

NEW PRIVATE ROAD PLANS

APPLICANT:

BUJR RANDALL HOWARD D
6411 NW MCKINLEY DR
VANCOUVER, WA 98665

PREPARED BY:

AARON FULLER, PE
FULLER DESIGNS
645 SE PROSPECT ST.
CHEHALIS, WA 98532
(520) 840-3599
afuller@fullerdesigns.org

SURVEYOR

BLUHM AND ASSOCIATES LAND
SURVEYORS, INC.
1068 S. MARKET BLVD.
CHEHALIS, WA 98532
(360) 748-1551
FAX: (360) 748-6282

ROAD DESIGN ELEMENTS:

ROAD CLASSIFICATION: COWLITZ COUNTY CLASS C PRIVATE ROAD
DESIGN SPEED: 20 MPH (MAX)
SUPERELEVATION: 4% MAX
ADT: <100

STANDARD NOTES:

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH COWLITZ COUNTY PRIVATE ROAD STDS.
2. TEMPORARY EROSION/WATER POLLUTION MEASURES SHALL BE REQUIRED IN ACCORDANCE WITH 1-07.15 OF THE STD SPECS AND THE DRAINAGE DESIGN AND EROSION CONTROL MANUAL.
3. ALL DISTURBED AREAS SHALL BE SEEDED, MULCHED OR OTHERWISE STABILIZED.
4. CONTRACTOR RESPONSIBLE FOR OBTAINING ROAD USE AND RELATED PERMITS PRIOR TO CONSTRUCTION ACTIVITY.
5. NO FINAL CUT SLOPE SHALL EXCEED 1.5:1 (H:V) WITHOUT STABILIZATION BY ROCKERY OR RETAINING WALL. UNSUPPORTED FINAL FILL SLOPES SHALL NOT EXCEED 2:1.
6. ROADWAY AND PAVEMENT DESIGNED FOR MAX. 75,000LB GWV EMERGENCY FIRE AND LIFE SAFETY TRUCKS.

GRADING NOTES:

1. 2' MINIMUM BUFFER SHALL BE RECOGNIZED BETWEEN THE SUBJECT PROPERTY LINES AND ALL GRADING DISTURBANCE RELATED TO THIS PROJECT EXCEPT WHERE A SIGNED LETTER OF AGREEMENT IS SUBMITTED TO COWLITZ COUNTY FOR GRADING WITHIN 2' OF THE PROPERTY LINE FROM THE PROPERTY OWNER ABUTTING
2. PRIOR TO PLACEMENT OF EMBANKMENT FILL, OR ROAD BASE COURSE, EXPOSED SUBGRADE SHALL BE PROOF ROLLED UNDER THE OBSERVATION OF THE GEOTECHNICAL ENGINEER.
3. ALL SOFT OR YIELDING ZONES SHALL BE OVEREXCAVATED AND REPLACED WITH STRUCTURAL FILL.

EARTHWORK QUANTITY

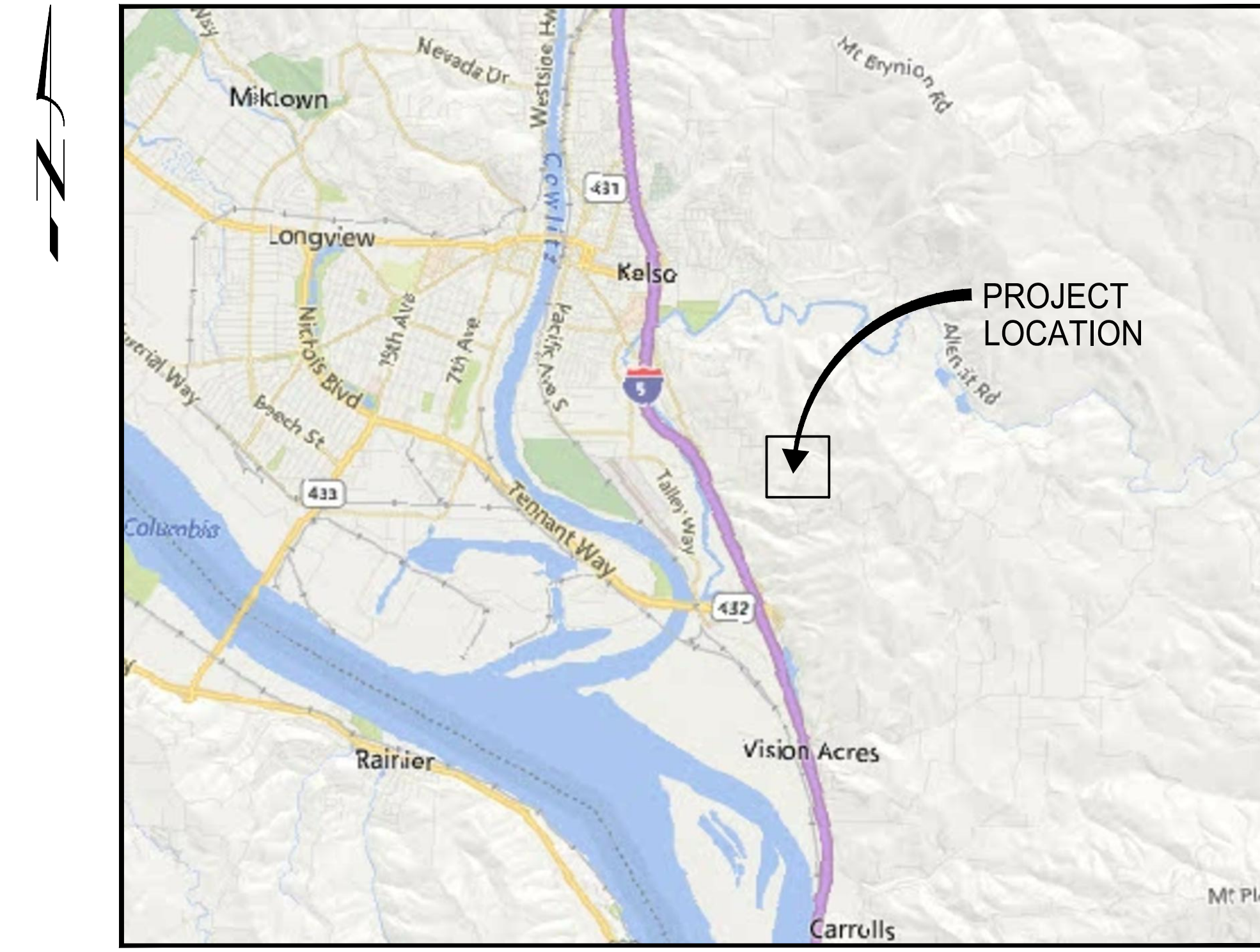
	CUT (CY)	FILL (CY)
RAW QUANTITY	501.09	613.03
NET VOLUMETRIC DIFFERENCE CUT/FILL	129.94 CY NET FILL	

PROJECT NOTES:

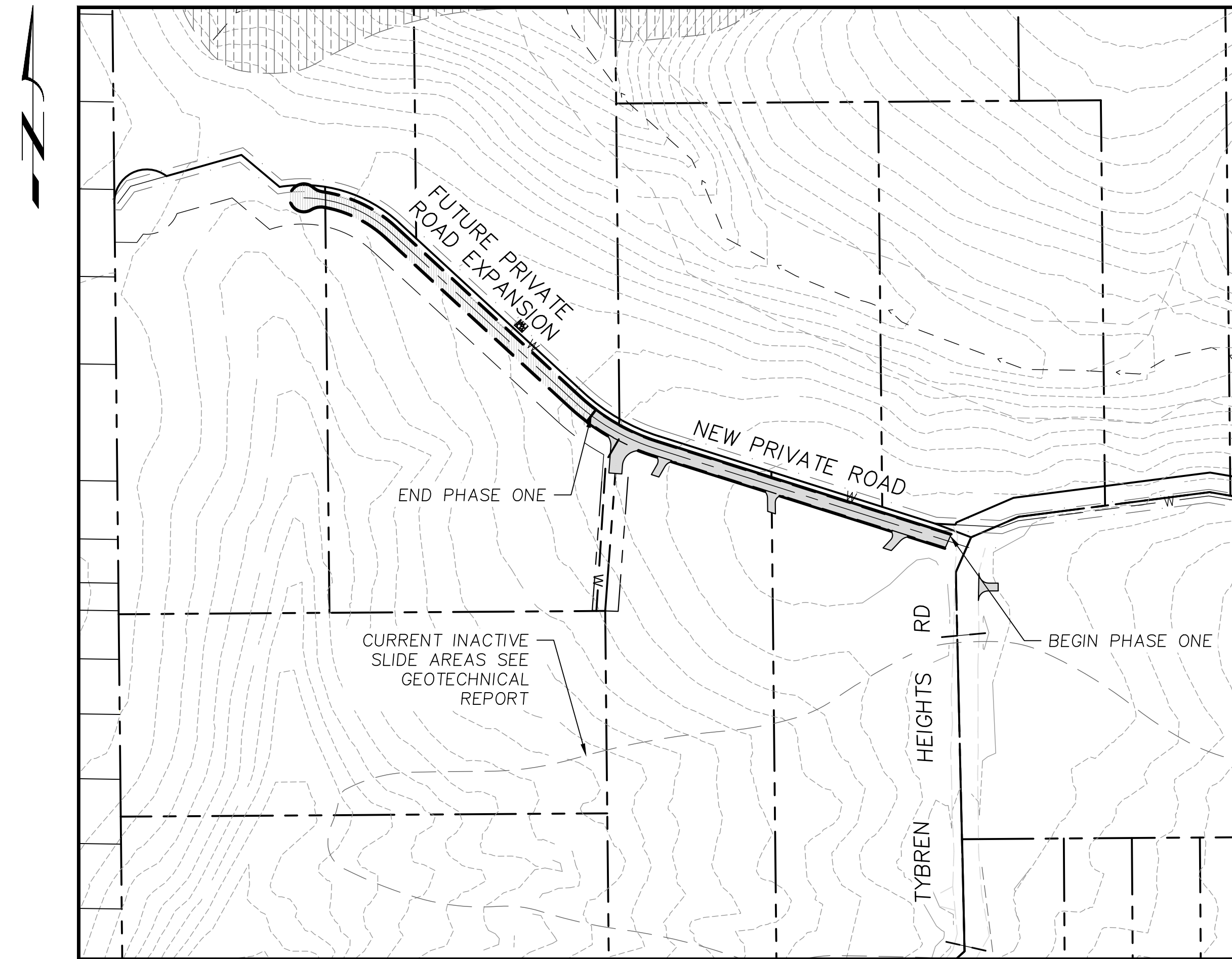
1. THE NEW PRIVATE ROAD IS TO PROVIDE ACCESS TO LOTS 7, 12 & 13
2. LOT 13 COULD BE ACCESSED OFF OF TYBREN ROAD BUT DUE TO MAP HAZARD AREA AND DESIRED BUILDING AREA, THE NEW PRIVATE ROAD IS THE PREFERRED ACCESS
3. A DRIVEWAY ACCESS IS ALSO PROPOSED FOR LOT 14 WITH A DRIVEWAY PERMIT.
4. GEOTECHNICAL AND STORMWATER REPORTS HAVE BEEN PROVIDED TO THE DEVELOPER AND ARE INCLUDED BY REFERENCE WITH THESE PLANS.

INDEX TO DRAWINGS:

SHEET NO	SHEET TITLE
C-III-01	COVER SHEET
C-III-02	OVERALL ROAD PLAN
C-III-03	PROPOSED GRADING PLAN
C-III-04	DRAINAGE PLAN
C-III-05	ROAD PLAN & PROFILE
C-III-06	CROSS SECTION STA 0+00 - STA 6+00
C-III-07	CROSS SECTION STA 6+00 - STA 11+86
C-III-08	EROSION CONTROL PLAN
C-III-09	DETAILS & EROSION CONTROL NOTES



2 VICINITY MAP
SCALE: 1" = 5000'



SCALE
150 0 75 150 300
SCALE FEET

1 SITE LAYOUT
SCALE: 1" = 150'

Preliminary
01/31/2020 11:46:34 AM



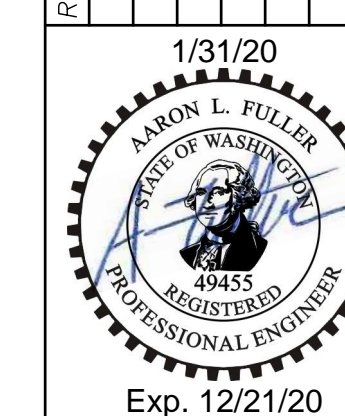
NEW PRIVATE ROAD PLAN
(CITY OF KELSO, WASHINGTON)

COVER SHEET

PROJECT: 19-20	DRAWN: AVA	CHECKED: AF	DATE: 2020-31-01	NAME:
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REVISIONS:

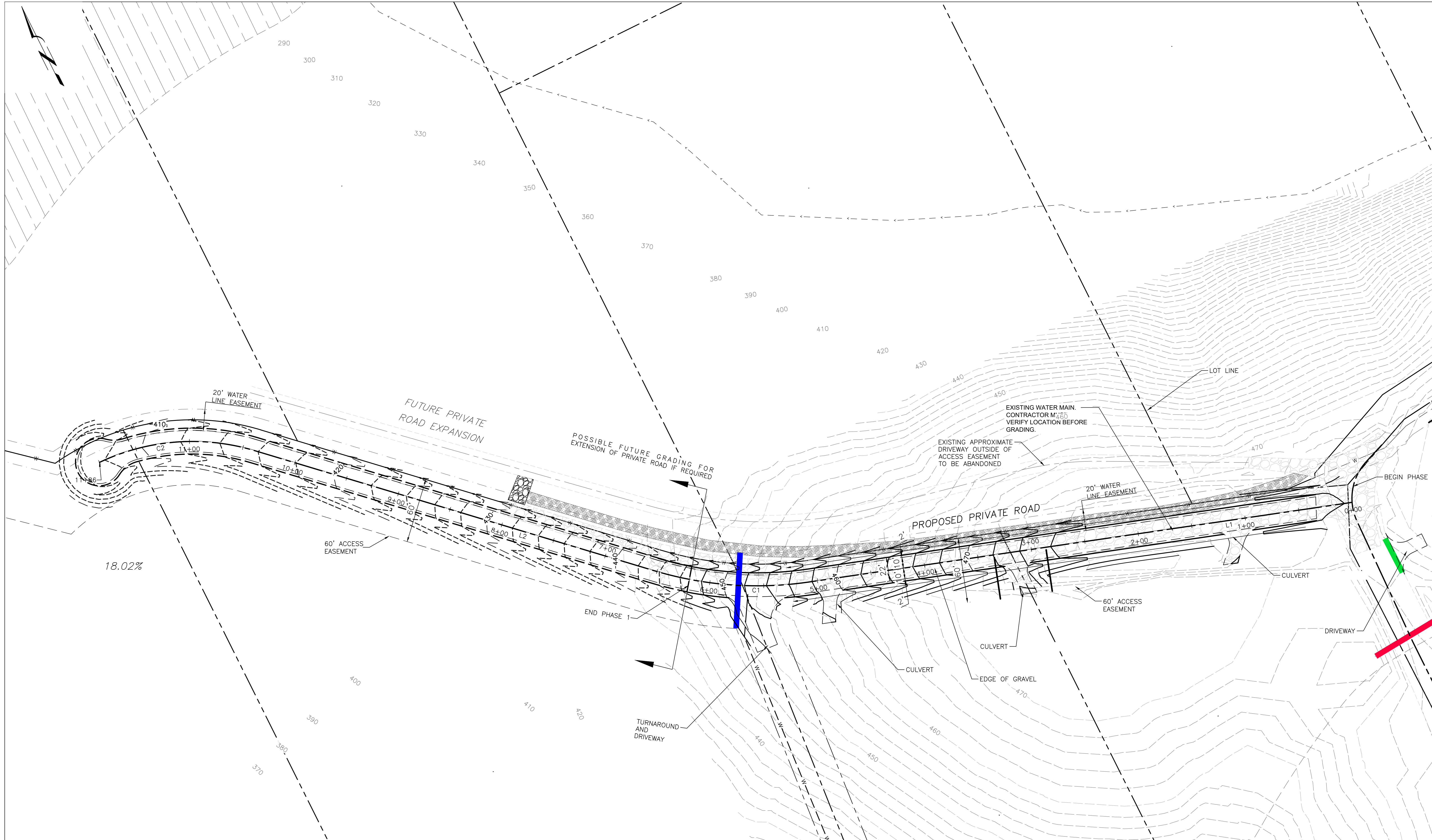
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NEW PRIVATE ROAD PLAN
(CITY OF KELSO, WASHINGTON)

PROPOSED GRADING PLAN



- LEGEND:**
- EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - FUTURE MAJOR CONTOUR
 - FUTURE MINOR CONTOUR

Line Table: Alignments

LINE #	LENGTH	DIRECTION

Curve Table: Alignments

CURVE #	RADIUS	LENGTH	CHORD DIRECTION

1 PROPOSED GRADING PLAN
C-03 SCALE: 1"=40'

PROJECT NOTES:

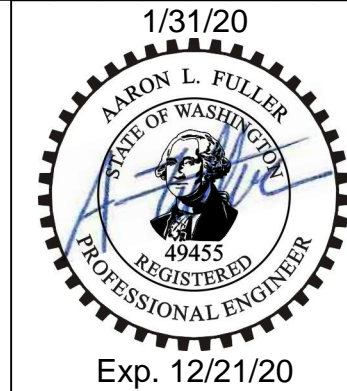
ORIGINAL CONTOURS ARE BASED ON GIS CONTOUR DATA PROVIDED BY THE OWNER. EXISTING CONTOURS ARE BASED ON AS BUILT OF 2018 ACCESS EASEMENT GRADING. PROPOSED CONTOURS SHOW ADDITIONAL WORK TO MEET COUNTY CLASS A PRIVATE ROAD STANDARDS.



