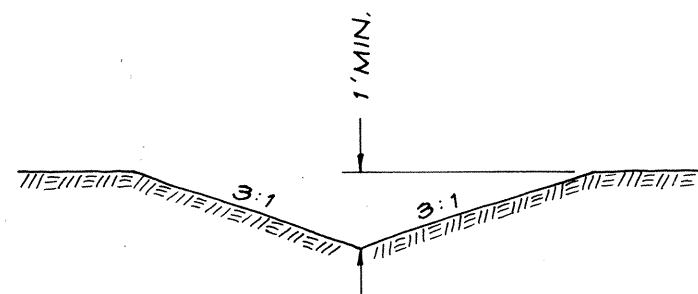
CONSTRUCTION OF A FILTER BARRIER

FILTER BARRIER: THIS SEDIMENT BARRIER MAY BE CONSTRUCTED USING BURLAP OR STANDARD STRENGTH SYNTHETIC FILTER FABRIC. IT IS DESIGNED FOR LOW OR MODERATE FLOWS NOT EXCEEDING 1 CFS.

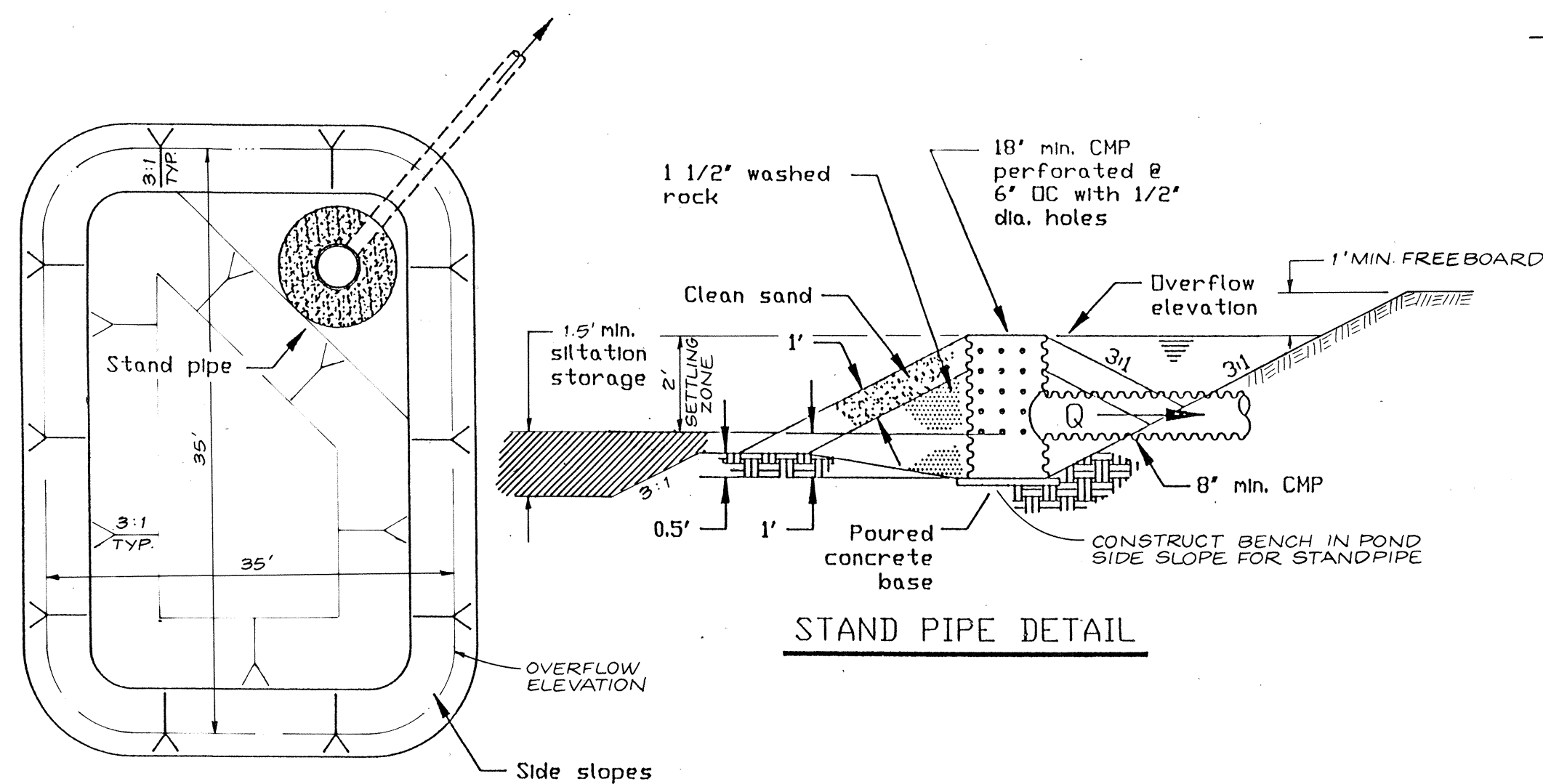
1. THE HEIGHT OF A FILTER BARRIER SHALL BE A MINIMUM OF 15 INCHES AND SHALL NOT EXCEED 18 INCHES.
2. BURLAP OR STANDARD STRENGTH FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL, AND CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS (AND THUS IMPROVE THE STRENGTH AND EFFICIENCY OF THE BARRIER).
3. THE STAKES SHALL BE SPACED A MAXIMUM OF 3 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 8 INCHES).
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF STAKES AND UPSLOPE FROM THE BARRIER.
5. THE FILTER MATERIAL SHALL BE STAPLED TO THE WOODEN STAKES, AND 8 INCHES OF THE FABRIC SHALL BE STAPLED TO THE TRENCH. HEAVY DUTY WIRE STAPLES AT LEAST 1/2-INCH LONG SHALL BE USED. FILTER MATERIAL SHALL NOT BE STAPLED TO EXISTING TREES.
6. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER MATERIAL.
7. IF A FILTER BARRIER IS TO BE CONSTRUCTED ACROSS A DITCH LINE OR IF THE BARRIER SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE DRIFT FLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HOORSESHOE WITH THE ENDS ORIENTED UPSLOPE.
8. FILTER BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.

