



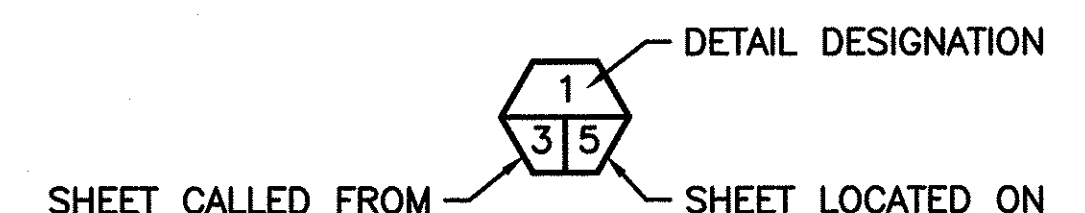
# WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

## CHELAN WILDLIFE AREA – SWAKANE UNIT SWAKANE CANYON RIFLE & PISTOL RANGE CN:R21:2019-1

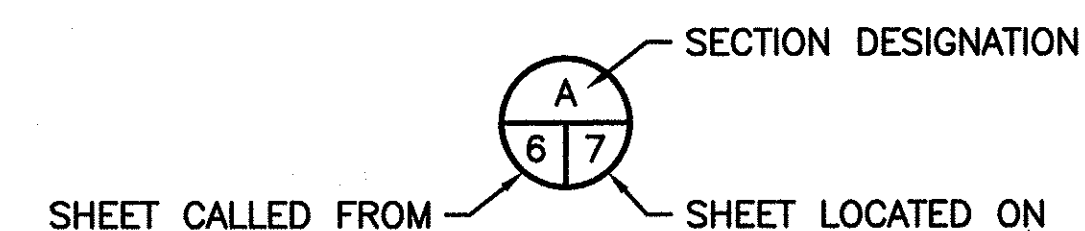
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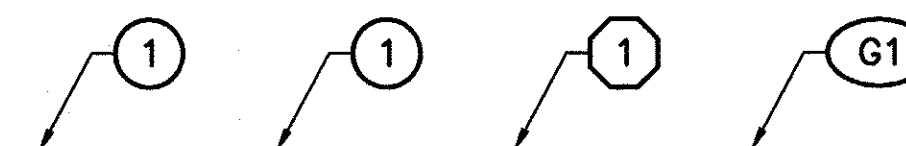
### SHEET SYMBOLS



#### DETAIL



#### SECTION



#### NOTE REFERENCE

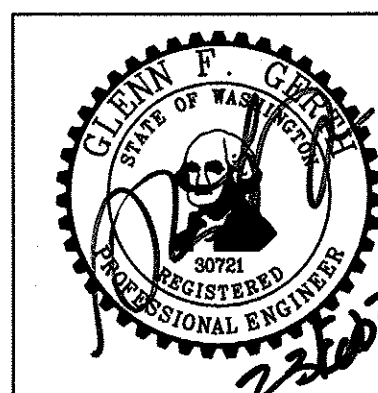
REFERENCE DESIGNATION TO A  
NOTE, A PART, OR MATERIAL IN A  
SCHEDULE/TABLE

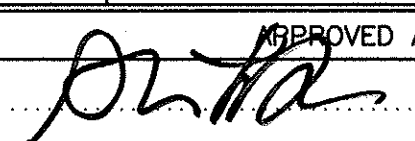
### ABBREVIATIONS

ALUM	-	ALUMINUM
L	-	ANGLE
APPROX	-	APPROXIMATELY
BM	-	BENCH MARK
BVCE	-	BEGIN VERTICAL CURVE ELEVATION
BVCS	-	BEGIN VERTICAL CURVE STATION
CL	-	CENTERLINE
CMP	-	CORRUGATED METAL PIPE
CPP	-	CORRUGATED PLASTIC PIPE
CLR	-	CLEARANCE
CONC	-	CONCRETE
CSBC	-	CRUSHED SURFACE BASE COURSE
CSTC	-	CRUSHED SURFACE TOP COURSE
DIA	-	DIAMETER
ELEV	-	ELEVATION
EVCE	-	END VERTICAL CURVE ELEVATION
EVCS	-	END VERTICAL CURVE STATION
FTG	-	FOOTING
GALV	-	GALVANIZED
ID	-	INSIDE DIAMETER
IE	-	INVERT ELEVATION
LVC	-	LENGTH OF VERTICAL CURVE
MFG	-	MANUFACTURER'S
MISC	-	MISCELLANEOUS
NIC	-	NOT IN CONTRACT
OC	-	ON CENTER
OD	-	OUTSIDE DIAMETER
PL	-	PLATE
PVI	-	POINT OF VERTICAL INTERSECTION
REQ'D	-	REQUIRED
SEC	-	SECTION
SPEC'S	-	PROJECT SPECIFICATIONS
SS	-	STAINLESS STEEL
SQ	-	SQUARE
STA	-	STATION
TYP	-	TYPICAL



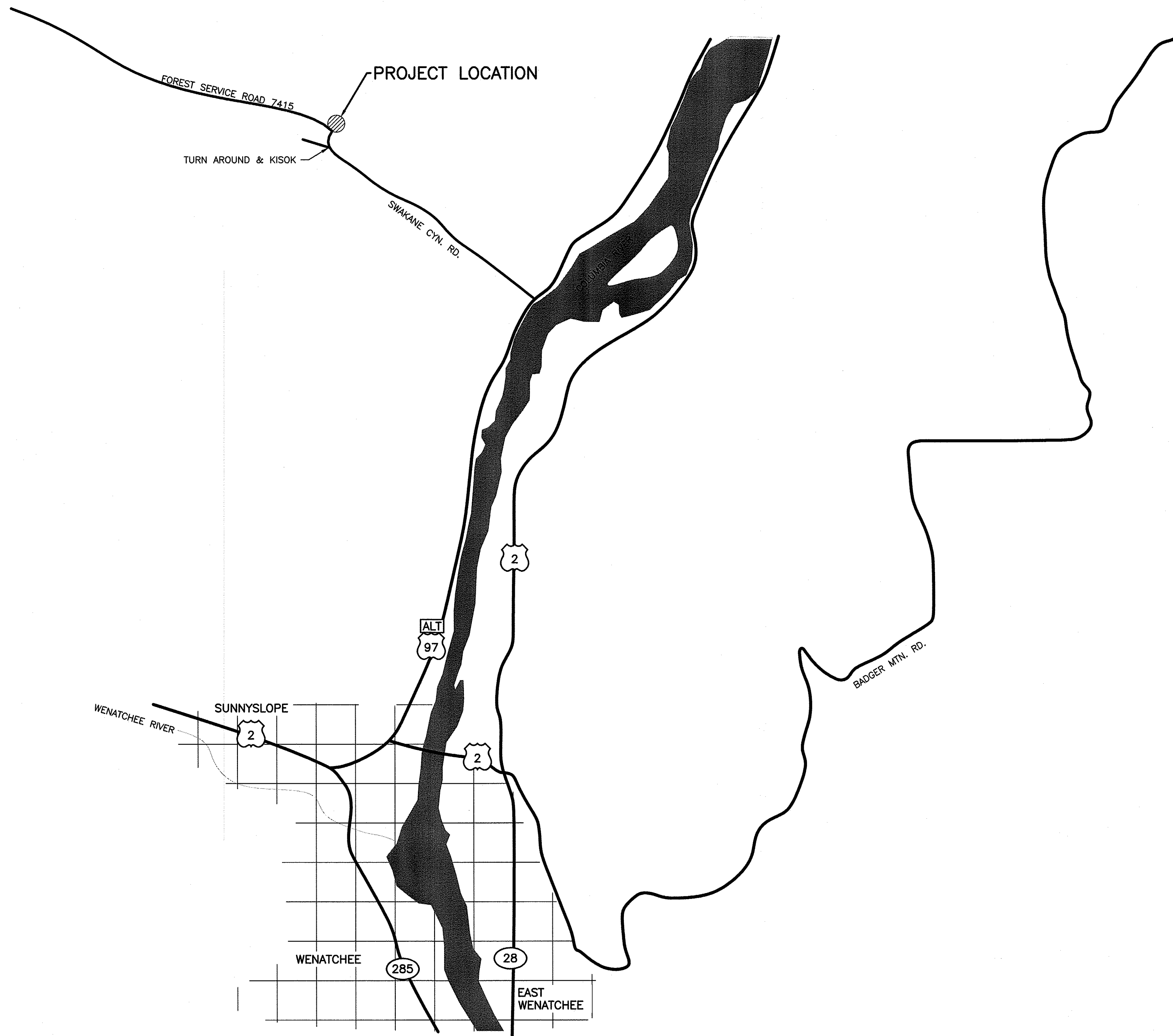
KNOW WHAT'S BELOW  
CALL BEFORE YOU DIG



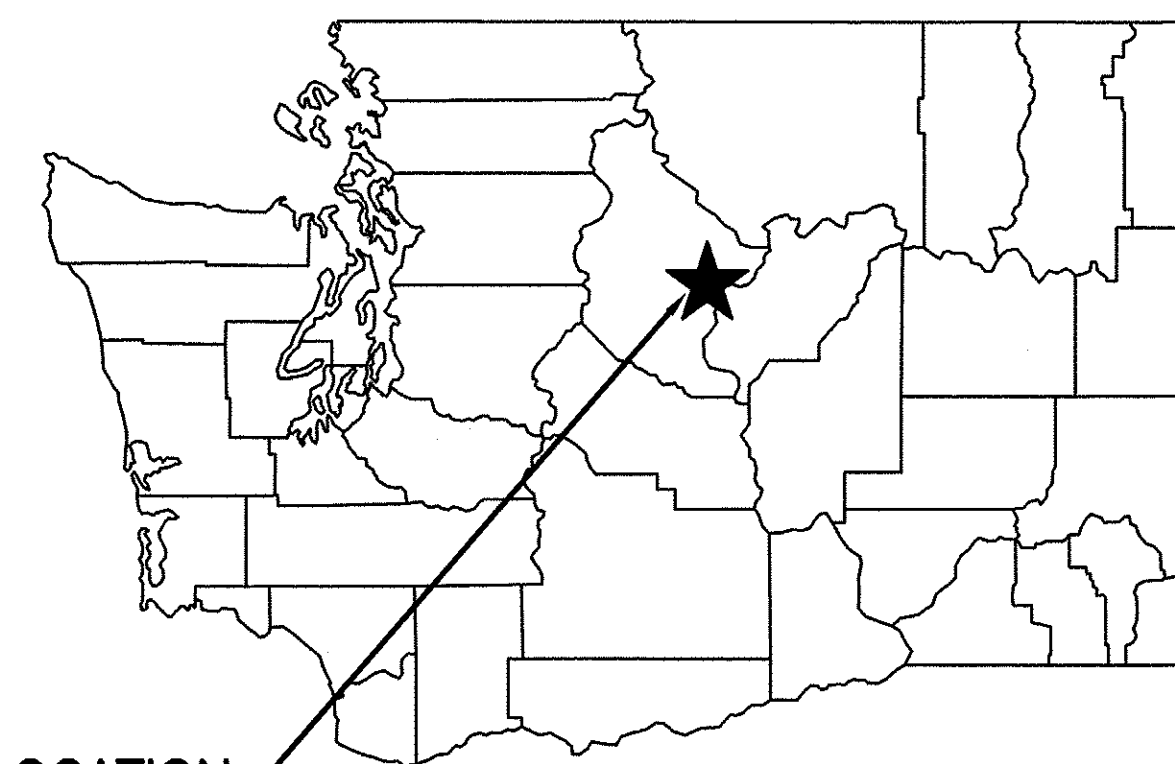
SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER		DATE: 2/26/21	
PROGRAM		DATE:	

ACCEPTANCE BLOCK:	
THESE PLANS HAVE BEEN REVIEWED BY CHELAN COUNTY PUBLIC WORKS AND HAVE BEEN ACCEPTED FOR COMPLYING WITH THE REQUIREMENTS OF CHELAN COUNTY ROAD STANDARDS. THESE PLANS ARE VALID FOR FIVE YEARS FROM THE DATE OF ACCEPTANCE.	
COUNTY ENGINEER	_____
DATE	_____

PROJECT NO.	
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SHEET	OF
1	20



VICINITY MAP  
NOT TO SCALE



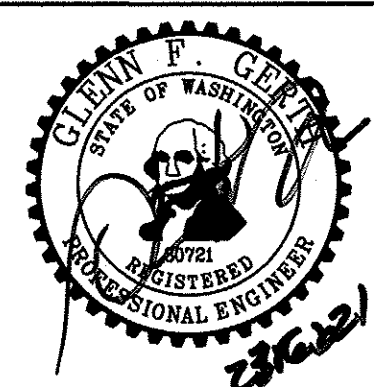
PROJECT LOCATION

STATE MAP  
NOT TO SCALE

**DRIVING DIRECTIONS**

FROM DOWNTOWN WENATCHEE FOLLOW N WENATCHEE AVE TO EASY ST/OLD STATE HWY 2 IN SUNNYSLOPE. TAKE THE EASY STREET EXIT FROM N WENATCHEE AVE. THEN TAKE PENNY RD AND EUCLID AVE TO US-97 ALT N, THEN FOLLOW US-97 ALT N TO SWAKANE RD TURN LEFT AND FOLLOW FOR 1.8 MILES. PROJECT SITE IS JUST BEYOND TURN AROUND & KISOK SIGN.

WASHINGTON DEPARTMENT OF  
**FISH & WILDLIFE**



SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
CHIEF ENGINEER		DATE: 2/18/21	
PROGRAM		DATE: 02/23/21	
		DESIGNED BY WDFW	
		CHECKED BY D. SMITH	
		DRAWN BY J. LONG	
		DATE 02/23/21	

CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
STATE & VICINITY MAP

PROJECT NO.  
CN:R21:2019-1

SHEET  
2  
OF  
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STANDARD PLAN NOTES:

- ALL CONSTRUCTION TECHNIQUES AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT CHELAN COUNTY AND WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE (WDFW) STANDARDS AND AS SHOWN IN THESE PLANS.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS OR DESIGNATED TO BE PROVIDED, INSTALLED, CONSTRUCTED, REMOVED AND RELOCATED UNLESS SPECIFICALLY NOTED OTHERWISE.
- A COPY OF THE APPROVED PLANS MUST BE ON SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR WORK THAT ARE NOT PROVIDED BY THE WDFW PRIOR TO START OF CONSTRUCTION.
- PRIOR TO ANY CONSTRUCTION ACTIVITY, CONTRACTOR SHALL SCHEDULE AND ATTEND A PRE-CONSTRUCTION MEETING WITH THE WDFW, THE COUNTY, AND OWNER'S REPRESENTATIVE. CONTRACTOR SHALL NOTIFY THE OWNER'S PROFESSIONAL ENGINEERING CONSULTANT AND CHELAN COUNTY OF PUBLIC WORKS OF THE PRE-CONSTRUCTION MEETING TIME AND LOCATION.
- ALL WORK OPERATIONS CONDUCTED ON THE PROJECT SITE, INCLUDING BUT NOT LIMITED TO WARMING UP, REPAIR, ARRIVAL AND/OR DEPARTURE OF ANY CONSTRUCTION EQUIPMENT SHALL BE LIMITED TO THE HOURS OF 6AM TO SUNSET EVERY DAY UNLESS OTHERWISE APPROVED BY WDFW AND CHELAN COUNTY.
- ALL SURVEYING AND STAKING OF IMPROVEMENTS SHALL BE APPROVED BY WDFW. CONTRACTOR SHALL COORDINATE AND VERIFY WITH THE DEPARTMENT OF FISH AND WILDLIFE PRIOR TO OBTAINING STAKING SERVICES.
- CONTRACTOR SHALL NOTIFY CHELAN FIRE AND RESCUE/FIRE DISTRICT (509-682-4476) OF ALL CONSTRUCTION ACTIVITIES ON THIS PROJECT.
- ALL LOCATIONS OF EXISTING UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HEREON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN.
- CONTRACTOR SHALL LOCATE AND PROTECT ALL ACTIVE CASTINGS AND UTILITIES DURING CONSTRUCTION AND SHALL CONTACT THE UNDERGROUND UTILITIES LOCATOR SERVICE (1-800-424-5555) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLE RIMS, DRAINAGE STRUCTURE LIDS, VALVE BOXES AND UTILITY ACCESS STRUCTURES TO FINISH GRADE WITHIN AREAS AFFECTED BY THE PROPOSED IMPROVEMENTS.
- CONTRACTOR SHALL PROVIDE FOR ALL COMPACTION TESTS REQUIRED BY THE INSPECTOR.
- BACKFILL MATERIAL SHALL MEET THE GRADING NOTES PROVIDED HEREIN AND THE RECOMMENDATIONS PROVIDED BY THE GEOTECHNICAL ENGINEER.
- INSPECTION AND ACCEPTANCE OF ALL WORK WILL BE ACCOMPLISHED BY THE COUNTY INSPECTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE AND SCHEDULE APPROPRIATE INSPECTIONS, ALLOWING PROPER ADVANCE NOTICE. THE INSPECTOR MAY REQUIRE RECONSTRUCTION OF ITEMS THAT DO NOT MEET THE CONTRACT DOCUMENTS OR THAT WERE CONSTRUCTED WITHOUT INSPECTION.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN BEST MANAGEMENT PRACTICES AS SHOWN HEREIN TO INSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE WATER OF THE STATE. AS CONSTRUCTION PROGRESSES AND UNEXPECTED (SEASONAL) CONDITIONS DICTATE, ADDITIONAL BEST MANAGEMENT PRACTICES MAY BE REQUIRED. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES THAT MAY BE NEEDED TO PROTECT ADJACENT PROPERTIES.
- CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AS NECESSARY THROUGHOUT THE PROJECT. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND CHELAN COUNTY STANDARDS.
- CONTRACTOR SHALL COORDINATE ALL ELECTRICAL WORK WITH PACIFIC POWER.
- CONTRACTOR SHALL NOT MAKE ANY REVISIONS IN THE FIELD WITHOUT PRIOR WRITTEN APPROVAL BY WDFW AND/OR THE ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. ALL SECTIONS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS 1-07.23 - TRAFFIC CONTROL, SHALL APPLY.
- ANY TRENCH DEEPER THAN 4 FEET WILL REQUIRE SHORING OR ANOTHER METHOD FOR TRENCH WALL STABILIZATION.

