



FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED
TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

PROGRAM
SUPPLEMENT
#1

JUNE 26, 2014

Prepared by:

Frank N Murdock Jr Architect & Associates
975 East 100 South, Salt Lake City, Utah 84102



TABLE OF CONTENTS PROGRAM SUPPLEMENT #1

TABLE OF CONTENTS

1.0 FACILITY REQUIREMENTS

2.0 PROGRAM CLARIFICATIONS, REVISIONS AND CORRECTIONS

ATTACHMENTS

ATTACHMENT "A"

BUILDING REQUIREMENTS

3.1 Architectural

ATTACHMENT "B"

INDIVIDUAL AREA SPACE PLANNING

REQUIREMENTS AND ADJACENCY DIAGRAMS

ATTACHMENT "C"

GEOTECHNICAL INVESTIGATION

ATTACHMENT "D"

SANITARY SEWER & STORM WATER

UTILITY EASEMENT DRAWINGS



1.0 FACILITY REQUIREMENTS AND PROGRAM UPDATE

1.1 FACILITY REQUIREMENTS

In addition to the Program Requirements defined in the Program Document, the following requirements, guidelines and criteria should be followed for the design and construction of the facility:

1. Total project construction budget cannot exceed \$15,800,000 .
2. The building should be highly energy efficient and at a minimum meet the requirements of the Draft 2014 State of Utah High Performance Building Rating System
3. The building should be designed to have a minimum 50-year usable life.
4. A minimum of 230 parking stalls shall be provided. 250 to 300 parking stalls are preferred.
5. The Facility will be designed and constructed in accordance with the State of Utah DFCM requirements including but not limited to the following:
DFCM Standard Construction Documents available
at:<http://www.dfc.utah.gov/dfcm-forms.html>



2.0 PROGRAM CLARIFICATIONS, REVISIONS AND CORRECTIONS

2.1 PROGRAM CLARIFICATIONS, REVISIONS AND CORRECTIONS TYPICAL OF ALL LOCATIONS

1. INTERCOM/PUBLIC ADDRESS SYSTEM

- a. All rooms in the building are required to have a ceiling mounted speaker connected to the Public Address System.

2. CLASSROOMS

- a. Built-in fixed Podiums will not be used in the Classrooms. Classrooms will be provided with 3 flush metal access floorboxes with power and data. The locations of the boxes will be coordinated with SWATC during the Design Phase. (A built-in instruction station will be provided at the Culinary Demonstration Lab C105.)
- b. General Classrooms will be provided 10' of upper and base cabinets rather than wall to wall cabinets as indicated in the program. The locations of the cabinets will be coordinated with SWATC during the Design Phase. All Health Science, Culinary and Technology Training Labs will have the quantities and types of cabinetry noted in the Program.

3. LOCATIONS OF FUNCTIONS ON BUILDING LEVELS

- a. With the exception of the Technology Training functions which are to be located on the lower level with access for semi truck deliveries at the overhead doors, the remainder of the building functions may be located on either the lower or upper level provided on grade access is provided. Due to the site slope, the upper level may be accessed from the main parking area south of the building.

4. TELEPHONE

- a. All occupied rooms including but not limited to all Labs, Offices, Conference Rooms, Workrooms, Elevator, Kitchens and Shops shall be provided with telephones.

5. LEED SILVER

- a. Delete all references to LEED requirements. See Utah High Performance Building Standard 2014 Draft.



2.2 PROGRAM CLARIFICATIONS, REVISIONS AND CORRECTIONS

1. Page 11: Change wording from "between the new and old building." to " between the new and current facility."
2. Page 11: Delete "Include phasing for shared administrative functions". The required administrative functions shall be included as part of this Contract.
3. Page 12: Clarification: Academic functions which will remain in the current facility are independent from the academic functions to be housed n the new facility.
4. Page 13: The Description Chart. The areas of the various Program Element have been modified. See Revised Program Diagrams.
5. Page 14: The Construction Budget and Project Square Footage for this Project have been increased. The updated Not to Exceed Construction budget is: **\$15,800,000.**
6. Page 20: Change references from "old headquarters & existing campus building " to "current facility".
7. Page 20: Clarification: Pedestrian traffic will be from both the current facility and the High School to the Northeast.
8. Page 22: Landscape. Delete all references to Leed Silver and Leed Credits. This Facility is not intended to be a Leed Certified Facility.
9. Page 23-25: Change map reference from "Existing SWATC" to "Current Facility".
10. Page 26: Pedestrian Traffic Flow: Change reference from "SWATC annex building" to "current facility".
11. Page 32: **BUILDING DESIGN: SEE ATTACHMENT "A"**
BUILDING REQUIREMENTS:
ARCHITECTURAL BUILDING DESIGN CRITERIA
MINIMUM STANDARDS
12. Page 32: Building Design:
Delete: *"The existing college headquarters will become an overflow building for various programs including; Information Technology, Business Technology, Custom Fit and Renewable Energy, it will need to maintain a strong visual and physical connection to the new campus headquarters building."*
13. Page 32: Building Orientation: Change reference from "existing SWATC Headquarters" to "current facility".



FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

14. Page 32: Natural Light and Views: Delete "to achieve the goal of Leed Silver Certification and".
15. Page 33: Sustainable Design: Delete the paragraph and replace with:
"The design of the facility should incorporate sustainable practices while balancing budget parameters."
16. Page 38-39: Geotechnical Criteria: Delete paragraphs. See **Attachment "C"** for Geotechnical Investigation prepared by AGECE Applied GeoTech dated August 16, 2012.
17. Page 40: Floor Vibration Criteria: Add the following: Steps should be taken to minimize vibrations created by normal human and mechanically induced forces on the suspended second level floor slab.
18. Page 40: Anticipated Construction paragraph 3: Change to read:
"The second floor areas will consist of concrete on metal deck slabs supported by steel floor framing and steel columns or masonry bearing walls. The roof framing above second floor spaces will consist of open web steel joist and wide flange beams or supporting steel roof deck."
19. Page 40: Future Building Expansion: Design for expansion of this building is not required.
20. Page 42: Codes and Standards:
Update the Applicable Codes as indicated below:
 - 2012 edition of the International Building Code (IBC), to include Appendix J, Issued by the International Code Council.
 - 2011 edition of the National Electrical Code (NEC), issued by the National Fire Protection Association.
 - 2012 edition of the International Plumbing Code (IPC), issued by the International Code Council.
 - 2012 edition of the International Mechanical Code (IMC), issued by the International code Council.
 - 2012 edition of the International Residential Code (IRC), Issued by the International Code Council.
 - 2009 edition of the International Energy Conservation Code (IECC), issued by the International Code Council.
 - 2012 edition of the International Fuel Gas Code (IFGC), issued by the International Code Council.
 - DFCM Design Criteria
 - DFCM High Performance Building Rating System DRAFT See attachments.
 - ASHRAE Std 55: Thermal Environmental Conditions for Human Occupancy
 - ASHRAE Std 62: Ventilation for Acceptable Indoor Air Quality
 - ASHRAE Std 90.1: Energy Standard for Buildings
 - ~~USGBC LEED 3.0 New Construction Criteria, Silver~~
 - ASHRAE Guidelines and Standards



FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

21. Page 42: Codes and Standards: Delete reference to USGB LEED 3.0 New Construction Criteria, Silver
22. Page 42: High Performance Building Requirements: An updated DRAFT of the DFCM High Performance Building Rating System is attached. See Attachments.
23. Page 43: Mechanical Utilities: It is the responsibility of the Design Build Team to identify and coordinate with the Utility providers the availability, requirements and fees associated with the Sanitary Sewer, Storm Water, Culinary Water, Power and Natural Gas.
24. Page 44: Evaporative Cooling Tower: Delete proprietary reference to Lakos Tower.
25. Page 45-46: Delete all references to "Leed 3.0 Silver Rating, Leed Silver Rating and Leed Silver Requirements".
26. Page 46: Mechanical System Narrative: See Attachment Program Supplement #2
27. Page 60: Access: Revise paragraph 3 to read:
Access from 555 West and 860 West to the building will be less of a challenge from a slope standpoint. A new storm drain line and easement have been added.
See: SWATC Easement and SWATC Storm Drain Attachments
28. Page 62: Soils Report: Delete paragraph. Add: See **Attachment "C"** for Geotechnical Investigation prepared by AGECE Applied GeoTech dated August 16, 2012.
29. Page 62: Topographic Survey: Delete paragraph. Add: See Attachments for Alta Survey.
Note: The Alta Survey attachment will be issued as Program Supplement #2.
30. Page 62: Site Utilities: Paragraphs 3 & 4; Add: See Attachments for Cedar City Fire Department Water Flow Test Summary dated 1/15/14.
31. Page 64: Paragraph 1: Delete paragraph 1 which begins with "Currently ..."
32. Page 64: Paragraph 2: Add the following; "If required by the City," the detention basin ...
33. Page 64: Paragraph 3: As previously noted, see attachments for the Topographic Survey.
34. Page 64: Delete: Leed Points and Sustainable Design
35. Page 64: **Add; Site Improvements Required by Cedar City**
Provide and install an 8' masonry screen wall at the west Property Lines as required by the conditions of the land purchase and 6' masonry screen wall at the east property Lines as required by Cedar City Planning & Zoning Chapter 26, "Section 26-IV-4.ences.F.1.a" at the property lines adjoining Residential Properties to the East and West. The walls shall, at a minimum, be tinted split face CMU on the SWATC side of the wall.



FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

36. Page 64: Building Elevation: Revise as follows;
"The building elevation will be based on the final site and building plan. As previously mentioned, it should be carefully coordinated with the drive accesses and in particular the need for a delivery/receiving dock area for the Culinary Program Kitchens and Food Service Area and grade level access to overhead doors located in the Welding, Industrial Automation Lab, Industrial Maintenance Lab and outdoor enclosed delivery/service yard. The locations of the dock and service yard locations should be based on the final building design locations of the functions being served."
37. Page 65: Storm Water Routing: See Storm Water & Easement See **Attachment "D"** prepared by Platt and Platt, Inc. dated April & May 2014.
38. Page 65: Add: EASEMENTS; See **Attachment "D"** for Easement drawings prepared by Platt and Platt, Inc. dated May 2014.
39. Page 66: Outdoor Space Design of Amenities and Features: Paragraph 1 revise to read;
..., create a strong connection from the New SWATC building to the High School and current SWATC building.
40. Page 66: Outdoor Space Design of Amenities and Features: Paragraph 5 revise to read;
In coordination with Cedar City Engineering Department, pedestrian links from 800 South Street "may" be added
41. Page 68: DESIGN NARRATIVE BY AREA: Revise as follows;
Servery C102:
~~This lab space was initially programmed at 600 NSF and is currently designed at 530 NSF.~~ The function of the space is to teach commercial food service. This area is to be directly accessible to commons dining area, and adjacent to foods lab and scullery and proximate to pantry storage.
The area includes a cooking area requiring a Type I exhaust hood with cooking equipment including an four burner range top, flat top griddle, open face broiler, salamander broiler and triple fryer and a refrigerated grill stand. A cold food assembly table and hot food warmer, reach-in refrigerator and freezer, refrigerated display case and hand sink are to be provided. There will be a self serve beverage counter merchandising refrigerator, order area and a food pick-up area with a cashier stand at the entrance to the dining area.
- Kitchen C013:
~~This classroom/lab space was initially programmed at 1,800 NSF and is currently designed at 1,950 NSF.~~ The function of the space is to teach commercial food preparation. The lab is split in two areas separated by a common wall but open between them. Each lab will include six stations oriented towards a demonstration/teaching cook line. This area is to be directly accessible to students and adjacent to servery kitchen, kitchenware washing, storage and proximate to storage, refrigerated storage and demonstration classroom.
- One of the classroom lab areas will include a cooking area requiring a Type I exhaust hood with cooking equipment including **TWO** six burner ranges with oven base and **FOUR** convection ovens. Two reach-in refrigerators and freezer, stainless steel prep sink,



FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

adjustable storage shelving and hand sinks are provided. This area will also include a bakery area with a 60 quart mixer, proof box and bakery deck oven requiring a Type II exhaust hood. Preparation equipment including slicers, food processors and blenders will be included.

One of the classroom lab areas will include a cooking area requiring a Type I exhaust hood with cooking equipment including TWO six burner ranges with oven base, ~~convection oven~~, combi-oven, 25 gallon tilt kettle, steamer, dual fryer, flat top griddle and open face broiler. One reach-in refrigerator and freezer, stainless steel prep sink, adjustable storage shelving and hand sinks are provided. Preparation equipment including slicers, food processors and blenders will be included.

Skullery C104:

~~This support space was programmed at 250 NSF and is currently designed at 230 NSF.~~ The function of the space is to wash utensils, pots and pans, plates, glasses, cups and flatware. This area is to be adjacent to the food lab and servery kitchen. The area will include clean and dirty dish tables, dishwasher, pot sink, three compartment rinse sink, carts, hand sink and adjustable metal shelving.

Demonstration Classroom C105:

~~This classroom space was initially programmed at 750 NSF and is currently designed at 830 NSF.~~ The function of the space is to demonstrate commercial food preparation. This area is to be directly accessible to students and adjacent to foods lab and skullery and proximate to storage and refrigerated storage.

