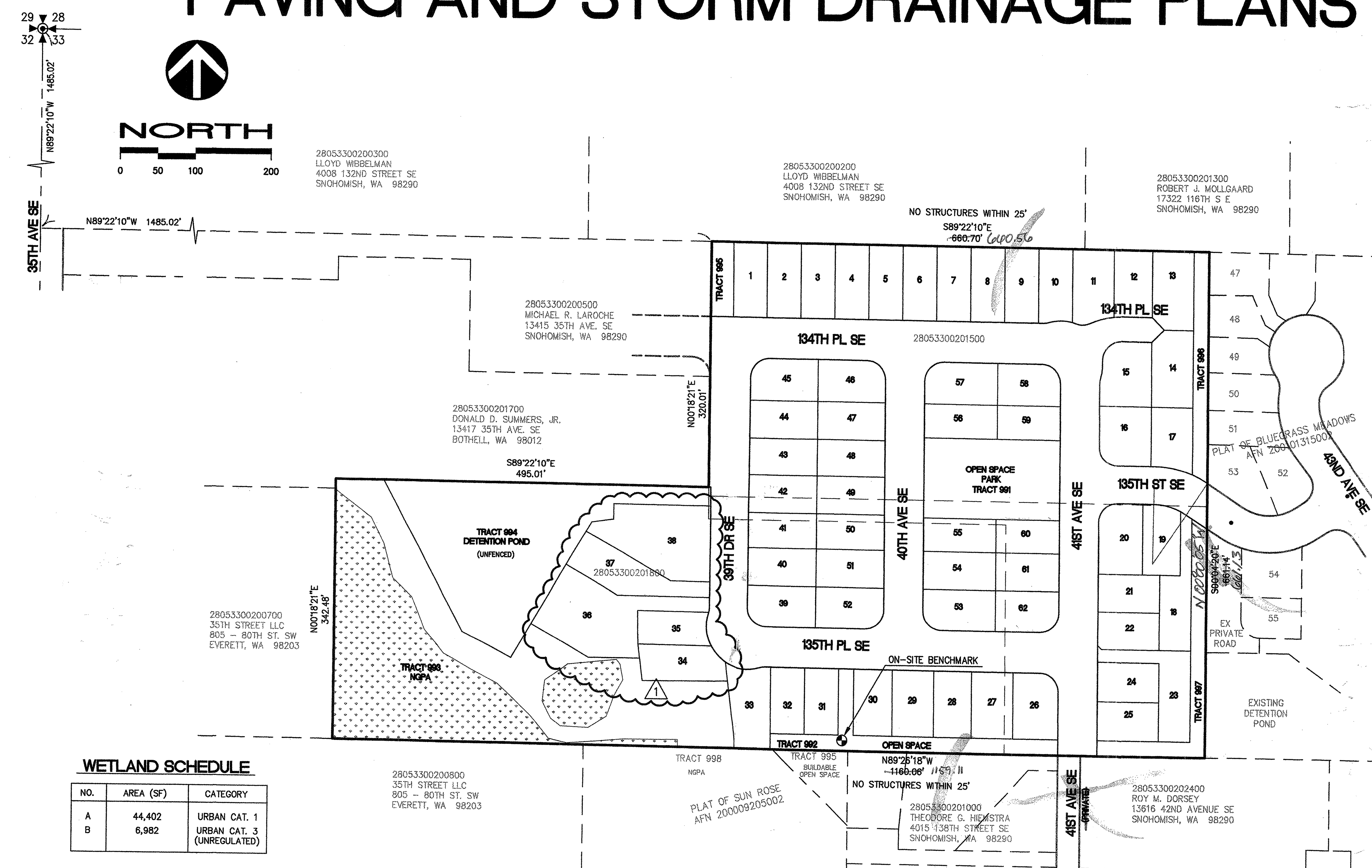
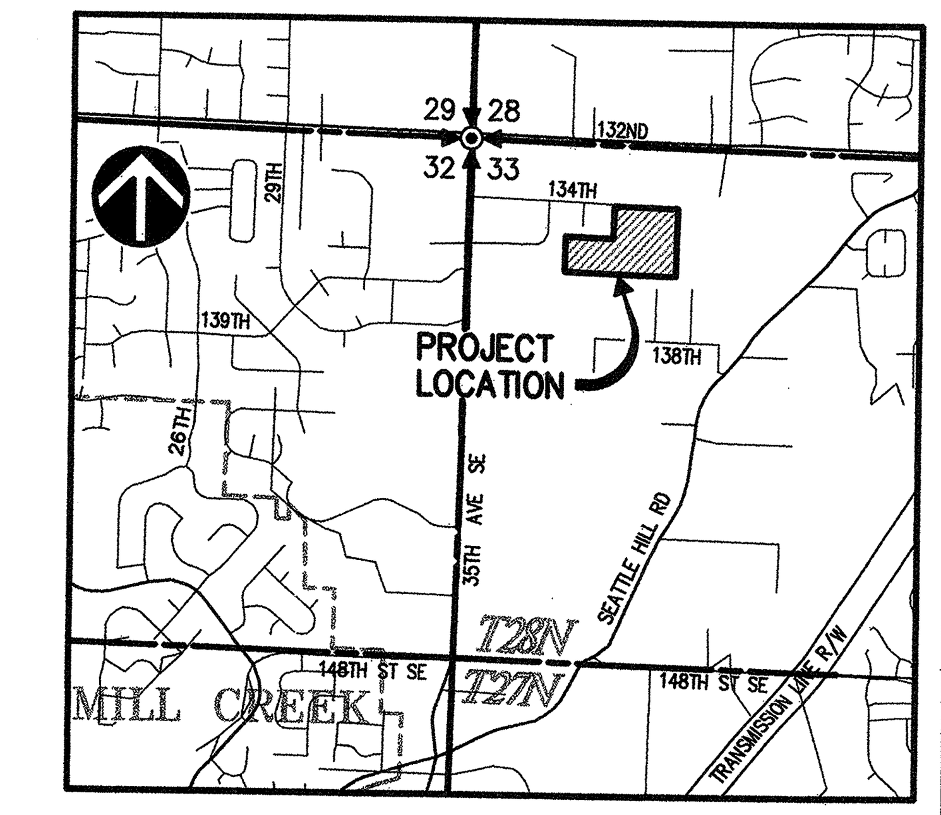
A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM

PLAT OF WESTFIELD

PAVING AND STORM DRAINAGE PLANS





VICINITY MAP
SCALE: 1" = 2000'

LEGAL DESCRIPTION

PARCEL A:

THE SOUTH 330.00 FEET OF THE WEST 267.32 FEET OF THE EAST 762.32 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;

TOGETHER WITH THE NORTH 30.00 FEET OF THE SOUTH 330.00 FEET OF SAID SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER;
EXCEPT THE EAST 762.32 FEET THEREOF; ALSO
EXCEPT THE WEST 1,485.00 FEET THEREOF, PER BOUNDARY LINE ADJUSTMENT RECORDED UNDER AUDITOR'S FILE NUMBER 9403170301, BEING A PORTION OF LOT 2 AS SHOWN ON SURVEY RECORDED IN VOLUME 9 OF SURVEYS, PAGE 63, UNDER SNOHOMISH COUNTY AUDITOR'S FILE NO. 7902070316, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, LOCATED IN THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.

PARCEL A–1:

NON–EXCLUSIVE EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER, UPON AND THROUGH THE FOLLOWING DESCRIBED TRACTS 1, 2 AND 3.

TRACT 1:

THE NORTH 60 FEET OF THE WEST 990 FEET OF THE SOUTH 330.00 FEET OF THE WEST 267.32 FEET OF THE EAST 762.32 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT COUNTY ROAD.

TRACT 2:

THE NORTH 30 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE EAST 1155 FEET AS MEASURED ALONG THE SOUTH LINE THEREOF; AND EXCEPT THE WEST 990 FEET THEREOF.

TRACT 3:

THE EAST 30 FEET OF THE WEST 1,515 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE SOUTH 330 FEET THEREOF.

SITUATED IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

PARCEL B:

THE EAST 495 FEET OF THE WEST 1,485 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;

EXCEPT THE NORTH 320 FEET THEREOF;

TOGETHER WITH THE SOUTH 330.00 FEET OF SAID SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER;
EXCEPT THE EAST 762.32 FEET THEREOF; ALSO
EXCEPT THE WEST 1,485.00 FEET THEREOF;

(ALSO KNOWN AS PARCEL 2 OF BOUNDARY LINE ADJUSTMENT RECORDED UNDER AUDITOR'S FILE NUMBER 9403170301)

PARCEL B–1:

A NON–EXCLUSIVE EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER, UPON AND THROUGH THE FOLLOWING DESCRIBED TRACTS:

THE NORTH 60 FEET OF THE WEST 990 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;

EXCEPT COUNTY ROAD;

THE NORTH 30 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE EAST 1155 FEET AS MEASURED ALONG THE SOUTH LINE THEREOF; AND EXCEPT THE WEST 990 FEET THEREOF;

THE EAST 30 FEET OF THE WEST 1515 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE SOUTH 330 FEET THEREOF;

THE NORTH 40 FEET OF THE WEST 20 FEET OF THE FOLLOWING DESCRIBED TRACT:

THE SOUTH 330 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE EAST 495 FEET THEREOF; ALSO
EXCEPT THE WEST 1485 FEET THEREOF;

SITUATED IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

PARCEL C:

THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE SOUTH 330 FEET THEREOF; AND
EXCEPT THE EAST 495 FEET THEREOF; AND
EXCEPT THE WEST 1,485 FEET THEREOF.

PARCEL C–1:

A NON–EXCLUSIVE EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER, UPON AND THROUGH THE FOLLOWING DESCRIBED TRACTS 1 AND 2:

TRACT 1:
THE NORTH 60 FEET OF THE WEST 990 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT COUNTY ROAD.

TRACT 2:
THE NORTH 30 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE EAST 1,155 FEET, AS MEASURED ALONG THE SOUTH LINE THEREOF; AND EXCEPT THE WEST 990 FEET THEREOF.

SITUATED IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

TRACT DESIGNATIONS

TRACT 991	OPEN SPACE & RECREATIONAL AREA	19,340 SF
TRACT 992	OPEN SPACE & TRAIL	9,327 SF
TRACT 993	WETLAND & BUFFER AREA, OPEN SPACE	87,324 SF
*TRACT 994	STORM WATER FACILITIES & OPEN SPACE	44,153 SF
TRACT 995	OPEN SPACE	2,850 SF
TRACT 996	OPEN SPACE	5,902 SF
TRACT 997	OPEN SPACE	8,623 SF

*TRACT 994 SHALL HAVE AN UNFENCED DETENTION POND DESIGNED TO BE DRY AN AVERAGE OF 6 MONTHS PER YEAR.

TRACT OWNERSHIP AND MAINTENANCE:

OWNERSHIP OF ALL OPEN SPACE TRACTS SHALL BE GRANTED AND CONVEYED, TOGETHER WITH ALL MAINTENANCE OBLIGATIONS, TO LOTS 1 THROUGH 62 WITH AN EQUAL AND UNDIVIDED INTEREST UPON RECORDING OF THE PLAT.

WETLAND SCHEDULE

NO.	AREA (SF)	CATEGORY
A	44,402	URBAN CAT. 1
B	6,982	URBAN CAT. 3 (UNREGULATED)

HEARING EXAMINERS CONDITIONS

1. THE PLATTOR SHALL MARK WITH TEMPORARY MARKERS IN THE FIELD THE BOUNDARY OF ALL NATIVE GROWTH PROTECTION AREAS (NGPA) REQUIRED BY CHAPTER 30.62 SCC, OR THE LIMITS OF THE PROPOSED SITE DISTURBANCE OUTSIDE OF THE NGPA, USING METHODS AND MATERIALS ACCEPTABLE TO THE COUNTY.

2. A FINAL MITIGATION PLAN BASED ON THE CONCEPTUAL WETLAND MITIGATION PLAN AS FOUND IN APPENDIX C OF THE CRITICAL AREA STUDY – WESTFIELD PRD, PREPARED BY DAVID EVANS AND ASSOCIATES, INC., DATED OCTOBER 22, 2003 (EXHIBIT 5) SHALL BE SUBMITTED FOR REVIEW AND APPROVAL DURING THE CONSTRUCTION REVIEW PHASE OF THIS PROJECT.

3. A DETAILED LANDSCAPE AND RECREATIONAL FACILITIES PLAN SHALL HAVE BEEN SUBMITTED TO AND APPROVED BY PDS. THE PLAN SHALL BE PREPARED IN GENERAL CONFORMANCE WITH EXHIBIT(S) 12H THROUGH 12J AND IN CONFORMANCE WITH ALL REQUIRED LANDSCAPE STANDARDS FOR PERIMETER, STREETSCAPE AND OPEN SPACE TREATMENT, AND SHALL INCLUDE A SIGNIFICANT TREE RETENTION PLAN.

4. PRD COVENANTS, DEEDS AND HOMEOWNERS' ASSOCIATION BYLAWS AND OTHER DOCUMENTS SHALL HAVE BEEN SUBMITTED TO AND APPROVED BY PDS GUARANTEEING MAINTENANCE OF OPEN SPACE, COMMUNITY FACILITIES, PRIVATE ROADS AND DRIVES, AND ALL OTHER COMMONLY–OWNED AND OPERATED PROPERTY. THE DOCUMENTS SHALL HAVE BEEN REVIEWED BY AND ACCOMPANIED BY A CERTIFICATE FROM AN ATTORNEY THAT THEY COMPLY WITH CHAPTER 30.42B SCC REQUIREMENTS PRIOR TO APPROVAL BY PDS. TO ENSURE PERMANENT, ONGOING MAINTENANCE OF LANDSCAPE AREAS, LANDSCAPE MAINTENANCE COVENANTS SHALL BE PREPARED BY THE APPLICANT AND SUBMITTED TOGETHER WITH DOCUMENTS OTHERWISE REQUIRED FOR MAINTENANCE OF SITE IMPROVEMENTS PURSUANT TO SCC 30.42B.250.

5. ALL CRITICAL AREAS SHALL BE DESIGNATED NATIVE GROWTH PROTECTION AREAS (NGPA) (UNLESS OTHER AGREEMENTS HAVE BEEN MADE) WITH THE FOLLOWING LANGUAGE ON THE FACE OF THE PLAT;
"ALL NATIVE GROWTH PROTECTION AREAS SHALL BE LEFT PERMANENTLY UNDISTURBED IN A SUBSTANTIALLY NATURAL STATE. NO CLEARING, GRADING, FILLING, BUILDING CONSTRUCTION OR PLACEMENT, OR ORAD CONSTRUCTION OF ANY KIND SHALL OCCUR, EXCEPT REMOVAL OF HAZARDOUS TREES. THE ACTIVITIES AS SET FORTH IN SCC 32.10.110(29)(a), (c) AND (d) ARE ALLOWED WHEN APPROVED BY THE COUNTY."

6. A PUBLIC ROAD SHALL BE PROVIDED FROM THE SOUTHERN PROPERTY BOUNDARY, IN THE VICINITY OF LOTS 25 AND 26 TO 138TH ST. SE TO THE SPECIFICATIONS OF THE DPW.

7. WORKING IN CNJUNCTION WITH THE DPW AND THE SCHOOL DISTRICT A PEDESTRIAN WAITING AREA SHALL BE PROVIDED ON 40TH DR. SE TO THE SATISFACTION OF THE DPW AND THE SCHOOL DISTRICT.

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

NGPA SIGNS SHALL HAVE BEEN PLACED NO GREATER THAN 100 FEET APART AROUND THE PERIMETER OF THE NGPA. 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 NGPA, UNLESS OTHERWISE APPROVED BY THE COUNTY BIOLOGIST. THE DESIGN AND PROPOSED LOCATIONS FOR THE NGPA SIGNS SHALL BE SUBMITTED TO THE LAND USE DIVISION FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

9. THE FINAL MITIGATION PLAN SHALL BE COMPLETELY IMPLEMENTED PRIOR TO THE RECORDATION OF THE PLAT.

FIRE HYDRANT COLOR CODE TABLE

LIGHT BLUE	1500 GPM OR GREATER
GREEN	1000 TO 1499 GPM
ORANGE	500 TO 999 GPM
RED	LESS THAN 500 GPM
BLACK	FOR DRAFTING USE ONLY (HARD SUCTION/STREAMER PORT)
WHITE	CROSS ON TOP OF HYDRANT – FOR FILLING TANKERS ONLY.

NOTE: INSTALL BLUE STREET RELECTOR APPORXIMATELY 1 FOOT OFFSET FROM ROAD CENTERLINE TO INDICATE LOCATION OF HYDRANT

DATUM: NAVD 88

SNOHOMISH COUNTY CONTROL BENCHMARK:
SNOHOMISH COUNTY SURVEY CONTROL POINT # 1643.
A WSDOT BRASS DISK CEMENTED INTO A DRILL HOLE IN THE NORTH SIDEWALK AND LEVEL WITH ITS SURFACE LOCATED NORTH OF AND ACROSS THE STREET FROM 4510 (132ND ST) SR 96.
ELEVATION = 458.434 FEET

ON–SITE BENCHMARK:
CENTERLINE OF CHANNEL OF EXISTING SSMH
ELEVATION = 400.79 FEET
N 12669.46
E 19660.40

SERVICES:

WATER:	SILVER LAKE WATER DISTRICT
SANITARY SEWER:	SILVER LAKE WATER DISTRICT
PUBLIC SCHOOLS:	EVERETT SCHOOL DISTRICT NO. 2
FIRE PROTECTION:	SNOHOMISH COUNTY FIRE DISTRICT NO. 1
POLICE PROTECTION:	SNOHOMISH COUNTY SHERIFF'S DEPARTMENT
ELECTRICITY:	SNOHOMISH COUNTY P.U.D.
TELEPHONE:	VERIZON
NATURAL GAS:	PUGET SOUND ENERGY SERVICES

OFF–STREET PARKING:*

REQUIRED PARKING:	
Residence – 2 per unit	= 124
Guest – 0.5 per unit	= 31
TOTAL	= 155
PROVIDED PARKING:	
Residence – 2 per unit in garage	= 124
Guest – 2 per unit in driveway	= 124
TOTAL	= 248

*Stall dimensions shall be 8.5'x 19' for standard or 8' x 16' for compact

AS-BUILT
2/22/05

CALL FOR UTILITY LOCATES BEFORE YOU DIG
1-800-424-5555

DEVELOPMENT DATA:

APPLICANT:	D. R. HORTON 12931 NE 126TH PLACE KIRKLAND, WASHINGTON 98034 (425) 821–3400 ATTENTION: JENNIFER STEIG, P.E.
ENGINEER/PLANNER SURVEYOR:	DAVID EVANS and ASSOCIATES, INC. 1620 W. MARINE VIEW DR. SUITE 200 EVERETT, WASHINGTON 98201 (425) 259–4099 ATTENTION: JACK N. MOLVER, P.E.
PARTIES OF INTEREST:	LELAND & KRISTI WYLIE 13409 35TH AVE SE SNOHOMISH, WASHINGTON 98296 (425) 337–3971 TAX ACCT NO. 280533002
	MARVIN HOWE 13401 35TH AVE SE SNOHOMISH, WASHINGTON 98296 TAX ACCT NO. 28053300201500
	RICK & CELIA WAHL 2523 130TH ST SE EVERETT, WASHINGTON 98208 TAX ACCT NO. 280533002

SHEET INDEX

RECEIVED
FEB 22 2005
PLANNING & DEVELOPMENT SERVICES - BUILDING DIV

1st A-B REVIEW
1. Bill D. BD 2/24/05
2. Dwayne 3/14/05
3. Jeff C. 3/15/05 JC.
4.
RETURN TO Dwayne

AS-BUILT NOTE

WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.

BY: Jack N. Molver PE 2/22/05
PROJECT MANAGER / SURVEYOR DATE

BY: Camille L. Chriest 2/22/05
PLAT DEVELOPER / OWNER DATE

SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES
APPROVED FOR CONSTRUCTION
BY AS SIGNED BY RANDOLPH R. SLEIGHT PE ON 6/24/04
DATE

R/W PERMIT NUMBER 04114677

PFN 03-102383

CLK 02/22/05 8:33am – P:\D\Drhh00000010\0400CAD\EC\SHEETS\AS–BUILT\Staf0009eclM01.dwg

COVER SHEET
WESTFIELD
D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REVISIONS:	APPD.
1 9/9/04 REV LOT CONFIG	
2 2/22/05 CLK AS–BUILT	

DATE: FEB, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: 1"=100'

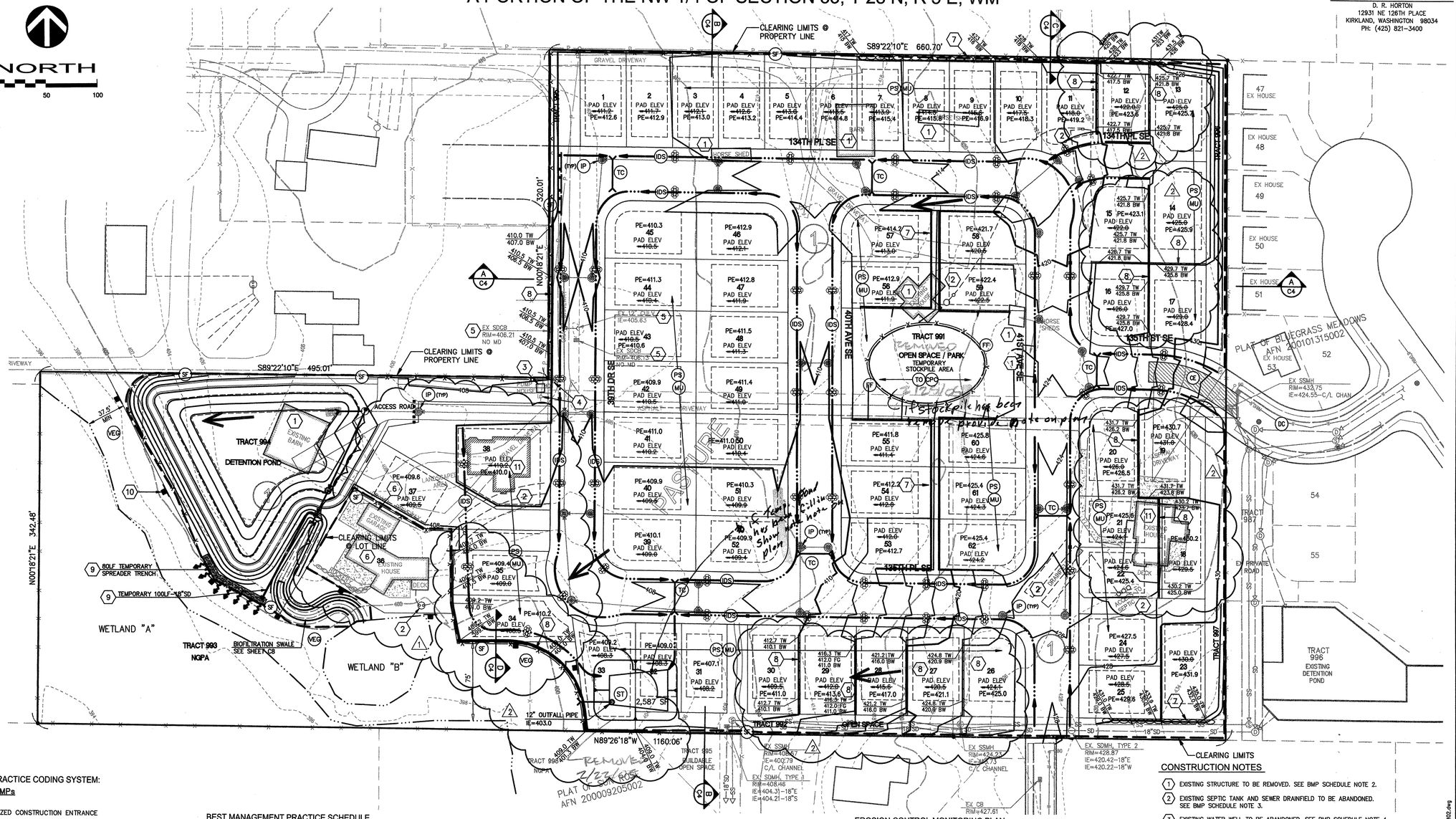
PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: Staf0009eclM01.dwg

SHEET NO. C1 OF 10

HDEV-2304

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM



STANDARD PRACTICE CODING SYSTEM:

CODE	BMPs
CE	STABILIZED CONSTRUCTION ENTRANCE
CPC	CLEAR PLASTIC COVERING
DC	DUST CONTROL
IDS	INTERCEPTOR SWALE WITH CHECK DAMS
IP	STORM DRAIN INLET PROTECTION
MU	MULCHING AND/OR MATTING
PS	PERMANENT SEEDING & PLANTING
ST	SEDIMENT TRAP
SF	FILTER FABRIC SILT FENCE
TC	TEMPORARY 12" CULVERT
VEG	PRESERVING NATURAL VEGETATION

BEST MANAGEMENT PRACTICE SCHEDULE

1. SCHEDULE AND ATTEND PRECONSTRUCTION CONFERENCE.
2. SUBMIT FOR DEMOLITION PERMIT APPLICATION(S) AND BEGIN DEMOLISH EXISTING STRUCTURES.
3. EXISTING SEPTIC TANK(S) AND SEWER DRAINFIELD SYSTEM(S) SHALL BE ABANDONED IN ACCORDANCE WITH WASHINGTON STATE WAC 246-272.
4. EXISTING WATER WELL(S) AND SYSTEM(S) SHALL BE ABANDONED IN ACCORDANCE WITH WASHINGTON STATE WAC 173-161-415.
5. INSTALL FILTER FABRIC SILT FENCE WHERE SHOWN PER DETAIL 2, SHEET C3.
6. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE AND TIRE WASH WHERE SHOWN PER DETAIL 1, SHEET C3.
7. CLEAR FOR AND CONSTRUCT SEDIMENT TRAP WHERE SHOWN PER DETAIL 6, SHEET C3.
8. CLEAR FOR AND CONSTRUCT DETENTION POND, BIOFILTRATION SWALE, POND OUTLET CONTROL STRUCTURES AND PIPES. POND MUST BE APPROVED AND OPERATIONAL PRIOR TO FURTHER SITE CONSTRUCTION.
9. CONSTRUCT TEMPORARY SPREADER TRENCH WHERE SHOWN PER DETAIL 1, SHEET C4. CONNECT POND OUTFALL TO SPREADER TRENCH WITH TEMPORARY 18"SD PIPE UNTIL VEGETATION IS ESTABLISHED IN BIOFILTRATION SWALE AND DRAINAGE CAN BE ROUTED THERETO.
10. CLEAR WITHIN ROADWAY LIMITS.
11. ROUGH GRADE ROAD AREA. STOCKPILE STRIPPINGS IN DESIGNATED AREA SHOWN. STRIPPINGS TO BE REMOVED PRIOR TO FINAL PLAT RECORDING.
12. INSTALL INTERCEPTOR DITCHES WITH CHECK DAMS AT 50' O.C. PER DETAILS 3 AND 4, SHEET C3 AND ROUTE TO SEDIMENT PONDS OR TRAPS AS SHOWN.
13. INSTALL SANITARY SEWER, STORM DRAINAGE AND WATER SYSTEMS. INSTALL STORM DRAIN INLET PROTECTION PER DETAIL 5, SHEET C3, ON EACH CATCH BASIN AS ITS CONSTRUCTED TO CONTROL SEDIMENT FROM ENTERING SYSTEM.
14. FINE GRADE ROADS AND INSTALL CURB/GUTTER AND PAVEMENT. SWEEP ROADWAYS EACH WORK DAY THAT SEDIMENT IS TRACKED ONTO PAVEMENT.
15. CLEAR LOT AREA FOR GRADING AND PLACE STRIPPINGS UNIFORMLY OVER LOTS DURING DRY WEATHER CONDITIONS. MULCH AND HYDROSEED EXPOSED SOILS IMMEDIATELY AFTER GRADING.
16. INSTALL POWER, TELEPHONE, CABLE TELEVISION AND GAS LINES.
17. CONSTRUCT SIDEWALKS.
18. REMOVE TEMPORARY EROSION CONTROL FACILITIES ONLY AFTER ENTIRE SITE IS STABILIZED AND THE POTENTIAL FOR EROSION HAS PASSED.
19. CLEAN AND FLUSH PERMANENT STORM DRAIN SYSTEM OF ALL SILT.

EARTHWORK QUANTITIES

EXCAVATION = 25,000 CY
EMBANKMENT = 25,000 CY

ALL GRADING IS ±2' TO BALANCE.

ENGINEER'S CERTIFICATION: GRADING QUANTITIES SHOWN ARE NEAT VOLUMES DERIVED FROM INDUSTRY STANDARD METHODS.

A-B
LB
AE

CALL FOR UTILITY LOCATES BEFORE YOU DIG 1-800-424-5555

THE CONTRACTOR SHALL VERIFY THE LOCATION OF UTILITIES PRIOR TO ANY CONSTRUCTION. AGENCIES INVOLVED SHALL BE NOTIFIED WITH A REASONABLE TIME PRIOR TO THE START OF CONSTRUCTION.

EROSION CONTROL MONITORING PLAN

1. OBSERVE EROSION CONTROL MEASURES AT THE BEGINNING AND END OF EACH DAY. REPAIR AND OR REPLACE AS NECESSARY TO ASSURE PROPER FUNCTION.
2. OBSERVE COLLECTION FACILITIES HOURLY DURING PERIODS OF HEAVY RAINFALL AND WET WEATHER CONDITIONS.
3. OBSERVE AND REPORT ON STABILIZATION TECHNIQUES 1 MONTH, 2 MONTHS, 6 MONTHS AND ONE YEAR AFTER COMPLETION OF CONSTRUCTION. MAKE REPAIRS AND/OR ALTERATIONS AS NECESSARY TO PREVENT EROSION.

AS-BUILT
2/22/05

AS-BUILT NOTE

WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.

BY: Ewell M Mahon PE 2/22/05
PROJECT MANAGER / SURVEYOR DATE

BY: Candace J Chivers 2/22/05
PLAT DEVELOPER / OWNER DATE

CLEARING LIMITS

CONSTRUCTION NOTES

1. EXISTING STRUCTURE TO BE REMOVED. SEE BMP SCHEDULE NOTE 2.
2. EXISTING SEPTIC TANK AND SEWER DRAINFIELD TO BE ABANDONED. SEE BMP SCHEDULE NOTE 3.
3. EXISTING WATER WELL TO BE ABANDONED. SEE BMP SCHEDULE NOTE 4.
4. COORDINATE RELOCATION OF EXISTING UTILITY POLE AND JUNCTION BOX WITH SNOHOMISH COUNTY P.U.D.
5. REMOVE EXISTING CATCH BASIN AND STORM DRAIN CULVERT.
6. EXISTING STRUCTURE TO REMAIN.
7. CONSTRUCT ROCKERY OR EQUAL WHERE SHOWN PER GEOTECHNICAL REPORT AND DETAIL 4, SHEET C4.
8. CONSTRUCT LOCK+LOAD RETAINING WALL WHERE SHOWN PER MANUFACTURES SPECIFICATIONS.
9. CONSTRUCT TEMPORARY BYPASS LINE AND SPREADER TRENCH PER DEATILS 1 & 2, SHEET C4. SEE BMP SCHEDULE NOTE 9.
10. INSTALL NGPA BOUNDARY SIGN @ 100' O.C. PER DETAIL 7, SHEET C3.
11. EXISTING HOUSE TO BE RELOCATED TO LOT 36.

SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES
APPROVED FOR GRADING

BY SIGNED BY RANDOLPH REUEIGHT PE PE DATE 6/24/06

R/W PERMIT NUMBER 04-114677

PFN 03-102383

APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

CLEARING, GRADING AND T.E.S.C. PLAN
WESTFIELD
D.R. HORTON
SNOHOMISH COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — 20777 — RANDOLPH P. REUEIGHT — EXPIRES JULY 29, 2006

REVISIONS:	APPD.
1 9/9/04 REV LOT CONFIG	
2 9/21/04 REV SIDE YARD WALLS	
3 2/22/05 CLK AS-BUILT	

DATE: FEB, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: 1"=50'

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: Staf0009eclM02.dwg

SHEET NO. C2 OF 10

HDEV-2305

CLK 02/22/05 8:29am - P:\DJ\mh0000001\0400CAD\EC\SHEETS\AS-BUILT\Staf0009eclM02.dwg

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM

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

1. Non-compliance with the erosion control requirements, water quality requirements and clearing limits violations may result in revocation of project permits, plan approval and bond foreclosures.
2. Prior to any site construction to include clearing/logging or grading the site/lot clearing limits shall be located and field identified by the project surveyor/engineer as required by these plans. The project surveyor/engineer's name and telephone number is David Evans and Associates, Inc. (425)259-4099.
3. The developer/project engineer is responsible for water quality as determined by the monitoring program, established by the project engineer. The project engineer's name and phone number is David Evans and Associates, Inc. (425)259-4099.
4. Prior to any site work, the contractor shall contact the chief inspector for land development division at (425) 388-3385 to schedule a preconstruction conference. Due to field changes (revisions), engineered as-builts shall be required prior to site approval.
5. 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.
6. All site work must comply to chapter 33 of the Uniform Building Code (latest edition) and Chapter 30.63b scc.
7. All earth work shall be performed in accordance with county standards. Preconstruction soils investigation may be required to evaluate soils stability. All reports and compaction tests shall be provided with As-built plans.
8. If cut and fill slopes exceed a maximum of two feet horizontal to one foot vertical, 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 (see Soils Report for recommendations). All reports and compaction tests shall be provided with As-built plans.
9. Stockpiles are to be located in safe areas and adequately protected by temporary seeding and mulching. HYDROSEED preferred.
10. The drainage system shall be installed in accordance with the approved plan (see attached). Approval by the county building inspector for installing drainage system prior to framing inspection on house.
11. Drainage plans shall be on-site for drainage inspection.
12. The geotechnical engineers shall be on-site for all grading activities to test for compaction in conformance with Chapter 33 of the UBC, WSDOT, and geotechnical recommendations. The geotech shall certify compaction and type of material used. All reports and compaction tests shall be provided with As-built plans.
13. The Geotechnical Engineers shall examine all stripped subgrade areas and the proof rolling operations prior to the start of fill placement or earthwork. All reports and compaction tests shall be provided with As-built plans.
14. The Geotechnical Engineers shall perform field density testing of structural fills as needed during placement and observe the grading and earthwork operation. All reports and compaction tests shall be provided with As-built plans.
15. All paved surfaces within the project work area shall be cleaned daily utilizing mechanical street sweepers. Flushing of paved surfaces with water trucks is not allowed.
16. Utility line extension trenches shall be backfilled daily and any exposed soils covered with clear plastic coverings.

FILTER FENCE

1. The filter fabric shall be purchased in a continuous roll cut to the length of the barrier to avoid use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum 6 inch overlap, and both ends securely fastened to the post.
2. Posts shall be spaced a maximum of 6 feet apart and driven securely into the ground a minimum of 30 inches (where physically possible).
3. A trench shall be excavated approximately 8 inches wide and 12 inches deep along the line of posts and upslope from the barrier. The trench shall be constructed to follow the contour.
4. When silt film filter fabric is used, a wire mesh support fence shall be fastened securely to the upslope side of the posts using heavy-duty wire staples at least 1 inch long, tie wires or hog rings. The wire shall extend into the trench a minimum of 4 inches and shall not extend more than 36 inches above the original ground surface.
5. Silt film filter fabric shall be wired to the fence, and 20 inches of the fabric shall extend into the trench. The fabric shall not extend more than 36 inches above the original ground surface. Filter fabric shall not be stapled to existing trees. Other types of fabric may be stapled to the fence.
6. When extra-strength or monofilament fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the posts with all other provisions of Filter Fence Note 5 applying. Extra care should be used when joining or overlapping these stiffer fabrics.
7. Local governments may specify the use of properly compacted native material. In many instances, this may be the preferred alternative because the soil forms a more continuous contact with the trench below, and use of native materials cuts down on the number of trips that must be made on and off-site. If gravel is used instead, the trench shall be backfilled with 3/4-inch minimum diameter washed gravel. Care must be taken when using gravel to ensure good contact between the fabric and the trench bottom to prevent undercutting.
8. Filter fabric fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently stabilized. Retained sediment must be removed and properly disposed of, or mulched and seeded.

Filter Fence Maintenance:

9. Inspect immediately after each rainfall, and at least daily during prolonged rainfall. Repair as necessary.
10. Sediment must be removed when it reaches approximately one third the height of the fence, especially if heavy rains are expected.
11. Any sediment deposits remaining in place after the filter fence is no longer required shall be dressed to conform with the existing grade, prepared and seeded.
12. All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization is achieved or after the temporary "Best Management Practices" are no longer needed. Trapped sediment shall be removed or stabilized on site. Disturbed soil areas resulting from removal shall be permanently stabilized.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

1. AGGREGATE: Ballast (WASH DOT std. spec. 9-03.9(1)).
2. ENTRANCE DIMENSIONS: The aggregate layer must be at least six (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 100 feet.
3. 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.
4. 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 local government specifications. If wash racks are used, they should be installed according to manufacturer's specifications.
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" stone, as conditions demand. Mud dropped, washed, or tracked from vehicles onto roadway or into storm drains must be removed immediately.

HYDROSEEDING

1. CONSTRUCTION ACCEPTANCE: Will be subject to a well-established groundcover that fulfills the requirement of the approved construction plans and Title 24, Snohomish County Drainage Ordinance.
2. All disturbed areas such as retention 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 otherwise approved by Snohomish County.
3. PREPARATION OF SURFACE: All areas to be seeded shall be cultivated to the satisfaction of the county inspector. This may be accomplished by dicing, raking, harrowing or other acceptable means.
4. 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.
5. FERTILIZER: Shall be applied at 400# per acre of 10-20-20 (10 pounds per 1100 square feet) or equivalent.

