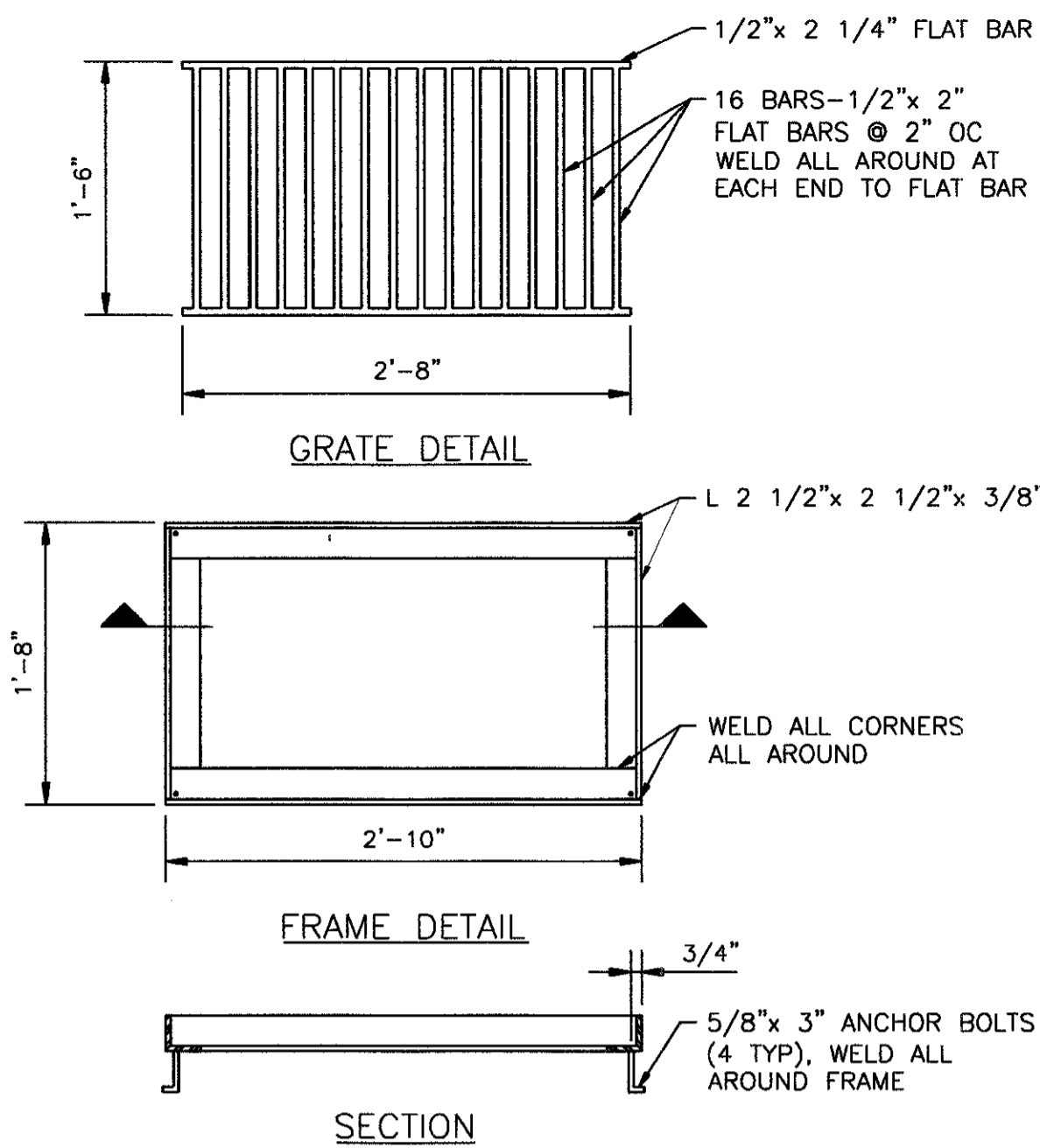
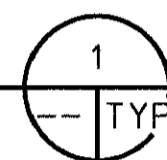


NOTE:  
 1. TREADS AND RISERS TO BE UNIFORM IN SIZE.  
 2. IF SPACE PERMITS, FIRST TREAD TO BE AT GRADE WITH SIDEWALK.

**10' WIDE BLOCK STAIRS**

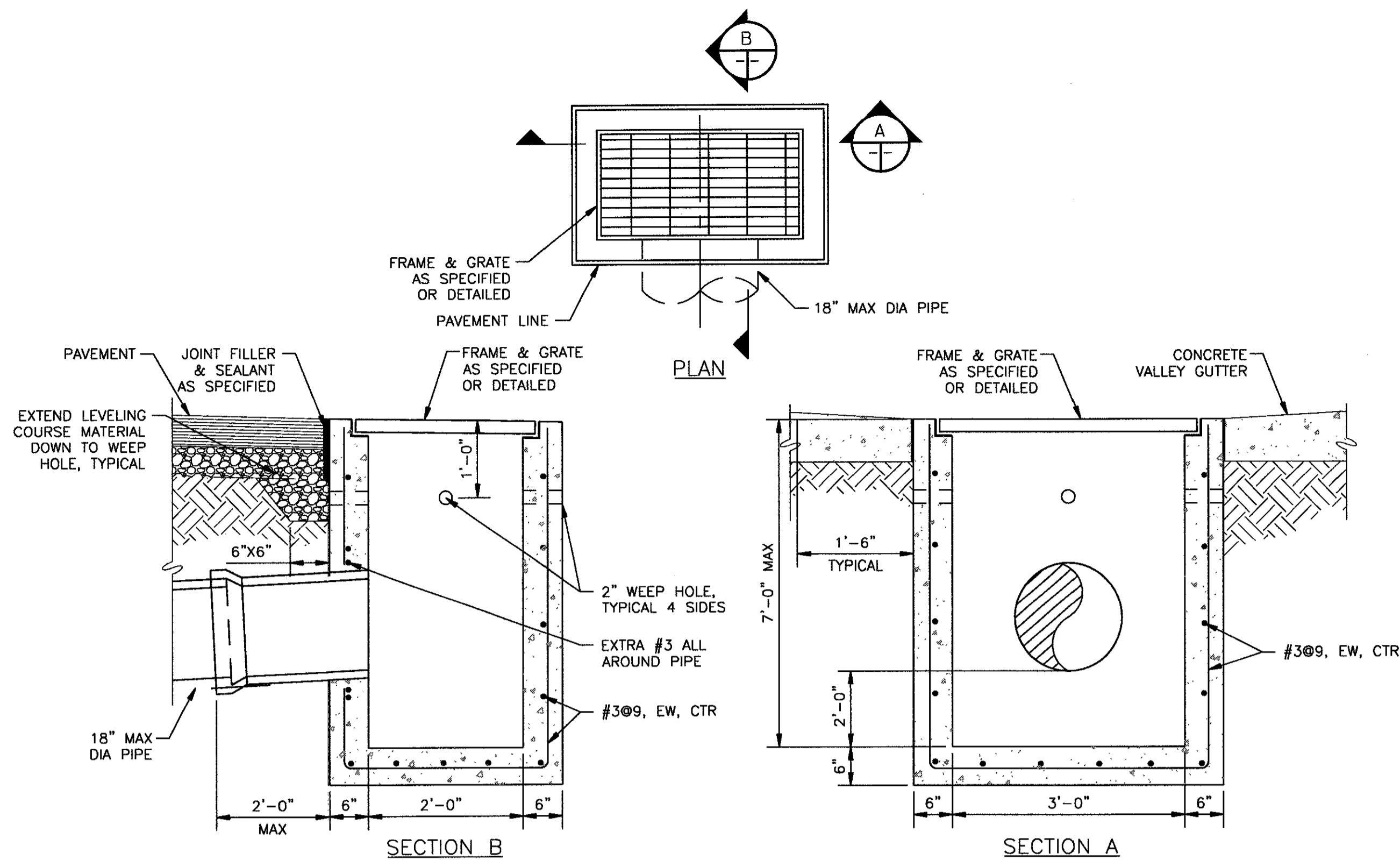
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NOTE:  
 1. ALL MATERIALS MILD STEEL. HOT DIP GALV. AFTER FABRICATION.

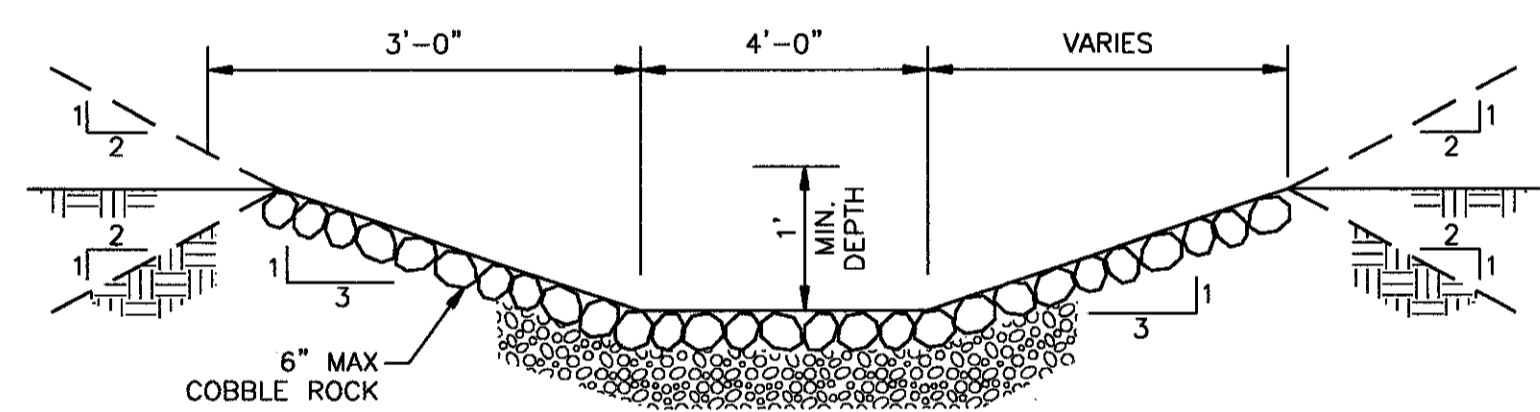
**WELDED FRAME AND GRATE**

SCALE: 1"=1'-0"



**CATCH BASIN**

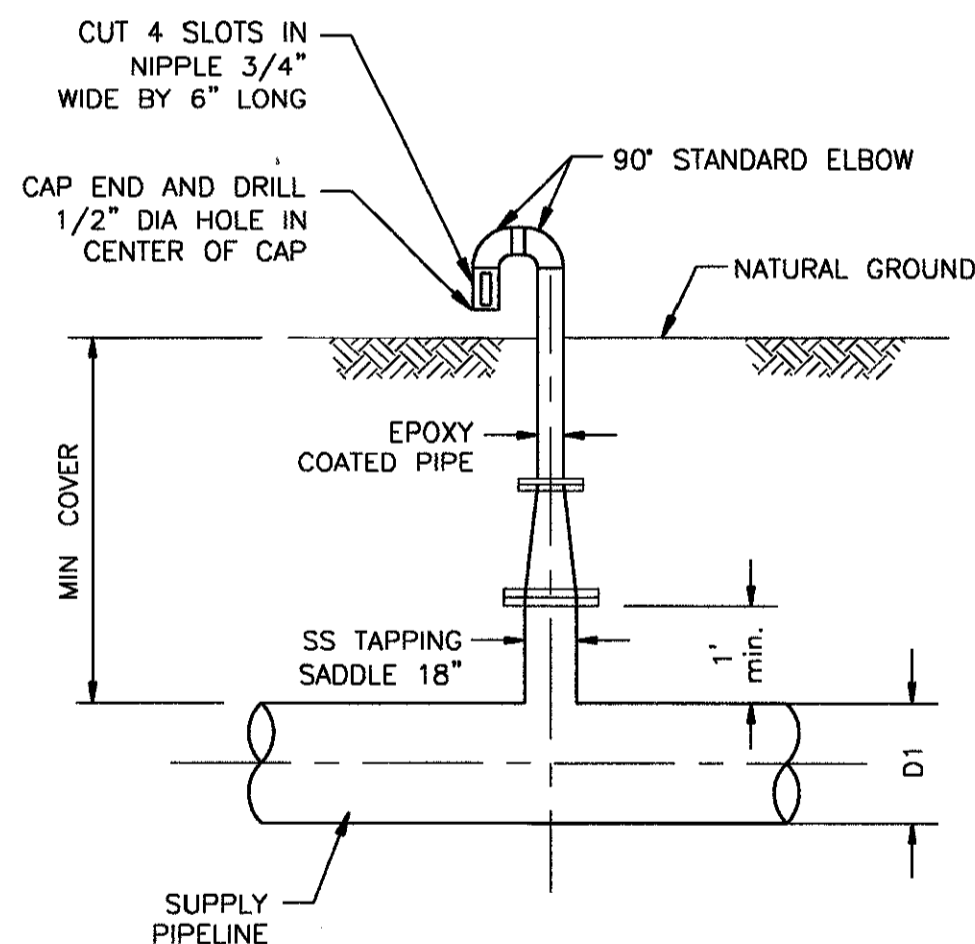
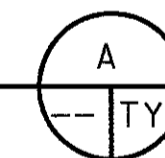
SCALE: 3/4"=1'-0"



NOTE:  
 1. PLANT NATIVE SPECIES WILLOWS, TREES, GRASSES, ETC. 1 PLANT PER 15 SF. SEE LANDSCAPE PLANS FOR DETAILS.

**DRAINAGE SWALE**

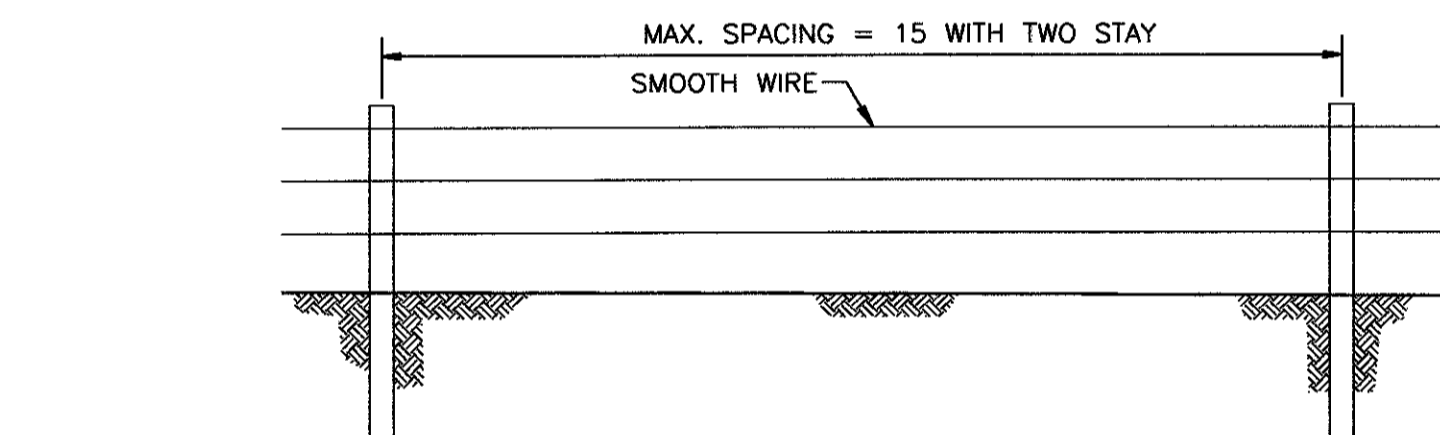
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NOTE:  
 1. COVER SLOTS AND HOLES WITH 10 MESH BRASS OR STAINLESS SCREEN.

**PIPE VENT**

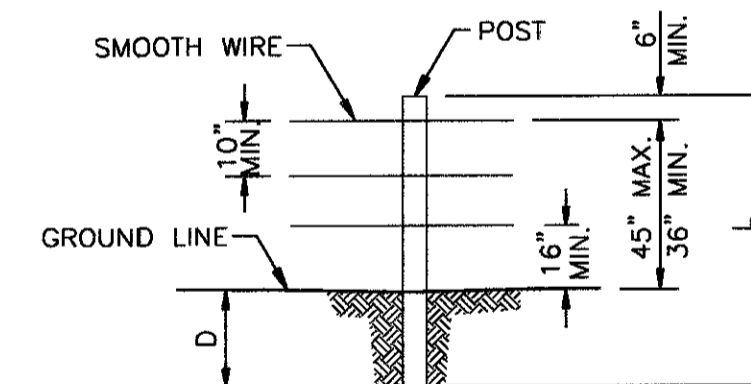
SCALE: 1/2"=1'-0"



**LINE PANEL**

WOOD POSTS EVERY 60' WITH INTERMEDIATE STEEL POSTS AT 15' ATTACH WIRE TO POSTS WITH CLIPS AS PER STANDARD PRACTICE

SMOOTH WIRE: 12 1/2 GAUGE CONVENTIONAL OR 15 1/2 GAUGE HIGH-TENSION 2 TWISTED STRANDS



**SMOOTH WIRE DETAIL**

LINE POSTS: WOOD: L = 6 FT. MIN. D = 2 1/2 IN. MIN. TREATED 4\"X4\" OR EQUIVALENT SET IN CONCRETE. CORNER OR GATE: WOOD: L = 7 FT. MIN. D = 3 FT. MIN. TREATED 6\"X6\" OR EQUIVALENT SET IN CONCRETE. STAYS: WOOD: 1-1/2 IN. DIA. MIN. OF DURABLE WOOD. FIBERGLASS: ANY MANUFACTURED FOR THIS PURPOSE. WIRE: 9 1/2 GAUGE, ZINC COATED, TWISTED, MANUFACTURED FOR THIS PURPOSE.

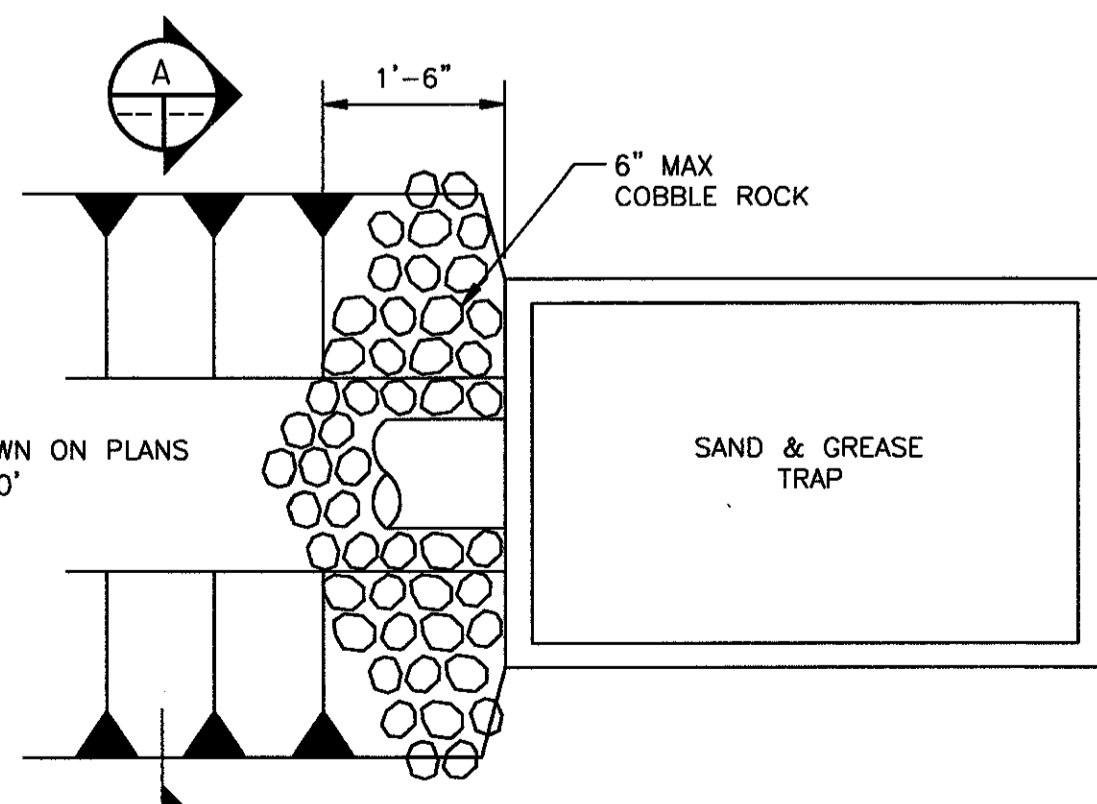
STEEL: L = 5-1/2 FT. MIN. D = 1 1/2 IN. MIN. STANDARD \"T\" OR \"U\"; > 1.25 LBS/FT OF LENG

STEEL: L = 7 FT. MIN. D = 3 FT. MIN. (SET IN CONC.) DIA. = ROUND 2-3/8 IN. O.D. OR ANGLE IRON 2-1/2 X2-1/2 X1/4 (IN.) SET IN CONCRETE

**SMOOTH WIRE FENCE**

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

NOTE:  
 1. MEANDER SWALE AS SHOWN ON PLANS  
 2. APPROXIMATE LENGTH 100'

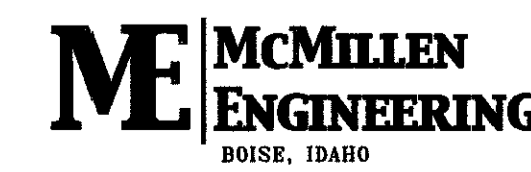
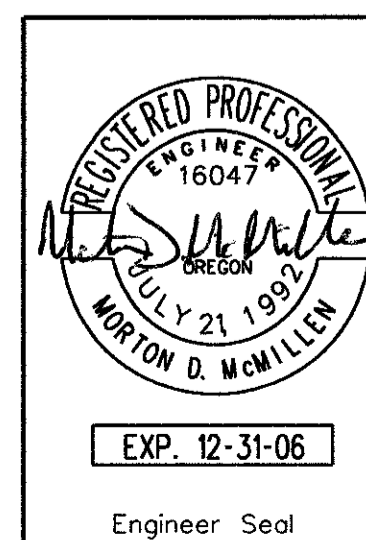


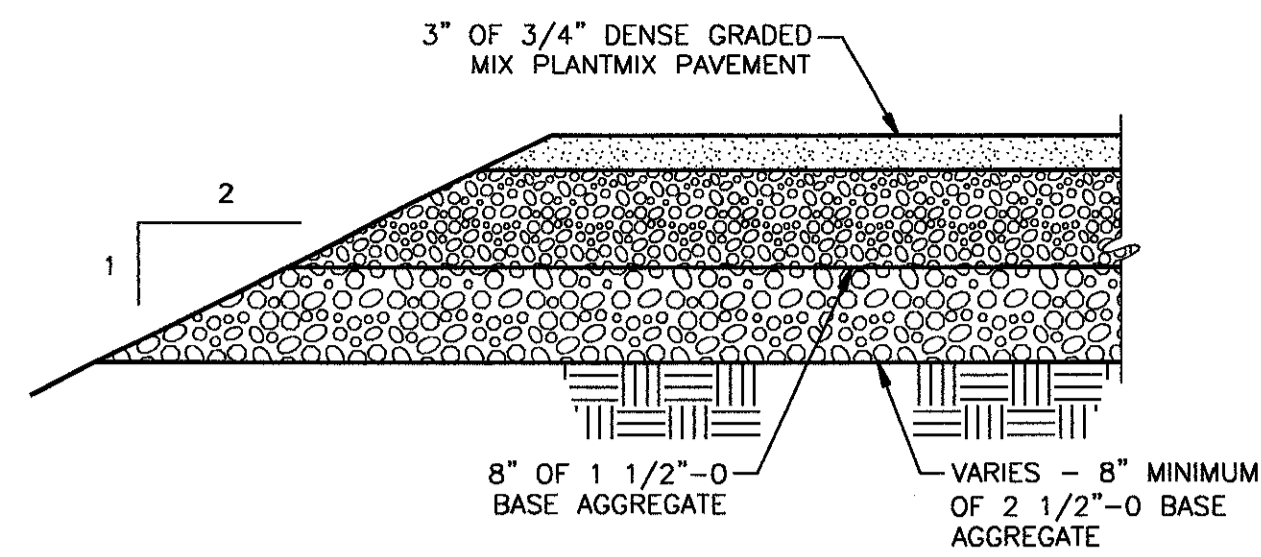
**SWALE PER TYP**

SCALE: 3/8"=1'-0"

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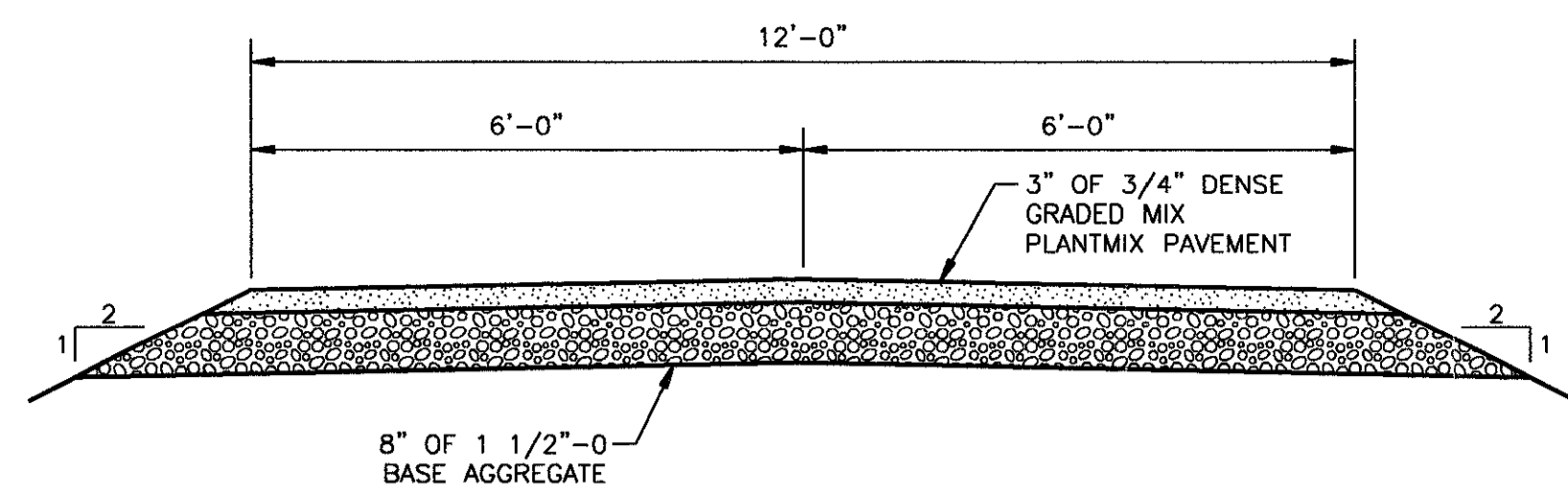
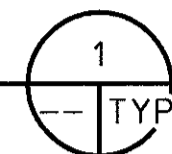
Design	S. SPICKELMIER	UNITED STATES DEPARTMENT OF ENERGY <b>BONNEVILLE POWER ADMINISTRATION</b> HEADQUARTERS, PORTLAND, OREGON					
Drawn	R. GUERRERO	<b>NORTHEAST OREGON HATCHERY PROGRAM</b> LOSTINE RIVER HATCHERY					
Chkd	M. McMILLEN	<b>STANDARD CIVIL DETAILS 1</b>					
Sub							
Rec							
Appr							
Date		SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
				GC1	OF		





