ALL WORK PERTAINING TO THIS PROJECT SHALL BE SUBJECT TO THE INSPECTION OF THE COUNTY INSPECTOR OR HIS DESIGNATED REPRESENTATIVE. PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT THE CHIEF INSPECTOR AT (206) 388-3385 TO SCHEDULE A PRECONSTRUCTION CONFERENCE.

PRIOR TO ANY SITE DISTURBING ACTIVITY INCLUDING CLEARING, LOGGING OR GRADING, THE SITE CLEARING LIMITS AS SHOWN ON THESE PLANS SHALL BE LOCATED AND FIELD IDENTIFIED BY THE PROJECT SURVEYOR OR ENGINEER. THE PROJECT SURVEYOR OR ENGINEER'S NAME AND TELEPHONE NUMBER ARE TRI-COUNTY LAND SURVEYING (425) 776-2926

THE DEVELOPER AND PROJECT ENGINEER ARE RESPONSIBLE FOR WATER QUALITY. A MONITORING PROGRAM SHALL BE ESTABLISHED BY THE PROJECT ENGINEER. THE PROJECT ENGINEER'S NAME AND PHONE NUMBER ARE R. ALAN MURRAY, P.E. (425) 513-2500

ENGINEERED AS-BUILTS SHALL BE REQUIRED PRIOR TO FINAL APPROVAL.

PRIOR TO ANY DEVELOPMENT ACTIVITY (i.e. CLEARING, GRADING OR FILLING) ON THE SITE THE APPLICANT SHALL MARK WITH TEMPORARY MARKERS IN THE FIELD THE BOUNDARY OF ALL NGPA'S REQUIRED BY THIS CHAPTER, OR THE LIMITS OF THE PROPOSED SITE DISTURBANCE OUTSIDE OF THE NGPA'S, USING METHODS AND MATERIALS ACCEPTABLE TO THE COUNTY.

NGPA BOUNDARIES SHALL BE PERMANENTLY MARKED ON THE SITE PRIOR TO FINAL INSPECTION BY THE COUNTY, WITH BOTH NATIVE GROWTH PROTECTION AREA SIGNS AND ADJACENT MARKERS WHICH CAN BE MAGNETICALLY LOCATED (i.e. REBAR, PIPE, 20 PENNY NAILS, etc.). THE APPLICANT MAY USE OTHER PERMANENT METHODS AND MATERIALS PROVIDED THEY ARE FIRST APPROVED BY THE COUNTY. WHERE AN NGPA BOUNDARY CROSSES ANOTHER BOUNDARY (i.e. LOT, TRACT, PLAY, ROAD, etc.), A REBAR MARKER WITH SURVEYORS' CAP AND LICENSE NUMBER MUST BE PLACED AT THE LINE CROSSING.

NGPA SIGNS SHOULD BE PLACED NO GREATER THAN 100 FEET APART AROUND THE PERIMETER OF THE NATIVE GROWTH PROTECTION AREA. MINIMUM PLACEMENT SHALL INCLUDE ONE TYPE 1 SIGN PER WETLAND. AND AT LEAST ONE TYPE 1 SIGN SHALL BE PLACED IN ANY LOT THAT BORDERS THE NATIVE GROWTH PROTECTION AREA, UNLESS OTHERWISE APPROVED BY THE COUNTY BIOLOGIST. THE DESIGN AND PROPOSED LOCATIONS FOR THE NGPA SIGN SHOULD BE SUBMITTED TO THE LAND USE DIVISION FOR REVIEW AND APPROVAL.

NATIVE GROWTH PROTECTION AREA IS TO BE LEFT PERMANENTLY UNDISTURBED IN A SUBSTANTIALLY NATURAL STATE. NO CLEARING, GRADING, FILLING, BUILDING CONSTRUCTION OR PLACEMENT, OR ROAD CONSTRUCTION OF ANY KIND SHALL OCCUR, EXCEPT REMOVAL OF HAZARDOUS TREES. THE ACTIVITIES AS SET FORTH IN SCC 32.10.110(29) a,c,d, ARE ALLOWED WHEN APPROVED BY THE COUNTY.

ALL SITE WORK SHALL COMPLY WITH THESE PLANS AND THE CONDITIONS AND RECOMMENDATIONS OF: A) GROUND WATER EVALUATION GEOTECHNICAL REPORT BY NELSON-COUVRETTE & ASSOCIATES, INC.

B) THE HYDRAULIC PROJECT APPROVAL, CONTROL NUMBER XX-XXXXX-XX, DATED XX-XX-XXXX.

A RIGHT-OF-WAY PERMIT IS REQUIRED FOR WORK IN COUNTY RIGHT-OF-WAY.

THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES SHOWN ON CONSTRUCTION PLANS ARE BASED ON BEST RECORDS AVAILABLE AND ARE SUBJECT TO VARIATION. FOR AID IN UTILITY LOCATION, CALL 1-800-424-5555

THE CONTRACTOR SHALL NOTIFY MURRAY-TOBIASON, INC., AND COUNTY INSPECTOR PRIOR TO CONSTRUCTION WHEN CONFLICTS BETWEEN THE PLANS AND FIELD CONDITIONS EXIST. SAID CONFLICTS SHALL BE RESOLVED PRIOR TO PROCEEDING WITH CONSTRUCTION.

THE CONTRACTOR SHALL KEEP TWO SETS OF PLANS ON SITE AT ALL TIMES FOR RECORDING AS-BUILT INFORMATION: ONE SET SHALL BE SUBMITTED TO MURRAY-TOBIASON, INC., AT COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE OF WORK.

#### TEMPORARY GRAVEL CONSTRUCTION ENTRANCE:

INSTALLATION: THE AREA OF THE ENTRANCE SHOULD BE CLEARED OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIALS. 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.

AGGREGATE: 4" TO 6" CRUSHED BALLAST ROCK.

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

WASHING: IF CONDITIONS ON THE SITE ARE SUCH THAT MOST OF THE MUD IS NOT REMOVED FROM VEHICAL TIRES BY CONTACT WITH THE GRAVEL, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER A PUBLIC . WASH WATER MUST BE CARRIED AWAY FROM ENTRANCE TO A SETTLING AREA TO REMO∀E SEDIMENT A WASH RACK MAY ALSO BE USED TO MAKE WASHING MORE CONVENIENT AND EFFECTIVE.

MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAYS. 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.

## SITE GRADING. AND T.E.S.C. NOTES:

ALL GRADING SHALL COMPLY TO CHAPTER 33 OF THE UNIFORM BUILDING CODE, TITLE 17, AND TITLE 24 OF THE SNOHOMISH COUNTY CODE. (CURRENT EDITION)

T.E.S.C. MEASURES SHALL BE INSTALLED PRIOR TO ANY SITE WORK (SEE ATTACHED DETAILED DRAINAGE

PUBLIC STREETS ARE TO BE KEPT CLEAR OF DIRT AND DEBRIS DURING EXCAVATION AND FILL OPERATIONS.