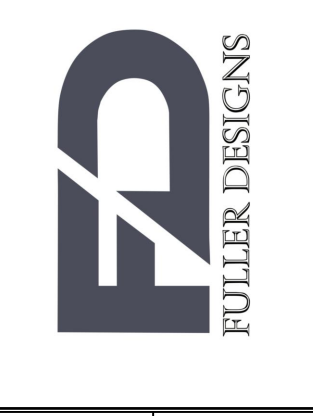
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REVISIONS:

PROJECT:	DRAWN:	CHECKED:	DATE:	NAME:
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FILE: C-03 PROPOSED GRADING PLAN SAVE DATE: 1/31/2020 7:39:31 AM PLOT DATE: 1/31/2020 7:42:33 AM

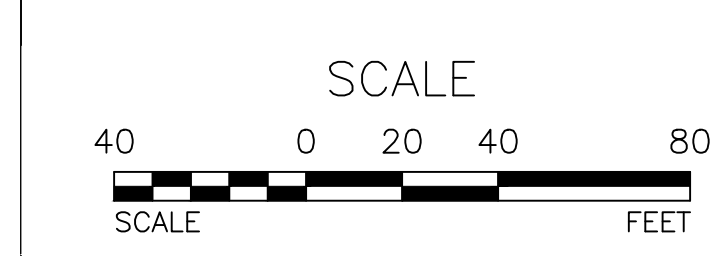
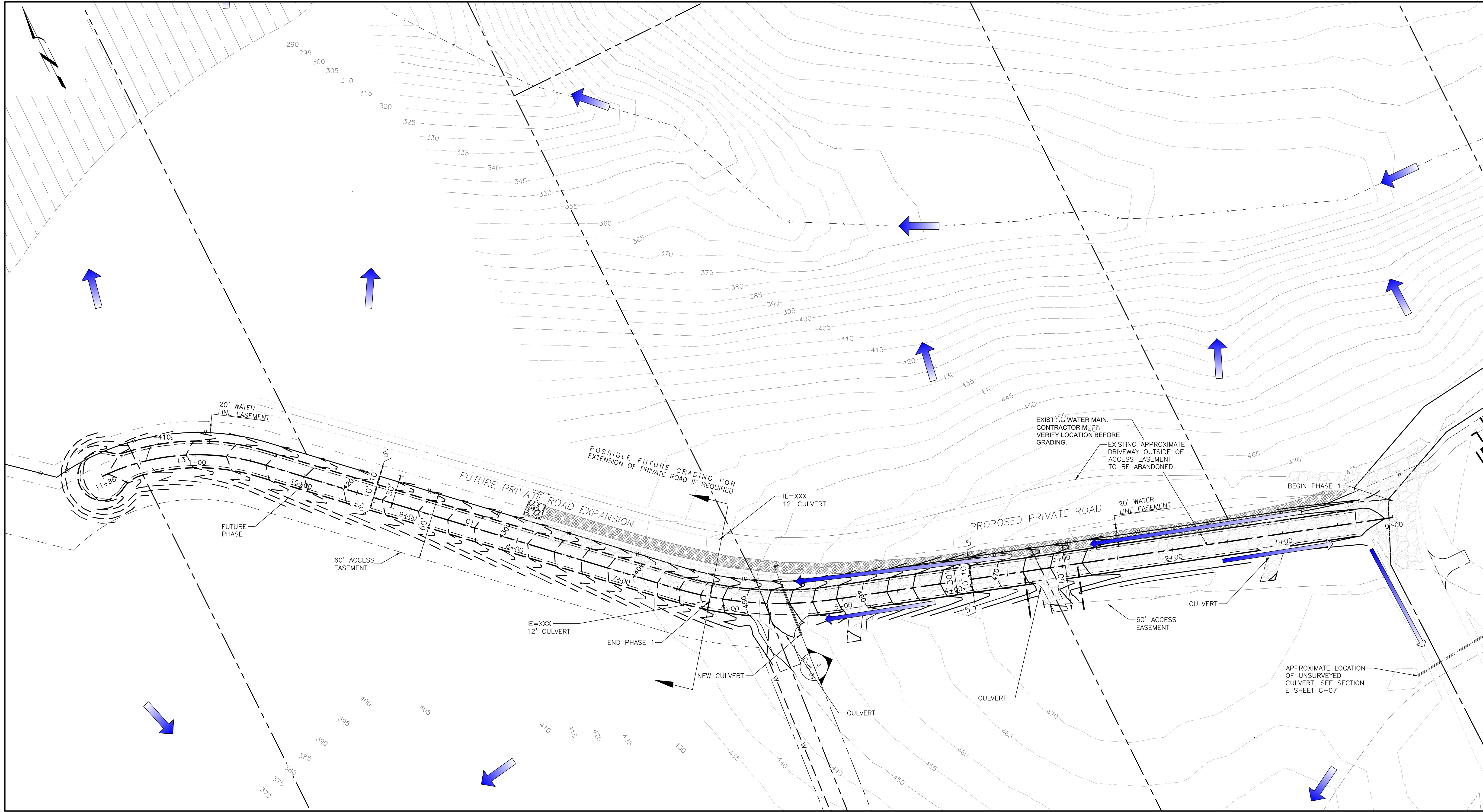
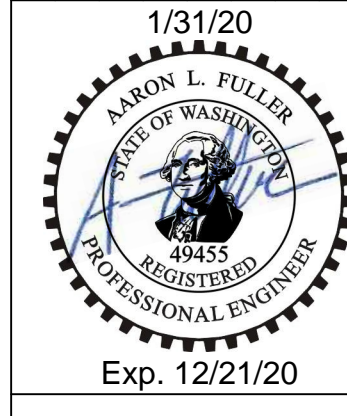


NEW PRIVATE ROAD PLAN
(CITY OF KELSO, WASHINGTON)

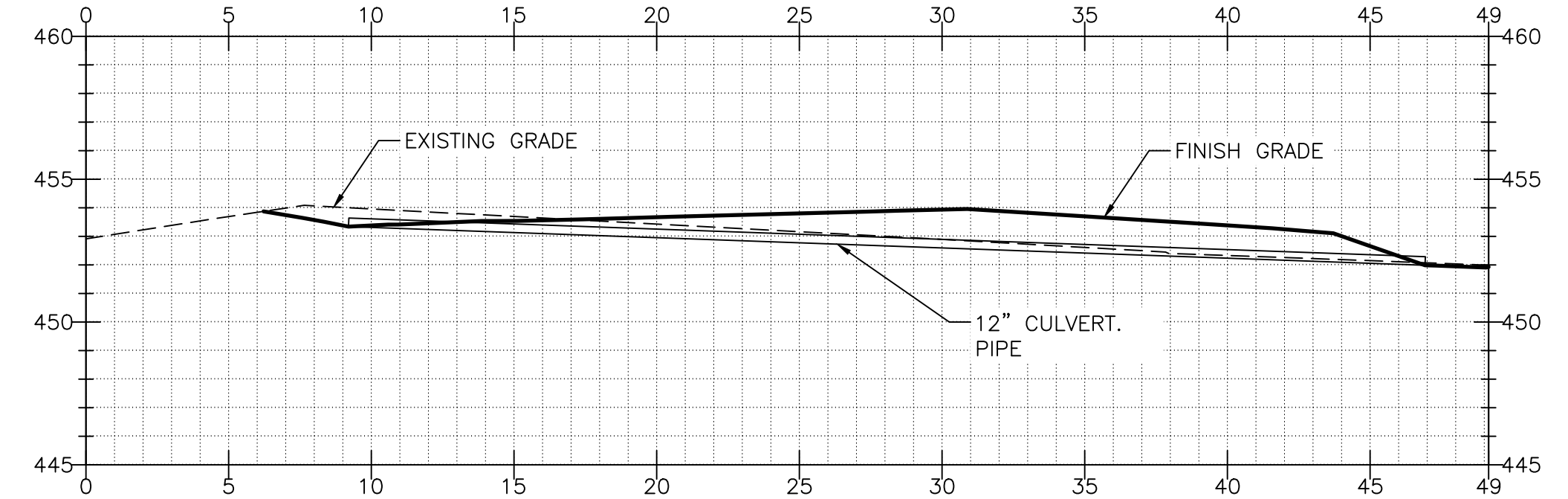
DRAINAGE PLAN

PROJECT:	19-20
DRAWN:	AVA
CHECKED:	AF
DATE:	2020-31-01
NAME:	

REVISIONS:	



LEGEND:
 DRAINAGE ARROW



A SECTION AT NEW CULVERT
 C-04 SCALE: 1"=5'

1 DRAINAGE PLAN
 C-04 SCALE: 1"=40'

PROJECT NOTES:

ORIGINAL CONTOURS ARE BASED ON GIS CONTOUR DATA PROVIDED BY THE OWNER. EXISTING CONTOURS ARE BASED ON AS BUILT OF 2018 ACCESS EASEMENT GRADING. PROPOSED CONTOURS SHOW ADDITIONAL WORK TO MEET COUNTY CLASS C PRIVATE ROAD STANDARDS.

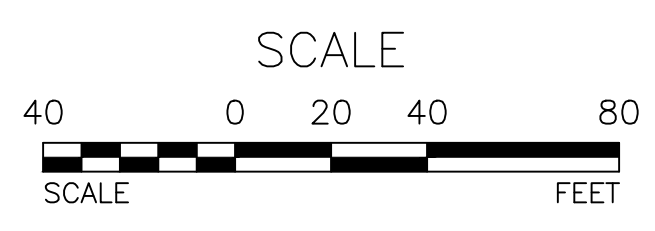
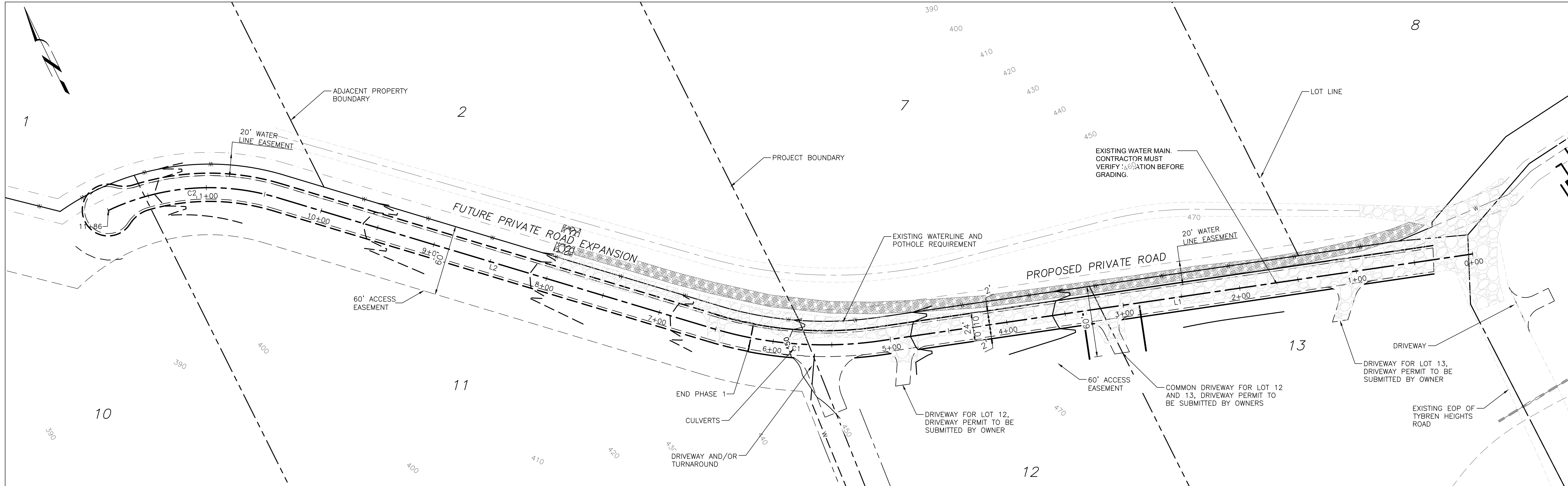
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FILE: C-04 DRAINAGE PLAN SAVE DATE: 1/31/2020 7:39:53 AM PLOT DATE: 1/31/2020 7:42:41 AM



NEW PRIVATE ROAD PLAN
(CITY OF KELSO, WASHINGTON)

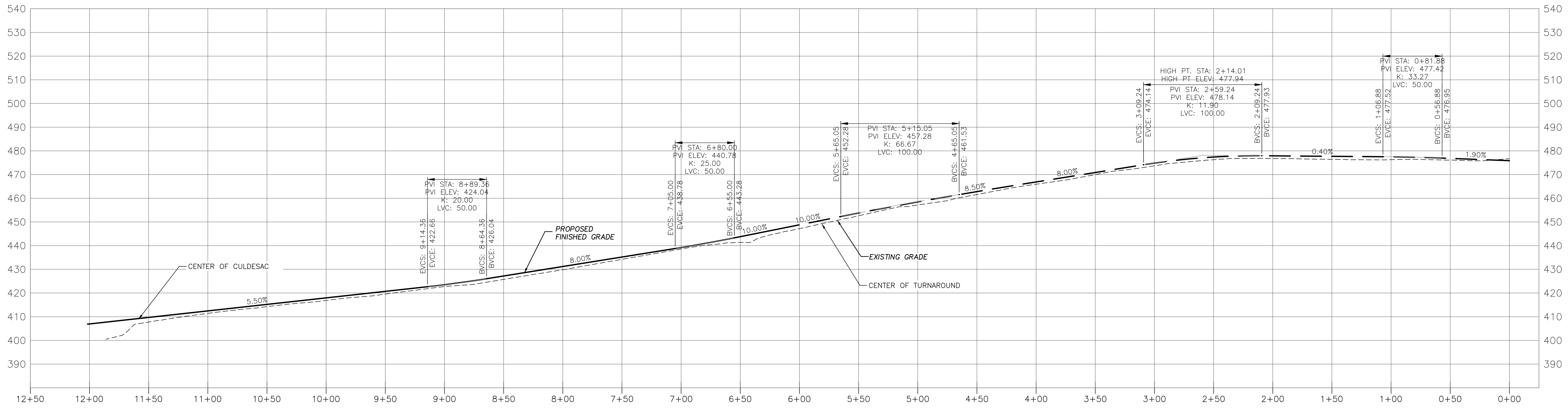
ROAD PLAN & PROFILE



1 ROAD PLAN
SCALE: 1"=40' HORZ

LINE TABLE: ALIGNMENTS		
LINE #	LENGTH	DIRECTION
L1	508.22	N72° 26' 06.00"W
L2	386.32	N47° 21' 43.00"W

CURVE TABLE: ALIGNMENTS			
CURVE #	RADIUS	LENGTH	CHORD DIRECTION
C1	330.00	144.41	N59° 53' 53.94"W
C2	200.00	147.17	N68° 26' 35.49"W

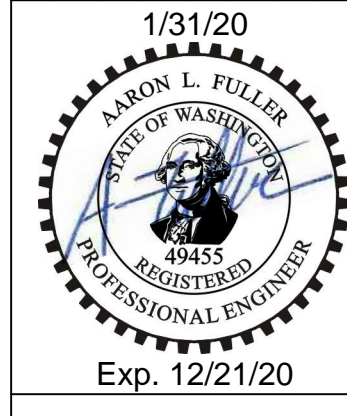


2 ROAD PROFILE
SCALE: 1"=40' HORZ
1"=20' VERT

PROJECT: 19-20	DRAWN: AVA	CHECKED: AF	DATE: 2020-31-01	NAME:
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REVISIONS:

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Preliminary
01/31/2020 11:46:13 AM

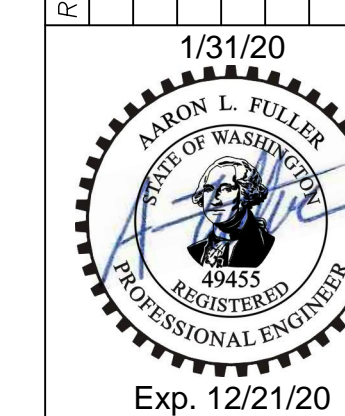
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NEW PRIVATE ROAD PLAN
(CITY OF KELSO, WASHINGTON)

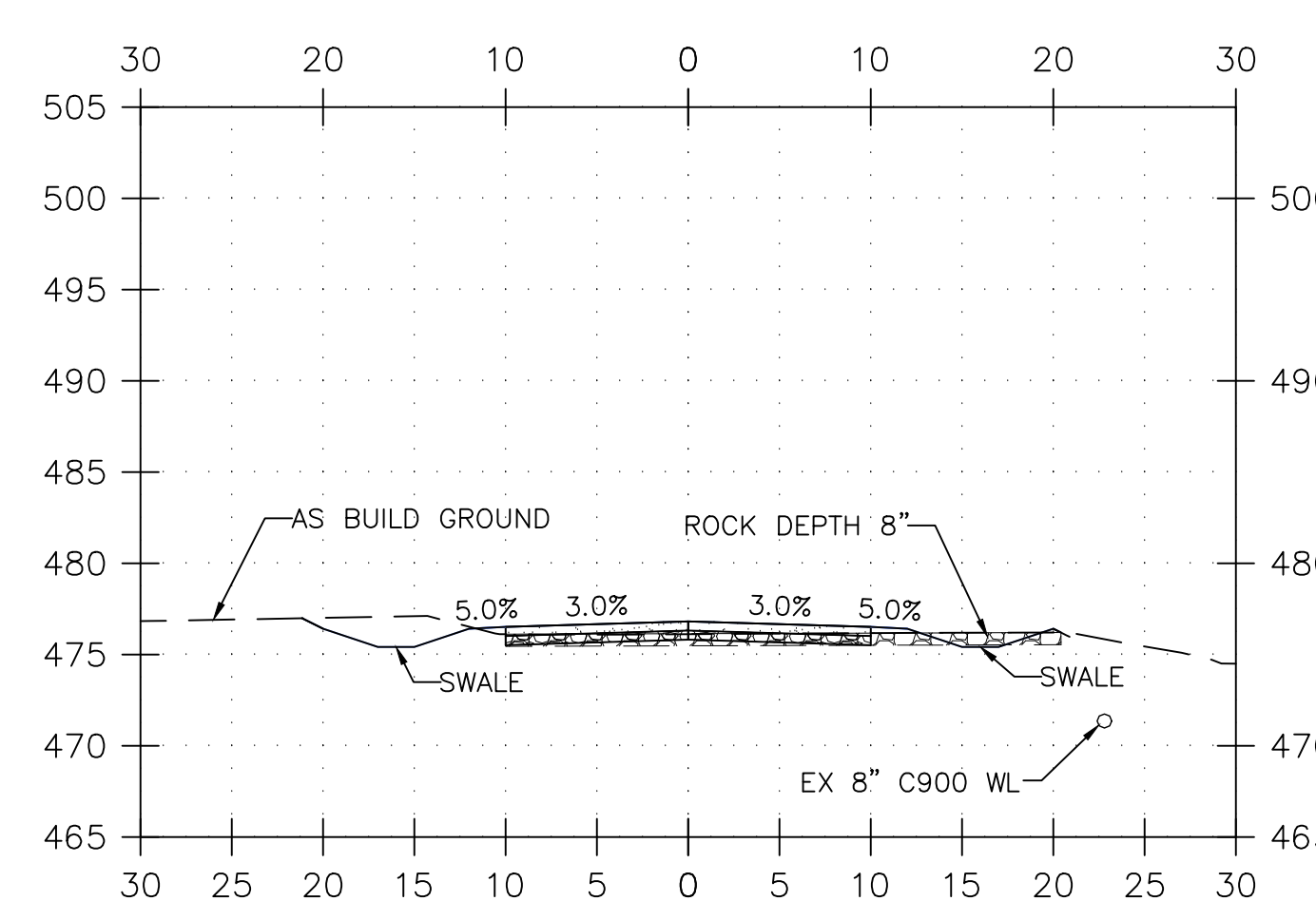
CROSS SECTION STA 0+00 - STA 6+00

PROJECT:	19-20
DRAWN:	AVA
CHECKED:	
DATE:	
NAME:	