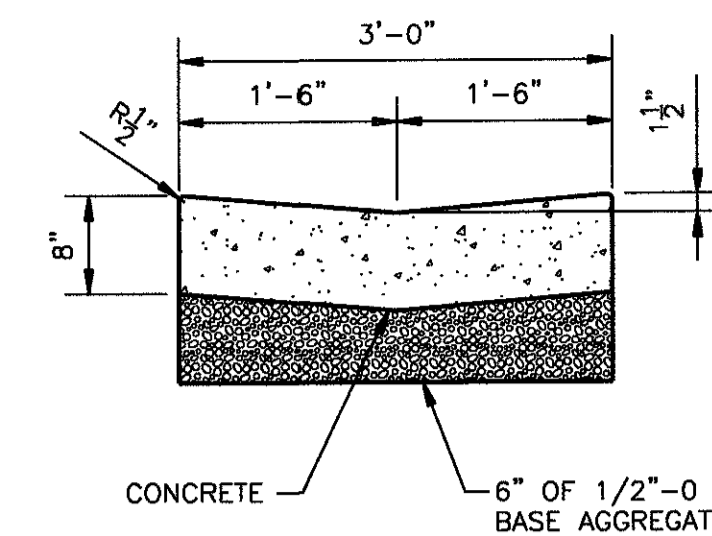
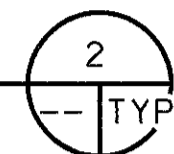
**ASPHALT PAVING  
HATCHERY AREA**

NO SCALE



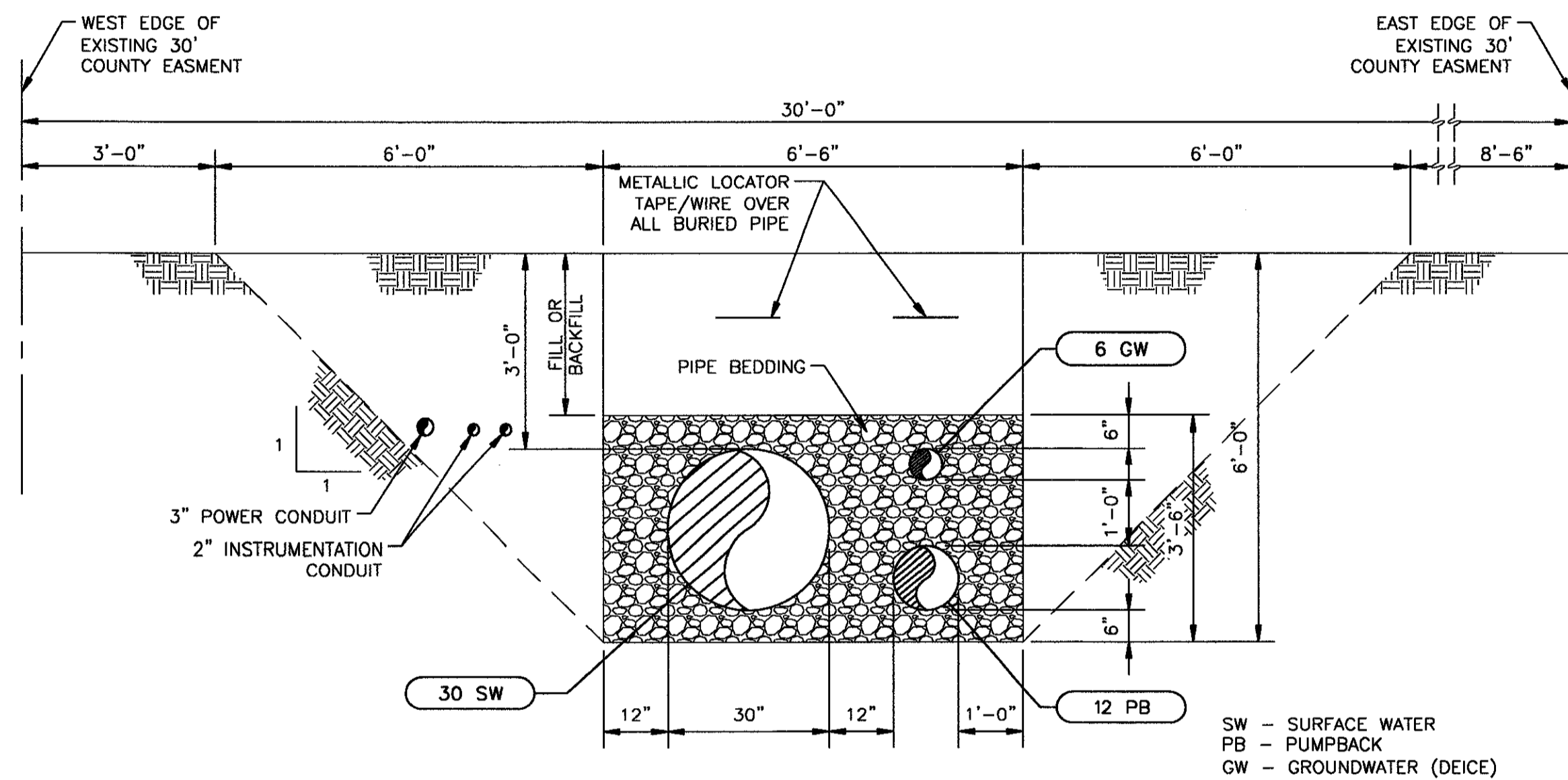
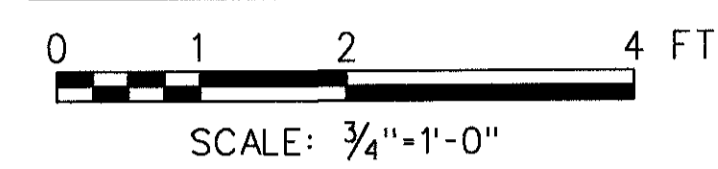
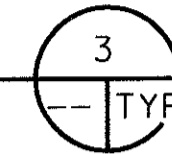
**RESIDENT  
ACCESS ROAD**

NO SCALE

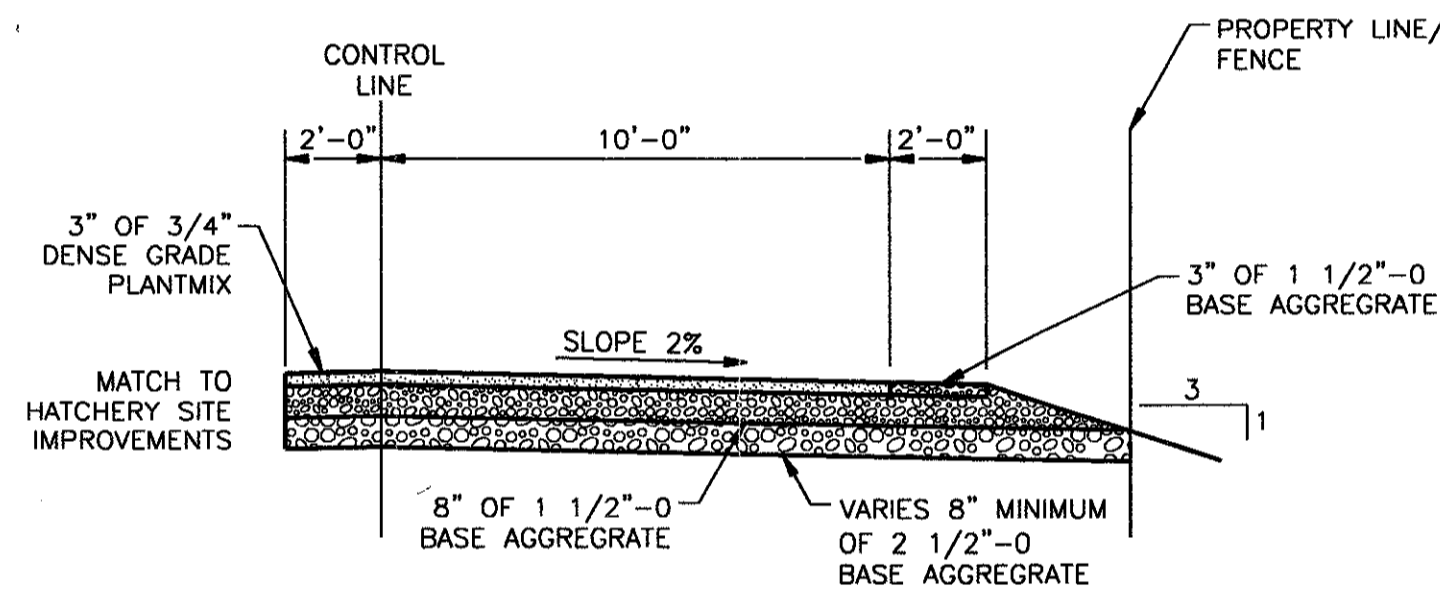
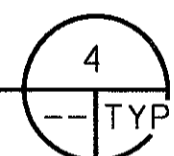
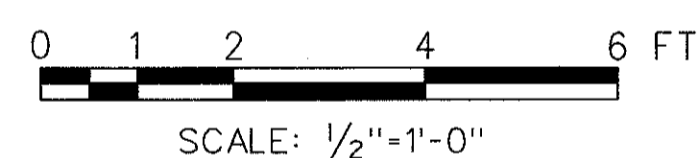


**VALLEY GUTTER**

NO SCALE

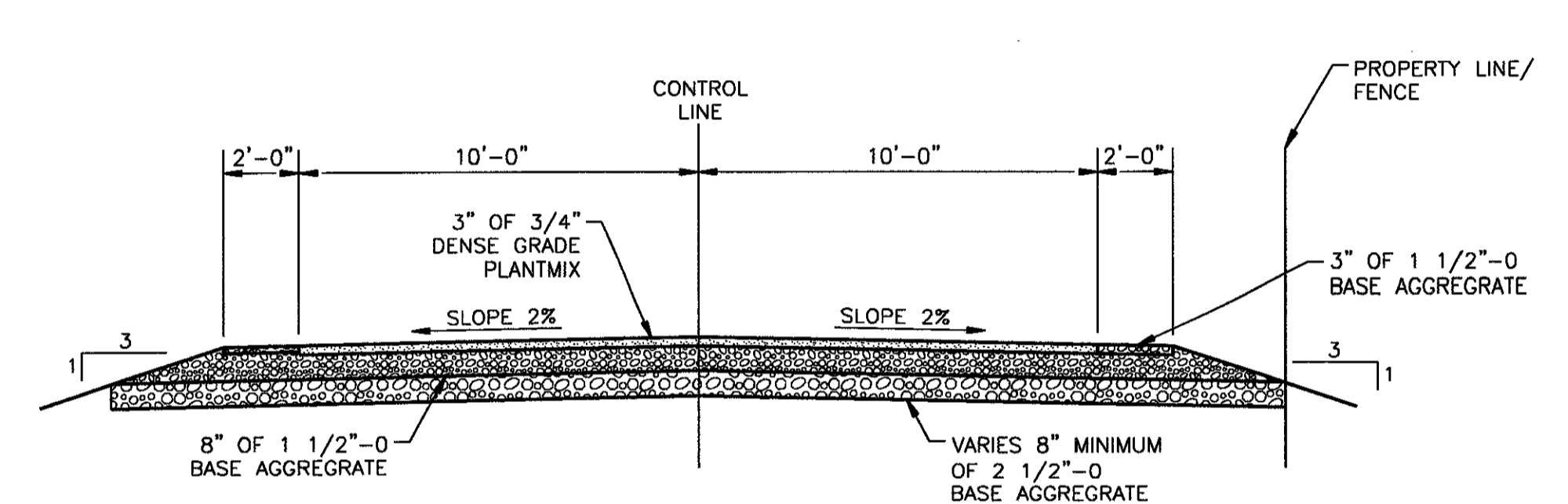
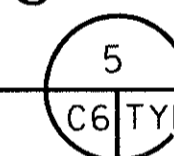


**TRENCH DETAIL**



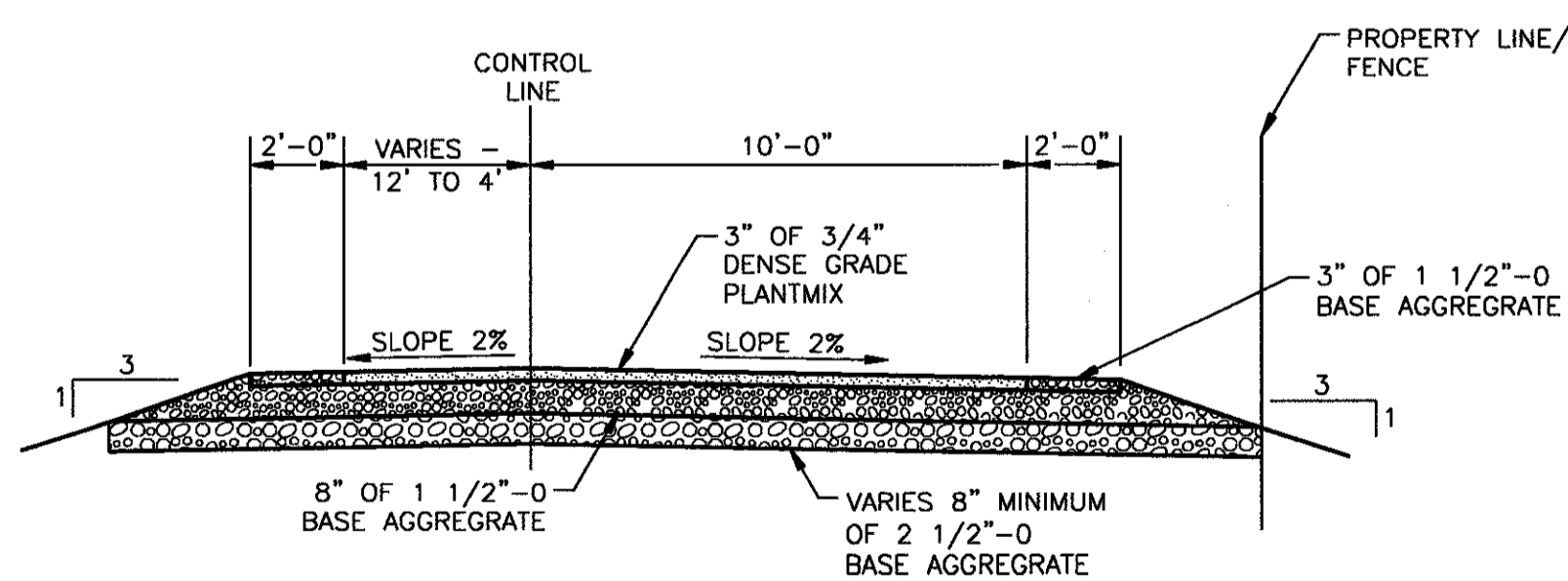
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STA: 13+91 TO 20+00**

NO SCALE



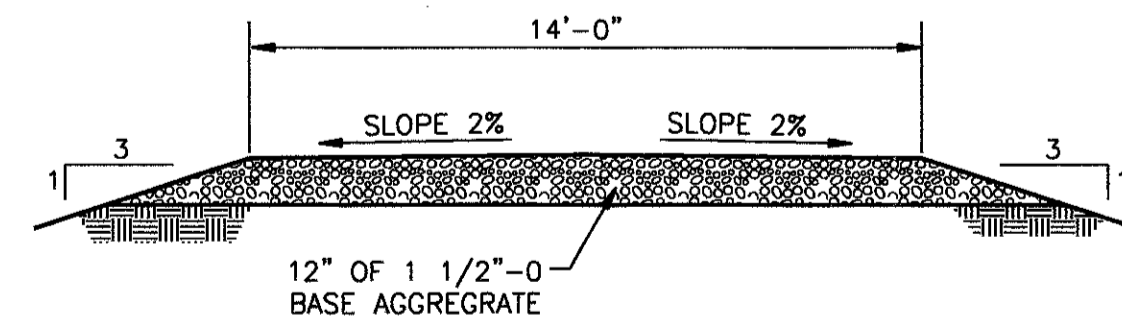
**SECTION @ HATCHERY ACCESS  
STA: 20+00 TO 20+75**

NO SCALE



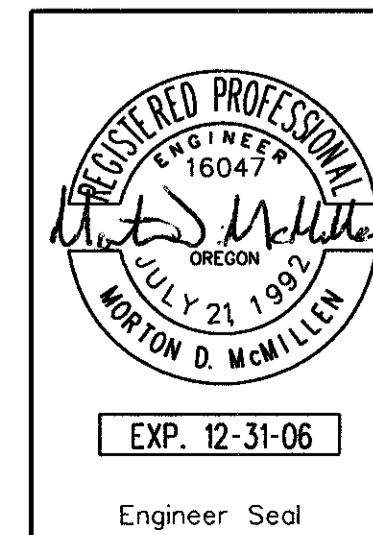
**SECTION @ HATCHERY ACCESS  
STA: 20+75 TO 21+20**

NO SCALE

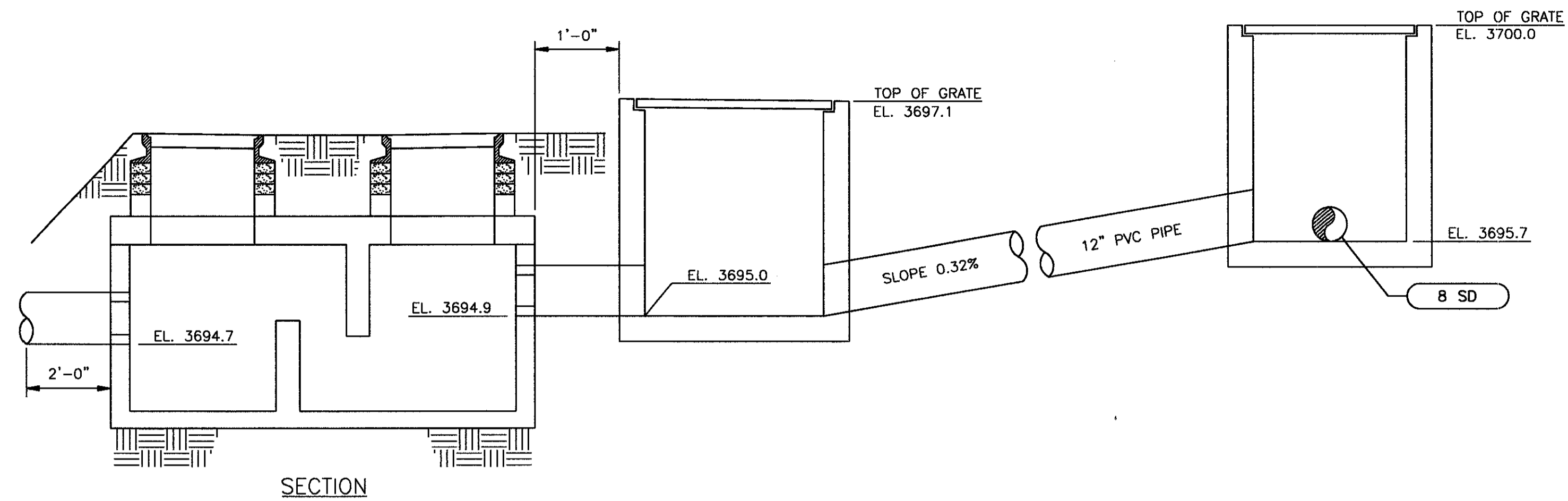


**14' GRAVEL ACCESS ROAD  
FROM INTAKE STRUCTURE**

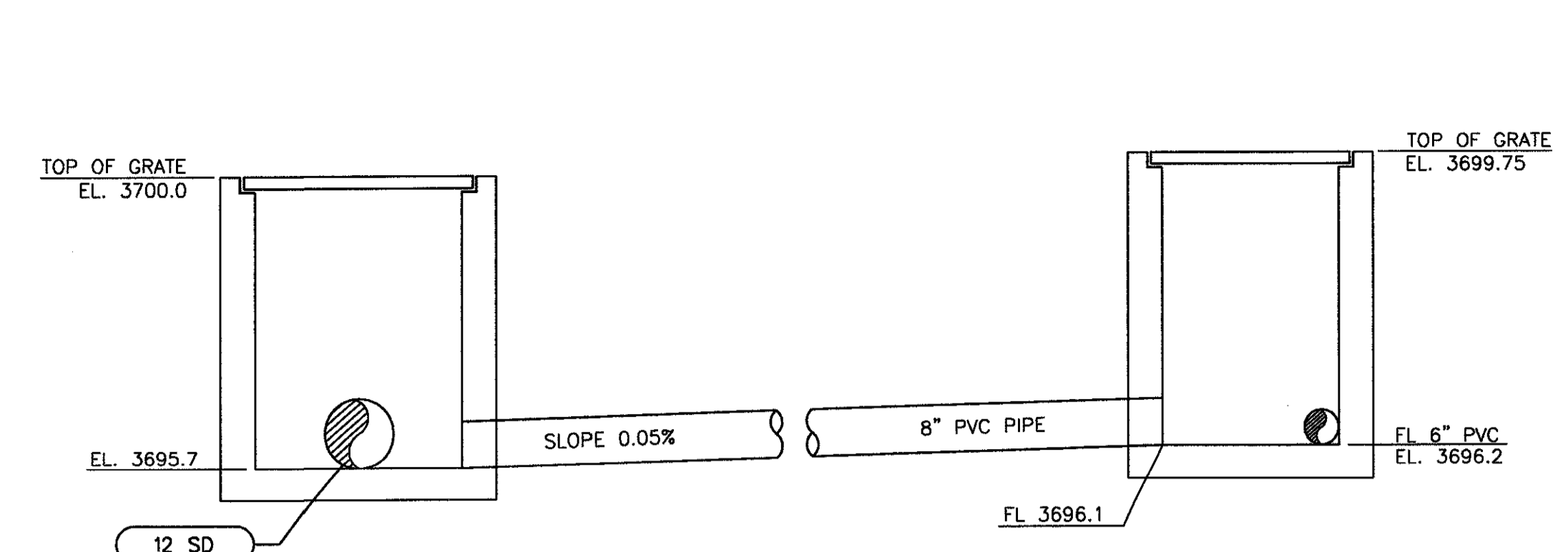
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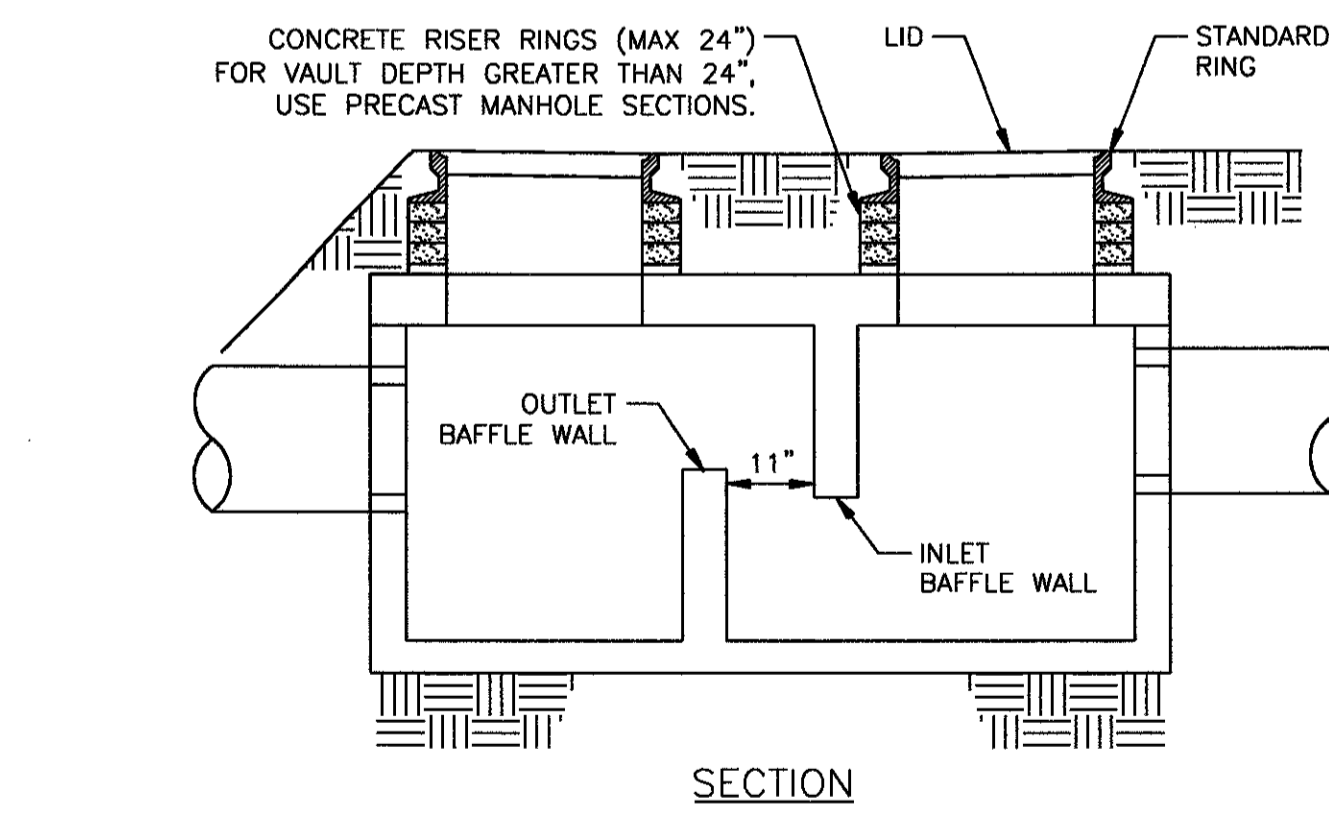
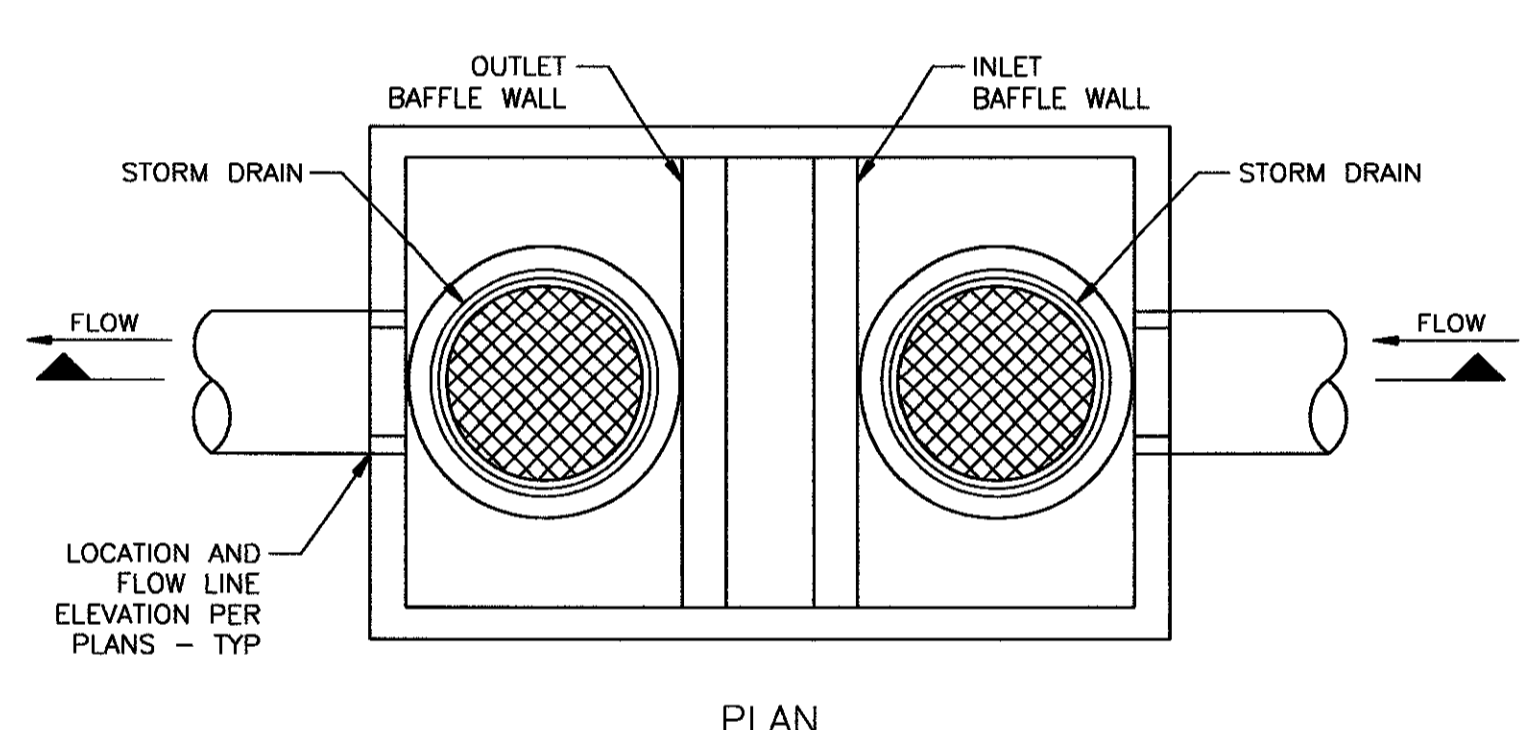
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Design	S. SPICKELMIER	UNITED STATES DEPARTMENT OF ENERGY <b>BONNEVILLE POWER ADMINISTRATION</b> HEADQUARTERS, PORTLAND, OREGON					
Drawn	R. GUERRERO	<b>NORTHEAST OREGON HATCHERY PROGRAM</b> <b>LOSTINE RIVER HATCHERY</b>					
Chkd	M. McMILLEN	<b>STANDARD CIVIL DETAILS 2</b>					
Sub							
Rec							
Appr							
Date		SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
				GC2	OF		



