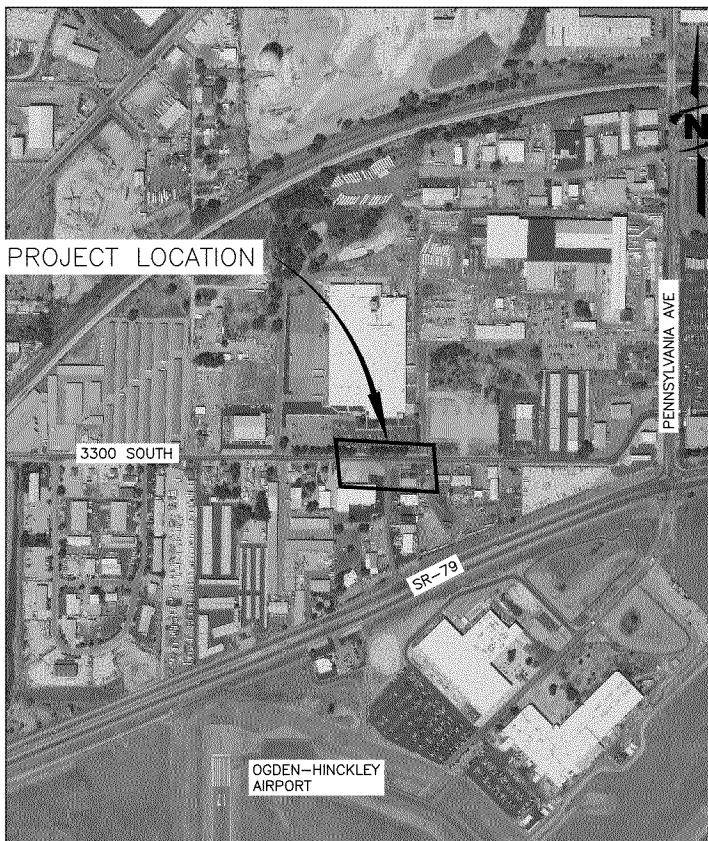


AREA MAP



VICINITY MAP

3300 SOUTH STORM DRAIN

OGDEN CITY

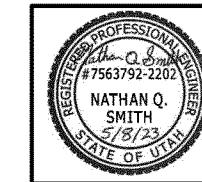
May 2023

BID SET

CONSTRUCTION PERMIT ISSUED BY
Utah Department of Environmental Quality
Utah Division of Water Quality

Date: 05/09/2024

Review Engineer: *Beth Wondimu*
Director: *John K. Mackey*



PROJECT NO. 55-22-123



J-U-B ENGINEERS, INC.

466 North 900 West, Kaysville, UT 84037
p 801 547 0393 w www.jub.com



THE
LANGDON
GROUP



GATEWAY
MAPPING
INC.

J-U-B FAMILY OF COMPANIES

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LAST UPDATED: 5/10/2023

SHEET NUMBER:

G-001

3300 SOUTH SHEETS	
Sheet Number	Sheet Title
G-001	COVER
G-002	GENERAL NOTES AND ABBREVIATIONS
G-003	SYMBOL LEGEND, LINE LEGEND, AND DETAIL KEY
V-101	SURVEY CONTROL PLAN
C-101	ALIGNMENT CONTROL PLAN
C-201	ROADWAY PLAN
C-202	ROADWAY PLAN
CU-201	UTILITY PLAN AND PROFILE
CU-202	UTILITY PLAN AND PROFILE
CU-203	UTILITY PLAN AND PROFILE
C-501	TYPICAL CROSS SECTION DETAILS
C-502	STORMBRIXX DETAILS
C-503	DOUBLE CATCH BASIN WITH CURB INLET DETAIL
C-504	DETAILS
C-505	OGDEN CITY STANDARD DETAILS
C-506	OGDEN CITY STANDARD DETAILS
C-507	OGDEN CITY STANDARD DETAILS
C-508	OGDEN CITY STANDARD DETAILS
C-509	OGDEN CITY STANDARD DETAILS
C-510	OGDEN CITY STANDARD DETAILS
C-511	OGDEN CITY STANDARD DETAILS
C-512	OGDEN CITY STANDARD DETAILS
C-513	SAFL BAFFLE AND SKUNK DETAILS

GENERAL PROJECT NOTES

1. GENERAL:

- A. THE GENERAL NOTES AND SPECIFICATIONS SUPPLEMENT THE PROJECT WRITTEN TECHNICAL SPECIFICATIONS AND THE PROJECT DRAWINGS.
- B. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION BRACING, TEMPORARY SHORING, AND OTHER SITE SAFETY CONTROLS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS, TO ENSURE THE STABILITY AND SAFETY OF ALL CONSTRUCTION UNTIL IT IS COMPLETED.
- C. DETAILS ON THESE PLANS ARE INTENDED TO DEPICT THE GENERAL CONSTRUCTION DETAILS AND METHODS FOR THIS PROJECT. DETAILS AND CONDITIONS NOT SPECIFICALLY SHOWN THAT ARE SIMILAR IN NATURE TO THOSE THAT ARE SPECIFIED SHALL BE ASSUMED ONE AND THE SAME. IF QUESTIONS REGARDING THE APPLICATION OF DETAILS ARE ENCOUNTERED, NOTIFY THE ENGINEER FOR CLARIFICATION OR INSTRUCTION.
- D. PRIOR TO IMPLEMENTING ANY CHANGES TO THESE PLANS, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR THEIR WRITTEN APPROVAL. CHANGES IMPLEMENTED WITHOUT THE ENGINEERS WRITTEN APPROVAL SHALL RELIEVE THE ENGINEER OF ANY CLAIM OR LIABILITY RESULTING FROM THAT PORTION OF THE PROJECT CHANGED OR AFFECTED BY THE CHANGE.

2. CONTRACTOR RESPONSIBILITY FOR COORDINATION:

- A. ALL WORK SHALL CONFORM TO OGDEN CITY STANDARDS UNLESS SPECIFICALLY NOTED ON THESE DRAWINGS.
- B. IT IS THE CONTRACTORS PRIME RESPONSIBILITY TO COORDINATE THE WORK SHOWN ON ALL OF THE PROJECT DRAWINGS, GENERAL, SPECIAL, AND TECHNICAL SPECIFICATIONS.
- C. THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONSTRUCTION MATERIAL TYPES, DIMENSIONS, ELEVATIONS, AND CONDITIONS.
- D. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CAREFULLY STUDY AND COORDINATE THE CONSTRUCTION REQUIREMENTS SHOWN ON THESE DRAWINGS. WHEN CONFLICTS OR DISCREPANCIES ARE FOUND IN THESE DRAWINGS, THE CONTRACTOR SHALL REPORT THEM IMMEDIATELY TO THE PROJECT ENGINEER FOR DIRECTION AND/OR CLARIFICATION.
- E. ANY CONSTRUCTION WORK DONE BY THE CONTRACTOR BEFORE OBTAINING SUCH CLARIFICATION FROM THE PROJECT ENGINEER SHALL BE AT THE CONTRACTOR'S OWN RISK AND COST. FURTHERMORE; ANY WORK REQUIRED TO CORRECT, REPLACE AND/OR RESTORE THE WORK AS DIRECTED BY THE ENGINEER SHALL BE AT THE CONTRACTOR'S OWN RISK AND COST.

3. PROJECT NOTES:

- A. THE CONTRACTOR SHALL LIMIT ACTIVITIES TO IMMEDIATE PROJECT AREA TO FULLEST EXTENT POSSIBLE.
- B. ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
- C. THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES AND BE RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES AND EXISTING IMPROVEMENTS AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION ACTIVITIES.

4. EARTHWORK:

- A. STRIP AND REMOVE EXISTING VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIALS FROM THE EXCAVATION LIMITS.
- B. IT IS ANTICIPATED THAT NO GROUNDWATER WILL BE FOUND DURING THE EXCAVATION. HOWEVER, IN THE EVENT THAT GROUNDWATER IS PRESENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL Dewatering DURING THE CONSTRUCTION PERIOD.
- C. THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STABLE EXCAVATIONS AS REQUIRED TO MAINTAIN STABILITY OF BOTH EXCAVATION SIDES AND BOTTOM. ALL EXCAVATIONS SHOULD BE SLOPED OR SHORED IN THE INTEREST OF SAFETY FOLLOWING LOCAL, STATE, AND FEDERAL REGULATIONS, INCLUDING CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS.
- D. THE CONTRACTOR SHALL EXCAVATE THE SITE TO THE LIMITS AND ELEVATIONS SHOWN ON THE PLANS.

5. EXISTING UTILITIES:

- A. THE LOCATION OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY.
- B. DEPTHS AND ELEVATIONS OF UTILITIES ARE UNKNOWN UNLESS OTHERWISE SHOWN.
- C. UNDERGROUND UTILITY LOCATION AND VERIFICATION IS TO BE AN ONGOING PROCESS.
- D. CONTRACTOR IS RESPONSIBLE TO:
 - i. VERIFY EXACT LOCATIONS OF ALL UTILITIES PRIOR TO BEGINNING WORK IN THAT AREA
 - ii. FIELD VERIFY UTILITY LOCATION, DEPTHS, AND ELEVATIONS WHERE CONFLICTING UTILITIES MAY BE PRESENT A MINIMUM OF 500 FEET AHEAD OF TRENCHING OPERATIONS
 - iii. BRING ANY DISCREPANCIES AND/OR CONFLICTS TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
 - iv. NOTIFY APPROPRIATE UTILITY COMPANIES WHEN CONSTRUCTION MIGHT INTERFERE WITH NORMAL OPERATION OF ANY UTILITIES.
 - v. MAINTAIN SERVICE OF EXISTING UTILITIES.
 - vi. RESTORE ANY UTILITIES DAMAGED DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

6. INSPECTION AND TESTING:

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATERIALS TESTING INCLUDING BUT NOT LIMITED TO CONCRETE, ASPHALT, AND COMPACTION. ALL TESTS SHALL MEET MINIMUM ENGINEER REQUIREMENTS. SEE THE CONTRACT DOCUMENTS AND DRAWINGS FOR FREQUENCY OF TESTING. RESULTS ARE TO BE DELIVERED TO SPECIAL INSPECTOR, OWNER AND ENGINEER.
- B. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ENGINEER AND SPECIAL INSPECTOR FOR INSPECTIONS OF WORK AT APPROPRIATE INTERVALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PAY FOR ADDITIONAL INSPECTIONS THAT ARE THE RESULT OF HIS WORKMANSHIP.

7. PERMITTING AND COORDINATION:

- A. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND BUSINESS LICENSES PRIOR TO CONSTRUCTION.
- B. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR STORM WATER POLLUTION PREVENTION AS A RESULT OF CONSTRUCTION ACTIVITIES. WHEN CALLED FOR IN THE CONTRACT DOCUMENTS, CONTRACTOR SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN FOR APPROVAL BY THE ENGINEER AND FOR SUBMITTAL TO LOCAL AUTHORITIES FOR REVIEW AND APPROVAL. IF THE CONSTRUCTION WILL DISTURB MORE THAN ONE ACRE, CONTRACTOR SHALL FILE A "NOTICE OF INTENT" FOR PERMIT COVERAGE UNDER THE STATE'S UPDES STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES (UTRC00000) AND PAY ALL ASSOCIATED FEES. THE NOI MAY BE FILED ELECTRONICALLY AT THE FOLLOWING WEBSITE: <HTTP://WWW.DEQ.UTAH.GOV/WATER-QUALITY/STORM-WATER-PERMITS-UPDES-PERMITS> AND FOLLOWING THE DIRECTIONS AND LINKS GIVEN ON THE WEB PAGE. THE CGP DOES NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH OTHER REGULATIONS OR CONTRACT REQUIREMENTS REGARDING STORM WATER POLLUTION PREVENTION INCLUDING BUT NOT LIMITED TO: PROTECTION OF SURFACE WATERS, PREVENTION OF SOIL RUNOFF INTO DRAINS, DUST CONTROL, PREVENTION OF TRACKING SOILS TO ADJACENT STREETS, FUEL CONTAINMENT, SPILL CONTROL, ETC.
- C. ANY WORK DONE WITHIN A PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE TRANSPORTATION AGENCY AND SHALL MEET THE REQUIREMENTS OF THAT AGENCY AND, IN PARTICULAR, REQUIREMENTS OF ANY RIGHT-OF-WAY SPECIAL USE PERMIT, OR OTHER PERMIT. ALL WORK SHALL MEET CURRENT OSHA REQUIREMENTS.
- D. WHERE WORK IS PERFORMED ON EASEMENTS, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ELIMINATE ANY ADVERSE EFFECTS ON THE ADJACENT PROPERTY AND/OR TO RESTORE IT TO ITS ORIGINAL CONDITION.

8. MISCELLANEOUS:

- A. CONTRACTOR IS RESPONSIBLE FOR DUST ABATEMENT AND ANY LIABILITY ISSUES RELATED TO DUST AT ANY LOCATION WHICH MAY BE CAUSED BY THIS PROJECT.
- B. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION OF PEDESTRIANS IN AND AROUND THIS WORK. REFERENCE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD LATEST EDITION FOR WORK ZONE TRAFFIC CONTROL).
- C. THE CONTRACTOR SHALL PRESERVE EXISTING CITY, COUNTY, STATE, AND FEDERAL LAND MONUMENTS WHENEVER POSSIBLE. IF A MONUMENT MUST BE MOVED, THE ENGINEER SHALL BE CONTACTED 2 WEEKS PRIOR TO REMOVAL TO ARRANGE FOR RELOCATION.
- D. SHOULD CONSTRUCTION BE HALTED BECAUSE OF INCLEMENT WEATHER CONDITIONS, THE CONTRACTOR WILL COMPLETELY CLEAN UP ALL AREAS AND MAINTAIN THE SURFACE IN GOOD CONDITION DURING THE SHUT-DOWN PERIOD.
- E. OGDEN CITY STANDARD DRAWINGS (OCSD)

9. PROJECT CONTACT LIST:

OGDEN CITY	PHIL SUITER	PROJECT MANAGER	(801) 629-8971
OGDEN CITY	JUSTIN ANDERSON	CITY ENGINEER	(801) 629-8990
J-U-B ENGINEERS	NATHAN SMITH	PROJECT MANAGER	(801) 547-0393

ABBREVIATIONS

ABBREV.	TERM
ALUM	ALUMINUM
ASSY	ASSEMBLY
∠	ANGLE
@()	AT (MEASUREMENTS)
BC	BEGINNING OF CURVE
BLDG	BUILDING
B.M.	BENCH MARK
BP	ALIGNMENT BEGINNING
BREAK	GRADE BREAK
BSC	BITUMINOUS SURFACE COURSE
BSW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
BVP	PROFILE START
B.W.	BOTH WAYS
C	CHANNEL (STRUCTURAL)
CJ	CONTROL JOINT
CL	CENTER LINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONT	CONTINUOUS
CPLG	COUPLING
CTR	CENTER
CU FT	CUBIC FEET
CU YD	CUBIC YARD
DEG OR °	DEGREE
DIA OR Ø	DIAMETER
DI	DUCTILE IRON
DIST	DISTRIBUTION
DWG	DRAWING
EA	EACH
EC	END OF CURVE
ELB	ELBOW
ELEV OR EL.	ELEVATION
EOA	EDGE OF ASPHALT
EP	ALIGNMENT END
EVP	PROFILE END
E.W.	EACH WAY
EXIST	EXISTING
EVC	END VERTICAL CURVE
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FLG	FLANGE
FT OR '	FEET
FTG	FOOTING
GALV	GALVANIZED
GB	GRADE BREAK
HORIZ	HORIZONTAL
HP	HIGH POINT
W/REQ'D	WHERE REQUIRED

ABBREVIATIONS

ABBREV.	TERM
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN. OR "	INCH
INV.	INVERT
K	CURVE COEFFICIENT
L	LEFT
LB	LINE BEGINNING
LB OR #	POUND
LC	LEVEL CROWN
LE	LINE END
LF	LINEAL FEET
LN	LINEAL
LP	LOW POINT
MAN	MANUAL
MAX	MAXIMUM
MIN	MINIMUM
NO. OR #	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PE	PLAIN END
PI	TANGENT-TANGENT INTERSECT
PL OR RL	PLATE OR PROPERTY LINE
POLY	POLYETHYLENE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL-CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS OR RIGHT
RC	REVERSE CROWN
REQ'D	REQUIRED
REV	REVISION
R/W	RIGHT-OF-WAY
S	SLOPE
SPEC	SPECIFICATION
STA	STATION
STD	STANDARD
STL	STEEL
ST STL	STAINLESS STEEL
TBC	TOP BACK OF CURB
TFC	TOP FACE OF CONCRETE
THD	THREADED
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOP	TOP OF PIPE
TOW	TOP OF WALL
TYP	TYPICAL
W/	WITH
W/O	WITHOUT
W/REQ'D	WHERE REQUIRED

GENERAL NOTES AND ABBREVIATIONS



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REVISION

NO.

