COVER SHEET FOR
HATCH ROAD
STREET IMPROVEMENT PLANS

SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

RECORD DRAWING

STREET GENERAL NOTES

THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT TO CONSTRUCT AND INSTALL TO PROPER WORKING ORDER. ALL IMPROVEMENTS AS DETAILED OR CALLED OUT ON THESE PLANS.

1. ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION 2001", AND AS AMENDED.

2. THE CONTRACTOR IS REQUIRED TO HAVE A VALID CONSTRUCTION PERMIT ON SITE AT ALL TIMES. THE ABSENCE OF THE PERMIT WILL RESULT IN AN IMMEDIATE SHUTDOWN OF WORK AND THE POSSIBLE REMOVAL OF THOSE ITEMS CONSTRUCTED WITHOUT THE PERMIT.

3. 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.

4. 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.

5. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER, MARK L. KRIGBAUM, P.E., @ 458-6840, THE SITE/PROJECT INSPECTING ENGINEER OR HIS REPRESENTATIVE, AND THE SPOKANE COUNTY ENGINEER'S OFFICE, CONSTRUCTION ENGINEER, @ 477-3600.

6. FOR CONSTRUCTION OF DRYWELLS, INSTALL FILTER FABRIC, "AMOCO" 4545 OR APPROVED EQUIVALENT, BETWEEN THE WASHED DRAINROCK AND NATIVE SOILS PER SPOKANE COUNTY STANDARD DETAIL B-1a.

7. PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 456-8000 BEFORE YOU DIG.

8. THE CONTRACTOR SHALL MAKE AN EFFORT TO PROTECT ALL CATCH BASINS AND DRYWELLS FROM BEING CONTAMINATED WITH SILT BY INSTALLING FILTER FABRIC UNDER THE LID FOR AT LEAST 6 WEEKS, OR UNTIL THE ESTABLISHMENT OF GRASS AND/OR OTHER SITE CONSTRUCTION WORK HAS ENDED.

IN THE EVENT THAT SILT OR OTHER DELETERIOUS MATERIAL IS ALLOWED TO ENTER THE DRYWELLS OR CATCH BASINS THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE DRYWELL OR CATCH BASIN OUT TO THE SATISFACTION OF THE CERTIFYING ENGINEER.

9. THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR TO VERIFY THAT THE CROSS-GUTTER FORMS ARE THE CORRECT PLANE GRADE PRIOR TO CONCRETE PLACEMENT. THE CROSS-GUTTERS SHALL BE CONSTRUCTED PRIOR TO PAVING, AND THE PAVEMENT SHALL THEN MATCH THE EDGE OF CONCRETE GUTTER.

10. ALL DRYWELL CONNECTION PIPES SHALL BE PLACED BELOW THE DRYWELL CONE AND SHALL FLOW AS DIRECTED IN THE PLANS.

11. 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.

STORM DRAINAGE NOTES

1. SEE STREET PLAN AND PROFILE SHEETS FOR DRYWELL AND CATCH BASIN TYPES AND LOCATIONS.

2. PONDS SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF THESE DRAWINGS INCLUDING GRADING, SOD, AND DRYWELL INSTALLATION. ALL PONDS WITHIN TRACTS SHALL INCLUDE AN IRRIGATION SYSTEM. ALL IRRIGATION SHALL CONFORM TO SPOKANE COUNTY POND IRRIGATION SYSTEM GUIDELINES.

3. ALL "208" PONDS SHOWN SHALL BE ROUGH GRADED PRIOR TO PAVING OF ADJACENT ROADWAY.

4. CONTRACTOR SHALL PROVIDE SPOKANE COUNTY WITH AS-BUILT IRRIGATION PLANS UPON COMPLETION OF ALL POND CONSTRUCTION.

5. FOR CONSTRUCTION OF DRYWELLS, INSTALL FILTER FABRIC, "AMOCO" 4545 OR APPROVED EQUIVALENT, BETWEEN THE WASHED DRAINROCK AND NATIVE SOILS. SEE SPOKANE COUNTY STANDARDS (2001 EDITION) SHEET B-1a FOR INSTALLATION LOCATIONS.

6. ALL PONDS WITHIN THE COUNTY RIGHT-OF-WAY, IN THE AREA ASSOCIATED WITH THIS PROJECT, SHALL BE COMPLETED DURING THE CONSTRUCTION OF THE ROADWAY. THE CONTRACTOR SHALL PERFORM THE POND GRADE WORK, INSTALL THE IRRIGATION SYSTEM, AND PLACE THE SOD WITHIN THE PONDS FOLLOWING THE ROAD PAVING WORK.

7. THE CONTRACTOR SHALL MAKE AN EFFORT TO PROTECT ALL DRAINAGE STRUCTURES FROM BEING CONTAMINATED WITH SILT BY INSTALLING FILTER FABRIC UNDER THE LID FOR AT LEAST 6 WEEKS, OR UNTIL THE ESTABLISHMENT OF GRASS AND/OR OTHER SITE CONSTRUCTION WORK HAS ENDED. IN THE EVENT THAT SILT OR OTHER DELETERIOUS MATERIAL IS ALLOWED TO ENTER THE DRYWELLS OR CATCH BASINS, THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE DRYWELL OR CATCH BASIN OUT TO THE SATISFACTION OF THE CERTIFYING ENGINEER.

8. ALL LANDSCAPE AREAS ('208' PONDS) ARE TO BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM INSTALLED BY OR UNDER THE DIRECTION OF THE LANDSCAPE CONTRACTOR. THE IRRIGATION SYSTEM SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES (90 DAY GUARANTEE). AN APPROVED BACKFLOW DEVICE SHALL BE INSTALLED TO PREVENT WATER FROM GOING BACK INTO THE WATER SUPPLY.

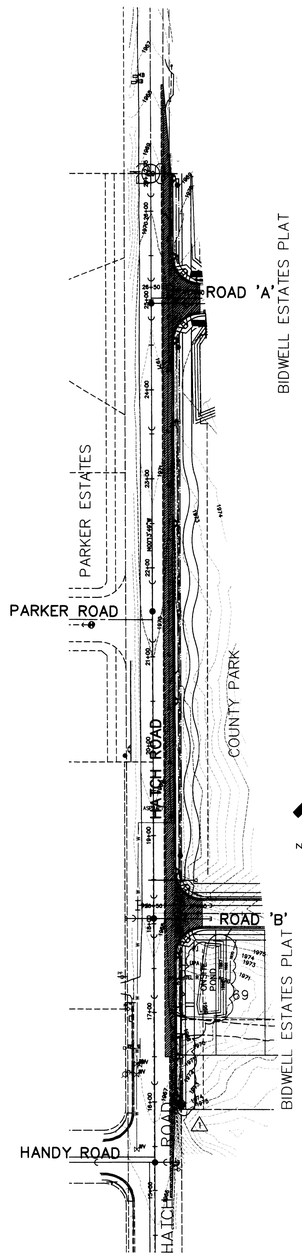
SLEEVING: PROVIDE SLEEVING AS REQUIRED UNDER SIDEWALKS, PATHS, CURBING, PAVING, ETC. AS NEEDED FOR IRRIGATION ACCESS. ALL SLEEVING TO BE 4" PVC. WITH AT LEAST 12" OF COVER (1) FOOT BELOW FINISH GRADE. THE OWNER/GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING SLEEVING BEFORE CURBING, SIDEWALKS, PAVING, ETC. IS INSTALLED. PATCH ASPHALT AS NEEDED.

LAWN AREAS: LAWN AREAS ARE TO BE IRRIGATED WITH TORO POP-UP HEADS OR EQUIVALENT. (TEST SYSTEM BEFORE BACKFILLING).

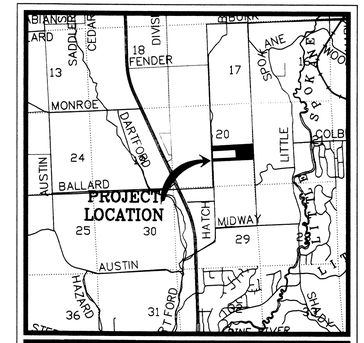
ADJUSTMENT: AFTER INSTALLATION, ADJUST VALVES, HEADS, EMITTERS, ETC. TO PROVIDE UNIFORM COVERAGE AND TO MINIMIZE OVER SPRAY ON WALLS, FENCES, WALKS, DRIVES, ETC.

WATER POWER SUPPLY: THE OWNER/ GENERAL CONTRACTOR IS TO SUPPLY WATER TAPS FOR HOOK-UP AND SUPPLY POWER FOR CONTROLLER.

9. THE FLOOR OF A GRASSED PERCOLATION AREA (GPA) SWALE INCLUDES THE LEVEL PORTION OF THE FLOOR OF THE SWALE, AND THE SIDESLOPES 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.



NORTH 80 0 40 80
SCALE: 1" = 80'-0"



VICINITY MAP

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1942
DATE ACCEPTED: 11/30/05
Hatch Road Only

PAUL T. NELSON
STATE OF WASHINGTON
37228
REGISTERED
PROFESSIONAL ENGINEER
11-23-05
EXPIRES 11/24/07

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.

THE DESIGN IMPROVEMENTS SHOWN IN THIS SET OF PLANS AND CALCULATIONS CONFORM TO APPLICABLE EDITIONS OF THE SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION AND THE SPOKANE COUNTY GUIDELINES FOR STORMWATER MANAGEMENT. ALL DESIGN DEVIATIONS HAVE BEEN APPROVED BY THE SPOKANE COUNTY ENGINEER. I APPROVE THESE PLANS FOR CONSTRUCTION.

TABLE OF CONTENTS

COVER SHEET ..... SHEET 1
HATCH ROAD WIDENING ..... SHEET 2
DETAILS ..... SHEET 3, 3A

LEGEND

EXISTING	GENERAL	PROPOSED
	ROADWAY CENTER LINE	
	SECTION LINE	
	RIGHT OF WAY LINE	
	PROPERTY LINE	
	EASEMENT LINE	
x x	FENCE	x x
	CURB	
	PAVEMENT	
	GRAVEL	
	CONCRETE	
	BUILDINGS & STRUCTURES	
	SANITARY SEWER	
	SANITARY SEWER	
	MANHOLE	
	CLEANOUT	
	SEWER SERVICE	
	WATER	
	WATER LINE	
V	VALVE	V
FH	FIRE HYDRANT	
WS	SERVICE	WS
MM	METER	MM
BO BLOWOFF	BLOWOFF	FH BLOWOFF
A.V.R.S.	AIR VACUUM RELIEF STATION	A.V.R.S.
	STORM DRAINAGE	
	DRAINAGE LINE	
MH	MANHOLE	MH
DW	DRYWELL	DW
CB	CATCH BASIN	CB
	DITCH	
	NATURAL GAS	
G	GAS LINE	G
V	VALVE	
GM	METER	
	TELEPHONE - POWER	
BT	BURIED TELEPHONE	BT
PP	POWER OR TELEPHONE POLE	
BP	BURIED POWER	BP
TP	TRANSFORMER PAD	
TR	TELEPHONE RISER	
TV	TELEPHONE VAULT	
OP	OVERHEAD POWER	OP
GA	GUY ANCHOR	
PV	POWER VAULT	P
LP	LIGHT POLE	

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456·8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG

CAUTION: NOTICE TO CONTRACTOR

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NAVD '88 DATUM

RR SPIKE IN WEST FACE OF P.P. 28' EAST OF CENTERLINE OF HATCH ROAD, 81' NORTH OF SOUTH PLAT BOUNDARY OF WESTWOOD ESTATES #2.
OLD COUNTY DATUM ELEV.=1943.71.
NAVD '88 DATUM ELEV.=1947.56.

