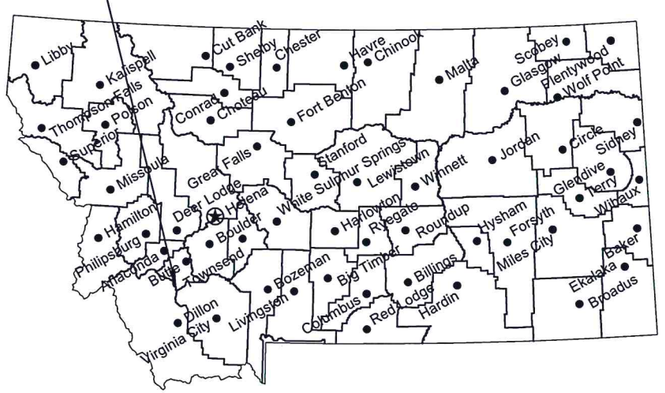
MONTANA FISH, WILDLIFE & PARKS

SALMON FLY FISHING ACCESS SITE IMPROVEMENTS 2017

near MELROSE, MT

#7153713

PROJECT LOCATION

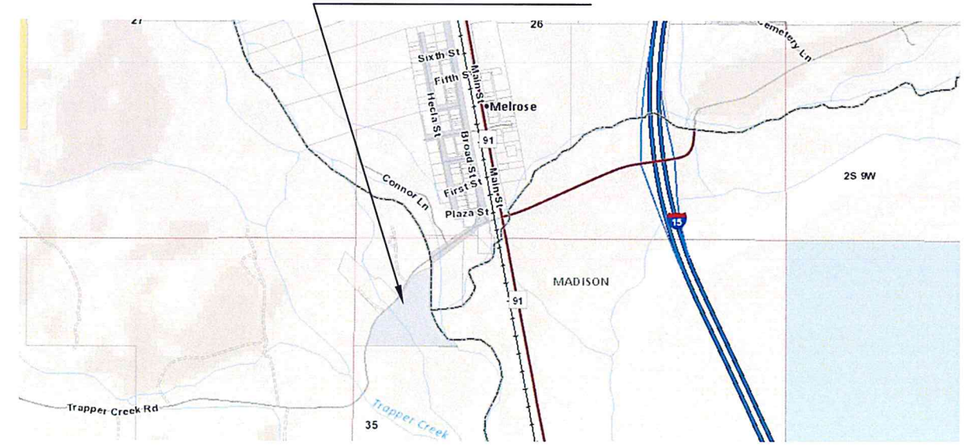


LOCATION MAP

NO SCALE

North

PROJECT LOCATION



VICINITY MAP

NO SCALE

MONTANA FISH, WILDLIFE AND PARKS
DESIGN AND CONSTRUCTION

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HELENA, MT 59620-0701

