**Design Team**
- **Address:** 5698 WCR #34, MEAD, CO 80542

**Technical Specifications**
- **Vicinity Map**
- **AW 4.10.19**
- **BL 3.24.19**
- **#19.001 SD**
- **Solution: Public Works Department**
- **Solution: Building Department**
- **Solution: Public Service Department**

**Fire Flow Calculation**

**Foundation Details**

**Electrical Details**

**Mechanical Details**

**Pumping Details**
GENERAL REQUIREMENTS

1. The Contractor shall be responsible for the timely submission of all construction documents, including but not limited to drawings and specifications. All construction documents shall be submitted to the Architect and Owner within 30 days of the date of contract execution.

2. The Contractor shall ensure that all materials and products used in the construction of the Project are in accordance with the contract documents. If any materials or products are substituted, written notification shall be provided to the Owner and Architect prior to the substitution.

3. The Contractor shall be responsible for the timely submittal of all materials and products for review and approval by the Owner and Architect. All materials and products shall be provided in accordance with the contract documents.

4. The Contractor shall ensure that all work is completed in accordance with the contract documents, including but not limited to drawings and specifications. All work shall be reviewed and approved by the Owner and Architect prior to payment.

5. The Contractor shall be responsible for the timely submission of all work orders and change orders. All work orders and change orders shall be submitted in writing and approved by the Owner and Architect prior to the commencement of work.

6. The Contractor shall be responsible for the timely submission of all final payment requests. All final payment requests shall be submitted in writing and approved by the Owner and Architect prior to payment.

7. The Contractor shall be responsible for the timely submission of all warranty information. All warranty information shall be submitted in writing and approved by the Owner and Architect prior to the issuance of the final certification.

8. The Contractor shall be responsible for the timely submission of all other required documentation, including but not limited to materials and product certifications, performance testing data, and maintenance instructions. All required documentation shall be submitted in writing and approved by the Owner and Architect prior to the issuance of the final certification.

9. The Contractor shall be responsible for the timely submission of all other required documentation, including but not limited to materials and product certifications, performance testing data, and maintenance instructions. All required documentation shall be submitted in writing and approved by the Owner and Architect prior to the issuance of the final certification.

10. The Contractor shall be responsible for the timely submission of all other required documentation, including but not limited to materials and product certifications, performance testing data, and maintenance instructions. All required documentation shall be submitted in writing and approved by the Owner and Architect prior to the issuance of the final certification.

11. The Contractor shall be responsible for the timely submission of all other required documentation, including but not limited to materials and product certifications, performance testing data, and maintenance instructions. All required documentation shall be submitted in writing and approved by the Owner and Architect prior to the issuance of the final certification.

12. The Contractor shall be responsible for the timely submission of all other required documentation, including but not limited to materials and product certifications, performance testing data, and maintenance instructions. All required documentation shall be submitted in writing and approved by the Owner and Architect prior to the issuance of the final certification.
All exterior concrete flatwork to be reinforced with fiber reinforcing.

- Insulated steel sectional overhead doors, 26-gage steel faces, prefinished; electrical operators.
- Maximum effort to operate doors shall not exceed the following per the requirements of ADA;
  - Door may be closed with one effort for up to 5 lbs.
  - Door may be closed with two efforts for up to 11 lbs.
  - Door may be closed with three efforts for up to 15 lbs.
- Plumbing: Codes:
  - All plumbing materials and workmanship shall be in accordance with the plumbing code of the jurisdiction in which the project is located.
  - Plumbing inspections required by the local plumbing inspector shall be made prior to backfilling around exterior walls.
  - Plumbing utility locations required by the project shall be marked with proper identification.
- Electrical Code: All electrical fixtures and components required to be installed shall comply with the National Electrical Code, the Colorado Electrical Code, and all local electrical codes.
- Exterior Doors: Exit doors are to be operable from the inside without the use of a key or special knowledge or tool. Latching and locking doors that are hand operated shall be operable with a single effort without requiring the ability to grasp the hardware (lever or push type). Verify condition at business hours.
  - Exit doors shall be operable from the outside without the use of a key or special knowledge or tool.
  - Exit doors shall be operable from the outside with the use of a key or special knowledge or tool.
- Plumbing: Codes:
  - All plumbing materials and workmanship shall be in accordance with the plumbing code of the jurisdiction in which the project is located.
  - Plumbing inspections required by the local plumbing inspector shall be made prior to backfilling around exterior walls.
  - Plumbing utility locations required by the project shall be marked with proper identification.
- Mechanical Drawings:
  - The following project is not a building system that has historically and continually been required to meet ADA requirements.
  - The following project is not a building system that has historically and continually been required to meet ADA requirements.
  - The following project is not a building system that has historically and continually been required to meet ADA requirements.
- Fire Extinguishers:
  - All fire extinguishers shall be installed in accordance with the requirements of the local fire department.
  - Fire extinguishers shall be installed in accordance with the requirements of the local fire department.
  - Fire extinguishers shall be installed in accordance with the requirements of the local fire department.
- Seals & Caulking:
  - All joints and interior angles shall have tape embedded in joint compound and two coats of caulking applied.
  - All joints and interior angles shall have tape embedded in joint compound and two coats of caulking applied.
  - All joints and interior angles shall have tape embedded in joint compound and two coats of caulking applied.
- Exterior level landing may slope up to ½” from the latch as measured from the leading edge of the door.
  - Exterior level landing may slope up to ½” from the latch as measured from the leading edge of the door.
  - Exterior level landing may slope up to ½” from the latch as measured from the leading edge of the door.
- All exterior door casings shall be plain or semi-recessed.
  - All exterior door casings shall be plain or semi-recessed.
  - All exterior door casings shall be plain or semi-recessed.
- Exterior Windows:
  - All glazing within a 24” radius of each door may be selected from the following manufacturers:
    - Apex Windows
    - Andersen Windows
    - Pella Windows
    - Marvin Windows
    - Milgard Windows
  - Exterior framing shall be weatherproofed prior to the application of final finishes.
  - Exterior framing shall be weatherproofed prior to the application of final finishes.
  - Exterior framing shall be weatherproofed prior to the application of final finishes.
- Interior Doors:
  - All door stops to have non-combustible 2x6 backing in wall behind.
  - All door stops to have non-combustible 2x6 backing in wall behind.
  - All door stops to have non-combustible 2x6 backing in wall behind.
- Sealer Applied Per Manufacturer’s Recommendations.
  - Sealer Applied Per Manufacturer’s Recommendations.
  - Sealer Applied Per Manufacturer’s Recommendations.
- Blockage Shall Be Installed As Required For The Attachment Of Specified Items. (TV
  - Blockage Shall Be Installed As Required For The Attachment Of Specified Items. (TV
  - Blockage Shall Be Installed As Required For The Attachment Of Specified Items. (TV
- Exterior Framing:
  - Exterior framing shall be weatherproofed prior to the application of final finishes.
  - Exterior framing shall be weatherproofed prior to the application of final finishes.
  - Exterior framing shall be weatherproofed prior to the application of final finishes.
- Primer: Prime gypsum wallboard with manufacturer-recommended primer prior to texturing.
  - Primer: Prime gypsum wallboard with manufacturer-recommended primer prior to texturing.
  - Primer: Prime gypsum wallboard with manufacturer-recommended primer prior to texturing.
- Liquid-Type, Spray Applied.
  - Liquid-Type, Spray Applied.
  - Liquid-Type, Spray Applied.
- Perimeter Foundation Insulation: 2" extruded polystyrene rigid board insulation, adhered to concrete unit masonry foundation walls adjacent to below-grade inhabited space and retaining walls.
  - Perimeter Foundation Insulation: 2" extruded polystyrene rigid board insulation, adhered to concrete unit masonry foundation walls adjacent to below-grade inhabited space and retaining walls.
  - Perimeter Foundation Insulation: 2" extruded polystyrene rigid board insulation, adhered to concrete unit masonry foundation walls adjacent to below-grade inhabited space and retaining walls.
- All joints and exterior angles shall have tape embedded in joint compound and two coats of caulking applied.
  - All joints and exterior angles shall have tape embedded in joint compound and two coats of caulking applied.
  - All joints and exterior angles shall have tape embedded in joint compound and two coats of caulking applied.
- Section 32 13 13-Portland Cement Concrete Paving Exterior Concrete Flatwork; Additional Information on Utilities, Grading, Retaining Walls, Paving, Curbs and Gutters, and Site Clearing; Site Clearing; Finish Grading and Placement of Topsoil Prior to Landscaping.
GENERAL NOTES - EARTHWORK/GRADING PLANS

