

SE $\frac{1}{4}$, SEC.33, T.25N., R.44E., W.M.
 SW $\frac{1}{4}$, SEC.34, T.25N., R.44E., W.M.
 NE $\frac{1}{4}$, SEC. 4, T.24N., R.44E., W.M.

FULLSCALE DRYWELL TEST & BOREHOLE PLAN SET

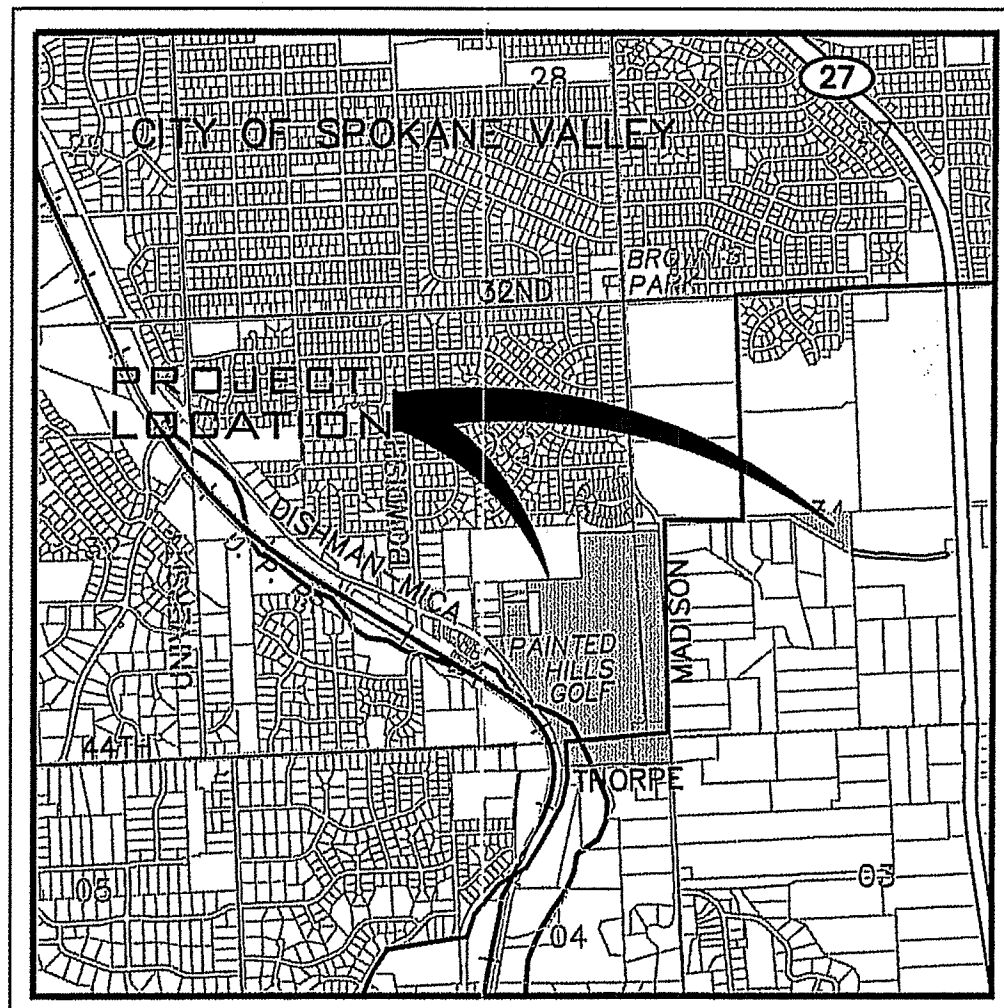
PAINTED HILLS

LOCATED IN A PORTION OF
 SE1/4, SEC. 33, T.25N., R. 44E., W.M.
 CITY OF SPOKANE VALLEY, WA

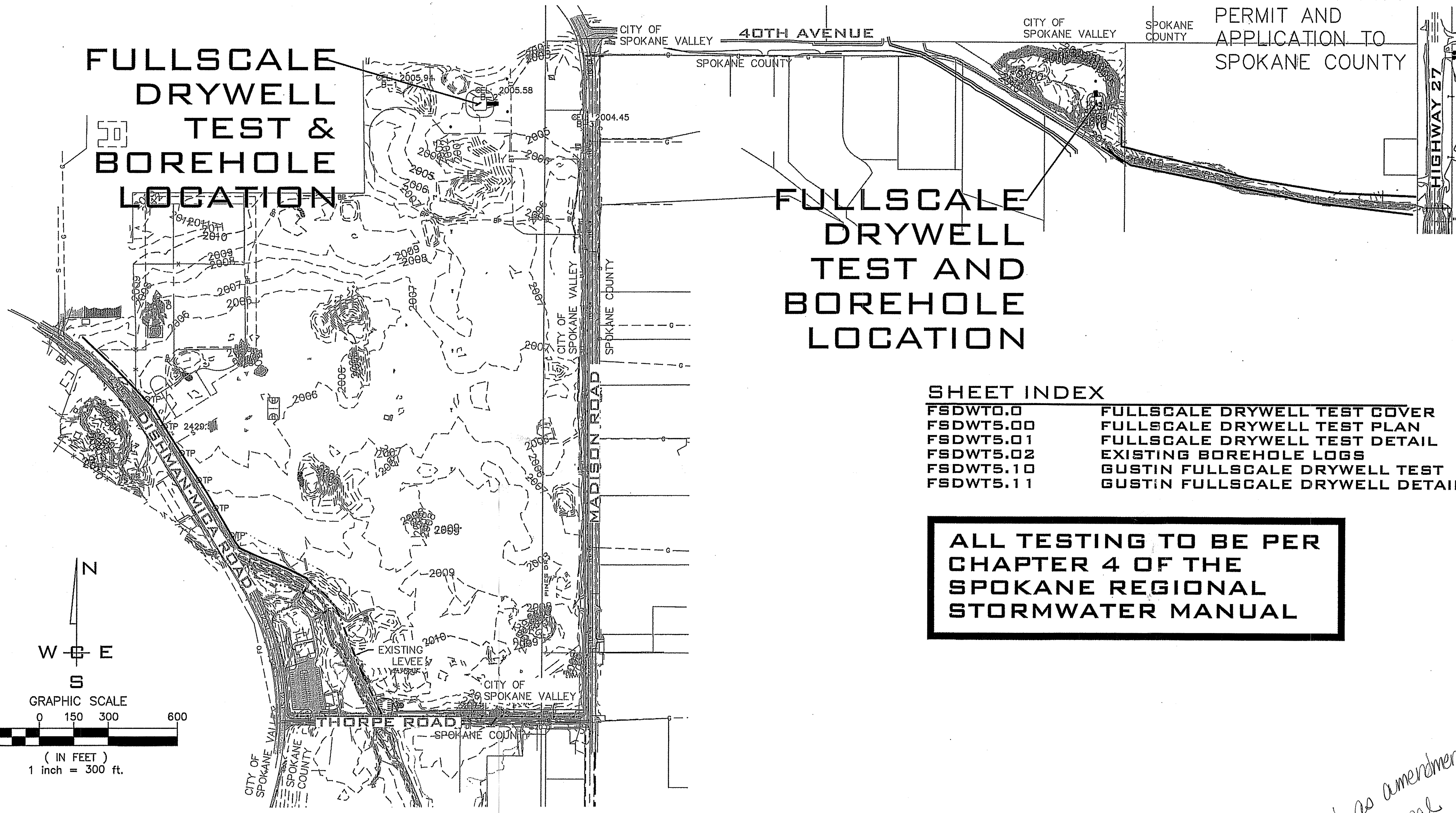


NOTE: CONSTRUCTION OF EVERY DRYWELL AND INFILTRATION GALLERY, INCLUDING FABRIC AND DRAIN ROCK, SHALL BE OBSERVED BY THE ON-SITE INSPECTOR TO CONFIRM THAT THEY MEET THE DESIGN DETAILS AND SPECIFICATIONS. DRYWELLS/GALLERIES NOT OBSERVED SHALL HAVE THEIR PERFORMANCE VERIFIED BY A FULL-SCALE DRYWELL TEST.

