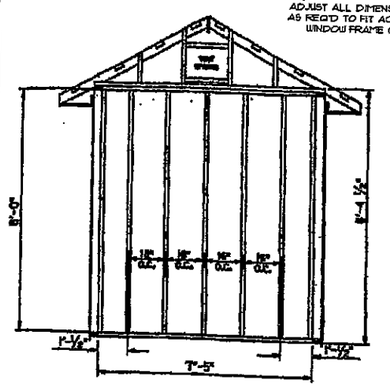
STATE OF WYOMING	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	1801174	A1	A5

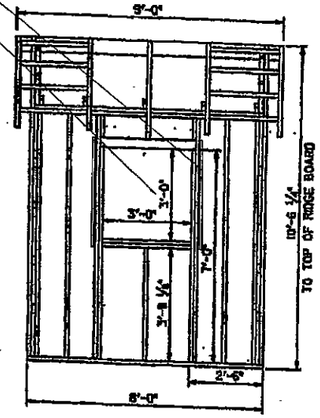
ROOF FRAMING NOTES:

1. AT CONTRACTORS OPTION, PROVIDE PRE-ENGINEERED AND PRE-MANUFACTURED ROOF TRUSSES AT 24"OC TO MATCH LAYOUT REQUIREMENTS SHOWN. USE DROP TOP CHORD TRUSSES FOR EA GABLE END.

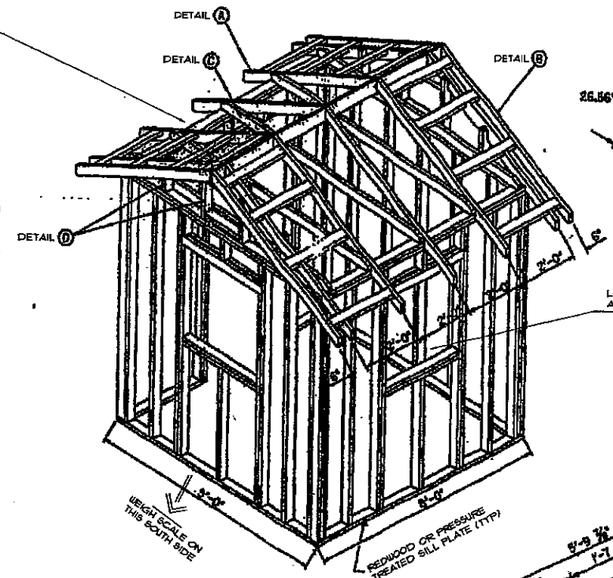
2. PROVIDE ROOF TRUSS/JOIST TO WALL STEEL "HURRICANE" CLIPS FOR EACH TRUSS BEARING LOCATION PER IBC CODE REQUIREMENTS.

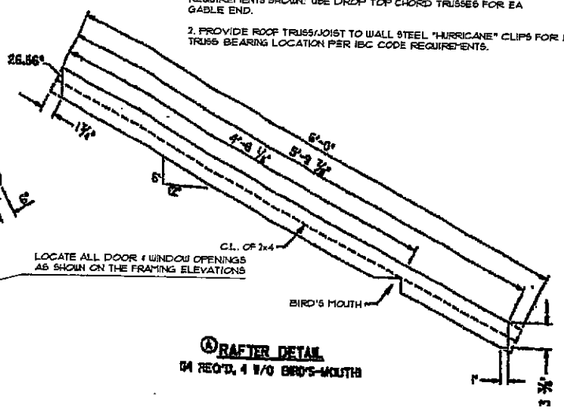


NORTH ELEVATION

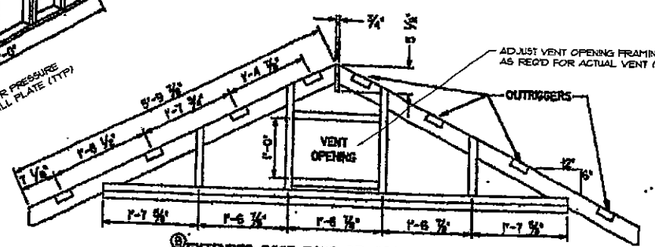


WEST ELEVATION



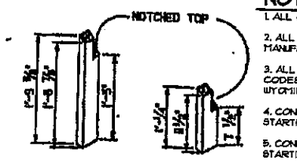


Ⓐ RAFTER DETAIL
(14 REQ'D, 4 T/O BIRD'S-MOUTH)



Ⓑ EXTENDED ROOF RAKE AT GABLE END DETAIL
(2 REQ'D)

Ⓒ CEILING JOIST DETAIL
(15 REQ'D)



Ⓓ STUDS FOR GABLE END DETAIL
(4 OF EA. REQ'D)

NOTES: (SHTS A1 - A2)

1. ALL CONCRETE SHALL BE WYDOT CLASS "B".

2. ALL BUILDING MATERIALS TO BE INSTALLED IN STRICT CONFORMANCE TO MANUFACTURERS WRITTEN INSTALLATION REQUIREMENTS & LITTERATURE.

3. ALL MATERIALS AND INSTALLATION SHALL MEET ALL CURRENT BUILDING CODES, INCLUDING THE INTERNATIONAL BUILDING CODES (IBC) FOR STATE OF WYOMING AND OTHER APPLICABLE CODES FOR JURISDICTION OF THE WORK.

4. CONFIRM ORIENTATION OF BUILDING AND EACH WINDOW / DOOR BEFORE STARTING CONSTRUCTION.

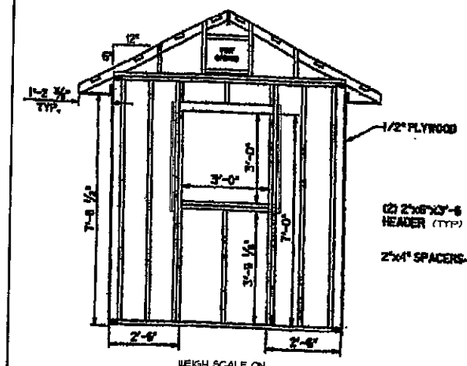
5. CONFIRM CLEARANCE OF SCALE BUILDING TO SCALE PLATFORM PRIOR TO STARTING CONSTRUCTION.

6. PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT TO COMPLETE ALL WORK SHOWN ON ARCHT./MECH/ELECT PLANS, CALLED FOR IN THE SPECIAL PROVISIONS, OR REASONABLY IMPLIED FOR A COMPLETE INSTALLATION.

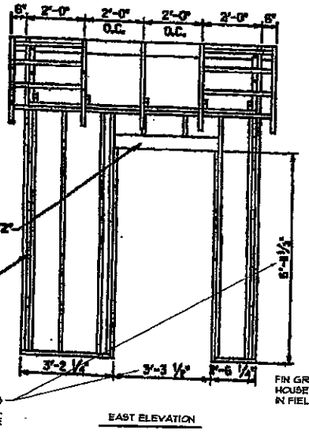
7. THROUGHOUT THE WORK CAULK AND SEAL ALL JOINTS AS REQUIRED TO PROVIDE A POSITIVE BARRIER AGAINST PASSAGE OF AIR AND MOISTURE.

8. ALL DIMENSIONS/LAYOUTS SHOWN ARE APPROXIMATE, FIELD VERIFY ALL WORK PRIOR TO ORDERING MATERIALS OR INSTALLING WORK. ANY VARIATIONS SHALL BE AS APPROVED BY ENGINEER.

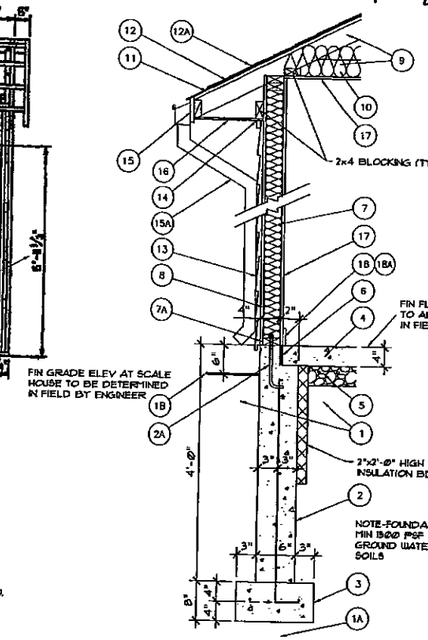
9. PROVIDE SOLID WOOD BLOCKING AND BACKING FOR ANCHORING ALL MISC. WORK, FRAMING, MECH/ELEC EQUIPMENT, ETC.



SOUTH ELEVATION



EAST ELEVATION



FIN GRADE ELEV AT SCALE HOUSE TO BE DETERMINED IN FIELD BY ENGINEER

TYPICAL SECTION DETAIL
NOT TO SCALE

(X) KEY NOTES: (SHTS A1.1 - A1.2)

1 - BACKFILL COMPACTED TO 95% STD PROCTOR DENSITY.
1A - PLACE FOOTING ON NATURAL SOIL BASE.
1B - FINISH GRADE VARIES, MINIMUM OF 6" FROM TOP OF FOUNDATION.
2 - 6" THICK CONC FOUNDATION W/ 3 #4 HORIZ REBAR AND #4 CORNER BARS, AND #4 VERTICAL HOOKS AT 36"O.C.
2A - 1/2"DIA x16" STL. ANCHOR BOLT AT 32" O.C. MAXIMUM, W/ NUT AND SQUARE WASHER, AND PROVIDE ANCHOR BOLTS ON ALL WALLS WITHIN 4" OF EACH CORNER, AND DOOR OPENING.
3 - 8"x12" THICK CONC FOOTING W/ 2 #4 HORIZ REBAR AND #4 CORNER BARS.
4 - 4" CONCRETE SLAB, SEAL W/ 2 COATS CLEAR CONCRETE SEALER.
5 - 4" FREE DRAINING GRANULAR FILL.
6 - 1/2" PREMOLDED BITUMINOUS EXPANSION JOINT MATERIAL.
7 - 2x4 STUD FRAMING AT 16"OC W/ 3 1/2" THICK KRAFT FACED FIBERGLASS BATT INSULATION (R-13).
7A - 2x4 REDWOOD OR PRESSURE TREATED SILL PLATE ON 1/2" SILL SEALER.
8 - 1/2" EXTERIOR PLYWOOD SHEATHING OVER AIR BARRIER FABRIC WRAP (TYVEK OR EQUAL).
9 - 2x4 ROOF RAFTER AND CEILING JOISTS AT 24"OC.
10 - 6" KRAFT FACED FIBERGLASS BATT INSULATION, (R-19) HOLD DOWN 1" AT EVES.
11 - 5/8" PLYWOOD EXTERIOR SHEATHING.
12 - ICE & WATERSHIELD MEMBRANE "UNDERLAYMENT" (WR. GRACE OR EQUAL)
12A - ROOF SHINGLES, TO BE NAILED (NOT STAPLED), HEAVY WEIGHT HEAVYWEIGHT COMPOSITION SHINGLES TO MEET IBC WIND RATING FOR PROJECT LOCATION (NOT LESS THAN 100 MPH), MALARKY OR EQUAL.
13 - PRE-FINISHED STEEL(STL) LAP SIDING, 26 GAGE, ABC SEAMLESS OR EQUAL.
14 - PRE-FINISHED STL TRIM CLOSURE AND SEALANT.
15 - PRE-FINISHED ALUMINUM(ALUM) FACIA COVER (ABC SEAMLESS OR EQUAL) OVER 1x6 REDWOOD FACIA OVER 2x4 SOLID BLOCKING.
15A - PRE-FINISHED ALUM GUTTERS & DOWNSPOUTS (TYP OF 2), ABC SEAMLESS OR EQUAL.
16 - PRE-FINISHED ALUM 1/2" SOFFIT PANELS (ABC SEAMLESS OR EQUAL) OVER 3/8" SOFFIT PLYWOOD.
17 - 5/8" TYPE "X" FIRECODE GYP BD, TAPED AND FINISHED, MEDIUM ORANGE PEEL TEXTURE, PAINTED.
18 - 3 1/2"x5/8" WOOD FLOOR PERIMETER BASE, PAINTED.
18A - 3 1/2"x5/8" WOOD WINDOW PERIMETER CASING W/ 1x WOOD JAMB PERIMETER INFILL BACK TO WINDOW FRAME, PAINTED.