DESCRIPTION

DATE

FILE #: 55-22-123 G-001X
JUB PROJ. #: 55-22-123
DRAWN BY: DAN
DESIGN BY: NQS
CHECKED BY: NQS
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LAST UPDATED: 5/10/2023
SHEET NUMBER:

G-002



CALL 2 BUSINESS DAYS IN ADVANCE BEFORE
YOU DIG, GRADE, OR EXCAVATE FOR THE
MARKING OF UNDERGROUND MEMBER
UTILITIES

SYMBOL LEGEND		
DESCRIPTION	EXIST.	PROP.
SANITARY SEWER		
CLEANOUT	◎	◎
SS MANHOLE	◎	◎
SS VALVE	☒	☒
SS METER	田	田
SEWER STUB	◎	◎
STORM DRAIN		
CATCH BASIN	田	田
DRY WELL	DW	DW
SD MANHOLE	◎	◎
FLARE END	▽	▽
GREASE TRAP	田田	田田
COMMUNICATION		
TELE. MANHOLE	田	田
TELE. PEDESTAL	田	田
TELE. POLE	○	●
TV PEDESTAL	田	田
GUY WIRE	↑	↑
DOMESTIC WATER		
FIRE HYDRANT	田	田
SPIGOT	◎	◎
WATER MANHOLE	◎	◎
WATER METER	田	田
WATER VALVE	☒	☒
YARD HYDRANT	田	田
ELECTRIC		
ELEC. MANHOLE	◎	◎
ELEC. METER	田	田
ELEC. TRANS.	田	田
JUNCTION BOX	田	田
GUY WIRE	↑	↑
POWER STUB	田	田
POWER POLE	田	田
STREET LIGHT	●	●
STREET LIGHT WITH ARM	田田	田田
TRAFFIC SIGNAL POLE	田	田

LINE LEGEND		
DESCRIPTION	EXIST.	PROP.
IRRIGATION		
IRRIGATION VALVE	☒	☒
IRRIGATION VALVE BOX	田	田
SPRINKLER	△	△
IRRIGATION GATE		△
NATURAL GAS		
GAS METER	田	田
GAS VALVE	☒	☒
GAS MANHOLE	◎	◎
UTILITIES		
MANHOLE (GENERIC)	○	●
PRESSURE CLEAN OUT AT GRADE	田田	田田
THRUST BLOCK	▲	▲
Vault	田	田
VALVE (GENERIC)	☒	☒
UTILITY POLE	○	●
SITE		
BOLLARD	田	田
BOULDER	○	●
DRINKING FOUNTAIN	田田	田田
FLAGPOLE	田	田
GATE	田田	田田
MAIL BOX	田	田
PARKING METER	田	田
POST	○	●
SIGN	田	田
SPOT ELEVATION	☒	☒
TREE (SHRUB)	○	○
TREE	田田	田田
TEST HOLE	田	田
WELL	田	田
WELL (MONITORING)	田	田
SURVEY		
CAP	田	
CTRL PT	田	
NAIL	田	
BOLT	●	●
REBAR	○	●

SHEET NUMBERING

EXAMPLE:
SHEET NUMBER: C-101 C-1 01

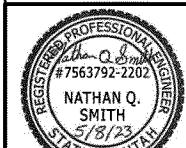
DISCIPLINE DESIGNATOR

SHEET TYPE DESIGNATOR
SHEET SEQUENCE NUMBER

DISCIPLINE DESIGNATORS		
DISCIPLINE	DESIGNATOR	DESCRIPTION
GENERAL	G	ALL GENERAL
	GI	GENERAL INFORMATION
	CC	GENERAL CONTRACTUAL
	GR	GENERAL RESOURCE
SURVEY/MAPPING	V	ALL SURVEY
GEOTECHNICAL	B	ALL GEOTECHNICAL
CIVIL	C	ALL CIVIL
LANDSCAPE	L	ALL LANDSCAPE
STRUCTURAL	S	ALL STRUCTURAL
ARCHITECTURAL	A	ALL ARCHITECTURE
EQUIPMENT	Q	ALL EQUIPMENT
MECHANICAL	M	ALL MECHANICAL
ELECTRICAL	E	ALL ELECTRICAL
PLUMBING	P	ALL PLUMBING
PROCESS	D	ALL PROCESS
RESOURCE	R	ALL RESOURCE

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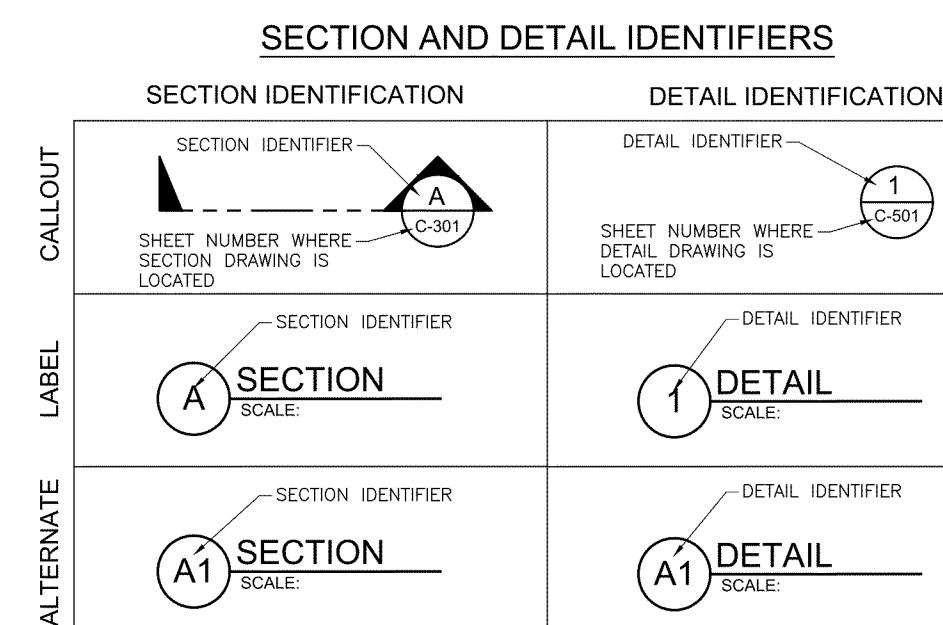
466 North 900 West
Kaysville, Utah 84037
Phone: 801-547-0393
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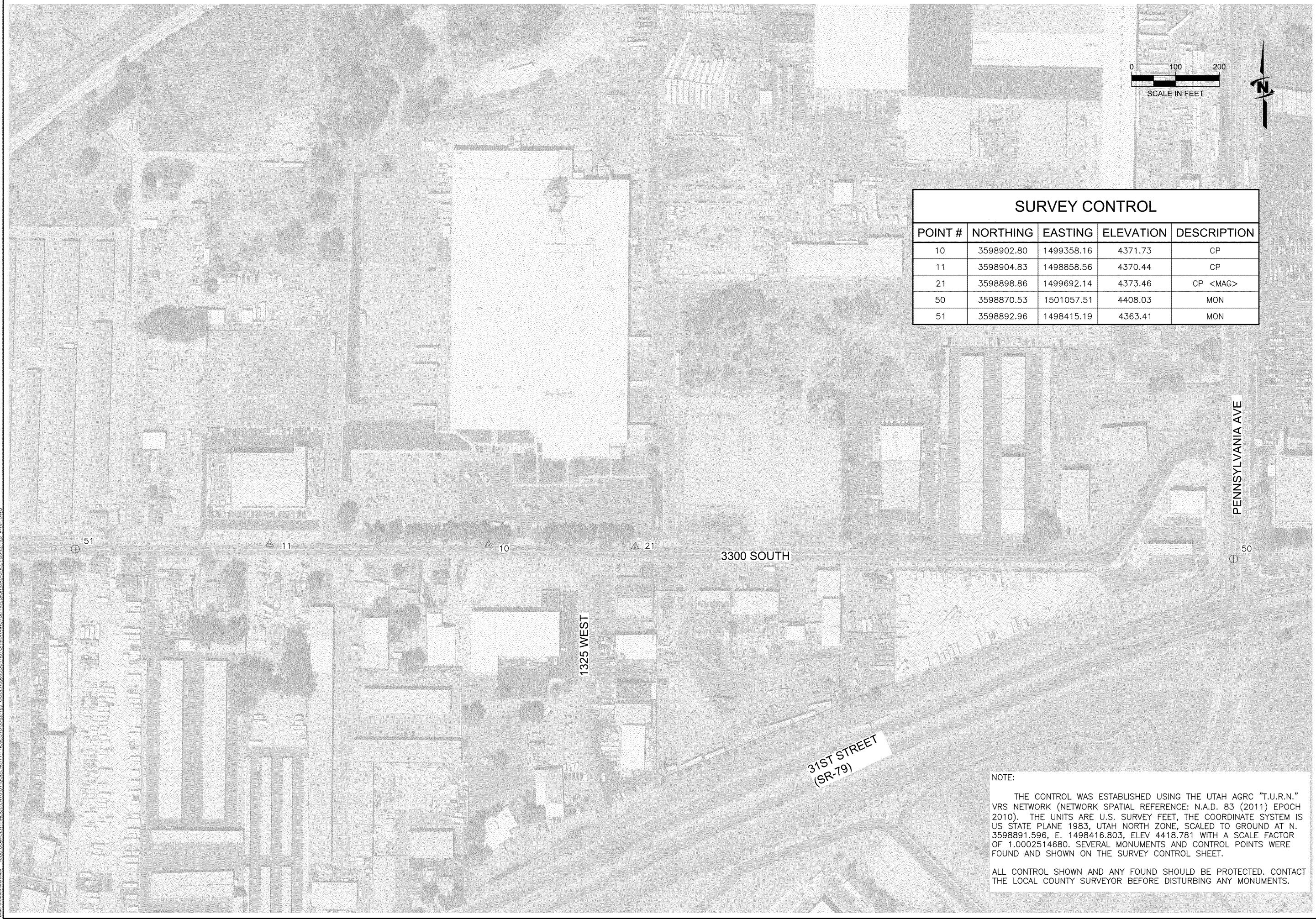
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REVISION

3300 SOUTH STORM DRAIN
OGDEN CITY
SYMBOL LEGEND, LINE LEGEND, AND DETAIL KEY
FILE: 55-22-123_G-001X
JUB PROJ. #: 55-22-123
DRAWN BY: DAN
DESIGN BY: DAN
CHECKED BY: NQS
ONE INCH
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INCH, SCALE ACCORDINGLY
LAST UPDATED: 5/10/2023
SHEET NUMBER:
G-003

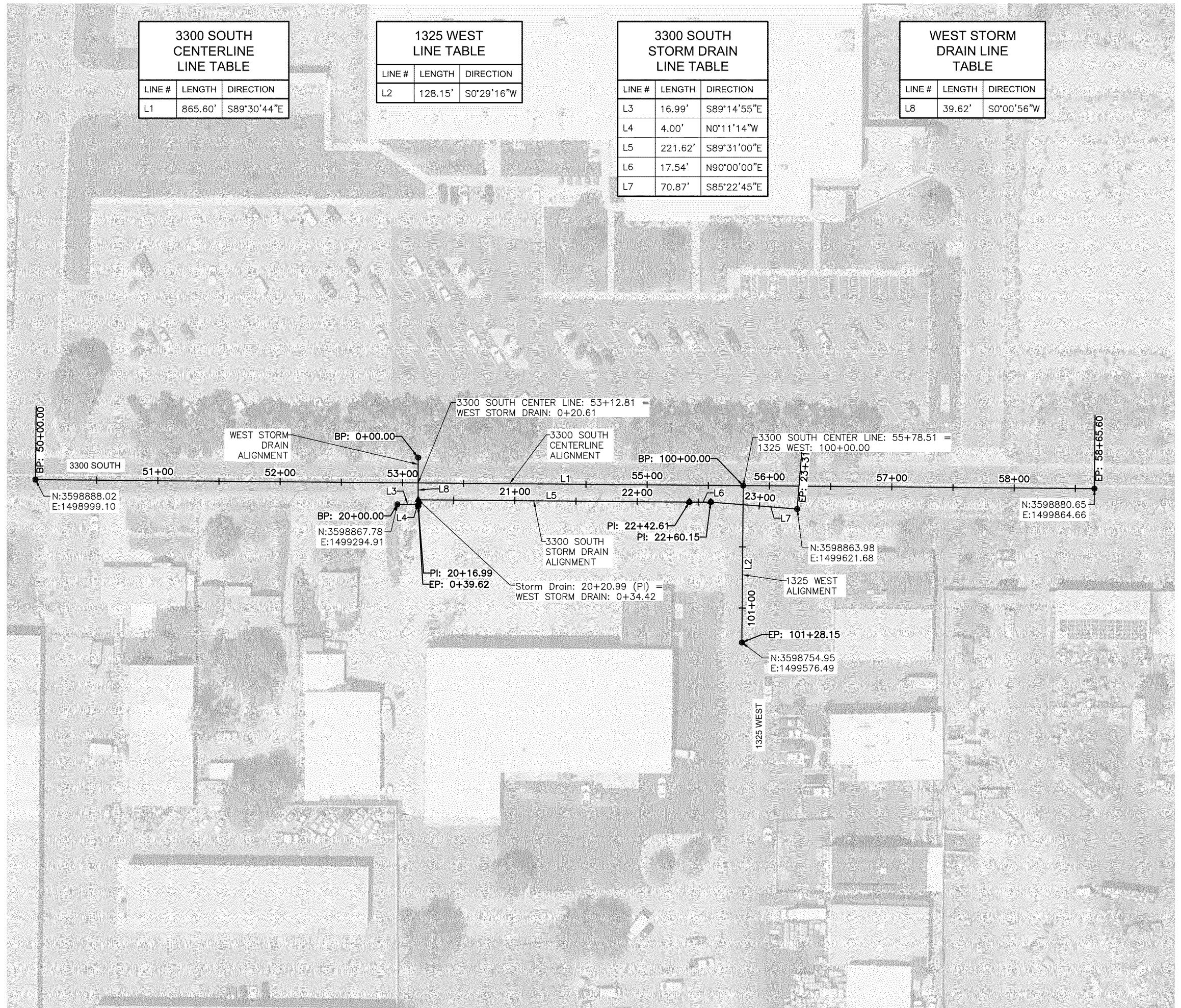
SHEET TYPE DESIGNATORS	
DESIGNATOR	SHEET TYPE
0	GENERAL (SYMBOLS, LEGENDS, NOTES, ETC.)
1	PLANS (HORIZONTAL VIEWS)
2	ELEVATIONS, PROFILES, COMBINED PLAN & PROFILES
3	SECTIONS (SECTIONAL VIEWS)
4	LARGE-SCALE VIEWS (PLANS, ELEVATIONS, ETC.)
5	DETAILS OR COMBINED DETAILS AND SECTIONS
6	USER DEFINED
7	USER DEFINED
8	USER DEFINED
9	3D REPRESENTATIONS (ISOMETRICS, PERSPECTIVES, PHOTOS)



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



J-U-B ENGINEERS, INC.		
466 North 900 West Kaysville, Utah 84037		
Phone: 801-547-0393 www.jub.com		
BID SET		
3300 SOUTH STORM DRAIN OGDEN CITY	SURVEY CONTROL PLAN	
NO.	DESCRIPTION	BY APR. DATE



JUB
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Kaysville, Utah 84033
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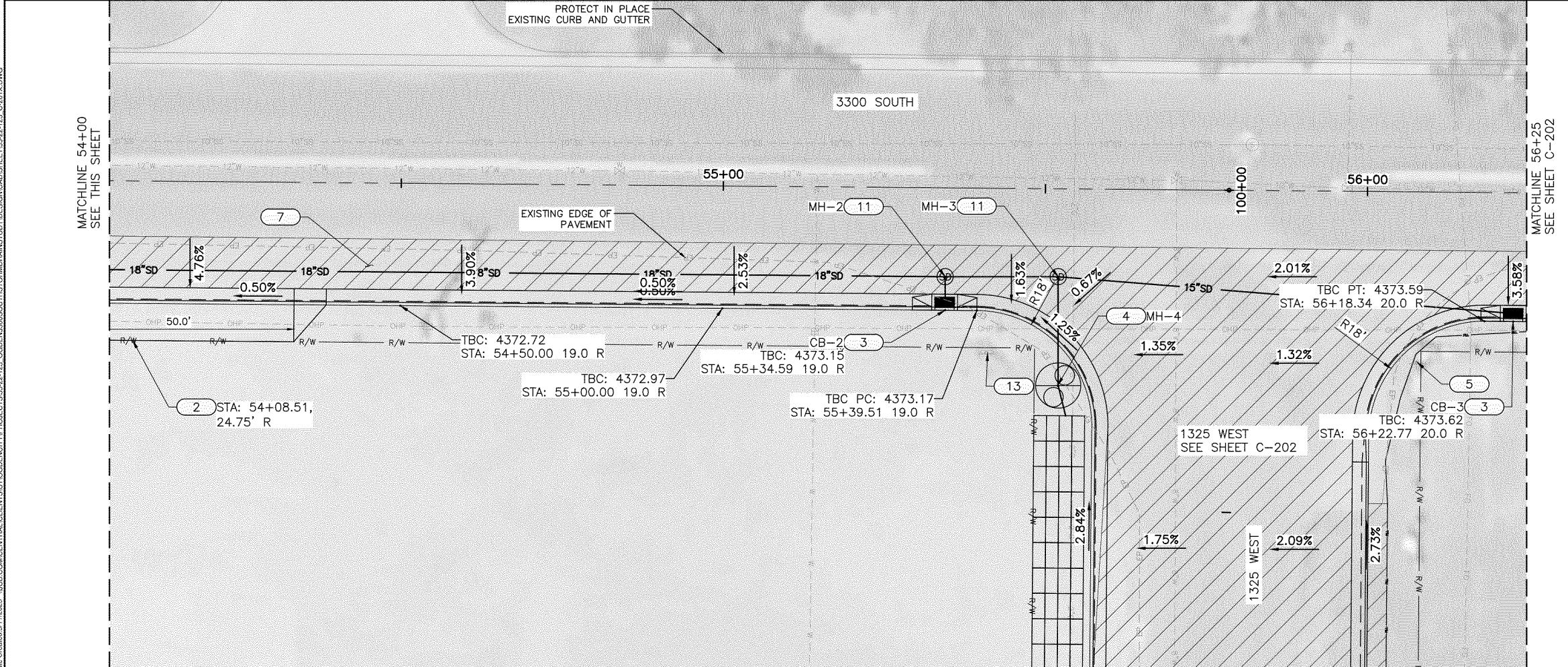
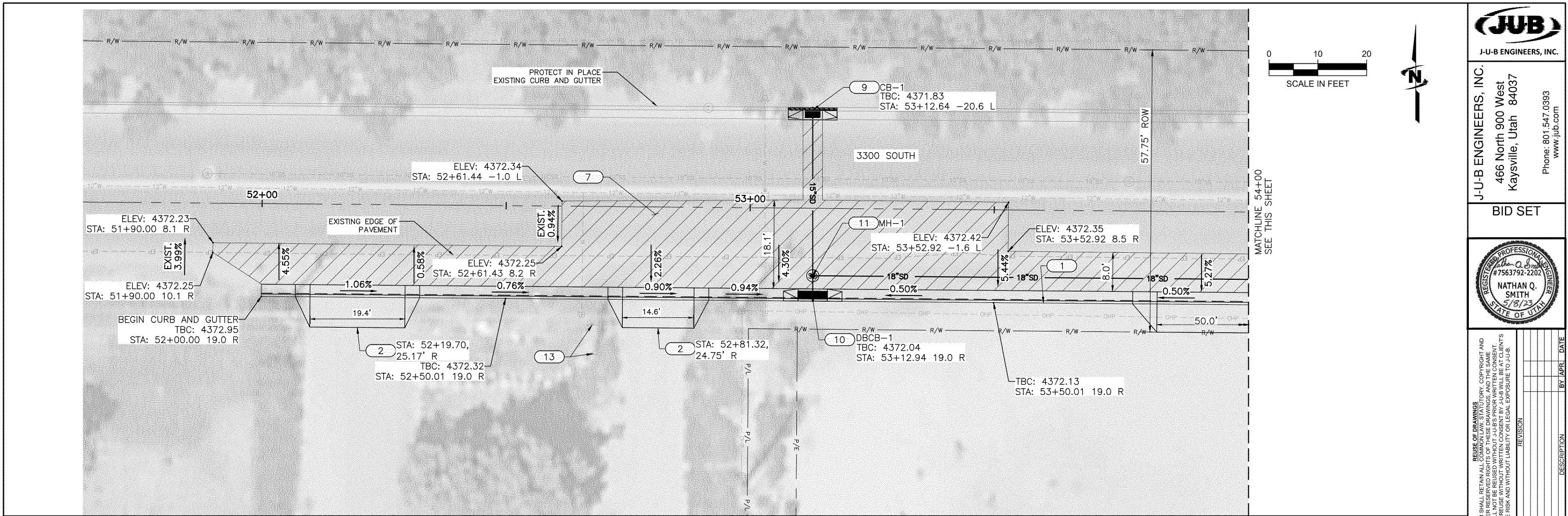
PROFESSIONAL
NATHAN Q. SMITH
#7563792-2202
5/8/23
STATE OF UTAH

NO.	DESCRIPTION	BY APR. DATE
1	3300 SOUTH STORM DRAIN OGDEN CITY	
2	ALIGNMENT CONTROL PLAN	

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JUB PROJ. #: 55-22-123
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DESIGN BY: DAN
CHECKED BY: NGS
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ONE INCH
LAST UPDATED: 5/10/2023
SHEET NUMBER: C-101

