

CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

OGDEN CITY OGDEN AIRPORT WELL PROJECT

Volume 2 of 2
Drawings



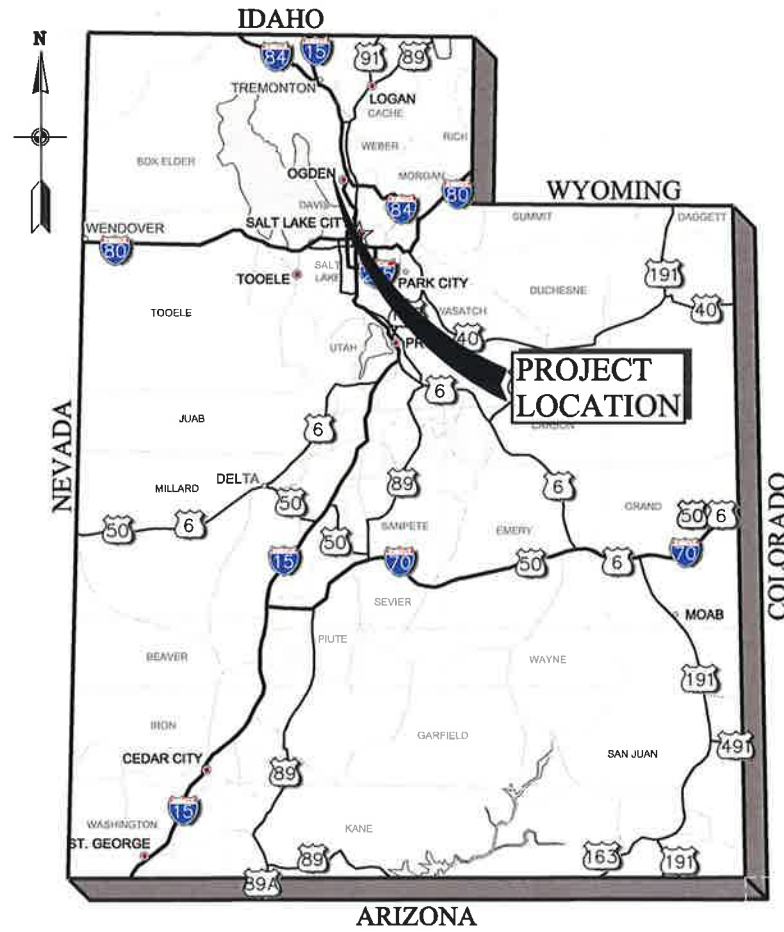
Ogden City

For Information Regarding this Project Contact:
Eric Neil, P.E.
154 East 14075 South
Draper, Utah 84020
(801) 495-2224



February 2020

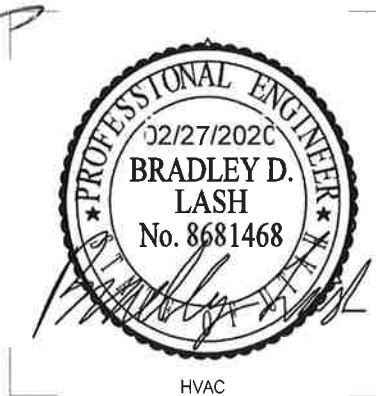
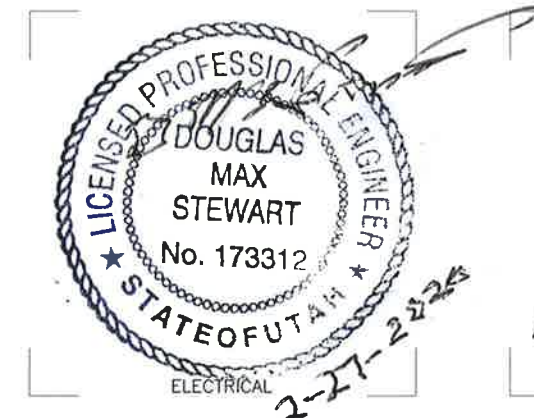
DRAWINGS FOR CONSTRUCTION OF THE OGDEN AIRPORT WELL HOUSE PROJECT OGDEN CITY



PROJECT LOCATION MAP



PROJECT VICINITY MAP



NO.	DATE	REV. BY	DESCRIPTION

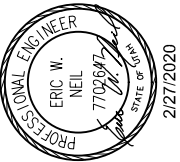
OGDEN AIRPORT WELL HOUSE PROJECT			
DESIGN	CHECKED	REVIEW	VERIFY SCALE
DESIGN S. DUCKWORTH	E. NEIL	E. NEIL	BAR IS ONE INCH ON ORIGINAL DRAWING
DRAWN S. DUCKWORTH	APPROVED E. NEIL		

GENERAL	TITLE PAGE, PROJECT LOCATION AND VICINITY MAPS	PROJECT NUMBER	202-18-01
		DATE:	FEBRUARY 2020

DRAWING NO.	G-01
SHEET	01 OF 58

INDEX OF DRAWINGS

SHT NO.	DWG NO.	DESCRIPTION
GENERAL		
01	G-01	TITLE PAGE, PROJECT LOCATION, AND VICINITY MAPS
02	G-02	INDEX OF DRAWINGS
03	G-03	ABBREVIATIONS
04	G-04	SYMBOLS AND NOTES
05	G-05	GENERAL NOTES
ARCHITECTURAL		
06	A-01	BUILDING ELEVATIONS
07	A-02	FINISH & DOOR SCHEDULE
08	GA-01	GENERAL ARCHITECTURAL DETAILS - 1
09	GA-02	GENERAL ARCHITECTURAL DETAILS - 2
CIVIL		
10	C-01	OVERALL SITE & GRADING PLAN
11	C-02	PUMP HOUSE SITE PLAN
12	C-03	PUMP HOUSE GRADING PLAN
13	C-04	PUMP HOUSE UTILITY PLAN
14	C-05	EROSION CONTROL PLAN
15	C-06	VAULT UTILITY PLAN
16	GC-01	GENERAL CIVIL DETAILS - 1
17	GC-02	GENERAL CIVIL DETAILS - 2
18	GC-03	GENERAL CIVIL DETAILS - 3
19	GC-04	GENERAL CIVIL DETAILS - 4
20	GC-05	GENERAL CIVIL DETAILS - 5
LANDSCAPE		
21	L-01	LANDSCAPE PLAN
STRUCTURAL		
22	S-01	FOUNDATION PLAN
23	S-02	FLOOR PLAN
24	S-03	ROOF FRAMING PLAN
25	S-04	MASONRY ELEVATIONS - 1
26	S-05	MASONRY ELEVATIONS - 2
27	S-06	FOUNDATION DETAILS
28	S-07	ROOF SECTIONS
29	GS-01	GENERAL STRUCTURAL NOTES
30	GS-02	GENERAL STRUCTURAL DETAILS - 1
31	GS-03	GENERAL STRUCTURAL DETAILS - 2
32	GS-04	GENERAL STRUCTURAL DETAILS - 3
33	GS-05	GENERAL STRUCTURAL DETAILS - 4
MECHANICAL		
34	M-01	MECHANICAL PLAN
35	M-02	MECHANICAL SECTION - 1
36	M-03	MECHANICAL SECTION - 2
37	GM-01	GENERAL MECHANICAL DETAILS - 1
38	GM-02	GENERAL MECHANICAL DETAILS - 2
39	GM-03	GENERAL MECHANICAL DETAILS - 3
ELECTRICAL		
40	E-01	ELECTRICAL SYMBOLS
41	E-02	ELECTRICAL SITE PLAN
42	E-03	POWER AND INSTRUMENTATION PLAN
43	E-04	GROUNDING PLAN
44	E-05	CONDUIT PLAN
45	E-06	LIGHTING PLAN
46	E-07	ELECTRICAL LIGHTING PLAN
47	E-08	CONTROL BLOCK DIAGRAM
48	E-09	POWER ONE-LINE DIAGRAM
49	E-10	PUMP MOTOR CONTROL DIAGRAM
50	GE-01	GENERAL ELECTRICAL DETAILS - 1
51	GE-02	GENERAL ELECTRICAL DETAILS - 2
52	GE-03	GENERAL ELECTRICAL DETAILS - 3
53	GE-04	GENERAL ELECTRICAL DETAILS - 4
54	GE-05	GENERAL ELECTRICAL DETAILS - 5
55	GE-06	GENERAL ELECTRICAL DETAILS - 6
56	GE-07	GENERAL ELECTRICAL DETAILS - 7
HVAC		
57	H-01	HVAC EQUIPMENT SCHEDULES
58	H-02	HVAC DETAILS



NO.	DATE	REV. BY	DESCRIPTION

OGDEN CITY
OGDEN AIRPORT WELL HOUSE PROJECT
OGDEN, UT

DESIGN S. DUCKWORTH	REVIEW E. NEIL	CHECKED E. NEIL	APPROVED E. NEIL
DRAWN S. DUCKWORTH		VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING	

GENERAL
INDEX OF DRAWINGS

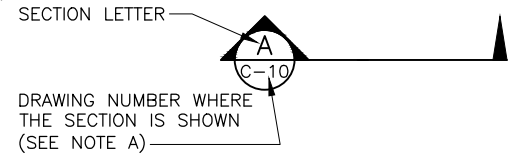
DATE: FEBRUARY 2020 PROJECT NUMBER: 202-18-01

DRAWING NO.
G-02

SHEET 02 OF 58

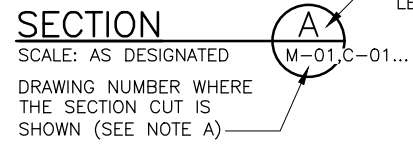
SECTION IDENTIFICATION

(1) SECTION CUT SHOWN ON DRAWING AS:



DRAWING NUMBER WHERE THE SECTION IS SHOWN (SEE NOTE A)

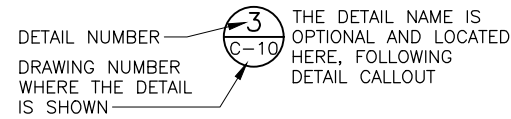
(2) THIS SECTION IS IDENTIFIED AS:



DRAWING NUMBER WHERE THE SECTION CUT IS SHOWN (SEE NOTE A)

DETAIL IDENTIFICATION

(1) DETAIL IDENTIFICATION SHOWN ON DRAWING AS:



DRAWING NUMBER WHERE THE DETAIL IS SHOWN

THE DETAIL NAME IS OPTIONAL AND LOCATED HERE, FOLLOWING DETAIL CALLOUT

(2) THIS DETAIL IS IDENTIFIED AS:



DRAWING NUMBER WHERE THE DETAIL IS SHOWN (SEE NOTE A)

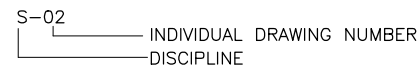
TYPICAL DETAIL IDENTIFICATION



TYPICAL DETAIL NUMBER, SEE INDEX OF DRAWINGS FOR LOCATION OF GENERAL DRAWINGS

DRAWING IDENTIFICATION SYSTEM

LETTER	DISCIPLINE
G	GENERAL
A	ARCHITECTURAL
GA	GENERAL ARCHITECTURAL
C	CIVIL
GC	GENERAL CIVIL
L	LANDSCAPING
S	STRUCTURAL
GS	GENERAL STRUCTURAL
M	MECHANICAL
GM	GENERAL MECHANICAL
E	ELECTRICAL
GE	GENERAL ELECTRICAL DETAILS
H	HVAC



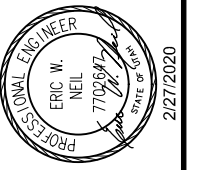
NOTES:

- A. IF PLAN AND SECTION (OR DETAIL CALL-OUT AND DETAIL) ARE SHOWN ON SAME DRAWING, DRAWING NUMBER IS REPLACED BY A HORIZONTAL LINE.
- B. ELECTRICAL SYMBOLS SHOWN ON ELECTRICAL DRAWINGS. FOR WELDING SYMBOLS USE AMERICAN WELDING SOCIETY STANDARD SYMBOLS. SEE AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL.

- 1 COORDINATE IDENTIFICATION
- ELEVATION INDICATOR
- SECTION CORNER
- BENCH MARK
- MONUMENT INDICATOR
- POTHOLE
- TEST HOLE
- BORING HOLE
- SECTION LINE
- PROPERTY LINE
- EASEMENT
- PARCEL
- R/W RIGHT-OF-WAY
- NEW ASPHALT
- EXISTING ASPHALT
- CENTERLINE
- 4500 CONTOUR LINE, FINISHED GRADE
- 4500 CONTOUR LINE, EXISTING GRADE
- 4500.20 FINISHED ELEVATION
- 4500.20 EXISTING ELEVATION
- CUT OR FILL SLOPE TO BE CONSTRUCTED
- SILT FENCE
- FENCE
- RAILING
- DITCH
- CULVERT
- RIPRAP
- TREE LINE/VEGETATION
- EXISTING STRUCTURE OR FACILITY
- NEW STRUCTURE OR FACILITY
- FUTURE STRUCTURE OR FACILITY
- NEW PIPELINE (CIVIL SHEETS)
- NEW PIPELINE 10" DIA AND SMALLER (CIVIL SHEETS)
- EXISTING UTILITY PIPELINE
- ATMS ATMS
- CTV CABLE
- C(ug) COMMUNICATION BURIED
- COMM COMMUNICATION OVERHEAD
- P(ug) ELECTRICAL BURIED
- OHP ELECTRICAL OVERHEAD
- FO FIBER OPTICS OVERHEAD
- FO(ug) FIBER OPTICS UNDERGROUND
- G GAS
- IRR IRRIGATION
- PETRO PETROLEUM LINE
- SS SANITARY SEWER
- SD STORM DRAIN
- T(ug) TELEPHONE BURIED
- TEL TELEPHONE OVERHEAD
- W WATERLINE
- CABLE BOX
- CATCH BASIN
- ELECTRICAL BOX
- HYDRANT
- GAS MANHOLE
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- WATER METER

- POWER POLE
- TELEPHONE BOX
- LIGHT POLE ONE LUMINAIRE
- LIGHT POLE TWO LUMINAIRES
- LIGHT POLE
- STREET LIGHT WITH BRACKET
- MASONRY
- STEEL
- INSULATION
- GRAVEL
- CONCRETE
- EARTH
- SAND
- ALUMINUM OR METAL DECKING
- CHECKERED PLATE
- GRATING
- PLASTIC, RUBBER OR NEOPRENE
- WOOD (ROUGH FRAMING) OR OPENING OR DEPRESSION IN SLAB OR WALL
- FHC FIRE HOSE CABINET
- FE FIRE EXTINGUISHER
- UNIT HEATER
- PCOTG PRESSURE CLEANOUT TO GRADE
- WCO WALL CLEANOUT
- FLOOR CLEANOUT
- CLEANOUT TO GRADE
- BLOW OFF ASSEMBLY
- HUB DRAIN
- FLOOR DRAIN
- FLOOR SINK
- DRAIN TRAP
- CHANGE IN PIPING MATERIAL
- PIPE SIZE AND TYPE/FLUID ABBREVIATION (USE FOR EXISTING PIPE CALLOUT)
- PIPE CALLOUT (SEE PIPING SCHEDULE)
- EQUIPMENT NUMBER (SEE EQUIPMENT SCHEDULE)
- STOP GATE
- SLIDE GATE
- SLUICE GATE
- GATE VALVE
- HOSE BIBB (H/B)
- REDUCER OR INCREASER
- LIQUID SURFACE EL

- REVISION WORK
- REFERENCE TO NOTE
- COLUMN LINE GRID
- DOOR NUMBER
- ROOM NUMBER



NO.	DATE	REV. BY	DESCRIPTION

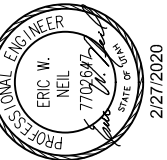
OGDEN CITY		OGDEN, UT	
OGDEN AIRPORT WELL HOUSE PROJECT			
DESIGN	REVIEW	CHECKED	APPROVED
DESIGN S. DUCKWORTH	REVIEW E. NEIL	CHECKED E. NEIL	APPROVED E. NEIL
DRAWN S. DUCKWORTH		DRAWN E. NEIL	