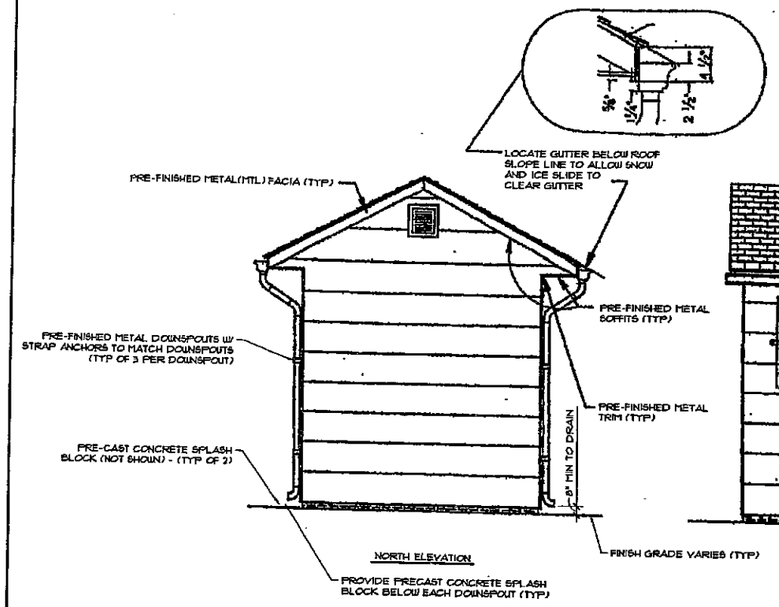
(1) FRAMING DETAILS AND ELEVATIONS
NOT TO SCALE

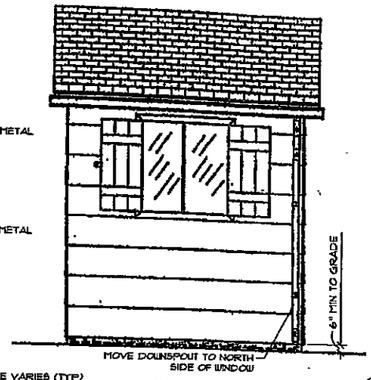
CAD DWG DATE - 10/10/11

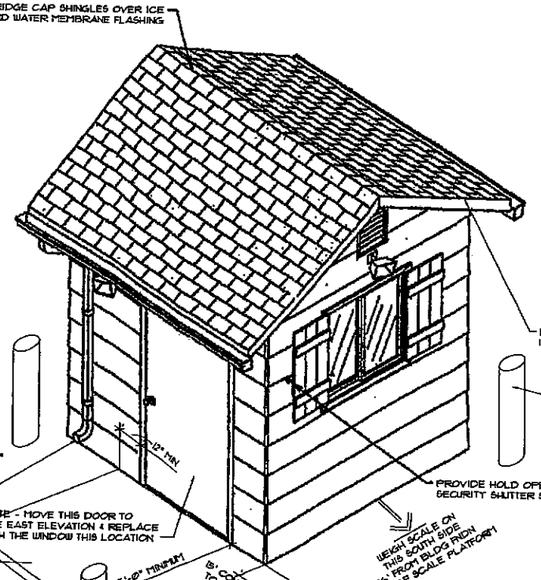
REGISTERED PROFESSIONAL ARCHITECT
DOUGLAS ALAN SELBY
SB-127
12/9/11
STATE OF WYOMING

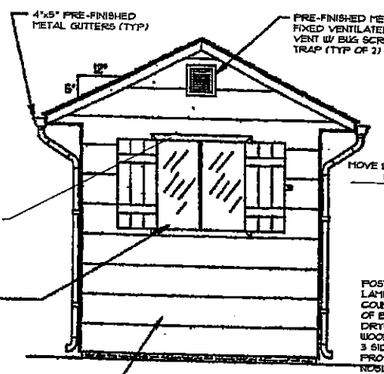
Not valid unless signed and dated.

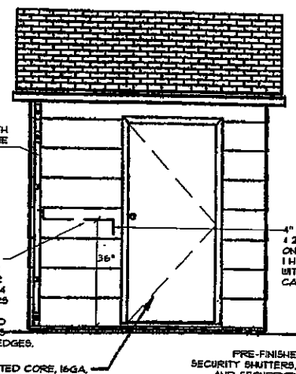
STATE OF WYOMING	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	1801174	A2	A5

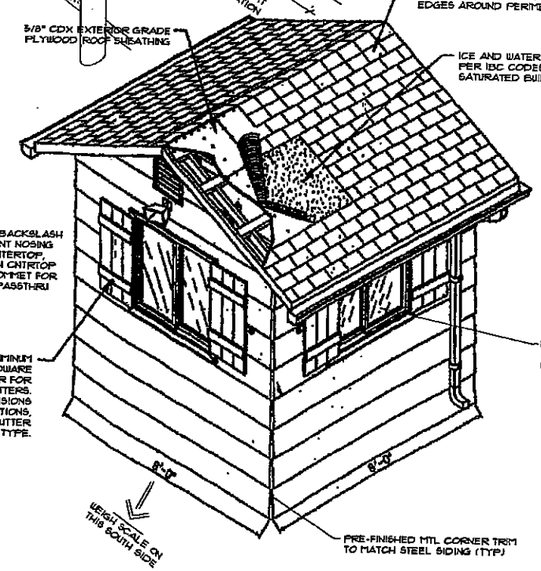












COLOR/FINISH NOTES:

PRE-FINISHED STEEL SIDING & SIDING TRIM - COLOR AS SELECTED BY ENGR.

PRE-FINISHED ALUMINUM FACIA, SOFFITS, GUTTERS, DOWNSPOUTS, TRIM - WHITE

PAINTED GYPSUM BOARD - OFF WHITE OR AS SELECTED BY ENGR.

PAINTED INTERIOR WOOD TRIM - MATCH GYPSUM BOARD

PAINTED HOLLOW METAL DOOR & FRAME - COLOR TO MATCH STEEL SIDING

PRE-FINISHED WINDOW & VENT LOUVER - WHITE

FIELD PAINTED WOOD SHUTTERS - WHITE

ROOF SHINGLES - COLOR AS SELECTED BY ENGR

HARDWARE - DULL OR SATIN CHROME

CONCRETE FLOOR - CLEAR SEALER

STEEL BOLLARDS - SAFETY YELLOW

FIELD PAINTED STEEL PRODUCTS - PROVIDE INDUSTRIAL GRADE, ALKYD ENAMEL PAINT, 2 COATS OVER APPLICABLE PRIMER, 1 COAT, FOR FULL COVERAGE, PITSBURGH OR SHERWIN WILLIAMS PAINT, OR EQUAL.

FIELD PAINTED BLDG INTERIOR FINISHES - PROVIDE SEMI-GLOSS LATEX ENAMEL, 2 COATS OVER APPLICABLE PRIMER, 1 COAT, FOR FULL COVERAGE, PITSBURGH OR SHERWIN WILLIAMS PAINT, OR EQUAL.

DOOR HARDWARE NOTES:

LOCKSET - MORTISE LOCKSET, CYLINDER, KEYING TO MATCH WYDOT STANDARDS (BEST, NO SUBSTITUTIONS) CORES TO BE PROVIDED BY WYDOT, SATIN CHROME

DEADLOCK - LOCK, CYLINDER, KEYING TO MATCH WYDOT STANDARDS (BEST, NO SUBSTITUTIONS) CORES TO BE PROVIDED BY WYDOT. SATIN CHROME

HINGES - 1.5 PAIR, SATIN CHROME

WEATHERSTRIPPING - COMPRESSION SEAL TYPE PERIMETER SEAL AND BRUSH TYPE SWEEP SEAL

THRESHOLD - MILL FINISH ALUMINUM, HC ACCESSIBLE, SET IN BED OF SEALANT.

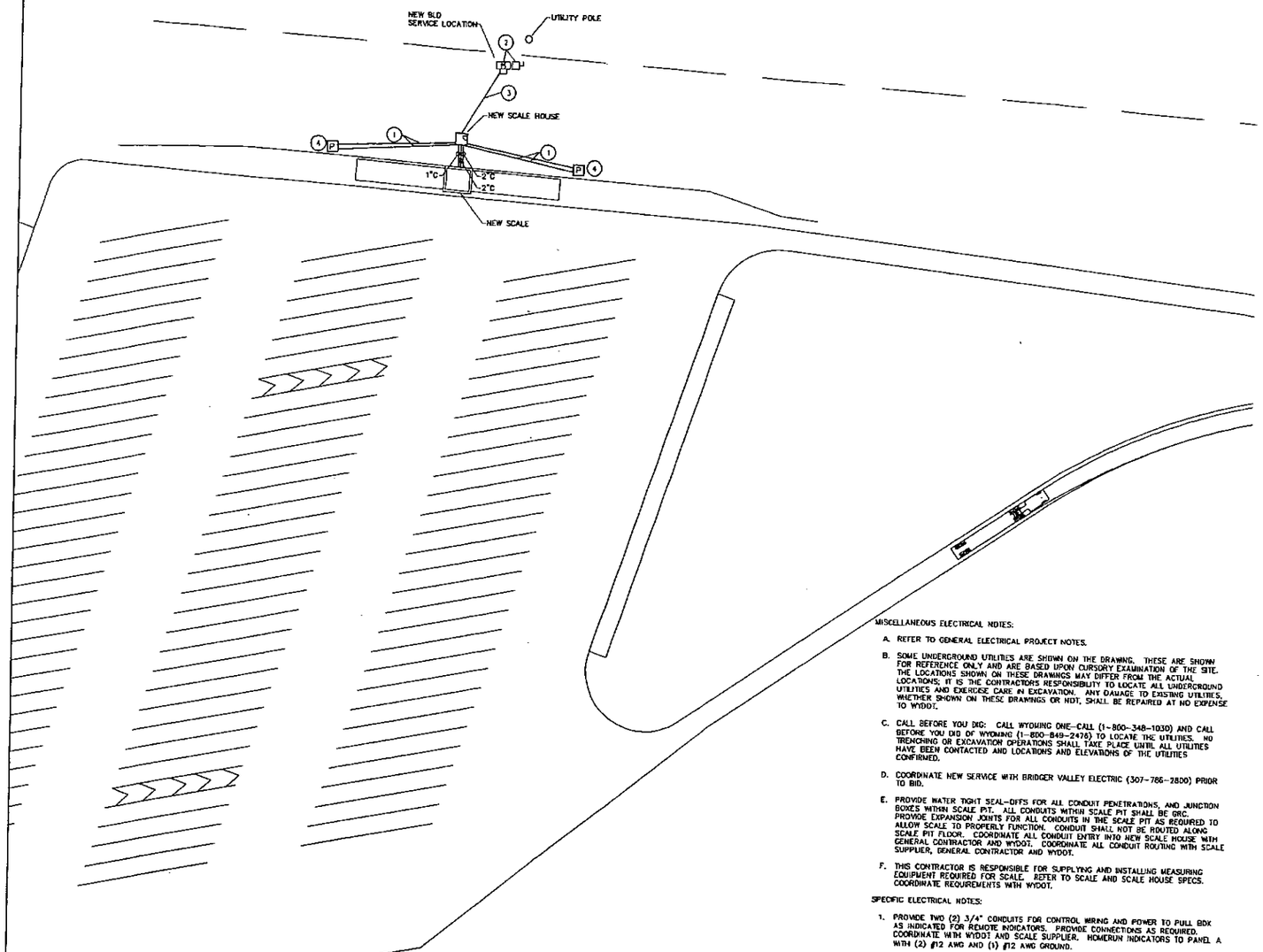
SEE SPECIAL PROVISIONS FOR EXTERIOR SECURITY SHUTTER HARDWARE.

1 ELEVATION DETAILS
NOT TO SCALE

CAD DWG DATE - 10/10/11

REGISTERED PROFESSIONAL ARCHITECT
DOUGLAS ALAN SELBY
08-127
12/9/11
STATE OF WYOMING

Not valid unless signed and dated.



1 ELECTRICAL SITE PLAN
1" = 80'-0" UNLESS REDUCED
0 20' 40' 80'

N
REFERENCE

MISCELLANEOUS ELECTRICAL NOTES:

A. REFER TO GENERAL ELECTRICAL PROJECT NOTES.

B. SOME UNDERGROUND UTILITIES ARE SHOWN ON THE DRAWING. THESE ARE SHOWN FOR REFERENCE ONLY AND ARE BASED UPON CURSORY EXAMINATION OF THE SITE. THE LOCATIONS SHOWN ON THESE DRAWINGS MAY DIFFER FROM THE ACTUAL LOCATIONS; IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL UNDERGROUND UTILITIES AND EXERCISE CARE IN EXCAVATION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THESE DRAWINGS OR NOT, SHALL BE REPAIRED AT NO EXPENSE TO WYDOT.

C. CALL BEFORE YOU DIG: CALL WYOMING ONE-CALL (1-800-348-1030) AND CALL BEFORE YOU DIG OF WYOMING (1-800-849-2476) TO LOCATE THE UTILITIES. NO TRENCHING OR EXCAVATION OPERATIONS SHALL TAKE PLACE UNTIL ALL UTILITIES HAVE BEEN CONTACTED AND LOCATIONS AND ELEVATIONS OF THE UTILITIES CONFIRMED.

D. COORDINATE NEW SERVICE WITH BRIDGER VALLEY ELECTRIC (307-786-3800) PRIOR TO BID.

E. PROVIDE WATER TIGHT SEAL-OFFS FOR ALL CONDUIT PENETRATIONS, AND JUNCTION BOXES WITHIN SCALE PIT. ALL CONDUITS WITHIN SCALE PIT SHALL BE GRC. PROVIDE EXPANSION JOINTS FOR ALL CONDUITS IN THE SCALE PIT AS REQUIRED TO ALLOW SCALE TO PROPERLY FUNCTION. CONDUIT SHALL NOT BE ROUTED ALONG SCALE PIT FLOOR. COORDINATE ALL CONDUIT ENTRY INTO NEW SCALE HOUSE WITH GENERAL CONTRACTOR AND WYDOT. COORDINATE ALL CONDUIT ROUTING WITH SCALE SUPPLIER, GENERAL CONTRACTOR AND WYDOT.

F. THIS CONTRACTOR IS RESPONSIBLE FOR SUPPLYING AND INSTALLING MEASURING EQUIPMENT REQUIRED FOR SCALE. REFER TO SCALE AND SCALE HOUSE SPECS. COORDINATE REQUIREMENTS WITH WYDOT.

SPECIFIC ELECTRICAL NOTES:

1. PROVIDE TWO (2) 3/4" CONDUITS FOR CONTROL WIRING AND POWER TO PULL BOX AS INDICATED FOR REMOTE INDICATORS. PROVIDE CONNECTIONS AS REQUIRED. COORDINATE WITH WYDOT AND SCALE SUPPLIER. HOMERUN INDICATORS TO PANEL A WITH (2) #12 AWG AND (1) #12 AWG GROUND.