EARTHWORK NOTES:

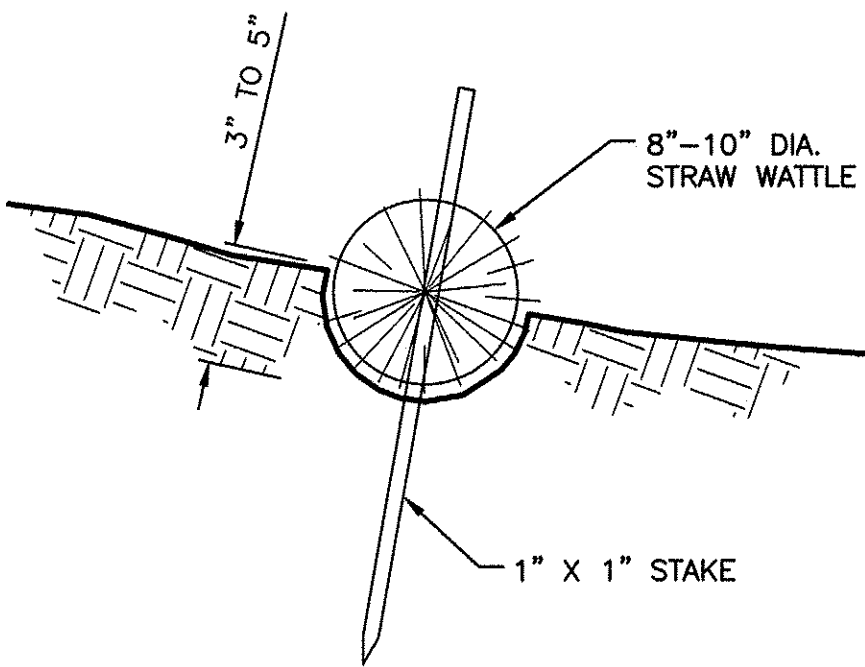
- THE EARTHWORK QUANTITIES SHOWN ARE PROVIDED FOR THE PERMITTING PURPOSES ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CARRY OUT THE CUT/FILL, IMPORT/EXPORT AS NECESSARY TO MEET THE DESIGN GRADES AS SHOWN ON THE PLANS REGARDLESS OF THE ESTIMATED EARTHWORK QUANTITIES AS INDICATED. SIGNIFICANT REVISIONS TO THE QUANTITIES REQUIRE REVIEW BY THE WDFW AND/OR ENGINEER.
- IT SHALL BE CONTRACTOR'S RESPONSIBILITY TO INCLUDE ALL MATERIAL AND LABOR REQUIRED WITHIN THE BID PRICE, FOR EARTHWORK CONSTRUCTION, TO CARRY OUT THE CUT/FILL AND/OR IMPORT/EXPORT AS NECESSARY TO MEET THE DESIGN GRADES SHOWN ON THE PLANS. CONTRACTOR IS TO DELIVER TO WDFW THE PROJECT IN A COMPLETE AND OPERATIONAL MANNER. EARTHWORK QUANTITIES SHOWN ON THE PLANS OR REPRESENTED BY THE ENGINEER ARE APPROXIMATE AND ARE FOR PERMITTING PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR ANY INVESTIGATION OR STUDIES THAT ARE REQUIRED BY THE CONTRACTOR TO SATISFY THIS REQUIREMENT. NO ADDITIONAL COMPENSATION SHALL BE PAID FOR SAID CUT/FILL AND/OR IMPORT/EXPORT.

STANDARD GRADING NOTES:

- NATIVE ON-SITE SILTY/SANDY SOILS ARE SUITABLE FOR USE AS ENGINEERED FILL. NATIVE ON-SITE SOILS SHALL BE FREE OF SIGNIFICANT ORGANICS, OVERSIZE MATERIAL GREATER THAN 4-INCHES, OR OTHER DELETERIOUS MATTER.
- NATIVE ON-SITE SOIL SHALL BE PLACED IN MAXIMUM 12-INCH LIFTS (LOOSE) AND COMPACTED TO AT LEAST 92 PERCENT RELATIVE COMPACTION AS DETERMINED BY ASTM D1557 OR 95 PERCENT OF ASTM D698 NEAR ITS OPTIMUM MOISTURE CONTENT.
- NATIVE ON-SITE SOILS MAY BE PRONE TO CAVING IN DEEPER EXCAVATION. CONTRACTOR SHALL ENSURE THAT APPROPRIATE MEASURES AND SAFETY PRECAUTIONS ARE IMPLEMENTED DURING THESE OPERATIONS.
- NATIVE ON-SITE SILTY SOILS ARE SUSCEPTIBLE TO WIND AND EROSION WHEN EXPOSED DURING GRADING OPERATIONS. CONTRACTOR SHALL IMPLEMENT APPROPRIATE BMPs TO CONTROL DUST, EROSION AND SEDIMENT IN RUNOFF.
- SITE GRADING SHOULD BE PERFORMED DURING DRYER PERIODS OF THE YEAR. NO FILL SHALL BE PLACED ON FROZEN SURFACE. UNPROTECTED SUBGRADE SOILS COULD DETERIORATE UNDER CONSTRUCTION TRAFFIC DURING INCLEMENT WEATHER CONDITIONS AND CONSTRUCTION EQUIPMENT SHOULD BE FORBIDDEN FROM TRAVERSING PREPARED SUBGRADE SOILS DURING INCLEMENT WEATHER CONDITIONS (WET WEATHER).
- COMPACTION TESTING SHALL BE DONE IN THE FIELD WITH A NUCLEAR DENSITY GAUGE IN ACCORDANCE WITH ASTM D6938.
- IMPORTED SOILS USED FOR CONSTRUCTION OF EARTHEN BERMS SHALL CONFORM WITH WSDOT SPEC. SECTION 9-03.14(1) (GRAVEL BORROW).
- ALL EXCESS SOIL SHALL BE SPREAD ON-SITE AS SHOWN IN THESE PLANS.

DISCREPANCIES:

IF THERE ARE ANY DISCREPANCIES BETWEEN DIMENSIONS IN DRAWINGS AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF ALL WORK AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED UPON THIS CONTRACT.



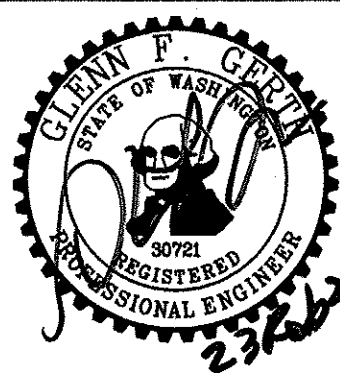
STRAW WATTLE DETAIL

NOT TO SCALE

CONSTRUCTION SPECIFICATIONS:

- STRAW WATTLES SHALL BE INSTALLED PERPENDICULAR TO WATER MOVEMENT, PARALLEL TO THE SLOPE CONTOUR.
- NARROW TRENCHES SHALL BE DUG ACROSS THE SLOPE ON CONTOUR TO A DEPTH OF 3- TO 5-INCHES ON CLAY SOILS AND SOILS WITH GRADUAL SLOPES. ON LOOSE SOILS, STEEP SLOPES, AND AREAS WITH HIGH RAINFALL, THE TRENCHES SHALL BE DUG TO A DEPTH OF 5- TO 7- INCHES, OR 1/2 TO 2/3 OF THE THICKNESS OF THE WATTLE.
- CONSTRUCT TRENCHES AT CONTOUR INTERVALS OF 3-12 FEET APART DEPENDING ON STEEPNESS OF SLOPE. THE STEEPER THE SLOPE, THE CLOSER TOGETHER THE TRENCHES. 1:1=10' 2:1=20' 3:1=30' 4:1=40'
- INSTALL ROLLS FROM THE BOTTOM OF THE SLOPE AND WORK UP. SPREAD EXCAVATED MATERIAL EVENLY ALONG THE UPHILL SLOPE AND COMPACTED USING HAND TAMPING OR OTHER METHODS.
- LAY THE ROLL ALONG THE TRENCHES FITTING IT SNUGLY AGAINST THE SOIL. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE STRAW WATTLE. THE WATTLE ENDS SHALL ABUT TIGHTLY END TO END AND NOT OVERLAP.
- IF REQUIRED USE A STRAIGHT BAR TO DRIVE PILOT HOLES THROUGH THE WATTLE AND INTO THE SOIL FOR THE WILLOW OR WOODEN STAKES.
- DRIVE THE STAKE THROUGH PREPARED HOLE INTO SOIL. LEAVE ONLY 1 OR 2 INCHES OF STAKE EXPOSED ABOVE ROLL.
- WOODEN STAKES SHOULD BE APPROXIMATELY 1" X 1" X 24 INCHES LONG MIN. WILLOW CUTTINGS OR 3/8-INCH REBAR CAN ALSO BE USED FOR STAKES.
- INSTALL STAKES AT EACH END OF THE WATTLE AND 4 FOOT ON CENTER ALONG THE WATTLE. ADDITIONAL STAKES MAY BE DRIVEN ON THE DOWN SLOPE SIDE OF THE TRENCHES ON HIGHLY EROSION OR VERY STEEP SLOPES.
- INSPECT THE STRAW ROLLS AND THE SLOPES AFTER SIGNIFICANT STORMS. MAKE SURE THE ROLLS ARE IN CONTACT WITH THE SOIL.
- REPAIR ANY RILLS OR GULLYS PROMPTLY. SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.
- RESEED OR REPLANT VEGETATION IF NECESSARY UNTIL THE SLOPE IS STABILIZED.

WASHINGTON DEPARTMENT OF  
FISH & WILDLIFE

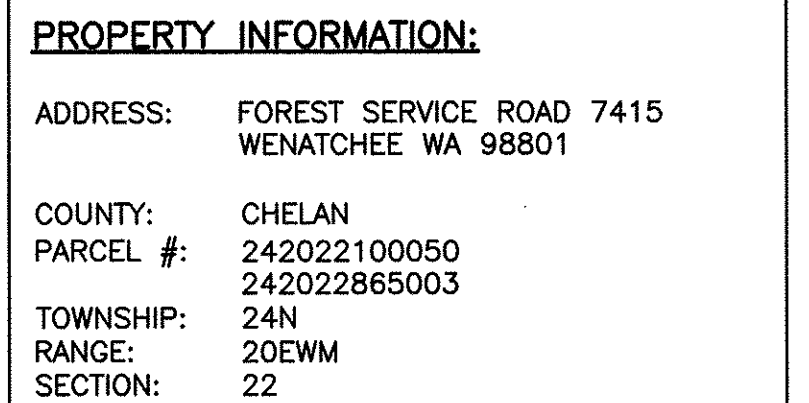
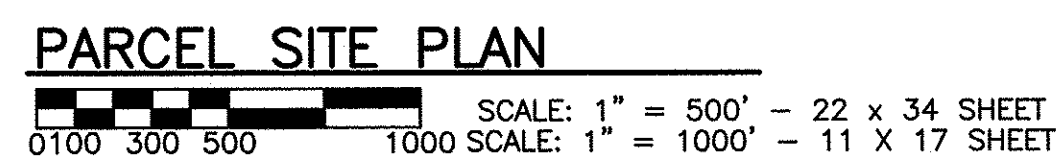


SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER	DATE	2/23/21	
PROGRAM	DATE		
DESIGNED BY WDFW			
CHECKED BY D. SMITH			
DRAWN BY J. LONG			
DATE 02/23/21			

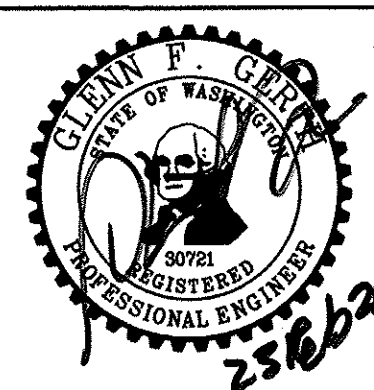
CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
GENERAL NOTES &  
EROSION CONTROL DETAIL


PROJECT NO.  
CN:R21:2019-1

SHEET  
3  
OF  
20



WASHINGTON DEPARTMENT OF  
FISH & WILDLIFE



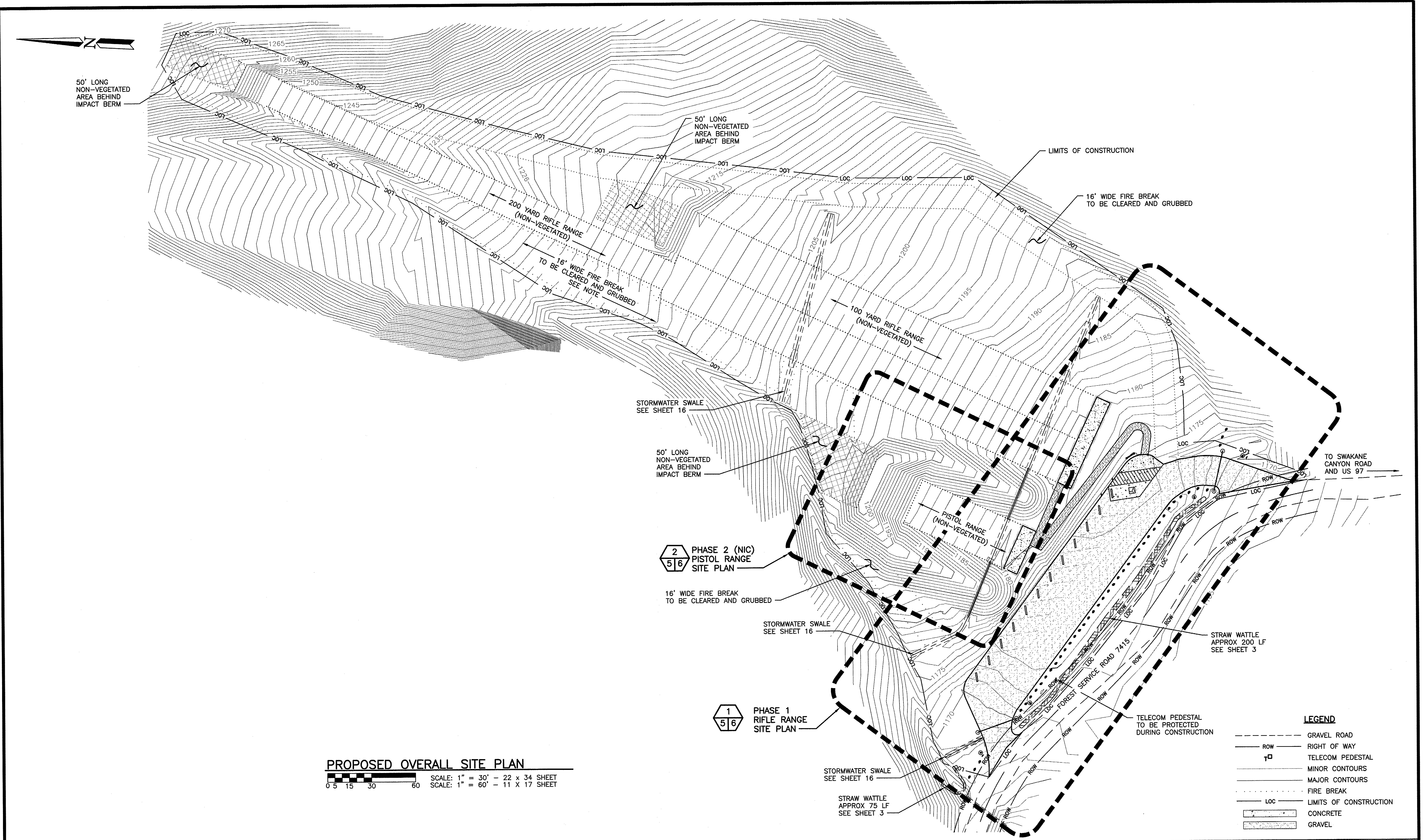
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APPROVED AND RELEASED FOR CONSTRUCTION							
CHIEF ENGINEER					DATE: 23/6/21	DESIGNED BY WDFW	
PROGRAM					DATE:	CHECKED BY D. SMITH	
						DRAWN BY J. LONG	
						DATE 02/23/21	

CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
PARCEL & EXISTING SITE PLAN

PROJECT NO.  
CN:R21:2019-1

SHEET	OF
4	20

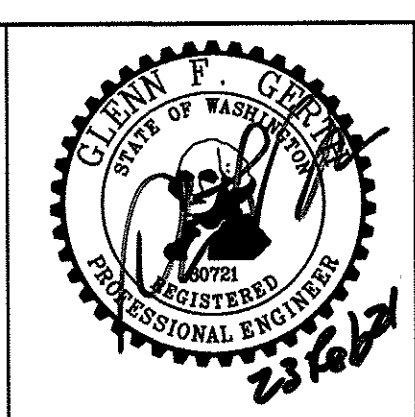




PROPOSED OVERALL SITE PLAN  
SCALE: 1" = 30' - 22 x 34 SHEET  
SCALE: 1" = 60' - 11 x 17 SHEET

- LEGEND
- GRAVEL ROAD
  - ROW
  - TELECOM PEDESTAL
  - MINOR CONTOURS
  - MAJOR CONTOURS
  - FIRE BREAK
  - LIMITS OF CONSTRUCTION
  - CONCRETE
  - GRAVEL

