

SMALL CONSTRUCTION AGREEMENT

THIS AGREEMENT is made and entered into this _____ day of ______, 2022, by and between the CITY OF MISSOULA, MONTANA, a municipal corporation organized and existing under the laws of the State of Montana, 435 Ryman Street, Missoula, Montana 59802, hereinafter referred to as "City," and Doug Smith Grading, LLC. located at P.O. Box 5105 Missoula, MT 59806, hereinafter referred to as "Contractor."

In consideration of the mutual covenants and agreements herein contained, the receipt and sufficiency whereof being hereby acknowledged, the parties hereto agree as follows:

- 1. <u>Purpose</u>: City agrees to hire Contractor as an independent contractor to perform playground infrastructure work at Redfern Park (4800 Chesapeake Way, 59808) described in SCOPE of SERVICES attached hereto as Exhibit A, and by this reference made a part hereof (hereinafter referred to as the "Work").
- 2. <u>Effective Date</u>: This Agreement is effective upon the date of its execution and will terminate on the 1ST day of May, 2023. The parties may extend this Agreement in writing prior to its termination.
- 3. <u>Scope of Work</u>: Contractor will perform the Work in accordance with the specifications and requirements of the Scope of Services attached hereto as Exhibit A. The Scope of Services includes the following documents made part of this agreement:
 - a. Bid Proposal Doug Smith
 - c. Infrastructure Special Conditions
 - d. Redfern Park Playground Construction Drawings

Notice to proceed is flexible with a completion date no later than May 1, 2023. Contractor shall complete the work within thirty (30) calendar days. The first chargeable day is the date following the date specified to start in the Notice to Proceed.

- **4.** <u>Payment</u>: City agrees to pay Contractor <u>Seventy-eight thousand Dollars</u> (\$78,000) for the Work. Contractor may request monthly progress payments as follows:
 - a. After the commencement of the Work, the Contractor may request monthly progress payments by submitting an invoice for payment to the City during each successive calendar month, with a copy to the project's architect, engineer, or project manager as applicable. The invoice must be based upon the actual or estimated percentage of work completed and materials supplied for the Work prior to the date of the invoice and shall be filled out and signed by the Contractor. Contractor shall attach all supporting documentation to the invoice, including certified payroll records and receipts, to verify that

the work claimed in the invoice has been completed. Only one invoice for payment may be submitted within a calendar month.

- **b.** Beginning with the second invoice for payment, each invoice shall also include an affidavit signed by the Contractor stating that all previous monthly progress payments received have been applied on account to discharge Contractor's obligations associated with the prior invoices for payment.
- c. City and its architect, engineer, or project manager shall promptly review all invoice for payment and, within thirty days after receipt of each invoice, determine whether a progress payment should be disapproved in whole or in part. An invoice for payment is considered to have been received when it is submitted to City's Representative and is considered approved unless prior to the expiration of the 30-day period the City or its agent provides the Contractor with a written statement containing specific items that are being disapproved.

A progress payment or any portion may be disapproved upon a claim of: (1) unsatisfactory job progress; (2) failure to remedy defective construction work or materials; (3) disputed work or materials; (4) failure to comply with material provisions of this Agreement, drawings, plans, specifications for the Work, or other required documents, including but not limited to, payroll certifications, insurance coverage, bonding, lien releases, warranties, material certifications, and test data; (5) failure of Contractor to make timely payment for claims including, but not limited to claims for labor, equipment, materials, subcontracts, taxes, fees, professional services, rent, and royalties; (6) damages to the City; (7) the existence of reasonable evidence that the Agreement cannot be completed for the unpaid balance of the Agreement's Payment; and (8) Contractor's noncompliance with applicable federal, state, and local laws, rules, and ordinances.

- **d.** The City will furnish Contractor a written statement specifying a reason for disapproval that is listed in sub-section c. above for which approval of the Application for Payment or a portion thereof is being withheld. If the City disapproves only a portion of an application for payment, the remainder of the application for payment is considered approved.
- 5. Materials and Workmanship: All materials and equipment shall be installed in a neat and workmanlike manner. The City reserves the right to direct the removal and replacement of any items, which in their opinion shall not present an orderly and reasonably neat or workmanlike appearance, provided such time can be properly installed in such orderly way by the usual methods in such work. Such removal and replacement shall be done, when directed in writing, at the Contractor's expense without additional cost to the City. Whenever any material is specified by name and/or number thereof, such specifications shall be deemed to be used for the purpose of facilitating a description of the materials and establishing quality, and shall be deemed and construed to be followed by the words "or approved equal." No substitutions will be permitted which have not been submitted for prior approval to the Project Manager. All materials shall be

new and without flaws or defects and shall be the best of their class and kind. Sufficient descriptive literature and/or samples must be furnished for any materials submitted as "equal" substitutes.

- 6. Retainage: City shall retain five percent (5%) of the total amount of compensation to be paid to the Contractor to ensure compliance with the terms and conditions of this Agreement and the timely completion of the project and any and all "punch list" items ("Retainage Amount"). At all times the City will retain no less than One Thousand Dollars (\$1,000) until termination of this Agreement. The Retainage Amount shall be paid to Contractor upon the City's final approval of the project and agreement that all work required to be performed on the project is complete and satisfactory to the City. This provision does not prevent the Contractor from seeking withdrawals of the Retainage Amount in excess of One Thousand Dollars (\$1,000), pursuant to the requirements of \$18-1-301, MCA.
- **7.** Additional Services: Any alteration or deviation from the described work that involves extra costs will be permitted only upon written request by the City to Contractor and will become an extra charge over and above the contract amount. The parties must agree upon any extra charges in writing.
- **8.** <u>Independent Contractor Status</u>: The parties agree that Contractor is an independent contractor for purposes of this Agreement and is not to be considered an employee of the City for any purpose. Contractor is not subject to the terms and provisions of the City's personnel policies handbook and may not be considered a City employee for workers' compensation or any other purpose. Contractor is not authorized to represent the City or otherwise bind the City in any dealings between Contractor and any third parties.

Contractor shall comply with the applicable requirements of the Workers' Compensation Act, Title 39, Chapter 71, MCA, and the Occupational Disease Act of Montana, Title 39, Chapter 71, MCA. Contractor shall maintain workers' compensation coverage for all members and employees of Contractor's business, except for those members who are exempted as independent contractors under the provisions of §39-71-401, MCA.

Contractor shall furnish City with copies showing one of the following: (1) proof of registration as a registered contractor under Title 39, Chapter 9, MCA; (2) a binder for workers' compensation coverage by an insurer licensed and authorized to provide workers' compensation insurance in the State of Montana; or (3) proof of exemption from workers' compensation granted by law for independent contractors.

9. <u>Indemnity</u>: The Contractor shall hold harmless, indemnify and shall defend the City, its employees, representatives, and agents from any and all liability claims, demands, losses, costs, damages, expenses or liability to the extent arising or alleged to arise from the Contractor's performance of the Work described herein, but not including the sole negligence of the City. Contractor shall procure and maintain in force, at its expense, the liability insurance required below to effectuate this provision.

- 10. <u>Insurance</u>: Before commencing the Work, the Contractor shall submit written evidence to the City that Contractor and all Subcontractors have obtained for the period of the Contract, full Comprehensive General Liability Insurance coverage. This coverage shall provide for both bodily injury and property damage. The Comprehensive General Liability Insurance must include the City as an Additional Named Insured. Contractor shall provide the City with proof of Contractor's liability insurance issued by a reliable company or companies for personal injury and property damage in amounts not less than as follows:
 - a. Commercial General Liability \$1,000,000 per occurrence; \$2,000,000 annual aggregate
 - b. Automobile Liability \$1,000,000 property damage/bodily injury; \$2,000,000 annual aggregate
- 11. <u>Warranty</u>: The Contractor shall guarantee all materials and equipment furnished and work performed for a period of 2 years for Work within the ROW and for a period of 1 year for all materials and equipment furnished and work performed within Redfern Park from the date of written acceptance of the Work unless specified otherwise.
- 12. <u>Compliance with Laws</u>: Contractor agrees to comply with all federal, state and local laws, ordinances, rules and regulations, including the safety rules, codes, and provisions of the Montana Safety Act in Title 50, Chapter 71, MCA. Contractor agrees to obtain and maintain a City business license.
- 13. <u>Contractors' Gross Receipts Tax</u>: Contractor understands that all contractors or subcontractors working on a publicly funded project are required to pay or have withheld from earnings one percent (1%) of the gross contract price if the gross contract price is Five Thousand Dollars (\$5,000) or more.
- 14. <u>Nondiscrimination</u>: All hiring shall be on the basis of merit and qualification and there shall be no discrimination in employment on the basis race, ancestry, color, physical or mental disability, religion, national origin, sex, age, marital or familial status, creed, ex-offender status, physical condition, political belief, public assistance status or sexual orientation, gender identity or expression, except where these criteria are reasonable bona fide occupational qualifications.
- **15.** <u>Affirmative Action Policy</u>: Contractors, subcontractors, sub grantees, and other firms doing business with the City of Missoula must be in compliance with the City of Missoula's Affirmative Action Plan, and Title 49 Montana Codes Annotated, entitled "Human Rights" or forfeit the right to continue such business dealings. The City's Affirmative Action Policy Statement is:

The Mayor of the City of Missoula or the Mayor's designee may adopt an affirmative action plan to provide all persons equal opportunity for employment without regard to race, ancestry, color, disability, religion, creed, national origin, sexual orientation, gender identity or expression, age, marital status. In keeping with this commitment, we are assigning to all department heads City Small Construction Agreement – Doug Smith Redfern Park Playground Infrastructure 2023

and their staff the responsibility to actively facilitate equal employment opportunity for all present employees, applicants, and trainees. This responsibility shall include assurance that employment decisions are based on furthering the principle of equal employment opportunity by imposing only valid requirements for employment and assuring that all human resource actions are administered on the basis of job necessity.

Specific responsibility for developing, implementing, monitoring and reporting are assigned to the City Personnel staff under the supervision and direction of the Chief Administrative Officer and the Mayor.

It is the policy of the City of Missoula to eliminate any practice or procedure that discriminates illegally or has an adverse impact on an "affected" class. Equal opportunity shall be provided for all City employees during their terms of employment. All applicants for City employment shall be employed on the basis of their qualifications and abilities.

The City of Missoula, where practical, shall utilize minority owned enterprises and shall ensure that subcontractors and vendors comply with this policy. Failure of subcontractors and vendors to comply with this policy statement shall jeopardize initial, continued, or renewed funds.

Our commitment is intended to promote equal opportunity in all employment practices and provide a positive program of affirmative action for the City of Missoula, its employees, program participants, trainees and applicants

- **16. Default and Termination:** If either party fails to comply with any condition of this Agreement at the time or in the manner provided for, the other party may, at its option, terminate this Agreement and be released from all obligations if the default is not cured within ten (10) days after written notice is provided to the defaulting party. Said notice shall set forth the items to be cured. Additionally, the non-defaulting party may bring suit for damages, specific performance, and any other remedy provided by law. These remedies are cumulative and not exclusive. Use of one remedy does not preclude use of the others. Notices shall be provided in writing and hand-delivered or mailed to the parties at the addresses set forth in the first paragraph of this Agreement.
- **16.** <u>Liaison</u>: City's designated liaison with Contractor is **Doug Smith**, and Contractor's designated liaison with City is **Garrick Swanson** (Project Manager).
- **17. Jurisdiction and Venue:** This Agreement and any extensions hereof shall be governed and construed in accordance with the laws of the State of Montana, and the venue for any dispute shall be in Missoula County.

IN WITNESS WHEREOF, the parties hereto have executed this instrument the day and year first above written.

CITY OF MISSOULA	CONTRACTOR (T N AL)
	CONTRACTOR (Type Name Above)
By	By
Gwen Jones, Acting Mayor	Print Name
	Print Title
APPROVED AS TO FORM:	ATTEST:
	By:
Jim Nugent, City Attorney	Martha L. Rehbein, CMC/ Legislative Services/ City Clerk (SEAL)

Attachments:

- A Scope of Services
- B Montana Prevailing Wage Heavy Construction 2022
- C Certificate of Insurance
- D City of Missoula Business License

PROJECT NO. 06-22 RFP

PROPOSAL FOR CONSTRUCTION

Playground and Park Improvements – Redfern Park

To:

The undersigned bidder, having examined the plans, specifications and other proposed contract documents, the extent, character, and the location of the proposed work, and being cognizant of the location and conditions of the site of the work, and the conditions that might affect the work, hereby proposes to perform all labor and work necessary for the City of Missoula, Montana complete in a workmanlike manner all in accordance with the plans, specifications and other contract documents on file in the Parks and Recreation Department for the prices quoted in this proposal.

The undersigned bidder further agrees that the only persons or parties interested in this proposal are those named herein, that this proposal is in all respects fair and without fraud; that it is made without collusion with any officials or employees of the City of Missoula, and that the Proposal is made without any connection or collusion with any person making another Proposal on this contract.

The undersigned bidder further agrees to enter into a contract for the work awarded within ten (10) consecutive calendar days from the date of receipt of written Notice of Award given by the City.

In submitting this bid it is understood that the right is reserved by the Owner to reject any and all bids, and it is agreed that this bid may not be withdrawn during a period of forty-five (45) days after the scheduled time for receipts of bids.

The Total Base Bid is based on the plans where specific quantities are not itemized, and is subject to additions or reductions according to the actual quantities and measurements of the finished project as determined by the City of Missoula's Project Manager upon completion of site restoration. Submit written description of quantities, with material specifications standards and/or design details as applicable with bid proposal.

The undersigned agrees that, if awarded the contract, he will commence work within ten calendar days after the date of receipt of written Notice to Proceed and that he will complete the work within Thirty (30) calendar days. The first chargeable day is the date following the date specified to start in the Notice to Proceed.

The undersigned certifies that:

- (a) He has examined the site of the work.
- (b) He understands the manner of payment for the cost of the project.

(c)	He has received and duly consid revisions or additions to the plans		to the specifications and the following
	Addenda: No. None	Dated	Rcvd
	Addenda: No	Dated	Rcvd
	Addenda: No	Dated	Rcvd
	Addenda: No	Dated	Rcvd
	Plan Revision Sheets: Nos	one	Rcvd

(c)

PROJECT NO. 06-22 RFP

BID PROPSAL FOR CONSTRUCTION

Playground and Park Improvements – Redfern Park

BID FROM: Dong Smith Grading LLC
I have received the documents titled Drawings for Redfern Park Playground Replacement . I have also received Addenda Nos, and have included their provisions in my Bid. I have examine both the documents and the site and submit the following Bid:
In submitting this Bid, I agree:
 To hold my bid open 45 consecutive calendar days. To enter into and execute a Contract, if awarded on the basis of this Bid and to furnish insurance required by the bidding documents. To accomplish the work in accord with the Contract Documents. To accomplish the work within 30 consecutive calendar days from the date of the Notice to Proceed. I certify that I am not presently working beyond the contract time including any authorized extensions of time any previously awarded public contract in the State of Montana (MT).
I will perform all of the work designated in Plans and Specification as the for the lump sum price of:
Seventy eight thousand dollars
(\$ 78,000.00).
OWNER PROVIDED
Five thousand dollars
(\$
TOTAL BID (BASE BID + Owner Provided)
Eighty three thousand dollars
(\$ 83,000.00).

For changing quantities of work items from those indicated by the Contract Drawings upon written instructions from the Project Manager, the following unit prices shall prevail: The above prices shall include all labor, materials, bracing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds enumerated. I understand that if I do not answer the above questions and complete all blank spaces provided, my bid may be rejected as an incomplete bid.

In submitting this bid, it is understood that the City of Missoula reserves the right to reject any and all bids, to delete certain items, and to postpone award for a reasonable time.

Dated at Missoula this 30th day of June, 2022		
Doug Smith Grading LLC	Montana	
Name of Firm	State of Incorporation (if applicable)	
Business Address		
PO BOX 5105		
Missoula, MT 59806		
Dena Soft	President	
Signature of Responsible Official	Title	
Name of Partner	Name of Partner	
Montana Contractor's Registration No. and Class_55784		

FROM:

Doug Smith Grading LLC

724 PORTER HILL ROAD STEVENSVILLE, MT 59870

Owner:

Doug Smith 406-207-4680

TO:

City of Missoula, Parks & Recreation

Attn: Garrick Swanson

AT LONG TO SECURE TO					
Project:	Redfern Park Playground Improvements				
Scope:	Demolition, Subgrade, Dry Well, Concrete, Sleeving				
ITEM	ITEM DESCRIPTION	QUANITY	UNIT	UNIT COST	ITEM TOTAL
1	Mobilization	1	LS	\$2,500.00	\$2,500.00
2	Survey Staking	1	LS	\$4,500.00	\$4,500.00
3	Traffic Control	1	LS	\$1,000.00	\$1,000.00
4	Demolition (Trees, sidewalk, Playground as per plan)	1	LS	\$11,112.00	\$11,112.00
5	Subgrade Prep to grade	1	LS	\$12,400.00	\$12,400.00
6	Dry Well	1	EA	\$3,900.00	\$3,900.00
7	Curb 2' tall x 6" wide with rebar	298	LF	\$90.00	\$26,820.00
8	4" Sidewalk and Bench pads as per plans	846	LF	\$18.00	\$15,228.00
9	Irrigation Sleeving	36	LF	\$15.00	\$540.00
	Total				\$78,000.00

DATE:

6/30/2022

Exclusions: No Permits, No Compaction and Concrete Testing, No Construction Fencing

Bid Notes: Bid quantities estimated, actual units placed and unit prices to be invoiced at time of work.

Proposal contingent on mutual acceptance of construction schedule

The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Any alteration or deviation from the specifications above involving extra costs will become an extra charge over and above the estimate.

Acceptance-Buyer:	Date:	
Thank you for the opportunity to bid your work	Doug Smith (406) 207-4680	

Special Conditions

These Project Special Conditions are special provisions that modify and/or supplement in part the General Conditions or the Technical Specifications of the contract. In the event of a conflict, these Project Special Conditions shall take precedence. These Project Special Conditions are incorporated into this Limited Solicitation.

1. CONSTRUCTION SCHEDULE & SEQUENCE OF WORK

The Contractor shall submit a Construction Schedule to be approved by the Project Manager. The Contractor should schedule work so as not to cause unnecessary conflicts with other construction or unnecessary inconvenience to the public.

Time is of the essence in this contract. Therefore, the Contractor shall prosecute the work regularly and uninterruptedly with such force as to complete the work within the contract time and to minimize the effects on adjacent property owners and merchants.

The sequence of work will be as follows.

- 1. Select demolition of items shown under this project in the Plans and Specifications and proper disposal.
- 2. The Contractor is responsible for survey staking, grading and installation of all items shown under this project in the Plans and Specifications.
- 3. The Contractor is not responsible for site restoration or irrigation. Contractor will be responsible to rough grade all impacted areas for a 4-inch minimum depth of topsoil and remove all rocks greater than 3" in diameter.
- 4. The Contractor is not responsible for installation of Playground components or play surface material.
- 5. Contractor is to be aware that playground components will be installed after Playground perimeter and sidewalk infrastructure are complete.

2. SITE WORK DESIGN SPECIFICATIONS AND PRECEDENCE

The site work construction specifications in this contract are based upon Montana Public Works Standard Specifications (MPWSS), Sixth Edition, April 2010, DIVISION 2 SITEWORK, Section 02100 (Site Preparation), Section 02200 (Earthwork), Section 02500 (Paving and Surfacing) and Section 02900 (Landscaping); and DIVISION 3 CONCRETE, Section 03310 (Structural Concrete). Where conflicts with drawings and MPWSS exist, contract drawings will supersede.

Where site work design specifications are in conflict with these contract documents, precedence is established as follows, from lowest to highest:

MPWSS 6th Edition

City of Missoula Standard Drawings

City of Missoula Parks and Recreation Design Manual 2018

These Project Special Conditions

This Contract Agreement

Change Orders executed to this Contract Agreement

3. SUPPLEMENTARY CONDITIONS TO THE MPWSS:

Per drawings.

4. **CONSTRUCTION STAKING:**

As required by contractor.

5. TRAFFIC CONTROL AND SIGNING

Traffic control and signing for this project shall be provided by the contractor as required or needed. No additional compensation will be made for traffic control on this project.

Traffic control shall meet all requirements set forth by the Manual of Uniform Traffic Control Devices and the City of Missoula Standardized Construction Traffic Control Plans.

Contractor to provide temporary traffic control as required or needed. Prior to commencing work, contractor shall provide a temporary traffic control plan for owner's approval.

6. PARKED CARS

The contractor will be responsible for the removal of parking within the construction zone by signing and notification at least 48 hours in advance of moving onto the site. If the contractor has made a reasonable effort to have a vehicle removed from the construction zone but is unsuccessful the City may have the vehicle removed at no expense to the contractor. Also, if an unauthorized vehicle parks within a properly signed construction zone the City may have the vehicle removed at no expense to the contractor.

7. **PERMITS**

No permits are expected to be needed for this work.

8. **EXISTING CONDITION**

Care shall be exercised to protect existing Park facilities, infrastructure and turf. Damage created outside the construction limits shall be repaired and restored to the owner's satisfaction at the contractor's sole expense, no additional payment shall be made to return the areas to their previous condition.

