# AGREEMENT FOR OFFICE REMODEL CONSTRUCTION

**THIS AGREEMENT FOR OFFICE REMODEL CONSTRUCTION** ("Agreement") is made and entered into this _____ day of _____, 2017 by and between _____, a _____ corporation, ("Contractor") and **SOUTHGATE SANITATION DISTRICT**, a quasi-municipal corporation and political subdivision of the State of Colorado, ("Southgate") (each a "Party" and, together, the "Parties").

1. Project. Contractor shall provide consultation, labor, materials, and equipment, and arrange for, coordinate, and supervise the following construction services, with respect to the office remodel construction to complete the Scope of Work, as defined in **Exhibit A**, which is attached hereto and incorporated herein and referred to as the "Work".

The scope of the work is hereinafter referred to as the "Work." The intent of the Agreement is to include all items necessary for the proper execution and completion of the Work by the Contractor.

2. Term. The term of this Agreement shall commence on the date of this Agreement and shall continue in effect until December 31, 2017 ("Termination Date") or whichever is the first to occur of the following:

(a) The date on which performance of the Work has been completed in accordance with this Agreement, or

(b) The tenth ($10^{th}$) calendar day after Contractor receives a written notice from Southgate ("Termination Notice") terminating this Agreement, which termination may be with or without cause. If Southgate terminates this Agreement without cause, Contractor shall be paid for all Work rendered in accordance with the terms of this Agreement up to the Termination Date.

3. Labor and Materials. Unless otherwise provided in the Agreement, the Contractor shall provide and pay for labor, materials, equipment, tools, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work. The Contractor shall deliver, handle, store, and install materials in accordance with manufacturers' instructions.

4. Work Location. The Work shall occur at the offices of the Southgate Sanitation District.

5. Contract Documents. The "Contract Documents" consist of:

(a) This Agreement.

(b) **Exhibit A**, Scope of Work

(c) **Exhibit B**, Schedule of Fees and Compensation

(d) **Exhibit C**, Illegal Alien Certification

(e) All written Change Orders, modifications, or additions to the Work issued and agreed to by the Parties from time to time. The Contract Documents represent the entire agreement of the Parties with respect to the subject matter hereof and supersede any oral or written agreement heretofore made by the Parties. Any modifications of the Contract Documents or additional obligation assumed by either Party in connection with this Agreement shall be binding only if evidenced in writing and signed by the Parties to be bound thereby.

6. Addition/Modification of Work. The Work is not subject to modification or addition unless Contractor obtains a written approval of the modification/addition signed by Southgate ("Change Order"). The contents of the written Change Order shall include at a minimum all of the following:

(a) A description of the particular modification /addition to the Work;

(b) The amount of any change in Contractor's compensation as listed in **Exhibit B**, resulting from the modification/addition;

(c) Any revisions in the commencement, completion or delivery dates, if any, resulting from the modification; and

(d) Southgate's dated signature.

Contractor shall not perform any modification/addition to the Work or incur any expenses with respect to such modification/addition until Contractor obtains a signed Change Order for such modification/addition.

7. Exclusions. The Work does not include:

(a) Any activity or work beyond that set forth herein.

8. Independent Contractor. In providing the Work, Contractor is acting as an Independent Contractor and this Agreement is not intended to, nor does it, create any employer-employee relationship, nor shall it be construed as creating any joint venture or partnership between Southgate and Contractor. Since Contractor is acting solely as an independent contractor under this Agreement, Contractor shall not be entitled to insurance, incentive pay or any other benefits provided by Southgate to its employees.

9. Contract Sum. Southgate shall pay Contractor on a time and materials basis, a sum not to exceed _____ Dollars ($_____) for the Work specified in Exhibit A of this Agreement and payable according to the schedule of fees as set forth in **Exhibit B**, which is attached hereto and incorporated herein.

10. Payment. Payment of the Contract Sum, or portions thereof, shall be made to the Contractor for portions of the Work that have been satisfactorily completed within thirty (30) calendar days of Southgate's receipt of an invoice from Contractor. Southgate shall give written

notice to Contractor of deficiencies in the Work covered by any invoice within fifteen (15) calendar days of Southgate's receipt of said invoice.

(a) Interest. All amounts (less retainage) not paid on Work accepted by Southgate within thirty (30) calendar days of Southgate's receipt of the invoice shall earn interest at the rate of 1% per month.

(b) Acceptance/Conformance. Payment of an invoice by Southgate shall not constitute acceptance of Work not in accordance with the requirements of the Agreement.

11. Bonds. Contractor shall furnish Southgate with payment and performance bonds covering Contractor's faithful performance of all obligations under the Contract's documents and the payment of Contractor's obligations arising out of the Contract Documents. Such bond(s) shall be with a surety and in a form acceptable to Southgate and shall name Southgate, as an obligee thereunder and such other entities as Southgate may designate as additional obliges hereunder. Such bonds shall include a provision stating that no modification of any provision of any contract documents, including a change in the contract time, Payment, or other conditions of payment, will release the surety in part or in whole. Such bonds shall be in a form and substance satisfactory to Southgate.

12. Contractor's Duties. Contractor shall:

(a) Commence the Work upon full execution of this Agreement and shall thereafter prosecute the Work to completion in a commercially reasonable manner, in cooperation with Southgate, subject, however, to delays caused by Change Orders, acts of Southgate, weather, unavailability of materials, acts of God, or other circumstances beyond the reasonable control of Contractor;

(b) Unless otherwise specifically set forth in the Agreement, Contractor shall obtain and pay for all permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work, comply with and give notices required by agencies having jurisdiction over the Work, and assume full responsibility for any Work and bear any attributable costs, including costs of correction, if Contractor performs any Work it knew or reasonably should have known to be contrary to applicable laws, statutes, ordinances, building codes, and rules and regulations;

(c) Perform the Work, or cause the Work to be performed, in a good and workmanlike manner in accordance with established construction industry standards, applicable trade codes, and the Contract Documents;

(d) Pay all applicable federal, state, sales, consumer, use, and/or similar taxes as legally required;

(e) Supervise, direct, and enforce discipline among all workers and subcontractors engaged by Contractor to execute the Work;

(f) Maintain the work site in a clean, safe, and orderly condition and prevent the excessive accumulation of debris thereon;

(g) Initiate, maintain, and supervise all safety precautions and programs, including all those required by law in connection with performance of the Agreement, and Contractor shall promptly remedy damage and loss to property caused in whole or in part by the Contractor, or by anyone for whose acts the Contractor may be liable;

(h) Protect the Work and the Work location from damage caused by Contractor's activities;

(i) Remove and replace in a timely manner all defective or non-conforming Work or material provided by Contractor; and

(j) Assign to Southgate all warranties provided by any manufacturer, subcontractor, or material supplier with respect to the Work.

13. Southgate's Duties. Southgate shall provide:

(a) Access to the Work location to the extent reasonably necessary for performance of the Work;

(b) Adequate electrical power, water, and gas as required for performance of the Work except those services to be constructed as part of the Work;

(c) Suitable on-site storage as reasonably required for Contractor's tools, material, and equipment during the course of the Work;

(d) Notice to Contractor of the existence of any hazardous materials or substances or any unsafe conditions upon or affecting the Work to the extent Southgate has knowledge thereof.

In addition, Southgate shall not interfere with or disrupt in an unreasonable way the prosecution of the Work. Southgate shall communicate with Contractor's laborers, subcontractors, and material suppliers only through Contractor and shall not engage any other contractors, laborers, subcontractors, or material suppliers in connection with the Work or who may interfere with the prosecution of the Work without the prior written consent of Contractor.

14. Contractor's Warranties. Contractor warrants that:

(a) It is a general contractor, licensed by applicable governing bodies;

(b) All Work performed under this Agreement will conform to the Contract Documents;

(c) All materials and equipment furnished, installed, or otherwise provided by Contractor as part of the Work will be of good quality and new, unless otherwise directed by Southgate or the Contract Documents;

(d) Contractor has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents; and

(e) The Work will be free from defects not inherent in the quality required or permitted.

15. Southgate's Right to Stop the Work. If Contractor fails to correct Work which is not in accordance with the Agreement, Southgate may direct Contractor in writing to stop the Work until the correction(s) is/are made.

16. Southgate's Right to Carry out the Work. If Contractor defaults or neglects to carry out the Work in accordance with the Agreement and fails within a seven (7) calendar day period after receipt of written notice from Southgate to correct such default or neglect with diligence and promptness, Southgate may, without prejudice to other remedies, correct such deficiencies, and Contractor shall pay the costs of such correction.

17. Correction or Removal of Defective or Deficient Work. Contractor shall correct or remove and replace all Work rejected by Southgate for failure to comply with the Agreement at Contractor's own expense. All additional costs incurred by Southgate as a result of the deficient work shall be paid by Contractor.

18. Southgate's Correction of Defective Work. In the event that Contractor refuses or fails to correct or remove defective Work when ordered to do so by Southgate, Southgate shall have the right, but not the obligation, to correct any defective Work on its own after giving Contractor ten (10) calendar days' written notice. Southgate may make an appropriate deduction in the Contract Price.

19. Miscellaneous Warranty Issues. All warranties and guarantees pursuant to this Section 19 are in addition to any special warranty contained or referred to in any of the other documents or available or provided under applicable laws. Contractors' obligations under this Section 19 and any rights Southgate has, including but not limited to failing to correct defective work, shall survive both final payment for the work and the expiration or any termination of any this Agreement. Any failure to correct defective work pursuant to this Section shall constitute a breach of the Agreement. Contractor shall insert the terms of this Section 19 in all sub-contractor agreements executed in connection with the work to be performed under this Agreement and shall cause each contractor's party to agree in writing thereto. The rights of Southgate under this Section 19 are in addition to all other warranties and obligations of Contractor provided by law or otherwise and not in limitation thereof or periods of applicable statutes of limitations.

20. Attorneys' Fees. In the event that legal action is instituted to enforce any of the provisions of this Agreement, the prevailing party shall recover its reasonable attorneys' fees and costs.

21. Termination.

(a) By Contractor. If Southgate fails to make payment when due or substantially breaches any other obligation of this Agreement, following seven (7) calendar days' written notice to Southgate, the Contractor may terminate the Agreement.

(b) By Southgate. Southgate may terminate the Agreement, following seven (7) calendar days' written notice to Contractor, if Contractor (i) disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction; or (ii) is otherwise in breach of a provision of the Agreement.

22. Hazardous Materials.

(a) Use of Hazardous Materials. Except in strict compliance with Federal, State, and Local laws, statutes, ordinances, and regulations, Contractor shall not introduce any Hazardous Materials, as defined below, in, on, over, or under the property owned or controlled by Southgate.

(b) Definition of Hazardous Materials. Hazardous Materials means: (a) any toxic or hazardous wastes, whether products or wastes, pollutants, or substances, including, without limitation, asbestos, radon, polychlorinated biphenyls, petroleum products and by-products; (b) substances defined as hazardous substances or toxic substances or similarly identified in the Comprehensive Environmental Response Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9601 et seq., the Hazardous Materials Transportation Act, 49 U.S.C. § 1802 et seq., the Resource Conversation and Recovery Act, 42 U.S.C. § 6901 et seq., the Toxic Substance Control Act of 1976, as amended, 15 U.S.C. § 2601 et seq., the Clean Water Act, 33 U.S.C. § 1251 et seq., the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.; (c) any oil, petroleum or oil or petroleum byproduct as defined by the Colorado Revised Statutes, Title 25, Article 15, as amended from time to time; (d) any "hazardous substance" as defined by the Colorado Revised Statutes, Title 25, Article 18 and regulations promulgated thereunder; (e) any substance, the presence of which on the Property is prohibited by any law similar to those set forth in this section; and (f) any other substance that by law requires special handling in its collection, storage, treatment, or disposal.

(c) Indemnification for Use of Hazardous Materials. Contractor, its successors and assigns, will defend, indemnify and hold harmless Southgate, Southgate's licensees, invitees, agents, successors, and assigns from any and all loss, claims, liability, damages, and costs, including, without limiting the generality of the foregoing, court costs and reasonable attorney's fees, caused by, resulting from, or in any way arising out of the use of the Hazardous Materials by Contractor, its contractors, subcontractors, employees, successors, and assigns.

23. Insurance. Contractor shall purchase and maintain comprehensive general public liability and property damage insurance in an amount not less than $2,000,000 per occurrence and $5,000,000 aggregate as well as workers' compensation insurance in the amounts required by law. Such policies shall name Southgate, its members, agents, employees, as an additional insured and shall prohibit cancellation without thirty (30) calendar days' notice to Southgate. Contractor will furnish Southgate, within ten (10) calendar days of receipt of a written request for the same, written verification from the insurance carrier for Contractor that such coverage is in full force and effect. If Contractor fails to supply such written verification within such ten (10) calendar day period, Southgate shall be entitled to stop all work by Contractor without any liability therefore.

24. Indemnification. To the fullest extent permitted by law, Contractor for its own act or failure to act, and for those its agents, employees, suppliers, subcontractors, shall indemnify, protect and hold harmless Southgate, all of such parties'members, representatives, agents, employees and their respective successors and assigns (collectively, the "Indemnified Parties") from any and all losses, costs, expenses reasonable attorneys' fees and other costs of defense incurred in defending against any claim(s) or in enforcing this indemnity, liabilities, claims, court cost, demands, debts, cause of actions, fines, judgments and penalties, regardless of whether or not the claim is caused in part by an Indemnified Parties' sole negligence. This includes and is not limited to, any damages, including any special, indirect, consquential and punitive damages under this Agreement. No provision of this Agreement shall be construed as a waiver or release of the immunities, limitations, or defenses afforded to Southgate under the Colorado Governmental Immunity Act.

25. Appropriations. Pursuant to C.R.S. § 24-91-103.6(2), Southgate has appropriated sufficient funds to pay the amounts due under the Agreement. Southgate shall neither request nor approve any Change Orders or other form of order or directive requiring additional compensable work to be performed, which work causes the aggregate amount payable under the Agreement to exceed the amount appropriated for the Agreement, unless written assurance by Southgate that lawful appropriations necessary to cover the additional work has been made.

26. Illegal Alien Workers. Contractor shall not knowingly employ or contract with an illegal alien to perform work under the Agreement or contract with a subcontractor who knowingly employs or contract with an illegal alien to perform work under the Agreement. Execution of this Form by Contractor shall constitute a certification by Contractor that it does not knowingly employ or contract with an illegal alien and that the Contractor has participated or attempted to participate in the Employment Verification Program administered by the United States Department of Homeland Security, ("E-Verify Program") or the Department program established pursuant to C.R.S. § 8-17.5-102(5)(c) in order to verify that it does not employ any illegal aliens.

A. Contractor shall comply with the following:

(a) Contractor shall confirm or attempt to confirm the employment eligibility of all employees who are newly hired for employment in the United States through participation in the E-Verify Program or the department program. Contractor shall participate in the E-Verify Program or the department program until all Contractor requirements under this Agreement are completed.

(b) Contractor shall not utilize the E-Verify Program or the department program procedures to independently undertake pre-employment screening of job applicants.

(c) Contractor shall require each subcontractor to certify that subcontractor will not knowingly employ or contract with an illegal alien to perform work under the Agreement. If Contractor obtains actual knowledge that a subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien the Contractor shall be required to:

(i) Notify the subcontractor and Southgate within three (3) days that Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and

(ii) Terminate the subcontract with the subcontractor if within three (3) days of receiving notice from the Contractor, the subcontractor does not stop employing or contracting with the illegal alien; except that the Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

(d) Contractor shall comply with any reasonable request by the Department of Labor and Employment ("Department") made in the course of an investigation by the Department.

B. If Contractor violates any provision of this Certification, Southgate may terminate the Agreement immediately and Contractor shall be liable to Southgate for actual and consequential damages of Southgate resulting from such termination and Southgate shall report such violation by Contractor to the Colorado Secretary of State as required by law.

27. Notices. Any notices, demands, or other communications required or permitted to be given by any provision of this Agreement shall be given in writing, delivered personally or sent by certified or registered mail, return receipt requested, postage prepaid, or by overnight courier, with shipping charges prepaid, addressed as follows:

To Southgate: Southgate Sanitation District
3722 East Orchard Road
Centennial, CO 80112

To Contractor: _____
_____
_____

or at such other addresses as either Party may hereafter or from time to time designate by written notice to the other Party given in accordance with this Section. Notice shall be considered given when actually delivered personally, mailed, or delivered to the overnight courier and shall be considered received on the earlier of the day on which such notice is actually received by the Party to whom such notice is addressed or the third day after such notice is given.

28. Maintenance of Records. Contractor shall maintain adequate accounting and financial records related to Contractor's payment and expenses with respect to Contractor providing the Work, and shall retain those financial and accounting records for a period of at least five (5) years from the date of completion of the Work or other termination of this Agreement, and to maintain records relating to Contractor's performance of the Work, and shall retrain those professional service records until the expiration of the longest period of limitations for latent construction defects affecting the Project until the later of the expiration of the of the longest period of limitations for latent construction defects affecting the Work in any manner or one (1) year after the entry of any final, non-appealable judgment of a court of competent jurisdiction, including appellate level of courts. Southgate may audit any and all such records of Contractor and its subcontractors after reasonable written notice.

29. Amendment. This Agreement may be modified, amended, changed, or otherwise altered (except as otherwise specifically provided herein), in whole or in part, only by an agreement in writing duly authorized and executed by all parties hereto.

30. Waiver. The waiver of any breach of any of the provisions of this Agreement by either Party shall not constitute a continuing waiver or a waiver of any subsequent breach by said Party either of the same or of another provision of this Agreement.

31. Time. Time is of the essence in the performance of this Agreement.

32. Entire Agreement. This Agreement contains the entire agreement between the Parties hereto, and no statement, promise, or inducement made by either Party or the agent of either Party that is not contained in this Agreement shall be valid or binding.

33. Headings. The section headings, captions, and titles contained herein are intended for convenience and reference only and are not intended to define, limit, or describe the scope or intent of any provision of this Agreement.

34. Severability. Invalidation of any of the provisions of this Agreement or of any paragraph, sentence, clause, phrase, or word herein, or the application thereof in any given circumstance, shall not affect the validity of the remainder of this Agreement.

35. Binding Effect/Prohibition against Assignment. This Agreement shall be immediately binding upon and inure to the benefit of the Parties and their respective heirs,

personal representatives, successors, and permitted assigns. This Agreement may not be assigned by either Party hereto without the prior written consent of the other Party.

36. Governing Law. This Agreement shall be construed in accordance with the laws of the State of Colorado.

37. Compliance with Law. Contractor agrees to comply with all applicable federal, state and local laws, rules, regulations or orders, without limitation, regulations or laws regarding nondiscrimination and equal employment, affirmative action for handicapped workers, veterans and disabled veterans.

38. Liens. Contractor shall have no mechanic's lien rights. Contractor shall not create or permit any liens to be placed upon Southgate's property as a result of the Work, and in the event any such lien is placed upon such property, Contractor will remove the same within thirty (30) calendar days thereafter.

39. Counterpart Execution. This Agreement may be executed in any number of counterparts, each of which shall be effective only upon delivery and thereafter shall be deemed an original, and all of which shall be taken to be one and the same instrument, for the same effect as if both Parties had signed the same signature page. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any signatures thereon and may be attached to another counterpart of this Agreement identical in form hereto but having attached to it one or more additional signature pages

IN WITNESS WHEREOF, the Parties have executed this Agreement the day and year first above written.

**CONTRACTOR:**

_____,

a _____

By:_____

Name:_____

Title:_____

**SOUTHGATE:**

SOUTHGATE SANITATION DISTRICT

By:_____

Name:_____

Title:_____

By:_____

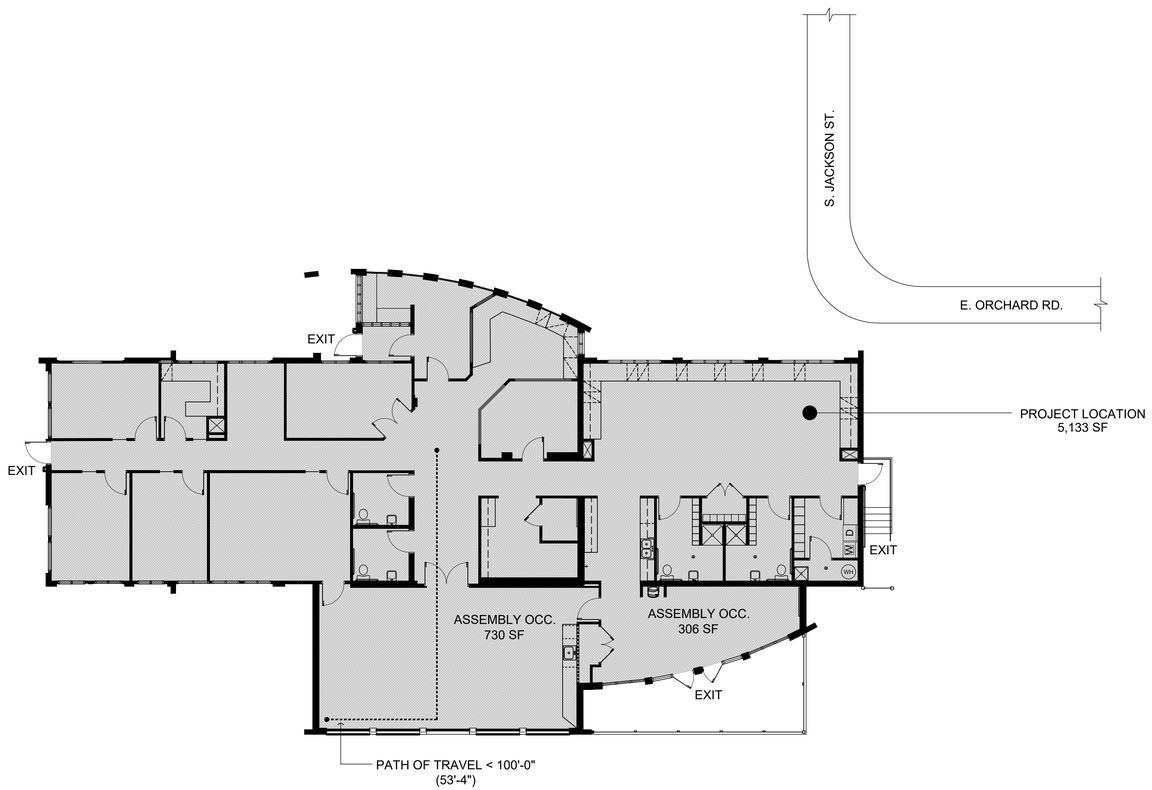
Name:_____

Title:_____

**EXHIBIT A**
**SCOPE OF WORK**

# SOUTHGATE WATER & SANITATION DISTRICT

## FIRST FLOOR
## 3722 EAST ORCHARD ROAD
## CENTENNIAL, COLORADO 80121




KEY PLAN

Not To Scale

NORTH

## DRAWING INDEX


**ARCHITECTURAL DRAWINGS:**

| | |
|---|---|
| 01 /A0.1 | COVER SHEET |
| 01 /A0.2 | GENERAL NOTES |
| 01 /A0.3 | GENERAL NOTES |
| 01 /A0.4 | GENERAL NOTES |
| 01 /A0.5 | GENERAL WALL DETAILS |
| 01 /A0.6 | ICC/ANSI A117.1-2009 DETAIL SHEET |
| 01 /A0.7 | ICC/ANSI A117.1-2009 PLUMBING SHEET |
| 01 /D.1 | DEMOLITION PLAN |
| 01 /D.2 | REFLECTED CEILING DEMOLITION PLAN |
| 01 /A.1 | DIMENSION PLAN |
| 01 /A.2 | PARTITION PLAN |
| 01 /A.3 | OUTLET LOCATION PLAN |
| 01 /A.4 | REFLECTED CEILING PLAN |
| 01 /A.5 | FINISH PLAN |
| 01 /A.6 | ELEVATION SHEET |

**MECHANICAL DRAWINGS:**

| | |
|---|---|
| 01 /M.0 | GENERAL NOTES |
| 01 /M.1 | LEGEND AND DETAILS |
| 01 /M.2 | FIRST FLOOR MECHANICAL PLAN |
| 01 /M.3 | FIRST FLOOR PLUMBING PLAN |

**ELECTRICAL DRAWINGS:**

| | |
|---|---|
| 01 /E.0 | GENERAL NOTES AND LEGEND |
| 01 /E.1 | FIRST FLOOR ELECTRICAL DEMO PLAN |
| 01 /E.2 | FIRST FLOOR LIGHTING PLAN |
| 01 /E.3 | FIRST FLOOR POWER PLAN |
| 01 /E.4 | ONE-LINE AND PANEL SCHEDULES |


## BUILDING CODE ANALYSIS

**JURISDICTION:** City of Centennial
Littleton Fire Protection District

**APPLICABLE CODES:**

| | |
|---|---|
| BUILDING CODE: | 2015 IBC |
| PLUMBING CODE: | 2015 IPC |
| MECHANICAL CODE: | 2015 IMC |
| ELECTRICAL CODE: | 2014 NEC |
| ENERGY CONSERVATION CODE: | 2015 IECC |
| FIRE/LIFE SAFETY: | 2015 IFC |
| ACCESSIBILITY: | ICC/ANSI A117.1 2009 |

**BUILDING DESCRIPTION:**

| | |
|---|---|
| 2. TYPE OF CONSTRUCTION: | V-B |
| 3. NO. OF STORIES: | 1 |
| 4. SPRINKLERED: | Yes |
| THROUGHOUT: | Yes |

## PROJECT DIRECTORY


**TENANT:**
Southgate Water & Sanitation Districts
3722 East Orchard Road
Centennial, Colorado 80121
Telephone: 303.713.7746

Contact: Christina Baca, PE
Email: cbaca@southgatedistricts.org

**ARCHITECT:**
Kieding
501 South Cherry Street, Suite 150
Glendale, Colorado 80246
Telephone: 303.399.9100
Contact: Katie Winter
Email: kwinter@kieding.com
Contact: Laura Schneider
Email: lschneider@kieding.com

**MECHANICAL/ELECTRICAL ENGINEER:**
MDP Engineering Group
1800 Glenarm Place, 8th Floor
Denver, Colorado 80202
Telephone: 303.389.0095
Contact: Andrew Stringer
Email: astringer@mdpeg.com


## OCCUPANT LOAD SUMMARY

(Area of Work) 5,133 SF

1. OCCUPANCY:

| | |
|---|---|
| A. GROUP | B |
| B. USE | OFFICE |
| C. FACTOR | 1 PER 100 |
| D. SF OF OCCUPANCY: | 4,097 |
| E. LOAD | 41 |

2. ACCESSORY OCCUPANCY:
(LESS THAN 750 SF / 50 OCCUPANTS PER ROOM)

| | |
|---|---|
| A. GROUP | B |
| B. USE | ASSEMBLY |
| C. FACTOR | 1 PER 15 |
| D. SF OF OCCUPANCY: | 1,036 |
| E. LOAD | 70 |

| | |
|---|---|
| **3. TOTAL OCCUPANTS FOR SUITE:** | 111 |
| 4. EXITS REQUIRED: | 2 |
| 5. MAX. COMMON PATH OF TRAVEL ALLOWED: | 100'-0" |
| 6. MAX. DEAD END: | 50'-0" |
| 7. EXIT SEPARATION: Longest Diagonal: | 115'-10" |
| Separation Required: | 39'-0" |
| Separation Provided: | 112'-2" |

## SCHEDULE

NOTE: CONTRACTOR TO ASSUME TWO PHASES OF CONSTRUCTION AND PRICE (AS ALTERNATE) FOR 40% OF WORK TO BE DONE AFTER HOURS.

## GENERAL CONDITIONS

CONSTRUCTION DOCUMENT APPROVAL

APPROVAL APPLIES TO ALL SHEETS LISTED IN THE DRAWING INDEX.

USE OF THESE PLANS AND DOCUMENTS FOR MATERIALS ORDERING AND CONSTRUCTION REQUIRE APPROVAL BY OWNER AND TENANT.

Construction work shall not proceed until the Owner and Tenant have given their approval to these construction documents. The Contractor shall be responsible for confirming that the Owner and the Tenant have approved these construction documents and for advising the Designer of any requested revisions by the Owner and / or Tenant. The Contractor shall be solely responsible for any work performed without the Owner's / Tenant's approval of these construction documents. Approval by these parties shall be interpreted as acceptance of the construction documents for content, scope of work and all dimensions and special requirements by either party as being necessary to their operations, use of space for furnishings / equipment installation, finished appearance and any agreements between the Owner and Tenant.

Construction and/or initiation of construction authorized by the Owner from these construction documents, shall be interpreted by the Designer as approval in full of these construction documents by both the Owner and Tenant.

**APPROVED:** Authorized Signature Only

**OWNER:**_____ **DATE:**_____

**TENANT/CLIENT:**_____ **DATE:**_____


kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider


SOUTHGATE WATER & SANITATION DISTRICT
FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

**ISSUES / REVISIONS**
MARCH 20, 2017 16240102-70

QC: TJ

**COVER SHEET**
01 /A0.1

## 1.0 ARCHITECTURAL WORKING DRAWINGS SCOPE & INTENT

### 1.1 Working Intent

**1.1.1 Definition**
Architectural Working Drawings consist of these Project Plans and Detailed Drawings, General and Keyed Notes, Schedules and Legends descriptive of the Project scope of architectural work and such supplemental information and clarifications to the Architectural Working Drawings as may be prepared by the Architect.

**1.1.2 Intent**
These Architectural Working Drawings are intended to **ONLY DESCRIBE THE GENERAL SCOPE AND FINISHED APPEARANCE OF THE PROPOSED PROJECT ARCHITECTURAL WORK .**

**1.1.3 Not Included or Intended**
These Architectural Construction Documents are **NOT** intended to provide exhaustive or specific detail, or to instruct the Contractor in the details, or standard methods or practices of his trade.
RE: Interpretation or Clarification of Project Construction Documents (Paragraph 1.6).

**1.1.4 Basis for the Scope of Work**
The Scope of architectural work described in these Architectural Construction Documents and Plans (the Project) is based upon:

Approved Project Space Plan and descriptive Space Plan design notes,
Architect's understanding of the Project requirements, Base Building Owner's requirements, Base Building and Project as-built information, Readily visible existing architectural conditions
RE: Existing Architectural Conditions (Paragraph 1.3), Governing Building Codes, and ANSI (American National Standards) Accessible and Usable Buildings and Facilities.

**1.2 Building Code and Americans National Standard Institute (ANSI) Compliance**
These Architectural Working Drawings only represent the Architect's understanding of the governing Building Codes. Final interpretation of governing Building Codes and regulations are subject to the binding interpretation of Building and Fire Department Officials having authority.

Therefore, PRIOR to commencing with Project work, the Contractor SHALL ADVISE AND PROVIDE the Architect with copies of ALL PROJECT CODE COMPLIANCE PLAN REVIEW COMMENTS from governing officials for any required inclusion in the Project Architectural Working Drawings by the Architect.

**1.3 Existing Architectural Conditions**
Existing architectural conditions and improvements shown on these Architectural Working Drawings are based upon information provided to the Architect by the Building Owner and have NOT been verified by the Architect beyond observation of readily visible existing conditions.

ACTUAL EXISTING CONDITIONS AND IMPROVEMENTS MAY VARY FROM THOSE SHOWN ON THE PROJECT PLANS.
RE: Section 3.0, Contractor Responsibilities

**1.4 Hazardous Materials**
NO environmental survey was conducted by the Architect nor has the presence of asbestos or hazardous materials been made known or provided to the Architect.

As the project is located within an existing building, such material may be present and their removal or containment shall be in accordance with governing Building Codes and environmental regulations.

**1.4.1 State Certified Asbestos Inspection**
Prior to commencement of any demolition work, including floor covering removal, the General Contractor shall obtain from the State Certified Asbestos Inspector, approved by the Building Owner, a statement to the effect that the Inspector has determined that demolition of the space will not disturb building materials that contain asbestos, as defined by the following:
U.S. Environmental Protection Agency, U.S. Occupational Safety and Health Administration, and the State of Colorado.
RE: Section 4.0, Architectural Demolition.

**1.4.2 Project Materials**
No materials containing any amount of asbestos are to be used in the performance of Work, including, but not limited to, asbestiform fiber structure varieties of chrysotile, amosite (cummintonite-grunerite), crocidolite, anthophyllite, tremolite, and actinolite and/or "magnesium silicates" as identified in the product Material Safety Data Sheets.

Upon completion of the work and prior to a request for final payment, the Contractor shall provide a signed affidavit stating that no asbestos has been introduced into the building by the Contractor, it's sub-contractors or suppliers during the performance of the Work.

### 1.5 Project Bid Format and Contractor Bid

**1.5.1 Bid Format**
Project bids shall be submitted in the CSI Master Format Bid Outline, except as may otherwise be approved or directed by the Project party contracting with the Contractor for work on the Project.

**1.5.2 Contractor Responsibility**
PRIOR TO BID SUBMITTAL, the General Contractor shall be RESPONSIBLE for familiarizing himself with the following:

Review of these Architectural Working Drawings,
Existing Project conditions,
Any Building / Suite Standards RE: Section 2.0, Definitions,
Clarification or interpretation of the Project Architectural Working Drawings by the Architect, RE: Paragraph 1.6, Interpretation or Clarification of Architectural Working Drawings,
Building Rules for work within the Building, Project Access and Hours of Operation RE: Paragraph 1.5.3,
Governing codes and regulations and
Determining the availability of specified materials required for a complete project.

**1.5.3 Building Rules, Project Access and Hours of Operation**
PRIOR to bid submittal and construction, the Contractor shall coordinate with the Project Party contracting with the Contractor for the Project Work to determine and subsequently comply with the Project construction requirements governed by the general Building Rules and Regulations, access to the Project and rules related to Project access, construction operations, hours of construction operations, protection of property and occupants, and disruption to the building occupants.

**1.5.4 Bid Submittal Line Item Contingency**
The Contractor shall coordinate with Building Management for any contingency inclusion in the final bid for Tenant improvements and related work not provided for on the Plan.

### 1.6 Interpretation or Clarification of Architectural Working Drawings

Interpretation or clarification of these Architectural Working Drawings may **ONLY** be made by the Architect upon the Contractor 's written request to the Architect followed by Architect's written response **PRIOR** to the Contractor accomplishing the work in question. The Contractor shall be **SOLELY RESPONSIBLE** for any assumptions made without written clarification from the Architect.

Any assumptions made without written interpretation or clarification by the Architect may result in the rejection of the work in question.

## 1.0 ARCHITECTURAL WORKING DRAWINGS SCOPE & INTENT (continued)

### 1.7 Project Engineering Working Drawings

**1.7.1 General**
Kieding Office Architects are **NOT** licensed engineers. These Architectural Working Drawings are **NOT INTENDED** to imply, in any manner, the design of engineered systems. All Engineering Working Drawings prepared for the Project have been independently accomplished by others.

**1.7.2 Architectural and Engineering Working Drawings**
Insofar, as the Architectural and Engineering Working Drawings have been independently prepared, the Contractor shall be **RESPONSIBLE** for advising the Architect in writing of any apparent discrepancies between the two documents **PRIOR TO BID SUBMITTAL.**
RE: Section 1.6, Interpretation or Clarification of Project Architectural working Drawings.

**1.7.3 Design-Build Engineering**
Any Design Build Engineering required for the Project shall be **APPROVED** by the Project party contracting with the Contractor's for Project work. All such Design-Build Engineering shall only be accomplished by qualified engineers, licensed to practice in the governing jurisdiction.

**1.7.4 Issue and Distribution of Architectural and Engineering Working Drawings**
The General Contractor **SHALL NOT ISSUE** Engineering Working Drawings, whole or in part, separate from the Architectural Working Drawings, whole or in part.

## 2.0 DEFINITIONS

**2.0.1 Building Standards**
**"BUILDING STANDARD(S)"** shall mean the Building Owner's pre-selected or approved materials, products and methods of construction.

**2.0.2 Suite Standards**
**"SUITE STANDARD(S)"** shall mean the existing materials, products and methods of construction in the existing Project Suite to be matched as noted in the Project Construction Documents.

## 3.0 CONTRACTOR RESPONSIBILITIES

### 3.1 Contractor Use of Project Architectural Working Drawings

The Contractor's use of these Architectural Working Drawings for other than cost estimating is expressly conditional on signed approval of these Architectural Working Drawings by the Project Party contracting with the Contractor for Project work, and issuance of a Building Permit by the Governing Authority.

### 3.2 Contractor Acceptance of Project Architectural Working Drawings

Use of these Architectural Working Drawings by the Contractor for other than cost estimating shall be considered acceptance of these Architectural Working Drawings, plans, details, scheduled products and assemblies, keyed and general notes in full.
RE: Section 1.6, Interpretation or Clarification of Project Architectural Working Drawings.

### 3.3 Code Compliance

All Project materials, products and workmanship shall comply with governing Building Codes, regulations and ANSI requirements, as a minimum standard. The Contractor shall promptly provide the Architect with all copies of Code Official building permit plan review comments and/or on-site Code requirements identified by the Building Code Inspector prior to accomplishing work on the Project.
RE: Section1.2, Building Code and American National Standard Institute (ANSI) Compliance.

### 3.4 Contractor Submittals

**3.4.1 Architectural Working Drawings**
Approved Contractor architectural shop drawings, including millwork shop drawings and installation drawings and specifications shall be considered and defined as Architectural Working Drawings for the purposes of these General Notes.

**3.4.2 Contractor Responsibilities**
**PRIOR** to ordering or the fabrication of products or fabrication of assemblies requiring submittal and approvals, the Contractor shall be responsible for submitting all required, or otherwise requested, product information, samples and shop drawings to the Architect. Such submittals shall be received by the Architect in sufficient time for Architectural review and approval by the Project Party contracting with the Contractor for Project work. Unapproved products or shop drawings may result in the rejection of the work in question.
RE: Paragraph 3.4.3, Required Submittals

**3.4.3 Required Submittals**
Unless otherwise noted or directed by the Project Party contracting with the Contractor for Project work, the Contractor shall provide the Architect with:
The Project construction budget or bid,
Project construction schedule and
The Contractor's list of proposed Sub-contractors.
Unless otherwise noted or directed by the Project Party contracting with the Contractor for Project work, the Contractor shall provide the Architect with (3) sets of product and/or material literature and one (1) reproducible or electronically printable set of shop or installation drawings for the following submittals:
Value Engineering Proposals
Material or Product Substitutions proposals complete with specifications, details and product information and cost comparisons.
Shop drawings for any custom fabricated work.
Custom details not specifically described in the Architectural Working Drawings.
Requested finish material, product samples and manufacturer's literature.
Architectural products and accessories (lighting fixtures, door assemblies, hardware, appliances, restroom accessories, etc.).
Carpet and tile installation plans for the Project.

### 3.5 Dimensioning and Contractor Field Verification of Existing Conditions

**3.5.1 Dimensioned Plans and Details**
Except as noted or shown otherwise, all dimensions shown on these Architectural Working Drawings are to the finished face. **THE CONTRACTOR SHALL NOT SCALE THE PROJECT DRAWINGS**

**3.5.2 Field Verification and Notification of Plan Discrepancies**
The Contractor shall be responsible for field verifying existing dimensions, including existing real property improvements and conditions to remain or otherwise affecting the proposed work. The Contractor shall advise the Architect in writing of any discrepancies between the field conditions and dimensions and these Architectural Working Drawings for written direction by the Architect.

## 3.0 CONTRACTOR RESPONSIBILITIES (continued)

### 3.6 Existing Conditions, Change Orders and Bid Contingency Allowance

**3.6.1 Change Orders for Existing Conditions**
No Change Orders, for additional project cost, will be approved for readily visible conditions that require repair or replacement, resulting from the Contractor's failure to Field Verify such existing conditions.

**3.6.2 Bid Contingency Allowance**
The Contractor shall coordinate with Building Management for any contingency inclusion in the final bid for Tenant improvements and related work not provided for on the Plan.
Notice of existing concealed conditions requiring additional work shall be submitted **PRIOR** to accomplishing the work for review by the Architect and approval by the Project Party contracting with the Contractor for Project work.

### 3.7 Project Schedule

The Contractor shall be responsible for determining, maintaining, adhering to and advising all affected parties of the Project Schedule progress on a weekly basis as a minimum. The Contractor shall promptly notify all affected Project Parties of considerations or restraints affecting the Project Schedule.
The Contractor shall determine and advise all Parties of any product or fabrication long lead times and submit order and delivery confirmations in a timely manner as determined and required by the Architect and/or the Project Party contracting with the Contractor for the Project work.

### 3.8 Project Workmanship

In performing work on the Project, the Contractor shall only use competent mechanics skilled in their trade and the specified products, or manufacturer's certified mechanics when required by the product manufacturer's warrantee.

### 3.9 Full and Complete Project, Acceptance and Certificate of Occupancy

The Contractor shall provide for all necessary work, equipment and materials necessary to provide a full and complete Project described in the Project Architectural and Engineering Working Drawings.

Such work shall be as required for Project acceptance by the Project Party contracting with the Contractor for Project work and as required for issuance of a Certificate of Occupancy by the governing Code Jurisdiction.

### 3.10 Contractor Warranties

Unless contractually required otherwise, all workmanship, products and materials within the scope of these Architectural Working Drawings shall be warranted by the Contractor for a minimum period of one calendar year following written acceptance of the completed Project by the Project Party contracting with the Contractor for the Project work, or for the product warrantee period, whichever is longer.

## 4.0 ARCHITECTURAL DEMOLITION

### 4.1 Scope of Work

RE: Architectural Working Drawings, Architectural Floor and Reflected Ceiling Demolition Plans and/or information, Notes and Engineering Working Drawings.

**4.1.1 Field Verification, Confirmation and Coordination of Demolition Work**
Based upon the scope of the proposed real property improvements described in these Architectural Working Drawings and the Project Engineering Working Drawings, the Contractor shall field verify existing conditions, coordinate and confirm the scope, schedule and execution of demolition work, including but not limited to the hours of operation, trash dumpster locations, use of the Building elevator(s) (if applicable) and the Building Rules regarding demolition activities with the Building Owner and/or the Project Party contracting with the Contractor for the Project work, if other than the Building Owner.

**4.1.2 Building Rules and Demolition Requirements**
The Scope of Architectural Demolition Work shall include all architectural demolition work, as well as, all salvage and removal of debris in strict conformance with the Building Owner's Rules and other such requirements for Demolition Work in the Building.

**4.1.3 Scheduling and Coordination of Demolition Work**
For existing buildings or Projects which remain partially occupied, demolition and remodeling work shall be in accordance with a mutually agreed upon schedule between Contractor, the Building Owner and other such Parties as may be directly affected by the Contractor's Demolition Work.

Disruptive or potentially hazardous construction activities shall be coordinated with the Building Owner to occur before or after normal business hours, so as to minimize disturbance to Building Occupants.

**4.1.4 Project Access**
The Contractor shall provide for unobstructed and safe passage of personnel and general public to and from the Project and all occupied portions of the building.

**4.1.5 Protection of Existing Real Property Improvements**
The Contractor shall protect all existing Project improvements to remain, to be reused or to be otherwise salvaged. In addition, the Contractor shall maintain and protect all areas, outside the designated Project Work Area from wear, damage, soiling and debris including protective safety barriers and barriers to contain the spread of dust and fumes out of the Work Area.

The Contractor shall repair any damage to existing work to remain or any other portion of the Building caused by the demolition activities or by his subcontractors at no additional cost to the Project, Tenant or Building Owner.

**4.1.6 Project and Building Life Safety Devices**
The Contractor shall protect existing smoke detectors and other fire alarm devices from dust, damage and disconnection at all times during demolition and subsequent construction. Protection shall be removed and the fire protection systems fully activated during periods when space is not occupied and when construction is not in progress.

### 4.2 Architectural Elements and Materials

Remove such doors assemblies, door hardware, glazing assemblies, millwork and other architectural products noted or shown on the Project Plans or shown on the Architectural Working Drawings for reuse, salvage or disposal.

Architectural elements shall be removed back to structure. If such removal is impractical according to Building Owner and approved by the Project Party contracting with the Contractor for Project work, if other than the Building Owner, then such elements shall be removed to the extent that patching and /or new work will conceal part of the element to remain.

**4.2.1 Architectural Material Reuse**
The Contractor shall field verify the condition, serviceability or governing Code compliance of all materials and products to remain or be reused on the Project.

The Contractor shall advise the Architect in writing **PRIOR** to Bid Submittal and construction of any such reused products or material found to be unusable **OR** more expensive to reuse than to replace with new, for review and written direction from the Architect and/or the Project Party contracting with the Contractor for the Project work.

Except as may otherwise be noted, any existing products, assemblies and materials to remain or be reused for the Project shall be repaired or refurbished to provide "like new" appearance and function as approved by the Project Party contracting with the Contractor for the Project work.

## 4.0 ARCHITECTURAL DEMOLITION (continued)

### 4.2 Architectural Elements and Materials (continued)

**4.2.2 Salvageable Materials and Products**
Unless otherwise approved by the Building Owner, **ALL** Salvageable Materials and Products removed during Demolition shall remain the property of the Building Owner for disposition by the Contractor as directed by the Building Owner.

**4.2.3 Ceiling Demolition Work**
RE: Section 4.3, Electrical and Mechanical Demolition Work
For previously improved spaces, remove any existing ceiling elements as noted or shown to be demolished on the Architectural Reflected Ceiling Plan. Remove or otherwise protect existing architectural ceilings and ceiling assemblies and fixtures to remain from damage. Protect all lighting fixtures remaining in place as required from damage during demolition and subsequent construction. Remove any debris, abandoned cabling and wiring, and unused, combustible or hazardous materials above the ceiling in compliance with governing Codes and regulations.