DEVELOPER'S APPROVAL DATE

P-1942

Eng As Builts

CLC ASSOCIATES
12730 E. MIRABEAU PKWY
SUITE 100
SPOKANE VALLEY
WASHINGTON 99216
P 509 458 6840
F 509 458 6844
CLCASSOC.COM
ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET CONSTRUCTION PLANS

HATCH ROAD WIDENING
STA. 14+92.05 TO
STA. 27+42.05
SPOKANE COUNTY, WASHINGTON

DATE		DESCRIPTION
03/08/05	1	ORIGINAL PREPARATION
07/28/05	2	ROADSIDE SWALE REVISIONS
10/18/05	3	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

HATCH RD. PLAN & PROFILE

PROJECT #: S040142
DRAWN BY: JCR
DESIGNED BY: DDC
CHECKED BY: MLK

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L:\2005-071\T Bidwell Estates Off Site\dwg\HATCH RD\DWGS\ASBUILT ROAD PI.dwg, 11/21/2005 3:06:34 PM, 1:1

SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

RECORD DRAWING

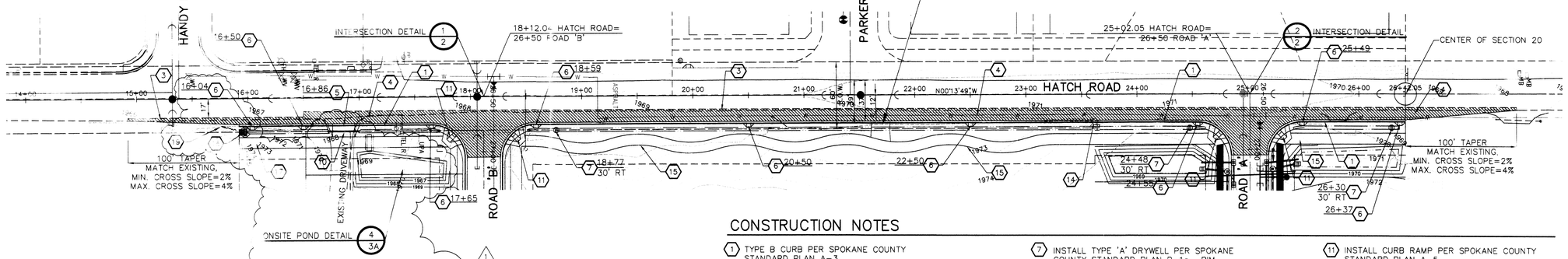
I HAVE REVIEWED THE CONSTRUCTION AND TO MY KNOWLEDGE FIND IT TO BE IN SUBSTANTIAL CONFORMANCE WITH THE APPROVED CERTIFIED PLANS AND STANDARD SPECIFICATIONS EXCEPT AS NOTED

PAUL T. NELSON — STATE OF WASHINGTON — 27228 — REGISTERED PROFESSIONAL ENGINEER — 11-22-05

EXPIRES 11/24/07

NOTE:
WORK ON HATCH ROAD WAS PERFORMED FULL-WIDTH IN CONJUNCTION WITH SANITARY SEWER INSTALLATION AND CONSTRUCTION OF PARKER ESTATES.

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P-1942
DATE ACCEPTED: 11/30.05
Hatch Road Only



ADDITIONAL CONSTRUCTION NOTE

(19) ENSURE POSITIVE DRAINAGE TO THE SOUTH AND EXISTING ROADSIDE DITCH.

CONSTRUCTION NOTES

(1) TYPE B CURB PER SPOKANE COUNTY STANDARD PLAN A-3.

(2) NOT USED.

(3) SAWCUT AND REMOVE EXISTING ACP.

(4) CONSTRUCT NEW ACP PER DETAILS 3 AND 4, SHEET 3. APPLY ASPHALT TACK COAT TO VERTICAL SURFACE, ~~MATCH NEW ACP TO EXISTING ACP.~~

(5) INSTALL 20' TEMPORARY DRIVEWAY WITH CURB CUT AT EXISTING ACCESS PER SPOKANE COUNTY STANDARD PLAN A-4 WITH GRAVEL SURFACING, DRIVEWAY C/L STA 16+86 (HATCH RD.). SEE DETAIL 3, SHEET 3A FOR CROSS SECTION.

(6) CONSTRUCT TYPE I CURB INLET PER SPOKANE COUNTY STANDARD PLAN B-8.

(7) INSTALL TYPE 'A' DRYWELL PER SPOKANE COUNTY STANDARD PLAN B-1a. RIM ELEVATION TO BE SET 0.5' ABOVE SWALE BOTTOM.

(8) NOT USED.

(9) NOT USED.

(10) INSTALL APPROX. 28.7 L.F. OF 12" D.I. STORM PIPE. MATCH INVERTS TO SWALE BOTTOM, PROVIDE POSITIVE DRAINAGE TO SOUTH.

(11) INSTALL CURB RAMP PER SPOKANE COUNTY STANDARD PLAN A-5.

(12) NOT USED.

(13) NOT USED.

(14) CONTRACTOR TO RELOCATE EXISTING FIRE HYDRANT PER SPOKANE COUNTY STANDARDS.

(15) 10' PATHWAY PER LITTLE SPOKANE TRAIL SYSTEM.

(16) ~~CONSTRUCT OUTLET STRUCTURE. SEE DETAIL 1, SHEET 3A.~~

(17) 10' PATHWAY TO BE CONSTRUCTED DURING CONSTRUCTION OF ADJACENT PHASE OF BIDWELL ESTATES.

(18) CONSTRUCT ONSITE DRAINAGE SWALE. SEE DETAILS 2 AND 4, SHEET 3A.

NAVD '88 DATUM

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OLD COUNTY DATUM ELEV.=1943.71.
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UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456·8000
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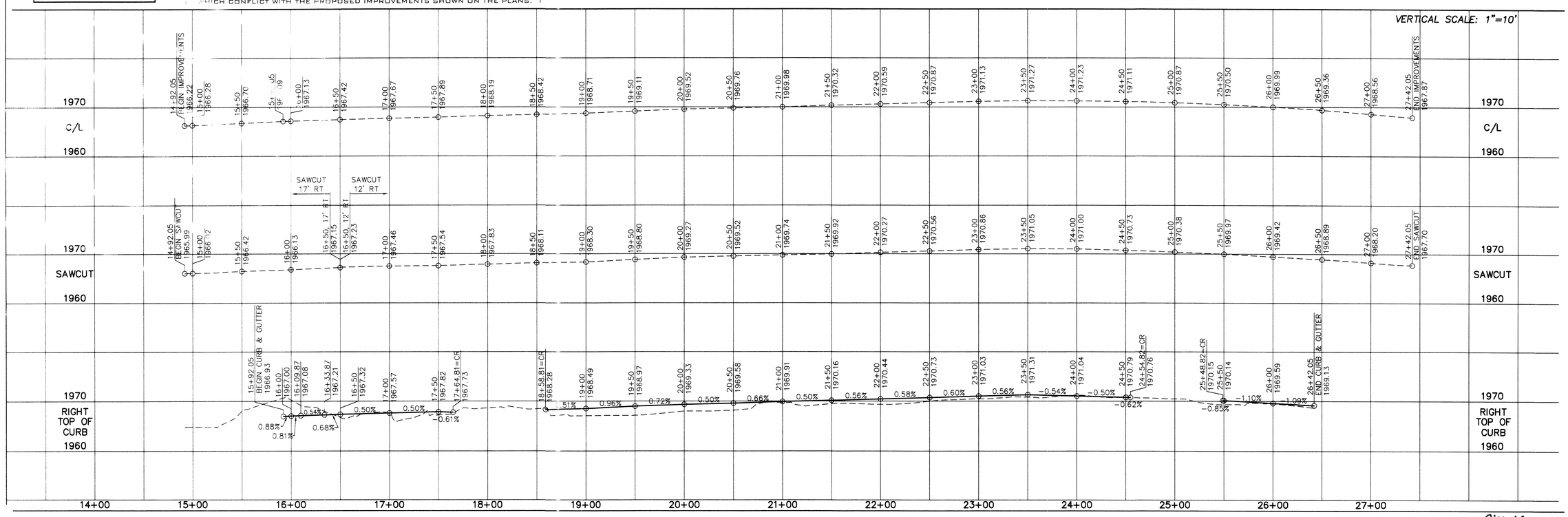
DEVELOPER'S APPROVAL — DATE

NORTH — SCALE: 1" = 50'-0"

VERTICAL SCALE: 1"=10'



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DATE	DESCRIPTION
03/28/05	ORIGINAL PREPARATION
07/28/05	REVISED ROADSIDE SWALE
10/18/05	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

PROJECT #: S040142
DRAWN BY: JDR
DESIGNED BY: DDC
CHECKED BY: MLK

CLC ASSOCIATES
12730 E. MIRABEAU PKWY
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ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET CONSTRUCTION PLANS
HATCH ROAD WIDENING
STA. 14+92.05 TO
STA. 27+42.05
SPOKANE COUNTY, WASHINGTON

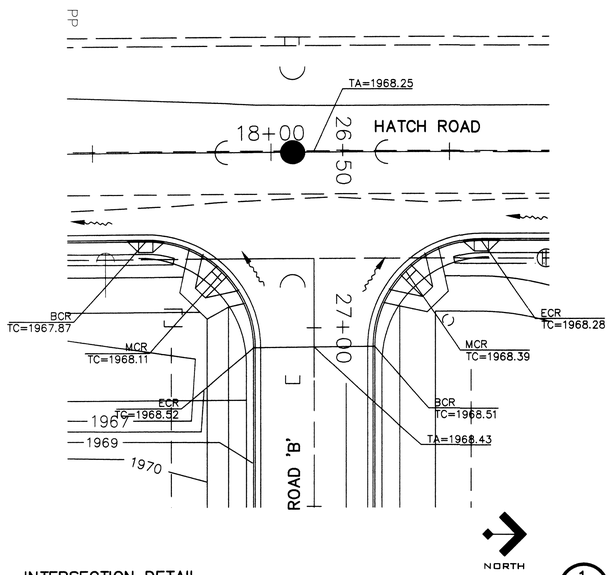
HATCH RD. PLAN & PROFILE

P-1942

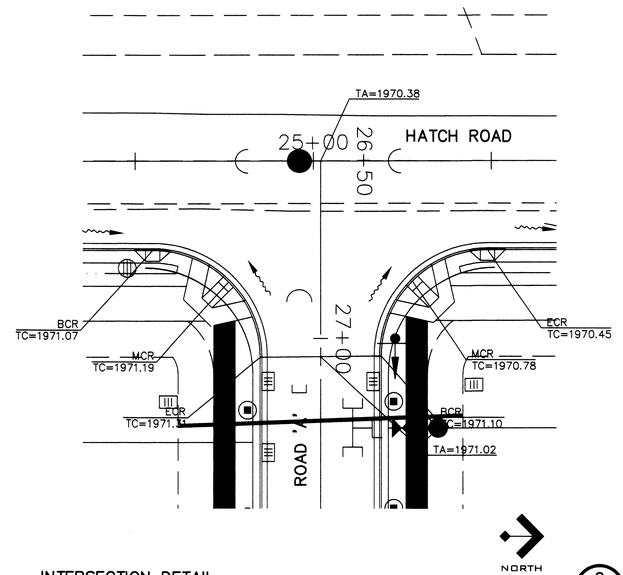
Eng As Built

SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

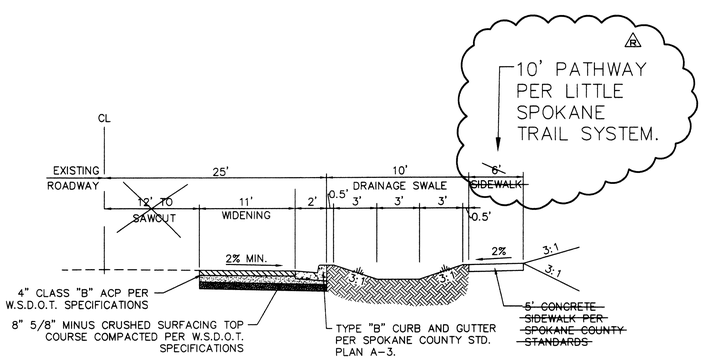
RECORD DRAWING



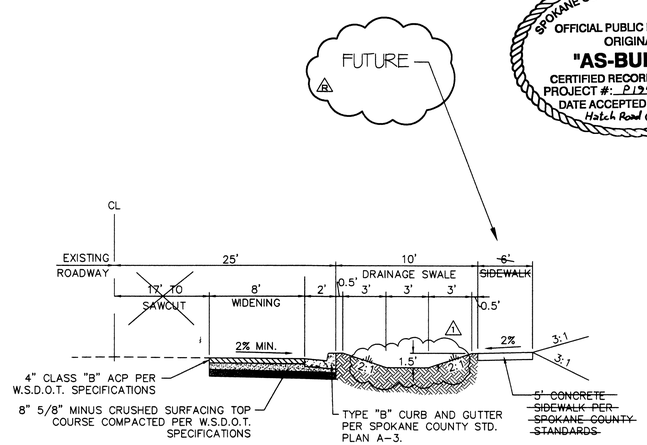
INTERSECTION DETAIL
1" = 20'
1



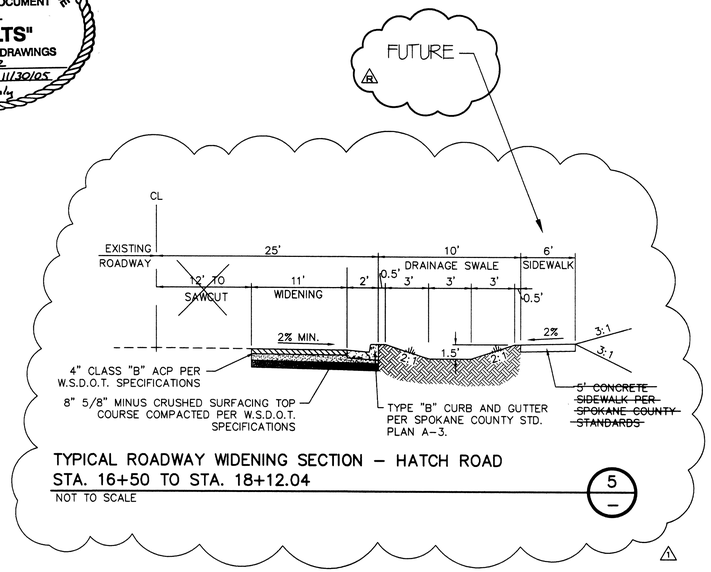
INTERSECTION DETAIL
1" = 20'
2



TYPICAL ROADWAY WIDENING SECTION – HATCH ROAD
STA. 18+12.04 TO STA. 26+42.05
NOT TO SCALE
3



TYPICAL ROADWAY WIDENING SECTION – HATCH ROAD
15+92.05 TO STA. 16+50
NOT TO SCALE
4



TYPICAL ROADWAY WIDENING SECTION – HATCH ROAD
STA. 16+50 TO STA. 18+12.04
NOT TO SCALE
5

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
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DEVELOPER'S APPROVAL | DATE