1. ALL GRADING SHALL CONFORM TO THE USES PERMITTED ON THE CURRENT ZONING MAP.

2. ALL PROVISION OF THE PREPARATORY SOIL MAP ARE ROY. PREPARED BY CONTRACTOR. CHANGES TO THE USES PERMITTED ON THE CURRENT ZONING MAP ARE TO BE MADE BY CONTRACTOR AND APPROVED BY THE CITY OR COUNTY.

3. THIS PLAN IS FOR GRADING PURPOSES ONLY and is not to be used for the purpose of obtaining permits. The original documents, including all plans and specifications, shall be retained by the city or county and shall not be returned to the contractor. The contractor shall keep the original of all documents at the site at all times during construction.

4. ALL ITEMS MARKED WITH AN “X” SHALL BE REMOVED FROM THE SITE AND NOT REPLACED.

5. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES FROM DAMAGE. THE CONTRACTOR SHALL NOTIFY “WELD COUNTY UTILITIES” PRIOR TO START OF CONSTRUCTION. THE EXISTING UTILITIES INSTALLATION OF FINAL GROUNDCOVER. (SEE LANDSCAPE PLANS FOR FINAL GROUNDCOVER).

6. IF EXISTING VALVES OR FITTINGS ARE NOT RESTRAINED PROPERLY, THE CONTRACTOR SHALL INSTALLED AND BEDDED IN ACCORDANCE WITH ASTM SPECIFICATION D-2321, 200 PSI MINIMUM COMPLIANCE. THE CONTRACTOR SHALL PROVIDE PROTECTION DEVICES, BARRICADES, FLASHERS, ETC. IN WORKING CONDITION AT ALL TIMES.

7. ALL MANUFACTURED SLOPES IN EXCESS OF 5 FEET IN VERTICAL HEIGHT ARE TO BE INSTALLED AND BEDDED IN ACCORDANCE WITH ANY SPECIAL REQUIREMENTS NOTED ON THE CONTRACT DOCUMENTS.

8. ALL PIPE, DRAIN, AND SEWER INSTALLATION MUST BE PERMITTED BY WCECG PRIOR TO CONSTRUCTION.

9. CONSTRUCTION IN ACCORDANCE WITH THE PERMIT AND SAFETY REQUIREMENTS FOR ROAD CUTS WITHIN COUNTY ROADWAYS/RIGHT-OF-WAYS.

10. THE SOIL ENGINEER FOR FILL AREAS ARE REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED.

11. THE WCECG STANDARD DETAILS AND CCU STANDARD SPECIFICATIONS. THE COLORADO DEPARTMENT OF TRANSPORTATION, OR OTHER GOVERNING AGENCY HAVING JURISDICTION.

12. OTHER FEDERAL OR STATE OF COLORADO RULES, REGULATIONS OR OTHER REQUIREMENTS, AS APPLICABLE, SHALL APPLY.

13. THE SOIL ENGINEER FOR FILL AREAS ARE REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED.

GENERAL NOTES - UTILITIES

1. WELD COUNTY ENGINEER'S SPECIFICATIONS AND DESIGN DETAILS SHALL GOVERN ALL WORK. SPECIAL CONDITIONS OR SPECIFICATIONS USED IN CONSTRUCTION ARE TO BE ATTACHED TO THE CONTRACT DOCUMENTS WHERE THE SPECIAL CONDITIONS OR SPECIFICATIONS ARE NOT USED IN CONSTRUCTION.

2. ALL ITEMS MARKED WITH AN “X” SHALL BE REMOVED FROM THE SITE AND NOT REPLACED.

3. CONSTRUCTION SHALL BE PERMITTED ONLY IN ACCORDANCE WITH THE ENGINEERING DRAWINGS AND THE CONTRACT DOCUMENTS WHICH SHOW THE SPECIAL CONDITIONS OR SPECIFICATIONS ARE NOT USED IN CONSTRUCTION.

4. THE CONTRACTOR SHALL KEEP ALL COPIES OF ALL DOCUMENTS AT THE SITE AT ALL TIMES DURING CONSTRUCTION.

5. THE CONTRACTOR SHALL ASSURE COMPLIANCE WITH ANY GRADING, EPA, TPA, AND/OR OTHER FEDERAL OR STATE OR LOCAL GOVERNMENT REQUIREMENTS OR TRAFFIC REGULATIONS.

6. THE CONTRACTOR SHALL SUBMIT A PLAN OF how to carry out the work without digging or disturbing the landscape for the benefit of the public at least 30 days prior to the start of the work.

