

Owner:
 Praveen Mahshwari
 6438 Farthing Drive
 Colorado Springs, CO 80906
 (405) 406-2207

Legal Description:
 Lots 1 and 2 Cascade Subdivision No. 1, in the City of Colorado Springs, County of El Paso, State of Colorado, according to the plat thereof recorded under Reception No. 218714199, 8-20-18, of the records of said County and containing 0.571 acres

Units of measurement: US Survey Feet

Addresses: 2610 East Dale (lot 2) and 820, 841 and 860 Rancho Santa Fe (lot 1)

Zone: R-4

Setbacks:
 Front = 20'
 Rear = 5'
 Side = 25'
 Max Building Height: 40'
 Minimum lot width = 50'

Density:
 Lot 1
 Units 1 and 2 (3-story) = 4352 sf
 Lot 2
 Existing house (1 story) = 948 sf
 9 DU's / .571 acres = 15.7 DU/AC

Assessor's Parcel No's: 6409402140 and 6409402139

Flood plain:
 According to the current effective Federal Emergency Management Agency Flood Insurance Rate Map, the subject property is located outside the boundary of the 100 Year Floodplain, as identified on FEMA Mapping Panels No. 08041C0732 G and 08041C0734 G, dated December 7, 2018

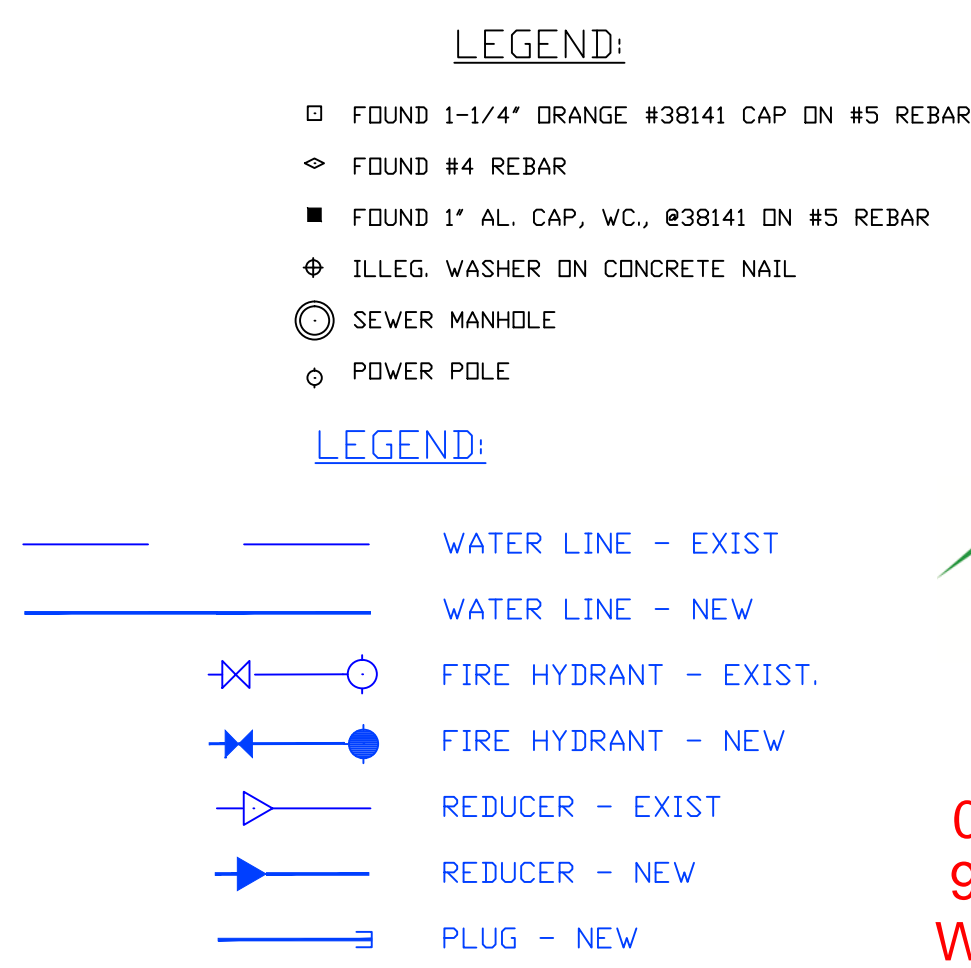
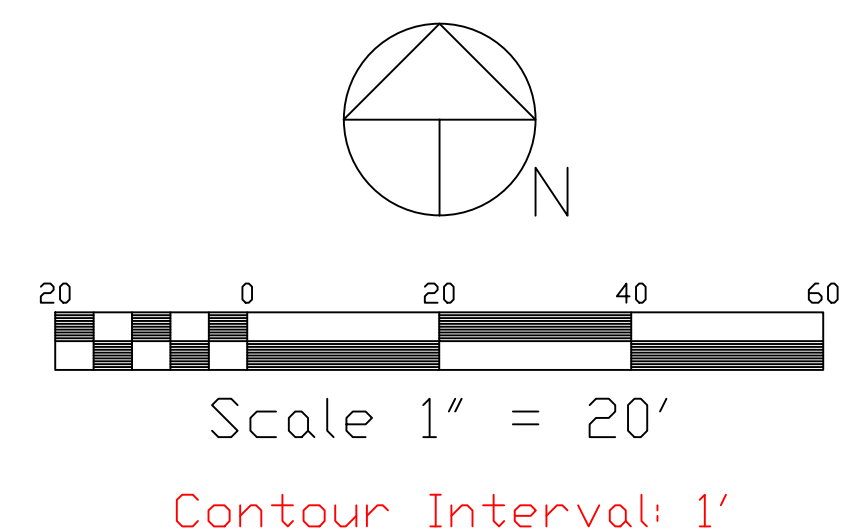
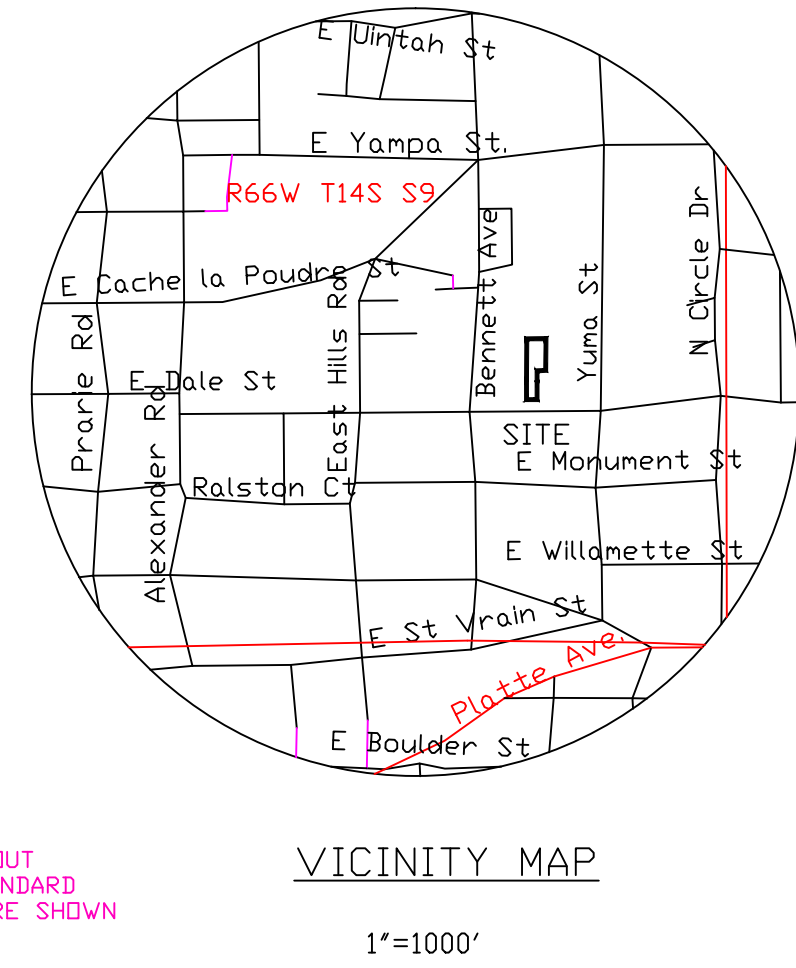
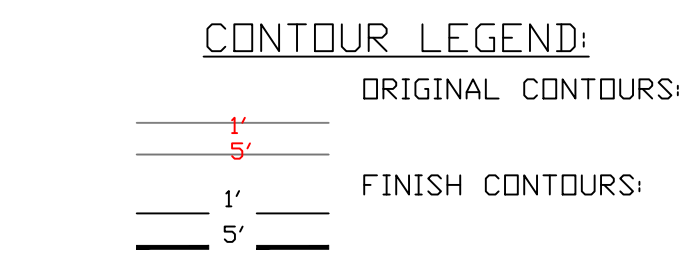
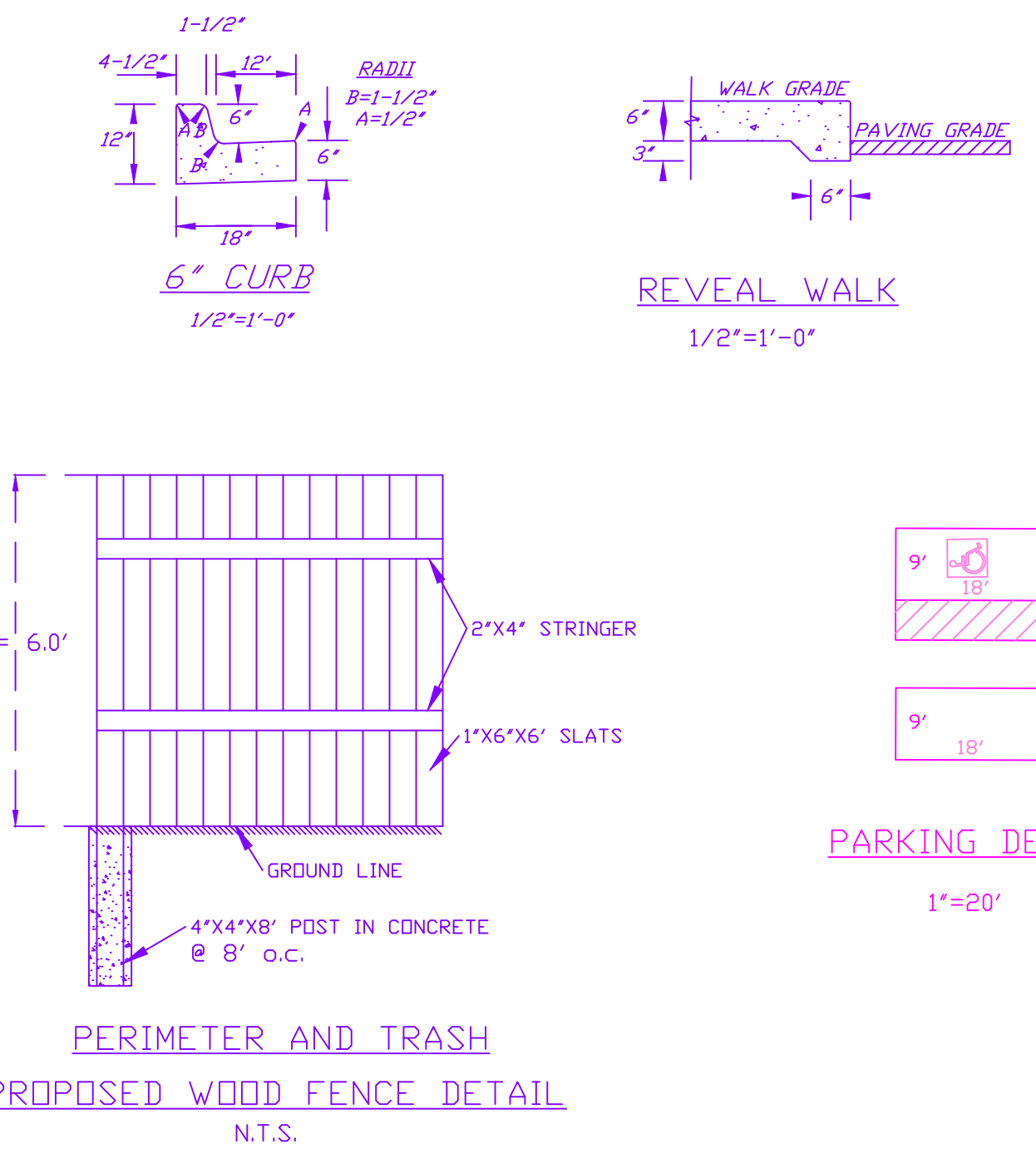
Use(s):
 Multi-Family / Townhome

Development time table:
 Fall, 2022

Area:
 Overall: 24,881 sf 100%
 Buildings:
 Lot 1 = 4352 sf
 Lot 2 = 948 sf
 Impervious: 10,785 sf 43.5%
 Landscape: 14,026 sf 56.5%

Parking requirements:
 Lot 1, 8 units, 3-story, 2-car garage = 1.7 spaces per dwelling unit = 14 spaces
 Lot 2, single family, 2-car garage = 1 space
 Required: 15 spaces with 1 marked for handicapped parking
 Provided: 16 spaces, with 1 marked for handicapped parking

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3	Preliminary Utilities and Public Facilities Plan	
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5	House Elevations - Side	
6	House Elevations - Rear	
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Site Development Notes per City approved Development Plan AR-DP 18-00149, 7-5-18:

- All sidewalks shall be 4' width (min).
- A Non-Use Variance is being submitted as part of the Development application to allow a 16' wide 2-way private drive (City File No. AR NV 18-000151).
- Curb and gutter along Dale Street to remain.
- Site will not have exterior lighting poles/fixtures. Exterior lights to consist of typical residential fixtures located at unit entrances.
- All drives and parking lot areas within this development are private and will be maintained by the property management company.
- Private drives and parking lot grades will be in accordance with the City's Subdivision Ordinance. Over lot grading will be used to achieve conformance.
- The developer is responsible for construction of all sidewalks, private drives and parking lots.
- All existing curb, gutter, sidewalk, pedestrian ramps, and driveway aprons posing a safety hazard, damaged, exhibiting excessive deterioration or not meeting current City Engineering Standards along Dale Street, adjacent to the site will need to be removed and replaced prior to issuing the certificate of occupancy (C.O.). An on-site meeting can be set up with the Engineering Development Review Inspector to determine what, if any, improvements are required. The Inspector can be reached at 719-385-5977.
- An 18' wide public utility, drainage, access and fire lane easement is provided. Utility service will be installed per City Standards and sized accordingly.
- All landscape and common areas will be maintained by the owner.

Fire Protection Development Standards per City approved Development Plan AR-DP 18-00149, 7-5-18:

- Units will be classified as townhomes (Type VB structure) with fire walls between every unit.
- Each unit will have an independent residential fire sprinkler system (NFPA 13D System) in lieu of providing 20' wide minimum drive.
- Each unit will have a dedicated domestic water service which the fire sprinkler system will tie into (No separate fire service lines).
- A fire hydrant will be installed at the south end of the private drive / fire lane.
- Private drive / fire lane entry will meet fire truck turning radius requirements.
- No-Parking - Fire Lane signs shall be located on both sides of the private drive / fire lane.

The following notes are on the recorded subdivision plat for the site; Cascade Subdivision No. 1, plat notes 9, 10 and 11.

- This property is subject to the terms and conditions of the private access, private utility, fire access, drainage and maintenance easement, recorded at Reception No. 218095731, at the El Paso County Clerk and Recorder, State of Colorado.
- Rancho Santa Fe Point is a private driveway for Lots 1 and 2 and is named for addressing purposes only.
- The owner and/or property manager will be responsible for all maintenance of grounds, common areas and private drives.

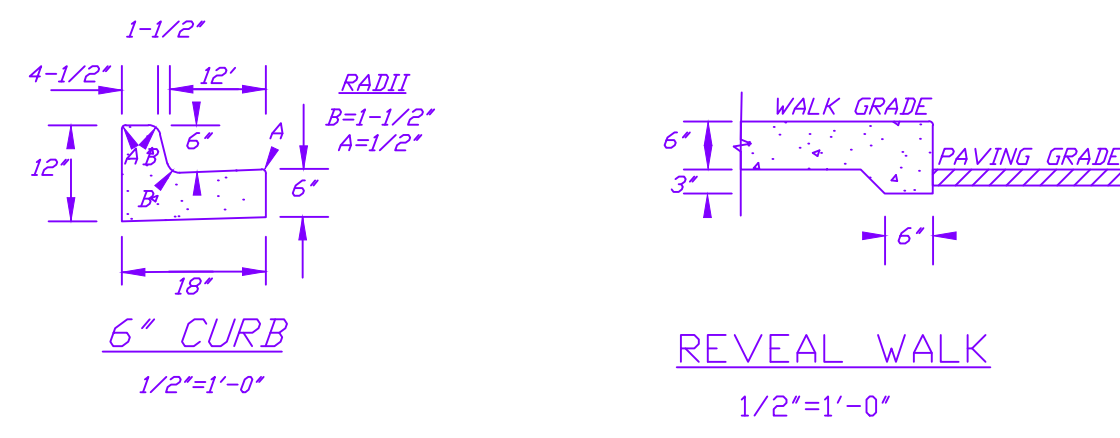
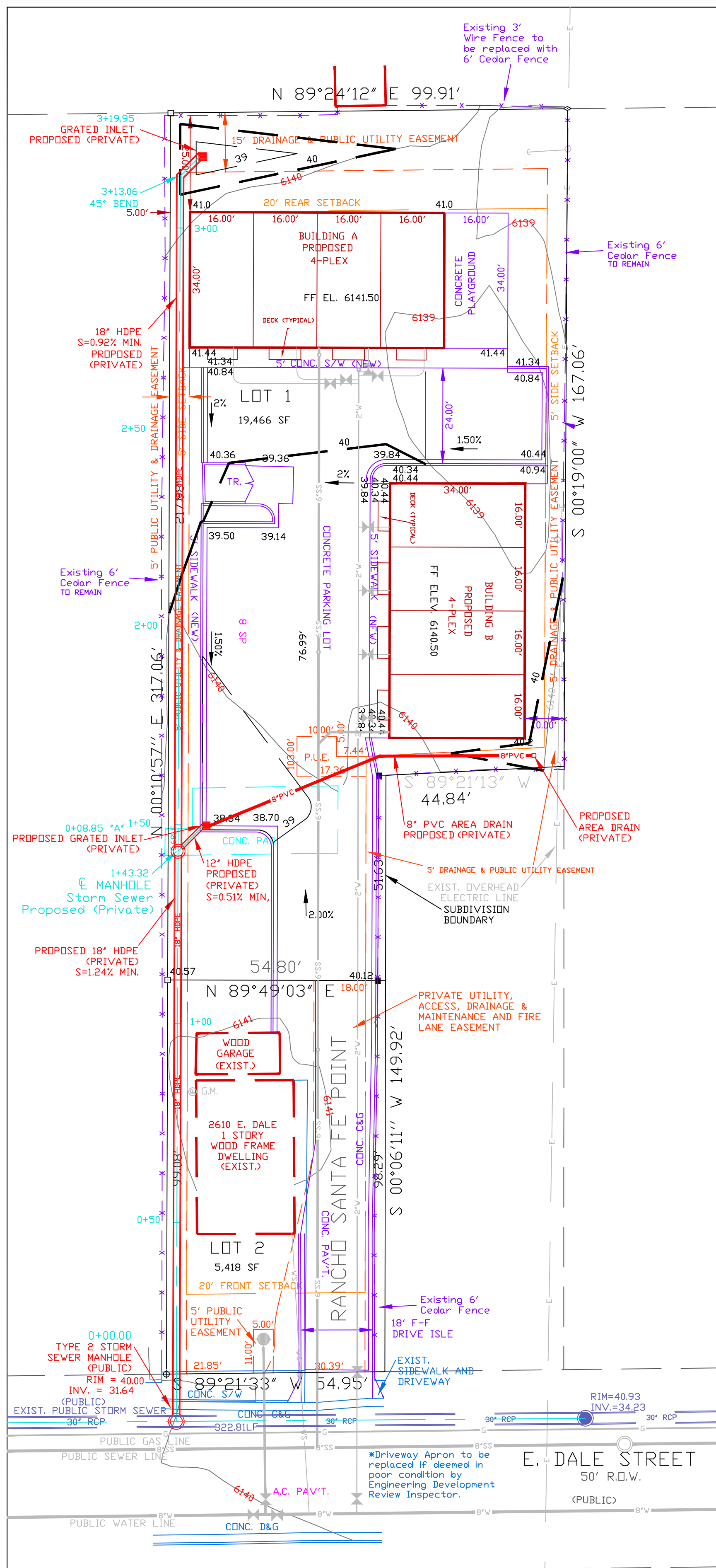
Planning history summary:
 1. AR-DP 18-00149
 City approved Development Plan, 7-5-18
 2. AR NV 18-000151
 Non-Use Variance to allow a 16' wide 2-way private drive
 3. CPC ZC 05-00183, 01/05/2006
 Zone change from R2 to R4
 4. CPC MDP 05-00185
 Proposed Development plan for multi-family. Plan not approved, expired
 5. CPC NV 05-00184
 Proposed non-use variance. Not approved, expired

Site drainage:
 Drainage will conform to the City approved drainage letter.

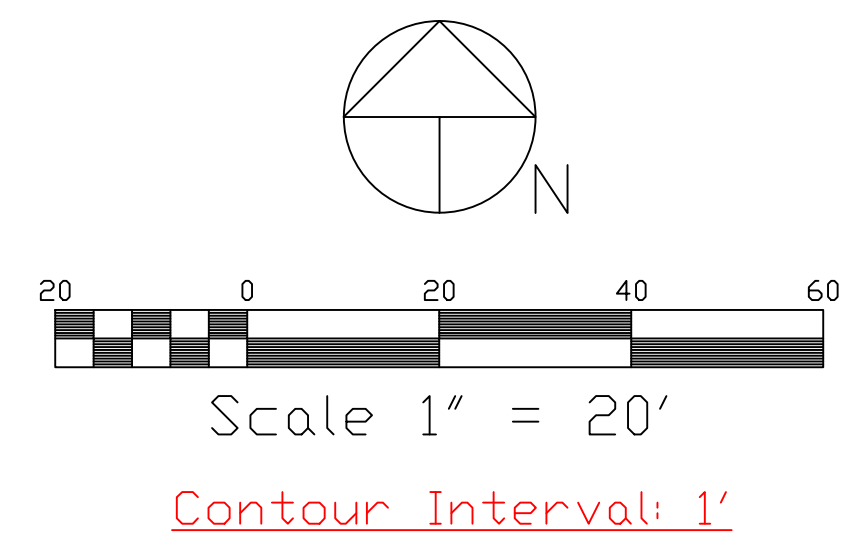
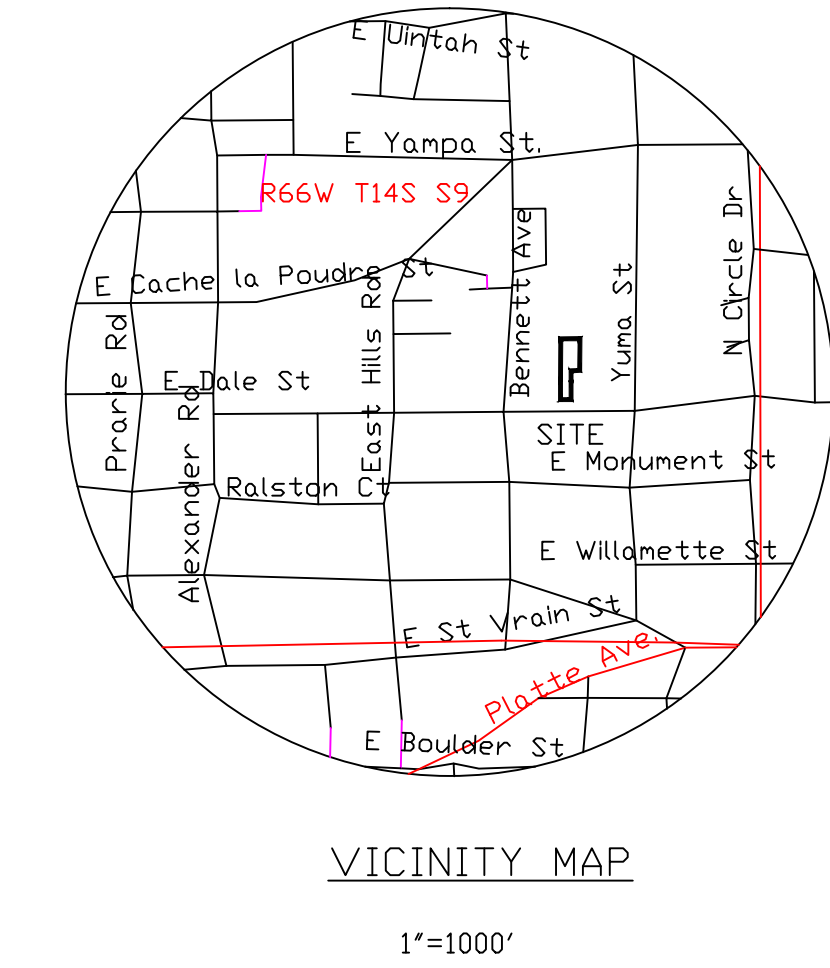
Site notes:

- Trash dumpsters are to be screened by a 6' high, wooden fenced enclosure.
- All parking and driveway areas are to be paved to meet H-20 load specs.
- Accessible parking spaces, access aisles, and signage shall meet all applicable City code requirements including:
 Accessible parking spaces shall be level with surface slopes not exceeding one to fifty (1:50) (2 percent) in all directions. Accessible parking spaces shall be marked with four-inch (4") lines. Accessible aisles shall be outlined and diagonally striped at forty five degree (45°) angles in a contrasting color such as yellow, white, or blue. Each accessible parking space shall be designated as reserved by a sign showing the International Symbol of Accessibility. Van accessible spaces shall have an additional sign containing the designation, "van accessible", mounted below the symbol of accessibility. Each accessible parking space sign shall be no smaller than eighteen inches (18") tall by twelve inches (12") wide. Each van accessible sign shall be no smaller than six inches (6") tall by twelve inches (12") wide. Signs shall be located at the head of the space with the bottom of the sign(s) between five feet (5') and seven feet (7') above the finish floor or ground surface.
- The parties responsible for this plan have familiarized themselves with all current accessibility criteria and specifications and the proposed plan reflects all site elements required by the applicable ADA design standards and guidelines as published by the United States Department of Justice. Approval of this plan by the City of Colorado Springs does not assure compliance with the ADA or any other Federal or State accessibility laws or any regulations or guidelines enacted or promulgated under or with respect to such laws. Sole responsibility for compliance with Federal and State accessibility laws lies with the property owner. Accessible parking spaces, access aisles, and signage shall meet all applicable City code requirements including:
 Parking spaces and access aisles shall be level with surface slopes not exceeding one to fifty (1:50) (2 percent) in all directions. Accessible parking spaces shall be marked with four-inch (4") lines. Accessible aisles shall be outlined and diagonally striped at forty-five-degree (45°) angles in a contrasting color such as yellow, white, or blue. Each accessible parking space shall be designated as reserved by a sign showing the International Symbol of Accessibility. Van accessible spaces shall have an additional sign containing the designation, "van accessible", mounted below the symbol of accessibility. Each accessible parking space sign shall be no smaller than eighteen inches (18") tall by twelve inches (12") wide. Each van accessible sign shall be no smaller than six inches (6") tall by twelve inches (12") wide. Signs shall be located at the head of the space with the bottom of the sign(s) between five feet (5') and seven feet (7') above the finish floor or ground surface.
- Per City Code Section 7.4.102.D, all lighting fixtures shall be full cut-off or have shielding to reduce off-site lighting impacts onto adjacent properties and roadways. All exterior lighting shall be arranged to mitigate light directed away from adjacent properties and any public right-of-way. An amendment to this plan may be required if the lighting is added.
- Signage is not approved per this plan. A separate sign permit is required. Contact the Development Review Enterprise at 719-385-5962 to begin a sign permit application.
- All street trees and streetscape improvements located in the RDW will be maintained by the abutting property owner.
- Accessible routes, including ramps and sidewalks, within the public right-of-way shall be per the City's Standard Drawings and Specifications. City's Engineering Development Review Inspector will have the final authority on accepting the public improvements.
- Installation of electrical devices in the public RDW shall be performed in accordance with the City Specification Section 1001 and complete the Colorado Springs Utilities' Electric Inspection in the Right-of-Way Certificate" in accordance with Utilities' requirements for electrification. The Certificate shall also be provided to the City Inspector.
- All private to public storm sewer connections must be inspected by an Engineering Development Review Inspector.

