### **ADDENDUM**

Project: Billings Sweet Grass Creek Project No.: 5011850 Addendum No.: Two

Project Address: 2620 54th Street West, Billings, MT Date: September 29, 2016

Owner: Corporation of the Presiding Bishop of The Church of Jesus Christ

of Latter-day Saints, a Utah corporation sole

From (Architect): NBW Architects Idaho Falls, Idaho

Instructions to Prospective Bidders:

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents and/or prior Addenda as noted below. All conditions, requirements, materials and workmanship are to be as described in the Contract Documents unless specifically stated otherwise. This Addendum consists of  $\underline{\phantom{a}}$  page(s) and the attached drawing(s), Sheet(s) <u>See below</u>, dated <u>NA</u>.

#### **GENERAL**

1. Building Surcharge Material:

The building site has been pre-loaded with a surcharge material. The material utilized is a 1-1/2" minus gravel, suitable for use as base gravel under the site parking lot, drive aisles, and exterior flatwork as well as use in site fill areas. The site contractor is to utilize the surcharge material for site construction. An approximate additional 950 cubic yards of base gravel will be required for the off-site construction of Trail Creek Road. The surcharge material will also be utilized for Trail Creek Road construction. Any excess surcharge material remaining after site construction and construction of Trail Creek Road shall be hauled off- site by the contractor. The estimated surcharge gravel quantity is approximately 9550 cubic yards. See attached sheet C3.0 for reference.

### **SPECIFICATIONS**

- 2. Section 04 2113 Brick Veneer Masonry, Products. The following manufacturer and brick have been approved for a brick substitute on this project:
  - a. General Shale, Catalina Tudor.

#### **CIVIL**

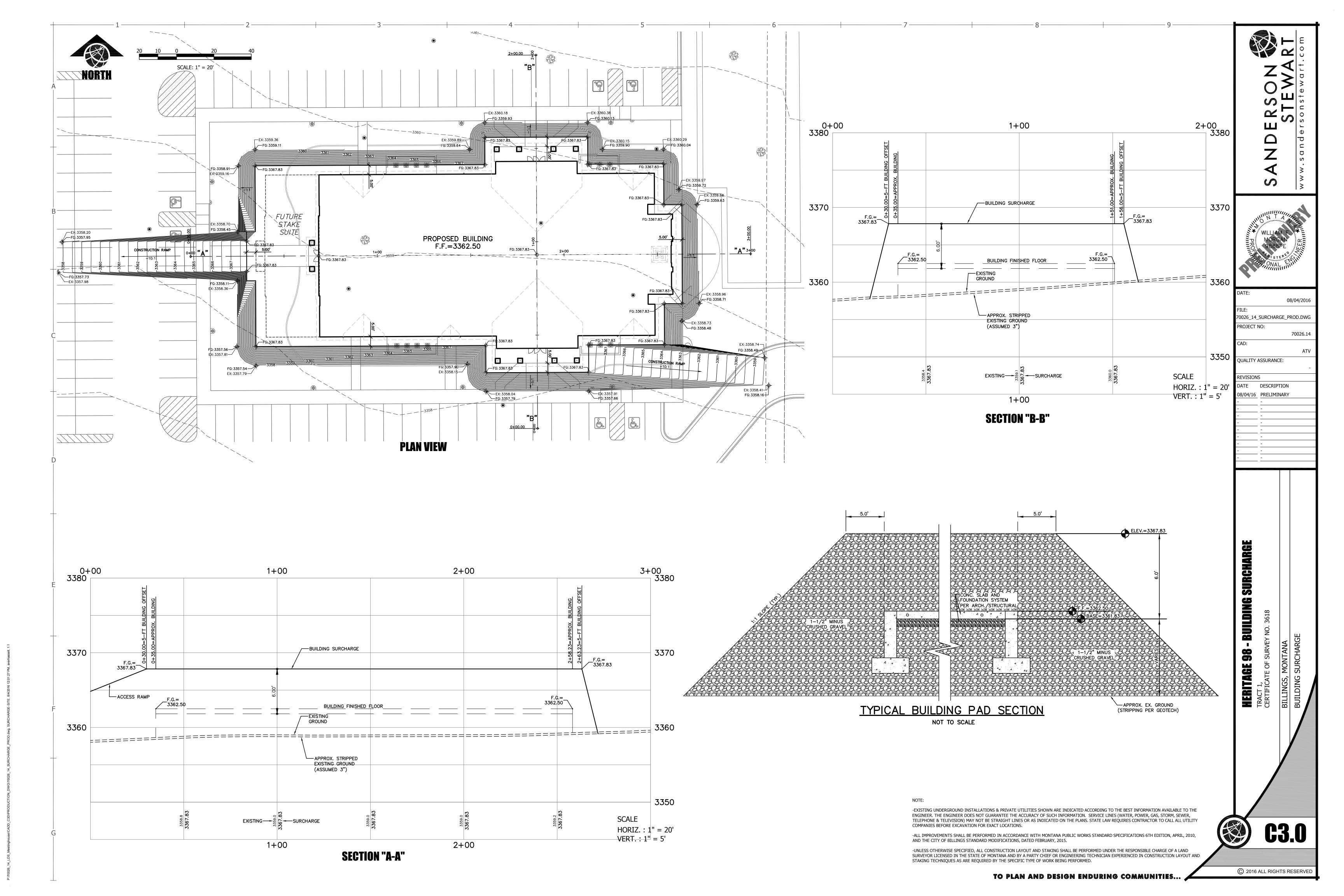
3. The connecting sidewalk between east entries, located directly in front of the building, is to be removed from this project. See attached sketch AD2.1. RE: Sheets C2.0, C3.0, C4.1, C4.2, C4.3, C5.0 & C6.2.

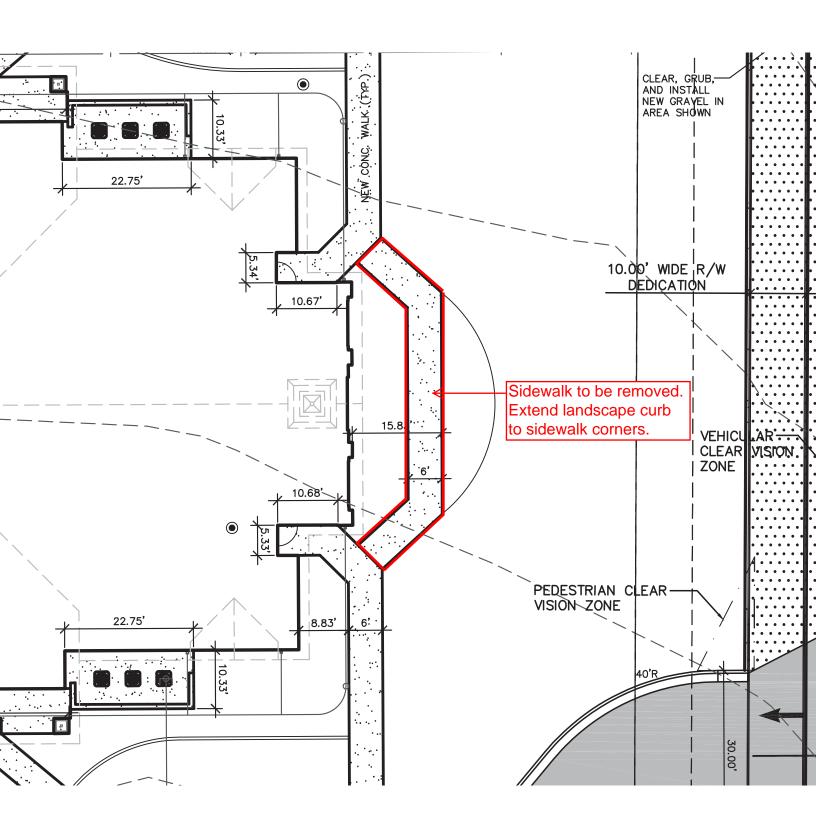
#### **LANDSCAPING**

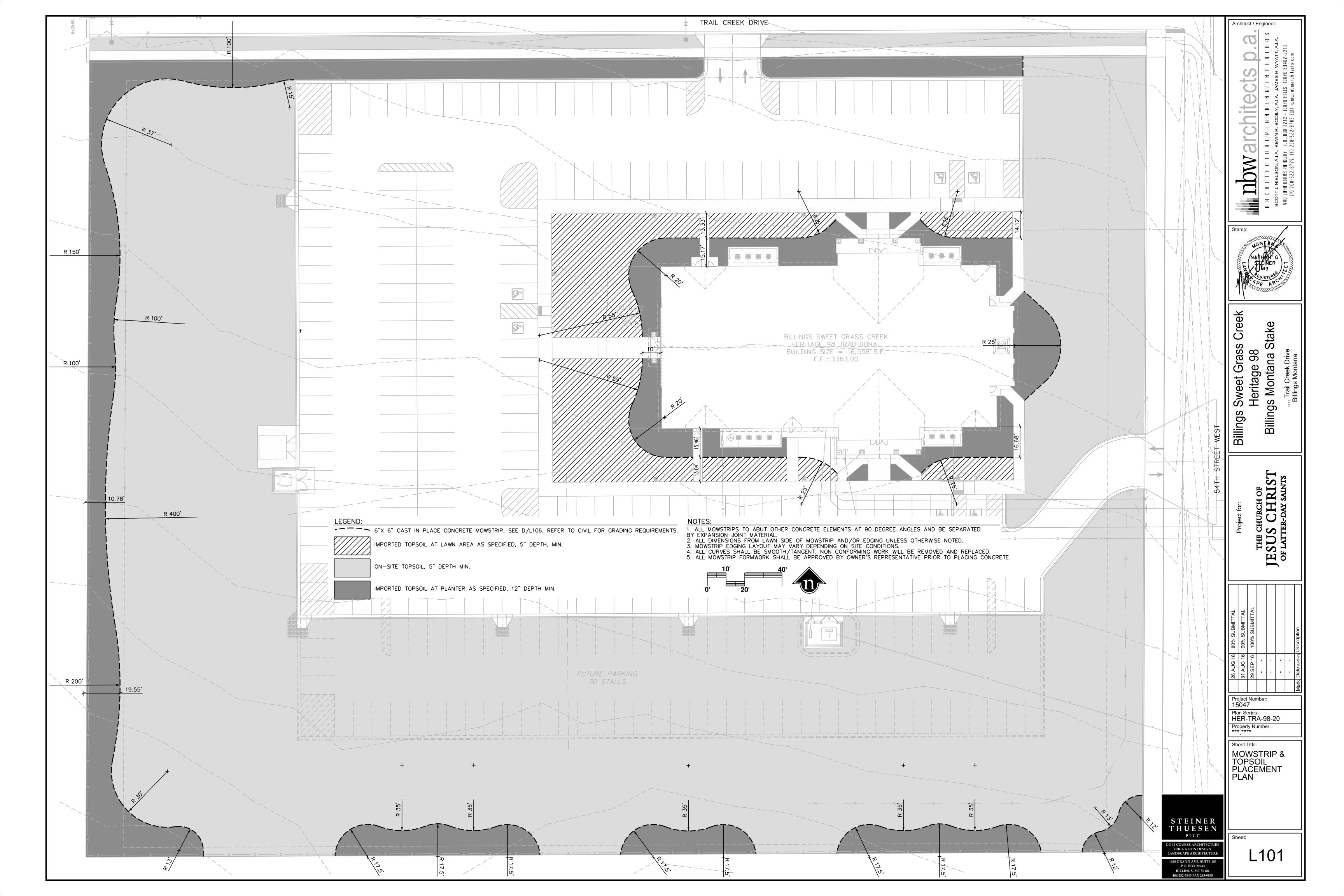
- 4. Add the following attached Landscape Drawing Sheets to the Bid Set:
  - a. L101 Mowstrip & Topsoil Placement Plan
  - b. L102 Planting Plan
  - c. L103 Planting Plan
  - d. L104 Irrigation Plan
  - e. L105 Irrigation Plan
  - f. L106 Planting Details
  - g. L107 Irrigation Details
  - h. L108 Irrigation Details
  - i. L109 Irrigation Details

