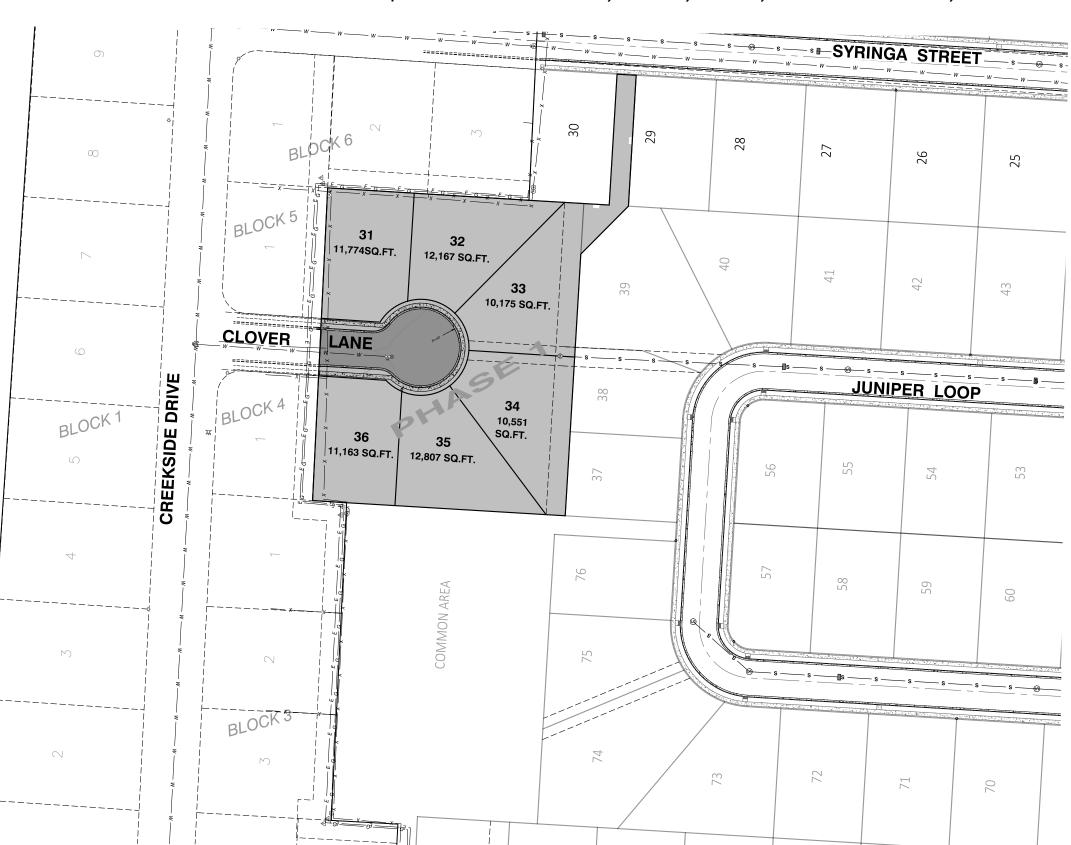
# **CONSTRUCTION PLAN SET BURNT FORK ESTATES - PHASE 1**

LOCATED IN THE SE<sup>1</sup>/<sub>4</sub> OF SECTION 26 T.9N., R.20W., P.M.M., RAVALLI COUNTY, MONTANA





**VICINITY MAP** 

### SHEET INDEX

**COVER SHEET** 

C0.1 NOTES

**EXISTING CONDITIONS** 

**CLOVER LANE PLAN & PROFILE** 

ROAD DETAILS

C3.0 UTILITY PLAN AND DETAILS

**CALL UTILITY NOTIFICATION CENTER OF MONTANA** 

1-800-424-5555

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



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BURNT FORK ESTATES PHASE

Aug-21

**COVER** 

C0.0

### STANDARD CONSTRUCTION NOTES:

- The Contractor shall notify the Engineer immediately should any conflicts exist between the plans and what is found in the field
- The Contractor shall be responsible for all permits, licenses and fees required for completion of this project unless specifical
- The Contractor shall provide the Owner with a 24 hour phone number of a party responsible and capable of immediate local response to emergency maintenance for the duration of the Work. Contractor shall provide the name of the responsible party and phone number in writing prior to proceeding with the Work.