SEDIMENT POND/TRAP MAINTENANCE

1. The siltation basin should be checked after each runoff-producing rainfall for sediment cleanout. When the sediment reaches the clean level, it shall be removed and properly disposed.
2. When the potential for erosion is no longer likely, sediment traps located on lots shall be removed by stripping surface, removing silts, backfilling and compacting depression with structural fill.

TEMPORARY COVER PRACTICES:

Disturbed areas which are to remain without permanent cover for more than 7 days from May 1 to September 30, or for longer than 2 days from October 1 to April 30, shall be stabilized by providing temporary seeding, mulching, matting, or clear plastic covering as a guard against erosion.

TEMPORARY SEEDING OF STRIPPED AREAS:

1. Planting done in the months of July and August may require irrigation. No winter grading unless approved by the director.
2. Seed bed should be firm with fairly fine surface. Perform all cultural operations across or at right angles to the slope.
3. Fertilize as per suppliers recommendations. Only Non-Phosphorus fertilizer shall be applied.
4. The following seed mixture applied at a rate of 120 lbs/acre or other mixtures and application rates approved in advance by Snohomish County shall be used:

Name	Porportion By Weight	Percent Purity	Percent Germination
Redtop (Agrositis Alba)	10%	92%	90%
Annual Rye (Lolium Multiflorum)	40%	98%	90%
Chewing Fesque (Festuca Rubra Commutata) (Jamestown, Banner, Shadow, or Koket)	40%	97%	80%
White Dutch Clover	10%	96%	90%

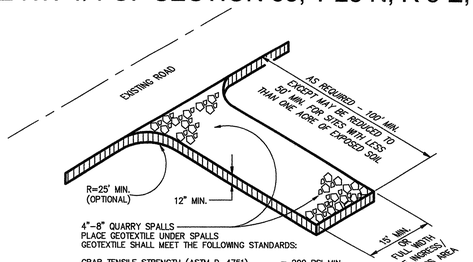
5. Hydroseeding with approved seed-mulch-fertilizer mixtures may also be used.
6. Seeding shall be supplied with additional moisture as needed, at rates which are controlled to prevent runoff.
7. Areas which fail to establish vegetative cover adequate to prevent erosion shall be re-seeded as soon as such areas are identified.

MULCHING AND MATTING:

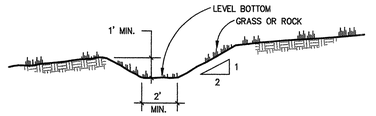
1. Mulch materials, application rates, and specifications, shall conform to the DOE Stormwater Management Manual for the Puget Sound Basin, and shall be approved by Snohomish County in advance of use.
2. Erosion blankets and matting shall conform to and be installed per the DOE Stormwater Management Manual for the Puget Sound Basin, and shall be approved by Snohomish County in advance of use.

CLEAR PLASTIC COVERINGS:

1. Clear Plastic coverings shall have a minimum thickness of 6 mil and meet the requirements of WSDOT/APWA Section 9-14.5.
2. Covering shall be installed and maintained tightly in place by using sandbags or tires on ropes with a maximum 10 foot grid spacing in all directions. All seams shall be taped or weighted down full length and there shall be at least a 1 to 2 foot overlap of all seams. Seams should then be rolled and staked or tied.
3. Covering shall be installed immediately on areas seeded between November 1 to March 30 and remain until vegetation is firmly established.
4. When the covering is used on unseeded slopes, it shall be left in place until the next seeding period.
5. Sheeting should be toed in at the top of the slope to prevent surface flow benedth the plastc.
6. Sheeting should be removed as soon as is possible once vegetation is well established to prevent burning the vegetation.
7. Check Sheeting regularly for rips and places where the plastic may be dislodged. Contact between the plastic and the ground should always be maintained. Any air bubbles found should be removed immediately or the plastic may rip during the next windy period. Re-anchor or replace the plastic as necessary.



1 STABILIZED CONSTRUCTION ENTRANCE — NO SCALE

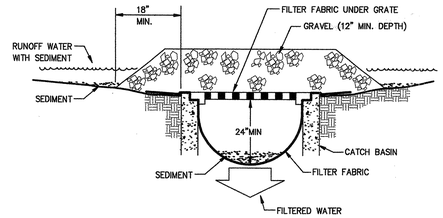


NOTE: STRAW BALE CHECK DAMS TO BE PLACED AT 50' O.C. ALONG LENGTH OF INTERCEPTOR DITCH. SEE DETAIL 3 THIS SHEET.

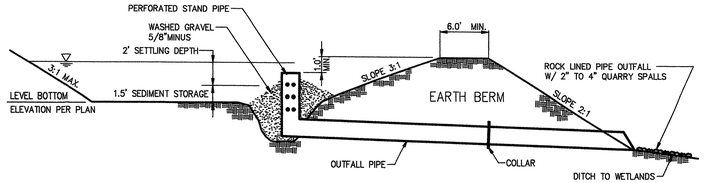
3 INTERCEPTOR SWALE — NO SCALE

SPACING BETWEEN CHECK DAMS — ROCK CHECK DAM SECTIONS

4 ROCK CHECK DAM — NO SCALE

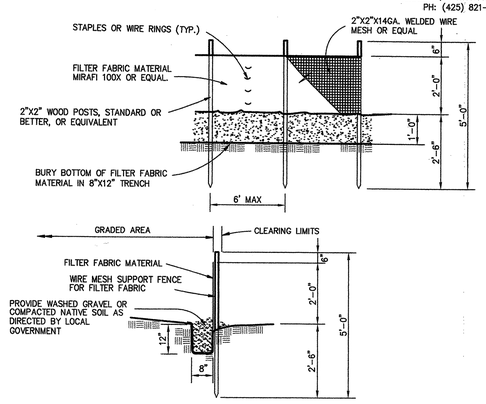


5 STORM DRAIN INLET PROTECTION — NO SCALE



NOTE: SEE DRAINAGE REPORT FOR SEDIMENT POND CALCULATIONS

6 SEDIMENT POND AND OUTFALL — NO SCALE



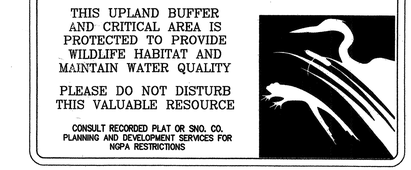
2 FILTER FABRIC SILT FENCE — NO SCALE

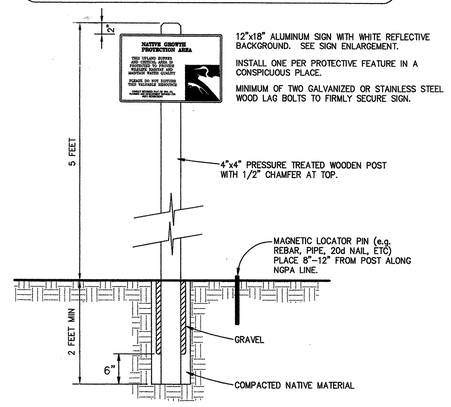
NATIVE GROWTH PROTECTION AREA

THIS UPLAND BUFFER AND CRITICAL AREA IS PROTECTED TO PROVIDE WILDLIFE HABITAT AND MAINTAIN WATER QUALITY

PLEASE DO NOT DISTURB THIS VALUABLE RESOURCE

CONSULT RECORDED PLAT OR SNO. CO. PLANNING AND DEVELOPMENT SERVICES FOR NGPA RESTRICTIONS





TYPE 1

NOTES:
1. NGPA SIGN SHALL 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.
2. SIGN PLACEMENT SHALL BE SUBJECT TO THE APPROVAL OF SNOHOMISH COUNTY. ALTERNATIVE SIGN DESIGNS MAY BE SUBMITTED TO SNOHOMISH COUNTY FOR APPROVAL.
3. PER SCC 32.10.240(8), ALL SIGNS MUST BE SECURE AND PERMANENT.

7 DETAIL - NATIVE GROWTH PROTECTION AREA SIGN — NO SCALE

AS-BUILT
2/22/05

CALL FOR UTILITY LOCATES BEFORE YOU DIG
1-800-424-5555

SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES
APPROVED FOR GRADING
SIGNED BY RANDOLPH R. SLEIGHT
BY PE PLS ON 6/24/04
DATE
R/W PERMIT NUMBER 04-114677

APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

5/27/05 CLEARING, GRADING AND T.E.S.C. NOTES AND DETAILS

WESTFIELD
D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — ROBERT M. WEYER — 22077 — EXPIRES JULY 28, 2006

REVISIONS: APPD.
2/22/05 CLK AS-BUILT

DATE: FEB, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: AS NOTED

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: Sfaf0009eclM03.dwg

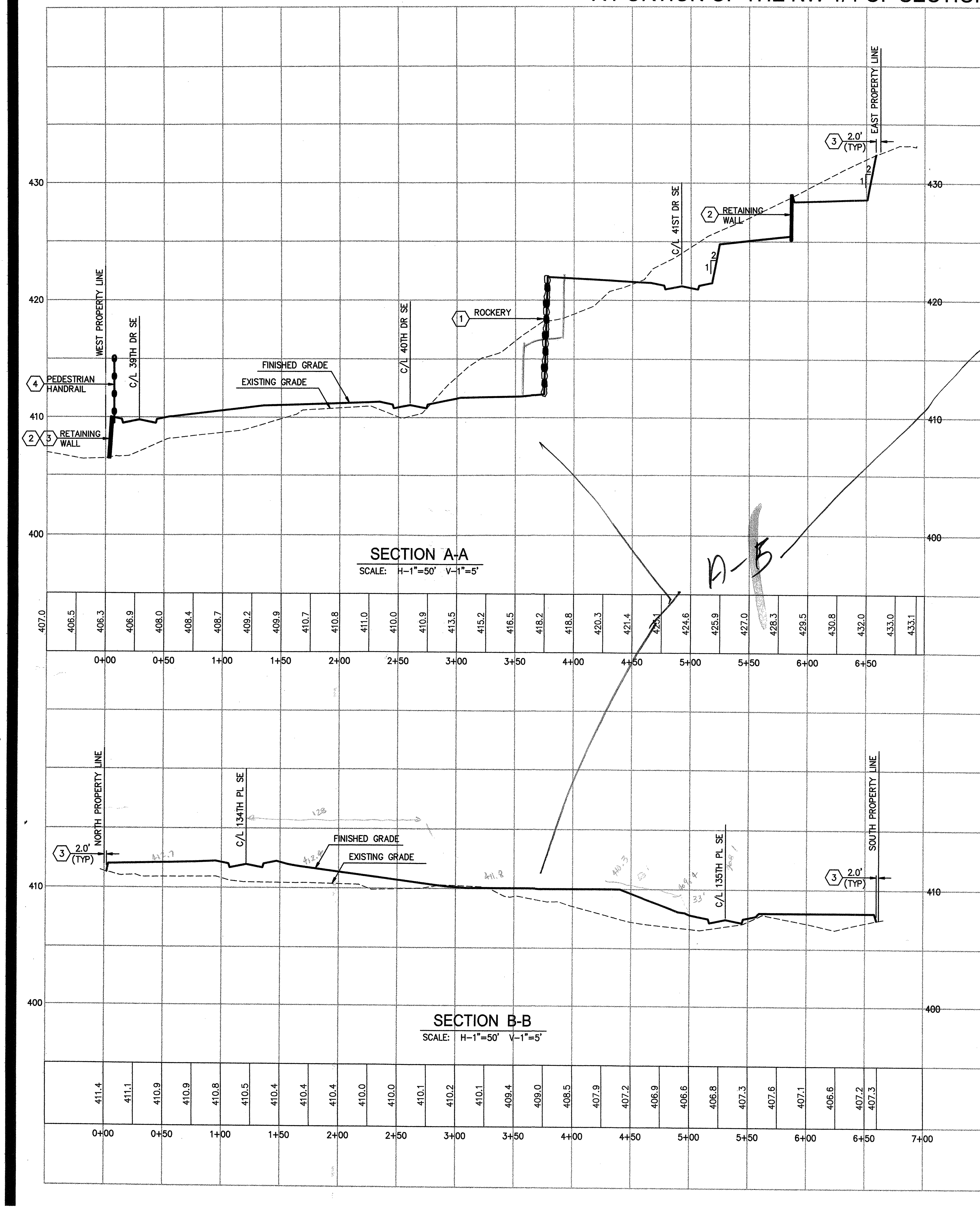
SHEET NO. C3 OF 10

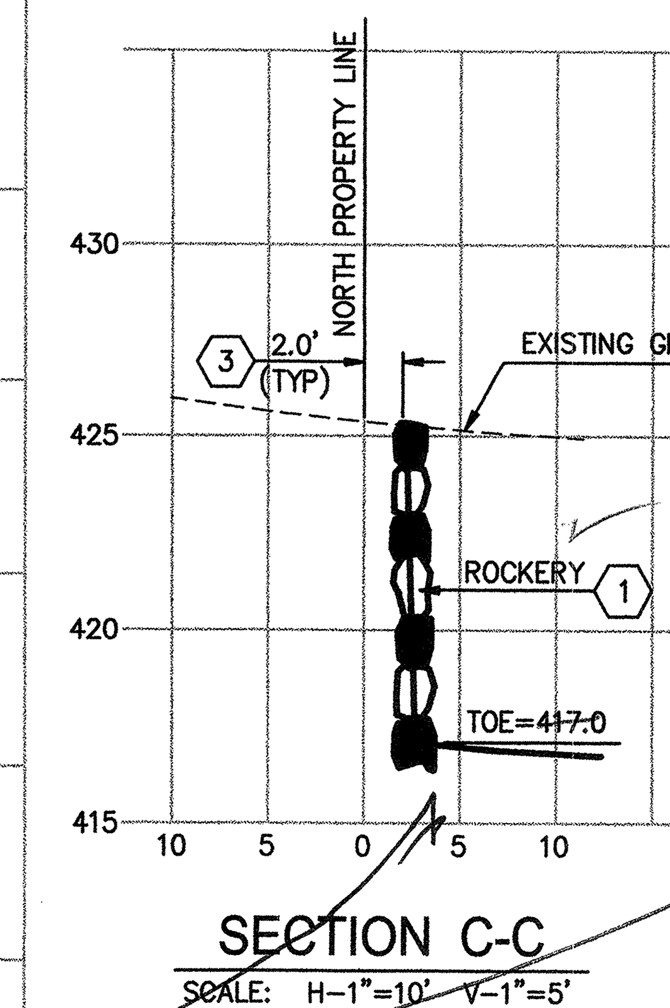
HDEV-2306

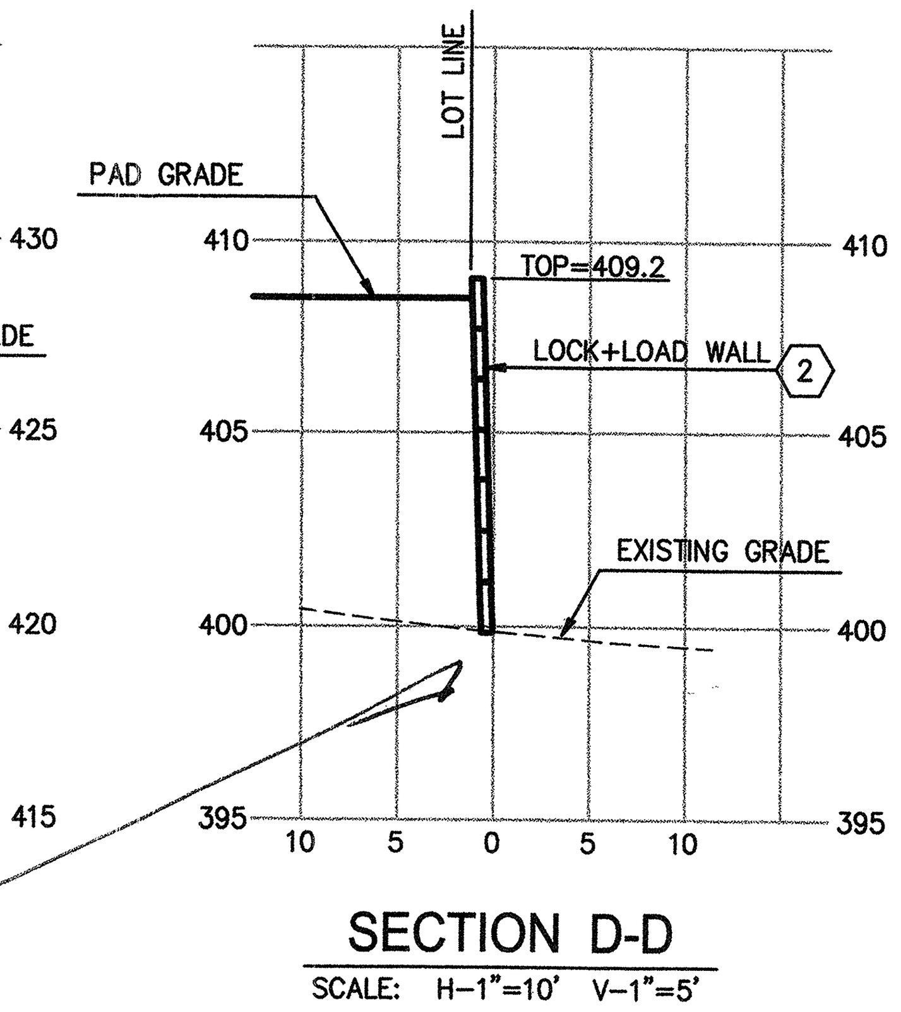
CLK 02/22/05 8:33am P:\DrHH0000010\04000AD\ECS\SHEETS\AS-BUILT\Sfaf0009eclM03.dwg

PFN 03-102383

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM





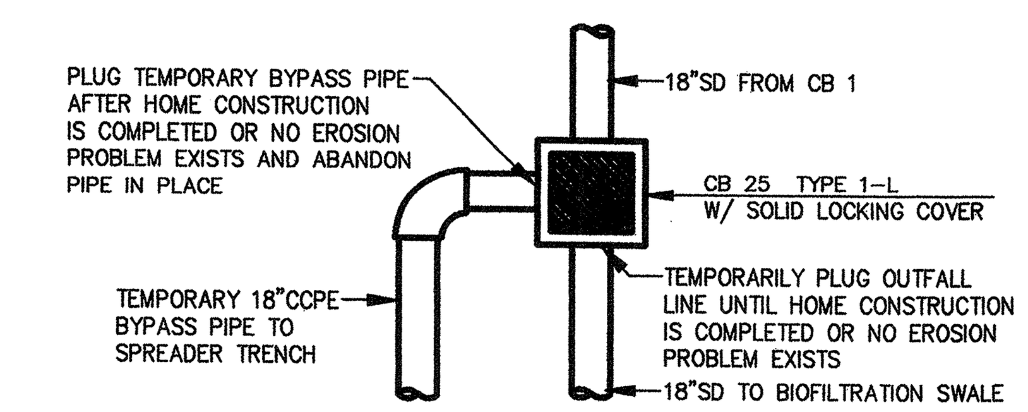


APPLICANT / DEVELOPER

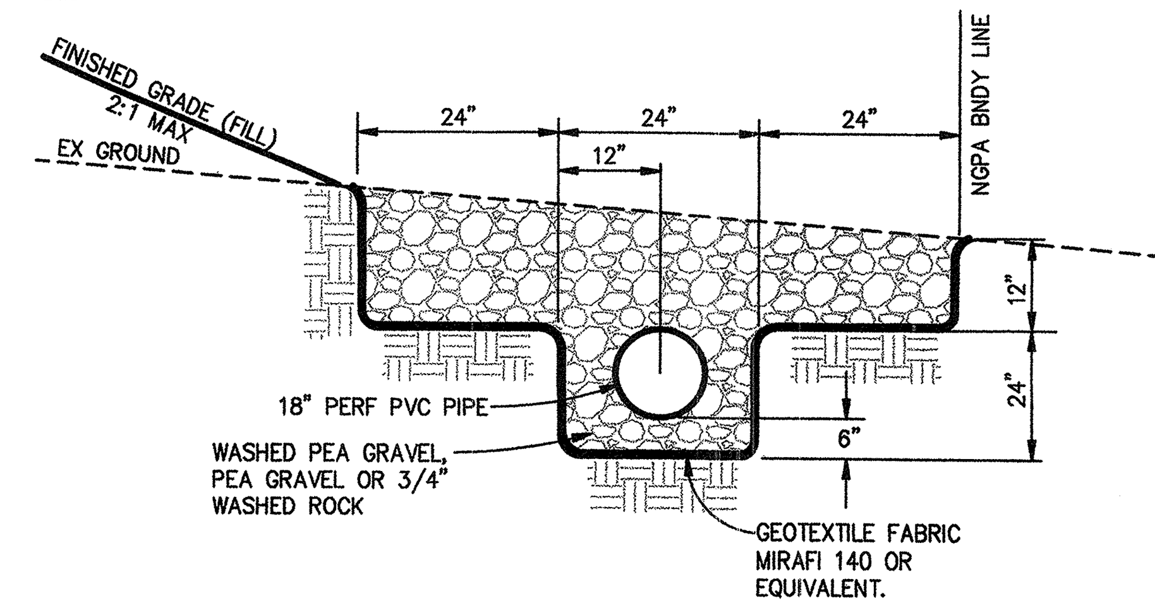
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

CONSTRUCTION NOTES

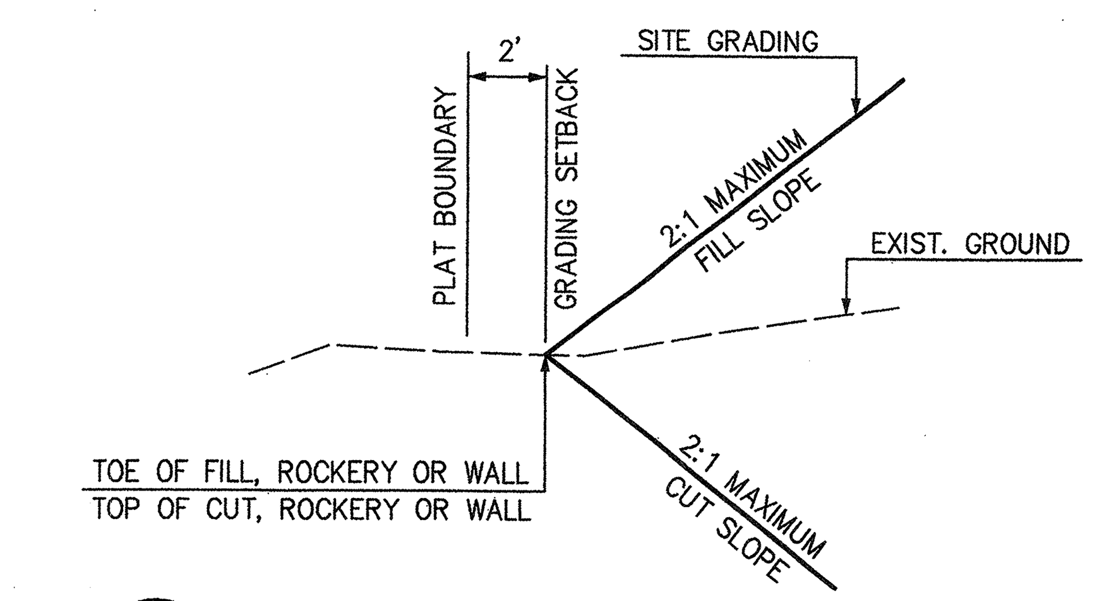
1. CONSTRUCT ROCKERY WHERE SHOWN PER DETAIL 4, THIS SHEET.
2. CONSTRUCT LOCK+LOAD RETAINING WALL WHERE SHOWN PER MANUFACTURES SPECIFICATIONS.
3. 2.0' GRADING SETBACK PER DETAIL 3, THIS SHEET.
4. CONSTRUCT 160LF PEDESTRIAN HANDRAIL ALONG SIDEWALK EDGE WHERE SHOWN PER SNOHOMISH COUNTY STANDARD DETAIL 4-200.



2 DETAIL - TEMP BYPASS LINE
NO SCALE



1 DETAIL - TEMP SPREADER TRENCH
NO SCALE

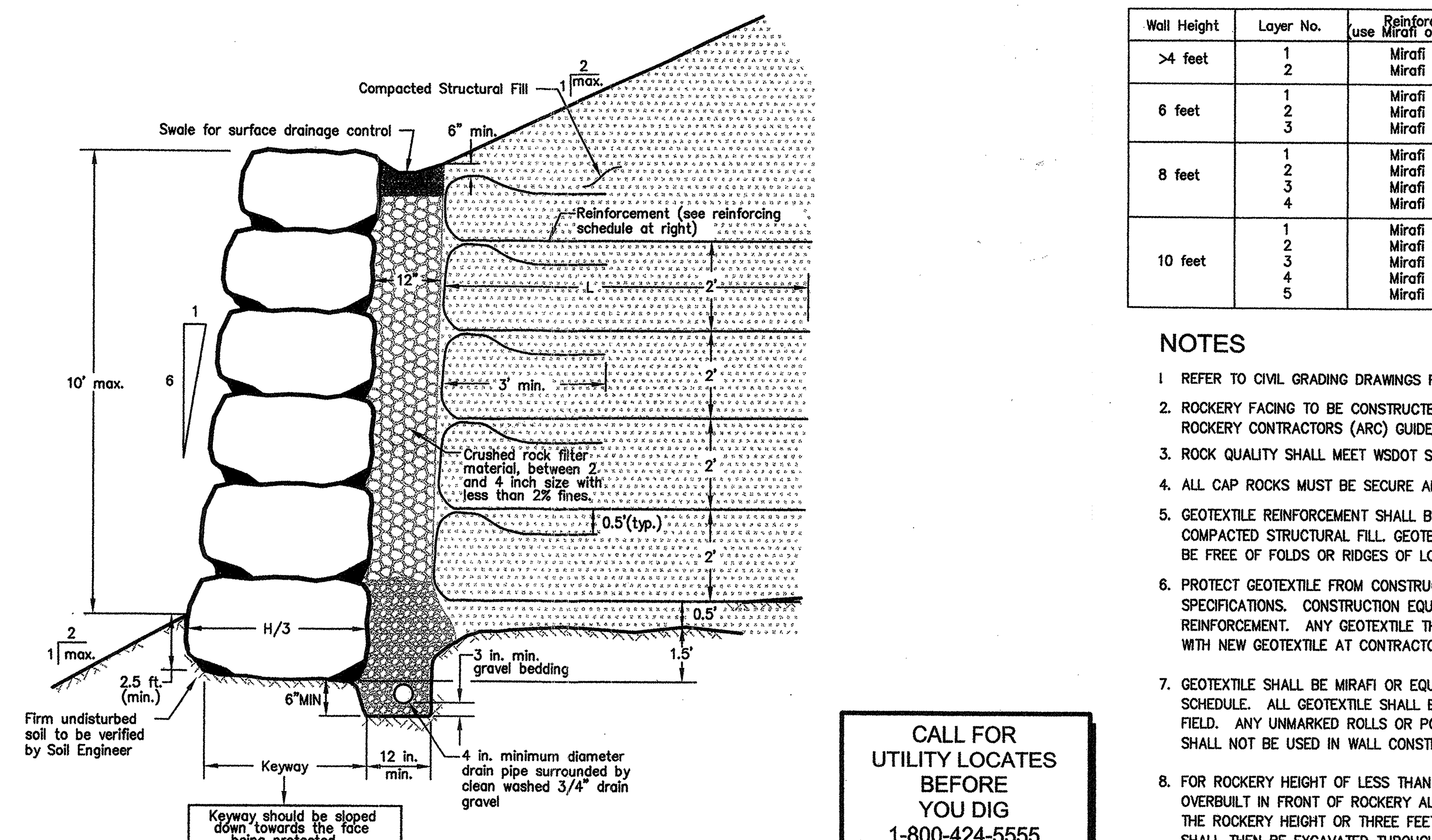


3 DETAIL - GRADING SETBACK
NO SCALE

Wall Height	Layer No.	Reinforcement (use Mirafi or equivalent)	Length "L" (feet)	Height (feet)
>4 feet	1 2	Mirafi HS400 Mirafi HS400	4.0 4.0	0.5 2.5
6 feet	1 2 3	Mirafi HS400 Mirafi HS400 Mirafi HS400	5.0 5.0 5.0	0.5 2.5 4.5
8 feet	1 2 3 4	Mirafi HS400 Mirafi HS400 Mirafi HS400 Mirafi HS400	7.0 7.0 7.0 7.0	0.5 2.5 4.5 6.5
10 feet	1 2 3 4 5	Mirafi HS400 Mirafi HS400 Mirafi HS400 Mirafi HS400 Mirafi HS400	8.0 8.0 8.0 8.0 8.0	0.5 2.5 4.5 6.5 8.5

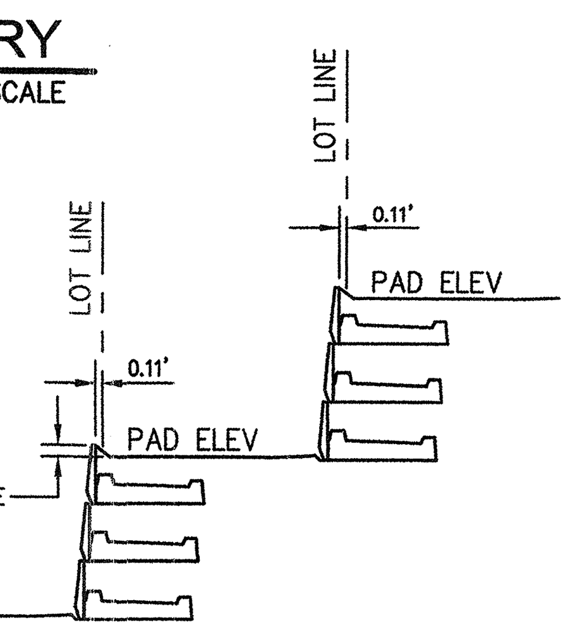
NOTES

1. REFER TO CIVIL GRADING DRAWINGS FOR WALL ALIGNMENTS AND ELEVATIONS.
2. ROCKERY FACING TO BE CONSTRUCTED IN ACCORDANCE WITH ASSOCIATED ROCKERY CONTRACTORS (ARC) GUIDELINES.
3. ROCK QUALITY SHALL MEET WSDOT SPECIFICATION 9-13.7, ROCK FOR ROCK WALL.
4. ALL CAP ROCKS MUST BE SECURE AND NOT ABLE TO BE DISLODGED BY HAND.
5. GEOTEXTILE REINFORCEMENT SHALL BE PLACED ON HORIZONTAL SURFACES OF COMPACTED STRUCTURAL FILL. GEOTEXTILE SHALL BE PULLED TIGHT AND SHALL BE FREE OF FOLDS OR RIDGES OF LOOSE FABRIC.
6. PROTECT GEOTEXTILE FROM CONSTRUCTION DAMAGE PER MANUFACTURERS SPECIFICATIONS. CONSTRUCTION EQUIPMENT SHALL NOT TRAVEL DIRECTLY ON REINFORCEMENT. ANY GEOTEXTILE THAT IS DAMAGED SHALL BE REPLACED WITH NEW GEOTEXTILE AT CONTRACTORS EXPENSE.
7. GEOTEXTILE SHALL BE MIRAFI OR EQUIVALENT AS SHOWN IN THE REINFORCING SCHEDULE. ALL GEOTEXTILE SHALL BE CLEARLY IDENTIFIED AND LABELED IN THE FIELD. ANY UNMARKED ROLLS OR PORTIONS THEREOF THAT CANNOT BE IDENTIFIED SHALL NOT BE USED IN WALL CONSTRUCTION.
8. FOR ROCKERY HEIGHT OF LESS THAN FOUR FEET, STRUCTURAL FILL SHALL BE OVERBUILT IN FRONT OF ROCKERY ALIGNMENT A HORIZONTAL DISTANCE EQUAL TO THE ROCKERY HEIGHT OR THREE FEET WHICHEVER IS GREATER. ROCKERY ALIGNMENT SHALL THEN BE EXCAVATED THROUGH COMPACTED STRUCTURAL FILL TO EXPOSE COMPETENT STABLE SOIL FACE AGAINST WHICH ROCKERY CAN BE ASSEMBLED.



4 DETAIL - ROCKERY
NO SCALE

CALL FOR
UTILITY LOCATES
BEFORE
YOU DIG
1-800-424-5555



5 DETAIL - LOCK+LOAD WALL
NO SCALE

AS-BUILT
2/22/05

AS-BUILT NOTE

WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.

BY: Jad M Maher PE 2/22/05
PROJECT MANAGER / SURVEYOR — DATE

BY: Camille A. Amiest 2/22/05
PLAT DEVELOPER / OWNER — DATE

SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES

APPROVED FOR GRADING

BY SIGNED BY RANDOLPH R. SLEIGHT, PE PLS ON 6/24/04
DATE

R/W PERMIT NUMBER 04-114677

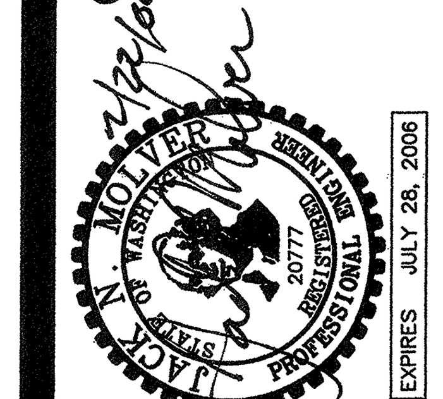
PFN 03-102383

CLK 02/22/05 8:37am - P:\D\Drhh00000010\0400CAD\EC\SHEETS\AS-BUILT\Staf0009eclM04.dwg

CLEARING, GRADING AND T.E.S.C. DETAILS AND SECTIONS

WESTFIELD

D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON



DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REVISIONS:	APPD.
1 2/22/05 CLK AS-BUILT	

DATE: FEB, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: AS NOTED

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: Staf0009eclM04.dwg

SHEET NO. C4 OF 10

HDEV-2307

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM

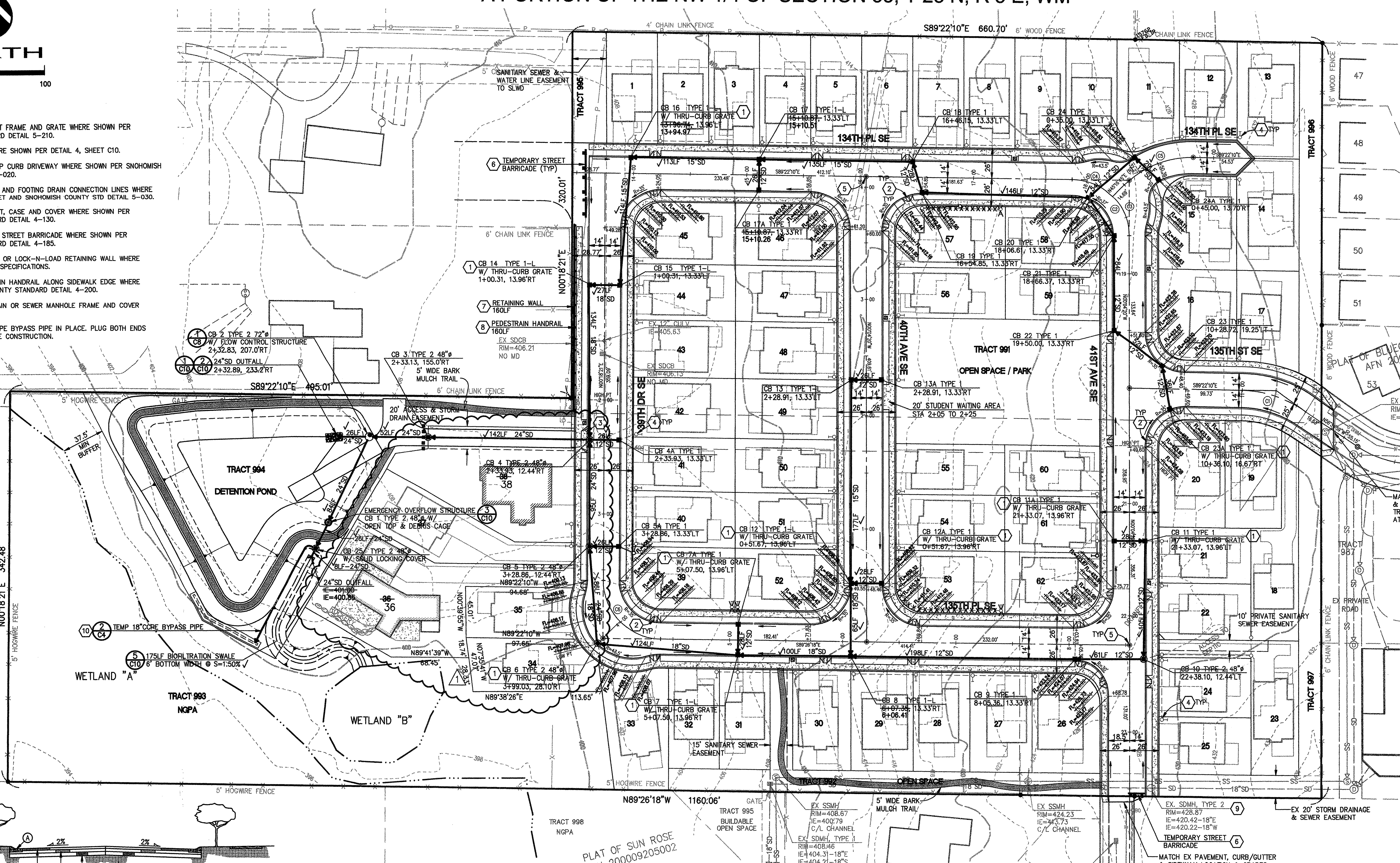
APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

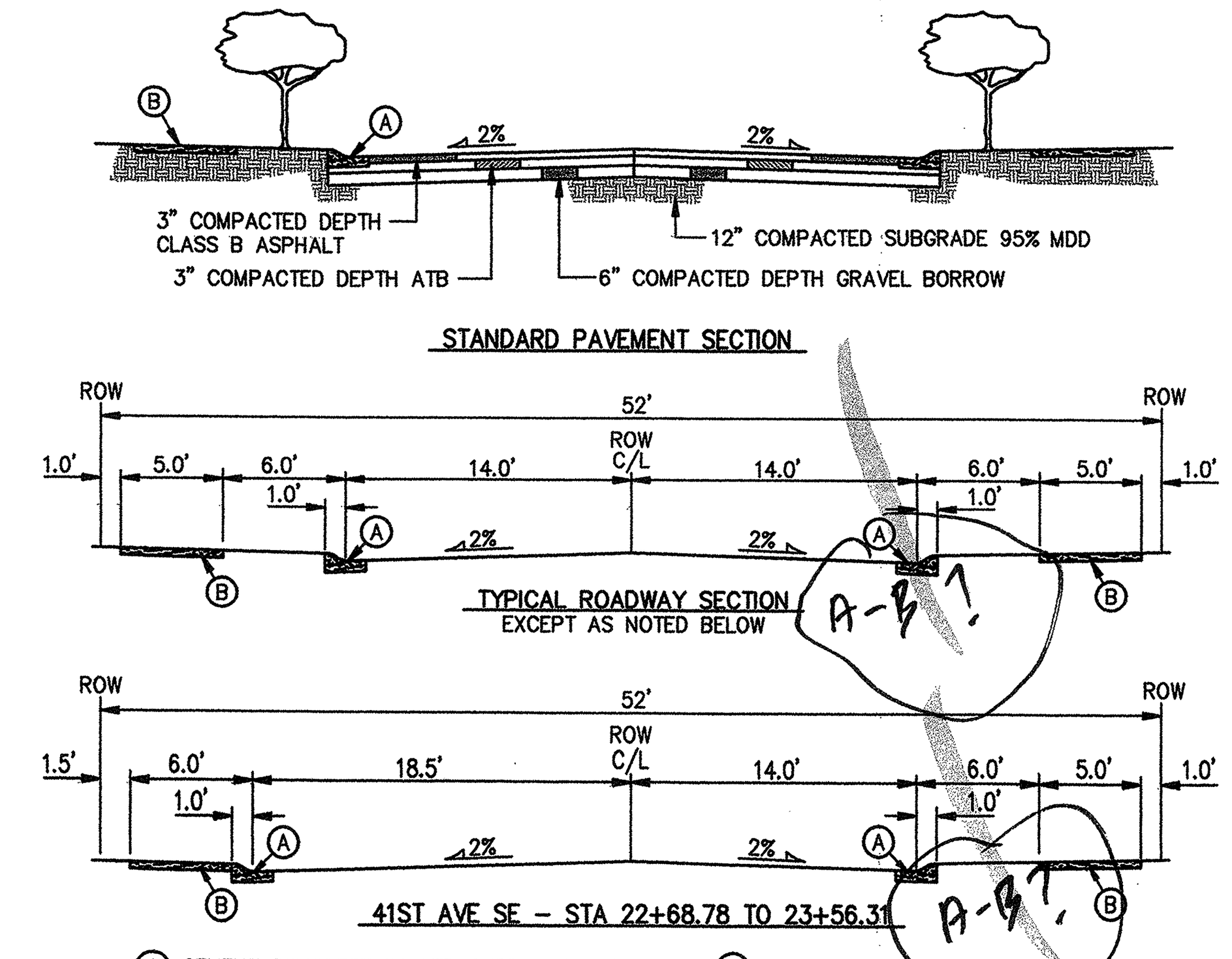
NORTH

0 50 100

CONSTRUCTION NOTES

1. INSTALL THROUGH CURB INLET FRAME AND GRATE WHERE SHOWN PER SNOHOMISH COUNTY STANDARD DETAIL 5-210.
2. CONSTRUCT CURB RAMP WHERE SHOWN PER DETAIL 4, SHEET C10.
3. CONSTRUCT RESIDENTIAL DROP CURB DRIVEWAY WHERE SHOWN PER SNOHOMISH COUNTY STANDARD DETAIL 2-020.
4. INSTALL 6" PVC YARD, ROOF AND FOOTING DRAIN CONNECTION LINES WHERE SHOWN PER TABLE THIS SHEET AND SNOHOMISH COUNTY STD DETAIL 5-030.
5. INSTALL CONCRETE MONUMENT, CASE AND COVER WHERE SHOWN PER SNOHOMISH COUNTY STANDARD DETAIL 4-130.
6. INSTALL TEMPORARY TYPE III STREET BARRICADE WHERE SHOWN PER SNOHOMISH COUNTY STANDARD DETAIL 4-185.
7. CONSTRUCT 160LF KEYSTONE OR LOCK-N-LOAD RETAINING WALL WHERE SHOWN PER MANUFACTURES SPECIFICATIONS.
8. CONSTRUCT 160LF PEDESTRAIN HANDRAIL ALONG SIDEWALK EDGE WHERE SHOWN PER SNOHOMISH COUNTY STANDARD DETAIL 4-200.
9. ADJUST EXISTING STORM DRAIN OR SEWER MANHOLE FRAME AND COVER TO NEW FINISHED GRADE.
10. ABANDON TEMPORARY 18"CCPE BYPASS PIPE IN PLACE. PLUG BOTH ENDS UPON COMPLETION OF HOUSE CONSTRUCTION.