**SECTION 1**  
**STORM DRAIN PIPE PROFILE FROM PIPE OUTFALL TO DRAIN SWALE**  
 NO SCALE

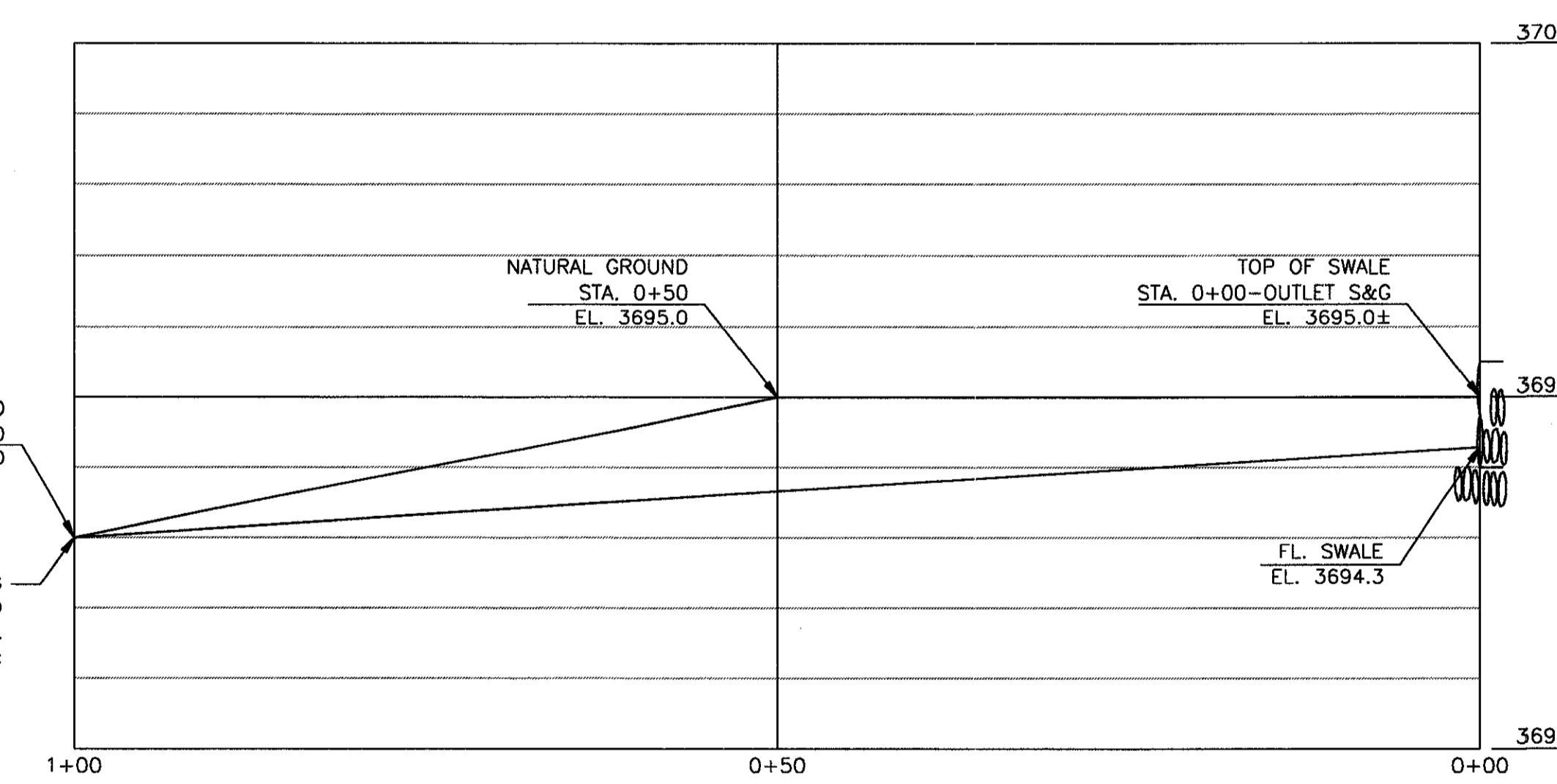


**SECTION 2**  
**STORM DRAIN PIPE PROFILE FROM TRUCK FILL STATION TO PIPE OUTFALL**  
 NO SCALE

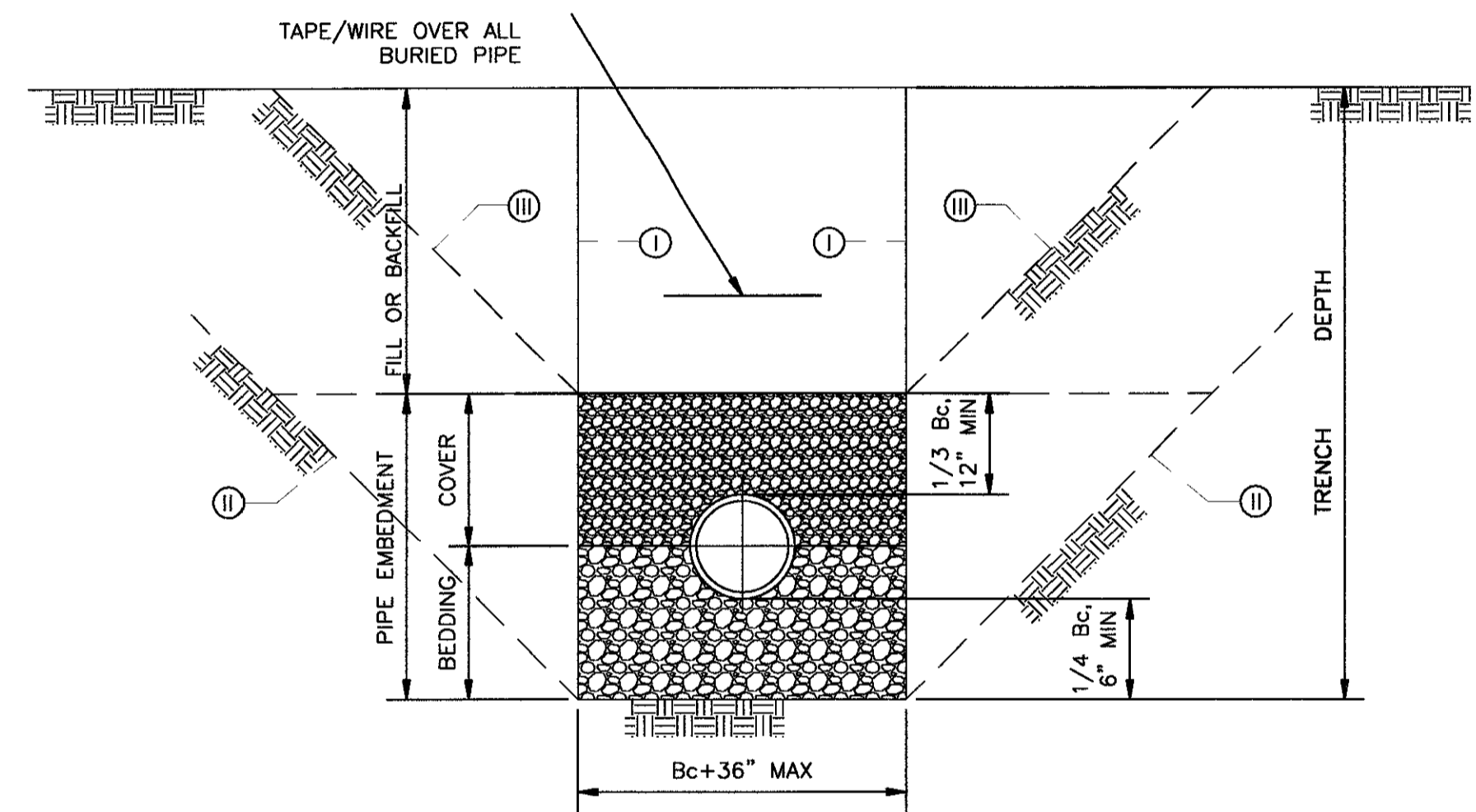


**SECTION 3**  
**1500 GAL SAND AND GREASE SEDIMENT BOX TYPICAL**  
 NO SCALE

- NOTES:**
- DESIGN LOAD: AASHTO HS-25 HIGHWAY LOADING.
  - ALL REINFORCING STEEL SHALL BE GRADE 60.
  - DETAILED DRAWING OF A PRECAST BOX OR A POURED IN PLACE BOX DESIGN MUST BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
  - HEIGHT OF OUTLET BAFFLE WALL AND LENGTH ON INLET BAFFLE WALL DETERMINED BY TANK CAPACITY AND FLOW RATE.
  - BEFORE THESE BOXES ARE USED THE APPLICATION MUST BE APPROVED BY THE ENGINEER.
  - IF DISTANCE FROM TOP OF BOX TO BOTTOM OF MANHOLE FORM EXCEEDS 12", USE PRECAST MANHOLE RISER PLUS A MAXIMUM OF 12" OF RISER GRADE RINGS.

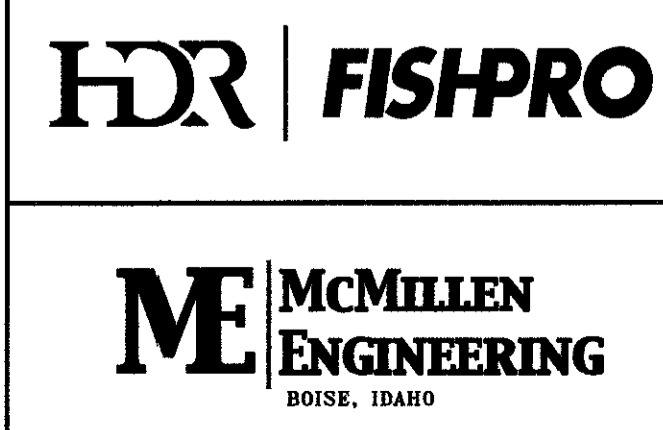
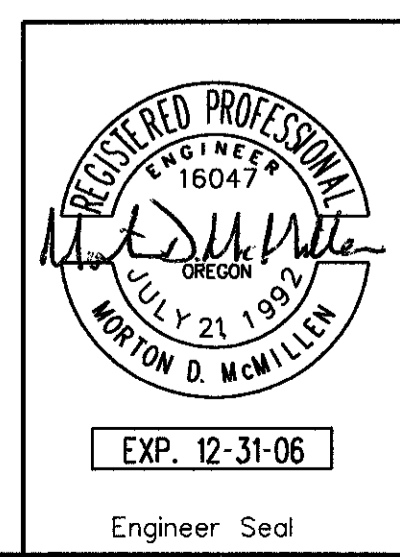


**SWALE PROFILE**  
 NO SCALE

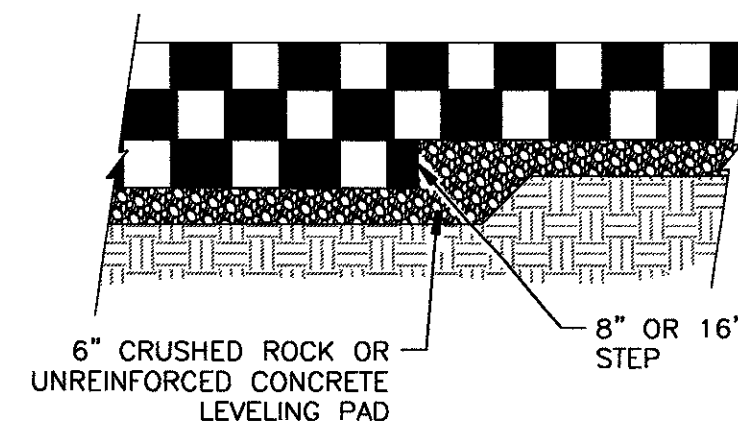


- NOTE:**
- Bc=OUTSIDE DIAMETER OF PIPE.
  - FLEXIBLE PIPE REFERS TO ALL STEEL, DUCTILE-IRON AND PLASTIC PIPES.
  - TYPICAL TRENCH SECTIONS I, II, III ARE TO BE USED ONLY WHERE STABLE, COMPACT SOIL CONDITIONS EXIST. IF BOULDER OR LARGE OBSTRUCTIONS WOULD BE ENCOUNTERED, TRENCH SECTIONS MAY BE DEEPER OR WIDER THAN SHOWN. THE ENGINEER SHOULD BE ADVISED SHOULD THIS OCCUR.
  - THE NEED FOR PROTECTIVE SYSTEMS, AND EXCAVATION SLOPES SHALL BE DETERMINED CONSIDERING APPLICABLE LOCAL STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS AND GEOTECHNICAL CONSULTANTS RECOMMENDATIONS.
  - PROTECTIVE SYSTEMS SHALL BE DESIGNED AND BUILT IN ACCORDANCE WITH THE APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS.
  - SUPPORTING DOCUMENTATION SHALL BE SUBMITTED TO THE ENGINEER REGARDING PIPE DESIGN AND COMPLIANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS.
  - UNSUPPORTED VERTICAL AND/OR SLOPING TRENCH WALL SLOPES SHALL NOT BE STEEPER THAN ALLOWED BY APPLICABLE LOCAL, STATE, AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS, UNLESS SUPPORTING DOCUMENTATION IS SUBMITTED ACCORDING TO AFOREMENTIONED SAFETY STANDARDS.
  - TRENCH SECTIONS OTHER THAN THE TYPICAL SECTIONS SHOWN MAY BE UTILIZED PROVIDED THEY COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL (OSHA) SAFETY STANDARDS AND REGULATIONS. DOCUMENTATION SUPPORTING THIS COMPLIANCE AND PIPE DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER.
  - MINIMUM PIPE COVER SHALL BE 3' UNLESS OTHERWISE SPECIFIED.
  - IF DURING CONSTRUCTION THE WATER TABLE IS DISCOVERED TO BE ABOVE THE TRENCH BOTTOM, THE ENGINEER SHALL BE NOTIFIED AND APPROPRIATE DEWATERING SHALL BE IMPLEMENTED TO LOWER THE WATER LEVEL BELOW THE TRENCH BOTTOM. BACKFILL MATERIAL SHALL MEET REQUIREMENTS SET FORTH IN THE PROJECT SPECIFICATIONS.
  - SEE SPECIFICATIONS FOR BACKFILL MATERIAL REQUIREMENTS

**TRENCH DETAIL**  
 NO SCALE



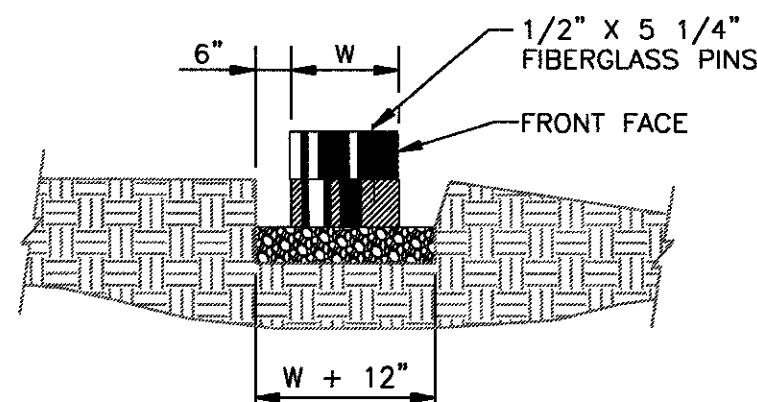
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Drawn	R. GUERRERO	NORTHEAST OREGON HATCHERY PROGRAM LOSTINE RIVER HATCHERY					
Chkd	M. McMILLEN	<b>STANDARD CIVIL DETAILS 3</b>					
Sub							
Rec							
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Date		SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
				GC3	OF		



ELEVATION

NOTE:

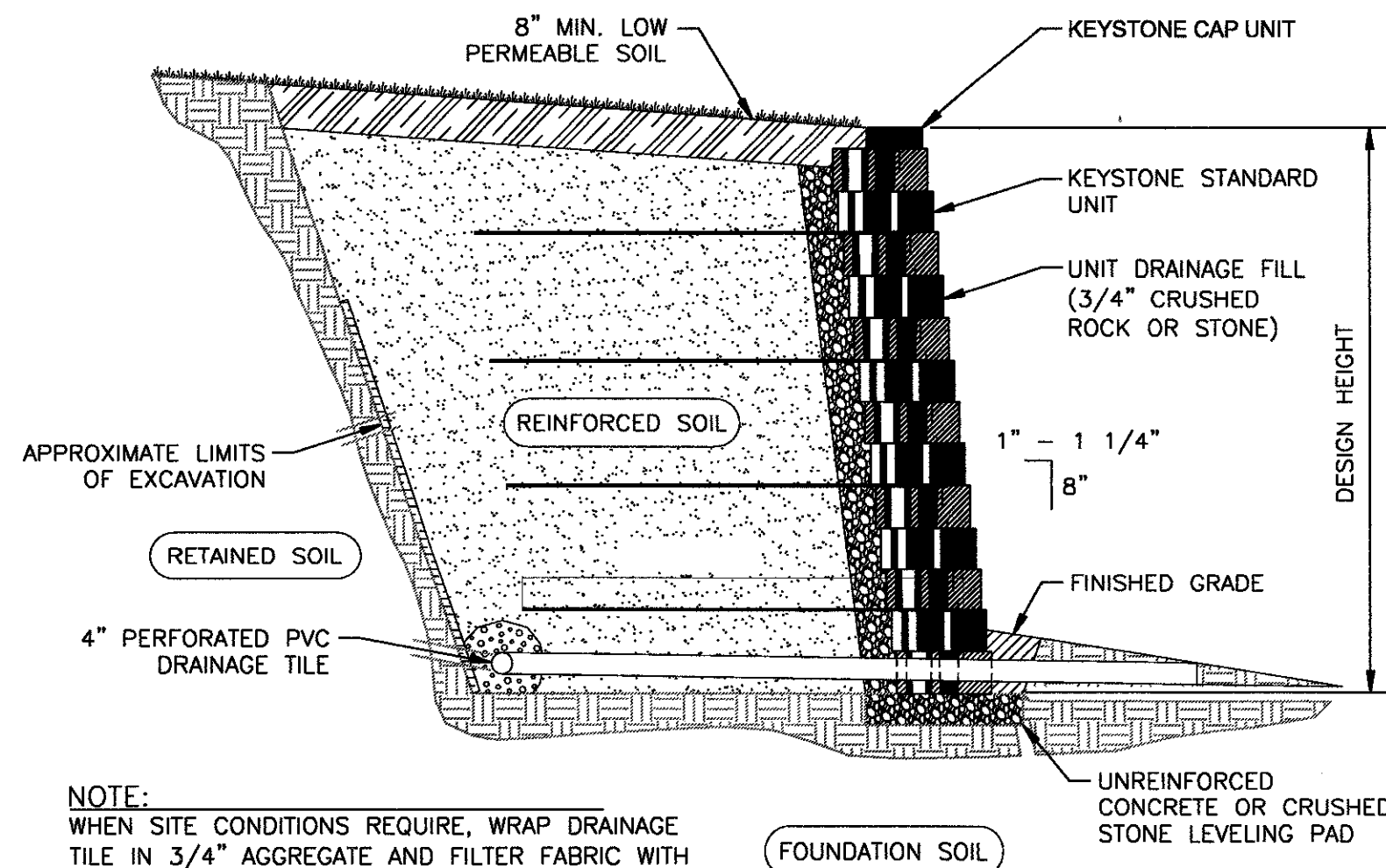
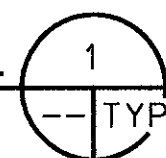
1. THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUSHED STONE OR 2000 PSI ± UNREINFORCED CONCRETE.



SECTION

LEVELING PAD DETAIL

NO SCALE

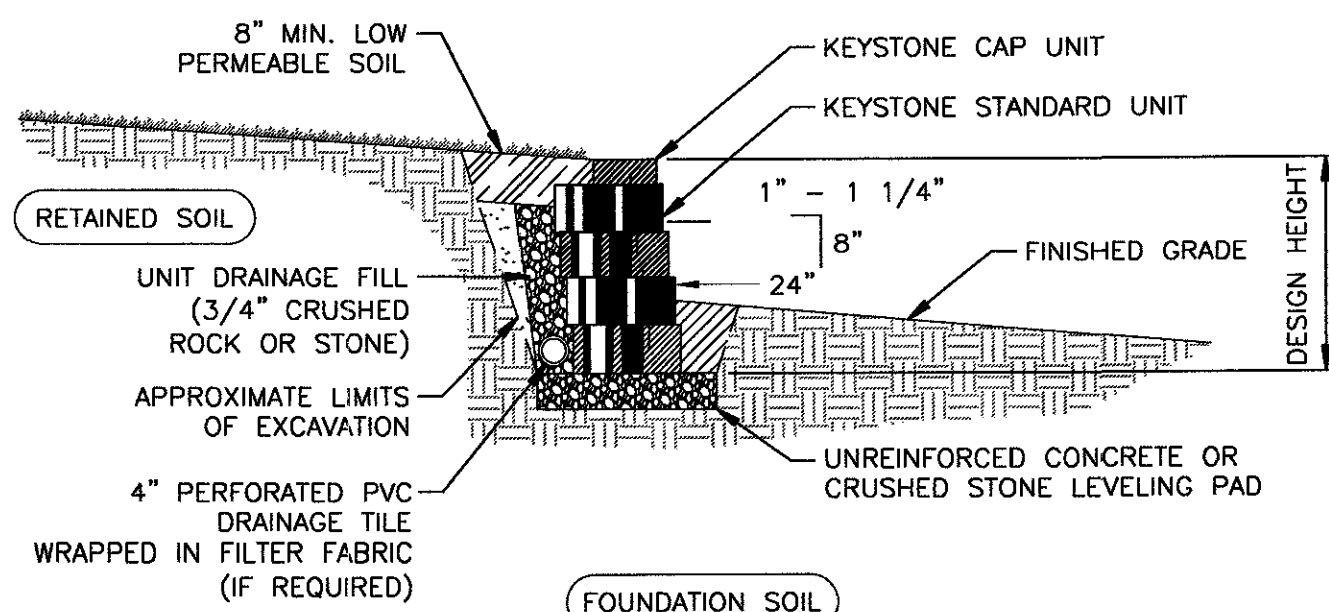
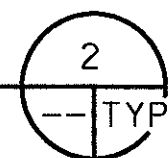


APPROXIMATE LIMITS OF EXCAVATION

NOTE: WHEN SITE CONDITIONS REQUIRE, WRAP DRAINAGE TILE IN 3/4" AGGREGATE AND FILTER FABRIC WITH DRAINAGE COMPOSITE OR AGGREGATE BACK DRAIN SYSTEM, AS DIRECTED BY GEOTECHNICAL ENGINEER.