WASHINGTON DEPARTMENT OF  
FISH & WILDLIFE

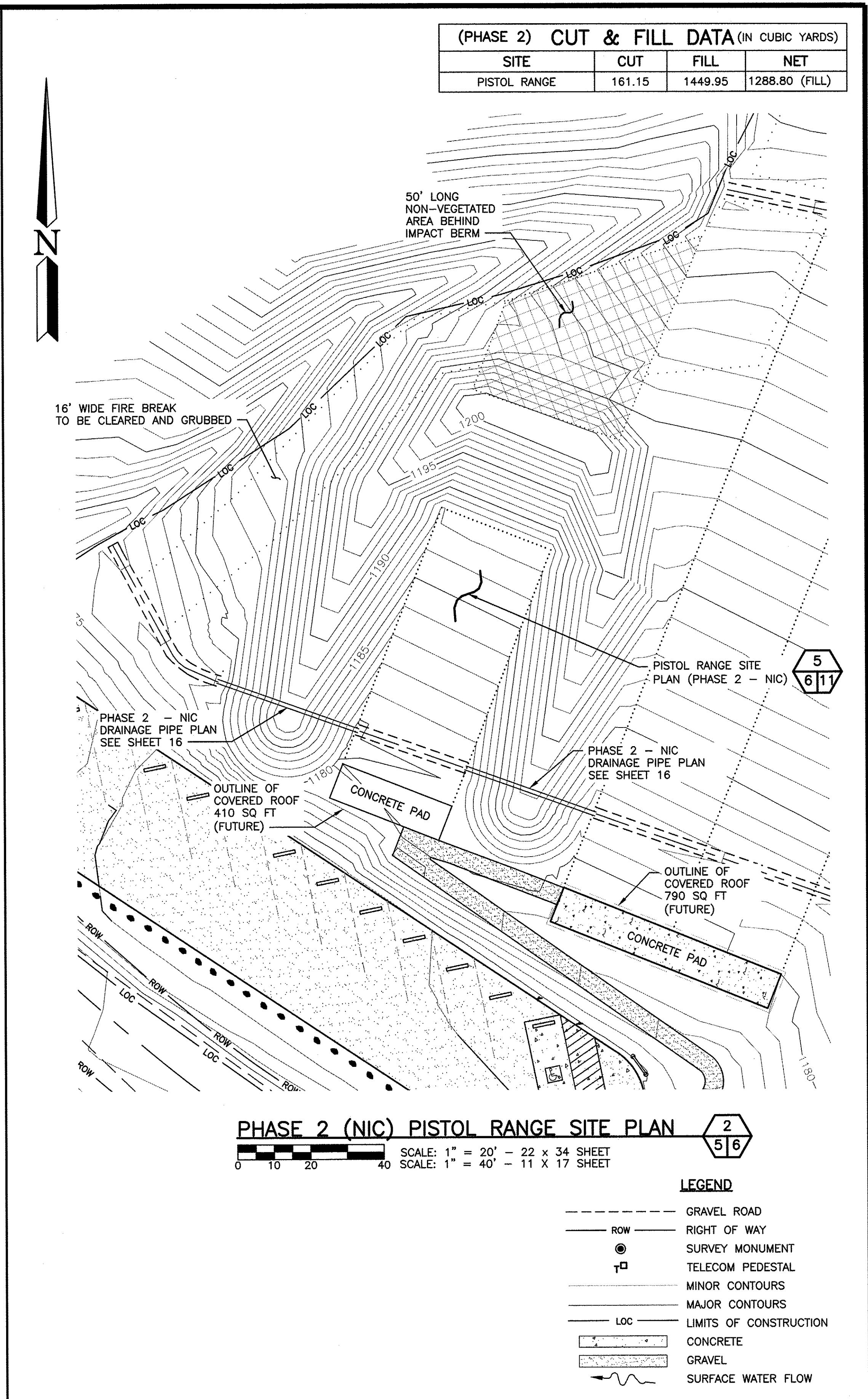
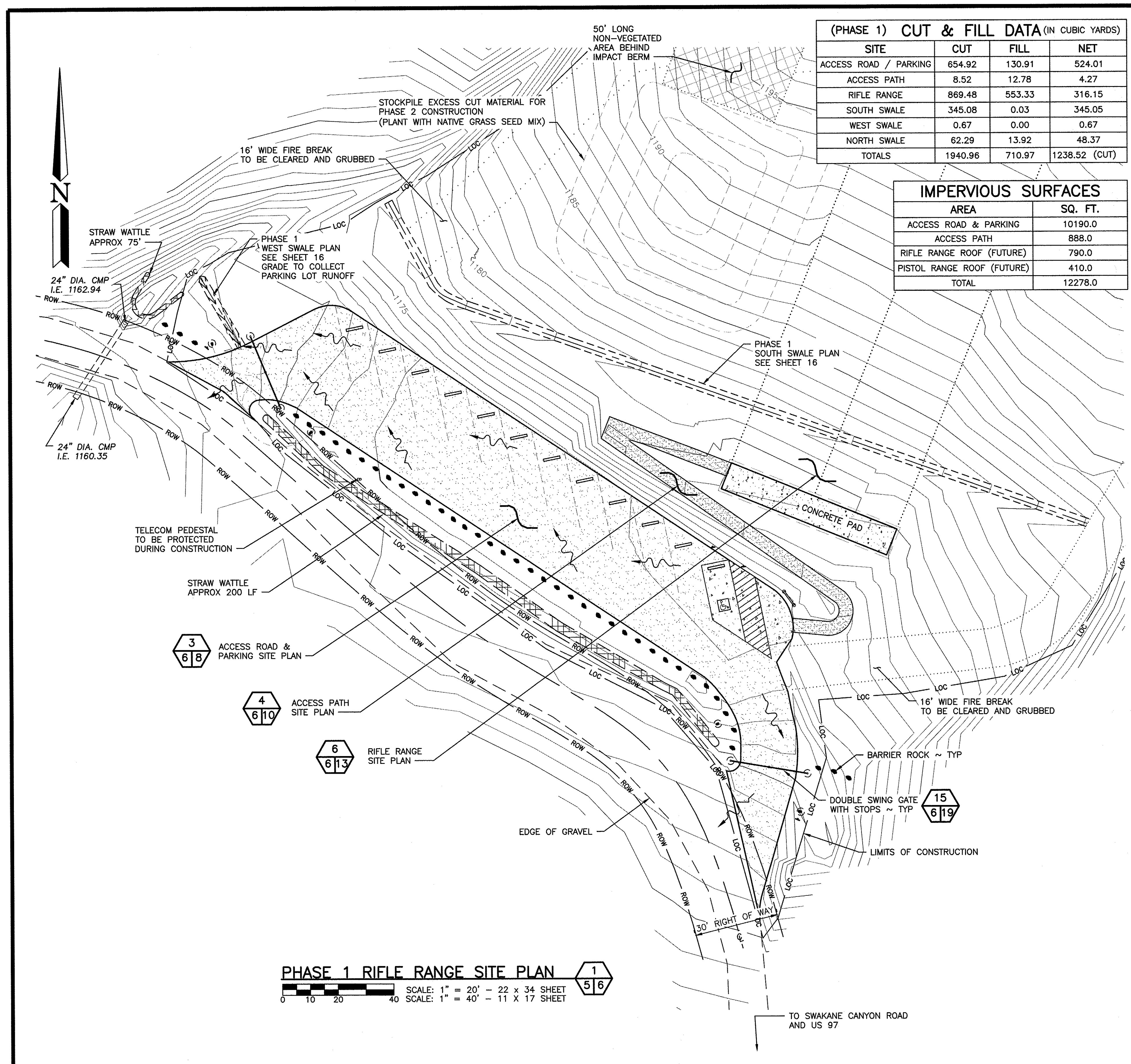


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CHIEF ENGINEER	DATE: 2/23/21	DESIGNED BY WDFW	CHECKED BY D. SMITH
PROGRAM	DATE:	DRAWN BY J. LONG	DATE 02/23/21

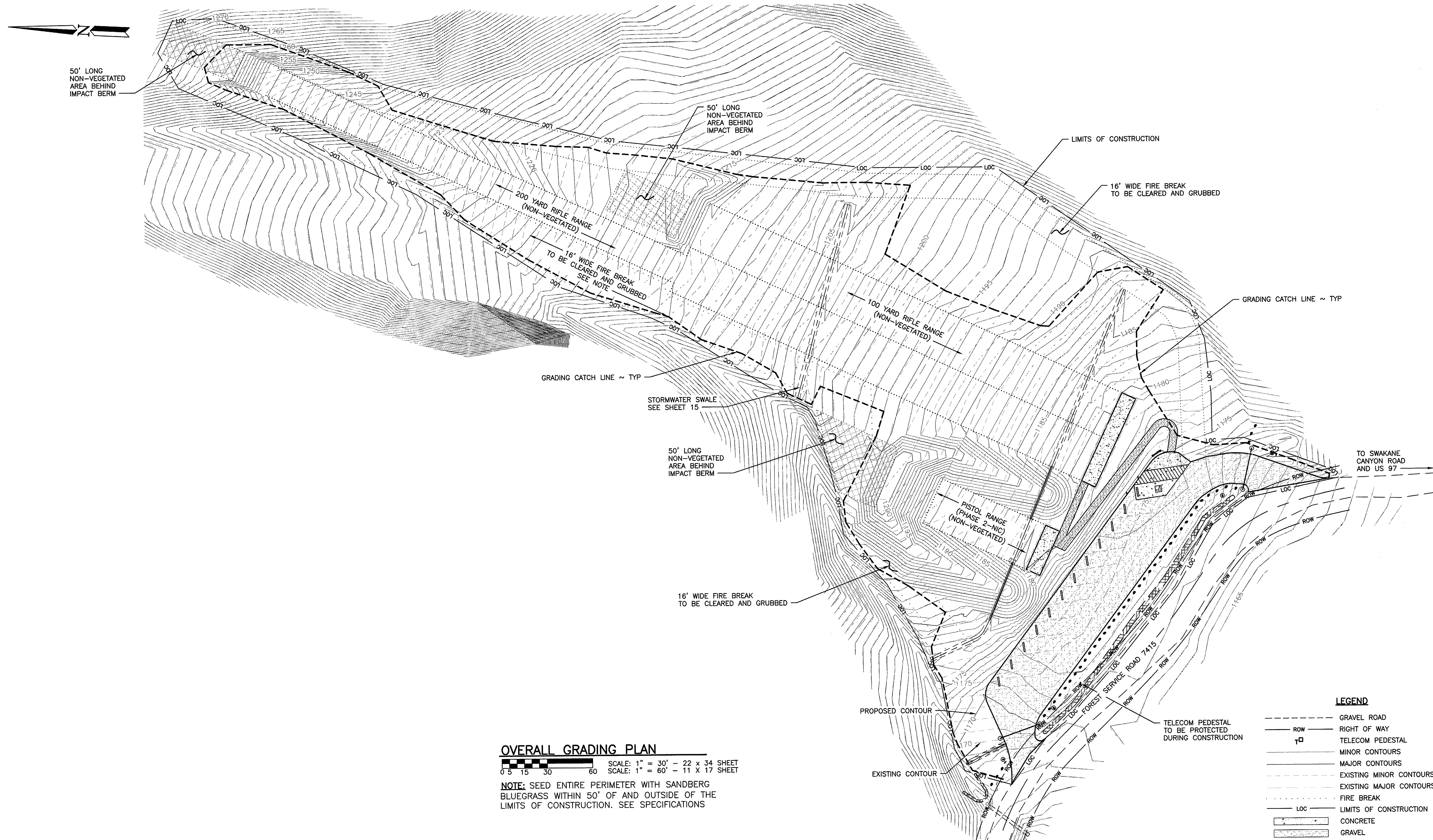
CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
PROPOSED OVERALL SITE PLAN  
& TEMPORARY STORMWATER & EROSION CONTROL

PROJECT NO.	CN:R21:2019-1
SHEET	OF
5	20





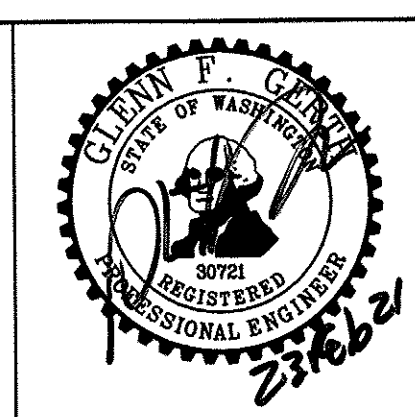




**OVERALL GRADING PLAN**  
SCALE: 1" = 30' - 22 x 34 SHEET  
SCALE: 1" = 60' - 11 x 17 SHEET  
**NOTE:** SEED ENTIRE PERIMETER WITH SANDBERG BLUEGRASS WITHIN 50' OF AND OUTSIDE OF THE LIMITS OF CONSTRUCTION. SEE SPECIFICATIONS

- LEGEND**
- GRAVEL ROAD
  - ROW --- RIGHT OF WAY
  - TELECOM PEDESTAL
  - MINOR CONTOURS
  - MAJOR CONTOURS
  - EXISTING MINOR CONTOURS
  - EXISTING MAJOR CONTOURS
  - FIRE BREAK
  - LOC --- LIMITS OF CONSTRUCTION
  - CONCRETE
  - GRAVEL

WASHINGTON DEPARTMENT OF  
**FISH & WILDLIFE**

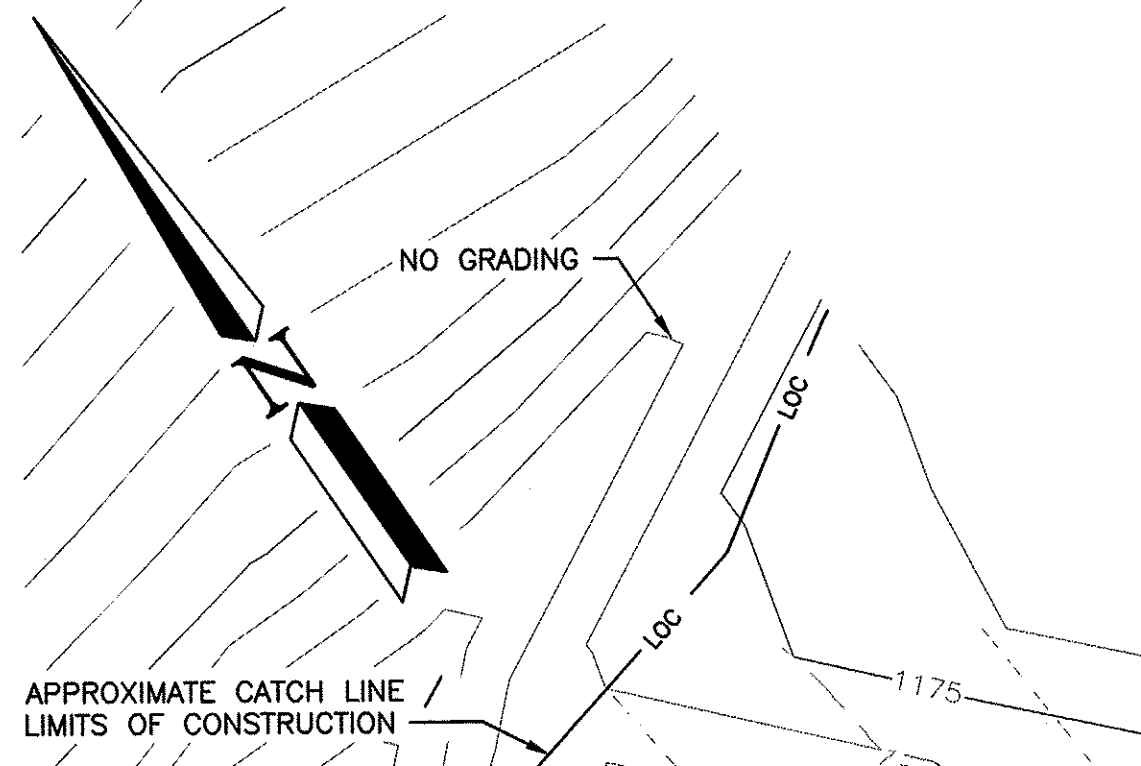


SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER	<i>[Signature]</i>	DATE: 2/26/21	DESIGNED BY WDFW
PROGRAM		DATE: 02/23/21	CHECKED BY D. SMITH
			DRAWN BY J. LONG

CHELAN WILDLIFE AREA  
**SWAKANE CANYON RIFLE & PISTOL RANGE**  
OVERALL GRADING PLAN

PROJECT NO. CN:R21:2019-1	
SHEET 7	OF 20



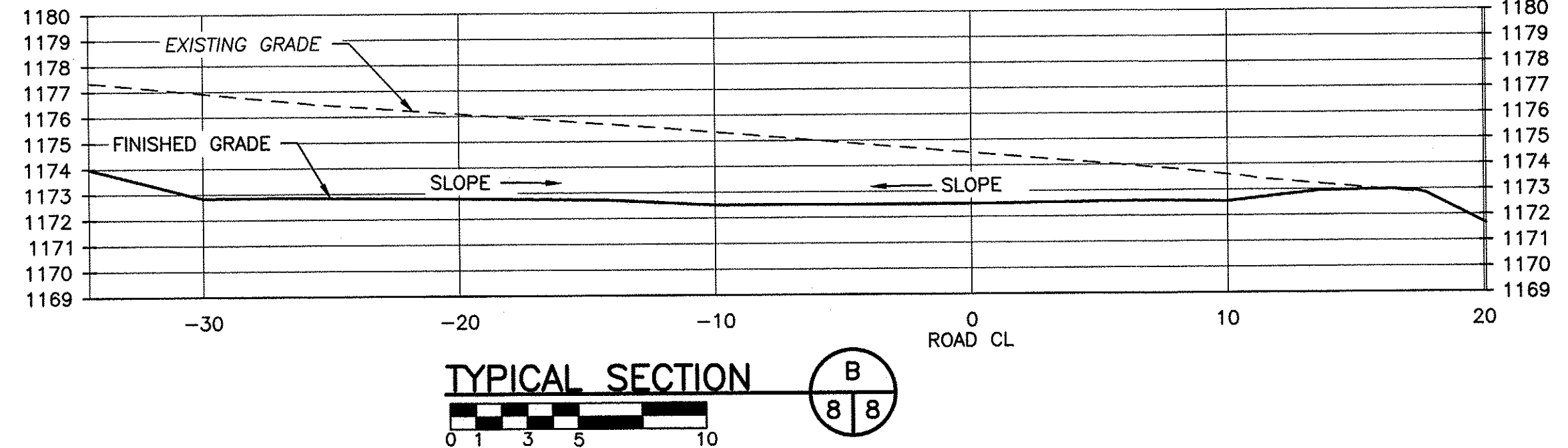
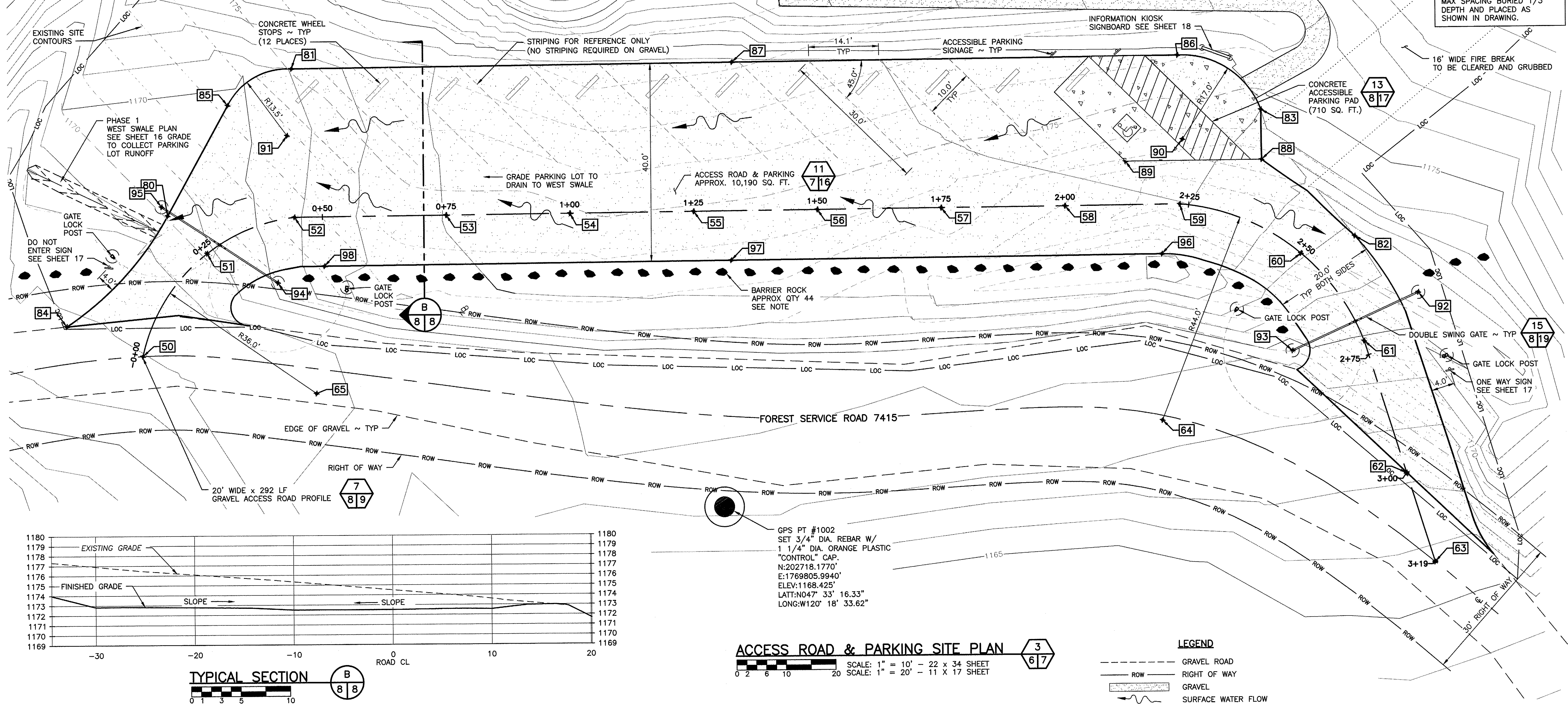


PARKING POINT DATA				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
80	1769746.37	202830.08	1168.65	PARKING START CURVE
81	1769783.80	202840.46	1171.00	PARKING START CURVE
82	1769941.90	202691.25	1171.80	PARKING START CURVE
83	1769940.70	202722.98	1174.00	PARKING MID CURVE
84	1769716.90	202823.17	1166.79	PARKING END CURVE
85	1769768.97	202841.63	1169.96	PARKING END CURVE
86	1769932.98	202741.53	1174.59	PARKING END CURVE
87	1769857.93	202791.30	1172.77	PARKING EDGE
88	1769935.13	202714.61	1173.88	PARKING ADA STALL
89	1769912.24	202729.84	1173.88	PARKING ADA STALL