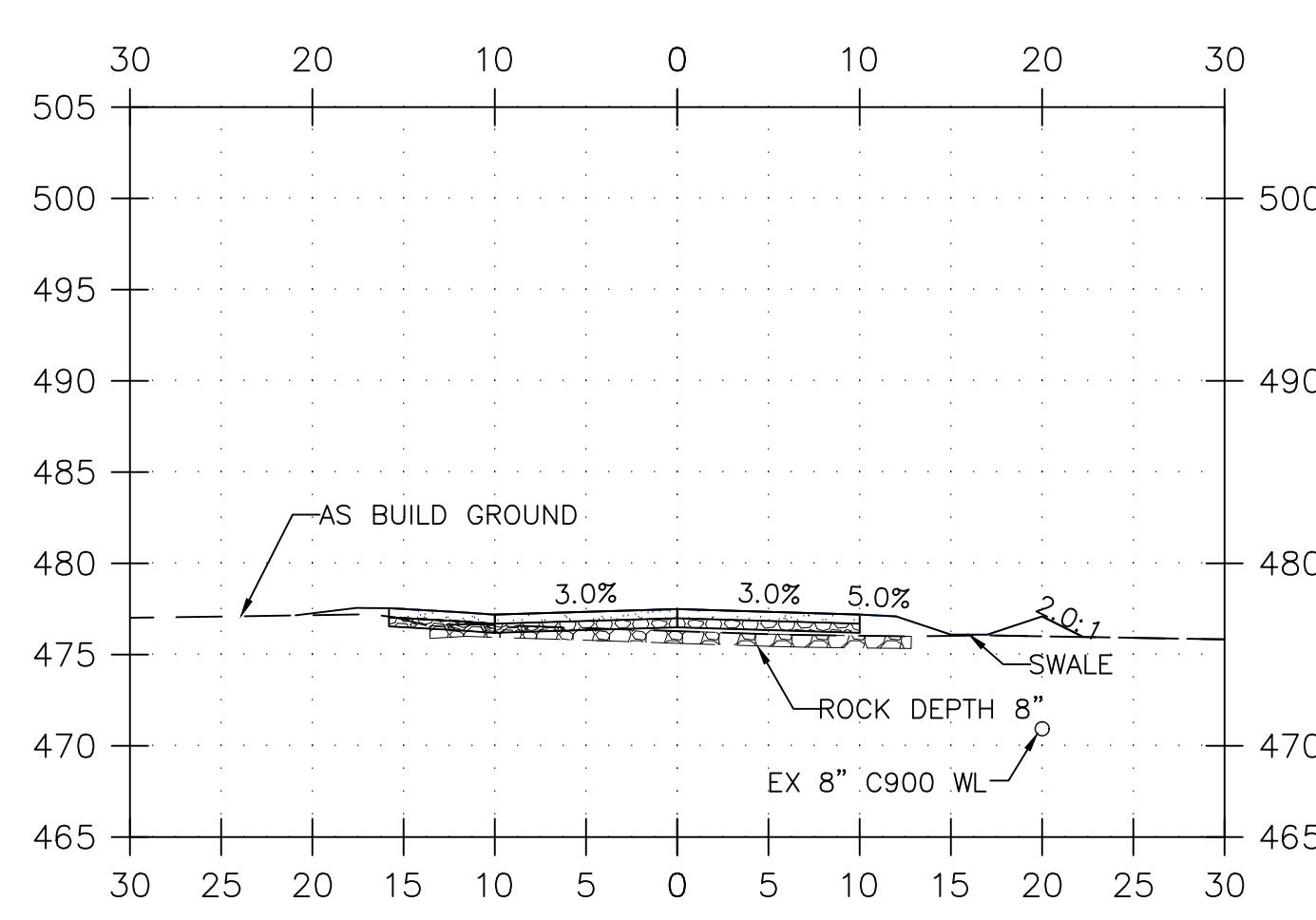


C-06 OF 9

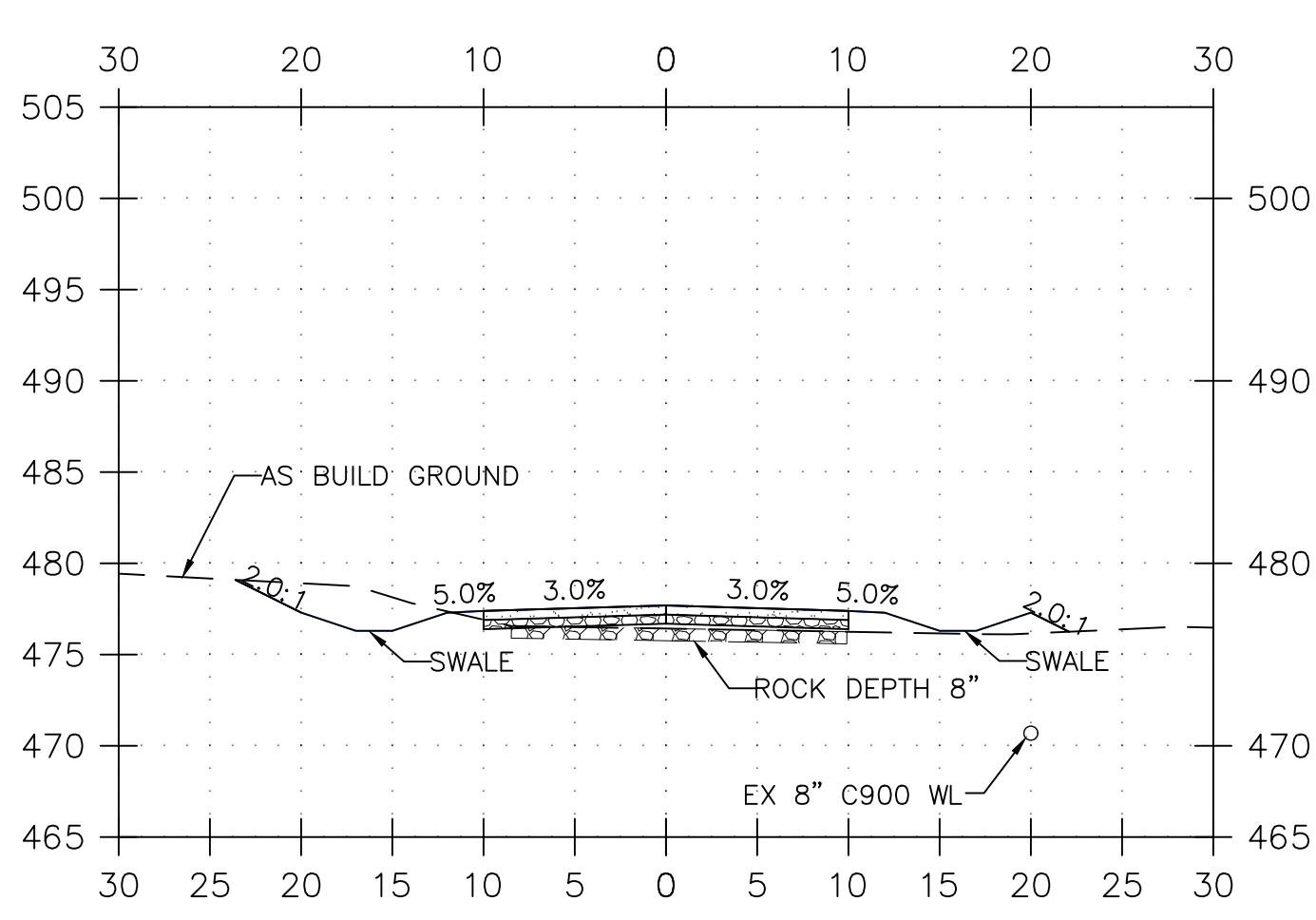
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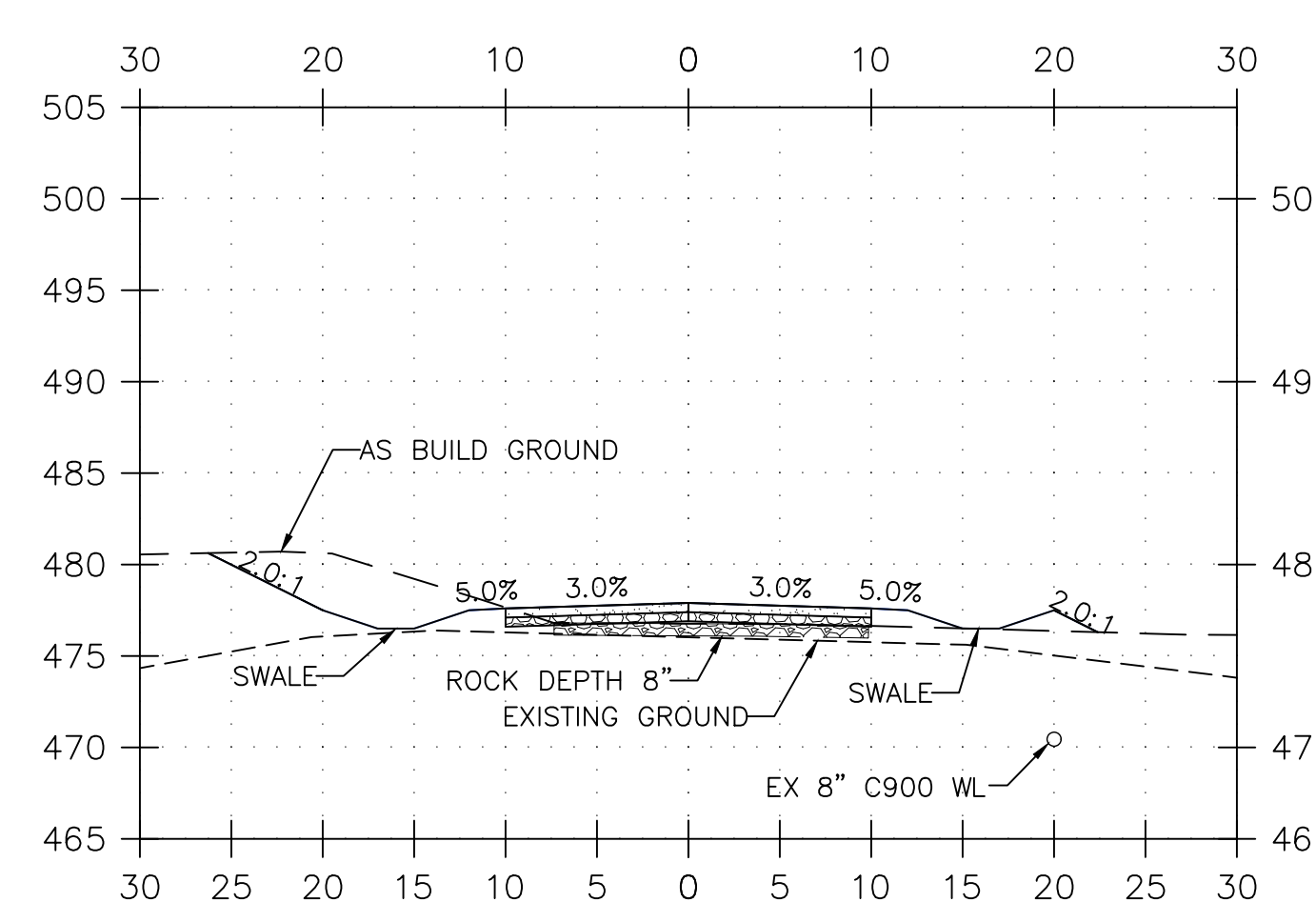
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1+00.00



