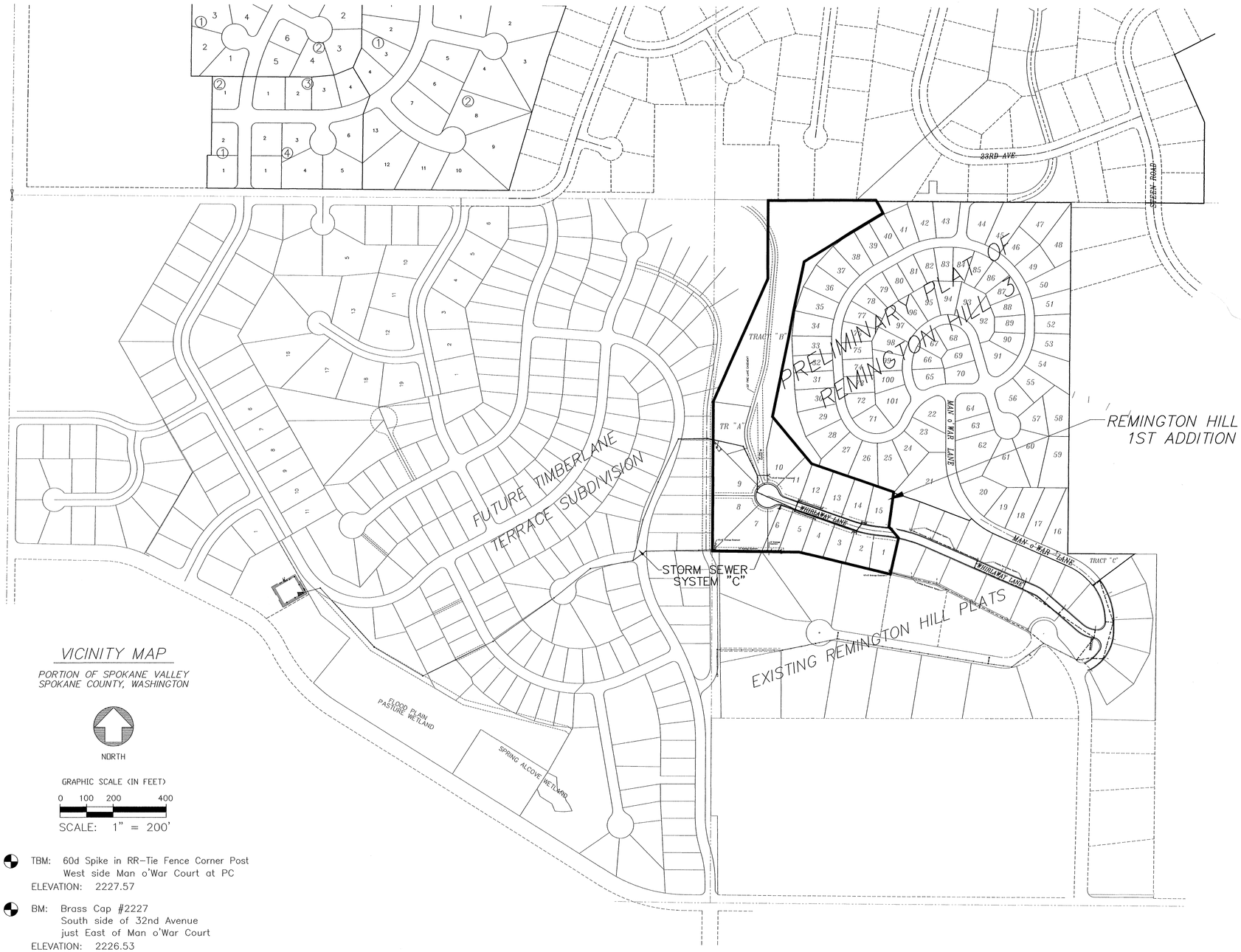
REMINGTON HILL 3 – 1ST ADDITION



VICINITY MAP

PORTION OF SPOKANE VALLEY
SPOKANE COUNTY, WASHINGTON

NORTH

GRAPHIC SCALE (IN FEET)

0 100 200 400

SCALE: 1" = 200'

TBM: 60d Spike in RR–Tie Fence Corner Post
West side Man o'War Court at PC
ELEVATION: 2227.57

BM: Brass Cap #2227
South side of 32nd Avenue
just East of Man o'War Court
ELEVATION: 2226.53

INDEX TO PLAN SET

SHEET 1 OF 3: VICINITY MAP & PLAN INDEX
SHEET 2 OF 3: WHIRLAWAY LANE PLAN–PROFILE
SHEET 3 OF 3: STORMWATER DRAINAGE PLAN

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1949
DATE ACCEPTED: 9/4/07

PROJECT INFORMATION

Property Owner:	Rem–Rock Corp.
Permit Applicant:	Jim Fox, President, Rem–Rock Corp.
Contact Number:	(509) 216–7955
Contact Address:	P.O. Box 989, Veradale WA 99037
Project Address:	16400 E. Whirlaway Lane, Spokane County

Property Description:

That portion of the NW ¼ of the SE ¼ of Section 25, T. 25 N., R. 44 E.W.M. described as follows:

Begin at the NW corner of the Plat of "REMINGTON HILL 2ND ADDITION PUD", the next 3 courses along the West line of said 2nd Addition; thence S07°24'48"W 132.21 feet; thence S40°22'19"E 56.26 feet; thence S12°22'24"W, 139.06 feet to the SW corner of said 2nd Addition and the NW corner of Tract B of Short Plat "SP–1165–97"; thence N76°06'01"W, along the Northerly line of said SP, 353.54 feet to the angle point in said SP; thence N89°36'41"W 328.87 feet to the West line of the SE ¼ of said Section 25; thence N00°16'07"E, along the West line of said SE ¼ 550.00 feet; thence S84°28'16"E 300.00 feet; thence S01°55'42"E 150.00 feet; thence S71°17'23"E 400.00 feet to the intersection with a line bearing N07°24'48"E from the Point of Beginning; thence S07°24'48"W 20.40 feet to the Point of Beginning.

Situate in the County of Spokane, State of Washington.

Site Soil Types:

BkD – Bernhill very rocky complex, 30–55% slopes
LaB – Lakesol silt loam, 0–20% slopes
BsB – Bong and Phoebe loamy sands, 0–20% slopes
HvC – Hesseltine very rocky complex, 0–30% slopes

Note: Soils per USDA S.C.S. (now N.R.C.S.), 1968, "Soil Survey of Spokane County, Washington"
For soil type locations and descriptions, refer to the project "Stormwater Drainage Report"

ENGINEER'S CERTIFICATION

The design improvements shown in this set of plans conform to the applicable editions of the Spokane County standards for road and sewer construction and Spokane County guidelines for stormwater management. All design deviations have been approved by the Spokane County Engineer. I approve these plans for construction.