7. ALL EXCAVATION AND/OR STORED MATERIAL SHALL BE REMOVED FROM THE SITE.

8. ALL EXCAVATION AND/OR STORED MATERIAL SHALL BE REMOVED FROM THE SITE.

9. ALL EXCAVATION AND/OR STORED MATERIAL SHALL BE REMOVED FROM THE SITE.

10. IF THE TRENCH IS PROPERLY DEWATERED, WCECG APPROVED BACKFILL MATERIAL MAY BE USED IN ANY BACKFILL.

11. WELD COUNTY ENGINEER'S SPECIFICATIONS AND DESIGN DETAILS SHALL GOVERN ALL WORK. SPECIAL CONDITIONS OR SPECIFICATIONS USED IN CONSTRUCTION ARE TO BE ATTACHED TO THE CONTRACT DOCUMENTS WHERE THE SPECIAL CONDITIONS OR SPECIFICATIONS ARE NOT USED IN CONSTRUCTION.

12. ALL ITEMS MARKED WITH AN “X” SHALL BE REMOVED FROM THE SITE AND NOT REPLACED.

13. CONSTRUCTION IN ACCORDANCE WITH THE PERMIT AND SAFETY REQUIREMENTS FOR ROAD CUTS WITHIN COUNTY ROADWAYS/RIGHT-OF-WAYS.

14. THE SOIL ENGINEER FOR FILL AREAS ARE REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED.

15. THE WCECG STANDARD DETAILS AND CCU STANDARD SPECIFICATIONS. THE COLORADO DEPARTMENT OF TRANSPORTATION, OR OTHER GOVERNING AGENCY HAVING JURISDICTION.

16. OTHER FEDERAL OR STATE OF COLORADO RULES, REGULATIONS OR OTHER REQUIREMENTS, AS APPLICABLE, SHALL APPLY.

17. THE SOIL ENGINEER FOR FILL AREAS ARE REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED.

18. THE CONTRACTOR SHALL REVIEW THE SITE CONDITIONS PRIOR TO START OF CONSTRUCTION.

19. THE CONTRACTOR SHALL REVIEW THE SITE CONDITIONS PRIOR TO START OF CONSTRUCTION.

20. CONSTRUCTION IN ACCORDANCE WITH THE PERMIT AND SAFETY REQUIREMENTS FOR ROAD CUTS WITHIN COUNTY ROADWAYS/RIGHT-OF-WAYS.

21. THE SOIL ENGINEER FOR FILL AREAS ARE REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED.

22. THE WCECG STANDARD DETAILS AND CCU STANDARD SPECIFICATIONS. THE COLORADO DEPARTMENT OF TRANSPORTATION, OR OTHER GOVERNING AGENCY HAVING JURISDICTION.

23. OTHER FEDERAL OR STATE OF COLORADO RULES, REGULATIONS OR OTHER REQUIREMENTS, AS APPLICABLE, SHALL APPLY.

24. THE SOIL ENGINEER FOR FILL AREAS ARE REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED.

25. THE WCECG STANDARD DETAILS AND CCU STANDARD SPECIFICATIONS. THE COLORADO DEPARTMENT OF TRANSPORTATION, OR OTHER GOVERNING AGENCY HAVING JURISDICTION.

26. OTHER FEDERAL OR STATE OF COLORADO RULES, REGULATIONS OR OTHER REQUIREMENTS, AS APPLICABLE, SHALL APPLY.

27. THE SOIL ENGINEER FOR FILL AREAS ARE REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED.

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29. OTHER FEDERAL OR STATE OF COLORADO RULES, REGULATIONS OR OTHER REQUIREMENTS, AS APPLICABLE, SHALL APPLY.

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32. OTHER FEDERAL OR STATE OF COLORADO RULES, REGULATIONS OR OTHER REQUIREMENTS, AS APPLICABLE, SHALL APPLY.

33. THE SOIL ENGINEER FOR FILL AREAS ARE REQUIRED PRIOR TO BUILDING PERMITS BEING ISSUED.

34. THE WCECG STANDARD DETAILS AND CCU STANDARD SPECIFICATIONS. THE COLORADO DEPARTMENT OF TRANSPORTATION, OR OTHER GOVERNING AGENCY HAVING JURISDICTION.

35. OTHER FEDERAL OR STATE OF COLORADO RULES, REGULATIONS OR OTHER REQUIREMENTS, AS APPLICABLE, SHALL APPLY.
A1 2

1. Prior to any construction, the contractor shall have the current address of the building contractor's office and the address of the site the project is located at. The building contractor shall be responsible for any temporary irrigation or landscaping used during construction and shall be required to have the temporary irrigation systems adjusted to conform to the appropriate locations. No less than 10 feet lateral from grade on any permanent landscape construction shall be embedded with a concrete wall for 24 inches minimum. The building contractor shall be responsible for the location of any underground service lines. Any underground service lines shall be marked with a concrete slab for the duration of the project. No more than 2 feet from the edge of the pavement, the building contractor shall be responsible for the temporary irrigation or landscaping used during construction and shall be required to have the temporary irrigation systems adjusted to conform to the appropriate locations. No less than 10 feet lateral from grade on any permanent landscape construction shall be embedded with a concrete wall for 24 inches minimum. The building contractor shall be responsible for the location of any underground service lines. Any underground service lines shall be marked with a concrete slab for the duration of the project. No more than 2 feet from the edge of the pavement.

2. All temporary irrigation systems shall be turned off and removed prior to the final acceptance of the project. No more than 2 feet from the edge of the pavement, the building contractor shall be responsible for the temporary irrigation or landscaping used during construction and shall be required to have the temporary irrigation systems adjusted to conform to the appropriate locations. No less than 10 feet lateral from grade on any permanent landscape construction shall be embedded with a concrete wall for 24 inches minimum. The building contractor shall be responsible for the location of any underground service lines. Any underground service lines shall be marked with a concrete slab for the duration of the project.

3. All temporary irrigation systems shall be turned off and removed prior to the final acceptance of the project. No more than 2 feet from the edge of the pavement, the building contractor shall be responsible for the temporary irrigation or landscaping used during construction and shall be required to have the temporary irrigation systems adjusted to conform to the appropriate locations. No less than 10 feet lateral from grade on any permanent landscape construction shall be embedded with a concrete wall for 24 inches minimum. The building contractor shall be responsible for the location of any underground service lines. Any underground service lines shall be marked with a concrete slab for the duration of the project.

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1. All sanitary sewer shall be designed by a professional engineer and submitted to the city inspector. One week before a scheduled pour, this design is subject to approval by the city or county.