  All work shall be completed in a safe manner and consistent with O.S.H.A. guidelines.
- Unless noted otherwise, the Contractor shall be responsible for any necessary traffic control on and off-site including obtaining any applicable permits. All temporary signs shall be in compliance with the Manual on Uniform Traffic Control Device Standards and be in a good state of repair.
- Material stockpiled along the project route shall be done so in a manner that does not affect public safety and is in a neat and
- orderly fashion.
  The Contractor shall be responsible for disposing of all waste and excess materials such as, but not limited to vegetation, trees, brush, asphalt, concrete, sub-grade soils, etc., offsite in accordance with local, state and federal laws. The Owner reserves the
- right to request certain waste materials to be stockpiled at a location on-site.

  The Contractor will be required to make every effort to immediately restore the construction area once the construction task is completed. All seeding shall be completed in accordance with MPWSS 02910. This includes such required activities as finish grading, spreading of topsoil, restoring irrigation, replacing traffic and street signs, etc. The Contractor will have 48 hours to begin oration once the construction task in the immediate area is complete. Once restoration is begun, it must be completed without interruption to the extent possible.
- After all work on this project is completed and before final acceptance of the project, the entire project shall be neatly finished to
- the lines, grades, and cross sections shown on the plans and as hereinafter specified.

  a. Drainage facilities, such as inlets, catch basins, storm pipe, culverts, and curb and gutter shall be cleaned of all debris, gravel, silts or other foreign material.
- The Contractor shall remove and dispose of all construction stakes.

  All areas disturbed by the construction shall be shaped to present a uniform appearance blending into the contour of adjacent properties. All surface replacement and landscaping shall be completed.
- Except as otherwise permitted, all excess excavated materials shall be disposed of away from the site of the work.
- Broken concrete and other debris resulting from pavement or sidewalk removal, excavated rock in excess of the amount permitted, and other waste and debris encountered in excavated work, and other similar waste materials shall be disposed of away from the site.
- There will be no separate measurement or payment for cleanup, and all costs for such work shall be included in the Contract Price. No on-site burning of waste materials will be allowed.
   If a street has not been surfaced and cleaned, the Contractor shall be responsible for dust control and maintenance of the street.
- Also, if detours are made on a gravel road, the Contractor is responsible for dust control and maintenance on the detours. See "Air
- Unpaved detours or any other fugitive dust emission sources from construction and demolition should be watered and/or chemically stabilized so emissions are less than 20% opacity.

### UTILITY NOTES:

- The Contractor shall notify appropriate personnel for utility locations and notice of construction commencement at least two business days prior to proceeding with the Work. Before Contractor proceeds with the Work, a common locate service (One Call) is available at 1-800 424-5555. All Underground Facilities may not be located by the One Call service including but not limited to such Underground Facilities as irrigation systems, public and private water and sever systems, etc. The Contractor shall support and protect all exposed utilities in conformance with the utility owner's standards.
- The information and data shown or indicated in the Drawings with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise noted:
  - Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
  - The cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for Reviewing and checking all such information and data,
- Locating all Underground Facilities shown or indicated in the Drawings
- Coordination of the Work with the owners of such Underground Facilities, including Owner, during construction, and The safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work. At least 2 business days before beginning any excavation, the Contractor shall, according to MCA 69-4-501, notify all owners of underground facilities and coordinate the Work with the owners of such underground facilities. The information shown or indicated in the Drawings with respect to existing underground facilities is based on information and data obtained from the owners of the facilities without field exploration, and as such, Owner and Engineer are not responsible for the accuracy or completeness of such information or data.

### SUBMITTALS, QUALITY CONTROL & ASSURANCE, INSPECTIONS, AND TESTING

- Contractor is responsible to comply with the Contractor Quality Control and Owner Quality Assurance, Section 01400 MPWSS. Contract shall complete trench excavation and backfill in accordance with Section 02221 MPWSS.