GUSTIN PIPE UNDER SEPARATE PERMIT AND APPLICATION TO SPOKANE COUNTY



LOCATION MAP



SITE PLAN VIEW

SCALE: 1"=300'

LEGEND

EXISTING	DESCRIPTION	PROPOSED
---	ROADWAY CENTER LINE	---
---	RIGHT OF WAY LINE	---
---	PROPERTY LINE	---
---	EASEMENT LINE	---
-x-x-	FENCE	-x-x-
---	CURB	---
---	PAVEMENT	---
---	GRAVEL	---
---	CONCRETE	---
---	BUILDINGS & STRUCTURES	---
---	MONUMENT	---
SEWER		
-s-s-s-	SANITARY SEWER	-s-s-s-
-s-s-s-	MANHOLE	-s-s-s-
-s-s-s-	CLEANOUT	-s-s-s-
-s-s-s-	SEWER SERVICE	-s-s-s-
WATER		
-w-w-w-	WATER LINE	-w-w-w-
-w-w-w-	VALVE	-w-w-w-
-w-w-w-	FIRE HYDRANT SERVICE	-w-w-w-
-w-w-w-	WATER METER	-w-w-w-
-w-w-w-	BLOWOFF	-w-w-w-
-w-w-w-	AIR VACUUM RELIEF STATION	-w-w-w-
DRAINAGE		
-d-d-d-	DRAINAGE LINE	-d-d-d-
-d-d-d-	MANHOLE	-d-d-d-
-d-d-d-	DRYWELL	-d-d-d-
-d-d-d-	CATCH BASIN	-d-d-d-
-d-d-d-	DITCH	-d-d-d-
GAS		
-g-g-g-	GAS LINE	-g-g-g-
-g-g-g-	VALVE	-g-g-g-
-g-g-g-	METER	-g-g-g-
TELE-POWER		
-bt-bt-bt-	BURIED TELEPHONE	-bt-bt-bt-
-bt-bt-bt-	POWER OR TELEPHONE POLE	-bt-bt-bt-
-bp-bp-bp-	BURIED POWER	-bp-bp-bp-
-bp-bp-bp-	TRANSFORMER PAD	-bp-bp-bp-
-bp-bp-bp-	TELEPHONE RISER	-bp-bp-bp-
-bp-bp-bp-	TELEPHONE VAULT	-bp-bp-bp-
-op-op-op-	OVERHEAD POWER	-op-op-op-
-op-op-op-	GUY ANCHOR	-op-op-op-
-op-op-op-	POWER VAULT	-op-op-op-
-op-op-op-	LIGHT POLE	-op-op-op-

SHEET INDEX

FSDWT0.0	FULLSCALE DRYWELL TEST COVER
FSDWT5.00	FULLSCALE DRYWELL TEST PLAN
FSDWT5.01	FULLSCALE DRYWELL TEST DETAIL
FSDWT5.02	EXISTING BOREHOLE LOGS
FSDWT5.10	GUSTIN FULLSCALE DRYWELL TEST
FSDWT5.11	GUSTIN FULLSCALE DRYWELL DETAIL

ALL TESTING TO BE PER CHAPTER 4 OF THE SPOKANE REGIONAL STORMWATER MANUAL

Project # FPD-2016-0007
 RECEIVED
 OCT 04 2019
 COSV PERMIT CENTER
 SUB # [] REV. # []

City of Spokane Valley
 Project/Permit No.:
 SUB-2016-0001
 (Subdivision)
 FPD-2016-0007
 (Flood Plain Development)
 EGR-2016-0066
 (Engineered Grading)

City of Spokane Valley
 Development Engineering

Reviewers:
 New Street Map - Public

Not Reviewed
 Reviewed for Conformance to Street Standards and Accepted per Chapter 1.2
 Date Accepted
 Acceptance Comments

Spokane County Permit No.:

Added as amendment to original Dishman-Mica Rd permit

ABBREVIATIONS

ACT. LEN.	ACTUAL LENGTH	GB	GRADE BREAK	PRC	POINT OF REVERSE CURVE
BCR	BEGINNING OF CURVE RADIUS	FT./FT.	FEET PER FOOT	PT	POINT OF TANGENCY
BDRY.	BOUNDARY	HYD.	HYDRANT	RIM EL.	RIM ELEVATION
CO.	SEWER CLEANOUT	I.E.	INVERT ELEVATION	RD	ROAD
CSTC	CRUSHED SURFACE	LN.	LANE	RT	RIGHT
CT.	COURT	LT.	LEFT	SI	STREET INTERSECTION
DIA.	DIAMETER	MH	MANHOLE	SS	SANITARY SEWER
ECR	END OF CURVE RADIUS	MCR	MIDDLE OF CURVE RADIUS	STA.	STATION
EXIST.	EXISTING	PC	POINT OF CURVATURE	STA. LEN.	STATION LENGTH
G	GRADE	PET.	PETROLEUM	TG	TOP OF GRATE
		PI	POINT OF INTERSECTION	TC	TOP OF CURB

PERMIT SPECIALIST
 CITY OF SPOKANE VALLEY
 PERMIT CENTER
 10210 E. SPRAGUE AVE
 SPOKANE VALLEY, WA 99206
 PHONE: 720-5240

DEV. CONST. INSP.
 CITY OF SPOKANE VALLEY
 10210 E. SPRAGUE AVE
 SPOKANE VALLEY, WA 99206
 PHONE: 599-6306
 CONTACT: KEVIN VAN DYK

CABLE
 COMCAST BROADBAND
 1717 E BUCKEYE AVE
 SPOKANE, WA 99207
 PHONE: 755-4717
 CONTACT: BRYAN RICHARDSON

SEWER
 SPOKANE COUNTY ENVIRONMENTAL SERVICES
 1026 W BROADWAY AVE
 SPOKANE, WA 99260
 PHONE: 477-7180
 CONTACT: CHRIS KNUDSON

WATER
 SPOKANE COUNTY WATER DISTRICT #3
 1225 N YARDLEY ST
 SPOKANE, WA 99212
 PHONE: 536-0121
 CONTACT: JUSTIN VAN DYKE

HEALTH
 SPOKANE REGIONAL HEALTH
 1101 W COLLEGE AVE
 SPOKANE VALLEY, WA 99220
 PHONE: 324-1578
 CONTACT: PAUL SAVAGE

GAS
 AVISTA UTILITIES
 1411 E MISSION AVE
 SPOKANE, WA 99220
 PHONE: 495-2967
 CONTACT: JOHN LUSE

INSPECTION
 I.P.E.C.
 P. O. BOX 1566
 VERADALE, WA 99037
 PHONE: 209-2617
 CONTACT: PAUL T. NELSON, P.E.

FIRE
 SPOKANE VALLEY FIRE DEPT.
 2120 N WILBUR RD
 SPOKANE VALLEY, WA 99206
 PHONE: 928-1700
 CONTACT: MIKE MAKELA

ROADWAYS
 CITY OF SPOKANE VALLEY
 10210 E. SPRAGUE
 SPOKANE VALLEY, WA 99206
 PHONE: 720-5008

POWER
 INLAND POWER & LIGHT CO.
 CENTURY LINK
 904 N COLUMBUS ST
 SPOKANE, WA 99220
 PHONE: 835-4604
 CONTACT: CONNIE NELSON

TELEPHONE
 CENTURY LINK
 904 N COLUMBUS ST
 SPOKANE, WA 99220
 PHONE: 835-4604
 CONTACT: CONNIE NELSON

SURVEYOR
 WHIPPLE CONSULTING ENGINEERS
 21 S. PINES RD
 SPOKANE VALLEY, WA 99206
 PHONE: 893-2617
 CONTACT: JON GORDON, P.L.S.

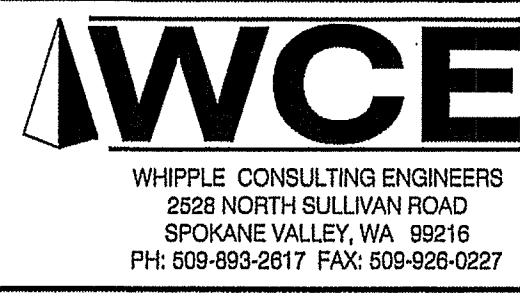
ENGINEERING
 WHIPPLE CONSULTING ENGINEERS
 21 S. PINES RD
 SPOKANE VALLEY, WA 99206
 PHONE: 893-2617
 CONTACT: TODD WHIPPLE, P.E.

OWNER
 BLACK REALTY, INC.
 107 S HOWARD ST
 SPOKANE, WA 99201
 PHONE: 623-1000
 CONTACT: BRYAN WALKER

DATUM: NAVD - 88
 TBM 5-S OF THE SOUTH PONDEROSA SEWER PROJECT
 WITH AN ELEVATION OF 2005.87 (NAVD29)=2009.87
 (NAVD89) WAS USED FOR THE VERTICAL DATUM FOR THIS MAP.