**4.2.4 Demolition and Removal of Hazardous Materials**
Detection, demolition, removal and disposal of any asbestos or hazardous materials shall be accomplished by licensed or certified Contractors in strict accordance with governing local, state and Federal laws and regulations.
RE: Section 1.4, Hazardous Materials

**4.2.5 Architectural Material Demolition Disposal and Recycling**
RE: 4.2.4, Demolition and Removal of Hazardous Materials.
Except as otherwise noted, all materials NOT shown or noted for reuse or salvage, along with demolition rubbish and debris, shall be promptly removed from the Project and disposed of in compliance with governing local, state and EPA laws and regulations.

Except as otherwise directed by the Building Owner and/or the Project Party contracting with the Contractor for the Project work, the Contractor shall divert a minimum of fifty (50%) percent of the demolition materials scheduled for disposal from the land fill for recycling purposes.

**4.2.6 Demolition Cleanup**
Contractor shall provide for the removal of trash, debris and demolition material and provide broom cleaning daily.

**4.2.7 Completion of Demolition Work**
Demolition work shall be deemed complete when all materials, debris and salvageable materials are removed or stored and the Project areas cleaned in preparation for new architectural and engineering real property improvements. In addition, General Contractor is responsible for patching and preparation of any disrupted walls, floors and ceilings as required for receiving finish after demolition. Upon completion of demolition work, remove tools, equipment and demolished materials from site. Leave interior areas broom clean.

### 4.3 Electrical and Mechanical Demolition Work

RE: Project Electrical and Mechanical Engineering Documents.

**4.3.1 Electrical and Mechanical Demolition**
PRIOR TO DEMOLITION, the Contractor shall coordinate with the Building Owner to determine if existing electrical, voice and data service is servicing the Project space or other tenant occupancies. Except as otherwise noted by the Project Engineering Working Drawings or unless serving other occupants of the building or other portions of the Building outside of the scope of the the Project, electrical and mechanical elements scheduled for demolition shall be removed back to the nearest junction box, panel, pipe, duct, etc. to assure no conflict with new work. All work related to electrical, communications /data and mechanical elements to be shut off, disconnected or capped outside of the Project or affecting occupants of the Building shall be coordinated with Building Chief Engineer (if applicable) or the Building Owner for approval.

**4.3.2 Electrical and Mechanical Life Safety Systems**
Contractor shall determine which, if any, vendors or sub-contractors are approved by the Building Owner for work on fire suppression systems (if applicable) and life safety systems such as fire alarms and smoke detection. Any such vendors or sub-contractors shall be certified for the respective speciality. All work and any demolition affecting these systems shall be scheduled and coordinated and approved by the Building Owner.

## 5.0 DRYWALL FRAMING & CONSTRUCTION

### 5.1 General

**5.1.1 Dimensioning Definitions**

**'Align':** Means the transition between new and existing finished surface shall be flush.
**'Hold' or 'Critical'**: Means that the clear dimension is critical and must be exact.
**'Verify' or 'As Required'**: Means the dimension must be confirmed with the Architect or party noted, if other than the Architect, prior to layout, construction or fabrication.

**5.1.5 Gypsum Board**
All new gypsum board shall be certified free of any hazardous material.
RE: Section 1.4, Hazardous Material.
New gypsum board shall be received and kept dry through the Project work. Gypsum board with any amount of mold growth shall be promptly removed from the Project. Gypsum board shall be secured to metal studs with screws per the manufactures recommendations **OR** Code / UL requirements, whichever is most restrictive for the partition type application. Drywall tape, joint compound and accessories shall be as recommended by the gypsum board manufacturer.

### 5.2 New Partition Layout and Site Review

The Contractor shall layout ("chalk") the partition locations as provided for on the Project Architectural Dimension Plan. Prior to framing, the Contractor shall notify the Architect of any discrepancies between the Dimension Plan and measurements in the field for required Plan clarifications.

The Contractor shall coordinate with the Architect and/or the Project Party contracting with the Contractor for the Project work to schedule a Site Review and approval of the "chalked" partition layout by the Project Party contracting with the Contractor for the Project work PRIOR to framing the partitions.

### 5.3 Existing Drywall Partitions

Repair any damage to existing drywall to provide a "like new" finished appearance as approved by the Project Party contracting with the Contractor for Project work. Match and blend all new drywall partitions to existing drywall finished surfaces to remain.

## 5.0 DRYWALL FRAMING & CONSTRUCTION (continued)

### 5.4 Fire-rated Partitions

Fire-rated partitions shall comply with the Code required or otherwise specified fire-rated construction as specified by the most current editions of the Gypsum Association, Fire Resistance Design Manual, OR the Underwriters Laboratory Inc., Fire Resistance Directory.

### 5.5 New Drywall Partitions

**5.5.1 General**
Except as noted otherwise, all new drywall partitions shall be true and plumb. New partition construction shall be in strict compliance with governing Codes, including lateral support. New partitions shall comply with the code required or otherwise specified construction as specified by the most current edition of the Gypsum Association.

**5.5.2 Lateral Bracing**
For all full height drywall partitions, less than floor to structure, provide and install diagonal metal stud cross-bracing at 8'-0" on center (max.) to structure with slip joints as specified at structure.
Unless noted otherwise, assume a 2-1/2" slip joint for partitions on grade or located in single story buildings, and a minimum of 1-1/2" slip joint at structure for other Project locations.

**5.5.5 New Partitions at Exterior Window Mullions**
New partitions terminating with window mullions shall be centered on the window mullion, except where otherwise noted on the Dimension Plan. DO NOT MECHANICALLY FASTEN the drywall partition to the window mullion, double faced foam tape shall be applied at the drywall connection to the window mullion from sill to the window head.

**5.5.6 New Partitions at Heating Convectors**
At Interior spaces with exterior wall baseboard heating or unit convection interrupted by drywall partitions, the Contractor shall provide and install a Code complaint acoustical barrier at the intersection of the drywall partition and the baseboard heating or convector as approved by the Building Owner.

**5.2.7 Acoustical Partitions**
Provide and install unfaced full batt, therafiber, friction fit acoustical insulation full height between studs for all acoustical partitions.
For less than floor to structure partitions provide and install non-combustible, faced, plenum rated acoustical batt insulation for any acoustical partitions noted to receive above ceiling lay-over insulation or any otherwise exposed above ceiling acoustical insulation.

### 5.6 LEVEL 4, Drywall Finishing

Except as otherwise noted in these Architectural Working Drawings, drywall finishing shall be a LEVEL 4 gypsum board finish for all visible drywall surfaces as follows:

Tape all drywall joints and interior corners as recommended by drywall manufacturer and embedded in three (3) coats of drywall joint compound and wiped with a joint knife, leaving a thin coat of compound over the tape.

Provide and install beaded metal trim at all corners and drywall terminations (J mold trim will be rejected). finish with three (3) coats of drywall compound and sand between coats.

Fully conceal all joints, accessories, fasteners, tape and compound from any irregularities, tool marks or excess compound to provide a smooth, even finished drywall surface.

LEVEL 5 finish required for wallcovering, dry erase paint or other applied finishes (per manufactures installation requirements).

### 5.7 LEVEL 3, Drywall Finishing

As may be noted in these Architectural Working Drawing or as approved by the Project Party contracting with the Contractor for Project work, drywall finish for surfaces above ceiling areas and where approved for Warehouse or areas not subject to public view may receive a LEVEL 3 drywall finish. Drywall Finish LEVEL 3 shall be similar to Level 5 with two coats of drywall compound finished smooth and free of tool marks and ridges.

### 5.8 LEVEL 2, Drywall Finishing Below Tile or Stone Applications

As may be noted in these Architectural Working Drawing or as approved by the Project Party contracting with the Contractor for Project work, drywall finish for water resistant gypsum board or for other substrates below ceramic tile or stone finishes may receive a LEVEL 2 drywall finish similar to Level 3 Finish.

LEVEL 2 finish drywall joints shall be taped. Finish all joints, angles, fastener heads and accessories with one (1) coat of drywall compound. Drywall surface shall be free of all excess joint compound. Tool and ridges are acceptable.

### 5.9 Drywall Expansion, Control and Slip Joints

A) Extended Length Partitions:
Provide and install drywall partition expansion joints not more than every thirty feet of uninterrupted length of drywall partitioning, whether specifically noted on the Project plans or not.

B) Concrete Floor Slab Expansion Joints:
Discontinuous framing and beaded metal drywall control joints shall be provided and installed at all concrete floor slab expansion joints, whether specifically noted on the Project plans or not.

C) Floor to Structure Drywall Partition Slip Joints:
In other than slab-on-grade Projects with expansive soil conditions or single story buildings subject to snow load structural deflection, provide and install 1-1/2" minimum 'deflection' slip joints at structure for all floor to structure partitions.
RE: Section 5.10, On-grade Projects with Expansive Soils

### 5.10 On-grade Projects with Expansive Soils

A) Slip and Control Joints: For concrete floor slabs on grade over expansive soils, provide and install drywall slip and control joints at the following conditions:
Building expansion joints,
Concrete floor control joints,
Building core, structural columns and exterior wall connections,
Both sides of interior door and window frames, and
Suspended soffits and fascias.

B) Partitions less than Floor to Structure: RE: Project Partition Schedule. All partitions less than floor to structure in height shall be 6" minimum in height above abutting suspended ceilings.

C) Floor to Structure Partitions: Full height drywall partitions from floor to structure shall be provided with a 2-1/2" slip joint (minimum) for partitions on grade or located in single story buildings. Projects located directly on expansive soils shall be provided with partition slip joints or as may be otherwise required by the Building design Soils or Structural Engineer.

In **NO** instance shall construction provisions be made for less than a 2-1/2" floor slab or structural movement.

D) Drywall Furring: Unless noted otherwise, exterior and interior structure and core wall furring shall hold all furred framing and drywall 4" above finished ground floor level.

**(CONTINUED)**

kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider

SOUTHGATE WATER & SANITATION DISTRICT
FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 20, 2017 — 16240102-70

GENERAL NOTES
01 /A0.2

## 5.0 DRYWALL FRAMING & CONSTRUCTION (continued)

### 5.10 On-grade Projects with Expansive Soils (continued)

E) HVAC Distribution and Plenum Return Air Openings:
Provide framed drywall openings for HVAC distribution and plenum return air flow as required by the Project Mechanical Engineer in floor to structure partitions such that the framed opening allows for a minimum of 2-1/2" vertical drywall partition movement.

F) Suspended ceilings:
DO NOT attach suspended ceilings to any drywall partitions, interior or exterior furred core of exterior walls or structure.

### 5.11 Blocking for Wall Mounted Accessories and Millwork

All blocking required for millwork and support of wall mounted accessories, including wall mounted door stops, shall be non-combustible solid wood blocking, except as may be otherwise approved by the governing Code Official in writing.

ALTERNATIVELY 16 gauge metal sheets may be substituted for non-combustible solid wood blocking where prohibited or otherwise impractical.

### 5.12 Drywall Furring

**5.12.1 General**
Drywall furring shall be as noted in these Architectural Working Drawings.
RE: Project Architectural Plans and Notes. Section 5.10, On-grade Projects with Expansive Soils.
All new drywall furring shall be true and plumb with drywall finishes to match and blend with existing drywall surfaces. Provide and install beaded metal trim at all corners and terminations ( J-metal trim will be rejected). Drywall furring and finishes shall match drywall partition quality and finish requirements described in these General Notes. RE: Section 5.0, Drywall Framing and Construction.

**5.12.2 Drywall Furring at Exterior Walls**
Provide and install new vapor barrier and rigid thermal insulation to match existing in Building or as otherwise required by Code and at exterior building wall drywall furring as approved by the Building Owner.

### 5.13 Drywall Partition Schedule

**Note: Contractor to verify wall thickness and to notify Architect if they vary from Specifications listed below.**

**Existing Partition**

**Demolition Partition**

**Standard Interior Partition**
RE: Wall Details on Sheet A0.5 in this set of drawings.

**Non-rated Public Area Corridor Partition**
RE: Wall Details on Sheet A0.5 in this set of drawings.

**Fire-Rated Interior Partition**
RE: Wall Details on Sheet A0.5 in this set of drawings.

**Demising Partition**
RE: Wall Details on Sheet A0.5 in this set of drawings.

**Acoustical Partition**
RE: Wall Details on Sheet A0.5 in this set of drawings.

## 5.0 DRYWALL FRAMING & CONSTRUCTION (continued)

### 5.14 Drywall Ceilings, Fascias and Soffits

Except as otherwise noted, drywall ceilings, fascias and soffits shall be 5/8" drywall framed or suspended and installed as recommended by the drywall manufacturer for specific application. Framing, detailing and drywall application shall be per the design standards established by the United States Gypsum company and, for any fire rated construction, the UL Fire Resistance Directory.

All drywall joints, outside corners and exposed drywall terminations shall be LEVEL 5 drywall finish with beaded metal trim to match and blend to the finished drywall surface.
RE: Section 5.6, LEVEL 5, Drywall Finishing.
Section 5.9, Drywall Expansion,Control and Slip Joints.
Section 5.10, On-grade Projects with Expansive Soils.

**5.14.1 New Drywall Abutting Existing Drywall Ceilings, Fascias and Soffits**
New drywall ceilings, fascias and soffits abutting existing drywall in the same plane shall be flush with no visible joints, except as otherwise required for slip, control or expansions joints.

**5.14.2 New Drywall Drywall Ceilings, Fascias and Soffits**
All drywall fascias shall be true and plumb and drywall soffits and ceilings shall be level with no visible imperfections or joints except as otherwise required for slip, control or expansions joints.

**5.14.3 Drywall Ceiling Access Panels, Mechanical Devices and Lighting Fixtures**
Drywall ceiling access panels, mechanical devices and lighting fixtures shall **ONLY** be permitted where specifically located on the Project Architectural and/or Engineering Working Drawings.

In the event that the access panel, mechanical devices and lighting fixture locations are not clearly defined or otherwise in conflict with the other drywall ceiling elements or lighting fixtures, the Contractor shall be responsible for coordinating the location and layout of such drywall ceiling elements with the Architect **PRIOR TO PROCEEDING WITH THE WORK IN QUESTION**.

Drywall ceiling access panels, mechanical devices and lighting fixtures shall be installed in compliance with the manufacturer's recommendations.

Drywall ceiling access panels shall be installed flush with the finished drywall ceiling in such a manner a to minimize the finished appearance of the access panel.

**5.14.3 Drywall Ceiling Fire Protection Sprinkler Heads**
Except as may otherwise be approved by the Project Party contracting with the Contractor for the Project work, the Contractor shall install approved recessed fire protection sprinkler heads in drywall ceilings in compliance with governing Codes and located in coordination with the other drywall ceiling elements and lighting fixtures.

## 6.0 DOORS, DOOR and INTERIOR WINDOW FRAMES

### 6.1 General

Unless specially detailed otherwise, dimensions given for new doors, door and window frames are nominal dimensions, only. The Contractor shall take into consideration frame tolerances, ceiling clearances and door undercut requirements and deduct from the given nominal dimensions **PRIOR TO PRODUCT ORDERING OR FABRICATION.**

### 6.2 New Door, Door and Interior Window Frame Submittal

**6.2.1 New Manufactured Doors and Door Frames**
The Contractor shall submit a door, door and interior window frame schedule with manufacturer's product information, door and window frame profile samples and finish samples to the Architect for review and approval by the Project Party contracting with the Contractor for the Project work **PRIOR TO ORDERING**.

**6.2.2 New Custom Doors and Door Frames**
Where Custom doors, door and interior window frames are noted or specified on the Architectural Working Drawings, the Contractor shall submit a custom door, door and window frame schedule, shop drawings, door and interior window frame profile samples and finish samples to the Architect for review and approval by the Project Party contracting with the Contractor for the Project work **PRIOR TO ORDERING.**

### 6.3 New Doors

**6.3.1 New Non-rated Interior Doors**
Reference: Partition Plan, Door and Door Frame Schedule.
Unless noted otherwise, doors shall be 1-3/4" thick size, solid core, flush wood veneer faced construction free from any scratches, irregularities or warping, and shall conform to AWI Custom Grade standards as required and appropriate for the specified Project hardware as reviewed by the Architect and approved by the Project Party contracting with the Contractor for the Project work.

Except as otherwise noted or specified, new non-rated interior doors shall match the Building Owner's specified "Building Standard" door or existing "Suite Standard" doors to remain in existing Project spaces being remodeled.

**6.3.2 New Fire-rated Interior Doors**
Reference: Partition Plan, Door and Door Frame Schedule.
All specified fire rated door and door frame assemblies shall bear the required UL rating label attached to door and door frame. Any modification to UL labeled fire-rated doors and frames shall be accomplished by an certified UL shop.

Except as otherwise noted or specified, new rated interior doors shall match the finished appearance of Building Owner's specified "Building Standard" door or, if noted, existing "Suite Standard" doors to remain in existing Project spaces being remodeled.

### 6.4 New Door and Interior Window Frames

RE: Partition Plan, Door and Door Frame Schedule.

**6.4.1 General**
Except as noted otherwise, door frames shall match the Building Owner's specified Building Standard size, construction, material and finish for door and interior window frames or, if noted, the existing "Suite Standard" door and interior window frames to remain in existing Project spaces being remodeled.

Door frames shall be as required and appropriate for the specified Project hardware.

**6.4.2 Door and Window Frames on Expansive Soil Conditions**
Door and interior window frames for slab on grade construction over expansive soils shall be painted rigid hollow metal as reviewed by the Architect and approved by the Project Party contracting with the Contractor for the Project work.
RE: Paragraph 5.10, On-grade Projects with Expansive Soils.

## 6.0 DOORS, DOOR and WINDOW FRAMES (continued)

### 6.5 Existing Doors, Door and Interior Window Frames

**6.5.1 Reuse of Existing Doors, Door and Interior Window Frames**
Prior to bid submittal the Contractor shall determine if any existing doors, door and window frames scheduled for reuse are damaged beyond reasonable and cost effective repair and provide for such existing doors, door and window frames to be replaced with new as approved by the Project Party contracting with the Contractor for the Project work.

**6.5.2 Touch-up and Refinishing Existing Doors, Door and Interior Window Frames**
Any existing or relocated doors, door or window frames to be used for the Project shall be refurbished as may be required to provide a"like new" appearance as approved by the Project Party contracting with the Contractor for the Project work.

**6.5.3 Existing Metal Doors and Frames**
Metal doors and frames noted or scheduled to be painted shall be thoroughly prepared to eliminate any rough or irregular surfaces and provide a smooth, even surface suitable for the application of the specified paint. Paint shall be a spray application or electrostatically applied as approved by Building Owner.
**Brush or roller application to metallic surfaces shall be rejected.**

### 6.6 Door and Door Frame Installation

Except as otherwise noted, the Contractor shall set all new and relocated doors and frames accurately in position, plumbed, aligned, secured and anchored permanently in opening and install per manufacturer's recommendations. The Contractor shall verify and correct existing doors and door frames as required to assure existing doors and door frames scheduled to remain are plumbed, aligned, secured and anchored permanently and installed per manufacturer's recommendations.

Except as otherwise noted or approved by the Architect and/or the Project Party contracting with the Contractor for the Project work, door frames located adjacent to a partition or wall shall be installed 4" clear from the outside edge of the door frame to the adjacent partition or wall.

All new doors shall be installed to ensure compliance with the current minimum ANSI (American National Standard, Accessible and Useable Buildings and Facilities) Maneuvering Clearances for Manual Swinging Doors:

| Approach Direction | Door Side | Clear Dimension (from latch side edge of door) |
|---|---|---|
| From the front | Pull Side | 18 inches |
| From the front | Push Side | 12 inches |

## 7.0 ARCHITECTURAL DOOR HARDWARE

RE: Project Partition Plan, Hardware Schedule.

### 7.1 General

**7.1.1 Building and Suite Standards**
Except as noted otherwise, architectural door hardware style and finish shall be "Building Standard" or "Suite Standard" as approved or selected by the Building Owner provided such hardware is both ANSI and governing Building Code compliant.
RE: Paragraph 7.1.2, ANSI and Building Code Compliance.

**7.1.2 ANSI and Code Compliance**

A) New Hardware:
Except as noted otherwise and not otherwise required by governing Codes, all door hardware necessary for new Project doors shall comply with current ANSI (American national Standard, Accessible and Usable Buildings and Facilities) requirements with ANSI compliant lever style hardware sets.

B) Existing Hardware:
Existing door hardware not serving the general public, which is **NOT** noted for new Project doors may not be required to comply with ANSI requirements **PROVIDED** such existing hardware is specifically approved by the governing Building Code Official. All other existing non-compliant ANSI hardware shall be replaced as required with new ANSI compliant hardware to match the specified Project hardware.

### 7.2 New Architectural Door Hardware and Keying Submittal

**7.2.1 New Architectural Door Hardware Submittal**
Except as directed otherwise by the Building Owner and/or the Project Party contracting with the Contractor for the Project work, the Contractor or the Contractor's Hardware Supplier shall submit to the Architect for review and approval by the Project Party contracting with the Contractor for the Project work, a complete hardware schedule in accordance with ASAHC "Architectural Hardware Scheduling Sequence and Format" with product cut sheets and hardware finish samples.

This submittal schedule shall include a complete template list for each penetration of wood doors and metal frames.

Any request for substitutions in the Project Hardware Schedule shall be accompanied by catalog cuts of items and itemized comparative costs.

**7.2.2 Lockset Keying Submittal**
The Contractor or the Contractor's Hardware Supplier shall coordinate with the Building Owner and/or the Project Party contracting with the Contractor for the Project work on any specific requirements affecting the keying of Project lock set hardware sets. The Contractor or the Contractor's Hardware Supplier shall submit a complete keying schedule for all Project lock set hardware sets, for approval by the Building Owner and/or the Project Party contracting with the Contractor for the Project work.

Unless noted or authorized otherwise, the Contractor shall provide for all locks to be keyed to a "Building Master", with a minimum of two (2) master and one (1) grand master and a keying schedule being provided to the Building Owner and/or the Project Party contracting with the Contractor for the Project work.

### 7.3 New Architectural Door Hardware

All doors to or from public areas shall be provided with ANSI compliant lever style hardware sets and delayed action door closers (where required).

All doors with closers shall be self stopping with door hold-open function **EXCEPT** where such hold-open function is prohibited by the governing Building Code or noted otherwise.

Finish of hardware, including associated screws and bolts, shall be Building Standard or Suite Standard as noted. Weather-stripping, sound stripping or smoke seals shall be full height of both jambs and full width of head.
RE: Project Partition Plan, Hardware Schedule.

The Contractor shall provide all miscellaneous hardware pieces, such as fasteners, silencers, seals, door stops etc. as required for the complete installation and function of specified doors.

Prior to ordering the scheduled doors and door frames, the Contractor shall confirm that all hinges, etc. conform to the weight loads and specified sizes of the scheduled doors and door frames.

For all fire-rated openings, the Contractor shall provide UL rated hardware in compliance with the current NFPA Standards including ANSI compliant delayed action door closers and smoke seals.

Locking hardware for fire-rated doors shall allow for egress without keying or special knowledge for exit operation from the egress side of the door.

## 7.0 ARCHITECTURAL DOOR HARDWARE (continued)

### 7.4 Existing Architectural Door Hardware

All existing or reused hardware shall be protected from damage during Project work and refurbished as may be required to provide "like new" function and appearance as approved by the Project Party contracting with the Contractor for the Project work.

### 7.5 Architectural Door Hardware Installation

**7.5.1 General**
Installation of hardware shall be in strict compliance with the hardware manufacturer's recommendations.

Unless noted otherwise, all lever handsets shall be installed to match the "Building Standard" or "Suite Standard mounting heights, but always within ANSI compliant range (34" min.-46" max). If no standard height is established, leversets shall be mounted at 42" AFF to the centerline.

Prior to final Project acceptance, the Contractor or the Hardware Supplier shall inspect and adjust all door closers, locks and/or all items requiring close adjustment and/or regulation, and provide all keying in compliance with the approved hardware keying submittal.

**7.5.2 Door Stops**
Except as otherwise noted or provided for, The Contractor shall provide door stops for all doors.

Contractor shall provide and install non-combustible, solid wood or metal blocking below the finished surface in the partition behind all wall mounted door stops or attach the door stop firmly to existing studs.

Floor mounted door stops shall be located out of the path of travel, securely anchored to the floor structure and positioned at 90 degrees to the position of the door in the full open position.

**7.5.3 Weather-stripping, Sound-stripping and Smoke Seals**
Weather-stripping, sound stripping or smoke seals shall be installed in compliance with the manufacturer's recommendations the full height of both jambs and full width of head with approved thresholds or sills as may be required for the specified door location.

## 8.0 INTERIOR GLASS & GLAZING

### 8.1 General

RE: Section 6.0. Doors, Door and Interior Window Frames,
Project Partition Plan and Keyed Notes,
Door and Door Frame Schedule (for any integral glass sidelights).

**8.1.1 Minimum Non-Rated Glass Thickness**
The glass thickness for all non-rated interior glass installed for the Project shall comply with the following guidelines as a minimum standard:

1/4" thick glass Maximum glass span of 60" (5'-0").
3/8" thick glass Maximum glass span of 90" (7'-6").
1/2" thick glass Maximum glass span of 108" (9'-0").
5/8" thick glass Maximum glass span of 120" (10'-0").

**8.1.2 Fire-rated Glass: Thickness / maximum size panes**
Except as otherwise approved by the Architect and governing Building Code Officials, all fire-rated glass shall be as manufactured by Nippon Electric Glass Co. Ltd. and distributed by Tech Glass Products (www.fireglass.com).

20-minute fire-rated glass: Fireglass 20, premium grade
1/4" thick, 48"x96" maximum size.

45 to 90 minute fire-rated: FireLite, premium grade
3/16" thick, 48"x96" maximum size.

Fire-rating and the maximum size of fire-rated openings shall not exceed the governing Code allowable openings in rated partition construction.

For other than glass sidelights installed in 20-minute UL fire-rated and labeled integral door and frame assemblies, glass openings in one-hour fire rated partitions shall be 45-minute U.L. tested and labeled assembly in accordance with ASTM E119.

**8.1.3 Safety Glass**
For other than fire-rated openings, tempered or approved Code compliant laminated safety glass shall be installed for all new or existing glass:
Within 24" of a door or adjoining a passageway less than 60" a.f.f., Glass panes that are greater than nine square feet and/or extending lower than 18" above the floor.

Laminated safety glass shall consist of two (2) layers of glass, specified in **ASTM C1036** or **C1038**. Laminate material shall comply with **CPSC 16 CFR 1201**, Category I or II, Safety Glazing Standard and/or **ANSI Z91.1**.

**8.1.4 Clear Non-rated Float Glass**
Except as otherwise noted on drawings, required by the governing Building Codes or recommended by glass manufacturer for application indicated, non-rated interior glass shall be Type 1, Class 1, Quality q3 clear float glass.

### 8.2 Glass Identification

Each pane of glass shall bear the manufacturer's permanent identification mark designating the type of the glass or glazing material. For other than tempered glass, permanent identification by the manufacturer will not be required, provided the governing Building Code Official approves evidence in writing confirming compliance with the governing Building Code.

Tempered Glass shall be permanently identified by the glass manufacturer's acid etched, sand blasted or otherwise permanently marked in a manner that cannot be removed without destroying the glass.

### 8.3 Installation

**8.3.1 General**
All glass and glazing shall comply with current standards specified in the Flat Glass Marketing Association "Glazing Manual" and "Sealant Manual".

Interior glass and glazing frames and/or glazing channels shall to be as noted.
RE: Partition Plan Keyed notes and Project dimensions.

Contractor shall field measure all openings prior to fabrication and supply glass in sizes required for glazing openings provided, with edge clearances and tolerances as recommended by glass manufacturer, except as may be noted otherwise.

Width of exposed butt or edge joints shall not exceed 1/8". Except as otherwise noted, exposed glass edges at jambs and joints shall be flat ground and sealed.

**8.3.2 Sealant**
Sealant shall conform to **ASTM C-920**, Grade NS, Class Standards for NT, G, and A uses, and shall have a low modulus with additional capability to withstand an increase or decrease in joint width of 50 percent.

Exposed sealant shall be clear, razor trimmed and free of bubbles and other irregularities. Setting blocks, spacers and sealant shall be compatible with surfaces contacted.

## 8.0 INTERIOR GLASS & GLAZING (continued)

### 8.3 Installation (continued)

**8.3.3 Glass Installation and Cleaning**
Any scratching of glass will result in rejection of work. All components shall be of size, shape, and hardness recommended by manufacturer for application indicated.

The Contractor shall be responsible for thoroughly cleaning all new and existing glass and ensuring that all new and existing glass is free from any scratches, except as may otherwise be approved by the Project Party contracting with the Contractor for Project work.

Clean glazing channels and other framing members to receive glass immediately before glazing. Protect glass from contact with contaminating substances resulting from construction operations, remove any such substances by method approved by glass manufacturer.

## 9.0 MILLWORK

### 9.1 General

Except as noted otherwise, all Millwork shall be AWI "Custom Grade", manufactured or fabricated in full compliance with the most current edition of Architectural Woodwork Institute (AWI), "Quality Standards."
RE: Partition Plan Keyed Notes.

### 9.2 Contractor Millwork Submittals

The Contractor shall prepare and submit shop drawings, finish material samples and hardware product cut sheets or samples, profile samples of millwork wall base and trim (if applicable to the Project) when required for the Project Schedule with sufficient time for the Architect to review and for approval of the Millwork Submittals by the Project Party contracting with the Contractor for the Project work.

Any fabrication done or millwork purchases prior to approval of Millwork Submittal shall be at the Contractor's risk.

Shop Drawings shall show the following:
Location of each item with field verified dimensioned plans and elevations,
Large scale sections and details showing location of internal and field joints,
Attachment devices and plastic laminate or veneer joints,
Typical detail treatments and Components and/or hardware (with specifications and product information).

### 9.3 Millwork Fabrication

**9.3.1 Fabrication**
Millwork fabrication shall be in strict compliance with the approved Millwork Submittal including approved shop drawing dimensions and the layout/placement of finished veneer joints and grain direction.

Failure of the millwork to comply with approved Millwork Submittal and Shop Drawings may result in the rejection of the work.

**9.3.2 Construction and Finish Materials**
Except as otherwise noted in these Architectural Working Drawings, casework shall be overlay construction with wood, plastic laminate and Melamine veneer casework being applied over a MDF (medium density fiberboard) substrate.

Where recommended by AWI Custom Grade standards wood veneer paneling, wood veneer and plastic laminate veneer casework shall be laminated on both sides, including both sides of cabinet and drawer fronts, as required to control contraction and expansion.

Except as otherwise noted in these Architectural Working Drawings, wood veneer exposed edges shall be finished with a matching solid wood trim and banding.

Except as otherwise noted, the interiors for plastic laminate finished casework interiors shall be white Melamine and the interiors for wood veneer finished casework shall be black Melamine.

Unless noted otherwise, all fasteners shall be countersunk, filled and finished as required to blend with the finished surface to be invisible.

**9.3.3 Heavy-duty Adjustable Shelves**
3/4" thick particleboard painted, plastic laminate and Melamine adjustable shelving may span up to 32", spans 32" to 42" shall be1" thick and spans 42" to 48" shall be 1-1/4" thick.

**9.3.4 Millwork Hardware**
Except as may be otherwise noted in these Architectural Working Drawings, all millwork hardware shall be heavy-duty with concealed, ten-degree self-closing hinges with and ANSI compliant cabinet door and drawer pulls.

Cabinet drawers shall be provided with heavy-duty, full extension drawer as required for the size and function of the drawer (file drawer or utility / utensil drawer).

Hardware finishes shall match the Building Standard or Suite Standard architectural hardware finish OR as otherwise approved in the Millwork Submittal.

For pricing purposes, unless otherwise approved, specified or required, the following Millwork Hardware shall apply:

Hinges:
Stanley, Knape and Vogt or Mepla DS-Klip System,
120 degree opening / 10 degree self closing.

Door and Drawer Pulls:
Stanley, 3" wire pulls #4483

Drawer Glides:
File Drawers: Accuride model 4043.
Box Drawers: Accuride model 3005.
Pencil or utensil Drawers: Accuride model 2006.

Grommets:
Doug Mockett, Model XG, 3" hole size, color black.

Adjustable Heavy-Duty Standards and Brackets:
Knape & Vogt #87-186-187, anochrome finish
Standards shall not be spaced more than 32" o.c..

### 9.4 Millwork Installation

**9.4.1 Field and Equipment / Fixture Verification**
The Contractor shall be responsible for field verifying and reviewing these Project Architectural Working Drawings for all proposed and existing conditions and dimensions applicable to millwork fabrication, installation, and installation clearances within the Project and delivery to the Project and shall advise the Architect of any discrepancies, conflicts or design omissions for the Architect's direction **PRIOR TO INITIATING WORK.**

The Contractor shall be responsible for verifying and confirming all appliances and vending equipment, office equipment, office fixtures, millwork accessories and plumbing fixtures to be installed or provided by others on the Project.

**(CONTINUED)**

kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider

SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 20, 2017 16240102-70

GENERAL NOTES
01 /A0.3

## 9.0 MILLWORK (continued)

### 9.4 Millwork Installation (continued)

**9.4.2 Blocking**
The Contractor shall provide fire retardant wood blocking in the partition behind all wall mounted millwork, shelving standards, cabinets, wall stops, wall mounted equipment, etc., or securely attach the millwork to existing studs as required to provide for a secure installation.

**9.4.3 Millwork Protection and Clean-up**
The Contractor shall be responsible for protecting new and existing millwork to remain on the Project from damage prior to the acceptance of the completed Project.

The Contractor shall be responsible for repairing any damaged millwork and for cleaning and finishing all Project millwork to provide a "like new" condition free of any irregularities, blemishes and soiling as approved by the Project Party contracting with the Contractor for the Project work.

## 10.0 ARCHITECTURAL OUTLET LOCATION PLAN
Reference: 1.7, Project Engineering Working Drawings.

### 10.1 General

**10.1.1 Workmanship**
All electrical materials and workmanship shall be in full compliance with governing Codes and regulations. Except as noted otherwise, mounting heights for new outlets shall be in compliance with current ANSI standards as a minimum.

**10.1.2 Approvals**
Except as noted otherwise, all electrical, telephone and data outlet locations, mounting heights, and cover plate material(s), color(s) and finish(es) shall be as approved by the Project Party contracting with the Contractor for the Project work.

**10.1.3 Installation of Engineered "Architectural Devices"**
The Contractor shall be responsible for coordinating with the Architect on the location and placement of fire alarm strobe lighting devices and thermostats **PRIOR** to installation of such devices.

Failure by the Contractor to coordinate and confirm the location of such devices with the Architect may result in the relocation of such devices at the Contractor's expense.

### 10.2 Architectural Outlet Plan
The Outlet Location Plan is intended **ONLY** to show the type of outlet, the general placement of new and existing outlets and devices and the outlet mounting height if other than standard mounting height of electrical, voice / data outlets, card key readers and other such outlets and devices.
Reference the Project Electrical Engineering Working Drawings for all other requirements.

The Contractor shall be responsible for advising the Architect of any discrepancies between the Project Electrical Working Drawings and the Architectural Outlet Plan and these Architectural Working Drawings.
RE: Architectural Outlet Location Plan and Project Electrical Engineering Working Drawings.

### 10.3 Field Verification
Location, mounting height and type of outlet of existing outlets may vary from those shown in the Architectural Outlet Plan. **PRIOR** to submitting a Project Bid, the Contractor shall be responsible for field verifying the existing outlet locations and types and for advising the Architect of any discrepancies between the Architectural Outlet Plan and findings in the field. RE: Section 1.3, Existing Architectural Conditions.

### 10.4 Equipment / Systems Furniture Verification
The Contractor shall be responsible for confirming electrical power, voice and data outlets requirements for all appliances, office equipment and other special equipment being provided and installed on the Project.

Contractor shall coordinate with the Project furniture installer(s), cabling vendors, and security vendors to determine the location of and requirements for outlets and junction boxes prior to rough in installation of boxes and conduit. Unless noted or determined otherwise, service to furniture systems being provided and installed by others are assumed as requiring four circuit, eight wire service for a maximum of six (6) workstations.

The Contractor shall advise the Architect of any such additional or revised requirements for direction and/or approval **PRIOR** to accomplishing the work in question.

### 10.5 Furniture Systems Electrical, Telephone and Data Installation
Unless noted on these Architectural Working Drawings or approved otherwise by the Project Party contracting with the Contractor for the Project work, the Contractor shall connect and wire all electrical service to the furniture systems with electrical whips as provided by the furniture systems vendor/installer as required by the governing Code jurisdiction.

### 10.6 Outlet and Electrical Device Installation

**10.6.1 General**
Unless noted otherwise, all dimensions shown are from the finish face of surfaces to the centerlines of outlets or groups of outlets.

Outlets are **NOT** to be mounted back to back. Separate adjacent outlets shall have not more than three (3) inches clear between cover plates, unless noted otherwise.

Unless noted otherwise as a critical dimension, plan location(s) for wall mounted electrical, telephone and data outlets may vary up to six (6) inches to avoid conflicts with stud locations.

Reference the Outlet Location Plan Keyed Notes for all outlets requiring the determination of outlet locations and/or mounting heights by others.

**10.6.2 Standard Outlet Mounting Heights**

New outlets located directly adjacent to existing boxes are to be mounted at a height and orientation which matches the outlets to remain.

Outlets **NOT** located adjacent to existing boxes are to be mounted vertically, with centerlines at eighteen (18") inches above finished floor, unless noted otherwise by the Architect.

Wall mounted telephone outlet boxes, card key readers, electric cypher lock key pads, thermostats and fire alarm boxes shall be mounted vertically and centered at forty-four (44") for forward reach positions or forty-six (46") for side reach positions above finished floor, unless noted otherwise by the Architect.

**10.6.3 Floor Mounted Outlets**

Unless noted otherwise, electrical, telephone and data floor receptacles shall be flush type as specified by the Project Electrical Engineer. For other than slab on grade construction, such receptacles shall be UL fire-rated as required to match the required to maintain the floor slab fire separation.

**10.6.4 Floor Penetrations For Other than Slab-on-Grade Construction**

A) All floor penetrations shall be coordinated with the Structural Engineers (if available and practicable) and X-rayed to ensure safe and practical structural and sub-floor obstacle clearance.

B) All floor penetrations shall be fire sealed, whether new or existing, as required to provide the Code required floor fire separation with a UL listing sealant appropriate for the type and rating of the floor. Floor penetrations 1-1/2" or greater may be sealed with non-shrink grout flush with the adjacent floor slab.

## 11.0 ARCHITECTURAL REFLECTED CEILING PLAN
Reference: Section 1.7, Project Engineering Construction Documents.

### 11.1 Architectural Reflected Ceiling Plan

**11.1.1 General**
The Reflected Ceiling Plan is intended to show the extent of new and existing ceiling materials (i.e., grid and tile, painted gypsum board, etc.), and the location of existing and new light fixtures and lighting fixture specification schedule and/or general notes only.

Except as may otherwise be noted, all suspended acoustical tile ceilings and light fixtures shall be Building or Suite Standard. Reference: Architectural Reflected Ceiling Plan Legend and Key Notes.

All Architectural products and installation shall be in conformance with governing Codes and regulations, as a minimum standard, and product manufacturer's recommendations. All mechanical and electrical materials and workmanship shall be in strict compliance with governing Codes and regulations, as a minimum standard.

For all other requirements, reference Project Mechanical and Electrical Engineering Working Drawings and approved Fire Protection Shop Drawings, including the location of all other engineered system ceiling devices.

**11.1.2 HVAC Installation**
The Contractor shall be responsible for the coordination and installation of the HVAC engineered plans and these Architectural Working Drawings to ensure that above ceiling clearances required for the ceiling design and specified lighting layout **DO NOT** conflict.

**11.1.3 Fire Protection and Life Safety**

The Contractor shall be responsible for coordinating with the Building Owner to determine and use which, if any, sub-contractors and/or vendors are approved for the design and work on the Building life-safety detection, alarm and fire suppression systems.

Fire protection sprinkler plans, where required, shall be provided by the Contractor and prepared by a qualified engineer for the Building Owner's approval and/or the Project Party contracting with the Contractor for the Project work.

### 11.2 Field Verification
Grid layout and existing lighting and switching locations and quantities may vary from that shown.

**PRIOR** to bid submittal, Contractor shall field verify the existing ceiling conditions, above ceiling clearances for light fixtures and other devices, suspended acoustical ceiling grid layout, ceiling lighting locations and switches. The Contractor shall be responsible for advising the Architect of any discrepancies or conflicts between these Architectural Working Drawings and the Contractor's field verification findings.
RE: Section 1.3, Existing Architectural Conditions.

The contractor shall field verify the existing above ceiling clearances (such as structural elements, HVAC ducts and equipment, fire protection sprinkler lines or electrical, voice and data conduits) with the planned light fixture layout and specifications. The Contractor shall be responsible for advising the Architect of any CONFLICTED light locations or conditions in a timely manner.

### 11.3 Contractor Submittal
No substitutions to the specified or otherwise approved Project Submittals shall be permitted without written recommendation by the Architect and approval by the Project Party contracting with the Contractor for the Project work.

**11.3.1 New Light Fixture, Lamping and Lighting Control Submittal**
The Contractor shall submit a Light Fixture Schedule and Lighting Control Schedule with manufacturer's product information for all new non-Building or non-Suite Standard light fixtures and lighting control devices, finish samples and product information to the Architect for review and approval by the Project Party contracting with the Contractor for the Project work.

The Contractor's Light Fixture Submittal shall include lamping for each light type of lighting fixture. Except as otherwise noted or approved by the Project Party contracting with the Contractor for the Project work, new fluorescent lighting shall match the specified or existing Building Standard wattage and lamp color temperature.

**11.3.2 Lamping Submittal for Existing Light Fixtures**
Lamping or relamping of existing Project fluorescent light fixtures shall be as approved by the Building Owner and the Project Party contracting with the Contractor for the Project work, if other than the Building Owner.

**11.3.3 Suspended Ceiling Submittal**
The Contractor shall submit product information for all new non-Building or non-Suite Standard suspended ceiling treatments with manufacturer's product information, finish and product samples to the Architect for review and approval by the Project Party contracting with the Contractor for the Project work.

**11.3.4 Ceiling mounted Mechanical, Electrical and Life Safety Devices**
Unless otherwise directed, copies of the Mechanical and Electrical Engineering Submittals for any Non-Building Standard, visible life safety devices and HVAC ceiling mounted diffusers, registers or other mechanical devices shall be approval by the Project Party contracting with the Contractor for the Project work.

**11.3.5 Fire Protection System Submittal**
For Projects with new or existing Fire Protection Systems, the Contractor shall coordinate with the Building Owner to determine and use, a sub-contractor or vendor which is approved for work in the Building.

The Contractor shall submit a copy of the Project fire protection sprinkler layout for approval approved by the Building Owner and the Project Party contracting with the Contractor for the Project work, if other than the Building Owner.

### 11.4 Installation and Scope of Work

**11.4.1 Suspended Ceiling Grid and Tile**
New ceiling grid and tile shall be installed level and plumb per manufacturer's recommendations. Unless noted otherwise, New ceiling suspended acoustical tile ceiling grid shall match and align with existing ceiling grid noted or shown to remain.

Replace or repair any existing ceiling grid or tile that is damaged, discolored, scuffed, soiled or otherwise does not match and blend with new construction in contiguous areas. Group existing tiles of uniform pattern, color, texture and finish in adjacent areas as approved by the Project Party contracting with the Contractor for the Project work.

No tile shall be painted or refinished in a manner, which affects original manufacturer's performance specifications unless noted or approved the Project Party contracting with the Contractor for the Project work. NO new or existing screw holes or similar irregularities will be accepted in existing grid to remain, unless approved by the Building Owner.

## 11.0 ARCHITECTURAL REFLECTED CEILING PLAN (continued)

### 11.4 Installation and Scope of Work (continued)

**11.4.2 Above Ceiling Work**
Any materials provided above the ceiling grid must be non-combustible, and **NO** loose or unfaced insulation shall be installed in the return air plenum. Reference: Section 4.0 Architectural Demolition.

All above ceiling acoustical insulation shall be face and edge wrapped and plenum rated.

All cabling and other such wiring and wire management systems shall be suspended from the structure above. **NO** wiring will be permitted to lay directly on the suspended ceiling systems.

**11.4.3 Lighting**
All light fixtures shall be supported directly from structure separate from the suspended ceiling system.

Unless noted otherwise, center all down-light and wall wash fixtures in the acoustical tile panel shown on the Reflected Ceiling Plan.

Install all recessed light fixtures such that the throat of the light fixture is flush with the face of the finished ceiling in a manner that prevents any light leak.

**11.4.4 Lighting and Mechanical Controls**
Except as otherwise noted, all electrical switch and mechanical thermostat mounting heights and cover plate material(s), color(s) and finish(es) shall be Building or Suite Standard.

Plan locations(s) for electrical switches may vary up to six (6) inches to avoid conflicts with stud locations. Unless noted otherwise, mount light switches to match Suite Standard mounting height for remodel projects, Building Standard where applicable for new projects located in leased space and centered at 48" a.f.f. for all other projects unless otherwise noted.

Provide and install a single cover plate over ganged switches for similar voltages.

Group mechanical thermostats and fan switches with electrical switches wherever possible.

## 12.0 INTERIOR FINISHES

### 12.1 General
RE: Project Finish and Partition Plans.
All interior finishes shall be in compliance with governing codes (particularly the Chapter Eight "Table of Interior Wall and Ceiling Finish Requirements by Occupancy", and regulations and installed (including all required surface preparation) in strict accordance with manufacturer's recommendations, as a minimum standard, and the latest edition of Industry Standards for Installation.

