

HYDE PARK CITY CITY HALL WELL HOUSE AND TRANSMISSION LINE PROJECT

HYDE PARK, UT

2025

HYDE PARK CITY

- Bryan Cox Mayor
- Stephanie Allred City Council
- Tiffany Atkinson City Council
- Gerald Osborne City Council
- Kirk Brower City Council
- David Fowles City Council
- Marcus Allton City Administrator
- Brett Knight Public Works Director

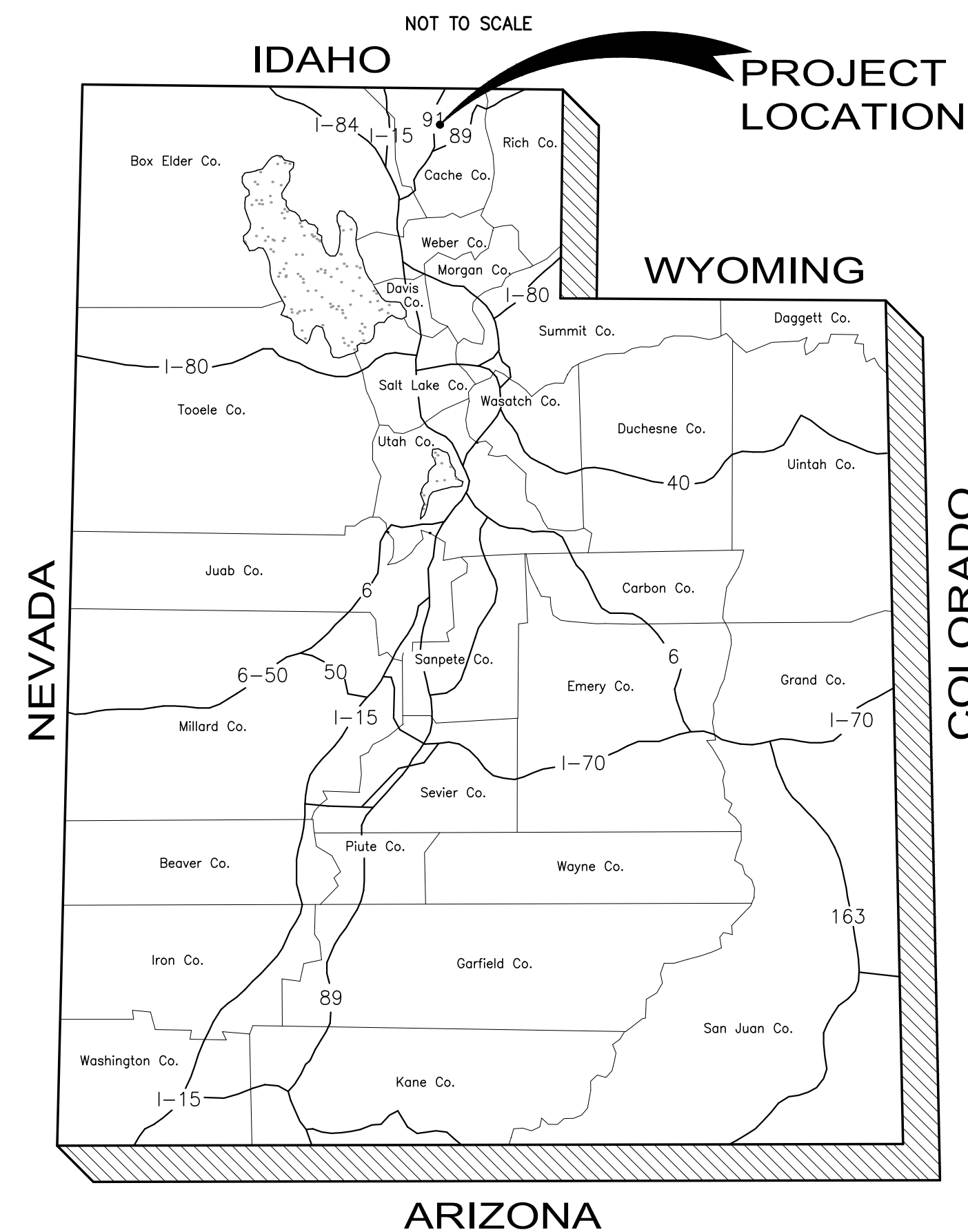
ENGINEERING CONSULTANTS (SE)

- Sunrise Engineering*
- Scott Archibald, P.E. Principal Engineer
- Steven Wood, P.E. Project Manager
- Haiming Peng, P.E. Project Engineer

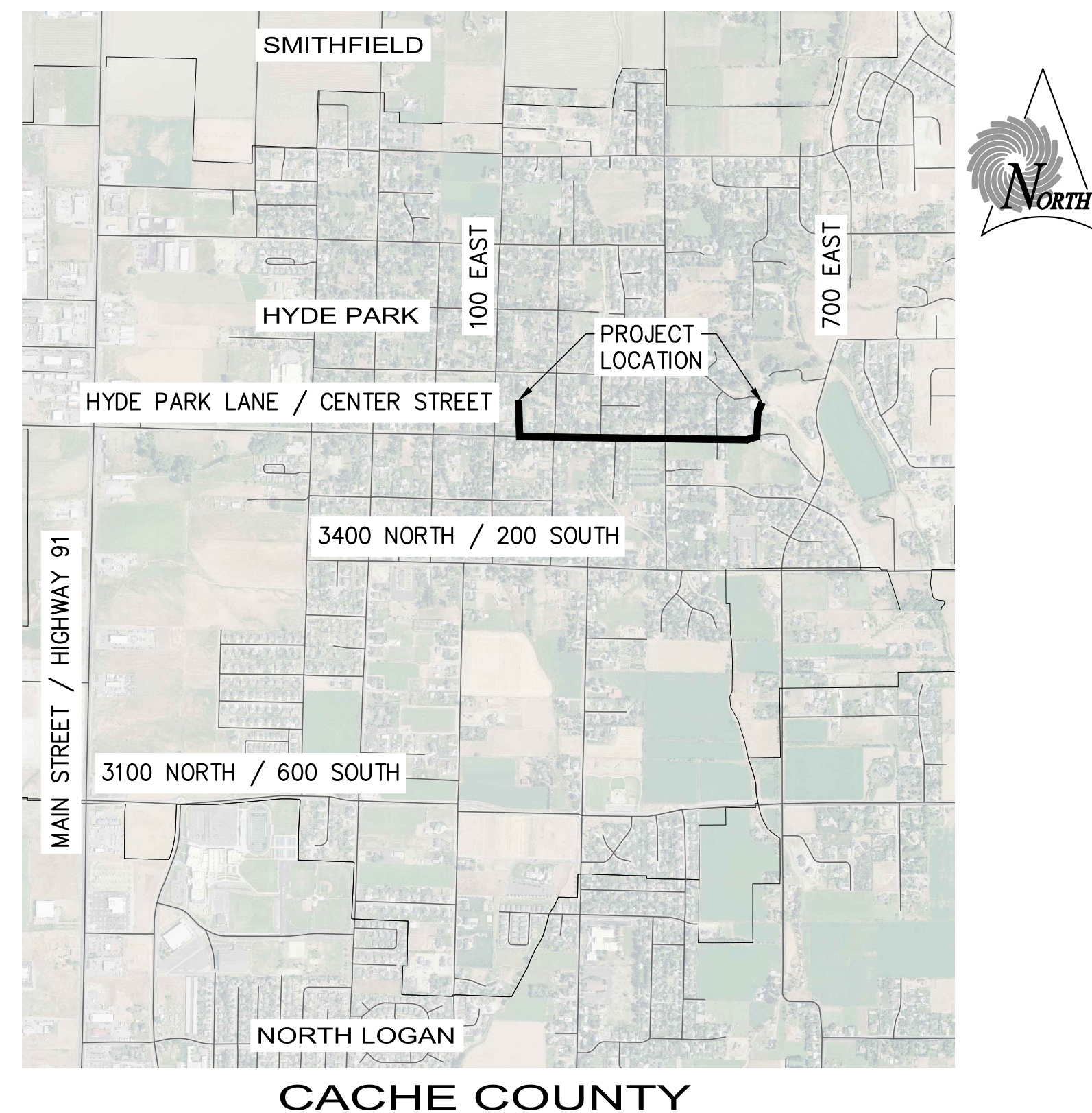


2100 NORTH MAIN STREET
 NORTH LOGAN, UTAH 84341
 TEL 435.563.3734
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AREA MAP



LOCATION MAP




SHEET INDEX

	DWG. NO.	SHEET NO.
1 - GENERAL:		
COVER SHEET	GN1	1
AREA MAPS AND SHEET INDEX	GN2	2
ABBREVIATIONS AND LEGEND	GN3	3
GENERAL NOTES	GN4	4
PROJECT OVERVIEW MAP AND INDEX	GN5	5
DESIGN CRITERIA AND HYDRAULIC PROFILE	GN6	6
2 - WELL HOUSE CIVIL PLANS:		
DEMOLITION PLAN	DP1	7
SITE PLAN	SP1	8
GRADING PLAN	GP1	9
LANDSCAPE PLAN	LP1	10
STORM DRAIN PLAN	SD1	11
WELL HOUSE FLOOR PLAN	WH1	12
WELL HOUSE PIPING AND FLOOR PLAN	WH2	13
WELL HOUSE SECTION	WH3-WH4	14-15
WELL HOUSE EXTERIOR ELEVATIONS	WH5	16
CONCRETE AND PAVEMENT DETAILS	WH6-WH7	17-18
STORM WATER DETAILS	WH8	19
THRUST BLOCK DETAILS	WH9	20
WELL HOUSE DETAILS	WH10-WH11	21-22
CHAINLINK FENCE DETAILS	WH12	23
STORMTECH CHAMBER DETAILS	WH13	24
3 - WELL HOUSE STRUCTURAL PLANS:		
ABBREVIATIONS AND LEGEND	ST1-ST2	25-26
FOOTING AND FOUNDATION PLAN	ST3	27
FLOOR FRAMING PLAN	ST4	28
ROOF FRAMING PLAN	ST5	29
STRUCTURAL DETAILS	ST6-ST8	30-32
4 - WELL HOUSE ELECTRICAL PLANS:		
ELECTRICAL NOTES & SYMBOLS	E100	33
ELECTRICAL ONE-LINE DIAGRAM & SCHEDULES	E201-E204	34-37
ELECTRICAL SITE PLAN	E301	38
POWER AND CONTROL PLAN	E401	39
ELECTRICAL BUILDING PLAN	402	40
ELECTRICAL DETAILS	E501	41
5 - WELL HOUSE MECHANICAL PLANS:		
SYMBOLS AND DETAILS	M1	42
MECHANICAL SCHEDULE	M2	43
SPECIFICATIONS	M3-M4	44-45
MECHANICAL PLAN	M5	46
MECHANICAL SECTION	M6-M7	47-48
6 - PIPING AND INFORMATION DIAGRAM:		
NOTES & SYMBOLS	I1	49
WELL BUILDING	I2	50
7 - TRANSMISSION LINE PLANS:		
PLAN AND PROFILE	PP1-PP8	51-58
8 - ROADWAY PLANS:		
ROADWAY PLANS	RP1-RP6	59-64
ROADWAY GRADING PLAN	RG1-RG6	65-70
CENTER STREET STORM DRAIN NETWORK	SD2	71
DETAILS	D1	72

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HYDE PARK CITY
CITY HALL WELL HOUSE
GENERAL
AREA MAPS AND SHEET INDEX

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	GN2
10660	SDW	JJ	SDW	2 of 72	

ABBREVIATIONS

ABC	AGGREGATE BASE COURSE
AC	ASPHALT CONCRETE
BCF	BRASS CAP FLUSH
BCHH	BRASS CAP IN HAND HOLE
BCR	BEGIN CURB RETURN
BM	BENCHMARK
BSW	BACK OF SIDEWALK
BTM	BOTTOM
CB	CATCH BASIN
C/L	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
CONC	CONCRETE
CONST	CONSTRUCTION
CY	CUBIC YARD
DI	DUCTILE IRON
D/W	DRIVEWAY
DWG	DRAWING
DTL	DETAIL
E	EAST
ECR	END CURB RETURN
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
ESMT	EASEMENT
EX, EXIST	EXISTING
EG	EXISTING GROUND
FC	FACE OF CURB
FES	FLARED END SECTION
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLANGE
FND	FOUND
FO	FIBER OPTIC
FPS	FEET PER SECOND
FSW	FRONT OF SIDEWALK
FT	FOOT, FEET
G	GAS, GUTTER, GRADE
GB	GRADE BREAK
GPM	GALLONS PER MINUTE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
HW	HIGHWATER
IN.	INCH, INCHES
INV	INVERT
IRR, IRRIG	IRRIGATION
L	LENGTH
LF	LINEAR FEET
LT	LEFT
MH	MANHOLE
MJ	MECHANICAL JOINT
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO.	NUMBER
OHE	OVERHEAD ELECTRIC
OPNG	OPENING
P/L	PROPERTY LINE
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE
PCC	PORTLAND CEMENT CONCRETE
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
R/W	RIGHT-OF-WAY
RGRCP	RUBBER GASKETED REINFORCED CONCRETE PIPE
RJ	RESTRAINED JOINT
RT	RIGHT
S	SEWER, SLOPE, SOUTH
SDMH	STORM DRAIN MANHOLE
SF	SQUARE FEET
SSMH	SANITARY SEWER MANHOLE
STA	STATION
STD	STANDARD
SWK	SIDEWALK
SY	SQUARE YARD
TAN	TANGENT
TBC	TOP BACK OF CURB
T, TEL	TELEPHONE
TL	TRUE LENGTH
TOC	TOP OF CONCRETE
TOW	TOP OF WALL
TYP	TYPICAL
UGE	UNDERGROUND ELECTRIC
UNO	UNLESS NOTED OTHERWISE
UPRR	UNION PACIFIC RAILROAD
VNAE	VEHICLE NON-ACCESS EASEMENT
Vr	VOLUME REQUIRED
Vp	VOLUME PROVIDED
W	WATER, WEST, WITH
XFMR	TRANSFORMER

EXISTING

	EXISTING CONCRETE
	EXISTING PAVEMENT TO BE REMOVED
	EXISTING PAVEMENT TO REMAIN
	EXISTING IRRIGATION LINE
	EXISTING SEWER LINE
	EXISTING STORM DRAIN
	EXISTING WATER LINE
	EXISTING OVERHEAD ELECTRIC
	EXISTING UNDERGROUND ELECTRIC
	EXISTING CABLE (TV) LINE
	EXISTING FIBER OPTIC LINE
	EXISTING UNDERGROUND TELEPHONE
	EXISTING GAS LINE
	EXISTING BARBED WIRE FENCE
	EXISTING EASEMENT
	EXISTING FLOWLINE
	EXISTING PROPERTY LINE
	EXISTING SPOT ELEVATION
	EXISTING CONTOUR
	EXISTING BRASS CAP MONUMENT
	EXISTING SIGN
	EXISTING IRRIGATION MANHOLE
	EXISTING IRRIGATION VALVE
	EXISTING SEWER CLEANOUT
	EXISTING SEWER MANHOLE
	EXISTING CATCH BASIN
	EXISTING STORM DRAIN MANHOLE
	EXISTING STORM DRAIN W/ STRUCTURE
	EXISTING AIR VAC
	EXISTING FIRE HYDRANT
	EXISTING UNKNOWN MANHOLE
	EXISTING GATE VALVE
	EXISTING REDUCER
	EXISTING WATER MANHOLE (OR WELL)
	EXISTING WATER METER
	EXISTING CABLE MANHOLE
	EXISTING ELECTRIC MANHOLE
	EXISTING GUY WIRE
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING TELEPHONE MANHOLE
	EXISTING TELEPHONE PEDESTAL
	EXISTING GAS MANHOLE
	EXISTING GAS METER
	EXISTING GAS RISER
	EXISTING GAS VALVE
	EXISTING VEGETATION

LEGEND PROPOSED

	PROPOSED CONCRETE
	PROPOSED PAVEMENT
	EXISTING IRRIGATION LINE
	PROPOSED SEWER LINE
	PROPOSED STORM DRAIN
	PROPOSED WATER LINE
	PROPOSED OVERHEAD ELECTRIC
	PROPOSED UNDERGROUND ELECTRIC
	PROPOSED CABLE (TV) LINE
	PROPOSED FIBER OPTIC LINE
	PROPOSED UNDERGROUND TELEPHONE
	PROPOSED GAS LINE
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	PROPOSED EASEMENT
	PROPOSED FLOWLINE
	PROPOSED PROPERTY LINE
	PROPOSED SPOT ELEVATION
	PROPOSED CONTOUR
	PROPOSED (PLACED) BRASS CAP MONUMENT
	PROPOSED SIGN
	PROPOSED IRRIGATION MANHOLE
	PROPOSED IRRIGATION VALVE
	PROPOSED SEWER CLEANOUT
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	PROPOSED GUY WIRE
	PROPOSED LIGHT POLE
	PROPOSED POWER POLE
	PROPOSED TELEPHONE MANHOLE
	PROPOSED GAS MANHOLE
	PROPOSED GAS METER
	PROPOSED GAS RISER
	PROPOSED GAS VALVE
	PROPOSED VEGETATION

OTHER

	GRADE BREAK
	HIGH WATERLINE
	LOT LINE
	RIGHT-OF-WAY
	ROADWAY CENTERLINE
	SECTION LINE
	SETBACK LINE
	POINT OF VERTICAL INTERSECTION
	PLAN, SECTION, OR DETAIL LABEL
	DRAWING TITLE/SHEET NUMBER
	TBC ELEVATION (x1000')
	LOT ELEVATION (x1000')
	BASIN ULTIMATE OUTFALL LOCATION AND DIRECTION
	GRADE BREAK (PROFILE SYMBOL)

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HYDE PARK CITY
CITY HALL WELL HOUSE
GENERAL
ABBREVIATIONS AND LEGEND

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 3 of 72	GN3
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SE GENERAL NOTES

1. ALL SITE WORK SHALL CONFORM TO THE CURRENT EDITION OF THE AMERICAN PUBLIC WORKS ASSOCIATION UNIFORM STANDARD SPECIFICATIONS AND DETAILS (APWA SPECIFICATIONS AND DETAILS) UNLESS SPECIFICALLY STATED OTHERWISE IN THESE PLANS.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING PERMITS, RENEWAL OF LAPSED PERMITS, AND OBTAINING ANY NEW PERMITS, INCLUDING, BUT NOT LIMITED TO, DUST CONTROL PERMITS, ENCROACHMENT PERMITS, TRAFFIC CONTROL PERMITS, AND/OR UTAH POLLUTANT DISCHARGE ELIMINATE SYSTEM (UPDES) PERMITS.
3. THE CONTRACTOR SHALL FOLLOW GUIDELINES AND REGULATIONS SET FORTH BY O.S.H.A. SUNRISE ENGINEERING WILL NOT BE RESPONSIBLE FOR JOB-SITE SAFETY PROCEDURES OR CONDITIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE NOTIFICATION OF THE PROPER AUTHORITY(S) IF THERE ARE OBSTRUCTIONS TO PROPOSED IMPROVEMENTS AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY EXISTING ITEM REMOVED TO FACILITATE CONSTRUCTION SHALL BE REPLACED IN THE SAME OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
5. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL ON AND AROUND THE CONSTRUCTION SITE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS. CONTRACTOR TO SUBMIT STAMPED TRAFFIC CONTROL PLANS FOR ROAD CLOSURES.
6. ANY AMBIGUITIES OR DEFICIENCIES DISCOVERED ON THESE PLANS ARE TO BE RESOLVED BY SUNRISE ENGINEERING OR ITS APPOINTED REPRESENTATIVE. ANY MODIFICATIONS TO THESE PLANS MADE BY ANYONE OTHER THAN SUNRISE ENGINEERING OR ITS APPOINTED REPRESENTATIVE IS SOLELY RESPONSIBLE FOR THOSE MODIFICATIONS.
7. ALL CONSTRUCTION WORK SHALL BE PERFORMED WITHIN EXISTING RIGHTS-OF-WAY OR EASEMENTS OBTAINED FOR CONSTRUCTION PURPOSES.
8. THE APPROXIMATE LOCATION OF UTILITIES IS SHOWN ON THE PLANS BASED ON THE RECORD DRAWINGS FROM THE RESPECTIVE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING BLUE STAKES FOR STAKING ALL UTILITIES. THE CONTRACTOR HAS THE ULTIMATE RESPONSIBILITY TO LOCATE ALL UTILITIES (ABOVE AND UNDERGROUND) PRIOR TO CONSTRUCTION. ANY UTILITIES DISTURBED DURING CONSTRUCTION SHALL BE REPLACED OR REPAIRED AT THE CONTRACTORS EXPENSE.
9. ALL TEES, BENDS, ETC. SHALL BE RESTRAINED BY MECHANICAL JOINT FITTINGS IN ACCORDANCE WITH SHEET WH8
10. THE EXISTING SYSTEM AND THE PROPOSED IMPROVEMENTS ARE SHOWN ACCORDING TO INFORMATION PROVIDED BY THE CITY. ALL PIPELINE LOCATIONS AND SIZES ARE SHOWN ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER. HOWEVER, THE ACTUAL FIELD CONDITIONS MAY VARY. ADDITIONAL WORK MAY BE REQUIRED AND LIKEWISE PROPOSED WORK MAY BE ELIMINATED BASED ON FIELD CONDITIONS. SUCH WORK SHALL REQUIRE APPROVAL BY THE ENGINEER.
11. ALL DEBRIS RESULTING FROM WORK ON THE PROJECT SHALL BE DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL MAKE APPROPRIATE ARRANGEMENTS FOR DISPOSAL SITES AT WHICH DEBRIS MAY BE LAWFULLY DISPOSED.
12. THE CONTRACTOR SHALL PROVIDE A SWPPP FOR THE PROJECT AND SHALL PROVIDE MEANS OF MANAGING ANY STORM WATER, GROUND WATER, OR NUISANCE WATER FROM INTERFERING WITH THE CONSTRUCTION OPERATION ACCORDINGLY. COST OF MANAGING ALL WATER SHALL BE INCLUDED IN THE CONTRACT PRICE FOR RELATED BID ITEMS.
13. THE CONTRACTOR SHALL COORDINATE ALL WATER MAIN SHUT DOWNS WITH HYDE PARK CITY 48 HOURS PRIOR TO SHUT DOWN.
14. MAXIMUM TIME FOR WATER MAIN SHUT DOWN FOR PIPE INSTALLATION SHALL BE 8 HOURS. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN SERVICE TO ALL RESIDENTIAL AND COMMERCIAL CONNECTIONS BEYOND THE DESIGNATED TIME ABOVE.
15. ANY RESIDENTIAL OR COMMERCIAL SERVICE CONNECTIONS THAT ARE BEING DISTURBED OR WILL BE OUT OF WATER WILL REQUIRE NOTICE BY THE CONTRACTOR 48 HOURS PRIOR.
16. THE WATER SYSTEM SHALL BE CONSTRUCTED TO CONFORM WITH THE STANDARDS SET FORTH IN THE STATE OF UTAH RULES FOR PUBLIC DRINKING WATER SYSTEMS (R309 AND ANY ADDITIONAL STATE RULES AND REGULATIONS THAT MAY APPLY TO THE CONSTRUCTION OF THIS PROJECT).
17. ALL PIPELINES SHALL BE INSTALLED AT A MINIMUM DEPTH TO TOP OF PIPE OF 4.5' OR SHALL MATCH EXISTING WATER LINES IN RIGHTS-OF-WAY AS SHOWN ON THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER AND OWNER. THE MAXIMUM DEPTH OF THE WATER LINE SHALL BE 8' UNLESS NOTED IN THE PLANS OR APPROVED BY THE ENGINEER.
18. EXISTING WATER SERVICES SHALL BE LEFT IN OPERATION DURING CONSTRUCTION PERIOD.
19. FINAL GRADE OF DISTURBED AREAS ARE SUBJECT TO THE OWNER'S APPROVAL AND IS TO BE DONE WITH NEAT WORKMANSHIP. CONTRACTOR SHALL RESTORE ALL CONSTRUCTION AREAS TO PRE-CONSTRUCTION CONDITION OR AS OTHERWISE NOTED ON THE PLANS
20. TRAFFIC ACCESS SHALL BE MAINTAINED FOR LOCAL RESIDENTS TO THEIR RESPECTIVE PROPERTIES DURING CONSTRUCTION, UNLESS OTHERWISE APPROVED BY HYDE PARK CITY AND THE ENGINEER.
21. WITHIN 15 DAYS OF THE FINAL ACCEPTANCE OF WORK, THE CONTRACTOR SHALL SUBMIT A COMPLETE AND LEGIBLE SET OF AS-BUILT PLANS TO THE ENGINEER.
22. ALL DUCTILE IRON PIPES, FITTINGS, AND APPURTENANCES SHALL BE CLASS 150 UNLESS NOTED OTHERWISE.
23. ALL PVC C900 PIPE SHALL BE CLASS DR18 UNLESS NOTED OTHERWISE.

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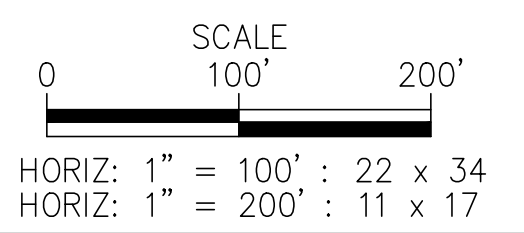
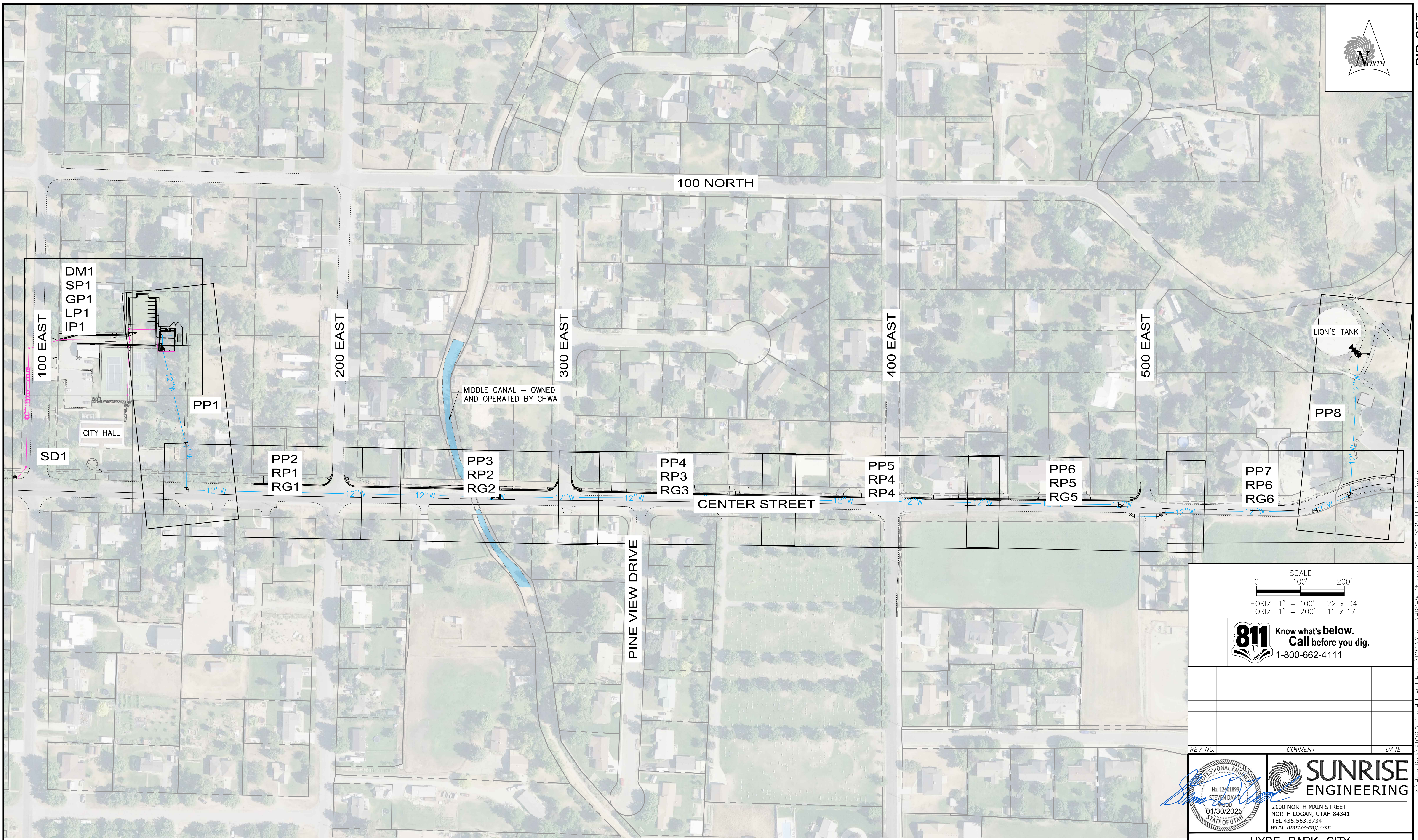
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		HYDE PARK CITY CITY HALL WELL HOUSE GENERAL GENERAL NOTES

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 4 of 72	GN4
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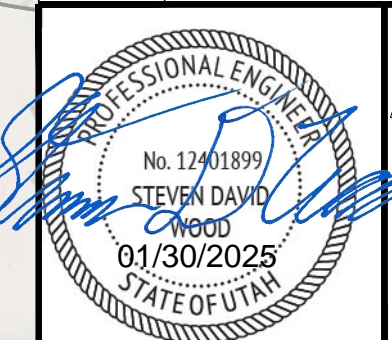


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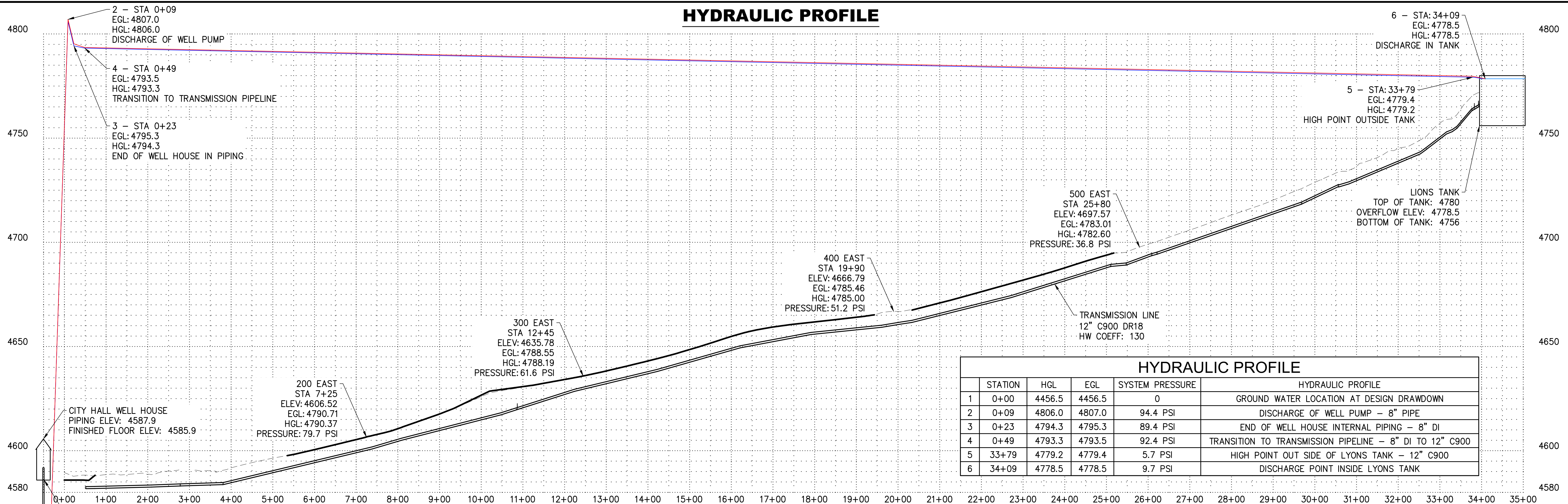
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HYDE PARK CITY
 CITY HALL WELL HOUSE
 GENERAL
 PROJECT OVERVIEW MAP AND INDEX

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 5 of 72	GN5
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P:\Hyde Park\10660 City Hall Well House\DWG\Sheets\HPCWH-GN5.dwg Jun 29, 2025 11:53am jnelson

HYDRAULIC PROFILE



STATION	HGL	EGL	SYSTEM PRESSURE	HYDRAULIC PROFILE	
1	0+00	4456.5	4456.5	0	GROUND WATER LOCATION AT DESIGN DRAWDOWN
2	0+09	4806.0	4807.0	94.4 PSI	DISCHARGE OF WELL PUMP - 8" PIPE
3	0+23	4794.3	4795.3	89.4 PSI	END OF WELL HOUSE INTERNAL PIPING - 8" DI
4	0+49	4793.3	4793.5	92.4 PSI	TRANSITION TO TRANSMISSION PIPELINE - 8" DI TO 12" C900
5	33+79	4779.2	4779.4	5.7 PSI	HIGH POINT OUTSIDE OF LYONS TANK - 12" C900
6	34+09	4778.5	4778.5	9.7 PSI	DISCHARGE POINT INSIDE LYONS TANK

DESIGN CRITERIA

DESIGN PARAMETERS

PUMP DESIGN FLOW: 1,280 GPM
 PUMP DESIGN HEAD: 358.7 FT
 DESIGN WELL DRAWDOWN: 31.4 FT
 TOTAL HEAD LOSS: 36.7 FT
 VELOCITY IN WELL HOUSE: 8.2 FT / SEC (8" DI PIPE)
 VELOCITY IN TRANSMISSION LINE: 3.6 FT / SEC (12" C900 PIPE)
 SELECTED PUMP: SIMFLO SP11M

TEST PUMPING RESULTS

FLOW (GPM)	DRAWDOWN (FT)	WELL SPECIFIC CAPACITY (GPM / FT DRAWDOWN)
0	0	0
500	7	71.4
750	11	68.2
1000	15	66.7
1500	40	37.5
1750	76	23.0

DRAWDOWN FIT EQUATION

$$Y(X) = 0.00003X^2 - 0.016X + 2.6985$$

Y = DRAWDOWN (FT)
 X = WELL FLOW (GPM)
 R² = 0.9619

Pump Data Sheet - SIMFLO

Company Name: _____ Date: 01/14/2025

Pump:
 Size: SP11M (stages: 8)
 Type: VERT TURBINE
 Synchron Speed: 1800 rpm
 Dia: 8.81 in
 Curve: SP11M.05.T.4646.0823
 Impeller: SP11M
 Specific Speeds: Ns: 2901, Nss: 10711

Dimensions:
 Suction: 8 in
 Discharge: 8 in
 Eye Area: 29.2 in²
 Bowl Size: 11.2 in
 Max Lateral: 1.13 in
 Thrust K Factor: 10.1 lb/ft

Fluid:
 Name: Water
 SG: 1
 Density: 62.4 lb/ft³
 Viscosity: 1.1 cP
 Temperature: 60 °F
 Vapor Pressure: 0.256 psi a
 Atm Pressure: 14.7 psi a
 Margin Ratio: 1

Search Criteria:
 Flow: 1200 US gpm
 Head: 385 ft

Static Head: 0 ft

Motor Limits:
 Temperature: ---
 Wkg Pressure: 925 psi g
 Sphere Size: 1.19 in
 Power: 596 hp

Motor:
 Standard: US
 Enclosure: TYPE 1
 Frame: ---
 Sizing Criteria: Max Power on Design Curve

Pump Selection Warnings:
 None

--- Duty Point ---

Flow: 1201 US gpm
 Head: 386 ft
 Eff: 82.4%
 Power: 142 hp
 NPSHr: 10.2 ft
 Speed: 1770 rpm

--- Design Curve ---

Shutoff Head: 601 ft
 Shutoff QP: 260 gpm
 Min Flow: 396 US gpm
 BEP: 82.7% @ 1131 US gpm
 NDL Power: 142 hp @ 1244 US gpm

--- Max Curve ---

Max Power: 159 hp @ 1296 US gpm

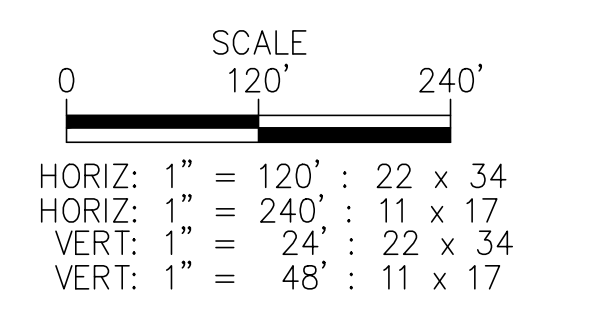
Nominal performance shall comply to ANSI/HI 14.6 2B/3B acceptance criteria and may be derated for materials of construction and/or specified acceptance grade. Consult factory. www.simflo.com / pump-flo@simflo.com

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
1440	1770	292	78.7	138	14.2
1200	1770	386	82.4	142	10.2
960	1770	453	80.6	136	8.13
720	1770	499	73	124	6.96
480	1770	533	58.4	109	5.72

Selected from catalog: SIMFLO 60Hz, Vers 24.2

LEGEND

HGL - HYDRAULIC GRADE LINE
 EGL - ENERGY GRADE LINE



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PROFESSIONAL ENGINEER
 No. 12701899
 SLEVEN DAVID
 01/30/2025
 STATE OF UTAH

SUNRISE ENGINEERING

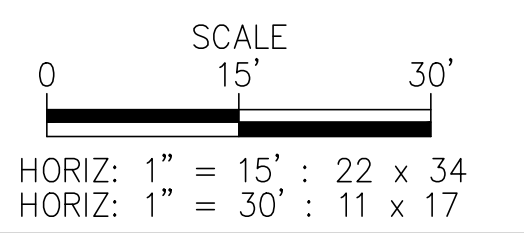
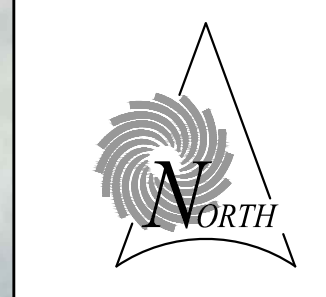
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HYDE PARK CITY				
CITY HALL WELL HOUSE				
GENERAL				
DESIGN CRITERIA AND HYDRAULIC PROFILE				
SEI NO. 10660	DESIGNED SDW	DRAWN JWA	CHECKED SDW	SHEET NO. 6 of 72 GN6

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DEMOLITION NOTES

- 1 ABANDON EXISTING IRRIGATION LINES
- 2 POWER POLE TO BE RELOCATED BY ROCKY MOUNTAIN POWER
- 3 REMOVE EXISTING TREE
- 4 SAWCUT AND REMOVE EXISTING ASPHALT TO PROVIDE CLEAN EDGE - PROTECT EXISTING ASPHALT AND CONCRETE TO REMAIN
- 5 SAWCUT AND REMOVE PORTION OF EXISTING CONCRETE CURB AND GUTTER
- 6 REMOVE EXISTING CONCRETE SIDEWALK BY PANELS
- 7 REMOVE EXISTING CONCRETE SIDEWALK (E WH7)
- 8 REMOVE EXISTING STUMP
- 9 PROTECT EXISTING TREE
- 10 REMOVE EXISTING ASPHALT DRIVEWAY

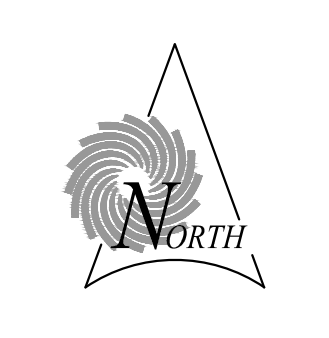
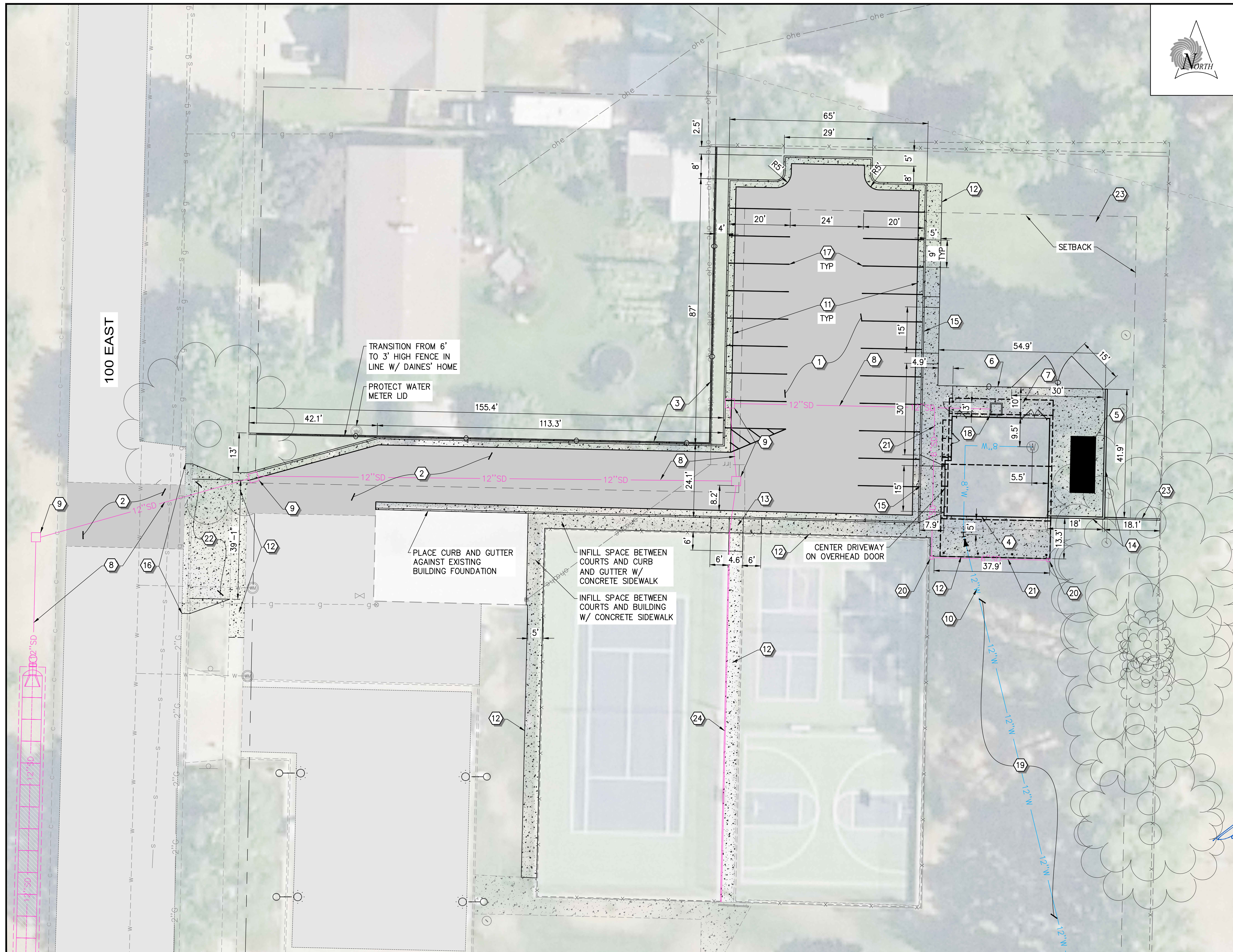


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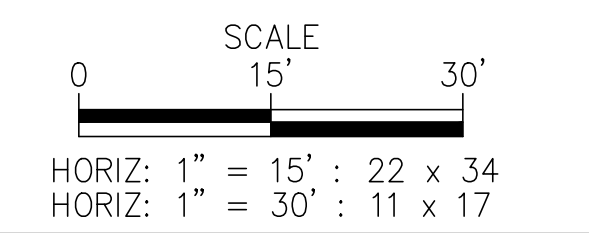
	<p>SUNRISE ENGINEERING</p> <p>2100 NORTH MAIN STREET NORTH LOGAN, UTAH 84341 TEL 435.563.3734 www.sunrise-eng.com</p>

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 7 of 72	DP1
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CONSTRUCTION NOTES

- 1 INSTALL ASPHALT PARKING LOT (G/WH6)
- 2 INSTALL ASPHALT DRIVEWAY / PATCH AND REPAIR (G/WH6) ASPHALT
- 3 INSTALL 6" PRIVACYPMASTER FENCE ON 6" CONCRETE CURB ON PROPERTY LINE (C/WH6, A/WH12)
- 4 INSTALL WELL HOUSE (A/WH1)
- 5 INSTALL CONCRETE GENERATOR PAD (D/WH6)
- 6 INSTALL 6" PRIVACYPMASTER FENCE W/ 3' MAN GATE AND 30' SWING GATE (A/WH12)
- 7 INSTALL 10' CONCRETE SIDEWALK (C/WH6)
- 8 INSTALL 12" HDPE STORM DRAIN LINE (C/WH8)
- 9 INSTALL 3'x3' CATCH BASIN AND GRATE (A,B,D/WH8)
- 10 INSTALL 12" WATER LINE - SEE SHEET PP1 (C/WH8)
- 11 INSTALL TYPE 'A' CONCRETE CURB AND GUTTER (A/WH6)
- 12 INSTALL 5' CONCRETE SIDEWALK UNLESS NOTED OTHERWISE (E/WH6)
- 13 INSTALL ADA CURB CUT (B,F/WH6)
- 14 INSTALL 8" HIGH CMU WALL - SEE STRUCTURAL DRAWINGS
- 15 INSTALL 15' CURB CUT (B, B/WH6, D1)
- 16 INSTALL CONCRETE DRIVEWAY CURB CUT WHERE CURB WAS REMOVED (B/D1)
- 17 4" SOLID WHITE LINES FOR 9'x20' PARKING SPACES
- 18 INSTALL 4'x4' CATCH BASIN AND GRATE (B,D/WH8)
- 19 REPLACE IRRIGATION PIPING / SYSTEM AS REQUIRED AFTER PIPE INSTALLATION
- 20 INSTALL 1'x1' LANDSCAPE IRRIGATION BOX
- 21 INSTALL 6" ADS PIPE W/ 0.5% SLOPE - CONNECT TO STORM DRAIN SYSTEM
- 22 INSTALL CONCRETE DRIVEWAY (B/D1)
- 23 INSTALL 6" WIDE CONCRETE MOW STRIP
- 24 INSTALL 4" TRENCH DRAIN ALONG SIDEWALK - SEE SHEET SD1 - SIDEWALK TO BE SLOPED AT 2% TO WEST (E/WH7)



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REV NO.	COMMENT	DATE

PROFESSIONAL ENGINEER
No. 12401899
STEVEN DAVID
WOOD
01/30/2025
STATE OF UTAH

SUNRISE ENGINEERING

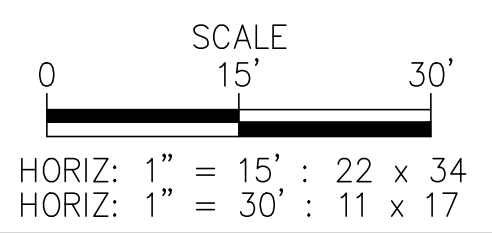
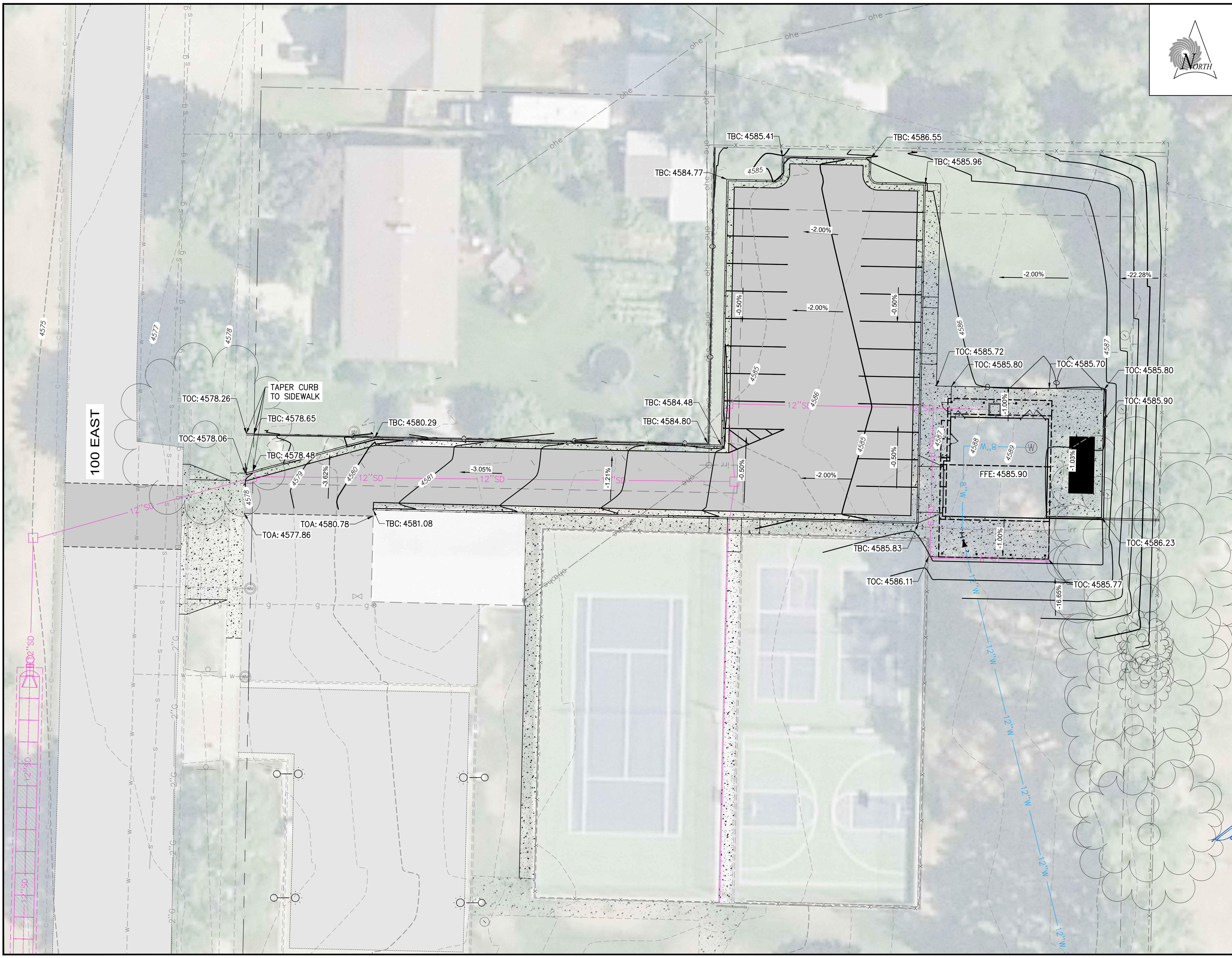
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HYDE PARK CITY
CITY HALL WELL HOUSE
WELL HOUSE CIVIL PLANS
SITE PLAN

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 8 of 72	SP1
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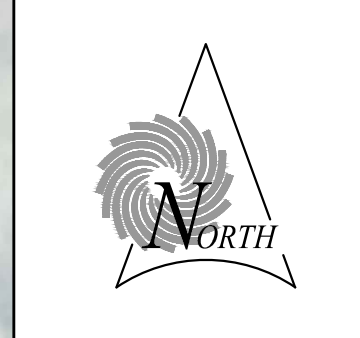
REV NO.	COMMENT	DATE

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SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 9 of 72	GP1
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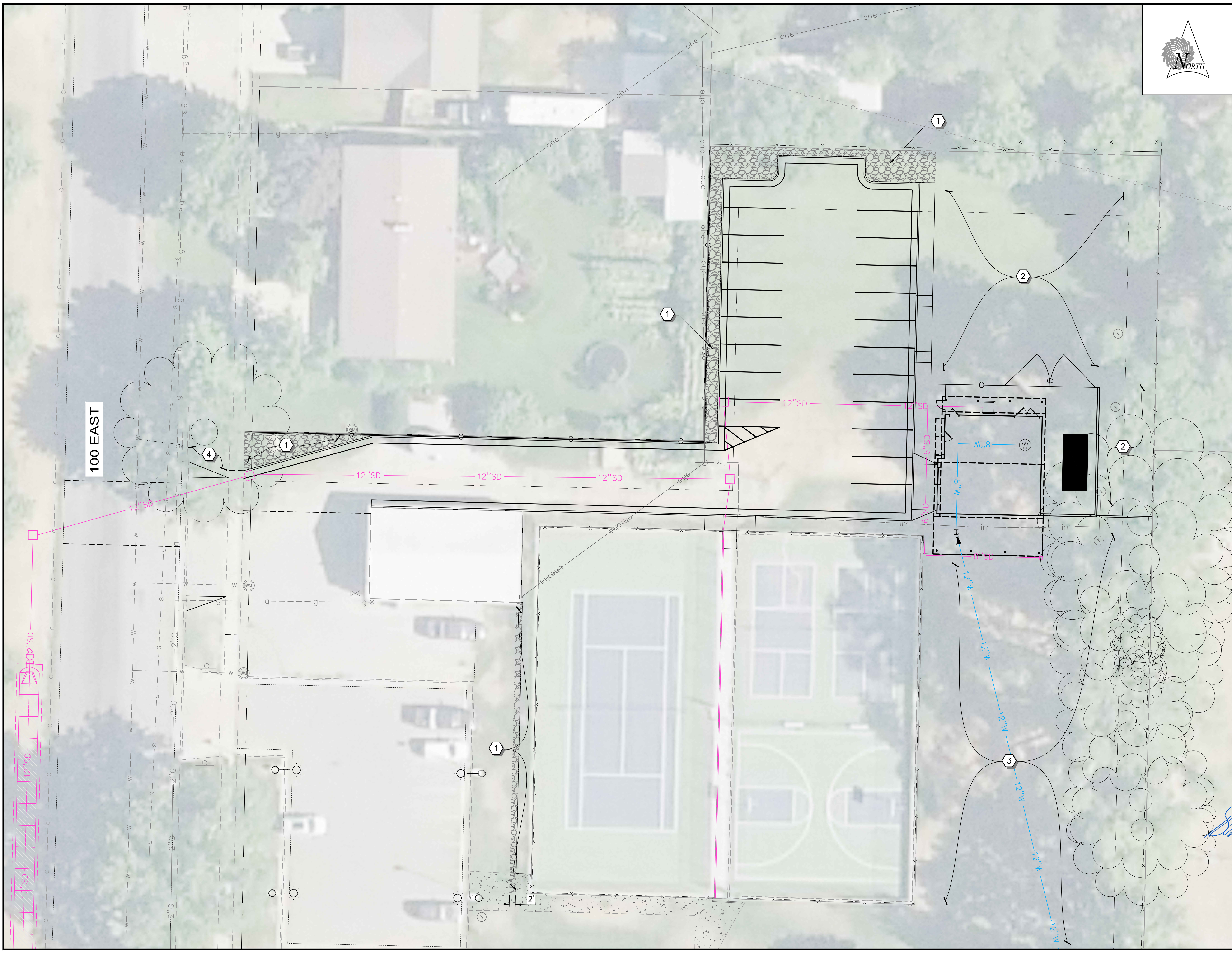
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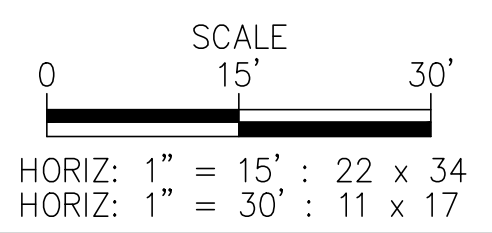
CONSTRUCTION NOTES

- 1 INSTALL 2" RIVER ROCK WITH WEED FABRIC ON ALL AREAS THAT ARE THINNER THAN 8'
- 2 INSTALL 1" - 1 1/2" FRACTURED GREY PISGAH ROCK
- 3 REPLACE DAMAGED SOD FROM CONSTRUCTION
- 4 RESTORE DAMAGED LANDSCAPING TO PRE-CONSTRUCTION CONDITIONS



GENERAL NOTES

- 1. ALL DAMAGED LANDSCAPING TO BE RESTORED TO PRE-CONSTRUCTION CONDITIONS



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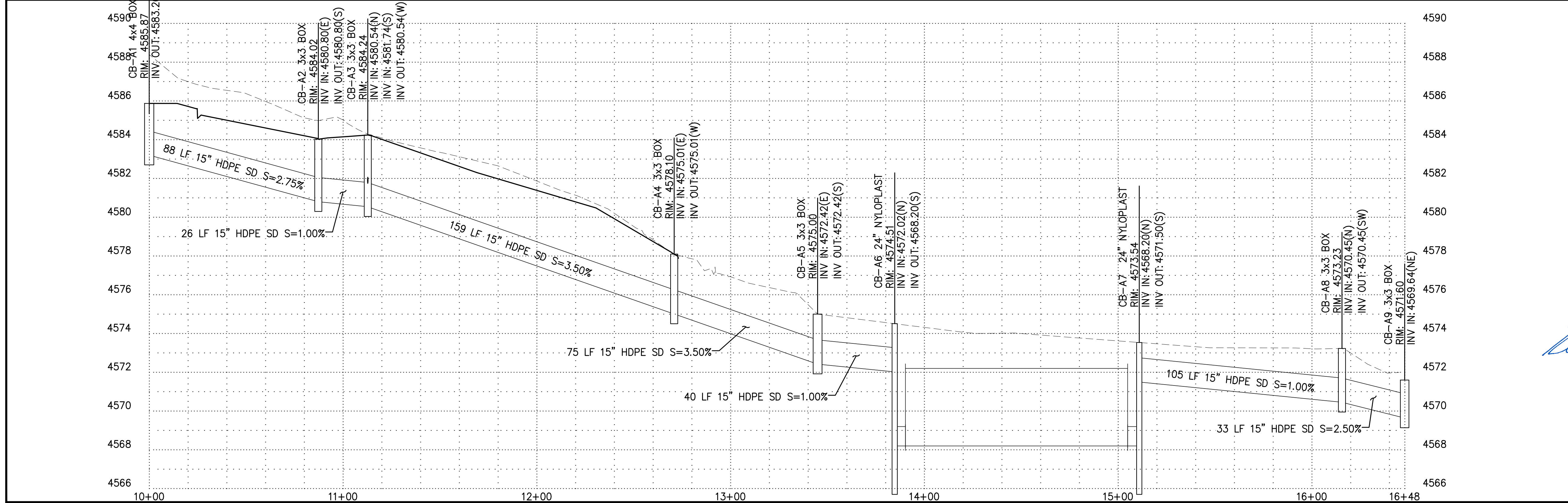
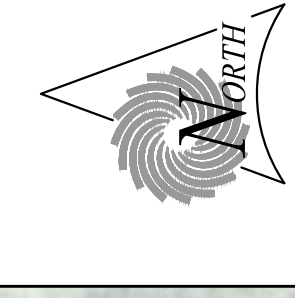
REV NO.	COMMENT	DATE

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SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 10 of 72	LP1
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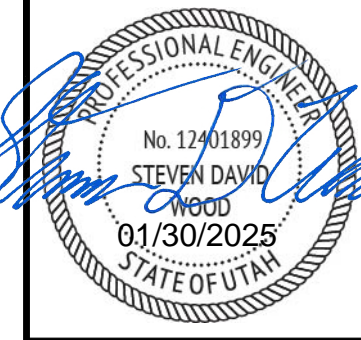
- CONSTRUCTION NOTES**
- 1 4x4 CATCH BASIN W/ GRATE (B, D WH8)
 - 2 3x3 CATCH BASIN W/ GRATE (A, B, D WH8)
 - 3 15" HDPE STORM DRAIN PIPE (C WH8)
 - 4 STORMTECH CHAMBER SYSTEM (A WH13)
 - 5 SAWCUT SIDEWALK - REPLACE SIDEWALK - INSTALL NEW ADA RAMP (D WH7)
 - 6 NEW DURA TRENCH TRENCH DRAIN - 1% SLOPE TO NORTH (E WH7)
 - 7 CONNECT NEW TRENCH DRAIN TO CATCH BASIN ON NORTH W/ 6" HDPE STORM DRAIN PIPE



SCALE
 0 30' 60'
 HORIZ: 1" = 30' : 22 x 34
 HORIZ: 1" = 60' : 11 x 17
 VERT: 1" = 3' : 22 x 34
 VERT: 1" = 6' : 11 x 17

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REV NO.	COMMENT	DATE



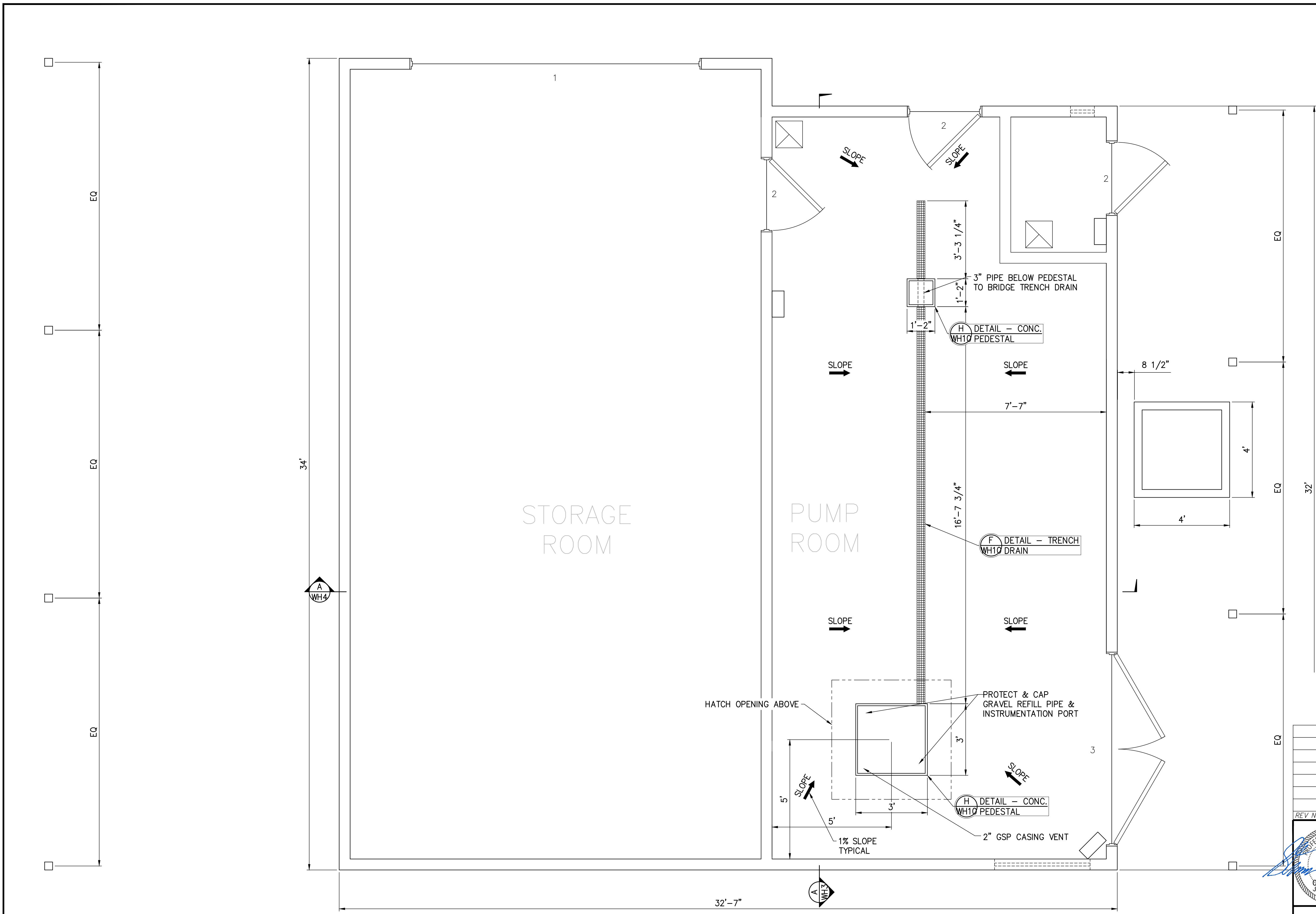
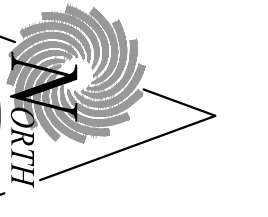
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HYDE PARK CITY
CITY HALL WELL HOUSE
PLAN AND PROFILE
STORM DRAIN

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 11 of 72	SD1
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REV. NO.	COMMENT	DATE

PROFESSIONAL ENGINEER
No. 12401899
STEVEN DAVID WOOD
01/30/2025
STATE OF UTAH

SUNRISE ENGINEERING
2100 NORTH MAIN STREET
NORTH LOGAN, UTAH 84341
TEL 435.563.3734
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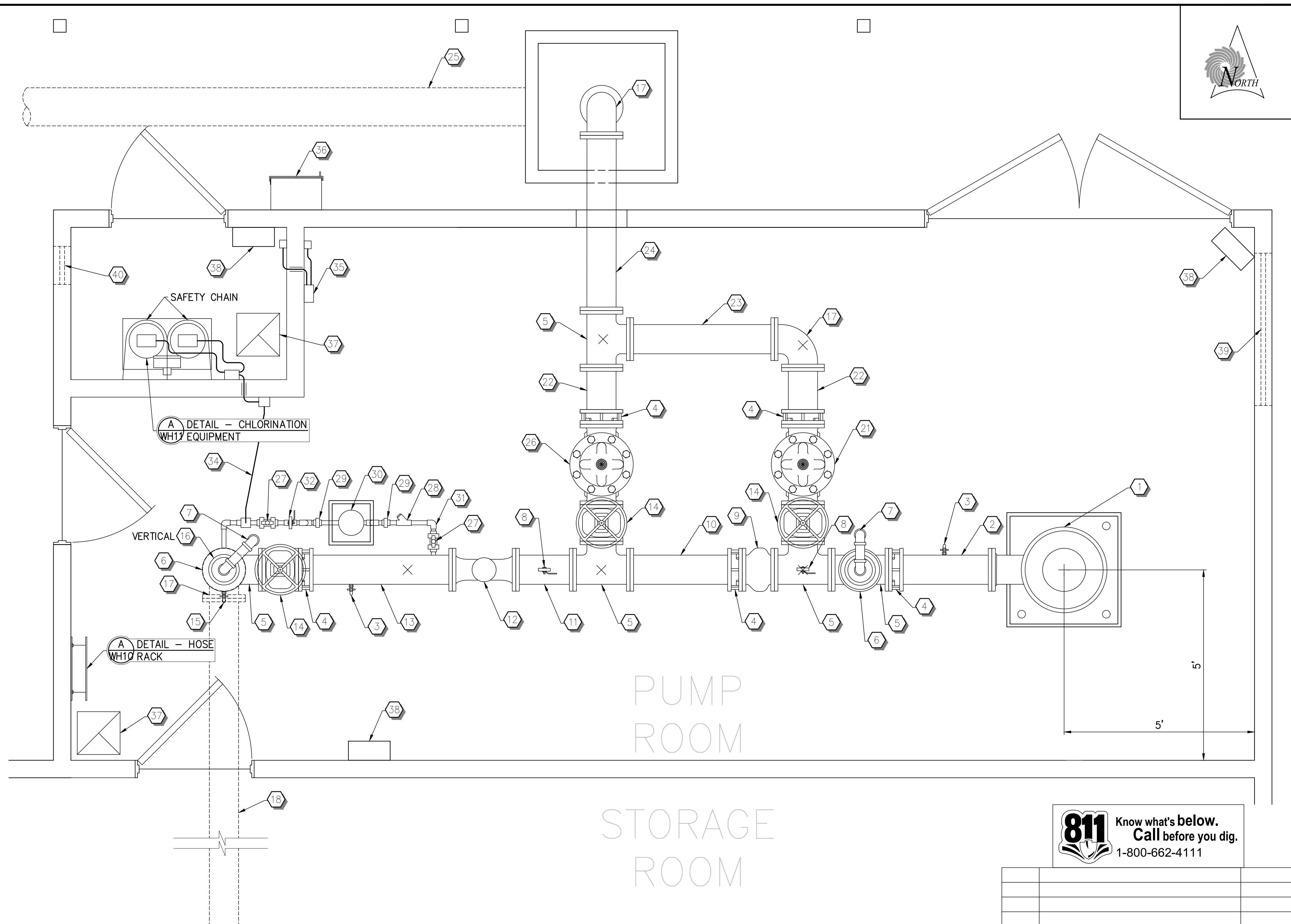
HYDE PARK CITY
CITY HALL WELL HOUSE
WELL HOUSE CIVIL PLANS
WELL HOUSE FLOOR PLAN

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 12 of 72	WH1
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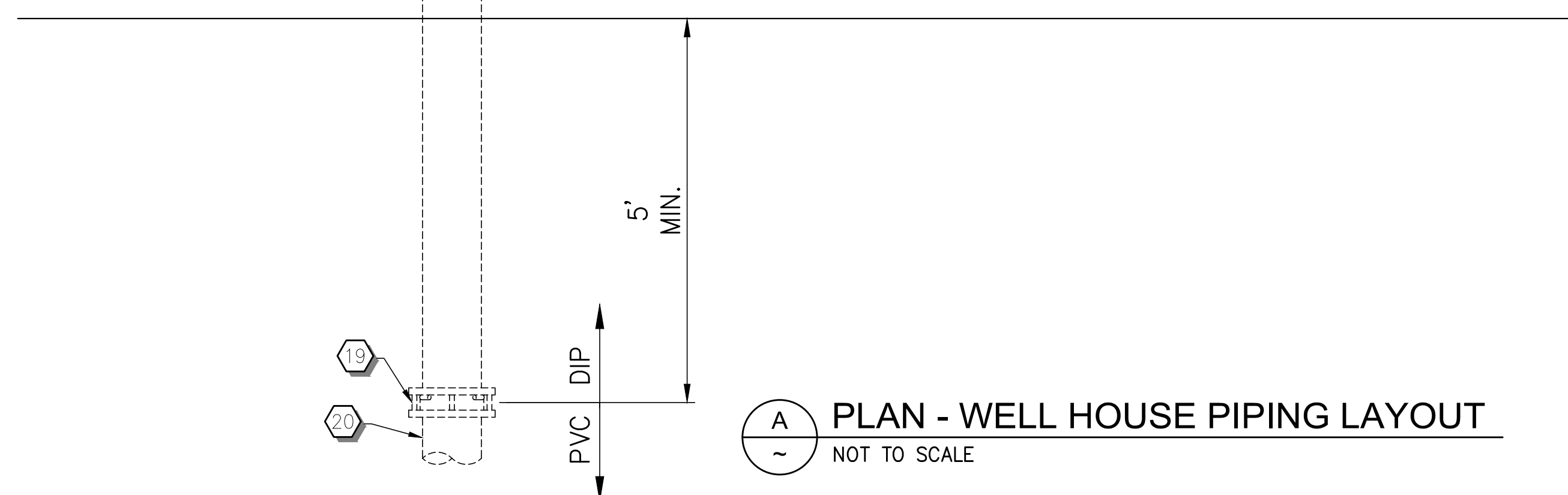
DOOR SCHEDULE		
NUMBER	DIMENSIONS	DESCRIPTION
1	12'Wx14'H	INSULATED STEEL SECTIONAL GARAGE DOOR W/ INTERIOR METAL SHEETING
2	3'x7'	INSULATED STEEL DOOR W/ WOOD JAM, THRESHOLD AND RUBBER SEALS
3	(2) 4'x7'	INSULATED DOUBLE STEEL DOOR W/ WOOD JAM, THRESHOLD AND RUBBER SEALS

(A) **PLAN - WELL HOUSE**
NOT TO SCALE

EQUIPMENT SCHEDULE			
MK.NO.	DESCRIPTION	SIZE	REMARKS
1	VERTICAL TURBINE PUMP MOTOR	-	SEE 14404SP
2	DIP CLASS 350 - 2'-4"	8"	FLxPE
3	SMOOTH NOSED SAMPLE TAP	1/2"	
4	RESTRAINED FLNG. CPLG. ADAPTER	8"	
5	DIP TEE CLASS 350	8"x8"	
6	BLIND FLNG. CLASS 350	8"	
7	COMBINATION AIR / VAC VALVE	2"	SEE DETAIL D/WH10
8	PRESSURE GAUGE & PRESSURE SWITCH	-	SEE DETAIL G/WH10
9	CHECK VALVE	8"	"CLA-VAL" SERIES 581 SILENT GLOBE OR APPROVED EQUAL
10	DIP CLASS 350 - 2'-6 3/4"	8"	FLxPE
11	DIP CLASS 350 - 1'-6"	8"	FLxFL
12	FLOWMETER	8"	SEIMENS SITRANS FM MAG 5100 W/ MAG 6000 TRANSMITTER W/ MOD BUS CARD OR APPROVED EQUAL
13	DIP CLASS 350 - 3'-7 3/4"	8"	FLxPE
14	GATE VALVE	8"	
15	HOSE BIB	3/4"	
16	DIP CLASS 350 - 5'-6 3/4"	8"	FLxFL
17	DIP 90° BEND CLASS 350	8"	
18	DIP CLASS 350 - 27'-2 1/4"	8"	FLxPE
19	FLEX. CPLG. (RESTRAINED)	8"	
20	PVC TRANSMISSION PIPE	8"	
21	PUMP CONTROL VALVE	8"	"CLA-VAL" MODEL 61-02 YBKC OR APPROVED EQUAL
22	DIP CLASS 350 - 1'-1 1/4"	8"	FLxPE
23	DIP CLASS 350 - 3'-9 1/2"	8"	FLxFL
24	DIP CLASS 350 - 4'-7 1/4"	8"	FLxFL
25	HDPE DRAIN PIPE	12"	SEE SD1 FOR EXTENTS
26	SURGE ANTICIPATOR & PRESSURE RELIEF VALVE	8"	"CLA-VAL" MODEL 52-01 BKC OR APPROVED EQUAL
27	TRUE UNION BALL VALVE	1"	
28	STRAINER	1"	
29	UNION	1"	
30	BOOSTER PUMP	-	SEE 11230SP
31	SCH 80 PVC PIPE & FITTINGS	1"	
32	PRESSURE GAUGE & PRESSURE SWITCH	-	SEE DETAIL G/WH10
33	CHLORINE EJECTOR	1"	
34	GAS CHLORINE SEE LINE	2"	INSTALL CONDUIT IN CONCRETE FLOOR AND WALLS
35	CHLORINE ALARM	-	SEE SPEC 11230SP
36	EMERGENCY AIR PACK STORAGE BOX	-	SEE DETAIL B/WH10
37	EXHAUST FAN & DUCTING	-	ROOF MOUNTED (SEE MECH. PLANS) EXHAUST DUCTING SHALL TAKE SUCTION 4" OFF THE FLOOR
38	HEATER	-	CEILING MOUNTED (SEE MECH. PLANS)
39	AIR EXHAUST LOUVER	-	(SEE MECH. PLANS)
40	AIR SUPPLY LOUVER	-	(SEE MECH. PLANS)
×	LOCATION OF PIPE SUPPORT	-	SEE DETAIL B/WH10



- NOTES:
- ALL PIPING 2"Ø AND SMALLER IS SHOWN FOR REFERENCE. THE CONTRACTOR SHALL CONSULT ENGINEER FOR THE MOST CONVENIENT ROUTING OF PIPING AND SHALL PROVIDE PIPE SUPPORTS AS NEEDED
 - SLOPE FLOOR TOWARDS FLOOR DRAINS AT 1/8" PER FOOT MIN. SLOPE
 - 1" REMOTE PRESSURE SENSING LINE SHALL BE INSTALLED WITH A 2% SLOPE FROM VALVE TO PIPELINE
 - FLOWMETER REQUIRES MIN. 2 PIPE DIAMETERS UPSTREAM AND DOWNSTREAM FROM ISOLATION VALVES, PIPE ELBOWS, AND TEES
 - ROOF OVERHANG NOT SHOWN FOR CLARITY
 - ELECTRICAL EQUIPMENT NOT SHOW FOR CLARITY - SEE ELECTRICAL PLANS FOR DETAILS
 - SEE STRUCTURAL PLANS FOR DETAILS ON THE WELL HOUSE BUILDING
 - CLA-VAL REP SHALL DEMONSTRATE TO ENGINEER THAT VALVES HAVE BEEN FIELD CALIBRATED TO CLOSE AND OPEN AS ENGINEER DESIRES



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REV. NO.	COMMENT	DATE

SUNRISE ENGINEERING
 No. 12401899
 STEVEN DAVID WOOD
 01/30/2025
 STATE OF UTAH
 2100 NORTH MAIN STREET
 NORTH LOGAN, UTAH 84341
 TEL 435.563.3734
 www.sunrise-eng.com

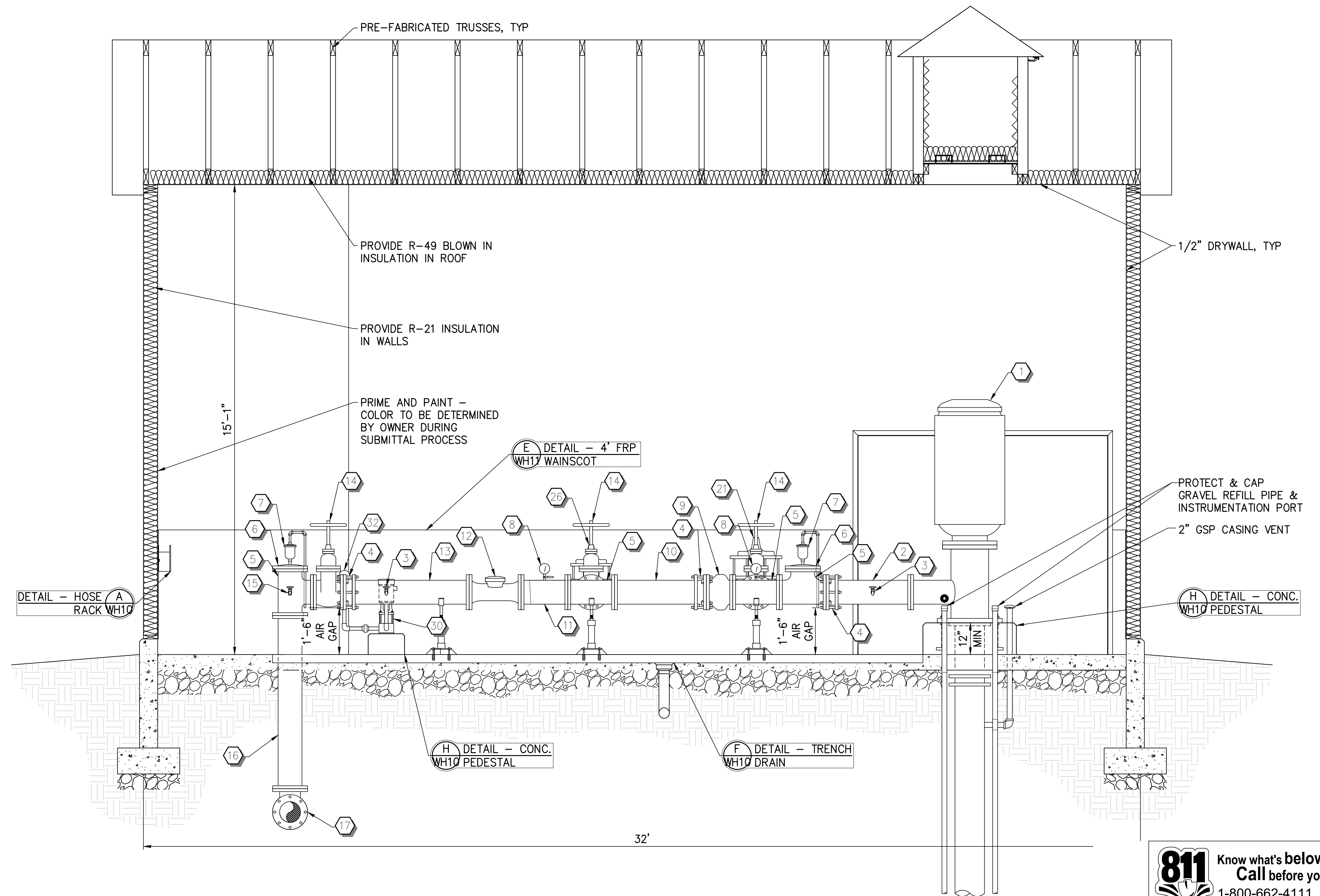
HYDE PARK CITY
CITY HALL WELL HOUSE
 WELL HOUSE CIVIL PLANS
 WELL HOUSE PIPING

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 13 of 72	WH2
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BID SET

EQUIPMENT SCHEDULE			
MK.NO.	DESCRIPTION	SIZE	REMARKS
1	VERTICAL TURBINE PUMP MOTOR	-	SEE 14404SP
2	DIP CLASS 350 - 2'-4"	8"	FLxPE
3	SMOOTH NOSED SAMPLE TAP	1/2"	
4	RESTRAINED FLNG. CPLG. ADAPTER	8"	
5	DIP TEE CLASS 350	8"x8"	
6	BLIND FLNG. CLASS 350	8"	
7	COMBINATION AIR / VAC VALVE	2"	SEE DETAIL D/WH10
8	PRESSURE GAUGE & PRESSURE SWITCH	-	SEE DETAIL G/WH10
9	CHECK VALVE	8"	"CLA-VAL" SERIES 581 SILENT GLOBE OR APPROVED EQUAL
10	DIP CLASS 350 - 2'-6 3/4"	8"	FLxPE
11	DIP CLASS 350 - 1'-6"	8"	FLxFL
12	FLOWMETER	8"	SEIMENS SITRANS FM MAG 5100 W/ MAG 6000 TRANSMITTER W/ MOD BUS CARD OR APPROVED EQUAL
13	DIP CLASS 350 - 3'-7 3/4"	8"	FLxPE
14	GATE VALVE	8"	
15	HOSE BIB	3/4"	
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21	PUMP CONTROL VALVE	8"	"CLA-VAL" MODEL 61-02 YBKC OR APPROVED EQUAL
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23	DIP CLASS 350 - 3'-9 1/2"	8"	FLxFL
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25	HDPE DRAIN PIPE	12"	SEE SD1 FOR EXTENTS
26	SURGE ANTICIPATOR & PRESSURE RELIEF VALVE	8"	"CLA-VAL" MODEL 52-01 BKC OR APPROVED EQUAL
27	TRUE UNION BALL VALVE	1"	
28	STRAINER	1"	
29	UNION	1"	
30	BOOSTER PUMP	-	SEE 11230SP
31	SCH 80 PVC PIPE & FITTINGS	1"	
32	PRESSURE GAUGE & PRESSURE SWITCH	-	SEE DETAIL G/WH10
33	CHLORINE EJECTOR	1"	
34	GAS CHLORINE SEE LINE	2"	INSTALL CONDUIT IN CONCRETE FLOOR AND WALLS
35	CHLORINE ALARM	-	SEE SPEC 11230SP
36	EMERGENCY AIR PACK STORAGE BOX	-	SEE DETAIL B/WH10
37	EXHAUST FAN & DUCTING	-	ROOF MOUNTED (SEE MECH. PLANS) EXHAUST DUCTING SHALL TAKE SUCTION 4" OFF THE FLOOR
38	HEATER	-	CEILING MOUNTED (SEE MECH. PLANS)
39	AIR EXHAUST LOUVER	-	(SEE MECH. PLANS)
40	AIR SUPPLY LOUVER	-	(SEE MECH. PLANS)
×	LOCATION OF PIPE SUPPORT	-	SEE DETAIL B/WH10



- NOTES:
- ALL PIPING 2"Ø AND SMALLER IS SHOWN FOR REFERENCE. THE CONTRACTOR SHALL CONSULT ENGINEER FOR THE MOST CONVENIENT ROUTING OF PIPING AND SHALL PROVIDE PIPE SUPPORTS AS NEEDED
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 - CLA-VAL REP SHALL DEMONSTRATE TO ENGINEER THAT VALVES HAVE BEEN FIELD CALIBRATED TO CLOSE AND OPEN AS ENGINEER DESIRES

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SUNRISE ENGINEERING

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NORTH LOGAN, UTAH 84341
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HYDE PARK CITY

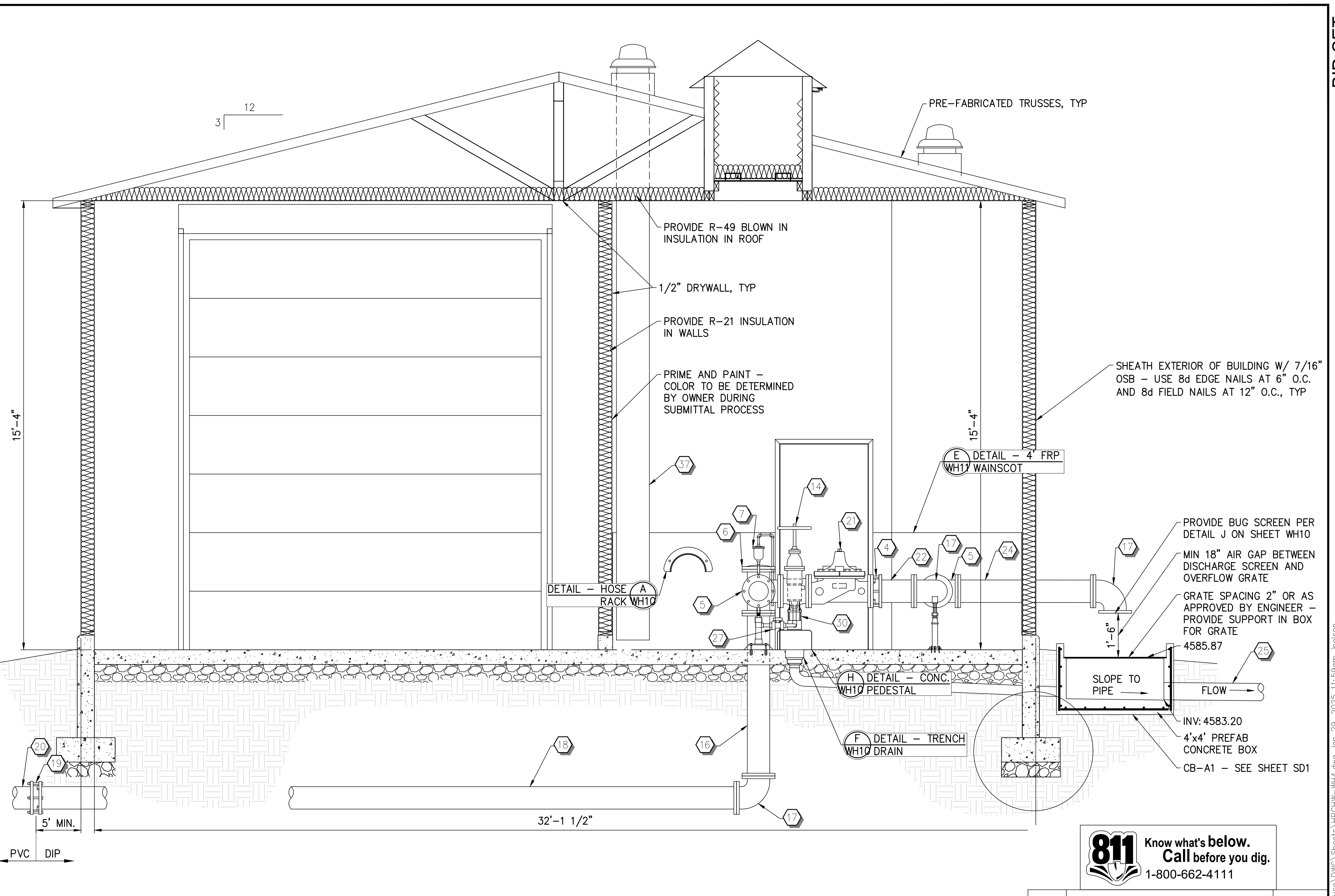
CITY HALL WELL HOUSE

WELL HOUSE CIVIL PLANS

WELL HOUSE SECTION

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 14 of 72	WH3
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EQUIPMENT SCHEDULE			
MK.NO.	DESCRIPTION	SIZE	REMARKS
1	VERTICAL TURBINE PUMP MOTOR	-	SEE 14404SP
2	DIP CLASS 350 - 2'-4"	8"	FLxPE
3	SMOOTH NOSED SAMPLE TAP	1/2"	
4	RESTRAINED FLNG. CPLG. ADAPTER	8"	
5	DIP TEE CLASS 350	8"x8"	
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7	COMBINATION AIR / VAC VALVE	2"	SEE DETAIL D/WH10
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38	HEATER	-	CEILING MOUNTED (SEE MECH. PLANS)
39	AIR EXHAUST LOUVER	-	(SEE MECH. PLANS)
40	AIR SUPPLY LOUVER	-	(SEE MECH. PLANS)
X	LOCATION OF PIPE SUPPORT	-	SEE DETAIL B/WH10