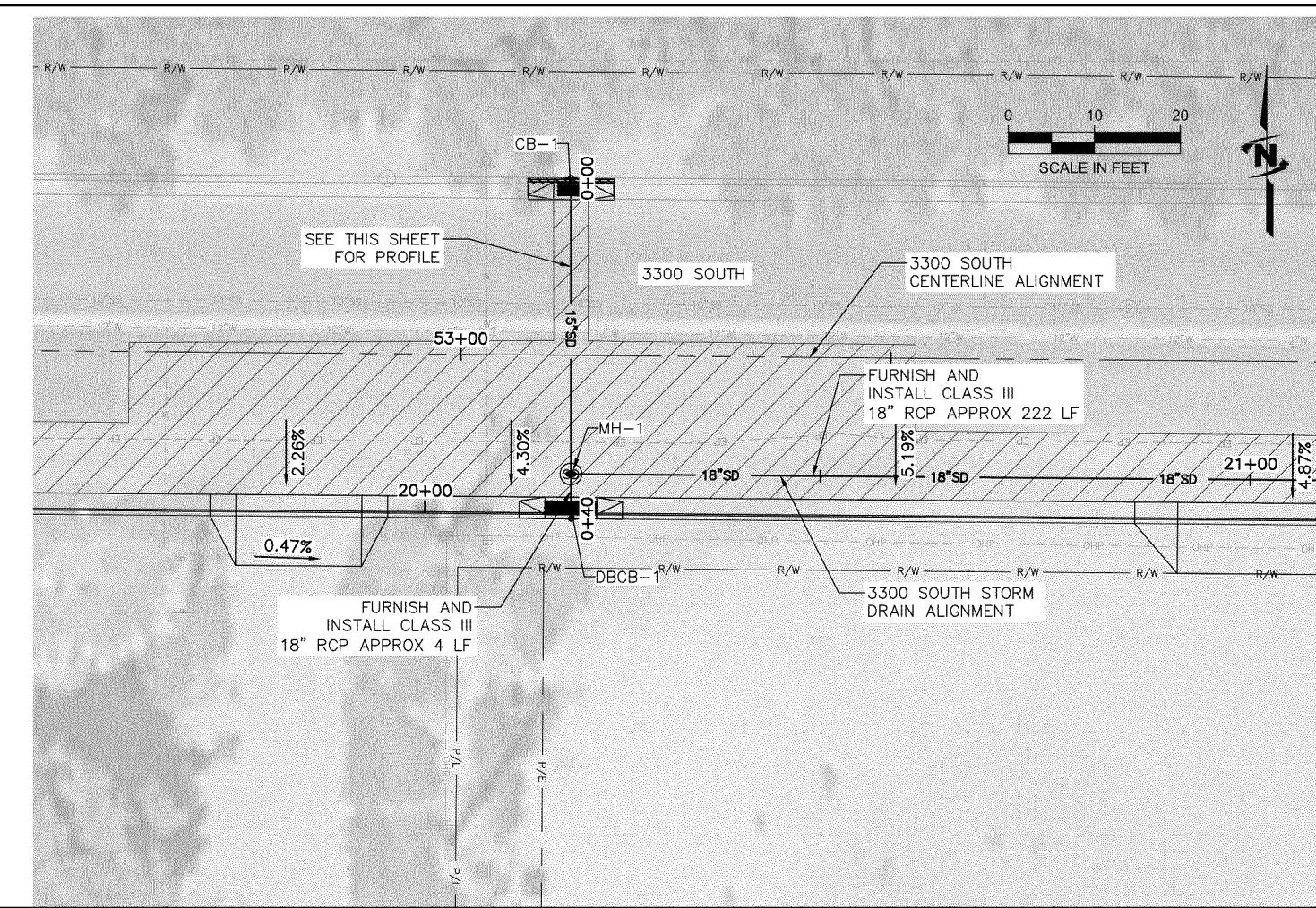
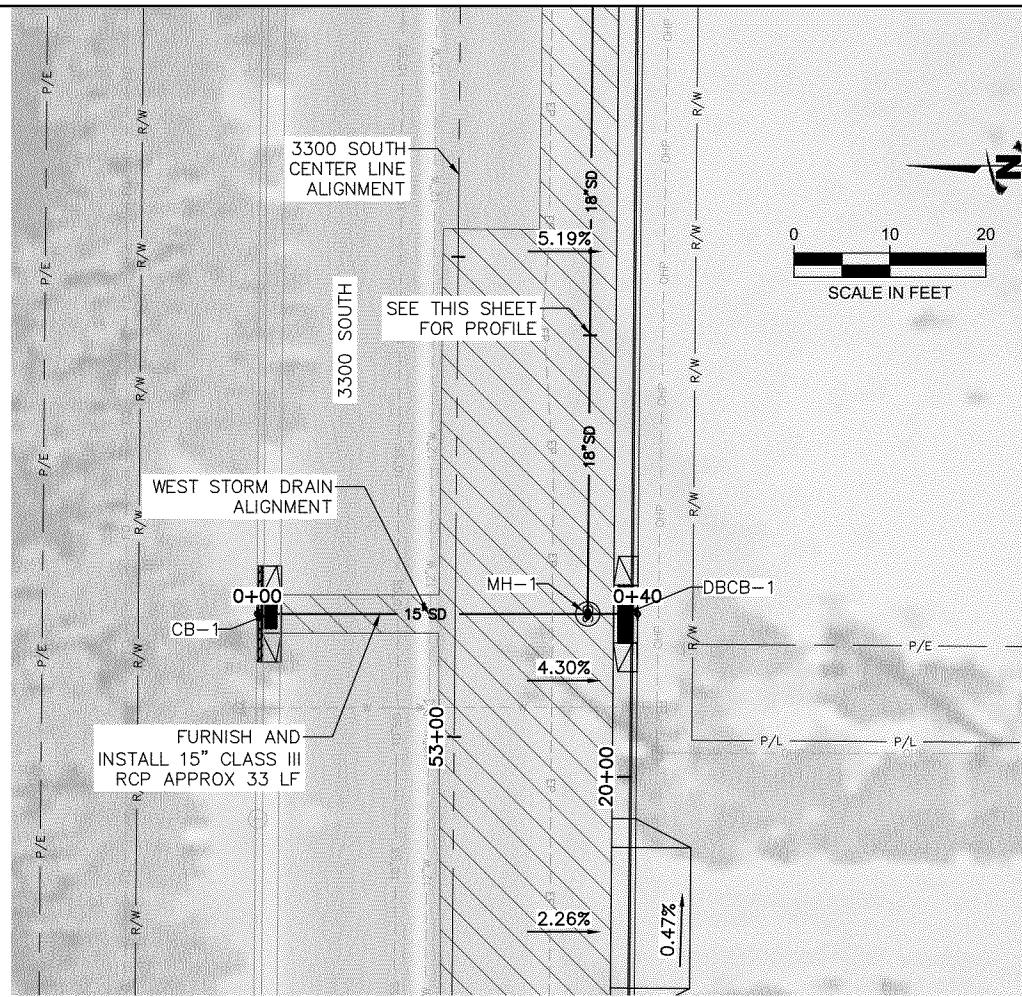


OTES:

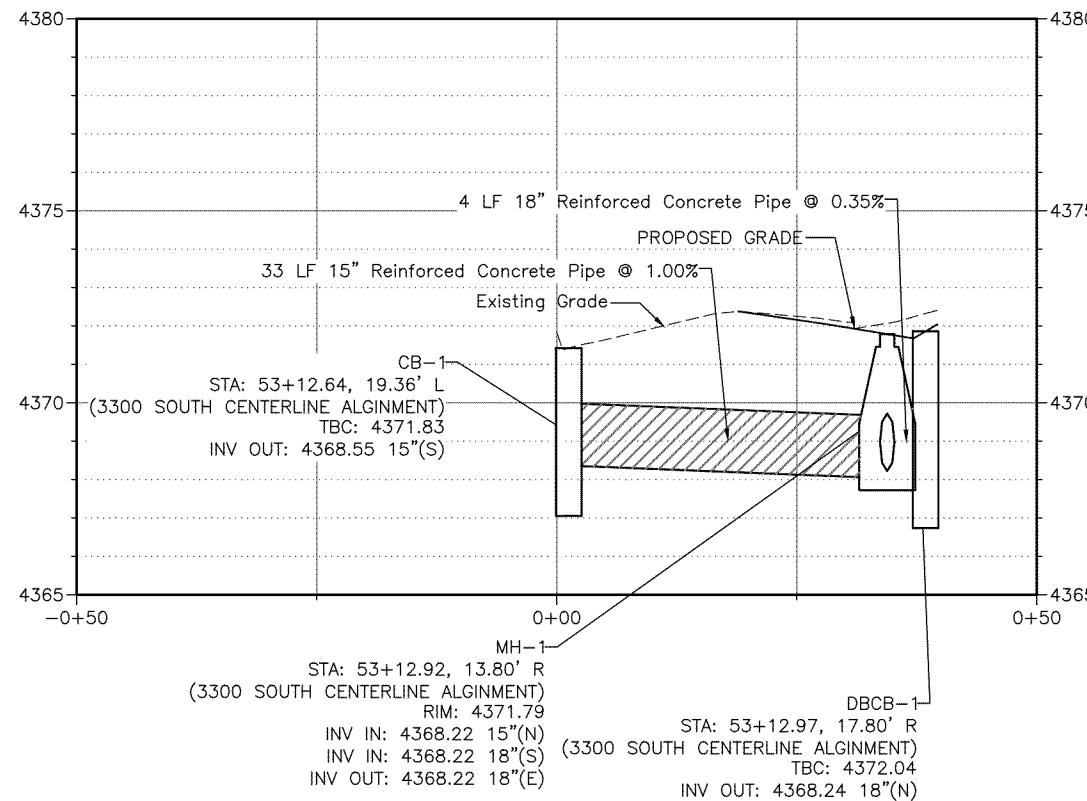
- ① CONSTRUCT TYPE A CURB AND CUTTER PER OCSD RD-4
- ② CONSTRUCT DRIVEWAY APPROACH PER OCSD RD-7
- ③ INSTALL CATCH BASIN WITH GRATE PER OCSD SD-1.
- ④ INSTALL 6' STORM DRAIN MANHOLE WITH TWO MANHOLE LIDS AND FRAMES PER OCSD SS-1 WITH 72X36 SAFL BAFFLE AND SKUNK 10-18 SNOUT. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR MANHOLE.
- ⑤ REMOVE AND REINSTALL SIGN AND SIGN POST
- ⑥ INSTALL STORMBRIXX SYSTEM, SEE SHEET C-502
- ⑦ REMOVE ASPHALT AND INSTALL ASPHALT SECTION PER SHEET C-501
- ⑧ 4' TRANSITION FROM TYPE A CURB AND GUTTER TO TYPE F CURB AND GUTTER
- ⑨ REMOVE CURB AND GUTTER TO INSTALL 2'X3' CATCH BASIN WITH GRATE PER OCSD-1
- ⑩ INSTALL DOUBLE CATCH BASIN WITH INLET GRATE PER SHEET C-503
- ⑪ INSTALL 5' STORM DRAIN MANHOLE PER OCSD SD-4
- ⑫ INSTALL APWA TYPE F CURB AND GUTTER PER DETAIL 3 SHEET C-501
- ⑬ PROTECT IN PLACE EXISTING SIGN

1 : 55-22-123, C-201X
PROJ. #: 55-22-123
DRAWN BY: DAN
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IT UPDATED: 5/11/2023
SHEET NUMBER:
C-201