(A) CEMENT CONCRETE ROLLED CURB AND GUTTER, SEE SNOHOMISH COUNTY STD DETAIL 4-140
(B) CEMENT CONCRETE SIDEWALK, SEE SNOHOMISH COUNTY STD DETAIL 4-150

(A) TYPICAL ROADWAY SECTION

CLASSIFICATION: RESIDENTIAL STREET 1000 ADT
DESIGN SPEED: 25 MPH
NO SCALE

ROOF DRAIN CONNECTION TABLE / AS-BUILT

LOT NO.	TOP ELEV	INVERT ELEV	AS-BUILT TOP ELEV	AS-BUILT INVERT ELEV
1	411.5	409.0	411.8	408.3
2	411.6	409.3	412.0	408.5
3	411.8	409.8	412.9	409.4
4	412.3	409.8	413.0	409.2
5	412.8	410.3	413.4	409.9
6	413.3	411.3	414.1	410.6
7	413.9	411.4	414.3	410.7
8	414.2	412.2	415.4	411.7
9	414.8	412.8	416.4	412.6
10	416.0	414.0	417.2	413.7
11	417.6	415.6	418.5	414.9
12	420.2	418.2	420.4	416.9
13	423.5	421.5	424.2	420.6
14	423.6	421.6	423.4	419.7
15	420.0	418.0	420.1	416.7
16	424.1	422.1	423.8	420.3
17	428.2	426.2	426.9	423.3
18	428.0	426.0	429.3	425.8
19	427.3	425.3	426.1	422.6
20	424.3	422.3	424.9	421.3
21	424.2	422.2	424.7	421.1
22	424.4	422.4	425.2	421.7

ROOF DRAIN CONNECTION TABLE / AS-BUILT

LOT NO.	TOP ELEV	INVERT ELEV	AS-BUILT TOP ELEV	AS-BUILT INVERT ELEV
23A	428.0	425.8	424.6	421.0
23B	425.7	423.7	429.1	425.6
24	425.8	423.8	425.2	421.6
25	427.3	425.3	426.7	423.1
26	421.5	419.5	420.0	416.5
27	417.9	415.9	416.4	412.8
28	414.0	412.0	412.7	409.1
29	410.0	408.0	409.6	406.0
30	409.4	407.4	410.0	406.5
31	408.0	406.5	409.3	405.9
32	408.1	406.8	409.6	406.0
33	408.2	407.0	410.1	406.3
34	408.2	406.7	409.6	406.0
35	408.7	407.2	410.0	406.4
36	410.0	408.5	409.3	405.8
37	409.3	407.8	409.6	406.0
39	409.2	407.7	410.7	407.1
40	409.3	408.0	410.7	407.1
41	410.0	408.5	411.3	407.8
42	410.3	408.3	411.6	408.0
43	410.3	408.8	411.0	407.4
44	410.2	408.2	410.7	407.1

ROOF DRAIN CONNECTION TABLE / AS-BUILT

LOT NO.	TOP ELEV	INVERT ELEV	AS-BUILT TOP ELEV	AS-BUILT INVERT ELEV
45	410.3	408.8	411.4	407.7
46	412.0	409.7	412.6	409.0
47	411.0	409.0	412.3	408.7
48	410.6	408.1	411.5	408.0
49	410.2	408.4	412.6	408.9
50	410.0	407.9	411.5	408.0
51	409.6	407.3	410.8	407.1
52A	409.2	407.6	410.0	406.4
52B	409.5	407.0		
53	409.5	407.2	410.7	407.1
54	409.6	407.6	411.4	407.8
55	410.1	408.1	411.9	408.3
TR 991 A	410.6	408.3	412.4	408.9
56	411.1	408.8	412.2	408.7
57A	411.8	409.8	413.0	409.4
57B	413.7	411.4	413.9	410.3
58A	414.8	412.5	419.1	415.6
58B	417.7	415.4		
59	420.9	418.6	421.1	417.5
60	424.2	422.2	425.7	422.2
61	424.2	421.7	425.0	421.5
62	418.7	416.7	425.1	421.4
TR 991 B			411.7	408.2
57C			414.6	411.0

C/L CURVE DATA

NO.	RADIUS	LENGTH	DELTA
C1	105.00'	60.08	32°47'11"
C2	51.00'	79.49'	89°17'50"
C3	51.00'	39.74'	44°38'55"
C4	51.00'	39.75'	44°38'55"
C5	85.00'	67.28'	45°21'05"
C6	51.00'	79.88'	89°44'39"

AS-BUILT
2/18/05

CALL FOR UTILITY LOCATES BEFORE YOU DIG
1-800-424-5555

AS-BUILT NOTE

WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.

BY: [signature] 2/22/05
PROJECT MANAGER / SURVEYOR DATE

BY: Camille L. Chriest 2/22/05
PLAT DEVELOPER / OWNER DATE

SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES

APPROVED FOR CONSTRUCTION
SIGNED BY RANDOLPH R. SLEIGHT
BY PE PLS ON 6/24/04
DATE

R/W PERMIT NUMBER 04-114677

PFN 03-102383

CLK 02/22/05 8:38am - P:\D\Drhh00000010\0400CAD\EC\SHEETS\AS-BUILT\Staf0009eclM05.dwg

PAVING AND STORM DRAINAGE PLAN
WESTFIELD
D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON

JACK N. MOLVER, STATE OF WASHINGTON, 20777, REGISTERED PROFESSIONAL ENGINEER
EXPIRES JULY 28, 2006
2/22/05

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REVISIONS:	APPD.
1 9/9/04 REV LOT CONFIG	
2 2/18/05 CLK AS-BUILT	

DATE: FEB, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: 1"=50'

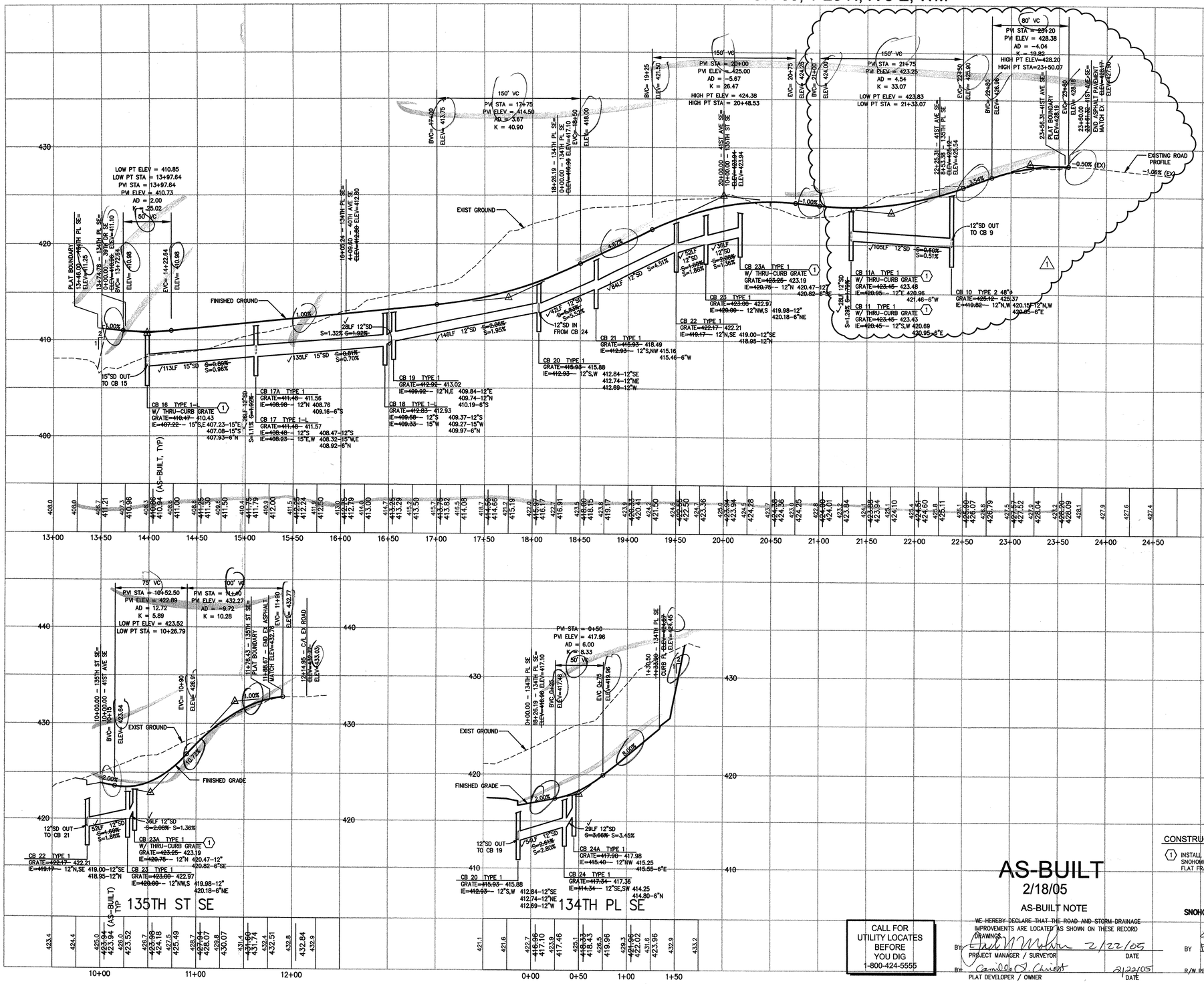
PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: Staf0009eclM05.dwg

SHEET NO. C5 OF 10

H DEV-2308

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM



AS-BUILT
2/18/05

AS-BUILT NOTE

WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.

BY _____ 2/22/05
PROJECT MANAGER / SURVEYOR — DATE

BY _____ 2/22/05
PLAT DEVELOPER / OWNER — DATE

CALL FOR UTILITY LOCATES BEFORE YOU DIG 1-800-424-5555

CONSTRUCTION NOTES

1. INSTALL THROUGH CURB INLET FRAME AND GRATE WHERE SHOWN PER SNOHOMISH COUNTY STANDARD DETAIL 5-210. REMAINDER SHALL BE FLAT FRAME AND GRATE.

SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES

APPROVED FOR CONSTRUCTION

BY SIGNED BY RANDOLPH R. SLEIGHT, PE, PLS ON 6/24/04 — DATE

R/W PERMIT NUMBER 04-114677

APPLICANT / DEVELOPER

D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

WESTFIELD
D.R. HORTON
SNOHOMISH COUNTY, WASHINGTON

REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — RANDOLPH R. SLEIGHT — 20777 — EXPIRES JULY 28, 2006

REVISIONS:	APPD.
1 9/9/04 REV ROAD GRADE	
2 2/18/05 CLK AS-BUILT	

DATE: FEB, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: H-1"=50' V-1"=5'

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: Staf0009eclM06.dwg

SHEET NO. C6 OF 10

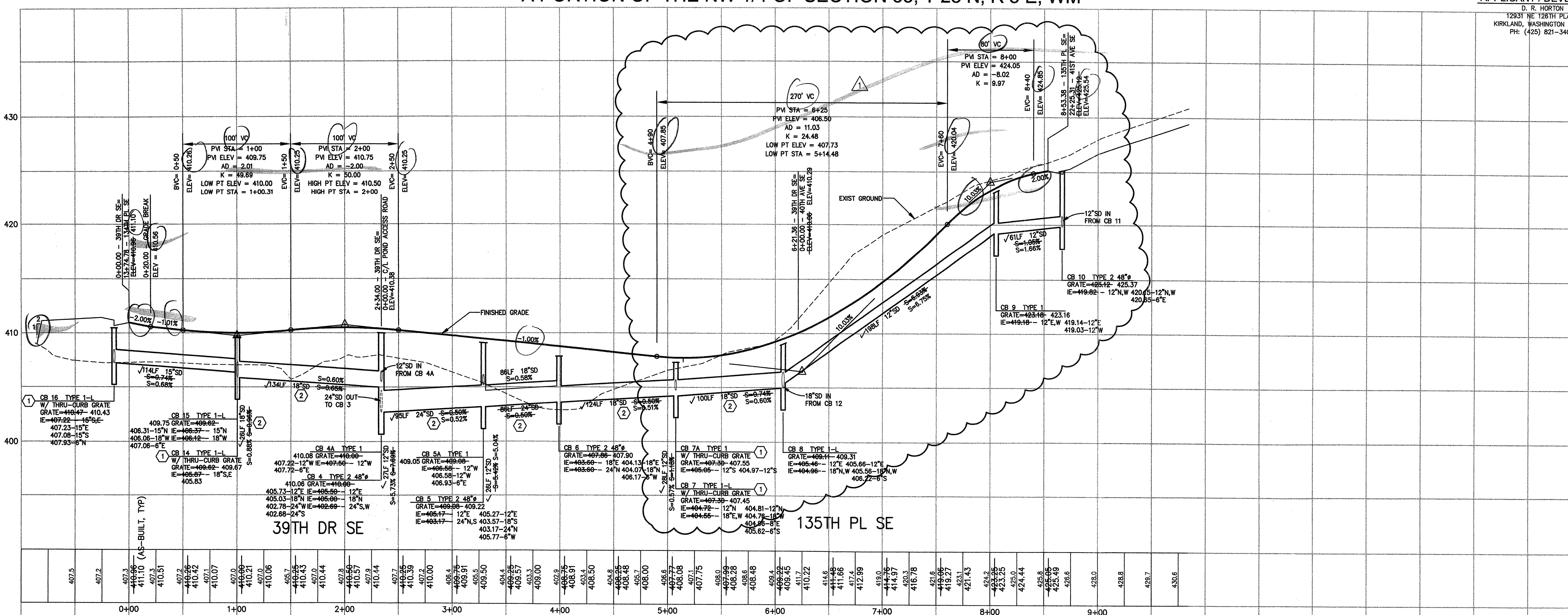
PFN 03-102383

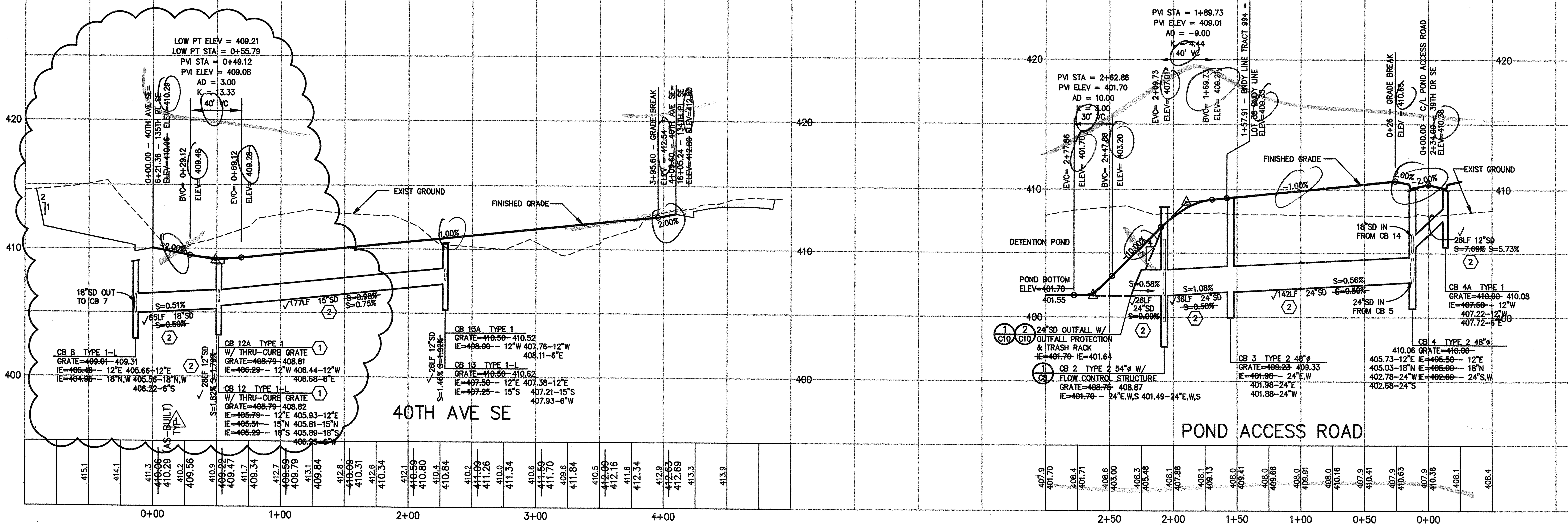
CLK 02/22/05 8:40am - P:\DVIm\0000000\01\040CAD\ES\SHEETS\AS-BUILT\Staf0009eclM06.dwg

HDEV-2309

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM

APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400





CONSTRUCTION NOTES

1. INSTALL THROUGH CURB INLET FRAME AND GRATE WHERE SHOWN PER SNOHOMISH COUNTY STANDARD DETAIL 5-210. REMAINDER SHALL BE FLAT FRAME AND GRATE.
2. AIR TEST ALL PIPES BELOW ELEVATION 406.25

AS-BUILT
2/18/05

CALL FOR UTILITY LOCATES BEFORE YOU DIG 1-800-424-5555

AS-BUILT NOTE

WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.

BY: [signature] 2/22/05
PROJECT MANAGER / SURVEYOR DATE

BY: [signature] 2/22/05
PLAT DEVELOPER / OWNER DATE

SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES
APPROVED FOR CONSTRUCTION
BY SIGNED BY RANDOLPH E. SLEIGHT PE PLS ON 6/24/04 DATE

R/W PERMIT NUMBER 04-114677

PAVING AND STORM DRAINAGE PROFILES

WESTFIELD

D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

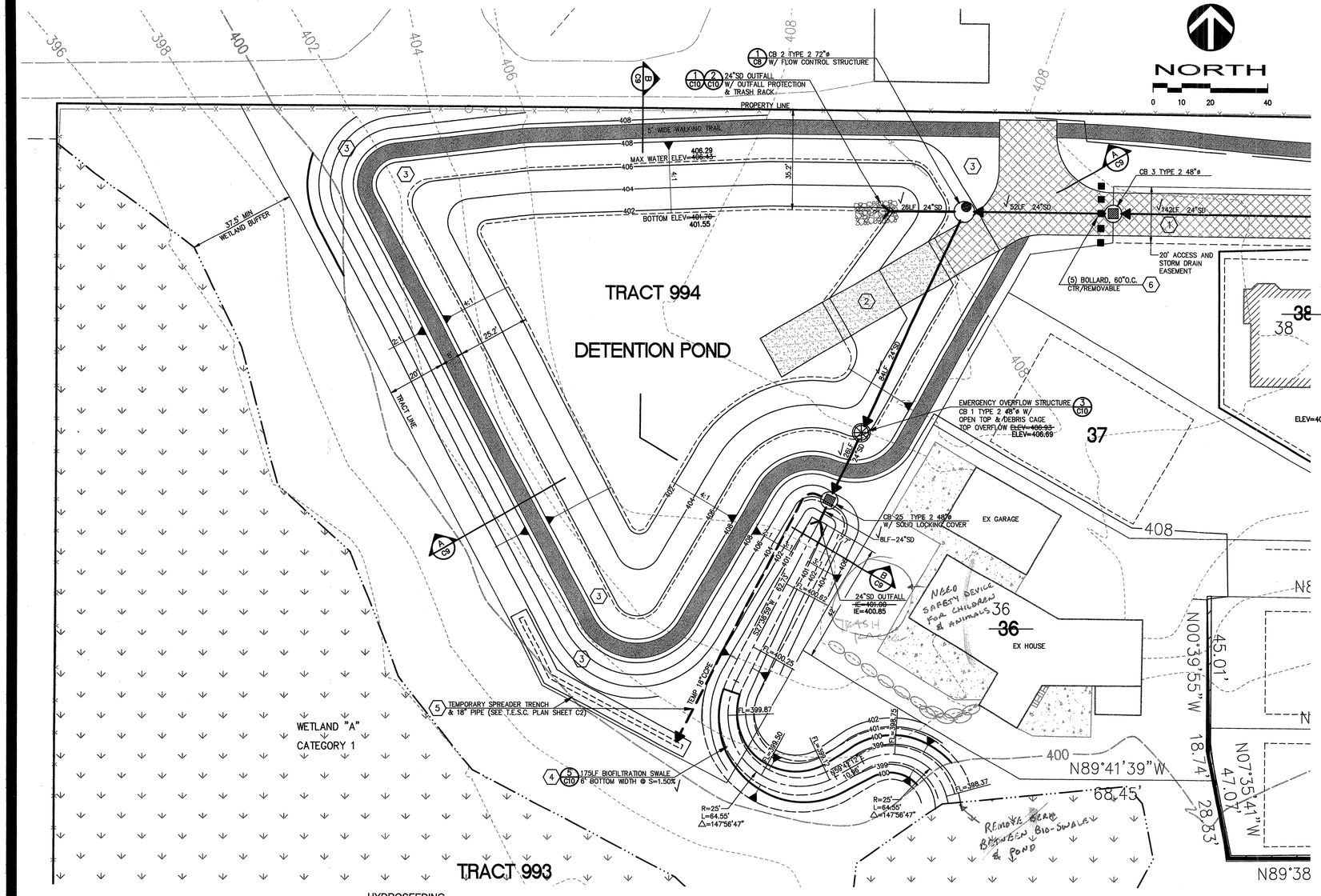
REVISIONS:	APPD.
1 9/9/04 REV ROAD GRADE	
2 2/18/05 CLK AS-BUILT	

DATE: FEB. 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:
SCALE: H-1"=50' V-1"=5'
PROJECT NUMBER: DRHH0000-0010
DRAWING FILE: Staf0009ecIM07.dwg
SHEET NO. C7 OF 10

PFN 03-102383

H DEV-2310

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM



CONSTRUCTION NOTES

1. CONSTRUCT 15' WIDE ASPHALT ACCESS AND MAINTENANCE ROAD PER DETAIL 2, TO ELEVATION 406.43 (MAX WATER).
2. CONSTRUCT 15' WIDE GRAVEL ACCESS AND MAINTENANCE ROAD PER DETAIL 3, FROM ELEVATION 406.25 (MAX WATER) TO POND BOTTOM (20% MAX SLOPE).
3. MULCH AND HYDROSEED ALL POND SIDE SLOPES DOWN TO MAXIMUM WATER ELEVATION (406.43). SEE NOTES THIS SHEET.
4. CONSTRUCT 175LF BIOFILTRATION SWALE PER SNOHOMISH COUNTY STD DETAIL 5-280 AND DETAIL 5, SHEET C10.
5. ABANDON TEMPORARY 18" BYPASS PIPE AND SPREADER TRENCH IN PLACE AFTER VEGETATION IS ESTABLISHED IN BIOFILTRATION SWALE AND DRAINAGE IS ROUTED THERETO.
6. INSTALL (5) BOLLARD WHERE SHOWN ON 60"O.C. WITH MIDDLE BOLLARD REMOVABLE PER SNOHOMISH COUNTY STD DETAIL 4-170.

CALL FOR UTILITY LOCATES BEFORE YOU DIG 1-800-424-5555

HYDROSEEDING

1. CONSTRUCTION ACCEPTANCE: Will be subject to a well-established groundcover that fulfills the requirement of the approved construction plans.
2. All disturbed areas such as retention 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.
3. PREPARATION OF SURFACE: All areas to be seeded shall be cultivated to the satisfaction of the county inspector. This may be accomplished by dicing, raking, harrowing or other acceptable means.
4. 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.
5. FERTILIZER: Shall be applied at 400# per acre of 10-20-20 (10 pounds per 1100 square feet) or equivalent.

MULCHING AND MATTING:

1. Mulch materials, application rates, and specifications, shall conform to the 2001 WADOE Stormwater Management Manual, and shall be approved by Snohomish County in advance of use.
2. Erosion blankets and matting shall conform to and be installed per the 2001 WADOE Stormwater Management Manual, and shall be approved by Snohomish County in advance of use.

DETENTION SUMMARY CHART

STORM EVENT	LIVE STORAGE VOLUME (cf)			DEAD STORAGE VOLUME (cf)			RELEASE RATE (cfs)		
	REQUIRED	DESIGNED	AS-BUILT	REQUIRED	DESIGNED	AS-BUILT	REQUIRED	DESIGNED	AS-BUILT
2 (1/2)	48,530	48,530	48,530	---	---	N/A	0.14	0.14	0.12
10	51,503	51,503	51,503	---	---	N/A	0.80	0.80	0.60
100	61,983	61,983	62,096	---	---	N/A	2.17	2.17	1.61

List lots that flow to detention facility: ALL LOTS

Design impervious area for lot development: ~~2,800sf (lots 18 & 23), 4,000sf (all other lots)~~ 4,000sf lots 18, 23, 36, 37 & 38 - 2,800sf all other lots

* include 30% S.F.

NOTE: VOLUMES SHOWN INCLUDE 30% SAFETY FACTOR

AS-BUILT NOTE

WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.

BY: [signature] 2/22/05
PROJECT MANAGER / SURVEYOR — DATE

BY: [signature] 2/22/05
PLAT DEVELOPER / OWNER — DATE

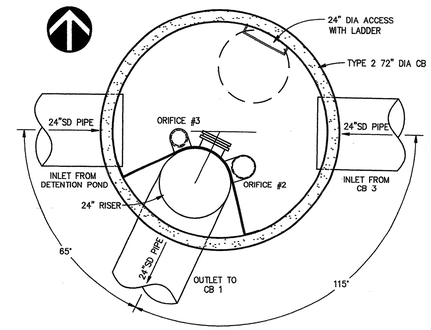
SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES
APPROVED FOR CONSTRUCTION
SIGNED BY RANDOLPH RISLEIGHT
BY PE PLS ON 6/24/05
DATE

R/W PERMIT NUMBER 04-114677

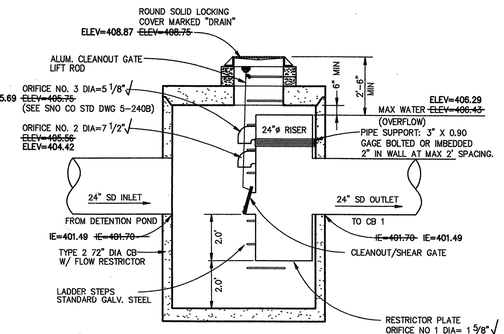
PFN 03-102383

AS-BUILT
2/18/05

APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

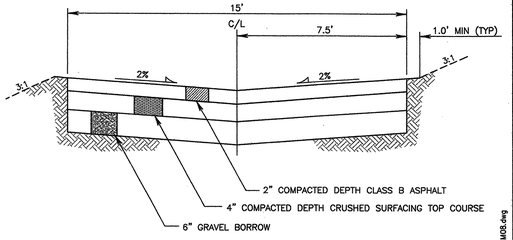


PLAN
1"=2'-0"

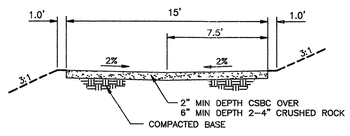


ELEVATION
NOT TO SCALE

1 CB C-2 TYPE 2 72"Ø W/ FLOW CONTROL STRUCTURE



2 DETAIL - ASPHALT ACCESS/ MAINTENANCE ROAD NO SCALE



3 DETAIL - GRAVEL ACCESS/ MAINTENANCE ROAD NO SCALE

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

DETENTION POND PLAN AND DETAILS
WESTFIELD
D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON

2/22/05
EXPIRES JULY 28, 2006

REVISIONS:	APPD.
1 2/18/05 CLK AS-BUILT	

DATE: FEB, 2004
DESIGN: JNM
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: 1"=20'

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: Staf0009eclM08.dwg

SHEET NO. C8 OF 10

HDEV-2311

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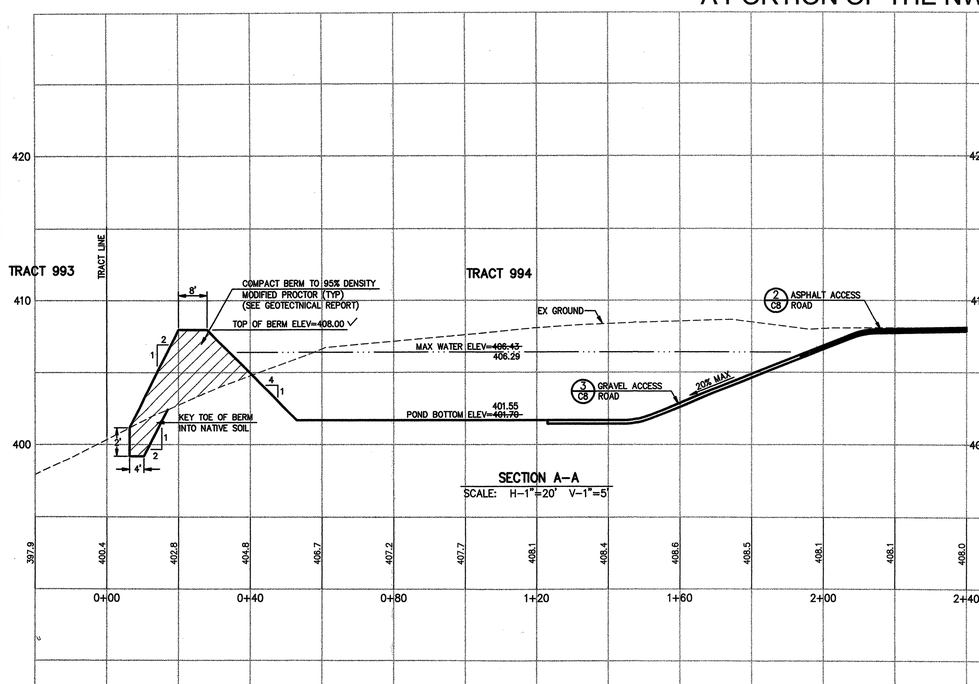
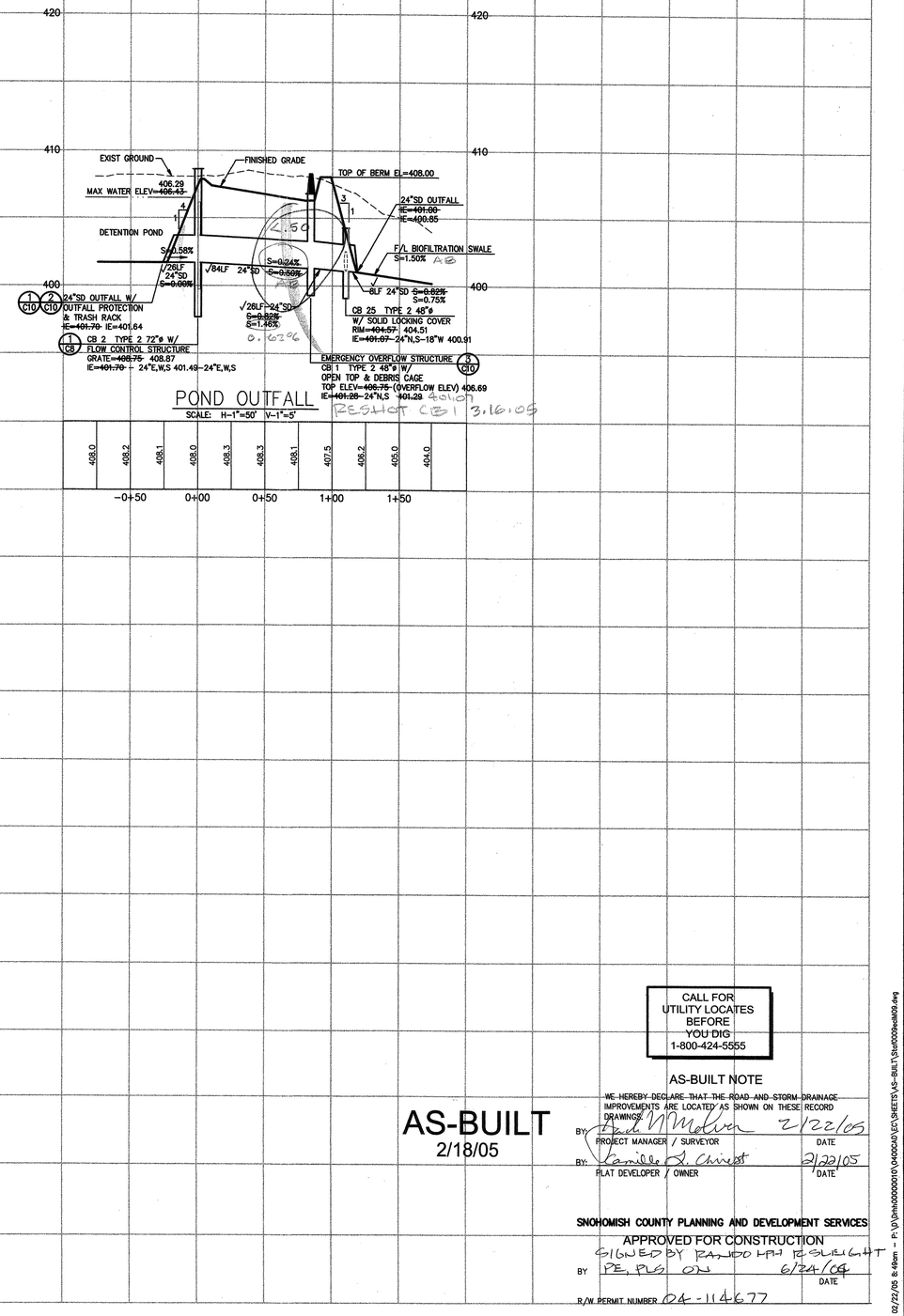
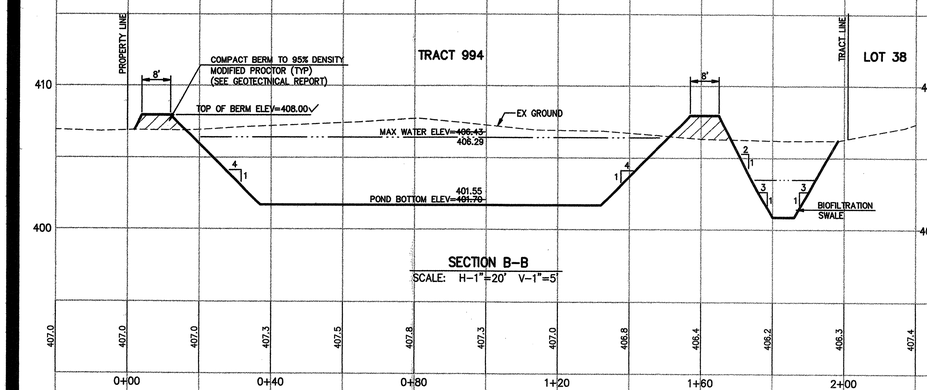
A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM



SECTION A–A
SCALE: H–1"=20' V–1"=5'



POND OUTFALL
SCALE: H–1"=50' V–1"=5'



SECTION B–B
SCALE: H–1"=20' V–1"=5'

CALL FOR UTILITY LOCATES BEFORE YOU DIG 1-800-424-5555

AS-BUILT NOTE

~~WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED~~ AS SHOWN ON THESE RECORD DRAWINGS.

