

# COVER SHEET FOR TAKODA PARK - PHASE 1 STREET AND STORM DRAINAGE PLANS

SEC. 8, T.24 N., R.42 E., W.M.  
SPOKANE, WASHINGTON

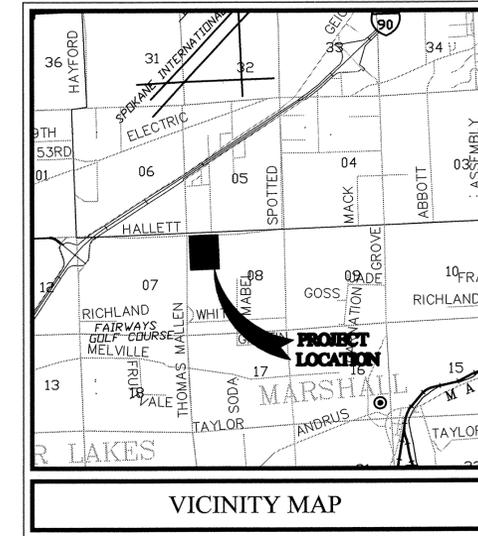
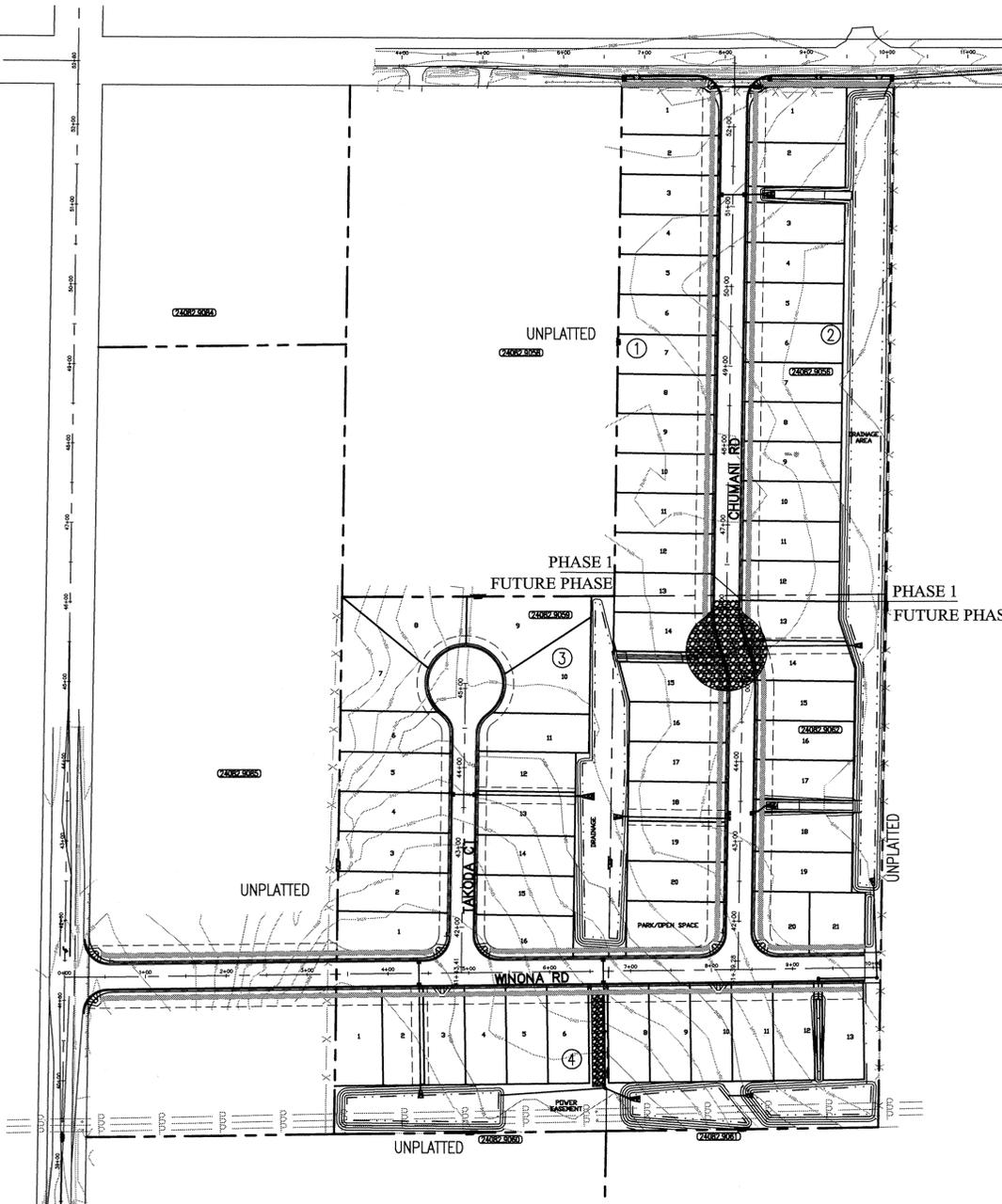
**UNDERGROUND SERVICE ALERT**  
ONE-CALL NUMBER  
1-800-424-5555  
CALL TWO BUSINESS DAYS BEFORE YOU DIG

**Sayners Engineering**  
327 W 8th Ave, Suite 202  
Spokane, WA 99204  
(509) 744-0304 Fax (509) 744-0304

| EXISTING | GENERAL                   | PROPOSED |
|----------|---------------------------|----------|
| ---      | ROADWAY CENTER LINE       | ---      |
| ---      | RIGHT OF WAY LINE         | ---      |
| ---      | PROPERTY LINE             | ---      |
| ---      | EASEMENT LINE             | ---      |
| ---      | FENCE                     | ---      |
| ---      | CURB                      | ---      |
| ---      | PAVEMENT                  | ---      |
| ---      | GRAVEL                    | ---      |
| ---      | CONCRETE                  | ---      |
| ---      | BUILDINGS & STRUCTURES    | ---      |
| ---      | SIDEWALK                  | ---      |
| ---      | <b>SANITARY SEWER</b>     | ---      |
| ---      | MANHOLE                   | ---      |
| ---      | CLEANOUT                  | ---      |
| ---      | SEWER SERVICE             | ---      |
| ---      | <b>WATER</b>              | ---      |
| ---      | WATER LINE                | ---      |
| ---      | VALVE                     | ---      |
| ---      | FIRE HYDRANT              | ---      |
| ---      | SERVICE                   | ---      |
| ---      | METER                     | ---      |
| ---      | BLOWOFF                   | ---      |
| ---      | AIR VACUUM RELIEF STATION | ---      |
| ---      | <b>STORM DRAINAGE</b>     | ---      |
| ---      | DRAINAGE LINE             | ---      |
| ---      | MANHOLE                   | ---      |
| ---      | DRYWELL                   | ---      |
| ---      | CATCH BASIN               | ---      |
| ---      | DITCH                     | ---      |
| ---      | GRAVEL PAD                | ---      |
| ---      | <b>NATURAL GAS</b>        | ---      |
| ---      | GAS LINE                  | ---      |
| ---      | VALVE                     | ---      |
| ---      | METER                     | ---      |
| ---      | <b>TELEPHONE - POWER</b>  | ---      |
| ---      | BURIED TELEPHONE          | ---      |
| ---      | POWER OR TELEPHONE POLE   | ---      |
| ---      | BURIED POWER              | ---      |
| ---      | TRANSFORMER PAD           | ---      |
| ---      | TELEPHONE RISER           | ---      |
| ---      | TELEPHONE VAULT           | ---      |
| ---      | OVERHEAD POWER            | ---      |
| ---      | GUY ANCHOR                | ---      |
| ---      | POWER VAULT               | ---      |
| ---      | LIGHT POLE                | ---      |