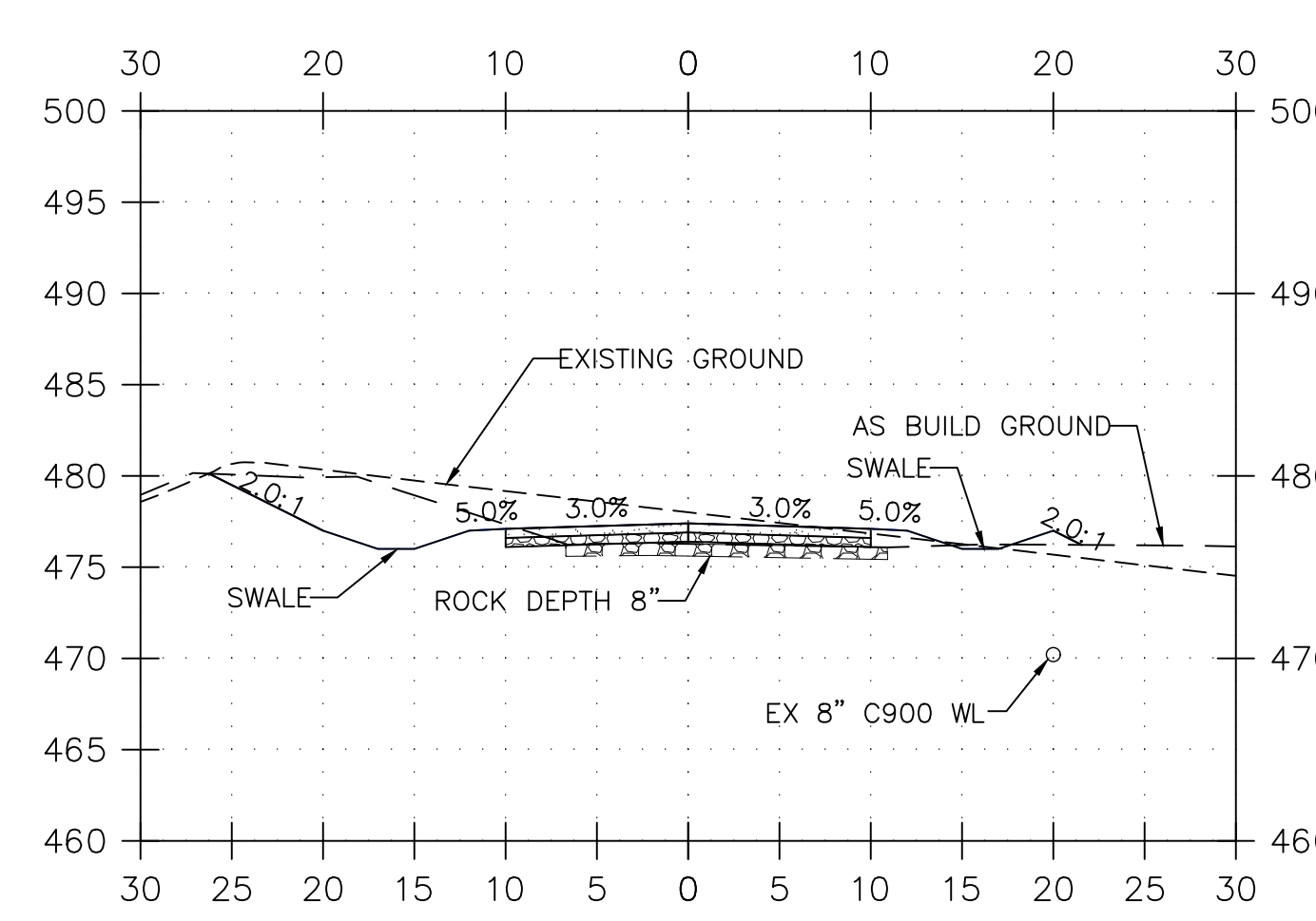
CROSS SECTION
1+50.00



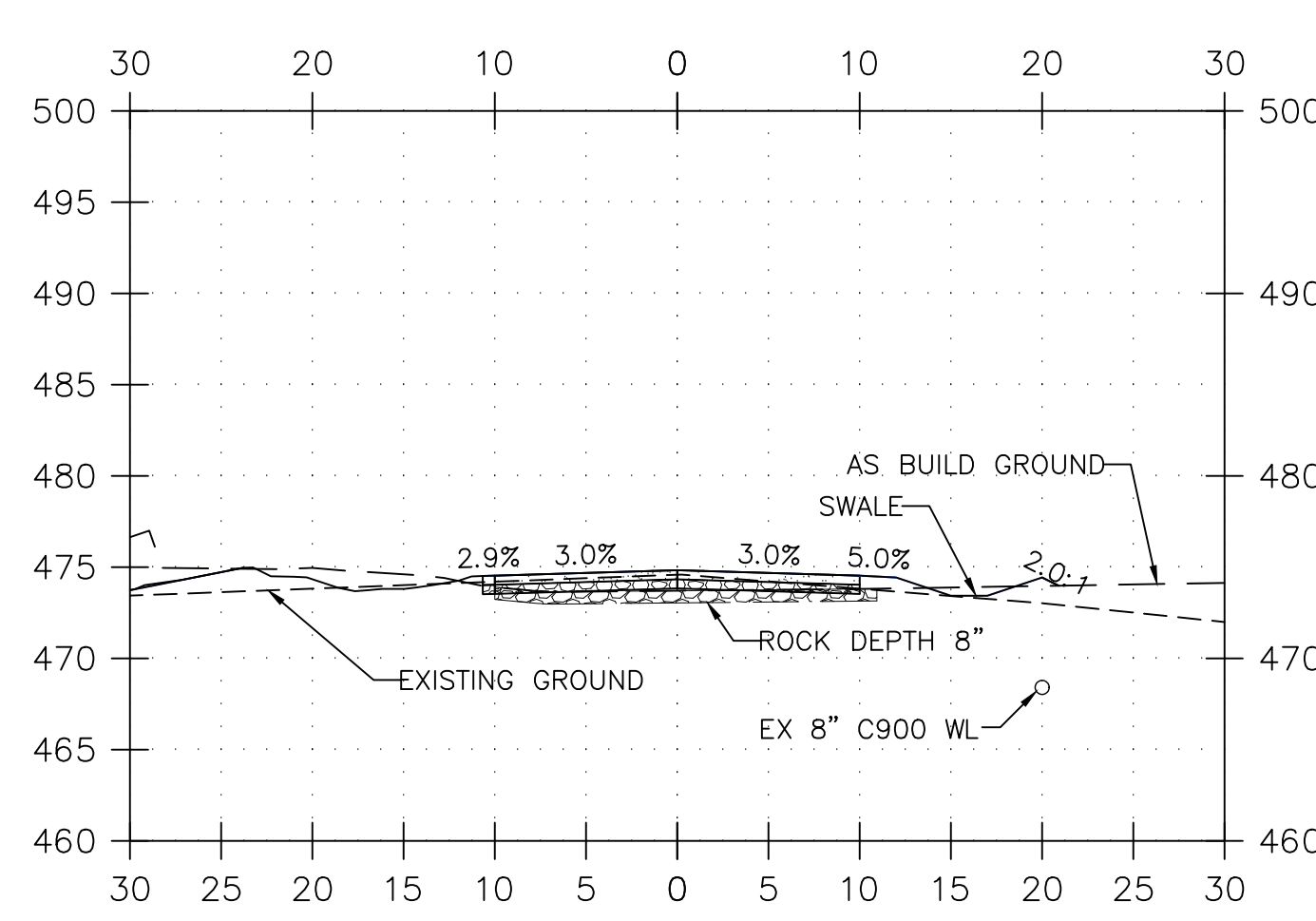
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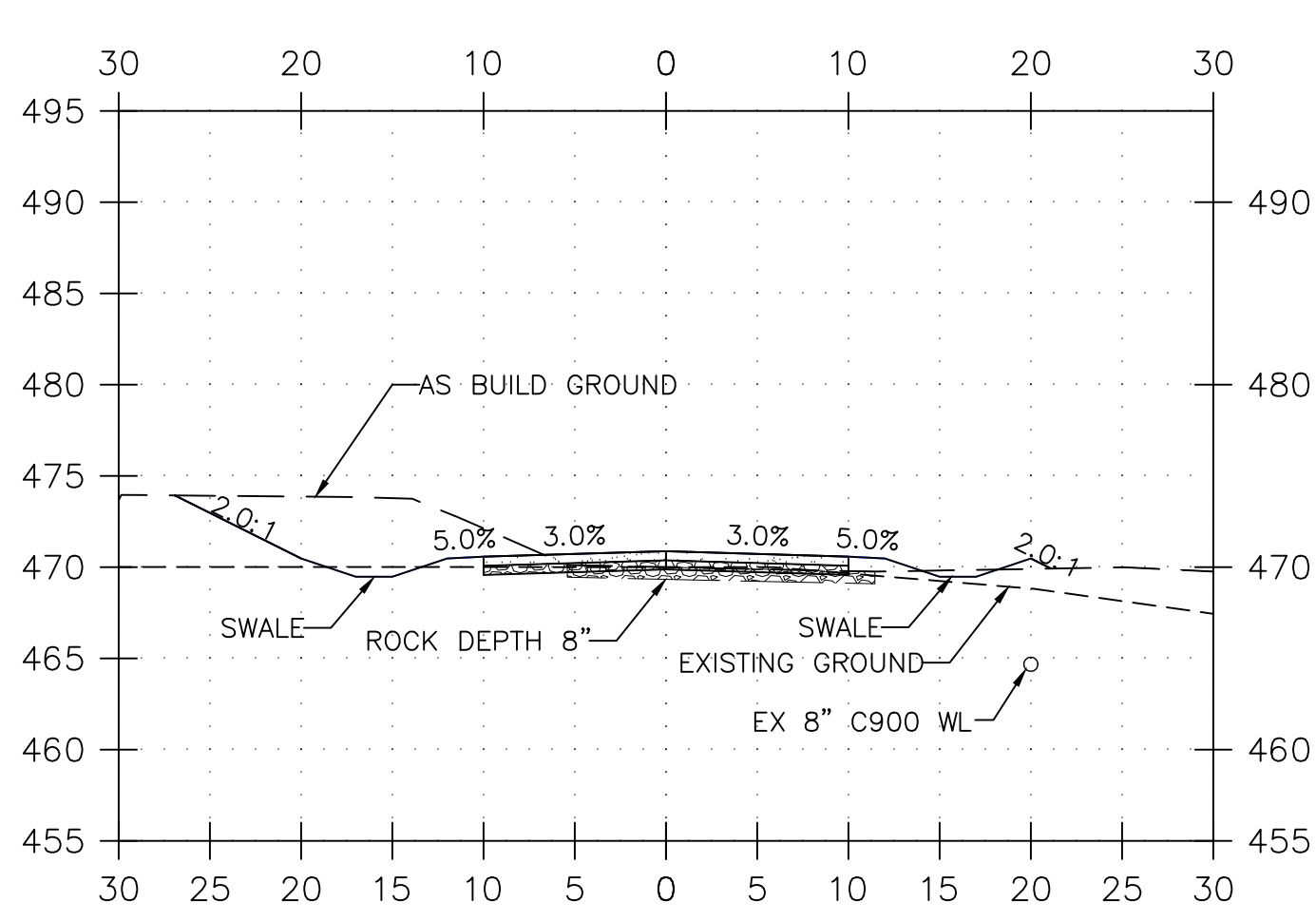
CROSS SECTION
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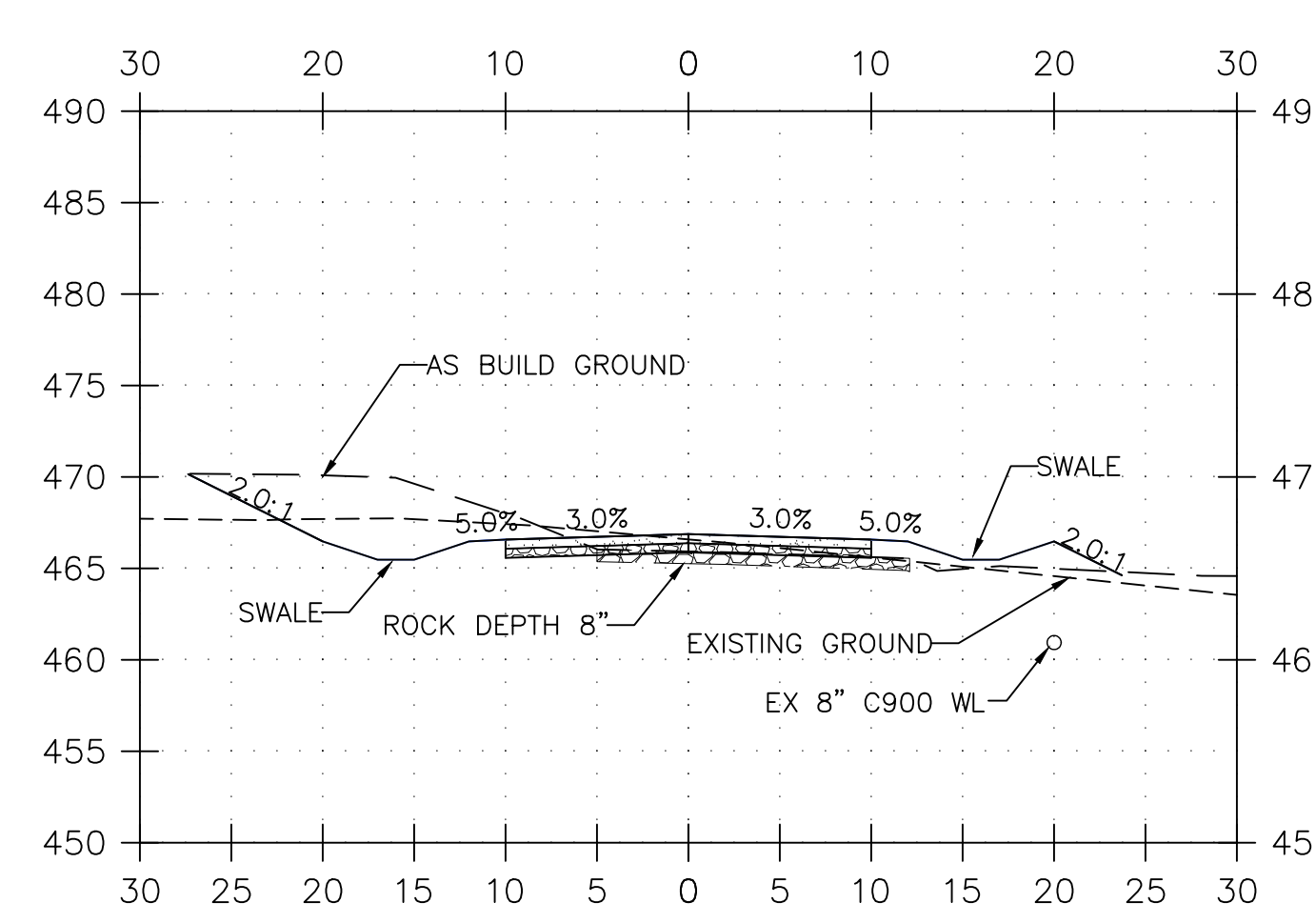
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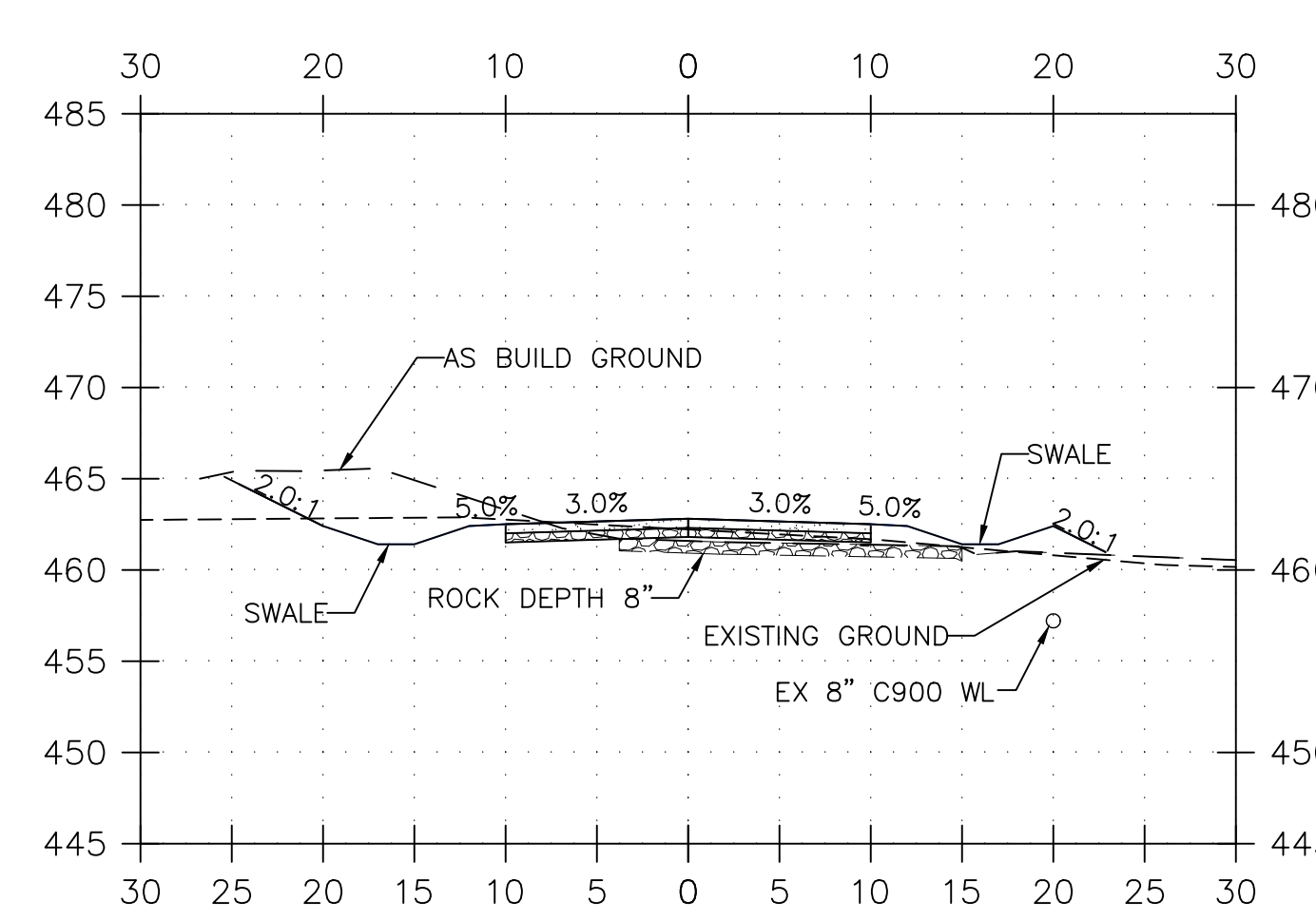
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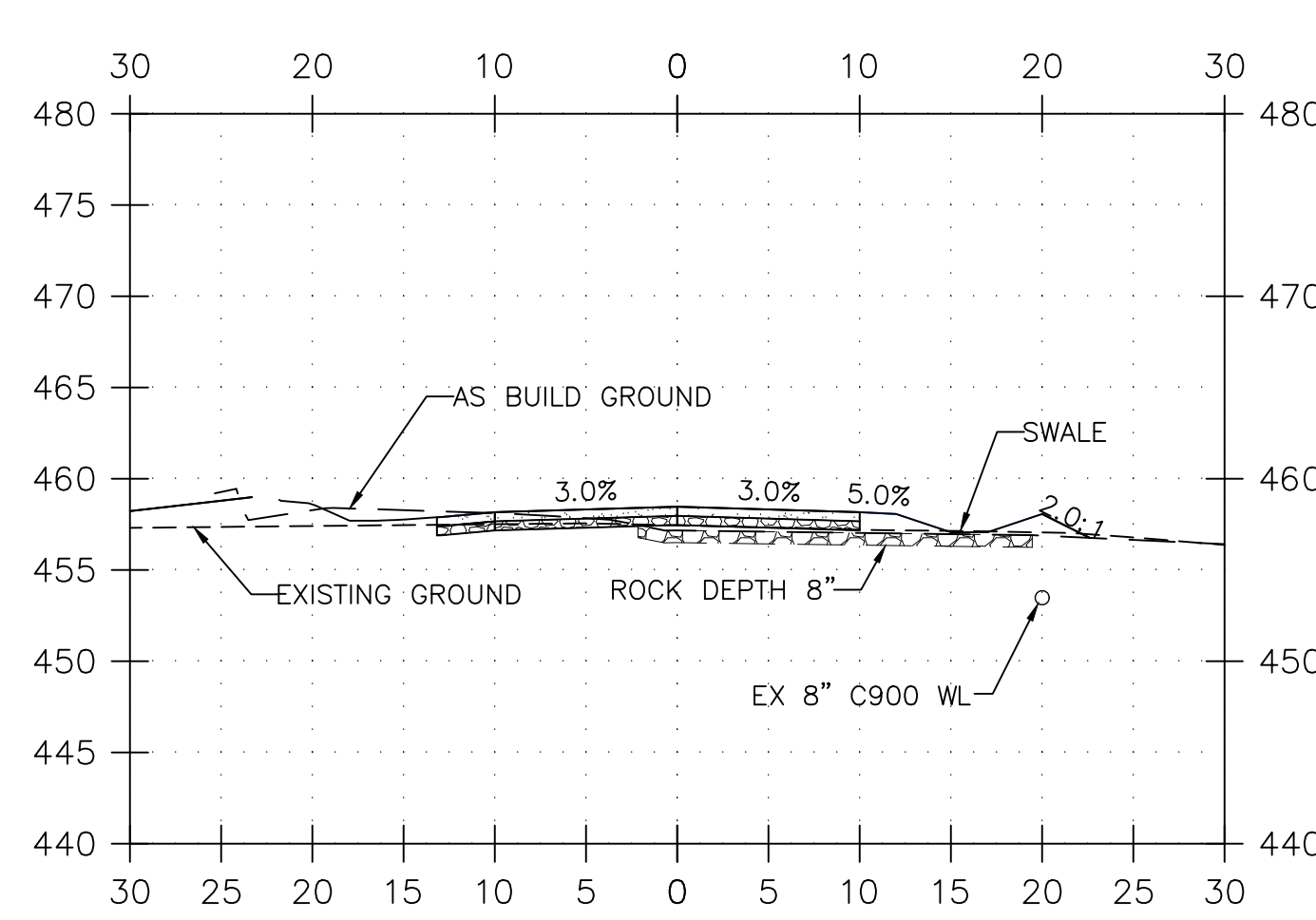
CROSS SECTION
4+00.00