2. All concrete pipes shall have a minimum compressive strength of 4,000 psi, unless a higher compression is specified in the site plan or approved by the city or county.

3. All all joints shall be completed to a 6-inch grouted pipe cavity in a pump-up or a single line or per the approved geotechnical engineers report.

4. All sanitary sewer shall be three way breakaway type 304 stainless steel pipe, unless approved by the city or county. The 4-inch diameter sewer pipe shall be 304 stainless steel pipe, unless otherwise noted or approved.

5. All sanitary sewer shall be painted to a minimum of 12 inches above the surrounding ground. The 4-inch diameter sewer pipe shall be painted to a minimum of 12 inches above the surrounding ground. The 4-inch diameter sewer pipe shall be painted to a minimum of 12 inches above the surrounding ground.

6. All sanitary sewer shall be placed in the center of the streets, pipes to be located 3 feet from the edge of the street.

7. All sanitary sewer shall be painted to a minimum of 12 inches above the surrounding ground.

8. All sanitary sewer shall be placed in the center of the streets to be located 3 feet from the edge of the street.

9. All sanitary sewer shall be painted to a minimum of 12 inches above the surrounding ground.

10. All sanitary sewer shall be placed in the center of the streets to be located 3 feet from the edge of the street.

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18. All sanitary sewer shall be placed in the center of the streets to be located 3 feet from the edge of the street.

19. All sanitary sewer shall be painted to a minimum of 12 inches above the surrounding ground.

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21. All sanitary sewer shall be painted to a minimum of 12 inches above the surrounding ground.

22. All sanitary sewer shall be placed in the center of the streets to be located 3 feet from the edge of the street.

23. All sanitary sewer shall be painted to a minimum of 12 inches above the surrounding ground.

24. All sanitary sewer shall be placed in the center of the streets to be located 3 feet from the edge of the street.

25. All sanitary sewer shall be painted to a minimum of 12 inches above the surrounding ground.
EXTerior metal wall panel, MP-2
LP-8 over vapor barrier
Specifications fill or underslab treatment, bollard footings shall extend to foundation wall or grade.

Typical bollard plan detail
Sched. depth footing beam, re: structural
cd/cd check
bl 4.20.19
w/ 1/2" overlap
aw 4.10.19
aw 3.24.19
#19.001 sd

1'-10"
re: geotechnical report
3'-6"
re: structural & geotechnical report:
no foundation wall

WC grader
8" perimeter footing
coordinate with event of damage, re:
5' facilitates replacement in the adjacent concrete to flash at jamb.

8" perim. beam, re: structural

3'-10"
reinf. slab on grade, slope to mead, co 80542
re: a2.0

1111 h street
4950 e. asbury ave # 2
architectural designs
long & company
phone: 720.668.8762

1/4" = 1'-0"

1/4" = 1'-0"

1/4" = 1'-0"

1/4" = 1'-0"

1/4" = 1'-0"

1/4" = 1'-0"
DOOR HARDWARE AND KEYING

PART 1 - GENERAL

1.01 SUMMARY: OWNER'S REPRESENTATIVE WILL COORDINATE AND ENSURE THAT REPRESENTATIVES FROM BUILDING A/E TEAM AND CONSTRUCTION MANAGER.

1.02 RELATED WORK SPECIFIED ELSEWHERE INCLUDES: INSTALL THE KEYWAYS AND DISTRIBUTE KEYS TO BUILDING USERS.

PART 4 - KEYING

1.03 QUALITY ASSURANCE: A. UTILIZE AN ARCHITECTURAL HARDWARE CONSULTANT. (PROJECT SPECIFIC)

C. COMPLY WITH BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION (BHMA) STANDARDS AND NO SUBSTITUTES WILL BE ACCEPTED.

1.04 DESIGN CRITERIA: A. THE ARCHITECT SHALL INCLUDE A COMPLETELY ITEMIZED HARDWARE SCHEDULE IN THE TECHNICAL SPECIFICATIONS. A CASH ALLOWANCE SHALL NOT BE UTILIZED UNLESS SPECIFICALLY AUTHORIZED BY THE CLIENT OR OWNER'S REPRESENTATIVE.

B. THE HARDWARE SCHEDULE SHALL INCLUDE A COMPLETE LIST OF ITEMS PROPOSED AS EQUALS. THIS SCHEDULE MUST BE APPROVED BY THE CLIENT OR OWNER'S REPRESENTATIVE BY COMPLETION OF 50% CONSTRUCTION DOCUMENTS.

C. SPECIFY ONE MANUFACTURER AS STANDARD AND, WHENEVER POSSIBLE, AT LEAST TWO MANUFACTURERS AS REQUIRED HEREIN.

4.06 WITH A MINIMUM OF TWO WEEKS' NOTICE, PROJECTS HAVING LESS THAN (12) DOORS, MAY OBTAIN KEYWAYS DIRECTLY FROM THE CLIENT'S KEY SHOP STORED STOCK. COORDINATE WITH THE CLIENT OR OWNER'S REPRESENTATIVE TO ENSURE AVAILABILITY AND TIMELY INSTALLATION.

4.07 PART 2 - MATERIALS

NOTE: All doors with card access shall have cores with BEST key override.

2.01 GENERAL:

2.02 EXTERIOR DOORS: VERIFY WITH CLIENT OR OWNER'S REPRESENTATIVE

A. CLOSERS: NON-REMOVABLE CLOSERS ARE PREFERRED. RUSWELL SW SERIES, SURFACE (NO BACKSET), OR LCN SERIES. ADJUSTABLE PINNING AT MIDDLE HINGE PLANE

B. Hinges: PROVIDE ONLY SARGENT, CORBIN 110 SERIES OR LCN EQUIVALENT.

C. EXIT DEVICES: VON DUPRIN 99 SERIES SHALL BE SPECIFIED.

2.03 INTERIOR DOORS: VERIFY ALL CLIENT ON DOOR HARDWARE SPECIFICATIONS

A. CYLINDERS: PROVIDE BEST CYLINDERS OR SARGENT 8205. LOCKSET MUST BE CAPABLE OF ACCEPTING BEST KEYWAY.

B. PINNING: NON-REMOVABLE PINS TO PREVENT THE UNAUTHORIZED REMOVAL OF THE DOOR FROM THE OUTSIDE.

C. CONTRACTOR TO PROVIDE BEST CYLINDER.

D. PINNING: NON-REMOVABLE PINS TO PREVENT THE UNAUTHORIZED REMOVAL OF THE DOOR FROM THE OUTSIDE.

2.04 DOORS: PROVIDE ALL DOORS EXCLUDING BASIS DOORS AND ALL LEADING BUMPER BRACKETS.

D. PINNING: NON-REMOVABLE PINS TO PREVENT THE UNAUTHORIZED REMOVAL OF THE DOOR FROM THE OUTSIDE.

E. CONTRACTOR TO PROVIDE BEST CYLINDER.

2.05 PROJECT: VERIFY ALL DOORS TO MATCH PROJECT DOOR SCHEDULE AND INTERIOR FINISH PLAN & DETAILS

1.01 SUMMARY: OWNER'S REPRESENTATIVE WILL COORDINATE AND ENSURE THAT REPRESENTATIVES FROM BUILDING A/E TEAM AND CONSTRUCTION MANAGER.