  The Contractor shall coordinate with the Material Testing Company to obtain samples of trench backfill material to be used on-site.
- The Contractor shall provide the Engineer with shop drawings and material certifications for all pipes, structures, valves, fittings, fire hydrants, and appurtenances incorporated into the project.
- The Contractor shall provide the following information to the Engineer before any material is placed on the job (as applicable):

  Gradation (AASHTO T-27) and moisture density curve (AASHTO T-99) dated within the last year for sub-base, base, and any
- import/borrow to be used on the project. Asphalt mix design in accordance with MPWSS dated within the last year for the hot-mix asphalt concrete proposed for incorporation into the project. Mix design shall be for the same aggregates and asphalt proposed for incorporation into the
- project.

  Concrete mix design in accordance with MPWSS dated within the last year for the concrete proposed for incorporation into the project. Mix design shall be for the same aggregates and cement proposed for incorporation into the project. Contractor will be responsible for hiring a certified Material Testing Company of their choice to complete all required testing. Coordination includes updating appropriate personnel of the Material Testing Company every day to progress of work so adequate testing can be completed. 48 hours advanced notice shall be given to the Engineer for all testing. Testing results shall be considered the Engineer dealth.
- be provided to the Engineer daily. Testing shall occur intervals per Ravalli County requirements. Tested areas not meeting specifications shall be re-compacted and
- re-tested until passing results are achieved.

  The Contractor will be required to prepare a set of detailed as-built drawings to be presented to the Engineer at the completion of the project. The as-built drawings shall be updated daily and reviewed weekly by the Project Engineer. As-built drawings shall include, but are not limited to, location/depths of water mains and services, sewer mains and services, utilities, culverts, drainage
- As part of their quality assurance testing, the Owner may elect to conduct periodic spot checks of material testing and quality. The Contractor shall cooperate with the Owner's testing agent in performing these tests and provide 48 hours advanced notice of the readiness of the subgrade, sub-base, base, trench backfill, asphalt, and concrete for testing. The Contractor shall be responsible to correct and re-test all areas of failed tests
- 10. Contractor is to provide construction access in accordance with COM STD-408 and maintain clean construction site and access

### CONSTRUCTION STAKING:

- The Owner will provide one set of construction stakes. Additional staking will be the responsibility of the Contractor for scheduling and payment
- Contractor is responsible to coordinate and request staking at least five days in advance, unless otherwise agreed upon in writing
- Staking will be provided as follows unless specified otherwise:

  a. Bends, Tees/Connections, Structures, Valves and Hydrants: Center of structure and two offset stakes including elevation. Water Main: Hub offset set at 50' stations. Offset distance and side of trench as requested by Contractor in writing to
- Sewer Main: Hub offset set at 25' stations. Offset distance and side of trench as requested by Contractor in writing to
- d. Pavement: Hub offset at 50' stations. PI's, PC's, and PT's. Offset distance as requested by Contractor in writing to
- Curb and Sidewalk: Hub offset at 25' stations, Pl's, PC's, and PT's. Offset distance and side as requested by the Contractor in writing to Engineer.

  Cut sheets will be provided to the Contractor with elevations from the hub to a specified location.
- Engineer does not consider staking to be complete and ready for use until cut sheets have been delivered to Contractor

### WATER CONSTRUCTION NOTES:

- All Work shall be in accordance with the Montana Public Works Standard Specifications (MPWSS), Sixth Edition, dated April,
- 2010, and project specifications, if any. Stations are provided from center of bend, tee, or connection, unless noted otherwise.

  Water services shall be constructed and inspected per Uniform Plumbing Code and local standards

  A 10' minimum separation between outside of water main and outside of sewer main shall be maintained. There shall be a 18" vertical seperation between outside of water main and outside of sewer main.
- All water main fittings shall be mechanically restrained joints unless noted otherwise.