Prepared by the office of:
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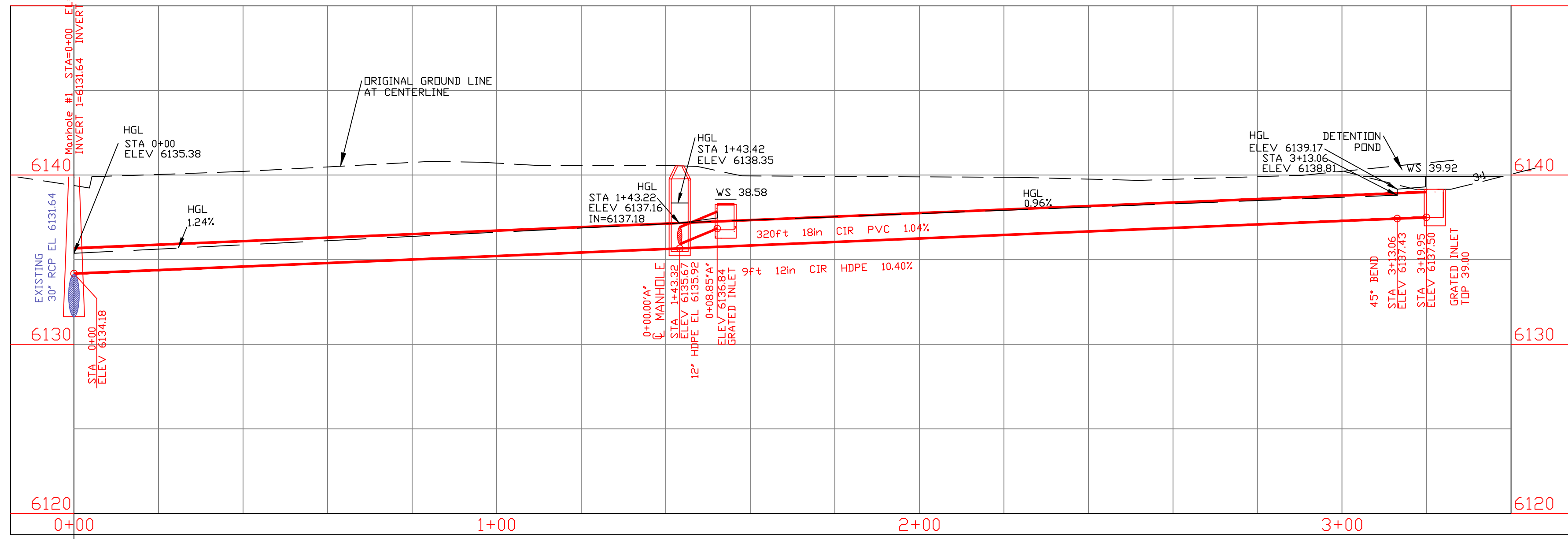
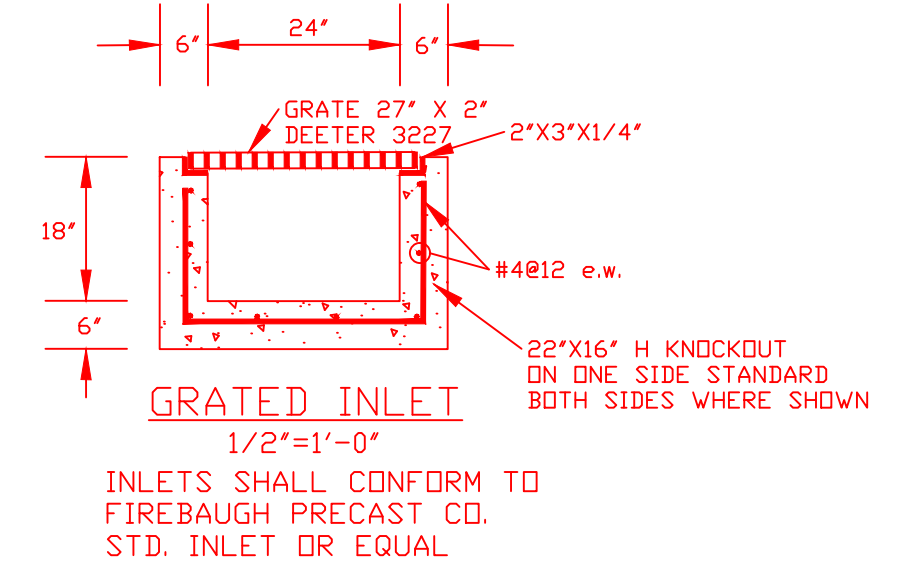
CONTOUR LEGEND:
 ORIGINAL CONTOURS:
 1" = 5'
 FINISH CONTOURS:
 1" = 1'
 1" = 5'



- LEGEND:**
- FOUND 1-1/4" ORANGE #38141 CAP DN #5 REBAR
 - FOUND #4 REBAR
 - ◆ FOUND 1" AL. CAP, VC., @38141 DN #5 REBAR
 - ⊕ ILLEG. WASHER DN CONCRETE NAIL
 - ⊙ SEWER MANHOLE
 - POWER POLE



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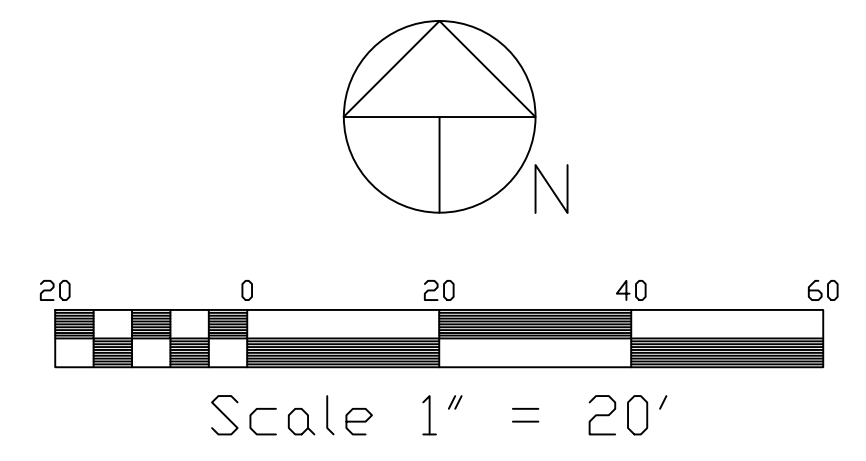
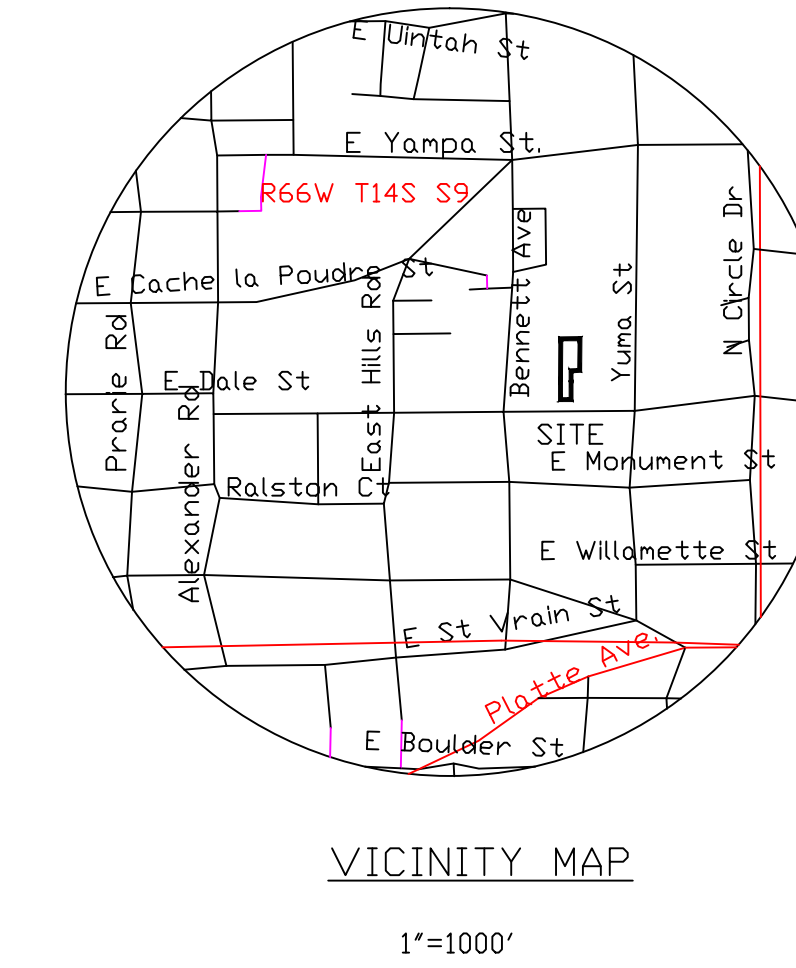
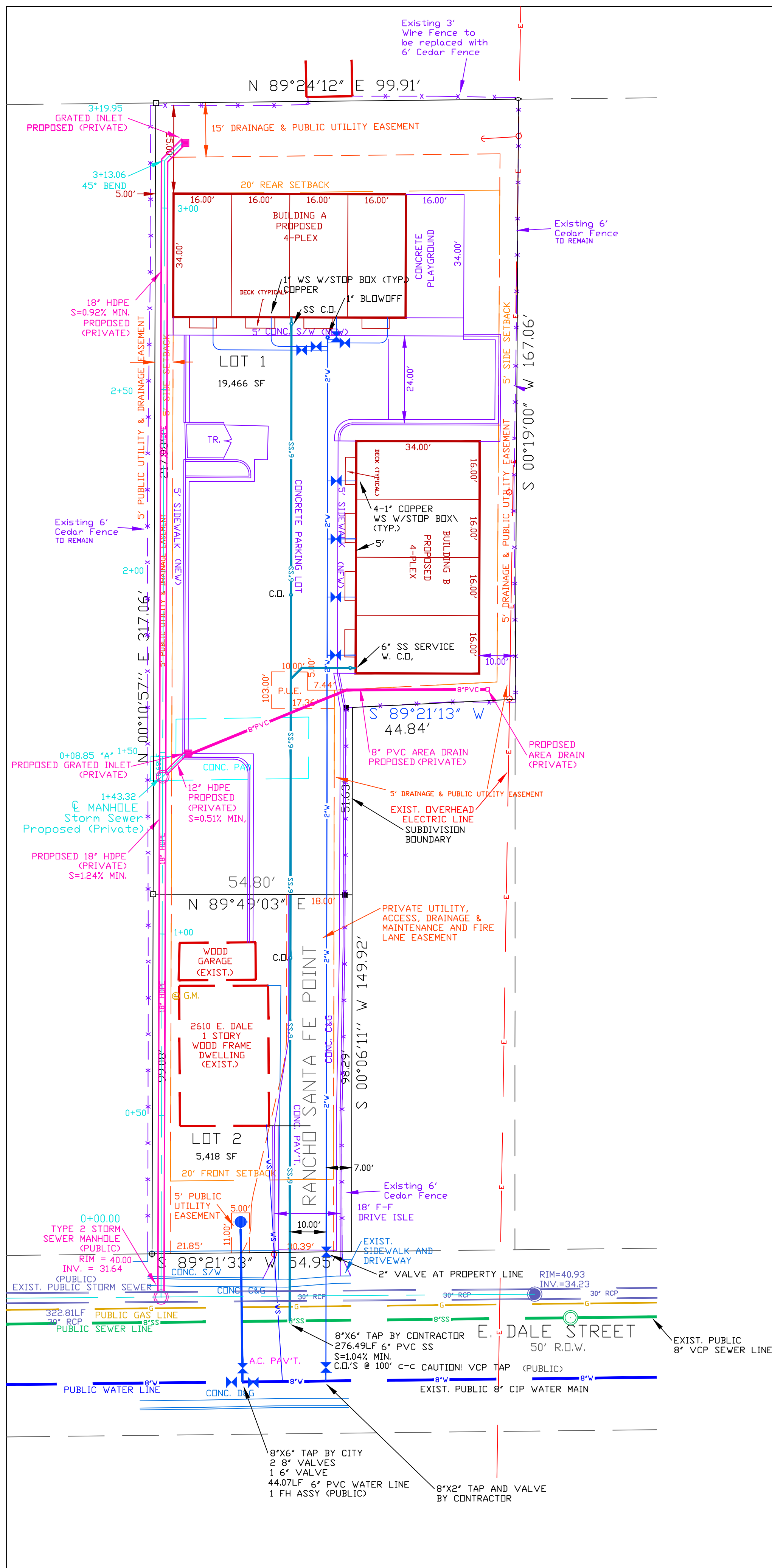


STORM SEWER PROFILE
 SCALE: H: 1"=20'
 V: 1"=5'

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City File No: DEPN-22-0083

DRAWN BY: O.E. WATTS DATE: 1-04-22 DWG. NO.: 21-5647-06 SURVEYED BY: ESW, DEW V 6-22-21, 8-17-22	APPROVED BY: PROJ. NO.: DWG.	REVISIONS 8-18-22 REVISED PER CITY REVIEW COMMENTS DEW	OLIVER E. WATTS CONSULTING ENGINEER COLORADO SPRINGS	PROJECT 2610 EAST DALE CASCADE SUBDIVISION FILING NO. 1 COLORADO SPRINGS	SHEET NAME PRELIMINARY GRADING AND EROSION CONTROL PLAN	SHEET NO. 2 OF 13
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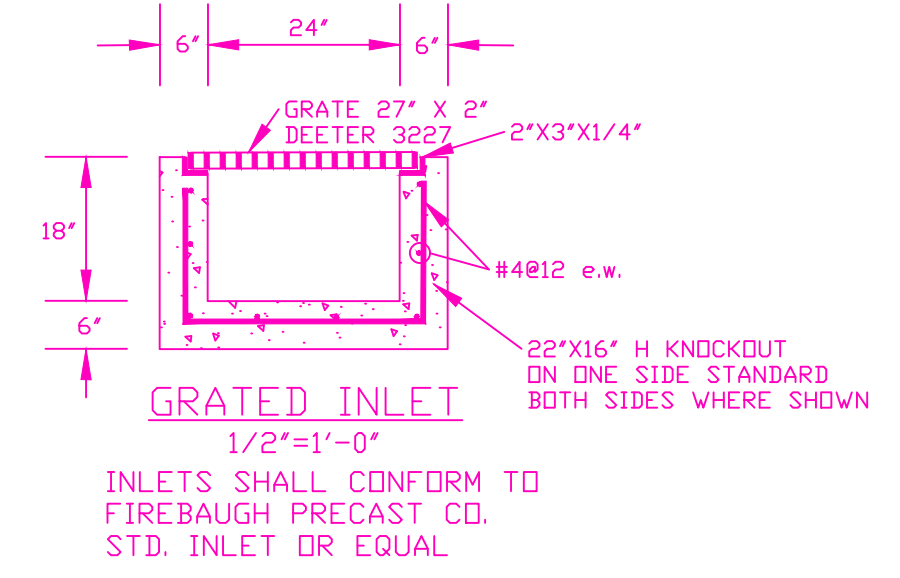


- LEGEND:**
- FOUND 1-1/4\"/>
 - ◆ FOUND #4 REBAR
 - FOUND 1\"/>
 - ⊕ ILLEG. WASHER DN CONCRETE NAIL
 - ⊙ SEWER MANHOLE
 - POWER POLE

- LEGEND:**
- WATER LINE - EXIST
 - WATER LINE - NEW
 - ⊕ FIRE HYDRANT - EXIST.
 - ⊕ FIRE HYDRANT - NEW
 - ⊕ REDUCER - EXIST
 - ⊕ REDUCER - NEW
 - ⊕ PLUG - NEW



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General Notes for all Preliminary Utility Plans
(required for all Development Plan submittals)

- Property Owner(s) acknowledge and agree to the following upon approval of Preliminary Utility Plan:
- Colorado Springs Utilities (Springs Utilities) shall make the final determination of the location of all water, wastewater, electric, and gas facilities, which may not be the same location as shown on this Preliminary Utility Plan.
 - Property Owner(s) ("Owner") acknowledges that the connection and/or extension of utility services to the property identified in this Preliminary Utility Plan ("Property") shall be in accord with all applicable codes and regulations, Springs Utilities' Line Extension and Service Standards ("Standards"), Tariffs, Colorado Springs City Code, resolutions, and policies, and Pike's Peak Regional Building Department codes, in effect at the time of utility service connection and/or extension.
 - Owner acknowledges responsibility for the costs of extensions or utility system improvements that Springs Utilities determines necessary to provide utility services to the Property or to ensure timely development of integrated utility systems serving the Property and areas outside the Property (including the costs to design and install water systems, wastewater collection systems and any gas or electric lines to and within the Property). Owner may be eligible for a cost Recovery Agreement as provided in Utilities' Rules and Regulations.
 - Springs Utilities' utility services are available on a "first-come, first-served" basis, and therefore no specific allocations or amounts of utility services, facilities, capacities or supplies are reserved for the Owner, and Springs Utilities makes no commitment as to the availability of any utility service until such time as an application for permanent service is approved by Springs Utilities'.
 - The relocation or alteration of any existing utility facilities within the Property will be at the Owner's sole cost and expense. If Springs Utilities determines that Owner's relocation or alteration requires new or updated easements, Owner shall convey those easements prior to relocating or altering the existing utility facilities.
 - Owner shall dedicate by plat and/or convey by recorded document, all property and easements that Springs Utilities determines are required for all utility system facilities necessary to serve the Property or to ensure development of an integrated utility system. All easements granted by separate instrument shall utilize Springs Utilities' then-current Permanent Easement Agreement.
 - The water system facilities must meet Springs Utilities' criteria for water quality, reliability and pressure, including looping requirements (see Springs Utilities' Line Extension and Service Standards).
 - Owner recognizes that the extension of water system facilities may affect the quality of water in Springs Utilities' water system. When water quality is affected, Owner acknowledge responsibility for any costs that Springs Utilities determines necessary in order to maintain water quality in its system as a result of Owner's water system extensions. Owner may be required to submit a Water Quality Plan for the project.
 - Owner must contact Springs Utilities Field Engineering to determine the location of all natural gas and electric meters and transformers and to secure approval of gas-service-line pressures in excess of Springs Utilities standard gas system pressure. (Contact Field Engineering North 668-4985 or South 668-5564).
 - It shall not be permissible for any person to modify the grade of the earth within any Springs Utilities easement or rights of way without the written approval of Springs Utilities. Improvements, structures and trees shall not be located within utility easement, shall not violate National Electric Safety Code (NESC) provisions and clearances, and shall not impair access or the ability to maintain utility facilities.
 - Springs Utilities' approval of this Preliminary Utility Plan shall not be construed as a limitation upon the authority of Springs Utilities to apply its Standards; and if there are any conflicts between any approved drawings and any provision of Standards or the City Code, then the Standards or City Code shall apply. Springs Utilities' approval of this Preliminary Utility Plan shall not be construed as a limitation upon the authority of the City of Colorado Springs or the Springs Utilities to adopt different ordinances, rules, regulations, resolutions, policies or codes which change any of the provisions of the Standards so long as these apply to the City generally and are in accord with the then-current tariffs, rates, and policies of Springs Utilities.

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Celebrating 44 years in Business

DRAWN BY: O.E. WATTS DATE: 2-9-22 DWG. NO.: 21-5647-07 SURVEYED BY: ESW, DEW V 6-22-21, 8-17-22	APPROVED BY: PROJ. NO.: DWG.	REVISIONS 8-18-22 REVISED PER CITY REVIEW COMMENTS DEW	PROJECT 2610 EAST DALE CASCADE SUBDIVISION FILING NO. 1 COLORADO SPRINGS	SHEET NAME PRELIMINARY UTILITY AND PUBLIC FACILITIES PLAN	SHEET NO. 3 OF 13
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City File No: DEPN-22-0083

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COLORADO SPRINGS
OLYMPIC CITY USA

Land Use Review
Approved

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Front Elevation

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1304 SW BERTHA BLVD. PORTLAND OREGON 97219

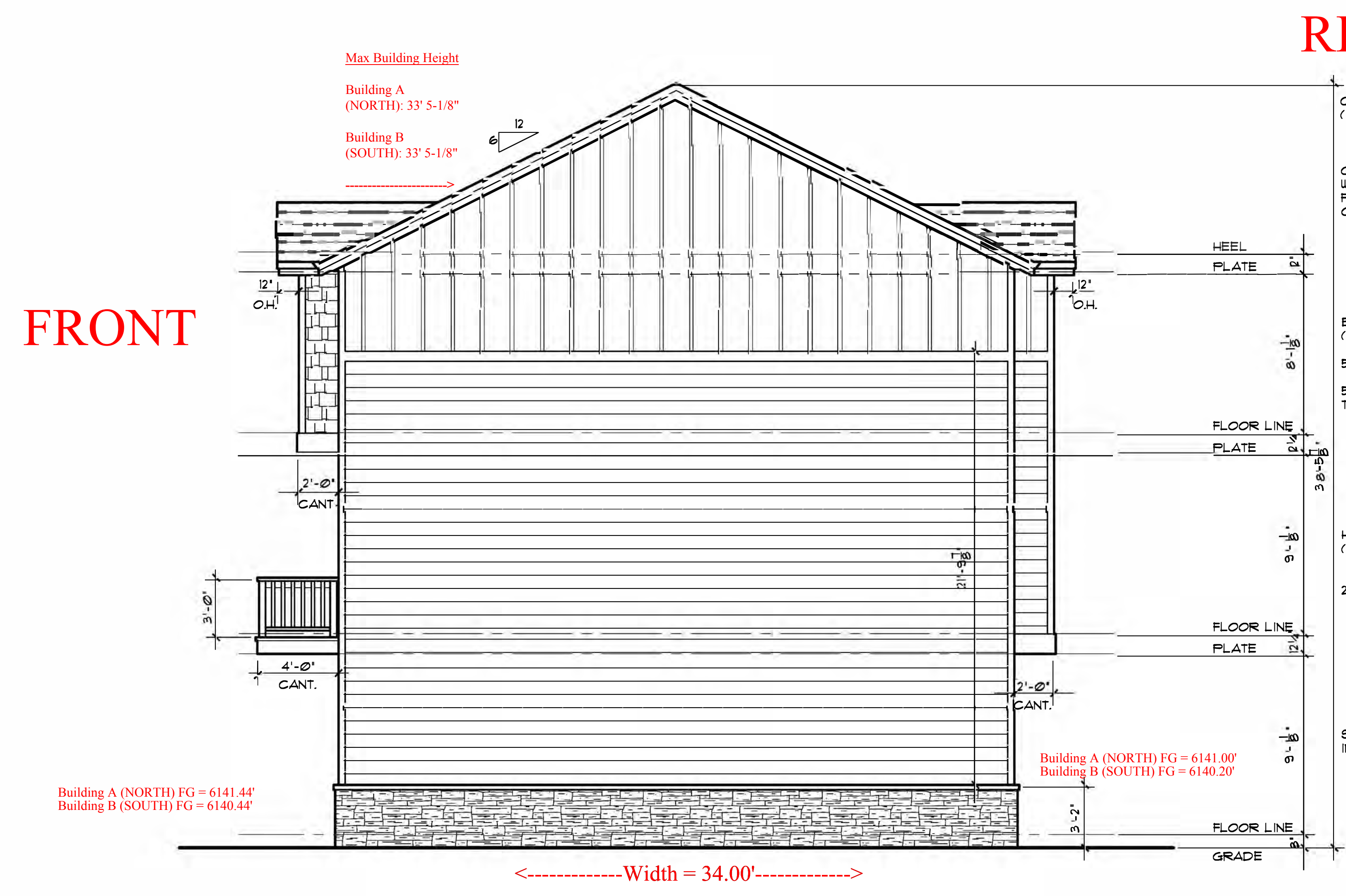
REVISIONS	DATE
36/25 DRAWN BY: CFB	9-14-1
CHECKED BY: DAU	1/2/21



Land Use Review
Approved

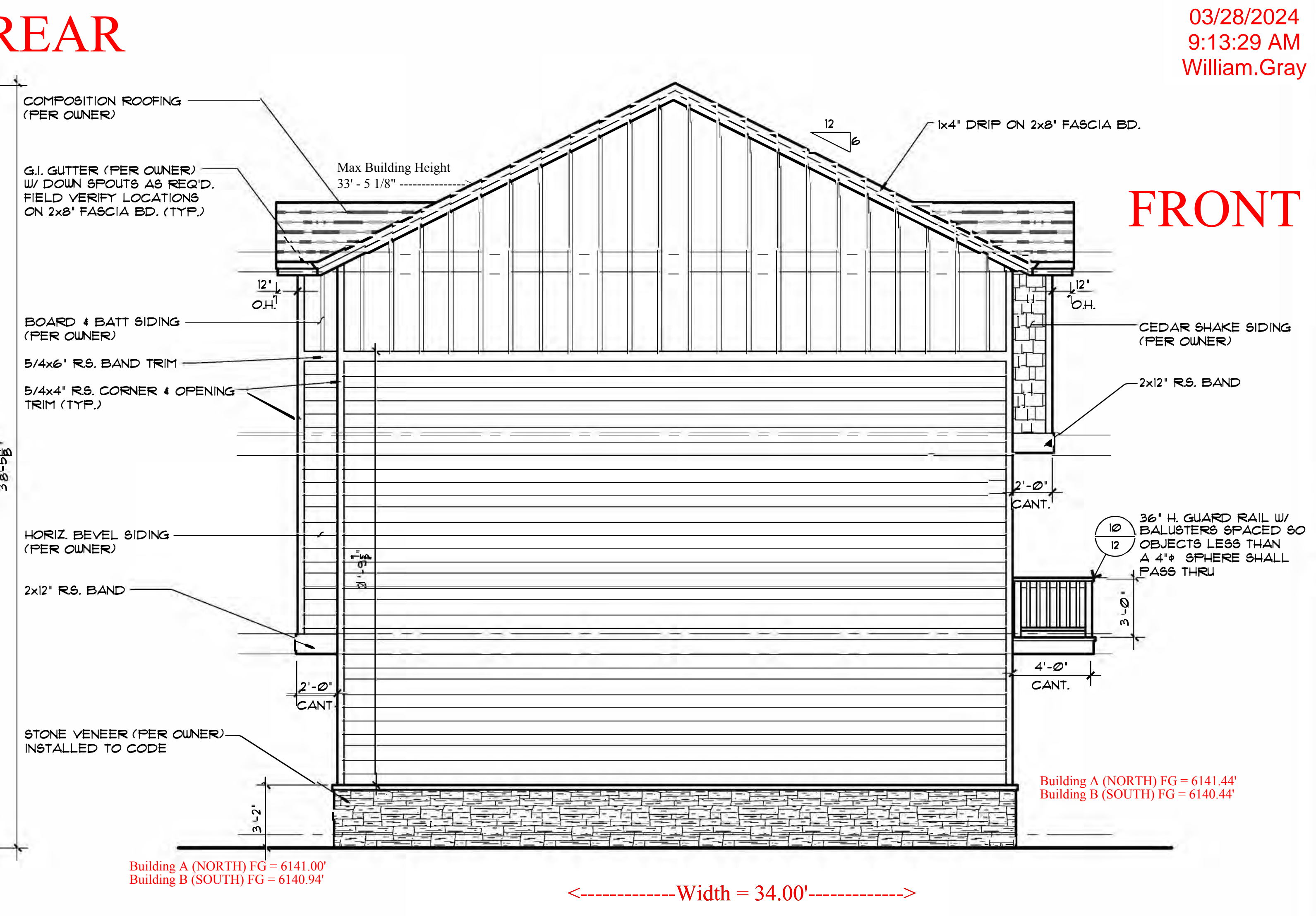
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Right Side Elevation

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Left Side Elevation

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REVISIONS	5-141
3-6-23	CFE
DRAWN BY:	DAW
CHECKED BY:	DAW
DATE:	1/2021
SHEET	5
OF	13
PLAN NUMBER	F-628

Max Building Height
 Building A (NORTH) &
 Building B (SOUTH):
 33' 5-1/8"

Building A (NORTH) FG = 6141.00'
 Building B (SOUTH) FG = 6140.20'



Length = 48.00'

Rear Elevation

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SCALE: 1/4"=1'-0"

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36/25	CFB	9-141
DRAWN BY:	CHECKED BY: DAU	DATE: 1/2/21
6		OF 13
PLAN NUMBER: F-628		



Land Use Review Approved

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GENERAL SITE NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR ALL APPLICABLE AGENCIES.
3. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN CITY OF COLORADO SPRINGS STANDARDS AND SPECIFICATIONS AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE APPROPRIATE GOVERNING AGENCIES.
4. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED CONSTRUCTION DOCUMENTS, ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB, ON-SITE AT ALL TIMES.
5. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS TRACKED FROM THE SITE.
7. CONTRACTOR RESPONSIBLE FOR COORDINATING AND INSTALLING ALL SLEEVING REQUIRED FOR IRRIGATION CONSTRUCTION. COORDINATE WITH GENERAL CONTRACTOR.