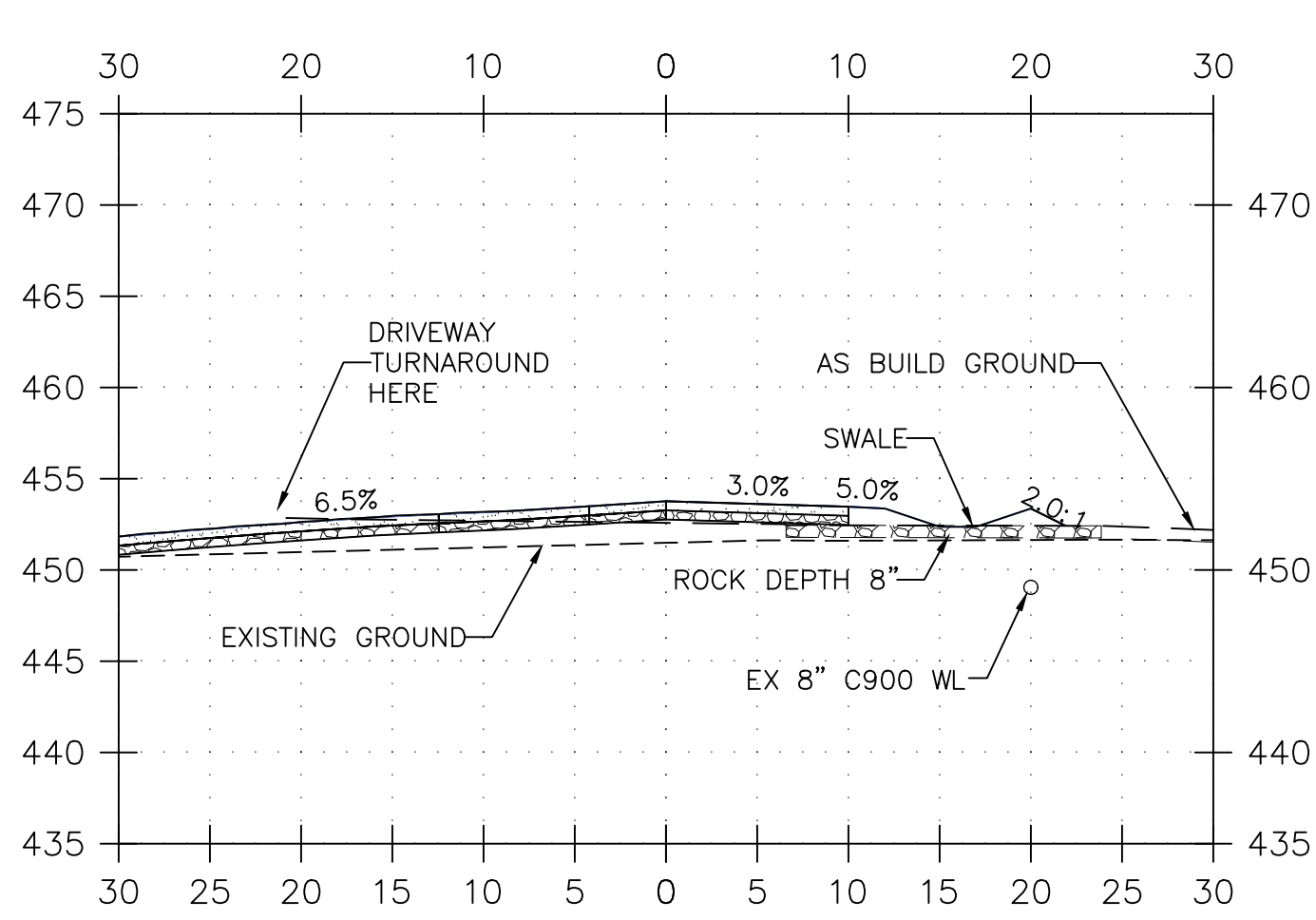
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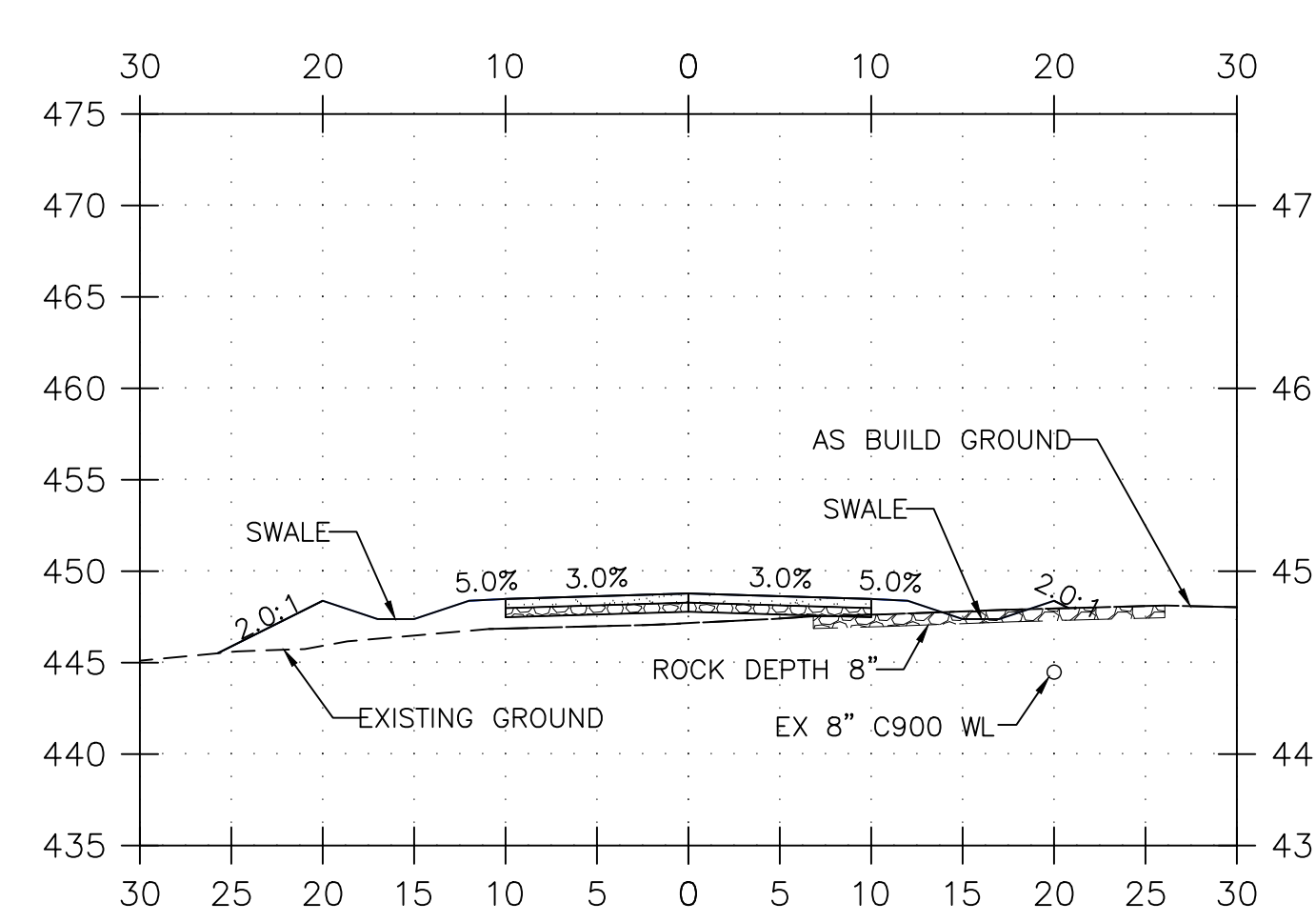
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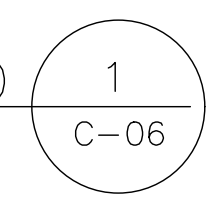
CROSS SECTION
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CROSS SECTION
6+00.00

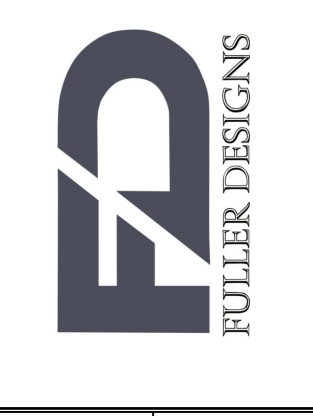


CROSS SECTION STA 0+00 - STA 6+00
SCALE: 1"=10'