Charles E. Simpson 8/31/07

DEVELOPERS APPROVAL

8/31/07
DATE

CALL BEFORE YOU DIG 456–8000

BY	DATE	REVISIONS / AS BUILT
DHC	7–17–02	PREVIOUS VERSION OF STORMWATER DISPOSAL CONCEPT
DHC	11–07–03	REVISED PROPOSED STORM SYSTEM WITHIN TIMBERLANE TERRACE
DHC	03–19–04	REVISED PLAN SET PER SPOKANE COUNTY REVIEW COMMENTS
DHC	06–10–04	REVISED STORM SYSTEM OFF–SITE & ADDED SECOND DETAIL SHEET
DHC	APR 2005	REVISED STORM SYSTEM PER REV. PLATS (REMINGTON HILL 3 & T.T.)
MCP	8–30–07	AS–BUILT STORM SYSTEM

DATUM	SCALE		DATE
TBM NO.	HORIZONTAL 1"=200'	DRAWN D.H. CHRISTENSON	06–25–04
ELEVATION	VERTICAL 1"=10'	CHECKED C.E. SIMPSON	
LOCATION		APPROVED	

CHARLES E. SIMPSON STATE OF WASHINGTON 9967 REGISTERED PROFESSIONAL ENGINEER 8/31/07
EXPIRES 7/17/09

Founded 1946
Simpson Engineers, Inc.
CIVIL ENGINEERS & LAND SURVEYORS
N. 909 ARGONNE ROAD, SPOKANE WA., 99212–2789
PHONE (509) 926–1322 FAX (509) 926–1323

TYPE OF IMPROVEMENT:	
PLAN SET – COVER	
PROJECT NUMBER	SHEET NUMBER
14044	1 OF 3

REMINGTON HILL 3 – 1ST ADDITION
WEST PORTION OF WHIRLAWAY LANE

VICINITY MAP & PLAN INDEX
THE SE 1/4 OF SEC.25, T25N, R44 EWM

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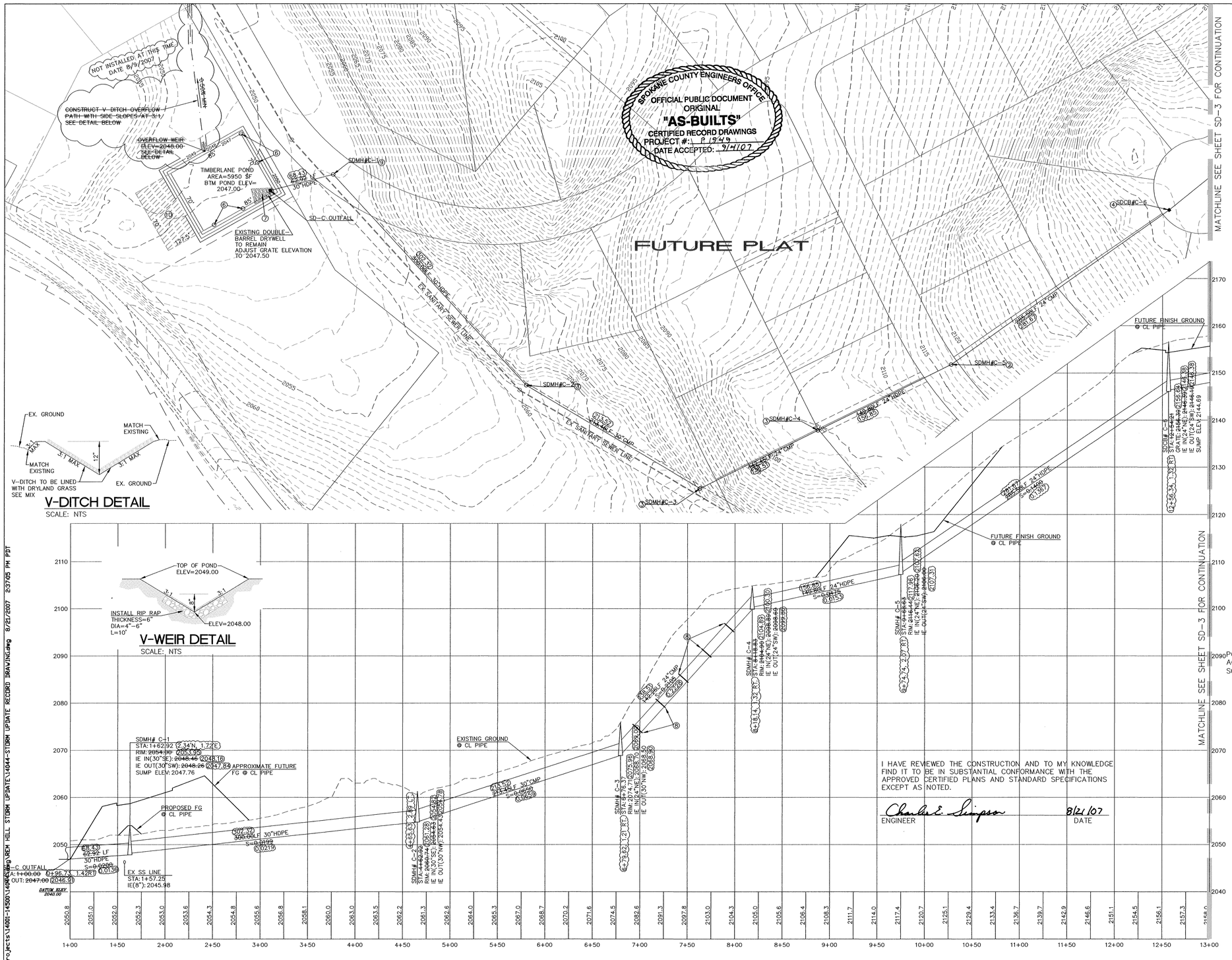
P-1949 Eng As Built



V-DITCH DETAIL

SCALE: NTS

V-WEIR DETAIL

SCALE: NTS

CONSTRUCTION NOTES:

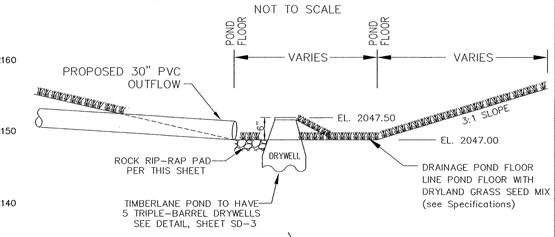
1. INSTALL MANHOLE TYPE I-48 PER SPOKANE COUNTY STD DWG U-2
2. INSTALL MANHOLE TYPE I-60 PER SPOKANE COUNTY STD DWG U-3
3. INSTALL MANHOLE TYPE III-60 PER SPOKANE COUNTY STD DWG U-6
4. INSTALL 48" DIA. CATCH BASIN TYPE 2 PER WASHDOT STD PLAN B-1e
5. INSTALL CATCH BASIN TYPE I PER SPOKANE COUNTY STD DWG B-4
6. INSTALL TRIPLE-BARREL DRYWELL W/ TYPE 4 FRAME AND METAL GRATE PER DETAIL ON SHEET SD-3. GRATE ELEVATION=2047.50
7. CONSTRUCT ROCK RIP-RAP
   LENGTH=22.5'
   WIDTH=7.5' AT OUTFALL
   WIDTH=16.5' AT DOWNSTREAM END
   ROCK GRADATION AS FOLLOWS:
   MEAN STONE SIZE=9"
   MAXIMUM STONE SIZE=13"
   MINIMUM STONE SIZE=3"
   THICKNESS=1.2'
8. INSTALL PIPE ANCHOR WALL. SEE DETAIL THIS SHEET FOR APPROPRIATE DIMENSIONS AND SPACING.
9. INSTALL MODIFIED 54" DIA. CATCH BASIN TYPE 2 WITH RING AND COVER PER WASHDOT STD. PLAN B-10.20-00.
10. CONTINGENCY PLAN: 2975 SF OF ADDITIONAL POND AREA IF DRYWELLS DO NOT TEST AS ESTIMATED. APPROXIMATLY 50% INCREASE IN POND AREA. ADDITIONAL AREA SHOWN ON PLAN IS BOTTOM OF POND.

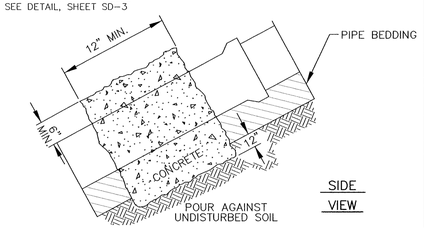
NOTE:

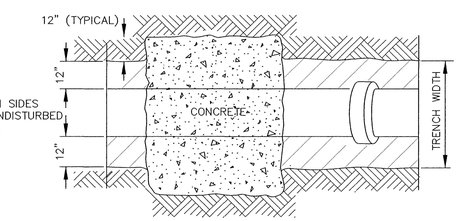
1. GRATE ELEVATION INCLUDES 1" DEPRESSION BELOW GUTTER (7" BELOW TOP OF CURB)
2. PIPE LENGTHS AND SLOPES ARE FIGURED FROM CENTER OF STRUCTURES
3. ALL NEW DRYWELLS SHALL HAVE A FULL SCALE DRYWELL TEST TO VERIFY DESIGN OUTFLOWS PRIOR TO PROJECT CERTIFICATION.
4. IF TESTED DRYWELL OUTFLOW RATES (AFTER INCLUDING A FACTOR OF SAFETY) ARE BELOW THE ASSUMED OUTFLOW RATES, ADDITIONAL DRYWELLS WHALL BE ADDED AS NEEDED TO MATCH THE DESIGN OUTFLOW RATES.