WATER WISE NOTE

The City of Colorado Springs has adopted permanent water-wise regulations at the start of 2020 which will affect the overall operation of the irrigation system.

- From May 1 to October 15, sprinklers can be operated before 10 a.m. and after 6 p.m.
- Watering is limited to three days a week (Drip irrigation is allowed at any time).
- Establishment permits are required from Colorado Springs Utilities for customers who need to temporarily water more than three days a week to establish new landscapes.
- Allocation plans are available for customers who need more watering schedule flexibility from Colorado Springs Utilities.

IRRIGATION SYSTEM DESCRIPTION

SITE IRRIGATION SYSTEM PROVIDED BY A FULLY AUTOMATED SPRINKLER SYSTEM CONSISTING OF DRIP IN PLANTING BEDS. ALL ZONES TO BE OPERATED FROM A SINGLE CONTROLLER LOCATED PER PLAN. COORDINATE INSTALLATION OF ALL IRRIGATION COMPONENTS WITH OWNERS REPRESENTATIVE AND OTHER TRADES. BALL VALVES SHALL BE PROVIDED BEFORE EACH ZONE VALVE FOR SYSTEM MAINTENANCE. POTABLE WATER SHALL BE USED FOR ALL SITE IRRIGATION. RAINBIRD EQUIPMENT SHALL BE INSTALLED UNLESS OTHERWISE NOTED PER PLAN. ANY DEVIATION FROM THIS PLAN SHALL BE APPROVED BY LANDSCAPE ARCHITECT OR OWNER.

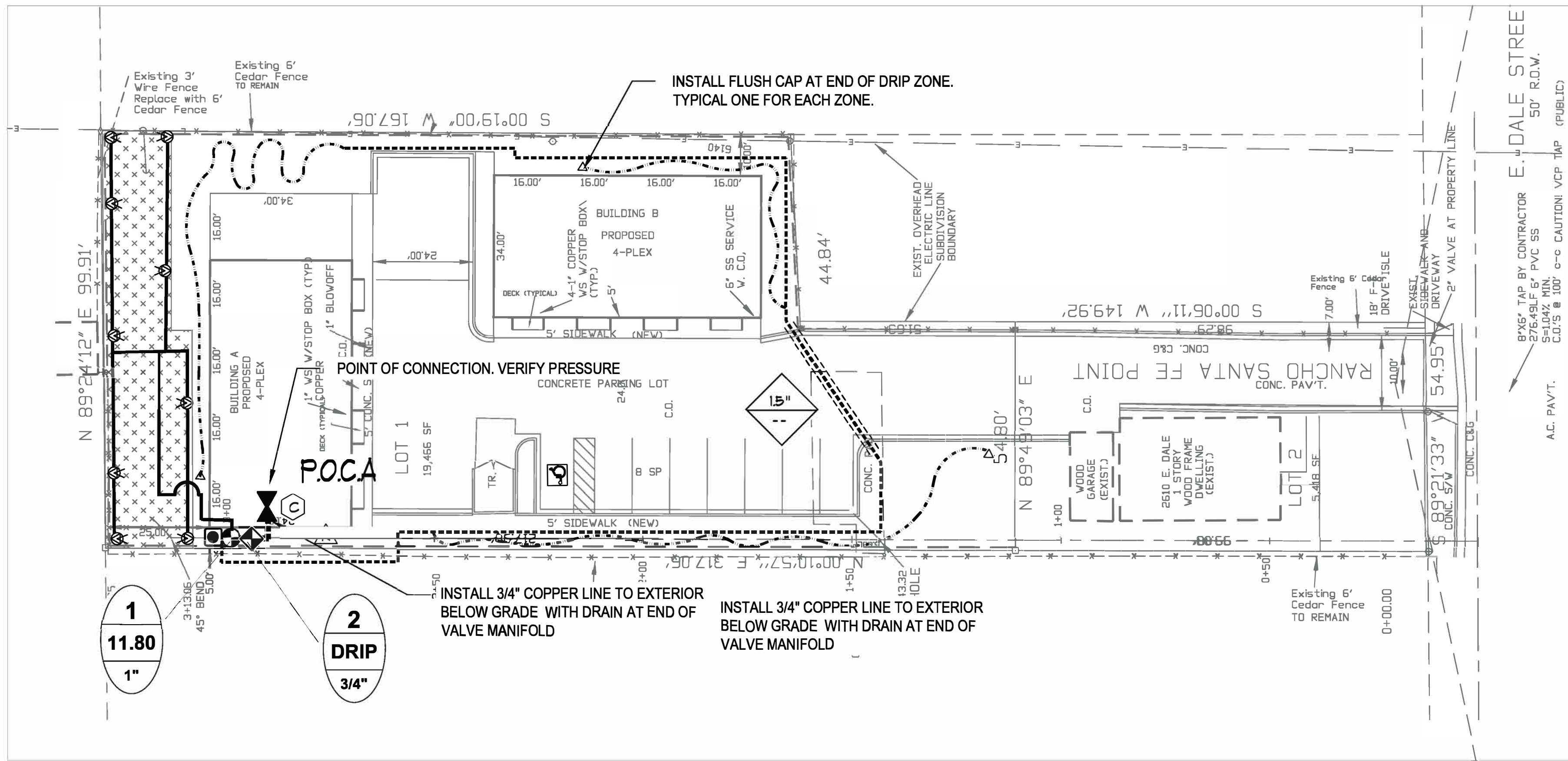
REFER TO FLOW CHART FOR MINIMUM REQUIRED PRESSURE AT IRRIGATION POINT OF CONNECTION. VERIFY PRIOR TO IRRIGATION COMPONENT INSTALLATION.

DRIP SYSTEM NOTE

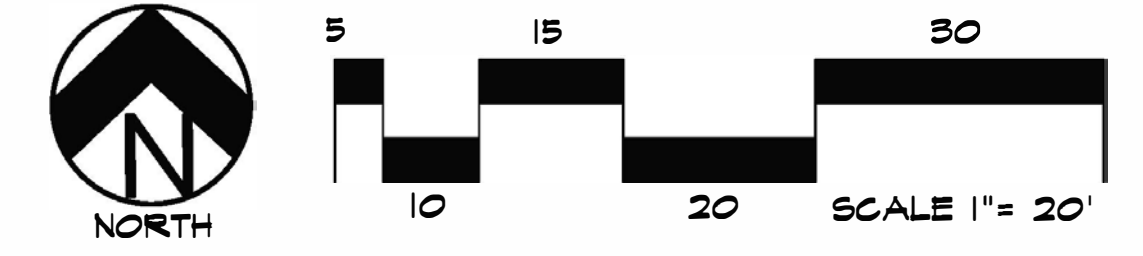
ALL PLANT MATERIAL SHALL RECEIVE DRIP LINE TUBING WITH EMITTERS PER DETAILS AND NOTES. FOR SYSTEM FLUSHING INSTALL FLUSH CAP AND THE END OF EACH ZONED DRIP LINE RUN AT LOWEST POINT OF LANDSCAPE AREA. INSTALL SLEEVES UNDER ALL PAVING AS REQUIRED FOR DRIP LINE. REFER TO LEGEND.

IRRIGATION LEGEND - LOT 1

- P.O.C.** 3/4" POINT OF CONNECTION: CONTRACTOR TO VERIFY IN FIELD PRIOR TO INSTALLATION. COORDINATE WITH CITY UTILITIES AND GENERAL CONTRACTOR FOR LOCATION.
- BACKFLOW PREVENTION DEVICE** FEBCO 3/4" 825YA W/BALL VALVE AND DRAIN OR FEBCO 795, 1" DIA. AT EXTERIOR 12" ABOVE HIGHEST ZONE. INSTALL PER MANUFACTURE RECOMMENDATIONS
- IRRIGATION CONTROLLER** - RAINBIRD ESP-TM2-INDOOR MOUNT
INSTALL PER MANUFACTURE RECOMMENDATIONS
- RAIN SENSOR**: WIRELESS WR2
(INSTALL PER MANUFACTURE RECOMMENDATIONS)
- RAINBIRD DV SERIES ELECTRIC REMOTE CONTROL VALVE** SIZE AS NOTED AT EACH ZONE.
- RAINBIRD REMOTE CONTROL DRIP VALVE ASSEMBLY KIT** RAINBIRD XCZ-LF-075. SEE PLAN
- MANIFOLD DRAIN** IN 6" ROUND BOX WITH GRAVEL. 1" DIA. PVC BALL VALVE.
- RAINBIRD 1806 SAM-PRS SERIES POP-UP SPRAY HEAD** - R-VAN 24 SERIES
OPERATING PRESSURE- 45 PSI
RADIUS: 17'-24" NOZZLES: 15Q-.84 GPM, 15H-1.68 GPM, 15F-3.48 GPM
- MAINLINE PIPE FOR MAINFOLD**- CLASS 200 PVC PIPE (1" DIA. UNLESS OTHERWISE NOTED)
- LATERAL PIPE**- CLASS 200 PVC PIPE (1" DIA. UNLESS OTHERWISE NOTED)
- CLASS 200 PVC PIPE FOR SLEEVING**
- LAST VALVE**
ZONE #
GPM DISCHARGE
REMOTE CONTROL VALVE SIZE
- DRIP IRRIGATION LATERAL PIPE**
100/80 PSI POLYETHYLENE PIPE: 3/4" DIAMETER
BURY LATERAL 10" MINIMUM DEPTH
- DRIP LINE TUBING**: CENTENNIAL 3/4" or 1/2" DIAMETER (FOR REFERENCE ONLY NOT LENGTH)
USED IN PLANTING BEDS FOR SHRUBS AND TREES - ROUTE ACCORDINGLY TO PLANT MATERIAL
- AGRIFIM 3/4" CAP MODEL CETC-34** OR 1" AS REQUIRED
(INSTALL IN 6" MIN. VALVE BOX)



IRRIGATION PLAN



UTILITIES NOTE

VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO START OF WORK. CALL 811 FOR UTILITY LOCATES. TREE TRUNK PLACEMENT SHALL BE 6" MINIMUM DISTANCE FROM ANY GAS OR ELECTRIC AND 10' FROM GAS MAINS RATED AT 150PSI. FOR SANITARY SEWER AND WATER MAINLINES TREES SHALL NOT BE LOCATED WITHIN EASEMENTS AND WITHIN 10' OF ANY MAINLINE. ANY CONFLICT BETWEEN TREE LOCATIONS AND UTILITIES SHOWN ON PLANS SHALL BE RESOLVED WITH GENERAL CONTRACTOR PRIOR TO PLANTING. ALL ELECTRICAL VAULTS AND TRANSFORMERS SHALL BE KEPT CLEAR FROM PLANT MATERIAL PER COLORADO SPRINGS UTILITIES GUIDELINES "LANDSCAPING AROUND ELECTRICAL EQUIPMENT". SEE COLORADO SPRINGS UTILITIES CONSTRUCTION STANDARD DRAWINGS 18-302 FOR SPECIFIC CLEARANCE REQUIREMENTS. ALL SHRUBS TO BE LOCATED 3' CLEAR OF ALL FIRE HYDRANTS AT MATURE SIZE.

DOCUMENT NOTE

IRRESPECTIVE OF ANY OTHER TERM IN THIS DOCUMENT, LANDSCAPE ARCHITECT SHALL NOT CONTROL OR BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SCHEDULES, SEQUENCES OR PROCEDURES, OR FOR CONSTRUCTION SAFETY OR ANY OTHER RELATED PROGRAMS, OR FOR ANOTHER PARTIES' ERRORS OR OMISSIONS OR FOR ANOTHER PARTIES' FAILURE TO COMPLETE THEIR WORK OR SERVICES IN ACCORDANCE WITH LANDSCAPE ARCHITECTS DOCUMENTS.

CITY FILE NO. DEPN-22-0083

HIGHER GROUND DESIGNS, INC.
LANDSCAPE ARCHITECTURE, PLANNING & IRRIGATION DESIGN

5350 NORTH ACADEMY BLVD., STE. 207
COLORADO SPRINGS, CO 80916
Phone 719-477-1048
Fax 719-588-1122



2610 EAST DALE STREET
CASCADE MULTI FAMILY
COLORADO SPRINGS, CO

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PREPARED FOR:

FOR CITY APPROVAL ONLY

CITY STAMP

NOT FOR CONSTRUCTION	JOB NUMBER	1068-22
	REVISIONS	
	3-8-22	PER CITY COMMENTS
	8-4-22	PER CITY COMMENTS
	11-18-22	PER CITY COMMENTS
	2-20-23	PER CITY COMMENTS
	8-1-23	PER CITY COMMENTS
ORIGINAL DATE	3-8-22	
DRAWN BY	JM	
DESCRIPTION	IRRIGATION PLAN	
SHEET NO.	7 of 13	
SHEET	L1.5	

IRRIGATION NOTES

COORDINATE ALL UNDERGROUND UTILITY LOCATIONS PRIOR TO ANY DIGGING ON SITE. ALL MATERIALS AND INSTALLATION PRACTICES SHALL BE IN COMPLIANCE WITH LOCAL CODES. CALL 811 FOR UTILITY LOCATES.

CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL IRRIGATION COMPONENTS SHOWN ON THE PLAN. ANY DEVIATIONS FROM THIS PLAN ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT. DEVIATIONS FROM THE APPROVED PLAN SHALL REQUIRE LANDSCAPE ARCHITECT APPROVAL.

THE IRRIGATION SYSTEM IS TO RUN OFF 3/4" METERED TAP AT THE LOCATION INDICATED FROM THE BUILDING DOMESTIC SUPPLY AS SHOWN. COORDINATE WITH OWNER'S REPRESENTATIVE AND OTHER TRADES TO GET WATER AT LOCATION SHOWN. COORDINATE WITH CITY WATER TO INSURE PROPER METER INSTALLATION.

THE SYSTEM CONTROLLERS SHALL BE LOCATED AS SHOWN. COORDINATE LOCATION OF CONTROLLER AND RAIN SENSOR WITH OWNER. CONNECT CONTROLLER TO POWER SUPPLY AND COORDINATED WITH OWNER. CONNECT CONTROLLER TO ZONE VALVES, RAIN SENSOR, AND GROUNDING PER MANUFACTURE'S INSTRUCTIONS.

CONTRACTOR IS RESPONSIBLE FOR ALL IRRIGATION SLEEVING. SLEEVING FOR LATERAL LINES TO BE 12" BELOW TOP OF GRADE AND/OR BELOW THE BOTTOM OF PAVING. MAINLINE SLEEVING TO BE 18" BELOW TOP OF GRADE AND/OR BELOW THE BOTTOM OF PAVING. ALL SLEEVING TO EXTEND 3" BEYOND EDGE OF CONCRETE OR ASPHALT. ENDS OF SLEEVING TO BE SECURELY COVERED AFTER INSTALLATION. SLEEVE LOCATIONS TO BE CLEARLY MARKED WITH PAINTED STAKES OR PVC. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SLEEVING LOCATIONS PRIOR TO CONSTRUCTION AND INSTALL ANY MISSING SLEEVE IF NECESSARY.

ALL SPRINKLER HEADS SHALL INSTALLED WITH TOP OF HEADS FLUSH WITH SURROUNDING FINAL GRADE. CONTRACTOR SHALL ADJUST EACH SPRINKLER HEAD TO PROVIDE OPTIMAL COVERAGE. OVERSPRAY ONTO PAVEMENT OR WALLS IS TO BE PREVENTED. CONTRACTOR TO ADJUST AND SELECT NOZZLES TO PROVIDE UNIFORM COVERAGE. PROVIDE PRESSURE COMPENSATING NOZZLES OR SCREENS IF UNIFORM PRESSURE CANNOT BE ACHIEVED BY ADJUSTING PRESSURE AT VALVES.

IRRIGATION PLAN IS DIAGRAMMATIC. ANY COMPONENTS SHOWN ON PLAN OUTSIDE OF LANDSCAPE ARE SHOWN FOR CLARITY ONLY. USE ONLY STANDARD FITTINGS. MAINLINE PIPING DEPTH TO BE 18". LATERAL LINE DEPTH TO BE 12". DRIP LINE TO BE SECURED AT FINAL SOIL GRADE.

CONTRACTOR IS TO INSTALL IRRIGATION WIRE BETWEEN CONTROLLER AND ELECTRIC VALVES. INSTALL TWO EXTRA WIRES RUNNING FROM CONTROLLER ALONG MAINLINE IN EACH DIRECTION FROM THE CONTROLLER FOR TROUBLE SHOOTING OR FUTURE ADDITIONS. WIRE SHALL BE SOLID COPPER #14 PE IRRIGATION CONTROL WIRE. CONNECTIONS SHALL BE MADE WITHIN ENCLOSURES ONLY USING 3M BRAND DBV AND DBR CONNECTORS. NO BURIED SPLICES PERMITTED.

NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN PLAN DRAWINGS AND FIELD CONDITIONS PRIOR TO INSTALLATION OF ANY IRRIGATION COMPONENTS.

HIGHER GROUND DESIGNS, INC. (HGD) PREPARED THIS PLAN BASED ON EXISTING CONDITIONS AND SITE PLAN BY OTHERS. HGD DOES NOT RECOMMEND SPRAY/ROTOR OPERATION OR ROTOR/SPRAY OVER SPRAY WITHIN 5' OF ANY BUILDING. HGD ASSUMES NO LIABILITY FOR ANY WATER DAMAGE ON THIS SITE.

ALL DRIP POLYETHYLENE LATERALS AND DRIP TUBING FITTINGS SHALL BE RIBBED PLASTIC WITH OETIKER BRAND CLAMPS. THE END OF EACH DRIP LINE TO RECEIVE A DRIP FLUSH CAP PER DETAIL.

INSTALL VALVE BOXES IN PLANTER AND ROCK AREAS WHEN POSSIBLE. DO NOT SET VALVE BOXES IN TURF OR SEEDED AREAS UNLESS UNAVOIDABLE.

IRRIGATION SYSTEM MATERIALS

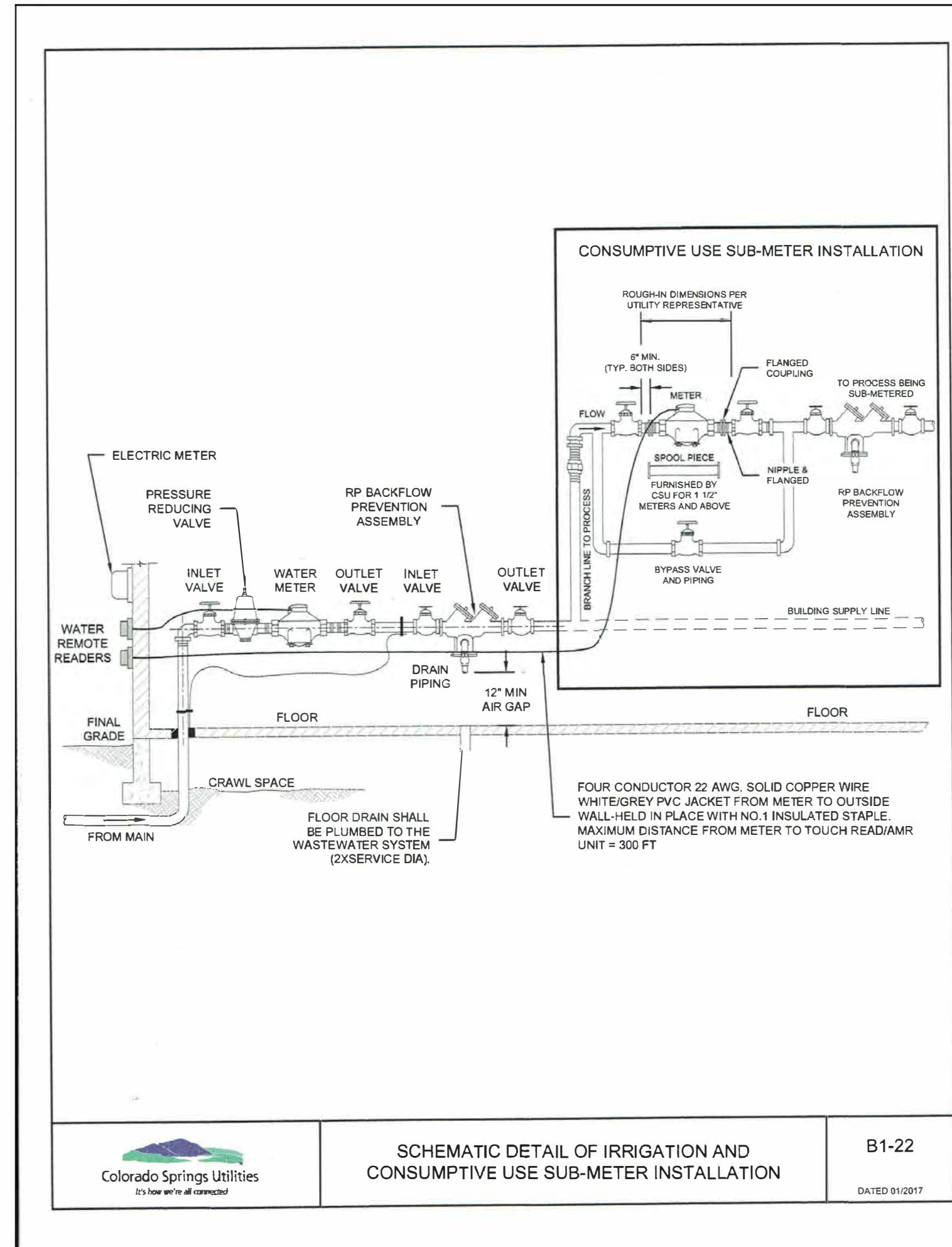
- PRESSURE SUPPLY LINE (FROM POINT OF CONNECTION THROUGH BACKFLOW PREVENTION UNIT) - TYPE "K" RIGID COPPER. PRESSURE SUPPLY LINES (DOWSTREAM OF BACKFLOW PREVENTION UNITS) - CLASS 200 PVC SOLVENT WELD (1" - 2 1/2") SOLVENT WELD PIPE - MANUFACTURED FROM VIRGIN POLYVINYL CHLORIDE (PVC) COMPOUND IN ACCORDANCE WITH ASTM D2241 AND ASTM D1784; CELL CLASSIFICATION 12454-B, TYPE 1, GRADE 1. FITTINGS - STANDARD WRIGHT, SCHEDULE 40, INJECTION MOLDED PVC; COMPLYING WITH ASTM D1784 AND D2466, CELL CLASSIFICATION 12454-B
- THREADS - INJECTION MOLDED TYPE (WHERE REQUIRED)
- TEES AND ELLS - SIDE GATED, THREADED NIPPLES - ASTM D2464, SCHEDULE 80 WITH MOLDED THREADS
- ALL PVC MALE THREADED FITTINGS AND NIPPLES, EXCLUDING MARLEX FITTINGS, SHALL RECEIVE WRAPPING OF TEFLON TAPE
- JOINT CEMENT AND PRIMER - TYPE AS RECOMMENDED BY MANUFACTURER OF PIPE AND FITTINGS
- FLEXIBLE PLASTIC PIPE - MANUFACTURED FROM VIRGIN POLYETHYLENE IN ACCORDANCE WITH ASTM D2239, WITH A HYDROSTATIC DESIGN STRESS OF 630 PSI AND DESIGNATED AS PE 2306. FITTINGS - INSERT TYPE MANUFACTURED IN ACCORDANCE WITH ASTM D2609; PVC TYPE 1 CELL CLASSIFICATION 12454-B.

IRRIGATION SYSTEM INSTALLATION

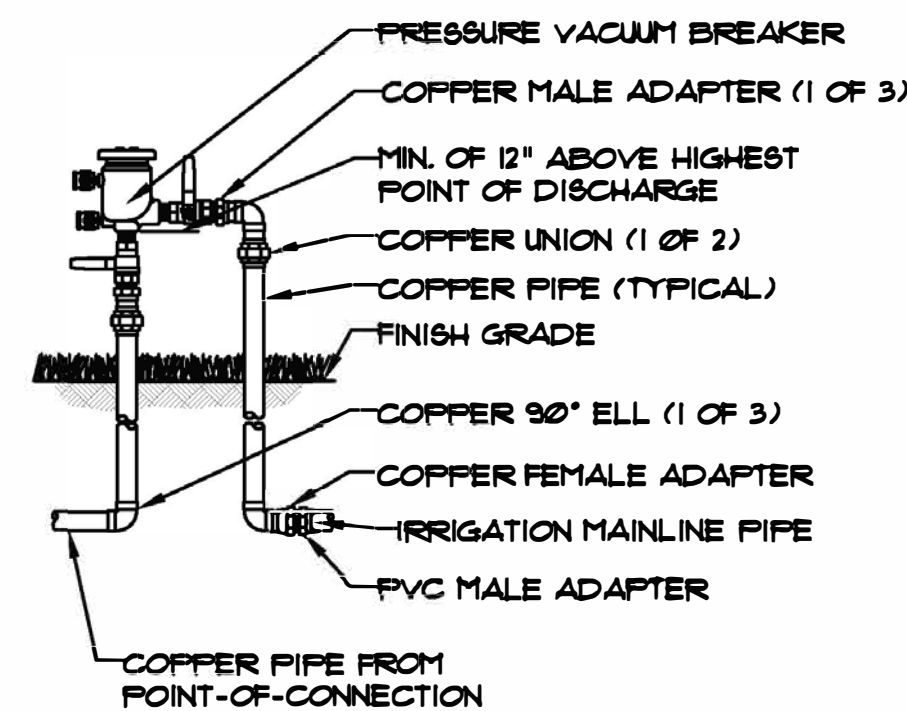
- BACKFILLING - DO NOT BEGIN BACKFILLING OPERATIONS UNTIL REQUIRED SYSTEM TESTS HAVE BEEN COMPLETED. BACKFILL SHALL NOT BE DONE IN FREEZING WEATHER EXCEPT WITH REVIEW BY CONSULTANT. TRENCHES SHALL BE FINISH GRADED PRIOR TO WALK-THROUGH OF SYSTEM BY OWNER/CONSULTANT.
- EXCAVATED MATERIAL IS GENERALLY CONSIDERED SATISFACTORY FOR BACKFILL PURPOSES. BACKFILL MATERIAL SHALL BE FREE OF RUBBISH, VEGETABLE MATTER, FROZEN MATERIALS, AND STONES LARGER THAN 1" INCH IN MAXIMUM DIMENSION. DO NOT MIX SUBSOIL WITH TOPSOIL. MATERIAL NOT SUITABLE FOR BACKFILL SHALL BE HAILED AWAY. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SUITABLE BACKFILL IF EXCAVATED MATERIAL IS UNACCEPTABLE OR NOT SUFFICIENT TO MEET BACKFILL, COMPACTION, AND FINAL GRADE REQUIREMENTS.
- DO NOT LEAVE TRENCHES OPEN FOR A PERIOD OF MORE THAN 48 HOURS. OPEN EXCAVATIONS SHALL BE PROTECTED IN ACCORDANCE WITH OSHA REGULATIONS. COMPACT BACKFILL TO 90% MAXIMUM DENSITY, DETERMINED IN ACCORDANCE WITH ASTM D155-7. MECHANICAL TAMPING IS PROHIBITED WITHIN 20'-0" OF BUILDING OR FOUNDATION WALLS.