  Contractor will be responsible for completing water ditch cards for all water services. Information on the ditch cards must be provided as directed by Engineer including lot number or building address served; as-built service connection location on the water main relative to stationing on the Drawings; contractor who made tap; date tap was made; distance from main to curb stop; size of tap; size and material of service; size and material of water main; depth of main at tap; and depth of service at curb stop. Engineer will provide contractor with example ditch card upon written request. One water ditch card shall be completed for each
- Testing, cleaning, and disinfection of water mains, valves, and fittings shall be completed in accordance with MPWSS Section 02660, Section 3.4. Water testing procedure shall be as follows:
  - a. Chlorination
  - Flushing to reduce Chlorine residual to 0.5 ppm or less, or as otherwise approved by the engineer
- Hydrostatic and leakage testing at 1.5 times the anticipated static pressure.
- Water testing shall be completed in the presence of the Engineer. The Contractor is responsible for coordinating with the Engineer to be present for water testing.
- Contractor is responsible for taking pictures in accordance with Water Standards and sending to the Engineer every week
- 10. Water and sewer services shall be separated by a minimum of 10'.

### SEWER CONSTRUCTION NOTES:

- All sewer main construction shall be completed in accordance with the Montana Public Works Standard Specifications, Montana Department of Environmental Quality Circular 2.
- Stations are provided along the centerline of the sewer main.
- Sewer Services shall be constructed in accordance with the latest edition of the Uniform Plumbing Code.

  Sewer main shall be constructed a minimum of 10' horizontally from water main, measured from outside of pipe to outside of pipe and the outside of the manholes. Sewer main shall be constructed a minimum of 18" vertically from water main, measured from outside of pipe to outside of pipe.
- Unless noted otherwise, sewer main shall cross water main, as perpendicular as possible and at least 18" of vertical separation outside to outside. Crossings shall be made with full lengths of pipe with crossings occurring at the midpoint of each.
- All manholes shall be eccentric pre-cast concrete.
- Manholes shall have at least one riser ring.
- Manhole riser rings and frames shall have mastic placed between each ring and the frame
- 9. Contractor will be responsible for completing and providing the Engineer with sewer ditch cards for all sewer services. Information required for the ditch card includes street address, if known, lot number, sewer main station of the connection, depth of sewer main at the connection, profile of new sewer service with all bends and distances shown, depth at the end of the sewer service.

  Contractor will take photos of all the exterior connections to each manhole. Before photo is taken, ensure a label of the manhole
- number and which inlet is shown on either the manhole or on a sign next to the manhole.
- All sewer manholes shall be vacuumed tested in accordance with ASTM C1244-11
   Deflection testing, Air test and T.V. inspection in accordance with the Montana Public Works Standard Specification is required for
- all gravity sewer mains.
- as gravity sever mans.

  3. Sewer service line shall be ASTM D 1785 (PVC) Schedule 40. Pine shall conform to ASTM 02665-82 and 03311-71 standards in accordance with UPC. Fittings shall conform to ASTM 02665-78 and D3311-79a

  10. Sewer and water services shall be separated by a minimum of 10'.

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AIR RELEASE VALVE

### **LEGEND**

EXISTING	PROPOSED		EXISTING	PROPOSED	
w	—— w ——	WATER MAIN	ST	ST	SEPTIC TANK
ws	ws	WATER SERVICE	<u></u>	<u></u>	SANITARY SEWER MANHO
s	—— s ——	SEWER MAIN	_		
ss	ss	SEWER SERVICE	©	<u>©</u>	SANITARY SEWER CLEANCE
FM	FM	SEWER FORCE MAIN	LS	LS	SEWER LIFT STATION
		STORM DRAIN CULVERT	(SD)	(SD)	STORM DRAIN MANHOLE
SD	SD	STORM DRAIN	СВ	СВ	CATCH BASIN (SQUARE)
	——>—	STORM DITCH	(CB)	(CB)	CATCH BASIN (ROUND)
> S > · ·	> s >	STORM SWALE	(10)		, ,
— G ——	—— G ——	GAS LINE	$\circ$	<u></u>	DRAINAGE SUMP
—— OH———	—— он ——	OVERHEAD POWER LINE	GV	GV	CURB INLET
— E ——	— Е —	UNDERGROUND POWER LINE	$\bowtie$	$\bowtie$	GAS VALVE
— т ——	— т —	TELEPHONE LINE	G	G	GAS METER
FO	—— FO ——	FIBER OPTIC LINE	0	Ö	UTILITY POLE
<i>TV</i>	—— тv ——	TELEVISION LINE	(E)	(E)	ELECTRIC MANHOLE
x	— х —	FENCE LINE	$\sim$	×	
	— с —	CATCH LINE - CUT	Æ.	É	ELECTRIC RISER
	— F —	CATCH LINE - FILL		<u>/T\</u>	TELEPHONE RISER
		"L" CURB	(T)	(T)	TELEPHONE MANHOLE
		TYPE "B" CURB	ά	ά	LUMINAIRE
₩V	₩V	GATE VALVE	·	• <del>-</del> \$	LIGHT POLE
(WM)	⟨wм⟩	WATER METER	$\triangle$	$\triangle$	CATV RISER
D.	$\Rightarrow$	FIRE HYDRANT	-0-	-0-	SIGN
PS	PS	PUMP STATION	3221	3221)	CONTOUR LINES
MW	(MW)	MONITORING WELL			ASPHALT
<b></b>	<u></u>	POTABLE WATER WELL			ASFRALI
$\otimes$	$\otimes$	CURB STOP	4 4	4 4 4	CONCRETE
—w—⊗≎	_ <del>-</del> ₩	BLOW-OFF ASSEMBLY			GRAVEL