SYMBOLS AND NOTES	DATE: FEBRUARY 2020	PROJECT NUMBER: 202-18-01
	DRAWING NO. G-04	

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GENERAL NOTES

- SYMBOLS FOR STRUCTURES, PIPE AND ETC. USED FOR IDENTIFICATION ARE SHOWN IN LEGENDS AND SHALL BE FOLLOWED THROUGHOUT THE PLANS WHENEVER APPLICABLE. NOT ALL OF THE VARIOUS COMPONENTS SHOWN IN THESE LEGENDS ARE NECESSARILY USED IN THE PROJECT.
- SCALE OF THE DRAWINGS OR DETAILS ARE SHOWN IN TITLE BLOCK OR DIRECTLY UNDER THE PLAN OR DETAIL. THE SIZE OF THE ORIGINAL PLOTTED DRAWINGS IS 22"X34". CARE SHOULD BE TAKEN TO VERIFY THE SCALE BAR IN THE TITLE BLOCK AREA TO DETERMINE THE SCALE OF REDUCED REPRODUCTIONS.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PERFORM CONSTRUCTION ACTIVITIES PER THE CONTRACT DOCUMENTS. ANY ADDITIONS, DELETIONS, OR MODIFICATIONS SHALL FIRST MEET WITH THE WRITTEN APPROVAL OF THE ENGINEER AND THE OWNER.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMIT(S) AND COMPLY WITH ALL REQUIREMENTS OF GOVERNING AGENCIES.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT TRAFFIC CONTROL PLANS FOR REVIEW AND APPROVAL BY OGDEN CITY AND UDOT. WORK WILL NOT BEGIN UNTIL THE PLANS HAVE BEEN APPROVED.
- THE CONTRACTOR SHALL KEEP ALL CONSTRUCTION ACTIVITIES WITHIN THE ESTABLISHED RIGHTS-OF-WAY. THIS SHALL INCLUDE BUT NOT BE LIMITED TO, VEHICLES AND EQUIPMENT, LIMITS OF TRENCH EXCAVATION, AND EXCAVATED MATERIAL AND BACKFILL STORAGE. IF THE CONTRACTOR REQUIRES ADDITIONAL CONSTRUCTION EASEMENTS, IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SUCH EASEMENTS FROM INDIVIDUAL PROPERTY OWNERS.
- UTILITY LOCATIONS:
 - CONTRACTOR SHALL CONTACT BLUE STAKES TO LOCATE EXISTING UTILITIES.
 - ALL UTILITY LOCATIONS, SHOWN ON DRAWINGS, ARE APPROXIMATE AND ARE NOT INCLUSIVE OF ALL EXISTING UTILITIES.
 - CONTRACTOR TO VERIFY DEPTHS OF UTILITIES IN THE FIELD BY POT HOLING A MINIMUM OF TWO WEEKS TIME AHEAD OF PIPELINE CONSTRUCTION TO AVOID CONFLICTS WITH DESIGNED PIPELINE GRADE AND ALIGNMENT. IF A CONFLICT ARISES RESULTING FROM THE CONTRACTOR NEGLECTING TO POT HOLE UTILITIES, THE CONTRACTOR TO RESOLVE THE CONFLICT WITHOUT ADDITIONAL COST OR CLAIM TO THE OWNER.
 - CONTRACTOR SHALL POT HOLE CRITICAL LOCATIONS AND OBTAIN ALL EXISTING PIPE O.D. PRIOR TO ORDERING OR OBTAINING MATERIALS REQUIRED FOR CONNECTIONS TO EXISTING PIPING. UTILITY SHUT-DOWNS AND OTHER WORK WILL NOT BE SCHEDULED OR ALLOWED UNTIL THIS IS ACCOMPLISHED AND MATERIALS ARE ON SITE AND APPROVED FOR USE BY OGDEN CITY.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE WHICH ARE TO REMAIN IN PLACE. ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTORS OPERATIONS SHALL BE REPAIRED OR RECONSTRUCTED TO ORIGINAL OR BETTER CONDITION TO THE SATISFACTION OF THE OWNER AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR LOCATING SERVICE LINES FOR GAS, SEWER, WATER, AND OTHER UTILITIES AND REPAIRING DAMAGE TO SUCH LINES AS A RESULT OF THE CONTRACTOR'S OPERATIONS. SERVICE CONNECTIONS FOR UTILITIES ARE NOT SHOWN ON THE DRAWINGS.
- CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFORMANCE WITH LOCAL AND FEDERAL CODES GOVERNING SHORING AND BRACING OF EXCAVATIONS AND TRENCHES. CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF THE PUBLIC AND PROTECTION OF PERSONNEL AND WORKERS.
- IF THE CONTRACTOR CHOOSES TO WORK ON THE PROJECT WHEN HOT MIX ASPHALT IS NOT AVAILABLE, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE GOVERNING AGENCY PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL FURNISH AND INSTALL TEMPORARY ASPHALT SURFACING MATERIAL. WHEN PERMANENT ASPHALT BECOMES AVAILABLE, THE CONTRACTOR SHALL REMOVE THE TEMPORARY ASPHALT, FURNISH AND INSTALL THE PERMANENT ASPHALT AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL NOT DESTROY, REMOVE, OR DISTURB ANY EXISTING SURVEY MONUMENTS WITHOUT AUTHORIZATION OF CONTROLLING AGENCY. NO PAVEMENT CUTTING OR REMOVAL SHALL BEGIN UNTIL ALL SURVEY MARKERS OR MONUMENT POINTS THAT HAVE THE POTENTIAL OF BEING DISTURBED BY THE CONSTRUCTION OPERATIONS HAVE BEEN PROPERLY REFERENCED BY A REGISTERED LAND SURVEYOR. ALL SURVEY MONUMENTS OR POINTS DISTURBED BY THE CONTRACTOR SHALL BE ACCURATELY RESET BY A REGISTERED LAND SURVEYOR AFTER ALL RESTORATION AND RESURFACING HAS BEEN COMPLETED.
- TRENCHING OPERATIONS SHALL BE PERFORMED SO AS TO PROTECT THE EXISTING CURB AND GUTTER. DAMAGED CURB AND GUTTER SHALL BE REPLACED TO MATCH EXISTING AT THE CONTRACTOR'S EXPENSE PER APWA STANDARDS FOR OGDEN CITY AND PER UDOT STANDARDS IN UDOT RIGHTS-OF-WAY. TRENCH SUPPORTS AND DEWATERING (NOTE 14) SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR. MAXIMUM OPEN TRENCH DURING WORKING HOURS SHALL BE 300 FEET. ALL TRENCHES SHALL BE BACKFILLED AND/OR PLATED DURING NON-WORKING HOURS, PER EXCAVATION PERMIT REQUIREMENTS.
- DEWATERING: GROUND WATER AND SURFACE WATER CONTROL SHALL BE PERFORMED AND RESPONSIBLY HANDLED BY THE CONTRACTOR ACCORDING TO, AND IN COMPLIANCE WITH, ALL LOCAL GOVERNING AUTHORITIES. HEAVY GROUND WATER AND/OR SURFACE WATER PUMPING MAY BE REQUIRED. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE POTENTIAL PUMPING NEEDS. THE CONTRACTOR SHALL NOT RELY ON OWNER SUPPLIED PROCTOR, GROUND WATER AND/OR SURFACE WATER DATA. CONTRACTOR SHALL OBTAIN DEWATERING PERMIT AS NECESSARY.
- AERIAL PHOTOS IN DRAWINGS: THE AERIAL PHOTOS PROVIDED AS BACKGROUND IN THESE DRAWINGS ARE PROVIDED TO HELP CLARIFY THE WORK SITE. HOWEVER, THE PHOTOS DEPICT CONDITIONS AS THEY EXISTED IN 2017. PRESENT DAY CONDITIONS MAY VARY FROM THOSE SHOWN. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. BID SHALL INCLUDE ALL WORK REQUIRED TO COMPLETE THE PROJECT.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY SETTLEMENT OF EXCAVATIONS, AND ANY DAMAGE OF UTILITIES RESULTING FROM SETTLEMENT.
- CONTRACTOR SHALL PREVENT ANY GROUND WATER OR DEBRIS FROM ENTERING NEW PIPES DURING CONSTRUCTION. THE ENDS OF THE PIPES SHALL BE SEALED AT THE END OF EACH WORKDAY.
- PROFILE DRAWINGS ARE HORIZONTAL PROJECTIONS OF THE PIPELINE CENTERLINE, UNLESS OTHERWISE NOTED.
- LAY PIPE TO DEPTH AND ALONG HORIZONTAL ALIGNMENT AS DEFINED IN THESE DRAWINGS. CONTRACTOR SHALL NOT DEVIATE FROM PROPOSED ALIGNMENT OR GRADE WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER. AVOID HIGH AND LOW POINTS EXCEPT WHERE DESIGNED.
- CONTRACTOR SHALL SALVAGE ALL REMOVED COPPER PIPE AND HYDRANTS AND PROVIDE THEM TO OGDEN CITY, UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL BACKFILL TRENCH AREAS WHERE NEW WATERLINES CROSS UNDER EXISTING BURIED UTILITIES WITH FLOWABLE FILL (SOIL CEMENT BACKFILL) IN ACCORDANCE WITH APWA STANDARDS, IF STANDARD MECHANICAL COMPACTION CANNOT BE OBTAINED USING MECHANICAL METHODS. WATER LINES ARE NOT ALLOWED TO BE BURIED BELOW SEWER LINES UNLESS AN EXCEPTION HAS BEEN GRANTED BY THE DIVISION OF DRINKING WATER PRIOR TO CONSTRUCTION.
- ALL BURIED REBAR, FITTINGS, COUPLINGS, VALVES AND MECHANICAL JOINT NUTS AND BOLTS ARE TO BE COATED WITH NON OXIDE GREASE CHEVRON FM 2 OR APPROVED EQUAL, COVERED WITH 8 MIL POLYETHYLENE SHEETING, AND TAPE WRAPPED.
- CONTRACTOR SHALL MAINTAIN A 10-FOOT HORIZONTAL AND AN 18-INCH VERTICAL SEPARATION (OUTSIDE OF PIPE TO OUTSIDE OF PIPE/MANHOLE) BETWEEN ALL SEWER AND WATER LINES. WATER LINES ARE NOT ALLOWED TO BE BURIED BELOW SEWER LINES UNLESS AN EXCEPTION HAS BEEN GRANTED BY THE DIVISION OF DRINKING WATER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL RESTORE OR REPLACE ANY SPRINKLING SYSTEMS AND LANDSCAPING DAMAGED DURING CONSTRUCTION TO EQUAL OR BETTER CONDITION THAN WHAT EXISTED PRIOR TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.
- UNLESS NOTED OTHERWISE, ALL WATER MAIN SHALL BE 14-INCH DUCTILE IRON CLASS 350 PIPE. SIZE OF FITTINGS SHOWN ON THE PLANS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, AND SHALL BE DUCTILE IRON FITTINGS.
- CONTRACTOR SHALL PROTECT ADJACENT PRESSURE PIPELINES AND PROVIDE TEMPORARY THRUST RESTRAINT AS NECESSARY DURING CONSTRUCTION INCLUDING EXISTING VALVES, TEES, BENDS, ETC.. ALL NEW PRESSURE PIPE AND FITTINGS SHALL HAVE THRUST RESTRAINED JOINTS, THRUST BLOCKS, THRUST TIES OR OTHER APPROVED THRUST RESTRAINT. THRUST PROTECTION SHALL BE ADEQUATE FOR THE TEST PRESSURE SPECIFIED.
- ALL FITTINGS REQUIRED FOR THE COMPLETION OF THE WORK ARE NOT SHOWN IN THE DRAWINGS. MAXIMUM PIPE JOINT DEFLECTION SHALL BE 1-DEGREE. ADDITIONAL FITTINGS REQUIRED TO MAINTAIN THE ALIGNMENT SHOWN IN THE PLANS SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- MINIMUM DEPTH OF NEW PIPE: 4 FEET TO TOP OF PIPE UNLESS OTHERWISE NOTED.
- COORDINATE CONNECTION OF EXISTING WATER MAINS WITH OGDEN CITY.
 - OPERATION OF ALL EXISTING MAIN LINE VALVES TO BE COORDINATED THROUGH OGDEN CITY 48-HOURS IN ADVANCE OF SHUTDOWN. CONNECTIONS TO SOME WATERLINES SERVING COMMERCIAL AREAS MAY REQUIRE NIGHT OR WEEKEND SHUTDOWNS. CONTRACTOR TO PERFORM NIGHT OR WEEKEND WORK IN THESE AREAS AT NO ADDITIONAL COST TO OWNER.
 - OGDEN CITY DOES NOT GUARANTEE WATER SHUT-DOWNS. CONTRACTOR TO DEVISE PLANS TO AVOID WORK STOPPAGES IN THE EVENT A SHUT-DOWN DOES NOT GO AS PLANNED
 - CONTRACTOR SHALL SUBMIT FOR REVIEW A SEQUENTIAL PLAN FOR CONNECTION, TESTING, AND FLUSHING OF ALL NEW WATER MAINS, HYDRANTS, AND SERVICE CONNECTIONS.
- CONTRACTOR SHALL PERFORM CHLORINATION TEST, PRESSURE TEST, AND BACTERIA TEST. ALL WATERLINES INSTALLED SHALL BE DISINFECTED IN ACCORDANCE WITH THE "AMERICAN WATER WORKS ASSOCIATION STANDARD FOR DISINFECTING WATER MAINS" (AWWA C651). ALL CHLORINATED WATER SHALL BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS FOR SURFACE DISCHARGE AND COORDINATED WITH UTAH DIVISION OF WATER QUALITY AND OGDEN CITY.
- ASPHALT SHALL BE PG 64-34 1/2" AGGREGATE MIX ASPHALT IN ACCORDANCE WITH OGDEN CITY REQUIREMENTS. CONTRACTOR SHALL OBTAIN PERMITS FROM OGDEN CITY AND COMPLY WITH ALL REQUIREMENTS OF THE PERMITS.
- ALL CONSTRUCTION ACTIVITIES SHALL BE PERFORMED IN A WORKMANLIKE AND SAFE MANNER AND IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND JOB-SITE RELATED CONSTRUCTION CONDITIONS AND REQUIREMENTS. OBTAIN PERMITS, INSPECTIONS AND APPROVALS AS REQUIRED BY JURISDICTIONAL AGENCIES AND PAY ALL ASSOCIATED FEES. CONTRACTOR AND INSTALLERS SHALL BE LICENSED AS REQUIRED BY STATE AND LOCAL JURISDICTIONS, AND BONDED AS DETERMINED BY PROJECT REQUIREMENTS.
- PRESSURE TEST ALL PIPELINES TO 180 PSI MINIMUM FOR TWO HOURS WITH ZERO LEAKAGE. IN THE CASE OF PIPELINES THAT FAIL TO PASS THE LEAKAGE TEST, THE CONTRACTOR SHALL DETERMINE THE CAUSE OF THE EXCESSIVE LEAKAGE, SHALL TAKE CORRECTIVE MEASURES NECESSARY TO REPAIR THE LEAKS, AND SHALL AGAIN TEST THE PIPELINES, ALL AT NO COST TO THE OWNER.
- WORKING PRESSURE FOR THE SYSTEM IS 120 PSI WITH TEST PRESSURE OF 180 PSI. ALL FLANGES, VALVES, FITTINGS, THRUST BLOCKS, ETC. SHALL BE RATED APPROPRIATELY.
- ALL PIPE, FITTINGS, AND VALVES SHALL BE NSF 61 COMPLIANT FOR CULINARY WATER USE.
- CONTRACTOR TO PROVIDE AND DISTRIBUTE APPROVED WRITTEN NOTICE OF CONSTRUCTION ACTIVITIES TO ALL RESIDENTS AND BUSINESSES LOCATED IN THE CONSTRUCTION AREA AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. WRITTEN NOTICE SHALL BE APPROVED BY THE ENGINEER PRIOR TO DISTRIBUTION.
- CONTRACTOR SHALL PROVIDE AND UPDATE A CONSTRUCTION SCHEDULE FOR WORKING IN THE PUBLIC RIGHT-OF-WAY PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTROL OF DRAINAGE AND EROSION DURING CONSTRUCTION AT CONSTRUCTION SITE, STAGING, AND SPOILS AREA. CONTRACTOR SHALL SUBMIT STORM RUNOFF CONTROL PLAN FOR APPROVAL BY ENGINEER AND OBTAIN A SWPPP PERMIT FROM THE UTAH DEPARTMENT OF ENVIRONMENTAL QUALITY.
- ABANDONING EXISTING WATERLINE: REMOVE ABANDONED PIPE WHERE UNCOVERED OR DISTURBED BY CONSTRUCTION. WHERE NOT DISTURBED, CONTRACTOR MAY ABANDON EXISTING WATER MAIN IN PLACE AFTER NEW MAIN IS IN FULL SERVICE. PLUG ENDS OF ABANDONED MAIN WITH CONCRETE. OLD WATER MAINS THAT ARE NO LONGER IN SERVICE ARE TO BE DISCONNECTED COMPLETELY FROM THE WORKING SYSTEM. UNLESS CONTRACTOR IS SPECIFICALLY DIRECTED TO REMOVE EXISTING VALVES, THE CONTRACTOR SHALL ABANDON EXISTING VALVES IN PLACE. OPEN VALVE, REMOVE BOTH THE TOP AND BOTTOM OF VALVE BOX AND FILL RESULTING HOLE WITH SAND. RESTORE SURFACE IN ACCORDANCE WITH SURFACE RESTORATION REQUIREMENTS OF THE GOVERNING AGENCY.
- ALL ASBESTOS CEMENT WATERLINES REQUIRING REMOVAL SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS IN AN APPROVED LOCATION EQUIPPED TO HANDLE SUCH MATERIALS. ANY CUTTING REQUIRED SHALL BE PERFORMED IN ACCORDANCE WITH PROPER REGULATORY PROCEDURES. IN NO CASE SHALL THE PIPE AND FITTINGS BE BROKEN OR CRUSHED.
- CONTRACTOR SHALL SAW CUT ASPHALT, SIDEWALK TO THE NEAREST JOINT, AND WHERE REQUIRED CURB AND GUTTER TO THE NEAREST JOINT AT THE LIMITS OF ALL TRENCH EXCAVATION.
- WORKING HOURS IN OGDEN CITY SHALL BE 7:00 AM TO 7:00 PM. WORKING HOURS IN THE UDOT RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH THE UDOT PERMIT REQUIREMENTS.
- INSTALL ALL MATERIALS ACCORDING TO MANUFACTURER RECOMMENDATIONS AND STATE AND LOCAL REQUIREMENTS. USE ONLY NEW AND UNUSED MATERIALS. ALL MATERIALS SHALL BE PROVIDED BY MANUFACTURERS REGULARLY ENGAGED IN PRODUCING SAID ITEMS, AND WHICH SHALL BE FIRST QUALITY, HEAVY DUTY, COMMERCIAL/INDUSTRIAL GRADE, SUITABLE FOR THE INTENDED USE.
- CONTRACTOR SHALL RESTORE ALL DAMAGED CURB, GUTTER, SIDEWALK, DRIVEWAY APPROACHES, AND WATERWAYS IN ACCORDANCE WITH APWA MANUAL OF STANDARD PLANS 2017 EDITION, PLAN NO. 205, 211, 221, AND 231 WITHIN OGDEN CITY RIGHT-OF-WAY AND IN ACCORDANCE WITH UDOT STANDARDS IN UDOT RIGHTS-OF-WAY. TO PRESERVE AND PROTECT EXISTING CURB AND GUTTER, CONTRACTOR SHALL FLOWABLE FILL UNDERNEATH CURB AND GUTTER AFTER TUNNELING FOR HYDRANTS OR SERVICE CONNECTIONS.
- ALL GAS LINES SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 12-INCHES ABOVE OR BELOW THE NEW WATERLINE, AND A MINIMUM HORIZONTAL CLEARANCE OF 3 FEET. ALL GAS LINES RELOCATED OR EXPOSED SHALL BE REBURIED PER DOMINION ENERGY'S REQUIREMENTS
- ABANDON EXISTING WATERLINE IN PLACE AFTER NEW WATERLINE IS IN FULL SERVICE. PLUG ENDS OF ABANDONED WATERLINE WITH CONCRETE. OLD WATERLINES THAT ARE NO LONGER IN SERVICE ARE TO BE DISCONNECTED COMPLETELY FROM THE WORKING SYSTEM. ABANDON EXISTING VALVES IN PLACE. OPEN VALVE REMOVE VALVE BOX AND FILL RESULTING HOLE WITH SAND. RESTORE SURFACE IN ACCORDANCE WITH SURFACE RESTORATION REQUIREMENTS.
- ALL DUCTILE IRON FITTINGS SHALL BE MADE IN THE U.S.A. AND HAVE MEGALUGS ON ALL MECHANICAL JOINTS.
- PRESERVE AND PROTECT EXISTING TREES. NO TRIMMING OR REMOVAL OF TREES SHALL BE ALLOWED WITHOUT PRIOR APPROVAL OF OGDEN CITY.



NO.	DATE	REV. BY	DESCRIPTION

OGDEN AIRPORT WELL HOUSE PROJECT
OGDEN, UT

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN
S. DUCKWORTH
DRAWN
S. DUCKWORTH

REVIEW
E. NEIL
CHECKED
E. NEIL
APPROVED
E. NEIL

GENERAL
GENERAL NOTES

DATE: FEBRUARY 2020
PROJECT NUMBER: 202-16-01

DRAWING NO.
G-05

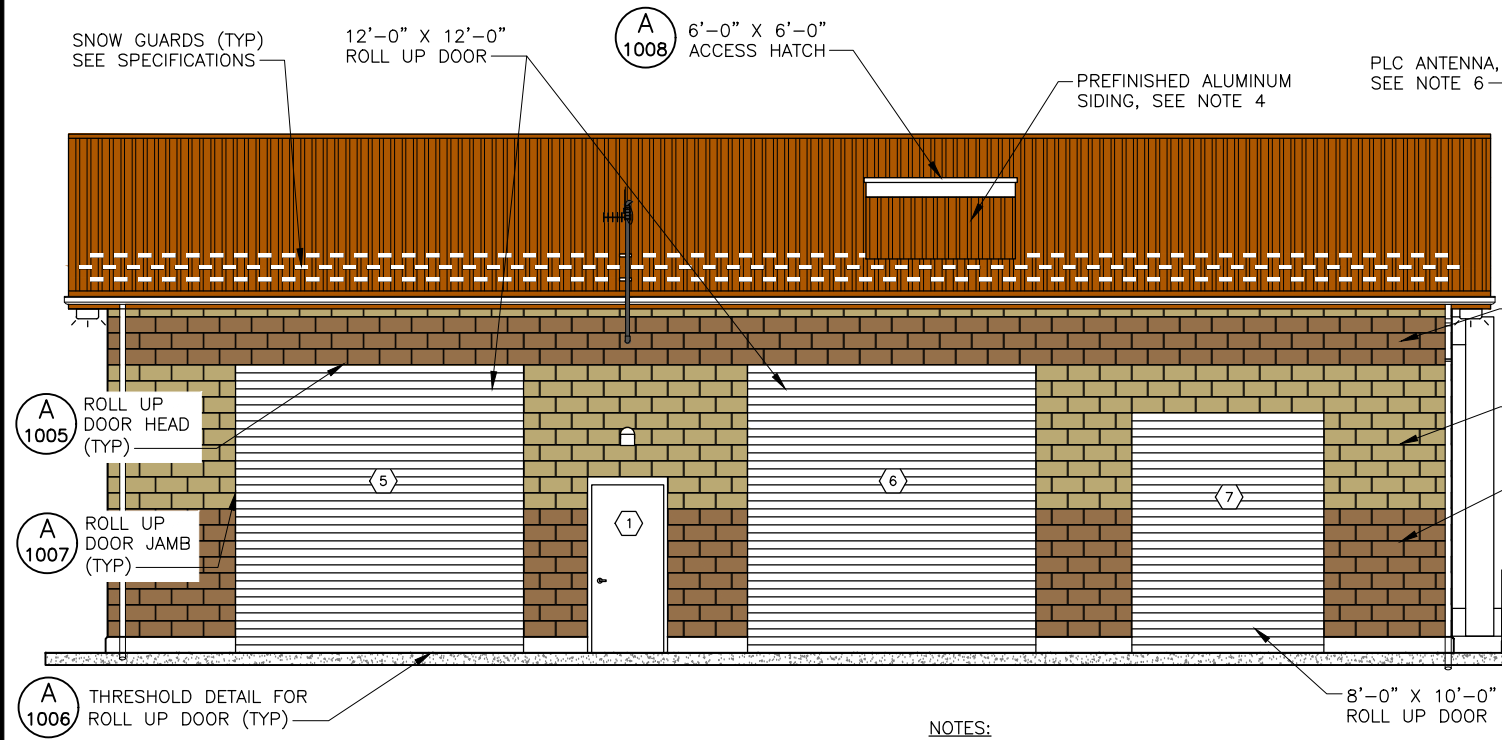
SHEET **05** OF **58**

NO.	DATE	REV. BY	DESCRIPTION

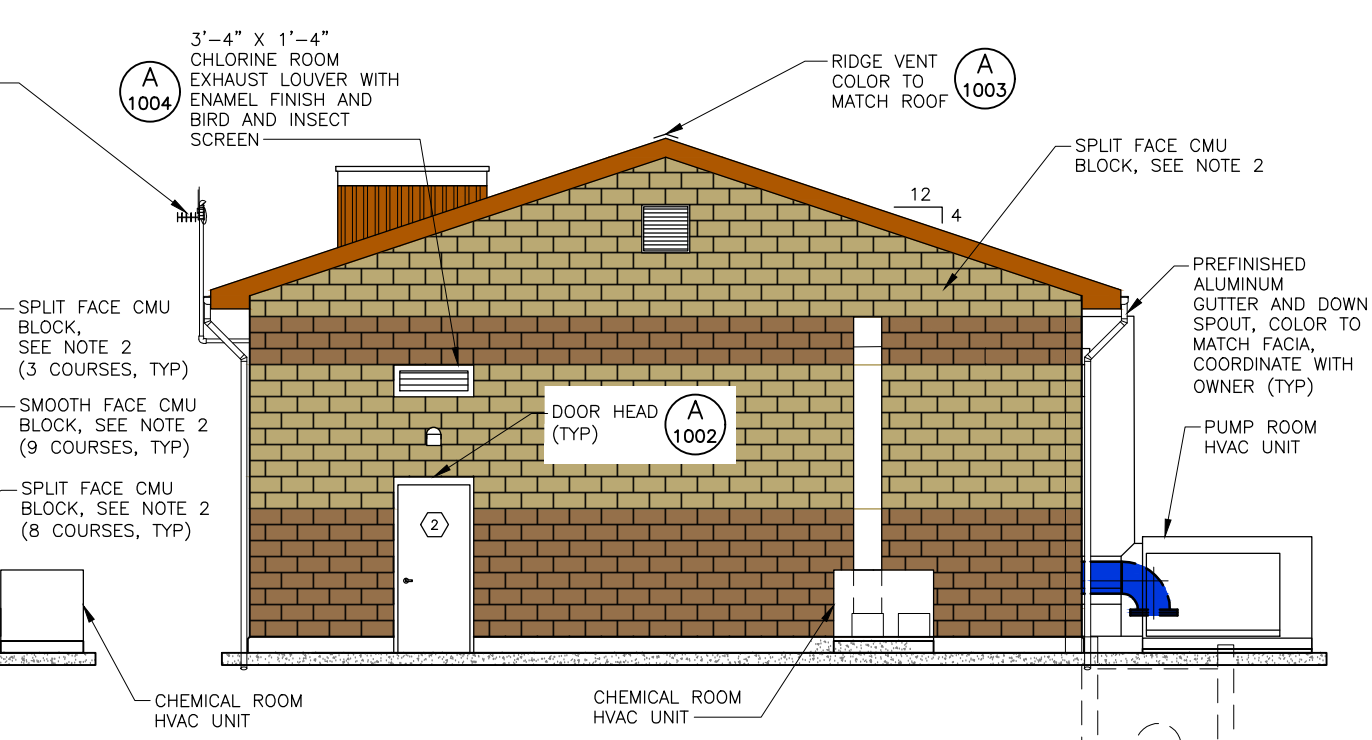
OGDEN AIRPORT WELL HOUSE PROJECT
OGDEN, UT