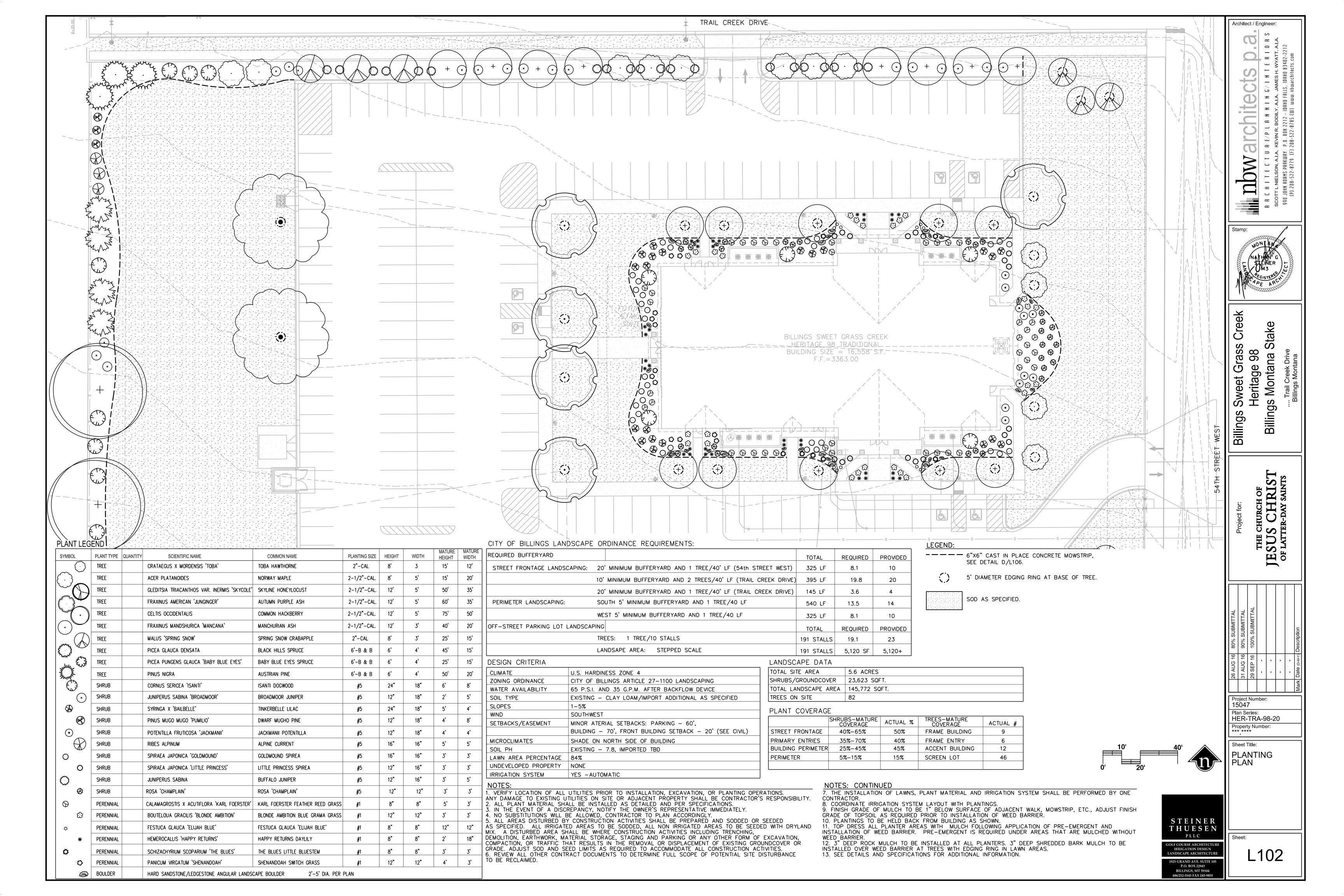
### **Architectural**

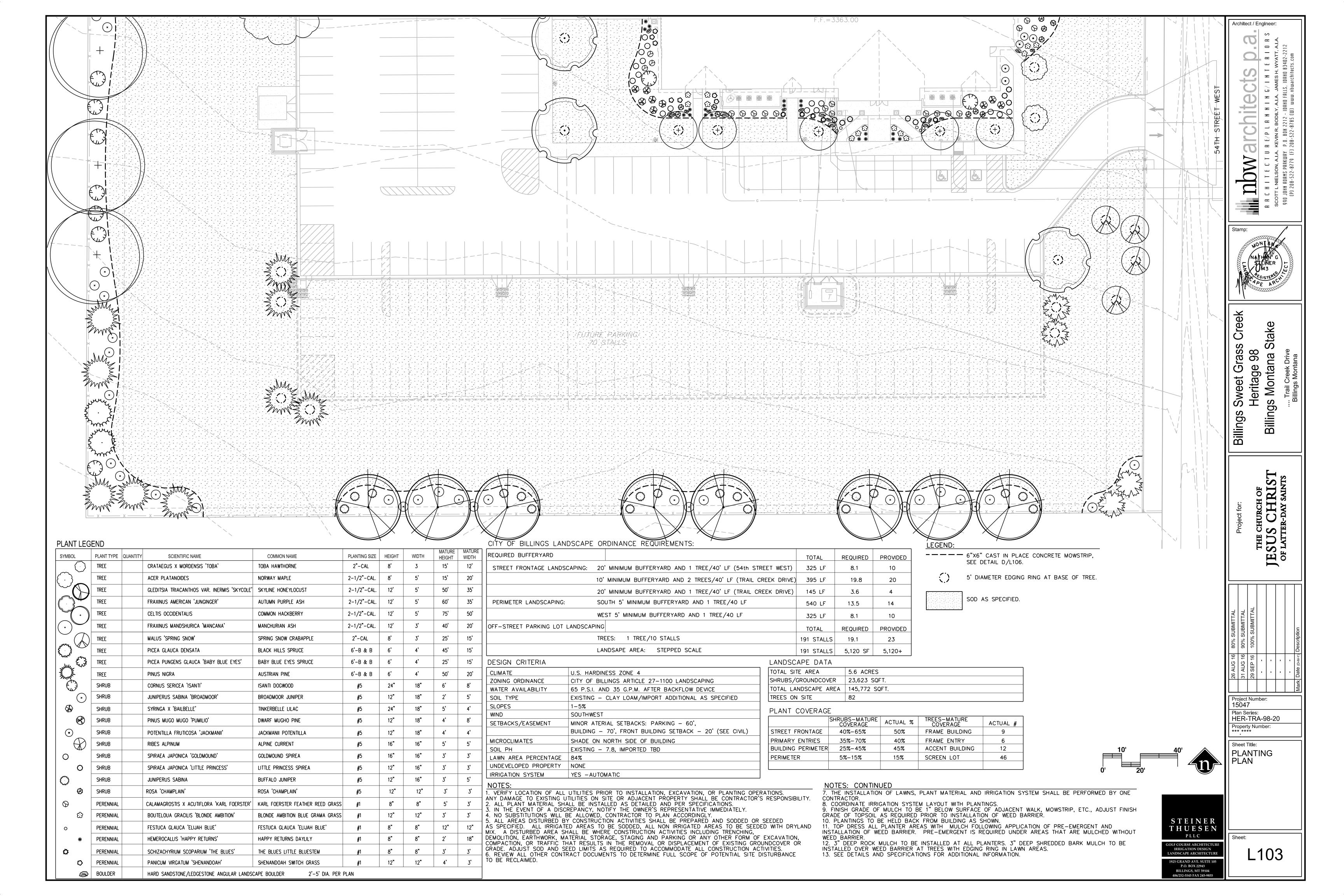
5. Remove locks from storage room Door 113A and Door 116A.