TYPICAL REINFORCED WALL SECTION

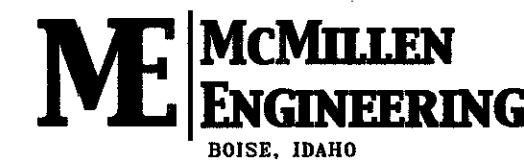
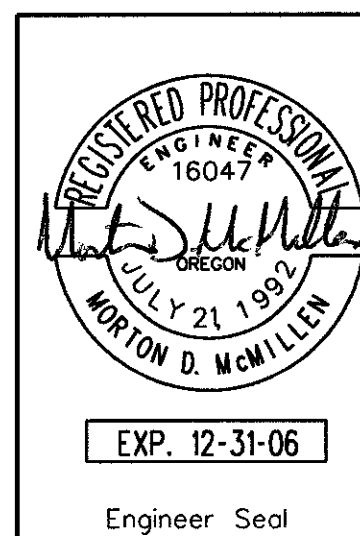
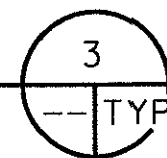
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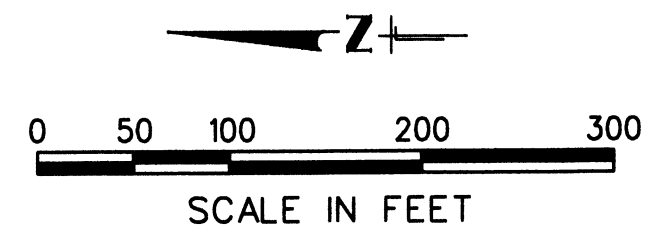
APPROXIMATE LIMITS OF EXCAVATION

TYPICAL GRAVITY WALL SECTION

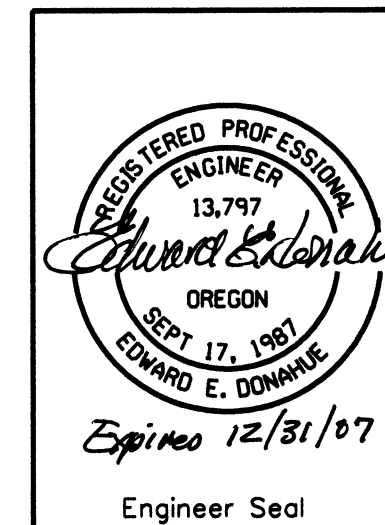
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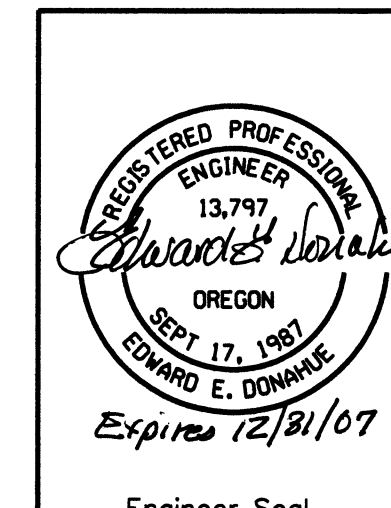
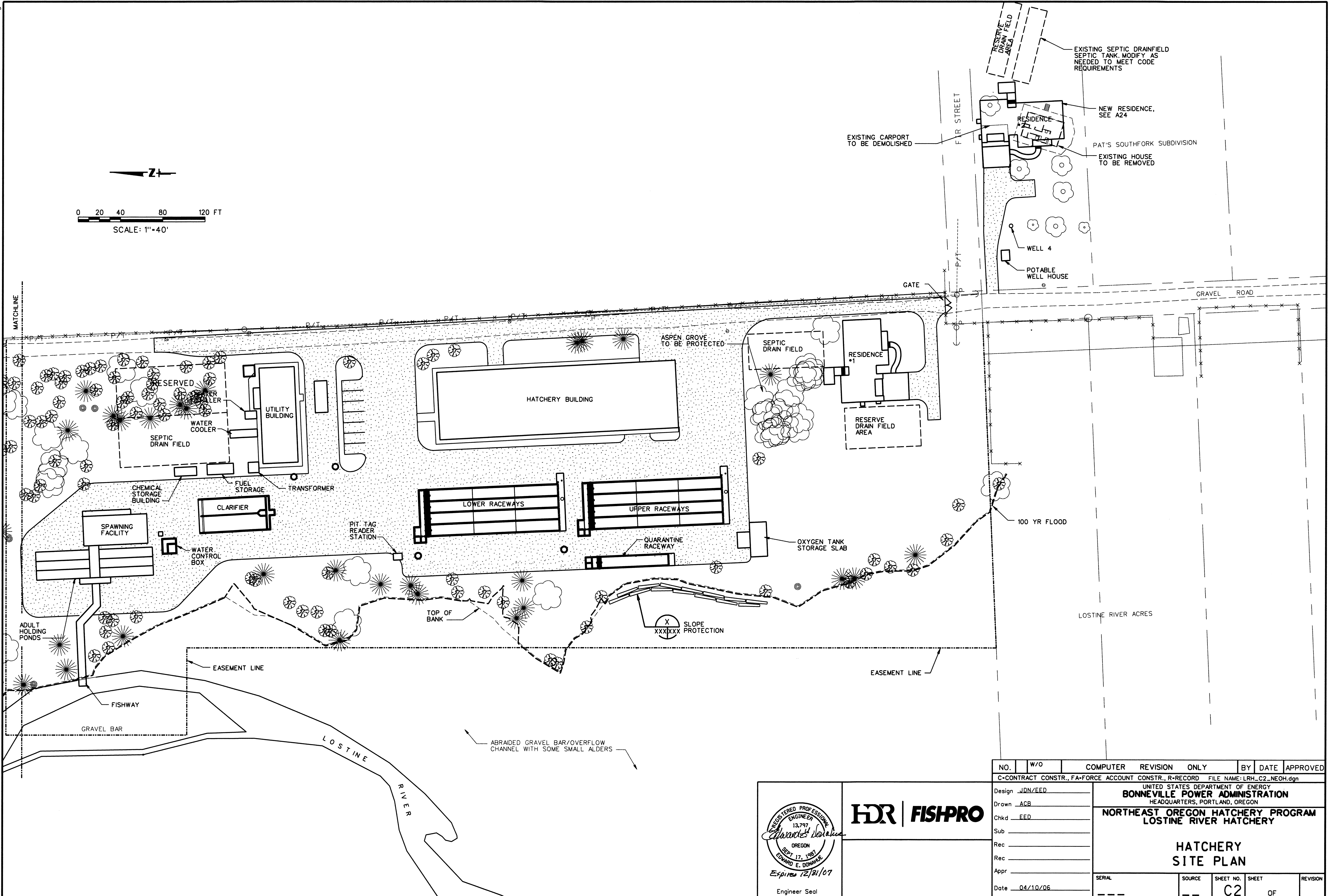
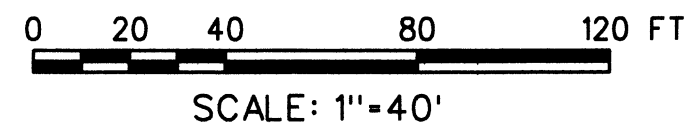
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Design	S. SPICKELMIER	UNITED STATES DEPARTMENT OF ENERGY <b>BONNEVILLE POWER ADMINISTRATION</b> HEADQUARTERS, PORTLAND, OREGON					
Drawn	R. GUERRERO	<b>NORTHEAST OREGON HATCHERY PROGRAM</b> LOSTINE RIVER HATCHERY					
Chkd	M. McMILLEN	<b>STANDARD CIVIL DETAILS 4</b>					
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Appr							
Date							



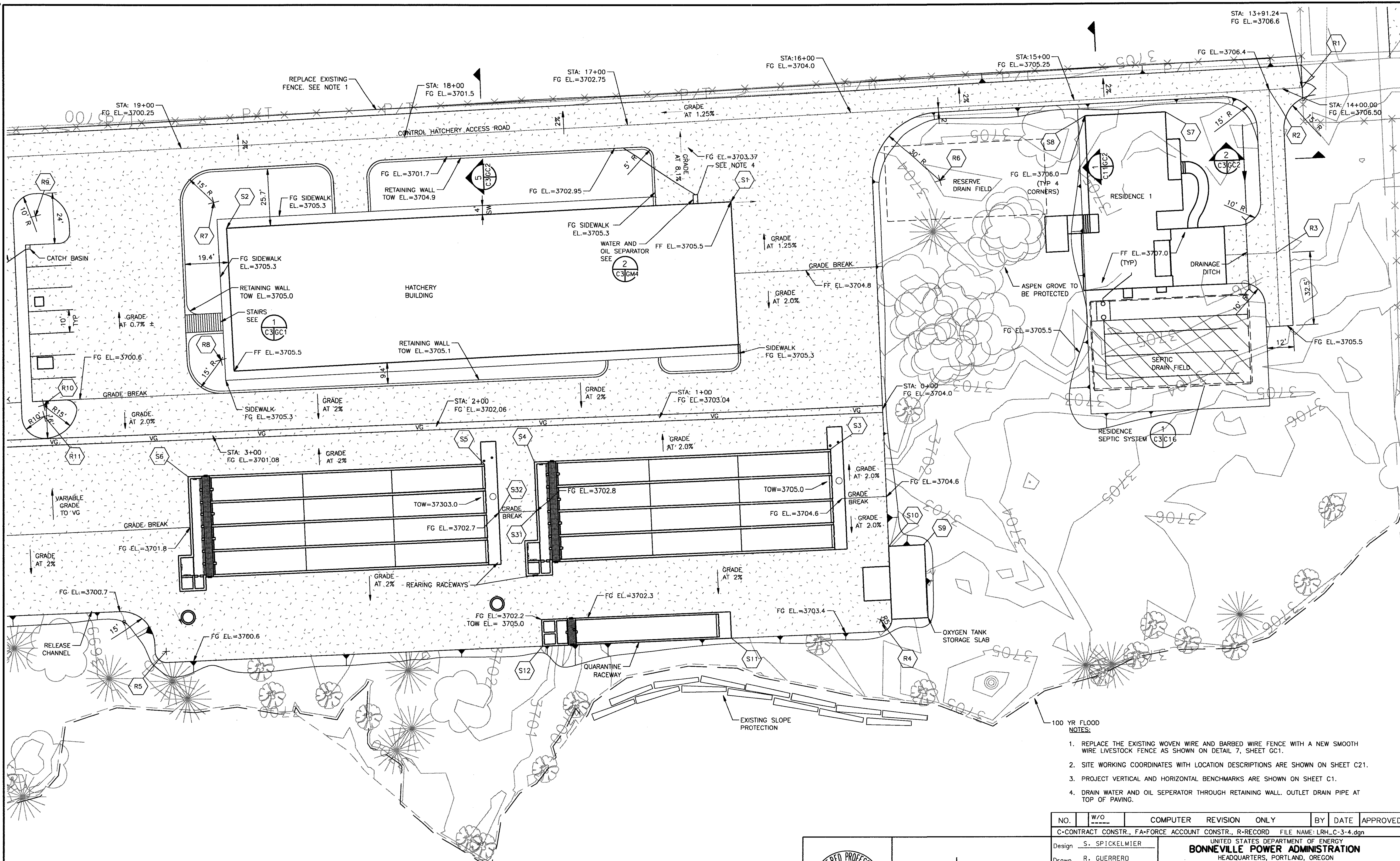
NOTE:  
SEE SHEET M1 FOR WELL FIELD PLAN.



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Drawn	ACB	<b>NORTHEAST OREGON HATCHERY PROGRAM</b> <b>LOSTINE RIVER HATCHERY</b>					
Chkd	EED	<b>OVERALL</b> <b>SITE PLAN</b>					
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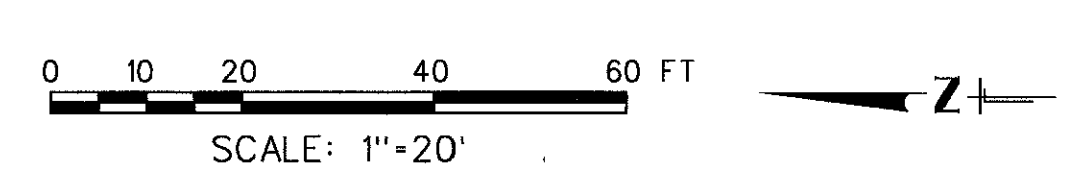
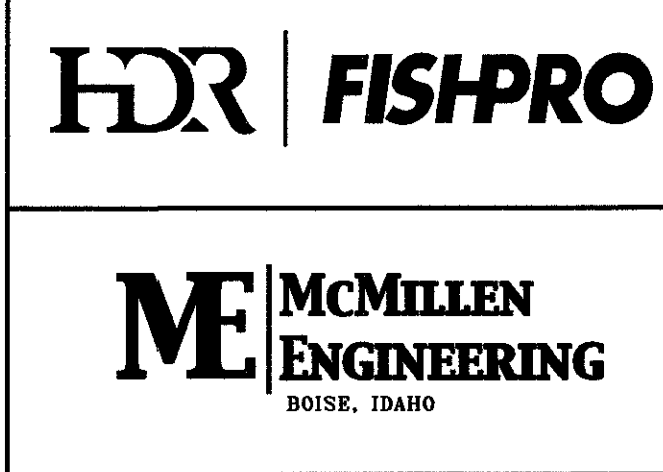
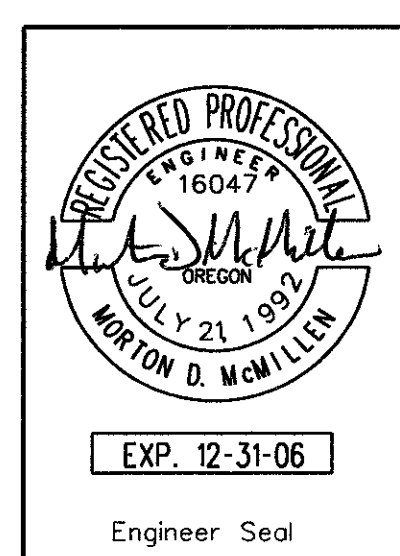


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Chkd	EED	<b>HATCHERY</b> <b>SITE PLAN</b>					
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Date	04/10/06				C2	OF	

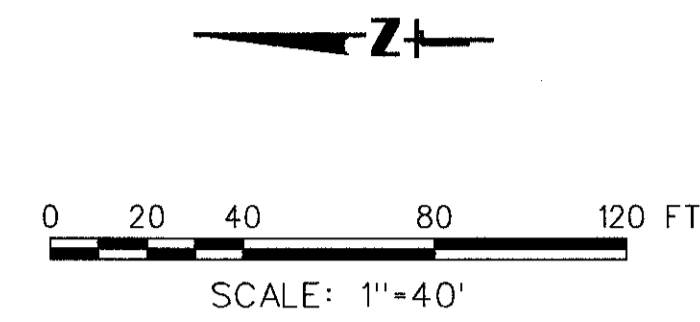


- 100 YR FLOOD NOTES:
1. REPLACE THE EXISTING WOVEN WIRE AND BARBED WIRE FENCE WITH A NEW SMOOTH WIRE LIVESTOCK FENCE AS SHOWN ON DETAIL 7, SHEET G01.
  2. SITE WORKING COORDINATES WITH LOCATION DESCRIPTIONS ARE SHOWN ON SHEET C21.
  3. PROJECT VERTICAL AND HORIZONTAL BENCHMARKS ARE SHOWN ON SHEET C1.
  4. DRAIN WATER AND OIL SEPERATOR THROUGH RETAINING WALL. OUTLET DRAIN PIPE AT TOP OF PAVING.

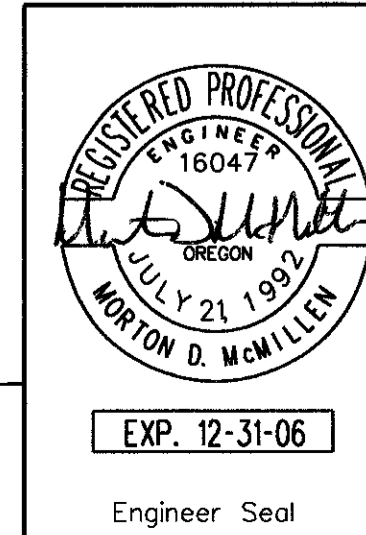
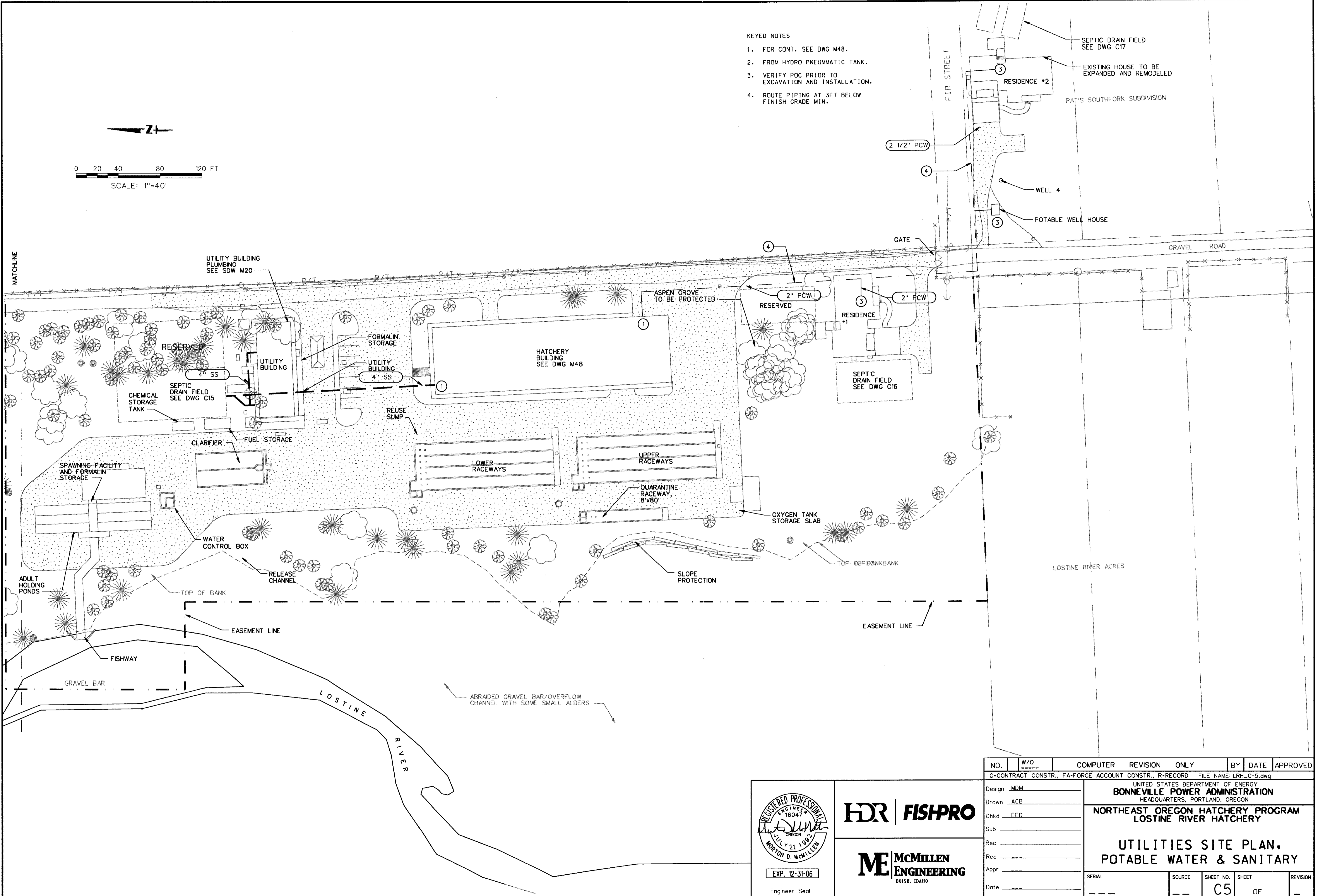
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Drawn	R. GUERRERO	<b>NORTHEAST OREGON HATCHERY PROGRAM</b> <b>LOSTINE RIVER HATCHERY</b> <b>HATCHERY</b>					
Chkd	M. McMILLEN	<b>GRADING AND PAVING PLAN</b> <b>SOUTH</b>					
Sub	---	SERIAL					
Rec	---	SOURCE					
Rec	---	SHEET NO. <b>C3</b>					
Appr	---	SHEET					
Date	---	REVISION					







- KEYED NOTES
1. FOR CONT. SEE DWG M48.
  2. FROM HYDRO PNEUMATIC TANK.
  3. VERIFY POC PRIOR TO EXCAVATION AND INSTALLATION.
  4. ROUTE PIPING AT 3FT BELOW FINISH GRADE MIN.



**HDR | FISHPRO**

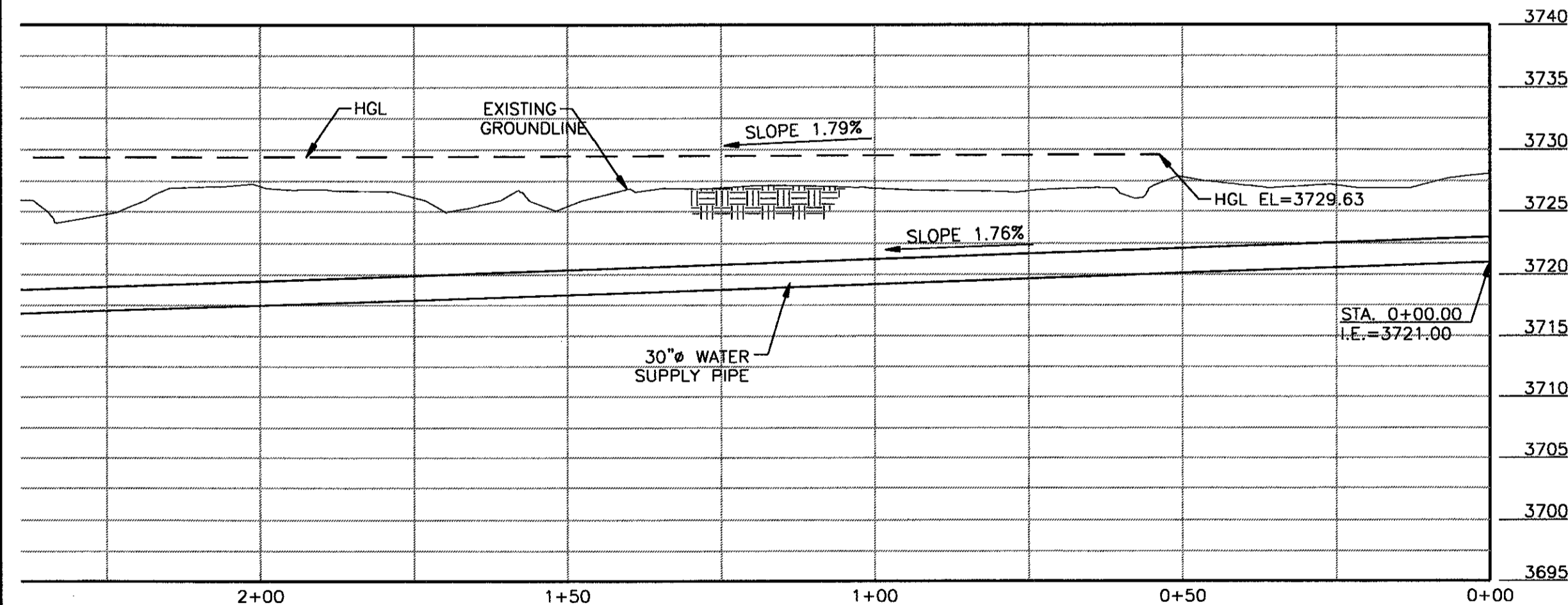
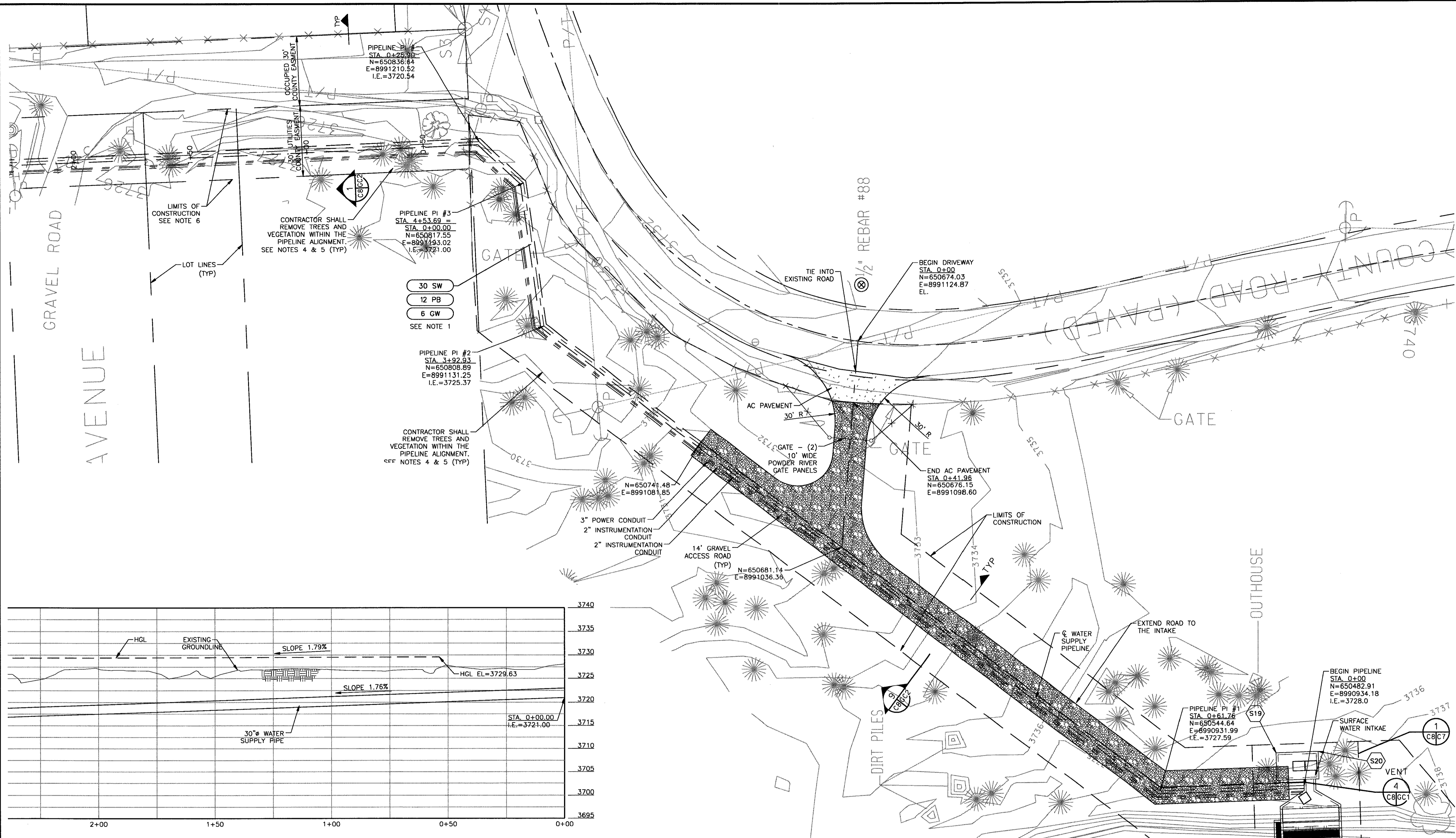
**ME McMILLEN ENGINEERING**  
 BOISE, IDAHO