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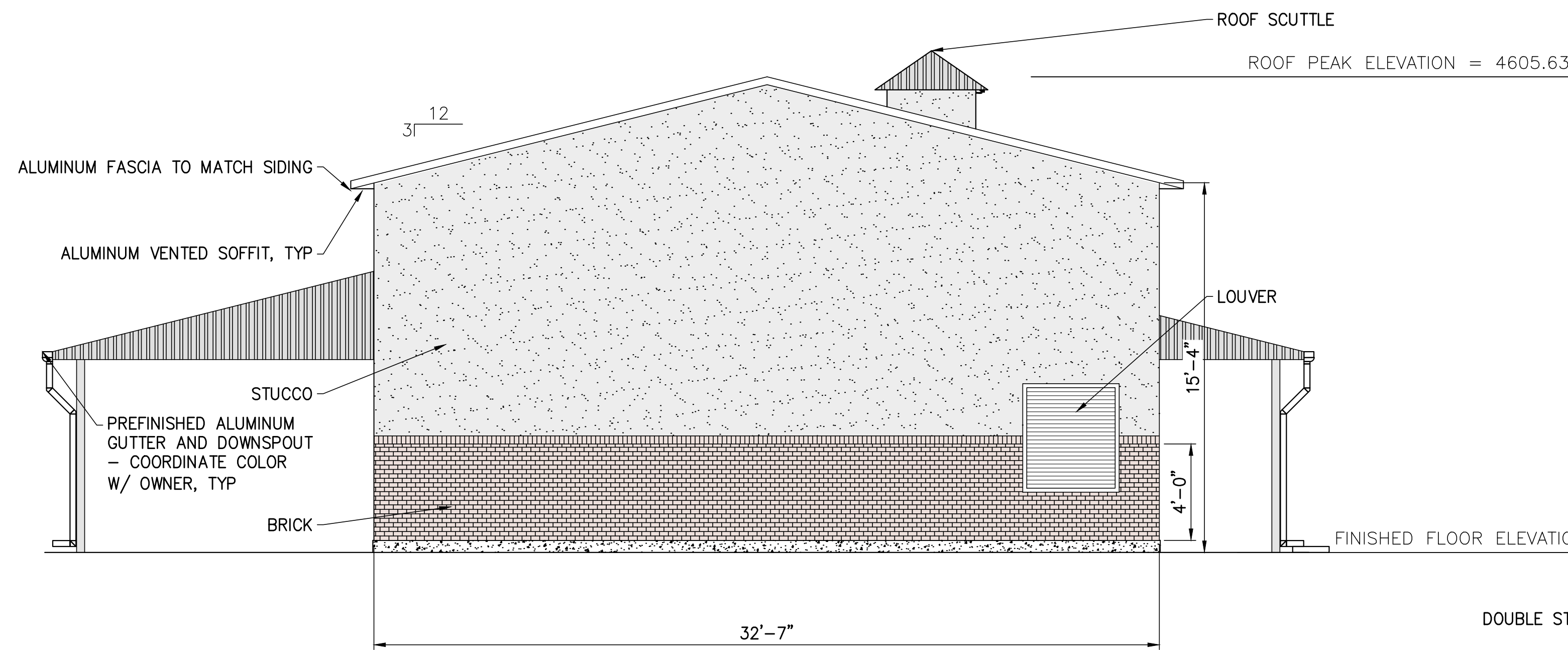
REV. NO.	COMMENT	DATE

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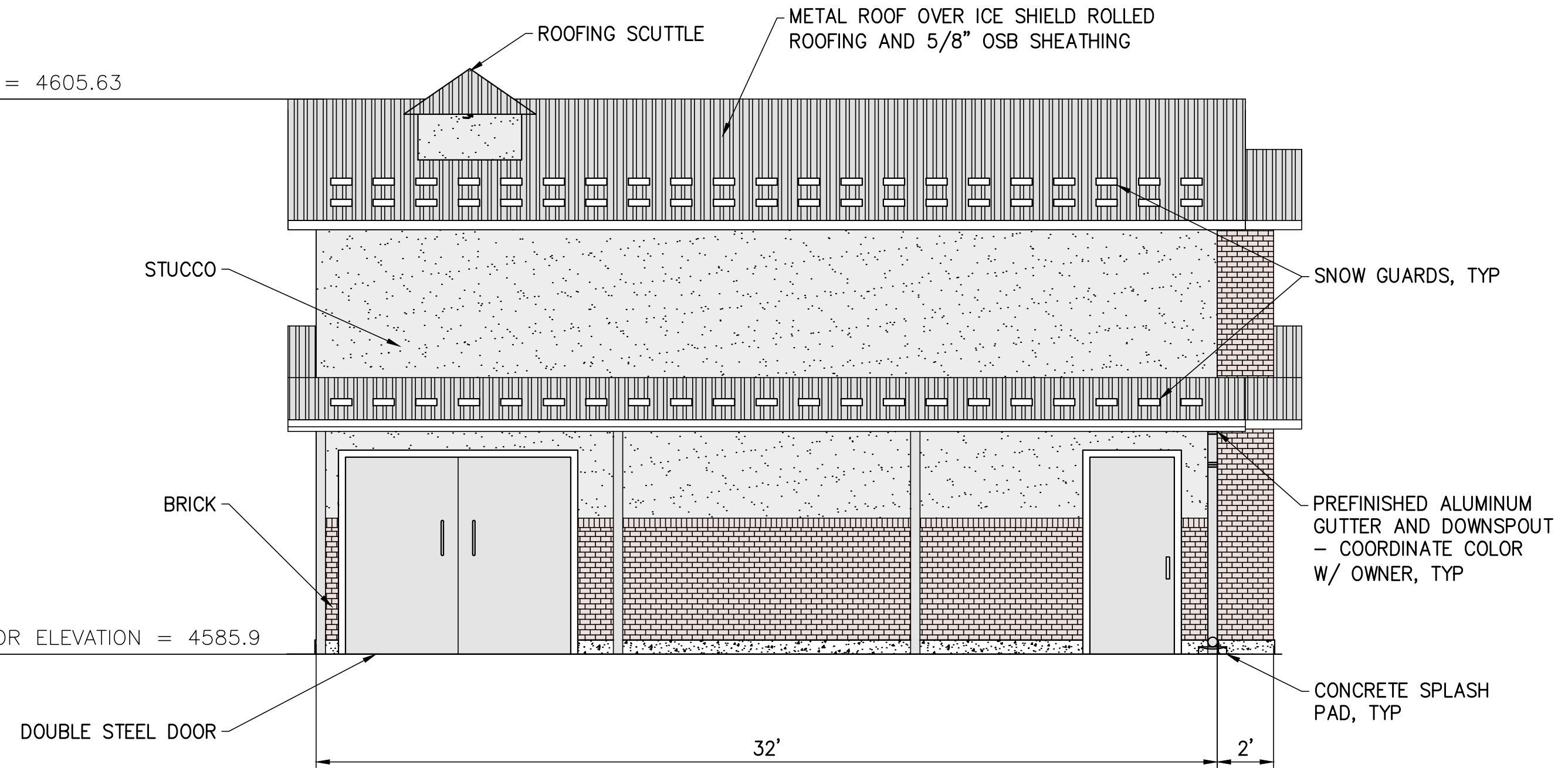
2100 NORTH MAIN STREET
NORTH LOGAN, UTAH 84341
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www.sunrise-eng.com

HYDE PARK CITY
CITY HALL WELL HOUSE
WELL HOUSE CIVIL PLANS
WELL HOUSE SECTION

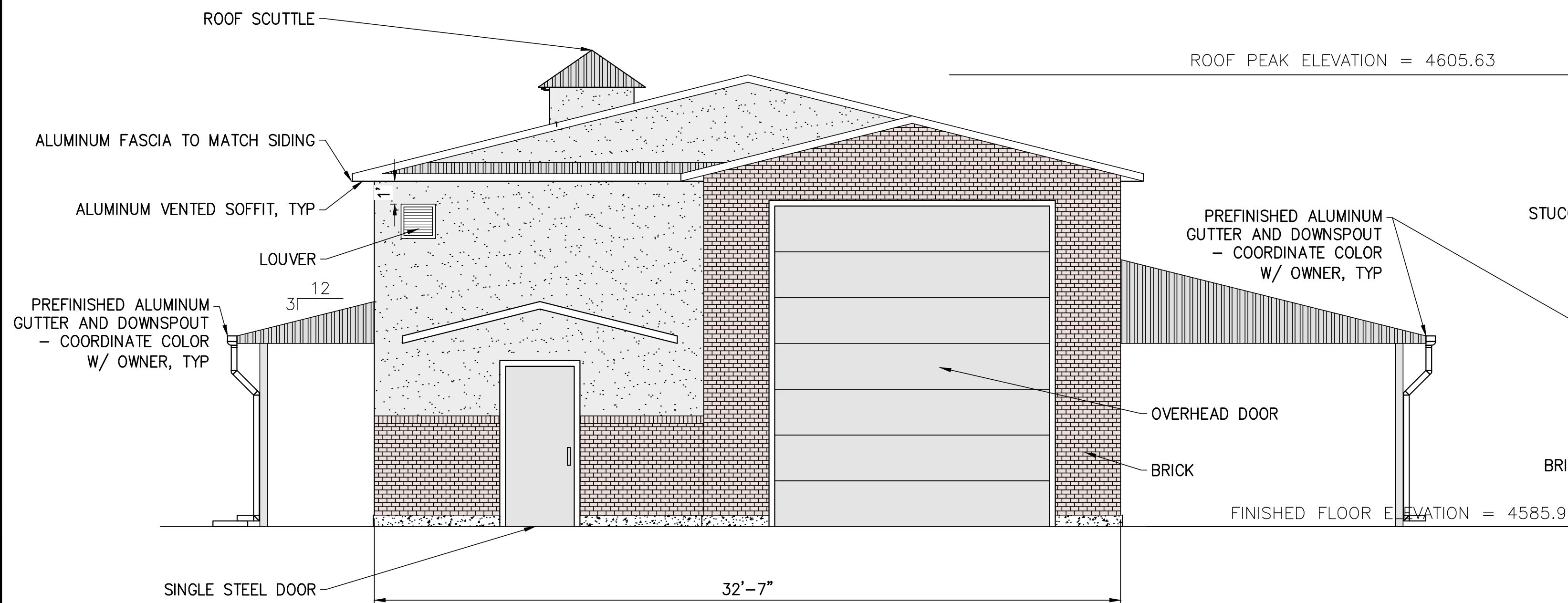
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 15 of 72	WH4
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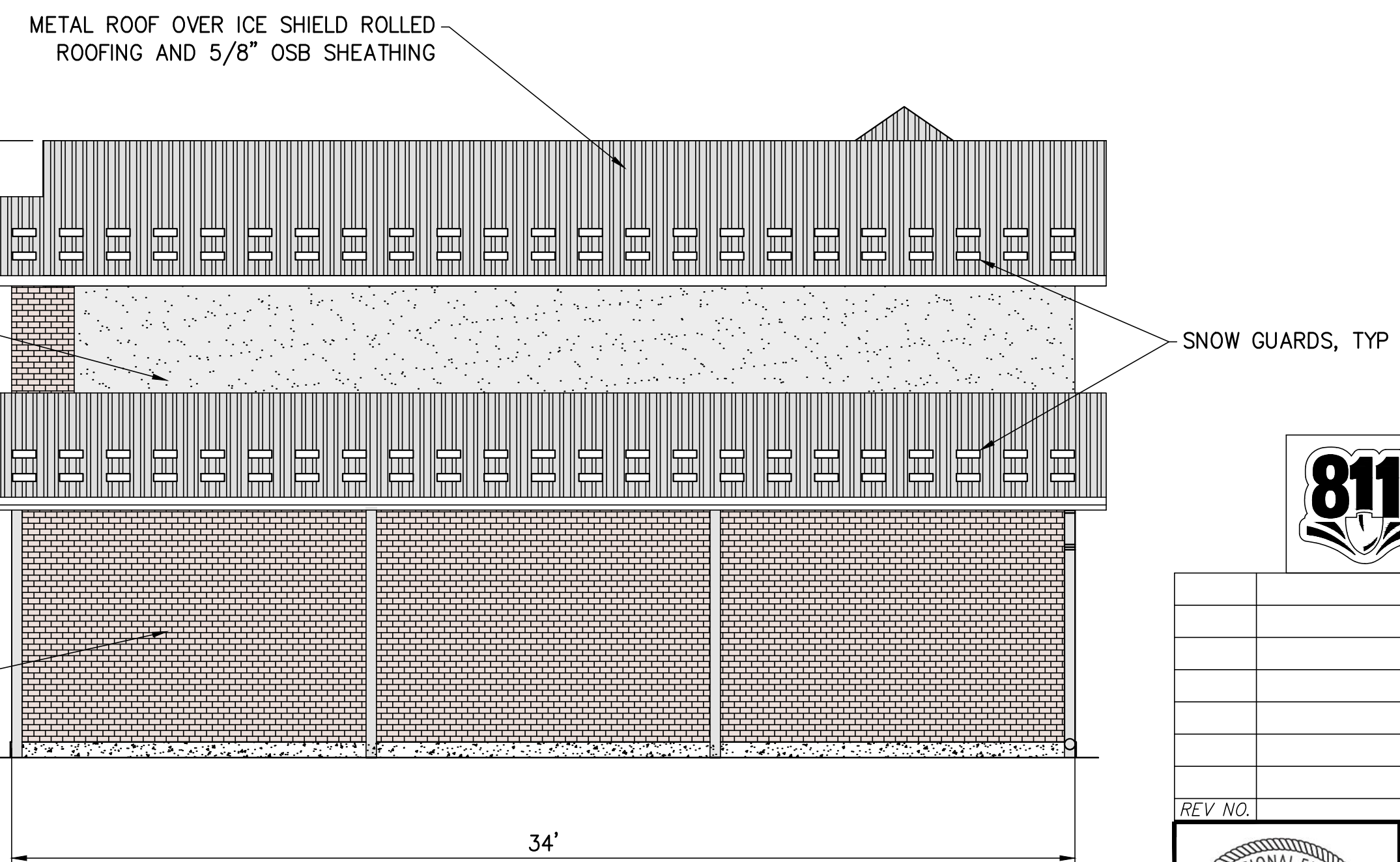
A ELEVATION - EAST SIDE
~ NOT TO SCALE



B ELEVATION - NORTH SIDE
~ NOT TO SCALE



C ELEVATION - WEST SIDE
~ NOT TO SCALE



D ELEVATION - SOUTH SIDE
~ NOT TO SCALE

- NOTES:
1. ALL COLORS TO BE SUBMITTED DURING THE SUBMITTAL PROCESS
 2. BRICK TO MATCH CITY HALL BUILDING - FAUX OR THIN BRICK MAY BE USED FOR COST SAVINGS
 3. STUCCO TO MATCH CITY HALL BUILDING
 4. METAL ROOF, SOFFIT, FASCIA, GUTTERS AND DOWNSPOUTS TO MATCH CITY HALL BUILDING
 5. DOOR FINISH TO MATCH CITY HALL BUILDING

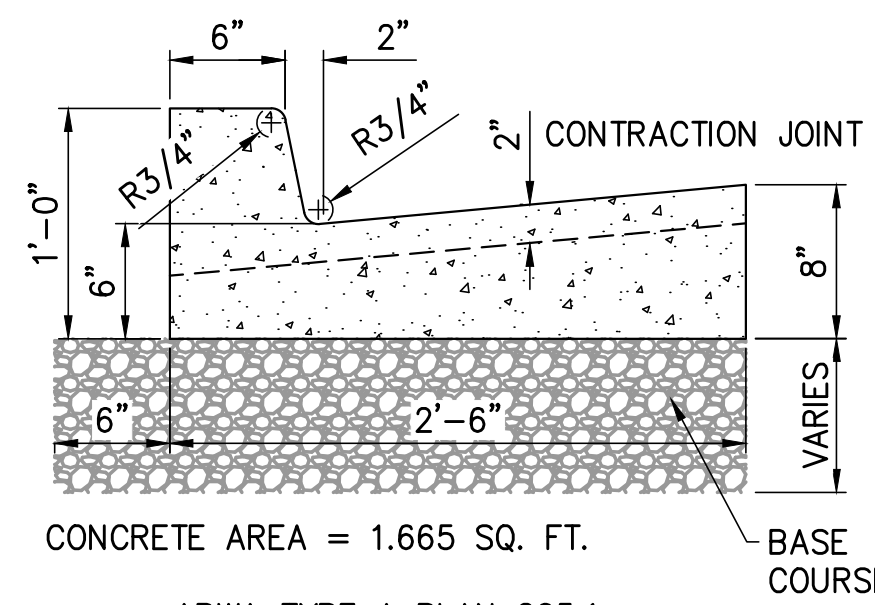


REV. NO.	COMMENT	DATE

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 2100 NORTH MAIN STREET
 NORTH LOGAN, UTAH 84341
 TEL 435.563.3734
 www.sunrise-eng.com

HYDE PARK CITY
CITY HALL WELL HOUSE
 WELL HOUSE CIVIL PLANS
 WELL HOUSE EXTERIOR ELEVATIONS

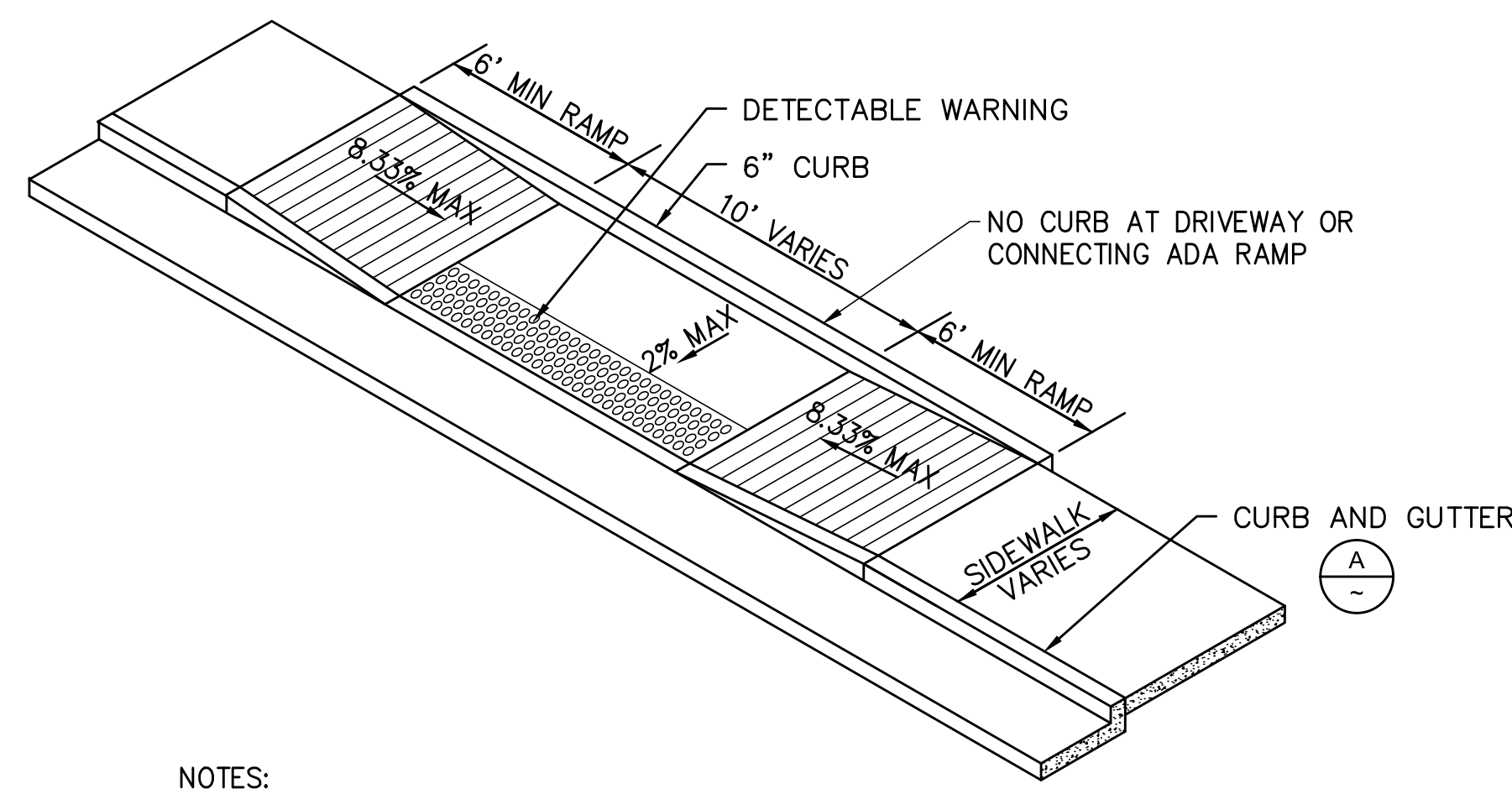
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 16 of 72	WH5
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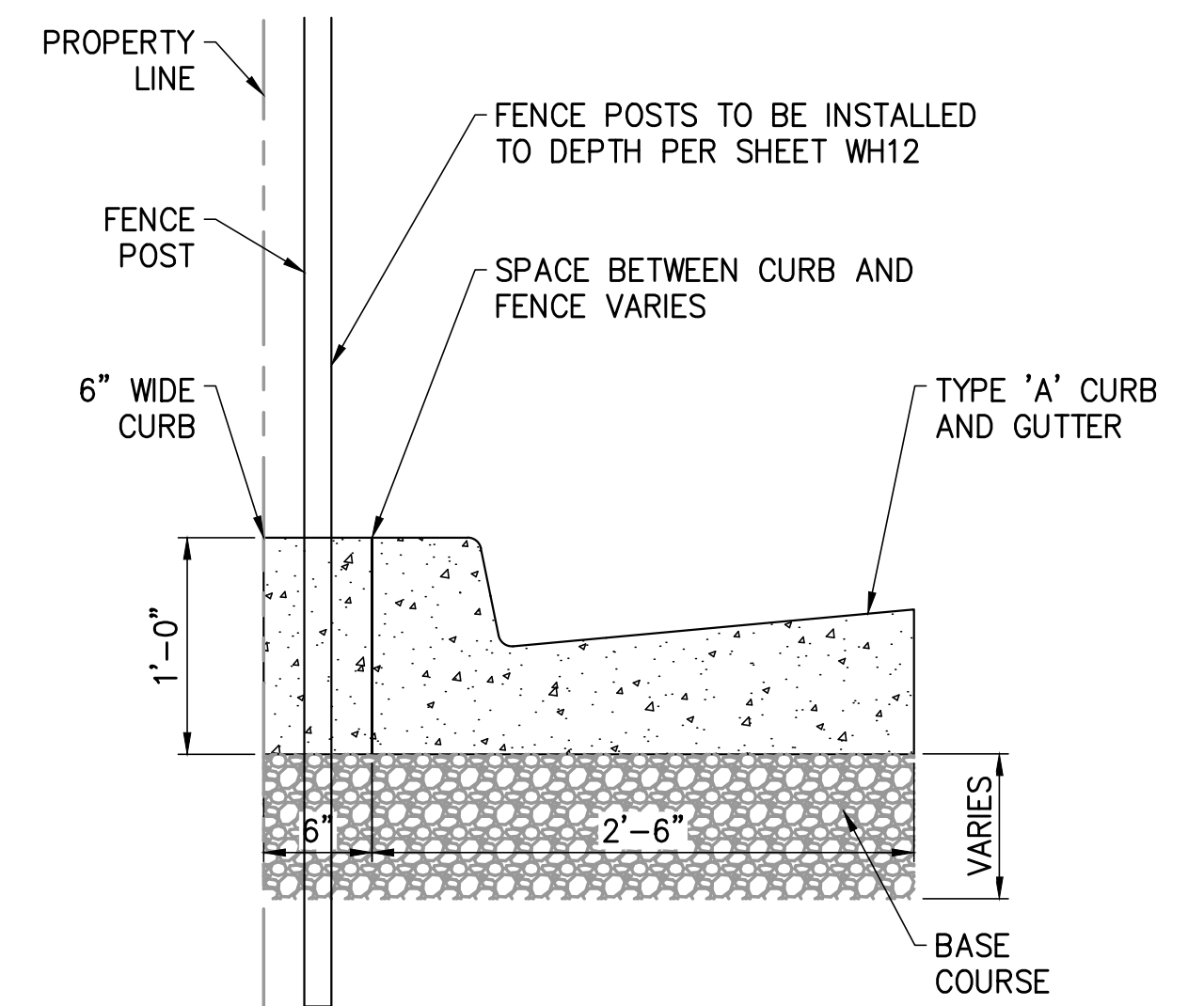
APWA TYPE A PLAN 205.1

- GENERAL
 - VARIANCE FROM SPECIFIED DIMENSIONS AND SLOPES MUST BE ACCEPTABLE TO THE ENGINEER. SYSTEM CONFIGURATION MAY BE CHANGED AT ENGINEER'S DISCRETION.
 - ADDITIONAL REQUIREMENTS ARE SPECIFIED IN APWA SECTION 32 16 13.
- PRODUCTS
 - BASE COURSE: UNTREATED BASE COURSE, APWA SECTION 32 11 23. DO NOT USE GRAVEL AS A BASE COURSE WITHOUT ENGINEER'S PERMISSION.
 - EXPANSION JOINT FILLER: 1/2-INCH THICK TYPE F1 FULL DEPTH, APWA SECTION 32 13 73.
 - CONCRETE: CLASS 4000, APWA SECTION 03 30 04. IF NECESSARY, PROVIDE CONCRETE THAT ACHIEVES DESIGN STRENGTH IN LESS THAN 7 DAYS. USE CAUTION: HOWEVER, AS CONCRETE CRAZING (SPIDER CRACKS) MAY DEVELOP IF AIR TEMPERATURE EXCEEDS 90 DEGREES F.
 - CONCRETE CURING AGENT: CLEAR MEMBRANE FORMING COMPOUND WITH FUGITIVE DYE (TYPE ID CLASS A), APWA SECTION 03 39 00.
- EXECUTION
 - BASE COURSE PLACEMENT: APWA SECTION 32 05 10. THICKNESS IS 6-INCHES IF FLOW-LINE GRADE IS 0.5 PERCENT (S=0.005) OR GREATER. IF SLOPE IS LESS, PROVIDE 8-INCHES. MAXIMUM LIFT THICKNESS BEFORE COMPACTION IS 8-INCHES WHEN USING RIDING EQUIPMENT OR 6-INCHES WHEN USING HAND HELD EQUIPMENT. COMPACTION IS 95 PERCENT OR GREATER RELATIVE TO A MODIFIED PROCTOR DENSITY. APWA SECTION 31 23 26.
 - CONCRETE PLACEMENT: APWA SECTION 03 30 10
 - INSTALL EXPANSION JOINTS VERTICAL, FULL DEPTH, WITH TOP OF FILLER SET FLUSH WITH CONCRETE SURFACE. INSTALL AT THE START OR END OF A STREET INTERSECTION CURB RETURN. EXPANSION JOINTS ARE NOT REQUIRED IN CONCRETE PLACEMENT USING SLIP-FORM CONSTRUCTION.
 - INSTALL CONTRACTION JOINTS VERTICAL, 1/8-INCH WIDE OR 1/4 SLAB THICKNESS IF THE SLAB IS GREATER THAN 8-INCHES THICK. MATCH JOINT LOCATION IN ADJACENT PORTLAND-CEMENT CONCRETE ROADWAY PAVEMENT.
 - PROVIDE 1/2-INCH RADIUS EDGES. APPLY A BROOM FINISH. APPLY A CURING AGENT.
 - PROTECTION AND REPAIR: PROTECT CONCRETE FROM DEICING CHEMICALS DURING CURE. REPAIR CONSTRUCTION THAT DOES NOT DRAIN. IF NECESSARY, FILL FLOW-LINE WITH WATER TO VERIFY.

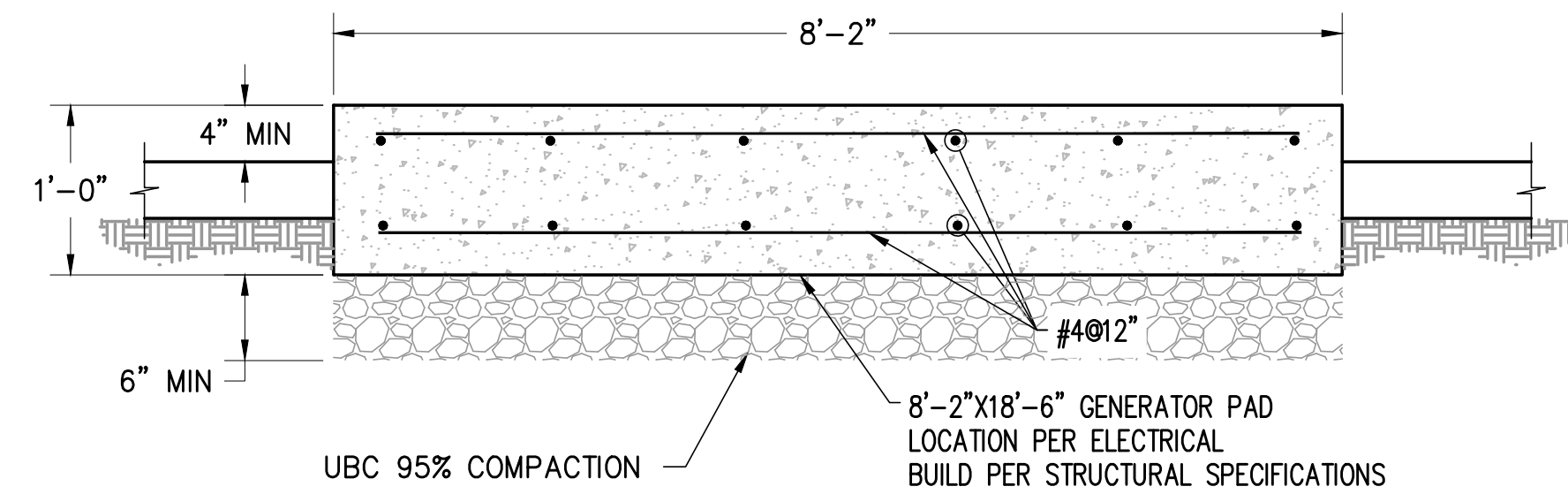
A DETAIL - CURB AND GUTTER
NOT TO SCALE



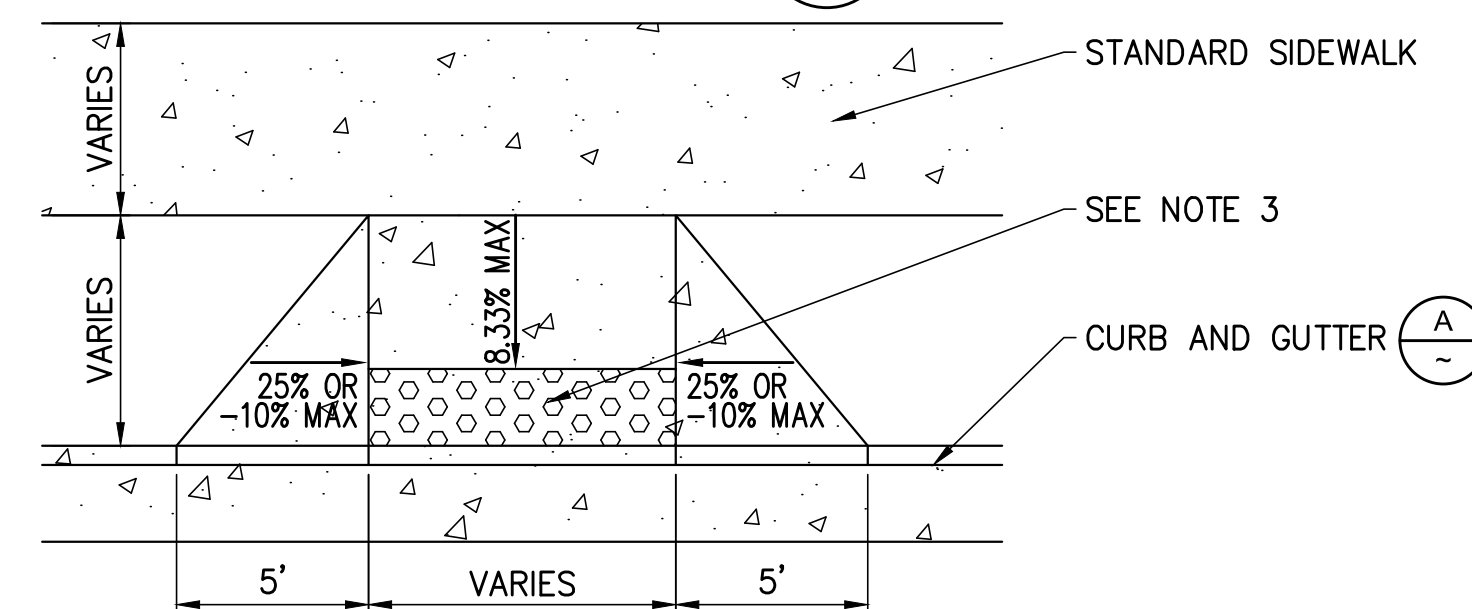
B DETAIL - PARALLEL ADA RAMP
NOT TO SCALE



C DETAIL - FENCE ON CURB
NOT TO SCALE



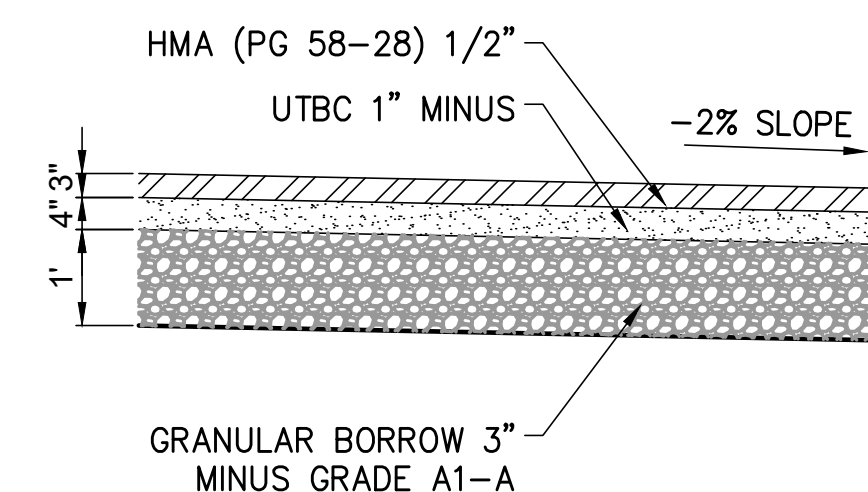
D DETAIL - GENERATOR PAD
NOT TO SCALE



H DETAIL - HEAVY DUTY CONCRETE
NOT TO SCALE

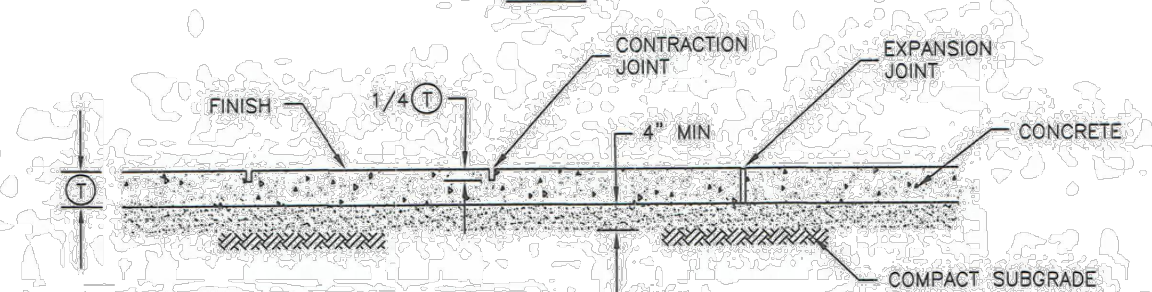
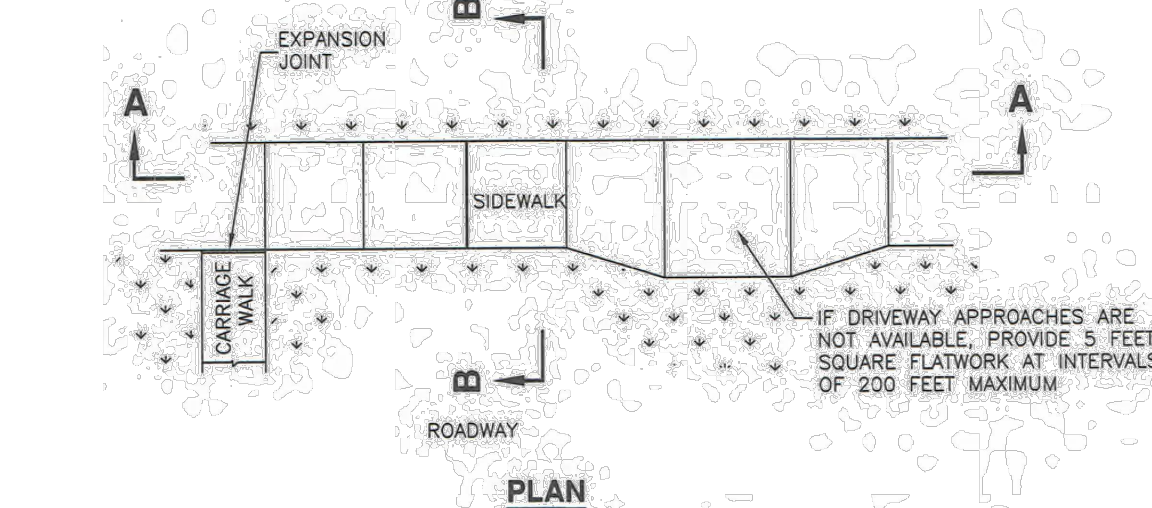
- NOTES:
- CONCRETE IN RAMP SHALL BE 4000 PSI, 28 DAY STRENGTH
 - DETECTABLE WARNING SURFACE TILES SHALL BE ORIENTED SUCH THAT ROWS ARE PARALLEL WITH THE DIRECTION OF PEDESTRIAN TRAVEL TO THE RAMP ON THE OPPOSITE SIDE OF THE STREET
 - DETECTABLE AND TACTILE WARNING SURFACE. ADA COMPLIANT TILE SYSTEM. CAST-IN-PLACE INLINE DOME. CONTRACTOR TO DETERMINE APPROPRIATE TILE SIZE TO ACHIEVE WIDTH AS SHOWN ON PLAN. PROVIDE PRODUCT SUBMITTAL TO ENGINEER FOR APPROVAL. USE FEDERAL YELLOW (FEDERAL NO. 33538). VISIT www.armor-tile.com FOR MORE INFORMATION.
 - LENGTHS OF RAMPS VARY AS REQUIRED TO MEET 1(V):12(H) SLOPE OR FLATTER (TYPICALLY 6'-0" LONG OR LONGER)

F DETAIL - ADA RAMP
NOT TO SCALE



G DETAIL - ASPHALT PAVEMENT SECTION
NOT TO SCALE

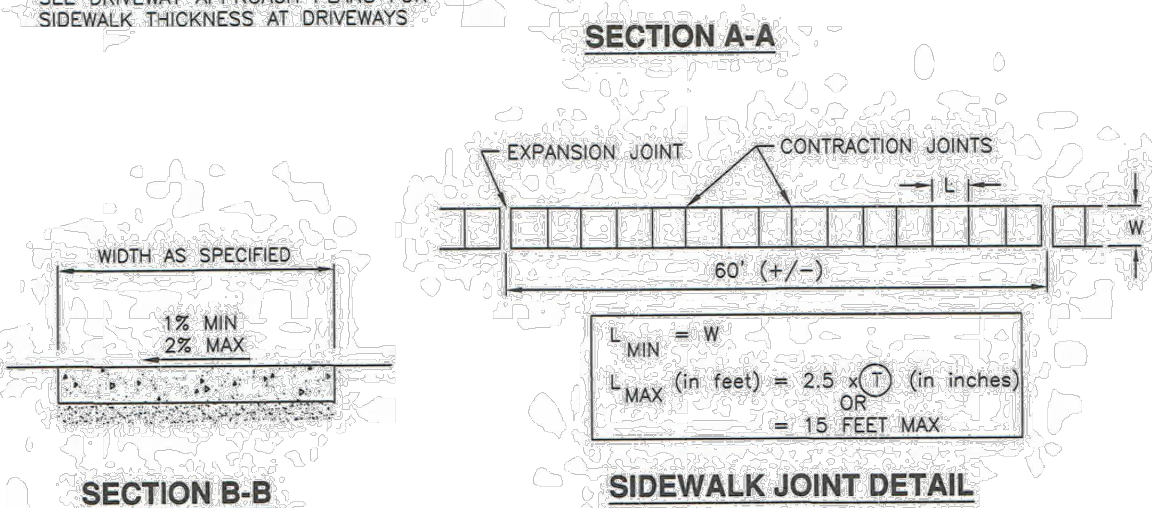
- Sidewalk**
- GENERAL
 - Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
 - Additional requirements are specified in APWA Section 32 16 13.
 - PRODUCTS
 - Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
 - Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
 - Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
 - Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.
 - EXECUTION
 - Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
 - Concrete Placement: APWA Section 03 30 10.
 - Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
 - Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches).
 - Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.



STREET TYPE	T
RESIDENTIAL (WITH PARK STRIP)	4"
RESIDENTIAL (NO PARK STRIP)	4"
OTHER	6"

REPLACING EXISTING SIDEWALK MATCH EXISTING (4" MIN.)

SEE DRIVEWAY APPROACH PLANS FOR SIDEWALK THICKNESS AT DRIVEWAYS



Sidewalk

Plan 231
March 2009

231

E DETAIL - SIDEWALK
NOT TO SCALE

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REV. NO.	COMMENT	DATE

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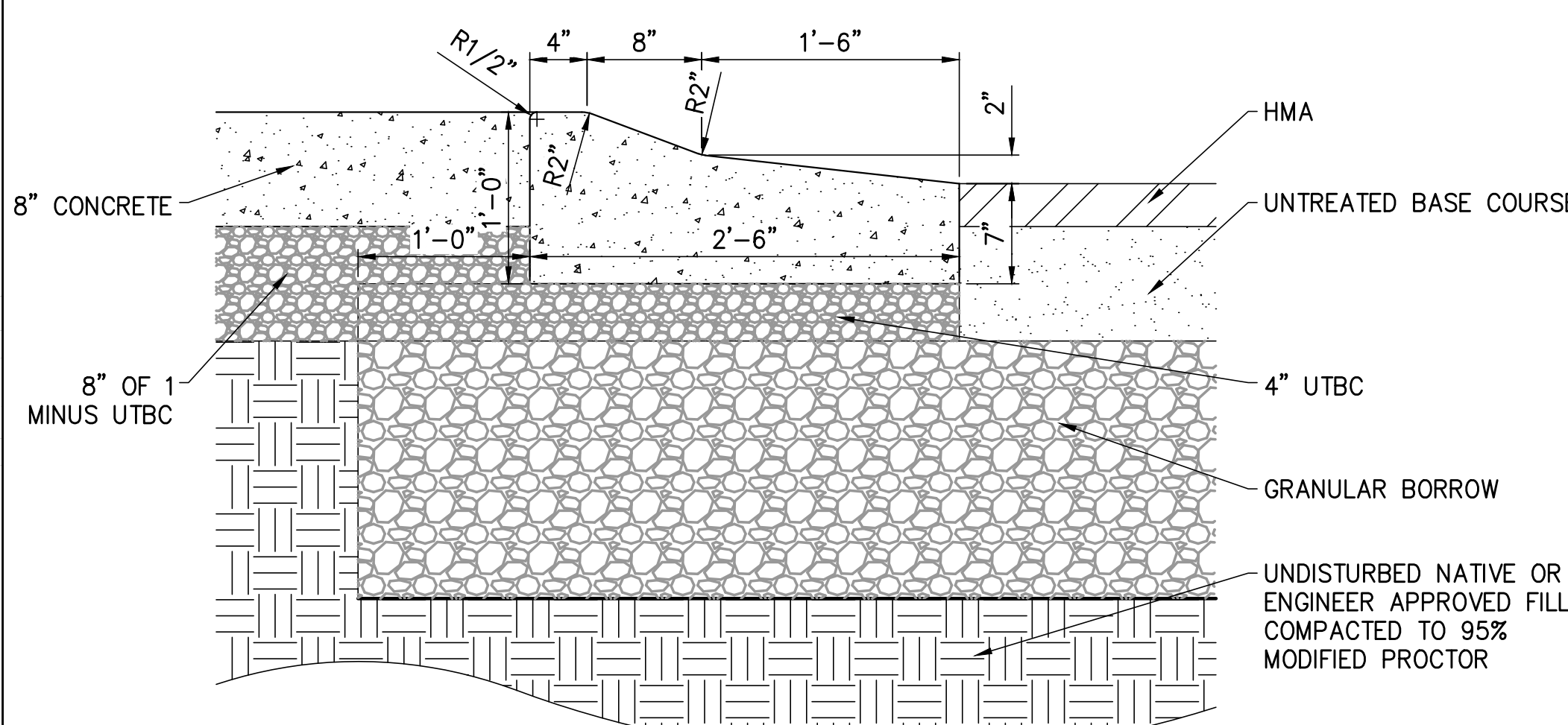
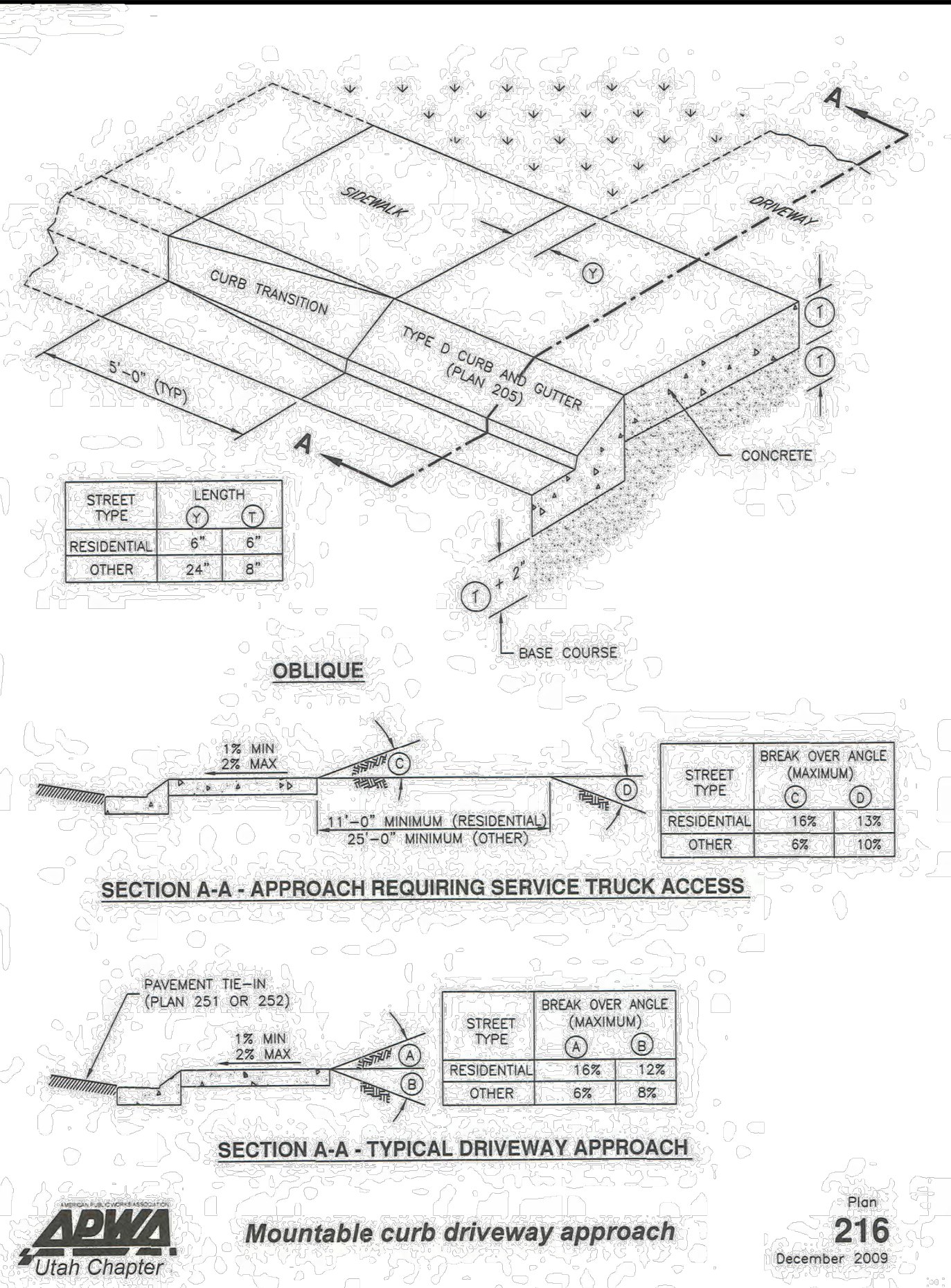
HYDE PARK CITY
CITY HALL WELL HOUSE
WELL HOUSE CIVIL PLANS
CONCRETE AND PAVEMENT DETAILS

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.
10660	SDW	JJ	SDW	17 OF 72

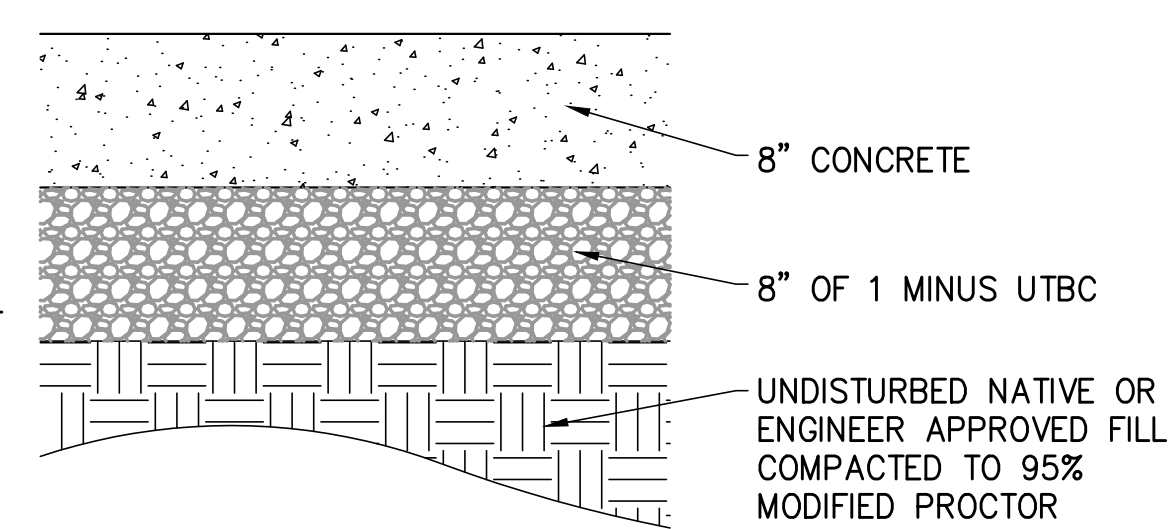
WH6

Mountable curb driveway approach

1. **GENERAL**
 - A. Variance from specified dimensions and slopes must be acceptable to the ENGINEER. System configuration may be changed at ENGINEER's discretion.
 - B. Additional requirements are specified in APWA Section 32 16 13.
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. Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
 - C. Concrete: Class 4000, APWA Section 03 30 04. If necessary, provide concrete that achieves design strength in less than 7 days. Use caution; however, as concrete crazing (spider cracks) may develop if air temperature exceeds 90 degrees F.
 - D. Reinforcement: Galvanized or epoxy coated, deformed, 60 ksi yield grade steel, ASTM A615.
 - E. Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.
3. **EXECUTION**
 - A. Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
 - B. Concrete Placement: APWA Section 03 30 10.
 - 1) Install expansion joints vertical, full depth, with top of filler set flush with concrete surface.
 - 2) Install contraction joints vertical, 1/8-inch wide or 1/4 slab thickness if the slab is greater than 8-inches thick. Maximum length to width ratio for non-square panels is 1.5 to 1. Maximum panel length (in feet) is 1.5 times the slab thickness (in inches).
 - 3) Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.
 - C. Protection and Repair: Protect concrete from deicing chemicals during cure. Repair construction that does not drain. If necessary, fill flow-line with water to verify.



- NOTES:
1. CONCRETE SHALL BE 4000 PSI, 28 DAY STRENGTH
 2. INSTALL CONTRACTION JOINTS @ 10'-0" O.C.
 3. INSTALL EXPANSION JOINTS @ 50'-0" O.C.
 4. SEE NOTES FOR TYPE 'A' CURB AND GUTTER



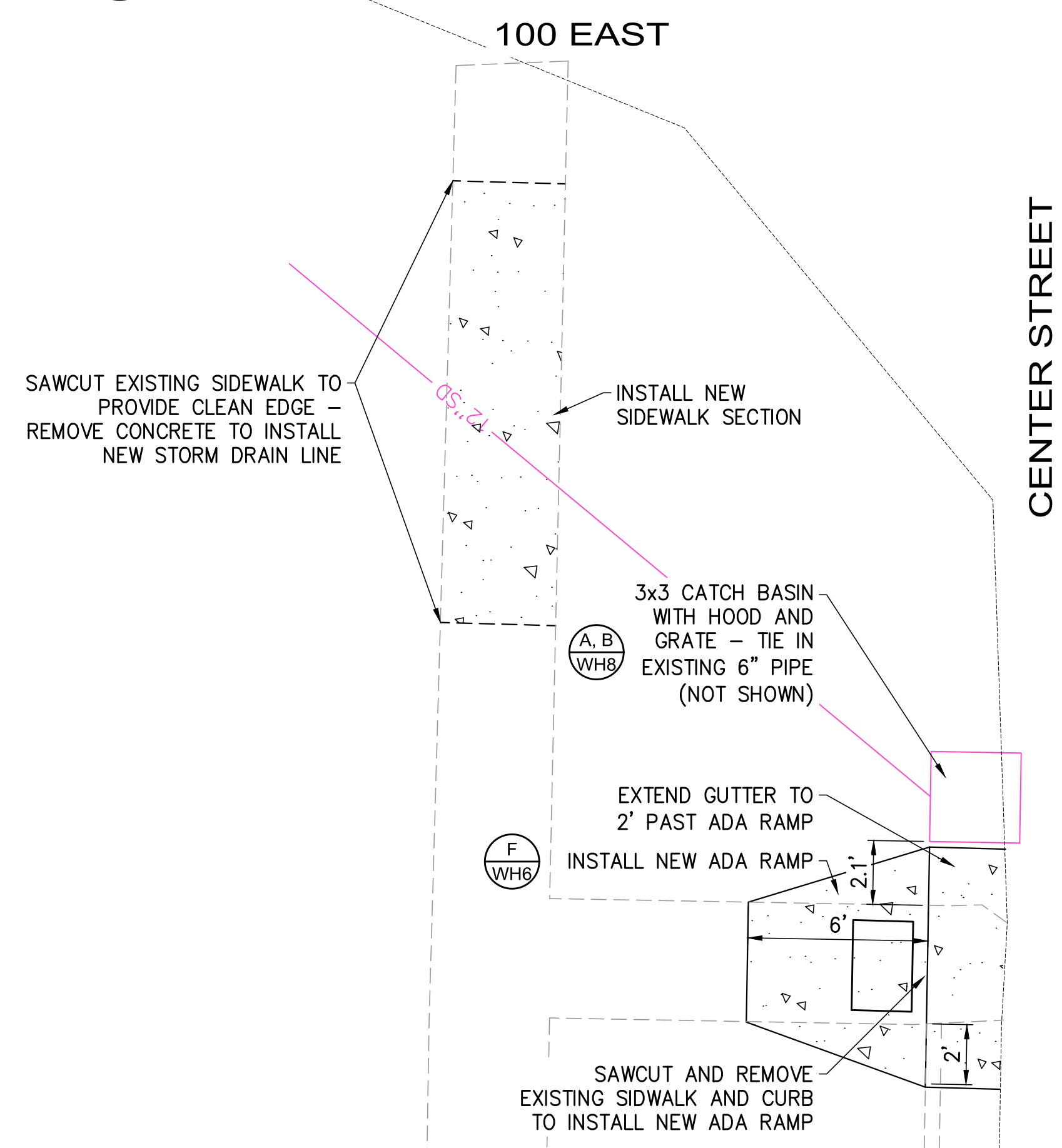
- NOTES:
1. CONCRETE SHALL BE 4000 PSI, 28 DAY STRENGTH
 2. INSTALL CONTRACTION JOINTS @ 10'-0" O.C.
 3. INSTALL EXPANSION JOINTS @ 200'-0" O.C.

216

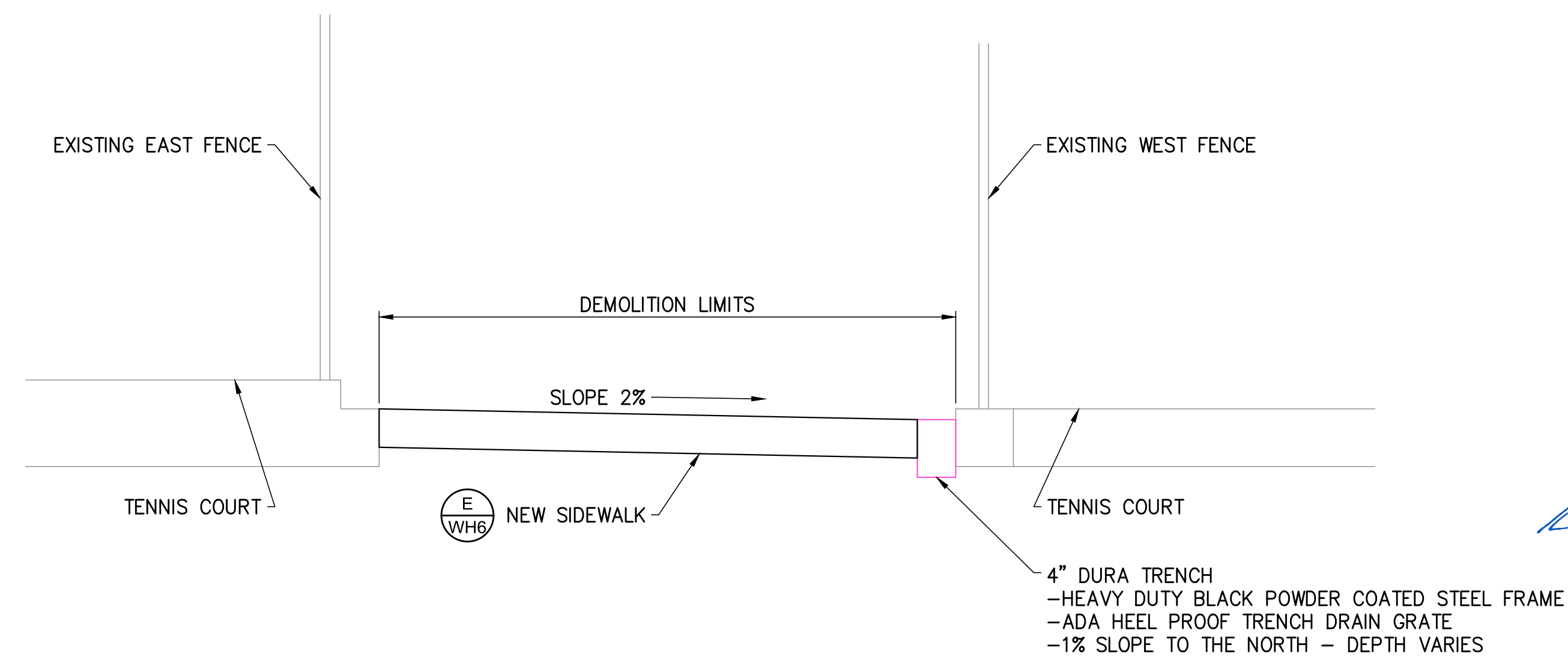
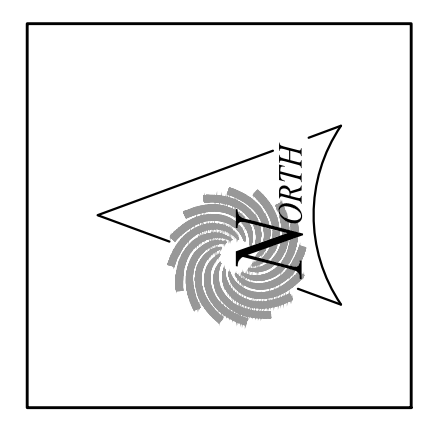
A DETAIL - MOUNTABLE CURB DRIVEWAY APPROACH
NOT TO SCALE

B DETAIL - MOUNTABLE CURB AND GUTTER
NOT TO SCALE

C DETAIL - HEAVY DUTY CONCRETE
NOT TO SCALE



D DETAIL - NEW ADA RAMP
NOT TO SCALE



E DETAIL - 4" DURA TRENCH
NOT TO SCALE

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REV. NO.	COMMENT	DATE

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 www.sunrise-eng.com

HYDE PARK CITY
CITY HALL WELL HOUSE
 WELL HOUSE CIVIL PLANS
 CONCRETE AND PAVEMENT DETAILS

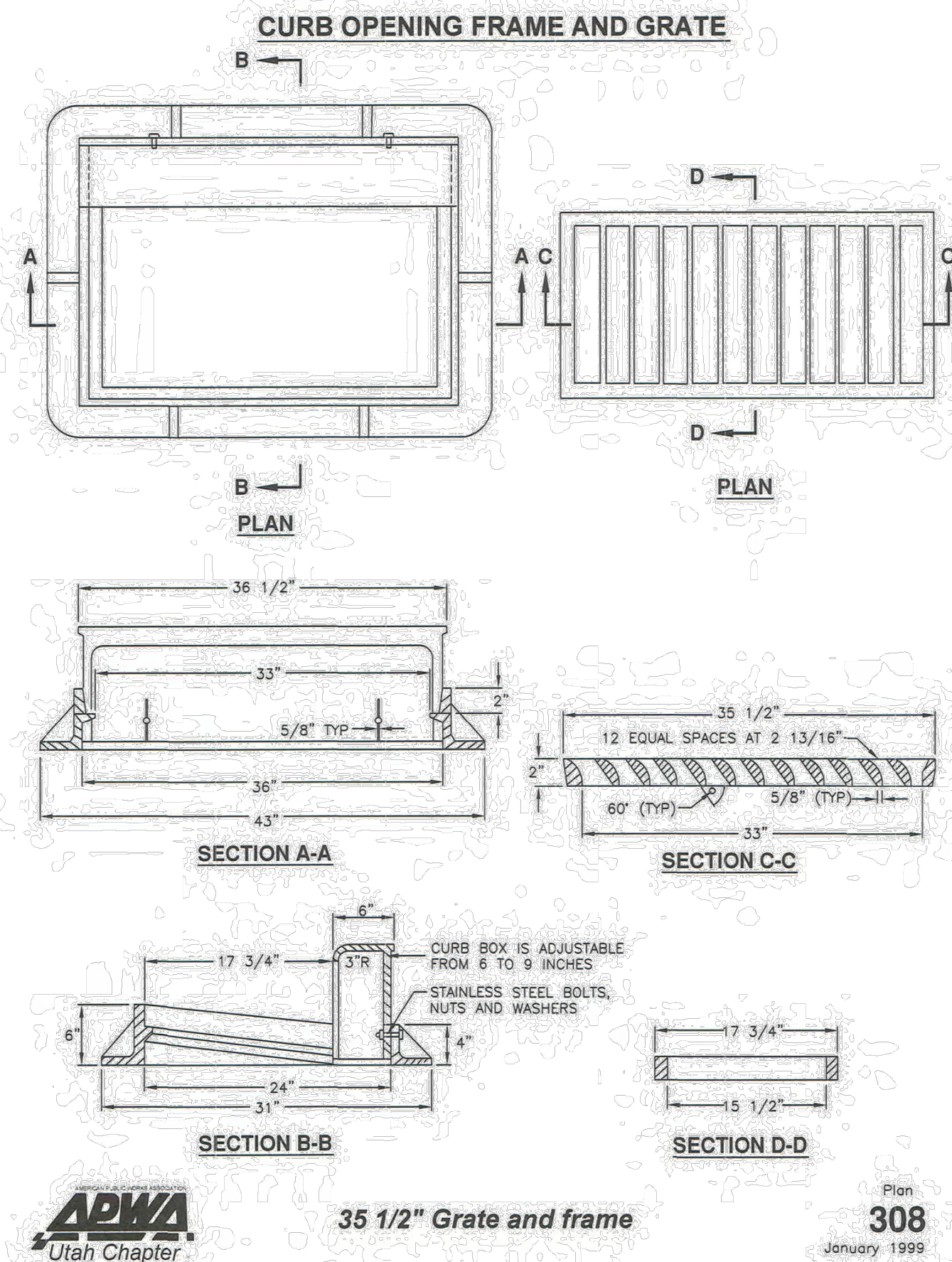
SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.
10660	SDW	JJ	SDW	18 of 72

WH7

P:\Hyde Park\10660 City Hall Well House\DWG\Sheets\WPHW-WH7.dwg Jun 23, 2025 12:00pm jnelson

BID SET

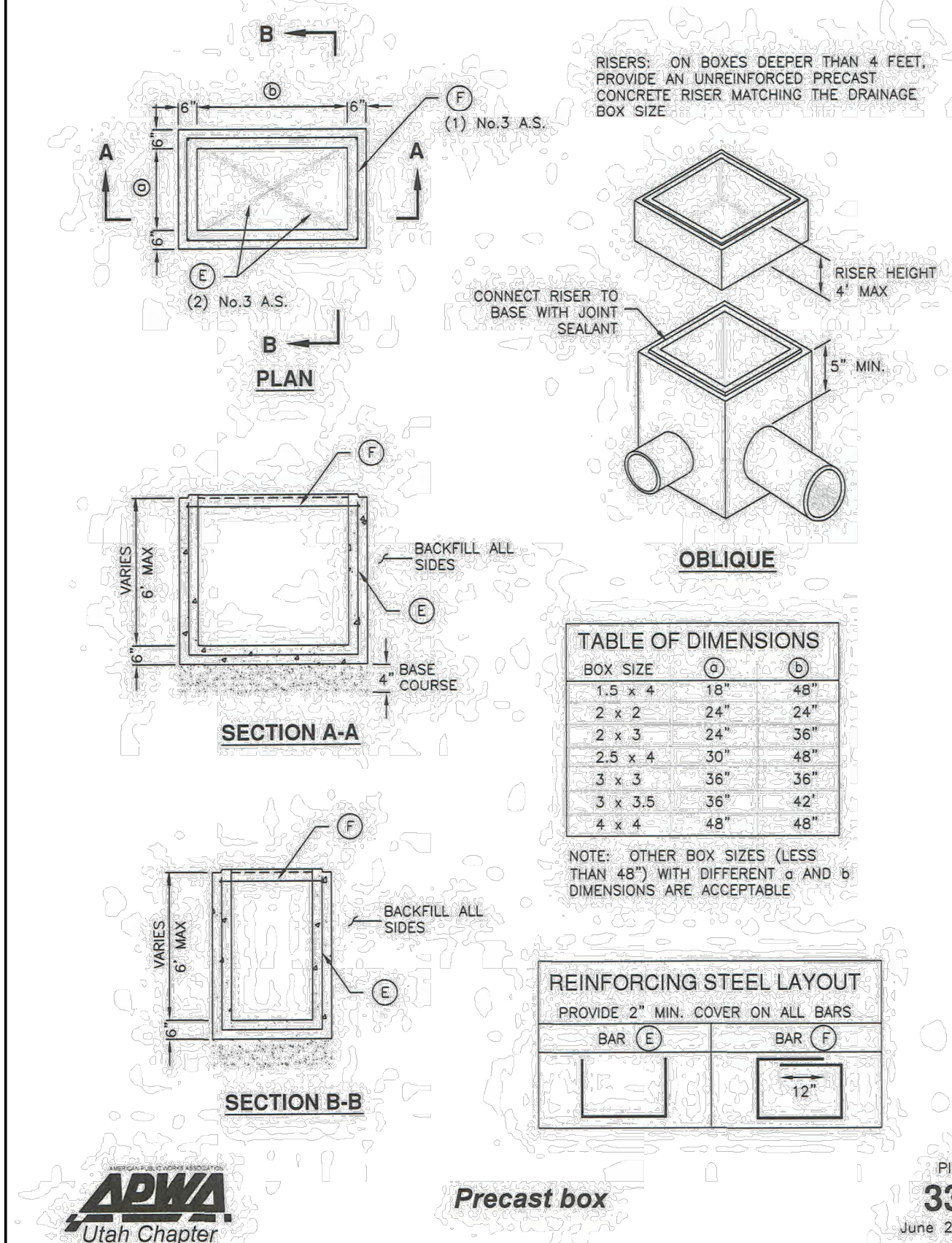
- 35 1/2" Grate and frame**
- GENERAL**
 - The grate and frame fits concrete boxes in Plan 315.
 - PRODUCTS**
 - Castings: Grey iron class 35 minimum per ASTM A48, coated with asphalt based paint or better.
 - Bolts, Nuts, Washers, Accessories: Stainless steel, APWA Section 05 05 23.
 - EXECUTION** (Not used)



308

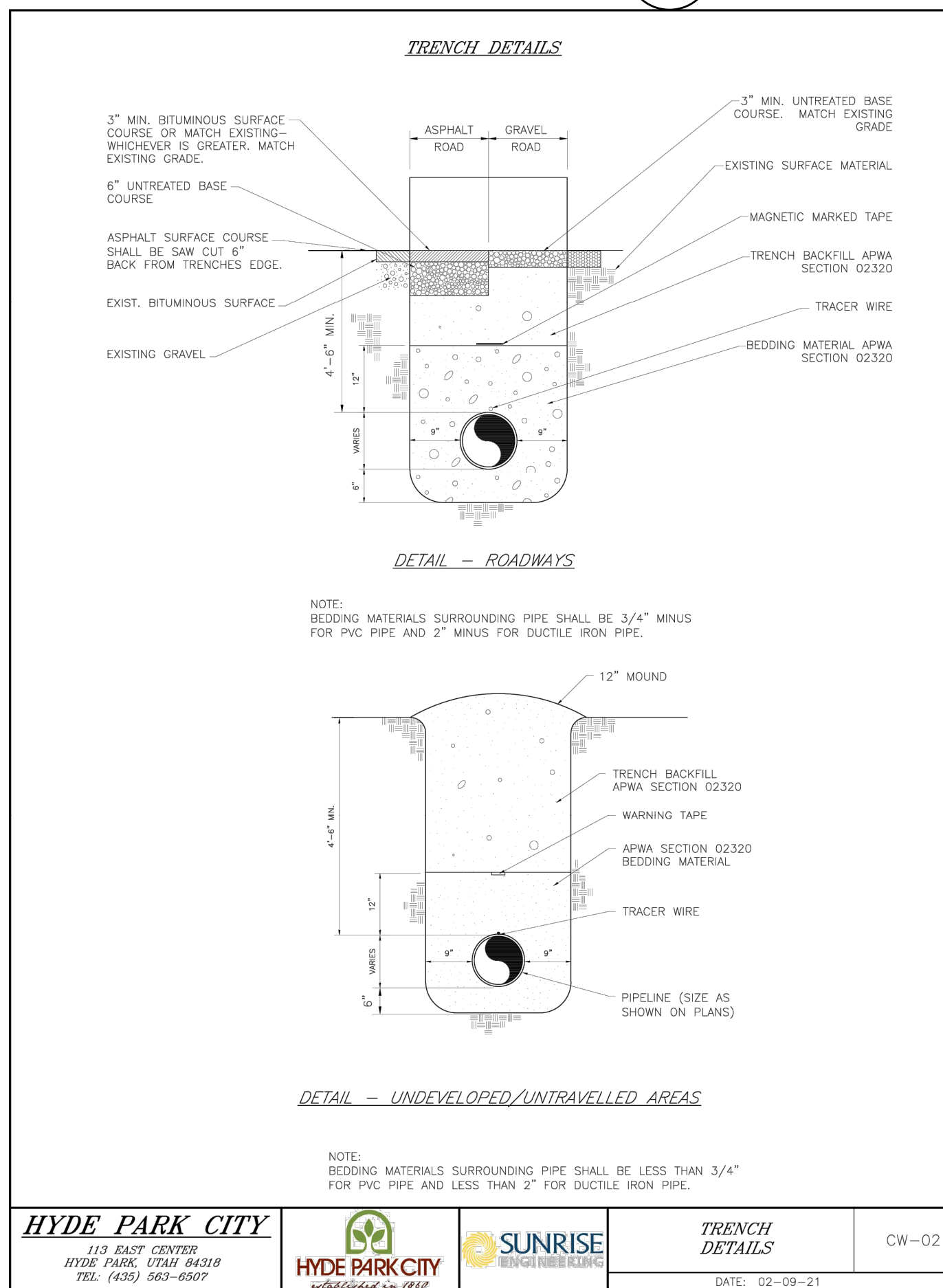
A
~
DETAIL - GRATE AND FRAME
~
NOT TO SCALE

- Precast box**
- GENERAL**
 - The drawing shows typical pipe connections. Refer to construction drawings for connection locations or refer to field location of existing piping when engineering pipe connection to the box.
 - This drawing is acceptable where the water table elevation is less than 3 feet above the floor of the box. If elevation of water table is higher, engineering calculations and drawings must be submitted to and approved by the ENGINEER.
 - Submit bar design detail for ENGINEER's review.
 - PRODUCTS**
 - Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
 - Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
 - Precast Concrete: Class 4000 precast, APWA Section 03 40 00.
 - Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A615. Coated steel is not required for small drainage structures shown on this drawing.
 - Frame and Cover (or Grate): Use the appropriate unit indicated in the Contract Documents.
 - Joint Sealant: Rubber-based, compressible.
 - EXECUTION**
 - Concrete Placement: Provide 2-inches of concrete cover over reinforcing steel.
 - Lifting Points: Provide at least 2 lifting points per section that avoid interference with the reinforcing steel and that are designed according to PCI (Prestressed Concrete Institute) design handbook. Lift only from the engineered lifting points.
 - Depth: Drainage boxes and riser combinations that exceed 8-feet from finished grade to the bottom of the box requires ENGINEER's approval. Submit design calculations and shop drawings.
 - Core Holes:
 - Provide core holes that are at least 4" larger than attaching outer pipe diameter. Cut core holes at the manufacturing plant unless ENGINEER permits field core holes.
 - Center core holes to leave 2" of concrete measured horizontally from inside wall of the box to core hole. Locate core hole vertically so bottom of core hole will be at or above floor elevation with at least 5-inches of concrete directly above the core hole to the top of the box.
 - Deviations from core hole tolerances require shop drawings. Shop drawings will identify lifting point number and location.
 - Precast Top: Design precast top for AASHTO HL-93 live loads and submit rebar detail and stamped design drawings to ENGINEER. Show connection detail for frame and grate or cover.



332

B
~
DETAIL - PRECAST BOX
~
NOT TO SCALE

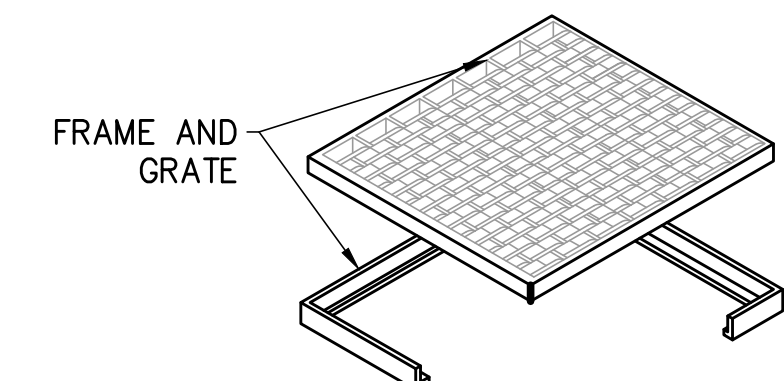


HYDE PARK CITY
113 EAST CENTER
HYDE PARK, UTAH 84318
TEL. (435) 563-6597

HYDE PARK CITY
SUNRISE
ENGINEERING

TRENCH
DETAILS
DATE: 02-09-21
CW-02

C
~
DETAIL - TRENCH
~
NOT TO SCALE



- NOTES:**
- CATCH BASINS SHALL MEET ASTM C858 WITH AASHTO HS-20 LOADING
 - OPENINGS MAY BE LOCATED AS REQUIRED
 - FOR CATCH BASIN DETAILS SEE **B**

D
~
DETAIL - FRAME AND GRATE
~
NOT TO SCALE

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HYDE PARK CITY
CITY HALL WELL HOUSE
WELL HOUSE CIVIL PLANS
STORM WATER DETAILS

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	WH8
10660	SDW	JJ	SDW	19 of 72	

BID SET
P:\wyde Park\10660 City Hall Well House\DWG\Sheets\WPCAW-WH8.dwg Jun 23, 2025 12:01pm jnelson

CONCRETE THRUST BLOCK RESTRAINING SYSTEM DETAILS

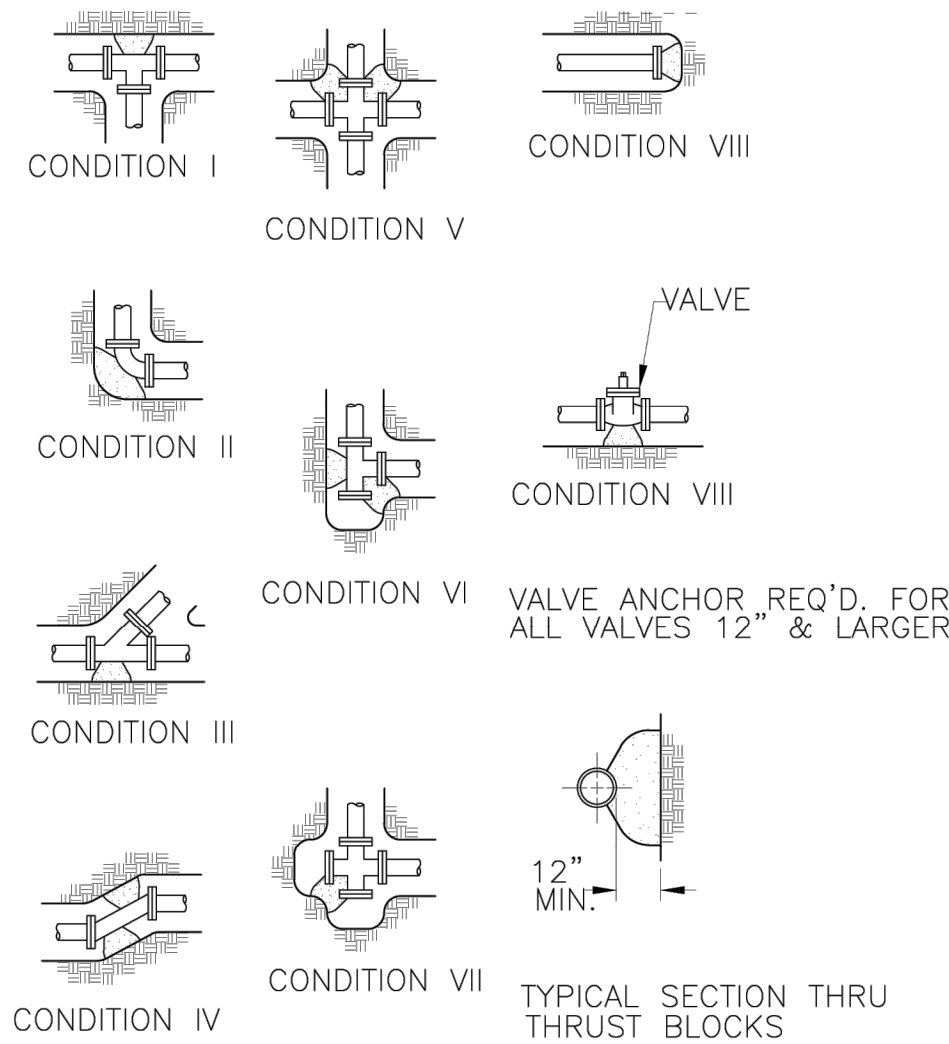


Table: THRUST BLOCK BEARING AREA IN SQ. FT. (PIPE SIZE vs CONDITION I-VIII)

- NOTES: 1. ALL THRUST BLOCK BEARING FACES SHALL BE PLACED AGAINST UNDISTURBED SOIL OR APPROVED COMPACTED BACKFILL...

Table: PVC VERTICAL BEND RESTRAINED LENGTHS IN FT. (L1, BEFORE CONNECTION/L2, AFTER CONNECTION)

CALCULATIONS BASED ON THE ELEVATION OF THE PIPE REMAINING CONSTANT WITH THE CONTOUR OF THE GROUND.

NOTE: FOR TWO WAY FLOW, SUCH AS FOUND IN DISTRIBUTION SYSTEMS, USE L1 ON BOTH SIDES OF FITTING.

Table: PVC HORIZONTAL BEND RESTRAINED LENGTHS L, IN FT. (BEND ANGLE vs PIPE SIZE)

- NOTES: 1. ALL JOINTS WITHIN THE "L" DISTANCE SHALL BE RESTRAINED

Table: PVC TEE RESTRAINED LENGTHS L, IN FT. (BRANCH SIZE DIA vs RUN SIZE DIAMETER)

- * = FOR THIS CONDITION NEED ONLY RESTRAIN THE OUTLETS OF TEE
NOTES: 1. RESTRAIN THE THREE MECHANICAL JOINTS ON THE TEE...

Table: PVC REDUCER RESTRAINED LENGTHS L, IN FT. (SMALL SIDE/LARGE SIDE)

- NOTES: 1. ALL JOINTS WITHIN THE "L" DISTANCE SHALL BE RESTRAINED

Table: PVC DEAD END RESTRAINED LENGTHS L, IN FT. (PIPE SIZE)

- NOTES: 1. ALL JOINTS WITHIN THE "L" DISTANCE SHALL BE RESTRAINED

- NOTES: 1. CONTRACTOR SHALL USE EITHER MEGALUG OR CONCRETE THRUST RESTRAINING SYSTEM FOR THE ENTIRE PROJECT UNLESS SPECIFIED OTHERWISE...

Table: DIP VERTICAL BEND RESTRAINED LENGTHS IN FT. (L1, BEFORE CONNECTION/L2, AFTER CONNECTION)

CALCULATIONS BASED ON THE ELEVATION OF THE PIPE REMAINING CONSTANT WITH THE CONTOUR OF THE GROUND.

- NOTE: FOR TWO WAY FLOW, SUCH AS FOUND IN DISTRIBUTION SYSTEMS, USE L1 ON BOTH SIDES OF FITTING.

Table: DIP HORIZONTAL BEND RESTRAINED LENGTHS L, IN FT. (BEND ANGLE vs PIPE SIZE)

- NOTES: 1. ALL JOINTS WITHIN THE "L" DISTANCE SHALL BE RESTRAINED

Table: DIP TEE RESTRAINED LENGTH L, IN FT. (BRANCH SIZE DIA vs RUN SIZE DIAMETER)

- * = FOR THIS CONDITION NEED ONLY RESTRAIN THE OUTLETS OF TEE
NOTES: 1. RESTRAIN THE THREE MECHANICAL JOINTS ON THE TEE...

Table: DIP REDUCER RESTRAINED LENGTHS L, IN FT. (SMALL SIDE/LARGE SIDE)

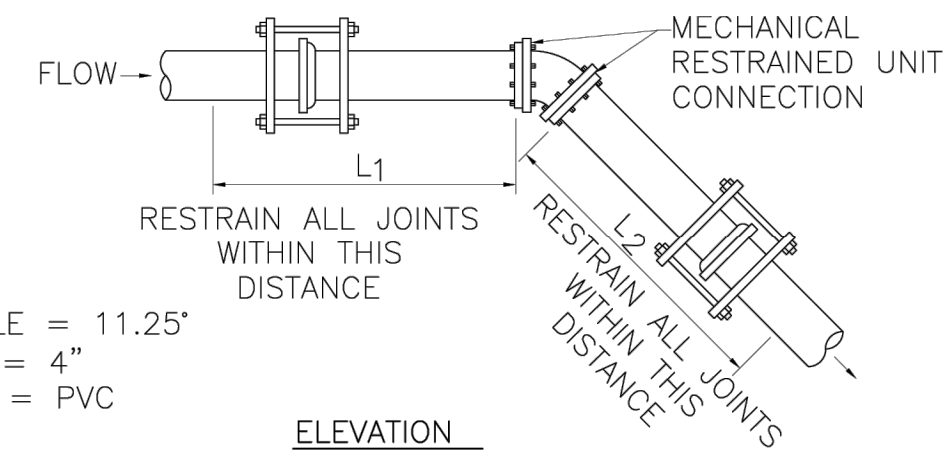
- NOTES: 1. ALL JOINTS WITHIN THE "L" DISTANCE SHALL BE RESTRAINED

Table: DIP DEAD END RESTRAINED LENGTHS L, IN FT. (PIPE SIZE)

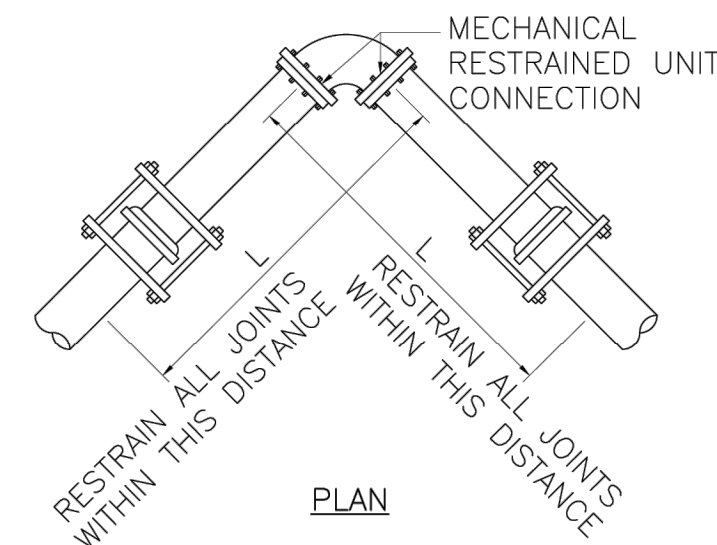
- NOTES: 1. ALL JOINTS WITHIN THE "L" DISTANCE SHALL BE RESTRAINED

BASED ON:

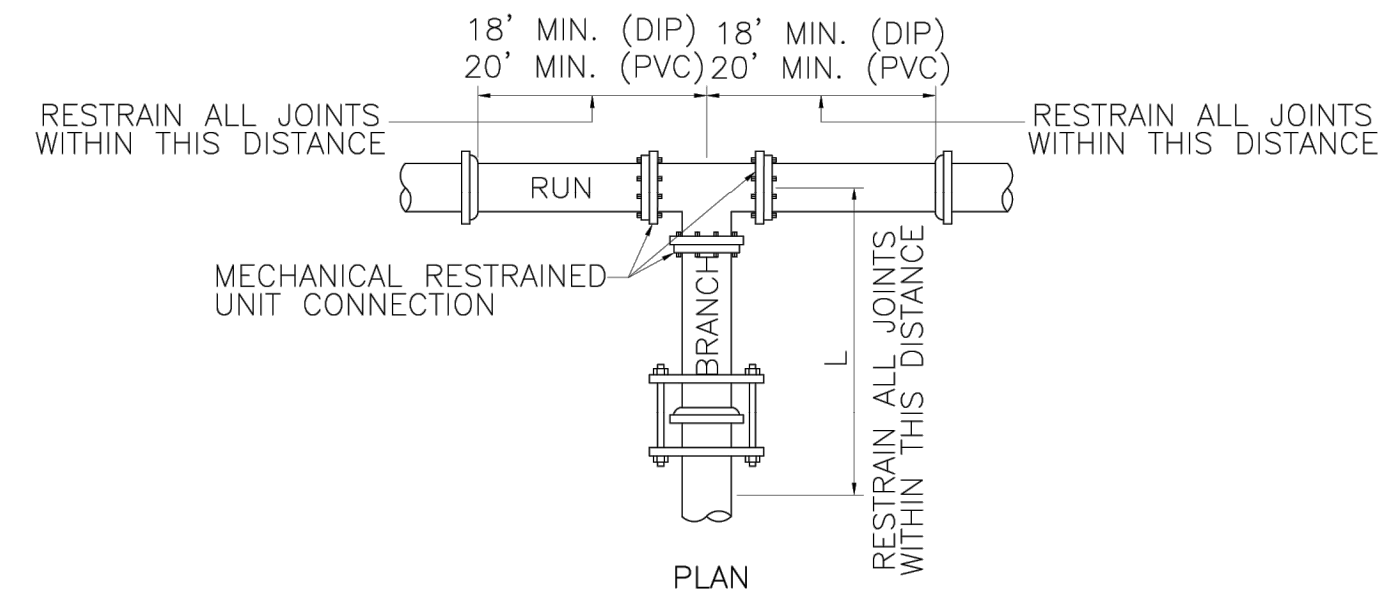
TEST PRESSURE: 200 PSI
SOIL TYPE: GM - SILTY GRAVEL, GRAVEL-SAND-SILT MIXTURE
BURIAL DEPTH: 4 FT.



