STATE OF UTAH
DIVISION OF WILDLIFE RESOURCES

SPRINGVILLE HATCHERY - FRY TANKS
WATERLINE REPLACEMET
SPRINGVILLE, UTAH

MANAGED BY:

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

DFCM PROJECT # 05123520

APPROVALS:

Prime Agency _____ Date _____

DFCM _____ Date _____

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY

State of Utah—Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building/Salt Lake City, Utah 84114/538-3018

SEPTEMBER 2005

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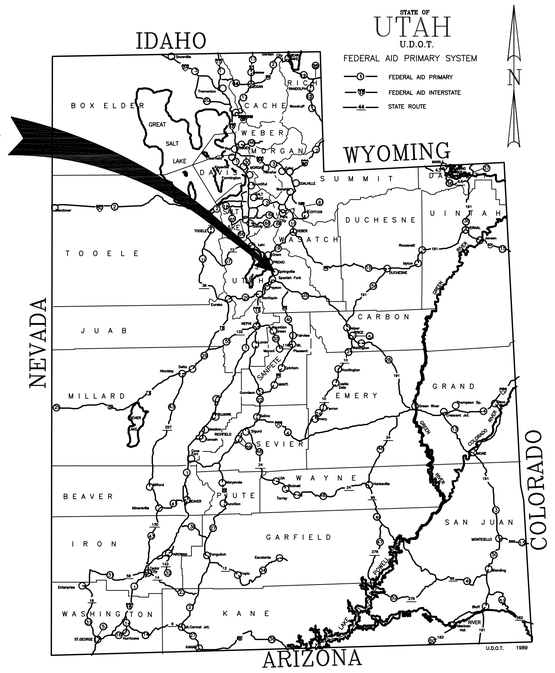
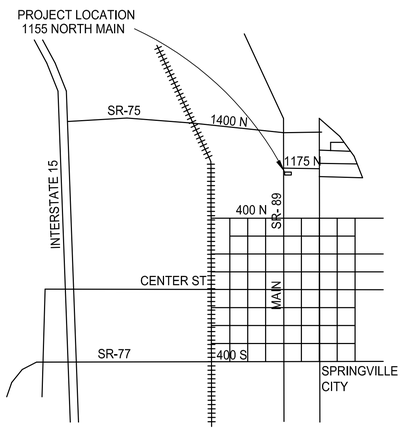


DIVISION OF WILDLIFE RESOURCES FISHERIES EXPERIMENT STATION

LOCATION MAP
N.T.S



VICINITY MAP
N.T.S

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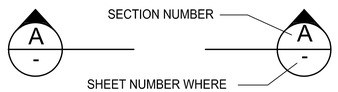
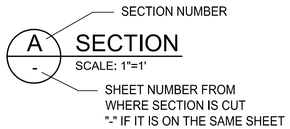
PLUMBING
P-101 PIPING PLAN
P-501 TANK DETAILS
P-502 DETAILS

SECTION AND DETAIL IDENTIFIERS

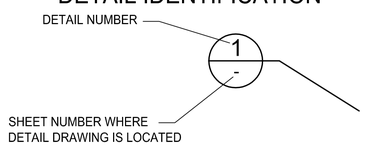
NOTE:
A DASH MAY BE PLACED IN THE LOWER PORTION OF THE IDENTIFIER IF THE DETAIL DRAWING OR SECTION VIEW IS LOCATED ON THE SAME SHEET.

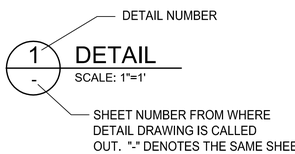
SECTION IDENTIFICATION





DETAIL IDENTIFICATION





LINE LEGEND

NEW	EXISTING	
		CENTERLINE
		PROPERTY LINE
		EASEMENTS
4352	4352	CONTOUR
CW	CW	CULINARY_WATER
SW	SW	SECONDARY_WATER
E	E	ELECTRIC
GAS	GAS	GAS_LINE
SS	SS	SANITARY_SEWER
SD	SD	STORM_DRAIN
T	T	TELEPHONE
F	F	FIBER_OPTICS
IRR	IRR	IRRIGATION
LD	LD	LAND_DRAIN
TV	TV	CABLE_TV
		DITCH
		CHAINLINK_FENCE
		BARBWIRE_FENCE
		GUARD RAIL
		EDGE OF ASPHALT
		RAILROAD
WS	WS	WATER SUPPLY (AQUACULTURE)
O2	O2	OXYGEN SUPPLY LINE