EXECUTION

- CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY SOIL RETENTION COVERING THAT WOULD INTERFERE WITH THE PROPER INSTALLATION OF THE IRRIGATION SYSTEM.
- CONTRACTOR WILL BE HELD RESPONSIBLE FOR COORDINATION BETWEEN LANDSCAPE AND IRRIGATION SYSTEM INSTALLATION. LANDSCAPE MATERIAL LOCATIONS SHOWN ON THE LANDSCAPE PLAN SHALL TAKE PRECEDENCE OVER THE IRRIGATION SYSTEM EQUIPMENT LOCATIONS. IF IRRIGATION EQUIPMENT IS INSTALLED IN CONFLICT WITH THE LANDSCAPE MATERIAL LOCATIONS SHOWN ON THE LANDSCAPE PLAN, THE CONTRACTOR WILL BE REQUIRED TO RELOCATE THE IRRIGATION EQUIPMENT, AS NECESSARY, AT CONTRACTOR'S EXPENSE.
- CONTRACTOR IS RESPONSIBLE TO NOTIFY CONSULTANT OF ANY FIELD CONDITIONS THAT VARY FROM THE CONDITIONS SHOWN ON THE IRRIGATION CONSTRUCTION DOCUMENTS IF CONTRACTOR FAILS TO NOTIFY CONSULTANT OF THESE CONDITIONS, CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH SYSTEM ADJUSTMENTS REQUIRED DUE TO THE CHANGE IN FIELD CONDITIONS.
- STATIC PRESSURE VERIFICATION - CONTRACTOR SHALL FIELD VERIFY THE STATIC PRESSURE AT THE PROJECT SITE, PRIOR TO COMMENCING WORK OR ORDERING IRRIGATION MATERIALS. IF CONTRACTOR FAILS TO VERIFY STATIC WATER PRESSURE PRIOR TO COMMENCING WORK OR ORDERING IRRIGATION MATERIALS, CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL COSTS REQUIRED TO MAKE SYSTEM OPERATIONAL, AND THE COSTS REQUIRED TO REPLACE ANY DAMAGED LANDSCAPE MATERIAL. DAMAGE SHALL INCLUDE ALL REQUIRED MATERIAL COSTS, DESIGN COSTS AND PLANT REPLACEMENT COSTS.
- INSPECTION - EXAMINE AREAS AND CONDITIONS UNDER WHICH WORK OF THIS SECTION IS TO BE PERFORMED. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.

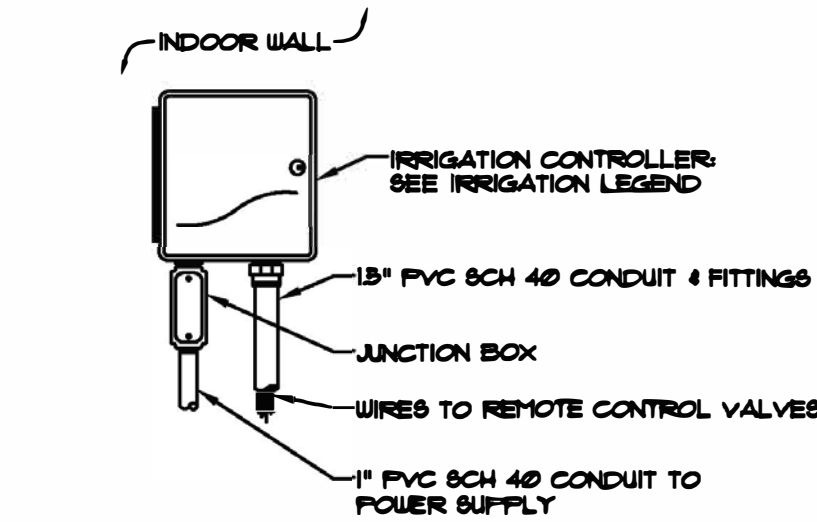


NOTES: • INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES & HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.

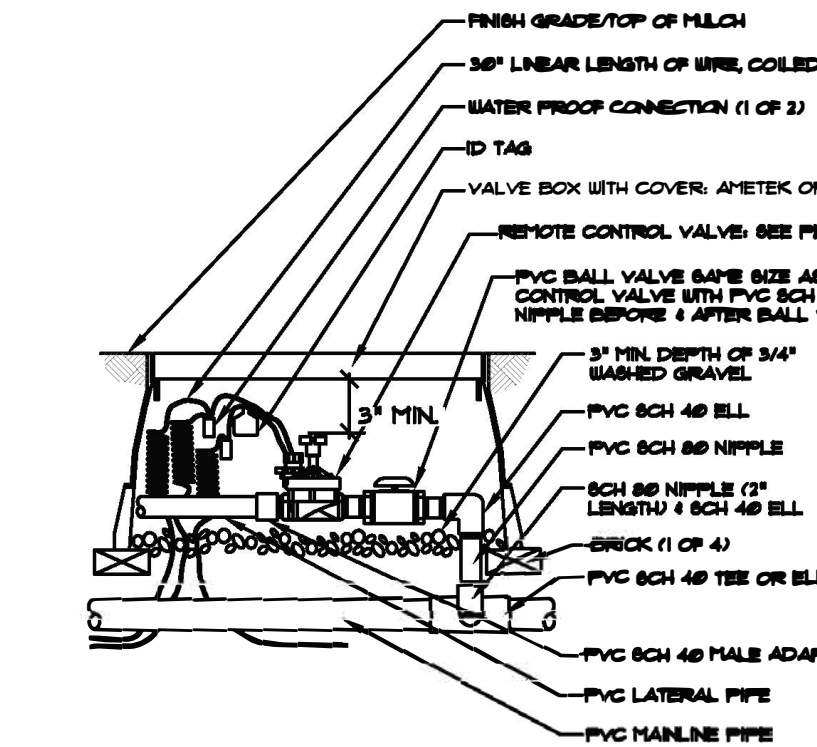


A PRESSURE VACUUM BREAKER
NOT TO SCALE FEBCO 165

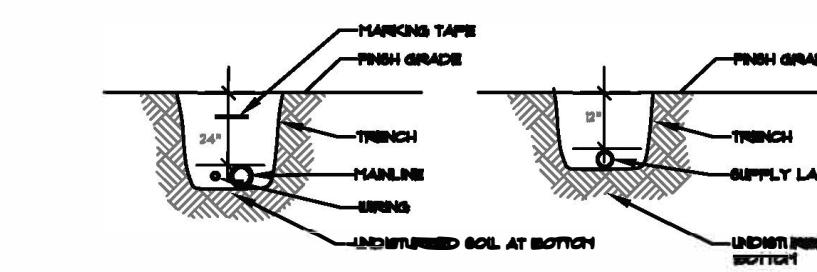
NOTES: ALL ELECTRICAL POWER TO THE IRRIGATION CONTROL SYSTEM SHOULD BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE & ALL APPLICABLE LOCAL ELECTRIC UTILITY CODES.



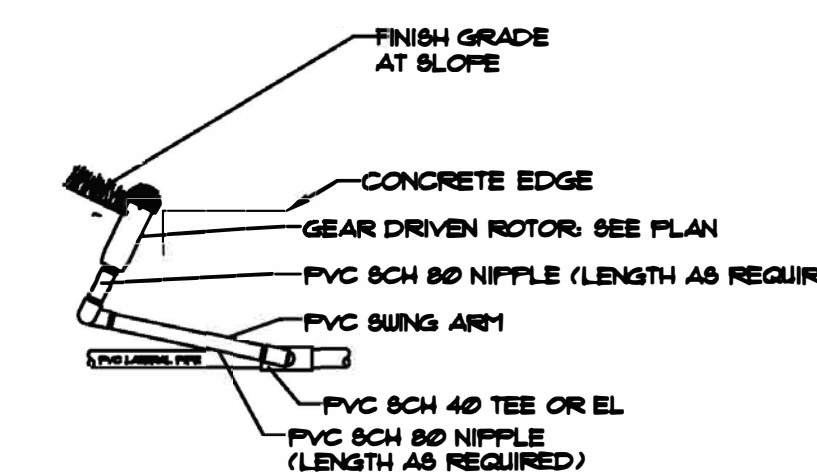
B CONTROLLER (INDOOR)
NOT TO SCALE



D ELECTRIC ZONE CONTROL VALVE
NOT TO SCALE

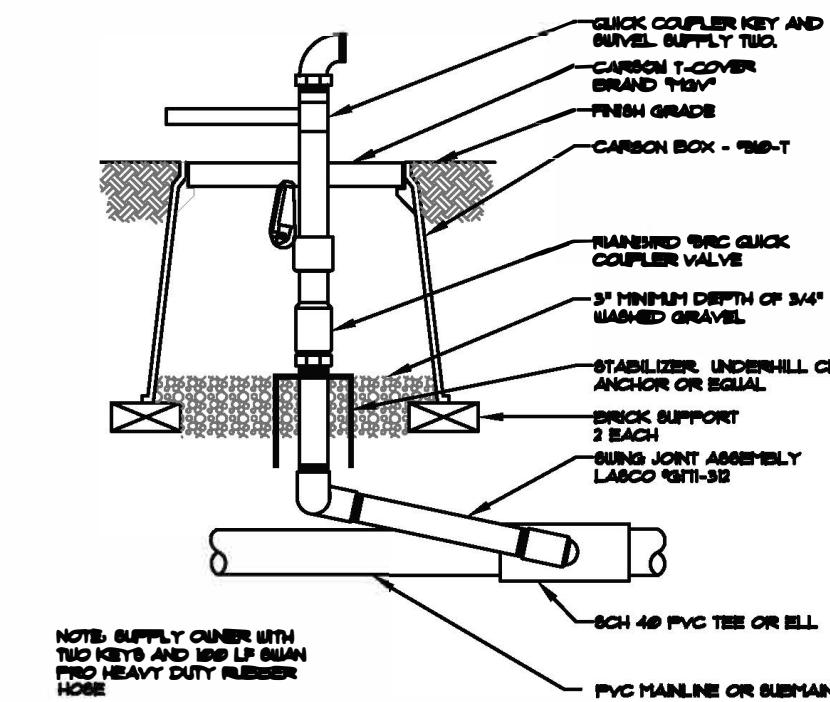


G LATERAL PIPE TRENCHING DETAIL
NOT TO SCALE

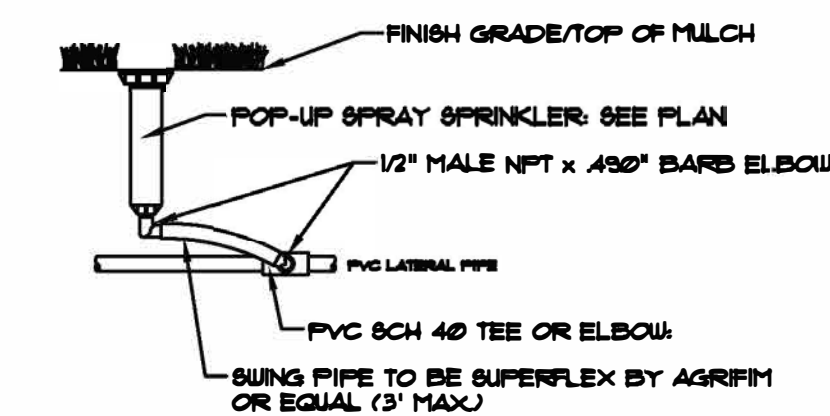


NOTES: • A SWING PIPE MAY BE USED WITH FLOWS LESS THAN 4 GPM.

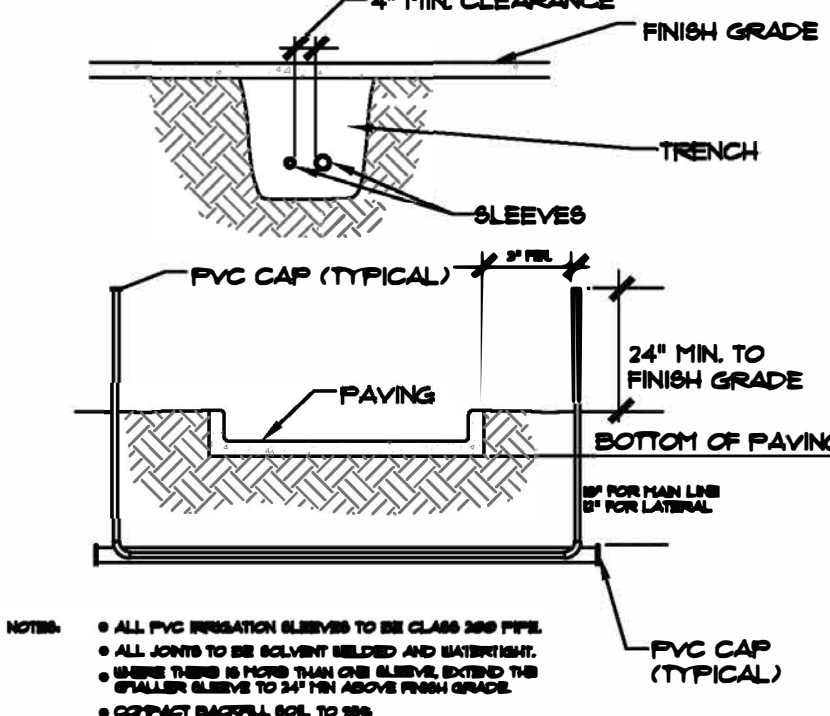
E HEAD DETAIL - SLOPE
NOT TO SCALE



C QUICK COUPLER ASSEMBLY DETAIL
NOT TO SCALE



F POP-UP SPRAY SPRINKLER HEAD
NOT TO SCALE



H SLEEVING DETAIL
NOT TO SCALE

NOTE: INSTALL PIPING NO LESS THAN 6" LATERAL HORIZONTAL CLEARANCE AND 6" VERTICAL CLEARANCE.
USE CORRECT WATER LINE MARKING TAPE WITH LABEL, TYPED WATER PIPE. INSTALL ALONG TRENCH AT CENTER OF PIPING, 6" DEPTH AND EXPOSE END AT ALL EQUIPMENT.
IN ROCKY SOIL, BENCHMARKS SHALL 3'-6" BAND BE.
PALLIATE EXISTING SOIL FOR BACKFILL. IF SOIL IS UNSATISFACTORY REMOVE AND REPLACE WITH SUITABLE SOIL FOR PROPER COFFERATION.

PIPE SIZE	CLASS 200 PIPE	CLASS 150 PIPE	CLASS 100 PIPE	CLASS 75 PIPE
3/4"	10	5	5	5
1"	15	10	10	10
1 1/4"	22	15	15	15
1 1/2"	28	20	20	20
2"	38	28	28	28
2 1/2"	50	40	40	40
3"	65	50	50	50



Land Use Review Approved
03/28/2024
9:13:29 AM
William.Gray

HIGHER GROUND DESIGNS, INC.
LANDSCAPE ARCHITECTURE, PLANNING & IRRIGATION DESIGN
5330 NORTH ACADEMY BLVD., STE. 207
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Fax 719-586-1122



2610 EAST DALE STREET
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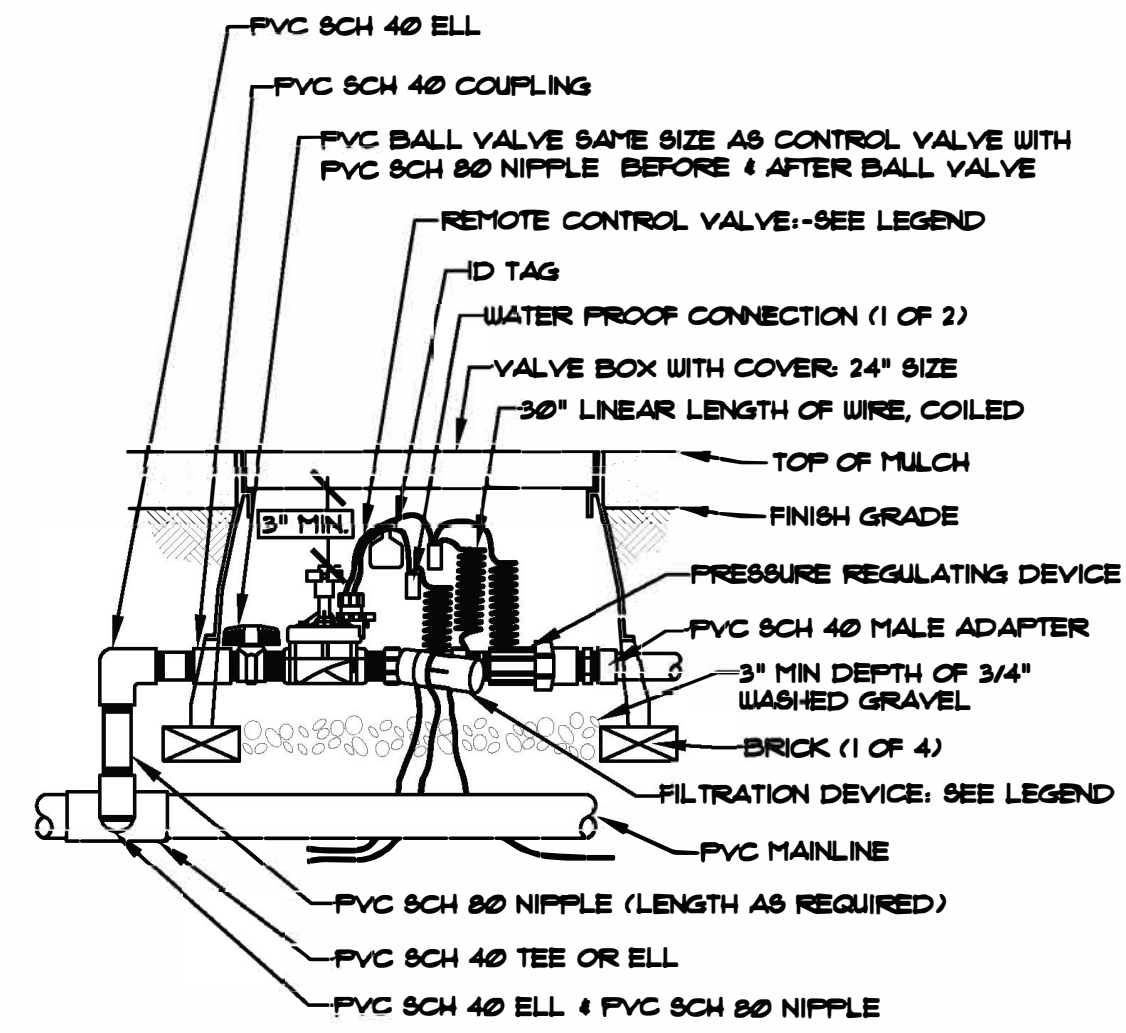
CITY STAMP	JOB NUMBER	1068-22
NOT FOR CONSTRUCTION	REVISIONS	
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ORIGINAL DATE	3-8-22	
DRAWN BY	JM	
DESCRIPTION	IRRIGATION DETAILS	
SHEET NO.	8 of 13	
SHEET	L1.6	



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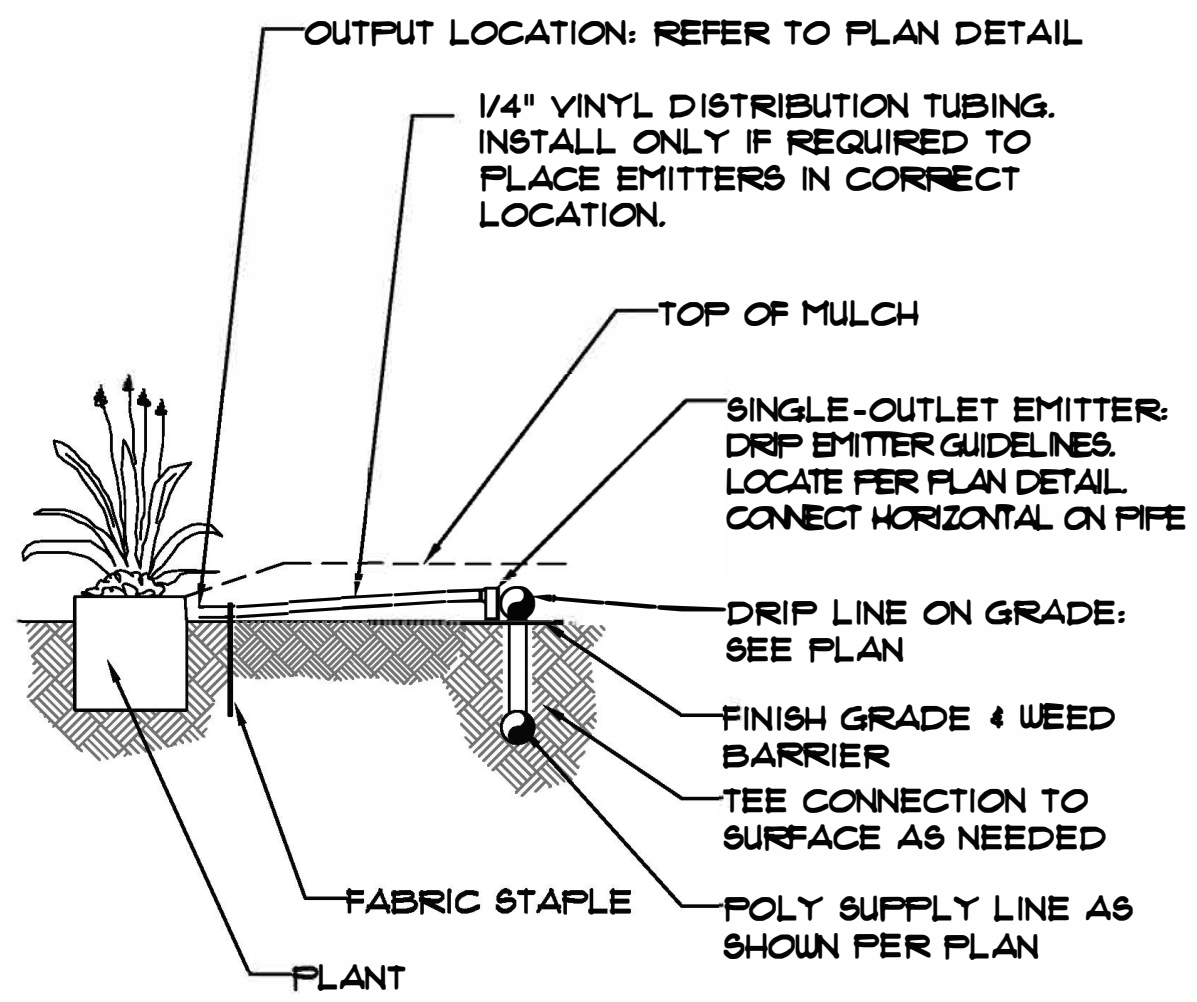
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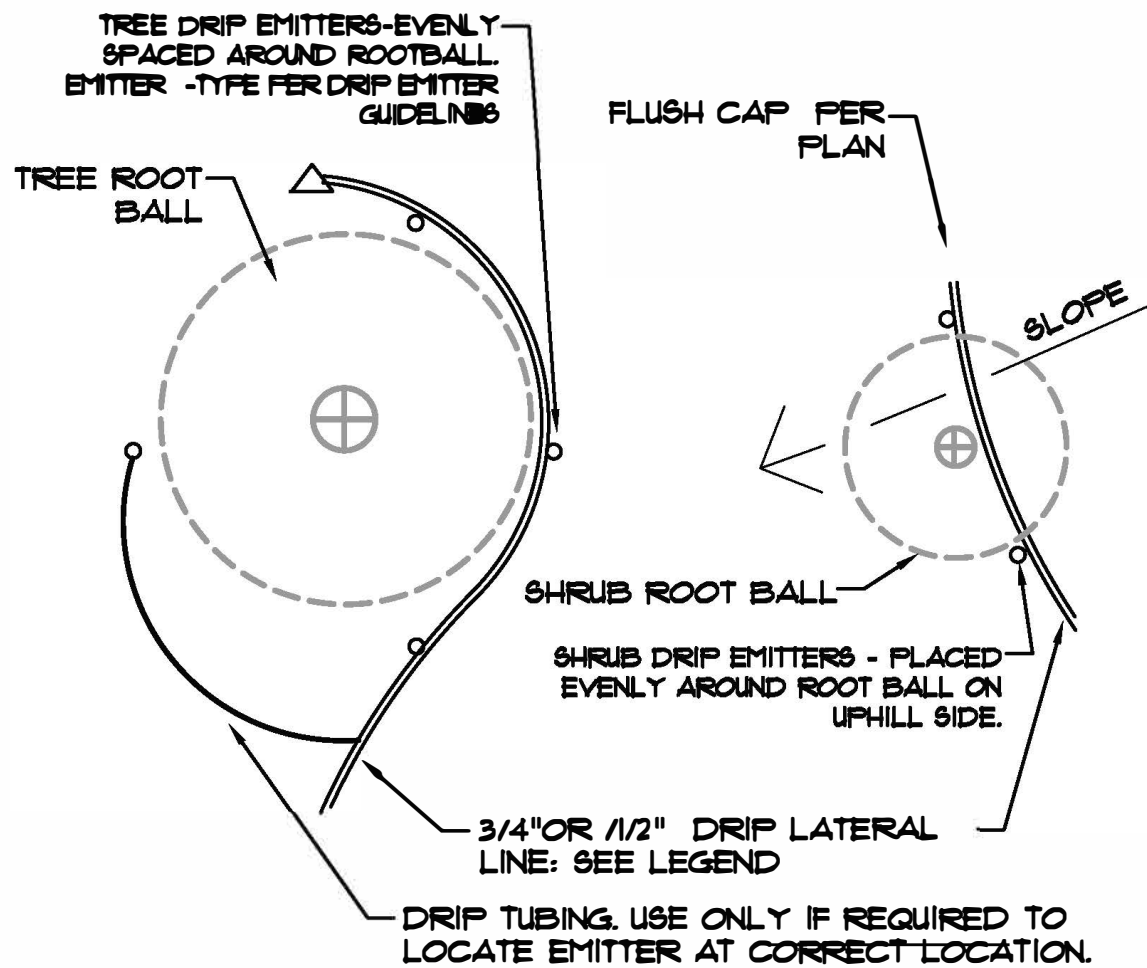
K DRIP IRRIGATION ZONE CONTROL VALVE
NOT TO SCALE

NOTES: • DRIP PIPING IS TO BE STAKED TO GROUND SURFACE EVERY 4'-6". MULCH IS TO BE INSTALLED TO COVER ALL PIPING AND TUBING. RECOMMEND PIPE INSTALLED OVER WEED BARRIER.