**GENERAL NOTES:**

1. THE CONTRACTOR IS REQUIRED TO HAVE A VALID CONSTRUCTION PERMIT ON SITE AT ALL TIMES. THE ABSENCE OF THE PERMIT MAY RESULT IN AN IMMEDIATE SHUTDOWN OF WORK AND THE POSSIBLE REMOVAL OF THOSE ITEMS CONSTRUCTED WITHOUT PERMIT.
2. ALL WORK AND MATERIALS SHALL BE IN CONFORMANCE WITH THE "SPOKANE COUNTY STANDARDS FOR ROAD AND SEWER CONSTRUCTION", AS AMENDED (MOST CURRENT EDITIONS).
3. THE CONTRACTOR IS REQUIRED TO HAVE A COMPLETE SET OF THE ACCEPTED 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 ENGINEER'S OFFICE.
5. THE CONTRACTOR SHALL PROTECT ALL CATCH BASINS FROM BEING CONTAMINATED WITH SILT BY INSTALLING FILTER FABRIC BETWEEN THE LID AND GRATE UNTIL THE ESTABLISHMENT OF GRASS AND THE THREAT OF SEDIMENT DEPOSITION INTO THE DRAINAGE SYSTEM IS MITIGATED. IN THE EVENT THAT SILT OR OTHER DELETERIOUS MATERIAL IS ALLOWED TO ENTER THE CATCH BASINS THE CONTRACTOR WILL BE REQUIRED TO CLEAN THE CATCH BASIN OUT TO SATISFACTION OF THE CERTIFYING ENGINEER.
6. CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, AND EQUIPMENT TO CONSTRUCT AND INSTALL TO PROPER WORKING ORDER. ALL IMPROVEMENTS AS DETAILED OR CALLED OUT IN THESE PLANS AS PER W.S.D.O.T./A.P.W.A. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (CURRENTLY ACCEPTED EDITION) SPECIFICATIONS.
7. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNATING A LOCATION WHERE CONCRETE TRUCKS AND EQUIPMENT CAN BE WASHED OUT, NOT LOCATED NEAR OR DRAINING INTO A STORM DRAINAGE AREA.
8. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED USING WATER. APPLICATION OF WATER MAY BE REQUIRED SEVERAL TIMES PER DAY DURING CONSTRUCTION ACTIVITY.
9. ANY DISTURBED AREAS WHICH WOULD BE LEFT BARE FOR MORE THAN 7 DAYS AND ARE NOT INTENDED TO BE REWORKED WITHIN 30-45 DAYS SHALL BE SEEDDED WITH A FAST STARTING NATIVE DRYLAND GRASS SUCH AS ANNUAL RYE, OR APPROVED EQUAL, AT A RATE OF 60 LBS./ACRE.
10. 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.
11. 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.
12. PRIOR TO SITE CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES. CALL THE UNDERGROUND UTILITIES LOCATION SERVICE AT 424-5555 BEFORE YOU DIG.



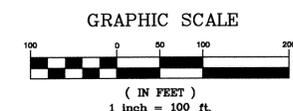
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**LEGAL DESCRIPTION:**

THE WEST HALF OF THE EAST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER IN SECTION 8, TOWNSHIP 24 NORTH, RANGE 42 EAST W. M., TOGETHER WITH THE SOUTH HALF OF THE EAST HALF OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHWEST QUARTER OF SAID SECTION 8, SITUATE IN SPOKANE COUNTY, WASHINGTON.

**NAVD 88 DATUM:**

ELEVATIONS BASED ON USC&GS MONUMENT "W 354" ELEV=2412.34



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.  
I APPROVE THESE PLANS FOR CONSTRUCTION.

**DEVELOPER'S APPROVAL**

THE UNDERSIGNED DEVELOPER OR HIS ASSIGNS AGREES TO CONSTRUCT IMPROVEMENTS IN ACCORDANCE WITH THIS PLAN, AND UPON COMPLETION, THE DEVELOPER IS RESPONSIBLE FOR SUBMITTING REPRODUCIBLE RECORD DRAWINGS TO BE COMPLETED BY A PROFESSIONAL ENGINEER AND/OR PROFESSIONAL LAND SURVEYOR FOR REVIEW AND APPROVAL BY SPOKANE COUNTY UTILITIES DEPARTMENT AT THE COMPLETION OF CONSTRUCTION.

*Paul J. Carpenter*      10/05/06  
DEVELOPER'S APPROVAL      DATE

SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
PROJECT #: P1975  
DATE ACCEPTED: 10/16/06  
ACCEPTANCE EXPIRES: 10/16/08  
PROJECT LANE MILES PUBLIC: 0.13  
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
PERMIT REQUIRED! (509) 477-3600  
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION.

SITE DEVELOPMENT CONSTRUCTION PLANS  
**TAKODA PARK - PHASE 1**  
COVER SHEET

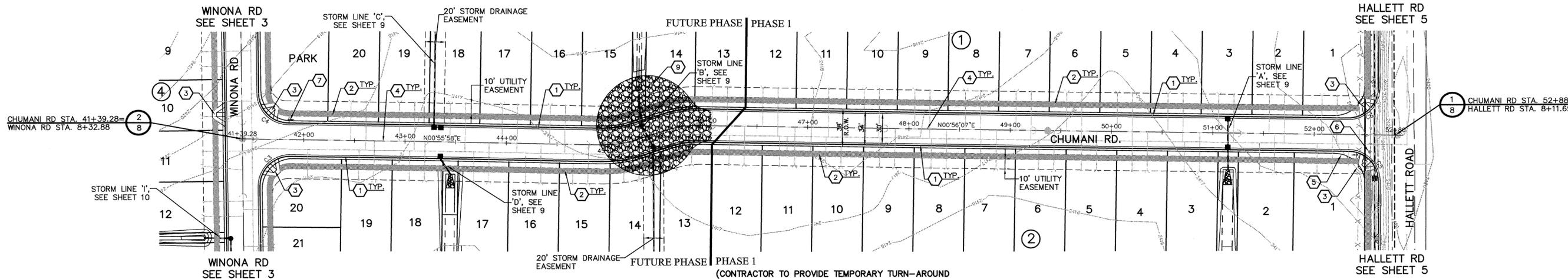
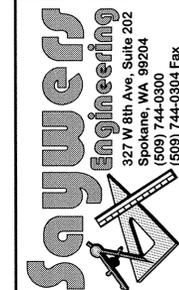
**JOHN FRANK SAYNERS**  
STATE OF WASHINGTON  
REGISTERED PROFESSIONAL ENGINEER  
10/14/06

Job no. 05001  
DRAWN BY: JCR      DESIGNED BY: JCR  
CHECKED BY: JFS      DATE: 09/29/06

COVER SHEET  
**1 of 16**



SEC. 8, T.24 N., R.42 E., W.M.  
SPOKANE COUNTY, WASHINGTON



**CONSTRUCTION NOTES**

| CURVE | RADIUS  | LENGTH | TANGENT | CHORD  | DELTA     |
|-------|---------|--------|---------|--------|-----------|
| C1    | 100.00' | 32.96' | 16.63'  | 32.81' | 18°53'04" |
| C2    | 100.00' | 32.96' | 16.63'  | 32.81' | 18°53'04" |
| C3    | 30.00'  | 47.97' | 30.85'  | 43.02' | 91°36'33" |
| C4    | 30.00'  | 46.28' | 29.17'  | 41.83' | 88°23'27" |
| C5    | 30.00'  | 46.69' | 29.57'  | 42.12' | 89°10'59" |
| C6    | 30.00'  | 47.61' | 30.49'  | 42.77' | 90°56'04" |

NOTE: CURVE DATA FOR CURB & GUTTER IS TO TOP FACE OF CURB.