ABBREVIATIONS

AB	ANCHOR BOLT
ABBR	ABBREVIATION
ADJ	ADJUSTABLE
ADH	ADHESIVE
AFF	ABOVE FINISHED FLOOR
ALUM	ALUMINUM
APPD	APPROVED
APPROX	APPROXIMATE
ASSY	ASSEMBLY
BF	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BENCH MARK
BOT	BOTTOM
BT	BOLT
CAP	CAPACITY
CB	CATCH BASIN
CC	CENTER TO CENTER
CFS	CUBIC FEET PER SECOND
CHK V	CHECK VALVE
CI	CAST IRON
CJ	CONSTRUCTION JOINT
CLR	CLEAR
CNR	CORNER
CO	CLEAN OUT
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTUCTION OR CONSTRUCT
CONT	CONTINUED OR CONTINUOUS
CONTR	CONTRACTOR
CP	CORRUGATED METAL PIPE
CTR	CENTER
CUx	EXISTING UNDERGROUND CABLE
CYL	CYLINDER
DBL	DOUBLE
DET	DETAIL
DI	DUCTILE IRON
DIA	DIAMETER
DISCH	DISCHARGE
DR	DRAIN
DWG	DRAWING
DWR	DEPARTMENT OF WILDLIFE RESOURCES
E	EAST
EA	EACH
EB	EXPANSION BOLT OR ANCHOR
EF	EACH FACE
EFF	EFFLUENT
EL	ELEVATION
EOA	EDGE OF ASPHALT
EOC	EDGE OF CONCRETE
EQUIP	EQUIPMENT
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
FABR	FABRICATON, FABRICATE OR FABRICATED
F TO F	FACE TO FACE
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FIG	FIGURE
FL	FLOWLINE
FOC	FACE OF CONCRETE
FOW	FACE OF WALL
FT	FEET OR FOOT
FT.LB	FOOT-POUND
FTG	FOOTING
FUT	FUTURE
GAL	GALLON
GEN	GENERAL
GPM	GALLONS PER MINUTE
GRD	GRADE OR GROUND
GR BRK	GRADE BREAK
GV	GATE VALVE
HGT	HEIGHT
HORIZ	HORIZONTAL
HP	HORSEPOWER
H/P	HIGH POINT
HWL	HIGH/WATER LEVEL
HV	HORIZONTAL AND VERTICAL CONTROL POINT
HYD	HYDRAULIC
ID	INSIDE DIAMETER
IN	INCH
INFL	INFLUENT
INV	INVERT ELEVATION
IPP	IRON PIPE
ISP	INSULATED STEEL PANEL
JB	JUNCTION BOX
JT	JOINT

ABBREVIATIONS (CONT.)

LAT	LATERAL
L/P	LOW POINT
LB	POUND
LEV	LEVEL
LG	LENGTH OR LONG
LHO	LOW HEAD OXYGEN UNIT
LT	LEFT
LWL	LOW WATER LEVEL
LWR	LOWER
MAN	MANUAL
MFR	MANUFACTURER
MFR'D	MANUFACTURED
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MODEL
N	NORTH
NG	NATURAL GRADE
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OPNG	OPENING
PAVMT	PAVEMENT
PCC	PORTLAND CEMENT CONCRETE
PLACES	PLACES
PP	POWER POLE
PPM	PARTS PER MILLION
PR	PROPOSED RACEWAY
PRCT	PRECAST
PREFAB	PREFABRICATED
PRV	PRESSURE REGULATING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
QTY	QUANTITY
R	RADIUS
RC	REINFORCED CONCRETE
RCP	REINFORCED CONCRETE PIPE
RCWY	RACEWAY
RD	ROAD OR ROUND
REF	REFERENCE
REIN	REINFORCED
REQ'D	REQUIRED
RT	RIGHT
R/W	RIGHT-OF-WAY
S	SOUTH
SA	SAMPLE
SAT	SATURATION
SDR	STORM DRAINS
SECT	SECTION
SHT	SHEET
SPEC	SPECIFICATION
SS	SANITARY SEWER
SSX	EXISTING SANITARY SEWER
STA	STATION
STD	STANDARD
SYS	SYSTEM
TC	TOP OF CURB
THK	THICK OR THICKNESS
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOP	TOP OF PIPE
TOW	TOP OF WALL
TP	TELEPHONE POLE
TRANS	TRANSION OR TRANSMITTER
UG	UNDERGROUND
UGC	UNDERGROUND CONDUIT
UNO	UNLESS NOTED OTHERWISE
V	VALVE
VERT	VERTICAL
VOL	VOLUME
W	WEST OR WASTE
WS	WATER SURFACE
Wx	EXISTING WATERLINE
YD	YARD
YR	YEAR
Z	ZERO

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RM# 01994

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REGISTERED PROFESSIONAL ENGINEER
#335814-2202
ZAN P. MURRAY
9/1/05
STATE OF UTAH

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DRAWINGS

ISSUE DATE: 9/1/05

DFCM PROJECT NO: 05123520
CAD PROJECT NO:
CAD DWG FILE: G-002.DWG
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SHEET TITLE