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Drawn	ACB						
Chkd	EED						
Sub							
Rec							
Rec							
Appr							
Date							
SERIAL		SOURCE	SHEET NO.	SHEET	REVISION		
			C5	OF			

UNITED STATES DEPARTMENT OF ENERGY  
**BONNEVILLE POWER ADMINISTRATION**  
 HEADQUARTERS, PORTLAND, OREGON  
**NORTHEAST OREGON HATCHERY PROGRAM**  
**LOSTINE RIVER HATCHERY**

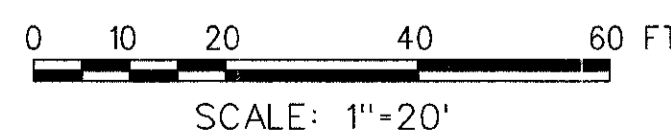
**UTILITIES SITE PLAN.**  
**POTABLE WATER & SANITARY**





PROFILE - WATER SUPPLY PIPELINES

PLAN

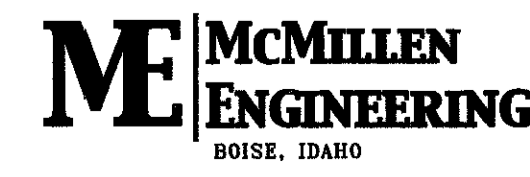
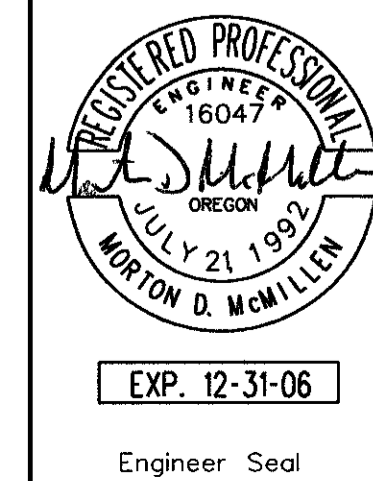


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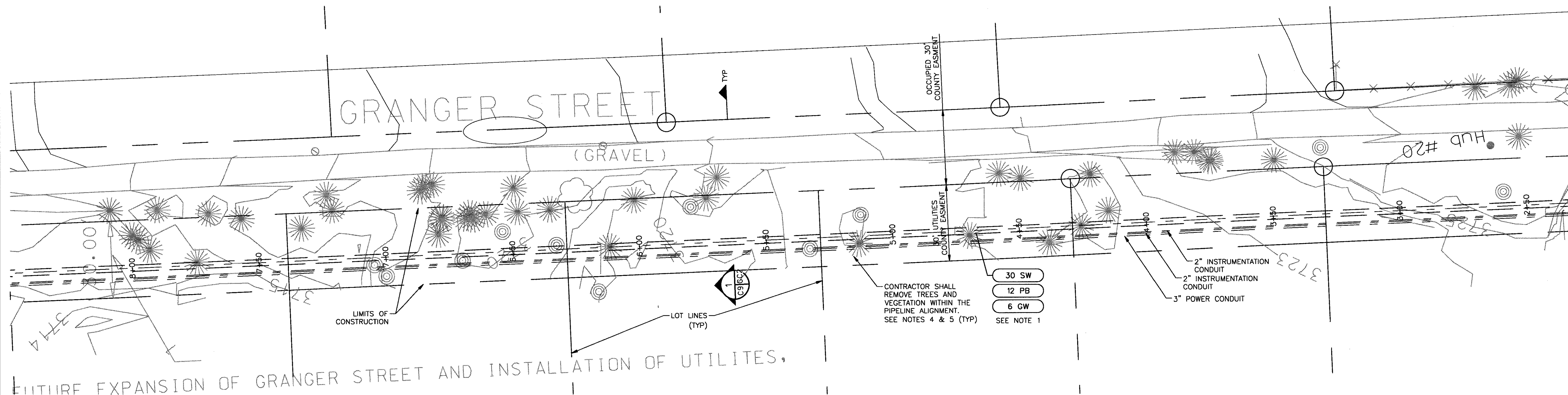
1. SURFACE WATER, GROUNDWATER, AND PUMP BACK WATER PIPELINES SHALL BE INSTALLED IN THE SAME PIPE TRENCH FROM THE SURFACE WATER INTAKE TO THE HATCHERY.
2. SEE SHEET C21 FOR SITE COORDINATE TABLES.
3. PROVIDE ADDITIONAL FILL OVER PIPE LINES FROM GRANGER TO ACCESS ROAD TO MAINTAIN MINIMUM 3 FEET OF COVER 10 FEET WIDE.
4. CONTRACTOR SHALL REMOVE TREES, BUSHES, AND VEGETATION WITHIN THE PIPELINE ALIGNMENT FOR CONSTRUCTION. TOPSOIL SHALL BE REMOVED AND STOCKPILED FOR BACKFILLING AND RESEEDING. CONTRACTOR SHALL MARK ALL TREES TO BE REMOVED FOR OWNER'S REPRESENTATIVE REVIEW AND APPROVAL. ALL REMOVED TREES SHALL BE STACKED WITHIN THE LOT LINES FROM WHICH THEY WERE REMOVED. REMOVED TREES ARE THE OWNERS PROPERTY.

NOTES CONT.:

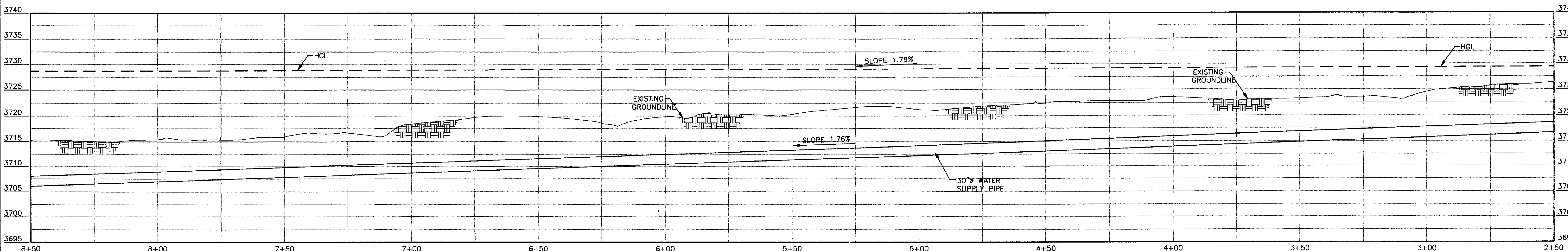
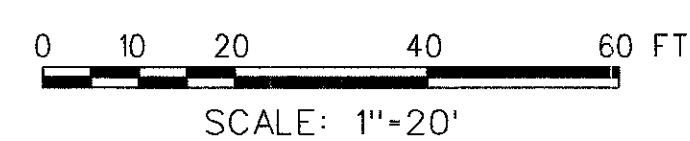
5. THE DISTURBED AREA WITHIN THE PIPELINE ALIGNMENT SHALL BE RESEEDED WITH A NATIVE GRASS MIX. SEE LANDSCAPE SPECIFICATIONS FOR THE GRASS MIX TYPE AND APPLICATION REQUIREMENTS.
6. CONTRACTOR SHALL CONFINE ALL WORK ACTIVITIES WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN. NO ACCESS TO ADJACENT PROPERTIES IS PERMITTED. ACCESS FROM GRANGER ROAD IS PROVIDED. ALL DAMAGE TO GRANGER ROAD WILL BE REPAIRED BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE.



NO.	W/O	COMPUTER	REVISION	ONLY	BY	DATE	APPROVED
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Drawn	R. GUERRERO	NORTHEAST OREGON HATCHERY PROGRAM LOSTINE RIVER HATCHERY ACCESS ROAD AND					
Chkd	M. McMILLEN	WATER SUPPLY PIPELINE PLAN AND PROFILE 1					
Sub	---						
Rec	---						
Appr	---						
Date	---	SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
				C8	--OF--		



PLAN



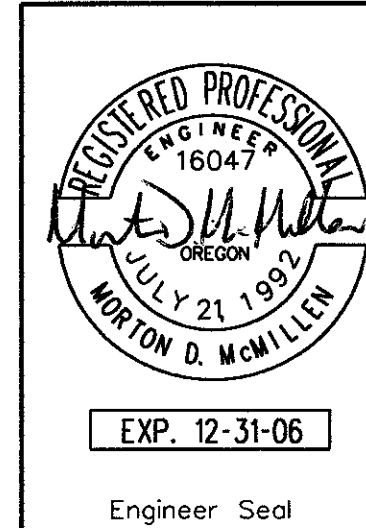
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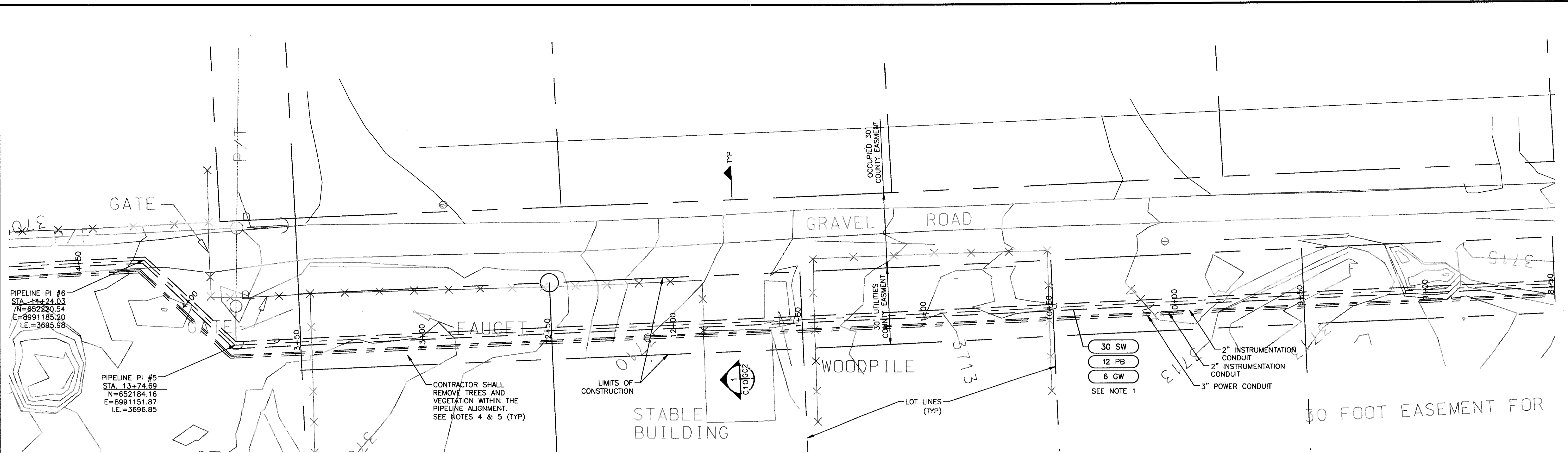
NOTES:

1. SURFACE WATER, GROUNDWATER, AND PUMP BACK WATER PIPELINES SHALL BE INSTALLED IN THE SAME PIPE TRENCH FROM THE SURFACE WATER INTAKE TO THE HATCHERY.
2. SEE SHEET C21 FOR SITE COORDINATE TABLES.
3. PROVIDE ADDITIONAL FILL OVER PIPE LINES FROM GRANGER TO ACCESS ROAD TO MAINTAIN MINIMUM 3 FEET OF COVER 10 FEET WIDE.
4. CONTRACTOR SHALL REMOVE TREES, BUSHES, AND VEGETATION WITHIN THE PIPELINE ALIGNMENT FOR CONSTRUCTION. TOPSOIL SHALL BE REMOVED AND STOCKPILED FOR BACKFILLING AND RESEEDING. CONTRACTOR SHALL MARK ALL TREES TO BE REMOVED FOR OWNER'S REPRESENTATIVE REVIEW AND APPROVAL. ALL REMOVED TREES SHALL BE STACKED WITHIN THE LOT LINES FROM WHICH THEY WERE REMOVED. REMOVED TREES ARE THE OWNERS PROPERTY.
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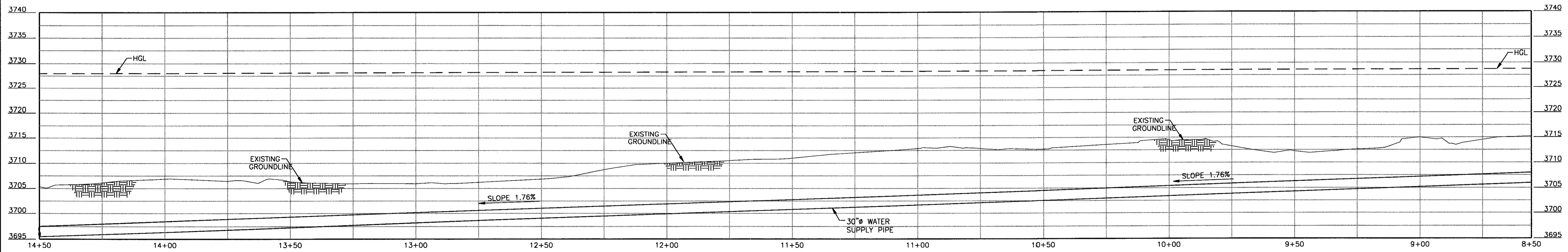
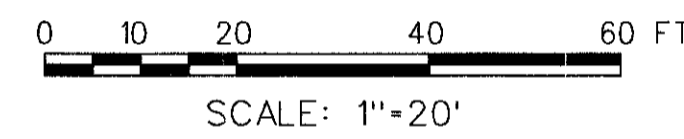
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Design	S. SPICKELMIER	UNITED STATES DEPARTMENT OF ENERGY <b>BONNEVILLE POWER ADMINISTRATION</b> HEADQUARTERS, PORTLAND, OREGON					
Drawn	R. GUERRERO	<b>NORTHEAST OREGON HATCHERY PROGRAM</b> LOSTINE RIVER HATCHERY GRANGER ROAD AND WATER SUPPLY PIPELINE PLAN AND PROFILE 2					
Chkd	M. McMILLEN	SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
Sub	---	---	---	C9	--OF--	---	---
Rec	---						
Appr	---						
Date	---						





PLAN

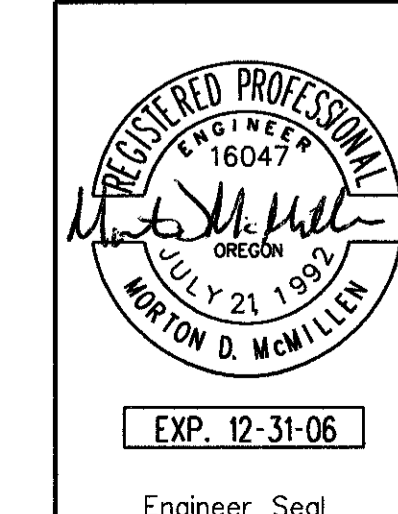


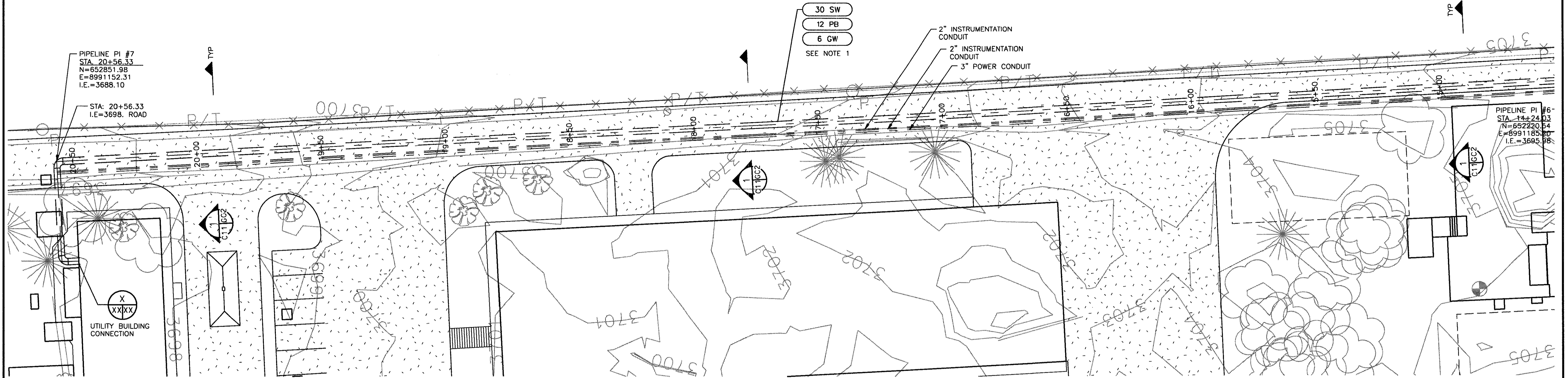
PROFILE

NOTES:

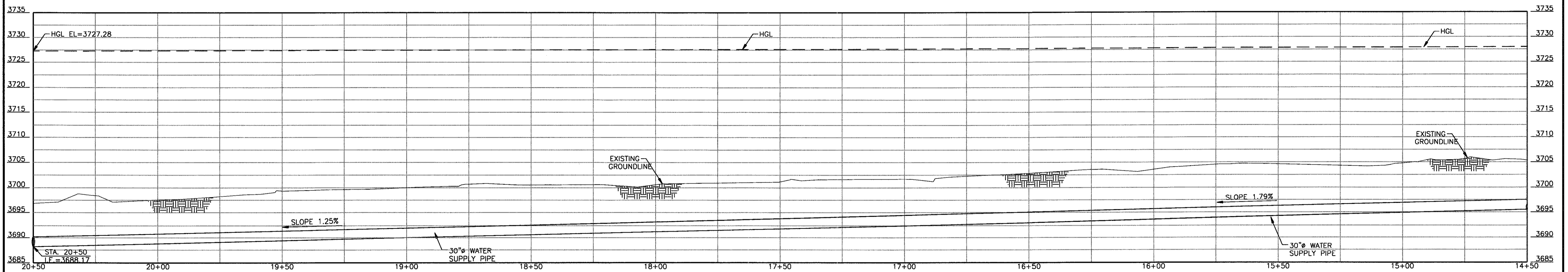
- SURFACE WATER, GROUNDWATER, AND PUMP BACK WATER PIPELINES SHALL BE INSTALLED IN THE SAME PIPE TRENCH FROM THE SURFACE WATER INTAKE TO THE HATCHERY.
- SEE SHEET C21 FOR SITE COORDINATE TABLES.
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- THE DISTURBED AREA WITHIN THE PIPELINE ALIGNMENT SHALL BE RESEEDDED WITH A NATIVE GRASS MIX. SEE LANDSCAPE SPECIFICATIONS FOR THE GRASS MIX TYPE AND APPLICATION REQUIREMENTS.

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Drawn	R. GUERRERO	NORTHEAST OREGON HATCHERY PROGRAM LOSTINE RIVER HATCHERY GRANGER ROAD AND WATER SUPPLY PIPELINE PLAN AND PROFILE 3					
Chkd	M. McMILLEN	SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
Sub				C10	OF		
Rec							
Appr							
Date							





PLAN  
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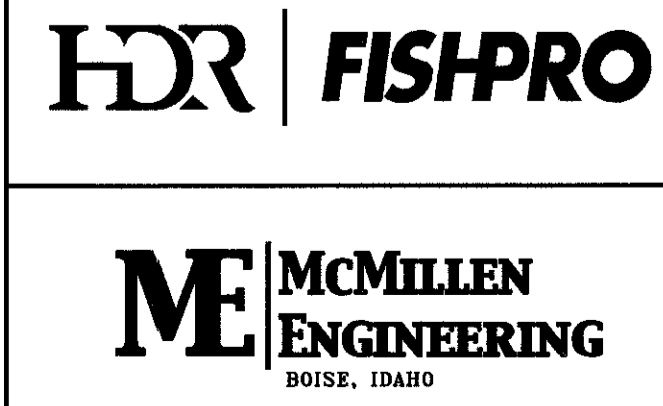
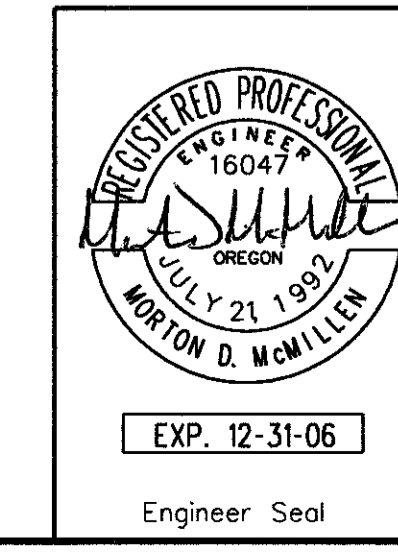


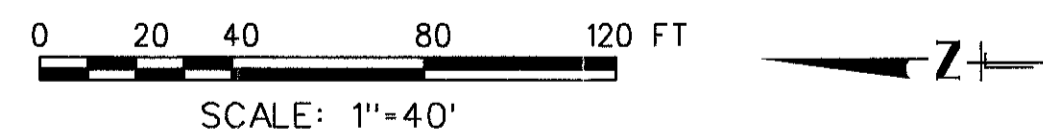
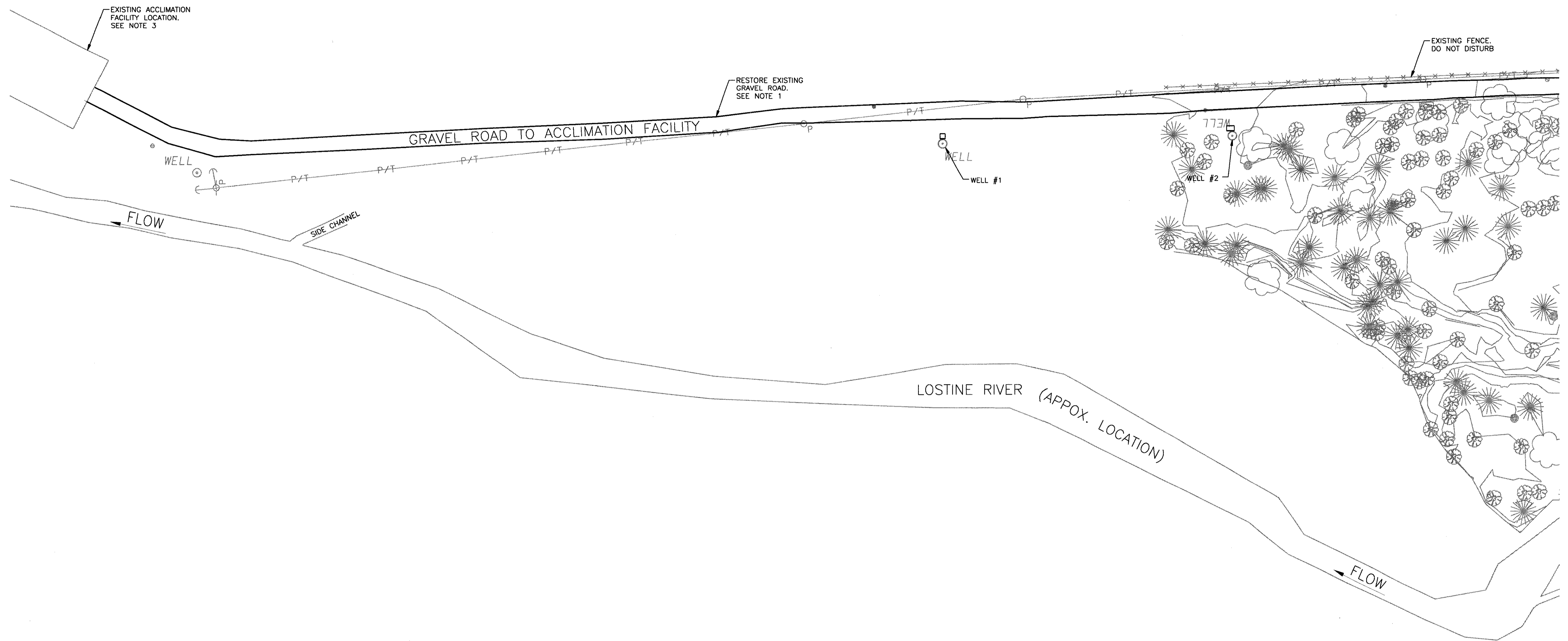
PROFILE

NOTES:

1. SURFACE WATER, GROUNDWATER, AND PUMP BACK WATER PIPELINES SHALL BE INSTALLED IN THE SAME PIPE TRENCH FROM THE SURFACE WATER INTAKE TO THE HATCHERY.
2. SEE SHEET C21 FOR SITE COORDINATE TABLES.
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Drawn	R. GUERRERO	NORTHEAST OREGON HATCHERY PROGRAM LOSTINE RIVER HATCHERY GRANGER ROAD AND WATER SUPPLY PIPELINE PLAN AND PROFILE 4				
Chkd	M. McMILLEN	SERIAL	SOURCE	SHEET NO.	SHEET	REVISION
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Appr	---					
Date	---					

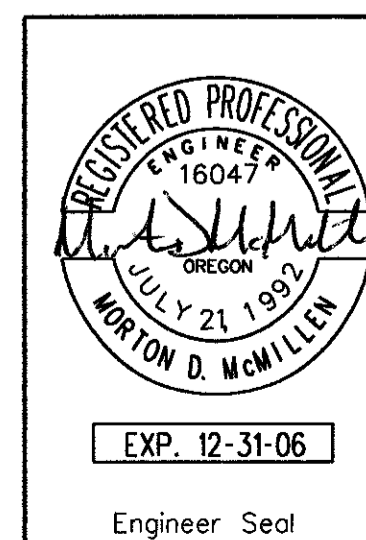


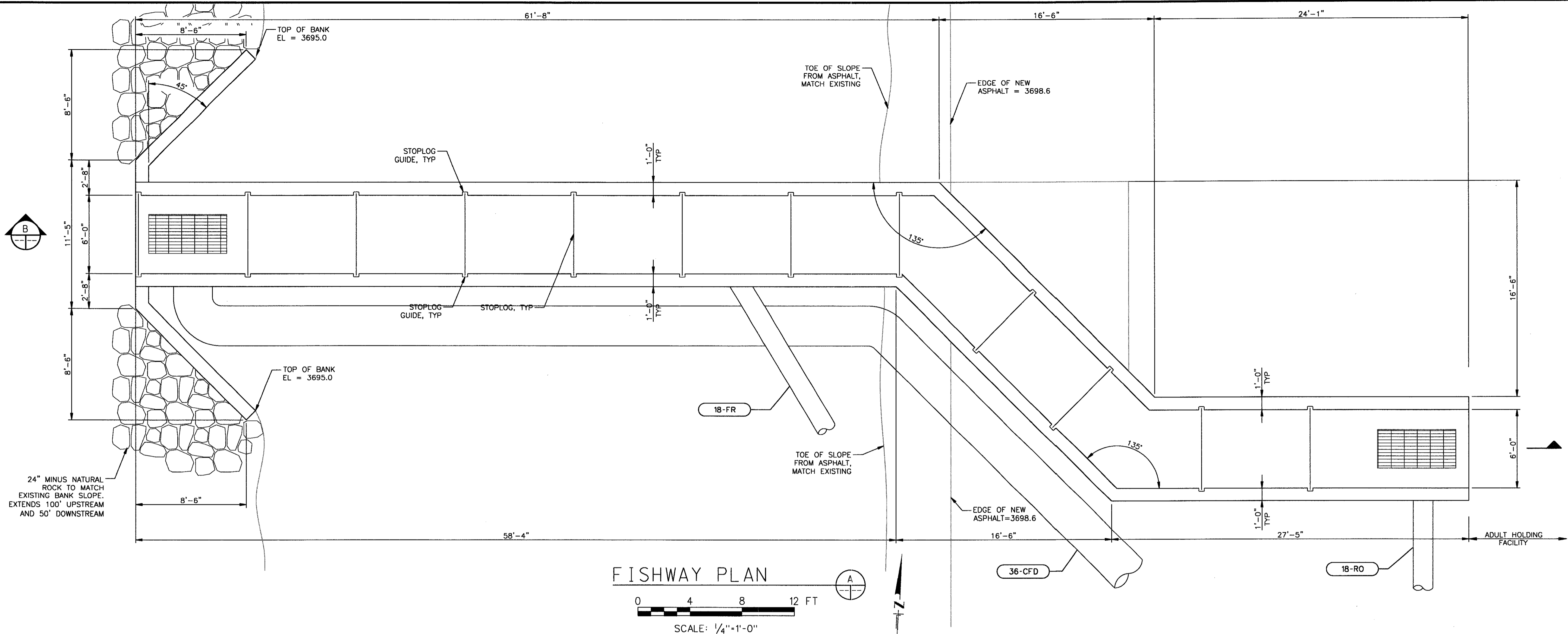


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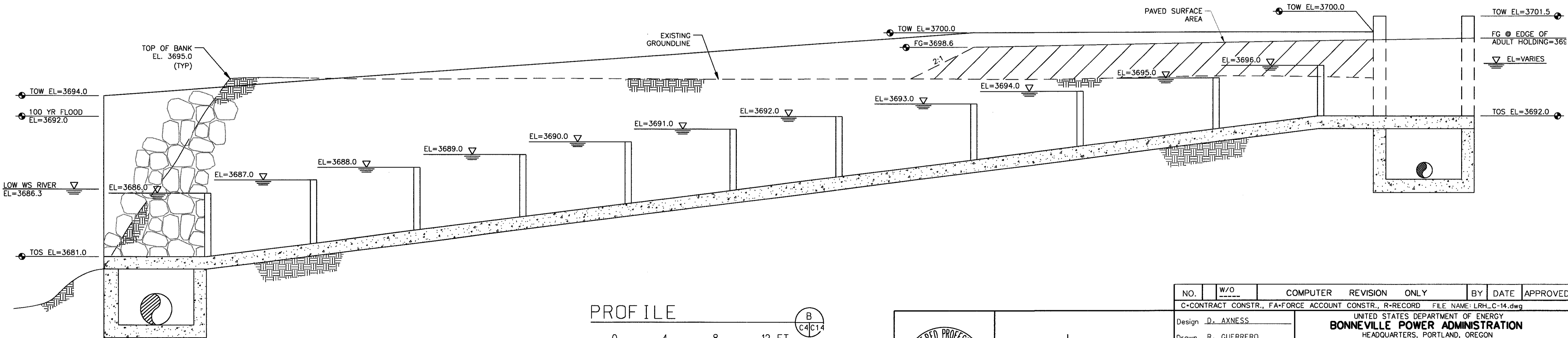
1. CONTRACTOR SHALL RESTORE THE EXISTING GRAVEL ACCESS ROAD TO THE HATCHERY PRODUCTION WELLS UPON COMPLETION OF THE WELL PIPELINES. THE ACCESS ROAD SHALL BE PLACED ON THE SAME ALIGNMENT, GRADE, AND MATCH WIDTH OF THE EXISTING ROAD.
2. CONSTRUCT A PARKING AREA AT EACH PRODUCTION WELL. TIE THE NEW PARKING AREA TO EXISTING GRAVEL ACCESS ROAD. SEE SHEET M5 FOR WELL DEVELOPMENT DETAILS.
3. THE EXISTING ACCLIMATION FACILITY IS LOCATED ON THE NORTH SIDE OF THE LOSTINE HATCHERY SITE AND NEW PRODUCTION WELLS. CONTRACTOR SHALL MAINTAIN ACCESS TO THE EXISTING ACCLIMATION FACILITY DURING CONSTRUCTION FROM FEBRUARY 1 THROUGH MAY 1. CONSTRUCTION OF THE WELL PIPELINES AND ACCESS ROAD TO MAINTAIN ACCESS TO THE ACCLIMATION POND.

NO.	W/O	COMPUTER	REVISION	ONLY	BY	DATE	APPROVED
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Drawn	R. GUERRERO	<b>NORTHEAST OREGON HATCHERY PROGRAM</b> LOSTINE RIVER HATCHERY					
Chkd	M. McMILLEN	<b>WELL FIELD AND ACCESS ROAD</b> SITE PLAN					
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Date	---						



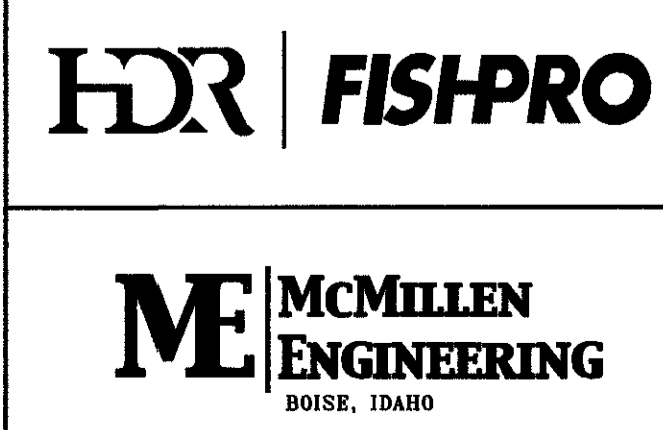
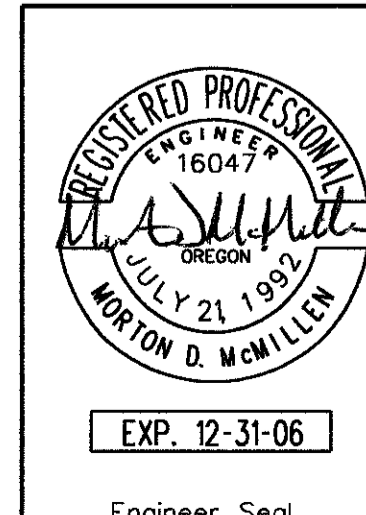


FISHWAY PLAN  
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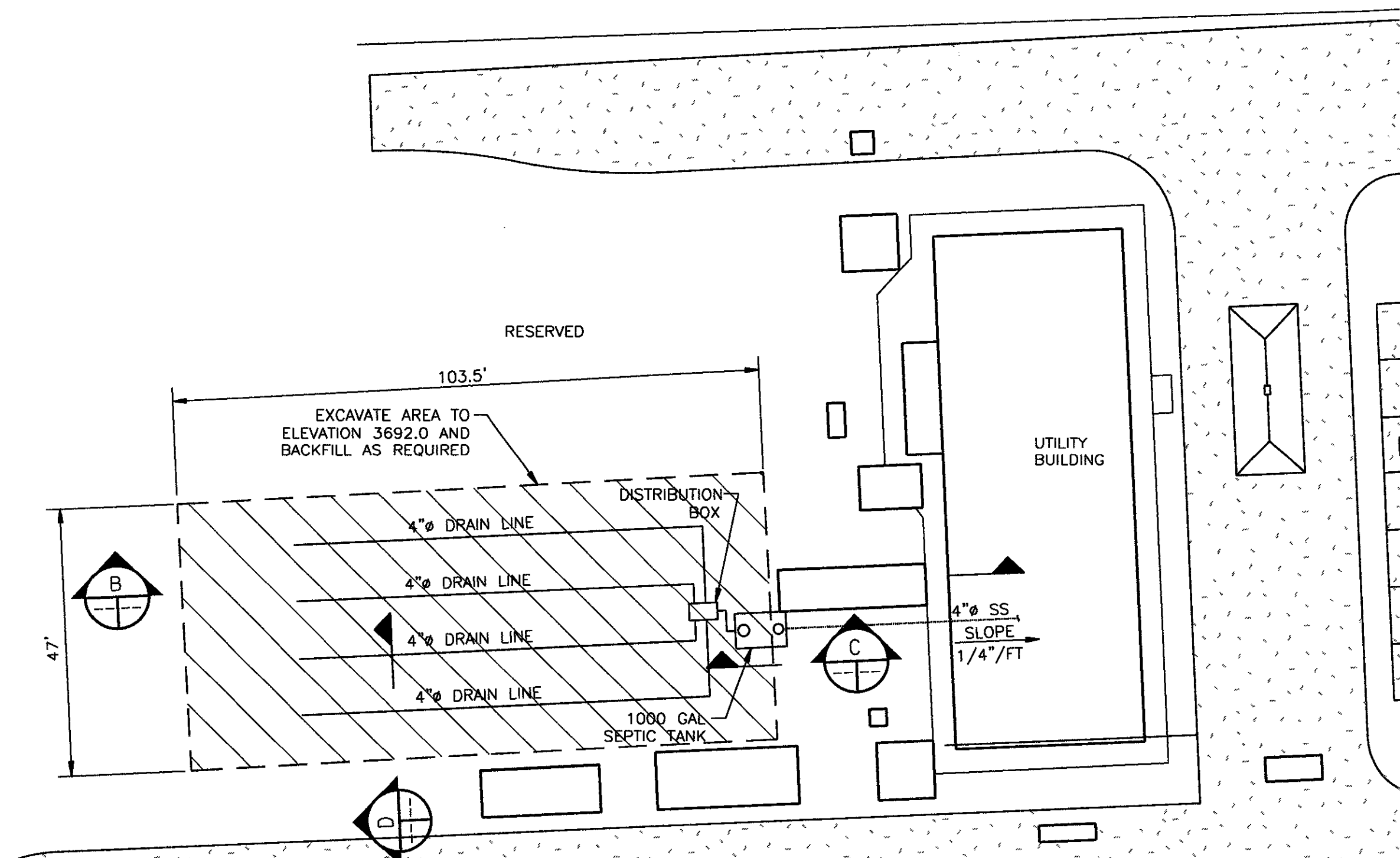


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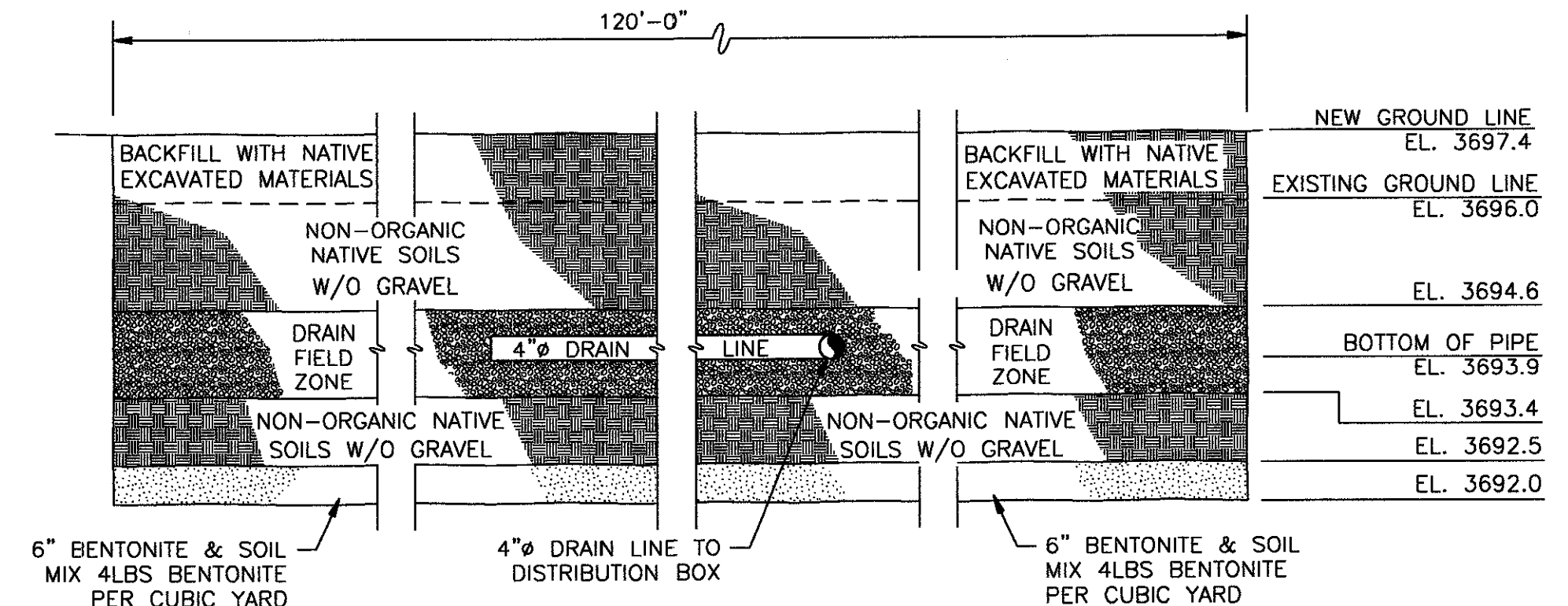
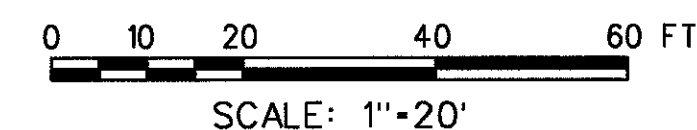
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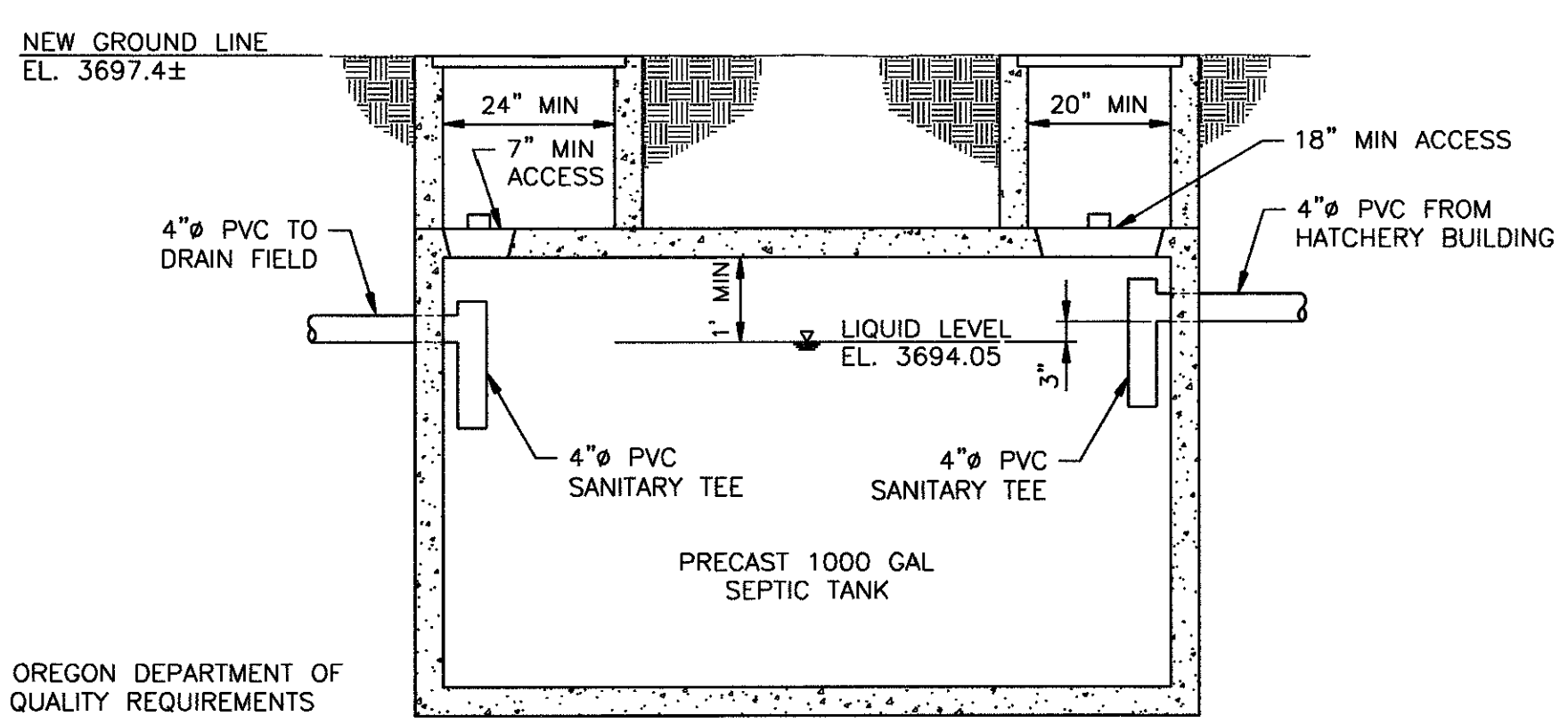
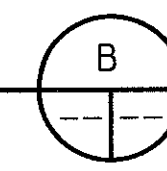
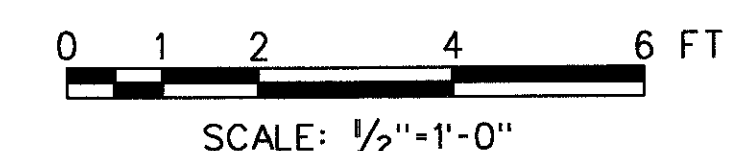
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Drawn	R. GUERRERO	NORTHEAST OREGON HATCHERY PROGRAM LOSTINE RIVER HATCHERY					
Chkd	M. McMILLEN	FISHWAY PLAN AND PROFILE					
Sub							
Rec							
Rec							
Appr		SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
Date				C14	OF		



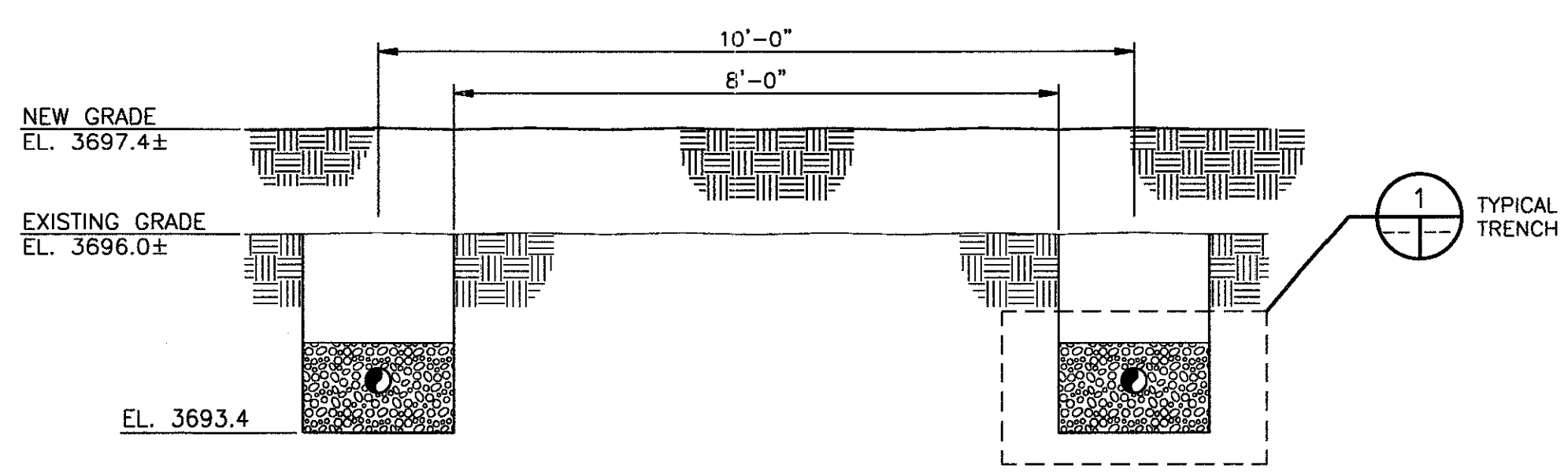
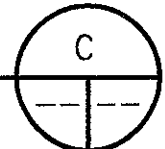
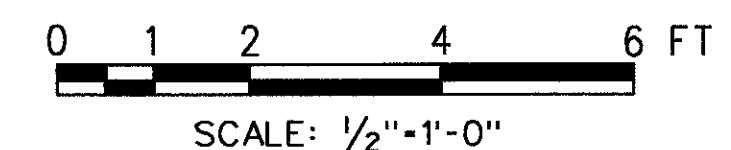
HATCHERY BUILDING  
SANITARY SEWER  
SEPTIC DRAIN FIELD



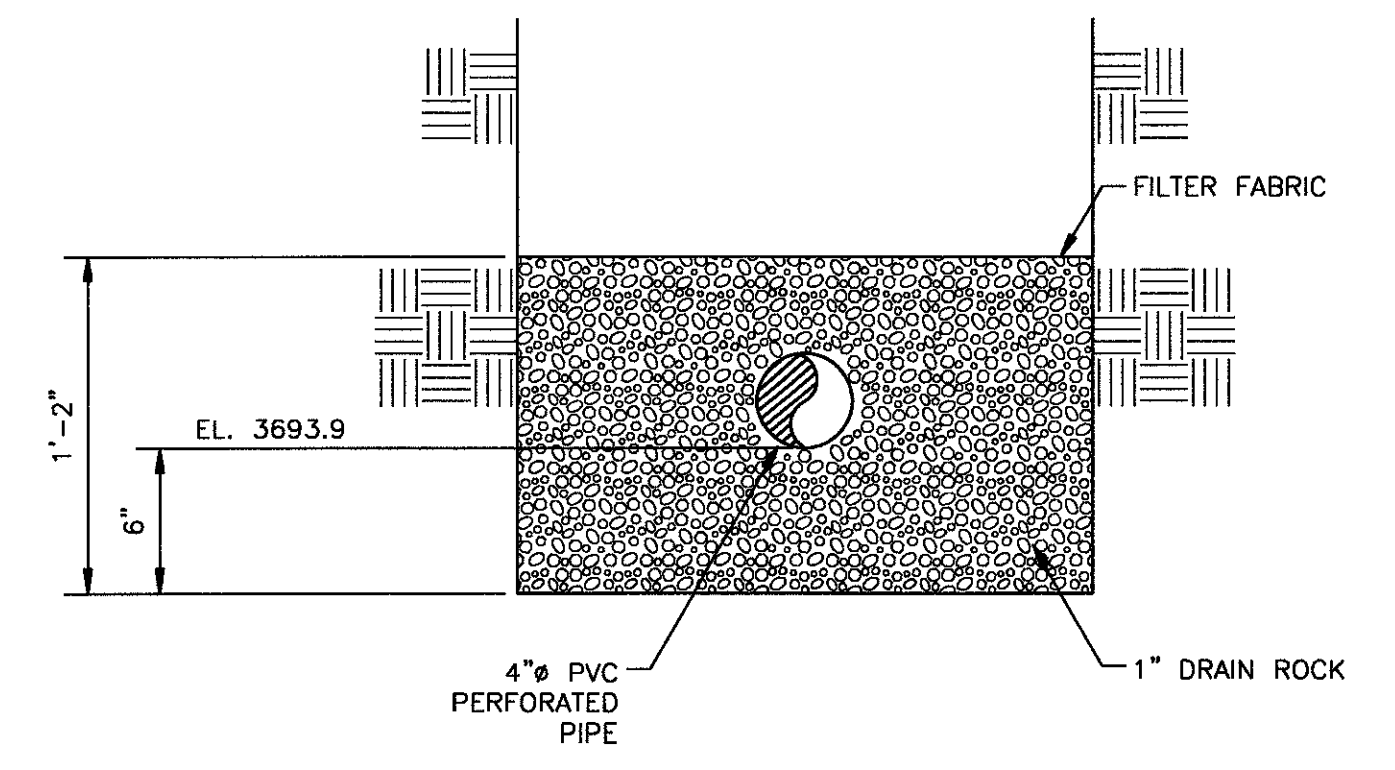
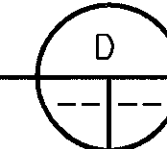
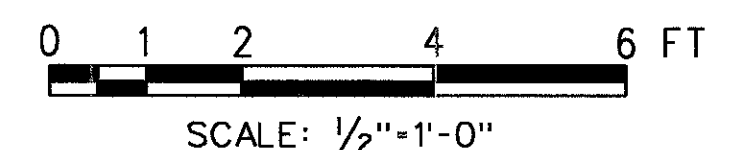
HATCHERY BUILDING  
SEPTIC DRAIN FIELD  
BACKFILL SECTION