TIMBERLANE POND: DETAIL SECTION

NOT TO SCALE







PLAN

SLOPE	MIN. ANCHOR SPACING CENTER TO CENTER
0.20 – 0.34	36'
0.35 – 0.50	24'
0.51+	16' OR CONC. ENCASEMENT

ANCHOR WALL DETAIL

SCALE: NTS

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

Charles E. Simpson 8/21/07
ENGINEER DATE

LEGEND

- EXISTING STORM LINE
- EXISTING STORM MANHOLE
- EXISTING SANITARY LINE
- EXISTING SANITARY MANHOLE
- PROPOSED STORM LINE
- PROPOSED STORM MANHOLE
- PROPOSED STORM INLET
- PROPOSED SILT FENCE
- EXISTING 1' CONTOURS
- 2200 EXISTING 5' CONTOURS
- 2201 PROPOSED 1' CONTOURS
- 2200 PROPOSED 5' CONTOURS
- FUTURE PLAT LINES

RECORD DRAWING

0 25 50 100
1" = 50'

CALL BEFORE YOU DIG 456-8000

BY	DATE	REVISIONS / AS BUILT
MJK	8/9/07	STORM SEWER AS-BUILT

DATUM		SCALE			DATE
TBM NO.		HORIZONTAL	1"=50'	DRAWN ACS	6/20/07
ELEVATION	2180.03	VERTICAL	1"=10'	CHECKED	
LOCATION	TOP 1/2" PIPE-S1/4 COR-CONKLIN & SALTESE			APPROVED	

CHARLES E. SIMPSON STATE OF WASHINGTON 9361 REGISTERED PROFESSIONAL ENGINEER 8/21/07
EXPIRES 7/17/09

Founded 1946
Simpson Engineers, Inc.
CIVIL ENGINEERS & LAND SURVEYORS
N. 909 ARGONNE ROAD, SPOKANE VALLEY WA., 99212-2789
PHONE (509) 926-1322 FAX (509) 926-1323

TYPE OF IMPROVEMENT: DRAINAGE	
PROJECT NUMBER	SHEET NUMBER
14044	SD-2

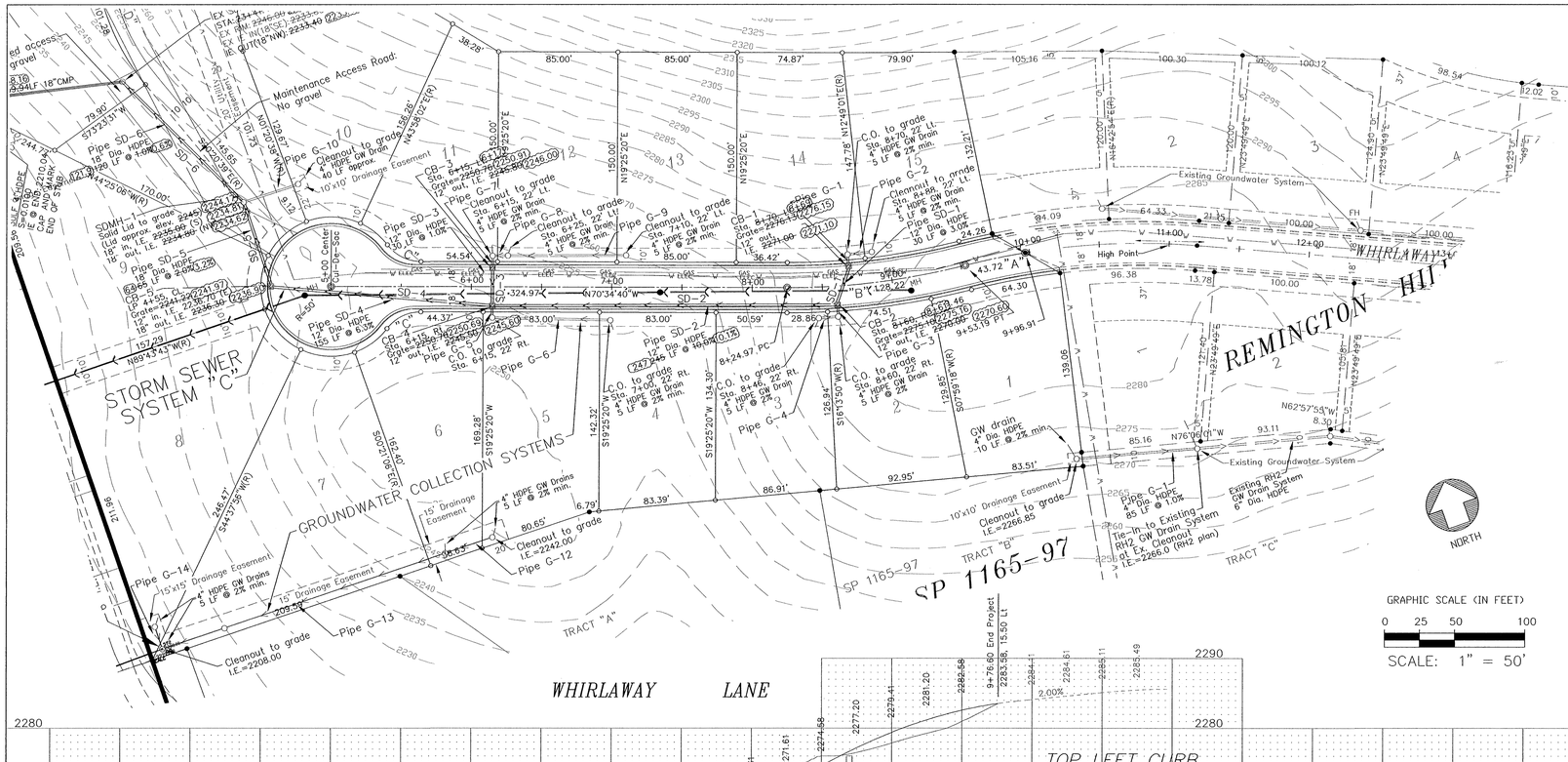
REMINGTON HILL 3 – 1ST ADDITION

SW 1/4 OF SECTION 25, T. 25 N, R. 44 E.W.M.

STORM SEWER

STORM SYSTEM C CONTINUATION

P-1949 Eng As Builts



GRAPHIC SCALE (IN FEET)

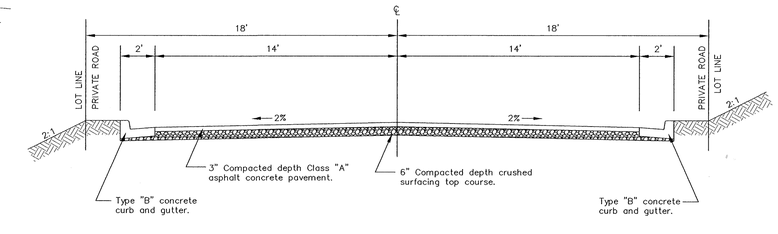
0 25 50 100

SCALE: 1" = 50'

WHIRLAWAY LANE

TYPICAL SECTION

PRIVATE ROAD
NO SCALE



NOTE: Roadway Section as per existing portion of Whirlaway Lane in Remington Hill 2nd Add.