VICINITY MAP
INDEX SHEET

SHEET NUMBER

G-002

GENERAL NOTES

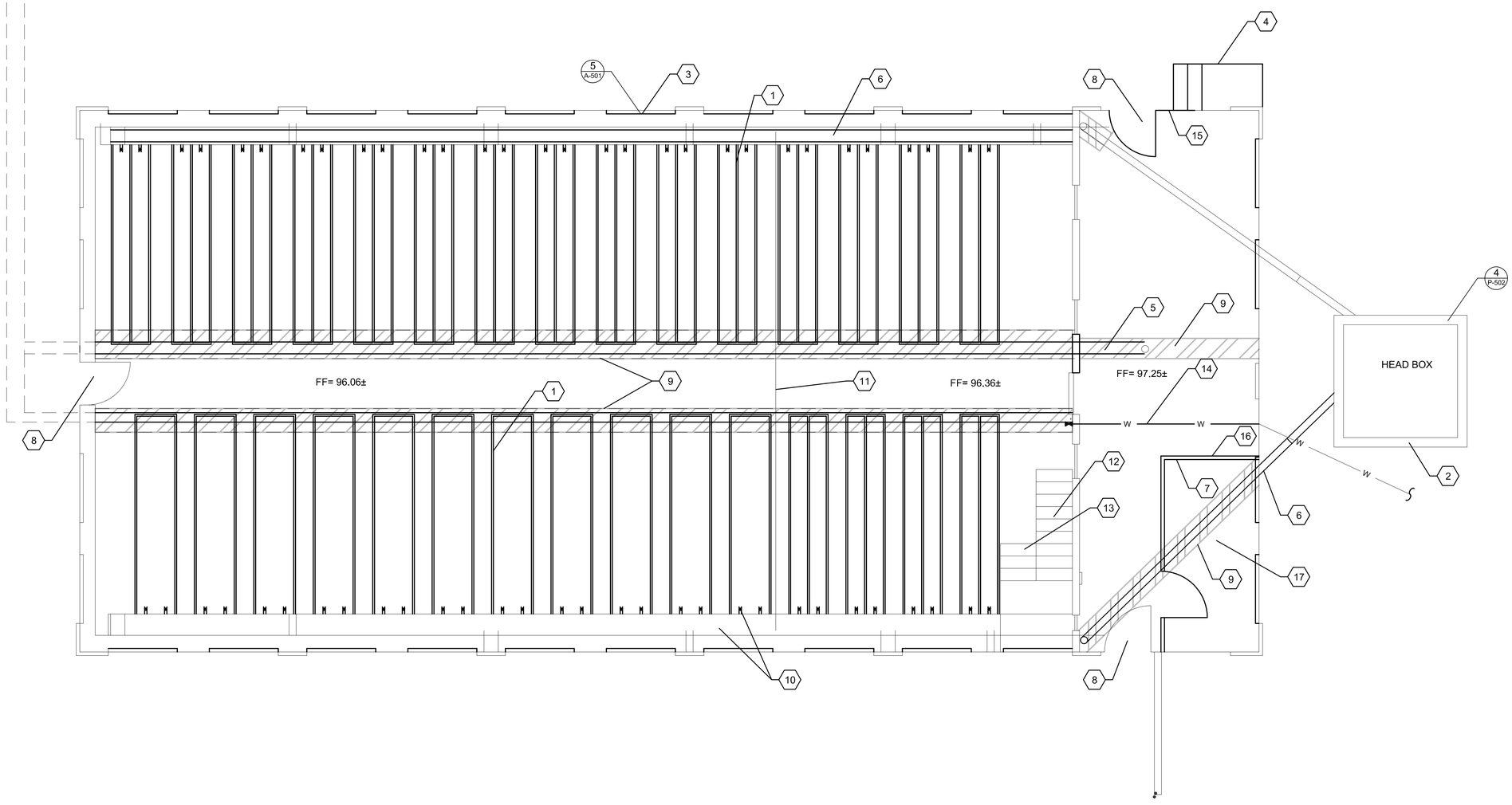
1. AVERAGE SLAB THICKNESS IS 6 INCHES PER FIELD MEASUREMENTS
2. HEAD BOX CAN BE DRAINED THROUGH USE OF A SUNSHINE VALVE
3. FF ELEVATIONS ARE EXISTING ON THIS SHEET
4. REMOVE CONCRETE WITHIN 1 ½" OF EXISTING FLOOR SURFACE
5. PROVIDE TEMPORARY SHORING FOR ALL ENLARGED OPENINGS UNTIL FINAL IMPROVEMENTS ARE IN PLACE

CONCRETE FLOOR REMOVAL

KEY NOTES (#)

1. REMOVE ALL EXISTING AQUACULTURE TANKS.
2. SAWCUT TOP OF BOX BELOW TOP OF PREVIOUS EXTENSION - SEE DETAIL
3. REMOVE EXISTING WINDOWS AND FRAMES. 24 EA., NORTH, EAST & SOUTH SIDES
4. REMOVE EXISTING CONCRETE STAIRS
5. REMOVE EXISTING DRAIN LINE.
6. REMOVE EXISTING SUPPLY LINE AND VALVES.
7. DEMO STORAGE ROOM - WOOD WALL & FLOOR CONSTRUCTION, GYP BOARD CEILING
8. REMOVE EXISTING DOOR
9. SAWCUT AND REMOVE FLOOR
10. REMOVE EXISTING SUPPLY TROUGH AND VALVES
11. FF ELEVATION CHANGE
12. REMOVE CONCRETE TROUGH (BENEATH STAIRS)
13. REMOVE CONCRETE STEP
14. REMOVE WATER VALVE AND ABANDON WATER SUPPLY LINE
15. RELOCATE LIGHT SWITCH
16. ABANDON TELEPHONE CABLE
17. REMOVE LIGHT FIXTURE

SCALE 1/4" - 1'-0"



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REGISTERED PROFESSIONAL ENGINEER #338914-2202 ZAN P. MURRAY 4/1/05 STATE OF UTAH

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DRAWINGS

ISSUE DATE: 9/1/05

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CAD DWG FILE: A-100.DWG
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SHEET TITLE