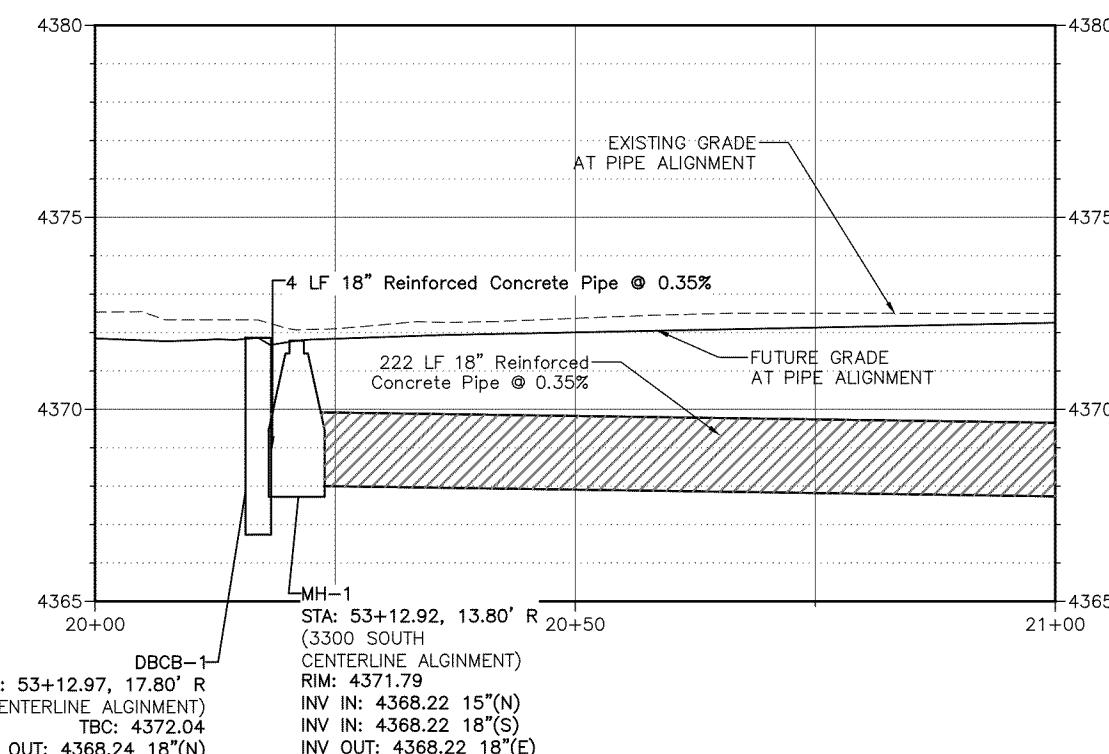
C-201



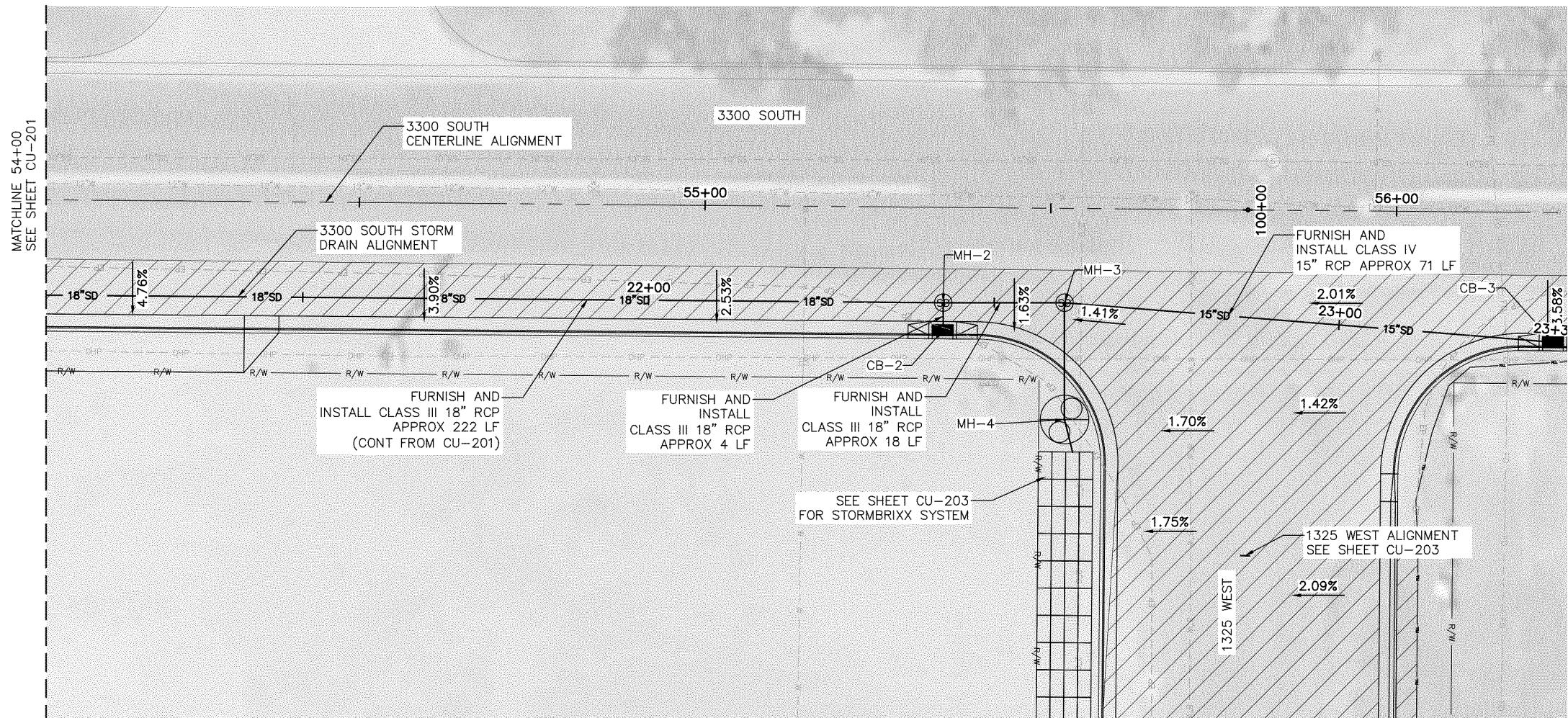
WEST STORM DRAIN PROFILE



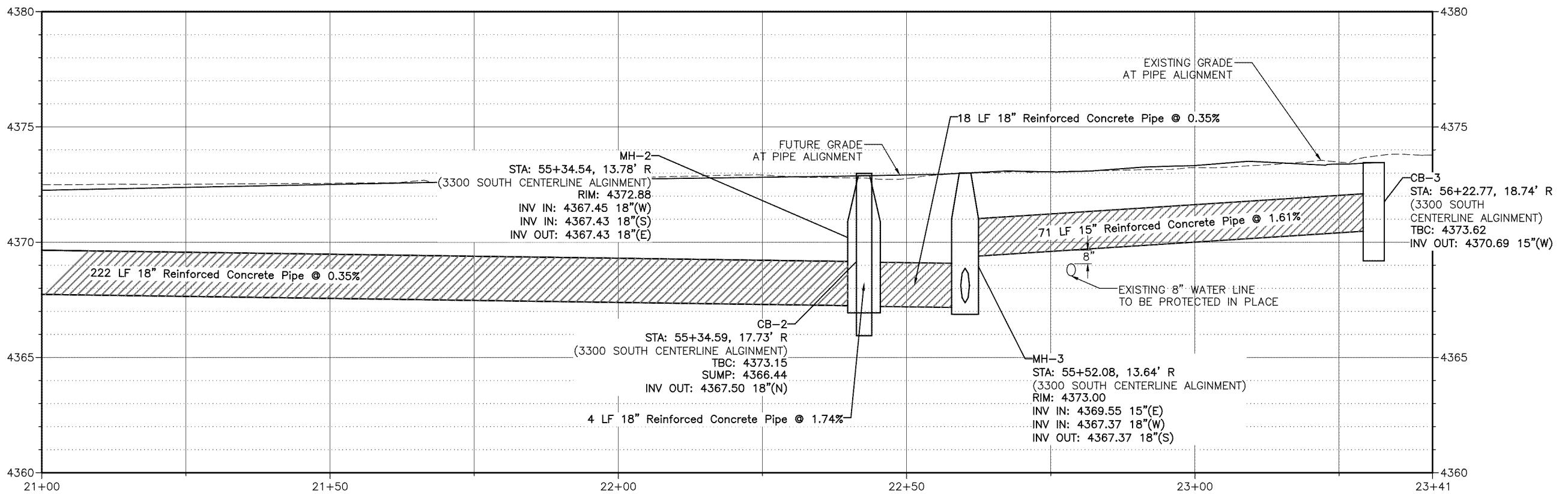
3300 SOUTH STORM DRAIN PROFILE

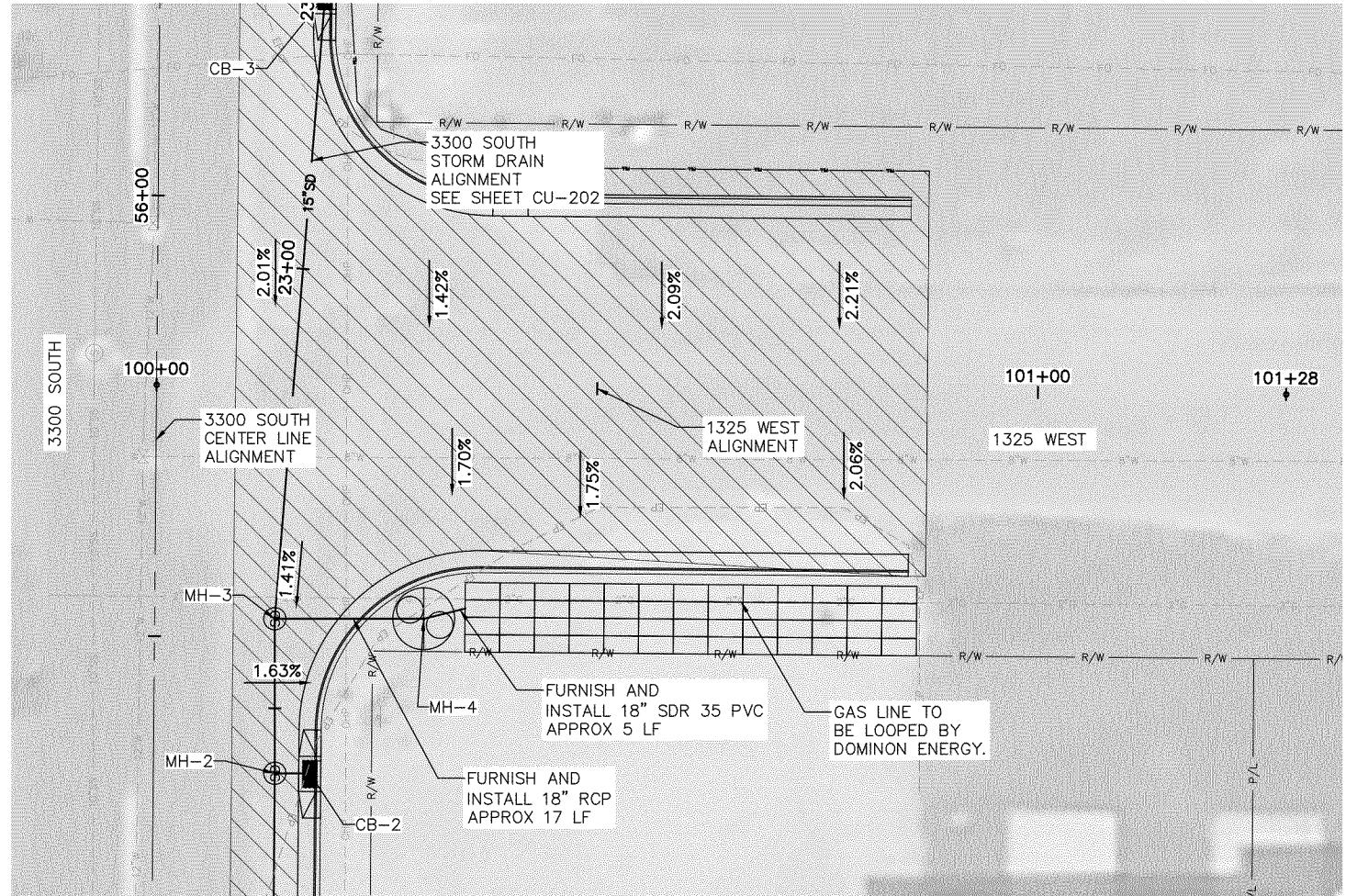


JUB		J-U-B ENGINEERS, INC.	
		466 North 900 West Kaysville, Utah 84037	
		Phone: 801-547-0393 www.jub.com	
MATCHLINE 54+00 SEE SHEET CU-202		BID SET	
<p>NATHAN Q. SMITH 5/8/23 STATE OF UTAH</p>			
REUSE OF DRAWINGS JUB SHALL RETAIN ALL COMMON LAW, STATUTORY, COPYRIGHT AND OTHER RESERVED RIGHTS OF THESE DRAWINGS AND THE SAME SHALL NOT BE REUSED WITHOUT JUB'S PRIOR WRITTEN CONSENT. ANY REUSE WITHOUT WRITTEN CONSENT BY JUB WILL BE AT CLIENT'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO JUB.		REVISION BY APR. DATE NO. DESCRIPTION	
3300 SOUTH STORM DRAIN OGDEN CITY		UTILITY PLAN AND PROFILE STA 51+60 TO STA 54+00	
FILE: 55-22-123 CU-201X JUB PROJ #: 55-22-123 DRAWN BY: DAN DESIGN BY: DAN CHECKED BY: NOS ONE INCH AT FULL SIZE IF NOT ONE INCH, SCALE ACCORDINGLY LAST UPDATED: 5/11/2023		SHEET NUMBER: CU-201	

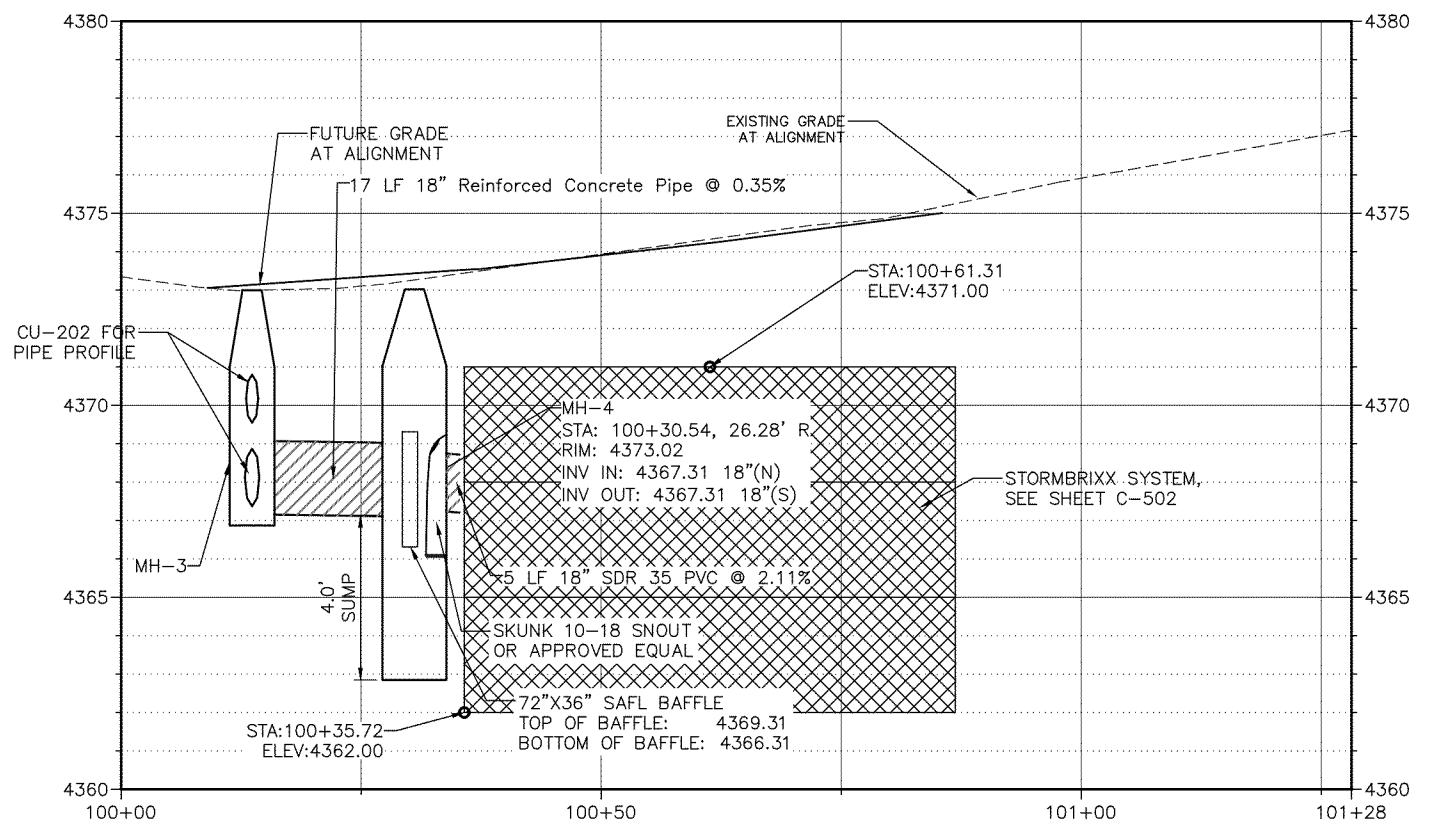


3300 SOUTH STORM DRAIN PROFILE





1325 WEST PROFILE



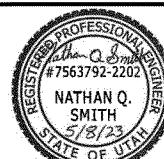
POTENTIAL FLOOD HAZARD MAP FOR THE 100-YEAR FLOOD IN THE URBAN COMMERCIAL, INDUSTRIAL, AND UTILITY AREAS OF THE CITY OF DALLAS, TEXAS

A horizontal scale bar with tick marks at 10 and 20. The distance between the tick marks is 10 units, and the total length of the bar is 20 units. Below the bar, the text "SCALE IN FEET" is written.



J-U-B ENGINEERS, INC.
66 North 900 West
Provo, Utah 84037
Phone: 801-547-0393

J-U-
4
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REVISION

R1
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**33300 SOUTH STORM DRAIN
OGDEN CITY**

UTILITY PLAN AND PROFILE
100' WEST

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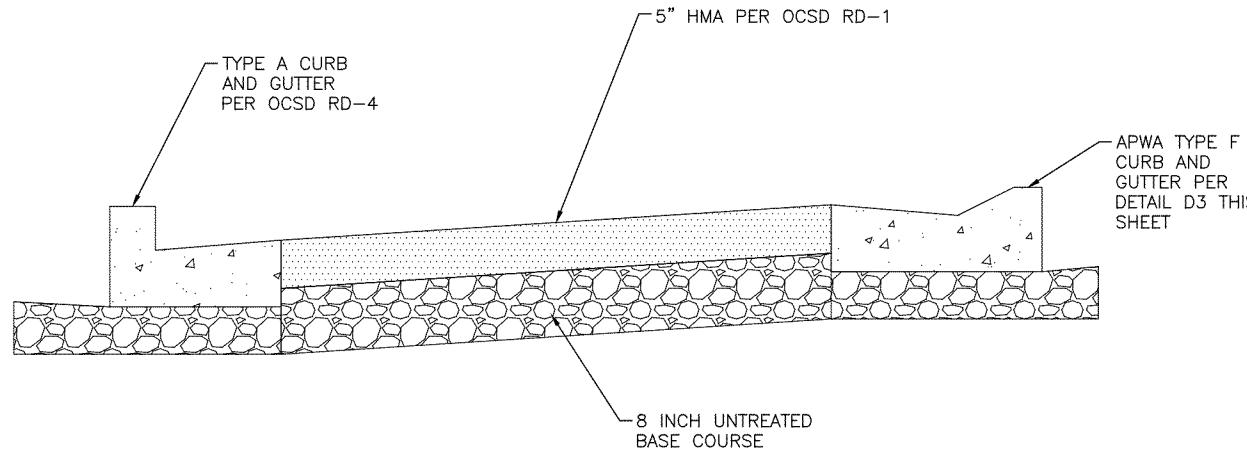
LAST UPDATED: 5/11/2023

CU-203

D1

TYPICAL 1325 WEST CROSS SECTION

SCALE: N.T.S.



STA: 52+00.00 TO 57+46.56

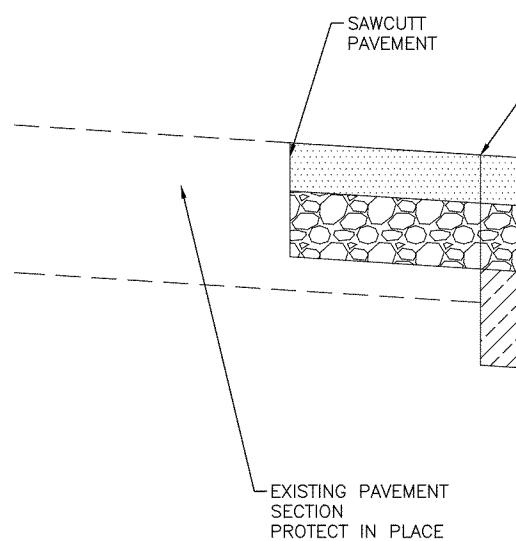
NOTES:

1. PER OGDEN CITY 2-2.K.7
7. THE NEW PATCH SHALL HAVE THE FOLLOWING ASSOCIATED THICKNESS:
 - a. 8" UTBC REQUIRED FOR ALL PATCH AND REPAIR WORK.
 - b. MATCH EXISTING ASPHALT THICKNESS PLUS ONE INCH (1")
- 1) MINIMUM ASPHALT PATCH THICKNESS SHALL BE FOUR INCHES (4")
- 2) MAXIMUM ASPHALT PATCH THICKNESS SHALL BE EIGHT INCHES (8")

D2

TYPICAL 3300 SOUTH CROSS SECTION

SCALE: N.T.S.



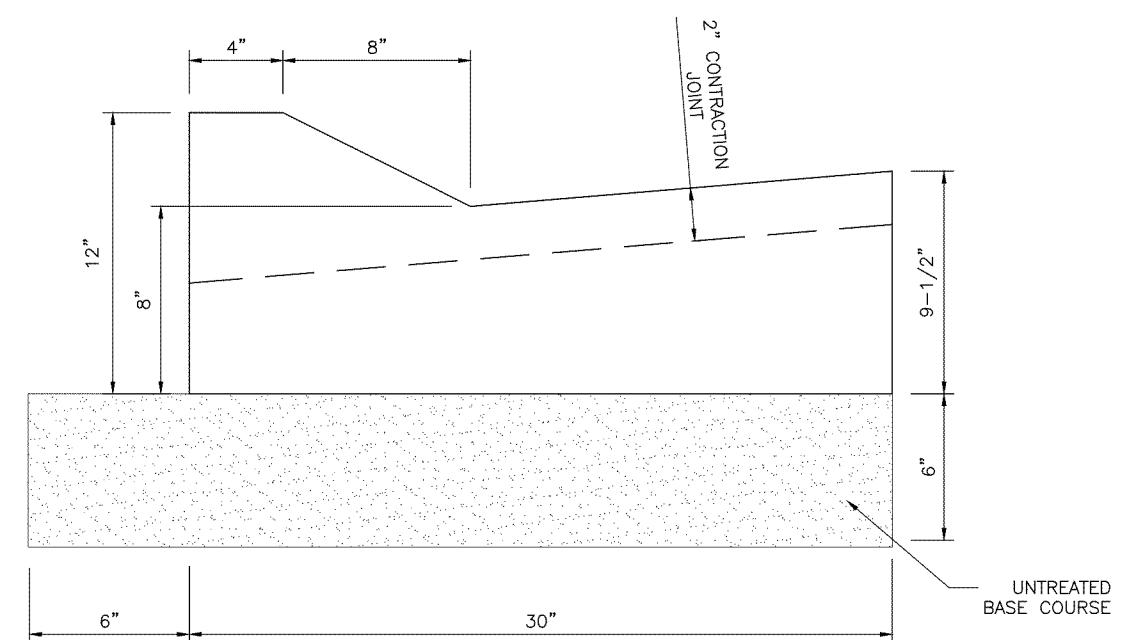
NOTES:

1. 1" MINUS WASHED ROCK WHEN REQ'D (WET CONDITIONS).
2. BASE COURSE TO BE AT 96% COMPACTION (TYP.)
3. IF CRACKS ARE $\frac{1}{8}$ " OR LARGER, CURB AND GUTTER WILL NEED TO BE REPLACED.

D3

APWA TYPE F CURB AND GUTTER

SCALE: N.T.S.

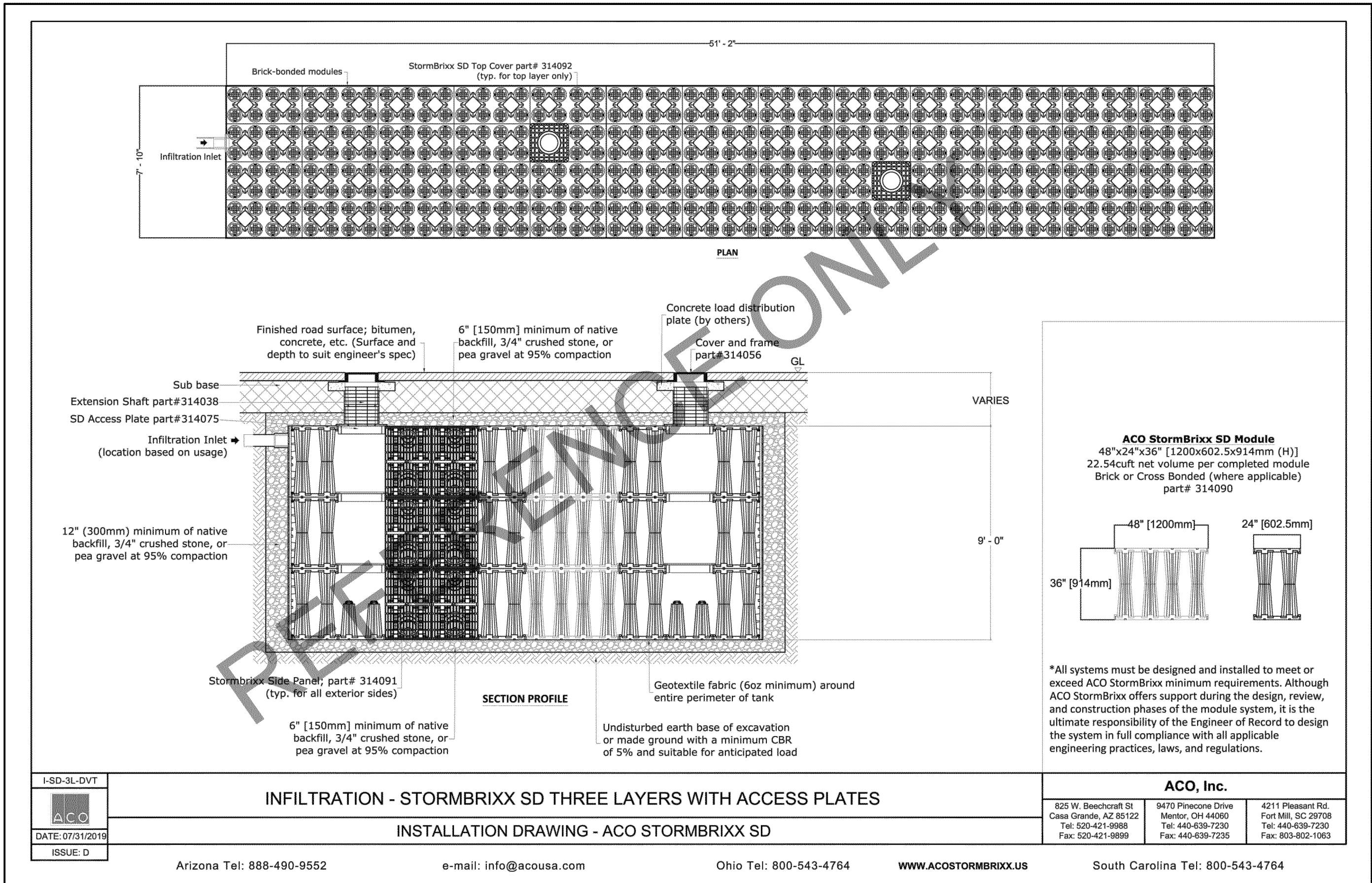


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JUB PROJ. #: 55-22-123
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NATHAN Q. SMITH 5/8/23 STATE OF UTAH
REGISTERED PROFESSIONAL NATHAN Q. SMITH 5/8/23 STATE OF UTAH
REVISION BY APR. DATE DESCRIPTION NO.