### 12.2 Wall Base
RE: Project Interior Finishes Schedule, General and Keyed Plan Notes.

**12.2.1 General**
Except as noted otherwise, all wall base shall be Building Standard or to match Suite Standard style and height for remodel projects.

**12.2.2 Contractor Wall Base Submittal**
Contractor shall submit sample(s) of the specified wall base for review by the Architect and approval by the Project Party contracting with the Contractor for Project work, **PRIOR** to ordering.

**12.2.3 Resilient Base**
Install resilient base on solid backing. Bond tight to wall and floor surfaces. Fit joints tight and vertical. Maintain minimum of 18" (inches) between joints. Miter internal corners. Scribe and fit base to door frames and other interruptions. Remove excess adhesive from finished surfaces without damage.

Except as noted otherwise, provide and install straight base at all carpeted areas and coved base at hard surface areas.

**12.2.4 Wood Base:**
RE: Section 9.0, Millwork.

**12.2.5 Carpet Base**
Install carpet base on solid backing. Bond tight to wall and floor surfaces. Fit seams tight and vertical to provide an uninterrupted, uniform appearance. Maintain minimum of 60" (inches) between seams. Provide bound edges or provide and install top trim piece as may be specified on plans.
RE: Section 12.3, Carpet

**12.2.6 Ceramic Tile or Natural Stone Base**
RE: Section 12.5, Ceramic Tile or Natural Stone

### 12.3 Carpet
RE: Project Finish and Partition Plans

**12.3.1 General**
Carpet installation workmanship shall comply with the manufacturer's guidelines and the most recent edition of the American Carpet Institute. Work shall be accomplished by qualified mechanics, trained and certified for installation by the specified carpet manufacturer.

Sub-surfaces shall be prepared by the Contractor as required and in conformance with the specified carpet manufacturer's recommendations.

**12.3.2 Contractor Carpet Installation Submittal**
The Contractor or his Carpet Installer shall prepare and submit a carpet seaming diagram and material samples to the Architect for review and approval by the Project Party contracting with the Contractor for Project work, **PRIOR** to ordering.

Failure to submit a seaming diagram and failure to follow the approved seaming diagram may result in rejection of work.

**12.3.3 Glue down Carpet Installation**
Carpet installation shall be glue down application, unless noted otherwise.

For satisfactory performance, substrate surfaces must be smooth and flat, with a maximum variation of 1/2" (inch) in 10' (feet). Contractor shall remove sub floor ridges and bumps, then fill low spots, cracks, joints, holes and other defects with sub floor filler to achieve required smoothness.

Lay out rolls of carpet to ensure minimal variation between dye lots before cutting. Double carpet to allow intended seam and pattern match. Make cuts straight, true and unfrayed. Lay carpet on floors with run of pile in same direction as anticipated traffic. Do not change run of pile in any room where carpet is continuous through a wall opening into another room. Unless noted otherwise, locate change of color or pattern between rooms under door centerline.

Locate carpet seams in area of least traffic. At door openings, center on door. Fit seams straight, not crowded or peaked, and free of gaps. Cut and fit carpet around interruptions. Fit carpet tight to intersection with vertical surfaces **WITHOUT GAPS.**

Remove excess adhesive from floor, base and wall surfaces without damage. Clean and vacuum carpet surfaces, and prohibit traffic from carpet areas for 24 hours after installation.

Provide and install **ANSI** compliant resilient or metal transition strips as noted between carpeted and hard surface floor treatments.

## 12.0 INTERIOR FINISHES (continued)

### 12.4 Carpet and Vinyl Tile Flooring
RE: Project Finish and Partition Plans

**12.4.1 General**
Vinyl tile subsurface preparation, installation materials and workmanship shall comply with the manufacturer's guidelines and recommendations. Work shall be accomplished by qualified mechanics, trained and certified for installation for the specified carpet or vinyl tile.

**12.4.2 Contractor Vinyl Tile Installation Submittal**
The Contractor or his Flooring Installer shall prepare and submit an installation diagram and material samples for approval by the Project Party contracting with the Contractor for Project work **PRIOR** to ordering, for other than single color carpet or vinyl tile installations. Failure to submit an installation diagram and failure to follow the approved installation diagram may result in rejection of work.

### 12.5 Carpet and Vinyl Tile Installation
RE: Project Finish and Partition Plans.

Subsurface floors must be smooth, sound, firm and free from springiness. Tile will follow contour of the sub floor consequently,all irregularities must be removed.

Concrete sub-floor shall be smooth, cleaned and free of all floor coverings, other surface treatments or any irregularities. Any paint or foreign materials shall be removed from floors in direct contact with the ground. The sub-floor shall be subject to the approval of the flooring contractor before application starts.

Unless otherwise noted, lay tile flooring from center marks established with principal walls and perpendicular to the principal walls as shown on the floor plan adjusted as required to avoid use of cut units less than 1/2 - tile wide at perimeters. Match tiles for color and pattern by using in manufactured and packaged sequence. Except as otherwise noted, install tile in a quarter turn pattern.

Extend the work into recesses and under equipment and fixtures to form a complete covering without interruptions, except as otherwise shown. Terminate work neatly at edges and corners of obstructions without disruption of pattern or joint alignment.

### 12.6 Resilient Vinyl and Linoleum Sheet Flooring
RE: Project Finish and Partition Plans.

**12.6.1 General**
Vinyl and Linoleum Sheet Flooring subsurface preparation, installation materials, workmanship and environmental conditions shall comply with the manufacturer's guidelines recommendations. Work shall be accomplished by qualified mechanics, trained and certified for installation for the specified resilient vinyl or linoleum sheet flooring.

**12.6.2 Contractor Vinyl and Linoleum Sheet Flooring Submittal**
The Contractor or his Flooring Installer shall prepare and submit a seaming installation diagram and material samples, including coved base detail and profile as may be required, product components and accessories, for approval by the Project Party contracting with the Contractor for Project work, **PRIOR** to ordering.

Failure to submit an installation diagram and/or failure to follow the approved installation diagram may result in rejection of work.

**12.6.3 Installation**
Subsurface floors must be smooth, sound, firm and free from springiness. Vinyl Sheet Flooring will follow contour of the sub-floor consequently, all irregularities must be removed.

Concrete sub floors shall be smooth, cleaned and free of all floor coverings, other surface treatments or any irregularities. Any paint or foreign materials shall be removed from floors in direct contact with the ground. The sub floor shall be subject to the approval of the flooring contractor before application starts.

Over cut vinyl or linoleum sheet from rolls as recommended by manufacturer for the specified application, layout and position sheet so that any seams fall at least 6" from underlayment joints or saw cuts in the concrete substrate, apply adhesive after proper set up time and roll with sheet flooring as required by the manufacturer.

Except as otherwise noted for integral coved base; scribe, cut, and fit to vertical surfaces. Scribe, cut, and fit sheet vinyl and linoleum flooring to all permanent vertical surfaces, permanent or built-in fixtures, including pipes, outlets, edgings, thresholds, nosings and transitions strips. Extend flooring into toe space, door reveals, closets and similar openings. Do not install sheet flooring over expansion joints, use manufacturer's recommended expansion joint covers.

Integral coved vinyl or linoleum base shall be install in strict compliance with the manufactures recommendations utilizing the manufacture's recommended trim and accessories.

### 12.7 Ceramic, Porcelain and Natural Stone Wall, Floor and Millwork Finishes
RE: Project Finish and Partition Plans.

**12.7.1 General**
Prepare sub-floor, wall and millwork surfaces as required in accordance with the product manufacturer's recommendations and industry standards.

Work shall be accomplished by qualified mechanics, trained and certified for installation for the specified ceramic or natural stone product.

Furnish materials obtained from one source for each type and color of ceramic tile to minimize variations in appearance and quality.

Contractor to provide and install crack isolation membrane below all tile work as required. For slab-on-grade floors on expansive soils, tile and natural stone floor finishes shall be installed independent of the floor slab with isolation joints over all concrete floor slab control and expansion joints, strictly as recommended by the product manufacturer.

**12.7.2 Contractor Ceramic, Porcelain and Natural Stone Installation Submittal**

The Contractor or his Flooring Installer shall prepare and submit an installation diagram and material samples to the Architect for review and approval by the Project Party contracting with the Contractor for Project work.

Failure to submit an installation diagram and failure to follow the approved installation diagram may result in rejection of work.

**12.7.3 Installation**
Installation shall conform to the standards detailed in the current edition of the Tile Council of America, Handbook for Ceramic Tile Installation. Except as noted otherwise, floor and wall tile installation shall be thin set. All wall tile shall be installed on water-resistant gypsum board or cementitious board per the product manufacturer's recommendations for the Project application.

Installer shall examine substrate and conditions under which the tile is to be installed, and notify Architect of any potential problems affecting the installation. No work shall proceed until all unsatisfactory conditions have been corrected.

Provide and install all accessory ceramic tile items as required by project circumstances (cove base, corners, bull nose trim,etc.) in same material, size and finish as primary tiles specified by Architect.

## 12.0 INTERIOR FINISHES (continued)

### 12.7 Ceramic, Porcelain and Natural Stone Wall, Floor and Millwork Finishes

**12.7.3 Installation** (continued)
Unless otherwise shown, lay tile in grid pattern and cut end tiles as required to center installation on each direction of walls and floors. Provide uniform joint widths throughout as approved by the Project Party contracting with the Contractor for Project work . Align joints of adjacent tiles between floor, base, walls and trim as possible.

Extend the work into recesses and under equipment and fixtures to form a complete covering without interruptions, except as otherwise shown. Terminate work neatly at edges and corners of obstructions without disruption of pattern or joint alignment. Accurately form intersections and returns. Perform cutting and drilling of tile without marring visible surfaces. Grind cut edges of tile abutting trim, built-in items, and other finishes for straight aligned joints. Fit tile closely to electrical outlets, piping or fixtures, so that plates, collars or covers overlap tile.

Provide and install control or expansion joints as required over control or expansion joints in concrete floor slab.

**12.7.4 Sealing**
Provide and apply an even coat of sealer (if required) over stone or ceramic tiles per manufacturer's directions. Contractor shall seal the grout on all natural stone and ceramic tile installations in strict accordance with the grout manufacturer's recommendations.

Unglazed ceramic tile and natural stone shall be sealed as recommended by the product manufacturer.

### 12.8 Painting
RE: Project Finish and Partition Plans.

**12.8.1 General**
All painting shall be performed as recommended by the paint manufacturer, as a minimum standard. All painting work, including surface preparation shall be accomplished by qualified personnel, trained and experienced in the specified coatings and method of application.

**12.8.2 Contractor Submittal**
**PRIOR** to ordering the specified products, the Contractor shall submit samples of the specified paint to the Architect for review and approval by the Project Party contracting with the Contractor for Project work. Samples of each specified drywall paint shall be provided in 8-1/2"" x 11" sample format.

Paint samples for special applications shall be submitted in a format as directed by the Architect. Except as otherwise noted or directed, paint shall be applied to the sample in the proper sequence, using the same system as required under these General Notes.

**12.8.3 Material Application**
The Contractor shall be responsible for field inspection of all surfaces to receive paint treatment and preparation of all surfaces to receive paint as required to ensure that such surfaces are acceptable for the finish application.

Application for all painted surfaces of new partitions shall be not less than three (3) coat system using the complete paint system (sealer, primer, finish coat, etc.). Existing painted surfaces shall be properly cleaned and prepared, then painted with a two (2) coat system (primer, finish coat) to match and blend with new partitions.

**12.8.4 Surface Preparation**
All roughness or other irregularities that may appear after priming shall be thoroughly sanded out or otherwise corrected to provide a smooth, even surface for painting and finishing. Finished application and wall appearance shall be free of surface and color irregularities.

**12.8.5 Nonmetallic Surfaces**
Paint shall **ONLY** be roller applied to Nonmetallic surfaces, using short nap (3/8" or less), lint free roller covers, unless noted otherwise. Brush painted Nonmetallic surfaces shall be rejected.

Drywall paint, unless noted otherwise, shall be acrylic latex, low sheen finish (other than flat) not readily susceptible to burnishing under normal office and commercial wear.

All transitions between accent and base paint must be visibly straight and without irregularity.

**12.8.6 Metallic Surfaces**
Paint shall **ONLY** be a spray application or electrostatically applied. Brush or roller application to metallic surfaces shall be rejected.

**12.8.7 Concrete Surfaces**
Only such paint or concrete coats/sealers specifically manufactured for application to concrete surfaces shall be permitted.

Concrete surfaces shall be thoroughly prepared and cleaned to assure a durable application without irregularities in the paint or covering application. Except as otherwise noted, approved concrete paint or sealers shall **ONLY** be roller applied as recommended by the coating manufacturer.

### 12.9 Wallcoverings
RE: Project Finish and Partition Plans.

**12.9.1 General**
All wallcoverings shall be installed in strict accordance with the material manufacturer's and industry standard guidelines and recommendations. All wallcovering work, including surface preparation shall be accomplished by qualified personnel, trained and experienced in the specified materials and method of application.

**12.9.2 Contractor Submittal**
PRIOR to ordering any of the specified materials,the Contractor shall submit a sample of the specified wallcovering (s) to the Architect for review and approval by the Project Party contracting with the Contractor for Project work. The sample size shall be as required by the Architect for approval purposes.

**12.9.3 Material Application**
The Contractor shall be responsible for field inspection of the surfaces to receive wallcoverings and preparation of all surfaces to receive wallcovering, as required to ensure that such surfaces are acceptable for the finish application.

All roughness or other irregularities shall be thoroughly sanded out or otherwise corrected to provide a smooth, even surface for application of the specified wallcovering. Finished application shall be tightly and evenly bonded to the subsurface and wall appearance shall be free of any air bubbles or subsurface irregularities.

Lay out rolls of wallcovering to ensure minimal variation between dye lots before cutting. Double cut wall covering to allow intended seam and pattern match. Make cuts straight, true and unfrayed. NO wallcovering seam or finish gaps or irregularities will be accepted.

Unless otherwise noted, wallcovering shall **NOT** cover switch and outlet cover plates. Contractor shall remove such switch and outlet cover plates prior to the wallcovering application to ensure that there is no wall subsurface visible between the wallcovering and the cover plate.

Remove all excess adhesive and clean as required and recommended by the product manufacturer.

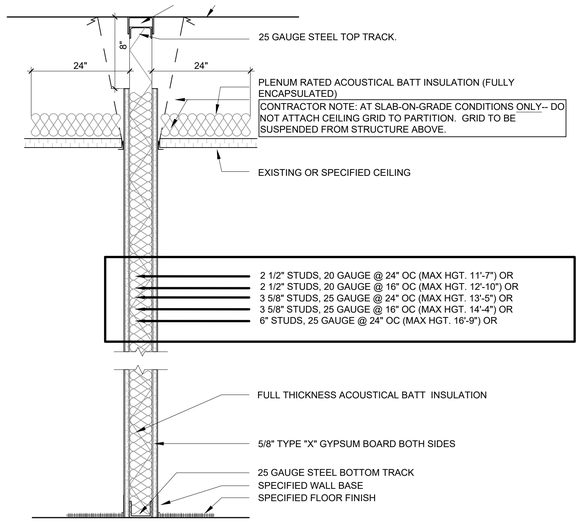
**(End of Specifications and General Notes)**

kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider

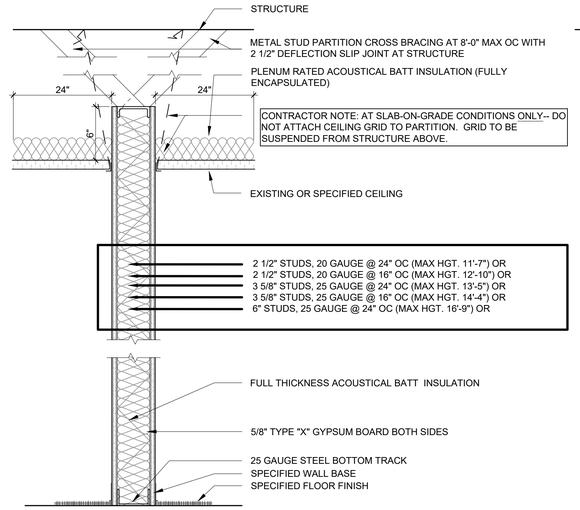
SOUTHGATE WATER & SANITATION DISTRICT
FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 20, 2017 162401D2-70

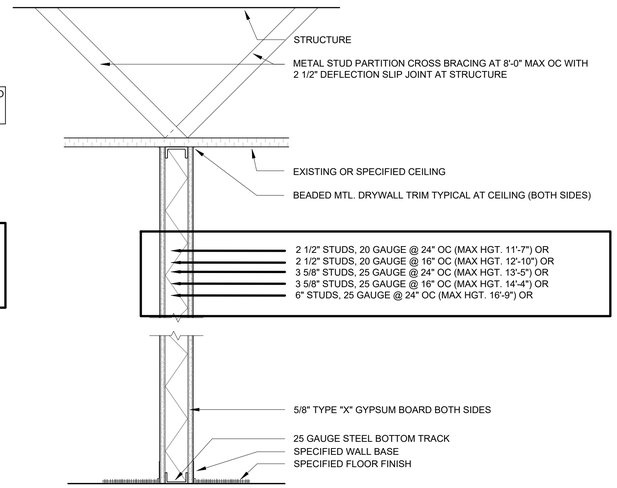
GENERAL NOTES
01 /A0.4




Building Standard
Tenant Demising Partition
3
SCALE: 1-1/2" = 1'-0"




Building Standard
Interior Acoustical Partition
2
SCALE: 1-1/2" = 1'-0"




Building Standard
Interior Tenant Partition
1
SCALE: 1-1/2" = 1'-0"

## Stud Size, Gauge, Spacing, Max. Height Schedule

Height Limitations for Non-Bearing Walls (L/240 allowable deflection, minimum 1/2" gypsum board on each side. See also P. 77 of USG gypsum handbook.

1 5/8" Studs @ 24" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 7'-11" |
| 20 Ga. | 8'-9" |
| 18 Ga. | 9'-11" |

1 5/8" Studs @ 16" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 8'-4" |
| 20 Ga. | 9'-8" |

2 1/2" Studs @ 24" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 10'-7" |
| 20 Ga. | 11'-7" |
| 18 Ga. | 11'-11" |
| 16 Ga. | 12'-9" |
| 14 Ga. | 13'-6" |

2 1/2" Studs @ 16" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 11'-3" |
| 20 Ga. | 12'-10" |

3 5/8" Studs @ 24" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 13'-5" |
| 20 Ga. | 14'-9" |
| 18 Ga. | 15'-10" |
| 16 Ga. | 16'-11" |
| 14 Ga. | 18'-2" |

3 5/8" Studs @ 16" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 14'-4" |
| 20 Ga. | 16'-5" |

4" Studs @ 24" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 14'-2" |
| 20 Ga. | 15'-9" |
| 18 Ga. | 17'-2" |
| 16 Ga. | 18'-4" |
| 14 Ga. | 19'-6" |

4" Studs @ 16" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 15'-4" |
| 20 Ga. | 18'-4" |

6" Studs @ 24" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 16'-9" |
| 20 Ga. | 21'-7" |
| 18 Ga. | 24'-0" |
| 16 Ga. | 26'-0" |
| 14 Ga. | 28'-0" |

6" Studs @ 16" O.C.

| Gauge | Max. Hgt. |
|---|---|
| 25 Ga. | 19-9" |
| 20 Ga. | 24'-6" |

NOTE: ALL studs to be of the same gauge on a job.
Do NOT mix stud gauges.

## IBC Table 720.1(2), Item 13-1.3

**One hour Rated Partition 3 5/8"studs**
0.055" (16 gage) approved nailable metal studs 24" oc with full-length 5/8" Type "X" gypsum wallboard applied vertically and nailed 7" oc with 6d cement-coated common nails. Approved metal fastener grips used with nails at vertical butt joints along studs. (Total thickness 4 7/8")

**One Hour Rated Partition 3 5/8" studs:**
**GA File No. WP 1072**
One layer 5/8" Type "X" gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side of 3 5/8" steel studs 24" oc with 1" Type S drywall screws 8" oc at vertical joints and 12" oc at floor and ceiling runners and intermediate studs.

Joints staggered 24" each layer and each side. Sound tested with 3 1/2"glass fiber friction fit in stud space. (NLB)

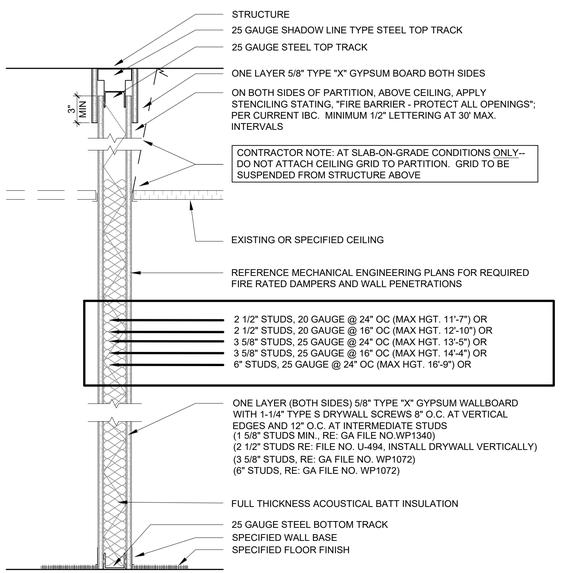
**One Hour Rated Partition 2 1/2" studs:**
**UL Design No. U-494 non-load bearing**
Floor and ceiling runners, 2 1/2" wide by 1" deep, 25 ga. galv. steel, attached to floor and ceiling with fasteners. Studs, channel shaped 2 1/2" wide by 1 1/4" deep with 5/16" folded back return. Fabricated from 25 ga. galv. steel. Spaced 16" or 24" oc. Length of studs to be 1" less than assembly height.
Batts and Blankets, nominal 2 1/2" thick glass fiber batts supplied in 16" or 24" widths installed to fill interior of stud cavity and friction held. Johns Manville International, Inc. / Owens Corning.
Gypsum Board, 5/8" thick by 4'-0" wide, applied vertically, attached to steel studs on both sides and floor and ceiling runners with 0.127 in. diameter, self-drilling, self-tapping steel screws / " long, spaced 8" oc along the edges of the boards and 12" oc in the field of the boards. Joints centered over studs and staggered on opposite sides of the assembly.
Joint Tape and Compound, Vinyl based powder or premixed joint compound, applied in two coats to joints and screw heads; paper tape 2" wide, embedded in the first layer of compound over all joints.

**Two Hour Rated Partition 2 1/2" studs:**
**GA File No. WP 1548**
Base one layer 5/8" Type "X" gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side of 2 1/2" steel studs 24" oc with 1" Type S drywall screws 24" oc.
Face one layer 5/8" Type "X" gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side with 1 5/8" Type S drywall screws 12" oc.

Joints staggered 24" each layer and each side. Sound tested with 2 1/2"glass fiber insulation friction fit in stud space. (NLB)

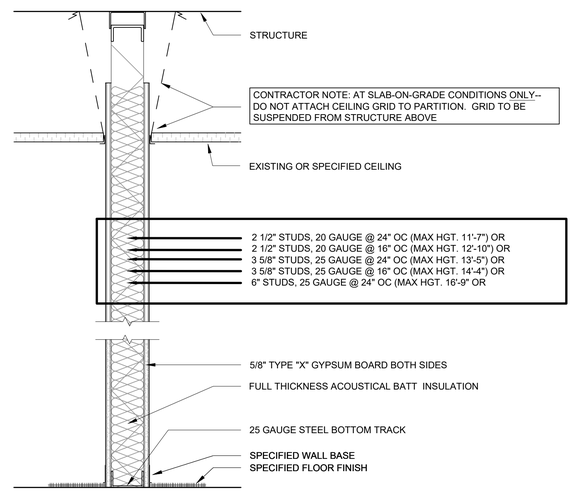
**Two Hour Rated Partition 3 5/8" studs:**
**GA File No. WP 1522**
Base one layer 5/8" Type "X" gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side of 3 5/8" steel studs 24" oc with 1" Type S drywall screws 24" oc.
Face one layer 5/8" Type "X" gypsum wallboard or gypsum veneer base applied parallel or at right angles to each side with 1 5/8" Type S drywall screws 12" oc.

Joints staggered 24" each layer and each side. Sound tested with 3 1/2"glass fiber friction fit in stud space. (NLB)




Building Standard
1-Hour Fire Rated Partition
5
SCALE: 1-1/2" = 1'-0"

RE: IBC TABLE 720.1(2) ITEM 13-1.3 ONE HOUR PARTITION SECTION ON THIS SHEET.




Building Standard
Non-rated Public Corridor Partition
4
SCALE: 1-1/2" = 1'-0"


kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider


SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 20, 2017 16240102-70

GENERAL WALL DETAILS
01 /A0.5

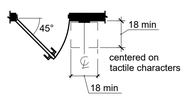



Figure 703.4.2
Location of Tactile Signs at Doors

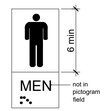



Figure 703.6.1
Pictogram Field dark-on-light

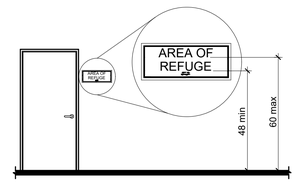



Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

## 9 Signage Information and Mounting Location

Not to Scale

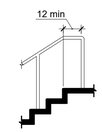
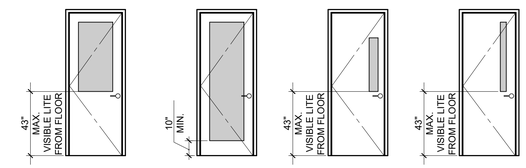



Figure 505.10.2
Top Handrail Extension at Stairs

Figure 505.10.3
Bottom Handrail Extension at Stairs

## 8 Handrail Extensions

Not to Scale




## 7 Door Vision Panel Height

Not to Scale

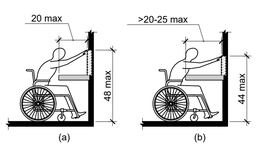



Figure 308.2.2 Unobstructed Side Reach

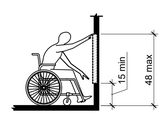



Figure 308.2.1 Obstructed Forward Reach

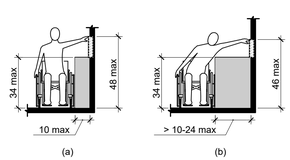



Figure 308.3.2 Obstructed High Side Reach

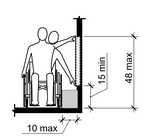



Figure 308.3.1 Unobstructed Side Reach

## 6 Reach Ranges

Not to Scale

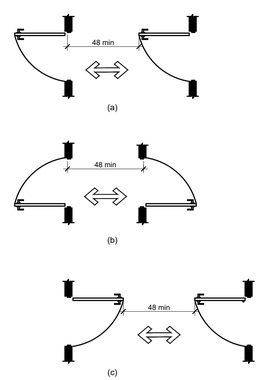



Figure 404.2.6
Two Doors in Series

## 5 Maneuvering Space at Doors in a Series

Not to Scale

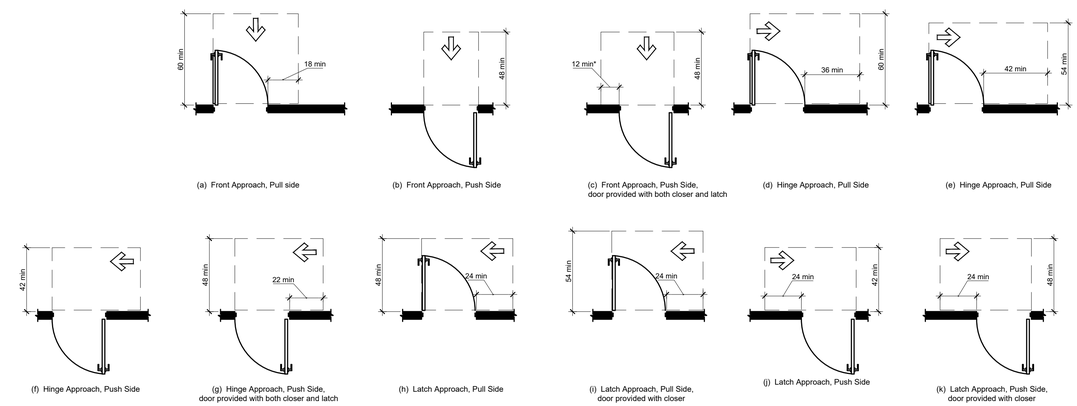



Figure 404.2.4.1
Maneuvering Clearances at Swinging Doors

## 4 Maneuvering Space at Doors

Not to Scale

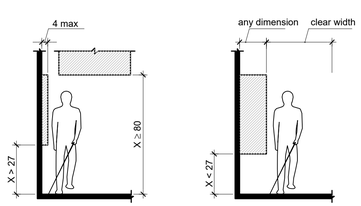



Figure 307.2 Limits of Protruding Objects

Figure 307.1(c) Objects in Detectable Range

## 3 Protruding Objects

Not to Scale

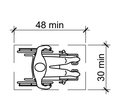



Figure 305.3 Clear Floor or Ground Space

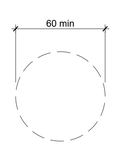



Figure 304.3 Circular Turning Space

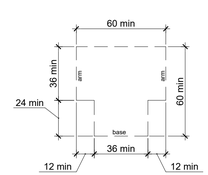



Figure 304.3.2 T-Shaped Turning Space

## 2 Turning Space Configuration

Not to Scale

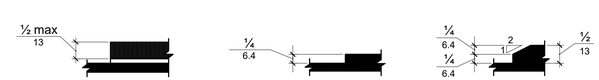



Figure 302.2
Carpet Pile Height

Figure 303.2
Vertical Change in Level

Figure 303.3
Beveled Change in Level

## 1 Changes in Floor Level

Not to Scale

kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider

# SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

**ISSUES / REVISIONS**

MARCH 20, 2017 — 16240102-70

**ICC/ANSI A117.1-2009 DETAIL SHEET**

01 /A0.6

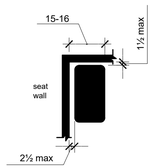



Figure 610.3.1 Rectangular Shower Seat

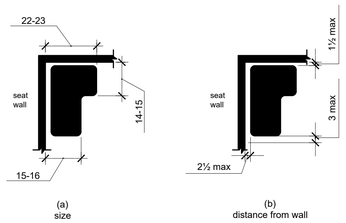
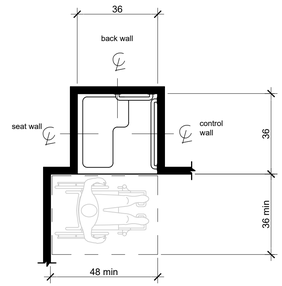



Figure 610.3.2 L-Shaped Shower Seat

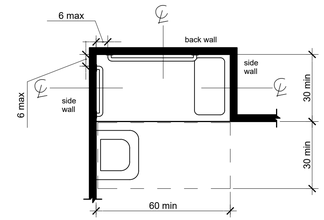
## 10 Shower Compartment Seats

Not to Scale




Note: inside finished dimensions measured at the center point of opposing sides

Figure 608.2.1
Transfer Type Shower Compartment Size and Clearance




Note: inside finished dimensions measured at the center point of opposing sides

Figure 608.2.2
Standard Roll-In Type Shower Compartment Size and Clearance

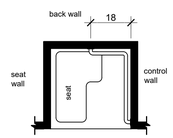
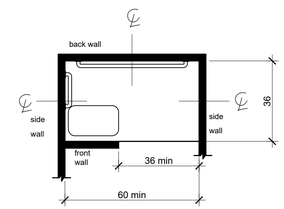



Figure 608.3.1
Grab Bars for Transfer Type Showers




Note: inside finished dimensions measured at the center point of opposing sides

Figure 608.2.3
Alternate Roll-In Type Shower Compartment Size and Clearance

## 9 Shower Compartments

Not to Scale

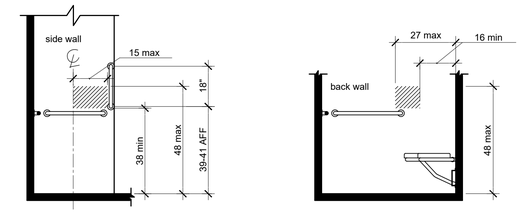



Figure 608.4.1
Transfer Type Shower Compartment Control Location

Figure 608.4.2
Standard Roll-In Type Shower Control and Handshower Location

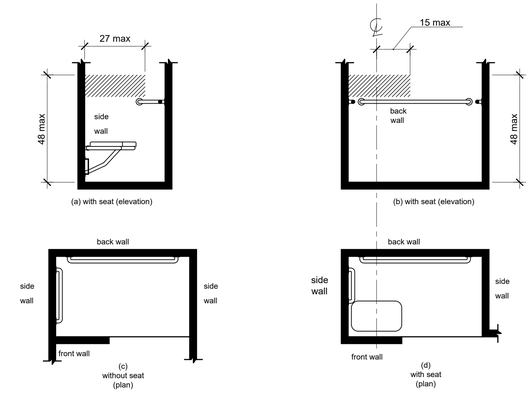



Figure 608.5.3
Alternate Roll-In Type Shower Compartment Control Location

## 8 Shower Compartment Control Locations

Not to Scale

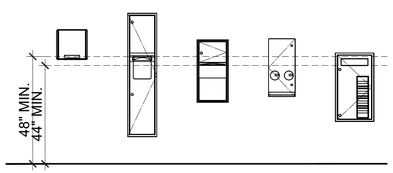
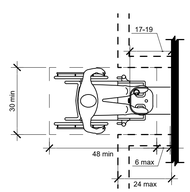



Fig. 1 Upper Range of Mounting Heights for Restroom Accessories with Operable Parts

## 7 Restroom Accessory Mounting Heights

Not to Scale




## 6 Clearance at Drinking Fountain

Not to Scale

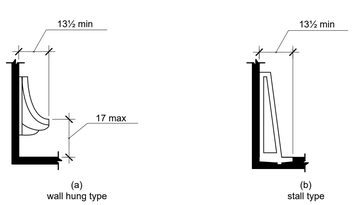



Figure 605.2 Height and Depth of Urinals

## 5 Urinal Clearances

Not to Scale

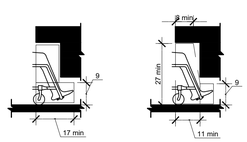
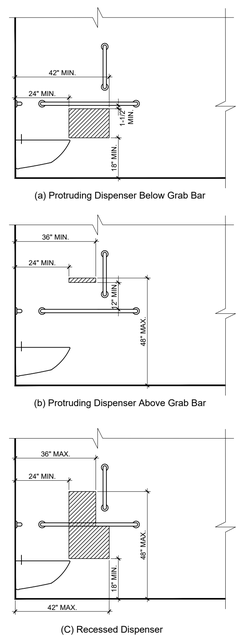



Figure 306.2
Toe Clearance

Figure 306.3
Knee Clearance

## 4 Knee Clearances at Lavatory

Not to Scale




## 3 Accessible Toilet Dispenser Locations

Not to Scale

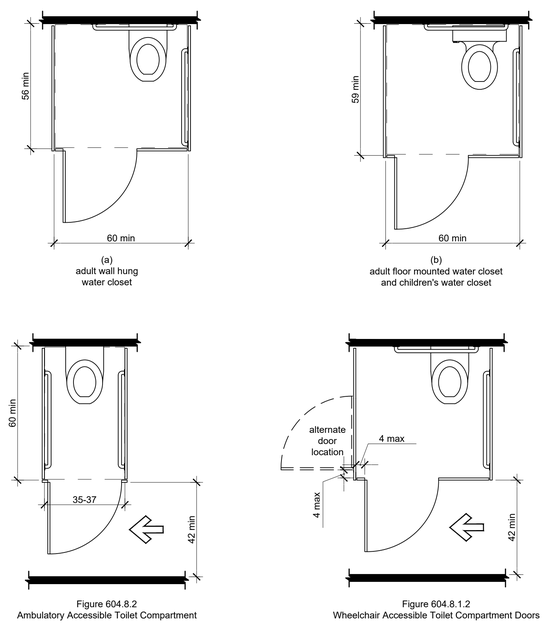
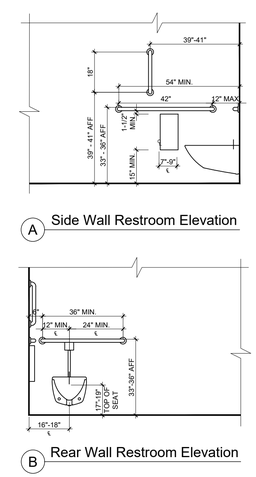



Figure 604.8.2
Ambulatory Accessible Toilet Compartment

Figure 604.8.1.2
Wheelchair Accessible Toilet Compartment Doors

## 2 Accessible Compartments Clearances

Not to Scale




## 1 Accessible Toilet Elevations

Not to Scale


kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider


# SOUTHGATE WATER & SANITATION DISTRICT

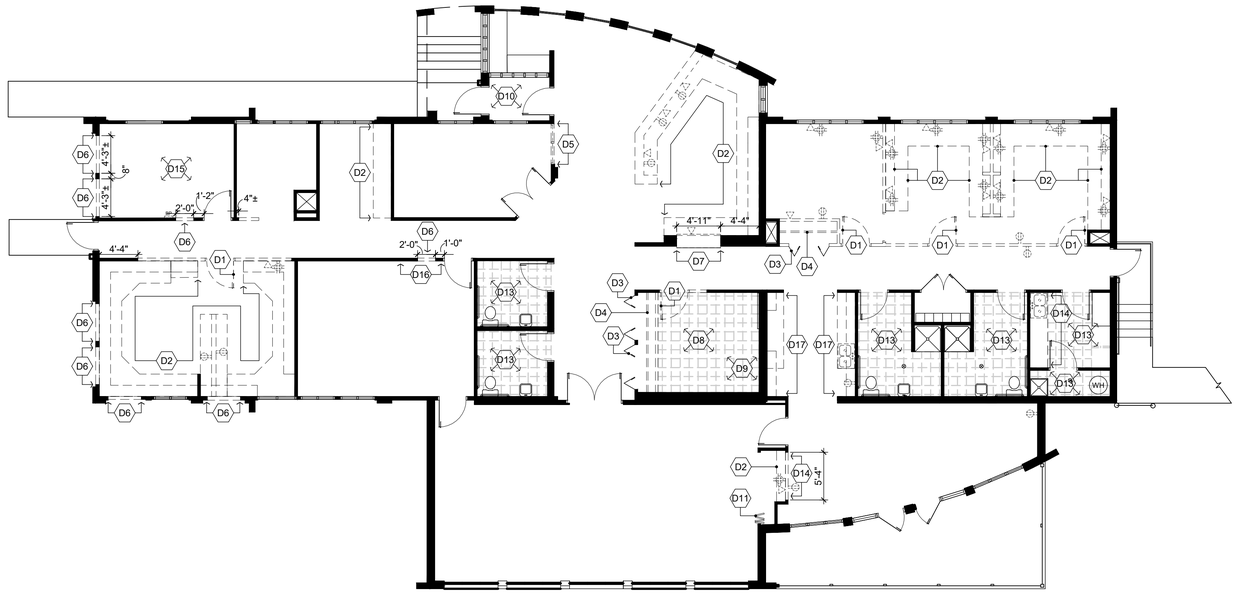
FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

**ISSUES / REVISIONS**

MARCH 20, 2017 — 162401/02-70

**ICC/ANSI A117.1-2009 PLUMBING SHEET**

01 /A0.7




# SOUTHGATE WATER & SANITATION DISTRICT

## Demolition Plan
## First Floor
## 5,133 SF

1/8" = 1'-0"

NORTH

### DEMOLITION PLAN GENERAL NOTES

#### Purpose:

The purpose of this Plan is to generally describe the scope of the proposed work, including the performance and level of quality expected.

#### Contractor Pre-Demolition Field Verification:

The Contractor shall be responsible for field verifying all existing conditions, Construction Documents, Tenant and Building Standards, the Building Owner's Rules, Regulations and Working Conditions for the Building, and governing Building Codes affecting the Project and provide for all materials, work and all associated costs as may be required for a complete and finished Project.

The Contractor shall verify all existing conditions at the job site prior to the start of demolition. Call any discrepancies to the attention of the Architect, to be resolved before proceeding with work. **DO NOT SCALE THE DRAWINGS.**

#### Hazardous Materials:

The Contractor is to examine the existing conditions for the existence of hazardous materials. If hazardous materials are found, the Building Owner should be contacted and the hazardous materials are to be removed. All removal work shall be in compliance with local, state and federal laws for the removal of asbestos.

No materials containing any amount of asbestos are to be used in the performance of the Work, including but not limited to asbestiform fiber/structure varieties of chrysotile, amosite (cummintonite-grunerite), crocidolite, anthophyllite, tremolite, and actinolite and/or "magnesium silicates" as identified in the product manufacturer's Material Safety Data Sheets.

Prior to commencement of any demolition work, including floor covering removal, the General Contractor shall obtain from Owner or Owner's designated state-certified asbestos inspector a statement to the effect that the inspector has determined that demolition of the space will not disturb building materials that contain asbestos, as defined by the U.S. Environmental Protection Agency, the U.S. Occupational Safety and Health Administration, and the State Health Department.

Upon completion of the work and prior to a request for final payment, the General Contractor shall provide a signed affidavit stating that no asbestos has been introduced into the building by the General Contractor, its subs or suppliers during the performance of the Work.

#### Material Salvage:

Remove all walls, millwork, plumbing fixtures, door and frame assemblies and glazing noted by dashed lines. All other items indicated are to remain, unless noted other. As determined by the Building Owner and Contractor, salvage all door and frame assemblies, millwork, glazing and plumbing fixtures that are determined to be reusable and dispose of all others. Cap all unused plumbing lines below the floor slab. Patch and repair slab as required to receive new floor finishes.

### DEMOLITION PLAN GENERAL NOTES (cont'd)

#### Protection of Real Property Improvements:

Provide protective measures as required to protect existing improvements and to provide free unobstructed and safe passage of Owner's personnel and general public to and from occupied portions of the building. Maintain and protect all areas, outside the designated work areas from soiling and debris.

Protect from damage existing finish work that is to remain in place and becomes exposed during demolition operations.

The Contractor shall repair any damage to the facility caused by the demolition activities or by his Subcontractors at no cost to the Owner.

#### Architectural Demolition:

Architectural elements shall be removed back to structure, or if such removal is impractical according to Building Owner, then elements shall be removed to such an extent that patching and/or new work will conceal part of the element to remain.

Where flooring, wall base and wall coverings are removed, the remaining substrates should be patched, repaired or replaced to receive new wall finishes. The existing floor slab shall be free of all nails, screws and other protruding objects and prepared to receive new flooring finishes.

Repair, refurbish, or replace damaged blinds as required by Building Owner to provide a Building Standard appearance, or where new partition placement requires re-sizing of blinds.

Existing suspended acoustical tile ceiling grid, ceiling tiles, and existing light fixtures will remain or be relocated. Contractor to protect ceiling assembly and light fixtures during demolition.

Contractor to remove all debris, abandoned wiring, cabling and combustible materials in the plenum space above the ceiling.

#### Electrical / Mechanical Demolition:

Remove electrical and mechanical elements present in wall and/or structures noted for demolition unless serving other portions of the building. Coordinate all work with Building Chief Engineer and notify Architect of such conditions.

Electrical and mechanical elements shall be removed back to the nearest junction box, panel, pipe, duct, etc. to ensure no conflict with new work. Coordinate all work with Building Chief Engineer. Elements shall be shut off, disconnected or capped.

#### Clean Up / Finish Work:

Patch and prepare all disrupted walls and remaining ceilings as required for suitable for receiving finish after demolition.

Upon completion of demolition work, remove tools, equipment and demolished materials from site. Leave interior areas broom clean.

Removal of trash and demolition material shall occur daily.

The existing building will remain in partial occupancy with areas made available for demolition and remodeling work in accordance with a mutually agreed upon schedule between Contractor and Owner. Disruptive or potentially hazardous construction activities shall be coordinated to occur after normal business hours, so as to minimize disturbance to Building Occupants.

### ⬡ DEMOLITION PLAN TENANT IMPROVEMENT NOTES

The following Keyed Notes are intended to generally describe special conditions, improvements as a supplement to the plan drawing, legends, schedules and Demolition Plan General Notes, only. The Contractor shall be responsible for pricing any materials and work required and related to the various Keyed Notes.

#### Demolition Plan General Notes:

1. All existing electrical, telephone and data devices indicated on demolition plan are to be removed back to source.

2. If existing flooring is to be removed, Demolition Contractor to remove any existing adhesive ridges and scrape floor slab smooth.

3. Remove all existing suite finishes, carpet, wall base, wallcovering, VCT, etc. Prepare all surfaces as required to receive new finishes.

#### Demolition Plan Keyed Notes:

**D1**
Remove existing door and frame assembly in its entirety. Relocate as possible to new location or return to Building Owner.

**D2**
Remove existing millwork in its entirety; verify disposition with Building Owner.

**D3**
Remove bi-fold doors and hardware and verify disposition with Building Owner.

**D4**
Remove existing coat rack and shelf. Verify disposition with Building Owner.

**D5**
Remove existing window assembly in its entirety. Salvage for possible reuse or verify disposition with Building Owner.

**D6**
Remove portion of existing wall as indicated to accommodate new glazing assembly. Coordinate with new work.

**D7**
Remove existing mail slot millwork assembly. Verify disposition with Building Owner. Coordinate with new work.

**D8**
Remove existing VCT in its entirety. Verify disposition with Building Owner.

**D9**
Verify disposition of existing equipment in Room with Tenant.

**D10**
Remove existing walk off assembly flooring strips.

**D11**
Remove existing folding partition. Verify disposition with Building Owner.

**D12**
Unassigned.

**D13**
Remove tile flooring and wall tile in this room.

**D14**
Remove existing millwork and plumbing fixtures in their entirety. Cap off plumbing below finished floor, patch and repair floor slab as required for new finishes.