End of Project Special Conditions

Redfern Park

Playground Replacement

Chesapeake Way Missoula, MT 59808

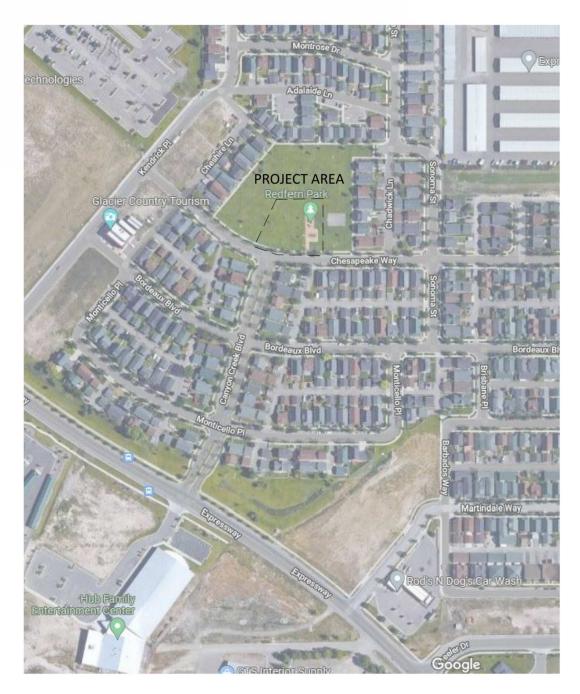


MISSOULA PARKS & RECREATION

NATHAN MCLEOD
PARKS & RECREATION
600 CREGG LANE
MISSOULA, MT 59802
PHONE (406)552-6261
EMAIL: mcleodn@ci.missoula.mt.us

Sheet List Table		
DRAWING #	DRAWING TITLE	
0-0	COVER SHEET	
G-1	GENERAL NOTES	
G-3	EXISTING CONDITIONS & DEMOLITION	
C-1	SITE PLAN	
C-2	LAYOUT PLAN	
C-3	GRADING PLAN	
D-1	DETAILS	
D-2	DETAILS PG 2	
I-1	IRRIGATION PLAN	
I-2	IRRIGATION NOTES	





VICINITY MAP

NTS



I. GENERAL NOTES:

- 1. PERFORM ALL DEMOLITION AND NEW CONSTRUCTION WORK AS PER MONTANA UBLIC WORKS STANDARD SPECIFICATION (MPWSS) LATEST EDITION AND CITY OF MISSOULA REGULATIONS
- CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND UTILITY LOCATIONS PRIOR TO START OF WORK. ANY DISCREPANCIES SHALL BE REPORTED TO
- THE OWNER'S REPRESENTATIVE.

 3. DO NOT SCALE DRAWINGS. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO BEGINNING WORK. START OF WORK CONSTITUTES ACCEPTANCE OF CONDITIONS.
- INCREASES TO CONTRACT SUM OR TIME WILL NOT BE APPROVED FOR CONDITIONS OR SITUATIONS EVIDENT AT TIME OF BIDDING.
- NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY OF ANY DISCREPANCIES OR AMBIGUITIES ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS.
- 6. CHANGES OR DEVIATIONS FROM THE DRAWINGS MADE WITHOUT THE WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE AND/OR AN APPROVED CHANGE ORDER WILL BE CONSIDERED UNAUTHORIZED. COORDINATE NECESSARY MODIFICATIONS WITH ARCHITECT PRIOR TO EXECUTING CONSTRUCTION. SEE PROJECT MANUAL FOR CONTRACT MODIFICATION PROCEDURES
- CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION AND COMPLETION OF ALL WORK SHOWN AND SHALL COORDINATE WORK BETWEEN ALL TRADES PRIOR TO BEGINNING WORK.
- 8. MAINTAIN A CLEAN WORK SITE AT ALL TIMES. NO RADIOS, TAPE PLAYERS, CD. PLAYERS, ETC. ALLOWED ON SITE.
- NOTIFY OWNER'S REPRESENTATIVE AND OWNER IN WRITING OF ANY EXPECTED DISRUPTIONS IN SERVICE OR CHANGES IN CONSTRUCTION SCHEDULE AND OBTAIN WRITTEN PERMISSION AS SPECIFIED.
- 10. ALL AREAS USED FOR CONSTRUCTION AND/OR DAMAGED DURING THE EXECUTION OF THIS CONTRACT, INCLUDING STAGING AREAS, LANDSCAPE AND SITE ELEMENTS, SHALL BE REPAIRED AND/OR RESTORED UPON COMPLETION OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING LANDSCAPE, SITE AND ELEMENTS WITHIN STAGING AREAS, CONSTRUCTION VICINITY, AND/OR AS NOTED ON THE DOCUMENTS.
- 11. THE CONSTRUCTION DRAWINGS SHOW PRINCIPLE AREAS AND LIMITS OF CONSTRUCTION WHERE WORK MUST BE ACCOMPLISHED UNDER THIS CONTRACT. INCIDENTAL WORK MAY BE NECESSARY IN AREAS NOT SHOWN ON ARCHITECTURAL DRAWINGS DUE TO CHANGES AFFECTING ELECTRICAL, MECHANICAL AND PLUMBING ALONG WITH OTHER SYSTEMS. THIS INCIDENTAL WORK SHALL BE PART OF THIS CONTRACT AND ALL TRADES SHALL INSPECT THESE AREAS, ASCERTAIN WORK REQUIRED AND DO THE WORK IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS AT NO ADDITIONAL COST.
- 12. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL COMPONENTS AND ACCESSORIES FOR A COMPLETE AND FINISH INSTALLATION VIII. EXISTING IRRIGATION NOTES: FOR PRODUCTS SHOWN ON THE DRAWING SHEETS.
- 13. THE SPECIFICATIONS INCLUDED WITH THESE DRAWING SHEETS ARE AN INTEGRAL PART OF THESE DOCUMENTS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL INFORMATION ENCLOSED.
- 14. CONTRACTOR SHALL NOT BLOCK ANY ROADS OR SIDEWALKS 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EXCAVATION
- DEWATERING AND MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF CONSTRUCTION.

 16. THE CONTRACTOR SHALL CONTROL DUST IN ACCORDANCE WITH
- REGULATIONS OF LOCAL AIR POLLUTION CONTROL AUTHORITY
- 17 THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING CONSTRUCTION OF MUD, DUST OR DEBRIS. DUST ABATEMENT SHALL BE MAINTAINED BY ADEQUATE WATERING OF THE SITE BY THE CONTRACTOR.
- THE CONTRACTOR SHALL PROTECT ALL ADJACENT PROPERTIES, PUBLIC AND PRIVATE, AT ALL TIMES DURING CONSTRUCTION.
- 19. SITE TOPOGRAPHY, ROADS, ETC. SHOWN ARE BASED ON SITE SURVEY. LIMITED UTILITY INFORMATION SHOWN. THE OWNER / DESIGNER DOES NOT GUARANTEE THE ACCURACY OF SUCH INFORMATION. SERVICE LINES (WATER POWER, GAS, STORM SEWER, TELEPHONE, FIBER OPTIC, TELEVISION, BROAD BAND, ETC.) MAY NOT BE STRAIGHT LINES OR AS INDICATED ON THE PLANS 20. PROVIDE CONCRETE JOINTING AS SHOWN FOR ALL FLATWORK.
- 21. BUILDING DIMENSIONS ARE SHOWN TO EXTERIOR FACE OF CURB.
 22. COORDINATE STAGING AREA WITH OWNER.
- 23. CONTACT ADJACENT PROPERTY OWNER(S) PRIOR TO BEGINNING WORK.
 24. MAINTAIN ACCESS TO ALL PROPERTIES. 25. COORDINATE WORK WITH OTHER PROJECT(S).

II. RECORD DRAWINGS:

THE CONTRACTOR SHALL MAINTAIN ONE COMPLETE SET OF APPROVED DRAWINGS ON THE CONSTRUCTION SITE AT ALL TIMES WHEREON HE WILL RECORD ANY APPROVED DEVIATIONS IN THE CONSTRUCTION FROM THE APPROVED DRAWINGS AS WELL AS THE LOCATIONS AND DEPTHS OF ALL EXISTING UTILITIES ENCOUNTERED. THESE FIELD RECORD DRAWINGS SHALL BE KEPT UP TO DATE AT ALL TIMES AND SHALL BE AVAILABLE FOR INSPECTION BY THE OWNER'S REPRESENTATIVE UPON REQUEST. FAILURE TO CONFORM TO THIS REQUIREMENT MAY RESULT IN DELAY IN PAYMENT AND/OR FINAL ACCEPTANCE OF THE PROJECT.

III. SAFETY AND PROTECTION:

THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING. AND SUPERVISING SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE RIGHT OF THE OWNER, CITY AND ENGINEER TO OBSERVE OR OTHERWISE REVIEW THE WORK AND OPERATIONS SHALL NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY TO MAINTAIN A SAFE

IV. WARRANTY:

IF WITHIN ONE YEAR AFTER ACCEPTANCE OF THE WORK BY THE CITY, ANY OF THE WORK IS FOUND TO BE DEFECTIVE OR NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND/OR DRAWINGS, AND UPON WRITTEN NOTICE FROM THE PROJECT MANAGER, THE CONTRACTOR SHALL CORRECT ANY WORK BEGINNING WITHIN SEVEN (7) CALENDAR DAYS OF SAID WRITTEN NOTICE. SHOULD THE CONTRACTOR FAIL TO RESPOND TO THE WRITTEN NOTICE WITHIN THE DESIGNATED TIME, THE CITY MAY CORRECT THE WORK AT THE EXPENSE OF THE CONTRACTOR. ANY HARD SURFACE WILL WARRANTED FOR A PERIOD OF 2 YEARS FOLLOWING ACCEPTANCE OF PROJECT.

V. EXISTING CONDITIONS:

PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL VERIEY ALL EXISTING CONDITIONS AND ELEVATIONS. THE CONTRACTOR SHALL REVIEW THE PROPOSED PLANS AND CONFIRM THAT DESIGN ELEVATIONS AND GRADES MATCH EXISTING FIELD CONDITIONS AND SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES OR UNFORESEEN CONDITIONS

VI. PARK ACCESS:

ANY EXCAVATION SHALL BE BARRICADED. PARK, IN GENERAL, WILL BE OPEN

VII. GENERAL DEMOLITION NOTES:

- THE CONTRACTOR SHALL PROTECT ALL EXISTING UTILITY MAINS, FIRE HYDRANTS, VALVES, APPURTENANCES AND OTHER EXISTING SITE FACILITIES DURING CONSTRUCTION NOT SLATED FOR DEMOLITION INCLUDING ON-SITE PRIVATE AND PUBLIC PROPERTY
- INSTALL CONSTRUCTION FENCING AS REQUIRED TO PROTECT THE PUBLIC FROM THE CONSTRUCTION AREA. FENCING SHALL BE OF A FREE STANDING TYPE IN PAVED AREAS. NO DAMAGE TO EXISTING PAVEMENT WILL BE ALLOWED FOR SECURING FENCE. CONTRACTOR SHALL PERIODICALLY INSPECT FENCING AND REPAIR AS NECESSARY.
- FOR TREE PROTECTION, ERECT AND MAINTAIN A CONSTRUCTION FENCE AS DETAILED. FOR AREAS WITHIN TREE DRIPLINE, HAND CLEAR AND HAND EXCAVATE TO MINIMIZE DAMAGE TO ROOT SYSTEM. AT NO TIME SHALL EXCAVATION OCCUR WITHIN HALF THE RADIUS OF THE CANOPY DRIP LINE PROVIDE SUPPORTS AND WET BURLAP OVER ROOTS AS REQUIRED.
- DAMAGED.
- COVER HOLES AND TRENCHES WHEN WORK IS NOT IN PROGRESS. FENCE OR BARRICADE CHANGES OF PLANE MORE THAN 45 DEGREES HORIZONTALLY
- ALL WASTE MATERIAL FROM DEMOLITION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER LOCAL, STATE AND FEDERAL REQUIREMENTS UNLESS. OTHERWISE SPECIFIED. REMOVE FROM SITE EXCAVATED MATERIALS UNSUITABLE FOR USE AS FILL AND BACKFILL INCLUDING STRIPPED SOD. MATERIALS CONTAINING RUBBISH OR DEBRIS SHALL BE IMMEDIATELY REMOVED AND LEGALLY DISPOSED OF OFF-SITE.
- CONTRACTOR TO PROTECT ALL EXISTING IMPROVEMENTS TO REMAIN AND REPAIR BACK TO ORIGINAL CONDITION AT CONTRACTOR'S EXPENSE IF DAMAGE OCCURS RESULTANT FROM CONTRACTOR'S OPERATIONS OR NEGLIGENCE.
- CONTRACTOR SHALL PROVIDE ALL DEMOLITION INCIDENTAL TO OR REQUIRED FOR NEW CONSTRUCTION WHETHER OR NOT IT IS SPECIFICALLY NOTED
- PROVIDE DEWATERING AND DRAINAGE TO KEEP EXCAVATIONS FREE OF WATER.
- CONTRACTOR SHALL REMOVE LAWNS AND GRASSES AS SPECIFIED.
 CONTRACTOR TO REMOVE TOPSOIL TO SPECIFIED DEPTH AND DISPOSE OF EXCESS AS SPECIFIED
- 12. SEE EXISTING IRRIGATION NOTES.

- LOCATION OF MAINLINE, LATERAL LINES, AND EXISTING HEADS- IF SHOWN-WERE ATTAINED FROM PARKS AND RECREATION AS BUILT DRAWINGS UNLESS OTHERWISE NOTED. CONTRACTOR TO VERIFY EXISTING CONDITIONS. ALL EXISTING UTILITIES ARE TO BE LOCATED BEFORE ANY TRENCHING OF ANY KIND
- COORDINATE ALL ADJUSTMENTS OF EXISTING IRRIGATION SYSTEM WITH OWNER
- COORDINATE WORK THIS SHEET WITH ALL OTHER TRADES.
- DO NOT INTERRUPT IRRIGATION WATER SERVICE TO TURF AREAS OUTSIDE OF THE LIMITS OF CONSTRUCTION FOR A PERIOD LONGER THAN 7 DAYS DURING GROWING SEASON. COORDINATE TIMING OF ANY SERVICE INTERRUPTION WITH PARKS AND RECREATION MAINTENANCE PERSONNEL.
- REMOVE ALL EXISTING AT-GRADE LIN-RELISED SYSTEM COMPONENTS (INCLUDING HEADS WITH JOINTS, VALVES, BOXES, ETC.) AND ABANDON ALL UN-REUSED MAIN AND CIRCUIT PIPING, UNI ESS LOCATED WITHIN NEW PLAYGROUND AREA. REMOVE ALL EXISTING MAIN AND CIRCUIT PIPING WITHIN NEW PLAYGROUND AREA
- CONTRACTOR SHALL PROVIDE SLEEVING AS NECESSARY FOR PIPE BELOW PAVEMENT. WHEREVER POSSIBLE CONTRACTOR SHALL USE EXISTING SLEEVES. SLEEVE AS SPECIFIED. SUPPLY ONE EXTRA SLEEVE WITH EACH MAINLINE SLEEVE FOR CONTROL WIRES. COORDINATE SLEEVE INSTALLATION
- 8. IN THE EVENT OF ANY DISCREPANCIES, NOTIFY THE LANDSCAPE ARCHITECT

IX. GENERAL GRADING NOTES:

- PRIOR TO THE START OF GRADING, ALL EXISTING VEGETATION SHALL BE REMOVED FROM THE SITE TO BE GRADED, EXCEPT WHERE INDICATED.
- GRADES, PAVEMENT ELEVATIONS, SPOT ELEVATIONS AND CONTOURS SHOWN REPRESENT FINISHED ELEVATIONS AND GRADES. THE CONTRACTOR SHALL GRADE AND PREPARE ALL SUBGRADE IN ACCORDANCE WITH TOLERANCES INCLUDED IN PROJECT SPECIFICATIONS.
- MAXIMUM SLOPES: SIDEWALKS MAXIMUM CROSS SLOPE 2%. MAXIMUM LONGITUDINAL SLOPE 5%. EARTH SLOPES - THERE SHALL BE NO EARTH SLOPES GREATER THAN 33.3% (3:1).
- ALL FILLS SHALL BE IMPORTED BACKFILL OR SOILS EXCAVATED OFFSITE, EXCEPT FOR FILLS LESS THAN 18 INCHES IN DEPTH WHICH ARE LOCATED OUTSIDE THE PUBLIC RIGHT-OF-WAY, BUILDING PADS, PARKING LOTS, OF OTHER AREAS TO BE IMPROVED. FILLS SHALL BE CONSTRUCTED IN 8" LIFTS OVER APPROVED SUBGRADE. EACH LIFT SHALL BE COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPORTING AND/OF EXPORTING ALL MATERIAL AS REQUIRED TO PROPERLY GRADE THIS SITE. INCLUDING ALL NECESSARY SURFACE RESTORATION, TO THE FINISHED ELEVATIONS SHOWN HERE IN ACCORDANCE WITH THE APPROVED PLANS AND
- THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES. THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AND ACCOMMODATE UNCONSIDERED EXISTING CONDITIONS AND PROVIDE SMOOTH TRANSITIONS BETWEEN EXISTING AND NEW GRADES.
 CONTRACTOR SHALL PROVIDE EROSION CONTROL FENCING AT SWALES.
- EXCAVATION QUANTITIES AND PROPOSED ELEVATIONS ASSUME 3" DRAINAGE COURSE OF 1 1/2" WASHED ROCK UNDER 16" OF EWF. IF OWNER DETERMINES DRAINAGE COURSE TO NOT BE NECESSARY. THEN FINISHED PLAY POD ELEVATIONS ARE TO BE 3" HIGHER THAN SHOWN ON PLAN.
- PLAY SURFACE MUST DRAIN TO SUMP

X. GENERAL OWNER WORK NOTES:

COORDINATE WITH OWNER'S REPRESENTATIVE FOR ALL OWNER PROVIDED WORK AS DETAILED.

EXISTING CONCRETE FOUND MONUMENT EXISTING CONTROL POINT EXISTING ASPHALT ROAD EXISTING JUNCTION BOX EXISTING ELECTRIC METER EXISTING GRAVEL ROAD EXISTING FROST FREE HYDRANT EXISTING FIRE HYDRANT EXISTING CURB EXISTING IRRIGATION CONTROL VALVE EXISTING FLOWLINE EXISTING MONUMENT BOX EXISTING ROAD CENTERLINE **EXISTING MANHOLE - SANITARY SEWER** EXISTING CHAINLINK FENCE EXISTING POST -SD----SD---EXISTING STORM DRAIN EXISTING STORM DRAIN VAULT EXISTING BURIED GAS EXISTING SIGN POST EXISTING BURIED POWER EXISTING SPRINKLER HEAD EXISTING BURIED TELEPHONE ——ВТ — EXISTING CONIFEROUS TREE ---w----w---EXISTING WATER MAIN EXISTING DECIDUOUS TREE EXISTING PLANTER EXISTING TELEPHONE PEDESTAL EXISTING WELL EXISTING WATER VALVE



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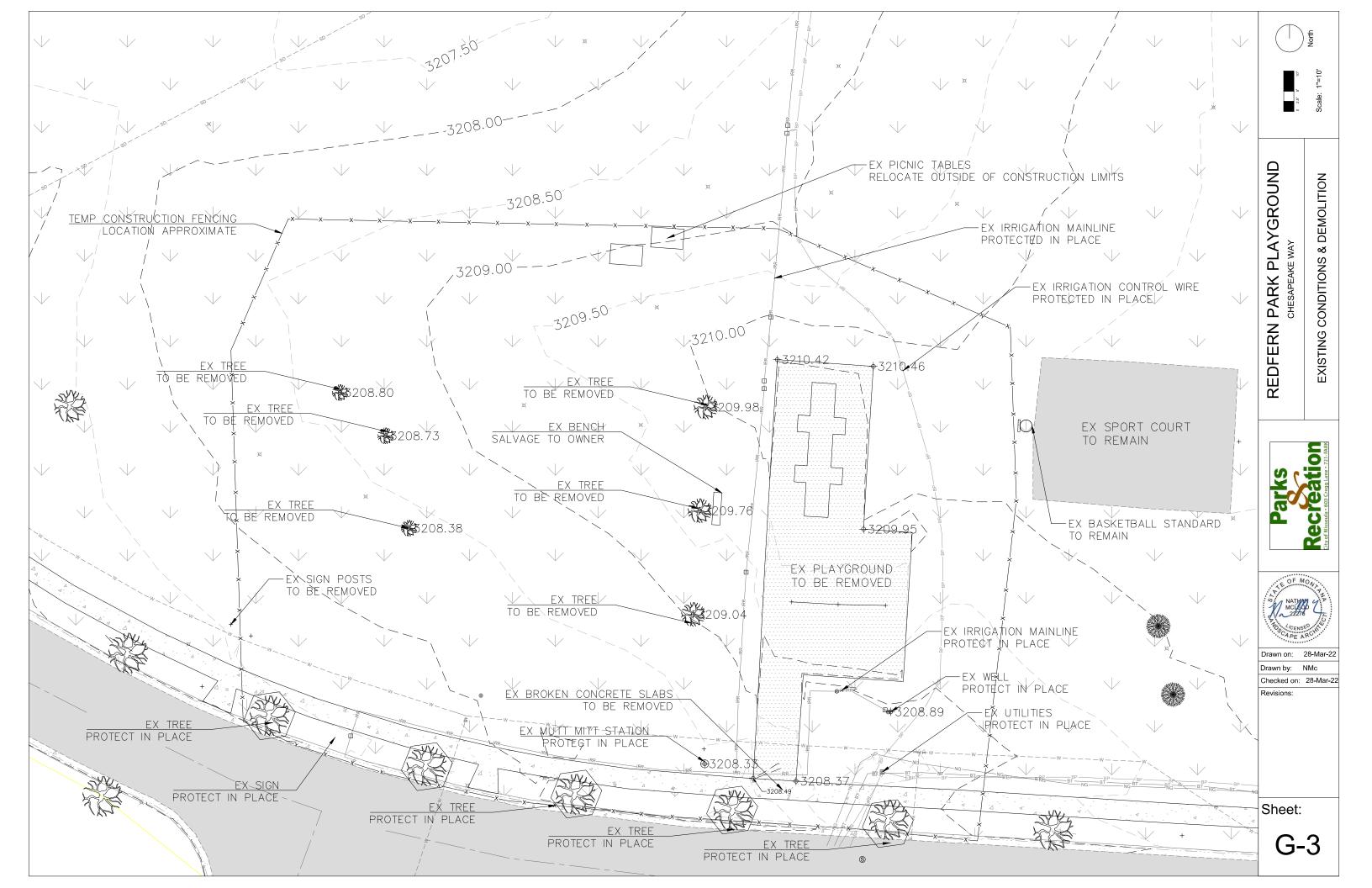
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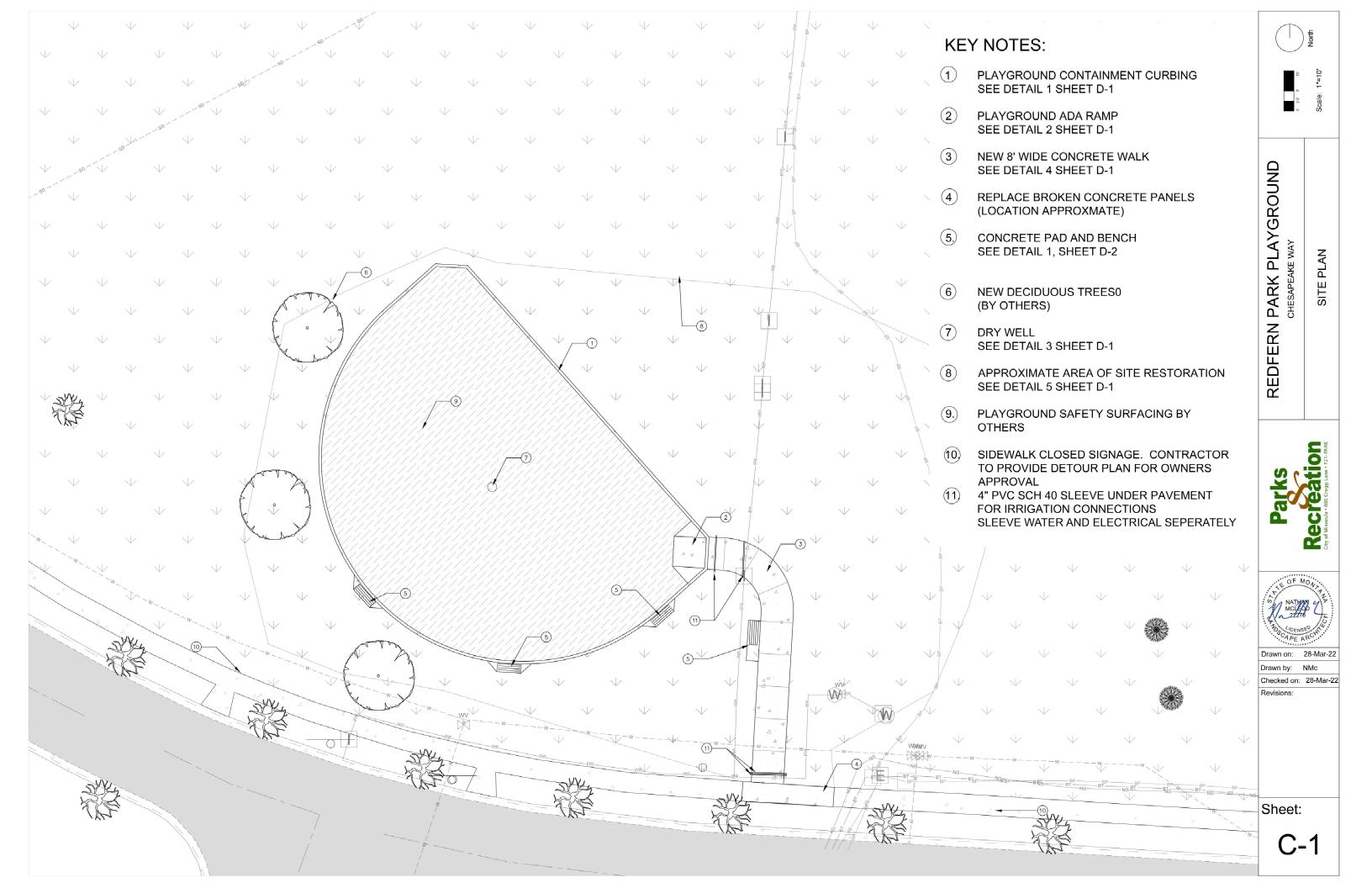