MAINTENANCE

1. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BE EFFECTIVELY DAMAGED TO THE POINT OF NO EXPECTED USABLE LIFE, THE BARRIER STILL BE NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.



TEMPORARY SWALE



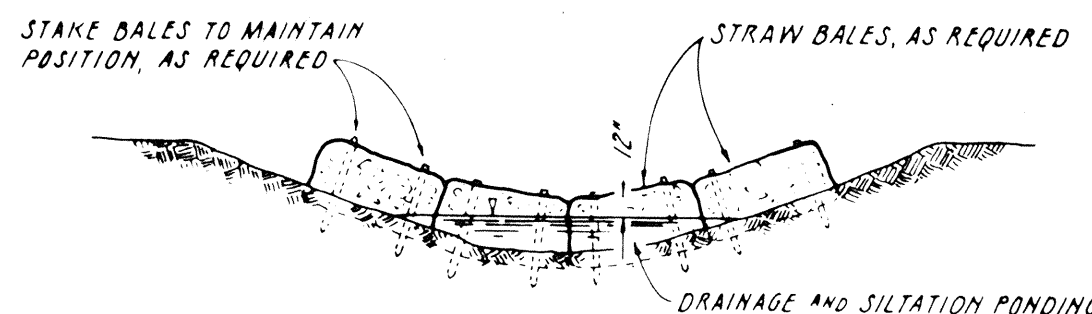
POND-PLAN VIEW

STAND PIPE AND SEDIMENT POND MAINTENANCE

THE EMBANKMENT OF THE BASIN SHOULD BE CHECKED REGULARLY TO INSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. THE EMERGENCY SPILLWAY SHOULD BE CHECKED REGULARLY TO INSURE THAT ITS LINING IS WELL ESTABLISHED AND EROSION-RESISTANT. THE SILTATION BASIN SHOULD BE CHECKED AFTER EACH RUNOFF-PRODUCING RAINFALL FOR SEDIMENT CLEAN OUT. WHEN THE SEDIMENT REACHES THE CLEAN OUT LEVEL, IT SHALL BE REMOVED AND PROPERLY DISPOSED OF.