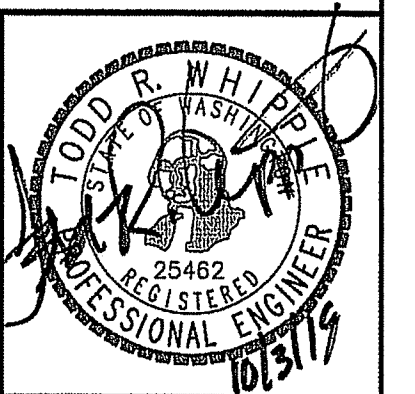
NO.	DATE	BY	REVISIONS

SCALE:	PROJ #: 13-1166
HORIZONTAL:	DATE: 10/01/19
1"=30'	DRAWN: JPP
VERTICAL:	REVIEWED: TRW
1"=10'	



PAINTED HILLS DRYWELL & BOREHOLE TEST COVER
DISHMAN-MICA RD. SPOKANE VALLEY, WA

SHEET FSDWT0.0
 JOB NUMBER 13-1166A

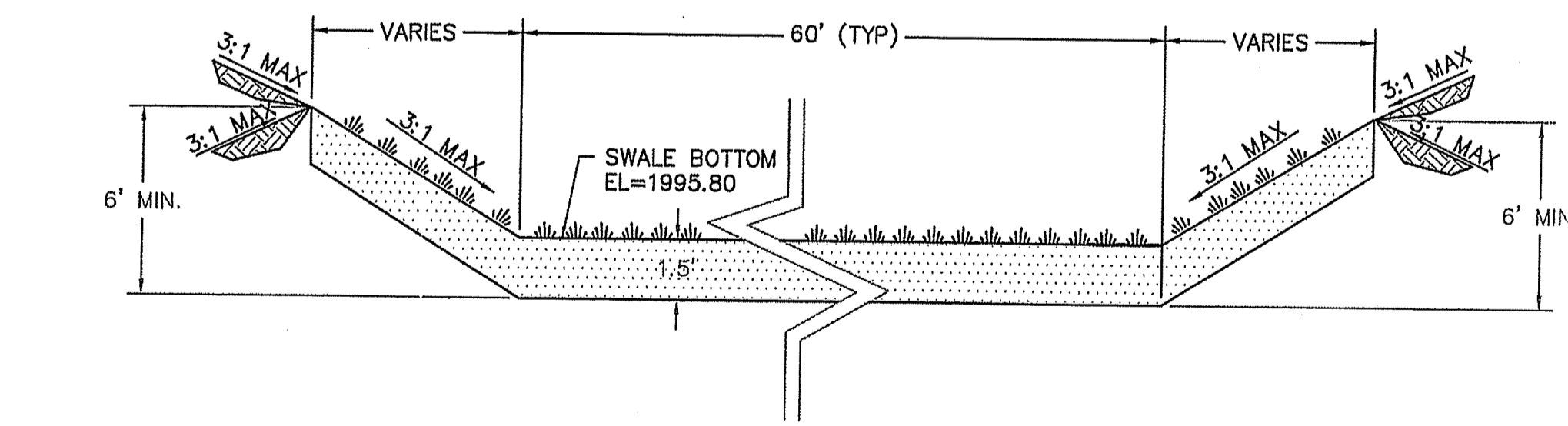
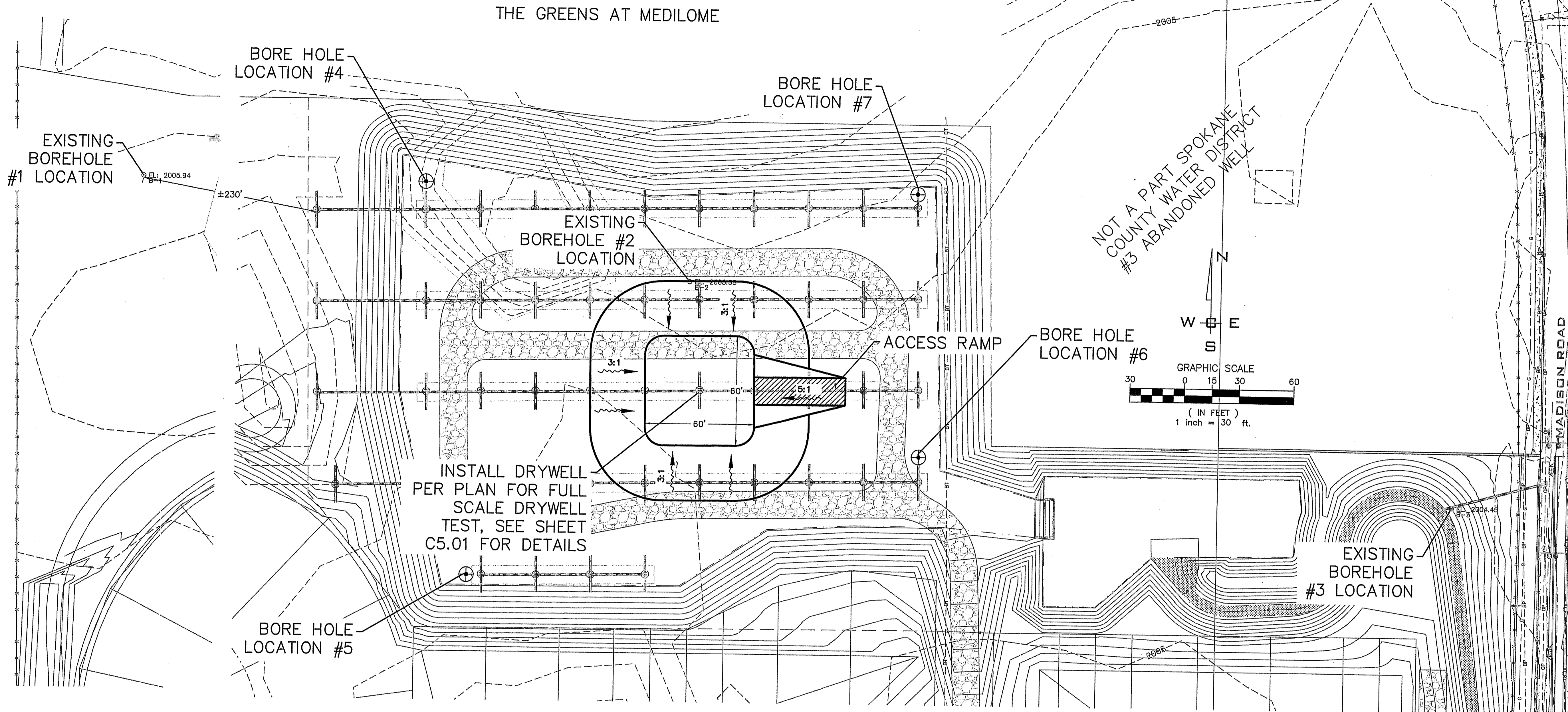


SE $\frac{1}{4}$, SEC. 33, T. 25N., R. 44E., W.M.
 SW $\frac{1}{4}$, SEC. 34, T. 25N., R. 44E., W.M.
 NE $\frac{1}{4}$, SEC. 4, T. 24N., R. 44E., W.M.



INFILTRATION POND
 FINISHED GRADE POND BOTTOM EL=1995.80
 POND TREATMENT AREA PROVIDED=61,004 S.F.
 MINIMUM BERM ELEV.=2002.80
 DRYWELL ROCK BOTTOM AREA=75,868 S.F.

SETTLING POND
 FINISHED GRADE POND BOTTOM EL=1996.80
 POND TREATMENT AREA PROVIDED=7,172 S.F.
 MINIMUM BERM ELEV.=2002.80



SEEDING NOTE:
 GRASS SEED: PROVIDE FRESH, CLEAN, NEW-CROP SEED COMPLYING WITH TOLERANCE OF PURITY AND GERMINATION ESTABLISHED BY THE OFFICIAL SEED ANALYSIS OF NORTH AMERICAN. PROVIDE SEED MIXTURE COMPOSED OF GRASS SPECIES AND PERCENTAGES AS FOLLOWS:
 10 PER CENT ELKA PERENNIAL RYE
 25 PERCENT DURAR HARD FESCUE
 50 PERCENT COVAR SHEEP/FESCUE
 15 PERCENT 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 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, SECTION 8-01.