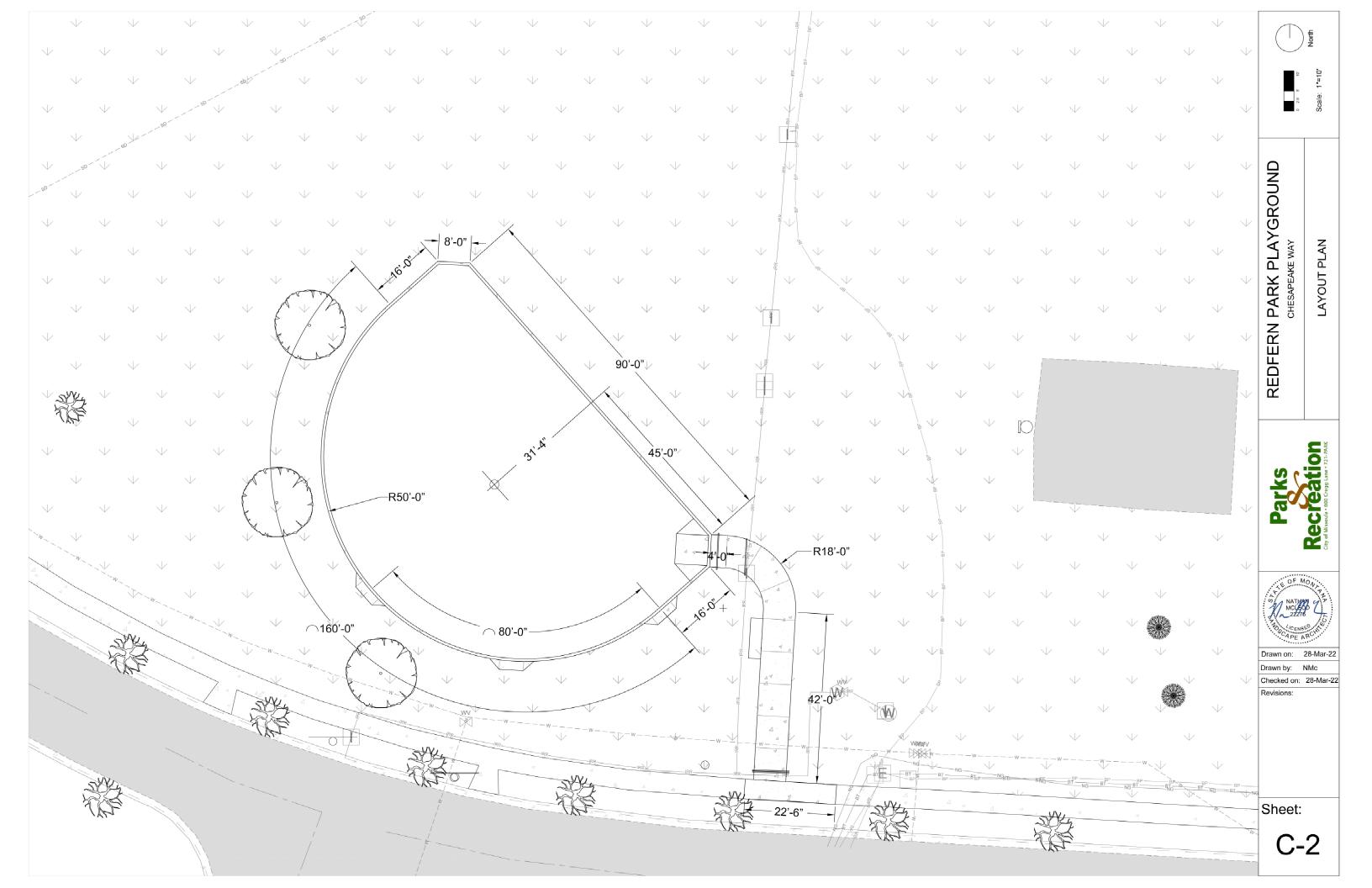
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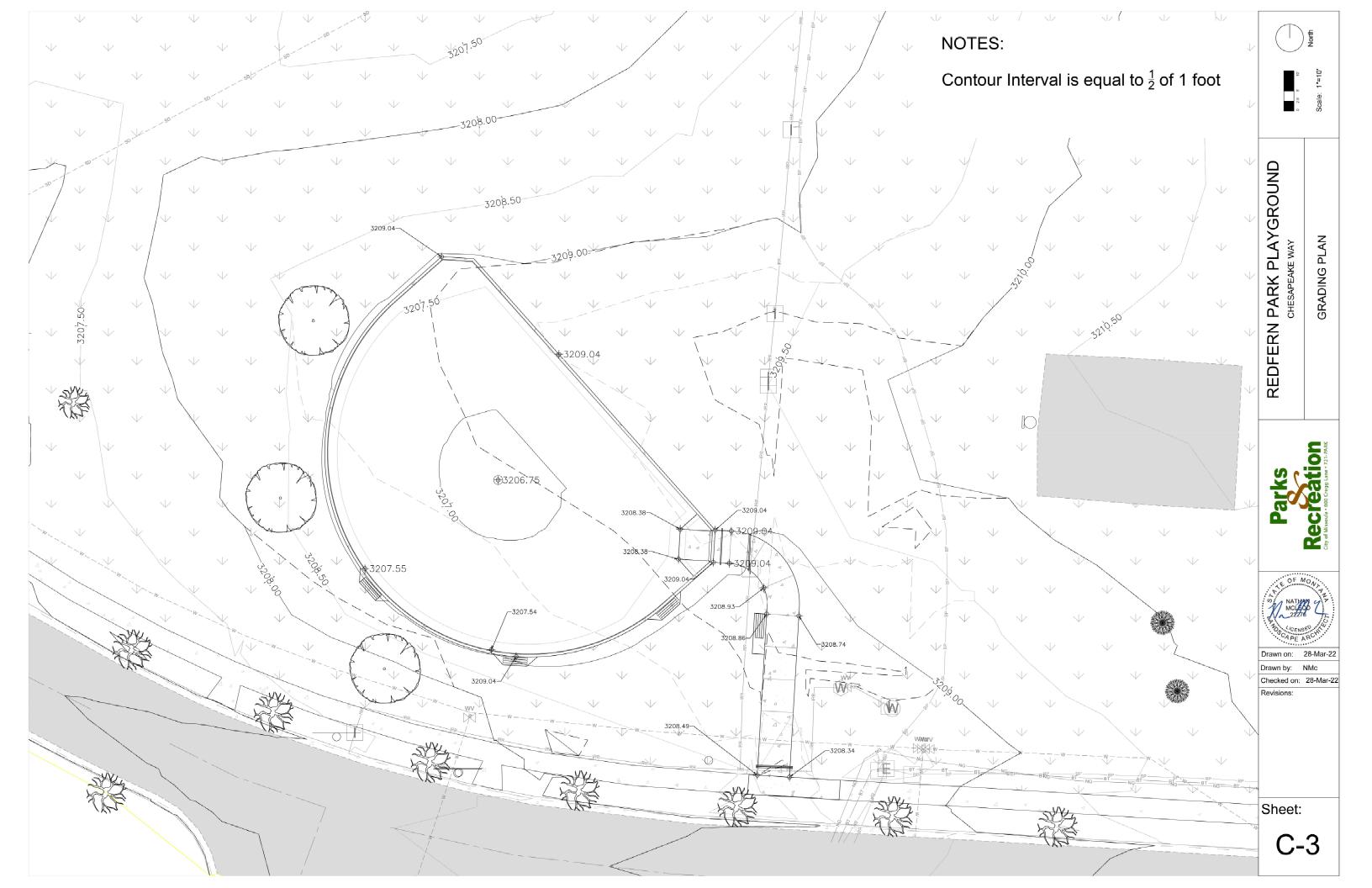
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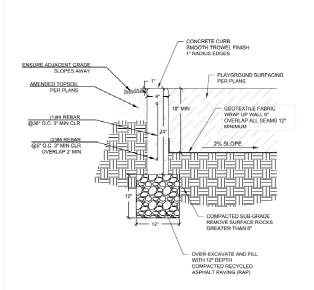
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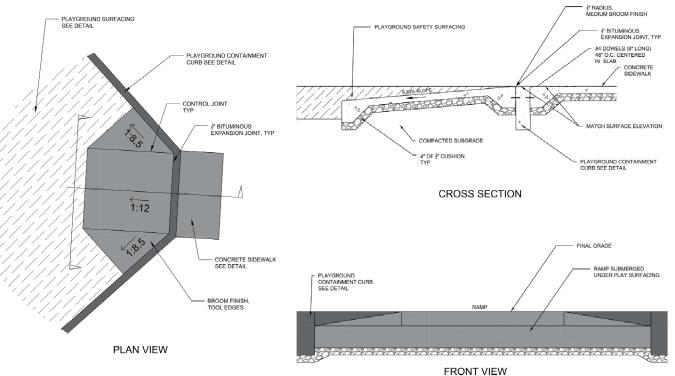




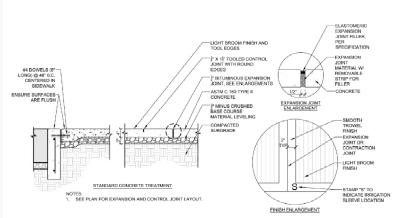


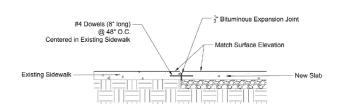
CONTAINMENT CURB

D-1 NTS

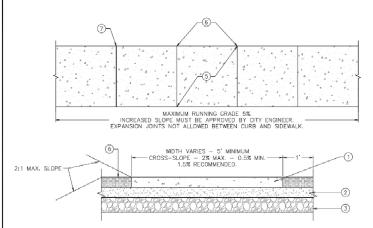


PLAYGROUND ADA RAMP 2 D-1 NTS









KEYED NOTES:

- MINIMUM OF FOUR (4") INCHES OF CONCRETE SIDEWALK (TYPICAL), MINIMUM SIX (6") INCHES CONCRETE SIDEWALK THROUGH RESIDENTIAL DRIVEWAY OR MINIMUM EIGHT (8") INCHES CONCRETE SIDEWALK THROUGH COMMERCIAL DRIVEWAY OR ON ADA RAMPS PER SID DWGS.
 MINIMUM OF FOUR (4") INCHES OF BASE SHALL BE COMPACTED TO 95% PROCTOR DENSITY.
 MINIMUM OF SIX (6") INCHES OF SUB GRADE SHALL BE COMPACTED TO 95% PROCTOR DENSITY.
 CITY ENGINEER MAY REQUIRE ADDITIONAL BASE, DEPENDING ON SUB GRADE MATERIAL.
 CONTRACTION JOINTS SHALL FORM AS NEAR A SQUARE PAREL AS POSSIBLE, NO SINGLE PANEL SHALL EXCEED TEN (10")
 FEET ON ANY SIDE. LONGITUDINAL JOINTS REQUIRED IF SIDEWALK WIDTH EXCEEDS TEN (10") FEET.
 CONTRACTION JOINTS SHALL BE ONE—FOURTH (1/4) THE CONCRETE THICKNESS OR A MINIMUM OF ONE (1") INCH DEEP.
 EXPANSION JOINTS OF ONE—HALF (1/2") INCH THICK MASTIC MATERIAL SHALL BE PLACED AT THE FOLLOWING
 LOCATIONS:
 7.1. EVERY FIFTY (50") FEET OF UNINTERRIPITED SIDEWALK WE
- 7.1. EVERY FIFTY (50') FEET OF UNINTERRUPTED SIDEWALK. 7.2. P.C.S AND P.T.S OF CURVES.

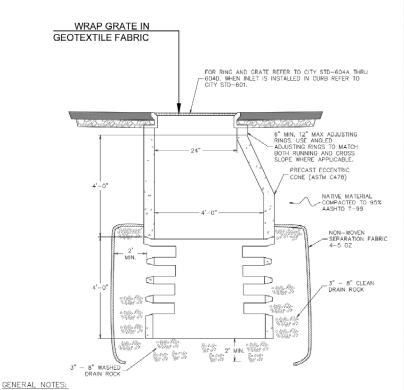
- 7.2. P.C.S. AND P.15. OF CURVES.
 7.3. GRADE BREAKS.
 7.4. RESIDENTIAL DRIVEWAYS SIX (6°) INCH DEEP MASTIC SHALL BE INSTALLED AT THE TOP OF THE TRANSITION ON BOTH SIDES AND SHALL BE PINNED IN PLACE BEFORE POURING.
 7.5. COMMERCIAL DRIVEWAYS EIGHT (8°) INCH DEEP MASTIC SHALL BE INSTALLED AT THE TOP OF THE TRANSITION ON BOTH SIDES AND SHALL BE PINNED IN PLACE BEFORE POURING.
 7.6. AT OTHER LOCATIONS AS SPECIFED BY CITY ENGINEERING DIVISION.
 7.7. ALL EXPANSION JOINTS SHALL BE PLACED FLUSH OR JUST BELOW TOP FINISHED SURFACE OF SIDEWALK.
 7.8. ALL EXPANSION JOINTS SHALL BE FULCE DETLY OR JUST BELOW TOP FINISHED SURFACE OF SIDEWALK.
 7.8. ALL EXPANSION JOINTS SHALL BE FULCED FLUSH OR JUST BELOW TOP FINISHED SURFACE THE FORMS WILL BE APPROVED.
 FINISHED SURFACE 1.2" MINIMUM SHOULDER UNLESS OTHERWISE APPROVED BY CITY ENGINEER.
 FINISHED SURFACE SHALL HAVE MEDIUM—TO—HEAVY BROOM TEXTURE.
 NO SIDEWALK SHALL BE POURED WITHOUT AN INSPECTION AND APPROVAL OF FORM PLACEMENT BY CITY ENGINEERING DIVISION.

- DIMSION.

 10. CONSTRUCTION MATERIALS AND PROCEDURES SHALL CONFORM TO EXISTING CITY STANDARD SPECIFICATIONS FOR M-4000 CEMENT CONCRETE AND MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS SECTIONS 02528 AND 03310.

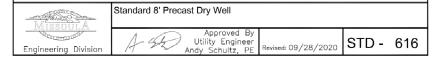
 12. CITY OF MISSOULA REQUIRES 564 LBS OF PORTLAND CEMENT PER CY OF CONCRETE.

Typical Sidewalk Section FOR ROW SIDEWALK Approved By City Engineer Adopted:02/29/1996 STD - 752

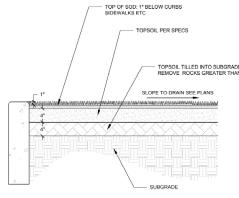


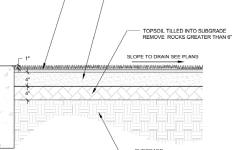
- 1. OVER-EXCAVATE WHERE REQUIRED TO ENSURE BOTTOM OF EXCAVATION IS A MIN. 2-FT INTO GRAVELLY SOIL. 2. CATCH BASINS (STD-614) PIPED TO DRY WELLS ARE ENCOURAGED AS A PRE-TREATMENT METHOD OR TO
- AVOID UTILITY CONFLICTS.
- 3. NO GRADE RING TO BE OFFSET MORE THAN 2" AND TOTAL OFFSET NOT TO EXCEED WALL THICKNESS OF
- 4. GRADE RINGS SHALL BE 2" THICKNESS MINIMUM.

5. NO WEDGES ALLOWED BETWEEN GRADE RINGS AND FRAME MUST BE SET FLUSH WITH TOP GRADE RING.



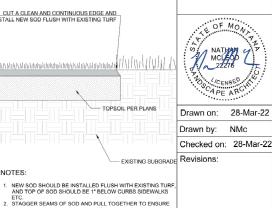






- . STAGGER SEAMS OF SOD AND FOLL TOGETHER TO ENSURE TIGHT FIT. GAPS GREATER THAN !" WILL NOT BE ACCEPTED WATER SOD AT TIME OF INSTALLATION PRO SOD IN ARLEE MT IS AN APPROVED SUPPLIER OF SOD

TOPSOIL MUST MEET PARKS AND RECREATION DESIGN MANUAL SPECIFICATIONS TILL TOPSOIL INTO SUBGRADE MINIMUM 4" DEPTH TO ALLEVIATE COMPACTION AND IMPROVE DRAINAGE FINISH GRADE TO BE 1" BELOW ADJACENT SIDEWALKS, CURBS ETC. SITE RESTORATION



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PLAY

PARK

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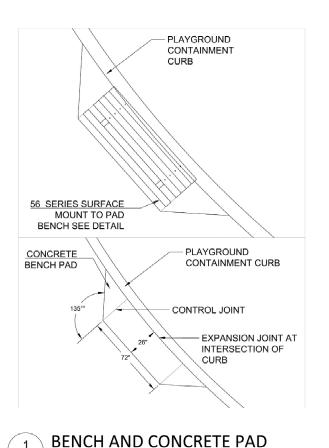
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Recreation