TEMPORARY SILTATION POND DETAIL

N.T.S

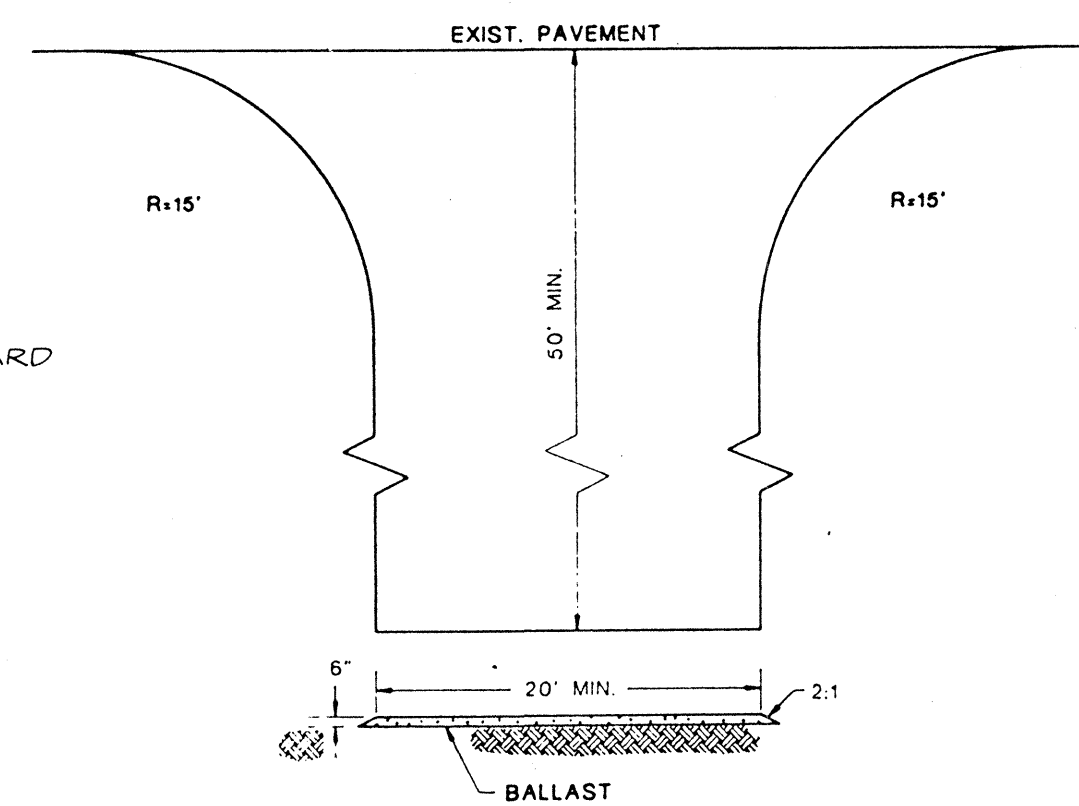


MAINTENANCE OF STRAW BALE

STRAW BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

STRAW BALE BARRIER DETAIL

NTS

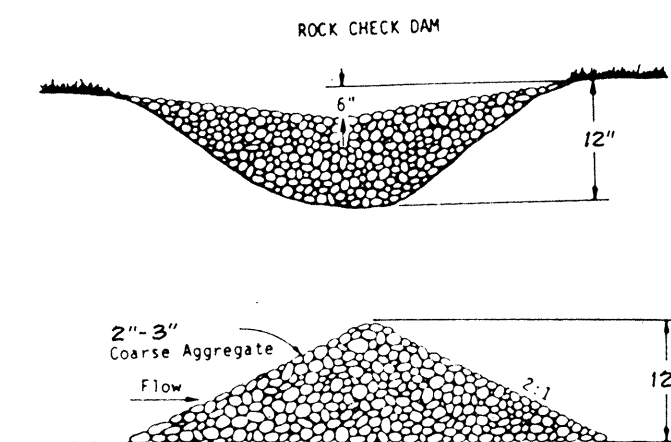


TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

1. INSTALLATION: THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTABLE MATERIAL. THE GRAVEL SHALL BE PLACED TO THE SPECIFIED DIMENSIONS. ANY DRAINAGE FACILITIES REQUIRED BEHIND OF WASHING SHALL BE INSTALLED ACCORDING TO SPECIFICATIONS IN THE PLAN. IF WASH RACKS ARE USED, THEY SHOULD BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
2. AGGREGATE: 4" TO 6" CRUSHED BALLAST ROCK
3. ENTRANCE DIMENSIONS: THE AGGREGATE LAYER MUST BE AT LEAST 8 INCHES THICK. IT MUST EXTEND THE FULL WIDTH OF THE VEHICULAR LANE AND EGRESS AREA. THE LENGTH OF THE ENTRANCE MUST BE AT LEAST 50 FEET.
4. WASHING: IF CONDITIONS ON THE SITE ARE SUCH THAT MOST OF THE MUD IS NOT REMOVED FROM TIRE TREADS BY CONTACT WITH THE GRAVEL, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER A PUBLIC ROAD. WASH WATER MUST BE CARRIED AWAY FROM THE ENTRANCE TO A SETTLING AREA TO REMOVE SEDIMENT. A WASH RACK MAY ALSO BE USED TO MAKE WASHING MORE CONVENIENT AND EFFECTIVE.
5. MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH IS NOT A HAZARD OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE, AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEAN OUT ANY STRUCTURES USED TO TRAP SEDIMENT. ALL MATERIALS SPILLED, DRIPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAY OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