DEMOLITION PLAN

SHEET NUMBER

A-100

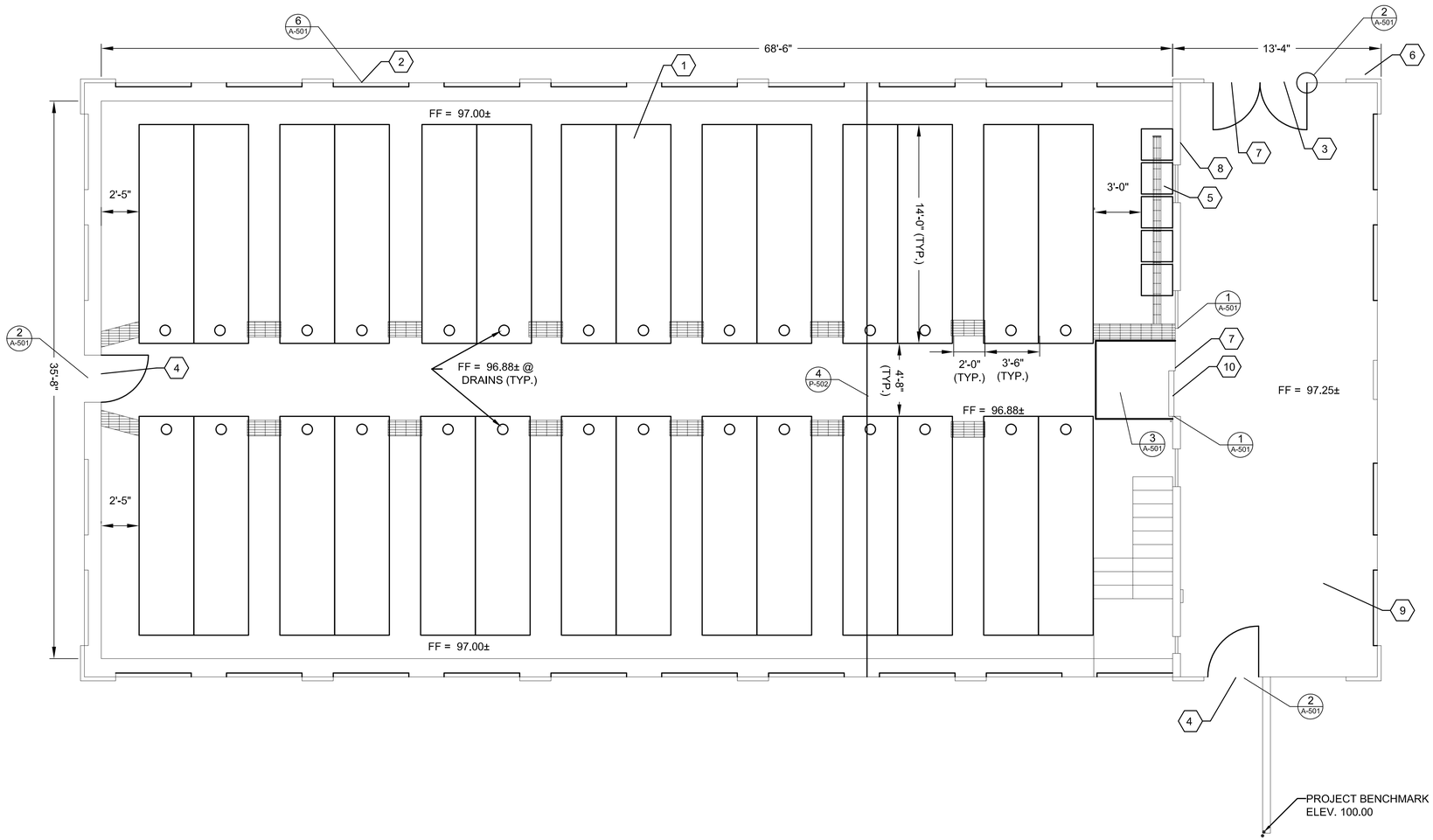
SCALE 1/4" - 1'-0"

CLEANOUT BOX

STAGING AREA
(ASPHALT PAVEMENT)

KEY NOTES

1. AQUACULTURE TANK (TYP 28 PLACES, STATE FURNISHED & CONTRACTOR INSTALLED)
2. INSTALL 5050 REPLACEMENT WINDOW (24 EA)
3. SAWCUT DOORWAY TO 6', INSTALL 6070 DOUBLE DOOR.
4. INSTALL 3070 REPLACEMENT DOOR (2 EA)
5. INCUBATOR (BY OTHERS)
6. RESTORE STAIR AREA TO SURROUNDING CONDITIONS (6" TOPSOIL & SOD)
7. CONTRACTOR BUILDING ACCESS
8. RELOCATE LIGHT SWITCH
9. INSTALL 4' FLOURESCENT LIGHT W/ COLDSTART BALLAST
10. FRAME FINISHED OPENING TO 5' AFTER DEMOLITION AND CONCRETE WORK COMPLETE



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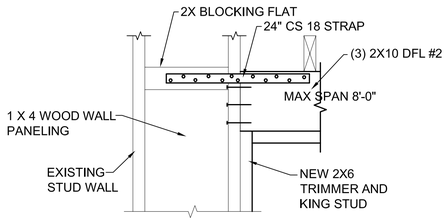
SHEET TITLE

FLOOR PLAN

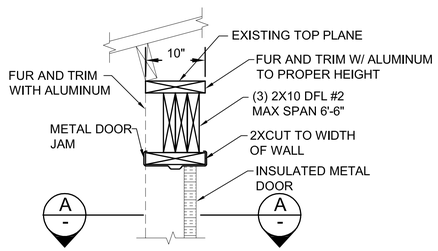
SHEET NUMBER

A-101



NOTE: MATCH EXISTING WALL FINISH. TRIM JOINTS WITH 1 X 2 TO MATCH EXISTING TRIM.

1 - INTERIOR OPENING HEADER
N.T.S.