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.

NONCOMPLIANCE WITH THE EROSION CONTROL REQUIREMENTS, WATER QUALITY REQUIREMENTS AND/OR CLEARING LIMITS MAY RESULT IN REVOCATION OF PROJECT PERMITS, PLAN APPROVAL AND BOND

CONSTRUCTION ACCEPTANCE WILL BE SUBJECT TO A WELL ESTABLISHED GROUND COVER THAT FULFILLS THE REQUIREMENT OF THE APPROVED CONSTRUCTION PLANS AND TITLE 24, SNOHOMISH COUNTY DRAINAGE

ALL AREAS TO BE SEEDED SHALL BE CULTIVATED TO THE SATISFACTION OF THE COUNTY INSPECTOR, THIS MAY BE ACCOMPLISHED BY DISCING, RAKING, HARROWING OR OTHER ACCEPTABLE MEANS, PERFORM ALL CULTURAL OPERATIONS ACROSS OR AT RIGHT ANGLES TO THE SLOPE. IF NECESSARY, SURFACE RUNOFF CONTROL MEASURES SUCH AS GRADIENT TERRACES, INTERCEPTOR DIKE/SWALES, LEVEL SPREADERS, AND SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO SEEDING.

ALL DISTURBED AREAS SUCH AS DETENTION FACILITIES, ROADWAY BACK-SLOPES, ETC. SHALL BE SEEDED WITH A PERENNIAL GROUND COVER GRASS TO MINIMIZE EROSION. GRASS SEEDING WILL BE DONE USING AN APPROVED HYDROSEEDER OR AS OTHERWIESE APPROVED BY SNOHOMISH COUNTY.

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.

FERTILIZER SHALL BE APPLIED AT 400# PER ACRE OF 10-20-20 (10 POUNDS PER 1100 SQUARE FEET) OR EQUIVALENT. DEVELOPMENTS ADJACENT TO WATER BODIES SHALL USE NON-PHOSPHOROUS FERTILIZER.

THESE PLANS INDICATE CUT AND FILL SLOPES WHICH EXCEED A MAXIMUM OF TWO FEET HORIZONTAL TO ONE FOOT VERTICAL (2:1), A ROCK OR CONCRETE RETAINING WALL MAY BE REQUIRED. ALL ROCK RETAINING WALLS GREATER THAN FOUR (4) FEET IN HEIGHT ARE TO FOLLOW COUNTY SPECIFICATIONS AND TO BE DESIGNED AND CERTIFIED BY A CIVIL ENGINEER EXPERIENCED IN SOILS MECHANICS. ALL OTHER CUT AND FILL SLOPES SHALL BE A MAXIMUM OF 2:1.

STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND ADEQUATELY PROTECTED TO PREVENT EROSION.

DURING PERIODS OF WET WEATHER, THE GRADING CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO LIMIT SURFACE DISTURBANCE AND PROTECT THE SITE GRADING AREA FROM EXCESSIVE RUNOFF EROSION.

AREAS TO RECEIVE FILL SHALL BE CLEARED OF ALL VEGETATION AND DELETERIOUS MATTER.

ALL FILL MATERIALS USED SHALL BE FREE OF VEGETATION AND DELETERIOUS MATTER AND SHALL NOT CONTAIN ROCKS GREATER THAN 6 INCHES IN DIAMETER.

ALL STRUCTURAL FILLS SHALL BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY AS DETERMINED

STRUCTURAL FILLS SHALL BE PLACED IN 8" TO 10" THICK LOOSE HORIZONTAL LIFTS AND SPREAD UNIFORMLY.

BY MODIFIED PROCTOR TEST (ASTM D-1557-70). THE SURFACE OF ALL SLOPES 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 FILL LIFT IS BEING PLACED. ALL SLOPES SHALL BE COMPACTED BY THE END OF EACH WORKING DAY.

DISTURBED AREAS TO BE STABILIZED WITH HYDROSEED OR STRAW MULCH WITHIN 24 HOURS OF COMPLETION OF FINAL GRADING DURING WET WEATHER.

#### STORM DRAINAGE NOTES:

A. STORM DRAINAGE PIPES SHOWN ON PLAN SHALL BE CORRUGATED POLYETHYLENE PIPE (N-12) FOR DIAMETERS DIAMETER 8" & GREATER. OR POLYVINYL CHLORIDE PIPE (PVC) FOR 6" PIPE FOR ROOF & FOOTING DRAINS UNLESS SPECIFIED OTHERWISE.

COVERAGE REQUIREMENTS FOR 12" PIPE < 1.0' REQUIRES RCP (REINFORCED CONCRETE PIPE) MINIMUM.

1.0' - 1.5' REQUIRED FOR CP (CONCRETE PIPE) OR N-12 (CORRUGATED POLYETHYLENE PIPE) MINIMUM. > 1.5' REQUIRED FOR 16 GAUGE CMP (CORRUGATED METAL PIPE) MINIMUM.

B. ALL STORM SEWER PIPE SHALL CONFORM WITH CHAPTER 9 OF THE SNOHOMISH COUNTY ENGINEERING DESIGN AND DEVELOPMENT STANDARDS (E.D.D.S.) AND DIVISION 7 OF THE WSDOT/APWA SPECIFICATIONS. ALL PIPE SHALL BE PLACED ON STABLE EARTH, OR IF IN THE OPINION OF THE COUNTY INSPECTOR,

BACK FILLED WITH COMPACTED GRAVEL MATERIAL TO SUPPORT THE PIPE.

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,

THE EXISTING FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND

E. GALVANIZED STEEL CMP SHALL MEET THE REQUIREMENTS OF AASHTO DESIGNATION M-36, TYPE 1 & TYPE 2. PIPE SHALL HAVE ASPHALT TREATMENT 1 OR BETTER.

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

G. DOUBLE WALLED (SMOOTH INTERIOR) CORRUGATED POLYETHYLENE PIPE, MEETING THE REQUIREMENTS OF AASHTO M252 IN 8" SIZE AND AASHTO M294S IN SIZES 12" THROUGH 36", IS AN ACCEPTABLE ALTERNATIVE TO SCHEDULE A CULVERT PIPE, AS SHOWN ON WSDOT/APWA STANDARD PLAN B-17 AND FOR STORM SEWERS IN ACCORDANCE WITH SNOHOMISH COUNTY STANDARDS.