2. NEW UTILITY METER AND SERVICE DISCONNECT MOUNTED TO NEW BACKBOARD. REFER TO POWER DISTRIBUTION DIAGRAM. COORDINATE BACKBOARD LOCATION WITH WYDOT AND UTILITY.

3. PROPOSED ROUTE FOR SERVICE FEED TO NEW SCALE HOUSE. COORDINATE WITH WYDOT AND UTILITY PRIOR TO INSTALLATION OF NEW SERVICE.

4. PROVIDE IN-GROUND PULL BOX PER DETAIL AND WYDOT STANDARDS. PROVIDE SEPARATION IN BOX BETWEEN LOW VOLTAGE CONTROL WIRES AND 120V POWER PER NEC. PROVIDE TWO (2) 3/4" CONDUITS FROM PULL BOX TO REMOTE INDICATOR FOR CONTROL WIRING AND POWER AS REQUIRED. PROVIDE ALL CONTROL AND POWER CONNECTIONS PER MANUFACTURERS RECOMMENDATIONS. COORDINATE WITH WYDOT AND SCALE SUPPLIER.

Professional Engineer (Electrical)
MICHAEL R. SIGMAN
10311
Date 12/09/11
WYOMING

STATE OF WYOMING	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	1801174	A3	A5

WPE PROJECT NO: BC11018

WPE WEST PLAINS ENGINEERING, INC
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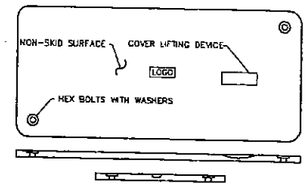
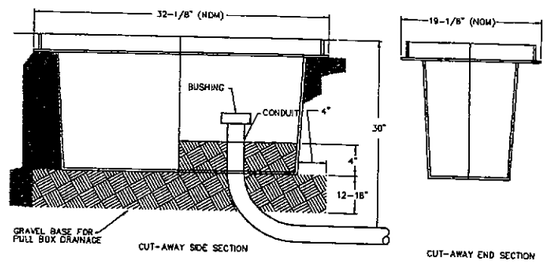


COVER DETAIL
NO SCALE



BOX DETAIL
NO SCALE

GENERAL BOX DETAIL NOTES:

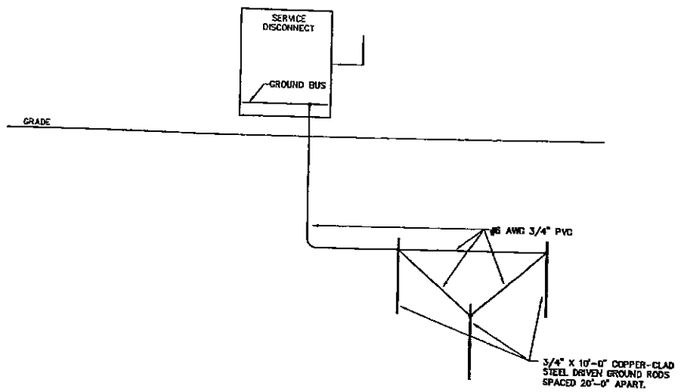
1. COORDINATE THE NUMBER AND SIZE OF CONDUITS ENTERING OR LEAVING EACH PULL BOX IN THE FIELD AND WITH OTHER DRAWINGS. BENDING RADII OF CONDUITS SHALL CONFORM TO NEC REQUIREMENTS.

2. THE EXACT LOCATION AND ELEVATION OF EACH NEW PULL BOX SHALL BE DETERMINED ON THE JOB SITE WITH THE APPROVAL OF THE OWNER AND WITH THE FOLLOWING ASPECTS TO BE TAKEN INTO CONSIDERATION:
   A. SHALL BE EASILY AND SAFELY ACCESSIBLE.
   B. SHALL CONSTITUTE NO HAZARD OR OBSTACLE TO PEDESTRIANS. INSTALL FLUSH WITH WALK AREA OR INSTALL COMPLETELY OUTSIDE OF WALK AREA.
   C. SHALL BE LOCATED OUTSIDE OF DRAINAGE OR WATER COLLECTION AREAS.

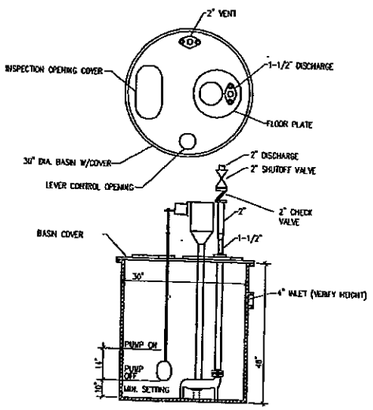
3. ALLOW A MINIMUM OF 36" (914mm) LEAD-IN CONDUCTORS. ALL SPLICES TO BE MADE WITH WATERTIGHT SPLICING KITS.

4. ALL PULL BOXES AND COVERS SHALL HAVE AN ANSI TIER 15 LOADING. BOXES SHALL BE OPEN BOTTOM, QUAZITE #PT1730BA18 OR EQUAL BY AMORCAST OR ASSOCIATED. COVERS SHALL BE HEAVY DUTY WITH TWO BOLTS, QUAZITE #PT1730HA00 OR EQUAL BY ARMORCAST OR ASSOCIATED. COORDINATE LOGO WORDING WITH WYDOT.

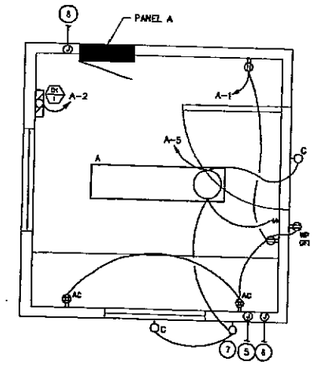
Conc Box Culvert



1 GROUNDING ELECTRODE DIAGRAM
NO SCALE



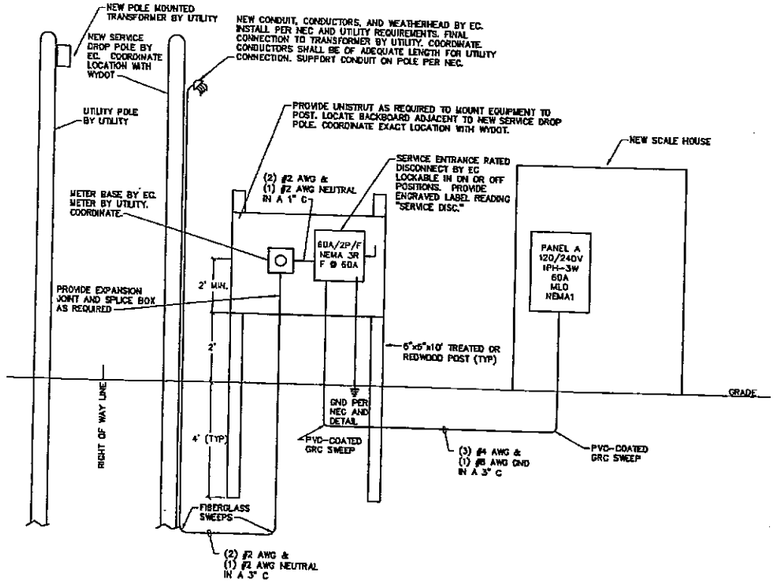
2 SIMPLEX SUMP PUMP DETAIL
NO SCALE



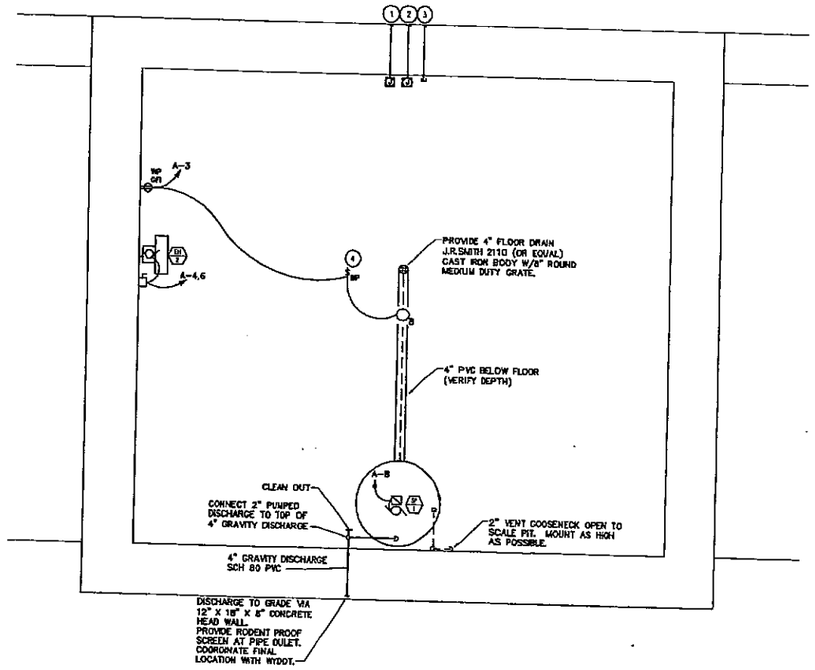
3 SCALE HOUSE
NO SCALE

N
REFERENCE

NOTE: ALL CONDUIT EXPOSED ABOVE GRADE SHALL BE RIGID STEEL OR IMC. PVC CONDUIT SHALL NOT BE USED ABOVE GRADE. CONDUIT BELOW GRADE MAY BE PVC. ALL CONDUIT THROUGH FOUNDATION WALLS, 5' EITHER SIDE, COMING UP FROM BELOW GRADE, ALL SWEEPS TURNING UP FROM BELOW GRADE, AND ALL SWEEPS SIZE 2" AND LARGER SHALL BE RIGID STEEL COATED WITH TWO COATS OF TAR OR SHALL BE PVC-COATED RIGID STEEL.



4 POWER DISTRIBUTION DIAGRAM
NO SCALE



5 SCALE
NO SCALE

N
REFERENCE

MISCELLANEOUS ELECTRICAL NOTES:

A. REFER TO GENERAL ELECTRICAL PROJECT NOTES.

B. PROVIDE WATER TIGHT SEAL-OFFS FOR ALL CONDUIT PENETRATIONS AND JUNCTION BOXES WITHIN SCALE PIT. ALL CONDUITS WITHIN SCALE PIT SHALL BE GRC. PROVIDE EXPANSION JOINTS FOR ALL CONDUITS IN THE SCALE PIT AS REQUIRED TO ALLOW SCALE TO PROPERLY FUNCTION. CONDUIT SHALL NOT BE ROUTED ALONG SCALE PIT FLOOR. COORDINATE ALL CONDUIT ENTRY INTO NEW SCALE HOUSE WITH GENERAL CONTRACTOR AND WYDOT. COORDINATE ALL CONDUIT ROUTING WITH SCALE SUPPLIER, GENERAL CONTRACTOR AND WYDOT.

C. THIS CONTRACTOR IS RESPONSIBLE FOR SUPPLYING AND INSTALLING MEASURING EQUIPMENT REQUIRED FOR SCALE. REFER TO SCALE AND SCALE HOUSE SPECS. COORDINATE REQUIREMENTS WITH WYDOT.

SPECIFIC ELECTRICAL NOTES:

1. PROVIDE A 1" CONDUIT FROM THE SCALE PIT TO THE PANEL A FOR ALL POWER REQUIREMENTS IN PIT.
2. PROVIDE A 2" CONDUIT FROM THE SCALE PIT TO SCALE HOUSE FOR SCALE INSTRUMENTATION CABLING. PROVIDE CONNECTIONS AS REQUIRED. REFER TO NOTE 5.
3. PROVIDE A SPARE 2" CONDUIT WITH PULLSTRING FROM THE SCALE PIT TO SCALE HOUSE FOR FUTURE USE. CAP AND MARK ON AS-BUILTS. REFER TO NOTE 6.
4. LIGHT SWITCH SHALL BE MOUNTED TO THE UNDERNEATH SIDE OF THE SCALE PLATFORM ADJACENT TO MANHOLE ENTRANCE. PROVIDE WEATHERPROOF COVER.
5. PROVIDE A 6"X6"X4" JUNCTION BOX WITH A 2" CONDUIT FROM JUNCTION BOX TO SCALE PIT FOR INSTRUMENTATION CABLING. COORDINATE WITH WYDOT PRIOR TO ROUGH-IN.
6. PROVIDE A 6"X6"X4" JUNCTION BOX WITH A SPARE 2" CONDUIT WITH PULLSTRING FROM JUNCTION BOX TO SCALE PIT FOR FUTURE USE. COORDINATE LOCATION WITH WYDOT PRIOR TO ROUGH-IN.
7. DIGITAL INDICATOR. PROVIDE CONNECTIONS AS REQUIRED. COORDINATE WITH WYDOT AND SCALE SUPPLIER.
8. PROVIDE A SPARE 3" CONDUIT WITH PULLSTRING FROM JUNCTION BOX TO 5' OUTSIDE FOUNDATION WALL FOR FUTURE PHONE SERVICE. CAP CONDUIT AND MARK ON AS-BUILT DRAWINGS.

Professional Engineer (Electrical)
MICHAEL R. SIGMAN
10311
Date 12/09/11
WYOMING

STATE OF WYOMING	PROJ. NO.	SHEET NO.	TOTAL SHEETS
	1801174	A4	A5

WPE PROJECT NO: BC11018

WPE WEST PLAINS ENGINEERING, INC.
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STATE OF WYOMING	PROJ NO.	SHEET NO.	TOTAL SHEETS
	1801174	A5	A5

WPE PROJECT NO BC1108

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MICHAEL R. SIGMAN
10311
Date 12/09/11
WYOMING

MECHANICAL SYMBOLS

UNDERFLOOR WASTE PIPE — ABOVE FLOOR WASTE PIPE — VENT PIPE
PIPE CONNECTION — ELBOW UP — SHUT OFF VALVE
ELBOW DOWN — TEE DOWN — CHECK VALVE

ELECTRICAL SYMBOLS

THESE SYMBOLS COMPRISE A STANDARD LIST; NOT ALL SYMBOLS MAY APPEAR ON THIS PROJECT.

ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE ABOVE FINISHED FLOOR. MOUNTING HEIGHTS INDICATED ON ARCH. WALL ELEVATIONS OR AS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED BELOW.

- A — CEILING SURFACE MOUNT FIXTURE. (Capital letter indicates fixture type. Small letter indicates switching. Typical for all fixture types.)
- WALL FIXTURE
- EMERGENCY SURFACE MOUNT FLUORESCENT FIXTURE
- SURFACE MOUNT FLUORESCENT FIXTURE
- POLE LIGHT
- SINGLE POLE SWITCH (48" M.H.)
- DUPLEX CONVENIENCE RECEPTACLE (18" M.H.)
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE (18" M.H.)
- PAGING HORN
- MICROPHONE OUTLET (18" M.H.)
- AMP — AMPLIFIER
- JUNCTION BOX
- MOTOR
- DISCONNECT SWITCH
- MOTOR THERMAL SWITCH
- ELECTRIC MOTOR
- PANELBOARD OR LOAD CENTER
- PANELBOARD OR LOAD CENTER (EXISTING TO REMAIN)
- SPECIAL EQUIPMENT CABINET
- SPECIAL PURPOSE OUTLET OR CONNECTION
- PULL BOX
- T — THERMOSTAT
- ELEC. UNIT HEATER
- ELEC. CABINET HEATER
- TYPE OF EQUIP. / EQUIP. NO. — SEE SCHEDULES
- GROUND
- CONCEAL IN WALL OR CEILING SPACE. ARROWS INDICATE HOME RUNS TO PANEL. NUMBERS INDICATE PANEL AND CIRCUIT IN PANEL.

ELECTRICAL ABBREVIATIONS

A STANDARD LIST, NOT ALL WORDS APPEAR IN THESE DRAWINGS.
SEE SPECIFICATION SECTION "EQUIPMENT WIRING" FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

A or AMP	AMPERE	LT	LIGHT
A/E or AE	ARCHITECT & ENGINEER	LTG	LIGHTING
AC	ABOVE COUNTER	LTS	LIGHTS
AC	ALTERNATING CURRENT		
ADA	AMERICANS WITH DISABILITIES ACT	MC	MECHANICAL CONTRACTOR
AFF	ABOVE FINISH FLOOR	MCB	MAIN CIRCUIT BREAKER
AFG	ABOVE FINISH GRADE	MCM	THOUSAND CIRCULAR MILS
AHJ	AUTHORITY HAVING JURISDICTION	MECH	MECHANICAL
AIC	AMPERES INTERRUPTING CURRENT	MH	METAL HALIDE
AL	ALUMINUM	MLO	MAIN LUG ONLY
AWG	AMERICAN WIRE GAUGE	MTD	MOUNTED
		MTS	MOTOR THERMAL SWITCH
C or COND	CONDUIT		
C/B or CB	CIRCUIT BREAKER	NA or N/A	NOT APPLICABLE
CCT or CKT	CIRCUIT	NC	NORMALLY CLOSED
Cu or CU	COPPER	NEC	NATIONAL ELECTRICAL CODE
		NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
DC	DIRECT CURRENT		
DISC	DISCONNECT	NEU, NEUT or N	NEUTRAL
DWG	DRAWING	NF	NON-FUSED
		NO	NORMALLY OPEN
EC	ELECTRICAL CONTRACTOR		
EH	ELECTRICAL HEAT	P	POLE
ELEC	ELECTRIC OR ELECTRICAL	PA	PUBLIC ADDRESS
EMT	ELECTRICAL METALLIC TUBING	PH	PHASE
ENT	ELECTRICAL NON-METALLIC TUBING	PNL	PANEL
EX	EXISTING	PVC	POLYVINYL CHLORIDE
		PWR	POWER
F or FUS	FUSE OR FUSIBLE		
FL, FLU or FLUOR	FLUORESCENT	REC or RECEPT	RECEPTACLE
FLA	FULL LOAD AMPERES	RM	ROOM
FVNR	FULL VOLTAGE, NON-REVERSING		
FVR	FULL VOLTAGE, REVERSING	SN	SOLID NEUTRAL
		SP	SUMP PUMP
GC	GENERAL CONTRACTOR	SPECS	SPECIFICATIONS
GFI or GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SPKR	SPEAKER
GRC	GALVANIZED RIGID CONDUIT	SW	SWITCH
GND or GRND	GROUND		
		TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSION
HID	HIGH INTENSITY DISCHARGE	TYP	TYPICAL
HP	HORSE POWER		
HZ	HERTZ (CYCLES/SEC)	UG	UNDERGROUND
IMC	INTERMEDIATE METAL CONDUIT	V	VOLT
INC	INCANDESCENT	VFD	VARIABLE FREQUENCY DRIVE
J, JB or J-BOX	JUNCTION BOX	W	WATT OR WIRE
		W/	WITH
KCMIL	THOUSAND CIRCULAR MILS	W/O	WITHOUT
KV	KILOVOLT	WP	WEATHERPROOF
KVA	KILOVOLT – AMPERE		
KVAR	KILOVOLT – AMPERE REACTIVE	XFMR	TRANSFORMER
KW	KILOWATT		
KWH	KILOWATT – HOUR	Y	WYE CONNECTION
		Φ	PHASE
		Δ	DELTA

LIGHTING FIXTURE SCHEDULE

MARK	FIXTURE TYPE	FIXTURE DIFFUSER	VOLT.	LAMP # & WATTS	LAMP TYPE	MOUNTING TYPE	MOUNTING HT.	MANUFACTURER NAME	MANUFACTURER SERIES NO.	REMARKS
A	SURFACE WRAP	ACRYLIC PRISMATIC	120	2-F32W	T8 4100K	SURFACE	CEILING OR STRUCTURE	LITHONIA WILLIAMS METALUX	LB EQUAL EQUAL	ELECTRONIC BALLAST < 10% THD, SINGLE CIRCUIT, WHITE END PLATES
B	VAPORPROOF JELLY JAR	ACRYLIC PRISMATIC	120	1-100W	INCAND	WALL	CEILING OR STRUCTURE	APPLETON R-A-L STONCO	VXHAT0100G-A EQUAL EQUAL	WET RATED, WITH GUARD, STONE GRAY FINISH
C	WALL PACK	WHITE OPAL	120	1-50W	METAL HALIDE	WALL	8' AFF	LITHONIA DAROCO LSI	VRTC EQUAL EQUAL	HIGH POWER FACTOR BALLAST, INTEGRAL PHOTCELL, DARK BRONZE FINISH

ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR TRIM TYPES, COORDINATE WITH REFLECTED CEILING PLANS

SUMP PUMP SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	LOCATION	SERVES	GPM	HEAD FT. H2O	MOTOR HP	MOTOR VOLTAGE	MOTOR RPM	REMARKS
SP-1	WEIL 1307	SCALE PIT	SCALE PIT	50	10	3/4	115/1/60	1150	

NOTES:
1. SIMPLEX VERTICAL SUMP PUMP WITH FIBERGLASS BASIN.
2. PROVIDE CHECK VALVE ON PUMP DISCHARGE.
3. PROVIDE MECHANICAL LEVER CONTROL WEIL MODEL 8201K2012.
4. PROVIDE 36" DIA. / 48" DEEP FIBERGLASS BASIN – AK INDUSTRIES MODEL GB-30X048-100.
5. PROVIDE 36" DIA. WET WELL COVER WEIL 8805K2312.

ELECTRIC HEAT SCHEDULE

UNIT NO	MANUFACTURER'S DESIGNATION	CATALOG NUMBER	MOUNTING	ELECTRIC DATA KW	VOLT	PHASE	THERMOSTAT TYPE	REMARKS
EH-1	BERKO	SRA-1012A	WALL SURFACE	1	120	1	INTEGRAL	NOTE 1, 2
EH-2	CHROMALOX	HD3D-500	WALL 8' BELOW CEILING	5	240	1	INTEGRAL	NOTE 1, 3

NOTES:
1. CONTRACTOR RESPONSIBLE FOR TRIM TYPE AND HANGING ACCESSORIES AS REQUIRED.
2. PROVIDE 2 POLE POWER DISCONNECT SWITCH, BERKO SRA-DS.
3. PROVIDE 2 POLE POWER DISCONNECT SWITCH, CHROMALOX DS-50HD.

PANEL A**

VOLTS: 120/240 — PHASE: 1 — WIRE: 3 — MAIN CAP. 60 AMPERES
A/C RATING 20,000 — ENGRAVED NAMEPLATE, TYPED CIRCUIT DIRECTORY, GROUND BAR, NEMA 1 ENCLOSURE
MOUNTING: RECESSED — FEEDER SIZE: (3) #4AWG & (1) #8AWG GND IN A 1" C. — MAIN CONNECTIONS: 60A MCB

CCT NO	ITEM FED	LOAD WATTS	WIRE SIZE	CIRCUIT BREAKER AMPS	POLES	FRAME	NEUTRAL	CIRCUIT BREAKER FRAME	POLES	AMPS	WIRE SIZE	LOAD WATTS	ITEM FED	CCT NO
1	SCALE HOUSE REC	1,280	12	20	1		L1		1	20	12	1,000	EH-1	2
3	PIT LTG & REC	280	12	20	1		L2		2	30	10	2,500	EH-2	4
5	SCALE HOUSE LTG	150	12	20	1		L1	–	–		10	2,500	–	6
7	INDICATORS	500	12	20	1		L2		1	30	10	1,650	SP-1*	8
9	SPARE			20	1		L1		1	20			SPARE	10
11	SPARE			20	1		L2		1	20			SPARE	12
13	SPACE ONLY						L2		1	20			SPARE	14
15	SPACE ONLY						L1						SPACE ONLY	16
17	SPACE ONLY						L2						SPACE ONLY	18
19	SPACE ONLY						L2						SPACE ONLY	20
21	SPACE ONLY						L1						SPACE ONLY	22
23	SPACE ONLY						L2						SPACE ONLY	24

* PROVIDE GFI BREAKER
** PROVIDE ENGRAVED LABEL INDICATING PANEL NAME AND LOCATION FED FROM

APPROXIMATE CONNECTED LOAD
L1 4,910 WATTS
L2 4,930 WATTS

STARTER AND DISCONNECT SCHEDULE

UNIT NO	MOTOR HP OR WATTS	MOTOR VOLT PHASE	STARTER TYPE	STARTER NEMA SIZE	STARTER ENCLOSURE TYPE	STARTER KEY FEATURES	CONTROL	DISCONNECT SWITCH SIZE	DISCONNECT FUSE SIZE	REMARKS
SERVICE	–	240/1	–	–	–	–	–	60A/2P/F/NEMA 3R	60A	NOTE 1
SP-1	3/4HP	120/1	MTS	–	–	–	FLOAT SWITCH	MTS	–	

NOTES:
1. SERVICE ENTRANCE RATED DISCONNECT.

KEY:
B= HAND-OFF-AUTO SELECTOR SWITCH
FT = CONTROL XFMR, FUSED
FVNR= FULL VOLTAGE NON REVERSING
NF= NON-FUSED
T-STAT= THERMOSTAT
G= GREEN "OFF" PILOT LIGHT
SPC= SINGLE POINT CONNECTION
FVR= FULL VOLTAGE REVERSING
MC= MECHANICAL CONTRACTOR
A-STAT= AQUASTAT
R= RED "ON" PILOT LIGHT
MTS= MOTOR THERMAL SWITCH
RVS= REDUCED VOLTAGE START

COORDINATE EXACT REQUIREMENTS WITH MECHANICAL SHOP DRAWINGS PRIOR TO ORDERING EQUIPMENT OR RUNNING FEEDERS
PROVIDE ALL STARTERS WITH 2 N.O & 2 N.C. AUXILIARY INTERLOCKING RELAYS

GENERAL ELECTRICAL PROJECT NOTES

A. DRAWINGS AND MEASUREMENTS: The drawings are not intended to be scaled for roughing-in measurements nor to serve as shop drawings. The Contractor shall consult existing conditions and equipment drawings for dimensions, obstructions and locations of equipment. Panels, cabinets, and special equipment are shown on the drawings only in a schematic manner and not necessarily in their specific location.

B. ORDINANCES AND CODES: All work shall be executed in accordance with the current edition of the City Electrical Ordinances, OSHA, State Electrical Laws and Statutes and National Electrical Code (NEC) and be subject to the inspection of these departments. All fees, permits, licenses, etc., necessary in order to complete the work of this section shall be paid by this Contractor.

C. WORKMANSHIP: The installation work included in this specification shall be performed in a neat workmanlike manner by men experienced and skilled in the Electrical trade. Only the best quality workmanship will be accepted. All exposed parts of the electrical wiring systems such as exposed conduits, flush plates, cabinet trim, fixtures, etc. (including those above accessible ceilings), shall be square and true with the building construction.

D. GUARANTEE: This Contractor shall assume responsibility for any defects which may develop in any part of his work caused by faulty workmanship, material or equipment, and egress to replace, repair, or alter, at his expense, any such faulty workmanship, material or equipment that has been brought to his attention during a period of one year from the date of the final certificate for payment. Acceptance of the work shall not waive this guarantee.