2 - EXTERIOR DOOR HEADER
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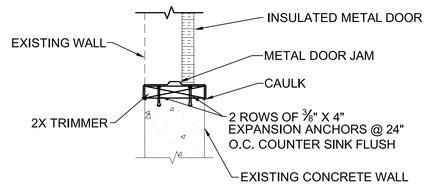

A - SECTION
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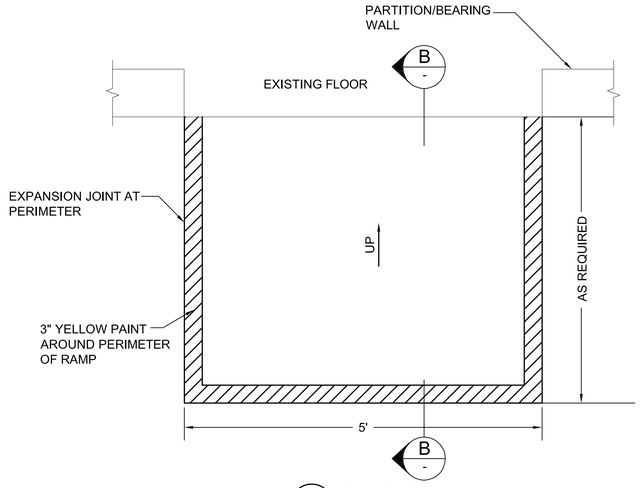
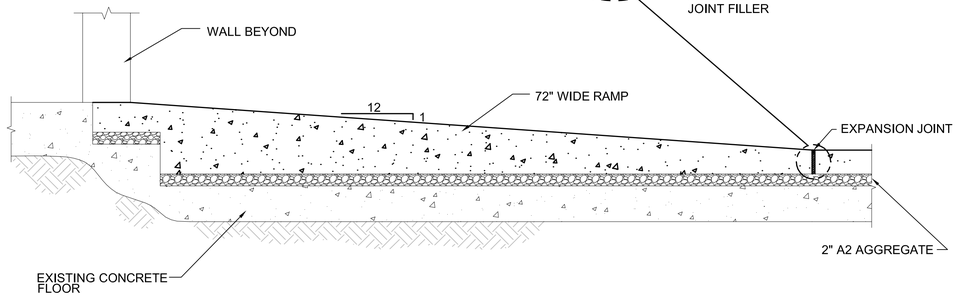


3 - RAMP PLAN
SCALE: 1"=1'



B - RAMP SECTION
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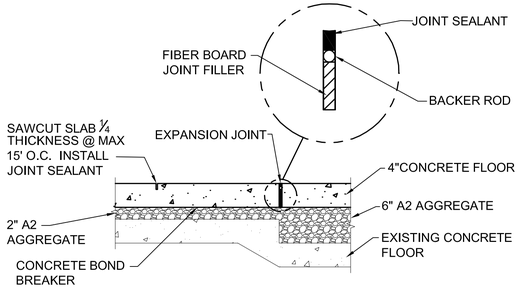
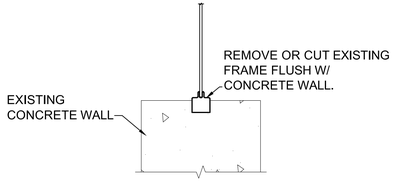
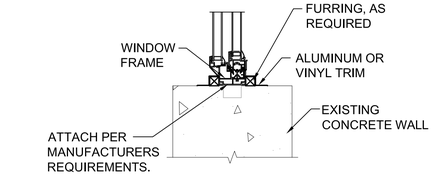


4 - CONCRETE FLOOR DETAIL
N.T.S.



5 - WINDOW REMOVAL
SCALE: N.T.S.



6 - WINDOW REPLACEMENT
SCALE: N.T.S.

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DETAILS

SHEET NUMBER

A-501

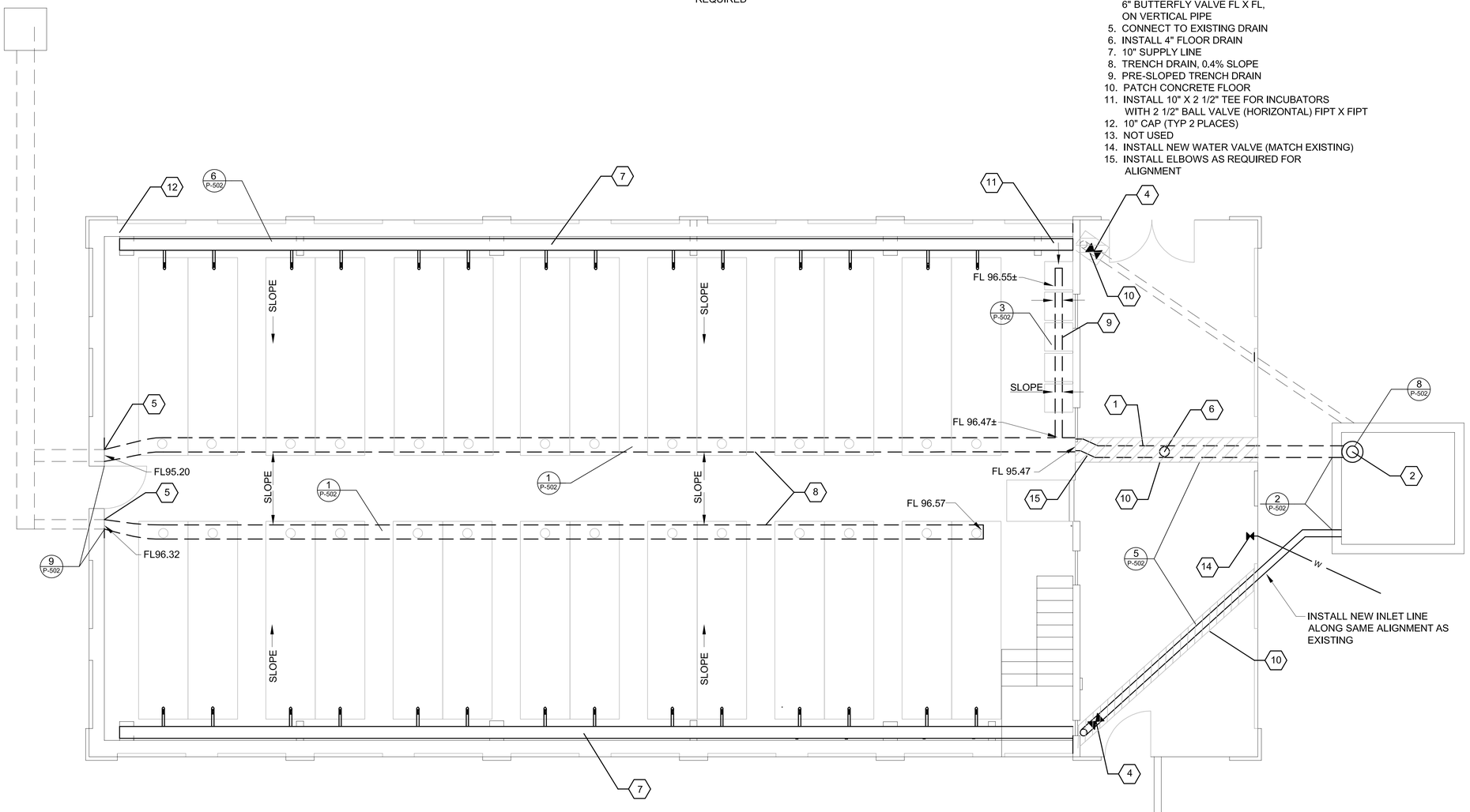
SCALE 1/4" - 1'-0"