The classroom includes a island demonstration counter incorporating small open face broilers, flat top griddles and open burners, requiring a Type I Exhaust hood. The space will also include a six burner range and convection oven with a Type I hood located behind the demonstration island counter. The area will include reach-in refrigerators and freezer, a pot washing sink and a hand sink..

Refrigerated Storage: Freezer and Cooler C106 & C107:

~~This support space was programmed at 200 NSF and is currently designed at 230 NSF.~~ The function of the space is to store refrigerated and frozen bulk food delivered to the facility.

This area will include a pre-fabricated walk-in cooler/freezer box with refrigeration systems, rust free storage shelving and an insulated floor system at the freezer and at the cooler if not slab on grade.

Storage C108:

~~This storage space was programmed at 201 NSF and is designed at 190 NSF.~~ The function of the space is to store supplies including pots and pans, utensils, paper goods and other non-food items. This area is to be adjacent to the foods lab and proximate to the receiving area. The area will incorporate adjustable storage shelving.

Dry Storage C109:

~~This storage space was programmed at 139 NSF and is designed at 142 NSF.~~ The function of the space is to store food item supplies. This area is to be adjacent to the foods lab and proximate to the receiving area. The area will incorporate adjustable storage shelving.



Lockers C110:

The function of this area is for student storage and uniform change. It will require a restroom in close proximity. An accessible bench, maneuvering area and associated clearances for the bench, drinking fountain and hand wash sink are required in the Locker room.

Custodial/Linens C114:

~~This storage space was programmed at 120 NSF and is designed at 120 NSF.~~ The function of the space is to store chemicals and janitorial supplies and to wash linens used in the foods lab and server areas. This area is to be adjacent to the foods lab and proximate to the servery. The area will incorporate adjustable storage shelving, janitor's sink and residential washer and dryer.

42. Page 72: Building Requirements: Delete Paragraph two and all references to Leed Silver Certification.
- 43. Page 72: Building Requirements: Add Attachment "A" Building Requirements & Performance Specification**
- 44. Pages 74-77: See Attachments for Individual Area Space Planning Requirements**
- 45. Pages 79-83: SITE PLAN: Note: The roadway entry on 555 West as indicated in the Program Document Site Plan Page 79 is approximately 22 feet higher than the roadway entry on 800 South. On grade access to the Technology Labs and the overhead doors in each Lab is required from a Screened Service Yard and Semi Truck Access Area. Delete reference to "Technology Loading Dock" and replace with "Technology Screened Service Yard and Semi Truck Access Area".**
- 46. Pages 80-83: Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above.**
47. Page 85: Planned Use of Existing Space: Modifications to the Existing Space are not a part of this Contract.
48. Pages 86: Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above.
49. Page 87: Delete Page 87 Adjacency Diagram and Replace with Attachments Health Sciences Adjacency Diagram
50. Health Sciences: Note: Health Sciences spaces have been reconfigured to include a Surgery Technician Instructional Lab and an Operating Room Instructional Lab. A Procedure Exam Room has been added to a Dental Operatory.
51. Page 148-149: H140 Conference Room. Provide a upper and lower cabinet with sink as indicated on the Attachments Health Sciences Adjacency Diagram.



FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

52. Pages 150-157: Community Clinic: The Community Clinic has been deleted from this Project.
53. Page 158: See Notes 56 & 59 above.
54. Page 159. Technology Training Adjacency Diagram: Delete pages 159 & 160 and replace with Attachments, Revised Page 159 Technology Training Adjacency Diagram
55. Page 162: Casework & Fixed Equipment: Move all items to Moveable Furnishings.
56. Page 166: Casework & Fixed Equipment: Add Fixed Ceiling Mounted Projector and screen
57. Page 166: Casework & Fixed Equipment: Move move Large LED TV to Moveable Furnishings.
58. Page 168: Casework & Fixed Equipment: Add Fixed Ceiling Mounted Projector and screen.
59. Page 182: Adjacencies: Change to; Industrial Labs & Instructor's Offices
60. Page 184: Equipment & Electrical: See Attachments, Revised Page 185 Industrial Maintenance Lab T114 for additional equipment and Electrical requirements. 230 volt 3 phase power is required. Provide power at drop cords in locations indicated. Confirm power requirements for selected equipment typical.
61. Page 185: Replace with Attachments, Revised Page 185 Industrial Maintenance Lab T114.
62. Page 188: Casework & Fixed Equipment: Move all cabinetry items to Moveable Furnishings. Delete reference to Fixed ceiling mounted projector.
63. Page 192: Casework & Fixed Equipment: Move all cabinetry items to Moveable Furnishings. Provide and install white board.
64. Page 194: Casework & Fixed Equipment: Move all cabinetry items to Moveable Furnishings. Provide and install white board.
65. Page 194: Video: Delete Security Camera.
66. Page 194: Adjacencies: Change to; Industrial Labs & Instructor's Offices
67. Page 198: Casework & Fixed Equipment: Move all cabinetry items to Moveable Furnishings. Delete reference to Fixed ceiling mounted projector.
68. Page 200: Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above
69. Page 201 & 202: Culinary Adjacency Diagram: Delete pages 201 & 202 and replace with Attachments, Revised Page 201 Culinary Adjacency Diagram.



FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

70. Page 203: Culinary Suite: In addition to the functions shown, provide Restroom Access in close proximity to the Locker Area.
71. Page 209: Kitchen: Revised as indicated on Sheet 209 Attached. Note door and room locations do not match from sheet 203 to sheet 209. See revised Adjacency Diagram.
72. Page 228: Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above
73. Page 229: Adjacency Diagrams: Administration Adjacency Diagram: Delete pages 229 and replace with Attachments, Revised Page 229 Administration Adjacency Diagram.
74. Page 230: Board Room: Casework & Fixed Equipment: Add Fixed ceiling mounted projector and recessed ceiling mounted motorized projection screen.
75. Page 234: Reception/Waiting: Electrical: Provide and install 2 Phone device connections in locations as directed by SWATC.
76. Page 237: President's Office: Change size to 16'-6" x 22"-0"
77. Page 230: President's Office: Casework & Fixed Equipment: Move all cabinetry items to Moveable Furnishings. Delete reference to white board.
78. Pages 238-270: See Attachments for revised Administration Area room designations and revisions. Note:
 - a. A Breakout Room has been added in the Reception Waiting area.
 - b. An 10' x 8' Admin File Room has been added.
 - c. Casework & Fixed Equipment: With the exception of the Workroom, Board Room and Serving Kitchen move all cabinetry items to Moveable Furnishings.
 - d. The Finance Storage area has been increased to 10'-0" x 23'-6".
 - e. A Workroom w/sink and upper & lower cabinet, refrigerator and Faculty Mail is to be provided.
 - f. The IT Admin Office A122, IT Storage A123 and Server Room A124 should be centrally located but do not need to be in close proximity to the Administration Area.
 - g. The Faculty Lounge A125a, Exercise Area Rooms A127, A127a, and A127b, and a separate Workroom with sink, refrigerator and upper and lower cabinets should be combined in a group as indicated in the Attached Adjacency Diagram. This Faculty Suite should not be located in close proximity the the Administration Area but it should be located in close proximity to the instructional areas.
 - h. The Cashier function room A128a has been relocated to the Student Services area.
 - i. **The Purchasing Receiving Area should be located at the Dock and Receiving Area and the size of the room increased to 30' x 16' to allow for general building and custodial storage.**
 - j. The HR Open Work Station have been combined with the HR Office.
79. Page 294: Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above



FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

80. Page 295: Adjacency Diagrams: Student Services Adjacency Diagram: Delete page 295 and replace with Attachments, Revised Page 295 Student Services Adjacency Diagram.
81. Page 302: Classroom A132: Revise as indicated on the Attachments, Revised Page 295 Student Services Adjacency Diagram.
82. Page 310-317: Casework & Fixed Equipment: Move all cabinetry items to Moveable Furnishings.
83. Page 318: Page 332: Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above.
84. Page 319: Adjacency Diagrams: Testing Center Adjacency Diagram: Delete page 319 and replace with Attachments, Revised Page 319 Testing Center Adjacency Diagram.
85. Page 320: Electrical: Provide data outlets at each work station.
86. Page 322: Electrical: Provide flush metal access floorboxes with power and data at desks not adjacent to walls. Provide Uninterrupted Power Service to the computers.
87. Page 322: Mechanical: Provide sufficient cooling to offset the anticipated loads in the room.
88. Page 332: Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above.
89. Page 333: Adjacency Diagrams: Student Services Adjacency Diagram: The Cashier has moved to the Student Services Area. Purchasing and Receiving has moved to the Dock and Receiving Area.
90. Page 336: Electrical: Provide data outlets.
91. Page 338: Adjacencies: Change to; Dock and Receiving Area.
92. Page 340: Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above.
93. Page 341: Multipurpose Room & Culinary Adjacency Diagram: Delete page 341 and replace with Attachments, Revised Page 341 Multipurpose Room & Culinary Adjacency Diagram.
94. Page 342: Adjacencies: Change to; Cafeteria & Main Lobby
95. Page 343 & 345: Delete pages 343 & 345 and replace with Attachments, Revised Pages 343 & 345 Multipurpose Room.
96. Page 346: Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above.
97. Page 349 & 351: Provide access door to Plumbing Chase Typical.



FACILITIES PROGRAM UPDATE
SOUTHWEST APPLIED TECHNOLOGY COLLEGE
CEDAR CITY, UTAH
UTAH COLLEGE OF APPLIED TECHNOLOGY

98. Page 360: Elevator: See Building Requirements for size & type.
100. Pages 370 - 383. Relationship Diagrams: The Relationship Diagrams indicate an option and are not to be taken as required relationships. See Note 45 above



3.0 ATTACHMENTS

ATTACHMENT "A"

BUILDING REQUIREMENTS



3.0 BUILDING REQUIREMENTS

3.2 BUILDING DESIGN CRITERIA MINIMUM STANDARDS

3.2.1 ARCHITECTURAL

MASONRY & STONEMWORK

- Masonry if used as part of the interior or exterior finishes of the building is to be a minimum of 3" thick. Thin set "faux" brick is not acceptable.
- Stonework, if used as part of the interior or exterior finishes of the building, is to be natural stone preferably indigenous to the Cedar City area. Cultured stone is not acceptable.

INTERIOR ARCHITECTURAL WOODWORK

Interior architectural woodwork shall be AWI premium grade and shall include, but not be limited to the following:

- Built-in kiosks.
- Built-in counters with drawers and shelves.
- Built-in base cabinets with drawers and/or shelves.
- Built-in sink cabinets with drawers and shelves.
- Built-in upper wall cabinets with shelves.
- Built-in open shelving, fixed and adjustable.
- Built-in storage cabinets with doors.
- Built-in Wardrobes

All Classroom, Break Room, Faculty Lounge and miscellaneous cabinets including drawers and shelves, shall be laminate clad (plastic-covered) using high pressure decorative laminate, complying with AWI Section 400 and its Division 400B "Laminate Clad Cabinets". Concealed hardware shall comply with the requirements of ANSI/BHMA A156.9.

All Conference Rooms, Board Rooms, and Administration area cabinets to be solid hardwood exteriors with minimum plain sliced Cherry veneer & transparent finish with book matched veneers from a single flitch within each space .

Counter Tops:

- All Counter tops in the Culinary Area to be stainless steel.



- All Classroom, Conference Room, Board Room, Faculty Lounge, Break Room Counter Tops to be Quartz (Engineered Stone) Cabinet tops (countertops) with 93 percent crushed quartz aggregate combined with resins and pigments and fabricated into Minimum 3/4" thick slabs w/ triple bullnose edge as manufactured by Caesarstone, Silestone or prior approved equal. Unless noted otherwise.
- Counter tops in the Health Science areas subject to corrosive materials to be epoxy resin.
- Counter tops in the Welding and Industrial Labs to be steel.

SHEET WATERPROOFING

- If building spaces are located below the adjacent exterior grade, provide and install a foundation drain system and associated filter fabric and self adhered rubberized waterproofing membrane.

INSULATION

- Foundation wall insulation (supporting backfill). Extruded Polystyrene Board Insulation comply with ASTM C 578 for Type indicated; with 5-year aged r-values of 5.4 and 5 at 40 and 75 deg. F (4.4 and 23.9 deg. C), respectively.
- Board-type building insulation, concealed - Polyisocyanurate Foam Board Insulation: Rigid boards of minimum 2.0 lb./cu. ft. density polyisocyanurate based foam core, permanently bonded to roofing felt facer sheets. Provide in thickness required to achieve a minimum aged "R value" of 30.
- Blanket-type building insulation. Faced Mineral Fiber Blanket/Batt Insulation: to comply with ASTM C 665 for Type III, Class A (blankets with reflective vapor-retarder membrane facing with flame spread of 25 or less); foil-membrane on one face w/ fibers manufactured from glass. Thickness as required to achieve a minimum "R value" of 19.
- Sound blanket-type building insulation. Sound blanket type insulation shall be constructed of inorganic glass fibers.

ROOFING

Roofing materials, thicknesses, practices and warranties shall comply with State of Utah DFCM Standard Documents, Design Management Reference Documents, 3. DFCM Design Manual-Current Version, 3.0 DFCM Requirements, Subsection 3.3 Architectural, Paragraph C. New Roofing Requirements. Install walking surfaces to all rooftop equipment and roof drains.