DESIGN	REVIEW	CHECKED	APPROVED
E. NEIL	B. MAYERS	B. MAYERS	E. NEIL
N. ROGERS	E. NEIL	E. NEIL	E. NEIL

ARCHITECTURAL
BUILDING ELEVATIONS
DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01



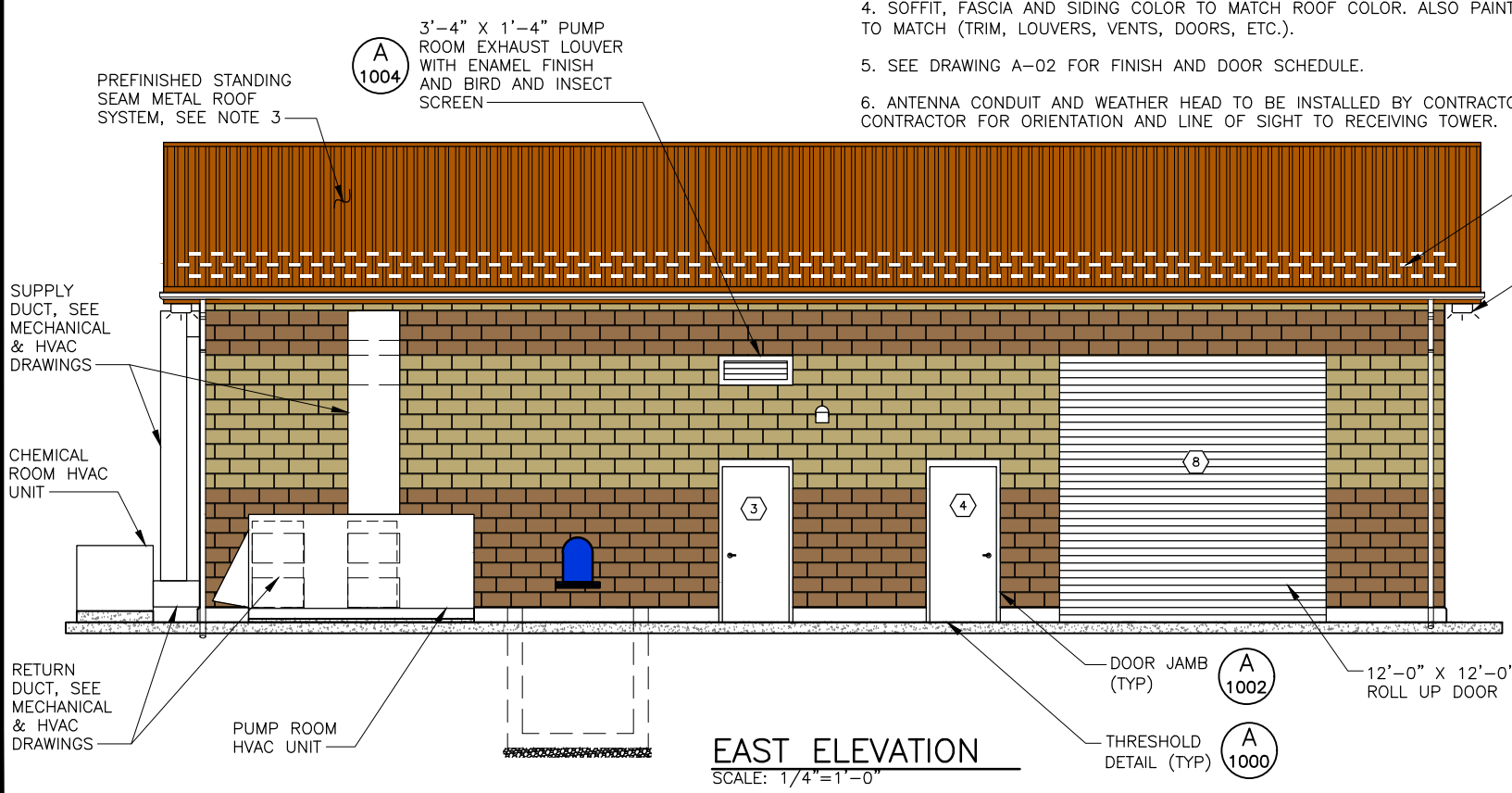
WEST ELEVATION
SCALE: 1/4"=1'-0"



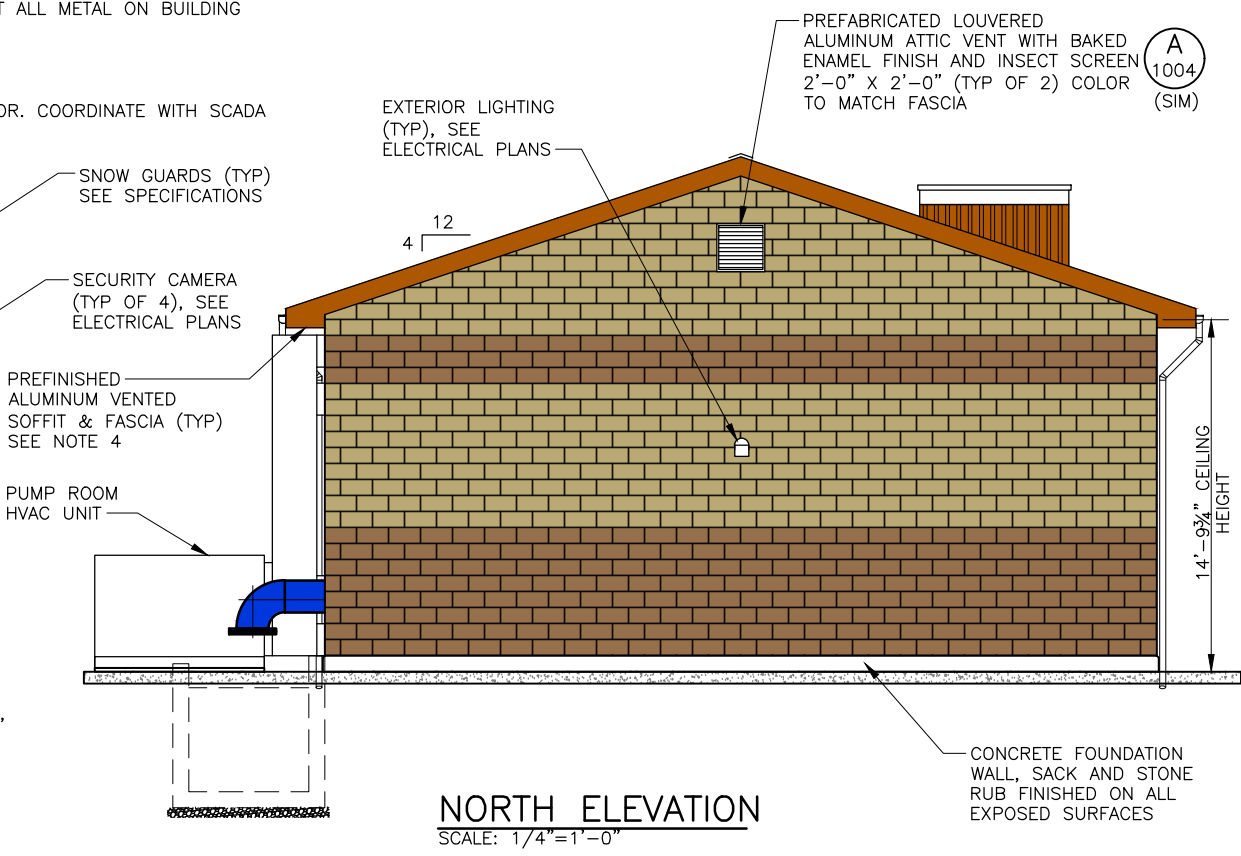
SOUTH ELEVATION
SCALE: 1/4"=1'-0"

NOTES:

- MINOR ROOF AND WALL PENETRATIONS NOT SHOWN.
- EXTERIOR MASONRY WALL - 8X12X16 HI-R INSULATED CMU BLOCK. SPLIT FACE BLOCK COLOR TO BE MOKIE CHIP AND SMOOTH FACE COLOR TO BE COLONIAL TAN PER OGDEN CITY. GROUT COLORS TO BE TRUE TONE COLOR MC66 FOR DARKER SPLIT FACE BLOCK AND TRUE TONE COLOR 5447 LIGHT (1.5%) FOR LIGHTER SMOOTH FACE BLOCK. REFER TO STRUCTURAL DRAWINGS FOR REINFORCING. FILL VOID CELLS WITH INSULATION AND WITH INTEGRAL WATER REPELLANT IN BLOCK AND MORTAR. APPLY ANTI-GRAFFITI COATING ON ALL EXTERIOR SURFACES, PROVIDE SUBMITTAL FOR APPROVAL. FINISH WITH CLEAR COAT WATER REPELLANT BLOCK SEALER AT EXTERIOR AND INTERIOR SURFACES.
- PREFINISHED STANDING SEAM METAL ROOF SYSTEM OVER 30# FELT WITH ICE AND WATER SHIELD AT EVE. COLOR TO BE MEDIUM BRONZE PER OGDEN CITY.
- SOFFIT, FASCIA AND SIDING COLOR TO MATCH ROOF COLOR. ALSO PAINT ALL METAL ON BUILDING TO MATCH (TRIM, LOUVERS, VENTS, DOORS, ETC.).
- SEE DRAWING A-02 FOR FINISH AND DOOR SCHEDULE.
- ANTENNA CONDUIT AND WEATHER HEAD TO BE INSTALLED BY CONTRACTOR. COORDINATE WITH SCADA CONTRACTOR FOR ORIENTATION AND LINE OF SIGHT TO RECEIVING TOWER.



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



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

FINISH AND FLOOR SCHEDULE

RM. NO. [000]	ROOM NAME	FLOOR	WALLS, WAINSCOTS, BASES, DOORS												CEILING		REMARKS
			NORTH			EAST			SOUTH			WEST			TYPE	HEIGHT	
			WALL	WAINSCOT	BASE	WALL	WAINSCOT	BASE	WALL	WAINSCOT	BASE	WALL	WAINSCOT	BASE			
101	MAINTENANCE ROOM	SEALED CONCRETE SC-1, EP-1	SC-2, EP-1	---	---	SC-2, EP-1	---	---	SC-2, EP-1	---	---	SC-2, EP-1	---	---	5/8 GYPSUM, P-1	-	PROVIDE 1X3 CROWN MOLD PAINTED
102	PUMP ROOM	SEALED CONCRETE SC-1, EP-1	SC-2, EP-1	---	---	SC-2, EP-1	---	---	SC-2, EP-1	---	---	SC-2, EP-1	---	---	5/8 GYPSUM, P-1	-	PROVIDE 1X3 CROWN MOLD PAINTED
103	CHLORINE ROOM	SEALED CONCRETE SC-1, EP-1	SC-2, EP-1	---	---	SC-2, EP-1	---	---	SC-2, EP-1	---	---	SC-2, EP-1	---	---	5/8 GYPSUM, P-1	-	PROVIDE 1X3 CROWN MOLD PAINTED

INTERIOR COLOR SCHEDULE (CONTRACTOR TO VERIFY ALL COLOR SELECTIONS WITH OWNER & ARCHITECT)

MARK	MATERIAL	MANUFACTURER	COLOR	STYLE NUMBER	GENERAL NOTES
SC-1	FLOOR SEALER	RAIN GUARD	CLEAR	FLOOR LOC WITH MICRO LOC	REFER TO SPECIFICATION 09 90 00
SC-2	WALL SEALER	ProSoCo	CLEAR	SURE KLEAN WEATHER SEAL BLOK-GUARD	REFER TO SPECIFICATION 09 90 00
P-1	PAINT	SHERWIN WILLIAMS	EXTRA WHITE	SW7006 SEMI-GLOSS	CEILING REFER TO SPECIFICATION 09 90 00
P-2	PAINT	SHERWIN WILLIAMS	PER OGDEN CITY	SEMI-GLOSS	DOORS FRAME REFER TO SPECIFICATION 09 90 00 MATCH OWNERS STANDARD COLORS
P-3	PAINT	POWDER COAT	PER OGDEN CITY	POWDER COAT SYSTEM	DOORS FRAMES AND LOUVERS REFER TO EXTERIOR ELEVATIONS FOR COLOR OWNERS STANDARD COLORS
EP-1	EPOXY	SHERWIN WILLIAMS	EXTRA WHITE	HIGH GLOSS	REFER TO SPECIFICATION 09 90 00, SYSTEM 21 IN PUMP AND CHLORINE ROOMS

GENERAL NOTES

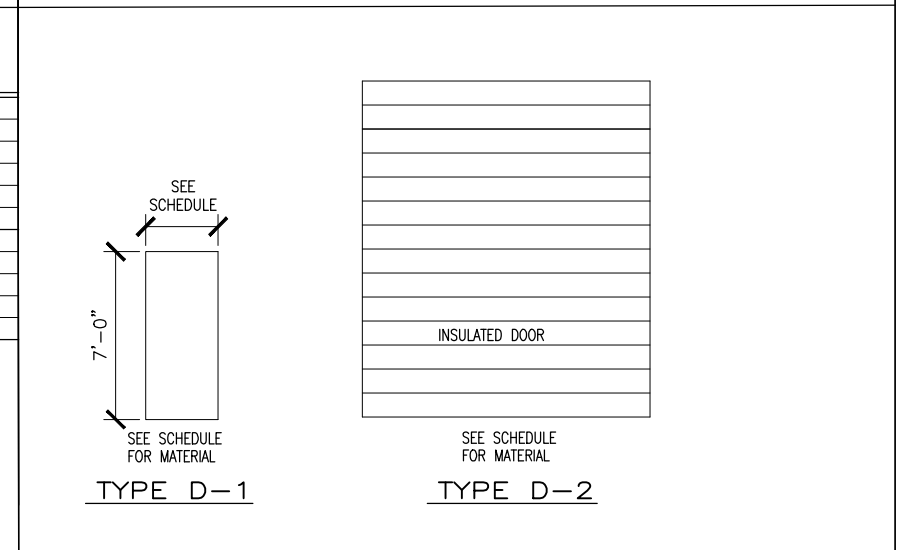
1. ALL EQUIPMENT HOUSE KEEPING PADS THRU-OUT PROJECT SHALL MATCH FLOOR FINISH.
2. EXTERIOR DOORS, FRAMES, LOUVERS AND TRIM: REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR COLOR SCHEDULE.

DOOR SCHEDULE

NO. [00]	DOOR SIZE			DOOR TYPE	DOOR MAT.	DOOR FINISH	OPENING DETAILS			FRAME TYPE	FRAME MAT.	FRAME FINISH	RATING	HRDW. GROUP	REMARKS
	WIDTH	HEIGHT	THICK.				HEAD	JAMB	SILL THRES						
1	3'-0"	7'-0"	1 3/4"	D-1	HM	P-2	A/1002	A/1002	A/1000	F-1	HM	P-2	---	2	REFER TO EXTERIOR ELEVATION FOR EXTERIOR COLORS, SEE NOTE 5.
2	3'-0"	7'-0"	1 3/4"	D-1	HM	P-2	A/1002	A/1002	A/1000	F-1	HM	P-2	---	4	REFER TO EXTERIOR ELEVATION FOR EXTERIOR COLORS, INSTALL PANIC BAR ON INSIDE, SEE NOTE 5.
3	3'-0"	7'-0"	1 3/4"	D-1	HM	P-2	A/1002	A/1002	A/1000	F-1	HM	P-2	---	2	REFER TO EXTERIOR ELEVATION FOR EXTERIOR COLORS, SEE NOTE 5.
4	3'-0"	7'-0"	1 3/4"	D-1	HM	P-2	A/1002	A/1002	A/1000	F-1	HM	P-2	---	2	REFER TO EXTERIOR ELEVATION FOR EXTERIOR COLORS, SEE NOTE 5.
5	12'-0"	12'-0"	1"	D-2	STEEL	P-3	A/1005	A/1007	A/1006	---	STEEL	P-3	---	1	COILING INSULATED DOOR / MANUAL OPERATOR, COLOR TO BE GRAY PER OGDEN CITY.
6	12'-0"	12'-0"	1"	D-2	STEEL	P-3	A/1005	A/1007	A/1006	---	STEEL	P-3	---	1	COILING INSULATED DOOR / MANUAL OPERATOR, COLOR TO BE GRAY PER OGDEN CITY.
7	8'-0"	10'-0"	1"	D-2	STEEL	P-3	A/1005	A/1007	A/1006	---	STEEL	P-3	---	1	COILING INSULATED DOOR / MANUAL OPERATOR, COLOR TO BE GRAY PER OGDEN CITY.
8	12'-0"	12'-0"	1"	D-2	STEEL	P-3	A/1005	A/1007	A/1006	---	STEEL	P-3	---	1	COILING INSULATED DOOR / MANUAL OPERATOR, COLOR TO BE GRAY PER OGDEN CITY.
9	3'-0"	7'-0"	1 3/4"	D-1	HM	P-2	A/1002	A/1002	A/1000	F-1	HM	P-2	---	3	MATCH COLOR TO EXTERIOR DOORS. PROVIDE DOOR HARDWARE WITHOUT LOCK, SEE NOTES 3, 4 & 5.

- NOTES:**
1. SEE DRAWING A-01 AND M-01 FOR DOOR LOCATIONS.
 2. FLUSH MOUNT DOOR TO FRAME FOR 180° OPENING.
 3. ALL DOORS AND FRAMES TO BE INSULATED.
 4. SEE SHEET M-01 FOR INTERIOR DOOR LOCATION.
 5. DOOR HARDWARE TO HAVE BRUSHED NICKEL FINISH.

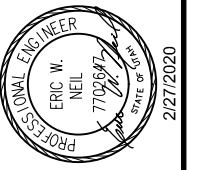
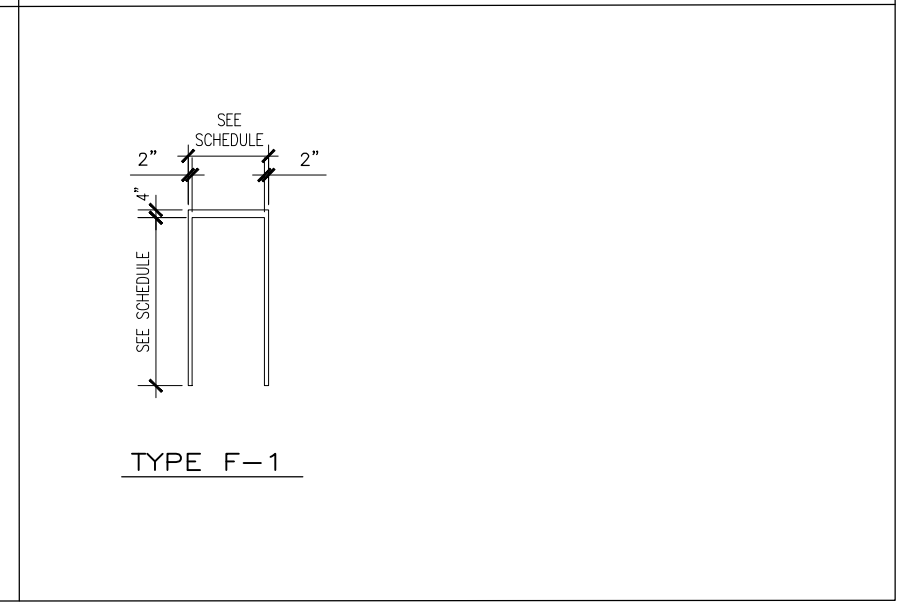
DOOR TYPES



DOOR HARDWARE

HARDWARE GROUP 1				HARDWARE GROUP 3			
1	BRUSH GASKET	18400-NB	PEMKO (CONTINUOUS AT HEAD)	1 1/2 PAIR	BUTTS	BB5000 NRP 4.5 X 4.5	630
BALANCE OF DOOR HARDWARE BY DOOR SUPPLIER				1	EACH	CLOSER	P4041 CUSH, HOLD OPEN ARM
				1	EACH	SWEEP	315_C-N
				1	EACH	STOP	307
				1	EACH	LOCKSET	D-SERIES PLYMOUTH D630
				1	EACH	KICKSTOP	461L
HARDWARE GROUP 2				HARDWARE GROUP 4			
1 1/2 PAIR	BUTTS	BB5000 NRP 4.5 X 4.5	630	1 1/2 PAIR	BUTTS	BB5000 NRP 4.5 X 4.5	630
1	EACH	CLOSER	P4041 CUSH, HOLD OPEN ARM	1	EACH	CLOSER	P4041 CUSH, HOLD OPEN ARM
1	EACH	WEATHER STRIP	303_S-C X 204"	1	EACH	WEATHER STRIP	303_S-C X 204"
1	EACH	SWEEP	315_C-N	1	EACH	SWEEP	315_C-N
1	EACH	KICKPLATE	10" X 2" LDW	1	EACH	KICKPLATE	10" X 2" LDW
1	EACH	STOP	307	1	EACH	STOP	307
1	EACH	LOCKSET	J-SERIES JD60 605	1	EACH	PANIC BAR W/ LEVER	5000-E W/ 8000-L LEVER
1	EACH	KICKSTOP	461L	1	EACH	KICKSTOP	461L
2	EACH	PULL PLATE	8112-626	2	EACH	PULL PLATE	8112-626