P-1942

Eng/As-Built

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12730 E. MIRABEAU PKWY
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STREET CONSTRUCTION PLANS
HATCH ROAD WIDENING
DETAILS
SPOKANE COUNTY, WASHINGTON

DATE	DESCRIPTION
03/08/05	ORIGINAL PREPARATION
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10/19/05	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

PROJECT #: S040142
DRAWN BY: JCR
DESIGNED BY: DDC
CHECKED BY: MLK

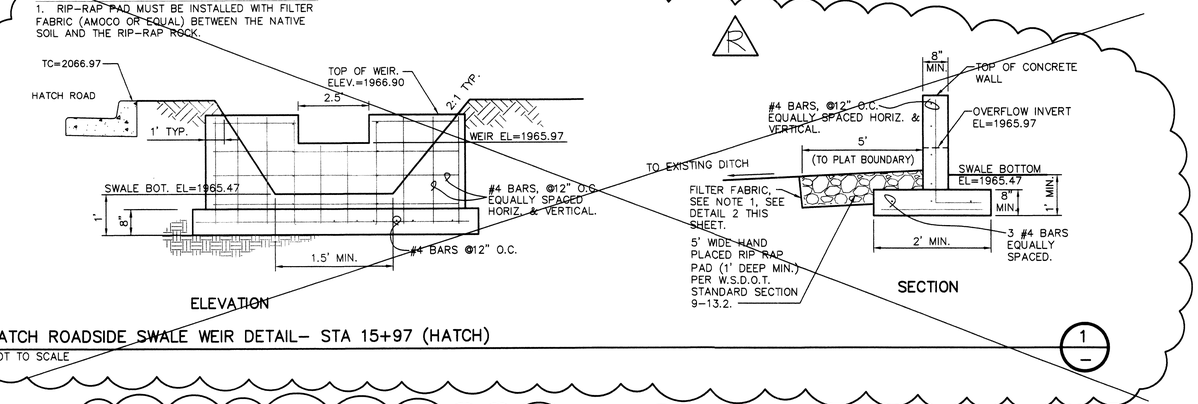
HATCH RD. DETAILS

L:\205-071T Bidwell Estates Off-Site\dwg\HATCH-RD-DWGS\ASBUILT ROAD P2-P3.dwg, 11/21/2005 3:06:03 PM, 1:1

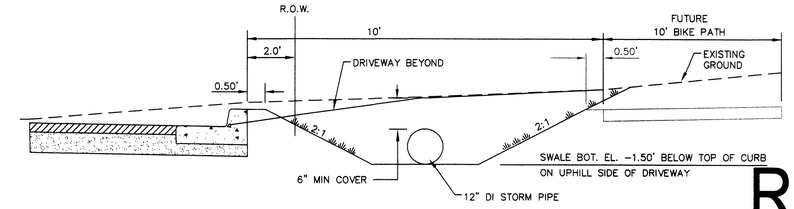
SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

GENERAL NOTES

1. RIP-RAP PAD MUST BE INSTALLED WITH FILTER FABRIC (AMOCO OR EQUAL) BETWEEN THE NATIVE SOIL AND THE RIP-RAP ROCK.



HATCH ROADSIDE SWALE WEIR DETAIL– STA 15+97 (HATCH) — 1
NOT TO SCALE

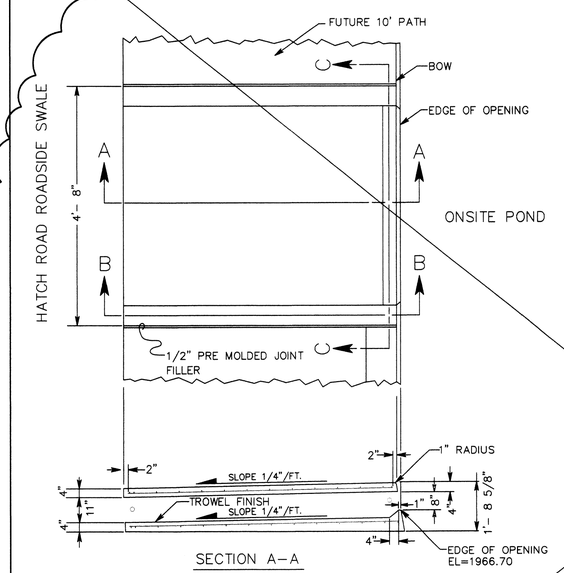


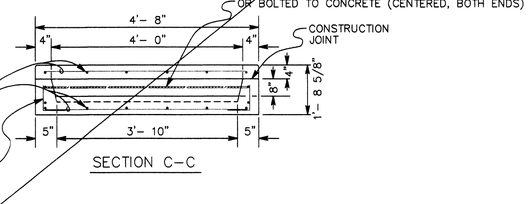
TEMPORARY DRIVEWAY SECTION — 3
1" = 2'

RECORD DRAWING

GENERAL NOTES

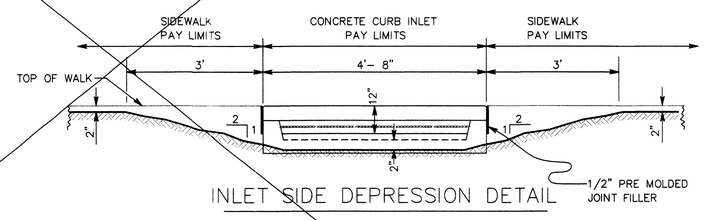
1. CURB INLET SHALL BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) & ASTM C 890 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE PROJECT SPECIAL PROVISIONS.
2. TOP SURFACE TO BE BROOM FINISHED.
3. ALL EXTERNAL EDGES NOT LABELED SHALL BE TROWELLED WITH 1/4" RADIUS EDGER.



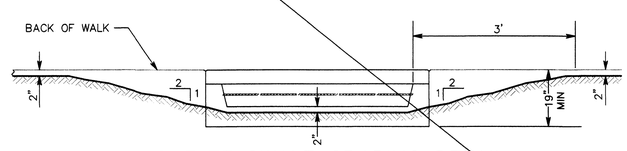


SECTION B–B
REBAR PLACEMENT

SPECIAL CURB INLET

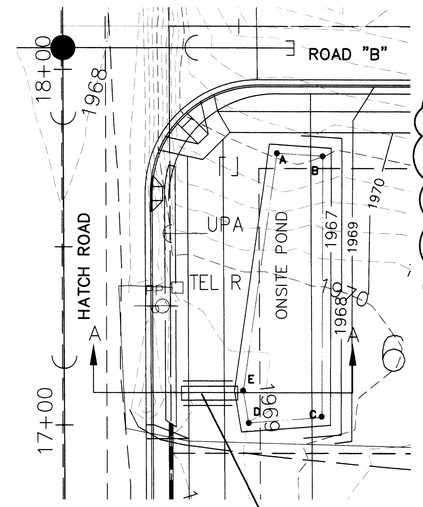


INLET SIDE DEPRESSION DETAIL



OUTLET SWALE GRADING DETAIL

ONSITE POND OUTLET DETAIL (MODIFIED COUNTY TYPE 2 CURB INLET) — 2
NOT TO SCALE



ONSITE POND DETAIL — 4
1"=20'

ONSITE POND

FINISHED GRADE POND BOTTOM EL= 1966.20
POND BOTTOM AREA PROVIDED = ~~1,334 S.F.~~ 1,346 SF
MINIMUM BERM ELEV.= 1967.70

POND BOTTOM LOCATION TABLE
(HATCH ROAD STATION & OFFSET)

POINT	STATION	OFFSET
A	17+75.97	60.09' RT
B	17+75.07	72.95' RT
C	17+01.88	72.35' RT
D	17+00.37	51.77' RT
E	17+09.33	50.32' RT

POND BOTTOM DIMENSION TABLE

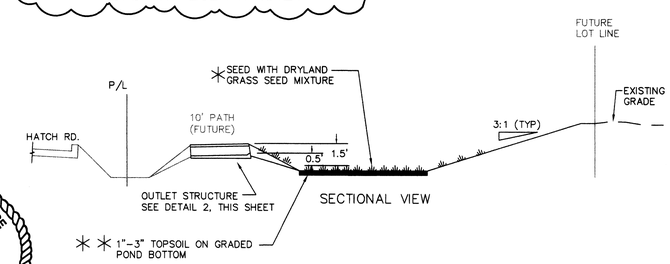
POINTS	LENGTH
A–B	12.89'
B–C	73.19'
C–D	20.63'
D–E	9.08'
E–A	67.35

2

PAUL T. NELSON — STATE OF WASHINGTON — 37228 — REGISTERED PROFESSIONAL ENGINEER
11-22-05
EXPIRES 11/24/07

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.

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1942
DATE ACCEPTED: 11/30/05
Hatch Road Only



ONSITE POND SECTION A–A — 5
NOT TO SCALE

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456·8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG

CAUTION: NOTICE TO CONTRACTOR

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NAVD '88 DATUM

RR SPIKE IN WEST FACE OF P.P. 28' EAST OF CENTERLINE OF HATCH ROAD, 81' NORTH OF SOUTH PLAT BOUNDARY OF WESTWOOD ESTATES #2.
OLD COUNTY DATUM ELEV.=1943.71.
NAVD '88 DATUM ELEV.=1947.56.