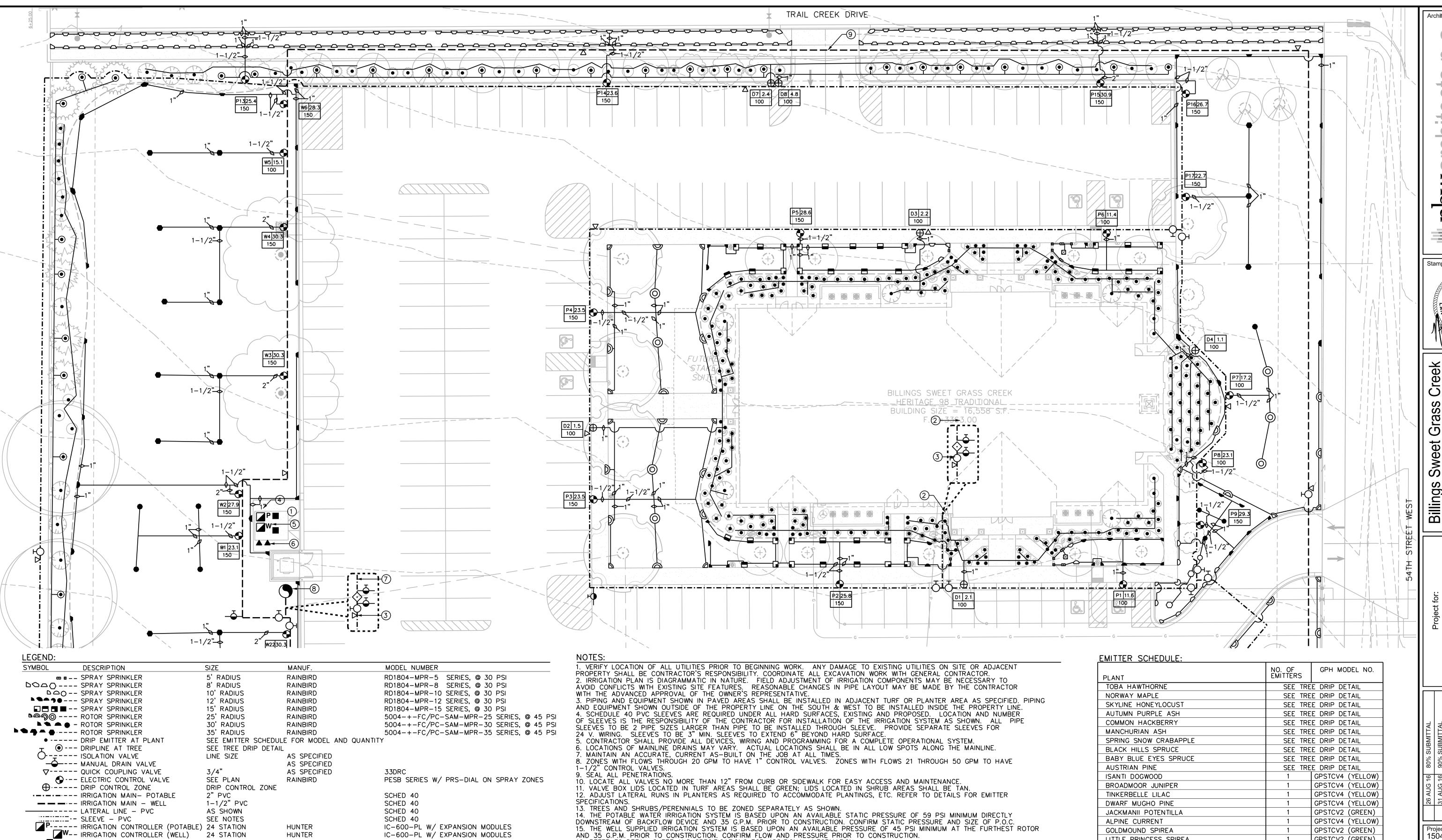












SCHED 40 SCHED 40

HUNTER

**HUNTER** 

**IRRISOFT** 

**IRRISOFT** 

NETAFIM

1-1/2"

IC-600-PL W/ EXPANSION MODULES IC-600-PL W/ EXPANSION MODULES WR-PRG

LHM15TG0053-MEL (PDH)

·-- WELL BY OTHERS ZONE #—A118.9—GPM 150—VALVE SIZE

---- CONTROLLER LINK

▼-- RAIN GAUGE

<·>→---- HYDROMETER

13. TREES AND SHRUBS/PERENNIALS TO BE ZONED SEPARATELY AS SHOWN.
14. THE POTABLE WATER IRRIGATION SYSTEM IS BASED UPON AN AVAILABLE STATIC PRESSURE OF 59 PSI MINIMUM DIRECTLY DOWNSTREAM OF BACKFLOW DEVICE AND 35 G.P.M. PRIOR TO CONSTRUCTION. CONFIRM STATIC PRESSURE AND SIZE OF P.O.C. 15. THE WELL SUPPLIED IRRIGATION SYSTEM IS BASED UPON AN AVAILABLE PRESSURE OF 45 PSI MINIMUM AT THE FURTHEST ROTOR AND 35 G.P.M. PRIOR TO CONSTRUCTION. CONFIRM FLOW AND PRESSURE PRIOR TO CONSTRUCTION.

KEY NOTES:

- MOUNT COTROLLERS ON WALL INSIDE OF SHED.
- (2) CONNECT TO 1-1/2" SUPPLY LINE, COORDINATE W/ MECHANICAL.

16. REFER TO DETAIL SHEET AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

- (3) QUICK COUPLER WITH 4' GALVANIZED PIPE AS SPECIFIED.
- (4) ROUTE CONTROL AND COMM WIRES IN 2-1/2" CONDUIT FROM CONTROLLER ACROSS PARKING LOT TO MAINLINE. END CONDUIT IN VALVE BOX AT MAINLINE. ROUTE WIRE TO CONTRÓL VALVES/HYDROMETER (CONTROL & COMM) ALONG MAINLINE AS DETAILED.
- (5) ROUTE CONTROL AND COMM WIRES IN 2-1/2" CONDUIT FROM CONTROLLER TO MAINLINE. ROUTE WIRE TO CONTROL VALVES/HYDROMETER (CONTROL & COMM) ALONG MAINLINE AS DETAILED.
- (6) INSTALL RAIN GAUGE ON EDGE OF ROOF, RUN WIRES TO CONTROLLER LINK IN CONDUIT. CONCEAL IN WALL.
- (7) 1-1/2" MAINLINE, CONNECT TO WELL AT PITLESS ADAPTER. STUB OUT OF PITLESS ADAPTER WITH DI NIPPLE, 18" LENGTH MIN.
- (8) WELL BY OTHERS: PROVIDE PUMP, MOTOR, VFD CONTROLS, AND ALL OTHER EQUIPMENT NECESSARY FOR A COMPLETE OPERATIONAL SYSTEM. PUMP TO PROVIDE 35 GPM @ 100 PSI MIN. AT PUMP DISCHARGE. DYNAMIC WATER DEPTH IS ESTIMATED AT 50' BELOW SURFACE. PROVIDE FILTRATION /SAND SEPARATOR AS REQUIRED TO SUPPLY "SAND FREE" WATER. FILTRATION EQUIPMENT TO BE DESIGNED TO PROVIDE EASY ACCESS AND BE IN A STAINLESS STEEL ENCLOSURE OVER CONCRETE. PROVIDE SUBMITTAL INFORMATION FOR ALL PUMP AND FILTRATION EQUIPMENT.
- (9) INSTALL MAINLINE SOUTH OF SIDEWALK.

EMITTER SCHEDULE:		
PLANT	NO. OF EMITTERS	GPH MODEL NO.
TOBA HAWTHORNE	SEE TRE	E DRIP DETAIL
NORWAY MAPLE	SEE TRE	E DRIP DETAIL
SKYLINE HONEYLOCUST	SEE TRE	E DRIP DETAIL
AUTUMN PURPLE ASH	SEE TRE	E DRIP DETAIL
COMMON HACKBERRY	SEE TRE	E DRIP DETAIL
MANCHURIAN ASH	SEE TRE	E DRIP DETAIL
SPRING SNOW CRABAPPLE	SEE TRE	E DRIP DETAIL
BLACK HILLS SPRUCE	SEE TRE	E DRIP DETAIL
BABY BLUE EYES SPRUCE	SEE TRE	E DRIP DETAIL
AUSTRIAN PINE	SEE TRE	E DRIP DETAIL
ISANTI DOGWOOD	1	GPSTCV4 (YELLOW)
BROADMOOR JUNIPER	1	GPSTCV4 (YELLOW)
TINKERBELLE LILAC	1	GPSTCV4 (YELLOW)
DWARF MUGHO PINE	1	GPSTCV4 (YELLOW)
JACKMANII POTENTILLA	1	GPSTCV2 (GREEN)
ALPINE CURRENT	1	GPSTCV4 (YELLOW)
GOLDMOUND SPIREA	1	GPSTCV2 (GREEN)
LITTLE PRINCESS SPIREA	1	GPSTCV2 (GREEN)
BUFFALO JUNIPER	1	GPSTCV4 (YELLOW)
ROSA 'CHAMPLAIN'	1	GPSTCV2 (GREEN)
KARL FOERSTER FEATHER REED GRASS	1	GPSTCV1 (BLACK)
BLONDE AMBITION BLUE GRAMA GRASS	1	GPSTCV1 (BLACK)
FESTUCA GLAUCA 'ELIJAH BLUE'	1	GPSTCV05 (BROWN
HAPPY RETURNS DAYLILY	1	GPSTCV05 (BROWN
THE BLUES LITTLE BLUESTEM	1	GPSTCV2 (GREEN)
SHENANDOAH SWITCH GRASS	1	GPSTCV2 (GREEN)
	1	



BILLINGS, MT 59104 406/252-5545 FAX 245-985

**Project Number** 

Plan Series:

HER-TRA-98-20

IRRIGATION

**Property Number** 

15047

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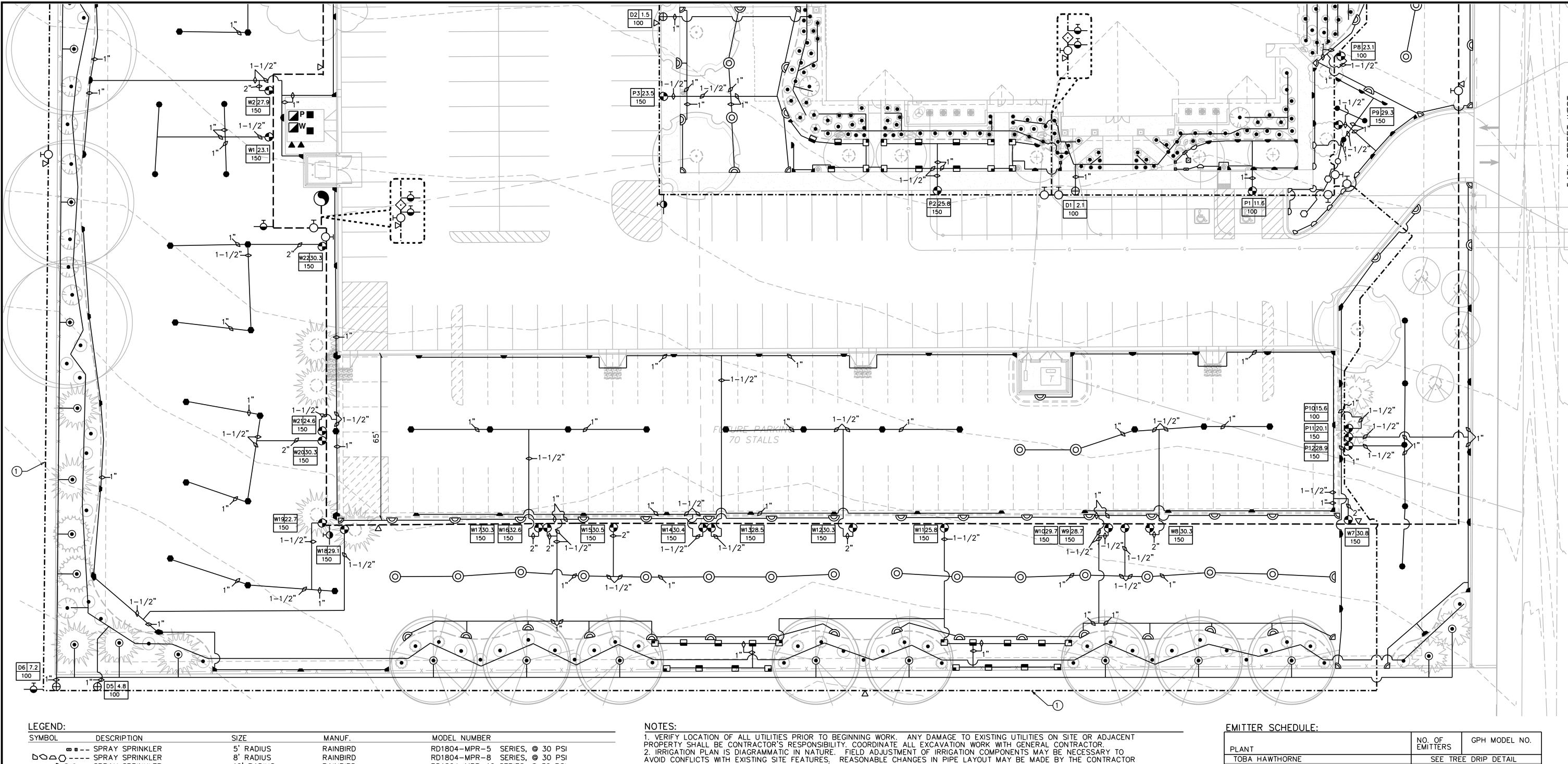
Sheet Title:

PLAN

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SYMBOL	DESCRIPTION	SIZE	MANUF.	MODEL NUMBER
<b>⊠ ⊠ — —</b>	SPRAY SPRINKLER	5' RADIUS	RAINBIRD	RD1804-MPR-5 SERIES, @ 30 PSI
000	SPRAY SPRINKLER	8' RADIUS	RAINBIRD	RD1804-MPR-8 SERIES, @ 30 PSI
	SPRAY SPRINKLER	10' RADIUS	RAINBIRD	RD1804-MPR-10 SERIES, @ 30 PSI
19010	SPRAY SPRINKLER	12' RADIUS	RAINBIRD	RD1804-MPR-12 SERIES, @ 30 PSI
	SPRAY SPRINKLER	15' RADIUS	RAINBIRD	RD1804-MPR-15 SERIES, @ 30 PSI
<b>മ</b> എ⊚	ROTOR SPRINKLER	25' RADIUS	RAINBIRD	5004-+-FC/PC-SAM-MPR-25 SERIES, @ 45 P
111-	ROTOR SPRINKLER	30' RADIUS	RAINBIRD	5004-+-FC/PC-SAM-MPR-30 SERIES, @ 45 P
4	ROTOR SPRINKLER	35' RADIUS	RAINBIRD	5004-+-FC/PC-SAM-MPR-35 SERIES, @ 45 P
•	DRIP EMITTER AT PLANT	SEE EMITTER SCHEDUL	E FOR MODEL AND QUANTITY	·
	DRIPLINE AT TREE	SEE TREE DRIP DETAIL		
O	ISOLATION VALVE	LINE SIZE	AS SPECIFIED	
<del></del>	MANUAL DRAIN VALVE		AS SPECIFIED	
∇	QUICK COUPLING VALVE	3/4"	AS SPECIFIED	33DRC
<b></b> -	ELECTRIC CONTROL VALVE	SEE PLAN	RAINBIRD	PESB SERIES W/ PRS-DIAL ON SPRAY ZONES
⊕	DRIP CONTROL ZONE	DRIP CONTROL ZONE		
	IRRIGATION MAIN- POTABLE	2" PVC		SCHED 40
	IRRIGATION MAIN - WELL	1-1/2" PVC		SCHED 40
	LATERAL LINE - PVC	AS SHOWN		SCHED 40
<u></u>	SLEEVE - PVC	SEE NOTES		SCHED 40
P	IRRIGATION CONTROLLER (POTABLE)	24 STATION	HUNTER	IC-600-PL W/ EXPANSION MODULES
₩	IRRIGATION CONTROLLER (WELL)	24 STATION	HUNTER	IC-600-PL W/ EXPANSION MODULES
	CONTROLLER LINK		IRRISOFT	CLe
~ ▼	RAIN GAUGE		IRRISOFT	WR-PRG
<b>⊘</b>	HYDROMETER	1-1/2"	NETAFIM	LHM15TG0053-MEL (PDH)
· ( • · ·	WELL BY OTHERS			

150 VALVE SIZE

NOTES:

1. VERIFY LOCATION OF ALL UTILITIES PRIOR TO BEGINNING WORK. ANY DAMAGE TO EXISTING UTILITIES ON SITE OR ADJACENT PROPERTY SHALL BE CONTRACTOR'S RESPONSIBILITY. COORDINATE ALL EXCAVATION WORK WITH GENERAL CONTRACTOR.

2. IRRIGATION PLAN IS DIAGRAMMATIC IN NATURE. FIELD ADJUSTMENT OF IRRIGATION COMPONENTS MAY BE NECESSARY TO AVOID CONFLICTS WITH EXISTING SITE FEATURES. REASONABLE CHANGES IN PIPE LAYOUT MAY BE MADE BY THE CONTRACTOR WITH THE ADVANCED APPROVAL OF THE OWNER'S REPRESENTATIVE.

3. PIPING AND EQUIPMENT SHOWN IN PAVED AREAS SHALL BE INSTALLED IN ADJACENT TURF OR PLANTER AREA AS SPECIFIED. PIPING AND EQUIPMENT SHOWN OUTSIDE OF THE PROPERTY LINE ON THE SOUTH & WEST TO BE INSTALLED INSIDE THE PROPERTY LINE.

4. SCHEDULE 40 PVC SLEEVES ARE REQUIRED UNDER ALL HARD SURFACES, EXISTING AND PROPOSED. LOCATION AND NUMBER OF SLEEVES IS THE RESPONSIBILITY OF THE CONTRACTOR FOR INSTALLATION OF THE IRRIGATION SYSTEM AS SHOWN. ALL PIPE SLEEVES TO BE 2 PIPE SIZES LARGER THAN PIPE TO BE INSTALLED THROUGH SLEEVE. PROVIDE SEPARATE SLEEVES FOR 24 V. WIRING. SLEEVES TO BE 3" MIN. SLEEVES TO EXTEND 6" BEYOND HARD SURFACE.

5. CONTRACTOR SHALL PROVIDE ALL DEVICES, WIRING AND PROGRAMMING FOR A COMPLETE OPERATIONAL SYSTEM.

6. LOCATIONS OF MAINLINE DRAINS MAY VARY. ACTUAL LOCATIONS SHALL BE IN ALL LOW SPOTS ALONG THE MAINLINE.

7. MAINTAIN AN ACCURATE, CURRENT AS—BUILT ON THE JOB AT ALL TIMES.

8. ZONES WITH FLOWS THROUGH 20 GPM TO HAVE 1" CONTROL VALVES. ZONES WITH FLOWS 21 THROUGH 50 GPM TO HAVE 1—1/2" CONTROL VALVES.

9. SEAL ALL PENETRATIONS.

10. LOCATE ALL VALVES NO MORE THAN 12" FROM CURB OR SIDEWALK FOR EASY ACCESS AND MAINTENANCE.

11. VALVE BOX LIDS LOCATED IN TURF AREAS SHALL BE GREEN; LIDS LOCATED IN SHRUB AREAS SHALL BE TAN.

12. ADJUST LATERAL RUNS IN PLANTERS AS REQUIRED TO ACCOMMODATE PLANTINGS, ETC. REFER TO DETAILS FOR EMITTER SPECIFICATIONS.

SPECIFICATIONS.

13. TREES AND SHRUBS/PERENNIALS TO BE ZONED SEPARATELY AS SHOWN.

14. THE POTABLE WATER IRRIGATION SYSTEM IS BASED UPON AN AVAILABLE STATIC PRESSURE OF 59 PSI MINIMUM DIRECTLY DOWNSTREAM OF BACKFLOW DEVICE AND 35 G.P.M. PRIOR TO CONSTRUCTION. CONFIRM STATIC PRESSURE AND SIZE OF P.O.C.

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16. REFER TO DETAIL SHEET AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.

**KEY NOTES:** 

(1) INSTALL MAINLINE INSIDE OF FENCE.