FRAME TYPES



NO.	DATE	REV. BY	DESCRIPTION

OGDEN AIRPORT WELL HOUSE PROJECT

OGDEN CITY, UTAH

DESIGN: E. NEIL
DRAWN: N. ROGERS

REVIEW: B. MAYERS
CHECKED: E. NEIL
APPROVED: E. NEIL

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

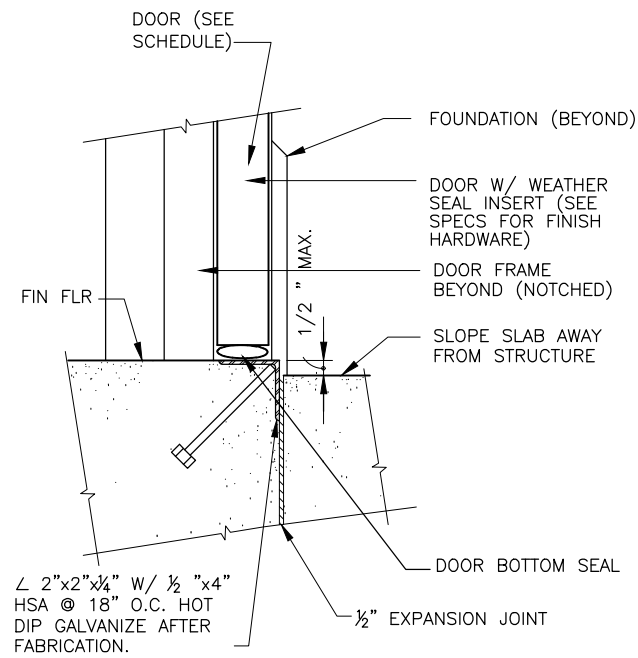
FINISH & DOOR SCHEDULE

ARCHITECTURAL

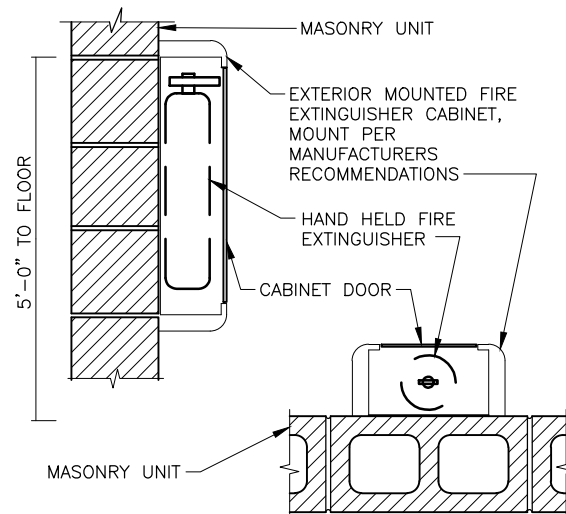
DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01

DRAWING NO. **A-02**

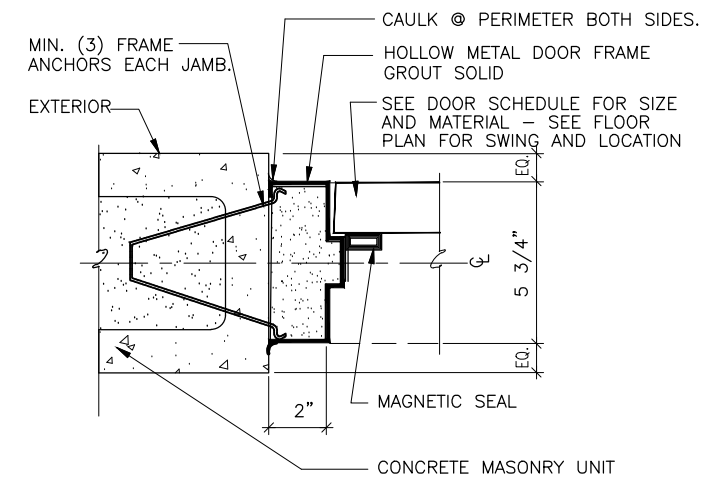
SHEET 07 OF 58



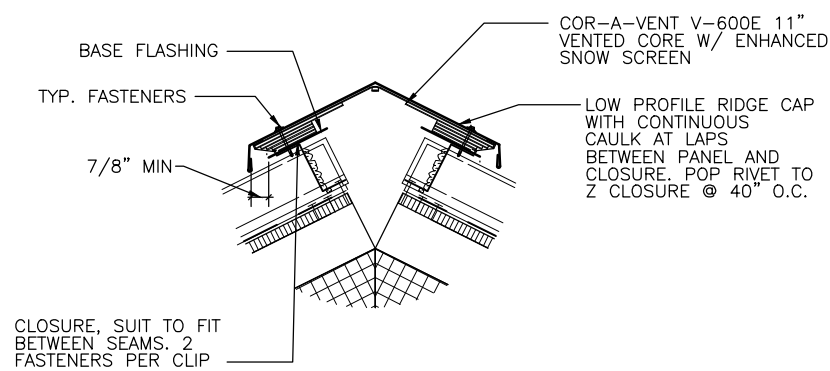
STEEL ANGLE THRESHOLD (A) 1000
SCALE: NONE



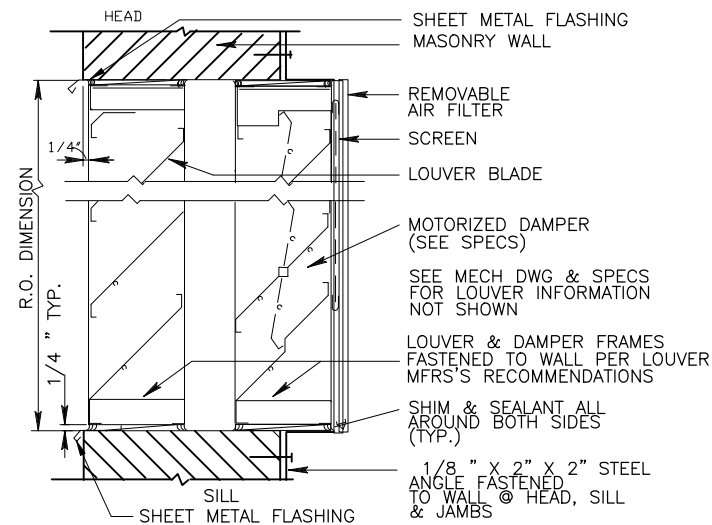
SURFACE MOUNTED FIRE EXTINGUISHER (A) 1001
SCALE: NONE



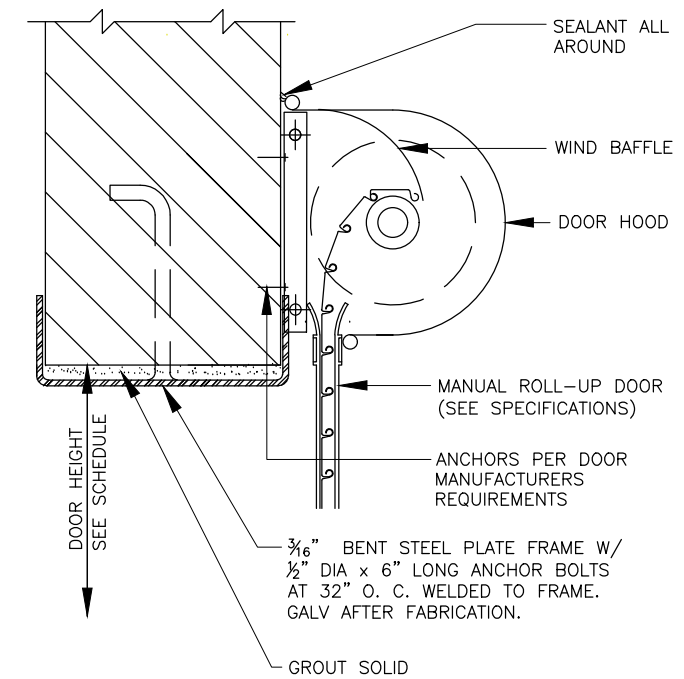
DOOR JAMB (HEAD SIM) (A) 1002
SCALE: NONE



ROOF RIDGE (A) 1003
SCALE: NONE



LOUVER W/ DAMPER (A) 1004
SCALE: NONE JAMB SIMILAR



HEAD AT ROLL - UP DOOR (MANUAL) (A) 1005
SCALE: NONE

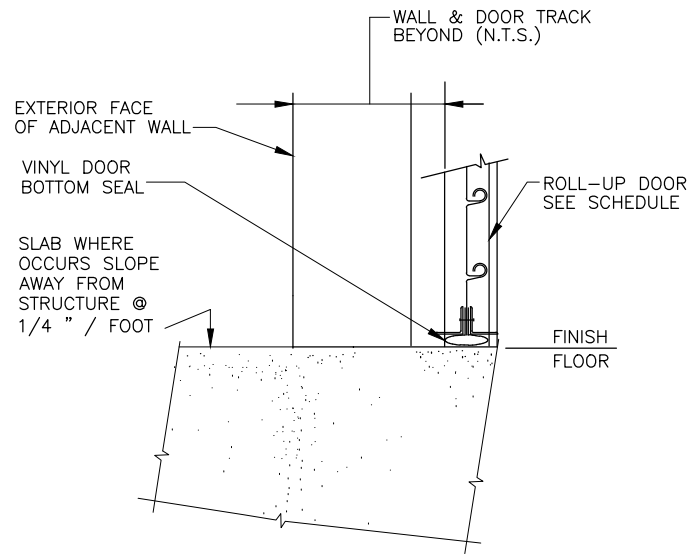
NO.	DATE	REV. BY	DESCRIPTION

OGDEN AIRPORT WELL HOUSE PROJECT
ARCHITECTURAL
GENERAL ARCHITECTURAL DETAILS - 1
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

REVIEW
CHECKED B. MAYERS
APPROVED E. NEIL
DESIGN
DESIGN E. NEIL
DRAWN N. ROGERS

OGDEN CITY
OGDEN, UT

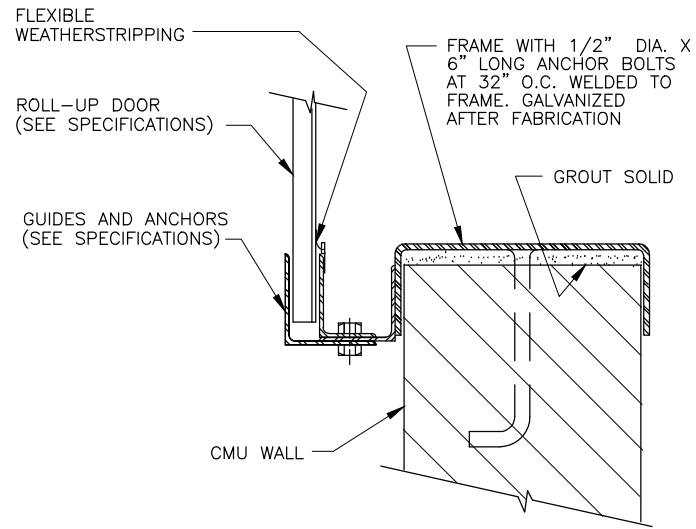
ARCHITECTURAL
GENERAL ARCHITECTURAL DETAILS - 1
DATE: FEBRUARY 2020
PROJECT NUMBER
202-18-01



THRESHOLD AT ROLL-UP DOOR

SCALE: NONE

A
1006



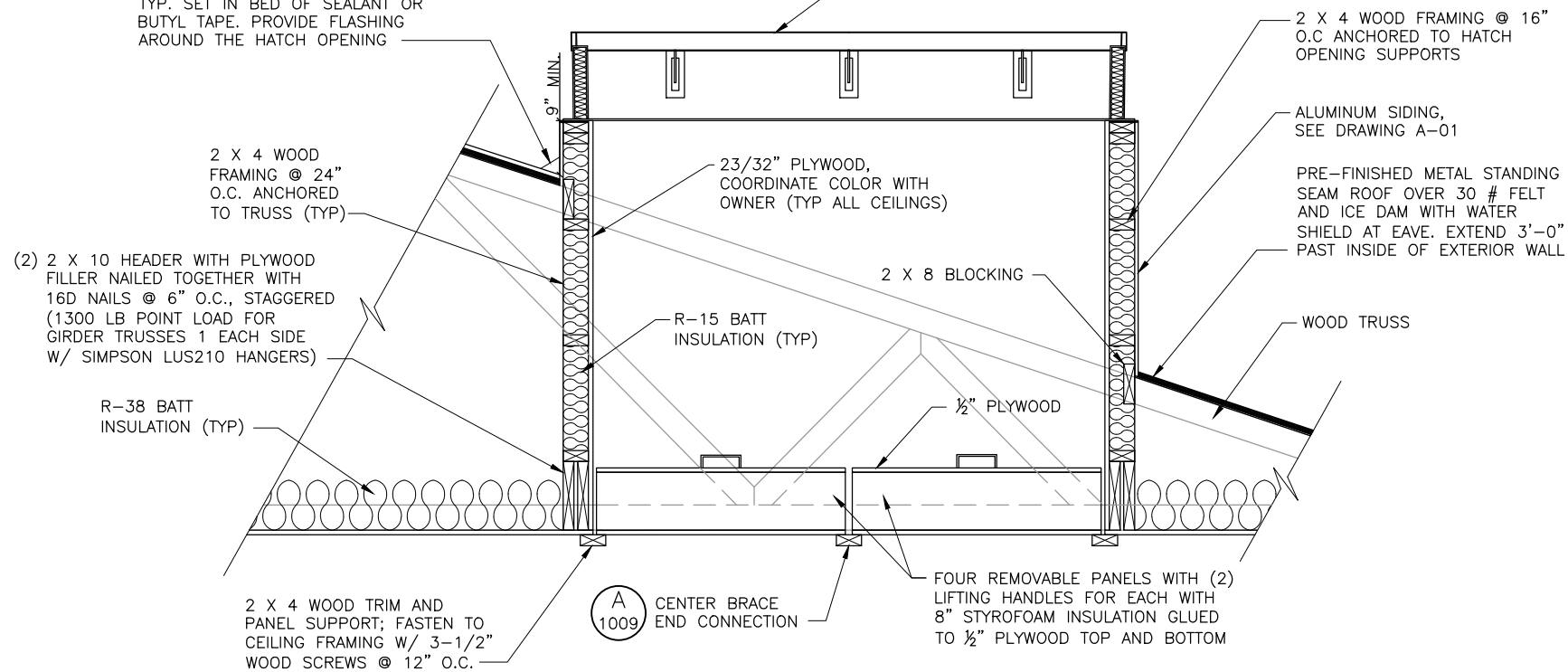
JAMB AT ROLL-UP DOOR

SCALE: NONE

A
1007

METAL CURBING, FIELD CUT AND BEND TO CHANNEL WATER TO THE SIDES OF THE HATCH, FASTEN WITH #10 -12X1" PANCAKE HEAD SCREWS @ 16" O.C. TYP. SET IN BED OF SEALANT OR BUTYL TAPE. PROVIDE FLASHING AROUND THE HATCH OPENING

INSULATED ROOF HATCH AND COMPLETE SST EXTERNAL LOCKABLE CATCH

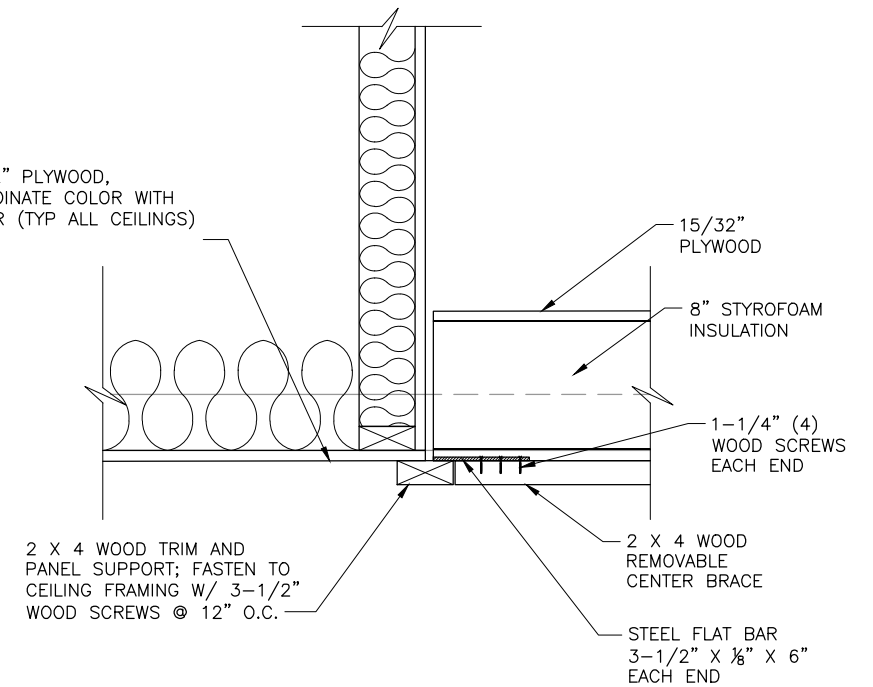


INSULATED REMOVABLE HATCH

SCALE: NONE

A
1008

23/32" PLYWOOD, COORDINATE COLOR WITH OWNER (TYP ALL CEILINGS)



CENTER BRACE END CONNECTION

SCALE: NONE

A
1009

NO.	DATE	REV. BY	DESCRIPTION

OGDEN AIRPORT WELL HOUSE PROJECT
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN: E. NEIL
DRAWN: N. ROGERS
REVIEW: B. MAYERS
CHECKED: E. NEIL
APPROVED: E. NEIL

ARCHITECTURAL
GENERAL ARCHITECTURAL DETAILS - 2

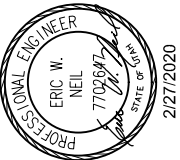
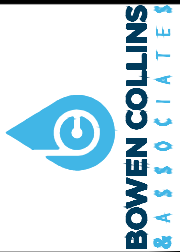
OGDEN CITY
OGDEN, UT
DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01

DRAWING NO.
GA-02

100 YR 24 HR STORM EVENT DESIGN CRITERIA

- VOLUME REQUIRED = 5,273 CF
- VOLUME PROVIDED = 14,235 CF
- TOP OF RETENTION BASIN ELEVATION = 4443.0 FT
- BOTTOM OF RETENTION BASE ELEVATION = 4440.0 FT
- FREEBOARD ELEVATION = 4442.0 FT
- PEAK FLOW INTO BASIN = 1.66 CFS

NOTE:
45.00 = ELEVATION 4445.00



NO.	DATE	REV. BY	DESCRIPTION

OGDEN CITY
OGDEN, UT

OGDEN AIRPORT WELL HOUSE PROJECT

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

DESIGN
N. ROGERS
DRAWN
J. COLLINS

REVIEW
B. MAYERS
CHECKED
E. NEIL
APPROVED
E. NEIL

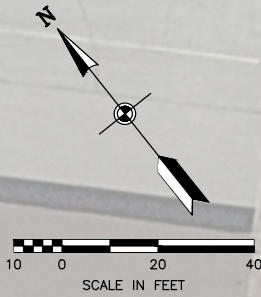
CIVIL

OVERALL SITE & GRADING PLAN

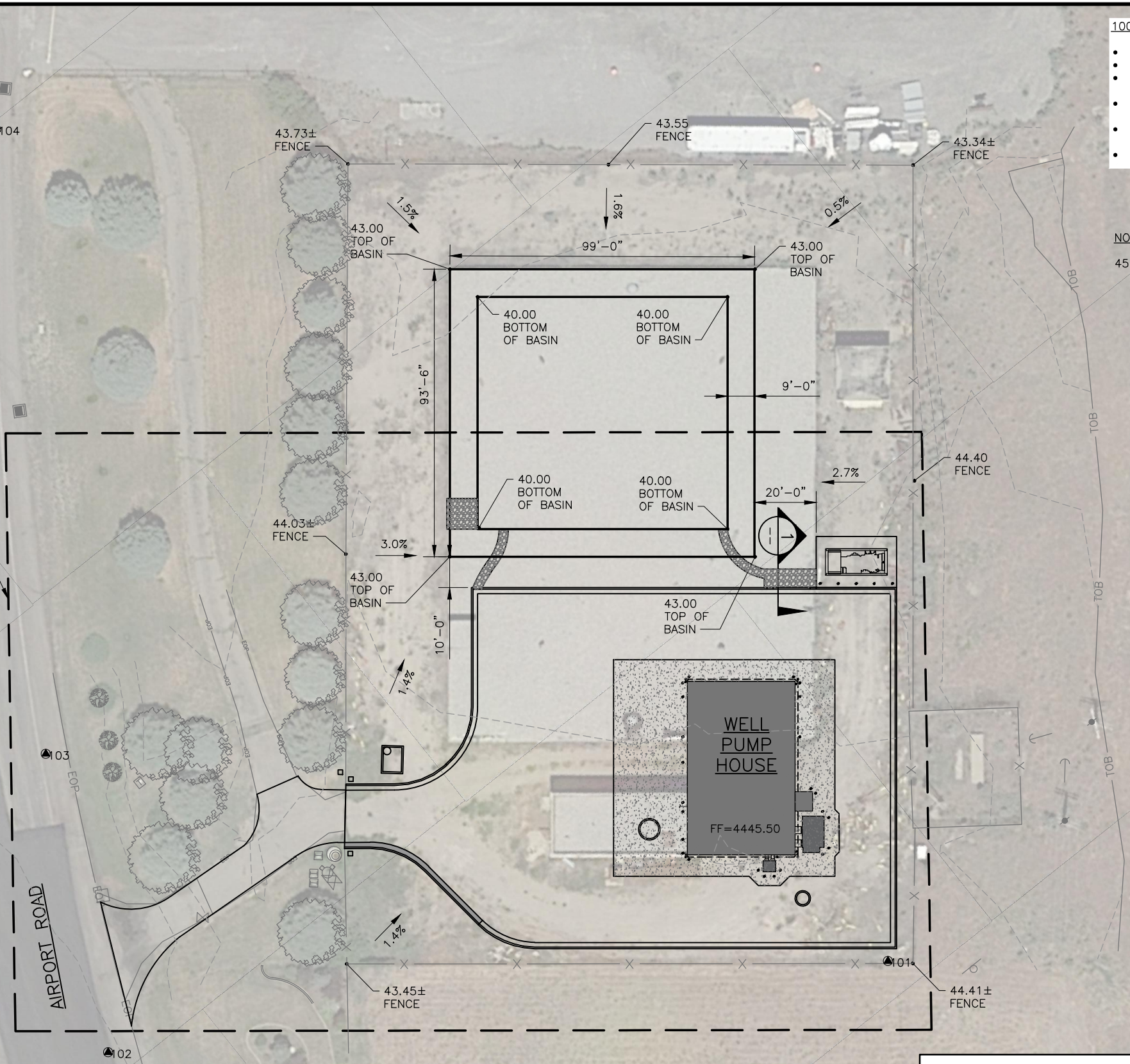
DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01