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DRAWING INDEX

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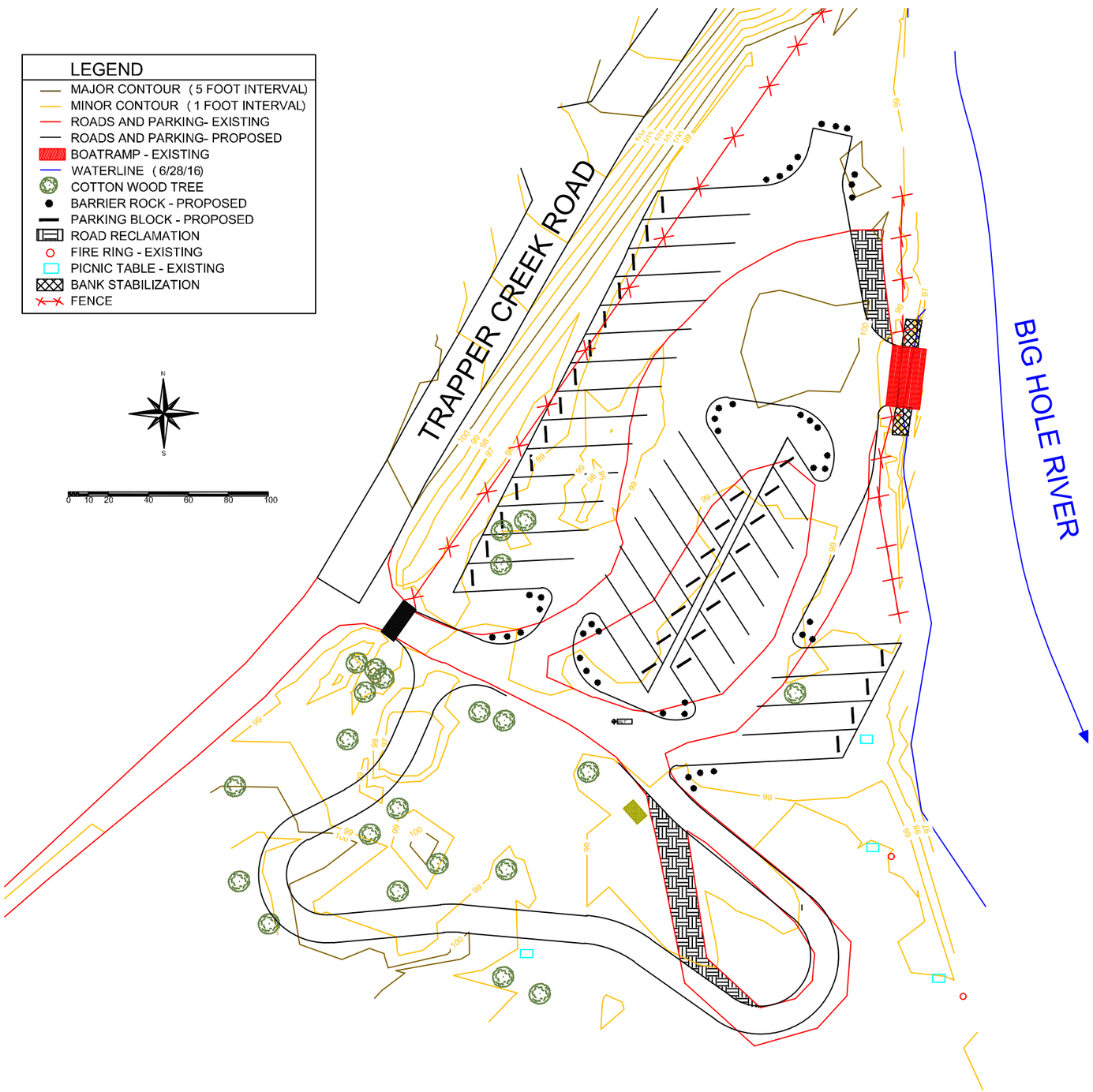
MONTANA
TROY MONROE
No. 16465PE
6-23-17
LICENSED
PROFESSIONAL ENGINEER

? DRAWN BY: DATE: ?	APPROVED BY: DATE:	APPROVED BY: DATE:	Montana Fish, Wildlife & Parks
? CHECKED BY: DATE: ?	APPROVED BY: DATE:	APPROVED BY: DATE:	

COVER

SALMON FLY FAS IMPROVEMENTS 2017

SHEET: 1 of 5



NOTES:

1. FWP ENGINEER WILL STAKE CENTERLINE OF ALIGNMENTS, PARKING CORNERS AND PROVIDE REFERENCE ELEVATIONS.
2. THE CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICES TO PREVENT SILT, SOIL AND DEBRIS FROM ENTERING THE WATER. THIS MAY INCLUDE STRAW WATTLE, GRAVEL OR FABRIC. TEMPORARY DIKES TO DIVERT RAINWATER MAY BE USED, PROVIDED THEY ARE REMOVED AND THE GRAVEL OR SOIL RETURNED TO THE ORIGINAL CONDITION. EXPOSED SOIL MAY REQUIRE STRAW OR SIMILAR COVER TO MINIMIZE EROSION CAUSED BY RAIN. OTHER APPROPRIATE METHODS MAY BE USED AT THE CONTRACTORS' DISCRETION OR AS DIRECTED BY THE OWNER.
3. EQUIPMENT USED IN OR NEAR WATER SHALL NOT LEAK FLUIDS. IT SHALL BE POWER WASHED BEFORE USE ON THE SITE AND EXAMINED BY THE ENGINEER.
4. ALL EXCESS EXCAVATED MATERIAL SUITABLE AS TOPSOIL SHALL BE PLACED ON THE THE AREAS TO BE RECLAIMED. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED. REFER TO SECTION 02936. EXCAVATED MATERIALS NOT SUITABLE FOR TOPSOIL SHALL BE USED AS FILL OR REMOVED FROM THE SITE.
5. REMOVE ALL CONSTRUCTION DEBRIS FROM SITE, AND BLEND PARKING GRADES TO EXISTING BOAT RAMP.
6. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING UTILITIES WITHIN THE CONSTRUCTION AREA INCLUDING ACCESS ROUTES TO THE CONSTRUCTION AREA.
7. THE CONTRACTOR IS REQUIRED TO NOTIFY AND COORDINATE ALL WORK ACTIVITIES WITH THE FWP PROJECT ENGINEER.
8. THE CONTRACTOR IS TO ALLOW ACCESS AND USAGE OF THE BOAT RAMP DURING CONSTRUCTION WHEN POSSIBLE. PUBLIC NOTIFICATION OF BOAT RAMP CLOSURE MAY BE NECESSARY, AND REQUIRES A MINIMUM NOTICE OF SEVEN DAYS.
9. SUBMITTALS ARE REQUIRED ON ALL PRODUCTS USED IN THE PROJECT. REFER TO SPECIFICATIONS FOR SUBMITTAL REQUIREMENTS.
10. PROVIDE METHODS, MEANS, AND FACILITIES TO PREVENT CONTAMINATION OF SOIL, WATER, AND ATMOSPHERE FROM DISCHARGE OF NOXIOUS, TOXIC SUBSTANCES, AND POLLUTANTS PRODUCED BY CONSTRUCTION OPERATIONS.
11. PROVIDE ALL TEMPORARY SIGNING, PERSONNEL AND TRAFFIC CONTROL DEVISES AS REQUIRED BY FEDERAL, STATE AND LOCAL REGULATIONS.
12. GEOTECHNICAL INFORMATION: THE SOILS AT THE SITE ARE SANDY LOAMS STRATIFIED WITH COARSE SAND AND GRAVEL. THE DEPTH TO A RESTRICTIVE FEATURE IS OVER 80 INCHES.
13. THE OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.
14. REMOVE COTTONWOOD TREES WHERE THEY CONFLICT WITH THE IMPROVEMENTS. DISPOSE OF TREES IN A SAFE AND LEGAL MANNER.
15. EXCAVATE PARKING ISLANDS TO A 6 :1 SLOPES, GRADING DOWNWARD TO THE CENTER. CREATE A 4' WIDE VEGETATED SWALE CONNECTING THE ISLANDS AS SHOWN. EXCAVATE THE SWALE AND THE ISLAND TO DEPTH SUFFICIENT TO ALLOW THE PLACEMENT OF 4" OF TOPSOIL.
16. CONSTRUCT STREAM BANK RESTORATION LIFT AS SHOWN ON SHEET 4 ON THE ERODED SLOPES ADJACENT TO THE BOAT RAMP. THE RIP-RAP SHALL BE OBTAINED FROM A DEQ PERMITTED SOURCE. THE DEQ PERMIT NUMBER SHALL BE INCLUDED WITH THE RIP-RAP SUBMITTAL.
17. INSTALL THE BARRIER ROCK AS SHOWN ON SHEET 4.
18. INSTALL 6 ' CONCRETE PARKING BLOCKS PERPENDICULAR TO THE ANGLE OF PARKING WITH THE CLOSEST EDGE OF THE BLOCK 2' FROM THE PARKING SURFACE EDGE. USE (2) #5 (5/8) REBAR DRIVEN TO A DEPTH OF 2' TO FIX IN PLACE. SUBMIT THE PARKING BLOCK MANUFACTURERS PRODUCT INFORMATION FOR APPROVAL PRIOR TO PURCHASE.
19. THE JACK LEG FENCE ON THE WEST EDGE OF THE PARKING EXPANSION SHALL BE MOVED TO THE WEST JUST OUT OF THE PARKING EXPANSION AREA.
20. RECLAIM EXISTING DRIVING SURFACES AS SHOWN ON THE SITE PLAN BY RAKING THE GRAVEL THAT IS USABLE FROM THE SURFACE, STRIATE THE SURFACE WITH SOMETHING SIMILAR TO A CHISEL PLOW OR RIPPER TO A DEPTH OF 6", PLACE A 4" LIFT OF TOPSOIL ON THE DISTURBED SURFACE AND SEED.