**D15**
Verify disposition of any whiteboard in this Room with Tenant.

**D16**
Verify disposition of bookcases as needed for new sidelight location.

**D17**
**PRICE SEPARATELY:**
Remove existing millwork and plumbing. New to be installed.

### DEMOLITION VOICE / DATA & ELECTRICAL SYMBOL LEGEND

Reference Keyed Notes and General Notes this sheet for any special functions or requirements.

- Indicates existing outlets and all related cabling as required by Tenant to be removed.
- Indicates existing outlets and all related services to be removed back to breaker box.
- Indicates existing wall, floor or ceiling mounted junction box and all related cabling as required by Tenant to be removed.
- Indicates existing blank plate and all related cabling as required by Tenant to be removed.
- Indicates existing outlets and all related services to be removed back to breaker box.
- Indicates existing power pole and all related services to be removed back to breaker box.
- Indicates existing switch plate and all related cabling as required by Tenant to be removed.

### PARTITION SCHEDULE

- Base building shell and core construction / existing partition to remain.
- +(height A F F) — Partial height partition Re: plan for partition height.
- Existing walls to be removed.


kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider

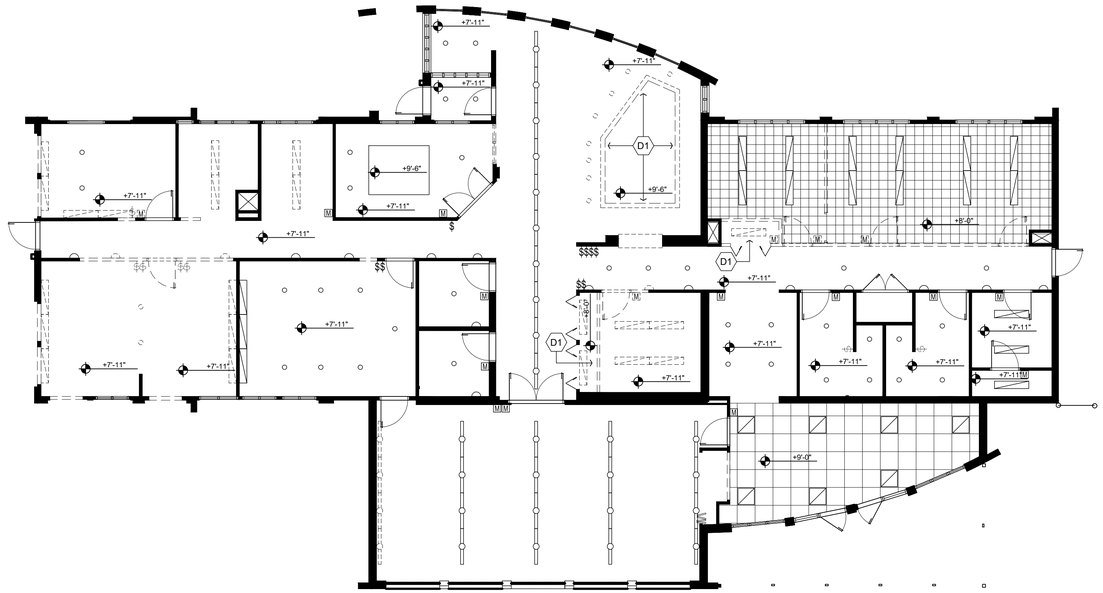

SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS

| | |
|---|---|
| MARCH 20, 2017 | 16240102-70 |

DEMOLITION PLAN
01 /D.1




# SOUTHGATE WATER & SANITATION DISTRICT

## Reflected Ceiling Demolition Plan
First Floor
5,133 SF
1/8" = 1'-0"

NORTH

### REFLECTED CEILING PLAN DEMOLITION PLAN GENERAL NOTES

**Purpose:**

The purpose of this Plan is to show the general location of ceiling treatments, light fixtures and any ceiling mounted electrical outlet, only.

Contractor shall reference Construction Documents prepared by the Project Engineers for all electrical specifications, circuiting and requirements for the Project, mechanical and life safety requirements and work.

**Contractor's Responsibilities:**

The Contractor shall be responsible for field verifying all existing conditions and familiarizing himself with all Project Construction Documents, Tenant and Building Standards, the Building Owner's Rules, Regulations and Working Conditions for the Building, and governing Building Codes affecting the Project and provide for all materials, work and all associated costs as may be required for a complete and finished Project, including materials and work required for life safety detection, alarm and communications.

The Contractor shall be responsible for field verifying the location of any existing conditions affecting the work shown and for familiarizing himself with both this plan and Construction Documents prepared by the Project Engineers. The Contractor shall advise the Architect of any discrepancies between this plan and the field conditions or Engineering Construction Documents prior to proceeding with the work in question.

### REFLECTED CEILING DEMOLITION PLAN KEYED NOTES

The following Keyed Notes are intended to generally describe special conditions, improvements as a supplement to the plan drawing, legends, schedules and General Notes, only. The Contractor shall be responsible for pricing, providing and installing all materials and work required and related to the various Keyed Notes.

The following Keyed Notes **DO NOT** represent the required engineering design.

**Demolition General Notes:**

1. Existing suspended acoustical tile ceiling grid, ceiling tiles, and existing light fixtures will remain or be relocated. Contractor to protect ceiling assembly and light fixtures during demolition.

2. Contractor to remove all debris, abandoned wiring, cabling and combustible materials in the plenum space above the ceiling.

3. When ceiling grids are removed, GC shall verify that any remaining elements, such as glazing, portions of drywall soffits and fascias, etc. are securely braced to the structure above prior to demolition of the ceiling grid.

**Demolition Keyed Notes:**

**D1**
Remove portion of drywall soffit at area of new wall/office build out.

### REFLECTED CEILING PLAN SYMBOL LEGEND

- Building standard suspended acoustical grid ceiling, to remain.
- Area of grid and tile to be removed
- Building standard 2'-0"x4'-0" fluorescent light fixture.
- Light fixture to be removed or relocated.
- Building standard 2'-0"x2'-0" fluorescent light fixture.
- Light fixture to be removed or relocated.
- Recessed downlight. RE: Electrical Engineering Plans.
- Recessed adjustable wallwasher. RE: Electrical Engineering Plans.
- Building standard single bulb porcelain light fixture.
- Building standard fluorescent tube (4'-0" size shown)
- $ Building standard single pole light switch.
- $D Building standard light switch w/ dimmer.
- $3 Building standard three-way switch.
- $$ Building standard dual level light switch.
- M Building standard motion sensor light switch.
- Building standard light switch to be removed/relocated.
- Downlight to be removed/relocated.

### PARTITION SCHEDULE

- Base building shell and core construction / existing partition to remain.
- Existing walls to be removed.

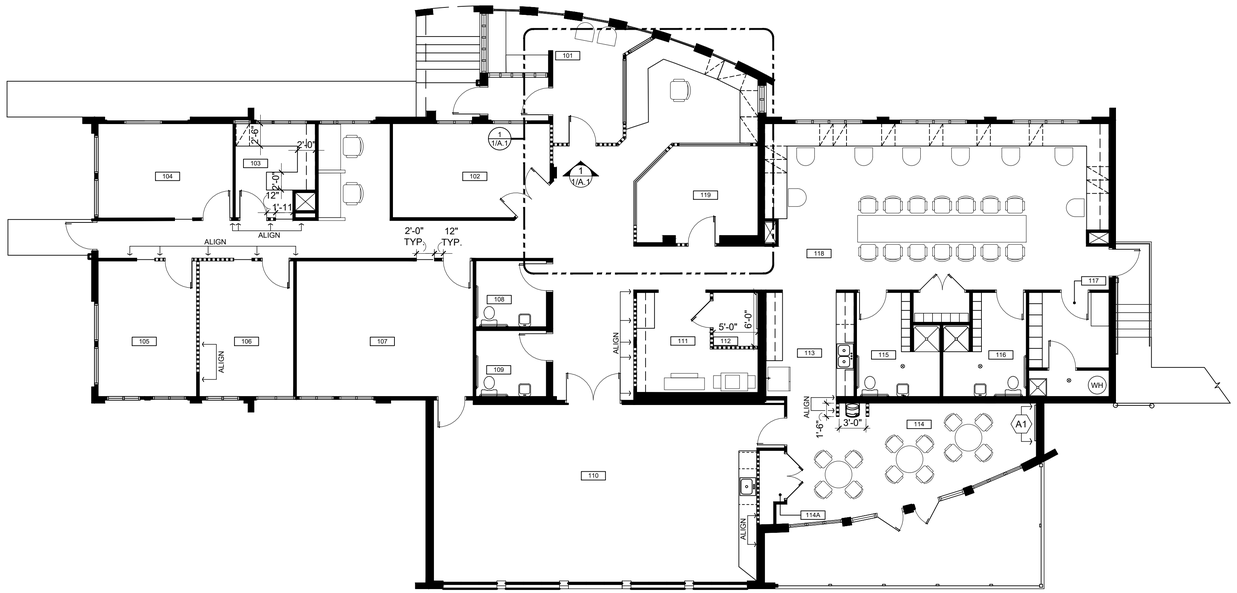

kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider


SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 20, 2017 162401102-70

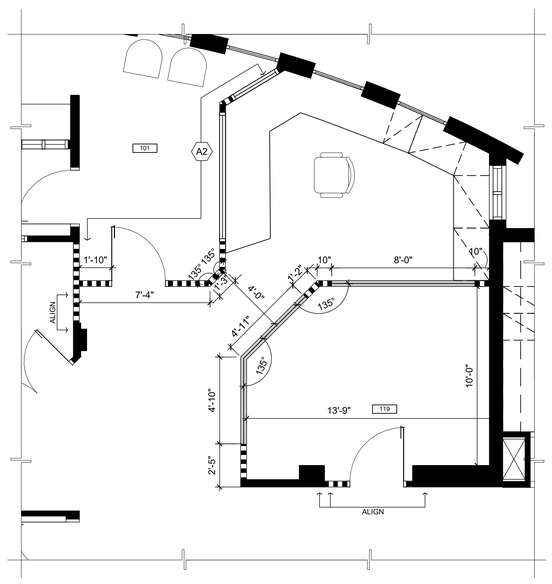
REFLECTED CEILING DEMOLITION PLAN
01 /D.2



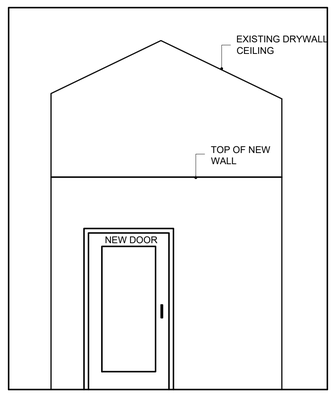

## SOUTHGATE WATER & SANITATION DISTRICT

Dimension Plan
First Floor
5,133 SF
1/8" = 1'-0"

NORTH




1 Enlarged Reception/Office Plan
SCALE: 1/4" = 1'-0"




1 Reception Wall Elevation
SCALE: 3/8" = 1'-0"

### DIMENSION PLAN GENERAL NOTES

**Purpose:**

The purpose of this Plan is to generally describe the proposed architectural layout and tenant improvements required for the Project in conjunction with the other plans and Engineering Working Drawing.

**Contractor's Responsibilities:**

The Contractor shall be responsible for field verifying all existing conditions, Construction Documents, Tenant and Building Standards, the Building Owner's Rules, Regulations and Working Conditions for the Building, and governing Building Codes affecting the Project and provide for all materials, work and all associated costs as may be required for a complete and finished Project.

The Contractor shall protect all existing improvements to remain or to be reused, including, but not limited to exterior window coverings. All other materials are assumed to be new unless noted otherwise. Any other re-use of existing materials must be confirmed with Tenant and approved by Owner.

**Degree of Accuracy/Scaled Plan Dimensions:**

DO NOT SCALE PLANS. The drafted plan is based upon CAD data provided to us by others and field verified for general conformance of the plan to the space shown. Exhaustive measurements have not been made and the actual space may vary slightly from that shown in plan.

Unless noted otherwise, furniture and equipment are only generally representative of the size and configuration of the actual furniture and equipment. The Tenant shall be responsible for their vendors and installers verifying all critical dimensions and requirements necessary to assure such furniture and equipment fit and work to their satisfaction and for advising the architect of all such requirements affecting the Project plans.

### DIMENSION PLAN KEYED NOTES

The following Keyed Notes are intended to generally describe special conditions, improvements as a supplement to the plan drawing, legends, schedules and General Notes, only. The Contractor shall be responsible for pricing, providing and installing all materials and work required and related to the various Keyed Notes.

**Dimension Plan Keyed Notes:**

**A1**
Provide and install non combustible blocking strips in wall for Tenant supplied wall mounted screen and mounting hardware. Contractor to coordinate with Tenant's vendor to confirm exact location mounting height and requirements in field prior to installation.

**A2**
Provide and install new partition from floor to lower drywall ceiling height with 3" tubular steel supports spaced no more than 36" on center and painted drywall top. Height of partition to match drywall headers in Suite 7'-11" ± (verify in field).

**PARTITION SCHEDULE**

- Base building shell and core construction / existing partition to remain.
- Building standard interior tenant partition, floor to ceiling.
- Building standard corridor partition.
- Building standard demising partition.
- Building standard acoustical partition.
- +(height A F F) Partial height partition Re: plan for partition height.
- Existing walls to be removed.


kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider


SOUTHGATE WATER & SANITATION DISTRICT

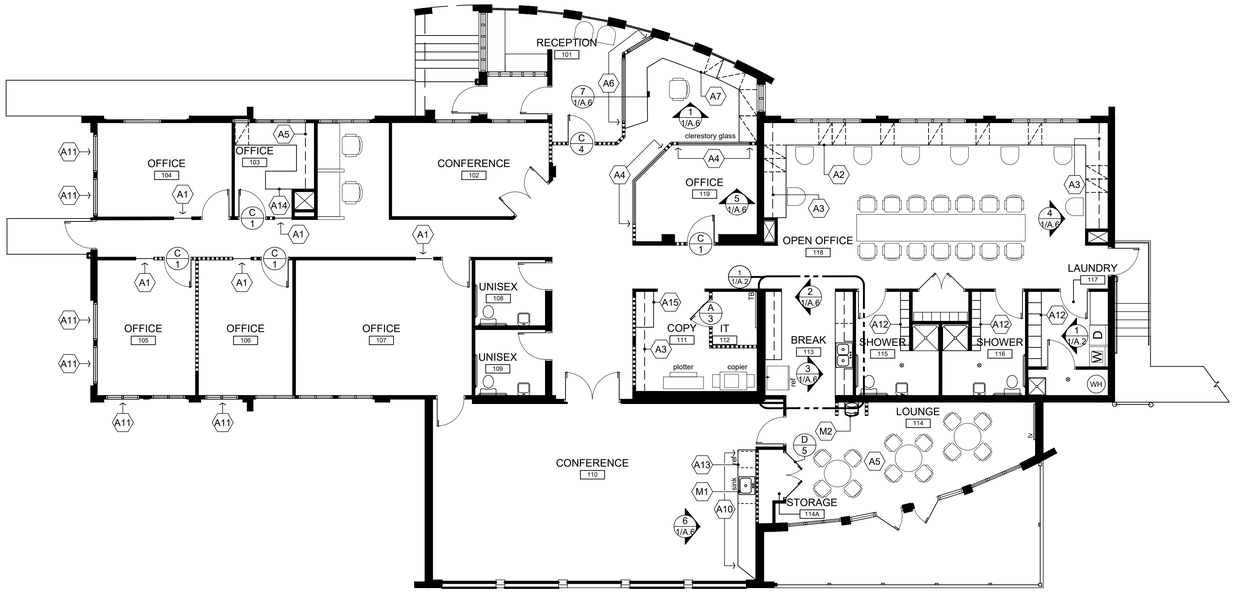
FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

**ISSUES / REVISIONS**

MARCH 20, 2017 — 16240102-70

**DIMENSION PLAN**

01 /A.1




# SOUTHGATE WATER & SANITATION DISTRICT

Partition Plan
First Floor
5,133 SF
1/8" = 1'-0"

NORTH

## PARTITION PLAN GENERAL NOTES

### Purpose:

The purpose of this Plan is to generally describe the proposed architectural layout and tenant improvements required for the Project in conjunction with the other plans and Engineering Working Drawing.

### Contractor's Responsibilities:

The Contractor shall be responsible for field verifying all existing conditions, Construction Documents, Tenant and Building Standards, the Building Owner's Rules, Regulations and Working Conditions for the Building, and governing Building Codes affecting the Project and provide for all materials, work and all associated costs as may be required for a complete and finished Project.

Contractor to notify Building Management 24 hours in advanced of any life safety / fire alarm testing.

### Contingency Allowance:

The Contractor shall coordinate with Building Management for any contingency inclusion in the final bid for Tenant improvements and related work not provided for on the Plan.

### Reuse of Existing Improvements:

The Contractor shall protect all existing improvements to remain or to be reused, including, but not limited to exterior window coverings.

Existing exterior window coverings to be cleaned, repaired, or replaced as required to provide Building Standard appearance and function. Contractor shall provide new blinds to match existing, or re-size existing blinds as required for new partition placement.

Provide and install Building Standard fire extinguishers, emergency lights, and exit signage. Assure all compliance pertaining to fire suppression system, electrical and mechanical systems as required by the Building Department.

### Systems Furniture/Casegoods:

All systems furniture, casegoods, equipment etc. shown is for general reference purposes only. The Tenant is responsible for providing critical dimensions to the Architect/General Contractor for special equipment, freestanding furniture or systems furniture. The Tenant's Systems Furniture vendor is responsible for verifying all field dimensions relative to their furniture installation, supplying any critical finished dimensions to the Architect/General Contractor prior to construction, and for providing circuit/wiring requirements to the Engineers, and final locations of power/data/telephone feeds to the General Contractor.

## PARTITION PLAN KEYED NOTES

The following Keyed Notes are intended to generally describe special conditions, improvements as a supplement to the plan drawing, legends, schedules and General Notes, only. The Contractor shall be responsible for pricing, providing and installing all materials and work required and related to the various Keyed Notes.

### Architectural General Notes:

1. Provide and install new Building Standard carpet, wall base, and paint throughout Suite. RE: Finish Plan for specifications.

### Architectural Keyed Notes:

**A1**
Provide and install new width shown x 3/8" thick x full height clear tempered glass glazing assembly centered in finished drywall cased opening to match existing in building. Provide and install new aluminum glazing channels top and bottom and clear silicone seal at all vertical joints and jambs (1/8" max width). Provide structural support above ceiling as required.

**A2**
Provide and install new plastic laminate work surface with PVC edge scribed to the wall at 30" AFF on plastic laminate angled supports with ten (10) plastic laminate box/box/file drawer units with locking drawers. Verify final locations. Provide grommets at all outlets. RE: Detail 4, Sheet A.6.

**A3**
Provide and install new plastic laminate upper wall cabinets as follows:

Height: 30"
Depth: 12"
Bottom of cabinet mounting height: 60" AFF

Cabinets to have two full depth Melamine shelves with pvc edges to match Melamine and white Melamine interiors with 3" wire pulls, full overlay doors with concealed hinges.

**A4**
Provide and install new 3/8" thick tempered glass window. See Elevation 5, Sheet A.6.

**A5**
Provide and install three (3) new adjustable plastic laminate 14" deep x width indicated shelves on heavy duty standards and brackets mounted to studs.

**A6**
Provide and install new tempered glass window on partial height partition on laminate 12" deep transaction countertop at 36" AFF.

**A7**
Provide and install new laminate work surface at 30" AFF scribed to the wall on angled laminate supports spaced no more than 30" on center with built-in locking box/box file drawer and three locking built-in locking lateral files. Provide grommets above outlets. RE: Detail 1, Sheet 01/A.6.

**A8**
Replace millwork (uppers and lowers and microwave shelves) with new. Replace dishwasher with new stainless steel dish washer by G.E. or equal. Remove ice-maker and install cabinet. Replace refrigerator with new stainless steel refrigerator with waterline and ice-maker. Replace microwaves with new stainless steel microwaves (match size). Replace sink assembly with new. RE: Details 2&3, Sheet A.6.

**A9**
Unassigned.

## PARTITION PLAN KEYED NOTES (cont'd)

**A10**
Provide and install new built-in coffee bar with wood base cabinets and granite countertop and back splash. RE: Detail 6, Sheet A.6

**A11**
Provide and install new exterior window assembly. Match existing adjacent windows. RE: Structural Engineering Drawings to be provided, contact Architect.

**A12**
Provide and install new built-in laminate lockers. RE: Elevation, this Sheet.

**A13**
Provide and install new undercounter refrigerator. (General Contractor to pre approve with Tenant).

**A14**
Provide and install new plastic laminate work surface with PVC edge scribed to the wall at 30" AFF. On plastic laminate angled supports with plastic laminate box/box/file drawer with locking drawers. Verify final locations. Provide grommets at all outlets.

**A15**
Provide and install new plastic laminate millwork as follows:

Countertop Depth: 25-1/2"
Height: 34"
Backsplash: 6" high
Base Cabinet: One row utensil drawers with heavy duty, full extension drawer glides, full overlay drawer fronts and cabinet doors, and base cabinet with one full depth Melamine internal adjustable shelf with PVC edges to match Melamine, white Melamine interiors, 3" wire pulls and 4" high toe kick.

### Mechanical Keyed Notes:

The following Mechanical Keyed Notes are intended to describe expressed Tenant requirements, only, and **DO NOT** represent the required engineering design.

**M1**
Provide and install new stainless bar sink and gooseneck faucet assembly and stainless steel under counter refrigerator. RE: Mechanical Engineering Plans.

**M2**
Provide and install new drinking fountain. Assume Elkay EXH20 Bottle Filter Station or equal. General Contractor to verify drinking fountain is approved by Jurisdiction prior to order and install. RE: Mechanical Engineering Plans.

**M3**
Provide and install new ANSI compliant double compartment rear draining stainless steel sink with ANSI compliant faucet and all associated plumbing services including hot water service. Provide and install new backset garbage disposal with electrical outlet and switch. Provide and install ANSI compliant insulation on all exposed under counter pipes. RE: Mechanical Engineering Plans.

**M4**
Provide and install new copper water line with soldered shut-off valve and all required plumbing services. RE: Mechanical Engineering Plans.

## DOOR/DOOR FRAME SCHEDULE

### General Notes:

Except as noted otherwise or noted as existing, all doors and frames are new or relocated with Building Stock as approved by Building Owner and shall be solid core with Building Standard finish.

Doors shown without symbol are existing, UNO.

**Suite Standard Door Frame:**
Manufacturer: Match existing
Style: Match existing
Color: Match existing

**Suite Standard Door:**
Manufacturer: Match existing
Style: Match existing
Color: Match existing
Finish: Match existing
Height: 0'-00"

### Schedule:

**A**
Provide and install new Suite Standard 3'-0" wide interior door with vision panel and frame assembly.

**B**
Unassigned.

**C**
Provide and install new door and frame with 20"x60"x1/4" clear tempered glass inset centered in door with wood trim.

**D**
Provide and install new pair of wood doors to match existing in Suite (no vision panel).

## HARDWARE SCHEDULE

### General Notes:

Provide and install the following Building Standard hardware sets, reference plan.

Provide ANSI compliant hardware as required on all new door hardware. Reused hardware sets shall be refurbished as required for proper function and finished to match new hardware as approved by the Owner.

Provide and install wall stops with solid, fire-retardant wood blocking behind, typical and floor stops where otherwise required based on door function and location.

GC to confirm with Property Manager if locksets or passage sets are to be included in pricing.

Doors shown without symbol are existing, UNO.

**Suite Standard Hardware:**
Manufacturer: Match existing
Series: Match existing
Style: Match existing
Finish: Match existing

### Schedule:

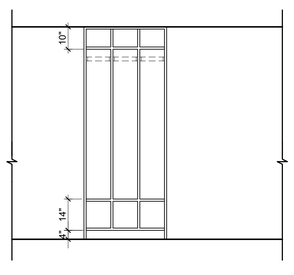
**1**
Provide and install new Building Standard ANSI compliant lever office function lockset hardware set.

**2**
Unassigned.

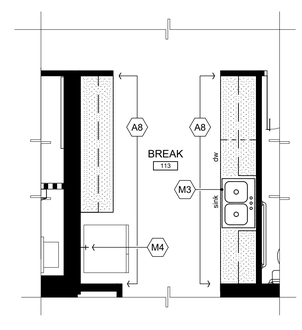
**3**
Provide and install new Building Standard ANSI compliant lever store room function lockset hardware set.

**4**
Provide and install new lockset hardware. Lock to allow egress from Building at all times.

**5**
Provide and install new lockset hardware on active leaf and automatic flush bolt on inactive leaf.




1 Typical Locker Elevation
SCALE: 3/8" = 1'-0"




1 Enlarged Break Room Plan
SCALE: 1/4" = 1'-0"

## PARTITION SCHEDULE

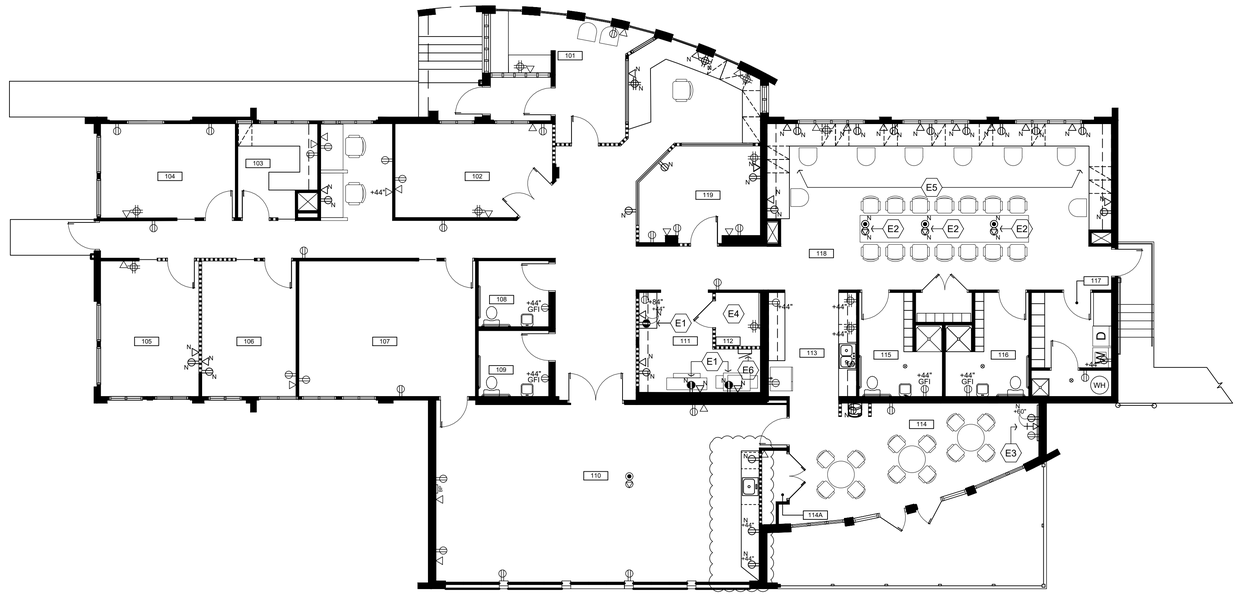
- Base building shell and core construction / existing partition to remain.
- Building standard interior tenant partition, floor to ceiling.
- Building standard corridor partition.
- Building standard demising partition.
- Building standard acoustical partition.
- +(height A F F) Partial height partition Re: plan for partition height.
- Existing walls to be removed.


kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider


SOUTHGATE WATER & SANITATION DISTRICT
FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 20, 2017 — 16240102-70

PARTITION PLAN
01 /A.2




# SOUTHGATE WATER & SANITATION DISTRICT

## Outlet Location Plan
## First Floor
## 5,133 SF

1/8" = 1'-0"

NORTH

### OUTLET LOCATION PLAN GENERAL NOTES

**Purpose:**

The purpose of this Plan is to show the general location of electrical, telephone and data line outlets, only. Contractor shall reference Construction Documents prepared by the Project Electrical Engineer for all electrical specifications, circuiting and requirements for the Project.

**Contractor's Responsibilities:**

The Contractor shall be responsible for field verifying all existing conditions and familiarizing himself with all Project Construction Documents, Tenant and Building Standards, the Building Owner's Rules, Regulations and Working Conditions for the Building, and governing Building Codes affecting the Project and provide for all materials, work and all associated costs as may be required for a complete and finished Project, including materials and work required for life safety detection, alarm and communications.

The Contractor shall be responsible for field verifying the location of any existing conditions affecting the work shown, electrical, telephone and data line outlets, accessories and devises and for familiarizing himself with both this plan and Construction Documents prepared by the Project Engineers. The Contractor shall advise the Architect of any discrepancies between this plan and the field conditions or Engineering Construction Documents prior to proceeding with the work in question.

**Reuse of Existing Improvements:**

Except as may otherwise be noted, existing conditions, materials and improvements to remain or be reused as shown or noted on this plan shall be upgraded, replaced, refurbished and / or cleaned to assure a "like new" appearance, function and Building Code / ANSI compliance subject to the approval of the Tenant and Building Owner.

The Contractor shall protect all existing improvements to remain or to be reused.

### OUTLET LOCATION PLAN KEYED NOTES

The following Keyed Notes are intended to generally describe special conditions, improvements as a supplement to the plan drawing, legends, schedules and General Notes, only. The Contractor shall be responsible for pricing, providing and installing all materials and work required and related to the various Keyed Notes.

The following Keyed Notes **DO NOT** represent the required engineering design.

**Electrical General Notes:**

1. All cover plates and devices shall match existing. Verify in field and replace plates and devices as required.

**Electrical Keyed Notes:**

**E1**
Provide and install new 20 amp dedicated duplex outlet. RE: Electrical Engineering Plans.

**E2**
**PRICE AS ALTERNATE:**
Provide and install new flush floor mounted fourplex outlet and receptacle for data (provided by Tenant). RE: Electrical Engineering Plans.

**E3**
Provide and install 4" x 4" gang box to supply both power and cable/data/coax connections to Tenant's equipment. General Contractor to verify exact location, mounting height, and requirements with Tenant prior to installation. RE: Electrical Engineering Plans.

**E4**
Verify existing power for Tenant's server is in place or provide new. RE: Electrical Engineering Plans.

**E5**
Verify if existing power is in place or provide new as shown. RE: Electrical Engineering Plans.

**E6**
Provide and install electrical panel as needed for added power. Verify final location with Tenant and Electrical Engineer. RE: Electrical Engineering Plans.

### VOICE / DATA OUTLET SYMBOL LEGEND

Reference Keyed Notes and General Notes this sheet for any special functions or requirements.

The following symbols are intended to indicate the function of the various outlets shown on the outlet location plan, only. Reference Electrical Engineering plans and technical specifications.

N — Indicates new device to be provided and installed by the Contractor. All other devices are existing to be field verified by the Contractor.

+XX — Indicates special device mounting height above finished floor.

Face or cover plate and all wiring by others (N.I.C.) unless noted otherwise.

2" x 4" wall mounted receptacle box.

Indicates existing outlets and all related cabling as required by tenant to be removed.

Flush floor mounted device, reference Keyed Notes this sheet.

PP — Voice / Data power pole, reference Keyed Notes this sheet.

Floor or ceiling mounted junction box size as required by tenant.

Wall mounted junction box.

Cable/Coax box; RE: Keyed Notes this sheet

TB — Indicates telephone equipment panel. reference Keyed Notes this sheet.

### ELECTRICAL SYMBOL LEGEND

Reference Keyed Notes and General Notes this sheet for any special functions or requirements.

The following symbols are intended to indicate the function of the various outlets shown on the outlet location plan, only. Reference Electrical Engineering plans and technical specifications.

All wall mounted receptacle boxes to have 3/4" diameter conduit to 6" above ceiling with a bushing on top of the conduit, unless noted otherwise (U.N.O.).

N — Indicates new device to be provided and installed by the Contractor. All other devices are existing to be field verified by the Contractor.

+XX — Indicates special device mounting height above finished floor.

Electrical panel box. reference Keyed Notes this sheet.

Duplex (two-plug) wall mounted electrical outlet.

Dedicated duplex (two plug) wall mounted electrical outlet.

Fourplex (four-plug) wall mounted electrical outlet.

Dedicated fourplex (four-plug) wall mounted outlet.

Indicates existing outlets and all related services to be removed back to breaker box.

Flush floor mounted device, reference keyed notes on this sheet

EL — Floor or ceiling mounted electrical junction box with 4" x 4" junction box.

EL — Wall mounted electrical junction box.

PP — Electrical power pole. reference Keyed Notes this sheet.

BP — Indicates blank plate.

CR — Provide low voltage wiring and receptacle box for card reader system (N.I.C.). Face plate and data cabling by Tenant.

P — Wall mounted power strip or raceway, reference keyed notes this sheet.

### PARTITION SCHEDULE

Base building shell and core construction / existing partition to remain.

Building standard interior tenant partition, floor to ceiling.

Building standard corridor partition.

Building standard demising partition.

Building standard acoustical partition.

+(height A F F) — Partial height partition Re: plan for partition height.

Existing walls to be removed.

kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider

SOUTHGATE WATER & SANITATION DISTRICT

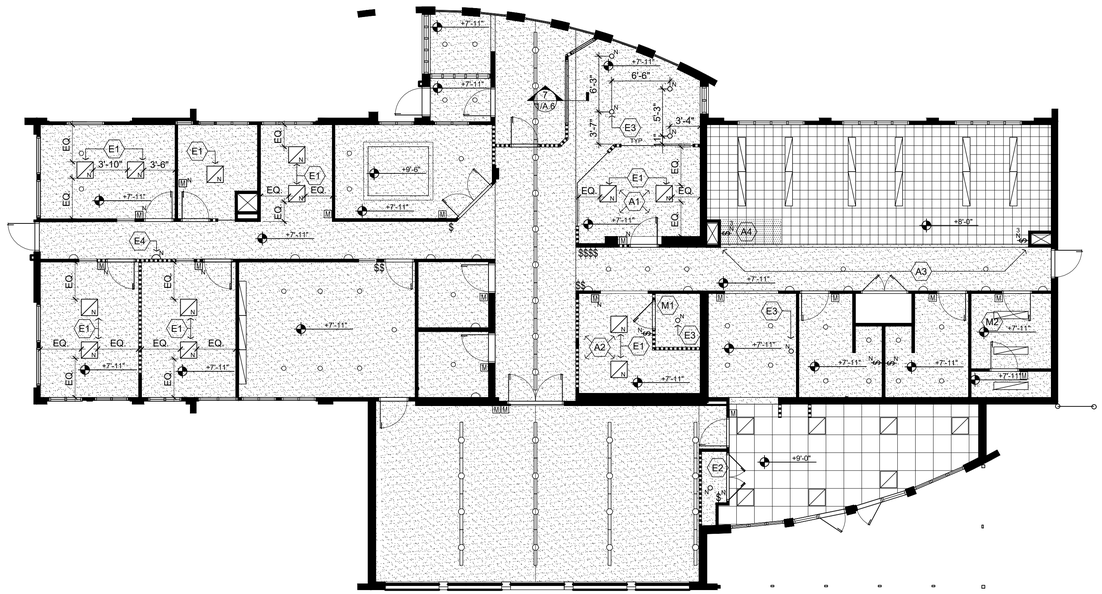
FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS

MARCH 20, 2017 — 162401102-70

OUTLET LOCATION PLAN

01 /A.3




# SOUTHGATE WATER & SANITATION DISTRICT

## Reflected Ceiling Plan
## First Floor
## 5,133 SF

1/8" = 1'-0"

NORTH

### REFLECTED CEILING PLAN GENERAL NOTES

**Purpose:**

The purpose of this Plan is to show the general location of ceiling treatments, light fixtures and any ceiling mounted electrical outlet, only.

Contractor shall reference Construction Documents prepared by the Project Engineers for all electrical specifications, circuiting and requirements for the Project, mechanical and life safety requirements and work.

**Contractor's Responsibilities:**

The Contractor shall be responsible for field verifying all existing conditions and familiarizing himself with all Project Construction Documents, Tenant and Building Standards, the Building Owner's Rules, Regulations and Working Conditions for the Building, and governing Building Codes affecting the Project and provide for all materials, work and all associated costs as may be required for a complete and finished Project, including materials and work required for life safety detection, alarm and communications.

This plan is intended to show the location of the optimum light fixture locations for the Tenant's proposed use of the space.

The Contractor shall be responsible for field verifying the location of any existing conditions affecting the work shown and for familiarizing himself with both this plan and Construction Documents prepared by the Project Engineers. The Contractor shall advise the Architect of any discrepancies between this plan and the field conditions or Engineering Construction Documents prior to proceeding with the work in question.

Refer to Engineering documents for new occupancy sensor light switches, and also provide quick tap disconnects at all existing and new lights.

**Reference Electrical Engineer's plans for emergency lighting.**

### REFLECTED CEILING PLAN KEYED NOTES

The following Keyed Notes are intended to generally describe special conditions, improvements as a supplement to the plan drawing, legends, schedules and General Notes, only. The Contractor shall be responsible for pricing, providing and installing all materials and work required and related to the various Keyed Notes.

The following Keyed Notes **DO NOT** represent the required engineering design.

**Architectural General Notes:**

1. Contractor to replace all stained or damaged tiles as required. Relocate new and existing tiles as required to provide a uniform appearance throughout suite.

2. Existing ceiling to remain. Rework ceiling grid and tile as required for new suite layout/expansion.

3. Paint new ceilings and patched areas to match existing.
**PRICE AS ALTERNATE:**
Paint all drywall ceilings.

**Architectural Keyed Notes:**

**A1**
Provide and install new drywall ceiling in this room. Paint to match existing.

**A2**
Modify existing drywall ceiling and add new as required for uniform ceiling finish in this room and hallway.

**A3**
Provide and install new painted drywall soffit as required at transition between existing ceiling grid and existing drywall ceiling.

**A4**
Provide and install new ceiling grid and tile to match existing in Room.

### REFLECTED CEILING PLAN KEYED NOTES (cont'd)

**Mechanical General Notes:**

1. Modify existing HVAC and Life safety system (including fire suppression system) as required for new wall layout and function and as required by governing local Building and Fire Code.

2. Modify existing fire suppression system as required for new Demising wall location as required by governing local Building and Fire Code.

3. All Tenants requiring upgrade HVAC units will be required to have separate electrical meters.

4. Where new demising partitions are provided, isolate the HVAC (and relocate sprinklers if present) in each new suite, with new controls for individual control. RE: Mechanical Engineering Plans.

**Mechanical Keyed Notes:**

The following Mechanical Keyed Notes are intended to describe expressed Tenant requirements, only, and **DO NOT** represent the required engineering design.

**M1**
**PRICE AS ALTERNATE:**
Provide and install new wall hung air conditioner (and all mechanical assembly required) for 24/7 cooling of this room. RE: Mechanical Engineering Plans.

**M2**
Relocate existing vent as required for locker installation. RE: Mechanical Engineering Plans.

**Electrical General Notes:**

1. Modify existing lighting layout as shown on plan.

2. Where new demising partitions are provided, isolate the light fixtures, light control, and power in each new suite, with new switches and controls for individual control. RE: Electrical Engineering Plans.

**Electrical Keyed Notes:**

The following Electrical Keyed Notes are intended to describe expressed Tenant requirements, only, and **DO NOT** represent the required engineering design.

**E1**
Provide and install new Lumenoptix Luz LED recessed 2x2 light fixtures as shown. RE: Electrical Engineering Plans.

**E2**
Provide and install new downlight in closet, circuited to new switch. RE: Electrical Engineering Plans.

**E3**
Provide and install new or relocated Suite Standard recessed downlight. RE: Electrical Engineering Plans.

**E4**
Install salvaged wall sconce to new location. Match existing heights. RE: Electrical Engineering Plans.

### REFLECTED CEILING PLAN LEGEND

- Building standard suspended acoustical grid ceiling, to remain.
- Area of new Building Standard grid and tile to match remaining suite.
- Drywall Ceiling, RE: Keyed Notes on this Sheet for details.
- Building standard 2'-0"x2'-0" fluorescent light fixture.
- Light fixture to be removed or relocated.
- Recessed downlight. RE: Electrical Engineering Plans.
- Recessed adjustable wallwasher. RE: Electrical Engineering Plans.
- Building standard single bulb porcelain light fixture.
- Building standard fluorescent tube (4'-0" size shown)
- Building standard 2'-0"x4'-0" fluorescent light fixture.
- Light fixture to be removed or relocated.
- $ Building standard single pole light switch.
- $D Building standard light switch w/ dimmer.
- $3 Building standard three-way switch.
- $ $ Building standard dual level light switch.
- M Building standard motion sensor light switch.
- Building standard light switch to be removed/relocated.
- Incandescent light to be removed/relocated.
- N Location of new light fixture and/or device.
- R New location of relocated light fixture and/or device.

### PARTITION SCHEDULE

- Base building shell and core construction / existing partition to remain.
- Building standard interior tenant partition, floor to ceiling.
- Building standard corridor partition.
- Building standard demising partition.
- Building standard acoustical partition.
- *(height A F F) Partial height partition Re: plan for partition height.
- Existing walls to be removed.

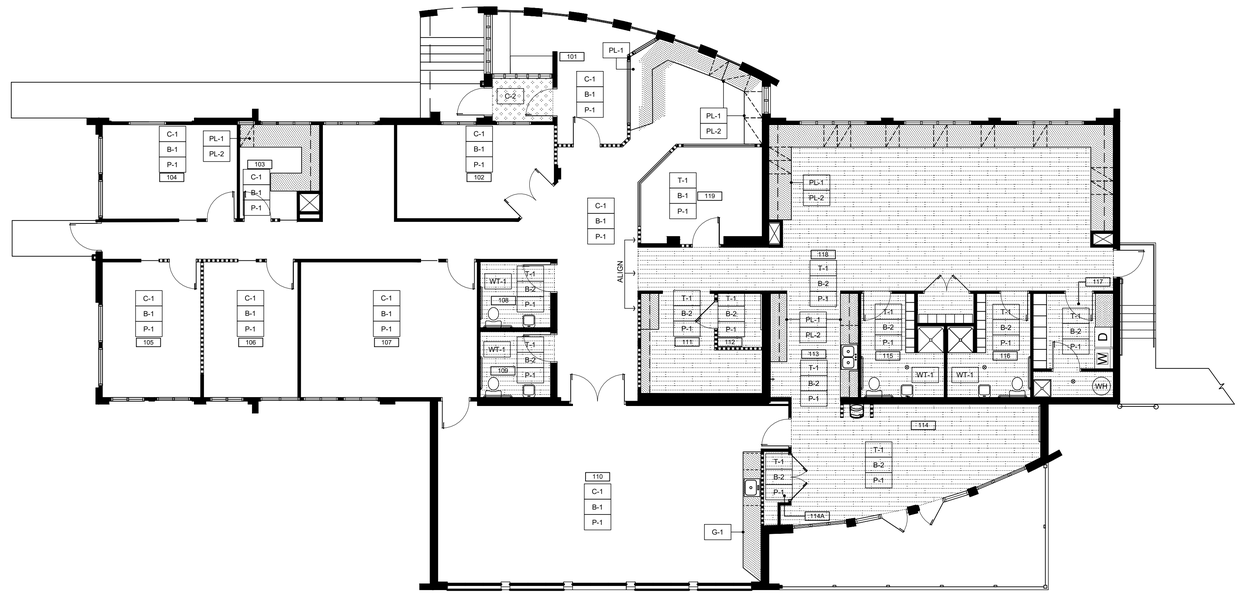

kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider


SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 20, 2017 — 162401.02-70

REFLECTED CEILING PLAN
01 /A.4




# SOUTHGATE WATER & SANITATION DISTRICT

Finish Plan
First Floor
5,133 SF
1/8" = 1'-0"

NORTH

## INTERIOR FINISH NOTES

Unless noted otherwise the following Tenant interior finish materials shall be priced as new including material, installation, preparation, tax, freight, storage, delivery and all associated costs.

All interior finishes shall be in compliance with governing codes (particularly the Chapter Eight "Table of Interior Wall and Ceiling Finish Requirements by Occupancy", and regulations and installed (including all required surface preparation) in strict accordance with manufacturer's recommendations, as a minimum standard, and the latest edition of the Industry Standards for Installation.

## FLOOR FINISHES:

**C-1**
**General Carpet:**
Manufacturer: TBD
Style: Carpet Tile
Color: TBD
Assume: $28.00 per yard (material cost) inclide floor prep in bid. Order 5% attic stock.

**C-2**
**Walk-Off Mat:**
Manufacturer: Shaw Welcome II Tile
Style: 5T031
Color: TBD

**T-1**
**Porcelain Tile:**
Manufacturer: Crossville
Style: Speak Easy
Color: TBD
Size: 6"x36"
Assume plank tiles with bullnose tile wall base.
Installation: Provide and install resilient transition strip at abutting carpet.

## WALL BASE:

**B-1**
**Resilient Wall Base:**
Manufacturer: Roppe or Equal
Color: TBD
Height: TBD
Profile: TBD (coved at VCT locations)

**B-2**
**Porcelain Tile Wall Base:**
Manufacturer: Crossville
Style: Speak Easy
Color: TBD

## WALL FINISHES:

**P-1**
**Field Color:**
Manufacturer: Sherwin Williams or Equal
Color: TBD
Finish: Eggshell

**P-2**
**Accent Color:**
Manufacturer: TBD
Color: TBD
Finish: Eggshell
Note: Assume one (1) wall at each room. Final location to be determined by Tenant and approved by Building Owner.