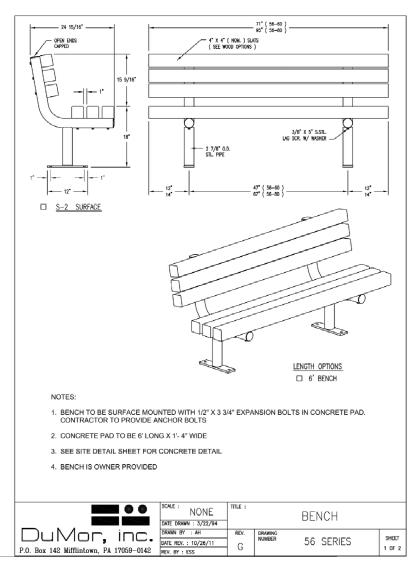
CHESAPEAKE WAY

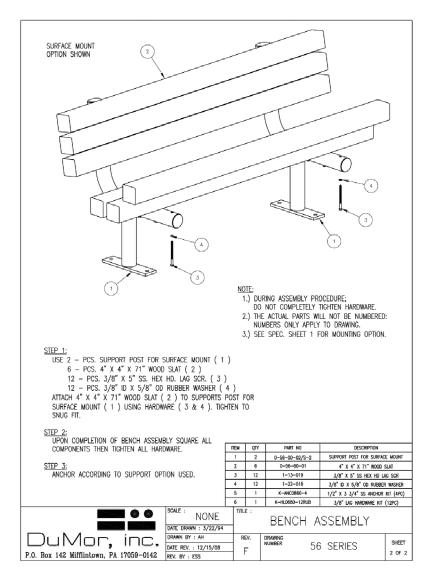
D-1



OWNER PROVIDED BENCH, CONTRACTOR INSTALLED

D-2





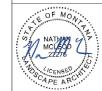
NOTE: BENCH PAD TO BE DOWELED TO CURB TO PREVENT DIFFERENTIAL SETTLING

PARK PLAYGROUND CHESAPEAKE WAY

DETAILS PG 2

REDFERN PARK
CHESAPEA





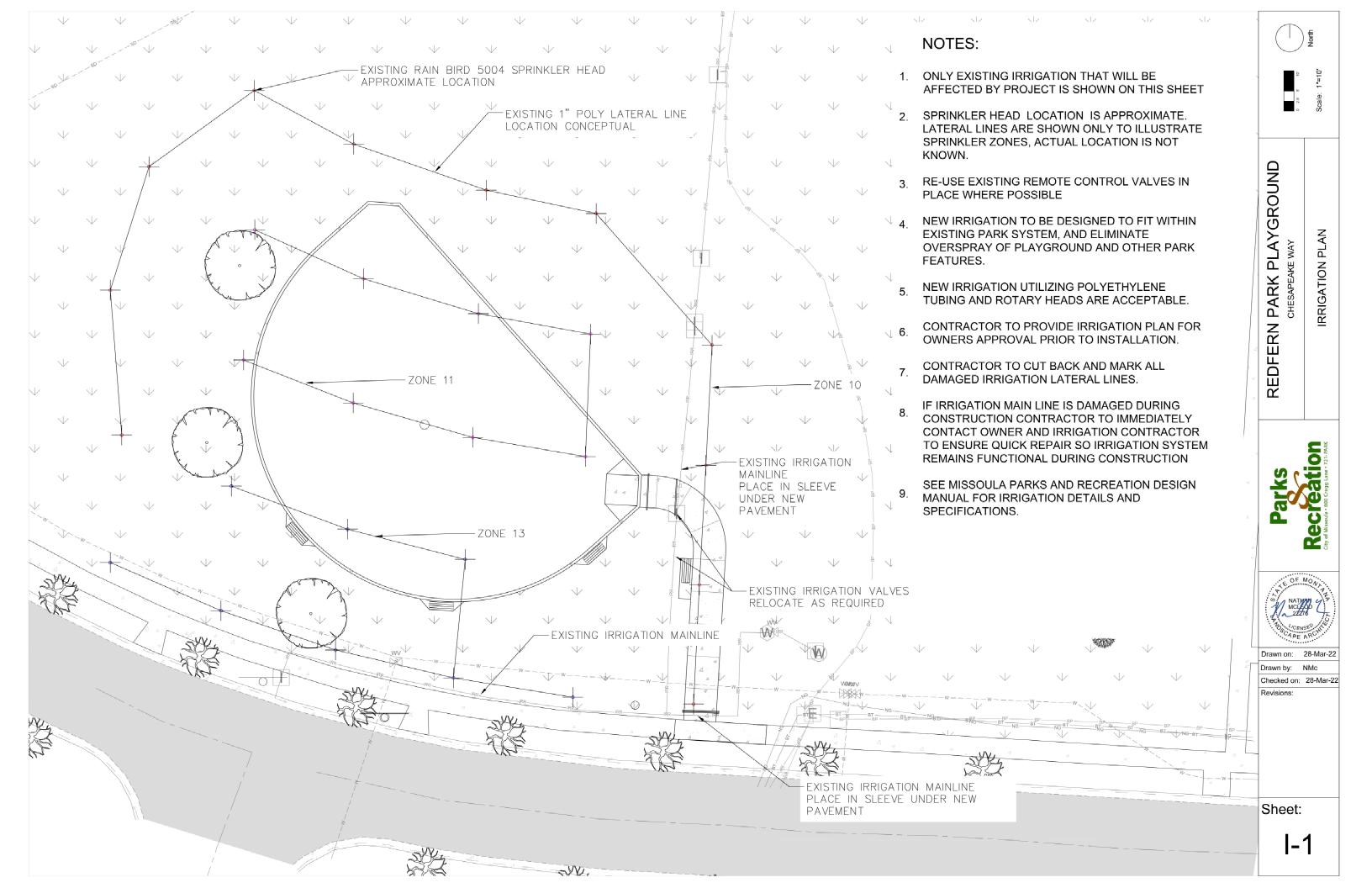
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Drawn by: NMc Checked on: 28-Mar-22

Revisions:

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D-2



EXISTING IRRIGATION NOTES:

- LOCATION OF MAINLINE, LATERAL LINES, AND EXISTING HEADS ATTAINED FROM PARKS AND RECREATION AS-BUILT DRAWINGS UNLESS OTHERWISE NOTED. CONTRACTOR TO VERIFY LOCATION
- BEFORE START OF CONSTRUCTION COORDINATE ALL ADJUSTMENTS OF EXISTING IRRIGATION SYSTEM WITH OWNER
- AREAS OUTSIDE OF CONSTRUCTION LIMITS MUST REMAIN OPERATIONAL DURING THE GROWING SEASON.
- OFERATIONAL DURING THE GROWING SEASON.
 REMOVE ALL EXISTING AT-GRADE UN-REUSED SYSTEM
 COMPONENTS (INCLUDING HEADS WITH JOINTS, VALVES, BOXES, FTC.) AND ABANDON ALL UN-REUSED MAIN AND CIRCUIT PIPING UNLESS LOCATED WITHIN NEW PLAYGROUND AREA. REMOVE AL EXISTING MAIN AND CIRCUIT PIPING WITHIN NEW PLAYGROUND
- INSTALL NEW PIPING OUTSIDE AND AROUND NEW PLAYGROUND IRRIGATION HEADS VALVES AND PIPING SHALL MATCH THE
- MANUFACTURER OF THE MAJORITY OF EXISTING IRRI HEADS SHALL HAVE 6" RISERS
- HEADS SHALL HAVE O KISENS.

 NUMBER ADJACENT HEAD DENOTES ASSUMED RADIUS.

 PROVIDE DETAILED SHOP-DRAWING PLANS AND SCHEDULE ON

 CONNECTING INTO EXISTING SYSTEM. PLANS TO INCLUDE EXISTIN

 LAYOUT, PROPOSED MODIFICATIONS TO EXISTING LAYOUT, NEW SYSTEM LAYOUT, TIMELINE, AND ALL NEWLY INSTALLED S

GENERAL SITE NOTES:

SEED AND RE-GRADE ALL EXISTING LAWN AREAS. DISTURBED BY CONTRACTOR'S OPERATIONS AS PER SPECIFICATIONS. A DISTURBED AREA SHALL BE WHERE CONSTRUCTION ACTIVITIES. INCLUDING TRENCHING, DEMOLITION, EARTHWORK, MATERIAL STORAGE, STAGING, PARKING OR ANY OTHER FORM OF EXCAVATION, COMPACTION, OR TRAFFIC RESULTS IN THE REMOVA OR DISPLACEMENT OF EXISTING GROUND COVER OR GRADE. COORDINATE WITH LANDSCAPE CONTRACTOR, SEE LANDSCAPE PLAN. SOD WHERE INDICATED ON PLANS.

II. IRRIGATION NOTES:

- CONTRACTOR TO VERIFY EXISTING CONDITIONS. ALL EXISTING UTILITIES ARE TO BE LOCATED BEFORE ANY TRENCHING OF ANY KIND
- BEGINS.
 CONTRACTOR SHALL LOCATE EXISTING WATER SOURCE
 CONNECTION AND IRRIGATION CONTROLLER AND VERIFY
 AVAILABLE CALLONAGE, PRESSURE, POWER, STATION-CAPACITY,
 WATER AND ADDRESSED SERVEN INFOCATION SYSTEM BASED. AVAILABLE ORALDWINGE, PRESSURE, POWER, 3 TATION-OVA-ROTT, AND ZONE INFORMATION, DESIGN IRRICATION 9 YSTEM BASED UPON AVAILABILITY AND ANY UPGRADE REQUIREMENTS. IN THE EVENT OF ANY DISCREPANCIES, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY. DO NOT INTERRUPT IRRIGATION WATER SERVICE TO TURE AREAS OUTSIDE OF THE LIMITS OF CONSTRUCTION FOR A PERIOD LONGER THAN JEDNEY DILBRICA OPPOSITION FOR A PERIOD LONGER THAN JEDNEY DILBRICA OPPOS
- THAN 7 DAYS DURING GROWING SEASON. COORDINATE TIMING OF ANY SERVICE INTERRUPTION WITH PARKS AND RECREATION
- MAINTENANCE PERSONNEL. COORDINATE WORK THIS SHEET WITH ALL OTHER TRADES. PROPOSED HEADS SHALL MATCH THE MANUFACTURER OF THE MAJORITY OF THE EXISTING IRRIGATION SYSTEM. HEAD LOCATIONS PROVIDED ARE SCHEMATIC ONLY. CONTRACTO
- TO DESIGN NEW ZONES FOR NEW IRRIGATION AREA, AND ADJUST EXISTING UNDERGROUND AUTOMATIC IRRIGATION SYSTEM TO PROVIDE ADEQUATE WATER FOR ALL TURF AREAS SHOWN ON PLAI LAWN AREAS SHALL BE WATERED BY ROTOR AND / OR SPRAN
- HEADS AS DETAILED AND SPECIFIED. SPRAY HEADS TO BE ON SEPARATE ZONES THAN ROTORS. PROVIDE HEAD TO HEAD COVERAGE IN LAWN AREAS. CONTRACTOR SHALL PROVIDE SLEEVING AS NECESSARY FOR PIPI
- BELOW PAVEMENT. WHEREVER POSSIBLE CONTRACTOR SHALL USE EXISTING SLEEVES. SLEEVE AS SPECIFIED. SUPPLY ONE EXTRA SLEEVE WITH EACH MAINLINE SLEEVE FOR CONTRO WIRES, COORDINATE SLEEVE INSTALLATION WITH OTHER TRADES
- RRIGATION SYSTEM SHALL BE INSTALLED IN STRICT ACCORDANC WITH ALL PERTINENT CODES AND REGULATIONS. THE REFERENCE WITH ALL PERTINENT CODES AND RESULTATIONS, THE REFERENCE
 STANDARDS, AND THE MANUFACTURER'S RECOMMENDATIONS.
 IRRIGATION SYSTEM TO BE DESIGNED TO PREVENT OVER-SPRAY
 ONTO BUILDING, HARDSCAPE, AND PLAYGROUND SURFACES. AL
- SATION HEADS TO BE INSTALLED 6" AWAY FROM ADJA STRUCTURES OF HARDSCAPE AS SPECIFIED. ZONES TO BE DESIGNED WITH REGARD TO PLANT MATERIAL AND
- IND AND SUN EXPOSURE TO ENSURE PROPER PLANT REQUI ER COVERAGE. VIDE ALL COMPONENTS REQUIRED FOR PROPER

V. GENERAL SEEDING NOTES:

- SEE ALL PROJECTS, ALL DEMO SHEETS FOR LANDSCAPE TO BE
- REMOVED AND TO REMAIN, ON PLACEMENT OF REQUIRED MOPORTH TO BE MEMOVED AND TO REMAIN, OND PLACEMENT OF REQUIRED MOPORTED TO PSOIL TO ACHIEVE FINISH GRADE. AFTER INCORPORATION OF SUPPLEMENTAL SOIL AMENDMENT PRODUCTS FINISH GRADE ALL PLANTING AREAS SMOOTH (FREE OF PEAKS OR DEPRESSIONS) PRIOR TO PLACEMENT OF PLANTING MATERIAL AND MILLOWED AND THE PRODUCTS FINISH GRADE ALL PLANTING AREAS SMOOTH (FREE OF PEAKS OR DEPRESSIONS) PRIOR TO PLACEMENT OF PLANTING MATERIAL AND MILLOWED.
- DEFFESSIONS) FROM TO PLACEMENT OF PLANTING MALERIAL AND MULCH.
 CONTRACTOR IS RESPONSIBLE FOR PLACING AND SUPPLEMENTING TOPSOIL TO DEPTHS NOTED.
 PLANT, PLACE TOPSOIL AND RE-GRADE ALL PROPOSED LAWN AREAS DISTURBED BY CONTRACTOR'S OPERATIONS AS PER PLANS AND SPECIFIED. DISTURBED AREAS SHALL BE WHERE AND SPECIFIED. DISTURBED AREAS SHALL BE WHERE
 CONSTRUCTION ACTIVITIES INCLUDING TRENCHING, DEMOLITION,
 EARTHWORK, MATERIAL STORAGE, STAGING, PARKING OR ANY OTHER FORM OF EXCAVATION, COMPACTION, OR TRAFFIC RESULT: IN THE REMOVAL OR DISPLACEMENT OF EXISTING GROUND COVER OR GRADE. PROVIDE SMOOTH CLEAN TRANSITION FROM EXISTING TO DISTURBED AREA
- EDGE OF REPAIR AREA SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL EXTENT OF REPAIR MAY VARY.
- PRIOR TO PLANTING, IRRIGATION SYSTEM SHALL BE FULLY OPERATIONAL AND PLANTING AREAS SHALL BE THOROUGHLY
- ALL PLANT MATERIAL SHALL RECEIVE AN ADEQUATE AMOUNT OF WATER TO MEET WATERING REQUIREMENTS SUPPLIED BY AN AUTOMATIC IRRIGATION SYSTEM BY OWNER UNLESS SPECIFICALL NOTED. PROVIDE TEMPORARY IRRIGATION FOR ESTABLISHMENT FOR THESE SPECIFICALLY NOTED AREAS.
- FOR THESE SPECIFICALLY NOTED AREAS.

 DURING INSTALLATION OF ALL LANDSCAPE WORK, CONTRACTOR

 SHALL KEEP ALL PLANTING AND HARDSCAPE AREAS CLEAN OF DEBRIS. PROTECT ALL PLANT MATERIALS FROM DAMAGE DUE TO CONSTRUCTION ACTIVITIES BY ALL TRADES. MAINTAIN PROTECTION THROUGHOUT DURATION OF MAINTENANCE PERIOD. TREAT, REPAIR, OR REPLACE ANY DAMAGED OR UNHEALTHY PLAN MATERIALS, AS WELL AS ALL OTHER LANDSCAPE WORK
- CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OF ANY
- CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OF ANY PRODLEMS WITH EXISTING SOIL CONDITIONS OR HIGH WATER TABLE IMMEDIATELY UPON DISCOVERY.

 SATISFACTORY SEEDED AREA: AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS HAS BEEN ESTABLISHED, FREE OF WEEDS AND SURFACE RREGULARITIES, WITH COVERAGE EXCEEDING 90% OVER ANY 10 SF AND BARE SPOTS NOT EXCEEDING 57%S*.

 PLANTING RESTRICTIONS: COORDINATE PLANTING PERIODS WITH MAINTENANCE FROM DATE OF SUBSTANTIAL COMPLETION. PLANT IN SPRING BETWEEN MARCH 1- JUNE 1, PLANT IN FALL BETWEEN SEPTEMBER 1 NOVEMBER 15, DORMANT SEASON)

 WEATHER LUMITATIONS: PROCEED WITH PLANTING ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT.

SECTION 02812 -PERFORMANCE IRRIGATION

PART 1 - GENERAL

- 1.1 RELATED DOCUMENTS
 A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION SPECIFICATION SECTIONS, APPLY TO THIS SECTION.
- THIS SECTION INCLUDES THE DESIGN OF AN AUTOMATIC IRRIGATION THIS SECTION INCLUDES THE DESIGN OF AN AUTOMATIC IRRIGATION SYSTEM IN ACCORDANCE WITH PERFORMANCE CRITERIA AND MATERIALS SPECIFIED HEREIN, PROVIDING ALL MATERIALS AND LABOR NECESSARY TO INSTALL A COMPLETE AND PULLY PUNCTIONING IRRIGATION SYSTEM, AND MAINTENANCE OF THE COMPLETED SYSTEM. RELATED SECTIONS INCLUDE THE FOLLOWING:

 1. DIVISION 2 SECTION TWATER DISTRIBUTION* FOR WATER SUPPLY
- PIPING, WATER METERS, AND BACKFLOW PREVENTER:
- LATERAL PIPING: DOWNSTREAM FROM CONTROL VALVES TO SPRINKLERS, SPECIALTIES, AND DRAIN VALVES. PIPING IS UNDER PRESSURE DURING
- DRAIN PIPING: DOWNSTREAM FROM CIRCUIT-PIPING DRAIN VALVES.
- DRAIN PIPING: DOWNSTREAM FROM CIRCUIT-PIPING DRAIN VALVES.
 PIPING IS NOT UNDER PRESSURE.
 MAIN LINE PIPING: DOWNSTREAM FROM POINT OF CONNECTION TO
 WATER DISTRIBUTION PIPING TO AND INCLUDING CONTROL VALVES.
 PIPING IS UNDER WATER DISTRIBUTION SYSTEM PRESSURE.
 THE FOLLOWING ARE INDUSTRY ADBREVATIONS FOR PLASTIC MATERIALS: ABS: ACRYLONITRILE-BUTADIENE-STYRENE PLASTIC
 NP: NYLON PLASTIC
- DE: DOLVETHYLENE DLASTIC
- PE: POLYEI HYLENE PLASTIC.
 PP: POLYPROPYLENE PLASTIC.
 PTFE: POLYTETRAFLUOROETHYLENE PLASTIC.
 PVC: POLYVINYL CHLORIDE PLASTIC.
 GSTEM PERFORMANCE REQUIREMENTS
- MINIMUM WATER COVERAGE: 100 PERCENT OF PLANTING AREAS.
- PRODUCT DATA: INCLUDE PRESSURE RATING RATED CAPACITY PRODUCT DATA: INCLUDE PRESSURE RATING, RATED CAPACITY, SETTINGS, AND ELECTRICAL DATA OF SELECTED MODELS FOR THE FOLLOWING. SHOW MANUFACTURER'S NAME AND CATALOG NUMBER FC EACH ITEM, FURNISH COMPLETE CATALOG CUTS AND TECHNICAL DATA. 1. WATER REGULATORS. 2. WATER HAMMER ARRESTERS.
- VALVES. INCLUDE ABOVEGROUND AND UNDERGROUND; GENERAL-DUTY, MANUAL AND AUTOMATIC CONTROL, AND GENERAL-JULY, MANUAL AND AUTUMATIC CONTROL, AND QUICK-COUPLER TYPES. VALVE BOXES. SPRINKLERS. SPECIALTIES. INCLUDE EMITTERS, DRIP TUBES, AND OTHER DEVICES.
- 7. CONTROLLERS. INCLUDE WIRING DIAGRAMS.
 TEST REPORTS: AS SPECIFIED IN "FIELD QUALITY CONTROL" ARTICLE IN
- NTENANCE DATA: INCLUDE DATA FOR THE FOLLOWING
- WATER REGULATORS.
 AUTOMATIC CONTROL VALVES.
- SPECIALTIES.
 CONTROLLERS.
- A. CONTROLLERS.
 DUALTY ASSURANCE
 ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND
 LABELED AS DEFINED IN NFPA 70, ARTICLE 100, BY A TESTING AGENCY
 ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
 COMPLY WITH REQUIREMENTS OF UTILITY SUPPLYING WATER AND
 AUTHORITIES HAVING JURISDICTION FOR PREVENTING BACKFLOW AND
 BACK SIPHONAGE.
 COMPLY WITH ASTM F 645, "QUIDE FOR SELECTION, DESIGN, AND
 INSTALLATION OF THERMOPLASTIC WATER PRESSURE PIPING SYSTEMS."
 COMPLY WITH NFPA 70. "NATIONAL ELECTRICAL CODE." FOR ELECTRICAL
 CONNECTIONS BETWEEN WIRING AND ELECTRICALLY OPERATED DEVICES.

 PEI INFRY STORAGE. AND HANDLING

- DELIVERY, STORAGE, AND HANDLING
 PREPARATION FOR TRANSPORT: PREPARE VALVES ACCORDING TO THE
- FOLLOWING:

 1. ENSURE THAT VALVES ARE DRY AND INTERNALLY PROTECTED AGAINST RUST AND CORROSION.

 2. PROTECT VALVES AGAINST DAMAGE TO THREADED ENDS AND FLANGE
- SET VALVES IN BEST POSITION FOR HANDLING. SET VALVES CLOSED 3. SET VALVES IN BEST POSITION FOR HANDLING. SET VALVES CLOSED TO PREVENT RATTLING.

 DURING STORAGE: USE PRECAUTIONS FOR VALVES ACCORDING TO THE
- DONING STONAGE. USE PREVAILED AND VALVES ACCORDING TO THE FOLLOWING.

 1. DO NOT REMOVE END PROTECTORS UNLESS NECESSARY FOR INSPECTION. THEN, REINSTALL FOR STORAGE.

 2. PROTECT FROM WEATHER, STORE INDOORS AND MAINTAIN TEMPERATURE HIGHER THAN AMBIENT DEW-POINT TEMPERATURE. SUPPORT OF GROUND OR PAVEMENT IN WATERTIGHT ENCLOSURES WHEN OUTDOOR STORAGE IS NECESSARY.

 5. THROUGH SHIPPING, STORAGE, AND HANDLING TO PREVENT PIPE-END DAMAGE AND TO PREVENT ENTRANCE OF DIRT, DEBRIS, AND MOISTURE, PROTECT STORED PIPING FROM MOISTURE AND DIRT, ELEVATE ABOVE GRADE. DO NOT EXCEED STRUCTURAL CAPACITY OF FLOOR WHEN STORING INSIDE.

- TECT FLANGES, FITTINGS, AND SPECIALTIES FROM MOISTURE AND
- DINT.
 STORE PLASTIC PIPING PROTECTED FROM DIRECT SUNLIGHT. SUPPORT TO PREVENT SAGGING AND BENDING.
 PROJECT CONDITIONS
- PROJECT CONDITIONS
 PROJECT CONDITIONS
 PERFORM SITE INVESTIGATION, RESEARCH PUBLIC UTILITY RECORDS,
 AND VERIFY EXISTING UTILITY LOCATIONS.
 INVESTIGATE AND DETERMINE AVAILABLE WATER SUPPLY WATER
 PRESSURE AND FLOW CHARACT LENSITICS.
 SEQUENCING AND SCHEDULING
 MAINTAIN UNINTERRUPTED WATER SERVICE TO BUILDING DURING
 NORMAL WORKING HOURS. ARRANGE FOR TEMPORARY WATER SHUTOFF
 WITH JOINIERS.
- WITH OWNER.
 COORDINATE LAWN SPRINKLER PIPING WITH WORK SPECIFIED IN DIVISION 2 SECTION "LANDSCAPING."
 COORDINATE LAWN SPRINKLER PIPING WITH UTILITY WORK.

PART 2 - PRODUCTS

2.2 PIPING MATERIALS

PROJECT

- 2.1 MANUFACTURERS
 A. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS TO MATCH EXISTING EQUIPMENT MANUFACTURERS. SHOULD MULTIPLE MANUFACTURERS BE PRESENT MATCH TO MAJORITY CONTRACTOR TO USE LIKE EQUIPMENT ON ALL IRRIGATION HEADS.