ROOF ACCESS

Provide Roof Access via a minimum of a steel ships ladder and 30" x 54" Roof Hatch to each roof area.



DOORS

- EXTERIOR SERVICE AREA DOORS
 - a. Insulated, painted hollow metal doors and painted hollow metal frames:
 - (1) Hollow metal frames shall be galvanized and fabricated from 14-gauge steel and conform to Commercial Standard CS242-62 or PS4-65.
 - (2) Hollow metal doors shall be fabricated with face sheets of 16-gauge material, spot welded to 20-gauge reinforcing channels (18-gauge at edges).

- INTERIOR SERVICE AREA DOORS
 - a. Insulated, painted hollow metal doors and painted hollow metal frames:
 - (1) Hollow metal frames shall be fabricated from 14-gauge steel and conform to Commercial Standard CS242-62 or PS4-65.
 - (2) Hollow metal doors shall be fabricated with face sheets of 16-gauge material, spot welded to 20-gauge reinforcing channels (18-gauge at edges).

- INTERIOR STOREFRONT DOORS
 - a. Aluminum storefront door and integral window systems shall have thermal break construction with tempered, insulating glazing (1" thick insulating glass in windows) and automatic electric door operators in designated locations. Frames shall be 2" x 4 1/2" nominal dimension with a minimum wall thickness of 0.080 inches.

- INSULATED STEEL OVERHEAD DOORS
 - a. Overhead, insulated, motorized sectional door with the following:
 - (1) Construct door sections from galvanized, structural quality carbon steel sheets complying with ASTM A446, Grade A or ASTM A526.
 - (2) Steel sheet thickness 16-gauge, exterior section face ribbed.
 - (3) Heavy duty steel hinges, rust-resistant hardware, heavy duty rollers and locking device.
 - (4) Electric door operator of size and capacity as recommended by door manufacturer and with remote control station, electrically actuated automatic bottom bar, auto-reversing safety function and sensors.



(5) Two (2) 5" x 24" laminated glass sections per door.

- INTERIOR SOLID CORE WOOD DOORS
 - a. Wood doors shall be 1 3/4" thick solid core wood with minimum finish of rift cut white maple veneer. Doors shall comply with NWWDA 1.S.1 and AWI "Architectural Woodwork Quality Standards".
- OPERABLE WALLS
 - a. Partition doors shall be continuously-hinged, electrically-operated, with a minimum acoustical STC rating of 47. Panel thickness shall be a minimum of 3.06" thick and the frame and hinges shall be steel as manufactured by Hufcor, Modernfold, or prior approved equal.
 - b. Multipurpose Room operable wall dividing two sides of the Multipurpose Room from the Main Lobby shall be frameless frosted tempered glass with an Inset Pass Door within the glass run and a minimum opening height of 10' as manufactured by Hufcor, Modernfold, Avanti, or prior approved equal.

WINDOWS AND WINDOW TREATMENTS

- WINDOWS –
 - a. Aluminum windows, both fixed and operable, shall have thermal break construction with 1" insulating "Low E" glazing and comply with the requirements of AAMA Grade and Performance Class HC40. Frames shall be 2" x 4 1/2" nominal dimension with a minimum wall thickness of 0.080 inches.
- BLINDS – 2" wide x .008" thick heat-treated and spring tempered aluminum alloy 6011 with eased corners H2 horizontal blinds as manufactured by Hunter Douglas or prior approved equal.

HARDWARE

- ELECTRONIC CARD READERS CARD
 - a. All exterior public access doors including man doors at Technology Labs, man doors at the Receiving Area, Administrative Suite entry doors, Health Science Administration Suite entry doors, Testing Area entry door, Student Services entry doors shall have electronic card readers which are connected to the Building Security System.



FINISH HARDWARE

- Aluminum storefront doors and partition doors shall have hardware provided by the manufacturer. Minimum of three heavy-duty hinges per door, NRP hinges at outswinging doors.
- Hollow metal and wood doors shall have, as a minimum, the following hardware:
 - a. Hinges (three (3) per door) shall be 4.5 x 4.5 metal hinges. Provide non-removable pins and security studs on all hinges on all exterior and outswinging doors.
 - b. Locks and operators shall have ADA compliant lever handles and high security cylinders which comply with performance requirements for Grade 1 cylinders as listed in ANSI A156.5. Locks shall have minimum 1/2" throw on cylinders and deadbolts. Locks shall be Schlage "AL" series or equal.
 - c. Closers shall be Sargent "1430" series or equal.
 - d. Silencers shall be Rockwood 608 or equal.
 - e. Door stops shall be Rockwood 409 or equal.
 - f. Stainless steel kickplates shall be Rockwood, Quality or equal.
 - g. Exit devices shall be Von Duprin or equal.
 - h. Weatherstripping shall be Pemko 303AV or equal.

All hardware shall meet current ADA standards.

WALL FINISHES AND TREATMENTS

- Gypsum board with Level 5 in all public and resident areas and Level 4 finish in non public areas such as storage and mechanical rooms over minimum 20 gauge metal studs or heavy gauge steel framing members, painted minimum one (1) coat primer, one (1) coat undercoat and one (1) coat interior latex eggshell.
- Porcelain or ceramic tile complying with ANSI A137.1 "American National Standard Specifications for Ceramic Tile", with a nominal thickness of 5/16".
- Class "A" vinyl wall covering.
- Hardboard wainscot, 1/4" thick (FRP shall not be used as a wainscot material).



CEILINGS

- Gypsum board over minimum 20 gauge metal studs, suspended ceiling system or heavy gauge steel framing members, painted minimum one (1) coat primer, one (1) coat undercoat and one (1) coat interior latex eggshell finish coat.
- Gypsum board over heavy gauge steel framing members, painted minimum one (1) coat primer, one (1) coat undercoat and one (1) coat epoxy enamel finish coat.
- Acoustic ceiling tile (ACT) materials and practices shall comply with State of Utah DFCM Standard Documents, Design Management Reference Documents, 3. DFCM Design Manual-Current Version, 3.0 DFCM Requirements, Subsection 3.3 Architectural, Paragraph A. Suspended Ceiling Systems. Systems shall be as follows:
 - a. Suspension system shall be 15/16" exposed white-faced, T-grid system.
 - b. Acoustic tile panels shall be 24" x 24" or 24" x 48" panels, 3/4" thick, with factory-applied vinyl latex paint, flush or tegular, perforated, scored or fissured.
- Painted exposed structure, minimum one (1) coat primer, one (1) coat egg shell off white undercoat and one (1) coat off white interior latex eggshell finish coat.

FLOORING MATERIALS AND FLOOR TREATMENTS

- Non-slip, solid, heat welded sheet vinyl with coved base, meeting the following criteria for Health Science Labs and other locations as noted in the Program:
 1. Homogeneous Sheet Vinyl
 2. 2mm thick monolayer homogeneous vinyl floor 6'6" wide
 3. 100% phthalate free
 4. 100% bio-based plasticizer
 5. no wax for life maintenance technology
 6. 100% of production waste recycled & reuse
 7. Exceed ASTM F1913
 8. FloorScore certification
 9. 100% Antimicrobial
 10. stain resistant technology



- Carpet tile with carpet base, meeting the following criteria:
 1. Carpet tile to be selected from the State of Utah Carpet Contract.
 2. Carpet fiber and carpet tile backing shall be “cradle to cradle” material that are 100% recyclable, and must have been in current manufacturer’s running line for 10 years.
 3. Type 6 solution dyed nylon that is 100% recyclable, with a superior built in colorfastness.
 4. Non-PVC backed carpet tile that is 100% recyclable.
 5. Non-Polyurethane backed carpet tile that is 100% recyclable.
 6. Carpet tile backing to be a thermoplastic polyolefin carpet tile backing and must have multiple installation in like applications in Utah that have been installed for 10 years (no PVC). The dense backing is superior for traffic with rolling wheels.
 7. Carpet tile manufacture must have an in-house recycling program that will recycle the carpet tile back into carpet tile at no expense to the owner at the end of its life cycle (the fiber is recycled into fiber and the backing is recycled in carpet tile backing).
- Walk-off entry tile – provide a walk-off entry system made of carpet tiles that will meet LEED standards and offers a “Cradle-to-Cradle” solution, and offer non-PVC backed carpet tiles.
- Slip-resistant porcelain, quarry or ceramic tile complying with ANSI A137.1 “American National Standard Specifications for Ceramic Tile”, with a nominal thickness of 5/16”, with base of similar material.
- Moisture retarders: slabs on or below grade to receive floor coverings shall have a moisture retarder installed below the slab.
- Sealed concrete with 4” high rubber base with minimum thickness of 0.125” and inside and outside corners with 4” returns.
- Sealed concrete with epoxy paint and 4” high rubber base with minimum thickness of 0.125” and inside and outside corners with 4” returns.

The General Contractor is responsible to test and notify the flooring contractor in writing when the rate of vapor emissions, from the concrete slab that is measured with ASTM F-1869 and ASTM F2170 testing methods, is at an acceptable level of vapor emission as outlined in the floor covering specifications.

- The floor finish in the primary corridors and circulation areas is to be stained and sealed concrete or ground and polished terrazzo with sealer.



SPECIALTIES

METAL LOCKERS – double-tier lockers, 12” wide x 12” deep x 72”, with sloped top and “Z” type metal base. Lockers shall be constructed of commercial grade sheet steel as follows:

- a. Body and shelf, minimum 24-gauge.
- b. Door frames, minimum 16-gauge.
- c. Tops and trim, minimum 18-gauge.

TOILET ACCESSORIES

- Mirror with minimum 18-gauge, 1/2" x 1/2" x 1/2" stainless steel channel frame and stainless steel shelf, minimum 24" wide by 36" tall, American Specialties 0620 or equal.
- Toilet Partitions to be floor mounted overhead braced leather grain stainless steel.
- Grab bars, 1 1/2" diameter, American Specialties 3100 Series or equal.
- Surface mounted soap dispenser, American Specialties 0342 or equal.
- Surface-Mounted Multi-Roll Tissue Dispenser, American Specialties 0030 or equal.

CORNER GUARDS

- Provide and install heavy-duty pre manufactured retainer mounted high impact rigid vinyl Corner Guards at **all** exposed gypsum board outside corners. The corner guards shall be colored 36" high w/aluminum retainer and minimum 3" wings. Typical

FLAG POLE

- Provide and install EDER FLAG Model ECH40 heavy-duty 40' flag pole or prior approved equal.

EXTERIOR SIGNAGE

- Provide and install a minimum ground illuminated custom designed monument sign 6' high x 16' long sign mounted on a 2' high pedestal which identifies the Southwest Applied Technology College and compliments the design of the building.
- Provide and install all required traffic signs including but not limited to:
 1. Accessible Parking Signs
 2. Stop Signs
 3. Speed Signs
 4. Seatbelt Signs
 5. Wayfinding Directional Signs



INTERIOR SIGNAGE

- Interior signage to be ASI Sign Systems, Inc "Macer Interior" Modular System or prior approved equal.
- Provide and install a complete interior signage package including but not limited to:
 1. Wayfinding Directional Signs
 2. Building Directory
 3. Floor Directory
 4. ADA Compliant Signage
 5. Room Numbers
 6. Room Functions
 7. Department Identification
 8. Office Identification Function & Occupant's Name
 9. Restroom Signage
 10. NFPA Regulatory Signage
 11. Elevator Signs
 12. Maximum Occupancy Signage
 13. Stairwell & Egress Signs
 14. Evacuation Maps
 15. Donor Recognition Sign

FIRE PROTECTION SPECIALTIES

- Provide and install fully recessed stainless steel Fire Extinguisher Cabinets with solid door & Larson-Loc as manufactured by Larsen's Manufacturing Company or prior approved equal.

EQUIPMENT

LOADING DOCK EQUIPMENT

- If the grade at the Receiving area permits, provide an 84" Hydraulic Edge of Dock Leveler as manufactured by Pentalift Equipment Corporation or prior approved equal.

FIRE EXTINGUISHER CABINETS

- Provide and install fully recessed stainless steel Fire Extinguisher Cabinets with solid door & Larson-Loc as manufactured by Larsen's Manufacturing Company or prior approved equal.



CEILING MOUNTED PROJECTORS

- Provide and install Panasonic Ceiling Mounted Projector Model #PT-LZ370U 3LCD Projector or prior approved equal in all Classrooms, Conference Rooms, Multipurpose Rooms and Board Room.

PROJECTION SCREENS

- Provide and install Da-Lite Model #79015EL Cosmopolitan Electrol Motorized Projection Screen (54"x96") or prior approved equal in rooms with ceiling mounted projectors as noted above.

WHITE BOARDS

- Provide and install Proma Projection Magnetic Markerboards 4' high x 8' wide w/aluminum frames or prior approved equal.

SPECIAL CONSTRUCTION

SECURITY SYSTEM

- Provide and install a complete Security System with forced entry monitors at all public entries.

SECURITY CCTV SYSTEM

- Provide and install a complete CCTV System with Central Control in the Server Room. System shall include as a minimum a 32 channel HD NVR with 24 1080p HD cameras located as directed by SWATC. Systems as approved on State Contract or prior approved equal.



