# Please show street cross section.

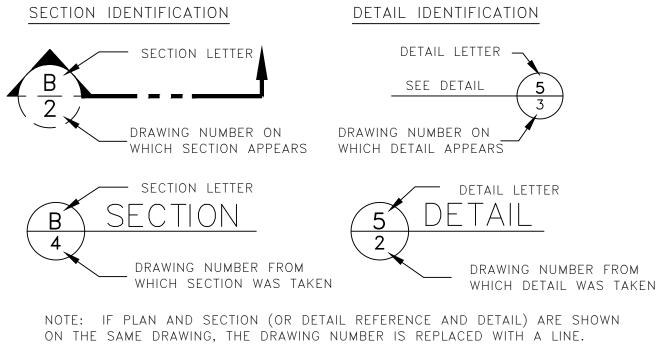
# LEGEND

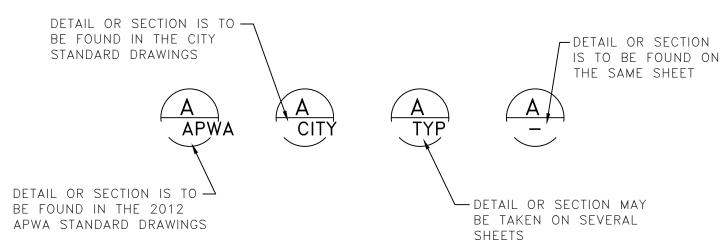
# Please show a cut and fill detail for shouldering. ABBREVIATIONS

DWG #	SHEET #	SHEET NAME
C-0.1	_	INDEX, LEGEND, AND ABBREVIATIONS
C-0.2	_	GENERAL NOTES
C-1.1	_	TOPOGRAPHIC SURVEY
C-1.2	_	SITE PLAN
C-1.3	_	UTILITY PLAN
C-1.4	_	GRADING & DRAINAGE PLAN
C-1.5	_	PLAN & PROFILE ACCESS & SANITARY
C-1.6	_	PLAN & PROFILE
C-1.7	_	EROSION CONTROL PLAN (SWPPP)
C-5.1	_	CIVIL DETAILS - SHEET 1
C-5.2	_	CIVIL DETAILS - SHEET 2
C-5.3	_	CIVIL DETAILS - SHEET 3
C - 5.4	_	CIVIL DETAILS — SHEET 4

INDEX OF DRAWINGS

# SECTION AND DETAIL IDENTIFICATION





EXISTING	PROPOSED
■ = MONUMENT	= MONUMENT
💠 = SECTION CORNER	♦ = SECTION CORNER
→ BENCHMARK	→ = BENCHMARK
o = RIVET	o = RIVET
● ROD & CAP	● = ROD & CAP
$\times \frac{29.65}{}$ = SPOT ELEVATION	$\times \frac{29.65}{}$ = SPOT ELEVATION
FF=6510.00 = FINISH FLOOR ELEVATION	FF=6510.00 = FINISH FLOOR ELEVATIO
FG=6507.75 = FINAL GRADE	FG=6507.75 = FINAL GRADE
FH 💢 = FIRE HYDRANT	FH 💢 = FIRE HYDRANT
SSMH (S) = SEWER MANHOLE	SSMH (S) = SEWER MANHOLE
SSCO O = SEWER CLEANOUT	SSCO O = SEWER CLEANOUT
SDMH () = STORM DRAIN MANHOLE	SDMH (1) = STORM DRAIN MANHOLE
BP O = BOLLARD POLE	BP O = BOLLARD POLE
CB □ = CATCH BASIN	CB□ = CATCH BASIN
■ = INLET GRATE	■ = INLET GRATE
EMH O = ELECTRIC MANHOLE	EMH O = ELECTRIC MANHOLE
EB = ELECTRIC BOX	EB = ELECTRIC BOX
EM □ = ELECTRIC METER	EM □ = ELECTRIC METER
GM □ = GAS METER	GM □ = GAS METER
PPO = POWER POLE	PPO = POWER POLE
LP☆ = LIGHT POLE	LP♥ = LIGHT POLE
TRANS = TRANSFORMER PAD	TRANS = TRANSFORMER PAD
TMH ○ = TELEPHONE MANHOLE	TMH () = TELEPHONE MANHOLE
TP = TELEPHONE PEDESTAL	TP = TELEPHONE PEDESTAL
FO & = FIBER OPTIC MARKER	GP -● = GUY WIRE
GP -● = GUY WIRE	WMH O = WATER MANHOLE
WMH O = WATER MANHOLE	WV ► = WATER VALVE
WV ⋈ = WATER VALVE	WM (W) = WATER METER
WM	MWO = MONITOR WELL
MWO = MONITOR WELL	SPB = SPRINKLER BOX
SPB = SPRINKLER BOX	RDO = ROOF DRAIN
RDO = ROOF DRAIN	RVO = ROOF VENT
RVO = ROOF VENT	——————————————————————————————————————
——————————————————————————————————————	—
—o— — = CHAIN LINK FENCE	—×——×—— = MISCELLANEOUS FENCE
-xx- = MISCELLANEOUS FENCE	
- 4230 — — = CONTOUR MAJOR	——————————————————————————————————————
- 4231 — — = CONTOUR MINOR — SS — — = SEWER LINE	
— SD — — = STORM DRAIN LINE — G — — = GAS LINE	——————————————————————————————————————
—OP— — = OVERHEAD POWER LINE	
—EL — = BURIED ELECTRIC CABLE	
— EL — = BORIED ELECTRIC CABLE  - COM — = COMMUNICATION LINE	
- COM - = COMMUNICATION LINE - T - = TELEPHONE LINE	
—W—— = CULINARY WATER LINE	NPW——— = IRRIGATION WATER LINE
-NPW	FL = FIRE LINE  SILT = SILT FENCE
-FL - = FIRE LINE	<u> </u>
6" PVC	11/

	АТ	EEN COD	EENOE CODNED
@ ABUT	ABUTMENT	FEN COR FD	FENCE CORNER FLOOR DRAIN
ASPH		FDN	FOUNDATION
	AVERAGE DAILY TRAFFIC	FF	FINISH FLOOR
	APPROXIMATELY	FIN	FINISH
	AZIMUTH	F_	FLOW LINE
		FLR	FLOOR
BAL	BALANCE	FL	FLANGE
BEG	BEGINNING / BEGIN	FT	FEET
BDRY		FTG	FOOTING
	BACK	FW	FLAT WASHER
BKFL BLD FLC		FE	FIRE EXTINGUISHER
	BLIND FLANGE BUILDING	FP	FLOOR PENETRATION
	BUREAU OF LAND	G	GAS
D LIVI	MANAGEMENT	GA	GAGE OR GAUGE
ВМ	BENCH MARK	GALV	GALVANIZED
BLK	BLOCK	GEN	GENERAL
BOT/BTM	ВОТТОМ	GM	GAS METER
	BEARING	GSP	GALVANIZED STEEL
	BASEMENT	GV	GATE VALVE
BTWN	BETWEEN		115 4 5 14/41 1
CALC	CALCULATED	HDWL	HEADWALL
CALC	CATCH BASIN	H&T HOR/HORZ/HORIZ	HUB & TACK
	COUNTER CLOCKWISE	HWL	HIGH WATER LEVEL
	CENTER TO CENTER	HWY	HIGHWAY
	CURB AND GUTTER	HYD	HYDRANT
CEM	CEMETERY		
	CUBIC FEET PER SECOND	ID	INSIDE DIAMETER
	CENTERLINE	IE	INVERT ELEVATION
	CAST IRON PIPE	IN	INCH
	CORRUGATED METAL PIPE		INFORMATION
CMP-A	CORRUGATED METAL PIPE—ARCH	IRR INV	IRRIGATION INVERT
COB	CLEAN OUT BOX	IIVV	IIVVERI
	COLUMN	JCT	JUNCTION
	CONCRETE		
CONST	CONSTRUCT	L	LENGTH
COR	CORNER	LB	POUND
CTR		LG	LONG
	CUBIC FEET	LIC	LICENSE
	CUBIC YARD CULINARY	LIN	LINEAR / LINEAL
	CULVERT	LPG	PROPANE GAS LINE
CW	CLOCKWISE	LS LT	LAND SURVEYOR LEFT
0 11	02001(1102	LWL	LOW WATER LEVEL
D	DEGREE	2,,,,	LOW WATER ELVEL
DET	DETAIL	MAINT	MAINTENANCE
DIA	DIAMETER	MATL	MATERIAL
	DUCTILE IRON PIPE	MAX	MAXIMUM
DIST	DISTANCE	MKR	MARKER
DN	DOWN	MH	MANHOLE
DWG DWV		MI	MILE
D <b>vv v</b>	DRAIN WASIL VENI	MIN	MINIMUM
E	EAST	MISC	MISCELLANEOUS
EA	EACH	MON	MONUMENT
ELEV/ELV	ELEVATION	MPH	MILES PER HOUR
ELEC	ELECTRIC		
EMB	EMBANKMENT		NORTH
ENGR	ENGINEER	NO OR #	NUMBER
ENT	ENTRANCE	NPW	NON-POTABLE WATE
EO EQUIP	EDGE OF OIL EQUIPMENT	NTS	NOT TO SCALE
EST	ESTIMATE	OC	ON CENTER
EW	EACH WAY	OD	OUTSIDE DIAMETER
EXC	EXCAVATION	0-0	OUTSIDE TO OUTSID
EXIST	EXISTING	OFF REV	OFFICE REVISION
ES	EXIT SIGN	ORIG	ORIGINAL
		D) () (T	
		PVMT PC	PAVEMENT POINT OF CURVATU
		PCC	POINT OF CORVAID
			CURVATURE
		PERF	PERFORATED
		PI	POINT OF INTERSEC

ΡL

POC

TN COD	TENCE CODNED	DDC	DOINT OF DEVENCE CHRVE
EN COR	FENCE CORNER	PRC	POINT OF REVERSE CURVE
D	FLOOR DRAIN	PROJ	PROJECT
DN	FOUNDATION	PROP	PROPERTY
·F	FINISH FLOOR	PSI	POUNDS PER SQUARE INCH
IN	FINISH	PT	POINT OF TANGENCY
		POB	
- LR	FLOW LINE		POINT OF BEGINNING
	FLOOR	PVC	POLYVINYL CHLORIDE
·L	FLANGE		
T	FEET	QTY	QUANTITY
TG	FOOTING	<b>~</b> · ·	2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
W		Б	DANIOE / DADILIC
	FLAT WASHER	R	range / radius
E	FIRE EXTINGUISHER	RCP	REINFORCED CONCRETE PIPE
·P	FLOOR PENETRATION	RCCP	
<b>`</b>	GAS	RD	ROAD
			REFERENCE
SA	GAGE OR GAUGE	REF	
SALV	GALVANIZED	REINF	
SEN	GENERAL	REQ'D	REQUIRED
SM .	GAS METER	REV	REVISION
SSP	GALVANIZED STEEL PIPE	RP	REFERENCE POINT
		RR	RAILROAD
ΣV	GATE VALVE		
		RT	RIGHT / ROUTE
HDWL	HEADWALL	R/W	RIGHT OF WAY
1&T	HUB & TACK		
HOR/HORZ/HORIZ		S	SOUTH / SLOPE
IWL	HIGH WATER LEVEL	SAN	SANITARY
HWY	HIGHWAY	SCH	SCHEDULE
HYD	HYDRANT	SD	STORM SEWER
		SEC COR	SECTION CORNER
D	INSIDE DIAMETER	SHT	SHEET
	INVERT ELEVATION	SPECS	
E			
N	INCH	SQ	SQUARE
NFO	INFORMATION	SQ FT	SQUARE FEET
RR	IRRIGATION	SQ YD	SQUARE YARD
NV	INVERT	SS	STAINLESS STEEL
	, =	ST	STREET
$\circ$ T			
СТ	JUNCTION	STL	STEEL
		STN STL	STAINLESS STEEL
-	LENGTH	STA	STATION
.B	POUND	STD	STANDARD
.G	LONG	STRUCT	
		311(001	STROOTORE
IC	LICENSE	_	
.IN	LINEAR / LINEAL	T	TOWNSHIP / TELEPHONE
.PG	PROPANE GAS LINE	TA	TOP OF ASPHALT
.S	LAND SURVEYOR	TAN	TANGENT
.T	LEFT	TBC	TOP BACK CURB
.WL	LOW WATER LEVEL	TEMP	TEMPORARY
. VV L	LOW WATER LEVEL		
		TELE	,
MAINT	MAINTENANCE	TF	TOP OF FOOTING
1ATL	MATERIAL	TP	TELEPHONE POLE
<b>1</b> AX	MAXIMUM	TW/TOW	TOP OF WALL
1KR	MARKER	TOC	TOP OF CONCRETE
		TYP	TYPICAL
1H	MANHOLE	ПГ	ITFICAL
<b>1</b> 1	MILE		
IIN	MINIMUM	UG	UNDERGROUND
MISC	MISCELLANEOUS	VBI	VINYL BACK INSULATION
10N	MONUMENT	VC	VERTICAL CURVE
<b>I</b> PH	MILES PER HOUR	VERT	VERTICAL
		VIC	VICTAULIC
	NORTH	VOL	VOLUME
OOR#	NUMBER	VPI	VERTICAL POINT OF INTERSECTION
IPW	NON-POTABLE WATER	VPC	VERTICAL POINT OF CURVE
		VPT	VERTICAL POINT OF TANGENCY
NTS	NOT TO SCALE	<b>v</b> 1 - 1	VENTIONE FORM OF TANGENCY
)C	ON CENTER	W	WEST / WATER
)D	OUTSIDE DIAMETER	WM	WATER METER
)-0	OUTSIDE TO OUTSIDE	W/	WITH
		W/O	WITHOUT
OFF REV	OFFICE REVISION	vv / O	VVIIII O O I
RIG	ORIGINAL		
		XING	CROSSING
PVMT	PAVEMENT	X-SEC	CROSS SECTION
°C	POINT OF CURVATURE		
CC	POINT OF COMPOUND		
	CURVATURE		

POINT OF INTERSECTION

PROPERTY LINE

POWER POLE

POINT ON CURVE





Rev. # Rev. Date Rev. Desc.