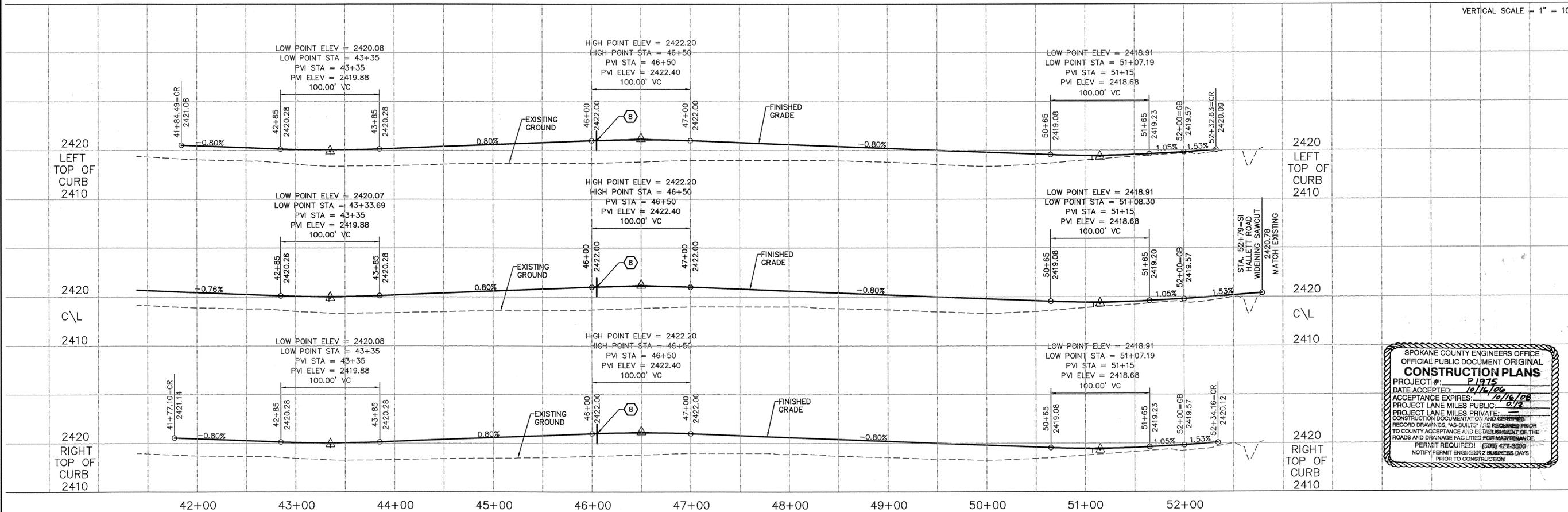
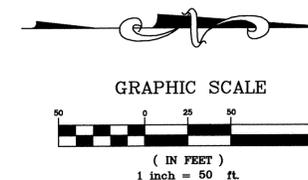
- ① CONSTRUCT TYPE 'B' CURB AND GUTTER PER SPOKANE COUNTY STD PLAN A-3.
- ② CONSTRUCT 5' WIDE CONCRETE SIDEWALK PER SPOKANE COUNTY STD PLAN A-4.
- ③ CONSTRUCT CURB RAMP, DESIGN 'B', PER SPOKANE COUNTY STD PLAN A-5.
- ④ CONSTRUCT ROADWAY PER SECTION 1, SHEET 7.
- ⑤ INSTALL "STREET NAME" AND "STOP"(R1-1) SIGNS AND POST PER SPOKANE COUNTY STANDARD PLAN A-16 AND CURRENT EDITION OF THE M.U.T.C.D.
- ⑥ REMOVE AND RELOCATE EXISTING POWER POLE. CONTRACTOR SHALL COORDINATE WITH INLAND POWER AND LIGHT PRIOR TO ANY CONSTRUCTION ACTIVITIES
- ⑦ INSTALL "STREET NAME" AND SIGN AND POST PER SPOKANE COUNTY STANDARD PLAN A-16 AND CURRENT EDITION OF THE M.U.T.C.D.
- ⑧ STA. 46+05: END CURB, GUTTER AND SIDEWALK OF PHASE 1.
- ⑨ CONSTRUCT TEMPORARY CUL-DE-SAC. SEE DETAIL 2, SHEET 8.

**DEVELOPER'S APPROVAL**

THE UNDERSIGNED DEVELOPER OR HIS ASSIGNS AGREES TO CONSTRUCT IMPROVEMENTS IN ACCORDANCE WITH THIS PLAN, AND UPON COMPLETION, THE DEVELOPER IS RESPONSIBLE FOR SUBMITTING REPRODUCIBLE RECORD DRAWINGS TO BE COMPLETED BY A PROFESSIONAL ENGINEER AND/OR PROFESSIONAL LAND SURVEYOR FOR REVIEW AND APPROVAL BY SPOKANE COUNTY UTILITIES DEPARTMENT AT THE COMPLETION OF CONSTRUCTION.

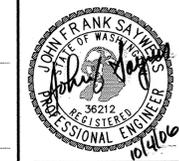
DEVELOPER'S APPROVAL

DATE



SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
PROJECT # 19175  
DATE ACCEPTED: 10/16/06  
ACCEPTANCE EXPIRES: 10/16/08  
PROJECT LANE MILES PUBLIC: 0.12  
PROJECT LANE MILES PRIVATE: 0.00  
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS HAS-BUILT TO BE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
PERMIT REQUIRED: (206) 477-3300  
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

SITE DEVELOPMENT CONSTRUCTION PLANS  
TAKODA PARK - PHASE 1  
CHUMANI ROAD PLAN AND PROFILE  
SPokane WASHINGTON

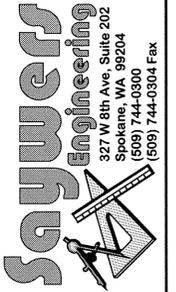


|                       |          |
|-----------------------|----------|
| Job no.               | 05001    |
| DRAWN BY:             | JCR      |
| DESIGNED BY:          | JCR      |
| CHECKED BY:           | JFS      |
| DATE:                 | 09/29/06 |
| ROAD PLAN AND PROFILE |          |
| 2 of 16               |          |