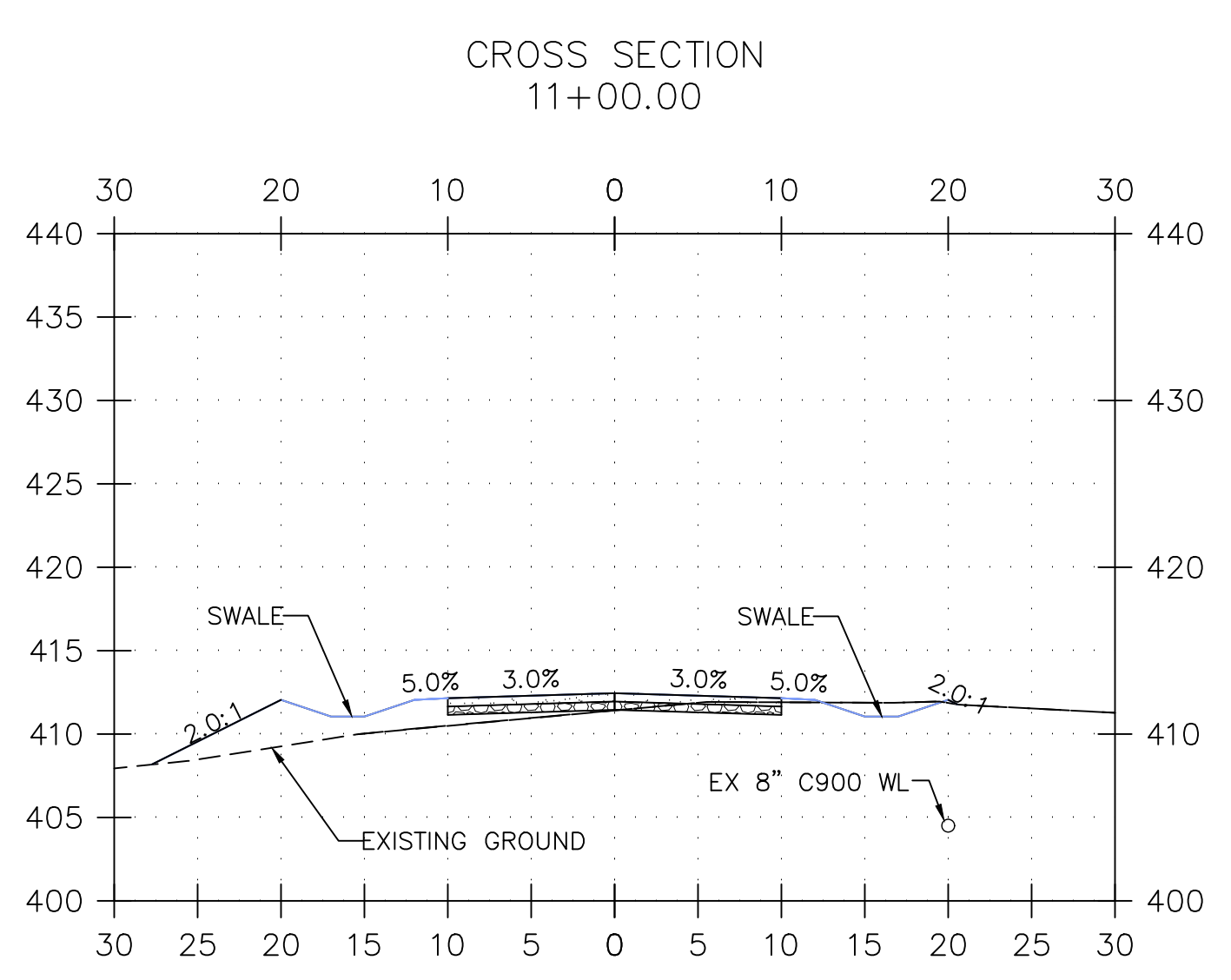
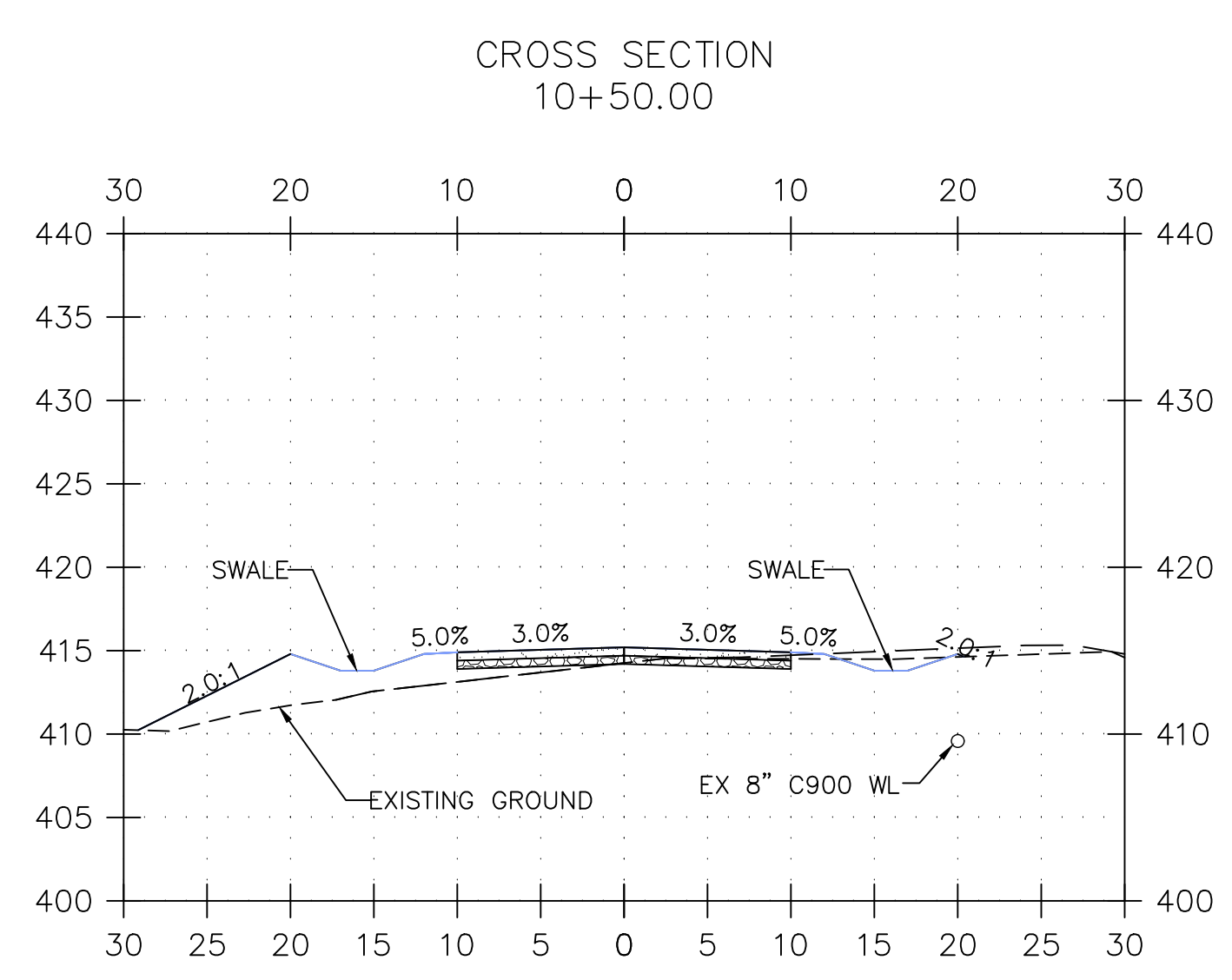
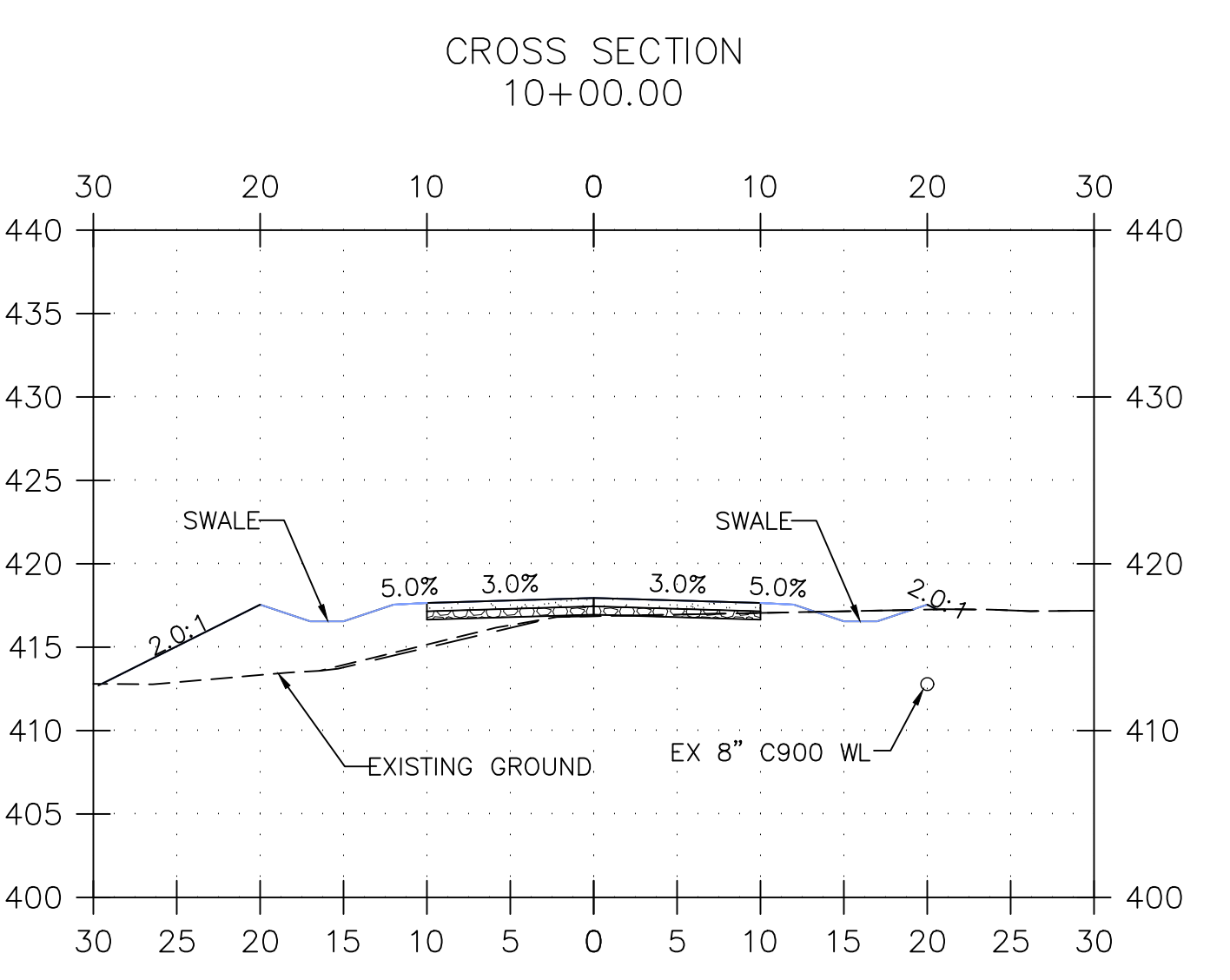
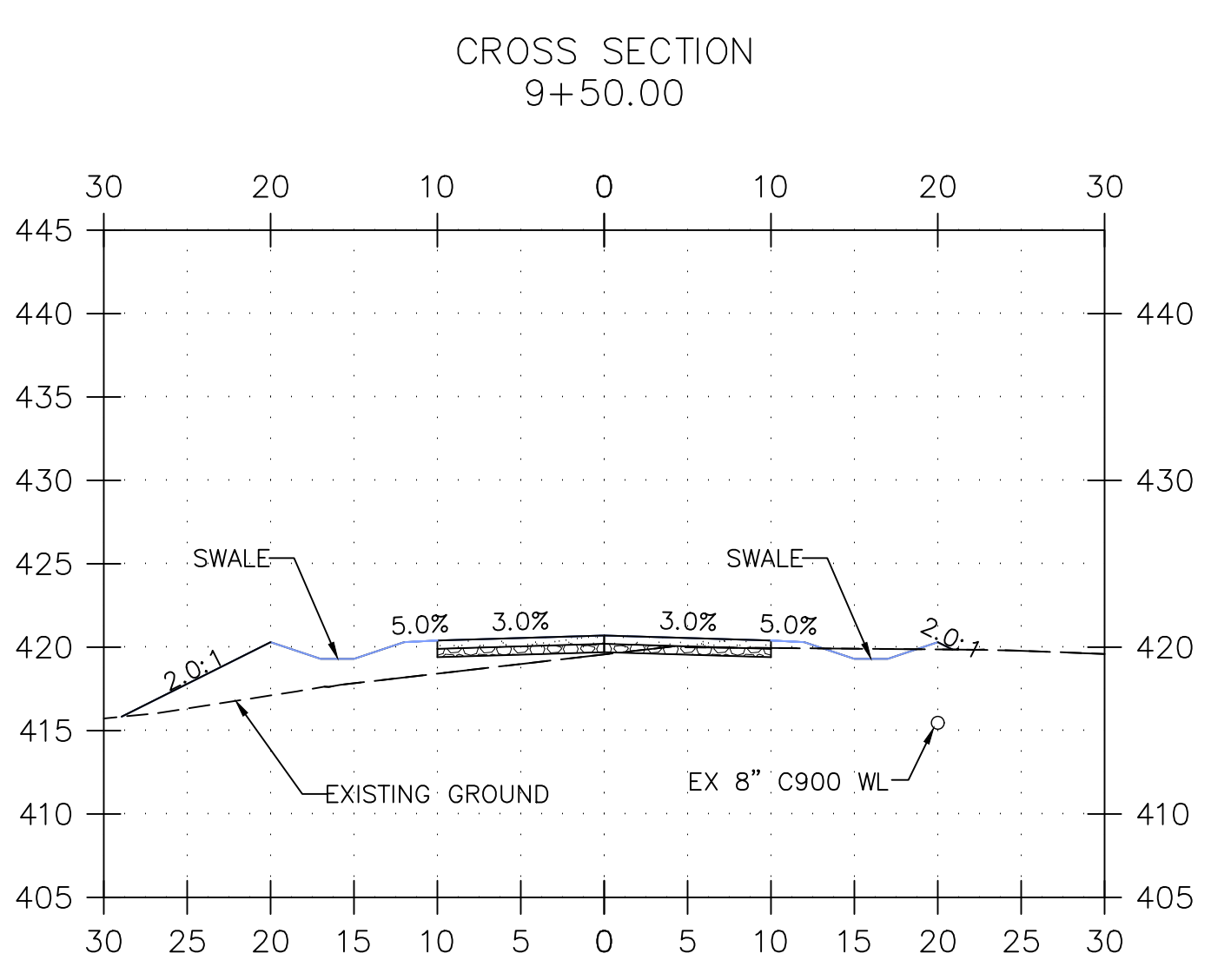
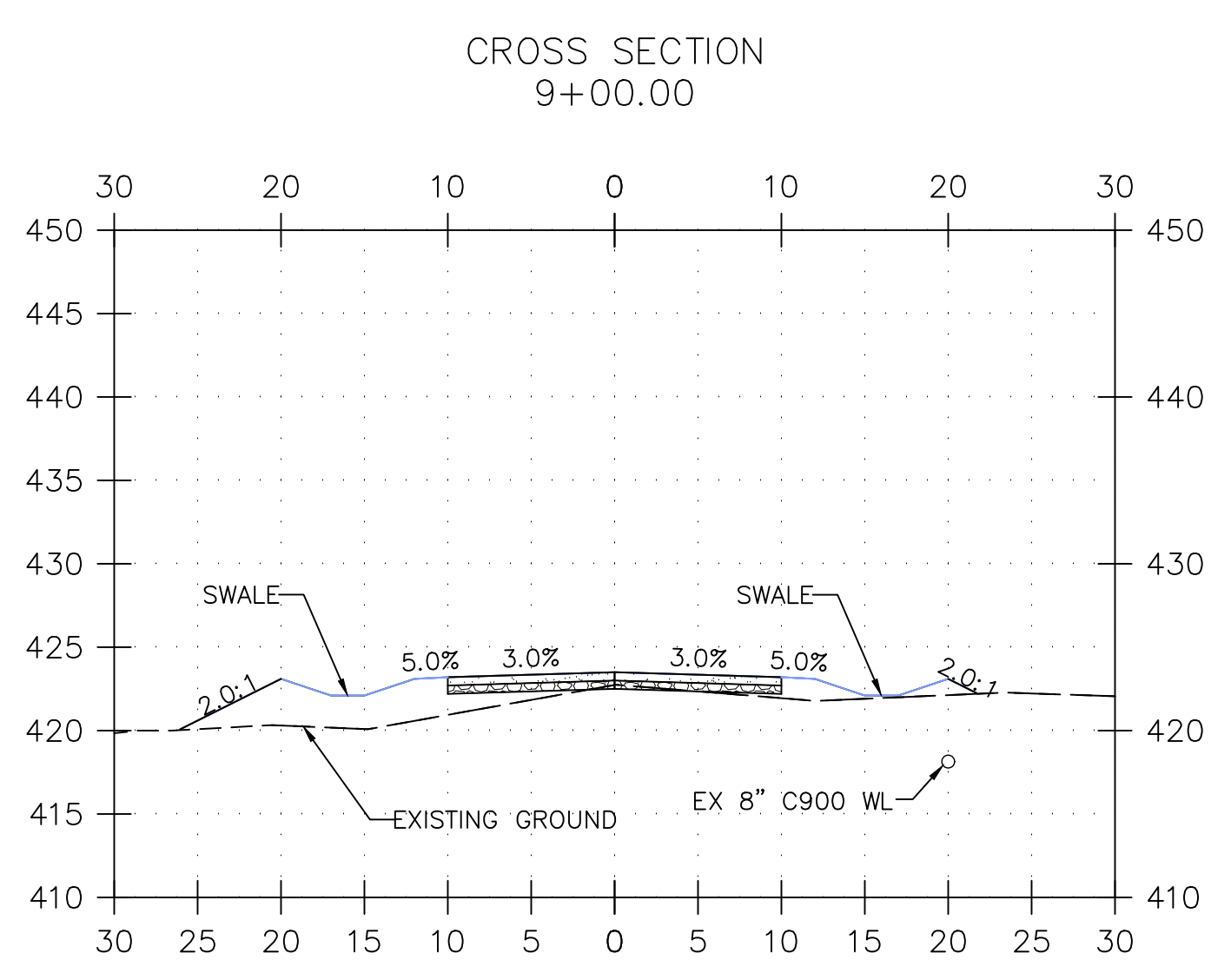
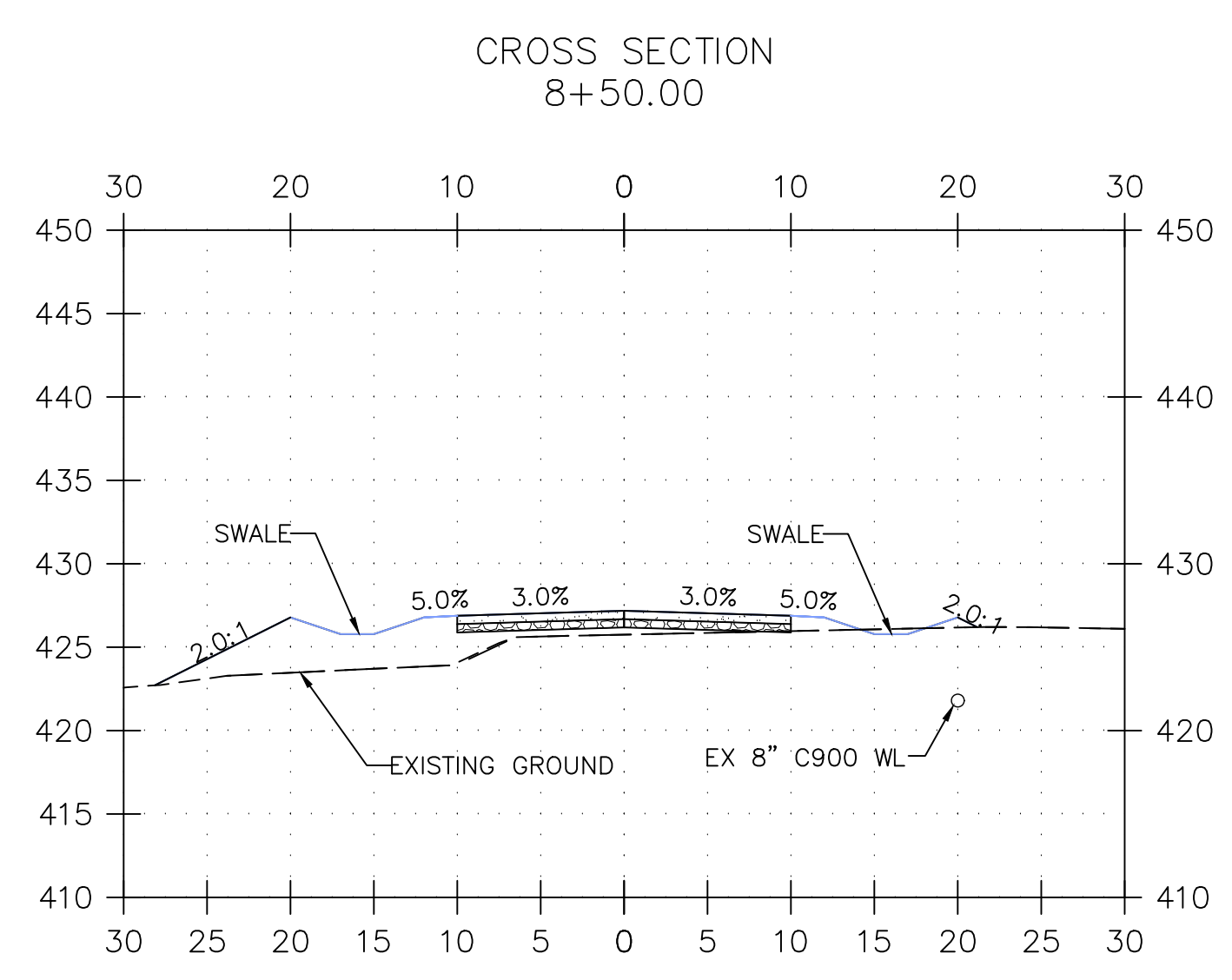
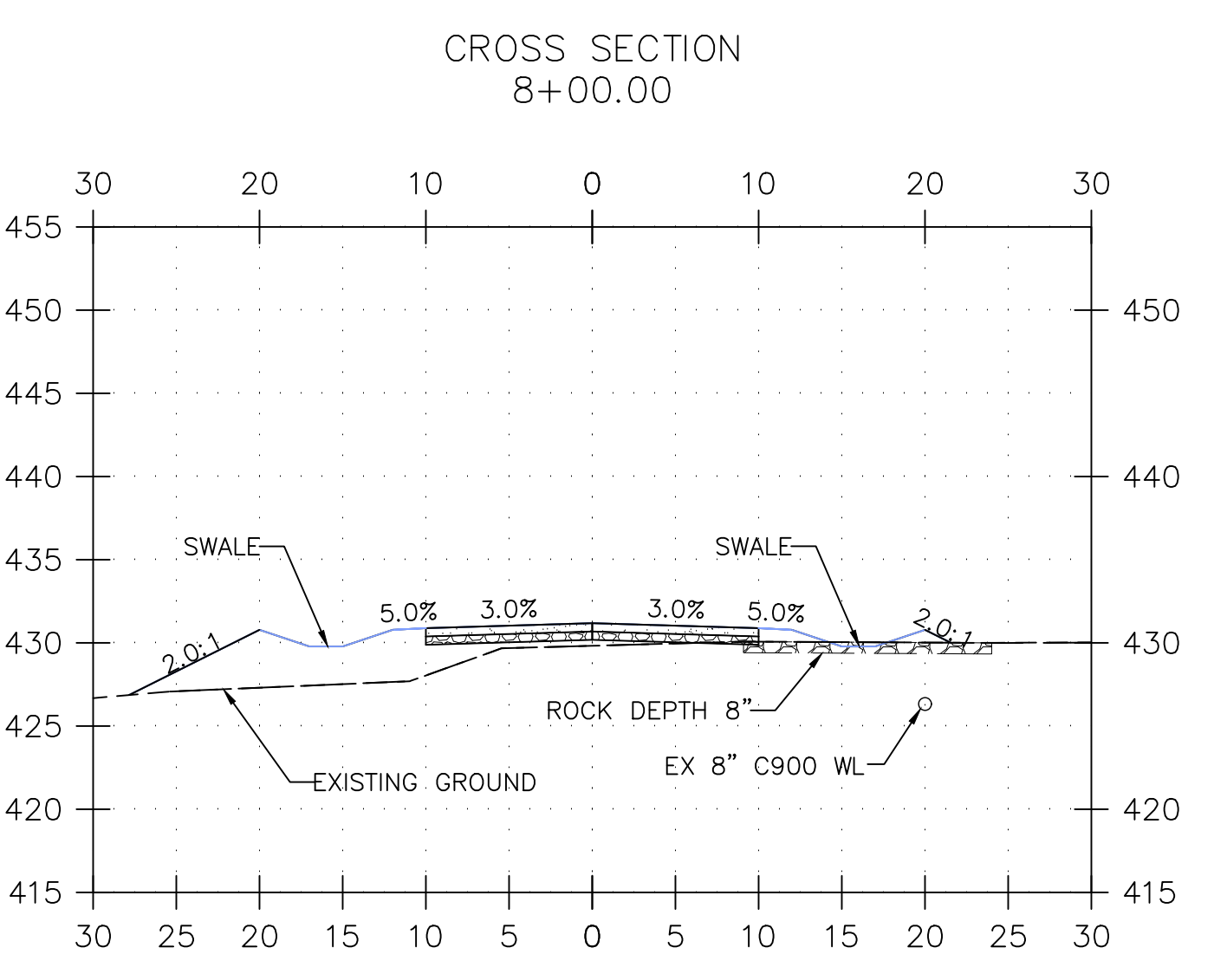
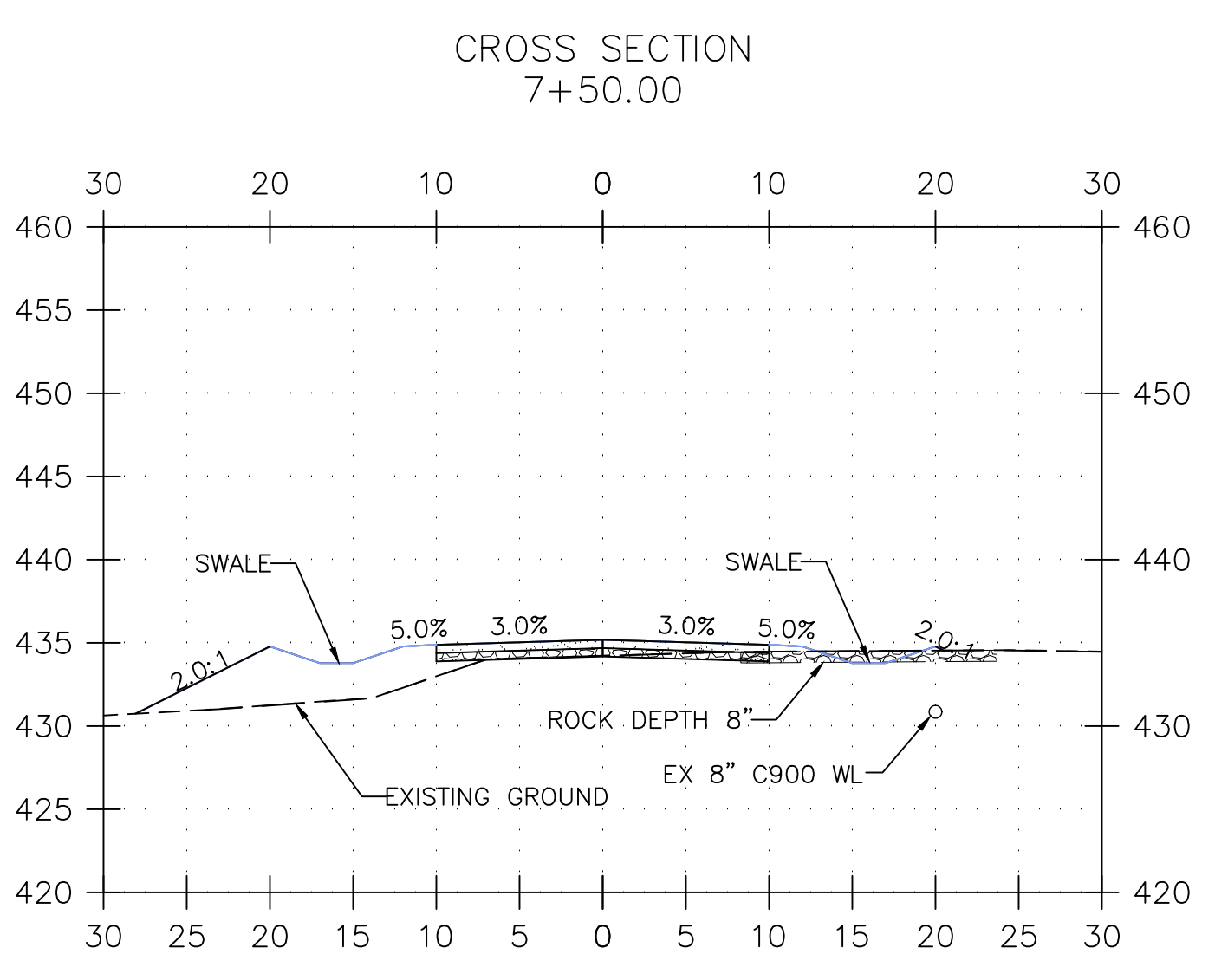
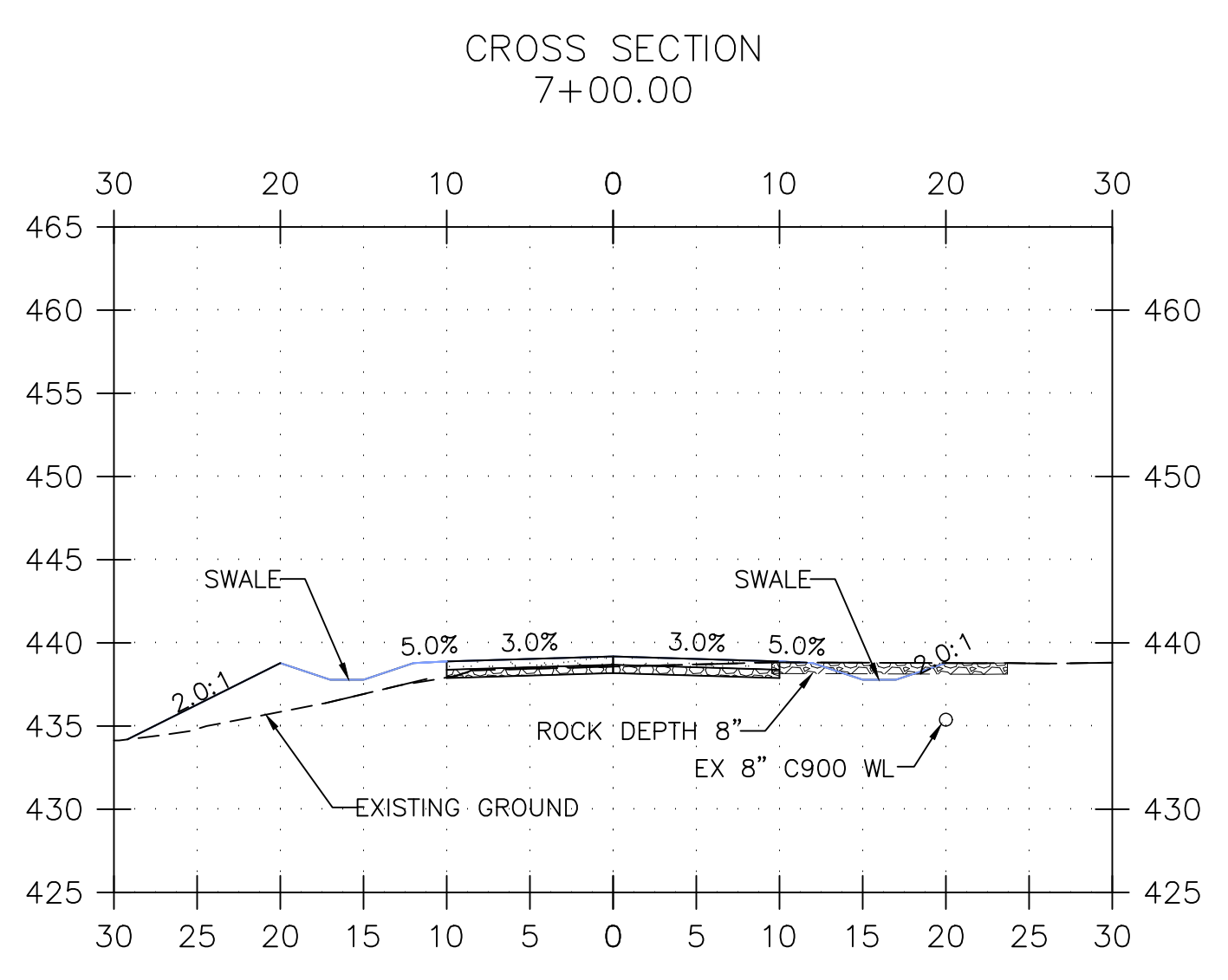
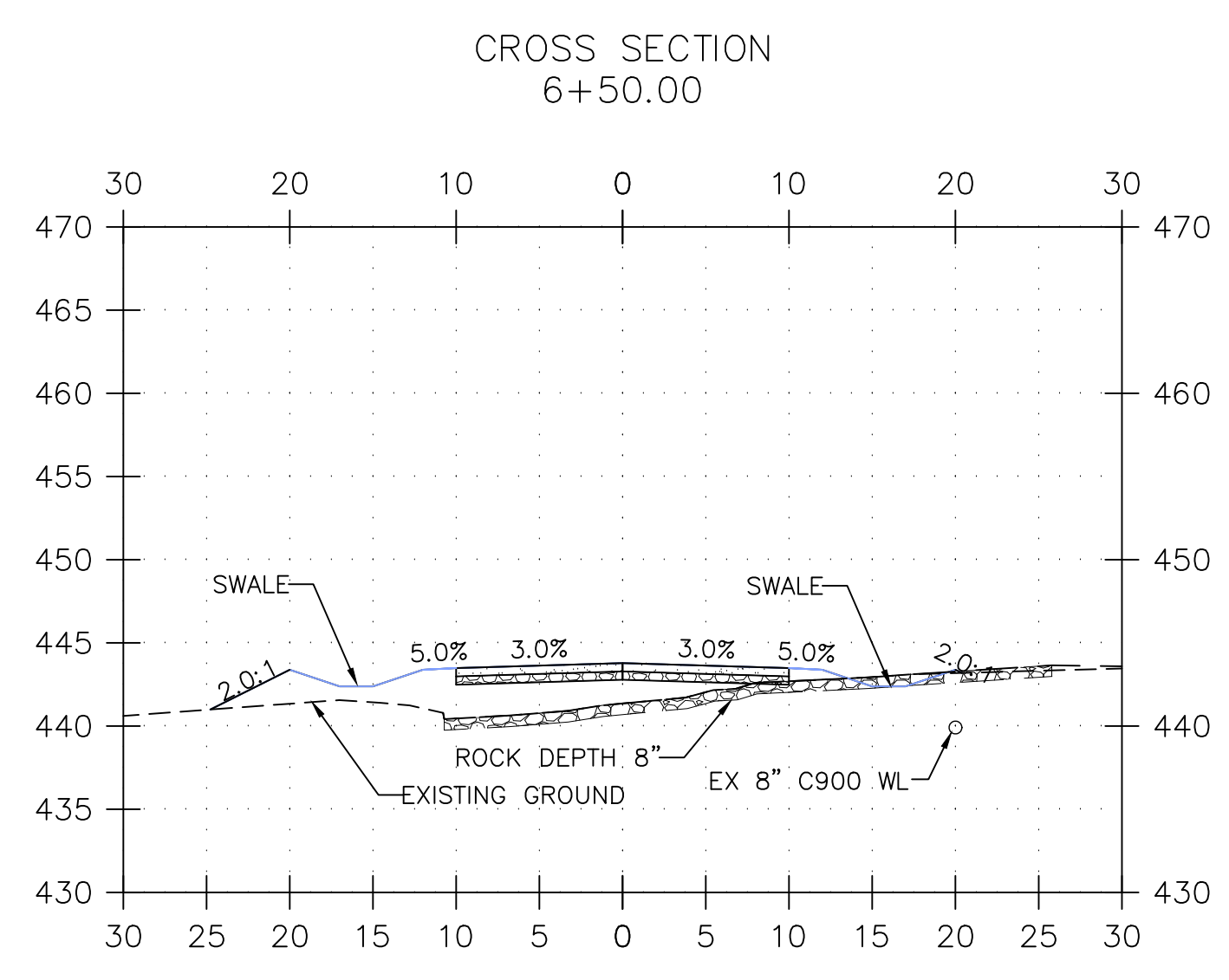
Preliminary
01/31/2020 11:46:07 AM