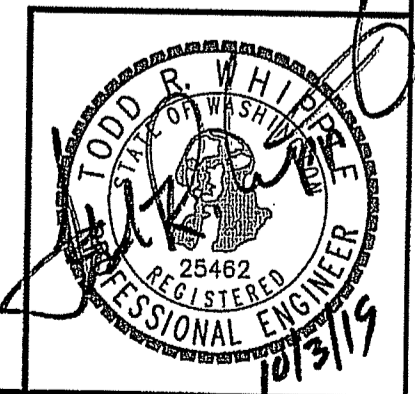
Project # FPD-16-0007
 RECEIVED
 OCT 04 2019
 COSV PERMIT CENTER
 SUB # [] REV. # []

City of Spokane Valley
 Project/Permit No.:
 SUB-2015-0001
 (Subdivision)
 FPD-2016-0007
 (Flood Plain Development)
 EGR-2016-0066
 (Engineered Grading)

City of Spokane Valley
 Development Engineering

Review:
 New Street Miles - Public: _____

Not Reviewed
 Reviewed for Conformance to Street Standards and Accepted per Chapter 1.2
 Date Accepted _____
 Acceptance Comments _____

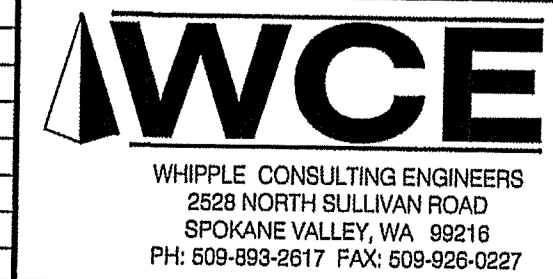


DATUM: NAVD - 88
 TBM 8-5 OF THE SOUTH PONDEROSA SEWER PROJECT
 WITH AN ELEVATION OF 2005.87 (NAVD29)=2008.67
 (NAVD88) WAS USED FOR THE VERTICAL DATUM FOR THIS MAP.

NO.	DATE	BY	REVISIONS

SCALE:
 HORIZONTAL:
 1"=30'
 VERTICAL:
 1"=10'

PROJ #: 13-1166
 DATE: 10/01/19
 DRAWN: JPP
 REVIEWED: TRW

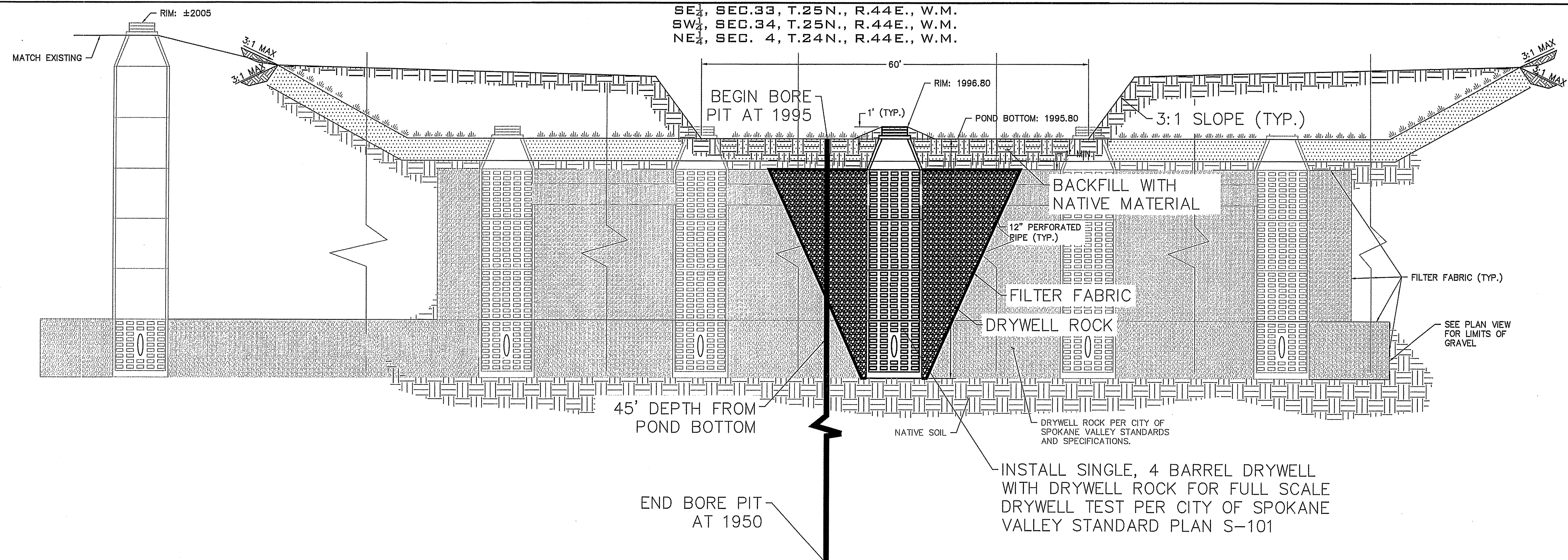


**PAINTED HILLS
 FULLSCALE DRYWELL TEST PLAN
 DISHMAN-MICA RD.
 SPOKANE VALLEY, WA**

**SHEET
 FSDWT5.00**

JOB NUMBER
13-1166A

UNDERGROUND SERVICE ALERT
ONE-CALL NUMBER
811
CALL TWO BUSINESS DAYS
BEFORE YOU DIG



TYPICAL DRAIN FIELD DETAIL
NOT TO SCALE

F

Project # FPD-16-0007
RECEIVED
OCT 04 2019
COSV PERMIT CENTER
SUB # [] REV # []

POND	QUANTITIES		
	BOTTOM (CY)	SIDE SLOPE (CY)	
	1000	180	1180 CY
DRYWELL	HAUL	ROCK	
	156	156	219 TONS

GENERAL NOTES

- GRAVEL BACKFILL QUANTITY FOR DRYWELLS: TYPE "A" - 30 CUBIC YARDS MINIMUM / 42 TONS. TYPE "B" - 40 CUBIC YARDS MINIMUM / 56 TONS. OR AS SPECIFIED ON STREET PLANS.
- GRAVEL BACKFILL FOR DRYWELLS SHALL BE WASHED DRAIN ROCK CONFORMING TO WSDOT STANDARD SPEC. 9-03.12(5).
- FABRIC SHALL BE MODERATE SURVIVABILITY AS OUTLINED IN WSDOT STANDARD SPEC. 9-33.2(1). FABRIC SHALL NOT BE WRAPPED AROUND DRYWELL BARRELS OR PLACED ON THE BOTTOM OF THE BARREL.
- SEE STANDARD PLANS S-103 TO S-105 FOR PRECAST CONCRETE DETAILS.
- PRECAST MORTARED ADJUSTMENT RINGS SHALL BE USED IN LIEU OF ADJUSTING BLOCKS.
- WHEN PVC PIPE IS USED, A PVC ADAPTER SHALL BE INSTALLED WHEN INLET PIPE IS IN THE CONE SECTION.
- PIPES SHALL BE GROUDED INTO DRYWELLS.
- GRAVEL BACKFILL TO BE COMPLETELY COVERED WITH FABRIC.

NOTE
PVC PIPE ADAPTERS AND GASKET MAY VARY IN SHAPE AND SIZE, AND SHALL MEET ASTM D-3039-78 SDR35 SPECIFICATIONS.

WATERPROOF NON-SHRINKING GROUT
DRYWELL BARREL OR CATCH BASIN WALL
PIPE (TYP.)
GASKET
PVC ADAPTER

PVC ADAPTER
USE WHEN INLET PIPE IS IN THE CONE SECTION.

DRYWELL - TYPE 'A' WITH SWALE
DRYWELL - TYPE 'B' WITH SWALE

APPROVED BY:
DAVE GALLINGER, P.E.
DEVELOPMENT SERVICES MANAGER
APPROVED FOR PUBLICATION 1/2016
REVISION DATE 1/2016

City of Spokane Valley
PRECAST DRYWELLS PLACED IN SWALE
STANDARD PLAN NO. S-101

City of Spokane Valley
Project/Permit No.:
SUB-2015-0001
(Subdivision)
FPD-2016-0007
(Flood Plain Development)
EGR-2016-0066
(Engineered Grading)

City of Spokane Valley
Development Engineering

Reviewer:
New Street Miles - Public: _____

Not Reviewed
 Reviewed for Conformance to Street Standards and Accepted per Chapter 1.2
Date Accepted _____
Acceptance Comments _____

DATUM: NAVD - 88
TBM S-5 OF THE SOUTH PONDEROSA SEWER PROJECT
WITH AN ELEVATION OF 2005.67 (NAVD29)=2009.67
(NAVD88) WAS USED FOR THE VERTICAL DATUM FOR THIS MAP.