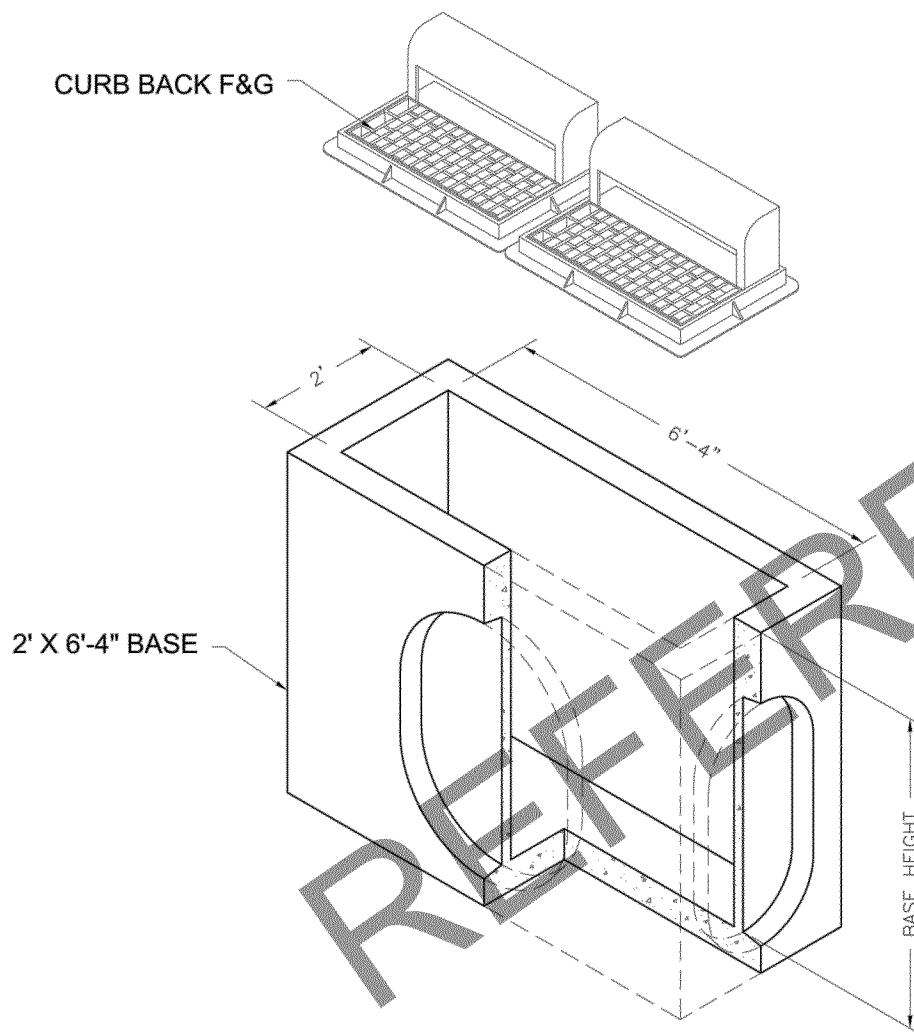
J-U-B ENGINEERS, INC. 466 North 900 West Kaysville, Utah 84037 Phone: 801-547-0393 www.jub.com
BID SET



2'x6'4" Basin **2'x6'4" Catch Basin Bases**



Oldcastle Precast



CURB BACK F&G

2' X 6'-4" BASE

BASE HEIGHT

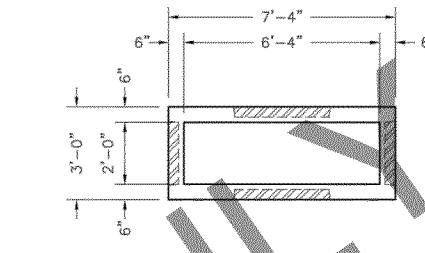
2'x6'4" Catch Basin Bases

HEIGHT	WEIGHT
4'	3,291 #
5'	3,918 #

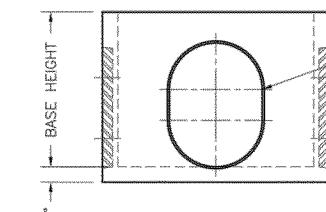
NOTES:

1. Vault design complies with ASTM C-857 and C-858 with less than 2' of earth cover and an AASHTO HS-20 loading.
2. Lifting insert type and location may change without notice.

REPROHIBITION ON

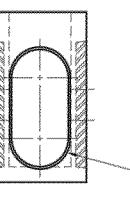


2' X 6'-4" CATCH BASIN PLAN VIEW



2' X 6'-4" CATCH BASIN SIDE ELEVATION

SEE KNOCKOUT TABLE WIDE SIDE

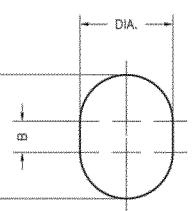


2' X 6'-4" CATCH BASIN END ELEVATION

SEE KNOCKOUT TABLE SHORT SIDE

BASE HEIGHT	WIDE SIDE KNOCKOUT DIMENSIONS			SHORT SIDE KNOCKOUT DIMENSIONS		
	DIA.	A	B	DIA.	A	B
4'	36"	36"	0"	24"	24"	0"
5'	36"	48"	12"	24"	36"	12"

KNOCKOUTS ARE 4" DEEP



DOUBLE CATCH BASIN WITH CURB INLET DETAIL

oldcastlepcreast.com

Oldcastle Precast
801 West 12th Street
Ogden, Utah 84404

Phone: (801) 399-1171
Fax: (801) 392-7849

For more information about our products, please visit
oldcastlepcreast.com

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SHEET NUMBER: C-503

J-U-B ENGINEERS, INC.
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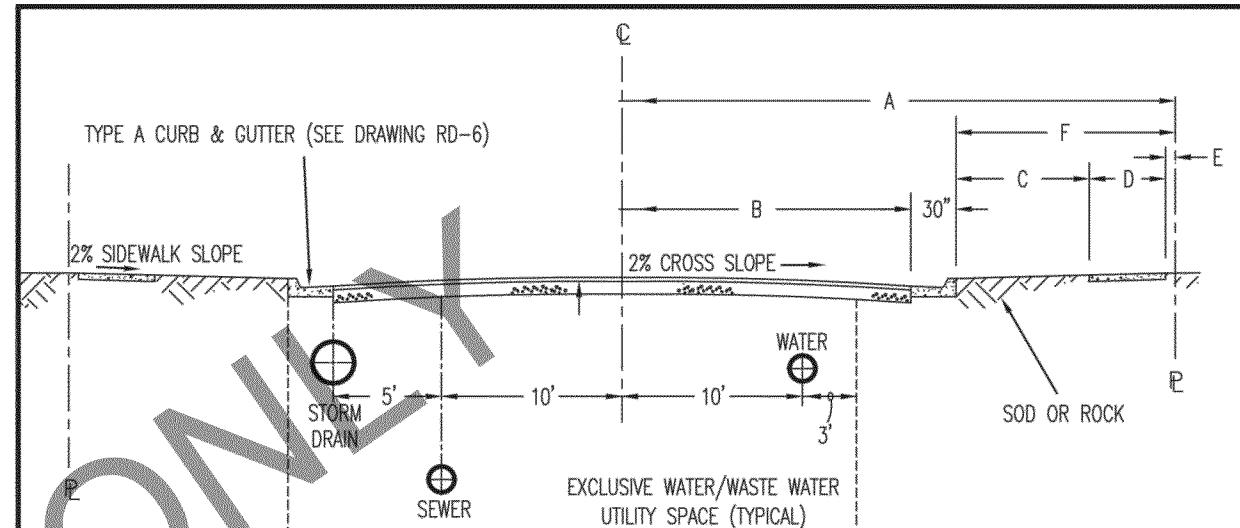
1000

300 SOUTH STORM DRAIN
OGDEN CITY

3

DETAILS

REFERENCE



TYPE	Width of R.O.W.	A	B	C	D	E	F	ROAD BASE	ASPHALT THICKNESS
ARTERIAL	100'	50'	37'	6'	4'	0'-6"	10'-6"	12"	6"
COLLECTOR	72'	36'	22'	7'	4'	0'-6"	11'-6"	8"	5"
LOCAL	60'	30'	16'	7'	4'	0'-6"	11'-6"	8"	3"
*LOCAL (RESIDENTIAL)	56'	28'	13'	7'	4'	1'-6"	12'-6"	8"	3"

* 56' RIGHT OF WAY MUST BE APPROVED BY THE CITY ENGINEER AND THE FIRE MARSHALL

THE ABOVE SHOWN ASPHALT AND ROAD BASE
DEPTH ARE MINIMUM ACCEPTABLE THICKNESS

** SIDEWALK DIRECTLY BEHIND THE CURB AND GUTTER SHALL BE SIX FEET (6') WIDE AND IS ALLOWED WITH APPROVAL FROM

*** ALTERNATIVE CROSS SECTIONS MAY BE REQUIRED BY THE CITY ENGINEER BASED ON TRAFFIC OR OTHER NEEDS.

NOTES:

1. CROWN OF STREET SHOULD BE LEVEL WITH THE TOP OF THE CURB (EXCEPT ON ARTERIAL ROADS).
2. UNTREATED BASE COURSE: PROVIDE MATERIAL SPECIFIED IN APWA SECTION 32 11 23.
 - 2.1. PLACE MATERIAL PER APWA SECTION 32 05 10.
 - 2.2. COMPACT PER APWA SECTION 31 23 26 TO A MODIFIED PROCTOR DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS IS 8" USING RIDING COMPACTION AND 6" WHEN USING HAND HELD COMPACTION EQUIPMENT.
3. PLANT-MIX ASPHALT PAVING: PER 2017 APWA MANUAL OF STANDARD SPECIFICATIONS SECTION 32 12 16.13 AND 2020 EDITION OF OGDEN CITY'S AMENDMENTS.
4. A SPECIAL DESIGN IS REQUIRED FOR HEAVY TRAFFIC WHEN DEEMED NECESSARY BY THE CITY ENGINEER.
5. ROADWAY SECTIONS WITHIN THE BUSINESS DEPT OF OGDEN (BDO) VARY. SEE CITY ENGINEER FOR SPECIFIC DETAILS AND SPECIFICATIONS.
6. CHIPSEAL COAT SHALL USE CRS2P OIL AND CLASS A CHIPS (SEE 2007 APWA MANUAL OF STANDARD SPECIFICATIONS SECTION 32 01 14, AND THE 2008 EDITION OF OGDEN CITY AMENDMENTS FOR MORE INFORMATION).
7. FOR STREET DESIGNATIONS REFER TO THE CURRENT OGDEN CITY TRANSPORTATION MASTER PLAN.
8. ROADWAY STRUCTURAL SECTION SHALL BE RECOMMENDED BY THE DEVELOPERS GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY ENGINEER.
9. PAVEMENT IS PERMITTED TO BE INSTALLED BETWEEN APRIL 15 AND OCTOBER 15. PAVEMENT INSTALLED OUTSIDE OF THIS TIME SHALL BE CONSIDERED TEMPORARY.

OGDEN CITY ENGINEERING - STANDARD DRAWINGS



STANDARD ROADWAY SECTION

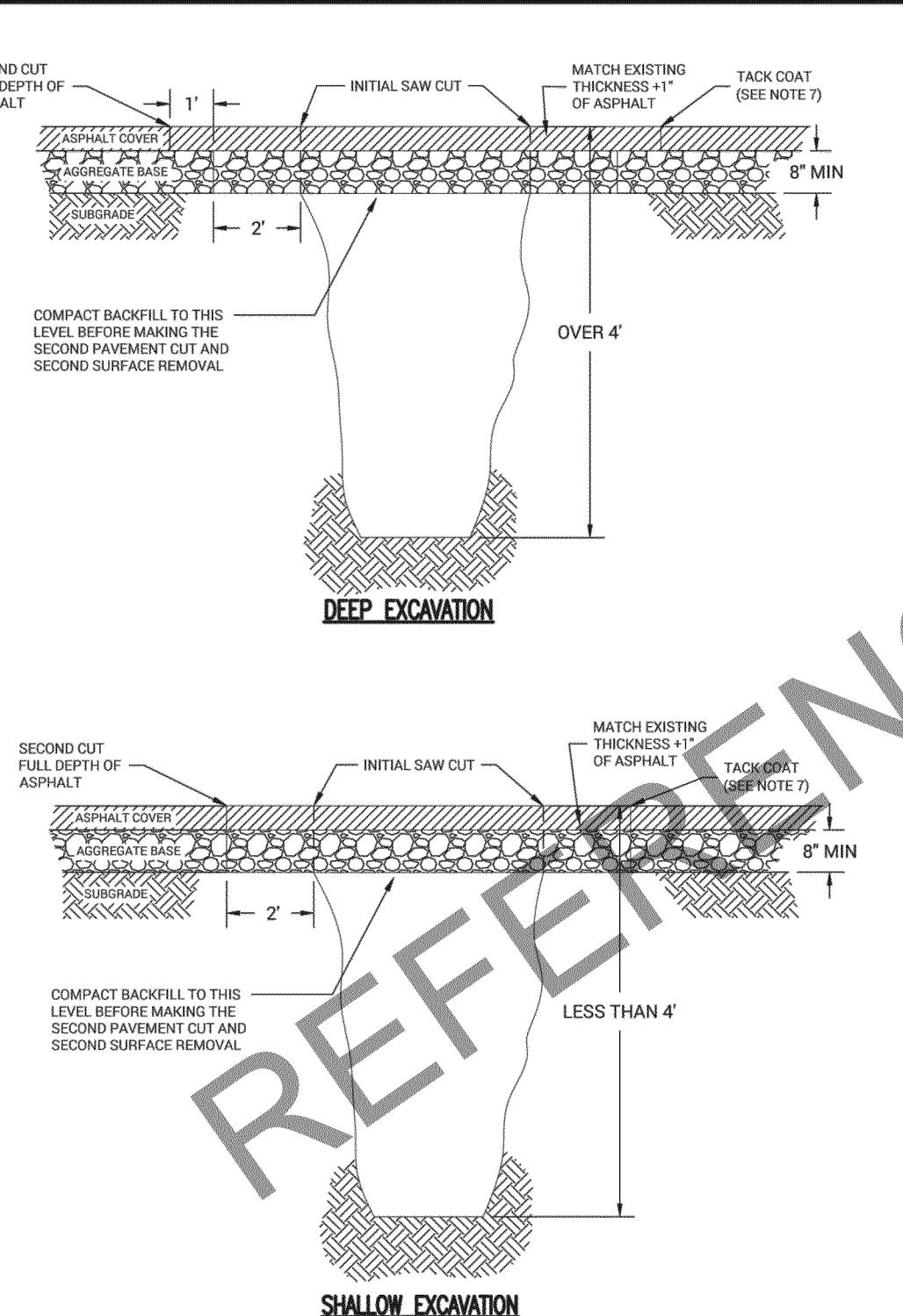
RD-1

JUSTIN ANDERSON, CITY ENGINEER

SHEET 1 OF 1 2020

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LAST UPDATED: 5/15/2002

ITEM NUMBER:



OGDEN CITY ENGINEERING - STANDARD DRAWINGS

ASPHALT PATCH

RD-3

JUSTIN ANDERSON, CITY ENGINEER

SHEET 1 OF 2 2020

OGDEN CITY ENGINEERING - STANDARD DRAWINGS

ASPHALT PATCH

RD-3

JUSTIN ANDERSON CITY ENGINEER

SHEET 2 OF 2 | 2020

Plot Data: 51.65152023 43.17 BM Plotted By: Daniel Narley
Data Created: 11/19/2013 11:19 AM
Data Checked: 11/19/2013 11:19 AM
Data Entered: 11/19/2013 11:19 AM
Data Approved: 11/19/2013 11:19 AM

NOTES:

1. REMOVE ADDITIONAL PAVEMENT TO THE MENTIONED FEATURE IF IT IS WITHIN TWO FEET OF:
 - 1.1. A NEW SAWCUT
 - 1.2. A PAINTED LINE STRIPE
 - 1.3. A LIP OF GUTTER
 - 1.4. A CURB
 - 1.5. AN EXISTING PAVEMENT PATCH
2. ALL EXCAVATIONS WITHIN THE CITY RIGHT-OF-WAY REQUIRE AN EXCAVATION PERMIT FROM THE OGDEN CITY ENGINEERING DEPARTMENT.
 - 2.1. ALL WORK IN THE RIGHT-OF-WAY MUST BE PERFORMED BY A LICENSED CONTRACTOR FOR THE STATE OF UTAH WHO IS BONDED AND INSURED THROUGH OGDEN CITY.
3. NOTIFY UNDERGROUND SERVICE ALERT (BLUE STAKES) TWO (2) WORKING DAYS PRIOR TO THE START OF EXCAVATION AT 1 (800) 662-4111.
4. NOTIFY ENGINEERING DEPARTMENT ONE (1) WORKING DAY (24 HOURS) PRIOR TO START OF CONSTRUCTION TO ARRANGE INSPECTIONS BY CITY PUBLIC WORKS INSPECTORS.
5. ALL EXCAVATIONS SHALL BE MADE, PROTECTED, AND SUPPORTED AS REQUIRED FOR SAFETY BY OSHA REGULATIONS.
6. BASE COURSE: PROVIDE MATERIAL SPECIFIED IN APWA SECTION 32 11 23.
 - 6.1. PLACE MATERIAL PER APWA SECTION 32 05 10.
 - 6.2. COMPACT THE MATERIAL PER APWA SECTION 31 23 26. THE MINIMUM APPROVED COMPACTION SHALL BE 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS BEFORE COMPACTION IS 8" WHEN USING RIDING EQUIPMENT AND 6" WHEN USING HAND HELD COMPACTION EQUIPMENT.
7. TACK COAT PER APWA SECTION 32 12 14. PROVIDE FULL TACK COAT COVERAGE ON ALL VERTICAL SURFACES.
 - 7.1. JOINT REPAIR: IF A CRACK OCCURS AT THE PATCH CONNECTION TO THE EXISTING PAVEMENT OR ANY STREET FIXTURE, SEAL THE CRACK PER APWA SECTION 32 01 17.
8. USE PLANT-MIX ASPHALT PAVING AS PER APWA 32 12 16.13 AND THE CURRENT EDITION OF THE OGDEN CITY STANDARDS.
 - 8.1. MATCH EXISTING THICKNESS PLUS ONE (1) INCH, MINIMUM OF FOUR (4) INCHES, BUT NOT TO EXCEED SEVEN (7) INCHES (OR AS SPECIFIED BY THE CITY ENGINEER).
9. REPAIR THE ASPHALT PAVEMENT IF ANY OF THE FOLLOWING CONDITIONS WITHIN THE PATCH OCCUR:
 - 9.1. PAVEMENT SURFACE DISTORTION EXCEEDS 1/4" DEVIATION IN 10'.
 - 9.1.1. REPAIR OPTION: PLANE OFF SURFACE DISTORTIONS. COAT PLANED SURFACES WITH A CATIONIC OR ANIONIC EMULSION THAT COMPLIES WITH APWA SECTION 32 12 93 AND PROVIDE SAND BLOTTER.
 - 9.2. CRACKS AT LEAST 1' IN LENGTH AND 1/4" WIDE OCCURRING MORE OFTEN THAN ONE (1) IN 10 SQUARE FEET.
 - 9.2.1. REPAIR OPTION: CRACK SEAL
 - 9.3. ASPHALT Raveling IS GREATER THAN ONE (1) SQUARE FOOT PER 100 SQUARE FEET.
 - 9.3.1. REPAIR OPTION: MILL AND INLAY
10. ALL PAVING, RESURFACING OR REPLACEMENT OF STREET FACILITIES:
 - 10.1. ON MAJOR OR COLLECTOR STREETS SHALL BE DONE WITHIN THREE (3) CALENDAR DAYS.
 - 10.2. ON ALL OTHER STREETS SHALL BE DONE IN WITHIN SEVEN (7) CALENDAR DAYS FROM THE TIME THE EXCAVATION COMMENCES.