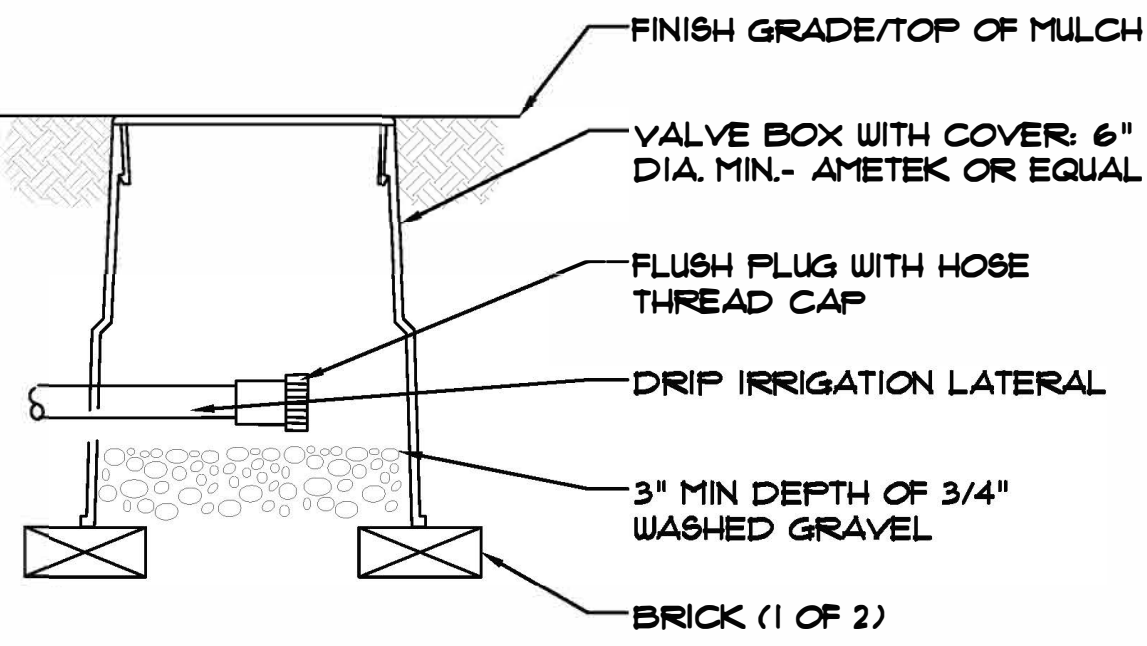


N TYPICAL EMITTER ASSEMBLY
NOT TO SCALE

NOTES: DRIP EMITTERS SHALL BE PLACED APPROX. 2" OUTSIDE THE EDGE OF THE ROOT BALL



L DRIP EMITTER PLACEMENT
NOT TO SCALE SEE GUIDELINES FOR EMITTER QUANTITY



NOTES: DRIP FLUSH CAP AND BOX SHALL BE INSTALLED AT THE END OF EACH DRIP SUPPLY LINE AT ENDS.

M DRIP FLUSH CAP
NOT TO SCALE

FLOW CHART

HIGHER GROUND DESIGNS		IRRIGATION PSI LOSS CALC	
PROJECT NAME	2610 EAST DALE STREET	CALC. BY	JM
JOB #		DATE	11/18/2022
METER SIZE	0.75	ZONE	
SERVICE LINE	0.75	HEAD	ROTATOR
METER ELEVATION	100	NOZZLE	
AVAILABLE PSI AT P.O.C.	80	PIPE SIZING	MEDIUM
		SYSTEM CALC	HIGH GPM ZONE

#	PIPE SIZE	TYPE OF PIPE	LATERAL LINE	GPM	DISTANCE	PSI LOSS
1	1	CLASS 200		4	4.0	0.12
2	1.5	CLASS 200		4.64	4.0	0.26
3		CLASS 200		4.64		0.00
4		CLASS 200		4.64		0.00
5		CLASS 200		4.64		0.00
6		CLASS 200		4.64		0.00
7		CLASS 200		4.64		0.00
8		CLASS 200		4.64		0.00
9		CLASS 200		4.64		0.00
10		CLASS 200		4.64		0.00
11		CLASS 200		4.64		0.00
12		CLASS 200		4.64		0.00
13		CLASS 200		4.64		0.00
14		CLASS 200		4.64		0.00
15		CLASS 200		4.64		0.00
16		CLASS 200		4.64		0.00
17		CLASS 200		4.64		0.00
18		CLASS 200		4.64		0.00
19		CLASS 200		4.64		0.00
20		CLASS 200		4.64		0.00
21		CLASS 200		4.64		0.00
21A		TOTAL LATERAL LENGTH			80	

22		TOTAL LATERAL PSI LOSS				0.4
23	100	ELEVATION OF RCV				
24	100	HIGHEST HEAD ON ZONE				
25	0	PSI GAIN / LOSS RCV TO HIGH HEAD				0.0
26	0	ELEV PSI GAIN LOSS FROM METER TO RCV				0.0
27	SIZE OF RCV 2"	REMOTE CONTROL VALVE LOSS				5.0
28		MIN PSI REQUIRED BY HEAD				45.0
29		TOTAL RCV PSI LOSS				50.4

30	MAIN SIZE 1	MAIN LINE PSI LOSS	ENTER MAIN LINE PIPE LENGTH	5		0.10
32						
33		TOTAL PSI LOSSES-LATERALS, MAIN, ELEVATION, RCV & HEAD PSI				50.5

34	FLOW SENSOR SIZE NA	FLOW SENSOR PSI LOSS				0.0
35	MASTER VALVE	MASTER VALVE PSI LOSS				0.0
36	BACKFLOW PREV. SIZE 1	BACKFLOW PREV. PSI LOSS				15.0
37	COPPER PIPE FROM POC TO BACKFLOW PREVENTOR BPP TO MAIN LINE	PSI LOSS	5			0.05
38	WATER METER SIZE 1	WATER METER PSI LOSS				0.0
39	SERVICE LINE PSI LOSS (FROM THE MAIN IN THE STREET TO THE WATER METER 35' +/-)		5			0.05
40	TOTAL OF ALL PSI LOSSES BEFORE 5% MARGIN					63.6
41	5% (EXTRA FOR FITTINGS AND MARGIN OF ERROR)					3.2
42	MINIMUM OPERATING PSI (FOR THIS SYSTEM TO WORK PROPERLY AT THE POC)					66.8

TOTAL IRRIGATED AREA: 6,405 SF

IRRIGATION SCHEDULE NOTES

THE SCHEDULING TIMES ARE BASED ON AN ET RATE .19 AND AN IRRIGATION EFFICIENCY OF 85%. TIMES SHALL BE ADJUSTED ACCORDINGLY FOR SEASONAL CHANGES. RAIN SENSOR SHALL BE SET FOR AUTOMATIC SHUT OFF AT 1/2" RAINFALL.

THE RUN TIMES ARE MINUTES PER DAY. EACH VEGETATION TYPE HAS A DIFFERENT WEEKLY WATER REQUIREMENT THAT SHOULD BE FULFILLED BY A DIFFERENT NUMBER OF SCHEDULED RUN TIMES.

NEWLY PLANTED TURF AREAS SHOULD BE IRRIGATED ON A DAILY BASIS THE FIRST GROWING SEASON. DURING THE SECOND SEASON, TURF AREAS SHOULD BE IRRIGATED EVERY OTHER DAY. ESTABLISHED BLUE GRASS TURF AREAS SHOULD BE IRRIGATED EVERY OTHER DAY. ESTABLISHED FESCUE GRASS AND NATIVE GRASS TURF AREAS SHOULD BE IRRIGATED EVERY THIRD DAY.

NEW LANDSCAPE PLANTS SHALL BE IRRIGATED EVERY OTHER DAY FOR THE FIRST GROWING SEASON. DURING ALL SUBSEQUENT SEASONS LANDSCAPE PLANTS SHALL BE IRRIGATED EVERY THIRD DAY.

THE RUN TIMES ARE INTENDED FOR SUMMER WATERING APPLICATIONS. RUN TIMES SHALL BE ADJUSTED FOR SEASONAL REQUIREMENTS. SPRING RUN TIMES SHALL BE SET AT 85% OF SUMMER RUN TIMES. FALL RUN TIMES SHALL BE SET AT 80% OF SUMMER RUN TIMES.

AN ESTABLISHMENT PERMIT AND POSSIBLY AN ALLOCATION PLAN SHALL BE REQUIRED FROM COLORADO SPRINGS UTILITIES.

DRIP EMITTERS

DRIP EMITTERS FOR TREES, SHRUBS, ORNAMENTAL GRASSES AND PERENNIALS SHALL BE INSTALLED PER DETAILS ON THIS SHEET. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING EMITTER QUANTITY SO THAT EACH PLANT TYPE RECEIVES THE CORRECT WATER REQUIREMENT BASED ON ZONE RUN TIME AND PLANT WATER REQUIREMENTS. SEE DRIP EMITTER GUIDELINES. EXCEPT FOR PERENNIALS ALL SHRUBS SHALL RECEIVE TWO EMITTERS, AND TREES SHALL RECEIVE MINIMUM FOUR EMITTERS.

DRIP EMITTER GUIDELINES		
PLANT MATERIAL	EMITTER QUANTITY	OUTPUT (GPH)
1 GAL. PERENNIAL (COLOR)	1 EACH - .5 GPH	.5
1 GAL. ORNAMENTAL GRASS	2 EACH - .5 GPH	1
5 GAL. ORNAMENTAL GRASS	2 EACH - 1 GPH	2
5 GAL. EVERGREEN SHRUB	2 EACH - 1 GPH	2
5 GAL. DECIDUOUS SHRUB	2 EACH - 1 GPH	2
HIGH WATER DECIDUOUS SHRUB	2 EACH - 2 GPH	4
6" B&B EVERGREEN TREE	4 EACH - 1 GPH	4
HIGH WATER EVERGREEN TREE	4 EACH - 2 GPH	8
1 1/2" CAL. DECIDUOUS TREE	4 EACH - 1 GPH	4
HIGH WATER DECIDUOUS TREE	4 EACH - 2 GPH	8

UTILITIES NOTE

VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO START OF WORK. CALL 811 FOR UTILITY LOCATES. TREE TRUNK PLACEMENT SHALL BE A MINIMUM DISTANCE FROM ANY GAS OR ELECTRIC AND 10' FROM GAS MAINS RATED AT 150PSI. FOR SANITARY SEWER AND WATER MAINLINES TREES SHALL NOT BE LOCATED WITHIN EASEMENTS AND WITHIN 10' OF ANY MAINLINE. ANY CONFLICT BETWEEN TREE LOCATIONS AND UTILITIES SHOWN ON PLANS SHALL BE RESOLVED WITH GENERAL CONTRACTOR PRIOR TO PLANTING. ALL ELECTRICAL VAULTS AND TRANSFORMERS SHALL BE KEPT CLEAR FROM PLANT MATERIAL PER COLORADO SPRINGS UTILITIES GUIDELINES "LANDSCAPING AROUND ELECTRICAL EQUIPMENT". SEE COLORADO SPRINGS UTILITIES CONSTRUCTION STANDARD DRAWINGS 18-302 FOR SPECIFIC CLEARANCE REQUIREMENTS. ALL SHRUBS TO BE LOCATED 3' CLEAR OF ALL FIRE HYDRANTS AT MATURE SIZE.

DOCUMENT NOTE

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03/28/2024
9:13:29 AM
William.Gray

CITY STAMP	JOB NUMBER	1068-22
REVISIONS		
3-8-22	PER CITY COMMENTS	
8-4-22	PER CITY COMMENTS	
11-18-22	PER CITY COMMENTS	
2-20-23	PER CITY COMMENTS	
8-1-23	PER CITY COMMENTS	
ORIGINAL DATE		3-8-22
DRAWN BY		JM
DESCRIPTION		IRRIGATION DETAILS
SHEET NO.		9 of 13
SHEET		L1.7

NOT FOR CONSTRUCTION

2610 EAST DALE STREET
CASCADE MULTI FAMILY
COLORADO SPRINGS, CO

PREPARED FOR:
THESE DRAWINGS ARE THE PROPERTY OF HIGHER GROUND DESIGNS, INC. AND SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE AUTHORIZATION OF HIGHER GROUND DESIGNS, INC. THESE DRAWINGS ARE FOR APPROVAL ONLY.

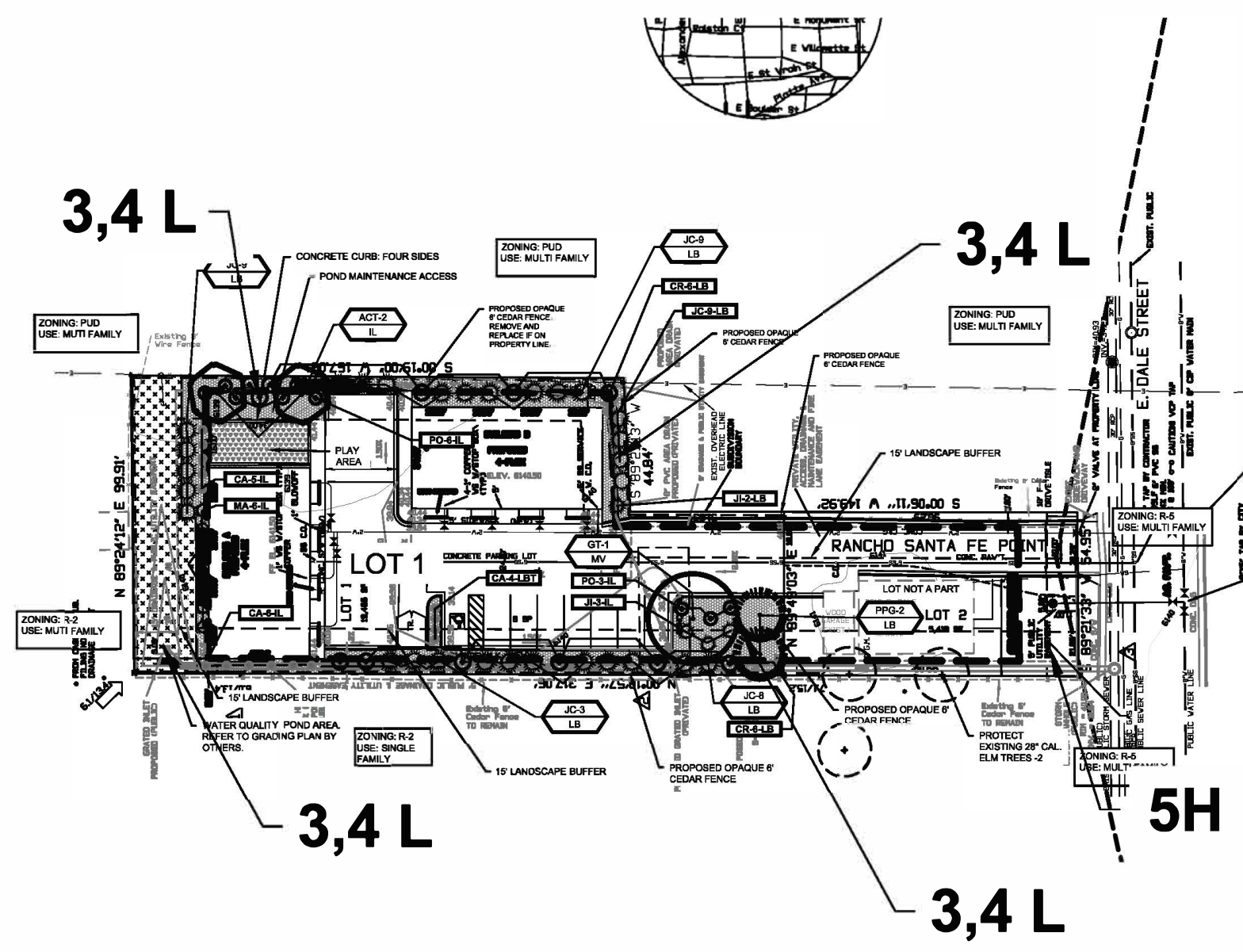


HIGHER GROUND DESIGNS, INC.
LANDSCAPE ARCHITECTURE, PLANNING & IRRIGATION DESIGN

5350 NORTH ACADEMY BLVD., STE. 207
COLORADO SPRINGS, CO 80916
Phone 719-477-1046
Fax 719-588-1122

SCHEMATIC LANDSCAPE DIAGRAM NOT TO SCALE

CLIMATE ZONE: FOOTHILLS (FOOTHILLS AND PLAINS) PLAINS



PLANT COMMUNITIES	HYDROZONES (SUPPLEMENTAL WATER)
1 - SEMIARID SHRUBLANDS	V - VERY LOW (0 TO 7 IN. / YR)
2 - PINYON WOODLANDS	L - LOW (7 TO 15 IN. / YR)
3 - PRAIRIE	M - MODERATE (15 TO 25 IN. / YR)
4 - LOWER ELEVATION RIPARIAN	H - HIGH (MORE THAN 25 INCHES / YR)
5 - FOOTHILL SHRUBLANDS	
6 - PONDEROSA PINE FOREST	
7 - UPPER ELEVATION RIPARIAN	
8 - DOUGLAS-FIR FOREST	

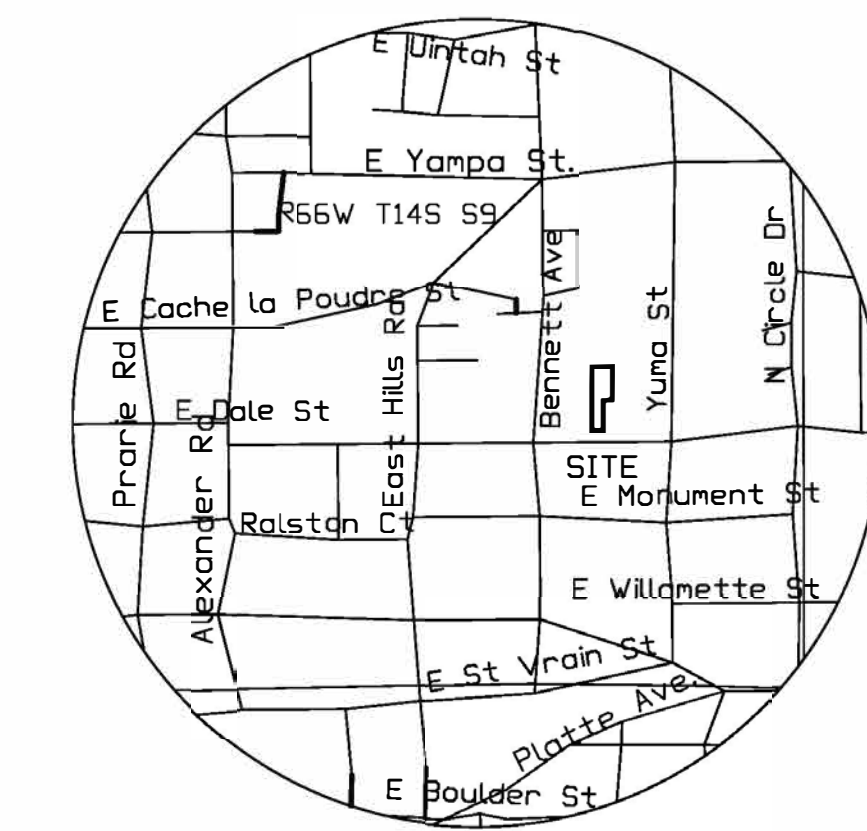
CITY OF COLORADO SPRINGS - LANDSCAPE CODE-LOT 1

LANDSCAPE SETBACKS (LS)					
STREET NAME OR ZONE BOUNDARY (ELEV.)	STREET CLASSIFICATION	WIDTH (FT.) REQ./PROV.	LINEAR FOOTAGE	TREE/FEET REQUIRED	NO. OF TREES REQ./PROVIDED
NOT REQUIRED: LOT 2 IS ADJACENT TO ROADWAY AND IS NOT A PART					0/0
SHRUB SUBSTITUTES REQ./PROV. (25% MAX)	ORNAMENTAL GRASS SUB. 2/1 REQ./PROV.	SETBACK PLANT ABBR. DENOTED ON PLAN	PERCENT GROUND PLANE VEG. REQ./PROV.		
0/0	0/0	LS	75%/75%		

MOTOR VEHICLE ISLANDS (MV)				
NO. OF VEHICLE SPACES PROVIDED	SHADE TREES (1/8 SPACES) REQ./PROV.	VEHICLE LOT FRONTAGE(S)	LENGTH OF FRONTAGE (FT) (EXCLUDING DRIVEWAYS)	2/3 LENGTH OF FRONTAGE (FT)
8	1/1	FRONTAGE	0 LF	0 LF
(1/5) MIN. 3' SCREENING PLANTS REQ./PROV.	EVERGREEN PLANTS REQ. 50%/PROV.	LENGTH OF SCREENING WALL OR BERTH PROV.	VEHICLE LOT PLANT ABBR. ON PLAN	PERCENT GROUND PLANE EG. REQ./PROV.
0/0	0/0	0 LF	MV	75%/75%

INTERNAL LANDSCAPING (IL)				
INTERNAL LANDSCAPE AREA INCLUDES ALL LANDSCAPE AREAS NOT INCLUDING SETBACKS, BUFFERS OR MOTOR VEHICLE ISLANDS. 100% SHRUB SUBSTITUTION FOR NON-RESIDENTIAL / 50% SHRUB SUBSTITUTION FOR MULTI-FAMILY.				
NET SITE AREA (SF) (LESS PUBLIC ROW)	PERCENT MINIMUM INTERNAL AREA (%)	INTERNAL AREA (SF) REQ./PROV.	INTERNAL TREES (1/500 SF) (EXCLUDING DRIVEWAYS)	
15466 SF	RESIDENTIAL 15%	2,320 SF/3,000 SF	6/3	
SHRUB SUBSTITUTES REQ./PROV.	ORNAMENTAL GRASS SUB. REQ./PROV.	INTERNAL PLANT ABBR. DENOTED ON PLAN	PERCENT GROUND PLANE VEG. REQ./PROV.	
30/30 FLP	0/0	IL	75%/75%	

LANDSCAPE BUFFERS AND SCREENS (LB & LBT)				
STREET NAME OR PROPERTY LINE (ELEV.)	WIDTH (FT) REQ./PROV.	LINEAR FOOTAGE	BUFFER TREES (1/20') REQ./PROV.	EVERGREEN TREES REQ. (50%) / PROVIDED
NORTH	5/5 FT	262 LF	13/3	3/3 UPRIGHT EVERGREEN
EAST	5/5 & 4 5 FT	311 LF	16/6	6/3 UPRIGHT EVERGREEN
WEST	5/5 & 4 5 FT	311 LF	16/6	6/3 UPRIGHT EVERGREEN
TRASH ENCLOSURE(S)	NA	NA	NA	3/3 (UPRIGHT EVERGREEN)
LENGTH OF 6 FT. OPAQUE STRUCTURE REQ./PROV.	TREE ABBR. DENOTED ON PLAN	PERCENT GROUND PLANE VEG. REQ./PROV.		
0/0	LB	75%/75%		
3/1	LB	75%/75%		
3/1	LB	75%/75%		
6' HIGH WOOD ENCLOSURE	LBT (SHRUB)	NA		



VICINITY MAP



Land Use Review Approved

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HIGHER GROUND DESIGNS, INC.
LANDSCAPE ARCHITECTURE, PLANNING & IRRIGATION DESIGN
5350 NORTH ACADEMY BLVD., STE. 207
COLORADO SPRINGS, CO 80916
Phone: 719-477-1648
Fax: 719-568-1122



CITY AFFIDAVIT NOTE

THE DESIGN PROFESSIONAL OF RECORD IS TO COMPLETE THE INSPECTION AFFIDAVIT BASED ON CITY APPROVED FINAL LANDSCAPE PLAN AND CONSTRUCTION DRAWINGS BY HGD, INC. IF ANY DISCREPANCY BETWEEN APPROVED FINAL LANDSCAPE PLAN AND CONSTRUCTION DRAWINGS EXIST THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENT. THIS REQUIRES CONSTRUCTION OBSERVATION VISITS TO ACCURATELY COMPLETE THE AFFIDAVIT. WHEN AFFIDAVITS ARE NOT SUBMITTED FINANCIAL ASSURANCES ARE TAKEN AND HELD FOR TWO YEARS. REGARDLESS, NATIVE SEED AREAS REQUIRE A TWO YEAR ESTABLISHMENT FINANCIAL ASSURANCE.

ACCEPTABLE FIELD CHANGES INCLUDE BUT ARE NOT LIMITED TO: COMPARABLE PLANT SUBSTITUTES (I.E. APPROXIMATELY 2 TREES, 10 SHRUBS) IN ACCORD WITH THE CITY PLANT LIST; SHORT RETAINING WALL EXTENSIONS WHICH DO NOT ENCRoACH INTO EASEMENTS OR CONFLICT WITH I.E. DRAINAGE OR A UTILITY; A CHANGE IN PLANT SIZE BUT SILL MEETS CITY MINIMUM SIX FEET REQUIREMENT, AND ARE NOT REQUIRED AS PART OF ANY SPECIAL PLAN APPROVAL AGREEMENT OR STANDARD. WHEN MINOR LANDSCAPE CHANGES ACCUMULATE OR LARGE CHANGES OCCUR FROM THE APPROVED PLAN AFTER ENTITLEMENT, A MINOR AMENDMENT APPLICATION SUBMITTAL IS OFTEN REQUIRED BEFORE THE CERTIFICATE OF OCCUPANCY WILL BE GRANTED. WHEN READY TO CALL OF INSPECTION AND SUBMIT AFFIDAVITS FIRST CONTACT THE CITY PLANNER OF RECORD (385-5905) AND AS NECESSARY OUR DRE OFFICE (385-5982).

LANDSCAPE MAINTENANCE NOTE

LANDSCAPE IMPROVEMENTS AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF OWNER, AND /OR THEIR ASSIGNS.

STREET TREES, STREETSCAPE IMPROVEMENTS, AND VEGETATION WITHIN THE CITY ROW SHALL BE MAINTAINED BY THE ADJUTING PROPERTY OWNER.

STANDARD IRRIGATION NOTES

THE DESIGN PROFESSIONAL OF RECORD IS TO COMPLETE THE INSPECTION AFFIDAVIT BASED ON APPROVED FINAL IRRIGATION PLAN. THIS SHOULD REQUIRE LIMITED CONSTRUCTION OBSERVATION VISITS AND FUNCTIONAL TEST OF THE SYSTEM SHALL BE PERFORMED TO ACCURATELY COMPLETE THE AFFIDAVIT. WHEN AFFIDAVITS ARE NOT SUBMITTED FINANCIAL ASSURANCES ARE TAKEN AND HELD FOR TWO YEARS. WHEN READY TO CALL OF INSPECTION AND SUBMIT AFFIDAVITS FIRST CONTACT THE CITY PLANNER OF RECORD (719-385-5905) AND AS NECESSARY OUR DRE OFFICE (719-385-5982).

The City of Colorado Springs has adopted permanent water-wise regulations at the start of 2020 which will affect the overall operation of the irrigation system.

- From May 1 to October 15, sprinklers can be operated before 10 a.m. and after 6 p.m.
- Watering is limited to three days a week (Drip irrigation is allowed at any time).
- Establishment permits are required from Colorado Springs Utilities for customers who need to temporarily water more than three days a week to establish new landscapes.
- Allocation plans are available for customers who need more watering schedule flexibility from Colorado Springs Utilities. For all design irrigation systems, if more than three days a week are required to provide required coverage with spray/rotor stations/valves, a Water Allocation Plan is required from Colorado Springs Utilities.

AN UNDERGROUND, AUTOMATIC, IRRIGATION SYSTEM WITH SURFACE DRIP COMPONENTS WILL BE USED TO IRRIGATE ALL PLANT MATERIAL AND A ROTOR/SPRAY SYSTEM FOR TURF AND/OR SEEDED AREAS AS REQUIRED PER PLAN AS REQUIRED. THE IRRIGATION PLAN WILL INCLUDE WATERING SCHEDULE, WATER USE, ESTABLISHMENT GUIDELINES, AND WINTER WATERING GUIDELINES. THE PROPERTY OWNER SHALL BECOME FAMILIAR WITH THESE GUIDELINES.

IF THE IRRIGATION PLAN IS NOT SUBMITTED WITH THE FINAL IT MUST BE SUBMITTED FOR REVIEW CONCURRENT WITH BUILDING PERMIT SUBMITTAL AND APPROVED PRIOR TO ISSUANCE OF A BUILDING PERMIT AND BEFORE ANY IRRIGATION CONSTRUCTION. CONTACT LANDSCAPE ARCHITECT.