DEVELOPER'S APPROVAL — DATE

P.1942

Eng As-Builts

CLC ASSOCIATES
12730 E. MIRABEAU PKWY
SUITE 100
SPOKANE VALLEY
WASHINGTON 99216
P 509 458 6840
F 509 458 6844
CLCASSOC.COM
ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET CONSTRUCTION PLANS
HATCH ROAD WIDENING DETAILS
SPOKANE COUNTY, WASHINGTON

DATE		DESCRIPTION
08/01/05	1	ORIGINAL PREPARATION
07/28/05	2	ROADSIDE SWALE REVISIONS (THIS SHEET)
08/25/05	3	ONSITE SWALE REVISION (CONSTRUCTION REV.)
10/18/05	4	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

HATCH DRAINAGE REV. DETAILS

PROJECT #: S040142
DRAWN BY: JDR
DESIGNED BY: DDC
CHECKED BY: MLK

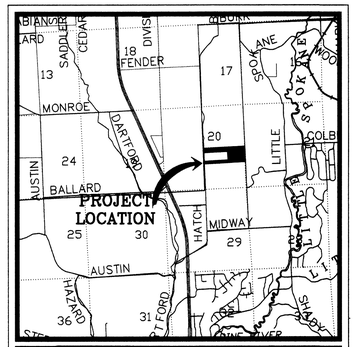
3A OF 3

L:\205-0711 Bidwell Estates Off-Site\dwg\HATCH-RD-DWGS\ASBUILT ROAD P2A.dwg, 11/21/2005 3:14:52 PM, 1:1

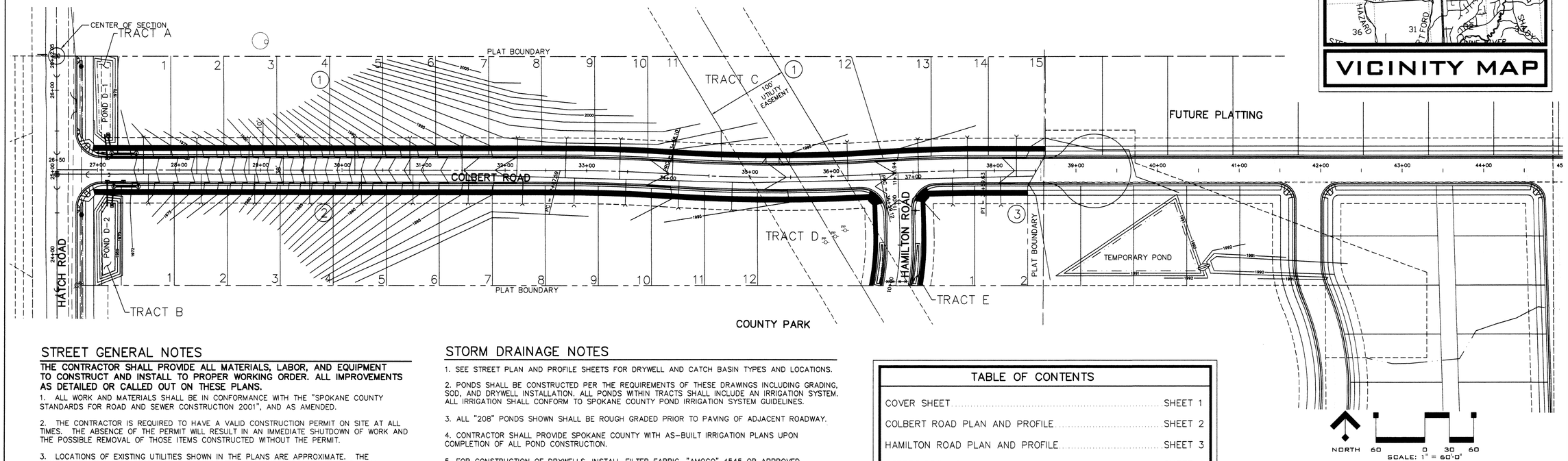
COVER SHEET FOR
BIDWELL ESTATES
STREET IMPROVEMENT PLANS

SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

RECORD DRAWING



VICINITY MAP



STREET GENERAL NOTES

THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT TO CONSTRUCT AND INSTALL TO PROPER WORKING ORDER. ALL IMPROVEMENTS AS DETAILED OR CALLED OUT ON THESE PLANS.

1. ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION 2001", AND AS AMENDED.

2. THE CONTRACTOR IS REQUIRED TO HAVE A VALID CONSTRUCTION PERMIT ON SITE AT ALL TIMES. THE ABSENCE OF THE PERMIT WILL RESULT IN AN IMMEDIATE SHUTDOWN OF WORK AND THE POSSIBLE REMOVAL OF THOSE ITEMS CONSTRUCTED WITHOUT THE PERMIT.

3. 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.

4. 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.

5. IF THE CONTRACTOR DISCOVERS ANY DISCREPANCIES BETWEEN THE PLANS AND EXISTING CONDITIONS ENCOUNTERED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER, MARK L. KRIGBAUM, P.E., @ 458-6840, THE SITE/PROJECT INSPECTING ENGINEER OR HIS REPRESENTATIVE, AND THE SPOKANE COUNTY ENGINEER'S OFFICE, CONSTRUCTION ENGINEER, @ 477-3600.

6. FOR CONSTRUCTION OF DRYWELLS, INSTALL FILTER FABRIC, "AMOCO" 4545 OR APPROVED EQUIVALENT, BETWEEN THE WASHED DRAINROCK AND NATIVE SOILS PER SPOKANE COUNTY STANDARD DETAIL B-1a.

7. PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITY LOCATION SERVICE AT 456-8000 BEFORE YOU DIG.

8. THE CONTRACTOR SHALL MAKE AN EFFORT TO PROTECT ALL CATCH BASINS AND DRYWELLS FROM BEING CONTAMINATED WITH SILT BY INSTALLING FILTER FABRIC UNDER THE LID FOR AT LEAST 6 WEEKS, OR UNTIL THE ESTABLISHMENT OF GRASS AND/OR OTHER SITE CONSTRUCTION WORK HAS ENDED.

IN THE EVENT THAT SILT OR OTHER DELETERIOUS MATERIAL IS ALLOWED TO ENTER THE DRYWELLS OR CATCH BASINS THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE DRYWELL OR CATCH BASIN OUT TO THE SATISFACTION OF THE CERTIFYING ENGINEER.

9. THE CONTRACTOR SHALL EMPLOY A LICENSED SURVEYOR TO VERIFY THAT THE CROSS-GUTTER FORMS ARE THE CORRECT PLANE GRADE PRIOR TO CONCRETE PLACEMENT. THE CROSS-GUTTERS SHALL BE CONSTRUCTED PRIOR TO PAVING, AND THE PAVEMENT SHALL THEN MATCH THE EDGE OF CONCRETE GUTTER.

10. ALL DRYWELL CONNECTION PIPES SHALL BE PLACED BELOW THE DRYWELL CONE AND SHALL FLOW AS DIRECTED IN THE PLANS.

11. 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.

STORM DRAINAGE NOTES

1. SEE STREET PLAN AND PROFILE SHEETS FOR DRYWELL AND CATCH BASIN TYPES AND LOCATIONS.

2. PONDS SHALL BE CONSTRUCTED PER THE REQUIREMENTS OF THESE DRAWINGS INCLUDING GRADING, SOD, AND DRYWELL INSTALLATION. ALL PONDS WITHIN TRACTS SHALL INCLUDE AN IRRIGATION SYSTEM. ALL IRRIGATION SHALL CONFORM TO SPOKANE COUNTY POND IRRIGATION SYSTEM GUIDELINES.

3. ALL "208" PONDS SHOWN SHALL BE ROUGH GRADED PRIOR TO PAVING OF ADJACENT ROADWAY.

4. CONTRACTOR SHALL PROVIDE SPOKANE COUNTY WITH AS-BUILT IRRIGATION PLANS UPON COMPLETION OF ALL POND CONSTRUCTION.

5. FOR CONSTRUCTION OF DRYWELLS, INSTALL FILTER FABRIC, "AMOCO" 4545 OR APPROVED EQUIVALENT, BETWEEN THE WASHED DRAINROCK AND NATIVE SOILS. SEE SPOKANE COUNTY STANDARDS (2001 EDITION) SHEET B-1a FOR INSTALLATION LOCATIONS.

6. ALL PONDS WITHIN THE COUNTY RIGHT-OF-WAY, IN THE AREA ASSOCIATED WITH THIS PROJECT, SHALL BE COMPLETED DURING THE CONSTRUCTION OF THE ROADWAY. THE CONTRACTOR SHALL PERFORM THE POND GRADE WORK, INSTALL THE IRRIGATION SYSTEM, AND PLACE THE SOD WITHIN THE PONDS FOLLOWING THE ROAD PAVING WORK.

7. THE CONTRACTOR SHALL MAKE AN EFFORT TO PROTECT ALL DRAINAGE STRUCTURES FROM BEING CONTAMINATED WITH SILT BY INSTALLING FILTER FABRIC UNDER THE LID FOR AT LEAST 6 WEEKS, OR UNTIL THE ESTABLISHMENT OF GRASS AND/OR OTHER SITE CONSTRUCTION WORK HAS ENDED. IN THE EVENT THAT SILT OR OTHER DELETERIOUS MATERIAL IS ALLOWED TO ENTER THE DRYWELLS OR CATCH BASINS, THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE DRYWELL OR CATCH BASIN OUT TO THE SATISFACTION OF THE CERTIFYING ENGINEER.

8. ALL LANDSCAPE AREAS ('208' PONDS) ARE TO BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM INSTALLED BY OR UNDER THE DIRECTION OF THE LANDSCAPE CONTRACTOR. THE IRRIGATION SYSTEM SHALL COMPLY WITH ALL LOCAL CODES AND ORDINANCES (90 DAY GUARANTEE). AN APPROVED BACKFLOW DEVICE SHALL BE INSTALLED TO PREVENT WATER FROM GOING BACK INTO THE WATER SUPPLY.

SLEEVING: PROVIDE SLEEVING AS REQUIRED UNDER SIDEWALKS, PATHS, CURBING, PAVING, ETC. AS NEEDED FOR IRRIGATION ACCESS. ALL SLEEVING TO BE 4" PVC. WITH AT LEAST 12" OF COVER (1) FOOT BELOW FINISH GRADE. THE OWNER/GENERAL CONTRACTOR IS RESPONSIBLE FOR INSTALLING SLEEVING BEFORE CURBING, SIDEWALKS, PAVING, ETC. IS INSTALLED. PATCH ASPHALT AS NEEDED.

LAWN AREAS: LAWN AREAS ARE TO BE IRRIGATED WITH TORO POP-UP HEADS OR EQUIVALENT. (TEST SYSTEM BEFORE BACKFILLING).

ADJUSTMENT: AFTER INSTALLATION, ADJUST VALVES, HEADS, EMITTERS, ETC. TO PROVIDE UNIFORM COVERAGE AND TO MINIMIZE OVER SPRAY ON WALLS, FENCES, WALKS, DRIVES, ETC.

WATER POWER SUPPLY: THE OWNER/ GENERAL CONTRACTOR IS TO SUPPLY WATER TAPS FOR HOOK-UP AND SUPPLY POWER FOR CONTROLLER.

9. THE FLOOR OF A GRASSED PERCOLATION AREA (GPA) SWALE INCLUDES THE LEVEL PORTION OF THE FLOOR OF THE SWALE, AND THE SIDESLOPES 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.

TABLE OF CONTENTS

COVER SHEET	SHEET 1
COLBERT ROAD PLAN AND PROFILE	SHEET 2
HAMILTON ROAD PLAN AND PROFILE	SHEET 3
STREET DETAILS	SHEET 4
STORM DRAINAGE PROFILE	SHEET 5
POND DETAILS	SHEET 6
TEMPORARY POND DETAIL	SHEET 7

LEGEND

EXISTING	GENERAL	PROPOSED
	ROADWAY CENTER LINE	
	SECTION LINE	
	RIGHT OF WAY LINE	
	PROPERTY LINE	
	EASEMENT LINE	
x x	FENCE	x x
	CURB	
	PAVEMENT	
	GRAVEL	
	CONCRETE	
	BUILDINGS & STRUCTURES	
	SANITARY SEWER	
	SANITARY SEWER	
	MANHOLE	
	CLEANOUT	
	SEWER SERVICE	
	WATER	
V	VALVE	V
FH	FIRE HYDRANT	WS FH
WS	SERVICE	WM
WM	METER	
BO BLOWOFF	BLOWOFF	BO BLOWOFF
A.V.R.S.	AIR VACUUM RELIEF STATION	A.V.R.S.
	STORM DRAINAGE	
MH	DRAINAGE LINE	
DW	MANHOLE	MH
	DRYWELL	DW
CB	CATCH BASIN	CB
	DITCH	
	NATURAL GAS	
G G	GAS LINE	
V	VALVE	
GM	METER	
	TELEPHONE - POWER	
BT BT	BURIED TELEPHONE	
PP	POWER OR TELEPHONE POLE	
BP BP	BURIED POWER	
TP	TRANSFORMER PAD	
DTR	TELEPHONE RISER	
TV	TELEPHONE VAULT	
OP OP	OVERHEAD POWER	
GA	GUY ANCHOR	
PV P	POWER VAULT	
LP	LIGHT POLE	

PAUL T. NELSON
STATE OF WASHINGTON
37228
REGISTERED
PROFESSIONAL ENGINEER
1-3-07

EXPIRES 11/24/07

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1942
DATE ACCEPTED: 1/8/07

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.

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ONE-CALL NUMBER
456·8000
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NAVD '88 DATUM

RR SPIKE IN WEST FACE OF P.P. 28' EAST OF CENTERLINE OF HATCH ROAD, 81' NORTH OF SOUTH PLAT BOUNDARY OF WESTWOOD ESTATES #2.
OLD COUNTY DATUM ELEV.=1943.71.
NAVD '88 DATUM ELEV.=1947.56.

THE DESIGN IMPROVEMENTS SHOWN IN THIS SET OF PLANS AND CALCULATIONS CONFORM TO APPLICABLE EDITIONS OF THE SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION AND THE SPOKANE COUNTY GUIDELINES FOR STORMWATER MANAGEMENT. ALL DESIGN DEVIATIONS HAVE BEEN APPROVED BY THE SPOKANE COUNTY ENGINEER. I APPROVE THESE PLANS FOR CONSTRUCTION.