P-1975 Engr/Prof/Drainage

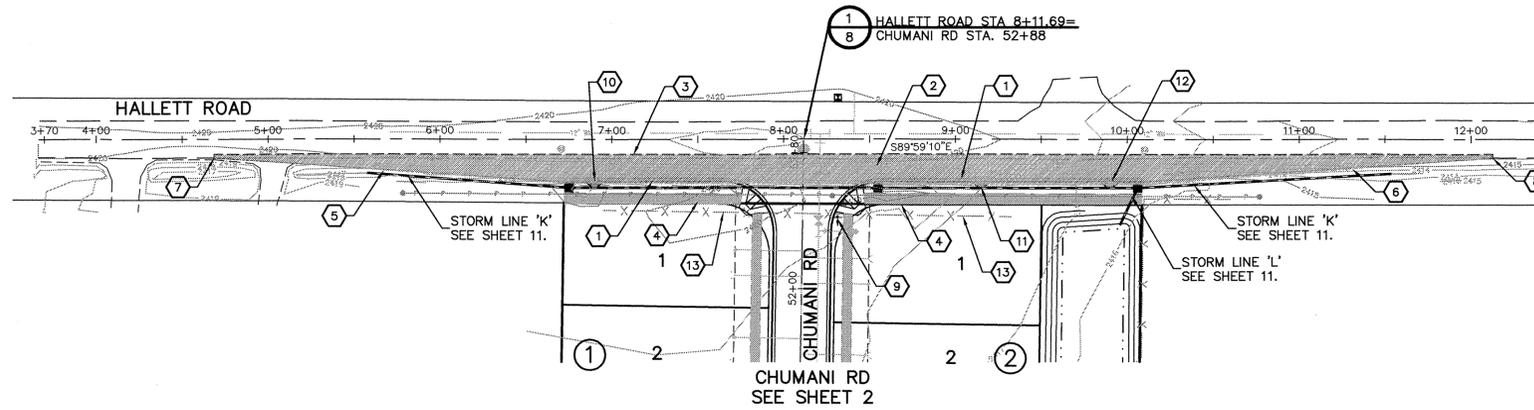


SEC. 8, T.24 N., R.42 E., W.M.  
SPOKANE COUNTY, WASHINGTON

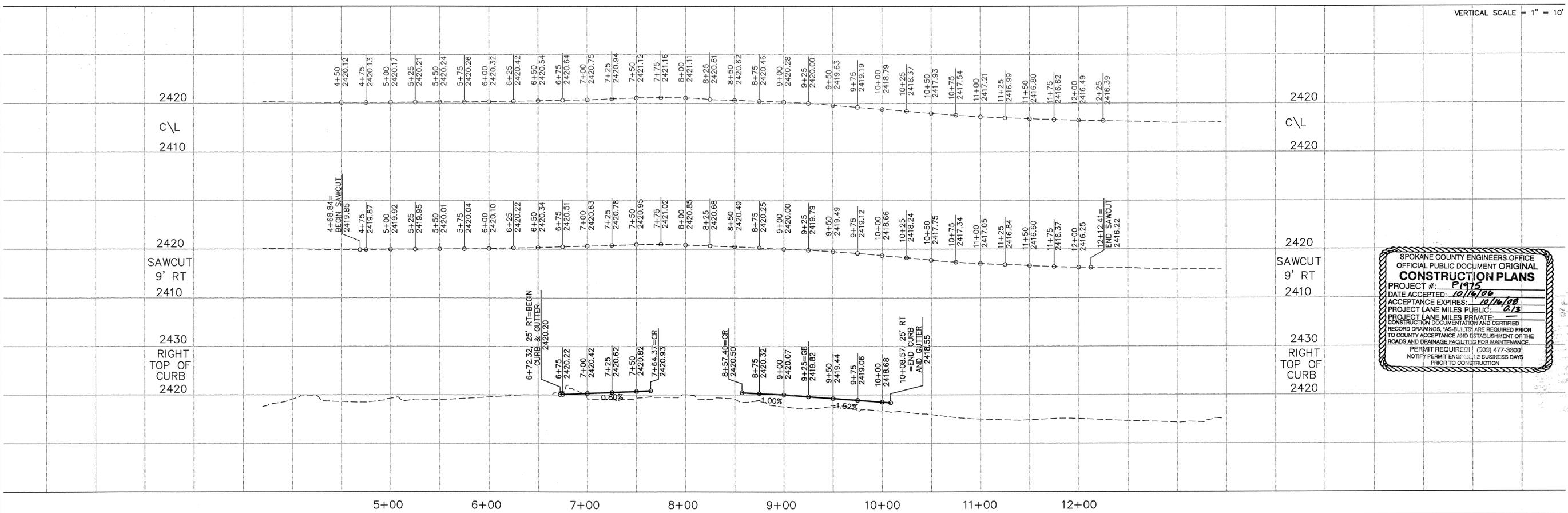
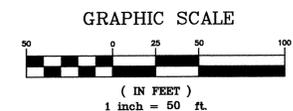


CONSTRUCTION NOTES

- 1 CONSTRUCT TYPE 'B' CURB AND GUTTER PER SPOKANE COUNTY STANDARD PLAN A-3.
- 2 CONSTRUCT ROAD WIDENING PER DETAIL 5, SHEET 7.
- 3 SAWCUT AND REMOVE APPROX. 1 FOOT ± OF EXISTING PAVEMENT.
- 4 CONSTRUCT 5 FOOT WIDE CEMENT CONCRETE SIDEWALK PER DETAIL 1, SHEET 5 AND SPOKANE COUNTY STANDARD SPECIFICATIONS.
- 5 STA. 4+68.84 TO STA. 6+72.32: CONSTRUCT 204' TAPER. CONTRACTOR SHALL MATCH EXISTING CROSS SECTION OF HALLETT ROAD.
- 6 STA. 10+08.57 TO STA. 12+12.41: CONSTRUCT 204' TAPER. CONTRACTOR SHALL MATCH EXISTING CROSS SECTION OF HALLETT ROAD.
- 7 STA. 4+68.84: BEGIN TAPER AND MATCH EXISTING ASPHALT ELEVATION.
- 8 STA. 12+12.41: END TAPER AND MATCH EXISTING ASPHALT ELEVATION.
- 9 INSTALL "STREET NAME" AND "STOP"(R1-1) SIGNS AND POST PER SPOKANE COUNTY STANDARD PLAN A-16 AND CURRENT EDITION OF THE M.U.T.C.D.
- 10 STA. 6+90; INSTALL TYPE 1 CURB INLET, 5' WIDE, PER SPOKANE COUNTY STD PLAN B-8.
- 11 STA. 9+15; INSTALL TYPE 1 CURB INLET, 5' WIDE, PER SPOKANE COUNTY STD PLAN B-8.
- 12 STA. 9+90; INSTALL TYPE 1 CURB INLET, 5' WIDE, PER SPOKANE COUNTY STD PLAN B-8.
- 13 REMOVE EXISTING FENCE ALONG FRONTAGE.

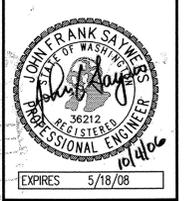


DEVELOPER'S APPROVAL  
THE UNDERSIGNED DEVELOPER OR HIS ASSIGNS AGREES TO CONSTRUCT IMPROVEMENTS IN ACCORDANCE WITH THIS PLAN, AND UPON COMPLETION, THE DEVELOPER IS RESPONSIBLE FOR SUBMITTING REPRODUCIBLE RECORD DRAWINGS TO BE COMPLETED BY A PROFESSIONAL ENGINEER AND/OR PROFESSIONAL LAND SURVEYOR FOR REVIEW AND APPROVAL BY SPOKANE COUNTY UTILITIES DEPARTMENT AT THE COMPLETION OF CONSTRUCTION.



SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
CONSTRUCTION PLANS  
PROJECT #: P-1975  
DATE ACCEPTED: 10/16/08  
ACCEPTANCE EXPIRES: 10/16/10  
PROJECT LANE MILES PUBLIC: 0.13  
PROJECT LANE MILES PRIVATE: \_\_\_\_\_  
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILT" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
PERMIT REQUIRED! (509) 477-3300!  
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

SITE DEVELOPMENT CONSTRUCTION PLANS  
TAKODA PARK - PHASE 1  
HALLETT ROAD WIDENING  
SPOKANE WASHINGTON



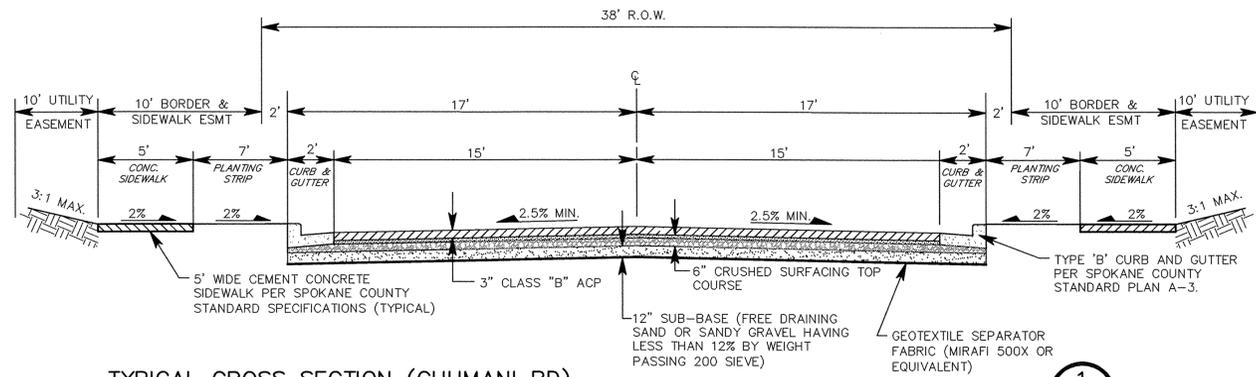
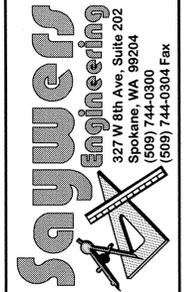
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|--------------|----------|
| JOB NO.      | 05001    |
| DRAWN BY:    | JCR      |
| DESIGNED BY: | JCR      |
| CHECKED BY:  | JFS      |
| DATE:        | 09/29/06 |