GENERAL NOTES

1. SLOPE CONCRETE FLOOR TOWARD DRAINS.
2. CONCRETE TOLERANCE ¼" VARIATION IN 10'
3. CAULK SLAB PERIMETER W/ JOINT SEALANT PER SPECIFICATION NO EXPANSION BOARD REQUIRED

KEY NOTES (#)

1. 10" OVERFLOW DRAIN
2. OVERFLOW WIER
3. NOT USED
4. (2) 6" 90° BENDS VERTICAL RISER AND 6" BUTTERFLY VALVE FL X FL, ON VERTICAL PIPE
5. CONNECT TO EXISTING DRAIN
6. INSTALL 4" FLOOR DRAIN
7. 10" SUPPLY LINE
8. TRENCH DRAIN, 0.4% SLOPE
9. PRE-SLOPED TRENCH DRAIN
10. PATCH CONCRETE FLOOR
11. INSTALL 10" X 2 1/2" TEE FOR INCUBATORS WITH 2 1/2" BALL VALVE (HORIZONTAL) FIPT X FIPT
12. 10" CAP (TYP 2 PLACES)
13. NOT USED
14. INSTALL NEW WATER VALVE (MATCH EXISTING)
15. INSTALL ELBOWS AS REQUIRED FOR ALIGNMENT



ORIFICE CAP SCHEDULE	
FLOW (GPM)*	ORIFICE SIZE (IN)
10	.56
15	.70
20	.80
30	1.0
40	1.2
* ASSUME HEAD BOX WATER SURFACE ELEVATION IS AT 105.2 FEET	

CONTRACTOR TO SUPPLY:
10 - 0.56 IN. ORIFICE CAPS
28 -1.0 IN. ORIFICE CAPS

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DFCM PROJECT NO: 05123520
CAD PROJECT NO:
CAD DWG FILE: P-101.DWG
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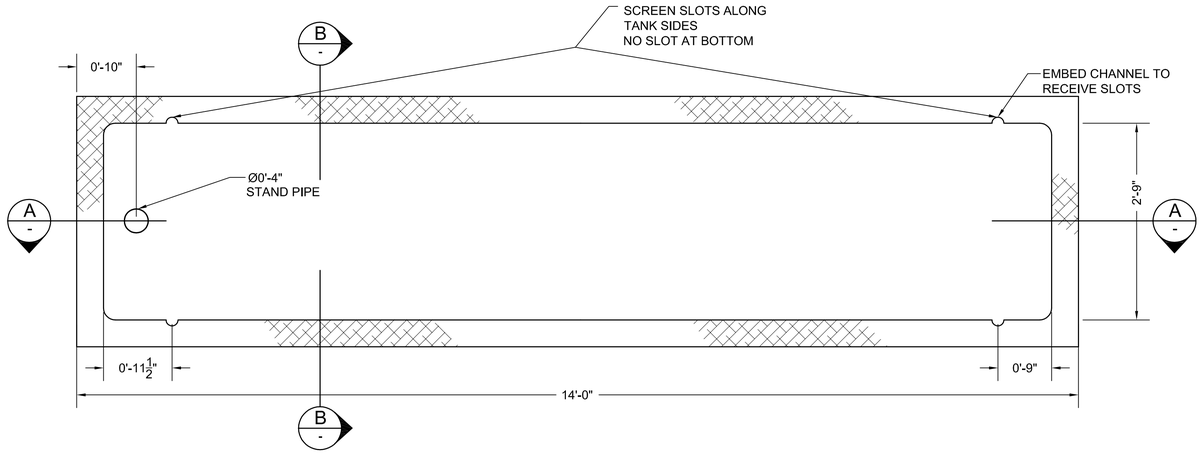
SHEET TITLE