H. BAND SIZE SHALL BE 12" FOR PIPE LESS THAN 42" DIAMETER AND 49" X 33" ARCH PIPE.

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

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

K. A NOTE SPECIFYING THE GAGE AND BAND SIZE FOR ALL PIPES USED IN THE DESIGN SHALL BE PLACED

		STEEL			
2-2/3 X 1/2 I	N. CORRUGATION			3 X 1 IN. CORRUGATION	
PIPE DIÀMETER (INCHES)	HELICAL ARCH PIPE (INCHES)	GAGE	BAND	PIPE DIAMETER (INCHES)	
12 - 54	17 X 13 THRU 42 X 29	16	(a)	54 - 120	
60	49 X 33	14	24"	126 - 138	40 X 31 THRU 112 X 75
66 - 90	57 X 38 THRU 64 X 33	12	24"	144 —	117 X 79 THRU 137 X 87
96	71 X 47	10	24"		142 X 91
	77 X 52 THRU 83 X 57	8	24"		•
			12"	OR ANNULAR PIPE DIAMETER 12 - 84 TYPE	B, D, & F* GAGE AS PIPE'S

(a) BAND SIZE 12" FOR PIPE LESS THAN 42" DIAMETER AND 49" X 33" ARCH PIPE

		ALUM	IINUM		
2-2/3 X 1/2 IN			3 X 1 IN. CORRUGATION		
PIPE DIAMETER (INCHES)	HELICAL ARCH PIPE (INCHES)	GAGE	BAND		LICAL ARCH PE (INCHES)
12 - 27	17 X 13 THRU 42 X 29	16	12"	36 - 60	
30 - 36	28 X 20 THRU 35 X 24	14.	21"	66 - 72	
42 - 54	42 X 29 THRU 49 X 33	12	21"	78 - 96 60 X 46	THRU 95 X 67
60	57 X 38 THRU 64 X 43	10	24"	106 - 144 103 X 7	1 THRU 112 X 75
SPIRAL RIB PIPI			ANNULAR RECORRUGATED OR ANNULAR CORRUGATE	· · · · · · · · · · · · · · · · · · ·	
PIPE DIAMETER			PIPE DIAMETER (INCHES)		
18 - 42		16	12"	12 - 84 TYPE B, D, & F	<b>:</b> *
48 — 60		14	21"	NOTE: SAME GAGE AS PI	PE'S
66 - 84	12	21"	* TYPE F IS 10-1/2" WI	DE	

CORRUGATED POLYETHYLENE PIPE THE MATERIAL SUPPLIED UNDER THIS SPECIFICATION SHALL BE HIGH DENSITY CORRUGATED POLYETHYLENE SMOOTH INTERIOR PIPE AND SHALL BE MANUFACTURED IN CONFORMITY WITH THE LATES AASHTO SPECIFICATIONS M252 OR M294 TYPE S AND THE MATERIAL COMPOUND SHALL CONFORM TO ASTM D3350. PIPE JOINTS AND FITTINGS SHALL CONFORM TO AASHTO M294 COUPLERS SHALL COVER NOT LESS THAN ONE FULL CORRUGATION ON EACH ANNULAR SECTION OF PIPE.

POLYVINYL CHLORIDE PIPE (PVC)" PVC PIPE IS ALLOWED FOR INSTALLATION ON PRIVATE PROPERTY AND FOR CONNECTION OF ROOF & FOOTING DRAINS TO STORM DRAINAGE SYSTEMS WITHIN PUBLIC RIGHT-OF-WAY. THE MATERIALS SUPPLIED UNDER THIS SPECIFICATION SHALL BE SOLID WALL SEWER PIPE, SDR-35 PIPE, 4" TO 15" SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM D3034; PIPE 18" TO 24" SHALL MEET ASTM F679. RUBBER GASKETED PIPE JOINS AND FITTINGS SHALL CONFORM TO ASTM F477.

N. THE CULVERT ENDS SHALL BE BEVELED TO MATCH THE SIDE SLOPE, FIELD CUT OF CULVERT ENDS IS PERMITTED, WHEN APPROVED BY THE INSPECTOR.

O. ALL FIELD CUT CULVERT PIPE SHALL BE TREATED WITH TREATMENT AS SHOWN IN THE STANDARD SPECIFICATIONS OR GENERAL SPECIAL PROVISIONS.

#### CATCH BASINS AND MANHOLES

A. ALL CATCH BASINS SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

B. ALL CATCH BASINS WITH A DEPTH OVER 5.0 FEET TO THE FLOW LINE SHALL BE A TYPE II CB OR

LARGER (MANHOLE).

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET, AND CATCH BASIN FRAMES AND GRATES JUST PRIOR TO POURING OR CURBS AND PAVING.

D. ALL GRATES SHALL BE DEPRESSED 0.1 FEET BELOW PAVEMENT LEVEL.

CATCH BASIN FRAME AND GRATES SHALL BE OLYMPIC FOUNDRY MODEL 5435, 5435A, OR 50503A. LOCKING TYPE OR EQUAL. MODEL 5435A IS REFERRED TO AS A "THROUGH CURB INLET" ON THE PLAN. MODEL 50503A IS REFERRED TO AS A "ROLLED GRATE INLET" IN THE PLAN.

F. ALL TYPE II CATCH BASIN MANHOLES, INLET, AND CATCH BASINS SHALL HAVE LOCKING LIDS. ROLLED GRATE NOT APPROVED FOR OUTSIDE OF COUNTY RIGHT-OF-WAY OR FOR USE WITH TYPE II MANHOLE.

G. STANDARD LADDER STEPS SHALL BE PROVIDED IN ALL CATCH BASINS AND MANHOLES EXCEEDING 5 FEET IN DEPTH.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET, AND CATCH BASIN FRAMES AND GRATES JUST PRIOR TO POURING OF CURBS AND PAVING.

YARD BASINS (4' CP) WITH MULTIPLE CONNECTIONS SHALL EITHER HAVE MULTIPLE KNOCKOUTS OR BE CORE DRILLED. BROKEN BASINS SHALL NOT BE ACCEPTED.

PRIOR TO SIDEWALK CONSTRUCTION, CONSTRUCT THE LOT DRAINAGE AND STUB-OUTS BEHIND THE SIDEWALK DRAINS AS REQUIRED. STUB-OUTS SHALL BE MARKED WITH 2" X 4" AND LABELED "STORM". LOCATIONS OF THESE INSTALLATIONS SHALL BE PLACED ON THE AS-BUILT CONSTRUCTION PLANS AND SUBMITTED TO

STORM WATER RETENTION/DETENTION FACILITIES STORM DRAINAGE PIPE AND CATCH BASINS SHALL BE FLUSHED AND CLEANED PRIOR TO SNOHOMISH COUNTY ACCEPTANCE.

#### STAND PIPE AND SEDIMENT POND MAINTENANCE:

THE WALLS OF THE POND SHOULD BE CHECKED REGULARLY TO INSURE THAT IT IS STRUCTURALLY SOUND AND HAS NOT BEEN DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT. 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.

#### MAINTENANCE OF SILTATION BARRIERS:

SILTATION 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.

