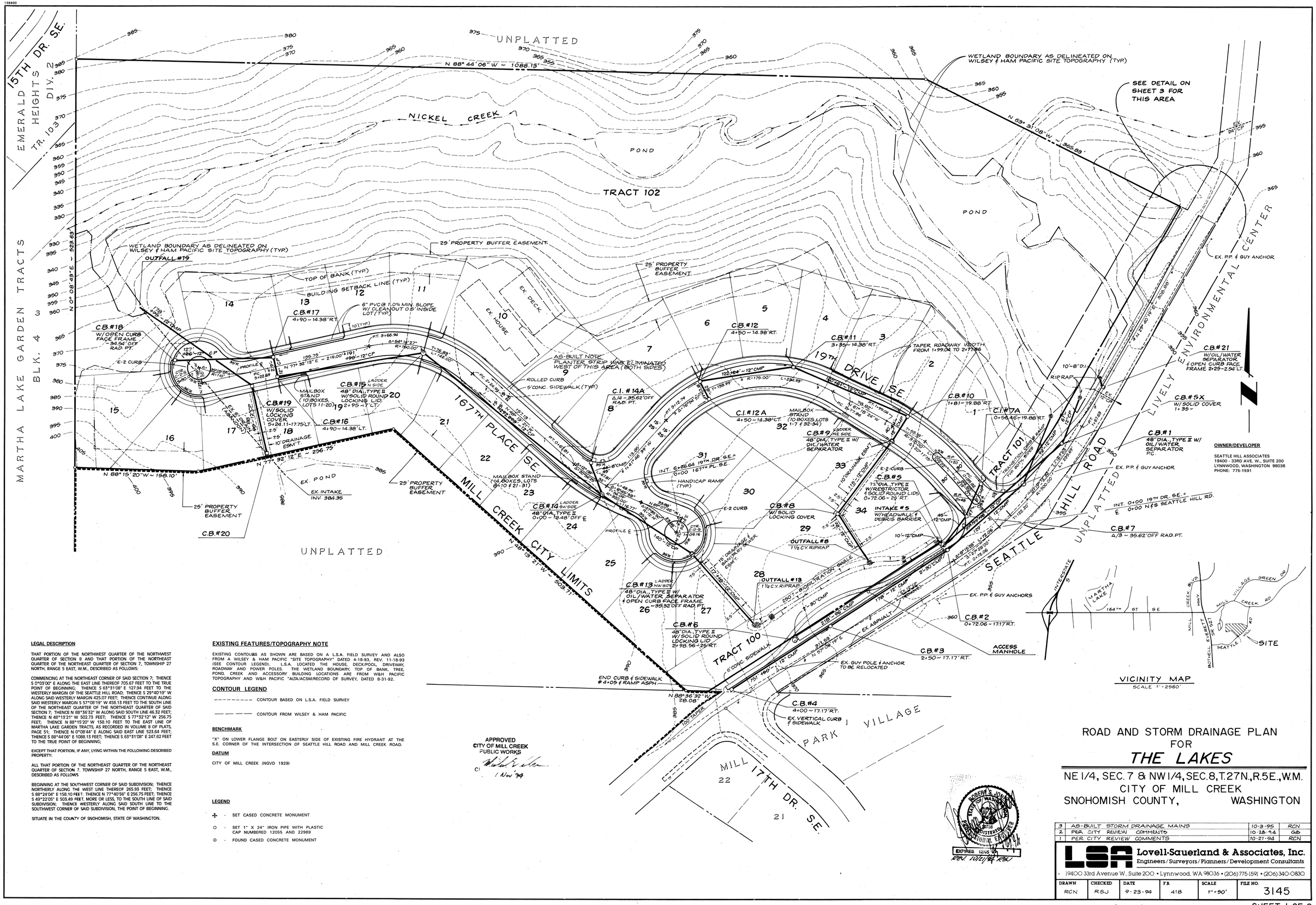
158400



VICINITY MAP

SCALE 1" = 2560'

OWNER/DEVELOPER

SEATTLE HILL ASSOCIATES
19400 - 33RD AVE. W., SUITE 200
LYNNWOOD, WASHINGTON 98036
PHONE: 775-1591

LEGAL DESCRIPTION

THAT PORTION OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SECTION 8 AND THAT PORTION OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 7, TOWNSHIP 27 NORTH, RANGE 5 EAST, W.M., DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 7; THENCE S 0°03'00" E ALONG THE EAST LINE THEREOF 705.67 FEET TO THE TRUE POINT OF BEGINNING; THENCE S 63°31'08" E 127.94 FEET TO THE WESTERLY MARGIN OF THE SEATTLE HILL ROAD, THENCE S 29°40'19" W ALONG SAID WESTERLY MARGIN 425.07 FEET; THENCE CONTINUE ALONG SAID WESTERLY MARGIN S 57°08'19" W 458.13 FEET TO THE SOUTH LINE OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 7; THENCE N 88°36'32" W ALONG SAID SOUTH LINE 46.32 FEET; THENCE N 48°13'21" W 502.73 FEET; THENCE S 77°32'12" W 256.75 FEET; THENCE N 88°15'20" W 158.10 FEET TO THE EAST LINE OF MARTHA LAKE GARDEN TRACTS, AS RECORDED IN VOLUME 8 OF PLATS, PAGE 51; THENCE N 0°08'44" E ALONG SAID EAST LINE 523.64 FEET; THENCE S 88°44'06" E 1088.13 FEET; THENCE S 63°31'08" E 247.62 FEET TO THE TRUE POINT OF BEGINNING;

EXCEPT THAT PORTION, IF ANY, LYING WITHIN THE FOLLOWING DESCRIBED PROPERTY:

ALL THAT PORTION OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF SECTION 7, TOWNSHIP 27 NORTH, RANGE 5 EAST, W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID SUBDIVISION; THENCE NORTHERLY ALONG THE WEST LINE THEREOF 265.93 FEET; THENCE S 88°24'04" E 158.10 FEET; THENCE N 77°40'56" E 256.75 FEET; THENCE S 49°22'05" E 503.49 FEET, MORE OR LESS, TO THE SOUTH LINE OF SAID SUBDIVISION; THENCE WESTERLY ALONG SAID SOUTH LINE TO THE SOUTHWEST CORNER OF SAID SUBDIVISION, THE POINT OF BEGINNING.

SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

EXISTING FEATURES/TOPOGRAPHY NOTE

EXISTING CONTOURS AS SHOWN ARE BASED ON A L.S.A. FIELD SURVEY AND ALSO FROM A WILSEY & HAM PACIFIC "SITE TOPOGRAPHY" DATED 4-18-93, REV. 11-18-93 (SEE CONTOUR LEGEND). L.S.A. LOCATED THE HOUSE, DECK/POOL, DRIVEWAY, ROADWAY AND POWER POLES. THE WETLAND BOUNDARY, TOP OF BANK, TREE, POND, CREEK AND ACCESSORY BUILDING LOCATIONS ARE FROM W&H PACIFIC TOPOGRAPHY AND W&H PACIFIC "ALTA/ACSM/RECORD OF SURVEY, DATED 8-31-92.

CONTOUR LEGEND

---------- CONTOUR BASED ON L.S.A. FIELD SURVEY

— — — — CONTOUR FROM WILSEY & HAM PACIFIC

BENCHMARK

"X" ON LOWER FLANGE BOLT ON EASTERLY SIDE OF EXISTING FIRE HYDRANT AT THE S.E. CORNER OF THE INTERSECTION OF SEATTLE HILL ROAD AND MILL CREEK ROAD.