PROJECT NO:	120138
DESIGN BY:	JWS
DRAWN BY:	AWF
CHECKED BY:	JWS
DATE:	2/24/2021

**COVER SHEET** 

C-0.1

# COMPLIANCE

ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE MOST RECENT EDITIONS OF THE FOLLOWING: THE INTERNATIONAL PLUMBING CODE, UTAH DRINKING WATER REGULATIONS, APWA STANDARDS & SPECIFICATIONS, CITY PUBLIC WORKS STANDARD PLANS AND CONSTRUCTION SPECIFICATIONS. THE CONTRACTOR IS REQUIRED TO ADHERE TO ALL OF THE ABOVE-MENTIONED DOCUMENTS UNLESS OTHERWISE NOTED AND APPROVED IN WRITING BY THE GOVERNING AUTHORITY.

# 2. CONTACT:

THE CONTRACTOR IS RESPONSIBLE TO NOTIFY ALL APPROPRIATE GOVERNMENT AND PRIVATE ENTITIES ASSOCIATED WITH THE PROJECT.

### 3. PERMITS, FEES AND AGREEMENTS

CONTRACTOR MUST OBTAIN ALL THE NECESSARY PERMITS AND AGREEMENTS, AND PAY ALL APPLICABLE FEES PRIOR TO ANY CONSTRUCTION ACTIVITIES. CONTACT CITY PUBLIC WORKS, STATE, AND COUNTY REGARDING PERMITS AND INSPECTIONS REQUIRED FOR WORK CONDUCTED WITHIN THE PUBLIC RIGHT-OF-WAY. APPLICABLE UTILITY PERMITS MAY INCLUDE MAINLINE EXTENSION AGREEMENTS AND SERVICE CONNECTION PERMITS. ALL UTILITY WORK MUST BE BONDED. ALL CONTRACTORS MUST BE LICENSED TO WORK ON CITY UTILITY MAINS.

# 4. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) NOTES

CONSTRUCTION SITES MUST BE IN COMPLIANCE WITH THE UDEQ POLLUTION DISCHARGE ELIMINATION SYSTEM (NMPDES) STORM WATER PERMIT FOR CONSTRUCTION ACTIVITIES. A COPY OF THE PERMIT'S STORM WATER POLLUTION PREVENTION PLAN MUST BE KEPT ONSITE AT ALL TIMES. EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED AS SHOWN ON THE SWPPP. THE SWPPP IS CONSIDERED A DYNAMIC DOCUMENT AND MUST CHANGE AS CONDITIONS WARRANT. ADDITIONAL WATER QUALITY AND EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDING ON SITE CONDITIONS.

# SAFETY

THE CONTRACTOR IS RESPONSIBLE FOR ALL ASPECTS OF SAFETY OF THE PROJECT, AND SHALL MEET ALL OSHA, STATE, COUNTY AND OTHER GOVERNING ENTITY REQUIREMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFORMING TO LOCAL AND FEDERAL CODES GOVERNING SHORING AND BRACING OF EXCAVATIONS AND TRENCHES, AND FOR THE PROTECTION OF WORKERS

## 6. TEMPORARY TRAFFIC CONTROL

TEMPORARY TRAFFIC CONTROL MUST CONFORM TO THE MOST CURRENT EDITION OF MUTCD PART 6 "TEMPORARY TRAFFIC CONTROL" AND CITY CONSTRUCTION SPECIFICATIONS. ALL TRAFFIC LANE CLOSURES AND PEDESTRIAN ROUTE CLOSURES MUST BE APPROVED BY CITY, COUNTY, OR STATE AGENCIES A MINIMUM OF 24 HOURS PRIOR TO BEGINNING WORK. THE CONTRACTOR MUST ALSO CONFORM TO CITY, NMDOT, COUNTY, OR OTHER APPLICABLE GOVERNING ENTITIES REQUIREMENTS FOR TRAFFIC CONTROL. MAINTAIN EMERGENCY ACCESS TO THE SITE AND ACCESS TO SURROUNDING FIRE HYDRANTS AT ALL TIMES.

# 7. SURVEY CONTROL

CONTRACTOR MUST PROVIDE A REGISTERED LAND SURVEYOR OR PERSONS UNDER SUPERVISION OF A REGISTERED LAND SURVEYOR TO SET STAKES FOR ALIGNMENT AND GRADE OF EACH UTILITY AND SITE IMPROVEMENT. THE CONTRACTOR WILL BE RESPONSIBLE FOR FURNISHING, MAINTAINING, OR RESTORING ALL MONUMENTS REFERENCE MARKS, AND PROPERTY MARKERS WITHIN THE PROJECT SITE. CONTACT THE COUNTY SURVEYOR FOR MONUMENT LOCATIONS. ALL ELEVATIONS SHALL BE REFERENCED TO THE BENCHMARK ELEVATION AS PROVIDED ON THE APPROVED PLANS.

# 8. QUALITY CONTROL

WHERE TWO OR MORE STANDARDS ARE SPECIFIED AND THE STANDARDS ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, COMPLY WITH THE CITY PUBLIC WORKS SPECIFICATION FIRST AND THE MOST STRINGENT REQUIREMENT SECOND. REFER UNCERTAINTIES AND REQUIREMENTS TO THE PROJECT ENGINEER FOR CLARIFICATION

# 9. DUST CONTROL

THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL ACCORDING TO THE GOVERNING ENTITY STANDARDS. USE OF HYDRANT WATER OR PUMPING FROM CITY-OWNED CANALS OR STORM DRAINAGE FACILITIES IS NOT ALLOWED FOR DUST CONTROL ACTIVITIES WITHOUT WRITTEN APPROVAL BY THE PUBLIC WORKS DIRECTOR.

# 10. DEWATERING

ALL ON-SITE DEWATERING ACTIVITIES MUST BE APPROVED IN WRITING BY PUBLIC UTILITIES. PROPOSED OUTFALL LOCATIONS AND ESTIMATED FLOW VOLUME CALCULATIONS MUST BE SUBMITTED TO PUBLIC UTILITIES FOR REVIEW AND APPROVAL. ADEQUATE MEASURES MUST BE TAKEN TO REMOVE ALL SEDIMENT PRIOR TO DISCHARGE. PUBLIC UTILITIES MAY REQUIRE ADDITIONAL MEASURES FOR SEDIMENT CONTROL AND REMOVAL.

THE CONTRACTOR MUST KEEP ALL EXCAVATIONS FREE FROM GROUNDWATER BY DEWATERING. THE CONTRACTOR MUST DISPOSE OF WATER SO AS NOT TO CAUSE A MENACE TO PUBLIC HEALTH, OR BECOME A NUISANCE. THE GROUNDWATER SHALL BE DRAWN DOWN TO 12" BELOW THE MINIMUM EXCAVATION. DEWATERING SHALL CONTINUE UNTIL FILL HAS BEEN PLACED AND COMPACTED A MINIMUM OF 24" ABOVE THE STATIC GROUNDWATER LEVEL. THE CONTRACTOR SHALL CONFORM TO BEST MANAGEMENT PRACTICES FOR REMOVING GROUNDWATER AS PER THE UPDES PERMIT.

# 11. PROJECT LIMITS

THE CONTRACTOR IS REQUIRED TO KEEP ALL CONSTRUCTION ACTIVITIES WITHIN THE APPROVED PROJECT LIMITS. THIS INCLUDES, BUT IS NOT LIMITED TO, VEHICLE AND EQUIPMENT STAGING, MATERIAL STORAGE AND LIMITS OF TRENCH EXCAVATION. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN PERMISSION AND/OR EASEMENTS FROM THE APPROPRIATE GOVERNING ENTITY AND/OR INDIVIDUAL PROPERTY OWNER(S) FOR WORK OR STAGING OUTSIDE OF THE PROJECT LIMITS.

# 12. DAMAGE TO EXISTING UTILITIES

THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY DAMAGE, CAUSED BY ANY CONDITION INCLUDING SETTLEMENT. TO EXISTING UTILITIES FROM WORK PERFORMED AT OR NEAR EXISTING UTILITIES. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT ALL EXISTING PUBLIC AND PRIVATE ROADWAYS AND UTILITY FACILITIES. DAMAGE TO EXISTING FACILITIES CAUSED BY THE CONTRACTOR. MUST BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE, TO THE SATISFACTION OF THE OWNER OF SAID FACILITIES

# 13. UTILITY LOCATIONS

CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING AND AVOIDING ALL UTILITIES AND SERVICE LATERALS, AND FOR REPAIRING ALL DAMAGE THAT OCCURS TO THE UTILITIES DUE TO THE CONTRACTOR'S ACTIVITIES. CONTRACTOR IS TO VERIFY LOCATION, DEPTH, SIZE, MATERIAL AND OUTSIDE DIAMETERS OF UTILITIES IN THE FIELD BY POTHOLING IN ORDER TO IDENTIFY POTENTIAL CONFLICTS, AND PROBLEMS WITH FUTURE CONSTRUCTION ACTIVITIES. EXISTING UTILITY INFORMATION SHOWN ON THE DRAWINGS WAS OBTAINED FROM PUBLIC UTILITIES' MAPS AND MUST BE ASSUMED AS APPROXIMATE: REQUIRING FIELD VERIFICATION. CONTACT BLUE STAKES OR APPROPRIATE OWNER FOR COMMUNICATION, GAS, TELEPHONE, FIBER OPTIC, CABLE, AND/OR PRIVATE UTILITY LOCATIONS.

# 14. UTILITY RELOCATIONS

FOR UTILITY CONFLICTS REQUIRING MAINLINE RELOCATIONS, THE CONTRACTOR MUST NOTIFY THE APPLICABLE UTILITY COMPANY. OR USER. A MINIMUM OF 2-WEEKS IN ADVANCE. A ONE-WEEK MINIMUM NOTIFICATION IS REQUIRED FOR CONFLICTS REQUIRING THE RELOCATION OF SERVICE LATERALS. ALL RELOCATIONS ARE SUBJECT TO APPROVAL FROM THE APPLICABLE UTILITY COMPANY AND/OR USER

# 15. FIELD CHANGES

NO ROADWAY, UTILITY ALIGNMENT OR GRADE CHANGES ARE ALLOWED FROM THE APPROVED CONSTRUCTION PLANS/DOCUMENTS WITHOUT WRITTEN APPROVAL FROM THE PUBLIC WORKS DIRECTOR. CHANGES TO HYDRANT LOCATIONS AND/OR FIRE LINES MUST BE REVIEWED AND APPROVED BY THE FIRE DEPARTMENT (AS APPLICABLE TO THE PROJECT) AND PUBLIC WORKS.

# 16. PUBLIC NOTICE TO PROJECTS IN THE PUBLIC WAY

FOR APPROVED PROJECTS THE CONTRACTOR IS RESPONSIBLE TO PROVIDE AND DISTRIBUTE WRITTEN NOTICE TO ALL RESIDENTS LOCATED WITHIN THE PROJECT AREA AT LEAST 72-HOURS PRIOR TO CONSTRUCTION. WORK TO BE CONDUCTED WITHIN COMMERCIAL OR INDUSTRIAL AREAS MAY REQUIRE A LONGER NOTIFICATION PERIOD, AND ADDITIONAL CONTRACTOR COORDINATION WITH PROPERTY OWNERS. THE WRITTEN NOTICE IS TO BE APPROVED BY THE PUBLIC WORKS DIRECTOR OR CITY ENGINEER.

# 17. PUBLIC NOTICE FOR WATER MAIN SHUT DOWNS

THE PUBLIC WORKS DEPARTMENT AND CITY ENGINEER MUST APPROVE ALL WATER MAIN SHUTDOWNS. ONCE APPROVED, THE CONTRACTOR MUST NOTIFY ALL AFFECTED USERS BY WRITTEN NOTICE A MINIMUM OF 48-HOURS (RESIDENTIAL) AND 72-HOURS (COMMERCIAL/INDUSTRIAL) PRIOR TO THE WATER MAIN SHUT DOWN. PUBLIC WORKS MAY REQUIRE LONGER NOTICE PERIODS.

# 18. WATER AND SEWER SEPARATION

IN ACCORDANCE WITH UTAH'S DEPARTMENT OF HEALTH REGULATIONS, A MINIMUM TEN-FOOT HORIZONTAL AND 1.5-FOOT VERTICAL (WITH WATER ON TOP) SEPARATION IS REQUIRED. IF THESE CONDITIONS CANNOT BE MET, STATE AND PUBLIC WORKS APPROVAL IS REQUIRED. ADDITIONAL CONSTRUCTION MEASURES WILL BE REQUIRED FOR THESE CONDITIONS.