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OVERALL SITE PLAN
SALMON FLY FAS IMPROVEMENTS 2017

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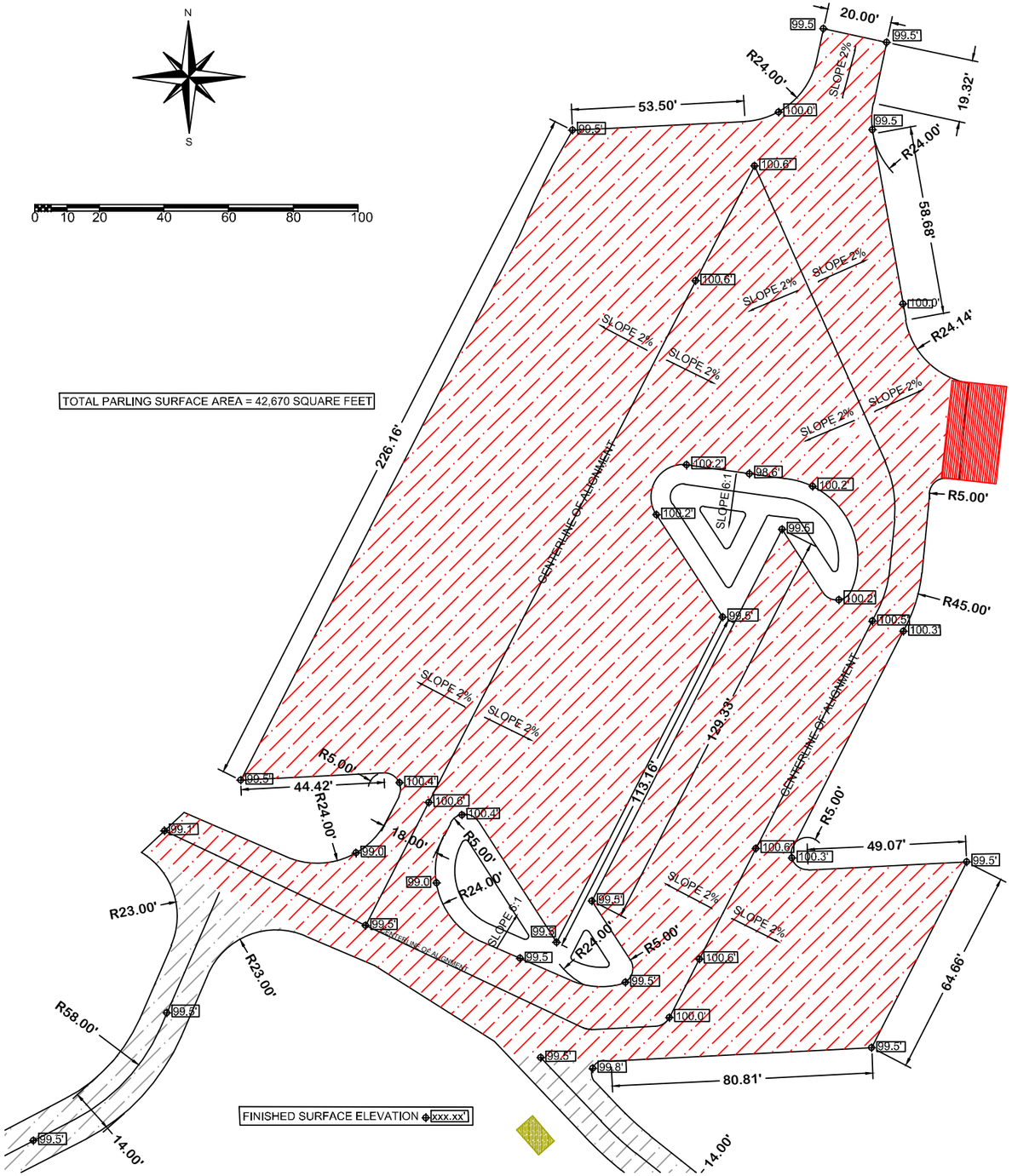
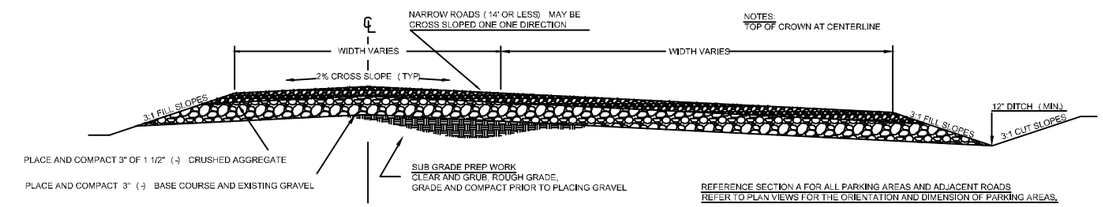