1.02 RELATED WORK SPECIFIED ELSEWHERE INCLUDES: INSTALL THE KEYWAYS AND DISTRIBUTE KEYS TO BUILDING USERS.

PART 4 - KEYING

1.03 QUALITY ASSURANCE: A. UTILIZE AN ARCHITECTURAL HARDWARE CONSULTANT. (PROJECT SPECIFIC)

C. COMPLY WITH BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION (BHMA) STANDARDS AND NO SUBSTITUTES WILL BE ACCEPTED.

1.04 DESIGN CRITERIA: A. THE ARCHITECT SHALL INCLUDE A COMPLETELY ITEMIZED HARDWARE SCHEDULE IN THE TECHNICAL SPECIFICATIONS. A CASH ALLOWANCE SHALL NOT BE UTILIZED UNLESS SPECIFICALLY AUTHORIZED BY THE CLIENT OR OWNER'S REPRESENTATIVE.

B. THE HARDWARE SCHEDULE SHALL INCLUDE A COMPLETE LIST OF ITEMS PROPOSED AS EQUALS. THIS SCHEDULE MUST BE APPROVED BY THE CLIENT OR OWNER'S REPRESENTATIVE BY COMPLETION OF 50% CONSTRUCTION DOCUMENTS.

C. SPECIFY ONE MANUFACTURER AS STANDARD AND, WHENEVER POSSIBLE, AT LEAST TWO MANUFACTURERS AS REQUIRED HEREIN.

4.06 WITH A MINIMUM OF TWO WEEKS' NOTICE, PROJECTS HAVING LESS THAN (12) DOORS, MAY OBTAIN KEYWAYS DIRECTLY FROM THE CLIENT'S KEY SHOP STORED STOCK. COORDINATE WITH THE CLIENT OR OWNER'S REPRESENTATIVE TO ENSURE AVAILABILITY AND TIMELY INSTALLATION.

4.07 PART 2 - MATERIALS

NOTE: All doors with card access shall have cores with BEST key override.
1. G.C. to provide architect & owner a list of all long time items & confirm order placement to meet the project completion date. It is the G.C.'s responsibility to forward all relevant contract documents to subcontractors and coordinate all finishes and their installation. Ref. specifications section on long lead time items. It will be the G.C.'s responsibility to pay any architectural design fees to change the finishes to integrate/review any substitutions due to items not ordered according to their appropriate lead times.

2. Submit carpet seaming diagram for approval before ordering.

3. The specifications included in these drawings have been prepared at the request of the owner or owner's agent and have been approved by such. No substitutions will be accepted unless the savings are credited to the owner, he/she understands the implications of the changes and the owner agrees to pay any architectural design fees to change the finishes to integrate any substitutions after drawing have been completed. All requests for such substitutions must go through the project architect.

4. Do not paint or apply base to any aluminum storefront materials.

5. It is the carpet subcontractor's responsibility to budget for all necessary costs to provide an acceptable carpet installation per the Carpet and Rug Institute's standard for installation of commercial carpet and to inform the G.C. of any potential problems with the products specified before placing any orders.

6. Provide the following overages for owner's future use/repair and are not to be used by the G.C. or his/her subcontractors for any touch up or repair during construction phase.
   - Carpet - 3% and any unused portions of cartons
   - VCT & rubber base - 10%

7. Door frames are to be painted P2.

8. Existing sills to remain.

9. New office occupants to have the option of P4, P5, or P6 for accent walls indicated as PX in the room finish schedule. Coordinate colors with architect.
A. MB-101

INSTALLATION OF WALL AND ROOF SYSTEM

used in shop painting.

E. CD/CHECK

Do not erect frames without complete installation of tie beams and anchorages.

BL 4.20.19

ERECTION OF FRAME

2.3

BL 3.28.19

permanent bracing. Locate braced bays as required by manufacturer.

AW 3.24.19

#19.001 SD

 Provide for erection and wind loads. Provide temporary bracing to maintain

B. SHED

Framing Erection: Erect framing in compliance with AIS Specification and the latest

A. 2.2

Do not proceed until unsatisfactory conditions have been corrected.

GRADER SHED FACILITY

1.

Verify foundations are properly installed, to correct dimensions and within

A. 5698 WCR #34

EXAMINATION

2.1

EXECUTION

PART 2

Verification of Conditions: Examine areas and conditions under which work is to be

F. 4.

provided to prevent deterioration of the shop coat

G. 1.

Wainscote finish and color:

signature # 200-white

H. 2.

Liner panel finish and color:

signature # 200-koko brown

I. 1.

Gutters & Downspouts:

signature # 200-koko brown

J. 2.

Provide at wall panel rakes, eaves, transitions and accessories.

Provide at roof panel end laps, side laps, rake, eave, transitions and accessories

Sealants, Mastics and Closures: Manufacturer’s standard type.

Flashing and Trim: Match material, finish, and color of adjacent components. Provide

at framed openings and as required or specified to provide weather tightness and a finished

Finish and as necessary; penetrations finished with a self-drilling type, of size as required.

Concealed Fasteners: Self-drilling type, of size as required.

High Strength Bolted Connections: Specification for Structural Joints Using ASTM A 325

Roof installation inspection by roof manufacturer’s representative; as required as

Testing by Contractor:

A. 1.

Welding operators and processes: Qualified in accordance with AWS D1.1.

B. 1.

Bolts and Nuts Used with Secondary Framing Members: High Strength ASTM A 325

Sealed watertight. Flash and seal gutters to downspouts.

D. 1.

Provide expansion joints where indicated.

Provide at roof panel end laps, side laps, rake, eave, transitions and accessories

Provide fasteners in quantities and location as required by the manufacturer.

Provide fasteners where indicated to secure a part of warranty provision.

Provide fasteners with integral sealing washer.