DATUM

CITY OF MILL CREEK (NGVD 1929)

LEGEND

✣ - SET CASED CONCRETE MONUMENT

○ - SET 1" X 24" IRON PIPE WITH PLASTIC CAP NUMBERED 12055 AND 22969

⊙ - FOUND CASED CONCRETE MONUMENT

APPROVED
CITY OF MILL CREEK
PUBLIC WORKS

CI
1 Nov '94

ROBERT S. JONES
STATE OF WASHINGTON
12055
REGISTERED PROFESSIONAL ENGINEER
EXPIRES 12-05-94
10/21/94 RSJ

ROAD AND STORM DRAINAGE PLAN FOR *THE LAKES*

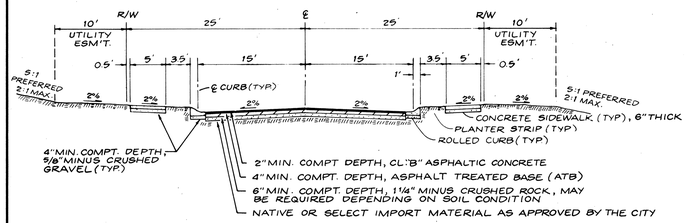
NE 1/4, SEC. 7 & NW 1/4, SEC. 8, T. 27N., R. 5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

3	AS-BUILT STORM DRAINAGE MAINS	10-3-95	RCN
2	PER CITY REVIEW COMMENTS	10-28-94	GB
1	PER CITY REVIEW COMMENTS	10-21-94	RCN

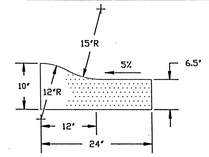
LSA Lovell-Sauerland & Associates, Inc.
Engineers/Surveyors/Planners/Development Consultants
19400 33rd Avenue W. Suite 200 • Lynnwood, WA 98036 • (206)775-1591 • (206)340-0830

DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.
RCN	RSJ	9-23-94	418	1"=50'	3145

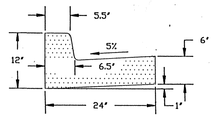
158400



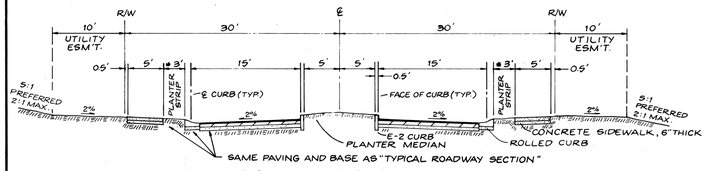
TYPICAL ROADWAY SECTION
N.T.S.



Rolled Curb & Gutter

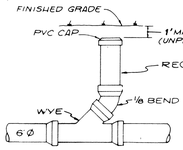


Vertical Curb & Gutter

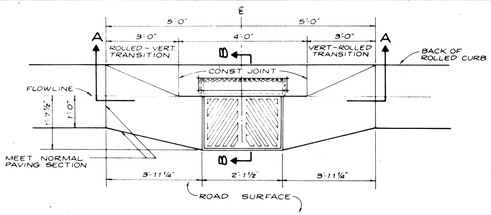


TYPICAL ROADWAY SECTION @ ENTRANCE
N.T.S.

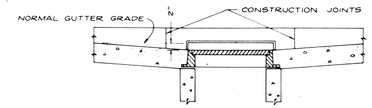
* NOTE: PLANTER STRIP WIDTH TRANSITIONS FROM 3' TO 3.5' @ STATION 1+99.04 TO 2+77.86



CLEANOUT DETAIL
N.T.S.

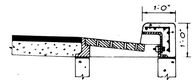


FRAME - OLYMPIC FOUNDRY #SM 52 COMBINATION FRAME OR EQUAL
HOOD - OLYMPIC FOUNDRY #SM 52 COMBINATION HOOD OR EQUAL
GRATE - OLYMPIC FOUNDRY #SM 90G DIAGONAL SLOT DUCTILE IRON GRATE OR EQUAL

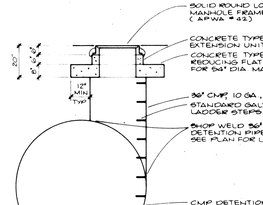


SECTION A-A

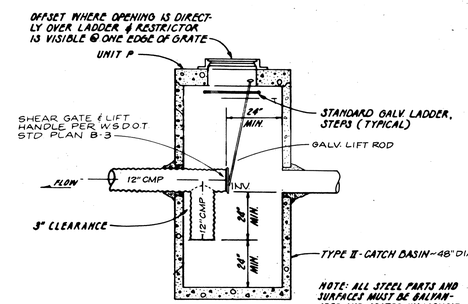
OPEN CURB FACE FRAME DETAIL
N.T.S.



SECTION B-B

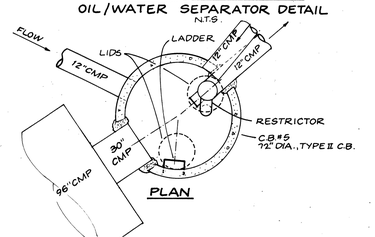


ACCESS MANHOLE DETAIL
N.T.S.

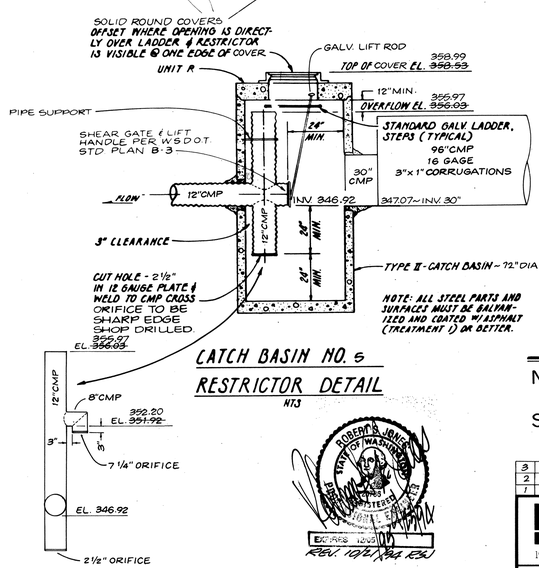


NOTE: ALL STEEL PARTS AND SURFACES MUST BE GALVANIZED AND COATED W/ASPHALT (TREATMENT 1) OR BETTER.

CATCH BASIN NO. 1, 9, 13
OIL/WATER SEPARATOR DETAIL
N.T.S.

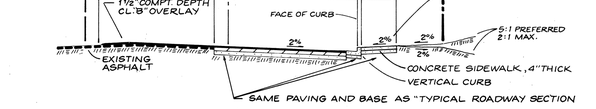


PLAN

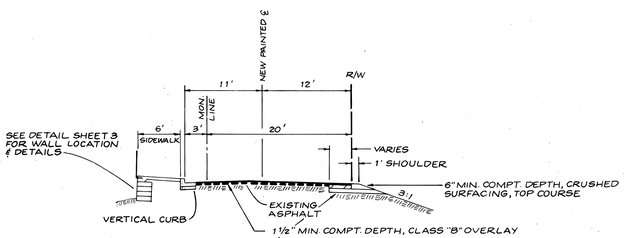


NOTE: ALL STEEL PARTS AND SURFACES MUST BE GALVANIZED AND COATED W/ASPHALT (TREATMENT 1) OR BETTER.

CATCH BASIN NO. 5
RESTRICTOR DETAIL
N.T.S.

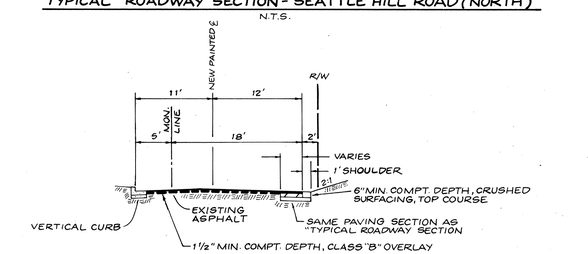


TYPICAL ROADWAY SECTION - SEATTLE HILL ROAD (SOUTH)
N.T.S.