PARKING POINT DATA				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
90	1769924.24	202727.01	0.00	PARKING CURVE CENTER
91	1769775.45	202829.85	0.00	PARKING CURVE CENTER
92	1769946.06	202674.64	0.00	EAST GATE
93	1769918.44	202679.27	0.00	EAST GATE
94	1769757.14	202806.42	0.00	WEST GATE
95	1769746.37	202832.26	0.00	WEST GATE
96	1769907.75	202710.26	1173.77	ROAD EDGE
97	1769835.27	202758.39	1173.34	ROAD EDGE
98	1769766.82	202803.86	1171.55	ROAD EDGE

ACCESS ROAD POINT DATA				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
50	1769726.23	202809.52	1166.97	ROAD START CURVE
51	1769748.67	202819.33	1168.86	ROAD CL
52	1769767.38	202815.41	1170.86	ROAD END CURVE
53	1769792.92	202798.47	1173.07	ROAD CL
54	1769813.75	202784.64	1173.38	ROAD CL
55	1769834.58	202770.82	1173.50	ROAD CL
56	1769855.41	202757.00	1173.63	ROAD CL
57	1769876.24	202743.17	1173.75	ROAD CL

ACCESS ROAD POINT DATA				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
58	1769897.07	202729.35	1173.88	ROAD CL
59	1769916.39	202716.53	1173.99	ROAD START CURVE
60	1769930.94	202694.51	1172.10	ROAD CL
61	1769931.50	202672.72	1169.90	ROAD END CURVE
62	1769923.51	202645.91	1166.97	ROAD CL
63	1769918.13	202627.83	1165.70	ROAD END
64	1769888.87	202682.53	0.00	ROAD CURVE CENTER
65	1769750.94	202783.58	0.00	ROAD CURVE CENTER

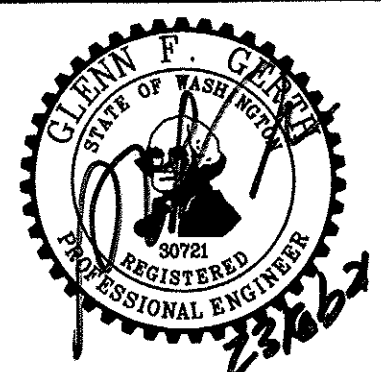


**ACCESS ROAD & PARKING SITE PLAN** 3  
6  
7

SCALE: 1" = 10' - 22 x 34 SHEET  
SCALE: 1" = 20' - 11 x 17 SHEET

- LEGEND**
- GRAVEL ROAD
  - - - - - RIGHT OF WAY
  - ▨ GRAVEL
  - ~ SURFACE WATER FLOW

WASHINGTON DEPARTMENT OF  
**FISH & WILDLIFE**

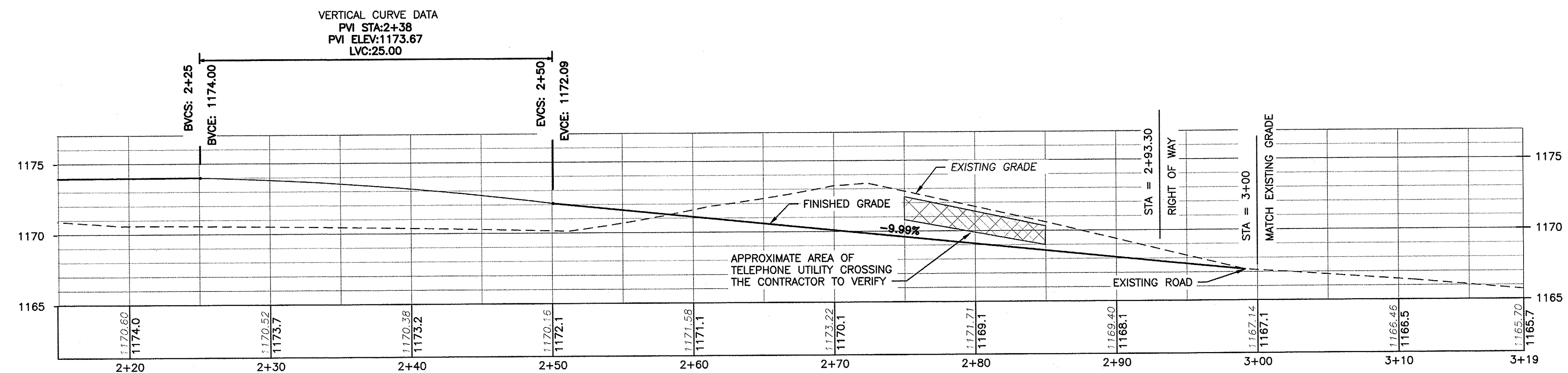
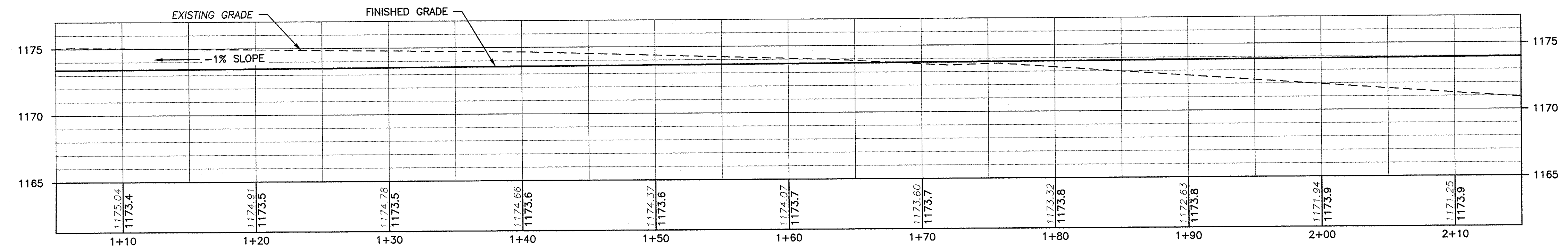
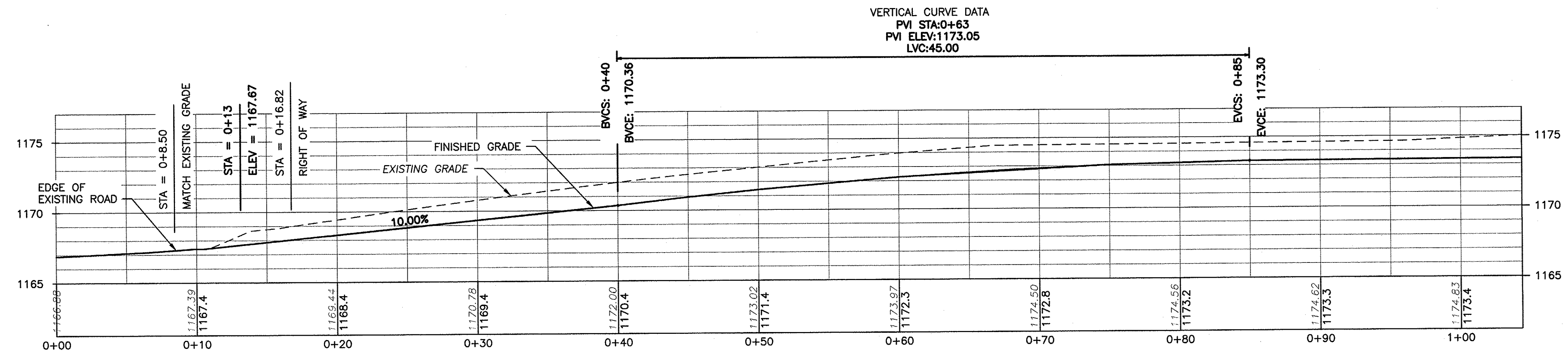


SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER			DATE: 2/26/21
PROGRAM			DATE: 02/23/21

CHELAN WILDLIFE AREA  
**SWAKANE CANYON RIFLE & PISTOL RANGE**  
ACCESS ROAD & PARKING SITE PLAN

PROJECT NO. CN:R21:2019-1	
SHEET 8	OF 20



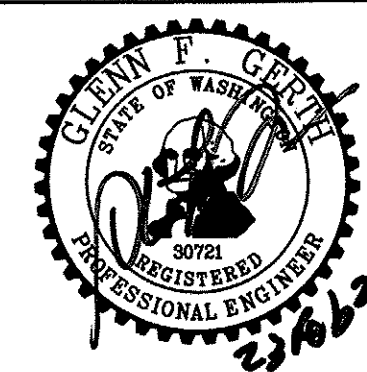


# ACCESS ROAD PROFILE

SCALE: 1" = 5' - 22 x 34 SHEET  
SCALE: 1" = 10' - 11 x 17 SHEET

7  
89

WASHINGTON DEPARTMENT OF  
FISH & WILDLIFE

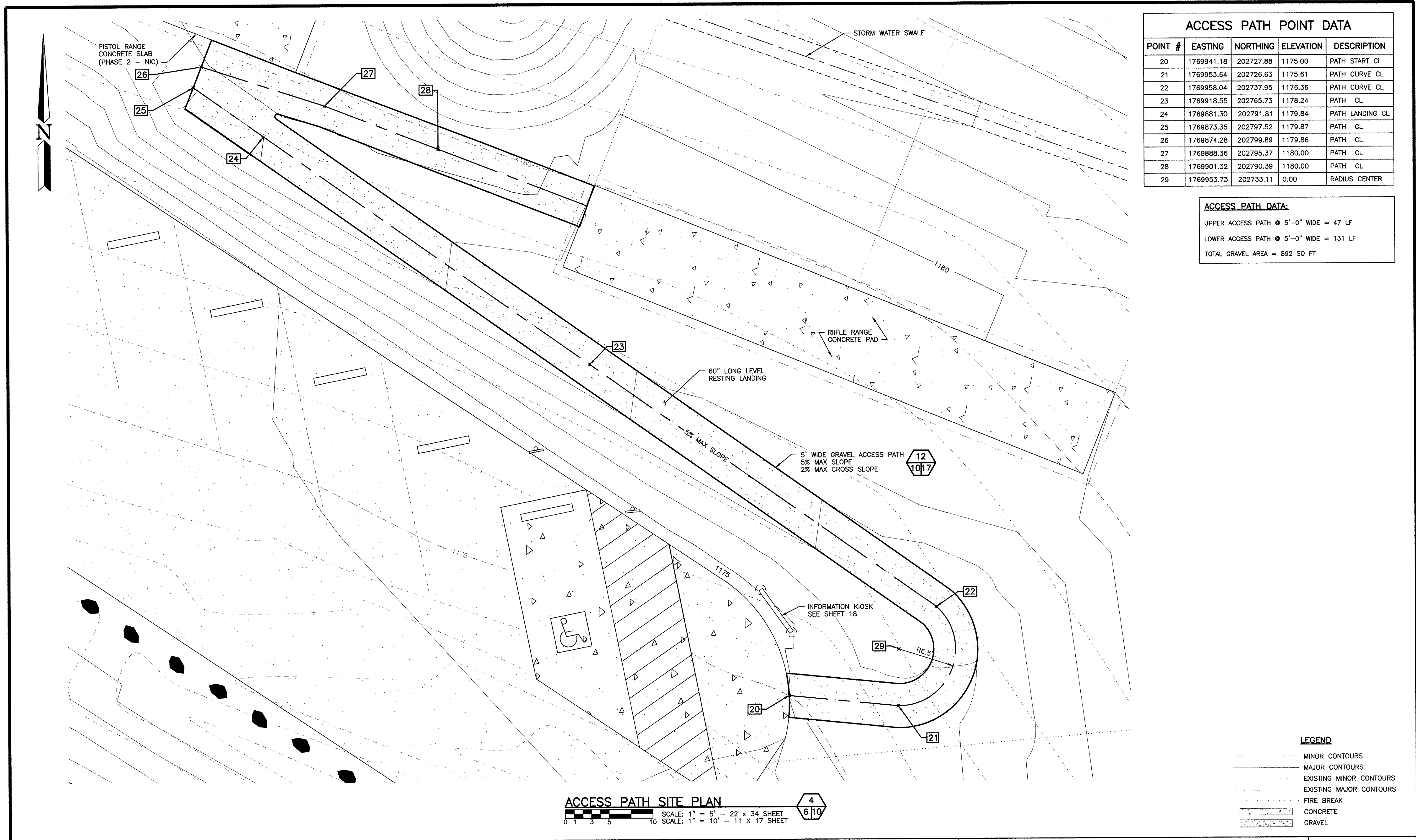


SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER	<i>[Signature]</i>	DATE: 02/23/21	DESIGNED BY WDFW
PROGRAM		DATE: 02/23/21	CHECKED BY D. SMITH
			DRAWN BY J. LONG

CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
ACCESS ROAD PROFILE

PROJECT NO.  
CN:R21:2019-1

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OF  
20



ACCESS PATH POINT DATA				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
20	1769941.18	202727.88	1175.00	PATH START CL
21	1769953.64	202726.63	1175.61	PATH CURVE CL
22	1769958.04	202737.95	1176.36	PATH CURVE CL
23	1769918.55	202765.73	1178.24	PATH CL
24	1769881.30	202791.81	1179.84	PATH LANDING CL
25	1769873.35	202797.52	1179.87	PATH CL
26	1769874.28	202799.89	1179.86	PATH CL
27	1769888.36	202795.37	1180.00	PATH CL
28	1769901.32	202790.39	1180.00	PATH CL
29	1769953.73	202733.11	0.00	RADIUS CENTER

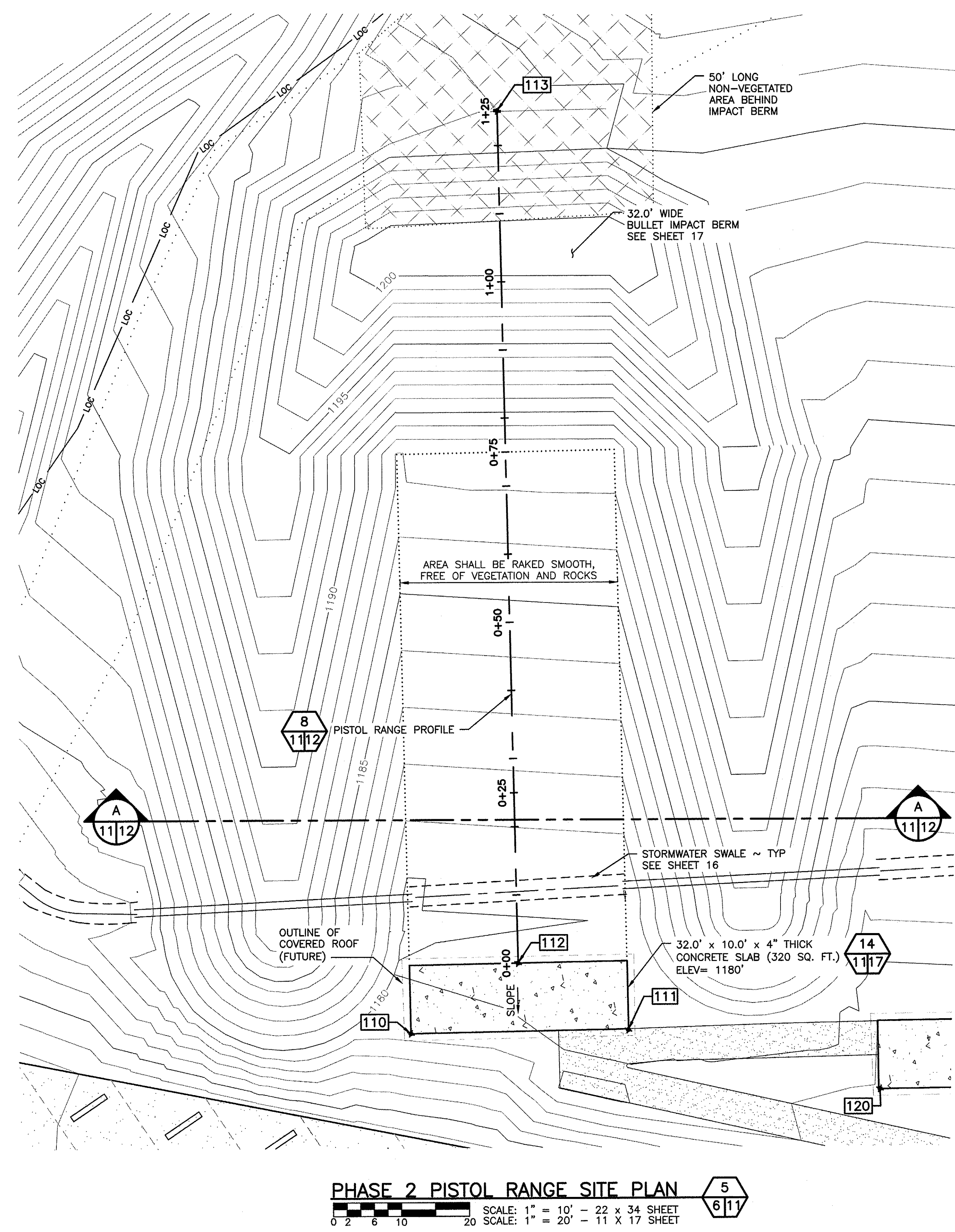
**ACCESS PATH DATA:**  
UPPER ACCESS PATH @ 5'-0" WIDE = 47 LF  
LOWER ACCESS PATH @ 5'-0" WIDE = 131 LF  
TOTAL GRAVEL AREA = 892 SQ FT

LEGEND	
	MINOR CONTOURS
	MAJOR CONTOURS
	EXISTING MINOR CONTOURS
	EXISTING MAJOR CONTOURS
	FIRE BREAK
	CONCRETE
	GRAVEL

<b>WASHINGTON DEPARTMENT OF FISH &amp; WILDLIFE</b>			<table><tr><th>SYM</th><th>DATE</th><th>REVISION DESCRIPTION</th><th>BY</th></tr><tr><td></td><td></td><td>APPROVED AND RELEASED FOR CONSTRUCTION</td><td></td></tr><tr><td>CHIEF ENGINEER</td><td><i>Glenn A. Green</i></td><td>DATE: 2/23/21</td><td>DESIGNED BY: WDFW</td></tr><tr><td>PROGRAM</td><td></td><td>DATE: 02/23/21</td><td>CHECKED BY: D. SMITH</td></tr><tr><td></td><td></td><td></td><td>DRAWN BY: J. LONG</td></tr></table>	SYM	DATE	REVISION DESCRIPTION	BY			APPROVED AND RELEASED FOR CONSTRUCTION		CHIEF ENGINEER	<i>Glenn A. Green</i>	DATE: 2/23/21	DESIGNED BY: WDFW	PROGRAM		DATE: 02/23/21	CHECKED BY: D. SMITH				DRAWN BY: J. LONG	<b>CHELAN WILDLIFE AREA SWAKANE CANYON RIFLE &amp; PISTOL RANGE ACCESS PATH SITE PLAN</b>		PROJECT NO. CN:R21:2019-1	
SYM	DATE	REVISION DESCRIPTION	BY																								
		APPROVED AND RELEASED FOR CONSTRUCTION																									
CHIEF ENGINEER	<i>Glenn A. Green</i>	DATE: 2/23/21	DESIGNED BY: WDFW																								
PROGRAM		DATE: 02/23/21	CHECKED BY: D. SMITH																								
			DRAWN BY: J. LONG																								
SHEET 10	OF 20																										



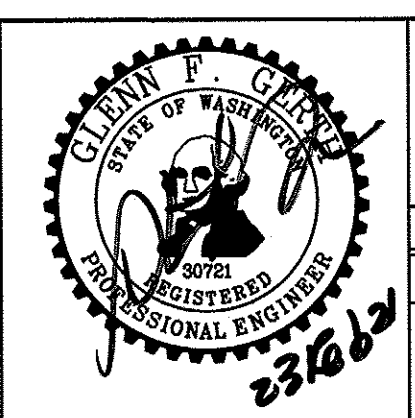
PISTOL RANGE POINT DATA				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
110	1769855.28	202810.91	1180.05	SLAB EDGE
111	1769884.98	202799.10	1180.05	SLAB EDGE
112	1769873.83	202814.36	1180.00	RANGE CL START
113	1769919.54	202930.79	1194.01	RANGE CL END