E. QUALITY ASSURANCE: All materials and equipment shall be new and of best quality, of the type best suited for the purpose intended, and be made by nationally recognized and substantially established manufacturers. All electrical materials used in this work shall be listed by the Underwriters Laboratories, Inc., where testing is provided and shall bear their label. Contractor shall provide shop drawings submittals to the Engineer for review. The following equipment shall be submitted: all electrical gear including panels, switches, and disconnects; wiring devices; light fixtures; and electric heaters. Submittals shall include Contractor and Suppliers' names and telephone numbers, complete data sheets on each piece of equipment which include indication of which model(s) will be provided, including all options and finishes, etc. Contractor shall not order equipment prior to the approval of all shop drawing submittals.

F. EQUIPMENT IDENTIFICATION AND CLEANUP: All electrical equipment shall be provided with engraved type identification indicating its use or function. Equipment to be identified shall include panelboards, special panels, motor starters, special control switches, special receptacles, junction boxes and empty conduits provided for future use. Permanently mark on junction box covers (inside of cover where located in finished areas) voltage and circuit number associated with that box. All electrical equipment must be kept completely protected from weather elements, painting, etc. until the building is substantially completed. Damage from rust, paint, scratches, etc., shall be corrected as directed by the A/E.

G. RACEWAY: All wiring shall be installed in raceway: rigid metal conduit, intermediate metal conduit, electrical metallic tubing, flexible metal conduit, or PVC. Heavy wall, galvanized steel, or intermediate steel conduit shall be used in all runs where required for mechanical protection. EMT may be used in furred ceiling areas, interior partitions, and surface mounted in equipment rooms. EMT shall not be used in slab on grade or where exposed to moisture or earth. PVC may be used in slab on grade or where exposed to moisture or earth. All underground conduit within 5' of foundation walls (either side) shall be PVC-coated rigid steel. All sweeps of PVC conduit shall be rigid steel. Where rigid steel conduit or sweeps are in contact with the earth, conduit shall be coated with two layers of tar, or PVC-coated rigid steel shall be used. All exterior conduit exposed above ground shall be rigid steel or intermediate conduit.

H. RACEWAY FITTINGS: On all conduit systems the connector fitting shall be of the insulated throat type. Where rigid conduit is connected to a threadless box, double locknut method shall be used. All conduit fittings shall be of steel construction. Malleable iron fittings shall not be used on any conduits. Indenter fittings shall not be used for EMT. Set screw fittings may be used for EMT in dry locations.

I. RACEWAY INSTALLATIONS: Conduits shall be sized as noted or as required by NEC for number and size of conductors installed except that 3/4 inch shall be minimum size for branch circuit homeruns. All conduit and raceways shall be securely positioned by galvanized steel straps, clamps, and hangers with suitable fastenings. Caddy fasteners as manufactured by Erico Products are acceptable support devices where applied according to manufacturer's recommendations. Exposed conduits shall be run parallel to and at right angles to construction lines and neatly grouped and supported with approved conduit hangers or channel supports. Underground conduits shall be run point-to-point.

J. WIRE AND CABLE: All wire and cable for feeder and branch circuits shall conform to the requirements of the current edition of the NEC and shall meet all relevant ASTM Specifications. Conductors shall be 600 volt rated, coated soft-drawn copper and unsoft-drawn copper and unless otherwise noted, shall have type THWN or THWN/THHN insulation. Aluminum conductors shall not be used. All branch circuits and feeders shall be provided with an equipment grounding conductor; in general, these conductors are not shown. Contractor shall increase conduit size as required to meet NEC conduit fill requirements.

K. CONNECTIONS TO SPECIAL EQUIPMENT: Special equipment is hereby defined as all equipment that is not specified under this contract, but requires connections by this Contractor, as indicated on the drawings. Such connections shall be performed by this Contractor. This Contractor shall verify the locations of such connection by securing from the equipment supplier's templates, detail drawings and roughing in measurements. Unless otherwise specified, the Contractor responsible for furnishing such equipment is also responsible for setting the equipment in place.

L. PULL BOXES AND JUNCTION BOXES: Pull boxes and junction boxes are generally not indicated on drawings except for special requirements. This Contractor shall install pull boxes or junction boxes as required to facilitate wire pulling. Pull boxes and junction boxes shall be galvanized code gauge steel with removable or hinged covers and shall be sized as required. Pull boxes and junction boxes shall be installed in accessible locations and shall not be installed in finished spaces.

M. OUTLET BOXES: Outlet boxes shall be at least 1-1/2 inches deep, or gang style type of size to accommodate devices noted. Outlet boxes on exposed conduit runs in unfinished areas and equipment rooms shall be 4 inch square. All outlet boxes shall be concealed except where shown or noted otherwise. This Contractor shall verify type and depth of finished surface so that outlet will be flush. In exterior locations, cast aluminum type FS or FD boxes shall be used.

N. LOADCENTERS: Shall be rated for 120/240 volts, single phase, dead front construction. Circuit breakers shall be bolt-on thermal magnetic type, quick-make, quick-break, A.C. rated with a trip indication different from the on or off position. Multi-pole breakers shall be common trip without relying on handle ties. Panels shall be similar to Square D, Type QO, or equal by General Electric, ITE-Siemens, or Cutler-Hammer. All panels shall have a minimum interrupt rating of 20,000A or as indicated in the panel schedules. Refer to panel schedules for additional requirements.

O. SAFETY SWITCHES: Shall be heavy duty 250 volt, quick-make, quick-break operation, horsepower rated, service entrance rated where required, NEMA-1 enclosure (unless otherwise noted), fused unless noted non-fused, and of the size shown on the drawings or as required by code. Safety switches shall be of the same manufacturer as panelboards and where shown as weatherproof shall have a NEMA 3R enclosure.

P. FUSES: All motors shall be protected by dual-element fuses able to carry 500% of rating for a minimum of 10 seconds, and sized at 125% of the actual name plate ampere rating. Fuses shall be Bussmann-Fuzetron, FRN (250V), or equal.

Q. WIRING DEVICES: Switch outlet – 20A, 120V, White, Hubbell #1221 Series or equivalent. Receptacle outlet – 20A, 120V, 2 wire grounding, White, Hubbell #CR5362 Series or equivalent. Ground Fault Receptacle outlet – 20A, 120V, 2 wire grounding, White, Hubbell #GF5362 or equivalent. Outlet plates – finished areas shall have white coverplates. Weatherproof covers for receptacles shall be in-use type, horizontal cast aluminum, Hubbell #WP26MH or equivalent. Weatherproof covers for switches shall be cast aluminum, Hubbell #WH17420 or equivalent.

R. MOTOR AND EQUIPMENT WIRING: The Electrical Contractor shall furnish and install all motor starters except in package or pre-wired units as shown on drawings. All motors will be furnished and installed by Electrical Contractor. Single phase fractional horsepower motors shall have manual thermal element starters. It shall be the Electrical Contractor's responsibility to see that all motors have the proper thermal overload protection. All starters for single-phase motors not requiring overload protection shall be Sierra Series No. 501H. All starters requiring overload protection shall be Square D, Class 2510, or equal, NEMA 1 or 3R if installed on the exterior of the building.

S. LIGHTING FIXTURES: Provide lighting fixtures, ballasts, and lamps as scheduled on the drawings. Lamps shall be GE, Sylvania, Philips, or Westinghouse.

T. VOICE/DATA SYSTEM:

At this time, no voice/data outlets will be installed in this building. Provide a Service Entrance Pathway as described below for future service.

Voice/Data Service Entrance Pathway: Provide a 2" conduit from junction box, next to Panel A, to 5' outside foundation wall. Cap conduit and mark on As-Builts. Provide a #3 rebar, stake flush to ground at conduit termination for future locate.

Wyo. Proj. I801174
Sheet B1 of B8 Sheets

SINGLE BARREL 12'-0" X 12'-0" CONCRETE BOX CULVERT EXTENSION

CHAIN-UP AREAS

EVANSTON - GREEN RIVER

I801174

UINTA COUNTY

Professional Engineer
JEFFREY R. BOOHER
16530
10/25/2011
WYOMING

DESIGN DATA

SPECIFICATIONS: AASHTO LRFD Bridge Design Specifications, 4th Edition with 2008 Interims

ADT: 9407 (Year 2029)

LOADING:
- Live Load: HL93
  - Lateral live load surcharge: 4 ft of earth or 144 psf
- Dead Load: Design fill: 3.7 ft
  - (1) Vertical earth pressure: 120 pcf
    Lateral earth pressure: 36 pcf
  - (2) Vertical earth pressure: 120 pcf
    Lateral earth pressure: 72 pcf

REINFORCED CONCRETE: Load and Resistance Factor Design –
- Class B Concrete f'_c = 3250 psi
- Reinforcing Steel f_y = 60,000 psi (Grade 60)
  f_y = 40,000 psi (Grade 40)

APPROACH ROADWAY WIDTH: 38'-0"

ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL QUANTITY	ESTIMATE
202.03460	REMOVAL OF CONCRETE	LS	LUMP SUM	93 CY
206.03300	CULVERT SUBEXCAVATION	CY	100	
212.03900	PERVIOUS BACKFILL MATERIAL	CY	30	
217.01069	BIAXIAL GEOGRID (STIFF)	SY	296	
301.01080	CRUSHED BASE	TON	190	
513.00015	CLASS B CONCRETE	LS	LUMP SUM	178.2 CY
514.00015	REINFORCING STEEL	LS	LUMP SUM	24160 LB
900.60000	CONTRACTOR QUALITY CONTROL (CONCRETE)	LS	LUMP SUM	

STRUCTURE NO. IYE
ML80, RM 8.31

WYOMING DEPARTMENT OF TRANSPORTATION
BRIDGE PROGRAM
REVISIONS

APPROVED
DATE 10.25.2011
DESIGN — ✓ —
DETAIL DER ✓ BC
QA's — ✓ —

Design Section J R Booher
Drwg. No. 7472 | Sheet 1 of 6

I801174_1ts.dgn

GENERAL NOTES

SPECIFICATIONS: WYDOT Standard Specifications for Road and Bridge Construction, 2010 Edition

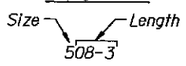
DIMENSIONS: Longitudinal dimensions are along flow line. Slopes are vertical : horizontal.

LINE STYLE DESIGNATION: Phantom lines indicate existing structure, solid lines indicate new construction, hatched areas indicate removal.

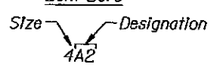
REINFORCING STEEL: Concrete cover to face of reinforcing steel is 2" unless noted. Dimensions for bent bars are out to out.

BAR MARKS

Straight Bars



Bent Bars



CULVERT EXCAVATION: The estimated quantity of culvert excavation is 50 CY and is incidental to the contract pay item Class B Concrete.

CULVERT SUBEXCAVATION: The bottom limits of culvert subexcavation is 2'-0" below the bottom of the culvert. Line the bottom of the culvert subexcavation with biaxial geogrid (stiff). Backfill with 1'-0" crushed base. Place a second layer of biaxial geogrid (stiff) and backfill to bottom of the bottom slab with crushed base. The estimated quantity of culvert subexcavation is calculated in accordance with Standard Plan 206-1A, Culvert and Trench Excavation.

REMOVAL OF CONCRETE: Remove the existing wingwalls. Cut reinforcing steel flush with concrete remaining in place. Paint exposed reinforcing steel in the existing culvert with two coats of zinc rich paint conforming to the requirements of ASTM A 780.

ADHESIVE ANCHORAGE SYSTEM: Use one of the following anchorage systems:
Epoxy Anchoring Systems as manufactured by Covert Operations
Epcon System as manufactured by ITW Ramset/Red Head
Sure Anchor I (J-51) as manufactured by Dayton Superior
HIT-RE 500 System as manufactured by Hilti, Inc.
Drill and prepare holes for the anchorage system as recommended by the manufacturer. Install in accordance with the manufacturer's recommendations to provide pullout strength of equal or greater capacity to the corresponding reinforcing steel. Work necessary for the adhesive anchorage system is incidental to the contract pay item Class B Concrete.

EPOXY RESIN BONDING COMPOUND: Clean the exposed ends of the existing culvert and coat with epoxy resin bonding compound. Place new concrete immediately after applying the bonding compound. If the bonding compound gels before concrete placement, remove by sandblasting and reapply. Use bonding compound conforming to Subsection 810.6, Epoxy Resin. Mix and apply in accordance with the manufacturer's recommendations. Work necessary for the epoxy resin bonding compound is incidental to the contract pay item Class B Concrete.

EYEBOLTS: Use galvanized bar conforming to ASTM A 709 (Grade 36). Work necessary for the eyebolts is incidental to the contract pay item Class B Concrete.

WEEP HOLE ASSEMBLIES: Work necessary for the weep hole assemblies is incidental to the contract pay item Class B Concrete.