#### SPECIAL CONDITIONS:

A GEOTECHNICAL CONSULTANT SHALL BE PRESENT ONSITE DURING GRADING ACTIVITIES AS REQUIRED BY SNOHOMISH COUNTY PLANNING & DEVELOPMENT SERVICES TO PRESENT FIELD RECOMMEDIDATIONS AS NECESSARY. THE GEOTECHNICAL CONSULTANT SHALL ALSO PROVIDE TESTING OF FILLS AND CUTS AS REQUIRED BY PLANNING & DEVELOPMENT SERVICES, SHALL FORWARD TEST RESULTS TO THE COUNTY AND SHALL CERTIFY THAT GRADING ACTIVITIES HAVE BEEN CONDUCTED UNDER GEOTECHNICAL CONSULTANT OBSERVATION.

A GEOTECHNICAL REPORT BY NELSON-COUVRETTE & ASSOCIATES INC., DATED APRIL 18, 1996, EVALUATED THE SOILS ON THE SITE ARE HIGHLY MOISTURE SENSITIVE. CONTRACTOR SHOULD OBTAIN A COPY OF THIS REPORT FROM THE ENGINEER PRIOR TO MAKING BID PROPOSALS.

TRENCH BACKFILL OF NEW UTILITIES AND STORM DRAINAGE FACILITIES SHALL BE COMPACTED TO 95% MAXIMUM DENSITY (MODIFIED PROCTOR( UNDER ROADWAYS AND 90% MAXIMUM DENSITY (MODIFIED PROCTOR) OFF ROADWAYS, AS SPECIFIED IN SECTION 2-03.3 (14) C. COMPACTING EARTH EMBANKMENTS METHOD B.

## CONSTRUCTION SEQUENCE

1) ATTEND PRECONSTRUCTION MEETING.

2) FLAG CLEARING & GRADING LIMITS.

3) INSTALL SILT FENCE/CLEARING LIMIT BARRIERS.

4) CONSTRUCT ROCK CONSTRUCTION ENTRANCE FROM EXIST. DRIVEWAY. 5) INSTALL DETENTION VAULT W/TEMP ELBOW @ OUTLET. (SEE SHEET S-1)

6) CLEAR AND GRUB REMAINING ON SITE.

7) INSTALL OTHER EROSION CONTROL MEASURES.

8) ROUGH GRADE ROAD & DRIVEWAYS.

9) COMPLETE SITE GRADING.

10) INSTALL SANITARY SEWER & STORM DRAINAGE SYSTEMS.

11) COMPLETE AS-BUILT SURVEY OF SEWER AND STORM AND SUBMIT TO ENGINEER w/SIDE SEWER AND ROOF DRAIN

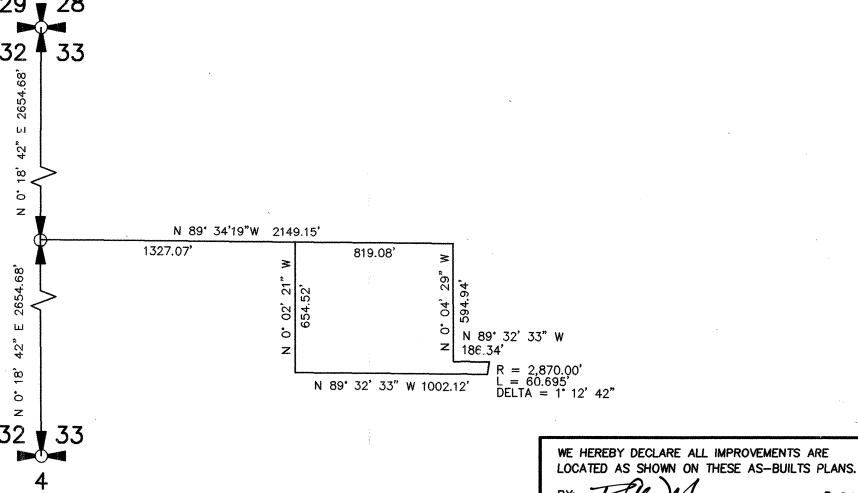
12) ENGINEER TO REVIEW AS-BUILT INFO AND ADVISE CONTRACTOR OF ANY CONFLICTS/GRADE PROBLEMS.

13) INSTALL WATER SYSTEM.

14) FINISH GRADE AND ATB ROADS.

15) HYDROSEED OR MULCH AND SEED ALL DISTURBED AREAS.

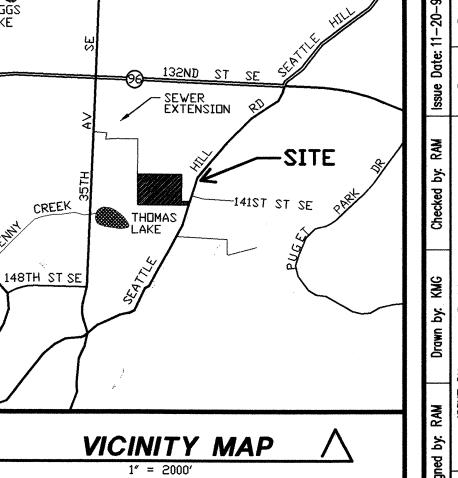
16) REMOVE TEMP ELBOW FROM DETENTION VAULT. INSTALL RISER.



SECTION TIES

SCALE: 1" = ± 500'?

LANDSCAPE PLANS 1 of 2 WETLAND/BUFFER RESTORATION PLAN 2 of 2 WETLAND/BUFFER PLANTING DETAILS PLAT SEWER PLANS (SILVER LAKE WATER DISTRICT) 1 of 3 SEWER PLAN 2 of 3 SEWER PROFILES 3 of 3 SEWER PROFILES WATER PLANS (SILVER LAKE WATER DISTRICT) 1 of 1 WATER PLAN



#### TAX ACCOUNT # 332805-3-001-0007

#### LEGAL DESCRIPTION

LOT 2 OF SHORT PLAT NO. SP 448 (8-78) RECORDED UNDER AUDITOR'S FILE NO. 7907160301, BEING A PORTION OF THE NORTHEAST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 33. TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.

SITUATE IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

SUBJECT TO EASEMENT FOR THE RIGHT TO MAKE NECESSARY CUTS AND FILLS UPON PROPERTY DESCRIBED AS GRANTED BY DEED RECORDED UNDER RECORDING NO. 1730042.

SUBJECT TO TERMS, CONVENANTS, CONDITIONS, RESTRICTIONS, MAINTENANCE AGREEMENTS AND EASEMENTS AS CONTAINED IN SP# 448 8-79 RECORDED UNDER AF# 7907160301.