PHASE 2 PISTOL RANGE SITE PLAN

SCALE: 1" = 10' - 22 x 34 SHEET  
 SCALE: 1" = 20' - 11 x 17 SHEET

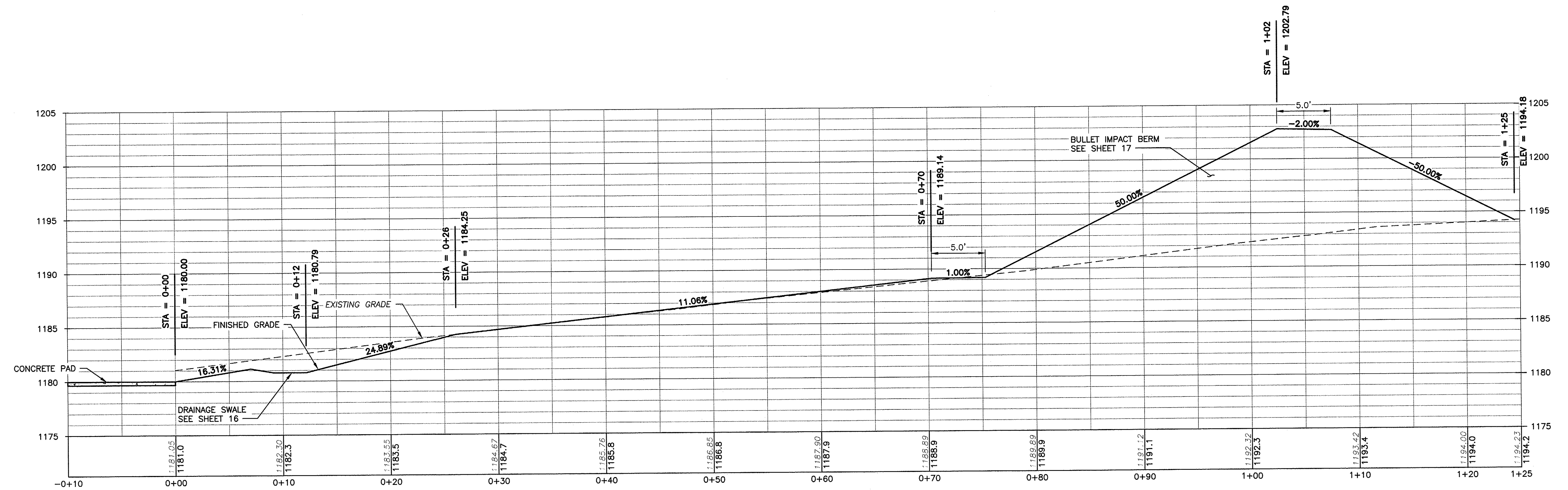
WASHINGTON DEPARTMENT OF  
**FISH & WILDLIFE**



SYM	DATE	REVISION DESCRIPTION	BY
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CHIEF ENGINEER	<i>[Signature]</i>	DATE: 2/25/21	
PROGRAM		DATE: 02/23/21	

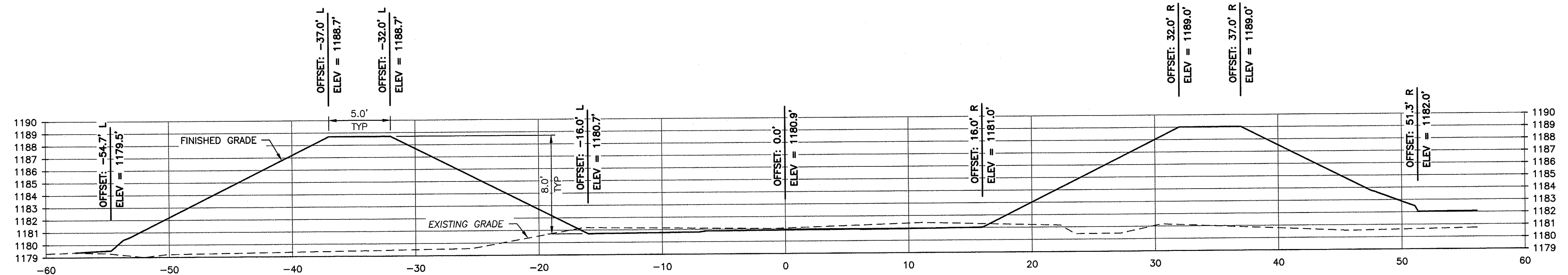
CHELAN WILDLIFE AREA  
 SWAKANE CANYON RIFLE & PISTOL RANGE  
 PISTOL RANGE SITE PLAN  
 (PHASE 2 - NIC)

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PHASE 2 PISTOL RANGE PROFILE

SCALE: 1" = 5' - 22 x 34 SHEET  
SCALE: 1" = 10' - 11 x 17 SHEET



PHASE 2 PISTOL RANGE SECTION

SCALE: 1" = 5' - 22 x 34 SHEET  
SCALE: 1" = 10' - 11 x 17 SHEET

WASHINGTON DEPARTMENT OF  
FISH & WILDLIFE



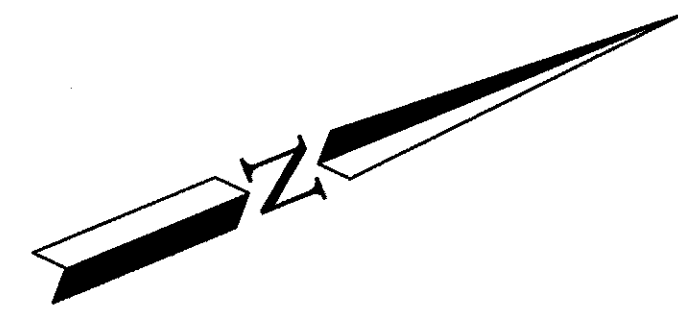
SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
CHIEF ENGINEER		DATE: 2/26/21	
PROGRAM		DATE: 02/23/21	

CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
PISTOL RANGE PROFILE & SECTION  
(PHASE 2 - NIC)

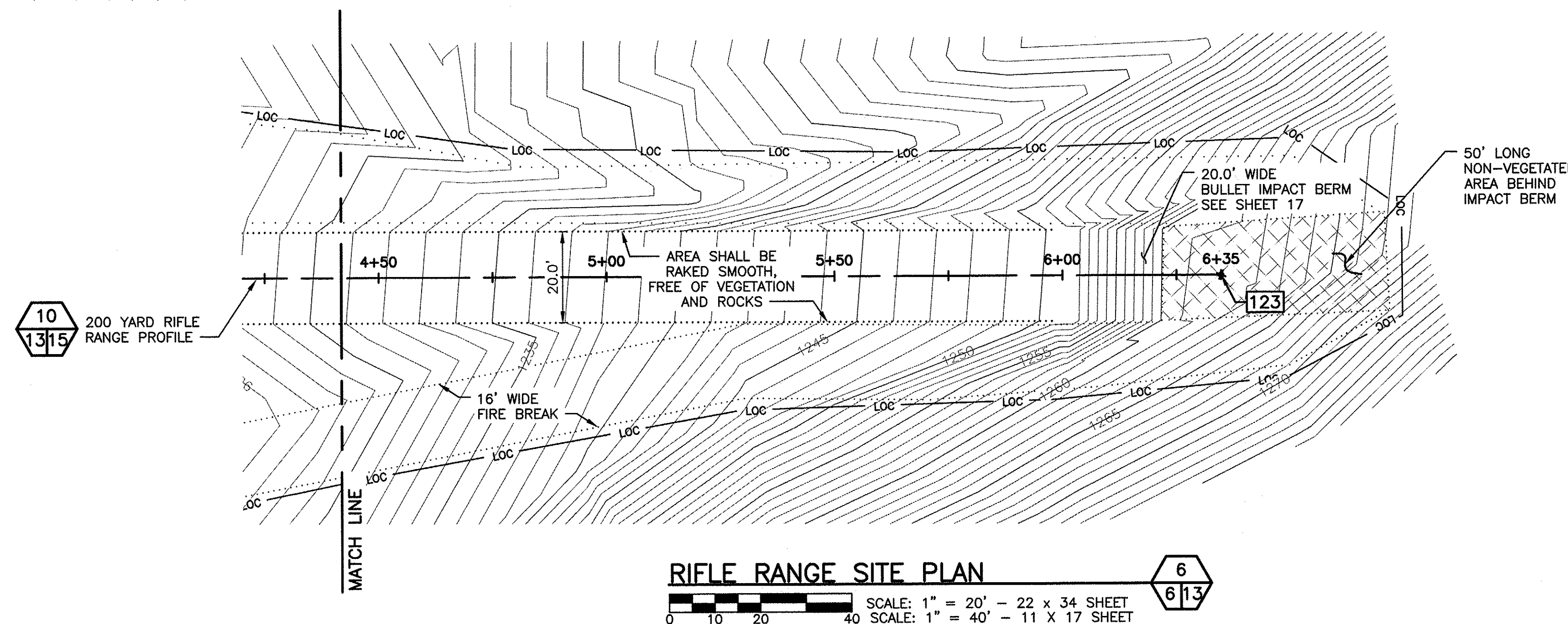
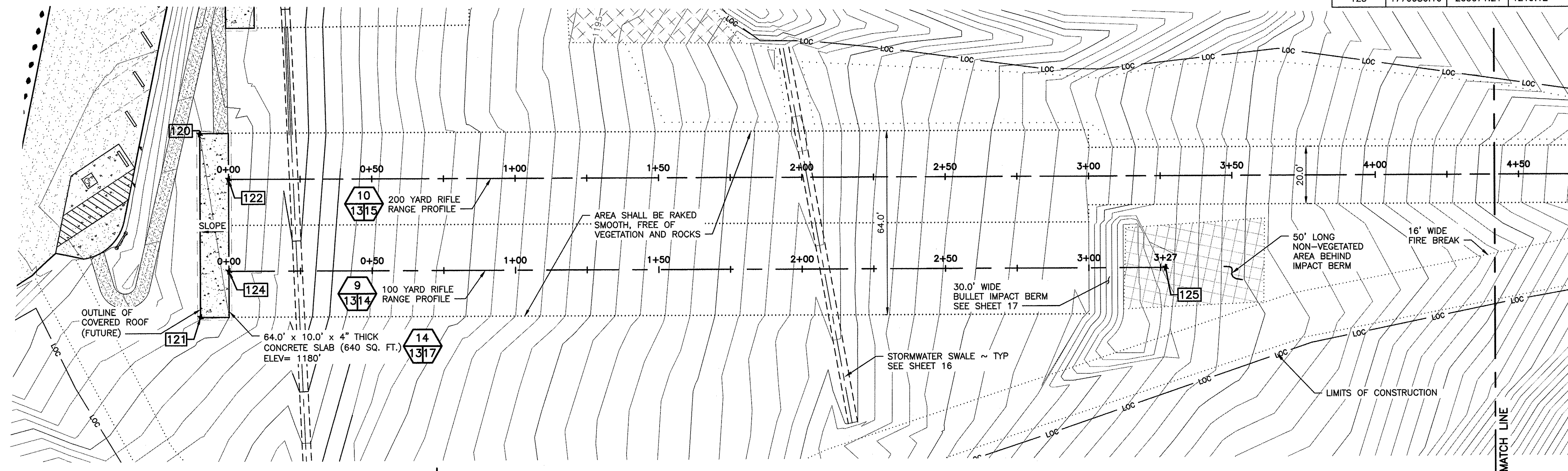
PROJECT NO.  
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20





RIFLE RANGE POINT DATA				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
120	1769915.72	202776.83	1180.00	SLAB EDGE
121	1769974.90	202752.99	1180.00	SLAB EDGE
122	1769934.10	202780.21	1180.00	200YD RANGE CL START
123	1770171.79	203368.83	1261.55	200YD RANGE CL END
124	1769963.77	202768.25	1180.00	100YD RANGE CL START
125	1770086.10	203071.21	1219.12	100YD RANGE CL END



RIFLE RANGE SITE PLAN

SCALE: 1" = 20' - 22 x 34 SHEET  
SCALE: 1" = 40' - 11 x 17 SHEET

WASHINGTON DEPARTMENT OF  
**FISH & WILDLIFE**



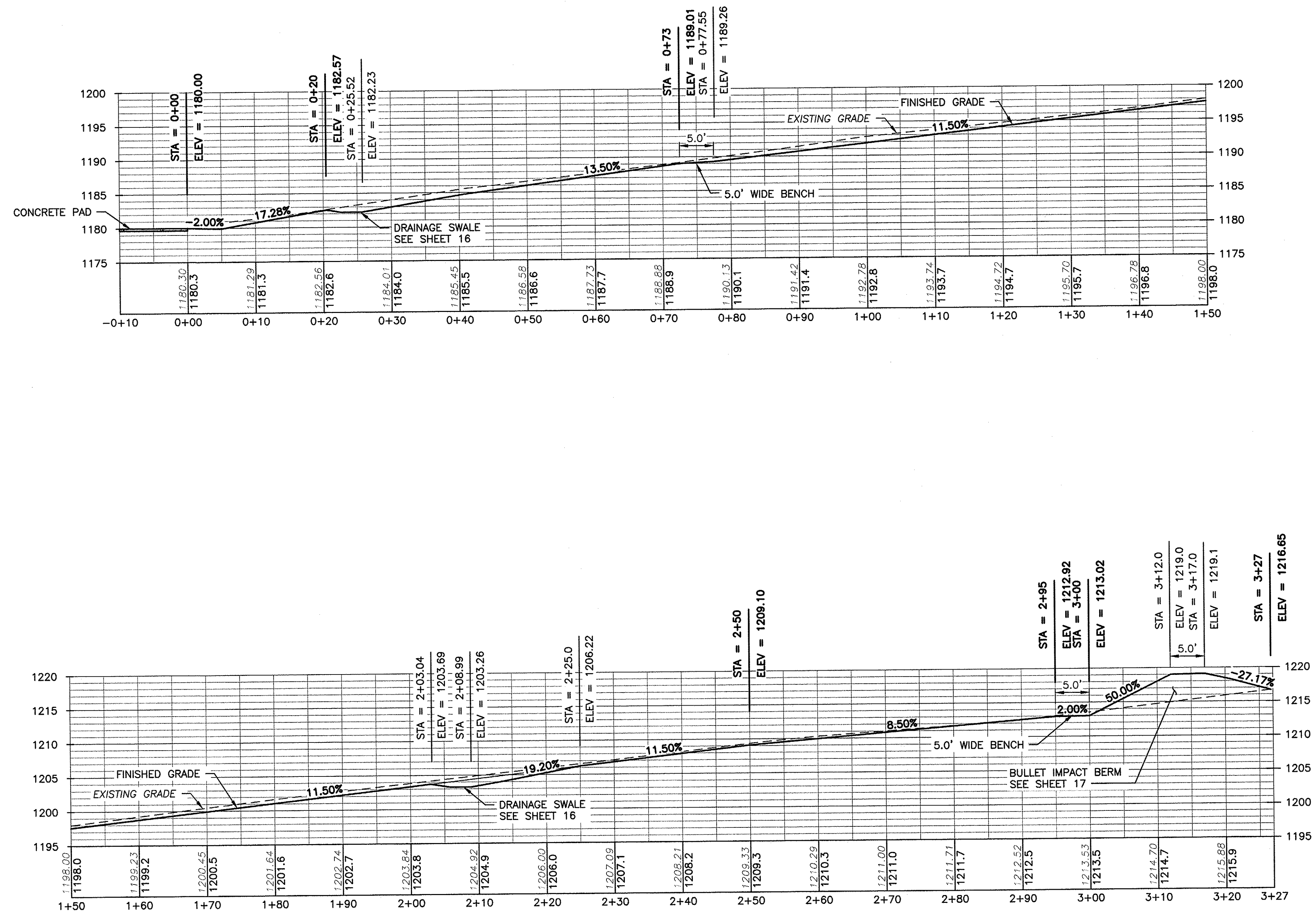
SYM	DATE	REVISION DESCRIPTION	BY
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PROGRAM			DATE: 02/23/21

DESIGNED BY WDFW  
CHECKED BY D. SMITH  
DRAWN BY J. LONG  
DATE 02/23/21

CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
RIFLE RANGE SITE PLAN

PROJECT NO.  
CN:R21:2019-1

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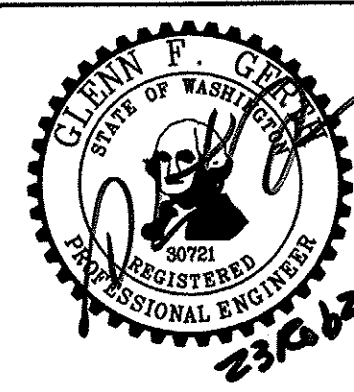


100 YARD RIFLE RANGE PROFILE

0 2 6 10 20 SCALE: 1" = 10' - 22 X 34 SHEET  
SCALE: 1" = 20' - 11 X 17 SHEET

9  
1314

WASHINGTON DEPARTMENT OF  
FISH & WILDLIFE



SYM	DATE	REVISION DESCRIPTION	BY
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PROGRAM		DATE: 02/23/21	

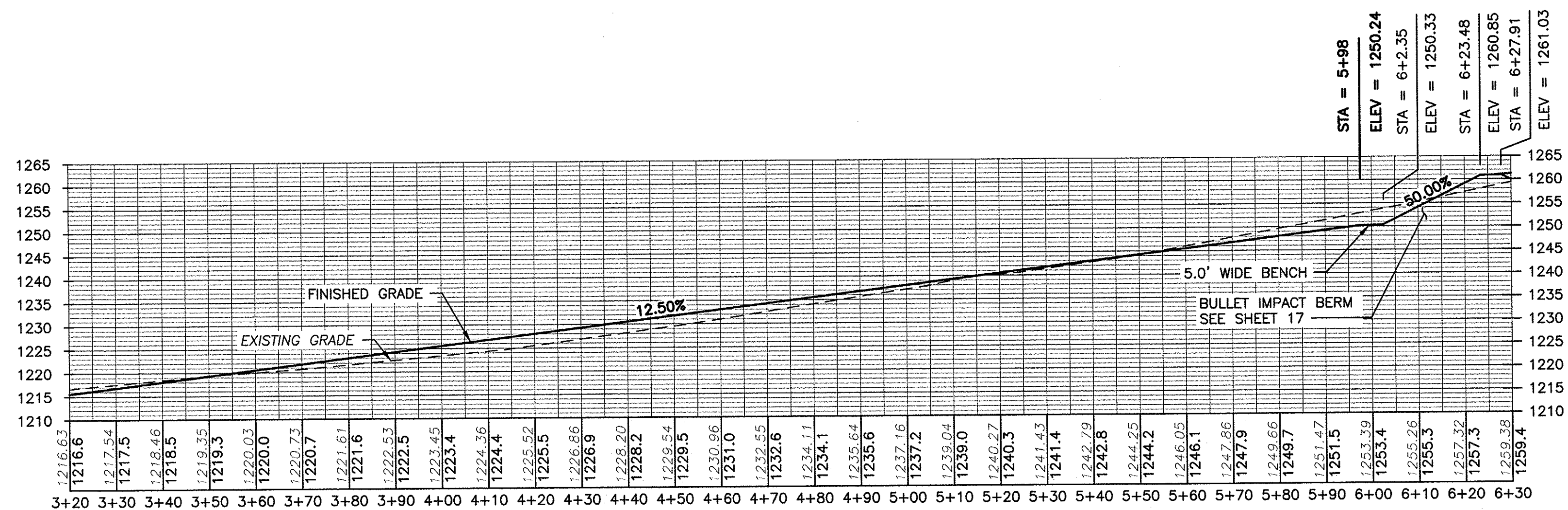
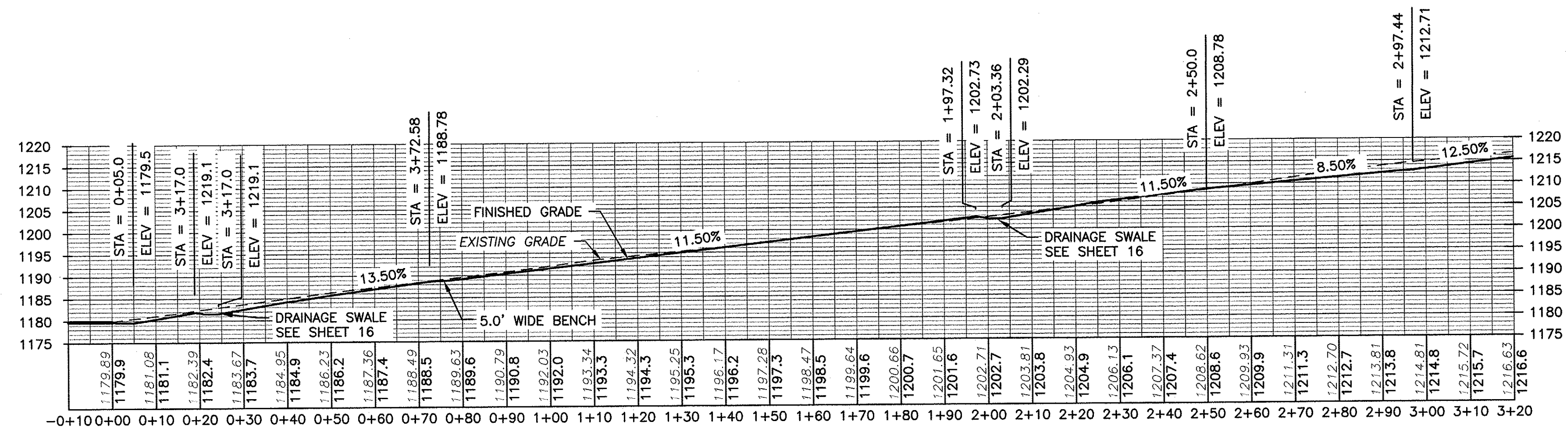
CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
100 YARD RIFLE RANGE PROFILE