AUTOMATIC FIRE SPRINKLER SYSTEMS

- Provide and install a complete Automatic Fire Sprinkler System as required by NFPA 13 2013 Edition and the Utah State Fire Code including Design, Testing, and Fire Alarms.
- All piping above ground shall be Schedule 40 domestic steel pipe and fittings.
- Coordinate interface with Culinary Kitchen Hoods.
- Work provided by others:
 1. Fire Hydrants - by Plumbing Contractor.
 2. Concrete Work - by General Contractor.
 3. Access Doors - by General Contractor.
 4. Painting of sprinkler piping - By Mechanical and/or Painting Contractor.
 5. Color coding or pipe identification - By Mechanical Contractor.
 6. Wiring of flow switches and gate valve supervisory switches - By Electrical Contractor

HYDRAULIC ELEVATORS

- Provide and install a Front and Rear Seismic GEN2 5000 pound capacity Elevator as Manufactured by Otis Elevators, A United Technologies Company or prior approved equal. As well as meeting the requirements for ADA the elevator cab shall be sized to allow for a Hospital gurney and accompanying staff members.

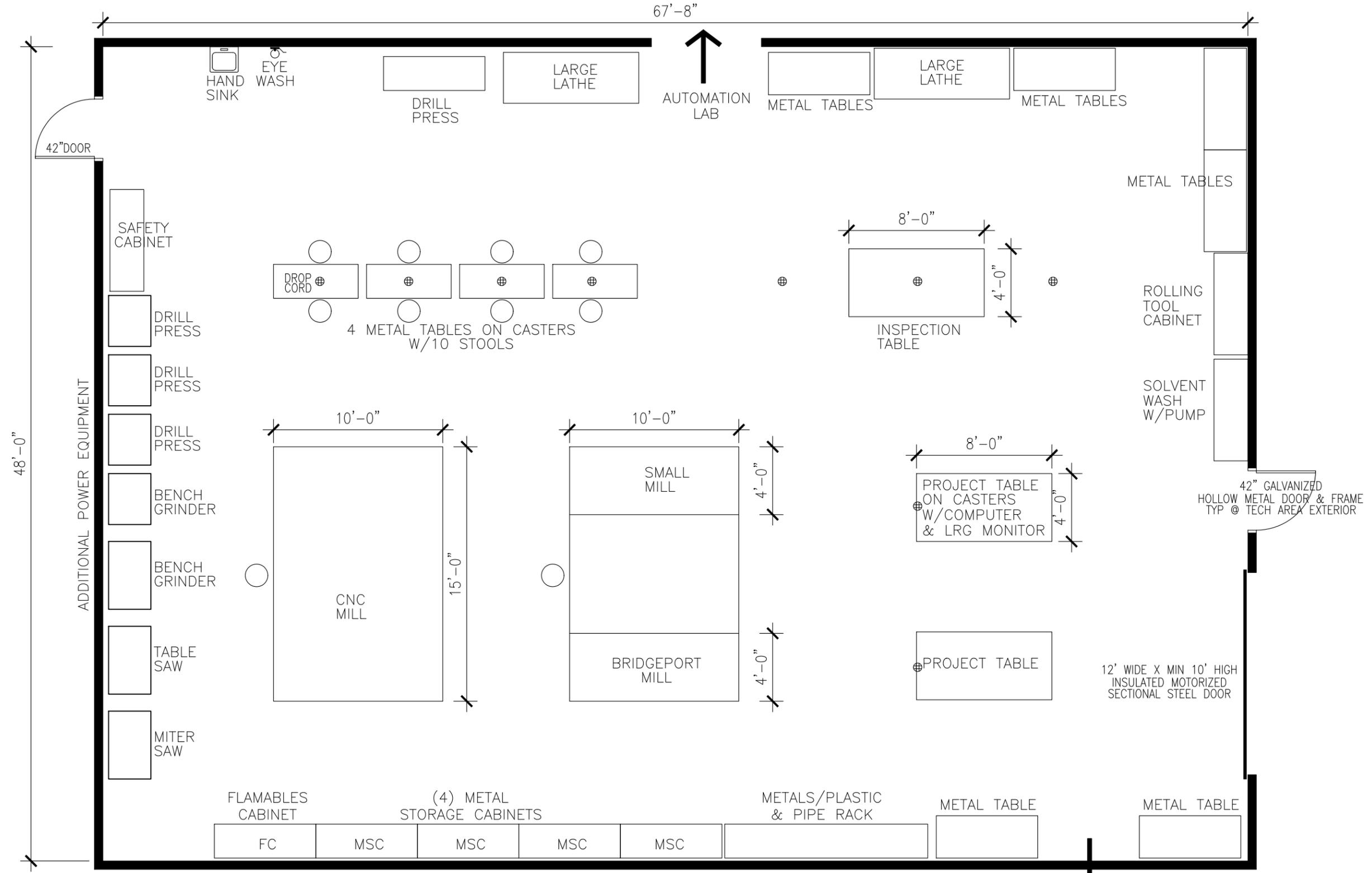


3.0 ATTACHMENTS

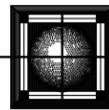
ATTACHMENT "B"

INDIVIDUAL AREA SPACE PLANNING REQUIREMENTS AND ADJACENCY DIAGRAMS

In addition to the original Program requirements, add outlets for the additional power operated equipment shown. Also add overhead power cords in the locations indicated. Provide and install minimum 42" galvanized hollow metal door and frames typical at all exterior Technology area exterior man doors.



Lab Storage



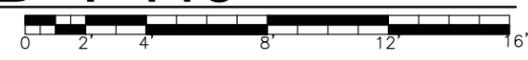
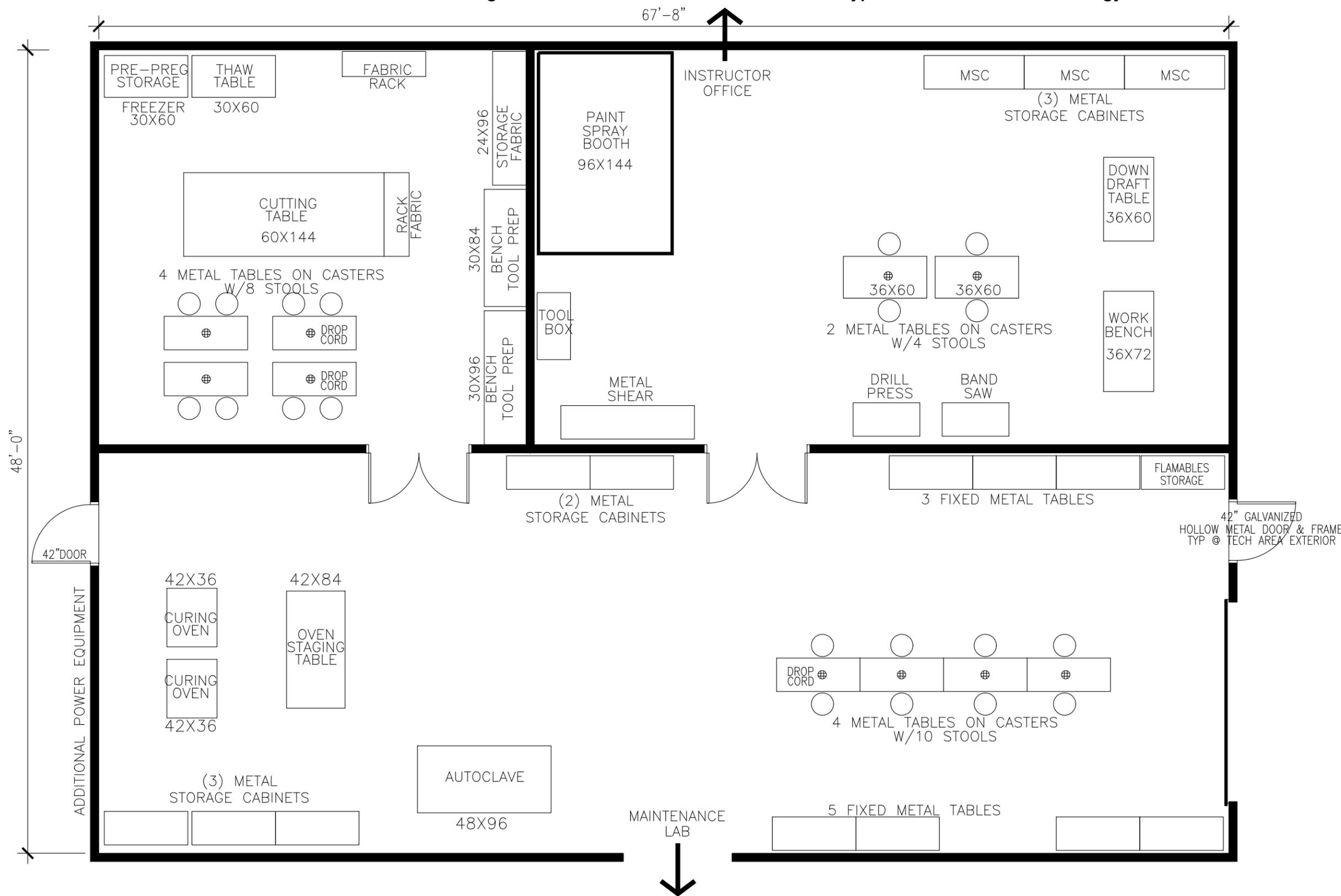
INDUSTRIAL MAINTENANCE LAB T-114

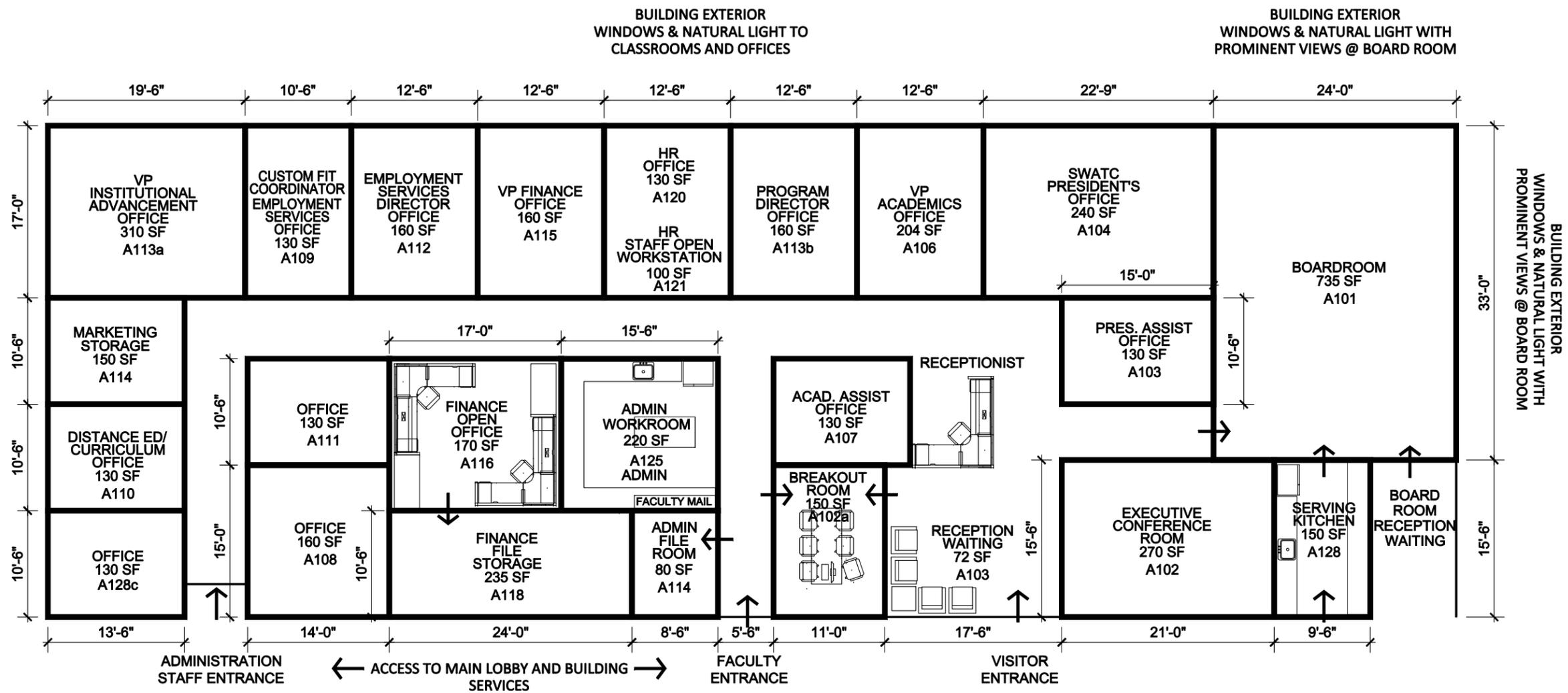
NEW SOUTHWEST APPLIED TECHNOLOGY COLLEGE
SCALE: 1/8" = 1'-0"



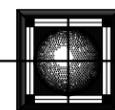
Revised
Page 185

In addition to the original Program requirements, add outlets for the additional power operated equipment shown. Also add overhead power cords in the locations indicated. Provide and install minimum 42" galvanized hollow metal door and frames typical at all exterior Technology area exterior man doors.



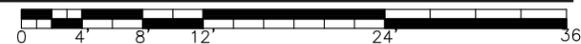


The Administration Area should be provided with an Administration Work Room/Kitchen with space for a copy machine, sink and refrigerator as indicated. Adjacency to the Board Room is desired. A serving Kitchen (Butlery's Pantry for Board Room meeting as indicated is to be provided.