BY: _____ 2/22/05
PROJECT MANAGER / SURVEYOR — DATE

BY: _____ 2/22/05
PLAT DEVELOPER / OWNER — DATE

AS-BUILT
2/18/05

SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES
APPROVED FOR CONSTRUCTION
SIGNED BY RANDOLPH TESLICH
BY PE, PLS, CTY 6/24/05
DATE

R/W PERMIT NUMBER 04-114677

PFN 03-102383

CLK 02/22/05 8:49am – P:\p\drhh0000010\04DOCAD\EX\SHEETS\AS-BUILT\Staf0009ecIM09.dwg

APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

PAVING AND DRAINAGE PLAN AND PROFILE

WESTFIELD

D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REGISTERED PROFESSIONAL ENGINEER — RANDOLPH P. TESLICH — 20777 — STATE OF WASHINGTON
EXPIRES JULY 28, 2006

REVISIONS:	APPD.
1 2/18/05 CLK AS-BUILT	

DATE: FEB, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: AS NOTED

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: Staf0009ecIM09.dwg

SHEET NO. C9 OF 10

HDE#-2312

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH SNOHOMISH COUNTY STANDARDS AND SPECIFICATIONS AND WASHINGTON STATE DEPARTMENT OF TRANSPORTATION 2002 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION.
2. ALL WORK WITHIN THE SITE AND COUNTY RIGHT-OF-WAY SHALL BE SUBJECT TO THE INSPECTION OF THE COUNTY ENGINEER OR HIS DESIGNATED REPRESENTATIVE.
3. PRIOR TO ANY SITE WORK PERTAINING TO DRAINAGE, THE CONTRACTOR SHALL CONTACT THE CHIEF INSPECTOR FOR LAND DEVELOPMENT DIVISION AT (425) 388-3385 TO SCHEDULE A PRECONSTRUCTION CONFERENCE. DUE TO FIELD CHANGES REQUIRING REVISIONS, A REVISED CONSTRUCTION PLAN, SIGNED AND STAMPED BY THE ENGINEER OF RECORD SHALL BE SUBMITTED TO THE INSPECTOR AND APPROVED BY THE COUNTY ENGINEER PRIOR TO CONSTRUCTING CHANGES.
4. 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.
5. ALL STORM SEWER PIPE IN ROADS SHALL BE CPP DOUBLE WALL SMOOTH INTERIOR. POLYVINYL CHLORIDE (PVC) PIPE, SDR 35, IS ACCEPTABLE FOR LOT DRAINS.
6. ALL PIPE SHALL BE PLACED ON STABLE EARTH, OR IF IN THE OPINION OF THE COUNTY ENGINEER, THE EXISTING FOUNDATION IS UNSATISFACTORY, THEN IT SHALL BE EXCAVATED BELOW GRADE AND BACKFILLED WITH A GRAVEL MATERIAL TO SUPPORT THE PIPE.
7. 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 STD. SPEC. 7-04.3(3) AND STD. SPEC. 2-03.3(14)C, METHOD B & C.)
8. ALL CATCH BASINS SHALL BE TYPE I OR TYPE II AS NOTED ON THE PLANS.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL MANHOLE, INLET, AND CATCH BASIN FRAMES AND GRATES JUST PRIOR TO POURING OF CURBS AND PAVING.
10. ALL CATCH BASINS WITH A DEPTH OVER 5.0 FEET TO THE FLOW LINE SHALL BE TYPE II CATCH BASINS.
11. ALL CATCH BASIN MANHOLES, INLETS AND CATCH BASINS SHALL HAVE LOCKING LIDS.
12. ALL STRUCTURAL FILLS SHALL BE COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY BY STANDARD PROCTOR TEST. (SEE GEOTECHNICAL NOTES ON THIS SHEET).
13. STANDARD LADDER STEPS SHALL BE PROVIDED IN ALL CATCH BASINS/MANHOLES EXCEEDING FOUR (4) FEET IN DEPTH.
14. THE CATCH BASIN FRAME AND GRATE SHALL BE PER SNOHOMISH COUNTY STD. DETAIL 9-140. USE VANED GRATE PER STD. DRAWING 9-160 ON CATCH BASINS WHERE STREET GRADE IS OVER 4%. ALL TYPE II CATCH BASINS SHALL HAVE A SOLID LOCKING LID PER SNOHOMISH COUNTY STD. DETAIL 9-170. ALL SOLID COVERS AND GRATES SHALL BE SECURED WITH 5/8" STAINLESS STEEL SOCKET HEAD CAP SCREWS. USE AN ANTI-SEIZE COMPOUND AT THE TIME SCREWS ARE INSTALLED.

    BLOCK LETTERING SHALL BE EMBOSSED ON ALL SURFACES OF GRATES AND COVERS AS FOLLOWS:

    1. "DRAIN" WITH 3" LETTERS ON ALL SOLID COVERS.
    2. "OUTFALL TO STREAM DUMP NO POLLUTANTS " WITH 1/2" LETTERS ON ALL GRATES.
15. BACKFILL TRENCH OF NEW UTILITIES SHALL BE COMPACTED TO 95% RELATIVE COMPACTION UNDER ROADWAYS AND 90% RELATIVE COMPACTION OFF ROADWAYS, AS SPECIFIED IN SECTION 2.03.3(14)D AND SECTION 2-03.3(14)B.
16. STORM WATER CONVEYANCE FACILITIES MUST BE FLUSHED AND CLEANED PRIOR TO SNOHOMISH COUNTY ACCEPTANCE.
17. PROVIDE AND MAINTAIN THE TEMPORARY SEDIMENTATION COLLECTION FACILITIES TO INSURE SEDIMENT LADEN WATERS DO NOT ENTER THE NATURAL DRAINAGE SYSTEM.
18. 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 OTHERWISE APPROVED BY SNOHOMISH COUNTY.
19. ALL EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH COUNTY STANDARDS. PRE-CONSTRUCTION SOILS INVESTIGATION MAY BE REQUIRED TO EVALUATE SOILS STABILITY.
20. IF CUT AND FILL SLOPES EXCEED A MAXIMUM OF TWO FEET HORIZONTAL TO ONE FOOT VERTICAL, 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.
21. STOCKPILES ARE TO BE LOCATED IN SAFE AREAS AND ADEQUATELY PROTECTED BY TEMPORARY SEEDING AND MULCHING. HYDRO-SEED PREFERRED.
22. (PVC) POLYVINYL CHLORIDE PIPE SHALL CONFORM TO THE REQUIREMENTS OF ASTM D3034 SDR 35 FOR SIZES UP TO 15 INCH DIAMETER AND ASTM F679, TYPE 1 ONLY FOR SIZES 18 TO 27 INCH DIAMETER. DOUBLE WALL, SMOOTH INTERIOR (ADS, N-12 T.M.) CORRUGATED POLYETHYLENE PIPE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 294S FOR SIZES 12 TO 36 INCH DIAMETER.
23. COMPACTION:
    EARTH EMBANKMENTS TO BE COMPACTED PER 1994 STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION SECTION 2-03.3(14)C METHOD B AND SECTION 2-06.3(2) FOR SUBGRADE FOR PAVEMENT.
24. COVERAGE REQUIREMENTS FOR 12" PIPE:
    LESS THAN 1.0' REQUIRES RCP (REINFORCED CONCRETE PIPE) MINIMUM;
    1.0'-1.5' REQUIRES CP (CONCRETE PIPE) MINIMUM;
    GREATER THAN 1.5' SEE STANDARD SPECIFICATIONS.
25. CPP DOUBLE WALL - SMOOTH I.D. PIPE, AASHTO M-294 TYPE S SHALL HAVE 1 FOOT MINIMUM COVER PER MANUFACTURER'S RECOMMENDATIONS TO OBTAIN H-20 LOADING.
26. ALL CATCH BASIN GRATES ARE SHOWN AT FLOW LINE ELEVATIONS.
27. ALL PIPE INTAKES AND OUTFALLS TO HAVE BEVELED END SECTIONS PER STD. DET. 9-040. ALL CPP PIPE TO BE MITERED TO NEW SLOPE AFTER FINAL GRADING.
28. RIP-RAP SHALL BE PLACED IN AREAS AS SHOWN ON PLANS PER SECTION 8-15.3(2). MATERIALS SHALL MEET MINIMUM REQUIREMENTS OF SECTION 9-13.1.(2).
29. LOTS TO HAVE ROOF AND FOOTING DRAIN CONNECTIONS. LOT DRAIN CONNECTIONS TO BE CLEARLY MARKED IN THE FIELD SIMILAR TO SANITARY SEWER.
30. LOT DRAINS TO BE INSTALLED PER ENGINEERING DESIGN AND DEVELOPMENT STANDARDS 9-130 AND 9-07(I).
31. PERMANENT SIGNS DESIGNATING THE NATIVE GROWTH PROTECTION AREAS SHALL BE PLACED NO GREATER THAN 100 FEET APART AROUND THE PERIMETERS OF THE NGPA; AT LEAST ONE SIGN SHALL BE PLACED ON EACH LOT ADJACENT TO A NGPA. LOCATIONS ARE SHOWN ON PLANS.
32. ALL TRENCH BEDDING AND BACKFILL SHALL BE PER WSDOT/APWA STD. PLAN B-18C.
33. ALL CENTERLINE INTERSECTIONS, CURVE P.C.'S AND P.T.'S SHALL HAVE MONUMENT CASE AND COVERS INSTALLED PRIOR TO FINAL ACCEPTANCE.
34. ALL STEEL PIPES, CULVERTS, TANKS, AND OTHER STEEL PARTS OF ANY STORM DRAINAGE SYSTEM SHALL BE GALVANIZED AND HAVE A TREATMENT 1 ASPHALT COATING OR BETTER AS SPECIFIED IN THE WSDOT STD SPECIFICATION SECTION 9-05.4(3). NOTE: ALUMINUM AND CONCRETE PIPES AND STRUCTURES DO NOT REQUIRE A TREATMENT 1 COATING.

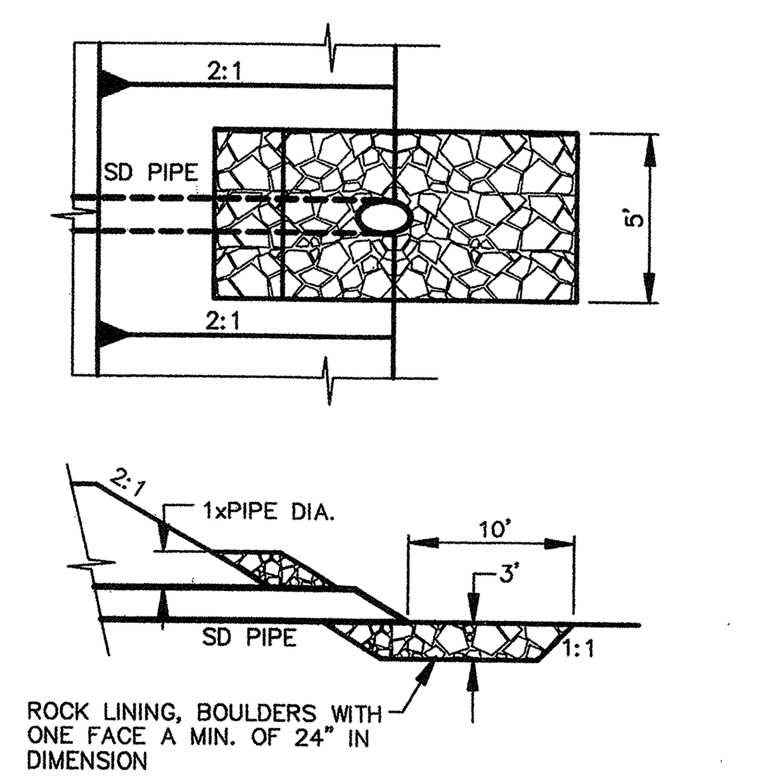
SOIL COVER NOTE

FROM MAY 1 TO SEPTEMBER 30, NO SOIL MAY REMAIN EXPOSED FOR MORE THAN 7 DAYS. ON PORTIONS OF THE SITE WHERE ACTIVE GRADING IS IN PROGRESS, THE DIRECTOR MAY EXTEND THE DEADLINE FOR SOIL STABILIZATION UPON DETERMINING THAT THE LIKELIHOOD OF EROSION IS LOW BASED UPON THE TYPE AND AMOUNT OF SOIL EXPOSED, SITE TOPOGRAPHY, THE POTENTIAL FOR DISCHARGE TO CRITICAL AREAS AND LAKES, AND OTHER FACTORS. UPON FINDING A RISK OF EROSION, THE APPLICANT SHALL IMMEDIATELY APPLY SOIL STABILIZATION, REGARDLESS OF ANY PREVIOUSLY ESTABLISHED DEADLINE, AND THE DIRECTOR MAY REQUIRE IMMEDIATE STABILIZATION AT ANY TIME FOR THIS PURPOSE. THE APPLICANT SHALL KEEP MATERIALS, EQUIPMENT, AND OTHER RESOURCES ON SITE AT ALL TIMES, IN ADEQUATE QUANTITIES TO IMMEDIATELY STABILIZE ALL SOIL;

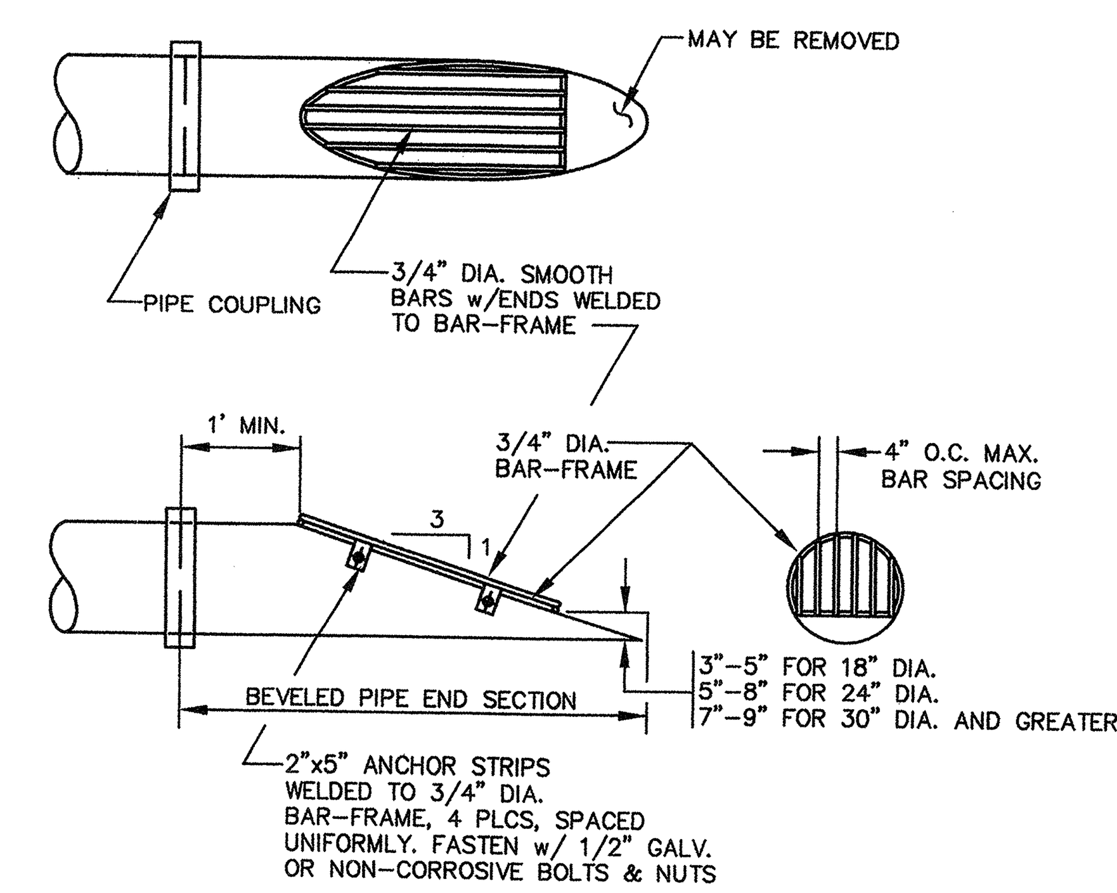
DENUDED AREAS SHALL BE COVERED BY MULCH, SOD, PLASTIC, OR OTHER BMP IN THE SNOHOMISH COUNTY DRAINAGE MANUAL OR APPROVED BY THE DIRECTOR;

SOIL STOCKPILES SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT RETENTION BMPS WITHIN 24 HOURS OF FORMATION TO PREVENT SOIL LOSS; AND

GRADING AND CONSTRUCTION SHALL BE TIMED AND CONDUCTED IN STAGES TO MINIMIZE SOIL EXPOSURE.

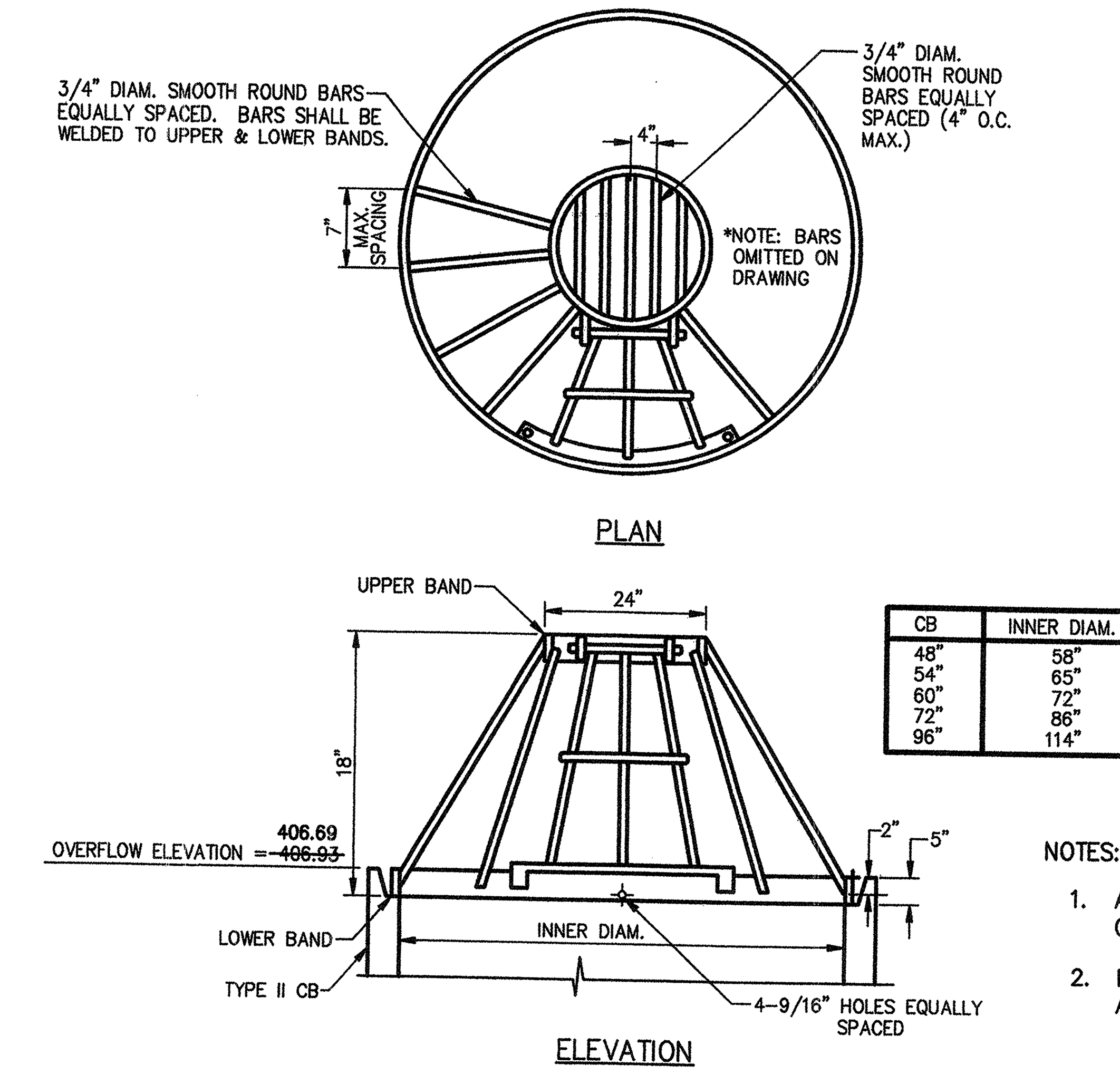


1 OUTFALL PROTECTION
NO SCALE

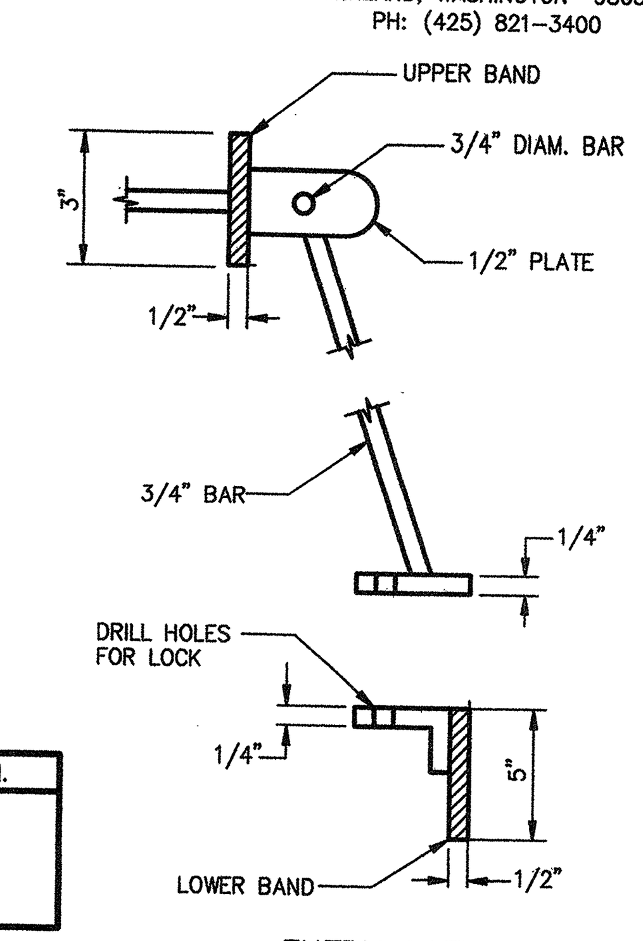


2 TRASH RACK
NO SCALE

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



CB	INNER DIAM.
48"	58"
54"	65"
60"	72"
72"	86"
96"	114"

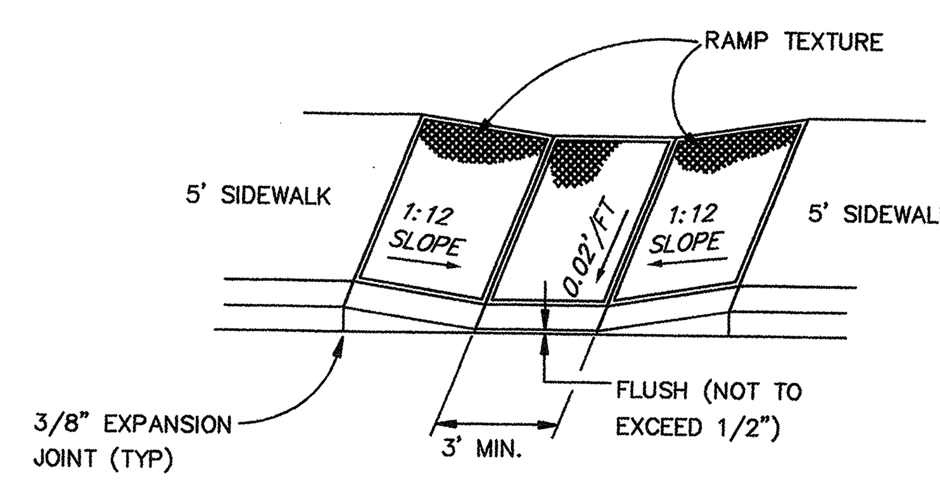


ENTRY GATE DETAIL

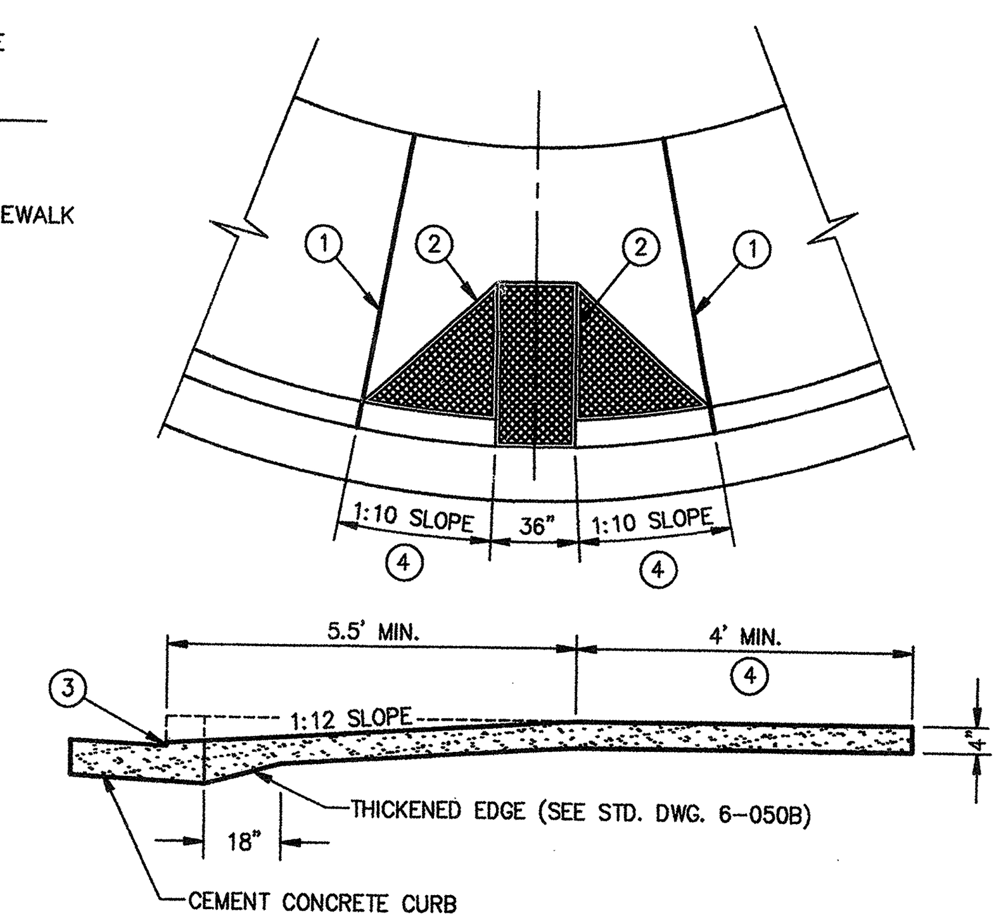
NOTES:

1. ALL STEEL IN PLATES, BARS AND BANDS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A36.
2. DEBRIS CAGE SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123 (AASHTO M111).

3 DETAIL - DEBRIS CAGE
NO SCALE



CURB RAMP ALTERNATIVE



NOTES:

1. FULL DEPTH EXPANSION JOINT, 3/8" MIN. WIDTH PREMOLDED JOINT FILLER.
2. RAMP TEXTURING IS TO BE DONE WITH AN EXPANDED METAL GRATE PLACED AND REMOVED FROM WET CONCRETE TO LEAVE A DIAMOND PATTERN. THE LONG AXIS OF THE DIAMOND PATTERN SHALL BE PERPENDICULAR TO CURB. GROOVES SHALL BE 1/8" DEEP AND 1/4" WIDE.
3. 1/2" MAX. LIP AT GUTTER LINE.
4. IF LANDING AREA IS LESS THAN 4', DECREASE SIDE RAMP SLOPE TO 1:12.

4 DETAIL - CURB RAMP
REF: SNOHOMISH COUNTY EDDS 4-05D NO SCALE

FIRE HYDRANT COLOR CODE TABLE

LIGHT BLUE	1500 GPM OR GREATER
GREEN	1000 TO 1499 GPM
ORANGE	500 TO 999 GPM
RED	LESS THAN 500 GPM
BLACK	FOR DRAFTING USE ONLY (HARD SUCTION/STREAMER PORT)
WHITE	CROSS ON TOP OF HYDRANT - FOR FILLING TANKERS ONLY.

NOTE: INSTALL BLUE STREET RELECTOR APPORXIMATELY 1 FOOT OFFSET FROM ROAD CENTERLINE TO INDICATE LOCATION OF HYDRANT

CHANNELIZATION AND SIGNING NOTES

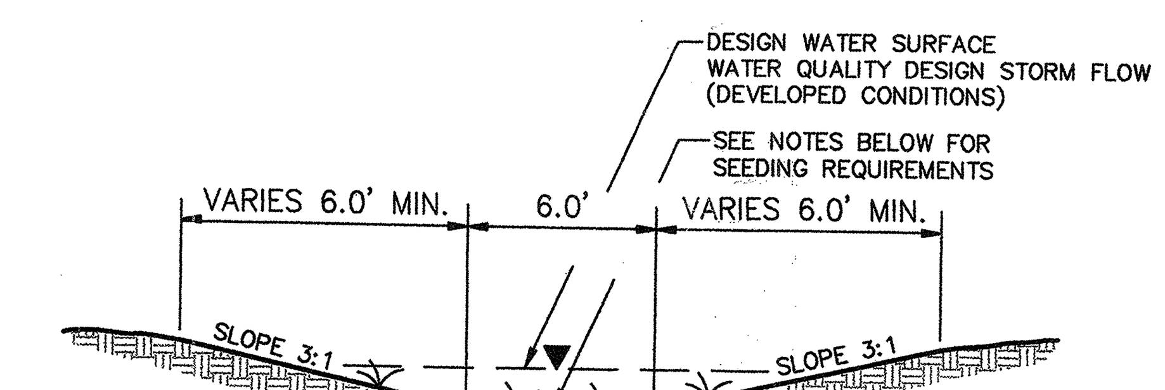
APPROVED PERMANENT TRAFFIC CONTROL SIGNS AND MARKINGS WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE INSTALLED BY COUNTY FORCES. THE INSPECTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS TRAFFIC DIVISION WHEN THE PROJECT IS READY FOR SIGNING AND CHANNELIZATION.

DURING PROJECT CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL TEMPORARY CONSTRUCTION SIGNS, TRAFFIC CONTROL SIGNS, DELINEATORS AND TEMPORARY MARKINGS AS REQUIRED.

ACCESS BY EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

AFTER WORK WITHIN THE TRAVELED ROADWAY IS COMPLETED AT THE END OF THE DAY, THE ROAD SHALL BE CLEAR OF DEBRIS AND EQUIPMENT AND COMPLETELY OPEN TO TRAFFIC. LIGHTED BARRICADES AND BARRELS SHALL DELINEATE ALL AREAS WITHIN THE ROADWAY AFFECTED BY CONSTRUCTION. (I.E., EDGE OF PAVEMENT, NEW CURBEDGES NOT ILLUMINATED BY STREETLIGHTS)

A RIGHT-OF-WAY USE PERMIT IS REQUIRED FROM THE DEPARTMENT OF PUBLIC WORKS FOR ANY LANE/ROAD CLOSURE WITHIN THE SNOHOMISH COUNTY RIGHT-OF-WAY. CONTACT PUBLIC WORKS AT LEAST 15 DAYS PRIOR TO CONSTRUCTION ACTIVITY WITHIN THE PUBLIC RIGHT-OF-WAY. SNOHOMISH COUNTY DOES NOT HAVE JURISDICTION ON STATE ROUTES OR ROADWAYS WITHIN INCORPORATED CITIES, PRIVATE ROADS, OR PRIVATE PROPERTY. FOR ANY ACTIVITY ENCROACHING ON SUCH PROPERTY, THE APPLICANT SHOULD OBTAIN PERMISSION FROM THE APPROPRIATE AUTHORITY.



EMERGENT SWALE PLANTING AND CONSTRUCTION CRITERIA

PLANTING
SOD SHALL BE ESTABLISHED IN BOTH GRASS AND EMERGENT SWALES AND SHALL BE OVER-SEEDED WITH THE SEED MIX SPECIFIED BELOW, AS DETAILED UNDER THE CONSTRUCTION CRITERIA.

IN ADDITION TO SODDING AND SEEDING, EMERGENT SWALES SHALL BE PLANTED WITH EMERGENT WETLAND VEGETATION AS DETAILED IN THE CONSTRUCTION CRITERIA. THE SPECIES TO BE USED ARE LISTED BELOW. AT LEAST TWO SEPARATE PLANT SPECIES SHALL BE PLANTED. AN OVERALL DENSITY OF ONE PLANT PER SQUARE FOOT OF SWALE BOTTOM IS REQUIRED.

WETLAND VEGETATION PLANTED AFTER MARCH 15 AND BEFORE OCTOBER 15 WILL GENERALLY REQUIRE IRRIGATION THROUGH THE FIRST SUMMER TO ENSURE PLANT SURVIVAL. WETLAND VEGETATION SHALL IDEALLY BE PLANTED BETWEEN OCTOBER 15 AND MARCH 15.

SEED MIX FOR GRASS AND EMERGENT SWALES:

GRASS SPECIES	PERCENTAGE BY WEIGHT
MEADOW FOXTAIL (ALOPERCURUS PRATENSIS)	40%
ALTA FESCUE (FESTUCA PRATENSIS)	25%
REDTOP BENT GRASS (AGROSTIS ALBA)	20%
RED FESCUE (FESTUCA RUBRA)	10%
BIRDSFOOT TREFOIL (LOTUS CORNICULATUS)	5%

WETLAND PLANT LIST FOR EMERGENT SWALES:

SLOUGH SEDGE
(CAREX OBNUPTA)

SPIKE RUSH
(ELEOCHARIS PALUSTRIS)

SOFT RUSH
(JUNCUS EFFUSUS)

SMALL-FRUITED BULRUSH
(SCIRPUS MICROCARPUS)

CATTAILS (TYPHA LATIFOLIA) MAY BE USED IN PLACE OF ANY OF THE ABOVE SPECIES IN EMERGENT SWALES EXPECTED OR DESIGNED TO HAVE PONDED OR STANDING WATER.

CONSTRUCTION NOTES

PREPARE THE SWALE FOR SOD IMMEDIATELY AFTER IT HAS BEEN GRADED. ROUGHEN THE BOTTOM AND SIDES OF THE SWALE BY RAKING. PLACE FOUR INCHES (MINIMUM) OF TOPSOIL, AND FERTILIZE WITH AN APPROPRIATE FERTILIZER AT THE RATE OF SEVEN POUNDS PER 1000 SQUARE FEET OF SWALE BEFORE LAYING THE SOD. IN GENERAL, USE A 10-20-20 (N-P-K) FERTILIZER. HOWEVER, USE A NON-PHOSPHORUS CONTAINING FERTILIZER IF THE SWALE IS BEING CONSTRUCTED IN THE SILVER LAKE DRAINAGE BASIN OR IN THE DRAINAGE BASIN OF ANY OTHER PHOSPHORUS-SENSITIVE WATER BODY.

SOD THE SWALE IMMEDIATELY AFTER THE SIDES AND BOTTOM OF THE SWALE HAVE BEEN PREPARED. LAY SOD TO A MINIMUM OF ONE FOOT OF VERTICAL DEPTH ABOVE THE BOTTOM OF THE SWALE, WITH THE LONG AXIS OF THE SOD PIECES PERPENDICULAR TO THE DIRECTION OF FLOW IN THE SWALE. STAGGER THE PIECES TO AVOID A CONTINUOUS LONGITUDINAL SEAM IN THE BOTTOM OF THE SWALE. ANCHOR THE SOD IN PLACE IN THE BOTTOM OF THE SWALE AND TO ONE FOOT OF VERTICAL DEPTH ABOVE THE BOTTOM OF THE SWALE WITH, STAKES, METAL STAPLES, OR OTHER MEANS.