ROAD PLAN AND PROFILE  
5 of 16  
SHEET

P-1975 Englad Drainage



SEC. 8, T.24 N., R.42 E., W.M.  
SPOKANE COUNTY, WASHINGTON

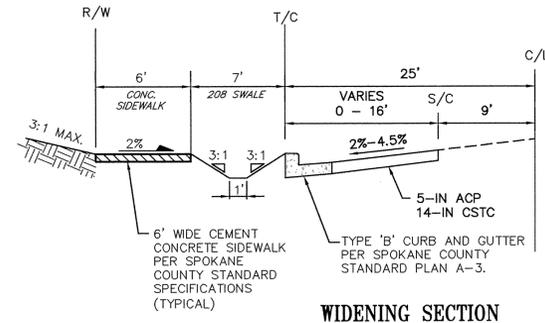


TYPICAL CROSS SECTION (CHUMANI RD)  
NOT TO SCALE

1

NOT USED  
NOT TO SCALE

4



WIDENING SECTION

TYPICAL CROSS-SECTION HALLETT ST  
STA. 6+72.32 TO STA. 10+08.57  
NOT TO SCALE

5

NOT USED  
NOT TO SCALE

2

NOT USED  
NOT TO SCALE

3

**DEVELOPER'S APPROVAL**  
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DEVELOPER'S APPROVAL

DATE

NOT USED  
NOT TO SCALE

6



SITE DEVELOPMENT CONSTRUCTION PLANS  
TAKODA PARK - PHASE 1  
STREET DETAILS  
SPokane WASHINGTON



Job no. 05001  
DRAWN BY: JCR  
DESIGNED BY: JCR  
CHECKED BY: JFS  
DATE: 09/29/06

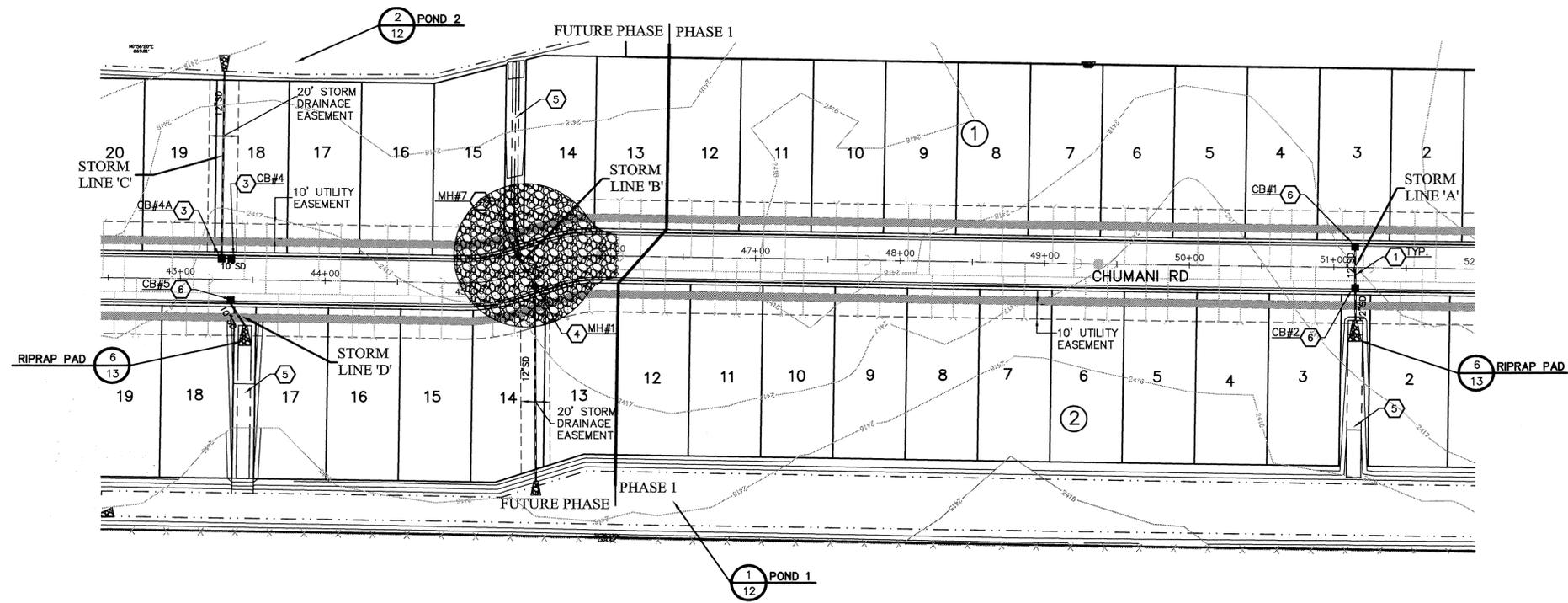
STREET DETAILS  
7 of 16  
SHEET

P-1975 Eng Road Drainage



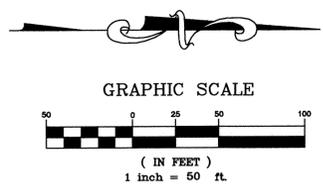


SEC. 8, T.24 N., R.42 E., W.M.  
SPOKANE COUNTY, WASHINGTON



**CONSTRUCTION NOTES**

1. INSTALL ADS N-12 STORM PIPE. SIZE PER PLAN AND PROFILE. TRENCH AND BEDDING PER SPOKANE COUNTY STANDARD SPECIFICATIONS.
2. NOT USED.
3. INSTALL TYPE 1 CATCH BASIN WITH TYPE 2 FRAME AND TYPE 2 GRATE PER SPOKANE COUNTY STD PLANS B-4, B-11, AND B-13.
4. INSTALL III-48 MANHOLE WITH TYPE 4 FRAME AND SOLID LID PER SPOKANE COUNTY STD PLANS U-5 AND B-15.
5. CONSTRUCT BIOSWALE PER PROFILES AND DETAIL 4, SHEET 13.

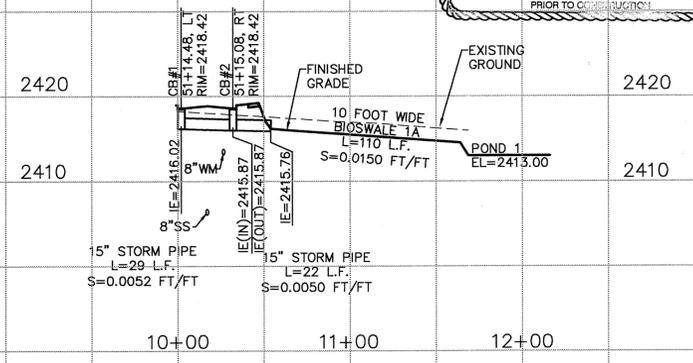


**DEVELOPER'S APPROVAL**  
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DEVELOPER'S APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_

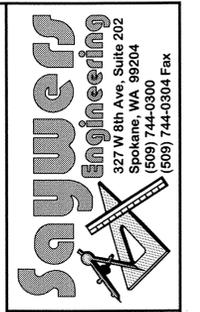
SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**

PROJECT #: P1975  
DATE ACCEPTED: 12/14/06  
ACCEPTANCE EXPIRES: 12/16/08  
PROJECT LANE MILES PUBLIC: 0.12  
PROJECT LANE MILES PRIVATE: \_\_\_\_\_  
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, AS-BUILT ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
PERMIT REQUIREMENT (COP) 477-0009  
NOTIFY PERMIT ENGINEER 3 BUSINESS DAYS PRIOR TO CONSTRUCTION!

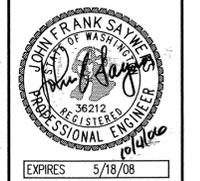


NOTE: STATIONING FOR STORM STRUCTURES REFERENCE CENTERLINE OF CHUMANI RD.

STORM LINE 'A'



SITE DEVELOPMENT CONSTRUCTION PLANS  
 TAKODA PARK - PHASE 1  
 STORM DRAIN PLAN AND PROFILES  
 WASHINGTON  
 SPOKANE



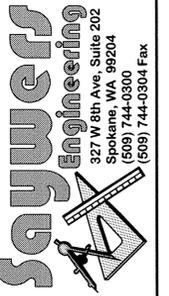
Job no. 05001  
DRAWN BY: JCR DESIGNED BY: JCR  
CHECKED BY: JFS DATE: 09/29/06

STORM PLAN AND PROFILE  
9 of 16  
SHEET

P1975 Eng Road Drainage

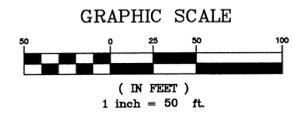
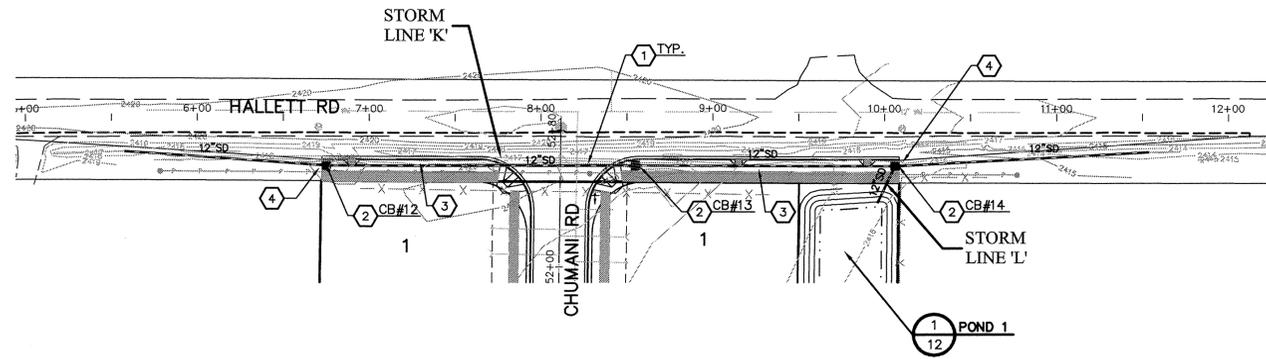
UNDERGROUND SERVICE ALERT  
 ONE-CALL NUMBER  
**1-800-424-5555**  
 CALL TWO BUSINESS DAYS BEFORE YOU DIG