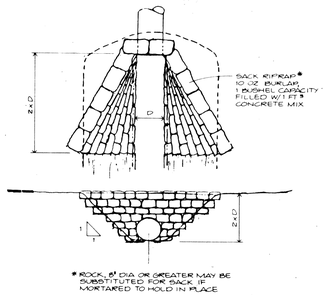
2+00± TO 3+50± (SEE 1"=20' PLAN)

TYPICAL ROADWAY SECTION - SEATTLE HILL ROAD (NORTH)
N.T.S.

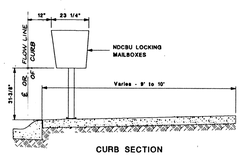


4+00 TO 4+76.51

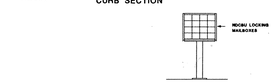
TYPICAL ROADWAY SECTION - SEATTLE HILL ROAD (NORTH)
N.T.S.



CULVERT HEADWALL/ENDWALL
N.T.S.



CURB SECTION

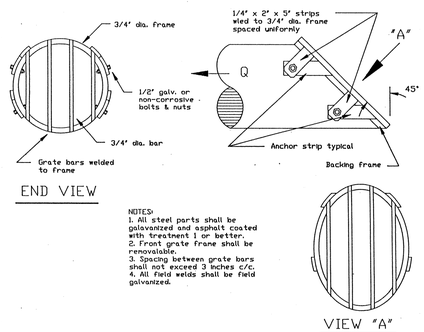


MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.

LOCATIONS OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE DIRECTOR FOR ACCESS AND SIGHT DISTANCE REQUIREMENTS.

NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU) INCLUDING PEDESTAL, BASE PLATE, BREAKAWAY BOLTS AND ASSOCIATED CONCRETE SLAB SHALL BE INSTALLED BY THE U.S. POSTAL SERVICE.

MAILBOX DETAIL - N.D.C.B.U.
N.T.S.



END VIEW

NOTES:
1. All steel parts shall be galvanized and asphalt coated with treatment 1 or better.
2. Front grate frame shall be removable.
3. Spacing between grate bars shall not exceed 3 inches c/c.
4. All field welds shall be field galvanized.

VIEW "A"

DEBRIS BARRIER DETAIL
N.T.S.

BIOFILTRATION SWALE DETAIL
N.T.S.

PLANT LIST FOR DRAINAGE SWALES

BOTANICAL NAME	COMMON NAME
Alopecurus pratensis	Meadow Foxtail
Alopecurus arundinceus Poir.	Creeping Foxtail
Agrotis alba	Redtop
Festuca rubra	Creeping Red Fescue
Lolium ssp., L. meltiflorum	Annual ryegrass(es)
Phleum pratense	Timothy
Trifolium repens	'New Zealand' White Clover

taken from:
Grasses and Legumes for Soil Conservation in the Pacific Northwest and Great Basin States, Agricultural Handbook No. 339, Soil Conservation Service, U.S. Department of Agriculture, reprint January 1979.

CORRUGATED METAL PIPE (CMP) GAGE/CORRUGATION REQUIREMENTS

STEEL (STEEL PIPE IS ALLOWED ONLY FOR USE AS DETENTION PIPE)

2 2/3x1/2 IN. CORRUGATION: DIAMETER (INCHES) OF PIPE	HELICAL... ARCH PIPE (INCHES)	GAGE	BAND
12"-54"	17x33 THRU 42x29	16	(A)
60"	49x33	14	24"
66"-90"	57x38 THRU 64x43	12	24"
96"	71x47	10	24"
	77x52 THRU 83x57	8	24"

3x1 IN. CORRUGATION DIAMETER OF PIPE (INCHES)	HELICAL... ARCH PIPE (INCHES)
54"-120"	40x31 TO 112x75
126"-138"	117x79 TO 137x87
144"-	142x91

(A): BAND SIZE 12" FOR PIPE LESS THAN 42" DIAMETER AND LESS THAN 49"x33" ARCH PIPE

ANNULAR RECORRUGATED ENDS OR ANNULAR CORRUGATED PIPES DIAMETER 12" 12"-84": TYPES B, D, & F* NOTE: SAME GAGE AS PIPE'S *TYPE F IS 10 1/2" WIDE

ALL NON PERFORATED METAL PIPE SHALL HAVE NEOPRENE GASKETS AT THE JOINTS. O-RING GASKETS MAY BE USED FOR TYPE F COUPLING BAND.

BACKFILL AROUND PIPE MUST BE COMPACTED TO A SPECIFIED AASHTO T-99 DENSITY OF 90%. USE REASONABLE CARE IN HANDLING AND INSTALLATION.

ALUMINUM

2 2/3x1/2 IN. CORRUGATION: HELICAL... PIPE DIAMETER	ARCH PIPE (INCHES)	GAGE	BAND
12"-27"	17x33 THRU 42x29	16	12"
30"-36"	28x20 TO 35x24	14	21"
42"-54"	42x29 TO 49x33	12	21"
60"-	57x38 TO 64x43	10	24"

3x1 IN. CORRUGATION HELICAL... PIPE DIAMETER	ARCH PIPE (INCHES)
36"-60"	- - -
66"-72"	- - -
78"-96"	60x46 TO 95x67
108"-144"	103x71 TO 112x75

SPIRAL RIB PIPE DIAMETER 18"-42" 48"-60" 66"-84" — 16 12" / 14 21" / 12 21"

ANNULAR RECORRUGATED ENDS OR ANNULAR CORRUGATED PIPES DIAMETER 12"-84": TYPES B,D,&F* NOTE: SAME GAGE AS PIPE'S. *TYPE F IS 10 1/2" WIDE.

CORRUGATED ALUMINUM PIPE AND COUPLING BANDS SHALL MEET THE REQUIREMENTS OF AASHTO M196 AND M197.

GENERAL NOTES

1. LOCATIONS OF EXISTING UTILITIES AND IMPROVEMENTS SHOWN ARE APPROXIMATE ONLY AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION(S) OF ALL UTILITIES AND IMPROVEMENTS TO AVOID DAMAGE OR DISTURBANCE.
2. FOR AID IN UTILITY LOCATION CALL 1-800-424-5555 PRIOR TO BEGINNING CONSTRUCTION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS FOR ROAD AND UTILITY CONSTRUCTION.
4. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF MILL CREEK STANDARDS AND SPECIFICATIONS AND WASHINGTON STATE DEPARTMENT OF TRANSPORTATION 1994 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AND THE 1989 WSDOT HYDRAULICS MANUAL.
5. ALL WORK WITHIN THE SITE AND EXISTING RIGHT-OF-WAY SHALL BE SUBJECT TO THE INSPECTION OF THE INSPECTOR OR HIS DESIGNATED REPRESENTATIVE.

STORM DRAINAGE NOTES

1. ALL STORM DRAIN PIPE MAY BE CONSTRUCTED OF ONE OF THE FOLLOWING MATERIALS UNLESS OTHERWISE SPECIFIED IN THE PLANS. ALL PIPE JOINTS MUST BE GASKETED AND MUST BE OF THE SAME MATERIAL AS THE PIPE. ALL PIPE SHALL HAVE A MINIMUM COVER AS SHOWN BELOW AND SHALL BE ADEQUATELY PROTECTED DURING CONSTRUCTION (REFER TO THE MANUFACTURER'S RECOMMENDATIONS FOR MINIMUM COVER FOR HEAVY EQUIPMENT LOADINGS).