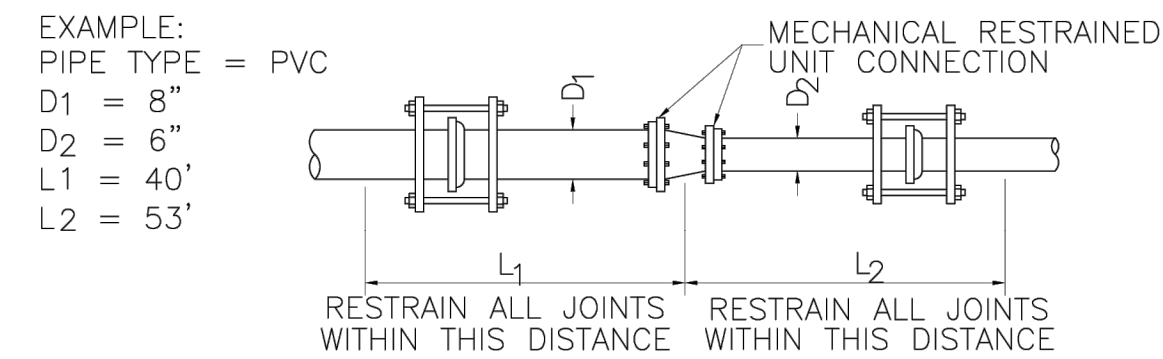
EXAMPLE: GIVEN: BEND ANGLE = 11.25°
PIPE SIZE = 4"
PIPE TYPE = PVC
L1 = 5'
L2 = 2'



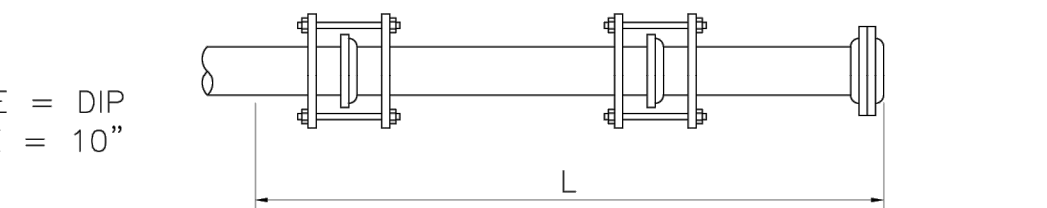
EXAMPLE: GIVEN: BEND ANGLE = 45°
PIPE SIZE = 6"
PIPE TYPE = PVC
L = 10'



EXAMPLE: PIPE TYPE = DIP
PIPE SIZE = 16"
L = 36'



EXAMPLE: PIPE TYPE = PVC
D1 = 8"
D2 = 6"
L1 = 40'
L2 = 53'



EXAMPLE: PIPE TYPE = DIP
PIPE SIZE = 10"
L = 73'

TRENCH TYPE: 5 - PIPE BEDDED IN COMPACTED GRANULAR MATERIAL TO THE CENTER LINE OF PIPE, 4" MIN. UNDER PIPE...

SAFETY FACTOR: 1.5
* CALCULATIONS DERIVED FROM EBAA IRON SALES

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HYDE PARK CITY CITY HALL WELL HOUSE WELL HOUSE CIVIL PLANS THRUST BLOCK DETAILS

Table: Revision and sheet information (REV NO., DESIGNED, DRAWN, CHECKED, SHEET NO., WH9)

HYDE PARK CITY

113 EAST CENTER HYDE PARK, UTAH 84318 TEL: (435) 563-6507

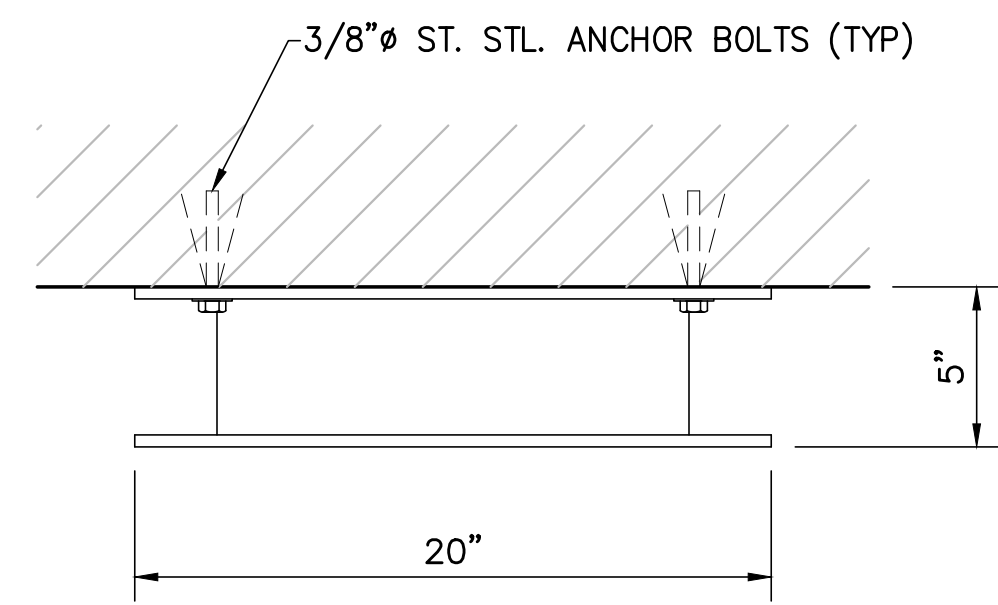


THRUST BLOCK DETAILS

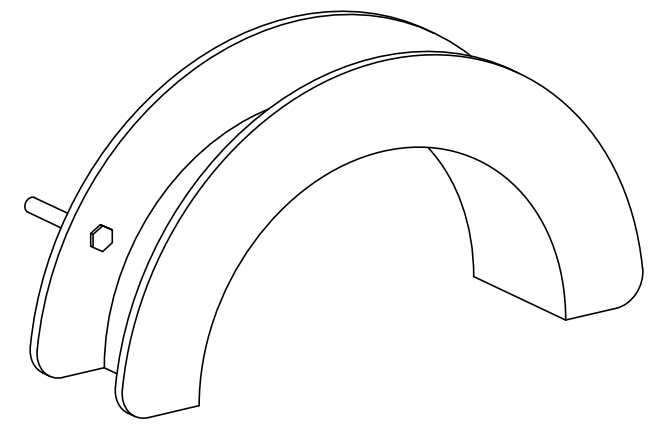
IR-10

DATE: 02-10-21

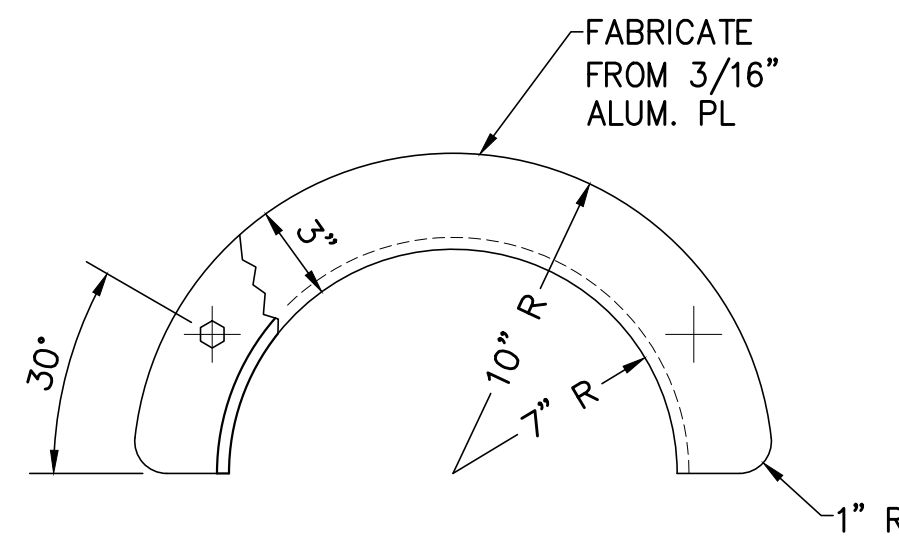
DETAIL - THRUST BLOCK NOT TO SCALE



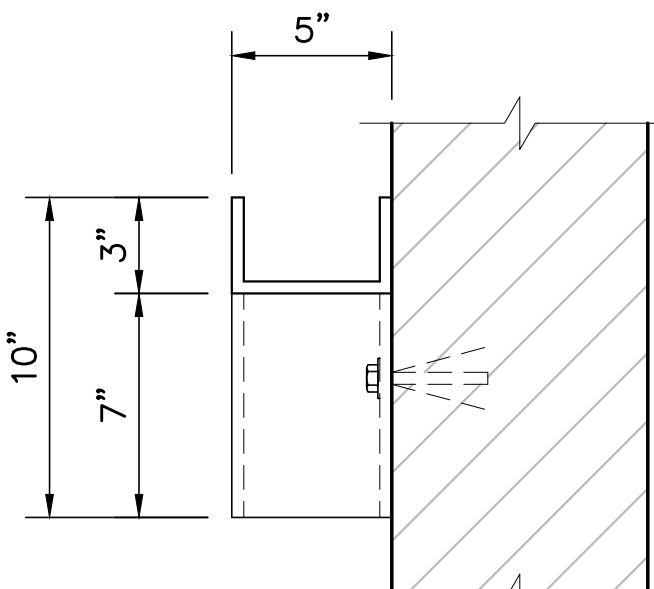
TOP VIEW



3D VIEW

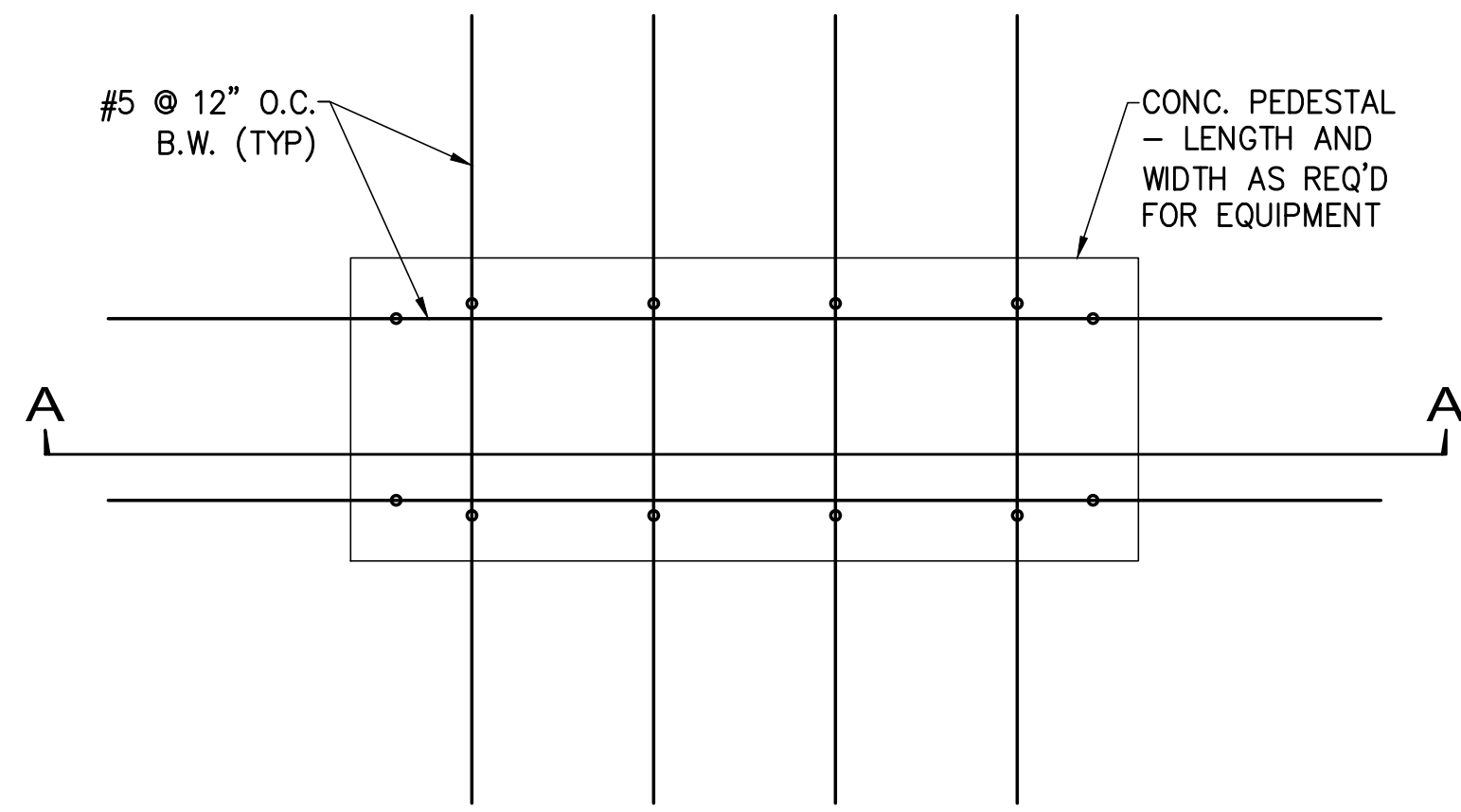


FRONT VIEW

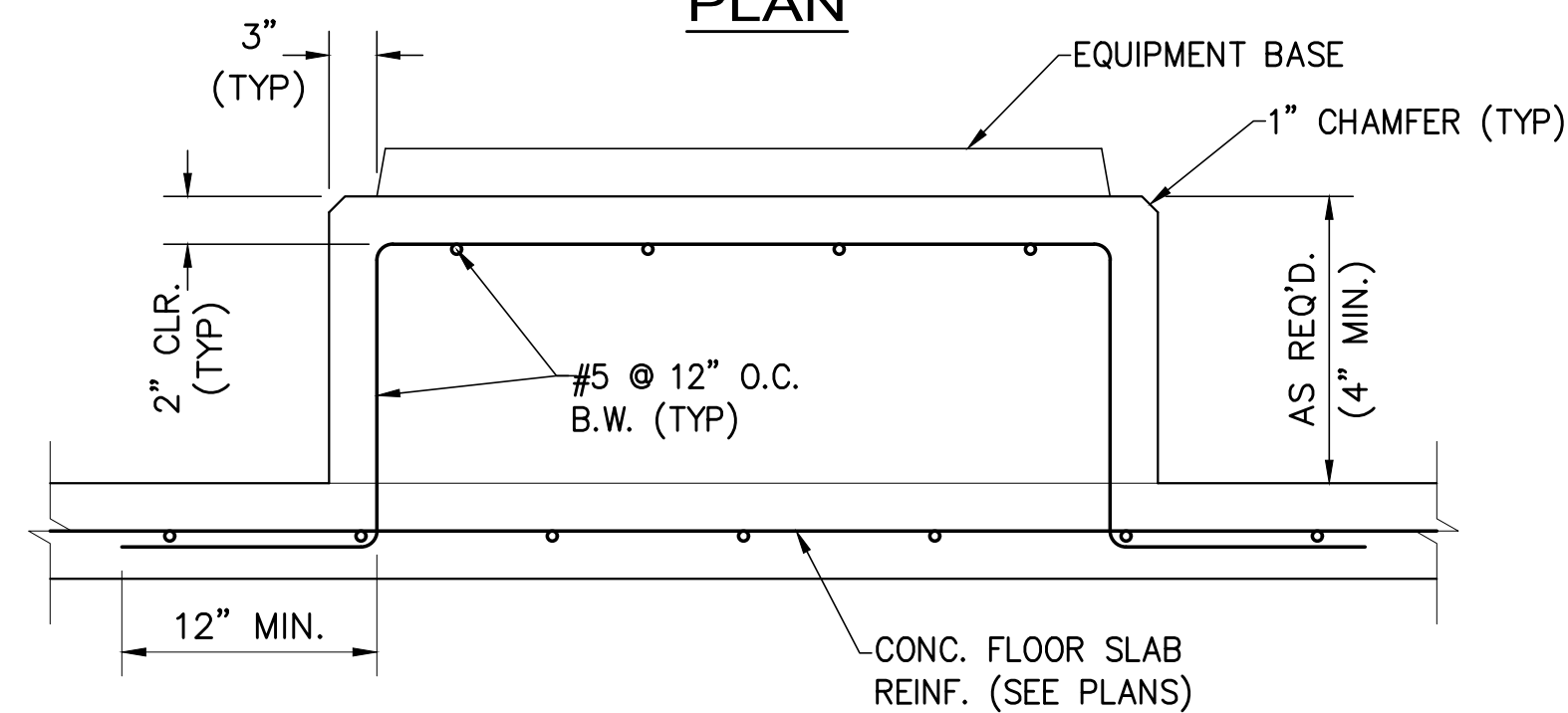


SECTION VIEW

A **DETAIL - HOSE RACK**
NOT TO SCALE

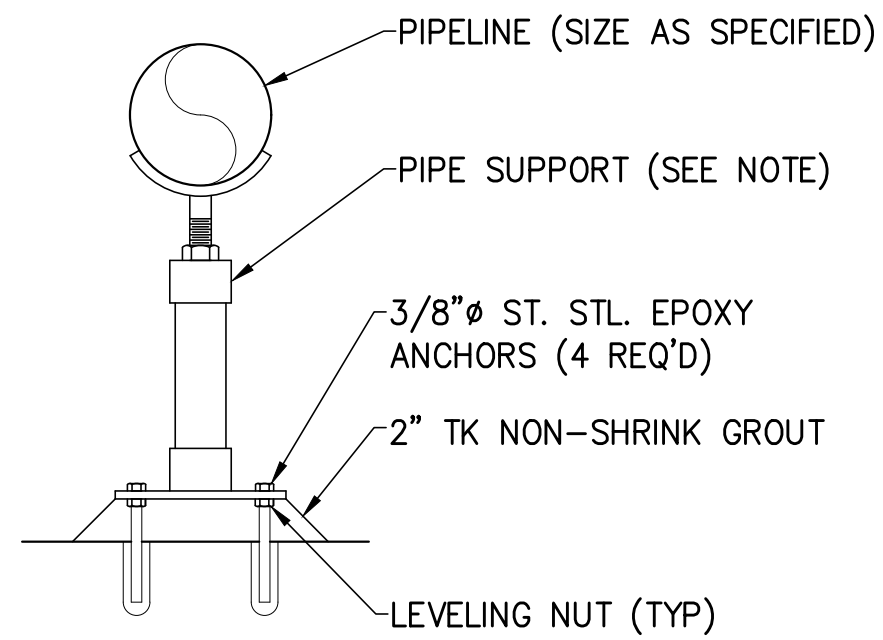


PLAN



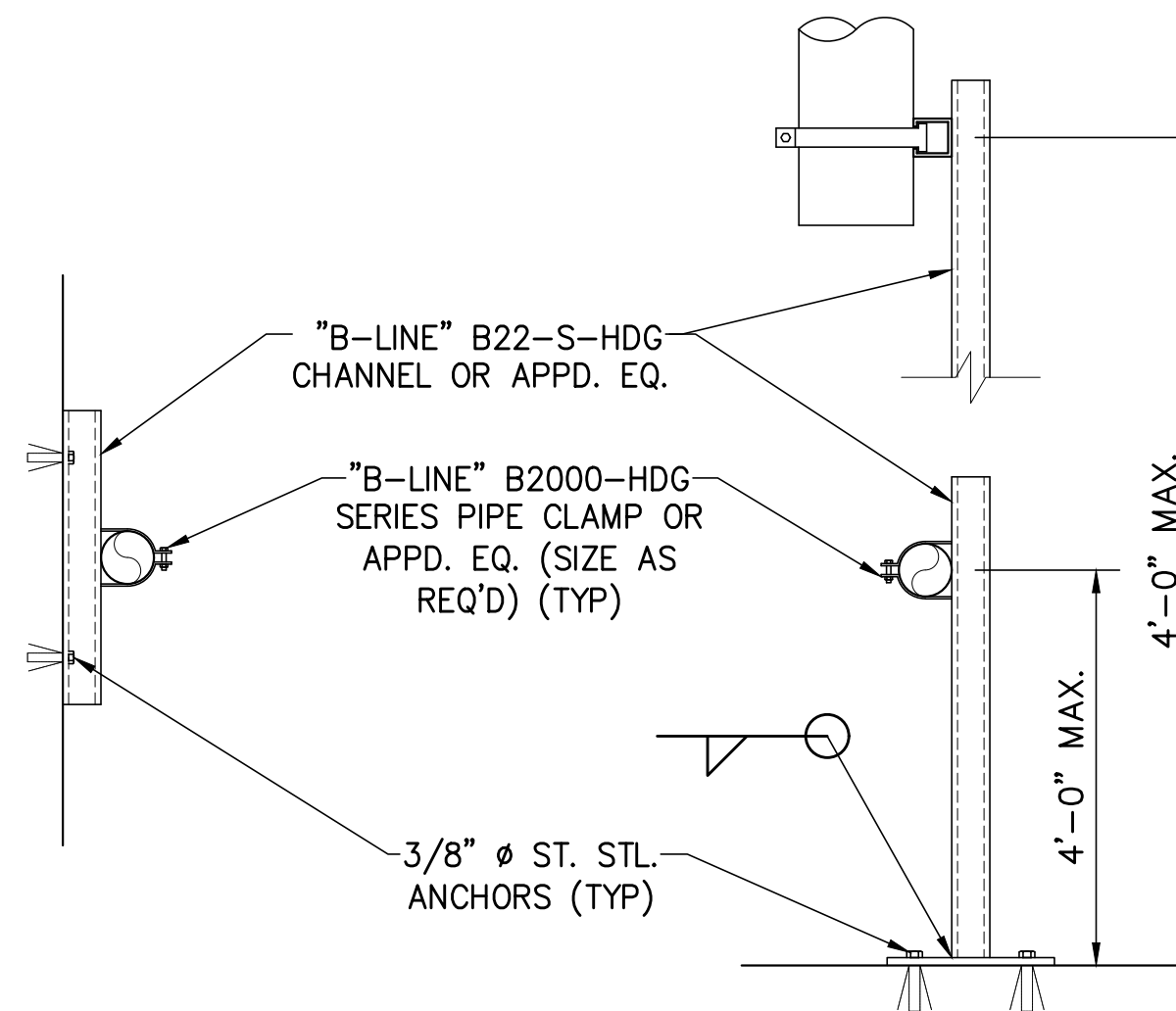
SECTION A-A

H **DETAIL - CONCRETE PEDESTAL**
NOT TO SCALE

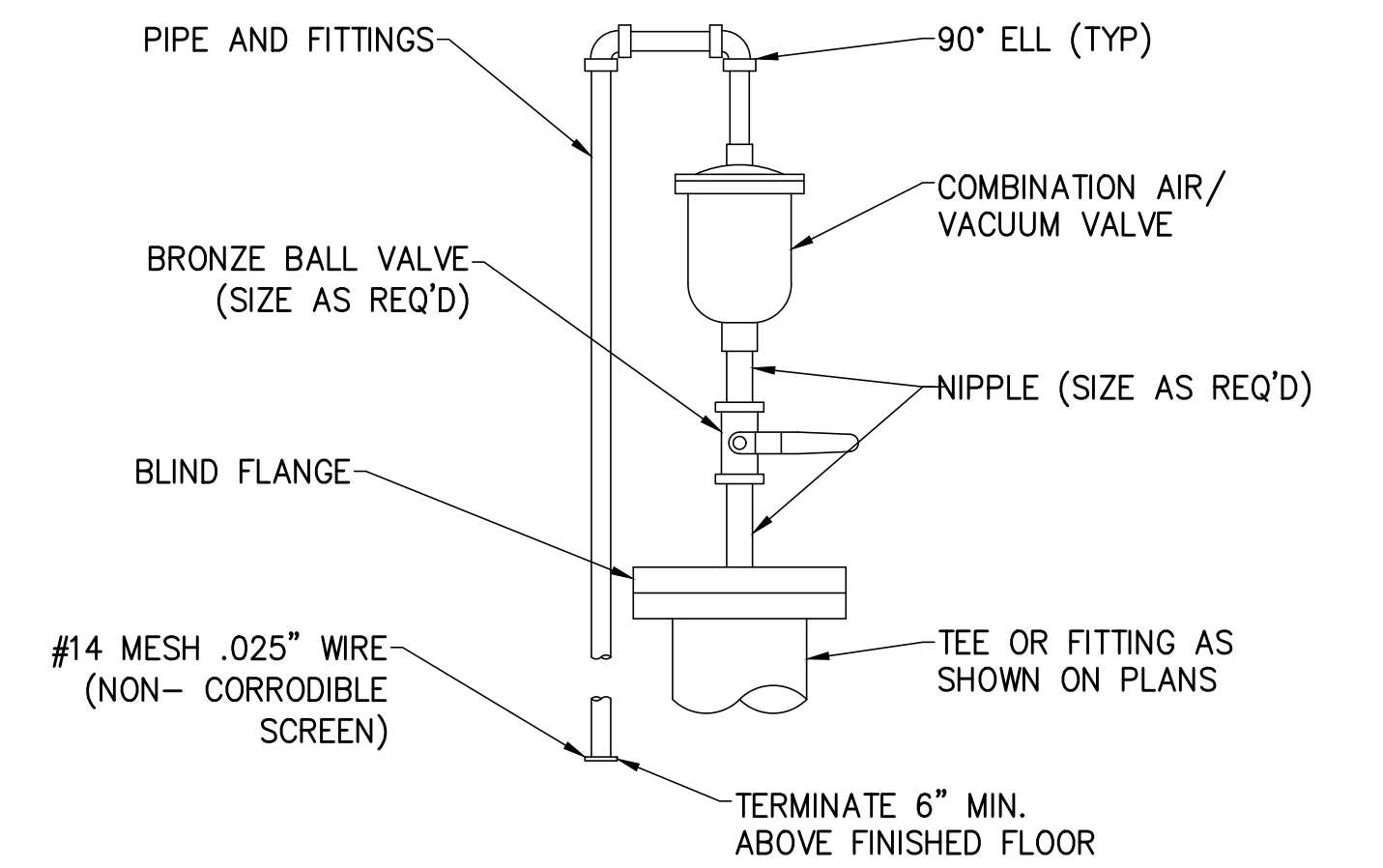


- NOTES:**
1. PLACE PIPE SUPPORTS AS SHOWN ON PLANS AND/OR AS DIRECTED BY THE ENGINEER.
 2. STANDON MODEL S92 SADDLE SUPPORT AS MANUFACTURED BY MATERIAL RESOURCES INC. OR APPD. EQ.

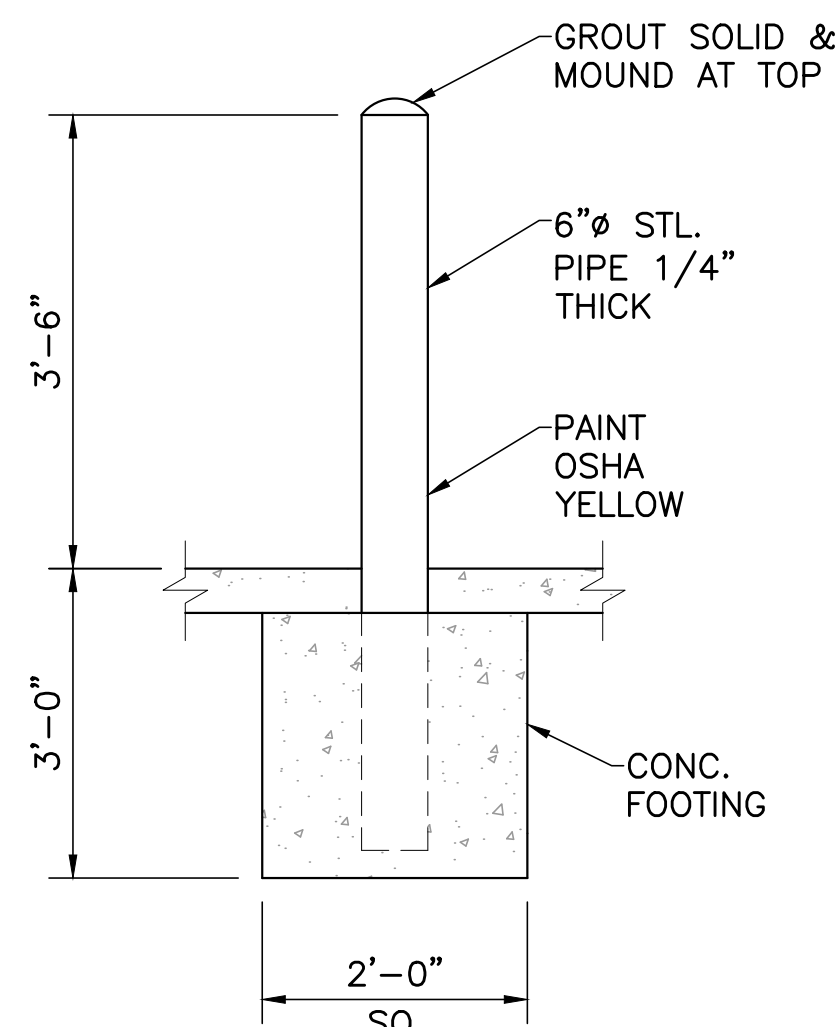
B **DETAIL - PIPE SUPPORT**
NOT TO SCALE



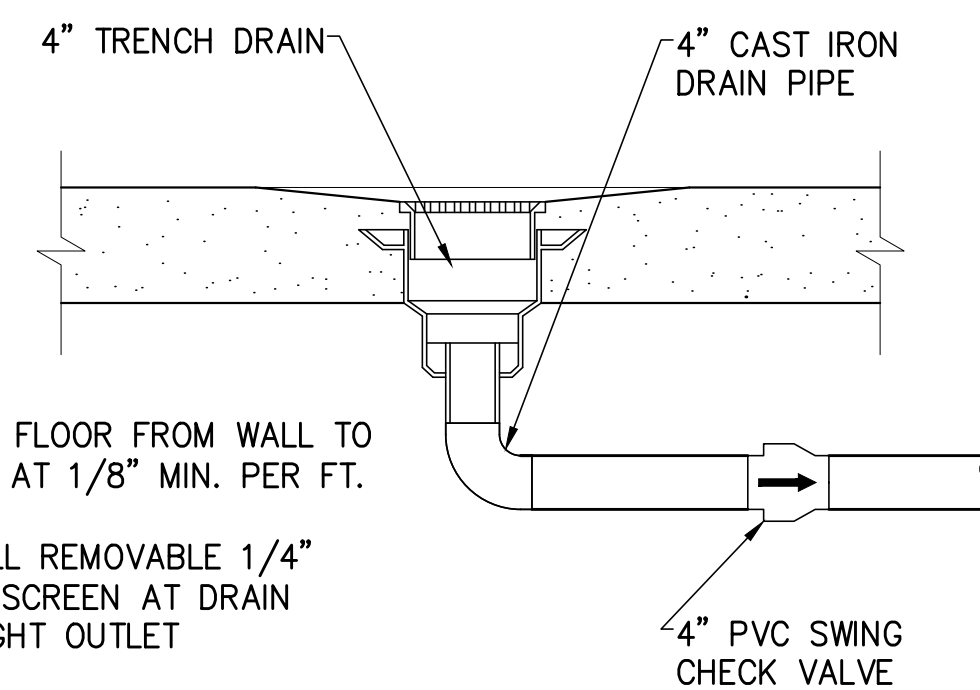
C **DETAIL - PIPE SUPPORT**
NOT TO SCALE FOR PIPES 3" AND SMALLER



D **DETAIL - COMBINATION AIR VALVE**
NOT TO SCALE

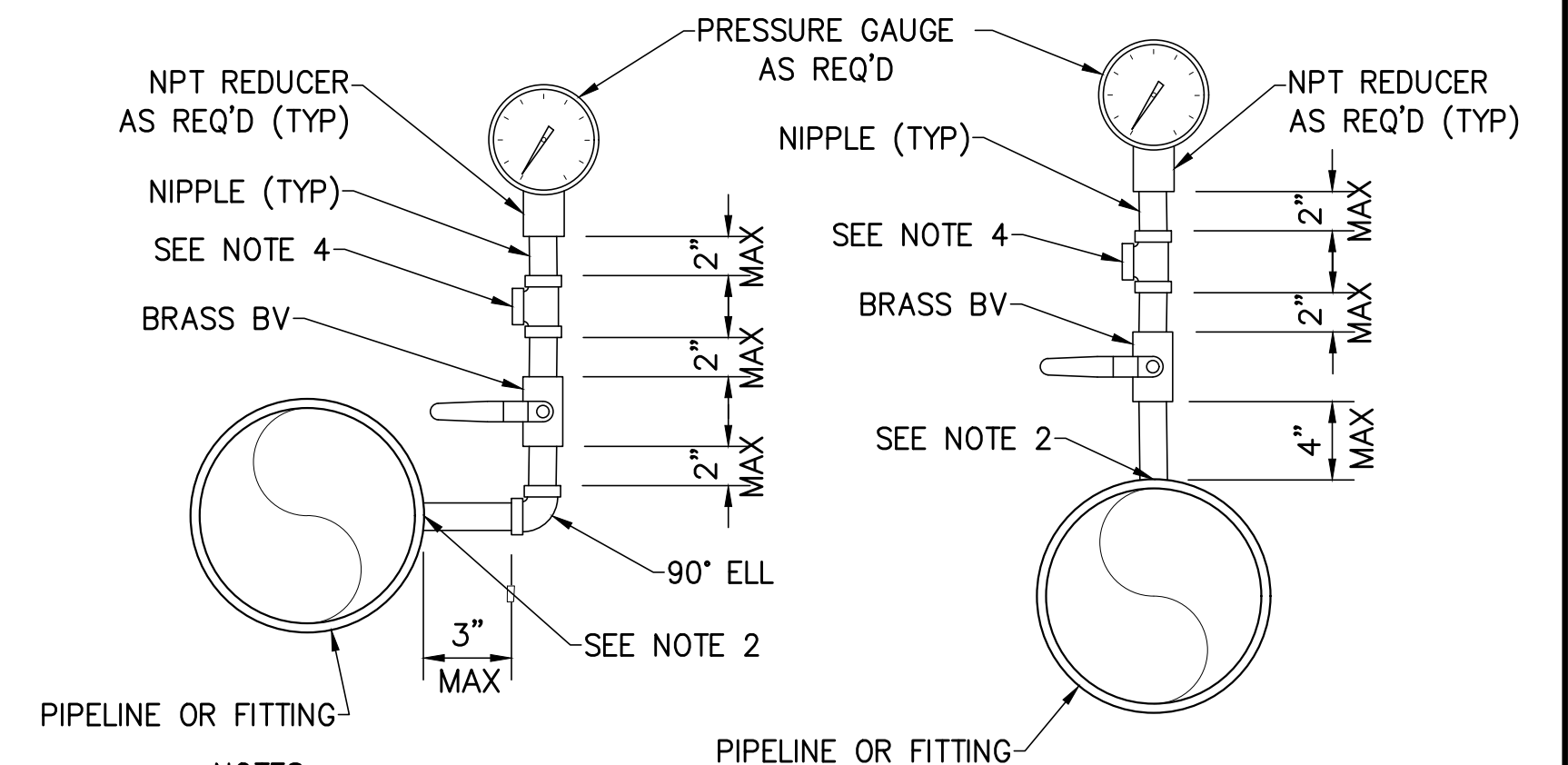


E **DETAIL - PIPE BOLLARD**
NOT TO SCALE



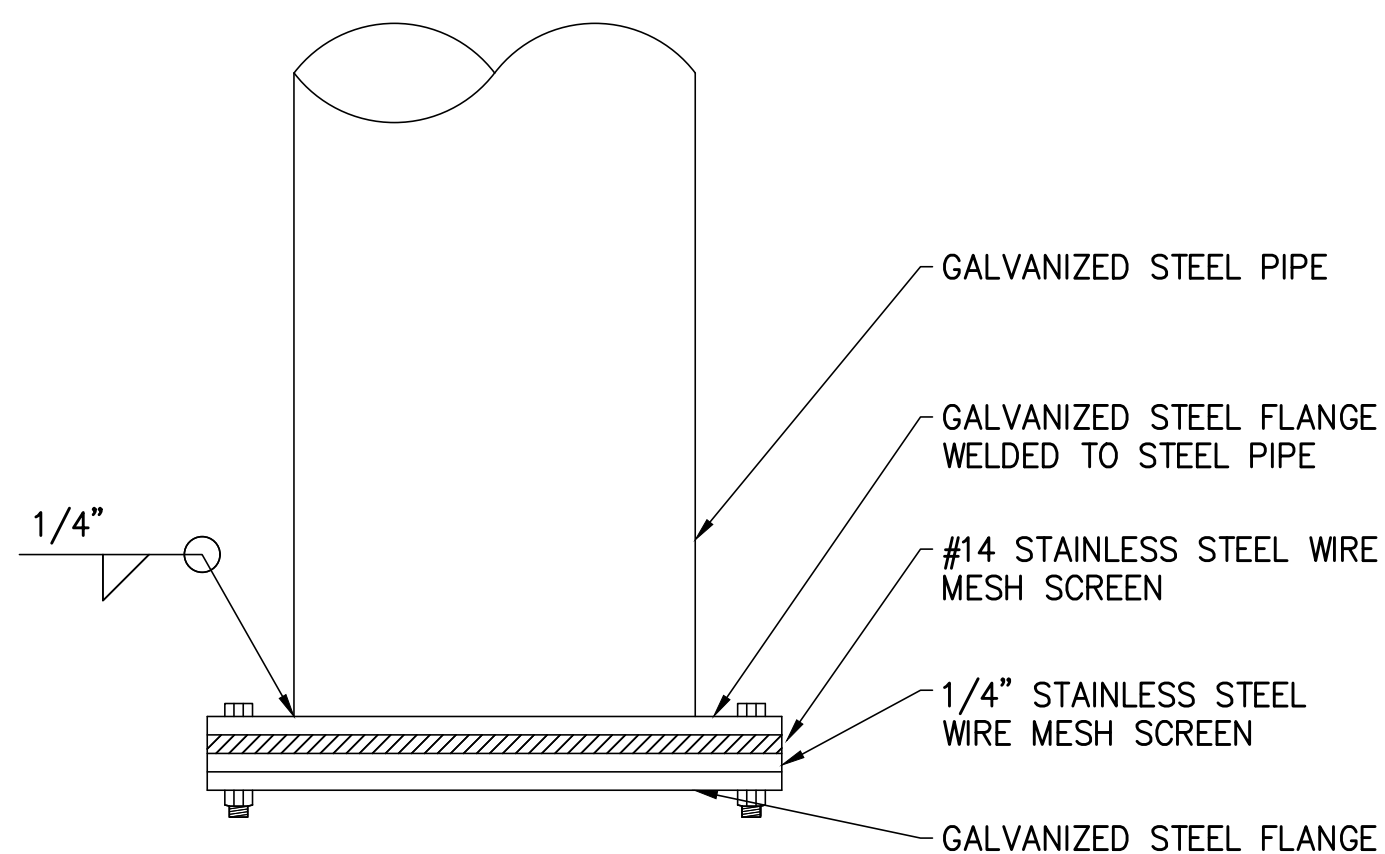
- NOTES:**
1. SLOPE FLOOR FROM WALL TO DRAIN AT 1/8" MIN. PER FT.
 2. INSTALL REMOVABLE 1/4" MESH SCREEN AT DRAIN DAYLIGHT OUTLET

F **DETAIL - TRENCH DRAIN**
NOT TO SCALE



- NOTES:**
1. GAUGE FACE ORIENTATION SHALL BE AS DIRECTED BY THE OWNER.
 2. PIPING ATTACHMENT TO DUCTILE IRON PIPE SHALL BE BY PIPE SADDLE OR BY DIRECT THREADING INTO THE PIPE.
 3. FITTINGS AND NIPPLES ARE BRASS.
 4. INSTALL TEE FOR PRESSURE TRANSDUCER OR PRESSURE SWITCH WHEN REQ'D.
 5. SEE 15238SP

G **DETAIL - PRESSURE GAUGE**
NOT TO SCALE



J **DETAIL - BUG SCREEN**
NOT TO SCALE

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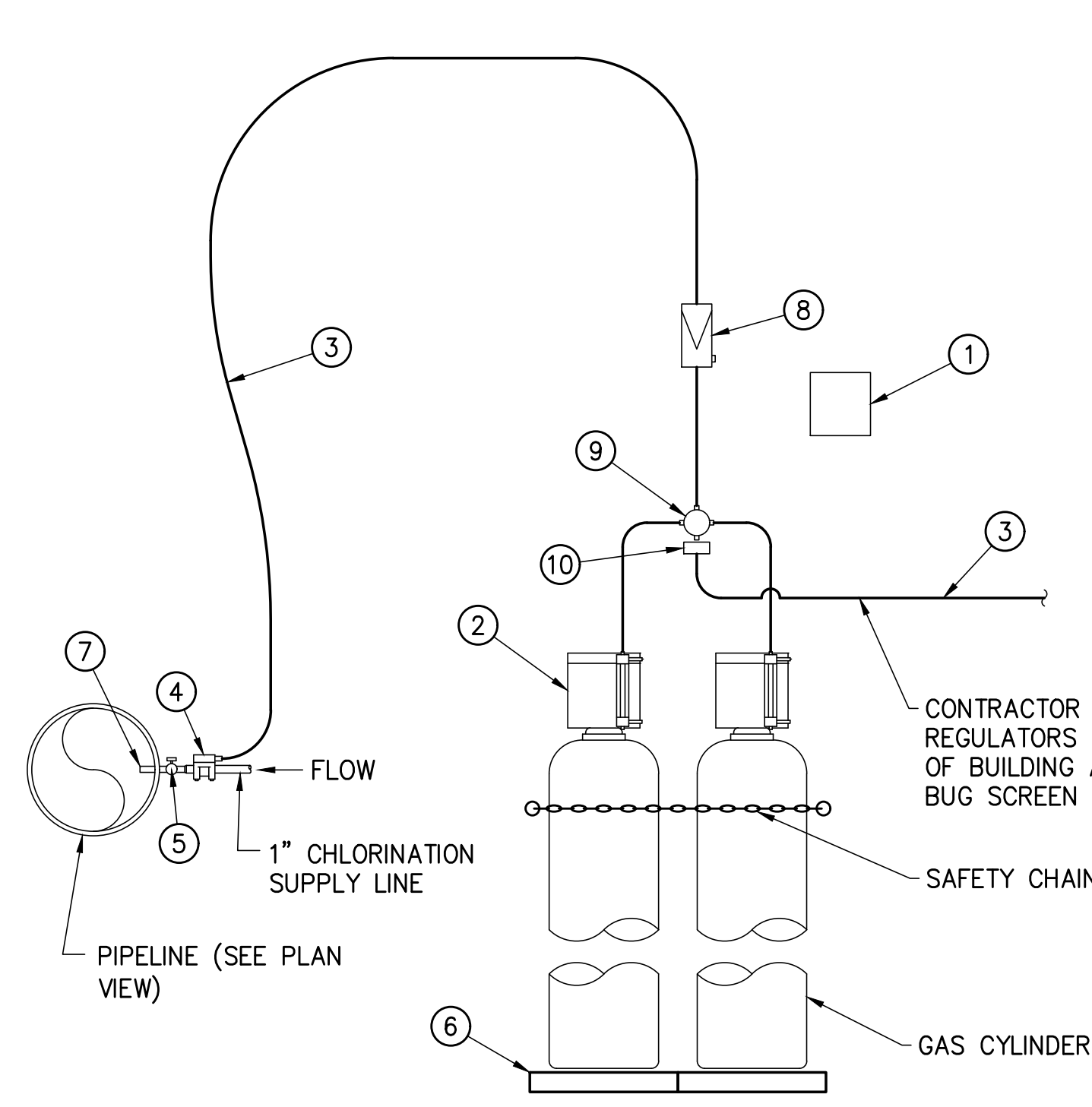
REV. NO.	COMMENT	DATE

PROFESSIONAL ENGINEER
No. 12401899
STEVEN DAVID WOOD
01/30/2025
STATE OF UTAH

SUNRISE ENGINEERING
2100 NORTH MAIN STREET
NORTH LOGAN, UTAH 84341
TEL 435.563.3734
www.sunrise-eng.com

HYDE PARK CITY
CITY HALL WELL HOUSE
WELL HOUSE CIVIL PLANS
WELLHOUSE DETAILS

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
10660	SDW	JJ	SDW	21 of 72	WH10

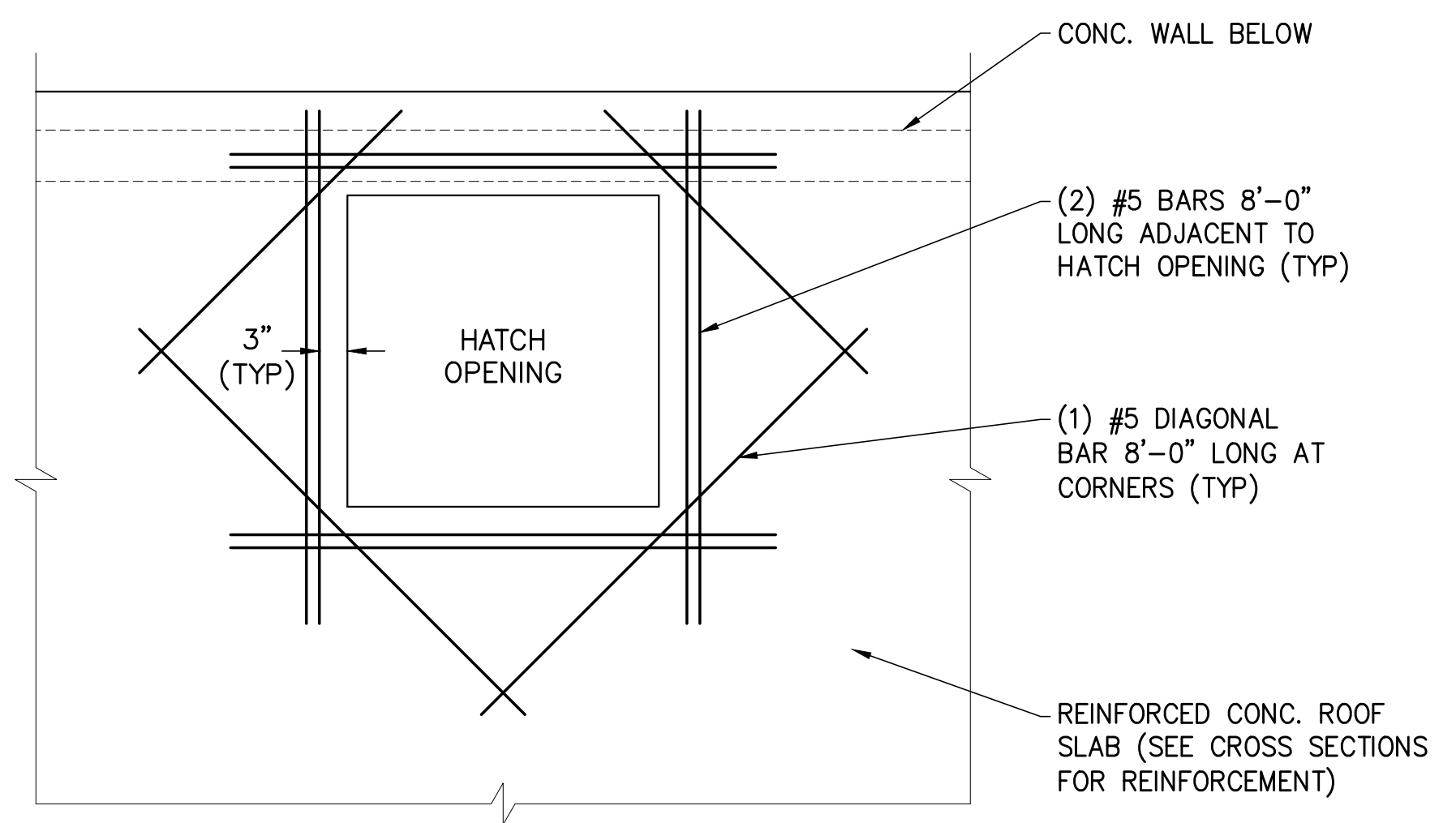


CHLORINATION EQUIPMENT SCHEDULE	
MK. NO.	DESCRIPTION
1	SCALE INDICATOR
2	VACUUM REGULATOR
3	3/8" VACUUM TUBING
4	EJECTOR ASSEMBLY
5	BALL VALVE
6	SCALES
7	E265 DIFFUSER
8	RATE METER (SEE SPEC 11230SP)
9	SWITCHOVER REGULATOR
10	PRESSURE RELIEF VENT

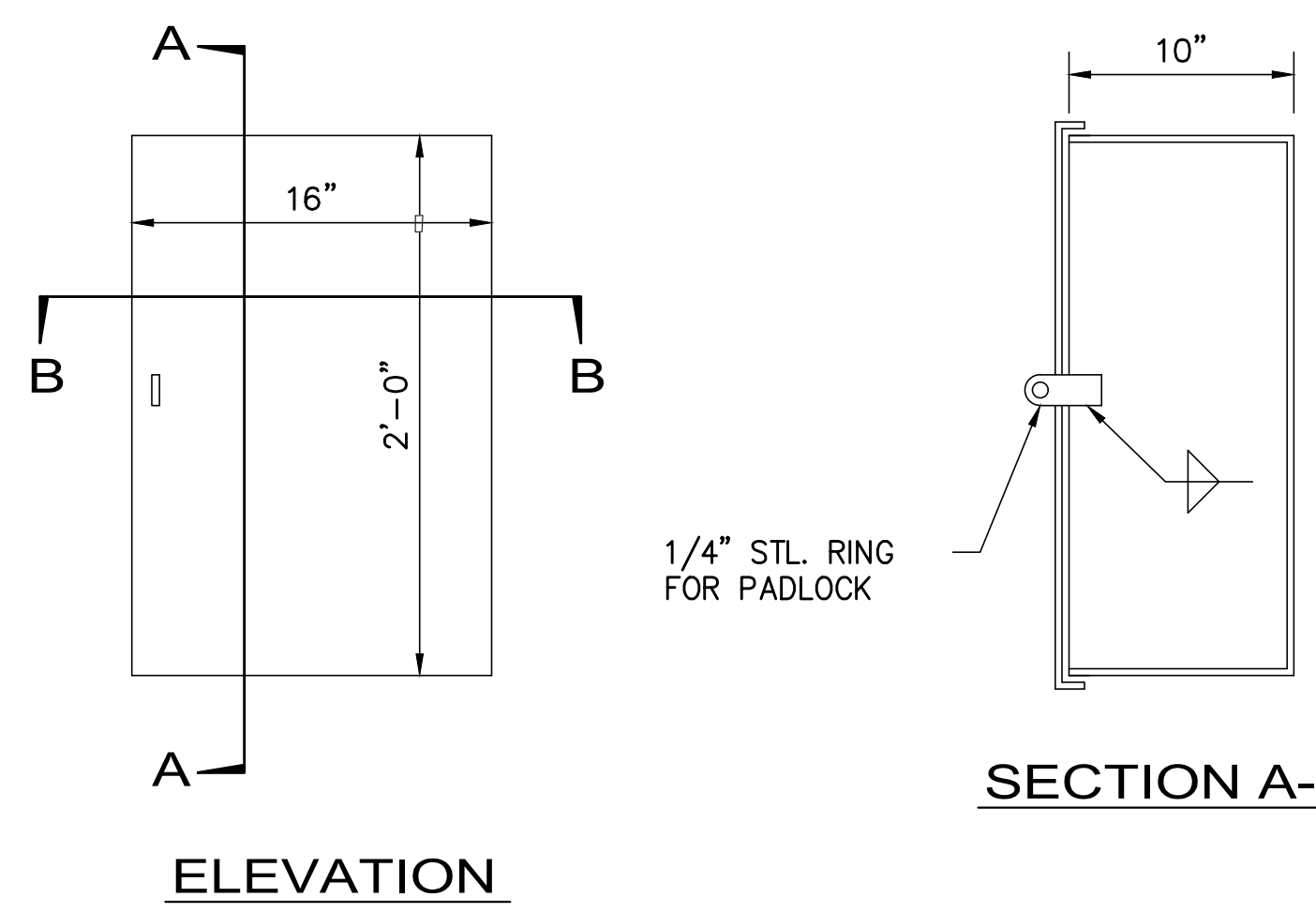
CONTRACTOR SHALL VENT REGULATORS TO OUTSIDE OF BUILDING AND PROVIDE BUG SCREEN

NOTE:
CONTRACTOR SHALL PROVIDE A BOTTLE OF AQUEOUS AMMONIA FOR DETECTING CHLORINE LEAKS AND A FULL SPARE PARTS KIT

A DETAIL - CHLORINATION EQUIPMENT
~ NOT TO SCALE

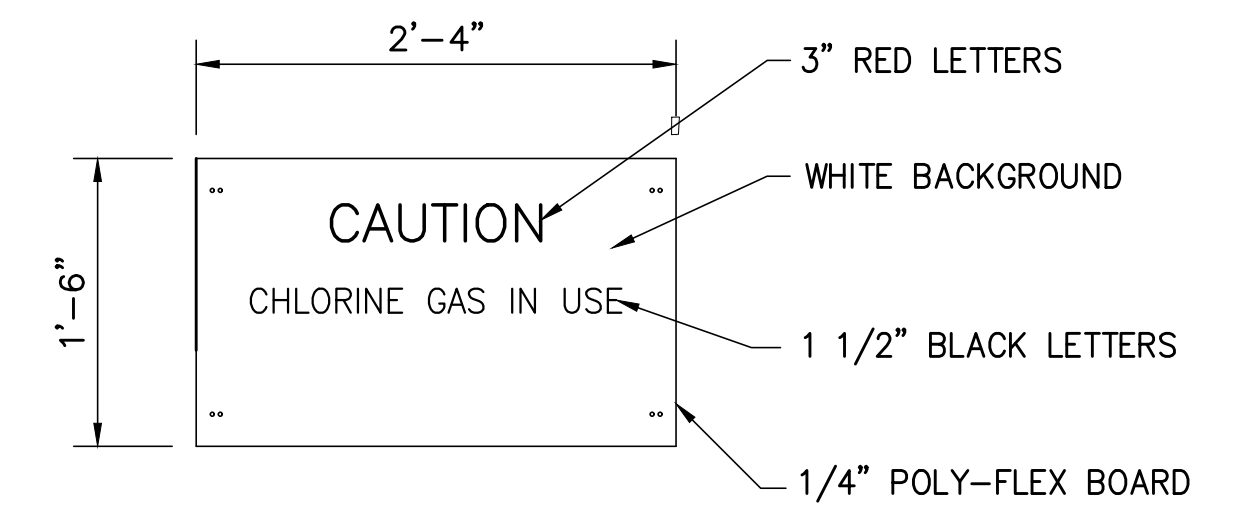


D DETAIL - REINFORCING AT HATCH OPENING
~ NOT TO SCALE



ELEVATION

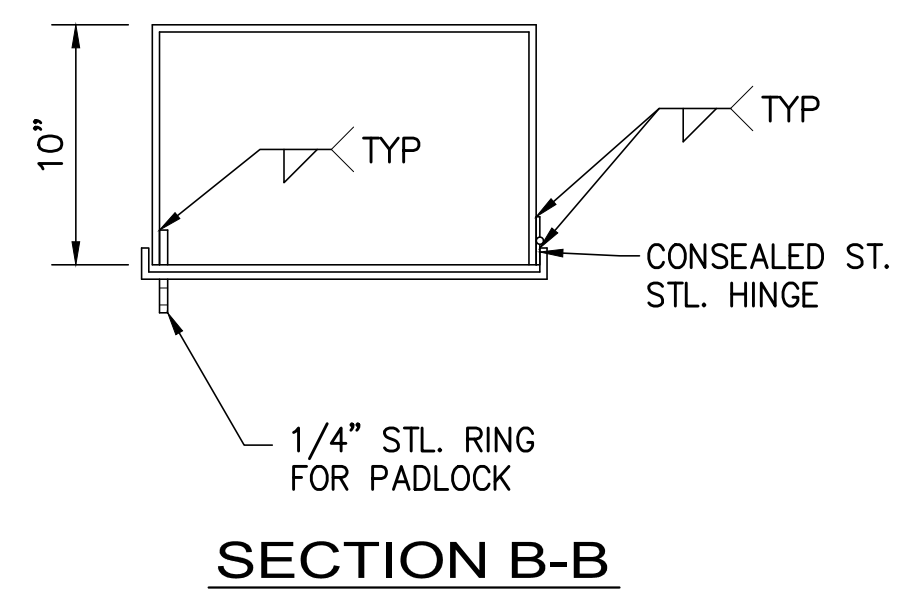
SECTION A-A



NOTE:
LOCATE ON EACH DOOR OF GRANITE PEAK WELL BUILDING (3 TOTAL REQ'D.)

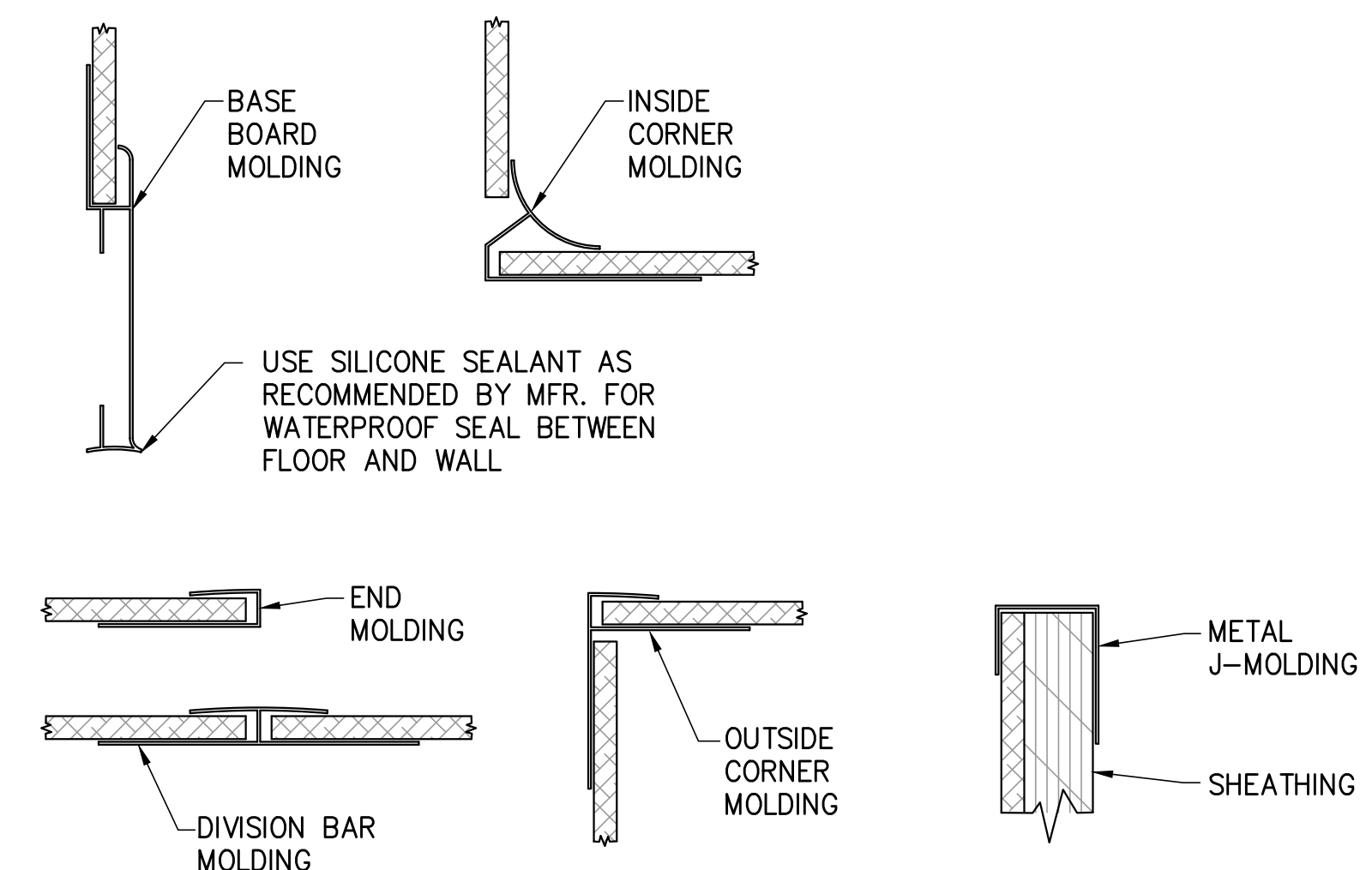
C DETAIL - WARNING SIGN
~ NOT TO SCALE

- NOTES:
- FABRICATE BOX FROM 1/4" THK. A-36 STL. PL.
 - FINISHED BOX SHALL BE PROVIDED WITH A PROFESSIONALLY APPLIED BAKED ON GRAY POWDER COATED FINISH INSIDE AND OUT



SECTION B-B

B DETAIL - EMERGENCY AIR PACK STORAGE BOX
~ NOT TO SCALE



MOULDINGS

NOTE:
FRP ATTACHED TO SHEATHING W/ ADVANCED POLYMER ADHESIVE (SEE SPECS.)

E DETAIL - FRP OVER SHEATHING
~ NOT TO SCALE

* SEE SPECIFICATION 09802SP *

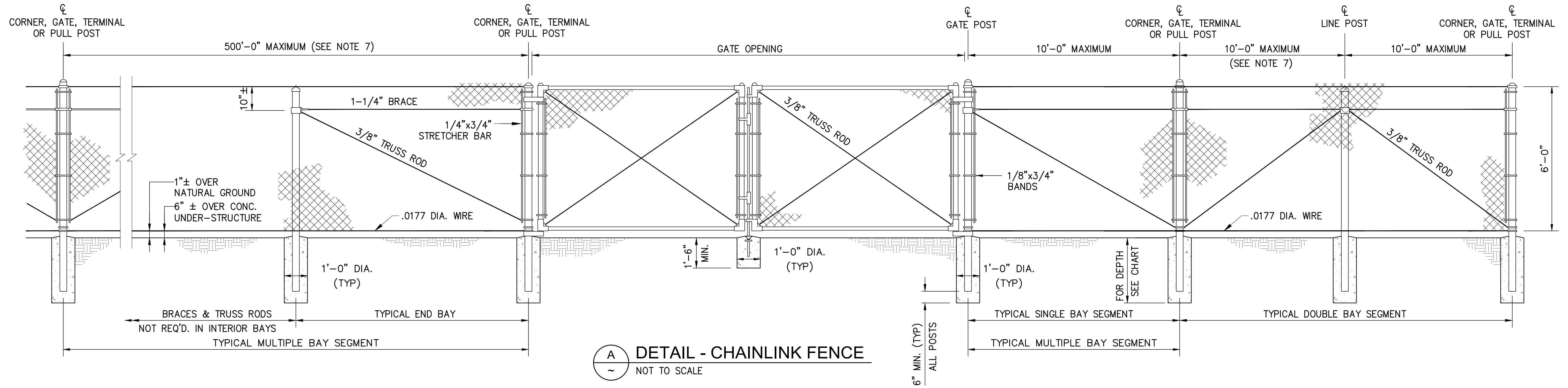
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WELL HOUSE CIVIL PLANS
WELLHOUSE DETAILS

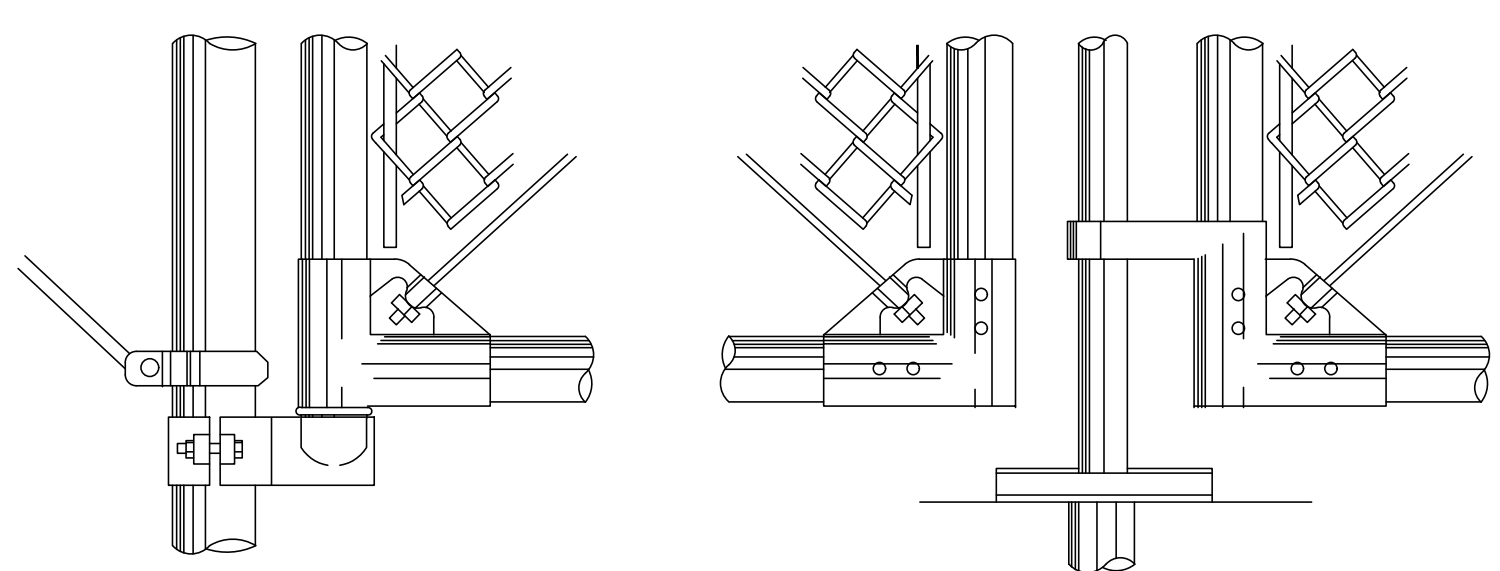
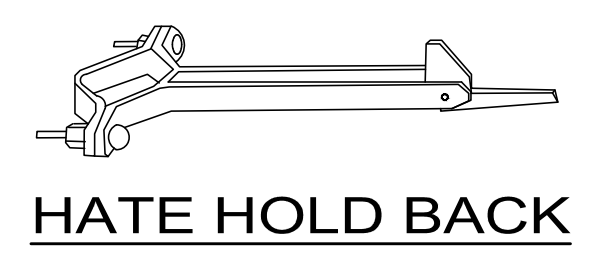
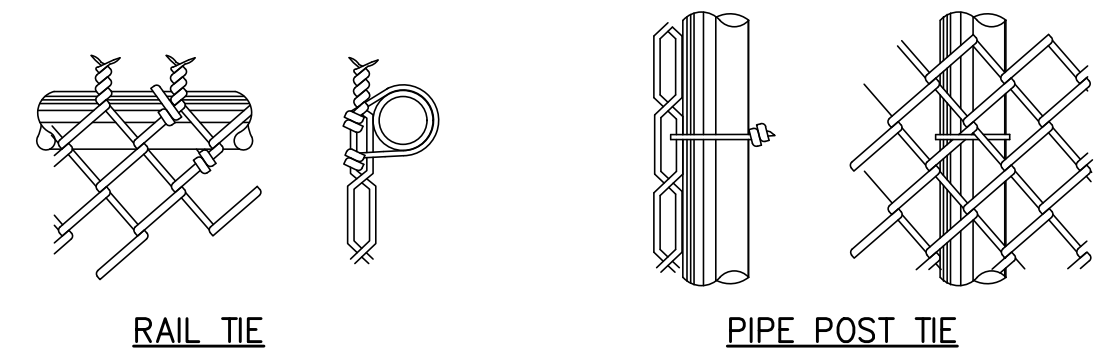
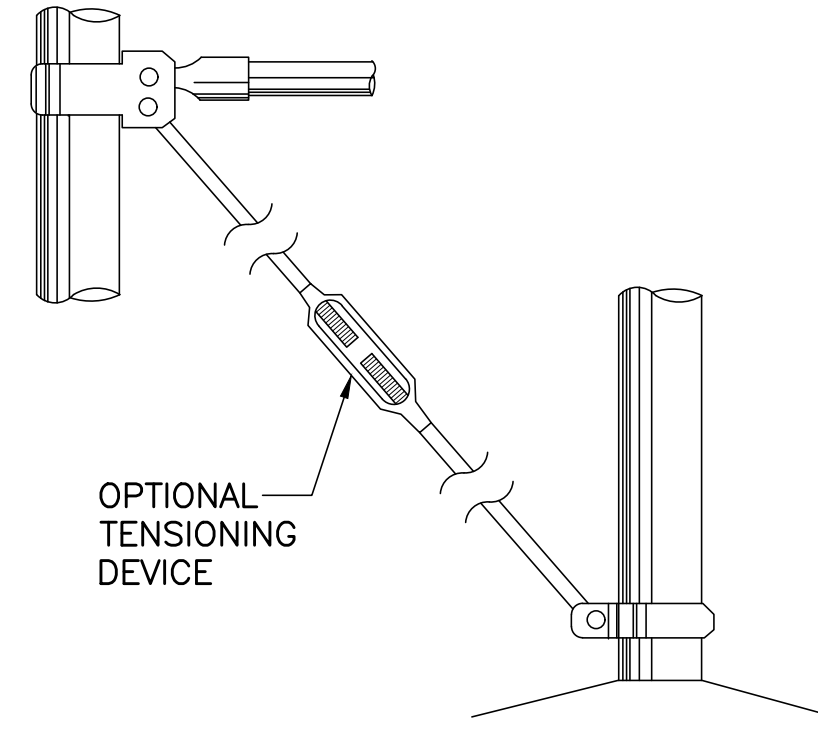
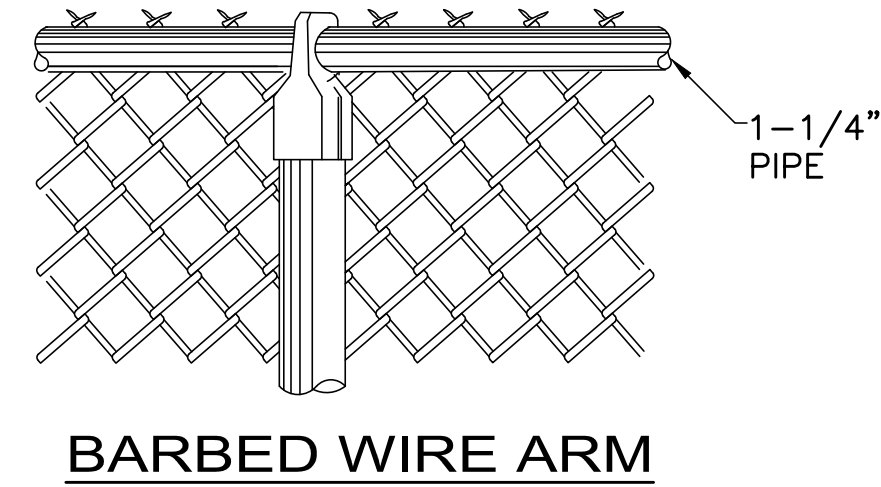
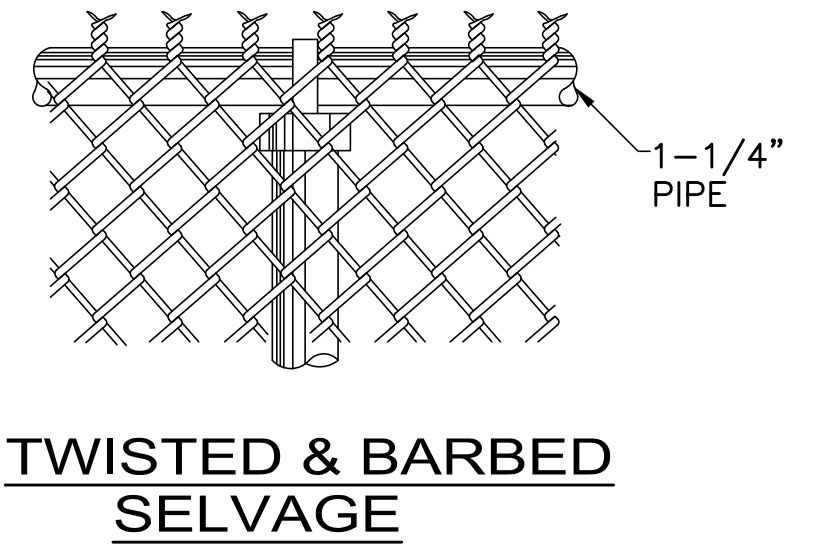
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 22 of 72	WH11
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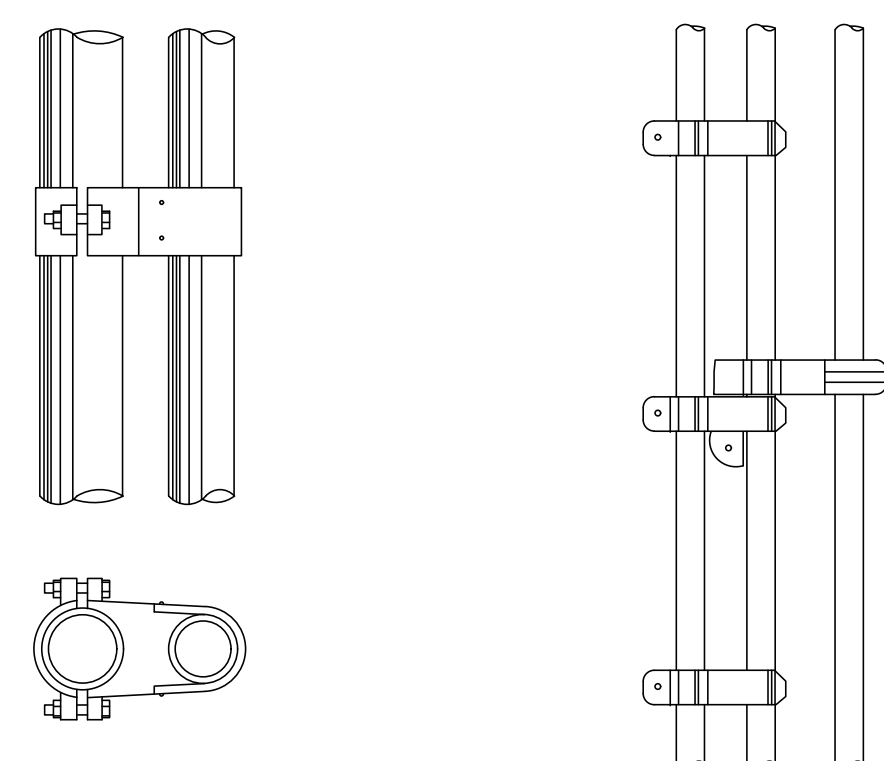
DETAIL - CHAINLINK FENCE
NOT TO SCALE

NOTES:

- FENCE SHALL BE PRIVACYPMASTER TYPE FENCE MANUFACTURED BY PRIVACYLINK. 9 GAUGE GALVANIZED FENCE WITH PRIVACY SLATS. FENCE SHALL BE 6' IN HEIGHT. PRIVACY SLAT COLOR TO BE APPROVED BY OWNER DURING SUBMITTAL PROCESS.
- MATERIALS, CONSTRUCTION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE WRITTEN SPECIFICATIONS.
- THE TOP SUPPORT SHALL BE TUBULAR RAIL.
- BARBED WIRE SHALL NOT BE USED.
- ALL STEEL PIPE MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A-120, SCHEDULE 40, HOT DIPPED ZINC COATED STEEL PIPE.
- OPTIONS EXERCISED SHALL BE UNIFORM THROUGHOUT THE PROJECT.
- LINE POSTS SHALL BE LOCATED AT EQUAL SPACINGS FOR EACH SEGMENT WITH MAXIMUM SPACING AS FOLLOWS: A) TANGENT SECTIONS TO 500 FEET RADIUS-NOT MORE THAN 10 FEET. B) UNDER 500 FEET RADIUS TO 200 FEET RADIUS-NOT MORE THAN 8 FEET. C) UNDER 200 FEET RADIUS TO 100 FEET RADIUS-NOT MORE THAN 6 FEET. D) UNDER 100 FEET RADIUS-NOT MORE THAN 5 FEET.
- ALL CONCRETE SHALL HAVE A MINIMUM OF 5 SACKS OF CEMENT PER CUBIC YARD



(NOTE: OPTIONAL WELDED OR RIVETED CONSTRUCTION)



GATES			
GATE POSTS AND GATE FRAMES			
HEIGHT	GATE OPENING	GATE POST	GATE FRAME
UNDER 6 FEET	SINGLE TO 6' OR DOUBLE TO 12'	2"	1"
	SINGLE OVER 6' TO 8' OR DOUBLE OVER 12' TO 16'	2-1/2"	1-1/2"
	SINGLE OVER 8' TO 12' OR DOUBLE 16' TO 24'	3-1/2"	
6 FEET AND OVER	SINGLE TO 6' OR DOUBLE TO 12'	2-1/2"	1-1/2"
	SINGLE OVER 6' TO 13' OR DOUBLE OVER 12' TO 24'	3-1/2"	
	SINGLE OVER 13' TO 18' OR DOUBLE OVER 24' TO 36'	6"	
	SINGLE OVER 18' OR DOUBLE OVER 36'	8"	

HEIGHT OF FABRIC	DEPTH OF POSTS	LENGTH OF END, CORNER OR PULL POSTS	LENGTH OF LINE POSTS	SIZE OF POSTS				GATE POST
				END, CORNER & PULL		LINE POSTS (MIN SIZE)		
				PIPE OPTION	RECTANGULAR OPTION	PIPE OPTION	H POST OPTION	
7'	3'	10'	9'-8"	2-1/2"	3-1/2"	2"	1-7/8"x1-5/8"	SEE GATE POST TABLE
6'	3'	9'	8'-8"	2-1/2"	3-1/2"	2"	1-7/8"x1-5/8"	
5'	3'	8'	7'-8"	2"	3-1/2"	1-1/2"	1-5/16"x1-1/2"	
4'	2'	6'	5'-8"	2"	3-1/2"	1-1/2"	1-5/16"x1-1/2"	
3'	2'	5'	4'-8"	2"	3-1/2"	1-1/2"	1-5/16"x1-1/2"	

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www.sunrise-eng.com

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WELL HOUSE CIVIL PLANS
CHAINLINK FENCE DETAILS

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 23 of 72	WH12
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STRUCTURAL SPECIFICATIONS & REQUIREMENTS CONTINUED...

G. PREFABRICATED WOOD TRUSS REQUIREMENTS:

- PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE "NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION" AND SHALL BE PROVIDED BY AN APPROVED FABRICATOR. PREFABRICATED OPEN WEB TRUSSES SHALL BE DESIGNED, FABRICATED, AND SUPPLIED BY REDBUILT (ICC ESR-1774) OR OTHER ICC APPROVED FABRICATOR WITH THE PRIOR APPROVAL OF THE E.O.R. DESIGN LOADS FOR OPEN WEB TRUSSES SHOWN ON THE DRAWINGS ARE ALLOWABLE STRESS DESIGN (ASD) LOADS.
- ALL MEMBERS RECEIVING FASTENERS PER STRUCTURAL DRAWINGS SHALL HAVE A SPECIFIC GRAVITY OF 0.42 OR HIGHER, U.N.O.
- MAX. DEFLECTION LIMITS FOR TRUSSES/RAFTERS SHALL BE AS FOLLOWS:
 LOCATION: LIVE LOAD: TOTAL LOAD:
 ROOF SPAN/360 SPAN/240
- TRUSSES SHALL BE DESIGNED TO SUPPORT THEIR SELF WEIGHT, PLUS LIVE LOAD, SUPERIMPOSED DEAD LOAD (INCLUDING BUT NOT LIMITED TO ALL MECHANICAL AND OTHER EQUIPMENT), AND ATTIC LOADS AS REQUIRED PER IBC TABLE 1607.1 AND SHALL BE DESIGNED TO RESIST ALL DRAG FORCES, SHEAR WALL UPLIFT AND DOWNWARD LOADS, AND OTHER SPECIAL LOADS NOTED ON THE DRAWINGS.
- ALL TRUSS TO TRUSS CONNECTIONS SHALL BE SPECIFIED BY THE TRUSS DESIGNER AND INCLUDED IN THE TRUSS DIAGRAMS. ALL CONNECTORS SHALL HAVE CURRENT ICC APPROVAL.
- TRUSS DIAGRAMS AND KEYED LAYOUT SHALL BE AVAILABLE TO FIELD INSPECTOR AT THE JOB-SITE AT THE TIME OF ROOF NAILING AND FRAMING INSPECTION.
- SHOP DRAWINGS, ERECTION DRAWINGS, AND DESIGN CALCULATIONS SEALED BY AN APPROPRIATELY REGISTERED ENGINEER SHALL BE SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL SHOW ANY SPECIAL DETAILS REQUIRED AT BEARING POINTS.
- BRIDGING SIZE AND SPACING SHALL BE AS DESIGNATED BY THE TRUSS MANUFACTURER.