**WT-1**
**Wall Tile (All Walls in Room):**
Manufacturer: TBD
Size: 4-1/4" x 4-1/4"
Color: TBD

## MILLWORK:

**PL-1**
**Plastic Laminate Countertops:**
Manufacturer: Formica or Equal
Color: TBD

**PL-2**
**Plastic Laminate Cabinets**:
Manufacturer: Formica or Equal
Color: TBD

**G-1**
**Granite Countertop:**
Manufacturer: TBD
Color: TBD
Edge: TBD

**A1**
Provide and install new walk off assembly flooring strips. Color: TBD.

## PARTITION SCHEDULE

| | |
|---|---|
| | Base building shell and core construction / existing partition to remain. |
| | Building standard interior tenant partition, floor to ceiling. |
| | Building standard corridor partition. |
| | Building standard demising partition. |
| | Building standard acoustical partition. |
| +(height A.F.F.) | Partial height partition Re: plan for partition height. |
| | Existing walls to be removed. |

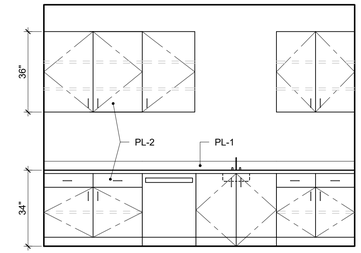
kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider

SOUTHGATE WATER & SANITATION DISTRICT

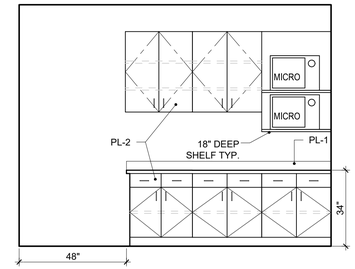
FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 20, 2017 — 162401102-70

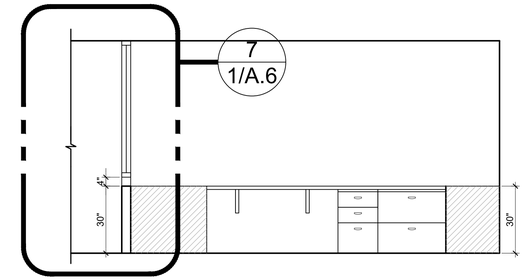
FINISH PLAN
01 /A.5



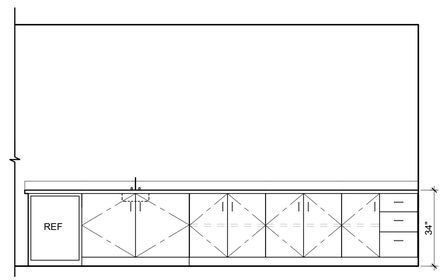

3 Break East Elevation
SCALE: 3/8" = 1'-0"



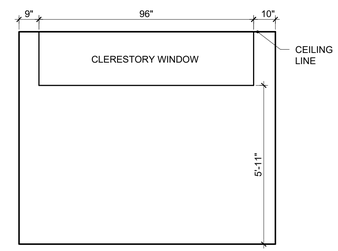

2 Break West Elevation
SCALE: 3/8" = 1'-0"



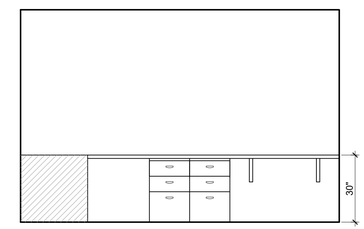

1 Reception Desk Elevation
SCALE: 3/8" = 1'-0"




6 Conference Room Coffee Bar Elevation
SCALE: 3/8" = 1'-0"

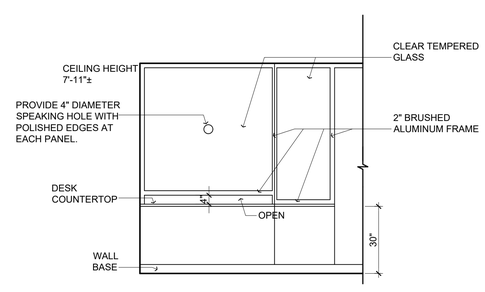



5 Office 119 Elevation
SCALE: 3/8" = 1'-0"

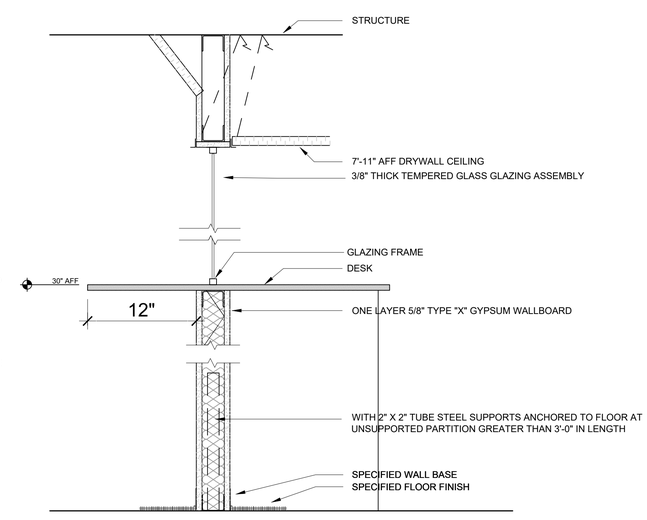



4 Open Office Elevation (typ.)
SCALE: 3/8" = 1'-0"

PROVI
SPEAI
POLIS
EACH




8 Desk Elevation
SCALE: 3/8" = 1'-0"




7 Reception Glass Window Section
SCALE: 1-1/2" = 1'-0"

kieding
501 South Cherry Street | Suite 150
Glendale, Colorado 80246
303.399.9100
Contact - Katie Winter
Contact - Laura Schneider

SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 20, 2017 16240102-70

ELEVATION SHEET
01 /A.6

# MECHANICAL GENERAL NOTES

CONTRACTOR SHALL COMPLY WITH NOTES AS APPLICABLE TO PROJECT. NOTES ON INDIVIDUAL DRAWINGS TAKE PRECEDENCE.

A. GENERAL:

1. REFER TO BASE BUILDING SPECIFICATIONS, BASE BUILDING DRAWINGS, GENERAL CONDITIONS AND DIVISION 1 FOR SUPPLEMENTAL REQUIREMENTS.
2. WHILE ALL WORK IS IN PROGRESS, EXCEPT FOR SHORT DESIGNATED INTERVALS DURING WHICH CONNECTIONS ARE TO BE MADE, CONTINUITY OF SERVICE TO ALL EXISTING SYSTEMS SERVING OCCUPIED SPACES, SHALL BE MAINTAINED. PROVIDE TEMPORARY PIPING SERVICES WHERE REQUIRED TO MAINTAIN EXISTING AREAS OPERABLE.
3. ANY WORK WHICH WILL AFFECT THE BUILDING OCCUPANTS, INCLUDING, BUT NOT LIMITED TO, WORK WHICH GENERATES EXCESSIVE NOISE, DUST, SMOKE, OR INCONVENIENCE TO BUILDING OCCUPANTS, SHALL BE PERFORMED AFTER BUSINESS HOURS, UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE BUILDING MANAGER.
4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH OWNER AT ALL TIMES FOR ALL NEW-TO-EXISTING CONNECTIONS, SYSTEM SHUTDOWNS, RESTART-UP, AND FLUSHING AND FILLING OF BOTH NEW AND EXISTING AFFECTED SYSTEMS.
5. THE CONTRACTOR SHALL VISIT AND EXAMINE THE PREMISES AND/OR JOB SITE SO AS TO ASCERTAIN, PRIOR TO BIDDING, THE EXISTING CONDITIONS IN WHICH HE WILL BE OBLIGED TO OPERATE IN PERFORMING HIS PART OF THE CONTRACT. NO EXTRAS WILL BE ALLOWED DUE TO LACK OF KNOWLEDGE OF THESE CONDITIONS.
6. REPORT ANY EXISTING DAMAGED EQUIPMENT OR SYSTEMS TO THE OWNER PRIOR TO ANY WORK.
7. INSTALL ALL EQUIPMENT AND MATERIALS IN SUCH A MANNER AS TO PROVIDE REQUIRED ACCESS FOR SERVICING AND MAINTENANCE. ALLOW AMPLE SPACE FOR REMOVAL OF ALL PARTS THAT REQUIRE REPLACEMENT OR SERVICING.
8. FURNISH HINGED STEEL ACCESS DOORS WITH CONCEALED LATCH, WHETHER SHOWN ON DRAWINGS OR NOT, WHERE REQUIRED FOR ACCESS TO ALL CONCEALED VALVES, SHOCK ABSORBERS, MOTORS, FANS, BALANCING COCKS, AND OTHER OPERATING DEVICES REQUIRING ADJUSTMENT OR SERVICING. ACCESS DOORS IN FIRE-RATED WALLS AND CEILINGS SHALL HAVE EQUIVALENT U.L. LABEL AND FIRE RATING.
9. IT IS THE INTENTION OF THESE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY FOR USE."
10. SECURE AND PAY FOR ALL PERMITS, TAP FEES, TAXES, ROYALTIES, LICENSES, AND INSPECTIONS IN CONNECTION WITH THE WORK SPECIFIED UNDER THIS DIVISION.
11. ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES AND REGULATIONS.
12. DRAWINGS ARE DIAGRAMMATIC IN CHARACTER AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, VALVE, FITTING, ETC.
13. DRAWINGS SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR USED AS SHOP DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED IN FIELD.
14. ALL NEW, RELOCATED AND EXISTING MATERIALS, IN CEILING PLENUMS SHALL BE CLASS 1 RATED, NOT EXCEEDING RATING OF 25 FLAME SPREAD AND 50 SMOKE DEVELOPED. REMOVE AND REPLACE ALL EXISTING MATERIALS NOT IN COMPLIANCE.
15. BEFORE ANY EQUIPMENT IS ORDERED AND/OR INSTALLED, DETERMINE THAT SAID EQUIPMENT WILL PROPERLY FIT WITHIN THE SPACE ALLOCATED; THAT REQUIRED PIPING GRADES CAN BE MAINTAINED; AND THAT DUCTWORK CAN BE RUN AS INTENDED.
16. COORDINATE THE INSTALLATION OF MECHANICAL MATERIALS AND EQUIPMENT ABOVE AND BELOW CEILINGS, LIGHT FIXTURES, AND OTHER BUILDING COMPONENTS. ALL COMPONENTS SHALL BE LOCATED AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE CEILING CAVITY SPACE CAREFULLY WITH ALL TRADES.
17. ALL ROOF PENETRATIONS SHALL BE SEALED WATER TIGHT. PROVIDE FLASHING AND COUNTER FLASHING AS REQUIRED. COORDINATE ROOFING WORK WITH THE GENERAL CONTRACTOR.
18. CONTRACTOR SHALL NOTIFY ENGINEER 48 HOURS PRIOR TO SUBSTANTIAL COMPLETION OF CONSTRUCTION OR INSTALLATION OF CEILING TILE, TO SCHEDULE A FINAL PUNCH LIST WALKTHROUGH.
19. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, FREE OF DEFECTS, AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S CURRENT PUBLISHED RECOMMENDATIONS.
20. CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ARCHITECT/ENGINEER IN ELECTRONIC (PDF) FORMAT, ALL SHOP DRAWINGS AND DESCRIPTIVE EQUIPMENT DATA/SUBMITTALS REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL IDENTIFY ANY "LONG LEAD TIME" ITEMS, WHICH MAY IMPACT THE OVERALL PROJECT SCHEDULE. ALL BIDS SHALL INCLUDE COSTS ASSOCIATED WITH THE PURCHASE AND DELIVERY OF EQUIPMENT TO MEET THE PROJECT SCHEDULE. ALL SUBMITTALS SHALL BE CLEAR AND CONCISE. PARTIAL, PROGRESS, "PIECEMEAL," OR CATALOGUES WILL NOT BE REVIEWED AND WILL BE RETURNED AS INCOMPLETE – NO EXCEPTIONS. ALLOW A MINIMUM OF 7 WORKING DAYS FOR ARCHITECT/ENGINEER'S REVIEW.
21. REVIEW OF THE EQUIPMENT SUBMITTALS IS CONTINGENT ON WHETHER THE PHYSICAL DIMENSIONS OF THE SUBMITTED EQUIPMENT WILL FIT INTO ALLOTED SPACES WITH CLEARANCE FOR INSTALLATION AND MAINTENANCE. CONTRACTOR SHALL VERIFY PRIOR TO ORDERING AND INSTALLATION.
22. QUIET OPERATION AND VIBRATION: MECHANICAL EQUIPMENT PROVIDED UNDER THIS CONTRACT SHALL OPERATE UNDER ALL LOAD CONDITIONS WITHOUT NOISE OR VIBRATION, WHICH IS OBJECTIONABLE IN THE OPINION OF THE ENGINEER.
23. KEEP A COMPLETE SET OF RECORD DOCUMENT PRINTS IN CUSTODY DURING ENTIRE PERIOD OF CONSTRUCTION AT THE CONSTRUCTION SITE. AT THE COMPLETION OF THE PROJECT, TURN THESE DRAWINGS OVER TO THE GENERAL CONTRACTOR FOR HIS SUBMISSION TO THE ARCHITECT.
24. THE CONTRACTOR FOR THIS WORK SHALL EXAMINE THE DRAWINGS AND SPECIFICATIONS FOR OTHER PARTS OF THE WORK, AND IF HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE OR IF ANY DISCREPANCIES OCCUR BETWEEN THE PLANS FOR HIS WORK AND THE PLANS FOR THE WORK OF OTHERS, HE SHALL REPORT SUCH DISCREPANCIES TO THE ARCHITECT/ENGINEER AND SHALL OBTAIN WRITTEN INSTRUCTIONS FOR ANY CHANGES NECESSARY TO ACCOMMODATE HIS WORK WITH THE WORK OF OTHERS. ANY CHANGES IN THE WORK COVERED BY THIS SPECIFICATION MADE NECESSARY BY THE FAILURE OR NEGLECT OF THE CONTRACTOR TO REPORT SUCH DISCREPANCIES SHALL BE MADE BY AND AT THE EXPENSE OF THIS CONTRACTOR.
25. EQUIPMENT SCHEDULES ESTABLISH A QUALITY AND DESIGN STANDARD. SUBSTITUTIONS MUST BE EQUIVALENT IN PERFORMANCE, MATERIAL, SPACE, AND CONFIGURATION REQUIREMENTS. THE PROJECT ENGINEER OR ARCHITECT'S DECISION WILL BE FINAL AND MAY BE BASED ON BOTH CERTIFIED TEST DATA AND SUBJECTIVE REASONING.
26. THE MANUFACTURER'S MATERIAL OR EQUIPMENT LISTED IN THE SCHEDULE OR IDENTIFIED BY NAME ON THE DRAWINGS ARE THE TYPES TO BE PROVIDED FOR THE ESTABLISHMENT OF SIZE, CAPACITY, GRADE AND QUALITY. IF ALTERNATES ARE USED IN LIEU OF THE SCHEDULED NAMES, THE COST OF ANY CHANGES IN CONSTRUCTION REQUIRED BY THEIR USE SHALL BE BORNE BY CONTRACTOR.
27. OPERATING AND MAINTENANCE DATA: THE CONTRACTOR SHALL PREPARE AN OPERATING AND MAINTENANCE MANUAL COVERING ALL SYSTEMS AND EQUIPMENT INSTALLED UNDER THIS DIVISION. SUBMIT AN OUTLINE OF A PREVENTATIVE MAINTENANCE PROGRAM FOR EACH SYSTEM. CONTRACTOR SHALL PROPERLY LUBRICATE ALL MECHANICAL PIECES OF EQUIPMENT, WHICH HE HAS PROVIDED BEFORE TURNING THE BUILDING OVER TO THE OWNER.
28. DEMOLITION:
    - 28.1. DURING THE DEMOLITION PHASE REMOVE EXISTING EQUIPMENT, PIPING, DUCTWORK AND RELATED ITEMS, EITHER AS SHOWN ON THE DEMOLITION DRAWINGS AS BEING REMOVED, OR AS REQUIRED FOR THE WORK.
    - 28.2. PROPERLY CAP AND SEAL ALL DUCTWORK AND PIPING NOT USED.
    - 28.3. EXISTING THERMOSTATS, DIFFUSERS, DUCTWORK, ETC., NOTED ON DRAWINGS TO BE RE-USED SHALL BE THOROUGHLY CLEANED AND/OR REFINISHED TO MATCH NEW.
    - 28.4. THE LOCATION OF EXISTING EQUIPMENT, PIPING, DUCTWORK, ETC., SHOWN ON THE DRAWINGS HAS BEEN TAKEN FROM EXISTING DRAWINGS AND IS, THEREFORE, ONLY AS ACCURATE AS THAT INFORMATION.
29. WARRANTIES:
    - 29.1. PROVIDE COMPLETE WARRANTY INFORMATION FOR EACH ITEM, INCLUDING, NAME OF PRODUCT OR EQUIPMENT; DATE OF BEGINNING OF WARRANTY OR BOND; DURATION OF WARRANTY OR BOND; AND NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF MANUFACTURING/SERVICING PERSONNEL, AS WELL AS, PROCEDURES FOR FILING A CLAIM AND OBTAINING WARRANTY SERVICES.
    - 29.2. THE CONTRACTOR SHALL WARRANT ALL MATERIALS, WORKMANSHIP AND THE SUCCESSFUL OPERATION OF ALL EQUIPMENT AS IDENTIFIED IN THE GENERAL CONDITIONS, OR DIV. 1.
30. ANY FILTERS USED DURING CONSTRUCTION SHALL BE REPLACED WITH NEW FILTERS DURING FINAL CLEANUP.
31. EXISTING EQUIPMENT; CHECK, VERIFY AND MAKE OPERABLE ALL EXISTING EQUIPMENT THAT IS NOTED TO BE REUSED. PROVIDE SERVICE ON ALL ROOFTOP HVAC UNITS, Z-BOXES, FAN COILS, AIR CONDITIONING UNITS, ETC., AS REQUIRED TO BRING THEM TO PROPER OPERATING CONDITION. CLEAN COILS AND ENCLOSURE, LUBRICATE, CHECK MOTORS AND REPLACE FILTERS.
32. RESPONSIBILITY OF CONTRACTOR: THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE AND SATISFACTORY INSTALLATION OF THE WORK IN ACCORDANCE WITH THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS. HE SHALL PROVIDE, WITHOUT EXTRA CHARGE, ALL INCIDENTAL ITEMS REQUIRED, AS A PART OF HIS WORK. THE INSTALLATION SHALL BE SO MADE THAT ITS SEVERAL COMPONENT PARTS WILL FUNCTION TOGETHER AS A WORKABLE SYSTEM AND SHALL BE LEFT WITH ALL PARTS ADJUSTED AND IN WORKING ORDER.

B. MECHANICAL/ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT:

1. CONTRACTOR SHALL REVIEW ELECTRICAL POWER REQUIREMENTS FOR MECHANICAL EQUIPMENT THAT ARE SCHEDULED ON THE ELECTRICAL DRAWINGS AND VERIFY THAT THEY MATCH PRIOR TO ORDERING EQUIPMENT. DO NOT PURCHASE MOTORS OR ELECTRICAL EQUIPMENT UNTIL POWER CHARACTERISTICS AVAILABLE AT BUILDING SITE LOCATION HAVE BEEN CONFIRMED BY CONTRACTOR.
2. PROVIDE SAFETY DISCONNECT SWITCHES FOR ALL MECHANICAL EQUIPMENT, UNLESS SPECIFICALLY SHOWN ON THE ELECTRICAL DIVISION.
3. FURNISH COMBINATION TYPE FULL NEMA RATED STARTERS WITH FUSED DISCONNECT SWITCH FOR ALL 3-PHASE MOTORS PROVIDED.
4. ELECTRICAL WIRING IN CONNECTION WITH THE AUTOMATIC TEMPERATURE CONTROL SYSTEM, INCLUDING INTERLOCK WIRING, WHERE SHOWN ON THE ELECTRICAL DIVISION DRAWINGS, SHALL BE PERFORMED BY THE ELECTRICAL CONTRACTOR. ALL OTHER WIRING, INCLUDING 120V REQUIRED FOR PROPER OPERATION OF THE AUTOMATIC TEMPERATURE CONTROL SYSTEM, SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR.

C. MECHANICAL SYSTEMS FIRESTOPPING:

1. CONTRACTOR SHALL PROVIDE FIRESTOP SYSTEM FOR ALL THROUGH PENETRATIONS OF PIPING, DUCTWORK AND OTHER MECHANICAL ITEMS THROUGH FIRE-RATED CORRIDOR WALLS, FIRE RESISTIVE WALLS, FIRE RESISTIVE SHAFTS AND FLOOR PENETRATIONS NOT WITHIN THE CAVITY OF A WALL. FIRESTOP SYSTEM SHALL BE LISTED/INSTALLED/TESTED IN ACCORDANCE WITH ASTM E814 OR UL 1479. THE SYSTEM SHALL HAVE AN F RATING/ T RATING OF NOT LESS THAN 1 HR AND NOT LESS THAN THE REQUIRED RATING OF THE PENETRATING ASSEMBLY. CONTRACTOR SHALL ALSO REFERENCE AND COMPLY WITH 2015 IBC SECTION 714.3.1.2.

D. PIPING APPLICATION:

1. ALL PIPING SHALL CONFORM TO APPLICABLE NATIONAL AND LOCAL CODES.
2. DOMESTIC HOT AND COLD WATER: ABOVE GRADE, INSIDE BUILDING; TYPE "L" HARD DRAWN COPPER TUBE, 95-5 TIN-ANTIMONY SOLDERED JOINTS. BELOW GRADE, INSIDE AND OUTSIDE BUILDING; 3" AND SMALLER: TYPE "K" SOFT DRAWN COPPER WITH SILVER BRAZED SOLDER JOINTS, 4" AND LARGER: DUCTILE IRON, TAR COATED OUTSIDE, CEMENT MORTAR LINED INSIDE.
3. SANITARY DRAINAGE, STORM DRAINAGE AND VENTS – INSIDE BUILDING: ABOVE GRADE: CISPI 301 CAST IRON, NO-HUB TYPE, WITH NEOPRENE GASKETS AND 300 SERIES STAINLESS STEEL CLAMPS; BELOW GRADE: ASTM A-74 SERVICE WEIGHT CAST IRON, HUB-AND-SPIGOT TYPE ONLY, WITH NEOPRENE COMPRESSION GASKETS, BEYOND 5 FEET OUTSIDE BUILDING; UNLESS SPECIFIED BY CIVIL, ASTM D-3034 SDR-35 PVC SEWER PIPE.
4. NATURAL GAS PIPING, ABOVE GRADE, EXPOSED LOCATIONS, 2" AND SMALLER: SCHEDULE 40 BLACK STEEL PIPE, BEVELED ENDS, WITH 150 PSI MALLEABLE IRON FITTINGS AND THREADED JOINTS. INACCESSIBLE LOCATIONS, BELOW GRADE OR LARGER THAN 2": SCHEDULE 40 BLACK STEEL PIPE WITH SEAMLESS STEEL BUTT-WELD FITTINGS AND WELDED JOINTS. FOR BELOW GRADE GAS PIPING, PROVIDE PIPING WITH MACHINE-APPLIED COATING AND WRAPPING IN ACCORDANCE WITH LOCAL CODE AND UTILITY COMPANY REQUIREMENTS. PROVIDE CATHODIC PROTECTION.
5. FOR GAS PIPING INSTALLED ON ROOF SHALL BE SUPPORTED AT A MINIMUM OF EVERY 6 FEET, WITH 6" MINIMUM CLEARANCE FROM ROOF, EXCEPT WHERE GOVERNED BY MORE STRINGENT LOCAL CODES OR SPECIFICATIONS.
6. EXPOSED GAS PIPING SHALL BE LABELED WITH GAS PRESSURE AND PAINTED TO PREVENT CORROSION.
7. PROVIDE FULL-SIZED SHUT-OFF VALVE, PRESSURE REGULATOR (VENTED TO OUTSIDE) AND 6" DRIP LEG FOR CONNECTIONS TO GAS-FIRED EQUIPMENT.
8. SPACE HEATING WATER, CHILLED WATER, AND CONDENSER WATER PIPING; 2-1/2" AND SMALLER: TYPE L COPPER TUBE, ASTM B-88, WITH WROUGHT COPPER FITTINGS PER ANSI B16.22, BRAZED OR LEAD-FREE SOLDERED. 3" AND LARGER: SCHEDULE 40 BLACK STEEL WITH FLANGED OR WELDED JOINTS.
9. EQUIPMENT DRAINS, CONDENSATE DRAINS AND OVERFLOWS; TYPE "M" OR "DWV" COPPER.
10. REFRIGERANT PIPING (FIELD INSTALLED); TYPE "K" HARD-DRAWN COPPER TUBING WITH WROUGHT COPPER SILVER SOLDERED FITTINGS AND COUPLINGS; OR TYPE "L" COPPER, REFRIGERANT GRADE, COLOR CODED AND MARKED "ACR" WITH BRAZED JOINTS. SOFT-ANNEALED COPPER TUBING MAY BE USED IN SIZES UP TO 1-3/8", AND, WHEN USED, SHALL BE ENCLOSED IN IRON OR STEEL PIPING OR IN CONDUIT, MOLDING OR RACEWAY WHICH WILL PROTECT SAID TUBING AGAINST DAMAGE.

E. PIPING INSTALLATION:

1. GENERAL: INSTALL PIPES AND PIPE FITTINGS IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES, WHICH WILL ACHIEVE PERMANENTLY LEAK-PROOF PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE WITHOUT PIPING FAILURE. INSTALL EACH RUN WITH MINIMUM JOINTS AND COUPLINGS, BUT WITH ADEQUATE AND ACCESSIBLE UNIONS FOR DISASSEMBLY AND MAINTENANCE/REPLACEMENT OF VALVES AND EQUIPMENT.
2. SANITARY WASTE AND VENT; ROOF DRAIN; AND STORM DRAIN PIPING:
    - 2.1. VERIFY ALL INVERT ELEVATIONS OF EXISTING WASTE AND STORM DRAIN PIPING PRIOR TO ANY NEW WORK.
    - 2.2. INSTALL PLUMBING DRAINAGE PIPING WITH MINIMUM 1/4" PER FOOT (2%) DOWNWARD SLOPE IN DIRECTION OF DRAIN FOR PIPING 3" AND SMALLER. INSTALL 4" AND LARGER PIPING WITH MINIMUM 1/8" PER FOOT (1%) DOWNWARD SLOPE, UNLESS OTHERWISE INDICATED ON DRAWINGS AND WHEN APPROVED BY ADMINISTRATIVE AUTHORITIES.
    - 2.3. GRADE VENT PIPING FOR PROPER VENTILATION (MINIMUM 1/8" PER FOOT) AND TO ALLOW PIPING TO FREE ITSELF QUICKLY OF CONDENSATION OF WATER.
3. CONTRACTOR SHALL FIELD VERIFY ALL PIPING AND PLUMBING LOCATIONS AND INVERTS PRIOR TO TRENCHING OR INSTALLATION OF NEW PIPING. ALLOW FOR COST OF X-RAYING FLOOR FOR LOCATING BURIED PIPING AND PRIOR TO MAKING FLOOR PENETRATIONS.
4. INSTALL HANGERS AND GUIDES AS NECESSARY FOR PIPING SYSTEMS, WHICH ARE SELF-SUPPORTING AND NOT DEPENDENT UPON CONNECTION TO EQUIPMENT. ALL PIPING SHALL BE ADEQUATELY SUPPORTED FROM THE BUILDING STRUCTURE WITH ADJUSTABLE HANGERS TO MAINTAIN UNIFORM GRADING, WHERE REQUIRED AND TO PREVENT SAGGING AND POCKETING.
5. ALLOW FLEXIBILITY IN THE CONSTRUCTION OF THE PIPING SYSTEM IN ORDER TO PREVENT EXCESSIVE STRESSES IN MATERIALS AND JOINTS DUE TO THERMAL EXPANSION OR EQUIPMENT VIBRATION. PROVIDE SUFFICIENT SWING JOINTS, ANCHORS, EXPANSION LOOPS, EXPANSION JOINTS, AND/OR OTHER DEVICES AS NECESSARY, AND INSTALL SO AS TO PERMIT FREE EXPANSION AND CONTRACTION WITHOUT CAUSING UNDUE STRESSES.
6. PROVIDE SHUTOFF VALVES AND UNIONS OR FLANGES TO ISOLATE EACH ITEM OF EQUIPMENT.
7. PROVIDE DIELECTRIC UNIONS AT ALL JUNCTIONS OF DISSIMILAR METALS.
8. PROVIDE SHEET METAL SHIELDS FOR PIPING 2" AND SMALLER (EXCEPT WHERE REQUIRED TO BE CLAMPED) AND CALCIUM SILICATE THERMAL INSERT WITH SHEET METAL SHIELDS FOR PIPING LARGER THAN 2" AND FOR ALL SIZES OF INSULATED PIPING REQUIRED TO BE CLAMPED.
9. PROVIDE ELECTROLYSIS ISOLATORS AT ALL HANGERS AND SUPPORTS FOR DOMESTIC WATER, CONDENSER WATER, AND OTHER WATER LINES WHICH ARE NOT INSULATED.
10. TEST ALL PIPING SYSTEMS. CORRECT LEAKS BY REMAKING JOINTS. GIVE A MINIMUM OF TWENTY-FOUR (24) HOURS NOTICE TO ENGINEER OF DATES WHEN ACCEPTANCE TEST WILL BE CONDUCTED.
11. ALL PIPING SHALL BE CLEANED AND FLUSHED PRIOR TO SERVICE.
12. NEW DOMESTIC WATER SUPPLY AND DISTRIBUTION SYSTEMS SHALL BE PURGED AND STERILIZED BEFORE ACCEPTANCE FOR OPERATION, IN ACCORDANCE WITH IPC 2015 SECTION 610.

F. MECHANICAL IDENTIFICATION:

1. LABEL ALL DUCT ACCESS DOORS, PIPING, EQUIPMENT AND THERMOSTATS. PIPING AND EQUIPMENT SHALL BE IDENTIFIED WITH LETTERS 2" HIGH AND 6" FLOW ARROWS.

G. VIBRATION CONTROL:

1. ALL MECHANICAL EQUIPMENT, PIPING AND DUCTWORK AS NOTED OR IN THE SPECIFICATION, SHALL BE MOUNTED ON VIBRATION ISOLATORS TO PREVENT THE TRANSMISSION OF VIBRATION AND MECHANICALLY TRANSMITTED SOUND TO THE BUILDING STRUCTURE. VIBRATION ISOLATORS SHALL BE SELECTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND THE WEIGHT DISTRIBUTION, SO AS TO PRODUCE REASONABLY UNIFORM DEFLECTION.

H. WATER DISTRIBUTION SYSTEM:

1. ALL EQUIPMENT AND FIXTURES, WHICH ARE CONNECTED TO A POTABLE WATER SUPPLY, SHALL BE INSTALLED IN SUCH A MANNER AS TO ELIMINATE THE POSSIBILITY OF ANY PHYSICAL OR POTENTIAL CROSS-CONNECTION. VACUUM BREAKERS SHALL BE PROVIDED FOR ALL SUBMERGED/ENCLOSED OUTLETS AND INSTALLED A MINIMUM OF 6" ABOVE OVERFLOW RIM.
2. INSTALL BACKFLOW PREVENTERS ON PLUMBING LINES WHERE CONTAMINATION OF DOMESTIC WATER MAY OCCUR.
3. INSTALL PRESSURE REDUCING VALVES TO LIMIT MAXIMUM PRESSURE AT PLUMBING FIXTURES TO 65 PSIG.
4. INSTALL WATER HAMMER ARRESTERS IN DOMESTIC WATER PIPING SYSTEM AT EACH SET OF FLUSH VALVES AND IN OTHER LOCATIONS WHERE HYDROSTATIC SHOCK PRESSURES COULD OCCUR.

I. PLUMBING FIXTURES:

1. WHERE FIXTURES ARE SPECIFIED AS HANDICAPPED-ACCESSIBLE, IT SHALL BE THE SOLE RESPONSIBILITY OF ALL MANUFACTURERS AND/OR SUPPLIERS TO PROVIDE PLUMBING FIXTURES AND RELATED TRIM, WHICH MEET OR EXCEED THE ADA REQUIREMENTS. COORDINATE WITH ARCHITECTURAL DRAWINGS.
2. FIXTURE MOUNTING HEIGHT AND ROUGH-IN DIMENSIONS SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
3. INSTALL DRAIN FLASHING COLLAR OR FLANGE, SO THAT NO LEAKAGE OCCURS BETWEEN DRAIN AND ADJOINING FLOORING. MAINTAIN INTEGRITY OF WATERPROOF MEMBRANES, WHERE PENETRATED.
4. PROVIDE ISOLATION VALVES AT ALL PLUMBING FIXTURES.

J. METAL DUCTWORK:

1. NEW RECTANGULAR DUCTWORK SHALL BE GALVANIZED SHEET METAL, INTERNALLY LINED WITH MINIMUM 1-1/2" THICK, 2 LB/CU.FT. DENSITY FIBERGLASS DUCT LINER, WITH MINIMUM NRC (NOISE REDUCTION COEFFICIENT) OF 0.70, MINIMUM INSULATION VALUE SHALL BE R-6. LINER SHALL BE U.L. APPROVED, MADE FROM FLAME ATTENUATED GLASS FIBER BONDED WITH A THERMOSETTING RESIN WITH ACRYLIC SMOOTH SURFACE TREATMENT AND FACTORY APPLIED EDGE COATING.
2. ALL DUCT DIMENSIONS ARE INSIDE CLEAR DIMENSIONS IN INCHES.
3. PROVIDE SPIN-IN FITTINGS WITH BUTTERFLY DAMPERS FOR ALL NEW AND EXISTING ROUND SUPPLY RUN-OUTS TO DIFFUSERS AND ALL ROUND RETURN/EXHAUST RUN-OUT DUCTS TO RETURN/EXHAUST GRILLES. ANY DIFFUSERS OR GRILLES INSTALLED WHERE SAID BUTTERFLY DAMPERS WOULD BE INACCESSIBLE SHALL BE PROVIDED WITH INTEGRAL BALANCING DAMPER.
4. FABRICATE DUCTWORK OF GAUGES AND REINFORCEMENT COMPLYING WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS". MEDIUM PRESSURE DUCT, UPSTREAM OF VAV BOXES – PRESSURE CLASS 4" W.G. POSITIVE OR NEGATIVE, SEAL CLASS A. LOW PRESSURE DUCT, DOWNSTREAM OF VAV BOXES – PRESSURE CLASS 2" W.G. POSITIVE OR NEGATIVE, SEAL CLASS B.
5. USE MINIMUM 26 GA. WHERE DUCTS ARE WITHIN CORRIDORS.
6. SMACNA STANDARDS: COMPLY WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS, METAL AND FLEXIBLE" FOR FABRICATION AND INSTALLATION OF METAL DUCTWORK. COMPLY WITH SMACNA "HVAC AIR DUCT LEAKAGE TEST MANUAL" FOR TESTING OF DUCT SYSTEMS.
7. ALL RECTANGULAR DUCTWORK WITH 45 DEG. ELBOWS OR GREATER SHALL HAVE DOUBLE WALL TURNING VANES OR LONG RADIUS ELBOWS. PROVIDE LONG RADIUS ELBOWS FOR ROUND DUCTWORK.
8. FLEXIBLE AIR DUCTS SHALL BE LISTED UNDER U.L.-181 STANDARDS AS CLASS I AIR DUCT MATERIAL. MINIMUM OPERATING PRESSURE RATING SHALL BE 6" W.C. WITH MINIMUM WORKING VELOCITY RATING SHALL BE 4000 FPM.
9. ALL INSULATED FLEXIBLE DUCTS SHALL BE CONSTRUCTED OF A METALIZED RIPSTOP REINFORCED LAMINATE INNER CORE; MINIMUM 1-1/2" THICK, INSTALLED R-6, 3/4" LB./CU.FT. DENSITY FIBERGLASS INSULATION WITH "C" FACTOR OF 0.23 OR LESS; AND AN OUTER JACKET MADE EXCLUSIVELY OF FIRE RETARDANT REINFORCED ALUMINIZED MATERIAL. EQUAL TO FLEXMASTER TYPE 5M.
10. EXISTING FLEXIBLE DUCTWORK, WHICH REMAINS IN PLACE, MAY BE REUSED IF IT IS PROPERLY LABELED WITH U.L. 181 TAG. EXISTING FLEXIBLE DUCTWORK NOT U.L. APPROVED SHALL BE REMOVED AND REPLACED WITH THAT SPECIFIED IN NOTES ABOVE.
11. FINAL CONNECTION OF FLEXIBLE DUCTWORK TO RUN-OUT DUCTS AND CEILING DIFFUSERS SHALL BE MADE WITH 0.5" WIDE POSITIVE-LOCKING STEEL STRAPS (APPLIES TO ALL FLEXIBLE DUCTWORK NEW AND EXISTING).
12. MAXIMUM LENGTH: FOR ANY DUCT RUN USING FLEXIBLE DUCTWORK, SHALL NOT EXCEED 6'-0".
13. CONNECTIONS TO EXHAUST GRILLES SHALL BE MADE WITH RIGID DUCTWORK ONLY.
14. SEAL ALL DUCTWORK WITH NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT, OF TYPE APPLICABLE FOR FABRICATION/INSTALLATION DETAIL, AS COMPOUNDED AND RECOMMENDED BY MANUFACTURER, SPECIFICALLY FOR SEALING JOINTS AND SEAMS IN DUCTWORK.
15. DUCT TAKEOFF FITTINGS: PROVIDE SPIN-IN FITTINGS AT FLEXIBLE OR ROUND SHEET METAL DUCT TAKEOFFS TO AIR DEVICES. FITTINGS DOWNSTREAM OF AIR TERMINALS SHALL INCLUDE BUTTERFLY TYPE MANUAL VOLUME DAMPER WITH END BEARINGS, REGULATOR, AND LOCKING DEVICE.
16. PROVIDE DUCT HANGERS IN ACCORDANCE WITH SMACNA HVAC DUCT MANUALS.
17. KITCHEN GREASE EXHAUST DUCT SHALL BE MINIMUM 16 GA. CARBON STEEL, ALL WELDED CONSTRUCTION, WITH ACCESS PANELS AND CLEANOUTS FOR GREASE CLEANING, AS REQUIRED BY NFPA 96 AND 2015 IMC SECTIONS 506.3.8 AND 506.3.9. SLOPE DUCT BACK TOWARDS HOOD AT MINIMUM OF 1/4" PER LF MAINTAINING CODE REQUIRED CLEARANCE TO COMBUSTIBLE MATERIALS. INSTALL GREASE DUCT IN AN APPROVED 2 HOUR FIRE-RATED ENCLOSURE, AS REQUIRED BY CODE OR PROVIDE A 2 HOUR FIRE WRAP, U.L. LISTED FOR GREASE DUCT SYSTEM.
18. DISHWASHER, POOL AND LOCKER ROOM EXHAUST SHALL BE MINIMUM 16 GA. ALUMINUM. SLOPE DUCT DOWN TO AIR DEVICE.

K. COMBINATION FIRE/SMOKE DAMPERS:

1. PROVIDE AND INSTALL U.L. LABELED, CLASS II (FOR VELOCITIES UP TO 1,500 FPM) OR CLASS I (FOR VELOCITIES ABOVE 1500 FPM), MOTOR-DRIVEN COMBINATION FIRE/SMOKE DAMPERS AT ALL FIRE RATED WALLS, FULL DUCT SIZE, WITH TYPE 304 STAINLESS STEEL SIDE SEALS, COMBINATION SILICONE/GALVANIZED STEEL EDGE SEALS, BRONZE OILITE OR STAINLESS STEEL SLEEVE BEARINGS, AIRFOIL SHAPED GALVANIZED STEEL PARALLEL ACTING BLADES ALONG WITH OUT-OF-AIRSTREAM IN-JAMB LINKAGE WITH STAINLESS STEEL PIVOTS AND FACTORY SLEEVE, RED ENAMEL FINISH, CAULKED AND ATTACHED TO DAMPER IN ACCORDANCE WITH U.L. FIRE DAMPER REQUIREMENTS.
2. FIRE/SMOKE DAMPERS SHALL BE ACTIVATED PER 2015 IMC SECTION 607.3.3.3. ACTIVATION SHALL BE PROVIDED BY FIRE ALARM CONTRACTOR.

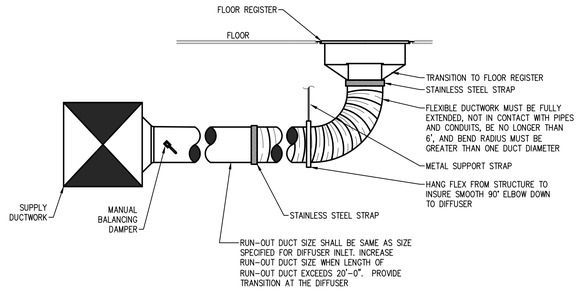
L. AIR OUTLETS AND INLETS:

1. CEILING COMPATIBILITY: PROVIDE DIFFUSERS WITH BORDER STYLES THAT ARE COMPATIBLE WITH ADJACENT CEILING SYSTEMS, AND THAT ARE SPECIFICALLY MANUFACTURED TO FIT INTO CEILING MODULE WITH ACCURATE FIT AND ADEQUATE SUPPORT. REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR TYPES OF CEILING SYSTEMS, WHICH WILL CONTAIN EACH TYPE OF CEILING AIR DIFFUSER.