DEVELOPER'S APPROVAL DATE

CLC ASSOCIATES
12730 E. MIRABEAU PKWY
SUITE 100
SPOKANE VALLEY
WASHINGTON 99216
P 509 458 6840
F 509 458 6844
CLCASSOC.COM

ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET CONSTRUCTION PLANS
BIDWELL ESTATES
SPOKANE COUNTY, WASHINGTON

MARK L. KRIGBAUM
STATE OF WASHINGTON
39236
REGISTERED
PROFESSIONAL ENGINEER

EXPIRES 6/14/07

PREPARED UNDER THE DIRECT SUPERVISION OF MARK L. KRIGBAUM, P.E. WASHINGTON REGISTRATION NO. 39236 FOR AND ON BEHALF OF CLC ASSOCIATES

DATE	DESCRIPTION
08/01/05	ORIGINAL PREPARATION
1/5/07	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

COVER SHEET

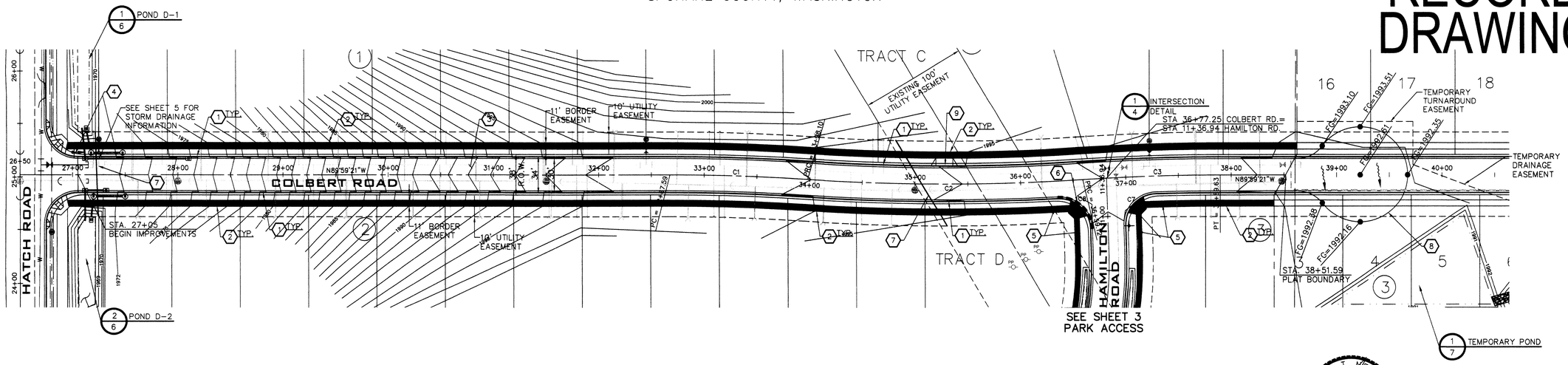
PROJECT #:S040142
DRAWN BY: KJG
DESIGNED BY: MEJ
CHECKED BY: MLK

P-1942 Eng As Built

L:\205-101T Bidwell Park\dwg\asbuilt street 1.dwg, COVER, 1/2/2007 12:30:15 PM, 1:1

SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

RECORD DRAWING



SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P-1942
DATE ACCEPTED: 1/8/07

NAVD '88 DATUM

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CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	CHORD	DELTA
C1	130.51	2000.00	65.28	130.49	3°44'20"
C2	261.02	2000.00	130.69	260.83	7°28'39"
C3	130.51	2000.00	65.28	130.49	3°44'20"
C4	27.86	30.00	15.03	26.87	53°12'29"
C5	86.17	46.50	61.91	74.36	106°10'42"
C6	27.08	30.00	14.54	26.17	51°42'40"
C7	47.14	30.00	30.02	42.44	90°01'45"
C8	47.77	30.00	30.65	42.88	91°14'11"

NOTE: ALL CURB RADII FOR TYPE 'B' CURB IS FACE OF CURB.

CONSTRUCTION NOTES

1. TYPE B CURB PER SPOKANE COUNTY STANDARD PLAN A-3.
2. CONSTRUCT 6' CEMENT CONCRETE SIDEWALK PER SPOKANE COUNTY STANDARD PLAN A-4.
3. CONSTRUCT ROADWAY PER CROSS SECTION DETAIL 2, SHEET 4.
4. INSTALL "STOP" AND (2) "PUBLIC STREET" SIGNS PER SPOKANE COUNTY STANDARD PLAN A-16 AND M.U.T.C.D. STANDARDS.
5. CONSTRUCT CURB RAMP PER SPOKANE COUNTY PLAN A-5.
6. CONSTRUCT SPILL CURB. SEE DETAIL 3, SHEET 4.
7. INSTALL (2) 4" PVC IRRIGATION CONDUITS.
8. CONSTRUCT TEMPORARY CUL-DE-SAC TURNAROUND. 6" CSTC MIN.
9. CONSTRUCT 16' DRIVEWAY PER SPOKANE COUNTY STANDARD PLAN A-7.

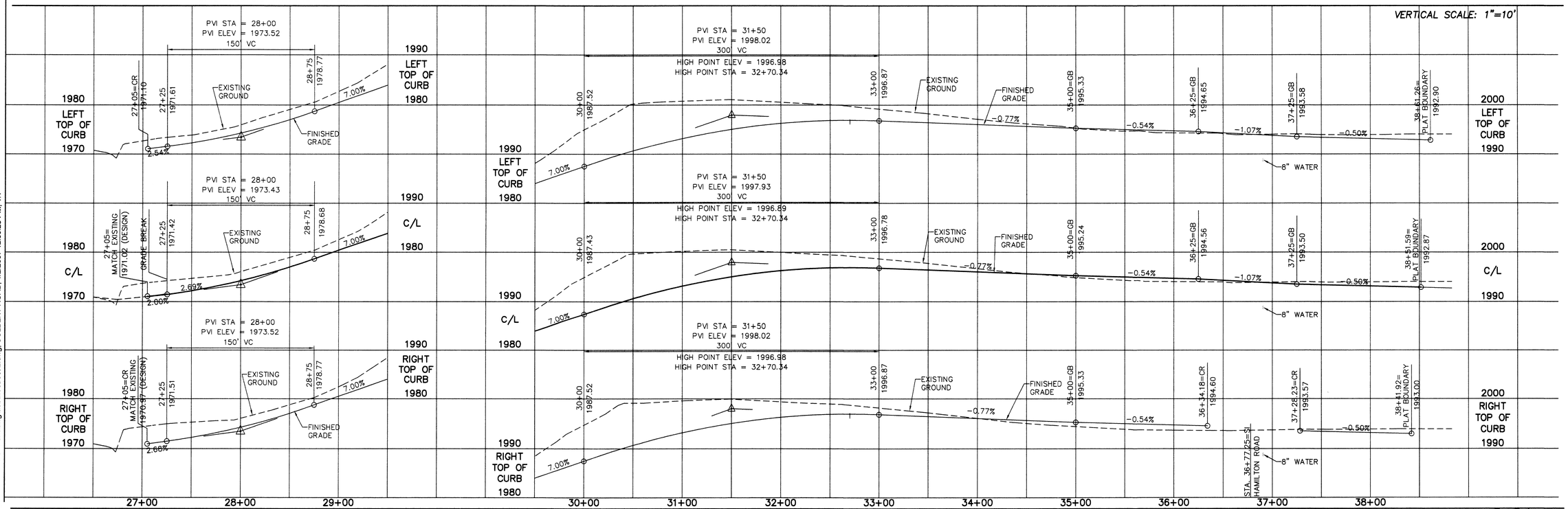
PAUL T. NIELSON
STATE OF WASHINGTON
37126
REGISTERED PROFESSIONAL ENGINEER
1-5-07
EXPIRES 11/24/07

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.

DEVELOPER'S APPROVAL DATE

NORTH 50 0 25 50
SCALE: 1" = 50'-0"

VERTICAL SCALE: 1"=10'



CLC ASSOCIATES
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ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET CONSTRUCTION PLANS
BIDWELL ESTATES
COLBERT RD STA. 26+50 TO STA. 38+51.59
SPOKANE COUNTY, WASHINGTON

MARK L. KRIGBAUM
STATE OF WASHINGTON
39236
REGISTERED PROFESSIONAL ENGINEER
EXPIRES 6/14/07

PREPARED UNDER THE DIRECT SUPERVISION OF MARK L. KRIGBAUM, P.E. WASHINGTON REGISTRATION NO. 39236 FOR AND ON BEHALF OF CLC ASSOCIATES

DATE	DESCRIPTION
08/01/05	ORIGINAL PREPARATION
1/5/07	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

COLBERT RD. PLAN & PROFILE

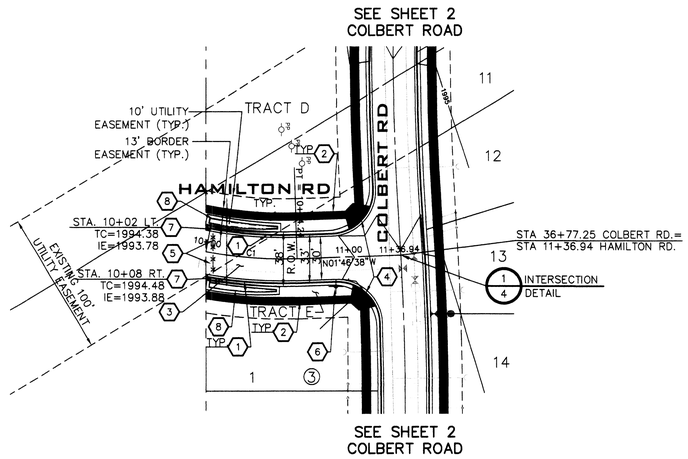
PROJECT #: S040142
DRAWN BY: JCR
DESIGNED BY: MEJ
CHECKED BY: MLK

P-1942 Eng As Built

L:\205-101T Bidwell Park\dwg\asbuilt street 2.dwg, COLBERT ROAD, 1/2/2007 12:30:25 PM, 1:1

SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

RECORD DRAWING



CURVE TABLE					
CURVE	LENGTH	RADIUS	TANGENT	CHORD	DELTA
C1	64.24	300.00	32.24	64.11	12°16'06"

NOTE: ALL CURB RADII FOR TYPE 'B' CURB IS FACE OF CURB.

CONSTRUCTION NOTES

1. TYPE B CURB PER SPOKANE COUNTY STANDARD PLAN A-3.
2. CONSTRUCT 5' CEMENT CONCRETE SIDEWALK PER SPOKANE COUNTY STANDARD PLAN A-4.
3. CONSTRUCT ROADWAY PER CROSS SECTION DETAIL 4, SHEET 3.
4. CONSTRUCT CURB RAMP PER SPOKANE COUNTY PLAN A-5.
5. PROVIDE AND INSTALL TYPE 1 TRAFFIC BARRICADE WITH (2) OM4-3 END OF ROADWAY SIGNS.
6. INSTALL 2 "PUBLIC STREET" SIGNS PER SPOKANE COUNTY STANDARD PLAN A-16 AND M.U.T.C.D. STANDARDS.
7. CONSTRUCT 3' TYPE 1 CURB INLET PER SPOKANE COUNTY STANDARD PLAN B-8.
8. CONSTRUCT ROADSIDE SWALE FROM STA. 10+00 TO STA. 10+50 ONLY. SEE TYPICAL ROAD CROSS-SECTION AND SWALE CROSS-SECTION, DETAIL 5, SHEET 4. GRADE SWALE BOTTOM FLAT.

PAUL T. NELSON
STATE OF WASHINGTON
37228
REGISTERED PROFESSIONAL ENGINEER
1-3-07
EXPIRES 11/24/07

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.