DRAWING NO.
C-01

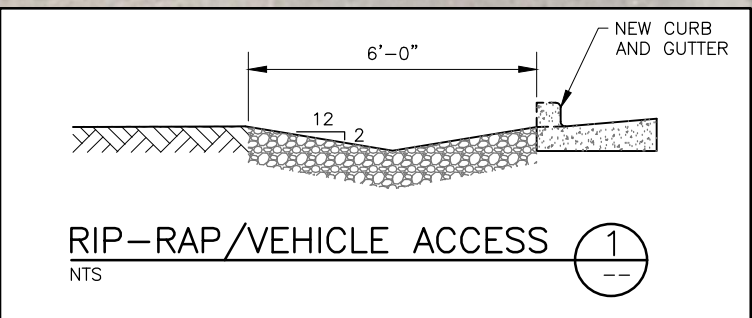
SHEET 10 OF 58

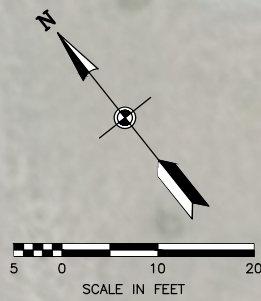


PUMP HOUSE SITE PLAN,
SEE DRAWING C-02;
PUMP HOUSE GRADING PLAN,
SEE DRAWING C-03;
PUMP HOUSE UTILITY PLAN,
SEE DRAWING C-04



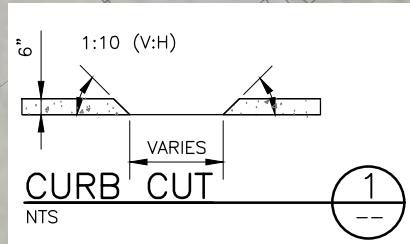
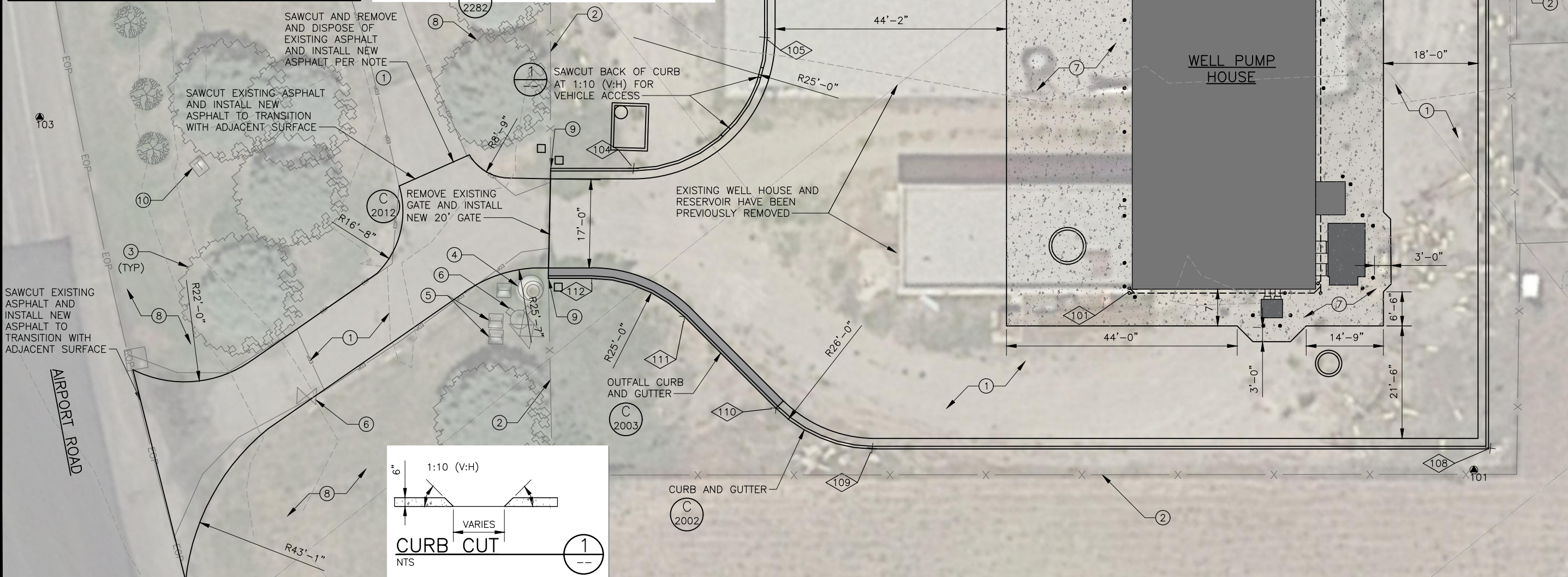
SURVEY CONTROL				
POINT #	NORTHING	EASTING	ELEVATION	RAW DESCRIPTION
101	3594220.61	1501086.16	4443.58	CPT-60D
102	3594355.14	1500869.35	4442.13	CPT-MAG
103	3594443.64	1500913.87	4441.54	CPT-MAG
104	3594612.55	1501027.59	4440.36	CPT-MAG





- NOTES:**
- ① NEW 3" THICK COMPACTED ASPHALT, PG 58-28 OVER 8" COMPACTED BASE COURSE.
 - ② PRESERVE AND PROTECT EXISTING FENCE.
 - ③ PRESERVE AND PROTECT EXISTING TREE.
 - ④ PRESERVE AND PROTECT EXISTING VALVE BOX.
 - ⑤ PRESERVE AND PROTECT EXISTING IRRIGATION BOX.
 - ⑥ PRESERVE AND PROTECT EXISTING FIRE HYDRANT OR VALVE.
 - ⑦ 6" THICK REINFORCED CONCRETE SIDEWALK AND DRIVEWAY WITH 8" BASE COURSE. CONCRETE REINFORCED WITH #4 REBAR @ 12" O.C. EW CENTERED VERTICALLY IN SLAB. JOINTING PER OGDEN CITY (C) 2007 (SIM).
 - ⑧ REPAIR EXISTING IRRIGATION AND LANDSCAPING TO MATCH EXISTING.
 - ⑨ INSTALL NEW FENCE POST 1.5 FT FROM ASPHALT FOR NEW 20 FT GATE. (C) 2012
 - ⑩ PRESERVE AND PROTECT COMMUNICATIONS BOX.
 - ⑪ PROVIDE 4" WIDE RIPRAP CHANNEL FROM CURB CUT TO BOTTOM OF SLOPE. (C) 2282
 - ⑫ SAWCUT BACK OF CURB AT SAME ANGLE AS GUTTER TO ALLOW DRAINAGE INTO RIPRAP. (C) 2282
 - ⑬ FOR CONTROL POINTS, SEE DRAWING C-01.
 - ⑭ PROVIDE 10' X 10' RIP-RAP AREA WITH 10-12" WELL ROUNDED AGGREGATE FOR DISCHARGE OF PRESSURE RELIEF VALVE VENT. (C) 2282

SITE COORDINATES			
POINT #	NORTHING	EASTING	RAW DESCRIPTION
101	3594288.20	1501056.62	SW CORNER OF WELL HOUSE
102	3594332.29	1501091.69	NW CORNER OF WELL HOUSE
103	3594310.50	1501119.08	NE CORNER OF WELL HOUSE
104	3594365.47	1500996.48	TBC POINT OF TANGENCY
105	3594369.47	1501031.61	TBC POINT OF TANGENCY
106	3594399.84	1501055.76	TBC POINT OF TANGENCY
107	3594313.83	1501163.89	TBC
108	3594221.91	1501091.21	TBC
109	3594295.34	1500998.90	TBC POINT OF TANGENCY
110	3594312.74	1500989.25	TBC POINT OF TANGENCY
111	3594337.25	1500986.46	TBC
112	3594353.98	1500977.19	TBC POINT OF TANGENCY



BOWEN COLLINS & ASSOCIATES

NO.	DATE	REV. BY	DESCRIPTION

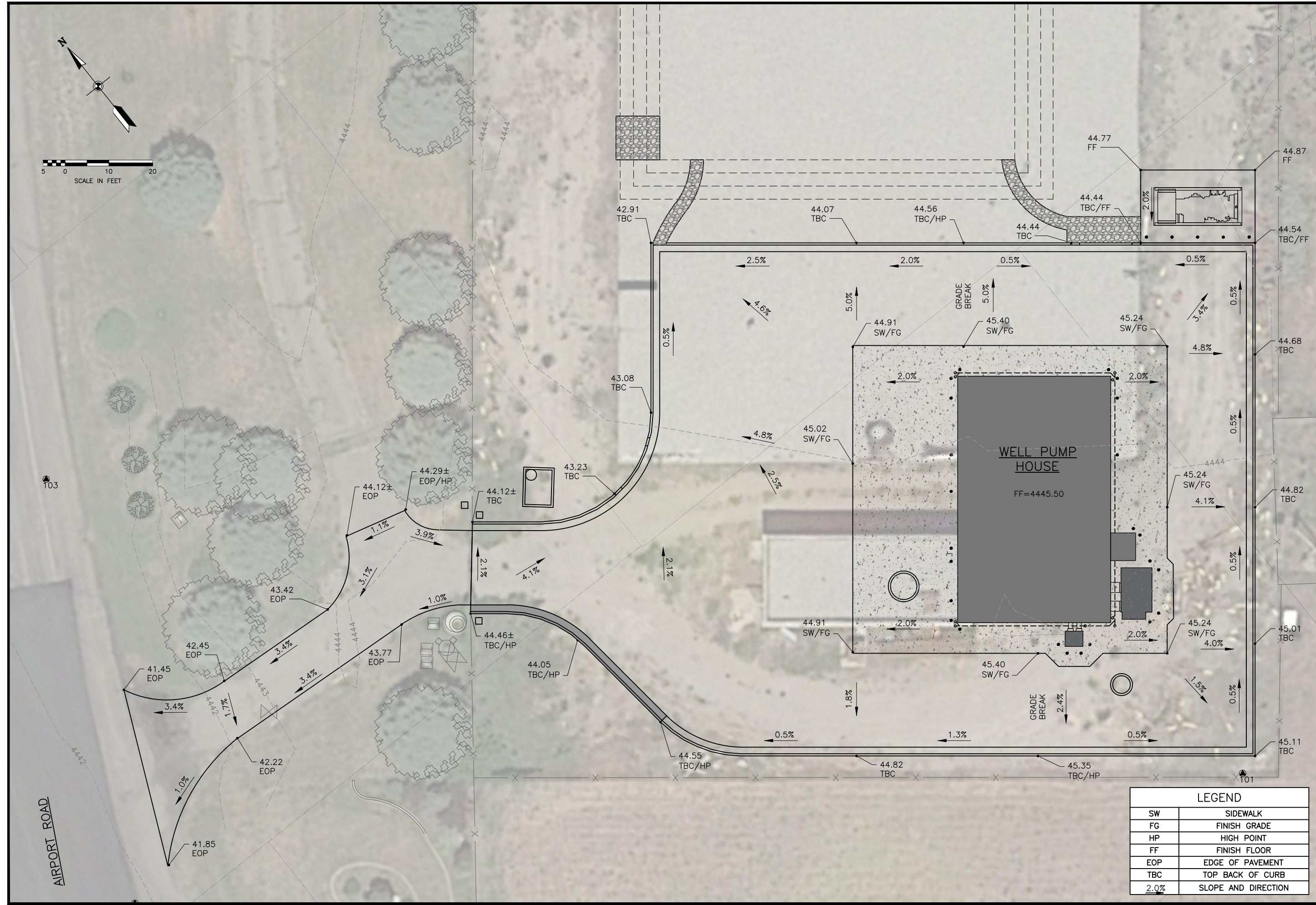
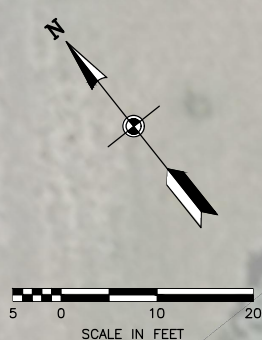
OGDEN AIRPORT WELL HOUSE PROJECT

OGDEN CITY, UTAH

DESIGN DESIGN: N. ROGERS DRAWN: J. COLLINS	REVIEW CHECKED: B. MAYERS APPROVED: E. NEIL	VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING
--	---	---

PUMP HOUSE SITE PLAN

DATE: FEBRUARY 2020	PROJECT NUMBER: 202-18-01
DRAWING NO. C-02	
SHEET 11 OF 58	



LEGEND	
SW	SIDEWALK
FG	FINISH GRADE
HP	HIGH POINT
FF	FINISH FLOOR
EOP	EDGE OF PAVEMENT
TBC	TOP BACK OF CURB
2.0%	SLOPE AND DIRECTION

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER

ERIC W. NEIL

7702947

STATE OF UTAH

2/27/2020

NO.	DATE	REV. BY	DESCRIPTION

OGDEN CITY, UTAH

OGDEN AIRPORT WELL HOUSE PROJECT

OGDEN, UT

DESIGN
DESIGN N. ROGERS
DRAWN J. COLLINS

REVIEW
CHECKED B. MAYERS
APPROVED E. NEIL

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING

CIVIL

PUMP HOUSE GRADING PLAN

DATE: FEBRUARY 2020

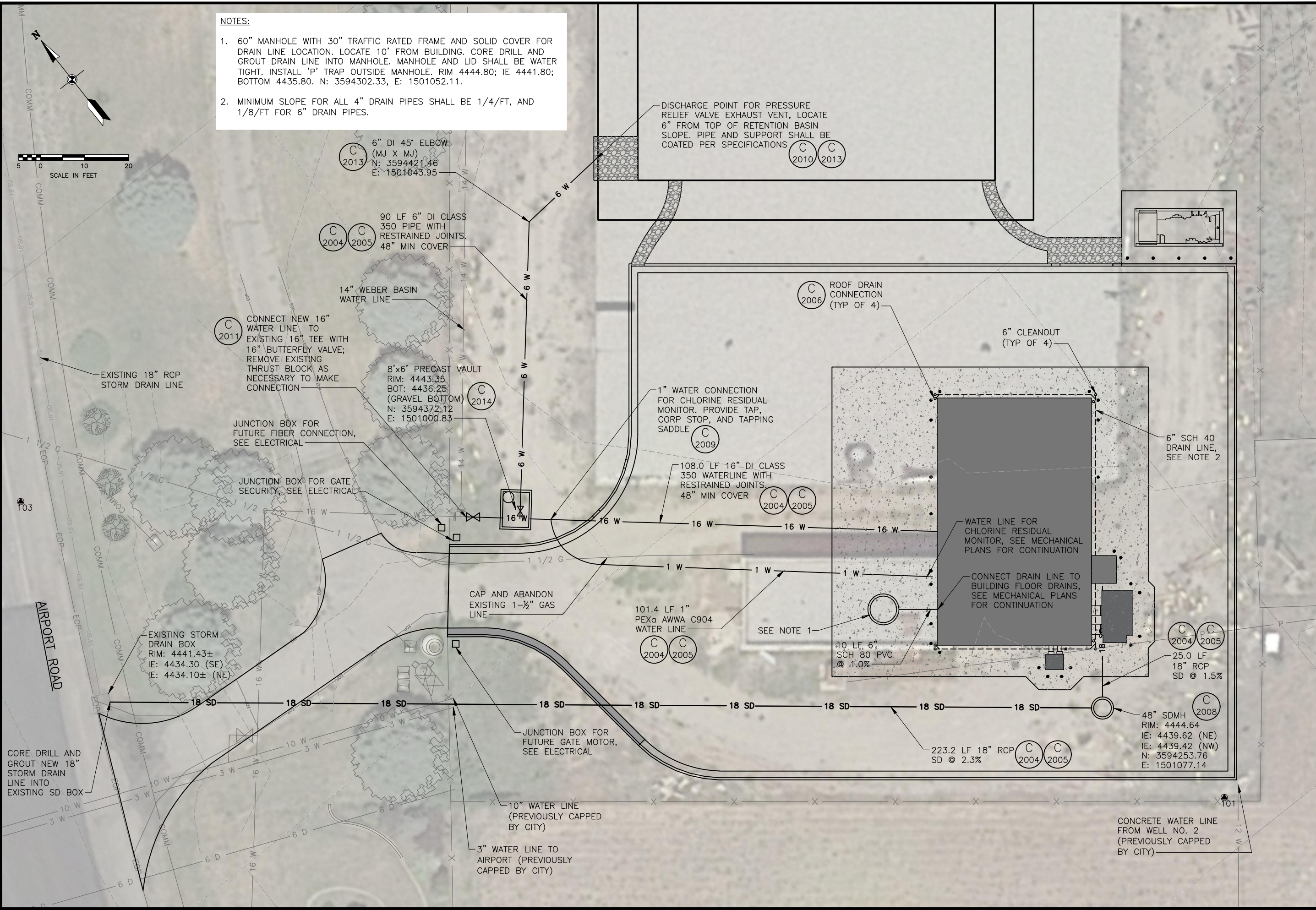
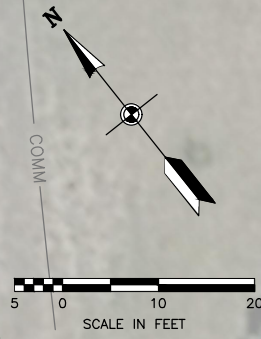
PROJECT NUMBER: 202-18-01

DRAWING NO. **C-03**

SHEET **12** OF **58**

P:\ogden city\202-18-01 ogden airport well\design phase\Drawings\Sh2\2021801_C-03.dwg Plotted: 2/28/2020 3:02 PM By: Eric Neil

- NOTES:**
- 60" MANHOLE WITH 30" TRAFFIC RATED FRAME AND SOLID COVER FOR DRAIN LINE LOCATION. LOCATE 10' FROM BUILDING. CORE DRILL AND GROUT DRAIN LINE INTO MANHOLE. MANHOLE AND LID SHALL BE WATER TIGHT. INSTALL 'P' TRAP OUTSIDE MANHOLE. RIM 4444.80; IE 4441.80; BOTTOM 4435.80. N: 3594302.33, E: 1501052.11.
 - MINIMUM SLOPE FOR ALL 4" DRAIN PIPES SHALL BE 1/4'/FT, AND 1/8'/FT FOR 6" DRAIN PIPES.