REFERENCES

WYDOT Plans:

	Sheet No.
Bridge Drwg No. 6061	2 and 3 of 3

Standard Plans:
206-1A Culvert and Trench Excavation

Supplementary Specifications:

		Dated
SS-100K	Adjustment for Structural Steel	10-1-10
SS-200B	Biaxial Geogrid (Stiff)	10-1-10
SS-500G	Structural Concrete with Quality Control and Quality Acceptance	10-1-10

WYOMING DEPARTMENT OF TRANSPORTATION
BRIDGE PROGRAM

REVISIONS

GENERAL NOTES

SINGLE BARREL 12'-0" X 12'-0"
CONCRETE BOX CULVERT EXTENSION
Chain-Up Areas
Evanston - Green River

I801174 UI

APPROVED Keith R Fisher
DATE 10-25-2011

DESIGN — ✓ —
DETAIL DER ✓ BC
O'S. — ✓ —

Design Section J R Booher
Drwg. No. 7472 | Sheet 2 of 6

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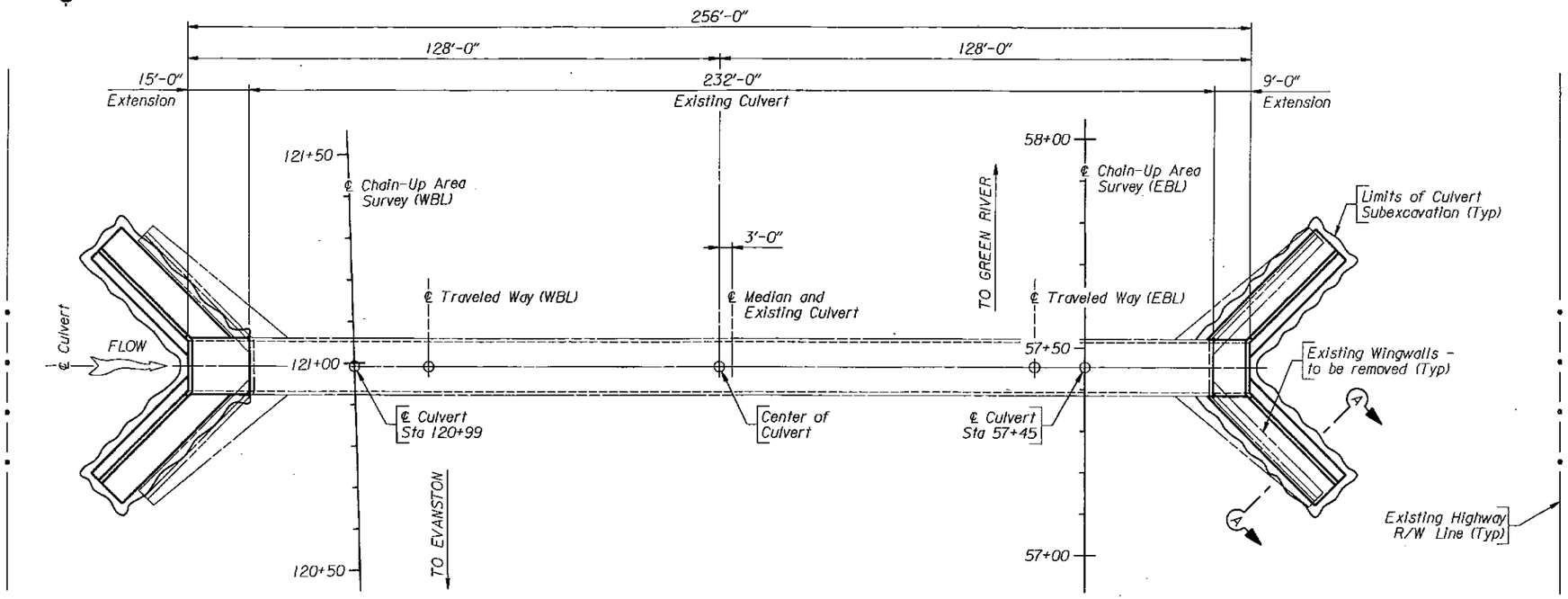
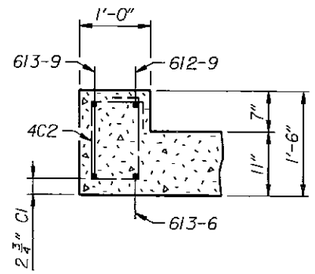
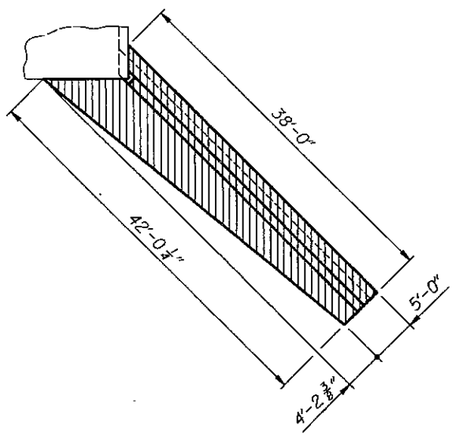


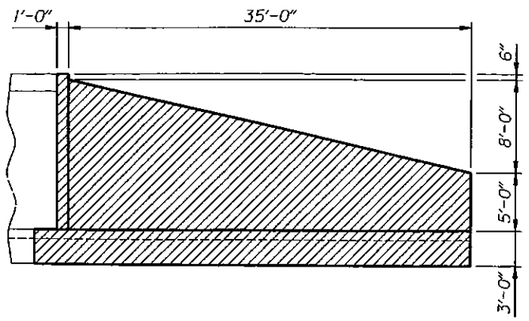
LOCATION PLAN



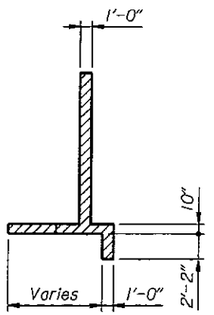
PARAPET DETAIL



PLAN

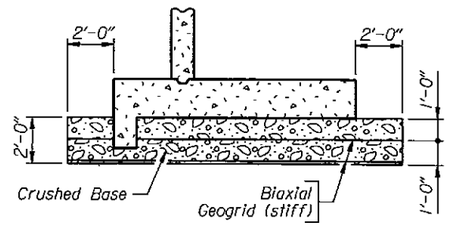


ELEVATION



SECTION

WINGWALL REMOVAL DETAILS



SECTION A-A

Note: After removing wingwalls, paint exposed reinforcing steel in the existing culvert with two coats of zinc rich paint conforming to the requirements of ASTM A 780.

WYOMING DEPARTMENT OF TRANSPORTATION
BRIDGE PROGRAM

REVISIONS

CULVERT DETAILS

SINGLE BARREL 12'-0" X 12'-0"
CONCRETE BOX CULVERT EXTENSION
Chain-Up Areas
Evanston - Green River

I801174 UI

APPROVED Reid P. Allen
DATE 10-25-2011

DESIGN	JWR	BC	Design Section J R Booher
DETAIL	DER	BC	
QA'S	DER	BC	Drwg. No. 7472 Sheet 3 of 6

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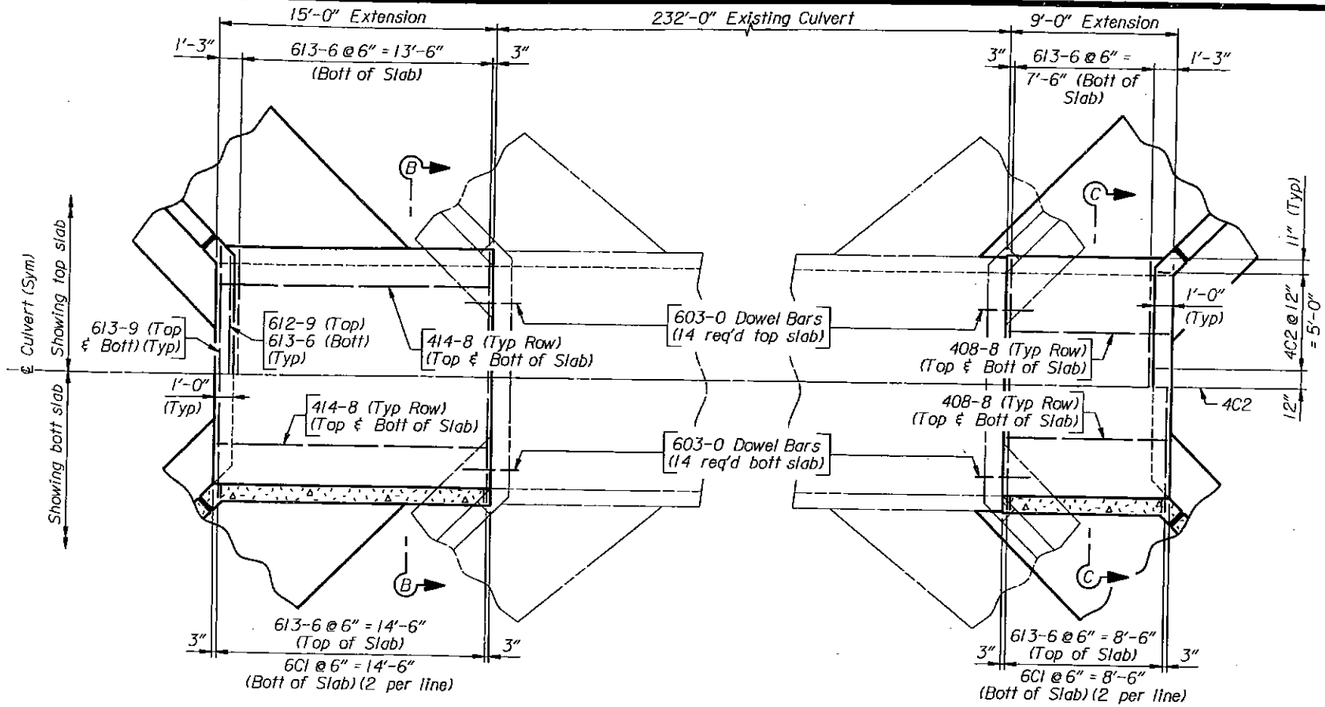
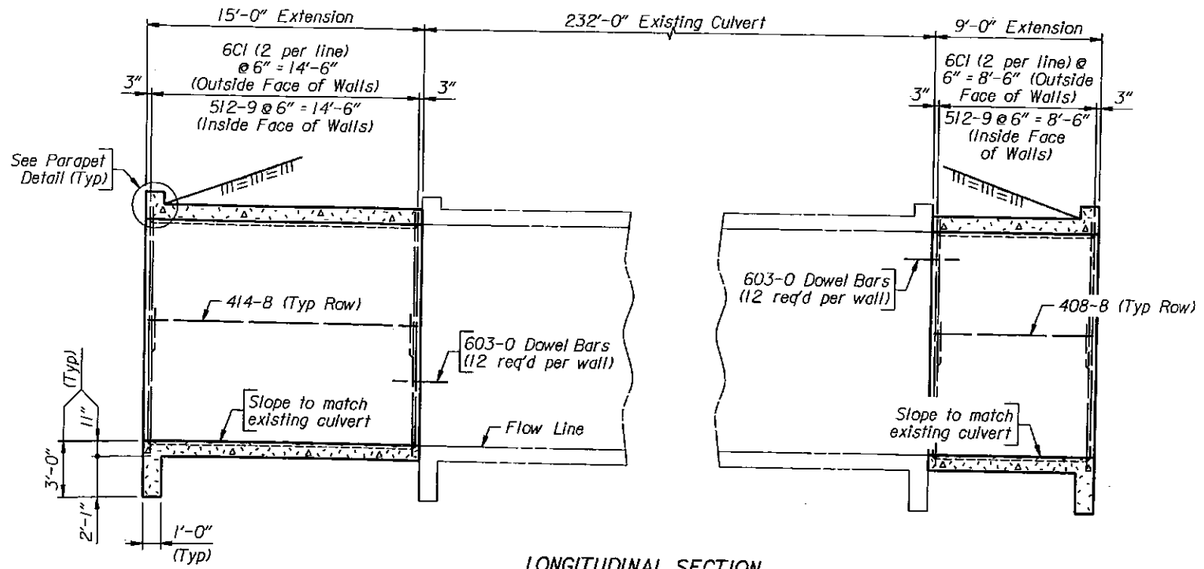


PLAN



LONGITUDINAL SECTION
(Showing reinforcing steel placed in walls)

Wyo. Proj. I80II74
Sheet B4 of B8 Sheets

BILL OF REINFORCEMENT

Location	Mark	Number Required	Bending Diagrams
Bottom Slabs & Footings	408-8	30	7'-10" 7'-10" 6CI (15'-8")
	414-8	30	
	437-10	44	
	6CI	96	
	6C3	240	
	603-0	28	
	613-6	48	
	710-2	294	
	Weight	13481 LB	
Walls	408-8	48	1'-1½" 8" 4C2 (Tie) (4'-4")
	414-8	48	
	512-9	96	
	6CI	96	
	603-0	48	
	613-4	4	
	Weight	4581 LB	
Top Slabs & Parapets	4C2	26	3'-7" 3'-2" 6C3 (6'-9")
	408-8	30	
	414-8	30	
	603-0	28	
	612-9	2	
	613-6	46	
	613-9	4	Set Diagrams
	Weight	1723 LB	
Wingwalls	405-0	4	12'-9" 59 Bars Cut Line 5'-10" Set Bars (No. 6 Bars) (Avg length = 9'-3½")
	409-3	4	
	413-5	4	
	417-8	4	
	421-10	4	
	426-1	4	
	429-1	24	
	629-11	8	
	Set Bars	4	
	Weight	4369 LB	

Note: 1) Center 603-0 dowel bars in existing slabs and walls, embed 1'-6" into existing culvert, and set with an adhesive anchorage system.
2) For Sections B-B and C-C, see Sheet No. 6.
3) For Parapet Detail, see Sheet No. 3.