 1. BRONZE VALVES FOR ABOVEGROUND AND CONTROL-VALVE BOX INSTALLATION.

 2. EVICAN VES FOR ABOVEGROUND AND CONTROL-VALVE BOX
- PVC VALVES FOR ABOVEGROUND AND CO INSTALLATION: PLASTIC, AUTOMATIC CONTROL VALVES: CONTROL-VALVE BOXES: QUICK COUPLERS: SPRINKI, ERS.
- SPRINKLERS:
 WATER REGULATORS:
 MISCELLANEOUS SPECIALTIES:
 CONTROLLERS:

- ARTICLES FOR APPLICATION OF PIPE AND TUBE MATERIALS. JOINING METHODS, AND VALVE APPLICATIONS PIPES AND TUBES
- PVC PIPE: ASTM D 1785 PVC 1120 COMPOUND SCHEDULES 40 AND 80

A REFER TO PART 3 "PIPING APPLICATIONS" AND "VALVE APPLICATIONS"

- PIPE: ASTM D 1785, PVC 1120 COMPOUND, SCHI PIPE AND TUBE FITTINGS PVC SOCKET FITTINGS, SCHEDULE 40: ASTM D 2467. PVC SOCKET FITTINGS, SCHEDULE 80: ASTM D 2467.
- PVC THREADED FITTINGS: ASTM D 2464. ONLY SOLVENT CEMENT RECOMMENDED BY PIPE MANUEACTURER MAY BE
- ALVES AND VALVE SPECIALTIES VALVES AND VALVE SPECIALTIES

 ARRIVES AND VALVES: MSS 9710, CLASS 150, 600-PSIG (4140-KPA) COLD F. WORKING PRESSURE. INCLUDE BRONZE, TWO-PIECE CONSTRUCTION BODY WITH REGULAR PORT: CHROME-PLATED BRASS BALL; BLOWOLT-PROOF STEM: PITE SEATS AND SEALS; THREADED-END CONNECTIONS; AND LEVER HANDLE.
- MATIC DRAIN VALVES: SPRING, LOADED BALL VALVE OF
- OUICK-COUPLERS: FACTORY-FABRICATED, BRONZE OR BRASS QUICK-COUPLERS: FACTORY-FABRICATED, BRONZE OR BRASS, TWO-PIECE ASSEMBLY. INCLUDE COUPLER WATER-SEAL VALVE; REMOVABLE UPPER BODY WITH SPRING-LOADED OR WEIGHTED, RUBBER-COVERED CAP; HOSE SWIVEL WITH ASME B1.20.7, 3/4-11.5NH HREADS FOR GARDEN HOSE ON OUTLET: AND OPERATING KEY
- MATER REGULATORS: ASSE 1003, SINGLE-SEATED, DIRECT-OPERATED. WATER REGULATORS: ASSE 1003, SINGLE-SFATED, DIRECT-OPERATED, WATER-RRESSURE REGULATORS, RATED FOR 150-PSIG- (1035-KPA.) MINIMUM, INITIAL-INLET WORKING PRESSURE, WITH SIZE, FLOW RATE, AND INLET AND OUTLET PRESSURES INDICATED. INCLUDE INTEGRAL FACTORY-INSTALLED OR SEPARATE FIELD-INSTALLED Y-PATTERN STRAINER THAT IS COMPATIBLE WITH UNIT FOR SIZE AND CAPACITY.

 1. 2-INCH NPS (DN50) AND SMALLER: BRONZE BODY WITH THREADED BAIDS.

- PSIG (138 KPA). STRAINER/EILTER LINITS: BRASS OR PLASTIC HOUSING, WITH

- TIMING DEVICE: ADJUSTABLE, 24-HOUR, 14-DAY CLOCK WITH AUTOMATIC OPERATIONS TO SKIP OPERATION ANY DAY IN TIMER PERIOD; TO OPERATE EVERY OTHER DAY; OR TO OPERATE TWO OR MORE TIMES NUMBER OF SEMINATIONATIC OPERATION: ALLOW THIS MODE
- DAILY:

 1. MANUAL OR SEMIAUTOMATIC OPERATION. ALLOW THIS MODE
 WITHOUT DISTURBING PRESET AUTOMATIC OPERATION.

 2. NICKEL-CADMIUM BATTERY AND TRICKLE CHARGER: AUTOMATICALLY
 POWER TIMING DEVICE DURING POWER OUTAGES.

 5. WIRING: UL 493, TYPE UF, SOLID-COPPER-CONDUCTOR, INSULATED
 CABLE, SUITABLE FOR DIRECT BURIAL.

 1. FEEDER-CIRCUIT CABLES: NO. 12 AWG MINIMUM, BETWEEN BUILDING
 AND CONTROLLERS.

 2. LOW-VOLTAGE, BRANCH-CIRCUIT CABLES: NO. 14 AWG MINIMUM,
 BETWEEN CONTROLLERS AND AUTOMATIC CONTROL VALVES AND
 COLOR-CODED DIFFERENT THAN FEEDER-CIRCUIT—CABLE JACKET
 COLOR AND WITH JACKETS OF DIFFERENT COLORS FOR
 MULTIPLE-CABLE INSTALLATION IN SAME TRENCH.

 3. SPILICING MATERIALS: PRESSURE-SENSITIVE, THERMOPLASTIC TAPE;
 WATERFROOF SEALING PACKETS; OR OTHER WATERPROOF
 CONNECTORS.

 10. IDENTIFICATION.

- 1.11 MISCELLANEOUS A. ANY ADDITIONAL MATERIALS NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE AND PROPER IRRIGATION SYSTEM INSTALLATION, SHALL BE NEW, FIRST QUALITY OF THEIR RESPECTIVE KINDS, AND SUBJECT TO THE APPROVAL OF THE OWNER.

PART 3 - EXECUTION

- SURFACE CUNDITIONS INSPECTION.

 1. PRIOR TO ALL WORK OF THIS SECTION, CAREFULLY INSPECT THE INSTALLED WORK OF ALL OTHER TRADES AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE.

 2. VERIFY THAT IRRIGATION SYSTEM MAY BE INSTALLED IN STRICT ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS, THE ORIGINAL DESIGN, THE REFLERNCED STANDARDS, AND THE MANUFACTURER'S RECOMMENDATIONS.

 DISCREPANCIES:
- DISCREPANCIES:

 I, IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT.

 DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.
- UNITLAL SUCH DISCREPARICIES HAVE BEEN FULLY RESOLVED.

 3.2 PREPARATION

 A. SET STAKES TO IDENTIFY PROPOSED LAWN SPRINKLER LOCATIONS.

 3. PIPING APPLICATIONS

 A. INSTALL COMPONENTS HAVING PRESSURE RATING EQUAL TO OR GREATER THAN SYSTEM OPERATING PRESSURE.

- B. PIPING IN CONTROL WALVE BOXES AND ABOVEGROUND MAY BE JOINED PIPING IN CON I ROL-VALVE BOXES AND ABOVEGROUND MAY BE WITH FLANGES INSTEAD OF JOINTS INDICATED.

 UNDERGROUND, MAIN LINE PIPING: USE THE FOLLOWING:

 1. 4-INCH NPS (DN100) AND SMALLER: SCHEDULE 40 PVC PIPE,
 - SCHEDULE 40 PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED
 - 4-INCH NPS (DN100) AND SMALLER: SCHEDULE 80 PVC PIPE SCHEDULE 80 PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED TERM PIRING: LISE THE FOLLOWING
- Z-INCH NPS (DN50) AND SMALLER: SCHEDULE 40 PVC PIPE, SCHEDULE 40 PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED
- UNDERGROUND BRANCHES AND OFFSETS AT SPRINKLERS AND DEVICES:
- JOINTS.

 1. OPTION: PLASTIC PIPING MADE FOR THIS APPLICATION MAY BE USED INSTEAD OF PIPE AND FITTINGS SPECIFIED.

 RISERS TO ABOVEGROUND SPRINKLERS AND SPECIALTIES: TYPE L

 (1YPE B) HARD COPPER TUBE, WROUGHT-COPPER FITTINGS, AND SOLDERED JOINTS.

 DRAIN PIPING: SCHEDULE 40 PVC PIPE, SCHEDULE 40 PVC SOCKET
- SOLDERED JOIN'S.

 PRAIN PPINOS: SCHEDULE 40 PVC PIPE, SCHEDULE 40 PVC SOCKET
 FITTINGS, AND SOLVENT-CEMENTED JOINTS.
 DRAIN PPINOS: SDR 21, 26, 06, 32,5 PVC PRESSURE-RATED PIPE:
 SCHEDULE 40 PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED JOINTS.
 SLEEVES: SCHEDULE 40 PVC PIPE, SCHEDULE 40 PVC SOCKET FITTINGS,
 AND SOLVENT-CEMENTED JOINTS.
- SLEEVES: SCHEDULE 80 PVC PIPE, SCHEDULE 80 PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED JOINTS. VALVE APPLICATIONS
- ALVE APPLICATIONS
 SOVEGROUND, SHUTOFF-DUTY VALVES: USE THE FOLLOWING:
 2-INCH NPS (DN50) AND SMALLER: PLASTIC VALVE.
 2-1/2-INCH NPS (DN65) AND LARGER: CAST-IRON, NONRISING-STEM
 GATE VALVE
- GATE VALVE

 IDERGROUND, SHUTOFF-DUTY VALVES: USE THE FOLLOWING:
 2-INGH NPS (DNG) AND SMALLER: CURB STOP, WITH TEE HEAD,
 CURB-STOP SERVICE BOX, AND SHUTOFF ROD.

 IDERGROUND, MANUAL CONTROL VALVES: BRONZE GLORE VALVE WITH CONTROL-VALVE SERVICE BOX AND VALVE KEY
- CONTROL-VALVE SERVICE BOX AND VALVE KEY.

 ONTROL VALVES: USE THE FOLLOWING:

 -2-INCH NPS (DN60) AND SMALLER: PLASTIC VALVE.

 -2-1/2- AND 3-INCH NPS (DN65 AND DN80): BRONZE DIAPHRAGM VALVE.

 -2-1/2- AND 3-INCH NPS (DN65 AND DN80): PLASTIC DIAPHRAGM VALVE.

 RAIN VALVES: USE THE FOLLOWING:

 -1/2- AND 3/4-INCH NPS (DN15 AND DN20): AUTOMATIC DRAIN VALVE.

 -1/2- AND 3/4-INCH NPS (DN15 AND DN20): BRONZE, NONRISING-STEM

 CATE VALVE.
- GATE VALVE. I- TO 2-INCH NPS (DN25 TO DN50): BRONZE, NONRISING-STEM GATE
- TRENCHING
 INSTALL DETECTABLE WARNING TAPE DIRECTLY ABOVE PRESSURE
 PIPING, 12 INCHES (300 MM) BELOW FINISHED GRADES, EXCEPT 6 INCHES
 (150 MM) BELOW SUBGRADE UNDER PAVEMENT AND SLABS.
 INISTALL PIPING AND WIRING IN SLEEVES UNDER SIDEWALKS, ROADWAYS,
 PARKING LOTS, AND RAILROADS. CONTRACTOR SHALL COORDINATE
 SLEEVE LOCATIONS WITH GENERAL CONTRACTORS.

 1. INSTALL PIPING SLEEVES BY BORING OR JACKING UNDER EXISTING
 PAVING IF POSSIBLE.

- AVING IF POSSIBLE.

 2. ALL SLEVES SHALL BE 2 SIZES LARGER THAN SINGLE PIPE OR COMBINATION OF PIPE AND WIRING RUNNING THROUGH SLEEVES.

 3. SLEEVES TO BE 4 INCH MINIMUM.

 4. 4 INCH SLEEVES SHALL BE PVC SCHEDULE 40 PIPE.

 5. SLEEVES GREATER THAN 4 INCHES SHALL BE PVC CLASS PIPE. PROVIDE MINIMUM COVER 10P OF UNDERGROUND PIPING ACCORDING TO THE FOLLOWING.

 1. PRESSURE PIPING: GREATER DEPTH OF MINIMUM OF 36 INCHES (914 MM) BELOW FINISHED GRADE, OR NOT LESS THAN 18 INCHES (500 MM) BELOW VERAGE LOCAL FROST DEPTH.

 2. CIRCUIT PIPING: 12 INCHES (300 MM).

 3. DRAIN PIPING: 12 INCHES (300 MM).

 4. SLEEVES: 24 INCHES (600 MM).

- SLEEVES: 24 INCHES (600 MM).

 SERIORAL:
 PERFORM ALL TRENCHING REQUIRED FOR THE INSTALLATION OF ITEMS WHERE TRENCHING IS NOT SPECIFICALLY DESCRIBED IN OTHER SECTIONS OF THESE SPECIFICATIONS.

 MAKE ALL TRENCHES IN A CCORDANCE WITH OSHA REQUIREMENTS WITH SUFFICIENT WIDTH TO PROVIDE FREE WORKING SPACE AT BOTH SIDES OF THE TRENCH AND AROUND THE INSTALLED ITEM AS REQUIRED FOR GLUING, JOINING, BACKFILLING, AND COMPACTING WHILE MINIMIZING WIDTH OF TRENCHES.

 SORRECTION OF FAULTY GRADES:
 WHERE TRENCH EXCAVATION IS INADVERTENTLY CARRIED BELOW PROPER ELEVATIONS, BACKFILL WITH MATERIAL APPROVED BY THE CONTRACTING OFFICIER AND THEN COMPACT TO PROVIDE A FIRM AND UNYIELDING SUBGRADE TO THE APPROVAL OF THE CONTRACTING OFFICIER AND THEN COMPACT TO PROVIDE A FIRM AND OFFICIER AT NO ADDITIONAL COST TO THE OWNER.
- PROPERLY SUPPORT ALL TRENCHES IN STRICT ACCORDANCE WITH PROPERLY SUPPORT ALL TRENCHES IN STRICT ACCORDANCE WITH ALL PERTINENT PULLES AND REGULATIONS.

 BRACE, SHEET, AND SUPPORT TRENCH WALLS IN SUCH A MANNER THAT THEY WILL BE SAFE AND THAT THE GROUND ALONGSIDE THE EXCAVATION WILL NOT SLIDE OR SETTLE, AND THAT ALL EXISTING IMPROVEMENTS OF EVERY KIND WILL BE FULLY PROTECTED FROM
- IN THE EVENT OF DAMAGE TO SUCH IMPROVEMENTS, IMMEDIATELY
- IN THE EVENT OF DAMAGE TO SUCH IMPROVEMENTS, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE ACCEPTANCE OF THE LANDSCAPE ARCHITECT AT NO ADDITIONAL COST TO THE OWNER.

 ARRANGE ALL BRACING, SHEETING AND SHORING SO AS TO NOT PLACE STRESS ON ANY PORTION OF THE COMPLETED WORK UNTIL THE GENERAL CONSTRUCTION THEREOF HAS PROCEEDED FAR ENOUGH TO PROVIDE SUFFICIENT STRENGTH.
- ENOUGH TO PROVIDE SUFFICIENT STRENGTH.

 8 ERMOVAL OF TRENCH BRACING:

 1. EXERCISE CARE IN THE DRAWING AND REMOVAL OF SHEETING,
 SHORING, BRACING, AND TIMBERING TO PREVENT COLLAPSE OR
 CAVING OF THE EXCAVATION FACES BEING SUPPORTED.

 1. GRADING AND STOCKPILING OF TRENCHED MATERIAL IN A MANNER TO
 PREVENT WATER RUNNING INTO THE EXCAVATIONS.

 2. DO NOT OBSTRUCT SURFACE DRAINAGE BUT PROVIDE MEANS
 WHEREBY STORM AND WASTE WATERS ARE DIVERTED INTO EXISTING
 GUTTERS, OTHER SURFACE DRAINS, OR TEMPORARY DRAINS.
- GUTTERS. OTHER SURFACE DRAINS, OR TEMPORARY DRAINS.
 IETHODS:
 ALL TRENCH EXCAVATION SHALL BE MADE BY OPEN CUT. DURING
 EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE PILED
 IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS
 OF TIE TRENCH ITO AVOID OVERLOADING, AND TO PREVENT SLIDES
 OR CAVEINS. ALL MATERIAL NOT REQUIRED FOR BACKFILL OR NOT
 SUITABLE FOR BACKFILL IS HALL BE REMOVED FROM THE SITE BY THE
 CONTRACTOR. BANKS OF TRENCHES SHALL BE KEPT AS NEARLY
 VERTICAL AS POSSIBLE, AND SHALL BE PROPERLY SHEETED AND
 BRACED AS MAY BE NECESSARY TO PREVENT CAVING.
 TRENCH WIDTHS IN PAVED STREETS OR IN AREAS WHERE PROXIMITY
 TO OTHER STRUCTURES REQUIRE VERTICAL CUTS, SHALL NOT BE
 WIDER THAN IS REQUIRED FOR PROPER HANDLING, JOINTING AND
 BEDDING OF THE PIPE.
- BEDDING OF THE PIPE.
 THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO

- EACH SECTION OF THE PIPE ON UNDISTURBED SOIL, AT EVERY POINT ALONG ITS ENTIRE LENGTH. DEPRESSIONS FOR JOINTS SHALL BE DUG AFTER THE TRENCH BOTTOM HAS BEEN GRADED, AND SHALL BE ONLY OF SUCH LENGTH, DEPTH AND WIDTH AS REQUIRED FOR PROPERLY KING THE PARTICULAR TYPE JOINT. CARE SHALL BE TAKEN NOT TO
- MAKING THE PART ICULAR TYPE JOINT. CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED.
 WHERE ROCK OCCURS IN TRENCH EXCAVATION, THE ROCK SHALL BE REMOVED TO A DEPTH OF 6 INCHES BELOW THE ESTABLISHED GRADE LINE, AND TO A WIDTH OF 12 INCHES GREATER THAN THE OUTSIDE DIAMETER OF THE PIPE TO BE INSTALLED IN THE TRENCH.

- SPECTION:
 THE TRENCHING SHALL NOT BE BACKFILLED UNTIL INSPECTION HAS
 BEEN COMPLETED AND THE PIPE INSTALLATION, INCLUDING THE
 GRADE, ALIGNMENT AND JOINTING HAS BEEN FOUND TO BE IN
 COMPLIANCE WITH THE REQUIREMENTS OF THE DRAWINGS AND
- COMB AND OVER FIFE.

 SELECT BACKFILL MATERIAL CONSISTING OF SAND, FINE GRAVEL OR

 SELECT EARTH, FREE OF LARGE LUMPS OR ROCKS LARGER THAN 1/2

 INCH SHALL BE USED IN BACKFILLING AROUND AND OVER THE
- INSTALLED PIPE.
 THE SELECTED MATERIAL SHALL BE OBTAINED FROM THE EXCAVATION
 MATERIAL REMOVED FROM THE TRENCH AND SHALL BE PROCESSED
 BY SCREENING, SIFTING, OR SELECTIVE SORTING, SO AS TO PRODUCE THE TYPE OF BACKFILL HEREIN SPECIFIED. THE CONTRACTOR WIL PROVIDE AN ACCEPTABLE IMPORTED MATERIAL AS REQUIRED TO
- MEET REQUIREMENTS. WORKABLE
 THIS BACKELL MATERIAL SHALL BE CAREFULLY DEPOSITED AROUND: 3.11 INSTRUCTIONS THIS BACKFILL MATERIAL SHALL BE CAREFULLY DEPOSITED AROUND AND OVER THE PIPE IN LAYERS NOT MORE THAN 6 INCH THICK, LOOSE MEASUREMENT, UNLESS OTHERWISE PERMITTED BY THE LANDSCAPE ARCHITECT, WETTED TO OPTIMUM MOISTURE CONTENT AND UNIFORMLY COMPACTED TO AT LEAST 85 PERCENT OF THE MAXIMUM DENSITY OBTAINABLE AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698 (LATEST REVISION), UNTIL THE PIPE HAS A COVER DEPTH OF AT LEAST ONE (1) FOOT.
- C. REMAINDER OF TRENCH BACKFILL:

 1. THE REMAINING DEPTH OF THE TRENCH SHALL BE BACKFILLED WITH
- EMAINDER OF TRENCH BACKFILL:

 THE REMAINING DEPTH OF THE TRENCH SHAIL BE BACKFILL FD WITH
 EXCAVATION MATERIAL REMOVED FROM THE TRENCH, WHICH SHALL
 BE WETTED OR ORIGE TO NEAR OPTIMUM MOISTURE CONTENT.

 INCLUSION OF A LIMITED AMOUNT OF STONES AND ROCKS WILL BE
 PERMITTED. STONES AND ROCKS SHALL IN NO CASE BE LARGER THAN
 FIFTY (50) POUNDS, AND THEY SHALL BE PLACED SO THAT EACH PIECE
 IS COMPLETELY SURROUNDED WITH MATERIAL COMPACTED TO THE
 DENSITY HEREINAFTER SPECIFIED. THE SIZE AND AMOUNT OF ROCKS
 USED IN BACKFILL SHALL BE SUCH THAT THEY WILL NOT INTERFERE
 WITH PROPER COMPACTION.

 THIS MATERIAL SHALL BE CAREFULLY DEPOSITED IN LAYERS OF A
 THICKNESS SUITABLE TO THE EQUIPMENT SELECTED BY THE
 CONTRACTOR FOR PROPER COMPACTION AND COMPACTED TO AT
 LEAST 85 PERCENT OF THE MAXIMUM DENSITY AS DETERMINED BY
 ASTM D608 (LATEST REVISIONS). THE METHOD OF COMPACTION
 SELECTED BY THE CONTRACTOR SHALL NOT CAUSE DAMAGE OF ANY
 NATURE TO THE INSTALLED PIPE.

 WATER PUDDLING OF THE UPPER PORTION OF THE TRENCH
 BACKFILLING MAY BE USED IF THE SPECIFIED DENSITY CAN BE
- WATER PUDDLING OF THE UPPER PORTION OF THE TRENCH
 BACKFILLING MAY BE USED IF THE SPECIFIED DENSITY CAN BE
 OBTAINED AND THE BACKFILL MATERIAL IS SUITABLE FOR THIS TYPE
 OF TRENCH COMPACTION.
 INSTALL WARNING TAPE DIRECTLY ABOVE MAIN LINE PIPING, 12 INCHES
 BELOW FINISH GRADES EXCEPT BELOW SUBGRADE UNDER
 PAVEMENTS AND SLADS.
- 7 PIPING INSTALLATION
 A LINE CLEARANCE:
 1. ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF 4 INCHES FROM
 EACH OTHER, AND 6 INCHES FROM LINES OF OTHER TRADES, EXCEPT
 THROUGH PIPE SLEEVES.
 2. PARALLEL LINES SHALL NOT BE INSTALLED DIRECTLY OVER ONE
 ANOTHER B INSPECTION OF PIPE AND FITTINGS
- SPECTION OF PIPE AND FITTINGS:

 CAREFULLY INSPECT ALL PIPE AND FITTINGS BEFORE INSTALLATION,
 REMOVING ALL DIRT, SCALE, AND BURRS AND REAM AS REQUIRED;
 INSTALL ALL PIPE WITH MARKINGS UP FOR VISUAL INSPECTION AND
 INSPECTION OF THE PIPE WITH MARKINGS UP FOR VISUAL INSPECTION AND
- VERIFICATION. BTIC PIPE: PLASTIC PIPE SHALL BE INSTALLED IN A MANNER SO AS TO PROVIDE PLASTIC PIPE SHALL BE INSTALLED IN A MANNER SO AS TO PROVIDE FOR EXPANSION AND CONTRACTION AS RECOMMENDED BY THE MANUFACTURER.
 ALL PLASTIC JOINTS SHALL BE SOLVENT-WELD JOINTS OR SLIP SEAL GASKETED JOINTS. ONLY THE SOLVENT CEMENT RECOMMENDED BY THE PIPE MANUFACTURER SHALL BE USED. ALL PLASTIC PIPE AND FITTINGS SHALL BE INSTALLED AS OUTLINED AND INSTRUCTED BY THE PIPE MANUFACTURER AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE PIPE MANUFACTURER FOR ANY FIELD ASSISTANCE THAT MAY BE NECESSARY. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE CORRECT INSTALLATION.
 ALL PLASTIC TO METAL JOINTS SHALL BE MADE WITH PLASTIC MALE ADAPTERS.
- ADAPTERS.