UTILITIES NOTE

VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO START OF WORK. CALL 811 FOR UTILITY LOCATES. TREE TRUNK PLACEMENT SHALL BE 6' MINIMUM DISTANCE FROM ANY GAS OR ELECTRIC AND 10' FROM GAS MAINS RATED AT 150PSI. FOR SANITARY SEWER AND WATER MAINLINES TREES SHALL NOT BE LOCATED WITHIN EASEMENTS AND WITHIN 10' OF ANY MAINLINE. ANY CONFLICT BETWEEN TREE LOCATIONS AND UTILITIES SHOWN ON PLANS SHALL BE RESOLVED WITH GENERAL CONTRACTOR PRIOR TO PLANTING. ALL ELECTRICAL WALLS AND TRANSFORMERS SHALL BE KEPT CLEAR FROM PLANT MATERIAL PER COLORADO SPRINGS UTILITIES GUIDELINES "LANDSCAPING AROUND ELECTRICAL EQUIPMENT". SEE COLORADO SPRINGS UTILITIES CONSTRUCTION STANDARD DRAWINGS 18-302 FOR SPECIFIC CLEARANCE REQUIREMENTS. ALL SHRUBS TO BE LOCATED 3' CLEAR OF ALL FIRE HYDRANTS AT MATURE SIZE.

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CITY FILE NO. DEPN-22-0083

NOT FOR CONSTRUCTION	CITY STAMP	JOB NUMBER	1068-22
		REVISIONS	
		3-8-22	PER CITY COMMENTS
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		11-18-22	PER CITY COMMENTS
		2-20-23	PER CITY COMMENTS
		8-1-23	PER CITY COMMENTS
		ORIGINAL DATE	3-8-22
		DRAWN BY	JM
		DESCRIPTION	FINAL LANDSCAPE PLAN
	SHEET NO.	10 of 13	
	SHEET	L1.1	

2010 EAST DALE STREET
CASCADE MULTI FAMILY
COLORADO SPRINGS, CO

PREPARED FOR:
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FOR CITY APPROVAL ONLY



Land Use Review Approved

03/28/2024
9:13:29 AM
William.Gray

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LANDSCAPE ARCHITECTURE, PLANNING & IRRIGATION DESIGN

5350 NORTH ACADEMY BLVD., STE. 207
COLORADO SPRINGS, CO 80916
Phone 719-477-7668
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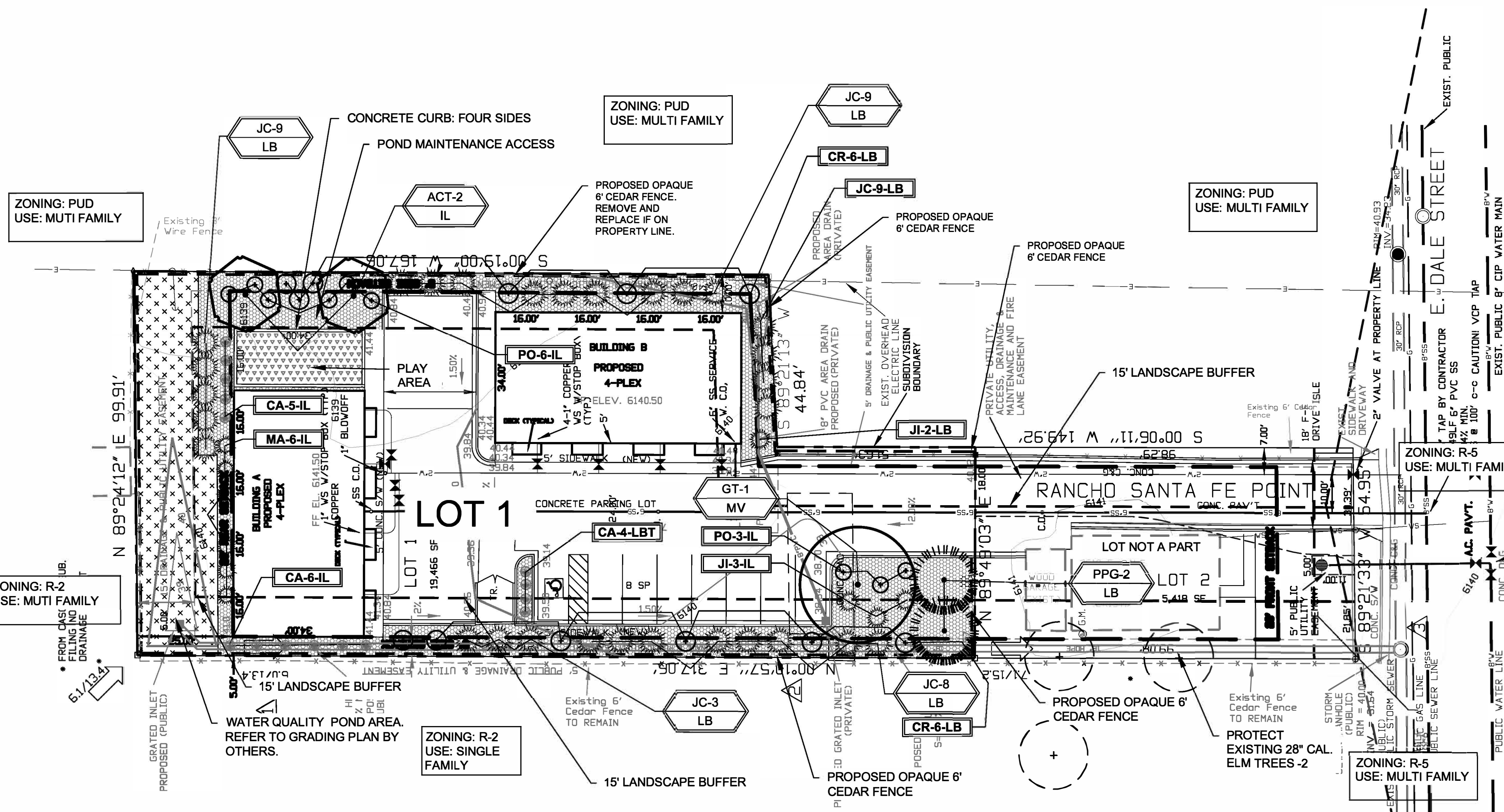


2610 EAST DALE STREET
CASCADE MULTI FAMILY
COLORADO SPRINGS, CO

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PREPARED FOR:

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LAYOUT NOTE
CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL LANDSCAPE SHOWN ON THIS PLAN. ANY DEVIATIONS FROM THIS PLAN ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. DEVIATIONS FROM THE APPROVED PLAN MAY REQUIRE APPROVAL BY COLORADO SPRINGS PLANNING AND OWNER REPRESENTATIVE.

ESTABLISHMENT PERMIT NOTE
ESTABLISHMENT PERMITS ARE REQUIRED FROM COLORADO SPRINGS UTILITIES (CSU) FOR CUSTOMERS THAT NEED TO TEMPORARILY WATER MORE THAN THREE DAYS PER WEEK TO ESTABLISH NEW LANDSCAPES.
ALLOCATION PLANS ARE AVAILABLE FOR CUSTOMERS WHO NEED ADDITIONAL WATERING SCHEDULE FLEXIBILITY FROM CSU.
CONTRACTOR SHALL CONTACT CSU FOR FURTHER INFORMATION.

PLANT SCHEDULE - LOT 1

Symbol	Abbr. Qty.	Botanical Name	Common Name	Key from App. B	Mature Size	Planting Size
EVERGREEN TREES:						
	** JC 29	Juniperus scopulorum 'Cologreen'	Cologreen Juniper		W X HT	B & B
	** PPG 2	Picea pungens glauca 'Fat Albert'	Fat Albert Spruce	SA	6' ht.	6' ht.
DECIDUOUS TREES:						
	** GT 1	Gleditsia triacanthos 'Skyline'	Skyline Honeylocust	4SA	30'X25'	1-1/2" cal.
	** ACT 2	Acer tataricum 'Hot Wings'	Tatarian Maple Hot Wings	457A	20X25'	1-1/2" cal.
EVERGREEN SHRUBS:						
	** MA 6	Mahonia aquifolium compacta	Compact Oregon Grape Holly	4S	3-4' x 2-3'	# 5
	** JI 4	Juniperus sabinia 'sierra'	Buffalo Sierra Juniper	568A	6-8' x 12-18"	# 5
DECIDUOUS SHRUBS:						
	** CR 12	Cornus stolonifera 'Redtwig'	Red Twig Dogwood	457S	6-10' x 8-10'	# 5
	** PO 9	Potentilla fruticosa 'Abbotswood'	Abbotswood Potentilla	A	2-4' x 2-4'	# 5
PERCENT SIGNATURE TREES & SHRUBS REQUIRED: 60% TOTAL NO. OF SHRUBS/SIGNATURE SHRUBS: 100% SIGNATURE SHRUBS **SIGNATURE SHRUBS						
ORNAMENTAL GRASSES:						
	CA 15	Calamagrostis acutiflora 'Karl Foerster'	Feather Reed Grass	A	1-3' x 2-3'	1 gal.

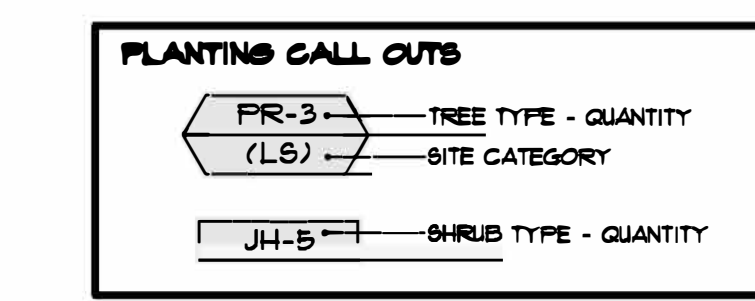
NOTE: QUANTITIES SHOWN IN LEGEND ARE FOR CONVENIENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL MATERIALS PER PLAN.

GROUND COVER LEGEND - LOT 1

SYMBOL	DESCRIPTION	APPROX. SF
	Irrigated Seed Mix 'A'. Refer to notes Submit SPEC to owner/landscape architect prior to ordering	1,878 SF
	Blue-Gray River Rock: 1.5" Diameter (with weed barrier) Submit SPEC to owner/landscape architect prior to ordering	4,558 SF
	Engineered Wood Fiber surface for play area. 12" depth Submit SPEC to owner/landscape architect prior to ordering	477 SF
	Steel Edger. See notes	

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FINAL LANDSCAPE PLAN



UTILITIES NOTE
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GRADE NOTE
GRADE SHALL BE ESTABLISHED BASED ON GRADING PLAN BY OTHERS, AND FOR LANDSCAPE MATERIALS PER PLAN. FINAL SOIL GRADE FOR 5-12" DIAMETER ROCK AREAS SHALL BE 4" BELOW TOP OF SIDEWALK/CURB/PAVING. AT ALL OTHER ROCK AREAS GRADE SHALL BE 3" BELOW SIDEWALK/CURB. AT SOD/SEED AREAS GRADE SHALL BE 1" BELOW TOP OF SIDEWALK/CURB.

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NOT FOR CONSTRUCTION

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	8-1-23	PER CITY COMMENTS
ORIGINAL DATE	3-8-22	
DRAWN BY	JIM	
DESCRIPTION	FINAL LANDSCAPE PLAN	
SHEET NO.	11 of 13	
SHEET	L1.2	

CITY FILE NO. DEPN-22-0083

GENERAL SITE NOTES

- CONTRACTOR RESPONSIBLE FOR COORDINATING AND INSTALLING ALL SLEEVING REQUIRED FOR LANDSCAPE AND IRRIGATION CONSTRUCTION. COORDINATE WITH GENERAL CONTRACTOR. ALL PLANTING AREAS SHALL RECEIVE SLEEVING. REFER TO PLANTING PLAN FOR ADDITIONAL INFORMATION.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES, AS SHOWN ON THESE PLANS, IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS. ESPECIALLY AT CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR ALL APPLICABLE AGENCIES.
- ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN LOCAL CITY STANDARDS AND SPECIFICATIONS AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE SPECIFICATIONS, OR ANY APPLICABLE STANDARDS, THE HIGHER QUALITY STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE APPROPRIATE GOVERNING AGENCIES.
- THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED CONSTRUCTION DOCUMENTS, ONE (1) COPY OF THE APPROPRIATE STANDARDS AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB, ON-SITE AT ALL TIMES.
- ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS TRACKED FROM THE SITE.
- THE CONTRACTOR SHALL PROTECT ALL SITE ELEMENTS DURING CONSTRUCTION INCLUDING, BUT NOT LIMITED TO: CONCRETE PLATWORK, CURBS & GUTTERS, PAVING, SIGNS, TREES, UTILITIES, ETC. ANY DAMAGE TO INFRASTRUCTURE SHALL BE RESPONSIBILITY OF CONTRACTOR TO REPAIR AND/OR REPLACE IN EQUAL OR BETTER CONDITION. ANY DAMAGE SHALL BE DOCUMENTED THE DAY IT OCCURS AND REPORTED TO THE CLIENT WITHIN 12 HOURS. COORDINATE WITH GENERAL CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR SUBMITTING LANDSCAPE AND IRRIGATION SUBMITTALS FOR APPROVAL PRIOR TO START OF ANY WORK.

INSTALLATION NOTES

REMOVE EXISTING TREES, DEBRIS AND WEEDS FROM SITE PRIOR TO CONSTRUCTION (AS SHOWN PER PLAN).

LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SITE DURING CONSTRUCTION. WEEDS AND TRASH SHALL BE REMOVED DAILY AS REQUIRED.

EXISTING TOPSOIL TO BE STOCKPILED ON-SITE AND USED DURING CONSTRUCTION TO ESTABLISH GRADES WITHIN LANDSCAPE AREAS AS SHOWN PER PLAN.

CONTRACTOR SHALL REFER TO ASSOCIATED LANDSCAPE CONTRACTORS OF COLORADO HANDBOOK (ALCC), 2007 REVISED EDITION FOR ALL CONSTRUCTION FOR THIS SITE. CONTACT OWNER/LANDSCAPE ARCHITECT FOR QUESTIONS.

QUANTITIES SHOWN IN PLANT SCHEDULE ARE FOR CONVENIENCE ONLY. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL PLANT MATERIAL PER PLAN.

LANDSCAPE ARCHITECT SHALL HAVE OPPORTUNITY TO INSPECT AND APPROVE ALL TREES AND ALL 1-1/2 GALLON MATERIAL AT JOB SITE PRIOR TO PLANTING, INCLUDING PLACEMENT INSPECTION.

STEEL EDGING TO BE GREEN PRO-STEEL (H/F 4" x 4" 10') WITH STAKES OR APPROVED EQUAL. EDGING TO BE EXPOSED 1/2" MAXIMUM ABOVE FINISHED GRADES. INSTALL PER MANUFACTURE RECOMMENDATIONS. SEE PLAN FOR EDGING LOCATIONS.

ALL ROCK COVER AREAS ONLY TO BE COVERED WITH 3 OZ PROFESSIONAL GRADE POLYSPUN WEEBARRIER WITH STAPLES (5' O.C. FABRIC SEAMS TO BE OVERLAPPED 6" MIN. AND SECURED WITH STAPLES).

GROUND COVER SHALL BE CONTINUOUS UNDER ALL SHRUBS THROUGHOUT PROJECT SITE. REFER TO PLANTING DETAILS.

TREES AND SHRUBS TO RECEIVE ORGANIC MULCH PER DETAILS, INCLUDING ROCK AREAS-SEE DETAILS, UNLESS OTHERWISE SPECIFIED. ORGANIC MULCH TO BE CASCADE CEDAR WITH NO LANDSCAPE FABRIC 4" DEPTH.

DO NOT PLANT SHRUBS OR TREES OF INCOMPATIBLE WATER REQUIREMENTS IMMEDIATELY ADJACENT (MINIMUM 5') TO ONE ANOTHER.

PLANT BACKFILL SHALL BE 70% NATIVE ON-SITE SOIL, AND 30% BREW-GRO BIOMIX CLASS 1 (OR CITY APPROVED EQUAL).

A REPRESENTATIVE SAMPLE OF THE BOTANICAL NAME TAGS, FURNISHED BY THE NURSERY STOCK PROVIDER SHALL REMAIN ATTACHED TO THE PLANTS UNTIL FINAL INSPECTION.

LANDSCAPE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF STORM DRAINAGE FROM ADJACENT LANDSCAPE AREAS OR BUILDING DOWNSPOUTS WILL ADVERSELY AFFECT LANDSCAPE AREAS PER THE PLAN.

PRIOR TO INSTALLING PLANTS OR GROUND COVER BROADCAST (PLANT SAFE) PREEN WEED PRE-EMERGENT, OR APPROVED EQUAL, IN ALL PLANTING AREAS PER MANUFACTURE RECOMMENDATIONS. WWW.PREEN.COM

FIRE SIGNAGE NOTE

ANY VEGETATION THAT MAY GROW TO OR IMMEDIATELY OBSTRUCT ANY FIRE LANE SIGNAGE WILL BE PLANTED IN SUCH A WAY TO PREVENT ANY FUTURE OBSTRUCTION OF SUCH SIGNAGE.

GRADING AND DRAINAGE NOTE

EXISTING GRADING AND DRAINAGE SHOULD BE MAINTAINED AND IS BY OTHERS. ALL GRADES SHOULD BE MINIMUM AWAY FROM ALL BUILDING FOUNDATION. PRIOR TO OR DURING CONSTRUCTION IF DRAINAGE PROBLEMS ARE IDENTIFIED CONTACT LANDSCAPE ARCHITECT AND CEASE WORK UNTIL SOLUTION IS AGREED TO BY ALL PARTIES. KES, INC. PREPARED THIS LANDSCAPE PLAN BASED ON EXISTING FIELD CONDITIONS AND IS NOT RESPONSIBLE FOR ANY DAMAGE TO BUILDING AND/OR SITE DUE TO IMPROPER GRADING AND/OR DRAINAGE.

LONG-TERM MAINTENANCE NOTE

ON-GOING MAINTENANCE DURING CONSTRUCTION:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ON-GOING MAINTENANCE OF ALL COMPLETED LANDSCAPE AND IRRIGATION WORK AS DEFINED UNDER CONTRACT WITH OWNER.

BEGIN MAINTENANCE IMMEDIATELY AFTER PLANTING AND CONTINUE UNTIL LANDSCAPE WORK IS COMPLETED, ACCEPTED BY OWNER, AND IF REQUESTED A FORMAL MAINTENANCE PERIOD IS INITIATED. MAINTAIN LAWNS BY WATERING, FERTILIZING, WEEDING, MOWING, TRIMMING AND OTHER OPERATIONS SUCH AS ROLLING, REGARDING, REPLANTING AS REQUIRED THROUGH CONSTRUCTION PERIOD. RESALCH WITH NEW MULCH WHEN MULCH HAS BEEN DISTURBED BY CONSTRUCTION OPERATIONS SUFFICIENTLY TO MALFUNCTION FOR ITS PURPOSE. CONTRACTOR SHALL REPAIR SEEDING AREAS DAMAGED BY TRAFFIC AND/OR VANDALISM DURING THE CONSTRUCTION PERIOD.

IF THE IRRIGATION SYSTEM IS NOT AVAILABLE FOR PROPER WATERING AT THE TIME OF INSTALLATION, PROVIDE AND MAINTAIN TEMPORARY PIPING, HOSES, AND LAWN WATERING EQUIPMENT AS REQUIRED TO CONVEY WATER FROM SOURCES AND TO KEEP THE LAWN AREAS UNIFORM, MOST AS REQUIRED FOR PROPER GROWTH. FAILURE OF THE IRRIGATION SYSTEM SHALL NOT RELIEVE THE INSTALLER OF THE RESPONSIBILITY TO PROVIDE THE REQUIRED WATER. COORDINATE WITH OWNER.

ONE-YEAR WARRANTY

AS AGREED WITH OWNER CONTRACTOR SHALL PROVIDE ONE-YEAR WARRANTY ON ALL PLANT MATERIAL, GRASSES AND IRRIGATION SYSTEM. REPLACEMENT OF DEAD, DISABLED OR SUBSTANTIALLY DAMAGED PLANT MATERIALS SHALL BE OF THE SAME OR SIMILAR TYPE AS SET FORTH IN THE LANDSCAPE PLAN. REPLACEMENT SHALL BE MADE IN A TIME PERIOD NOT EXCEEDING 15 DAYS. PLANT MATERIAL NEEDED REPLACEMENT DURING WINTER MONTHS SHALL BE REPLACED AT THE START OF THE NEXT GROWING SEASON.

THE OWNER OF THIS PROPERTY AND ANY FUTURE OWNERS SHALL BE RESPONSIBLE FOR THE PROPER LANDSCAPE AND IRRIGATION SYSTEM MAINTENANCE OF THIS SITE AND ANY FRONT-YARD AREAS BETWEEN THE CURB AND PROPERTY BOUNDARIES OF THIS SITE. MAINTENANCE OF THIS INCLUDES, BUT IS NOT LIMITED TO, IRRIGATION INSPECTIONS AND ADJUSTMENTS, IRRIGATION SYSTEM SHUT DOWN AND START UP, IRRIGATION LEAK REPAIR, LANDSCAPE WEEDING, MOWING, SEEDING, FERTILIZING, WOOD MULCH AND ROCK ADDITIONS, PRUNING AND PLANT MATERIAL REPLACEMENTS. ALL MAINTENANCE SHALL BE DONE IN ACCORDANCE WITH THE ALCC SPECIFICATIONS HANDBOOK REV EDITION 2007. OWNER SHOULD CONTACT LANDSCAPE CONTRACTOR OR LANDSCAPE ARCHITECT REGARDING ANY QUESTIONS RELATING TO THE LANDSCAPE OR IRRIGATION SYSTEM.

SEEDING NOTES

SEED MIX 'A': NATIVE SEED TO BE EL PASO COUNTY CONSERVATION DISTRICT ALL-PURPOSE SEED MIX. SOIL PREPARATION AND SEEDING METHODS SHALL FOLLOW ALL GUIDELINES PER CITY OF COLORADO SPRINGS STORMWATER ENTERPRISE CONSTRUCTION MANUAL, SECTION 5, DATED DECEMBER 2009. REFER TO TABLE 5.4 FOR SEED MIX SOIL. SHALL BE AMENDED BREW-GRO BIOMIX CLASS 1 (OR CITY APPROVED EQUAL) AT 2 C.Y./1000 SF FILLED INTO TOP 4-6" OF SOIL PRIOR TO SEEDING.

DEPENDENT ON WEATHER, SEED SHALL BE INSTALLED WITHIN THE FOLLOWING TIME FRAMES: SEPTEMBER 1 UNTIL CONSISTENT GROUND FREEZING FOR SPRING ESTABLISHMENT (DORMANT SEEDING); SPRING THRU UNTIL JUNE 1 FOR SPRING AND SUMMER ESTABLISHMENT (ACTIVE SEEDING).

FOR HYDRO-SEEDING ALL SEEDED AREAS SHALL RECEIVE NOT LESS THAN 1 TON PER ACRE (2000 LBS) OF VIRGIN WOOD CELLULOSE HYDRO-MULCH AND 100 LBS PER ACRE OF ORGANIC TACKIFIER.

FOR AREAS 31' OR GREATER USE FLEXTERRA AS ALTERNATIVE TO STRAW BLANKET. INSTALL PER MANUFACTURE. SEE SPEC.

SEEDED LANDSCAPE AREAS SHALL HAVE NO BARE AREAS LARGER THAN SIX (6) SQUARE INCHES 5 DAYS AFTER GERMINATION.

DRILL SEEDING: SEEDING EQUIPMENT USED FOR APPLYING SEED MIXTURES SHALL BE DESIGNED, MODIFIED OR EQUIPPED TO REGULATE THE APPLICATION RATE AND PLANTING DEPTH OF THE SEED MIXTURE. SEED SHALL BE UNIFORMLY DISTRIBUTED IN THE DRILL HOOPER DURING THE DRILLING OPERATION. A RANGELAND DRILL CAPABLE OF MIXING DIFFERENT SIZES AND WEIGHTS OF SEEDS SHALL BE USED. THE DRILL SHALL BE EQUIPPED WITH DOUBLE DISK FURROW OPENERS, DEPTH BANDS, PRESS WHEELS OR DRAG CHAINS.

THE SEED SHALL BE DRILLED APPROXIMATELY 1/2" INCH BELOW THE SOIL SURFACE. HALF OF THE TOTAL RATE OF SEED APPLICATION SHALL BE DRILLED IN 1 DIRECTION WITH THE REMAINDER OF THE SEED RATE DRILLED AT 90 DEGREES FROM THE FIRST DIRECTION. DO NOT DRILL OR BOW SEED DURING HIGH WINDS OR WHEN THE GROUND IS FROZEN OR OTHERWISE UNABLE TO BE WORKED.

ALL SEEDED AREAS LESS THAN 3:1 SHALL RECEIVE NOT LESS THAN 2 TONS PER ACRE (4000 LBS) OF CERTIFIED WEED FREE STRAW MULCH. STRAW MULCH SHALL BE APPLIED IN A UNIFORM MANNER BY MULCH SPREADER OR BY HAND. STRAW MULCH SHALL BE CRIMPED OR ANCHORED INTO THE SEEDBED IMMEDIATELY FOLLOWING SPREADING BY USING A MULCH TILLER (CRIMPER). MULCH TILLERS SHALL HAVE ROUND NOTCHED WHEELS SPACED 3 INCHES APART. MULCH SHALL HAVE SUFFICIENT WEIGHT TO FORCE THE VEGETATIVE MULCH A MINIMUM DEPTH OF 3 INCHES INTO THE SOIL. ALL MULCH TILLING SHALL BE DONE PERPENDICULAR TO THE FLOWLINE OF THE SLOPE (ALONG CONTOURS). HAND CRIMPING SHALL BE PERFORMED ON AREAS WHERE MECHANICAL METHODS CANNOT BE USED.

MULCH SHALL BE APPLIED TO SEEDED AREAS (INCLUDING DAMP GROUND) WITHIN 24 HOURS FOLLOWING THE COMPLETION OF SEEDING OPERATIONS FOR THE AREA. MULCHING SHALL NOT BE PERFORMED DURING ADVERSE WEATHER CONDITIONS OR WHEN WIND PREVENTS UNIFORM DISTRIBUTION. APPLICATION SHALL BE IN A MANNER TO NOT SERIOUSLY DISTURB THE SEEDBED SURFACE.

NATIVE GRASS MANAGEMENT NOTE

ON-GOING MAINTENANCE RECOMMENDATIONS FOR NATIVE GRASS:

WELL ESTABLISHED SEEDED LAWN SHALL BE A HEALTHY, WELL-ROOTED, EVEN-COLORED, AND FREE OF WEEDS, BARE AREAS, AND SURFACE IRREGULARITIES.

THE MATURE HEIGHT OF NATIVE GRASS IS EXPECTED TO BE MAINTAINED AT ABOUT 6" HIGH AND MOWED TO 3" ANNUALLY IN THE LATE WINTER OR EARLY SPRING, AND IRRIGATED ON REDUCED WATER SCHEDULE.

THE SUCCESS OF PERMANENT NATIVE GRASS SEEDING CAN RARELY BE EVALUATED ACCURATELY PRIOR TO THE END OF ITS SECOND FULL GROWING SEASON. SEEDING SUCCESS DEPENDS UPON CONTROL OF WEED COMPETITION DURING THE FIRST TWO GROWING SEASONS. IN ADDITION, THE SITE SHOULD BE MONITORED ANNUALLY FOR UNDESIRABLE PLANT SPECIES.