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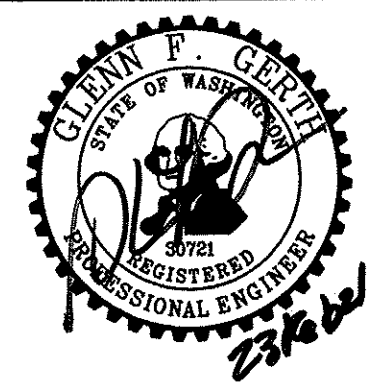


200 YARD RIFLE RANGE PROFILE

10  
1315

0 10 20 40  
SCALE: 1" = 20' - 22 x 34 SHEET  
SCALE: 1" = 40' - 11 x 17 SHEET

WASHINGTON DEPARTMENT OF  
*FISH & WILDLIFE*

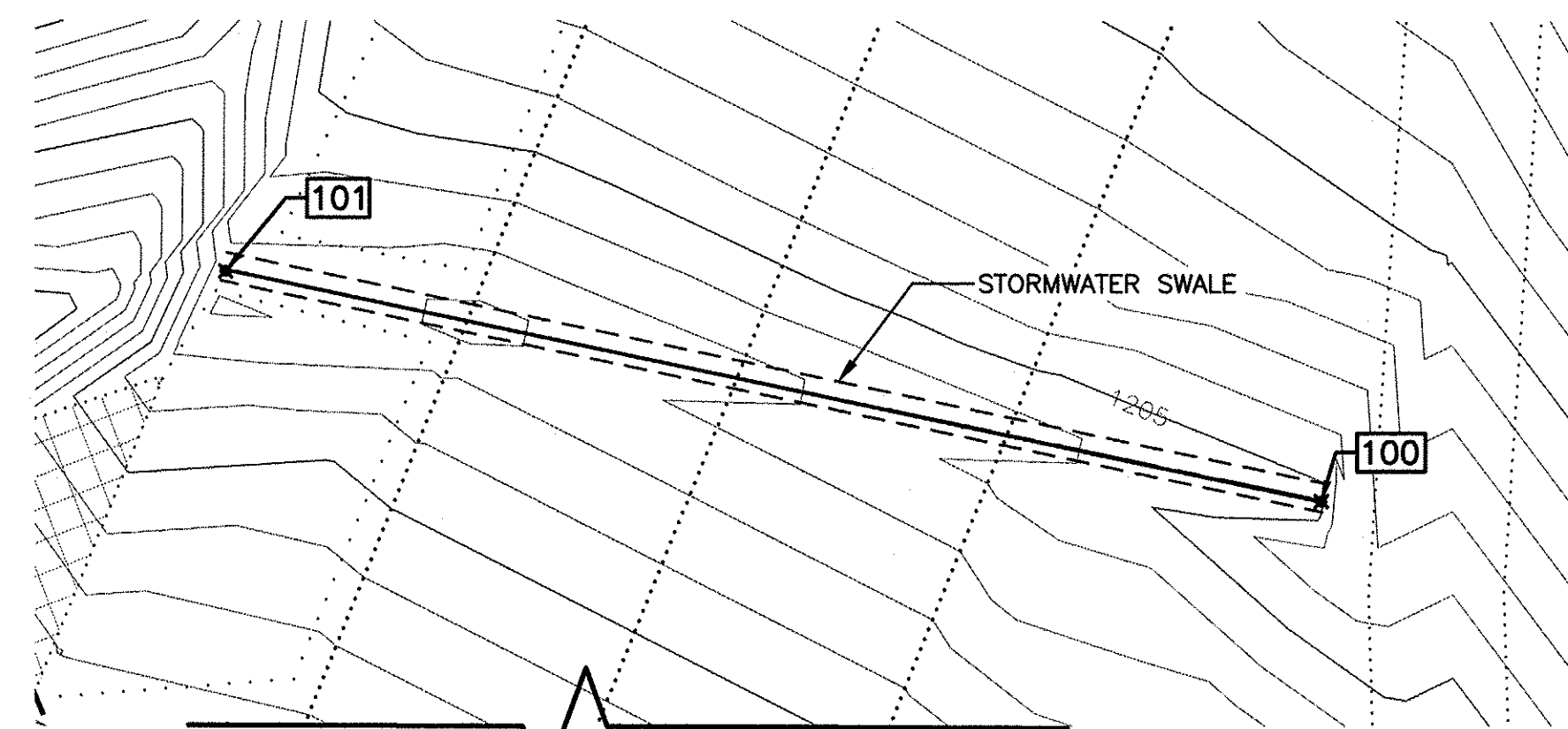


SYM	DATE	REVISION DESCRIPTION	BY
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CHIEF ENGINEER		DATE: 2/26/21	
PROGRAM		DATE: 02/23/21	
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		CHECKED BY D. SMITH	
		DRAWN BY J. LONG	

CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
200 YARD RIFLE RANGE PROFILE

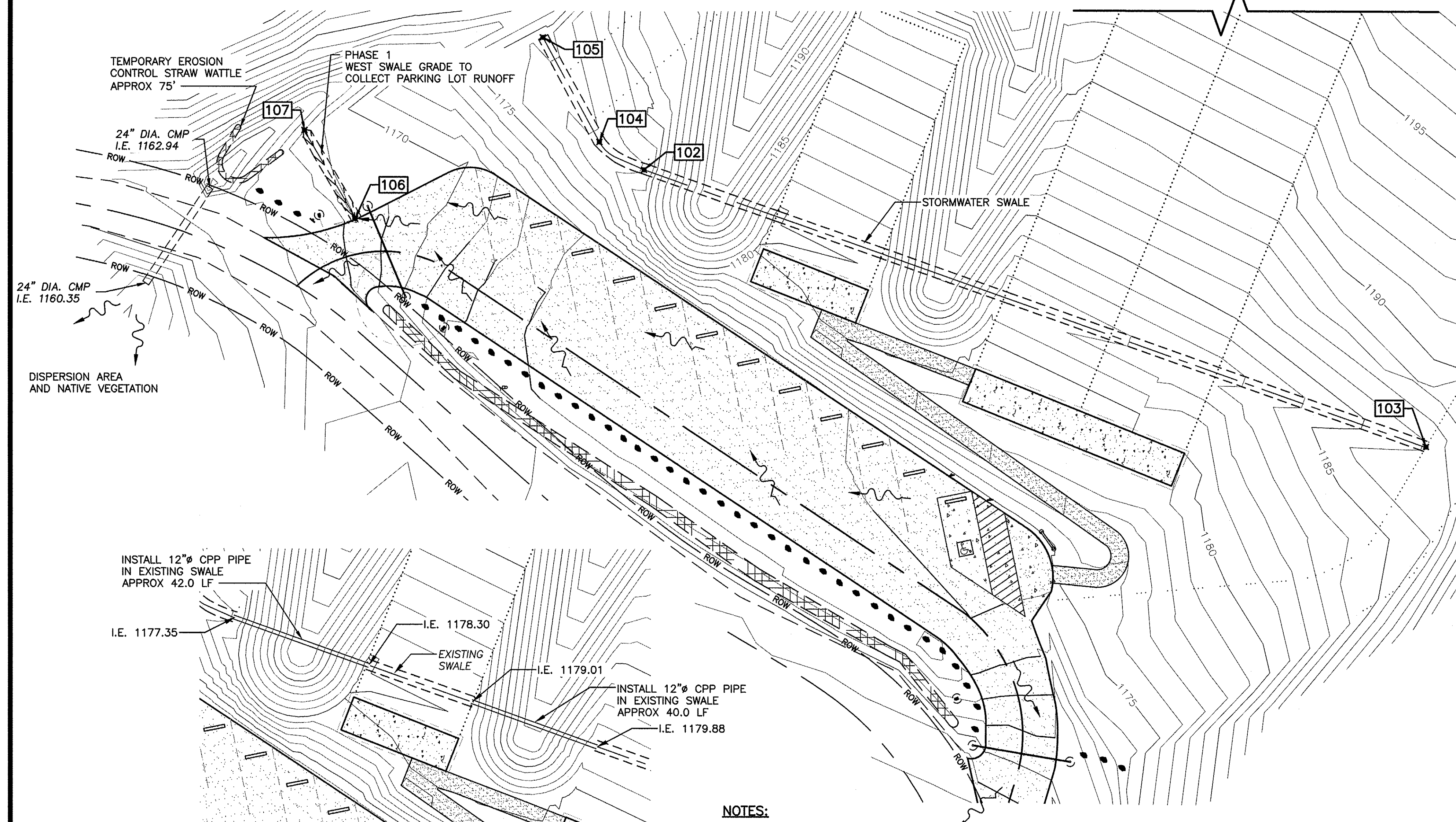
PROJECT NO.  
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20



PHASE 1 NORTH SWALE PLAN  
SCALE: 1" = 20' - 22 x 34 SHEET  
SCALE: 1" = 40' - 11 x 17 SHEET

STORMWATER POINT DATA				
POINT #	EASTING	NORTHING	ELEVATION	DESCRIPTION
100	1770094.43	202949.45	1204.88	SWALE START
101	1769965.23	202976.51	1202.72	SWALE END
102	1769824.94	202842.65	1178.06	SWALE START CURVE
103	1770047.27	202764.13	1186.09	SWALE START
104	1769812.26	202850.57	1177.18	SWALE END CURVE
105	1769796.17	202880.26	1175.63	SWALE END
106	1769742.80	202828.63	1169.00	SWALE START
107	1769728.39	202853.85	1167.92	SWALE END

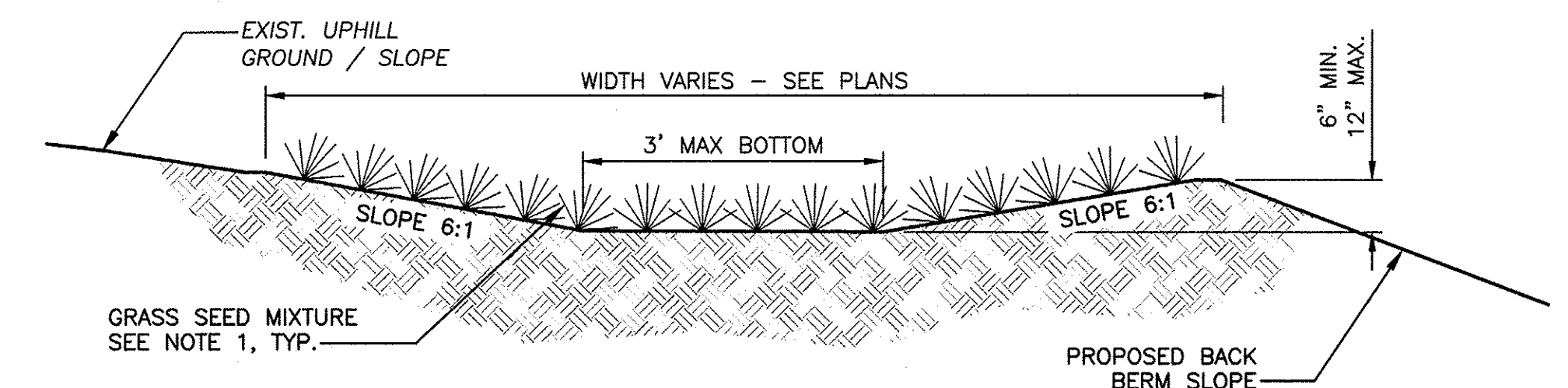


PHASE 2 DRAINAGE PIPE PLAN  
SCALE: 1" = 20' - 22 x 34 SHEET  
SCALE: 1" = 40' - 11 x 17 SHEET

NOTES:

1. CPP PIPES TO BE ADS N-12 DUAL WALL OR APPROVED EQUAL.
2. I.E. OF CPP PIPE ENDS TO BE EMBEDDED 6" INTO EXISTING SWALE.
3. CPP PIPE TO BE PLACED QUARRY SPALL PAD 6" x 6" x 6" DEEP
4. GEOTEXTILE FABRIC PLACED UNDER GRAVEL BEDDING.
5. CPP PIPES TO HAVE MINIMUM OF 2% SLOPE TO DRAIN.
6. CPP PIPES TO HAVE MITER CUT ENDS AT 45 DEGREES.

PHASE 1 SOUTH SWALE PLAN  
SCALE: 1" = 20' - 22 x 34 SHEET  
SCALE: 1" = 40' - 11 x 17 SHEET



TYPICAL SWALE DETAIL

NOT TO SCALE

NOTE:

THE SEED MIX SHALL BE PER WDFW STANDARDS:

COMMON NAME	SPECIES NAME	LBS/ACRE
BLUEBUNCH WHEATGRASS	PSUEDOROEGENERIA SPICATA	5.0
IDAHO FESCUE	FESTUCA IDAHOENSIS	2.0
BOTTLEBRUSH SQUIRREL TAIL	ELYMUS ELYMOIDES	1.5
SANDBERG BLUEGRASS	POA SECUNDA	1.5
PRAIRIE JUNEGRASS	KOELERIA MACRANTHA	1.0
GREAT BASIN WILDRYE	LEYMUS CINEREUS	0.3
SAND DROPSEED	SPOROBOLUS CRYPTANDRUS	0.2
RICE HULLS AS PLANTING AIDE		3.0
TOTALS		14.55

LEGEND

---	GRAVEL ROAD
---	RIGHT OF WAY
---	MINOR CONTOURS
---	MAJOR CONTOURS
---	CONCRETE
---	GRAVEL
---	SURFACE WATER FLOW

WASHINGTON DEPARTMENT OF  
**FISH & WILDLIFE**



SYM	DATE	REVISION DESCRIPTION	BY
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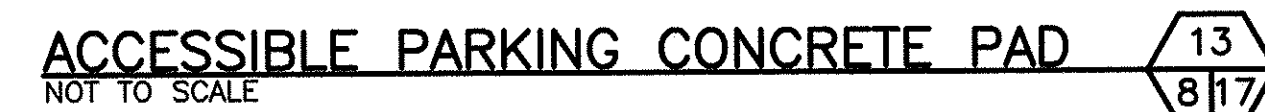
DESIGNED BY WDFW  
CHECKED BY D. SMITH  
DRAWN BY J. LONG  
DATE 02/23/21

CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
STORMWATER PLAN

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- 
- 10.0' WIDE
- 4" THICK CONCRETE PAD, BROOM FINISHED
- SLOPE -1%  
MAX
- # 4 REBAR @ 12" O.C.  
BOTH DIRECTIONS  
SEE NOTE 1
- SHOOTING RANGE
- EXIST. 4" OF TOPSOIL TO BE STRIPPED,  
SUBGRADE BACKFILLED WITH SUITABLE ON-SITE  
SOILS AND COMPACTED TO 92% MAX



- 
- "# SCH 40 GALV.  
STEEL PIPE OR 2" X 2"  
GALV SQ TUBE
- 18" X 24" ALUMINUM SIGN  
"ONE WAY" OR "DO NOT ENTER"  
PER SHOWN IN PLAN
- OR-
- DO NOT ENTER
- ONE WAY
- 7'-0"
- FINISHED GRADE
- 2" X 8" LONG  
ANCHOR ROD
- 2'-0"
- 1'-0"
- COMPACTED TO  
NOT 9-03.9(3)
- 1/2" ANCHOR
- 95% WSD

NOT TO SCALE

NOTE:

- 
- RESERVED PARKING**
- ACCESSIBLE PARKING SIGN**
- STATE DISABLED PARKING PERMIT REQUIRED**
- VAN ACCESSIBLE**
- 12" X 18" ACCESSIBLE PARKING SIGN**
- 12" X 6" ALUMINUM SIGN "VAN ACCESSIBLE"**
- 2"Ø SCH 40 GALV. STEEL PIPE OR 2" X 2" GALV. SQ TUBE**
- 5'-0" MIN.**
- 2"Ø SQ STEEL GALV S**
- FINISHED GRADE**
- 1"-**
- 1/2" X 8" LONG ANCHOR ROD**
- 2'-0"**
- 1-1/2" MINUS BASE COURSE COMPACTED TO 95% WSDOT 9-03.9(3)**
- 1/2" X ANCHOR**
- 1'-0"**
- 3"**
- 1-1/2" MINUS COURSE COMPA 95% WSDOT 9-**