N.T.S

ROCK CHECK DAM

STONE CHECK DAMS SHOULD BE CONSTRUCTED OF 2- TO 3-INCH STONE. THE STONE SHOULD BE PLACED ACCORDING TO THE CONFIGURATION HAND OR MECHANICAL. PLACEMENT WILL BE NECESSARY TO ACHIEVE COMPLETE COVERAGE OF THE DITCH OR SWALE AND TO INSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES.

MAINTENANCE

CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH SIGNIFICANT RAINFALL. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OR BEFORE.

REMOVAL

CHECK DAMS MUST BE REMOVED WHEN THEIR USEFUL LIFE HAS BEEN COMPLETED. IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHOULD BE REMOVED AND THE DITCH FILLED IN WHEN IT IS NO LONGER NEEDED. IN PERMANENT STRUCTURES, CHECK DAMS SHOULD BE REMOVED WHEN A PERMANENT LINING CAN BE INSTALLED. IN THE CASE OF GRASS-LINED DITCHES, CHECK DAMS SHOULD BE REMOVED WHEN THE GRASS HAS MATURED SUFFICIENTLY TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAMS SHOULD BE SEEDED AND MULCHED IMMEDIATELY AFTER THEY ARE REMOVED.

ROCK CHECK DAM DETAIL

NTS.

SITE GRADING AND T.E.S.C.P. NOTES

1. THE TEMPORARY EROSION/SEDIMENTATION CONTROL FACILITY SHALL BE CONSTRUCTED PRIOR TO ANY GRADING OR EXTENSIVE LAND CLEARING IN ACCORDANCE WITH THE APPROVED TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN. THESE FACILITIES MUST BE SATISFACTORILY MAINTAINED UNTIL CONSTRUCTION AND LANDSCAPING IS COMPLETED AND THE POTENTIAL FOR ON-SITE EROSION HAS PASSED.
2. ALL SITE WORK MUST COMPLY TO CHAPTER 70 OF THE UNIFORM BUILDING CODE, (1998 EDITION)
3. ALL EARTH WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY ORDINANCES. PRE-CONSTRUCTION SOILS INVESTIGATION MAY BE REQUIRED TO EVALUATE SOILS STABILITY.
4. SLOPE, THE SLOPE OF CUT SURFACES SHALL BE NO STEEPER THAN IS SAFE FOR THE INTENDED USE. CUT SLOPES SHALL BE NO STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL.
5. FILL LOCATION, FILL SLOPES SHALL NOT BE CONSTRUCTED ON NATURAL SLOPES STEEPER THAN TWO TO ONE.
6. PREPARATION OF GROUND, THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NONCOMPLYING FILL, TOP-SOIL AND OTHER UNSUITABLE MATERIALS SCRAPING TO PROVIDE A BOND WITH THE NEW FILL.
7. FILL MATERIAL, DETRIMENTAL AMOUNTS OF ORGANIC MATERIAL SHALL NOT BE PERMITTED IN FILLS. EXCEPT AS PERMITTED BY THE BUILDING OFFICIAL, NO ROCK OR SIMILAR IRREDUCIBLE MATERIAL WITH A MAXIMUM DIMENSION GREATER THAN 12 INCHES SHALL BE BURIED OR PLACED IN FILLS.
8. COMPACTION, ALL STRUCTURAL FILLS SHALL BE COMPACTED TO A MINIMUM OF 90 PERCENT OF MAXIMUM DRY DENSITY OR 85 PERCENT PROCTOR TEST FOR THE TOP 5 FEET AND 90 PERCENT THEREAFTER OR ACCORDING TO SOIL ENGINEERS RECOMMENDATIONS OR AS APPROVED BY THE BUILDING OFFICIAL.
9. PUBLIC STREETS ARE TO BE KEPT CLEAR OF DIRT AND DEBRIS DURING ENTIRE CONSTRUCTION PERIOD.
10. AREAS TO RECEIVE FILL SHALL BE PROOFROLLED. ALL LOOSE AND SOFT AREAS SHALL BE REMOVED AND REPLACED WITH STRUCTURAL FILL.
11. STRUCTURAL FILLS SHALL BE PLACED IN 8" TO 10" THICK HORIZONTAL LIFTS AND SPREAD UNIFORMY.
12. THE SURFACE OF ALL LIFTS SHALL BE COMPACTED. THIS MAY BE ACCOMPLISHED BY OVER-BUILDING THE SLOPES THEN CUTTING BACK TO FINAL GRADE OR BY RUNNING THE COMPACTOR OVER THE SLOPE AS EACH LIFT IS TO BE PLACED. ALL SLOPES SHALL BE COMPACTED BY THE END OF EACH WORK DAY.
13. FIELD DENSITY TESTS WILL BE TAKEN BY A QUALIFIED SOILS ENGINEERING FIRM. GENERAL TESTS SHALL BE TAKEN AT 4' TO 8' DEPTHS AT THE SURFACE OF THE FREQUENCY AND AT LOCATIONS DETERMINED BY THE SOILS ENGINEERING FIRM. WHEN THE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR GRADE THEREOF IS BELOW THE SPECIFIED DENSITY, THE PARTICULAR SECTION SHALL BE REVOKED UNTIL THE REQUIRED DENSITY HAS BEEN OBTAINED.
14. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO APPLY FOR AND OBTAIN GRADING PERMITS REQUIRED FOR ANY OFFSITE UNPERMITTED DUMP SITES.