A rejection rate of 1.5 percent of full and partial penetration welds. A rejection rate

hot rolled steel shapes, angles, rods, channels and other shapes; with minimum yield strength

50,000 psi (345 MPa); nominal coating weight of 0.5 oz per sq ft (152 kg/sq m) both sides,

Hot rolled steel shapes, W, M and S shapes, angles, rods, channels and other shapes; with minimum yield strength

50,000 psi (345 MPa); nominal coating weight of 0.5 oz per sq ft (152 kg/sq m) both sides,

Galvanized structural steel material for use in roll formed or press broken

Structural steel plate, bar, sheet, and strip for use in bolted and welded

Structural steel tube, for use in roll formed or press broken

Structural steel tube, for use in roll formed or press broken

High-strength steel, for use in roll formed or press broken

High-strength steel, for use in roll formed or press broken

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50,000 psi (345 MPa); nominal coating weight of 0.5 oz per sq ft (152 kg/sq m) both sides,
4.10.19

COPPER GROUNDING CONDUCTOR. INCREASE CONDUIT SIZE AS REQUIRED.

NON-METALLIC AND FLEXIBLE METAL CONDUITS SHALL HAVE A CODE SIZED
FOR ADDITIONAL CONDUIT, WIRE, RELAYS, TRANSFORMERS, CONNECTIONS, ETC.

AW4.10.19

RELAYS, ETC.) REQUIRED. REFER TO CONTROL DRAWINGS AND CONTROL DIAGRAMS

TRANSFORMER, LED PILOT LIGHT, AND PUSHBUTTON OR SELECTOR SWITCH AS

FOUNTAIN UNLESS LOCATED BELOW A COUNTER OR OTHERWISE PROTECTED SHALL BE

IN AREAS CONSIDERED "TIGHT" WITHIN MILLWORK AND CASEWORK

4.1.

WELD COUNTY - MEAD

FINAL CONNECTIONS AND ROUGH-IN REQUIREMENTS TO EQUIPMENT SHALL BE

CONDUIT PENETRATING FIRE-RATED WALLS SHALL COMPLY WITH THE REQUIREMENTS OF

AND WITH THE SPECIFIC APPROVAL FROM THE ARCHITECT, SURFACE RACEWAY AND

ALL CIRCUITING SHALL BE CONCEALED. WHERE CONCEALMENT IS IMPRACTICAL,

RGS OR IMC SHALL BE USED IN ALL AREAS SUBJECT TO WEATHER OR

DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION OR

AND WITH THE SPECIFIC APPROVAL FROM THE ARCHITECT, SURFACE RACEWAY AND

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AND WITH THE SPECIFIC APPROVAL FROM THE ARCHITECT, SURFACE RACEWAY AND

ALL CIRCUITING SHALL BE CONCEALED. WHERE CONCEALMENT IS IMPRACTICAL,
ELECTRICAL SPECIFICATION

1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE FEDERAL/STATE/LOCAL CODES, INTERNATIONAL BUILDING CODE, AND THE NEC.

2. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. FURNISH AND INSTALL ALL REQUIRED JUNCTION BOXES, PULL BOXES, SURFACE/RECESSED ENCLOSURES, BUSSES, GROUNDS, ISOLATED GROUND BUS, AND NEUTRAL BARS AS REQUIRED.

3. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER CONTRACTORS AND ALL OTHER TRADES BEFORE INSTALLATION.

4. ELECTRICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, AND SHALL PAY ALL FEES RELATIVE TO THE INSTALLATION OF HIS WORK.

5. "PROVIDE" MEANS FURNISH AND INSTALL.

6. PROVIDE ALL EQUIPMENT, COMPONENTS AND DEVICES SHOWN ON THE POWER RISER DIAGRAMS, POWER ONE-LINE DIAGRAMS, BLOCK DIAGRAMS, AND SPECIAL SYSTEMS (INCLUDING, BUT NOT LIMITED TO: FIRE ALARM, SECURITY, TELEPHONE, DATA, CATV) RISER OR BLOCK DIAGRAMS WHETHER OR NOT SUCH EQUIPMENT, COMPONENTS AND DEVICES ARE INDICATED ON THE FLOOR PLANS.

7. PROVIDE FIRESTOPPING AROUND PENETRATIONS OF FLOORS AND FIRE RATED WALLS. MAINTAIN THE FIRE RESISTANCE RATING OF THE FLOORS, WALLS, ENCLOSURES, BUSSES, GROUNDS, ISOLATED GROUND BUS, AND NEUTRAL BARS AS REQUIRED.

8. PROVIDE DEDICATED NEUTRAL WIRES FOR ALL BRANCH CIRCUITS.

9. EXACT LOCATION OF ALL EQUIPMENT AND ACCESSORIES SHALL BE VERIFIED IN THE FIELD AND COORDINATED WITH OTHER TRADES. ADJUST LOCATIONS TO SUIT FIELD CONDITIONS. COMPLY WITH CLEARANCES AS REQUIRED BY THE NEC, THE MANUFACTURER, AND APPLICABLE CODES.

10. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT.

11. SOME MECHANICAL EQUIPMENT (INCLUDING BUT NOT LIMITED TO THE VFDs) ARE PROVIDED BY THE MECHANICAL CONTRACTOR BUT INSTALLED.

12. UNLESS OTHERWISE NOTED AS "EXISTING" OR "BY OTHERS" OR "NIC", ALL WORK, DEVICES AND EQUIPMENT ARE NEW AND SHALL BE COMPLETE WITH PROTECTIVE DEVICES, ENCLOSURES, BUSSES, GROUNDS, ISOLATED GROUND BUS, AND NEUTRAL BARS AS REQUIRED.

13. PROVIDE DEDICATED NEUTRAL WIRES FOR ALL BRANCH CIRCUITS.

14. RACEWAYS EMBEDDED IN CONCRETE OR MASONRY WALLS SHALL BE IN IMC: IN HOLLOW NON-MASONRY WALLS AND ABOVE CEILINGS SHALL BE EMT, RACEWAY EXPOSED TO SEVERE PHYSICAL DAMAGE SHALL BE RIGID GALVANIZED AND RACEWAYS BETWEEN VIBRATING EQUIPMENT SHALL BE LIQUID TIGHT FLEXIBLE METALLIC CONDUIT.

15. CABLES AND RACEWAY SHALL RUN PARALLEL OR PERPENDICULAR TO WALL AND CEILING STRUCTURES (COLUMNS, JOISTS, SUPPORT BEAMS, ETC.) FOR A NEAT APPEARANCE.

16. CABLES AND RACEWAY SHALL RUN PARALLEL OR PERPENDICULAR TO WALL AND CEILING STRUCTURES (COLUMNS, JOISTS, SUPPORT BEAMS, ETC.) FOR A NEAT APPEARANCE.