33300 SOUTH STORM DRAIN
OGDEN CITY

33300 SOUTH STORM DRAIN
OGDEN CITY

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DESIGN BY: DAN
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AT FULL SIZE, IF NOT ONE
INCH, SCALE ACCORDINGLY

HEET NUMBER:

NOTES:

1. BASE COURSE: PROVIDE MATERIAL AS PER APWA 32 11 23.
 - 1.1. PLACE MATERIAL PER APWA SECTION 32 05 10.
 - 1.2. COMPACT PER APWA SECTION 31 23 26 TO A DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS BEFORE COMPACTION IS 8" WHEN USING RIDING AND 6" WHEN USING HAND HELD COMPACTION EQUIPMENT.
2. CONCRETE SHALL BE CLASS 4000 AS PER APWA 03 30 04.
 - 2.1. PROVIDE 1/2" RADIUS ON CONCRETE EDGES EXPOSED TO VIEW.
3. EXPANSION JOINT SHALL BE VERTICAL, FULL DEPTH 1/2" WIDE. USE TYPE F1 JOINT FILLER AS PER APWA 32 13 73. SET TOP OF FILLER FLUSH WITH CONCRETE SURFACE.
4. CONTRACTION JOINTS SHALL BE VERTICAL.
 - 4.1. 1/8" WIDE AND 1" DEEP (OR 1/4 SLAB THICKNESS IF SLAB IS OVER 4").
 - 4.1. MAXIMUM LENGTH TO WIDTH RATIO FOR NON-SQUARE PANELS IS 1.5 TO 1.
 - 4.2. MAXIMUM PANEL LENGTH (IN FEET) IS 2.5 TIMES THE SLAB THICKNESS (IN INCHES) TO A MAXIMUM OF 15'.
5. REINFORCEMENT SHALL BE PER ASTM A 615, GRADE 60 GALVANIZED OR EPOXY COATED DEFORMED STEEL. SEE APWA SECTION 03 20 00 REQUIREMENTS.
6. BAG MIX: MARCH - NOVEMBER 6 1/2, DECEMBER - FEBRUARY 7 1/2.

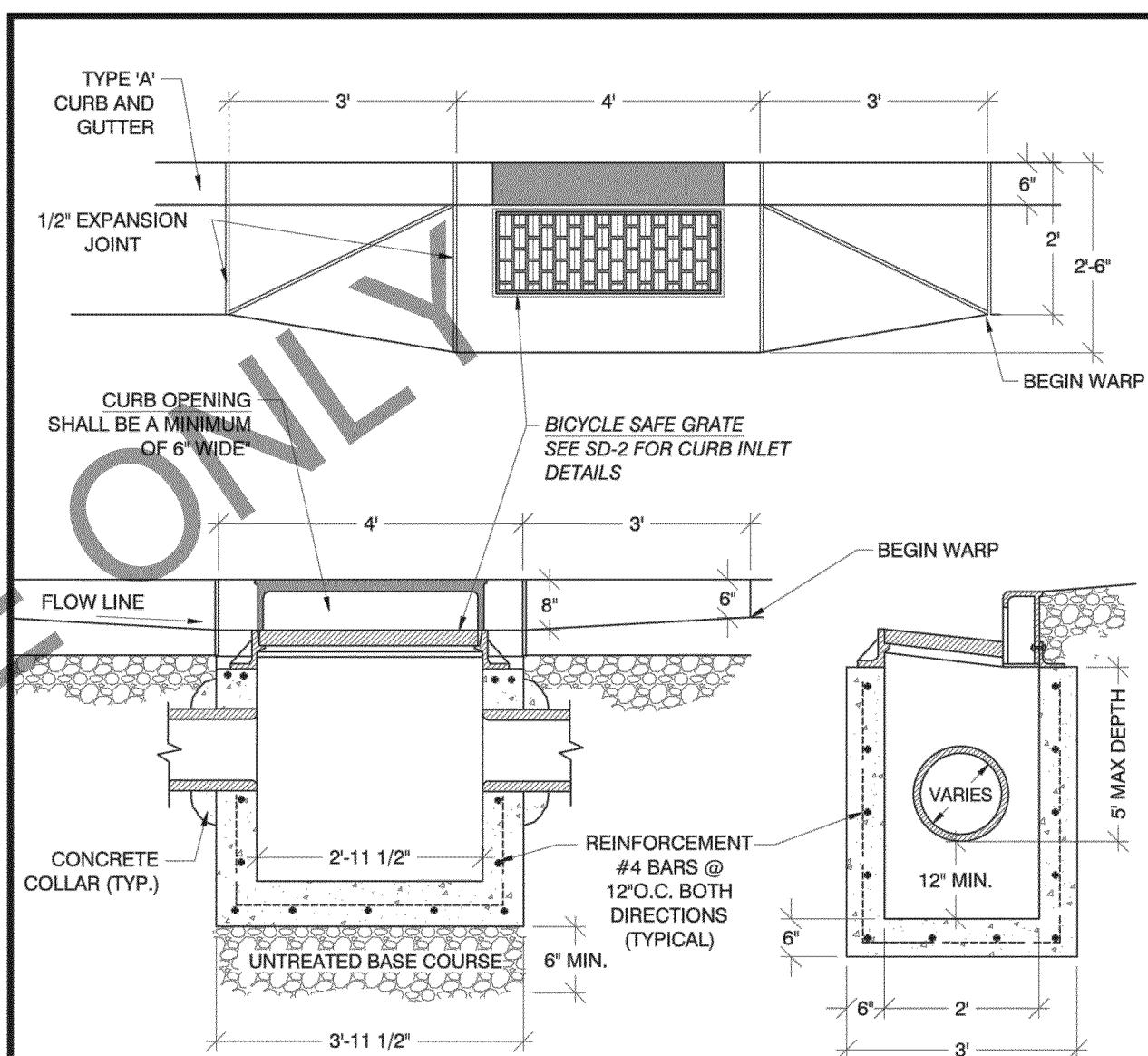
	LOTS WITH 1-2 UNITS	LOTS WITH 3-4 UNITS	LOTS WITH OVER 5 UNITS
MINIMUM WIDTH	10'	16'	24'
MAXIMUM WIDTH	32'	32'	35'
	* OR 50% OF LOT FRONTEAGE (WHICHEVER IS LESS)		
MINIMUM CONCRETE THICKNESS	6"	6"	6"
MINIMUM BASE	6"	6"	6"

	COMMERCIAL/MANUFACTURING (TRACTOR/TRAILER USE ONLY)	COMMERCIAL/MANUFACTURING (GENERAL USE)
MINIMUM WIDTH	35'	24'
MAXIMUM WIDTH	50'	35'
	*SEE SECTION 15-12-II OF THE OGDEN CITY CODE FOR EXCEPTIONS	
MINIMUM CONCRETE THICKNESS	8"	8"
MINIMUM BASE	8"	8"

OGDEN CITY ENGINEERING - STANDARD DRAWINGS**DRIVEWAY APPROACH****RD-7**

JUSTIN ANDERSON, CITY ENGINEER

SHEET 2 OF 2 2020

**NOTES:**

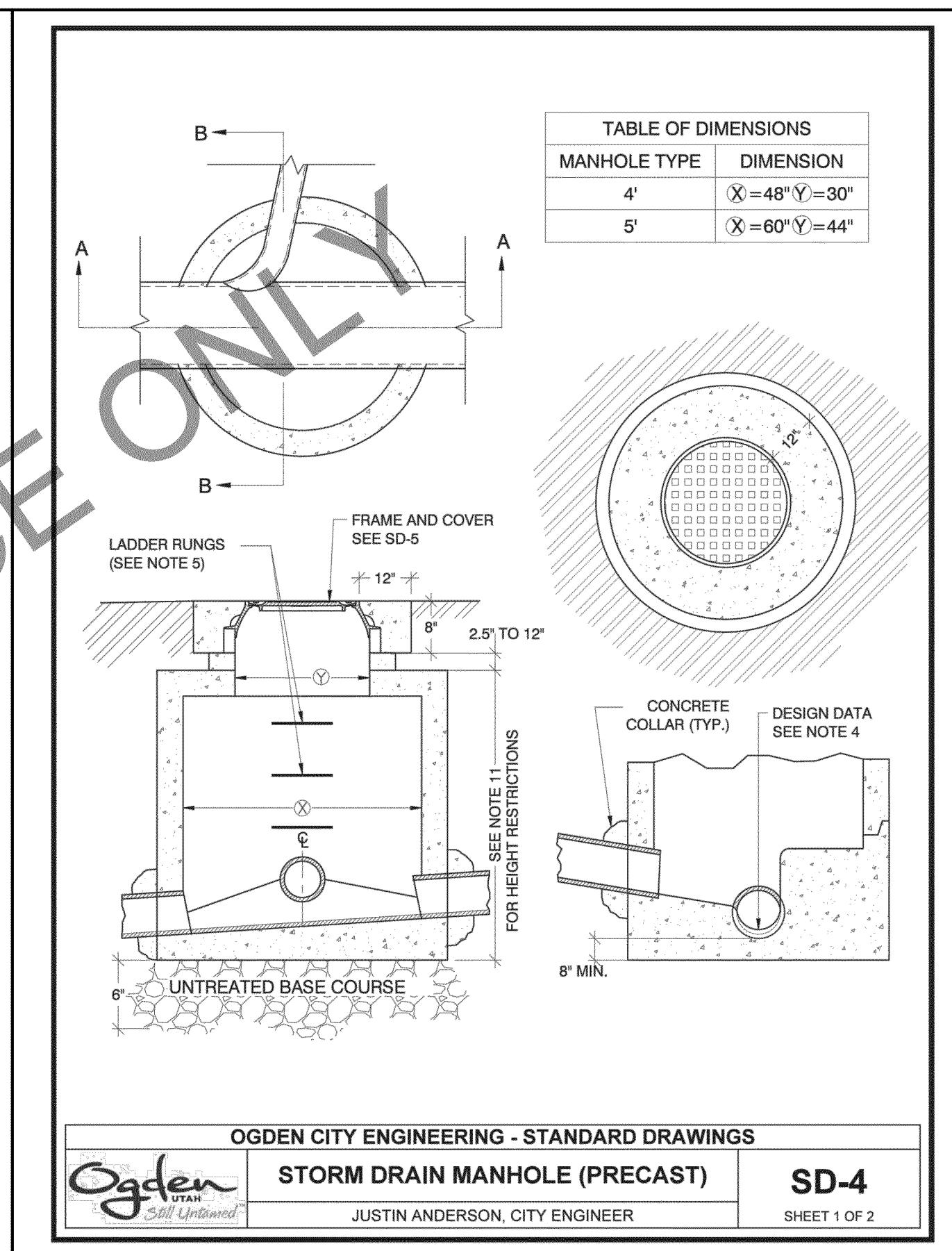
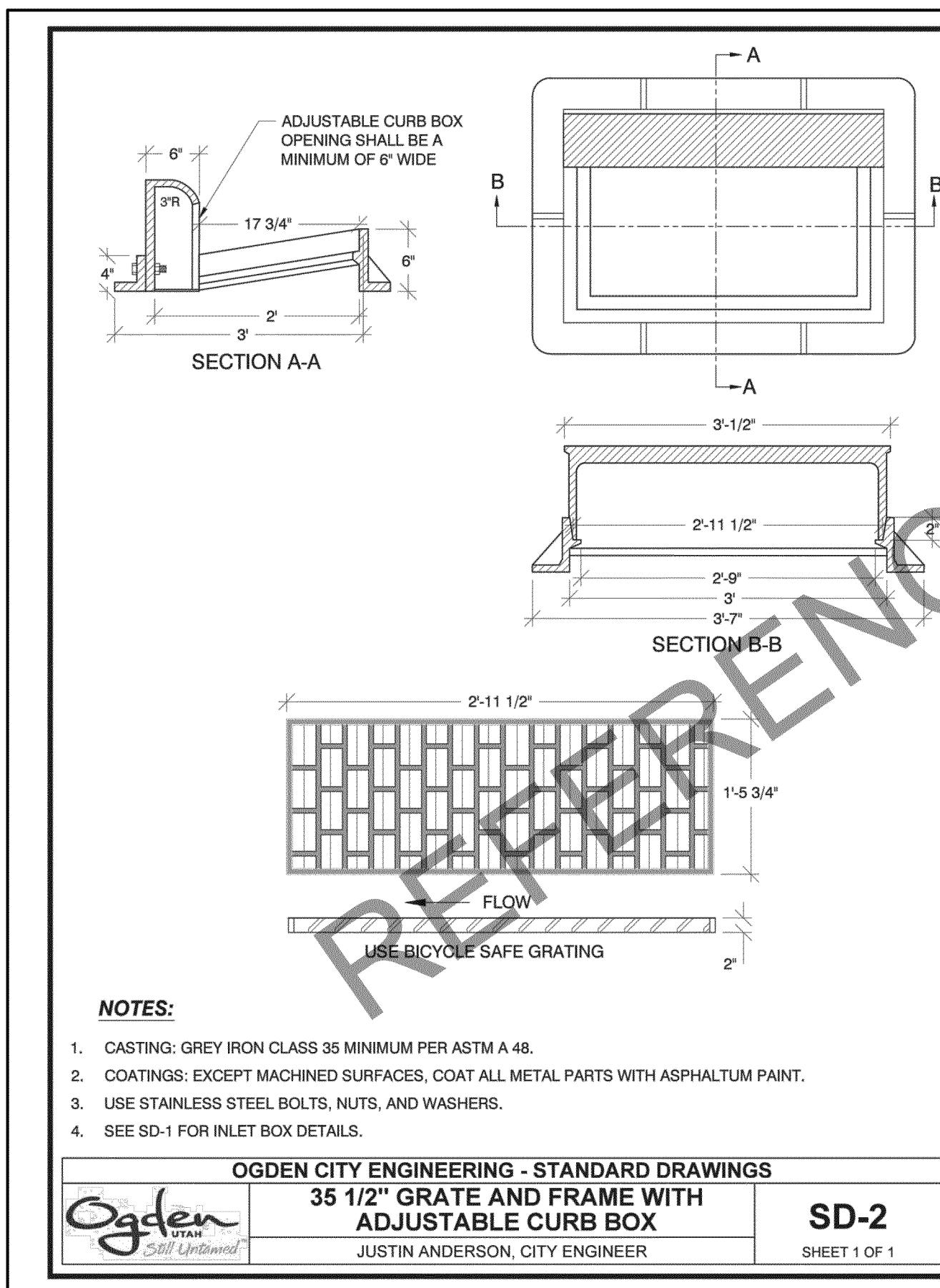
1. COMPACT BASE COURSE AND BACKFILL PER APWA SECTION 31 23 26 TO A DENSITY OF 95 PERCENT. MAXIMUM LIFT THICKNESS IS 8" BEFORE COMPACTION.
 - 1.1. BACKFILL: PROVIDE AND PLACE PER APWA SECTION 31 23 23 ON ALL SIDES OF THE BASIN.
 - 1.2. PROVIDE BASE COURSE MATERIAL PER APWA SECTION 32 11 23. PLACE MATERIAL PER APWA SECTION 31 23 23.
2. REINFORCEMENT SHALL BE PER ASTM A 615, GRADE 60, DEFORMED STEEL.
3. CONCRETE SHALL BE CLASS 4000 PER APWA SECTION 03 30 04. PLACE CONCRETE PER APWA SECTION 03 30 10. CURE PER APWA SECTION 03 39 00.
4. CURB FACE OPENING SHALL BE AT LEAST 6' WIDE. PROVIDE A 2" DROP BETWEEN THE 'BEGIN WARP' LINE IN THE GUTTER AND THE TOP OF THE GRATE AT THE CURB OPENING.

OGDEN CITY ENGINEERING - STANDARD DRAWINGS**CATCH BASIN WITH CURB INLET****SD-1**

JUSTIN ANDERSON, CITY ENGINEER

SHEET 1 OF 1

FILE #: 55-22-123 C-501X
JUB PROJ. #: 55-22-123
DRAWN BY: DAN
DESIGN BY: DAN
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LAST UPDATED: 5/15/2023
SHEET NUMBER: C-507



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466 North 900 West Kaysville, Utah 84037	
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3300 SOUTH STORM DRAIN OGDEN CITY	
OGDEN CITY STANDARD DETAILS	

NOTES:

1. COMPACT BACKFILL AND BASE COURSE PER APWA SECTION 31 23 26 TO A DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS BEFORE COMPACTION IS 8" WHEN USING RIDING AND 6" WHEN USING HAND COMPACTION EQUIPMENT.
 - 1.1. BACKFILL: PROVIDE AND PLACE PER APWA SECTION 31 23 23 ON ALL SIDES OF THE BASIN.
 - 1.2. PROVIDE UNTREATED BASE COURSE MATERIAL PER APWA SECTION 32 11 23. PLACE MATERIAL PER APWA SECTION 31 23 23.
2. REINFORCEMENT SHALL BE PER ASTM A 615, GRADE 60, DEFORMED STEEL. REFER TO APWA 03 20 00.
3. CONCRETE SHALL BE PER CLASS 4000 PER APWA SECTION 03 30 04. PLACE CONCRETE PER APWA SECTION 03 30 10. CURE PER APWA SECTION 03 39 00.
4. STATIONING AND ELEVATIONS SHOWN ON THE DRAWING SHOULD MATCH THE CENTERLINE OF THE MANHOLE.
 - 4.1. FLIN: (FLOW LINE IN) ELEVATION APPLIES TO THE POINT OF INTERSECTION OF THE INLET PIPE INVERT AND THE MANHOLE WALL.
 - 4.2. FLOUT: (FLOW LINE OUT) ELEVATION APPLIES TO THE POINT OF INTERSECTION OF THE OUTLET PIPE INVERT AND THE MANHOLE WALL.
5. LOW PROFILE MANHOLE LIDS WILL NOT BE ALLOWED IN ANY OGDEN CITY RIGHT OF WAY.
6. LADDER RUNGS ARE REQUIRED IN ALL BOXES. SEE SS-6 FOR TYPICAL MANHOLE STEP REQUIREMENTS.
7. GROUT ALL PIPE OPENINGS WITH 2:1 SAND/CEMENT MORTAR.
8. PLACE FLEXIBLE GASKET-TYPE SEALANT IN ALL MANHOLE JOINTS. SEAL MUST MEET THE REQUIREMENTS OF SS-S-00210 (210A), AASHTO M-198, AND ASTM C990.
9. PRECAST CONCRETE WALLS MUST BE A MINIMUM OF 5" THICK.
10. CAST-IN-PLACE CONCRETE MUST BE A MINIMUM OF 8" THICK.
11. IF DEPTH OF MANHOLE EXCEEDS 6'-7", USE SS-1 AS THE STANDARD FOR CONSTRUCTION.
12. THE INSTALLED PIPE SHALL BE PLACED SUCH THAT THE HORIZONTAL INSIDE DIAMETER OF THE PIPE INTERSECTS THE INSIDE FACE OF THE RISER.
13. PROVIDE A SMOOTH AND NEAT FINISH ON THE INTERIOR OF THE CONES, SHAFT, RINGS, AND FLOOR. IMPERFECT MOLDINGS OR HONEYCOMBS WILL NOT BE ACCEPTED.