SEC. 8, T.24 N., R.42 E., W.M.  
 SPOKANE COUNTY, WASHINGTON



**CONSTRUCTION NOTES**

- 1 INSTALL ADS N-12 STORM PIPE. SIZE PER PLAN AND PROFILE. TRENCH AND BEDDING PER SPOKANE COUNTY STANDARD SPECIFICATIONS.
- 2 INSTALL TYPE 1 CATCH BASIN WITH TYPE 2 FRAME AND TYPE 3 GRATE PER SPOKANE COUNTY STD PLANS B-4, B-11, AND B-14.
- 3 CONSTRUCT '208' SWALE BETWEEN CURB AND SIDEWALK PER DETAIL 5, SHEET 7 WITH 2' WIDE X 0.5' HIGH EARTH BERM FROM STA. 9+24 TO STA. 9+26.
- 4 CONSTRUCT 2' WIDE X 1' HIGH EARTH BERM FROM STA. 6+73 TO STA. 6+75 AND STA. 10+06 TO 10+08.



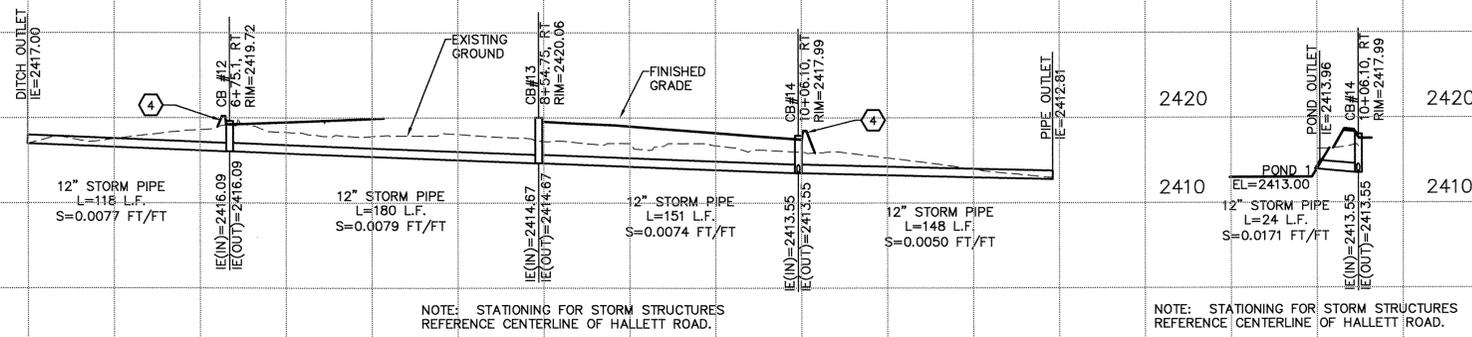
**DEVELOPER'S APPROVAL**

THE UNDERSIGNED DEVELOPER OR HIS ASSIGNS AGREES TO CONSTRUCT IMPROVEMENTS IN ACCORDANCE WITH THIS PLAN, AND UPON COMPLETION, THE DEVELOPER IS RESPONSIBLE FOR SUBMITTING REPRODUCIBLE RECORD DRAWINGS TO BE COMPLETED BY A PROFESSIONAL ENGINEER AND/OR PROFESSIONAL LAND SURVEYOR FOR REVIEW AND APPROVAL BY SPOKANE COUNTY UTILITIES DEPARTMENT AT THE COMPLETION OF CONSTRUCTION.

DEVELOPER'S APPROVAL \_\_\_\_\_

DATE \_\_\_\_\_

VERTICAL SCALE = 1" = 10'



NOTE: STATIONING FOR STORM STRUCTURES REFERENCE CENTERLINE OF HALLETT ROAD.

NOTE: STATIONING FOR STORM STRUCTURES REFERENCE CENTERLINE OF HALLETT ROAD.

SPOKANE COUNTY ENGINEERS OFFICE  
 OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
 PROJECT #: P1975  
 DATE ACCEPTED: 10/16/06  
 ACCEPTANCE EXPIRES: 5/18/08  
 PROJECT LANE MILES PUBLIC: 0.13  
 PROJECT LANE MILES PRIVATE: \_\_\_\_\_  
 CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS AS-BUILT/ITE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND PERMANENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
 PERMIT REQUIRED: (20) 477-0000  
 NOTIFY PERMIT ENGINEER 10 BUSINESS DAYS PRIOR TO CONSTRUCTION.

SITE DEVELOPMENT CONSTRUCTION PLANS  
 TAKODA PARK - PHASE 1  
 STORM DRAIN PLAN AND PROFILES  
 SPOKANE WASHINGTON



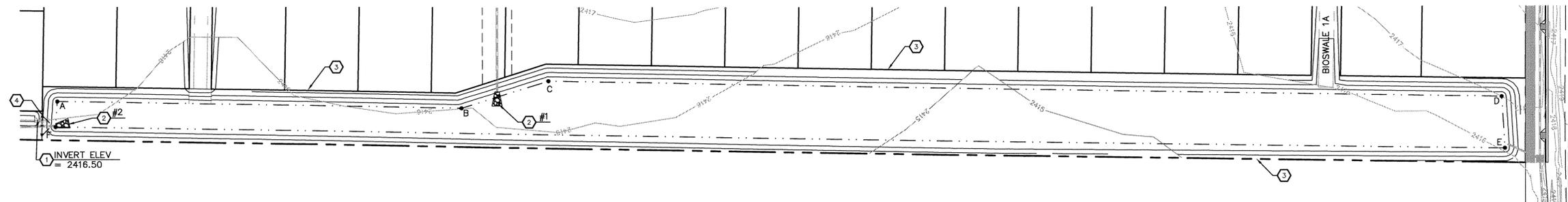
Job no. 05001  
 DRAWN BY: JCR  
 DESIGNED BY: JCR  
 CHECKED BY: JFS  
 DATE: 09/29/06

STORM PLAN AND PROFILE  
 11 of 16  
 SHEET

P-1975 Eng Road Drainage

UNDERGROUND SERVICE ALERT  
 ONE-CALL NUMBER  
 1-800  
 424-5555  
 CALL TWO BUSINESS DAYS  
 BEFORE YOU DIG

SEC. 8, T.24 N., R.42 E., W.M.  
 SPOKANE COUNTY, WASHINGTON



**POND 1**  
 FINISHED GRADE POND BOTTOM EL.=2413.00  
 POND BOTTOM AREA PROVIDED=30,169 S.F.  
 MINIMUM BERM ELEV.=2415.75

| POND BOTTOM LOCATION TABLE<br>(CHUMANI ROAD STATION & OFFSET) |          |           |
|---------------------------------------------------------------|----------|-----------|
| POINT                                                         | STATION  | OFFSET    |
| A                                                             | 42+47.80 | 149.2' RT |
| B                                                             | 45+06.41 | 151.0' RT |
| C                                                             | 45+36.41 | 145.7' RT |
| D                                                             | 52+35.59 | 151.7' RT |
| E                                                             | 52+38.38 | 187.4' RT |
| F                                                             | 42+46.87 | 166.9' RT |

**CONSTRUCTION NOTES**

- ① CONSTRUCT 2 FOOT WIDE CONCRETE WEIR PER DETAIL 3, THIS SHEET WITH INVERT ELEVATION PER PROFILE.
- ② CONSTRUCT RIP-PAD PER DETAIL 5, SHEET 13.
- ③ CONSTRUCT 4 FOOT HIGH CHAIN LINK FENCE ALONG BORDER OF TRACT.
- ④ INSTALL 14 FOOT WIDE GATE IN CHAIN LINK FENCE.