H. QUALITY CONTROL AND INSPECTION REQUIREMENTS:

- QUALITY CONTROL AND INSPECTIONS SHALL BE PERFORMED AS REQUIRED IN IBC 2021 CHAPTER 17. AS STATED IN IBC 2021 1704.2.1, "THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTORS FOR THE WORK DESIGNED BY THEM, PROVIDED THEY QUALIFY AS SPECIAL INSPECTORS."
- SPECIAL INSPECTION REQUIREMENTS:
 - SPECIAL INSPECTION AND QUALITY ASSURANCE, AS REQUIRED BY SECTION 1705 OF THE IBC, SHALL BE PROVIDED BY AN INDEPENDENT AGENCY EMPLOYED BY THE OWNER UNLESS WAIVED BY THE BUILDING OFFICIAL. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE REQUIRED INSPECTIONS. ALL TESTING AND INSPECTION REPORTS SHALL BE SENT TO THE ENGINEER OF RECORD FOR REVIEW. ITEMS REQUIRING SPECIAL INSPECTION AND QUALITY ASSURANCE ARE SHOWN IN THIS SECTION.
 - SOILS PER IBC SECTION 1705.6 AND TABLE 1705.6 BELOW:
 - SPECIAL INSPECTION SHALL BE PROVIDED PRIOR TO POURING CONCRETE FOOTINGS.
 - SPECIAL INSPECTION SHALL BE PROVIDED PRIOR TO PLACEMENT OF FILL AND DURING PLACEMENT OF FILL.
 - CONCRETE CONSTRUCTION PER IBC SECTION 1705.3 AND TABLE 1705.3 BELOW:

TYPE OF INSPECTION OR TEST	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	-	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	-
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-	X

3. CONCRETE CONSTRUCTION PER IBC SECTION 1705.3 AND TABLE 1705.3 BELOW:

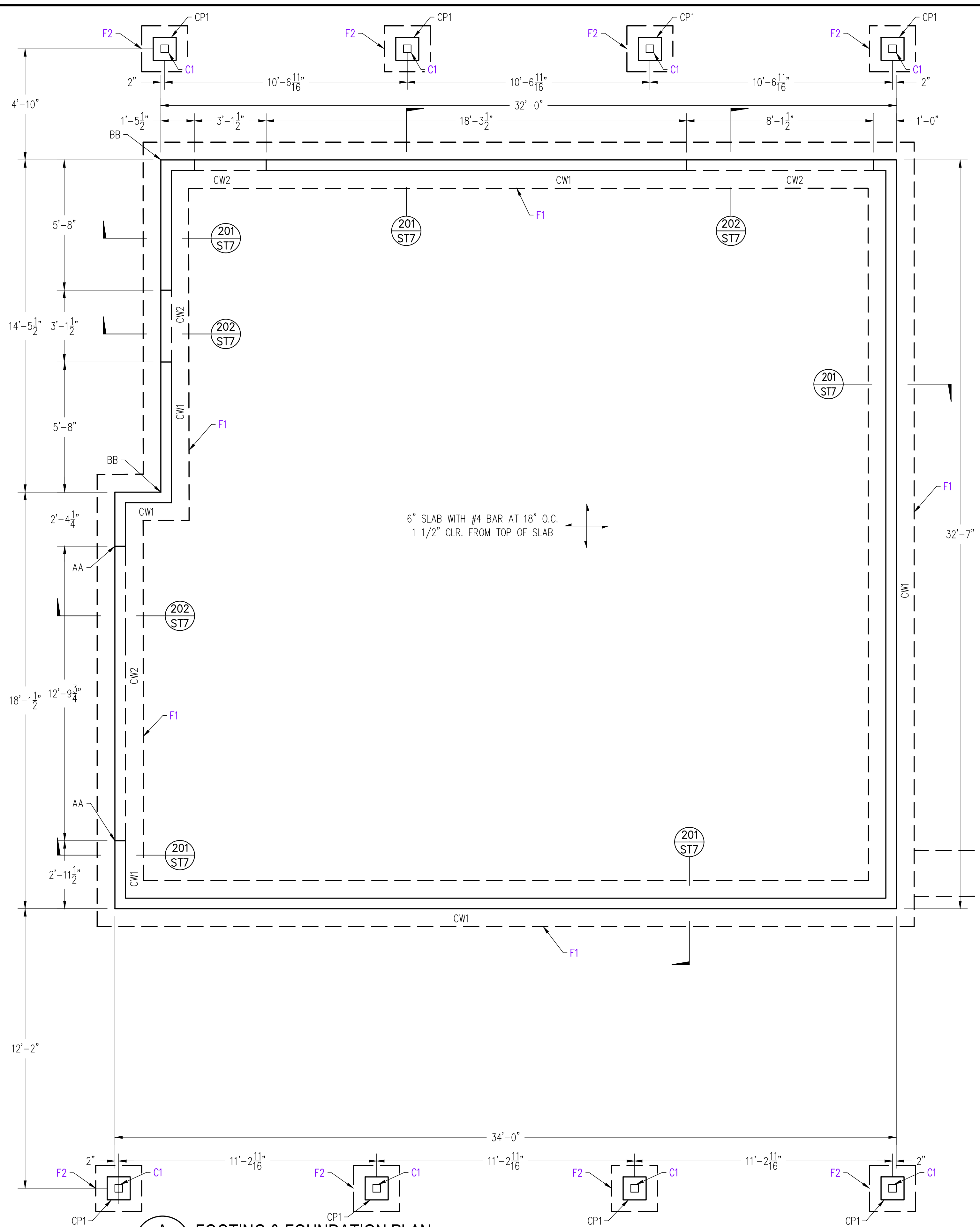
TYPE OF INSPECTION OR TEST	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD ^a	IBC REFERENCE
1. INSPECT REINFORCEMENT INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	-	X	ACI 318: CH. 20, 25.2, 25.3, 25.6.1-25.6.3	1908.4
2. REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706. b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16. c. INSPECT ALL OTHER WELDS.	-	X	AWS D1.4 ACI 318: 25.6.4	-
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2	-
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS: a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.	X	-	-	-
5. VERIFY USE OF REQUIRED DESIGN MIX.	-	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-	ASTM C172 ASTM C31 ACI 318: 26.5, 26.12	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-	X	ACI 318: 26.5.3-26.5.5	1908.9
9. INSPECT PRESTRESSED CONCRETE OF: a. APPLICATION OF PRESTRESSING FORCES. b. GROUTING OF BONDED PRESTRESSING TENDONS.	X	-	ACI 318: 26.10	-
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-	X	ACI 318: 26.9	-
11. VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-	X	ACI 318: 26.11.2	-
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-	X	ACI 318: 26.11.1.2(b)	-

- CONCRETE CONSTRUCTION PER IBC SECTION 1705.3:
 - SPECIAL INSPECTIONS NOT REQ'D. PER SECTION 1705.3, EXCEPTION 2.3 (STRUCTURAL DESIGN OF FOUNDATIONS IS BASED ON COMPRESSIVE STRENGTH $f'_c = 2,500$ psi)

J. DEFERRED SUBMITTAL REQUIREMENTS:

- SHOP DRAWINGS OR REPORTS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION (AS APPLICABLE) U.N.O.
 CONCRETE CYLINDER TESTS
 REINFORCING STEEL
 CONCRETE MIX DESIGN
 STRUCTURAL STEEL
- CONTRACTOR SHALL REVIEW AND STAMP SHOP DRAWINGS PRIOR TO SUBMITTING. CONTRACTOR'S REVIEW SHALL CHECK FOR COMPLETENESS/COMPLIANCE WITH CONTRACT DOCUMENTS.
- SHOP DRAWINGS ARE REVIEWED BY ENGINEER ONLY FOR GENERAL COMPLIANCE WITH THE STRUCTURAL DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR. SHOP DRAWINGS DO NOT SUPERSEDE OR REPLACE THE CONTRACT DRAWINGS OR SPECIFICATIONS. CHANGES, SUBSTITUTIONS, OR DEVIATIONS FROM CONTRACT DRAWINGS AND/OR SPECIFICATIONS WILL NOT BE ACCEPTED VIA SHOP DRAWING REVIEW. ALL SUCH MODIFICATIONS SHALL BE SUBMITTED SEPARATELY FOR ENGINEER'S REVIEW.
- PREFABRICATED COMPONENTS, SPECIALTY ITEMS, OR DESIGN-BUILD ELEMENTS NOTED ON THE STRUCTURAL DRAWINGS, BUT WHICH REQUIRE THE MFR. OR SUPPLIER TO PROVIDE THE DESIGN, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ARCHITECT AND/OR ENGINEER FOR REVIEW AS A DEFERRED SUBMITTAL. DEFERRED SUBMITTALS REQ'D. BY THE STRUCTURAL ENGINEER OF RECORD SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
 STEEL JOISTS/JOIST GIRDERS
 STEEL RAILING
- DEFERRED SUBMITTALS SHALL INCLUDE CALCULATIONS AND DRAWINGS PREPARED AND STAMPED BY AN APPROPRIATELY LICENSED ENGINEER (SPECIALTY ENGINEER) SHOWING LOCATION AND MAGNITUDE OF LOADS, CONFIGURATION AND SIZE OF MEMBERS, AND COMPATIBILITY OF SUBMITTAL ITEM WITH THE PRIMARY STRUCTURAL SYSTEM.
- THE PURPOSE OF THE STRUCTURAL ENGINEER'S REVIEW OF DEFERRED SUBMITTALS SHALL BE LIMITED TO DETERMINING THAT THE DRAWINGS AND CALCULATIONS HAVE BEEN PROPERLY SEALED, THAT THE LOAD CRITERIA IS IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE REFERENCED BUILDING CODE, THAT CONNECTIONS TO THE PRIMARY STRUCTURE ARE COMPATIBLE WITH THE PRIMARY DESIGN, AND THAT THE PRIMARY STRUCTURE IS CAPABLE OF SUPPORTING THE IMPOSED LOADS.
- THE STRUCTURAL ENGINEER WILL RELY UPON THE SPECIALTY ENGINEER'S SEAL AS CERTIFICATION THAT THE ITEMS DESIGNED BY THE SPECIALTY ENGINEER COMPLY WITH THE CRITERIA SET FORTH IN THE CONTRACT DOCUMENTS AND APPLICABLE CODES AND STANDARDS. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE ADEQUACY OF DESIGNS PROVIDED BY OTHERS.
- FOR ALL SUBMITTALS, ANY CORRECTIONS NOTED WILL BE MARKED ON ONE (1) COPY SET ONLY AND RETURNED. ADDITIONAL COPIES OF ANY SUBMITTAL WILL BE RETURNED UNMARKED. CONTRACTOR SHALL BE RESPONSIBLE FOR REPRODUCING ENGINEER'S CORRECTIONS ON ADDITIONAL COPIES REQ'D. ONE COPY SET MAY BE RETAINED FOR THE ENGINEER'S RECORDS. ALLOW FIVE (5) TO TEN (10) WORKING DAYS FOR THE ENGINEER'S REVIEW.
- REFER TO APPLICABLE G.S.N. SECTIONS FOR FURTHER REQUIREMENTS SPECIFIC TO INDIVIDUAL SUBMITTALS.

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		<p>HYDE PARK CITY CITY HALL WELL HOUSE ABBREVIATIONS AND LEGEND</p>			
SEI NO. 10660	DESIGNED SDW	DRAWN	CHECKED SDW	SHEET NO. 26 of 72	ST2



A FOOTING & FOUNDATION PLAN
SCALE: 1/4" = 1'-0" (22x34)
1/8" = 1'-0" (11x17)

CONCRETE WALL SCHEDULE					
MARK	THICKNESS	HEIGHT	VERT. REINFORCING	HORIZ. REINFORCING	TOP OF WALL ELEV.
CW1	8"	2'-0"	#4 AT 9" O.C. CENTERED	#4 AT 9" O.C. CENTERED	4586.40'
CW2	8"	1'-0"	#4 AT 9" O.C. CENTERED	#4 AT 9" O.C. CENTERED	4585.90'
CP1	1'-0"	2'-0"	SEE DETAIL 209/ST7	SEE DETAIL 209/ST7	4586.40'

HOLDDOWN SCHEDULE				
MARK	TYPE	NAILING	ANCHOR BOLT	MIN. BOLT EMBED.
AA	LSTD8	(16) 10d x 3.25"	N/A	N/A
BB	SDHD14	(24) 10d x 3.25"	N/A	N/A

FOOTING SCHEDULE					
MARK	WIDTH	LENGTH	THICKNESS	REINFORCEMENT	BOT. OF FOOTING ELEV.
F1	2'-0"	CONT.	12"	#4@9" AT BOTTOM	4583.40'
F2	2'-0"	2'-0"	12"	(4) #4 E.W. AT BOTTOM	4583.40'

COLUMN SCHEDULE				
MARK	SIZE	BASEPLATE TYPE	BASEPLATE DIM.	ANCHOR BOLT
C1	6"x6"	ABU POST BASE	ABU66Z	1/2" DIA. TITEN HD SCREW ANCHOR W/ 6" MIN. EMBED. INTO CONC.

- SEE TYPICAL BASEPLATE DETAIL 104/ST7 FOR ADDITIONAL INFORMATION
- ANCHOR RODS SHALL BE ASTM F1554 GRADE 36 ALL-THREAD RODS WITH A MIN. OF 9" EMBED. INTO THE CONC. PIER
- ALL 6"x6" WOOD POSTS TO BE WRAPPED IN WHITE ALUMINUM FASCIA.

- ### FOUNDATION REQUIREMENTS
- VERIFY LOCATION AND SIZE OF ALL INSERTS AND OPENINGS IN SLAB, WALLS, AND FLOORS WITH ARCH'L, MECH, PLUMBING, AND ELECT. PRIOR TO CONSTRUCTION.
 - ALL FOOTINGS AND SLABS SHALL BE PLACED ON STRUCTURAL FILL AS DEFINED IN THE GEOTECHNICAL REPORT. THE MOISTURE CONTENT OF STRUCTURAL FILL SHOULD BE CONDITIONED TO NEAR OPTIMUM WATER CONTENT, PLACED IN UNIFORM LIFTS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS, AND COMPACTED PER REQUIREMENTS OF THE GEOTECHNICAL REPORT.
 - ALL STANDARD WALL FOOTINGS SHALL EXTEND TO AT LEAST 30 INCHES BELOW FINISHED GRADE FOR FROST PROTECTION.
 - F1, F2, F3, ETC... DENOTES FOOTING PER FOOTING SCHEDULE ON THIS SHEET.
 - CW1, CW2, CW3, ETC... DENOTES CONCRETE WALL PER CONCRETE WALL SCHEDULE ON THIS SHEET.
 - CONCRETE CONTROL JOINTS SHOULD BE AS SHOWN ON THESE PLANS AND PER DETAIL 104 ON SHEET ST6.
 - CONCRETE CONTRACTOR TO REFER TO SHEET ST8 FOR REQUIRED REINFORCEMENT TO MATCH MASONRY REINFORCEMENT.
 - PLACE SLABS ON GRADE OVER VAPOR BARRIER (AS REQ'D) PER THE GEOTECHNICAL REPORT.
 - FOR SMALL PIPES/CONDUITS, THROUGH FOUNDATION WALLS AND FOOTINGS, SEE DETAIL 103 ON SHEET ST6.
 - CONCRETE LAP SPLICE REQUIREMENTS PER DETAIL 102 ON SHEET ST6.

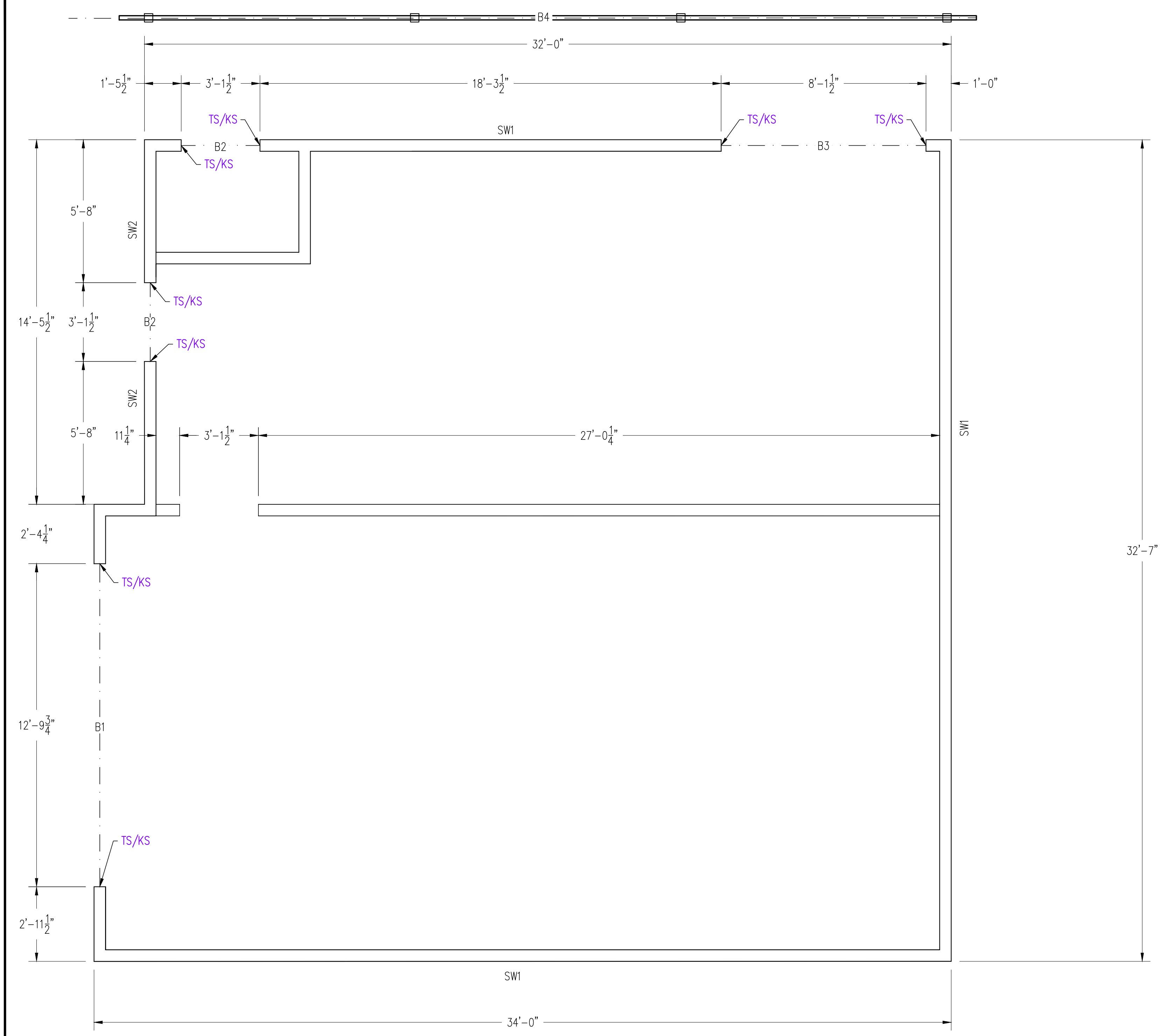
1/23/25
No. 13194235-2202
MARISSA RUNOLFSON
STATE OF UTAH

SUNRISE ENGINEERING

2100 NORTH MAIN STREET
NORTH LOGAN, UTAH 84341
TEL. 435.563.3734
www.sunrise-eng.com

**HYDE PARK CITY
CITY HALL WELL HOUSE
FOOTING & FOUNDATION PLAN**

SET NO. 10660	DESIGNED SDW	DRAWN	CHECKED SDW	SHEET NO. 27 of 72	ST3
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FRAMING REQUIREMENTS

- F1. NOTIFY ENGINEER OF RECORD FOR PENETRATIONS THROUGH BEAMS, JOISTS, COLUMNS AND OTHER STRUCTURAL MEMBERS. PENETRATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE ENGINEER AND MANUFACTURER OF THE STRUCTURAL ELEMENT.
- F2. ALL BEAMS, HEADERS, JOISTS, AND TRUSSES SHALL HAVE SUFFICIENT BEARING AREA PER REQUIREMENTS OF THE AMERICAN WOOD COUNCIL NATIONAL DESIGN SPECIFICATION (NDS) 2018. ALL BEARING POINTS SHALL HAVE A CONTINUOUS LOAD PATH TO FOUNDATIONS. FRAMING NAILING SHALL BE PER DETAIL 208 ON ST7.
- F3. ALL FINISHES SHALL BE PER THE ARCHITECT, CONTRACTOR, AND OWNER. ENGINEER OF RECORD IS NOT RESPONSIBLE FOR WATER PROOFING AND CORROSION PROTECTION OF STRUCTURAL ELEMENTS. THIS RESPONSIBILITY FALLS SOLELY UPON THE CONTRACTOR AND ARCHITECT.
- F4. ALL HARDWARE SHOWN ON THE PLANS SHALL BE SIMPSON STRONG TIE OR APPROVED EQUAL. SEE G.S.N. FOR REQUIREMENTS.
- F5. DOUBLE 2x BEAMS SHOULD BE STITCHED TOGETHER PER MFR. RECOMMENDATIONS.
- F6. B1, B2, B3, ETC... DENOTES THE TYPE OF BEAM OR HEADER PER THE BEAM/HEADER SCHEDULE.
- F7. AA, BB, CC, ETC... DENOTES THE TYPE OF SHEAR WALL HOLDOWN PER THE HOLDOWN SCHEDULE.
- F8. KS = KING STUD, TS = TRIMMER STUD, TP = TRIMMER POST, ES = END STUD, EP = END POST. PROVIDE A MINIMUM OF (1) KS AND (1) TS AT ALL OPENINGS, U.N.O. ON PLAN OR IN BEAM SCHEDULE ON THIS SHEET. PROVIDE CONTINUOUS BEARING TO THE FOUNDATION FOR (2) TS OR GREATER.
- F9. EXTERIOR STUD WALLS SHALL BE 2x6 AT 16" O.C. 2x6 STUDS MAY BE REPLACED BY MANUFACTURED STUD OF EQUAL OR GREATER DIMENSIONS. BOTTOM PLATES SHALL BE 2x"WALL WIDTH" TREATED LUMBER CONNECTED TO THE FOUNDATION WITH 1/2" DIA. ANCHOR BOLTS AT 32" O.C. WITH 7" MINIMUM EMBEDMENT INTO CONCRETE, U.N.O. IN SHEAR WALL SCHEDULE. ANCHOR BOLTS IN SHEAR WALLS REQUIRE 0.25"x3"x3" SQUARE PLATE WASHERS.

SHEAR WALL SCHEDULE

MARK	WALL	PLY/OSB THICK	FASTENERS FIELD	FASTENERS EDGE	BLOCK AT ADJOINING PANEL EDGES	BOTTOM PLATE & ANCHOR BOLTS/NAILING	END STUDS
SW1	2x6	7/16"	10d AT 12" O.C.	10d AT 6" O.C.	2x6	2x6 W/ 1/2" DIA. A.B. AT 32" O.C. AT FOUND. 2x6 W/ 16d AT 4" O.C. AT FRAMING	(2) 2x6 STUDS
SW2	2x6	7/16"	10d AT 12" O.C.	10d AT 3" O.C.	(2) 2x6	2x6 W/ 1/2" DIA. A.B. AT 32" O.C. AT FOUND. 2x6 W/ 16d AT 4" O.C. AT FRAMING	(2) 2x6 STUDS

BEAM SCHEDULE

MARK	TYPE	SIZE	TRIMMER STUDS/POST	KING STUDS/POST
B1	LVL	(2) 1.75X9.25	(2) 2X6	(3) 2X6
B2	DFL #2	(2) 2X8	(1) 2X6	(1) 2X6
B3	LVL	(2) 1.75X18	(2) 2X6	(2) 2X6
B4	LVL	1.75X7.25	-	-

A WALL FRAMING PLAN
 SCALE: 1/4" = 1'-0" (22x34)
 1/8" = 1'-0" (11x17)

1/23/25
 No. 13194235-2202
 MARISSA RUNOLFSON
 STATE OF UTAH

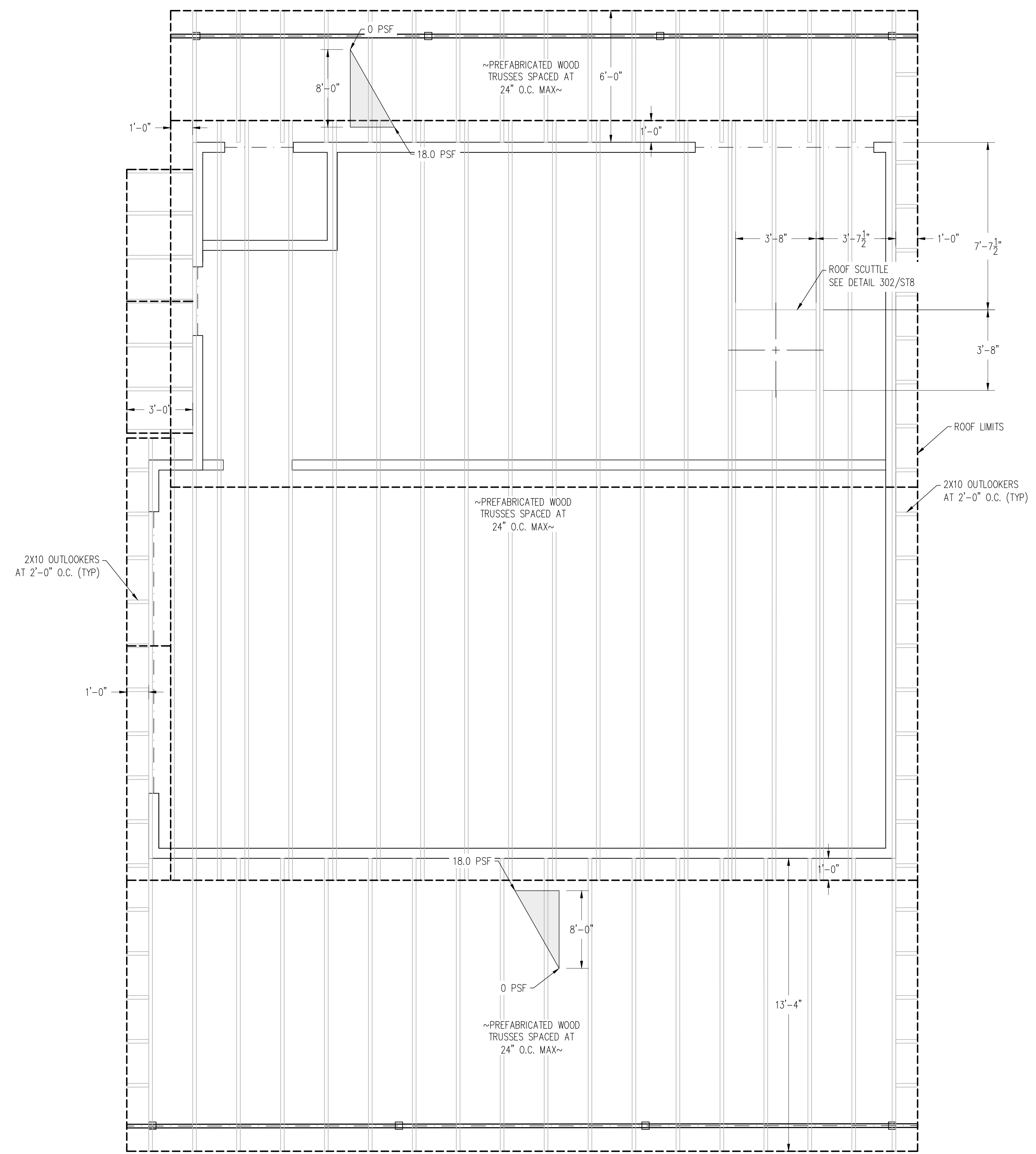
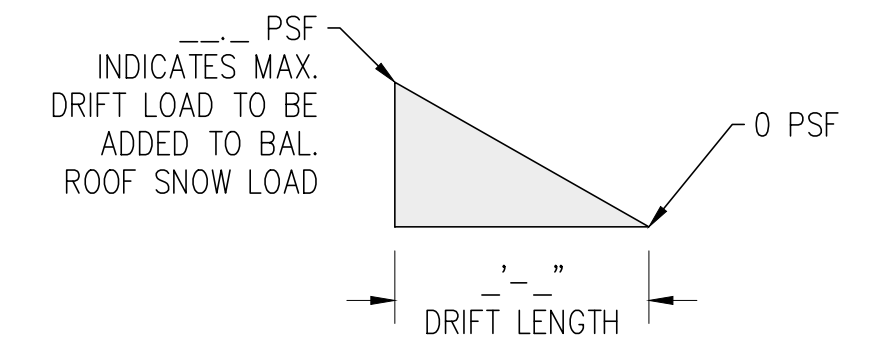
SUNRISE ENGINEERING
 2100 NORTH MAIN STREET
 NORTH LOGAN, UTAH 84341
 TEL 435.563.3734
 www.sunrise-eng.com

HYDE PARK CITY
CITY HALL WELL HOUSE
FLOOR FRAMING PLAN

SEI NO. 10660	DESIGNED SDW	DRAWN	CHECKED SDW	SHEET NO. 28 of 72	ST4
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ROOF FRAMING REQUIREMENTS

- R1. NOTIFY ENGINEER OF RECORD FOR PENETRATIONS THROUGH BEAMS, JOISTS, COLUMNS AND OTHER STRUCTURAL MEMBERS. PENETRATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE ENGINEER AND MANUFACTURER OF THE STRUCTURAL ELEMENT.
- R2. ALL BEAMS, HEADERS, JOISTS, AND TRUSSES SHALL HAVE SUFFICIENT BEARING AREA PER REQUIREMENTS OF THE AMERICAN IRON AND STEEL INSTITUTE (AISI). ALL BEARING POINTS SHALL HAVE A CONTINUOUS LOAD PATH TO FOUNDATIONS.
- R3. ALL FINISHES SHALL BE PER THE OWNER. ENGINEER OF RECORD IS NOT RESPONSIBLE FOR WATER PROOFING AND CORROSION PROTECTION OF STRUCTURAL ELEMENTS. THIS RESPONSIBILITY FALLS SOLELY UPON THE CONTRACTOR .
- R4. ALL HARDWARE SHOWN ON THE PLANS SHALL BE SIMPSON STRONG TIE OR APPROVED EQUAL. SEE G.S.N. FOR REQUIREMENTS.
- R5. B1, B2, B3, ETC... DENOTES THE TYPE OF BEAM OR HEADER PER THE BEAM/HEADER SCHEDULE.
- R6. SW1, SW2, SW3, ETC... DENOTES THE TYPE OF SHEAR WALL PER THE SHEAR WALL SCHEDULE.
- R7. KS = KING STUD, TS = TRIMMER STUD, TP = TRIMMER POST, ES = END STUD, EP = END POST. PROVIDE A MINIMUM OF (1) KS AND (2) TS AT ALL OPENINGS, U.N.O. PROVIDE CONTINUOUS BEARING TO THE FOUNDATION FOR (2) TS OR GREATER.
- R8. WHERE NOT DESIGNATED AS A SHEAR WALL, ALL EXTERIOR WALLS SHALL BE SHEATHED PER SW1 OF THE SHEAR WALL SCHEDULE.
- R9. ALL MAN DOORS SHALL BE 3068 HOLLOW METAL INSULATED DOORS, ALL ROLL-UP DOORS SHALL BE 8070 HOLLOW METAL INSULATED DOORS W/ HARDWARE PER THE MANUFACTURER.
- R10. DRIFT LOADS SHALL BE AS INDICATED ON THE PLANS BY THE FOLLOWING SYMBOL AND NOTATIONS AS SHOWN BELOW:

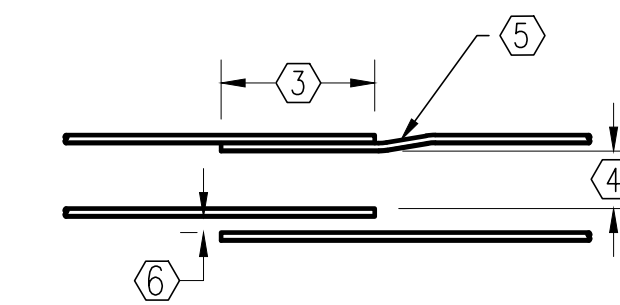


A ROOF FRAMING PLAN
 SCALE: 1/4" = 1'-0" (22x34)
 1/8" = 1'-0" (11x17)

2100 NORTH MAIN STREET NORTH LOGAN, UTAH 84341 TEL 435.563.3734 www.sunrise-eng.com		SUNRISE ENGINEERING	
HYDE PARK CITY CITY HALL WELL HOUSE ROOF FRAMING PLAN			
SEI NO. 10660	DESIGNED SDW	DRAWN SDW	CHECKED SDW
SHEET NO. 29 of 72		ST5	

CONCRETE LAP AND DEVELOPMENT SCHEDULE

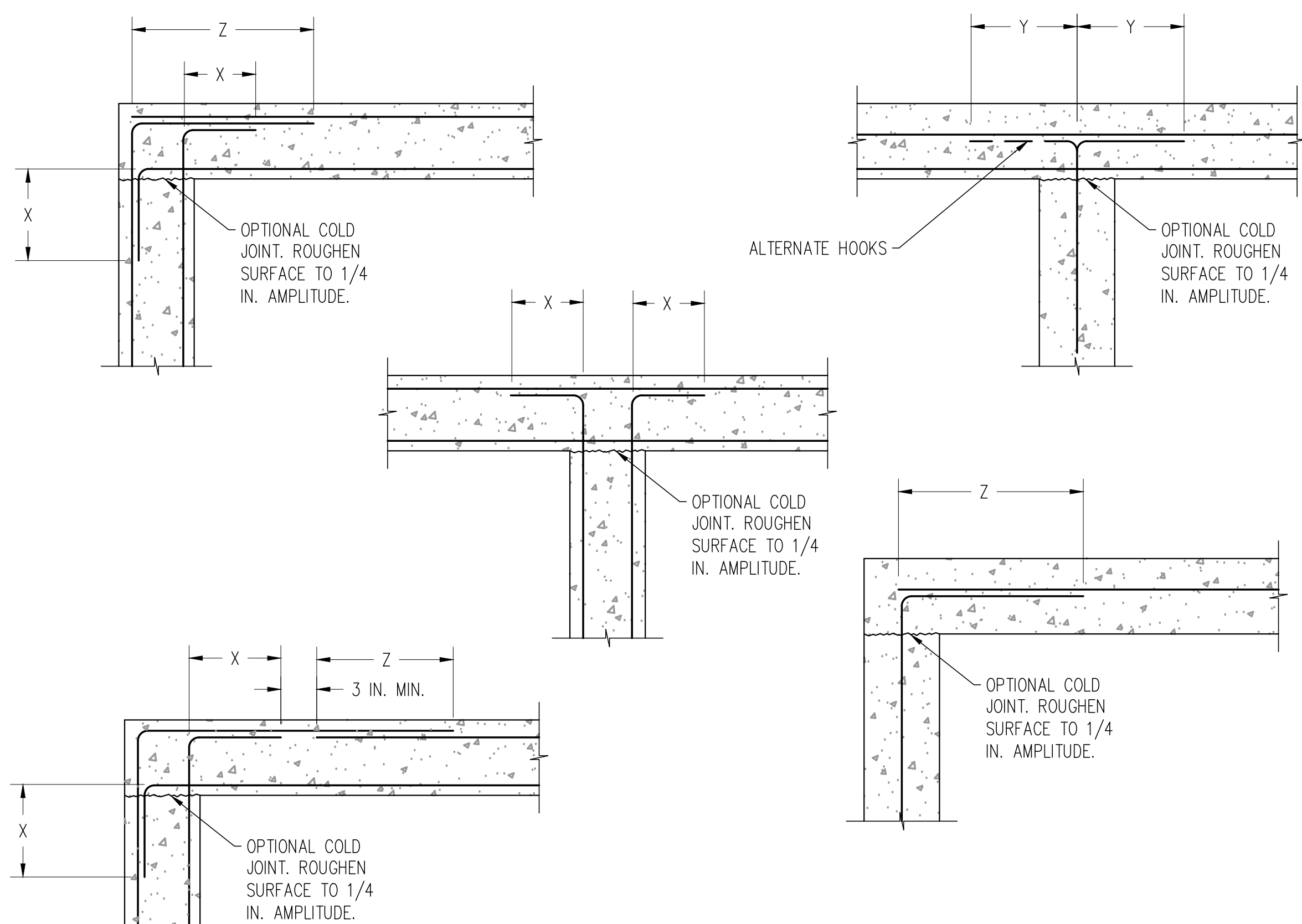
BAR SIZE (#)	TENSION			
	LTE TOP ①	LTE OTHER	LTS TOP ①	LTS OTHER
#3	15	12	20	15
#4	20	16	26	20
#5	25	19	32	25
#6	30	23	39	30
#7	54	42	71	54
#8	62	48	81	62



CONCRETE LAP AND DEVELOPMENT NOTES

- A. ALL TABULATED VALUES ARE IN UNITS OF INCHES U.N.O.
- B. AT CONTRACTOR'S OPTION, MECHANICAL SPLICE COUPLERS PER G.S.N. MAY BE USED IN LIEU OF LAP SPLICES
- C. SEE G.S.N. FOR ACTUAL CONCRETE SPECIFICATIONS AND MIN. CLR. COVER / CLR. SPACING REQUIREMENTS
- D. SCHEDULED VALUES ARE BASED ON CLASS "B" TENSION LAP SPLICES U.N.O., NORMAL WT. CONCRETE, AND UNCOATED GRADE 60 REINF. FOR OTHER CONDITIONS NOTED BELOW, MODIFY TABULATED VALUES AS INDICATED:
 - E.1. FOR DEVELOPMENT LENGTH AND CLASS "A" LAP SPLICES, WHERE SPECIFICALLY NOTED ON PLANS OR DETAILS, DIVIDE TABULATED VALUES BY 1.3.
 - E.2. FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABULATED VALUES BY 1.3
 - E.3. FOR EPOXY COATED REBAR, MULTIPLY TABULATED VALUES BY 1.5
 - E.4. FOR GRADE 75 REINF., MULTIPLY TABULATED VALUES BY 1.25
- F. LCE = COMPRESSION EMBEDMENT LENGTH
LCS = COMPRESSION LAP SPLICE LENGTH
LTE = TENSION EMBEDMENT LENGTH
LTS = TENSION LAP SPLICE LENGTH
- G. "TOP" BARS ARE HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 IN. OF FRESH CONCRETE IS CAST BELOW BAR. ALL BARS THAT ARE NOT "TOP" BARS ARE "OTHER" BARS UNLESS NOTED OTHERWISE ALL HOOKS SHALL EXTEND TO THE FAR FACE (LESS 2" COVER)

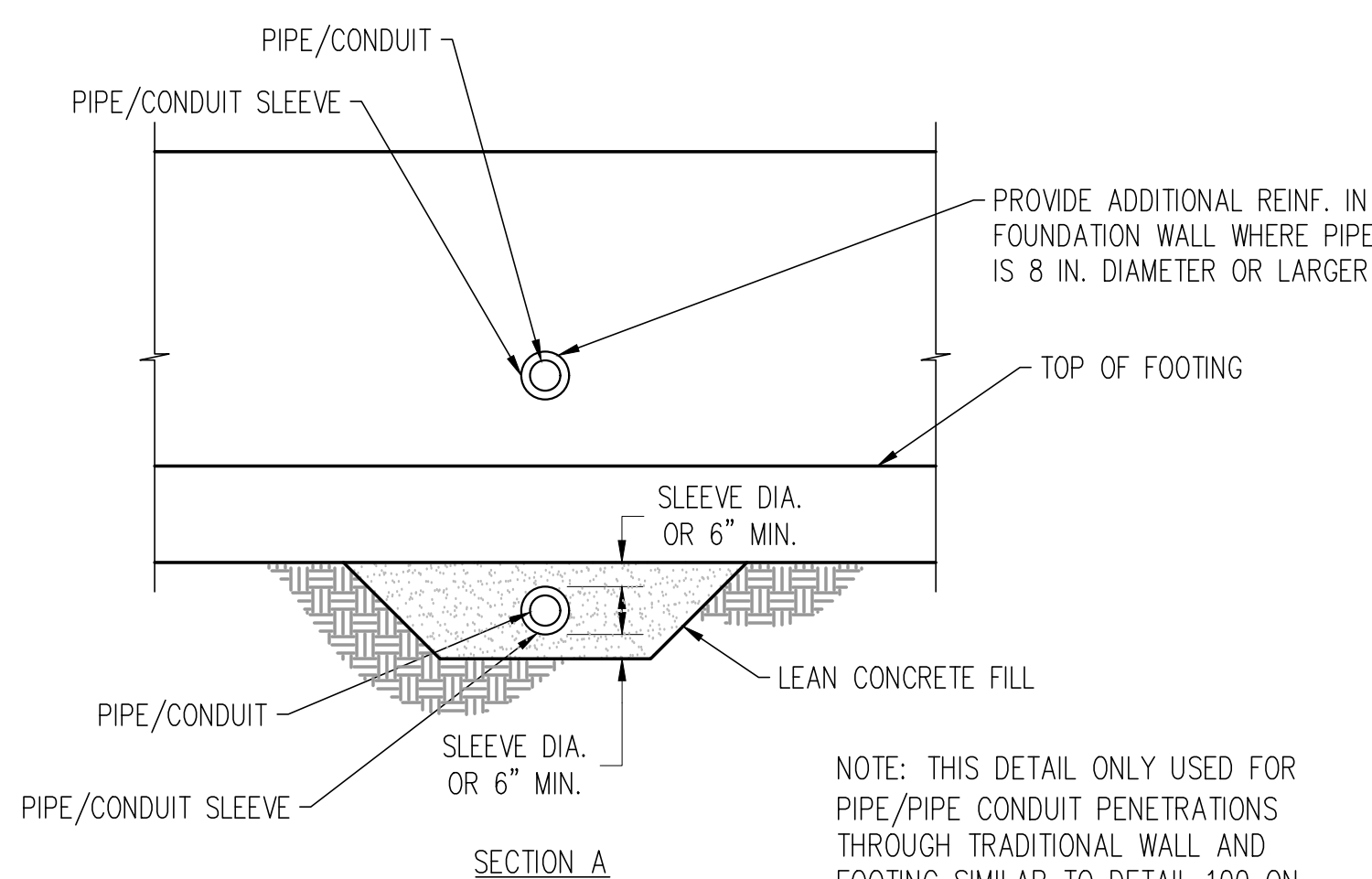
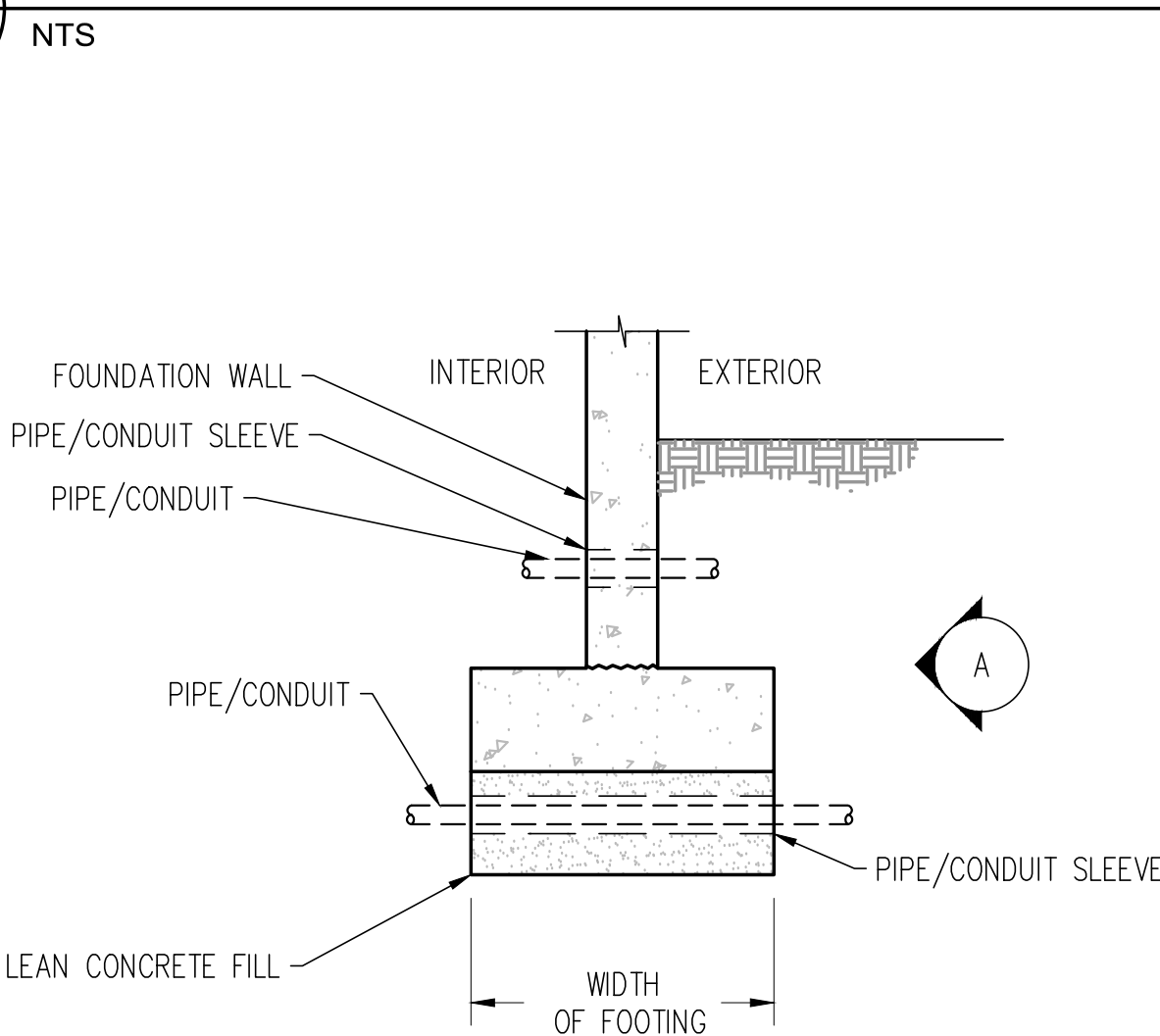
- ① TOP BARS ARE HORIZ. BARS PLACED SUCH THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN MEMBER BELOW SPLICE
- ② WHERE BARS OF UNEQUAL SIZE LAP ONE ANOTHER, USE TABULATED LAP LENGTH FOR SMALLER BAR U.N.O.
- ③ LAP SPLICE LENGTH PER SCHEDULE
- ④ CLEAR DISTANCE BETWEEN ADJACENT BARS OR SPLICES TO BE USED IN DETERMINING APPLICABLE LAP LENGTH FROM SCHEDULE
- ⑤ OPTIONAL OFFSET. SEE STANDARD REBAR BEND DETAILS FOR OFFSET REQUIREMENTS
- ⑥ FOR NON-CONTACT LAP SPLICES, MIN. CLEAR DISTANCE BETWEEN SPLICED BARS SHALL BE PER GENERAL STRUCTURAL NOTES. MAX. CLEAR DISTANCE SHALL BE 1/5 THE TABULATED LAP LENGTH OR (6" - "DB"), WHICHEVER IS LESS, WHERE "DB" = BAR DIA.



BAR SIZE (#)	GRADE 40		GRADE 60		BAR SIZE (#)	GRADE 40		GRADE 60	
	Y	Z	Y	Z		Y	Z	Y	Z
#4	12"	20"	12"	20"	#7	18"	31"	23"	39"
#5	12"	20"	15"	26"	#8	25"	39"	30"	51"
#6	13"	22"	18"	31"	#9	29"	49"	38"	65"

- 1. REFER TO STD. HOOK DETAIL FOR LENGTH OF DIMENSION "X"
- 2. THIS DETAIL TO BE USED ONLY WHEN NO OTHER DETAIL IS INDICATED ON THE DRAWINGS.

101 HORIZONTAL REINF. AT WALL INTERSECTIONS



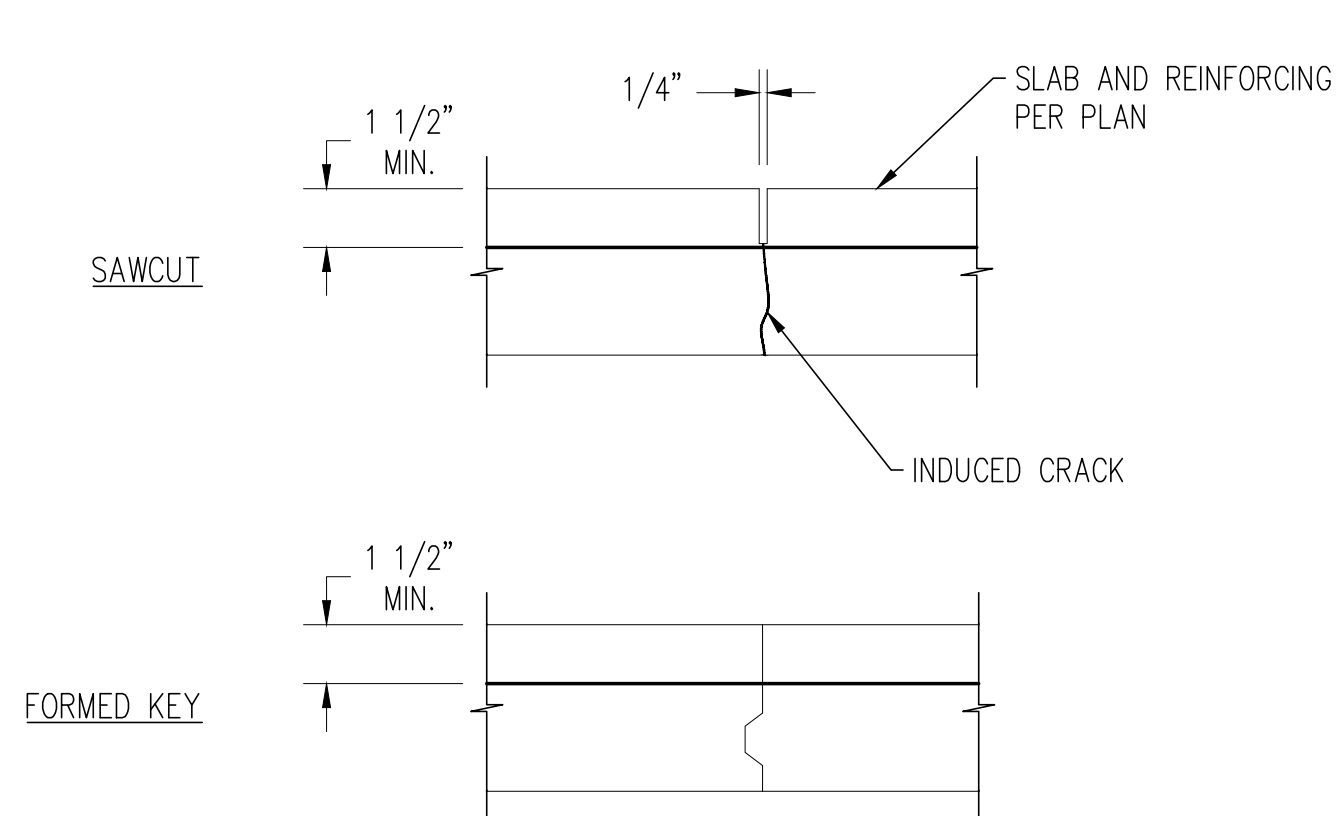
NOTE: THIS DETAIL ONLY USED FOR PIPE/PIPE CONDUIT PENETRATIONS THROUGH TRADITIONAL WALL AND FOOTING SIMILAR TO DETAIL 100 ON SHEET S3.1

103 PIPE CONDUIT AT FOOTING

NTS

102 CONCRETE LAP/DEVELOPMENT SCHEDULE

NTS



- NOTE:
- 1. CONSTRUCTION JOINTS MADE WITH "PNA DIAMOND DOWELS".
 - 2. CONTRACTOR'S OPTION TO USE EITHER SAWN OR FORMED JOINT

104 CONTROL JOINT IN SLAB

NTS

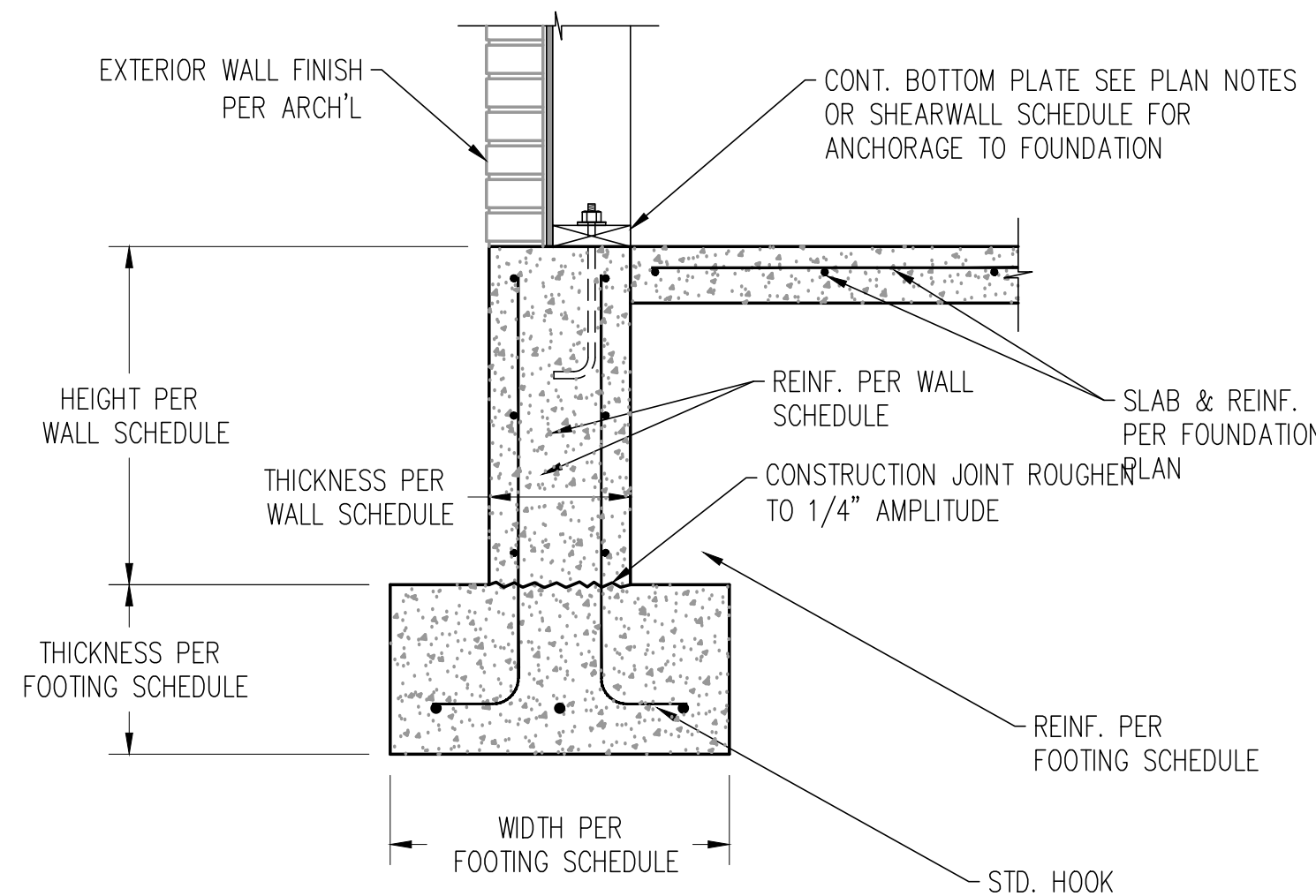
1/23/25
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MARISSA RUNOLFSON
STATE OF UTAH

SUNRISE ENGINEERING

2100 NORTH MAIN STREET
NORTH LOGAN, UTAH 84341
TEL 435.563.3734
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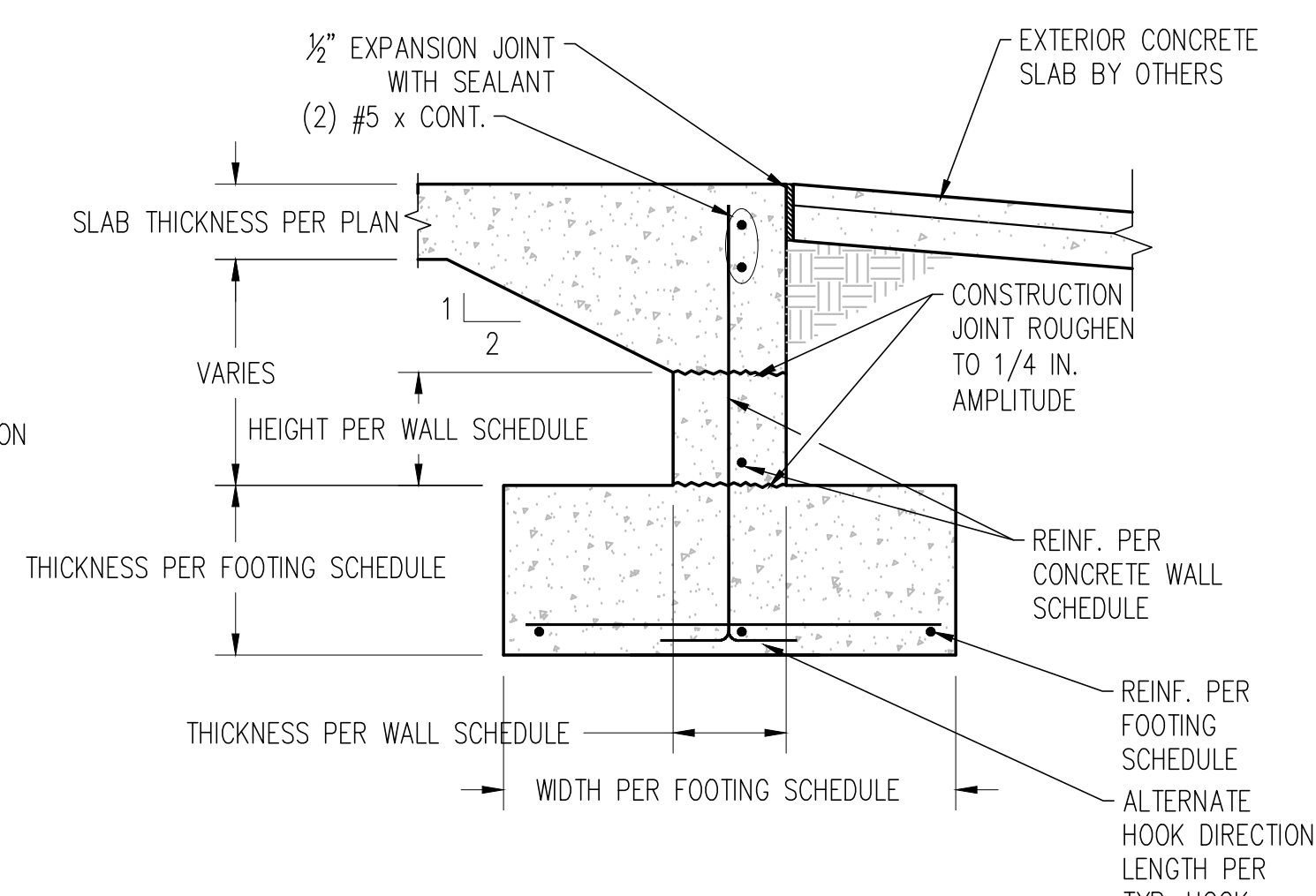
HYDE PARK CITY
CITY HALL WELL HOUSE
STRUCTURAL DETAILS

SET NO. 10660	DESIGNED SDW	DRAWN	CHECKED SDW	SHEET NO. 30 of 72	ST6
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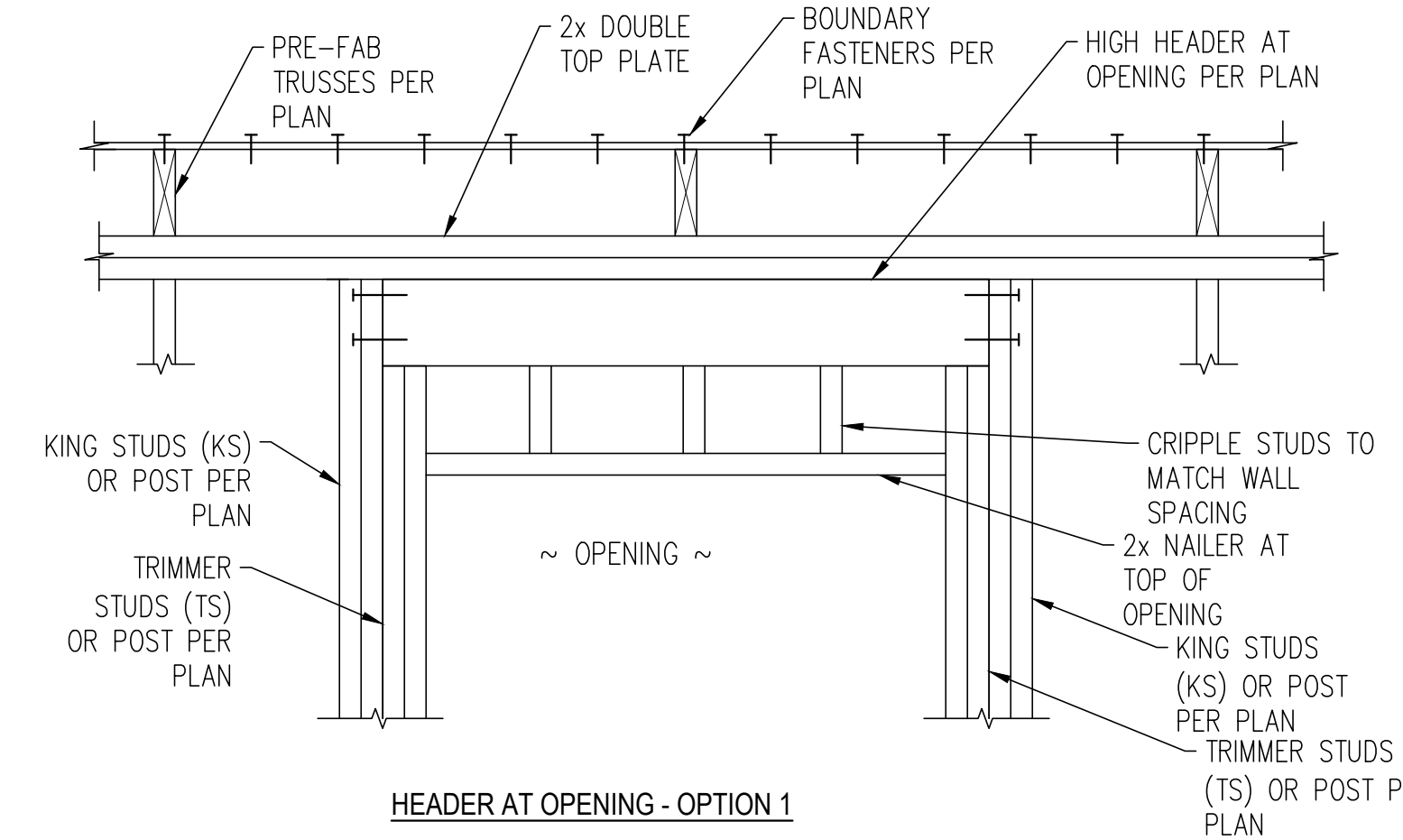
201 CONCRETE STEM WALL AT FOOTING

NTS



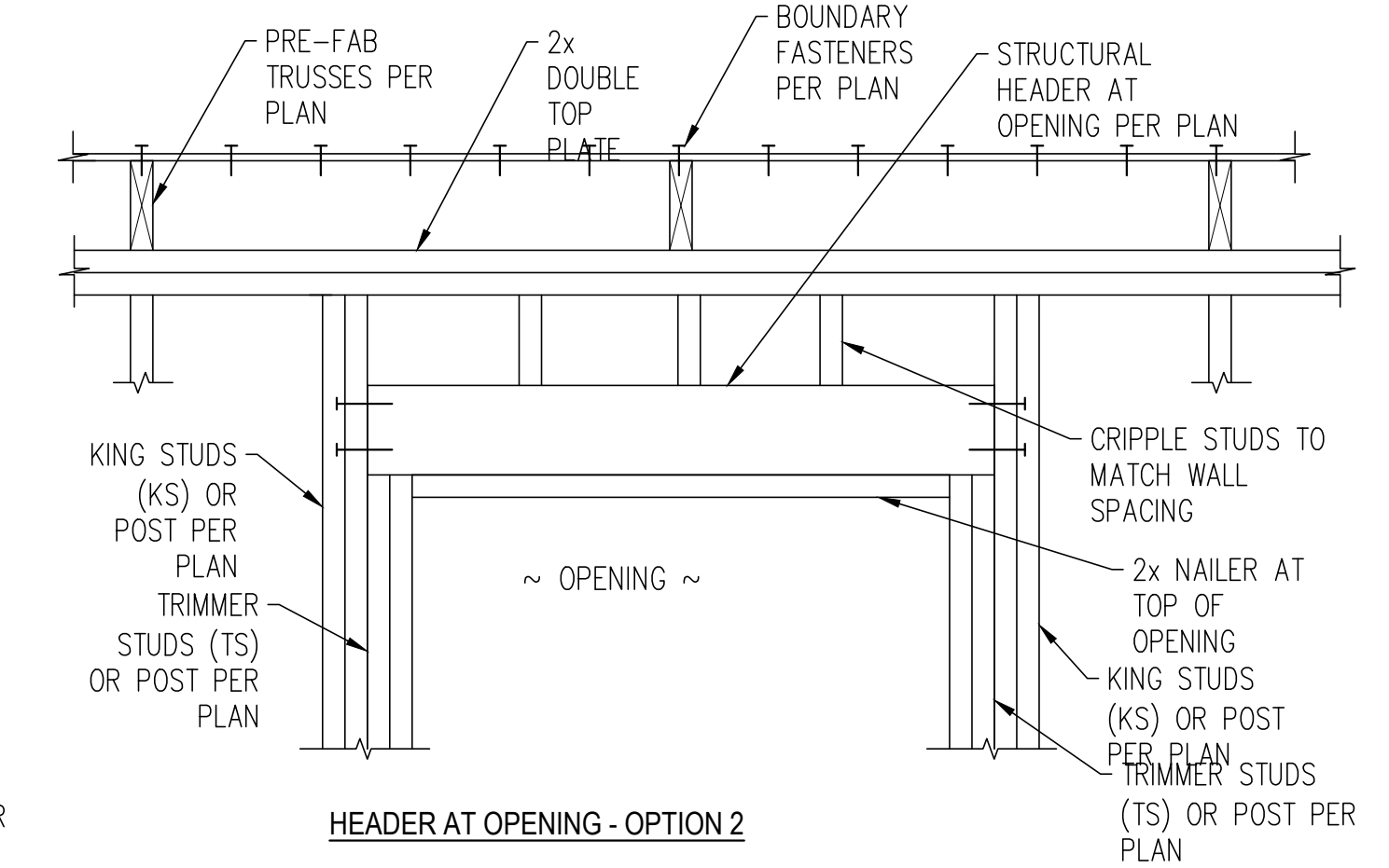
202 CONCRETE STEM WALL AT OPENING

NTS

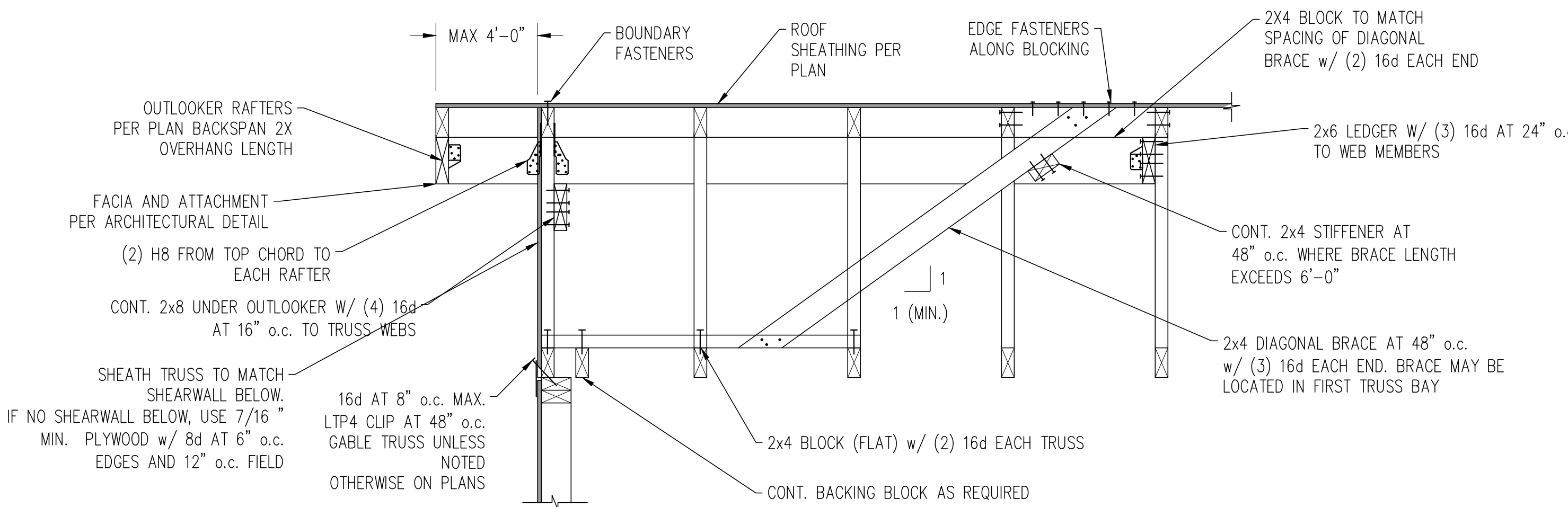


203 FRAMING AT STRUCT. HEADER

NTS

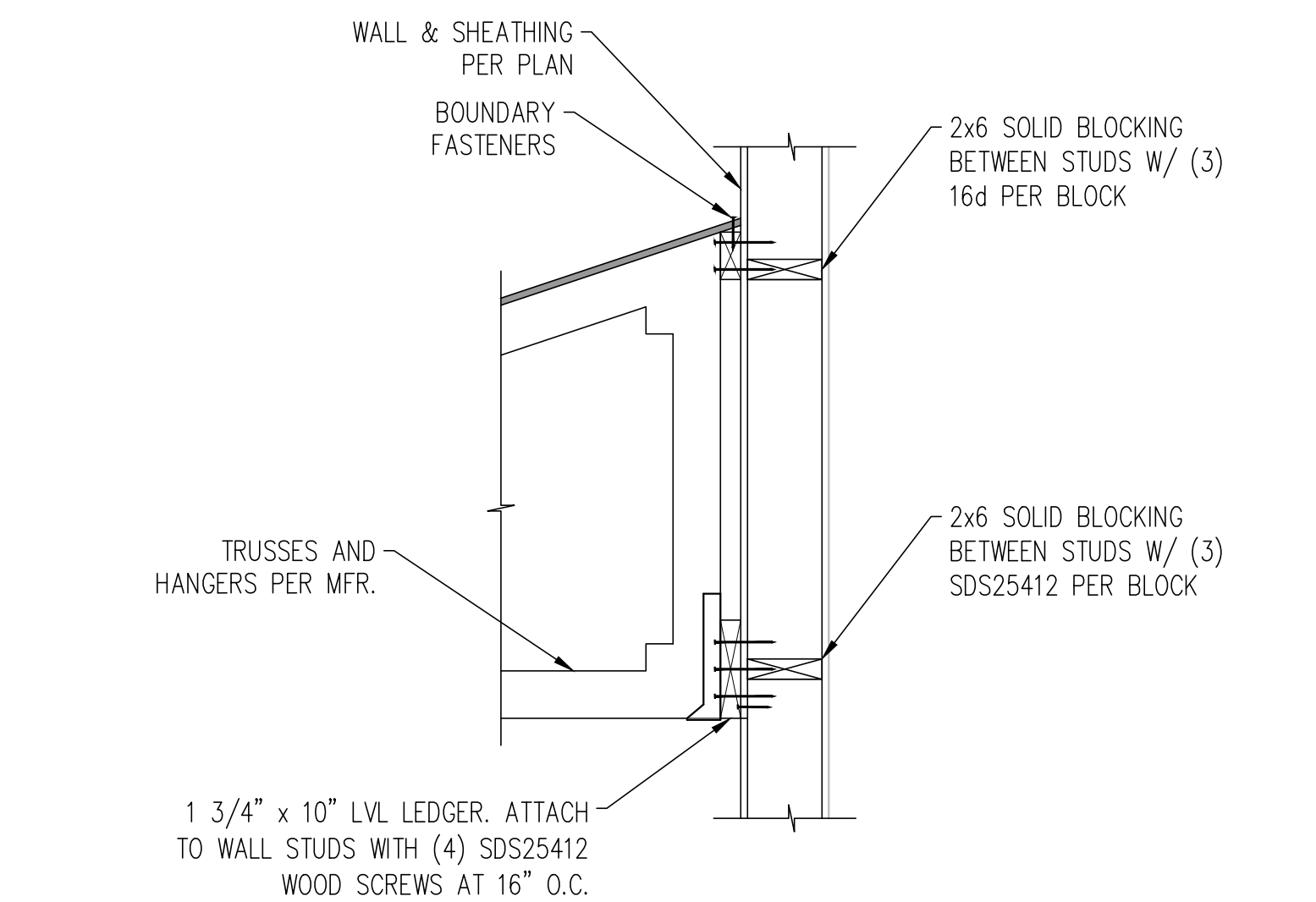


NOTE: (1) TRIMMER STUD AND (1) KING STUD REQUIRED WHERE NOT NOTED ON PLAN



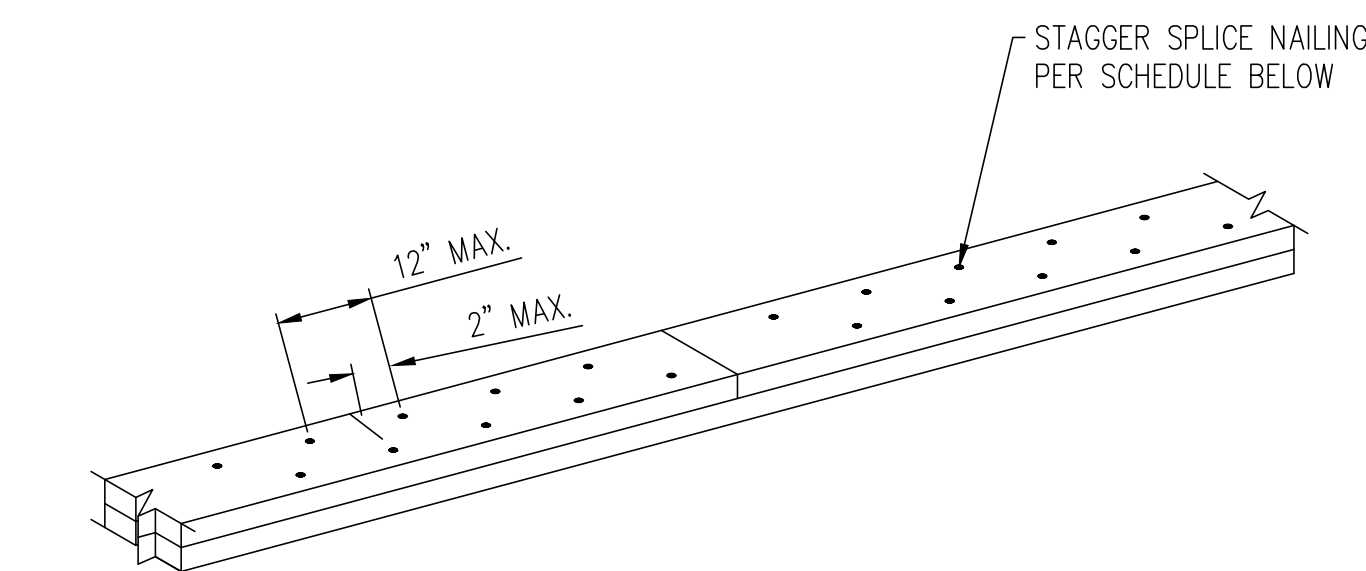
204 END WALL TRUSS

NTS



207 TRUSSES AT EXTERIOR WALL

NTS

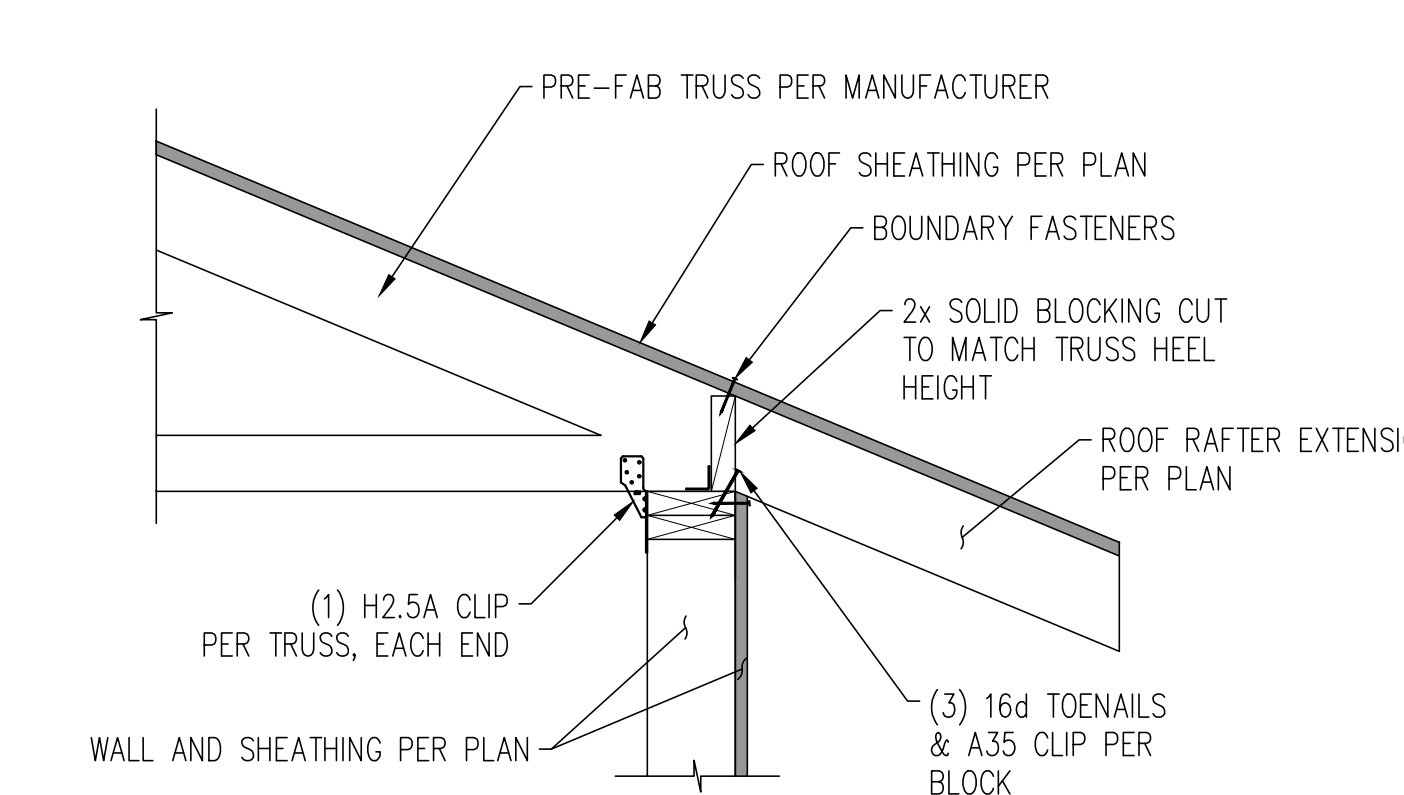


TOP PLATE	# OF NAILS EA. SIDE OF SPLICE
2x4	32
2x6	44
2x8	54

OF NAILS REPRESENTS NAILS REQ'D TO EQUAL STRENGTH OF TOP PLATE

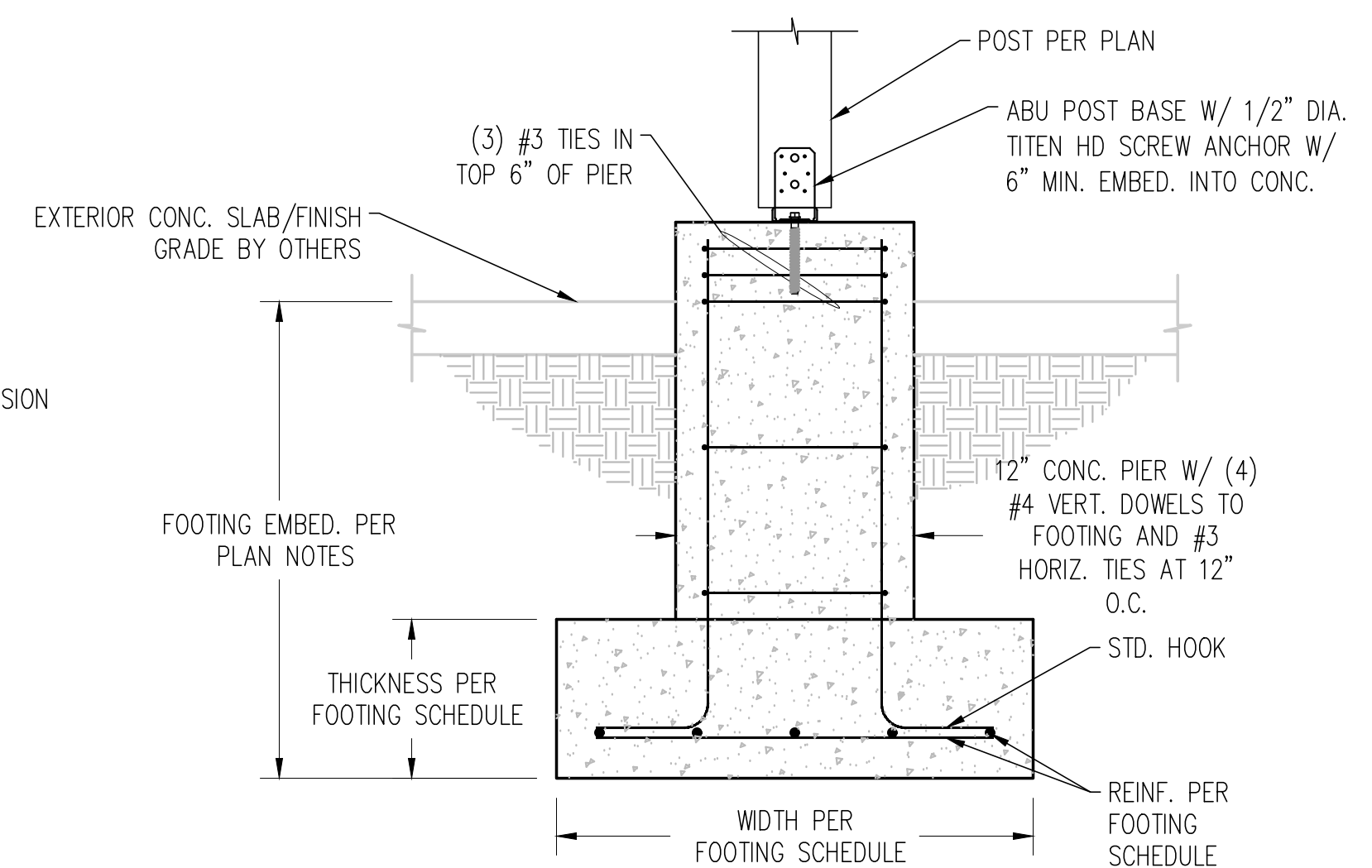
205 TOP PLATE SPLICE TYP.

NTS



206 TRUSS TO WALL CONN.

NTS



209 CONCRETE PIER AT FOOTING

NTS

NAILING SCHEDULE	
CONNECTION	MINIMUM NAILING, ONE ON PLANS OR DETAILS
JOIST OR TRUSS TO TOP PLATE SILL, ETC.	(3) 16d or (3) x 0.131" TOENAIL
BRIDGING TO JOIST	(2) 8d COMMON OR (2) 3" x 0.131" TOENAIL EA. END
BOTTOM PLATE TO JOIST OR BLOCKING (AT SHEAR WALLS, SEE SHEAR WALL NAIL SCHEDULE)	16d AT 16" o.c. OR 3" x 0.131" AT 8" o.c.
TOP AND BOTTOM PLATE TO POST	(2) 16d COMMON, (3) 3" x 0.131", END NAIL
TOP PLATE TO STUD	(2) 16d COMMON, (3) 3" x 0.131", END NAIL
STUD TO BOTTOM PLATE	TOENAILS: (4) 8d COMMON OR (4) 3" x 0.131", (4) 16d AT 3x AND LARGER. END NAILS: (2) 16d COMMON OR (3) 3" x 0.131", (2) 20d AT 3x
DOUBLE OR MULTIPLE BUILT-UP STUDS (POSTS)	(2) 16d COMMON AT 16" o.c., OR (3) 3" x 0.131", AT 8" o.c., FACE NAIL
DOUBLE OR MULTIPLE TOP PLATES	(2) 16d COMMON AT 16" o.c., OR (3) 3" x 0.131", AT 12" o.c., FACE NAIL
BLOCKING BTWN. JOIST OR RAFTERS TO TOP PLATE	(3) 16d COMMON, (3) 3" x 0.131", TOENAIL
RIM JOISTS TO TOP PLATE	16d AT 6" o.c. OR 3" x 0.131" AT 6" o.c., TOENAIL
TOP PLATES, LAPS & INTERSECTIONS	(2) 16d COMMON OR (3) 3" x 0.131", FACE NAIL
CONT. HEADER, TWO OR MORE LAMINATIONS	16d COMMON AT 16" o.c. ALONG EACH EDGE
CEILING JOIST TO PLATE	(3) 16d OR (5) 3" x 0.131", FACENAIL
CONT. HEADER TO INTERMEDIATE SUPPORT(S)	(4) 8d COMMON TOENAIL/CEILING JOISTS
LAPS OVER PARTITIONS	(3) 16d OR (4) 3" x 0.131", FACENAIL
CEILING JOISTS TO PARALLEL RAFTERS	(3) 16d OR (4) 3" x 0.131", FACENAIL
RAFTER OR TRUSS TO PLATE	(2) 16d COMMON, (3) 3" x 0.131", TOENAIL
CORNER GT/RAFTER TO PLATE	(4) 16d, TOENAIL/BUILT-UP CORNER STUDS/16d AT 16" o.c. OR 3" x 0.131" AT 16" o.c.

A: SEE PLAN OR GSN FOR TOP PLATE SPLICE CONNECTION
B: MISC. NAILING SHALL BE PER IBC TABLE 2304.5.1

208 TYPICAL NAILING SCHEDULE

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No. 13194235-2202
MARISSA RUNOLFSON
Professional Engineer
STATE OF UTAH

SUNRISE ENGINEERING

2100 NORTH MAIN STREET
NORTH LOGAN, UTAH 84341
TEL 435.563.3734
www.sunrise-eng.com

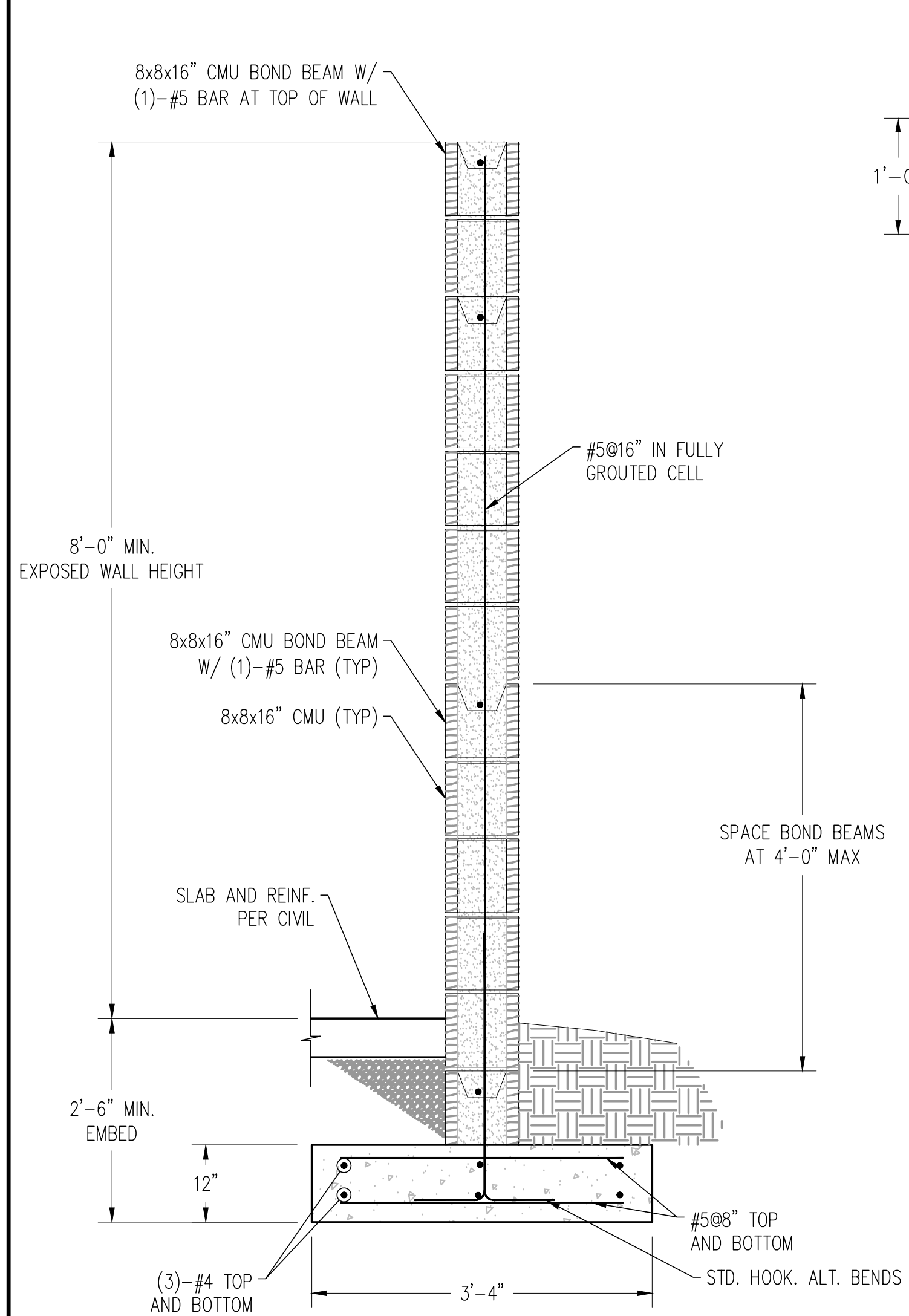
HYDE PARK CITY

CITY HALL WELL HOUSE

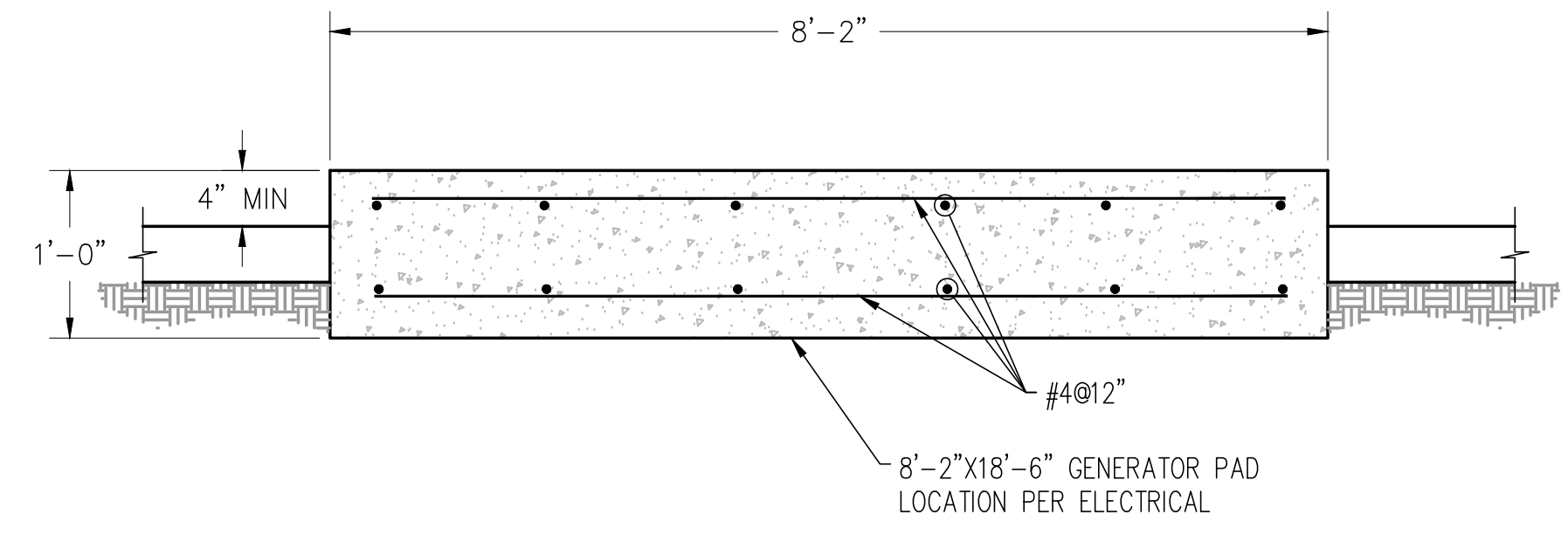
STRUCTURAL DETAILS

SEI NO. 10660	DESIGNED SDW	DRAWN	CHECKED SDW	SHEET NO. 31 of 72	ST7
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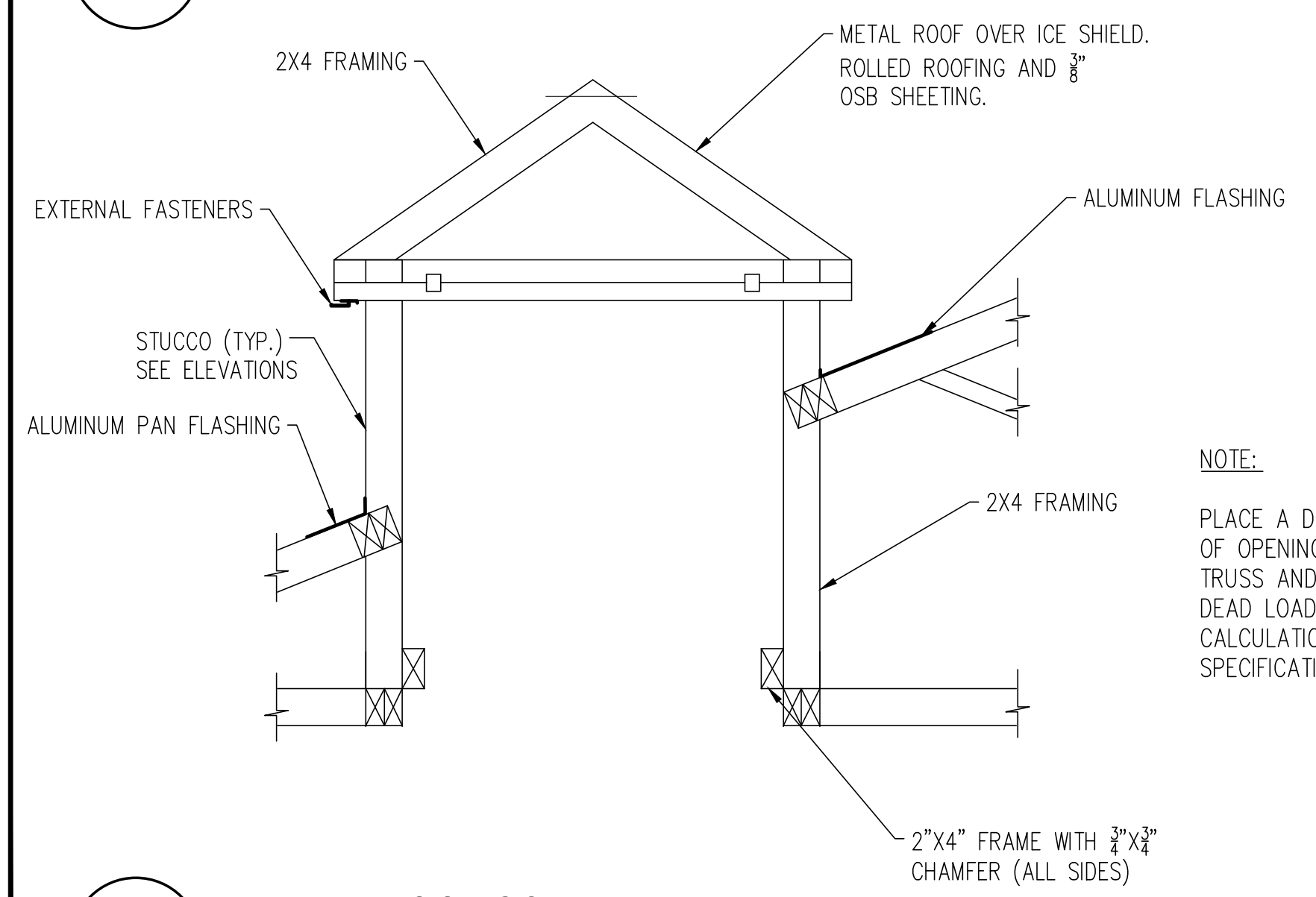
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301 CMU WALL
~
NTS



303 GENERATOR PAD TYPICAL SECTION
TYP NTS



NOTE:
PLACE A DOUBLE TRUSS ON EITHER SIDE
OF OPENING, FASTEN OPENING FRAME TO
TRUSS AND HEADERS, SIZE TRUSS FOR
DEAD LOAD AND VIBRATION. SUBMIT
CALCULATIONS AND SHOP DRAWINGS PER
SPECIFICATION.