DISCHARGE POINT FOR PRESSURE RELIEF VALVE EXHAUST VENT, LOCATE 6" FROM TOP OF RETENTION BASIN SLOPE. PIPE AND SUPPORT SHALL BE COATED PER SPECIFICATIONS

EXISTING 18" RCP STORM DRAIN LINE

CONNECT NEW 16" WATER LINE TO EXISTING 16" TEE WITH 16" BUTTERFLY VALVE; REMOVE EXISTING THRUST BLOCK AS NECESSARY TO MAKE CONNECTION

90 LF 6" DI CLASS 350 PIPE WITH RESTRAINED JOINTS. 48" MIN COVER

6" DI 45° ELBOW (MJ X MJ) N: 3594421.46 E: 1501043.95

8'x6' PRECAST VAULT RIM: 4443.35 BOT: 4436.25 (GRAVEL BOTTOM) N: 3594372.12 E: 1501000.83

JUNCTION BOX FOR FUTURE FIBER CONNECTION, SEE ELECTRICAL

JUNCTION BOX FOR GATE SECURITY, SEE ELECTRICAL

CAP AND ABANDON EXISTING 1-1/2" GAS LINE

101.4 LF 1" PEX_a AWWA C904 WATER LINE

108.0 LF 16" DI CLASS 350 WATERLINE WITH RESTRAINED JOINTS. 48" MIN COVER

1" WATER CONNECTION FOR CHLORINE RESIDUAL MONITOR. PROVIDE TAP, CORP STOP, AND TAPPING SADDLE

ROOF DRAIN CONNECTION (TYP OF 4)

6" CLEANOUT (TYP OF 4)

6" SCH 40 DRAIN LINE, SEE NOTE 2

WATER LINE FOR CHLORINE RESIDUAL MONITOR, SEE MECHANICAL PLANS FOR CONTINUATION

CONNECT DRAIN LINE TO BUILDING FLOOR DRAINS, SEE MECHANICAL PLANS FOR CONTINUATION

25.0 LF 18" RCP SD @ 1.5%

48" SDMH RIM: 4444.64 IE: 4439.62 (NE) IE: 4439.42 (NW) N: 3594253.76 E: 1501077.14

223.2 LF 18" RCP SD @ 2.3%

SEE NOTE 1

EXISTING STORM DRAIN BOX RIM: 4441.43± IE: 4434.30 (SE) IE: 4434.10± (NE)

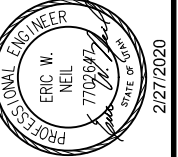
CORE DRILL AND GROUT NEW 18" STORM DRAIN LINE INTO EXISTING SD BOX

JUNCTION BOX FOR FUTURE GATE MOTOR, SEE ELECTRICAL

10" WATER LINE (PREVIOUSLY CAPPED BY CITY)

3" WATER LINE TO AIRPORT (PREVIOUSLY CAPPED BY CITY)

CONCRETE WATER LINE FROM WELL NO. 2 (PREVIOUSLY CAPPED BY CITY)



NO.	DATE	REV. BY	DESCRIPTION

OGDEN AIRPORT WELL HOUSE PROJECT

OGDEN CITY, UTAH

DESIGN: N. ROGERS
DRAWN: J. COLLINS

REVIEW: B. MAYERS
CHECKED: B. MAYERS

APPROVED: E. NEIL

VERIFY SCALE: 1" = 10' (ON ORIGINAL DRAWING)

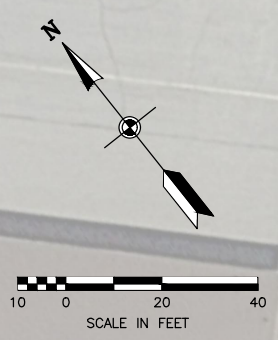
PUMP HOUSE UTILITY PLAN

CIVIL

DATE: FEBRUARY 2020

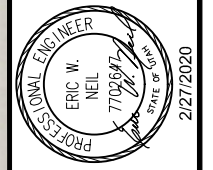
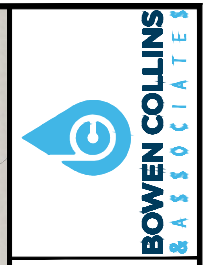
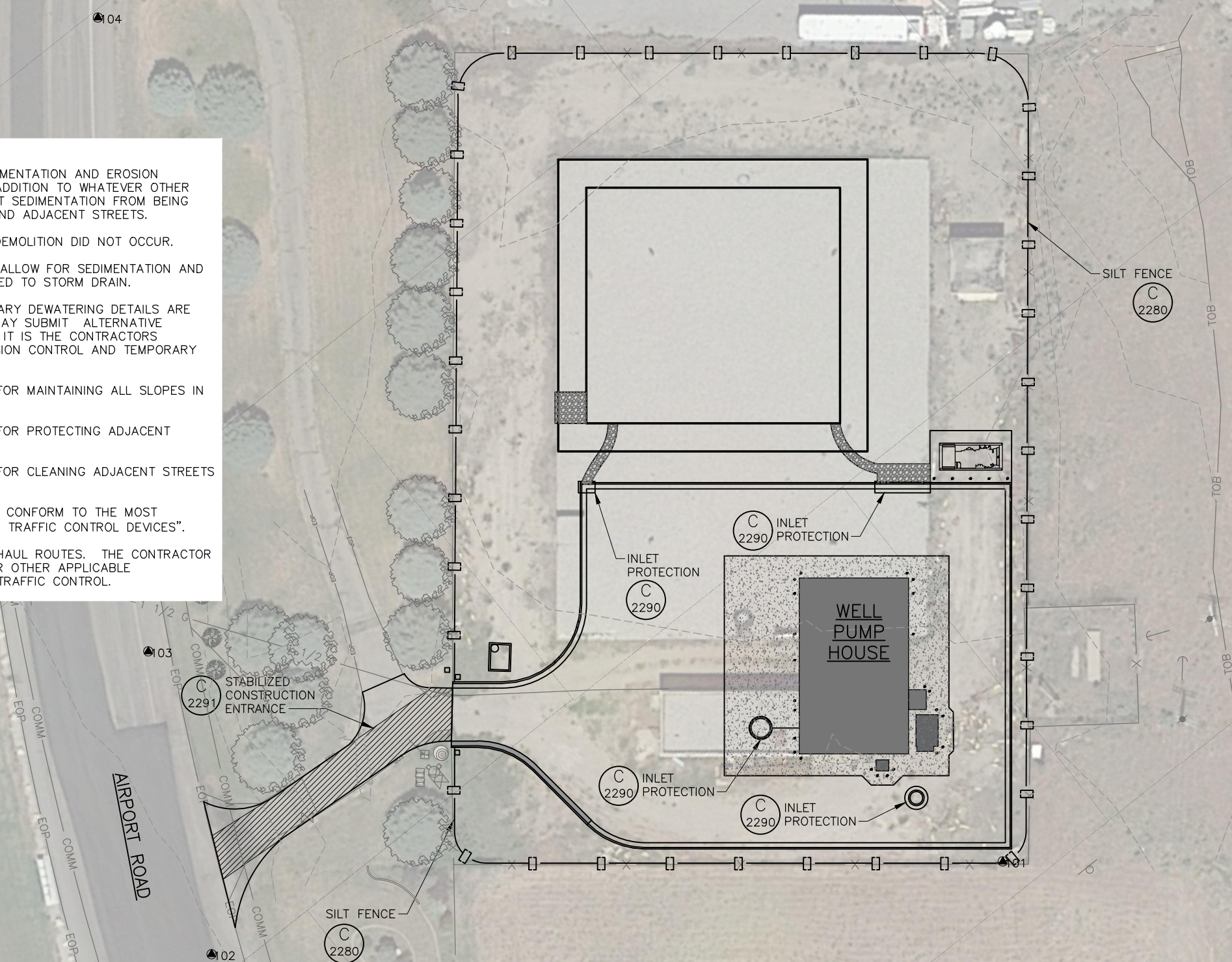
PROJECT NUMBER: 202-18-01

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EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL PROVIDE THE SEDIMENTATION AND EROSION CONTROL SYSTEMS AS SHOWN HEREON IN ADDITION TO WHATEVER OTHER MEASURES MAY BE NECESSARY TO PREVENT SEDIMENTATION FROM BEING TRANSPORTED TO EXISTING STORM DRAIN AND ADJACENT STREETS.
2. CLEAR AND GRUB SITE PERIMETER WHERE DEMOLITION DID NOT OCCUR.
3. INSTALL TEMPORARY RETENTION AREAS TO ALLOW FOR SEDIMENTATION AND FILTRATION TO OCCUR BEFORE BEING PUMPED TO STORM DRAIN.
4. THIS EROSION CONTROL PLAN AND TEMPORARY DEWATERING DETAILS ARE SUGGESTED METHODS. THE CONTRACTOR MAY SUBMIT ALTERNATIVE EROSION CONTROL PLANS FOR APPROVAL. IT IS THE CONTRACTORS ULTIMATE RESPONSIBILITY TO PROVIDE EROSION CONTROL AND TEMPORARY DEWATERING.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SLOPES IN A STABLE CONDITION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ADJACENT IMPROVEMENTS FROM DAMAGE.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ADJACENT STREETS AFFECTED BY CONSTRUCTION.
8. TRAFFIC CONTROL AND HAUL ROUTES MUST CONFORM TO THE MOST CURRENT EDITION OF "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
9. OGDEN CITY MUST APPROVE ALL PROJECT HAUL ROUTES. THE CONTRACTOR MUST ALSO CONFORM TO UDOT, COUNTY OR OTHER APPLICABLE GOVERNMENT ENTITIES REQUIREMENTS FOR TRAFFIC CONTROL.

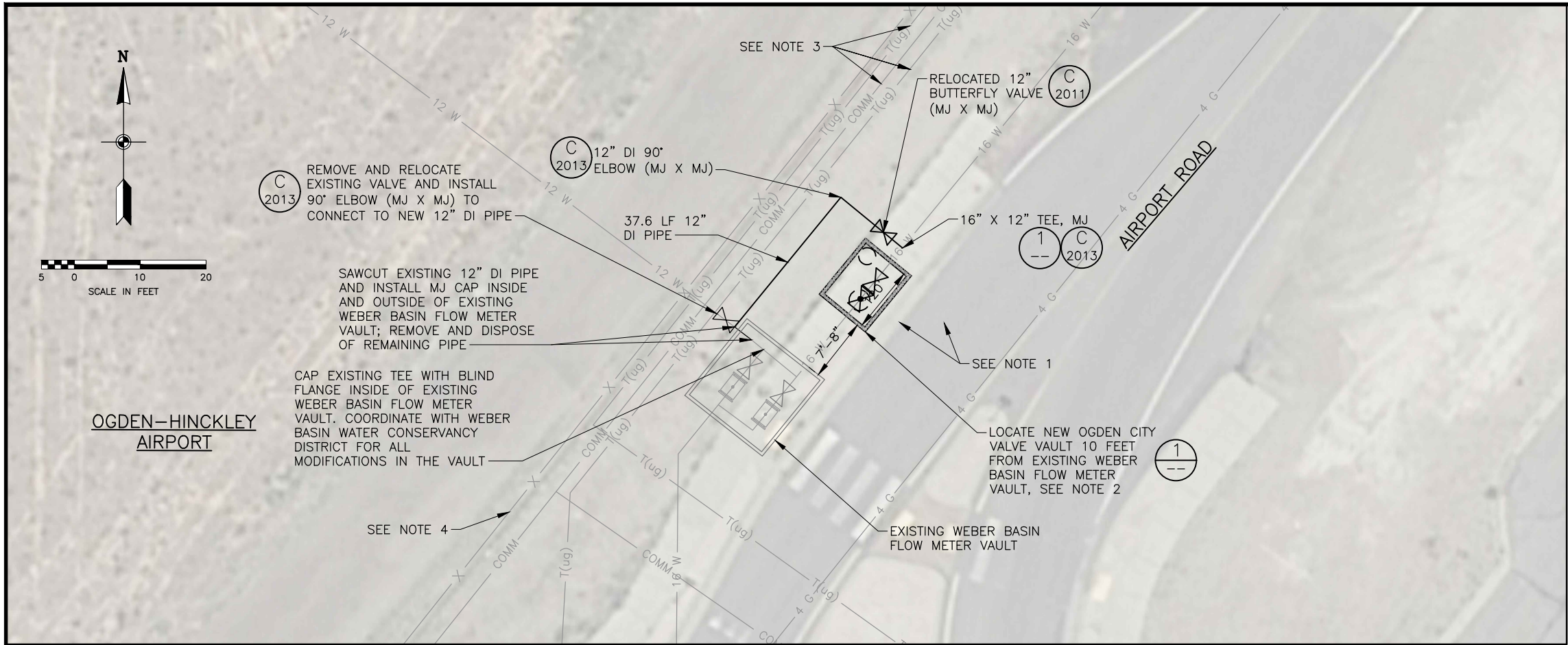


NO.	DATE	REV. BY	DESCRIPTION

OGDEN CITY		OGDEN, UT	
OGDEN AIRPORT WELL HOUSE PROJECT			
DESIGN	REVIEW	CHECKED	APPROVED
N. ROGERS	B. MAYERS	E. NEIL	E. NEIL
DRAWN	DRAWING		
J. COLLINS	ORIGINAL		

CIVIL	PROJECT NUMBER
EROSION CONTROL PLAN	202-18-01
DATE: FEBRUARY 2020	

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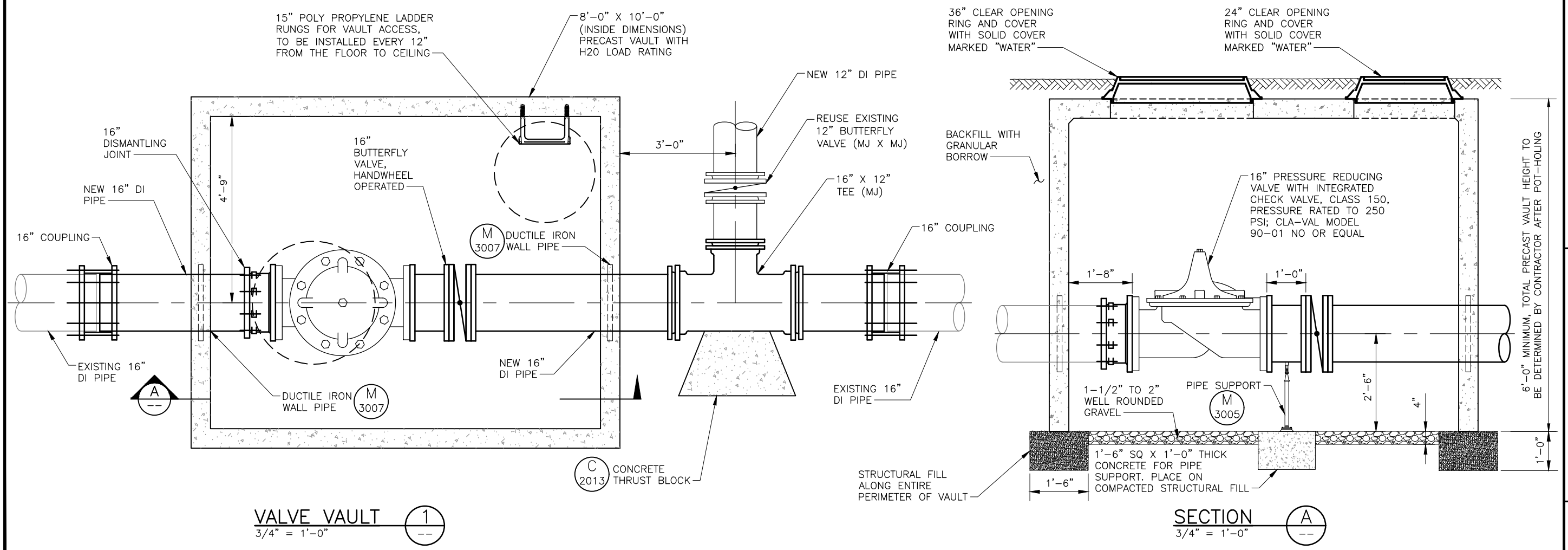


- NOTES:
1. PRESERVE AND PROTECT EXISTING ASPHALT AND CURB AND GUTTER.
 2. PRIOR TO PURCHASING NEW PRECAST VAULT, CONTRACTOR TO POT-HOLE AT NEW VAULT LOCATION TO DETERMINE ELEVATION OF EXISTING WATER LINE.
 3. PRESERVE AND PROTECT EXISTING UTILITIES.
 4. PRESERVE AND PROTECT EXISTING FENCE.

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER
ERIC W. NEIL
7702947
STATE OF UTAH
2/27/2020

NO.	DATE	REV. BY	DESCRIPTION



OGDEN AIRPORT WELL HOUSE PROJECT

OGDEN CITY, UTAH

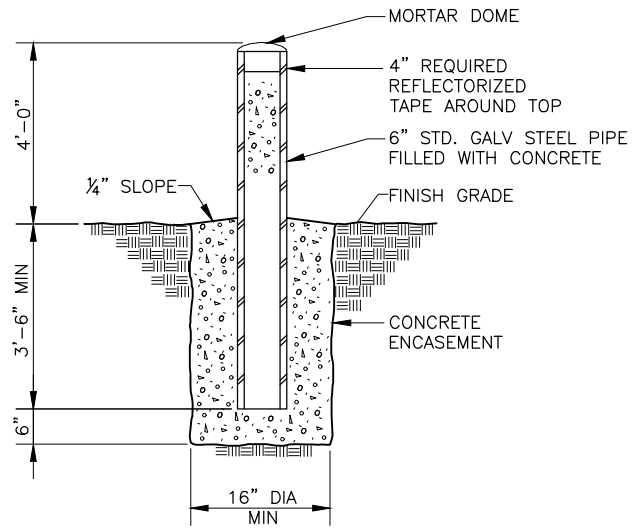
DESIGN: E. NEIL
CHECKED: B. MAYERS
DRAWN: N. ROGERS

REVIEW: E. NEIL
APPROVED: E. NEIL

DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01

VAULT UTILITY PLAN

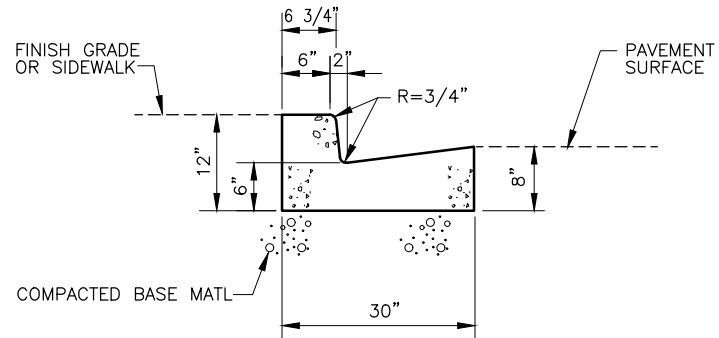
DRAWING NO. C-06
SHEET 15 OF 58



NOTE:
1. BOLLARD POSTS SHALL BE INSTALLED BY VALVES AND VAULTS IN UNIMPROVED AREAS IN LOCATIONS SPECIFIED BY THE ENGINEER IN THE FIELD.

BOLLARD
SCALE: NTS

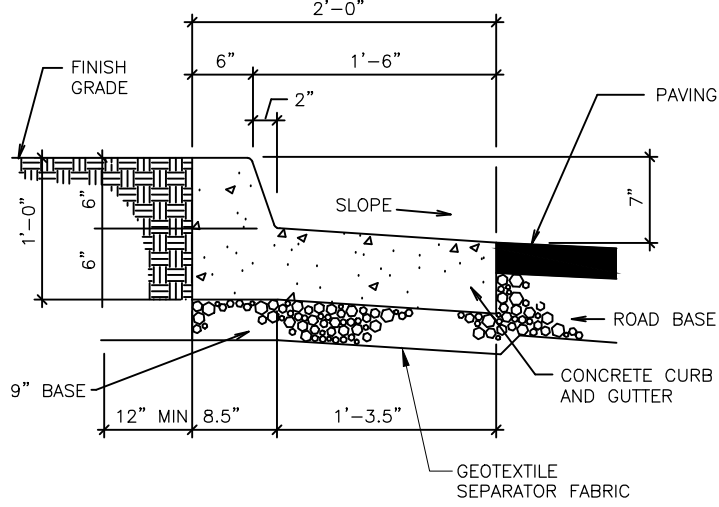
C
2001



NOTES:
1. CONTRACTION JOINTS SHALL BE PLACED AT 10' SPACING. EXPANSION JOINTS OF 1/2" PREMOLDED JOINT FILLER SHALL BE PLACED AT BACK OF CURB AND AT 50' MAXIMUM SPACING.
2. ALL EXPOSED SURFACES OF CURB AND GUTTER SHALL BE GIVEN A MORTAR BRUSH COAT CONSISTING OF ONE PART PORTLAND CEMENT, ONE PART SAND AND THEN TROWELED SMOOTH.

CURB AND GUTTER
NTS

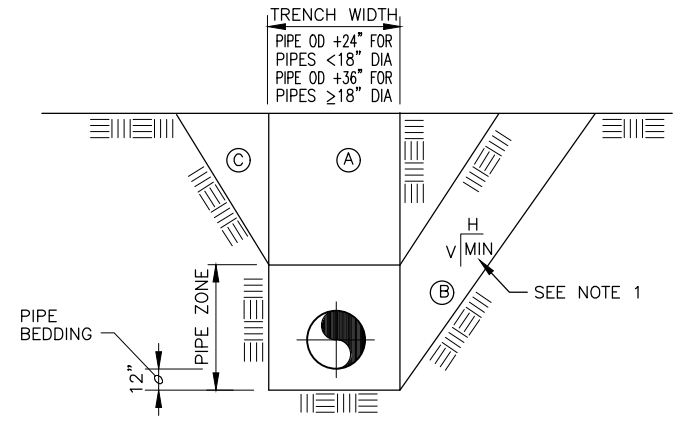
C
2002



NOTES:
1. CONTRACTION JOINTS SHALL BE PLACED AT 10' SPACING. EXPANSION JOINTS OF 1/2" PREMOLDED JOINT FILLER SHALL BE PLACED AT BACK OF CURB AND AT 50' MAXIMUM SPACING.
2. ALL EXPOSED SURFACES OF CURB AND GUTTER SHALL BE GIVEN A MORTAR BRUSH COAT CONSISTING OF ONE PART PORTLAND CEMENT, ONE PART SAND AND THEN TROWELED SMOOTH.

OUTFALL CURB AND GUTTER
SCALE: NTS

C
2003

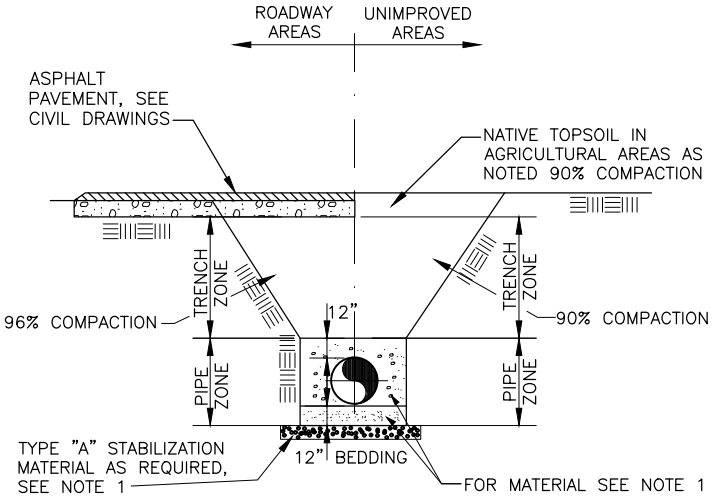


ALTERNATE TRENCH SECTIONS (A) (B) & (C)
(A) VERTICAL TRENCH WALL
1. MAX UNSUPPORTED HEIGHT=3.5 FT.
2. FOR DEPTH OVER 3.5 FT SHORING OR SHEATHING REQUIRED.
(B) SLOPING TRENCH WALL
1. NOT TO BE USED WITHOUT APPROVAL OF ENGINEER.
2. REQUIRES IMPROVED PIPE ZONE BACKFILL OR INCREASE IN PIPE CLASS
(C) COMBINATION VERTICAL/SLOPING TRENCH
1. TRENCH IN PIPE ZONE SHALL HAVE VERTICAL WALLS WHERE STABLE SOIL EXISTS.

NOTES:
1. TRENCH EXCAVATIONS TO BE IN ACCORDANCE WITH OSHA SAFETY AND HEALTH STANDARDS FOR CONSTRUCTION. (29 CFR 1926).
2. CONTRACTOR TO PROVIDE SHORING OR TRENCH BOX IN ROADWAY AREAS TO MINIMIZE TRENCH WIDTH.
3. CONTRACTOR TO PROVIDE ALL DEWATERING MEASURES AS REQUIRED.