LIMITIEN SCHEDOLL.		
PLANT	NO. OF EMITTERS	GPH MODEL NO.
TOBA HAWTHORNE	SEE TRE	E DRIP DETAIL
NORWAY MAPLE		E DRIP DETAIL
SKYLINE HONEYLOCUST		E DRIP DETAIL
AUTUMN PURPLE ASH		E DRIP DETAIL
COMMON HACKBERRY	SEE TRE	E DRIP DETAIL
MANCHURIAN ASH	SEE TRE	E DRIP DETAIL
SPRING SNOW CRABAPPLE	SEE TRE	E DRIP DETAIL
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406/252-5545 FAX 245-9855

PLLC IRRIGATION DESIGN
ANDSCAPE ARCHITECTUR P.O. BOX 22943 BILLINGS, MT 59104

STEINER THUESEN OLF COURSE ARCHITECTUR

Project Number 15047 Plan Series:

Property Number:

Sheet Title:

PLAN

HER-TRA-98-20

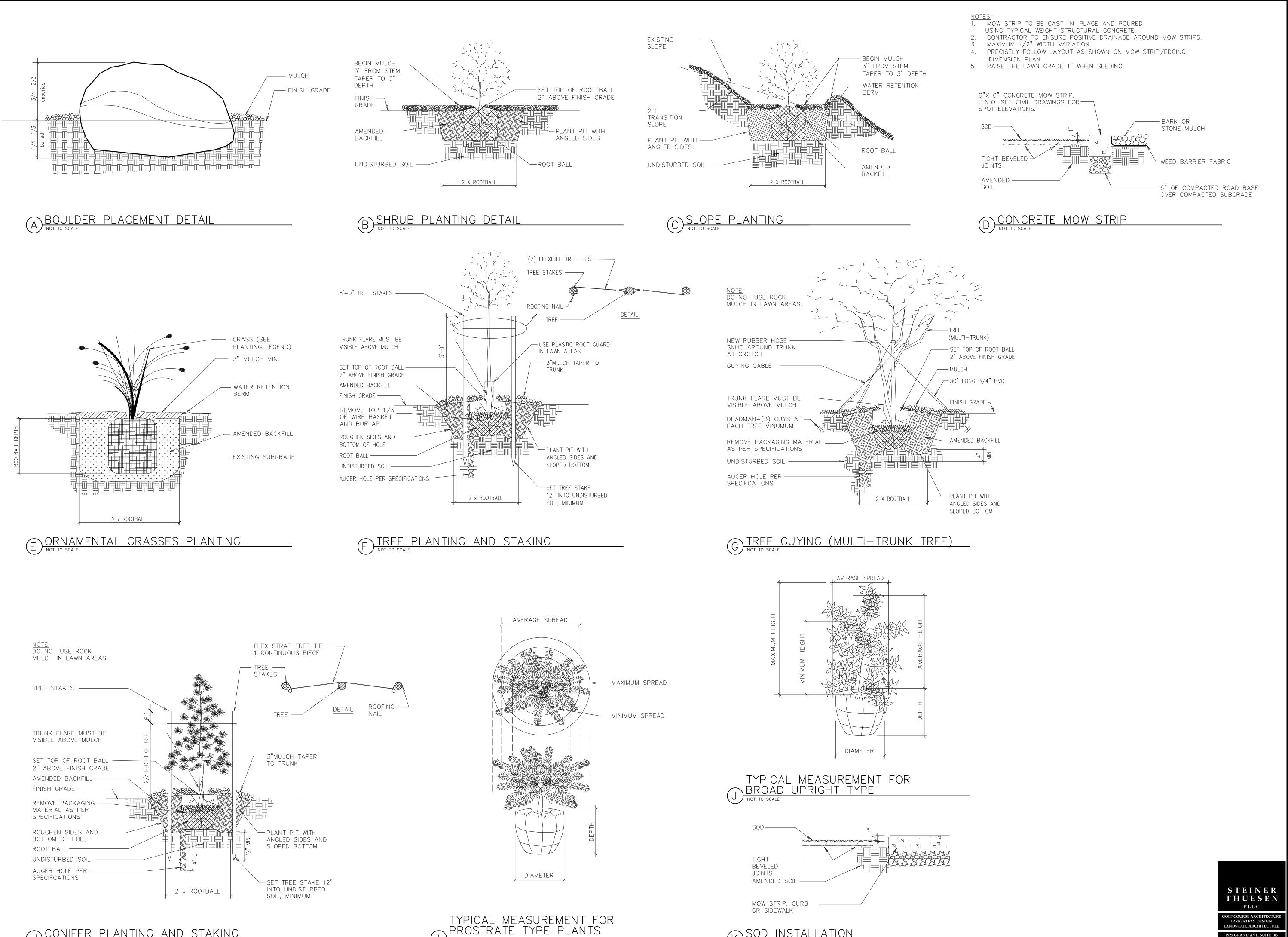
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(H) CONIFER PLANTING AND STAKING

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NOT TO SCALE

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Architect / Engineer:

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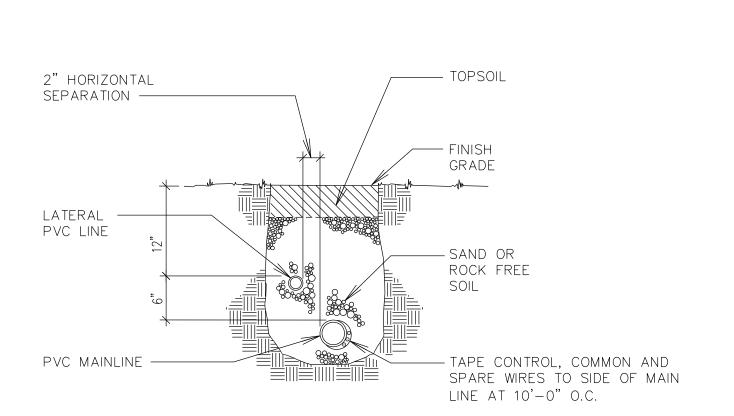
Project Number: 15047 Plan Series: HER-TRA-98-20 Property Number:

Sheet Title:

PLANTING DETAILS

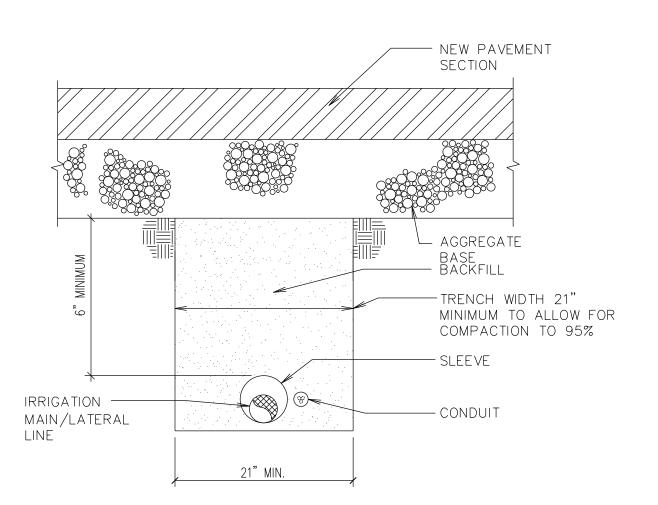
IRRIGATION DESIGN LANDSCAPE ARCHITECTURE 25 GRAND AVE. SUITE 105 P.O. BOX 22943

BILLINGS, MT 59104 406/252-5545 FAX 245-9855

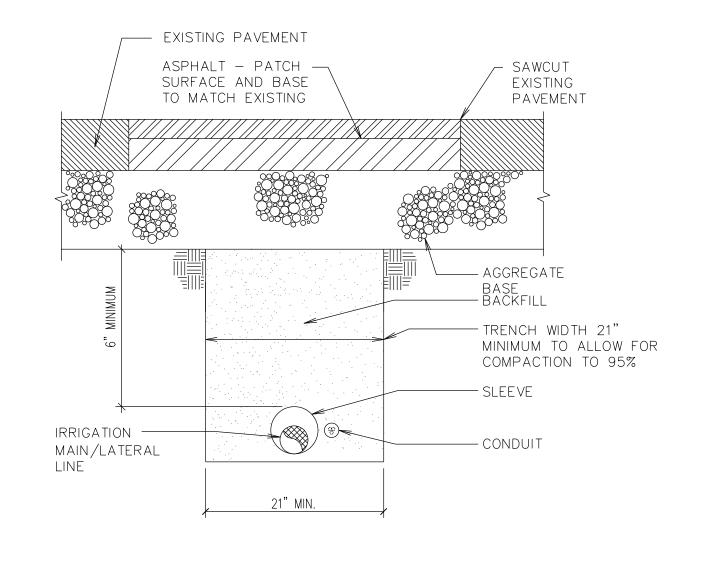


CONVENTIONAL WIRE SYSTEM

## (A) TRENCH SECTION NOT TO SCALE



MISC. PIPE TRENCH DETAIL
NEW PAVEMENT AREAS
NOT TO SCALE



MISC. PIPE TRENCH DETAIL EXIST. PAVEMENT AREAS

### -BRASS SWIVEL VALVE COUPLER KEY — HOSE ELL - VALVE COVER LANDSCAPE -SCH 80 PVC SURFACING — FINISH GRADE FITTING SCH 40 PVC MAIN TWO-PIECE BODY DESIGN QUICK COUPLING VALVE GALVANIZED -10" ROUND 3/4" ELL — VALVE BOX, GALVANIZED - GALVANIZED 3/4" STREET ELL EXTENSIONS 3/4" STREET ELL — GRAVEL (EXTEND UNDER BRICKS) SCH 40 PVC — 3/4" ELL (2) 3/4" GALVANIZED STÉEL NIPPLES. LENGTH AS NEEDED \_ SCH 80 PVC FITTING - GALVANIZED 3/4" STREET ELL SIDE VIEW TOP VIEW

QUICK COUPLING VALVE

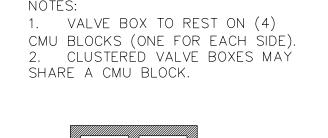
1. LIMIT 1 VALVE PER BOX.