302 DETAIL - ROOF SCUTTLE
~
NTS

1/23/25 No. 13194235-2202 MARISSA RUNOLFSON STATE OF UTAH		2100 NORTH MAIN STREET NORTH LOGAN, UTAH 84341 TEL 435.563.3734 www.sunrise-eng.com			
HYDE PARK CITY CITY HALL WELL HOUSE STRUCTURAL DETAILS					
SET NO. 10660	DESIGNED SDW	DRAWN SDW	CHECKED SDW	SHEET NO. 32 of 72	ST8

ELECTRICAL STANDARDS LEGEND
(ALL SYMBOLS MAY NOT BE USED IN DRAWINGS)

	DIRECT BURIED OR CONCRETE EMBEDDED CONDUIT
	CONDUIT RUN EXPOSED
	PROCESS FLOW
	PNEUMATIC SIGNAL
	ELECTRICAL SIGNAL
	PANEL OR ENCLOSURE
	STAND-BY GENERATOR ??? DENOTES SIZE
	GENERATOR MAIN BREAKER XXX DENOTES BREAKER SIZE
	WALL PACK FIXTURE. MOUNTING HEIGHT AS INDICATED IN DRAWINGS
	FLOOD LIGHT 7'-2" ABOVE FLOOR
	EMERGENCY EXIT SIGN 7'-2" ABOVE FLOOR
	EMERGENCY LIGHTING PACK 7'-2" ABOVE FLOOR
	HIGH/LOW BAY LED FIXTURE AS INDICATED IN DRAWINGS AND EQUIPMENT SCHEDULE
	1' X 4' LED FIXTURE AS INDICATED IN DRAWINGS AND EQUIPMENT SCHEDULE
	INDICATOR LAMP - LETTER INDICATES COLOR
	FLASHING BEACON - LETTER INDICATES COLOR
	MOTION SENSOR
	EXHAUST FAN
	OTHER LIGHT FIXTURE AS INDICATED IN DRAWINGS.
	AUDIBLE ALARM OR HORN
	UNDERGROUND JUNCTION/PULLBOX - SIZE 5 UNLESS OTHERWISE INDICATED
	STEEL JUNCTION/PULLBOX
	ELECTRIC MANHOLE
	FUSE; XX - DENOTES AMPERAGE
	120 V GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE
	120 V DUPLEX RECEPTACLE, WP (WEATHERPROOF)

	240 V RECEPTACLE
	DISCONNECT SWITCH
	CIRCUIT BREAKER - UPPER NUMBER INDICATES AMP TRIP RATING - LOWER NUMBER INDICATES POLES
	MOTOR OVERLOAD
	EQUIPMENT GROUND
	LIGHT SWITCH, SINGLE POLE, MOUNT 4'-6" ABOVE FLOOR ON BUILDING WALL
	LIGHT SWITCH, SINGLE POINT MOUNT 4'-6" ABOVE FLOOR ON BUILDING WALL, WEATHER PROOF
	RELAY
	TIMING RELAY
	TIMING DELAY RELAY
	CONTROL RELAY COIL
	MAGNETIC RELAY
	MOMENTARY PUSH-BUTTON SWITCH
	HAND-OFF-AUTO SELECTOR SWITCH
	NORMALLY CLOSED PUSHBUTTON
	NORMALLY OPEN PUSHBUTTON
	RUNNING TIME METER
	MOTOR STARTER - NUMBER INDICATES SIZE
	NORMALLY CLOSED CONTACTS
	NORMALLY OPEN CONTACTS
	CONTACTOR OR STARTER, NUMBER DENOTES NEMA SIZE
	MOTOR - NUMBER INDICATES HORSEPOWER RATING

	FLOW METER
	ELAPSED TIME METER
	LIMIT SWITCH
	INSTRUMENT TRANSFORMER
	CURRENT TRANSFORMER
	POWER TRANSFORMER
	THERMOSTAT
	GROUND FAULT INTERRUPTER
	AUXILIARY CONTACT
	INTERLOCK
	PUMP
	SOLENOID VALVE
	VALVE WITH MANUAL OPERATOR
	ELECTRIC MOTOR OPERATED VALVE (MODULATING OR NON-MODULATING)
	MOTOR OPERATED VALVE WITH LIMIT SWITCH ASSEMBLY
	COMPUTER/CONTROL INPUT
	COMPUTER/CONTROL OUTPUT
	CIRCUIT LABEL: LP1 - PANEL NAME XX - CIRCUIT NUMBER
	EXPLOSION PROOF SEAL OFF
	CONDUIT IDENTIFICATION, REFER TO CONDUIT AND CONDUCTOR SCHEDULE FOR QUANTITY AND FILL: X = CONDUIT TYPE P-POWER C-CONTROL F-FIBER OPTIC CABLE X-OTHER YYY = ID
	OTHER SYMBOLS AS SHOWN ON DRAWINGS

GENERAL ELECTRICAL REQUIREMENTS

1. THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODE ORDINANCES AND REGULATIONS. CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND INSPECTIONS REQUIRED BY THE GOVERNING AUTHORITIES. ALL WORK SHALL BE DONE IN A NEAT, PROFESSIONAL, FINISHED AND SAFE MANNER, UNDER COMPETENT SUPERVISION. INSTALL GROUNDING AND ALL ELECTRICAL WORK AS REQUIRED BY THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AS WELL AS ANY OTHER APPLICABLE CODES.
2. MATERIAL, EQUIPMENT AND INSTALLATION SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS WHICH ARE PART OF THE CONTRACT DOCUMENTS FOR THIS PROJECT.
3. VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND ALL OTHER FACTORS WHICH MAY AFFECT THE EXECUTION OF THIS WORK. INCLUDE ALL RELATED COSTS IN THE INITIAL BID PROPOSAL.
4. ALL MATERIALS SHALL BE NEW AND OF THE BEST QUALITY, MANUFACTURED IN ACCORDANCE WITH NEMA, ANSI, U.L. OR OTHER APPLICABLE STANDARDS. THE USE OF MANUFACTURER'S NAMES, MODELS AND NUMBERS IS INTENDED TO ESTABLISH STYLE, QUALITY, APPEARANCE, USEFULNESS AND BID PRICE. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED IN WRITING AND APPROVED BY THE ENGINEER BEFORE ORDERING.
5. PROTECT ALL ELECTRICAL MATERIAL AND EQUIPMENT INSTALLED UNDER THIS PROJECT AGAINST DAMAGE BY OTHER TRADES, WEATHER CONDITIONS OR ANY OTHER CAUSES. EQUIPMENT FOUND DAMAGED OR IN OTHER THAN NEW CONDITIONS WILL BE REJECTED AS DEFECTIVE.
6. LEAVE THE SITE CLEAN, REMOVE ALL DEBRIS, EMPTY CARTONS, TOOLS, CONDUIT, WIRE SCRAPS AND ALL MISCELLANEOUS SPARE EQUIPMENT AND MATERIALS USED IN THE WORK DURING CONSTRUCTION. ALL COMPONENTS SHALL BE FREE OF DUST, GRIT AND FOREIGN MATERIALS, LEFT AS NEW BEFORE FINAL ACCEPTANCE OF WORK.
7. ALL CONDUCTORS SHALL BE THHN/THWN COPPER, STRANDED RATED AT 600 VOLTS UNLESS OTHERWISE NOTED. ALUMINUM WIRE WILL NOT BE ALLOWED.
8. ALL CONDUCTORS SHALL BE INSTALLED IN A CONDUIT SYSTEM EXCEPT WHERE NOTED IN DRAWINGS. REFER TO CONDUIT AND CONDUCTOR SCHEDULE FOR CONDUIT TYPE AND SIZE. WHERE CONDUIT SIZE IS NOT CALLED OUT, CONDUIT SHALL BE INSTALLED PER SPECIFICATION 16010 AND SIZED PER LATEST ADOPTED EDITION OF THE NEC.
9. ALL UNDERGROUND CONDUIT TO BE SCHEDULE 40 PVC. MINIMUM DEPTH 30", MINIMUM SIZE 3/4" EXCEPT AS NOTED IN DRAWINGS AND SPECIFICATIONS. ALL UNDERGROUND ELBOWS SHALL BE RIGID LONG SWEEP WRAPPED WITH 3M-50 10 MIL PIPE WRAP OR APPROVED EQUAL EXCEPT FOR COMMUNICATIONS CABLE AND CONDUIT WHEN SPECIFIED DIFFERENTLY ON THE DETAILED ELECTRICAL DRAWINGS.
10. ALL EXPOSED CONDUIT BELOW 4' SHALL BE IMC OR RIGID STEEL CONDUIT, WITH A MINIMUM SIZE OF 1" EXCEPT AS NOTED IN DRAWINGS AND SPECIFICATIONS. EMT WILL BE PERMITTED, ONLY IN WALLS OR ABOVE 4' AFF. EXPOSED PVC CONDUIT SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE IN DRAWINGS.
11. ALL SAFETY SWITCHES AND OTHER DISTRIBUTION AND CONTROL ELECTRICAL EQUIPMENT SHALL BE RATED FOR HEAVY DUTY SERVICE.
12. ALL WIRING DEVICES SHALL BE SPECIFICATION GRADE GROUNDED BODY TYPE DEVICES.
13. THE CONTRACTOR SHALL INSTALL ALL INSTRUMENTS AND CONTROLS, INCLUDING HVAC AND CONTROL PANELS. THE CONTRACTOR SHALL OBTAIN AND REVIEW ALL INSTRUMENT, CONTROL AND HVAC DRAWINGS FOR TOTAL SCOPE OF WORK.
14. ALL PANELS, DISCONNECTS AND SWITCHGEAR ON THE OUTSIDE OF THE BUILDING SHALL BE NEMA 3R TYPE ENCLOSURES UNLESS OTHERWISE SPECIFIED. CT CABINET AND METER BASE SHALL BE OUTSIDE THE BUILDING.
15. SURGE PROTECTIVE DEVICES (SPD) SHALL BE SIZED FOR 160KA UNLESS OTHERWISE NOTED.
16. ALL CONDUIT FOR ALL EQUIPMENT, INCLUDING EQUIPMENT FURNISHED BY OTHERS, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
17. ALL CONDUIT, WHERE LEAVING ELECTRICAL EQUIPMENT TO GO UNDERGROUND, MUST BE ANCHORED TO THE FOUNDATION WITH STAND-OFF BRACKETS TO ALLOW FOR SUFFICIENT CLEARANCE FOR FOOTINGS AND WALL STUDS ON THE WALLS IN THE BUILDING. ALL RGS CONDUIT AND ELBOWS USED UNDERGROUND WILL BE WRAPPED WITH AN APPROVED PIPE WRAP. (TYP. FOR ALL BUILDINGS)
18. ALL WIRING IN CLASS I HAZARDOUS LOCATIONS SHALL COMPLY WITH NEC 501. AS DEFINED BY NFPA 820.

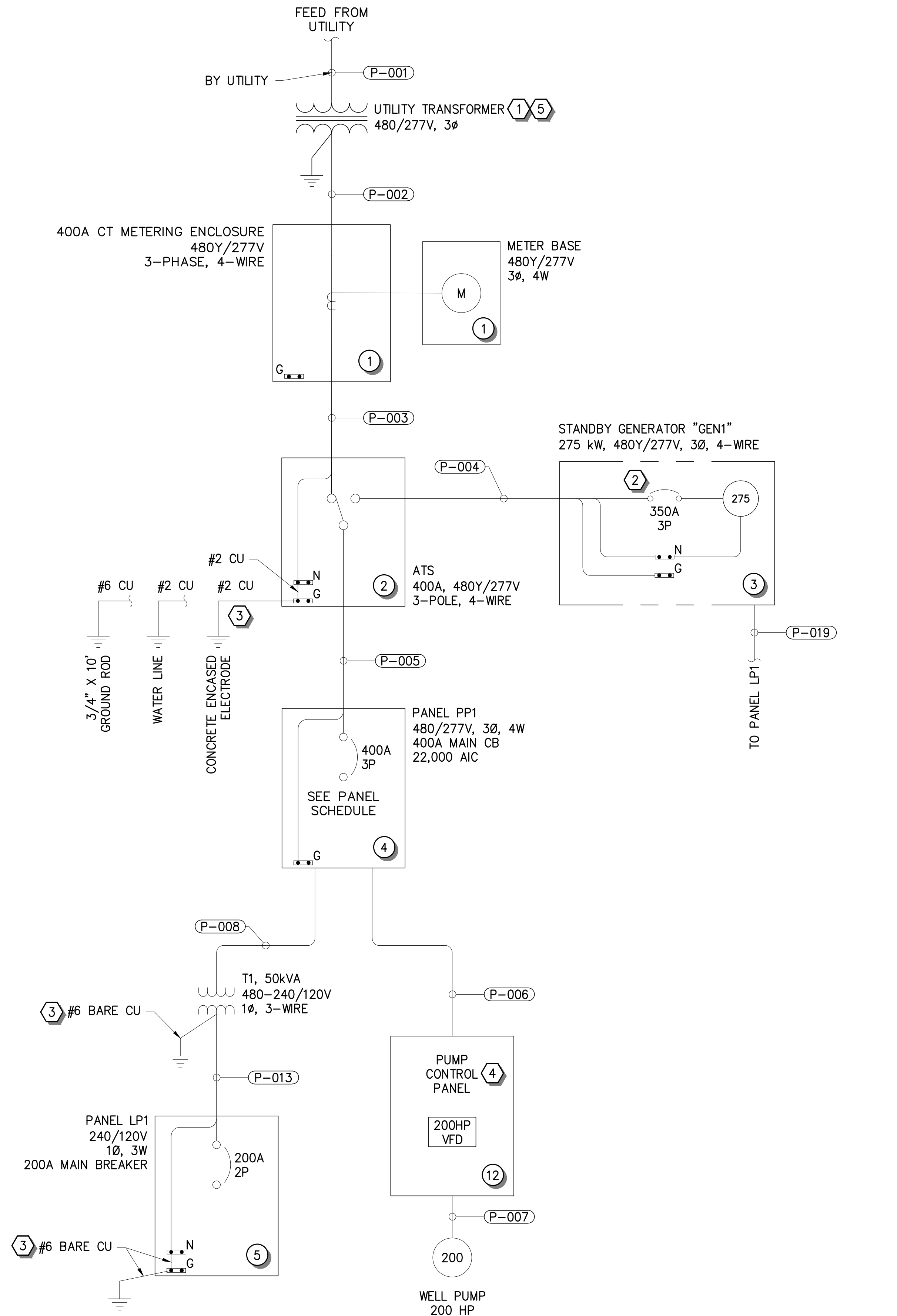
GENERAL ELECTRICAL ABBREVIATIONS

ACB	AIR CIRCUIT BREAKER	HMI	HUMAN MACHINE INTERFACE	MTU	MASTER TERMINAL UNIT	SPD	SURGE PROTECTIVE DEVICE
AFF	ABOVE FINISHED FLOOR	IC	INSTRUMENTATION CONDUIT	NC	NORMALLY CLOSED	SPIC	SPARE INSTRUMENT CONDUIT
AFG	ABOVE FINISHED GRADE	IER	INTEGRATED EQUIPMENT RATING	NO	NORMALLY OPEN	SSSS	SOLID STATE SOFT START
ATS	AUTOMATIC TRANSFER SWITCH	INST	INSTRUMENTATION CONDUIT	OL	MOTOR OVERLOAD	TSP	TWISTED SHIELDED PAIR
C	CONDUIT	JB	JUNCTION BOX	PB	PULL BOX	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
CB	CIRCUIT BREAKER	LCP	LOCAL CONTROL PANEL	PCP	PUMP CONTROL PANEL	VFD	VARIABLE FREQUENCY DRIVE
CTRL	CONTROL	LP	LIGHTING PANEL	PLC	PROGRAMMABLE LOGIC CONTROLLER		
DS	DISCONNECT SWITCH	MCB	MAIN CIRCUIT BREAKER	PP	POWER PANEL		
EGC	EQUIPMENT GROUNDING CONDUCTOR	MCP	MOTOR CIRCUIT PROTECTOR	RTU	REMOTE TERMINAL UNIT		
EMG	ELECTRICAL MANHOLE	MLO	MAIN LUG ONLY	SPC	SPARE CONDUIT		

LIGHTNING PROTECTION

1. PROVIDE A COMPLETE LIGHTNING PROTECTION SYSTEM BY VFC OR APPROVED COMPLYING WITH NFPA 780. SYSTEM TO INCLUDE: CABLING NETWORK, AIR TERMINALS, CONNECTIONS, SPLICES, BONDING, GROUND RING, GROUND RODS, AND ANY OTHER REQUIRED EQUIPMENT. ALL ROOF MOUNTED EQUIPMENT SHALL BE BONDED AND PROTECTED BY THE LIGHTNING PROTECTION SYSTEM. INSTALLER SHALL PROVIDE A UL MASTER LABEL FOR THE LIGHTNING PROTECTION SYSTEM UPON COMPLETION OF THE PROJECT.
2. REFER TO SPECIFICATION 26 41 33 SP FOR ADDITIONAL DETAILS.

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6875 SOUTH 900 EAST SALT LAKE CITY, UTAH 84047 TEL 801.523.0100 · FAX 801.523.0990 www.sunrise-eng.com		
HYDE PARK CITY HALL WELL HOUSE ELECTRICAL NOTES AND SYMBOLS		
DESIGNED KRD	DRAWN GKP	CHECKED JRK
SEI NO. S10660	SHEET NO. 33 of 72	E100



PANEL PP1 HYDE PARK WELL HOUSE											CU Bus 22 KA SC Rating (RMS)								
VOLTAGE	PH	WIRE	PANEL SCHEDULE CIRCUIT									400 AMP MAIN CB							
CKT NO.	AMPS	POLE	DESCRIPTION	LOAD (VA)			AMPS			LOAD (VA)			DESCRIPTION	POLE	AMPS	CKT NO.			
				LIGHT	RECEP	OTHER	A	B	C	OTHER	RECEP	LIGHT							
1	350	3	PUMP CONTROL PANEL	0	0	199400	240.0	73.2					35140.5	0	0	50kVA XFMR	2	100	2
3	-	-	''	0	0	0			240.0	73.2			0	0	0	''	-	-	4
5	-	-	''	0	0	0					240.0	0.0	0	0	0	''	-	-	6
7	20	3	CHLORINE PUMP	0	0	3986	4.8	0.0					0	0	0	''	-	-	8
9	-	-	''	0	0	0			4.8	0.0			0	0	0	''	-	-	10
11	-	-	''	0	0	0					4.8	0.0	0	0	0	''	-	-	12
13	20	3	TVSS	0	0	0	0.0	0.0					0	0	0	''	-	-	14
15	-	-	''	0	0	0			0.0	0.0			0	0	0	''	-	-	16
17	-	-	''	0	0	0					0.0	0.0	0	0	0	''	-	-	18
				0	0	203386	318	318	245	35141	0	0	0						
				Subtotal Watts			203386				35141			Subtotal Watts					
				Total Watts			238527				294			Average Amps					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING AND CONTINUOUS LOADS: (100% CONNECTED LOAD PLUS 25%)		0.0 kVA	Lighting Total kVA:	0.0
RECEPTACLES: (FIRST 10kVA @ 100%, REMAINDER @50%)		0.0 kVA	Receptacles Total kVA:	0.0
ALL OTHER LOADS @ 100%: MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED AT 125% PER NEC		238.5 kVA	Other Loads Total kVA:	288.4
			DIVERSIFIED TOTAL kVA	288.4
			AVERAGE AMPS PER PHASE	347.0

PANEL LP1 HYDE PARK WELL HOUSE											CU Bus 10 KA SC Rating (RMS)								
VOLTAGE	PH	WIRE	PANEL SCHEDULE CIRCUIT									200 AMP MAIN CB							
CKT NO.	AMPS	POLE	DESCRIPTION	LOAD (VA)			AMPS			LOAD (VA)			DESCRIPTION	POLE	AMPS	CKT NO.			
				LIGHT	RECEP	OTHER	L1	L2	OTHER	RECEP	LIGHT								
1	20	1	PUMP ROOM RECEPTACLES-1	0	900	0	7.5	3.7				0	0	438	PUMP ROOM LIGHTING	1	20	2	
3	20	1	CL ALARM/SCALE	0	0	350			2.9	7.5		0	900	0	PUMP ROOM RECEPTACLES-2	1	20	4	
5	20	1	FLUSH VALVE SOLENOID	0	0	204	1.7	10.0				1200	0	0	GEN BATTERY CHARGER	1	20	6	
7	20	1	SPARE	0	0	0			0.0	8.3	2000	0	0	0	GENERATOR HEATER	2	20	8	
9	20	1	EXHAUST FAN-2 LOUVER-2	0	0	170	1.4	8.3				0	0	0	''	-	-	10	
11	20	1	CL ROOM LTG, EF-1, L-1	0	0	210			1.8	1.5	0	180	0	0	OUTDOOR RECEPTACLES	1	20	12	
13	20	1	EUH-1	0	0	1500	12.5	0.0				0	0	0	SPARE	1	20	14	
15	20	1	STORAGE ROOM LIGHTING	426	0	0			3.6	0.0	0	0	0	0	SPARE	1	20	16	
17	20	1	STORAGE RM RECPT-1	0	900	0	7.5	1.1				0	0	130	OUTDOOR LIGHTING	1	20	18	
19	20	1	RTU	0	0	1200			10.0	0.0	0	0	0	0	SPARE	1	20	20	
21	20	1	FLOW METER	0	0	300	2.5	0.0				0	0	0	SPARE	1	20	22	
23	20	1	EUH-2	0	0	1500			12.5	16.7	4000	0	0	0	EUH-3	2	20	24	
25	20	1	OIL SOLENOID	0	0	204	1.7	16.7				0	0	0	''	-	-	26	
27	20	1	STORAGE RM RECPT-2	0	900	0			7.5	0.0	0	0	0	0	SPARE	1	20	28	
29	40	2	CU-1	0	0	7680	32.0	32.0				7680	0	0	CU-2	2	40	30	
31	-	-	''	0	0	0			32.0	32.0	0	0	0	0	''	-	-	32	
				426	2700	13318	139	136	14880	1080	568								
				Subtotal Watts			16444				16528			Subtotal Watts					
				Total Watts			32972				138			Average Amps					

NEC DIVERSIFIED LOAD CALCULATIONS

LIGHTING AND CONTINUOUS LOADS: (100% CONNECTED LOAD PLUS 25%)		1.0 kVA	Lighting Total kVA:	1.2
RECEPTACLES: (FIRST 10kVA @ 100%, REMAINDER @50%)		3.8 kVA	Receptacles Total kVA:	3.8
ALL OTHER LOADS @ 100%: MOTOR TOTALS INCLUDED IN ALL OTHER LOADS WITH LARGEST MOTOR CALCULATED AT 125% PER NEC		28.2 kVA	Other Loads Total kVA:	30.1
			DIVERSIFIED TOTAL kVA	35.1
			AVERAGE AMPS PER PHASE	146.4

- SHEET NOTES:**
- ONE-LINE DIAGRAM SHOWS PROPOSED CONFIGURATION. CONTRACTOR SHALL CONFIRM ACTUAL CONFIGURATION WITH UTILITY PRIOR TO CONSTRUCTION AND PROVIDE ALL NECESSARY EQUIPMENT PADS, PULL BOXES OR OTHER ITEMS REQUIRED BY UTILITY.
 - THE CONTRACTOR SHALL COORDINATE ALL WORK WITH OWNER PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL TRENCHING, BACKFILL, COMPACTION, AND THE INSTALLATION OF CONDUIT SHOWN AS NEW OR TO BE EXTENDED TO NEW EQUIPMENT LOCATION.
 - PROVIDE BONDING AND GREEN INSULATED GROUND FOR ALL ELECTRICAL ENCLOSURES PER LATEST EDITION OF NEC.
 - REFER TO DRAWING E20X FOR CONDUIT AND CONDUCTOR SCHEDULE.
 - (X) DENOTES ELECTRICAL EQUIPMENT IDENTIFICATION, REFER TO DRAWING E202 FOR ELECTRICAL EQUIPMENT SCHEDULE.

- KEY NOTES**
- COORDINATE ALL SERVICE ENTRANCE WORK WITH UTILITY PRIOR TO CONSTRUCTION TO CONFIRM EXACT LOCATION, CONDUIT SIZE AND OTHER REQUIREMENTS AND UTILITY STANDARDS.
 - OVERCURRENT PROTECTION SIZED BY GENERATOR MANUFACTURER.
 - BOND TO ALL ELECTRODES PRESENT PER NEC 250 AND LOCAL AHJ.
 - REFER TO INSTRUMENTATION DRAWINGS FOR PUMP CONTROL PANEL DETAILS.
 - TRANSFORMER PAD PROVIDED AND INSTALLED BY CONTRACTOR PER UTILITY REQUIREMENTS.



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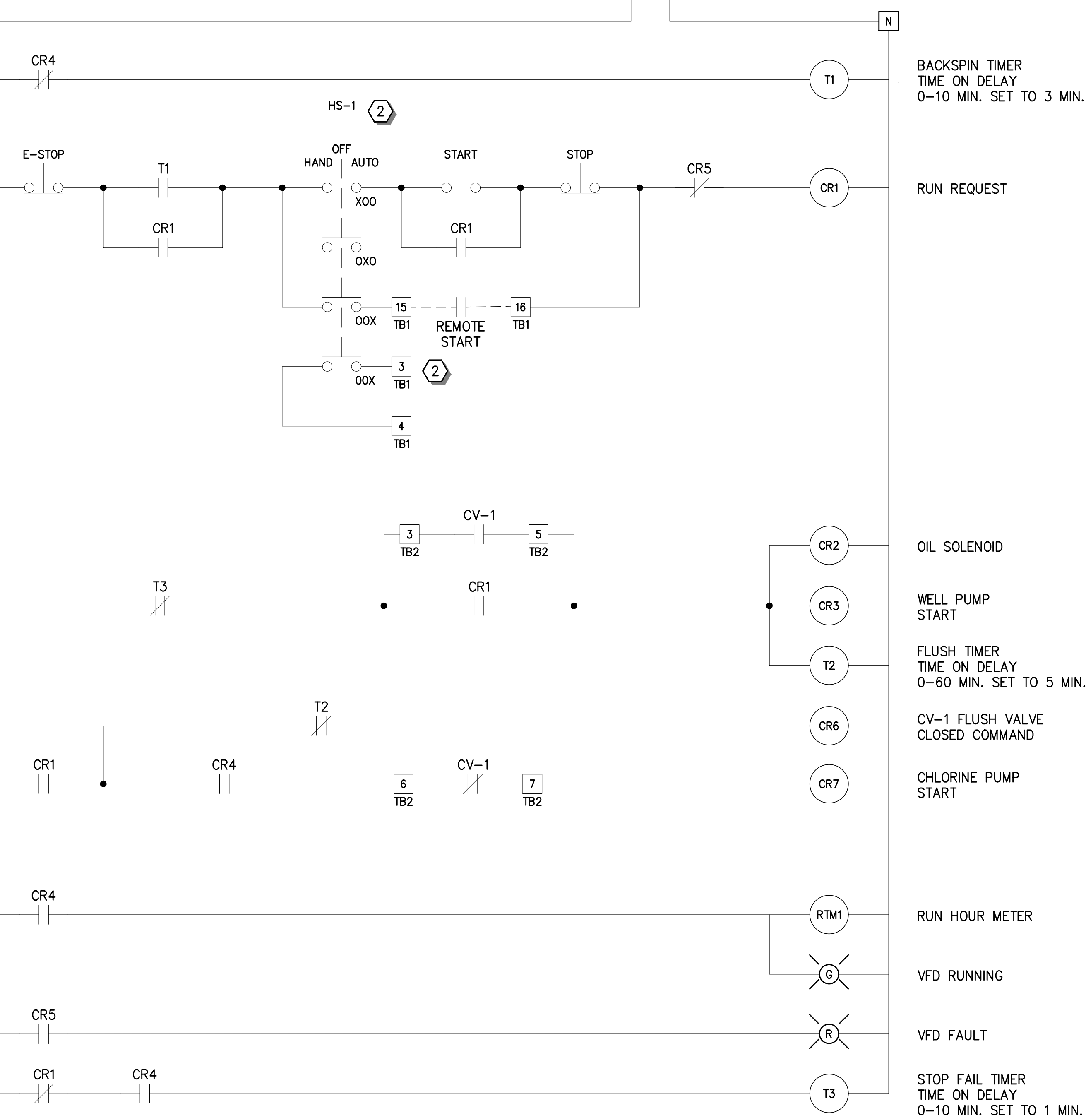
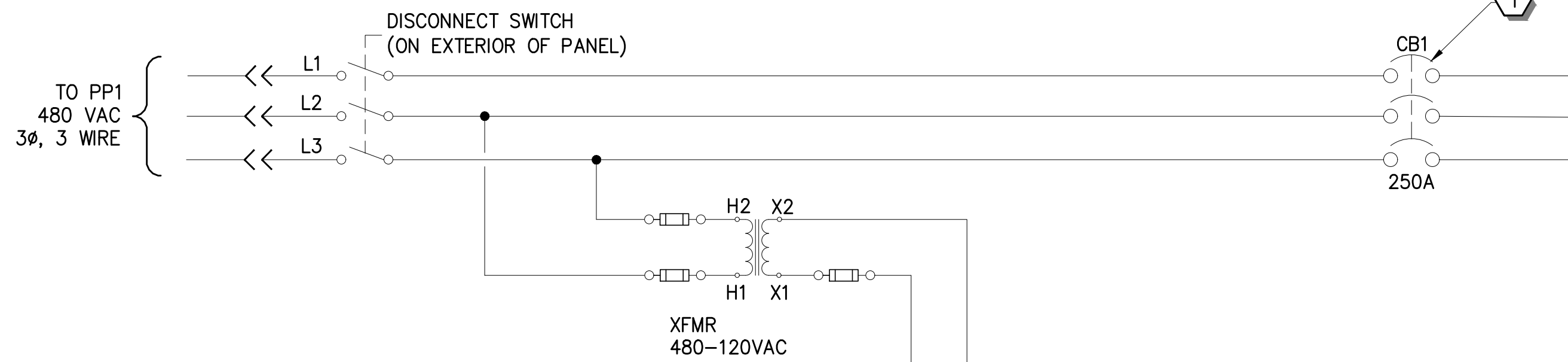
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6875 SOUTH 900 EAST
SALT LAKE CITY, UTAH 84047
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**HYDE PARK
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ELECTRICAL
ONE-LINE & PANEL SCHEDULES**

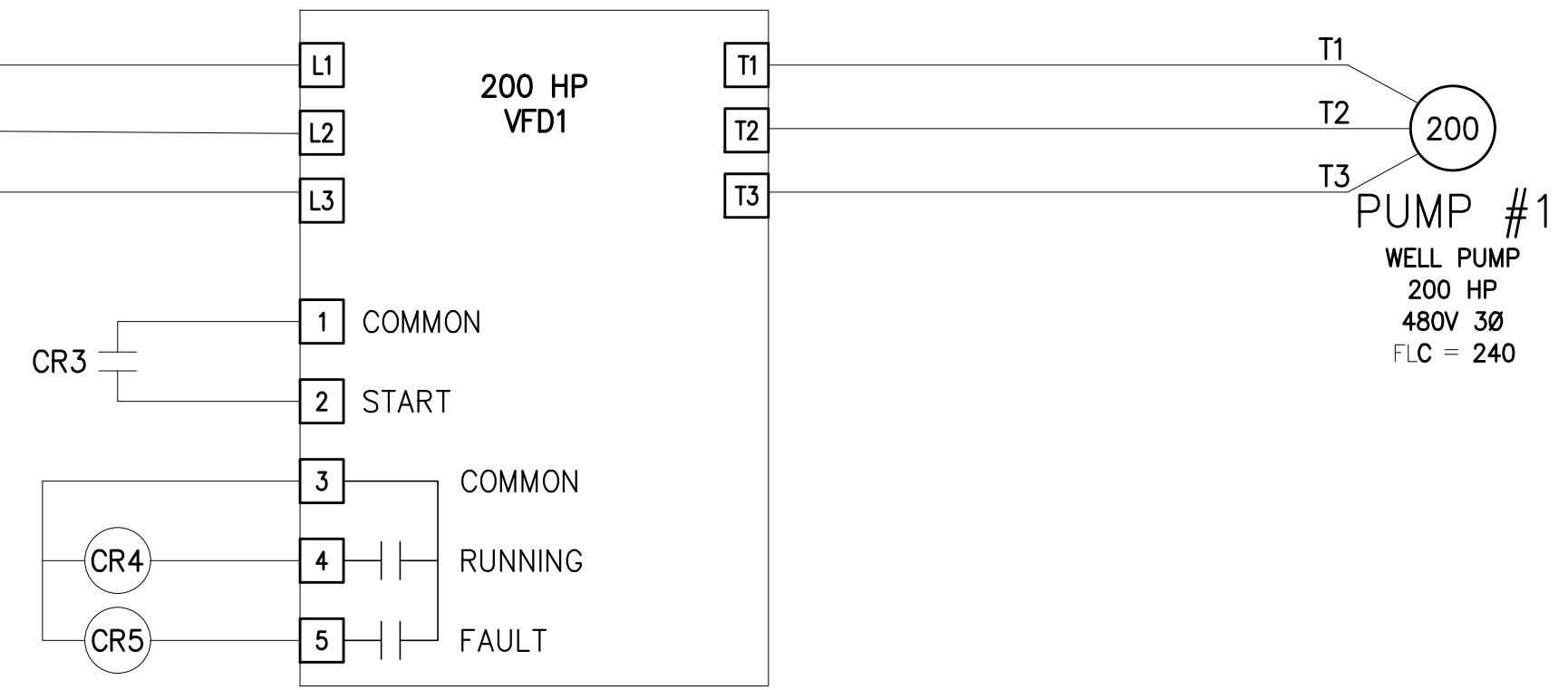
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S10660	KRD	GKP	JRK	34 of 72

E201

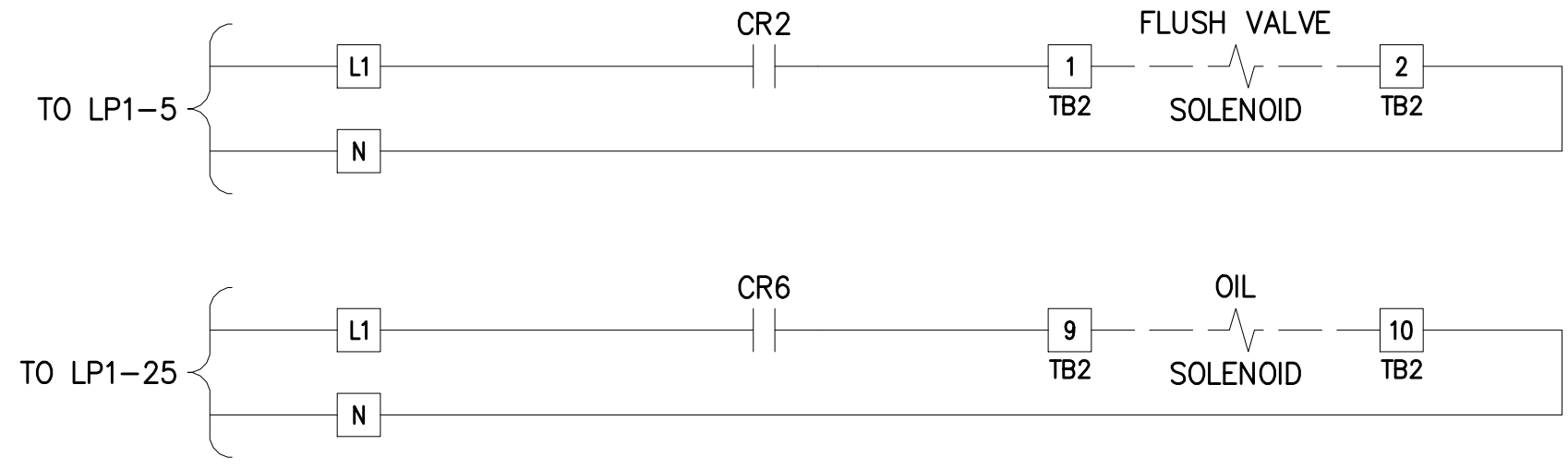
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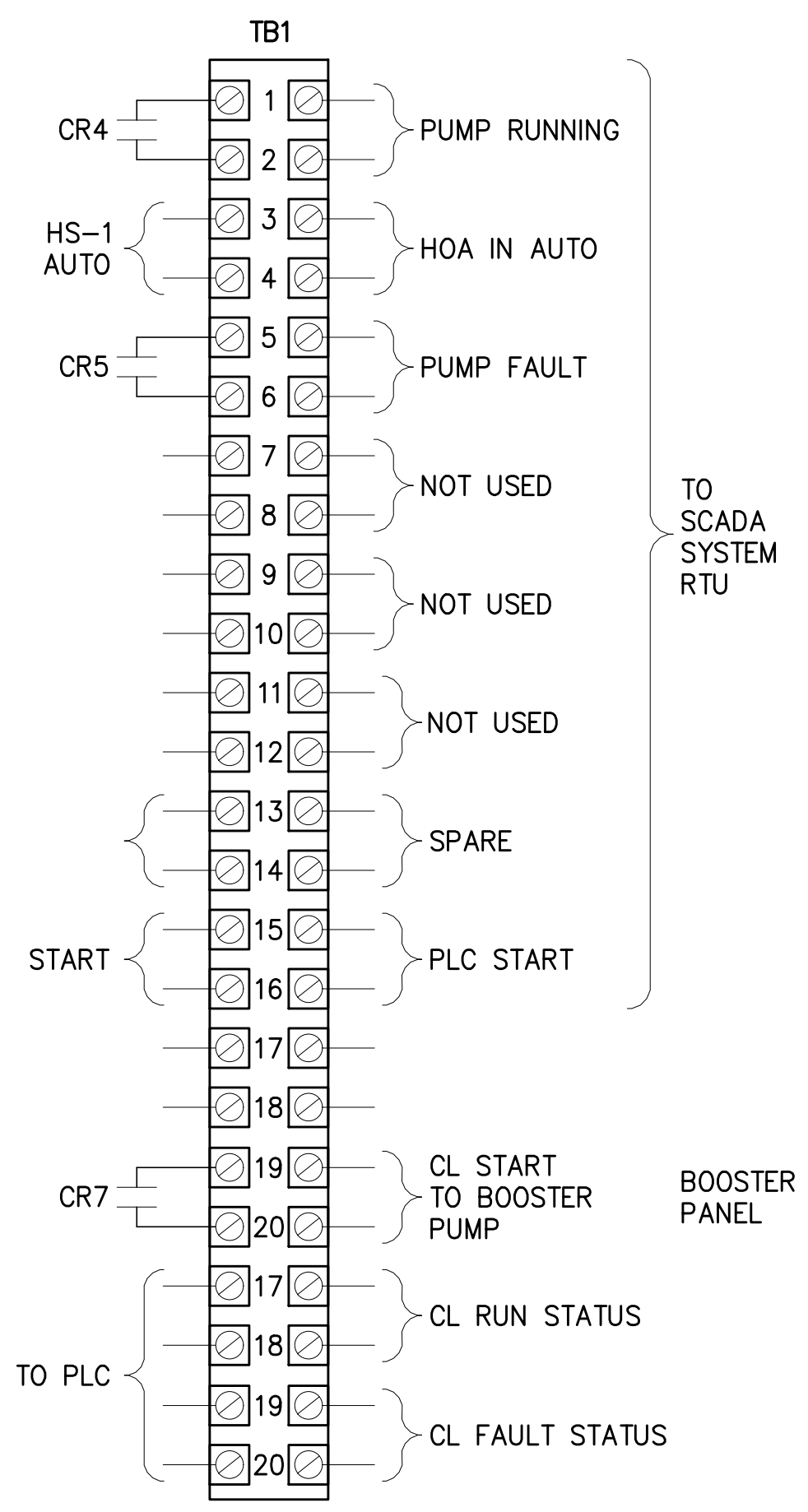
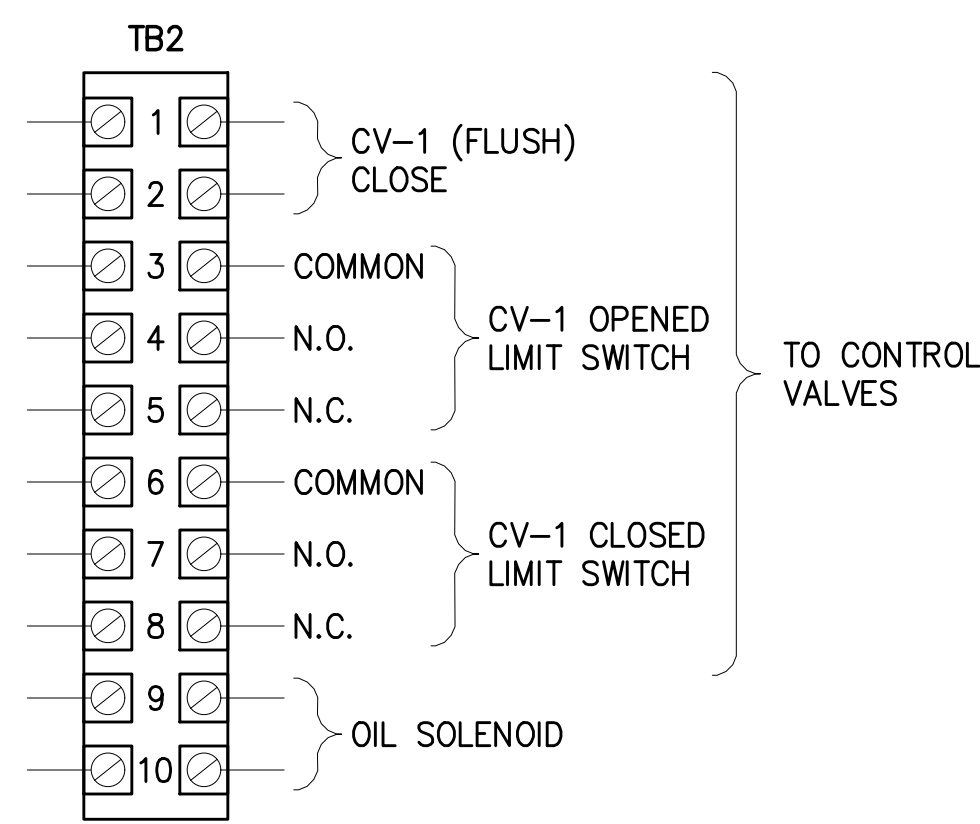
THIS IS A TYPICAL DIAGRAM ONLY. CONTRACTOR TO WIRE AS PER MANUFACTURER'S RECOMMENDATION TO MAINTAIN FUNCTIONALITY SHOWN.



PUMP #1
WELL PUMP
200 HP
480V 3Ø
FLC = 240



- KEY NOTES**
- ① OVERCURRENT PROTECTION SIZED BY PANEL MANUFACTURER
 - ② INCLUDE DRY CONTACTS FOR HS-1 IN AUTO POSITIONS FOR USE WITH SCADA SYSTEM.



A TYPICAL PUMP CONTROL SCHEMATIC
NTS

REV. NO.	COMMENT	DATE

REGISTERED PROFESSIONAL ENGINEER
No. 362066
J. RANDALL KNAPP
STATE OF UTAH

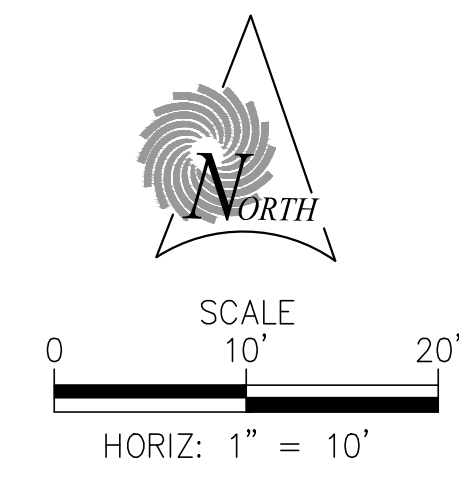
SUNRISE ENGINEERING
6875 SOUTH 900 EAST
SALT LAKE CITY, UTAH 84047
TEL 801.523.0100 · FAX 801.523.0990
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PUMP CONTROL SCHEMATIC

DESIGNED	DRAWN	CHECKED	SHEET NO.
KRD	GKP	JRK	36 of 72

E203

P:\Hyde park\10660 city hall well house\04 Dwg\07 Pump Control Schematic Diagrams.dwg Jun 30, 2025 10:02am comcor.parlier

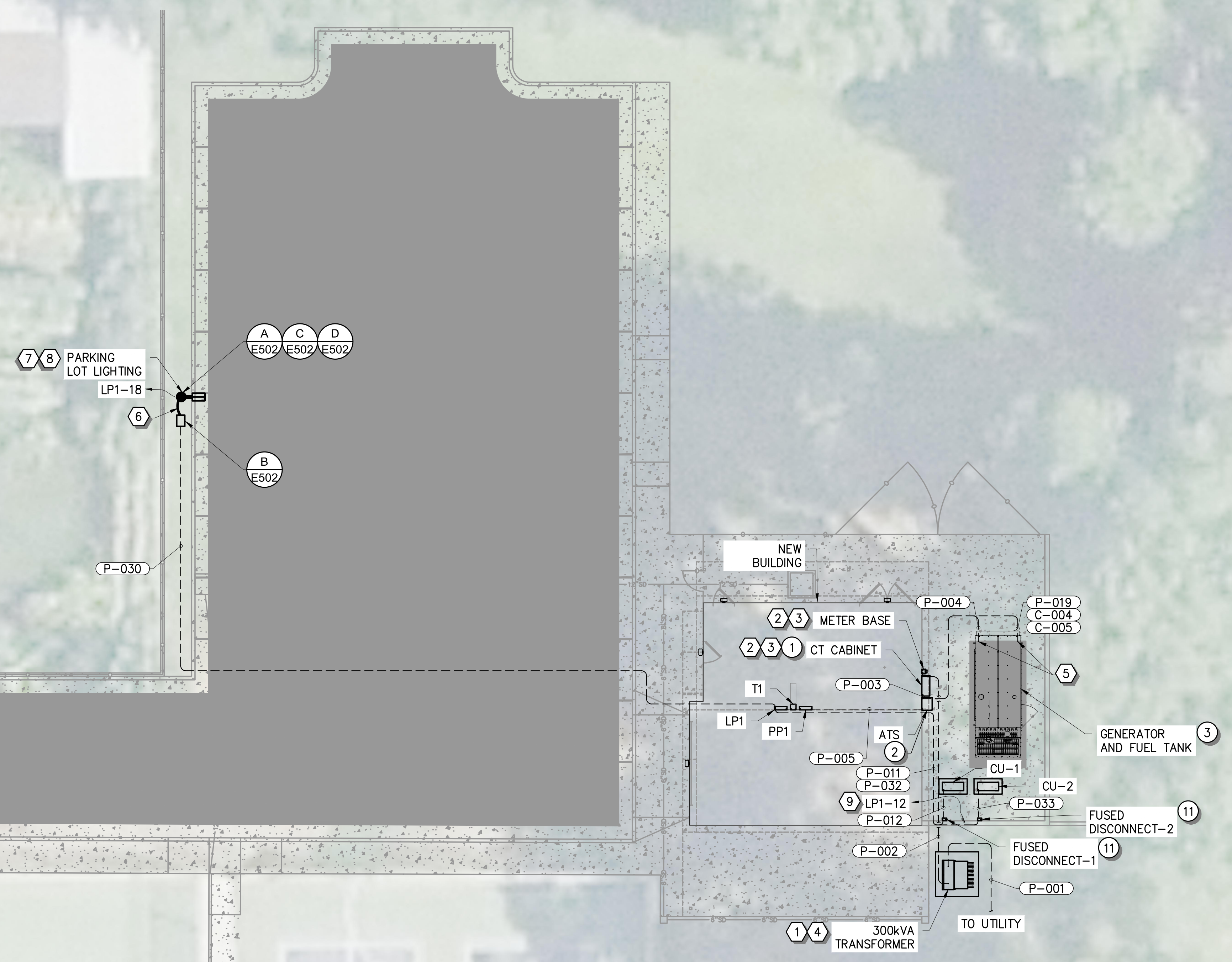


SHEET NOTES:

1. THE CONTRACTOR WILL BE RESPONSIBLE TO LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE ANY EXCAVATION IS PERFORMED. ANY DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED TO NEW CONDITION OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
2. NOT ALL CONDUITS ARE SHOWN. REFER TO CONDUIT AND CONDUCTOR SCHEDULE FOR INDIVIDUAL CONDUIT FILL REQUIREMENTS. CONDUIT LAYOUT SHOWN IS DIAGRAMMATIC ONLY. CONTRACTOR SHALL FIELD ROUTE AS NECESSARY TO ACCOMMODATE FIELD CONDITIONS AND AVOID OTHER STRUCTURES AS REQUIRED.
3. REFER TO DRAWING E202 FOR CONDUIT AND CONDUCTOR IDENTIFICATION.
4. (X) DENOTES ELECTRICAL EQUIPMENT IDENTIFICATION. REFER TO DRAWING E202 FOR ELECTRICAL EQUIPMENT SCHEDULE.
5. ALL CONDUITS SHALL BE RAN IN WALLS OR UNDER SLAB UNLESS APPROVED BY ENGINEER.

KEY NOTES

1. CONTRACTOR SHALL COORDINATE WITH UTILITY FOR ALL SERVICE ENTRANCE WORK. CONTRACTOR SHALL PROVIDE AND INSTALL CONDUIT, FITTINGS AND TRENCHING BETWEEN TRANSFORMER AND BUILDING SERVICE ENTRANCE. ALL 90 DEGREE ELBOWS SHALL BE LONG-SWEEP WITH MIN. 36" RADIUS. CONDUIT SHALL BE BURIED PER UTILITY REQUIREMENTS.
2. CONTRACTOR SHALL PROVIDE AND INSTALL METERBASE, CONDUIT, FITTINGS, MOUNTING HARDWARE, AND ALL ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION OF SERVICE ENTRANCE EQUIPMENT.
3. ALL BURIED RIGID CONDUIT SHALL BE TAPE WRAPPED TO 4" ABOVE GRADE WITH 3M-50 10 MIL PIPE WRAP OR APPROVED EQUAL.
4. TRANSFORMER PROVIDED AND INSTALLED BY UTILITY. CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS AND LOCATION WITH UTILITY PRIOR TO CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE CONDUIT STUB-UP LOCATION WITH GENERATOR SUPPLIER PRIOR TO CONDUIT INSTALLATION.
6. 1" CARFLEX LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT TO PULL BOX WITH 2-#12 AWG TYPE THHN/THWN CONDUCTORS AND 1-#12 COPPER BOND, AND 1-#8 COPPER BOND (FOR GROUNDING) FROM PULL BOX TO POLE HAND HOLE, PER UTILITY REQUIREMENTS.
7. REFER TO DRAWING E502 FOR PARKING LOT LIGHTING DETAILS.
8. REFER TO DRAWING E502 FOR PARKING LOT LIGHTING SCHEDULE.
9. PROVIDE WITH IN-USE WEATHER-PROOF COVER.



A ELECTRICAL SITE PLAN
SCALE 1" = 10' AT SHEET SIZE 22" x 34"

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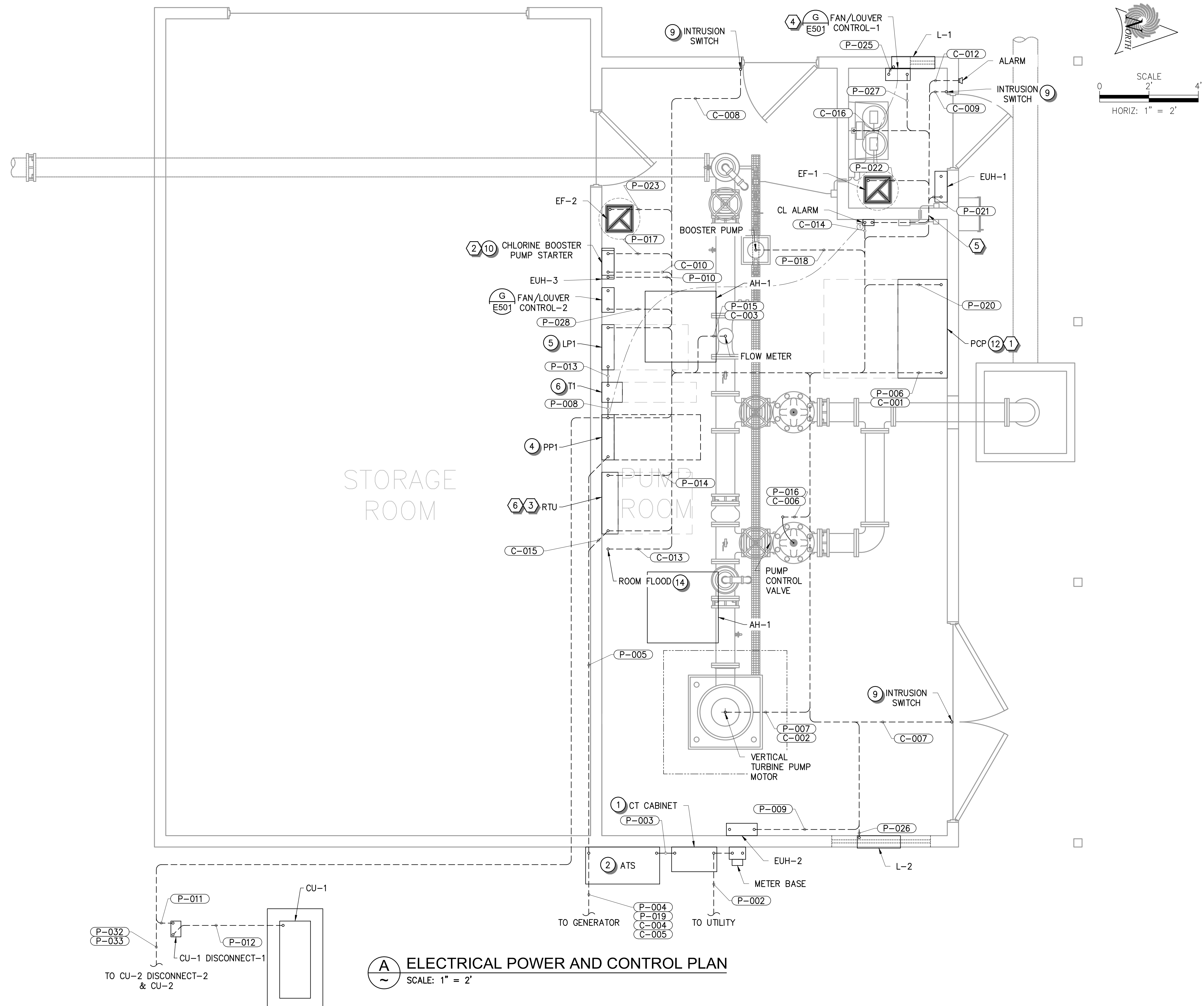
J. RANDALL KNAPP
REGISTERED PROFESSIONAL ENGINEER
No. 362066
29-Jan-2025
STATE OF UTAH

SUNRISE ENGINEERING
6875 SOUTH 900 EAST
SALT LAKE CITY, UTAH 84047
TEL 801.523.0100 · FAX 801.523.0990
www.sunrise-eng.com

HYDE PARK
CITY HALL WELL HOUSE
ELECTRICAL
SITE PLAN

SEI NO. S10660	DESIGNED KRD	DRAWN GKP	CHECKED JRK	SHEET NO. 37 of 72	E301
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P:\v\pork\10660 city hall well house\04 Dwg\03 Electrical Site Plan.dwg Jan-30-2025 10:02am connor.porker



- GENERAL NOTES:**
- CONTRACTOR TO COMPLY WITH GENERAL ELECTRICAL REQUIREMENTS ON DRAWING E100.
 - CONDUITS SHOWN ARE SCHEMATIC ONLY. CONTRACTOR SHALL FIELD ROUTE CONDUIT AS NECESSARY TO AVOID OBSTACLES AND OTHER EQUIPMENT.
 - NOT ALL CONDUITS ARE SHOWN FOR CLARITY. REFER TO CONDUIT AND CONDUCTOR SCHEDULE FOR ADDITIONAL CIRCUITING INFORMATION.
 - SEE DRAWING E202 FOR CONDUIT AND CONDUCTOR SCHEDULE.
 - (X) DENOTES ELECTRICAL EQUIPMENT IDENTIFICATION. REFER TO DRAWING E202 FOR ELECTRICAL EQUIPMENT SCHEDULE.
 - PROVIDE LIGHTNING PROTECTION PER SPECIFICATION 16065SP AND DRAWING E100.
 - ALL CONDUITS SHALL BE RAN IN WALLS OR UNDER SLAB UNLESS APPROVED BY ENGINEER.

- KEY NOTES**
- PUMP CONTROL PANEL. REFER TO INSTRUMENTATION DRAWINGS FOR ADDITIONAL DETAILS.
 - CHLORINE SYSTEM CONTROLS PROVIDED BY CHLORINE SYSTEM SUPPLIER. COORDINATE WITH CL SYSTEM SUPPLIER FOR ELECTRICAL CONNECTION DETAILS.
 - COORDINATE WITH RTU SUPPLIER. CONTRACTOR SHALL ROUTE CONDUIT TO RTU LOCATION AND TERMINATE CONDUCTORS AND TERMINATE PER RTU SHOP DRAWINGS. COORDINATE ALL WORK WITH RTU SUPPLIER PRIOR TO INSTALLATION.
 - REFER TO DRAWING E501 FOR ADDITIONAL EXHAUST FAN / LOUVER CONNECTION REQUIREMENTS. INSTALL 12"x12" DUCT FROM EXHAUST FAN DOWN TO 4" ABOVE FINISH FLOOR.
 - ALL CONDUITS CONNECTING CHLORINE ROOM AND WELL ROOM SHALL BE SEALED TO PREVENT EXCHANGE OF GASES.
 - RTU PROVIDED BY OWNER. CONTRACTOR TO COORDINATE MOUNTING REQUIREMENTS BEFORE RUNNING CONDUIT.

A ELECTRICAL POWER AND CONTROL PLAN
SCALE: 1" = 2'



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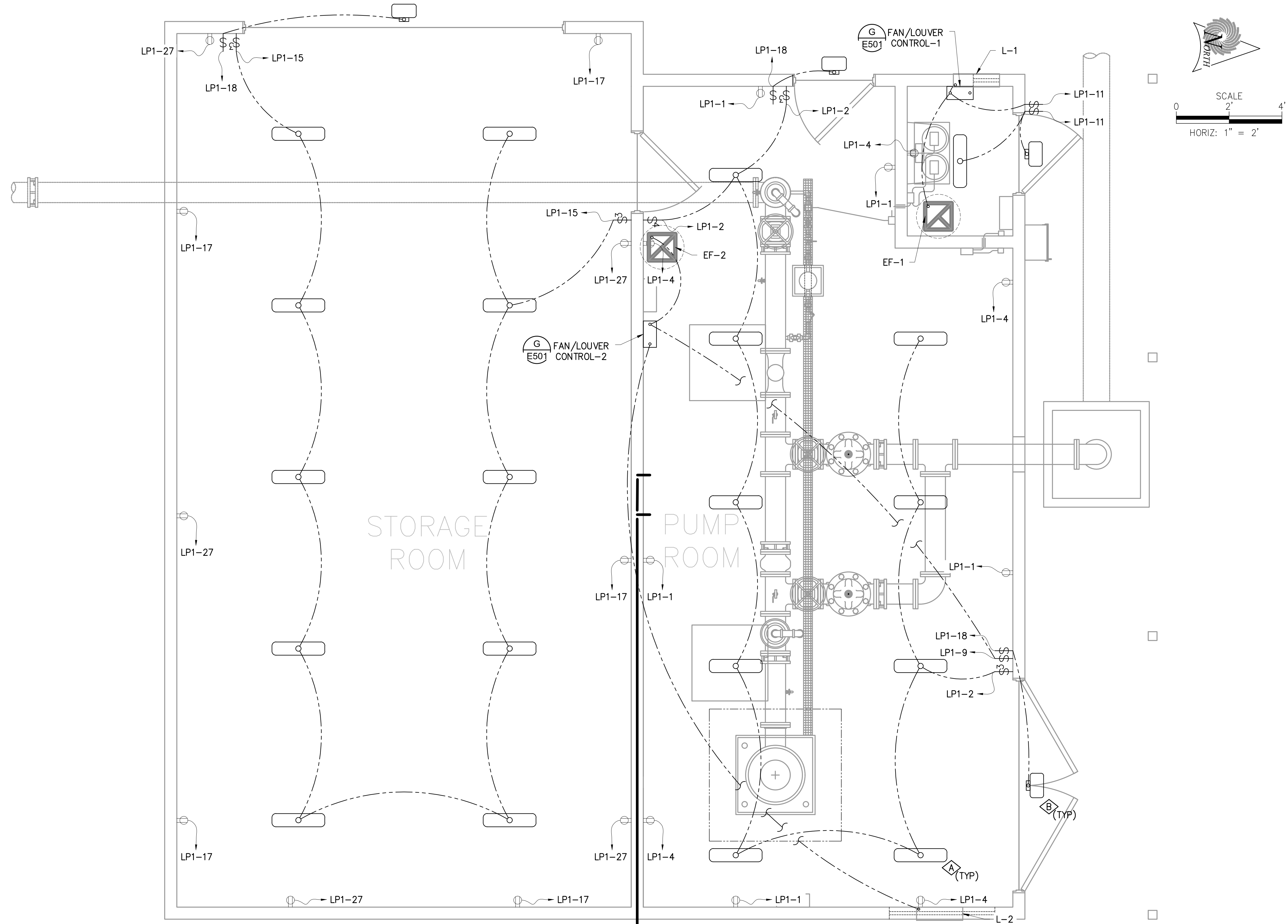
REGISTERED PROFESSIONAL ENGINEER
29-Jan-2025
No. 362066
J. RANDALL KNAPP
STATE OF UTAH

SUNRISE ENGINEERING

6875 SOUTH 900 EAST
SALT LAKE CITY, UTAH 84047
TEL 801.523.0100 · FAX 801.523.0990
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HYDE PARK				
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ELECTRICAL				
POWER AND CONTROL PLAN				
SEI NO. S10660	DESIGNED KRD	DRAWN GKP	CHECKED JRK	SHEET NO. 38 of 72 E401

P:\wyde park\10660 city hall well house\04 Dwg\04 Electrical Building Plan.dwg Jun 30, 2025 10:03am connor.parker



- GENERAL NOTES:**
1. CONTRACTOR TO COMPLY WITH GENERAL ELECTRICAL REQUIREMENTS ON DRAWING E100.
 2. CONDUITS SHOWN ARE SCHEMATIC ONLY. CONTRACTOR SHALL FIELD ROUTE CONDUIT AS NECESSARY TO AVOID OBSTACLES AND OTHER EQUIPMENT.
 3. NOT ALL CONDUITS ARE SHOWN FOR CLARITY. REFER TO CONDUIT AND CONDUCTOR SCHEDULE FOR ADDITIONAL CIRCUITING INFORMATION.
 4. SEE DRAWING E20X FOR CONDUIT AND CONDUCTOR SCHEDULE AND EQUIPMENT SCHEDULE.

ELECTRICAL LIGHTING FIXTURE SCHEDULE					
ITEM #	DESCRIPTION	QUANTITY	MODEL / SPECIFICATION	MANUFACTURER	COMMENTS
Ⓐ	DMW2 3000 LUMEN SURFACE MOUNT LIGHT FIXTURE	20	DMW2 4000LM MD PCL MVOLT 40K 80CRI 40W	LITHONIA OR APPROVED EQUAL	
Ⓑ	D-SERIES EXTERIOR LED WALL LUMINAIRE	4	DSXW1 LED 10C 700 40K T4M MVOLT DDBXB 26W	LITHONIA OR APPROVED EQUAL	OPTIONAL PHOTOCELL (PE) TO BE PROVIDED WITH LIGHTING FIXTURE

Ⓐ ELECTRICAL LIGHTING AND RECEPTACLE PLAN
SCALE: 1" = 2'

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REV. NO.	COMMENT	DATE

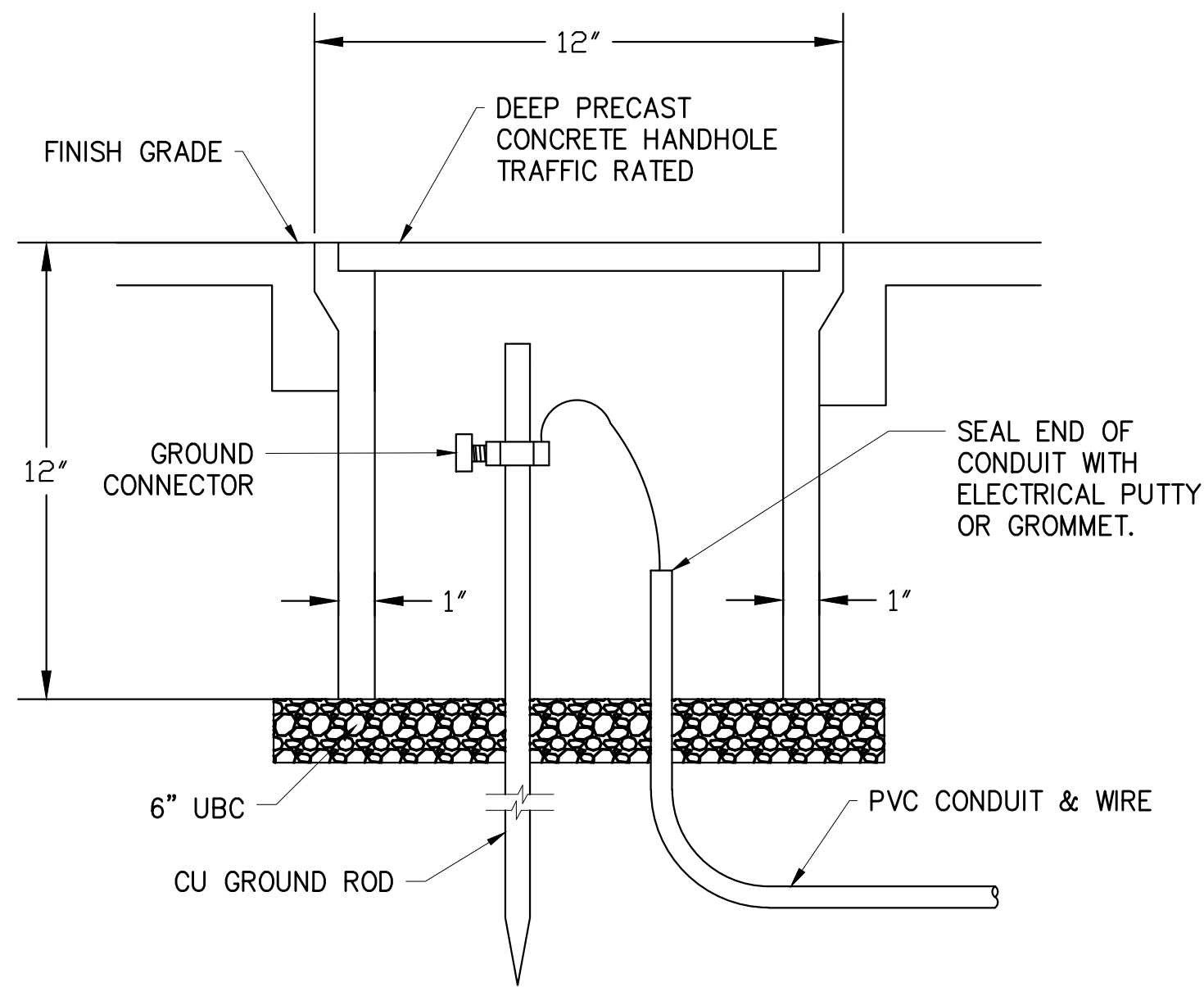
SUNRISE ENGINEERING
6875 SOUTH 900 EAST
SALT LAKE CITY, UTAH 84047
TEL 801.523.0100 · FAX 801.523.0990
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HYDE PARK
CITY HALL WELL HOUSE
ELECTRICAL
LIGHTING AND RECEPTACLE PLAN

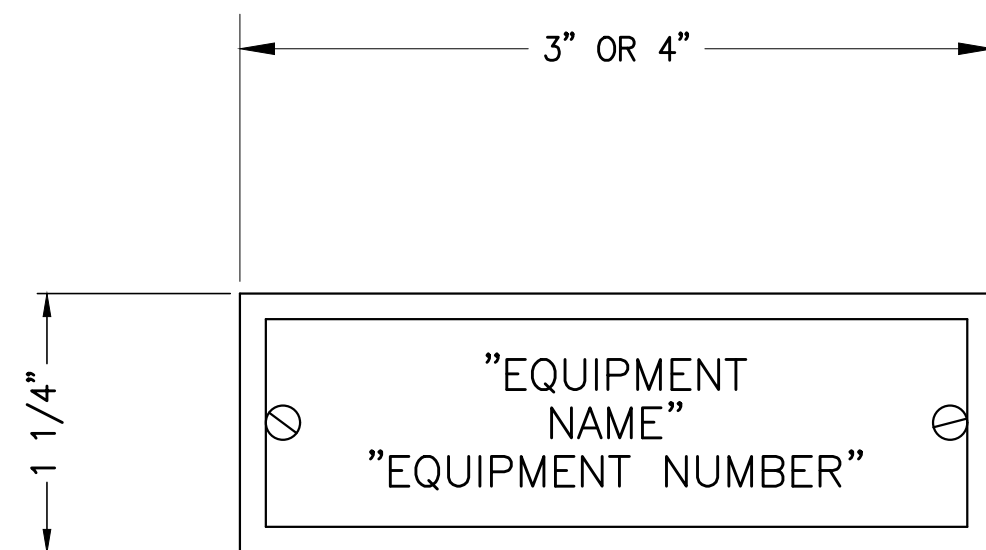
SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.
S10660	KRD	GKP	KRD	39 of 72

E402

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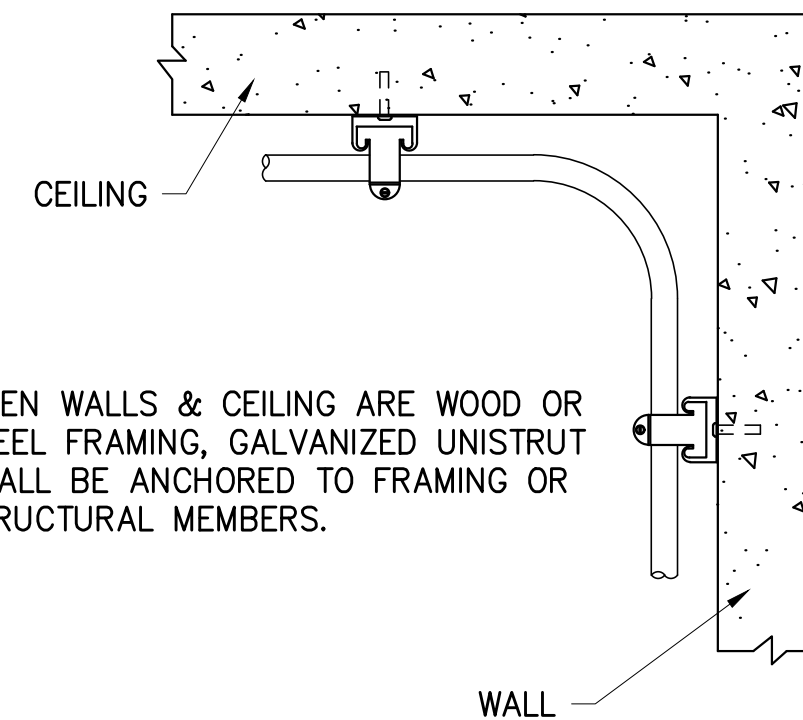
A DETAIL - GROUND WELL
N.T.S.



1. ALL LETTERS TO BE WHITE 1/4" HIGH, ON A BLACK BACKGROUND UNLESS NOTED OTHERWISE.
2. ALL NAMEPLATES TO BE MOUNTED ON THE VERTICAL CENTER LINE OF THE CUBICLE OR DEVICE.
3. ATTACH ALL NAMEPLATES WITH STAINLESS STEEL SCREWS.
4. PROVIDE BLANK NAMEPLATES FOR ALL SPARE AND AN ADDITIONAL TEN PERCENT FOR FUTURE DEVICES.

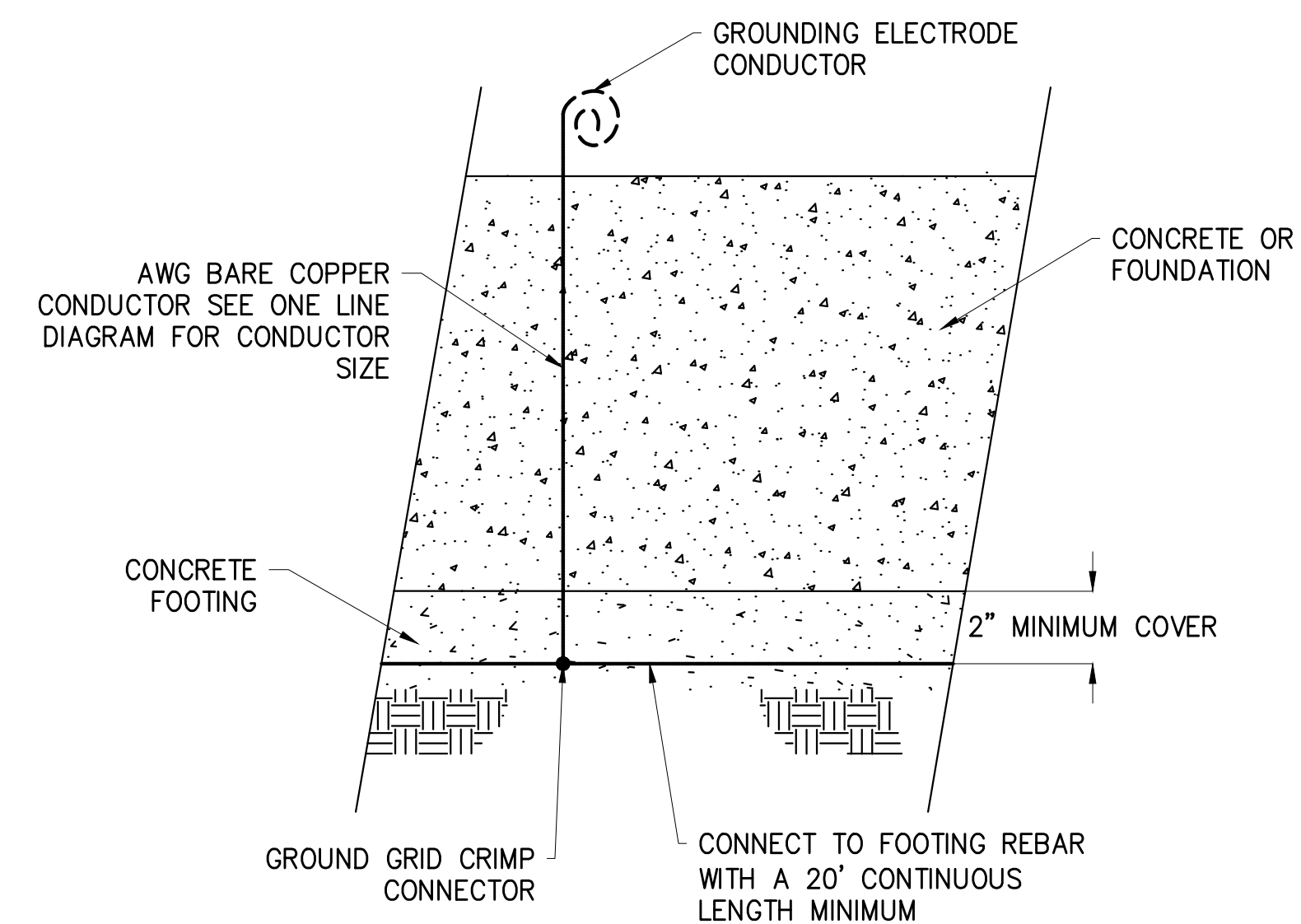
B DETAIL - NAMEPLATE
N.T.S.

7/8" GALVANIZED UNISTRUT TO BE ANCHORED TO THE WALL & CEILING, THEN CONDUIT SHALL BE RUN AND ATTACHED WITH UNISTRUT STRAPS.

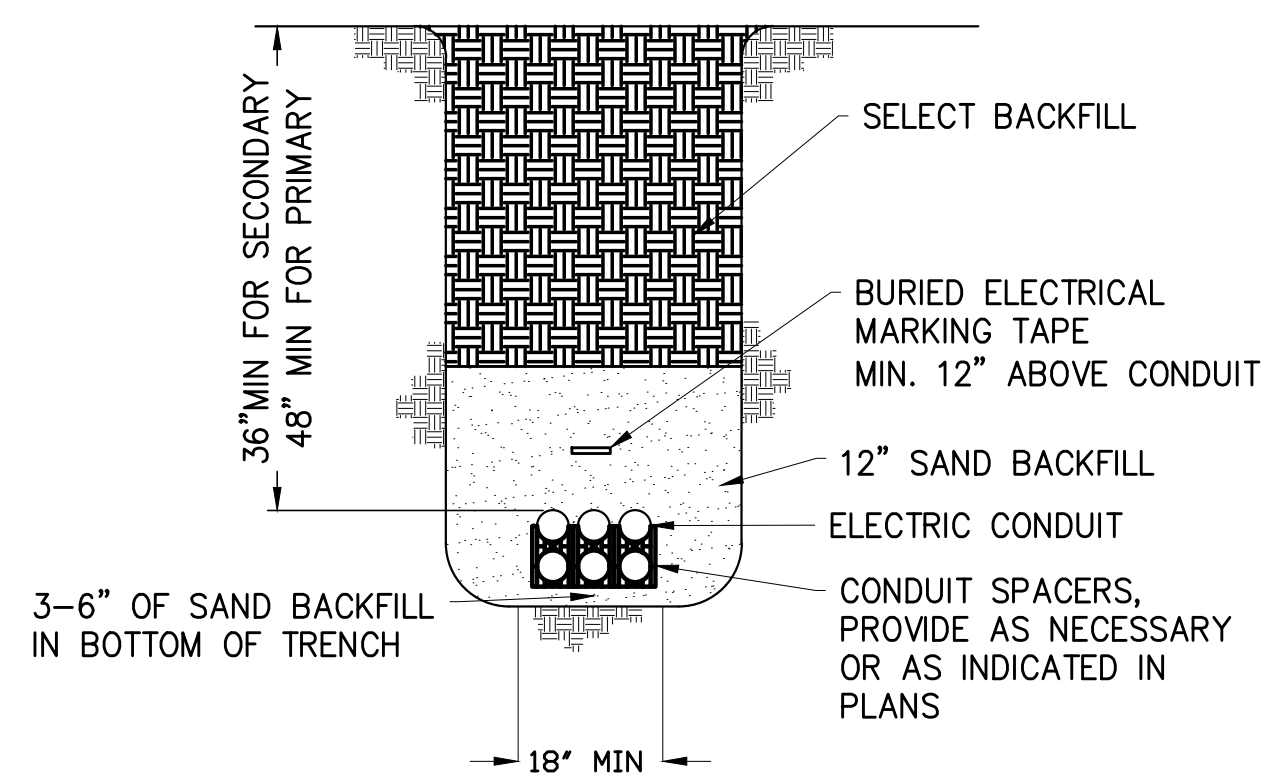


WHEN WALLS & CEILING ARE WOOD OR STEEL FRAMING, GALVANIZED UNISTRUT SHALL BE ANCHORED TO FRAMING OR STRUCTURAL MEMBERS.

C DETAIL - CONDUIT MOUNT
N.T.S.

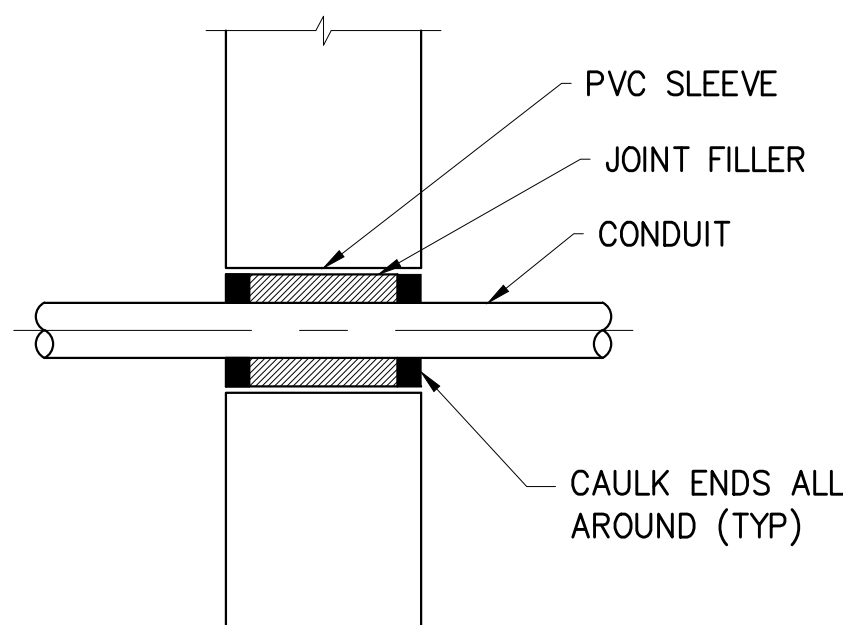


D DETAIL - UFER CONCRETE ENCASED
N.T.S.

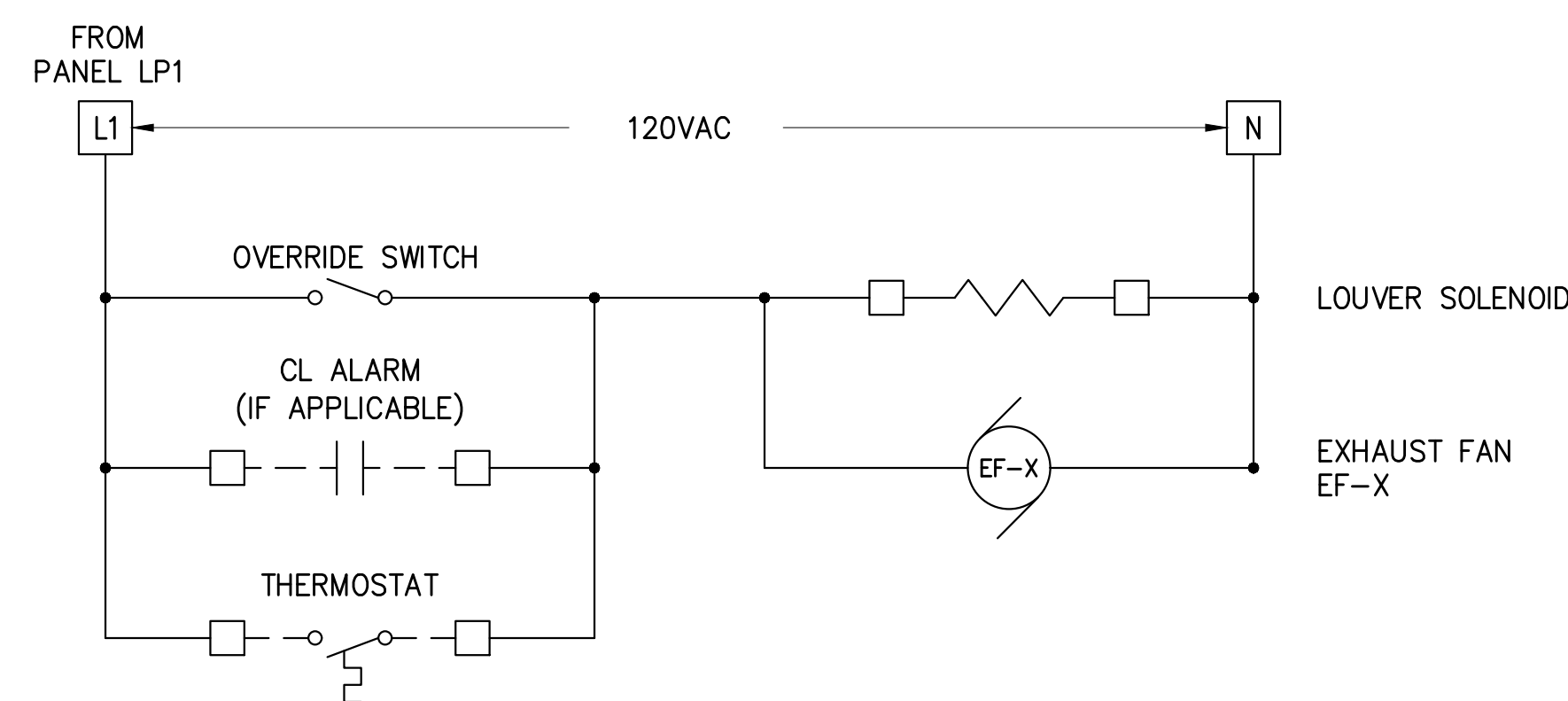


1. WARNING TAPE MUST BE PLACED ON TOP OF CONDUIT (5 MILS THICKNESS)
2. ALL TRENCHES MUST BE INSPECTED PRIOR TO BACKFILLING
3. TRENCHES SHOULD BE SPOT BACKFILLED TO PREVENT MOVEMENT OF TAPE DURING BACKFILL.
4. SELECT BACKFILL MUST BE COMPACTED IN 1 FOOT LIFTS TO PREVENT SETTLING.