#### DRAWING INDEX

GRADING, ROAD & DRAINAGE PLANS

INDEX, NOTES & VICINITY MAP

C-2 GRADING PLAN

GRADING SECTIONS M-Q C-3

GRADING SECTIONS R-V STORM DRAINAGE PLAN

ROAD AND DRAINAGE PROFILES

C-7 ROAD AND DRAINAGE PROFILES C-8 DETAILS

C-9 DETAILS

POND LAYOUT AND STRUCTURAL DETAILS

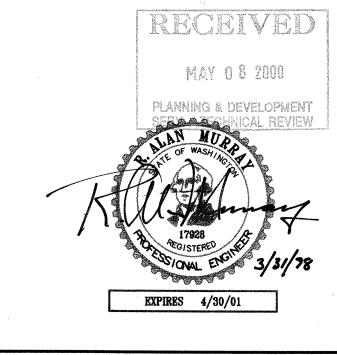
CHANNELIZATION AND SIGNING PLAN

AS-BUILT POND DETAIL

OFF-SITE GRADING (UNDER FILE NO. 95 110056 001GP)

C-1 OFF-SITE GRADING & T.E.S.C. PLAN

C-2 NOTES & DETAILS FOR OFF-SITE UTILITIES NOTE: THESE PLANS ARE UNDER SEPARATE REVIEW



of 10 Drawings Project Number

AS-BUILTS

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SEATTLE HILL ESTATES

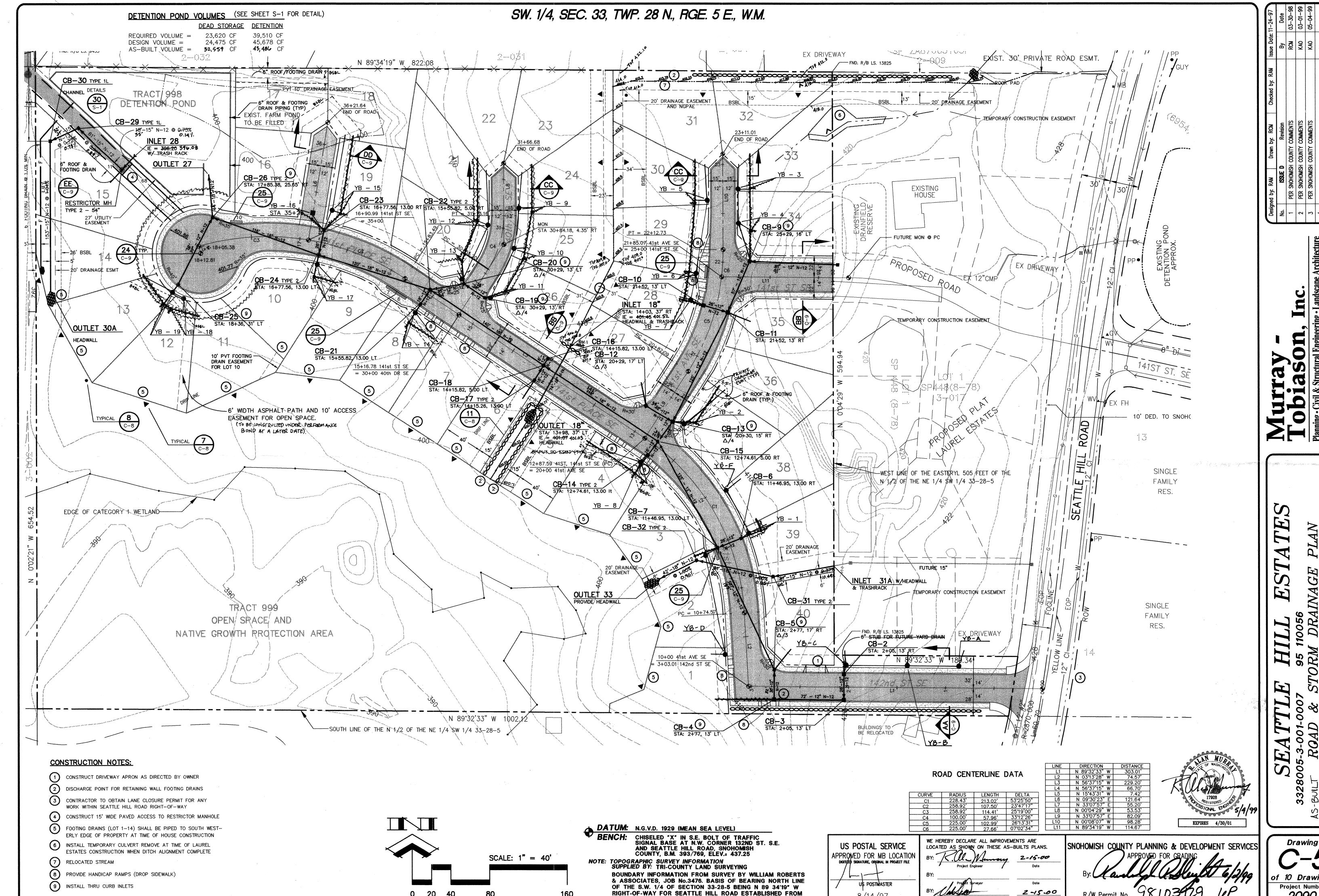
Project Engineer

2-15-00

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Date

**(**) Drawing



DATE 8/14/97 PLAT OF THOMAS LAKE ESTATES VOL. 40, PG. 266.

SEATTLE HILL ESTATES

of 10 Drawings

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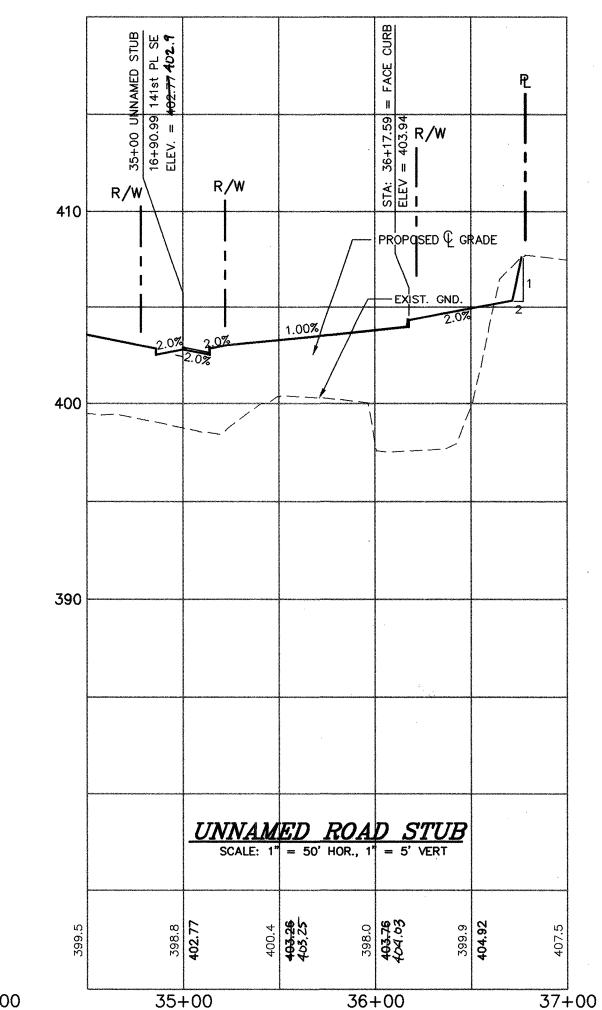
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Drawing of 10 Drawings **Project Number** 