17. PANELBOARDS AND SAFETY SWITCHES SHALL BE OF ONE MANUFACTURER AND SHALL BE COMPLETE WITH PROTECTIVE DEVICES, ENCLOSURES, BUSSES, GROUNDS, ISOLATED GROUND BUS, AND NEUTRAL BARS AS REQUIRED.

18. PROVIDE FIRESTOPPING AROUND PENETRATIONS OF FLOORS AND FIRE RATED WALLS. MAINTAIN THE FIRE RESISTANCE RATING OF THE FLOORS, WALLS, ENCLOSURES, BUSSES, GROUNDS, ISOLATED GROUND BUS, AND NEUTRAL BARS AS REQUIRED.

19. WHEREVER NEW CIRCUIT BREAKERS ARE BEING INSTALLED INSIDE EXISTING PANELBOARDS, SWITCHBOARDS, MCCs, OR SIMILAR EQUIPMENT, THE REQUIREMENTS AND WALLS. INSTALL UL LISTED FIRESTOPPING MATERIAL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND UL'S REQUIREMENTS.

20. PROVIDE POWER TO FIRE/SMOKE DETECTORS AND DAMPERS AS REQUIRED.

21. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT.

22. 600V POWER WIRES SHALL BE THHN/THWN-2 COPPER CONDUCTORS, UNWCRDED, AND CONNECTED BY THE ELECTRICAL CONTRACTOR. COORDINATE WITH MECHANICAL CONTRACTOR.

23. PROVIDE DEDICATED RACEWAY FOR ALL EMERGENCY WIRING. DO NOT COMBINE WITH OTHER TYPES OF WIRING.

24. PROVIDE UNSWITCHED 'HOT' WIRE TO LOCAL LIGHTING CIRCUIT TO FEED EMERGENCY LIGHTING UNITS, EXIT LIGHTING FIXTURES, NIGHT LIGHTING.

25. PROVIDE ENGRAVED NAMEPLATES FOR ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, PANELS, STARTERS, DISCONNECTS, FIXTURES, LIGHTING FIXTURES WITH BATTERY BACKUP, OCCUPANCY SENSORS, AND VACANCY SENSORS.

26. JUNCTION BOXES AND CONDUIT BODIES SHOWN ON THE DRAWING ARE MINIMUM QUANTITY ONLY. PROVIDE ADDITIONAL JUNCTION BOXES AND BREAKERS, MCCs, SWITCHBOARDS, SWITCHGEAR, AND TRANSFORMERS.

27. PROVIDE LIGHTING FIXTURES AND LAMPS AS SPECIFIED AND AT LOCATIONS SHOWN ON DRAWINGS.

28. INSTALL ALL DEVICES AND EQUIPMENT ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND UL'S REQUIREMENTS.

29. COMPLETE AND OPERABLE SYSTEM. SUBMIT ANY SUBSTITUTIONS TO OWNER FOR APPROVAL.

30. PROVIDE ALL ACCESSORIES FOR A COMPLETE AND OPERABLE SYSTEM. SUBMIT ANY SUBSTITUTIONS TO OWNER FOR APPROVAL.
### ELECTRICAL SITE PLAN & NOTES

**PROJECT NO:** WC GRADER SHED FACILITY

**GRADER SHED**

**BUILDING #500**

**WELD COUNTY - MEAD**

**5698 WCR #34**

**MEAD, CO 80542**

**ELECTRICAL - SITE PLAN & NOTES**

**1111 H STREET**

**GREELEY, CO 80632**

**PHONE: 970.400.2320**

**WELD COUNTY**

**BUILDING & GRNDS MAINTENANCE**

**LONG & COMPANY ARCHITECTURAL DESIGNS**

**4950 E. ASBURY AVE # 2**

**DENVER, CO 80222-4803**

**PHONE: 720.668.8762**

**#19.001 SD**

**Sd/CHECK**

**Cd/CHECK**

**AW 3.24.19**

**BL 3.28.19**

**AW 4.10.19**

**BL 4.20.19**

**MEP ENGINEERING**

**ADVANCED ENERGY SOLUTIONS.**

**1428 S. HUMBOLDT ST #**

**DENVER, CO 80210**

**PHONE: 720.668.8762**

---

### Electrical Panel Schedule

#### PANEL 1

**VOLTAGE:** 277-480V

**WIRE:** 6/0 AWG (MIN) 12/3

<table>
<thead>
<tr>
<th>L.O.A.</th>
<th>TYPE</th>
<th>RESISTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>277-480V</td>
<td>NM</td>
<td>500 ohms</td>
</tr>
</tbody>
</table>

**Circuit Breaker:**

- **30A:** 5

**Circuit Description:**

- **Lighting:** 277-480V

**Lighting At Island:**

- **30A:** 2

**Receipt At Fuel:**

- **30A:** 4

**Total Connected Load:** 102000 VA

**Total Connected Load:** 102000 VA

---

### Electrical Panel Schedule

#### PANEL 2

**VOLTAGE:** 277-480V

**WIRE:** 6/0 AWG (MIN) 12/3

<table>
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**Circuit Breaker:**

- **30A:** 5

**Circuit Description:**

- **Lighting:** 277-480V

**Lighting At Island:**

- **30A:** 2

**Receipt At Fuel:**

- **30A:** 4

**Total Connected Load:** 102000 VA

**Total Connected Load:** 102000 VA

---

### Electrical Panel Schedule

#### PANEL 3

**VOLTAGE:** 277-480V

**WIRE:** 6/0 AWG (MIN) 12/3

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**Circuit Breaker:**

- **30A:** 5

**Circuit Description:**

- **Lighting:** 277-480V

**Lighting At Island:**

- **30A:** 2

**Receipt At Fuel:**

- **30A:** 4

**Total Connected Load:** 102000 VA

**Total Connected Load:** 102000 VA

---

### Electrical Panel Schedule

#### PANEL 4

**VOLTAGE:** 277-480V

**WIRE:** 6/0 AWG (MIN) 12/3

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</tr>
</tbody>
</table>

**Circuit Breaker:**

- **30A:** 5

**Circuit Description:**

- **Lighting:** 277-480V

**Lighting At Island:**

- **30A:** 2

**Receipt At Fuel:**

- **30A:** 4

**Total Connected Load:** 102000 VA

**Total Connected Load:** 102000 VA
**MECHANICAL NOTES:**

**GENERAL**

1. **ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL STANDARDS AND SPECIFICATIONS AND LOCAL AUTHORITY HAVING JURISDICTION.**