E DETAIL - UNDERGROUND CONDUIT POWER CABLE TRENCH
N.T.S.



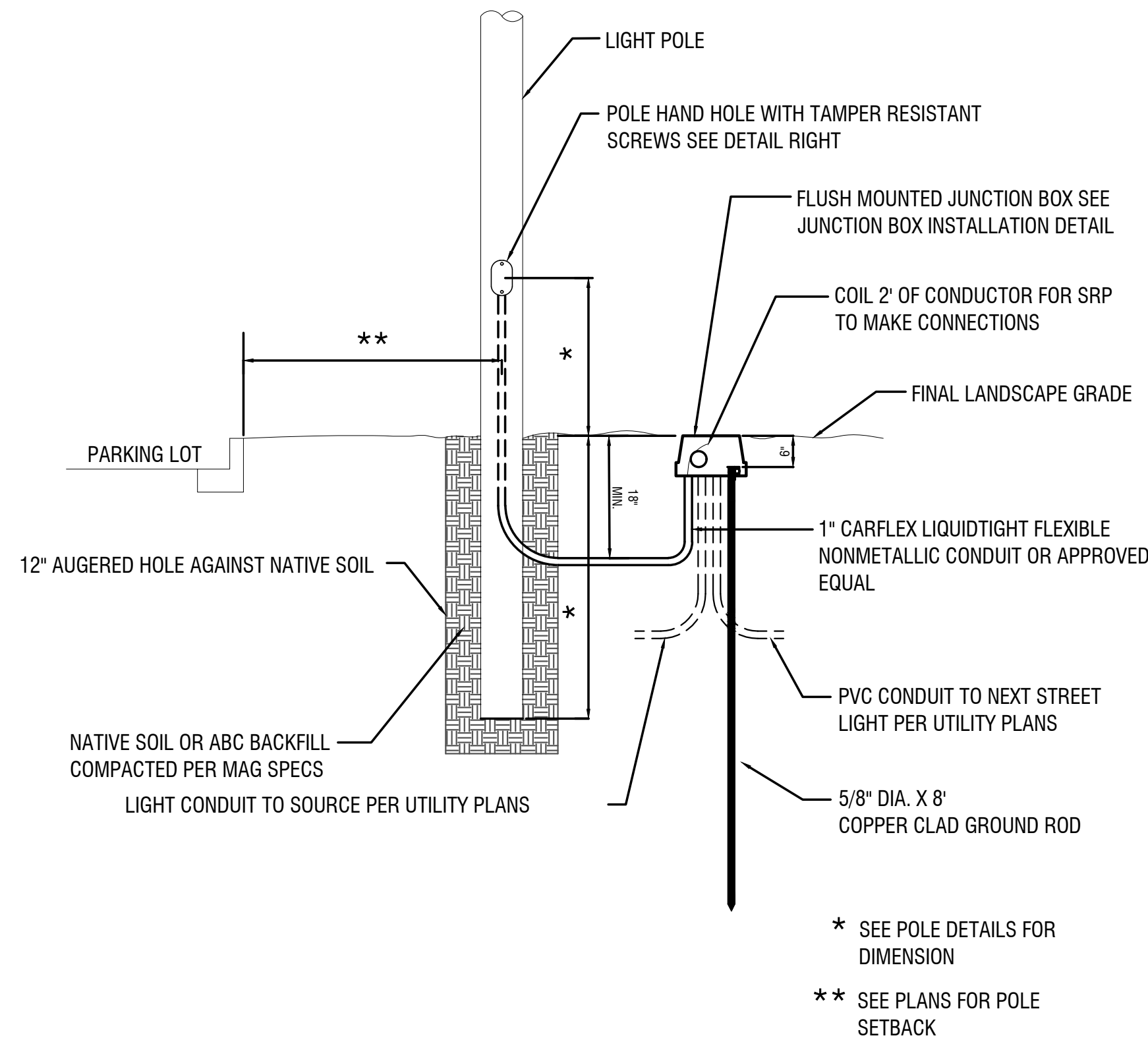
F CONDUIT PENETRATION
N.T.S.



G EXHAUST FAN CONTROL SCHEMATIC
N.T.S.

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SUNRISE ENGINEERING 6875 SOUTH 900 EAST SALT LAKE CITY, UTAH 84047 TEL 801.523.0100 · FAX 801.523.0990 www.sunrise-eng.com		
HYDE PARK CITY HALL WELL HOUSE DETAILS		
SEI NO. S10660	DESIGNED KRD	DRAWN GKP
CHECKED JRK	SHEET NO. 40 of 72	E501

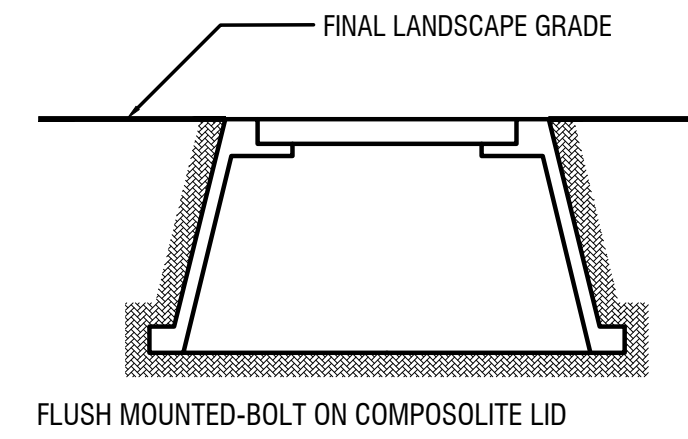


A POLE HAND HOLE FUSING DETAIL
~
NTS:

DESCRIPTION
15" X 21" X 12" JUNCTION BOX WITH 3/8" CAPTIVE PENTA HEAD BOLTS

WORD "ELECTRIC" ON COVER

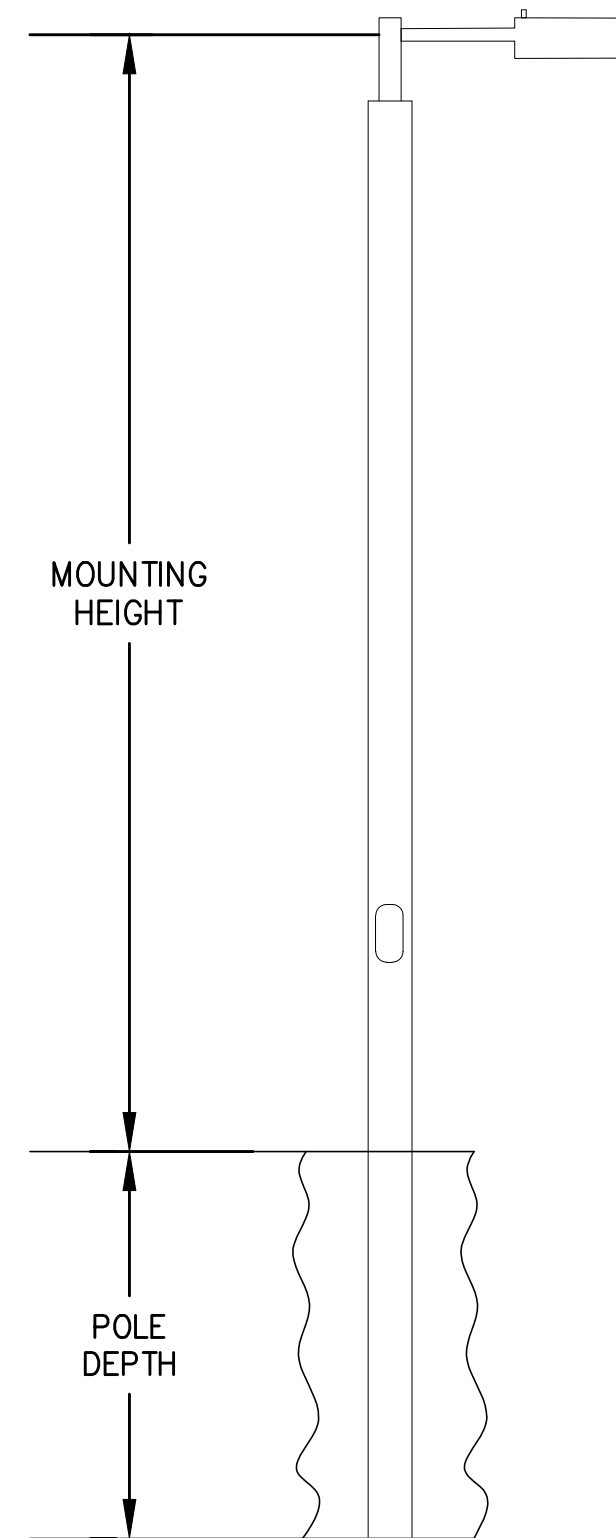
BOX TO BE POLYMER CONCRETE MATERIAL WITH POLYMER CONCRETE BOLT DOWN (NON-CONDUCTIVE COVER).



SRP APPROVED SUPPLIERS	PART NUMBER
STRONGWELL	PC1118B513 BOX PC1118C504-17/UH0390AA COVER WITH ELECTRIC
ARMORCAST PRODUCTS	6001429A
CDR SYSTEMS	PA40-1015-12
CARSON & ASSOCIATES	HLW111B-12 BOX HLW111B-PO LID

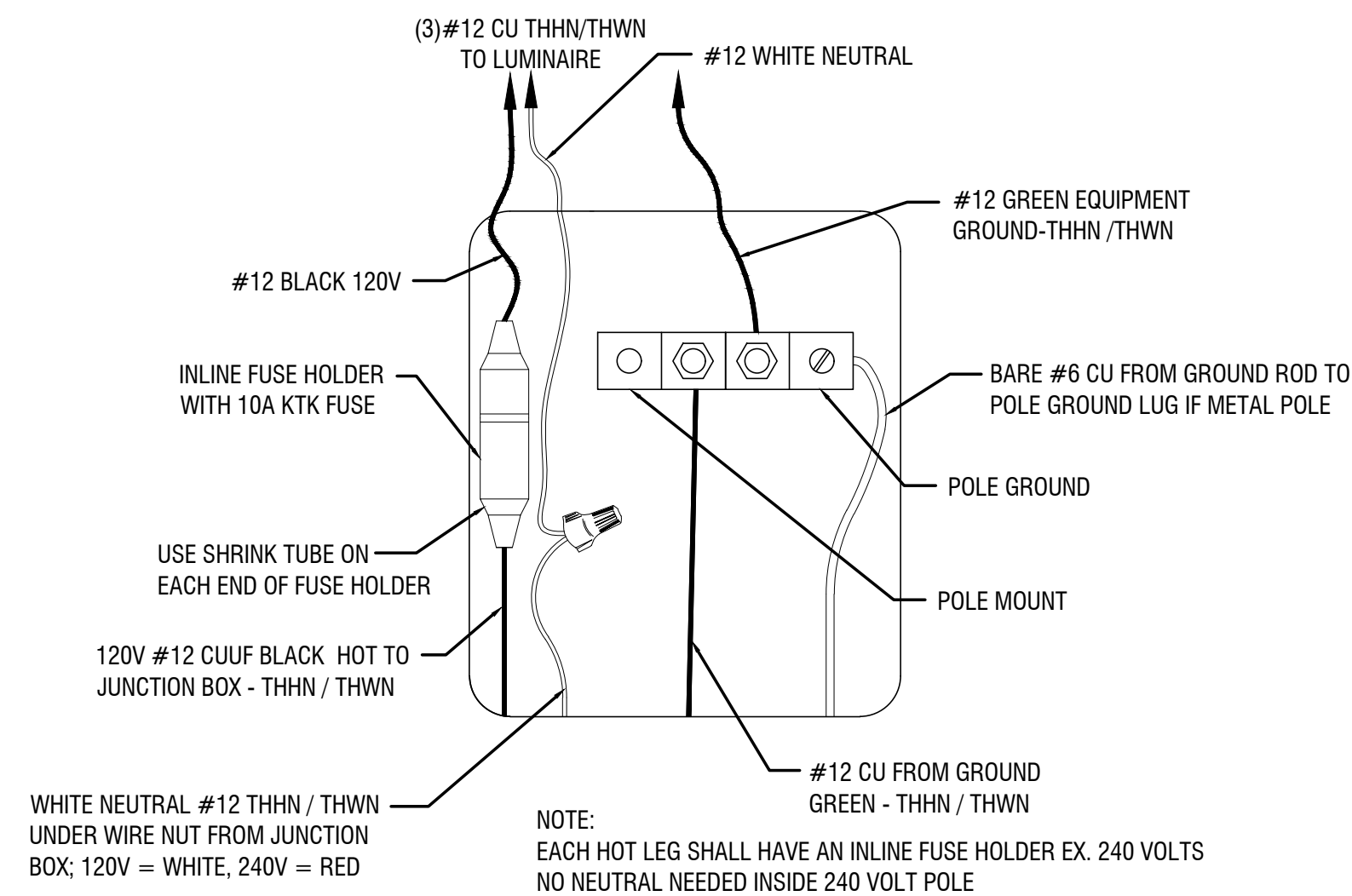
B JB1- J-BOX SECTION
~
NTS:

STREET LIGHT QUANTITIES		
QUANTITY	UNIT	DESCRIPTION
1	EACH	RSX1 30K R4 MVOLT RSX1EGS DBLXD



MOUNTING HEIGHT:	POLE DEPTH:	LUMENS:	POLE SHAPE:	POLE COLOR:
15'-0"	4'-0"	7189	SQUARE	BROWN

C SINGLE ARCHITECTURAL DIRECT BURIED LIGHT
~
NTS:



D GROUNDING DETAIL
~
NTS:

811 Know what's below.
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1-800-662-4111

REV. NO.	COMMENT	DATE

REGISTERED PROFESSIONAL ENGINEER
29-Jan-2025
No. 362066
J. RANDALL KNAPP
STATE OF UTAH

SUNRISE ENGINEERING
6875 SOUTH 900 EAST
SALT LAKE CITY, UTAH 84047
TEL 801.523.0100 · FAX 801.523.0990
www.sunrise-eng.com

**HYDE PARK
CITY HALL WELL HOUSE**

DETAILS

SEI NO. S10660	DESIGNED KRD	DRAWN GKP	CHECKED JRK	SHEET NO. 41 of 72	E502
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LINE LEGEND

	MAIN PROGRESS LINE
	MINOR PROGRESS LINE
	ELECTRICAL CONNECTION
	DATA LINK (PROTOCOL SPECIFIED)
	PNEUMATIC SIGNAL
	CAPILLARY TUBE
	MECHANICAL LINK
	USER DEFINED

SYMBOL LEGEND

	BALL VALVE
	BUTTERFLY VALVE
	GATE VALVE
	PLUG VALVE
	MOTOR OPERATED VALVE
	THREE WAY VALVE
	CHECK VALVE
	PRESSURE OPERATED VALVE
	BACK PRESSURE REGULATOR INTERNAL TAP
	BACK PRESSURE REGULATOR EXTERNAL TAP
	PRESSURE REDUCING REGULATOR INTERNAL TAP
	PRESSURE REDUCING REGULATOR EXTERNAL TAP
	PRESSURE RELIEF VALVE
	AIR-VAC ASSEMBLY
	PRELUBE CONTROL VALVE
	PIPE REDUCER
	PUMP
	PERISTALTIC PUMP
	MAGNETIC FLOW METER
	TURBINE PROPELLER FLOW METER
	ULTRASONIC FLOW METER
	FILTER / SCREEN
	ORIFICE / DIFFERENTIAL FLOW METER

CONTROL ABBREVIATIONS

MEASURED / INITIATING VARIABLE	FIRST LETTERS		SUCCEEDING LETTERS		
	DESCRIPTION	VARIABLE	READOUT / PASSIVE FUNCTION	OUTPUT / ACTIVE FUNCTION	FUNCTION MODIFIER
A	ANALYSIS		ALARM		
B	BURNER COMBUSTION		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	COMMUNICATION, CONDUCTIVITY			CONTROL	CLOSE
D	DENSITY	DIFFERENCE DIFFERENTIAL			DEVIATION
E	VOLTAGE		SENSOR, PRIMARY ELEMENT		
F	FLOW, FLOW RATE	RATIO			
G	USER'S CHOICE		GLASS, GAUGE, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME, SCHEDULE	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT	STATUS	LOW
M	MOISTURE, MANUAL, MULTI, MOTOR	OVERRIDE			MIDDLE, INTERMEDIATE
N	USER'S CHOICE		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	OVERLOAD		ORIFICE		OPEN
P	PRESSURE, VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY	INTEGRATE, TOTALIZE	INTEGRATE, TOTALIZE		
R	RADIATION, RESTRICTION		RECORD		RUN
S	SPEED, FREQUENCY	SAFETY		SWITCH	STOP
T	TEMPERATURE			TRANSMIT	
U	MULTI-VARIABLE		MULTIFUNCTION	MULTIFUNCTION	
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER, LOUVER	
W	WEIGHT, FORCE		WELL, PROBE		
X	UNCLASSIFIED, MISCELLANEOUS	X-Axis	ACCESSORY DEVICES, UNCLASSIFIED	EXECUTE	UNCLASSIFIED
Y	EVENT, STATE, PRESENCE	Y-Axis		RELAY, COMPUTING DEVICE	
Z	POSITION, DIMENSION	Z-Axis, SAFETY INSTRUMENTED SYSTEM		DRIVER, ACTUATOR, UNCLASSIFIED FINAL CONTROL ELEMENT	

COMMON IDENTIFIERS

IDENTIFIER	DESCRIPTION	PLC I/O
AE	ANALYTICAL ELEMENT	
AI	ANALYTICAL INSTRUMENT INDICATOR	AI
AT	ANALYTICAL INSTRUMENT TRANSMITTER	AI
FE	FLOW ELEMENT	
FI	FLOW INDICATOR	AI
FIQ	FLOW QUANTITY INDICATOR	DI
FIT	FLOW INDICATING TRANSMITTER	AI
FT	FLOW TRANSMITTER	AI
HS	HAND SWITCH	DI
LAH	LEVEL ALARM HIGH	DI
LAL	LEVEL ALARM LOW	DI
LI	LEVEL INDICATOR	AI
LIT	LEVEL INDICATING TRANSMITTER	AI
LT	LEVEL TRANSMITTER	AI
PIT	PRESSURE INDICATING TRANSMITTER	AI
SI	SPEED INDICATOR (FEEDBACK)	AI
SC	SPEED COMMAND (OUTPUT)	AO
TAH	TEMPERATURE ALARM HIGH	DI
TI	TEMPERATURE INDICATOR	AI
WAH	WEIGHT/FORCE/TORQUE HIGH ALARM	DI
WI	WEIGHT/FORCE/TORQUE INDICATOR	AI
YA	EVENT ALARM	DI
YI	EVENT INDICATOR	DI
YS	EVENT SWITCH	DI
YX	EVENT EXECUTE (RUN COMMAND)	DO
ZI	POSITION INDICATOR (POSITION FEEDBACK)	AI
ZSC	POSITION LIMIT SWITCH CLOSED	DI
ZSO	POSITION LIMIT SWITCH OPEN	DI
ZX	POSITION REFERENCE	AO
ZXC	POSITION EXECUTE CLOSE (CLOSE COMMAND)	DO
ZXO	POSITION EXECUTE OPEN (OPEN COMMAND)	DO

CONTROL ELEMENTS

PRIMARY LOCATION	FIELD MOUNT	PRIMARY LOCATION	AUXILIARY LOCATION
DISCRETE INSTRUMENTS			
SHARED DISPLAY SHARED CONTROL			
COMPUTER FUNCTION			
PROGRAMMABLE LOGIC CONTROL			

FLUID SERVICE CODES

IDENTIFIER	DESCRIPTION
CAR	COMPRESSED AIR
CBW	CLEAN BACKWASH WATER
CFD	CAUSTIC RAW FEED
CL2	CHLORINE
DBW	DIRTY BACKWASH WATER
DRN	PROCESS DRAIN
FEW	FILTER EFFLUENT WATER
FIW	FILTER INFLUENT WATER
IRR	IRRIGATION WATER
NAG	NATURAL GAS
PAR	PROCESS AIR
PWR	POTABLE WATER
STO	STORM DRAIN
VNT	VENT (GENERAL USE)
WWR	WASTEWATER

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6875 SOUTH 900 EAST
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www.sunrise-eng.com

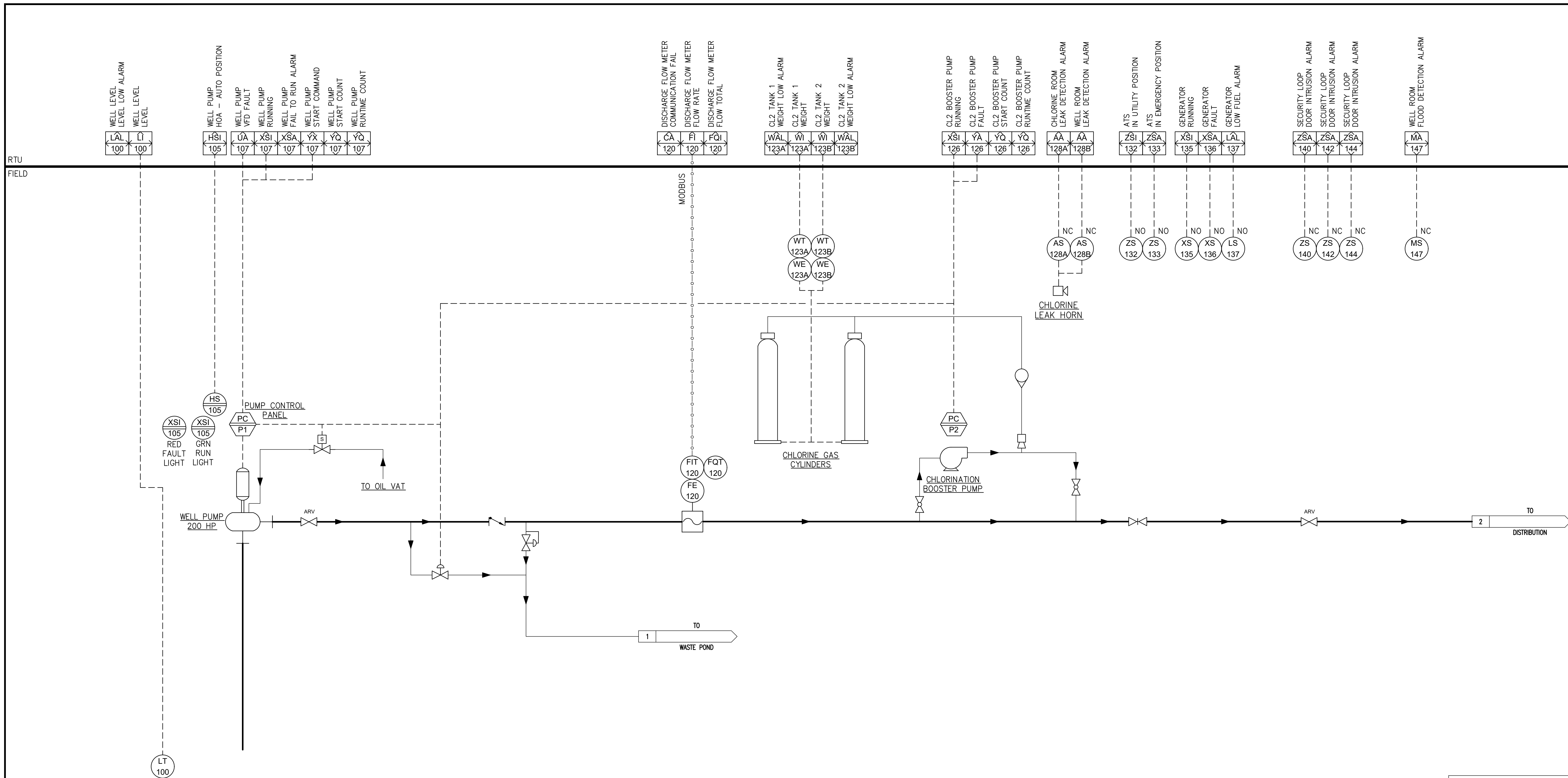
HYDE PARK

CITY HALL WELL HOUSE

P&ID

NOTES AND SYMBOLS

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	TOTAL SHEETS
S10660	KRD	GKP	MCH	49 of 72	11



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REV. NO.	COMMENT	DATE

PROFESSIONAL ENGINEER
No. 13487586
MICHAEL C. HARE
STATE OF UTAH

SUNRISE ENGINEERING

6875 SOUTH 900 EAST
SALT LAKE CITY, UTAH 84047
TEL 801.523.0100 · FAX 801.523.0990
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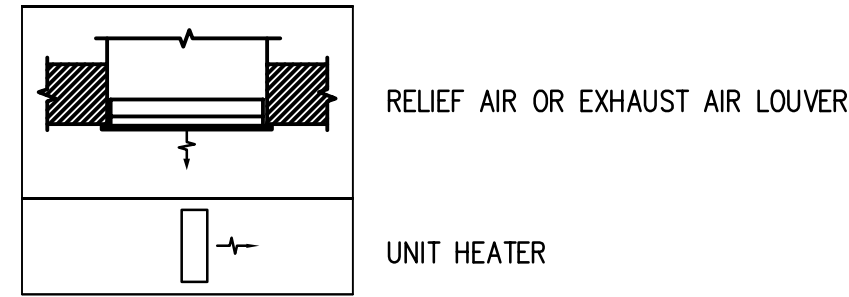
HYDE PARK
CITY HALL WELL HOUSE
P&ID
WELL BUILDING

SEI NO. S10660	DESIGNED KRD	DRAWN GKP	CHECKED MCH	SHEET NO. 50 of 72	12
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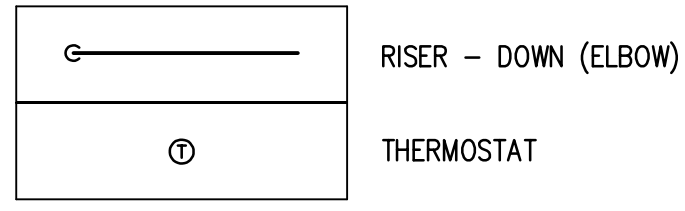
P:\vyrp\pork\10660\city hall well house\04 Dwg\06 P&ID.dwg Jan 30, 2025 10:05am comar.parker

LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

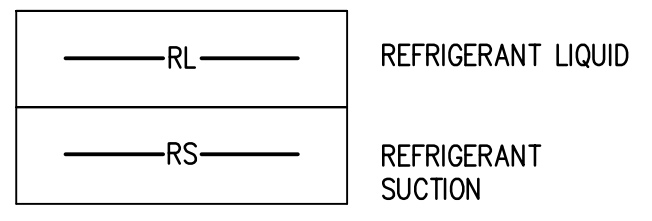
MECHANICAL



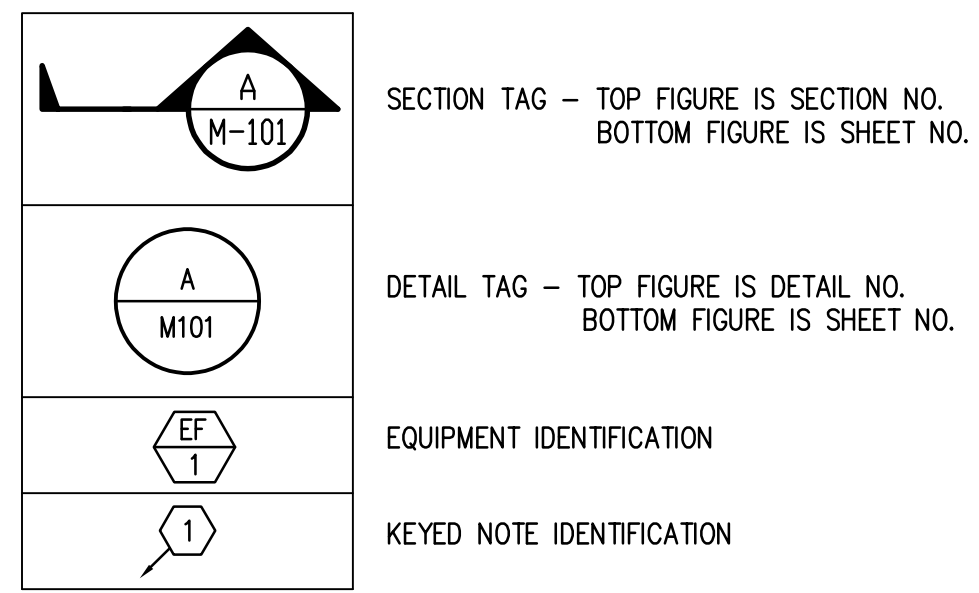
PLUMBING



LINETYPES



SYMBOLS

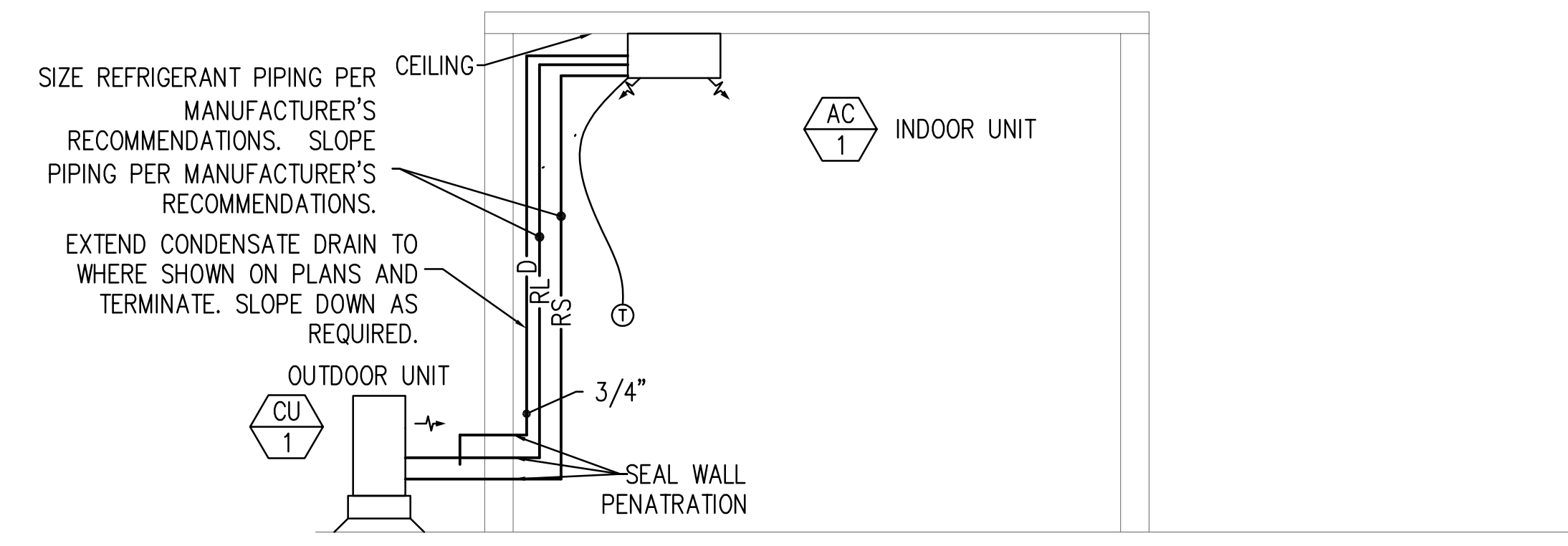


CODE INFORMATION

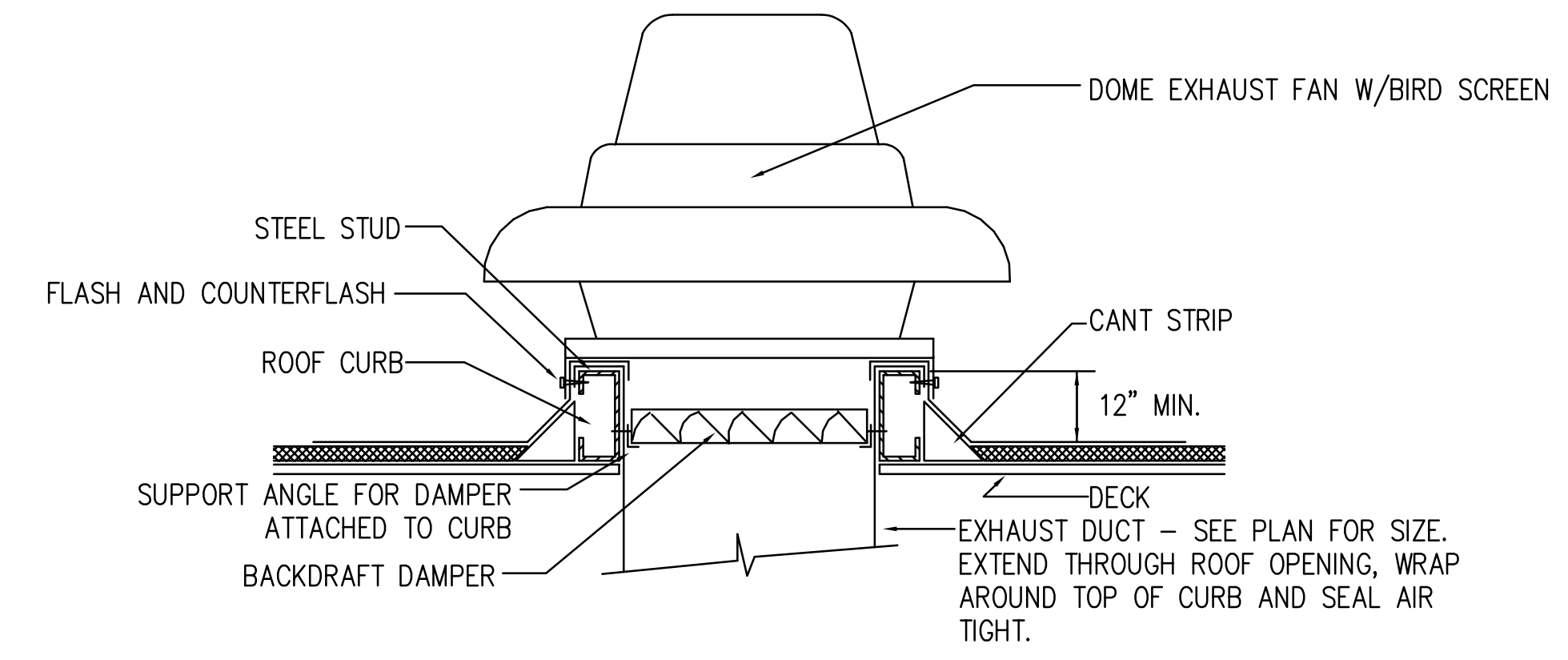
- A. 2021 IBC, 2021 IRC, 2021 IFGC, 2021 IECC & THE STATE OF UTAH AMENDMENTS. ALL SYSTEMS SHALL BE IN COMPLIANCE WITH THE ABOVE CODES AS ADOPTED BY THE STATE OF UTAH.
- B. OUTDOOR AIR VENTILATION PROVIDED AND BASED ON CHAPTER 4, SECTION 402 NATURAL VENTILATION OF THE 2021 IMC.
- C. EQUIPMENT AND APPLIANCES SHALL BE INSTALLED AS REQUIRED BY THE TERMS OF THEIR APPROVAL, IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING, THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THIS CODE. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT THE TIME OF INSPECTION PER SECTION 304.1.

2021 IECC COMPLIANCE NOTES

- 1. PROVIDE OWNER WITH COMPLETE OPERATION AND MAINTENANCE MANUALS FOR ALL EQUIPMENT AND CONTROLS INSTALLED. DOCUMENTATION MUST INCLUDE EQUIPMENT CAPACITY (INPUT & OUTPUT), REQUIRED MAINTENANCE ACTIONS, CONTROLS, AND CALIBRATION INFORMATION INCLUDING WIRING DIAGRAMS, CONTROL SEQUENCE DESCRIPTIONS, DESIRED OR FIELD-DETERMINED SETPOINTS, AND A COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE.



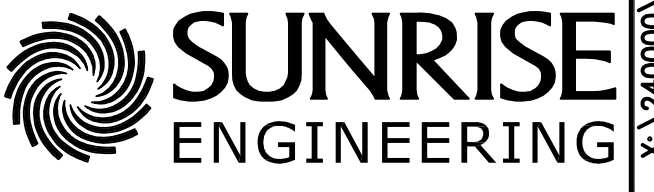
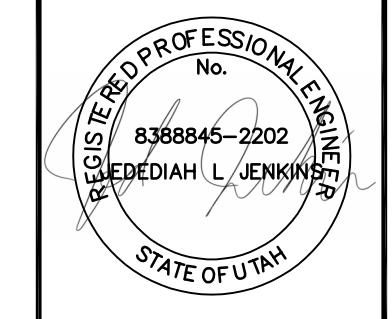
2 SPLIT SYSTEM CONDITIONING UNIT DETAIL
M1 NO SCALE



1 EXHAUST FAN DETAIL
M1 NO SCALE



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HYDE PARK
 WELL HOUSE
 MECHANICAL
 SYMBOLS AND DETAILS

SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
S10660	JJ	DB	JJ	00 of YY	M1

X:\240000\240867 Hyde Park City Hall Well House Project - S10660\03_AutoCAD_Mechanical\M1.dwg Jan 29, 2025 2:21pm Jenkins

FAN SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	AIR TYPE	AIR		FAN		ELECTRICAL				PHYSICAL		NOTES
					MAXIMUM AIRFLOW RATE (CFM)	STATIC PRESSURE (IN. WATER)	FAN SPEED (RPM)	STATIC EFFICIENCY (%)	MOTOR SIZE (HP)	MOTOR BHP (HP)	MOTOR SPEED (RPM)	VOLT/PH/Hz	LENGTH/WIDTH/HEIGHT (IN)	WEIGHT (LBS)	
EF-1	GREENHECK G-095-G	CHLORINE RM	DOME	EXHAUST	350	0.25	1085	41	1/6	0.025	1085	115/1/60	22/17/27	43	(1)(2)(3)(4)
EF-2	GREENHECK G-095-G	PUMP RM	DOME	EXHAUST	350	0.25	1085	41	1/6	0.025	1085	115/1/60	22/17/27	43	(1)(2)(3)(4)

- (1) 4600 FT ELEVATION.
- (2) WALL SWITCH AND WIRING BY ELECTRICAL.
- (3) UNIT COMPLETE WITH 18" ROOF CURB, BACKDRAFT DAMPER AND BIRD SCREEN.
- (4) LOUVER TO FULL OPEN WHEN FAN IS ON.

AIR HANDLER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	AIR			ELECTRICAL			PHYSICAL		NOTES
			SUPPLY AIRFLOW (CFM)	COOLING LOAD (BTU/H)	HEATING LOAD (BTU/H)	SINGLE POINT VOLT/PH/Hz	MOP	MCA	CABINET LENGTH/WIDTH/HEIGHT (IN)	WEIGHT (LB)	
AH-1	LG LCN369HV	PUMP ROOM	1200	36000	40000	230/1/60	40	32	34.5/34.5/12	56	(1)(2)(3)(4)
AH-2	LG LCN369HV	PUMP ROOM	1200	36000	40000	230/1/60	40	32	34.5/34.5/12	56	(1)(2)(3)(4)

- (1) ELEVATION 4600 FT.
- (2) UNIT COMPLETE WITH 7-DAY PROGRAMMABLE THERMOSTAT.
- (3) DISCONNECT BY DIV. 26.
- (4) COOLING CONDITIONS: INDOOR 75/65 DB/WB; OUTDOOR 95/75 DB/WB. HEATING CONDITIONS: INDOOR 55/55 DB/WB; OUTDOOR 47/43 DB/WB.

CONDENSING UNIT SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	USAGE	AIR		DX		ELECTRICAL		PHYSICAL		NOTES
				AIRFLOW RATE (CFM)	HEATING/COOLING NOMINAL LOAD (BTU/H)	MEDIUM	SINGLE POINT VOLT/PH/Hz	MOP	CABINET LENGTH/WIDTH/HEIGHT (IN)	WEIGHT (LB)		
CU-1	LG-LUU360HHV	SEE PLANS	COOLING	4238	36000/40000	R410A	230/1/60	40	37.5/15/54.5	200	(1)(2)(3)(4)	
CU-2	LG-LUU360HHV	SEE PLANS	COOLING	4238	36000/40000	R410A	230/1/60	40	37.5/15/54.5	200	(1)(2)(3)(4)	

- (1) ELEVATION 4600 FT.
- (2) DISCONNECT BY DIV. 26.
- (3) COOLING CONDITIONS: INDOOR 75/65 DB/WB; OUTDOOR 95/75 DB/WB. HEATING CONDITIONS: INDOOR 55/55 DB/WB; OUTDOOR 47/43 DB/WB.
- (4) UNIT COMPLETE WITH LOW AMBIENT KIT TO ALLOW FOR OPERATION DOWN TO 0 DEGREES F.

LOUVER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	SERVICE	MIN. FREE AREA (SQ. FT.)	AIR		PHYSICAL		NOTES
					MAXIMUM AIRFLOW RATE (CFM)	STATIC PRESSURE (IN. WATER)	WIDTH/HEIGHT (IN)	WEIGHT (LB)	
L-1	AIROLITE K8206E	CHLORINE RM	INLET	0.47	350	0.1	21/24.25	200	(1)(2)(3)
L-2	AIROLITE K8206E	PUMP RM	INLET	0.47	350	0.1	21/24.25	200	(1)(2)(3)

- (1) WITH BIRD AND INSECT SCREEN.
- (2) WITH 120V ELECTRIC MOTOR ACTUATOR IN THE SILL.
- (3) LOUVER TO BE INTERLOCKED WITH THE EXHAUST FAN. FULL OPEN WHEN EXHAUST FAN IS ON.

ELECTRIC UNIT HEATER SCHEDULE

ID	MANUFACTURER AND MODEL NUMBER	LOCATION	TYPE	AIR			ELECTRICAL		PHYSICAL		NOTES
				AIRFLOW RATE (CFM)	HEATING CAPACITY (MBH)	HEATING CAPACITY (KW)	TOTAL AMPS	VOLT/PH/Hz	CABINET DIMENSIONS LxWxH (IN)	WEIGHT (LBS)	
EUH-1	MARLEY QMARK AWH3150F	CHLORINE RM	SIDE DISCHARGE	100	5118	1.5	15	120/1/60	6/15/19.5	30	(1)(2)(3)
EUH-2	MARLEY QMARK AWH3150F	PUMP RM	SIDE DISCHARGE	100	5118	1.5	15	120/1/60	6/15/19.5	30	(1)(2)(3)
EUH-3	MARLEY QMARK AWH4404F	PUMP RM	SIDE DISCHARGE	100	13649	4	16.7	240/1/60	6/15/19.5	30	(1)(2)(3)

- (1) DISCONNECT BY ELECTRICAL.
- (2) UNIT HEATER SHALL BE WALL MOUNTED IN SURFACE MOUNTING BOX.
- (3) UNIT COMPLETE WITH INTAGRAL CONTROLS AND THERMOSTAT. SET TEMPERATURE TO 40 DEGREES F.



REV. NO.	COMMENT	DATE

REGISTERED PROFESSIONAL ENGINEER
No. 8368845-2202
DEBEDIAH L. JENKINS
STATE OF UTAH

SUNRISE ENGINEERING

6875 SOUTH 900 EAST
SALT LAKE CITY, UTAH 84047
TEL 801.523.0100 · FAX 801.523.0990
www.sunrise-eng.com

HYDE PARK
WELL HOUSE
MECHANICAL
MECHANICAL SCHEDULE

SEI NO. S10660	DESIGNED JJ	DRAWN DB	CHECKED JJ	SHEET NO. 00 of YY	M2
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PART 1 – GENERAL

01-230050 HVAC DESIGN CRITERIA

- A. WORK INCLUDED: FURNISH ALL LABOR, MATERIALS ,EQUIPMENT, APPLIANCES AND NECESSARY INCIDENTALS FOR THE COMPLETE INSTALLATION OF ALL HEATING AND VENTILATION AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.
- B. RELATED WORK INCLUDED IN THIS SECTION:
 - 1. FURNISHING ELECTRICAL DEVICES NECESSARY FOR MECHANICAL WORK, EXCEPT DISCONNECTS UNLESS INDICATED OTHERWISE.
 - 2. LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS INCLUDING FINAL CONNECTIONS AS INDICATED ON WIRING DIAGRAMS.
 - 3. CONDUIT FOR LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS AS INDICATED ON WIRING DIAGRAMS.
 - 4. RESPONSIBILITY FOR OBTAINING CLARIFICATION OF DISCREPANCIES BETWEEN MECHANICAL AND ELECTRICAL WORK FROM ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
 - 5. RESPONSIBILITY FOR PROPER OPERATION OF AUTOMATIC ELECTRICAL CONTROLS AND EQUIPMENT, AND OF ELECTRIC POWER DRIVEN EQUIPMENT FURNISHED UNDER THIS SECTION.
- C. RELATED WORK IN OTHER SECTIONS:
 - 1. ELECTRICAL WORK AS FOLLOWS WILL BE PROVIDED UNDER ELECTRICAL DIVISION:
- D. CONDUIT FOR LINE VOLTAGE WIRING FOR EQUIPMENT AND DEVICES AS INDICATED OR SPECIFIED EXCEPT CONDUIT FOR LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS AS SPECIFIED UNDER DIVISION 23.
- E. LINE VOLTAGE WIRING FOR EQUIPMENT AND DEVICES AS INDICATED OR SPECIFIED HEREIN EXCEPT LINE AND LOW VOLTAGE WIRING FOR MECHANICAL CONTROLS AS SPECIFIED UNDER DIVISION 23.
- F. PROVIDING DISCONNECT SWITCHES.
- G. INSTALLING ELECTRICAL DEVICES SUCH AS STARTERS AND DISCONNECTS, AND, WHEN INDICATED, FURNISHING ALL SUCH DEVICES.
- H. CODES AND STANDARDS:
 - 1. IN ADDITION TO THE REQUIREMENTS OF ALL GOVERNING CODES, ORDINANCES, AND AGENCIES, CONFORM TO THE REQUIREMENTS OF THE FOLLOWING CODES AND STANDARDS:
 - 2021 INTERNATIONAL MECHANICAL CODE.
 - 2021 INTERNATIONAL BUILDING CODE.
 - 2021 INTERNATIONAL PLUMBING CODE.
 - 2021 INTERNATIONAL ENERGY CONSERVATION CODE.
 - 2021 INTERNATIONAL FUEL AND GAS CODE.
 - ASHRAE 90.1-2016.
 - 2021 INTERNATIONAL ELECTRICAL CODE.
- F. DESIGN CONDITIONS
 - 1. OUTSIDE DESIGN CONDITIONS: USE THE FOLLOWING CLIMATE DATE FROM ASHRAE 2017 FUNDAMENTAL HANDBOOK 14 FOR HYDE PARK, UTAH
 - a. ELEVATION, 4650 FT
 - b. SUMMER DESIGN DRY BULB TEMP, (ASHRAE 1%), 93°F
 - c. SUMMER MEAN COINCIDENT WET BULB, (ASHRAE 1%), 62°F
 - d. WINTER DESIGN DRY BULB TEMP, (ASHRAE 99%), -20°F

01-230051 PRODUCT HANDLING

- A. PROTECTION: TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE MATERIALS OF THIS SECTION BEFORE, DURING, AND AFTER INSTALLATION.
- B. REPLACEMENTS: IN THE EVENT OF DAMAGE, IMMEDIATELY REPAIR ALL DAMAGED AND DEFECTIVE WORK TO THE APPROVAL OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

01-230053 MISCELLANEOUS

- A. PERMIT AND FEES: EXAMINATION, APPLY, PAY FOR ALL NECESSARY PERMITS, INSPECTIONS, EXAMINATIONS, AND FEES OR CHARGES REQUIRED BY PUBLIC AUTHORITIES HAVING JURISDICTION.
- B. LOCATIONS AND ACCESSIBILITY: CONTRACTOR SHALL FULLY INFORM HIS/HERSELF REGARDING PECULIARITIES AND LIMITATIONS OF SPACE AVAILABLE FOR INSTALLATION OF WORK UNDER THIS SECTION. VALVES, MOTORS, CONTROLS, AND OTHER DEVICES REQUIRING SERVICE, MAINTENANCE, ADJUSTMENT SHALL BE PLACED IN FULLY ACCESSIBLE POSITIONS AND LOCATIONS. PROVIDE ACCESS DOORS WHERE REQUIRED IN DUCTWORK AND/OR CONSTRUCTION WHETHER SPECIALLY DETAILED OR NOT, AND RENDER ALL SUCH DEVICES ACCESSIBLE.
- C. SCAFFOLDING: FURNISH ALL SCAFFOLDING, RIGGING, HOISTING AS REQUIRED FOR THE PROPER EXECUTION OF THE WORK.
- D. DRAWINGS: DRAWINGS INDICATE DESIRED LOCATION AND ARRANGEMENT OF EQUIPMENT AND OTHER ITEMS, AND ARE TO BE FOLLOWED AS CLOSELY AS POSSIBLE. ALL OFFSETS AND INTERFERENCES MAY NOT BE SHOWN BECAUSE OF THE SCALE OF DRAWINGS. ASSUME THE RESPONSIBILITY FOR COORDINATING THE WORK WITH ALL OTHER TRADES. WORK SPECIFIED AND NOT CLEARLY DEFINED BY THE DRAWINGS SHALL BE INSTALLED AND ARRANGED IN A MANNER SATISFACTORY TO THE ENGINEER. IN THE EVENT CHANGES IN INDICATED LOCATIONS AND ARRANGEMENTS ARE DEEMED NECESSARY BY ENGINEER, THEY SHALL BE MADE BY THIS CONTRACTOR WITHOUT ADDITIONAL CHARGES.
- E. ALL HVAC EQUIPMENT SHALL BE LABELED. INFORMATION ON LABELS SHALL INCLUDE: IDENTIFICATION NUMBER AND NAME SAME AS THE DRAWINGS, FLOW AND STATIC PRESSURE, AND THE AREA TO WHICH THE UNIT SERVES. LABELS SHALL BE BLACK FACED FORMICA WITH WHITE ENGRAVED LETTERING AT LEAST 3/16 INCH HIGH.

01-230550 SUBMITTALS AND O&M MANUALS

- A. SHOP DRAWINGS: WITHIN 15 DAYS AFTER AWARD OF CONTRACT, AND BEFORE ANY OF THE MATERIALS OF THIS SECTION ARE FABRICATED AND DELIVERED TO THE JOBSITE, THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS AND EQUIPMENT SUBMITTALS FOR ENGINEER TO REVIEW IN ACCORDANCE WITH THESE SPECIFICATIONS. SHOW ALL DETAILS OF ALL DUCTWORK, AND EQUIPMENT PADS.
- B. PRODUCT DATA:
 - 1. SUBMIT ELECTRONIC COPIES OF ALL MANUFACTURER'S PRODUCT DATA SIMULTANEOUSLY WITH ALL SHOP DRAWING SUBMITTALS.
 - 2. PRODUCT DATA TO INCLUDE ALL AIR CONDITIONING EQUIPMENT, HANGERS, FANS, AND OTHER STANDARD ITEMS AS REQUIRED TO COMPLEMENT SHOP DRAWINGS FOR A SUBMITTAL INDICATING PRODUCTS TO BE USED ON THIS WORK.
 - 3. MANUFACTURERS AND SUPPLIERS OF EQUIPMENT SHALL PROVIDE ALL DATA NECESSARY FOR COMPLIANCE WITH THE STATE OF UTAH ENERGY CONSERVATION STANDARDS. COMPLIANCE CERTIFICATION FOR ALL EQUIPMENT SHALL BE INCLUDED IN EQUIPMENT SUBMITTALS.
- C. RECORD DRAWINGS: MAINTAIN THROUGHOUT THE PROGRESS OF THE WORK PROJECT RECORD DRAWINGS AND SUBMIT TO THE OWNER.
- D. OPERATION AND MAINTENANCE MANUALS:
 - 1. PROVIDE 1 HARD COPY OF THE O&M MANUALS FOR USE BY OWNER.
 - 2. PROVIDE AN ELECTRONIC FILE OF THE COMPLETE O&M IN PDF FORMAT.
 - 3. PROVIDE BINDERS FOR SIZE 8 - 1/2 x 11 INCH SHEETS, 2 INCHES TO 3 - 1/2 INCHES AS REQUIRED BY THE PROJECT. THE FRONT COVER AND BACKBONE SHALL BE LABELED IN WHITE AS FOLLOWS:
 - OPERATING AND MAINTENANCE MANUAL FOR THE
 - (INSERT PROJECT NAME)
 - YEAR
 - VOLUME NO.()
 - (INSERT MECHANICAL ENGINEER)
 - MECHANICAL ENGINEER
 - (INSERT ARCHITECT)
 - ARCHITECT
 - 4. PROVIDE AN INDEX SHEET TYPED ON AICO GOLD-LINE INDEXES IN THE FRONT OF THE BINDER. THE MANUAL SHALL INCLUDE THE FOLLOWING.
 - a. SYSTEM DESCRIPTIONS AND BASIS OF DESIGN
 - b. START-UP PROCEDURE AND OPERATION OF SYSTEM
 - c. MAINTENANCE AND LUBRICATION TABLE
 - d. OPERATION AND MAINTENANCE BULLETINS
 - e. EQUIPMENT START-UP CERTIFICATES

- E. GUARANTEES: IN ADDITION TO EQUIPMENT WARRANTIES, FURNISH A WRITTEN GUARANTEE AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR ONE YEAR. GUARANTEE SHALL INCLUDE REPAIR OF DAMAGE TO, OR REPLACEMENT OF, ANY PART OF EQUIPMENT OR PREMISES CAUSED BY LEAKS OR BREAKS IN PIPE OR EQUIPMENT PROVIDED UNDER THIS SECTION.

01-230553 HVAC EQUIPMENT IDENTIFICATION

EQUIPMENT IDENTIFICATION

- 1. IDENTIFY ALL MECHANICAL EQUIPMENT AND ALL OTHER DEVICES WITH SIGNS MADE OF LAMINATED PLASTIC WITH ONE-EIGHT INCH (1/8") OR LARGER ENGRAVED LETTERS. ATTACH SIGNS SECURELY WITH RUST PROOF SCREW OR SOME OTHER PERMANENT MEANS (NO ADHESIVES).
- 2. INCLUDE THE FOLLOWING INFORMATION ON THE EQUIPMENT IDENTIFICATION SIGN: NAME OF EQUIPMENT, IDENTIFICATION ON PLANS AND SCHEDULES, DESIGN CAPACITY, AND ANY OTHER IMPORTANT DATA NO INCLUDED ON FACTORY ATTACHED NAME PLATE.
- 3. ATTACH SIGNS TO EQUIPMENT SO THEY CAN BE EASILY READ. ATTACH USING SCREW OR RIVETS.
- 4. A SAMPLE IDENTIFICATION SIGN FOR EQUIPMENT IS AS FOLLOWS:
 - "SUPPLY FAN –AUDITORIUM F-2
 - CAPACITY: 49,850 CFM @ 3.5" S.P. (AT 4775 FT. ELEV.)"
 - "HEATING HOT WATER PUMP
 - CLASSROOM AREA
 - 156 GPM @ 57 FT.HEAD"

PART 2 – PRODUCTS

02-230529 HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT.

- A. PROVIDE RUST RESISTANT STEEL HANGERS, SUPPORTS, RODS AND ACCESSORIES.
- B. PROVIDE HANGERS TO ACCOMMODATE FULL SIZE INSULATION SYSTEM.
- C. PROVIDE STAINLESS STEEL HANGERS AND SUPPORTS IN THE WET WELL.

02-233400 HVAC FANS

- A. FANS OF SIZE AND CAPACITY SHOWN ON DRAWINGS SHALL BE FURNISHED AND INSTALLED. FANS SHALL BE DIRECT DRIVE OF RPM SHOWN. AIR QUANTITIES SHALL BE CERTIFIED BY AMCA.
- B. APPROVED MANUFACTURES ARE:
 - 1. LOREN-COOK
 - 2. GREEN-HECK
 - 3. TWIN-CITY

02-233401 ELECTRIC UNIT HEATER

- A. FURNISH AND INSTALL INDOOR ELECTRIC HEATER OF SIZE AND CAPACIT SHOWN ON THE DRAWINGS. UNIT MUST BE UL LISTED.
- B. APPROVED MANUFACTURES ARE:
 - 1. MARLEY
 - 2. HASTINGS
 - 3. MODINE



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HYDE PARK
WELL HOUSE
MECHANICAL
SPECIFICATIONS

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2.-233500 DIFFUSERS, REGISTERS AND, GRILLES

SPLIT SYSTEM AC UNIT.

- UNIT OF SIZE AND CAPACITY INDICATED. UNITS SHALL BE COMPLETELY ASSEMBLED AND TESTED AND READY TO OPERATE. TOTAL UNIT SHALL BE U.L. LISTED AND CARRY A U.L. LABEL.
- A. INDOOR AND OUTDOOR COILS SHALL BE OF NONFERROUS CONSTRUCTION WITH ALUMINUM PLATE FINS MECHANICALLY BONDED TO SEAMLESS COPPER TUBES WITH ALL JOINTS BRAZED.
 - B. COMPRESSORS SHALL BE WELDED, FULLY HERMETIC WITH CRANKCASE HEATERS. COMPRESSORS SHALL HAVE A FIVE YEAR WARRANTY AND BE CAPABLE OF OPERATING TO 25 DEGREES F OUTDOOR TEMPERATURE.
 - C. HEATING/COOLING SYSTEM SHALL BE PROTECTED WITH HIGH PRESSURE STATS, LOW PRESSURE STATS, LOSS OF CHARGE PROTECTION, INDOOR COIL FREEZE-STATS, AND CURRENT AND TEMPERATURE SENSITIVE OVERLOAD DEVICES. CONTROLS SHALL BE PROVIDED TO PREVENT COMPRESSOR SHORT CYCLING AND AUTOMATICALLY PREVENT COMPRESSOR RESTART AT LEAST 5 MINUTES AFTER SHUTDOWN. CONDENSATE DRAINS OFF DRAIN PANS SHALL BE TRAPPED OUTSIDE THE UNIT CASING.
 - D. REFRIGERANT CIRCUIT COMPONENTS SHALL INCLUDE THE FOLLOWING: FILTER DRIER, SERVICE GAUGE CONNECTIONS ON SUCTION, DISCHARGE AND LIQUID LINES TO CHARGE, EVACUATE, AND CONTAIN REFRIGERANT, REVERSING VALVE AND ACCUMULATOR.
 - E. FACTORY THERMOSTATS AS NOTED.
 - F. REFRIGERANT LINES ARE TO BE SIZED AS PER MANUFACTURER'S REQUIREMENTS. LINES TO BE FULLY INSULATED AND PROTECTED PER IMC 1107 AND IECC 403.11.3.1 WITH 1 INCH FOAM FLEX OR EQUAL. INSULATION EXPOSED TO THE SUN SHALL BE ALUMINUM JACKETED. THE SYSTEM IS TO BE EVACUATED TO 200 MICRONS, HOLD VACUUM 24 HOURS, BREAK WITH FREON AND
 - G. LEAK TEST WITH HALIDE DETECTOR. EACH SPLIT SYSTEM TO BE PROVIDED WITH A REFRIGERANT LINE KIT.

PART 3 - EXECUTION

03-230500 COMMON WORK RESULTS FOR HVAC

- A. SCHEDULE A REPRESENTATIVE OF THE OWNER TO BE PRESENT WHEN TEST ON HVAC SYSTEMS ARE CONDUCTED.

03-230053 INSTALLATION REQUIREMENTS

- A. PROVIDE A MINIMUM CLEARANCE OF 30" OR MORE AT ALL EQUIPMENT. CODE REQUIRED CLEARANCE SHALL TAKE PRECEDENCE.
- B. INSTALL ALL EQUIPMENT WITH CLEARANCES TO PERMIT DISASSEMBLY FOR MAINTENANCE PURPOSES.
- C. INSTALL ALL SYSTEMS SUCH THAT NO EQUIPMENT, DUCTWORK, CONDUIT, ETC. IS REQUIRED TO BE REMOVED TO SERVICE, REPAIR OR REPLACE EQUIPMENT.
- D. SCHEDULE ALL UTILITY SHUTDOWNS 7 DAYS IN ADVANCE.

03-230054 DISCREPANCIES

- A. IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE OWNER.
- B. DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED. SEE SECTION 2.

03-230055 EQUIPMENT IDENTIFICATION

ALL MAJOR EQUIPMENT SHALL BEAR FIRMLY ATTACHED METAL NAMEPLATES WHICH STATE NAME OF MANUFACTURER, MODEL NUMBER, AND ELECTRICAL DATA.

03-230056 INITIAL LUBRICATION, ADJUSTING, AND FILLING SYSTEMS

BEFORE OPERATING ANY MECHANICAL SYSTEMS, EQUIPMENT BEARINGS SHALL BE LUBRICATED AND BOLTS, PULLEYS, AND OTHER MOVING PARTS CHECKED FOR ALIGNMENT AND TOLERANCES IN ACCORDANCE WITH MANUFACTURER'S OPERATING INSTRUCTIONS. VIBRATIONS AND NOISE SHALL BE SUPPRESSED.

03-230057 CLEANING OF EQUIPMENT, MATERIALS, AND PREMISES

EQUIPMENT WILL BE SMOOTHLY PAINTED AND CLEAN, READY FOR PAINTERS. CLEAN ENTIRE PREMISES OF UNUSED MATERIALS, RUBBISH, DEBRIS, GREASE SPOTS, AND DIRT LEFT BY SUBCONTRACTOR.

03-20058 EQUIPMENT AND MATERIAL

INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

03-230059 ACCESSIBILITY

INSTALL WORK READILY ACCESSIBLE FOR NORMAL OPERATION, READING OF INSTRUMENTS, ADJUSTMENT, SERVICE, INSPECTION, AND REPAIR. PROVIDE ACCESS PANELS WHERE INDICATED AND REQUIRED. ACCESS PANELS SHALL BE THE RESPONSIBILITY OF RESPECTIVE SUBCONTRACTORS.

03-230800 HVAC START-UP AND PERFORMANCE VERIFICATION.

- A. THE CONTRACTOR SHALL START-UP AND COMPLETELY VERIFY PERFORMANCE AND OPERATION PRIOR TO NOTIFYING THE ENGINEER OF SUBSTANTIAL COMPLETION.

03-230900 BUILDING AUTOMATION SYSTEM

- A. ELECTRIC UNIT HEATERS COMPLETE WITH INTEGRAL THERMOSTAT.
- B. FAN SHALL HAVE ON/OFF SWITCH BY DIV. 26. INTERLOCK FAN WITH ASSOCIATED DAMPERS BY DIV. 26.
- C. THE AIR HANDLING UNITS SHALL OPERATE BASED ON ONE TEMPERATURE SENSOR LOCATED IN THE ROOM. THE UNIT SHALL MODULATE TO MAINTAIN A MAXIMUM OF 75 DEG F IN COOLING AND A MINIMUM OF 45 DEG F IN HEATING MODE.

- END -



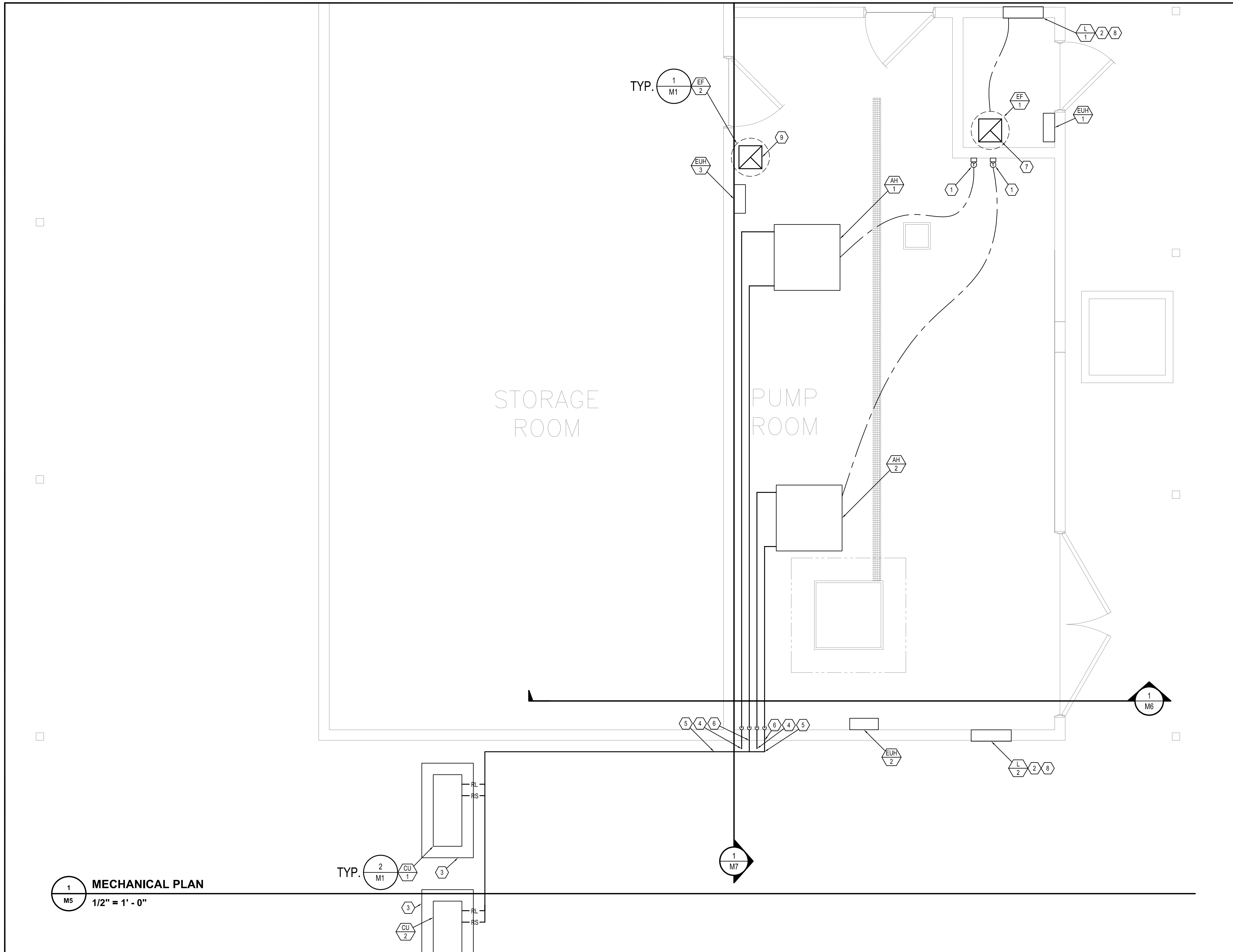
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HYDE PARK
WELL HOUSE
MECHANICAL
SPECIFICATIONS

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KEYED NOTES

1. MOUNT THERMOSTAT ON 2" FOAM BLOCK.
2. COORDINATE EXACT LOCATION WITH ARCHITECTURAL ELEVATIONS.
3. PROVIDE 6" CONCRETE PAD FOR HVAC UNIT. MAINTAIN MANUFACTURER'S CLEARANCES. RIGIDLY MOUNT UNIT TO PAD. UNIT TO BE LEVEL WHEN IN OPERATION.
4. CONDENSATE AND CONDENSATE OVERFLOW PIPING THRU WALL. SEAL PENETRATIONS WEATHER TIGHT.
5. PROVIDE AND INSTALL WATER TIGHT ALUMINUM JACKET ON EXTERIOR REFRIGERANT PIPING.
6. REFRIGERANT PIPING THRU WALL. SEAL PENETRATIONS WEATHER TIGHT.
7. INSTALL 12/12 EXHAUST DUCT DOWN TO 4 INCHES ABOVE FINISHED FLOOR. LEAVE OPEN AT BOTTOM.
8. LOUVER TO BE INTERLOCKED WITH THE EXHAUST FAN AND BE FULL OPEN WHEN EXHAUST IS ON. PROVIDE WITH MOTOR AND ACTUATOR.
9. INSTALL 12/12 EXHAUST DUCT DOWN THRU CEILING AND TERMINATE.

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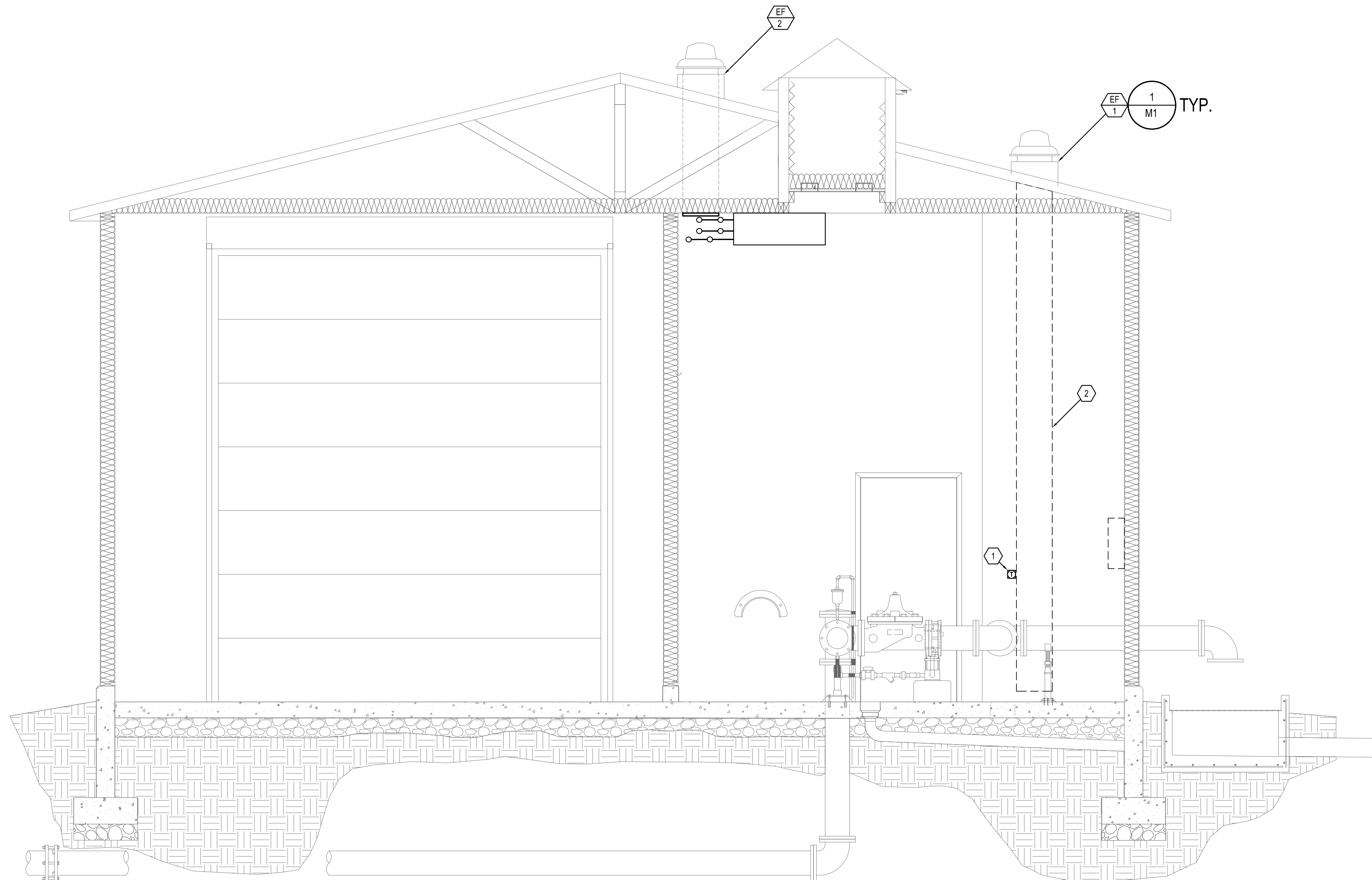
REGISTERED PROFESSIONAL ENGINEER
No. 8388845-2202
BEDEDAH L. JENKINS
STATE OF UTAH

SUNRISE ENGINEERING
6875 SOUTH 900 EAST
SALT LAKE CITY, UTAH 84047
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HYDE PARK
WELL HOUSE
MECHANICAL
MECHANICAL PLAN

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KEYED NOTES

1. MOUNT THERMOSTAT ON 2" FOAM BLOCK.
2. INSTALL 12/12 EXHAUST DUCT DOWN TO 4 INCHES ABOVE FINISHED FLOOR. LEAVE OPEN AT BOTTOM.

1 MECHANICAL SECTION
M6 1/2" = 1' - 0"

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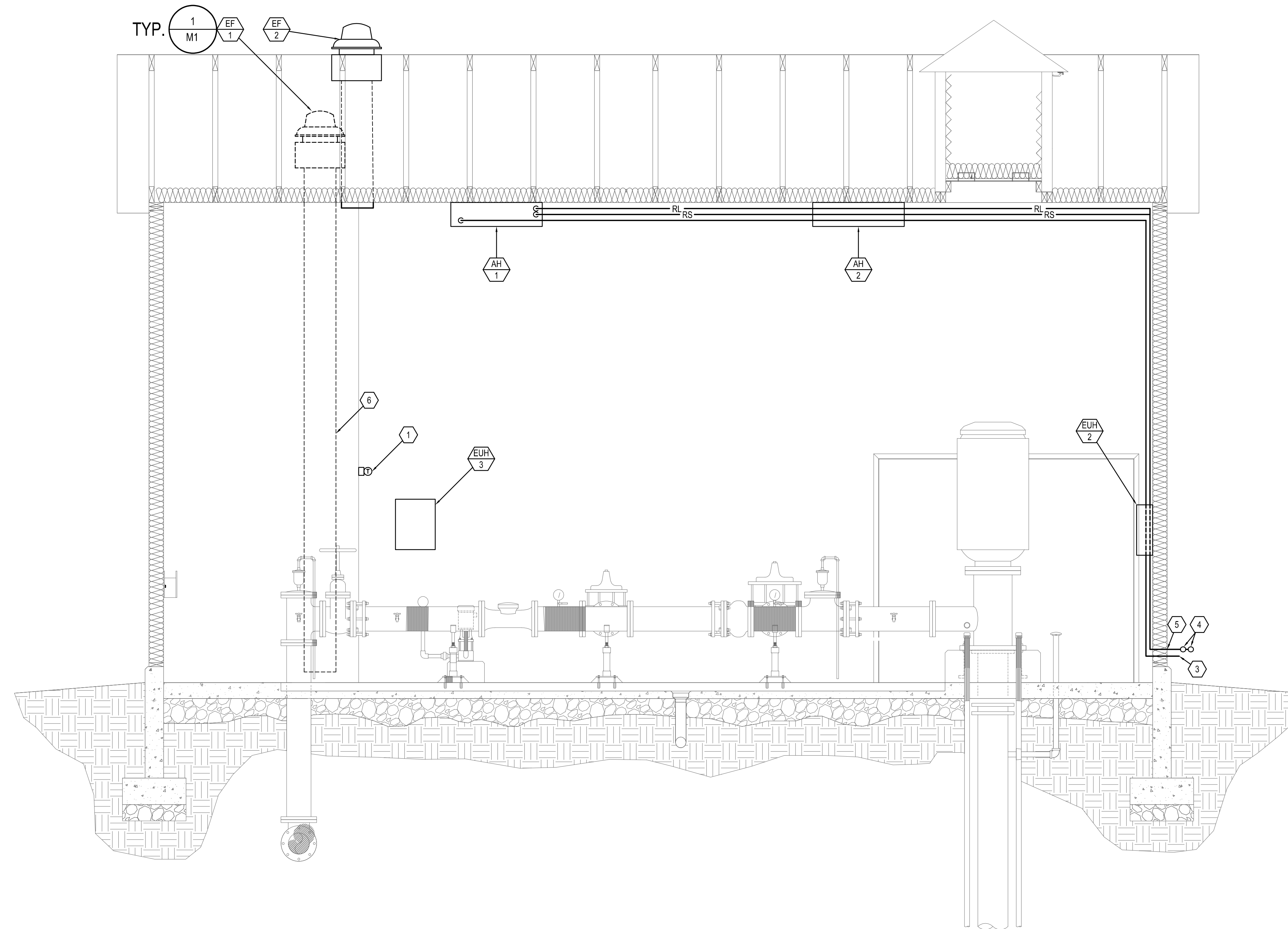
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MECHANICAL SECTION

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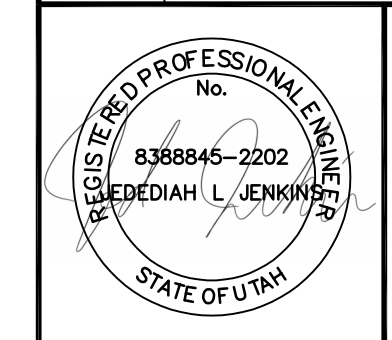
KEYED NOTES

1. MOUNT THERMOSTAT ON 2" FOAM BLOCK.
2. PROVIDE 6" CONCRETE PAD FOR HVAC UNIT. MAINTAIN MANUFACTURER'S CLEARANCES. RIGIDLY MOUNT UNIT TO PAD. UNIT TO BE LEVEL WHEN IN OPERATION.
3. CONDENSATE AND CONDENSATE OVERFLOW PIPING THRU WALL. SEAL PENETRATIONS WEATHER TIGHT.
4. PROVIDE AND INSTALL WATER TIGHT ALUMINUM JACKET ON EXTERIOR REFRIGERANT PIPING.
5. REFRIGERANT PIPING THRU WALL. SEAL PENETRATIONS WEATHER TIGHT.
6. INSTALL 12/12 EXHAUST DUCT DOWN TO 4 INCHES ABOVE FINISHED FLOOR. LEAVE OPEN AT BOTTOM.