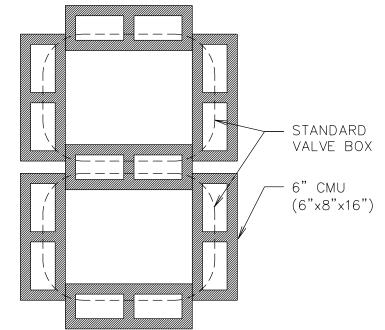
3. PROVIDE MIN. 2" CLEARANCE BETWEEN WIRE AND CMU BLOCK. (PVC MANIFOLD LINE FOR VALVE ----VALVE ID TAG-— AUTOMATIC VALVE WATERPROOF WIRE -- PVC SCH. 80 'ACTION' CONNECTORS UNION (BOTH SIDES) 24-INCH LINEAR LENGTH OF WIRE, INSIDE OF VALVE BOX COILED LANDSCAPE SURFACING — -PVC SCH. 80 SS COUPLER (BOTH SIDES) FINISH GRADE -PVC SCH. 80 SS — ELBOW (OR SSS PLASTIC VALVE BOX-V TEE) 12" DEEP STANDARD  $\leftarrow$ LATERAL PIPE-

2. 10" MIN. LATERAL LINE DEPTH AT VALVE BOX, 12" MIN. LATERAL LINE DEPTH EVERYWHERE ELSE.

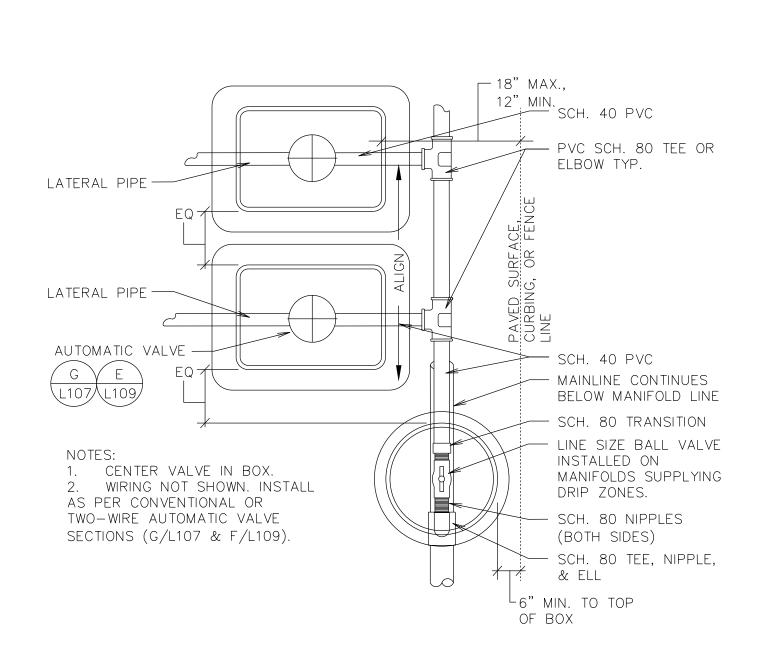
FILTER FABRIC— 5" MIN. DEPTH OF 3/4-INCH-WASHED GRAVEL SCH. 80 PVC CUT TO FIT ——— PVC SCH. 80 SSS TEE— 24" COILED EXTRA WIRE — PVC SCH. 40 MAIN-(DIFFERENT COLOR) INSTALL COIL IN EACH VALVE BOX

> AUTOMATIC VALVE WITH CONVENTIONAL WIRE SYSTEM
> NOT TO SCALE

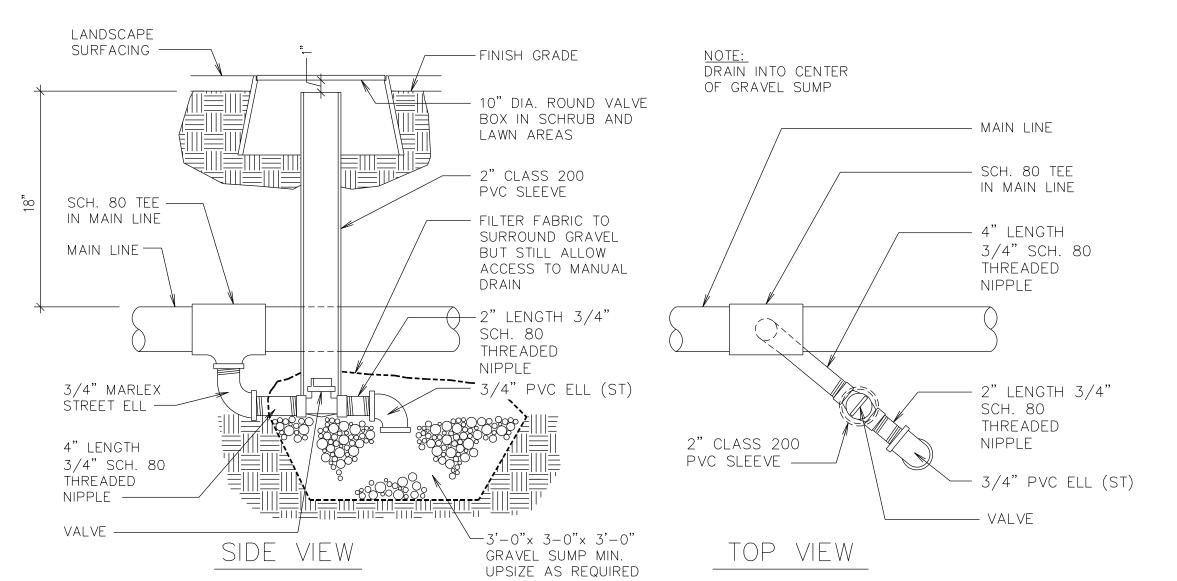




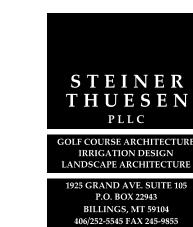
G CMU PLACEMENT



MANIFOLD & VALVE ASSEMBLY
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E MAIN LINE MANUAL DRAIN VALVE



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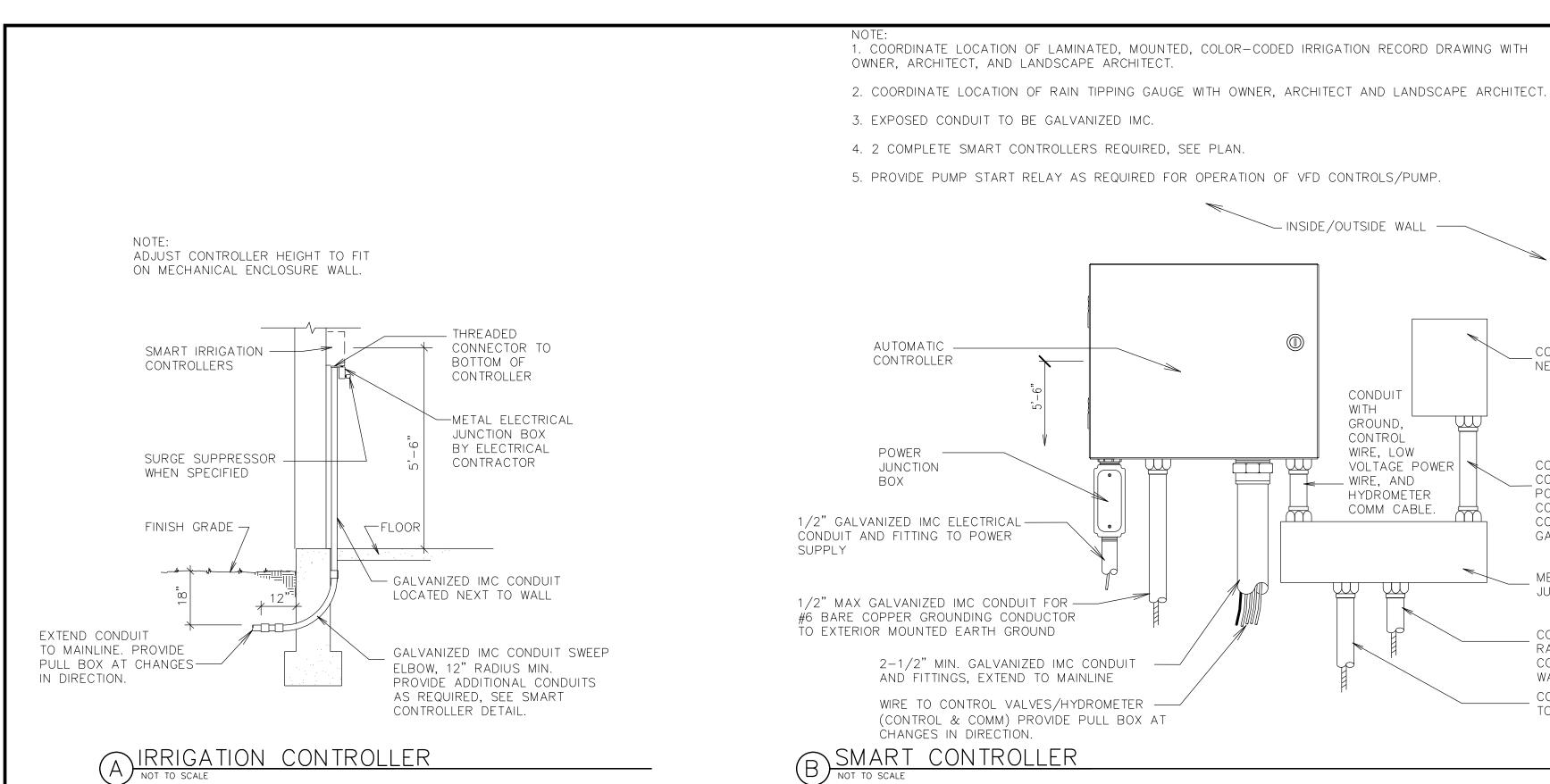
Architect / Engineer:

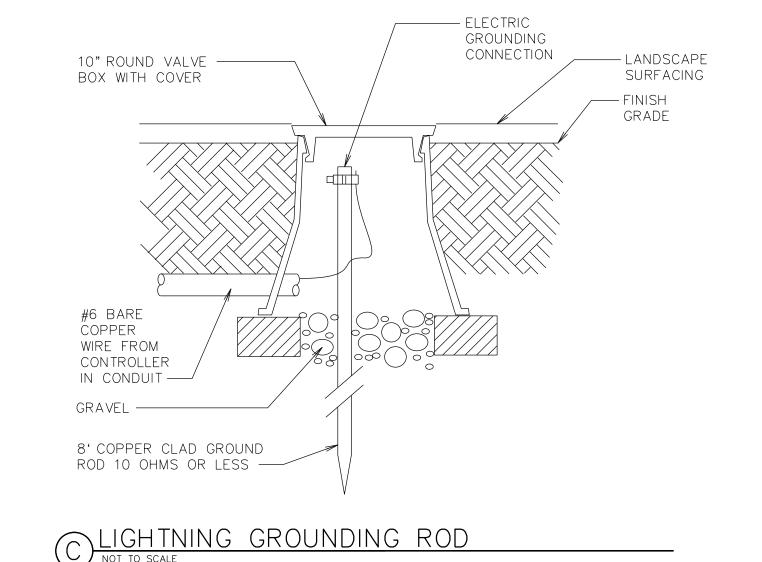
80% SUBMITTAL	31 AUG 16 90% SUBMITTAL	100% SUBMITTAL				
26 AUG 16	31 AUG 16	29 SEP 16	1	-	1	
Pro	Project Number: 15047					