NO.	DATE	BY	REVISIONS

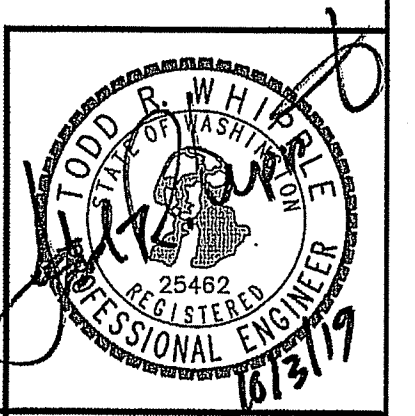
SCALE:
HORIZONTAL: N/A
VERTICAL: N/A

PROJ #: 13-1166
DATE: 10/01/19
DRAWN: JPP
REVIEWED: TRW

WCE
WHIPPLE CONSULTING ENGINEERS
2526 NORTH SULLIVAN ROAD
SPOKANE VALLEY, WA 99216
PH: 509-893-2617 FAX: 509-926-0227

PAINTED HILLS
FULLSCALE DRYWELL TEST DETAIL
DISHMAN-MICA RD.
SPOKANE VALLEY, WA

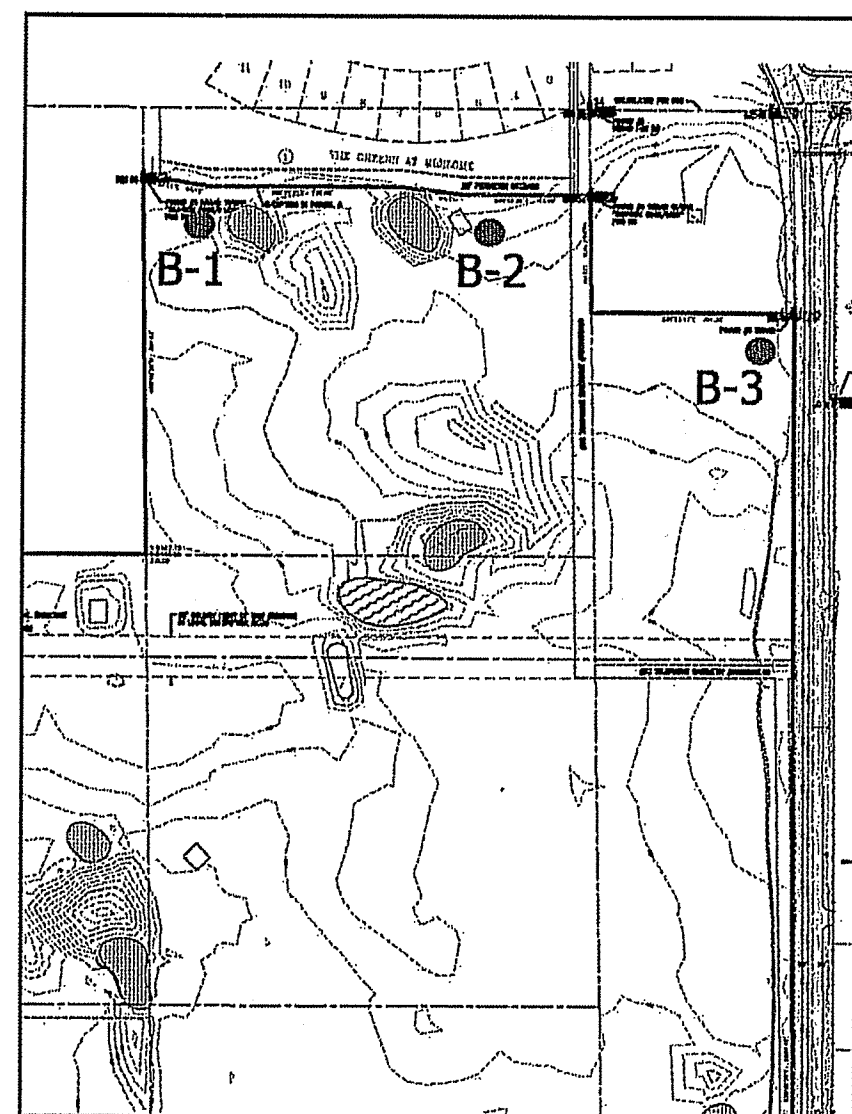
SHEET
FSDWT5.01
JOB NUMBER
13-1166A



SE 1/4, SEC. 33, T. 25N., R. 44E., W.M.
 SW 1/4, SEC. 34, T. 25N., R. 44E., W.M.
 NE 1/4, SEC. 4, T. 24N., R. 44E., W.M.

UNDERGROUND SERVICE ALERT
 ONE-CALL NUMBER
811
 CALL TWO BUSINESS DAYS
 BEFORE YOU DIG

FIGURE 3



IPEC
 Inland Pacific Engineering Company
 Geotechnical Engineering and Consulting
 3012 North Sullivan Road, Suite C
 Spokane Valley, WA 99216
 Telephone: 509-209-6262
 Fax: 509-209-6734

Boring Location Map
 Project No. 16-249
 Painted Hills Golf Course
 4403 South Dishman-Mica Road
 Spokane County, WA
 April 19, 2016

IPEC Inland Pacific Engineering Company
 3012 North Sullivan Road, Suite C
 Spokane Valley, WA 99216
 Telephone: 509-209-6262
 Fax: 509-209-6734

BORING NUMBER B-1 PAGE 1 OF 2

CLIENT: NAI Black PROJECT NAME: Painted Hills Supplemental
 PROJECT NUMBER: 16-249 PROJECT LOCATION: 4403 South Dishman-Mica Road
 DATE STARTED: 3/17/16 COMPLETED: 3/17/16 GROUND ELEVATION: 2005.8 ft HOLE SIZE: 8 inches
 DRILLING CONTRACTOR: Johnson Exploration Drilling AT TIME OF DRILLING: Not encountered
 DRILLING METHOD: Hollow Stem Auger AT END OF DRILLING: Not encountered
 LOGGED BY: PJP CHECKED BY: PTN AFTER DRILLING: Not encountered

DEPTH (ft)	TESTS	U.S.C.S. GRAPHIC LOG	MATERIAL DESCRIPTION
0	SS	SM	(SM) SILTY SAND, fine to medium grained, with roots, dark brown, moist. (Topsoil)
3.0	SS	SP-SM	(SP-SM) POORLY GRADED SAND with SILT, medium to coarse grained, a trace of Gravel, brown, moist, medium dense. (Glacial Outwash)
17.0	SS	SP	(SP) POORLY GRADED SAND with GRAVEL, medium to coarse grained, brown, moist, very dense to medium dense. (Glacial Outwash)

Notes: End of boring. Groundwater not encountered with 49' of hollow-stem auger in the ground. Groundwater not encountered immediately after withdrawal of the auger. Bore hole then abandoned.

Fines = 7%

IPEC Inland Pacific Engineering Company
 3012 North Sullivan Road, Suite C
 Spokane Valley, WA 99216
 Telephone: 509-209-6262
 Fax: 509-209-6734

BORING NUMBER B-1 PAGE 2 OF 2

CLIENT: NAI Black PROJECT NAME: Painted Hills Supplemental
 PROJECT NUMBER: 16-249 PROJECT LOCATION: 4403 South Dishman-Mica Road

DEPTH (ft)	TESTS	U.S.C.S. GRAPHIC LOG	MATERIAL DESCRIPTION
35	SS	SP	(SP) POORLY GRADED SAND with GRAVEL, medium to coarse grained, brown, moist, very dense to medium dense. (Glacial Outwash) (continued)

Notes: End of boring. Groundwater not encountered with 49' of hollow-stem auger in the ground. Groundwater not encountered immediately after withdrawal of the auger. Bore hole then abandoned.

IPEC Inland Pacific Engineering Company
 3012 North Sullivan Road, Suite C
 Spokane Valley, WA 99216
 Telephone: 509-209-6262
 Fax: 509-209-6734

BORING NUMBER B-2 PAGE 1 OF 3

CLIENT: NAI Black PROJECT NAME: Painted Hills Supplemental
 PROJECT NUMBER: 16-249 PROJECT LOCATION: 4403 South Dishman-Mica Road
 DATE STARTED: 3/17/16 COMPLETED: 3/18/16 GROUND ELEVATION: 2005.8 ft HOLE SIZE: 8 inches
 DRILLING CONTRACTOR: Johnson Exploration Drilling AT TIME OF DRILLING: Not encountered
 DRILLING METHOD: Hollow Stem Auger AT END OF DRILLING: Not encountered
 LOGGED BY: PJP CHECKED BY: PTN AFTER DRILLING: Not encountered

DEPTH (ft)	TESTS	U.S.C.S. GRAPHIC LOG	MATERIAL DESCRIPTION
0	SS	SM	(SM) SILTY SAND, fine to medium grained, with roots, dark brown, moist. (Topsoil)
2.0	SS	SC	(SC) CLAYEY SAND with GRAVEL, medium to coarse grained, brown, moist to wet, dense. (Glacial Outwash)
8.0	SS	GC	(GC) CLAYEY GRAVEL with SAND, fine to coarse grained, brown, moist, dense. (Glacial Outwash)
12.0	SS	SP	(SP) POORLY GRADED SAND with GRAVEL, medium to coarse grained, a trace of Cobbles, brown, moist, very dense to medium dense. (Glacial Outwash)

Notes: End of boring. Groundwater not encountered with 49' of hollow-stem auger in the ground. Groundwater not encountered immediately after withdrawal of the auger. Bore hole then abandoned.