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1942
DATE ACCEPTED: 1/8/07

NAVD '88 DATUM

RR SPIKE IN WEST FACE OF P.P. 28' EAST OF CENTERLINE OF HATCH ROAD, 81' NORTH OF SOUTH PLAT BOUNDARY OF WESTWOOD ESTATES #2.
OLD COUNTY DATUM ELEV.=1943.71.
NAVD '88 DATUM ELEV.=1947.56.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456·8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG

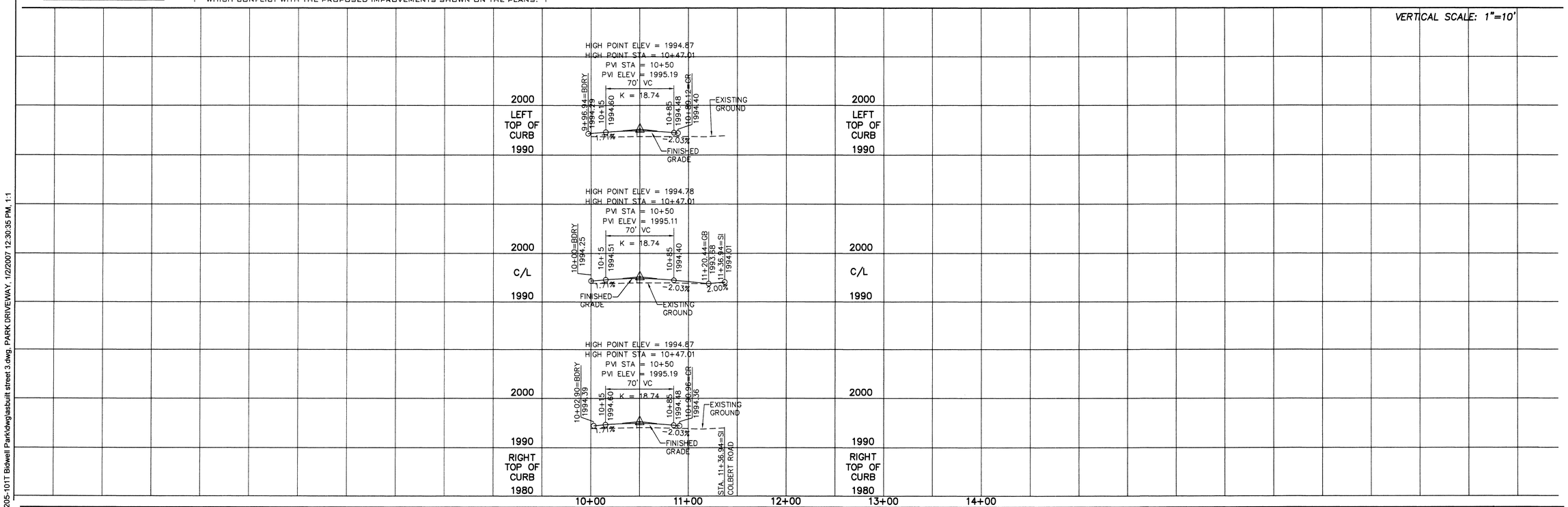
CAUTION: NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

DEVELOPER'S APPROVAL DATE

NORTH 50 0 25 50
SCALE: 1" = 50'-0"

VERTICAL SCALE: 1"=10'



MARK L. KRIGBAUM
STATE OF WASHINGTON
39236
REGISTERED PROFESSIONAL ENGINEER
EXPIRES 6/14/07

PREPARED UNDER THE DIRECT SUPERVISION OF MARK L. KRIGBAUM, P.E. WASHINGTON REGISTRATION NO. 39236 FOR AND ON BEHALF OF CLC ASSOCIATES

CLC ASSOCIATES
12730 E. MIRABEAU PKWY
SUITE 100
SPOKANE VALLEY
WASHINGTON 99216
P 509 456 6840
F 509 456 6844
CLCASSOC.COM
ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET CONSTRUCTION PLANS

BIDWELL ESTATES
HAMILTON ROAD STA. 10+00 TO STA. 11+36.94
SPOKANE COUNTY, WASHINGTON

DATE	DESCRIPTION
08/01/05	ORIGINAL PREPARATION
1/5/07	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

HAMILTON RD. PLAN & PROFILE

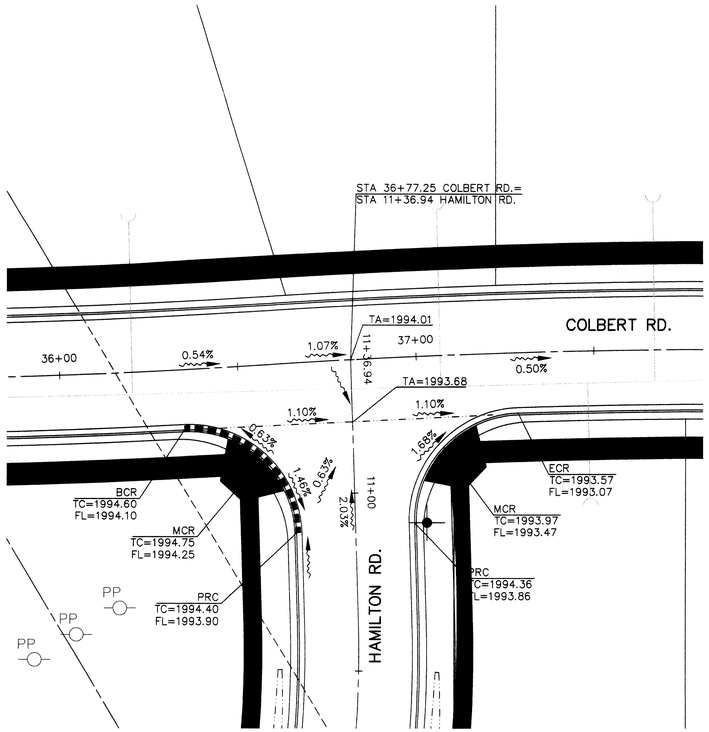
PROJECT #: S040142
DRAWN BY: KJG
DESIGNED BY: MEJ
CHECKED BY: MLK

P-1942 Eng As Built

L:\205-101T Bidwell Park\dwg\asbuilt street 3.dwg, PARK DRIVEWAY, 1/2/2007 12:30:35 PM, 1:1

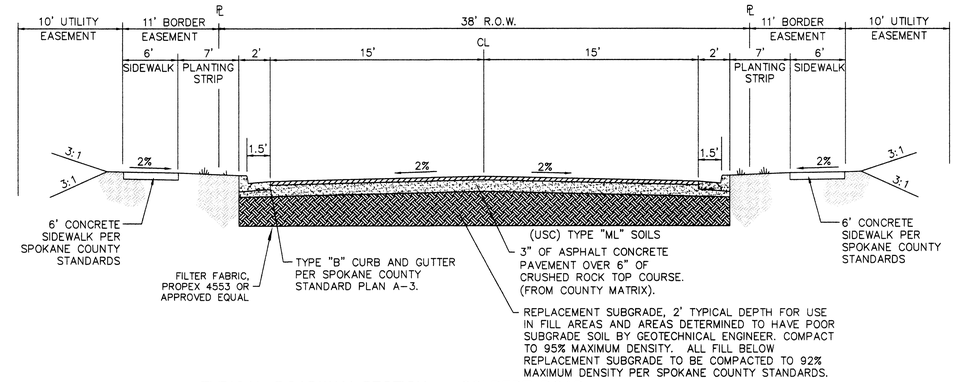
SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

RECORD DRAWING

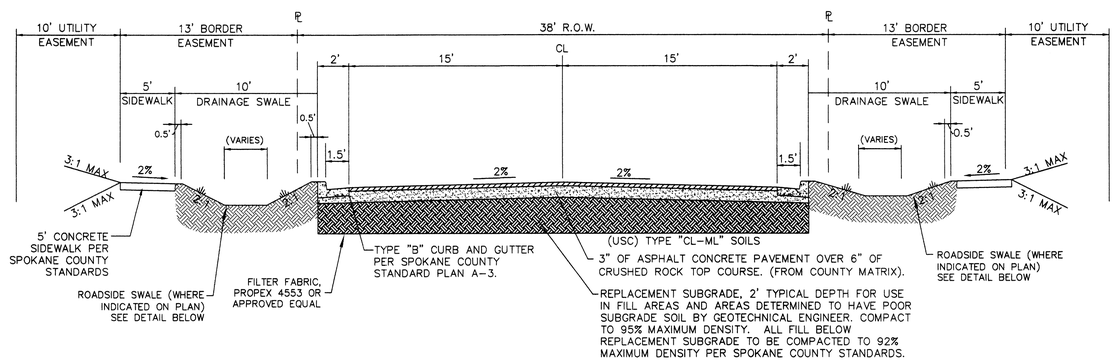


INTERSECTION DETAIL (1)
1" = 20'

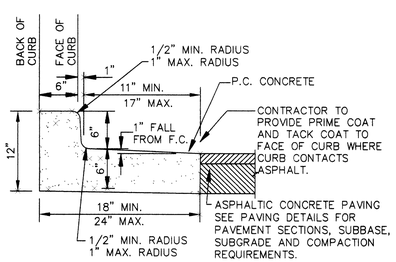
NORTH



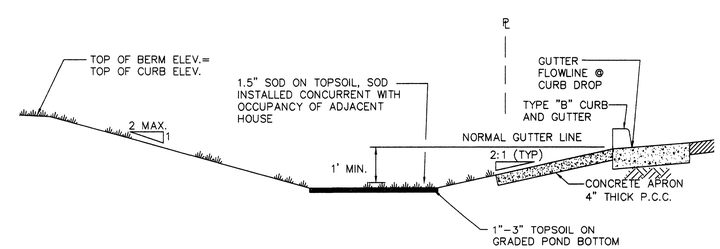
TYPICAL ROADWAY SECTION – COLBERT ROAD
STA. 26+50 TO STA. 38+51.59 (2)
NOT TO SCALE



TYPICAL ROADWAY SECTION – HAMILTON ROAD
STA. 10+00 TO STA. 11+36.94 (4)
NOT TO SCALE



SPILL CURB DETAIL (3)
NOT TO SCALE



✱✱ WARNING – THE USE OF SILTY LOAM IS PROHIBITED AS POND BOTTOM MATERIAL.

TYPICAL ROADSIDE SWALE CROSS-SECTION
HAMILTON ROAD STA. 10+00 TO STA. 10+50 (5)
NOT TO SCALE

PAUL T. NELSON
STATE OF WASHINGTON
37228
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 11/24/07
12-3-07

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.

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1942
DATE ACCEPTED: 1/8/07

NAVD '88 DATUM

RR SPIKE IN WEST FACE OF P.P. 28' EAST OF CENTERLINE OF HATCH ROAD, 81' NORTH OF SOUTH PLAT BOUNDARY OF WESTWOOD ESTATES #2.
OLD COUNTY DATUM ELEV.=1943.71.
NAVD '88 DATUM ELEV.=1947.56.

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456·8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG

CAUTION: NOTICE TO CONTRACTOR

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DEVELOPER'S APPROVAL | DATE

P-1942

CLC ASSOCIATES
12730 E. MIRABEAU PKWY
SUITE 100
SPOKANE VALLEY
WASHINGTON 99216
P 509 458 6840
F 509 458 6844
CLCASSOC.COM

ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET CONSTRUCTION PLANS
BIDWELL ESTATES DETAILS
SPOKANE COUNTY, WASHINGTON

MARK L. KRIGBAUM
STATE OF WASHINGTON
39236
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 6/14/07

PREPARED UNDER THE DIRECT SUPERVISION OF MARK L. KRIGBAUM, P.E. WASHINGTON REGISTRATION NO. 39236 FOR AND ON BEHALF OF CLC ASSOCIATES

DATE	DESCRIPTION
08/01/05	ORIGINAL PREPARATION
1/5/07	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

STREET DETAILS

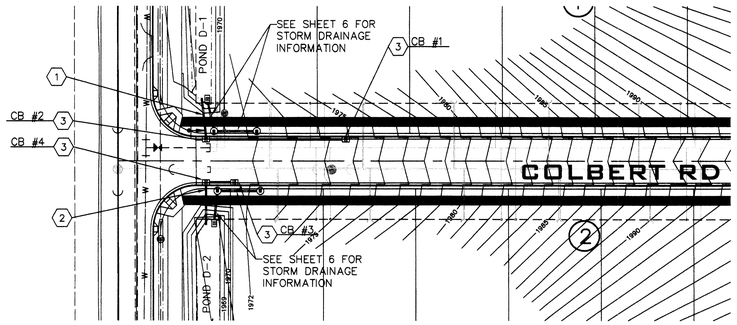
PROJECT #: S040142
DRAWN BY: JCR
DESIGNED BY: DDC
CHECKED BY: MLK

Eng As Built

L:\205-101T Bidwell Park\dwg\asbuilt street 4.dwg, DETAILS, 1/2/2007 12:30:45 PM, 1:1

SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

RECORD DRAWING



CONSTRUCTION NOTES

1. INSTALL APPROX. 29 L.F. 12" ADS N-12 HDPE STORM PIPE. IE (CB #2)=1968.18, IE (POND D-1 BOTTOM) = 1968.00. S=0.0062 FT./FT.
2. INSTALL APPROX. 29 L.F. 12" ADS N-12 HDPE STORM PIPE. IE (CB #4)=1968.06, IE (POND D-2 BOTTOM) = 1967.90. S=0.0055 FT./FT.
3. INSTALL GRATE INLET TYPE 2 PER W.S.D.O.T. STANDARD PLAN B-4c, WITH FRAME AND GRATE PER WSDOT PLAN B-4d. INSTALL LONG DIMENSION OF INLET PERPENDICULAR TO CURB.