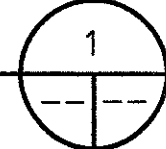
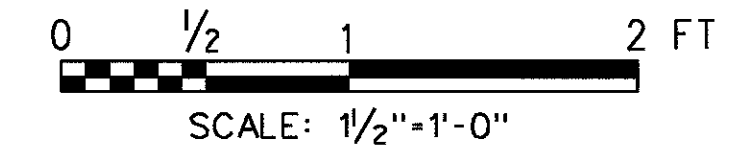
HATCHERY BUILDING  
1000 GAL SEPTIC TANK



SANITARY SEWER - TYPICAL  
DRAIN FIELD TRENCH  
LAYOUT AT HATCHERY BLDG

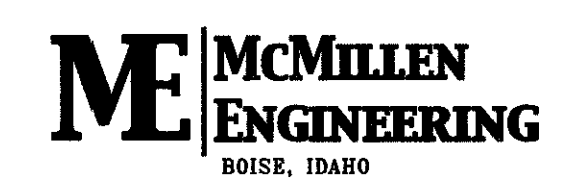
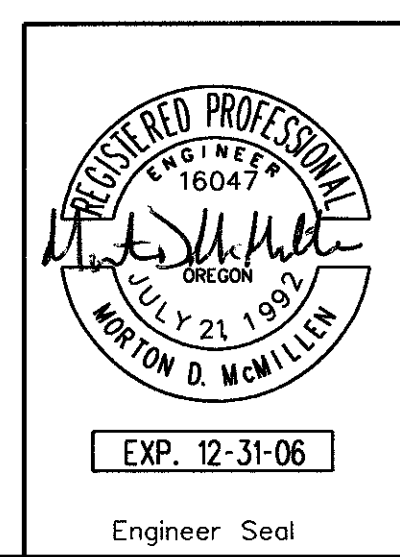


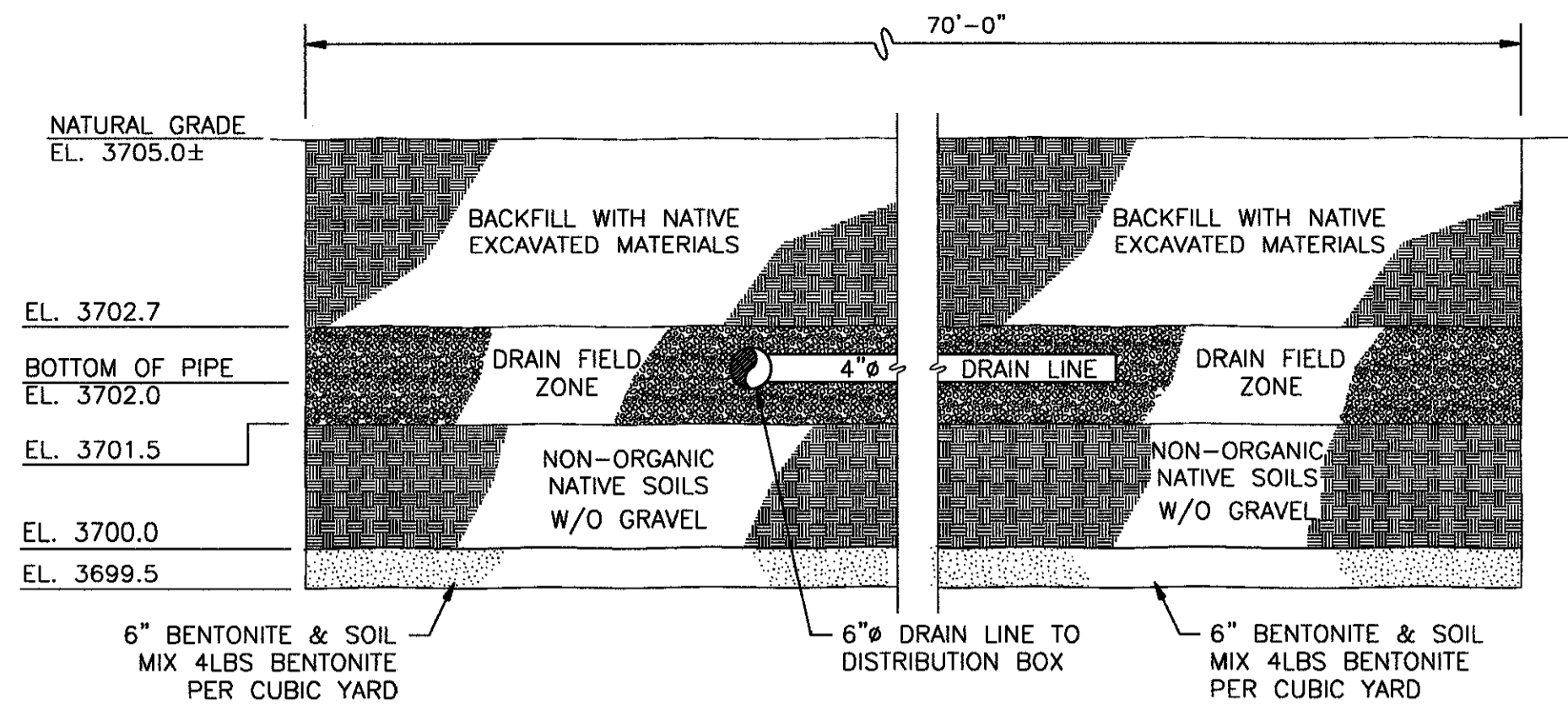
SANITARY SEWER  
DRAIN FIELD TRENCH  
AT HATCHERY BUILDING



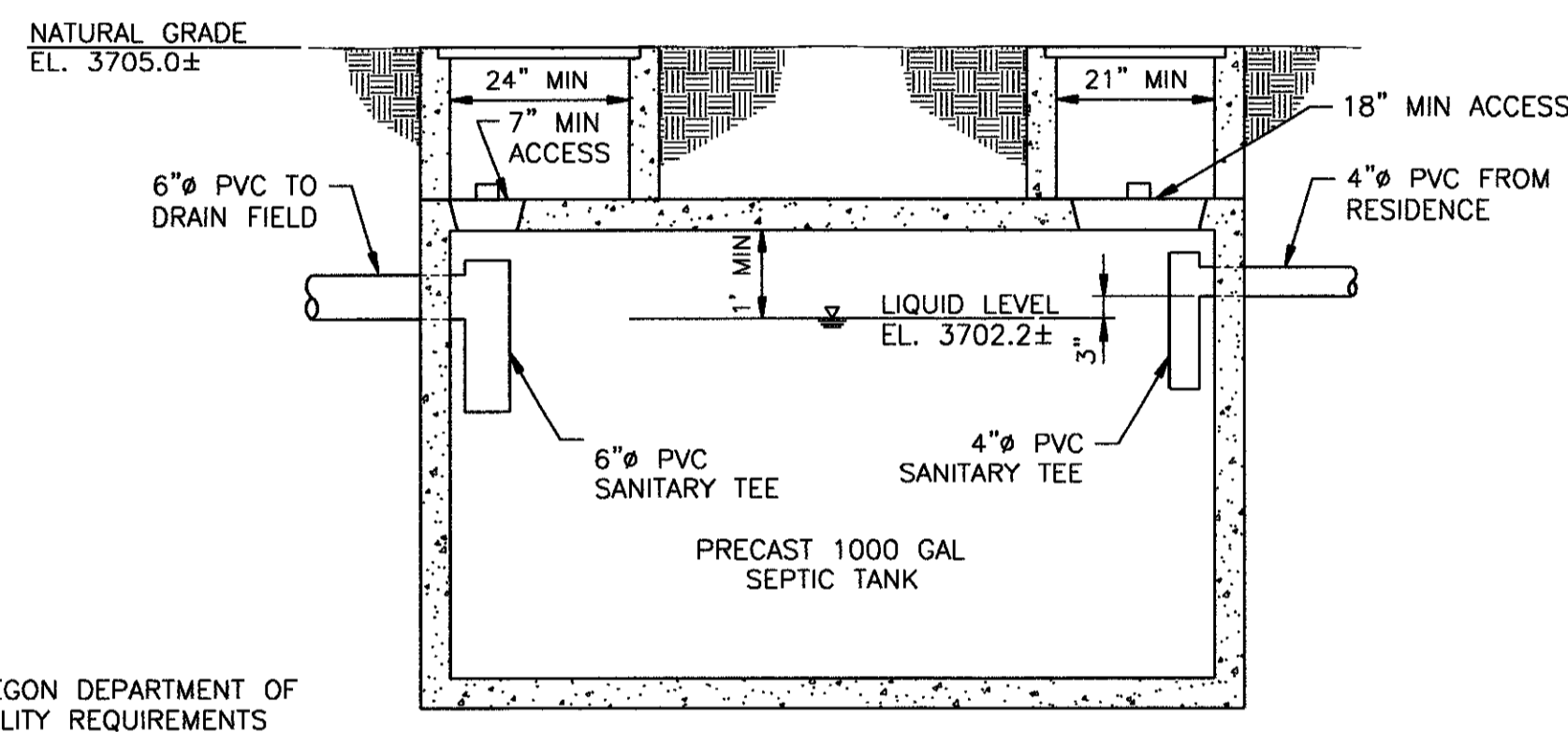
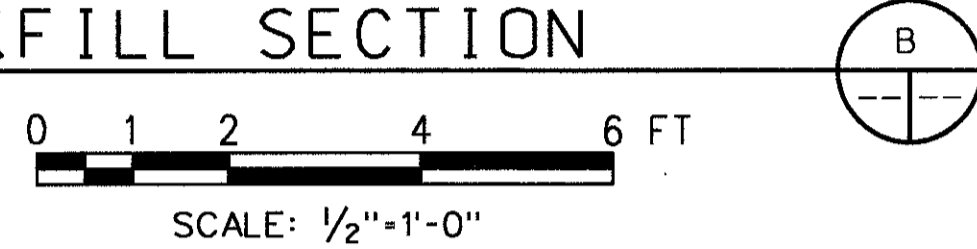
NOTE:  
VAULT TO MEET OREGON DEPARTMENT OF  
ENVIRONMENTAL QUALITY REQUIREMENTS

NO.	W/O	COMPUTER	REVISION	ONLY	BY	DATE	APPROVED
C-CONTRACT CONSTR., FA-FORCE ACCOUNT CONSTR., R-RECORD FILE NAME: LRH_C-15.dwg							
Design	S. SPICKELMIER	UNITED STATES DEPARTMENT OF ENERGY BONNEVILLE POWER ADMINISTRATION HEADQUARTERS, PORTLAND, OREGON					
Drawn	R. GUERRERO	NORTHEAST OREGON HATCHERY PROGRAM LOSTINE RIVER HATCHERY HATCHERY BUILDING					
Chkd	M. McMILLEN	SANITARY SEWER DRAIN FIELD PLAN AND SECTIONS					
Sub	---	SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
Rec	---			C15	--OF--		
Appr	---						
Date	---						

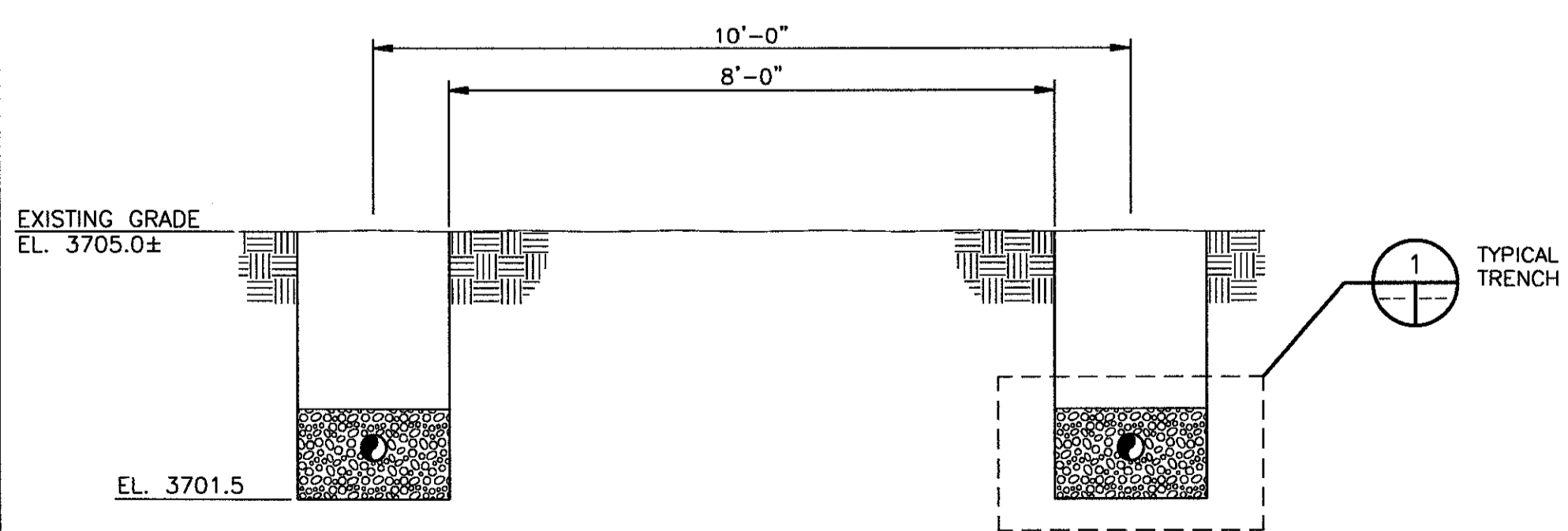
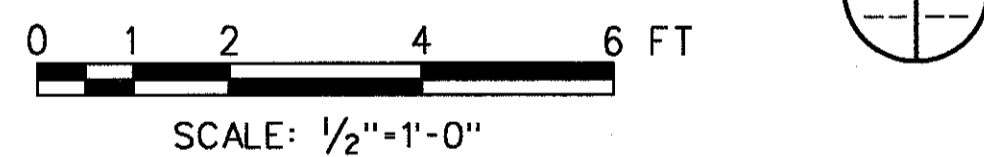




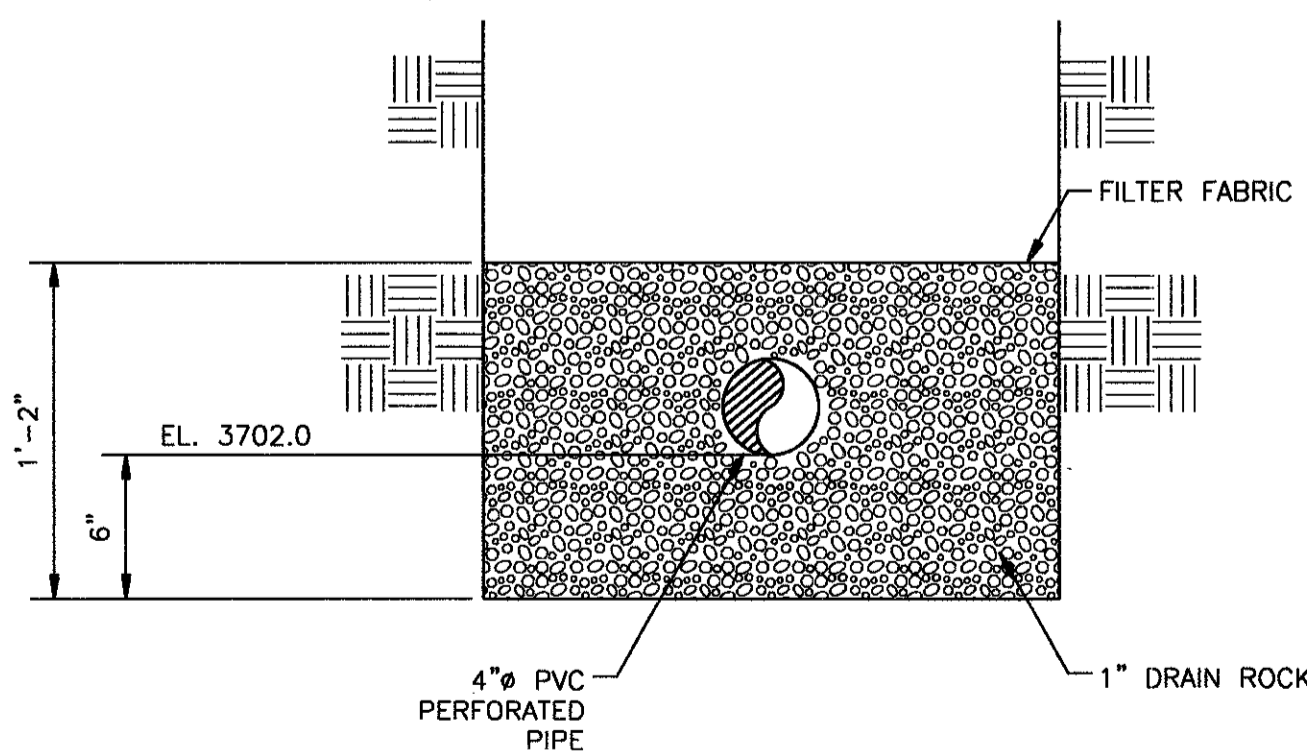
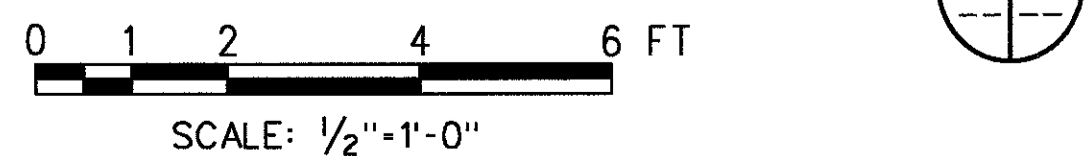
NEW RESIDENCE  
SEPTIC DRAIN FIELD  
BACKFILL SECTION



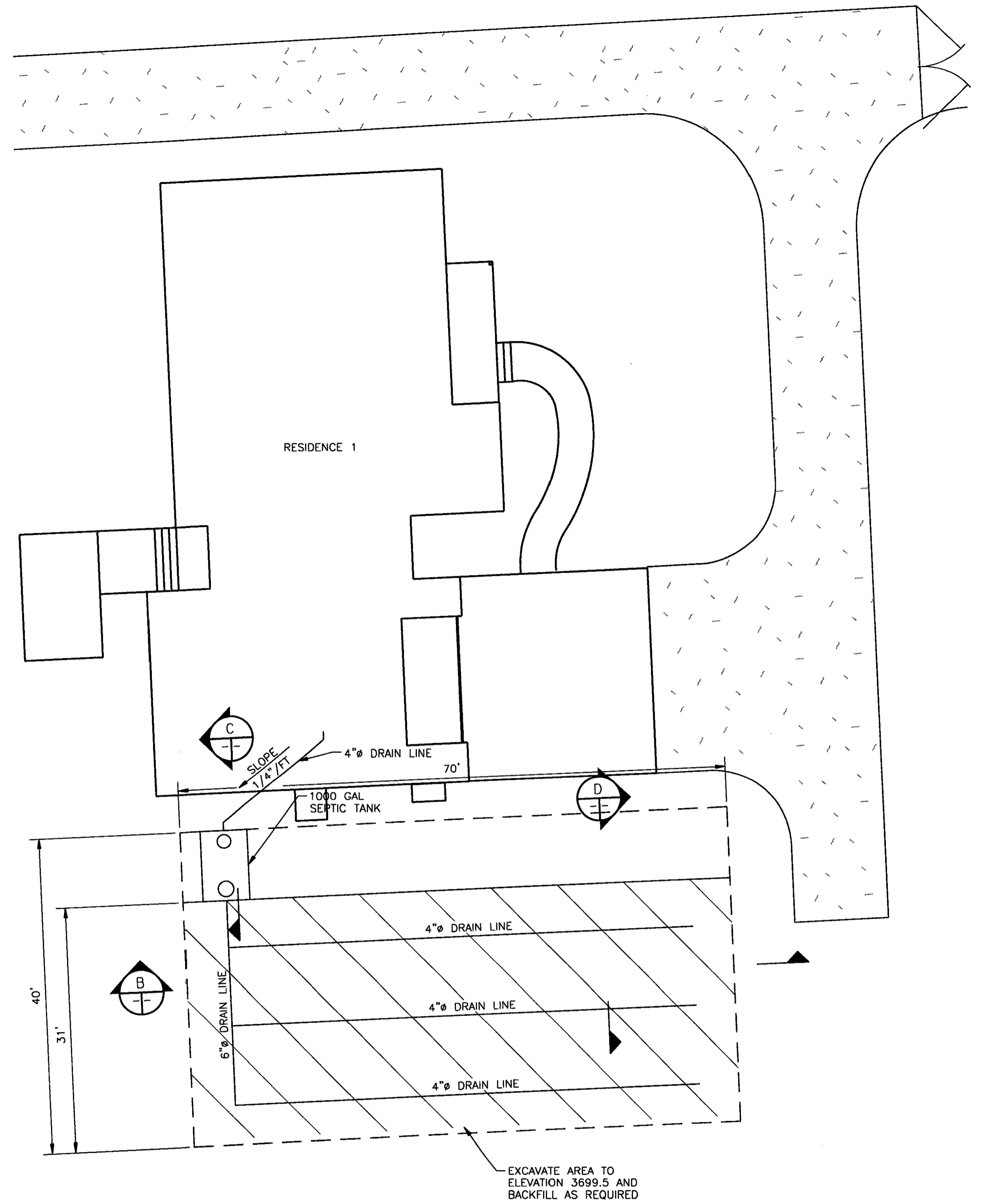
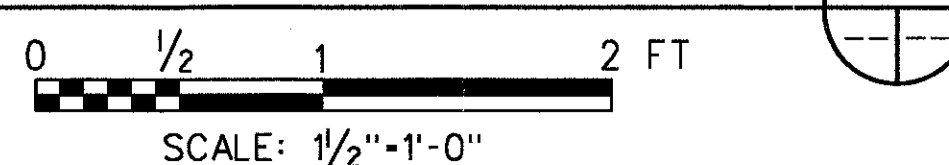
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1000 GAL SEPTIC TANK



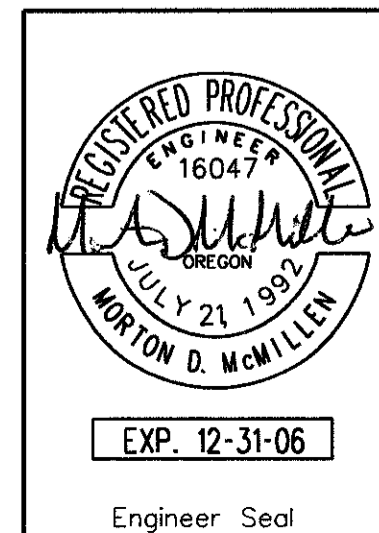
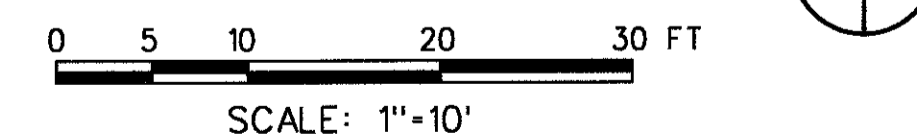
SANITARY SEWER - TYPICAL  
DRAIN FIELD TRENCH  
LAYOUT AT NEW RESIDENCE