Fines = 8%

IPEC Inland Pacific Engineering Company
 3012 North Sullivan Road, Suite C
 Spokane Valley, WA 99216
 Telephone: 509-209-6262
 Fax: 509-209-6734

BORING NUMBER B-2 PAGE 2 OF 3

CLIENT: NAI Black PROJECT NAME: Painted Hills Supplemental
 PROJECT NUMBER: 16-249 PROJECT LOCATION: 4403 South Dishman-Mica Road

DEPTH (ft)	TESTS	U.S.C.S. GRAPHIC LOG	MATERIAL DESCRIPTION
35	SS	SP	(SP) POORLY GRADED SAND with GRAVEL, medium to coarse grained, a trace of Cobbles, brown, moist, very dense to medium dense. (Glacial Outwash) (continued)

Notes: End of boring. Groundwater encountered at 71' with 75' of hollow-stem auger in the ground. Groundwater encountered at 73.5' 10 minutes later. Groundwater not encountered to cave-in depth of 15' immediately after withdrawal of the auger. Bore hole then abandoned.

IPEC Inland Pacific Engineering Company
 3012 North Sullivan Road, Suite C
 Spokane Valley, WA 99216
 Telephone: 509-209-6262
 Fax: 509-209-6734

BORING NUMBER B-2 PAGE 3 OF 3

CLIENT: NAI Black PROJECT NAME: Painted Hills Supplemental
 PROJECT NUMBER: 16-249 PROJECT LOCATION: 4403 South Dishman-Mica Road

DEPTH (ft)	TESTS	U.S.C.S. GRAPHIC LOG	MATERIAL DESCRIPTION
35	SS	SP	(SP) POORLY GRADED SAND with GRAVEL, medium to coarse grained, a trace of Cobbles, brown, moist, very dense to medium dense. (Glacial Outwash) (continued)

Notes: End of boring. Groundwater encountered at 71' with 75' of hollow-stem auger in the ground. Groundwater encountered at 73.5' 10 minutes later. Groundwater not encountered to cave-in depth of 15' immediately after withdrawal of the auger. Bore hole then abandoned.

IPEC Inland Pacific Engineering Company
 3012 North Sullivan Road, Suite C
 Spokane Valley, WA 99216
 Telephone: 509-209-6262
 Fax: 509-209-6734

BORING NUMBER B-3 PAGE 1 OF 2

CLIENT: NAI Black PROJECT NAME: Painted Hills Supplemental
 PROJECT NUMBER: 16-249 PROJECT LOCATION: 4403 South Dishman-Mica Road
 DATE STARTED: 3/18/16 COMPLETED: 3/18/16 GROUND ELEVATION: 2004.5 ft HOLE SIZE: 8 inches
 DRILLING CONTRACTOR: Johnson Exploration Drilling AT TIME OF DRILLING: Not encountered
 DRILLING METHOD: Hollow Stem Auger AT END OF DRILLING: Not encountered
 LOGGED BY: PJP CHECKED BY: PTN AFTER DRILLING: Not encountered

DEPTH (ft)	TESTS	U.S.C.S. GRAPHIC LOG	MATERIAL DESCRIPTION
0	SS	ML	(ML) SANDY SILT, with roots, dark brown, moist. (Topsoil)
3.0	SS	GC	(GC) CLAYEY GRAVEL with SAND, fine to coarse grained, brown, moist, dense. (Glacial Outwash)
10.0	SS	SC	(SC) CLAYEY SAND with GRAVEL, medium to coarse grained, brown, moist to wet, dense. (Glacial Outwash)
12.0	SS	GC	(GC) SILTY CLAYEY GRAVEL with SAND, fine to coarse grained, brown, moist, medium dense. (Glacial Outwash)
18.0	SS	SP	(SP) POORLY GRADED SAND with GRAVEL, medium to coarse grained, a trace of Cobbles, brown, moist, very dense to medium dense. (Glacial Outwash)

Notes: End of boring. Groundwater not encountered with 49' of hollow-stem auger in the ground. Groundwater not encountered immediately after withdrawal of the auger. Bore hole then abandoned.

Fines = 6%

IPEC Inland Pacific Engineering Company
 3012 North Sullivan Road, Suite C
 Spokane Valley, WA 99216
 Telephone: 509-209-6262
 Fax: 509-209-6734

BORING NUMBER B-3 PAGE 2 OF 2

CLIENT: NAI Black PROJECT NAME: Painted Hills Supplemental
 PROJECT NUMBER: 16-249 PROJECT LOCATION: 4403 South Dishman-Mica Road

DEPTH (ft)	TESTS	U.S.C.S. GRAPHIC LOG	MATERIAL DESCRIPTION
35	SS	SP	(SP) POORLY GRADED SAND with GRAVEL, medium to coarse grained, a trace of Cobbles, brown, moist, very dense to medium dense. (Glacial Outwash) (continued)

Notes: End of boring. Groundwater not encountered with 49' of hollow-stem auger in the ground. Groundwater not encountered immediately after withdrawal of the auger. Bore hole then abandoned.

Project # FPD-16-0007
RECEIVED
 OCT 0 4 2019
 COSV PERMIT CENTER
 SUB # REV #

City of Spokane Valley
 Project/Permit No.:
 SUB-2015-0001
 FPD-2016-0007
 (Flood Plain Development)
 EGR-2016-0066
 (Engineered Grading)

City of Spokane Valley
 Development Engineering

Reviewer: _____
 New Street Miles - Public: _____

Not Reviewed
 Reviewed for Conformance to Street Standards and Accepted per Chapter 1.2
 Data Accepted
 Acceptance Comments



DATUM: NAVD - 88
 TBM 9-5 OF THE SOUTH PONDEROSA SEWER PROJECT
 WITH AN ELEVATION OF 2005.87 (NAVD29) = 2009.67
 (NAVD88) WAS USED FOR THE VERTICAL DATUM FOR THIS MAP.

NO.	DATE	BY	REVISIONS

SCALE:
 HORIZONTAL: N/A
 VERTICAL: N/A

PROJ #: 13-1166
 DATE: 10/01/19
 DRAWN: JPP
 REVIEWED: TRW

IWCE
 WHIPPLE CONSULTING ENGINEERS
 2520 NORTH SULLIVAN ROAD
 SPOKANE VALLEY, WA 99216
 PH: 509-893-2617 FAX: 509-928-0227

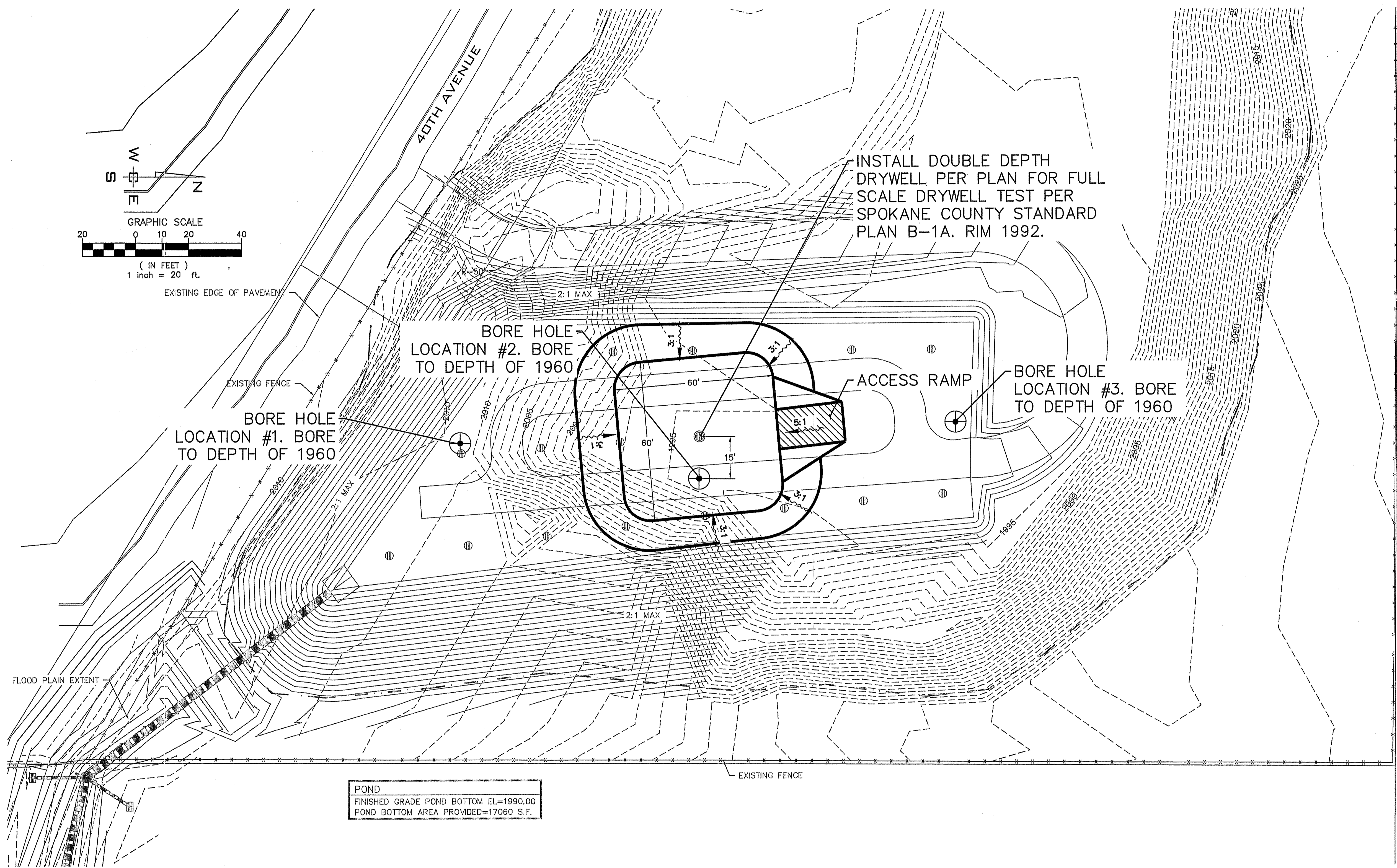
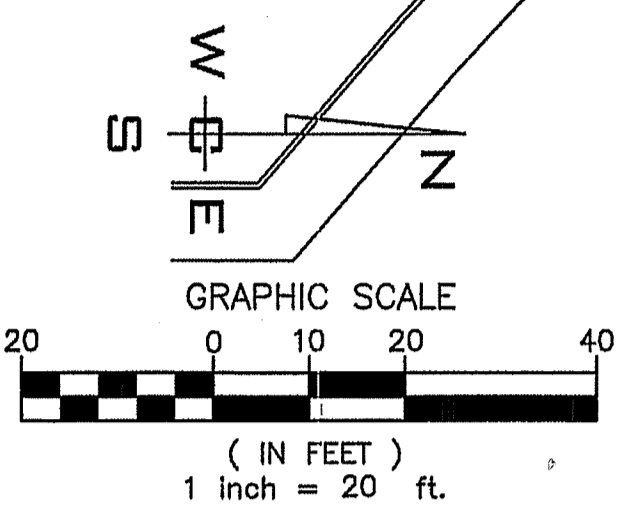
**PAINTED HILLS
 EXISTING BOREHOLE LOGS
 DISHMAN-MICA RD.
 SPOKANE VALLEY, WA**