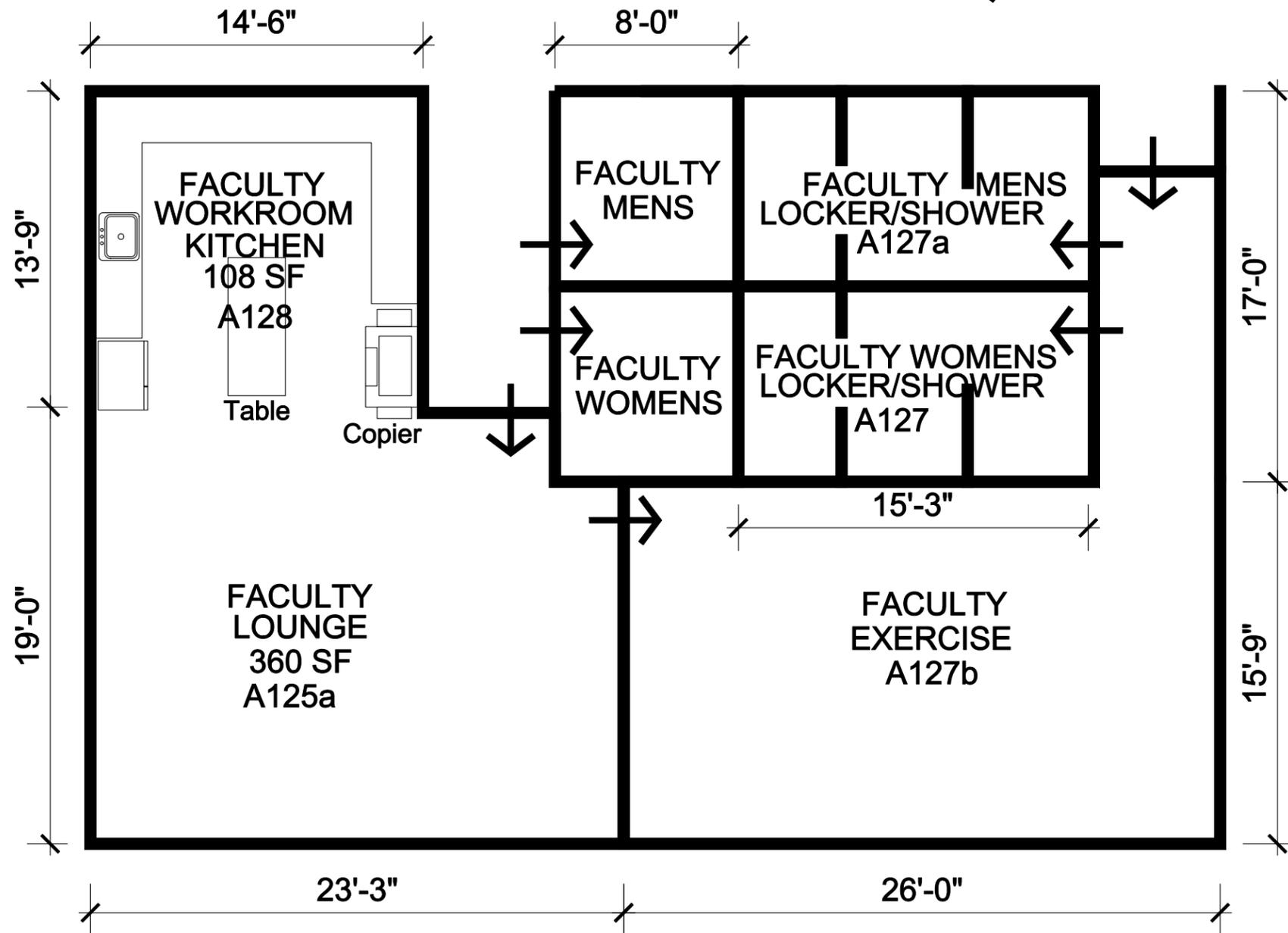
ADMINISTRATION ADJACENCY DIAGRAM

NEW SOUTHWEST APPLIED TECHNOLOGY COLLEGE
 SCALE: 1/8" = 1'-0"



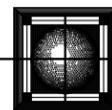
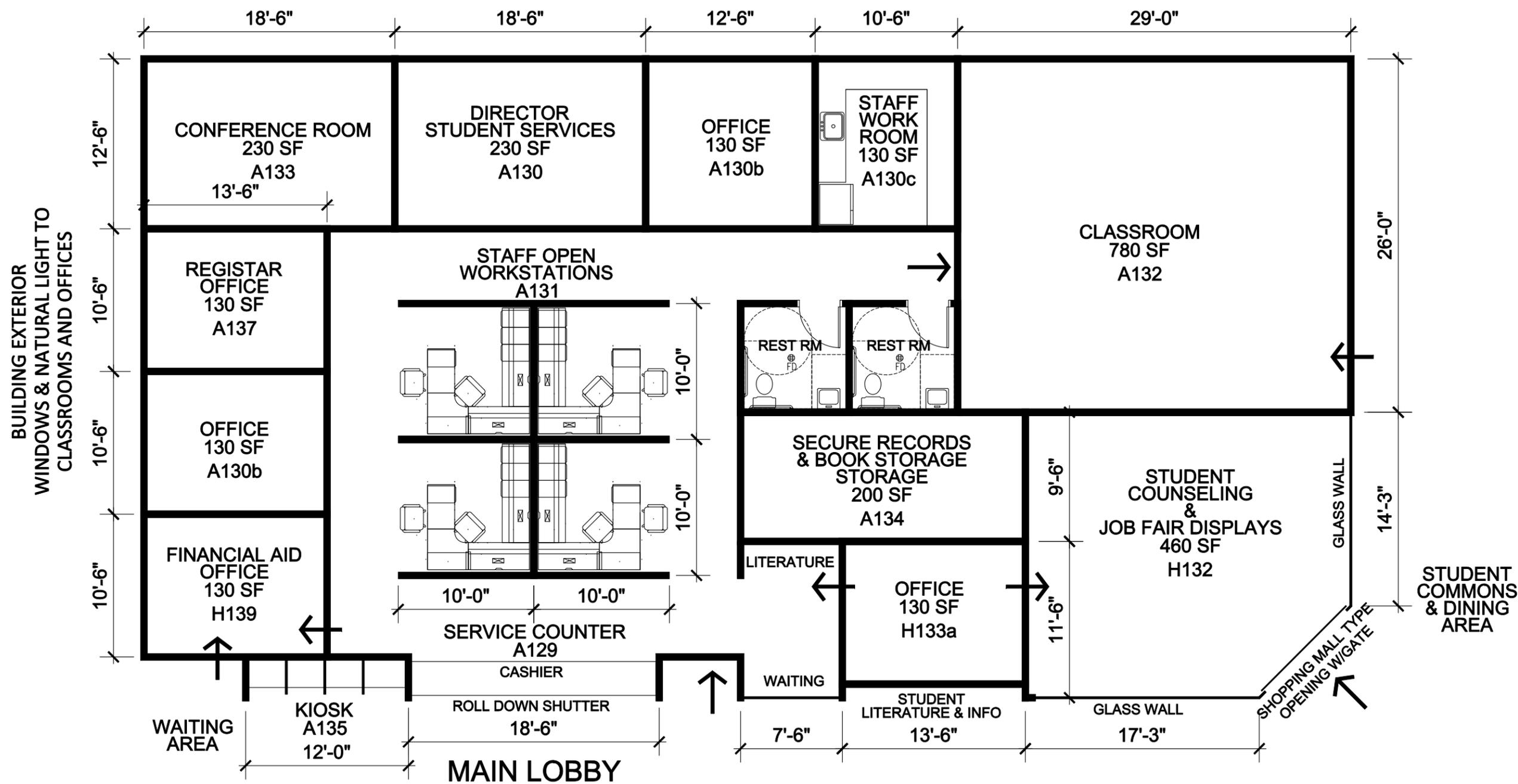
Revised
 Page 229
 Adimin

← ACCESS TO MAIN LOBBY AND BUILDING SERVICES →



The Faculty Locker and Shower Rooms should be designed for single occupancy. Space should be provided in the Faculty Work Room/Kitchen for a copy machine, sink and refrigerator as indicated.

BUILDING EXTERIOR
WINDOWS & NATURAL LIGHT TO
CLASSROOMS AND OFFICES

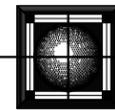
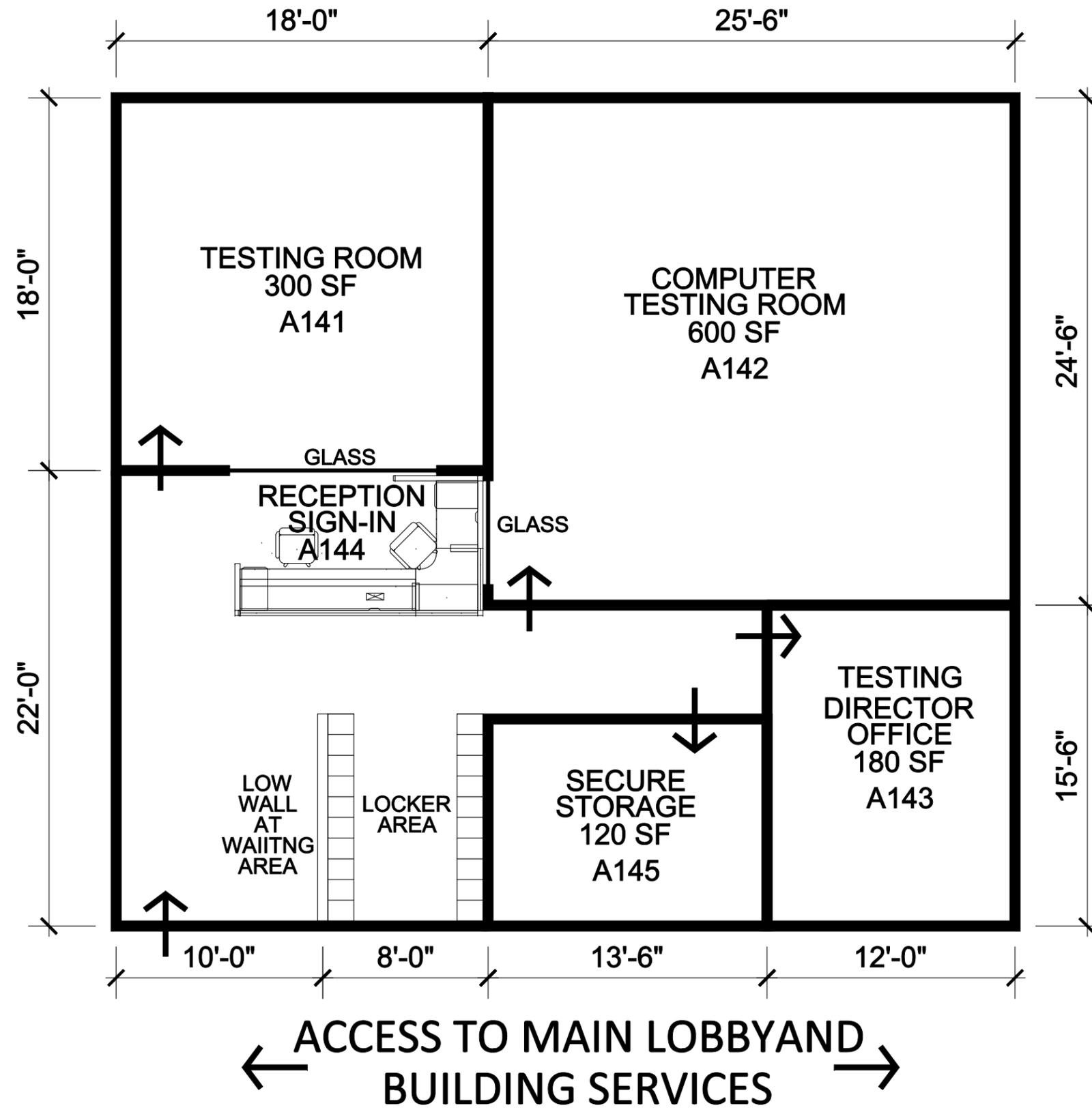


STUDENT SERVICES ADJACENCY DIAGRAM

NEW SOUTHWEST APPLIED TECHNOLOGY COLLEGE
SCALE: 1/8" = 1'-0"