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1942
DATE ACCEPTED: 1/8/07

NAVD'88 DATUM
SPIKE IN POWER POLE AT SE CORNER OF PRINCETON AND ELTON
ELEVATION=2020.49

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456·8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG

CAUTION: NOTICE TO CONTRACTOR

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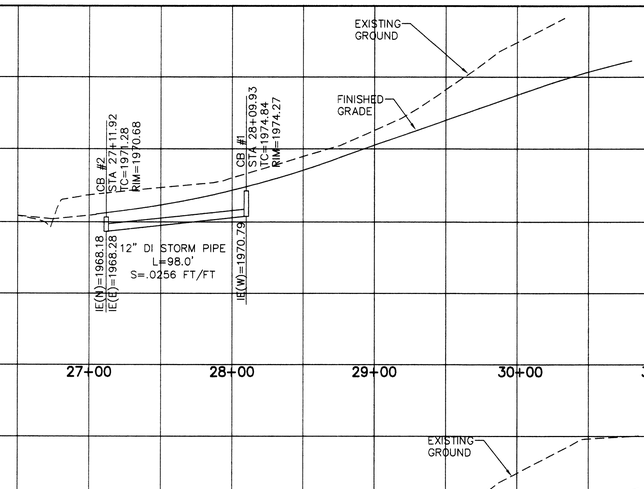
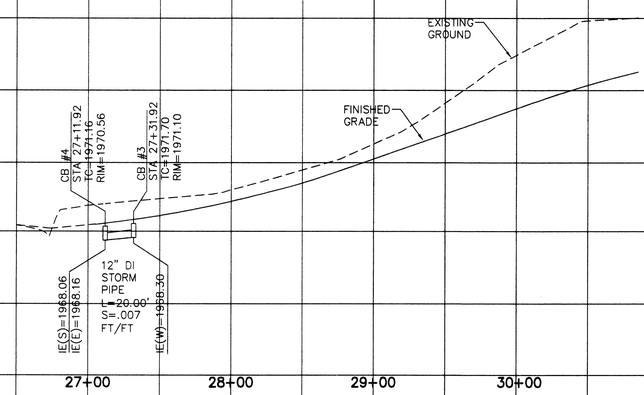
DEVELOPER'S APPROVAL DATE

NORTH 50' 0 25' 50'
SCALE: 1" = 50'-0"

VERTICAL SCALE: 1"=10'





PAUL T. NELSON
STATE OF WASHINGTON
REGISTERED
37228
PROFESSIONAL ENGINEER
1-3-07

EXPIRES 11/24/07

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.

CLC ASSOCIATES
12730 E. MIRABEAU PKWY
SUITE 100
SPOKANE VALLEY
WASHINGTON 99216
P 509 458 6840
F 509 458 6844
CLCASSOC.COM

ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET/DRAINAGE PLANS

BIDWELL ESTATES
1ST ADDITION P.U.D.
COLBERT RD. STA. 26+50 TO STA. 38+15.59
SPOKANE COUNTY, WA

MARK L. KRIGBAUM
STATE OF WASHINGTON
REGISTERED
38236
PROFESSIONAL ENGINEER

EXPIRES 6/14/2007

PREPARED UNDER THE DIRECT SUPERVISION OF MARK L. KRIGBAUM WASHINGTON REGISTRATION NO. 39236 FOR AND ON BEHALF OF CLC ASSOCIATES

DATE		DESCRIPTION
08/01/05	1	ORIGINAL PREPARATION
1/5/07		RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

COLBERT ROAD SD PROFILE

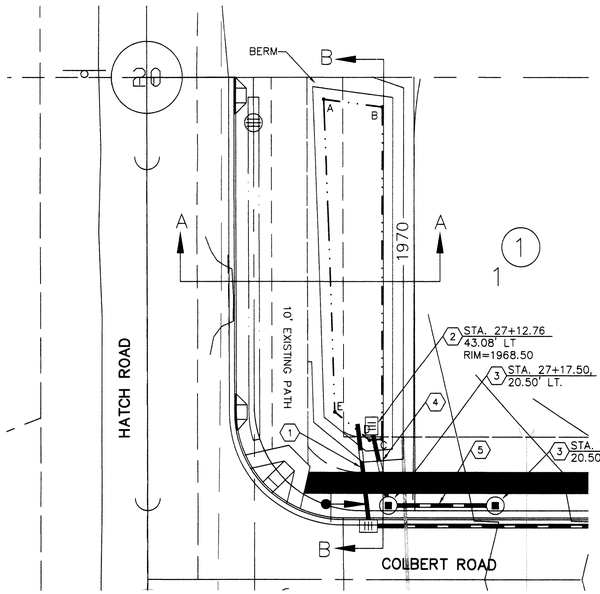
PROJECT #:S040142
DRAWN BY: KJG
DESIGNED BY: MEJ
CHECKED BY: MLK

P-1942 Eng As Built

L:\205-101T Bidwell Park\dwg\asbuilt street 5.dwg, 36X24-PROFILE, 1/2/2007 12:30:55 PM, 1:1

SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON

RECORD DRAWING



POND D-1

FINISHED GRADE POND BOTTOM EL= 1968.00
POND BOTTOM AREA PROVIDED = ~~1329 S.F.~~
MINIMUM BERM ELEV.= 1969.00
PERIMETER = ~~212 L.F.~~
REQUIRED VOLUME = 1637 C.F.
PROVIDED VOLUME = ~~1647 C.F.~~

POND AREA PROVIDED = 1383 SF
PERIMETER = 208 LF
208 VOLUME @ 6" = 710 CF
STORM WATER VOLUME @ 12" = 1695 CF

POND BOTTOM LOCATION TABLE
(HATCH ROAD STATION & OFFSET)

POINT	STATION	OFFSET
A	26+35.82	49.71' RT.
B	26+33.61	66.10' RT.
C	25+41.12	65.69' RT.
D	25+40.88	62.24' RT.
E	25+48.84	52.53' RT.

NOTE: ALL STRUCTURE LOCATION STATIONS ARE COLBERT ROAD STATIONING.

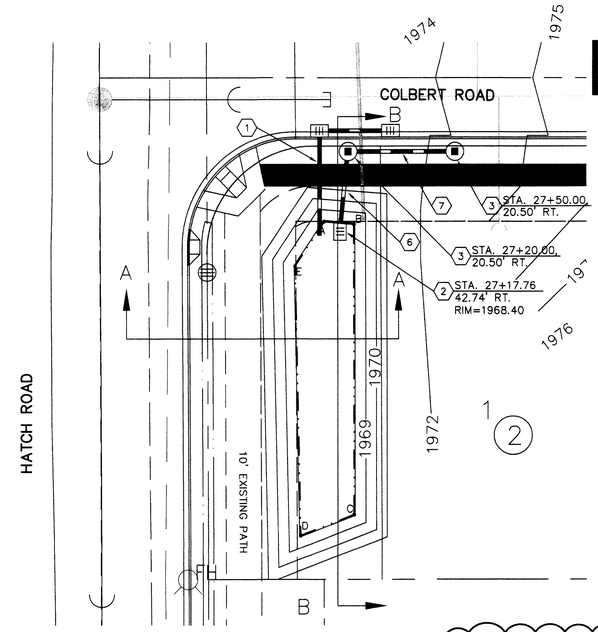
POND BOTTOM DIMENSION TABLE

POINTS	LENGTH
A-B	16.54'
B-C	92.49'
C-D	3.45'
D-E	12.56'
E-A	87.03'

CONSTRUCTION NOTES

1. 12" ADS N-12 STORM PIPE, SEE SHEET 5 FOR INVERT INFORMATION.
2. INSTALL TYPE 1 CATCH BASIN WITH TYPE 1 FRAME AND GRATE PER SPOKANE COUNTY STANDARD PLANS B-4, B-10, AND B-12. RIM ELEV.= 0.5' ABOVE POND BOTTOM.
3. INSTALL TYPE B DRYWELL WITH SOLID LID PER SPOKANE COUNTY STANDARD PLAN B-1.
4. INSTALL 23.07 L.F. 12" ADS N-12 STORM PIPE. IE(INLET)=1965.70, IE(DRYWELL)=1965.50 S=0.0087 FT/FT.
5. INSTALL 30 L.F. 12" ADS N-12 STORM PIPE. IE(W)=1965.50, IE(E)=1965.30 S=0.0067 FT/FT.
6. INSTALL 22.35 L.F. 12" ADS N-12 STORM PIPE. IE(INLET)=1966.00, IE(DRYWELL)=1965.80 S=0.0089 FT/FT.
7. INSTALL 30 L.F. 12" ADS N-12 STORM PIPE. IE(W)=1965.80, IE(E)=1965.60, S=0.0067 FT/FT.

POND D-1 DETAIL
SCALE: 1"= 20'
1/-



POND D-2

FINISHED GRADE POND BOTTOM EL= 1967.90
POND BOTTOM AREA PROVIDED = ~~1292 S.F.~~
MINIMUM BERM ELEV.= 1968.90
PERIMETER = ~~195 L.F.~~
REQUIRED VOLUME = 1575 C.F.
PROVIDED VOLUME = ~~1584 C.F.~~

POND BOTTOM LOCATION TABLE
(HATCH ROAD STATION & OFFSET)

POINT	STATION	OFFSET
A	24+61.72	63.00' RT.
B	24+61.00	71.38' RT.
C	23+80.24	71.06' RT.
D	23+74.35	55.98' RT.
E	24+49.36	54.78' RT.

NOTE: ALL STRUCTURE LOCATION STATIONS ARE COLBERT ROAD STATIONING.

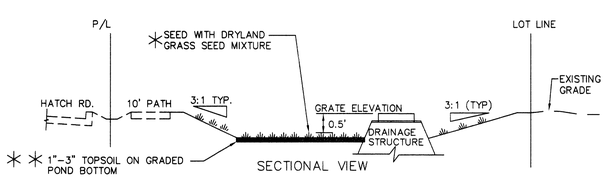
POND BOTTOM DIMENSION TABLE

POINTS	LENGTH
A-B	8.41'
B-C	80.76'
C-D	16.19'
D-E	75.01'
E-A	14.84'

POND AREA PROVIDED = 1331 SF
PERIMETER = 197 LF
208 VOLUME @ 6" = 799 CF
STORM WATER VOLUME @ 12" = 1627 CF

POND D-2 DETAIL
SCALE: 1"= 20'
2/-

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P1942
DATE ACCEPTED: 1/8/07

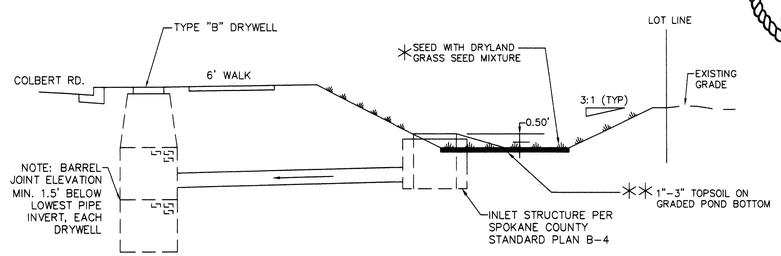


NOTE:
PROVIDE FILTER FABRIC (AMOCO 4545 OR EQUAL) BETWEEN THE NATIVE SOIL AND THE WASHED DRAIN ROCK.

✳✳ WARNING - THE USE OF SANDY LOAM IS PROHIBITED FROM USE AS POND BOTTOM MATERIAL.

✳ HYDROSEED SIDE SLOPES

TYPICAL POND SECTION A-A
NOT TO SCALE
3/-



NOTE:
PROVIDE FILTER FABRIC (AMOCO 4545 OR EQUAL) BETWEEN THE NATIVE SOIL AND THE WASHED DRAIN ROCK.

✳✳ WARNING - THE USE OF SANDY LOAM IS PROHIBITED FROM USE AS POND BOTTOM MATERIAL.

✳ HYDROSEED SIDE SLOPES

TYPICAL POND SECTION B-B
NOT TO SCALE
4/-

PAUL T. NELSON
STATE OF WASHINGTON
37228
REGISTERED
PROFESSIONAL ENGINEER
1-3-07
EXPIRES 11/24/07

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.