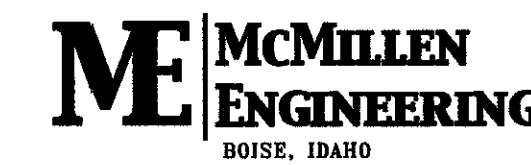
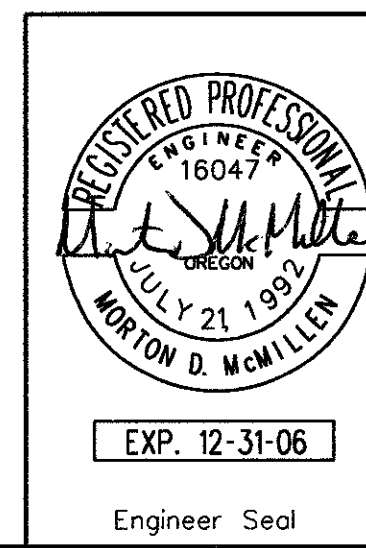
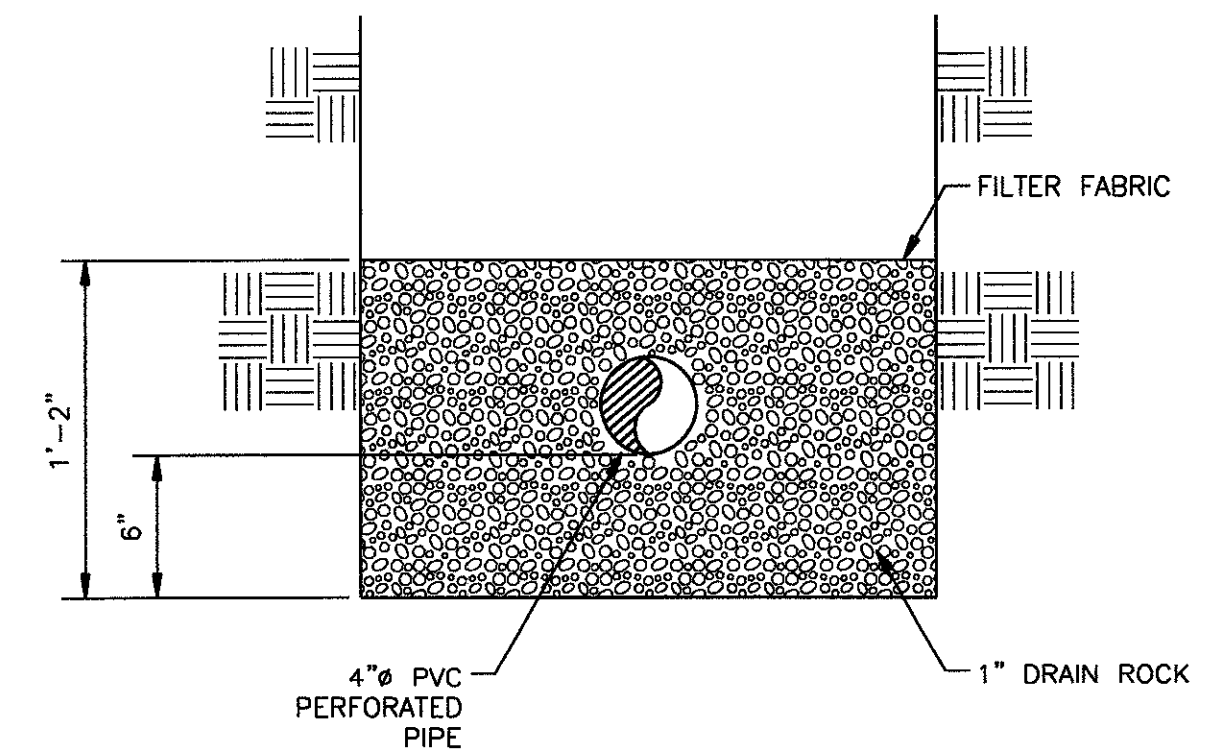
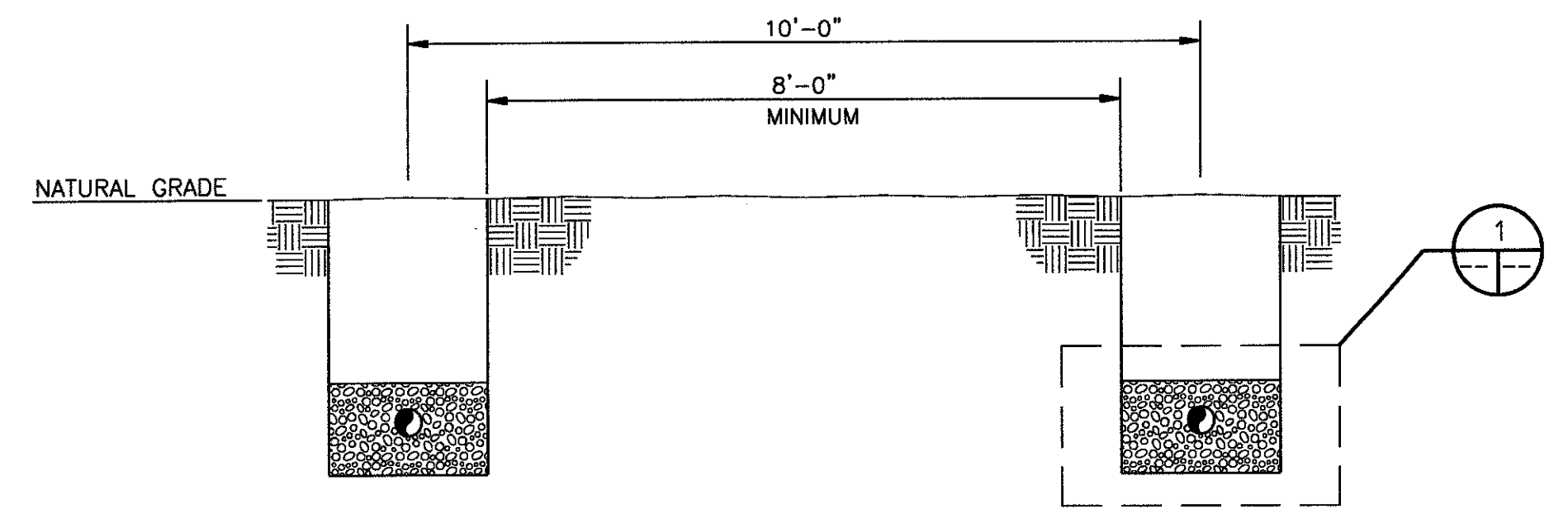
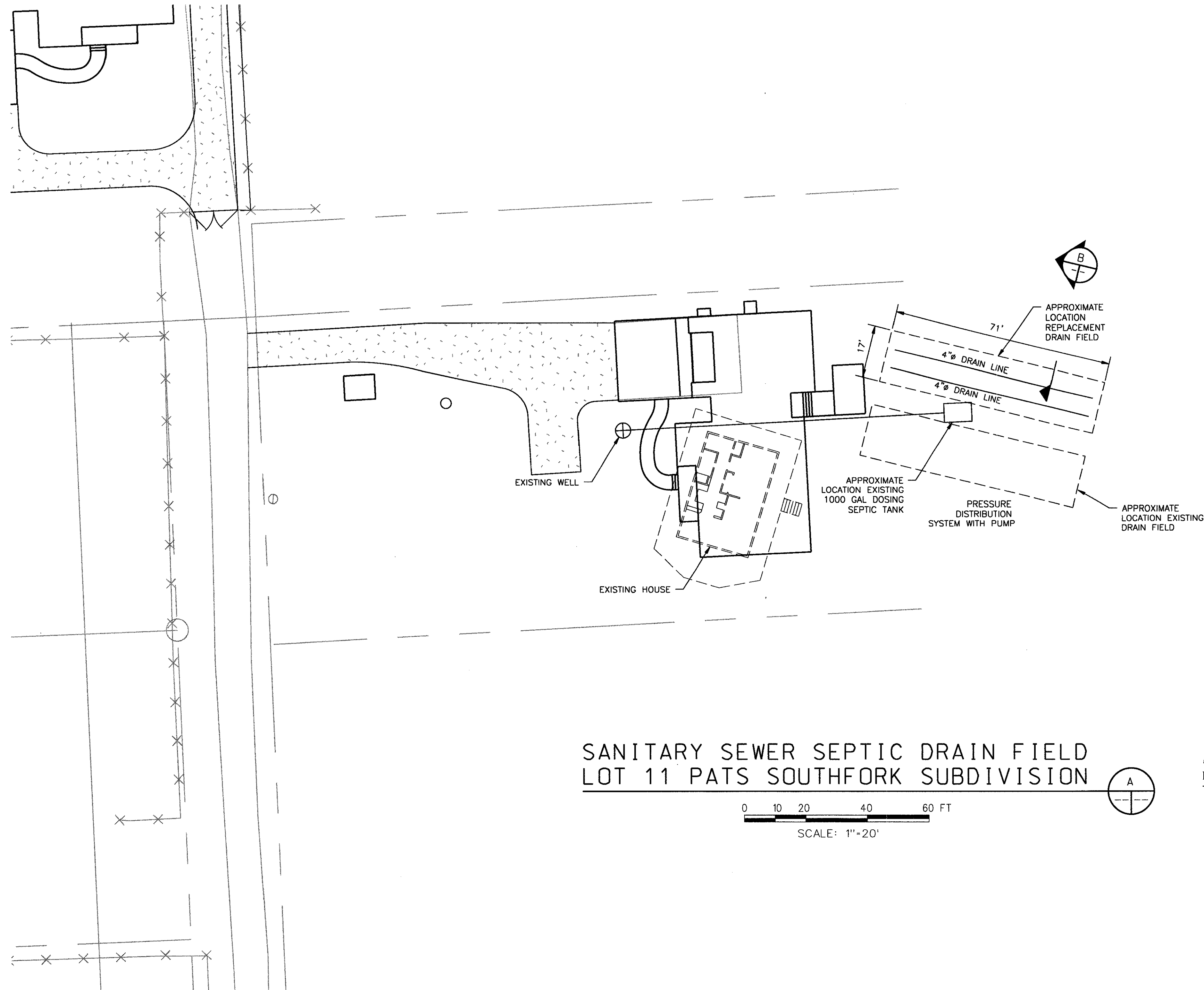
SANITARY SEWER  
DRAIN FIELD TRENCH  
AT NEW RESIDENCE



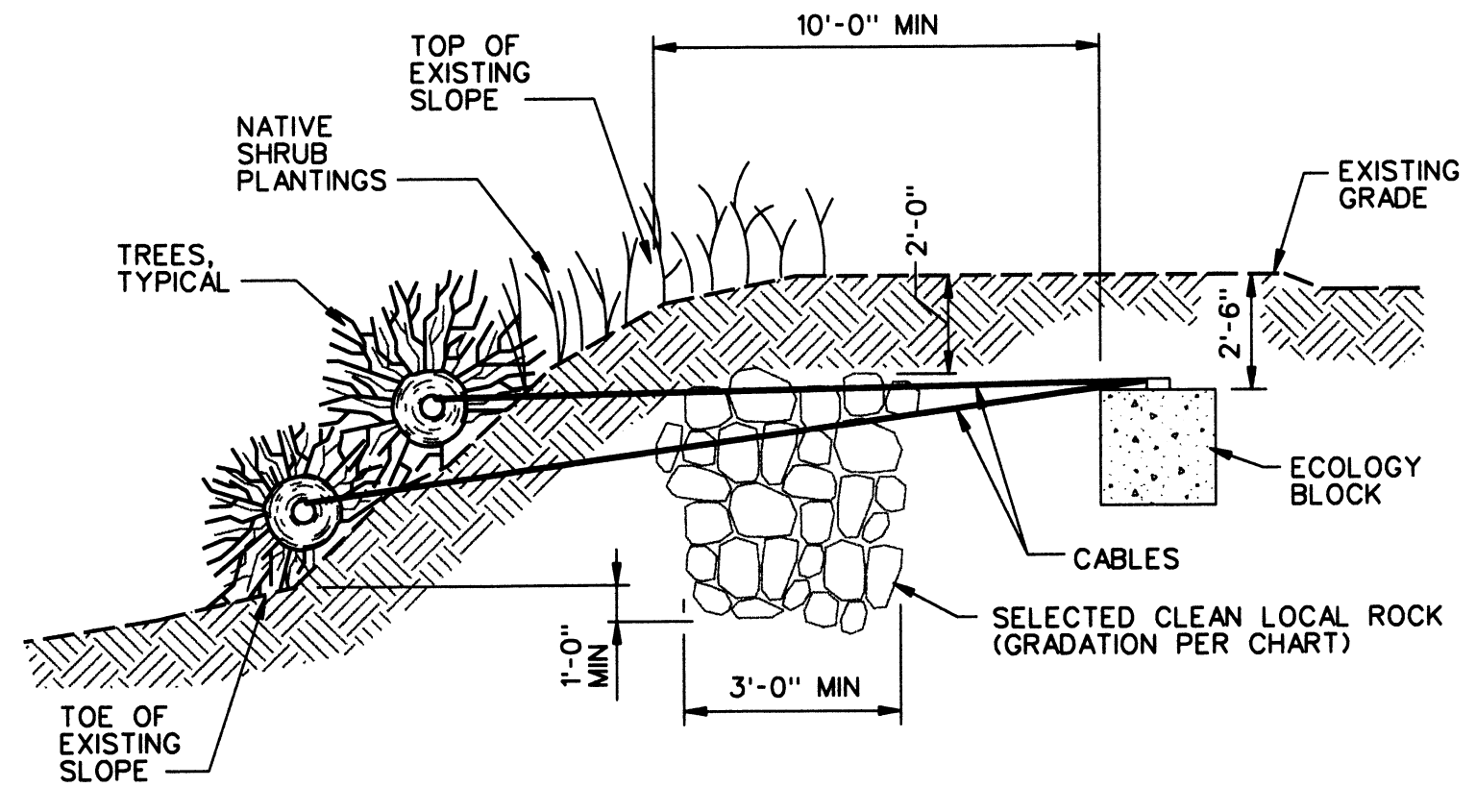
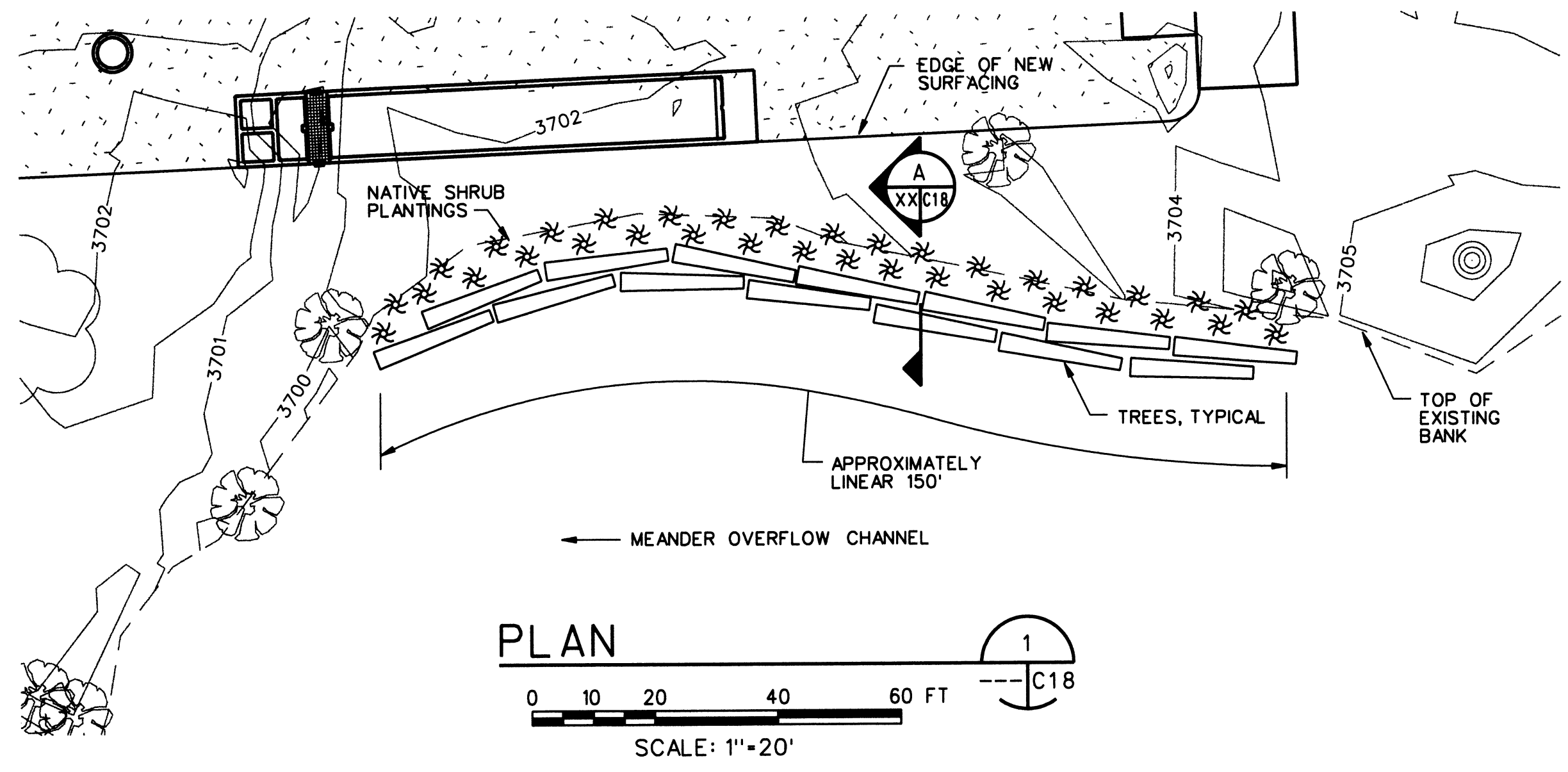
NEW RESIDENCE  
SANITARY SEWER  
SEPTIC DRAIN FIELD



NO.	W/O	COMPUTER	REVISION	ONLY	BY	DATE	APPROVED
C-CONTRACT CONSTR., FA-FORCE ACCOUNT CONSTR., R-RECORD FILE NAME: LRH-C-16.dwg							
Design	S. SPICKELMIER	UNITED STATES DEPARTMENT OF ENERGY BONNEVILLE POWER ADMINISTRATION HEADQUARTERS, PORTLAND, OREGON					
Drawn	R. GUERRERO	NORTHEAST OREGON HATCHERY PROGRAM LOSTINE RIVER HATCHERY NEW RESIDENCE					
Chkd	M. McMILLEN	SANITARY SEWER DRAIN FIELD PLAN AND SECTIONS					
Sub	---	SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
Rec	---			C16	--OF--		
Rec	---						
Appr	---						
Date	---						



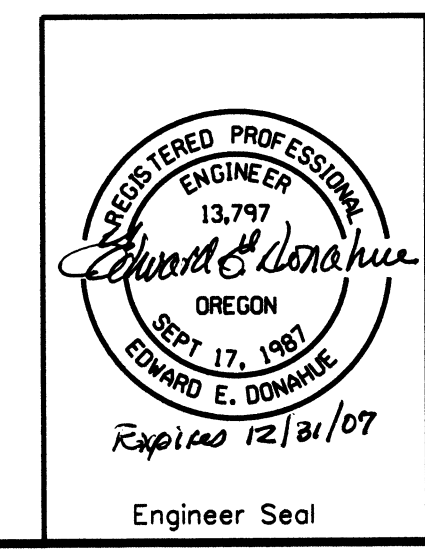
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C-CONTRACT CONSTR., FA-FORCE ACCOUNT CONSTR., R-RECORD FILE NAME: LRH_C-17.dwg							
Design	S. SPICKELMIER	UNITED STATES DEPARTMENT OF ENERGY <b>BONNEVILLE POWER ADMINISTRATION</b> HEADQUARTERS, PORTLAND, OREGON					
Drawn	R. GUERRERO	<b>NORTHEAST OREGON HATCHERY PROGRAM</b> LOSTINE RIVER HATCHERY LOT 11 SUBDIVISION					
Chkd	M. McMILLEN	<b>SANITARY SEWER DRAIN FIELD</b> PLAN AND SECTIONS					
Sub	---	SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
Rec	---			C17	OF		
Rec	---						
Appr	---						
Date	---						



GRADATION CHART		
PERCENT LIGHTER BY WEIGHT	STONE WEIGHT (LB)	
	MIN	MAX
W100	13	33
W50	7	10
W15	2	5

- NOTES:
- MEANDER OVERFLOW CHANNEL IS GENERALLY DRY DURING THE IN-WATER WORK WINDOW.
  - TREES SHALL BE FIR OR JUNIPER, WITH A MINIMUM OF 20' LONG CROWNS. TOP OF CROWNS SHALL BE PLACED UPSTREAM WITH A MINIMUM OF 10' OVERLAP. EACH CROWN SHALL BE ANCHORED WITH (2) CABLES.
  - CABLE SHALL BE RATED FOR A MINIMUM WORKING LIVE LOAD OF 1,400 POUNDS.

**BANK STABILIZATION SECTION** A  
C18  
 SCALE: 1/4" = 1'-0"

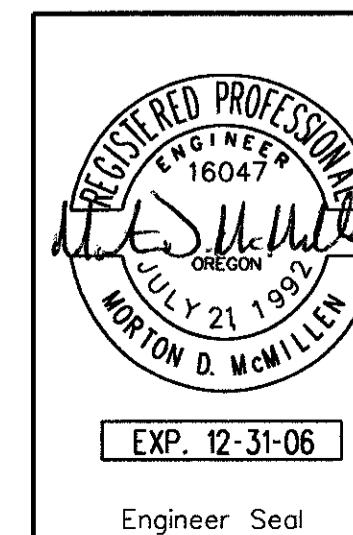


NO.	W/O	COMPUTER	REVISION	ONLY	BY	DATE	APPROVED
C-CONTRACT CONSTR., FA-FORCE ACCOUNT CONSTR., R-RECORD FILE NAME: LRH_C18_NEOH.dgn							
Design	JDN	UNITED STATES DEPARTMENT OF ENERGY <b>BONNEVILLE POWER ADMINISTRATION</b> HEADQUARTERS, PORTLAND, OREGON					
Drawn	ACB	<b>NORTHEAST OREGON HATCHERY PROGRAM</b> <b>LOSTINE RIVER HATCHERY</b>					
Chkd	EED	<b>BANK STABILIZATION</b> <b>PLAN AND SECTION</b>					
Sub		SERIAL	SOURCE	SHEET NO.	SHEET	REVISION	
Rec				<b>C18</b>	OF		
Appr		Date	04/10/06				

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
S1	652449.91	8991135.96	3705.5	SE CORNER FINISHED FLOOR OF HATCHERY BUILDING
S2	652675.61	8991124.22	3705.5	NE CORNER FINISHED FLOOR OF HATCHERY BUILDING
S3	652405.42	8991025.54	3705.0	SE CORNER OF SOUTH RACEWAY TOW
S4	652537.96	8991019.77	3705.0	NE CORNER OF SOUTH RACEWAY TOW
S5	652560.34	8991018.80	3703.0	SE CORNER OF NORTH RACEWAY TOW
S6	652692.88	8991013.03	3703.0	NE CORNER OF NORTH RACEWAY TOW
S7	652255.58	8991175.19	3706.0	SE CORNER OF NEW RESIDENCE FINISHED GRADE
S8	652291.55	8991173.63	3706.0	NE CORNER OF NEW RESIDENCE FINISHED GRADE
S9	652363.39	8990982.77	3704.2	SE CORNER OF OXYGEN FILL PAD TOS
S10	652379.37	8990982.08	3704.1	NE CORNER OF OXYGEN FILL PAD TOS
S11	652449.80	8990941.32	3705.0	SW CORNER OF QUARANTINE RACEWAY TOW
S12	652534.22	8990937.62	3705.0	NW CORNER OF QUARANTINE RACEWAY TOW
S13	652810.48	8991129.82	3701.0	SE CORNER OF UTILITY BUILDING FINISHED FLOOR
S14	652806.54	8991039.24	3701.0	SW CORNER OF UTILITY BUILDING FINISHED FLOOR
S15	652833.98	8991007.83	3700.5	SE CORNER OF CLARIFIER TOW
S16	652901.24	8991004.33	3700.5	NE CORNER OF CLARIFIER TOW
S17	652943.26	89900932.29	3701.5	SW CORNER OF ADULT HOLDING TOW
S18	653053.82	8990927.48	3701.5	NW CORNER OF ADULT HOLDING TOW
S19	650494.90	8990948.49	-	NE CORNER OF INTAKE STRUCTURE
S20	650476.91	8990948.93	-	SE CORNER OF INTAKE STRUCTURE
S21	652923.40	8991025.93	-	NW CORNER OF CHEMICAL STORAGE BUILDING
S22	652902.42	8991026.85	-	SW CORNER OF CHEMICAL STORAGE BUILDING
S23	652892.43	8991027.28	-	NW CORNER OF FUEL STORAGE
S24	652867.45	8991028.37	-	SW CORNER OF FUEL STORAGE
S25	652894.95	8991063.21	-	SW CORNER OF WATER COOLER
S26	652845.27	8991070.71	-	SE CORNER OF WATER COOLER
S27	652846.02	8991087.94	-	NE CORNER OF WATER CHILLER
S28	652857.01	8991087.46	-	SE CORNER OF WATER CHILLER
S29	652779.58	8991116.49	-	SE CORNER OF TRUCK FILL STATION
S30	652778.27	8991086.52	-	SW CORNER OF TRUCK FILL STATION
S31	652537.00	8990997.71	3702.8	GRADE BREAK AT N END OF SOUTH RACEWAY
S32	652553.88	8990996.47	3702.7	GRADE BREAK AT S END OF NORTH RACEWAY

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
R1	652194.26	8991185.98	3706.6	END GRANGER BEGIN HATCHERY ACCESS RD FINISHED GRADE
R2	652209.15	8991185.20	3706.4	P.I. ACCESS RD AND RESIDENCE ACCESS RD FINISHED GRADE
R3	652205.97	8991112.32	3705.4	P.I. RESIDENCE ACCESS RD AND DRIVEWAY FINISHED GRADE
R4	652382.95	8990949.22	3703.8	SPOT ELEVATION FINISHED GRADE
R5	652702.64	8990935.31	3700.5	SPOT ELEVATION FINISHED GRADE
R6	652356.47	8991145.49		SPOT ELEVATION FINISHED GRADE
R7	652681.33	8991135.60		SPOT ELEVATION FINISHED GRADE
R8	652678.27	8991065.26		SPOT ELEVATION FINISHED GRADE
R9	652761.12	8991129.44		SPOT ELEVATION FINISHED GRADE
R10	652757.47	8991045.17		SPOT ELEVATION FINISHED GRADE
R11	652757.24	8991040.17		SPOT ELEVATION FINISHED GRADE
R12	652816.14	8991128.58		SPOT ELEVATION FINISHED GRADE
R13	652796.77	8991028.56		SPOT ELEVATION FINISHED GRADE
R14	652997.61	8990994.68		SPOT ELEVATION FINISHED GRADE
R15	653044.06	8990956.18		SPOT ELEVATION FINISHED GRADE
R16	653051.94	8990907.27		SPOT ELEVATION FINISHED GRADE
R17	652935.87	8990922.36		SPOT ELEVATION FINISHED GRADE

NO.	W/O	COMPUTER	REVISION	ONLY	BY	DATE	APPROVED
C-CONTRACT CONSTR., FA-FORCE ACCOUNT CONSTR., R-RECORD FILE NAME: LRH_C-21.dwg							
Design	S. SPICKELMIER						
Drawn	R. GUERRERO						
Chkd	M. McMILLEN						
Sub	---						
Rec	---						
Rec	---						
Appr	---						
Date	---						
SERIAL		SOURCE	SHEET NO.	SHEET	REVISION		
---		---	C21	--OF--	---		



UNITED STATES DEPARTMENT OF ENERGY  
**BONNEVILLE POWER ADMINISTRATION**  
 HEADQUARTERS, PORTLAND, OREGON  
**NORTHEAST OREGON HATCHERY PROGRAM**  
 LOSTINE RIVER HATCHERY

**HATCHERY**  
**SITE COORDINATE POINTS**