# LOW POINT ELEV = 403.71R/W B | 7 | PVI ELEV = 403.37 PVI STA = 30+4050.00° VC PROPOSED ( GRADE R/W LAS-BUILT & 2 CB-19 TYPE 1 TOP = 403.35 403.57 IE = 400.50, 6"400.22 10 IE = 400.00, 12" 347.67 549.91 CB-20 TYPE 1 TOP = 403.35 403 49 Z N IE = 400.24, 6" 391.69 N IE = 309.74, 12" 399.69 CB-22 TYPE 2 TOP = 403.75 404.02 IE = 307.90 12" 318.33 IE = 307.46 18"" 341.62 40th DR SE SCALE: 1" + 50' HOR., 1" + 5' VERT 30+00 31+00 32+00 33+00

SW. 1/4, SEC. 33, TWP. 28 N., RGE. 5 E., W.M.



	<u>AS-</u>	-BUILT	YARD	<u>BASIN</u>	SCHED	<u>ULE</u>
	NO.	RIM	INVERT	<u>N</u>	O. RIM	INVERT
	1	407.30	405.00	1	4 403.80	399.85
	2	405.40	402.40	1	5 402.70	399.40
	3	415.32	412.50	1	6 402.60	400.55
	4	414.30	411.40	1	7 402.90	397.80
	5	415.30	412.40	. 1	8 401.30	398.00
ř.	6	411.80	408.00	1	9 400.60	
	7	411.20	406.90	Д	425.42	2 423.50
	8	405.70	402.50	8	420.5	3 417.80
	9	406.60	403.75	C	413.70	410.80
	10	405.10	402.80	D	408.40	406.00
	11	403.80	400.50	Ε	407.50	402.70
	12	405.70	403.55	F	406.60	403.80
	13	403.90	400.00		*	

# SUPPLEMENTAL CATCH BASIN INFORMATION

`	TOP/RIM_	INVERT
INLET 28		3 <del>96:00</del> 394.08
RESTRICTOR MH TYPE 2 - 54"	4 <del>00.50</del> ° <b>400.48</b> –	396.61, 6" 395.86, 15" <b>396.0</b>
CB-29, TYPE 1L	3 <del>99.50</del> 400.44	3 <del>95.40</del> 395.54
CB-30, TYPE 1L	400.00 400.16	3 <del>95.17</del> 395.31
OUTLET 27	-	<del>393.30</del> 394.22
INLET - 31A		412.00 411.21
CB-31	4 <del>08.00</del> 409.96	404.41 404.69
CB-32	4 <del>07.60</del> <b>408</b> .52	403.60 404.17
OUTLET 33	_	403.00 403.74

# YARD BASIN SCHEDULE (SEE AS-BUILT SCHEDULE BELOW)

<u>NO.</u>	RIM	INVERT	NO.	RIM	INVERT
1	407.00	405.75	11	405.50	403.25
2	405.90	403.65	12	404.30	402.05
3	NOT US	SED	13	416.00	413.75
4	414.70	412.45	14	403.90	401.65
5	413.70	411.45	15	404.10	401.85
6	412.50	410.25	16	402.85	400.60
7	410.35	408.10	17	402.80	400.65
8	406.10	403.85	18	401.75	399.50
9	406.00	403.75	19	NOT U	SED
10	416.50	414.25	20	NOT U	SED

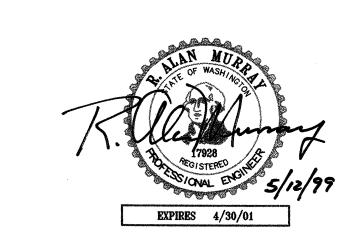
NOTE, ALL 6" DRAIN PIPING SHALL BE INSTALLED AT A MINIMUM OF 1% SLOPE OR PROVIDE 2.25' MIN DEPTH AT TERMINATION, WHERE DESIRABLE, OWNER MAY REQUIRE DEEPER INSTALLATIONS FOR WHICH YARD BASINS MUST BE REPLACED WITH 6" PVC CLEAN-OUT WITH CAST IRON COVER.

# ROOF FOOTING DRAIN CONNECTION

ROOF F	<u>OOTING DRAIN CO</u>	N
LOT NO.	DESCRIPTION	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	6" STUB TO CB-4 6" STUB TO CB-7 6" STUB TO YB-8 6" STUB TO YB-8 6" STUB TO YB-8 6" STUB TO YB-17 6" STUB TO YB-14 6" STUB TO YB-14 6" STUB TO YB-17 6" STUB TO YB-17 6" STUB TO YB-17 6" STUB TO YB-18 6" STUB TO YB-18 6" STUB TO YB-19 6" STUB TO YB-19 6" STUB TO YB-19 6" STUB TO RESTRICTOR 6" STUB TO DETENTION P	