CURVE DATA

"A"	"B"	"C"
D=5°00'36"	D=14°41'33"	D=53°07'48"
R=500.00	R=500.00	R=30.00
L=43.72	L=128.22	L=27.82
T=21.87	T=64.46	T=15.00

NOTE: See "Drainage Plan," Sheet 4 of 6, for Storm Sewer System "C" and Groundwater Collection Systems Data Tables

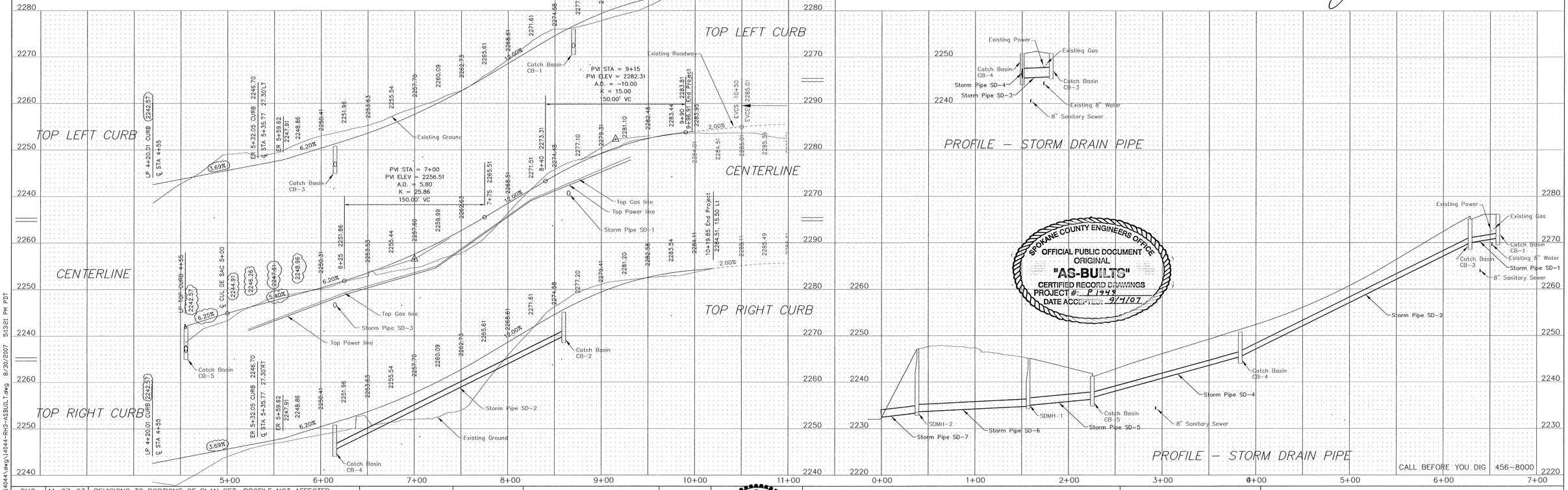
TBM: 60d Spike in RR-Tie Fence Corner Post
West side Man o'War Court at PC
ELEVATION: 2227.57

BM: Brass Cap #2227
South side of 32nd Avenue
just East of Man o'War Court
ELEVATION: 2226.53

The design improvements shown in this set of plans conform to the applicable editions of the Spokane County standards for road and sewer construction and Spokane County guidelines for stormwater management. All design deviations have been approved by the Spokane County Engineer. I approve these plans for construction.

Charles E. Simpson 8/31/07

DEVELOPER'S APPROVAL — DATE 8/31/07



SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P 1949
DATE ACCEPTED: 9/4/07

BY	DATE	REVISIONS / AS BUILT
DHC	11-07-03	REVISIONS TO PORTIONS OF PLAN SET; PROFILE NOT AFFECTED
DHC	03-19-04	REVISED PLAN SET PER SPOKANE COUNTY REVIEW COMMENTS
DHC	05-07-04	FINALIZED PLAN SET
DHC	06-10-04	REVISED STORM SYSTEM OFF-SITE & ADDED SECOND DETAIL SHEET
DHC	APR 2005	REVISED STORM SYSTEM PER REV. PLATS (REMINGTON HILL 3 & T.T.)
MCP	8-30-07	AS-BUILT STORM SYSTEM AND STREET GRADE

DATUM	SCALE		DATE
TBM NO.	HORIZONTAL 1"=50'	DRAWN MCP, DHC	06-25-04
ELEVATION	VERTICAL 1"=10'	CHECKED C.E. SIMPSON	
LOCATION		APPROVED	

CHARLES E. SIMPSON — STATE OF WASHINGTON — 9967 — REGISTERED PROFESSIONAL ENGINEER — 8/31/07 — EXPIRES 7/17/09

Simpson Engineers, Inc.
Founded 1946
CIVIL ENGINEERS & LAND SURVEYORS
N. 909 ARGONNE ROAD, SPOKANE WA., 99212-2789
PHONE (509) 926-1322 FAX (509) 926-1323

TYPE OF IMPROVEMENT: STREET

PROJECT NUMBER	SHEET NUMBER
14044	2 OF 3

REMINGTON HILL 3 – 1ST ADDITION

PLAN–PROFILE: WHIRLAWAY LANE

CENTERLINE STATION 4+55 TO 9+96.90

THE SE 1/4 OF SEC.25, T25N, R44 EWM

P-1949 Eng As Built

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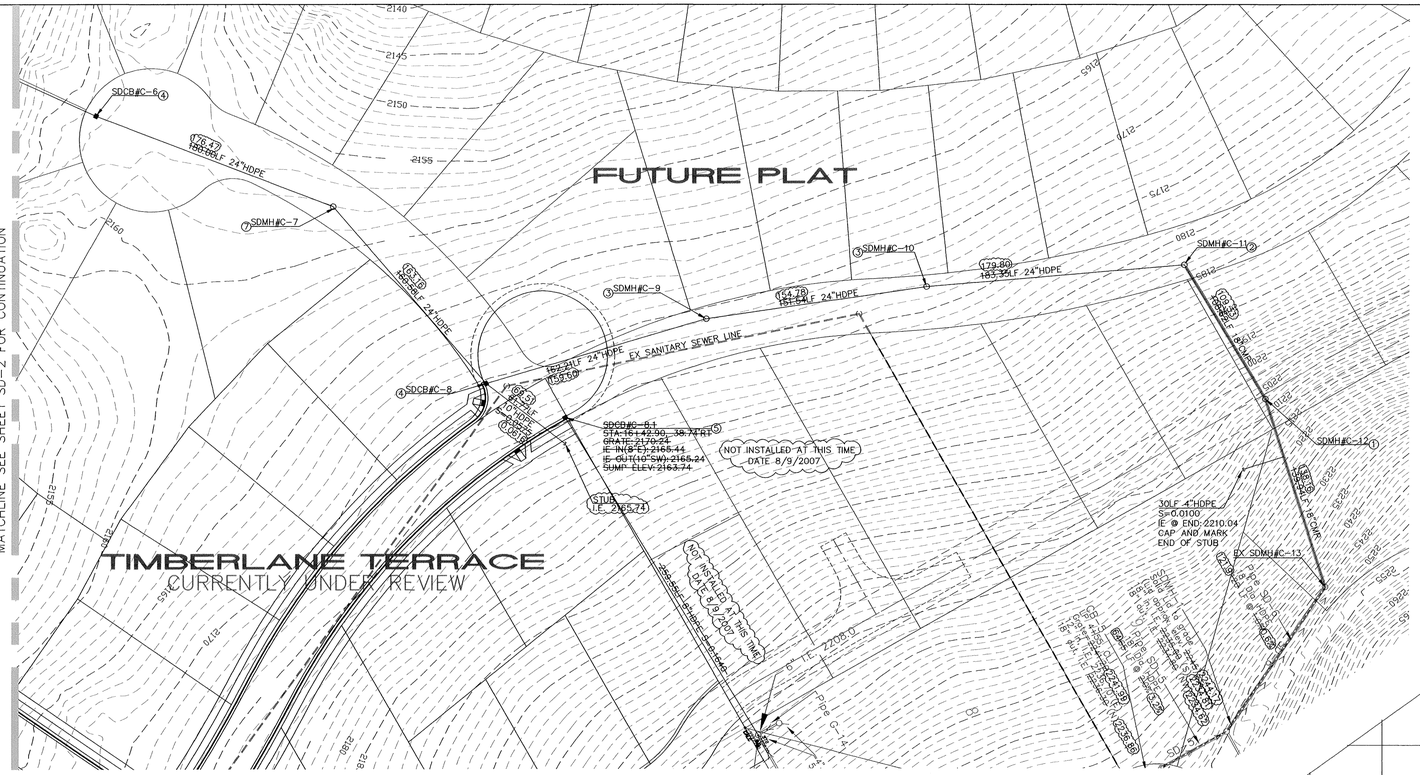