OGDEN CITY ENGINEERING - STANDARD DRAWINGS



STORM DRAIN MANHOLE (PRECAST)

SD-4

JUSTIN ANDERSON, CITY ENGINEER

SHEET 2 OF 2

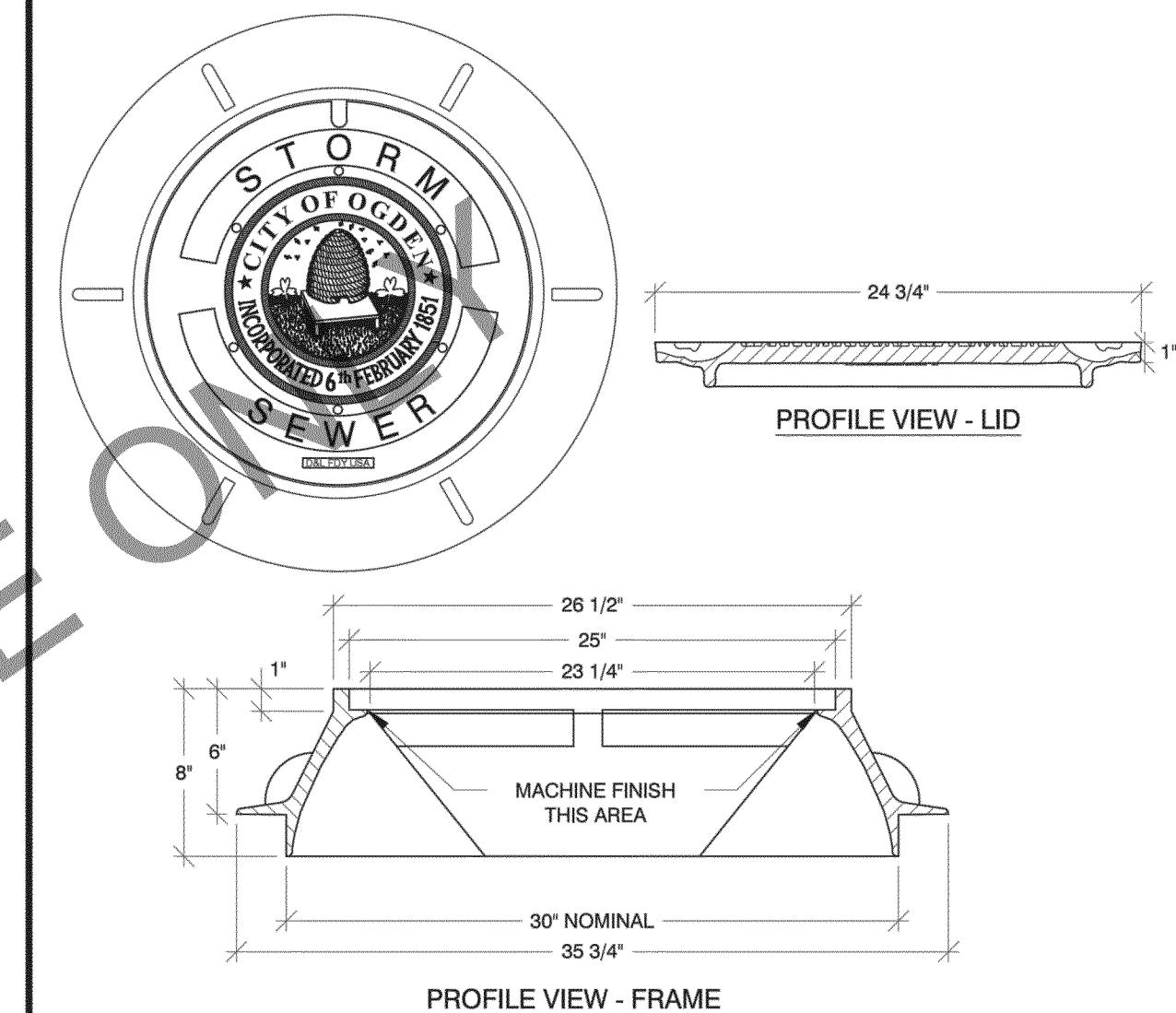
OGDEN CITY ENGINEERING - STANDARD DRAWINGS

STORM DRAIN MANHOLE LID
AND FRAME

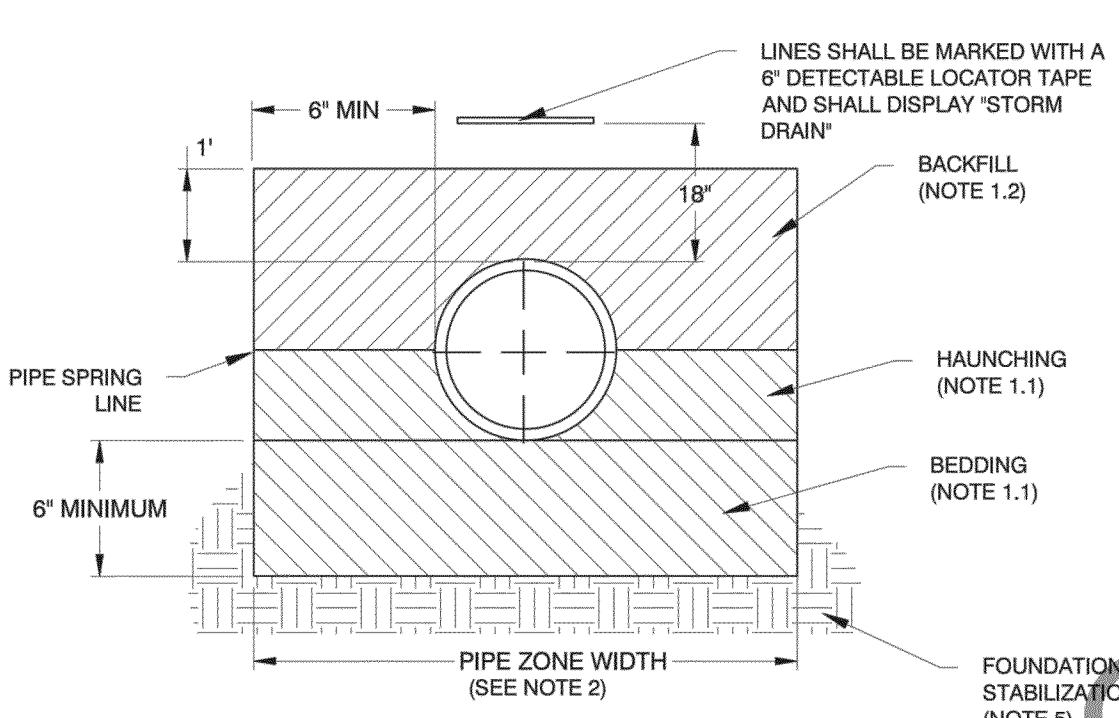
SD-5

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SHEET 1 OF 1

**NOTES:**

1. CONTACT THE OGDEN CITY STORM WATER DIVISION FOR DETAILS AND ORDERING INFORMATION FOR SEWER LID AND FRAME (801) 629-8331.
2. LOW PROFILE LIDS WILL NOT BE ALLOWED IN ANY OGDEN CITY RIGHT OF WAY.
3. CASTINGS: GREY IRON CLASS 35 MINIMUM PER ASTM A 48.
4. COATINGS: EXCEPT MACHINED SURFACES, COAT ALL METAL PARTS
5. HEAT NUMBER: PLACE FOUNDRY AND HEAT NUMBER ON THE INSIDE OF THE FRAME AND ON THE BOTTOM OF THE COVER.
6. SEE SD-3 FOR COMBINATION INLET / CLEANOUT BOX, SD-4 FOR STORM DRAIN MANHOLE AND SD-4 FOR STORM DRAIN MANHOLE DETAILS.



NOTES:

1. DO NOT USE SEWER ROCK OR RECYCLED RAP AGGREGATE IN THE PIPE ZONE WITHOUT THE APPROVAL OF THE CITY ENGINEER. IF MANUFACTURER RECOMMENDS ANYTHING CONTRARY TO WHAT IS LISTED BELOW, CONSULT WITH THE ENGINEERING DEPARTMENT.
 - 1.1. HAUNCHING/BEDDING: INSTALL AND COMPACT PER MANUFACTURER RECOMMENDATIONS AND ASTM SPECIFICATIONS.
 - 1.1.1. WATER JETTING IS NOT ALLOWED.
 - 1.1.2. SUBMISSION COMPACTION TEST DATA FOR THE HAUNCHING AREAS MAY BE REQUESTED AT ANY TIME.
 - 1.2. BACKFILL: INSTALL AND COMPACT PER MANUFACTURER RECOMMENDATIONS AND ASTM SPECIFICATIONS.
 - 1.2.1. COMPACT PER SECTION 31 23 26 TO A DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS BEFORE COMPACTION IS 8" WHEN USING RIDING AND 6" WHEN USING HAND COMPACTION EQUIPMENT.
2. PIPE ZONE WIDTH IS RECOMMENDED BY THE MANUFACTURER OF THE PIPE. WIDTH OF PIPE ZONE IS MEASURED AT THE PIPE SPRING LINE AND INCLUDES ANY NECESSARY SHEATHING. FOLLOW MANUFACTURE RECOMMENDATIONS FOR ANY TRENCH BOX APPLICATIONS.
3. INSTALL THE PIPE IN THE CENTER OF THE TRENCH. THE EDGE OF THE PIPE WALL SHALL BE A MINIMUM DISTANCE OF 6' FROM THE TRENCH WALL.
4. PEA GRAVEL IS NOT ALLOWED IN ANY PART OF THE TRENCH.
5. FOUNDATION STABILIZATION REQUIRES SEWER ROCK PER APWA SECTION 31 05 13.
 - 5.1. INSTALLATION OF STABILIZATION-SEPARATION GEOTEXTILE PER APWA SECTION 31 05 19 WILL BE REQUIRED TO SEPARATE BACKFILL MATERIAL AND NATIVE SUBGRADE MATERIAL IF SEWER ROCK CANNOT PROVIDE A WORKING SURFACE OR PREVENT SOIL MIGRATION.
6. REFER TO SECTION 33 05 02 FOR ADDITIONAL INFORMATION ON CONCRETE PIPE.

OGDEN CITY ENGINEERING - STANDARD DRAWINGS



STORM DRAIN PIPE ZON

SD-8

JUSTIN ANDERSON, CITY ENGINEER

SHEET 1 OF 1

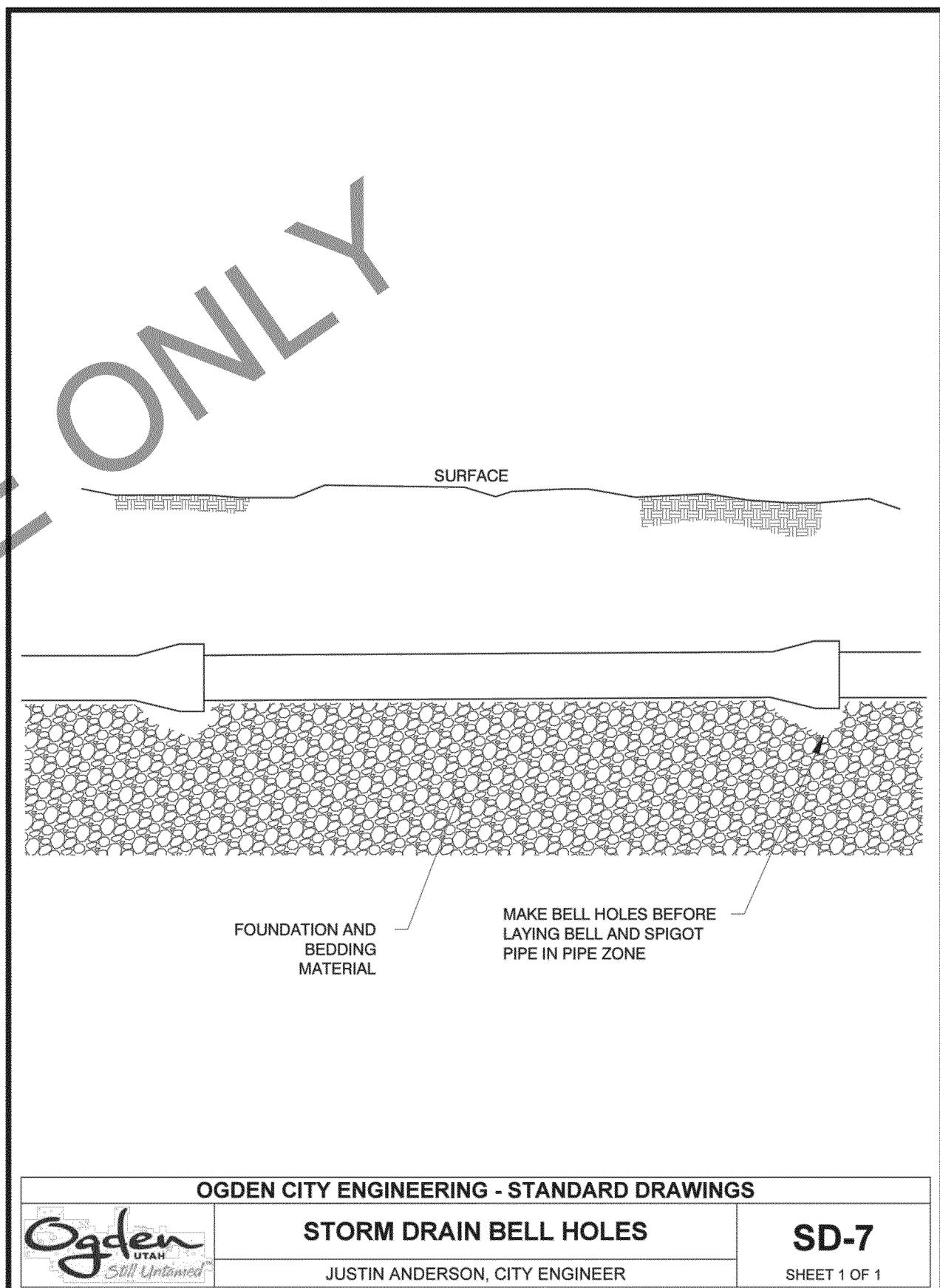


OGDEN CITY ENGINEERING - STANDARD DRAWINGS

STORM DRAIN BELL HOLES

SD-7

SHEET 1 OF 1



3300 SOUTH STORM DRAIN
OGDEN CITY

3300 SOUTH STORM DRAIN
OGDEN CITY

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Revision

BY APR. DATE

DESCRIPTION

NO.

 3300 SOUTH STORM DRAIN
 OGDEN CITY

OGDEN CITY STANDARD DETAILS

1

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OGDEN CITY ENGINEERING - STANDARD DRAWINGS



TYPICAL SEWER MANHOLE

SS-1

JUSTIN ANDERSON, CITY ENGINEER

SHEET 1 OF 4

OGDEN CITY ENGINEERING - STANDARD DRAWINGS

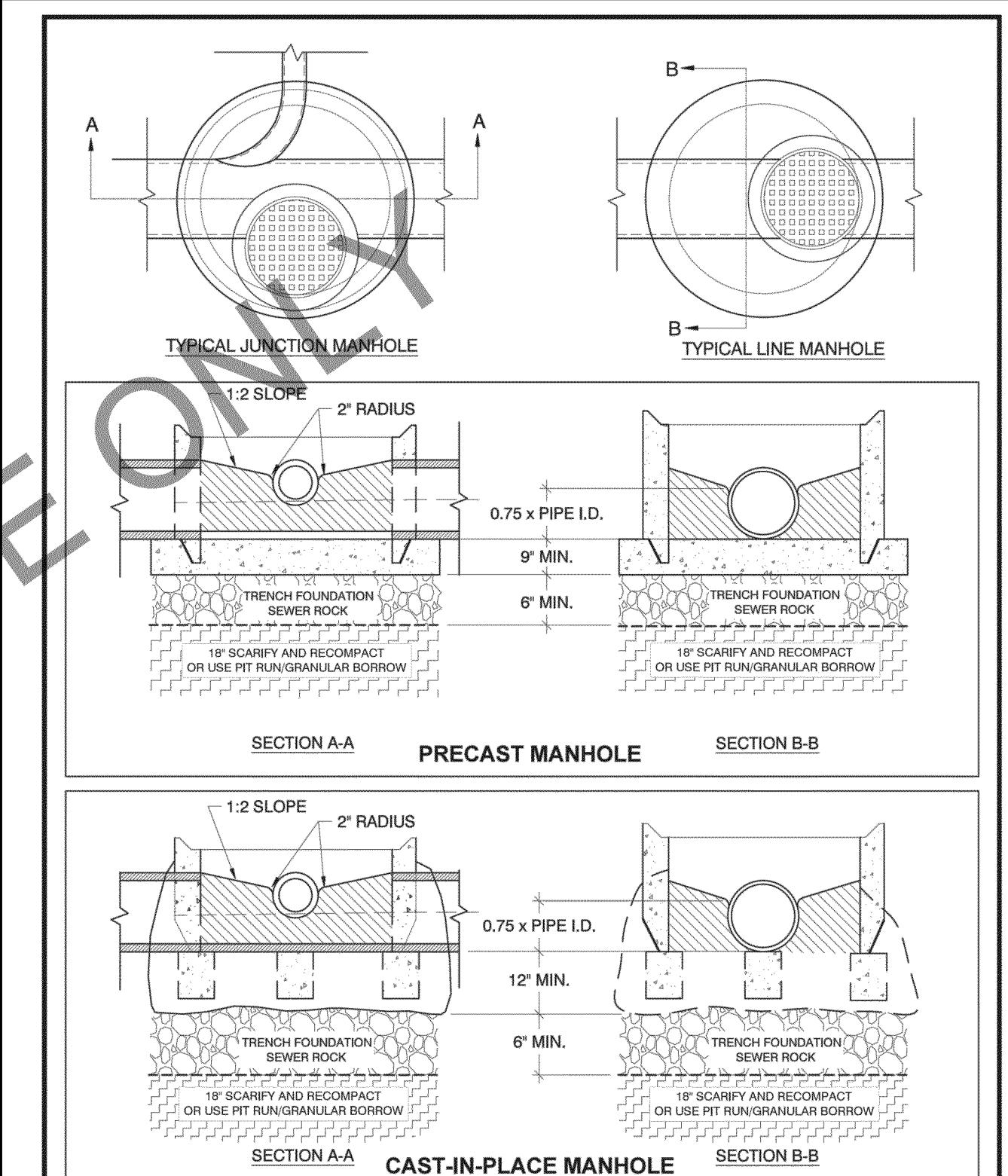
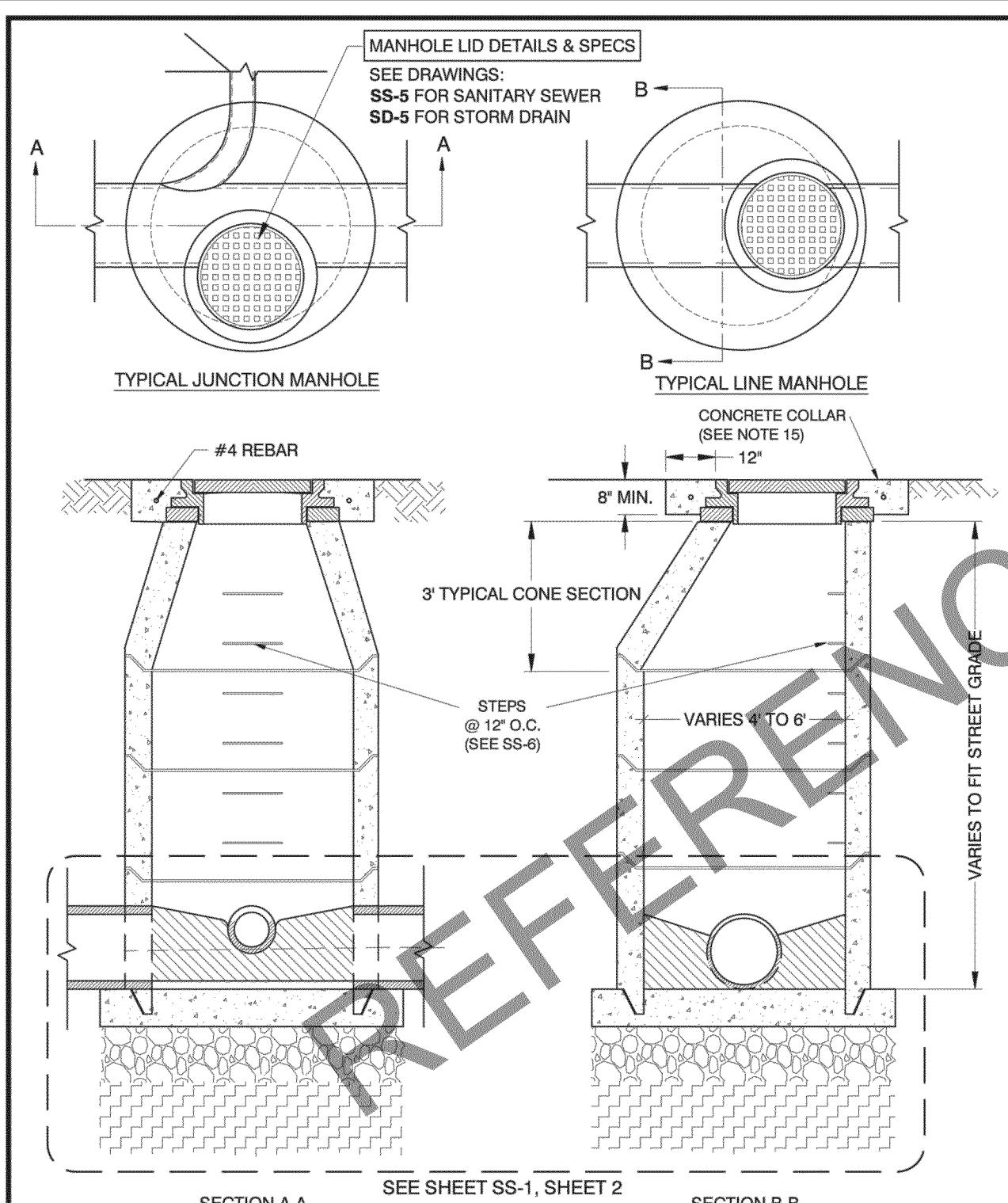