## **CONSTRUCTION NOTES**

(2) INSTALL THRU CURB INLETS

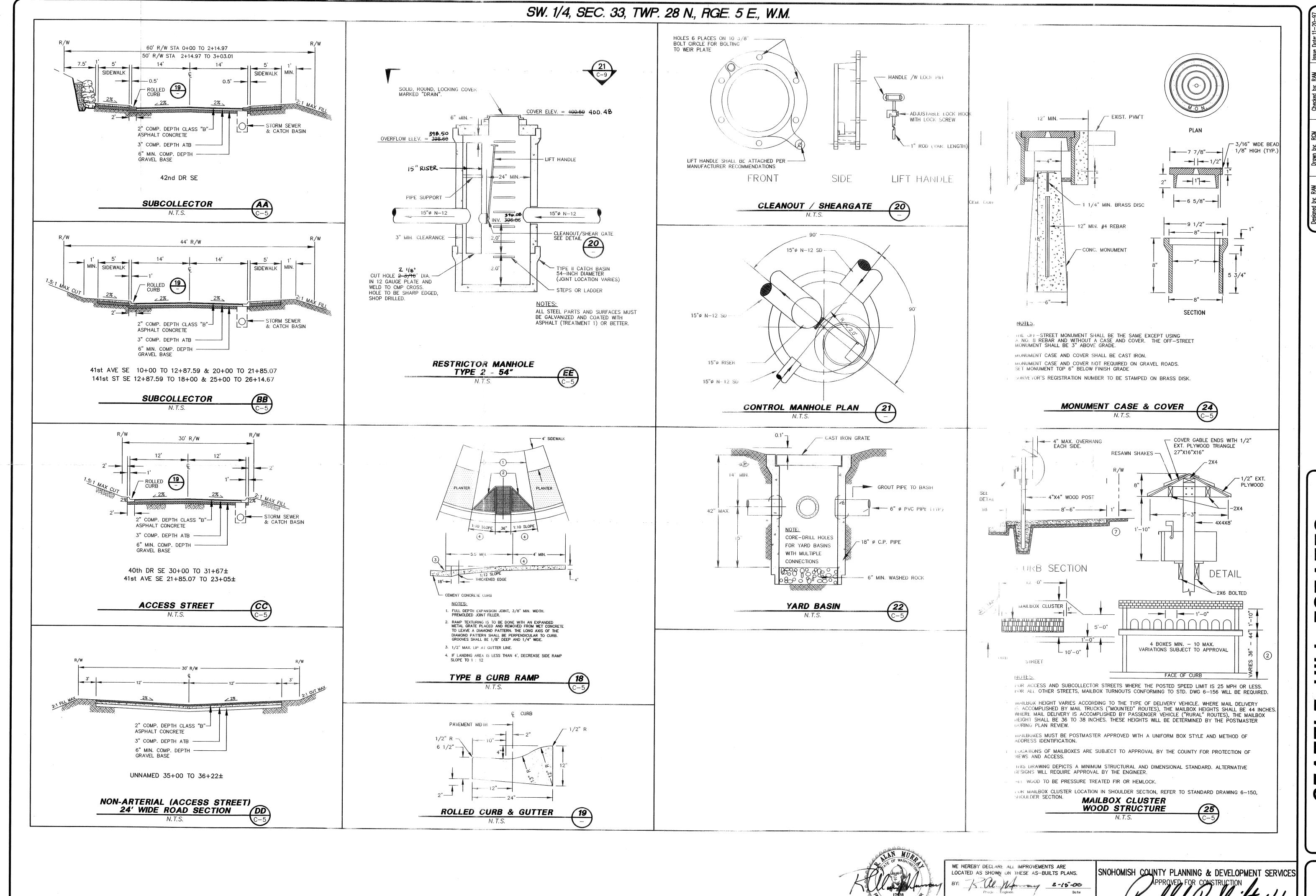


# NOTE: DESIGN SPEED = 25 MPH

WE HEREBY DECLARE ALL IMPROVE LOCATED AS SHOWN ON THESE AS BY:		SN
Project Engineer  BY:	Date	-
Paniect Salvay	Rote	-

Architecture

SON A TOBI/ neering • L Suite 107 • Ew 513-2500 • Fax MURRA
Planning • Civ



ESTATES

MURRAY - TOB

10056

Planning · Civil Engineering · 626 - 128th Street Southwest Suite 107

SEATTLE HILL ESTATES 5-3-001-0007 File No. 95 110056

Drawing

C-9

of 10 Drawings

Project Number

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2-15-60

SEATTLE HILL ESTATES"

**EXPIRES** 4/30/01

FIMED 1-4-02

AS- RUILTS

STRUCTURAL DETAIL SCALE: 1"=20

STRUCTURAL NOTES

CODE REQUIREMENTS ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE UNIFORM BUILDING CODE, 1994 EDITION.

CONTRACTOR SHALL PROVIDE BRACING OR SUPPORT REQUIRED FOR TEMPORARY CONSTRUCTION AND FOR STRUCTURAL COMPONENTS AS REQUIRED DURING ERECTION. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DESIGN AND PROVIDE ADEQUATE SHORING, BRACING. FORMWORK, ETC., AS REQUIRED FOR THE PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION.

10'-0" MAX. BACKFILL HEIGHT

(8' MAX. @ SW SIDE OF POND.)

WASHED ROCK.

MIRAFI 140N FILTER

FABRIC WRAP AROUND

4" PVC PERF DRAIN

TO APPROVED DISCHARGE

BOTTOM OF FTG 393.00

-7 - #4 HORIZ. AS SHOWN

- MIRAFI 140N FILTER

WASHED ROCK.

PERF DRAIN TO APPROVED

BOTTOM OF FTG 393.00

-MIRAFI 140N FILTER FABRIC WRAP AROUND

WASHED ROCK.

└─ 5 — #4 HORIZ. AS SHOWN

- 4" PVC 6
PERF DRAIN
TO APPROVED
DISCHARGE

BOTTOM OF FTG 393.00

DISCHARGE

8'-0" MAX. BACKFILL HEIGHT

(6' MAX. ON SW SIDE OF POND)

-5 - #4 HORIZ. AS SHOWN

6'-0" MAX. BACKFILL HEIGHT

(3' MIN.)

6' MAX DETENTION POND WALL (C)

FABRIC WRAP AROUND

NOTE: #5 BAR @ HEEL!

DESIGN LOADS 240 PSF TRAFFIC SURCHARGE 120 PCF SOIL DENSITY 62.4 PCF WATER DENSITY 30 PCF SOIL EFP .35 SOIL FRICTION

SEISMIC ZONE 3

CONCRETE

CONCRETE SHALL CONFORM TO AMERICAN CONCRETE INSTITUTE STANDARD 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS." AN AIR ENTRAINING ADMIXTURE SHALL BE ADDED TO ALL CONCRETE EXPOSED TO EARTH OR WEATHER, PROVIDE A 5% +/- 1% ENTRAINED AIR MAXIMUM. SLUMP SHALL BE 4" MAXIMUM AT TIME OF PLACING AND ALL CONCRETE SHALL BE VIBRATED IN PLACE.

f'c=2500 PSI @ 28 DAYS FOR FOOTINGS & WALLS (NO SPECIAL INSPECTION REQUIRED) (MIN 5-SACK MIX)

REINFORCING STEEL

GRADE 40 (fy=40 KSI) FOR DEFORMED BARS. MINIMUM CONCRETE COVER SHALL BE: CONCRETE CAST AGAINST EARTH

FOOTINGS TO BE PLACE ON UNDISTURBED NATIVE SOIL OR COMPACTED STRUCTURAL FILL WITH MINIMUM 2000 PSF ALLOWABLE BEARING. PROVIDE COMPACTION TEST FOR FILL AREAS.

BACKFILL SHALL BE CLEAN GRANULAR MATERIAL, FREE OF ORGANICS OR OTHER DELETERIOUS MATTER. COMPACT IN 12 INCH LIFTS TO 95% OF MAX. DENSITY PER ASTM D-1557 (MODIFIED PROCTOR).

#### **CONSTRUCTION NOTES:**

1) PROVIDE 6' HIGH FENCE WITH TOP RAIL (PER WSDOT STANDARD PLAN L-2)

FORMED SURFACE EXPOSED TO EARTH OR WEATHER

(2) PROVIDE 3' MANGATE

(3) PROVIDE 20' WIDE DOUBLE LEAF GATE

(4) PROVIDE STD MH LADDER STEPS

(5) PROVIDE QUARRY SPALL BLANKET FOR VEHICLE ACCESS OVER-EXCAVATE PRIOR

TO PLACEMENT OF ROCK (6) PROVIDE FOOTING DRAIN AT BASE OF FOOTING, DRAIN

TO DAYLIGHT. (7) ALL WEATHER GRAVEL SURFACE

(8) 15' WIDE PAVED ACCESS, 2" COMPACTED DEPTH CLASS B ASPHALT CONCRETE, ASPHALT CONCRETE, 3" COMPACTED DEPTH CRUSHED SURFACING BASE COURSE, 6" GRAVEL BASE

(9) 1' DEEP X 12' LONG NOTCH IN WALL, TOP ELEV=399.00 398.95

15' WIDE RIPRAP X 12" DEEP (TYPE 1)
FOR 20' BEYOND. OVEREXCAVATE SLOPED ACCESS PRIOR TO PLACING ROCK.