LEGEND

- EXISTING STORM LINE
- EXISTING STORM MANHOLE
- EXISTING SANITARY LINE
- EXISTING SANITARY MANHOLE
- PROPOSED STORM LINE
- PROPOSED STORM MANHOLE
- PROPOSED STORM INLET
- PROPOSED SILT FENCE
- EXISTING 1' CONTOURS
- EXISTING 5' CONTOURS
- PROPOSED 1' CONTOURS
- PROPOSED 5' CONTOURS
- FUTURE PLAT LINES

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1949
DATE ACCEPTED: 9/4/07

CONSTRUCTION NOTES:

1. INSTALL MANHOLE TYPE I-48 PER SPOKANE COUNTY STD DWG U-2
2. INSTALL MANHOLE TYPE I-60 PER SPOKANE COUNTY STD DWG U-3
3. INSTALL MANHOLE TYPE III-60 PER SPOKANE COUNTY STD DWG U-6
4. INSTALL 48" DIA. CATCH BASIN TYPE 2 PER WASHDOT STD PLAN B-1e
5. INSTALL CATCH BASIN TYPE I PER SPOKANE COUNTY STD DWG B-4
6. INSTALL PIPE ANCHOR WALL. SEE DETAIL ON SHEET SD-2 FOR APPROPRIATE DIMENSIONS AND SPACING.
7. INSTALL 48" DIA. CATCH BASIN TYPE 2 WITH RING AND COVER PER WASHDOT STD. PLAN B-10.20-00.

NOTE:

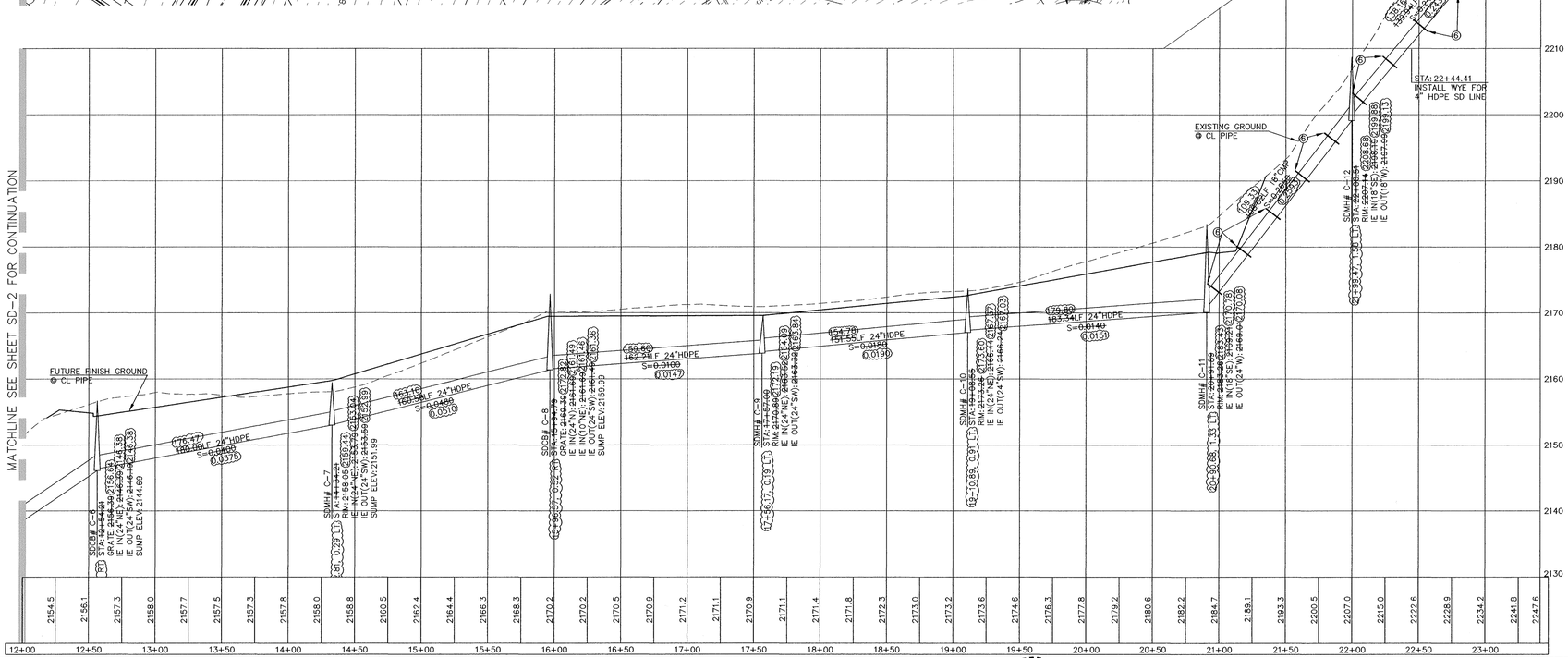
1. GRATE ELEVATION INCLUDES 1" DEPRESSION BELOW GUTTER (7" BELOW TOP OF CURB)
2. PIPE LENGTHS AND SLOPES ARE FIGURED FROM CENTER OF STRUCTURES
3. ALL NEW DRYWELLS SHALL HAVE A FULL SCALE DRYWELL TEST TO VERIFY DESIGN OUTFLOWS PRIOR TO PROJECT CERTIFICATION.

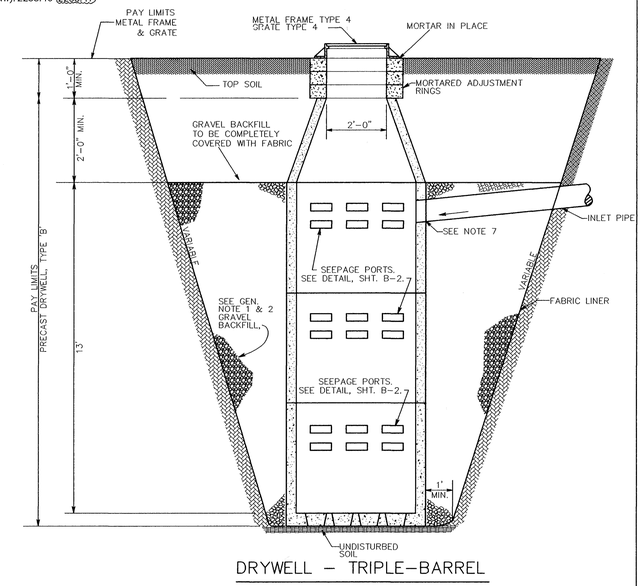
I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

Charles E. Simpson 8/21/07
ENGINEER DATE

GENERAL NOTES

1. GRAVEL BACKFILL QUANTITY FOR DRYWELLS : 50 CUBIC YARDS MINIMUM / 70 TONS.
2. SPECIAL BACKFILL MATERIAL FOR DRYWELLS SHALL CONSIST OF WASHED GRAVEL GRADED FROM 1" TO 3" WITH A MAXIMUM OF 5% PASSING THE U.S. No. 200 SCREEN, AS MEASURED BY WEIGHT. A MAXIMUM OF 10% OF THE AGGREGATE, AS MEASURED BY WEIGHT, MAY BE CRUSHED OR FRACTURED ROCK. THE REMAINING 90% SHALL BE NATURALLY OCCURRING UNFRACTURED MATERIAL.
3. FABRIC SHALL BE MODERATE SURVIVABILITY AS OUTLINED IN STANDARD SPECIFICATIONS 9-33
4. SEE STANDARD PLANS SHEETS B-2 AND B-3 FOR PRECAST CONCRETE DETAILS.
5. ADJUSTMENT BLOCKS SHALL BE CEMENT CONCRETE.
6. PRECAST RISER MAY BE USED IN COMBINATION WITH OR IN LIEU OF ADJUSTING BLOCKS.
7. WHEN PVC PIPE IS USED A PVC ADAPTER SHALL BE INSTALLED.
8. PIPES SHALL BE GROUTED INTO DRYWELLS.