WYOMING DEPARTMENT OF TRANSPORTATION
BRIDGE PROGRAM

REVISIONS

CULVERT DETAILS

SINGLE BARREL 12'-0" X 12'-0"
CONCRETE BOX CULVERT EXTENSION
Chain-Up Areas
Evanston - Green River

I80II74 UI

APPROVED
DATE 10-25-2011

DESIGN	JWR	BC	Design Section J R Booher
DETAIL	DER	BC	
QTS.	DER	BC	Drwg. No. 7472 Sheet 4 of 6

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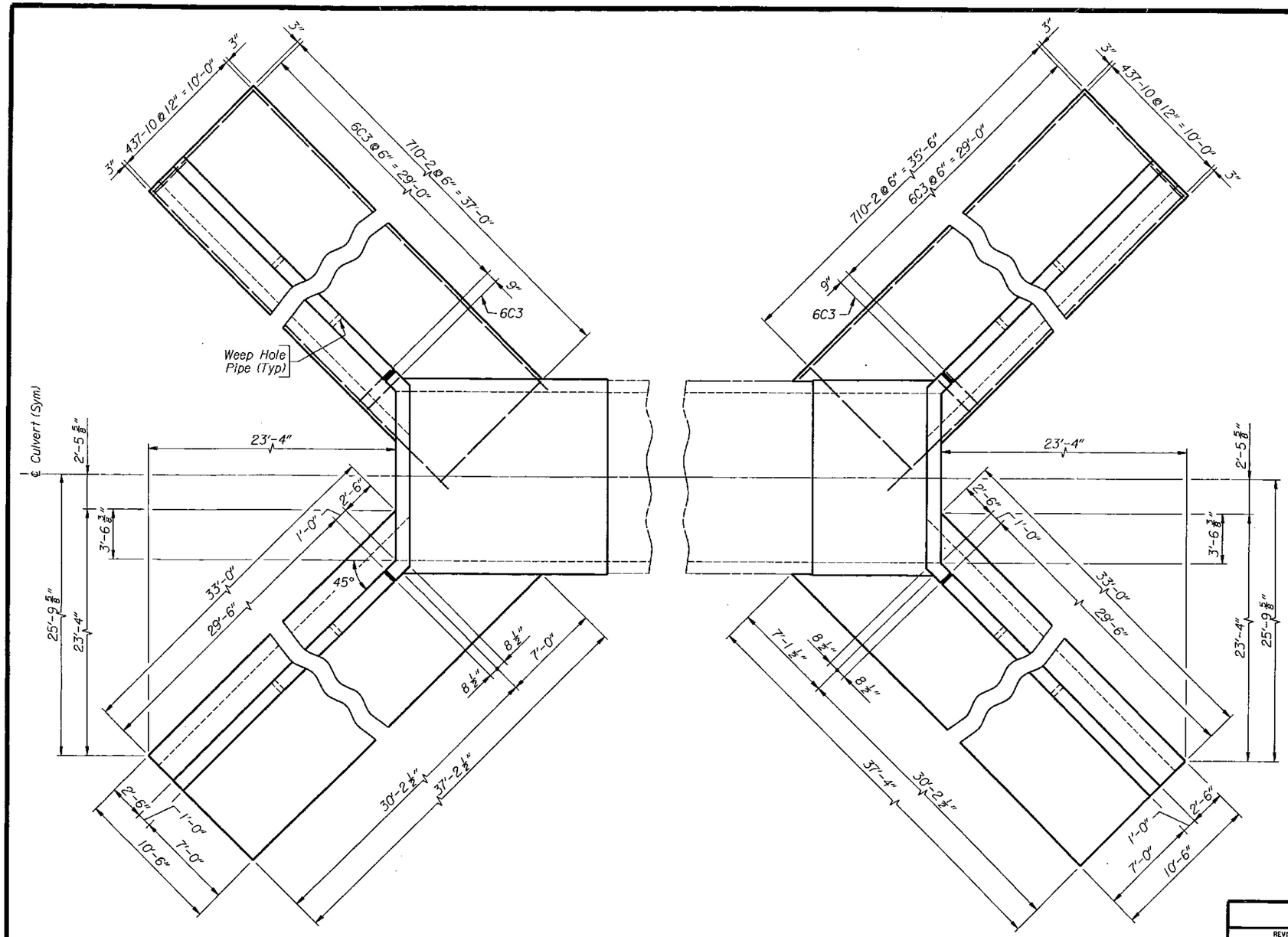
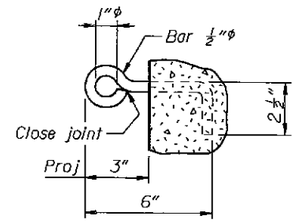
Wyo. Proj. I801174

Sheet B5 of B8 Sheets

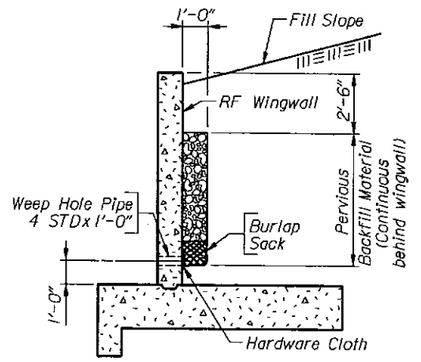


WINGWALL PLAN



EYEBOLT DETAIL

(16 req'd for securing fence)



WEEP HOLE ASSEMBLY DETAIL

Note: 1) Field cut 437-10 Bars to maintain 2" clearance from existing culvert at outlet end.
2) Each weep hole assembly consists of a pipe 4 STD through the wingwall, one 6" x 6" piece of aluminum or galvanized steel wire 4 mesh hardware cloth (Minimum wire diameter 0.03") centered over pipe end and firmly anchored to rear face of wingwall, and one cubic foot of coarse aggregate in a securely tied burlap sack.

WYOMING DEPARTMENT OF TRANSPORTATION
BRIDGE PROGRAM

REVISIONS

CULVERT DETAILS

SINGLE BARREL 12'-0" X 12'-0"
CONCRETE BOX CULVERT EXTENSION
Chain-Up Areas
Evanston - Green River

I801174 UI

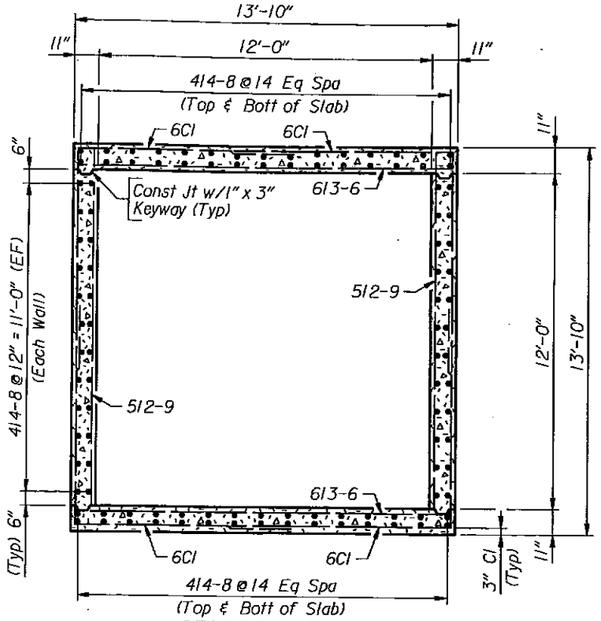
APPROVED
DATE 10-25-2011

DESIGN JWR ✓ BC
DETAIL DER ✓ BC
QS. DER ✓ BC

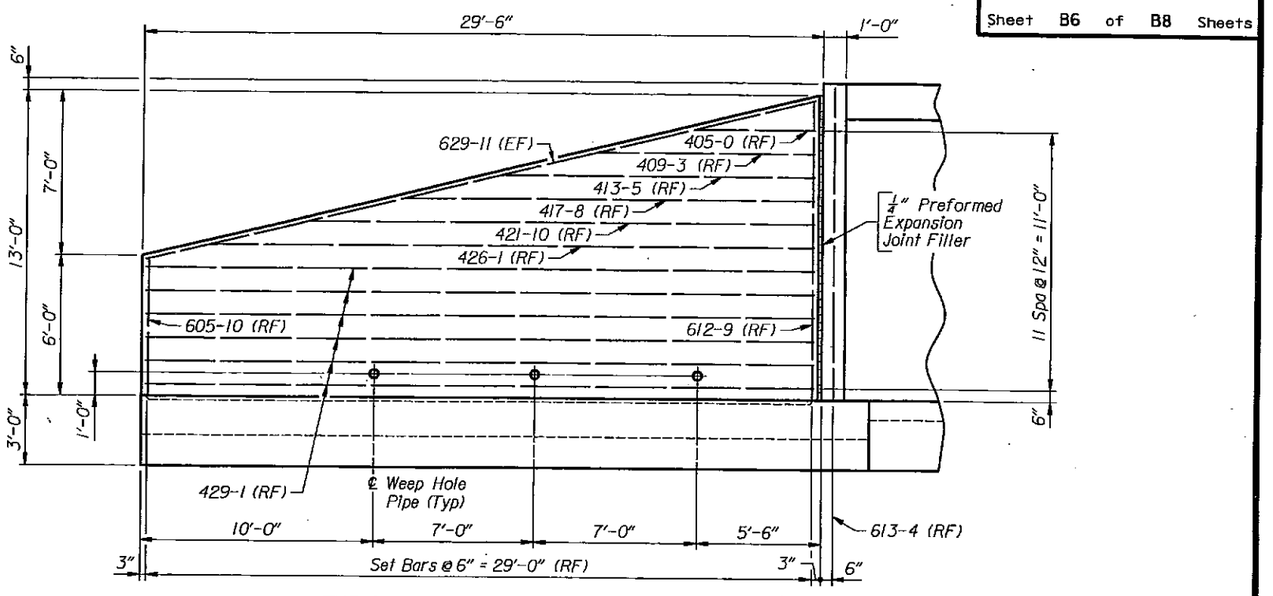
Design Section J R Booher

Drwg. No. 7472 | Sheet 5 of 6

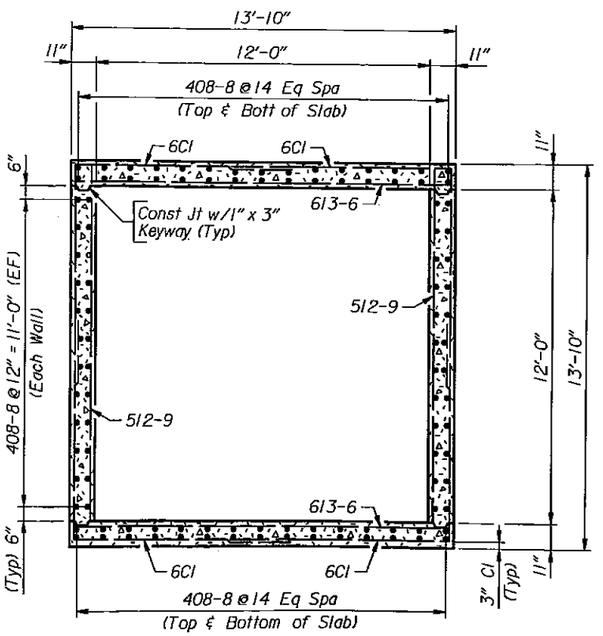
I801174_1cu3.dgn



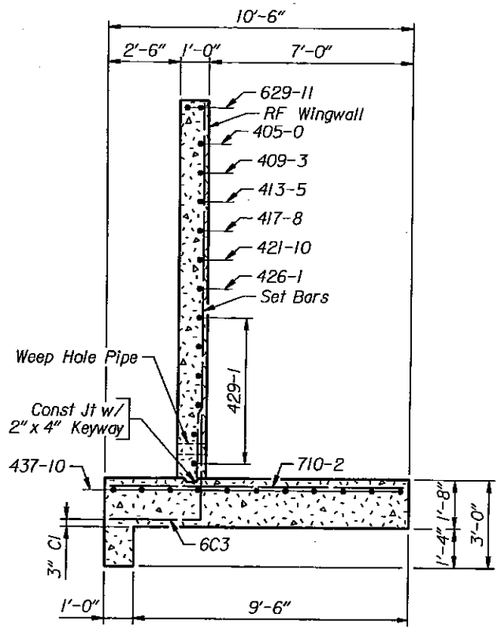
SECTION B-B



TYPICAL WINGWALL ELEVATION



SECTION C-C



TYPICAL WINGWALL SECTION

Note: 1) For location of Sections B-B and C-C, see Sheet No. 4.
2) Place short leg of 6C3 bars in footing.
3) Place Set Bars and 613-4 bars with 6C3 bars.