### ARREVIATIONS.

	ABBREVI	ATION	IS
AC ASP. A.C.I. ANSI ARCH ASTM	ALUMINUM CAP ASPHALT CONCRETE AMERICAN CONCRETE INSTITUTE AMERICAN NATIONAL STANDARDS INSTITUTE ARCHITECTURAL AMERICAN SOCIETY OF TESTING AND MATERIALS BUILDING	MAX MECH MFD MH MIN MISC MJ MPWSSS	MAXIMUM MECHANICAL MANUFACTURED MANHOLE MINIMUM MISCELLANEOUS MECHANICAL JOINT MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS
BLK BOT BRG BSMT BVCS BVCE	BOLOCK BOTTOM BEARING BASEMENT BEGIN VERTICAL CURVE STATION BEGIN VERTICAL CURVE ELEVATION	N: NIC NOM NTS	NORTHING NOT IN CONTRACT NOMINAL NOT TO SCALE
BW CF CIP	BOTTOM OF WALL  CUBIC FEET  CAST IRON PIPE	OC OD OHP	ON CENTER OUTSIDE DIAMETER OVERHEAD POWER
CCJ CEJ CL CMP	CONCRETE CONTROL JOINT CONCRETE EXPANSION JOINT CENTERLINE CORRUGATED METAL PIPE	PAUE PAUPDE PC	PUBLIC ACCESS UTILITY EASEMENT PUBLIC ACCESS & UTILITY & PRIVATE DRAINAGE EASEMENT POINT OF CURVATURE
CMU CORR CT CULV CY CO CONC.	CONCRETE MASONRY UNIT CORRUGATED COURT CULVERT CUBIC YARD CLEAN OUT CONCRETE	PDE PE PI PL PRELIM PROP PSI	PRIVATE DRAINAGE EASEMENT POLYETHYLENE POINT OF INTERSECTION PROPERTY LINE PRELIMINARY PROPERTY POUNDS PER SQUARE INCH
DIA DIM DIP DWG DET	DIAMETER DIMENSION DUCTILE IRON PIPE DRAWING DETAIL	PT PUE PVI PVC PVMT	POINT OF TANGENT PRIVATE UTILITY EASEMENT POINT OF VERTICAL INTERSECTION POLYVINYL CHLORIDE PAVEMENT RADIUS
E: EA EG EL ELEC ENCL EP EVCS EVCE EX EX	EASTING EACH EXISTING GRADE/ELEVATION ELEVATION ELECTRIC ENCLOSURE EDGE OF PAVEMENT END VERTICAL CURVE STATION END VERTICAL CURVE ELEVATION EXISTING EXCAVATION	RCP RD REF REQD REINF RM RT R/W ROW	REINFORCED CONCRETE PIPE ROOF DRAIN REFERENCE REGUIRED REINFORCE REFERENCE MARK RIGHT RIGHT OF WAY RIGHT OF WAY SANITARY
FC FDN FF FG FH FL FLG	FACE OF CURB FOUNDATION DRAIN FOUNDATION FINISHED FLOOR FINISHED GRADDFELEVATION FIRE HYDRANT FLOW LINE FLANGE FENCE	SCH SDR SF SHT SPEC S SS STA STD SY	SCHEDULE STANDARD DIMENSION RATIO SQUARE FEET SHEET SHEET SPECIFICATION SANITARY SEWER SEWER SERVICE STATION STANDARD SQUARE YARD
FT FTG GA GAI	FOOT FOOTING GAUGE GALLON	TA TB TBC TC	TOP OF ASPHALT THRUST BLOCK TOP BACK OF CURB TOP OF CONCRETE
GALV GND GV GW	GALVANIZED GROUND GATE VALVE GROUNDWATER	TEMP TS TW TYP	TEMPORARY TOP OF SLAB TOP OF WALL TYPICAL
HB HDPE HORIZ HWY HYD	HOSE BIB HIGH DENSITY POLYETHYLENE HORIZONTAL HIGHWAY HYDRANT	UG UPC UTIL VERT	UNDERGROUND UNIFORM PLUMBING CODE UTILITY VERTICAL
ID IN INV	INSIDE DIAMETER INCH INVERT	VOL WM WS	VOLUME WATER MAIN WATER SERVICE
JB	JUNCTION BOX	WWF WV	WELDED WIRE MESH WATER VALVE
LF LONG LT LVC	LINEAR FEET LONGITUDE LEFT LENGTH OF VERTICAL CURVE	YD YPC	YARD YELLOW PLASTIC CAP
MON	MONUMENT		