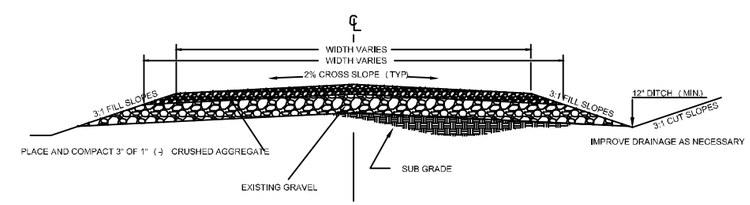


TYPICAL SECTION A : GRADE AND GRAVEL EXISTING ROADS AND PARKING AREAS

NOT TO SCALE

NOTES:

1. CLEAR AND GRUB AREAS FOR PARKING EXPANSION. COMPACT THE ROUGH GRADED MATERIAL
2. PLACE AND COMPACT A MINIMUM THICKNESS OF 8" OF 3" (-) BASE COURSE MATERIAL ON AREAS FOR PARKING EXPANSION.
3. SHAPE THE EXISTING ROAD MATERIAL TO A DEPTH SUFFICIENT TO REMOVE POTHOLES,WASHBOARDS AND TO ESTABLISH GRADES FOR NEW PARKING AREA.
4. IMPROVE THE DRAINAGE DITCHES ADJACENT TO ROADS AS NECESSARY.
5. COMPACT EXISTING GRAVEL SURFACE PRIOR TO PLACING NEW CRUSHED MATERIAL.
6. PLACE AND COMPACT A MINIMUM DEPTH OF 3" OF 1" (-) CRUSHED TOP SURFACING.
7. NARROW ROADS (LESS THAN 14') MAY BE CROSS SLOPED IN ONE DIRECTION.