HYDROSEEDING GENERAL NOTES

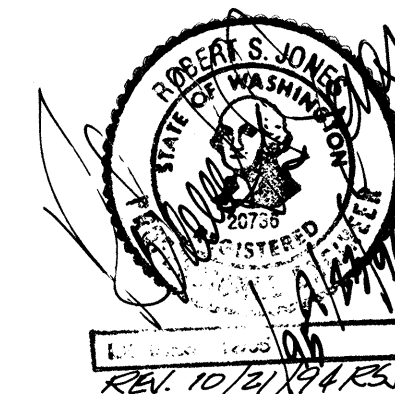
1. ALL DISTURBED AREAS SUCH AS RETENTION FACILITIES, ROADWAY BACK-SLOPES, ETC. SHALL BE SEEDED WITH A PERENNIAL GRASS/COVER TO MINIMIZE EROSION. GRASS SEEDING WILL BE DONE USING AN APPROVED HYDROSEEDER OR AS OTHERWISE APPROVED BY MILL CREEK.
2. PREPARATION OF SURFACE: ALL AREAS TO BE SEEDDED SHALL BE CULTIVATED. THIS MAY BE ACCOMPLISHED BY DISKING, RAKING, HARROWING OR OTHER ACCEPTABLE MEANS.
3. IMMEDIATELY FOLLOWING FINISH GRADING, PERMANENT VEGETATION (CONSISTING OF RAPID, PERSISTENT AND LEGUME) WILL BE APPLIED. (MINIMUM 80% PER ACRE). THIS IS TO INCLUDE THE FOLLOWING: 20% ANNUAL, PERENNIAL OR HYBRID RYE GRASS, 40% CREEPING RED FESCUE, 40% WHITE CLOVER. HYDROSEED REQUIRED.
4. FERTILIZER SHALL BE APPLIED AT 400# PER ACRE OF 10-20-20 (10 POUNDS PER 1100 SQUARE FEET) OR EQUIVALENT.

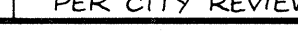
CITY OF MILL CREEK
APPROVED FOR CONSTRUCTION

BY: _____ DATE: _____
CITY ENGINEER

GRADING AND T.E.&S.C.
NOTES & DETAILS
FOR
THE LAKES

NE 1/4, SEC. 7 & NW 1/4, SEC. 8, T.27N., R.5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON



1		PER CITY REVIEW COMMENTS		10-21-94		RCN	
		Lovell-Sauerland & Associates, Inc. Engineers/Surveyors/Planners/Development Consultants 19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830					
		DRAWN RCN		CHECKED RSJ		DATE 9-23-94	
		F.B. 418		SCALE N.T.S.		FILE NO 3145	