# 19. SEWER MAIN AND LATERAL CONSTRUCTION REQUIREMENTS PUBLIC WORKS MUST INSPECT ALL SEWER CONNECTIONS. ALL SEWER LATERALS

6-INCHES AND SMALLER MUST WYE INTO THE MAINS PER PUBLIC WORKS REQUIREMENTS. A MINIMUM 4-FOOT BURY DEPTH IS REQUIRED ON ALL SEWER MAINS AND LATERALS.

THE CONTRACTOR MUST PROVIDE AIR PRESSURE TESTING OF SEWER MAINS IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS AND PUBLIC WORKS REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE SEWER LATERAL WATER TESTING AS REQUIRED BY THE PUBLIC WORKS DIRECTOR OR INSPECTOR. ALL PIPES SUBJECT TO WATER TESTING SHALL BE FULLY VISIBLE TO THE INSPECTOR DURING TESTING. TESTING MUST BE PERFORMED IN THE PRESENCE OF A PUBLIC WORKS REPRESENTATIVE. ALL VISIBLE LEAKAGE MUST BE REPAIRED TO THE SATISFACTION OF THE PUBLIC WORKS ENGINEER OR INSPECTOR.

# WATER AND FIRE MAIN AND SERVICE CONSTRUCTION REQUIREMENTS PUBLIC WORKS MUST INSPECT AND APPROVE ALL FIRE AND WATER SERVICE CONNECTIONS. A MINIMUM 3-FOOT SEPARATION IS REQUIRED BETWEEN ALL WATER AND FIRE SERVICE TAPS INTO THE MAIN. ALL CONNECTIONS MUST BE MADE MEETING PUBLIC WORKS REQUIREMENTS. A 7-FOOT MINIMUM BURY DEPTH (FINAL GRADE TO TOP OF PIPE) IS REQUIRED ON ALL WATER/FIRE LINES UNLESS OTHERWISE APPROVED BY PUBLIC UTILITIES. WATER LINE THRUST BLOCK AND RESTRAINTS ARE REQUIRED AS PER PUBLIC WORKS STANDARDS DRAWINGS AND CONSTRUCTION SPECIFICATIONS. ALL EXPOSED NUTS AND BOLTS WILL BE COATED WITH CHEVRON FM1 GREASE, PLUS A MINIMUM 8 MIL THICKNESS PLASTIC. PROVIDE STAINLESS STEEL NUTS, BOLTS, AND WASHERS FOR HIGH GROUNDWATER/ SATURATED CONDITIONS AT FLANGE FITTINGS, ETC.

ALL WATERLINE INSTALLATIONS AND TESTING TO BE ACCOMPLISHED IN ACCORDANCE WITH PUBLIC WORKS STANDARDS AND SPECIFICATIONS, INCLUDING UTAH STATE DRINKING WATER STANDARDS, AWWA SPECIFICATIONS, AND ALL OTHER APPLICABLE UPWS, ASTM, AND ANSI SPECIFICATIONS RELEVANT TO THE INSTALLATION AND COMPLETION OF THE PROJECT.

ALL NEW WATER MAINS OR APPURTENANCES SHALL BE DISINFECTED IN ACCORDANCE WITH AWWA STANDARD C651-99. THE SPECIFICATION SHALL INCLUDE DETAILED PROCEDURES FOR THE ADEQUATE FLUSHING, DISINFECTION, AND MICROBIOLOGICAL TESTING OF ALL WATER MAINS. ON ALL NEW AND EXTENSIVE DISTRIBUTION SYSTEM CONSTRUCTION, EVIDENCE OF SATISFACTORY DISINFECTION SHALL BE PROVIDED TO THE UTAH DIVISION OF DRINKING WATER. SAMPLES FOR COLIFORM ANALYSES SHALL BE COLLECTED AFTER DISINFECTION IS COMPLETE AND THE SYSTEM IS REFILLED WITH POTABLE WATER. A STANDARD HETEROTROPHIC PLATE COUNT IS ADVISABLE. THE USE OF WATER FOR CULINARY PURPOSES SHALL NOT COMMENCE UNTIL THE BACTERIOLOGIC TESTS INDICATE THE WATER TO BE FREE FROM CONTAMINATION.

CONTRACTOR IS TO INSTALL WATER SERVICE LINES, METER YOKES, AND/OR ASSEMBLIES AND METER BOXES WITH LIDS LOCATED AS APPROVED ON THE PLANS, AND PER APPLICABLE PUBLIC UTILITIES DETAIL DRAWINGS. METER BOXES ARE TO BE PLACED IN THE PARK STRIPS PERPENDICULAR TO THE WATERMAIN SERVICE TAP CONNECTION. ALL WATER METERS, CATCH BASINS, CLEANOUT BOXES, MANHOLES, DOUBLE CHECK VALVE DETECTOR ASSEMBLIES. REDUCED PRESSURE DETECTOR ASSEMBLIES. AND BACKFLOW PREVENTION DEVICES MUST BE LOCATED OUTSIDE OF ALL APPROACHES, DRIVEWAYS, PEDESTRIAN WALKWAYS, AND OTHER TRAVELED WAYS UNLESS OTHERWISE APPROVED ON PLANS.

BACKFLOW PREVENTERS ARE REQUIRED ON ALL IRRIGATION AND FIRE SPRINKLING TAPS PER PUBLIC UTILITIES AND FIRE DEPARTMENT REQUIREMENTS.

# 21. GENERAL WATER, SEWER AND STORM DRAIN REQUIREMENTS NO CHANGE IN DESIGN OF UTILITY LOCATION OR GRADE WILL BE MADE BY THE CONTRACTOR WITHOUT THE WRITTEN APPROVAL OF CITY PUBLIC WORKS OR OTHER AUTHORITY HAVING JURISDICTION OVER THAT UTILITY.

NO SUBSTITUTES IN PIPE DIAMETER DIFFERENT FROM THOSE SHOWN ON THIS PLAN WILL BE PERMITTED UNLESS SUBMITTED TO AND APPROVED BY THE CITY PUBLIC WORKS, OR OTHER AUTHORITY HAVING JURISDICTION OVER THAT UTILITY.

ALL MANHOLES, HYDRANTS, VALVES, CLEAN-OUT BOXES, CATCH BASINS, METERS, ETC. MUST BE RAISED OR LOWERED TO FINAL GRADE PER PUBLIC WORKS STANDARDS. AND INSPECTOR REQUIREMENTS. CONCRETE COLLARS MUST BE CONSTRUCTED ON ALL MANHOLES, CLEANOUT BOXES, CATCH BASINS AND VALVES PER PUBLIC WORKS STANDARDS. ALL MANHOLE, CATCH BASIN, OR CLEANOUT BOX CONNECTIONS MUST BE MADE WITH THE PIPE CUT FLUSH WITH THE INSIDE OF THE BOX, AND GROUTED OR SEALED. ALL MANHOLE, CLEANOUT BOX OR CATCH BASIN DISCONNECTIONS MUST BE REPAIRED AND GROUTED WATERTIGHT.

CONTRACTOR SHALL NOT ALLOW ANY SURFACE WATER, GROUNDWATER OR DEBRIS TO ENTER THE NEW, OR EXISTING PIPE DURING CONSTRUCTION.

# 22. TRENCH BACKFILL

PIPE BEDDING AND TRENCH BACKFILL SHALL CONFORM TO PUBLIC WORKS STANDARDS. PLACE BACKFILL IN 8-INCH MAXIMUM LIFTS AND COMPACT TO 95% MAXIMUM DRY DENSITY AS PER ASTM D1557. THE PIPE SHALL BE LAID ON 6-INCH MINIMUM SAND BED THE BACKFILL MATERIAL FOR THE PIPE ZONE SHALL BE A-1 SOILS. FREE FROM STONES. CLODS AND OTHER DELETERIOUS MATERIALS.

THE BOTTOM OF ALL UTILITY TRENCHES SHALL BE COMPACTED THOROUGHLY PRIOR TO PLACING PIPE. IF ROCK IS ENCOUNTERED AT DESIGN GRADE, OR A SOFT OR SOGGY BOTTOM IS ENCOUNTERED. THE TRENCH BOTTOM SHALL BE OVEREXCAVATED AND SUITABLE MATERIAL PLACED AND COMPACTED TO BOTTOM OF TRENCH GRADE.

COMPACTION REPORTS ON ALL TRENCHES SHALL BE SUBMITTED TO THE PROJECT ENGINEER, CITY ENGINEER, AND/OR OWNER'S REPRESENTATIVE BY THE MATERIALS TESTER, WHICH CERTIFIES THAT TRENCH BACKFILL WAS COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT, IN ACCORDANCE WITH EARTHWORK SPECIFICATIONS AND PUBLIC WORKS SPECIFICATIONS.

# 23. SITE CONSTRUCTION

ALL EXISTING ASPHALT TO BE CUT SHALL BE SAW CUT IN NEAT STRAIGHT LINES BY THE CONTRACTOR PRIOR TO EXCAVATION.

GENERAL CONTRACTOR AND SUBCONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE. CONTRACTORS SHALL HAVE VISITED AND BECOME FAMILIAR WITH THE PROJECT SITE.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE SITE CLEANUP INCLUDING DEBRIS, SCRAP, AND WASTE FROM SUBCONTRACTORS, AND INSTALLERS

BEFORE BEGINNING ANY CUTTING OR DEMOLITION. THE CONTRACTOR SHALL HAVE REVIEWED THE SITE AND CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE CONTINUING.

CONTRACTOR SHALL PROVIDE PAVEMENT MARKINGS JUST PRIOR TO PROJECT COMPLETION. PAINT STRIPING SHALL CONSIST OF PAINTED LINES AND SYMBOLS IN ACCORDANCE WITH MUTCD STANDARDS & SPECIFICATIONS.

# 24. CONCRETE (CIVIL WORK ONLY)

CONCRETE

MIX TYPE

FOOTINGS

AND WALLS)

SPECIFIED

4 INTERIOR SLABS ON GRADE

ALL WORK SHALL CONFORM TO ACI AND ADA STANDARDS & SPECIFICATIONS. FINE BROOM FINISH REQUIRED ON EXTERIOR FLATWORK.

**28 DAY** 

STRENGTH,

f`c (KSI)

4

4

4

CONCRETE

WEIGHT

NWC

NWC

NWC

NWC

NWC

**CONCRETE MIX TABLE** 

MAX

**AGGREGATE** 

SIZE (IN)

1

SLUMP

LIMITS (IN)

4

4

4

**TOTAL AIR** 

CONTENT (%) +/-

1 1/2%

NOT PERMITTED

CEMENT

TYPE

II/V

II/V

II/V

II/V

II/V

REQUIRED

**ADMIXTURES** 

AIR ENTRAINING

AIR

ENTRAINING,

WATER

REDUCING

AIR ENTRAINING | FLY ASH REQD

MIN CEMENT

MATERIAL

INCLUDING

**FLY ASH** 

470

517

564

517

517

MAX W/C

RATIO,

INCLUDING

**FLY ASH** 

0.45

0.45

0.4

0.45

0.45

CONCRETE COVER		
CASE	COVER (IN)	
COLUMNS GIRDERS AND BEAMS	1 1/2	
CONCRETE PLACED AGAINST EARTH	3	
CONCRETE PLACED IN FORMS, EXPOSED TO WEATHER OR EARTH	2	
SLABS OR WALLS NOT EXPOSED TO EARTH OR WEATHER	1	

### **REINFORCING MATERIAL TABLE** REINFORCING ELEMENT ASTM | Fy (KSI) | Fu (KSI) | COMMENTS A706 | 60 | 80 | \*\* YPICAL REINFORCING A706 60 80 WELDED & FIELD BENT WELDED WIRE, SMOOTH A185 65 75 -A497 70 80 WELDED WIRE, DEFORMED

INTENDED USE

GRADE BEAMS, PILASTERS

ALL CONCRETE EXPOSED TO

WEATHER, OR DEICERS (SLABS

ALL CONCRETE OTHERWISE NOT

25. GRADING/EARTHWORK

THE GRADING CONTRACTOR SHALL OBTAIN A COPY OF THE SITE GEOTECHNICAL REPORT AND FOLLOW ALL RECOMMENDATIONS PROVIDED BY THE GEOTECHNICAL ENGINEER.

NO GRADE CHANGES WILL BE PERMITTED FROM THAT SHOWN AND APPROVED ON THIS PLAN WITHOUT RESUBMITTING THE PROPOSED CHANGES TO THE OWNER AND/OR HIS REPRESENTATIVE.

COMPACTION OF MATERIALS PLACED AT THE SITE SHOULD EQUAL OR EXCEED THE FOLLOWING DENSITIES WHEN COMPARED TO THE MAXIMUM DRY DENSITY AS DETERMINED

FOOTINGS = (SEE STRUCTURAL DRAWINGS) PAVEMENT = 95% LANDSCAPING = 90%

# 26. PAVEMENT

BY ASTM D-1557:

PAVEMENT STRUCTURAL SECTION FOR THE AUTOMOBILE PARKING. MANEUVERING AREAS AND LIGHT TO MEDIUM TRUCK AREAS SHALL CONSIST OF 4 INCHES OF ASPHALT SURFACE COURSE OVER 6 INCHES OF BASE COURSE OVER A PREPARED SUBGRADE, OR SELECT FILL. THE GRANULAR BASE SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DF DENSITY AS DETERMINED BY ASTM D698. ALL CONCRETE SLABS SHALL CONSIST OF A 6" PORTLAND CEMENT CONCRETE SLAB OVER A PREPARED SUBGRADE OR SELECT FILL.