   *COVERAGE REQUIREMENTS FOR 18" OR SMALLER PIPE

   < 1.0' - REQUIRES RCP (REINFORCED CONCRETE PIPE) MINIMUM
   1.0' - 1.5' - REQUIRES CP (CONCRETE PIPE) MINIMUM
   > 1.5' - REQUIRES 16 GAUGE CMP (CORRUGATED METAL PIPE) MINIMUM

   *CMP INDICATES CORRUGATED METAL PIPE MAY BE USED.
   *CP INDICATES CONCRETE PIPE IS REQUIRED.
   *RCP INDICATES REINFORCED CONCRETE PIPE IS REQUIRED.

   A. CORRUGATED METAL PIPE (CMP) TO BE ALUMINUM. AASHTO M236 TYPE 1 & TYPE 2 GALVANIZED STEEL WITH TREATMENT 1 ASPHALT COATING OR BETTER OR AASHTO M274-70 ALUMINIZED STEEL WILL BE ALLOWED ONLY FOR USE AS DETENTION PIPE. ALL PIPES HAVE COUPLING BANDS WITH NEOPRENE GASKETS.

   B. CONCRETE 6" THRU 21" DIAMETER PIPE SHALL BE NON-REINFORCED, BELL AND SPIGOT WITH RUBBER GASKET JOINTS, CONFORMING TO ASTM C-14 OR

   CONCRETE 12" THRU 21" DIAMETER PIPE MAY BE REINFORCED, BELL AND SPIGOT WITH RUBBER GASKET JOINTS, CONFORMING TO ASTM C-76 CLASS II.

   CONCRETE 24" DIAMETER AND LARGER PIPE SHALL BE REINFORCED, BELL AND SPIGOT WITH RUBBER GASKET JOINTS, CONFORMING TO ASTM C-76 CLASS II.

   C. POLY VINYL CHLORIDE (PVC) 4" THROUGH 12" DIAMETER PIPE SHALL CONFORM TO ASTM D3034.
2. ALL PIPE SHALL BE PLACED ON STABLE EARTH, OR IF IN THE OPINION OF THE COUNTY INSPECTOR, THE EXISTING FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACK FILLED WITH A GRAVEL MATERIAL TO SUPPORT THE PIPE.
3. THE BACKFILL SHALL BE PLACED EQUALLY ON BOTH SIDES OF THE PIPE OR PIPE ARCH IN LAYERS WITH A LOOSE AVERAGE DEPTH OF 6", MAXIMUM DEPTH 8", THOROUGHLY TAMPING EACH LAYER. THESE COMPACTED LAYERS MUST EXTEND FOR ONE DIAMETER ON EACH SIDE OF THE PIPE OR TO THE SIDE OF THE TRENCH. MATERIALS TO COMPLETE THE FILL OVER PIPE SHALL BE THE SAME AS DESCRIBED. (REFER TO WSDOT STANDARD SPECIFICATION 7-04.3(3) AND STANDARD SPECIFICATION 2-03.3(14)C, METHOD B & C.
4. ALL GRATES (INLET AND CATCH BASIN) SHALL BE DEPRESSED 0.1 FEET BELOW PAVEMENT LEVEL.
5. ALL CATCH BASINS TO BE TYPE 1 UNLESS OTHERWISE NOTED.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET, AND CATCH BASIN FRAMES AND GRATES JUST PRIOR TO POURING OF CURBS AND PAVING.
7. ALL CATCH BASINS WITH A DEPTH OVER 5.0 FEET TO THE FLOW LINE SHALL BE A TYPE II CB (MANHOLE).
8. STANDARD LADDER STEPS SHALL BE PROVIDED IN ALL CATCH BASINS/MANHOLES EXCEEDING 5 FEET IN DEPTH.
9. UNLESS OTHERWISE NOTED ON PLANS CATCH BASIN/INLET FRAMES SHALL BE OLYMPIC FOUNDRY SM 60 WITH SM 60V (VANED) GRATES OR EQUAL. ALL FRAMES, GRATES AND COVERS SHALL BE PER CITY STANDARD PLAN.
10. PRIOR TO SIDEWALK CONSTRUCTION, CONSTRUCT THE LOT DRAINAGE AND STUB OUTS AND/OR BEHIND SIDEWALK DRAINS AS REQUIRED. STUB OUTS SHALL BE MARKED WITH A 2" X 4" AND LABELED "STORM".
11. STORM WATER RETENTION/DETENTION FACILITIES, STORM DRAINAGE PIPE AND CATCH BASINS SHALL BE FLUSHED AND CLEANED PRIOR TO SNOHOMISH COUNTY ACCEPTANCE.
12. T.E.S.C. MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE WORK.

CITY OF MILL CREEK
APPROVED FOR CONSTRUCTION
BY: _____ CITY ENGINEER DATE: 1 Nov '94

ROAD AND STORM DRAINAGE NOTES & DETAILS FOR THE LAKES

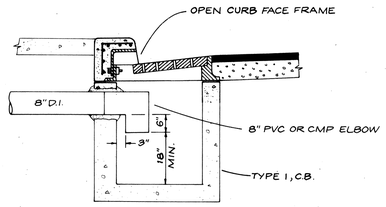
NE 1/4, SEC. 7 & NW 1/4, SEC. 8, T. 27N., R. 5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

3	AS-BUILT STORM DRAINAGE MAINS	10-3-95	RCN
2	PER CITY REVIEW COMMENTS	10-28-94	GB
1	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

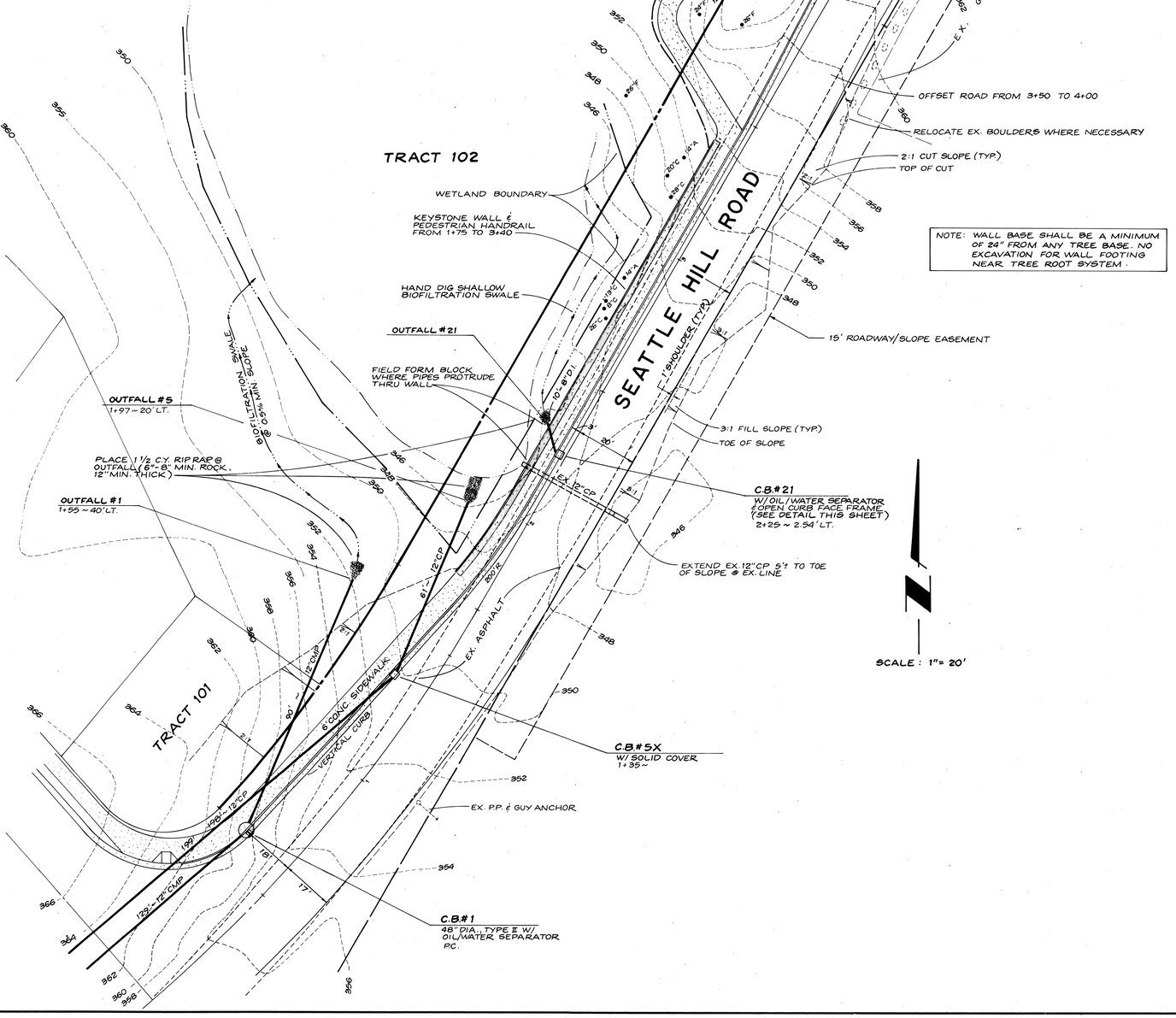
DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.
RCN	RSJ	9-23-94	418	N.T.S.	3145