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Aug-21

NOTES

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# **BURNT FORK ESTATES-PHASE 1 EXISTING CONDITIONS PLAN** PHASE 1 - BURNT FORK ESTATES TRACT 1 LESS CREEKSIDE MEADOWS-PHASE 1 ANNEX 57.68 ACRES 1' CONTOUR INTERVAL



PROJECT #: 8952-19
PROME SEC | OHEOGID: 21/AM
PRINCING: REVISION: REVISION:

6 T09N R20W

BURNT FORK ESTATES
PHASE 1

YENDOOLINE



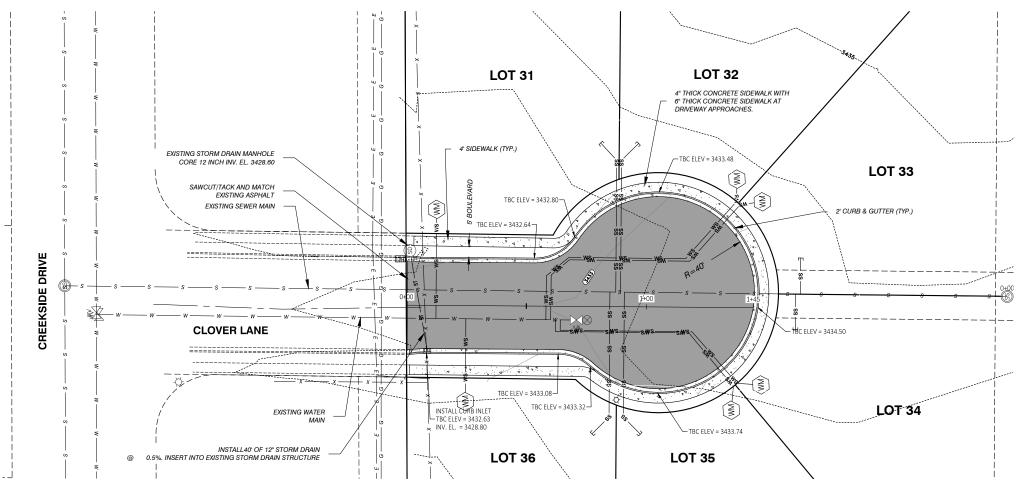
Engineers, Surveyors, Planners, Mapp 315 RUSSELL ST. PO BOX 1750 MISSOULA, MONTANA 59801 HOINE 406-778-1880 FAX 406-728-0776

Aug-21
EXISTING
COND.