 4. THE SOLVENT-WELD JOINTS SHALL BE MADE DRY.

 5. THE SOLVENT-WELD JOINTS SHALL BE ALLOWED TO SET AT LEAST 24 HOURS BEFORE PRESSURE IS APPLIED TO THE SYSTEM ON PVC PIPE. VALVE INSTALLATION
 UNDERGROUND GATE VALVES: INSTALL IN VALVE BOX WITH TOP FLUSH WITH GRADE.
- ITH GRADE.

 INSTALL VALVES AND PVC PIPE WITH RESTRAINED, GASKETED JOINTS.

 IDDERGROUND CURB STOPS: INSTALL IN SERVICE BOX WITH TOP FLUSH
- UNDERGROUND CURB STOPS: INSTALL IN SERVICE BOX WITH TOP WITH GRADE.
 UNDERGROUND, MANUAL CONTROL VALVES: INSTALL IN MANUAL, CONTROL VALVE SERVICE BOX.
 CONTROL VALVES: INSTALL IN CONTROL VALVE SERVICE BOX.
 DRAIN VALVES: INSTALL IN CONTROL VALVE BOX.
 INSTALLATION OF EQUIPMENT ENERAL:
 ALL FITTINGS, VALVES, ETC. SHALL BE CAREFULLY PLACED IN THE
- TRENOHES PER DETAILS.
 ALL CONTROL WIRES SHALL BE CLEARLY LABELED, BY STATION USING WEATHERPROOF MATERIAL, BOTH AT THE CONTROLLER AND AT THE VALVE. THE INSIDE COVER OF MELA JUTOMATIC VALVE BOXES SHALL ALSO HAVE THE STATION NUMBER CLEARLY PAINTED IN WHITE.
- MOUNT CONTROLLER AS PER MANUFACTURER'S RECOMMENDED
- ALLATION.
 VIDE A 5/8 INCH X 8 FOOT COPPER CLAD GROUNDING ROD AND #10
 E COPPER WIRE WITH ACORN CLAMP AT CONTROLLER.
 RESISTANCE OF THE GROUND TO CONTROLLER SHALL NOT
- 3. THE RESITANCE OF THE GROUND TO CONTROLLER SHALL NOT EXCEED 5 OHMS.

 I INSTALL CONTROL WIRING IN SAME TRENCI I WITH PIPING. INSTALL WIRING WITH LOOPS AT CONTROL VALVES AND CONTROLLERS, AT INTERVALS NOT GREATER THAN 100 FEET (30 M), AND CHANGES IN DIRECTION TO ALLOW FOR EXPANSION. BUNDLE WIRING IN SAME TRENCH AT 10-POOT (3-M) INTERVALS.

 CLOSING-IN UNINSPECTED WORK:

 1. DO NOT ALLOW OR CAUSE ANY OF THE WORK IN THIS SECTION TO BE COVERED UP OR ENCLOSED UNTIL IT HAS BEEN INSPECTED, TESTED, AND ACCEPTED BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL TAKE ALL SAFETY PRECAUTIONS DEEMED REASONABLY PRUDENT, SUCH AS BARRICADES, WARNING SIGNS, SECURITY

- PATROLS ETC. TO PREVENT IN HIRY TO WORKMEN OR OTHERS DUE TO OPEN TRENCHES. CLOSE TRENCHES AS SOON AS POSSIBL
- BEFORE BACKELLING THE MAINLINE AND WITH ALL CONTROL VALVES IN PLACE, BUT BEFORE LATERAL PIPES ARE CONNECTED,
 COMPLETELY FLUSH AND TEST THE MAIN LINE AND REPAIR ALL LEAKS: LUSH OUT EACH SECTION OF LATERAL PIPE BEFORE SPRINKLE
- - SING:
 MAKE ALL NECESSARY PROVISIONS FOR THOROUGHLY BLEEDING THE
 LINE FOR AIR AND DEBRIS.
 BEFORE TESTING, FILL THE LINE WITH WATER FOR A PERIOD OF AT
 LEAST 24 HOURS.
 - AFTER VALVES HAVE BEEN INSTALLED. TEST ALL LIVE WATER LINES AFTER VALVES HAVE BEEN INSTALLED, 1E31 ALL LIVE WATER LINES FOR LEAKS AT A PRESSURE OF 125 PSI FOR A PERIOD OF FOUR (1) HOURS, WITH ALL COUPLINGS EXPOSED AND WITH ALL PIPE SECTIONS CENTER-LOADED. MAKE TEST WITH OWNER'S REPRESENTATIVE PRESENT.
- FURNISH ALL NECESSARY TESTING FOLIPMENT AND PERSONNEL
- VAL INSPECTION:
 THOROUGHLY CLEAN, ADJUST, AND BALANCE ALL SYSTEMS.
 DEMONSTRATE THE ENTIRE SYSTEM TO THE LANDSCAPE ARCHITECT.
 PROVING THAT ALL REMOTE CONTROL VALVES ARE PROPERLY
 BALANCED, THAT ALL HEADS ARE PROPERLY ADJUSTED FOR RADIUS
 AND ARC OF COVERAGE, AND THAT THE INSTALLED SYSTEM IS
- WORKABLE, CLEAN, AND EFFICIENT
 - ORD ACCURATELY ON A REPRODUCIBLE PRINT THE SITE PLAN AND ALL INSTALLED WORK INCLUDING BOTH PRESSURE AND
 - NON-PRESSURE LINES.
 UPON COMPLETION OF EACH INCREMENT OF WORK, TRANSFER ALL BUCH INFORMATION AND DIMENSIONS TO THE PRINTS. THE MANNER. MAKE ALL NOTES ON AS-BUILT IN PENCIL. (NO BALL-POIN
 - 3. DIMENSION FROM TWO PERMANENT POINTS OF REFERENCE DIMENSION FROM TWO PERMANENT POINTS OF REFERENCE (BUILDINGS, MONUMENTS, SIDEWALKS, CURBS, PAYEMENT, ETC.). LOCATIONS SHOWN ON AS-BUILT DRAWINGS SHALL BE KEPT DAY TO DAY AS THE PROJECT IS BEING INSTALLED. ALL DIMENSIONS NOTED ON DRAWINGS SHALL BE 1/8 INCH IN SIZE (MINIMUM). SHOW LOCATIONS AND DEPTHS OF THE FOLLOWING ITEMS:

 a. POINT OF CONNECTION
- POINT OF CONNECTION OF CONTROL OF CONTROL OF SPRINKLER MAIN LINES (DIMENSION MAXIMUM 100 FEET ALONG ROUTING) SPRINKLER CONTROL VALVES QUICK COUPLING VALVES ROUTING OF CONTROL WIRES
- GATE VALVES
- 9. OTHER RELATED EQUIPMENT
 NO BACKFILL WILL BE PERMITTED UNTIL APPROVAL OF THE RECORD DRAWINGS BY THE CONTRACTING OFFICER. CONTACT THE OWNER'S REPRESENTATIVE FOR INCREMENTAL APPROVALS.
 6. MAINTAIN AS-BUILT DRAWINGS ON SITE AT ALL TIMES.
 COPIES OF AS-BUILT DRAWINGS SHALL ACCOMPANY ALL PERIODIC PAYMENT REQUESTS. PAY REQUESTS SUBMITTED WITHOUT AS-BUILT DRAWINGS WHILE IRRICATION SYSTEM IS UNDER CONSTRUCTION WILL NOT BE PROCESSED.
 CONTROLLER CHARTS.
 1. AS-BUILT DRAWINGS MUST BE APPROVED BY THE CONTRACTING
- AS-BUILT DRAWINGS MUST BE APPROVED BY THE CONTRACTING OFFICER BEFORE CHARTS ARE PREPARED. PROVIDE CONTROLLER CHART SHOWING THE AREA COVERED BY AUTOMATIC CONTROLLER CHART SHALL BE OF THE MAXIMUM SIZE THE CONTROLLER CHOOR WILL ALLOW. IT HE CHART IS TO BE A REDUCED DRAWING OF THE ACTUAL AS-BUILT SYSTEM. THE CHART SHALL BE A PHOTO POSITIVE WITH DIFFERENT COLORED SHADING USED TO SHOW AREA OF COVERAGE FOR EACH STATION. WHEN COMPLETED AND APPROVED, THE CHART SHALL BE LAMINATED. THE CHART SHALL BE MOUNTED IN THE CONTROLLER USING VELCRO OR EQUAL TYPE OF SEMI-PERMANENT FASTENING DEVICE.
- USING VELCRO OR EQUAL TYPE OF SEMI-PERMANENT FASTENING DEVICE.

 4. THESE CHARTS MUST BE COMPLETED AND APPROVED PRIOR TO FINAL ACCEPTANCE OF THE IRRIGATION SYSTEM BY THE OWNER.

 C. OPERATION AND MAINTENANCE:

 1. PREPARE AND DELIVER TO THE CONTRACTING OFFICER WITHIN TEN CALENDAR DAYS PRIOR TO COMPLETION OF CONSTRUCTION, ALL REQUIRED AND NECESSARY DESCRIPTIVE MATERIAL IN COMPLETE DETAIL AND SUFFICIENT QUANTITY, PROPARED IN FOUR (4) INDIVIDUALLY BOUND COPIES OF THE OPERATIONS AND MAINTENANCE MANUAL. THE MANUAL SHALL DESCRIBE THE MATERIAL INSTALLED AND SHALL BE IN SUFFICIENT DETAIL TO PERMIT OPERATING PERSONNEL TO UNDERSTAND, OPERATE AND MAINTAIN ALL EQUIPMENT. SPARE PARTS LISTS AND RELATED MANUFACTURER INFORMATION SHALL BE INCLUDED FOR EACH EQUIPMENT ITEM INSTALLED. EACH COMPLETE. BOUND MANUAL SHALL INCLUDE THE FOLLOWING INFORMATION:

 a. INDEX SHEET STATING CONTRACTOR'S ADDRESS AND TELEPHONE NUMBER, DURATION OF GUARANTEE PERIOD, LIST OF EQUIPMENT WITH NAMES AND ADDRESSES OF LOCAL MANUFACTURER REPRESENTATIVES.
 b. COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL EQUIPMENT.

- COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL COUPMENT.

 2. IN ADDITION TO THE ABOVE MAINTENANCE MANUALS, DEMONSTRATE TO OWNER'S MAINTENANCE PERSONNEL OPERATION OF EQUIPMENT, SPRINKLERS, SPECIALTIES, AND ACCESSORIES. REVIEW MAINTENANCE INFORMATION. PROVIDE WRITTEN EVIDENCE TO THE OWNER AT THE CONCLUSION OF THE PROJECT THAT THIS SERVICE HAS BEEN RENDERED.

 3. PROVIDE SEVEN DAYS' ADVANCE WRITTEN NOTICE OF DEMONSTRATION.

 3.12 SPARE PARTS AND TOOLS

 A. DELIVERABLES:

 1. ALL DELIVERABLE SPARE PARTS, TOOLS AND EQUIPMENT SHALL BE TURNED OVER TO THE OWNER'S REPRESENTATIVE AT THE CONCLUSION OF THE PROJECT. BEFORE FINAL INSPECTION CAN OCCUR. EVIDENCE THAT THE OWNER'S REPRESENTATIVE HAS RECEIVED ALL SPECIFIED MATERIALS MUST BE SHOWN TO THE OWNER. OWNER. RANTEE PERIOD
- 3 GUARANTEE PERIOD

 GUARANTEE: IRRIGATION SYSTEM SHALL BE GUARANTEED TO GIVE

 SATISFACTORY SERVICE FOR A PERIOD OF ONE YEAR FROM THE DATE
 OF ACCEPTANCE BY THE OWNER.

 SHOULD ANY TROUBLE DEVELOP WITHIN THE TIME SPECIFIED ABOVE
 DUE TO INFERIOR OR FAULTY MATERIALS OR WORKMANSI IIP, THE
 TROUBLE SHALL BE CORRECTED AT NO EXPENSE TO THE OWNER.

 ANY AND ALL DAMAGES RESILITING FROM FAULTY MATERIALS OR
 WORKMANSHIP SHALL BE REPAIRED BY THE CONTRACTOR TO THE
 SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.

 4. REPAIR AND CORRECT ANY SETTLING OF TRENCHES.
- SERVICES:
 1. GUARANTEE PERIOD SERVICES INCLUDE. JARANTEE PERIOD SERVICES INCLUDE:
 FALL WINTERIZATION AND BLOWOUT.
 SPRING RECHARGE, START-UP AND ADJUSTMENT.
 FINAL ADJUSTMENT AT THE END OF THE GUARANTEE PERIOD.

CHESAPEAKE **IRRIGATION** PARK Z Z Ш 正 Ш α O

NOTES

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Drawn on: 28-Mar-22

Checked on: 28-Mar-22

Drawn by: NMc

Sheet:

CONTROL TO THE STANDLE.
PLASTIC DIAPHRAGM VALVES: MOLDED-PLASTIC BODY, NORMALLY
CLOSED, WITH MANUAL FLOW ADJUSTMENT, AND OPERATED BY 24-V, AC

CORROSION-RESISTANT CONSTRUCTION AND DESIGNED TO OPEN FOR DRAINAGE IF LINE PRESSURE DROPS BELOW 2-1/2 TO 3 PSIG (17 TO

CONTROL-VALVE BOXES: PE. ABS, FIBERGLASS, POLYMER CONCRETE, OR PRECAST CONCRETE BOX AND COVER, WITH OPEN BOTTOM, OPENINGS

FREADS I CURCKE IE BOX AND COVER, WITH OPEN BOTTOM, OPENINGS FOR PIPING, AND DESIGNED FOR INSTALLING FLUSH WITH GRADE. INCLUDE SIZE AS REQUIRED FOR YALVES AND SERVICE. I. DRAINAGE BACKFILL: CLEANED GRAVEL OR CRUSHED STONE, GRADED B. FROM 3 INCHES (75 MM) MAXIMUM TO 3/4 INCH (19 MM) MINIMUM.

2. 2-1/2/INCH INPS (DN65) AND LARGER: BRONZE OR CAST-IRON BODY WITH FLANGED ENDS.
3. INTERIOR COMPONENTS: CORROSION-RESISTANT MATERIALS.

B. WATER HAMMER ARRESTERS: ASME A112.26.1M, ASSE 1010, OR PDI WH-120 I WATER HAMMER ARRESTER: INCLUDE BELLOWS OR SPISTON-TYPE PRESSURIZED CUSHIONING CHAMBER AND SIZES COMPLIVING WITH ASME A112.26.1M AND PDI WH-201 SIZES A TO F.

C. PRESSURE GAUGES: ASME B40.1 PRESSURE GAUGE. INCLUDE 4-1/2-INCH-(115-MM-) DIAMETER DIAL, DIAL, RANGE OF TWO TIMES SYSTEM OPERATING PRESSURE, AND BOTTOM OUTLET.

D. APPLICATION PRESSURE REGULATORS: BRASS OR PLASTIC HOUSING, 3/4-INCH N°S (DN20), WITH CORROSION-RESISTANT INTERNAL PARTS, AND CAPABLE OF CONTROLLING OUTLET PRESSURE TO APPROXIMATELY 20 PSIS (138 KPA). 2. 2-1/2-INCH NPS (DN65) AND LARGER: BRONZE OR CAST-IRON BODY

PSIG (198 R-M).

STRAINERFILTER UNITS: BRASS OR PLASTIC HOUSING, WITH CORROSION-RESISTANT INTERNAL PARTS, OF SIZE AND CAPACITY REQUIRED FOR DEVICES DOWNSTREAM FROM UNIT.

DETECTABLE WARNING TAPE: DENSE METALLIC COATED, 3 INCH TAPE PRINI LED WITH "CAUTION - WAILEN - BURLEU" AT INEGULAR INTERVALS. AUTOMATIC CONTROL SYSTEM.

INTERIOR CONTROL SHOCKSURES: NEMA 250, TYPE 12 DRIP-PROOF CONSTRUCTION WITH LOCKING COVER AND TWO MATCHING KEYS.

1. MATERIAL MOLDED PLASTIC.

2. MOUNTING: SURFACE TYPE FOR WALL MOUNTING.

TRANSFORMER: INTERNAL; AND SUITABLE FOR CONVERTING 120-V, AC BUILDING POWER TO 24-V, AC POWER.

CONTROLLER STATIONS FOR AUTOMATIC CONTROL VALVES: EACH STATION IS VARIABLE FROM APPROXIMATELY FIVE TO 60 MINUTES. INCLUDE SWITCH FOR MANUAL OR AUTOMATIC OPERATION OF EACH STATION.

DENTIFICATION
SOLID BLUE FILM WITH CONTINUOUSLY PRINTED BLACK-LETTER
CAPTION, "CAUTION--WATER LINE BURIED BELOW!"
SOLID BLUE FILM WITH METALLIC CORE AND CONTINUOUSLY PRINTED
BLACK-LETTER CAPTION, "CAUTION-WATER LINE BURIED BELOW."

3.1 SURFACE CONDITIONS

POLYETHYLENE TUBING ARE ACCEPTABLE FOR THIS

MONTANA PREVAILING WAGE RATES FOR HEAVY CONSTRUCTION SERVICES 2022

Effective: January 1, 2022

Greg Gianforte, Governor State of Montana

Laurie Esau, Commissioner Department of Labor & Industry

To obtain copies of prevailing wage rate schedules, or for information relating to public works projects and payment of prevailing wage rates, visit ERD at erad.dii.mt.gov/labor-standards or contact:

Employment Relations Division Montana Department of Labor and Industry P. O. Box 8011 Helena, MT 59620-1503 Phone 406-444-6543

The department welcomes questions, comments, and suggestions from the public. In addition, we'll do our best to provide information in an accessible format, upon request, in compliance with the Americans with Disabilities Act.

MONTANA PREVAILING WAGE REQUIREMENTS

The Commissioner of the Department of Labor and Industry, in accordance with Sections 18-2-401 and 18-2-402 of the Montana Code Annotated (MCA), has determined the standard prevailing rate of wages for the occupations listed in this publication.

The wages specified herein control the prevailing rate of wages for the purposes of Section 18-2-401, et seq., MCA. It is required each employer pay (as a minimum) the rate of wages, including fringe benefits, travel allowance, zone pay and per diem applicable to the district in which the work is being performed as provided in the attached wage determinations.

All Montana Prevailing Wage Rates are available on the internet at erd.dli.mt.gov/labor-standards or by contacting the department at (406) 444-6543.

In addition, this publication provides general information concerning compliance with Montana's Prevailing Wage Law and the payment of prevailing wages. For detailed compliance information relating to public works contracts and payment of prevailing wage rates, please consult the regulations on the internet at erd.dli.mt.gov/labor-standards or contact the department at (406) 444-6543.

LAURIE ESAU Commissioner Department of Labor and Industry State of Montana

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A. Date of Publication January 1 2022

B. Definition of Heavy Construction

The Administrative Rules of Montana (ARM), 24.17.501(4) – (4)(a), states "Heavy construction projects include, but are not limited to, those projects that are not properly classified as either 'building construction', or 'highway construction.'

Heavy construction projects include, but are not limited to, antenna towers, bridges (major bridges designed for commercial navigation), breakwaters, caissons (other than building or highway), canals, channels, channel cut-offs, chemical complexes or facilities (other than buildings), cofferdams, coke ovens, dams, demolition (not incidental to construction), dikes, docks, drainage projects, dredging projects, electrification projects (outdoor), fish hatcheries, flood control projects, industrial incinerators (other than building), irrigation projects, jetties, kilns, land drainage (not incidental to other construction), land leveling (not incidental to other construction), land reclamation, levees, locks and waterways, oil refineries (other than buildings), pipe lines, ponds, pumping stations (prefabricated drop-in units – not buildings), railroad construction, reservoirs, revetments, sewage collection and disposal lines, sewers (sanitary, storm, etc.), shoreline maintenance, ski tows, storage tanks, swimming pools (outdoor), subways (other than buildings), tipples, tunnels, unsheltered piers and wharves, viaducts (other than highway), water mains, waterway construction, water supply lines (not incidental to building), water and sewage treatment plants (other than buildings) and wells."

C. Definition of Public Works Contract

Section 18-2-401(11)(a), MCA defines "public works contract" as "...a contract for construction services let by the state, county, municipality, school district, or political subdivision or for nonconstruction services let by the state, county, municipality, or political subdivision in which the total cost of the contract is in excess of \$25,000...".

D. Prevailing Wage Schedule

This publication covers only Heavy Construction occupations and rates in the specific localities mentioned herein. These rates will remain in effect until superseded by a more current publication. Current prevailing wage rate schedules for Building Construction, Highway Construction and Nonconstruction Services occupations can be found on the internet at https://erd.dli.mt.gov/labor-standards/ or by contacting the department at (406) 444-6543.

E. Rates to Use for Projects

ARM, 24.17.127(1)(c), states "The wage rates applicable to a particular public works project are those in effect at the time the bid specifications are advertised."

F. Wage Rate Adjustments for Multiyear Contracts

Section 18-2-417, MCA states:

- "(1) Any public works contract that by the terms of the original contract calls for more than 30 months to fully perform must include a provision to adjust, as provided in subsection (2), the standard prevailing rate of wages to be paid to the workers performing the contract.
- (2) The standard prevailing rate of wages paid to workers under a contract subject to this section must be adjusted 12 months after the date of the award of the public works contract. The amount of the adjustment must be a 3% increase. The adjustment must be made and applied every 12 months for the term of the contract.
- (3) Any increase in the standard rate of prevailing wages for workers under this section is the sole responsibility of the contractor and any subcontractors and not the contracting agency."