FILE: C-07 CROSS SECTION STA 6+00 - STA 11+86 SAVE DATE: 1/31/2020 7:40:50 AM PLOT DATE: 1/31/2020 7:42:53 AM



NEW PRIVATE ROAD PLAN
(CITY OF KELSO, WASHINGTON)

CROSS SECTION STA 6+00 - STA 11+86



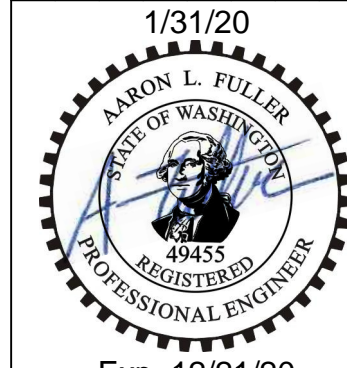
POTENTIAL FUTURE
CROSS SECTION STA 6+00 - STA 11+86
SCALE: 1"=10'

1
C-07

Preliminary
01/31/2020 11:45:59 AM

PROJECT:	19-20
DRAWN:	AVA
CHECKED:	AF
DATE:	2020-31-01
NAME:	

REVISIONS:



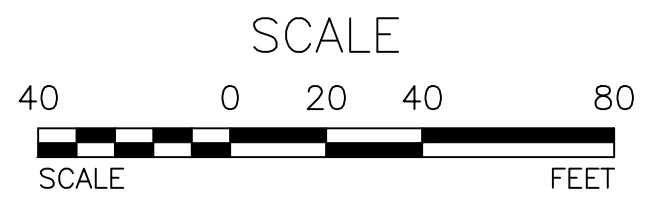
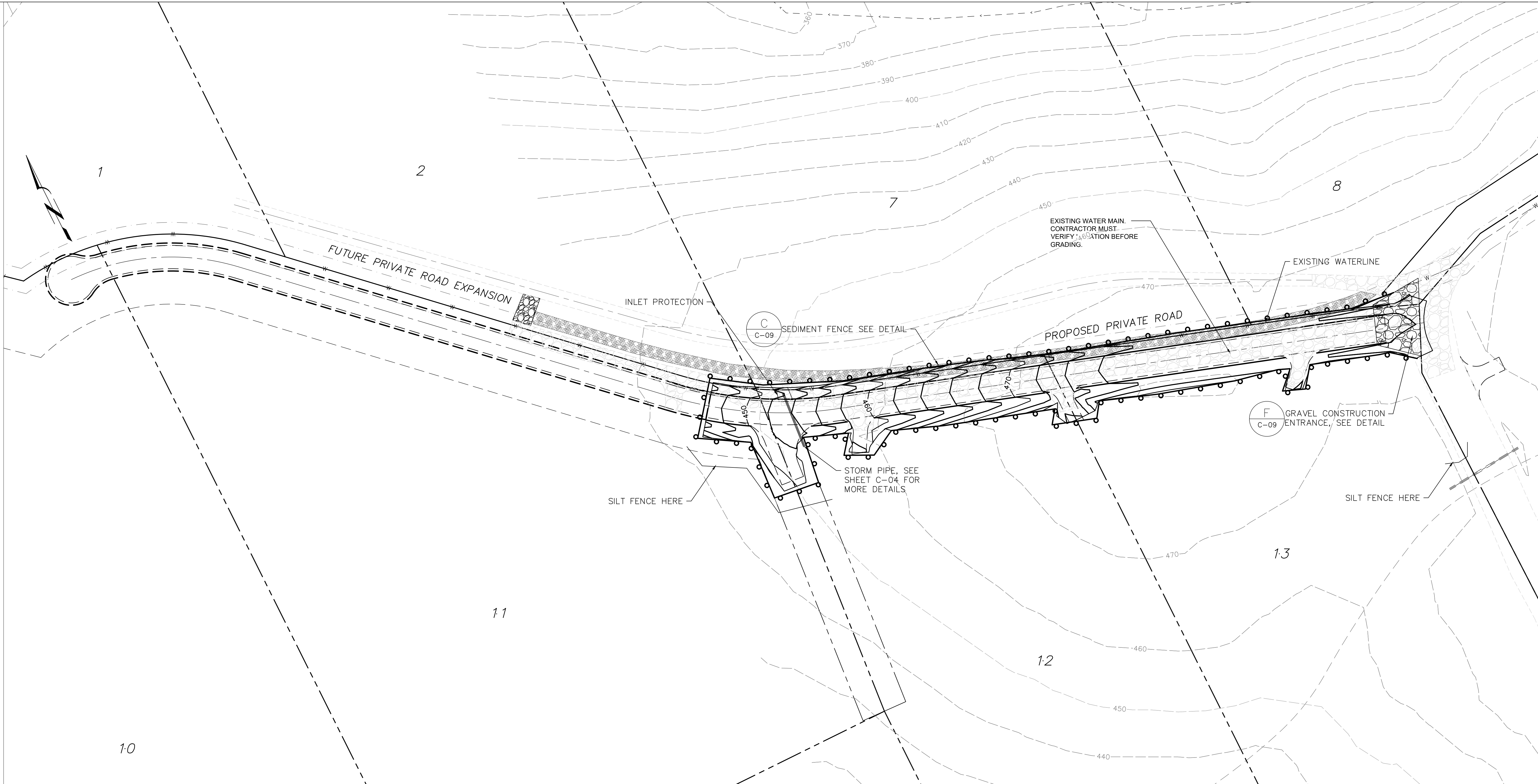
Exp. 12/21/20
C-07 OF 9

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NEW PRIVATE ROAD PLAN
(CITY OF KELSO, WASHINGTON)

EROSION CONTROL PLAN



PLAN NOTE:

KEEP NORTH SIDE OF EASEMENT AREA CLEAR OF ANY TEMPORARY STOCK PILES AND CONSTRUCTION TRAFFIC TO PROVIDE ADDITIONAL PROTECTION TO STREAM CORRIDOR

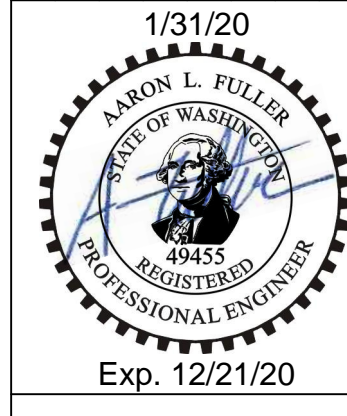
LEGEND

- EROSION CONTROL FENCE
- CONSTRUCTION ENTRANCE

1 EROSION CONTROL PLAN
C-08 SCALE: 1"=40'

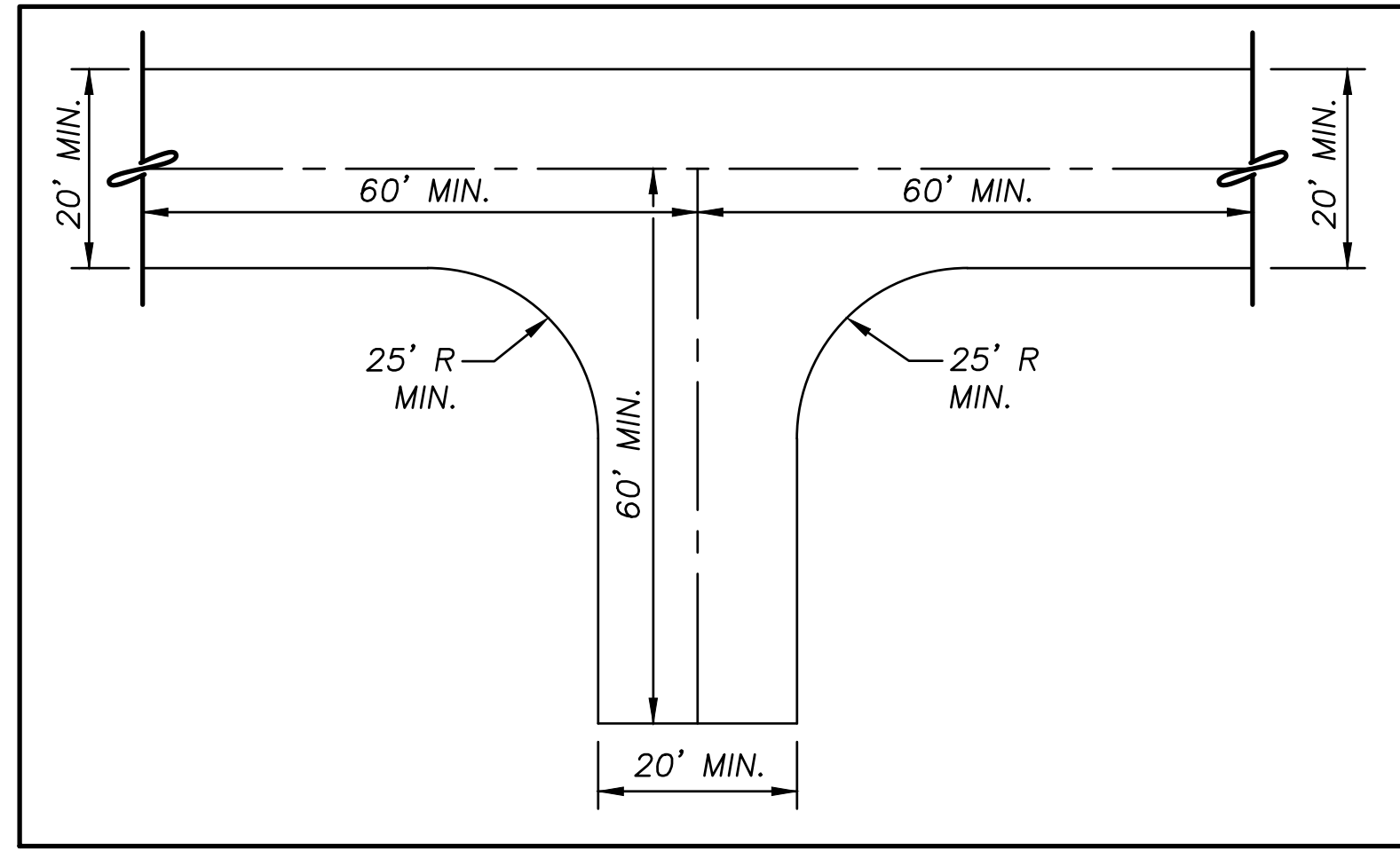
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DRAWN:	AVA
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NAME:	

REVISIONS:	

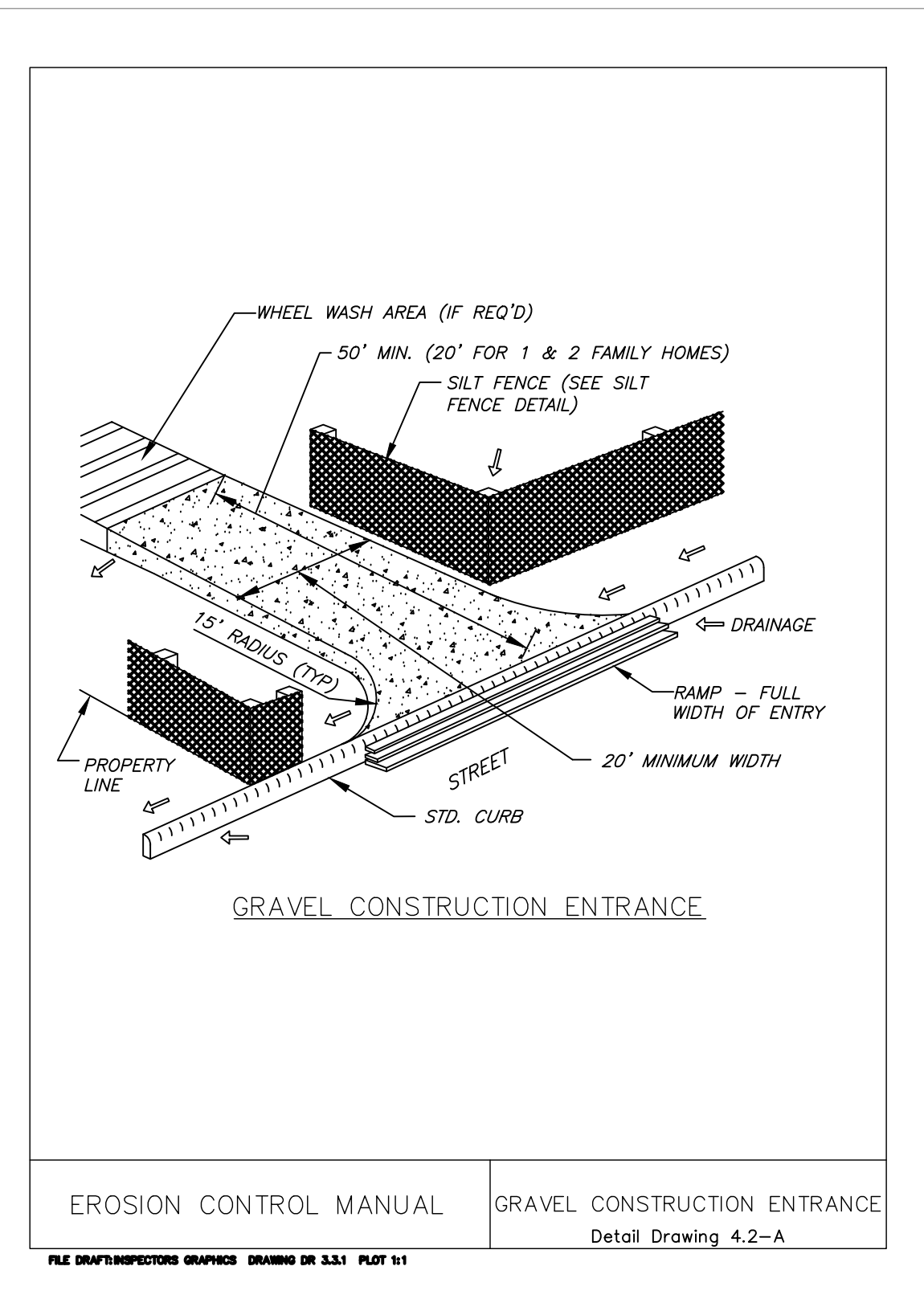


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FILE: C-08 EROSION CONTROL PLAN SAVE DATE: 1/31/2020 7:33:05 AM PLOT DATE: 1/31/2020 7:43:06 AM



TYP. EMERGENCY TURNAROUND A
SCALE: NTS C-09



EROSION CONTROL MANUAL GRAVEL CONSTRUCTION ENTRANCE
Detail Drawing 4.2-A
FILE: C:\PROJECTS\EROSION CONTROL\DRAWING\ER 4.2.A.DWG