158400

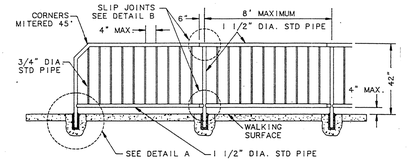


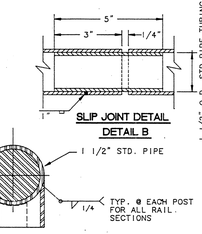
C.B.#21 W/ OIL/WATER SEPARATOR

N.T.S.



SCALE : 1" = 20'





NOTES:

1. MATERIAL FOR PEDESTRIAN HANDRAIL SHALL BE ALUMINUM (ASTM B-429) OR GALVINIZED 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-C22-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)

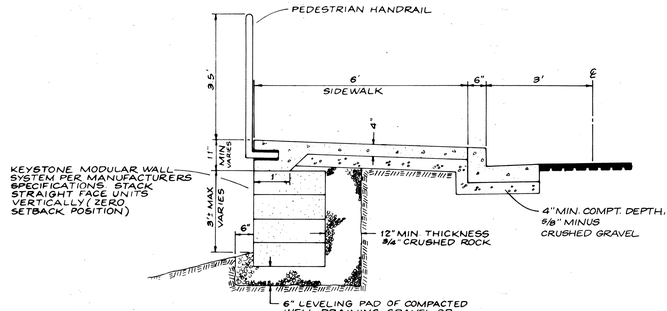
GALVANIZED PEDESTRIAN RAIL SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THESE SPECIAL PROVISIONS AND STANDARD DRAWING NO. 325.

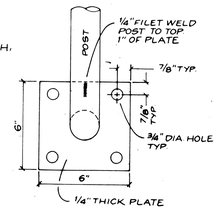
STEEL RAILINGS MATERIALS SHALL BE WELDED OR SEAMLESS STEEL PIPE CONFORMING TO THE REQUIREMENTS OF ASTM A 120. STRUCTURAL STEEL CONFORMING TO ASTM A 36, OR TUBULAR SECTIONS OF HOT ROLLED MILD STEEL, CONFORMING TO ASTM A 501. ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE 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.

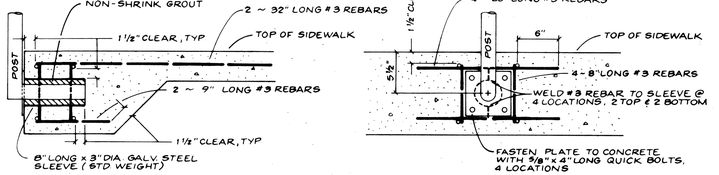
FIELD WELDS SHALL BE GALVANIZED WITH SUCH MATERIALS AS "GALVALLOY" OR GALVICON. PAINTING OF WELDS WILL NOT BE PERMITTED.

HORIZONTAL RAILS AND VERTICAL SUPPORT POSTS SHALL BE 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: _____ CITY ENGINEER
DATE: 1 Nov '94

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

ROBERT S. JONES — STATE OF WASHINGTON — 14400 — REGISTERED PROFESSIONAL ENGINEER

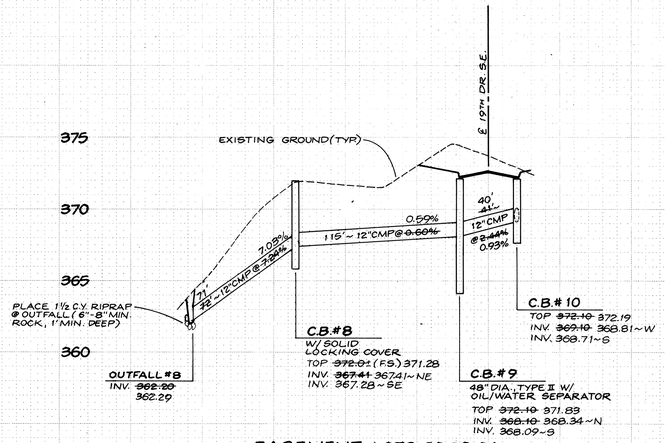
REV. 10/21/94 RCN

1	PER CITY REVIEW COMMENTS	10-21-94	RCN

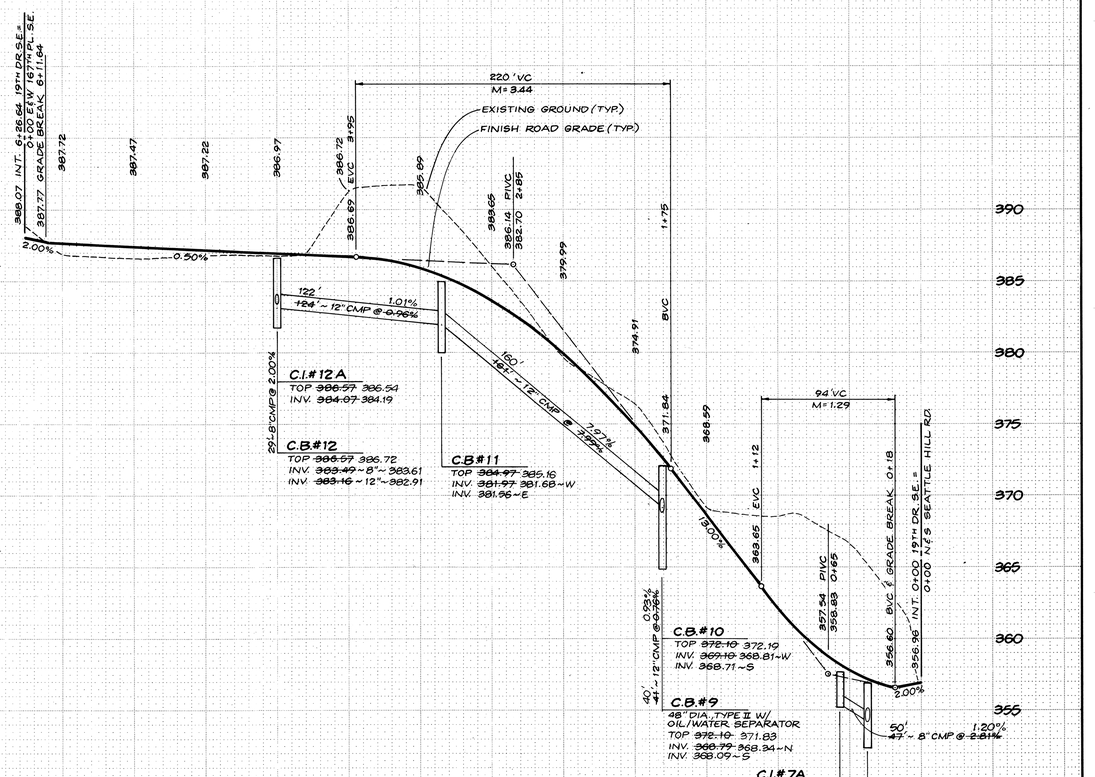
LSA Lovell-Sauerland & Associates, Inc.
Engineers/Surveyors/Planners/Development Consultants
19400 33rd Avenue W., Suite 200 • Lynnwood, WA 98036 • (206) 775-1591 • (206) 340-0830

DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.
RCN	RSJ	9-23-94	418	1" = 20'	3145

153667



EASEMENT, LOTS 29,33,34



CITY OF MILL CREEK
APPROVED FOR CONSTRUCTION
BY: _____ CITY ENGINEER DATE: 1 Nov 94

ROAD AND STORM DRAINAGE PROFILES FOR *THE LAKES*

NE 1/4, SEC. 7 & NW1/4, SEC. 8, T. 27N., R. 5E., W.M.
CITY OF MILL CREEK
SNOHOMISH COUNTY, WASHINGTON

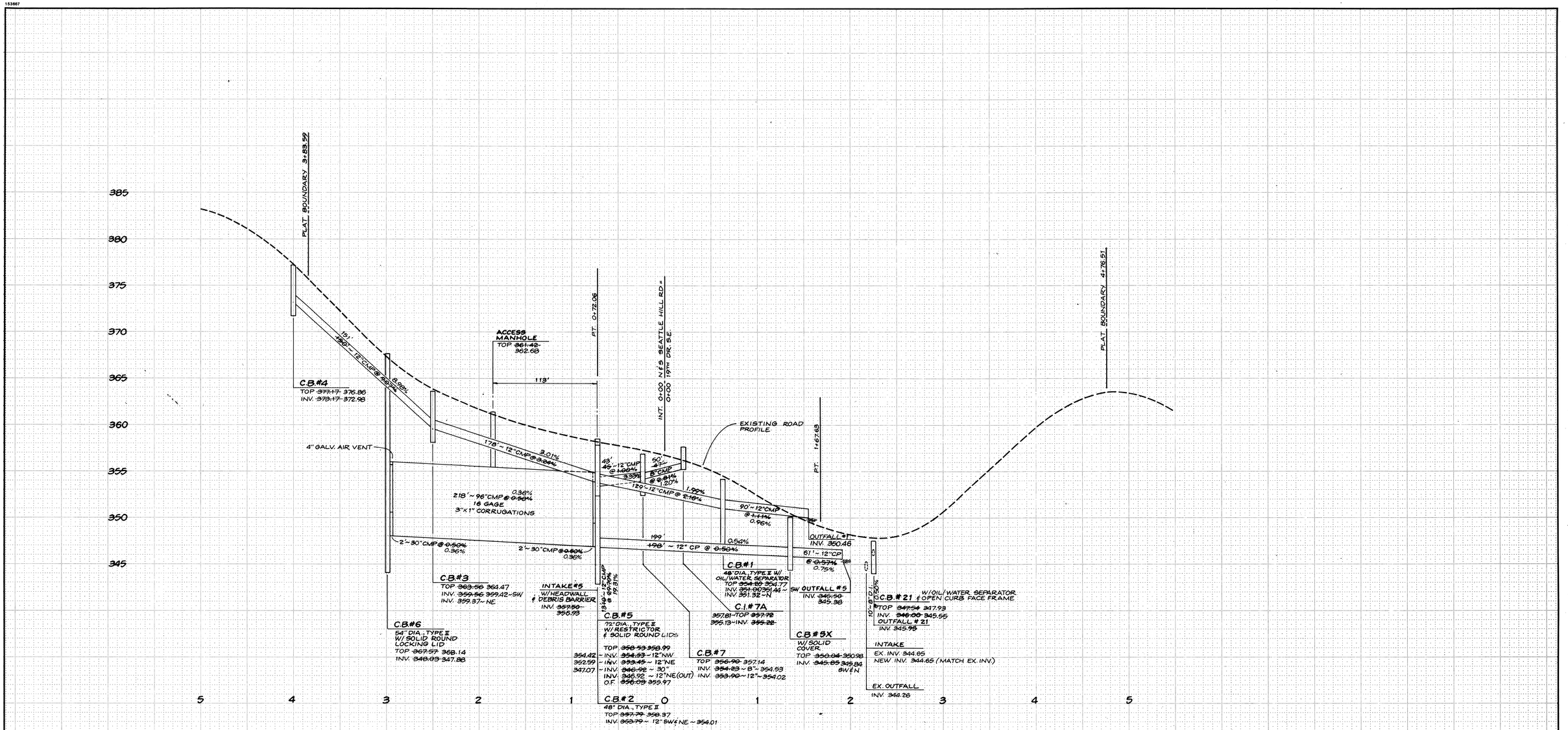
1	AS-BUILT STORM DRAINAGE MAINS	10-3-95	RCN

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

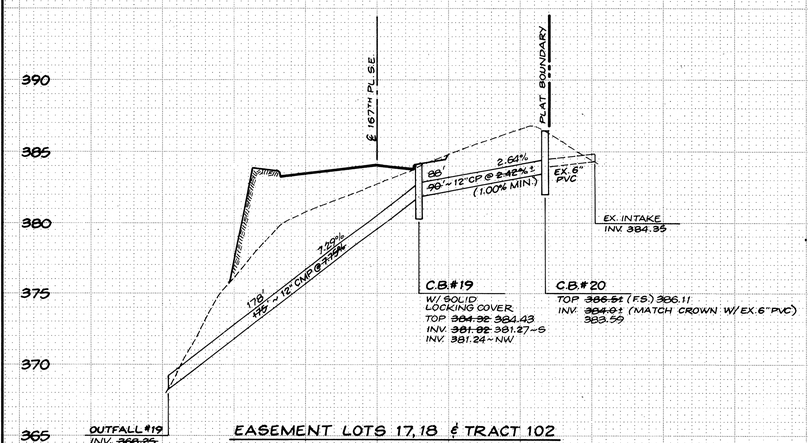
DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.
RCN	RSJ	9-23-94	418	1"=50' HOR. 1"=5' VERT.	3145

THE LAKES HDEV-254

153667



SEATTLE HILL ROAD



EASEMENT LOTS 17, 18 & TRACT 102

CITY OF MILL CREEK
APPROVED FOR CONSTRUCTION
BY: _____ DATE: 11 Nov 94
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