M. CONTROLS:

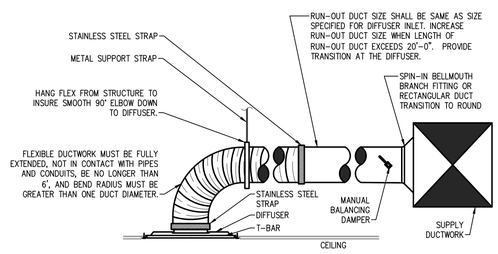
1. TEMPERATURE CONTROLS CONTRACTOR SHALL PROVIDE A COMPLETE NEW/MODIFIED CONTROL SYSTEM USING NEW CONTROL DEVICES AS REQUIRED OR TO REPLACEABLE EXISTING DEVICES FOR THE MECHANICAL SYSTEMS TO OPERATE AS REQUIRED. THE CONTRACTOR SHALL INSPECT THE EXISTING CONDITIONS PRIOR TO SUBMITTING A PROPOSAL.
2. THE EXISTING TEMPERATURE CONTROL SYSTEM CONTROL DEVICES, DAMPERS, OPERATORS, WIRING, CONDUIT, AIR PIPING, VALVES, ETC. NOT BEING MODIFIED, AND WHICH ARE NO LONGER UTILIZED, SHALL BE REMOVED, AND NOT ABANDONED IN PLACE.
3. CHECK AND MAKE OPERABLE ALL WIRING AND PNEUMATIC CONTROL TUBING FOR ALL THE SYSTEMS ASSOCIATED WITH THE PROJECT AREA.
4. THE CONTROL CONTRACTOR WILL BE RESPONSIBLE FOR ALL INSTALLATION, PROGRAMMING, COMMISSIONING, TES

XPLAN-01 Updated On: 2017-04-18 By: EB Using Architectural Plans Dated: 2017-04-18




## A FLOOR REGISTER DETAIL

SCALE: NO SCALE




## B 24"x24" LAY-IN DIFFUSER DETAIL

SCALE: NO SCALE

# MECHANICAL LEGEND

NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THESE DRAWINGS

## HVAC DUCTWORK, AIR DEVICES AND SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| 18" x 12" / 18" x 12" | DOUBLE-LINE AND SINGLE LINE RECTANGULAR DUCT. FIRST NUMBER INDICATES WIDTH IN INCHES, SECOND NUMBER INDICATES DEPTH IN INCHES |
| 18" ø / 18" ø | DOUBLE-LINE AND SINGLE LINE ROUND DUCT. NUMBER INDICATES DIAMETER IN INCHES. |
| 18" x 12" | ACOUSTICAL LINED RECTANGULAR DUCT. SIZES GIVEN INDICATE CLEAR INSIDE DIMENSIONS IN INCHES. |
| | DOUBLE LINE AND SINGLE LINE CHANGE IN ELEVATION. |
| | DOUBLE-LINE AND SINGLE LINE EXISTING DUCTWORK TO REMAIN |
| | DOUBLE-LINE AND SINGLE LINE EXISTING DUCTWORK WHICH SHALL BE REMOVED OR RELOCATED AND REUSED WHERE POSSIBLE. |
| | FLEXIBLE DUCT |
| | DOUBLE-LINE AND SINGLE LINE DUCT TRANSITION |
| | DOUBLE-LINE AND SINGLE LINE RECTANGULAR DUCT ELBOW WITH TURNING VANES |
| | SINGLE LINE DUCT WITH RADIUS ELBOW |
| | DOUBLE-LINE AND SINGLE LINE CONICAL TAP |
| | DOUBLE-LINE AND SINGLE LINE DUCT WITH SPIN-IN FITTING AND VOLUME DAMPER |
| UP / DOWN | SUPPLY AIR RECTANGULAR VERTICAL DUCT |
| | RETURN OR EXHAUST AIR RECTANGULAR VERTICAL DUCT |
| | OUTSIDE/INTAKE AIR RECTANGULAR VERTICAL DUCT |
| | ROUND VERTICAL DUCT |
| | MANUAL VOLUME DAMPER |
| BD | BACKDRAFT DAMPER |
| | FIRE DAMPER (WITH ACCESS PANEL) |
| | FIRE/SMOKE DAMPER (WITH ACCESS PANEL) |
| | DOUBLE LINE AND SINGLE LINE DUCT ENDCAP |

| SYMBOL | DESCRIPTION |
|---|---|
| TS | TEMPERATURE SENSOR |
| H | HUMIDISTAT |
| CO | CO SENSOR |
| CO2 | CO2 SENSOR |
| | ACCESS PANEL (AP) |
| VFD | VARIABLE FREQUENCY MOTOR DRIVE (VFD) |
| 3/4" UC | UNDERCUT DOOR BY MEASUREMENT INDICATED |
| | AIRFLOW SUPPLY |
| | AIRFLOW RETURN OR EXHAUST |

## PLUMBING SPECIALTIES

| SYMBOL | DESCRIPTION |
|---|---|
| | FLOOR DRAIN (FD) |
| | FLOOR SINK (FS) (ROUND OR SQUARE) |
| | FLOOR CLEANOUT (FCO) |
| | WALL CLEANOUT (WCO) |
| | BACKFLOW PREVENTER (BFP) |

## ABBREVIATIONS

| ABBR. | DESCRIPTION |
|---|---|
| AFF | ABOVE FINISHED FLOOR |
| BOD | BOTTOM OF DUCT |
| BTUH | BRITISH THERMAL UNITS PER HOUR |
| CFM | CUBIC FEET/AIR PER MINUTE |
| DB | DRY BULB TEMPERATURE |
| DIA | DIAMETER |
| DN | DOWN |
| EA | EXHAUST AIR |
| EAT | ENTERING AIR TEMPERATURE |
| EFF | EFFICIENCY |
| ELEV | ELEVATION |
| EWT | ENTERING WATER TEMPERATURE |
| (E) | EXISTING |
| FLR | FLOOR |
| FPM | FEET PER MINUTE |
| GPM | GALLONS PER MINUTE |
| MAX | MAXIMUM |
| MFR | MANUFACTURER |
| MIN | MINIMUM |
| (N) | NEW |
| N/A | NOT APPLICABLE |
| NIC | NOT IN CONTRACT |
| NTS | NOT TO SCALE |
| OA | OUTSIDE AIR |
| RA | RETURN AIR |
| TYP | TYPICAL |
| UNO | UNLESS NOTED OTHERWISE |
| VAV | VARIABLE AIR VOLUME |
| VEL | VELOCITY |
| VTR | VENT THROUGH ROOF |
| W/O | WITHOUT |

## PIPE SYMBOLS

| SYMBOL | DESCRIPTION |
|---|---|
| DN UP | INDICATION OF PITCH GOING UP OR DOWN |
| | DIRECTION OF FLOW |

## HVAC PIPING

| LINETYPE | DESCRIPTION |
|---|---|
| | NEW PIPING (LINETYPE VARIES PER SYSTEM) |
| | EXISTING PIPING (LINETYPE VARIES PER SYSTEM) |
| | PIPE TO BE REMOVED |
| | HATCH INDICATING DEMOLITION WORK |
| CDWS | CONDENSER WATER SUPPLY |
| CDWR | CONDENSER WATER RETURN |
| CHWS | CHILLED WATER SUPPLY |
| CHWR | CHILLED WATER RETURN |
| HWS | HEATING WATER SUPPLY |
| HWR | HEATING WATER RETURN |

## PLUMBING PIPING

| LINETYPE | DESCRIPTION |
|---|---|
| | DOMESTIC COLD WATER (CW) |
| | DOMESTIC HOT WATER (HW) |
| | DOMESTIC HOT WATER CIRCULATING (HWC) |
| G | NATURAL FUEL GAS |
| W | SANITARY WASTE (ABOVE FLOOR/GRADE) |
| W | SANITARY WASTE (BELOW FLOOR/GRADE) |
| GW | GREASE WASTE (ABOVE FLOOR/GRADE) |
| GW | GREASE WASTE (BELOW FLOOR/GRADE) |
| ST | STORM DRAIN (ABOVE FLOOR/GRADE) |
| ST | STORM DRAIN (BELOW FLOOR/GRADE) |
| DR | DRAIN (ABOVE FLOOR/GRADE) |
| DR | DRAIN (BELOW FLOOR/GRADE) |
| V | SANITARY VENT |

## GENERAL / MISCELLANEOUS

| SYMBOL | DESCRIPTION |
|---|---|
| OR | POINT OF CONNECTION TO EXISTING SYSTEM (POC) |
| # X-X | DETAIL NUMBER OR PLUMBING RISER NUMBER |
| | SHEET NUMBER WHERE DETAIL FOR RISER IS SHOWN |
| | SECTION POINT OF VIEW |
| # X-X | SECTION DESIGNATION |
| | SECTION NUMBER WHERE SECTION IS SHOWN |
| | BOLD LINES INDICATE NEW OR RELOCATED EQUIPMENT. NEW EQUIPMENT MAY BE NOTED (N). RELOCATED EQUIPMENT MAY BE NOTED (R). |
| | LIGHT LINES INDICATED EXISTING EQUIPMENT TO REMAIN. EXISTING EQUIPMENT MAY BE NOTED (E) |
| | DASHED LINES INDICATE EXISTING EQUIPMENT TO BE REMOVED OR RELOCATED AND REUSED WHERE POSSIBLE. |

## SPRINKLERS

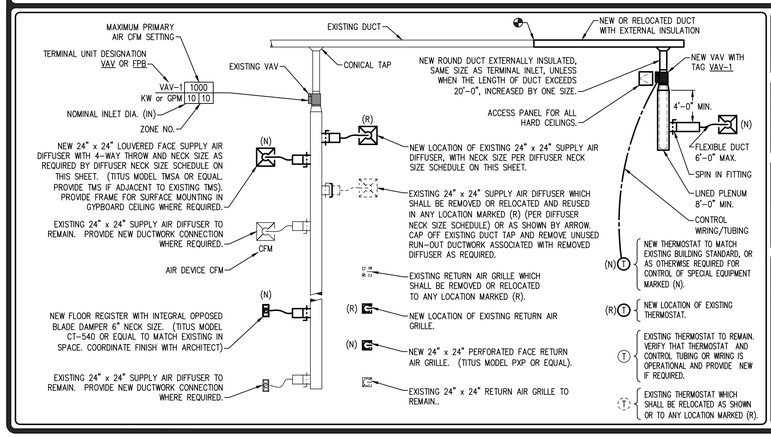
| SYMBOL | DESCRIPTION |
|---|---|
| | EXISTING SPRINKLER HEAD SHOWN FOR REFERENCE ONLY |

## VALVES AND SPECIALTIES

| SYMBOL | DESCRIPTION |
|---|---|
| | BALL VALVE |
| | BUTTERFLY VALVE |
| | HOSE END VALVE |
| | PRESSURE REDUCING VALVE |
| | CHECK VALVE |
| | GAUGE COCK VALVE |
| | GAS COCK OR PLUG VALVE |
| | VENTURI METER |
| | PRESSURE RELIEF VALVE |
| | STRAINER |
| | STRAINER WITH BLOW-OFF |
| | BALANCING COCK |
| | COMBINATION BALANCING COCK/ FLOW MEASURING DEVICE |
| | FLEXIBLE PIPE CONNECTOR |
| | AIR VENT – AUTOMATIC |
| | AIR VENT – MANUAL |
| M | METER |
| | PRESSURE/TEMPERATURE TEST POINT |
| | PRESSURE GAUGE |
| | PRESSURE GAUGE AND COCK |
| | THERMOMETER AND THERMOWELL |
| | OPEN FUNNEL DRAIN |

## PIPE FITTINGS

| LINETYPE | DESCRIPTION |
|---|---|
| | VERTICAL PIPE (UP OR DOWN) |
| | PIPING CAP OR PLUG |
| | PIPING ELBOW UP |
| | PIPING ELBOW DOWN |
| | PIPING REDUCER, CONCENTRIC |
| | PIPING REDUCER, ECCENTRIC (FLAT ON TOP) |
| | PIPING REDUCER, ECCENTRIC (FLAT ON BOTTOM) |
| | PIPING ELBOW DOWN TO TEE |
| | PIPING ELBOW UP TO TEE |
| | PIPING TEE UP |
| | PIPING TEE DOWN |
| | UNION, SCREWED |
| | UNION, FLANGED |




## DIFFUSER NECK SIZE SCHEDULE

| CFM RANGE | MINIMUM NECK SIZE |
|---|---|
| 0 – 125 | 6"ø |
| 126 – 225 | 8"ø |
| 226 – 300 | 10"ø |
| 301 – 400 | 12"ø |
| 401 – 500 | 14"ø |

## LINEAR DIFFUSER AND NECK SIZE SCHEDULE

| CFM RANGE | LINEAR DIFFUSERS | | | |
|---|---|---|---|---|
| | TBDI-80 | | ML-39 | |
| | SLOTS | NECK | SLOTS | NECK |
| 0 – 125 | 2-SLOT | 6"ø | 2-SLOT | 6"ø |
| 126 – 225 | 2-SLOT | 8"ø | 2-SLOT | 8"ø |
| 226 – 300 | 4-SLOT | 10"ø | 4-SLOT | 10"ø |
| 301 – 400 | 4-SLOT | 12"ø | 4-SLOT | 12"ø |
| 401 – 500 | 4-SLOT | 14"ø | 5-SLOT | 14"ø |

1. PROVIDE RIGID RUN-OUT DUCT OF SAME SIZE AS DIFFUSER NECK DIAMETER.
2. INCREASE RUN-OUT DUCT SIZE BY ONE FULL SIZE WHEN LENGTH OF RUN-OUT DUCT FROM MAIN SUPPLY DUCT EXCEEDS 20'-0". PROVIDE TRANSITION AT THE DIFFUSER.
3. PROVIDE TITUS MODEL TBDI-80 FOR LAY-IN CEILINGS AND ML-39 FOR HARD CEILINGS.

MDP ENGINEERING GROUP
1800 GLENARM PLACE, 8th FLOOR
DENVER, CO 80202
PH: 303.389.0095 | FAX: 303.389.0098
www.MDPEG.com
JOB#: 17031.01

© COPYRIGHT, 2017
BY MDP ENGINEERING GROUP, P.C.

These plans are the intellectual property of MDP ENGINEERING GROUP, P.C. and may not be duplicated, reproduced or disclosed without written consent. Copyrights and infringements will be strictly enforced.

May 09, 2017

SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS

MARCH 9, 2017 — 16240102-70

LEGEND AND DETAILS

01/M.1

Drawing: J:\3722 E. Orchard Rd, Centennial CO\17031.01 - Southgate Water & Sanitation.01\Drawings\2017-05-09 - Revision 2\01-M.1 - Legend And Details.dwg Plotted by: Andrew Stringer On: Tuesday, May 9, 2017 5:04:59 PM

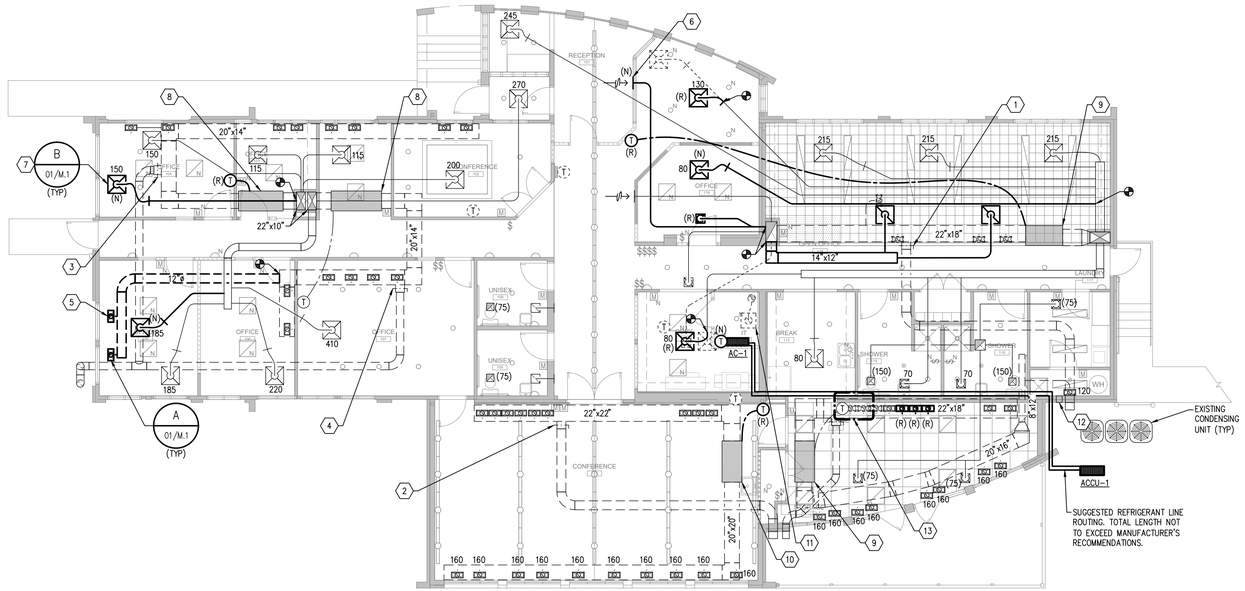
XPLAN-01 Updated On: 2017-04-18 By: EB Using Architectural Plans Dated: 2017-04-18

Drawing: J:\3722 E Orchard Rd, Centennial CO\170311\01 - Southgate Water & Sanitation\01\Drawings\2017-05-09 - Revision 2\01.M.2 - Mechanical Plan.dwg Plotted by: Andrew Stringer On: Tuesday, May 9, 2017 5:05:07 PM

MDP ENGINEERING GROUP
1800 GLENARM PLACE, 8th FLOOR
DENVER, CO 80202
PH: 303.389.0095 | FAX: 303.389.0098
www.MDPEG.com
JOB#: 170311.01

© COPYRIGHT, 2017
BY MDP ENGINEERING GROUP, P.C.

These plans are the intellectual property of MDP ENGINEERING GROUP, P.C. and may not be duplicated, reproduced or disclosed without written consent. Copyrights and infringements will be strictly enforced.




## 1 FIRST FLOOR MECHANICAL PLAN

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 32'

N

## DUCTLESS SPLIT SYSTEM AC AND HEAT PUMP CONDENSING UNIT SCHEDULE

| TAG | MANUF. | MODEL NO. (INDOOR / OUTDOOR) | LOCATION | NOMINAL CAPACITY (TONS) | SEER (EER) | INDOOR FAN COIL | | | | | OUTDOOR CONDENSING UNIT | | | | | REFRIGERANT | | SPECIFIC NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CFM (LO/HI) | VOLTAGE/ PHASE | DX COOLING COIL RATED CAPACITY / MIN. CAPACITY (MBH) | HEATING COIL RATED CAPACITY/ MIN. CAPACITY (MBH) | WEIGHT (LBS) | RLA | VOLTS/PH | MCA | MOCP | WEIGHT (LBS) | TYPE | CHARGE (LB-OZ) | |
| AC-1 | DAIKIN | FTXS12LVJU | SEE PLANS | 1 | 23 | 155 / 403 | 208/1 | 12.0 / 4.8 | 14.4 / 4.8 | 22 | 5.3 | 208/1 | 8.8 | 15 | 75 | R-410A | 2-7 | |
| ACCU-1 | | RXS12LVJU | | | | | | | | | | | | | | | | |

GENERAL NOTES

1. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION AND STARTUP OF NEW AC UNIT. MOUNT UNIT IN PROPER STRUCTURAL LOCATION, AND PROVIDE ALL REQUIRED SERVICE AND OPERATIONAL CLEARANCES. COORDINATE MOUNTING WITH STRUCTURE AS REQUIRED.
2. PROVIDE WALL MOUNTED ELECTRONIC PROGRAMMABLE THERMOSTAT WITH FAN ON / AUTO SWITCHING, AND HIGH-MEDIUM-LOW FAN SPEEDS.
3. PROVIDE CONDENSATE PUMP AS REQUIRED.
4. ALL UNITS TO BE PROVIDED WITH SINGLE POINT POWER CONNECTIONS. POWER TO BE PROVIDED TO CONDENSING UNIT. INDOOR UNIT FED FROM CONDENSING UNIT.
5. PROVIDE DISCONNECT SWITCH.
6. PROVIDE WALL MOUNTING BRACKET FOR CONDENSING UNIT BY UNIT MANUFACTURER OR INSTALL ON PAD. (REFER TO PLANS FOR CONFIGURATION).

## GENERAL NOTES

1. ENGINEER UNABLE TO VERIFY EXISTING CONDITIONS ABOVE CEILINGS – CONTRACTOR TO FIELD VERIFY AND NOTIFY ENGINEER IF CONDITIONS DIFFER GREATLY FROM DRAWINGS.
2. COORDINATE REPAIR OF HARD CEILINGS WITH GENERAL CONTRACTOR.

## # MECHANICAL DETAIL NOTES

1. BALANCE OUTSIDE AIR DAMPER TO 280 CFM.
2. BALANCE OUTSIDE AIR DAMPER TO 230 CFM.
3. BALANCE OUTSIDE AIR DAMPER TO 120 CFM.
4. BALANCE OUTSIDE AIR DAMPER TO 120 CFM.
5. PROVIDE NEW 12"x8" TITUS CT-540 (OR SIMILAR) FLOOR REGISTER TO MATCH EXISTING IN SUITE. COORDINATE FINISH WITH ARCHITECT. ROUTE 8"ø TO NEW 12"ø RETURN AIR DUCTWORK. (TYP)
6. PROVIDE NEW 12"x8" TITUS 23R (OR SIMILAR) WALL GRILLE TO MATCH EXISTING IN SUITE. COORDINATE FINISH WITH ARCHITECT. ROUTE 10"ø TO EXISTING RETURN AIR DUCTWORK.
7. PROVIDE NEW TITUS TMS W/ OBD (OR SIMILAR) CEILING DIFFUSER TO MATCH EXISTING IN SUITE. COORDINATE FINISH COLOR WITH ARCHITECT. ROUTE 8ø TO EXISTING SUPPLY AIR DUCTWORK.
8. EXISTING 2.5 TON FURNACE TO BE BALANCED TO 1000 CFM.
9. EXISTING 3.5 TON FURNACE TO BE BALANCED TO 1400 CFM.
10. EXISTING 4 TON FURNACE TO BE BALANCED TO 1600 CFM.
11. EXISTING MOVINCOOL IT UNIT TO BE DEMO'D.
12. TWO EXISTING OUTSIDE AIR OPENINGS TO REMAIN FOR GAS WATER HEATER VENTILATION. CONTRACTOR TO REPAIR/REPLACE EXISTING FLOOR REGISTER IN SPACE.
13. RELOCATE FLOOR RETURN GRILLES TO BE UNDER NEW DF-1 AS SHOWN.

### Natural Ventilation Calculations

| Room Number | Floor Area (sq ft) | Openable Area to Outdoors (sq ft) | % of Operable Area* |
|---|---|---|---|
| 101 | 298 | 36.6 | 12.28% |
| 102 | 176 | 7.82 | 4.44% |
| 102.5 | 85 | 11.6 | 13.65% |
| 103 | 86 | 11.6 | 13.49% |
| 104 | 159 | 25.65 | 16.13% |
| 105 | 166 | 32.7 | 19.70% |
| 106 | 159 | 7.8 | 4.91% |
| 107 | 299 | 15.6 | 5.22% |
| 114 | 302 | 48 | 15.89% |
| 118 | 777 | 45.9 | 5.91% |
| * Must be ≥4% per IBC 2015 1203.5.1 | | | |

### Outside Airflow Calculation

| Zone Identification | | | | Standard Case: 2015 IMC Ventilation Rate Procedure | | | | | | | System Outdoor Air: | | 20% |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor | Zone/ Room # | Occupancy Category (Table 403.3) | Area (AZ) ($Ft^2$) | People Outdoor Air Rate (Rp) (cfm/person) | Table 403.3 Area Outdoor Air Rate (Ra) (cfm/Ft2) | Occupant Density (#/1000 $Ft^2$) | Total Occupants (PZ) (people) | Breathing Zone Outdoor Air Flow (Vbz)(CFM) | Table 403.3.1.1.1.2 Air Distribution Configuration | Zone Air Distribution Effectiveness (Ez) | Zone Outdoor Air Flow (Voz) (CFM) | Zone Primary Air Flow (CFM) | Outdoor Air Provided (CFM) |
| 1 | 110 - Conference | Conference Rooms | 729 | 5.0 | 0.06 | 50 | 37 | 229 | Ceiling or floor supply of warm air and floor return | 1.00 | 229 | 1600 | 320 |
| 1 | 111 - Copy | Office spaces | 118 | 5.0 | 0.06 | 5 | 1 | 12 | Ceiling supply of warm air and ceiling return | 0.80 | 15 | 80 | 16 |
| 1 | 113 - Break | Office spaces | 114 | 5.0 | 0.06 | 5 | 1 | 12 | Ceiling supply of warm air and ceiling return | 0.80 | 15 | 80 | 16 |
| 1 | 119 - Office | Office spaces | 130 | 5.0 | 0.06 | 5 | 1 | 13 | Ceiling supply of warm air and ceiling return | 0.80 | 16 | 80 | 16 |

May 09, 2017

# SOUTHGATE WATER & SANITATION DISTRICT

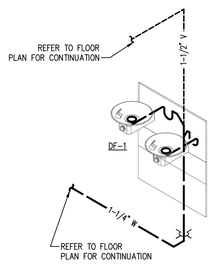
FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 9, 2017 — 16240102-70

FIRST FLOOR MECHANICAL PLAN

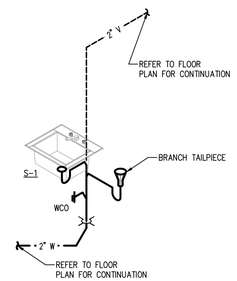
01/M.2

XPLAN-01 Updated On: 2017-04-18 By: EB Using Architectural Plans Dated: 2017-04-18



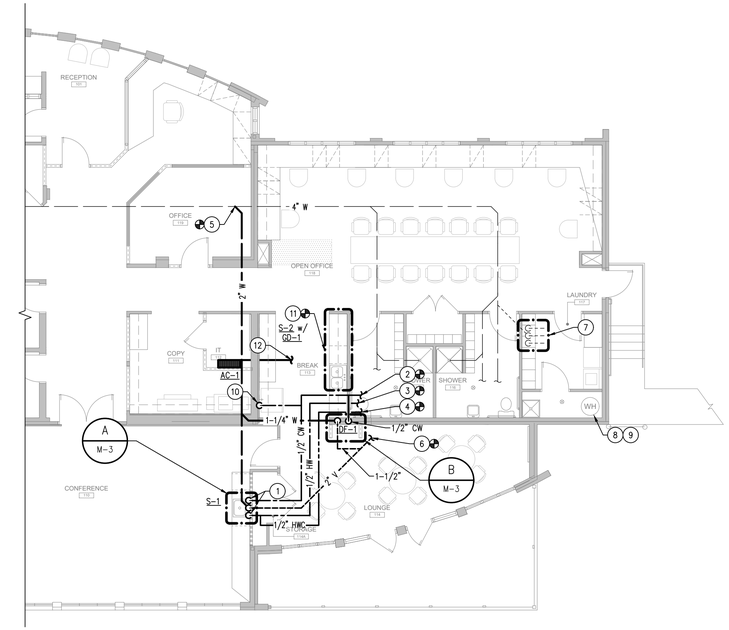

B WASTE AND VENT PIPING ISOMETRIC

SCALE: NO SCALE




A WASTE AND VENT PIPING ISOMETRIC

SCALE: NO SCALE




1 FIRST FLOOR PLUMBING PLAN

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 32'

N

## PLUMBING FIXTURE SCHEDULE

ALL PLUMBING FIXTURE SELECTIONS, REGARDLESS OF THIS SCHEDULE SHALL BE SUBMITTED FOR THE BUILDING OWNER'S AND ARCHITECT'S PRE-APPROVAL PRIOR TO CONTRACTOR'S PURCHASE ORDER OF ALL PLUMBING FIXTURES.

| TAG | DESCRIPTION | FIXTURE CONNECTION SIZES | | | | SPECIFIC NOTES |
|---|---|---|---|---|---|---|
| | | W | V | CW | HW | |
| DF-1 | DRINKING FOUNTAIN:<br>ELKAY MODEL LZSTL8WSLK WALL MOUNTED, BI LEVEL, ADA COMPLIANT, 18 GAUGE 304 STAINLESS STEEL, LIGHT GRAY GRANITE FINISH DRINKING FOUNTAIN. PROVIDE STAINLESS STEEL WALL PLATE. PROVIDE 1-1/4" TAILPIECE, 1-1/4" TRAP, 1/2" CW SUPPLY WITH SHUT-OFF VALVE AND INLINE FILTER. INSTALL PER ADA REQUIREMENTS. | 1-1/4" | 1-1/2" | 1/2" | – | |
| GWH-1 | GAS WATER HEATER:<br>BRADFORD-WHITE MODEL LG275H763N, 75 GALLON CAPACITY, 75,000 BTU WATER HEATER. 74 GPH RECOVERY AT 100°F RISE. 62-5/8" HIGH x 24" DIA. SIDE PIPE CONNECTIONS, PROVIDE DIELECTRIC PIPE UNIONS. INSTALL WATER HEATER, PIPE T & P VALVE, AND DRAIN PAN DISCHARGE AS REQUIRED BY MANUFACTURERS RECOMMENDATIONS. | – | – | 3/4" | 3/4" | |
| S-1 | SINK – A.D.A.:<br>JUST MODEL SL-ADA-2122-A-GR, 18 GAUGE, 304 STAINLESS STEEL, 21" X 22" x 6.5" DEEP, SINGLE COMPARTMENT SINK WITH UNDERCOATING, SELF-RIMMING AND 4-HOLE PUNCH. PROVIDE DELTA MODEL 400-DST SINGLE HANDLE FAUCET WITH 8" SWIVEL SPOUT, HAND SPRAY AND 4" HANDLE, 1-1/2" TAILPIECE, 1-1/4" BRANCH TAIL-PIECE, CAST BRASS P-TRAP WITH CLEANOUT, FLEXIBLE SUPPLIES, ANGLE STOPS AND MODEL J-35 CRUMB CUP STRAINER. | 2" | 2" | 1/2" | 1/2" | |
| S-2 | SINK – A.D.A.:<br>JUST MODEL DL-ADA-2133-A-GR, 18 GAUGE, 304 STAINLESS STEEL, 33" X 21" x 6.5" DEEP, DOUBLE COMPARTMENT SINK WITH UNDERCOATING, SELF-RIMMING AND 4-HOLE PUNCH. PROVIDE DELTA MODEL 400-DST SINGLE HANDLE FAUCET WITH 8" SWIVEL SPOUT, HAND SPRAY AND 4" HANDLE, 1-1/2" TAILPIECE, 1-1/4" TAIL-PIECE, CAST BRASS P-TRAP WITH CLEANOUT, FLEXIBLE SUPPLIES, ANGLE STOPS AND CRUMB CUP STRAINER. | 2" | 2" | 1/2" | 1/2" | |
| GD-1 | GARBAGE DISPOSER:<br>INSINKERATOR MODEL BADGER 5, CONTINUOUS FEED, WITH 1/2 HP MOTOR, GALVANIZED STEEL GRINDING ELEMENTS WITH TWO STAINLESS STEEL SWIVEL LUGS. 115V/1PH/60HZ, 6.9 AMPS. PROVIDE WALL SWITCH. | 1-1/2" | – | – | – | |

## PLUMBING GENERAL NOTES

1. CONTRACTOR TO FIELD VERIFY INVERT, SIZE, AND LOCATION OF EXISTING PIPING PRIOR TO STARTING WORK.
2. COORDINATE REPAIR OF HARD CEILINGS WITH GENERAL CONTRACTOR.

## # PLUMBING DETAIL NOTES

1. 1/2" COLD WATER AND 1/2" HOT WATER DOWN IN WALL TO CAPPED AND VALVED OUTLET BELOW COUNTERTOP FOR CONNECTION TO SINK.
2. 3/4" COLD WATER PIPE ROUTED TO VALVED CONNECTION AT EXISTING PLUMBING SERVING BREAK ROOM SINK. CONTRACTOR TO FIELD VERIFY LOCATION OF MAIN AND ROUTING OF NEW PIPE ROUTING BEFORE BEGINNING WORK.
3. 1/2" HOT WATER PIPE ROUTED TO VALVED CONNECTION AT EXISTING PLUMBING SERVING BREAK ROOM SINK. CONTRACTOR TO FIELD VERIFY LOCATION OF MAIN AND ROUTING OF NEW PIPE ROUTING BEFORE BEGINNING WORK.
4. 1/2" HOT WATER CIRCULATION PIPE ROUTED TO VALVED CONNECTION AT EXISTING PLUMBING SERVING BREAK ROOM SINK. CONTRACTOR TO CONTRACTOR TO FIELD VERIFY LOCATION OF MAIN AND ROUTING OF NEW PIPE ROUTING BEFORE BEGINNING WORK. CONTRACTOR TO VERIFY FUNCTIONALITY OF EXISTING PUMP AND TO REPAIR/REPLACE AS NECESSARY TO LIKE-NEW CONDITION.
5. 2" WASTE ROUTED TO CONNECTION AT EXISTING 4" WASTE LINE. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING PLUMBING AS WELL AS INVERT AND ROUTING OF NEW PIPE ROUTING BEFORE BEGINNING WORK.
6. 2" VENT ROUTED TO CONNECTION AT EXISTING BATHROOM VENT STACK. CONTRACTOR TO FIELD VERIFY LOCATION OF EXISTING PLUMBING AS WELL AS INVERT AND ROUTING OF NEW PIPE ROUTING BEFORE BEGINNING WORK.
7. DEMO EXISTING SINK AND ALL RELATED EQUIPMENT AND PLUMBING BACK TO MAINS AND CAP.
8. REROUTE WATER HEATER DRAIN LINE TO TERMINATION AT SERVICE SINK.
9. PRICE AS ALTERNATE:
   DEMO EXISTING WATER HEATER PRESERVING PLUMBING CONNECTIONS. PROVIDE NEW GWH-1 REUSING EXISTING PLUMBING AS POSSIBLE.
10. 1/4" COLD WATER PIPING DOWN IN WALL FOR CONNECTION TO REFRIGERATOR ICE MAKER. PROVIDE WALL BOX. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
11. EXISTING MILLWORK TO BE DEMO'D AND REPLACED. DEMO EXISTING SINK, GARBAGE DISPOSAL, AND ASSOCIATED EQUIPMENT. PRESERVE PLUMBING CONNECTIONS AS POSSIBLE FOR INSTALLATION OF NEW S-2 AND GD-1, INSTALL NEW PLUMBING FIXTURES PER SCHEDULE AND CONNECT TO EXISTING PLUMBING.
12. ROUTE 3/4" DRAIN LINE TO TERMINATION AT BRANCH TAILPIECE OF BREAK ROOM SINK WITH 1" AIR GAP.

MDP ENGINEERING GROUP
1800 GLENARM PLACE, 8th FLOOR
DENVER, CO 80202
PH: 303.389.0095 | FAX: 303.389.0098
www.MDPEG.com
JOB#: 17031.01

© COPYRIGHT, 2017
BY MDP ENGINEERING GROUP, P.C.

These plans are the intellectual property of MDP ENGINEERING GROUP, P.C. and may not be duplicated, reproduced or disclosed without written consent. Copyrights and infringements will be strictly enforced.

May 09, 2017

# SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS

MARCH 9, 2017 16240102-70

FIRST FLOOR PLUMBING PLAN

01/ M.3

Drawing: J:\3722 E Orchard Rd, Centennial CO\17031\01 - Southgate Water & Sanitation\01\Drawings\2017-05-09 - Revision 2\01-M.3 - Plumbing Plan.dwg Plotted by: Andrew Stringer On: Tuesday, May 9, 2017 5:05:11 PM

# ELECTRICAL LEGEND

NOT ALL SYMBOLS SHOWN ARE NECESSARILY USED ON THESE DRAWINGS

## GENERAL

| SYMBOL | DESCRIPTION |
|---|---|
| #1 #2 | ELECTRICAL DETAIL NOTE TAG |
| # | FEEDER TAG |
| | RELOCATE EQUIPMENT, DEVICE ARROW |
| # | HEAVY LINEWEIGHT ITEMS INDICATE NEW WORK TO BE DONE |
| # | LIGHT LINEWEIGHT ITEMS INDICATE EXISTING TO REMAIN |
| # | DASHED LINEWEIGHT ITEMS INDICATE EXISTING TO BE REMOVED |
| | NEW OR RELOCATED CIRCUIT RUN |
| | CIRCUIT RUN, EXISTING TO REMAIN |
| | CIRCUIT RUN, EXISTING TO BE REMOVED |
| UF | UNDER FLOOR CIRCUIT RUN |
| UG | UNDERGROUND CIRCUIT RUN |
| | CONDUIT CAP |
| | HOMERUN TO PANEL. NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS |

## SWITCHING

| SYMBOL | DESCRIPTION |
|---|---|
| $S$ $S^{S}$ | SNAP SWITCH . SUBSCRIPT LETTER, IF SHOWN, INDICATES CONTROL OF FIXTURES MARKED WITH SAME SUBSCRIPT LETTER |
| $S^{2}$ | TWO-POLE SWITCH |
| $S^{3}$ | THREE-WAY SWITCH |
| $S^{4}$ | FOUR-WAY SWITCH |
| $S^{\delta}$ | DIMMER SWITCH |
| $S^{K}$ | KEY SWITCH |
| SS | GANGED SWITCHES |
| $S^{LV}$ | LOW VOLTAGE SWITCH |
| $S^{RL}$ | RAISE/LOWER WALL SWITCH |
| $S^{TO}$ | THERMAL OVERLOAD SWITCH |
| WALL CEILING | OCCUPANCY SENSOR FOR LIGHTING CONTROLS |

## ABBREVIATIONS

| ABBR. | DESCRIPTION |
|---|---|
| AC | ABOVE COUNTERTOP |
| AFCI | ARC-FAULT CIRCUIT INTERRUPTER |
| AFF | ABOVE FINISHED FLOOR |
| BC | BLANK COVER |
| (E), E | EXISTING |
| EPO | EMERGENCY POWER OFF |
| GFI, GFCI | GROUND FAULT PROTECTION FOR PERSONNEL |
| GFPE | GROUND FAULT PROTECTION OF EQUIPMENT |
| HP | HORSEPOWER |
| (N), N | NEW |
| NEC | NATIONAL ELECTRICAL CODE |
| NIC | NOT IN CONTRACT |
| (R), R | RELOCATED |
| (TYP) | TYPICAL |
| UF | UNDER FLOOR |
| UG | UNDER GROUND |
| WP | WEATHERPROOF (NEMA 3R RATING) |

## ADA DEVICES

| SYMBOL | DESCRIPTION |
|---|---|
| DS | DOOR SIGNAL PUSH BUTTON |
| DDS | DOOR SIGNAL DISCONNECT SWITCH |
| V | HEARING IMPAIRED VISUAL DEVICE TIED TO THE DOOR SIGNAL AND PHONE |
| DT T | DOOR SIGNAL LOW VOLTAGE TRANSFORMER |

## LIGHTING

| SYMBOL | DESCRIPTION |
|---|---|
| | SHADING INDICATES CONNECTION TO EMERGENCY CIRCUIT OR 90-MINUTES SELF-CONTAINED BATTERY PACK |
| | DIRECT/INDIRECT OR LENSED HIGH EFFICIENCY LIGHT FIXTURE |
| | RECESSED 2'x4' AND 2'x2' FLUORESCENT LIGHT FIXTURE |
| | RECESSED 1'x4' FLUORESCENT LIGHT FIXTURE |
| | SURFACE MOUNTED 1'x4' FLUORESCENT LIGHT FIXTURE |
| | FLUORESCENT STRIP LIGHT FIXTURE |
| | DOWNLIGHT |
| | DIRECTIONAL WALL WASHER/ ADJUSTABLE DOWNLIGHT |
| | WALL SCONCE |
| | TRACK LIGHT |
| WALL CEILING | EXIT SIGN WITH FACING AND DIRECTIONAL ARROWS |
| | EMERGENCY LIGHT |
| | REMOTE EMERGENCY LIGHT HEAD |

## ONE-LINE

| SYMBOL | DESCRIPTION |
|---|---|
| # | FAULT CURRENT POINT VALUE REFERENCE |
| | GROUNDING CONNECTION |
| | SERVICE WEATHERHEAD |
| M | METER |
| SPD | SURGE PROTECTION DEVICE |
| G | GENERATOR |
| T | TRANSFORMER |
| T | PAD-MOUNTED TRANSFORMER |
| | ELECTRICAL PANEL |
| | AUTOMATIC TRANSFER SWITCH |
| | CIRCUIT BREAKER |
| | FUSED DISCONNECT SWITCH |

## COMMUNICATION

| SYMBOL | DESCRIPTION |
|---|---|
| WALL CEILING FLOOR | COMBINATION PHONE/DATA OUTLET |
| | DATA OUTLET |
| | TELEPHONE OUTLET |
| | TELEPHONE BOARD |
| | GROUND BAR |
| TV | TV OUTLET |

## SECURITY

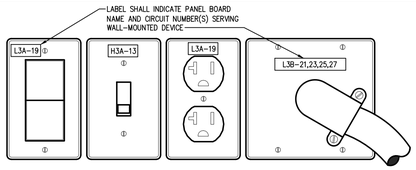
| SYMBOL | DESCRIPTION |
|---|---|
| CR | CARD READER |
| | SECURITY CAMERA |

## POWER

| SYMBOL | DESCRIPTION |
|---|---|
| WALL CEILING FLOOR | DUPLEX RECEPTACLE |
| | FOURPLEX RECEPTACLE |
| | SPECIAL PURPOSE OUTLET |
| J | JUNCTION BOX |
| | DEDICATED, 20A RECEPTACLE: WALL DUPLEX |
| | DEDICATED, 20A RECEPTACLE: WALL FOURPLEX |
| | CORE DRILL |
| | CORE DRILL WITH FIRE RATED FLOOR POKE-THRU AND DEVICES AS INDICATED |
| | ABANDONED CORE DRILL WITH FIRE RATED PLUG AND APPROPRIATE FLUSH ABANDONMENT KIT |
| | POWER POLE |
| W | SURFACE MOUNTED MULTI OUTLET ASSEMBLY (WIREMOLD) |
| SURFACE RECESSED | NEW ELECTRICAL PANEL |
| | EXISTING ELECTRICAL PANEL |
| AC D | WALL MOUNTED JUNCTION BOXES P=POWER C=COMMUNICATION/DATA |
| | SINGLE PUSH BUTTON |
| | EMERGENCY POWER OFF BUTTON (EPO) |
| | NON-FUSED DISCONNECT SWITCH |
| | FUSED DISCONNECT SWITCH |
| | STARTER |
| | DISCONNECT WITH STARTER |
| M | MOTOR |
| M | MOTORIZED DAMPER |
| GFI | BLANK FACE FEED-THROUGH 20A GROUND FAULT CIRCUIT INTERRUPTER |
| VFD | VARIABLE FREQUENCY DRIVE |
| T | 120V LINE VOLTAGE THERMOSTAT |

## FIRE ALARM

| SYMBOL | DESCRIPTION |
|---|---|
| WALL CEILING | SMOKE DETECTOR |
| CO CO | COMBINATION SMOKE/CARBON MONOXIDE (CO) DETECTOR |
| | THERMAL DETECTOR |
| | DUCT DETECTOR |
| | MOTORIZED SMOKE DAMPER |
| | MANUAL PULL STATION |
| | FIREMAN'S PHONE JACK |
| H | FIRE ALARM HORN |
| H | FIRE ALARM HORN AND STROBE |
| WALL CEILING | FIRE ALARM STROBE |
| S | FIRE ALARM SPEAKER |
| S | FIRE ALARM SPEAKER WITH STROBE |
| | FIRE ALARM BELL |
| | MAGNETIC DOOR HOLD-OPEN |
| FACP | FIRE ALARM CONTROL PANEL |
| ANN | FIRE ALARM ANNUNCIATOR PANEL |
| MS | MAIN FLOW SWITCH |
| FS | FLOW SWITCH |
| TS | TAMPER SWITCH |




1 TYPICAL COVER PLATE CIRCUIT(S) LABELING DETAIL

SCALE: NO SCALE

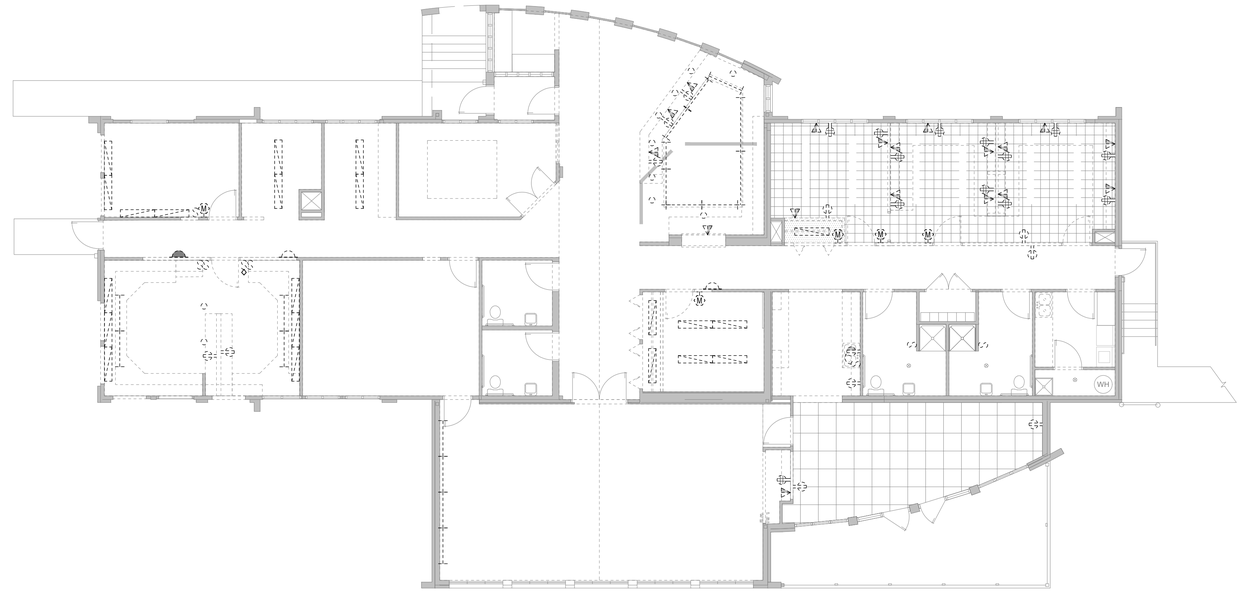
# ELECTRICAL GENERAL NOTES

CONTRACTOR SHALL COMPLY WITH NOTES AS APPLICABLE TO PROJECT. NOTES ON INDIVIDUAL DRAWINGS TAKE PRECEDENCE.