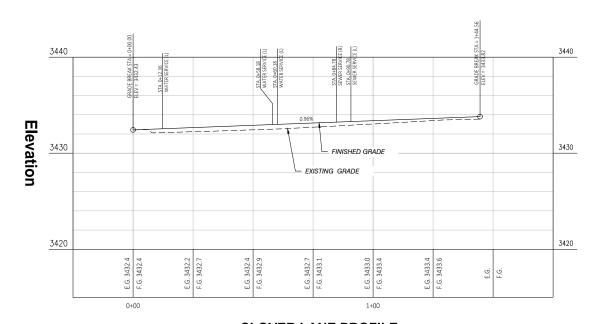
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# **BURNT FORK ESTATES-PHASE 1**

**CLOVER LANE PLAN AND PROFILE** 



**CLOVER LANE PLAN** 



## CLOVER LANE PROFILE HORIZONTAL SCALE: 1" = 20'

VERTICAL SCALE: 1" = 5'



PROJECT #:	#	8952-19		
DRAWN:	SDC		CHECKED: ZJ/AM	WV/rz
REVISION:				
PEVISION				

S26 T09N R20\

BURNT FORK ESTATES
PHASE 1

YENIOOTTIA



1' CONTOUR INTERVAL

neers, Surveyors, Planners, Mappers
AUSSELL ST. PO BOX 1750
117
JULA, WORLYAMA 59801
PIE, 166-728-1889
PA 66-728-126

MAY 10, 2021



C2.0

### TYPICAL ROAD SECTIONS

NOT TO SCALE

(DUMP NO POLLUTANTS)

MADE IN USA 25 1/4" EAST JORDAN IRON WORKS - SATHER 2024 29 1/4"

GRATE

EJW-7750M1D1

FRAME EJW-7750Z

CONCRETE SIDEWALK 4'
GUTTER TRANSITION
(BOTH SIDES) GUTTER FLOW LINE GRATED INLET EJW-7750 (OR APPROVED EQUAL)

PLAN VIEW

TYPICAL "L" TYPE CURB/GUTTER SECTION

2.5" CRUSHED BASE COMPACTED TO 95% DENSITY

1. CONTRACTION JOINTS SHALL BE PLACED EVERY 10 FEET AND SHALL BE 3/4" DEEP.

2. EXPANSION JOINTS OF 1/2" MASTIC MATERIAL SHALL BE PLACED AT THE FOLLOWING LOCATIONS:

3. NO CURB SHALL BE PLACED WITHOUT A FINAL FORM INSPECTION BY THE ENGINEER. 4. CONSTRUCTION MATERIALS AND PROCEDURES SHALL CONFORM TO EXISTING CITY AND STATE STANDARD SPECIFICATIONS.

P.C.S AND P.T.S OF CURVES GRADE BREAKS 4' ON EITHER SIDE OF A DRAINAGE STRUCTURE AT OTHER LOCATIONS AS SPECIFIED BY ENGINEER

SUBGRADE COMPACTED TO 95% PROCTOR DENSITY

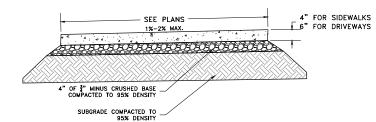
SPILL

NOT TO SCALE

SQUARE INLET NOT TO SCALE

CONTRACTION JOINTS -

EXPANSION JOINTS NOT REQUIRED BETWEEN CURB AND SIDEWALK



- 1. CONTRACTION JOINTS SHALL BE SPACED SO AS TO FORM AS NEAR SQUARE PANEL AS POSSIBLE, NO SINGLE PANEL SHALL EXCEED 8' ON ANY SIDE. CONTRACTION JOINTS SHALL BE TOOLED  $3/4^{\circ}$  DEEP (NO SAW CUTS).
- DEEP (NO SAW CUIS).

  2. EXPANSION JOINTS OF 1/2" MASTIC MATERIAL SHALL BE PLACED AT THE FOLLOWING LOCATIONS:
  P.C.S AND P.T.S OF CURVES
  GRADE BREAKS
  AT DRIVEWAYS
  AT OTHER LOCATIONS AS SPECIFIED BY ENGINEER
- 3. NO SIDEWALK SHALL BE PLACED WITHOUT A FINAL FORM INSPECTION BY THE ENGINEER.  ${\bf 4.}$  Construction materials and procedures shall conform to local city and state standard specifications.