5 DETAIL - BIOFILTRATION SWALE
REF: SNOHOMISH COUNTY STD PLAN 5-280 NO SCALE

AS-BUILT
2/18/05

AS-BUILT NOTE

WE HEREBY DECLARE THAT THE ROAD AND STORM DRAINAGE IMPROVEMENTS ARE LOCATED AS SHOWN ON THESE RECORD DRAWINGS.

BY: [signature] 2/22/05
PROJECT MANAGER / SURVEYOR DATE

BY: Camille L. Chriest 2/22/05
PLAT DEVELOPER / OWNER DATE

CALL FOR
UTILITY LOCATES
BEFORE
YOU DIG
1-800-424-5555

SNOHOMISH COUNTY PLANNING AND DEVELOPMENT SERVICES
APPROVED FOR CONSTRUCTION
SIGNED BY RANDOLPH R SLEIGHT
BY PE PLS ON 6/24/04
DATE

R/W PERMIT NUMBER 04-114677

PFN 03-102383

CLK 02/22/05 8:50am - P:\D\Drhh00000010\0400CAD\EC\SHEETS\AS-BUILT\Staf0009ecIM10.dwg

APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

PAVING AND DRAINAGE NOTES AND DETAILS

WESTFIELD

D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON

EXPIRES JULY 28, 2006

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REVISIONS:	APPD.
1 2/18/05 CLK AS-BUILT	

DATE: FEB, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: AS NOTED

PROJECT NUMBER:
DRHH0000-0010

DRAWING FILE:
Staf0009ecIM10.dwg

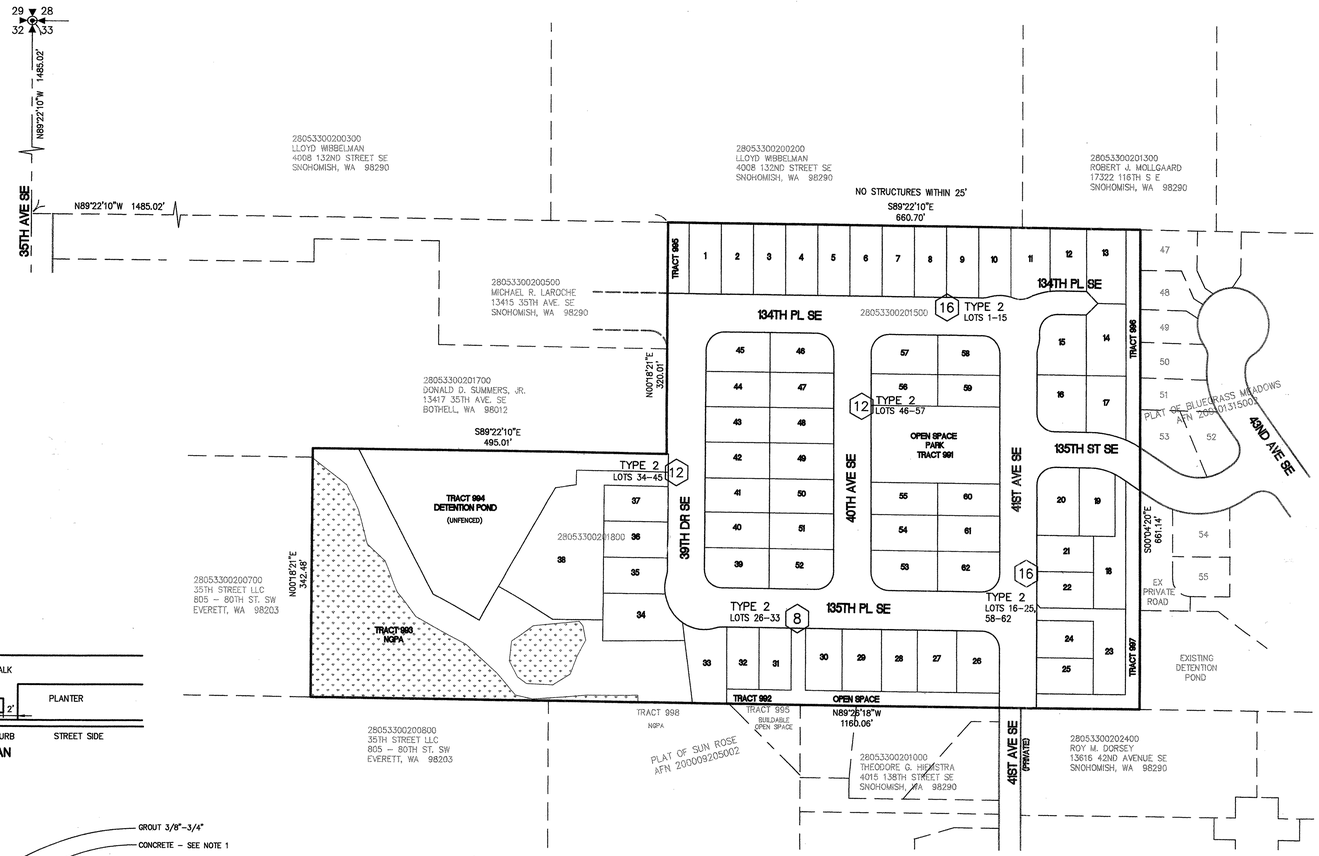
SHEET NO.
C10
OF 10

HDEV-2313

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM

PLAT OF WESTFIELD

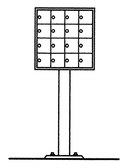
NORTH
0 50 100 200



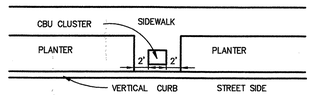
VICINITY MAP
SCALE: 1" = 2000'

DEVELOPMENT DATA:

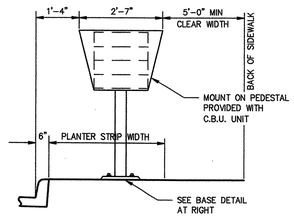
APPLICANT:	D. R. HORTON 12931 NE 126TH PLACE KIRKLAND, WASHINGTON 98034 (425) 821-3400 ATTENTION: JENNIFER STEIG, P.E.
ENGINEER/PLANNER SURVEYOR:	DAVID EVANS and ASSOCIATES, INC. 1620 W. MARINE VIEW DR. SUITE 200 EVERETT, WASHINGTON 98201 (425) 259-4099 ATTENTION: JACK N. MOLVER, P.E.
PARTIES OF INTEREST:	LELAND & KRISTI WYLIE 13409 35TH AVE SE SNOHOMISH, WASHINGTON 98296 (425) 337-3971 MARVIN HOWE 13401 35TH AVE SE SNOHOMISH, WASHINGTON 98296 (425) 337-3025 RICK & CELIA WAHL 2523 130TH ST SE EVERETT, WASHINGTON 98208



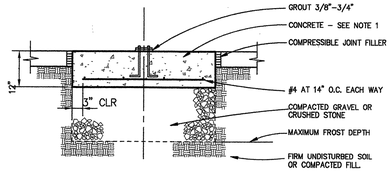
FRONT



PLAN



SIDE VIEW



BASE PLATE DETAIL

NOTES:

1. FOR ACCESS AND SUBCOLLECTOR STREETS WHERE THE POSTED SPEED LIMIT IS 25 MPH OR LESS.
2. MAILBOXS MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.
3. LOCATION OF MAILBOXES SUBJECT TO APPROVAL BY THE DIRECTOR FOR ACCESS AND SIGHT DISTANCE REQUIREMENTS.
4. COLLECTION BOX UNITS (CBU) INCLUDING PEDESTAL, BASE PLATE, BREAKAWAY BOLTS AND ASSOCIATED CONCRETE SLAB SHALL BE INSTALLED BY THE CONTRACTOR.

BASE CONSTRUCTION NOTES:

1. CONCRETE: 3000 PSI AT 28 DAYS, 6% AIR ENTRAINMENT 3" SLUMP, PLACE IN ACCORDANCE WITH AG-301.
2. REINFORCING STEEL: ASTM A615, GRADE 60.
3. ANCHOR BOLTS: PROVIDED BY USPS WITH TEMPLATE.
4. GROUT: NON-SHRINK, NON-METALLIC, 5000 PSI MINIMUM: CORP OF ENGINEERS, CRD-C621.
5. THIS BASE DETAIL CAN BE USED FOR NEIGHBORHOOD DELIVERY AND COLLECTION BOX UNITS (NDCBU). CLUSTER BOXES AND PARCEL LOCKERS WITH 4"x10" BOLT PATTERN.
6. REQUIRED EXPANSION BOLT CAPACITY, BASED ON CALCULATED DESIGN LOAD=3100 LBS TENSION, 2000 LBS SHEAR.

CBU MAILBOX CLUSTER DETAIL

NO SCALE

(X) = PROPOSED NUMBER OF BOXES PER CBU UNIT LOCATION

POSTMASTER MAILBOX APPROVAL

SIGNATURE ON FILE
MAILBOX LOCATION APPROVAL
SNOHOMISH COUNTY POST OFFICE
JULY 9, 2004
DATE

MAILBOX LOCATION PLAN

WESTFIELD

D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON

7/14/04

JACK N. MOLVER — REGISTERED PROFESSIONAL ENGINEER — STATE OF WASHINGTON — EXPIRES JULY 28, 2004

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REVISIONS:	APPD.

DATE: FEB, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: 1"=100'

PROJECT NUMBER:
DRHH0000-0010

DRAWING FILE:
Staf0009ecMB01.dwg

SHEET NO.
MB1
OF 1

4DEV-2314

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A PORTION OF THE NW 1/4 OF SECTION 33, T. 28 N., R. 5 E., W.M.

GEOTECHNICAL REPORT

Westfield
35th Avenue SE and 134th Street SE
Snohomish County, Washington

Project No. T-5457

Prepared for:

Stafford Homes
Kirkland, Washington

December 12, 2003

TERRA ASSOCIATES, Inc.

Consultants in Geotechnical Engineering, Geology
and
Environmental Earth Sciences

December 12, 2003
Project No. T-5457

Ms. Jennifer Steig
Stafford Homes
12931 NE 126th Place, Building B-1
Kirkland, Washington 98034

Subject: Geotechnical Report
Westfield
35th Avenue SE and 134th Street SE
Snohomish County, Washington

Dear Ms. Steig:

As requested, we have conducted a geotechnical engineering study for the subject project. The attached report presents our findings and recommendations for the geotechnical aspects of project design and construction.

Our field exploration indicates the site is underlain primarily by native, medium dense to very dense silty sand with gravel. We observed 1.5 to 2.0 feet of existing fill in 2 of the 13 test pits, and approximately 2.0 to 2.5 feet of surficial organic soils in the south-central portion of the site. This organic material may be associated with application of compost and/or manure during past farming of the property. We did not observe groundwater seepage in any of the test pits.

Based on our study, it is our opinion that the proposed development is feasible from a geotechnical standpoint. Suitable bearing for standard spread footing foundations will be provided by subgrades consisting of undisturbed native soil or compacted structural fill. Detailed recommendations addressing these issues and other geotechnical design considerations are presented in the attached report.

We trust the information presented is sufficient for your current needs. If you have any questions or require additional information, please call.

Sincerely yours,
TERRA ASSOCIATES, INC.

John G. Adolfs, P.E.
Project Manager

Theodore J. Sternberg, P.E.
Principal

12-12-03

cc: Mr. Grant Silver, David Evans and Associates, Inc.

EXPIRES 6/18/05

12525 Willows Road, Suite 101, Kirkland, Washington 98034
Phone (425) 821-7777 • Fax (425) 821-4334

TABLE OF CONTENTS

December 12, 2003
Project No. T-5457

- Below-grade walls
- Stormwater detention pond
- Drainage
- Utilities
- Pavements

3.0 SITE CONDITIONS

3.1 Surface

The site is an assemblage of three parcels totaling approximately 13.6 acres. The site is located several hundred feet east of 35th Avenue SE, and south of and adjacent to the right-of-way for 134th Street SE in Snohomish County, Washington. The approximate location of the site is shown on Figure 1.

Three single-family residences and associated outbuildings currently occupy the site. Site grades are relatively flat to rolling, with a gentle overall grade down to the southwest. Vegetation consists primarily of grass pasture, with occasional mature coniferous and deciduous trees and brush.

3.2 Soils

In general, the site soils consist of four to ten inches of sod and topsoil overlying medium dense to very dense silty sand with gravel. All of the test pits, except Test Pit TP-8, terminated in dense to very dense glacial till or glacial till-like soils. Test Pit TP-8 was excavated to determine the depth of organic surface soil, and was terminated approximately 3.5 feet below the ground surface. We observed about 2.0 to 2.5 feet of dark brown organic sandy silt in Test Pits TP-7 through TP-9, located in the south-central portion of the site. This may have developed from application of compost and manure during past farming.

We observed approximately 1.5 and 2.0 feet of fill/topsoil overlying non-organic native soils in Test Pits TP-2 and TP-4, respectively. The fill generally consisted of firm, dry silty sand with gravel.

The *Geologic Map of the Everett 7.5-Minute Quadrangle, Snohomish County, Washington,* by James P. Minard (1985), shows the site underlain predominantly by Vashon glacial till. The dense to very dense silty sand with gravel we observed in the test pits is consistent with this geologic mapping.

Detailed descriptions of the subsurface conditions encountered are presented on the Test Pit Logs in Appendix A. The approximate locations of the test pits are shown on Figure 2.

3.3 Groundwater

We did not observe groundwater seepage in any of the test pits. We observed occasional mottling of weathered soils overlying the glacial till and glacial till-like soils in several of the test pits. The mottled soils are an indication that a seasonal perched water table develops on the relatively impermeable glacial till at times during the wet winter season. Perched groundwater levels and flow rates will fluctuate seasonally and typically reach their highest levels during and shortly following the wet winter months (October through May).

December 12, 2003
Project No. T-5457

4.0 DISCUSSION AND RECOMMENDATIONS

4.1 General

Based on our study, in our opinion, the site is suitable for the proposed development. The structures can be supported on conventional spread footings bearing on competent native soils below the upper organic surficial soils and fill. Alternatively, if required by final building elevations, structural fill placed and compacted above these native soils can be used to support the building foundations. Floor slabs and pavements can be similarly supported.

The native soils contain a sufficient amount of fines that will make them difficult to compact as structural fill when too wet. The ability to use native soil from site excavations as structural fill will depend on the soil's moisture content and the prevailing weather conditions at the time of construction. If grading activities will take place during the winter season, the owner should be prepared to import clean granular material for use as structural fill and backfill.

We do not expect that groundwater conditions will have a significant adverse impact on site development, including utility construction.

Detailed recommendations regarding these issues and other geotechnical design considerations are provided in the following sections of this report. Our recommendations should be incorporated into the final design drawings and construction specifications.

4.2 Site Preparation and Grading

To prepare the site for construction, all vegetation, organic surface soils, existing fill, and other deleterious materials should be cleared from below new areas of construction. Based on conditions observed at the test pits, surface stripping depths ranging from 4 to 12 inches should be expected to remove organic topsoil over most the site. The exception to this should be expected in the vicinity of Test Pits TP-2, TP-4, TP-7, TP-8, and TP-9. Excavation to remove existing fill and organic soils approaching 2.0 to 2.5 feet should be expected in the vicinity of these test pits. Stripped vegetation debris should be removed from the site. Organic topsoil and existing fill that contains organic debris will not be suitable for use as structural fill, but may be used for limited depths in non-structural areas.

Once clearing and stripping operations are complete, cut and fill operations can be initiated to establish desired grades. Prior to placing fill, all exposed surfaces should be proofrolled to determine if any isolated soft and yielding areas are present. Proofrolling should also be performed in cut areas that will provide direct support for new construction. If excessively yielding areas are observed and cannot be stabilized in place by compaction, the affected soils should be excavated and removed to firm bearing and grade restored with new structural fill. If the depth of excavation to remove unstable soils is excessive, use of a geotextile reinforcing/separation fabric, such as Mirafi 500X or equivalent, can be considered on conjunction with structural fill. Our experience has shown that, in general, a minimum of 18 inches of a clean, granular structural fill over the geotextile fabric should establish a stable bearing surface.

December 12, 2003
Project No. T-5457

Our study indicates that the native soils contain a sufficient percentage of fines (silt and clay size particles) that will make them difficult to compact as structural fill if they are too wet or too dry. Accordingly, the ability to use native soils from site excavations as structural fill will depend on their moisture content and the prevailing weather conditions when site grading activities take place. Native soils that are too wet to properly compact could be dried by aeration during dry weather conditions, or mixed with an additive such as cement, cement kiln dust (CKD), or lime to stabilize the soil and facilitate compaction. If an additive is used, additional Best Management Practices (BMPs) for its use should be incorporated into the Temporary Erosion and Sedimentation Control (TESC) plan for the project.

If grading activities are planned during the wet winter months, or if they are initiated during the summer and extend into fall and winter, the owner should be prepared to import wet weather structural fill. For this purpose, we recommend importing a granular soil that meets the following grading requirements.

U.S. Sieve Size	Percent Passing
6 inches	100
No. 4	75 maximum
No. 200	5 maximum*

*Based on the 3/4-inch fraction.

Prior to use, Terra Associates, Inc. should examine and test all materials imported to the site for use as structural fill.

Structural fill should be placed in uniform loose layers not exceeding 12 inches and compacted to a minimum of 95 percent of the soil's maximum dry density, as determined by American Society for Testing and Materials (ASTM) Test Designation D-698 (Standard Proctor). The moisture content of the soil at the time of compaction should be within two percent of its optimum, as determined by this ASTM standard. In non-structural areas or for backfill in utility trenches below a depth of 4 feet, the degree of compaction can be reduced to 90 percent.

4.3 Excavations

All excavations at the site associated with confined spaces, such as utility trenches, must be completed in accordance with local, state, or federal requirements. Based on current Occupational Safety and Health Administration (OSHA) regulations, the near-surface fills and medium dense to dense native soils would generally be classified as Group C soils. The very dense glacial till soils would be classified as Group A soils.

Accordingly, side slopes on site excavations greater than 4 feet but less than 20 feet in depth should be laid back at a gradient of 1.5:1 for the Group C soils. Group A soils can be sloped to an inclination of 0.75:1. Alternatively, utility trench sidewalls can be supported by a properly designed and installed shoring trench box.

Light seepage of perched groundwater should be anticipated in excavations extending into the dense to very dense glacial till in the wintertime. We expect the rate and volumes of the seepage will be low, and that conventional sump pumping procedures and a system of collection trenches, if necessary, should be capable of maintaining relatively dry excavations for construction purposes.

December 12, 2003
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This information is provided solely for the benefit of the owner and other design consultants, and should not be construed to imply that Terra Associates, Inc. assumes responsibility for job site safety. It is understood that job site safety is the sole responsibility of the project contractor.

4.4 Foundations

Spread Footings

Residential structures may be supported on conventional spread footing foundations bearing on competent inorganic native soils or on structural fills placed above competent soils. Perimeter foundations exposed to the weather should bear at a minimum depth of 1.5 feet below final exterior grades for frost protection. Interior foundations can be constructed at any convenient depth below the floor slab.

We recommend designing foundations for a net allowable bearing capacity of 2,500 pounds per square foot (psf). For short-term loads, such as wind and seismic, a one-third increase in this allowable capacity can be used. With the anticipated loads and this bearing stress applied, building settlements should be less than one-half inch.

For designing foundations to resist lateral loads, a base friction coefficient of 0.35 can be used. Passive earth pressures acting on the sides of the footings can also be considered. We recommend calculating this lateral resistance using an equivalent fluid weight of 300 pounds per cubic foot (pcf). We recommend not including the upper 12 inches of soil in this computation because it can be affected by weather or disturbed by future grading activity. This value assumes the foundation will be constructed next against competent soil or backfilled with structural fill, as described in Section 4.2 of this report. The values recommended include a safety factor of 1.5.

4.5 Slab-on-Grade Floors

Slab-on-grade floors may be supported on subgrades prepared as recommended in Section 4.2 of this report. Immediately below the floor slabs, we recommend placing a four-inch thick capillary break layer of clean free-draining, coarse, sand or fine gravel that has less than three percent passing the No. 200 sieve. This material will reduce the potential for upward capillary movement of water through the underlying soil and subsequent wetting of the floor slabs.

Where moisture by vapor transmission is undesirable, a durable plastic membrane should be placed on the capillary break layer. To protect the membrane from drainage construction and to aid in uniform curing of the floor slab, we suggest covering the membrane with two inches of coarse sand or fine gravel.

4.6 Below-Grade Walls

The magnitude of earth pressure development on below-grade walls will partly depend on the quality of the wall backfill. We recommend placing and compacting wall backfill as structural fill. Wall backfill below structurally loaded areas, such as pavements or floor slabs, should be compacted to a minimum of 95 percent of its maximum dry density, as determined by ASTM Test Designation D-698 (Standard Proctor). In unimproved areas, the relative compaction can be reduced to 90 percent.

PFN 03-102383

Geotechnical Report
Westfield
35th Avenue SE and 134th Street SE
Snohomish County, Washington

1.0 PROJECT DESCRIPTION

The proposed project is a 62-lot residential development. We expect the residential structures will be one- to two-story, wood-frame buildings with their main floor framed over a crawl space or constructed at grade. An undated topographic site plan by David Evans and Associates, Inc. (DEA) indicates grading of roadway and lot areas will consist of moderate cuts and fills. The plan shows rockeries facing vertical breaks in grade at seven locations. The rockeries are shown facing both cuts and fills. The maximum rockery height shown is ten feet against a cut on the northern margin of the site. A rockery with a maximum height of six feet is shown constructed against fill in the southwestern portion of the site.

Site stormwater will be collected and routed to a detention pond located in the western portion of the site. The pond consists of one cell with a bottom elevation of about Elev. 402, approximately 4 to 6 feet below the existing ground surface. A fill berm will be constructed on the western margin, and portions of the southern and northern margins of the pond. The fill berm has a maximum height of about six feet above the existing ground surface. The interior sideslopes of the pond are shown graded to an inclination of 4:1 (Horizontal:Vertical). Exterior berm slopes are graded to an inclination of 3:1.

The recommendations contained in the following sections of this report are based on our understanding of these design features. If actual features vary or changes are made, we should review them in order to modify our recommendations, as required. We should review final design drawings and specifications to verify that our recommendations have been properly interpreted and incorporated into project design.

2.0 SCOPE OF WORK

We performed our subsurface explorations at the site on October 9 and November 7, 2003. We excavated a total of 13 test pits to maximum depths ranging from about 3.5 to 9.5 feet below existing surface grades. Using the information obtained from the subsurface exploration, we performed analyses to develop preliminary geotechnical recommendations for project design and construction. Specifically, this report addresses the following:

- Soil and groundwater conditions
- Site preparation and grading
- Excavations
- Foundations
- Slab-on-grade floors

NO.	DATE	DESCRIPTION

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WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Prepared by: MvG
Designed by:
Approved by: TJS
Date: APR 2004

Sheet 1 G-1

Project No. T-5457

HDEV-2315

To guard against hydrostatic pressure development, drainage must be installed behind the wall. Wall drainage can be provided by attaching prefabricated wall drainage panels, such as Miradrain G100N, to the backfilled side of the wall, or by backfilling the wall with a clean granular material, such as pea gravel. A foundation drain consisting of a four-inch diameter perforated PVC pipe should be installed at the base of the wall for collection and removal of the intercepted groundwater. The foundation drain should be surrounded by at least 6 inches of pea gravel, extending at least 12 inches above the pipe.

With wall backfill placed and compacted as recommended and drainage properly installed, unrestrained walls can be designed for an active earth pressure equivalent to a fluid weighing 35 pcf. For restrained walls, an additional uniform lateral pressure of 100 psf should be included in the design. These values assume a horizontal backfill condition and that no other surcharge loading, such as traffic, sloping embankments, or adjacent buildings, will act on the wall. If such conditions exist, then the imposed loading must be included in the wall design. Friction at the base of the wall foundation and passive earth pressure will provide resistance to these lateral loads. Values for these parameters are provided in Section 4.4 of this report.

4.7 Stormwater Detention Pond

The soils in the area of the planned stormwater detention pond generally consist of medium dense to very dense silty sand with gravel.

Areas where pond berms will be constructed should be stripped of organic surficial soils and existing fill prior to placement of fill. Berm fill should be placed and compacted as structural fill, as described in Section 4.2 of this report. Soils to be used as berm fill should consist of an inorganic soil with at least 20 percent fines passing the No. 200 sieve. We expect that the on-site glacial till-like soils observed at the site will meet these criteria. Prior to use, Terra Associates, Inc. should examine and test all materials proposed for use as berm fill.

Exterior berm slopes should be graded to a finished inclination no steeper than 2:1. Interior pond slopes should be graded to an inclination no steeper than 3:1. Finished slope faces should be thoroughly compacted and vegetated to guard against erosion.

4.8 Rockeries

Rockery construction is planned at several site locations. We recommend limiting cut rockeries to a height of ten feet when facing undisturbed competent native soils, and four feet where placed against unreinforced structural fill. Where buildings will be constructed above and adjacent to rockery construction, the foundations should be lowered to prevent surcharge loading on the rockery. Foundation depths should provide for a theoretical 1:1 influence line extending from the footing edge to pass beneath the rockery base.

A rockery is not intended to function as an engineered structure to resist lateral earth pressures as a retaining wall is. The primary function of a rockery is to cover the exposed excavated surface to reduce the potential of erosion. Rockery construction should conform to the Associated Rockery Contractors (ARC) Standard Rock Wall Construction Guidelines. If the rockery cannot be constructed in conformance with the ARC guidelines, or if proposed rockery heights exceed ten feet, an alternative structural wall should be used.

Where rockeries of four feet or less will be constructed against structural fill, the structural fill should be overbuilt and then cut back prior to constructing the rockery. This will provide a more competent and stable soil face behind the rockery. If rockeries placed against fill will be surcharged or will be greater than four feet in height, the fill should be reinforced using a geogrid or geotextile material, or an alternative structural wall should be used. This would apply to the rockery on the eastern margin of Lots 56 and 57 that are constructed against both native cuts and fill. A Reinforced Fill/Rockery Detail is presented as Figure 3.

4.9 Drainage

Surface

Final exterior grades should promote free and positive drainage away from the building areas. We recommend providing a gradient of at least three percent for a minimum distance of ten feet from the building perimeter, except in paved locations. In paved locations, a minimum gradient of one percent should be provided, unless provisions are included for collection and disposal of surface water adjacent to the structure.

Subsurface

We recommend installing a continuous drain along the outside lower edge of the perimeter building foundations. The foundation drains should be tightlined to an approved point of controlled discharge independent of the roof drain system. Subsurface drains must be laid with a gradient sufficient to promote positive flow to the point of discharge. All drains should be provided with cleanouts at easily accessible locations. These cleanouts should be serviced at least once every year.

4.10 Utilities

Utility pipes should be bedded and backfilled in accordance with American Public Works Association (APWA) specifications. As a minimum, trench backfill should be placed and compacted as structural fill, as described in Section 4.2 of this report. As noted, successful use of on-site soils as fill will require close moisture control. When moisture cannot be controlled to facilitate proper compaction, trench backfill should consist of an imported granular soil that meets the gradation requirements presented in Section 4.2 of this report.

4.11 Pavements

Roadway pavements within the project site should be constructed on subgrades prepared as recommended in Section 4.2 of this report. Regardless of the relative compaction achieved, the subgrade must be firm and relatively unyielding before paving. Proofrolling the subgrade with heavy construction equipment should be completed to verify this condition.

The thickness of the various components of the pavement depends on the subgrade soils and the traffic conditions to which the pavement will be subjected. We expect traffic to mainly consist of light passenger vehicles, with only occasional heavy service vehicles. Based on this information, and assuming a properly prepared and stable subgrade, we recommend the following pavement sections:

- Two inches of asphalt concrete (AC) over four inches of crushed rock base (CRB)
- Two inches of AC over three inches of asphalt-treated base (ATB)

All paving materials should conform to the Washington State Department of Transportation (WSDOT) specifications for Class B asphalt concrete, ATB, and CRB surfacing.

Long-term pavement performance will depend on surface drainage. A poorly-drained pavement section will be subject to premature failure as a result of surface water infiltrating into the subgrade soils and reducing their supporting capability. To improve performance, we recommend surface drainage gradients of at least two percent. Some longitudinal and transverse cracking of the pavement surface should be expected over time. Regular maintenance should be planned to seal cracks when they occur.

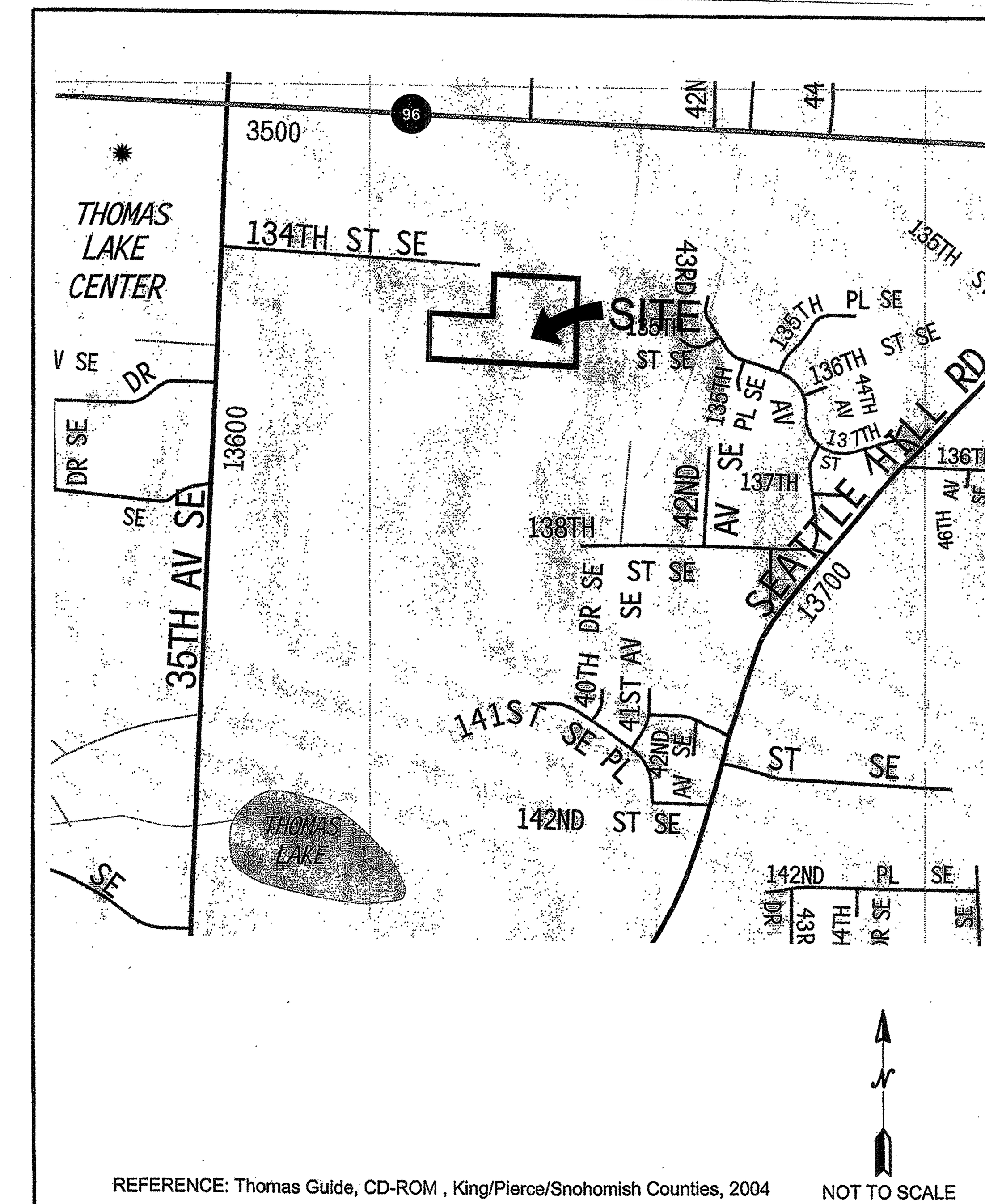
5.0 ADDITIONAL SERVICES

Terra Associates, Inc. should review the final project designs and specifications in order to verify that earthwork and foundation recommendations have been properly interpreted and incorporated into project design. We should also provide geotechnical services during construction to observe compliance with our design concepts, specifications, and recommendations. This will allow for expedient design changes if subsurface conditions differ from those anticipated prior to the start of construction.

6.0 LIMITATIONS

We prepared this report in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made. This report is the copyrighted property of Terra Associates, Inc., and is intended for specific application to the Westfield project in Snohomish County, Washington. This report is for the exclusive use of Stafford Homes and their authorized representatives.

The analyses and preliminary recommendations presented in this report are based on data obtained from the on-site test pits. Variations in soil conditions can occur, the nature and extent of which may not become evident until construction. If variations appear evident, Terra Associates, Inc. should be requested to re-evaluate the recommendations in this report prior to proceeding with construction.



REFERENCE: Thomas Guide, CD-ROM, King/Pierce/Snohomish Counties, 2004 — NOT TO SCALE

Terra Associates, Inc. — Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

VICINITY MAP
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure 1

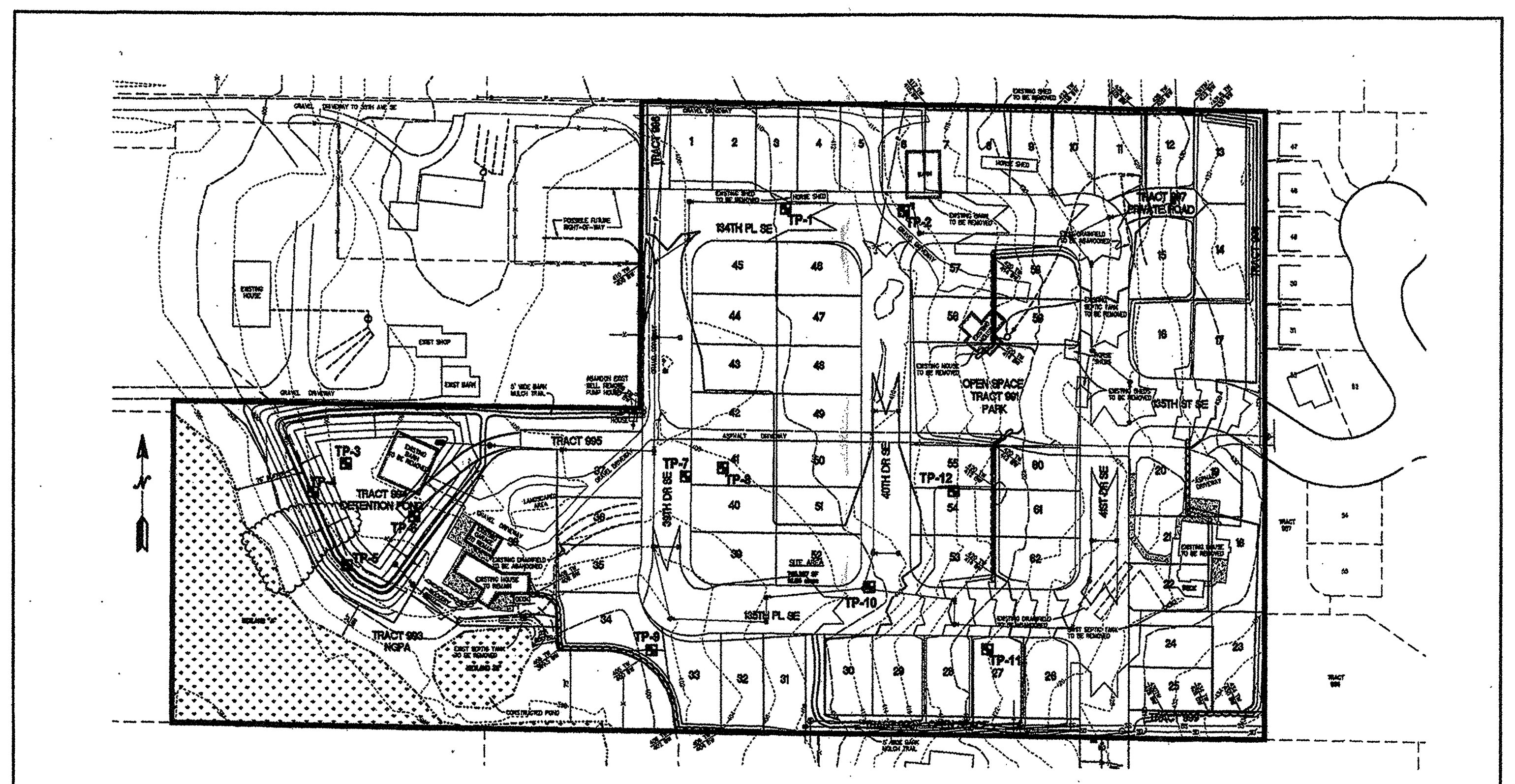
APPENDIX A
FIELD EXPLORATION AND LABORATORY TESTING

Westfield
Snohomish County, Washington

We explored subsurface conditions at the site on October 9 and November 7, 2003 by excavating a total of 13 test pits to maximum depths ranging from about 3.5 to 9.5 feet below existing surface grades. Test pits were located in the field by measurements from existing site features. Surface elevations were interpreted from the topographic survey prepared by DEA. The approximate test pit locations are shown on Figure 2. The Test Pit Logs are presented on Figures A-2 through A-8.

A geological engineer from our office conducted the field exploration, maintained a log of each test pit, classified the soils encountered, collected representative soil samples, and observed pertinent site features. All soil samples were visually classified in accordance with the Unified Soil Classification System (USCS) described on Figure A-1.

Representative soil samples obtained from the several of the test pits were placed in sealed containers and taken to our laboratory for further examination and testing. The moisture content of each sample was measured and is reported on the test pit logs. Grain size analyses were performed on seven of the samples, the results of which are shown on Figures A-9 through A-12.



NOTE:
THIS SITE PLAN IS SCHEMATIC. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE. IT IS INTENDED FOR REFERENCE ONLY AND SHOULD NOT BE USED FOR DESIGN OR CONSTRUCTION PURPOSES.

REFERENCE:
SITE PLAN PROVIDED BY DAVID EVANS AND ASSOCIATES, INC.