PAVEMENT MATERIALS SHOULD MEET THE UTAH DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR GRADATION & QUALITY. (1/2" AGGREGATE REQUIRED IN PARKING AREAS)

# 27. AS-BUILT DRAWINGS

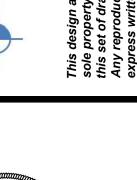
THE CONTRACTOR MUST MAINTAIN A SET OF COMPLETE PLANS ON THE SITE AT ALL TIMES THE CONTRACTOR MUST MARK IN RED INK DEVIATIONS FROM THE APPROVED SET OF DRAWINGS, INCLUDING:

# ALIGNMENT OR GRADE CHANGES

DRAINAGE CHANGES SUCH AS LOCATION, FLOWLINE, STRUCTURE, SIZE, ETC. SURFACE CHANGES SUCH AS DITCHES, PAVING, CURBS, SIDEWALKS, ETC. UTILITY CHANGES, RELOCATIONS, OR CONFLICTS

ITEMS OR UTILITIES NOT SHOWN ON THE APPROVED SET OF PLANS LIST ALTERNATE CONSTRUCTION METHODS STRUCTURAL CONFLICTS OR RELOCATION OF EXISTING WALLS, UTILITY POLES, ETC.

THE CONTRACTOR MUST PROVIDE THE PROJECT ENGINEER OR OWNER'S REPRESENTATIVE WITH A COMPLETE SET OF AS-BUILT PLANS FOR CITY RECORDS.





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Rev. # Rev. Date Rev. Desc.

PROJECT NO:	120138
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CHECKED BY:	JWS
DATE:	2/24/2021

**CIVIL NOTES** 

C-0.2

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OTHER

**REQUIREMENTS** 

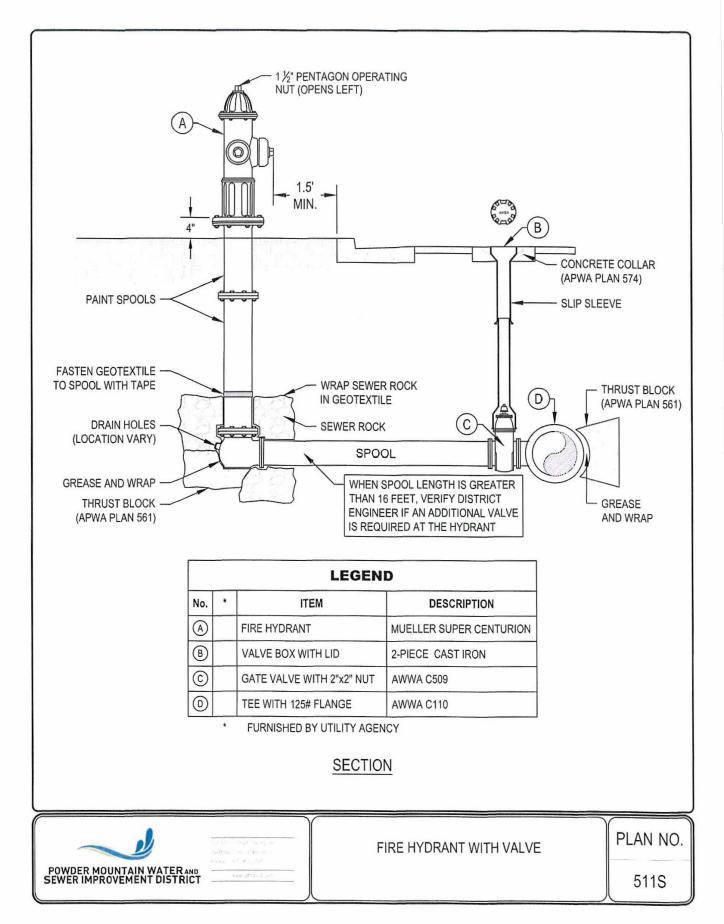
FLY ASH REQD

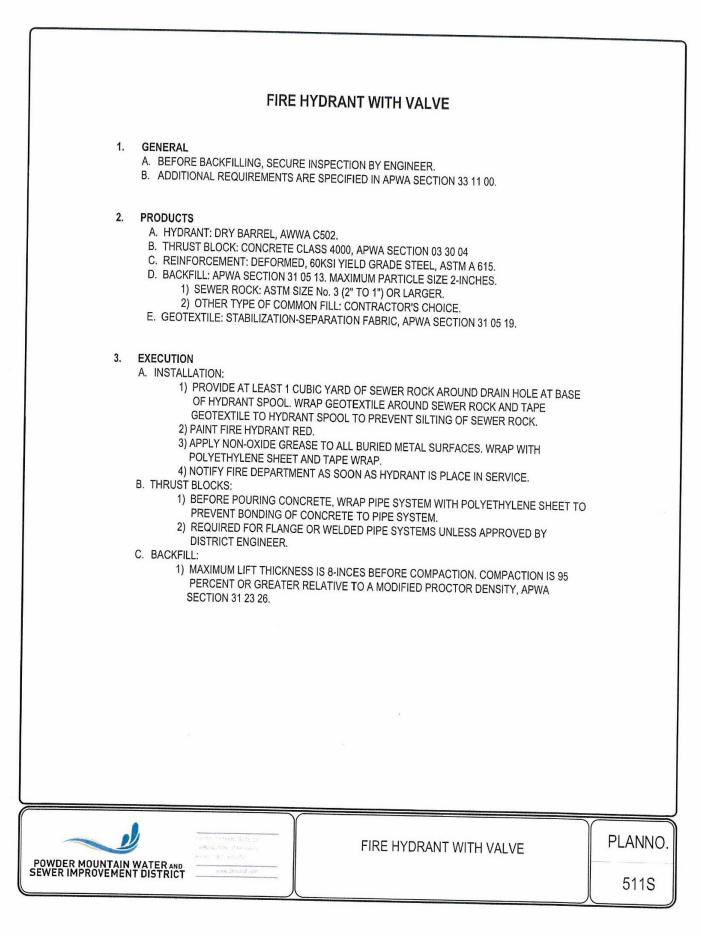
FLY ASH REQD

FLY ASH REQD

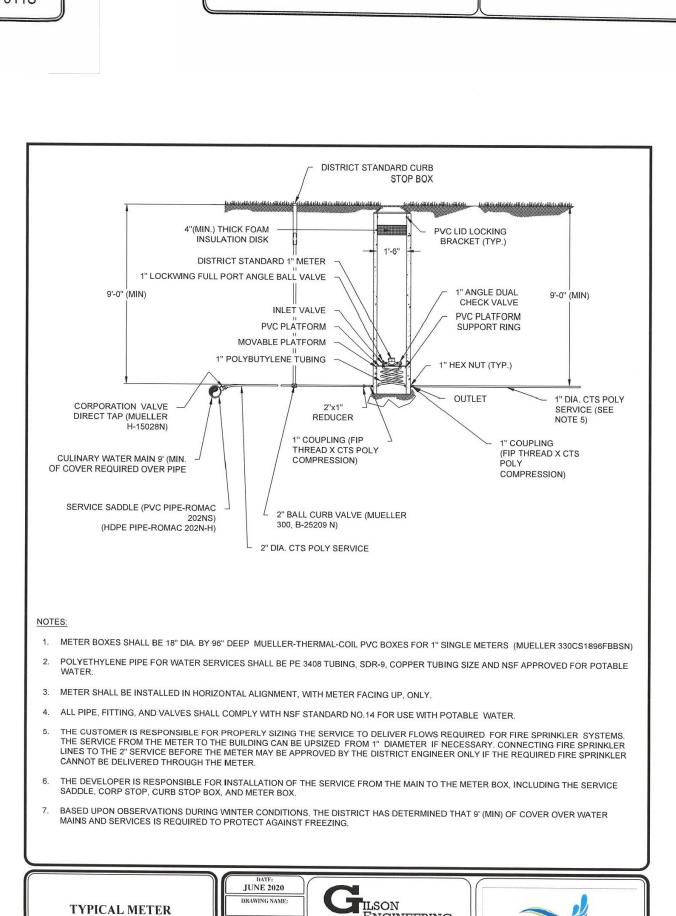
FLY ASH REQD

<sup>\*\*</sup> OR SEISMICALLY QUALIFIED ASTM A615 REBAR PER ACI 318-05 SECTION

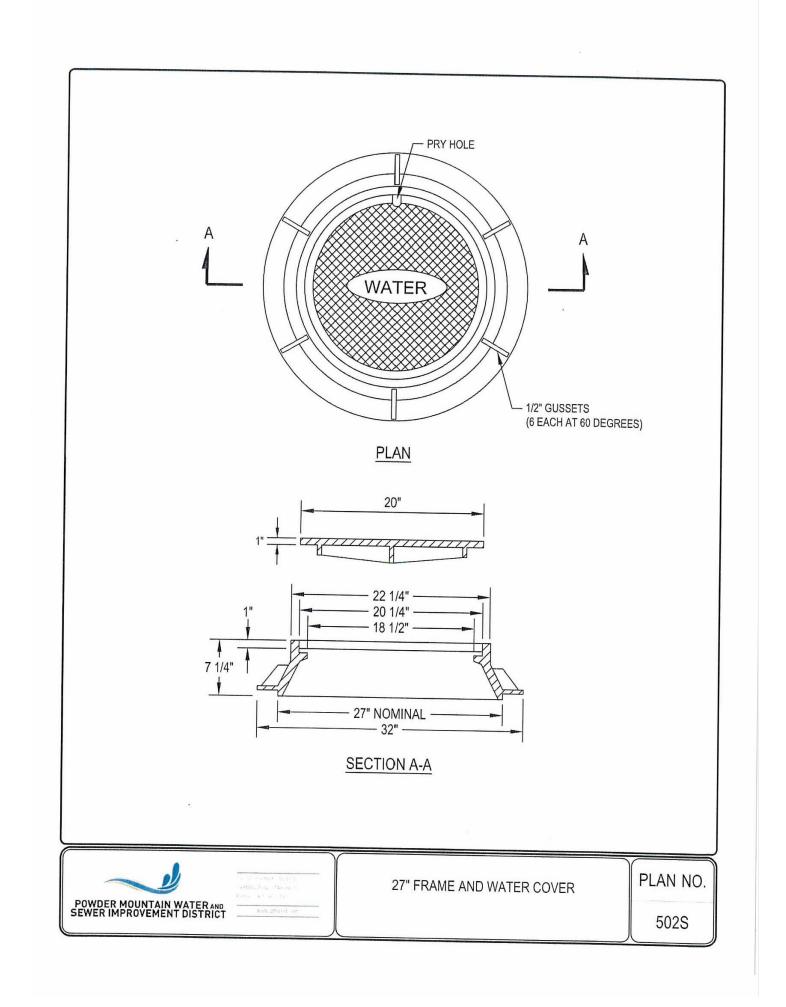




POWDER MOUNTAIN WATER AND SEWER IMPROVEMENT DISTRICT



PIT DETAIL





Rev. # Rev. Date Rev. Desc.

PROJECT NO:	120138
DESIGN BY:	JWS
DRAWN BY:	AWF
CHECKED BY:	JWS
DATE:	2/24/2021

CIVIL DETAILS

C-5.1

C

STANDARD SET Owner #### 2/24/2021 1:29:2

# Direct bearing thrust block

# GENERAL

- A. Thrust design for pipe sizes or configurations not shown require special design.
- B. Bearing areas, volumes, and special thrust blocking details shown on Drawings take precedence over this plan.
- C. Restraint sizing is based upon a maximum operating pressure of 150 psi and a test pressure of 200 psi, and a minimum soil bearing strength of 2,000 psf. Operating pressures in excess of 150 psi or soils with less than 2,000 pound bearing strength will require special design,
- D. Before backfilling around thrust block, secure inspection of installation by ENGINEER.

# 2. PRODUCTS

- A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
- B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
- C. Thrust Books: Concrete Class 4000, APWA Section 03 30 04.
- D. Grease; Non-oxide poly-FM.

# 3. EXECUTION

- A. Pour concrete against undisturbed soil.
- B. Pipe Joints: Do not cover with concrete. Leave completely accessible.
- C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap. D. Locking restraint devices may be used in conjunction with concrete thrust blocking
- (at discretion of ENGINEER). E. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

# GENERAL

A. Thrust design for pipe sizes or configurations not shown require special design.

Direct bearing thrust block

- B. Bearing areas, volumes, and special thrust blocking details shown on Drawings take precedence over this plan.
- C. Restraint sizing is based upon a maximum operating pressure of 150 psi and a test pressure of 200 psi, and a minimum soil bearing strength of 2,000 psf. Operating pressures in excess of 150 psi or soils with less than 2,000 pound bearing strength
- D. Before backfilling around thrust block, secure inspection of installation by ENGINEER.