THE SITE SHOULD BE MONITORED FOR UNDESIRABLE PLANT SPECIES. IF WEED CONTROL NEEDS TO BE PERFORMED DURING THE FIRST YEAR OF PLANT GROWTH, UTILIZE ONE OF TWO METHODS, REGARDLESS OF WHICH METHOD OF WEED CONTROL IS USED. COMPLETE BEFORE FLOWERING OF WEED SEED HEADS. SINCE WEED SPECIES MAY DEVELOP MATURE SEED HEADS AT DIFFERENT TIME OF THE GROWING SEASON, WEED CONTROL EFFORTS WILL BE REQUIRED.

- HAND PULL NOXIOUS WEEDS, REMOVING AS MUCH OF THE ROOT SYSTEM AS POSSIBLE.
- USE WEED EATERS TO SELECTIVELY CUT OFF THE SEED HEADS OF NOXIOUS WEEDS. USE SELECTIVE BROADLEAF HERBICIDE SUCH AS 2-4-D WITH A BACKPACK SPRAYER OR WICK APPLICATION. BE CAREFUL NOT TO APPLY HERBICIDE ON MORE THAN ONE SQUARE FOOT IN ANY GIVEN AREA. CONTRACTOR TO NOTIFY OWNERS AUTHORIZED REPRESENTATIVE OF ANY SUSPECTED SOIL PROBLEMS AT THE END OF THE FIRST GROWING SEASON. BROADBAND APPLICATIONS OF HERBICIDE CAN BE COMPLETED AFTER NATIVE GRASS SPECIES REACH MATURE HEIGHT.

SLOPE STABILIZATION

LANDSCAPE CONTRACTOR TO PROVIDE EROSION CONTROL BLANKETS OR EQUAL ON SEEDED SLOPES 3:1 AND STEEPER. BLANKETS TO BE SECURED TO SLOPE PER MANUFACTURE RECOMMENDATIONS FIELD VERIFY SLOPES.

EROSION CONTROL BLANKET SHALL CONSIST OF 100% AGRICULTURAL STRAW BLANKET WITH PHOTODEGRADABLE NETTING ON BOTH SIDES.

PLANTING AREA SOIL PREP NOTES

- FOR ALL PLANTING AREAS SOIL PREPARATION FOR UNDISTURBED OR COMPACTED AREAS:
- RIP EXISTING SOIL TO A DEPTH OF NINE (9) INCHES MINIMUM IN ONE DIRECTION USING AN AGRICULTURAL RIPPER WITH TINES SPACED NOT FURTHER THAN EIGHTEEN (18) INCHES APART OR TILL TO DEPTH AREAS ADJACENT TO WALKS, STREET CURBS, ETC., WHERE THE USE OF LARGE MECHANICAL EQUIPMENT IS DIFFICULT SHALL BE WORKED WITH SMALLER EQUIPMENT OR BY HAND.
 - REMOVE ALL RUBBLE, STONES AND EXTRANEOUS MATERIAL OVER TWO (2) INCHES IN DIAMETER FROM THE SITE.
 - FOR TREE LOCATIONS REMOVE AND REPLACE EXISTING SOIL TO 36" DEPTH. IF C.LAY OR SAND REPLACE WITH GRADE B TOPSOIL.
 - PLANTING AREA SOIL SHALL BE AMENDED BREW-GRO BIOMIX CLASS 1 (OR CITY APPROVED EQUAL) AT 2 C.Y./1000 SF FILLED INTO TOP 4-6" OF SOIL PRIOR TO FINAL GRADE AND PLANTING. REFER TO SEED GRASS NOTES.

SLOPE STABILIZATION

LANDSCAPE CONTRACTOR TO PROVIDE EROSION CONTROL BLANKETS OR EQUAL ON SEEDED SLOPES 3:1 AND STEEPER. BLANKETS TO BE SECURED TO SLOPE PER MANUFACTURE RECOMMENDATIONS FIELD VERIFY SLOPES. EROSION CONTROL BLANKET SHALL CONSIST OF 100% AGRICULTURAL STRAW BLANKET WITH PHOTODEGRADABLE NETTING ON BOTH SIDES.

OR APPROVED CITY EQUAL: FLEXTERRA HP-FGM. REFER TO SPEC SHEET

FERTILIZER NOTES

FERTILIZER AS FOLLOWS (USE THE DRIP LINE TO CALCULATE THE SQUARE FEET TO CALC. AREA) REFER TO SOILS REPORT FOR ADDITIONAL INFORMATION

TREES: 3 LBS NITROGEN PER 1,000 SF. 4 LBS PHOSPHORUS PER 1,000 SF. ADJUST FERTILIZER RECOMMENDATIONS FOR AREA OCCUPIED BY ROOT SYSTEM, WHICH IS OFTEN TWO TO THREE TIMES THE DIAMETER OF THE DRIFLINE. DO NOT APPLY FERTILIZER UNTIL TREES HAVE BEEN PLANTED FOR ONE FULL YEAR. APPLY HALF OF FERTILIZER IN SPRING, HALF IN FALL. SURFACE APPLY FERTILIZER TO AREA SUGGESTED ABOVE AND WATER PROPERLY. USE ABOVE RATES FOR BROADLEAF TREES. USE HALF OF ABOVE RATES FOR CONIFERS, EVERGREENS, OR FRUIT TREES.

SHRUBS: 1 LB PHOSPHORUS PER 1,000 SF. 2 LBS NITROGEN PER 1,000 SF. SPREAD RECOMMENDED FERTILIZER EVENLY OVER THE ROOT ZONE, STARTING 36 INCHES AWAY FROM THE PLANT BASE AND EXTENDING A FOOT BEYOND THE ENDS OF THE BRANCHES. RAKE INTO THE TOP INCH OF SOIL WITHOUT DISTURBING ROOTS. APPLY HALF THE RECOMMENDED FERTILIZER IN EARLY SPRING, HALF IN EARLY SUMMER.

KENTUCKY BLUEGRASS TURF: 10 LBS PHOSPHORUS PER 1,000 SF, 2.6 LBS NITROGEN PER 1,000 SF, AND 2 COPPER PER 1,000 SF. APPLY ABOUT 1 LB OF RECOMMENDED NITROGEN IN LATE SUMMER. APPLY HALF OF REMAINING NITROGEN REQUIRED IN MID-FALL, HALF IN MID SPRING. FOR HIGH MAINTENANCE TURF, APPLY ABOUT 1 LB OF NITROGEN PER 1,000 SF IN EARLY SUMMER. TO OBTAIN 1 LB OF ACTUAL NITROGEN, APPLY 3 TO 4 LBS OF 34-0-4, 5 LBS OF 20-0-4, 10 LBS OF 10-0-4 OR SIMILAR FERTILIZERS.

NATIVE GRASS: 43 LBS PHOSPHORUS PER ACRE, 62 LBS NITROGEN PER ACRE, 40 LBS POTASSIUM PER ACRE, AND 2 COPPER PER ACRE. USE EL PASO COUNTY CONSERVATION DISTRICT GUIDELINES.



Know what's below. Call before you dig.



Description

Flexterra® HP-FGM® is a biodegradable, High Performance-Flexible Growth Medium (HP-FGM) composed of 100% recycled, Thermoally Refined™ virgin wood fibers, crimped biodegradable interfacing fibers derived from regenerated cellulose sourced from sustainably harvested wood, micro-pore granules, naturally derived cross-linked biopolymers and water absorbents. The HP-FGM is patented, made in the US, plastic free, and phyto-sanitized to eliminate potential weed seeds and pathogens. Flexterra requires no curing period and upon application forms an intimate bond with the soil surface to create a continuous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth.

- Erosion control for slopes ranging from mild to severe ($e 0.25H:1V$)
- Rough graded slopes
- Superior performance compared to rolled erosion control blankets
- Enhancement of vegetation establishment
- Ideal infill material for "Terma" Turf Reinforcement Mats to create the "GreenArmor" System

Recommended Applications

Technical Data

Physical Properties*	Test Method	Units	Tested Value
Mass/Unit Area	ASTM D6566	g/m ² (oz/yd ²)	≥ 390 (11.6)
Thickness	ASTM D5252	mm (in)	≥ 5.6 (0.22)
Ground Cover	ASTM D9567	%	≥ 99
Water Holding Capacity	ASTM D7367	%	≥ 1,700
Material Color	Observed	n/a	Green
Performance Properties* <th>Test Method</th> <th>Units</th> <th>Tested Value</th>	Test Method	Units	Tested Value
Cover Factor*	ASTM D6298-Type 1	n/a	≤ 0.01
Percent Effectiveness*	ASTM D6298-Type 1	%	≥ 99
Vegetation Establishment	ASTM D7322	%	≥ 800
Functional Longevity*	ASTM D5338	months	≤ 18
Cure Time	Observed	hours	0 - 2
Environmental Properties*	Test Method	Units	Tested Value
Ecotoxicity	EPA 2021.0	n/a	Non-Toxic
Biodegradability	ASTM D5338	n/a	Yes
USDA BioPreferred®	ASTM D6866	%	100
Biobased Content	ASTM D6866	%	100
Elemental Impurity Limits	ASTM D8082	Pass/Fail	Pass
Product Composition	Test Method	Units	Typical Value
Thermally Processed Wood Fibers* (within a pressurized vessel)		%	80
Wetting Agents-including high-viscosity colloidal polysaccharides, cross-linked biopolymers, and water absorbents		%	10
Crimped Biodegradable Interfacing Fibers derived from regenerated cellulose sourced from sustainably harvested wood		%	5
Micro-Pore Granules		%	5
Properties	Test Method	Units	Nominal Value
Bag Weight	Observed	kg (lb)	22.7 (50)
Scale	Observed	mm	40

For use with recycled plastic bags. Products are available in 2'x10' and 4'x10' rolls supplied with UV resistant gaffed cover.

Profile Products: 755 Lone Cook Road, Ste 440, Buffalo Grove, IL 60089, 800-502-8681 or +1-847-215-1144, www.flexterra.com

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SEED MIX 'A' - ALL PURPOSE

Chapter 5 Native Vegetation Requirements and Guidelines

Table 5-1. El Paso County Conservation District All-Purpose Mix for Upland, Transition and Permanent Control Measured Areas

Common Name	Scientific Name	Growth Season / Form	% of Mix	80 seeds/sq ft	40 seeds/sq ft	20 seeds/sq ft
Bluestem, big	<i>Andropogon gerardii</i>	Warm, sod	20	4.4	2.2	1.1
Gramma, blue	<i>Bouteloua gracilis</i>	Warm, bunch	10	0.5	0.25	0.13
Green needlegrass	<i>Nassella viridula</i>	Cool, bunch	10	2	1	0.5
Wheatgrass, western	<i>Pascopyrum smithii</i>	Cool, sod	20	6.4	3.2	1.6
Gramma, sideoats	<i>Bouteloua curtipendula</i>	Warm, bunch	10	2	1	0.5
Switchgrass	<i>Panicum virgatum</i>	Warm, bunch/sod	10	0.8	0.4	0.2
Prairie sandreed	<i>Calamovilfa longifolia</i>	Warm, sod	10	1.2	0.6	0.3
Yellow indiagrass	<i>Sorghastrum nutans</i>	Warm, sod	10	2	1	0.5
Seed rate (lbs PLS/acre)				19.3	9.7	4.8

USE THIS MIX ↓

Yields PLS

- Irrigated broadcast
- Irrigated hydroseeded
- Non-irrigated broadcast
- Non-irrigated hydroseeded
- Irrigated drilled
- Non-irrigated drilled

*For portions of facilities located near or on the bottom or where wet soil conditions occur. Planting of potted nursery stock wetland plants 2-foot on-center is recommended for sites with wetland hydrology.

*Species that will do well in the bottom of pond areas.

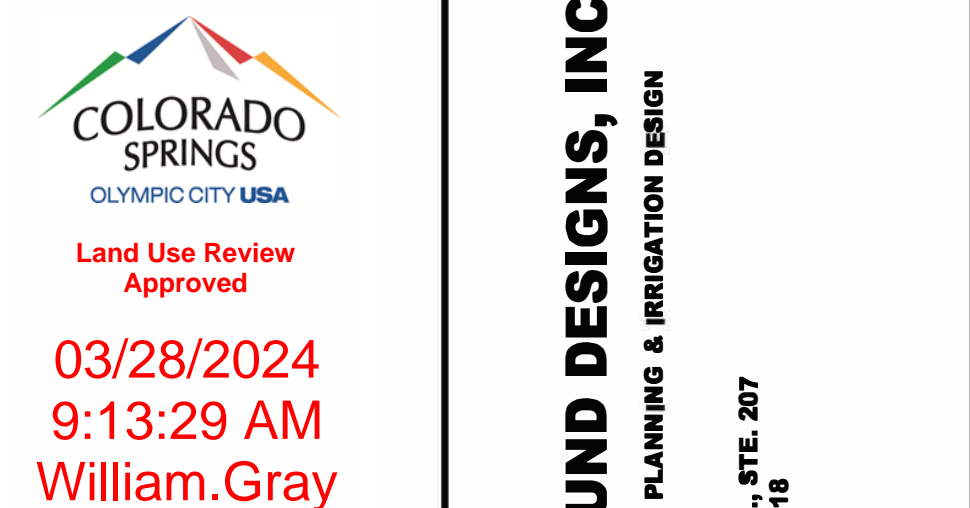
UTILITIES NOTE

VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO START OF WORK. CALL 811 FOR UTILITY LOCATES. TREE TRUNK PLACEMENT SHALL BE A MINIMUM DISTANCE FROM ANY GAS OR ELECTRIC AND 10' FROM GAS MAINS RATED AT 150PSI. FOR SANITARY SEWER AND WATER MAINLINES TREES SHALL NOT BE LOCATED WITHIN EASEMENTS AND WITHIN 10' OF ANY MAINLINE. ANY CONFLICT BETWEEN TREE LOCATIONS AND UTILITIES SHOWN ON PLANS SHALL BE RESOLVED WITH GENERAL CONTRACTOR PRIOR TO PLANTING. ALL ELECTRICAL WALLS AND TRANSFORMERS SHALL BE KEPT CLEAR FROM PLANT MATERIAL PER COLORADO SPRINGS UTILITIES GUIDELINES 'LANDSCAPING AROUND ELECTRICAL EQUIPMENT'. SEE COLORADO SPRINGS UTILITIES CONSTRUCTION STANDARD DRAWINGS 18-302 FOR SPECIFIC CLEARANCE REQUIREMENTS. ALL SHRUBS TO BE LOCATED 3' CLEAR OF ALL FIRE HYDRANTS AT MATURE SIZE.

DOCUMENT NOTE

RESPECTIVE OF ANY OTHER TERM IN THIS DOCUMENT, LANDSCAPE ARCHITECT SHALL NOT CONTROL OR BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SCHEDULES, SEQUENCES OR PROCEDURES, OR FOR CONSTRUCTION SAFETY OR ANY OTHER RELATED PROGRAMS OR FOR ANOTHER PARTIES' ERRORS OR OMISSIONS OR FOR ANOTHER PARTIES' FAILURE TO COMPLETE THEIR WORK OR SERVICES IN ACCORDANCE WITH LANDSCAPE ARCHITECT'S DOCUMENTS.

CITY FILE NO. DEPN-22-0083



HIGHER GROUND DESIGNS, INC.
LANDSCAPE ARCHITECTURE, PLANNING & IRRIGATION DESIGN
5350 NORTH ACADEMY BLVD., STE. 207
COLORADO SPRINGS, CO 80916
Phone 719-477-1606
Fax 719-268-1122

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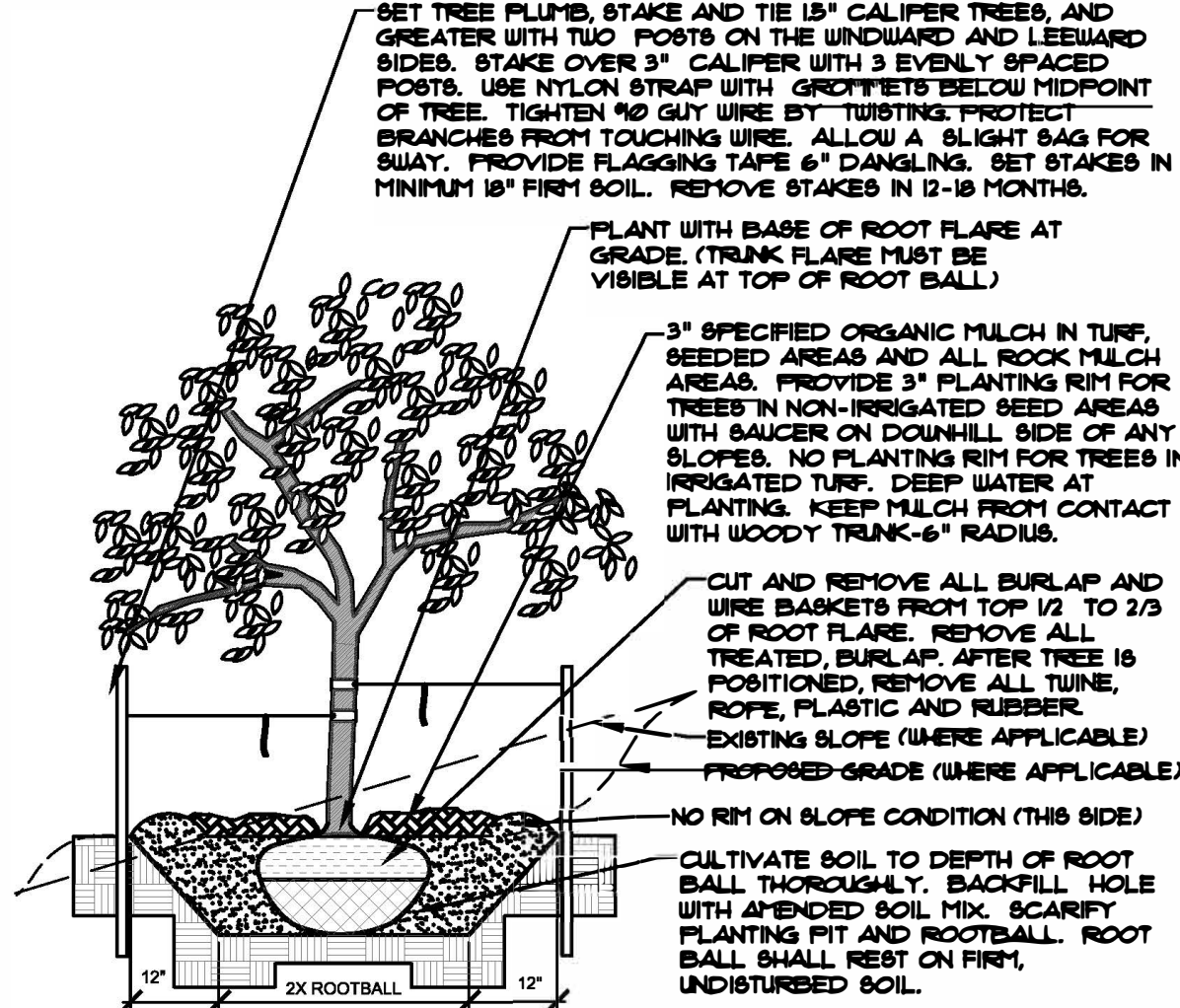
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JOB NUMBER	1068-22
REVISIONS	
3-8-22	PER CITY COMMENTS
8-4-22	PER CITY COMMENTS
11-18-22	PER CITY COMMENTS
2-20-23	PER CITY COMMENTS
8-1-23	PER CITY COMMENTS
ORIGINAL DATE	3-8-22
DRAWN BY	JIM
DESCRIPTION LANDSCAPE NOTES	
SHEET NO.	12 of 13
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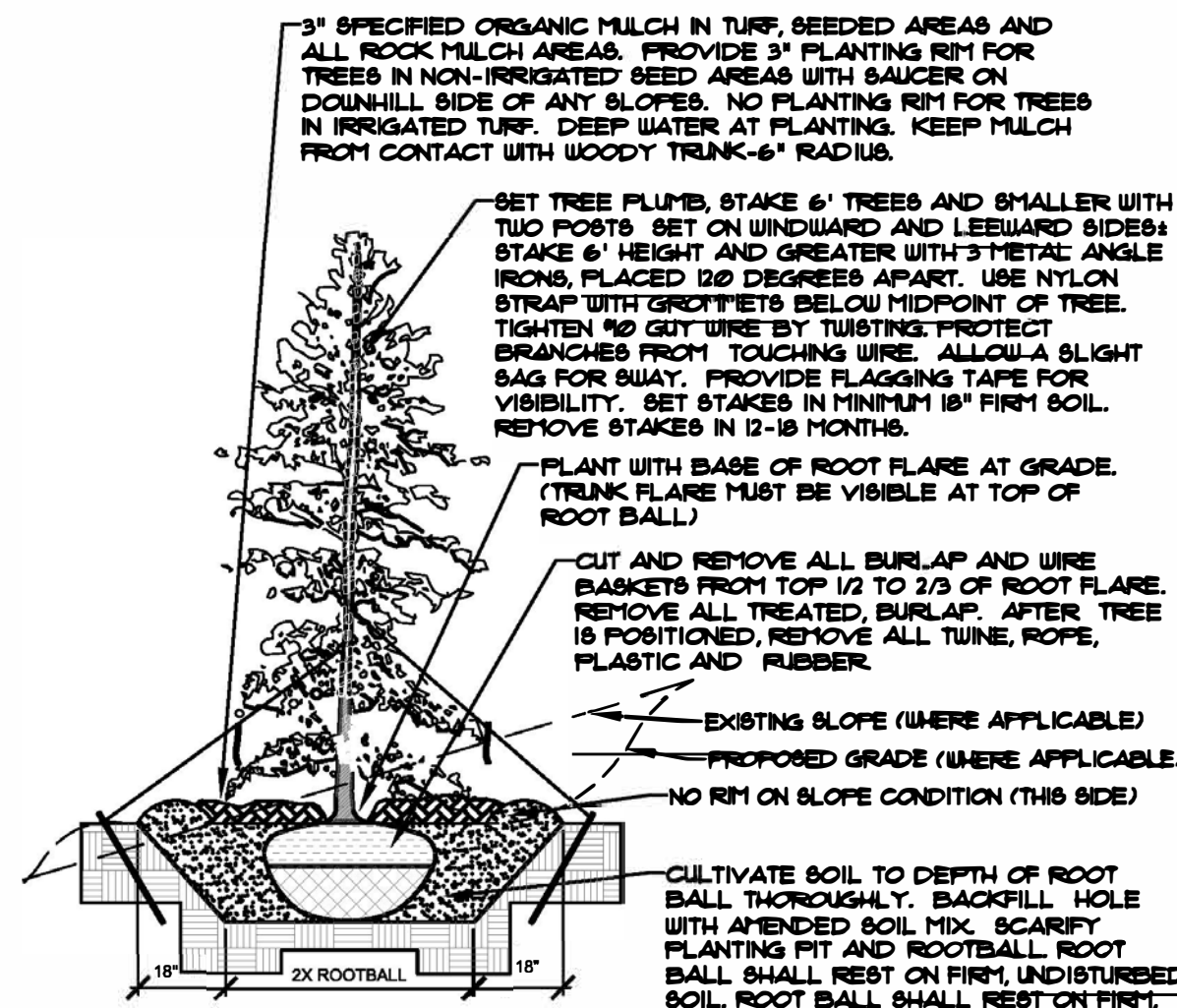
FOR CITY APPROVAL ONLY

- NOTES:**
- MARK NORTH SIDE OF TREE AT NURSERY AND ALIGN TREE TO NORTH WHEN PLANTING.
 - DO NOT REMOVE OR CUT LEADER.
 - PRUNE ONLY DEAD, BROKEN, CROSSING, OR WEAK BRANCHES (OR NARROW CROTCHES) IMMEDIATELY PRIOR TO PLANTING. DO NOT REMOVE TERMINAL BUDS THAT EXTEND TO TREE CROWN.
 - NO STRUCTURAL PRUNING OF TREE UNTIL AFTER ESTABLISHMENT PERIOD (2 GROWING SEASONS).
 - REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.
 - KEEP PLANTS MOIST AND SHADED UNTIL PLANTING. AVOID FALL PLANTING IF POSSIBLE.
 - APENDED BACKFILL SHALL BE 10% SOIL FROM PLANTING PIT AND 30% ORGANIC MATERIAL.
 - WRAP TRUNK ON EXPOSED SITES OR SPECIES WITH THIN BARK USE ELECTRICAL TAPE, NOT TUNE.
 - WRAP OCTOBER 15 AND REMOVE BY MARCH 31.
 - DO NOT FERTILIZE TREE DURING THE FIRST GROWING SEASON.
 - COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT & DISEASE RECOMMENDATIONS PRIOR TO PLANTING.



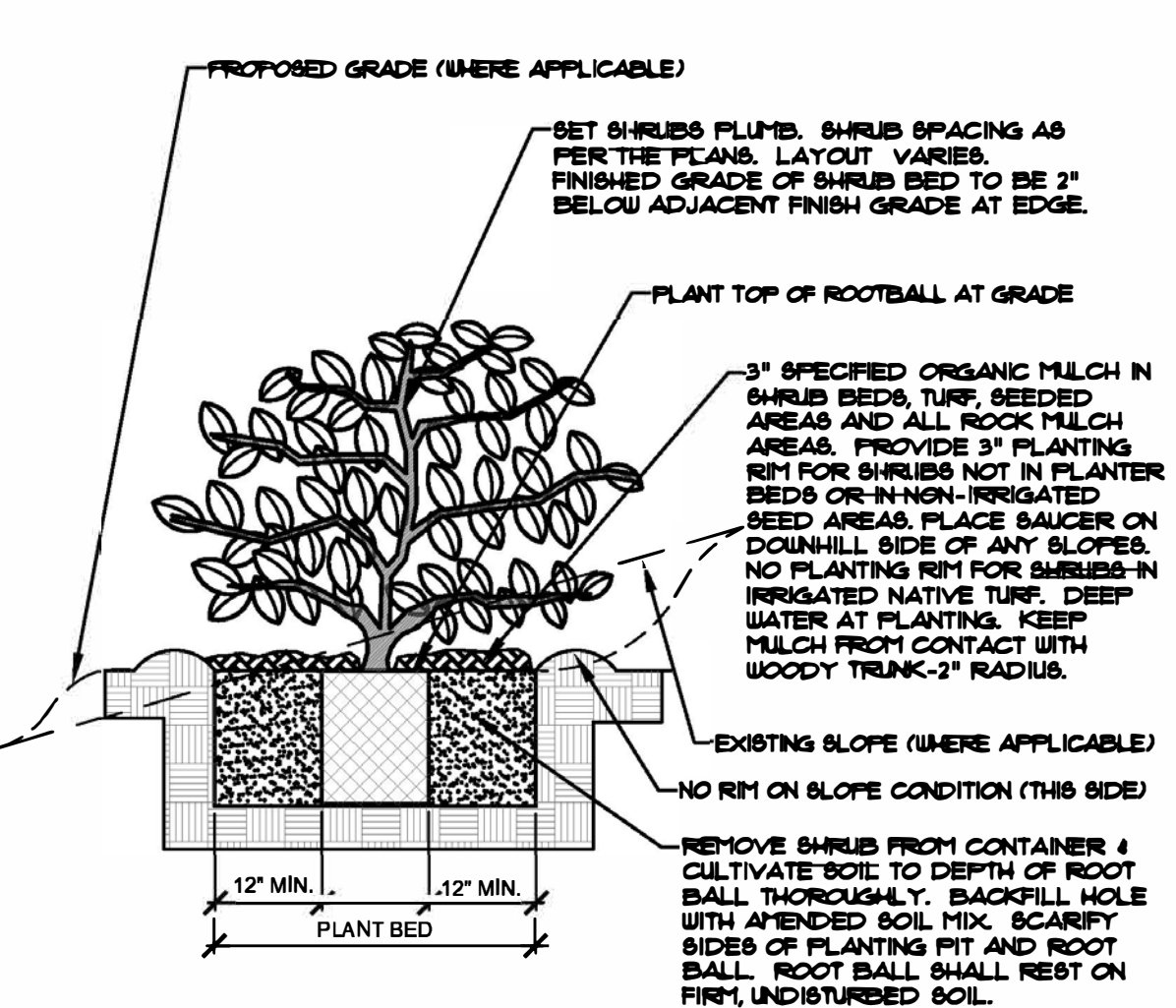
A DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE

- NOTES:**
- MARK NORTH SIDE OF TREE AT NURSERY AND ALIGN TREE TO NORTH WHEN PLANTING.
 - DO NOT REMOVE OR CUT LEADER.
 - PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
 - REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.
 - KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
 - AVOID FALL PLANTING IF POSSIBLE.
 - APENDED BACKFILL SHALL BE 10% SOIL FROM PLANTING PIT AND 30% ORGANIC MATERIAL.
 - PINE AND SPRUCE TREES TO BE SPRAYED FOR PINE BARK BEETLE PRIOR TO PLANTING (SEE CONCEPT TREE NOTE ON PLANTING NOTES SHEET).