DRYWELL - TRIPLE-BARREL

RECORD DRAWING

0 25 50 100
1" = 50'

CALL BEFORE YOU DIG 456-8000

BY	DATE	REVISIONS / AS BUILT
MJK	8/9/07	STORM SEWER AS-BUILT

DATUM		SCALE			DATE
TBM NO.		HORIZONTAL	1"=50'	DRAWN ACS	5/10/07
ELEVATION	2180.03	VERTICAL	1"=10'	CHECKED	
LOCATION	TOP 1/2" PIPE-S1/4 COR-CONKLIN & SALTESE			APPROVED	

CHARLES E. SIMPSON STATE OF WASHINGTON 9961 REGISTERED PROFESSIONAL ENGINEER 8/21/07
EXPIRES 7/17/09

Founded 1946
Simpson Engineers, Inc.
CIVIL ENGINEERS & LAND SURVEYORS
N. 909 ARGONNE ROAD, SPOKANE VALLEY WA., 99212-2789
PHONE (509) 926-1322 FAX (509) 926-1323

TYPE OF IMPROVEMENT:	
DRAINAGE	
PROJECT NUMBER	SHEET NUMBER
14044	SD-3

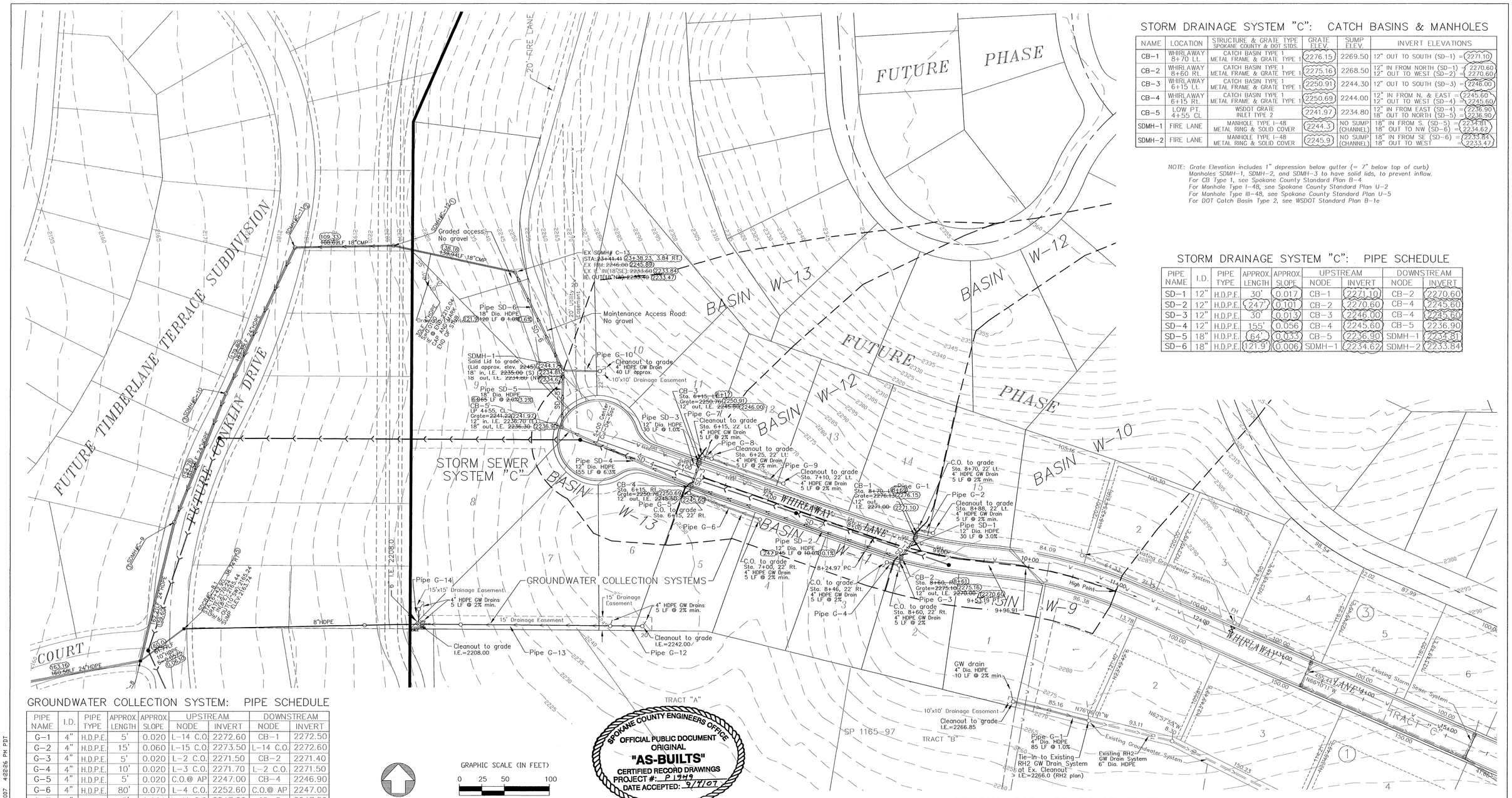
REMINGTON HILL 3 - 1ST ADDITION

SW 1/4 OF SECTION 25, T. 25 N, R. 44 E.W.M.

STORM SEWER

STORM SYSTEM C CONTINUATION

P-1949 Eng As Builts



STORM DRAINAGE SYSTEM "C": CATCH BASINS & MANHOLES

NAME	LOCATION	STRUCTURE & GRATE TYPE SPOKANE COUNTY & DOT STDS.	GRATE ELEV.	SUMP ELEV.	INVERT ELEVATIONS
CB-1	WHIRLAWAY 8+70 Lt.	CATCH BASIN TYPE 1 METAL FRAME & GRATE TYPE 1	2276.15	2269.50	12" OUT TO SOUTH (SD-1) = 2271.10
CB-2	WHIRLAWAY 8+60 Rt.	CATCH BASIN TYPE 1 METAL FRAME & GRATE TYPE 1	2275.16	2268.50	12" IN FROM NORTH (SD-1) = 2270.60 12" OUT TO WEST (SD-2) = 2270.60
CB-3	WHIRLAWAY 6+15 Lt.	CATCH BASIN TYPE 1 METAL FRAME & GRATE TYPE 1	2250.91	2244.30	12" OUT TO SOUTH (SD-3) = 2246.00
CB-4	WHIRLAWAY 6+15 Rt.	CATCH BASIN TYPE 1 METAL FRAME & GRATE TYPE 1	2250.69	2244.00	12" IN FROM N. & EAST = 2245.60 12" OUT TO WEST (SD-4) = 2245.60
CB-5	LOW PT. 4+55 CL	WSDOT GRATE INLET TYPE 2	2241.97	2234.80	12" IN FROM EAST (SD-4) = 2236.90 18" OUT TO NORTH (SD-5) = 2236.90
SDMH-1	FIRE LANE	MANHOLE TYPE I-48 METAL RING & SOLID COVER	2244.3	NO SUMP (CHANNEL)	18" IN FROM S. (SD-5) = 2234.81 18" OUT TO NW (SD-6) = 2234.62
SDMH-2	FIRE LANE	MANHOLE TYPE I-48 METAL RING & SOLID COVER	2245.9	NO SUMP (CHANNEL)	18" IN FROM SE (SD-6) = 2233.84 18" OUT TO WEST = 2233.47