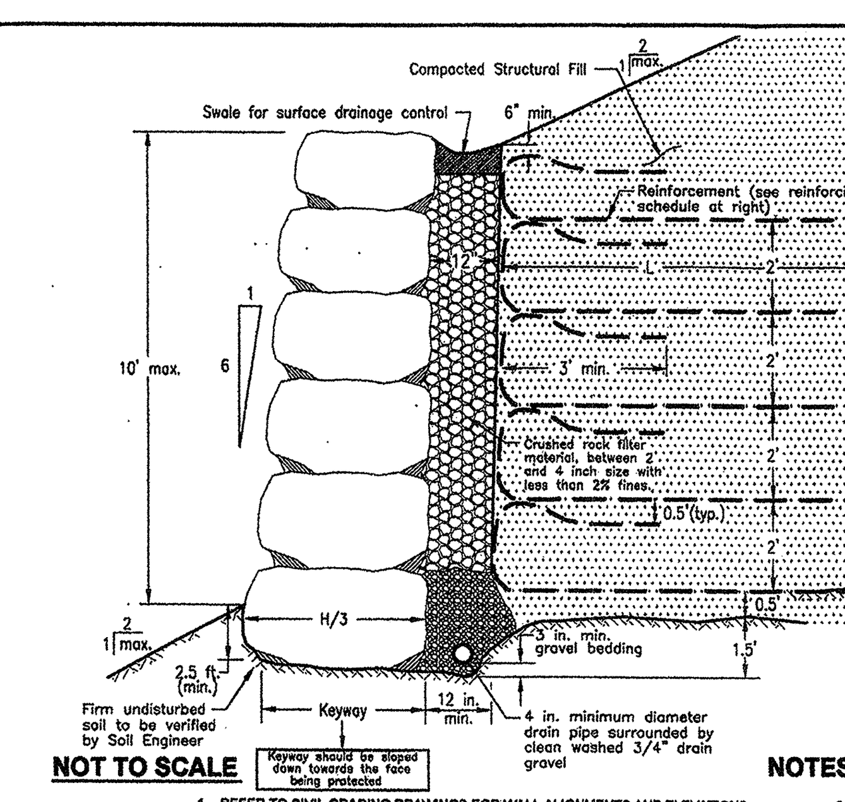
LEGEND:
TP-1 APPROXIMATE LOCATION OF TEST PIT

0 100 200 APPROXIMATE SCALE IN FEET

Terra Associates, Inc. — Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

EXPLORATION LOCATION PLAN
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure 2



Wall Height	Layer No.	Reinforcement (use Mirafi or equivalent)	Length "L" (feet)	Height (feet)
>4 feet	1	Mirafi HS400	4.0	0.5
	2	Mirafi HS400	4.0	2.5
6 feet	1	Mirafi HS400	5.0	0.5
	2	Mirafi HS400	5.0	2.5
	3	Mirafi HS400	5.0	4.5
8 feet	1	Mirafi HS400	7.0	0.5
	2	Mirafi HS400	7.0	2.5
	3	Mirafi HS400	7.0	4.5
	4	Mirafi HS400	7.0	6.5
10 feet	1	Mirafi HS400	8.0	0.5
	2	Mirafi HS400	8.0	2.5
	3	Mirafi HS400	8.0	4.5
	4	Mirafi HS400	8.0	6.5
	5	Mirafi HS400	8.0	8.5

NOT TO SCALE

NOTES

1. REFER TO CIVIL GRADING DRAWINGS FOR WALL ALIGNMENTS AND ELEVATIONS.
2. ROCKERY FACING TO BE CONSTRUCTED IN ACCORDANCE WITH ASSOCIATED ROCKERY CONTRACTORS (ARC) GUIDELINES.
3. ROCK QUALITY SHALL MEET WSDOT SPECIFICATION 9-13.7, ROCK FOR ROCK WALL.
4. ALL CAP ROCKS MUST BE SECURE AND NOT ABLE TO BE DISLODGED BY HAND.
5. GEOTEXTILE REINFORCEMENT SHALL BE PLACED ON HORIZONTAL SURFACES OF COMPACTED STRUCTURAL FILL. GEOTEXTILE SHALL BE PULLED TIGHT AND SHALL BE FREE OF FOLDS OR RIDGES OF LOOSE FABRIC.
6. PROTECT GEOTEXTILE FROM CONSTRUCTION DAMAGE PER MANUFACTURERS SPECIFICATIONS. CONSTRUCTION EQUIPMENT SHALL NOT TRAVEL DIRECTLY ON REINFORCEMENT. ANY GEOTEXTILE THAT IS DAMAGED SHALL BE REPLACED WITH NEW GEOTEXTILE AT CONTRACTORS EXPENSE.
7. GEOTEXTILE SHALL BE MIRAFI OR EQUIVALENT AS SHOWN IN THE REINFORCING SCHEDULE. ALL GEOTEXTILE SHALL BE CLEARLY IDENTIFIED AND LABELED IN THE FIELD. ANY UNMARKED ROLLS OR PORTIONS THEREOF THAT CANNOT BE IDENTIFIED SHALL NOT BE USED IN WALL CONSTRUCTION.
8. FOR ROCKERY HEIGHT OF LESS THAN FOUR FEET, STRUCTURAL FILL SHALL BE OVERBUILT IN FRONT OF ROCKERY ALIGNMENT A HORIZONTAL DISTANCE EQUAL TO THE ROCKERY HEIGHT OR THREE FEET WHICHEVER IS GREATER. ROCKERY ALIGNMENT SHALL THEN BE EXCAVATED THROUGH COMPACTED STRUCTURAL FILL TO EXPOSE COMPETENT STABLE SOIL FACE AGAINST WHICH ROCKERY CAN BE ASSEMBLED.

Terra Associates, Inc. — Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

REINFORCED FILL /ROCKERY DETAIL
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure 3

NO. | DATE | DESCRIPTION

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WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Prepared by: MvG
Designed by:
Approved by: TJS
Date: APR 2004

Sheet 2 G-2

PFN 03-102383

Project No. T-5457

HDEV-2316

A PORTION OF THE NW 1/4 OF SECTION 33, T. 28 N., R. 5 E., W.M.

MAJOR DIVISIONS			LETTER SYMBOL	TYPICAL DESCRIPTION
COARSE GRAINED SOILS More than 50% material larger than No. 200 sieve size	GRAVELS More than 50% of coarse fraction is larger than No. 4 sieve	Clean Gravels (less than 5% fines)	GW	Well-graded gravels, gravel-sand mixtures, little or no fines.
			GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines.
		Gravels with fines	GM	Silty gravels, gravel-sand-silt mixtures, non-plastic fines.
			GC	Clayey gravels, gravel-sand-clay mixtures, plastic fines.
	SANDS More than 50% of coarse fraction is smaller than No. 4 sieve	Clean Sands (less than 5% fines)	SW	Well-graded sands, gravelly sands, little or no fines.
			SP	Poorly-graded sands or gravelly sands, little or no fines.
		Sands with fines	SM	Silty sands, sand-silt mixtures, non-plastic fines.
			SC	Clayey sands, sand-clay mixtures, plastic fines.
FINE GRAINED SOILS More than 50% material smaller than No. 200 sieve size	SILTS AND CLAYS Liquid limit is less than 50%		ML	Inorganic silts, rock flour, clayey silts with slight plasticity.
			CL	Inorganic clays of low to medium plasticity, (lean clay).
			OL	Organic silts and organic clays of low plasticity.
	SILTS AND CLAYS Liquid limit is greater than 50%		MH	Inorganic silts, elastic.
			CH	Inorganic clays of high plasticity, fat clays.
			OH	Organic clays of high plasticity.
HIGHLY ORGANIC SOILS			PT	Peat.

DEFINITION OF TERMS AND SYMBOLS

COHESIONLESS

Density	Standard Penetration Resistance in Blows/Foot
Very loose	0-4
Loose	4-10
Medium dense	10-30
Dense	30-50
Very dense	>50

COHESIVE

Consistency	Standard Penetration Resistance in Blows/Foot
Very soft	0-2
Soft	2-4
Medium stiff	4-8
Stiff	8-16
Very stiff	16-32
Hard	>32

- 2" OUTSIDE DIAMETER SPLIT SPOON SAMPLER
- 2.4" INSIDE DIAMETER RING SAMPLER OR SHELBY TUBE SAMPLER
- WATER LEVEL (DATE)
- Tr TORVANE READINGS, tsf
- Pp PENETROMETER READING, tsf
- DD DRY DENSITY, pounds per cubic foot
- LL LIQUID LIMIT, percent
- PI PLASTIC INDEX
- N STANDARD PENETRATION, blows per foot

Terra Associates, Inc. Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

UNIFIED SOIL CLASSIFICATION SYSTEM
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-1

Test Pit No. TP-1

Logged by: JV
Date: 10/9/03
Approximate Elev. 410

Depth (ft.)	Soil Description	Moisture Content (%)
0	10 inches TOPSOIL.	
	Reddish-brown silty SAND to sandy SILT, loose, dry. (SM/ML)	18
5	Blue silty SAND with gravel, very dense, dry to moist, with occasional cobbles. (SM) (Glacial Till)	8
10	Test pit terminated at 8 feet. No groundwater seepage observed.	
15		

Test Pit No. TP-2

Logged by: JV
Date: 10/9/03
Approximate Elev. 414

Depth (ft.)	Soil Description	Moisture Content (%)
0	FILL: silty sandy gravel, 2-inch layer of topsoil at base of fill, firm, dry.	3
	Light brown silty SAND with gravel, loose to medium dense, dry. (SM)	10
5	Gray silty SAND with gravel, very dense, moist. (SM) (Glacial Till)	10
10	Test pit terminated at 8 feet. No groundwater seepage observed.	
15		

Terra Associates, Inc. Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

TEST PIT LOGS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-2

Test Pit No. TP-3

Logged by: JV
Date: 10/9/03
Approximate Elev. 406

Depth (ft.)	Soil Description	Moisture Content (%)
0	6 inches TOPSOIL.	
	Brown to light brown silty SAND with gravel, medium dense, dry to moist. (SM)	5
5	Grayish-tan silty SAND with gravel, dense to very dense, dry to moist. (SM) (Glacial Till)	7
		7
10	Test pit terminated at 8 feet. No groundwater seepage observed.	
15		

Test Pit No. TP-4

Logged by: JV
Date: 10/9/03
Approximate Elev. 404

Depth (ft.)	Soil Description	Moisture Content (%)
0	FILL: grayish-tan silty sand with gravel, firm, dry.	
	6 inches TOPSOIL black loamy soil, organics. (Roots/Sticks)	
	Reddish-brown silty SAND, loose, dry. (SM)	14
5	Grayish-brown silty SAND with gravel, dense, moist. (SM)	12
	Grayish-tan silty SAND with gravel, dense to very dense, moist. (SM)	11
10	Test pit terminated at 9.5 feet. No groundwater seepage observed.	
15		

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TEST PIT LOGS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-3

Test Pit No. TP-5

Logged by: JV
Date: 10/9/03
Approximate Elev. 404

Depth (ft.)	Soil Description	Moisture Content (%)
0	6 inches TOPSOIL.	
	Light brown sandy SILT to silty SAND with gravel, loose to medium dense, dry. (ML/SM)	8
	Grayish-brown silty SAND with gravel, very dense, moist. (SM) (Glacial Till)	
5	Gray silty SAND with gravel, very dense, moist. (SM) (Glacial Till)	8
10	Test pit terminated at 7.5 feet. No groundwater seepage observed.	
15		

Test Pit No. TP-6

Logged by: JV
Date: 10/9/03
Approximate Elev. 407

Depth (ft.)	Soil Description	Moisture Content (%)
0	4 inches TOPSOIL.	
	Light brown sandy SILT to silty SAND with gravel, loose to medium dense, dry. (ML/SM)	5
5	Grayish-brown silty SAND with gravel, very dense, moist. (SM) (Glacial Till)	6
		7
10	Test pit terminated at 8 feet. No groundwater seepage observed.	
15		

Terra Associates, Inc. Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

TEST PIT LOGS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-4

Test Pit No. TP-7

Logged by: JV
Date: 11/7/03
Approximate Elev. 407

Depth (ft.)	Soil Description	Moisture Content (%)
0	Dark brown organic sandy SILT, loose, moist. (OL)	
	Light brown to tan silty SAND with gravel, medium dense, moist. (SM)	8
5	Gray silty SAND with gravel, dense to very dense, moist. (SM) (Glacial Till)	9
10	Test pit terminated at 8 feet. No groundwater seepage observed.	
15		

Test Pit No. TP-8

Logged by: JV
Date: 11/7/03
Approximate Elev. 408

Depth (ft.)	Soil Description	Moisture Content (%)
0	Dark brown oragnic sandy SILT, loose, moist. (OL)	
	Light brown to tan silty SAND with gravel, medium dense, moist. (SM)	
5	Test pit terminated at 3.5 feet. No groundwater seepage observed.	
10		
15		

Terra Associates, Inc. Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

TEST PIT LOGS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-5

Test Pit No. TP-9

Logged by: JV
Date: 11/7/03
Approximate Elev. 400

Depth (ft.)	Soil Description	Moisture Content (%)
0	Dark brown organic sandy SILT, loose, moist. (OL)	
	Brownish-gray sandy SILT, loose to medium dense, moist. (ML)	23
5	Gray silty SAND to sandy SILT with gravel, dense to very dense, moist. (SM) (Glacial Till)	12
10	Test pit terminated at 8 feet. No groundwater seepage observed.	
15		

Test Pit No. TP-10

Logged by: JV
Date: 11/7/03
Approximate Elev. 409

Depth (ft.)	Soil Description	Moisture Content (%)
0	12 inches TOPSOIL.	
	Brown silty SAND with gravel, medium dense, moist. (SM) Occasional mottling.	23 16
5	Grayish-brown silty SAND with gravel, dense to very dense, moist. (SM) (Glacial Till)	10
10	Test pit terminated at 9 feet. No groundwater seepage observed.	
15		

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TEST PIT LOGS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-6

Test Pit No. TP-11

Logged by: JV
Date: 11/7/03
Approximate Elev. 422

Depth (ft.)	Soil Description	Moisture Content (%)
0	6 inches TOPSOIL.	
	Light brown sandy SILT with gravel, loose to medium dense, dry to moist. (ML)	15
5	Gray silty SAND with gravel, very dense, moist. (SM) (Glacial Till)	9
10	Test pit terminated at 8.5 feet. No groundwater seepage encountered.	
15		

Test Pit No. TP-12

Logged by: JV
Date: 11/7/03
Approximate Elev. 416

Depth (ft.)	Soil Description	Moisture Content (%)
0	6 inches TOPSOIL.	
	Light brown to grayish-brown silty SAND with gravel, loose to medium dense, moist. (SM) Occasional mottling.	22
	Brown silty SAND to sandy SILT, dense, moist. (SM/ML)	16
5	Gray silty SAND, medium dense, wet. (SM)	13
	Gray silty SAND with gravel, dense to very dense, moist. (SM) (Glacial Till)	12
10	Test pit terminated at 8.5 feet. No groundwater seepage observed.	
15		

Terra Associates, Inc. Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

TEST PIT LOGS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-7

Test Pit No. TP-13

Logged by: JV
Date: 11/7/03
Approximate Elev. 410

Depth (ft.)	Soil Description	Moisture Content (%)
0	6 inches TOPSOIL.	
	Light brown to brown silty SAND with gravel, medium dense, dry. (SM)	14
	Grayish-brown silty SAND with gravel, some cobbles, dense, moist. (SM)	
5	Gray silty SAND with gravel, very dense, moist. (SM) (Glacial Till) Occasional cobbles.	15
10	Test pit terminated at 8 feet. No groundwater seepage observed.	
15		

Terra Associates, Inc. Consultants in Geotechnical Engineering Geology and Environmental Earth Sciences

TEST PIT LOGS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-8

NO.	DATE	DESCRIPTION

Terra Associates, Inc.
Consultants in Geotechnical Engineering, Geology and Environmental Earth Sciences
12525 Willows Road, Suite 101, Kirkland, Washington 98034 • Phone (425) 821-7777 • Fax (425) 821-4334

WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Prepared by: MvG
Designed by:
Approved by: TJS
Date: APR 2004

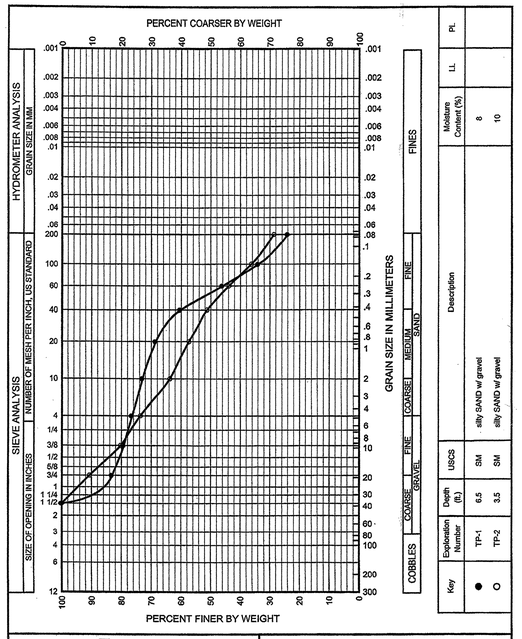
Sheet 3 G-3

Project No. T-5457

HDEV-2317

PFN 03-102383

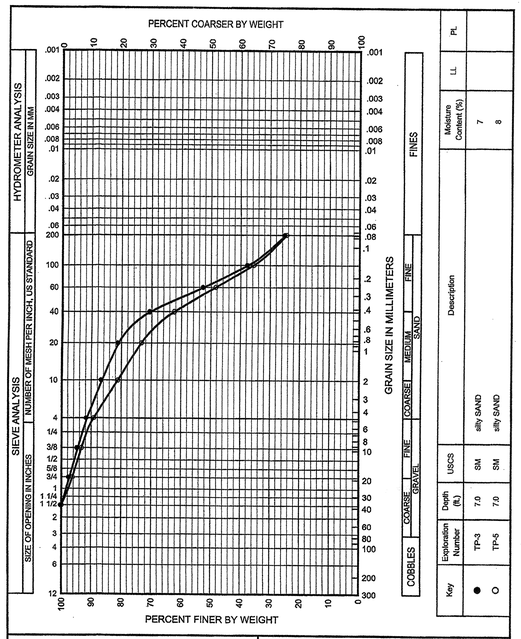
A PORTION OF THE NW 1/4 OF SECTION 33, T. 28 N., R. 5 E., W.M.



Terra Associates, Inc.
Consultants in Geotechnical Engineering, Geology and Environmental Earth Sciences

GRAIN SIZE ANALYSIS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

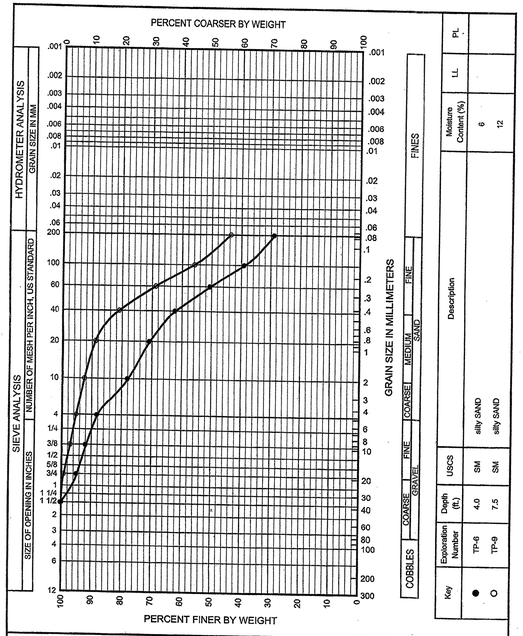
Proj. No. T-5457 | Date DEC 2003 | Figure A-9



Terra Associates, Inc.
Consultants in Geotechnical Engineering, Geology and Environmental Earth Sciences

GRAIN SIZE ANALYSIS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

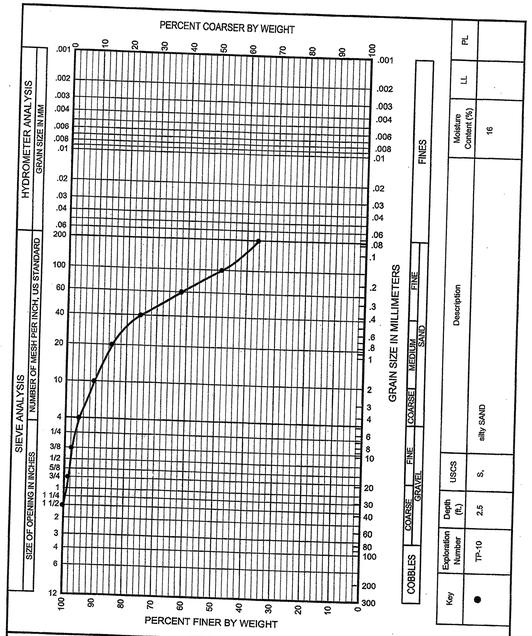
Proj. No. T-5457 | Date DEC 2003 | Figure A-10



Terra Associates, Inc.
Consultants in Geotechnical Engineering, Geology and Environmental Earth Sciences

GRAIN SIZE ANALYSIS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-11



Terra Associates, Inc.
Consultants in Geotechnical Engineering, Geology and Environmental Earth Sciences

GRAIN SIZE ANALYSIS
WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Proj. No. T-5457 | Date DEC 2003 | Figure A-12

NO.	DATE	DESCRIPTION

Terra Associates, Inc.
Consultants in Geotechnical Engineering, Geology and Environmental Earth Sciences
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WESTFIELD
SNOHOMISH COUNTY, WASHINGTON

Prepared by: MvG
Designed by:
Approved by: TJS
Date: APR 2004

Sheet 4 of 4

Project No. T-5457

PFN 03-102383

HDEV-2318

SECTION 33, TOWNSHIP 28N, RANGE 5E, W.M.

N

0 15 30 60 90

1" = 30'

PFN# 03102383

Snohomish County Planning
And Development Services
Approved For Construction

By:_____

R/W Permit No._____

The Jay Group, LLC
Landscape Architects & Environmental Consultants
1927-5th. Street Marysville, WA 98270
(360) 659-8159 FAX (360) 651-7252

State of Washington
registered
Landscape Architect
Paul Jay
certificate no. 566

WESTFIELD PRD
LANDSCAPE PLAN

FOR: D. R. HORTON
12931-NE 126TH PLACE
KIRKLAND, WA 98034

Scale: 1"=30'0"

Date: 10/24/03

Drawn By: PJ

Revision

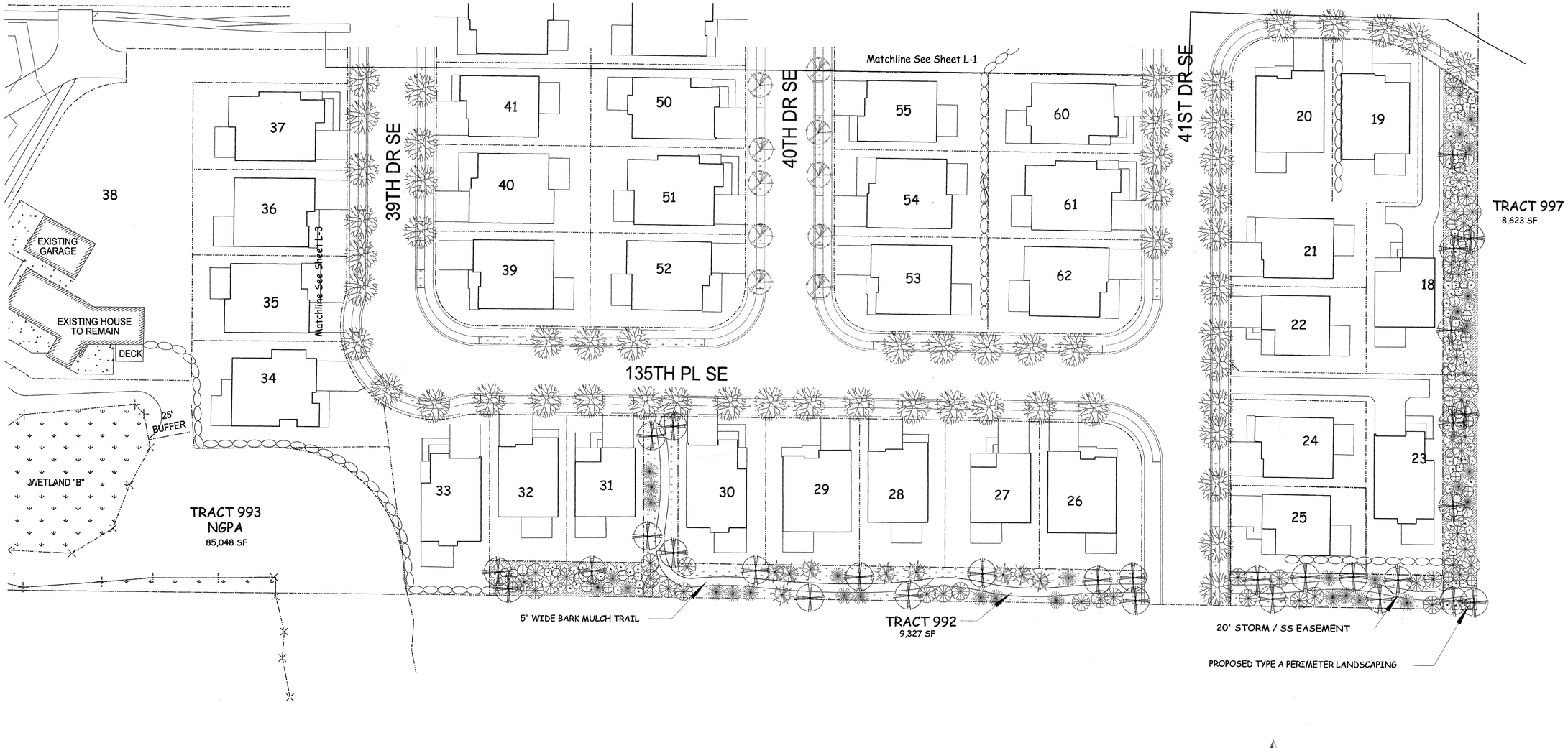
1. 1/27/04 - Owner comments
2. 2/12/04 - County comments
3. 3/31/04 - County comments
4. 4/1/04 - County comments
5. 6/8/04 - County comments

Sheet #

L-1
OF3

HDEV-2319

SECTION 33, TOWNSHIP 28N, RANGE 5E, W.M.



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1" = 30'

PFN# 03102383

Snohomish County Planning
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By:_____

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Scale: 1"=30'0"

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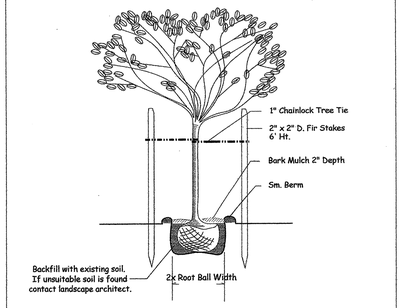
6/8/04 - County comments

Sheet #

L-2
OF 3

HDEV-2320



General Notes

The General Contractor is to provide subgrades 4" below hard surfaces plus/minus .1 foot.

All rough grading shall be positive, draining away from all structures

All stones larger than 1.5" diameter shall be removed from the growing medium.

Topsoil shall be placed at a minimum depth of 4" in all lawn and bed areas.

Topsoil shall be tilled into the existing subgrade to eliminate soil interface problems.

Topsoil shall be Red-E's Winter mix or approved equal.

All bed areas to receive 2" of fine ground fir or hemlock bark, composition mulched are not an acceptable alternative.

Trees and shrubs are to be planted at a depth 3/4" higher than the level that they were grown in the nursery.

Bark mulch is not to be placed above the root crown

All plants shall at least conform to the minimum standard established by the American Association of Nurserymen.

Lawn areas are to be hydroseeded with Van Den Akker's Emerald Velvet mix per manufacturer's specifications, or approved equal.

Substitutions are strongly discouraged, if plant availability is a problem, contact the Landscape Architect for sources or acceptable alternatives.

If the site work is different than shown on the landscape plan, or poor soils and debris are discovered, requiring changes to the landscape plan, contact the Landscape Architect for instruction.

The Landscape Contractor is responsible for maintaining the landscape during installation, until final acceptance by the owner's representative.

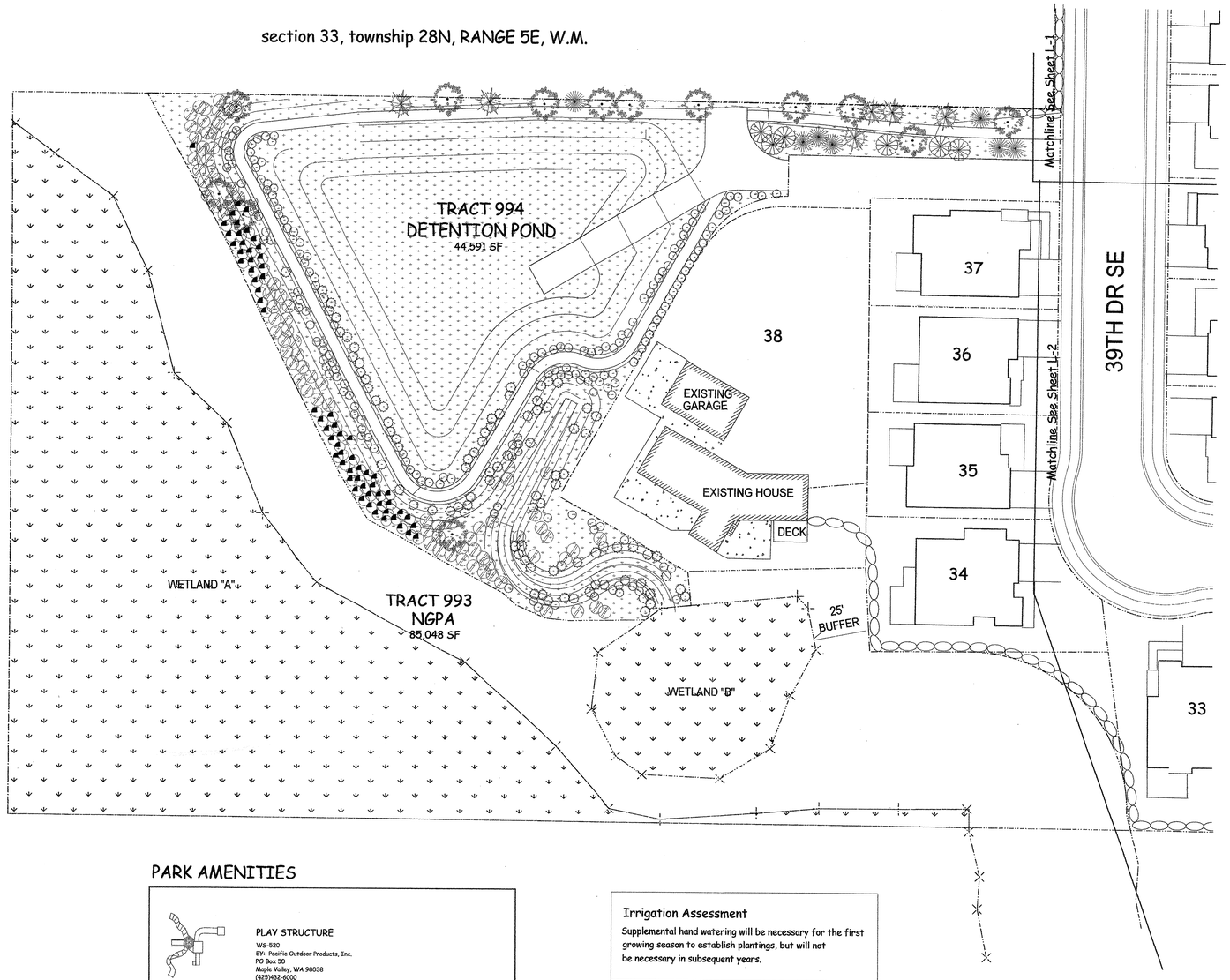
The Landscape Contractor shall warranty all materials and workmanship for a period of one year, from the time of final acceptance.

During the warranty period, the Landscape Contractor will not be responsible for plant death caused by unusual climatic conditions, vandalism, theft, fire, or poor maintenance practices. The Landscape Architect shall have sole authority to determine the cause of death.

PLANTING SCHEDULE

Symbol	Qty.	Name	Size	Condition
	5	Acer saccharum / Sugar Maple	2" cal.	B&B As Shown
	49	Cercidiphyllum japonicum / Katsura Tree	1-1/2" cal.	B&B As Shown
	33	Crataegus phaenopyrum / Washinton Hawthorn	2" cal.	B&B 25' o.c.
	127	Liquidambar styraciflua 'Worplesdon' / Sweet Gum	2" cal.	B&B 25' o.c.
	15	Populus tremuloides / Quaking Aspen	6/8' ht.	B&B As Shown
	74	Pinus contorta / Shore Pine	8' ht.	B&B 10' o.c.
	36	Thuja plicata / Western Red Cedar	8' ht.	B&B 10' o.c.
	63	Pseudotsuga menziesii / Douglas Fir	8' ht.	B&B 10' o.c.
	167	Osmaria burkwoodii / N.C.N.	24" min.	Container Grown 36" o.c.
	130	Prunus lusitanica / Portugal Laurel	24" min.	Container Grown 36" o.c.
	54	Euonymus alatus 'Compacta' / Winged Euonymus	24" min.	Container Grown 36" o.c.
	56	Philadelphus virginalis / Mock Orange	24" min.	Container Grown 36" o.c.
	64	Holodiscus discolor / Ocean Spray	2 gal.	Container Grown 4/5' o.c.
	87	Ribes sanguineum / Red Currant	2 gal.	Container Grown 4/5' o.c.
	179	Rosa nutkana / Nootka Rose	2 gal.	Container Grown 4/5' o.c.
	95	Symphoricarpos alba / Snowberry	2 gal.	Container Grown 4/5' o.c.
	1,725	Gaultheria shallon / Salal	4" pots	30" o.c.
		Note Salal will easily cover the ground at this spacing in three seasons which is why we have chosen to place it at 30" on center		
		Lawn area		

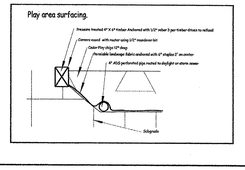
section 33, township 28N, RANGE 5E, W.M.



PARK AMENITIES

PLAY STRUCTURE
WS-520
BY: Pacific Outdoor Products, Inc.
PO Box 50
Maple Valley, WA 98038
(425)432-6000
OR APPROVED EQUAL
INSTALL PER MANUFACTURER'S SPECIFICATIONS

Countour Bench
#BP-25
BY: Pacific Outdoor Products, Inc.
PO Box 50
Maple Valley, WA 98038
(425)432-6000
OR APPROVED EQUAL
INSTALL PER MANUFACTURER'S SPECIFICATIONS



Irrigation Assessment

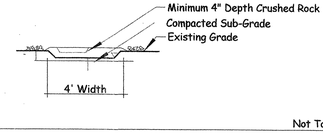
Supplemental hand watering will be necessary for the first growing season to establish plantings, but will not be necessary in subsequent years.

0 15 30 60 90

1" = 30'

N

Trail Detail



Not To Scale

PFN# 03102383

Snohomish County Planning And Development Services
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By:_____
R/W Permit No._____

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WESTFIELD PRD
LANDSCAPE PLAN
FOR: D. R. HORTON
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Scale: 1"=30'0"

Date: 10/24/03

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Revision
1. 1/27/04 - Owner comments
2. 2/12/04 - County comments
3. 3/31/04 - County comments
Sheet # 6/8/04 - County comments

L-3
OF 3

HDEV-2321

LEGEND:

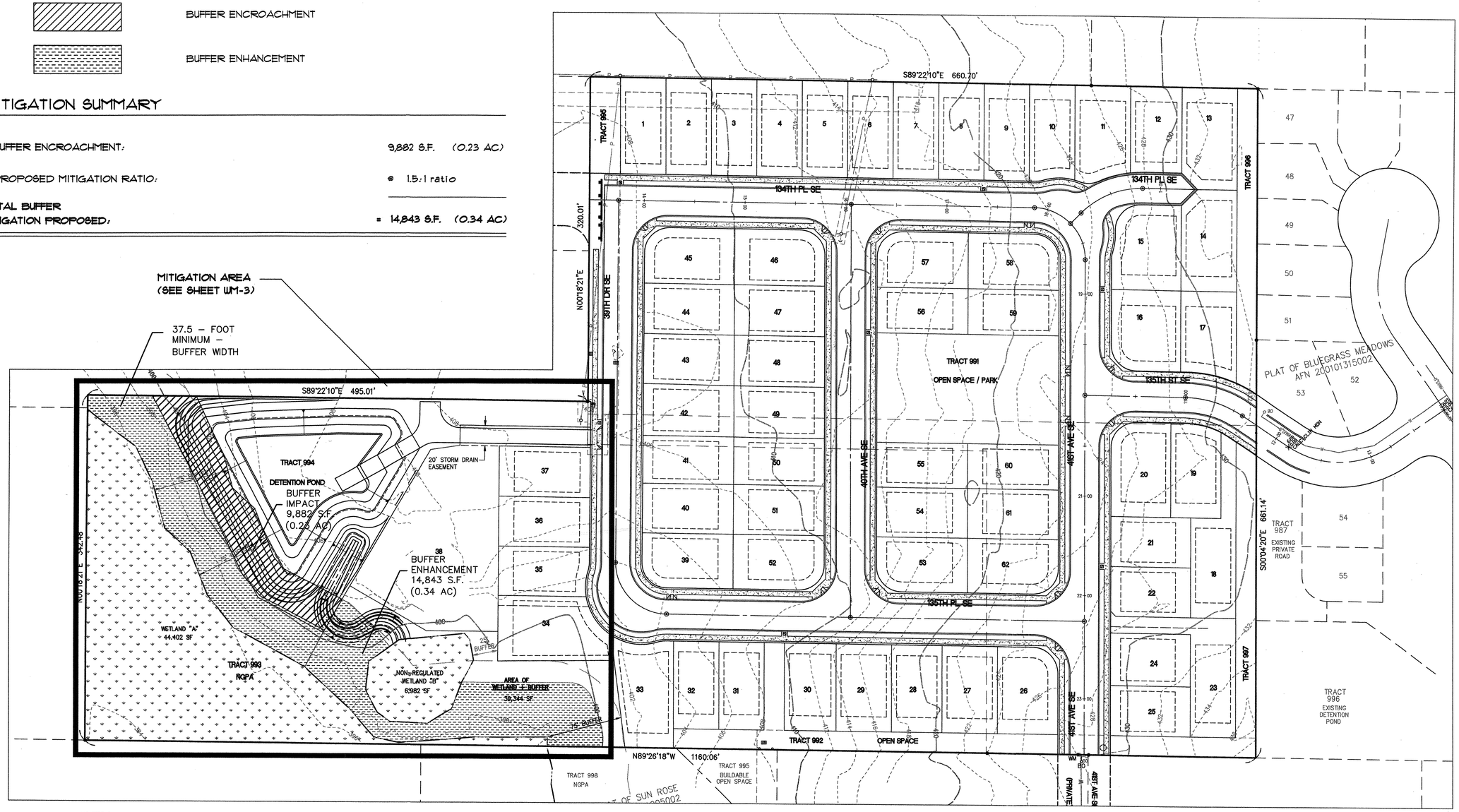
BUFFER ENCROACHMENT

BUFFER ENHANCEMENT

MITIGATION SUMMARY

BUFFER ENCROACHMENT:	9,882 S.F. (0.23 AC)
PROPOSED MITIGATION RATIO:	@ 1.5:1 ratio
TOTAL BUFFER MITIGATION PROPOSED:	= 14,843 S.F. (0.34 AC)

SEC 33, TWP. 28N, R 5E, WM



INDEX:

0 150 100 150

SCALE: 1"=50'

(PFN 02-102383)

FINAL WETLAND BUFFER MITIGATION IMPACT SUMMARY

WESTFIELD
D.R. HORTON
SNOHOMISH COUNTY, WASHINGTON

STATE OF WASHINGTON REGISTERED LANDSCAPE ARCHITECT
BRUCE W. POWERS
CERTIFICATE NO. 803

DAVID EVANS AND ASSOCIATES INC.
415 - 118th Avenue SE
Bellevue Washington 98005-3518
Phone: 425.519.6500

REVISIONS: APPD.