1. BEFORE SUBMITTING THE BID ELECTRICAL CONTRACTOR SHALL VISIT AND EXAMINE THE PREMISES, AND/OR JOB SITE, SO AS TO ASCERTAIN THE EXISTING CONDITIONS IN WHICH HE WILL BE OBLIGED TO OPERATE IN PERFORMING HIS PART OF THE CONTRACT TO ANTICIPATE ANY POSSIBLE SPACE RESTRICTIONS OR CONSTRAINTS THAT COULD AFFECT TIMELY COMPLETION OF THE ELECTRICAL WORK IN ACCORDANCE WITH THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL REPORT TO THE ARCHITECT OR GENERAL CONTRACTOR ANY CONDITIONS THAT MIGHT PREVENT THE SPECIFIED ELECTRICAL WORK FROM BEING PERFORMED IN THE MANNER INTENDED. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED TO THE ELECTRICAL CONTRACTOR FOR FAILURE TO VISIT THE PROJECT SITE, OR FOR ANY ALLEGED MISUNDERSTANDING OF THE MATERIALS TO BE FURNISHED OR WORK TO BE DONE.
2. THE ELECTRICAL CONTRACTOR SHALL EXAMINE THE DRAWINGS OF ALL TRADES WHOSE WORK RELATES TO OR IS DEPENDENT ON ELECTRICAL WORK TO BECOME FULLY INFORMED OF THE EXTENT AND CHARACTER OF THEIR SPECIFIED WORK AND BE ABLE TO COORDINATE IT WHILE AVOIDING POSSIBLE INTERFERENCE WITH THE ELECTRICAL WORK.
3. IT IS THE INTENTION OF THESE SPECIFICATIONS AND DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN, "FURNISH AND INSTALL COMPLETE AND READY FOR USE." "REPLACE" SHALL MEAN, "TO PUT NEW IN PLACE OF EXISTING."
4. THE ARCHITECTURAL SPECIFICATIONS, GENERAL AND SPECIAL CONDITIONS FOR THE WORK OF THIS PROJECT, BASE BUILDING DRAWINGS AND SPECIFICATIONS, SHALL BE EXAMINED BY ELECTRICAL CONTRACTOR BEFORE SUBMITTING A BID.
5. WITH SUBMISSION OF THE BID, THE ELECTRICAL CONTRACTOR SHALL GIVE WRITTEN NOTICE TO THE ARCHITECT/ENGINEER OF ANY NECESSARY ITEMS OR WORK THAT HAVE BEEN OMITTED FROM THE DRAWINGS OR SPECIFICATIONS. IN THE ABSENCE OF SUCH WRITTEN NOTICE IT IS MUTUALLY AGREED THAT THE ELECTRICAL CONTRACTOR HAS INCLUDED THE COST OF ALL REQUIRED ITEMS IN HIS BID, AND THAT THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR THE APPROVED SATISFACTORY FUNCTIONING OF THE ENTIRE SYSTEM WITHOUT EXTRA COMPENSATION.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE COMPLETE AND SATISFACTORY ELECTRICAL INSTALLATION IN ACCORDANCE WITH THE TRUE INTENT OF THE DRAWINGS AND SPECIFICATIONS. HE SHALL PROVIDE, WITHOUT EXTRA CHARGE, ALL INCIDENTAL ITEMS REQUIRED, AS A PART OF THIS ELECTRICAL INSTALLATION. THE INSTALLATION SHALL BE SO MADE THAT ITS SEVERAL COMPONENT PARTS WILL FUNCTION TOGETHER AS A WORKABLE SYSTEM, AND SHALL BE LEFT WITH ALL PARTS ADJUSTED AND IN WORKING ORDER.
7. SECURE AND PAY FOR ALL PERMITS, TAXES, ROYALTIES, LICENSES, AND INSPECTIONS IN ASSOCIATION WITH THE WORK SPECIFIED UNDER ELECTRICAL DIVISION AND INDICATED ON THE DRAWINGS. FILE ALL NECESSARY PLANS, PREPARE ALL DOCUMENTS, AND OBTAIN ALL NECESSARY APPROVALS REQUIRED BY ALL GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL REMAIN EXPOSED TO VIEW UNTIL APPROVED BY THE INSPECTION AUTHORITY.
8. ALL WORK SHALL COMPLY WITH NATIONAL ELECTRICAL CODE (NEC), NATIONAL FIRE PROTECTION ASSOCIATION CODES (NFPA), INTERNATIONAL CODE COUNCIL (ICC) CODES, INCLUDING ENERGY CONSERVATION CODE (IECC), AND ALL APPLICABLE LOCAL, STATE, MUNICIPAL, AND CITY CODES, ORDINANCES AND REGULATIONS.
9. BEFORE STARTING WORK, ELECTRICAL CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ARCHITECT/ENGINEER SHOP DRAWINGS, BROCHURES, INSTALLATION INSTRUCTIONS, AND DESCRIPTIVE EQUIPMENT DATA RELATED TO SPECIFIED EQUIPMENT, WIRING DEVICES, AND ACCESSORIES FOR APPROVAL. THESE DOCUMENTS SHALL BE SUBMITTED IN ELECTRONIC (PDF) FORMAT. ALL SUBMITTALS MUST BE CLEAR AND CONCISE. PARTIAL, PROGRESS, "PIECEMEAL", OR CATALOGUES NOT BE REVIEWED AND WILL BE RETURNED AS INCOMPLETE. NO EXCEPTIONS. ALLOW A MINIMUM OF SEVEN (7) WORKING DAYS FOR ENGINEERS REVIEW.) THE CONTRACTOR SHALL IDENTIFY ANY "LONG LEAD TIME" ITEMS WHICH MAY IMPACT THE OVERALL PROJECT SCHEDULE. ALL BIDS SHALL INCLUDE COSTS ASSOCIATED WITH THE PURCHASE AND DELIVERY OF EQUIPMENT TO MEET THE PROJECT SCHEDULE. NO EQUIPMENT SHALL BE ORDERED, PURCHASED, OR INSTALLED PRIOR TO THE APPROVAL OF SHOP DRAWINGS, BROCHURES, INSTALLATION INSTRUCTIONS, AND SCHEDULES. APPROVAL BY THE ARCHITECT/ENGINEER IS INTENDED TO ESTABLISH CONFORMANCE WITH THE PROJECT DESIGN CONCEPT AND THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS.
10. THE NAMING OF THE MANUFACTURER OR BRAND WITH CATALOG NUMBER OR OTHER PRODUCT IDENTIFICATION WITHOUT THE WORDS "OR EQUAL" IN THE SPECIFICATIONS OR NOTES SHALL INDICATE THAT IT IS THE ONLY PRODUCT APPROVED FOR PURCHASE. IF THE WORDS "OR EQUAL" ARE USED, THEY SHALL BE INTERPRETED AS ESTABLISHING A QUALITY OR PERFORMANCE STANDARD FOR THE MATERIAL OR PRODUCT TO BE PURCHASED. THIS SHALL INDICATE THAT THE ELECTRICAL CONTRACTOR IS NOT RESTRICTED TO THE USE OF THE NAMED AND IDENTIFIED PRODUCT IF A SUBSTITUTE APPROVED BY THE ARCHITECT/ENGINEER IS AVAILABLE; HOWEVER, WHERE A SUBSTITUTION IS REQUESTED, IT WILL BE PERMITTED ONLY WITH THE WRITTEN APPROVAL OF THE ARCHITECT/ENGINEER. NO SUBSTITUTE MATERIAL OR PRODUCT SHALL BE ORDERED, FABRICATED, SHIPPED, OR PROCESSED IN ANY MATTER PRIOR TO THE APPROVAL OF THE ARCHITECT/ENGINEER. THE ELECTRICAL CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ADDITIONAL EXPENSES, AS REQUIRED, MAKING CHANGES FROM THE ORIGINAL MATERIAL OR PRODUCT SPECIFIED.
11. THE TERM "AS REQUIRED" REFERS TO COMPONENTS THAT MAY BE REQUIRED TO COMPLETE THE NOTED SYSTEM INDICATED IN THE PROJECT DOCUMENTS.
12. THE TERM "VERIFY" REFERS TO A CONDITION WHICH MUST BE CONFIRMED PRIOR TO PROCEEDING WITH THE ORDERING OF MATERIAL OR THE FABRICATION AND INSTALLATION OF A COMPONENT.
13. ABBREVIATIONS THROUGHOUT THE DOCUMENTS COMPLY WITH DOCUMENT ABBREVIATION LIST ON LEGEND OR ARE THOSE IN COMMON USE. ENGINEER WILL DEFINE THE INTENT OF ANY IN QUESTION.
14. THE DRAWINGS ARE DIAGRAMMATIC IN CHARACTER. LOCATIONS SHOWN FOR ELECTRICAL EQUIPMENT, DEVICES, CIRCUITING, ETC., ARE APPROXIMATE. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE WORK WITH THE ARCHITECTURAL, PLUMBING, HVAC, AND OTHER TRADE DRAWINGS FOR THE EXACT DIMENSIONS, CLEARANCES, AND ROUGHING-IN LOCATIONS. THE ELECTRICAL CONTRACTOR SHALL COOPERATE WITH THE OTHER TRADES IF FIELD ADJUSTMENTS ARE REQUIRED TO ACCOMMODATE THE WORK OF OTHERS.
15. DRAWINGS SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR USED AS SHOP DRAWINGS. WHERE DIMENSIONS ARE SHOWN ON PLANS OR DETAILS, THESE DIMENSIONS ARE TO BE FIELD-VERIFIED BY THE ELECTRICAL CONTRACTOR AGAINST EXISTING FIELD CONDITIONS, INSTALLATION REQUIREMENTS OF OTHER TRADES, AND THE MANUFACTURER'S SUBMITTALS FOR EQUIPMENT TO BE INSTALLED. SHOULD ANY CONFLICTS ARISE WHICH CANNOT BE EASILY RESOLVED IN THE FIELD WITHOUT CHANGING THE DESIGN INTENT, THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
16. RECORD DOCUMENTS
    A. THE ELECTRICAL CONTRACTOR SHALL MAINTAIN ACCURATE RECORDS OF ALL DEVIATIONS IN WORK AS INSTALLED FROM WORK SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, AND IDENTIFY ORIGIN OF CHANGE.
    B. KEEP A COMPLETE SET OF RECORD DOCUMENT PRINTS IN CUSTODY DURING ENTIRE PERIOD OF CONSTRUCTION AT THE CONSTRUCTION SITE. ON COMPLETION OF THE PROJECT, TWO COMPLETE SETS OF MARKED-UP PRINTS SHOWING THESE DEVIATIONS SHALL BE DELIVERED TO GENERAL CONTRACTOR AND ARCHITECT/ENGINEER. THIS CONTRACT WILL NOT BE CONSIDERED COMPLETED UNTIL THESE RECORD DRAWINGS HAVE BEEN RECEIVED AND REVIEWED BY THE ENGINEER.
17. WHILE ALL WORK IS IN PROGRESS, EXCEPT FOR SHORT DESIGNATED INTERVALS DURING WHICH CONNECTIONS ARE TO BE MADE, CONTINUITY OF SERVICE TO ALL EXISTING SYSTEMS SERVING OCCUPIED SPACES SHALL BE MAINTAINED. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH OWNER AT ALL TIMES FOR ALL NEW-TO-EXISTING CONNECTIONS, SYSTEM SHUTDOWNS, AND RESTART-UP.
18. ANY WORK WHICH WILL AFFECT THE BUILDING OCCUPANTS, INCLUDING, BUT NOT LIMITED TO, WORK WHICH GENERATES EXCESSIVE NOISE, DUST, SMOKE, OR INCONVENIENCE TO BUILDING OCCUPANTS, SHALL BE PERFORMED AFTER BUSINESS HOURS, UNLESS PRIOR APPROVAL HAS BEEN OBTAINED FROM THE BUILDING MANAGER OR OWNER.
19. ELECTRICAL ITEMS AFFECTED BY REMODEL WORK ARE SHOWN ON DRAWINGS ALONG WITH EXISTING ELECTRICAL INSTALLATION. EXISTING ELECTRICAL INSTALLATION SHOWN IS NOT NECESSARILY ALL-INCLUSIVE. RETAIN CIRCUIT CONTINUITY FOR EXISTING ELECTRICAL EQUIPMENT, FIXTURES, AND DEVICES THAT ARE TO REMAIN. SUCH EQUIPMENT SHALL BE RECONNECTED TO EXISTING CIRCUITS OR CONNECTED TO NEW CIRCUIT(S) AS INDICATED ON DRAWINGS. ENSURE ALL ELECTRICAL DEVICES IN WORK AREA ARE FULLY FUNCTIONAL. FOR DEVICES OR JUNCTION BOXES LOCATED IN WALLS, THAT MUST REMAIN IN PLACE FOR CIRCUIT CONTINUITY, PROVIDE BLANK COVER PLATES TO MATCH WALL PLATES STYLE IN THE AREA OF WORK. FOR ALL OTHER UNUSED JUNCTION BOXES, REMOVE WIRING AND PROVIDE BLANK COVER PLATE, OR COORDINATE WITH GENERAL CONTRACTOR FOR PATCHING OF WALL TO MATCH ADJACENT SURFACE AS DIRECTED BY ARCHITECT.
20. REPORT ANY EXISTING DAMAGED EQUIPMENT OR SYSTEMS TO THE OWNER PRIOR TO BEGINNING THE PROJECT.
21. BEFORE ANY EQUIPMENT IS INSTALLED, DETERMINE THAT SAID EQUIPMENT WILL PROPERLY FIT WITHIN THE SPACE ALLOCATED. INSTALL ALL EQUIPMENT AND MATERIALS IN SUCH A MANNER AS TO PROVIDE REQUIRED ACCESS FOR SERVICING AND MAINTENANCE. ALLOW AMPLE SPACE FOR REMOVAL OF ALL PARTS THAT REQUIRE REPLACEMENT OR SERVICING.
22. SUFFICIENT ACCESS AND WORKING SPACE SHALL BE PROVIDED AND MAINTAINED ABOUT ALL ELECTRICAL EQUIPMENT TO PERMIT READY AND SAFE OPERATION AND MAINTENANCE OF SUCH EQUIPMENT PER NEC ARTICLE 110 REQUIREMENTS.
23. ALL MATERIALS AND EQUIPMENT SHALL BE NEW, UNDAMAGED, BEAR THE UL LABEL WHERE APPLICABLE, AND BE AS SPECIFIED FOR USE IN EACH SPECIFIC LOCATION. ANY INCIDENTAL ACCESSORIES NECESSARY TO COMPLETE THE WORK IN ALL RESPECTS AND MAKE IT READY FOR OPERATION, EVEN IF NOT SPECIFICALLY SPECIFIED, SHALL BE FURNISHED, DELIVERED, AND INSTALLED BY THE ELECTRICAL CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE CLIENT.
24. NOT ALL DETAILS OF SYSTEMS ARE SHOWN ON DRAWINGS, NOR ARE THEY SPECIFIED HEREIN. ELECTRICAL SYSTEMS SHALL BE SUCH AND TO LEGALLY PASS ALL INSPECTIONS BY THE LOCAL INSPECTION DEPARTMENT, STATE AND FEDERAL AUTHORITIES HAVING JURISDICTION.
25. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF A SYSTEM OR EQUIPMENT, SHALL BE INCLUDED IN THE ELECTRICAL CONTRACTOR'S ESTIMATE, AS IF SPECIFIED OR SHOWN HEREON.
26. ALL NEW, RELOCATED AND EXISTING MATERIALS, IN CEILING PLENUMS NOT ENCLOSED IN CONDUIT, SHALL BE CLASS 1 RATED, NOT EXCEEDING RATING OF 25 FLAME SPREAD AND 50 SMOKE DEVELOPED. REMOVE AND REPLACE ALL EXISTING MATERIALS IN WORK AREA NOT IN COMPLIANCE.
27. COORDINATE THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT ABOVE AND BELOW CEILINGS WITH SUSPENSION SYSTEM, MECHANICAL EQUIPMENT, AND OTHER BUILDING COMPONENTS. ALL COMPONENTS SHALL BE LOCATED AS TIGHT TO STRUCTURE AS POSSIBLE. COORDINATE CEILING CAVITY SPACE CAREFULLY WITH ALL TRADES.
28. THE CONDUIT SYSTEM AND ELECTRICAL ENCLOSURES, NEW AND EXISTING, SHALL BE SECURELY BONDED TOGETHER AND SUPPORTED PER NEC REQUIREMENTS.
29. CONDUIT JOINTS SHALL BE CUT SQUARE AND REAMED SMOOTH. BENDS OR OFFSETS SHALL BE MADE WITH AN APPROVED BENDER OR HICKEY, OR HUB-TYPE CONDUIT FITTINGS. BENDS SHALL BE MADE SO THAT THE CONDUIT IS NOT DAMAGED AND ITS INTERNAL DIAMETER IS NOT EFFECTIVELY REDUCED. THERE SHALL NOT BE MORE THAN THE EQUIVALENT OF FOUR QUARTER BENDS (360° TOTAL) BETWEEN PULL POINTS.
30. CONCEALED CONDUIT SYSTEMS SHALL BE RUN IN A DIRECT LINE WITH LONG SWEEP BENDS AND OFFSETS. EXPOSED CONDUIT RUNS SHALL BE PARALLEL TO AND AT RIGHT ANGLES TO BUILDING LINES, USING CONDUIT FITTINGS FOR ALL TURNS AND OFFSETS.
31. ALL ROOF PENETRATIONS SHALL BE SEALED WATER TIGHT. PROVIDE FLASHING AND COUNTER FLASHING AS REQUIRED. COORDINATE ROOFING WORK WITH THE GENERAL CONTRACTOR.
32. CONTRACTOR SHALL NOTIFY ENGINEER 48 HOURS PRIOR TO SUBSTANTIAL COMPLETION OF CONSTRUCTION OR INSTALLATION OF CEILING TILE, TO SCHEDULE A FINAL PUNCH LIST WALK THROUGH.
33. THE CONTRACTOR SHALL PREPARE AN OPERATING AND MAINTENANCE MANUAL COVERING ALL SYSTEMS AND EQUIPMENT INSTALLED UNDER THIS DIVISION. SUBMIT AN OUTLINE OF A PREVENTATIVE MAINTENANCE PROGRAM FOR EACH SYSTEM.
34. WARRANTIES:
    A. PROVIDE COMPLETE WARRANTY INFORMATION FOR EACH ITEM, WHICH SHALL INCLUDE NAME OF PRODUCT OR EQUIPMENT; DATE OF BEGINNING OF WARRANTY OR BOND; DURATION OF WARRANTY OR BOND; AND NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF MANUFACTURING/SERVICING PERSONNEL, AS WELL AS PROCEDURES FOR FILING A CLAIM AND OBTAINING WARRANTY SERVICES.
    B. THE CONTRACTOR SHALL WARRANT ALL MATERIALS, WORKMANSHIP AND THE SUCCESSFUL OPERATION OF ALL EQUIPMENT AND APPARATUS INSTALLED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE ENTIRE WORK AS IDENTIFIED IN THE GENERAL CONDITIONS.
34. DEMOLITION:
    A. DURING THE DEMOLITION PHASE OF THIS CONTRACT, IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO VERIFY DEMOLITION SCOPE AND ITEMS WITH ARCHITECTURAL AND ELECTRICAL DRAWINGS. EXISTING LIGHT FIXTURES, ELECTRICAL DEVICES, EQUIPMENT, AND RELATED ITEMS SHALL BE CAREFULLY REMOVED EITHER AS SHOWN ON THE DEMOLITION DRAWINGS AS BEING REMOVED, OR AS REQUIRED FOR THE WORK UNDER THIS CONTRACT. THESE ITEMS SHALL BE TAGGED, PROTECTED FROM DAMAGE, AND STORED AS DIRECTED BY THE BUILDING MANAGEMENT/OWNER, ARCHITECT OR ENGINEER.
    B. EXISTING LIGHT FIXTURES IN WORK AREA, NOTED ON DRAWINGS TO BE RE-USED SHALL BE THOROUGHLY CLEANED AND/OR REFINISHED TO MATCH NEW.
    C. CONTRACTOR SHALL REMOVE SWITCHES, DATA/TELEPHONE OUTLETS, AND ELECTRICAL OUTLETS SCHEDULED FOR DEMOLITION. ALL UNUSED POWER WIRING SHALL BE REMOVED BACK TO JUNCTION BOX IN CEILING SPACE, OR TO THE ELECTRICAL PANEL FEEDING THE CIRCUIT. THE SPARE CIRCUIT BREAKER SHALL BE SWITCHED TO THE "OFF" POSITION, AND NOTED ON PANEL DIRECTORY AS SPARE WITH THE JUNCTION BOX LOCATION IF APPLICABLE.
    D. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RINGING OUT ALL CIRCUITS WHICH ARE, OR MAY BE, AFFECTED BY THIS PROJECT TO ENSURE CIRCUIT CONTINUITY, AND TO PREVENT OVERLOADING OF ANY SINGLE CIRCUIT. CONTRACTOR SHALL ENSURE THAT CIRCUITS SHARED BETWEEN PROJECT AREA AND EXISTING TENANT SPACES REMAIN INTACT PER ORIGINAL DESIGN INTENT. CORRECT ANY MISLABELED J-BOX COVERS WITH ACCURATE PANEL/BRANCH CIRCUIT IDENTIFICATION. REFER TO DETAIL NOTES ON PLANS THAT APPLY TO WORK TO BE PERFORMED UNDER THIS CONTRACT. CIRCUIT BREAKERS FOR ALL UNUSED CIRCUITS SHALL BE TURNED TO THE "OFF" POSITION AND LABELED AS SPARE ON REVISED PANEL DIRECTORIES.
    E. PROVIDE NEW JUNCTION BOXES, NEW CONDUIT AND WIRING AS REQUIRED TO REPAIR, REROUTE AND RECONNECT CONDUCTORS THAT ARE DAMAGED, DISTURBED OR OTHERWISE ADVERSELY AFFECTED BY THE DEMOLITION AND REMODEL WORK.
    F. THE LOCATIONS OF EXISTING LIGHTING FIXTURES, POWER DEVICES AND WIRING, ETC., SHOWN ON THE DRAWINGS HAS BEEN TAKEN FROM EXISTING DRAWINGS AND ARE, THEREFORE, ONLY AS ACCURATE AS THAT INFORMATION. ALL EXISTING CONDITIONS SHALL BE VERIFIED AT THE FIELD WITH NECESSARY ADJUSTMENT BEING MADE TO THE DRAWING INFORMATION.
35. WHERE EXISTING DEVICES CONFLICT WITH NEW WALL CONSTRUCTION, RELOCATE OR REMOVE EXISTING DEVICE, AND REWORK CIRCUITRY AS REQUIRED TO MAINTAIN CIRCUIT CONTINUITY. COORDINATE FINAL DIRECTIONS WITH ARCHITECT PRIOR TO DEMOLITION.
36. FEEDERS AND BRANCH CIRCUITS SHALL BE PROVIDED WITH APPROPRIATELY SIZED INSULATED EQUIPMENT GROUNDING CONDUCTOR, WHETHER SPECIFICALLY NOTED OR NOT. IF NOTED, THE ELECTRICAL CONTRACTOR IS REQUIRED TO USE THE SIZE OF GROUNDING CONDUCTOR INDICATED ON DRAWINGS. THIS CONDUCTOR SHALL BE CONNECTED FROM THE ELECTRICAL PANEL GROUND BAR TO THE DESIGNATED GROUNDING CONNECTION ON THE ELECTRICAL DEVICE SERVED. ENSURE LISTED GROUND BAR KITS HAVE BEEN INSTALLED PER NEC REQUIREMENTS IN THE ELECTRICAL PANELS.
37. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL JUNCTION AND PULL BOXES TO PROVIDE ACCESS POINTS FOR PULLING AND FEEDING CONDUCTORS INTO A RACEWAY SYSTEM. JUNCTION AND PULL BOXES AND THEIR COVERS SHALL BE FORMED FROM SHEET STEEL, AND SHALL BE BARE METAL OR FINISHED IN GRAY ENAMEL PAINT. BOXES SHALL BE IN INDUSTRY STANDARD SIZES.
38. OUTLET BOXES WITH THE CORRECT FITTING FOR THE APPLICATION SHALL BE LOCATED AT EACH CONDUCTOR SPLICE POINT, AT EACH OUTLET, SWITCH POINT, OR JUNCTION POINT, AND AT EACH PULL POINT FOR THE CONNECTION OF CONDUIT AND OTHER RACEWAYS. OUTLET BOXES FOR CONCEALED WIRING SHALL BE MADE FROM GALVANIZED OR CADMIUM-PLATED SHEET STEEL, AND THEY SHALL HAVE A DEPTH OF AT LEAST 1.5 INCHES, WHETHER SINGLE OR GANGED. THE BOXES SHALL BE LARGE ENOUGH SIZE TO ACCOMMODATE THE NUMBER OF WIRING DEVICES AND CONDUCTORS AS SPECIFIED IN THE FILL SCHEDULE OF THE CURRENT NEC. SECURE BOXES WITH MOUNTING BRACKET, BRACES, HANGER OR BOX MOUNTING SUPPORT.
39. POWER AND DATA/TELECOMMUNICATIONS OUTLETS, FLUSH OR SURFACE MOUNTED ON WALLS, SHALL BE MOUNTED 18" ABOVE FINISHED FLOOR FROM FLOOR TO CENTERLINE OF THE BOX (AFF). LIGHT SWITCHES SHALL BE MOUNTED 48" AFF TO CENTERLINE OF THE BOX, IN ORDER TO COMPLY WITH ADA REQUIREMENTS, UNLESS OTHERWISE NOTED. REFER TO ARCHITECTURAL DRAWINGS FOR DEVICE INSTALLATION HEIGHTS PRIOR TO ROUGH-IN.
40. ELECTRICAL DEVICES (SWITCHES, RECEPTACLES, ETC.) SHALL BE BUILDING STANDARD TYPE 20A RATED UNLESS OTHERWISE SPECIFIED ON DRAWINGS. VERIFY DEVICE CONFIGURATION, COLOR, FINISH, AND MATERIAL REQUIREMENTS WITH ARCHITECT.
41. WIRING INSIDE THE BUILDING SHALL BE COPPER, INSULATION TYPE THHN/THWN, UNLESS OTHERWISE NOTED. THE MINIMUM CONDUCTOR SIZE SHALL BE 12 AWG. CONDUCTORS SIZED FROM 8 AWG AND LARGER SHALL BE STRANDED. WHERE MC TYPE FLEXIBLE CABLE IS INSTALLED IN LIEU OF WIRE AND CONDUIT, FULL-SIZE EQUIPMENT GROUNDING CONDUCTOR SHALL RUN WITH CURRENT CARRYING CONDUCTORS. (MC TYPE FLEXIBLE CABLE MAY BE USED ONLY AS AUTHORIZED BY OWNER AND DESIGN ENGINEER, AND WITH APPROVAL OF LOCAL CODE AUTHORITY.)
42. CONDUCTORS SIZES 6AWG AND SMALLER SHALL BE FACTORY COLOR-CODED WITH AN INDUSTRY-STANDARD DESIGNATED COLOR FOR EACH PHASE AND A NEUTRAL CONDUCTOR. CONDUCTORS SIZES 4 AND LARGER SHALL HAVE COLORS FIELD APPLIED USING THE COLOR MARKING TAPE OR BY PAINTING THE INSULATION. THESE COLORS SHALL BE USED CONSISTENTLY THROUGHOUT THE SYSTEM.
43. ALL JOINTS OR SPLICES FOR 10 AWG CONDUCTORS OR SMALLER SHALL BE MADE WITH UL-APPROVED WIRE NUTS, "IN-SURE" PUSH-IN CONNECTORS, OR COMPRESSION-TYPE CONNECTORS.
44. ALL JOINTS OR SPLICES FOR CONDUCTORS 8 AWG AND LARGER

XPLAN-01 Updated On: 2017-04-18 By: EB Using Architectural Plans Dated: 2017-04-18

Drawing: J:\3722 E. Orchard Rd, Centennial CO\170311.01 - Southgate Water & Sanitation.01\Drawings\2017-05-09 - Revision 2\01-E1 - Electrical Demo Plan.dwg Plotted by: Andrew Stringer On: Tuesday, May 9, 2017 5:05:24 PM




1 FIRST FLOOR ELECTRICAL DEMO PLAN

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 32'

N

## DEMOLITION NOTES

1. DURING THE DEMOLITION PHASE OF THIS CONTRACT, IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO VERIFY DEMOLITION SCOPE AND ITEMS WITH ARCHITECTURAL AND ELECTRICAL DRAWINGS. EXISTING LIGHT FIXTURES, ELECTRICAL DEVICES, EQUIPMENT, AND OTHER RELATED ITEMS SHALL BE CAREFULLY REMOVED EITHER AS SHOWN ON DEMOLITION DRAWINGS AS BEING REMOVED, OR AS REQUIRED FOR THE WORK UNDER THIS CONTRACT. THESE ITEMS SHALL BE TAGGED, PROTECTED FROM DAMAGE, AND STORED FOR FUTURE USE OR DISPOSED AS DIRECTED BY THE BUILDING MANAGEMENT/OWNER, ARCHITECT OR ENGINEER.
2. EXISTING LIGHT FIXTURES IN WORK AREA, NOTED ON DRAWINGS TO BE RE-USED, SHALL BE THOROUGHLY CLEANED AND/OR REFINISHED TO MATCH NEW.
3. CONTRACTOR SHALL REMOVE SWITCHES, DATA/TELEPHONE OUTLETS, AND ELECTRICAL OUTLETS SCHEDULED FOR DEMOLITION. ALL UNUSED POWER WIRING SHALL BE REMOVED BACK TO JUNCTION BOX IN CEILING SPACE OR TO THE ELECTRICAL PANEL FEEDING THE CIRCUIT. THE SPARE CIRCUIT BREAKER SHALL BE SWITCHED TO THE "OFF" POSITION AND NOTED ON PANEL DIRECTORY AS SPARE WITH THE JUNCTION BOX LOCATION IF APPLICABLE.
4. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RINGING OUT ALL CIRCUITS WHICH ARE OR MAY BE AFFECTED BY THIS PROJECT TO ENSURE CIRCUIT CONTINUITY AND TO PREVENT OVERLOADING OF ANY SINGLE CIRCUIT. CONTRACTOR SHALL ENSURE THAT CIRCUITS SHARED BETWEEN PROJECT AREA AND EXISTING TENANT SPACES REMAIN INTACT PER ORIGINAL DESIGN INTENT. CORRECT ANY MISLABELED J-BOX COVERS WITH ACCURATE PANEL/BRANCH CIRCUIT IDENTIFICATION. REFER TO DETAIL NOTES ON PLANS THAT APPLY TO WORK TO BE PERFORMED UNDER THIS CONTRACT. CIRCUIT BREAKERS FOR ALL UNUSED CIRCUITS SHALL BE TURNED TO THE "OFF" POSITION AND LABELED AS SPARE ON REVISED PANEL DIRECTORIES.
5. PROVIDE NEW JUNCTION BOXES, NEW CONDUIT AND WIRING AS REQUIRED TO REPAIR, REROUTE AND RECONNECT CONDUCTORS THAT ARE DAMAGED, DISTURBED OR OTHERWISE ADVERSELY AFFECTED BY THE DEMOLITION AND REMODEL WORK.
6. THE LOCATIONS OF EXISTING AND REMOVED LIGHT FIXTURES, POWER DEVICES AND WIRING, ETC., SHOWN ON THE DRAWINGS HAS BEEN TAKEN FROM EXISTING DRAWINGS AND VERIFIED DURING THE FIELD SURVEY, AND ARE, THEREFORE, ONLY AS ACCURATE AS THAT INFORMATION. ALL EXISTING CONDITIONS SHALL BE VERIFIED AT THE FIELD WITH NECESSARY ADJUSTMENT BEING MADE TO THE DRAWING INFORMATION.
7. ELECTRICAL CONTRACTOR SHALL COORDINATE ADDITIONAL WORK REQUIRED FOR DEMOLITION SCOPE OF THIS PROJECT WITH MECHANICAL AND PLUMBING CONTRACTORS. COORDINATE IF ANY EQUIPMENT WILL BE REMOVED OR RELOCATED. DISCONNECT EQUIPMENT AND REMOVE ASSOCIATED RACEWAY AND CONDUCTORS BACK TO THE POINT OF ORIGIN. IF EQUIPMENT IS BEING RELOCATED, EXTEND EXISTING BRANCH CIRCUIT(S) TO NEW EQUIPMENT LOCATION AND RECONNECT EQUIPMENT AS EXISTING. RETAIN CIRCUIT CONTINUITY FOR REMAINING EQUIPMENT IF REQUIRED.

MDP ENGINEERING GROUP
1800 GLENARM PLACE, 8th FLOOR
DENVER, CO 80202
PH: 303.389.0095 | FAX: 303.389.0098
www.MDPEG.com
JOB#: 170311.01

© COPYRIGHT, 2017
BY MDP ENGINEERING GROUP, P.C.

These plans are the intellectual property of MDP ENGINEERING GROUP, P.C. and may not be duplicated, reproduced or disclosed without written consent. Copyrights and infringements will be strictly enforced.

May 09, 2017

# SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

**ISSUES / REVISIONS**

| | |
|---|---|
| MARCH 9, 2017 | 16240102-70 |

**FIRST FLOOR ELECTRICAL DEMO PLAN**

01/ E.1

XPLAN-01 Updated On: 2017-04-18 By: EB Using Architectural Plans Dated: 2017-04-18

**COMcheck Software Version 4.0.6.0**

# Interior Lighting Compliance Certificate

**Project Information**

Energy Code: 2015 IECC
Project Title: Southgate Water & Sanitation District
Project Type: Alteration

Construction Site:
3722 East Orchard Road
1st Floor
Centennial, CO 80121

Owner/Agent:

Designer/Contractor:
MDP Engineering Group, P.C.
1800 Glenarm Place
Suite 800
Denver, CO 80202
303-389-0095

**Allowed Interior Lighting Power**

| A Area Category | B Floor Area (ft2) | C Allowed Watts / ft2 | D Allowed Watts (B X C) |
|---|---|---|---|
| 1-Office | | | |
| | | Total Allowed Watts = | N/A |

**Area Category Exemption Qualifications**

| Activity Area | # Fixtures Pre-Alt. | # Fixtures Repl./Added | Total # Watts Pre-Alt. | Total # Watts Post-Alt. |
|---|---|---|---|---|
| Office (5500 sq.ft.) | 183 | 13 | 4254.000 | 4126.000 |
| Exemption: Less than 10% fixture replacement. | | | | |

**Proposed Interior Lighting Power**

| A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast | B Lamps/ Fixture | C # of Fixtures | D Fixture Watt. | E (C X D) |
|---|---|---|---|---|
| Office (5500 sq.ft.): Exempt | | | | |
| | | | Total Proposed Watts = | N/A |

Interior Lighting PASSES

**Interior Lighting Compliance Statement**

*Compliance Statement:* The proposed Interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed Interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.0.6.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Andrew J. Stringer - Electrical Engineer — Signature — 2017-05-09
Name - Title — Date

Project Title: Southgate Water & Sanitation District — Report date: 05/09/17
Data filename: J:\3722 E. Orchard Rd, Centennial CO\17031\01 - Southgate Water & Sanitation.01\Documents\Comcheck\2017-05-09 - COMcheck_Southgate.cck — Page 1 of 3

**COMcheck Software Version 4.0.6.0**

# Inspection Checklist

Energy Code: 2015 IECC

Requirements: 0.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Project Title: Southgate Water & Sanitation District — Report date: 05/09/17
Data filename: J:\3722 E. Orchard Rd, Centennial CO\17031\01 - Southgate Water & Sanitation.01\Documents\Comcheck\2017-05-09 - COMcheck_Southgate.cck — Page 2 of 3

BLANK PAGE INTENTIONALLY CROPPED

Project Title: Southgate Water & Sanitation District — Report date: 05/09/17
Data filename: J:\3722 E. Orchard Rd, Centennial CO\17031\01 - Southgate Water & Sanitation.01\Documents\Comcheck\2017-05-09 - COMcheck_Southgate.cck — Page 3 of 3

1 FIRST FLOOR LIGHTING PLAN

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 32'

N

## LIGHTING NOTES

1. UP-TO-DATE AS-BUILT ELECTRICAL PLANS ARE NOT AVAILABLE FOR THIS BUILDING AREA. INFORMATION FOR EXISTING CIRCUITRY IS BASED ON EXISTING PANEL DIRECTORIES, AVAILABLE DRAWINGS, FIELD SURVEY OBSERVATIONS, AND ASSUMPTIONS. IF SIGNIFICANT DISCREPANCIES ARE FOUND THAT CANNOT BE EASILY RESOLVED, CONTACT THE ARCHITECT OR ENGINEER.
2. CIRCUIT NUMBERS SHOWN ON PLAN MAY NOT REFLECT ACTUAL CIRCUIT NUMBERS AS A RESULT OF UNDOCUMENTED MODIFICATIONS MADE BY PREVIOUS TENANT IMPROVEMENT PROJECTS. CIRCUIT NUMBERS SHOWN INDICATE QUANTITY OF AND LOAD FOR CIRCUITS UNDER THIS CONTRACT.
3. EXISTING LIGHT FIXTURES AND SWITCHES ARE TO REMAIN WHERE SHOWN ON PLAN IN A LIGHT SOLID LINE WEIGHT, UNLESS OTHERWISE NOTED. RETAIN CIRCUIT CONTINUITY FOR THESE DEVICES AS REQUIRED.
4. ELECTRICAL CONTRACTOR SHALL INSPECT EXISTING AND RELOCATED FIXTURES IN WORK AREA. RELAMP, CLEAN LENSES AND REFLECTORS, REPLACE ALL NECESSARY COMPONENTS AS REQUIRED TO MAINTAIN LIKE-NEW APPEARANCE THROUGHOUT THE SPACE. ENSURE THAT ALL LAMPS HAVE THE SAME COLOR RENDERING INDEX (CRI) AND COLOR TEMPERATURE (KELVIN), AND ARE OF BUILDING APPROVED MANUFACTURER THROUGHOUT THE AREA OF WORK. VERIFY LIGHT FIXTURE AND LAMP REQUIREMENTS WITH BUILDING ENGINEER.
5. FURNISH AND INSTALL LIGHT FIXTURES COMPLETE WITH LAMPS, BALLAST(S), AND MOUNTING HARDWARE. ELECTRICAL CONTRACTOR SHALL SUBMIT FIXTURE CUT SHEETS TO TENANT AND ARCHITECT FOR THEIR FINAL APPROVAL PRIOR TO ORDERING OF THE LUMINAIRES. ELECTRICAL CONTRACTOR SHALL ALSO VERIFY QUANTITIES, MOUNTING REQUIREMENTS, FINISHES, FIXTURE AVAILABILITY AND LEAD TIME FOR DELIVERY TO SITE. WHERE LIGHT FIXTURES ARE STOCKPILED IN THE BUILDING FOR TENANT USE, CONTRACTOR SHALL ARRANGE WITH BUILDING MANAGEMENT FOR PURCHASE OF SUCH FIXTURES FOR INSTALLATION ON THE PROJECT AS APPLICABLE.
6. FLUORESCENT LIGHT FIXTURES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLAST(S) THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS PER NEC ARTICLE 410.130(G) REQUIREMENTS. A DISCONNECTING MEANS ARE NOT REQUIRED FOR EMERGENCY ILLUMINATION REQUIRED IN 700.16.
7. COORDINATE LAYOUT AND INSTALLATION OF LIGHTING FIXTURES AND SUSPENSION SYSTEM WITH OTHER CONSTRUCTION THAT PENETRATES CEILINGS OR IS SUPPORTED BY THEM, INCLUDING HVAC EQUIPMENT, FIRE-SUPPRESSION SYSTEM, AND PARTITION ASSEMBLIES. PRIOR TO COMMENCING OF WORK, NOTIFY ENGINEER OF ANY CONFLICTS BETWEEN HVAC EQUIPMENT AND LOCATION OF LIGHT FIXTURES. VERIFY CLEARANCES REQUIRED.
8. ALL LIGHTING FIXTURES SHALL BE POSITIVELY ATTACHED TO THE SUSPENDED CEILING SYSTEM BY MECHANICAL MEANS SUCH AS BOLTS, SCREWS, OR RIVETS. LISTED SUPPORT CLIPS, IDENTIFIED FOR USE WITH THE TYPE OF CEILING GRID MEMBER AND LUMINAIRE, ARE PERMITTED AT OR NEAR EACH FIXTURE CORNER. IN ADDITION, FIXTURES WEIGHING LESS THAN 50 POUNDS SHALL HAVE A MINIMUM OF TWO NO. 9 GAUGE WIRES CONNECTED FROM THE OPPOSITE CORNERS OF THE FIXTURE HOUSING TO THE STRUCTURE DIRECTLY ABOVE THE FIXTURE. FIXTURES ABOVE 50 POUNDS SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE. FIXTURES OF SIZES LESS THAN CEILING GRID SHALL BE SUPPORTED INDEPENDENTLY WITH AT LEAST TWO 3/4-INCH METAL CHANNELS SPANNING AND SECURED TO CEILING TEES. DO NOT USE GRID AS SUPPORT FOR PENDANT FIXTURES; CONNECT SUPPORT WIRES OR RODS TO BUILDING STRUCTURE.
9. SUPPORT FLEXIBLE WIRING WHIPS FOR ALL FIXTURES INDEPENDENTLY OF THE GRID SUPPORT SYSTEM.
10. ELECTRICAL CONTRACTOR SHALL PURCHASE ANY ADDITIONAL LIGHTING FIXTURES REQUIRED, DUE TO DAMAGE OR CLIENT REQUIREMENTS, FROM BUILDING ENGINEER IF POSSIBLE. MATCH EXISTING LIGHT FIXTURES IN THE AREA.
11. MULTIPLE LIGHT SWITCHES SHALL BE MOUNTED IN A MULTIPLE GANG BOX WITH SINGLE COVER PLATE.
12. EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES. DISCONNECTION CAN BE ACCOMPLISHED THROUGH IDENTIFIED HANDLE TIES USE WITH SINGLE-POLE CIRCUIT BREAKERS OR MULTI-POLE DEVICES. BRANCH CIRCUIT SERVING EMERGENCY LIGHTING CIRCUITS SHALL NOT BE PART OF A MULTIWIRE BRANCH CIRCUIT.
13. THE UNGROUNDED AND GROUNDED CONDUCTORS OF EACH MULTIWIRE BRANCH CIRCUIT SHALL BE GROUPED BY WIRE TIES OR SIMILAR MEANS IN AT LEAST ONE LOCATION WITHIN THE PANELBOARD OR OTHER POINT OF ORIGIN.
14. A GROUNDED (NEUTRAL) CIRCUIT CONDUCTOR OF THE LIGHTING CIRCUIT SHALL BE PROVIDED AT THE LIGHT SWITCH LOCATION.
15. ALL SWITCHES SHALL BE LABELED WITH DESIGNATED PANEL AND CIRCUIT NUMBER ON THE COVER PLATE.
16. LIGHT FIXTURES SHOWN SHADED, EMERGENCY LIGHT UNITS, AND EXIT SIGNS SHALL BE CONNECTED TO THE LIGHTING CIRCUIT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES. ALL THESE FIXTURES SHALL BE EQUIPPED WITH BATTERY OF SUITABLE RATING AND CAPACITY TO SUPPLY AND MAINTAIN THE FIXTURE LOAD FOR A MINIMUM PERIOD OF 90 MINUTES.
17. MATCH NEW EXIT SIGNS WITH EXISTING IN THE BUILDING. LOCATIONS OF THE EXIT SIGNS SHALL BE COORDINATED WITH LOCAL AUTHORITIES. PROVIDE SIGNS IN ADDITIONAL LOCATIONS IF REQUESTED BY LOCAL AUTHORITIES.
18. MOUNT NEW WALL SWITCHES 48" ABOVE FINISHED FLOOR (A.F.F.)
19. ELECTRICAL CONTRACTOR SHALL TEST BATTERIES IN ALL REUSED EXIT SIGNS, EMERGENCY LIGHT UNITS, AND EMERGENCY FLUORESCENT LIGHT FIXTURES. REPLACE BATTERIES, UNITS, OR BALLASTS IF REQUIRED.

## LIGHTING CONTROLS DESIGN DISCLAIMER

EVERY EFFORT HAS BEEN MADE ON THE PART OF THE ELECTRICAL ENGINEER TO INDICATE THE PROPER SELECTION AND PLACEMENT OF THE DEVICES. FINAL SELECTION, DETERMINATION OF CIRCUITING, WIRING, LOCATIONS, AND SETTING OF SENSITIVITY/DAYLIGHT/TIME ADJUSTMENTS ARE THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR AND/OR COMMISSIONING AGENT. MANUFACTURERS INSTALLATION INSTRUCTIONS SHOULD BE ADHERED TO.

1. ALL OCCUPANCY AND DAYLIGHT SENSOR LOCATIONS ARE APPROXIMATE. COORDINATE PLACEMENT OF THESE DEVICES TO ACHIEVE OPTIMUM PERFORMANCE. PROPER SENSOR PLACEMENT SHOULD BE COORDINATED WITH OTHERS IN ORDER TO AVOID OBSTRUCTIONS THAT WOULD INTERFERE WITH OCCUPANCY SENSING ZONES AND MAINTAINING PRESCRIBED LIGHT LEVELS.
2. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION.
3. ULTRASONIC CEILING MOUNTED OCCUPANCY SENSORS SHOULD BE LOCATED A MINIMUM OF FOUR TO SIX FEET FROM HVAC SUPPLY/RETURN VENTS.
4. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS FOR NON-ADAPTIVE PRODUCTS, FOLLOWING THE MANUFACTURER'S RECOMMENDED PLACEMENT. THE RECOMMENDED TIME DELAY SHOULD BE BETWEEN 15 AND 30 MINUTES. REFER TO SENSOR ADJUSTMENT REQUIREMENTS AS SHOWN ON DRAWINGS IF SENSOR IS FACTORY PRE-SET FOR FULL "AUTO-ON" MODE.
5. PROVIDE ALL REQUIRED COMPONENTS FOR A FULLY FUNCTIONAL SYSTEM.
6. COORDINATE THE WORK TO PROVIDE LUMINAIRES AND LAMPS THAT ARE COMPATIBLE WITH THE LIGHTING CONTROLS TO BE INSTALLED.
7. NOTIFY ENGINEER AND ARCHITECT OF ANY CONFLICTS OR DEVIATIONS FROM THE CONTRACT DOCUMENTS TO OBTAIN DIRECTION PRIOR TO PROCEEDING WITH WORK.
8. PRIOR TO PASSING FINAL INSPECTION, THE OWNERS COMMISSIONING AGENT SHALL PROVIDE EVIDENCE THAT THE LIGHTING CONTROL SYSTEMS HAVE BEEN TESTED TO ENSURE THAT CONTROL HARDWARE AND SOFTWARE ARE CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND MANUFACTURER'S INSTRUCTIONS. DOCUMENTS, CERTIFYING THAT THE INSTALLED LIGHTING CONTROLS MEET CONSTRUCTION DOCUMENTS AND 2015 IECC SECTION C405 PERFORMANCE CRITERIA, SHALL BE PROVIDED BY THIS AGENT TO THE BUILDING OWNER WITHIN 90 DAYS FROM THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY. COPY OF THE REPORT SHALL BE PROVIDED TO THE ELECTRICAL ENGINEER WORKING ON THIS PROJECT. (2015 IECC C408.3)

FOR ADDITIONAL INFORMATION FOR PROVIDING FULLY FUNCTIONAL SYSTEM AND EQUIPMENT SUBMITTALS CONTACT LOCAL MANUFACTURER REPRESENTATIVE OR EQUIPMENT SUPPLIER.

## DETAIL NOTES

1. NO NEW LIGHTING CIRCUITS REQUIRED. RECONNECT, AS REQUIRED, NEW, EXISTING AND RELOCATED LIGHT FIXTURES TO EXISTING CIRCUIT(S). REWORK WIRING TO ACCOMMODATE SWITCHING CONFIGURATION SHOWN. DETERMINE LOAD FOR AFFECTED BRANCH CIRCUITS. NOTIFY BUILDING ENGINEER/MANAGER/OWNER IF LOAD EXCEEDS 16A PER 20A CIRCUIT.