SEWER MANHOLE BASE DETAILS

SS-1

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SHEET 2 OF 4



NOTES:

1. BACKFILL: PROVIDE AND PLACE PER APWA SECTION 31 23 23.
 - 1.1. COMPACT PER APWA SECTION 31 23 26 TO A DENSITY OF 95 PERCENT OR GREATER. MAXIMUM LIFT THICKNESS BEFORE COMPACTION IS 8" WHEN USING RIDING AND 6" WHEN USING HAND COMPACTION EQUIPMENT.
 - 1.2. SEWER ROCK SHALL BE PER APWA SECTION 31 05 13.
2. CONCRETE CLASS 4000 PER APWA SECTION 03 30 04. PLACE CONCRETE PER APWA 03 30 10.
3. MANHOLE SIZE
 - 3.1. 4' DIAMETER FOR SEWER PIPES UNDER 12" IN DIAMETER AND NOT SUBJECT TO ANY CONDITIONS LISTED FOR THE 5' MANHOLE.
 - 3.2. 5' DIAMETER FOR THE FOLLOWING:
 - 3.2.1. DEFLECTION ANGLE IS GREATER THAN OR EQUAL TO 45°
 - 3.2.2. WHEN THE MANHOLE HAS THREE OR MORE LINES
 - 3.2.3. FOR SEWERS WITH A PIPE DIAMETER OF 12" OR GREATER
 - 3.2.4. WHEN THE COVER IS GREATER THAN 14'.
4. SEE SS-5 FOR MANHOLE LID SPECIFICATIONS.
5. OUTLET PIPE TO BE A MINIMUM OF 1" BELOW INLET PIPE FLOW LINES EXCEPT AS NOTED BELOW IN FIG. 1 (BELOW).
6. STEEL FRAMES: USE ASTM A 36 STEEL.
7. LOW PROFILE LIDS WILL NOT BE ALLOWED IN ANY OGDEN CITY RIGHT OF WAY.
8. REINFORCEMENT: USE ASTM A 615, GRADE 60. REFER TO APWA 03 20 00.
 - 8.1. CAST IN PLACE REBAR SCHEDULE MUST BE STAMPED BY A STRUCTURAL ENGINEER.
9. COATINGS: EXCEPT MACHINED SURFACES, COAT ALL METAL WITH ASPHALTUM PAINT.
10. GROUT ALL PIPE OPENINGS WITH 2:1 SAND/CEMENT MORTAR.
11. PLACE FLEXIBLE GASKET-TYPE SEALANT IN ALL MANHOLE JOINTS. SEAL MUST MEET THE REQUIREMENTS OF SS-S-00210 (210A), AASHTO M-198, AND ASTM C990.
12. PRECAST REINFORCED CONCRETE WALLS MUST BE 5" THICK.
13. CAST-IN-PLACE CONCRETE WALLS MUST BE A MINIMUM OF 8" THICK.
14. CONTRACTOR SHALL CONTACT SEWER DEPARTMENT PRIOR TO ENTRANCE INTO MANHOLE
 - 14.1. ENTRANCE INTO MANHOLE SHALL BE PER OSHA STANDARDS
15. **MINIMUM PIPE SLOPE:** REFER TO TABLE 1 - MINIMUM SEWER MAIN PIPE SLOPE, OF THE OGDEN CITY ENGINEERING STANDARDS FOR MINIMUM SEWER MAIN PIPE SLOPE.

NORMAL DROPS (IN FEET) STRAIGHT THROUGH MANHOLES AT INVERTS FOR MINIMUM GRADES OR GREATER EXCEPT AS NOTED BELOW					
INLET SIZE	8"	10"	12"	15"	18"
OUTLET SIZE	8"	0.10	---	---	---
8"	0.10	---	---	---	---
10"	0.17	0.10	---	---	---
12"	0.33	0.17	0.10	---	---
15"	0.58	0.42	0.25	CL	---
18"	0.80	0.71	0.63	0.50	CL

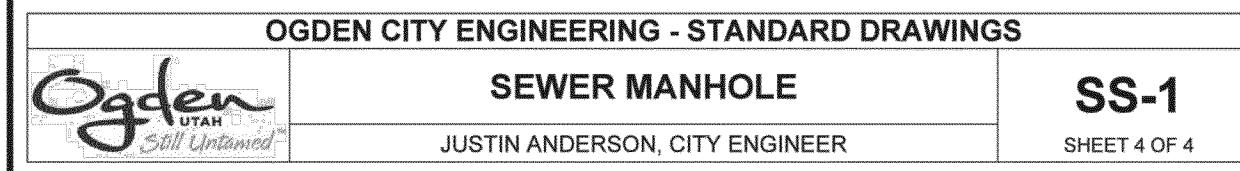
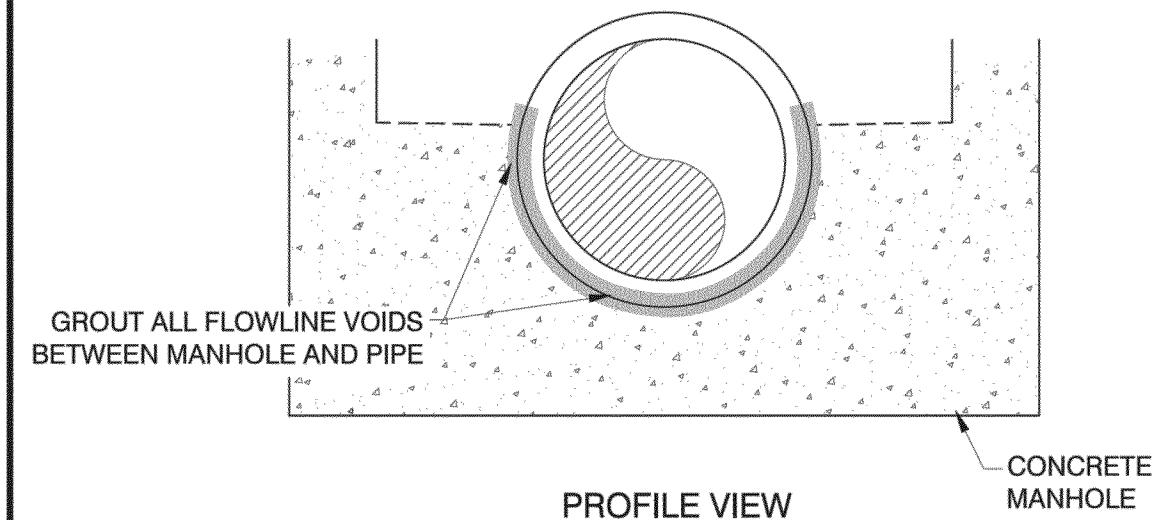
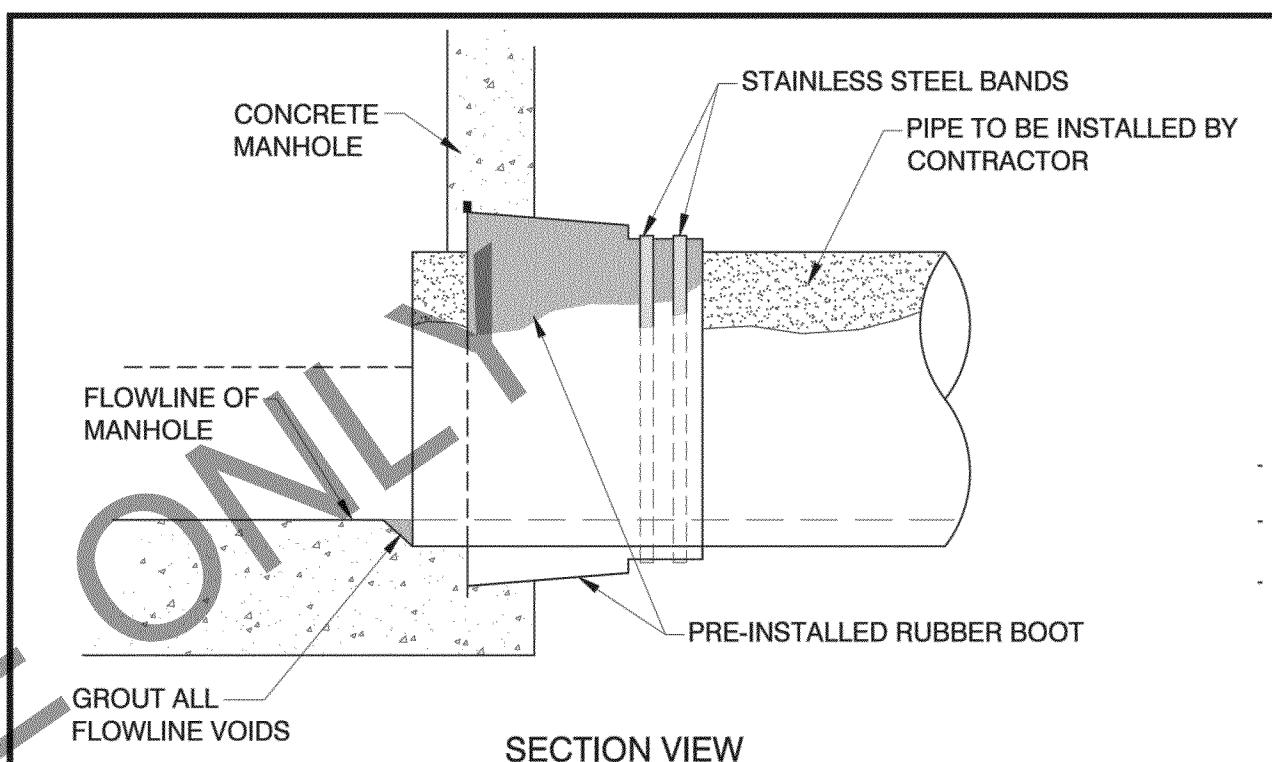
FIGURE 1

CL INDICATES THE DROP THOUGH THE MANHOLE SHALL BE THE EXISTING FLOWLINE BASED ON THE PIPE SLOPE

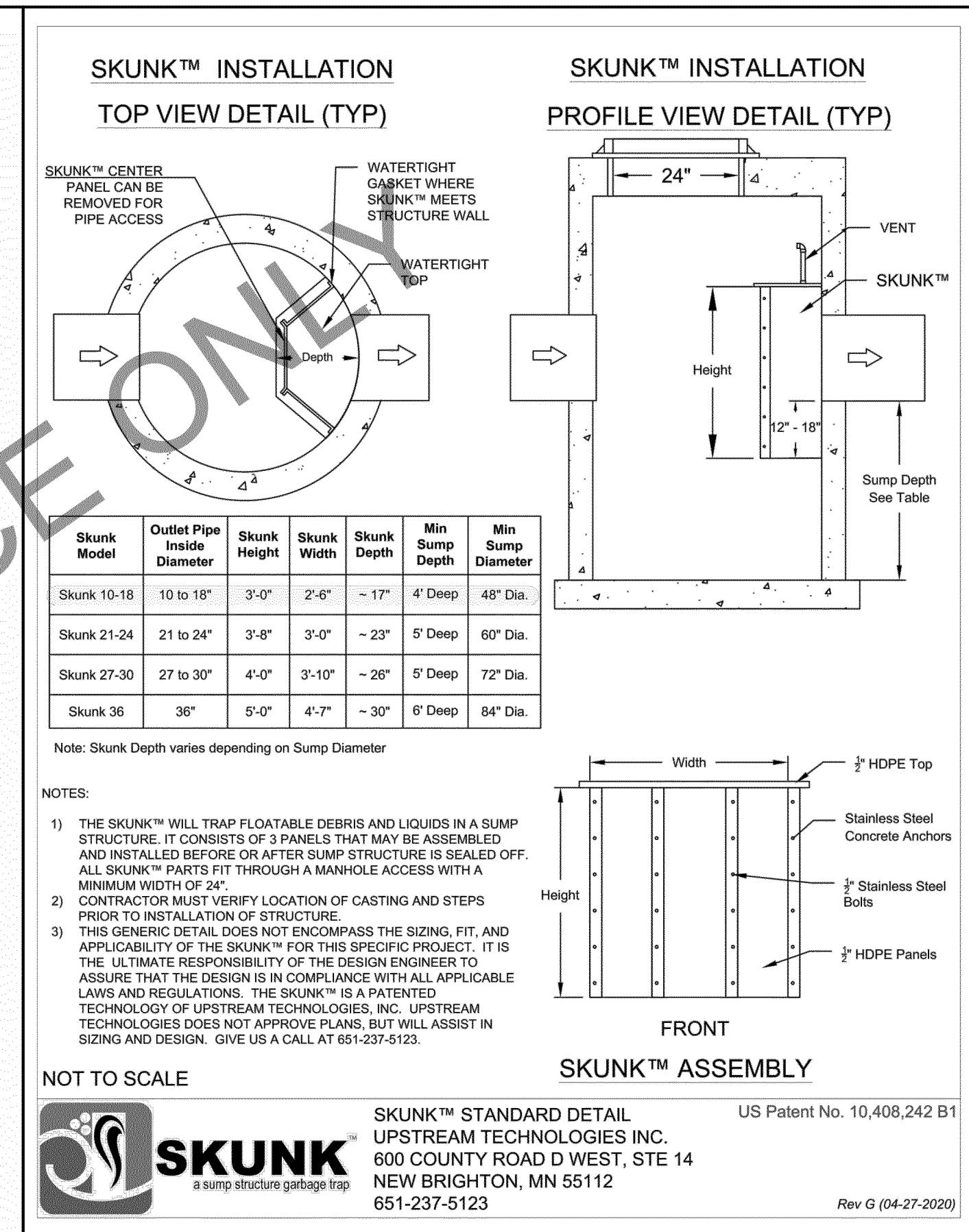
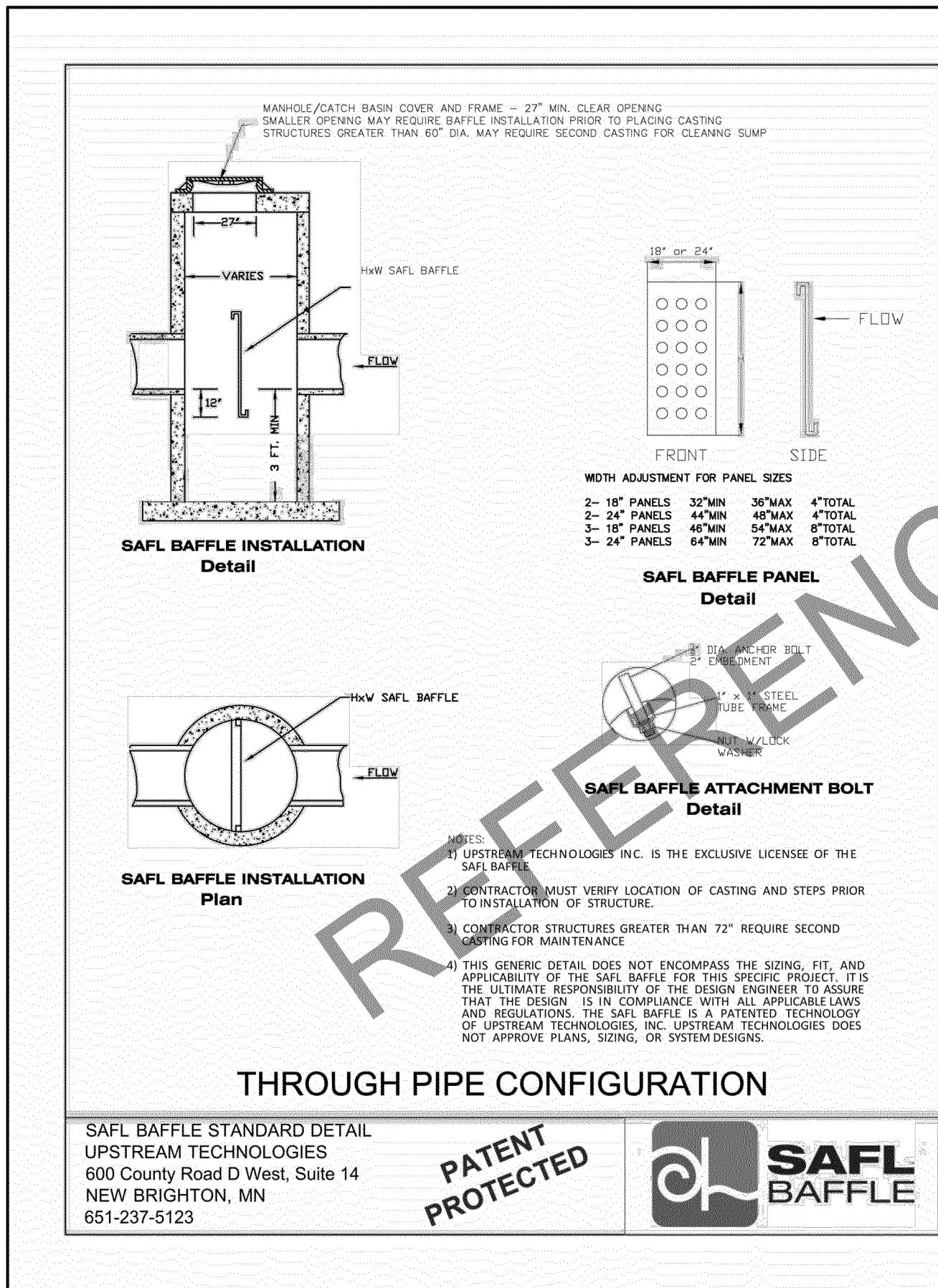
OGDEN CITY ENGINEERING - STANDARD DRAWINGS**SEWER MANHOLE****SS-1**

JUSTIN ANDERSON, CITY ENGINEER

SHEET 3 OF 4



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