DATE: JUNE 3, 2004
DESIGN: GBK
DRAWN: GBK
CHECKED: BCF
REVISION NUMBER:

SCALE: 1"=30'

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: DRHH0000-0010

SHEET NO. WM-1 OF 4

HDEV-2322

gbk 06/03/04 8:01am - P:\s\STAF0000-0009\0300 cadd\final mitigation plan\DRH10_Wm1.dwg

1.0 MITIGATION PLAN OVERVIEW

1.1 MITIGATION SEQUENCING

All impacts to sensitive areas have been avoided to the extent possible. No impacts to Wetland A are proposed. Proposed impacts are limited only to encroachments of currently degraded wetland buffer.

1.2 UNAVOIDABLE IMPACTS TO SENSITIVE AREAS

A total of 0.23 acre (9,882 S.F.) of buffer will be impacted by the proposed project. The impact is necessary for construction of an on-site detention pond. The detention pond will require buffer encroachment in one location where the buffer is dominated by mowed grass.

1.3 MITIGATION SITE SELECTION

The mitigation site was selected primarily based on degraded conditons of the existing wetland buffer. All mitigation will occur on-site to ensure that biological functions (wildlife habitat support) be be enhanced in the wetland buffer.

2.0 MITIGATION GOALS AND OBJECTIVES

The overall goal of this mitigation proposal is to avoid and minimize adverse impacts to sensitive areas and to compensate for the unavoidable loss of wetland buffer through enhancement. This goal will be accomplished through two specific objectives.

1. Replace wetland buffer at no less than a 1.5:1 ratio, by enhancing 14,843 sq. ft. of existing buffer.

2. Provide greater biologic funcitons (wildlife habitat) than what is currenty provided by the buffer to be impacted through increased structural and species divirsity amoung the plant community.

3.0 PERFORMANCE STANDARDS

Performance standards have been established that correspond to the stated mitigation goals and objectives. These standards are the primary factors that will be used to judge the success of the mitigation project. It will be excessingly important to evaluate the development of the buffer mitigation plan over the entire monitoring period when determining whether each individual standard has been met or not. While specific performance criteria provide important benchmarks and will help to direct maintenance and contingency efforts, the success of mitigation must be measured against the goals and objectives of the overall mitigation plan. By monitoring the project and comparing monitoring results to performance standards, a determination can be made as to the need for implementing maintenance efforts or the contingency plan. Performance standards are identified in the table below.

4.0 MONITORING PLAN

Mitigation monitoring shall be conducted by a wetland biologist for five years which includes the installation inspection (one year warranty inspection). The objectives of the monitoring program shall be to assess revegetation success. Reports describing monitoring results will be submitted to Snohomish County by December 31 of years 1 through 5. The monitoring results shall be related to the performance standards and if warranted, recommendations shall be made based on these findings.

4.1 ESTABLISHMENT OF SENSITIVE AREAS

Encroachment or disturbances into sensitive areas shall be monitored during each visit. The sensitive areas shall be inspected for clearing, trash dumping, and other unauthorized disturbance.

4.2 VEGETATION ESTABLISHMENT

All mitigation plantings shall be monitored for 5 years and shall include representative sampling using sample plots or a complete census of all plantings. Overview photographs shall be taken from consistent photo points and all planted trees and shrubs will be evaluated in years 1,2,3,4 and 5 to document vegetation development. The initial monitoring shall be a complete census of plantings, and shall occur 1 year after planting in order to implement the 1 year plant survival warranty to be provided by the landscape contractor.

4.3 MITIGATION MAINTENANCE

If necessary, maintenance actions will be recommended by the monitoring biologist. Maintenance within the mitigation areas shall be performed by the landscape contractor during the one year warranty period. Following the first year warranty period, maintenance will be performed as necessary to ensure mitigation goals and objectives are met. Implementation of maintenance acitons is the responsibility of the project proponent.

5.0 MITIGATION SEQUENCING

Construction of the mitigation sites will generally include:

1. Pre-construction meeting;
2. Mark construction limits for mitigation boundaries;
3. Install plants as specified;
4. Post-construction meeting between all involved parties;
5. Remove construction limit demarcations;
6. Implement monitoring program.
7. Provide on-going maintenance as necessary

5.1 PRE-CONSTRUCTION MEETING

A pre-construction meeting shall be held on-site between the project engineer, all necessary construction contractors (general and landscape contractors), and Wetland Biologist and or Environmental Designer. During this meeting, site conditions, permit, specifications, and the mitigation plans will be reviewed. This will assist all involved parties in understanding the intent, specifications, and requirements of the mitigation plan.

5.2 MARKING OF CONSTRUCTION LIMITS FOR MITIGATION AREA BOUNDARIES

The limit of work boundaries of the mitigation areas shall be marked in the field prior to planting by the contractor. Boundaries shall be marked by installing orange temporary construction fencing (or County-approved alternative) to clearly delineate the mitigation area.

5.3 PLANTING PLAN

All mitigation plants shall be comprised of native species. A plant list, materials specifications, and detailed planting plan are included on the Landscape Plan on sheet LM-3. Plant installation shall comply with details provided under Planting Notes on sheet LM-4.

5.4 POST-CONSTRUCTION MEETING

A post-construction site review of the completed work shall be conducted between the Wetland Biologist/Environmental Designer, and the contractor to verify that the plan was was properly implemented. This field meeting will identify any discrepancies between the plan and the field plantings and, if necessary, propose corrective measures. If the plan is determined to have been properly implemented, an as-built plan shall be prepared and the monitoring period will commence.

6.0 CONSTRUCTION OBSERVATION

The Wetland Biologist or Environmental Designer (construction observer) will be on-site periodically during the planting of the mitigation area to review the plant installation.

The responsibilities of the construction observer(s) shall include: responding to contractor questions regarding unique construction or planting techniques; review of construction materials and nursery stock; review of plant locations, and review of grade slopes. It shall be the responsibility of the contractor to verify that plan specifications have been met.

8.0 CONTINGENCY PLAN

The contingency plan will provide for remediating aspects of the mitigation components that have prevented the achievement of mitigation goals. If the desired mitigation goals, as measured buy the monitiorng program and performance standards, have not been met and cannot be achieved through routine maintenance, then a joint determination by Snohomish County and the project proponent may be made to require submittal of a contingency plan. After

corresponding components of the approved mitigation plan. If the contingency plan is written approval by Snohomish County, a contingency plan will be implemented and will replace the substantial, Snohomish County could extend the monitoring period.

9.0 PERFORMANCE SECURITY

Certificate of Occupancy will not be issued until the mitigation plan is installed, inspected approved and bonded.

In order to ensure that the mitigation plan is properly implemented, including monitoring and contingencies, the project proponent (D.R. Horton) willprovide a Performance Bond following Snohomish County procedures. The total cost, plus contingency fees, will be the amount of the Performance Bond. The Performance Bond will become effective following installation and approval by Snohomish County.

A. MITIGATION CONSTRUCTION COST ESTIMATE:

1. PLANTS AND MATERIALS (INSTALLED): $ 15,182

TOTAL COST ESTIMATE: $ 15,182

B. THE PERFORMANCE BOND (120% OF A) IS ESTIMATED TO BE: $ 18210

PERFORMANCE STANDARDS	MONITORING METHODS	MONITORING INTERVAL
1. A total of 14 native tree and shrub species will be planted in the mitigation area.	1. Plant installation will be monitored to ensure that plant species are installed per the mitigation plans and that any species substitutions are approved by a biologist.	Installation
2. Tree and shrub species shall achieve greater than 80% survival at the end of the 5-year monitoring period.	2. The percent survival of installed living trees and shrubs will be determined annually over the 5-year monitoring period and compared to the amount of trees and shrubs installed at baseline. Photographic documentation will occur in conjunction with plant monitoring to provde additional documentation of plant success.	Years 1, 2, 3, 4, and 5
3. At least 6 native tree species and 6 native shrub species will be established in the mitigation area on-site.	3. The number of living installed tree and shrub species present during monitoring will be compared to the number of species installed at baseline.	Years 1, 2, 3, 4, and 5
4. At the end of the monitoring period, the following weed species will comprise of less than 20% of the total vegetative cover in the wetland buffer mitigation area: Himalayan blackberry, reed canarygrass, evergreen blackberry, Scot's broom, English ivy, morning glory, Japanese knotweed, purple loosestrife, or any other invasive exotic plant determined by the monitoring biologist to pose a threat to the mitigation plants.	4. The extent of weed establishment will be measured using line intercept and / or quadrat sampling techniques.	Years 1, 2, 3, 4, and 5

(PFN 02-102383)

FINAL WETLAND BUFFER MITIGATION PLAN REPORT

WESTFIELD
D.R. HORTON
SNOHOMISH COUNTY, WASHINGTON

STATE OF WASHINGTON
REGISTERED
LANDSCAPE ARCHITECT
BRUCE W. POWERS
CERTIFICATE NO. 803

DAVID EVANS AND ASSOCIATES INC.
415 - 116th Avenue SE
Bellevue Washington 98005-3518
Phone: 425.519.6500

REVISIONS: APPD.

DATE: JUNE 3, 2004
DESIGN: GBK
DRAWN: GBK
CHECKED: BCF
REVISION NUMBER:

SCALE:

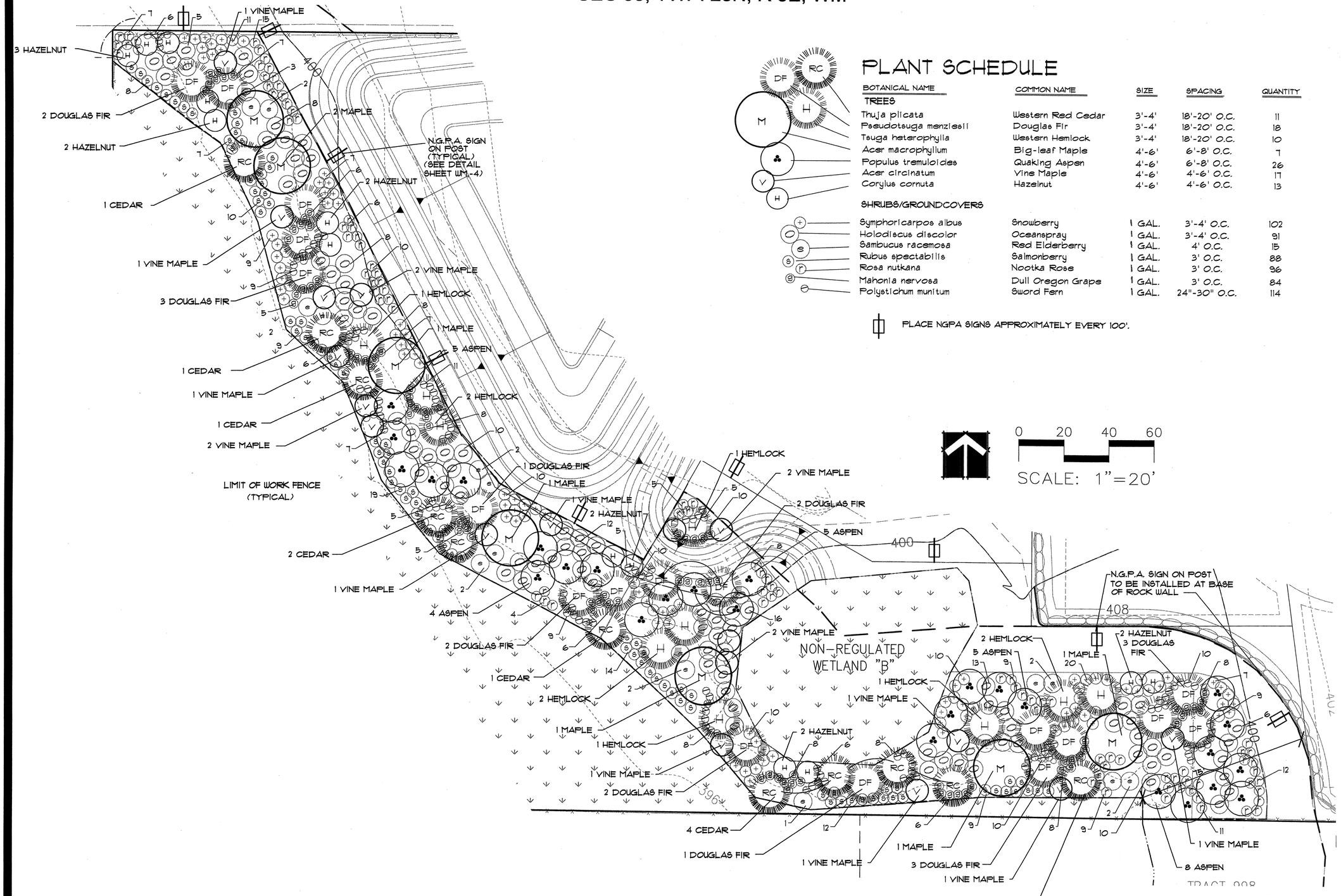
PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: DRHH0000-0010

SHEET NO. WM-2 OF 4

HDEV-2323

SEC 33, TWP. 28N, R 5E, WM



PLANT SCHEDULE

BOTANICAL NAME	COMMON NAME	SIZE	SPACING	QUANTITY
TREES				
Thuja plicata	Western Red Cedar	3'-4'	18'-20' O.C.	11
Pseudotsuga menziesii	Douglas Fir	3'-4'	18'-20' O.C.	18
Tsuga heterophylla	Western Hemlock	3'-4'	18'-20' O.C.	10
Acer macrophyllum	Big-leaf Maple	4'-6'	6'-8' O.C.	7
Populus tremuloides	Quaking Aspen	4'-6'	6'-8' O.C.	26
Acer circinatum	Vine Maple	4'-6'	4'-6' O.C.	17
Corylus cornuta	Hazelnut	4'-6'	4'-6' O.C.	13
SHRUBS/GROUNDCOVERS				
Symphoricarpos albus	Snowberry	1 GAL.	3'-4' O.C.	102
Holodiscus discolor	Oceanspray	1 GAL.	3'-4' O.C.	91
Sambucus racemosa	Red Elderberry	1 GAL.	4' O.C.	15
Rubus spectabilis	Salmonberry	1 GAL.	3' O.C.	88
Rosa nutkana	Nootka Rose	1 GAL.	3' O.C.	96
Mahonia nervosa	Dull Oregon Grape	1 GAL.	3' O.C.	84
Polystichum munitum	Sword Fern	1 GAL.	24"-30" O.C.	114

PLACE NGPA SIGNS APPROXIMATELY EVERY 100'.

0 20 40 60

SCALE: 1"=20'

(PFN 02-102383)

FINAL WETLAND BUFFER MITIGATION LANDSCAPE PLAN

WESTFIELD
D.R. HORTON
SNOHOMISH COUNTY, WASHINGTON

STATE OF WASHINGTON
REGISTERED LANDSCAPE ARCHITECT
BRUCE W. POWERS
CERTIFICATE NO. 803

DAVID EVANS AND ASSOCIATES INC.
415 - 118th Avenue SE
Bellevue Washington 98005-3518
Phone: 425.519.6500

REVISIONS:	APPD.

DATE: JUNE 3, 2004
DESIGN: GBK
DRAWN: GBK
CHECKED: BCF
REVISION NUMBER:

SCALE: 1"=20'

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: DRHH0000-0010

SHEET NO.
WM-3
OF 4

HDEV-23324

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PLANTING NOTES:

ENVIRONMENTAL DESIGNER / BIOLOGIST IS REQUIRED TO PROVIDE CONSTRUCTRION OBSERVATION SERVICES FOR ALL LANDSCAPING ACTIVITIES INCLUDING PLANT LOCATIONS, FIELD MODIFICATIONS AND PLANTING TECHNIQUES.

Contractor shall give Environmental Designer/ Biologist a minimum of seven (7) days notice prior to intention to proceed with construction.

CONSTRUCTION WILL BEGIN ONLY AFTER AN ON-SITE PRE-CONSTRUCTION MEETING BETWEEN CONTRACTOR AND MITIGATION DESIGNER.

All plant material, planting techniques and seeding activities shall conform to typical landscape industry standards.

All plant materials to be used will be native to the Pacific Northwest, and grown in the Puget Sound lowland.

All nursery grown plants shall be containerized or balled and burlapped or bare root stock. Provide only sound, healthy vigorous plants, free of defects, diseases and all forms of infestation. Environmental Designer / Biologist can supply a list of nurseries known to carry native plants.

The Environmental Designer/ Biologist will inspect plant materials to verify conformance to the plant schedule and to plant characteristics. The Environmental Designer/ Biologist reserves the right to require replacement or substitution of plants that are deemed unsuitable, or in the case of bare root plants, additional plants installed at multiples as required to achieve similar habit characteristics and sizes of containerized and balled and burlapped plants.

Dig, pack, transport and handle all plants with care to ensure protection for injury. Store plants in the manner necessary to accommodate their horticultural requirements. Heel-in plants if necessary to keep them from drying out.

Planting soil shall be a mixture of 50% existing native soil and 50% Cedar Grove "fine grade" compost, or approved equal. Provide sample of topsoil intended for use in the planting soil to the Wetland Biologist/ Environmental Designer.

Excavate circular plant pits a minimum of 2 times the root ball size with vertical sides and install plants as shown on the planting details and backfill with planting soil. In non-irrigated areas, add medium grade "Broadleaf P-4" granular polymer pellets for all trees and shrubs to ensure moisture retention and supply during the dry season.

After plants are set, Contractor shall muddle planting soil mixture around root balls and refill all voids. Repeat process until all voids around root balls are filled.

Following installation of all planting materials, all bases shall receive two (2) inches of mulch. All plant material installed in a wetland area or area that may flood will receive two inches of compost mulch and plants installed in buffer areas that will not flood will receive two inches of medium grade bark mulch. Mulch materials shall not contain compounds or materials detrimental to plant life.

Stake all cedar, hemlock, Douglas fir, big-leaf maple and aspen trees.

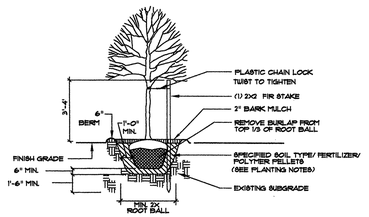
Contractor shall provide a sample of the transplanter fertilizer for approval. Install transplanter type fertilizer (4-2-2) to all plant pits as specified by manufacturer.

MAINTENANCE NOTES:

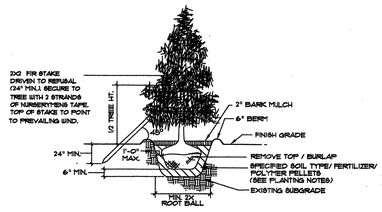
Contractor will be responsible for watering newly installed plant materials to ensure survival. The Contractor is responsible for all plants and materials until the formal acceptance of the project. Contractor shall warrant all plant materials to remain alive and healthy for a period of one year after completion and acceptance of planting. The Contractor shall submit a watering plan for the Environmental Designer/ Biologist review and approval. The Contractor shall replace all dead or unhealthy plants, per plans and specifications, that are identified as requiring replacement by the Environmental Designer/ Biologist during the one year warranty inspection.

HYDROSEED ALL MITIGATION PLANTING AREAS WITH BARCLAY LOW GROW MIX, AS SUPPLIED BY D.F. MARKS, AFTER TREE AND SHRUB PLANTING (SEE PLANT SCHEDULE). BROADCAST SEEDING MAY BE PERMITTED IF APPROVED BY ENVIRONMENTAL DESIGNER / BIOLOGIST.

IF PRESENT, ALL HIMALAYAN BLACKBERRY, EVERGREEN BLACKBERRY AND SCOT'S BROOM WILL BE REMOVED WITH ROOT CROWNS GRUBBED OUT. OTHER WEEDS TO BE REMOVED INCLUDE REED CANARYGRASS, CLIMBING NIGHTSHADE AND PURPLE LOOSESTRIFE, ENGLISH IVY, JAPANESE KNOTWEED AND MORNING GLORY.



DECIDUOUS TREE PLANTING
NOT TO SCALE



EVERGREEN TREE PLANTING
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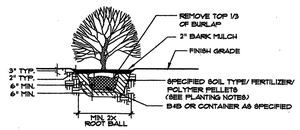


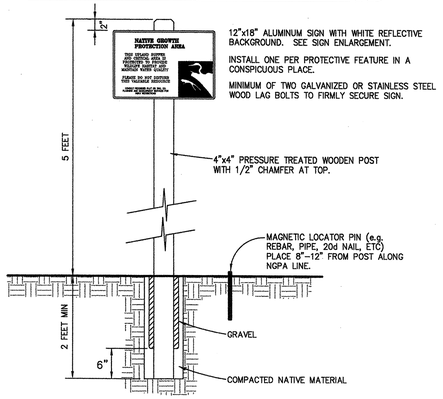
SHRUB PLANTING
NOT TO SCALE

NATIVE GROWTH PROTECTION AREA

THIS UPLAND BUFFER AND CRITICAL AREA IS PROTECTED TO PROVIDE WILDLIFE HABITAT AND MAINTAIN WATER QUALITY

PLEASE DO NOT DISTURB THIS VALUABLE RESOURCE

CONSULT RECORDED PLAT OR SNO. CO. PLANNING AND DEVELOPMENT SERVICES FOR NGPA RESTRICTIONS



12"x18" ALUMINUM SIGN WITH WHITE REFLECTIVE BACKGROUND. SEE SIGN ENLARGEMENT.

INSTALL ONE PER PROTECTIVE FEATURE IN A CONSPICUOUS PLACE.

MINIMUM OF TWO GALVANIZED OR STAINLESS STEEL WOOD LAG BOLTS TO FIRMLY SECURE SIGN.

TYPE 1

NOTES:

1. NGPA SIGN SHALL 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.
2. SIGN PLACEMENT SHALL BE SUBJECT TO THE APPROVAL OF SNOHOMISH COUNTY. ALTERNATIVE SIGN DESIGNS MAY BE SUBMITTED TO SNOHOMISH COUNTY FOR APPROVAL.
3. PER SCC 32.10.240(8), ALL SIGNS MUST BE SECURE AND PERMANENT.

NATIVE GROWTH PROTECTION AREA SIGN
NO SCALE

(PFN 02-102383)

FINAL WETLAND BUFFER MITIGATION NOTES AND DETAILS

WESTFIELD
D.R. HORTON
SNOHOMISH COUNTY, WASHINGTON

STATE OF WASHINGTON
REGISTERED LANDSCAPE ARCHITECT
BRUCE W. POWERS
CERTIFICATE NO. 803

DAVID EVANS AND ASSOCIATES INC.
415 - 118th Avenue SE
Bellevue Washington 98005-3518
Phone: 425.519.6500

REVISIONS: APPD.

DATE: JUNE 3, 2004
DESIGN: GBK
DRAWN: GBK
CHECKED: BCF
REVISION NUMBER:

SCALE:

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: DRHH0000-0010

SHEET NO.
WM-4
OF 4

HDEV-2325

gbk 06/03/04 7:35am – P:\s\STAF0000-0009\0300 cadd\final mitigation plan\DRH10_Wm4.dwg

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM

PLAT OF WESTFIELD

SANITARY SEWER AND WATER PLANS

LEGAL DESCRIPTION

PARCEL A:

THE SOUTH 330.00 FEET OF THE WEST 267.32 FEET OF THE EAST 762.32 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;

TOGETHER WITH THE NORTH 30.00 FEET OF THE SOUTH 330.00 FEET OF SAID SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER;
EXCEPT THE EAST 762.32 FEET THEREOF; ALSO
EXCEPT THE WEST 1,485.00 FEET THEREOF, PER BOUNDARY LINE ADJUSTMENT RECORDED UNDER AUDITOR'S FILE NUMBER 9403170301, BEING A PORTION OF LOT 2 AS SHOWN ON SURVEY RECORDED IN VOLUME 9 OF SURVEYS, PAGE 63, UNDER SNOHOMISH COUNTY AUDITOR'S FILE NO. 7902070316, RECORDS OF SNOHOMISH COUNTY, WASHINGTON, LOCATED IN THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.

PARCEL A-1:

NON-EXCLUSIVE EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER, UPON AND THROUGH THE FOLLOWING DESCRIBED TRACTS 1, 2 AND 3.

TRACT 1:

THE NORTH 60 FEET OF THE WEST 990 FEET OF THE SOUTH 330.00 FEET OF THE WEST 267.32 FEET OF THE EAST 762.32 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT COUNTY ROAD.
TRACT 2:

THE NORTH 30 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE EAST 1155 FEET AS MEASURED ALONG THE SOUTH LINE THEREOF; AND
EXCEPT THE WEST 990 FEET THEREOF.

TRACT 3:

THE EAST 30 FEET OF THE WEST 1,515 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE SOUTH 330 FEET THEREOF.

SITUATED IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

PARCEL B:

THE EAST 495 FEET OF THE WEST 1,485 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE NORTH 320 FEET THEREOF;

TOGETHER WITH THE SOUTH 330.00 FEET OF SAID SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER;
EXCEPT THE EAST 762.32 FEET THEREOF; ALSO
EXCEPT THE WEST 1,485.00 FEET THEREOF;

(ALSO KNOWN AS PARCEL 2 OF BOUNDARY LINE ADJUSTMENT RECORDED UNDER AUDITOR'S FILE NUMBER 9403170301)

PARCEL B-1:

A NON-EXCLUSIVE EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER, UPON AND THROUGH THE FOLLOWING DESCRIBED TRACTS:

THE NORTH 60 FEET OF THE WEST 990 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT COUNTY ROAD;

THE NORTH 30 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE EAST 1155 FEET AS MEASURED ALONG THE SOUTH LINE THEREOF; AND
EXCEPT THE WEST 990 FEET THEREOF;

THE EAST 30 FEET OF THE WEST 1515 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE SOUTH 330 FEET THEREOF;

THE NORTH 40 FEET OF THE WEST 20 FEET OF THE FOLLOWING DESCRIBED TRACT:

THE SOUTH 330 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE EAST 495 FEET THEREOF; ALSO
EXCEPT THE WEST 1485 FEET THEREOF;

SITUATED IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.

PARCEL C:

THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE SOUTH 330 FEET THEREOF; AND
EXCEPT THE EAST 495 FEET THEREOF; AND
EXCEPT THE WEST 1,485 FEET THEREOF.

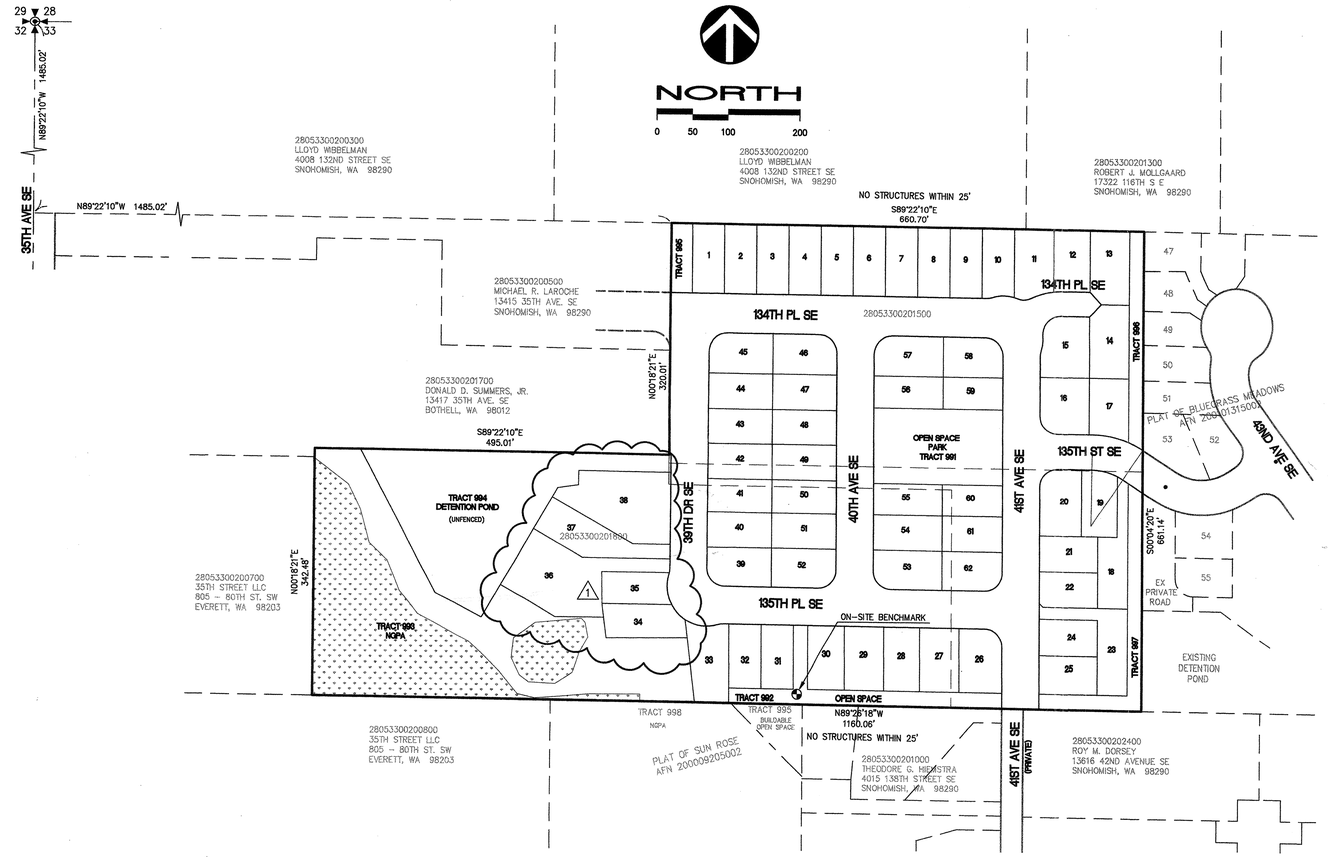
PARCEL C-1:

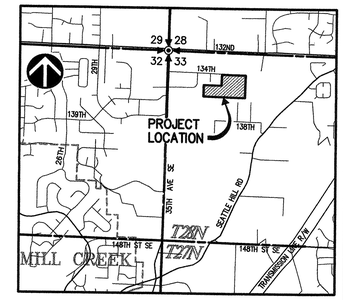
A NON-EXCLUSIVE EASEMENT FOR INGRESS, EGRESS AND UTILITIES OVER, UNDER, UPON AND THROUGH THE FOLLOWING DESCRIBED TRACTS 1 AND 2:

TRACT 1:
THE NORTH 60 FEET OF THE WEST 990 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT COUNTY ROAD.

TRACT 2:
THE NORTH 30 FEET OF THE SOUTH HALF OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 28 NORTH, RANGE 5 EAST, W.M.;
EXCEPT THE EAST 1,155 FEET, AS MEASURED ALONG THE SOUTH LINE THEREOF; AND
EXCEPT THE WEST 990 FEET THEREOF.

SITUATED IN THE COUNTY OF SNOHOMISH, STATE OF WASHINGTON.





VICINITY MAP
SCALE: 1" = 2000'

SANITARY SEWER GENERAL NOTES

ALL WORK AND MATERIALS MUST BE IN ACCORDANCE WITH THE LATEST REVISION, INCLUDING ADDENDA AND UPDATES OF THE SILVER LAKE WATER DISTRICT DEVELOPER STANDARDS AND THE STANDARDS OF THE WASHINGTON STATE DEPARTMENT OF SOCIAL AND HEALTH SERVICES. CONTRACTOR TO HAVE SILVER LAKE WATER DISTRICT STANDARDS ON JOB SITE.

CONTRACTOR SHALL INVESTIGATE AND LOCATE ALL BURIED UTILITIES FOR OBSTRUCTIONS IN THE CONSTRUCTION AREA PRIOR TO CONSTRUCTION OF THE WATER MAIN EXTENSION. CONTRACTOR SHALL COORDINATE WITH WATER DISTRICT, SEWER DISTRICT, GAS COMPANY, TELEPHONE COMPANY, POWER UTILITY, AND ALL OTHER AFFECTED UTILITIES FOR FIELD LOCATIONS OF THE RESPECTIVE EXISTING FACILITIES.

CONTRACTOR SHALL DIAL "DIG" 1-800-424-5555 PRIOR TO CONSTRUCTION FOR AID IN LOCATING ANY EXISTING UNDERGROUND UTILITIES AS APPLICABLE.

ROAD RESTORATION SHALL BE PER SNOHOMISH COUNTY STANDARDS.

ALL DETAILS AND REQUIREMENTS FOR THIS PROJECT SHALL CONFORM TO THE LATEST VERSION OF THE SILVER LAKE DEVELOPERS STANDARDS AND THE CONTRACTOR SHALL KEEP A COPY OF THESE STANDARDS ON SITE AT ALL TIMES DURING CONSTRUCTION OF THIS PROJECT.

THE CONTRACTOR SHALL KEEP TWO (2) SETS OF APPROVED PLANS ON SITE AT ALL TIMES FOR RECORDING "AS-BUILT" INFORMATION. ONE "AS-BUILT" SET SHALL BE SUBMITTED TO THE ENGINEER AT THE COMPLETION OF CONSTRUCTION.

ALL SIDE SEWERS ARE TO BE PVC PIPE OR DUCTILE IRON PIPE TO MATCH EXISTING SEWER MAIN, EXCEPT AS ALLOWED BY THE DISTRICT.

ALL SERVICES ARE STATIONED FROM THE DOWNSTREAM MANHOLES TO THE NEAREST FOOT.

ORGANIC OR OTHER INCOMPETENT MATERIAL ENCOUNTERED AT OR BELOW THE ELEVATION OF THE PIPE IS TO BE REMOVED. FOUNDATION BEDDING AND BACKFILL MATERIAL SHALL BE PLACED IN STRICT ACCORDANCE WITH SILVER LAKE WATER DISTRICT STANDARDS.

INSTALL SIDE SEWER LATERALS ON DOWNHILL LOTS AT MINIMUM SLOPE.
SEE GRADING PLANS FOR LOTS WHICH ARE TO RECEIVE FILL.

SHEET INDEX

DEVELOPMENT DATA:

APPLICANT: D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
(425) 821-3400
ATTENTION: JENNIFER STEIG, P.E.

ENGINEER/PLANNER SURVEYOR: DAVID EVANS and ASSOCIATES, INC.
1620 W. MARINE VIEW DR. SUITE 200
EVERETT, WASHINGTON 98201
(425) 259-4099
ATTENTION: JACK N. MOLVER, P.E.

PARTIES OF INTEREST: LELAND & KRISTI WYLIE
13409 35TH AVE SE
SNOHOMISH, WASHINGTON 98296
(425) 337-3971

MARVIN HOWE
13401 35TH AVE SE
SNOHOMISH, WASHINGTON 98296
(425) 337-3025

RICK & CELIA WAHL
2523 130TH ST SE
EVERETT, WASHINGTON 98208

DATUM: NAVD 88

SNOHOMISH COUNTY CONTROL BENCHMARK:
SNOHOMISH COUNTY SURVEY CONTROL POINT # 1643.
A WSDOT BRASS DISK CEMENTED INTO A DRILL HOLE IN THE NORTH SIDEWALK AND LEVEL WITH ITS SURFACE LOCATED NORTH OF AND ACROSS THE STREET FROM 4510 (132ND ST) SR 96.
ELEVATION = 458.434 FEET

ON-SITE BENCHMARK:
CENTERLINE OF CHANNEL OF EXISTING SSMH
ELEVATION = 400.79 FEET
N 12669.46
E 19660.40

CALL FOR UTILITY LOCATES BEFORE YOU DIG
1-800-424-5555

AS-BUILT NOTES

SPECIFICATIONS USED: SILVER LAKE WATER & SEWER DISTRICT 2003
DISTRICT ENGINEER: GRAY AND OSBORNE, INC. PROJECT NO. 04494

SILVER LAKE WATER DISTRICT APPROVAL FOR CONSTRUCTION

Original approval signatures not replicated

Design Engineer: JACK MOLVER Signed On: 7-8-04

SLWD Approved For Construction by: RICK GILMORE

the: DISTRICT ENGINEER Signed On: 7-8-04

AS-BUILT
2/22/05

SILVER LAKE WATER & SEWER DISTRICT

APPROVED FOR CONSTRUCTION

BY _____
DISTRICT MANAGER DATE

THESE DRAWINGS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 12 MONTHS FROM THE DATE SHOWN ABOVE. THE DISTRICT RESERVES THE RIGHT TO MAKE REVISIONS, MODIFICATIONS, AND CHANGES SHOULD CONSTRUCTION BE DELAYED BEYOND THIS TIME LIMITATION.