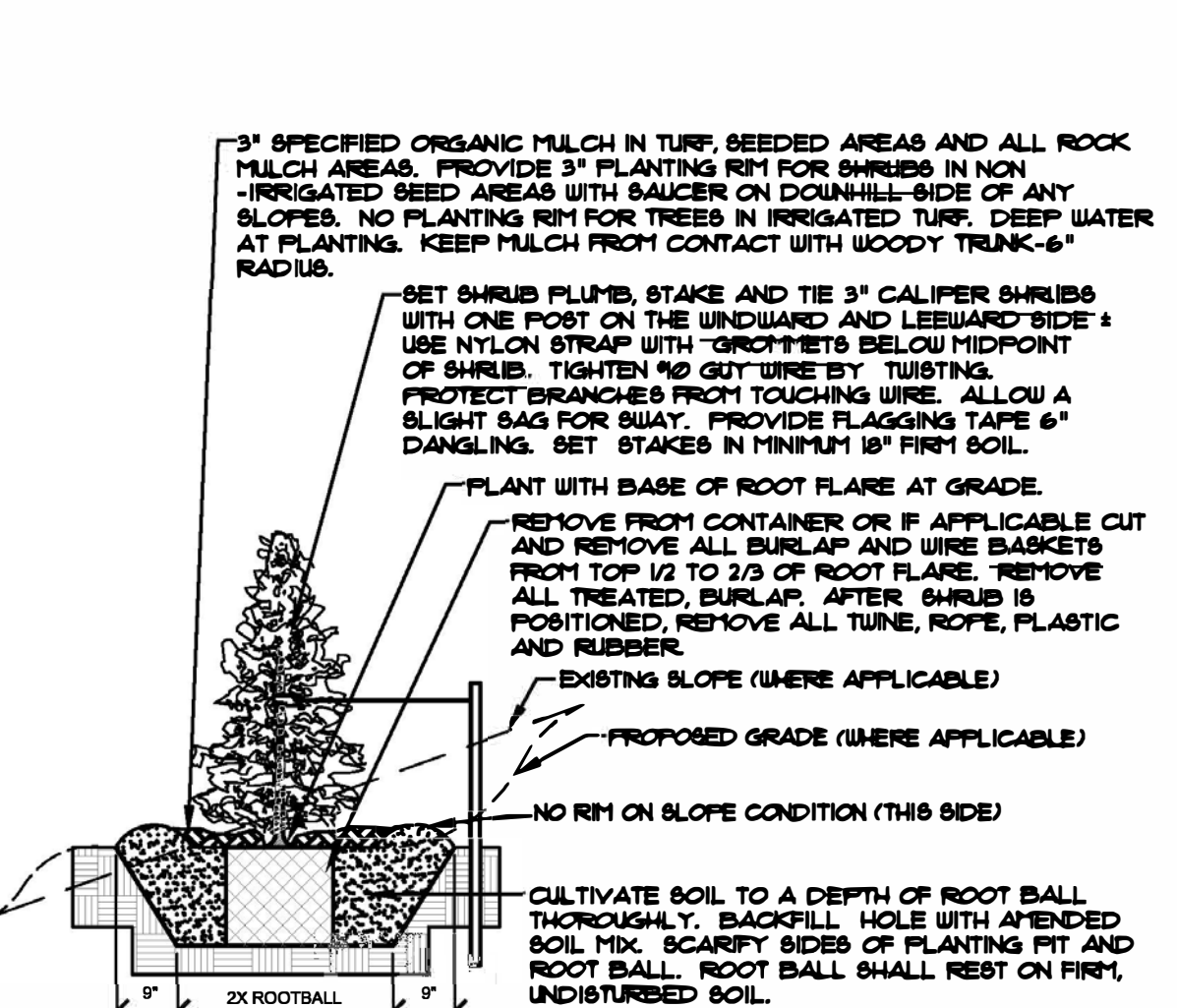
B EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE

- NOTES:**
- PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
 - KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
 - DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
 - APENDED BACK FILL SHALL BE 10% SOIL FROM PLANTING PIT AND 30% ORGANIC MATERIAL.
 - FOR ROOT BIND AT BOTTOM OF BALL, SPLIT ROOT BALL VERTICALLY FROM BOTTOM HALFWAY TO TOP. SPREAD THE TWO HALVES OVER A MOUND OF SOIL IN PLANTING PIT.
 - FOR POT BOUND PLANTS ONLY: MAKE 4-5 VERTICAL CUTS IN ROOT BALL 1" DEEP. PLANT IMMEDIATELY.



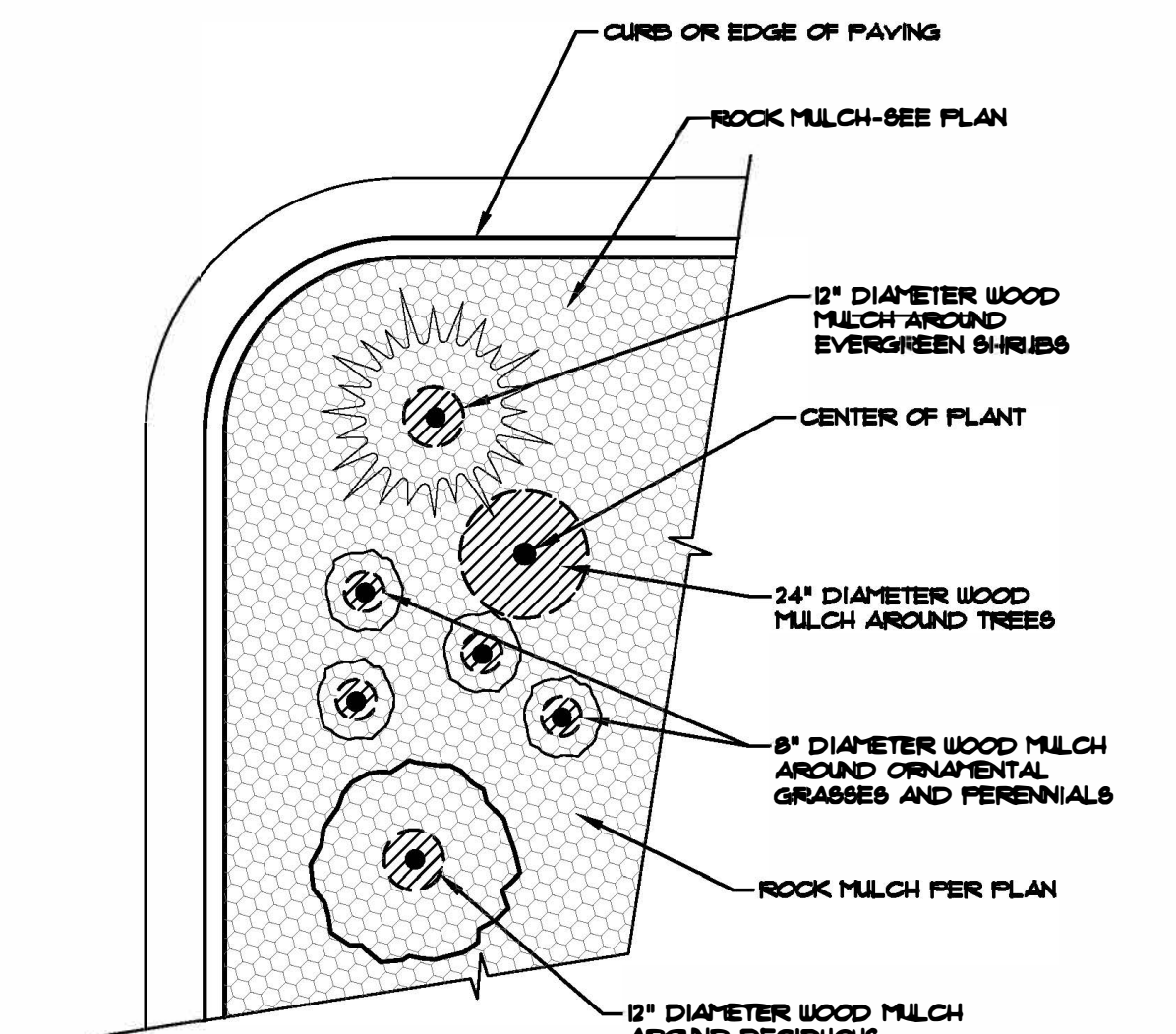
C SHRUB PLANTING DETAIL
NOT TO SCALE

- NOTES:**
- DO NOT REMOVE OR CUT LEADER.
 - PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
 - REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNER'S REPRESENTATIVE.
 - KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
 - AVOID FALL PLANTING IF POSSIBLE.
 - APENDED BACKFILL SHALL BE 10% SOIL FROM PLANTING PIT AND 30% ORGANIC MATERIAL.
 - FOR ROOT BIND (CONTAINER PLANTS ONLY) AT BOTTOM OF BALL, SPLIT ROOT BALL VERTICALLY FROM BOTTOM HALFWAY TO TOP. SPREAD THE TWO HALVES OVER A MOUND OF SOIL IN PLANTING PIT.
 - FOR POT BOUND PLANTS ONLY: MAKE 4-5 VERTICAL CUTS IN ROOT BALL 1" DEEP. PLANT IMMEDIATELY. (CONTAINER PLANTS ONLY)

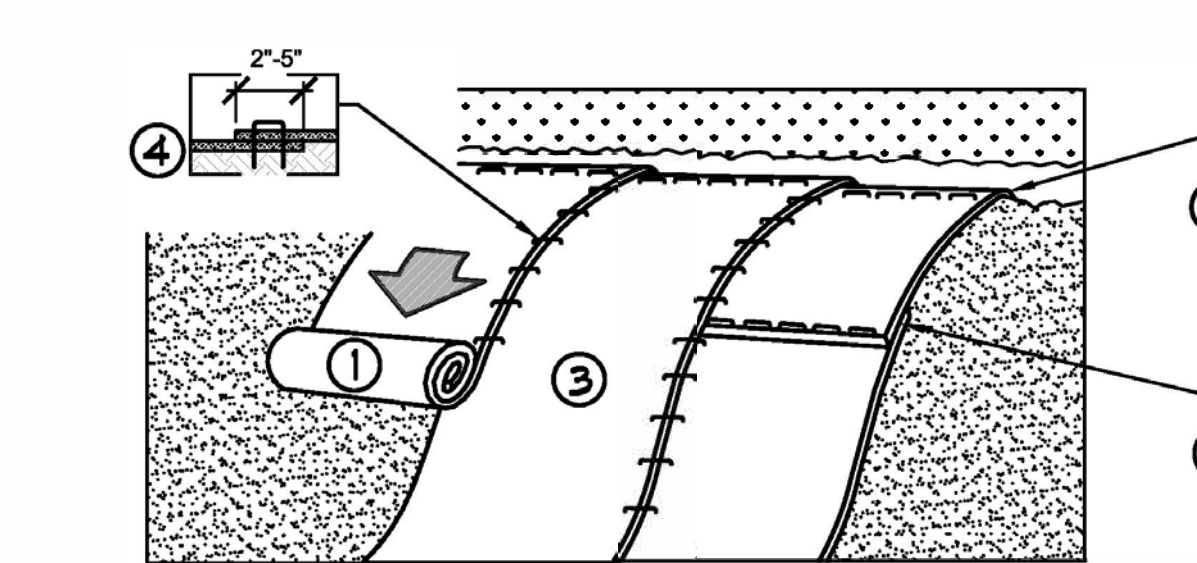


D UPRIGHT EVERGREEN SHRUB PLANTING DETAIL
NOT TO SCALE

- NOTES:**
- CONTRACTOR TO INSTALL WOOD MULCH RINGS AROUND LANDSCAPING AS SHOWN BELOW FOR ALL TREES, SHRUBS, PERENNIALS AND ORNAMENTAL GRASSES INSTALLED IN ROCK MULCHED AREAS. ROCK SHALL BE CLEAR FROM SHRUB IN UNIFORM CIRCLE AND WOOD MULCH APPLIED AT 2" DEPTH. SEE CONSTRUCTION DETAILS FOR INSTALLATION PROCESS.
 - REFER TO LANDSCAPE PLANS FOR ALL TREE, SHRUB AND ORNAMENTAL GRASS LOCATIONS.



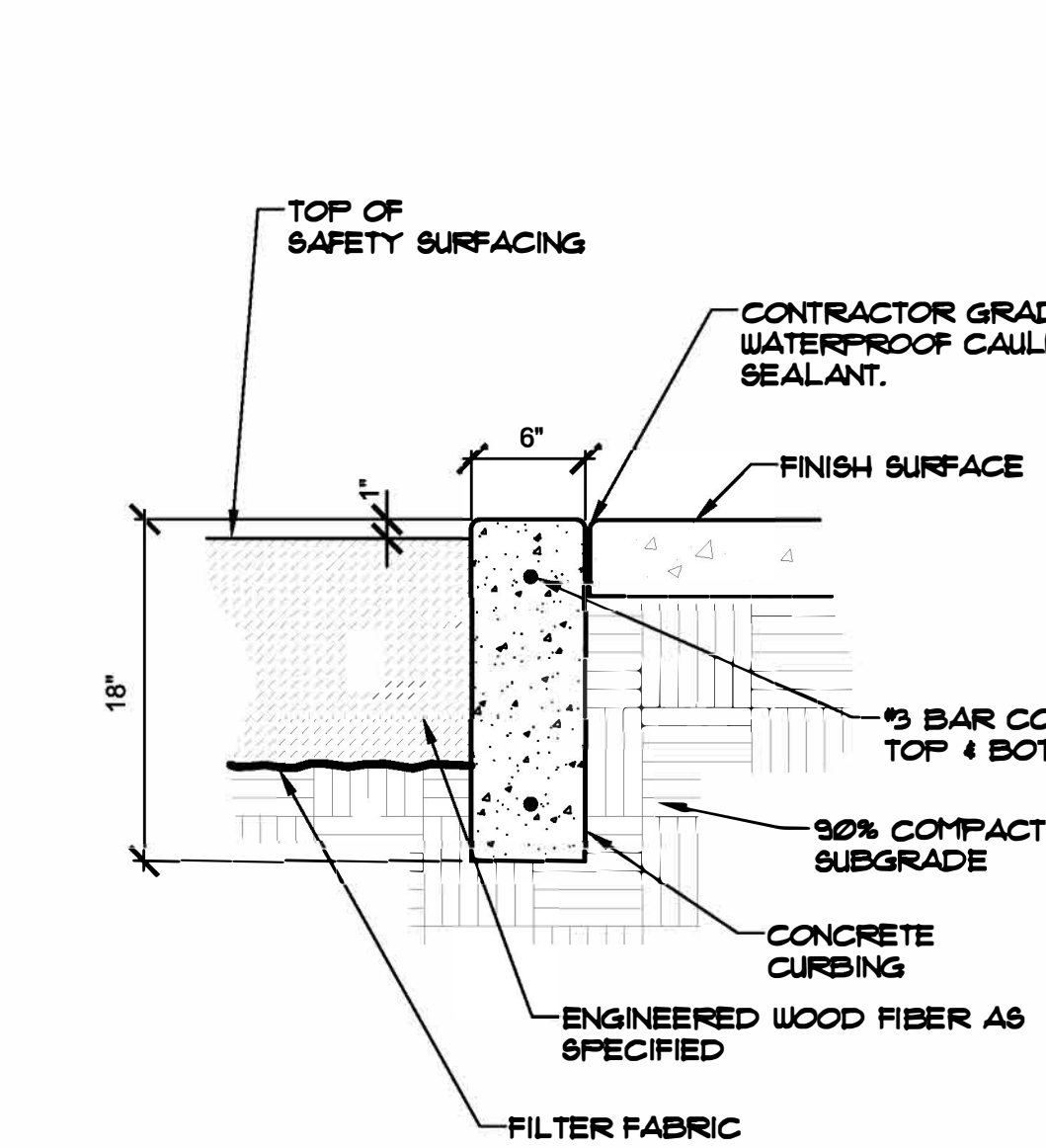
E TYPICAL PLANT MATERIAL TREATMENT
NOT TO SCALE



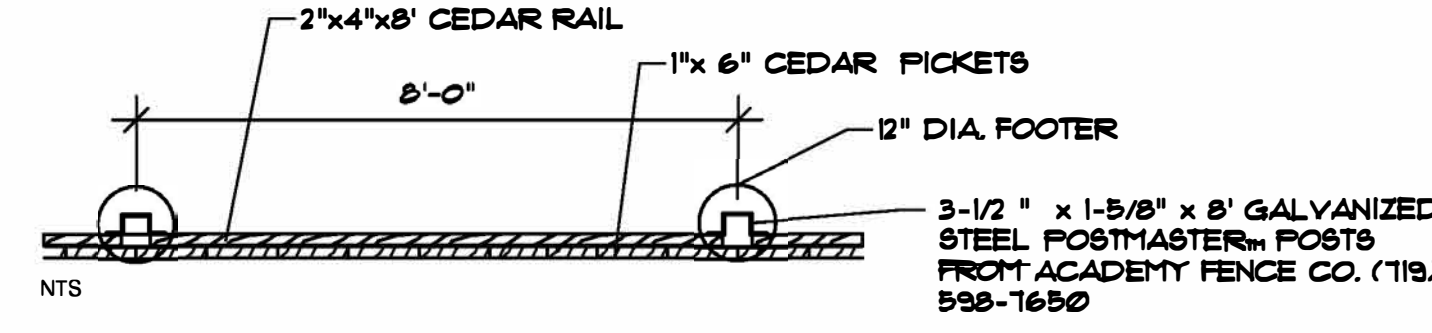
- 1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.**
NOTE: WHEN USING CELL-O-SEED DO NOT REED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" (15 CH) DEEP X 6" (15 CH) WIDE TRENCH WITH APPROXIMATELY 12" (30CH) OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CH) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND HOLD REPAIRING 12" (30 CH) PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CH) APART ACROSS THE WIDTH OF THE RECP'S.**
- 3. ROLL THE RECP'S (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.**
- 4. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5" (15 CH - 25 CH) OVERLAP DEPENDING ON RECP'S TYPE.**
- 5. CONSECUTIVE RECP'S PLACED DOWN THE SLOPE MUST BE PLACED END OVER END (MINUTE STYLE) WITH AN APPROXIMATE 3" (15 CH) OVERLAP. STAPLE THROUGH OVERLAPPED AREA APPROXIMATELY 12" (30 CH) APART ACROSS ENTIRE RECP'S WIDTH.**
NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CH) MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

F EROSION CONTROL
NTS

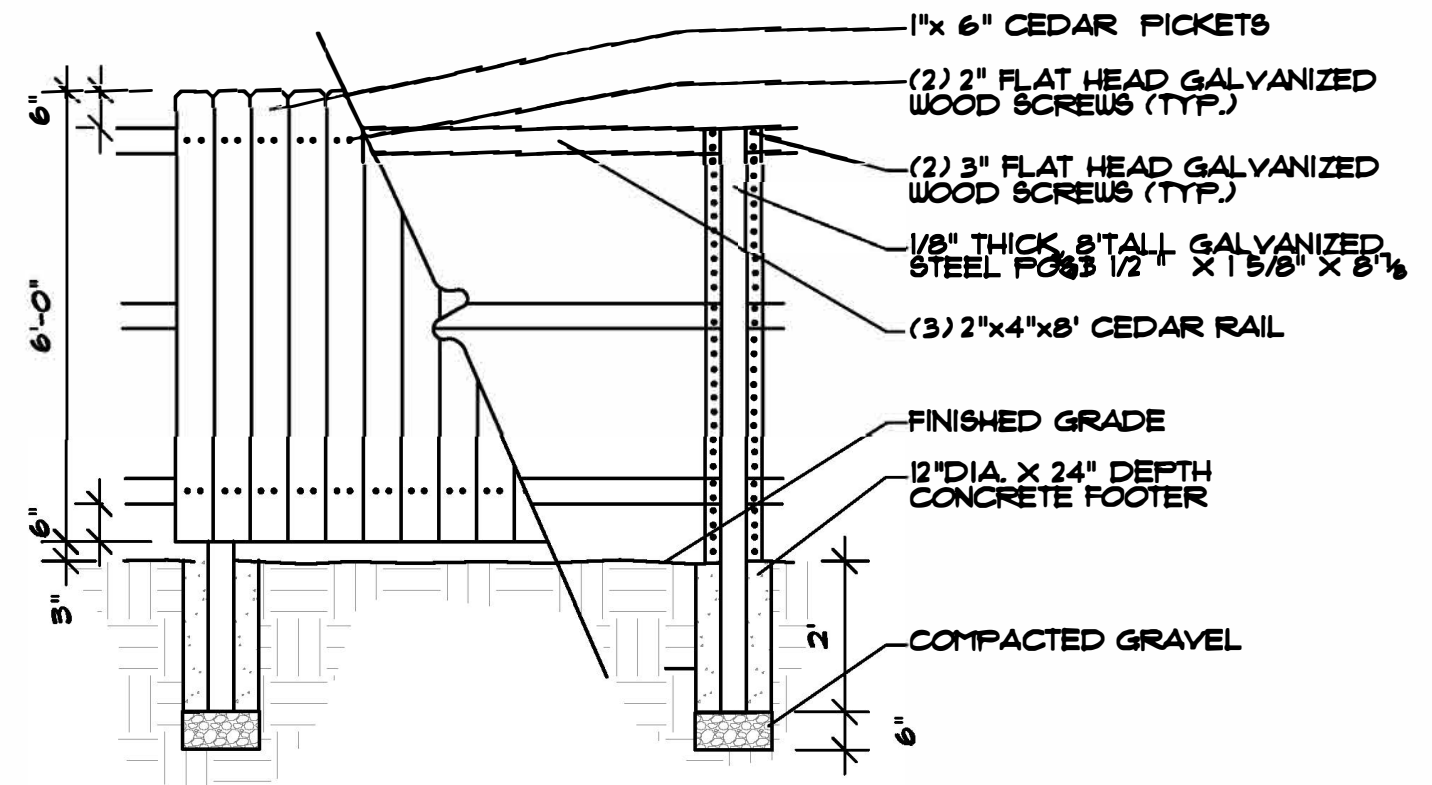
- NOTES:**
- CONCRETE TO BE FLAIN CONCRETE UNLESS OTHERWISE SPECIFIED ON PLANS.



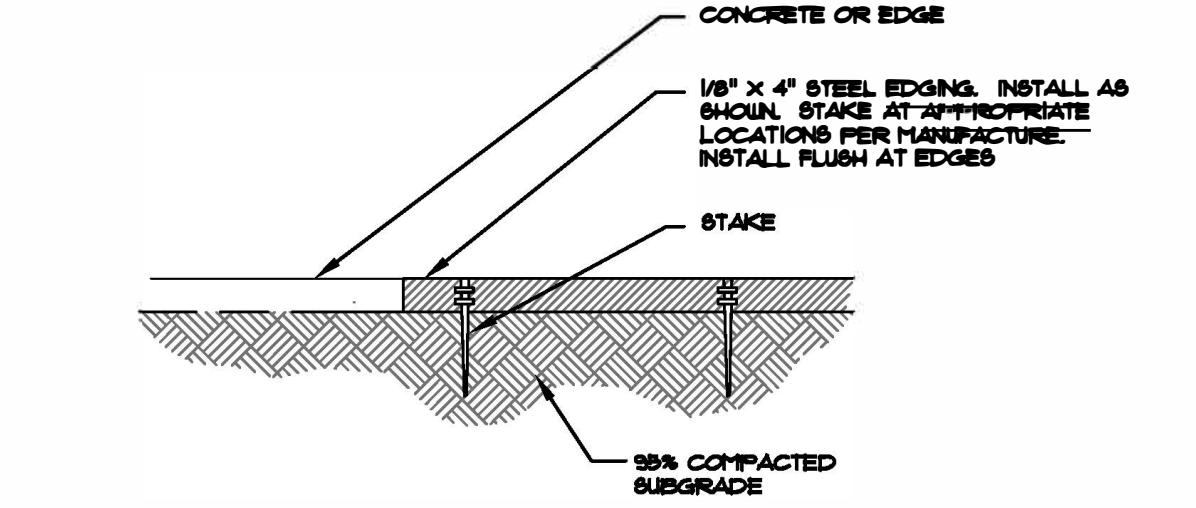
G DEEPEMED CURB AT PLAY AREA
NTS



H CEDAR PRIVACY FENCE PLAN



I CEDAR PRIVACY FENCE DETAIL
NOT TO SCALE



J STEEL EDGING
NOT TO SCALE



Know what's below.
Call before you dig.

UTILITIES NOTE

VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO START OF WORK. CALL 811 FOR UTILITY LOCATES. TREE TRUNK PLACEMENT SHALL BE 6" MINIMUM DISTANCE FROM ANY GAS OR ELECTRIC AND 10' FROM GAS MAINS RATED AT 150PSI. FOR SANITARY SEWER AND WATER MAINLINES TREES SHALL NOT BE LOCATED WITHIN EASEMENTS AND WITHIN 10' OF ANY MAINLINE. ANY CONFLICT BETWEEN TREE LOCATIONS AND UTILITIES SHOWN ON PLANS SHALL BE RESOLVED WITH GENERAL CONTRACTOR PRIOR TO PLANTING. ALL ELECTRICAL WALLS AND TRANSFORMERS SHALL BE KEPT CLEAR FROM PLANT MATERIAL PER COLORADO SPRINGS UTILITIES GUIDELINES "LANDSCAPING AROUND ELECTRICAL EQUIPMENT". USE COLORADO SPRINGS UTILITIES CONSTRUCTION STANDARD DRAWINGS 18-302 FOR SPECIFIC CLEARANCE REQUIREMENTS. ALL SHRUBS TO BE LOCATED 3' CLEAR OF ALL FIRE HYDRANTS AT MATURE SIZE.

DOCUMENT NOTE

IRRESPECTIVE OF ANY OTHER TERM IN THIS DOCUMENT, LANDSCAPE ARCHITECT SHALL NOT CONTROL OR BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SCHEDULES OR PROCEDURES, OR FOR CONSTRUCTION SAFETY OR ANY OTHER RELATED PROGRAMS, OR FOR ANOTHER PARTIES' ERRORS OR OMISSIONS OR FOR ANOTHER PARTIES' FAILURE TO COMPLETE THEIR WORK OR SERVICES IN ACCORDANCE WITH LANDSCAPE ARCHITECT'S DOCUMENTS.



Land Use Review
Approved

03/28/2024
9:13:29 AM
William.Gray

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2010 EAST DALE STREET
CASCADE MULTI FAMILY
COLORADO SPRINGS, CO

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FOR CITY APPROVAL ONLY

CITY STAMP

NOT FOR CONSTRUCTION	JOB NUMBER	1068-22
	REVISIONS	
	3-8-22	PER CITY COMMENTS
	8-4-22	PER CITY COMMENTS
	1-18-22	PER CITY COMMENTS
	2-20-23	PER CITY COMMENTS
	8-1-23	PER CITY COMMENTS
	ORIGINAL DATE	3-8-22
	DRAWN BY	JIM
	DESCRIPTION	LANDSCAPE DETAILS
SHEET NO.	13 of 13	
SHEET	L1.4	

CITY FILE NO. DEPN-22-0083