2	AS-BUILT STORM DRAINAGE MAINS	10-3-95	RCN
1	PER CITY REVIEW COMMENTS	10-28-94	GE

REGISTERED PROFESSIONAL ENGINEER
ROBERT C. NOAH
STATE OF WASHINGTON
EXPIRES 10/21/95
REV. 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	CHECKED	DATE	F.B.	SCALE	FILE NO.
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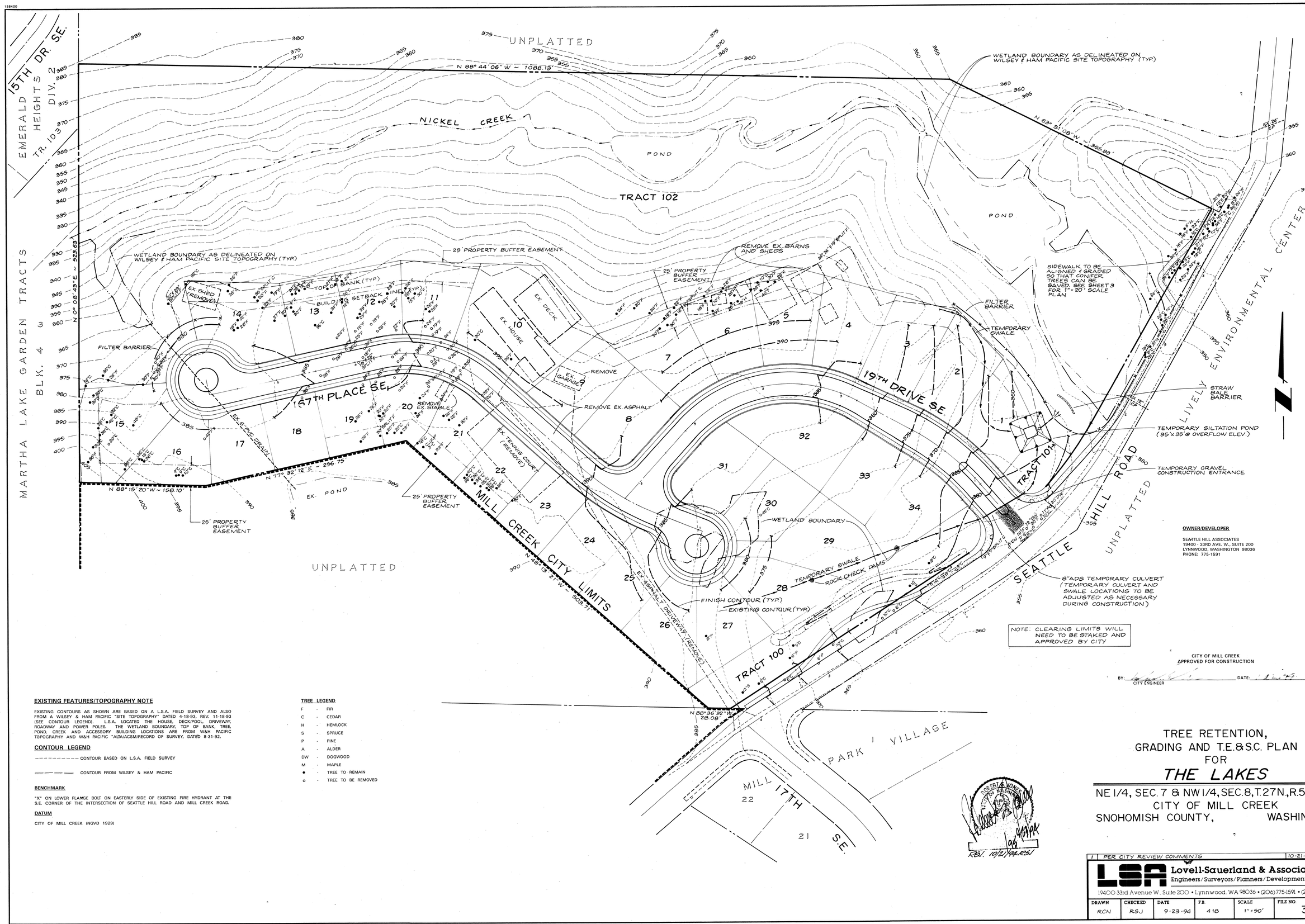
158400



OWNER/DEVELOPER

SEATTLE HILL ASSOCIATES
19400 - 33RD AVE. W., SUITE 200
LYNNWOOD, WASHINGTON 98036
PHONE: 775-1591

CITY OF MILL CREEK
APPROVED FOR CONSTRUCTION

BY: _____ CITY ENGINEER DATE: _____

EXISTING FEATURES/TOPOGRAPHY NOTE

EXISTING CONTOURS AS SHOWN ARE BASED ON A L.S.A. FIELD SURVEY AND ALSO FROM A WILSEY & HAM PACIFIC "SITE TOPOGRAPHY" DATED 4-18-93, REV. 11-18-93 (SEE CONTOUR LEGEND). L.S.A. LOCATED THE HOUSE, DECK/POOL, DRIVEWAY, ROADWAY AND POWER POLES. THE WETLAND BOUNDARY, TOP OF BANK, TREE, POND, CREEK AND ACCESSORY BUILDING LOCATIONS ARE FROM W&H PACIFIC TOPOGRAPHY AND W&H PACIFIC "ALTA/ACSM/RECORD OF SURVEY, DATED 8-31-92.

CONTOUR LEGEND

———— CONTOUR BASED ON L.S.A. FIELD SURVEY

— — — — CONTOUR FROM WILSEY & HAM PACIFIC

BENCHMARK

"X" ON LOWER FLANGE BOLT ON EASTERLY SIDE OF EXISTING FIRE HYDRANT AT THE S.E. CORNER OF THE INTERSECTION OF SEATTLE HILL ROAD AND MILL CREEK ROAD.

DATUM

CITY OF MILL CREEK (NGVD 1929)

TREE LEGEND

F	-	FIR
C	-	CEDAR
H	-	HEMLOCK
S	-	SPRUCE
P	-	PINE
A	-	ALDER
DW	-	DOGWOOD
M	-	MAPLE
●	-	TREE TO REMAIN
o	-	TREE TO BE REMOVED

ROBERT S. JONES
EXPIRES 10-21-95
10/21/94
REGISTERED PROFESSIONAL ENGINEER

TREE RETENTION, GRADING AND T.E.&S.C. PLAN 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

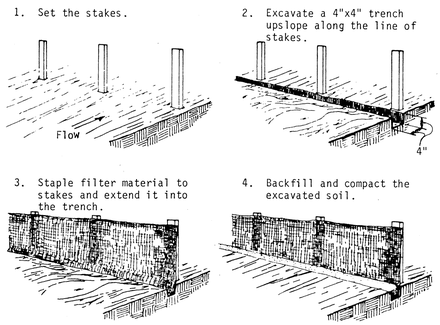
1	PER CITY REVIEW COMMENTS	10-21-94 RCN

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	CHECKED	DATE	F.B.	SCALE	FILE NO.
RCN	RSJ	9-23-94	418	1"=50'	3145

THE LAKES HDEV-256

158400



CONSTRUCTION OF A FILTER BARRIER

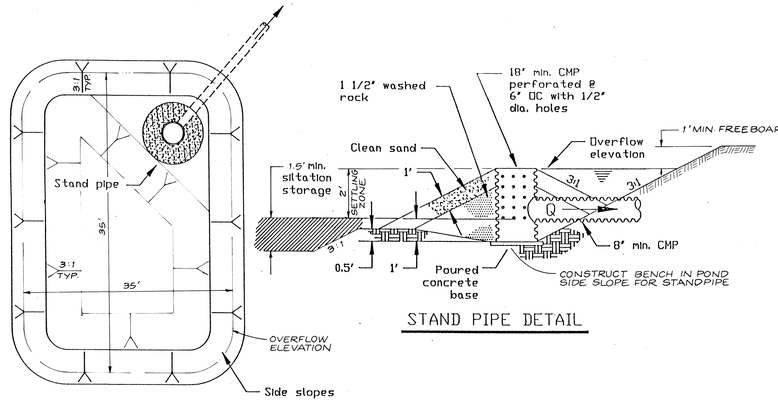
FILTER BARRIER

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 EXTENDED IN 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 SWALE, THE BARRIER SHALL BE OF SUFFICIENT LENGTH TO ELIMINATE END FLOW, AND THE PLAN CONFIGURATION SHALL RESEMBLE AN ARC OR HORSESHOE 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 BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND 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 SEEDED.