TYPICAL SECTION B : NEW ROADS, PARKING AREAS AND CAMPSITES

NOT TO SCALE

NOTES:

1. CLEAR AND GRUB AREAS DESIGNATED FOR NEW ROADS AND PARKING. TOP SOIL DEPTH IS VARIABLE, AND TOTAL EXCAVATION IS ESTIMATED AT CY.
2. RETAIN STRIPPED TOP SOIL FOR USE ON AREA DESIGNATED BY FWP ENGINEER. THE REMAINING QUANTITY SHALL BE REMOVED FROM THE SITE.
3. COMPACT EXISTING ROUGH GRADED SURFACE PRIOR TO PLACING NEW GRAVEL BASE COURSE.
4. PLACE AND COMPACT 3" (-) BASE COURSE TO A MNIIMUM DEPTH OF 8" ON NEW ROADS AND PARKING AREAS.
5. PLACE AND COMPACT 3" OF 1" (-) CRUSHED TOP SURFACING ON DESIGNATED ROADS AND PARKING AREAS.
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? ?			
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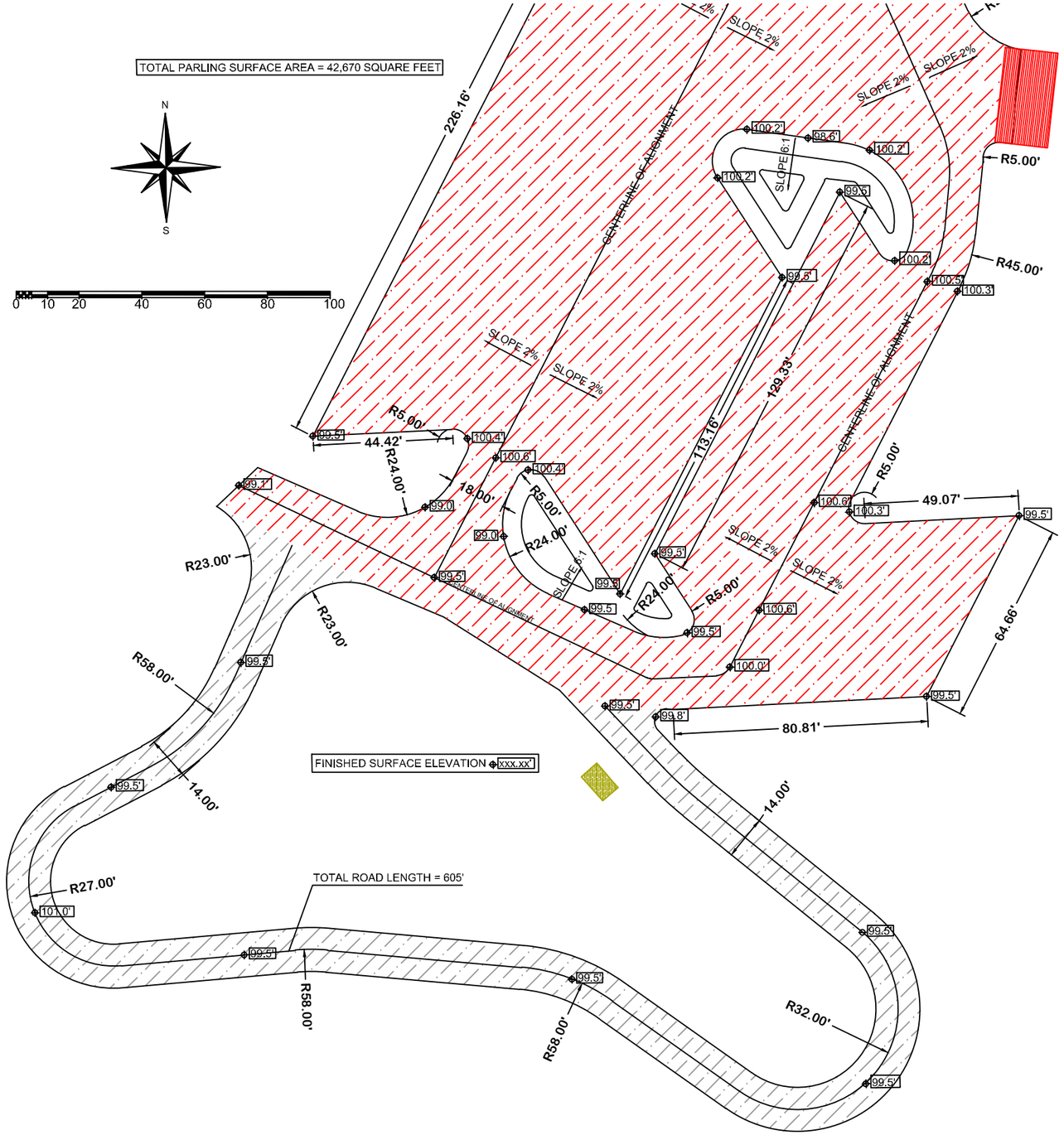
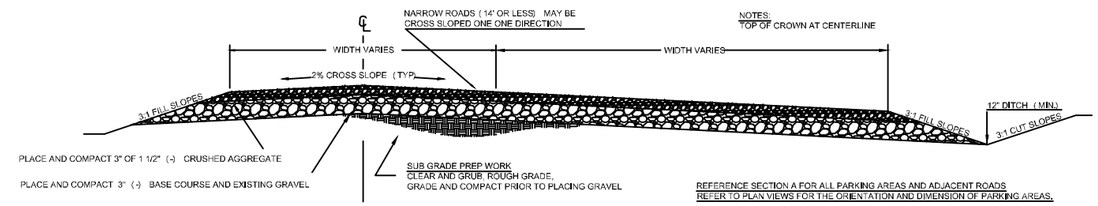
DRAINAGE AND DIMENSION PLAN