# 2. PRODUCTS

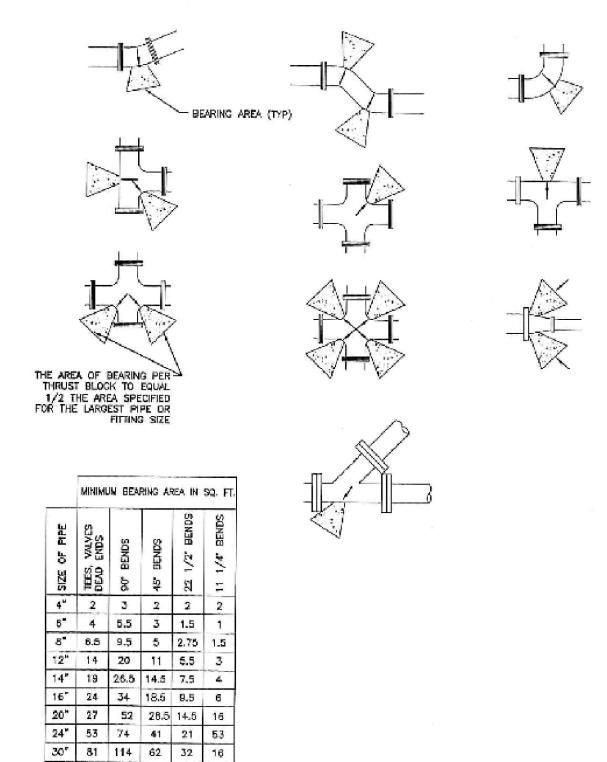
- A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
- B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
- C. Thrust Bocks: Concrete Class 4000, APWA Section 03 30 04.
- D. Grease: Non-oxide poly-FM.

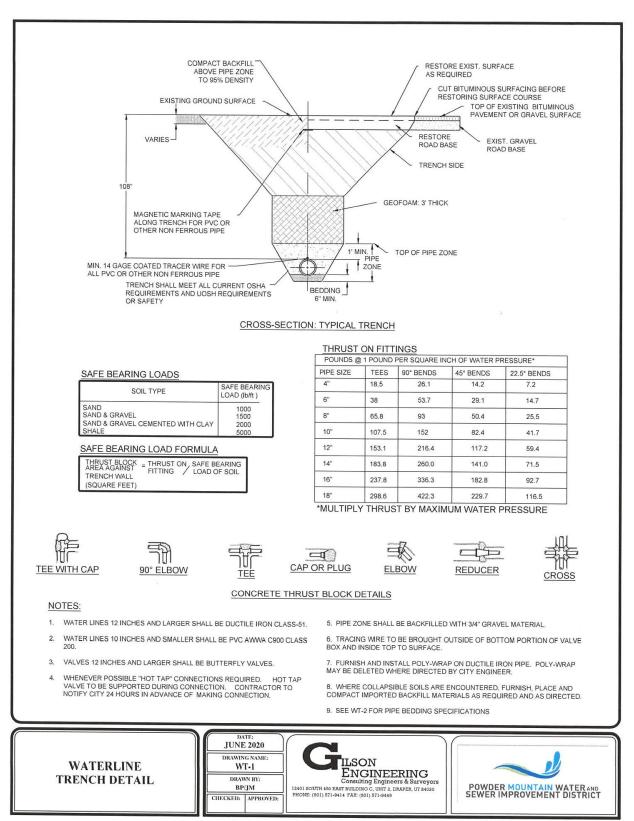
# 3. EXECUTION

- A. Pour concrete against undisturbed soil.
- B. Pipe Joints: Do not cover with concrete. Leave completely accessible.
- C. Grease: Apply grease to all buried metal surfaces. Wrap with polyethylene sheet and tape wrap.
- D. Locking restraint devices may be used in conjunction with concrete thrust blocking (at discretion of ENGINEER).
- E. Base Course and Backfill Placement: Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

266

266





Rev. # Rev. Date Rev. Desc.

PROJECT NO: 120138 DESIGN BY: JWS AWF CHECKED BY: JWS

2/24/2021

**CIVIL DETAILS** 

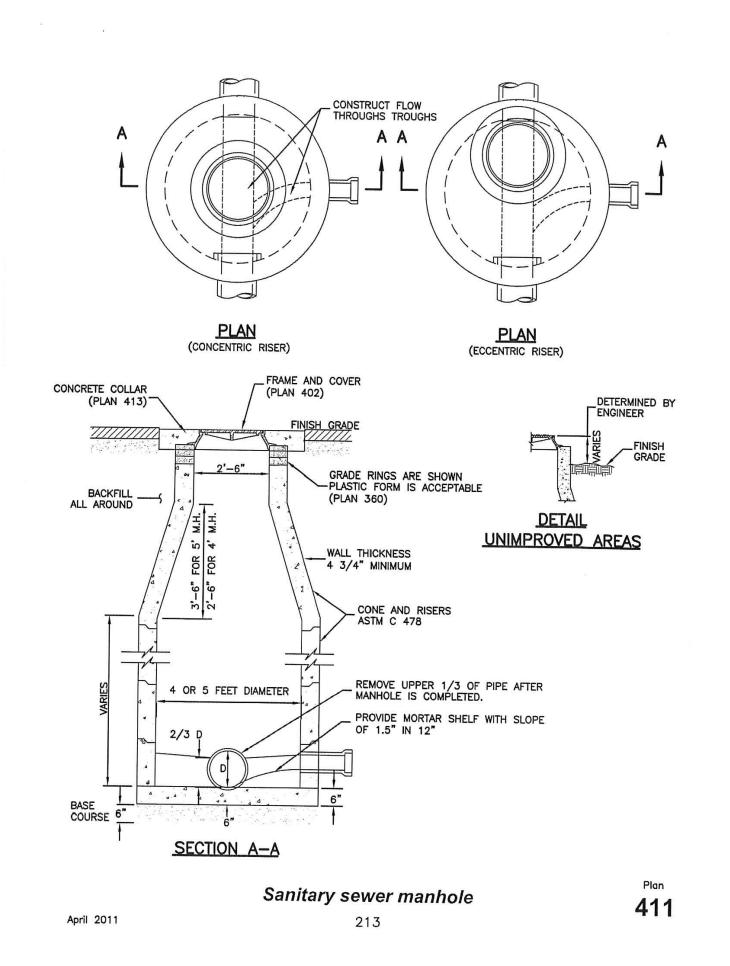
C-5.2

Direct bearing thrust block

561

August 2010

431S



# Sanitary sewer manhole

# GENERAL

A. 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 manhole.

# B. Manhole size.

1) Diameter is 4 feet: For sewers under 12" diameter.

2) Diameter is 5 feet: For sewers 12" and larger, or when 3 or more pipes intersect

# 2. PRODUCTS

A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.

B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches. C. Concrete: Class 4000, APWA Section 03 30 04.

D. Riser and Reducing Riser: ASTM C 478.

E. Reinforcement: Deformed, 60 ksi yield grade steel, ASTM A 615. F. Grout: 2 parts sand to 1 part cement mortar, ASTM C 1329.

G. Stabilization-Separation Geotextile: Moderate or high at CONTRACTOR's choice, APWA Section 31 05 19.

# 3. EXECUTION

A. Foundation Stabilization: Get ENGINEER's permission to use a sewer rock or a

granular backfill borrow in a geotextile wrap to stabilize an unstable foundation. B. Base Course Placement: APWA Section 32 11 23. Maximum lift thickness is 8inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.

C. Invert Cover. During construction, place invert covers over the top of pipe in

manholes that currently convey sewerage. See Plan 412.

D. Pipe Connections: Grout around all pipe openings.

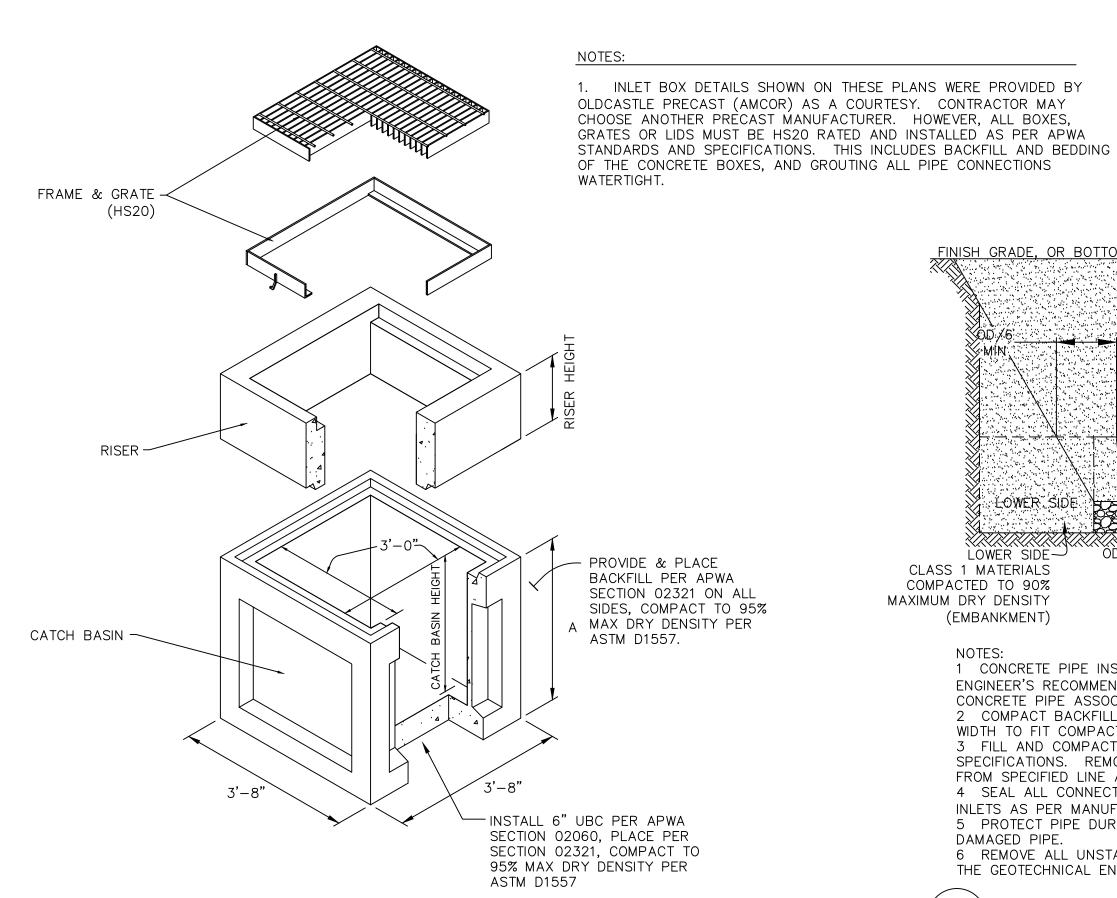
E. Pipe Seal: Install rubber-based pipe seals on all plastic pipes when connecting plastic pipes to manholes. Hold water-stop in place with stainless steel bands. F. Joints: Place flexible gasket-type sealant in all riser joints. Finish with grout.

G. Adjustment: If the required manhole adjustment is more than 1'-0", remove the cone and grade rings and adjust the manhole elevation with the appropriate manhole section, the cone section, and the grade rings or plastic form to make frame and lid match finish grade.

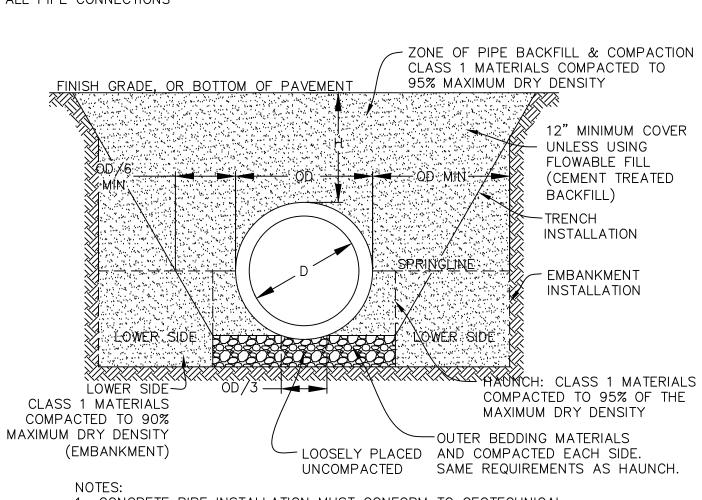
H Finish: Provide smooth and neat finishes on interior of cones, shafts, and rings. Imperfect moldings or honeycombs will not be accepted.

I. Backfill: Provide backfill against the manhole shaft. Pea gravel and recycled RAP aggregate is NOT ALLOWED. Water jetting is NOT allowed. Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.

212



AMCOR PRECAST 3'X3' CATCH BASIN - ISOMETRIC VIEW



1 CONCRETE PIPE INSTALLATION MUST CONFORM TO GEOTECHNICAL ENGINEER'S RECOMMENDATIONS, APWA STD'S & THE AMERICAN CONCRETE PIPE ASSOCIATION DESIGN MANUAL. 2 COMPACT BACKFILL AS SHOWN PROVIDE SUFFICIENT TRENCH

WIDTH TO FIT COMPACTION EQUIPMENT 3 FILL AND COMPACT HAUNCH AREAS UNDER PIPE ACCORDING TO SPECIFICATIONS. REMOVE ANY VOIDS WITHOUT DISTURBING THE PIPE FROM SPECIFIED LINE AND GRADE.