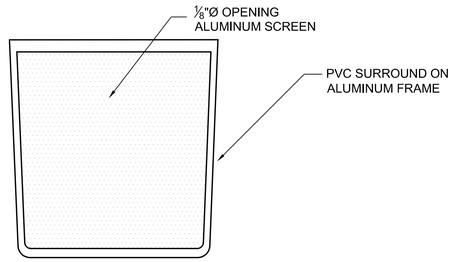
PIPING PLAN

SHEET NUMBER

P-101

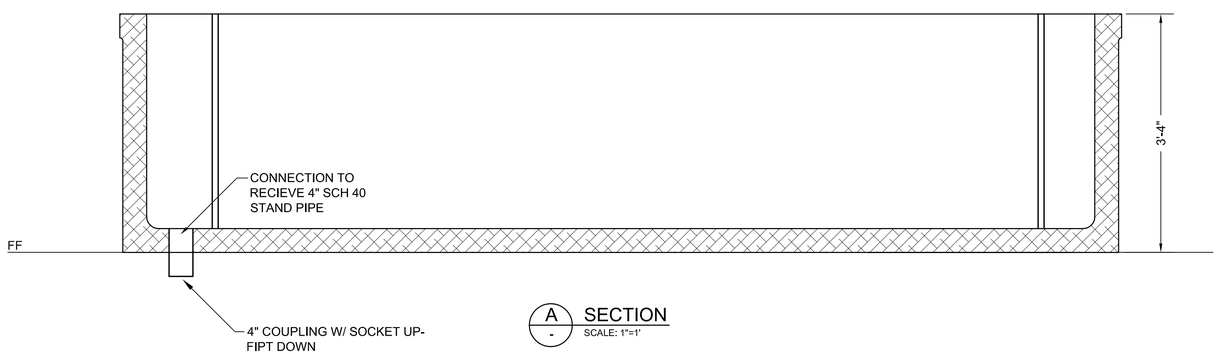


1 - TANK
SCALE: 1"=1'

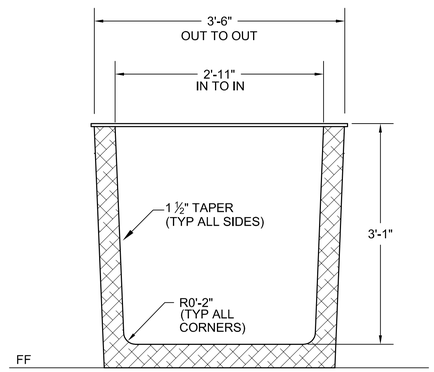


2 - SCREEN DETAIL
SCALE: 1"=1'

NOTE: TANK SUPPLIER TO
SUPPLY 2 SCREENS PER TANK



A - SECTION
SCALE: 1"=1'



B - SECTION
SCALE: 1"=1'

State of Utah
Department of Administrative Services

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Pocatello, ID Office (208) 232-1313
Other Offices in Boise, ID, Twin Falls, ID, Nampa, ID, Couer d' Alene, ID, Kennewick, WA, Spokane, WA

BUILDING NAME:

RM# 01994

PROJECT TITLE:

SPRINGVILLE HATCHERY - FRY TANKS, WATERLINE REPLACEMENT SPRINGVILLE, UTAH

REGISTERED PROFESSIONAL ENGINEER #339814-2202 ZAN P. MURRAY 9/1/05 STATE OF UTAH

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DRAWINGS

ISSUE DATE: 9/1/05

DFCM PROJECT NO: 05123520
CAD PROJECT NO:
CAD DWG FILE: C-501.DWG
DRAWN BY:
CHK'D BY:
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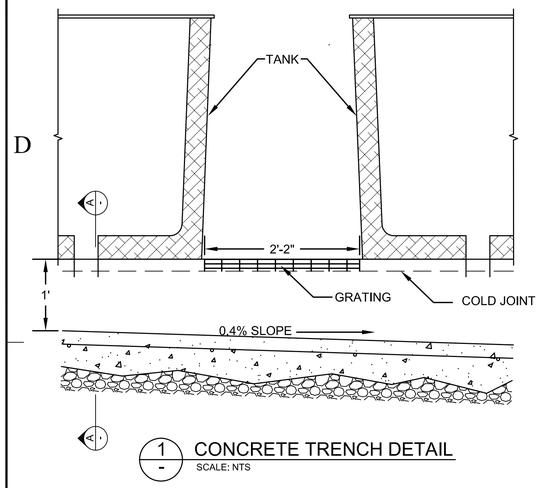
SHEET TITLE

TANK DETAILS

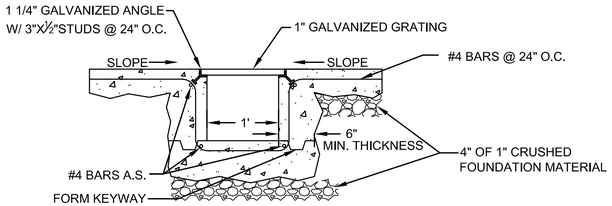
SHEET NUMBER

P-501



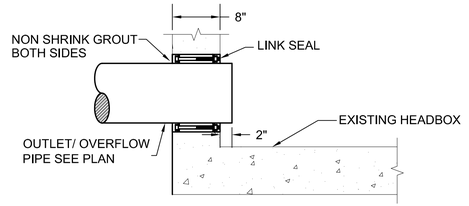
NOTE: INSTALL GRATING CLIPS. MIN. 2 PER GRATING SEGMENT

1 - CONCRETE TRENCH DETAIL
SCALE: NTS

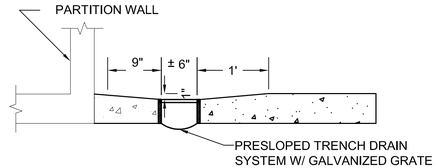


NOTE: 24" MIN. SPLICE LENGTH

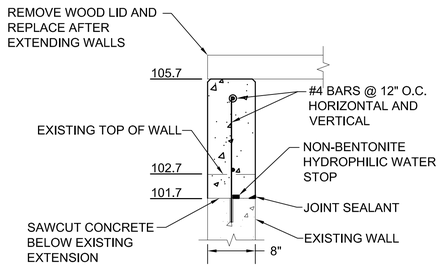
A - SECTION
SCALE: NTS



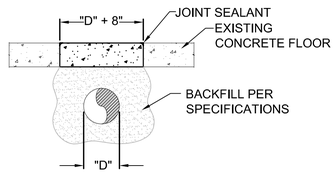
2 - PIPE PENETRATION
N.T.S.