POND 1  
 SCALE: 1"=40'

1  
 —

NOT USED  
 SCALE: 1"=20'

2  
 —

SPOKANE COUNTY ENGINEERS OFFICE  
 OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
 PROJECT #: P-1975  
 DATE ACCEPTED: 10/14/06  
 ACCEPTANCE EXPIRES: 10/14/08  
 PROJECT LANE MILES PUBLIC: 0.13  
 PROJECT LANE MILES PRIVATE: 0.00  
 CONSTRUCTION DOCUMENTS PROVIDED  
 RECORD DRAWINGS, AS-BUILT AND FIELD PRIOR  
 TO COUNTY ACCEPTANCE AND DEPARTMENT OF THE  
 ROADS AND UTILITIES PERMIT FOR DISTURBANCE.  
 PERMIT REQUIREMENT (20) CONTACTED  
 NOTIFY PERMIT ENGINEER 14 BUSINESS DAYS  
 PRIOR TO COMMENCEMENT OF CONSTRUCTION

**Saywers Engineering**  
 327 W 8th Ave, Suite 202  
 Spokane, WA 99204  
 (509) 744-0300  
 (509) 744-0304 Fax

SITE DEVELOPMENT CONSTRUCTION PLANS  
 TAKODA PARK - PHASE 1  
 POND DETAILS  
 SPOKANE WASHINGTON

JOHN FRANK SAYWERS  
 STATE OF WASHINGTON  
 36212  
 REGISTERED  
 PROFESSIONAL ENGINEER  
 10/14/06  
 EXPIRES 5/18/08

Job no. 05001  
 DRAWN BY: JCR  
 DESIGNED BY: JCR  
 CHECKED BY: JFS  
 DATE: 09/29/06

POND DETAILS  
 12 of 16  
 SHEET

**DEVELOPER'S APPROVAL**  
 THE UNDERSIGNED DEVELOPER OR HIS ASSIGNS AGREES TO CONSTRUCT IMPROVEMENTS IN ACCORDANCE WITH THIS PLAN, AND UPON COMPLETION, THE DEVELOPER IS RESPONSIBLE FOR SUBMITTING REPRODUCIBLE RECORD DRAWINGS TO BE COMPLETED BY A PROFESSIONAL ENGINEER AND/OR PROFESSIONAL LAND SURVEYOR FOR REVIEW AND APPROVAL BY SPOKANE COUNTY UTILITIES DEPARTMENT AT THE COMPLETION OF CONSTRUCTION.

DEVELOPER'S APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_

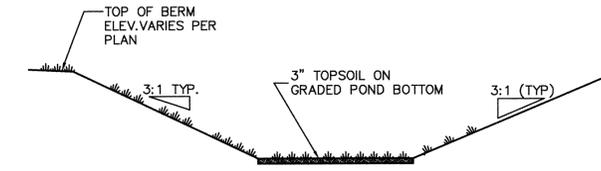
NOT USED  
 NOT TO SCALE

3  
 —

P-1975 Crp Road Drainage



SEC. 8, T.24 N., R.42 E., W.M.  
SPOKANE COUNTY, WASHINGTON



\*\*\* WARNING - THE USE OF SILTY LOAM IS PROHIBITED AS POND BOTTOM MATERIAL.

NOTE: ALL PONDS SHALL BE SEEDED WITH A DRYLAND GRASS SEED MIX PER SPOKANE COUNTY STANDARDS:

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% ELKA PERENNIAL RYE
- 20% DURAR HARD FESCUE
- 45% COVAR SHEEP/FESCUE
- 15% REUBENS CANADIAN BLUEGRASS

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

GRASS SEED: 90 LBS. PER ACRE  
FERTILIZER: 16-16-16 TIMES 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.

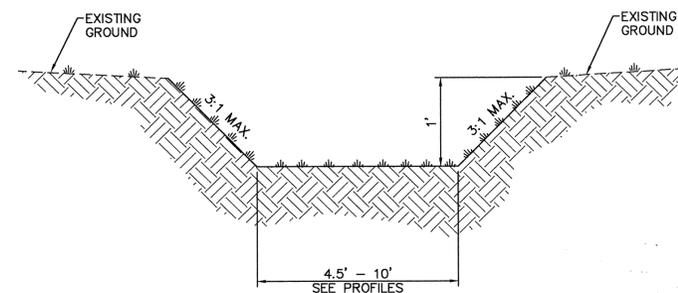
NOT USED  
SCALE: 1"=20'

1

TYPICAL POND WITHOUT DRAINAGE STRUCTURE

NOT TO SCALE

3



NOTE: ALL SWALES SHALL BE SEEDED WITH A GRASS SEED MIX MEETING THE FOLLOWING SPECIFICATIONS:

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% CREEPING RED FESCUE
- 20% CHEWING FESCUE
- 30% COVAR SHEEP/FESCUE
- 30% DURAR HARD FESCUE

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

GRASS SEED: 50 LBS. PER ACRE  
FERTILIZER: 16-16-16 TIMES 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.

TYPICAL BIO-SWALE SECTION

NOT TO SCALE

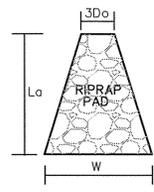
4

SPOKANE COUNTY ENGINEERS OFFICE  
OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
PROJECT # P1975  
DATE ACCEPTED: 10/16/06  
ACCEPTANCE EXPIRES: 10/14/08  
PROJECT LANE MILES PUBLIC: 0.13  
PROJECT LANE MILES PRIVATE: 0.13  
CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILTS" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
PERMIT REQUIRED! (509) 477-3500  
NOTIFY PERMIT ENGINEER 2 BUSINESS DAYS PRIOR TO CONSTRUCTION

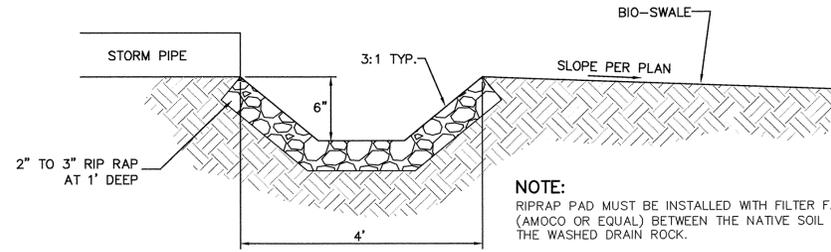
NOT USED  
SCALE: 1"=20'

2

NOTE:  
RIPRAP PAD MUST BE INSTALLED WITH FILTER FABRIC (AMOCO OR EQUAL) BETWEEN THE NATIVE SOIL AND THE WASHED DRAIN ROCK.



| RIPRAP PAD DIMENSIONS |     |       |      |            |        |  |
|-----------------------|-----|-------|------|------------|--------|--|
| POND                  | 3Dø | La    | W    | STONE SIZE | THICK. |  |
| 1(WEST) #1            | 3'  | 9.7'  | 6.9' | 3" MIN.    | 1'     |  |
| 1(SOUTH) #2           | 3'  | 9.1'  | 6.6' | 2" MIN.    | 1'     |  |
| 2(WEST) #3            | 3'  | 15.0' | 9'   | 2" MIN.    | 1'     |  |
| 2(EAST) #4            | 3'  | 11.1' | 7.4' | 4" MIN.    | 1'     |  |
| 3A #5                 | 3'  | 9.4'  | 6.8' | 2" MIN.    | 1'     |  |
| 3B #6                 | 3'  | 12.4' | 7.9' | 2" MIN.    | 1'     |  |
| 3C #7                 | 3'  | 8.1'  | 6.2' | 5" MIN.    | 1'     |  |



NOTE:  
RIPRAP PAD MUST BE INSTALLED WITH FILTER FABRIC (AMOCO OR EQUAL) BETWEEN THE NATIVE SOIL AND THE WASHED DRAIN ROCK.