4 SEAL ALL CONNECTIONS TO JUNCTION BOXES, MANHOLES AND INLETS AS PER MANUFACTURER'S RECOMMENDATIONS. 5 PROTECT PIPE DURING CONSTRUCTION. REMOVE AND REPLACE

6 REMOVE ALL UNSTABLE OR UNYIELDING SOILS AS DIRECTED BY THE GEOTECHNICAL ENGINEER.

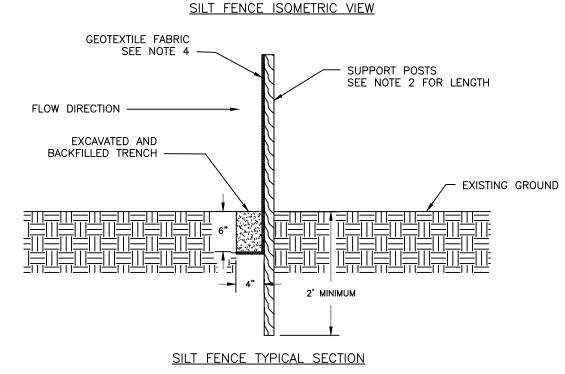
ONCRETE PIPE TRENCH DETAIL (ONSITE PIPE/TYPE 1 INSTALLATION)

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CHECKED BY:	JWS
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**CIVIL DETAILS** 

C-5.3



- 1. THE GEOTEXTILE FABRIC SHALL BE PLACED IN THE EXCAVATED TRENCH, BACKFILLED, AND COMPACTED TO THE EXISTING GROUND SURFACE.
- 2. WOODEN SUPPORT POSTS SHALL BE A MINIMUM DIMENSION OF 1-1/8" x 1-1/8" AIR OR KILN DRIED OF HICKORY OR OAK AND 4 FEET LONG. STEEL POSTS SHALL BE STUDDED "TEE" OR "U" TYPE WITH A MINIMUM WEIGHT OF 1.3 POUNDS PER LINEAL FOOT AND 5 FEET LONG. POST SPACING SHALL BE A MAXIMUM OF 8 FEET FOR WOVEN FABRIC AND 3 FEET FOR NON-WOVEN FABRIC.
- 3. THE GEOTEXTILE FABRIC SHALL BE ATTACHED DIRECTLY TO THE UPSLOPE SIDE OF WOODEN POSTS WITH 0.5 INCH STAPLES IN AT LEAST 3 PLACES, OR WITH WOODEN LATH AND NAILS. ATTACHMENT TO STEEL POSTS WILL BE BY WIRE FASTENERS OR 50 POUND PLASTIC TIE STRAPS ON THE UPSLOPE SIDE.
- 4. THE GEOTEXTILE FABRIC SHALL CONSIST OF EITHER WOVEN OR NON-WOVEN POLYESTER, POLYPROPYLENE, STABILIZED NYLON, POLYETHYLENE, OR POLYVINYLIDENE CHLORIDE. NON-WOVEN FABRIC MAY BE NEEDLE PUNCHED, HEAT BONDED, RESIN BONDED, OR COMBINATIONS THEREOF. ALL FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS:

OLLOWING REGOINEMENTS.		
TEST REQUIREMENT	<u>METHOD</u>	VALUE *
MINIMUM GRAB TENSILE STRENGTH IN THE MACHINE DIRECTION	ASTM D 4632	120 LBS.
MINIMUM GRAB TENSILE STRENGTH IN THE CROSS MACHINE DIRECTION	ASTM D 4632	100 LBS.
MAXIMUM APPARENT OPENING SIZE EQUIVALENT STANDARD SIEVE	ASTM D 4751	NO. 30
MINIMUM PERMITTIVITY	ASTM D 4491	0.05 SEC -1
MAXIMUM PERMITTIVITY	ASTM D 4491	-1 0.135 SEC OR 10 gpm/sq ft at 50 mm constant head.
MINIMUM ULTRAVIOLET STABILITY PERCENTAGE OF STRENGTH RETAINED AFTER 500 HOURS OF EXPOSURE	ASTM D 4355	70%

\* ALL NUMERICAL VALUES REPRESENT MINIMUM/MAXIMUM AVERAGE ROLL VALUES. (FOR EXAMPLE, THE AVERAGE OF MINIMUM TEST RESULTS ON ANY ROLL IN A LOT SHOULD MEET OR EXCEED THE MINIMUM SPECIFIED VALUES.)



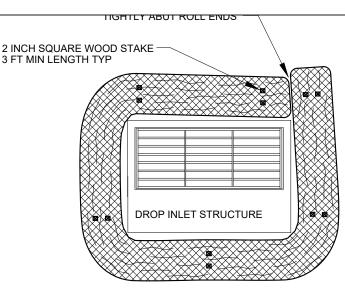
# NON-IRRIGATED EROSION CONTROL SEED MIX

COMMON NAME	LB/LIVE SEED/ACRE
SLENDER WHEATGRASS	3.00
INDIAN RICEGRASS-NEZPAR	3.00
BLUEBUNCH WHEATGRASS	3.00
SANDBERG BLUEGRASS	0.50
FOURWING SALTBRUSH	1.00
ANTELOPE BITIERBRUSH	1.00
MOUNTAIN BIG SAGE	1.00
	TOTAL 10.50 LB/ACRE

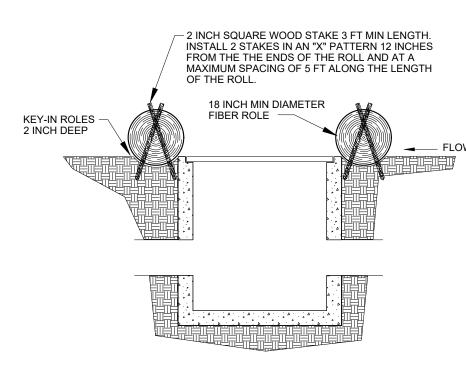
# NON-IRRIGATED WILDFLOWER SEED MIX

COMMON NAME	I D / I I / E	SEED/ACRE
GLOBEMALLOW-GOOSEBERRY LEAF	LD/ LIVE	0.50
ROCKY MOUNTAIN BEEPLANT		2.00
SULFUR FLOWER		2.00
SCARLET GILIA		1.00
NORTHERN SWEETVETCH		0.50
MAPLE GROVE BLUE FLAX		0.50
WHITE EVENING PRIMROSE		0.50
PALMER PENSTEMON		0.50
WASATCH PENSTEMON		0.50
SCARLET GLOBEMALLOW		0.50
	TOTAL	8.50 LB/ACRE





# FIBER ROLL DROP INLET BARRIER PLAN



1. KEY-IN FIBER ROLLS 2 INCH DEEP AROUND THE PERIMETER OF THE DROP INLET STRUCTURE AND STAKE AS SHOWN.

**SECTION** 

- 2. OVERLAP THE ENDS OF THE FIBER ROLL AT LEAST 18 INCHES.
- 3. CONSTRUCT ROLLS IN MEDIAN AREAS SO THAT THE TOPS OF THE ROLLS ARE NOT HIGHER THAN THE ADJACENT ROADWAY.
- 4. MAINTAIN A PROPERLY FUNCTIONING FIBER LOG BARRIER THROUGHOUT CONSTRUCTION OR UNTIL DISTURBED AREAS CONTRIBUTING TO THE INLET HAVE BEEN PAVED OR VEGETATED.
- 5. REMOVE SEDIMENT AS IT ACCUMULATES AND PLACE IT IN A STABLE AREA APPROVED BY THE CITY, OR REMOVE FROM PROJECT.

-2 - INCH ROCK

(C109) NO SCALE

BEEN PAVED.

TRACK MUD ONTO PAVED ROADS.

8 INCH MINIMUM THICKNESS

STABILIZED CONSTRUCTION ENTRANCE

NOTES FOR STABLILIZED CONSTRUCTION ENTRANCE:

1. PLACE STABILIZED CONSTRUCTION ENTRANCES AT LOCATIONS

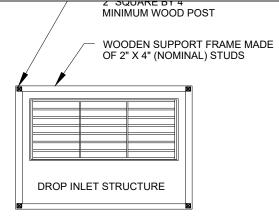
2. MAINTAIN A PROPERLY FUNCTIONING CONSTRUCTION ENTRANCE

THROUGHOUT CONSTRUCTION OR UNTIL DISTURBED AREAS HAVE

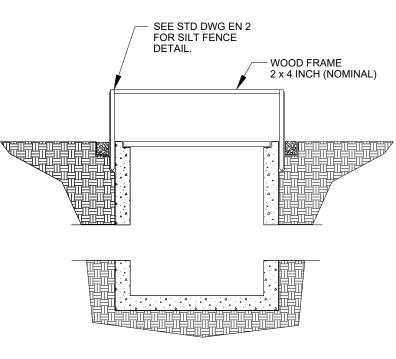
3. DO NOT ALLOW VEHICLES LEAVING THE CONSTRUCTION SITE TO

SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

STABILIZED CONSTRUCTION ENTRANCED - DETAIL



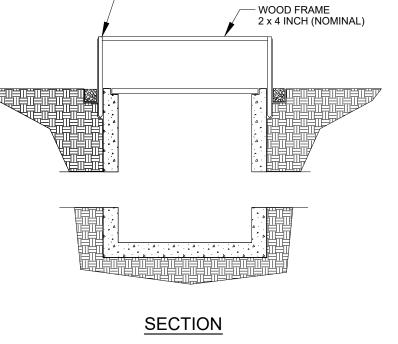
# DROP INLET BARRIER PLAN



NLET PROTECTION DETAILS

- 2. DRIVE POSTS AT EACH CORNER OF THE INLET STRUCTURE. PLACE
- 4. CONSTRUCT SILT FENCE IN MEDIAN AREAS SO THAT THE TOPS OF
- 5. MAINTAIN A PROPERLY FUNCTIONING SILT FENCE BARRIER THROUGHOUT CONSTRUCTION OR UNTIL DISTURBED AREAS
- STABLE AREA APPROVED BY THE CITY, OR REMOVE FROM PROJECT

- 1. ENTRENCH THE BOTTOM 18 INCH OF SILT FENCE SECURELY IN THE GROUND AROUND THE PERIMETER OF THE DROP INLET.
- ANOTHER POST(S) BETWEEN THEM IF THE DISTANCE BETWEEN CORNER POSTS EXCEEDS 4 FT.
- 3. CROSS-BRACE THE TOPS OF ALL POSTS WITH A WOODEN FRAME MADE OF 2 x 4 STUDS. USE NAILS OR SCREWS FOR FASTENING.
- THE SILT FENCE ARE NOT HIGHER THAN THE ADJACENT ROADWAY.
- CONTRIBUTING TO THE INLET HAVE BEEN PAVED OR VEGETATED.
- 6. REMOVE SEDIMENT AS IT ACCUMULATES AND PLACE IT IN A



NOTES FOR GUTTER INLET BARRIER:

1. PLACE FIBER ROLL AND SAND BAGS AS SHOWN AROUND GUTTER INLETS AND AVOID PLACING THE BARRIER IN THE TRAVEL LANE.

**GUTTER INLET BARRIER PLAN** 

**SECTION B-B** 

2. USE GUTTER INLET BARRIERS ONLY WHERE THERE IS THE POTENTIAL OF SEDIMENT FROM NON-STABILIZED AREAS GETTING INTO THE INLET.

3. MAINTAIN A PROPERLY FUNCTIONING GUTTER INLET BARRIER

- 25 LB SAND BAG

12-FOOT LONG BY 9-INCH DIAMETER FIBER ROLL

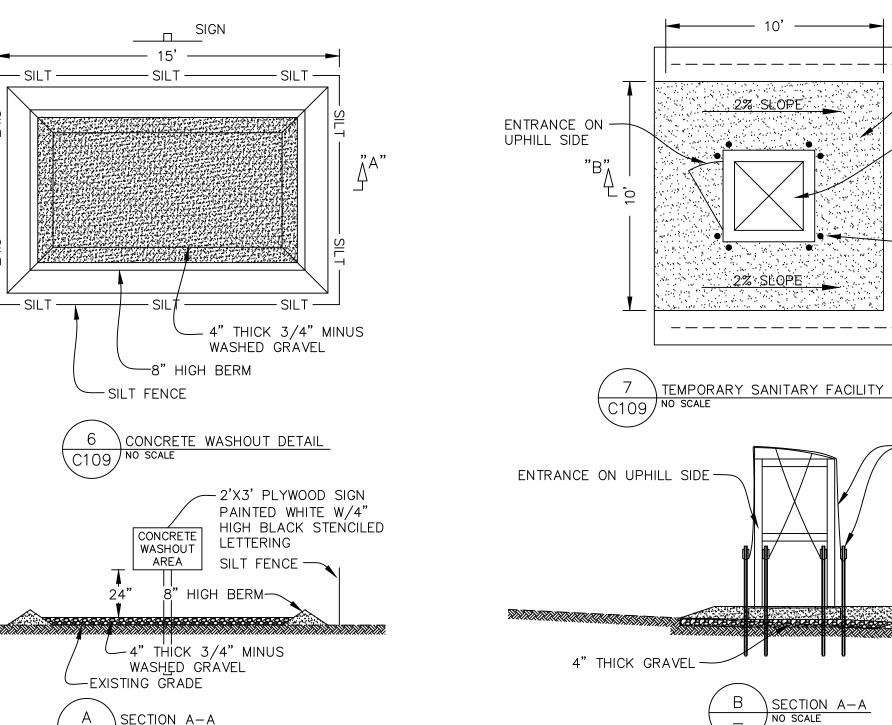
12 FT LONG BY 9 INCH

- 25 LB SAND BAG (3) PER FIBER ROLL

- GUTTER DROP INLET

- CONSTRUCTION OR UNTIL DISTURBED AREAS CONTRIBUTING TO THE INLET
- HAVE BEEN PAVED OR VEGETATED.
  4. REMOVE SEDIMENT AS IT ACCUMULATES AND PLACE IT IN A STABLE AREA APPROVED BY THE CITY, OR REMOVE FROM PROJECT.