1
M7
MECHANICAL SECTION
1/2" = 1' - 0"

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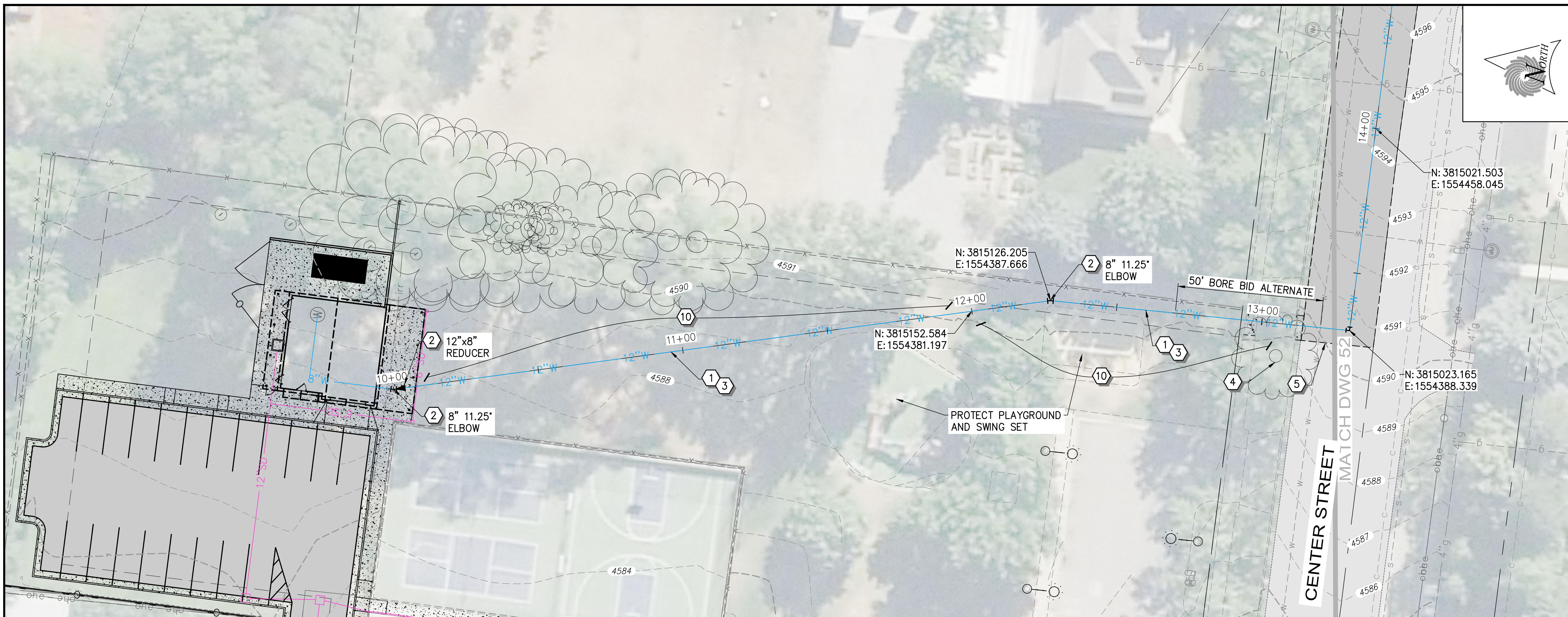
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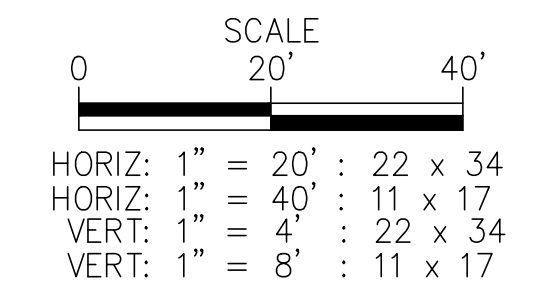
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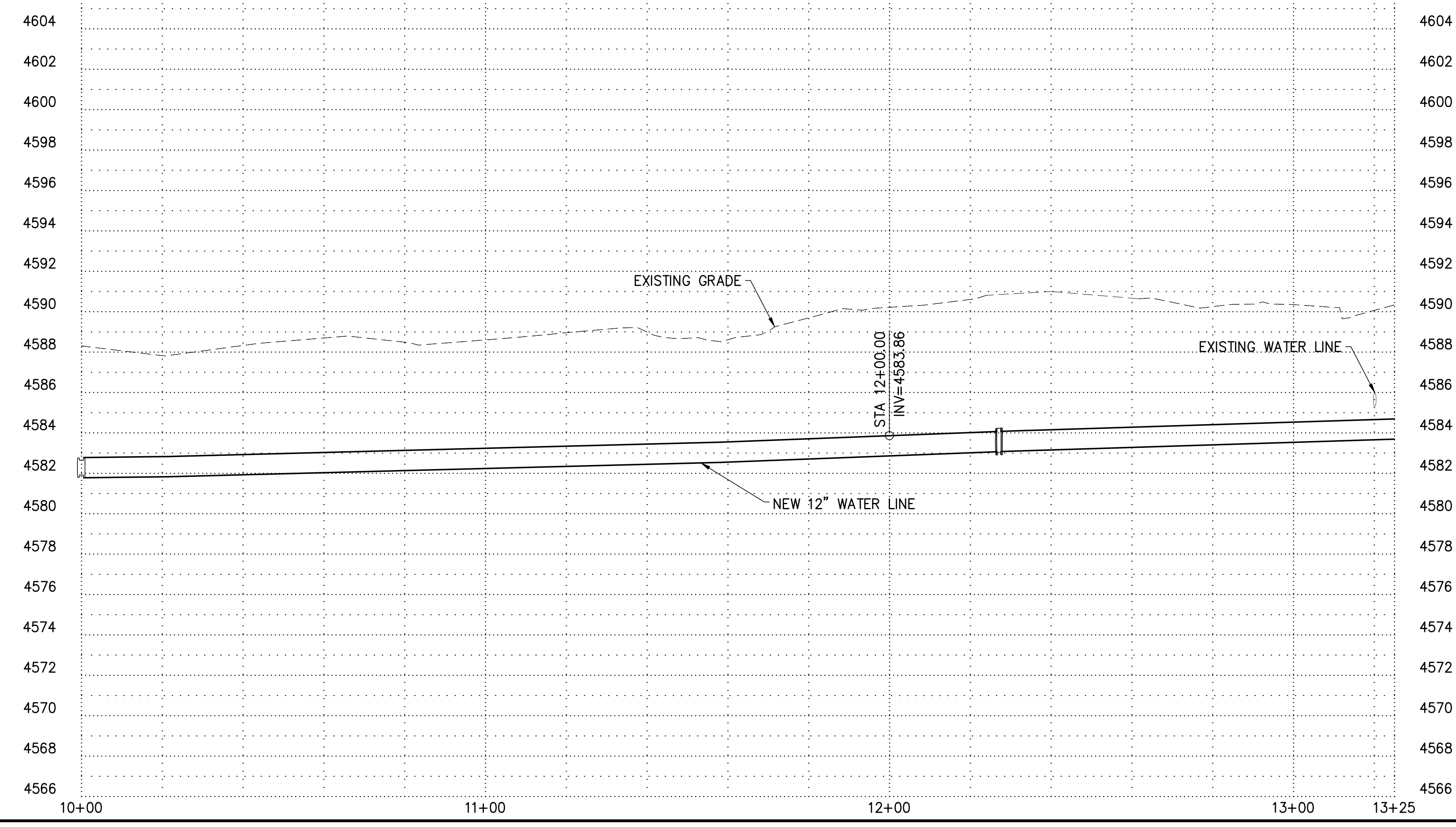


- ### CONSTRUCTION NOTES
- INSTALL NEW 12" PVC C900 DR18 (C WH8)
 - INSTALL FITTING PER PLAN
 - REPLACE DAMAGED SOD
 - PROTECT EXISTING TREE
 - SAWCUT AND REMOVE EXISTING ASPHALT TO PROVIDE CLEAN EDGE - PROTECT EXISTING ASPHALT AND CONCRETE TO REMAIN
 - BORE 12" WATER LINE
 - INSTALL CHECK VALVE AND AIR VAC IN 6" MANHOLE (G, H D1)
 - INSTALL GATE VALVE (F D1)
 - CONNECT TO EXISTING TANK (H D1)
 - RESTORE LANDSCAPING TO PRE-CONSTRUCTION CONDITIONS
 - REPLACE HARDSCAPE

- ### GENERAL NOTES
- UTILITY LINE LOCATIONS ARE APPROXIMATE
 - MAINTAIN POSITIVE SLOPE TOWARD TANK TO ELIMINATE AIR POCKETS
 - WATER LINE TO BE BURIED WITH MIN 4.5' COVER
 - MAINTAIN MIN 12" VERTICAL CLEARANCE FROM ALL UTILITIES, MAINTAIN 18" VERTICAL CLEARANCE FROM SEWER LINES
 - MAINTAIN 10' HORIZONTAL OFFSET FROM SEWER LINES



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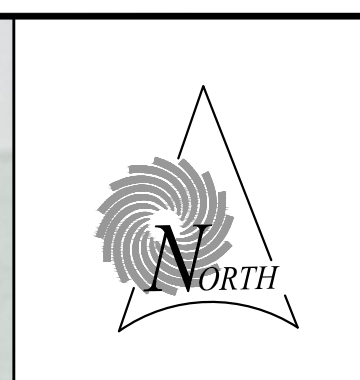
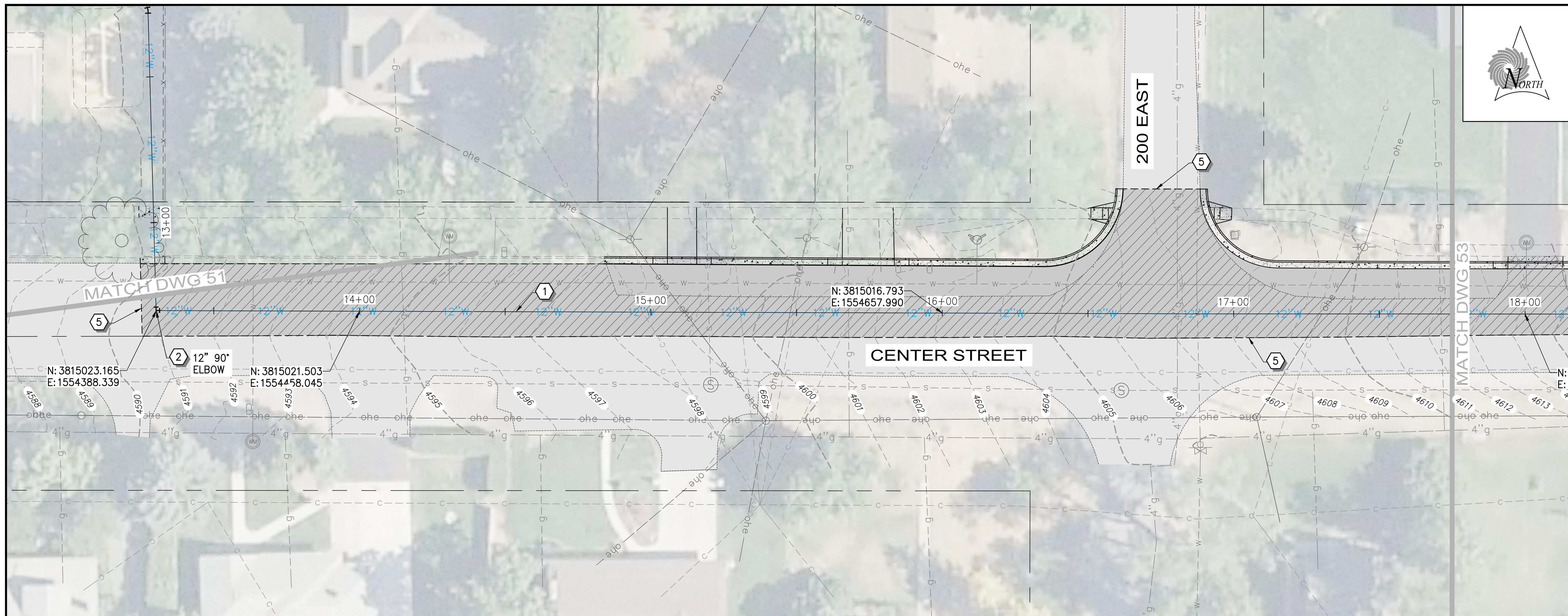
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PROFESSIONAL ENGINEER
 No. 12701899
 STEVEN DAVID WOOD
 01/30/2025
 STATE OF UTAH

SUNRISE ENGINEERING
 2100 NORTH MAIN STREET
 NORTH LOGAN, UTAH 84341
 TEL 435.563.3734
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HYDE PARK CITY
CITY HALL WELL HOUSE
 PLAN AND PROFILE
 TRANSMISSION LINE

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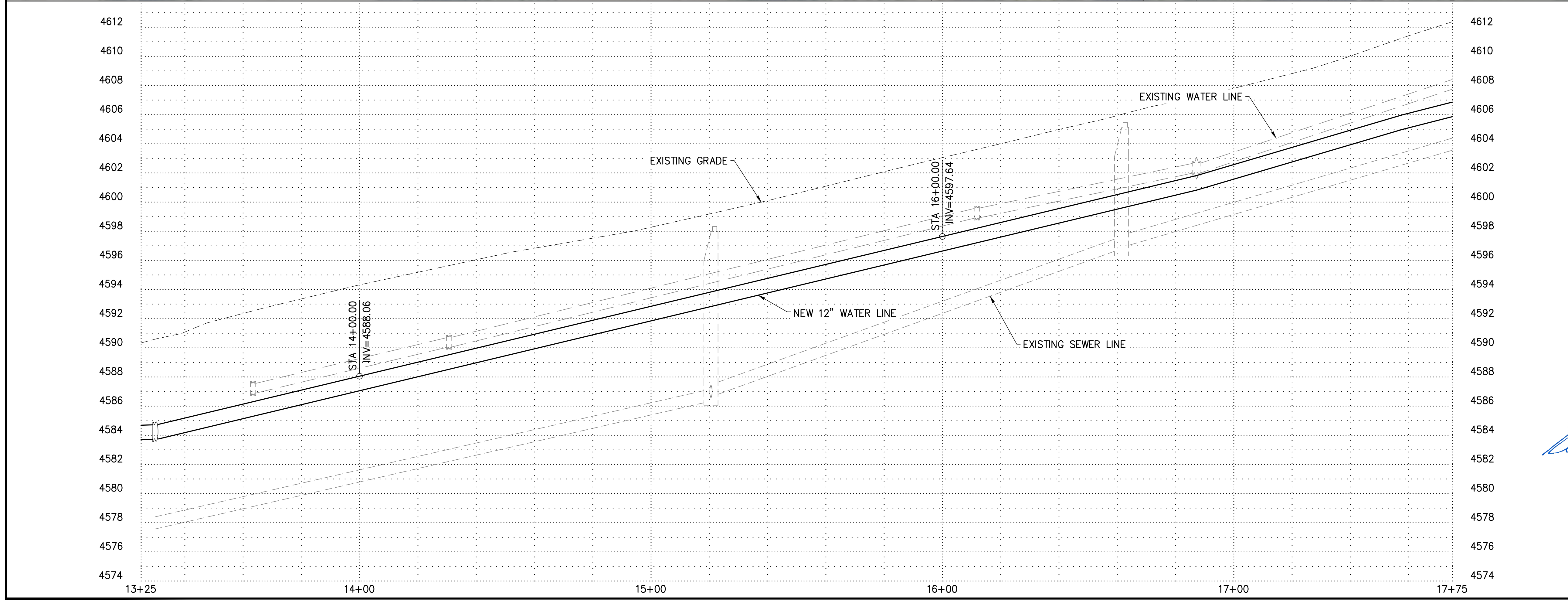
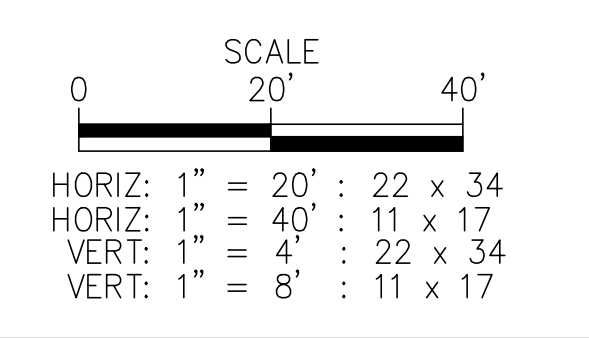


CONSTRUCTION NOTES

- 1. INSTALL NEW 12" PVC C900 DR18 ^(C) _(WH8)
- 2. INSTALL FITTING PER PLAN
- 3. REPLACE DAMAGED SOD
- 4. PROTECT EXISTING TREE
- 5. SAWCUT AND REMOVE EXISTING ASPHALT TO PROVIDE CLEAN EDGE - PROTECT EXISTING ASPHALT AND CONCRETE TO REMAIN
- 6. BORE 12" WATER LINE
- 7. INSTALL CHECK VALVE AND AIR VAC IN 6'ø ^(G,H) _(D1) MANHOLE
- 8. INSTALL GATE VALVE ^(F) _(D1)
- 9. CONNECT TO EXISTING TANK ^(H) _(D1)
- 10. RESTORE LANDSCAPING TO PRE-CONSTRUCTION CONDITIONS
- 11. REPLACE HARDSCAPE

GENERAL NOTES

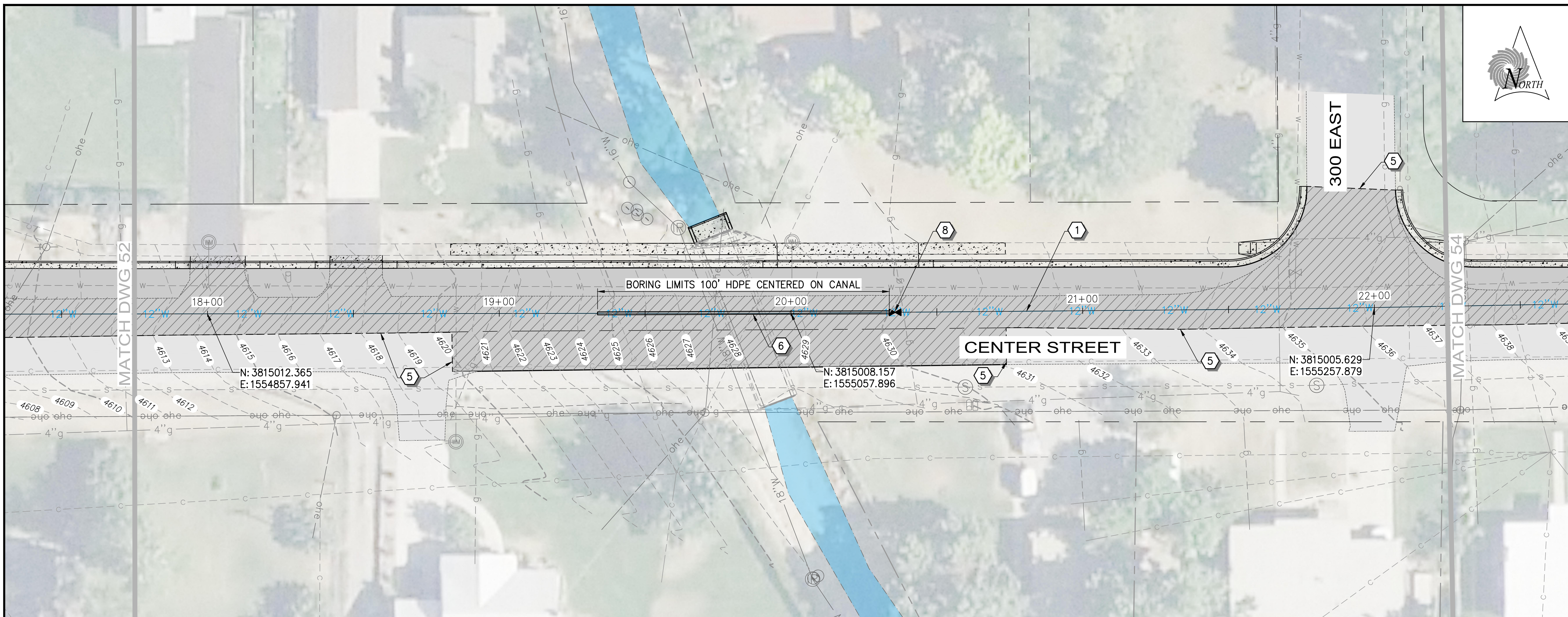
- 1. UTILITY LINE LOCATIONS ARE APPROXIMATE
- 2. MAINTAIN POSITIVE SLOPE TOWARD TANK TO ELIMINATE AIR POCKETS
- 3. WATER LINE TO BE BURIED WITH MIN 4.5' COVER
- 4. MAINTAIN MIN 12" VERTICAL CLEARANCE FROM ALL UTILITIES, MAINTAIN 18" VERTICAL CLEARANCE FROM SEWER LINES
- 5. MAINTAIN 10' HORIZONTAL OFFSET FROM SEWER LINES



REV NO.	COMMENT	DATE

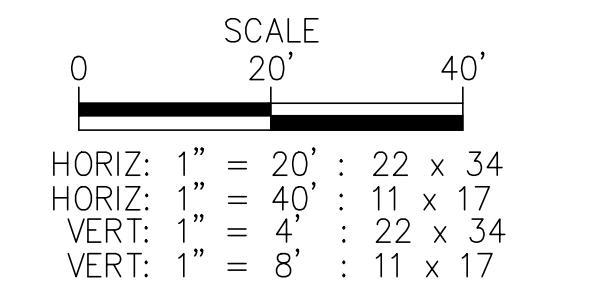
	<p>SUNRISE ENGINEERING</p> <p>2100 NORTH MAIN STREET NORTH LOGAN, UTAH 84341 TEL 435.563.3734 www.sunrise-eng.com</p>

<table border="1"> <tr> <td>SEI NO.</td> <td>DESIGNED</td> <td>DRAWN</td> <td>CHECKED</td> <td>SHEET NO.</td> <td rowspan="2">PP2</td> </tr> <tr> <td>10660</td> <td>SDW</td> <td>JJ</td> <td>SDW</td> <td>52 of 72</td> </tr> </table>	SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	PP2	10660	SDW	JJ	SDW	52 of 72
SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	PP2						
10660	SDW	JJ	SDW	52 of 72							

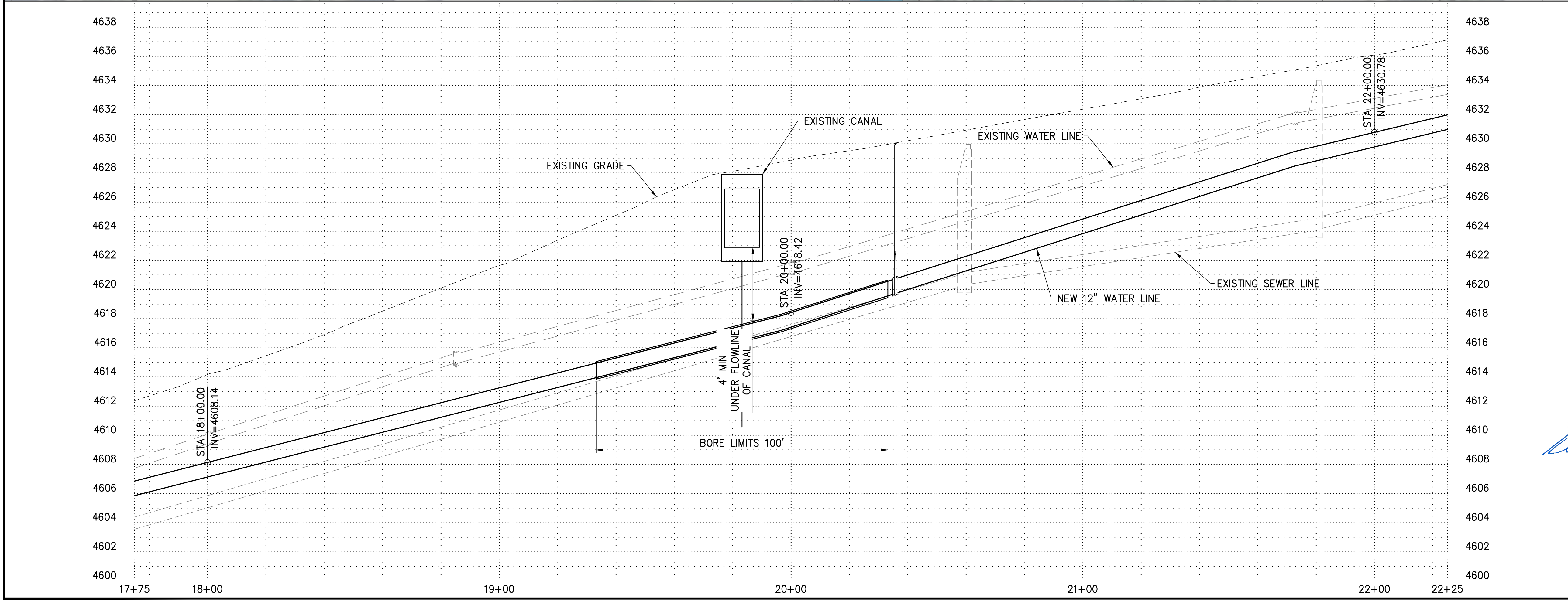


- ### CONSTRUCTION NOTES
- 1. INSTALL NEW 12" PVC C900 DR18 (C WH8)
 - 2. INSTALL FITTING PER PLAN
 - 3. REPLACE DAMAGED SOD
 - 4. PROTECT EXISTING TREE
 - 5. SAWCUT AND REMOVE EXISTING ASPHALT TO PROVIDE CLEAN EDGE – PROTECT EXISTING ASPHALT AND CONCRETE TO REMAIN
 - 6. BORE 12" WATER LINE
 - 7. INSTALL CHECK VALVE AND AIR VAC IN 6'Ø MANHOLE (G, H D1)
 - 8. INSTALL GATE VALVE (F D1)
 - 9. CONNECT TO EXISTING TANK (H D1)
 - 10. RESTORE LANDSCAPING TO PRE-CONSTRUCTION CONDITIONS
 - 11. REPLACE HARDSCAPE

- ### GENERAL NOTES
- 1. UTILITY LINE LOCATIONS ARE APPROXIMATE
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HYDE PARK CITY
CITY HALL WELL HOUSE
PLAN AND PROFILE
TRANSMISSION LINE

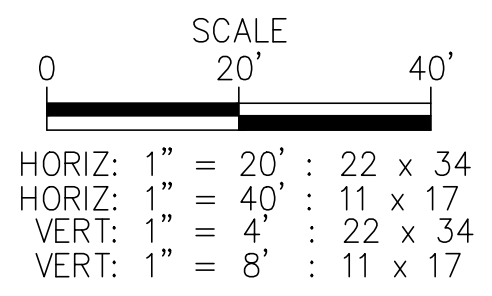
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 53 of 72	PP3
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CONSTRUCTION NOTES

1. INSTALL NEW 12" PVC C900 DR18 ^C WH8
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4. PROTECT EXISTING TREE
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8. INSTALL GATE VALVE ^F D1
9. CONNECT TO EXISTING TANK ^H D1
10. RESTORE LANDSCAPING TO PRE-CONSTRUCTION CONDITIONS
11. REPLACE HARDSCAPE

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REV. NO.	COMMENT	DATE

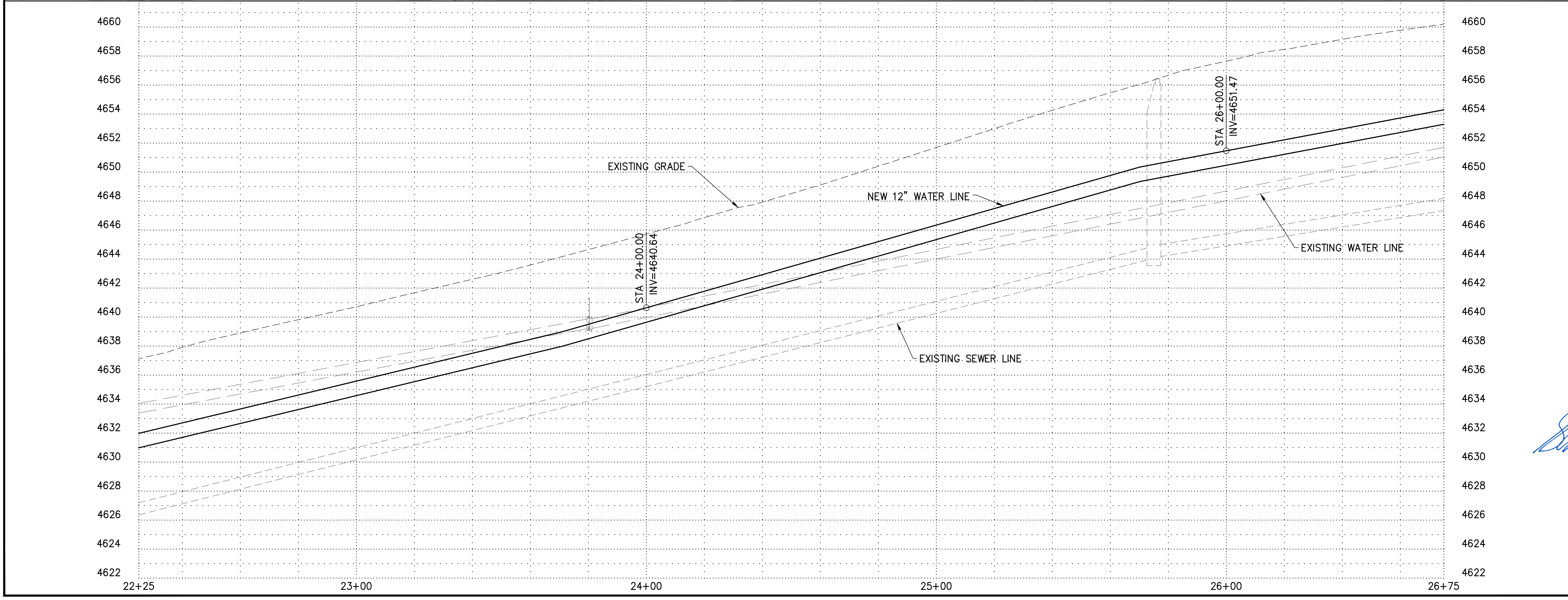
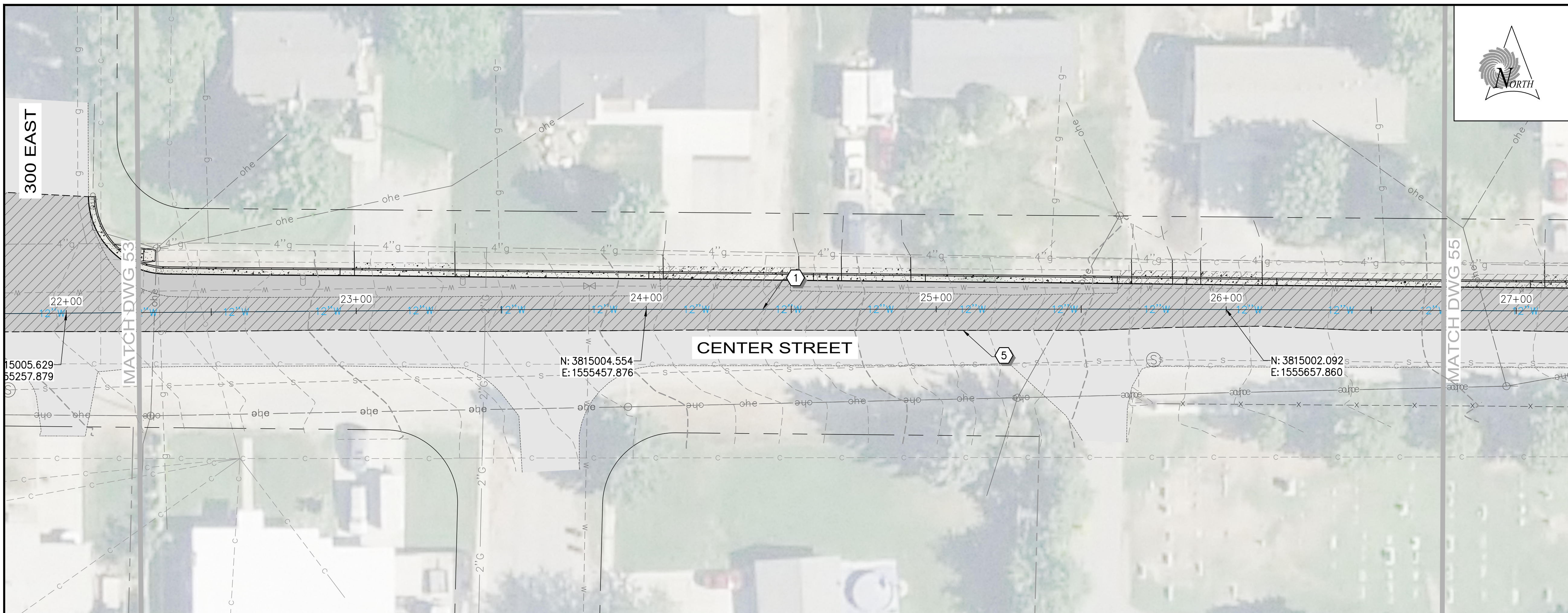
STEVEN DAVID WOOD
01/30/2025
STATE OF UTAH

SUNRISE ENGINEERING

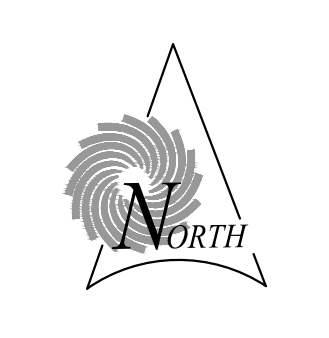
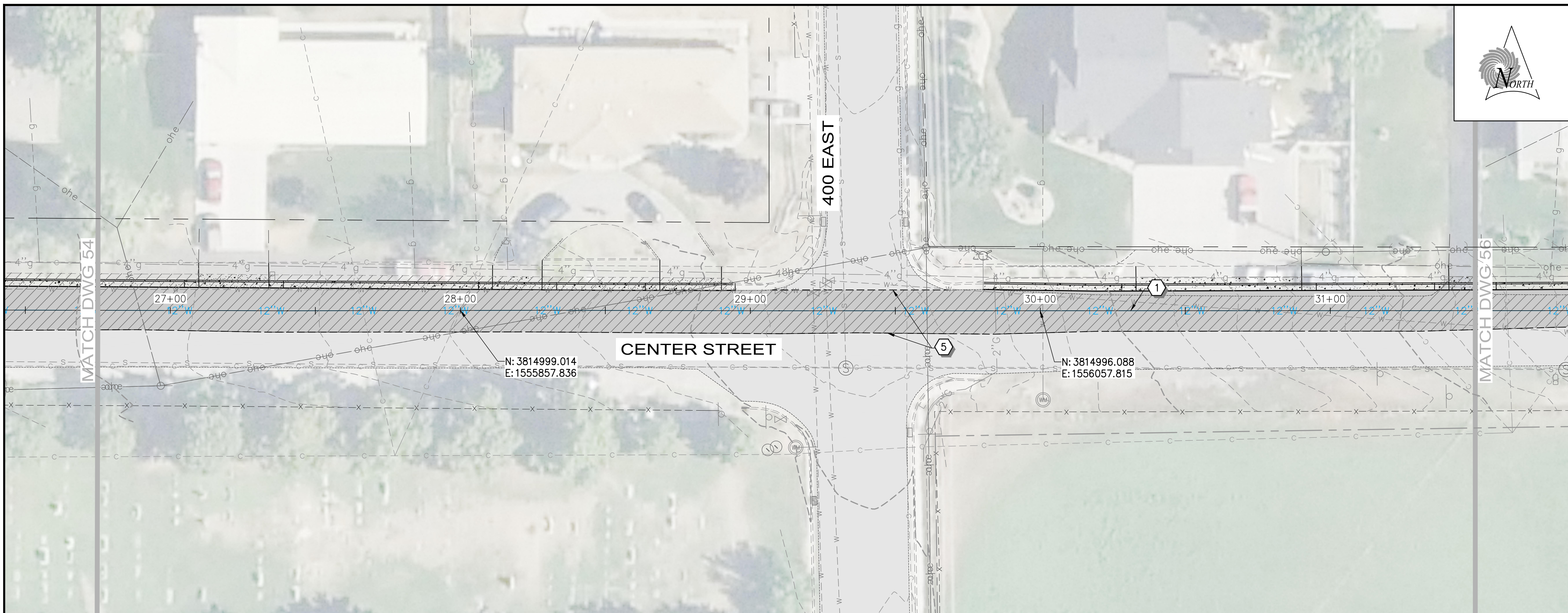
2100 NORTH MAIN STREET
NORTH LOGAN, UTAH 84341
TEL 435.563.3734
www.sunrise-eng.com

HYDE PARK CITY
CITY HALL WELL HOUSE
PLAN AND PROFILE
TRANSMISSION LINE

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 54 of 72	PP4
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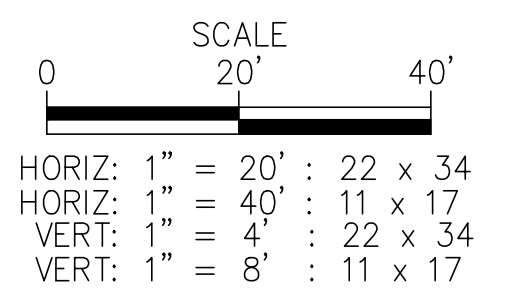


CONSTRUCTION NOTES

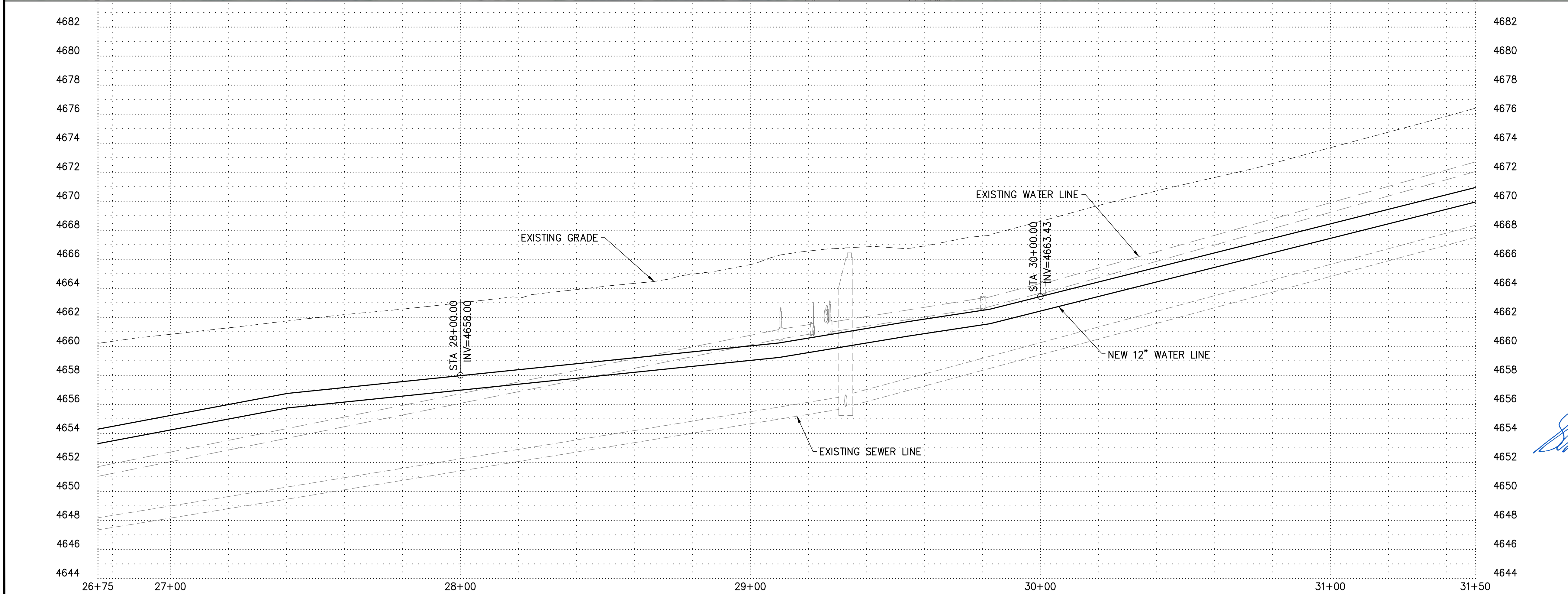
- 1 INSTALL NEW 12" PVC C900 DR18 (C WH8)
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GENERAL NOTES

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- 5. MAINTAIN 10' HORIZONTAL OFFSET FROM SEWER LINES



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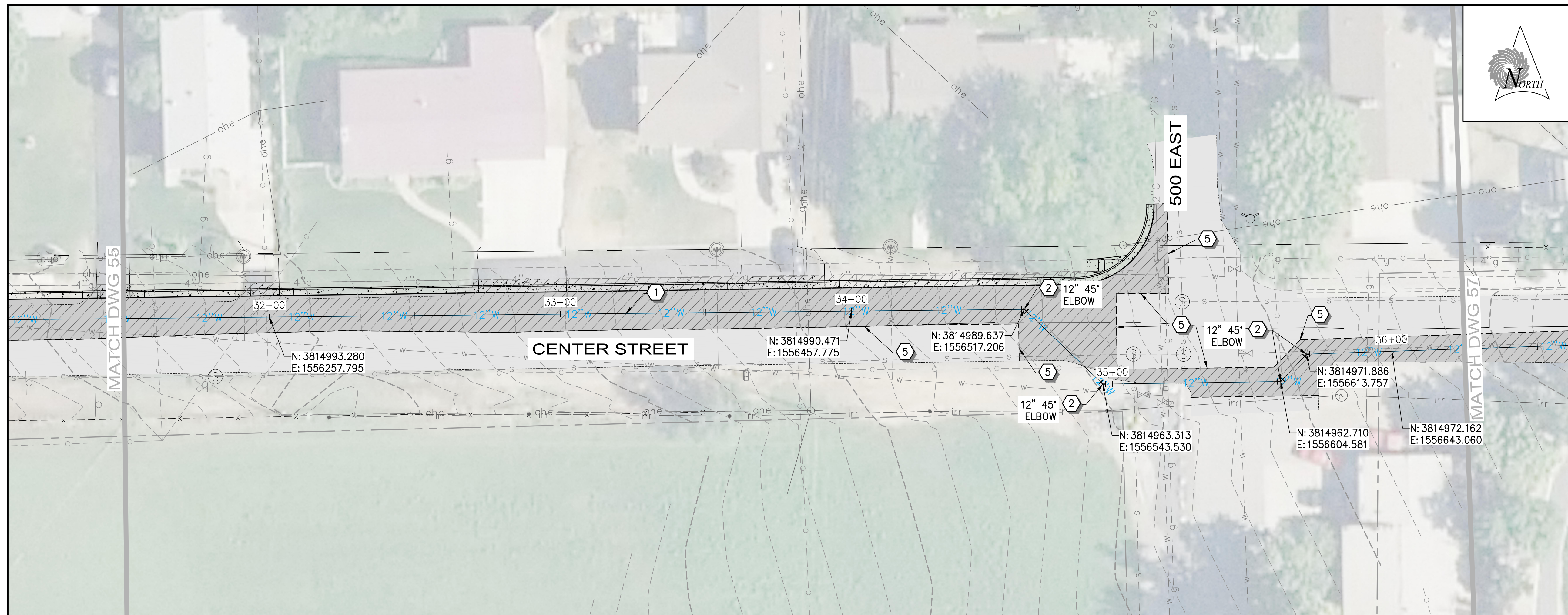
REV NO.	COMMENT	DATE

PROFESSIONAL ENGINEER
 No. 12401899
 STEVEN DAVID WOOD
 01/30/2025
 STATE OF UTAH

SUNRISE ENGINEERING
 2100 NORTH MAIN STREET
 NORTH LOGAN, UTAH 84341
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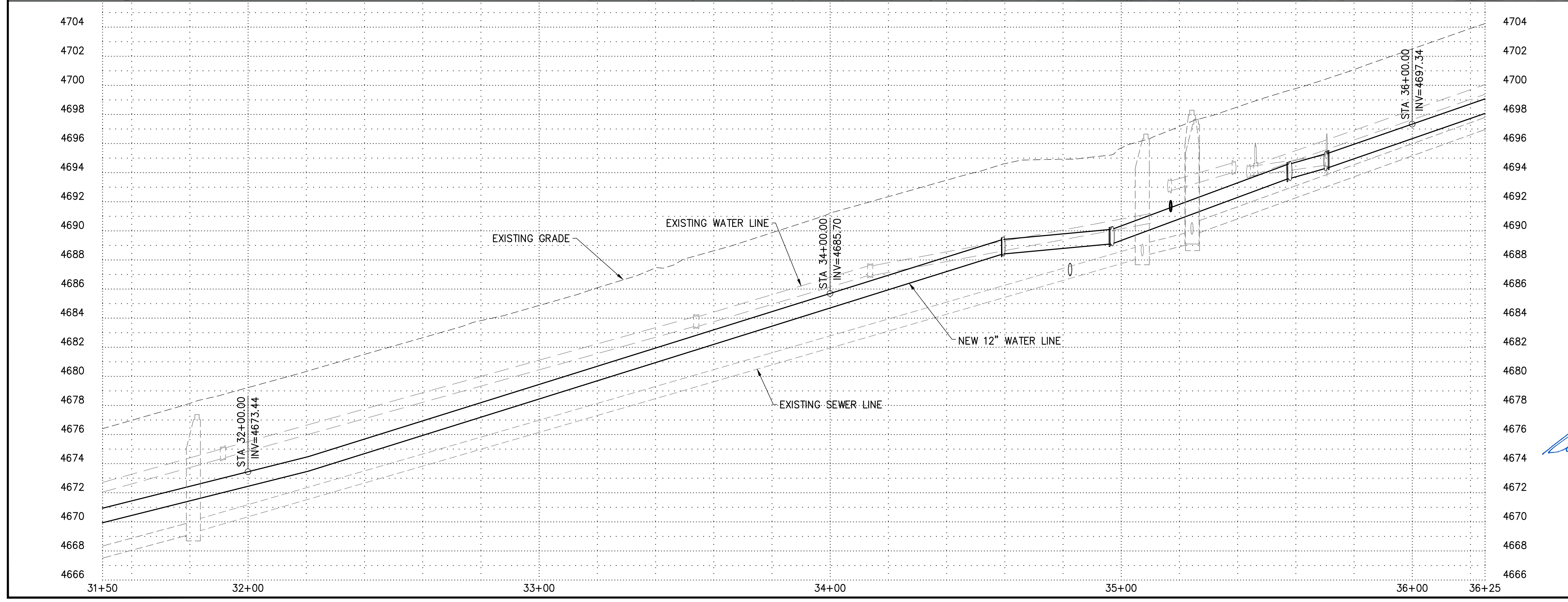
HYDE PARK CITY
CITY HALL WELL HOUSE
 PLAN AND PROFILE
 TRANSMISSION LINE

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 55 of 72	PP5
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- ### CONSTRUCTION NOTES
1. INSTALL NEW 12" PVC C900 DR18 (C WH8)
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- NOTE**
1. EAST OF 500 EAST ALL CONSTRUCTION WORK MUST OCCUR NORTH OF THE SOUTH EDGE OF ASPHALT - THE PROJECT CAN NOT PASS SOUTH OF THE SOUTH EDGE OF PAVEMENT - NO EQUIPMENT, NO MATERIALS

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SCALE
0 20' 40'

HORIZ: 1" = 20' : 22 x 34
 HORIZ: 1" = 40' : 11 x 17
 VERT: 1" = 4' : 22 x 34
 VERT: 1" = 8' : 11 x 17

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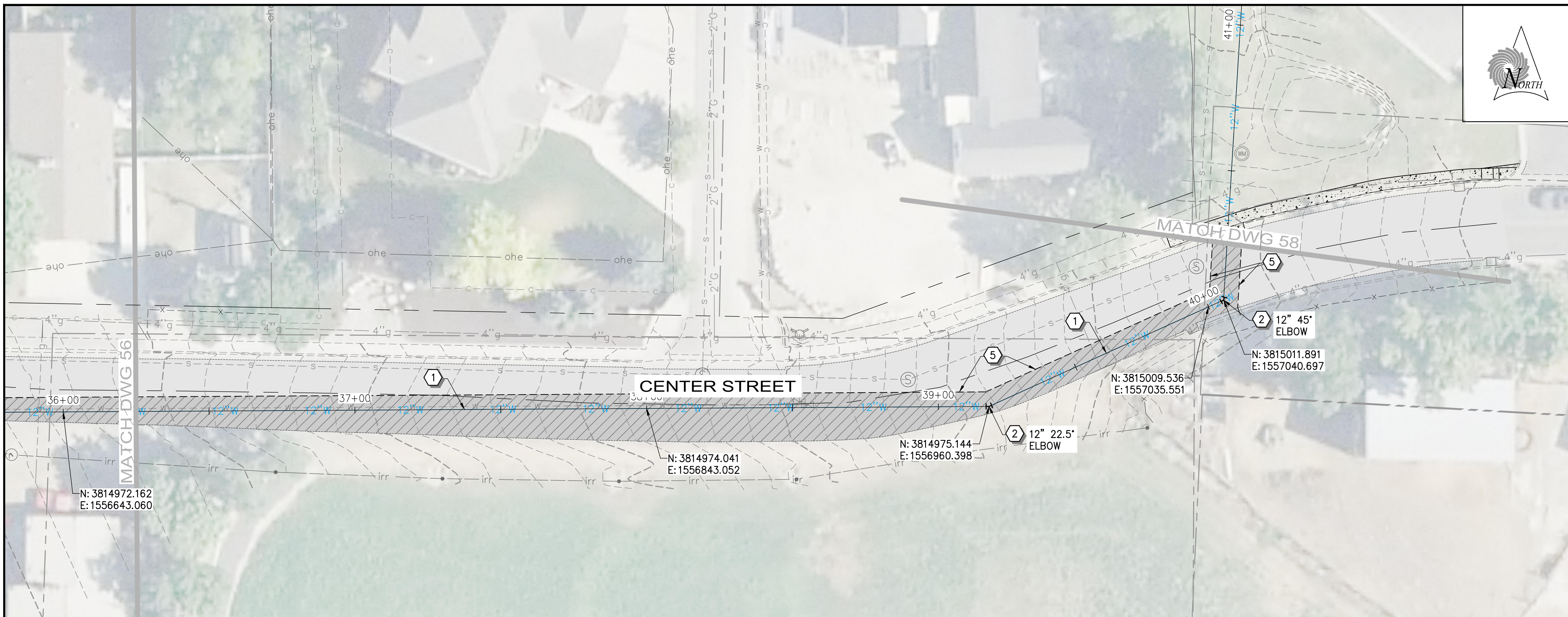
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HYDE PARK CITY
CITY HALL WELL HOUSE
 PLAN AND PROFILE
 TRANSMISSION LINE

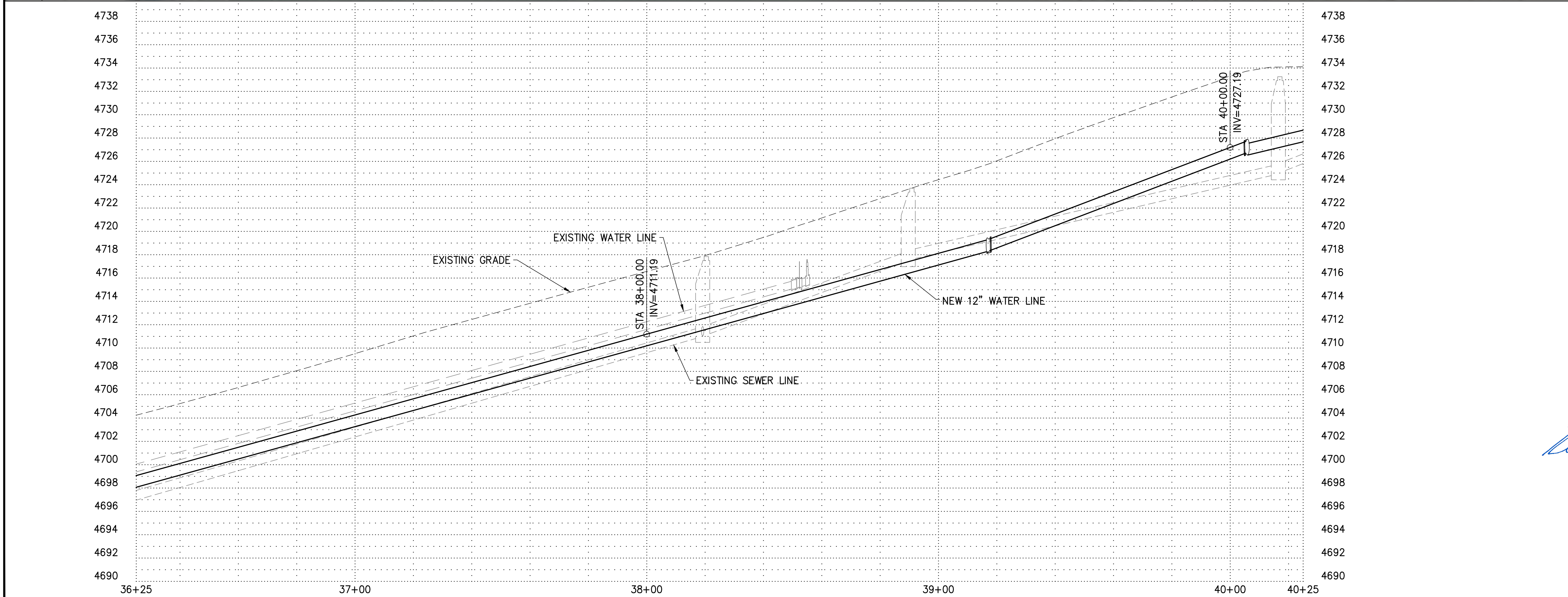
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 56 of 72	PP6
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BID SET

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- ### CONSTRUCTION NOTES
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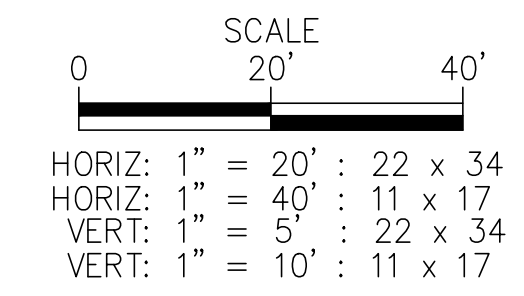
HYDE PARK CITY
CITY HALL WELL HOUSE
PLAN AND PROFILE
TRANSMISSION LINE

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 57 of 72	PP7
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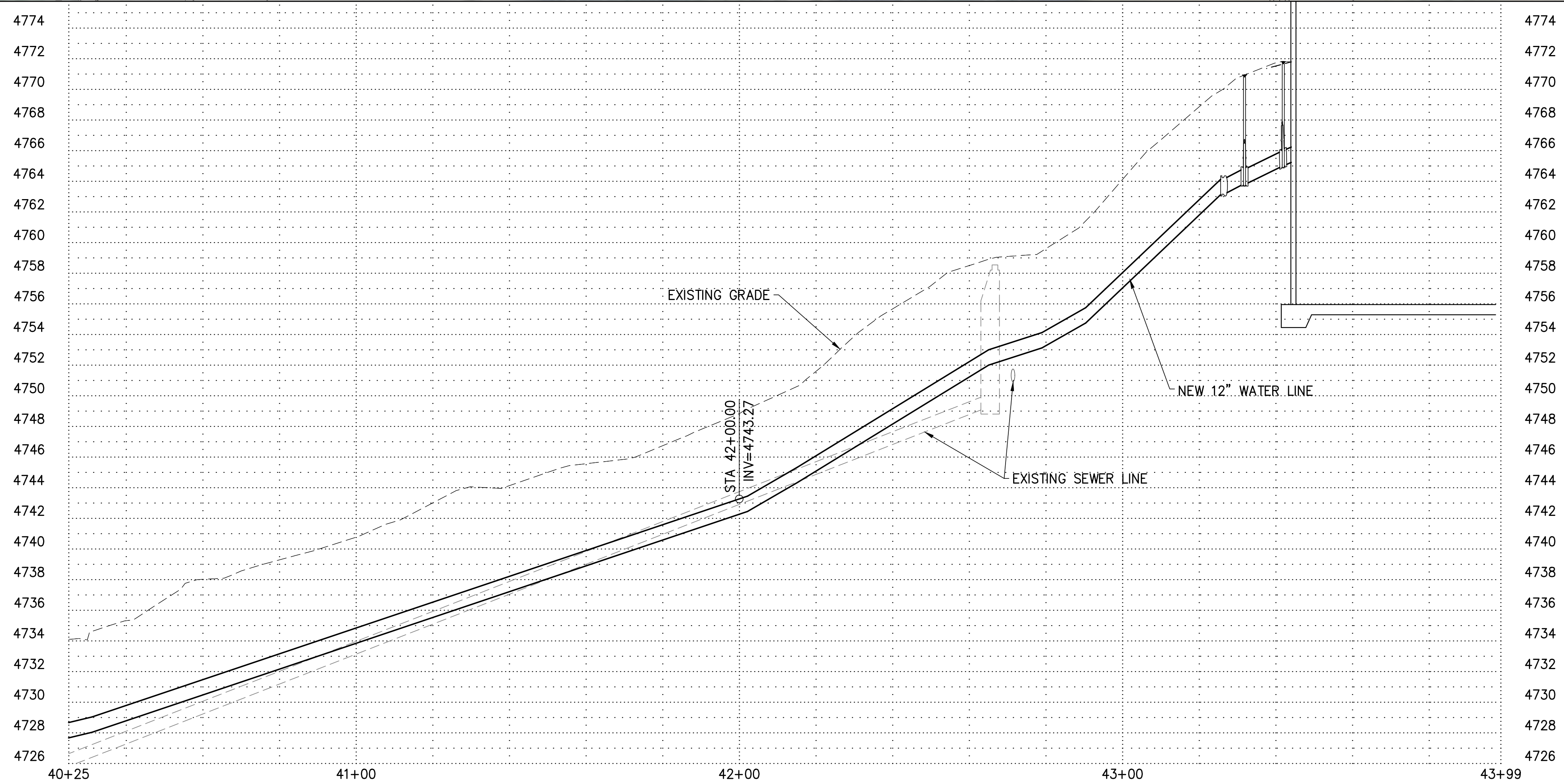


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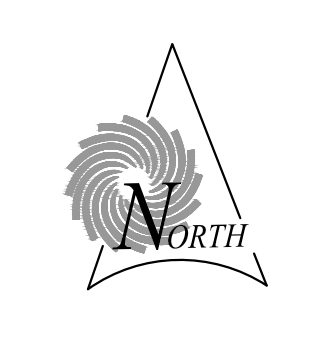
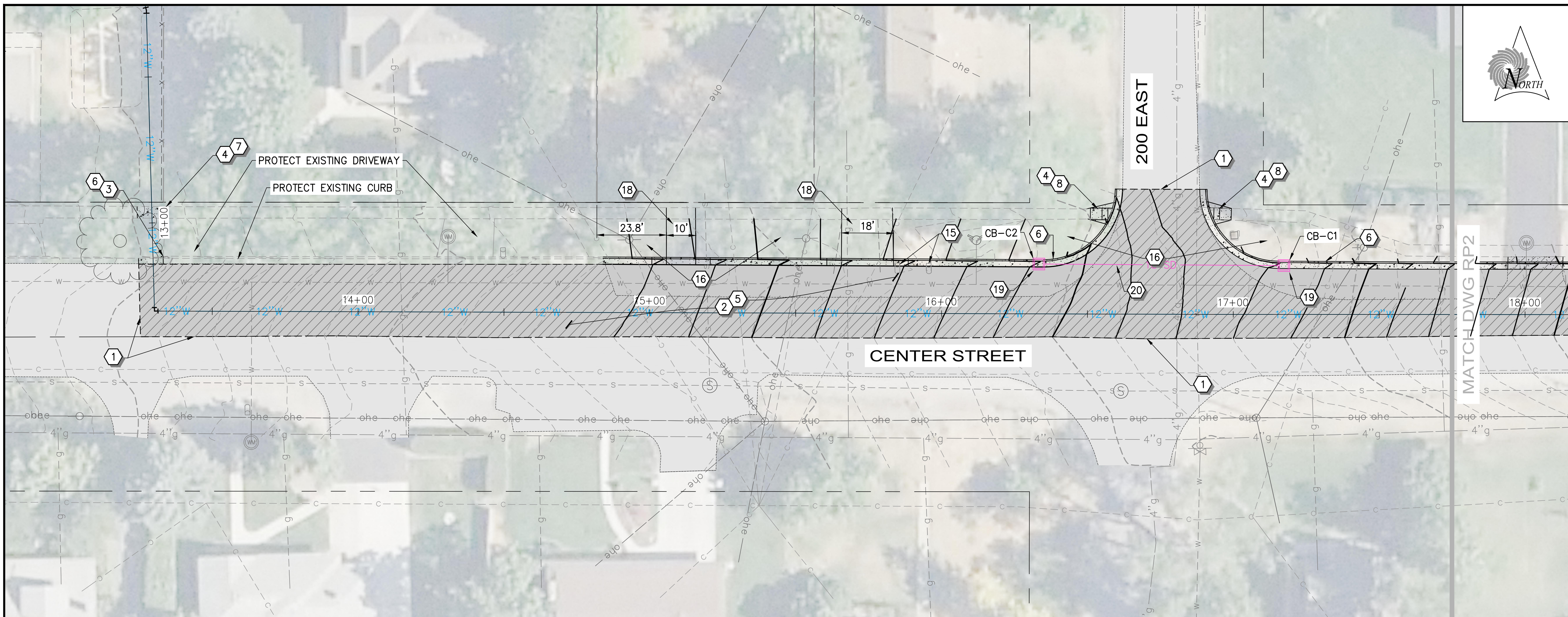


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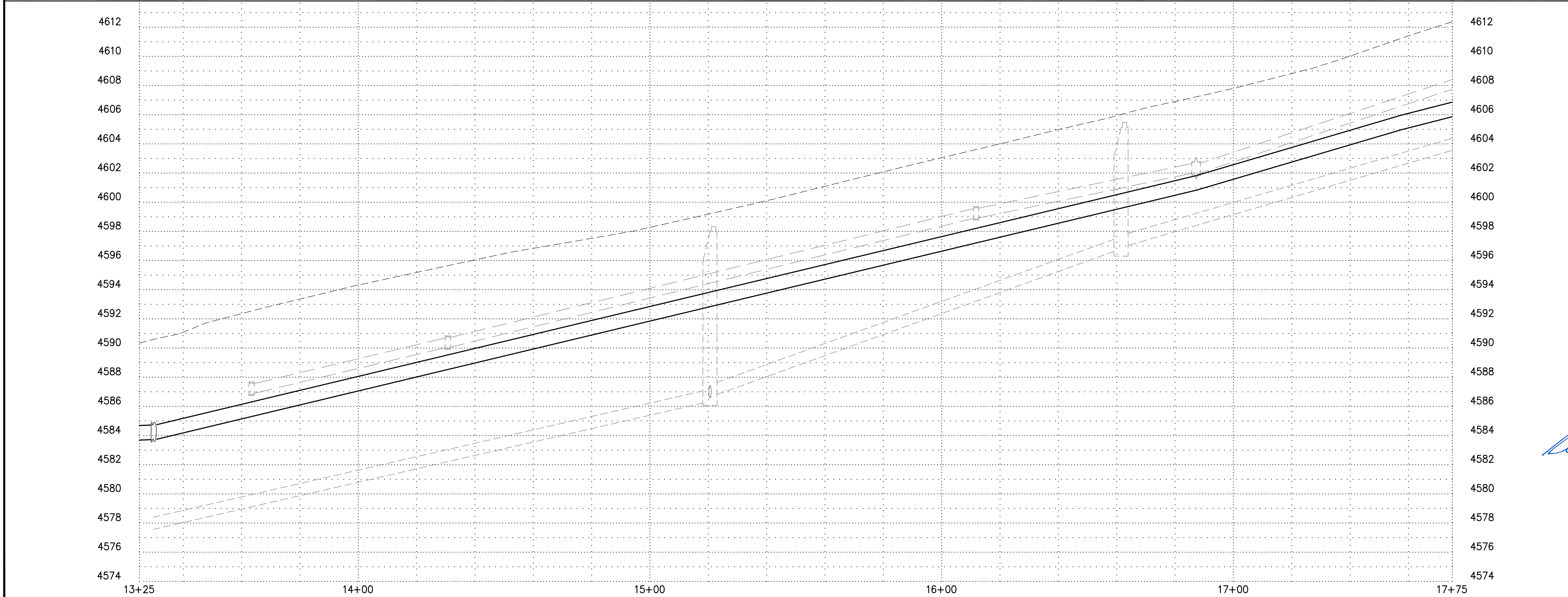
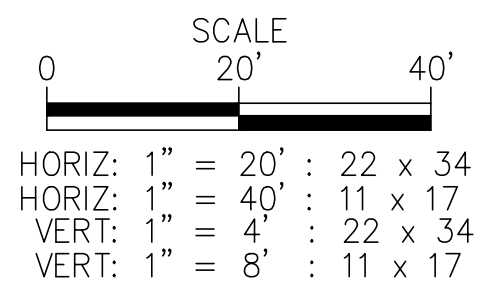
HYDE PARK CITY
CITY HALL WELL HOUSE
PLAN AND PROFILE
TRANSMISSION LINE

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 58 of 72	PP8
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- ### CONSTRUCTION NOTES
- 1 SAWCUT EXISTING ASPHALT PAVEMENT TO PROVIDE CLEAN EDGE PRIOR TO PAVING AND DISPOSAL OF OLD ASPHALT - PROTECT EXISTING ASPHALT TO REMAIN
 - 2 REMOVE EXISTING ASPHALT PAVEMENT
 - 3 REMOVE PORTION OF EXISTING CURB AND GUTTER
 - 4 REMOVE PORTION OF EXISTING SIDEWALK
 - 5 INSTALL NEW ASPHALT PAVEMENT
 - 6 INSTALL 'TYPE A' CURB AND GUTTER
 - 7 INSTALL 4' CONCRETE SIDEWALK
 - 8 INSTALL ADA RAMP
 - 9 INSTALL NEW CONCRETE DRIVEWAY
 - 10 BLEND GRAVEL AT DRIVEWAY TO EXISTING AT MAX 12%
 - 11 REMOVE RAILING FROM BOX CULVERT
 - 12 INSTALL NEW BOX CULVERT SECTION
 - 13 REINSTALL RAILING TO NEW BOX CULVERT
 - 14 INSTALL NEW RIPRAP
 - 15 RELOCATE EXISTING MAILBOX TO BEHIND NEW CURB AND GUTTER
 - 16 IN PARKSTRIP INSTALL WEED BARRIER AND 2" FRACTURED ROCK
 - 17 CUT EXISTING CURB FOR INSTALLATION OF ADA RAMP
 - 18 INSTALL GRAVEL DRIVEWAY
 - 19 INSTALL 3'x3' CATCH BASIN W/ GRATE
 - 20 INSTALL 18" HDPE STORM DRAIN PIPE

- ### GENERAL NOTES
1. CONTRACTOR TO ADJUST ALL VALVE LIDS AND MANHOLE LIDS IN THE NEW ASPHALT AS NECESSARY
 2. SEE SHEET SD2 FOR STORM DRAIN PROFILES



REV. NO.	COMMENT	DATE

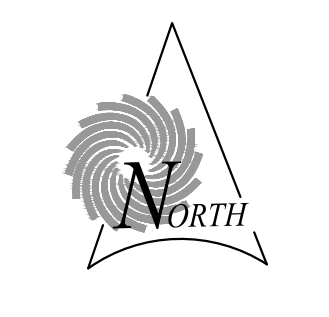
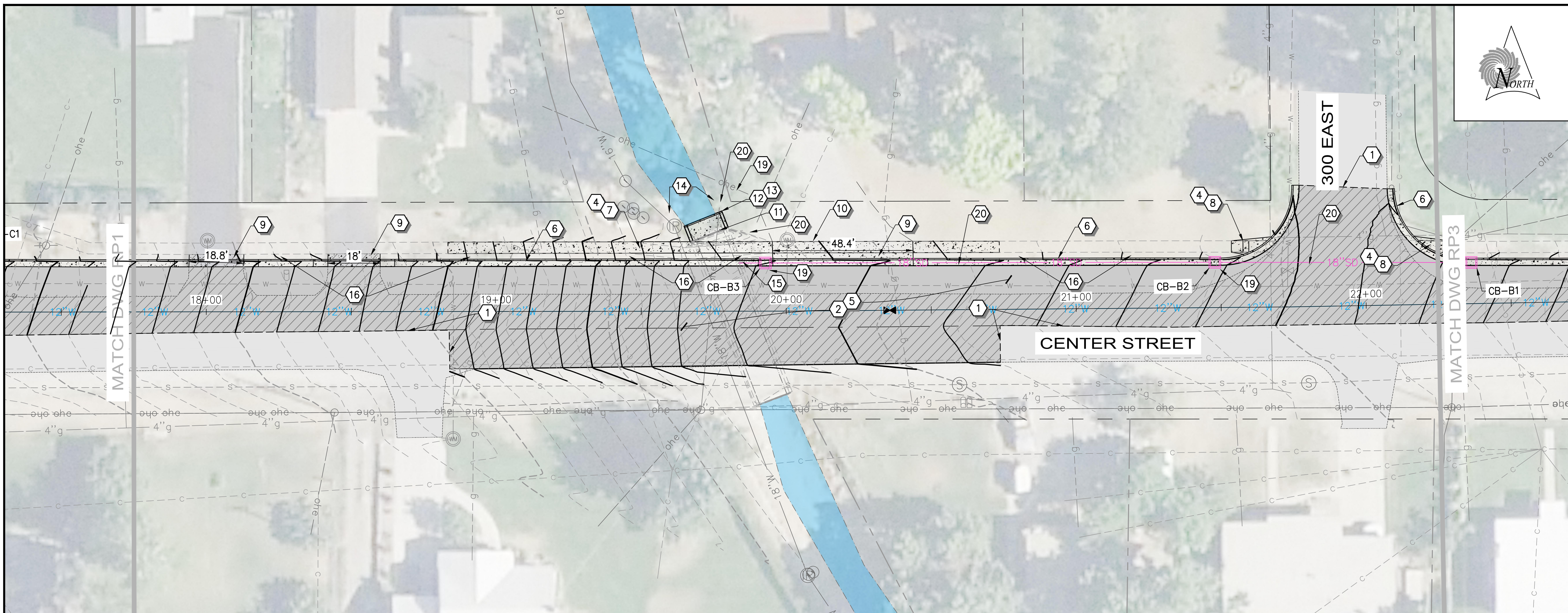
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CITY HALL WELL HOUSE**

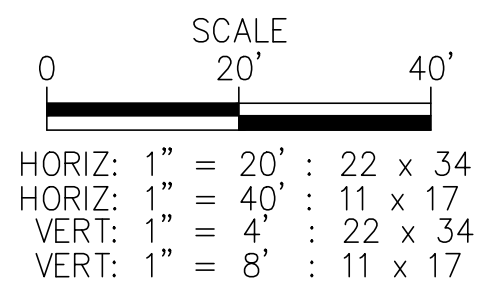
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SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 59 of 72	RP1
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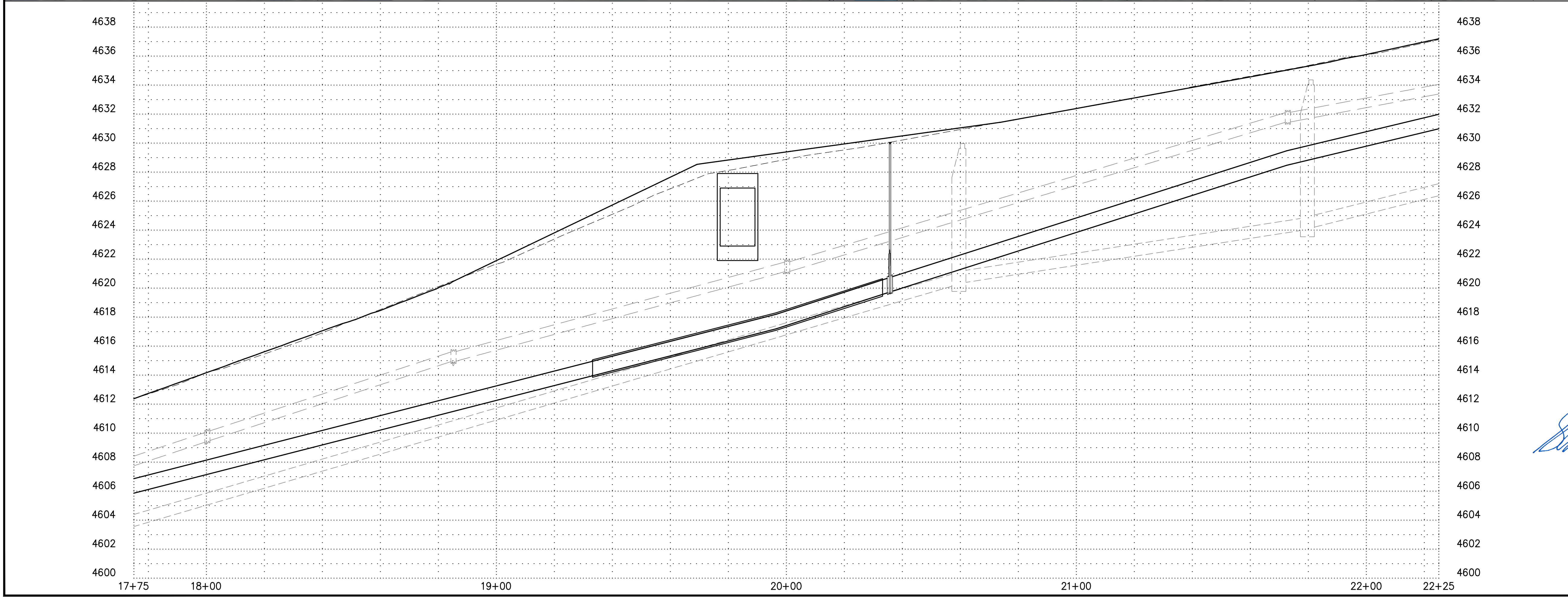


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- ### GENERAL NOTES
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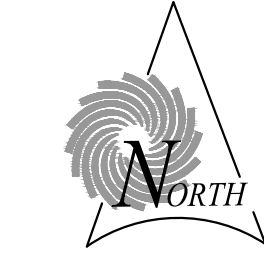
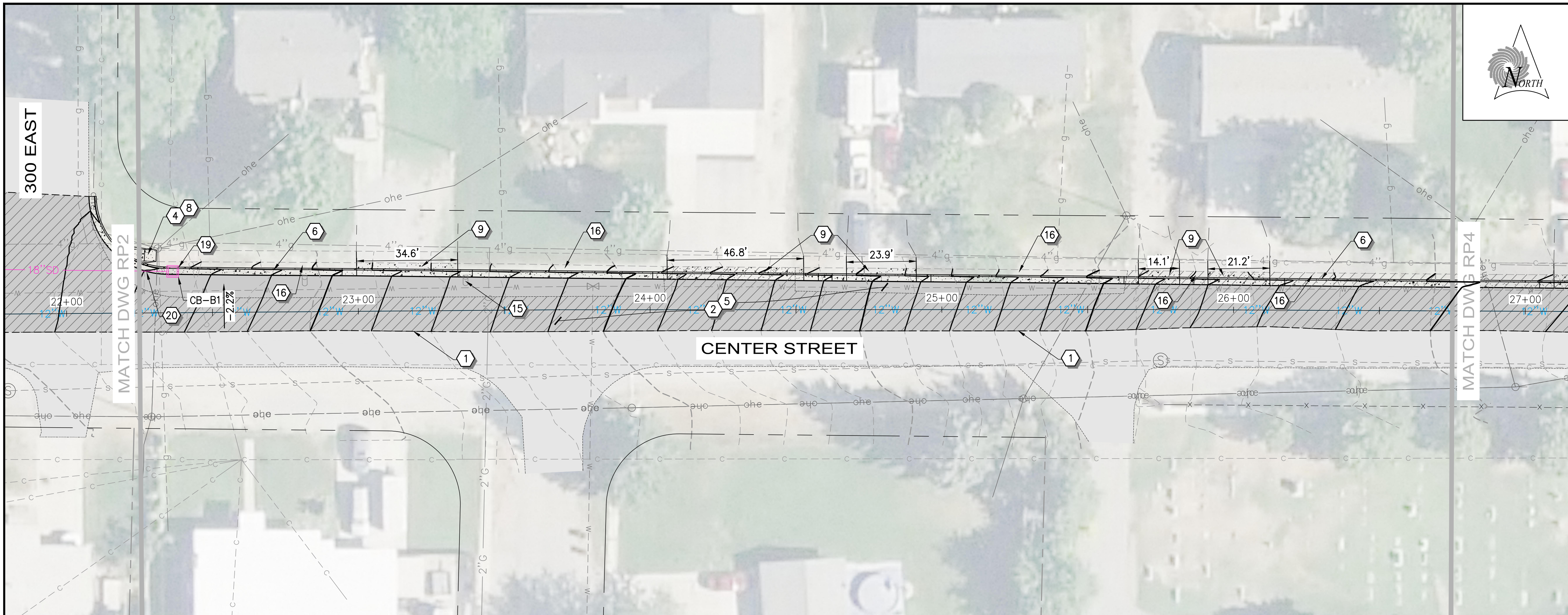
PROFESSIONAL ENGINEER
 No. 12701899
 STEVEN DAVIS
 01/30/2025
 STATE OF UTAH

SUNRISE ENGINEERING
 2100 NORTH MAIN STREET
 NORTH LOGAN, UTAH 84341
 TEL 435.563.3734
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**HYDE PARK CITY
 CITY HALL WELL HOUSE**

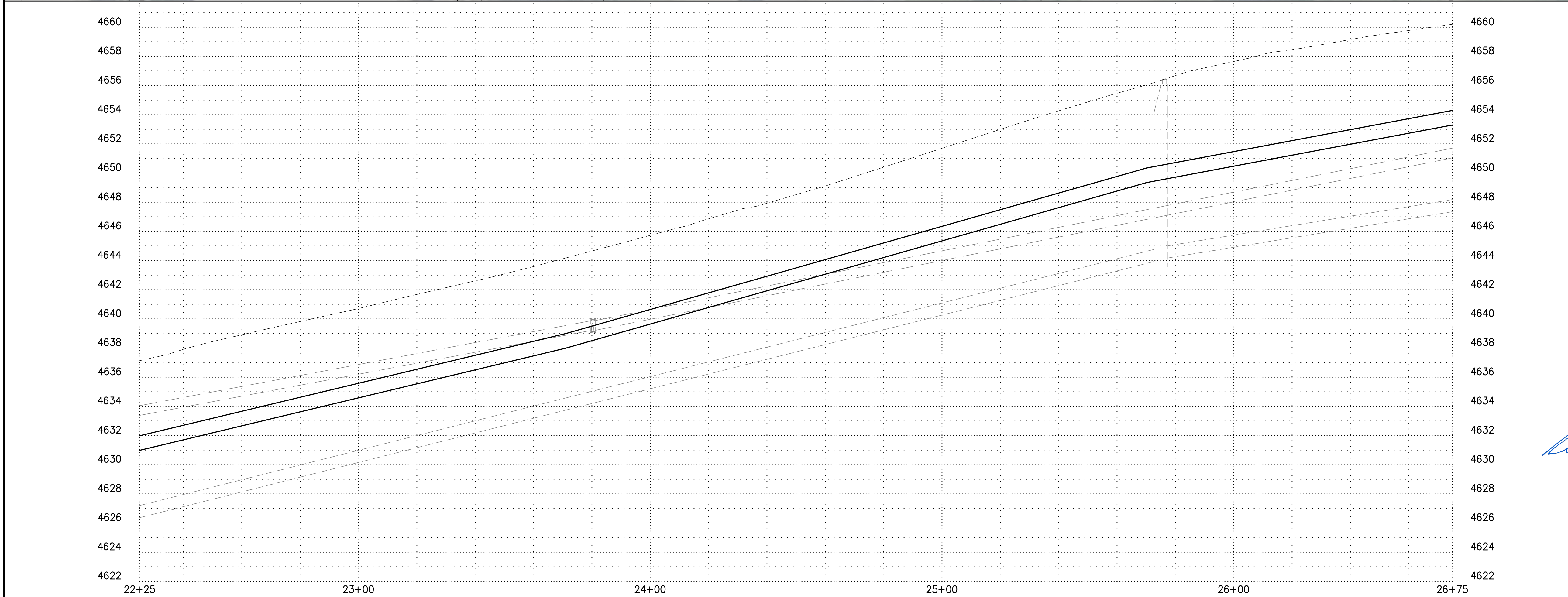
ROADWAY PLAN

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 60 of 72	RP2
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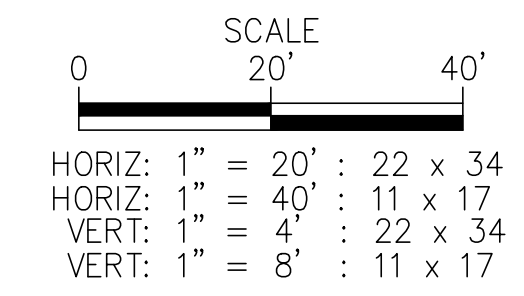
CONSTRUCTION NOTES

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- 3 REMOVE PORTION OF EXISTING CURB AND GUTTER
- 4 REMOVE PORTION OF EXISTING SIDEWALK
- 5 INSTALL NEW ASPHALT PAVEMENT (G, WH6)
- 6 INSTALL 'TYPE A' CURB AND GUTTER (A, WH6)
- 7 INSTALL 4' CONCRETE SIDEWALK (E, C, WH6, D1)
- 8 INSTALL ADA RAMP (B, F, WH6, D1)
- 9 INSTALL NEW CONCRETE DRIVEWAY (B, D1)
- 10 BLEND GRAVEL AT DRIVEWAY TO EXISTING AT MAX 12% (B, D1)
- 11 REMOVE RAILING FROM BOX CULVERT
- 12 INSTALL NEW BOX CULVERT SECTION
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- 14 INSTALL NEW RIPRAP
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- 16 IN PARKSTRIP INSTALL WEED BARRIER AND 2" FRACTURED ROCK
- 17 CUT EXISTING CURB FOR INSTALLATION OF ADA RAMP (A, D1)
- 18 INSTALL GRAVEL DRIVEWAY (D, D1)
- 19 INSTALL 3'x3' CATCH BASIN W/ GRATE (A, B, D, WH6, C, WH6)
- 20 INSTALL 18" HDPE STORM DRAIN PIPE (C, WH6)



GENERAL NOTES

- 1. CONTRACTOR TO ADJUST ALL VALVE LIDS AND MANHOLE LIDS IN THE NEW ASPHALT AS NECESSARY
- 2. SEE SHEET SD2 FOR STORM DRAIN PROFILES



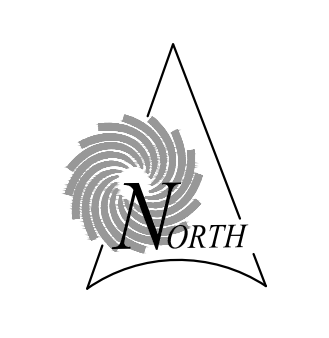
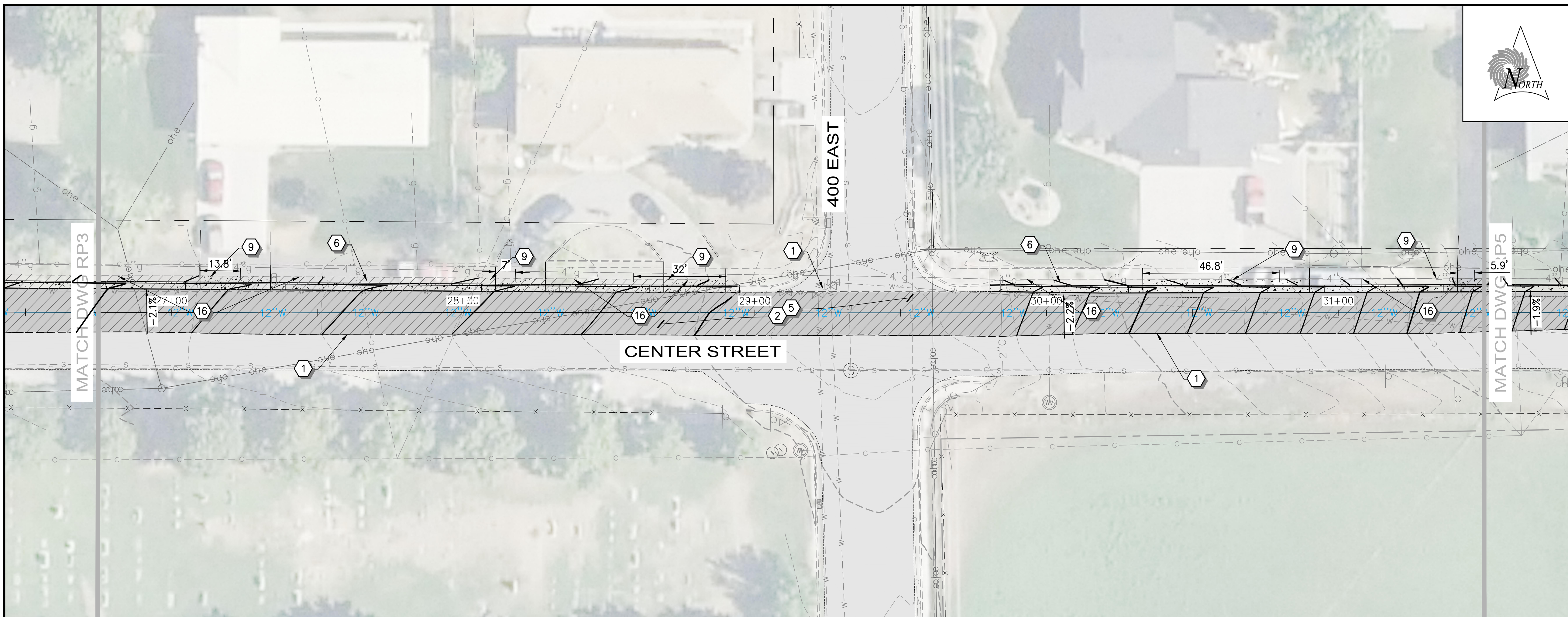
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REV. NO.	COMMENT	DATE

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NORTH LOGAN, UTAH 84341
TEL 435.563.3734
www.sunrise-eng.com

HYDE PARK CITY				
CITY HALL WELL HOUSE				
ROADWAY PLAN				
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 61 of 72 RP3

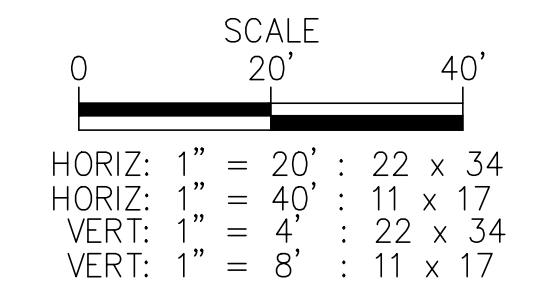


CONSTRUCTION NOTES

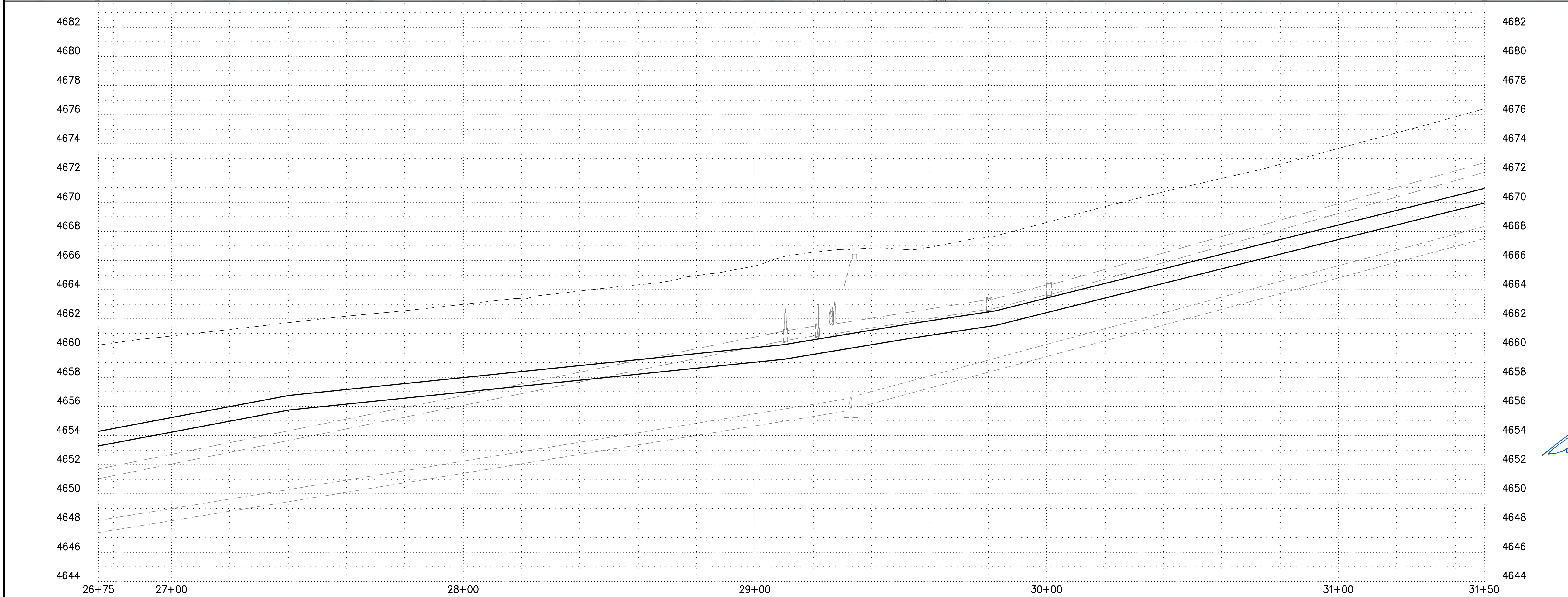
- 1 SAWCUT EXISTING ASPHALT PAVEMENT TO PROVIDE CLEAN EDGE PRIOR TO PAVING AND DISPOSAL OF OLD ASPHALT – PROTECT EXISTING ASPHALT TO REMAIN
- 2 REMOVE EXISTING ASPHALT PAVEMENT
- 3 REMOVE PORTION OF EXISTING CURB AND GUTTER
- 4 REMOVE PORTION OF EXISTING SIDEWALK
- 5 INSTALL NEW ASPHALT PAVEMENT
- 6 INSTALL 'TYPE A' CURB AND GUTTER
- 7 INSTALL 4' CONCRETE SIDEWALK
- 8 INSTALL ADA RAMP
- 9 INSTALL NEW CONCRETE DRIVEWAY
- 10 BLEND GRAVEL AT DRIVEWAY TO EXISTING AT MAX 12%
- 11 REMOVE RAILING FROM BOX CULVERT
- 12 INSTALL NEW BOX CULVERT SECTION
- 13 REINSTALL RAILING TO NEW BOX CULVERT
- 14 INSTALL NEW RIPRAP
- 15 RELOCATE EXISTING MAILBOX TO BEHIND NEW CURB AND GUTTER
- 16 IN PARKSTRIP INSTALL WEED BARRIER AND 2" FRACTURED ROCK
- 17 CUT EXISTING CURB FOR INSTALLATION OF ADA RAMP
- 18 INSTALL GRAVEL DRIVEWAY
- 19 INSTALL 3'x3' CATCH BASIN W/ GRATE
- 20 INSTALL 18" HDPE STORM DRAIN PIPE

GENERAL NOTES

1. CONTRACTOR TO ADJUST ALL VALVE LIDS AND MANHOLE LIDS IN THE NEW ASPHALT AS NECESSARY
2. SEE SHEET SD2 FOR STORM DRAIN PROFILES



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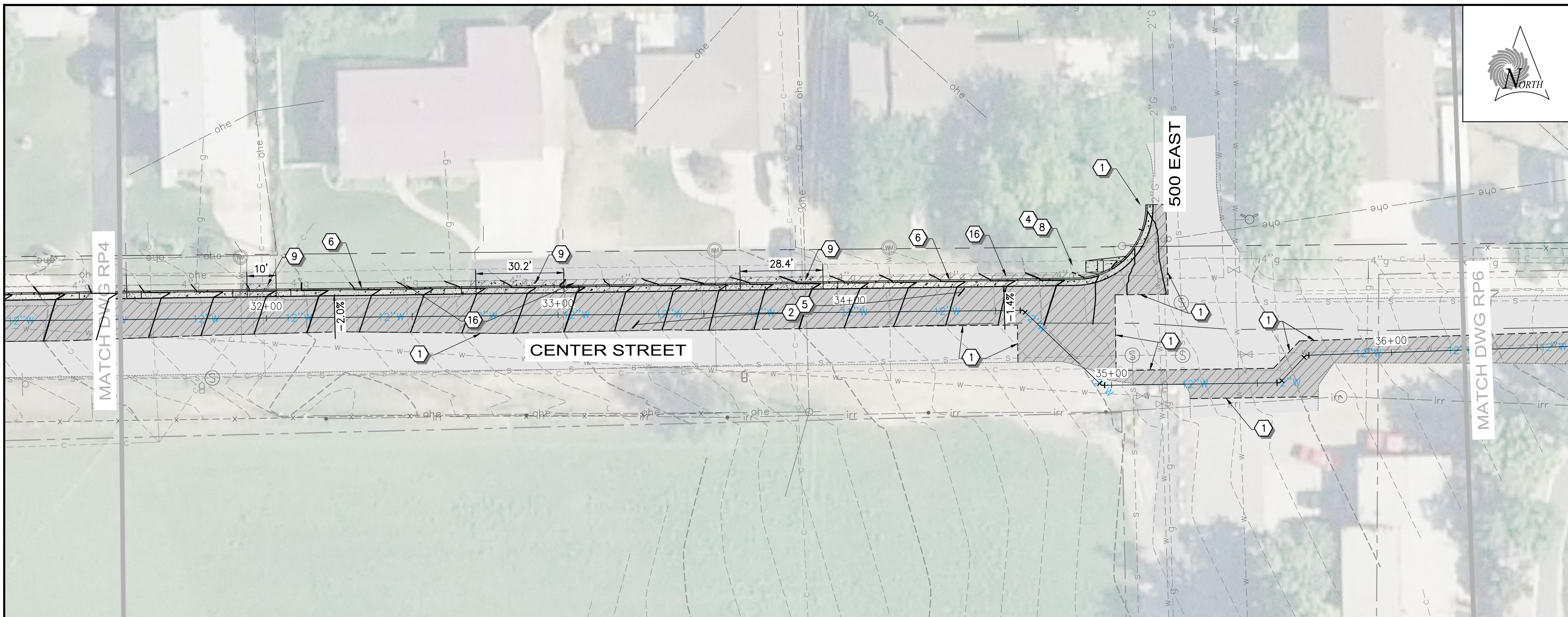
REV. NO.	COMMENT	DATE

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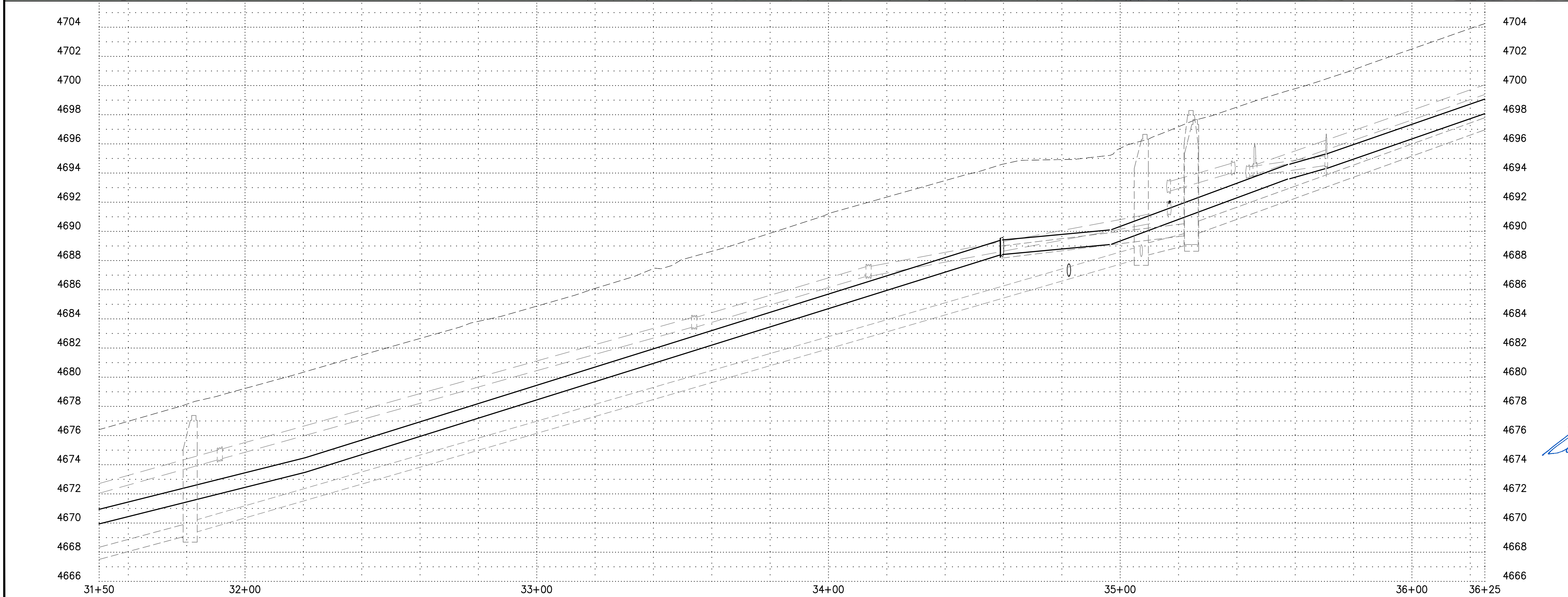
**HYDE PARK CITY
CITY HALL WELL HOUSE**