TYPICAL RIPRAP PAD

NOT TO SCALE

5

PIPE TO BIOSWALE

NOT TO SCALE

6

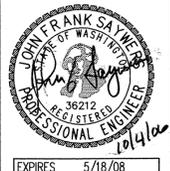
DEVELOPER'S APPROVAL

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DEVELOPER'S APPROVAL

DATE

SITE DEVELOPMENT CONSTRUCTION PLANS  
TAKODA PARK - PHASE 1  
POND DETAILS



Job no. 05001  
DRAWN BY: JCR  
DESIGNED BY: JCR  
CHECKED BY: JFS  
DATE: 09/29/06

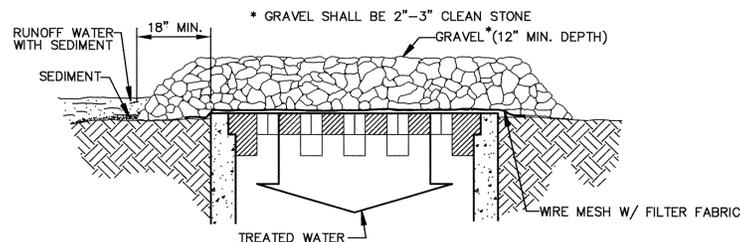
POND DETAILS

13 of 16

P-1975 Eng Road Drainage





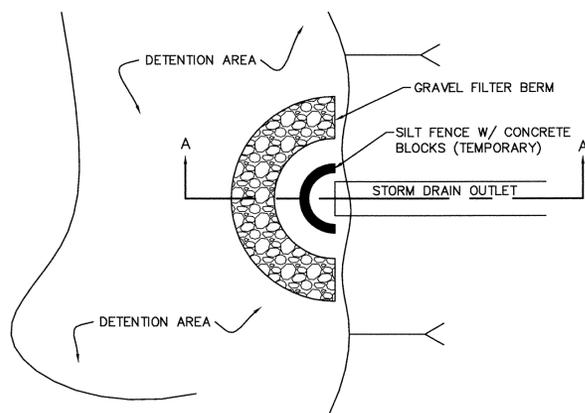


**SPECIFIC APPLICATION**  
 THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED ACRES.

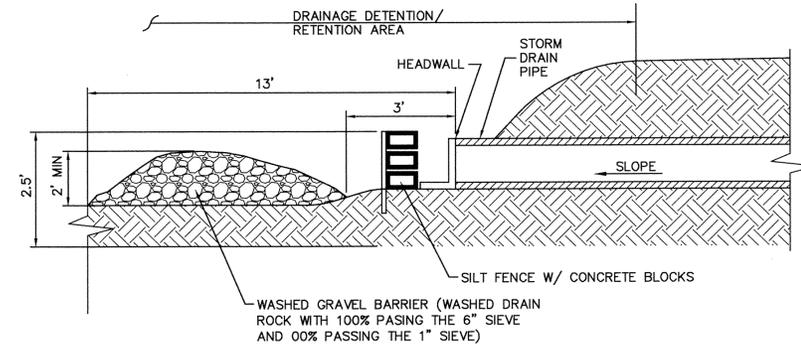
**GRAVEL AND WIRE MESH INLET SEDIMENT FILTER**

NOT TO SCALE

1



PLAN VIEW



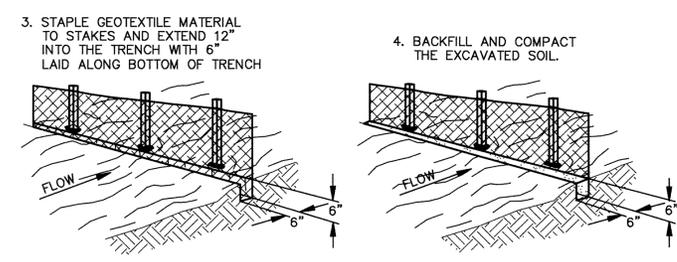
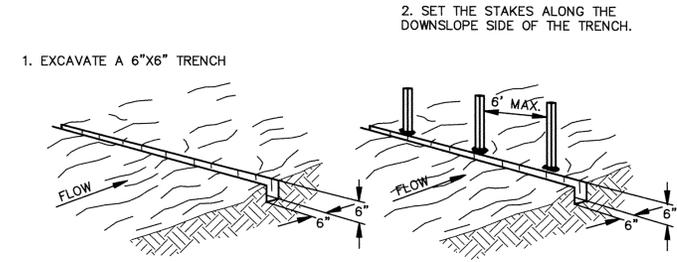
SECTION A-A

**GRAVEL OUTLET PROTECTION**

NOT TO SCALE

2

NOTE: SILT FENCE WITHOUT WIRE SUPPORT SHOULD BE USED ON A LIMITED BASIS ONLY ALONG PERIMETERS WITH LESS THAN 1/4 ACRE DRAINAGE AREA PER 100 LINEAR FEET OF FENCE.



POST: 2"x2" HARDWOOD OR T TYPE POST

- FABRIC: 1. AMOCO 2130
- 2. BELTECH 940
- 3. MIRAFI 100CX
- 4. LING GTF 190
- 5. SI 915 SC

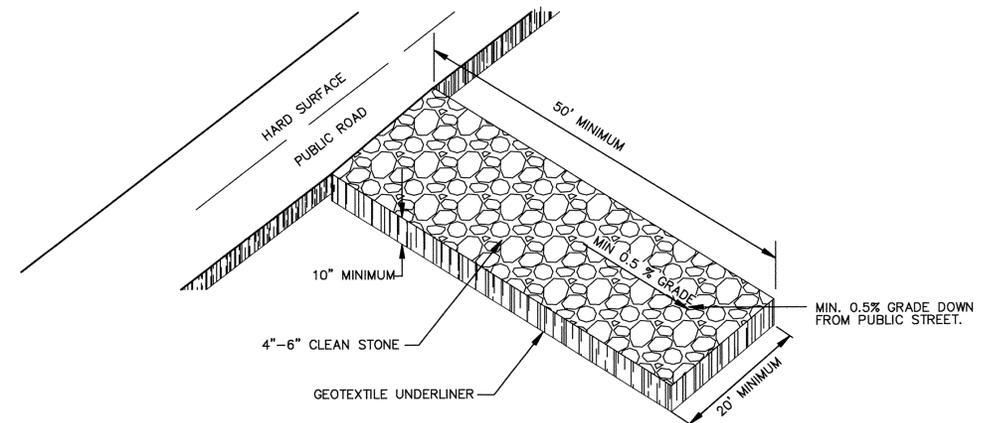
SHEET FLOW INSTALLATION (PERSPECTIVE VIEW)

NOTE: INSTALL IN ACCORDANCE WITH SILT FENCE DETAIL, EXCEPT AS NOTED ABOVE.

**SEDIMENTATION/SILT FENCE WITHOUT WIRE SUPPORT**

NOT TO SCALE

3



**CONSTRUCTION ENTRANCE**

NOT TO SCALE

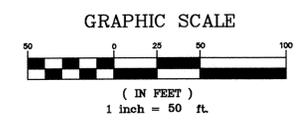
4

SPokane County Engineers Office  
 OFFICIAL PUBLIC DOCUMENT ORIGINAL  
**CONSTRUCTION PLANS**  
 PROJECT #: P1915  
 DATE ACCEPTED: 10/16/06  
 ACCEPTANCE EXPIRES: 10/16/08  
 PROJECT LANE MILES PUBLIC: 0.13  
 PROJECT LANE MILES PRIVATE: \_\_\_\_\_  
 CONSTRUCTION DOCUMENTATION AND CERTIFIED RECORD DRAWINGS, "AS-BUILT" ARE REQUIRED PRIOR TO COUNTY ACCEPTANCE AND ESTABLISHMENT OF THE ROADS AND DRAINAGE FACILITIES FOR MAINTENANCE.  
 PERMIT REQUIRED: (100) 477-8200  
 NOTIFY PERMIT ENGINEER 8 BUSINESS DAYS PRIOR TO CONSTRUCTION

JOHN FRANK SAWYERS  
 30212 REGISTERED PROFESSIONAL ENGINEER  
 EXPIRES 5/18/08

**DEVELOPER'S APPROVAL**  
 THE UNDERSIGNED DEVELOPER OR HIS ASSIGNS AGREES TO CONSTRUCT IMPROVEMENTS IN ACCORDANCE WITH THIS PLAN, AND UPON COMPLETION, THE DEVELOPER IS RESPONSIBLE FOR SUBMITTING REPRODUCIBLE RECORD DRAWINGS TO BE COMPLETED BY A PROFESSIONAL ENGINEER AND/OR PROFESSIONAL LAND SURVEYOR FOR REVIEW AND APPROVAL BY SPOKANE COUNTY UTILITIES DEPARTMENT AT THE COMPLETION OF CONSTRUCTION.

DEVELOPER'S APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_



SITE DEVELOPMENT CONSTRUCTION PLANS  
 TAKODA PARK - PHASE I  
 EROSION CONTROL DETAILS  
 WASHINGTON  
 SPOKANE

Job no. 05001  
 DRAWN BY: JCR  
 DESIGNED BY: JFS  
 CHECKED BY: JFS  
 DATE: 09/29/06

EROSION CONTROL DETAILS

16 of 16