G. Fringe Benefits

Section 18-2-412, MCA states:

- "(1) To fulfill the obligation...a contractor or subcontractor may:
- (a) pay the amount of fringe benefits and the basic hourly rate of pay that is part of the standard prevailing rate of wages directly to the worker or employee in cash;
- (b) make an irrevocable contribution to a trustee or a third person pursuant to a fringe benefit fund, plan, or program that meets the requirements of the Employee Retirement Income Security Act of 1974 or that is a bona fide program approved by the U. S. department of labor; or
- (c) make payments using any combination of methods set forth in subsections (1)(a) and (1)(b) so that the aggregate of payments and contributions is not less than the standard prevailing rate of wages, including fringe benefits and travel allowances, applicable to the district for the particular type of work being performed.
- (2) The fringe benefit fund, plan, or program described in subsection (1)(b) must provide benefits to workers or employees for health care, pensions on retirement or death, life insurance, disability and sickness insurance, or bona fide programs that meet the requirements of the Employee Retirement Income Security Act of 1974 or that are approved by the U. S. department of labor."

Fringe benefits are paid for all hours worked (straight time and overtime hours). However, fringe benefits are not to be considered a part of the hourly rate of pay for calculating overtime, unless there is a collectively bargained agreement in effect that specifies otherwise.

H. Dispatch City

ARM, 24.17.103(11), defines dispatch city as "...the courthouse in the city from the following list which is closest to the center of the job: Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, Miles City, Missoula and Sidney."

I. Zone Pay

Zone pay is not travel pay. ARM, 24.17.103(24), defines zone pay as "...an amount added to the base pay; the combined sum then becomes the new base wage rate to be paid for all hours worked on the project. Zone pay must be determined by measuring the road miles one way over the shortest practical maintained route from the dispatch city to the center of the job." See section H above for a list of dispatch cities.

J. Computing Travel Benefits

ARM, 24.17.103(22), states "'Travel pay,' also referred to as 'travel allowance,' is and must be paid for travel both to and from the job site, except those with special provisions listed under the classification. The rate is determined by measuring the road miles one direction over the shortest practical maintained route from the dispatch city or the employee's home, whichever is closer, to the center of the job." See section H above for a list of dispatch cities.

K. Per Diem

ARM, 24.17.103(18), states "'Per diem' typically covers costs associated with board and lodging expenses. Per diem is paid when an employee is required to work at a location outside the daily commuting distance and is required to stay at that location overnight or longer."

L. Apprentices

Wage rates for apprentices registered in approved federal or state apprenticeship programs are contained in those programs. Additionally, Section 18-2-416(2), MCA states, "...The full amount of any applicable fringe benefits must be paid to the apprentice while the apprentice is working on the public works contract." Apprentices not registered in approved federal or state apprenticeship programs will be paid the appropriate journey level prevailing wage rate when working on a public works contract.

M. Posting Notice of Prevailing Wages

Section 18-2-406, MCA, provides that contractors, subcontractors, and employers who are "...performing work or providing construction services under public works contracts, as provided in this part, shall post in a prominent and accessible site on the project or staging area, not later than the first day of work and continuing for the entire duration of the project, a legible statement of all wages and fringe benefits to be paid to the employees."

N. Employment Preference

Sections 18-2-403 and 18-2-409, MCA require contractors to give preference to the employment of bona fide Montana residents in the performance of work on public works contracts.

O. Projects of a Mixed Nature

Section 18-2-418, MCA states:

- "(1) The contracting agency shall determine, based on the preponderance of labor hours to be worked, whether the public works construction services project is classified as a highway construction project, a heavy construction project, or a building construction project.
- (2) Once the project has been classified, employees in each trade classification who are working on that project must be paid at the rate for that project classification"

P. Occupations Definitions

You can find definitions for these occupations on the following Bureau of Labor Statistics website: https://erd.dli.mt.gov/labor-standards/state-prevailing-wage-rates/building-construction-occupations

Q. Welder Rates

Welders receive the rate prescribed for the craft performing an operation to which welding is incidental.

R. Foreman Rates

Rates are no longer set for foremen. However, if a foreman performs journey level work, the foreman must be paid at least the journey level rate.

S. Proper Classification for Pipefitter and Laborer/Pipelayer Work on Water and Waste Water Treatment Plants The proper classification for the following work is Pipefitter, when it is performed inside a building structure or performed at a location which will later be inside of a building: Joining steel pipe larger than 12 inches in diameter with bolted flange connections that has been pre-fabricated off site and does not require any modification such as cutting, grinding, welding, or other fabrication in order to be installed. All other work previously classified as pipefitter remains in that classification. The proper classification for that work when it is at a location that will always be outside a building is Pipelayer, which is under the Laborer Group 3 classification.

WAGE RATES

BOILERMAKERS

Wage Benefit \$34.12 \$31.68

Duties Include:

Construct, assemble, maintain, and repair stationary steam boilers, boiler house auxiliaries, process vessels, pressure vessels and penstocks. Bulk storage tanks and bolted steel tanks.

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Travel:

All Districts

0-120 mi. free zone >120 mi. federal mileage rate/mi.

Special Provision:

Travel is paid only at the beginning and end of the job.

Per Diem:

All Districts

0-70 mi. free zone >70-120 mi. \$65.00/day >120 mi. \$80.00/day

BRICK, BLOCK, AND STONE MASONS

Wage Benefit \$35.95 \$18.52

Travel:

0-20 mi. free zone >20-35 mi. \$30.00/day >35-55 mi. \$35.00/day >55 mi. \$78.00/day

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CARPENTERS

Wage Benefit \$32.75 \$13.82

Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$4.00/hr. >60 mi. base pay + \$6.00/hr.

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CEMENT MASONS AND CONCRETE FINISHERS

Wage Benefit \$22.85 \$12.85

Duties Include:

Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, or curbs. Align forms for sidewalks, curbs, or gutters. Rates for rebar workers can be found under the Ironworkers classification.

Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$2.95/hr. >60 mi. base pay + \$4.75/hr.

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CONSTRUCTION EQUIPMENT OPERATORS GROUP 1

Wage Benefit \$28.21 \$13.65

This group includes but is not limited to:

Air Compressor; Auto Fine Grader; Belt Finishing; Boring Machine (Small) 12 inch and under; Cement Silo; Crane, A-Frame Truck Crane; Crusher Conveyor; DW-10, 15, and 20 Tractor Roller; Farm Tractor; Forklift; Form Grader; Front-End Loader, under 1 cu. yd; Oiler, Heavy Duty Drills; Herman Nelson Heater; Mucking Machine; Oiler, All Except Cranes/Shovels; Pumpman.

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.50/hr. >60 mi. base pay + \$5.50/hr.

CONSTRUCTION EQUIPMENT OPERATORS GROUP 2

Wage Benefit \$30.04 \$13.65

This group includes but is not limited to:

Air Doctor; Backhoe\Excavator\Shovel, up to and incl. 3 cu. yds; Bit Grinder; Bitunimous Paving Travel Plant; Boring Machine, Large; Broom, Self-Propelled; Concrete Travel Batcher; Concrete Float & Spreader; Concrete Bucket Dispatcher; Concrete Finish Machine; Concrete Conveyor; Distributor; Dozer, Rubber-Tired, Push, & Side Boom; Elevating Grader\Gradall; Field Equipment Serviceman; Front-End Loader, 1 cu. yd up to and incl. 5 cu. yds; Grade Setter; Heavy Duty Drills, All Types; Hoist\Tugger, All; Hydralift Forklifts & Similar; Industrial Locomotive; Motor Patrol (except finish); Mountain Skidder; Oiler, Cranes\Shovels; Pavement Breaker, EMSCO; Power Saw, Self-Propelled; Pugmill; Pumpcrete\Grout Machine; Punch Truck; Roller, other than Asphalt; Roller, Sheepsfoot (Self-Propelled); Roller, 25 tons and over; Ross Carrier; Rotomill, under 6 ft; Trenching Machine; Washing /Screening Plant Zone Pay:

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0-30 mi. free zone >30-60 mi. base pay + \$3.50/hr. >60 mi. base pay + \$5.50/hr.

CONSTRUCTION EQUIPMENT OPERATORS GROUP 3

Wage Benefit \$29.75 \$13.65

This group includes but is not limited to:

Asphalt Paving Machine; Asphalt Screed;
Backhoe\Excavator\Shovel, over 3 cu. yds; Cableway
Highline; Concrete Batch Plant; Concrete Curing Machine;
Concrete Pump; Cranes, Creter; Cranes, Electric Overhead;
Cranes, 24 tons and under; Curb Machine\Slip Form Paver;
Finish Dozer; Front-End Loader, over 5 cu. yds;
Mechanic\Welder; Pioneer Dozer; Roller Asphalt
(Breakdown & Finish); Rotomill, over 6 ft; Scraper, Single,
Twin, or Pulling Belly-Dump; YO-YO Cat Haul Truck,
Articulating Trucks, Vac Truck.

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.50/hr. >60 mi. base pay + \$5.50/hr.

CONSTRUCTION EQUIPMENT OPERATORS GROUP 4

Wage Benefit \$30.75 \$13.65

This group includes but is not limited to:

Asphalt\Hot Plant Operator; Cranes, 25 tons up to and incl. 44 tons; Crusher Operator; Finish Motor Patrol; Finish Scraper.

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.50/hr. >60 mi. base pay + \$5.50/hr.

CONSTRUCTION EQUIPMENT OPERATORS GROUP 5

Wage Benefit \$31.75 \$13.65

This group includes but is not limited to:

Cranes, 45 tons up to and incl. 74 tons.

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.50/hr. >60 mi. base pay + \$5.50/hr.

CONSTRUCTION EQUIPMENT OPERATORS GROUP 6

Wage Benefit \$32.75 \$13.65

This group includes but is not limited to:

Cranes, 75 tons up to and incl. 149 tons; Cranes, Whirley (All).

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.50/hr. >60 mi. base pay + \$5.50/hr.

CONSTRUCTION EQUIPMENT OPERATORS GROUP 7

Wage Benefit \$33.75 \$13.65

This group includes but is not limited to:

Cranes, 150 tons up to and incl. 250 tons; Cranes, over 250 tons—add \$1.00 for every 100 tons over 250 tons; Crane, Tower (All); Crane Stiff-Leg or Derrick; Helicopter Hoist.

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.50/hr. >60 mi. base pay + \$5.50/hr.

CONSTRUCTION LABORERS GROUP 1/FLAG PERSON FOR TRAFFIC CONTROL

Wage Benefit \$23.08 \$11.77

Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.05/hr. >60 mi. base pay + \$4.85/hr.

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CONSTRUCTION LABORERS GROUP 2

Wage Benefit \$25.90 \$11.77

This group includes but is not limited to:

General Labor; Asbestos Removal; Burning Bar; Bucket Man; Carpenter Tender; Caisson Worker; Cement Mason Tender; Cement Handler (dry); Chuck Tender; Choker Setter; Concrete Worker; Curb Machine-lay Down; Crusher and Batch Worker; Heater Tender; Fence Erector; Landscape Laborer; Landscaper; Lawn Sprinkler Installer; Pipe Wrapper; Pot Tender; Powderman Tender; Rail and Truck Loaders and Unloaders; Riprapper; Sign Erection; Guardrail and Jersey Rail; Spike Driver; Stake Jumper; Signalman; Tail Hoseman; Tool Checker and Houseman and Traffic Control Worker.

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.05/hr. >60 mi. base pay + \$4.85/hr.

CONSTRUCTION LABORERS GROUP 3

Wage Benefit \$26.07 \$11.77

This group includes but is not limited to:

Concrete Vibrator; Dumpman (Grademan); Equipment Handler; Geotextile and Liners; High-Pressure Nozzleman; Jackhammer (Pavement Breaker) Non-Riding Rollers; Pipelayer; Posthole Digger (Power); Power Driven Wheelbarrow; Rigger; Sandblaster; Sod Cutter-Power and Tamper.

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.05/hr. >60 mi. base pay + \$4.85/hr.

CONSTRUCTION LABORERS GROUP 4

Wage Benefit \$26.76 \$11.77

This group includes but is not limited to:

Hod Carrier***; Water Well Laborer; Blaster; Wagon Driller; Asphalt Raker; Cutting Torch; Grade Setter; High-Scaler; Power Saws (Faller & Concrete); Powderman; Rock & Core Drill; Track or Truck Mounted Wagon Drill and Welder incl. Air Arc

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$3.05/hr. >60 mi. base pay + \$4.85/hr.

***Hod Carriers will receive the same amount of travel and/or subsistence pay as bricklayers when requested to travel.

DIVERS

	Wage	Benefit
Stand-By	\$44.98	\$17.84
Diving	\$89.96	\$17.84

Depth Pay (Surface Diving)
0-20 ft. free zone
>20-100 ft. \$2.00 per ft.
>100-150 ft. \$3.00 per ft.
>150-220 ft. \$4.00 per ft.
>220 ft. \$5.00 per ft.

Diving In Enclosures

0-25 ft. free zone >25-300 ft. \$1.00 per ft.

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$4.00/hr. >60 mi. base pay + \$6.00/hr.

DIVER TENDERS

Wage Benefit \$43.98 \$17.84

The tender shall receive 2 hours at the straight time pay rate per shift for dressing and/or undressing a Diver when work is done under hyperbaric conditions.

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Zone Pay:

0-30 mi. free zone

>30-60 mi. base pay + \$4.00/hr. >60 mi. base pay + \$6.00/hr.

ELECTRICIANS

Wage Benefit \$35.59 \$16.39

Travel:

No mileage due when traveling in employer's vehicle.

The following travel allowance is applicable when traveling in employee's vehicle:

0-08 mi. free zone >08-50 mi. federal mileage rate/mi. in excess of the free zone. >50 mi. \$60.57/day

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INSULATION WORKERS - MECHANICAL (HEAT AND FROST)

Wage * Benefit * \$39.97 \$19.87

Duties Include:

Insulate pipes, ductwork or other mechanical systems.

Travel: *

0-30 mi. free zone

>30-40 mi. \$25.00/day

>40-50 mi. \$35.00/day

>50-60 mi. \$50.00/day

>60 mi. \$60.00/day plus

- \$0.56/mi. if transportation is not provided.
- \$0.20/mi. if in company vehicle.

>60 mi. \$100.00/day on jobs requiring an overnight stay plus

- \$0.56/mi. if transportation is not provided.
- \$0.20/mi. if in company vehicle.

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IRONWORKERS - STRUCTURAL STEEL AND REBAR PLACERS

Benefit Wage \$29.38 \$27.05

Duties Include:

Structural steel erection; assemble prefabricated metal buildings; cut, bend, tie, and place rebar; energy producing windmill type towers; metal bleacher seating; handrail fabrication and ornamental steel.

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Travel:

0-45 mi. free zone >45-60 mi. \$45.00/day >60-100 mi. \$70.00/day >100 mi. \$90.00/day

Special Provision:

When the employer provides transportation, travel will not be paid. However, when an employee is required to travel over 70 miles one way, the employee may elect to receive the travel pay in lieu of the transportation.

LINE CONSTRUCTION - EQUIPMENT OPERATORS

Wage **Benefit** \$36.00 \$16.92

Duties Include:

All work on substations

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Travel:

No Free Zone \$60.00/day

LINE CONSTRUCTION - GROUNDMAN

Benefit Wage \$29.09 \$16.09

Duties Include:

All work on substations

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Travel:

No Free Zone \$60.00/day

LINE CONSTRUCTION - LINEMAN

Wage Benefit \$48.65 \$18.03

Duties Include:

All work on substations

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Travel:

No Free Zone \$60.00/day

MILLWRIGHTS

Wage Benefit \$39.68 \$14.27

Zone Pay:

0-30 mi. free zone

>30-60 mi. base pay + \$4.00/hr. >60 mi. base pay + \$6.00/hr.

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PAINTERS

Wage Benefit \$25.00 \$0.00

Travel:

No travel or per diem established.

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PILE BUCKS

Wage Benefit \$32.75 \$13.82

Duties Include:

Set up crane; set up hammer; weld tips on piles; set leads; insure piles are driven straight with the use of level or plum bob. Give direction to crane operator as to speed, and direction of swing. Cut piles to grade.

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Zone Pay:

0-30 mi. free zone >30-60 mi. base pay + \$4.00/hr. >60 mi. base pay + \$6.00/hr.

PLUMBERS, PIPEFITTERS, AND STEAMFITTERS

Wage Benefit \$39.98 \$20.26

Duties Include:

Assemble, install, alter, and repair pipe-lines or pipe systems that carry water, steam, air, other liquids or gases. Testing of piping systems, commissioning and retrocommissioning. Workers in this occupation may also install heating and cooling equipment and mechanical control systems.

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Travel:

0-70 free zone

>70 mi.

- On jobs when employees do not work consecutive days: \$0.55/mi. if employer doesn't provide transportation. Not to exceed two trips.
- On jobs when employees work any number of consecutive days: \$105.00/day.

SPRINKLER FITTERS

Wage	Benefit
\$35.66	\$24.29

Duties Include:

Duties Include but not limited to any and all fire protection systems: Installation, dismantling, inspection, testing, maintenance, repairs, adjustments, and corrections of all fire protection and fire control systems, including both overhead and underground water mains, all piping, fire hydrants, standpipes, air lines, tanks, and pumps used in connection with sprinkler and alarm systems.

Travel All Districts

The following travel allowance is applicable when traveling in employee's vehicle.

0-60 mi. free zone >60-80 mi. \$19.00/day >80-100 mi. \$29.00/day >100 mi. \$105.00/day.

Special Provision

When traveling >100 miles, mileage at \$0.54/mi. + \$8.59 for every 15 miles traveled at beginning and end of job.

The following travel allowance is applicable when traveling in employer's vehicle.

0-100 mi. free zone >100 mi. \$105.00/day

Special Provision

When traveling >100 miles, \$8.59 for every 15 miles traveled, at beginning and end of job.

Per Diem: All Districts

No per diem is applicable when traveling in employee's vehicle

The following per diem is applicable when traveling in employer's vehicle.

0-100 mi. free zone >100 mi. \$105.00/day

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TRUCK DRIVERS

Pilot Car Driver No Rate Established

Wage Benefit

Truck Driver \$31.28 \$9.37

Truck drivers include but are not limited to:

Combination Truck and Concrete Mixer and Transit Mixer; Dry Batch Trucks; Distributor Driver; Dumpman; Dump Trucks and similar equipment; Dumpster; Flat Trucks; Lumber Carriers; Lowboys; Pickup; Powder Truck Driver; Power Boom; Serviceman; Service Truck/Fuel Truck/Tireperson; Truck Mechanic; Trucks with Power Equipment; Warehouseman, Partsman, Cardex and Warehouse Expeditor; Water Trucks.

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Zone Pay: All Districts

0-30 mi. free zone

>30-60 mi. base pay + \$3.05/hr. >60 mi. base pay + .\$4.85/hr.

Special Provision:

Zone pay only applies to the Truck Driver classification. No zone pay was established for Pilot Car Driver.



SMI-03



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 1/12/2022

KTENOLD

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER. AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

CONTACT NAME:		
	FAX (A/C, No): (406) 777-5004	
E-MAIL ADDRESS:		
INSURER(S) AFFORDING COVERAGE		NAIC #
INSURER A: Western National Mutual Insura	nce Co	15377
INSURER B: Montana State Fund		15819
INSURER C:		
INSURER D:		
INSURER E :		
INSURER F:		
REVISION NUM	MBER:	
THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.		
[(A/C, No, Ext): (400) 777-5005 E-MAIL ADDRESS: INSURER(S) AFFORDING COVERAGE INSURER A: Western National Mutual Insura INSURER B: Montana State Fund INSURER C: INSURER D: INSURER E: INSURER F: REVISION NUI HAVE BEEN ISSUED TO THE INSURED NAMED ABO N OF ANY CONTRACT OR OTHER DOCUMENT WI DED BY THE POLICIES DESCRIBED HEREIN IS S	PHONE (A/C, No, Ext): (406) 777-5005 FAX (A/C, No, Ext): (406) 777-5005 FAX (A/C, No, Ext): (406) 777-5005 FAX (A/C, No):

ADDL SUBR INSR LTR POLICY EFF POLICY EXP
(MM/DD/YYYY) TYPE OF INSURANCE POLICY NUMBER LIMITS Α 1,000,000 X **COMMERCIAL GENERAL LIABILITY** EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) 100,000 CLAIMS-MADE X OCCUR 1/23/2022 1/23/2023 CPP1178795 Χ Χ 5,000 MED EXP (Any one person) 1,000,000 PERSONAL & ADV INJURY 2.000.000 GEN'L AGGREGATE LIMIT APPLIES PER: GENERAL AGGREGATE POLICY X PRO-2,000,000 PRODUCTS - COMP/OP AGG \$ OTHER \$ COMBINED SINGLE LIMIT (Ea accident) 1,000,000 **AUTOMOBILE LIABILITY** CPP1177933 1/23/2023 Χ 1/23/2022 ANY AUTO BODILY INJURY (Per person) OWNED AUTOS ONLY SCHEDULED AUTOS BODILY INJURY (Per accident)
PROPERTY DAMAGE
(Per accident) HIRED AUTOS ONLY NON-OWNED AUTOS ONLY 1,000,000 Χ X **UMBRELLA LIAB** OCCUR **EACH OCCURRENCE** UMB1030045 1/23/2022 1/23/2023 1,000,000 **EXCESS LIAB CLAIMS-MADE** AGGREGATE 10,000 DED | X | RETENTION \$ OTH-ER WORKERS COMPENSATION AND EMPLOYERS' LIABILITY X PER STATUTE 034585323 1/23/2022 1/23/2023 1,000,000 ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) E.L. EACH ACCIDENT Ν N/A 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ If yes, describe under DESCRIPTION OF OPERATIONS below 1,000,000 E.L. DISEASE - POLICY LIMIT CPP1178809 1/23/2022 1/23/2023 25,000 Rented/Leased Equipment Floater

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) Blanket additional insured per form WNGL49 attached.

Waiver per form WNGL39 attached

CERTIFICATE HOLDER	CANCELLATION
City of Missoula 435 Ryman St. Missoula, MT 59808	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE K. Tendo

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.



ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – AUTOMATIC STATUS WHEN REQUIRED IN CONSTRUCTION AGREEMENT WITH YOU PRIMARY AND NONCONTRIBUTORY

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

- A. Section II Who Is An Insured is amended to include as an additional insured any person or organization for whom you are performing operations when you and such person or organization have agreed in writing in a contract or agreement that such person or organization be added as an additional insured on your policy. Such person or organization is an additional insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by:
 - 1. Your acts or omissions; or
 - The acts or omissions of those acting on your behalf;

in the performance of your ongoing operations for the additional insured.

A person's or organization's status as an additional insured under this endorsement ends when your operations for that additional insured are completed.

However:

- The insurance afforded to such additional insured only applies to the extent permitted by law: and
- 2. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

B. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to:

- 1. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:
 - a. The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - **b.** Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against an additional insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services by you with respect to your providing engineering, architectural or surveying services in your capacity as an engineer, architect or surveyor.

- 2. "Bodily injury" or "property damage" occurring after:
 - a. All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed; or
 - b. That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.
- C. With respect to the insurance afforded to these additional insureds, the following is added to Section III Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is:

- **1.** The minimum amount required by the contract or agreement; or
- The Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

D. The following is added to the **Other Insurance**Condition and supersedes any provision to the contrary:

Primary And Noncontributory Insurance

This insurance is primary to and will not seek any contribution from any other insurance available to an additional insured under your policy provided that:

- (1) The additional insured is a Named Insured under such other insurance; and
- (2) You have agreed in writing in a contract or agreement that this insurance would be primary and would not seek contribution from any other insurance available to the additional insured.



COMMERCIAL GENERAL LIABILITY ENHANCEMENT ENDORSEMENT



The Commercial General Liability Enhancement Endorsement is an optional endorsement that provides coverage enhancements. The following is a summary of broadened coverages provided by this endorsement. No coverage is provided by this summary, refer to following endorsement for changes in your policy.

SUMMARY OF COVERAGES **PAGE**

Bodily Injury And Property Damage Liability Non Owned Watercraft Up To 50 Feet
Property Damage Liability Elevators
Supplementary Payments – Amended Bail Bonds Up To \$5,000
Who Is An Insured Amendments Employee Bodily Injury To A Co-Employee
Damage To Premises Rented To You – \$300,000
Medical Payments Increased Limit — \$10,000 Or Amount Shown on Declarations
Conditions Knowledge of Occurrence, Offense, Claim Or Suit Amended. Unintentional Failure To Disclose Hazards. Waiver of Subrogation.
Insured Contract Amended10
Personal And Advertising Injury Redefined Televised, Videotaped Or Electronic Publication

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY

COMMERCIAL GENERAL LIABILITY ENHANCEMENT ENDORSEMENT

This endorsement modifies the insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE FORM

With respect to the coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement. The SECTIONS of the Commercial General Liability Coverage Form identified in this endorsement will be amended as shown below.

SECTION I - COVERAGES AMENDMENTS

COVERAGE A - BODILY INJURY AND PROPERTY DAMAGE LIABILITY

A. Non Owned Aircraft Or Watercraft

Item **2**. **Exclusions**, Paragraph **g**. is replaced by the following:

g. Aircraft, Auto Or Watercraft

"Bodily injury" or "property damage" arising out of the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft owned or operated by or rented or loaned to any insured. Use includes operation and "loading or unloading".

This exclusion applies even if the claims against any insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage" involved in the ownership, maintenance, use or entrustment to others of any aircraft, "auto" or watercraft that is owned or operated by or rented or loaned to any insured.

This exclusion does not apply to:

- (1) A watercraft while ashore on premises you own or rent;
- (2) A watercraft you do not own that is:
 - (a) Less than 50 feet long; and
 - **(b)** Not being used to carry persons or property for a charge;

This Subparagraph (2) applies to any person, who with your expressed or implied consent, either uses or is responsible for the use of the watercraft;

(3) Parking an "auto" on, or on the ways next to, premises you own or rent, provided the "auto" is not owned by or rented or loaned to you or the insured;

- (4) Liability assumed under any "insured contract" for the ownership, maintenance or use of aircraft or watercraft; or
- **(5)** "Bodily injury" or "property damage" arising out of:
 - (a) The operation of machinery or equipment that is attached to, or part of, a land vehicle that would qualify under the definition of "mobile equipment" if it were not subject to a compulsory or financial responsibility law or other motor vehicle insurance law where it is licensed or principally garaged; or
 - (b) The operation of any of the machinery or equipment listed in Paragraph f. (2) or f. (3) of the definition of "mobile equipment".

B. Damage To Property Coverage Extensions

Item **2. Exclusions**, Paragraph **j.** is replaced by the following:

j. Damage To Property

"Property damage" to:

- (1) Property you own, rent, or occupy, including any costs or expenses incurred by you, or any other person, organization or entity, for repair, replacement, enhancement, restoration or maintenance of such property for any reason, including prevention of injury to a person or damage to another's property;
- (2) Premises you sell, give away or abandon, if the "property damage" arises out of any part of those premises;
- (3) Property loaned to you;
- (4) Personal property in the care, custody or control of the insured:

- (5) That particular part of real property on which you or any contractors subcontractors working directly or indirectly on your behalf are performing operations, if the "property damage" arises out of those operations; or
- (6) That particular part of any property that must be restored, repaired or replaced because "your work" was incorrectly performed on it.

Paragraphs (1), (3) and (4) of this exclusion do not apply to "property damage" (other than damage by fire, lightning, explosion or sprinkler leakage) to premises, including the contents of such premises, rented to you for a period of seven or fewer consecutive days. A separate limit of insurance applies to Damage To Premises Rented To You as described in SECTION III - LIMITS OF INSURANCE. However, the provisions of this paragraph do not apply if coverage for Damage To Premises Rented To You is excluded by endorsement.

Paragraph (2) of this exclusion does not apply if the premises are "your work" and were never occupied, rented or held for rental by you.

Paragraphs (3) and (4) of this exclusion do not apply to the use of elevators.

Paragraphs (3), (4), (5) and (6) of this exclusion do not apply to liability assumed under a sidetrack agreement.

Paragraph (4) of this exclusion does not apply to "property damage" to borrowed equipment while not being used to perform operations at the jobsite. Subject to Paragraph 2. of SECTION III - LIMITS OF INSURANCE, the rules below fix the most we will pay for "property damage" under this provision:

- (1) \$25,000 any one "occurrence", regardless of the number of persons or organizations who sustain damages because of that "occurrence":
- (2) \$50,000 annual aggregate; and
- (3) We will pay only for damages in excess of \$2,500 as a result of any one "occurrence", regardless of the number of persons or organizations who sustain damages because of that "occurrence". We may, or if required by law, pay all or any part of any deductible amount, if applicable, to effect settlement of any claim or "suit". Upon notice of our payment of a deductible amount, you shall promptly reimburse us for the part of the deductible amount we paid.

Paragraph (6) of this exclusion does not apply to damage" "property included in "products-completed operations hazard".

The insurance provided for "property damage" from the use of elevators and for "property damage" to borrowed equipment is excess over any other valid and collectible property insurance (including any deductible portion thereof) available to the insured whether primary, excess, contingent or on any other basis.

C. Damage To Premises Rented To You

Item 2. Exclusions, the last paragraph is replaced by the following:

Exclusions c. through n. do not apply to damage by fire, lightning, explosion or sprinkler leakage to premises while rented to you or temporarily occupied by you with permission of the owner. A separate limit of insurance applies to this coverage as described in Paragraph 6. of SECTION III -LIMITS OF INSURANCE.

COVERAGE B - PERSONAL AND ADVERTISING **INJURY LIABILITY**

D. Personal And Advertising Injury

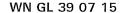
Item 2. Exclusions is amended by replacing Sub-paragraphs **b.** and **c.** with the following:

b. Material Published With Knowledge Of **Falsity**

"Personal and advertising injury" arising out of oral, written, televised, videotaped or electronic publication, in any manner, of material, if done by or at the direction of the insured with knowledge of its falsity.

c. Material Published Prior To Policy Period

"Personal and advertising injury" arising out of oral, written, televised, videotaped or electronic publication, in any manner, of material whose first publication took place before the beginning of the policy period.



SUPPLEMENTARY PAYMENTS – COVERAGES A AND B

E. Supplementary Payments – Coverages A and B

Item **1.** is amended by replacing Subparagraphs **b.** and **d.** with the following:

- b. Up to \$5,000 for cost of bail bonds required because of accidents or traffic law violations arising out of the use of any vehicle to which the Bodily Injury Liability Coverage applies. We do not have to furnish these bonds.
- d. All reasonable expenses incurred by the insured at our request to assist us in the investigation or defense of the claim or "suit", including actual loss of earnings up to \$500 a day because of time off from work.

SECTION II - WHO IS AN INSURED AMENDMENTS

A. Employee Bodily Injury To A Co-Employee

Paragraph 2. a. (1) is replaced by the following:

- (1) "Bodily injury" or "personal and advertising injury":
 - (a) To you, to your partners or members (if you are a partnership or joint venture), to your members (if you are a limited liability company), or to your other "volunteer workers" while performing duties related to the conduct of your business;
 - (b) For which there is any obligation to share damages with or repay someone else who must pay damages because of the injury described in Paragraph (1) (a) above; or
 - (c) Arising out of his or her providing or failing to provide professional health care services.

B. Newly Acquired Organizations

Paragraph **3. a**. is replaced by the following:

a. Coverage under this provision is afforded only until the 180th day after you acquire or form the organization or the end of the policy period, whichever is earlier;

The following are added:

C. Blanket Additional Insured - Vendors - As Required By Contract

1. Section II – Who Is An Insured is amended to include as an additional insured any person(s) or organization(s) (referred to throughout this endorsement as vendor) with whom you have agreed in a written contract, executed prior to loss, to name as an additional insured, but only with respect to "bodily injury" or "property damage" arising out of "your products" which are distributed or sold in the regular course of the vendor's business.

However,

- **a.** The insurance afforded to such vendor only applies to the extent permitted by law; and
- **b.** If coverage provided to the vendor is required by a contract or agreement, the insurance afforded to such vendor will not be broader than that which you are required by the contract or agreement to provide for such vendor.
- **2.** With respect to the insurance afforded to these vendors, the following additional exclusions apply:
 - **a.** The insurance afforded the vendor does not apply to:
 - (1) "Bodily injury" or "property damage" for which the vendor is obligated to pay damages by reason of the assumption of liability in a contract or agreement. This exclusion does not apply to liability for damages that the vendor would have in the absence of the contract or agreement;
 - (2) Any express warranty unauthorized by you;
 - (3) Any physical or chemical change in the product made intentionally by the vendor:
 - (4) Repackaging, except when unpacked solely for the purpose of inspection, demonstration, testing, or the substitution of parts under instructions from the manufacturer, and then repackaged in the original container;



- (5) Any failure to make such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products;
- **(6)** Demonstration, installation, servicing or repair operations, except such operations performed at the vendor's premises in connection with the sale of the product;
- (7) Products which, after distribution or sale by you, have been labeled or relabeled or used as a container, part or ingredient of any other thing or substance by or for the vendor; or
- (8) "Bodily injury or "property damage" arising out of the sole negligence of the vendor for its own acts or omissions or those of its employees or anyone else acting on its behalf. However, this exclusion does not apply to:
 - (i) The exceptions contained Subparagraphs (4) or (6); or
 - (ii) Such inspections, adjustments, tests or servicing as the vendor has agreed to make or normally undertakes to make in the usual course of business, in connection with the distribution or sale of the products.
- 3. This Provision C. does not apply:
 - **a.** To any insured person or organization from whom you have acquired such products, or any ingredient, part or container, entering into, accompanying or containing such products;
 - **b.** To any vendor for which coverage as an additional insured specifically is scheduled by endorsement; or
 - **c.** When liability included within "products-completed operations hazard" has been excluded for such product either by the provisions of the coverage part or by endorsement.

4. With respect to the insurance afforded to these vendors, the following is added to Section III -Limits Of Insurance:

If coverage provided to the vendor is required by a contract or agreement, the most we will 🔯 pay on behalf of the vendor is:



- a. The minimum amount required by the contract or agreement; or
- b. The Limits of Insurance shown in the Declarations:

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

5. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to:

- "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:
 - (1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - (2) Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against an additional insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services by you with respect to your providing engineering, architectural or surveying services in your capacity as an engineer, architect or surveyor.

D. Blanket Additional Insured – Lessor Of Leased Equipment

1. Section II – Who Is An Insured is amended to include as an additional insured any person(s) or organization(s) from whom you lease equipment when you and such person(s) or organization(s) have agreed in writing in a contract or agreement, executed prior to loss, that such person(s) or organization(s) be added as an additional insured on your policy. Such person(s) or organization(s) is an insured only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your maintenance, operation or use of equipment leased to you by such person(s) or organization(s).

However, the insurance afforded to such additional insured:

- a. Only applies to the extent permitted by law; and
- **b.** Will not be broader than that which you are required by the contract or agreement to provide for such additional insured.

A person's or organization's status as an additional insured under this endorsement ends when their contract or agreement with you for such leased equipment ends.

- 2. With respect to the insurance afforded to these additional insureds, this insurance does not apply to any "occurrence" which takes place after the equipment lease expires.
- 3. With respect to the insurance afforded to these additional insureds, the following is added to Section III Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is:

- **a.** The minimum amount required by the contract or agreement; or
- **b.** The Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

4. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to:

- a. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:
 - (1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - (2) Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against an additional insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services by you with respect to your providing engineering, architectural or surveying services in your capacity as an engineer, architect or surveyor.

E. Blanket Additional Insured – Managers Or Lessors Of Premises

1. Section II – Who Is An Insured is amended to include as an additional insured any person(s) or organization(s) with whom you have agreed in a written contract, executed prior to loss, to name as an additional insured, but only with respect to liability arising out of the ownership, maintenance or use of that part of the premises leased to you, subject to the following additional exclusions:

This insurance does not apply to:

- **a.** Any "occurrence" which takes place after you cease to be a tenant in that premises.
- **b.** Structural alterations, new construction or demolition operations performed by or on behalf of such additional insured.

However:

- The insurance afforded to such additional insured only applies to the extent permitted by law; and
- b. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.
- 2. With respect to the insurance afforded to these additional insureds, the following is added to Section III Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is:

- **a.** The minimum amount required by the contract or agreement; or
- **b.** The Limits of Insurance shown in the Declarations;

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

3. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to:

- a. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:
 - (1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - **(2)** Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against an additional insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services by you with respect to your providing engineering, architectural or surveying services in your capacity as an engineer, architect or surveyor.

F. Blanket Additional Insured – State Or Governmental Agency Or Subdivision Or Political Subdivision – Permits Or Authorizations

Section II – Who Is An Insured is amended to include as an additional insured any state or governmental agency or subdivision or political subdivision with whom you have agreed in a written contract, executed prior to loss, to name as an additional insured, subject to the following provisions:

 This insurance applies only with respect to operations performed by you or on your behalf for which the state or governmental agency or subdivision or political subdivision has issued a permit or authorization.

However:

- The insurance afforded to such additional insured only applies to the extent permitted by law; and
- b. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.
- **2.** This insurance does not apply to:
 - a. "Bodily injury", "property damage" or "personal and advertising injury" arising out of operations performed for the federal government, state or municipality; or
 - **b.** "Bodily injury" or "property damage" included within the "products-completed operations hazard".
- 3. With respect to the insurance afforded to these additional insureds, the following is added to Section III Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured is:

- The minimum amount required by the contract or agreement; or
- **b.** The Limits of Insurance shown in the Declarations:

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.



4. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to:

- a. "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render, any professional architectural, engineering or surveying services, including:
 - (1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - (2) Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against an additional insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services by you with respect to your providing engineering, architectural or surveying services in your capacity as an engineer, architect or surveyor.

G. Blanket Additional Insured - State Or Governmental Agency Or Subdivision Or Political Subdivision – Permits Or **Authorizations Relating To Premises**

Section II - Who Is An Insured is amended to include as an additional insured any state or governmental agency or subdivision or political subdivision with whom you have agreed in a written contract, executed prior to loss, to name as an additional insured, subject to the following provision:

- 1. This insurance applies only with respect to the following hazards for which the state or governmental agency or subdivision or political subdivision has issued a permit or authorization in connection with premises you own, rent or control and to which this insurance applies:
 - existence, maintenance, repair, construction, erection or removal of advertising signs, awnings, canopies, cellar entrances, coal holes. driveways. manholes, marquees, hoist away openings, sidewalk vaults, street banners decorations and similar exposures; or

- **b.** The construction, erection or removal of elevators: or
- c. The ownership, maintenance or use of any elevators covered by this insurance.

However.

- a. The insurance afforded to such additional insured only applies to the extent permitted by law: and
- b. If coverage provided to the additional insured is required by a contract or agreement, the insurance afforded to such additional insured will not be broader than that which you are required by the contract or agreement to provide for such additional insured.
- 2. With respect to the insurance afforded to these additional insureds, the following is added to Section III - Limits Of Insurance:

If coverage provided to the additional insured is required by a contract or agreement, the most we will pay on behalf of the additional insured

- The minimum amount required by the contract or agreement; or
- b. The Limits of Insurance shown in the Declarations:

whichever is less.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

3. With respect to the insurance afforded to these additional insureds, the following additional exclusion applies:

This insurance does not apply to:

- "Bodily injury", "property damage" or "personal and advertising injury" arising out of the rendering of, or the failure to render. any professional architectural, engineering or surveying services, including:
 - (1) The preparing, approving, or failing to prepare or approve, maps, shop drawings, opinions, reports, surveys, field orders, change orders or drawings and specifications; or
 - (2) Supervisory, inspection, architectural or engineering activities.

This exclusion applies even if the claims against an additional insured allege negligence or other wrongdoing in the supervision, hiring, employment, training or monitoring of others by that insured, if the "occurrence" which caused the "bodily injury" or "property damage", or the offense which caused the "personal and advertising injury", involved the rendering of or failure to render any professional services by you with respect to your providing engineering, architectural or surveying services in your capacity as an engineer, architect or surveyor.

SECTION III - LIMITS OF INSURANCE AMENDMENTS

A. Damage To Premises Rented To You

Paragraph 6. is replaced by the following:

- 6. Subject to Paragraph 5. above, the most we will pay under Coverage A for damages because of "property damage" to any one premises, while rented to you, or in the case of damage by fire, lightning, explosion or sprinkler leakage, while rented to you or temporarily occupied by you with permission of the owner is the greater of:
 - a. \$300,000; or
 - b. The amount shown next to the Damage To Premises Rented To You Limit in the Declarations.

However, the provisions of this paragraph do not apply if Damage To Premises Rented To You Coverage is excluded by endorsement.

B. Medical Expense Limit

Paragraph 7. is replaced with the following:

- 7. Subject to Paragraph 5. above, the most we will pay under Coverage C for all medical expenses because of "bodily injury" sustained by any one person is the greater of:
 - a. \$10,000; or
 - **b.** The amount shown next to the Medical Expense Limit in the Declarations.

This insurance does not apply if coverage for Medical Expenses is excluded either by the provisions of the coverage part or by endorsement.

SECTION IV - COMMERCIAL GENERAL LIABILITY CONDITIONS AMENDMENTS

A. Knowledge Of Occurrence

Item 2. Duties In The Event Of Occurrence, Offense, Claim or Suit is amended by adding the following:

- e. You must give us or our authorized representative prompt notice of an "occurrence", claim or loss only when the "occurrence", claim or loss is known to:
 - (1) You, if you are an individual;
 - (2) A partner, if you are a partnership;
 - **(3)** An executive officer or insurance manager, if you are a corporation; or
 - **(4)** A member or manager, if you are a limited liability company.

B. Other Insurance

Item 4. Other Insurance, b. Excess Insurance (1) (a) (ii) is replaced by the following:

- (ii) That is fire, lightning, explosion or sprinkler leakage insurance for premises rented to you or temporarily occupied by you with permission of the owner:
- C. Unintentional Failure To Disclose Hazards
 Item 6. Representations is replaced by the following:

6. Representations And Unintentional Failure To Disclose Hazards

- **a.** By accepting this policy, you agree:
 - (1) The statements in the Declarations are accurate and complete;
 - (2) Those statements are based upon representations you made to us; and
 - **(3)** We have issued this policy in reliance upon your representations.
- b. If you unintentionally fail to disclose any hazards existing at the inception date of your policy, we will not deny coverage under this Coverage Part because of such failure. However, this provision does not affect our right to collect additional premium or exercise our right of cancellation or non-renewal.



D. Waiver of Subrogation

Item 8. Transfer of Rights of Recovery Against Others to Us is hereby amended by the addition of the following:

We waive any right of recovery we may have because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a written contract, executed prior to loss, requiring such waiver with that person or organization and included in the "products-completed operations hazard". However, our rights may only be waived prior to the "occurrence" giving rise to the injury or damage for which we make payment under this Coverage Part. The insured must do nothing after a loss to impair our rights. At our request, the insured will bring "suit" or transfer those rights to us and help us enforce those rights.

SECTION V - DEFINITIONS AMENDMENTS

A. Insured Contract Amended

Paragraph 9. a. is replaced by the following:

a. A contract for a lease of premises. However, that portion of the contract for a lease of premises that indemnifies any person or organization for damage by fire, lightning, explosion or sprinkler leakage to premises while rented to you or temporarily occupied by you with permission of the owner is not an "insured contract";

B. Personal And Advertising Injury Redefined

Paragraph **14. d.** and \mathbf{e} . are replaced by the following:

- **d.** Oral, written, televised, videotaped or electronic publication of material that slanders or libels a person or organization or disparages a person's or organization's goods, products or service;
- **e.** Oral, written, televised, videotaped or electronic publication of material that violates a person's right of privacy;

BUSINESS LICENSE

CITY OF MISSOULA - Missoula Montana

Please post in public view

DOUG SMITH GRADING LLC

724 PORTER HILL RD STEVENSVILLE, MT 59870

BUSINESS LICENSE NUMBER: 2017-MSS-CON-00016

TO CONDUCT THE BUSINESS OF: EXCAVATION AND S/C/P - COMMERCIAL ONLY

FROM: 724 PORTER HILL RD STEVENSVILLE MT 59870

ISSUE DATE: 03/07/2022

ISSUED IN ACCORDANCE WITH THE PROVISIONS OF THE CITY OF MISSOULA MUNICIPAL CODE, AS AMENDED. LICENSE IS HEREBY GRANTED TO OPERATE THE BUSINESS REFERENCE ABOVE

EXPIRATION DATE: 2/28/2023

Development Services Department