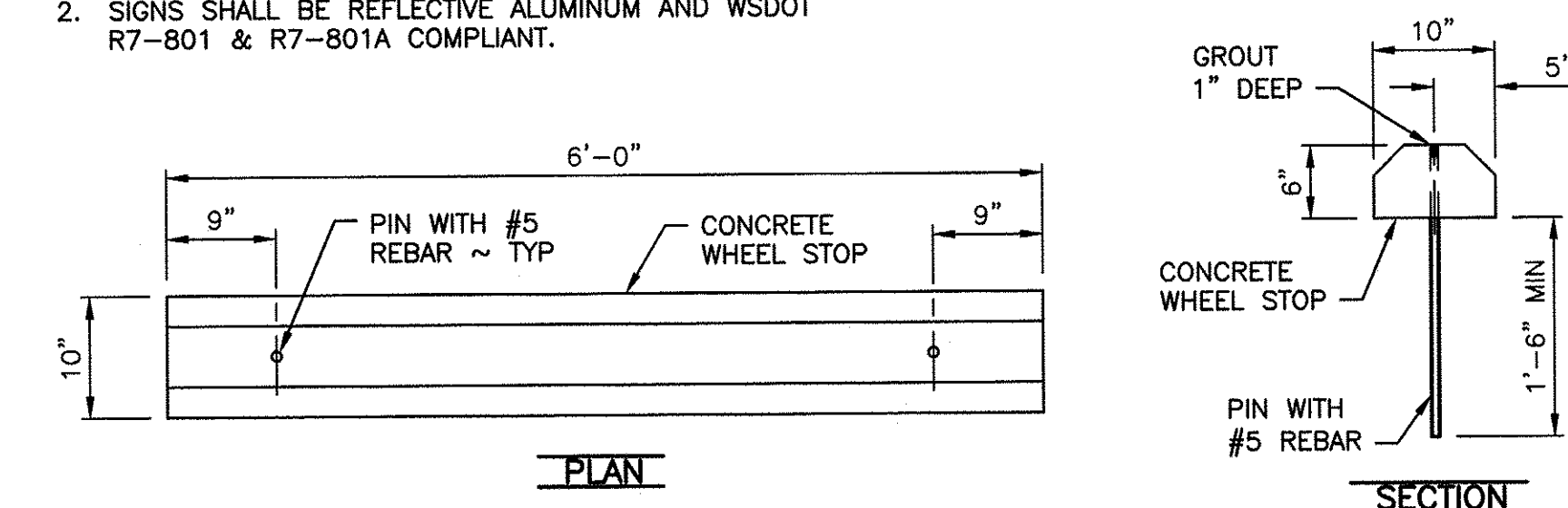
NOT TO SCALE

**NOTE**

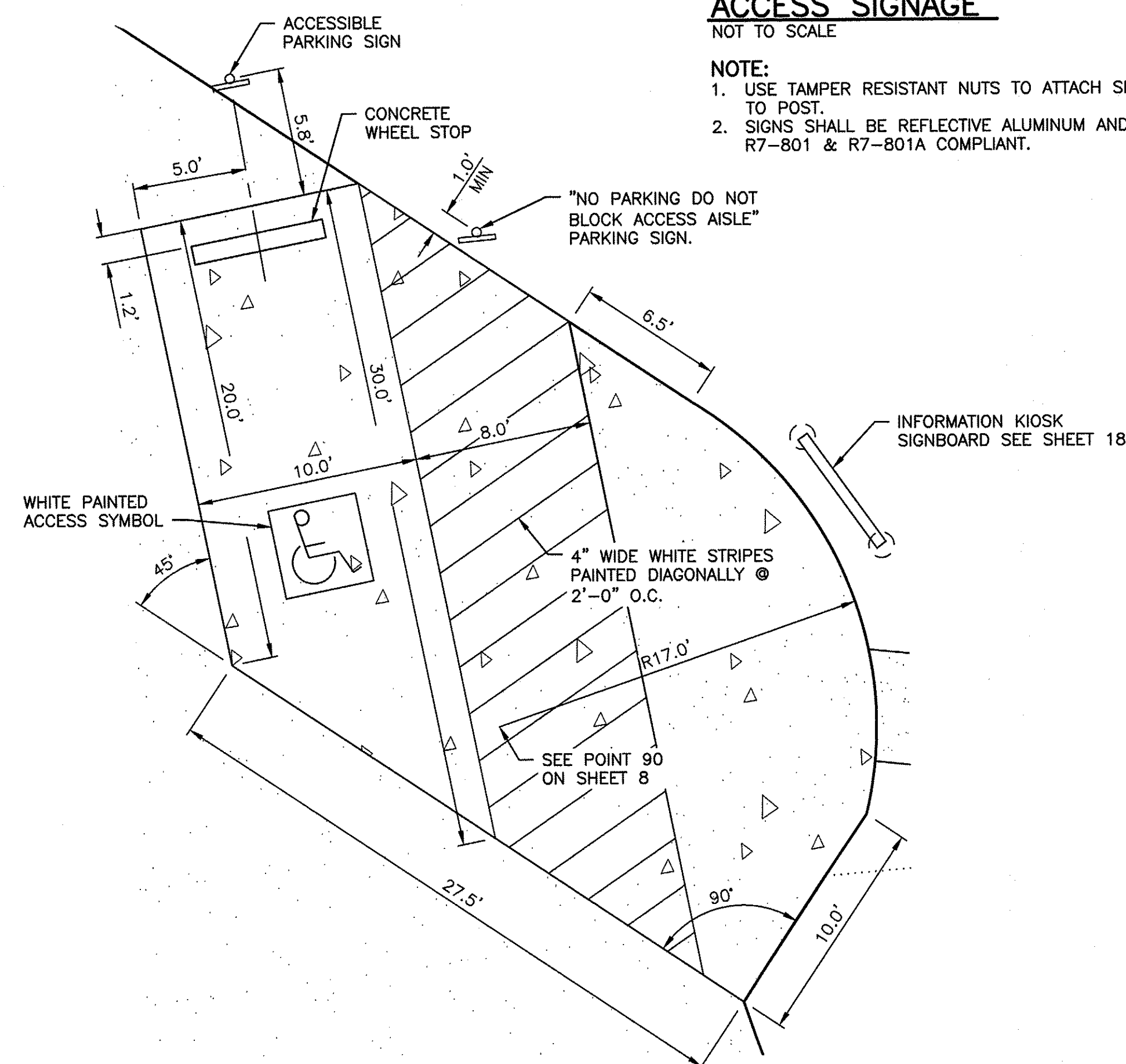
- 
- NO PARKING  
DO NOT  
BLOCK  
ACCESS  
AISLE
- 12" X 18"  
ALUMINUM SIGN  
"NO PARKING SIGN"
- 2"Ø SCH 40 GALV.  
STEEL PIPE OR 2" X 2"  
GALV SQ TUBE
- 7'-0"
- 1"
- FINISHED GRADE
- 1/2" X 8" LONG  
ANCHOR ROD
- 2" MINUS BASE  
BASE COMPACTED TO  
WSDOT 9-03.9(3)
- 2'-0"
- 3"
- 1'-0"

NOT TO SCALE

**NOTE:** USE TAMPER RESISTANT NUTS TO ATTACH SIGNS TO POST.



NOT TO SCALE



NOT TO SCALE

NOT TO SCALE

FINISH GRADE OF BACK BERM, TYP.

2-1 BACK BERM SLOPE

2.0' RICOCHET CUSHION LAYER FILL

PROPOSED FINISH GRADE OF SHOOTING LANE, TYP.

NATIVE BACKFILL OR SELECT FILL SEE STANDARD GRADING NOTES ON SHEET 3

2.0' MIN. WIDE KEY

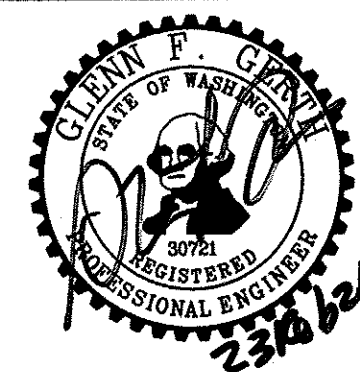
OVER-EXCAVATION LINE FOR RICOCHET CUSHION LAYER KEY AND BENCH, TYP.

SANDY SOIL BACKFILL FOR RICOCHET CUSHION LAYER SEE NOTE

NATIVE BACKFILL OR SELECT FILL SEE STANDARD GRADING NOTES ON SHEET 3

DO NOT  
NOT TO SCALE

WASHINGTON DEPARTMENT OF  
FISH & WILDLIFE



SYM	DATE	REVISION DESCRIPTION		BY
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CHIEF ENGINEER		DATE <u>23/6/21</u>		DESIGNED BY WDFW
PROGRAM		DATE		CHECKED BY D. SMITH
				DRAWN BY J. LONG
				DATE <u>02/23/21</u>

CHELAN WILDLIFE AREA

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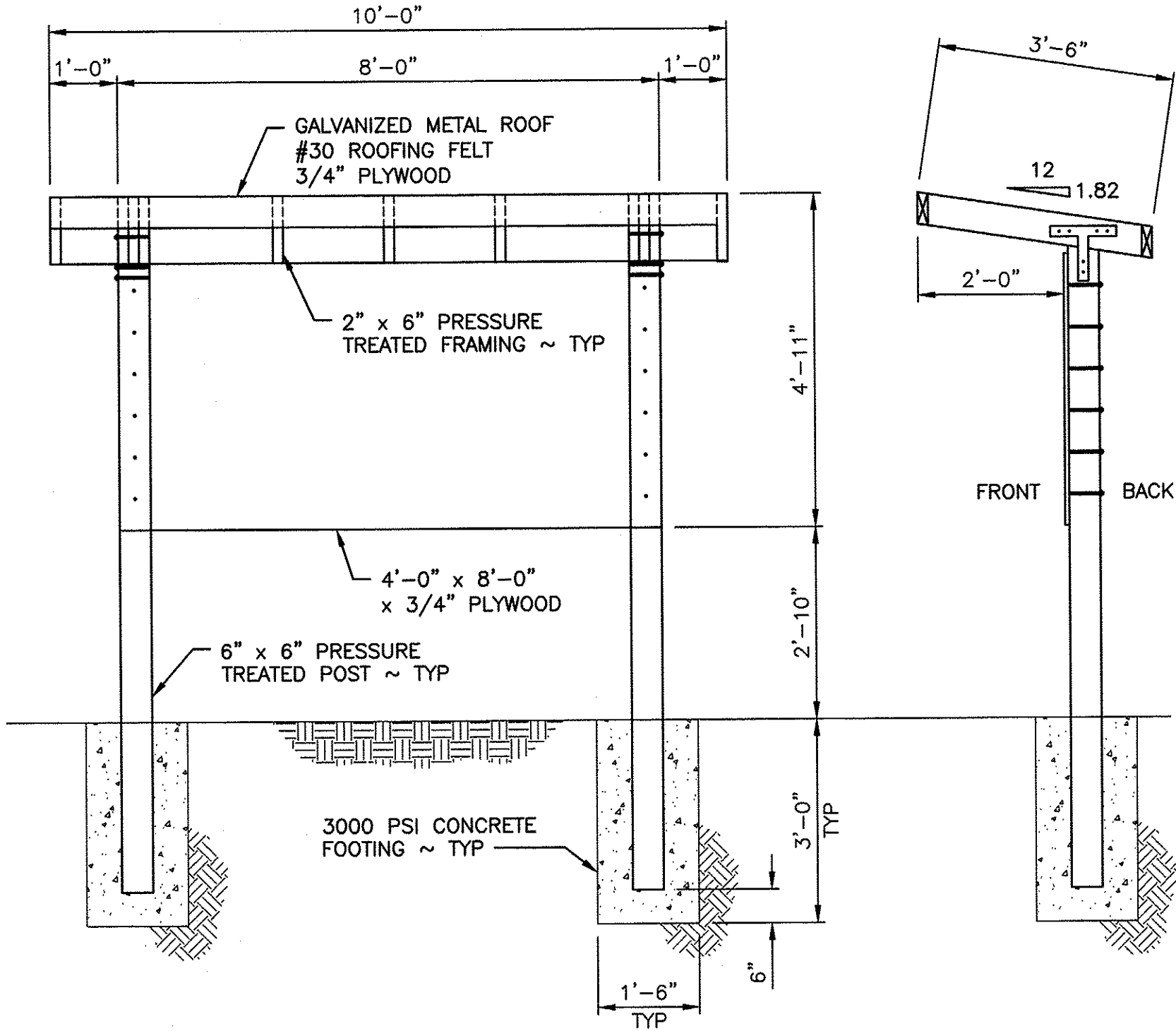
SWAKANE CANYON RIFLE & PISTOL RANGE

CONSTRUCTION DETAILS 1

PROJECT NO.  
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KIOSK MATERIALS	
QTY	DESCRIPTION
1	KIOSK BACKING (.75"x48"x96") SEALED WITH OIL PRIMER & OIL PAINT COLOR SW 6062 RUGGED BROWN OR EQUAL
2	6"x6" PRESSURE TREATED WOOD POST
9	2"x6" PRESSURE TREATED WOOD RAFTERS
12	CARRIAGE BOLT - HOT DIPPED GALVANIZED 3/8"x7.5" WITH WASHER & TAMPER RESISTANT NUT
12	HEX HEAD BOLT - HOT DIPPED GALVANIZED 5/8"x6 1/2" WITH WASHER & TAMPER RESISTANT NUT
4	1212HT HOT DIPPED GALVANIZED T-STRAP TIE
-	GALVANIZED METAL ROOFING



INFORMATION KIOSK

NOT TO SCALE

NOTE:

1. POST TO BE PLUMB AND LEVEL ALL DIRECTIONS.
2. NOTCH POST TOP FOR RAFTER TO SIT FLUSH.

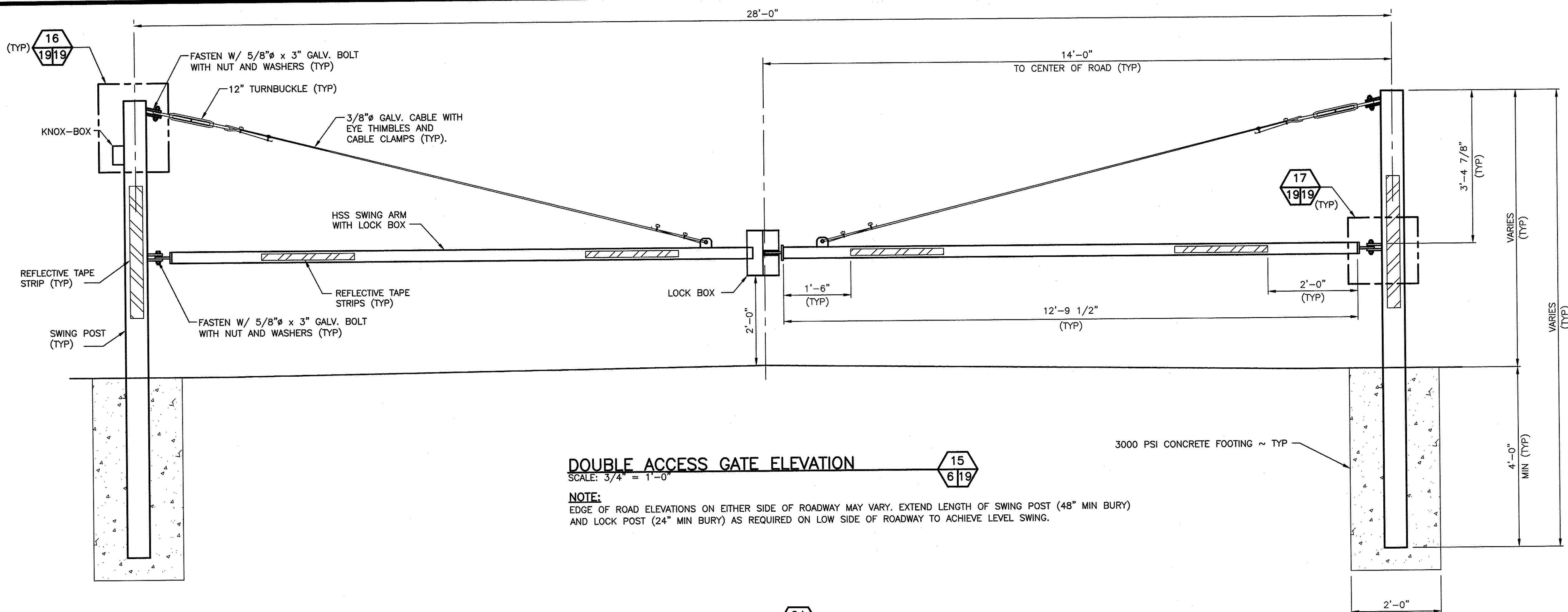
WASHINGTON DEPARTMENT OF  
FISH & WILDLIFE



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CHIEF ENGINEER		DATE: 2/23/21	
PROGRAM		DATE: 02/23/21	

CHELAN WILDLIFE AREA		PROJECT NO.	
SWAKANE CANYON RIFLE & PISTOL RANGE		CN:R21:2019-1	
CONSTRUCTION DETAILS 2		SHEET	OF
		18	20





### DOUBLE ACCESS GATE ELEVATION

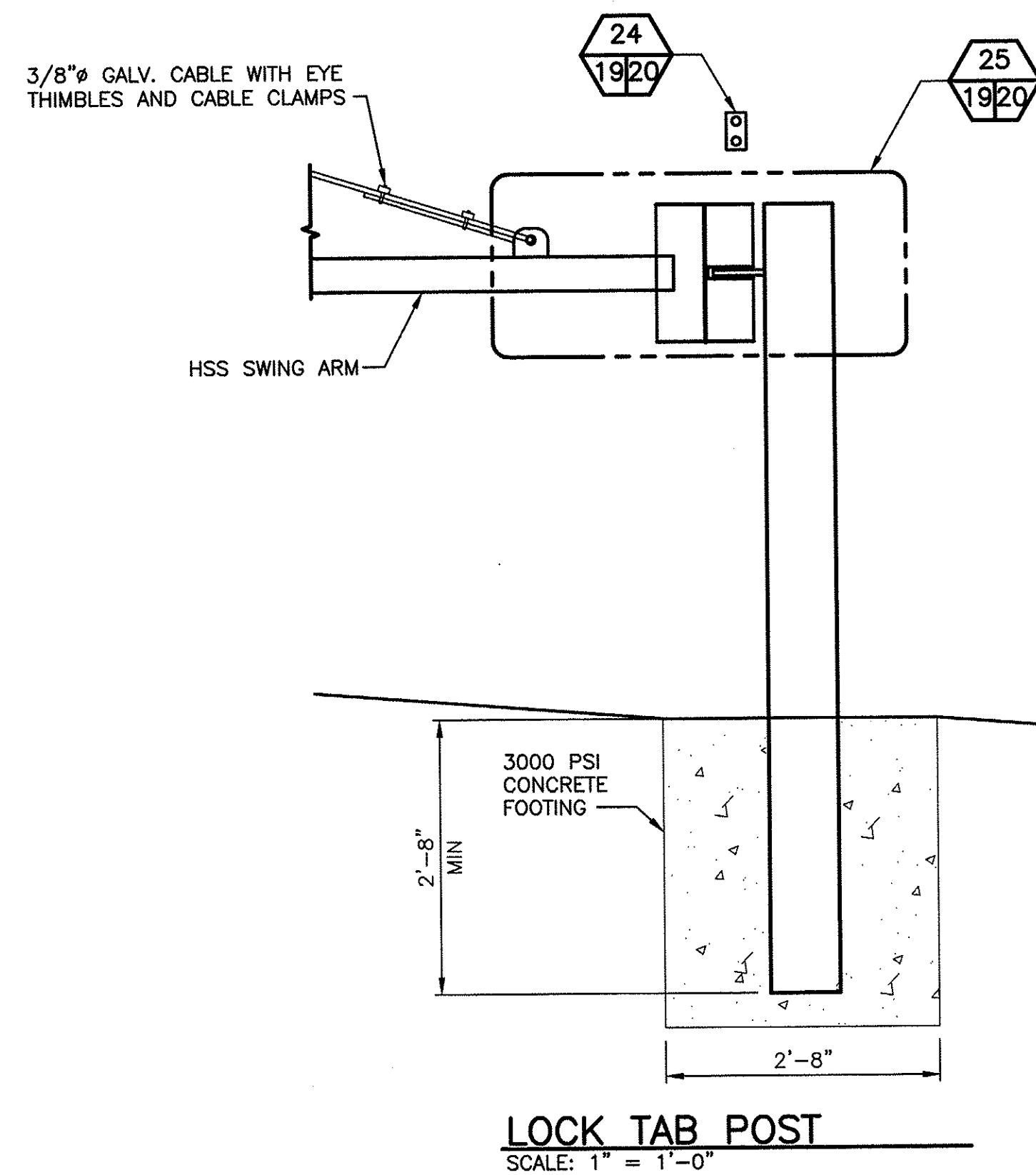
SCALE: 3/4" = 1'-0"

#### NOTE:

EDGE OF ROAD ELEVATIONS ON EITHER SIDE OF ROADWAY MAY VARY. EXTEND LENGTH OF SWING POST (48" MIN BURY) AND LOCK POST (24" MIN BURY) AS REQUIRED ON LOW SIDE OF ROADWAY TO ACHIEVE LEVEL SWING.