TOP OF WALL PROVIDE ADDITIONAL #4 VERT. TO MAINTAIN 16' MAX" OC. SPACING HORIZONTAL BARS TO TERMINATE EACH SIDE OF HOLE BAR C/O #4 X 6'-0" LONG DIAGONALS @ HOLE DEFLECT/EXTEND VERTICALS AS SHOWN AROUND HOLE. (TYP) MAINTAIN 1 1/2" MINIMUM CLEAR COVER -REBAR AS PER DETAIL A, THIS SHEET REINFORCEMENT DETAIL @ DISCHARGE PIPE

EXPIRES 9/30/9**7** EXPIRES 4/30/99 00 STRUCTURAL ONLY

DATUM: N.G.V.D. 1929 (MEAN SEA LEVEL) CHISELED "X" IN S.E. BOLT OF TRAFFIC SIGNAL BASE AT N.W. CORNER 132ND ST. S.E. AND SEATTLE HILL ROAD, SNOHOMISH COUNTY, B.M. 393/769, ELEV.= 437.25

NOTE: TOPOGRAPHIC SURVEY INFORMATION SUPPLIED BY: TRI-COUNTY LAND SURVEYING **BOUNDARY INFORMATION FROM SURVEY BY WILLIAM ROBERTS** & ASSOCIATES, JOB No.3476. BASIS OF BEARING NORTH LINE OF THE S.W. 1/4 OF SECTION 33-28-5 BEING N 89 34'19" W RIGHT-OF-WAY FOR SEATTLE HILL ROAD ESTABLISHED FROM PLAT OF THOMAS LAKE ESTATES VOL. 40, PG. 266.

WE HEREBY DECLARE ALL IMPROVEMENTS ARE SNOHOMISH COUNTY PLANNING & DEVELOPMENT SERVICES! LOCATED AS SHOWN ON THESE AS-BUILTS PLANS. 2-15-00

AS-BUILTS SEATTLE ESTATES 2090

HILL

HDEV 2077

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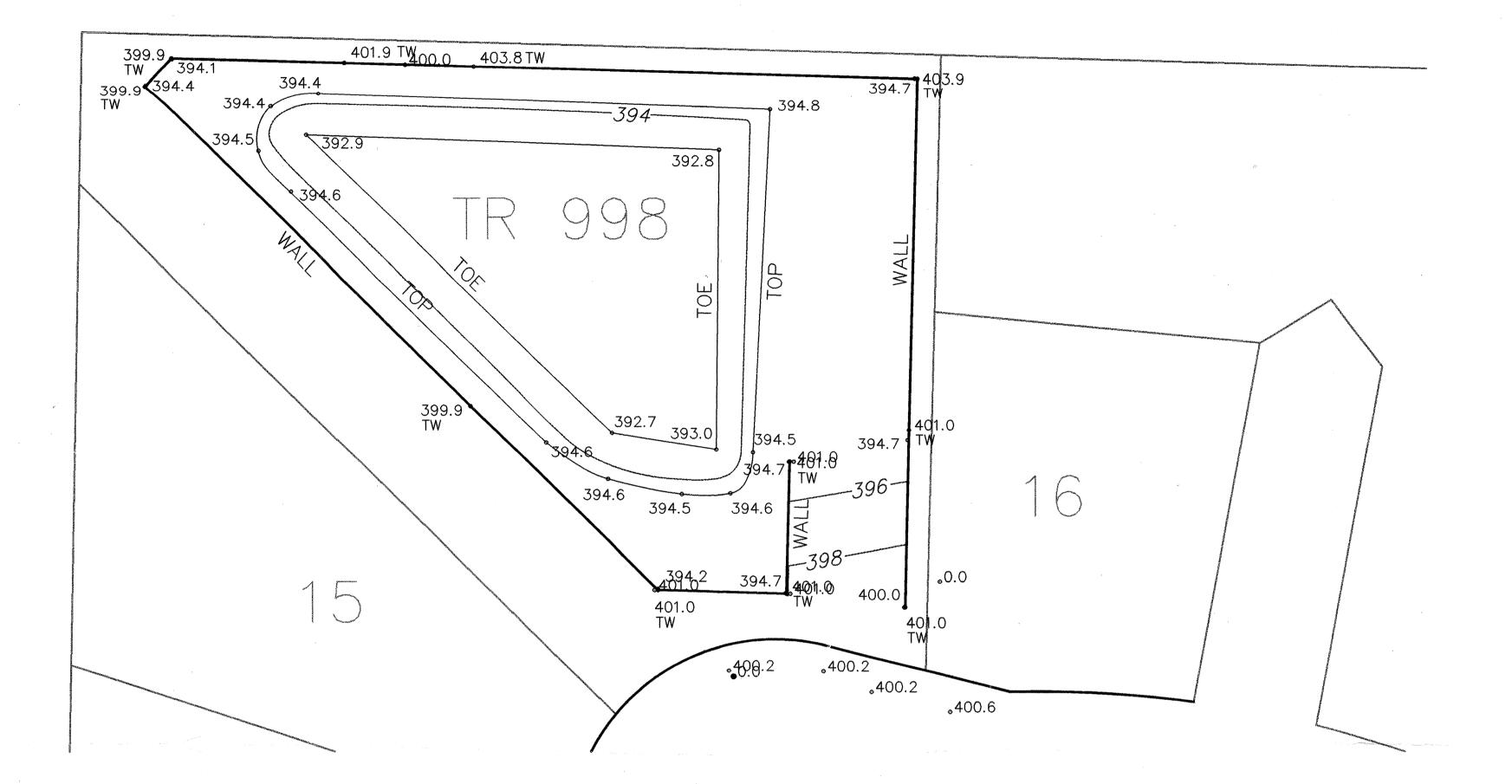
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Drawing

of 10 Drawings



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WE HEREBY DECLARE ALL IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE AS-BUILTS PLANS.  BY: 1-15-00	SNOHOMISH COUNTY PLANNING APPROVED FOR
Project Engineer Date  BY:  Bro lect Serveyor Date	B <b>y:</b>
BY: September 2-15-00	D /W D 31 A1

NING & DEVELOPMENT SERVICES
OR CONSTRUCTION

of 11 Drawings
Project Number
2090

45-RUILTS

SEATTLE LILL ESTATES