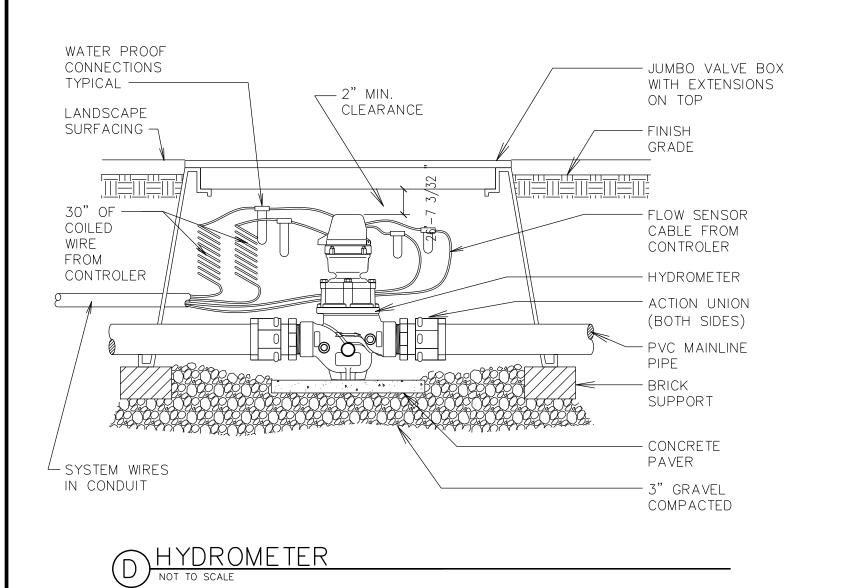
Plan Series: HER-TRA-98-20 Property Number:

Sheet Title:

IRRIGATION DETAILS









DRAIN VALVES ON BOTH — Y

SIDES OF HYDROMETER

ISOLATION VALVE ---

-- BACKFLOW DEVICE BY MECHANICAL

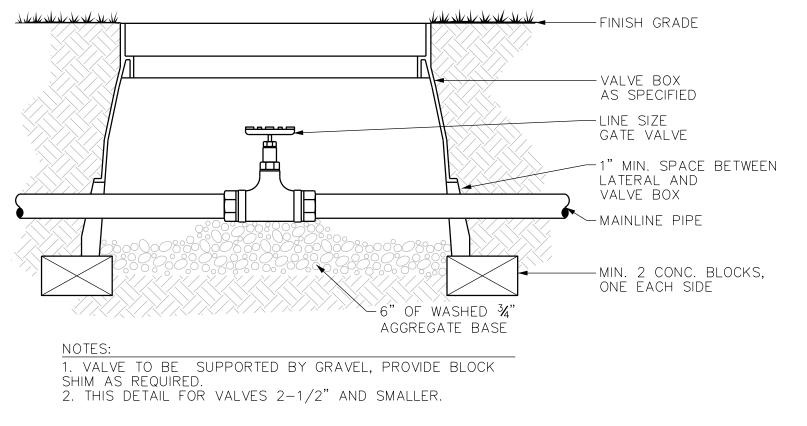
---- HYDROMETER

INSTALL ISOLATION VALVE

AFTER THE HYDROMETER

(POTABLE SYSTEM ONLY)

(WELL SYSTEM ONLY)





CONTROLLER LINK MOUNTED

NEXT TO BASE CONTROLLER

CONDUIT WITH GROUND,

GAUGE AND ETHERNET.

METAL CABLE TRAY OR

CONDUIT WITH WIRES TO

RAINGAUGE ON EDGE OF ROOF.

CONCEAL CONDUIT IN BUILDING

CONDUIT WITH ETHERNET CABLE

JUNCTION BOX.

WALL.

TO BUILDING.

CONTROL WIRES, LOW VOLTAGE

POWERE WIRE AND HYDROMETER

COMM CABLE TO AUTOMATIC

CONTROLLER; WIRES TO RAIN

QUICK COUPLER FOR BLOW OUT — COUPLER. THE HYDROMETER IS TO BE DRAINED MANUALLY.

STEINER THUESEN PLLC OLF COURSE ARCHITECTURE IRRIGATION DESIGN LANDSCAPE ARCHITECTURE 1925 GRAND AVE. SUITE 105 P.O. BOX 22943 BILLINGS, MT 59104

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Project Number: 15047 Plan Series: HER-TRA-98-20 Property Number: Sheet Title: IRRIGATION

Architect / Engineer:

Creek

Billings

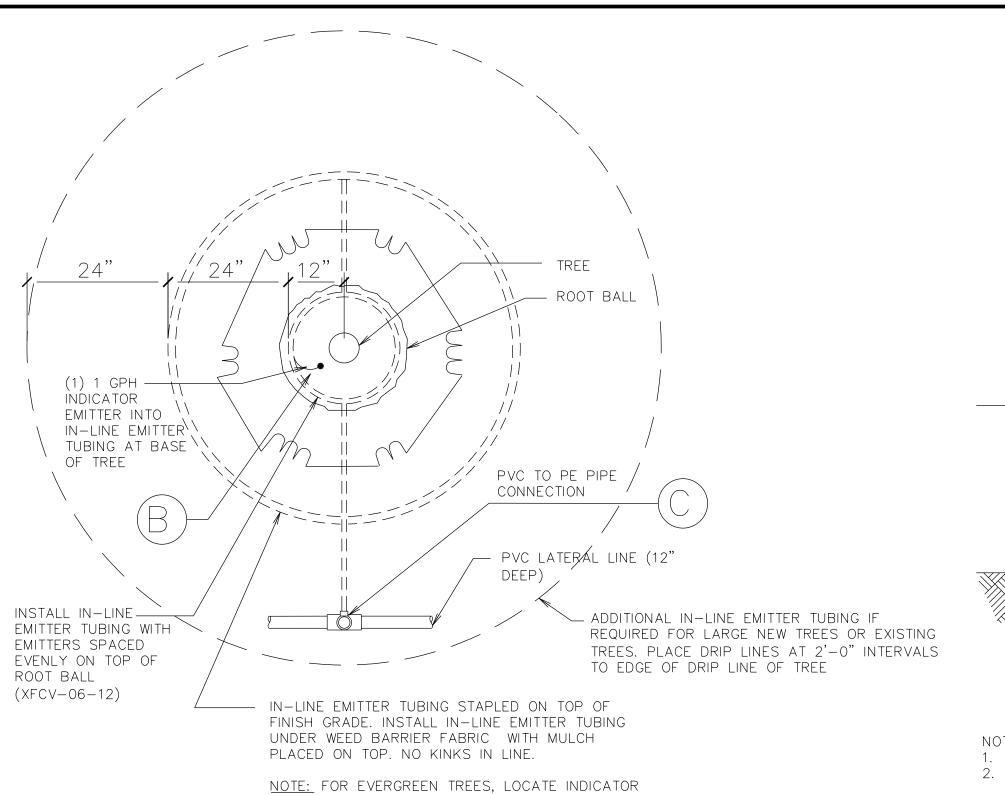
Stake

THE CHURCH OF SOUR CHURCH OF LATTER-DAY SAINTS

JE.

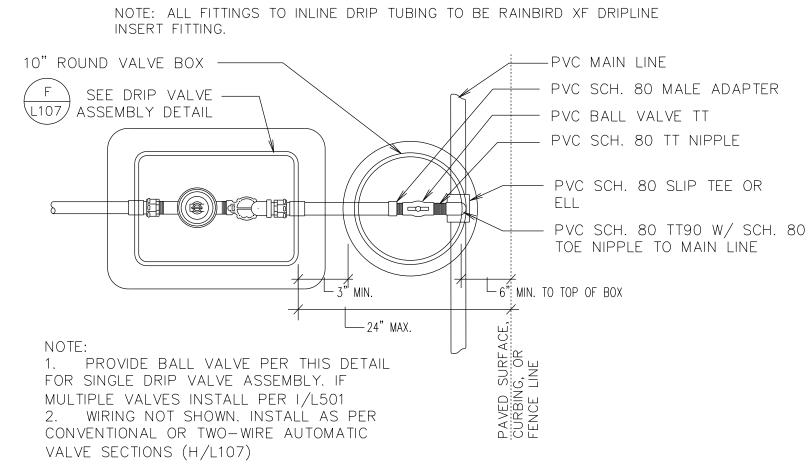
illings Sweet Grass ( Heritage 98 Billings Montana Sta

DETAILS

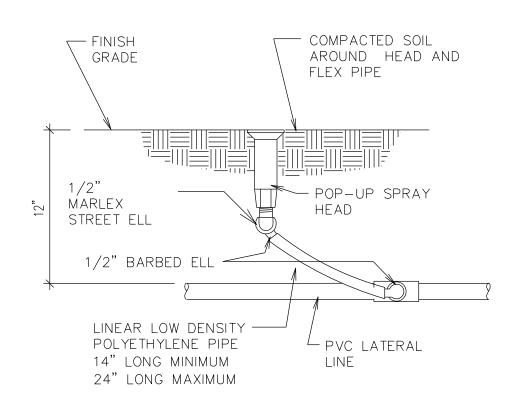


## A TREE DRIP-PLAN VIEW (Planter Areas)

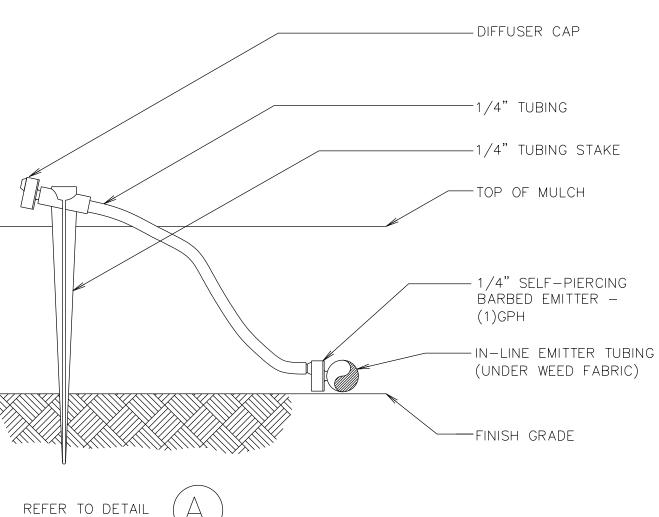
EMITTER ON OUTSIDE OF OUTER DRIP RING.)