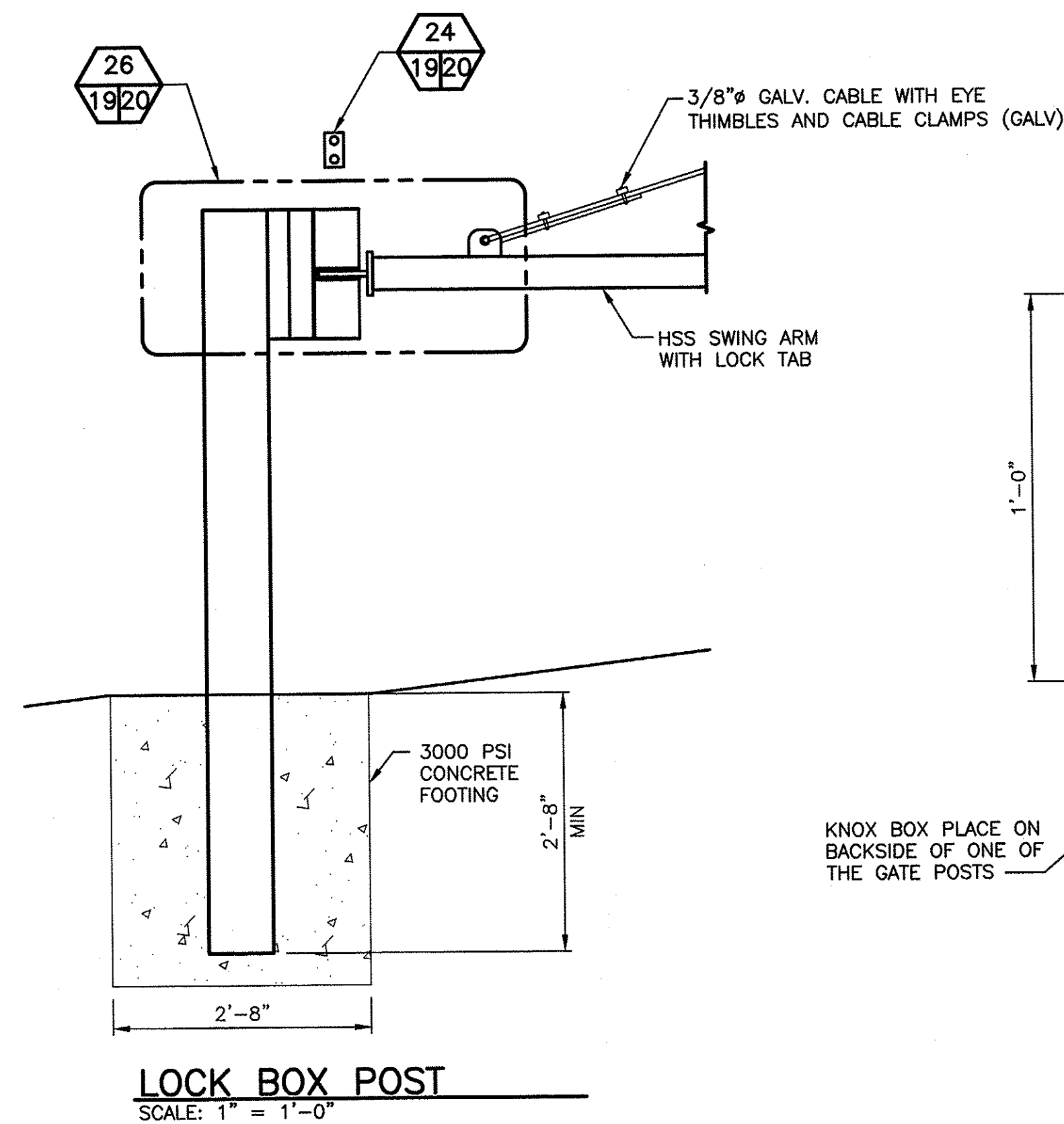
#### NOTES:

1. ALL STEEL SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION
2. GATES THAT PIVOT SHALL OPEN IN THE SAME DIRECTION.
3. BOTH SWING ARMS SHALL OPEN WHEN LOCK TUBE IS UNLOCKED.
4. THE OWNER IS RESPONSIBLE TO MAINTAIN THE RAPID ENTRY DEVICES IN AN OPERABLE CONDITION AFTER INSTALLATION AND ACCEPTANCE BY THE COUNTY.
5. KNOX-BOX 3200 WITH LIFT DOOR. MOUNTED 5' ABOVE GROUND IN ACCORDANCE W/ FIRE DISTRICT AND MANUFACTURER INSTRUCTIONS
6. APPLY 4" WIDE x 36" LONG REFLECTIVE TAPE STRIPS AS SHOWN. EACH SIDE OF SWING POSTS. REFLECTIVE TAPE FROM McMASTER-CARR #9195T89 YELLOW/BLACK OR APPROVED EQ.
7. APPLY 3" WIDE x 24" LONG REFLECTIVE TAPE STRIPS AS SHOWN. EACH SIDE OF SWING ARMS. REFLECTIVE TAPE FROM McMASTER-CARR #9195T76 YELLOW/BLACK OR APPROVED EQ.



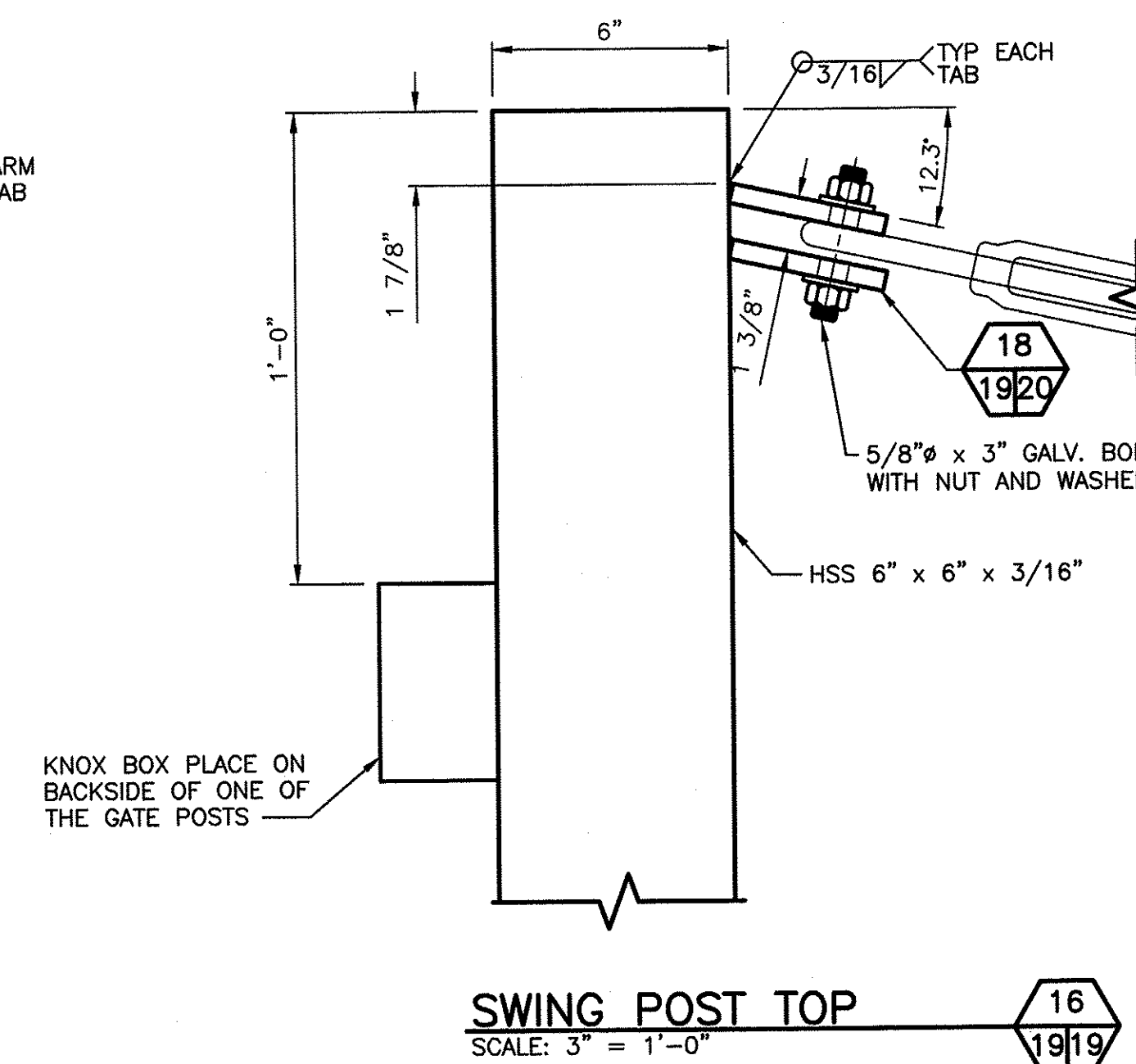
### LOCK TAB POST

SCALE: 1" = 1'-0"



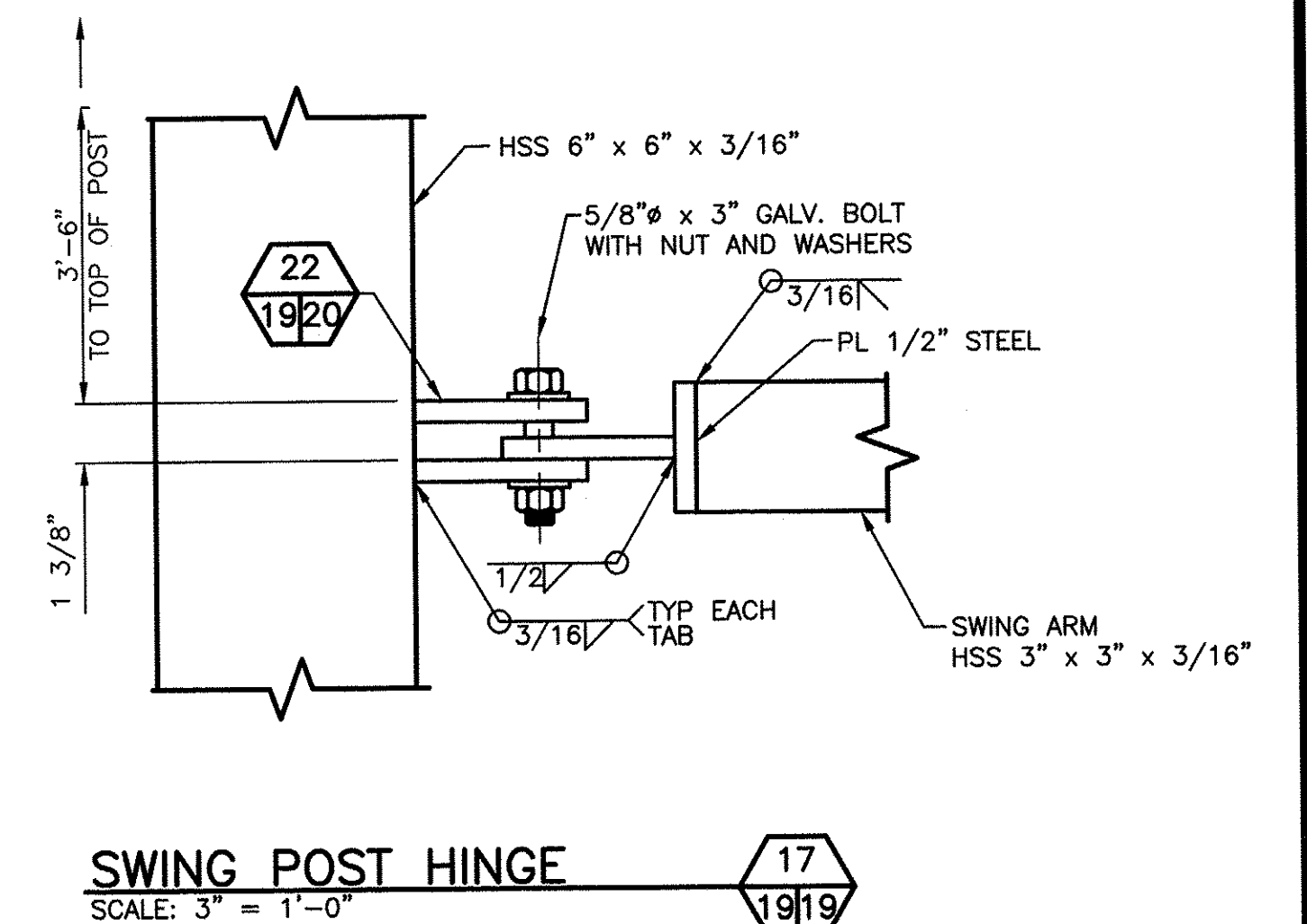
### LOCK BOX POST

SCALE: 1" = 1'-0"



### SWING POST TOP

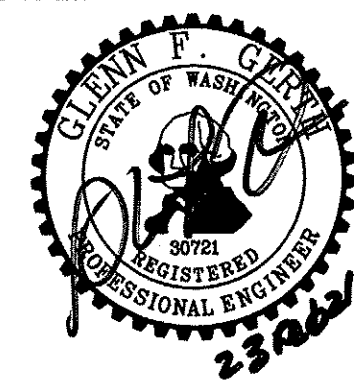
SCALE: 3" = 1'-0"



### SWING POST HINGE

SCALE: 3" = 1'-0"

WASHINGTON DEPARTMENT OF  
**FISH & WILDLIFE**



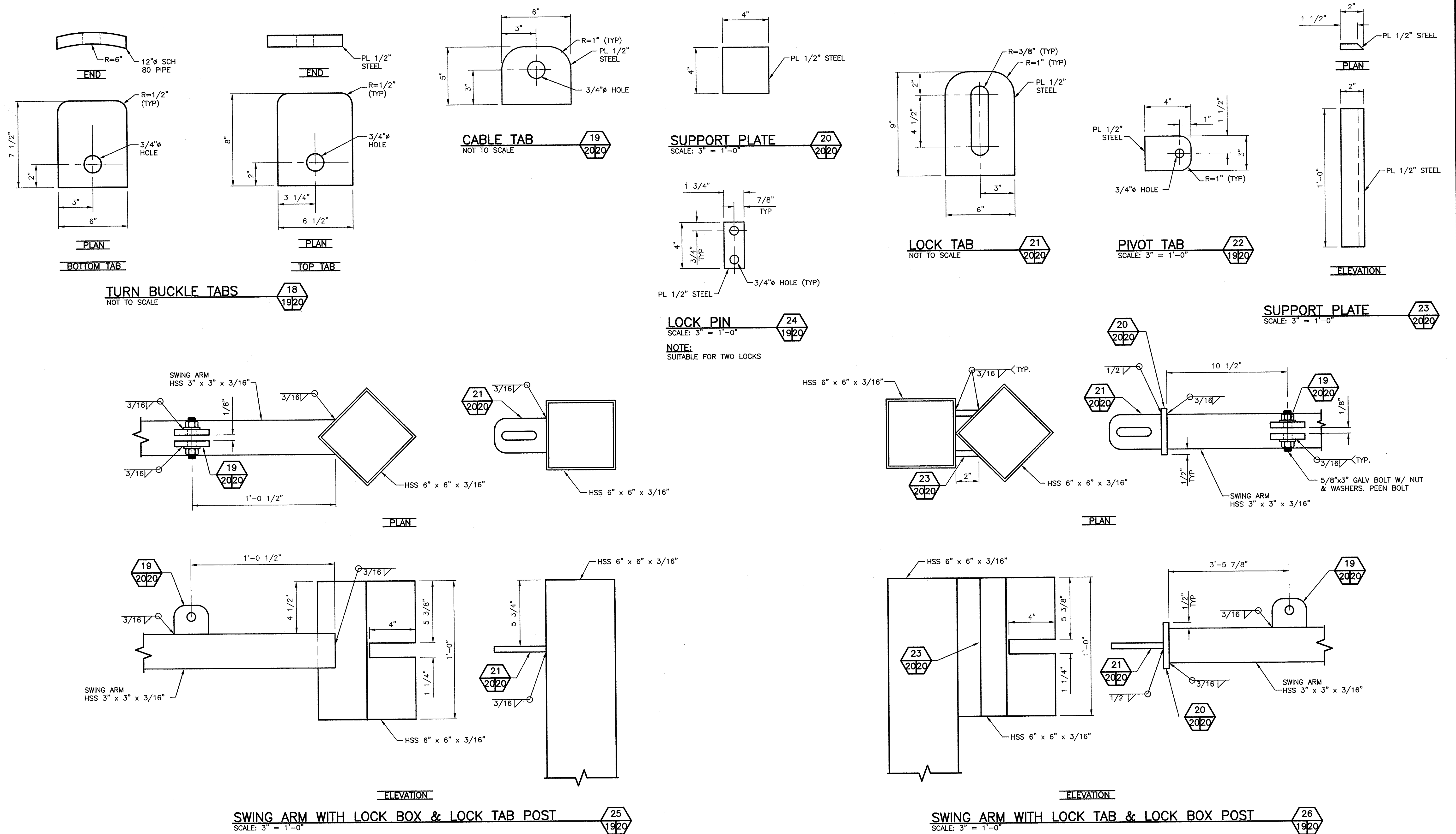
SYM	DATE	REVISION DESCRIPTION	BY
APPROVED AND RELEASED FOR CONSTRUCTION			
CHIEF ENGINEER		DATE: 2/23/21	
PROGRAM		DATE: 02/23/21	

DESIGNED BY WDFW  
CHECKED BY D. SMITH  
DRAWN BY J. LONG

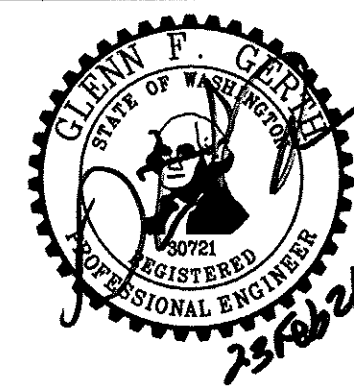
CHELAN WILDLIFE AREA  
**SWAKANE CANYON RIFLE & PISTOL RANGE**  
GATE CONSTRUCTION DETAILS 1

PROJECT NO.  
CN:R21:2019-1

SHEET 19 OF 20



WASHINGTON DEPARTMENT OF  
FISH & WILDLIFE



SYM	DATE	REVISION DESCRIPTION	BY
		APPROVED AND RELEASED FOR CONSTRUCTION	
CHIEF ENGINEER		DATE: 2/23/21	
PROGRAM		DATE: 02/23/21	

CHELAN WILDLIFE AREA  
SWAKANE CANYON RIFLE & PISTOL RANGE  
GATE CONSTRUCTION DETAILS 2

PROJECT NO.  
CN:R21:2019-1

SHEET  
20

OF  
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