Revised
Page 295



TESTING

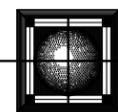
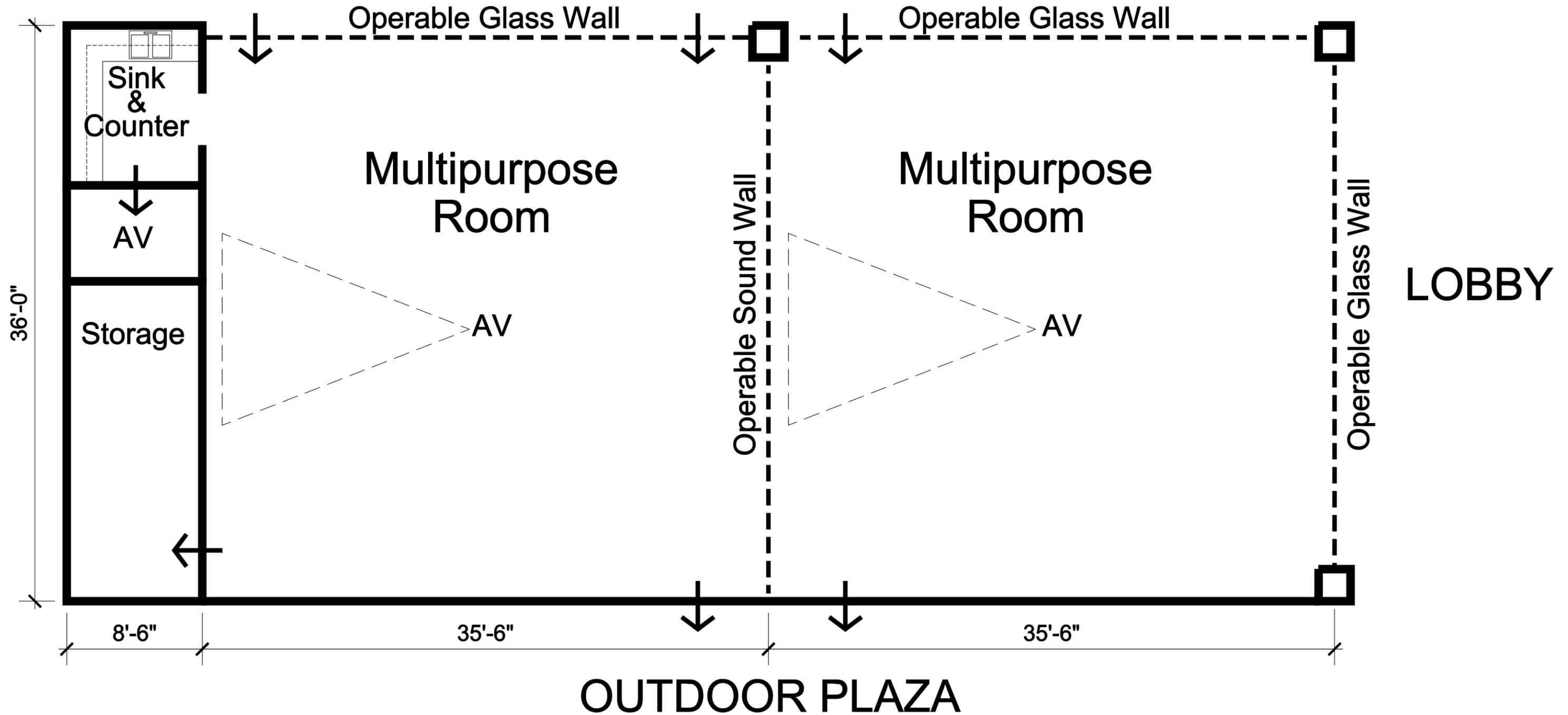
NEW SOUTHWEST APPLIED TECHNOLOGY COLLEGE
SCALE: 1/8" = 1'-0"



Revised
Page 319
Testing

The Faculty Locker and Shower Rooms should be designed for single occupancy. Space should be provided in the Faculty Work Room/Kitchen for a copy machine, sink and refrigerator as indicated.

CAFETERIA



MULTIPURPOSE

NEW SOUTHWEST APPLIED TECHNOLOGY COLLEGE
SCALE: 1/8" = 1'-0"



Revised
Page 343



3.0 ATTACHMENTS

ATTACHMENT "C"

GEOTECHNICAL INVESTIGATION PREPARED BY AGEC APPLIED GEOTECH

DATED AUGUST 16, 2012



GEOTECHNICAL INVESTIGATION

PROPOSED ATC BUILDING

555 WEST 800 SOUTH

CEDAR CITY, UTAH

PREPARED FOR:

DFCM

**4110 STATE OFFICE BUILDING
SALT LAKE CITY, UTAH 84114**

ATTENTION: KURT BAXTER

PROJECT NO. 1120582

AUGUST 16, 2012

TABLE OF CONTENTS

EXECUTIVE SUMMARY	Page 1
SCOPE OF WORK	Page 3
SITE CONDITIONS	Page 3
FIELD STUDY	Page 4
SUBSURFACE SOIL CONDITIONS	Page 4
SUBSURFACE WATER	Page 6
PROPOSED CONSTRUCTION	Page 6
RECOMMENDATIONS	Page 7
A. Site Grading	Page 7
B. Foundations	Page 12
C. Concrete Slab on Grade	Page 15
D. Lateral Earth Pressures	Page 15
E. Seismicity, Liquefaction and Faulting	Page 17
F. Soil Corrosion	Page 17
G. Pavement	Page 18
H. Construction Materials Testing and Observations	Page 20
LIMITATIONS	Page 22
REFERENCES	Page 23
FIGURES AND TABLE	
LOCATIONS OF EXPLORATORY BORINGS AND TEST PITS	FIGURE 1
LOGS OF EXPLORATORY BORINGS	FIGURE 2
LOGS OF TEST PITS	FIGURE 3
LEGEND AND NOTES OF EXPLORATORY BORINGS AND TEST PITS	FIGURE 4
CONSOLIDATION TEST RESULTS	FIGURES 5-9
GRADATION & MOISTURE/DENSITY RELATIONSHIP RESULTS	FIGURE 14
SUMMARY OF LABORATORY TEST RESULTS	TABLE I

EXECUTIVE SUMMARY

1. The subsurface soil encountered at the site consists of interlayered silt, sand and clay overlying gravel. The gravel was generally at a relatively shallow depth in the western portion of the site and the thickness of the clay, silt and sand generally increases to the east.

Practical excavation refusal using a rubber-tired backhoe was encountered in Test Pit TP-1 at a depth of approximately 3½ feet.

2. No subsurface water was encountered to the maximum depth investigated, approximately 25½ feet.
3. Moisture-sensitive soil was encountered at the site. This soil will collapse when wetted. The thickness of the moisture-sensitive soil ranges from approximately 7 to 22 feet thick in the proposed building area. The approximate thickness of moisture-sensitive soil is shown on Figure 1.

The moisture-sensitive soil is not suitable for support of the proposed building and may also cause some settlement problems for slabs and pavement if it were to remain below the slabs and pavement. The moisture-sensitive soil should be removed from below the proposed building area and, ideally, would be removed from below proposed slab and pavement areas. Partial removal of the moisture-sensitive soil from below slab and pavement areas could be considered if the owner is willing to accept the risk of distress to the slabs and pavement. This is further discussed in the text of the report.

4. The proposed building may be supported on the undisturbed natural soil that is nonmoisture-sensitive. The lower clay, sand and gravel are considered nonmoisture-sensitive soil. The overexcavated building pad should extend at least 10 feet beyond the perimeter of the proposed building footprint. The removed soil may be reused as site grading fill beneath the building, pavement and slabs. A basement could be considered to reduce the amount of replacement fill needed below the building. Details for grading recommendations are provided in this report.
5. A zone of imported, granular, structural fill or suitable on-site granular soil is recommended beneath footings as provided in the Foundations section of this report. Allowable bearing pressures are also provided in the Foundations section of this report.

Executive Summary (continued)

6. The on-site soil, free of organics and debris, may be used as site grading fill (including beneath the building), wall backfill and utility trench backfill. The granular soil (silty sand to clayey sand and silty gravel) are also suitable for use as structural fill beneath foundations if they meet the structural fill requirements given in the report.
7. Difficult drilling and excavation was encountered in the gravel. Heavy-duty excavation equipment will generally be needed for excavations into the gravel, particularly for confined excavations such as for utilities.
8. Recommendations for site grading, slabs, foundations, pavement and drainage are included in this report.
9. Information presented in this summary should not be used independent of that contained within the body of the report.

SCOPE OF WORK

This report presents the results of a geotechnical investigation for the proposed ATC building to be located at approximately 555 West 800 South in Cedar City, Utah. The report presents the subsurface conditions encountered, laboratory test results and recommendations for foundation support and pavement. The report was prepared in general accordance with our proposal dated July 16, 2012.

Field exploration was conducted to obtain information on the subsurface conditions and to obtain samples for laboratory testing. Samples obtained during the field investigation were tested in the laboratory to determine physical and engineering characteristics of the on-site soil. Results of the field exploration and laboratory tests were analyzed to develop recommendations for the proposed construction.

This report has been prepared to summarize the data obtained during the study and to present our conclusions and recommendations based on the proposed construction and subsurface conditions encountered. Design parameters and a discussion of geotechnical engineering considerations related to construction are included in the report.

SITE CONDITIONS

At the time of our field study, there were no permanent structures or pavement on the site. The site consists of undeveloped land. There are a number of trailers and vehicles near the west property line. There is a drainage ditch that extends in a general east/west direction through the south portion of the proposed building area.

Vegetation at the site consists of trees and brush along the drainage ditch and some trees in the northwest portion of the property. Vegetation in other areas of the property generally consists of grass with brush.

The ground surface at the site generally slopes gently down toward the northwest.

The property is bordered on the east by 555 West Street and on the north by 800 South Street. The west edge of the property is bordered by 860 West Street. There are residences east and west of the southern portion of the property. There is undeveloped land to the south of the site.

FIELD STUDY

The field study was conducted on July 20, 2012. Seven borings were drilled and five test pits were excavated at the approximate locations indicated on Figure 1. The borings were drilled using a truck-mounted drill rig with 8-inch diameter, hollow-stem auger and 4-inch diameter, solid-flight auger. The test pits were excavated using a rubber-tired backhoe. The borings and test pits were logged and soil samples obtained by an engineer from AGECE. Logs of the subsurface conditions encountered in the borings and test pits are presented on Figures 2 and 3 with legend and notes on Figure 4.

The test pits were backfilled without significant compaction. The backfill in the test pits should be properly compacted where it will support proposed building, slabs or pavement.

SUBSURFACE SOIL CONDITIONS

The subsurface soil encountered at the site consists of interlayered silt, sand and clay overlying gravel. The gravel was generally at a relatively shallow depth in the western portion of the site and the thickness of the clay, silt and sand generally increases to the east.

Practical excavation refusal using a rubber-tired backhoe was encountered in Test Pit TP-1 at a depth of approximately 3½ feet.

A description of the various soils encountered in the borings and test pits follows:

Sandy Lean Clay - The clay contains some clayey sand. It is stiff, slightly moist to moist, brown and porous except for the clay in the lower portion of Borings B-1 and B-7.

Laboratory tests performed on samples of the clay indicate that it has natural moisture contents ranging from 14 to 16 percent and natural dry densities ranging from 105 to 114 pounds per cubic foot (pcf). Results of consolidation tests performed on samples of the lower clay indicate that it will compress a small amount with the addition of light to moderate loads. Results of the consolidation tests are presented on Figures 5 and 8.

Sandy Silt - The silt contains some silty sand. It is medium stiff to stiff, dry to very moist, brown and porous except in the lower part of Boring B-7.

Laboratory tests performed on samples of the silt indicate that it has natural moisture contents ranging from 5 to 9 percent and natural dry densities ranging from 75 to 106 pcf. Results of consolidation tests performed on samples of the silt indicate that it will compress a small to large amount with the addition of light to moderate loads. The clay collapses when wetted and becomes significantly more compressible. Results of the consolidation tests are presented on Figures 6, 7, 9 and 10.

Silty Sand - The silty sand contains gravel and cobbles. It is medium dense to dense, dry to moist and brown.

Silty Gravel with Sand - The gravel contains cobbles and occasional boulders. It is dense to very dense, moist and brown.

A summary of the laboratory test results is presented on Table I and included on the logs of the borings and test pits.

SUBSURFACE WATER

No subsurface water was encountered to the maximum depth investigated, approximately 25½ feet. Fluctuations in the water level may occur over time. An evaluation of such fluctuations is beyond the scope of this report.

PROPOSED CONSTRUCTION

We understand that the proposed building will be a two-story, steel structure with structural and nonstructural masonry. The building is planned to have a slab-on-grade floor. The structural engineer indicates that column loads will be up to 200 kips and wall loads will be up to 6 kips per lineal foot.

We have considered two traffic conditions, one consisting predominantly of car traffic and the other consisting of 300 passenger vehicles, two 10-wheel garbage or dump trucks per day and two 34-foot tractor/trailer box trucks per day.

If the proposed construction, building loads or traffic is significantly different from what is described above, we should be notified to reevaluate the recommendations given.

RECOMMENDATIONS

Based on our experience in the area, the subsurface conditions observed and the laboratory test results, the following recommendations are provided for the proposed construction.

A. Site Grading

1. Subgrade Preparation

a. Building Pad

Moisture-sensitive soil was encountered in the borings and test pits. The approximate thickness of collapsible soil is presented on the logs of the test pits and borings and noted on Figure 1. It was found to be up to approximately 22 feet thick in Boring B-3. The moisture-sensitive soil should be removed from below the proposed building area and this over-excavation should extend at least 10 feet beyond the perimeter of the proposed building. Consideration should be given to extending the over-excavation to include the surrounding flatwork and utility pad areas.