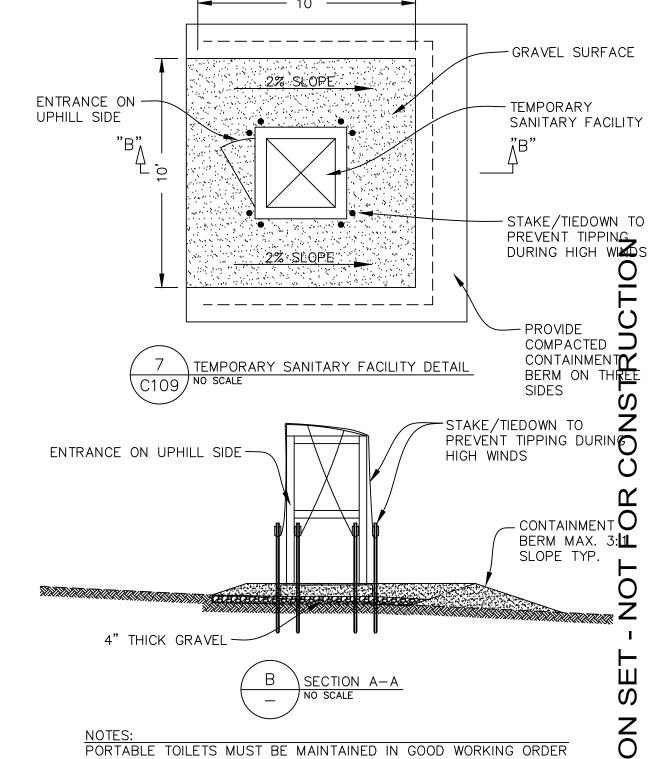




NOTES:
DO NOT WASH OUT CONCRETE INTO STORM DRAINS, OPEN DITCHES, STREETS OR STREAMS

WHEN WASHING CONCRETE TO REMOVE FINE PARTICLES, AVOID CREATING RUNOFF, ONLY WASH CONCRETE EQUIPMENT IN DESIGNATED

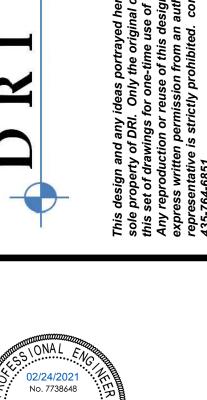
INSPECT AND MAINTAIN CONCRETE WASHOUT AREA WEEKLY AND REMOVE HARDENED CONCRETE ON A REGULAR BASIS.



WITH DAILY OBSERVATION FOR LEAK DETECTION

REGULAR WASTE COLLECTION MUST BE ARRANGED WITH LICENSED SERVICE.

ALL WASTE COLLECTION MUST BE DEPOSITED IN A SANITARY SEWER SYSTEM FOR TREATMENT WITH APPROPRIATE AGENCY APPROVAL



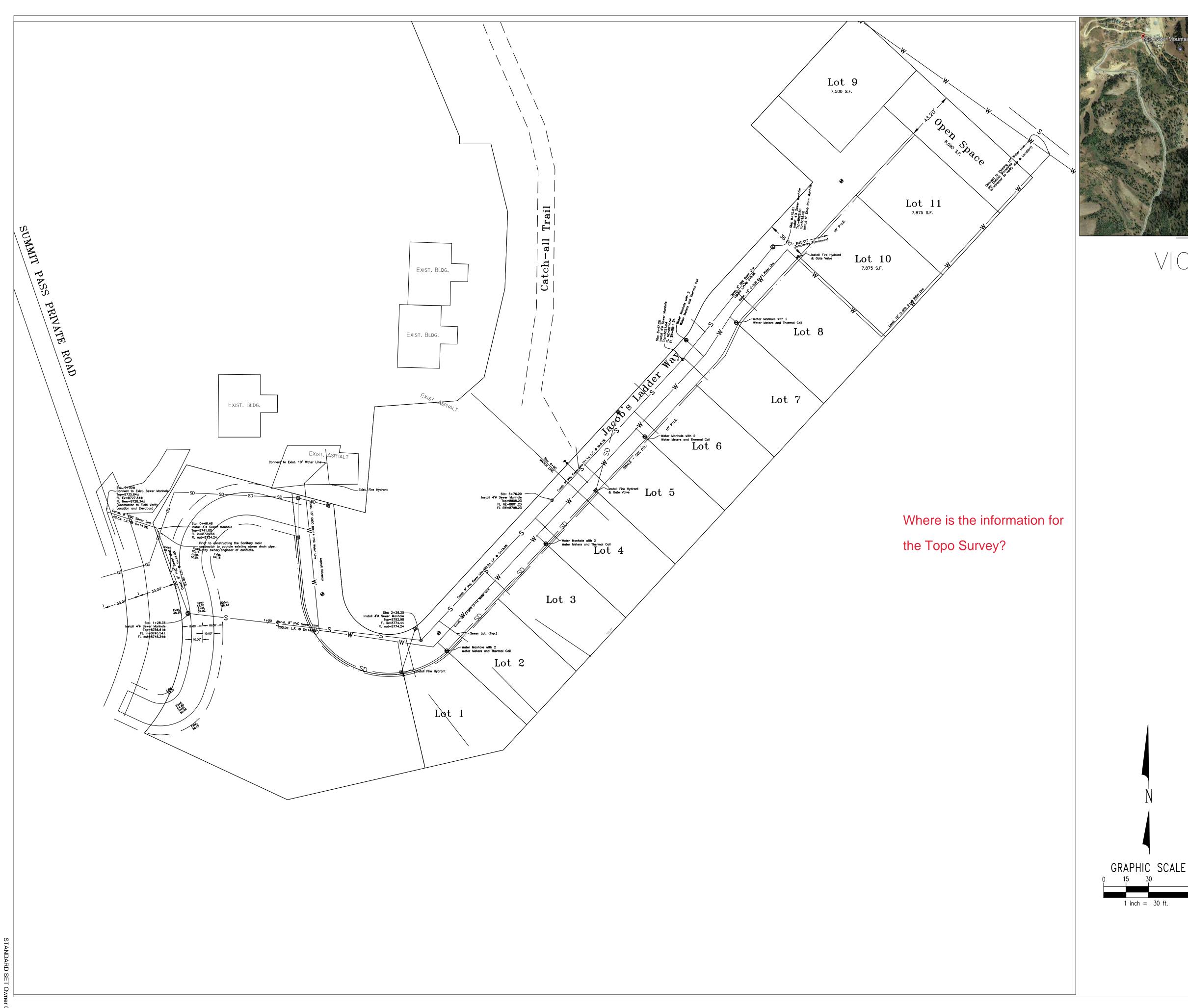
# STUART

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PROJECT NO:	120138
DESIGN BY:	JWS
DRAWN BY:	AWF
CHECKED BY:	JWS
DATE:	2/24/2021