## IECC COMPLIANCE EXCEPTION

THIS PROJECT USES EXCEPTION FOR ALTERATIONS NOTED IN 2015 IECC SECTION C503.1 PARAGRAPH 7. LIGHTING SCOPE FOR PROJECT INCLUDES REPLACEMENT OF LESS THAN 50 PERCENT OF THE LUMINAIRES IN THE SPACE AND DOES NOT INCREASE INTERIOR LIGHTING POWER. THIS LIGHTING SYSTEM MIGHT NOT COMPLY WITH SECTION C405.

## OCCUPANCY SENSORS SCHEDULE

| KEY | DESCRIPTION | MOUNTING | MANUFACTURER CATALOG NO. | NOTES |
|---|---|---|---|---|
| 1 | MUTLI-TECHNOLOGY LINE VOLTAGE CEILING SENSOR | CEILING | WATTSTOPPER DT-355 | 1 |
| 2 | MULTI-TECHNOLOGY WALL SWITCH | WALL | WATTSTOPPER DW-100 | 1 |

NOTES
1. VERIFY DEVICE SELECTION, CATALOG NUMBER, FINISH, AND ADDITIONAL INSTALLATION REQUIREMENTS WITH BUILDING CHIEF ENGINEER, CLIENT, ARCHITECT, AND LOCAL MANUFACTURER REPRESENTATIVE PRIOR TO ORDERING.

## LUMINAIRE SCHEDULE

| TYPE | LAMPS | DESCRIPTION | DIMMING TYPE | MOUNTING | LOAD, VA | VOLTS | MANUFACTURER/ CATALOG NO. | SPECIFIC NOTES |
|---|---|---|---|---|---|---|---|---|
| A | LED 4000K | 2'X2' LED TROFFER FIXTURE | 0-10V | RECESSED | 30 | 120-277 | LUMENOPTIX LUZ LUZ-22-32-EAB-40K-DU1-*-*-EBXX-SXX | |
| EM | LED | EMERGENCY LIGHT UNIT | – | SURFACE | 10 | 120/277 | LITHONIA LIGHTING ELM2-LED-HO | |
| EX | LED | LED EXIT SIGN | – | SURFACE | 5 | 120/277 | LITHONIA LIGHTING LQM-S-W-3-G-120/277-EL N | |

GENERAL NOTE:
VERIFY FIXTURE CATALOG NUMBER, FINISH, LENGTH, LAMPS SELECTION, AND ADDITIONAL INSTALLATION REQUIREMENTS WITH ARCHITECT/OWNER PRIOR TO ORDERING. LIGHT FIXTURE SUBSTITUTIONS OF EQUAL QUALITY AND PERFORMANCE WILL BE ACCEPTED WITH PRIOR OWNER/ARCHITECT APPROVAL.
COORDINATE DIMMING TYPE AND DIMMERS COMPATIBILITY WITH FIXTURE PROVIDER. NO SHARED NEUTRAL IS ALLOWED FOR DIMMING SWITCH LEGS.
DIMMING TYPE SHOWN AS "DIM" INDICATES THAT FIXTURE IS DIMMABLE, BUT ENGINEER HAS NO INFORMATION ABOUT USED TYPE OF DIMMING.
SYMBOL "*" IN CATALOG NUMBER INDICATES OPTIONS, TRIM, FINISH, AND COLOR SELECTIONS TO BE COORDINATED WITH ARCHITECT OR OWNER.

MDP ENGINEERING GROUP
1800 GLENARM PLACE, 8th FLOOR
DENVER, CO 80202
PH: 303.389.0095 | FAX: 303.389.0098
www.MDPEG.com
JOB#: 17031.01

© COPYRIGHT, 2017
BY MDP ENGINEERING GROUP, P.C.

These plans are the intellectual property of MDP ENGINEERING GROUP, P.C. and may not be duplicated, reproduced or disclosed without written consent. Copyrights and infringements will be strictly enforced.

May 09, 2017

# SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 9, 2017 — 16240102-70

FIRST FLOOR LIGHTING PLAN

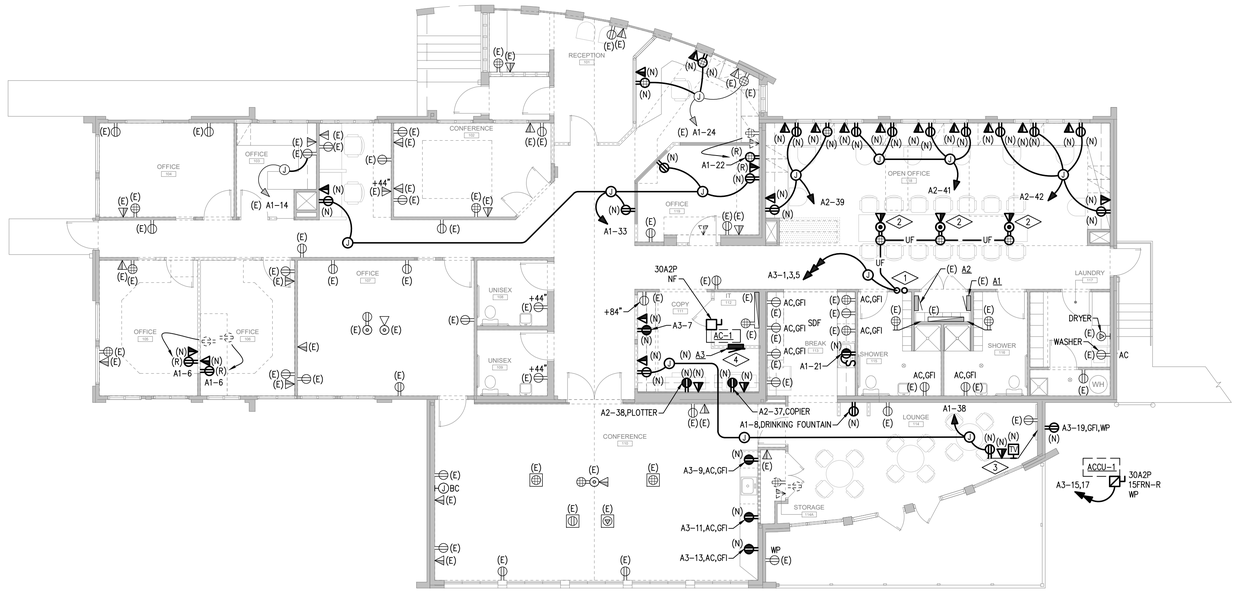
01/E.2

Drawing: J:\3722 E Orchard Rd, Centennial CO\17031\01 - Southgate Water & Sanitation.01\Drawings\2017-05-09 - Revision 2\01-E.2 - Lighting Plan.dwg Plotted by: Andrew Stringer On: Tuesday, May 9, 2017 5:05:29 PM

XPLAN-01 Updated On: 2017-04-18 By: EB Using Architectural Plans Dated: 2017-04-18

## POWER NOTES

1. UP-TO-DATE AS-BUILT ELECTRICAL PLANS ARE NOT AVAILABLE FOR THIS PROJECT AREA. INFORMATION FOR EXISTING CIRCUITRY IS BASED ON EXISTING PANEL DIRECTORIES, AVAILABLE DRAWINGS, FIELD SURVEY OBSERVATIONS AND ASSUMPTIONS. IF SIGNIFICANT DISCREPANCIES ARE FOUND THAT CANNOT BE EASILY RESOLVED, CONTACT THE ARCHITECT OR ENGINEER.
2. CIRCUIT NUMBERS SHOWN ON PLAN MAY NOT REFLECT ACTUAL CIRCUIT NUMBERS AS A RESULT OF UNDOCUMENTED MODIFICATIONS MADE BY PREVIOUS TENANT IMPROVEMENT PROJECTS. CIRCUIT NUMBERS SHOWN INDICATE QUANTITY OF AND LOAD FOR CIRCUITS REQUIRED FOR THIS PROJECT.
3. CONTRACTOR SHALL REMOVE SWITCHES, TELEPHONE AND ELECTRICAL OUTLETS SCHEDULED FOR DEMOLITION. UNUSED POWER WIRING SHALL BE REMOVED BACK TO ELECTRICAL PANEL FEEDING THE CIRCUIT. PHONE/DATA CABLING IS TO BE REMOVED BY TENANT'S COMMUNICATIONS VENDOR.
4. EXISTING POWER AND COMMUNICATIONS OUTLETS ARE TO REMAIN WHERE SHOWN ON PLAN IN A LIGHT SOLID LINE WEIGHT, UNLESS OTHERWISE NOTED. RETAIN CIRCUIT CONTINUITY FOR THESE DEVICES AS REQUIRED.
5. PROVIDE CIRCUIT CONTINUITY FOR ALL DEVICES AFFECTED BY REMODEL WORK THAT ARE TO REMAIN. WHERE EXISTING RECEPTACLES IN EXTERIOR PERIMETER WALL CONFLICT WITH NEW WALL PARTITIONS, REMOVE DEVICE AND REWORK CIRCUIT FOR CONTINUITY AS REQUIRED.
6. ELECTRICAL CONTRACTOR SHALL VERIFY THAT ALL EXISTING AND RELOCATED OUTLETS IN THE AREA OF WORK ARE FUNCTIONING. IF REQUIRED, REPLACE DEVICE WITH NEW.
7. EXISTING POWER AND COMMUNICATIONS OUTLETS TO REMAIN WHERE SHOWN ON PLAN AS IS, UNLESS OTHERWISE NOTED. NEW WALL MOUNTED POWER, DATA AND COMMUNICATIONS OUTLETS SHALL BE MOUNTED 18" A.F.F. (FROM FLOOR TO CENTERLINE OF THE BOX, U.N.O.) IN ORDER TO COMPLY WITH ADA REQUIREMENTS.
8. CONTRACTOR SHALL COORDINATE EXACT OUTLET AND DEVICE LOCATIONS WITH OWNER/TENANT/ARCHITECT OR EQUIPMENT SUBCONTRACTOR.
9. RECEPTACLE OUTLETS AND SWITCHES SHALL BE LABELED WITH DESIGNATED PANEL AND CIRCUIT NUMBER ON THE COVER PLATE. JUNCTION BOXES IN CEILING SPACE SHALL HAVE CIRCUIT NUMBERS MARKED ON THE COVER.
10. 125-VOLT, SINGLE PHASE, 15- AND 20-AMPERE RECEPTACLES INSTALLED IN BATHROOMS, KITCHEN/FOOD PREPARATION AREAS, OUTDOOR, WITHIN SIX FEET OF THE OUTSIDE EDGE OF THE SINK, OR IN GARAGES, SERVICE BAYS, AND SIMILAR AREAS WHERE ELECTRICAL HAND TOOLS OR PORTABLE LIGHTING EQUIPMENT ARE TO BE USED SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL PER NATIONAL ELECTRICAL CODE (NEC) ARTICLE 210.8. THE GROUND-FAULT CIRCUIT INTERRUPTER SHALL BE INSTALLED IN A READILY ACCESSIBLE LOCATION.
11. WHEN RECEPTACLE IS MARKED AS "GFI", GFCI PROTECTION NEEDS TO BE PROVIDED. PROVIDE GFCI-TYPE CIRCUIT BREAKER OR RECEPTACLE. WHEN MULTIPLE RECEPTACLES ARE SHOWN AS "GFI" AND CONNECTED TO THE SAME CIRCUIT NOT PROTECTED BY GFCI-TYPE CIRCUIT BREAKER, FIRST RECEPTACLE IN THE BRANCH CIRCUIT NEEDS TO BE GFCI-TYPE WITH ALL OTHER RECEPTACLES CONNECTED TO THE LOAD SIDE OF THIS RECEPTACLE.
12. EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES. DISCONNECTION CAN BE ACCOMPLISHED THROUGH IDENTIFIED HANDLE TIES USE WITH SINGLE-POLE CIRCUIT BREAKERS OR MULTI-POLE DEVICES.THE BRANCH CIRCUIT SERVING EMERGENCY POWER CIRCUITS SHALL NOT BE PART OF A MULTIWIRE BRANCH CIRCUIT.
13. THE UNGROUNDED AND GROUNDED CONDUCTORS OF EACH MULTIWIRE BRANCH CIRCUIT SHALL BE GROUPED BY WIRE TIES OR SIMILAR MEANS IN AT LEAST ONE LOCATION WITHIN THE PANELBOARD OR OTHER POINT OF ORIGIN.
14. OUTLET BOXES, INSTALLED ON EDGES OF METAL STUDS, ARE REQUIRED TO BE SECURED IN PLACE BY THE ADDITIONAL USE OF BOX-BACK SUPPORTS PER NEC ARTICLE 314.23.
15. PRIOR TO ANY REQUIRED CORE-DRILLING OF CONCRETE FLOOR OR WALLS, CONTRACTOR SHALL X-RAY. COORDINATE SCHEDULE WITH GENERAL CONTRACTOR.
16. DATA AND TELECOMMUNICATIONS CABLING SHALL BE INSTALLED BY TENANT'S VENDOR. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING REQUIRED JUNCTION BOXES AND RACEWAYS ROUGH-INS WITH APPROPRIATE VENDOR.
17. PROVIDE INDIVIDUAL 1" EMT CONDUIT FROM EACH PHONE/DATA OUTLET, CONSISTING MULTIPLE CONNECTORS AND REQUIRING MULTIPLE CABLES TO BE INSTALLED, STUBBED MINIMUM 3" INTO ACCESSIBLE CEILING SPACE. INSTALL INSULATION BUSHING AND PROVIDE PULL WIRE. COORDINATE REQUIREMENTS WITH TELECOMMUNICATIONS CONTRACTOR.
18. FROM EACH NEW SINGLE PHONE, COMMUNICATIONS OR COAXIAL CABLE OUTLET, CONSISTING OF A SINGLE CONNECTOR AND REQUIRING A SINGLE CABLE TO BE INSTALLED, PROVIDE 3/4" CONDUIT STUBBED MINIMUM 3" INTO ACCESSIBLE CEILING SPACE AND BUSHED. PROVIDE PULL WIRE. COORDINATE REQUIREMENTS WITH TELECOMMUNICATIONS CONTRACTOR.
19. BACK-TO-BACK OUTLETS IN THE SAME WALL AND THRU-WALL TYPE BOXES NOT PERMITTED. PROVIDE NIPPLE (LENGTH AS REQUIRED) TO OFFSET FOR ALL OUTLETS SHOWN ON OPPOSITE SIDES OF A COMMON WALL TO MINIMIZE SOUND TRANSMISSION.
20. PROTRUSIONS PROHIBITED IN DEDICATED ELECTRICAL SPACE IN FRONT OF ALL ELECTRICAL EQUIPMENT REQUIRING SERVICING WHILE ENERGIZED. THIS INCLUDES CONTROL PANELS AND ELECTRICAL DISCONNECTS AT OR INSIDE ROOFTOP HVAC UNITS, CONDENSING UNITS AND AIR CONDITIONING UNITS LOCATED ABOVE CEILINGS AND AT GRADE LEVEL. PENETRATIONS SUCH AS ROOF JACKS FOR ELECTRICAL POWER, LOW VOLTAGE CONTROL POWER, REFRIGERANT LINES, VENT PIPES, ETC., AND INCLUDING GAS LINES, DUCTWORK, ROOF DRAINS, SCREENING WALLS AND OTHER EQUIPMENT OF ANY TYPE, IS NOT TO PROTRUDE INTO THIS SPACE. MINIMUM SPACE IN FRONT OF ELECTRIC EQUIPMENT SHALL BE THE WIDTH OF THE EQUIPMENT OR 30 INCHES, WHICHEVER IS GREATER, AND 36 INCHES EXTENDING OUT FROM ENCLOSURE FRONT TO A FLAT LEVEL ROOF, GRADE, FLOOR, OR PLATFORM TO THE HEIGHT OF 6.5 FEET.
21. FOR HEATING, AIR-CONDITIONING, AND REFRIGERATION EQUIPMENT SHALL BE PROVIDED A 125-VOLT, 15- OR 20-AMPERE RATED RECEPTACLE OUTLET, INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR-CONDITIONING, AND REFRIGERATION EQUIPMENT. THE RECEPTACLE SHALL BE LOCATED ON THE SAME LEVEL AND WITHIN 25 FEET OF THE EQUIPMENT, AND NOT BE CONNECTED TO THE LOAD SIDE OF THE EQUIPMENT DISCONNECT MEANS. THE RECEPTACLE OUTLET SHALL BE WEATHERPROOF, GFI PROTECTED IF INSTALLED OUTDOOR OR IN THE WET LOCATION.
22. ROOM WITH INFORMATION TECHNOLOGY EQUIPMENT (ITE), IS PRESENT IN THE FLOOR AREA SHOWN ON PLAN. ELECTRICAL INSTALLATION WILL BE PROVIDED PER NEC CHAPTERS 1 THROUGH 4 NOT USING PERMISSIONS AND RULES REGULATED BY ARTICLE 645 "INFORMATION TECHNOLOGY EQUIPMENT." ABOVE MENTIONED ROOM DOES NOT FIT THE DESCRIPTION OF THE "INFORMATION TECHNOLOGY EQUIPMENT ROOM" AS COVERED IN ARTICLE 645.2 "DEFINITIONS" AND NFPA 75 "STANDARD FOR THE PROTECTION OF INFORMATION TECHNOLOGY EQUIPMENT" PARAGRAPH 3.3.9. NOT ALL CONDITIONS ARE MET AS SPECIFIED IN ARTICLE 645.4 "SPECIAL REQUIREMENTS FOR INFORMATION TECHNOLOGY EQUIPMENT ROOM."




1 FIRST FLOOR POWER PLAN

SCALE: 1/8" = 1'-0"

0 2' 4' 8' 16' 32'

N

## DETAIL NOTES

1. RECOMMENDED FLOOR PENETRATION LOCATION FOR CONDUITS AND/OR SLEEVES SERVING POKE-THRU FITTINGS. ELECTRICAL CONTRACTOR SHALL PROVIDE ONE (1) 1/2" EMT CONDUIT FOR POWER CONNECTIONS AND ONE (1) 1-1/4" EMT CONDUIT FOR DATA/COMMUNICATIONS WIRING. VERIFY CONDUIT SIZES, ROUTING AND ADDITIONAL REQUIREMENTS WITH MANUFACTURER SPECIFICATIONS, TENANT AND COMMUNICATIONS CONTRACTOR PRIOR TO ROUGH-IN.
2. ELECTRICAL CONTRACTOR SHALL CORE DRILL FLOOR AND PROVIDE AND INSTALL NEW FLUSH POKE-THRU ASSEMBLY: WIREMOLD WALKER SERIES CAT.#FC4 OR EQUAL FOR POWER AND DATA/COMMUNICATIONS CONNECTIONS. THIS ASSEMBLY REQUIRES 4" DIAMETER CORE DRILLED HOLE. COORDINATE EXACT CORE DRILL AND PENETRATION LOCATIONS, QUANTITY, SIZE AND TYPE OF ASSEMBLY USED, OPTIONAL INSERTS SPECIFICATION, AND WIRING REQUIREMENTS WITH TENANT AND COMMUNICATIONS CONTRACTOR PRIOR TO DEVICE ORDERING. VERIFY SIZE OF THE CONDUITS USED. SEE ELECTRICAL GENERAL NOTES FOR ADDITIONAL INFORMATION AND REQUIREMENTS PRIOR TO CORE DRILLING.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL RECESSED TYPE STEEL DUAL-GANG OUTLET BOX FOR WALL-MOUNTED TV SCREEN. COORDINATE EXACT BOX LOCATION AND MOUNTING HEIGHT WITH ARCHITECT AND TENANT PRIOR TO ROUGH-IN.
4. ELECTRICAL CONTRACTOR SHALL PROVIDE A NEW RECESSED, 100A, MAIN LUG ONLY, 208/120V, 3-PH, 4W, 30-CIRCUIT PANELBOARD, A3, IN THE APPROXIMATE LOCATION SHOWN. COORDINATE EXACT LOCATION AND ANY ADDITIONAL INSTALLATION REQUIREMENTS WITH ARCHITECT/TENANT AND BUILDING CHIEF ENGINEER/OWER PRIOR TO ROUGH-IN. ENSURE WORKING CLEARANCE PER N.E.C. ARTICLE 110.26.

## MECHANICAL EQUIPMENT SCHEDULE

| KEY | DESCRIPTION | MOTOR, HP | LOAD, A | VA | VOLTS | PH | OCPD SIZE | BRANCH CIRCUIT CONDUCTORS | SPECIFIC NOTES |
|---|---|---|---|---|---|---|---|---|---|
| AC-1 / ACCU-1 | SPLIT SYSTEM AC AND HEAT PUMP CONDENSING UNIT | – | 8.8 | 1830.0 | 208 | 1 | 15 | (3-12 & 1-12GND) | 1 |

GENERAL NOTES:
1. ELECTRICAL CONTRACTOR SHALL OBTAIN A COPY OF THE MECHANICAL AND PLUMBING EQUIPMENT SUBMITTALS TO COMPARE AGAINST CURRENT MECHANICAL EQUIPMENT SCHEDULE. REPORT ANY DISCREPANCIES TO ELECTRICAL ENGINEER FOR VERIFICATION OF THE EQUIPMENT SELECTION AND REQUIRED REVISION OF THE DRAWINGS OR SCHEDULES.
2. FIELD VERIFY EQUIPMENT NAMEPLATES AND MANUALS AGAINST PARAMETERS SHOWN ON THIS SCHEDULE. IF SIGNIFICANT DISCREPANCIES OCCUR, CONTACT ELECTRICAL ENGINEER FOR REQUIRED REVISION OF THE DRAWINGS.
3. COORDINATE EXACT EQUIPMENT LOCATIONS AND ADDITIONAL INSTALLATION REQUIREMENTS WITH MECHANICAL/PLUMBING CONTRACTOR PRIOR TO ROUGH-IN.
4. EQUIPMENT DISCONNECTS SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR, UNLESS FURNISHED BY MANUFACTURER OR PROVIDED BY MECHANICAL CONTRACTOR. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR SCOPE OF THE EQUIPMENT SUPPLIED BY MECHANICAL AND ELECTRICAL CONTRACTORS.
5. SAFETY DISCONNECT SWITCHES UTILIZING 480V 3-PHASE CONFIGURATION SHALL BE HEAVY DUTY WITH CLASS RK FUSES AND FUSE REJECTION KITS INSTALLED.
6. STARTERS FOR EQUIPMENT WITH THREE-PHASE MOTORS PROVIDED BY MECHANICAL/PLUMBING CONTRACTOR.
7. CONTROL PANEL SHORT CIRCUIT RATING SHALL BE INDICATED ON THE FACTORY INSTALLED LABEL AND SHALL BE ADEQUATE FOR THESE INSTALLATION CONDITIONS.

SPECIFIC NOTES:
1. UNITS TO BE PROVIDED WITH A SINGLE POINT CONNECTION. POWER TO BE PROVIDED TO CONDENSING UNIT. INDOOR UNIT FEED FROM CONDENSING UNIT. COORDINATE ANY ADDITIONAL INSTALLATION REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

MDP ENGINEERING GROUP
1800 GLENARM PLACE, 8th FLOOR
DENVER, CO 80202
PH: 303.389.0095 | FAX: 303.389.0098
www.MDPEG.com
JOB#: 17031.01

© COPYRIGHT, 2017
BY MDP ENGINEERING GROUP, P.C.
These plans are the intellectual property of MDP ENGINEERING GROUP, P.C. and may not be duplicated, reproduced or disclosed without written consent. Copyrights and infringements will be strictly enforced.

May 09, 2017

# SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

ISSUES / REVISIONS
MARCH 9, 2017 — 16240102-70

FIRST FLOOR POWER PLAN
01/ E.3

Drawing: J:\3722 E Orchard Rd, Centennial CO\17031\01 - Southgate Water & Sanitation.01\Drawings\2017-05-09 - Revision 2\01-E.3 - Power Plan.dwg Plotted by: Andrew Stringer On: Tuesday, May 9, 2017-5:05:37 PM

XPLAN-01 Updated On: 2017-04-18 By: EB Using Architectural Plans Dated: 2017-04-18

Drawing: J:\3722 E. Orchard Rd. Centennial CO\170311.01 - Southgate Water & Sanitation.01\Drawings\2017-05-09 - Revision 2\101-E.4 - One-line And Schedules.dwg Plotted by: Andrew Stringer On: Tuesday, May 9, 2017 5:05:47 PM

## DETAIL NOTES

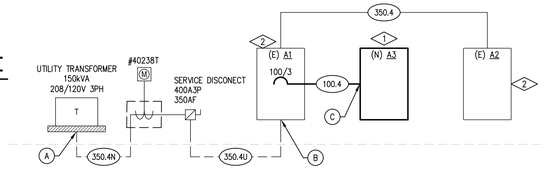
1. ELECTRICAL CONTRACTOR SHALL PROVIDE A NEW RECESSED, 100A, MAIN LUG ONLY, 208/120V, 3–PH, 4W, 30–CIRCUIT PANELBOARD, A3, IN THE APPROXIMATE LOCATION SHOWN. COORDINATE EXACT LOCATION AND ANY ADDITIONAL INSTALLATION REQUIREMENTS WITH ARCHITECT/TENANT AND BUILDING CHIEF ENGINEER/OWER PRIOR TO ROUGH–IN. ENSURE WORKING CLEARANCE PER N.E.C. ARTICLE 110.26.
2. PANELBOARDS A1 AND A2 ARE SERIES RATED WITH A MINIMUM OF 22,000 AIC. ELECTRICAL CONTRACTOR SHALL VERIFY NEW BREAKERS ARE SERIES RATED TO AT LEAST 22,000 AIC OR GREATER. PROVIDE AND APPLY LABELS PER N.E.C. TO EQUIPMENT ENCLOSURES. SEE SERIES RATING NOTES FOR MORE INFORMATION.

## SERIES RATING NOTES

PROPER LABELS PER N.E.C. ARTICLE 110.22(C) REQUIREMENTS SHALL BE APPLIED TO THE EQUIPMENT ENCLOSURES FOR TESTED SERIES COMBINATION SYSTEMS TO INDICATE THE EQUIPMENT HAS BEEN APPLIED WITH A SERIES COMBINATION RATING. THE MARKING SHALL BE READILY VISIBLE AND STATE THE FOLLOWING: "CAUTION – SERIES COMBINATION SYSTEM RATED 22,000 AMPERES. IDENTIFIED REPLACEMENT COMPONENTS REQUIRED."

## FEEDER SCHEDULE

| | |
|---|---|
| 350.4N | (4–500KCMIL) 3–1/2"PVC |
| 350.4U | (4–500KCMIL & 1–3GND) 3–1/2"PVC |
| 350.4 | (4–500KCMIL & 1–3GND) 3"C |
| 100.4 | (4–2 & 1–8GND) 1–1/4"C |




## 1 ONE–LINE DIAGRAM

SCALE: NO SCALE

NOTE: ALL EQUIPMENT SHOWN ON ELECTRICAL ONE–LINE DIAGRAM IN BOLD LINES DENOTES NEW WORK REQUIRED. ALL EQUIPMENT SHOWN IN THIN LINES IS EXISTING.

## Fault Current Calculations

Maximum Available Fault Current (IAIC)

I SCA = (I AIC x M)

where M = 1 / (1 + f), and f = (√ (Phase) x L x I AIC) / (C x n x E)

*(Note: Type "1/0" for 1/0AWG wire size, "2/0" for 2/0AWG, "3/0" for 3/0AWG, and "4/0" for 4/0AWG)*

| Point | Fault Location | Conductors Length, feet | Conductors size | # conductors per phase | Cu (1) Al (2) | Raceway Magnetic (1) Nonmagn. (2) | Voltage | Phase | "C" Value | Previous fault value | Fault value |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | At Utility Transformer Secondary Winding | | | | | | | | | | 26,000 |
| B | At Panel A1 | 130 | 500 | 1 | 1 | 2 | 208 | 3 | 26706 | 26,000 | 12,659 |
| C | At Panel A3 | 50 | 2 | 1 | 1 | 1 | 208 | 3 | 5906 | 12,659 | 6,689 |

## LOAD SUMMARY FOR 400A DISCONNECT W/ 350A FUSE

| Panel or Equipment Names | Lighting | Receptacles | Largest Motor | Motor | Heater | Kitchen | Other | Total Connected |
|---|---|---|---|---|---|---|---|---|
| (E) Panel A1 | 0 | 16020 | 0 | 0 | 8000 | 3350 | 11615 | 38985 |
| (E) Panel A2 | 4140 | 6480 | 0 | 0 | 0 | 0 | 40800 | 51420 |
| (N) Panel A3 | 0 | 3060 | 0 | 0 | 0 | 0 | 1830 | 4890 |
| Total: | 4140 | 25560 | 0 | 0 | 8000 | 3350 | 54245 | 95295 |

**Demand Load Summary**

System Voltage: **208/120V** Phase(s): **3**

| | Load, VA | Demand Factor | Demand Load, VA |
|---|---|---|---|
| LIGHTING | 4140 | 1.25 | 5175 |
| REC UP TO 10,000 | 10000 | 1.00 | 10000 |
| REC. OVER 10,000 | 15560 | 0.50 | 7780 |
| MOTOR | 0 | 1.00 | 0 |
| LARGEST MOTOR | 0 | 1.25 | 0 |
| HEATER | 8000 | 1.00 | 8000 |
| KITCHEN | 3350 | 0.65 | 2178 |
| OTHER | 54245 | 1.00 | 54245 |

Total Connected Load = **95295 VA**

Total Demand Load = **87378 VA**

Total Demand Load = **242.54 A**

### Panel: A3

Mounting: **SURFACE** ☐ **FLUSH** ☑ Panel: *Eaton (Cutler-Hammer)* — **TOP FEED** ☑ **BOTTOM FEED** ☐ **FEED THRU LUGS** ☐

**EXISTING** ☐ **RELOCATED** ☐ **NEW** ☑

Volt: **208/120** Phase: **3** Wire: **4** — ☑ MLO ☐ Main Breaker: — Bus Rating: **100 A** AIC Rating: **22,000**

| CB # | CB Note | Code | Description | Load, VA | CB Size | P | | P | CB Size | Load, VA | Description | Code | CB Note | CB # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | 2 | Recept's - Floor, Open Office 118 | 720 | 20 | 1 | A | | - | | Space | | | 2 |
| 3 | | 2 | Recept's - Floor, Open Office 118 | 720 | 20 | 1 | B | | - | | Space | | | 4 |
| 5 | | 2 | Recept's - Floor, Open Office 118 | 720 | 20 | 1 | C | | - | | Space | | | 6 |
| 7 | | 2 | Ded. Recept - Copy 111 | 180 | 20 | 1 | A | | - | | Space | | | 8 |
| 9 | | 2 | Ded. Recept - Conference 110 | 180 | 20 | 1 | B | | - | | Space | | | 10 |
| 11 | | 2 | Ded. Recept - Conference 110 | 180 | 20 | 1 | C | | - | | Space | | | 12 |
| 13 | | 2 | Ded. Recept - Conference 110 | 180 | 20 | 1 | A | | - | | Space | | | 14 |
| 15 | | 6 | AC-1/ACCU-1 - IT Room and Outside | 1830 | 15 | 2 | B | | - | | Space | | | 16 |
| 17 | | | | | / | | C | | - | | Space | | | 18 |
| 19 | | 2 | Recept - Outside by Condensing Unit | 180 | 20 | 1 | A | | - | | Space | | | 20 |
| 21 | | | Spare | | 20 | 1 | B | | - | | Space | | | 22 |
| 23 | | | Spare | | 20 | 1 | C | | - | | Space | | | 24 |
| 25 | | | Spare | | 20 | 1 | A | | - | | Space | | | 26 |
| 27 | | | Space | | - | | B | | - | | Space | | | 28 |
| 29 | | | Space | | - | | C | | - | | Space | | | 30 |

| Code | Description of the load | Load, VA | Demand | Load Summary per Phase: Connected | | | Demand | |
|---|---|---|---|---|---|---|---|---|
| 1 | Lighting | | 125% | | | | | |
| 2 | Receptacles - First 10,000 | **3060** | 100% | **1260** | VA | ← Phase A → | **1260** | VA |
| | Receptacles - Other 10,000 | | 50% | **1815** | VA | ← Phase B → | **1815** | VA |
| 3 | Motor | | 100% | **1815** | VA | ← Phase C → | **1815** | VA |
| | Largest Motor | | 125% | | | | | |
| 4 | Heater | | 100% | Panel Connected Load: | | | **4890 VA** | |
| 5 | Kitchen Equipment | | 100% | Panel Demand Load: | | | **4890 VA** | |
| 6 | Other | **1830** | 100% | | | | | |
| 7 | Sub Panel | | 100% | Panel Demand Load: | | | **13.59 Amps** | |

Panel location: Copy Room 111, Tenant Space — Feeder OCPD: 100 Amps

**CB Notes Legend:** N - New, GFI - GFCI, AFI - AFCI, GFP - GFPE (equipment rated GFI), L - Lockable (NEC110.25). Sample: ***N,GFI*** - m

* Revised Load

### Panel: A1

Mounting: **SURFACE** ☑ **FLUSH** ☐ Panel: *Cutler-Hammer - PRL1a* — **TOP FEED** ☐ **BOTTOM FEED** ☑ **FEED THRU LUGS** ☑

**EXISTING** ☑ **RELOCATED** ☐ **NEW** ☐

Volt: **208/120** Phase: **3** Wire: **4** — ☑ MLO ☐ Main Breaker: — Bus Rating: **400 A** Series AIC Rating: **22,000**

| | CB # | CB Note | Code | Description | Load, VA | CB Size | P | | P | CB Size | Load, VA | Description | Code | CB Note | CB # | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * | 1 | N | 7 | Panel A3 | 2880 | 20 | 3 | A | 1 | 20 | 1260 | Recept's | 2 | | 2 | |
| * | 3 | N | | | | / | | B | 1 | 20 | 540 | Recept's | 2 | | 4 | |
| * | 5 | N | | | | / | | C | 1 | 20 | 720 | Recept's | 2 | | 6 | |
| | 7 | | 5 | Microw ave | 1000 | 20 | 1 | A | 1 | 20 | 985 | Recept's & Fountain - Rm 114 | 6 | | 8 | * |
| | 9 | | 2 | Recept's | 360 | 20 | 1 | B | 1 | 20 | 1440 | Recept's | 2 | | 10 | |
| | 11 | | 5 | Refrigerator | 900 | 20 | 1 | C | 1 | 20 | 1260 | Recept's | 2 | | 12 | |
| | 13 | | 2 | Recept's | 720 | 20 | 1 | A | 1 | 20 | 1440 | Recept's | 2 | | 14 | * |
| | 15 | | 2 | Telephone/Data | 540 | 20 | 1 | B | 1 | 20 | 1260 | Recept's | 2 | | 16 | |
| | 17 | | 2 | Recept's | 360 | 20 | 1 | C | 1 | 20 | 1500 | Copier | 6 | | 18 | |
| | 19 | | 5 | Ice Machine | 600 | 20 | 1 | A | 1 | 20 | 540 | Recept's | 2 | | 20 | |
| * | 21 | | 5 | Dishw asher/Disposal | 850 | 20 | 1 | B | 1 | 20 | 720 | Recept's | 2 | | 22 | |
| | 23 | | 2 | Recept's | 360 | 20 | 1 | C | 1 | 20 | 1080 | Recept's | 2 | | 24 | * |
| | 25 | | 2 | Recept's | 360 | 20 | 1 | A | 1 | 20 | 720 | Recept's | 2 | | 26 | |
| | 27 | | 2 | Recept's | 360 | 20 | 1 | B | 1 | 20 | 360 | Recept's | 2 | | 28 | |
| | 29 | | 4 | Ice Melt | 4000 | 50 | 2 | C | 1 | 20 | 200 | Ice Melt Thermostate Control | 6 | | 30 | |
| | 31 | | 4 | Ice Melt | 4000 | / | | A | 1 | 20 | 360 | Recept's | 2 | | 32 | |
| * | 33 | N | 2 | Recept's - Office 119 | 720 | 20 | 1 | B | 1 | 20 | 540 | Recept's | 2 | | 34 | |
| | 35 | | 6 | Existing Load | 1000 | 15 | 2 | C | 1 | 20 | 1500 | Washer | 6 | | 36 | |
| | 37 | | | | | / | | A | 1 | 20 | 430 | Recept's & TV - Copy 111 & Rm 114 | 6 | N | 38 | * |
| | 39 | | 6 | Existing Load | 1000 | 15 | 2 | B | 2 | 30 | 5000 | Dryer | 6 | | 40 | |
| | 41 | | | | | / | | C | | / | | | | | 42 | |

| Code | Description of the load | Load, VA | Demand | Load Summary per Phase: Connected | | | Demand | |
|---|---|---|---|---|---|---|---|---|
| 1 | Lighting | | 125% | | | | | |
| 2 | Receptacles - First 10,000 | **10000** | 100% | **13875** | VA | ← Phase A → | **13875** | VA |
| | Receptacles - Other 10,000 | **6020** | 50% | **11650** | VA | ← Phase B → | **11650** | VA |
| 3 | Motor | | 100% | **16340** | VA | ← Phase C → | **16340** | VA |
| | Largest Motor | | 125% | | | | | |
| 4 | Heater | **8000** | 100% | Panel Connected Load: | | | **41865 VA** | |
| 5 | Kitchen Equipment | **3350** | 80% | Panel Demand Load: | | | **38185 VA** | |
| 6 | Other | **11615** | 100% | | | | | |
| 7 | Sub Panel | **2880** | 100% | Panel Demand Load: | | | **106.12 Amps** | |

Panel location: Electrical Closet, Tenant Space — Feeder OCPD: 350 Amps

**CB Notes Legend:** N - New, GFI - GFCI, AFI - AFCI, GFP - GFPE (equipment rated GFI), L - Lockable (NEC110.25). Sample: ***N,GFI*** - m

* Revised Load

### Panel: A2

Mounting: **SURFACE** ☑ **FLUSH** ☐ Panel: *Cutler-Hammer - PRL1a* — **TOP FEED** ☑ **BOTTOM FEED** ☐ **FEED THRU LUGS** ☑

**EXISTING** ☑ **RELOCATED** ☐ **NEW** ☐

Volt: **208/120** Phase: **3** Wire: **4** — ☑ MLO ☐ Main Breaker: — Bus Rating: **400 A** Series AIC Rating: **22,000**

| | CB # | CB Note | Code | Description | Load, VA | CB Size | P | | P | CB Size | Load, VA | Description | Code | CB Note | CB # | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | | 2 | Recept's | 1260 | 20 | 1 | A | 1 | 20 | 1000 | Lighting | 1 | | 2 | |
| | 3 | | 6 | EF-1 | 400 | 20 | 1 | B | 1 | 20 | 950 | Lighting | 1 | | 4 | |
| | 5 | | 6 | Existing Load | 500 | 20 | 1 | C | 1 | 20 | 1000 | Lighting | 1 | | 6 | |
| | 7 | | 6 | P-2 | 500 | 20 | 1 | A | 1 | 20 | 610 | Lighting | 1 | | 8 | |
| | 9 | | 6 | Existing Load | 1000 | 15 | 2 | B | 1 | 20 | 540 | Recept's | 2 | | 10 | |
| | 11 | | | | | / | | C | 1 | 20 | 540 | Recept's | 2 | | 12 | |
| | 13 | | 6 | Existing Load | 1000 | 15 | 2 | A | 1 | 20 | 540 | Recept's | 2 | | 14 | |
| | 15 | | | | | / | | B | 1 | 20 | 500 | Existing Load | 6 | | 16 | |
| | 17 | | 6 | Condensor #1 | 5000 | 30 | 2 | C | 1 | 20 | 580 | Reception Lighting | 1 | | 18 | |
| | 19 | | | | | / | | A | 2 | 15 | 500 | Existing Load | 6 | | 20 | |
| | 21 | | 6 | Condensor #2 | 5000 | 30 | 2 | B | | / | 400 | Exhaust Fan - Server Room | 6 | | 22 | |
| | 23 | | | | | / | | C | 1 | 20 | 1000 | Furnace #1 | 6 | | 24 | |
| | 25 | | 6 | Condensor #3 | 6000 | 40 | 2 | A | 1 | 20 | 360 | Recept's | 2 | | 26 | |
| | 27 | | | | | / | | B | 1 | 20 | 1000 | Furnace #2 | 6 | | 28 | |
| | 29 | | 6 | Condensor #4 | 6000 | 40 | 2 | C | 1 | 20 | 360 | Recept's | 2 | | 30 | |
| | 31 | | | | | / | | A | 1 | 20 | 1000 | Furnace #3 | 6 | | 32 | |
| | 33 | | 6 | Condensor #5 | 6000 | 40 | 2 | B | 1 | 20 | 720 | Recept's - Telephone Room | 2 | | 34 | |
| | 35 | | | | | / | | C | 1 | 20 | 1000 | Furnace #4 | 6 | | 36 | |
| * | 37 | | 6 | Copier - Copy 111 | 1500 | 20 | 1 | A | 1 | 20 | 1500 | Plotter - Copy 111 | 6 | N | 38 | * |
| * | 39 | N | 2 | Recept's - Open Office 118 | 720 | 20 | 1 | B | 1 | 20 | 1000 | Furnace #5 | 6 | | 40 | |
| * | 41 | N | 2 | Recept's - Open Office 118 | 720 | 20 | 1 | C | 1 | 20 | 720 | Recept's - Open Office 118 | 2 | N | 42 | * |

| Code | Description of the load | Load, VA | Demand | Load Summary per Phase: Connected | | | Demand | |
|---|---|---|---|---|---|---|---|---|
| 1 | Lighting | **4140** | 125% | | | | | |
| 2 | Receptacles - First 10,000 | **6480** | 100% | **17770** | VA | ← Phase A → | **18173** | VA |
| | Receptacles - Other 10,000 | | 50% | **15730** | VA | ← Phase B → | **15968** | VA |
| 3 | Motor | | 100% | **17920** | VA | ← Phase C → | **18315** | VA |
| | Largest Motor | | 125% | | | | | |
| 4 | Heater | | 100% | Panel Connected Load: | | | **51420 VA** | |
| 5 | Kitchen Equipment | | 100% | Panel Demand Load: | | | **52455 VA** | |
| 6 | Other | **40800** | 100% | | | | | |
| 7 | Sub Panel | | 100% | Panel Demand Load: | | | **145.77 Amps** | |

Panel location: Electrical Closet, Tenant Space — Feeder OCPD: 350 Amps

**CB Notes Legend:** N - New, GFI - GFCI, AFI - AFCI, GFP - GFPE (equipment rated GFI), L - Lockable (NEC110.25). Sample: ***N,GFI*** - m

* Revised Load

MDP ENGINEERING GROUP
1800 GLENARM PLACE, 8th FLOOR
DENVER, CO 80202
PH: 303.389.0095 | FAX: 303.389.0098
www.MDPEG.com
JOB#: 17031.01

© COPYRIGHT, 2017
BY MDP ENGINEERING GROUP, P.C.

These plans are the intellectual property of MDP ENGINEERING GROUP, P.C. and may not be duplicated, reproduced or disclosed without written consent. Copyrights and infringements will be strictly enforced.

May 09, 2017

# SOUTHGATE WATER & SANITATION DISTRICT

FIRST FLOOR
3722 EAST ORCHARD ROAD
CENTENNIAL, COLORADO 80121

**ISSUES / REVISIONS**

MARCH 9, 2017 — 16240102-70

**ONE-LINE AND PANEL SCHEDULES**

01/ E.4

# EXHIBIT B
# SCHEDULE OF FEES AND COMPENSATION

**EXHIBIT C**
**ILLEGAL ALIEN FORM**

## ILLEGAL ALIEN CERTIFICATION

The undersigned ("Contractor"), a party to the contract entered into on _____, 20__ with the Southgate Water District ("Agreement") hereby agrees to comply with the requirements of this Certification as a requirement of the Agreement.

**Illegal Alien Workers**. Contractor shall not knowingly employ or contract with an illegal alien to perform work under the Agreement or contract with a subcontractor who knowingly employs or contract with an illegal alien to perform work under the Agreement. Execution of this Form by Contractor shall constitute a certification by Contractor that it does not knowingly employ or contract with an illegal alien and that the Contractor has participated or attempted to participate in the Employment Verification Program administered by the United States Department of Homeland Security, ("E-Verify Program") or the Department program established pursuant to C.R.S. § 8-17.5-102(5)(c) in order to verify that it does not employ any illegal aliens.

1. Contractor shall comply with the following:

(a) Contractor shall confirm or attempt to confirm the employment eligibility of all employees who are newly hired for employment in the United States through participation in the E-Verify Program or the department program. Contractor shall participate in the E-Verify Program or the department program until all Contractor requirements under this Agreement are completed.

(b) Contractor shall not utilize the E-Verify Program or the department program procedures to independently undertake pre-employment screening of job applicants.

(c) Contractor shall require each subcontractor to certify that subcontractor will not knowingly employ or contract with an illegal alien to perform work under the Agreement. If Contractor obtains actual knowledge that a subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien the Contractor shall be required to:

(i) Notify the subcontractor and the Southgate Water District ("Southgate") within three (3) days that Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and

(ii) Terminate the subcontract with the subcontractor if within three (3) days of receiving notice from the Contractor, the subcontractor does not stop employing or contracting with the illegal alien; except that the Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

(d) Contractor shall comply with any reasonable request by the Department of Labor and Employment ("Department") made in the course of an investigation by the Department.

2. If Contractor violates any provision of this Certification, Southgate may terminate the Agreement immediately and Contractor shall be liable to Southgate for actual and consequential damages of Southgate resulting from such termination and Southgate shall report such violation by Contractor to the Colorado Secretary of State as required by law.

Executed this ___ day of _____, 20__.

**CONTRACTOR:**

_____

By:_____

Name:_____

Title:_____