Subsequent to over-excavation and prior to placing fill, the exposed subgrade should be scarified to a depth of at least 8 inches, properly moisture conditioned and compacted to meet the recommendations in the Compaction section of this report. The removed soil may be replaced and properly moisture conditioned in compacted lifts as described in the Compaction section of the report. A basement below the building could be considered to reduce the amount of replacement fill needed.

b. Pavement/Flatwork Areas

Ideally, the moisture-sensitive soil would be removed from below proposed pavement and slab areas outside the proposed building area. The depth of overexcavation may be reduced at the discretion of the owner provided the risk of future pavement/flatwork movement is acceptable. If potentially moisture-sensitive soil is left in-place below pavement/flatwork areas, the following table may be referenced to estimate the approximate amount of settlement that can be expected once the moisture-sensitive soil becomes wetted.

Thickness of Remaining Potential Collapsible Soil (feet)	Estimated Settlement after Wetting (inches)
15	4 ½-6
12	3-4 ½
8	1-3
4	½-1
0	< ½

As a minimum, we recommend that paved/flatwork areas be prepared to provide on the order of 2 to 4 feet of properly compacted, low permeable fill in areas where moisture-sensitive soil will remain below the proposed paved/flatwork areas. This 2 to 4-foot layer is intended to provide a low permeable barrier to reduce the amount of water infiltration to the underlying potentially collapsible soil.

As the underlying collapsible soil gets wetted over time, settlement of the pavement and flatwork may occur as indicated in the table above. Subsequent to over-excavation and prior to replacing fill, the exposed subgrade should be scarified to a depth of at least 8 inches, properly

moisture conditioned and compacted to meet the recommendations in the Compaction section of this report.

2. Excavation/Earthwork

The clay, silt and sand may be excavated utilizing conventional excavation equipment. Excavations that extend into the underlying dense to very dense gravel with cobbles and boulders will likely require the use of heavy-duty excavation equipment.

3. Compaction

Compaction of fill materials placed at the site should equal or exceed the following percentages when compared to the maximum dry density as determined by ASTM D 1557.

Area	Minimum Percent Compaction
Subgrade (city improvements)	95
Footings/foundations/building pad	95
Retaining wall backfill	90 to 95
Slabs/roadways/parking grading fill (on site)	90
Roadways/parking base course	95
Landscape areas	85

Fill should be placed in thin enough lifts to allow for proper compaction. Generally, 6 to 8-inch, loose lifts are adequate for heavy compaction equipment. Lift thicknesses should be reduced to 4 inches for hand compaction equipment. Fill should be moisture conditioned to within 2 percent of the optimum moisture content prior to placement. Fill placed at

the site should be tested to verify proper moisture conditioning and compaction.

4. Materials

The on-site soil, including the silt and lean clay, free of organics and debris, may be used as site grading fill (including beneath the building), wall backfill and utility trench backfill. The on-site granular soil (silty sand to clayey sand and silty gravel) may also be suitable for use as structural fill beneath foundations if it meets the material requirements for imported structural fill given below. The on-site sand and silt soil (with a fines content greater than 30 percent) are also suitable for use as low permeable fill beneath parking/flatwork areas provided they are properly moisture conditioned and compacted.

Varying thicknesses of structural fill are recommended below foundations depending on the loading condition. These structural fill depths are provided in the Foundation section of this report.

Criteria for imported fill are provided below. Imported fill should be nonexpansive and meet the following recommendations:

Area	Fill Type	Recommendations
Footings/pad	Structural fill	-200 < 35%, LL < 30% Maximum size: 4 inches
Under slab	Base course	-200 < 10% Maximum size: 1 inch
Parking/Roadway	Granular fill	-200 < 50%, LL < 30% Maximum Size: 4 inches

-200 = Percent Passing the No. 200 Sieve

LL = Liquid Limit

The potential impact of the collapsible characteristics of the underlying soil can be reduced by protecting it from wetting. Placement of relatively low permeable fill above the collapsible soil can help reduce the amount of water coming in contact with the underlying soil.

Low permeable fill used to replace the removed collapsible soil should meet at least one of the following sets of criteria. If the full depth of collapsible soil is removed, the use of low permeable fill is not needed.

Liquid Limit (%)	Percent Passing the No. 200 Sieve
50+	15-20
30-50	20-40
0-30	30-100

5. Slopes

Fill slopes constructed with the on-site soil may be constructed as steep as 2 horizontal to 1 vertical provided the fill is properly compacted. Fill slopes should be constructed by overbuilding the slope and cutting it to the desired grade to assure a compacted slope face. Slopes constructed utilizing clay, silt or sand will likely be susceptible to erosion. Slopes should be protected from erosion with aggregate riprap, manufactured erosion control mats, vegetation or other methods.

Temporary cut slopes necessary during pad excavation should be excavated according to OSHA standards to maintain a safe excavation. OSHA Soil Class B for clay, silt and clayey sand and Soil Class C for silty sand and gravel should be referenced during excavation.

6. Drainage

Due to the presence of potentially moisture-sensitive (collapsible) soil, drainage recommendations within this report should be followed to reduce the amount of future movement of the pavement/flatwork if some of the moisture-sensitive soil will remain. The following recommendations are provided:

- Positive site drainage should be maintained through the course of construction and during the life of the facility. Positive drainage of the surface water away from the building should be maintained. Water should not be allowed to pond adjacent to foundations.
- The building pads should be graded so that a minimum slope of 6 inches in the first 10 feet from the building is provided.
- Landscaping that requires minimal watering should be implemented adjacent the structures.
- Rain gutters and downspouts should discharge away from foundations. Ideally, the downspouts would be piped horizontally and discharge to a storm drain system or to a down gradient, off site areas.

B. Foundations

1. Bearing Material and Foundation Type

The proposed building may be supported on conventional spread footings bearing on a zone of properly compacted structural fill underlain by a properly prepared subgrade as recommended in the Subgrade Preparation section of this report. We recommend the underlying moisture-sensitive (collapsible) soil

be removed the full depth (up to approximately 22 feet below the existing grade) from beneath the proposed building area. The overexcavated area should extend at least 10 feet beyond the perimeter of the proposed building pad. The removed soil may be replaced with the excavated soil if the soil meets the recommendations given above and the soil is properly moisture conditioned and placed in thin enough lifts to provide adequate compaction.

The following table provides minimum recommended thicknesses of granular structural fill necessary beneath foundations. The structural fill is intended to provide suitable bearing soil and reduce the potential settlement to within tolerable limits due to the slightly compressible nature of the recompacted on-site, fine-grained soil. The natural undisturbed gravel need not be removed to meet this criteria.

Load "P"	Recommended Thickness of Structural Fill (feet)
$P \leq 2 \text{ klf}$	0
$2 < P \leq 6 \text{ klf}$	1
$P \leq 100 \text{ kips}$	1
$100 < P \leq 200 \text{ kips}$	2

The structural fill thickness is recommended in addition to the overexcavation and recompaction of the moisture-sensitive soil.

2. Bearing Pressure

Footings bearing on properly compacted structural fill may be designed for the following allowable bearing pressures:

Footings Width "B", (feet)	Net Allowable Bearing Pressure, (psf)
$B \leq 2$	2,000
$2 < B \leq 5$	2,500
$5 < B \leq 9$	3,000

Footings bearing on at least 3 feet of the natural undisturbed gravel or combination of granular structural fill and natural undisturbed gravel totaling at least 3 feet thick may be designed for a net allowable bearing pressure of 3,500 psf.

3. Footings Width and Embedment

Spread footings should have a minimum width of 18 inches and an embedment depth of at least 12 inches. Exterior, unheated footings should be embedded at least 30 inches below the lowest adjacent grade for frost protection.

4. Temporary Loading Conditions

The bearing pressures indicated may be increased by one-third for temporary loading conditions such as wind and seismic loads.

5. Settlement

Based on the subsoil conditions encountered and the assumed building loads, we estimate total settlement for the foundation designed as indicated to be approximately 1 inch. Differential settlement is estimated to be approximately ½ inch.

6. Foundation Base

The footing bearing level should be cleared of loose or deleterious material prior to placing concrete.

7. Lateral Resistance for Footings

Lateral resistance for footings placed on compacted structural fill is controlled by the sliding resistance between the footings and subgrade soil. A friction value of 0.4 may be used in the design for lateral resistance for footings bearing on properly compacted on-site fine-grained soil (silt). The friction value may be increased to 0.5 for foundations bearing on properly compacted granular structural fill or the natural undisturbed gravel.

C. Concrete Slab on Grade

1. Building Slab Support

Concrete slabs should be supported on a properly prepared subgrade as recommended in the Subgrade Preparation section of this report. The potentially collapsible soil should be removed from below proposed building slab areas.

2. Underslab Base Course

A 4-inch layer of properly compacted base course should be placed below concrete slabs to provide a firm subgrade and to promote even curing of concrete.

3. Vapor Barrier

A vapor barrier should be considered below slabs that will receive sensitive or impermeable floor coverings.

D. Lateral Earth Pressures

The following equivalent fluid weights are given for design of possible earth retaining walls and trench boxes. The active condition is where the wall moves away from

the soil and the passive is where the wall moves into the soil. The at-rest condition is where the wall does not move.

Condition	Equivalent Fluid Weight, On-Site Soil (pcf)
Active	40
Passive	300
At Rest	60

The active and at rest conditions given in the table above should be increased by 18 pcf and the passive pressure should be decreased by 18 pcf for seismic design. This assumes a short period spectral acceleration of 0.7g which represents a 2 percent probability of exceedance in a 50-year period.

It should be recognized that the above values account for the lateral earth pressures due to the soil and level backfill conditions and do not account for hydrostatic pressures. The lateral loads assumed in design should be increased to account for surcharge loading if structures are placed above the wall and are within a horizontal distance equal to the height of the wall.

Care should be taken to reduce infiltration of surface water into the backfill material adjacent to the walls. The risk of hydrostatic build-up can be reduced by placing subdrains behind the walls consisting of free draining gravel wrapped in a filter fabric (Mirafi 140N or equivalent). Alternately, weep holes may be provided every 10 feet at the base of walls to assist in the drainage of water.

E. Seismicity, Liquefaction and Faulting

1. Seismicity

Listed below is a summary of the site parameters for the 2009 International Building Code:

a.	Site Class	C*
b.	Short Period Spectral Response Acceleration, S_s	0.7g
c.	One Second Period Spectral Response Acceleration, S_1	0.22g
d.	PGA, 2% in a 50 year probability of exceedance	0.29g
e.	Fa	1.112
f.	Fv	1.578

* *Site Class D may apply if more than about 10 feet of silt and/or clay is placed below the building foundation.*

2. Liquefaction

Based on subsurface conditions encountered and our understanding of geologic conditions in the area, liquefaction is not considered a hazard at this site.

3. Faulting

No active faults are mapped to extend through the site. The closest mapped active fault to the site is the Hurricane Fault located approximately 4,000 feet to the east/southeast (Black et al, 2003).

F. Soil Corrosion

Exposure Categories F (freezing & thawing), P (requiring low permeability) and C (corrosion protection of reinforcement) should be specified by the structural engineer

in accordance with Table 4.2.1 of the American Concrete Institute (ACI) Manual of Concrete Practice 318-08 Section 4.2.

A water soluble sulfate test conducted on a sample of the on-site soil indicates a water soluble sulfate concentration of less than 0.1 percent. Based on these results, the soil has a negligible sulfate attack potential on concrete. However, our experience in the area suggests there may be soil with severe sulfate attack potential at the site. Therefore, we recommend concrete that will be exposed to the on-site soil be designed in accordance with provisions provided in the ACI Manual of Concrete Practice 318-08 Section 4.3 and Section 1904 of the 2009 International Building Code. Table 4.3.1 of ACI 318-08 should be referenced utilizing a Sulfate Exposure of "Severe".

Consideration should also be given to cathodic protection of buried metal pipes. We recommend utilizing non-metallic pipes where local building codes allow.

G. Pavement

Based on the subsoil conditions encountered, AASHTO design methods, and a 20-year design life, the following recommendations are given:

1. Subgrade Support

We anticipate subgrade materials in the proposed parking areas will generally consist of clay, silt or sand. We have assumed a clay subgrade with a CBR value of 3 percent for design purposes.

2. Pavement Section Thicknesses

The following pavement sections are recommended:

Traffic	Rigid Pavement		Flexible Pavement	
	Portland Cement Concrete Thickness	Asphaltic Concrete Thickness	Base Course Thickness	Granular Borrow Thickness
Passenger Vehicles	— 5"	3" —	6" —	— —
Trucks	— 5.5"	4" —	6" —	8" —

Granular borrow is not needed for the pavement section when the subgrade consists of gravel with a CBR of at least 20 and the gravel thickness is at least equal to the granular borrow recommended thickness.

3. Pavement Materials

Pavement section materials should meet Cedar City specifications for gradation and quality. The pavement section thicknesses indicated assume that the asphaltic concrete and base course are high quality materials. The asphaltic concrete should have a minimum Marshall stability of 1,800 pounds and the base course have a minimum CBR value of 50 percent.

4. Jointing

Joints for concrete pavement should be laid out in a square rectangular pattern. Joint spacing should not exceed 30 times the thickness of the slab. Joints should be at least one quarter of the slab thickness.

5. Drainage

The collection and diversion of drainage away from the pavement surface is extremely important to the satisfactory performance of the pavement section. Proper drainage should be provided.