NOTE: Grate Elevation includes 1" depression below gutter (= 7" below top of curb)
Manholes SDMH-1, SDMH-2, and SDMH-3 to have solid lids, to prevent inflow.
For CB Type 1, see Spokane County Standard Plan B-4
For Manhole Type I-48, see Spokane County Standard Plan U-2
For Manhole Type III-48, see Spokane County Standard Plan U-5
For DOT Catch Basin Type 2, see WSDOT Standard Plan B-1e

STORM DRAINAGE SYSTEM "C": PIPE SCHEDULE

PIPE NAME	I.D.	PIPE TYPE	APPROX. LENGTH	APPROX. SLOPE	UPSTREAM NODE	UPSTREAM INVERT	DOWNSTREAM NODE	DOWNSTREAM INVERT
SD-1	12"	H.D.P.E.	30'	0.017	CB-1	2271.10	CB-2	2270.60
SD-2	12"	H.D.P.E.	247'	0.101	CB-2	2270.60	CB-4	2245.60
SD-3	12"	H.D.P.E.	30'	0.013	CB-3	2246.00	CB-4	2245.60
SD-4	12"	H.D.P.E.	155'	0.056	CB-4	2245.60	CB-5	2236.90
SD-5	18"	H.D.P.E.	64'	0.033	CB-5	2236.90	SDMH-1	2234.81
SD-6	18"	H.D.P.E.	121.9'	0.006	SDMH-1	2234.62	SDMH-2	2233.84

GROUNDWATER COLLECTION SYSTEM: PIPE SCHEDULE

PIPE NAME	I.D.	PIPE TYPE	APPROX. LENGTH	APPROX. SLOPE	UPSTREAM NODE	UPSTREAM INVERT	DOWNSTREAM NODE	DOWNSTREAM INVERT
G-1	4"	H.D.P.E.	5'	0.020	L-14 C.O.	2272.60	CB-1	2272.50
G-2	4"	H.D.P.E.	15'	0.060	L-15 C.O.	2273.50	L-14 C.O.	2272.60
G-3	4"	H.D.P.E.	5'	0.020	L-2 C.O.	2271.50	CB-2	2271.40
G-4	4"	H.D.P.E.	10'	0.020	L-3 C.O.	2271.70	L-2 C.O.	2271.50
G-5	4"	H.D.P.E.	5'	0.020	C.O.@ AP	2247.00	CB-4	2246.90
G-6	4"	H.D.P.E.	80'	0.070	L-4 C.O.	2252.60	C.O.@ AP	2247.00
G-7	6"	H.D.P.E.	5'	0.020	L-11 C.O.	2247.60	CB-3	2247.50
G-8	4"	H.D.P.E.	10'	0.060	L-12 C.O.	2248.20	L-11 C.O.	2247.60
G-9	4"	H.D.P.E.	80'	0.060	L-13 C.O.	2253.00	L-12 C.O.	2248.20
G-10	4"	H.D.P.E.	40'	0.200	L-10 C.O.	2244.00	SDMH-1	2236.00
G-11	4"	H.D.P.E.	30'	0.100	L-9 C.O.	2210.00	CB-7	2207.00
G-12	4"	H.D.P.E.	35'	0.071	L-5 C.O.	2242.00	L-6 C.O.	2239.50
G-13	6"	H.D.P.E.	210'	0.150	L-6 C.O.	2239.50	L-7 C.O.	2208.00
G-14	4"	H.D.P.E.	15'	0.020	L-8 C.O.	2208.30	L-7 C.O.	2208.00
G-15	8"	H.D.P.E.	250'	0.172	L-7 C.O.	2208.00	C.O.@ VAP	2165.00
G-16	8"	H.D.P.E.	25'	0.040	C.O.@ VAP	2165.00	SDMH-6	2164.00

NOTE: Groundwater Collection System connects to each homesite's Groundwater Protection System. See "Groundwater Protection System" on Detail Sheet.

NORTH

GRAPHIC SCALE (IN FEET)
0 25 50 100
SCALE: 1" = 50'

TBM: 60d Spike in RR-Tie Fence Corner Post
West side Man o'War Court at PC
ELEVATION: 2227.57

BM: Brass Cap #2227
South side of 32nd Avenue
just East of Man o'War Court
ELEVATION: 2226.53

ENGINEER'S CERTIFICATION

The design improvements shown in this set of plans conform to the applicable editions of the Spokane County standards for road and sewer construction and Spokane County guidelines for stormwater management. All design deviations have been approved by the Spokane County Engineer. I approve these plans for construction.

LEGEND FOR DRAINAGE PLAN

EXISTING

- 2250 = Existing Ground Contour (Contour Interval = 5')
- ELEC = Existing Electric Line
- GAS = Existing Gas Line
- W = Existing Water Main
- = Existing Storm or GW Pipe (in Remington Hill 2nd Add.)

PROPOSED

- CB-7 = Catch Basin, Type 1 (or as specified) with Metal Grate, Type 1 (Type 3 at Low Pt.) Spokane County Standards
- SD-15 = Storm Drainage Pipe & Flow Direction
- SDMH = Storm Drainage Manhole with Solid Lid (for cleaning access - no inflow)
- G-8 = Groundwater Collection Pipe & Flow Direction
- C.O. = Cleanout in Groundwater Drain System
- 50/25 = Drainage Pond Floor w/Perimeter Dimensions

NOTE: REFER TO THE REMINGTON HILL 3 - 1ST ADDITION "STORMWATER DRAINAGE REPORT" FOR DESIGN DATA, DRAINAGE BASINS, MAINTENANCE RECOMMENDATIONS, SOILS, AND OTHER DRAINAGE SYSTEM INFORMATION.

DEVELOPERS APPROVAL

8/31/07
DATE

CALL BEFORE YOU DIG 456-8000

BY	DATE	REVISIONS / AS BUILT
DHC	7-17-02	PREVIOUS VERSION OF STORMWATER DISPOSAL CONCEPT
DHC	11-07-03	REVISED PROPOSED STORM SYSTEM WITHIN TIMBERLANE TERRACE
DHC	03-19-04	REVISED PLAN SET PER SPOKANE COUNTY REVIEW COMMENTS
DHC	06-10-04	REVISED STORM SYSTEM OFF-SITE & ADDED SECOND DETAIL SHEET
DHC	APR 2005	REVISED STORM SYSTEM PER REV. PLATS (REMINGTON HILL 3 & T.T.)
MCP	8-30-07	AS-BUILT STORM SYSTEM

DATUM	SCALE		DATE
TBM NO.	HORIZONTAL 1"=50'	DRAWN D.H. CHRISTENSON	JAN 2005
ELEVATION	VERTICAL	CHECKED C.E. SIMPSON	
LOCATION		APPROVED	

CHARLES E. SIMPSON, STATE OF WASHINGTON, 9967, REGISTERED PROFESSIONAL ENGINEER
EXPIRES 7/17/09

Founded 1946
Simpson Engineers, Inc.
CIVIL ENGINEERS & LAND SURVEYORS
N. 909 ARGONNE ROAD, SPOKANE WA., 99212-2789
PHONE (509) 926-1322 FAX (509) 926-1323

TYPE OF IMPROVEMENT: DRAINAGE
PROJECT NUMBER 14044
SHEET NUMBER 3 OF 3

REMINGTON HILL 3 - 1ST ADDITION
WEST PORTION OF WHIRLAWAY LANE
STORMWATER DRAINAGE PLAN
THE SE 1/4 OF SEC.25, T25N, R44 EWM