SALMON FLY FAS IMPROVEMENTS 2017

SHEET: 3 of 5





TYPICAL SECTION A : GRADE AND GRAVEL EXISTING ROADS AND PARKING AREAS

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NOTES:

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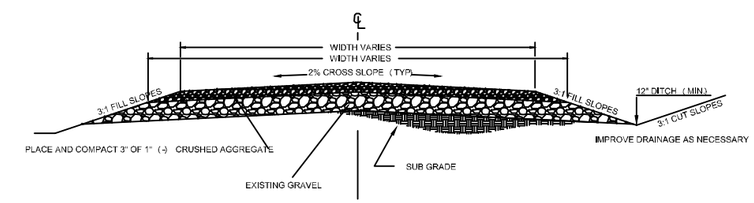

TYPICAL SECTION B : NEW ROADS, PARKING AREAS AND CAMPSITES

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NOTES:

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2. RETAIN STRIPPED TOP SOIL FOR USE ON AREA DESIGNATED BY FWP ENGINEER. THE REMAINING QUANTITY SHALL BE REMOVED FROM THE SITE.
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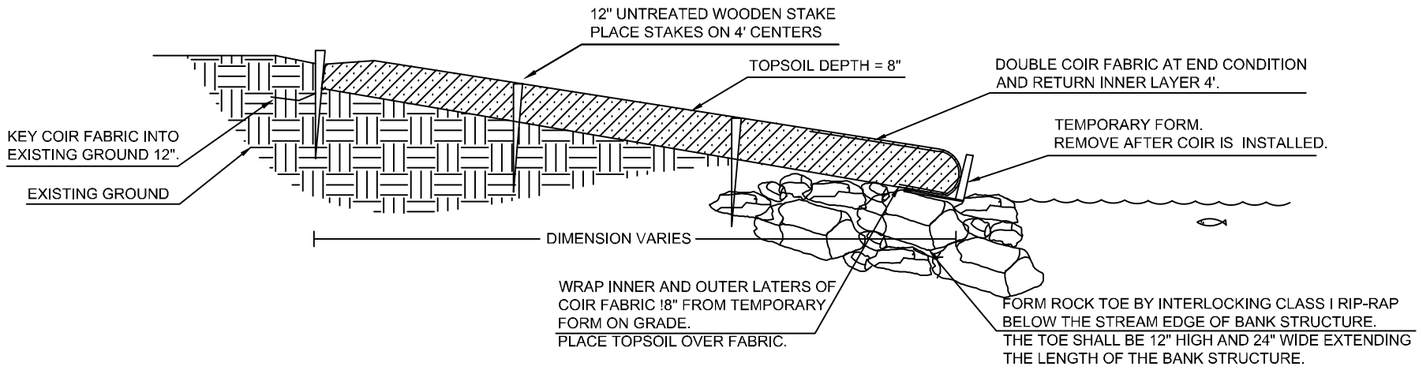
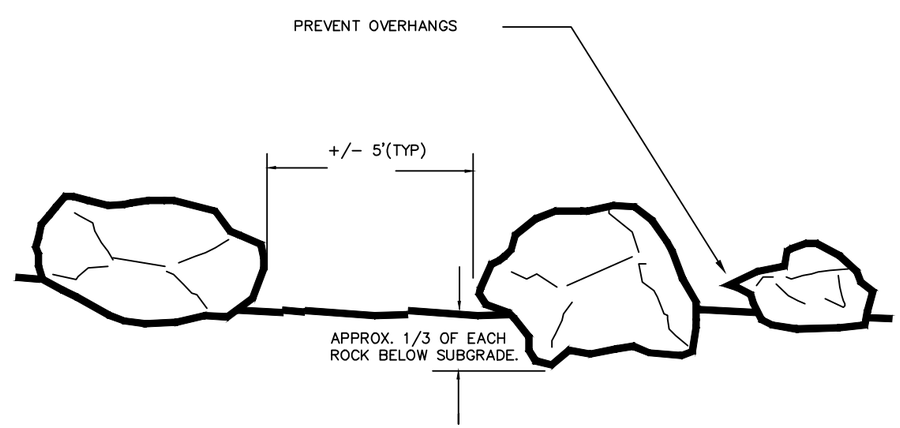


STREAMBANK RESTORATION SECTION

NOT TO SCALE



BARRIER ROCK DETAIL

NOT TO SCALE

BARRIER ROCK NOTES:

1) LANDSCAPE & BARRIER ROCK WILL BE PLACED AS SHOWN ON PLANS OR AS DESIGNATED BY FWP ENGINEER.

2) MINIMUM SIZE SHALL BE 6 CF. NO DIMENSION SHALL BE LESS THAN 1/3 OF THE LONGEST DIMENSION.

3) ROCK SHALL BE HARD, DURABLE WITH NO MAJOR MACHINE MARKS OR BLEMISHES. SUBMIT THE SOURCE INFORMATION TO THE FWP ENGINEER (5) DAYS PRIOR TO INSTALLATION.

4) BARRIER ROCKS SHALL BE SET SO THAT THEIR LONG AXIS IS PARALLEL TO THE GROUND AND ROAD SURFACING. THERE SHALL BE NO ACUTE ANGLES AT THE GROUND LINE.

5) APPROXIMATELY I/3 OF EACH ROCK SHALL BE PLACED BELOW GRADE.

6) UNLESS OTHERWISE DIRECTED BARRIERS SHALL BE PLACED APPROXIMATELY 5' APART FROM EDGE TO EDGE.

7) THE PROPER FINISHED GRADE WILL BE ESTABLISHED AROUND EACH ROCK.

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DETAILS
SALMON FLY FAS IMPROVEMENTS 2017

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