CIVIL DETAILS

C-5.4









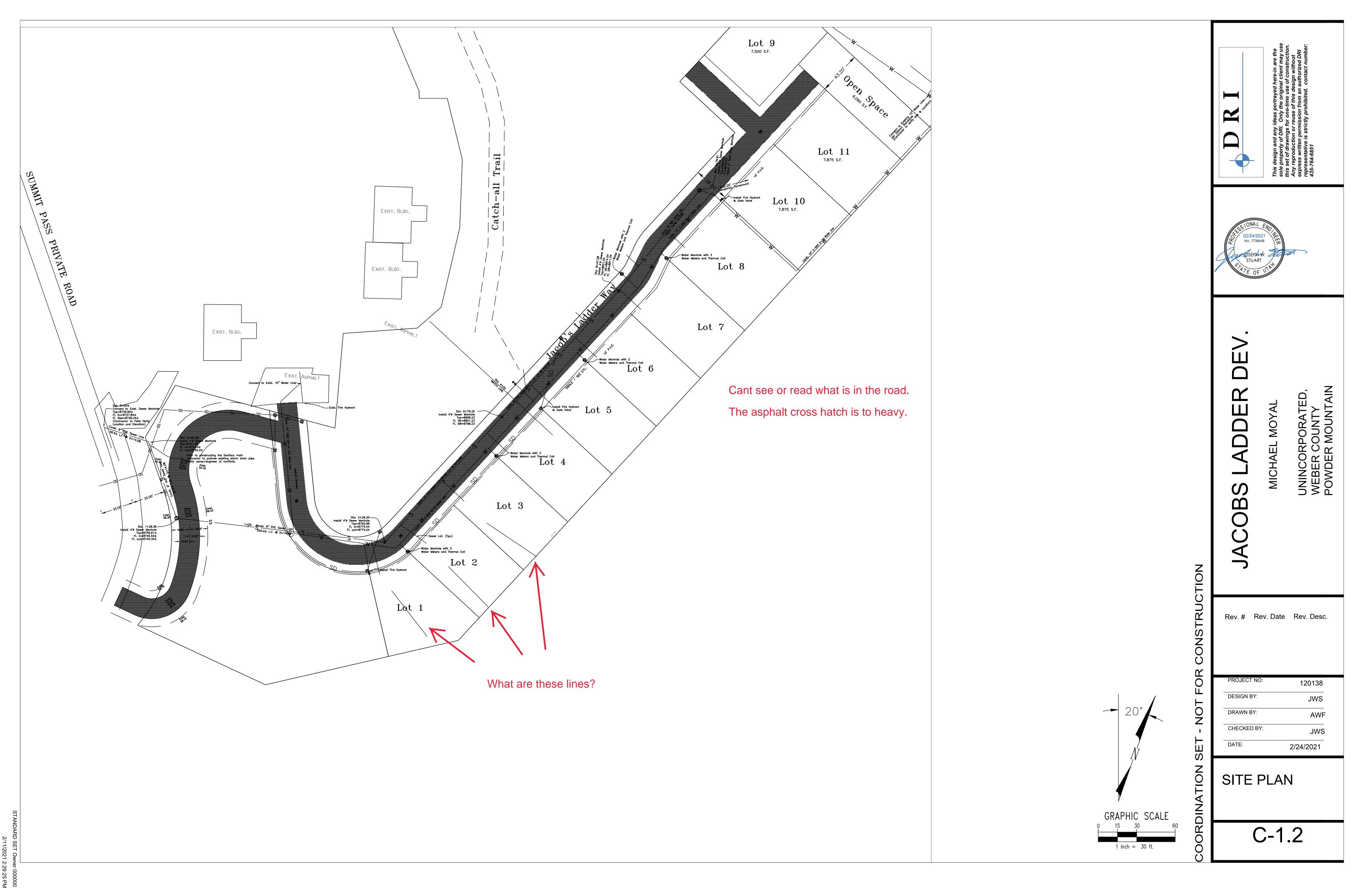
# OBS

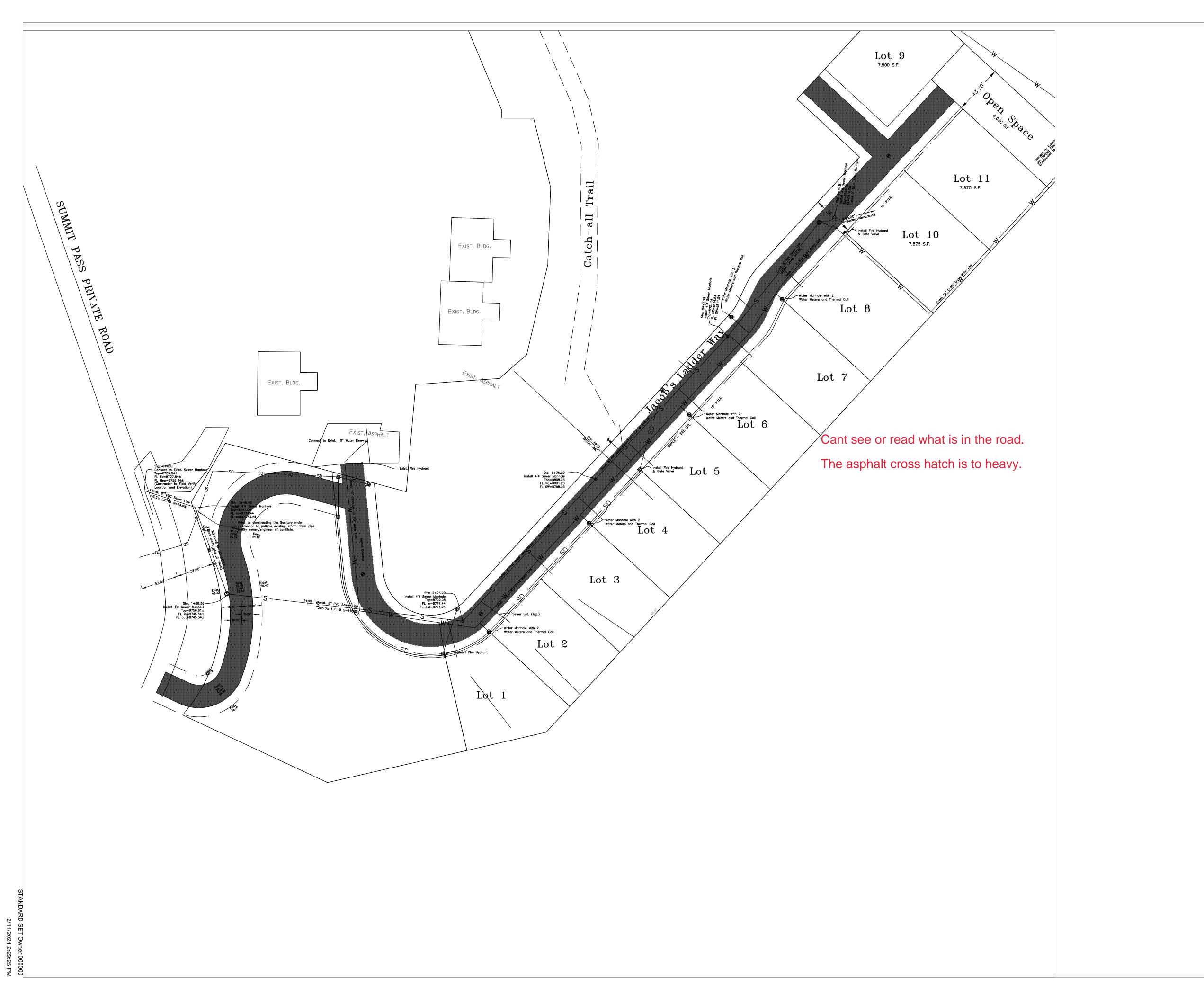
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DESIGN BY: JWS	
DRAWN BY:	
CHECKED BY: JWS	
DATE: 2/24/2021	

TOPO SURVEY

C-1.1







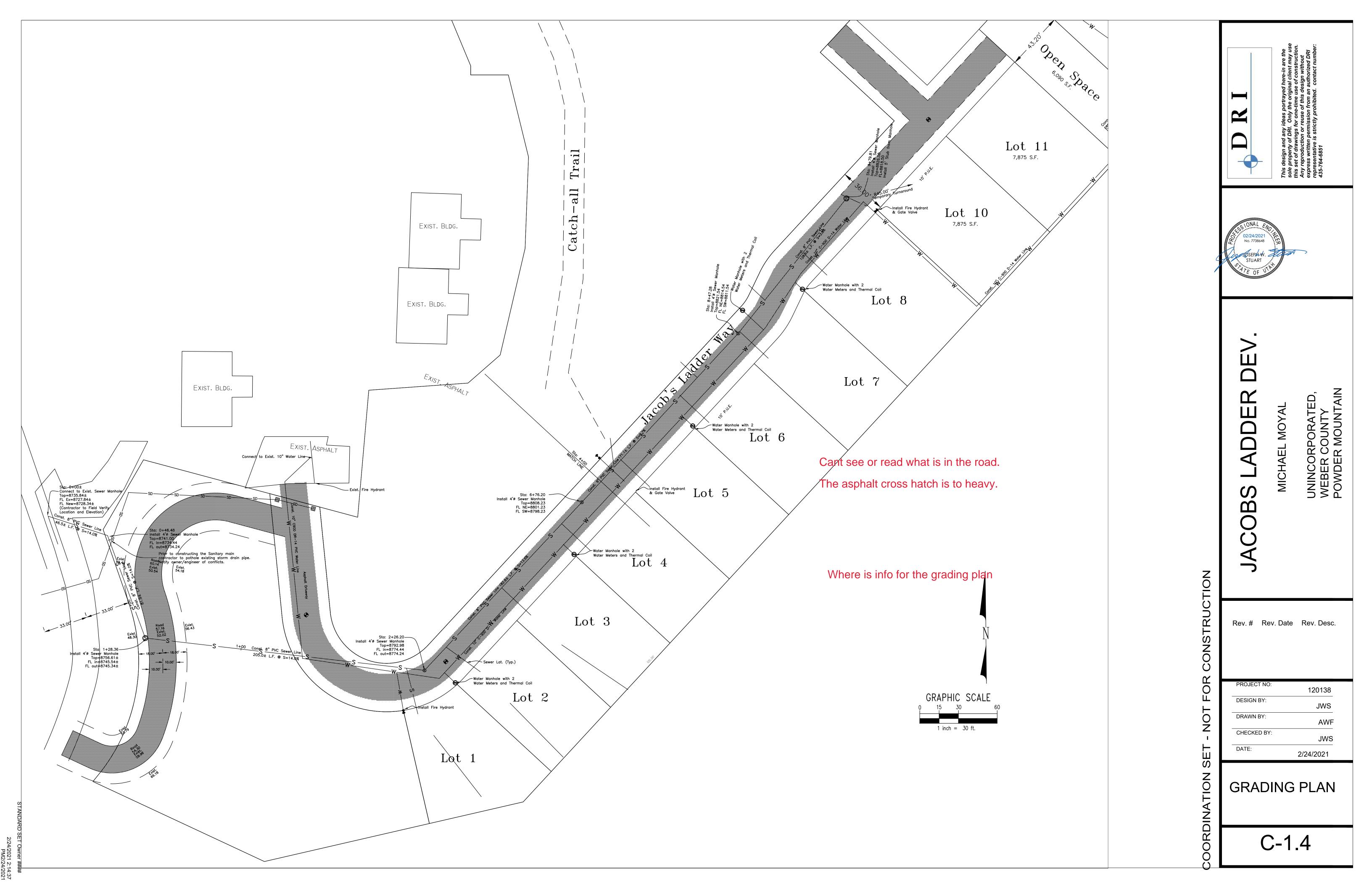
MIC

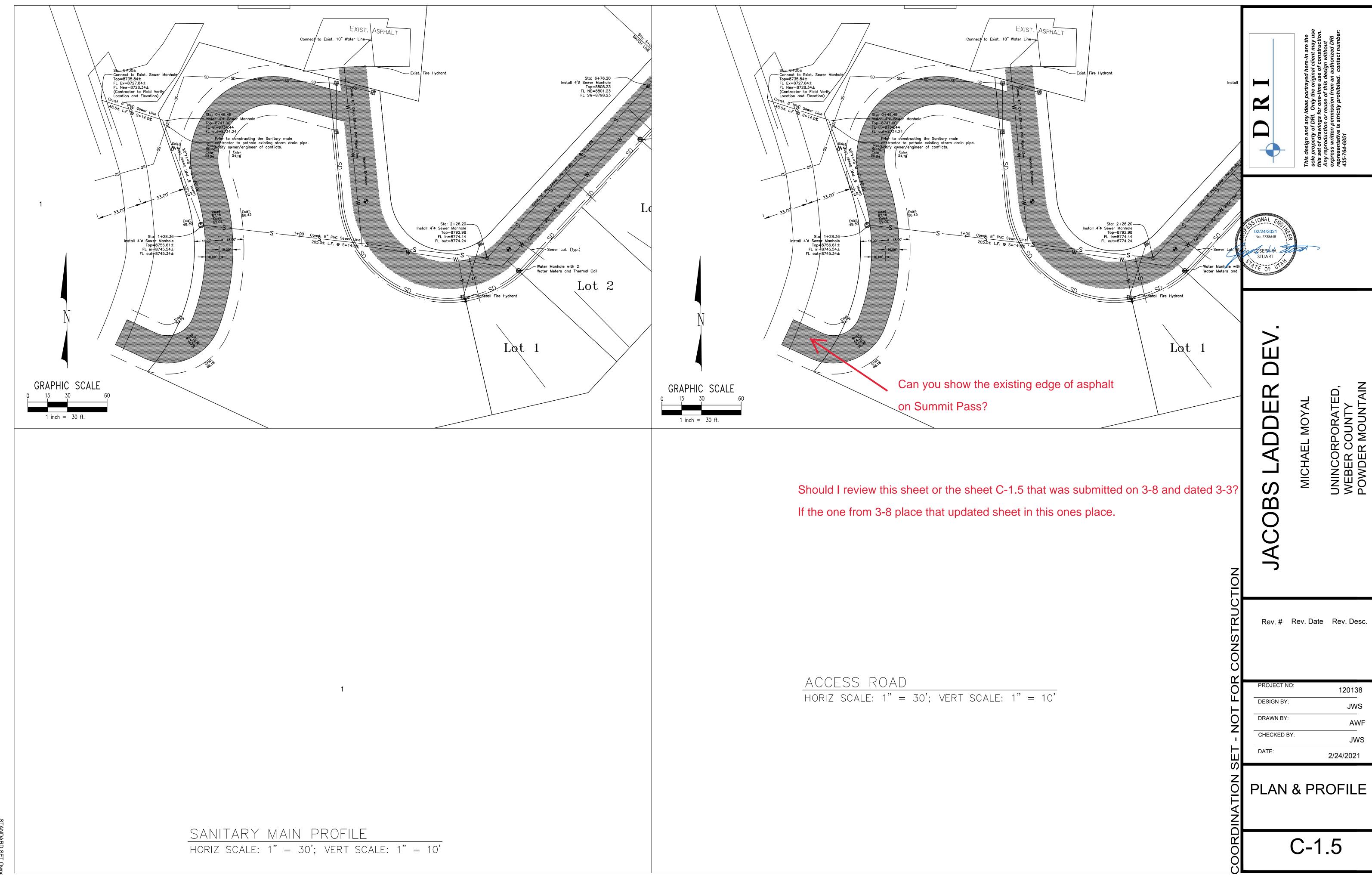
Rev. # Rev. Date Rev. Desc.

PROJECT NO:	120138
DESIGN BY:	JWS
DRAWN BY:	AWF
CHECKED BY:	JWS
DATE:	2/24/2021

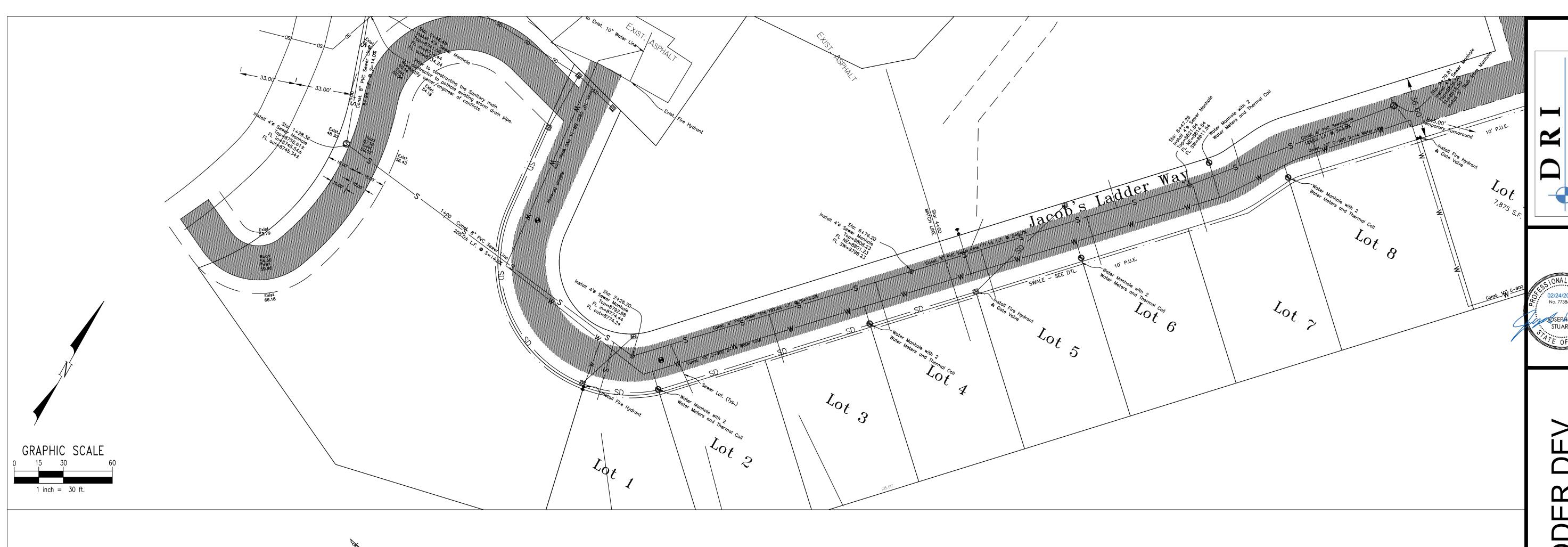
UTILITY PLAN

C-1.3





2/24/2021 2:14:37 PM2/24/2021



HORIZ SCALE: 1" = 30"; VERT SCALE: 1" = 10'

Should I review this sheet or the sheet C-1.6 that was submitted on 3-8 and dated 3-3?

If the one from 3-8 place that updated sheet in this ones place.

Rev. # Rev. Date Rev. Desc.

PROJECT NO:	120138
DESIGN BY:	JWS
DRAWN BY:	AWF
CHECKED BY:	JWS
DATE:	2/24/2021

PLAN & PROFILE

C-1.6