P-1949 Eng As Builts

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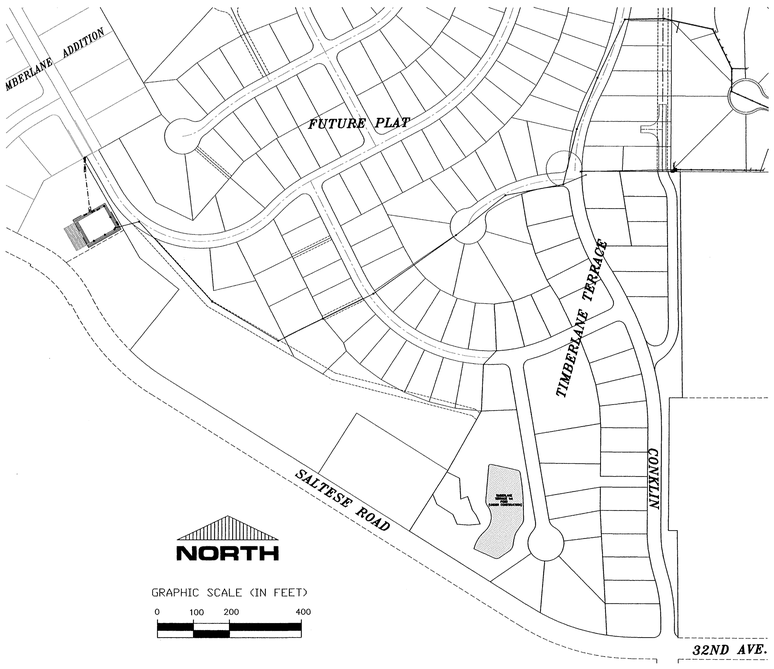
REMINGTON HILL 3 - 1st ADDITION

STORM SEWER "C" CONTINUATION

THE SW 1/4 OF SECTION 25, T.25 N., R.44 E.W.M., SPOKANE COUNTY, WASHINGTON



CONSTRUCTION NOTES

1) All work and materials shall be in conformance with the "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION" 2001, and as amended.

2) Locations of existing utilities shown in the plans are approximate. The Contractor shall be responsible for locating all underground utilities. Any conflicting utilities shall be relocated prior to construction of road and drainage facilities.

3) The Contractor is required to have a complete set of the approved road and drainage plans on the job site whenever construction is in progress.

4) If the Contractor discovers any discrepancies between the plans and existing conditions encountered, the Contractor shall immediately notify the Design Engineer and the Spokane County Engineers office.

5) For construction of drywells, install filter fabric (Amoco 4545 or approved equivalent) between the washed drainrock and the native soils.

6) Prior to site construction, the Contractor is responsible for locating underground utilities. Call the underground utility location service at 456-8000 before you dig.

7) For any curb grades less than 0.8% (0.008 ft./ft.), a Washington State licensed Professional Land Surveyor shall verify that the curb forms are at the grades noted on the approved plans, prior to placement of curb material. The Contractor is responsible for arranging and coordinating work with the Professional Land Surveyor.

8) The floor of a Grassed Percolation Area (GPA) swale includes the level portion of the floor of the swale, and the side slopes of the swale up to the GPA overflow elevation or top of drywell. The soil located in the floor of the GPA swale shall be a medium to well-draining material, with a minimum infiltration rate of 0.5 inches per hour. The Engineer shall provide a written statement which verifies that all GPA swales conform to this requirement. This written statement shall be submitted to the Spokane County Engineer's Office prior to installing finished landscaping/sod and prior to final acceptance. The swale floor material shall be installed to a native soil stratum which also meets or exceeds this minimum percolation rate of 0.5 inches per hour.

9) An Erosion/Sedimentation Control (ESC) plan is required for this project. Implementation of the ESC plan, and construction, maintenance, and upgrading of the ESC facilities are the responsibility of the Developer until all construction is completed and accepted by Spokane County, or until vegetation is established throughout the site, and accepted by Spokane County, whichever is later.

10) Approval of the ESC plan does not constitute approval of any of the proposed road, storm drainage, grading or utility design elements shown on the ESC plan.

11) The erosion/sedimentation control measures shown are the minimum requirements for the anticipated site conditions. The Contractor shall inspect and maintain these ESC measures daily, and shall maintain and upgrade these measures as necessary to prevent sediment-laden water from either flowing off the site, or into new/existing storm drainage facilities, such as drywells, culverts, or gravel galleries.

12) Geotextile fabric is to be placed on the rims of drywells, catch basins and inlets until such time the vegetation on the site is established and the threat of sediment deposition into the drainage system is mitigated.

13) Onsite grading shall be in accordance with the approved grading plan and ESC plan. Any import or export of material shall be from a preapproved source/destination and coordinated with the Spokane County Department of Building and Planning at 477-3675. Grading on this site or any other site must comply with all development regulations including, but not limited to, grading permits, SEPA review, timber harvest permits, critical areas, floodplains, designated drainageways, etc.

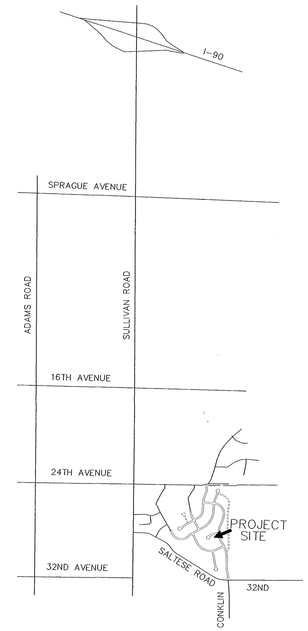
CALL BEFORE YOU DIG: 456-8000

ENGINEER'S CERTIFICATION

The design improvements shown in this set of plans conform to the applicable editions of the Spokane County standards for road and sewer construction and Spokane County guidelines for stormwater management. All design deviations have been approved by the Spokane County Engineer. I approve these plans for construction.

DEVELOPERS APPROVAL

8-22-07
DATE



VICINITY MAP
GRAPHIC SCALE (IN FEET)
0 1000 2000 4000
1" = 2000'

INDEX TO PLAN SET

SD-1: COVER SHEET
SD-2: STORM SEWER PLAN AND PROFILE
SD-3: STORM SEWER PLAN AND PROFILE
SD-4: ACCESS ROADS
EC-1: EROSION CONTROL PLAN

PROJECT INFORMATION

Owner/Applicant:	Timberlane Inc.
Contact Number:	(509) 922-2748 Ext. 14
Project Address:	PO Box 989 Veradale, WA 99037

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1949
DATE ACCEPTED: 9/4/07

I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED.

Charles E. Simpson 8/21/07
ENGINEER DATE

RECORD DRAWING

CALL BEFORE YOU DIG 456-8000

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BY	DATE	REVISIONS / AS BUILT
MJK	8/9/2007	Storm Sewer As-Built

DATUM		SCALE			DATE
TBM NO.		HORIZONTAL	1"=100'	DRAWN ACS	5/10/07
ELEVATION	2180.03	VERTICAL		CHECKED	
LOCATION	TOP 1/2" PIPE-S1/4 COR-CONKLIN & SALTESE			APPROVED	

CHARLES E. SIMPSON STATE OF WASHINGTON 9967 REGISTERED PROFESSIONAL ENGINEER
8/21/07
EXPIRES 7/17/09

Founded 1946
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CIVIL ENGINEERS & LAND SURVEYORS
N. 909 ARGONNE ROAD, SPOKANE VALLEY WA., 99212-2789
PHONE (509) 926-1322 FAX (509) 926-1323

TYPE OF IMPROVEMENT:	
DRAINAGE	
PROJECT NUMBER	SHEET NUMBER
14044	SD-1

REMINGTON HILL 3 - 1ST ADDITION
SW 1/4 OF SECTION 25, T. 25 N, R. 44 E.W.M.

COVER SHEET
STORM SYSTEM C CONTINUATION

P-1949 Eng As Builts