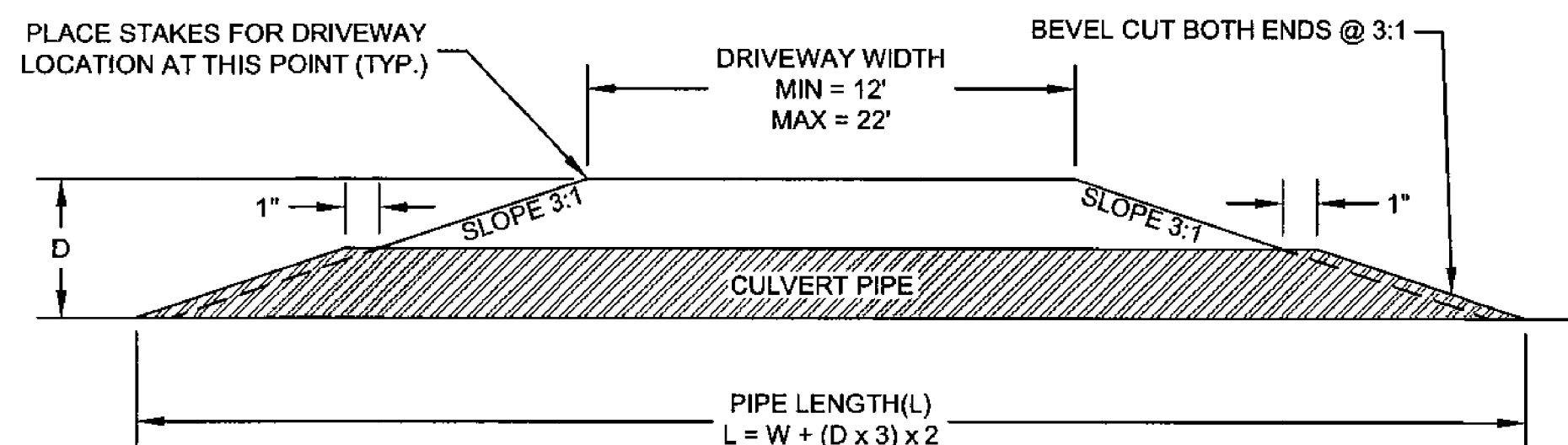
GRAVEL CONSTRUCTION ENTRANCE F
SCALE: NTS C-09

GENERAL EROSION PREVENTION & SEDIMENT CONTROL NOTES

- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND IN WORKING CONDITION PRIOR TO ANY LAND DISTURBING ACTIVITY CAUSED BY CLEARING OR GRADING.
- CONTRACTOR SHALL SITE AND CONSTRUCT EROSION AND SEDIMENT CONTROL MEASURES PER THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF ECOLOGY STORMWATER MANUAL FOR WESTERN WASHINGTON, WHERE COWLITZ COUNTY ORDINANCE SHALL TAKE PRECEDENCE.
- MATERIAL STOCKPILES ARE TO BE PROTECTED BY THE FOLLOWING MEANS:
 - TEMPORARY: COVER PILES WITH TARPS OR PLASTIC SHEETING WEIGHTED WITH CONCRETE BLOCKS, LUMBER OR TIRES.
 - PERMANENT: COVER PILES WITH TARPS OR PLASTIC, OR RESEED. PERIMETER AREAS AROUND PILES ARE TO BE SURROUNDED WITH EROSION CONTROL. FILTER FABRIC FENCES UNTIL SOIL SURFACE IS STABILIZED WITH RESEEDING.
- IF THE INSPECTOR/ENGINEER HAS EVIDENCE OF POOR CONSTRUCTION PRACTICES OR IMPROPER EROSION PREVENTION BMPs, WORK SHALL BE CEASED UNTIL PROPER MEASURES HAVE BEEN TAKEN AND APPROVED. IF THE BMPs APPLIED TO A SITE ARE INSUFFICIENT TO PREVENT SEDIMENT FROM REACHING WATER BODIES, ADJACENT PROPERTIES, OR PUBLIC RIGHT-OF-WAY, THEN THE COUNTY AND/OR INSPECTOR SHALL REQUIRE ADDITIONAL BMPs.
- SEDIMENT CONTROL BMPs SHALL BE INSPECTED WEEKLY AND AFTER ANY STORM EVENT PRODUCING RUNOFF BY STRATA DESIGN OR CONTRACTORS DESIGNATED EROSION CONTROL SPECIALIST. CONTRACTOR SHALL BE RESPONSIBLE FOR SCHEDULING AND COORDINATION FOR INSPECTIONS.
- EXPOSED SURFACES THAT WILL NOT BE BROUGHT TO FINAL GRADE OR GIVEN A PERMANENT COVER TREATMENT WITHIN 5 DAYS OF THE EXPOSURE SHALL HAVE SEED MIX AND MULCH PLACED TO STABILIZE THE SOIL AND REDUCE EROSION SEDIMENTATION. SEEDED AREAS SHALL BE CHECKED REGULARLY TO ASSURE A GOOD STAND OF GRASS IS BEING MAINTAINED. AREAS THAT FAIL TO ESTABLISH VEGETATION COVER ADEQUATE TO PREVENT EROSION WILL BE RESEED AS SOON AS SUCH AREAS ARE IDENTIFIED.
- APPLY AN APPROVED TEMPORARY SEEDING MIXTURE TO THE PREPARED SEED BED AT A RATE OF 120 LBS/ACRE. NOTE: "HYDROSEEDING" APPLICATIONS WITH APPROVED SEED-MULCH-FERTILIZER MIXTURES MAY ALSO BE USED.
- DISTURBED SOIL SURFACES WHICH ARE EXPOSED SHALL BE DRESSED WITH 3-INCH COVER OF STRAW, MULCH, COMPOST, OR WOOD CHIP.
- THE DETAILS PRESENTED IN THIS PLAN SHALL NOT BE IMPLIED TO ADDRESS ALL UNANTICIPATED SITE CONDITIONS (SLOPE SEEPAGE, OFF-SITE WATER INFLOW, ETC.). AMENDMENTS TO THE PLAN SHALL BE MADE UPON ENCOUNTERING SUCH UNANTICIPATED SITE CONDITIONS.

ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE LATEST EDITION OF THE WSDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION

CULVERT PIPE INSTALLATION

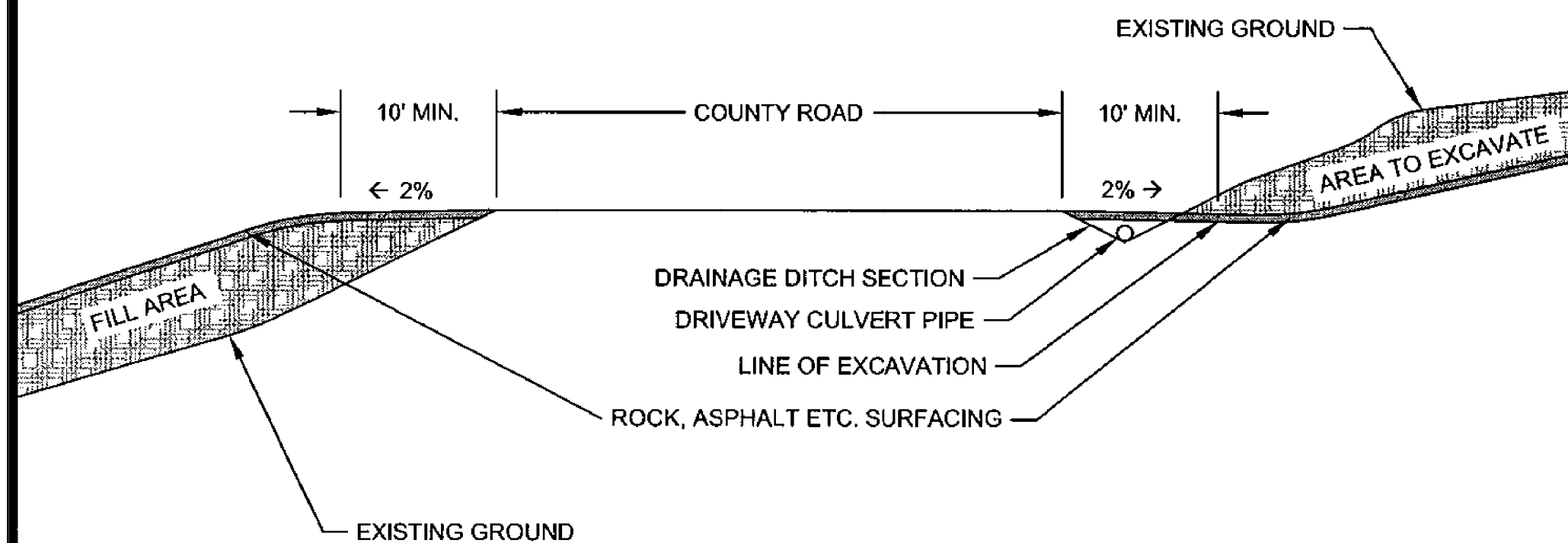


L = LENGTH OF CULVERT
D = DEPTH (DRIVEWAY SURFACE TO BOTTOM OF PIPE)
W = WIDTH OF DRIVEWAY

NOTES:

- Use only new culvert pipe, 12" Min. Dia., 24' min. length, or as specified by County.
- Culvert to be placed along roadside ditch alignment, matching ditch elevations at ends of pipe.
- Acceptable types of culvert pipes are:
 - Corrugated Galvanized Steel - 16 gauge
 - Corrugated Aluminum - 16 gauge
 - High Density Polyethylene (HDPE) - double wall, smooth interior
 - Other materials as approved by the County Engineer

DRIVEWAY GRADES



RGL
DESIGNED BY
SMK 4/22/10
DRAWN BY
APPROVED BY
DATE

DRIVEWAY APPROACH
DETAIL

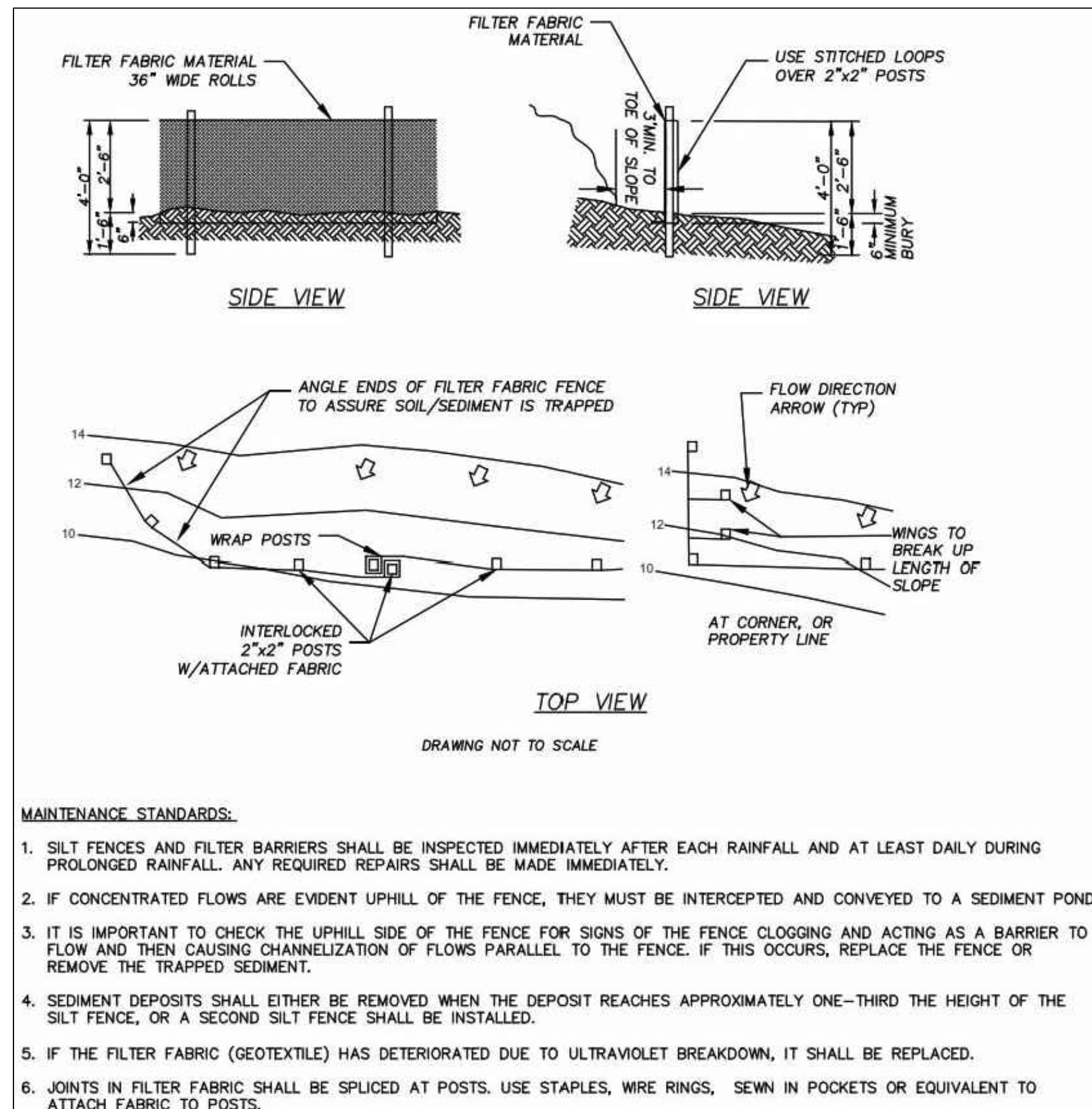
NTS



DEPARTMENT
OF PUBLIC
WORKS
1600 - 13TH AVENUE SOUTH
KELSO, WASHINGTON
98626
DRAWING: CC-1320

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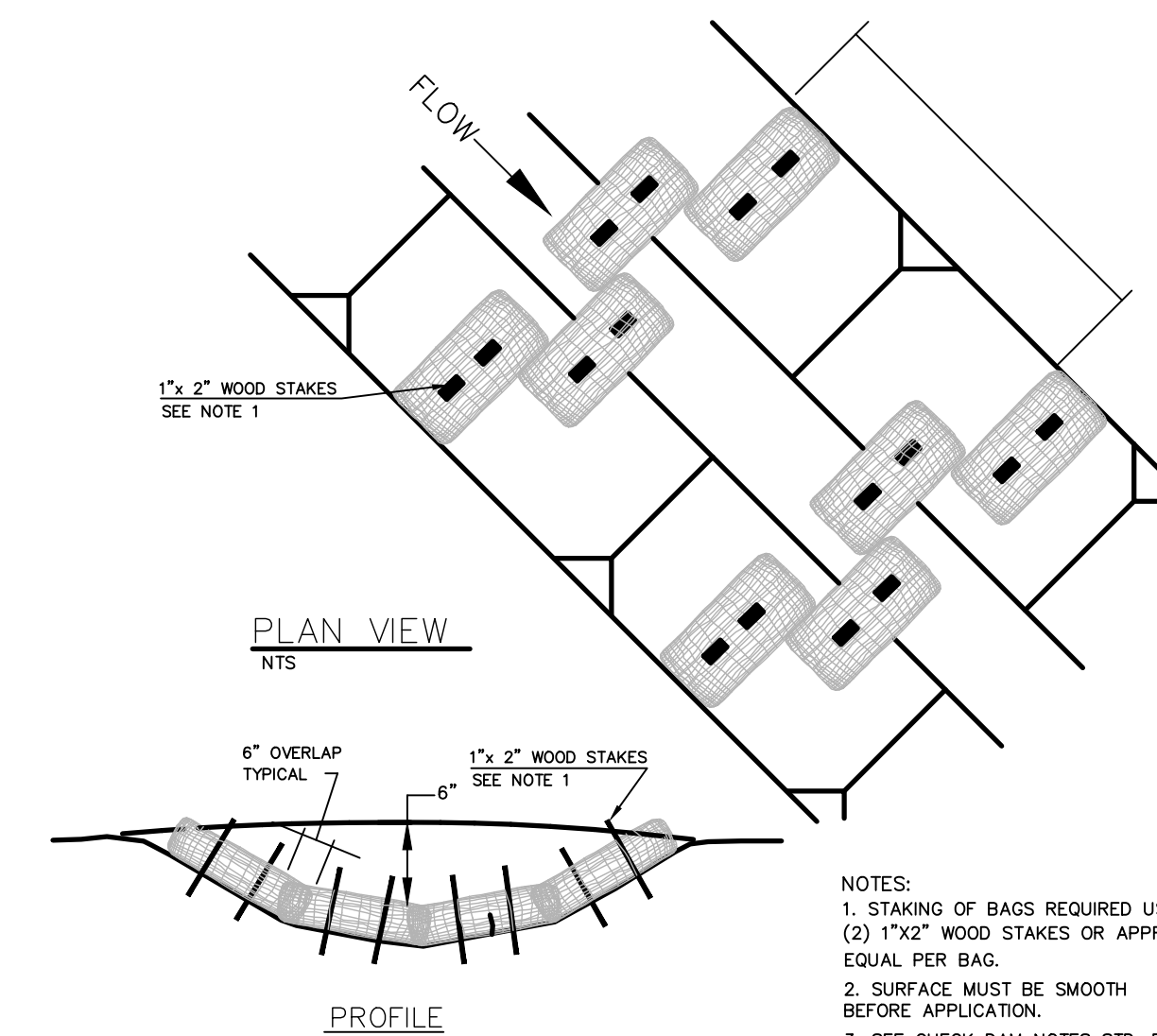
DRIVEWAY APPROACH DETAIL B
SCALE: NTS C-09



MAINTENANCE STANDARDS:

- SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
- IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT POND.
- IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING AND ACTING AS A BARRIER TO FLOW AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
- SEDIMENT DEPOSITS SHALL EITHER BE REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR A SECOND SILT FENCE SHALL BE INSTALLED.
- IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, IT SHALL BE REPLACED.
- JOINTS IN FILTER FABRIC SHALL BE SPLICED AT POSTS. USE STAPLES, WIRE RINGS, SEWN IN POCKETS OR EQUIVALENT TO ATTACH FABRIC TO POSTS.

SILT FENCES AND FILTER BARRIERS C
SCALE: NTS C-09



BIO-BAG SEDIMENT TRAP E
SCALE: NTS C-09

- NOTES:
- STAKING OF BAGS REQUIRED USING (2) 1"x2" WOOD STAKES OR APPROVED EQUAL PER BAG.
 - SURFACE MUST BE SMOOTH BEFORE APPLICATION.
 - SEE CHECK DAM NOTES STD. PLAN E-2



NEW PRIVATE ROAD PLAN
(CITY OF KELSO, WASHINGTON)
DETAILS & EROSION CONTROL NOTES

PROJECT: 19-20	DRAWN: AVA	CHECKED:	DATE:	NAME:
REVISIONS:				

Preliminary
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