**SHEET
 FSDWT5.02**

JOB NUMBER
13-1166A

SE 1/4, SEC. 33, T. 25N., R. 44E., W.M.
 SW 1/4, SEC. 34, T. 25N., R. 44E., W.M.
 NE 1/4, SEC. 4, T. 24N., R. 44E., W.M.

UNDERGROUND SERVICE ALERT
 ONE-CALL NUMBER
811
 CALL TWO BUSINESS DAYS
 BEFORE YOU DIG



POND
 FINISHED GRADE POND BOTTOM EL=1990.00
 POND BOTTOM AREA PROVIDED=17060 S.F.

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

- 10 PER CENT ELKA PERENNIAL RYE
- 20 PERCENT DURAR HARD FESCUE
- 45 PERCENT COVAR SHEEP/FESCUE
- 15 PERCENT 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 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, SECTION 8-01.

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

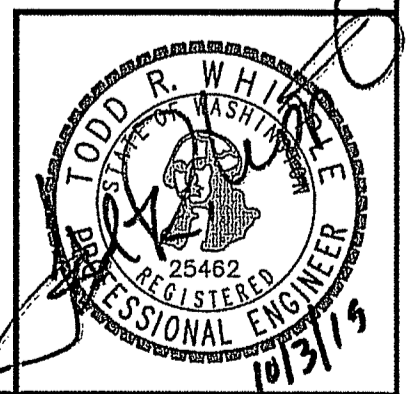
- GRASS SEED MIX: SWORD HARD FESCUE (FESTUCA LONGIFOLIA)

NEW SEEDING RATE: 2-4 LBS/1,000 SQ FT

PROVIDER: LANDMARK TURF & NATIVE SEED
 PH: (509) 835-4987

Project # **FPD-16-0007**
RECEIVED
 OCT 04 2019
 COSV PERMIT CENTER
 SUB # REV. #

Spokane County Permit No.:



DATUM: NAVD - 88
 TBM S-5 OF THE SOUTH PONDEROSA SEWER PROJECT WITH AN ELEVATION OF 2005.87 (NAVD29)=2009.67 (NAVD88) WAS USED FOR THE VERTICAL DATUM FOR THIS MAP.

NO.	DATE	BY	REVISIONS

SCALE:
 HORIZONTAL: 1" = 20'
 VERTICAL: N/A

PROJ #: 13-1166
 DATE: 10/01/19
 DRAWN: JPP
 REVIEWED: TRW

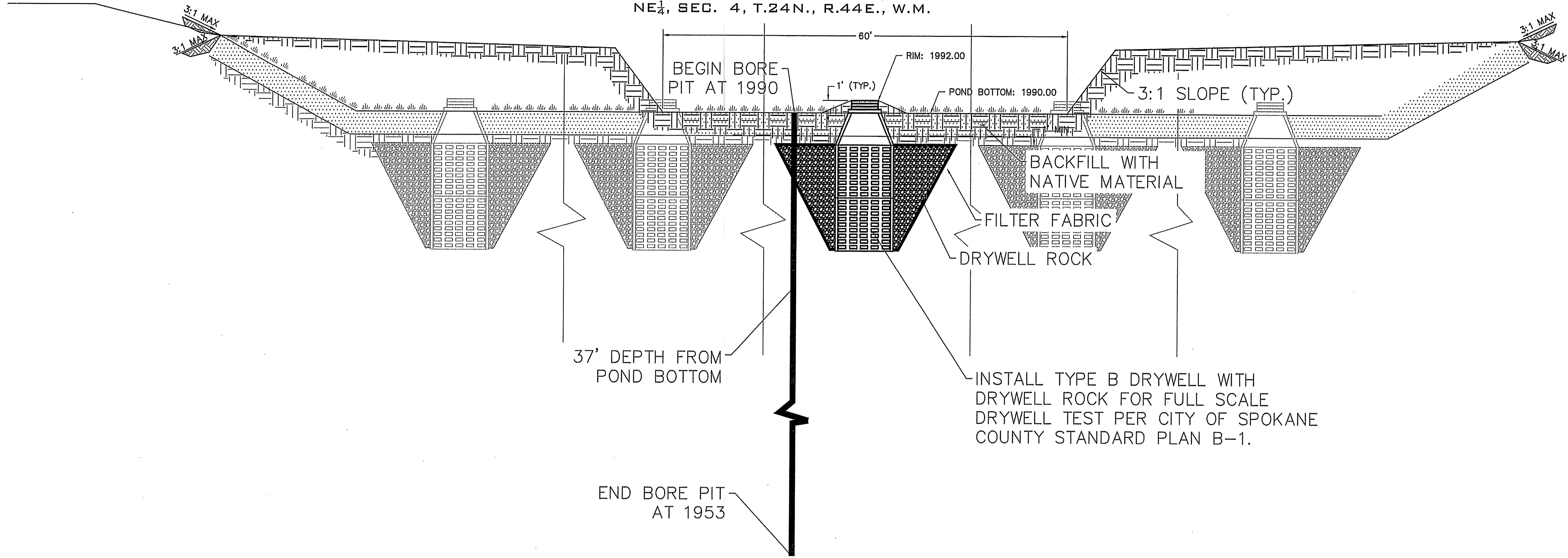
WCE
 WHIPPLE CONSULTING ENGINEERS
 2828 NORTH SULLIVAN ROAD
 SPOKANE VALLEY, WA 99216
 PH: 509-893-2617 FAX: 509-925-0227

PAINTED HILLS
FULLSCALE DRYWELL TEST PLAN
DISHMAN-MICA RD.
SPOKANE VALLEY, WA

SHEET
FSDWT5.10
 JOB NUMBER
13-1166A

SE 1/4, SEC. 33, T. 25N., R. 44E., W.M.
 SW 1/4, SEC. 34, T. 25N., R. 44E., W.M.
 NE 1/4, SEC. 4, T. 24N., R. 44E., W.M.