POND-PLAN VIEW

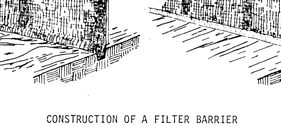
STAND PIPE DETAIL

STAND PIPE AND SEDIMENT POND MAINTENANCE

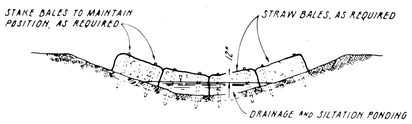
THE EMBANKMENT OF THE BASIN SHOULD BE CHECKED REGULARLY TO INSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. THE EMERGENCY SPILLWAY SHOULD BE CHECKED REGULARLY TO INSURE THAT ITS LINING IS WELL ESTABLISHED AND EROSION-RESISTANT. THE SILTATION BASIN SHOULD 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.



TEMPORARY SWALE

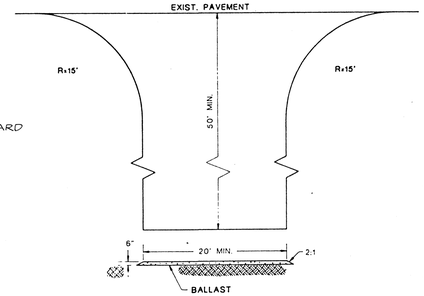


MAINTENANCE OF STRAW BALE

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

N.T.S.

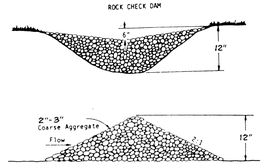


TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

1. INSTALLATION: THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL. THE GRAVEL SHALL BE PLACED TO THE SPECIFIED DIMENSIONS. ANY DRAINAGE FACILITIES REQUIRED BECAUSE OF WASHING SHOULD BE CONSTRUCTED 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 6 INCHES THICK. IT MUST EXTEND THE FULL WIDTH OF THE VEHICULAR INGRESS 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 VEHICLE TIRES 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 WILL PREVENT TRACKING 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, DROPPED, 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

N.T.S.

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. (1988 EDITION)
3. ALL EARTH WORK SHALL BE PERFORMED IN ACCORDANCE WITH CITY STANDARDS. PRECONSTRUCTION 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.
4. 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, NONCOMPOYING FILL, TOP-SOIL AND OTHER UNSUITABLE MATERIALS SCARIFYING 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 95 PERCENT OF MAXIMUM DENSITY BY MODIFIED 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 UNIFORMLY.
12. THE SURFACE OF ALL LIFTS SHALL BE COMPACTED. THIS MAY BE ACCOMPLISHED BY OVER-BUILDING THE SLOPES THEN CUTTING BACK TO FINAL GRADES, 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. DENSITY TESTS SHALL BE TAKEN AT OR JUST BELOW THE SURFACE AT THE FREQUENCY AND AT LOCATIONS DETERMINED BY THE SOILS ENGINEERING FIRM. WHEN THE TESTS INDICATE THAT THE DENSITY OF ANY LAYER OF FILL OR PORTION THEREOF IS BELOW THE SPECIFIED DENSITY, THE PARTICULAR SECTION SHALL BE REWORKED 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 GROUND 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 SEEDED 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

ROGER S. JONES — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

REV. 10/21/94

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

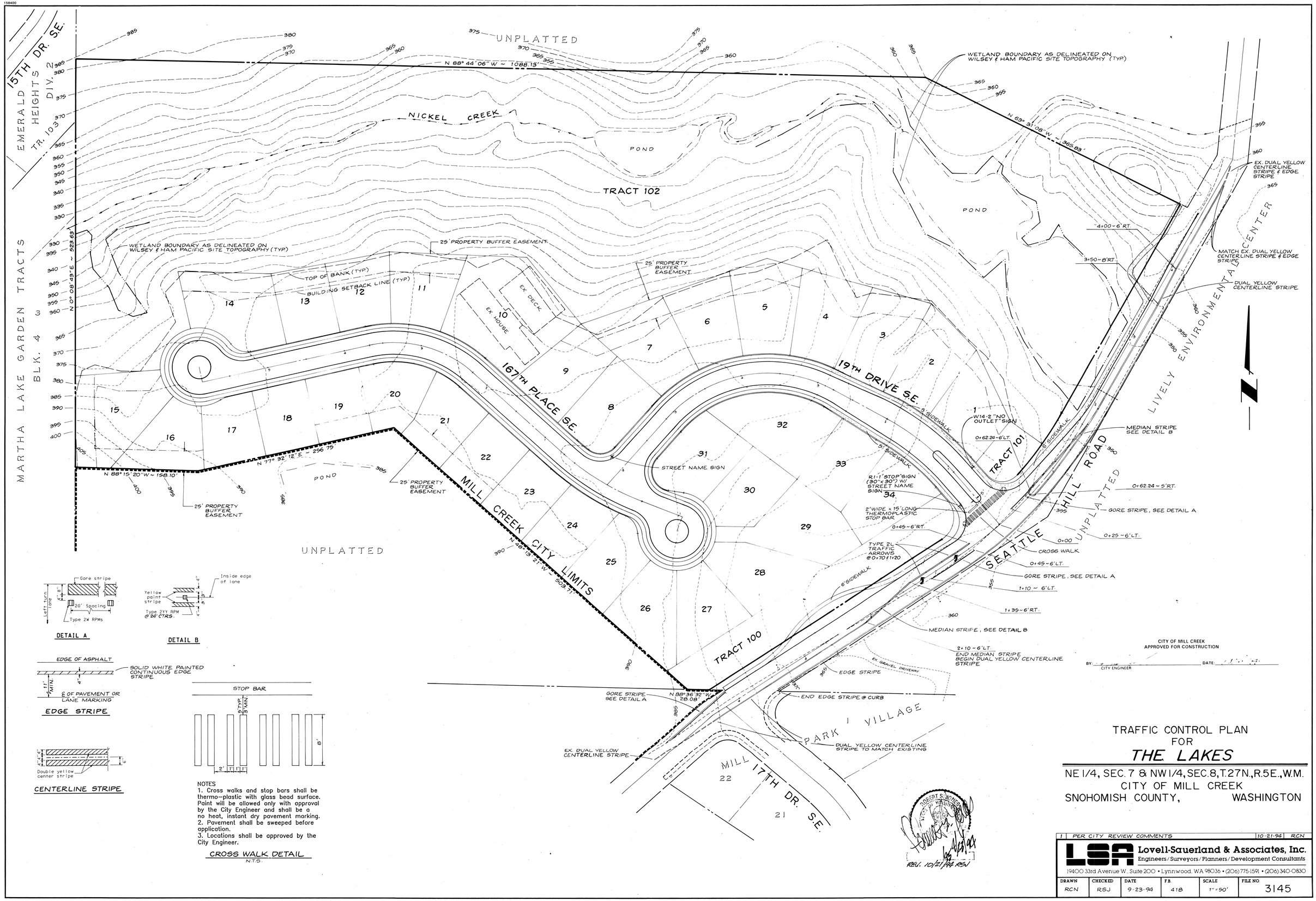
1	PER CITY REVIEW COMMENTS	10-21-94	RCN

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	CHECKED	DATE	F.B.	SCALE	FILE NO.
RCN	RSJ	9-23-94	418	N.T.S.	3145

THE LAKES HDEV-257

158400



DETAIL A

DETAIL B

EDGE STRIPE

CENTERLINE STRIPE

NOTES
1. Cross walks and stop bars shall be thermo-plastic with glass bead surface. Paint will be allowed only with approval by the City Engineer and shall be a no heat, instant dry pavement marking.
2. Pavement shall be sweeped before application.
3. Locations shall be approved by the City Engineer.

CROSS WALK DETAIL
N.T.S.

TRAFFIC CONTROL PLAN
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

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DRAWN	CHECKED	DATE	F.B.	SCALE	FILE NO.
RCN	RSJ	9-23-94	418	1"=50'	3145