WYOMING DEPARTMENT OF TRANSPORTATION
BRIDGE PROGRAM

REVISIONS

CULVERT DETAILS

SINGLE BARREL 12'-0" X 12'-0"
CONCRETE BOX CULVERT EXTENSION
Chain-Up Areas
Evanston - Green River

I801174 UI

APPROVED Kid R Booher
DATE 10-25-2011

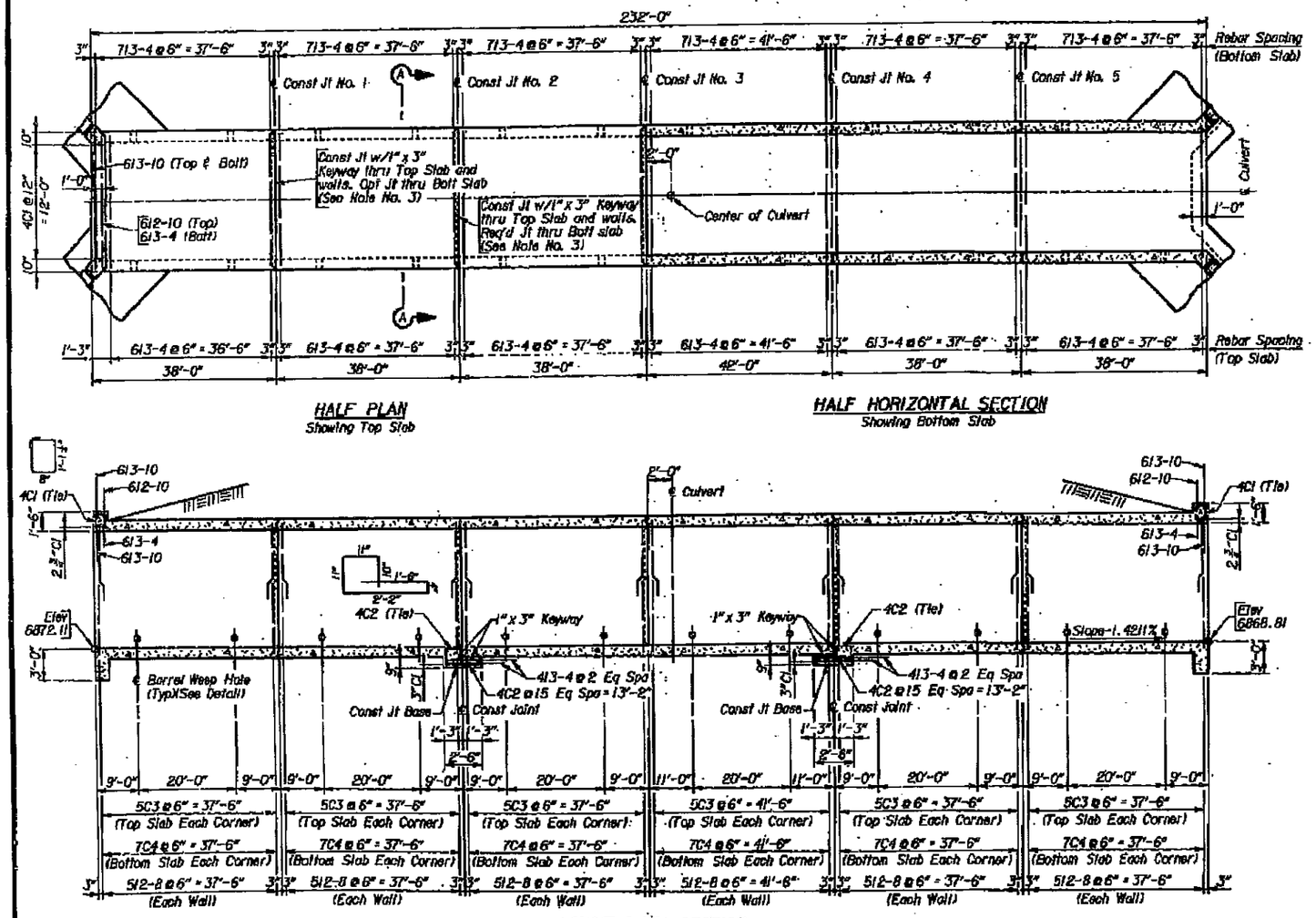
DESIGN	JWR ✓	BC	Design Section J R Booher
DETAIL	DER ✓	BC	
O'S.	DER ✓	BC	Drwg. No. 7472 Sheet 6 of 6

I801174_1cu4.dgn

FOR REFERENCE ONLY

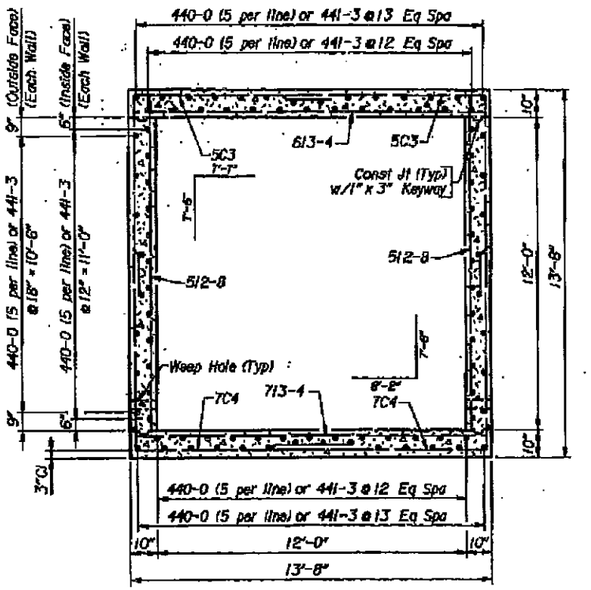
Wyo. Proj. 180174
Sheet B7 of B8 Sheets

Wyo. Proj. ~~80-1(13717~~
Sheet ~~82~~ of ~~85 sheets~~



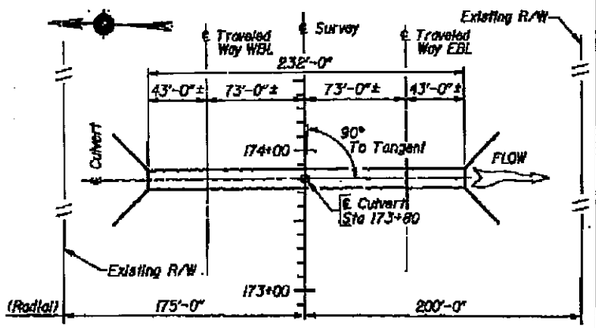
HALF PLAN
Showing Top Slab

HALF HORIZONTAL SECTION
Showing Bottom Slab

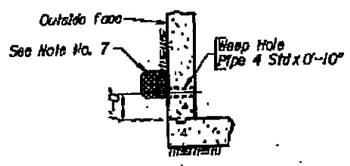


SECTION A-A

LONGITUDINAL SECTION



LOCATION PLAN



BARREL WEEP HOLE DETAIL

Note:
1) The estimated quantity of Class B Concrete is 462.4 Cy.
2) The reinforcing steel fabricator shall prefix all bar marks this station with numeral 1.
3) Construction joints in top slab and walls are required at all 5 locations. Construction joints in bottom slab are required at locations 2 and 4 and are optional at locations 1, 3 and 5. If the contractor elects to use the optional construction joints, the dimensions and reinforcing steel shall be identical to the required joints.
4) Place short end of 5C3 and 7C4 bars in culvert walls.
5) Lap 440-0 bars with 440-0 bars or 441-3 bars 1'-11" (min).
6) Spacing of vertical reinforcing steel in walls may be adjusted at location of weep holes.
7) Cover all of coarse aggregate in a burlap sack, securely tied. 6mil aluminum or galvanized steel wire 4 mesh hardware cloth anchored firmly to outside face. (Min wire diameter 0.03")

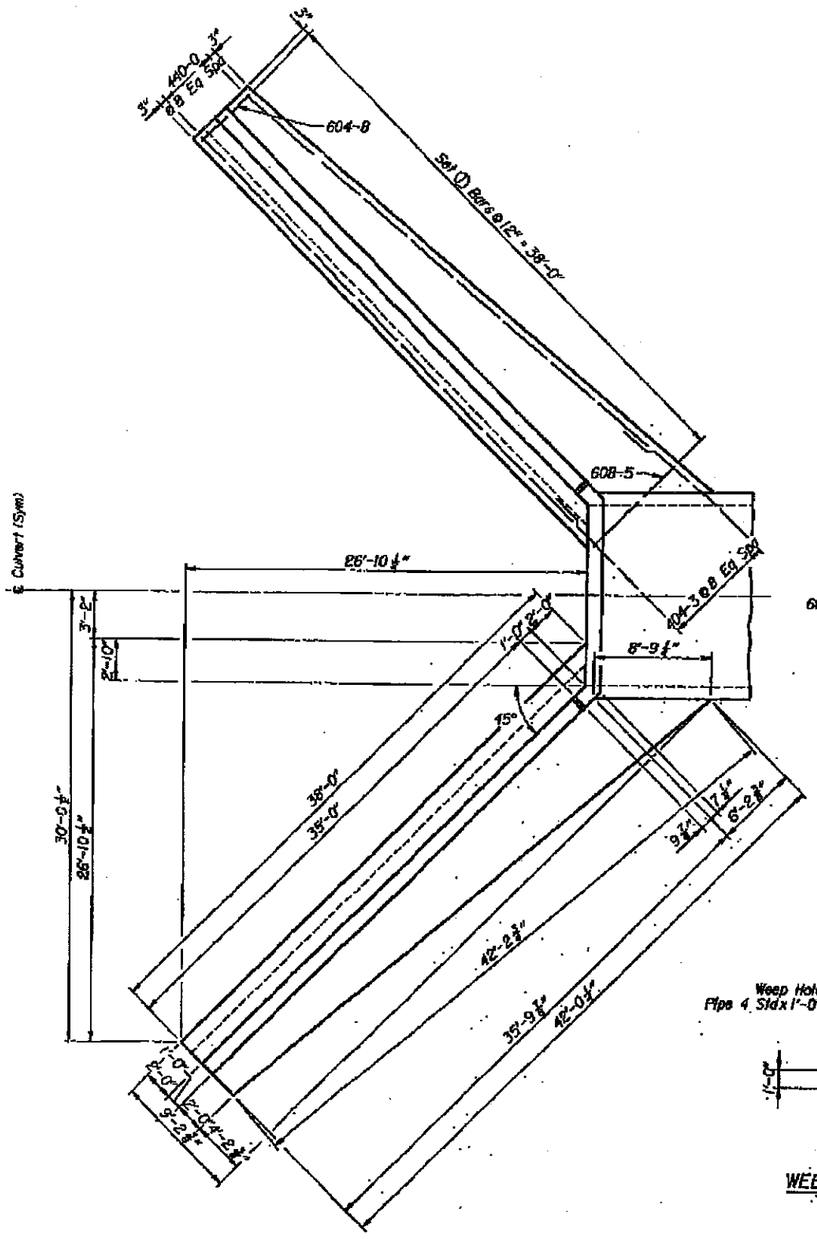
WYOMING DEPARTMENT OF TRANSPORTATION
BRIDGE SECTION

REVISIONS	CULVERT DETAILS
Box culvert lengthened 41', reinforcing steel adjusted accordingly. Quantity of Class B Concrete in Note No.1 increased. 2-18-92 rco	SINGLE BARREL 12'-0" x 12'-0" RC BOX CULVERT STA 173+80 Evanston - Granger Jct Road 80-1(13717 WI
DESIGN JCL / RVG DETAIL KCD / JCL CHK. RVG / GCF	Design Section J. L. Ellerman Drwg. No. 6061 Sheet 2 of 3
DATE	

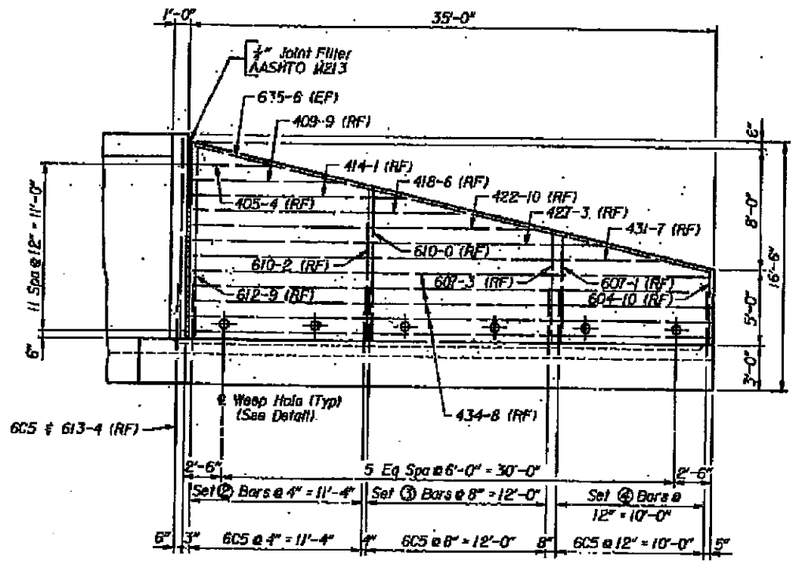
FOR REFERENCE ONLY

Wyo. Proj. 1801174
Sheet B8 of B8 Sheets

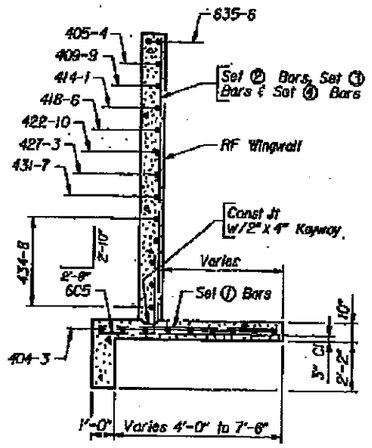
~~Wyo. Proj. 80-1113717~~
~~Sheet B3 of B22 Sheets~~



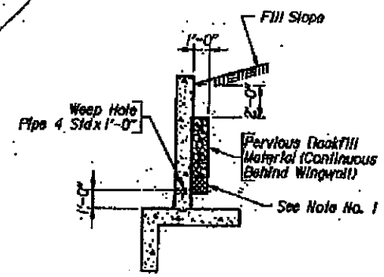
WINGWALL PLAN



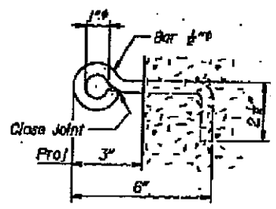
TYPICAL WINGWALL ELEVATION



TYPICAL WINGWALL SECTION



WEEP HOLE DETAIL



EYEBOLT DETAIL
(16 Req'd for securing fence)

Note: 1) One cu ft of coarse aggregate in a burlap sack, securely tied. 6"x aluminum or galvanized steel wire 4 mesh hardware cloth anchored firmly to rear face. (Min wire diameter 0.03")
2) Lap 404-3 bars with 440-0 bars 1'-5" min.
3) The reinforcing steel fabricator shall prefix all bar marks this station with numeral 1.
4) Spacing of vertical reinforcing steel in wingwall may be adjusted at location of weep holes.

WYOMING DEPARTMENT OF TRANSPORTATION

CULVERT DETAILS
SINGLE BARREL 12'-0" x 12'-0"
RC BOX CULVERT
STA 173+80
Evanston - Granger Jct Road
80-1113717

Designed	JOL	RVG	Design Section: J.L. Ellerman
Detailed	KMH	JOL	
Checked	RVG	GCF	Proj. No. 6061 Sheet 3 of 3
Date	9-24-97		