TYPICAL TRENCH EXCAVATION SECTION
NTS

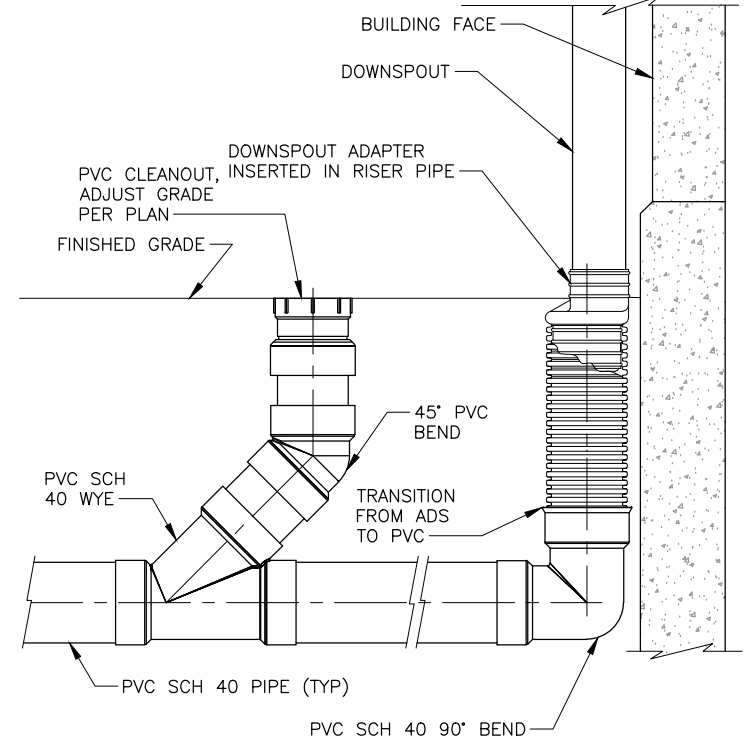
C
2004



NOTES:
1. SEE APWA 2017 SPECIFICATIONS AND SPECIFICATION SECTION 31 23 00 "EARTHWORK" FOR DEFINITION OF PIPE ZONE MATERIAL, BACKFILL MATERIAL AND COMPACTION REQUIREMENTS. IF A DISCREPANCY BETWEEN THE TWO SPECIFICATIONS EXIST, THE APWA SPECIFICATION SHALL GOVERN.
2. IMPORT BACKFILL REQUIRED FOR TRENCH BACKFILL UNDER ROADWAY AREAS.
3. NATIVE MATERIAL MEETING SPECIFICATION REQUIREMENT FOR 'SUITABLE MATERIAL' MAY BE USED FOR TRENCH ZONE BACKFILL IN UNIMPROVED AREAS.

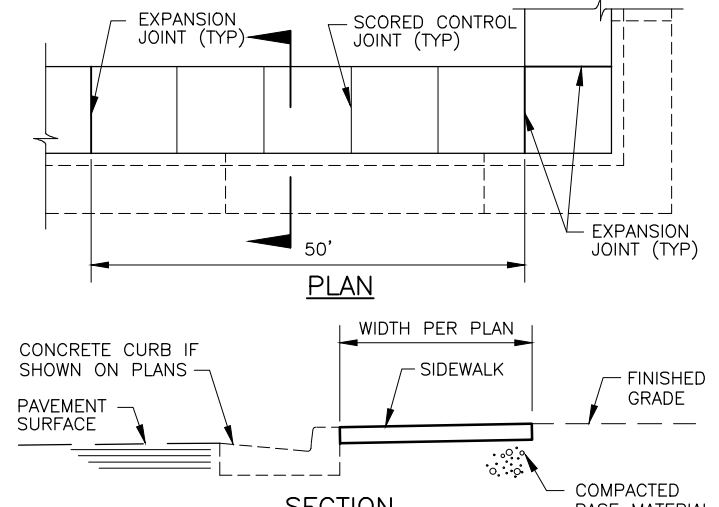
TYPICAL TRENCH BACKFILL SECTION
NTS

C
2005



ROOF DRAIN CONNECTION
NTS

C
2006



NOTES:
1. USE MONOLITHIC CONSTRUCTION 4" THICK EXCEPT AT DRIVEWAYS WHERE THICKNESS SHALL BE 6" OR AS SHOWN ON PLANS.
2. EXPANSION JOINTS OF 1/2" PREMOLDED JOINT FILLER SHALL BE PLACED AT BACK OF CURB AND AT INTERSECTIONS WITH PERPENDICULAR SIDEWALKS OR DRIVEWAYS.
3. PLACE CONTROL JOINTS AT INTERVALS EQUAL TO 1 TO 1 1/2 TIMES THE WIDTH OF THE SIDEWALK UNIFORMLY PLACED ALONG LENGTH OF SIDEWALK. DEPTH OF JOINT SHALL BE 1" MINIMUM.
4. EDGE SIDEWALK WITH 1/2" RADIUS EDGING TOOL ROUND EDGES AT EXPANSION JOINTS TO A RADIUS OF 1/2".

CONCRETE SIDEWALK
NTS

C
2007

BOWEN COLLINS & ASSOCIATES

PROFESSIONAL ENGINEER
ERIC W. NEIL
STATE OF UTAH
7702947
2/27/2020

NO.	DATE	REV. BY	DESCRIPTION

OGDEN AIRPORT WELL HOUSE PROJECT
OGDEN CITY, UTAH

GENERAL CIVIL DETAILS - 1

DESIGN: N. ROGERS
DRAWN: J. COLLINS
CHECKED: B. MAYERS
APPROVED: E. NEIL

DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01

DRAWING NO. **GC-01**

SHEET **16** OF **58**

NO.	DATE	REV. BY	DESCRIPTION

OGDEN AIRPORT WELL HOUSE PROJECT
OGDEN, UT

DESIGN: N. ROGERS
DRAWN: J. COLLINS
CHECKED: B. MAYERS
APPROVED: E. NEIL

CIVIL
GENERAL CIVIL DETAILS - 2
DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01

CAST IN PLACE BASE

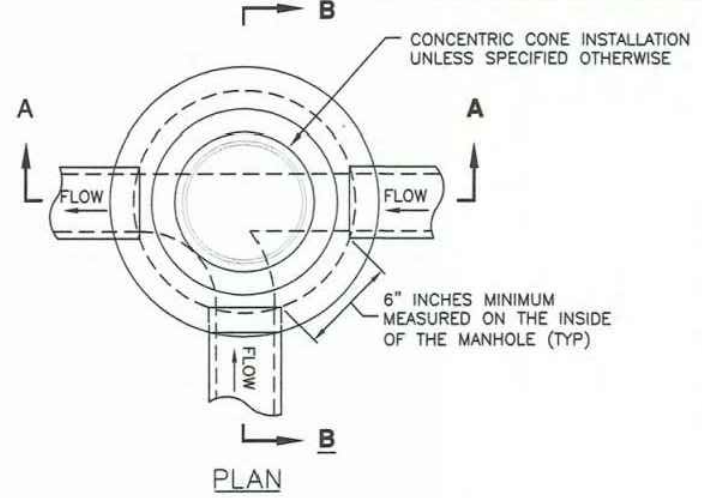
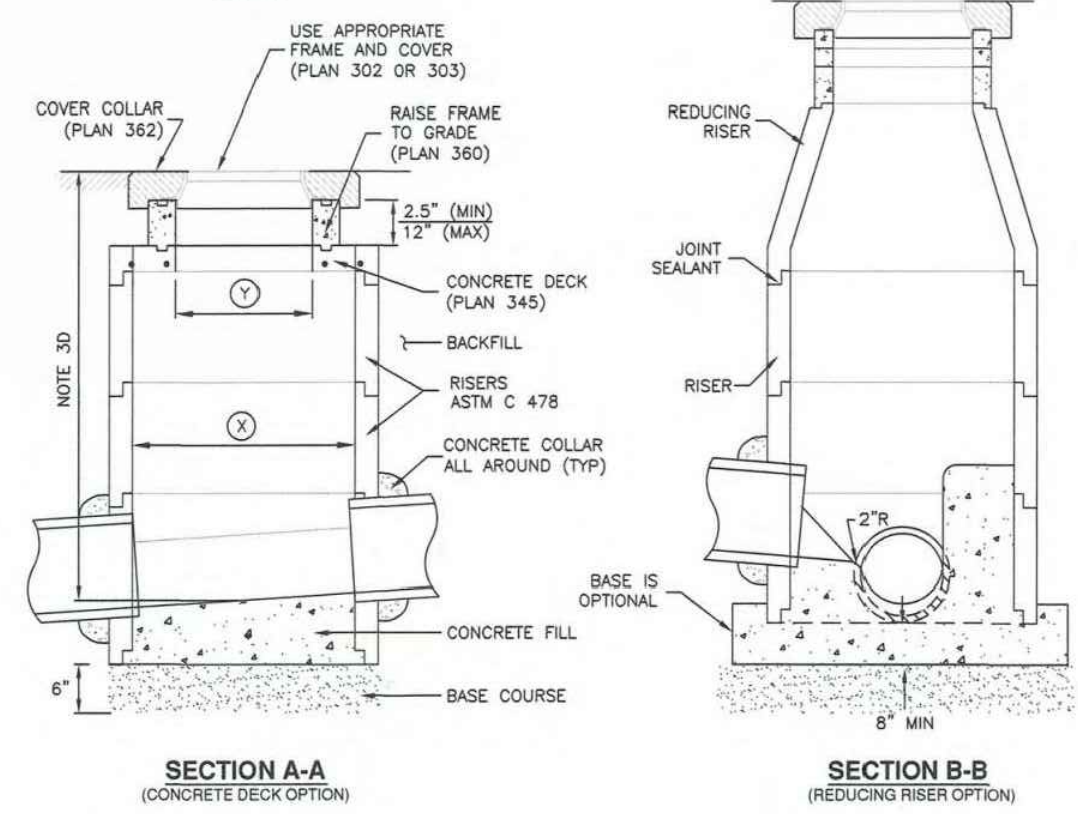
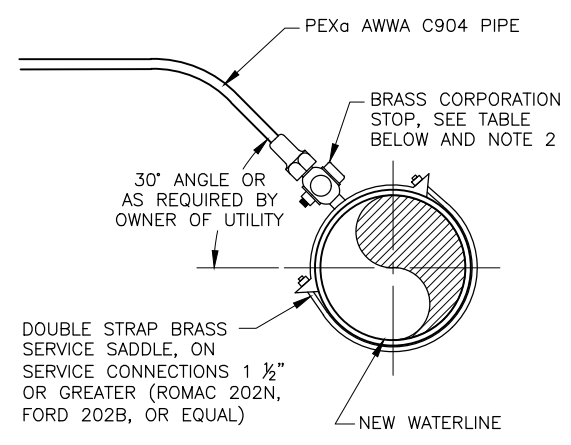


TABLE OF DIMENSIONS

MANHOLE STYLE	DIMENSION
A	X = 48" Y = 30"
B	X = 60" Y = 44"
C	X = 60" Y = 30"



APWA STORM DRAIN MANHOLE
SCALE: NTS
C 2008

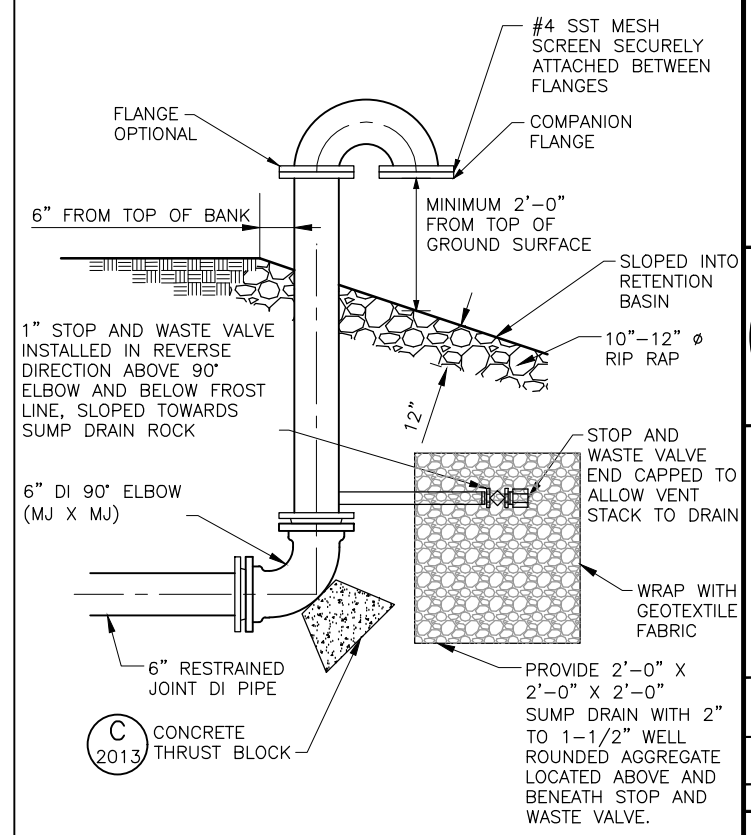


CORP STOP TABLE

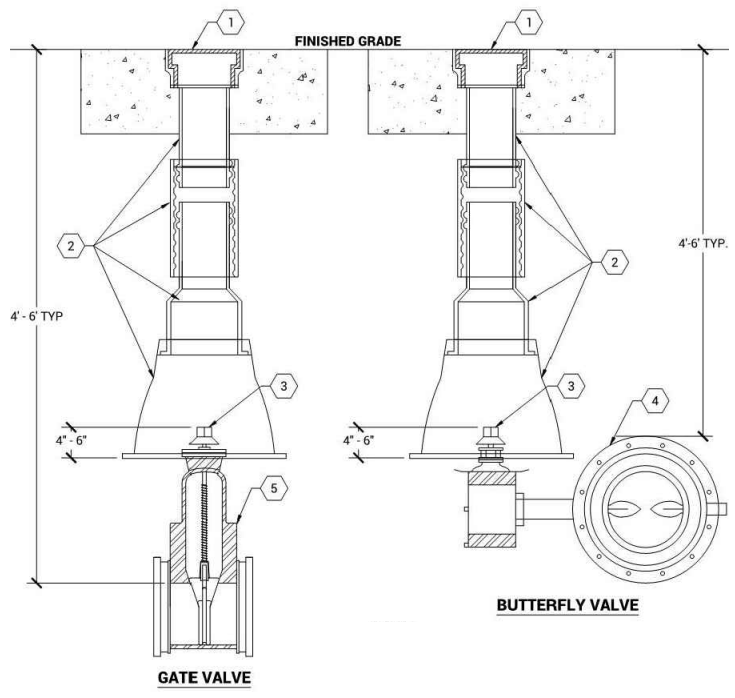
3/4" OR 1"	1 1/2" OR 2"
MUELLER H-15000 (OR EQUAL)	MUELLER B-25000 (OR EQUAL)

NOTES:
1. CONTRACTOR SHALL ROTATE CORPORATION STOP SO THAT VALVE ACTUATOR RUNS PARALLEL WITH PIPE. REDWOOD OR PRESSURE TREATED WOOD SHIMS SHALL BE PLACED UNDER CORPORATION STOP TO PROVIDE SUPPORT DURING BACKFILLING.

WATER CONNECTION
NTS
C 2009



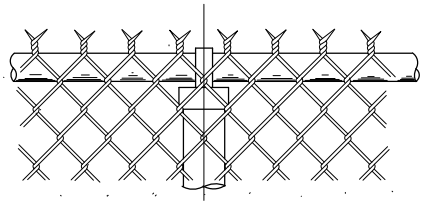
PRESSURE RELIEF VALVE EXHAUST VENT
NTS
C 2010



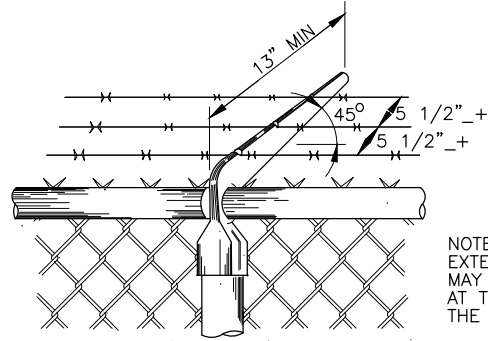
NOTES:
1. OPERATING NUT MUST BE VISIBLE AND ACCESSIBLE FOR ALL OPERATING NEEDS. IF THE OPERATING NUT IS UNABLE TO BE ACCESSED, THE CAN MUST BE RESET.

ITEM	DESCRIPTION
1	VALVE COVER, 8" O.D. CAST IRON, HEAVY-DUTY IS STAMPED "WATER"
2	4-PIECE VALVE BOX, CASTINGS, INC. CI-550 OR APPROVED EQUAL
3	2" SQ. OPERATING NUT
4	BUTTERFLY VALVE (FLxFL OR FLxMJ) FOR ALL VALVES 12" OR GREATER
5	GATE VALVE (FLxFL OR FLxMJ) FOR VALVES 6"-10"

TYPICAL VALVE DETAIL
OGDEN CITY DETAIL W-11
NTS
C 2011

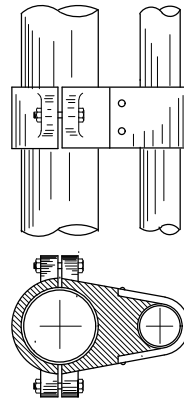


TWISTED AND BARBED SELVAGE

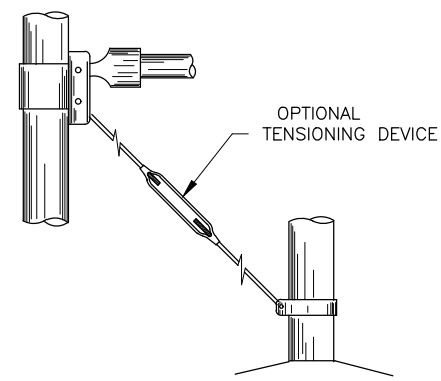


BARBED WIRE ARM WITH TWISTED AND BARBED SELVAGE

NOTE:
EXTENSION ARM
MAY BE TURNED IN
AT THE OPTION OF
THE OWNER



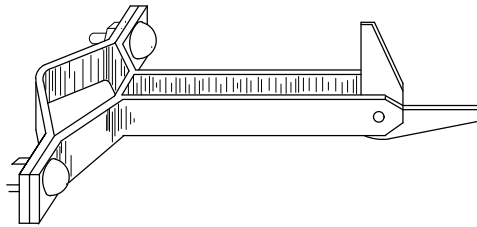
TOP GATE HINGE



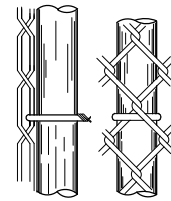
BRACE AND TRUSS CONNECTIONS



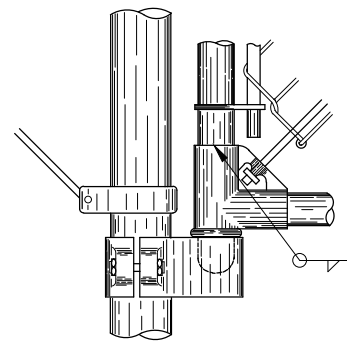
DROP ROD ASSEMBLY



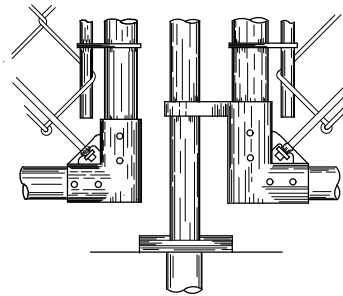
GATE HOLD BACK



PIPE POST TIE



BOTTOM GATE HINGE AND GATE DETAILS



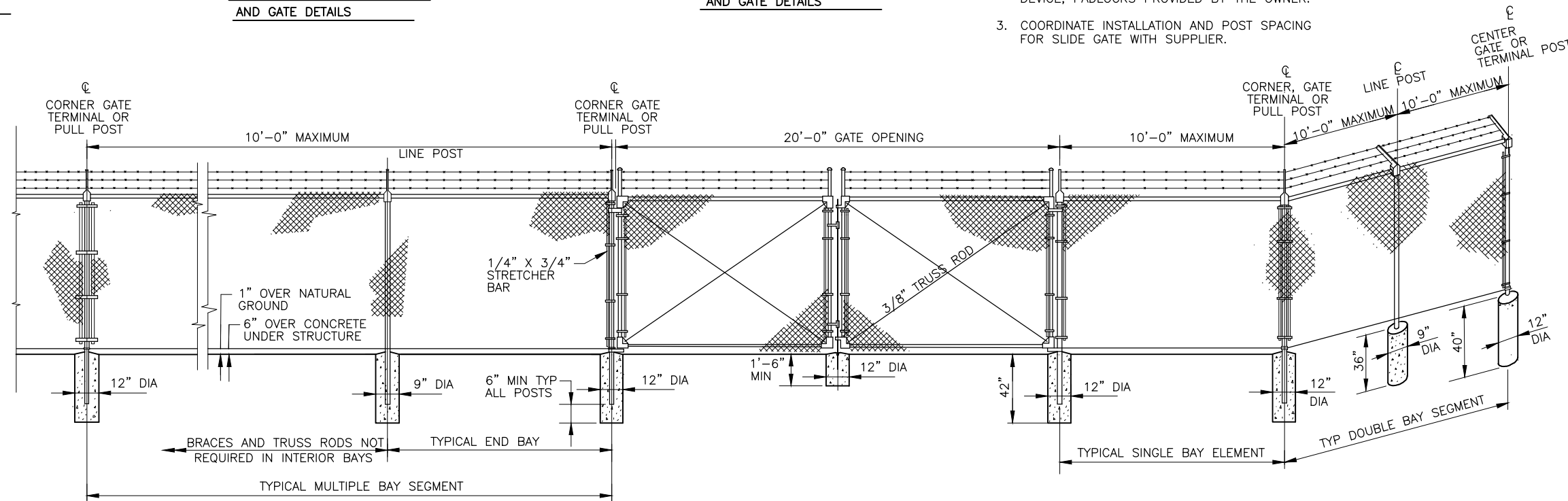
CENTER GATE STOP AND GATE DETAILS

HEIGHT OF FABRIC	DEPTH OF POSTS	LENGTH OF END CORNER OR PULL POSTS	LENGTH OF LINE POSTS	SIZE OF POSTS (OD)					
				END CORNER & PULL		LINE POST (MIN SIZE) *			GATE POSTS
				PIPE OPTION	RECTANGULAR OPTION	PIPE OPTION	H POST OPTION	POST OPTION	
6'	3'+	9'+	8'-8"	3"	3 1/2"	2 1/2"	1 7/8" X 1 5/8"	2 1/16" X 1 11/16"	4"

GATES			
GATE POSTS AND GATE FRAMES			
HEIGHT	GATE OPENING	GATE POST	GATE FRAME
6 FEET AND OVER	SINGLE TO 6' OR DOUBLE TO 12'	2 1/2"	2"
	SINGLE OVER 6' TO 13' OR DOUBLE OVER 12' OR 24'	4"	
	SINGLE OVER 13' TO 18' OR DOUBLE OVER 24' OR 36'	6"	
	SINGLE OVER 18' OR DOUBLE 36'	8"	

NOTES:

- FABRIC, POSTS AND ALL HARDWARE SHALL BE COATED WITH A BLACK VINYL COATING.
- GATES SHALL BE PROVIDED WITH LOCKING DEVICE, PADLOCKS PROVIDED BY THE OWNER.
- COORDINATE INSTALLATION AND POST SPACING FOR SLIDE GATE WITH SUPPLIER.