UNDERGROUND SERVICE ALERT
 ONE-CALL NUMBER
811
 CALL TWO BUSINESS DAYS
 BEFORE YOU DIG



TYPICAL DRAIN FIELD DETAIL

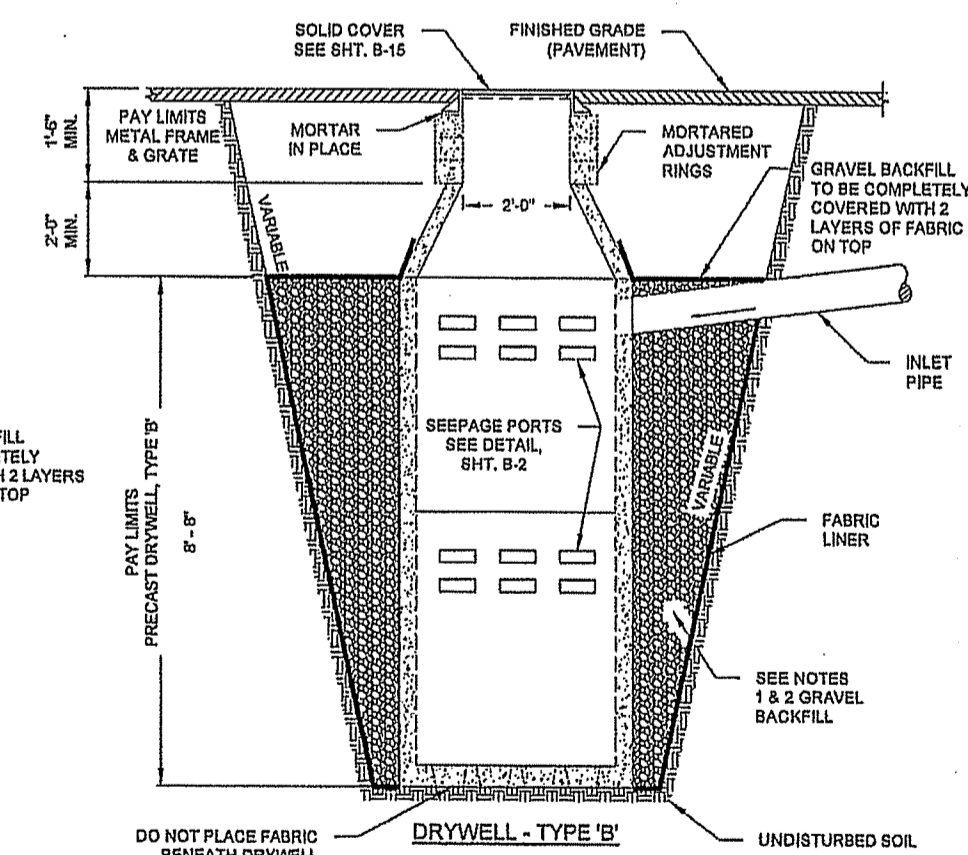
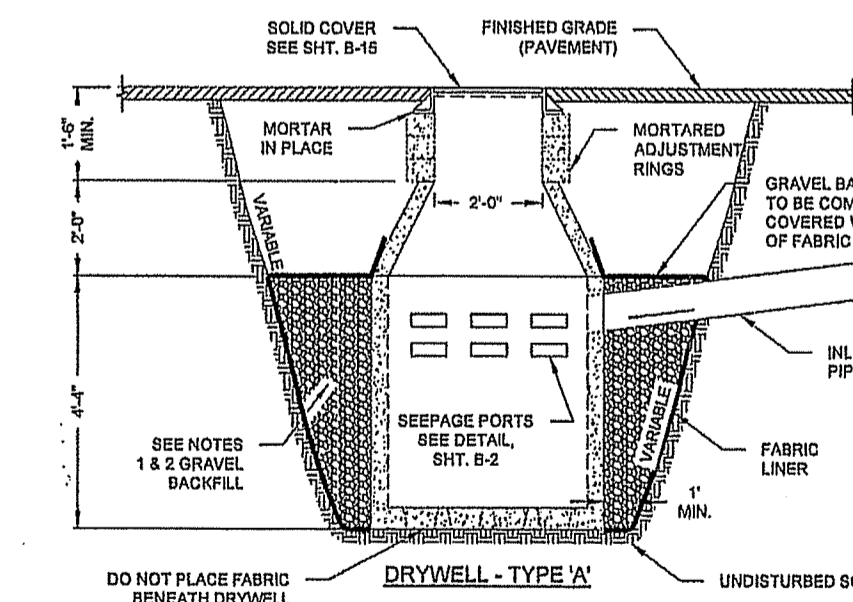
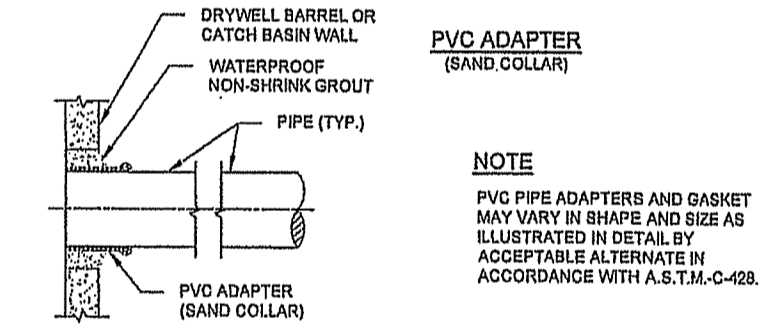
NOT TO SCALE

F

POND	QUANTITIES		
	BOTTOM (CY)	SIDE SLOPE (CY)	
	700	80	780 CY
DRYWELL	HAUL	ROCK	
	40	40	56 TONS

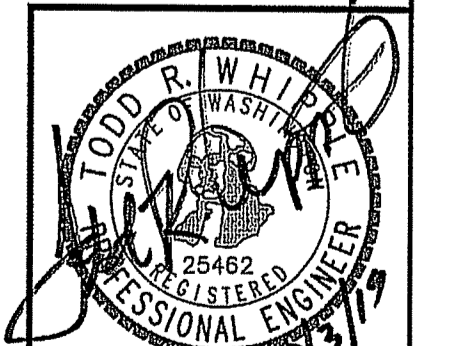
GENERAL NOTES

- GRAVEL BACKFILL QUANTITY FOR DRYWELLS:
 TYPE "A" - 30 CUBIC YARDS MINIMUM / 42 TONS
 TYPE "B" - 30 CUBIC YARDS MINIMUM / 60 TONS
 OR AS SPECIFIED ON ROAD PLANS.
- SPECIAL BACKFILL MATERIAL FOR DRYWELLS SHALL CONSIST OF WASHED GRAVEL GRADED FROM 1" TO 2" WITH A MAXIMUM OF 10% 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.
- FABRIC SHALL BE MODERATE DURABILITY NON-WOVEN AS OUTLINED IN STANDARD SPECIFICATIONS 9-31.
- SEE STANDARD PLANS SHEETS B-2 AND B-3 FOR PRECAST CONCRETE DETAILS.
- ADJUSTMENT BLOCKS SHALL BE CEMENT CONCRETE.
- PRECAST RISER MAY BE USED IN COMBINATION WITH OR IN LIEU OF ADJUSTING BLOCKS.
- WHEN PVC PIPE IS USED A PVC ADAPTER SHALL BE INSTALLED.
- PIPES SHALL BE GROUDED INTO DRYWELLS WITH NON-SHRINK GROUT.
- DRYWELLS LOCATED IN SWALES SHALL HAVE A RIM ELEVATION 6" ABOVE SWALE FLOOR. USE METAL FRAME TYPE 4 AND GRATE TYPE 4 (SEE SHEET B-15).



Project # FPD-16-0007
RECEIVED
 OCT 04 2019
 COSV PERMIT CENTER
 SUB # [] REV. # []

Spokane County Permit No.:



DATUM: NAVD - 88
 TBM 9-5 OF THE SOUTH PONDEROSA SEWER PROJECT
 WITH AN ELEVATION OF 2005.87 (NAVD29) = 2000.67
 (NAVD88) WAS USED FOR THE VERTICAL DATUM FOR THIS
 MAP.

NO.	DATE	BY	REVISIONS

SCALE:	PROJ #: 13-1166	<input checked="" type="checkbox"/> CIVIL
HORIZONTAL:	DATE: 10/01/19	<input type="checkbox"/> STRUCTURAL
VERTICAL:	DRAWN: JPP	<input type="checkbox"/> SURVEYING
	REVIEWED: TRW	<input type="checkbox"/> TRAFFIC
		<input type="checkbox"/> PLANNING
		<input type="checkbox"/> LANDSCAPE
		<input type="checkbox"/> OTHER

IWCE
 WHIPPLE CONSULTING ENGINEERS
 2628 NORTH SULLIVAN ROAD
 SPOKANE VALLEY, WA 99216
 PH: 509-893-2817 FAX: 509-928-0227

**PAINTED HILLS
 FULLSCALE DRYWELL TEST DETAIL
 DISHMAN-MICA RD.
 SPOKANE VALLEY, WA**

**SHEET
 FSDWT5.11**
 JOB NUMBER
 13-1166A