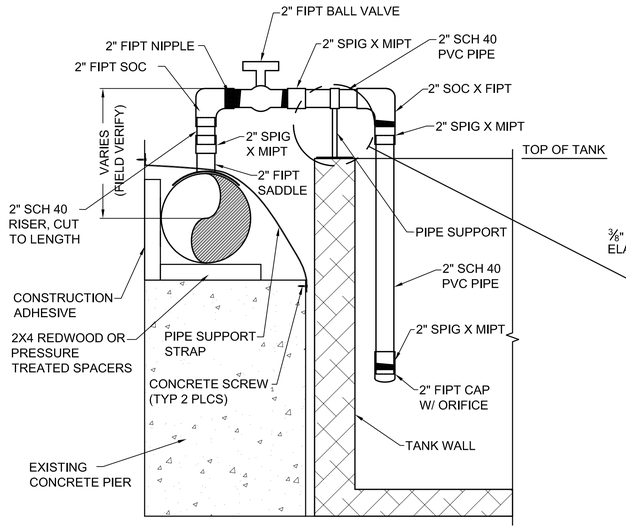
3 - INCUBATOR DRAIN DETAIL
N.T.S.



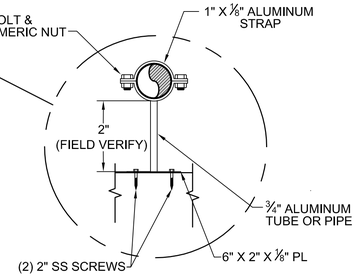
4 - DETAIL
N.T.S.

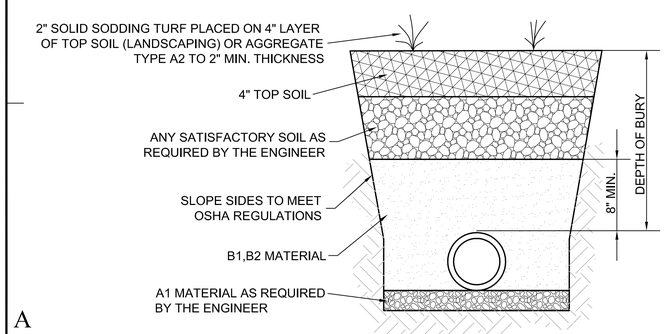


5 - CONCRETE FLOOR PATCH
SCALE: N.T.S.

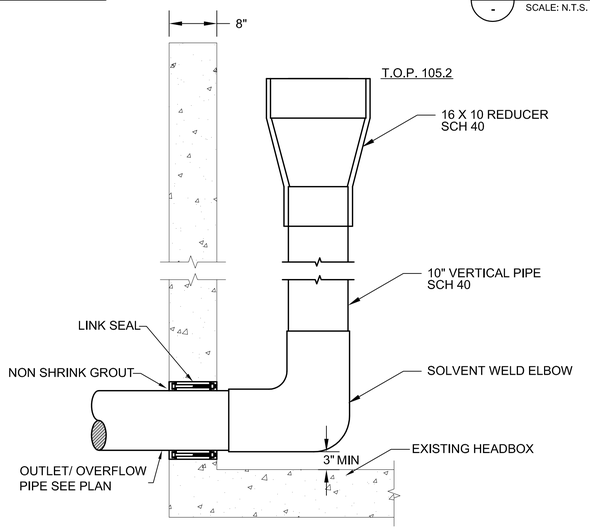


6 - TROUGH INLET
SCALE: N.T.S.

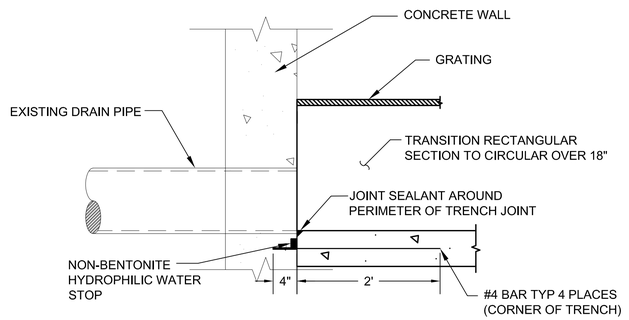




7 - TURF TRENCH SECTION
N.T.S.



8 - OVERFLOW DETAIL
N.T.S.



9 - DRAIN CONNECTION
N.T.S.

State of Utah
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Salt Lake City, Utah 84114
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PROJECT TITLE:

SPRINGVILLE HATCHERY - FRY TANKS, WATERLINE REPLACEMENT SPRINGVILLE, UTAH

REGISTERED PROFESSIONAL ENGINEER
#336814-2202
ZAN P MURRAY
9/1/05
STATE OF UTAH

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION DRAWINGS

ISSUE DATE: 9/1/05

DFCM PROJECT NO: 05123520
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CAD DWG FILE: C-502.DWG
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SHEET TITLE

DETAILS

SHEET NUMBER

P-502