ROADWAY PLAN

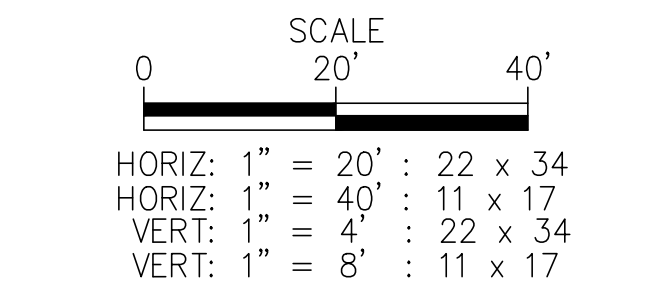
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 62 of 72	RP4
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- ### CONSTRUCTION NOTES
- 1 SAWCUT EXISTING ASPHALT PAVEMENT TO PROVIDE CLEAN EDGE PRIOR TO PAVING AND DISPOSAL OF OLD ASPHALT - PROTECT EXISTING ASPHALT TO REMAIN
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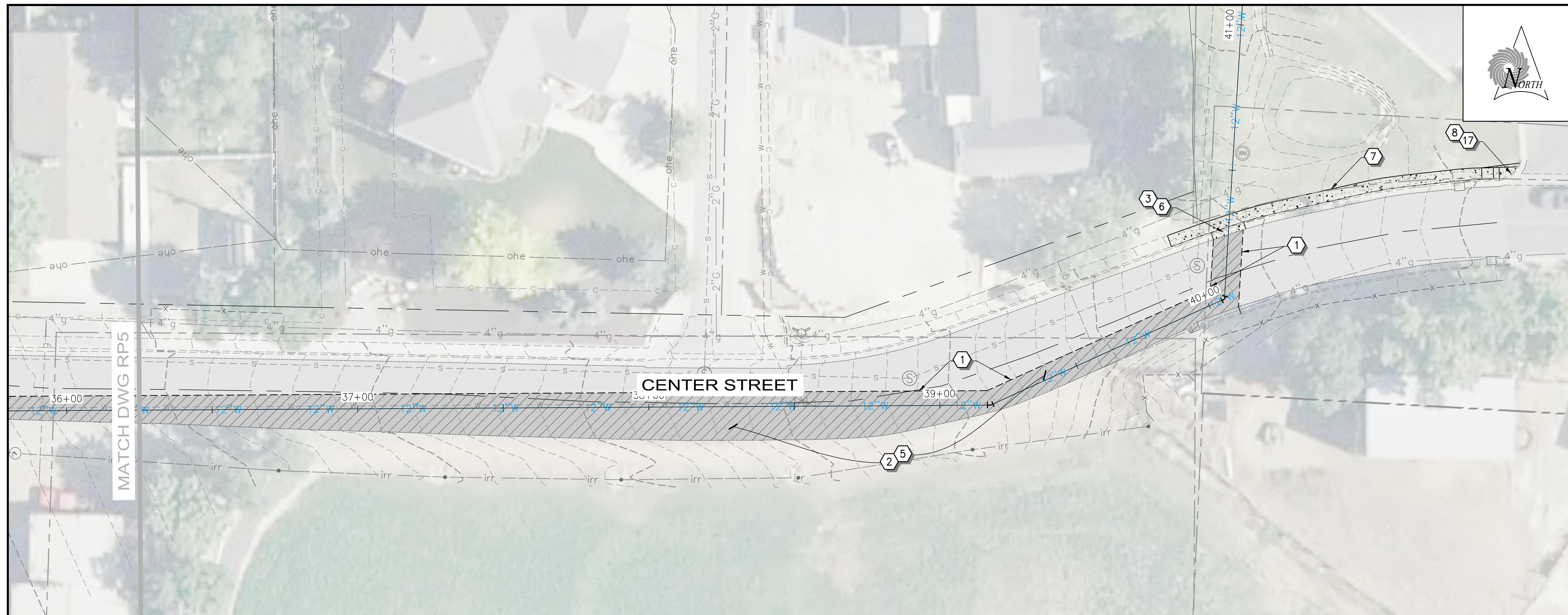
PROFESSIONAL ENGINEER
No. 12701899
STEVEN DAVID
WOOD
01/30/2025
STATE OF UTAH

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NORTH LOGAN, UTAH 84341
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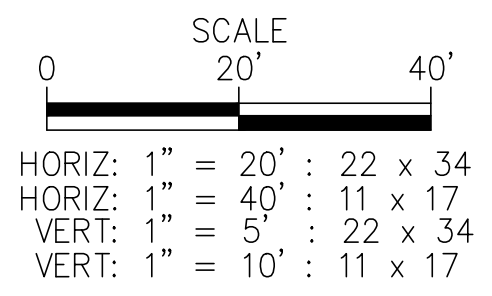
ROADWAY PLANS

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 63 of 72	RP5
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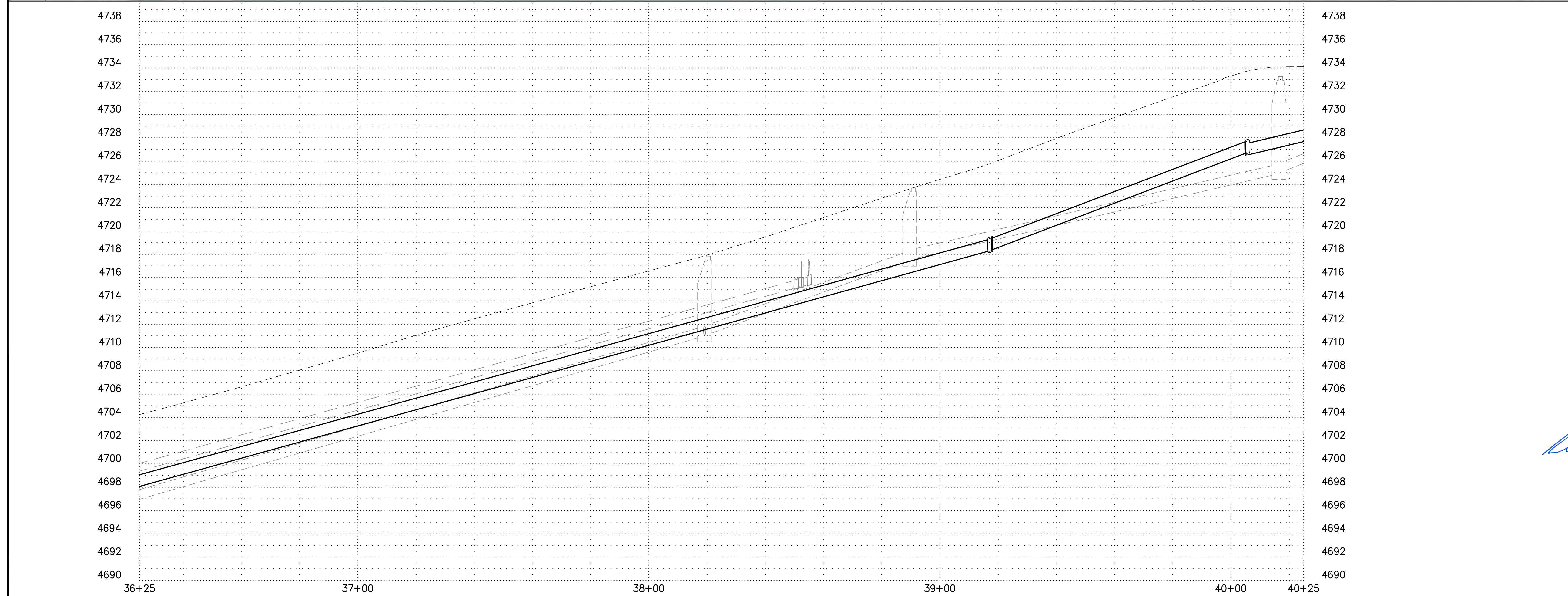


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 No. 12701899
 STEVEN DAVIS
 01/30/2025
 STATE OF UTAH

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 2100 NORTH MAIN STREET
 NORTH LOGAN, UTAH 84341
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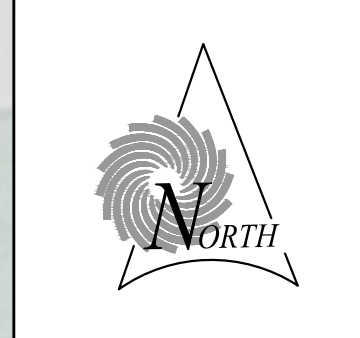
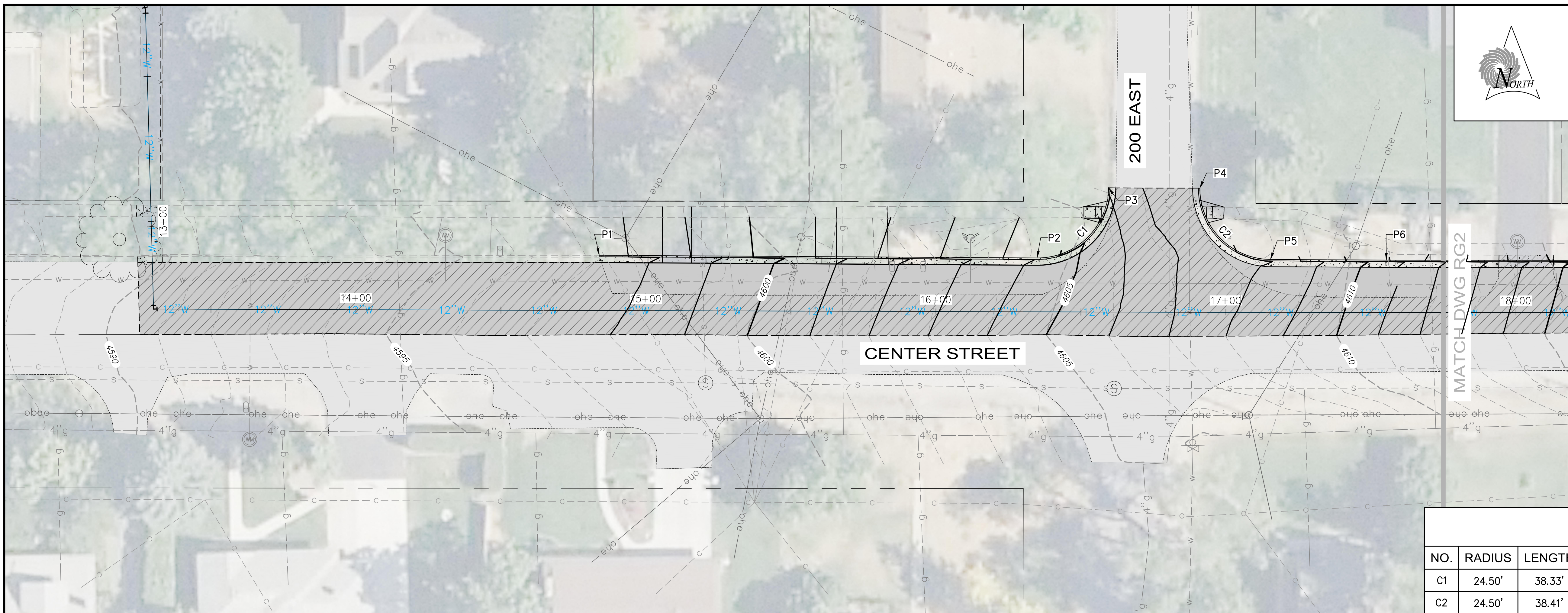
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ROADWAY PLAN

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 64 of 72	RP6
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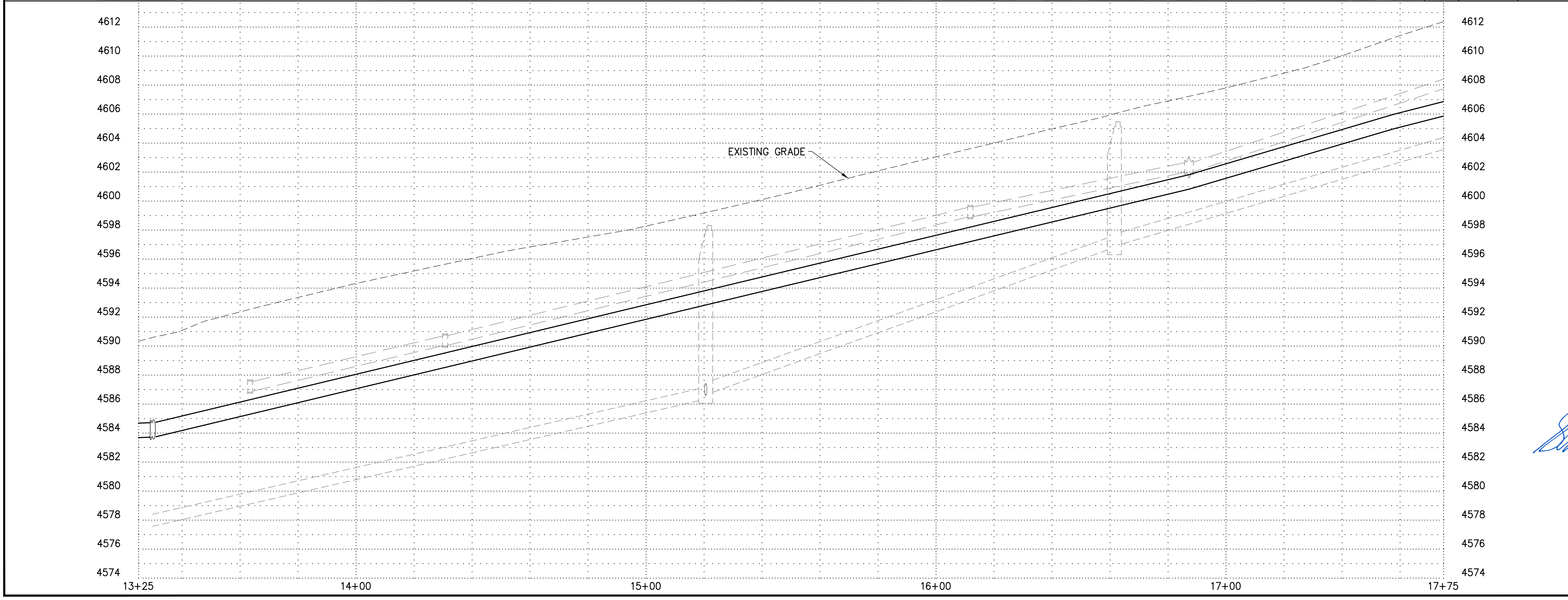
P:\Hyde Park\10660 City Hall Well House\DWG\Sheets\RPCW-RP6.dwg Jun 23, 2025 12:15pm Jnelson

BID SET



Point #	Elevation	Northing	Easting	Description
1	4597.54	3815038.553	1554542.330	TBC / MATCH EXISTING
2	4604.55	3815034.532	1554693.230	TBC / PC
3	4606.66	3815058.219	1554718.370	TBC / PC
4	4607.83	3815057.455	1554749.839	TBC / PC
5	4608.47	3815032.388	1554773.680	TBC / PC
6	4610.92	3815031.322	1554813.666	TBC / GB

NO.	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD LENGTH
C1	24.50'	38.33'	89°38'49"	N46°42'11"E	34.54'
C2	24.50'	38.41'	89°49'18"	S43°33'46"E	34.59'



SCALE
 0 20' 40'
 HORIZ: 1" = 20' : 22 x 34
 HORIZ: 1" = 40' : 11 x 17
 VERT: 1" = 4' : 22 x 34
 VERT: 1" = 8' : 11 x 17

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REV. NO.	COMMENT	DATE

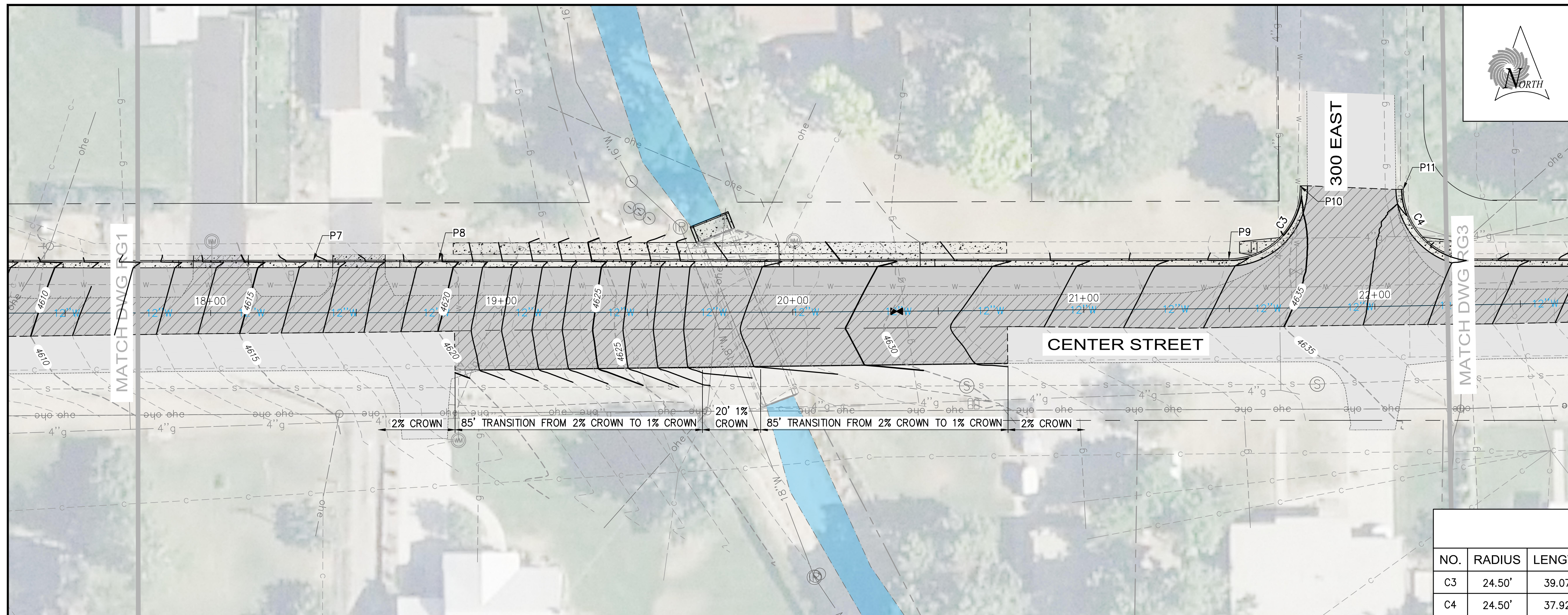
STEVEN DAVID WOOD
 01/30/2025
 STATE OF UTAH

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 2100 NORTH MAIN STREET
 NORTH LOGAN, UTAH 84341
 TEL 435.563.3734
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HYDE PARK CITY
CITY HALL WELL HOUSE

ROADWAY GRADING PLAN

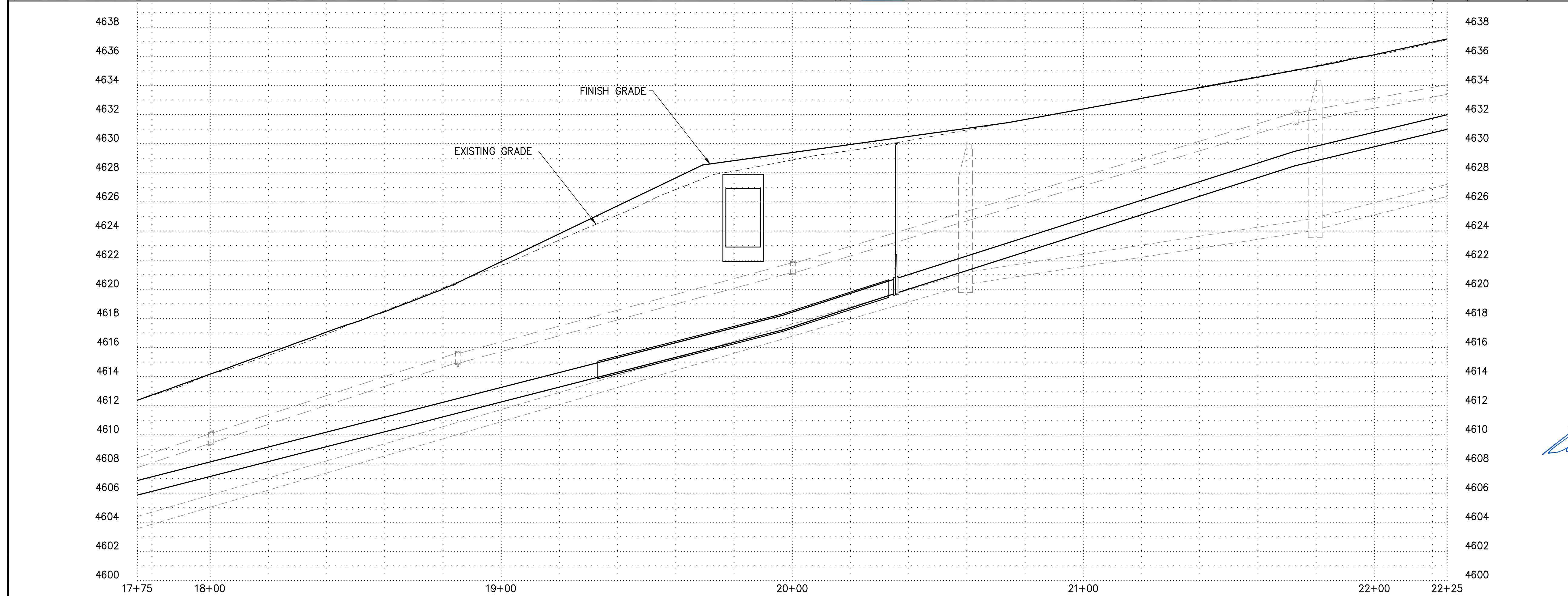
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 65 of 72	RG1
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Point Table				
Point #	Elevation	Northing	Easting	Description
7	4616.93	3815029.609	1554893.647	TBC / GB
8	4619.83	3815028.741	1554936.709	TBC / GB
9	4634.27	3815023.138	1555208.082	TBC / PC
10	4634.27	3815047.632	1555233.130	TBC / PC
11	4636.16	3815045.695	1555268.503	TBC / PC



CURVE TABLE					
NO.	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD LENGTH
C3	24.50'	39.07'	91°22'39"	N45°35'35"E	35.06'
C4	24.50'	37.92'	88°40'49"	S44°20'24"E	34.25'

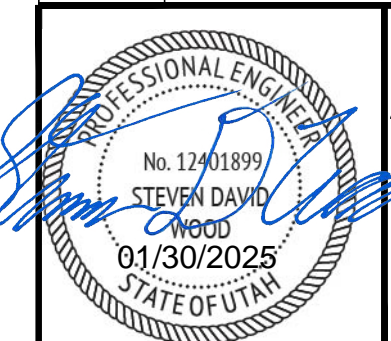


SCALE
0 20' 40'

HORIZ: 1" = 20' : 22 x 34
 HORIZ: 1" = 40' : 11 x 17
 VERT: 1" = 4' : 22 x 34
 VERT: 1" = 8' : 11 x 17

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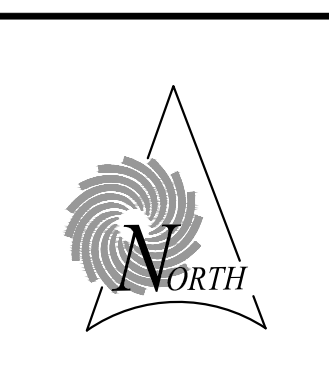
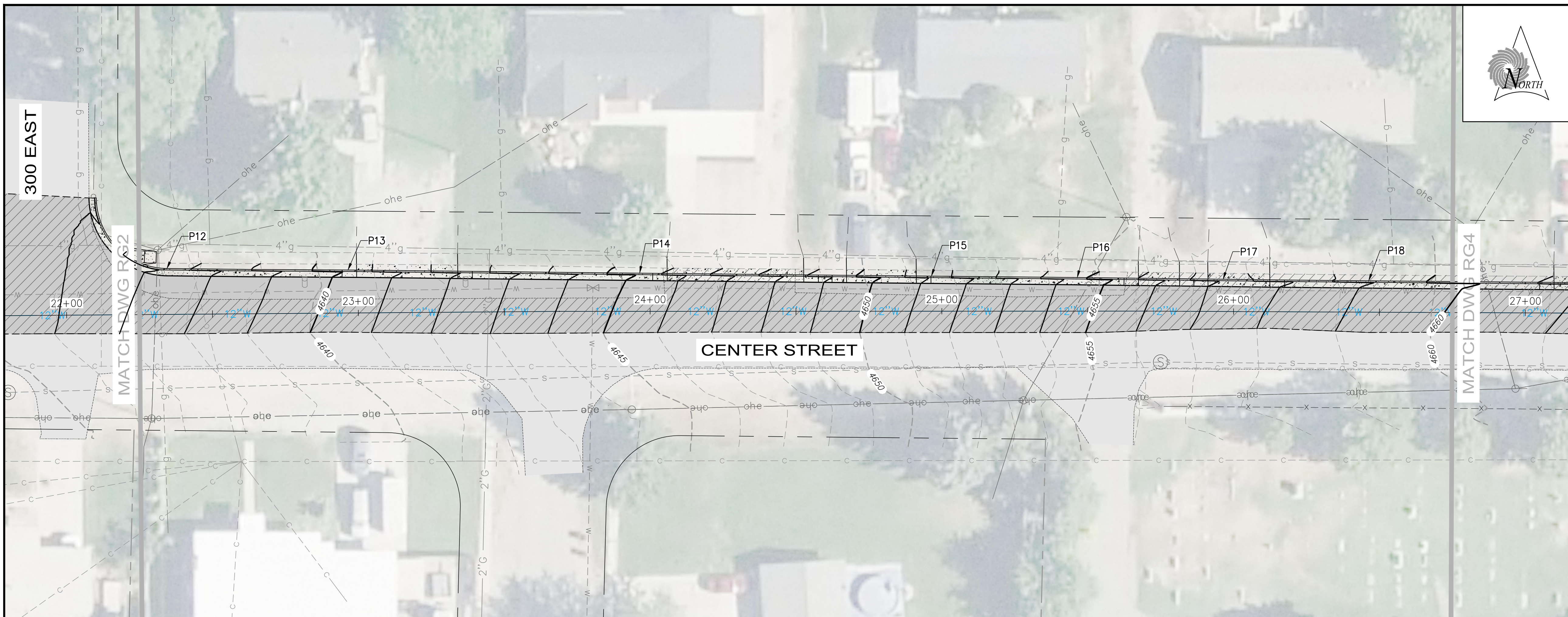


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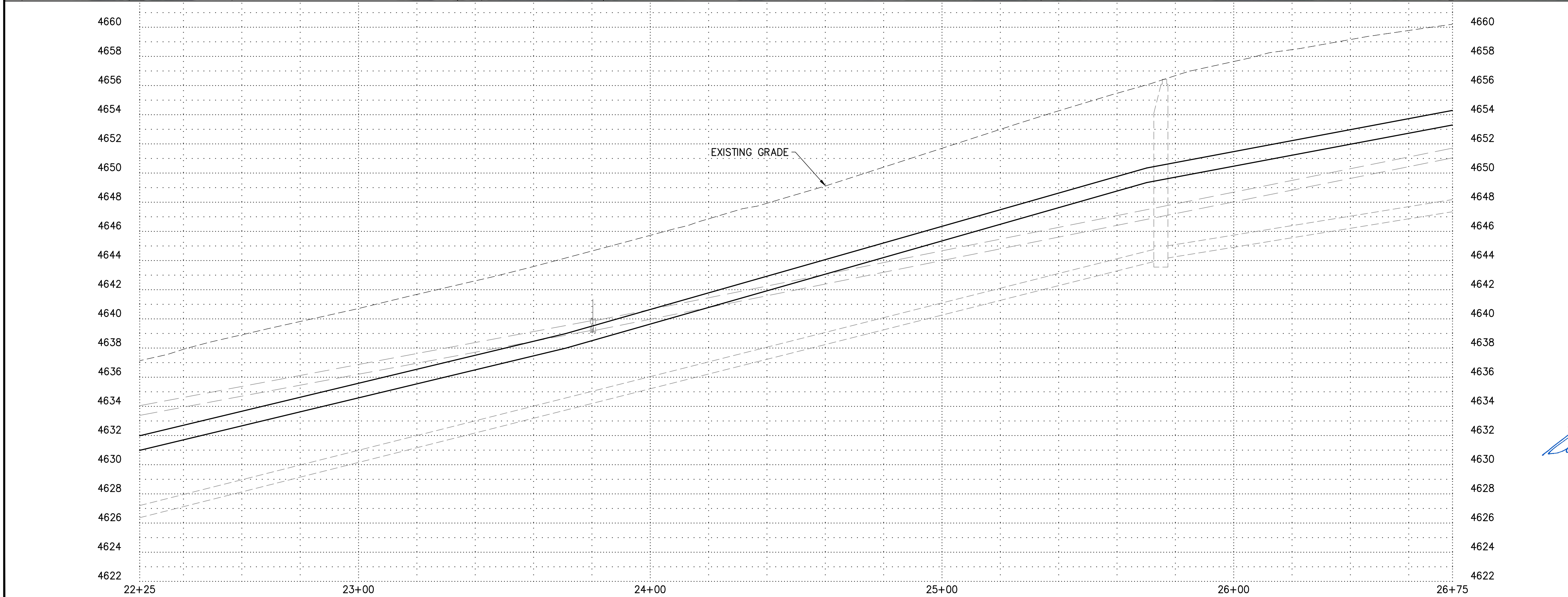
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HYDE PARK CITY
 CITY HALL WELL HOUSE
 ROADWAY GRADING PLAN

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 66 of 72	RG2
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Point Table				
Point #	Elevation	Northing	Easting	Description
12	4637.60	3815021.201	1555292.438	TBC / PC
13	4640.59	3815019.955	1555354.475	TBC / GB
14	4645.44	3815017.677	1555454.449	TBC / GB
15	4651.49	3815015.454	1555554.425	TBC / GB
16	4654.78	3815014.372	1555604.413	TBC / GB
17	4657.55	3815013.197	1555654.399	TBC / GB
18	4659.36	3815012.059	1555704.288	TBC / GB

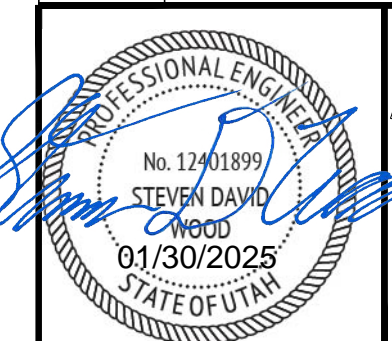


SCALE
0 20' 40'

HORIZ: 1" = 20' : 22 x 34
 HORIZ: 1" = 40' : 11 x 17
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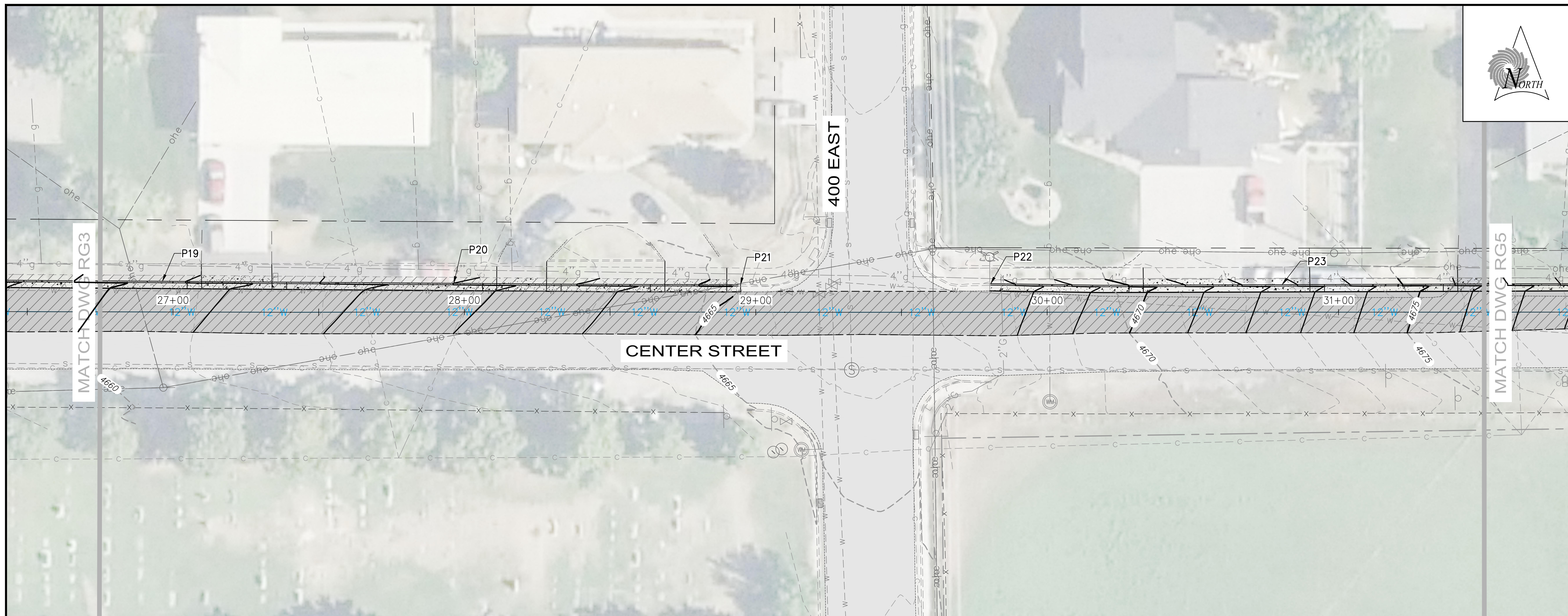
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HYDE PARK CITY
 CITY HALL WELL HOUSE
 ROADWAY GRADING PLAN

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 67 of 72	RG3
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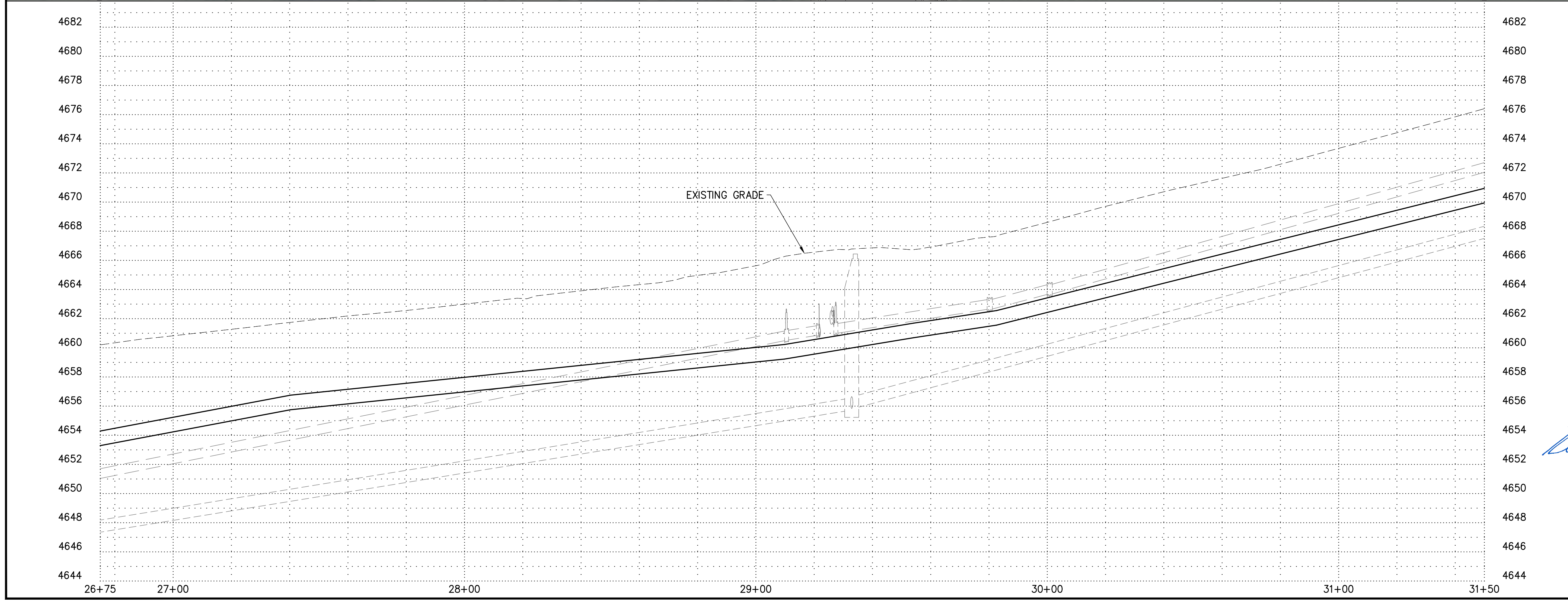
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BID SET



Point Table				
Point #	Elevation	Northing	Easting	Description
19	4660.80	3815011.018	1555754.375	TBC / GB
20	4662.94	3815008.901	1555854.353	TBC / GB
21	0.00	3815007.058	1555952.742	TBC / MATCH EXISTING
22	0.00	3815006.169	1556038.590	TBC / MATCH EXISTING
23	4672.71	3815004.392	1556138.571	TBC / GB

BID SET



SCALE
 0 20' 40'
 HORIZ: 1" = 20' : 22 x 34
 HORIZ: 1" = 40' : 11 x 17
 VERT: 1" = 4' : 22 x 34
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REV. NO.	COMMENT	DATE

PROFESSIONAL ENGINEER
 No. 12401899
 STEVEN DAVID
 WOOD
 01/30/2025
 STATE OF UTAH

SUNRISE ENGINEERING
 2100 NORTH MAIN STREET
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 TEL 435.563.3734
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CITY HALL WELL HOUSE

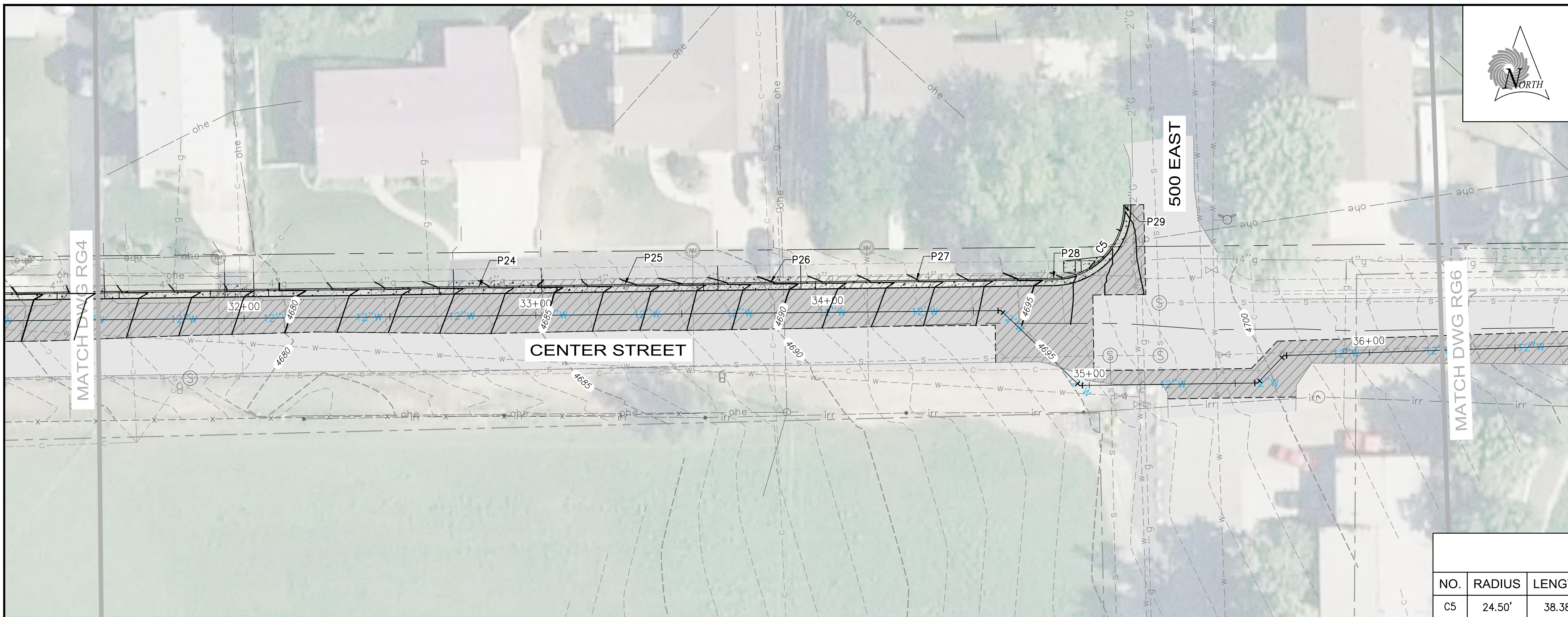
ROADWAY GRADING PLAN

SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 68 of 72	RG4
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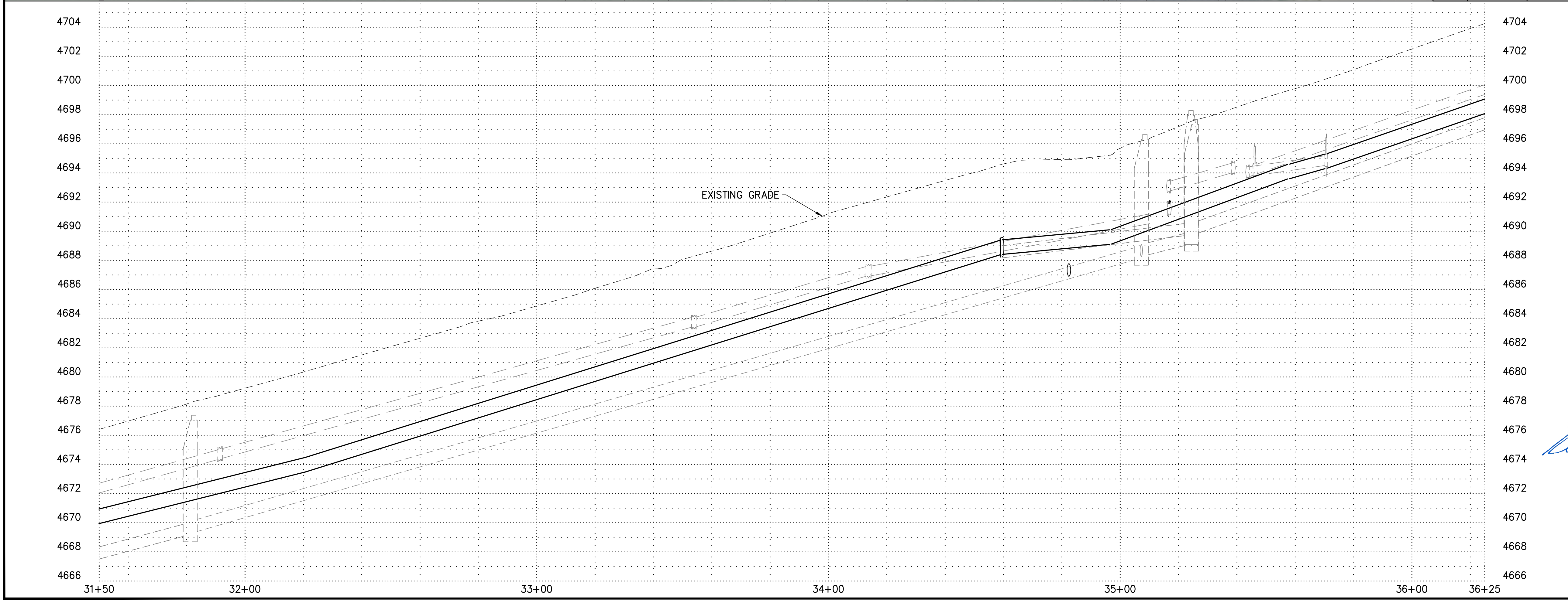
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Point Table				
Point #	Elevation	Northing	Easting	Description
24	4683.80	3815002.256	1556338.559	TBC / GB
25	4686.77	3815001.707	1556388.556	TBC / GB
26	4689.93	3815001.214	1556438.553	TBC / GB
27	4692.97	3815000.719	1556488.551	TBC / GB
28	4692.97	3815000.243	1556535.577	TBC / PC
29	4692.97	3815024.745	1556560.077	TBC / PC



CURVE TABLE					
NO.	RADIUS	LENGTH	DELTA	CHORD BEARING	CHORD LENGTH
C5	24.50'	38.38'	89°45'50"	N44°52'55"E	34.58'



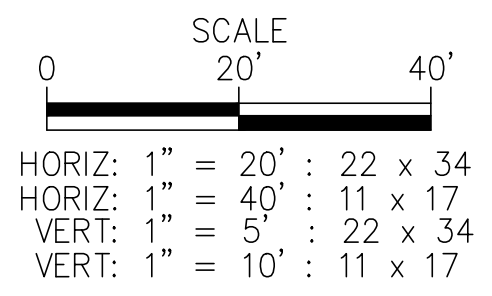
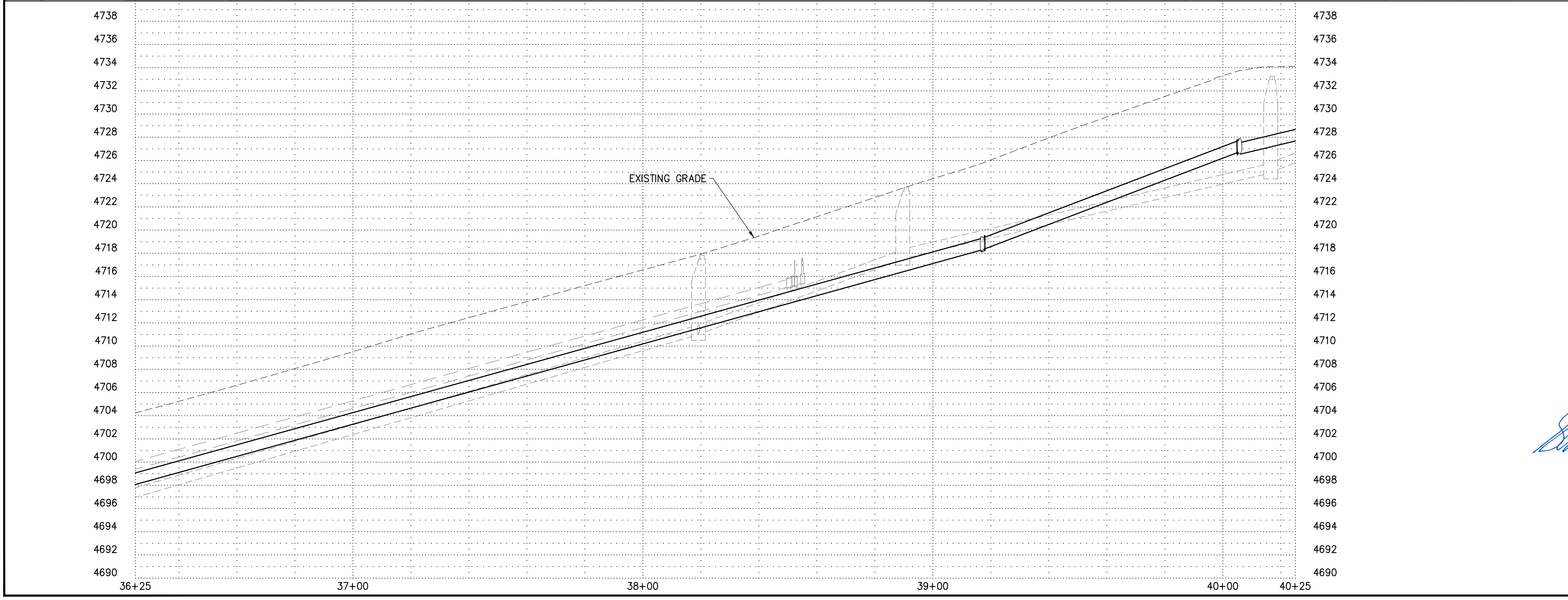
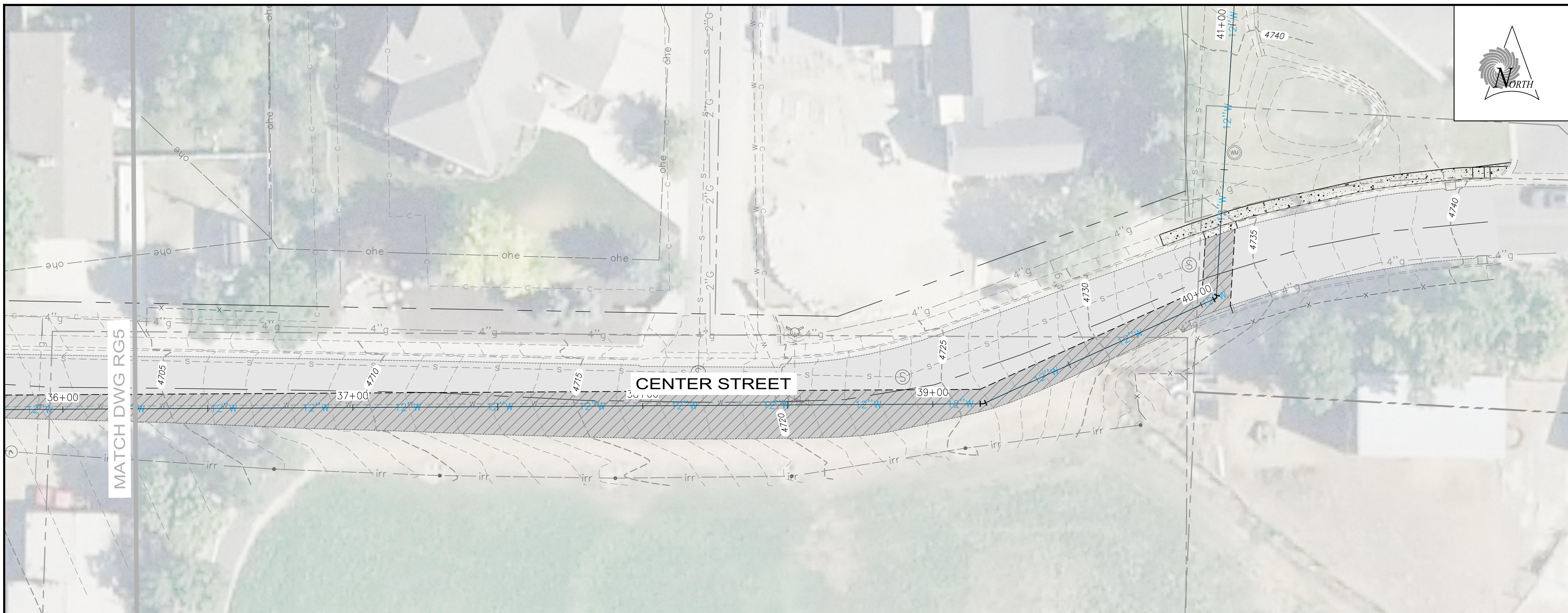
SCALE
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ROADWAY GRADING PLAN				
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 69 of 72
				RG5



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REV NO.	COMMENT	DATE

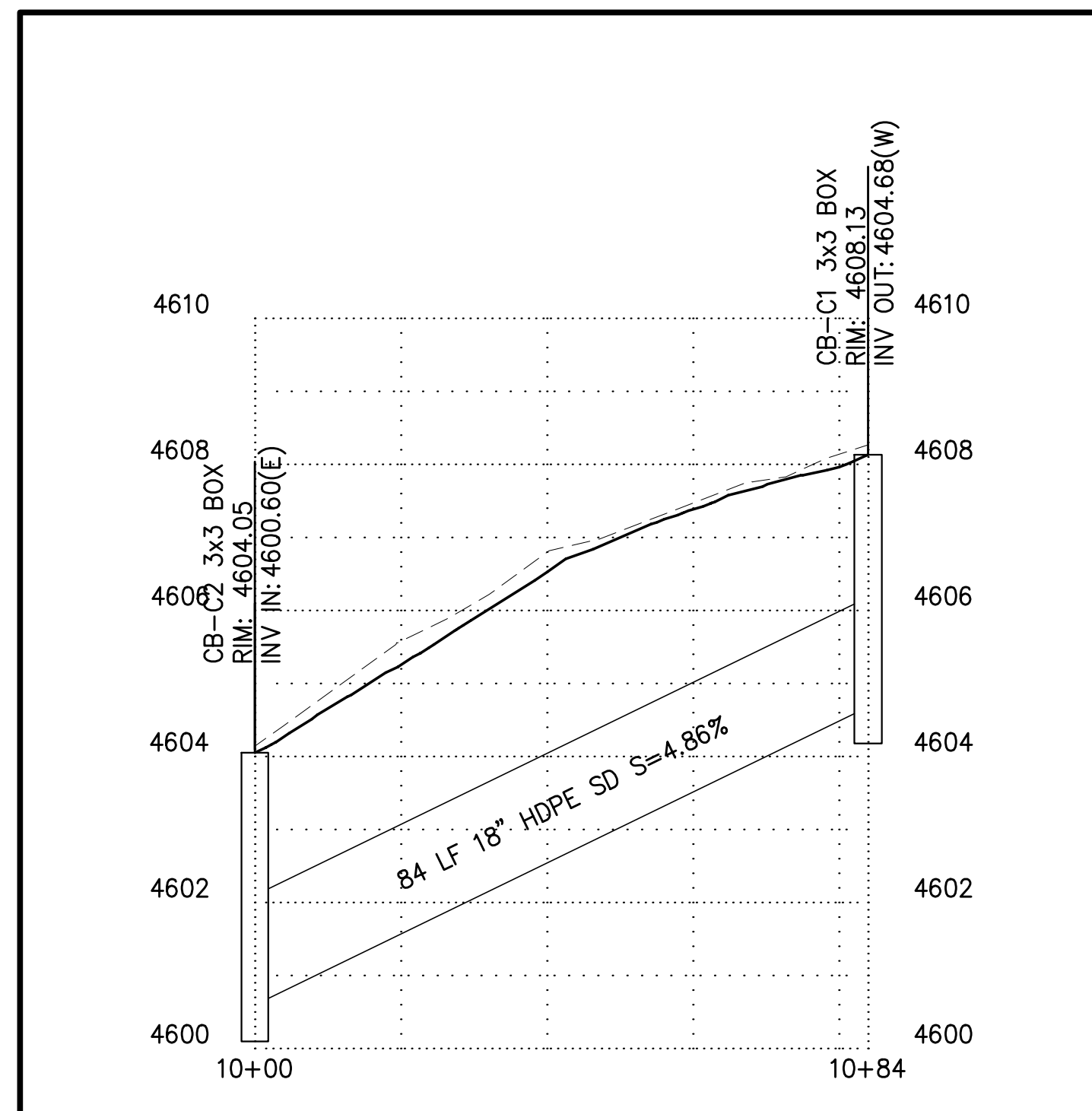
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HYDE PARK CITY
CITY HALL WELL HOUSE
ROADWAY GRADING PLAN

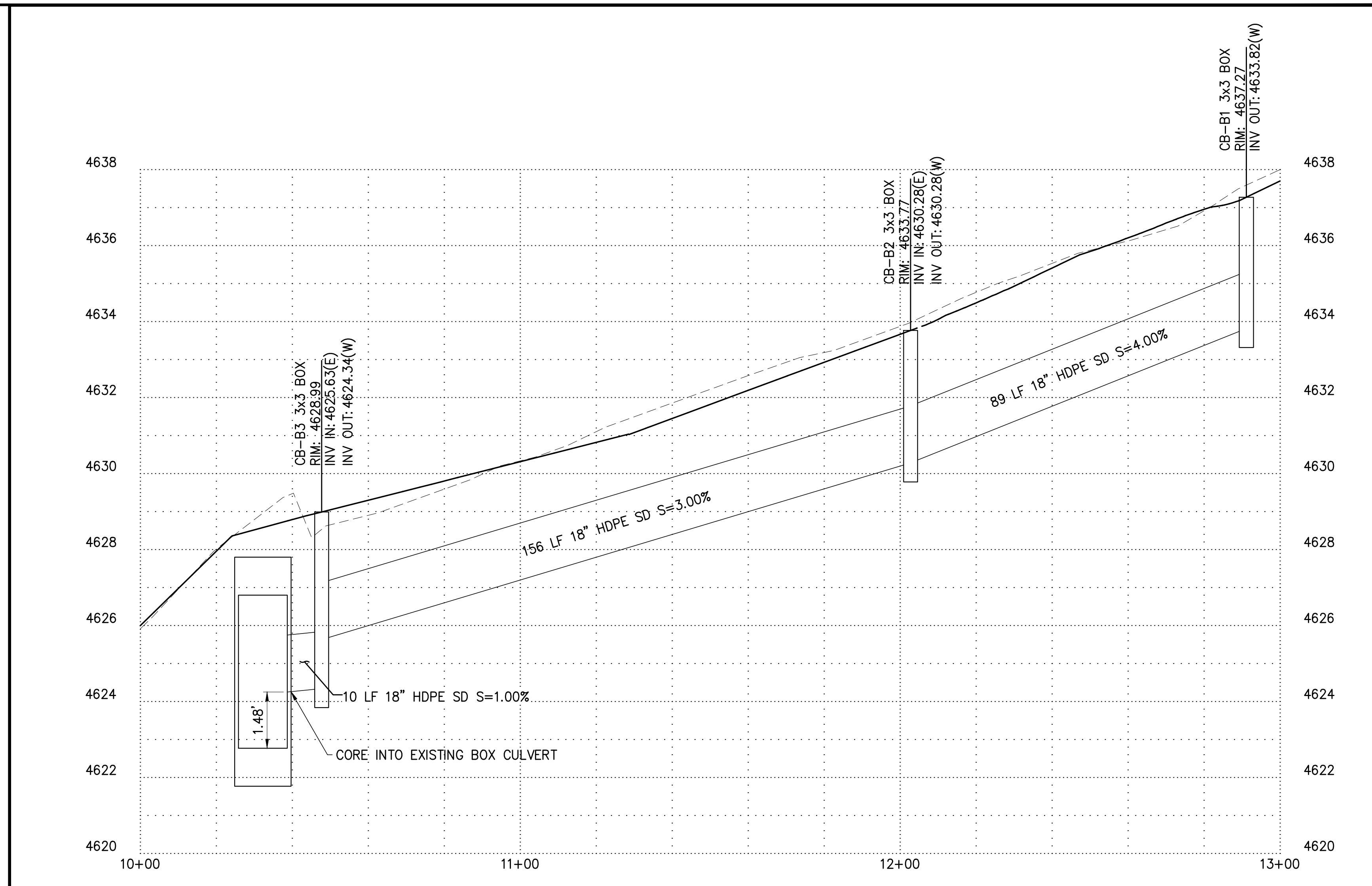
SEI NO.	DESIGNED	DRAWN	CHECKED	SHEET NO.	
10660	SDW	JJ	SDW	70 of 72	RG6

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BID SET



A PROFILE - 200 EAST STORM DRAIN NETWORK
~ NOT TO SCALE



B PROFILE - 200 EAST STORM DRAIN NETWORK
~ NOT TO SCALE

SCALE
0 20' 40'
HORIZ: 1" = 20' : 22 x 34
HORIZ: 1" = 40' : 11 x 17
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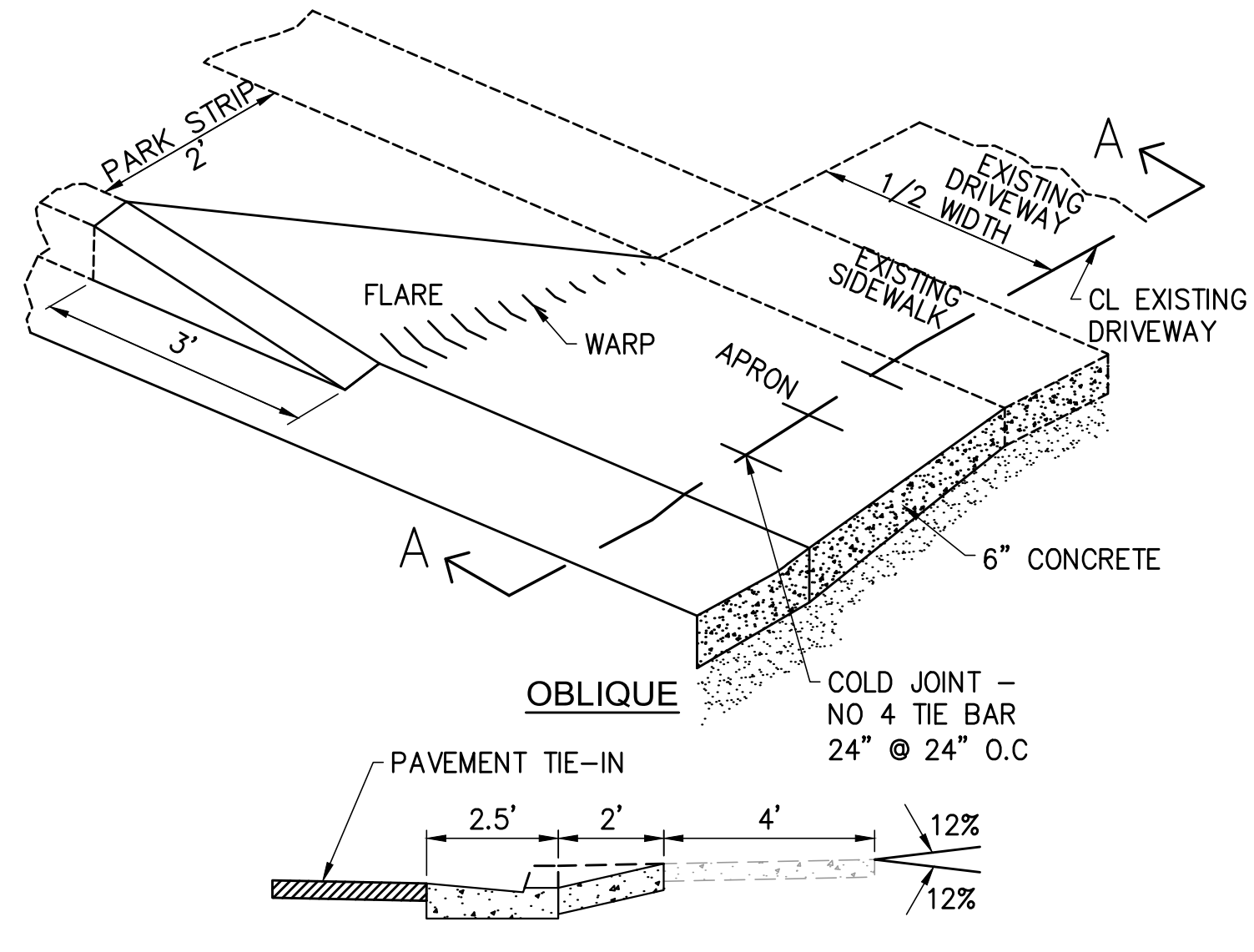
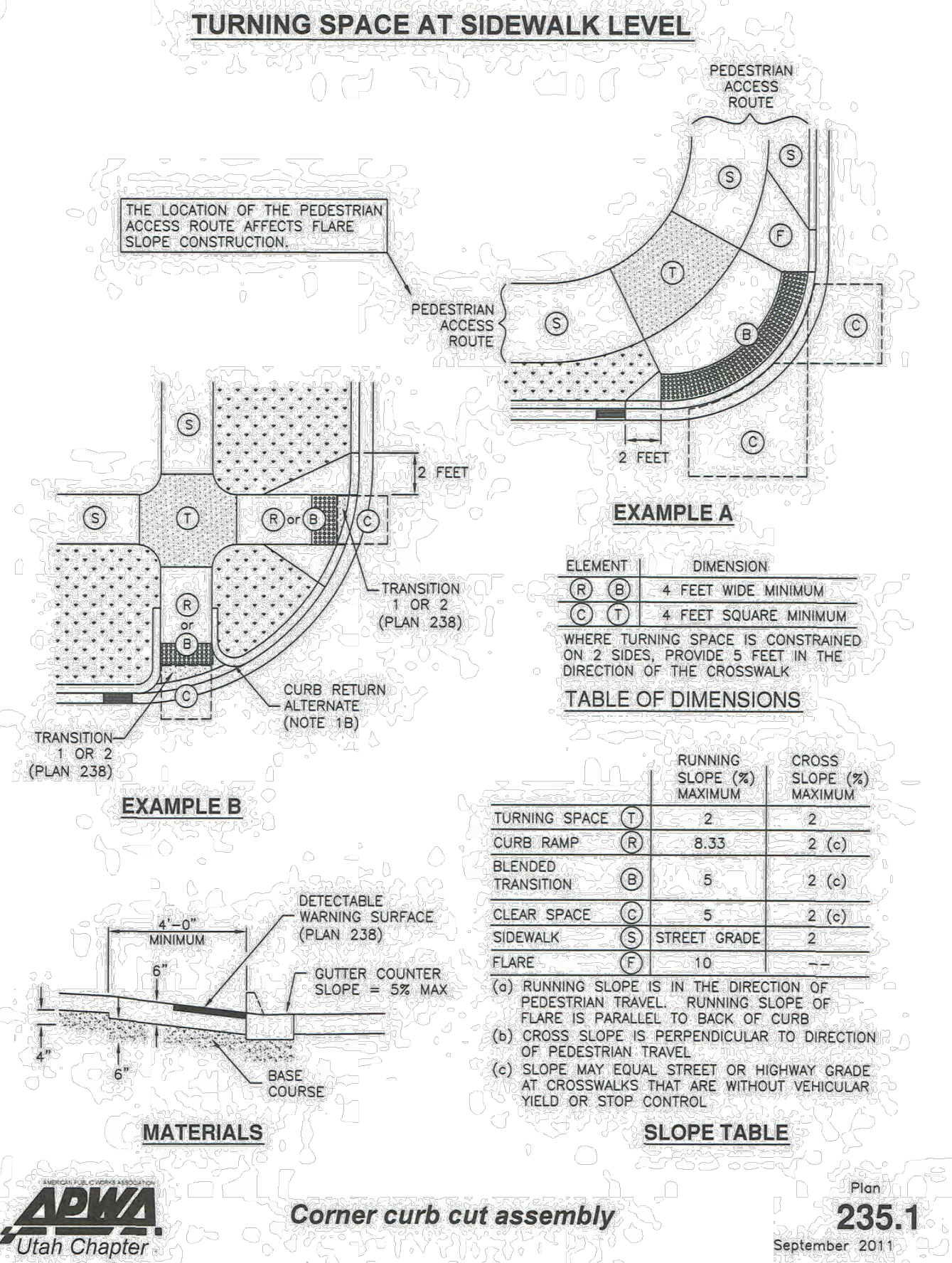
REV. NO.	COMMENT	DATE

	<p>SUNRISE ENGINEERING</p> <p>2100 NORTH MAIN STREET NORTH LOGAN, UTAH 84341 TEL 435.563.3734 www.sunrise-eng.com</p>
	<p>HYDE PARK CITY</p> <p>CITY HALL WELL HOUSE ROADWAY PLANS CENTER STREET STORM DRAIN NETWORK</p>

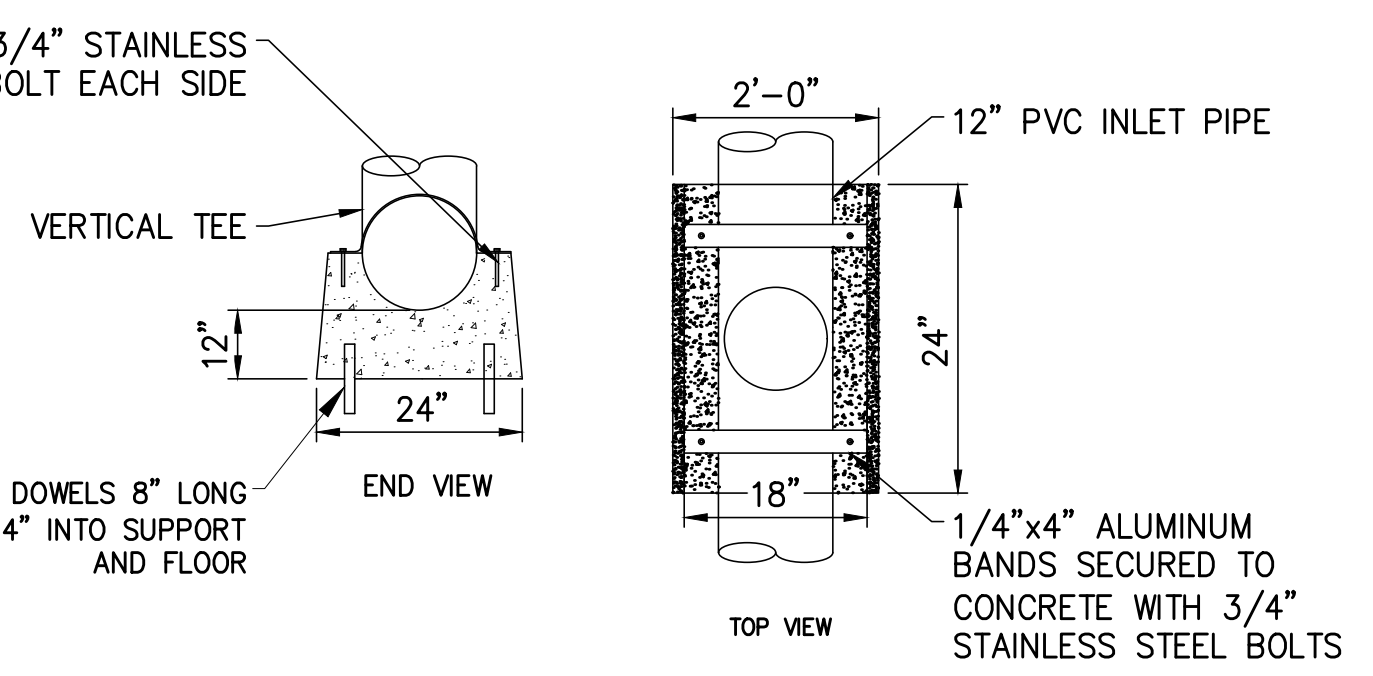
SEI NO. 10660	DESIGNED SDW	DRAWN JJ	CHECKED SDW	SHEET NO. 71 of 72	SD2
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Corner curb cut assembly

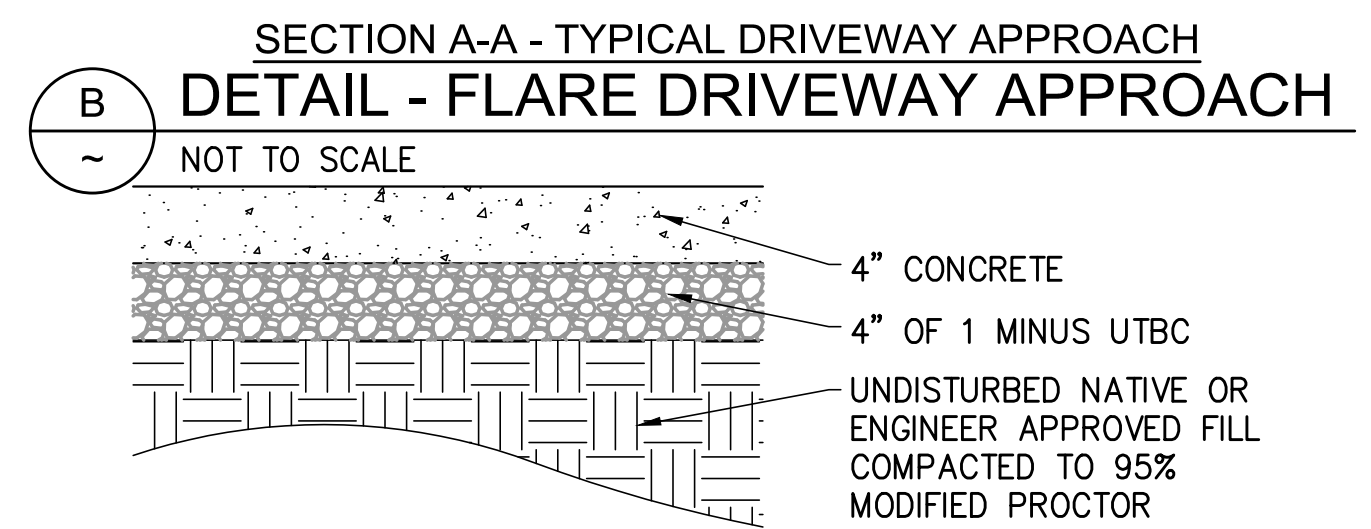
- GENERAL**
 - Where existing elements or spaces are altered to receive an assembly; slopes and dimensions shall comply with slopes and dimensions shown on the drawing, or to the maximum extent feasible permitted by the ENGINEER. Final configuration of the assembly may be different than shown. Where physical constraints (e.g. utility covers, poles, vaults, etc.) prevent compliance, a single diagonal curb cut assembly may serve both pedestrian street crossings.
 - Installation of flares or curb returns is ENGINEER'S choice.
 - Definitions and supplemental requirements are specified in APWA Section 32 16 14.
- PRODUCTS**
 - Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER'S permission.
 - Expansion Joint Filler: 1/2-inch thick type F1 full depth, APWA Section 32 13 73.
 - Detectable Warning Surface: Paver, ribbed composite panel, or tile. Provide a color that contrasts with adjacent walking surface, either light-on-dark or dark-on-light. ENGINEER to select type and color unless indicated elsewhere.
 - Concrete: Class 4000, APWA Section 03 30 04.
 - Concrete Curing Agent: Clear membrane forming compound with fugitive dye (Type ID Class A), APWA Section 03 39 00.
- EXECUTION**
 - Base Course Placement: APWA Section 32 05 10. Maximum lift thickness before compaction is 8-inches when using riding equipment or 6-inches when using hand held equipment. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
 - Curb Modifications:
 - The sloped surface created to accommodate a flare area shall be perpendicular to the back of curb.
 - No grade break shall exist between the flow-line and the foot of the curb ramp or blended transition. Length of the curb modification abutting the curb ramp or transition is 4 feet minimum for each crosswalk served.
 - Curb Ramp: Length not required to exceed 15 feet. Grade breaks are perpendicular to the direction of ramp run and are not permitted on ramp or turning space surface. Sides are parallel to each other and perpendicular to the ends. At the bottom grade break it may be necessary to install a transition zone, (APWA Plan 238).
 - Concrete Placement: APWA Section 03 30 10.
 - Maximum length to width ratio for rectangular panel joints is 1.5 to 1. Joint spacing measured in feet not to exceed twice slab thickness measured in inches or a maximum of 15 feet.
 - Install expansion joints vertical, full depth, with top of filler set flush with concrete surface. Install contraction joints vertical, 1/8-inch wide, and 1/4 of the depth of the concrete flatwork.
 - Provide 1/2-inch radius edges. Apply a broom finish. Apply a curing agent.



D DETAIL - GRAVEL DRIVEWAY NOT TO SCALE



E DETAIL - PIPE SUPPORT NOT TO SCALE

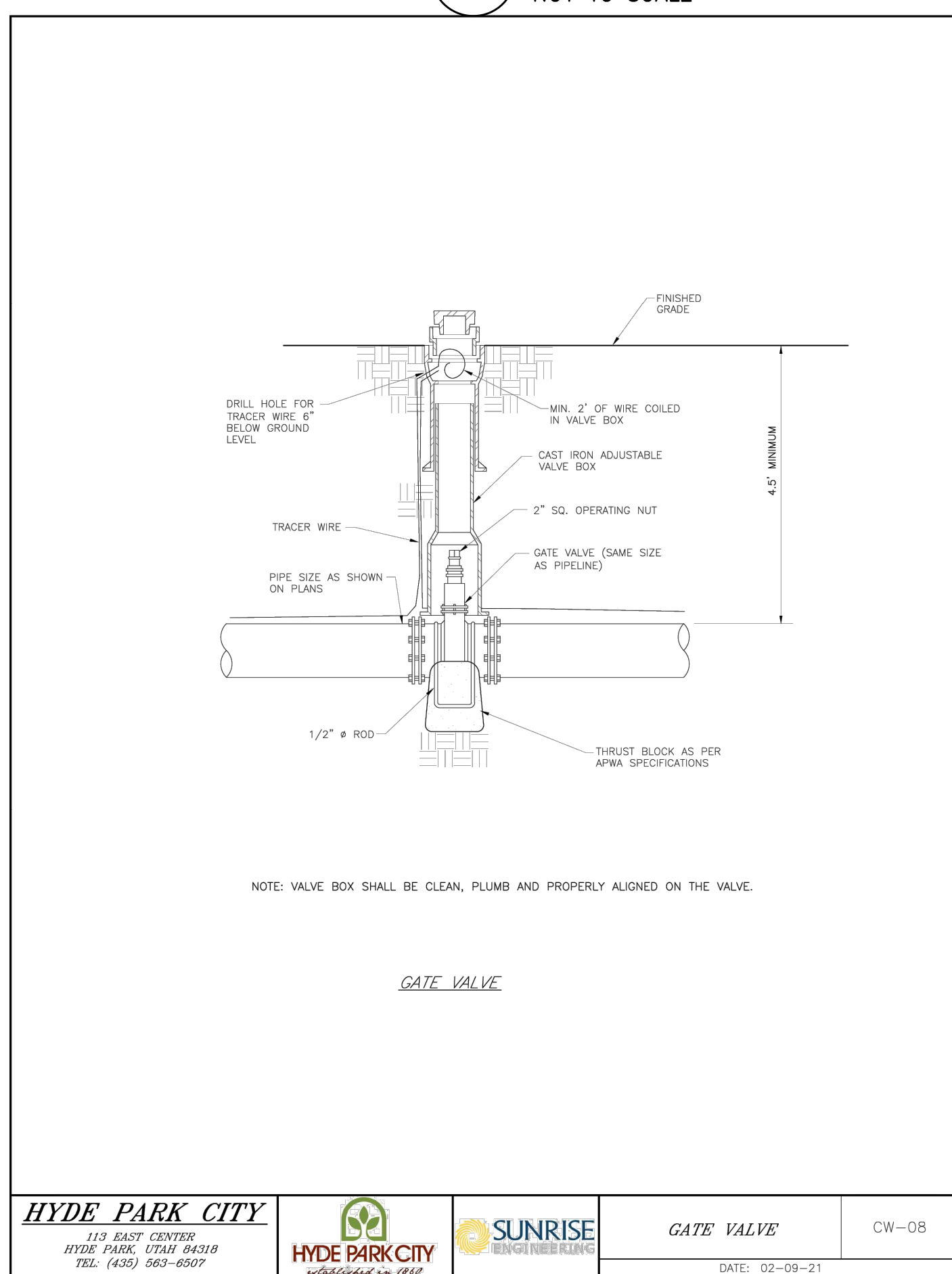


- NOTES:
1. CONCRETE SHALL BE 4000 PSI, 28 DAY STRENGTH
2. INSTALL CONTRACTION JOINTS @ 10'-0" O.C.
3. INSTALL EXPANSION JOINTS @ 200'-0" O.C.

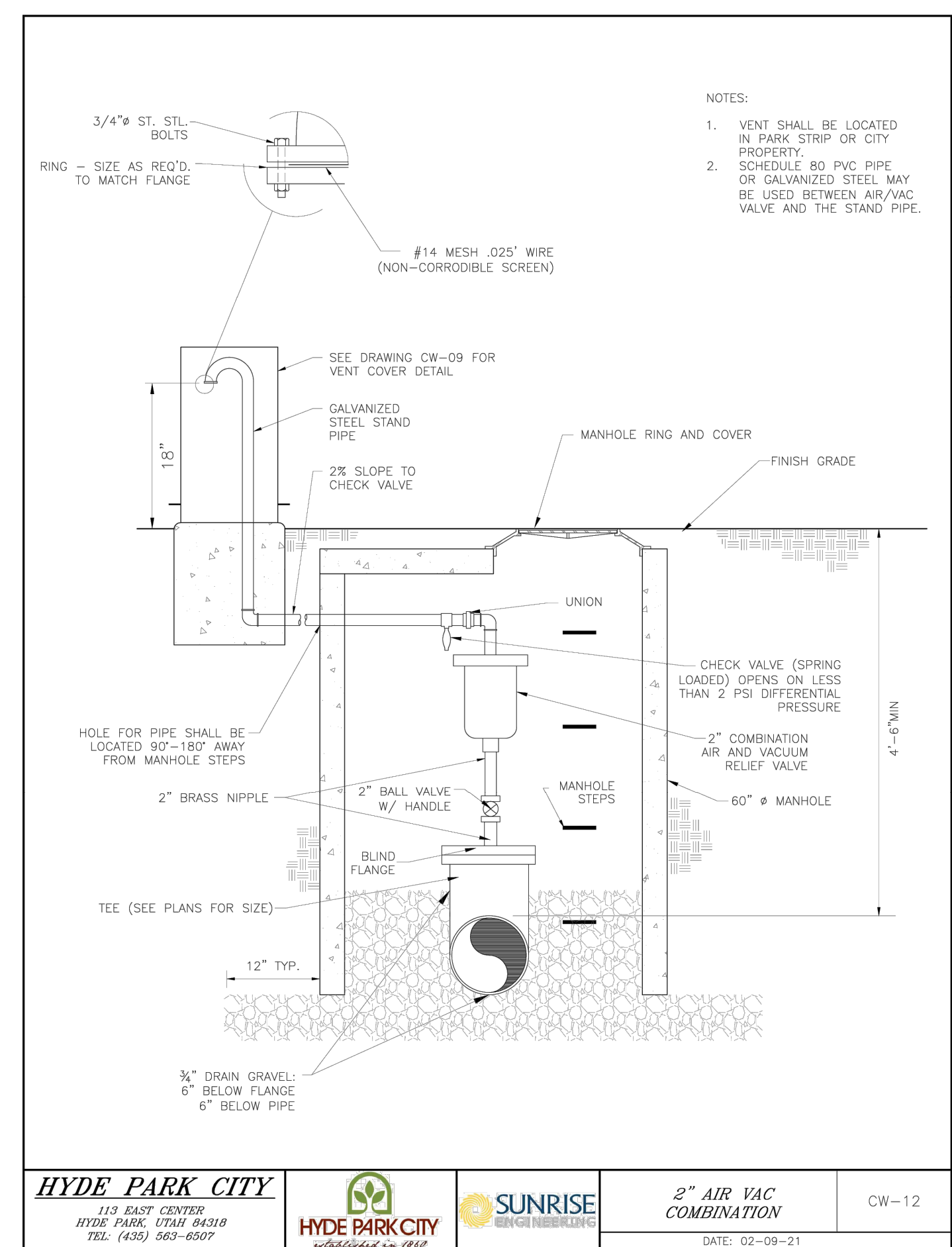
C DETAIL - SIDEWALK NOT TO SCALE

235.1

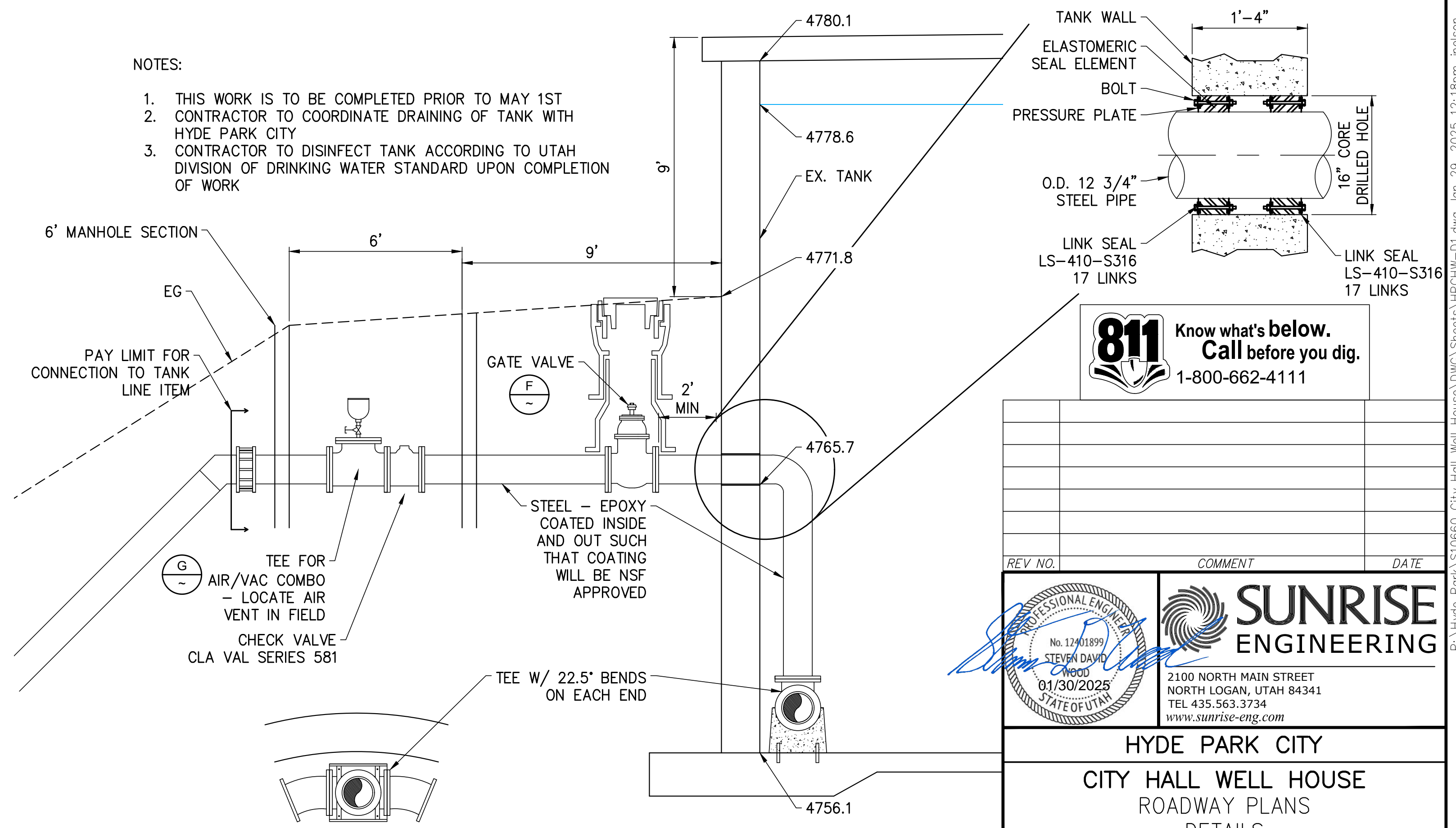
A DETAIL - CORNER CURB CUT ASSEMBLY NOT TO SCALE



F DETAIL - GATE VALVE NOT TO SCALE



G DETAIL - 2\"/>



H DETAIL - CONNECTION TO EXISTING TANK NOT TO SCALE

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GATE VALVE CW-05 DATE: 02-09-21

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HYDE PARK, UTAH 84318
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