# DRIP VALVE ASSEMBLY NOT TO SCALE



SPRAY HEAD ASSEMBLY
NOT TO SCALE

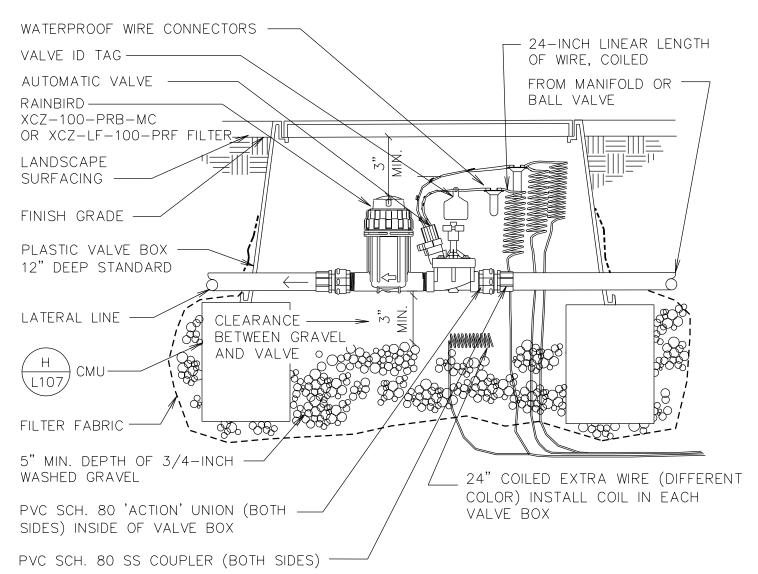


. CONNECT SELF-PIERCING EMITTER DIRECTLY INTO IN-LINE EMITTER TUBING. 2. THIS IS AN INDICATOR ONLY EMITTER TO BE USED AT EACH TREE RING AND

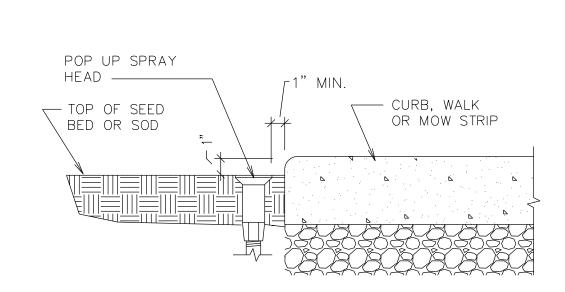
### AREA WHERE IN-LINE EMITTER TUBING IS INSTALLED. 3. 1/4" TUBING LENGTH: MINIMUM 14", MAXIMUM 24".

### (B) INDICATOR EMITTER

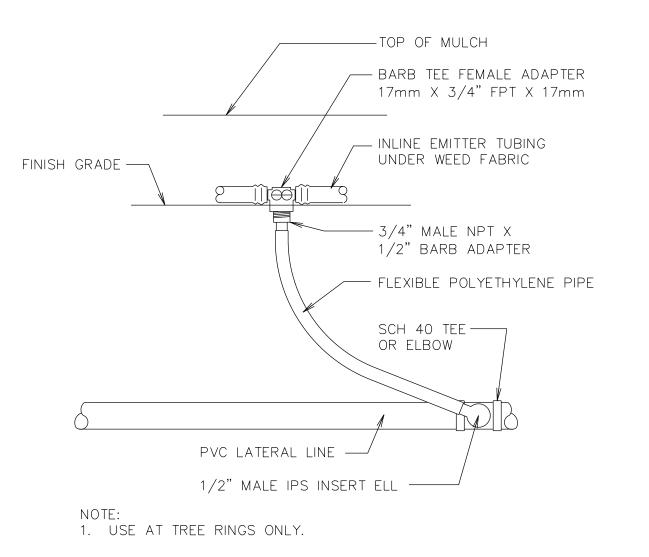
1. LIMIT 1 VALVE PER BOX. 2. 10" MIN. LATERAL LINE DEPTH AT VALVE BOX, 12" MIN. LATERAL LINE DEPTH EVERYWHERE ELSE. 3. PROVIDE MIN. 2" CLEARANCE BETWEEN WIRE AND CMU BLOCK. 4. REFER TO SPECIFICATIONS FOR INFORMATION ON FILTER SELECTION



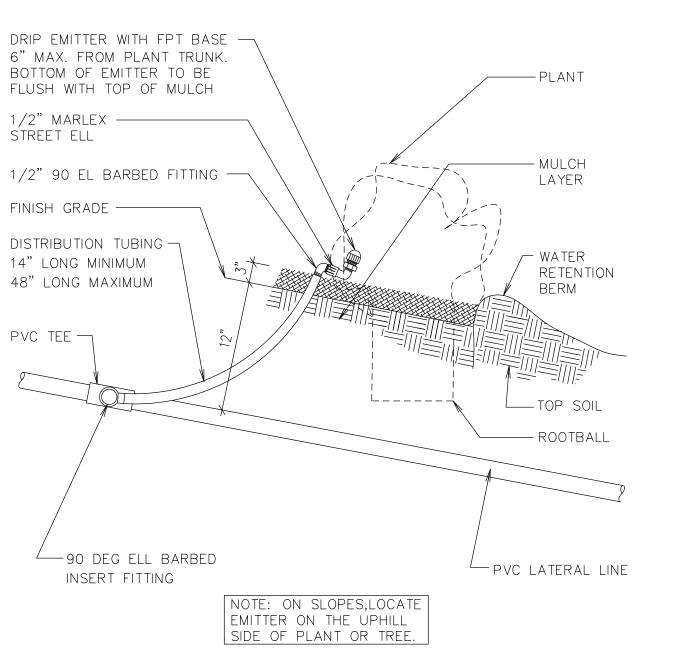
### DRIP VALVE ASSEMBLY-SECTION (E) CONVENTIONAL WIRE SYSTEM

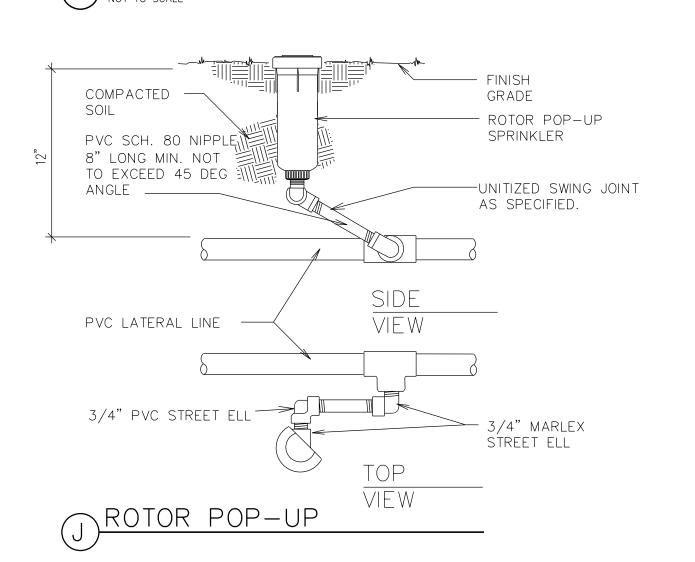


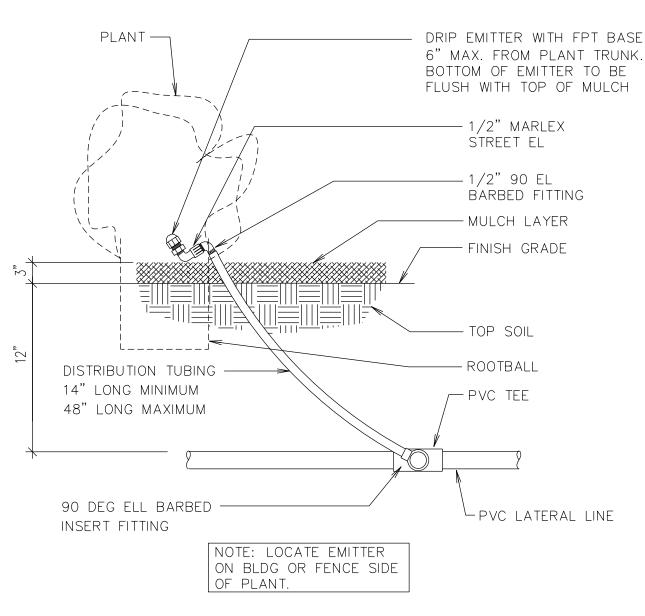
SPRAY HEAD ASSEMBLY



### PVC TO IN-LINE EMITTER



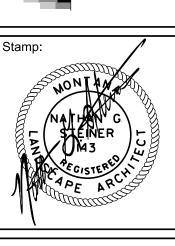




G DRIP EMITTER
NOT TO SCALE

STEINER THUESEN PLLC IRRIGATION DESIGN LANDSCAPE ARCHITECTURE 5 GRAND AVE. SUITE 10 P.O. BOX 22943 BILLINGS, MT 59104 406/252-5545 FAX 245-9855

Architect / Engineer:



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	26 AUG 16 80% SUBMITTAL	31 AUG 16 90% SUBMITTAL	100% SUBMITTAL			
	26 AUG 16	31 AUG 16	29 SEP 16		-	 -
Γ	Project Number:					

15047 Plan Series: HER-TRA-98-20 Property Number:

Sheet Title:

IRRIGATION DETAILS