SIDEWALK DETAIL

NOT TO SCALE

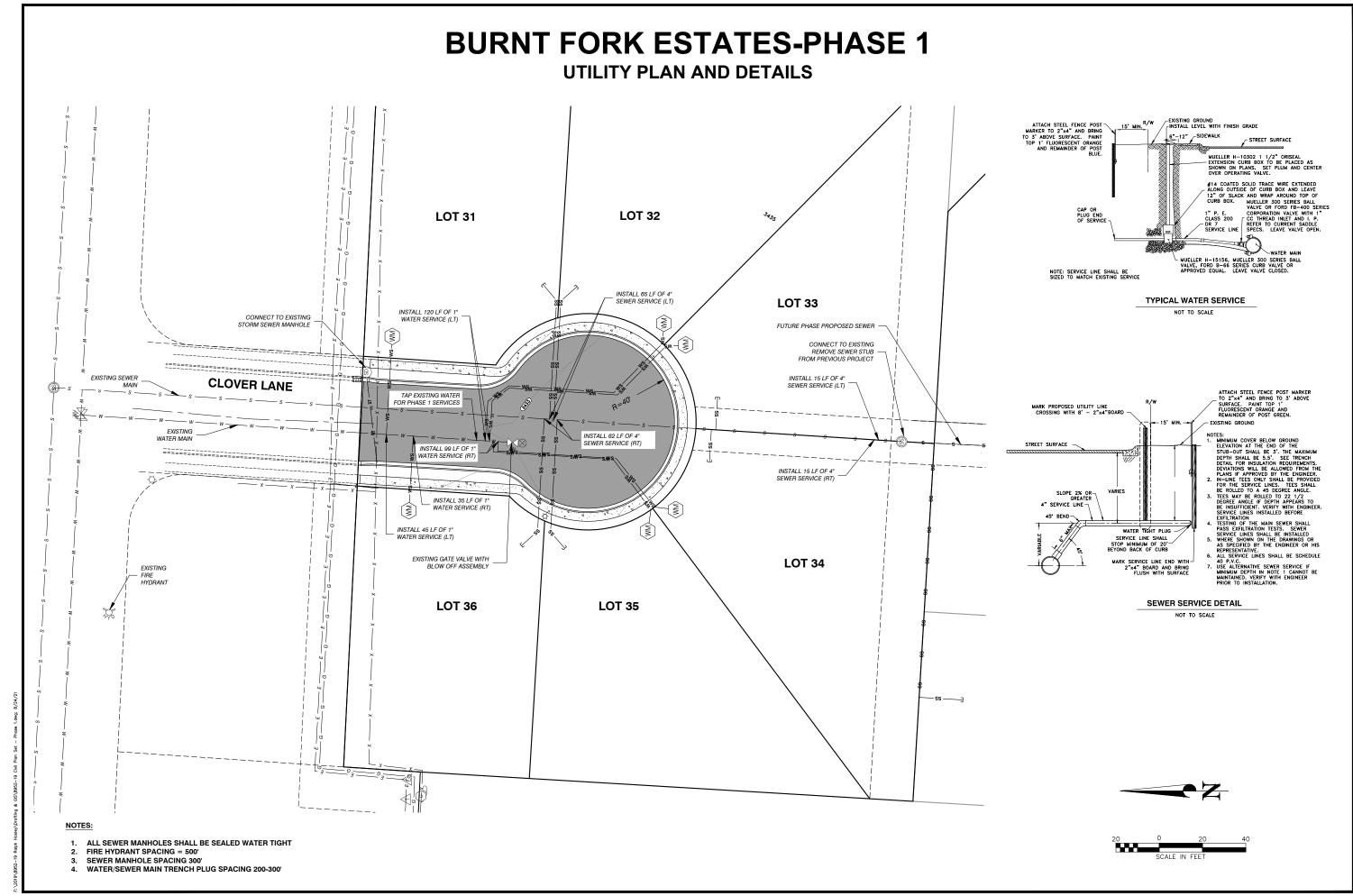
**ESTATES** 

**BURNT FORK** 

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ROAD **DETAILS** 

C2.1







**ESTATI** PHASES **BURNT FORK** 

Aug-21

UTILITY **PLAN** 

C3.0