2. **THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND NOT INTENDED TO BE CONSIDERED AS COMPLETE OR ACCURATE.**

A. **HIGH PRESSURE AIR- Handling System Crosses into thece Area shall CONTRACTOR BALANCE ALL DUCTS AND VAVs TO MATCH THE PROJECT BID REQUIREMENTS.**

B. **ALL WORK SHALL BE IN ACCORDANCE WITH SMACNA STANDARDS.**

C. **COORDINATE ALL SPACE REQUIREMENTS, SUPPORTS, AND INSTALLATION OF MECHANICAL WORK, WHICH ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS.**

D. **CONTRACTOR SHALL REVIEW THESE DRAWINGS CAREFULLY.**

E. **COORDINATE ALL SPACE REQUIREMENTS, SUPPORTS, AND INSTALLATION OF MECHANICAL WORK, WHICH ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS.**

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Y. **COORDINATE ALL SPACE REQUIREMENTS, SUPPORTS, AND INSTALLATION OF MECHANICAL WORK, WHICH ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS.**

Z. **COORDINATE ALL SPACE REQUIREMENTS, SUPPORTS, AND INSTALLATION OF MECHANICAL WORK, WHICH ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS.**

**ARCHITECTURAL DESIGNS**

A. **PROVIDE ACCESS DOORS IN DUCTWORK AS REQUIRED FOR ACCESS TO EQUIPMENT REQUIRING MAINTENANCE OF SERVICE.**

B. **THE CONTRACTOR SHALL REVIEW THESE DOCUMENTS CAREFULLY.**

C. **THE CONTRACTOR SHALL REVIEW THESE DOCUMENTS CAREFULLY.**

D. **THE CONTRACTOR SHALL REVIEW THESE DOCUMENTS CAREFULLY.**

E. **THE CONTRACTOR SHALL REVIEW THESE DOCUMENTS CAREFULLY.**

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**MECHANICAL LEGEND**

A. **MECHANICAL LEGEND**

B. **MECHANICAL LEGEND**

C. **MECHANICAL LEGEND**

D. **MECHANICAL LEGEND**

E. **MECHANICAL LEGEND**

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X. **MECHANICAL LEGEND**

Y. **MECHANICAL LEGEND**

Z. **MECHANICAL LEGEND**
PLUMBING NOTES #2

I. GENERAL

A. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND NOT INTENDED TO SHOW ALL TRANSITIONS, OFFSETS, ETC. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND PROVIDE ALL NECESSARY FITTINGS TO COMPLETE THE INTENT OF THE DRAWINGS. ANY DISCREPANCIES BETWEEN DRAWINGS AND FIELD CONDITIONS SHALL BE REPORTED TO THE DESIGN ENGINEER FOR RESOLUTION.

B. CONTRACTOR SHALL COORDINATE WORK WITH OTHER TRADES AND NOTIFY ENGINEER IF ANY CONFLICTS OCCUR.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COSTS OF ALL CHANGE ORDERS WHICH THE OWNER AND ENGINEER HAVE NOT APPROVED IN WRITING PRIOR TO THE EXECUTION OF THE ASSOCIATED WORK.

II. PRODUCTS

A. INTERIOR SOIL AND WASTE PIPING: SERVICE WEIGHT CAST IRON SOIL PIPE AND NO HUB FITTINGS OR DWV COPPER PIPE AND FITTINGS WITH 95% TIN/5% ANTIMONY SOLDER JOINTS.

B. VENT PIPING: SERVICE WEIGHT CAST IRON WITH STAINLESS STEEL NO HUB CONNECTORS OR DWV COPPER PIPE AND FITTINGS WITH 95% TIN/5% ANTIMONY SOLDER JOINTS.

C. DOMESTIC WATER LINES AND INDIRECT DRAIN LINES, NPS 4 AND SMALLER SHALL BE HARD COPPER TUBE, ASTM B 88, TYPE L, LEAD-FREE SOLDER-JOINT FITTINGS;

D. BRONZE BALL VALVES: TWO-PIECE, FULL-PORT, LEAD-FREE BRONZE BALL VALVES WITH LEAD-FREE SOLDER.

III. EXECUTION

A. ALL PLUMBING WORK SHALL COMPLY WITH LOCAL CODES AND ORDINANCES.

B. PITCH WASTE LINES NOT LESS THAN 1/4" PER FOOT. (UNLESS NOTED OTHERWISE).

C. ISOLATE ALL COLD WATER, HOT WATER, HOT WATER RECIRCULATION AND INDIRECT WASTE PIPING WITH A "K" FACTOR OF 0.23 MAXIMUM AT 75°F MEAN TEMPERATURE. INSULATION JACKET SHALL BE FACTORY APPLIED KRAFT PAPER WITH VAPOR BARRIER AND SELF-SEALING LAP.

D. RUN ALL PIPING ON WARM SIDE OF BUILDING INSULATION. PIPE INSULATION IS NOT CONSIDERED FREEZE PROTECTION.

E. PROVIDE DIELECTRIC UNIONS AT CONNECTIONS BETWEEN DISSIMILAR METALS, I.E., IRON VALVES AND COPPER TUBING.

F. PROVIDE PIPE HANGERS OF THE SAME MATERIAL AS THE PIPING SYSTEM OR USE COATED HANGERS.

G. PROVIDE BALL VALVES AND UNIONS ON ALL LINES TO EQUIPMENT FOR ISOLATION AND REMOVAL.

H. PROVIDE BALL VALVES AND UNIONS ON ALL LINES TO EQUIPMENT FOR ISOLATION AND REMOVAL.

I. THE CONTRACTOR SHALL X-RAY THE FLOOR AND OBTAIN BUILDING OWNER APPROVAL BEFORE CUTTING ANY FLOOR PENETRATIONS.

J. WHERE REMOVAL OR REPLACEMENT OF EXISTING FIXTURES OCCURS, CONTRACTOR SHALL REMOVE ALL WASTE AND VENT BRANCH LINES NOT REQUIRED FOR NEW OR REMAINING FIXTURE LOCATIONS.

K. WHERE PIPING HAS BEEN REMOVED FROM FLOOR PENETRATIONS, CONTRACTOR SHALL MATCH CONCRETE FLOOR TO MATCH EXISTING CONDITIONS.

PLUMBING LEGEND

- CAST IRON SOIL PIPE
- COPPER PIPE
- LEAD-FREE SOLDER-JOINT FITTINGS
- BRONZE BALL VALVES
- DIELECTRIC UNIONS
- PIPE HANGERS
- BALL VALVES AND UNIONS