CHAIN LINK FENCE
SCALE: NTS



NO.	DATE	REV. BY	DESCRIPTION

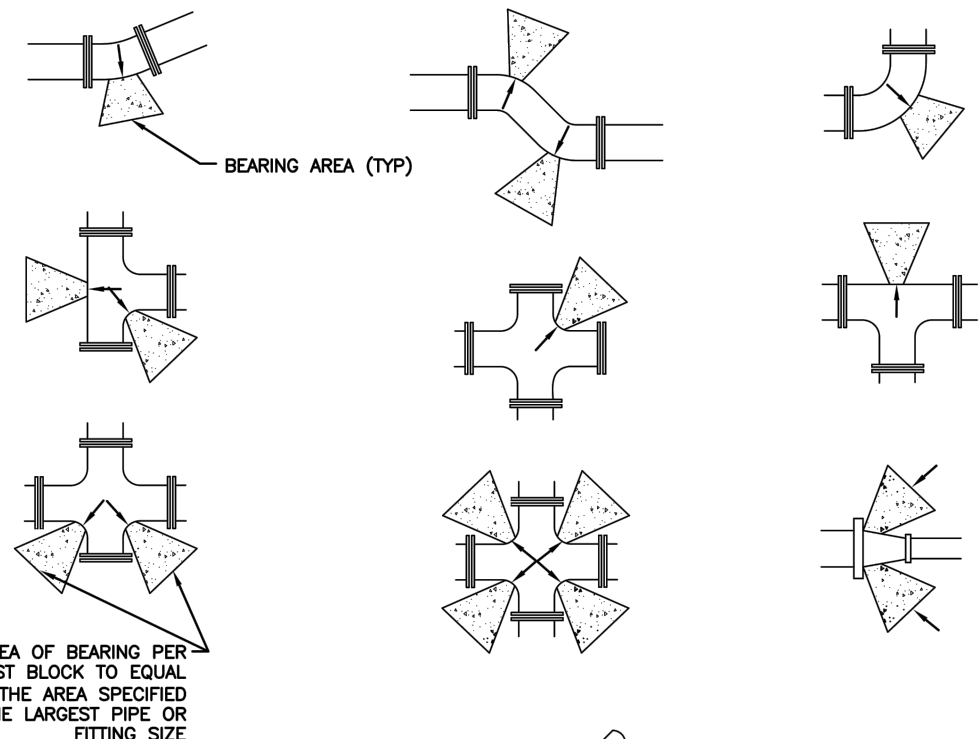
OGDEN CITY
OGDEN, UT

DESIGN: N. ROGERS
DRAWN: J. COLLINS

REVIEW: B. MAYERS
CHECKED: E. NEIL
APPROVED: E. NEIL

CIVIL
GENERAL CIVIL DETAILS - 3
DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01

DRAWING NO. GC-03



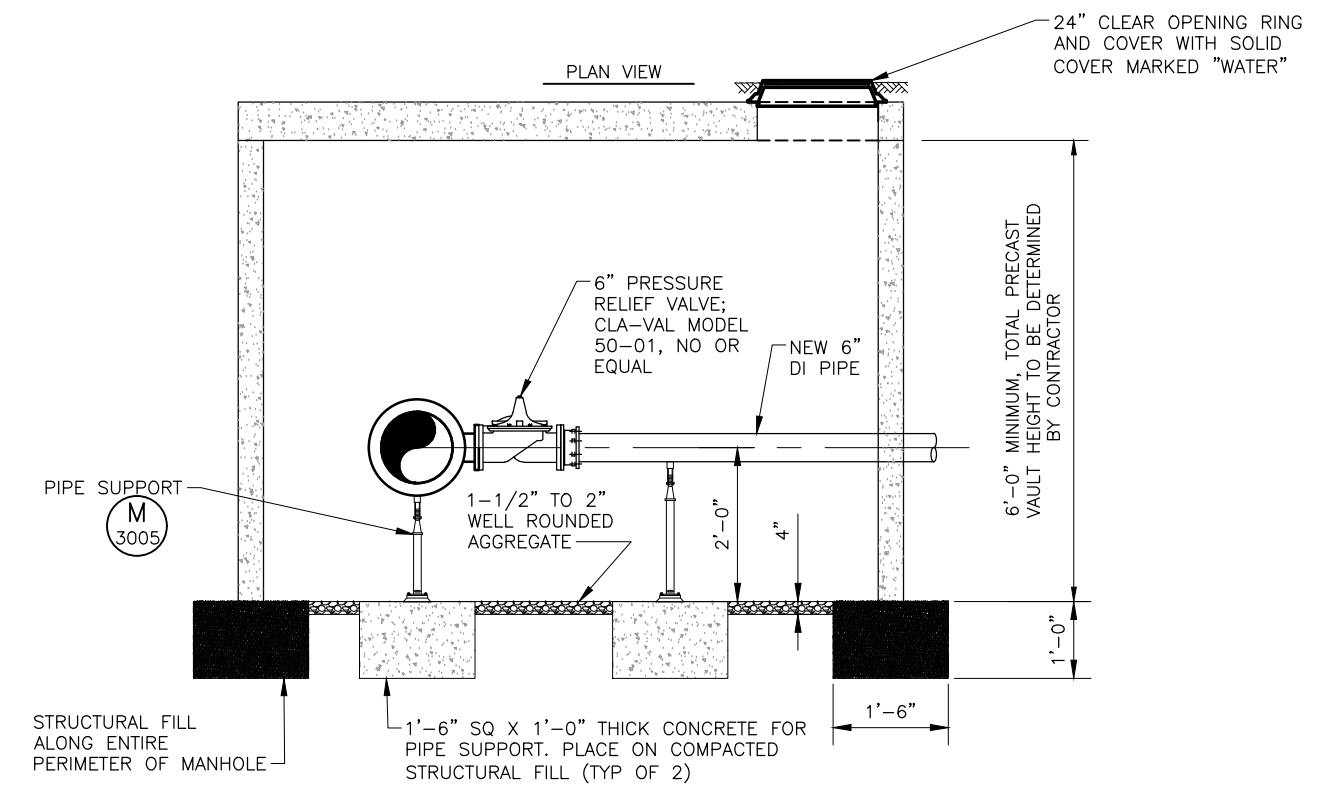
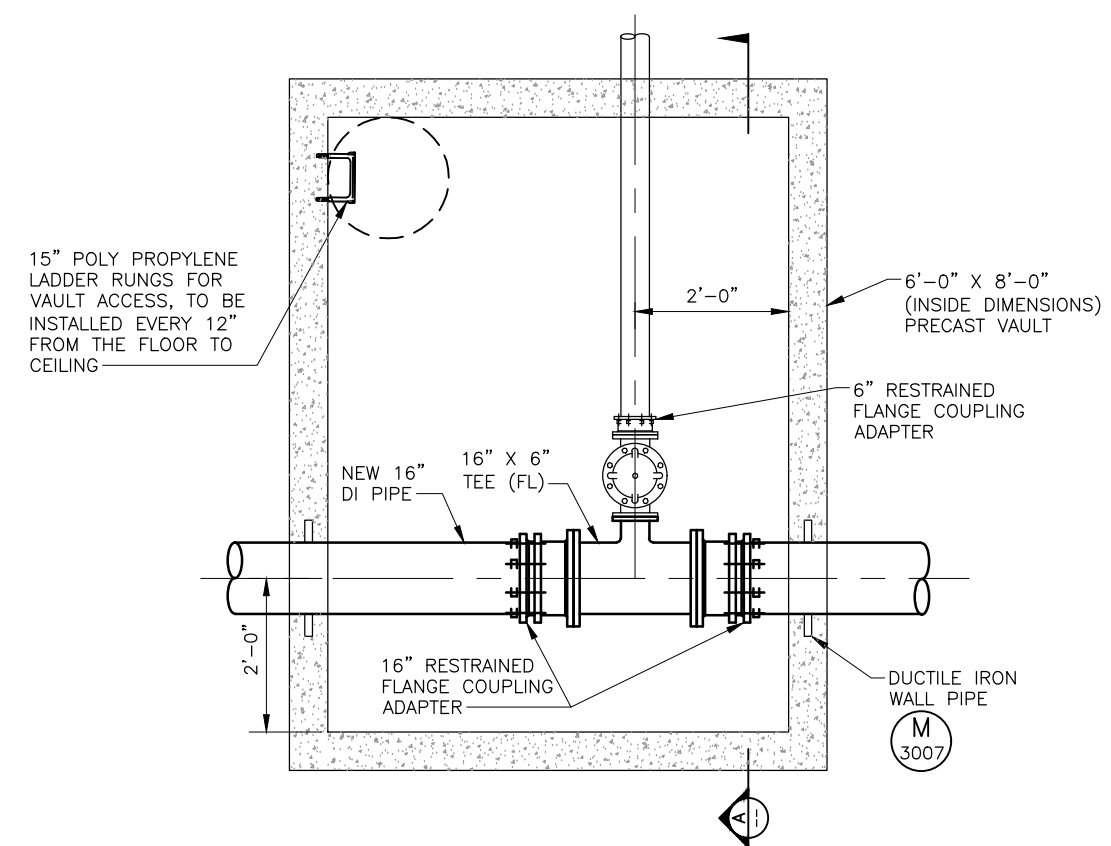
MINIMUM BEARING AREA IN SQ. FT.

SIZE OF PIPE	TEES, VALVES DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/4° BENDS
4"	2	3	2	2	2
6"	4	5.5	3	1.5	1
8"	6.5	9.5	5	2.75	1.5
12"	14	20	11	5.5	3
14"	19	26.5	14.5	7.5	4
16"	24	34	18.5	9.5	6
20"	27	52	28.5	14.5	16
24"	53	74	41	21	53
30"	81	114	62	32	16

DIRECT BEARING THRUST BLOCK

1. GENERAL
 - A. THRUST DESIGN FOR PIPE SIZES OR CONFIGURATIONS NOT SHOWN REQUIRE SPECIAL DESIGN.
 - B. BEARING AREAS, VOLUMES, AND SPECIAL THRUST BLOCKING DETAILS SHOWN ON DRAWINGS TAKE PRECEDENCE OVER THIS PLAN.
 - C. RESTRAINT SIZING IS BASED UPON A MAXIMUM OPERATING PRESSURE OF 150 PSI AND A TEST PRESSURE OF 200 PSI, AND A MINIMUM SOIL BEARING STRENGTH OF 2,000 PSF. OPERATING PRESSURES IN EXCESS OF 15- PSI OR SOILS WITH LESS THAN 2,000 POUND BEARING STRENGTH WILL REQUIRE SPECIAL DESIGN.
 - D. BEFORE BACKFILLING AROUND THRUST BLOCK, SECURE INSPECTION OF INSTALLATION BY ENGINEER.
2. PRODUCTS
 - A. BASE COURSE: UNTREATED BASE COURSE, APWA SECTION 32 11 23. DO NOT USE GRAVEL AS A BASE COURSE WITHOUT ENGINEER'S PERMISSION.
 - B. BACKFILL: COMMON FILL, APWA SECTION 31 05 13. MAXIMUM PARTICLE SIZE 2-INCHES.
 - C. THRUST BLOCKS: CONCRETE CLASS 4000, APWA SECTION 03 30 04.
 - D. GREASE: NON-OXIDE POLY-FM.
3. EXECUTION
 - A. POUR CONCRETE AGAINST UNDISTURBED SOIL.
 - B. PIPE JOINTS: DO NOT COVER WITH CONCRETE. LEAVE COMPLETELY ACCESSIBLE.
 - C. GREASE: APPLY GREASE TO ALL BURIED METAL SURFACES. WRAP WITH POLYETHYLENE SHEET AND TAPE WRAP.
 - D. LOCKING RESTRAINT DEVICES MAY BE USED IN CONJUNCTION WITH CONCRETE THRUST BLOCKING (AT DISCRETION OF ENGINEER).
 - E. BASE COURSE AND BACKFILL PLACEMENT: MAXIMUM LIFT THICKNESS IS 8-INCHES BEFORE COMPACTION. COMPACTION IS 95% OR GREATER RELATIVE TO A MODIFIED PROCTOR DENSITY, APWA SECTION 31 23 26.

CONCRETE THRUST BLOCKS (C) 2013
SCALE: NTS



SECTION A
SCALE: NTS

PRESSURE RELIEF VALVE VAULT (C) 2014
SCALE: NTS

BOWEN COLLINS & ASSOCIATES

NO.	DATE	REV. BY	DESCRIPTION	REVISIONS

OGDEN AIRPORT WELL HOUSE PROJECT

OGDEN CITY, UTAH

DESIGN: N. ROGERS
DRAWN: J. COLLINS

REVIEW: B. MAYERS
CHECKED: B. MAYERS
APPROVED: E. NEIL

VERIFY SCALE: 1" = 1'-0"

BAR IS ONE INCH ON ORIGINAL DRAWING

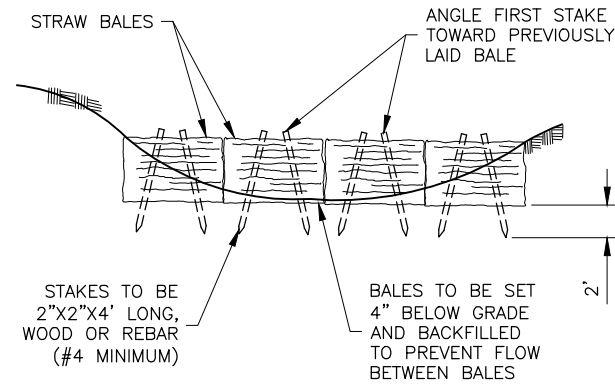
GENERAL CIVIL DETAILS - 4

CIVIL

DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01

DRAWING NO. **GC-04**

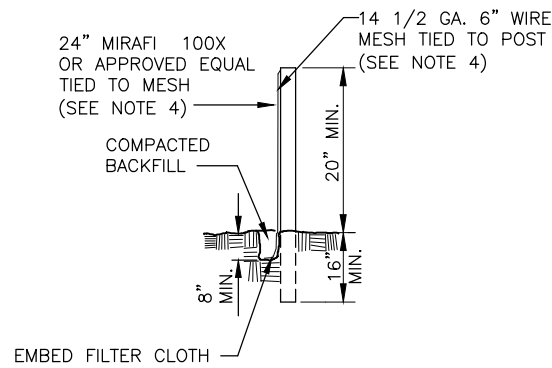
SHEET 19 OF 58



NOTES:

1. STRAW BALES TO BE REPLACED AS NECESSARY DUE TO DAMAGE OR CLOGGING WITH SILT. SILT TO BE REMOVED IN FRONT OF BALES REGULARLY TO PREVENT EXCESSIVE SOIL BEARING WEIGHT ON THE BALES.
2. STRAW BALES TO BE PLACED ON EXISTING GRADE IN UNDISTURBED AREAS.

STAKED STRAW BALE DETAIL (C) 2279
SCALE: NTS

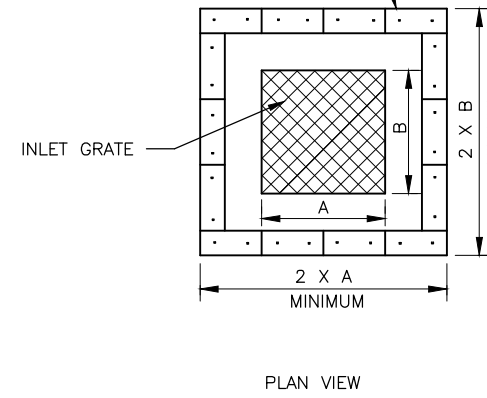


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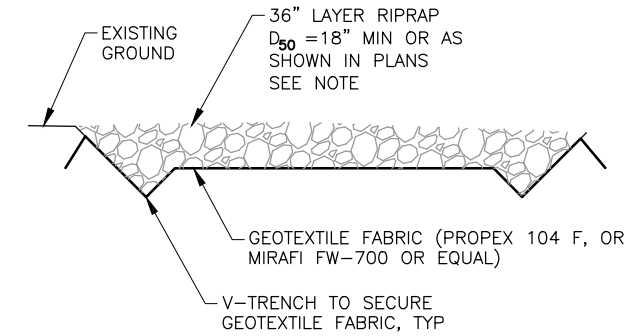
1. POSTS SPACED 10' O.C. MAX.
2. FILTER CLOTH TO BE TIED TO MESH EVERY 24" AT TOP AND MIDDLE WITH 6" FOLDED OVERLAP AT VERTICAL SEAMS.
3. FENCE SHALL BE MAINTAINED AND ACCUMULATED MATERIAL REMOVED.
4. CONTRACTOR MAY SECURE SILT FENCE FILTER CLOTH TO CHAIN LINK CONSTRUCTION FENCE WHERE APPLICABLE. IN INSTANCES WHERE FILTER CLOTH IS SECURED TO CHAIN LINK FENCE, WIRE MESH IS NOT REQUIRED. IF FILTER CLOTH IS NOT SECURED TO CHAIN LINK FENCE, IT MUST BE ATTACHED TO WIRE MESH PER THE DETAIL.

SILT FENCE DETAIL (C) 2280
SCALE: NTS

PLACE STRAWBALES IN ACCORDANCE WITH STAKED STRAWBALE DETAIL, SEE (C) 2279, OR GRAVEL BARRIER BAGS (STACKED TWO WIDE AT BASE AND 1 WIDE AT TOP).

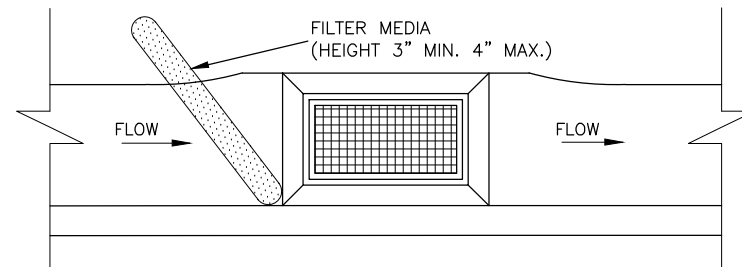


DRAINAGE INLET SILT PROTECTION DETAIL (C) 2281
SCALE: NTS



NOTE: WHEN $D_{50} = 6"$, PROVIDE 18" LAYER RIPRAP, SEE PLAN FOR LOCATION.

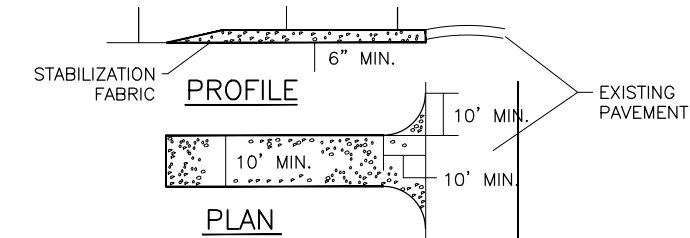
RIPRAP & ARMOR PROTECTION (C) 2282
SCALE: NTS



NOTES:

1. PREPARE FILTER MEDIA (GRAVEL SOCK, STRAW WADDLE, OR OTHER APPROVED MEDIA) IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
2. INSTALL FILTER MEDIA JUST UPSTREAM OF INLET BOX.
3. FILTER MEDIA SHALL BUTT TIGHTLY AGAINST THE FACE OF THE CURB AND ANGLE AT APPROXIMATELY A 45 DEGREE ANGLE AWAY FROM THE CURB TO TRAP RUNOFF BETWEEN THE MEDIA AND THE CURB.
4. EXPECT PONDING BEHIND THE FILTER MEDIA
5. INSPECT INLET PROTECTION AFTER EVERY LARGE STORM EVENT AND AT A MINIMUM OF ONCE MONTHLY.
6. REMOVE SEDIMENT ACCUMULATED WHEN IT REACHES 2 INCHES IN DEPTH.
7. REPLACE FILTER MEDIUM WHEN DAMAGE HAS OCCURRED OR WHEN MEDIUM IS NO LONGER FUNCTIONING AS INTENDED.

ON-GRADE INLET PROTECTION DETAIL (C) 2290
SCALE: NTS



CONSTRUCTION NOTES:

1. STONE SIZE - USE 2" STONE, OR RECLAIMED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. STABILIZATION FABRIC - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SIDE SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS TO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE (C) 2291
SCALE: NTS

NO.	DATE	REV. BY	DESCRIPTION

OGDEN AIRPORT WELL HOUSE PROJECT
OGDEN, UT

DESIGN: N. ROGERS
DRAWN: J. COLLINS

REVIEW: B. MAYERS
CHECKED: E. NEIL
APPROVED: E. NEIL

CIVIL
GENERAL CIVIL DETAILS - 5
DATE: FEBRUARY 2020
PROJECT NUMBER: 202-18-01