COVER SHEET

WESTFIELD

D. R. HORTON
SNOHOMISH COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REGISTERED PROFESSIONAL ENGINEER
JACK N. MOLVER
20777
STATE OF WASHINGTON
2/22/05
EXPIRES JULY 28, 2006

REVISIONS: APPD.
1 9/9/04 REV LOT CONFIG
2 2/22/05 CLK AS-BUILT

DATE: MARCH, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: 1"=100'

PROJECT NUMBER: DRHH0000-0010

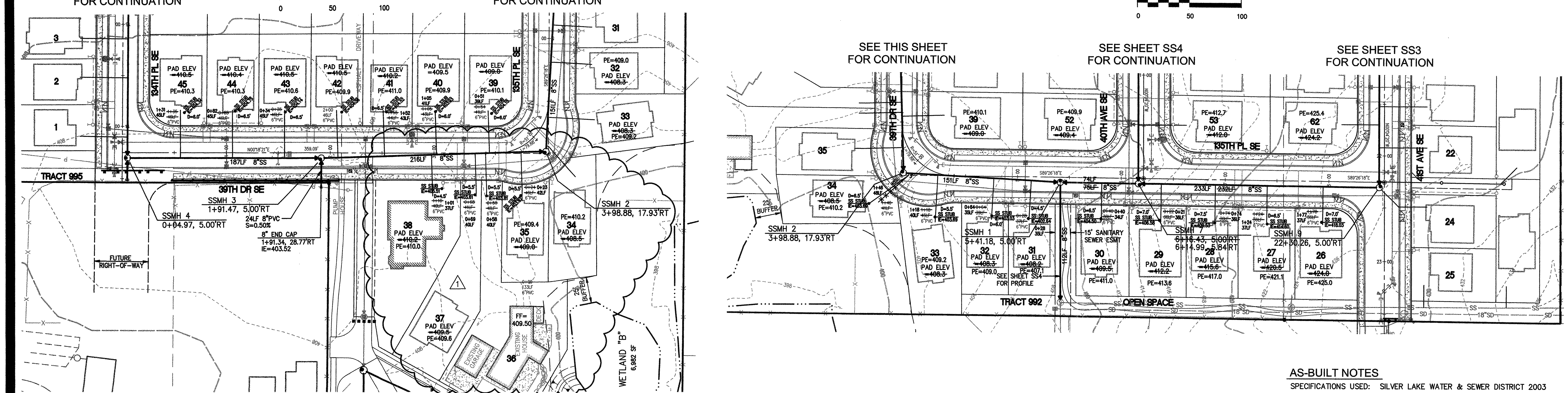
DRAWING FILE: Staf0009ecSS01.dwg

SHEET NO. SS1 OF 4

HDEV-23326

CLK 02/22/05 10:47am - P:\Projects\0000\0010\Civil\SHEETS\AS-BUILT\Staf0009ecSS01.dwg

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM

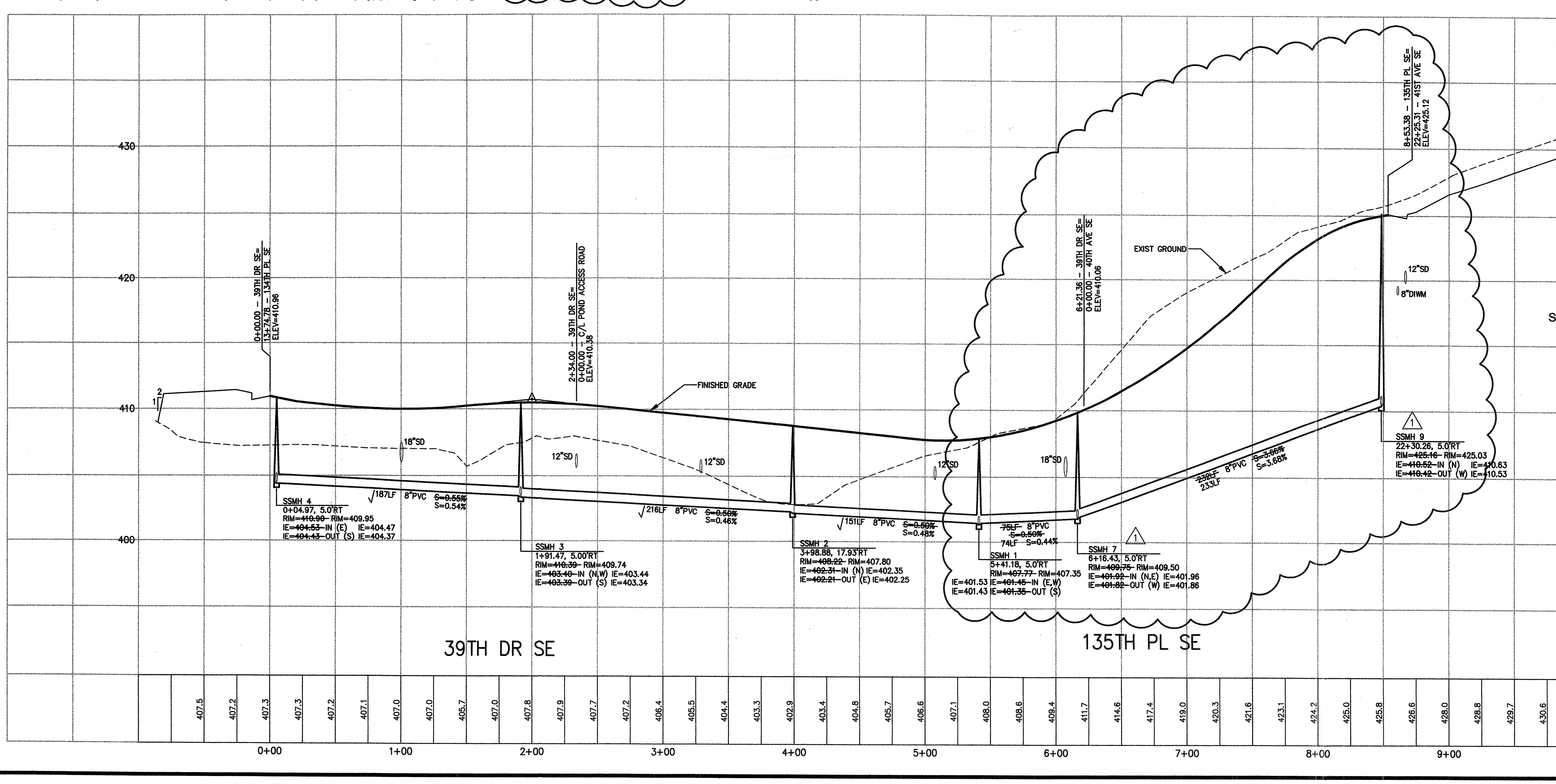


AS-BUILT NOTES

SPECIFICATIONS USED: SILVER LAKE WATER & SEWER DISTRICT 2003
DISTRICT ENGINEER: GRAY AND OSBORNE, INC. PROJECT NO. 04494

MATERIALS

MANHOLES: CUZ CONCRETE
PIPE: 3034 PVC (PW)
FITTINGS: PLASTIC TRENDS



SILVER LAKE WATER DISTRICT APPROVAL FOR CONSTRUCTION
Original approval signatures not replicated

Design Engineer: JACK MOLVER Signed On: 7-8-04
SLWD Approved For Construction by: RICK GILMORE
the: DISTRICT ENGINEER Signed On: 7-8-04

AS-BUILT
2/22/05

CALL FOR UTILITY LOCATES BEFORE YOU DIG 1-800-424-5555

SILVER LAKE WATER & SEWER DISTRICT
APPROVED FOR CONSTRUCTION

BY
DISTRICT MANAGER DATE

THESE DRAWINGS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 12 MONTHS FROM THE DATE SHOWN ABOVE. THE DISTRICT RESERVES THE RIGHT TO MAKE REVISIONS, MODIFICATIONS, AND CHANGES SHOULD CONSTRUCTION BE DELAYED BEYOND THIS TIME LIMITATION.

APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

SANITARY SEWER PLAN AND PROFILE

WESTFIELD

STAFFORD HOMES
SNOHOMISH COUNTY, WASHINGTON

EXPIRES JULY 28, 2006

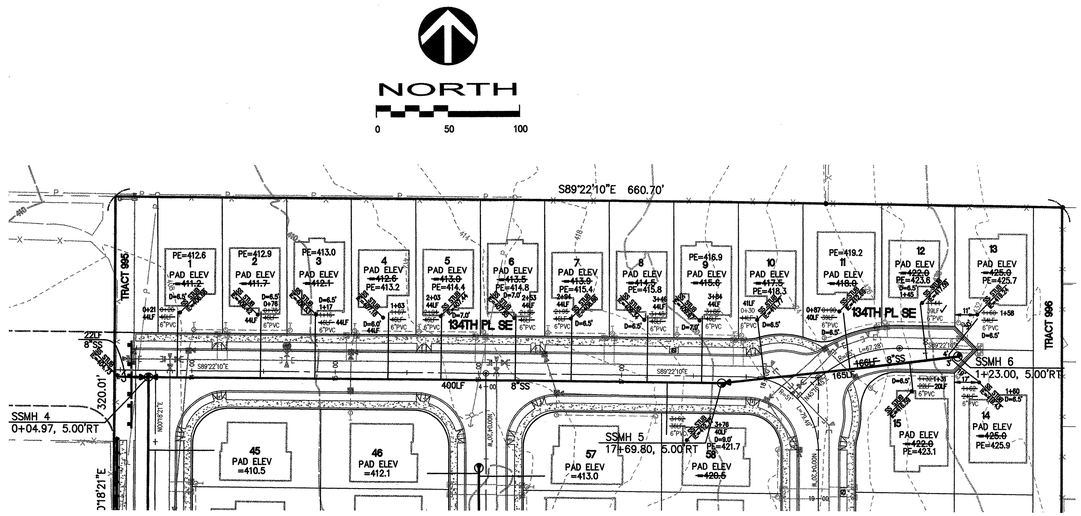
DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REVISIONS:	APPD.
1 9/9/04 REV LOT CONFIG & ROAD GRADE	
2 2/22/05 CLK AS-BUILT	

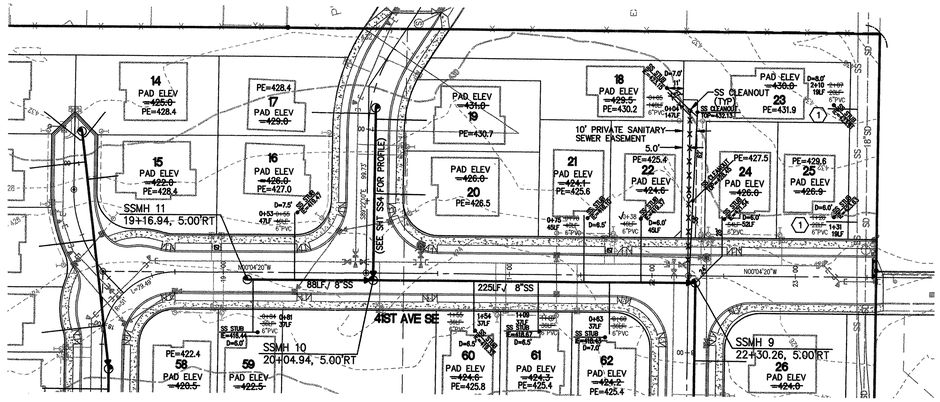
DATE: MARCH, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:
SCALE: H-1"=50' V-1"=5'
PROJECT NUMBER: DRHH0000-0010
DRAWING FILE: Staf0009ecSS02.dwg
SHEET NO. SS2 OF 4

HDEV-2327

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM



SEE SHEET SS2
FOR CONTINUATION



CONSTRUCTION NOTES

(1) CONSTRUCT NEW SIDE SEWER ON EXISTING MAIN PER SILVER LAKE WATER DISTRICT STANDARD DETAIL V-S12.

CALL FOR UTILITY LOCATES BEFORE YOU DIG 1-800-424-5555

AS-BUILT NOTES

SPECIFICATIONS USED: SILVER LAKE WATER & SEWER DISTRICT 2003
DISTRICT ENGINEER: GRAY AND OSBORNE, INC. PROJECT NO. 04494

MATERIALS

MANHOLES: CUZ CONCRETE
PIPE: 3034 PVC (PW)
FITTINGS: PLASTIC TRENDS

SILVER LAKE WATER DISTRICT APPROVAL FOR CONSTRUCTION

Original approval signatures not replicated

Design Engineer: JACK MOLVER Signed On: 7-8-04

SLWD Approved For Construction by: RICK GILMORE

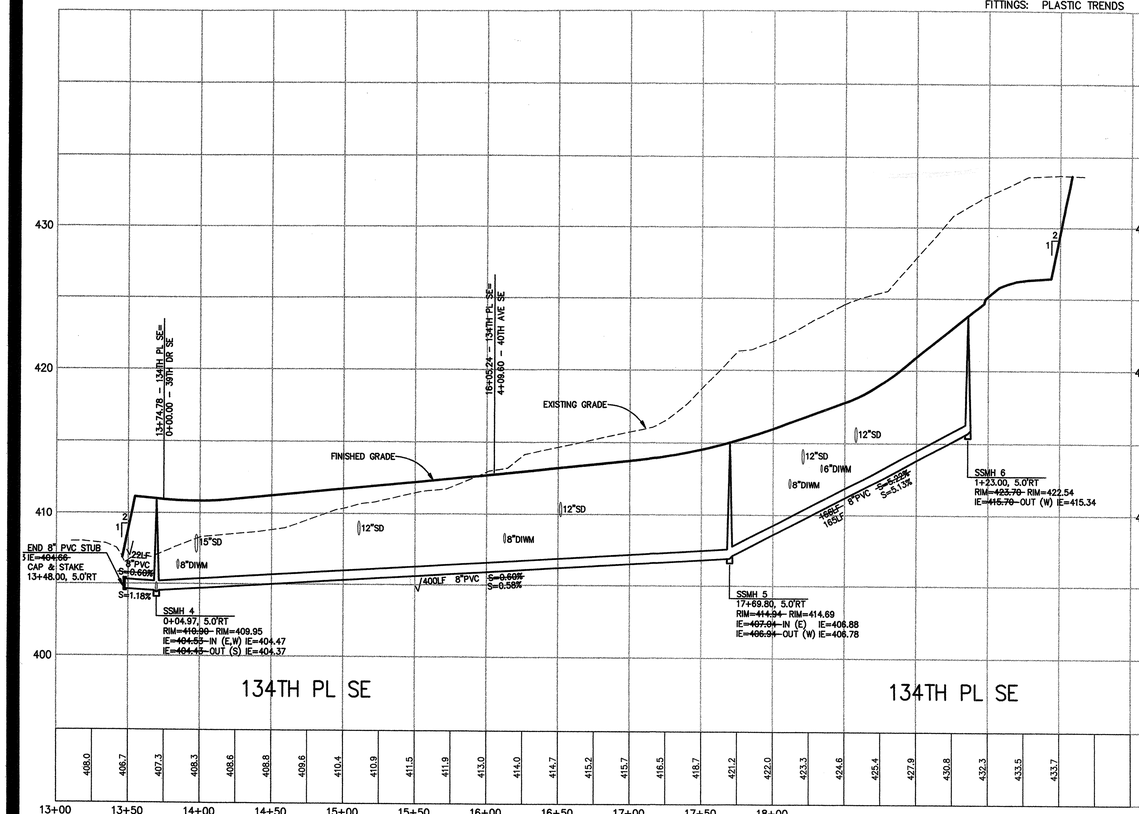
the: DISTRICT ENGINEER Signed On: 7-8-04

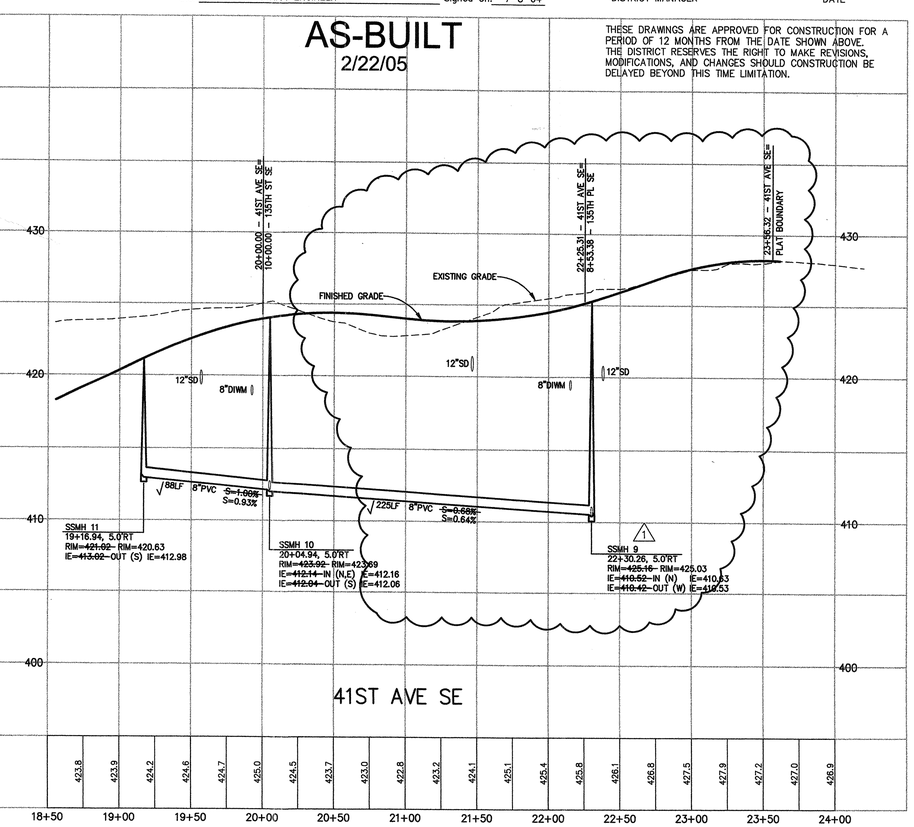
SILVER LAKE WATER & SEWER DISTRICT
APPROVED FOR CONSTRUCTION

BY _____
DISTRICT MANAGER DATE

AS-BUILT
2/22/05

THESE DRAWINGS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 12 MONTHS FROM THE DATE SHOWN ABOVE. THE DISTRICT RESERVES THE RIGHT TO MAKE REVISIONS, MODIFICATIONS, AND CHANGES SHOULD CONSTRUCTION BE DELAYED BEYOND THIS TIME LIMITATION.





APPLICANT / DEVELOPER

D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

SANITARY SEWER PLAN AND PROFILE

WESTFIELD

STAFFORD HOMES
SNOHOMISH COUNTY, WASHINGTON

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REVISIONS:	APPD.
1 9/9/04 REV ROAD GRADE	
2 2/22/05 CLK AS-BUILT	

DATE: MARCH, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: H-1"=50'
V-1"=5'

PROJECT NUMBER:
DRHH0000-0010

DRAWING FILE:
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SHEET NO.
SS3
OF 4

HDEV-2328

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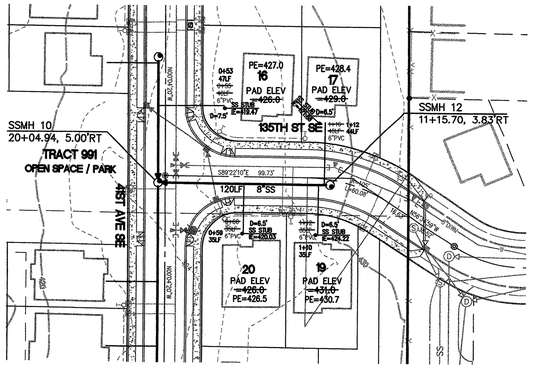
A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM

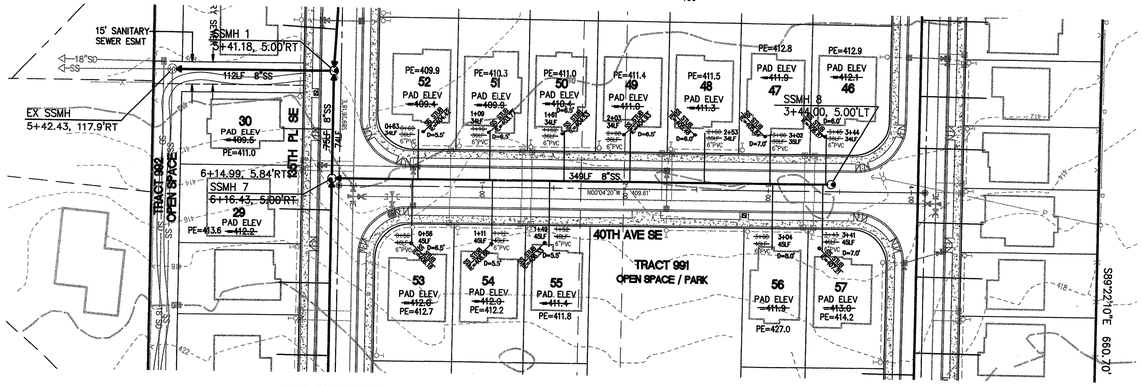
APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

NORTH
0 50 100



SEE SHEET SS2
FOR CONTINUATION

NORTH
0 50 100



SEE SHEET SS2
FOR CONTINUATION

MATERIALS

MANHOLES: CUZ CONCRETE
PIPE: 3034 PVC (PW)
FITTINGS: PLASTIC TRENDS

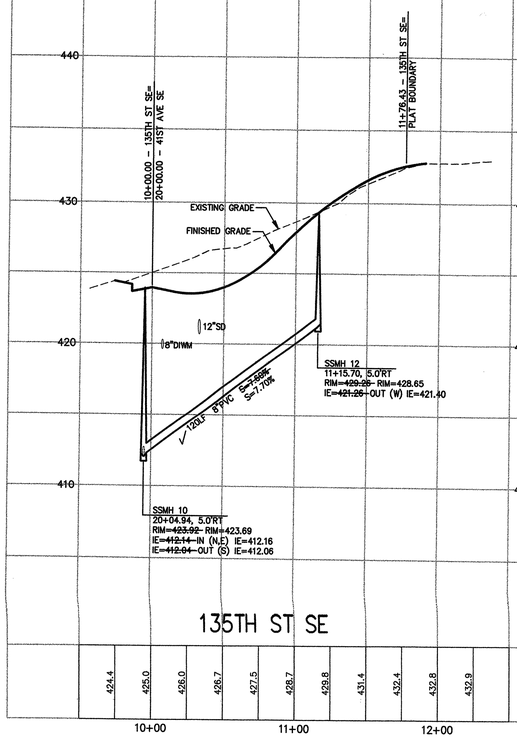
AS-BUILT NOTES

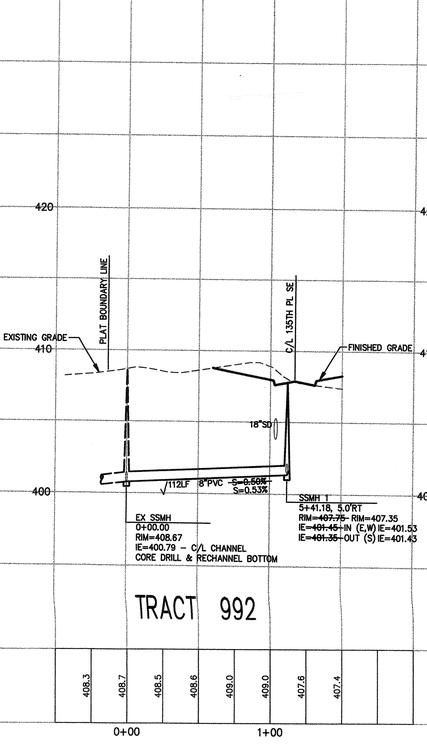
SPECIFICATIONS USED: SILVER LAKE WATER & SEWER DISTRICT 2003
DISTRICT ENGINEER: GRAY AND OSBORNE, INC. PROJECT NO. 04494

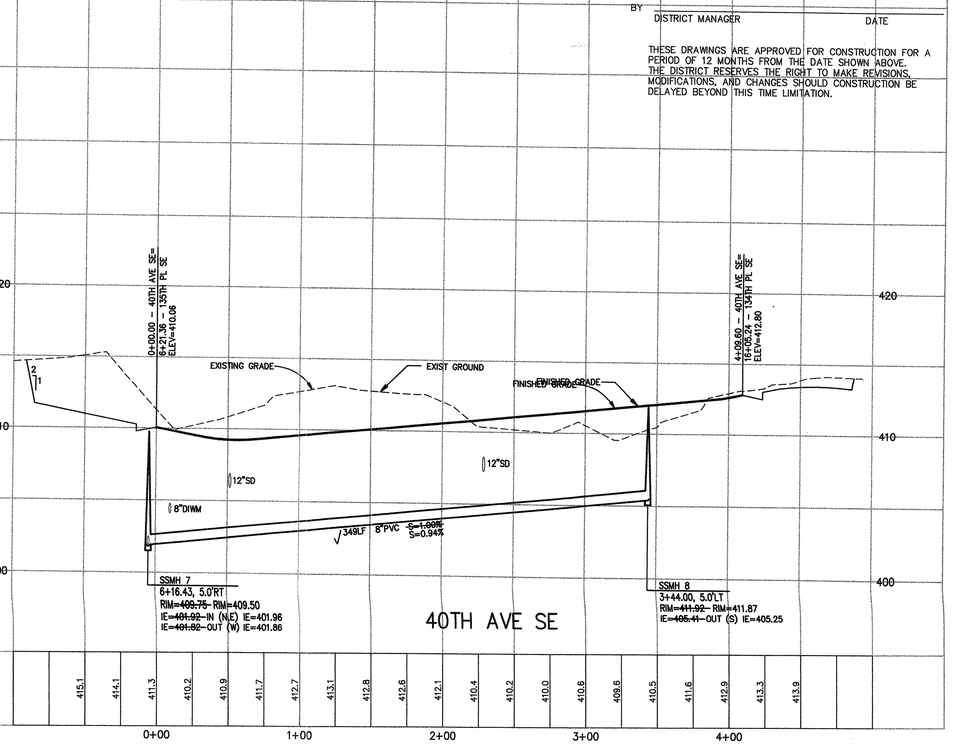
SILVER LAKE WATER DISTRICT APPROVAL FOR CONSTRUCTION
Original approval signatures not replicated

Design Engineer: JACK MOLVER Signed On: 7-8-04
SLWD Approved For Construction by: RICK GILMORE
the: DISTRICT ENGINEER Signed On: 7-8-04

CALL FOR UTILITY LOCATES BEFORE YOU DIG 1-800-424-5555







AS-BUILT
2/22/05

SILVER LAKE WATER & SEWER DISTRICT
APPROVED FOR CONSTRUCTION

BY _____
DISTRICT MANAGER DATE

THESE DRAWINGS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF 12 MONTHS FROM THE DATE SHOWN ABOVE. THE DISTRICT RESERVES THE RIGHT TO MAKE REVISIONS, MODIFICATIONS, AND CHANGES SHOULD CONSTRUCTION BE DELAYED BEYOND THIS TIME LIMITATION.

SANITARY SEWER PLAN AND PROFILE

WESTFIELD

STAFFORD HOMES
SNOHOMISH COUNTY, WASHINGTON

JACK MOLVER — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER
EXPIRES JULY 26, 2006

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REVISIONS: APPD.
1 2/22/05 CLK AS-BUILT

DATE: MARCH, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: H-1"=50'
V-1"=5'

PROJECT NUMBER:
DRHH0000-0010

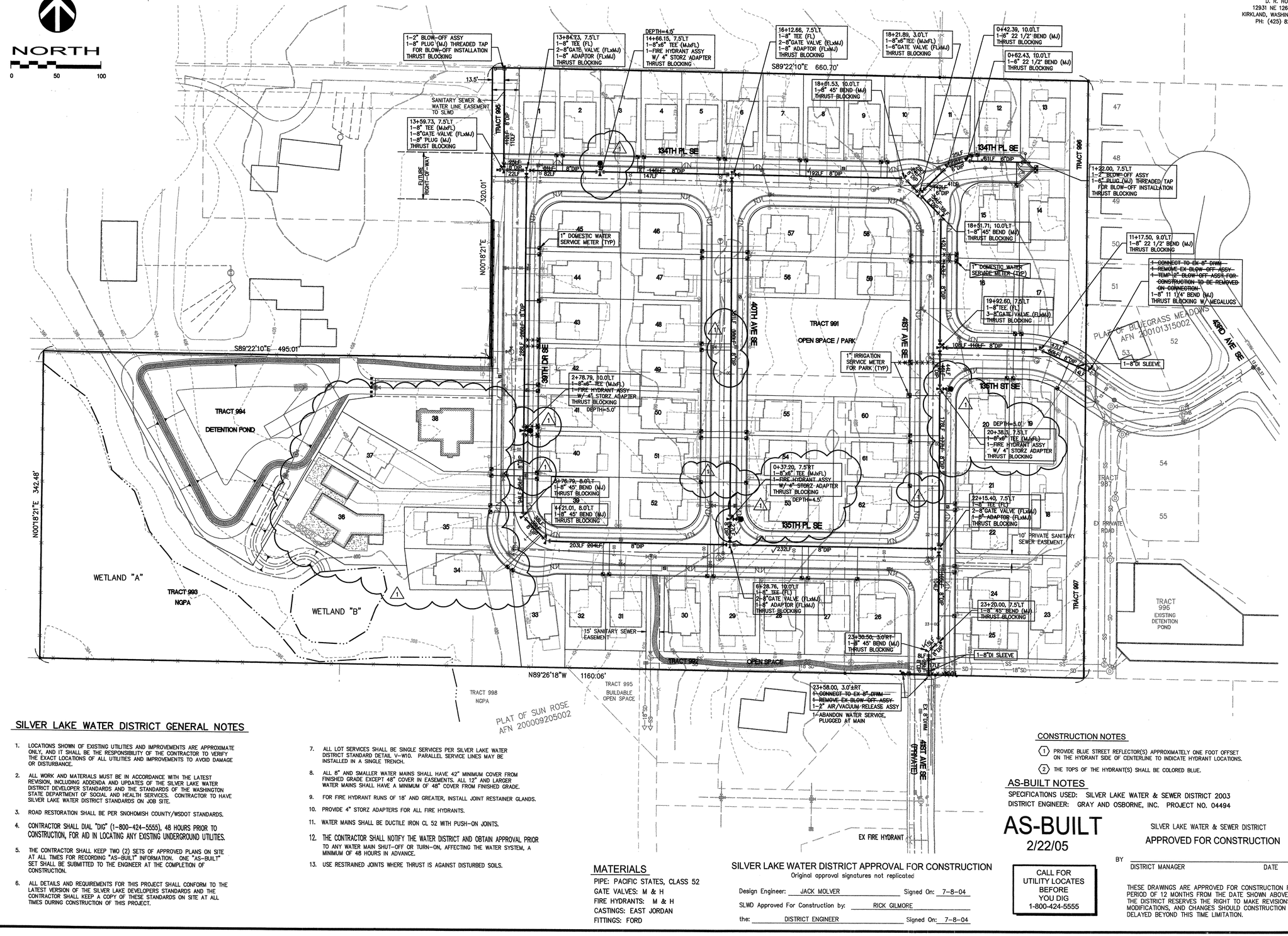
DRAWING FILE:
Staf0009ecSS04.dwg

SHEET NO.
SS4
OF 4

HDEV-2329

CLK 02/22/05 10:56am - P:\DVJmm\0000001\0400CAD\EC\SHEETS\AS-BUILT\Staf0009ecSS04.dwg

A PORTION OF THE NW 1/4 OF SECTION 33, T 28 N, R 5 E, WM



SILVER LAKE WATER DISTRICT GENERAL NOTES

1. LOCATIONS SHOWN OF EXISTING UTILITIES AND IMPROVEMENTS ARE APPROXIMATE ONLY, AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXACT LOCATIONS OF ALL UTILITIES AND IMPROVEMENTS TO AVOID DAMAGE OR DISTURBANCE.
2. ALL WORK AND MATERIALS MUST BE IN ACCORDANCE WITH THE LATEST REVISION, INCLUDING ADDENDA AND UPDATES OF THE SILVER LAKE WATER DISTRICT DEVELOPER STANDARDS AND THE STANDARDS OF THE WASHINGTON STATE DEPARTMENT OF SOCIAL AND HEALTH SERVICES. CONTRACTOR TO HAVE SILVER LAKE WATER DISTRICT STANDARDS ON JOB SITE.
3. ROAD RESTORATION SHALL BE PER SNOHOMISH COUNTY/WSDOT STANDARDS.
4. CONTRACTOR SHALL DIAL "DIG" (1-800-424-5555), 48 HOURS PRIOR TO CONSTRUCTION, FOR AID IN LOCATING ANY EXISTING UNDERGROUND UTILITIES.
5. THE CONTRACTOR SHALL KEEP TWO (2) SETS OF APPROVED PLANS ON SITE AT ALL TIMES FOR RECORDING "AS-BUILT" INFORMATION. ONE "AS-BUILT" SET SHALL BE SUBMITTED TO THE ENGINEER AT THE COMPLETION OF CONSTRUCTION.
6. ALL DETAILS AND REQUIREMENTS FOR THIS PROJECT SHALL CONFORM TO THE LATEST VERSION OF THE SILVER LAKE DEVELOPERS STANDARDS AND THE CONTRACTOR SHALL KEEP A COPY OF THESE STANDARDS ON SITE AT ALL TIMES DURING CONSTRUCTION OF THIS PROJECT.
7. ALL LOT SERVICES SHALL BE SINGLE SERVICES PER SILVER LAKE WATER DISTRICT STANDARD DETAIL V-W10. PARALLEL SERVICE LINES MAY BE INSTALLED IN A SINGLE TRENCH.
8. ALL 8" AND SMALLER WATER MAINS SHALL HAVE 42" MINIMUM COVER FROM FINISHED GRADE EXCEPT 48" COVER IN EASEMENTS, ALL 12" AND LARGER WATER MAINS SHALL HAVE A MINIMUM OF 48" COVER FROM FINISHED GRADE.
9. FOR FIRE HYDRANT RUNS OF 18' AND GREATER, INSTALL JOINT RESTAINER GLANDS.
10. PROVIDE 4" STORZ ADAPTERS FOR ALL FIRE HYDRANTS.
11. WATER MAINS SHALL BE DUCTILE IRON CL 52 WITH PUSH-ON JOINTS.
12. THE CONTRACTOR SHALL NOTIFY THE WATER DISTRICT AND OBTAIN APPROVAL PRIOR TO ANY WATER MAIN SHUT-OFF OR TURN-ON, AFFECTING THE WATER SYSTEM, A MINIMUM OF 48 HOURS IN ADVANCE.
13. USE RESTRAINED JOINTS WHERE THRUST IS AGAINST DISTURBED SOILS.

MATERIALS

PIPE: PACIFIC STATES, CLASS 52
GATE VALVES: M & H
FIRE HYDRANTS: M & H
CASTINGS: EAST JORDAN
FITTINGS: FORD

SILVER LAKE WATER DISTRICT APPROVAL FOR CONSTRUCTION

Original approval signatures not replicated

Design Engineer: JACK MOLVER Signed On: 7-8-04

SLWD Approved For Construction by: RICK GILMORE

the: DISTRICT ENGINEER Signed On: 7-8-04

CONSTRUCTION NOTES

1. PROVIDE BLUE STREET REFLECTOR(S) APPROXIMATELY ONE FOOT OFFSET ON THE HYDRANT SIDE OF CENTERLINE TO INDICATE HYDRANT LOCATIONS.
2. THE TOPS OF THE HYDRANT(S) SHALL BE COLORED BLUE.

AS-BUILT NOTES

SPECIFICATIONS USED: SILVER LAKE WATER & SEWER DISTRICT 2003
DISTRICT ENGINEER: GRAY AND OSBORNE, INC. PROJECT NO. 04494

AS-BUILT
2/22/05

SILVER LAKE WATER & SEWER DISTRICT
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APPLICANT / DEVELOPER
D. R. HORTON
12931 NE 126TH PLACE
KIRKLAND, WASHINGTON 98034
PH: (425) 821-3400

WATER PLAN
WESTFIELD
D.R. HORTON
SNOHOMISH COUNTY, WASHINGTON

REGISTERED PROFESSIONAL ENGINEER JACK MOLVER 20777 STATE OF WASHINGTON
EXPIRES JULY 28, 2006

DAVID EVANS AND ASSOCIATES INC.
1620 W. Marine View Drive, Suite 200
Everett Washington 98201
Phone: 425.259.4099

REVISIONS:	APPD.
2 2/22/05 CLK AS-BUILT	
1 11/18/04 REV LOTS, FIRE HYDS & WTR METERS	

DATE: MARCH, 2004
DESIGN: RMF
DRAWN: CLK
CHECKED:
REVISION NUMBER:

SCALE: 1"=50'

PROJECT NUMBER: DRHH0000-0010

DRAWING FILE: Staf0009ecWA01.dwg

SHEET NO. W1 OF 1

HDEV-2330

CLK 02/22/05 12:08pm - P:\p\vhm\0000\0010\U400CAD\E\S\SHEETS\AS-BUILT\Staf0009ecWA01.dwg