LEGEND

EXISTING | PROPOSED

GENERAL
ROADWAY CENTER LINE
SECTION LINE
RIGHT OF WAY LINE
PROPERTY LINE
EASEMENT LINE
FENCE
CURB
PAVEMENT
GRAVEL
CONCRETE
BUILDINGS & STRUCTURES

SANITARY SEWER
SANITARY SEWER
MANHOLE
CLEANOUT
SEWER SERVICE

WATER
WATER LINE
VALVE
FIRE HYDRANT
SERVICE
METER
BLOWOFF
AIR VACUUM RELIEF STATION

STORM DRAINAGE
DRAINAGE LINE
MANHOLE
DRYWELL
CATCH BASIN
DITCH
1995 CONTOUR ELEVATION
2000

NATURAL GAS
GAS LINE
VALVE
METER

TELEPHONE - POWER
BURIED TELEPHONE
POWER OR TELEPHONE POLE
BURIED POWER
TRANSFORMER PAD
TELEPHONE RISER
TELEPHONE VAULT
OVERHEAD POWER
GUY ANCHOR
POWER VAULT
LIGHT POLE

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456·8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG

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NAVD '88 DATUM
RR SPIKE IN WEST FACE OF P.P. 28' EAST OF CENTERLINE OF HATCH ROAD, 81' NORTH OF SOUTH PLAT BOUNDARY OF WESTWOOD ESTATES #2.
OLD COUNTY DATUM ELEV.=1943.71.
NAVD '88 DATUM ELEV.=1947.56.

DEVELOPER'S APPROVAL | DATE

NORTH
SCALE: 1" = 20'-0"
20 0 10 20

P-1942

CLC ASSOCIATES
12730 E. MIRABEAU PKWY
SUITE 100
SPOKANE VALLEY
WASHINGTON 99216
P 509 458 6840
F 509 458 6844
CLCASSOC.COM
ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET CONSTRUCTION PLANS
BIDWELL ESTATES
SPOKANE COUNTY, WASHINGTON

MARK L. KRIGBAUM
STATE OF WASHINGTON
39236
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 6/14/07

PREPARED UNDER THE DIRECT SUPERVISION OF MARK L. KRIGBAUM, P.E. WASHINGTON REGISTRATION NO. 39236 FOR AND ON BEHALF OF CLC ASSOCIATES

DATE	DESCRIPTION
08/01/05	ORIGINAL PREPARATION
1/5/07	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

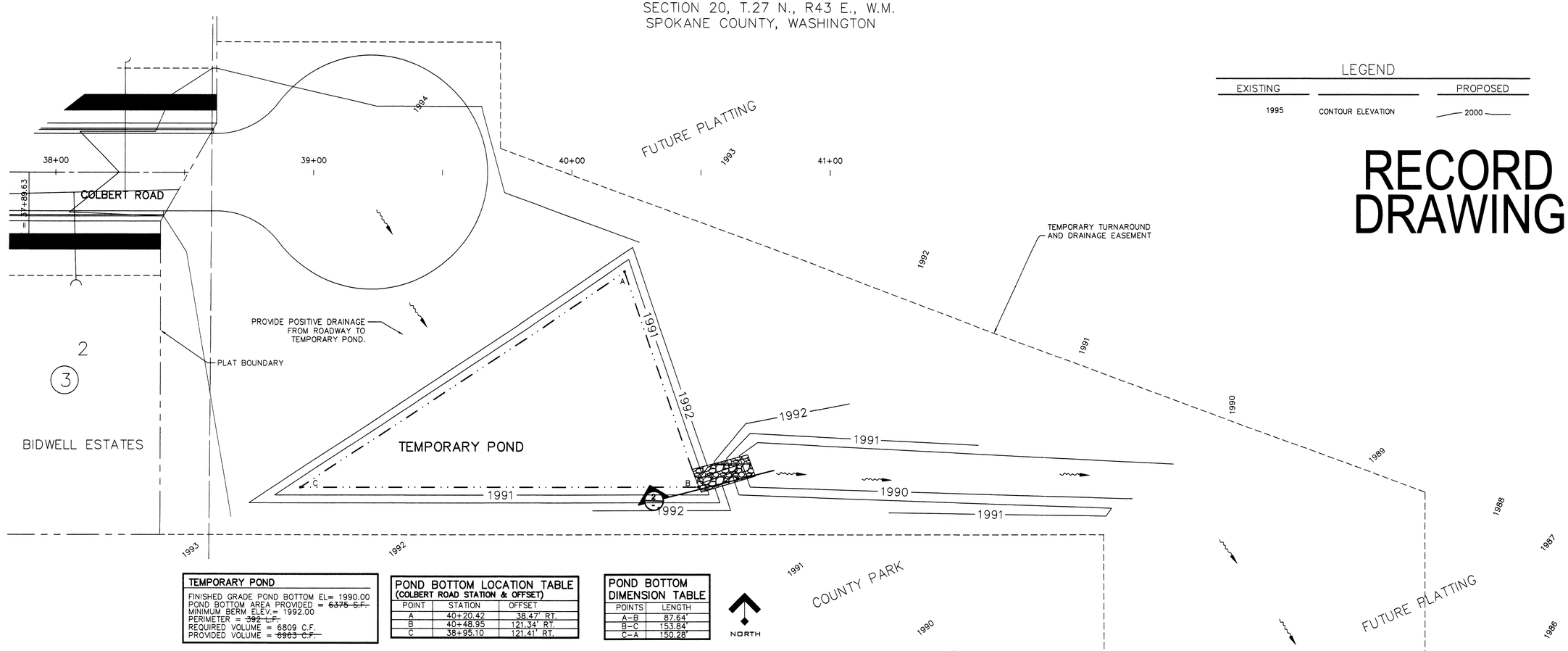
POND DETAILS

PROJECT #: S040142
DRAWN BY: KJG
DESIGNED BY: MEJ
CHECKED BY: MLK

Eng As Built

L:\205-101T Bidwell Park\dwg\asbuilt street 6.dwg, POND, 1/2/2007 12:31:05 PM, 1:1

SECTION 20, T.27 N., R43 E., W.M.
SPOKANE COUNTY, WASHINGTON



TEMPORARY POND
FINISHED GRADE POND BOTTOM EL= 1990.00
POND BOTTOM AREA PROVIDED = ~~6375 S.F.~~
MINIMUM BERM ELEV.= 1992.00
PERIMETER = ~~392 L.F.~~
REQUIRED VOLUME = 6809 C.F.
PROVIDED VOLUME = ~~6963 C.F.~~

POND BOTTOM LOCATION TABLE
(COLBERT ROAD STATION & OFFSET)

POINT	STATION	OFFSET
A	40+20.42	38.47' RT.
B	40+48.95	121.34' RT.
C	38+95.10	121.41' RT.

POND BOTTOM DIMENSION TABLE

POINTS	LENGTH
A–B	87.64'
B–C	153.84'
C–A	150.28'

TEMPORARY POND DETAIL
SCALE: 1"= 20'

1

POND AREA PROVIDED = 6365 SF
PERIMETER = 382 LF
208 VOLUME @ 6" = 3326 CF
STORM WATER VOLUME @ 12" = 6938 CF

* DRYLAND GRASS SEED MIX
SPOKANE COUNTY PUBLIC WORKS, FEBRUARY 1998

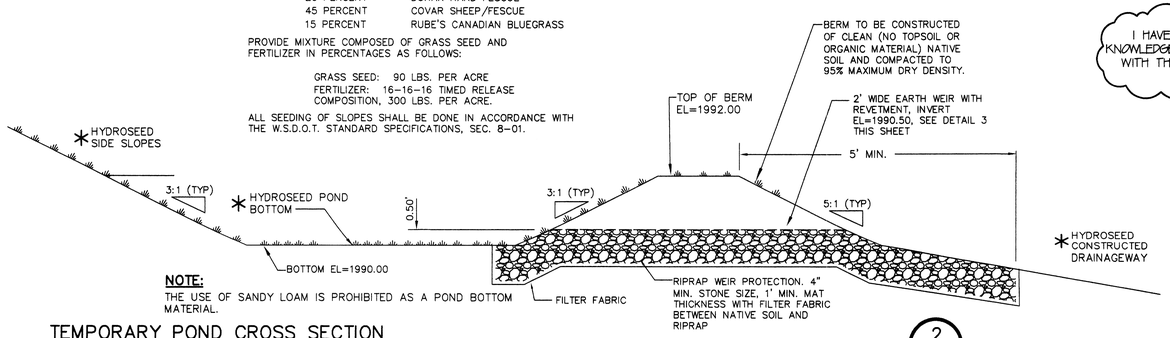
GRASS SEED: PROVIDE FRESH, CLEAN, NEW CROP SEED COMPLYING WITH TOLERANCE OF PURITY AND GERMINATION ESTABLISHED BY THE OFFICIAL SEED ANALYSIS OF NORTH AMERICA. PROVIDE SEED MIXTURE COMPOSED OF GRASS SPECIES AND PERCENTAGES AS FOLLOWS:

20 PERCENT	ELKA PERENNIAL RYE
20 PERCENT	DURAR HARD FESCUE
45 PERCENT	COVAR SHEEP/FESCUE
15 PERCENT	RUBE'S CANADIAN BLUEGRASS

PROVIDE MIXTURE COMPOSED OF GRASS SEED AND FERTILIZER IN PERCENTAGES AS FOLLOWS:

GRASS SEED: 90 LBS. PER ACRE
FERTILIZER: 16–16–16 TIMED RELEASE COMPOSITION, 300 LBS. PER ACRE.

ALL SEEDING OF SLOPES SHALL BE DONE IN ACCORDANCE WITH THE W.S.D.O.T. STANDARD SPECIFICATIONS, SEC. 8–01.



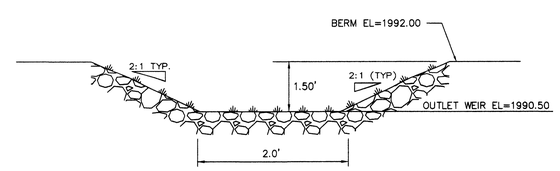
NOTE:
THE USE OF SANDY LOAM IS PROHIBITED AS A POND BOTTOM MATERIAL.

TEMPORARY POND CROSS SECTION
NOT TO SCALE

2

PAUL T. NELSON
STATE OF WASHINGTON
37228
REGISTERED
PROFESSIONAL ENGINEER
1-3-07
EXPIRES 11/24/07

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.



CROSS SECTION

EARTH WEIR DETAIL
3

SPOKANE COUNTY ENGINEERS OFFICE
OFFICIAL PUBLIC DOCUMENT
ORIGINAL
"AS-BUILTS"
CERTIFIED RECORD DRAWINGS
PROJECT #: P-1942
DATE ACCEPTED: 1/8/07

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
456·8000
CALL TWO BUSINESS DAYS BEFORE YOU DIG

CAUTION: NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

NAVD '88 DATUM
RR SPIKE IN WEST FACE OF P.P. 28' EAST OF CENTERLINE OF HATCH ROAD, 81' NORTH OF SOUTH PLAT BOUNDARY OF WESTWOOD ESTATES #2.
OLD COUNTY DATUM ELEV.=1943.71.
NAVD '88 DATUM ELEV.=1947.56.

DEVELOPER'S APPROVAL DATE

P-1942

LEGEND

EXISTING		PROPOSED
1995	CONTOUR ELEVATION	2000

RECORD DRAWING

CLC ASSOCIATES
12730 E. MIRABEAU PKWY
SUITE 100
SPOKANE VALLEY
WASHINGTON 99216
P 509 458 6840
F 509 458 6844
CLCASSOC.COM

ARCHITECTURE
ENGINEERING PLANNING
LANDSCAPE ARCHITECTURE
LAND SURVEYING

STREET CONSTRUCTION PLANS
BIDWELL ESTATES
SPOKANE COUNTY, WASHINGTON

MARK L. KRIGBAUM
STATE OF WASHINGTON
39236
REGISTERED
PROFESSIONAL ENGINEER
EXPIRES 6/14/07

PREPARED UNDER THE DIRECT SUPERVISION OF MARK L. KRIGBAUM, P.E. WASHINGTON REGISTRATION NO. 39236 FOR AND ON BEHALF OF CLC ASSOCIATES

DATE	DESCRIPTION
08/01/05	ORIGINAL PREPARATION
1/5/07	RECORD DRAWING by ALLWEST TESTING AND ENGINEERING

TEMPORARY POND DETAIL

PROJECT #:S040142
DRAWN BY: KJG
DESIGNED BY: MEJ
CHECKED BY: MLK

As Built

L:\205-101T Bidwell Park\dwg\asbuilt street 7.dwg, POND, 1/2/2007 12:31:15 PM, 1:1