H. Construction Materials Testing and Observations

A representative of AGECE should observe/verify the following during grading operations:

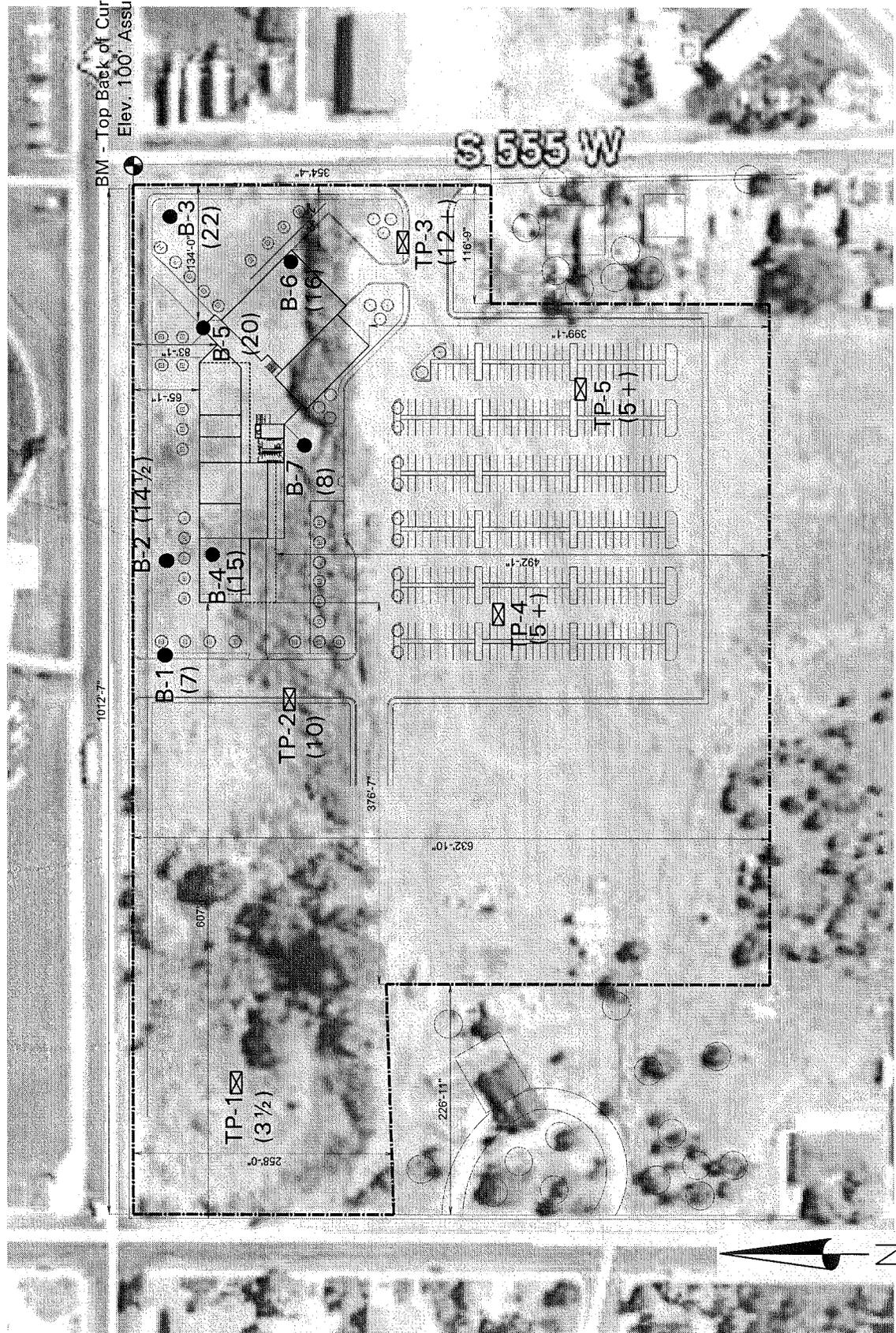
1. Existing soil containing significant amounts of roots and organics is removed prior to placing fill.
2. Verify the subgrade is properly prepared below pavement, flatwork, and building areas as recommended in the Subgrade Preparation section of this report.
3. The recommended structural fill depths are provided below foundations. Conduct compaction testing on fill placed below foundations. We recommend testing each foot of fill placed below foundations.
4. The fill material is appropriate for the proposed use and is placed in proper lift thicknesses for the compaction equipment utilized. A sufficient number of tests should be taken to verify proper compaction.

5. Conduct construction materials testing on improvements at a frequency that meets or exceeds the Cedar City minimum requirements.
6. Conduct special inspections as required by the architect, structural engineer, Cedar City, and the 2009 International Building Code.

REFERENCES

Black, B.D., Hecker, S., Hylland, M.D., Christenson, G.E., and McDonald, G.N., 2003; Quaternary fault and fold database and map of Utah; Utah Geological Survey Map 193DM.

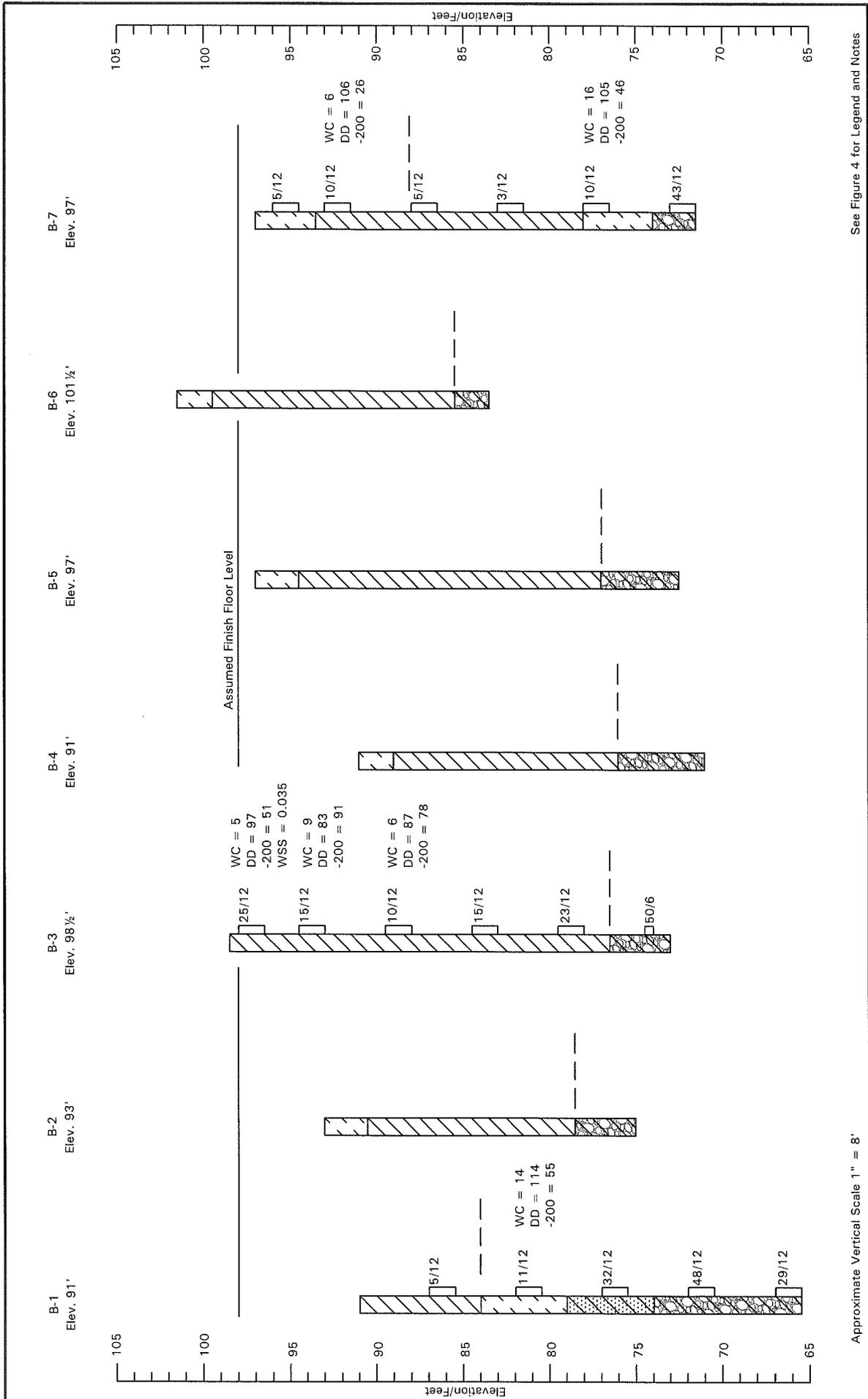
International Building Code, 2009; International Code Council, Inc., Falls Church, Virginia.



(10) Indicates approximate thickness of moisture sensitive soil.



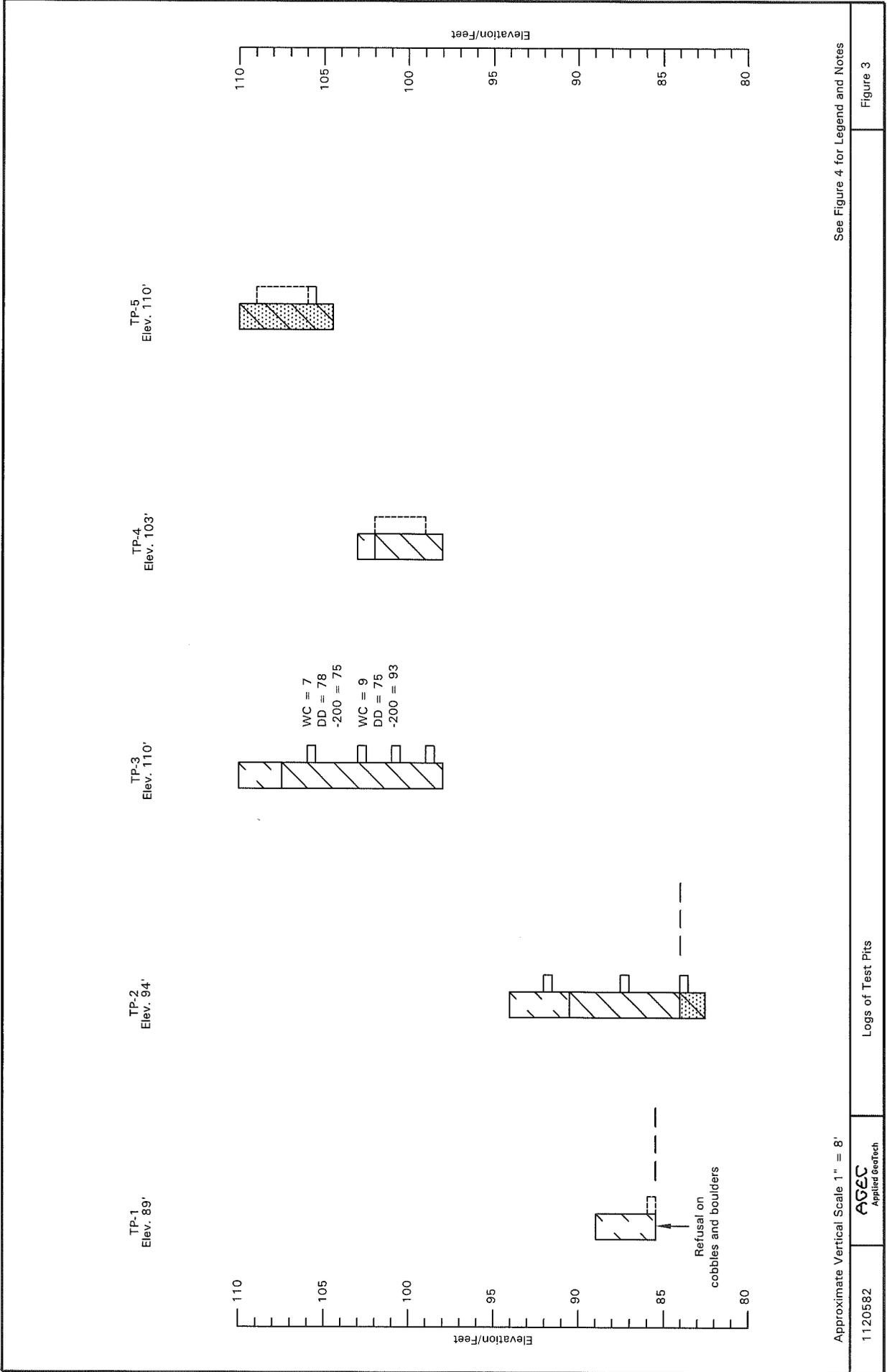
ATC BUILDING
CEDAR CITY, UTAH



See Figure 4 for Legend and Notes

Logs of Exploratory Borings

Approximate Vertical Scale 1" = 8'



See Figure 4 for Legend and Notes

Figure 3

LEGEND:



Sandy Lean Clay (CL); some clayey sand, stiff, slightly moist to moist, brown, porous except the clay in the lower part of B-1 and B-7.



Sandy Silt (ML); some silty sand, medium stiff to stiff, dry to very moist, brown, porous except in the lower part of B-7.



Silty Sand (SM); gravel, cobbles, medium dense to dense, dry to moist, brown.



Silty Gravel with Sand (GM); cobbles, occasional boulders, dense to very dense, moist, brown.



California Drive sample taken. The symbol 10/12 indicates that 10 blows from a 140 pound automatic hammer falling 30 inches were required to drive the sampler 12 inches.



Indicates disturbed sample taken.



Indicates relatively undisturbed block sample taken.



Indicates practical excavation refusal.

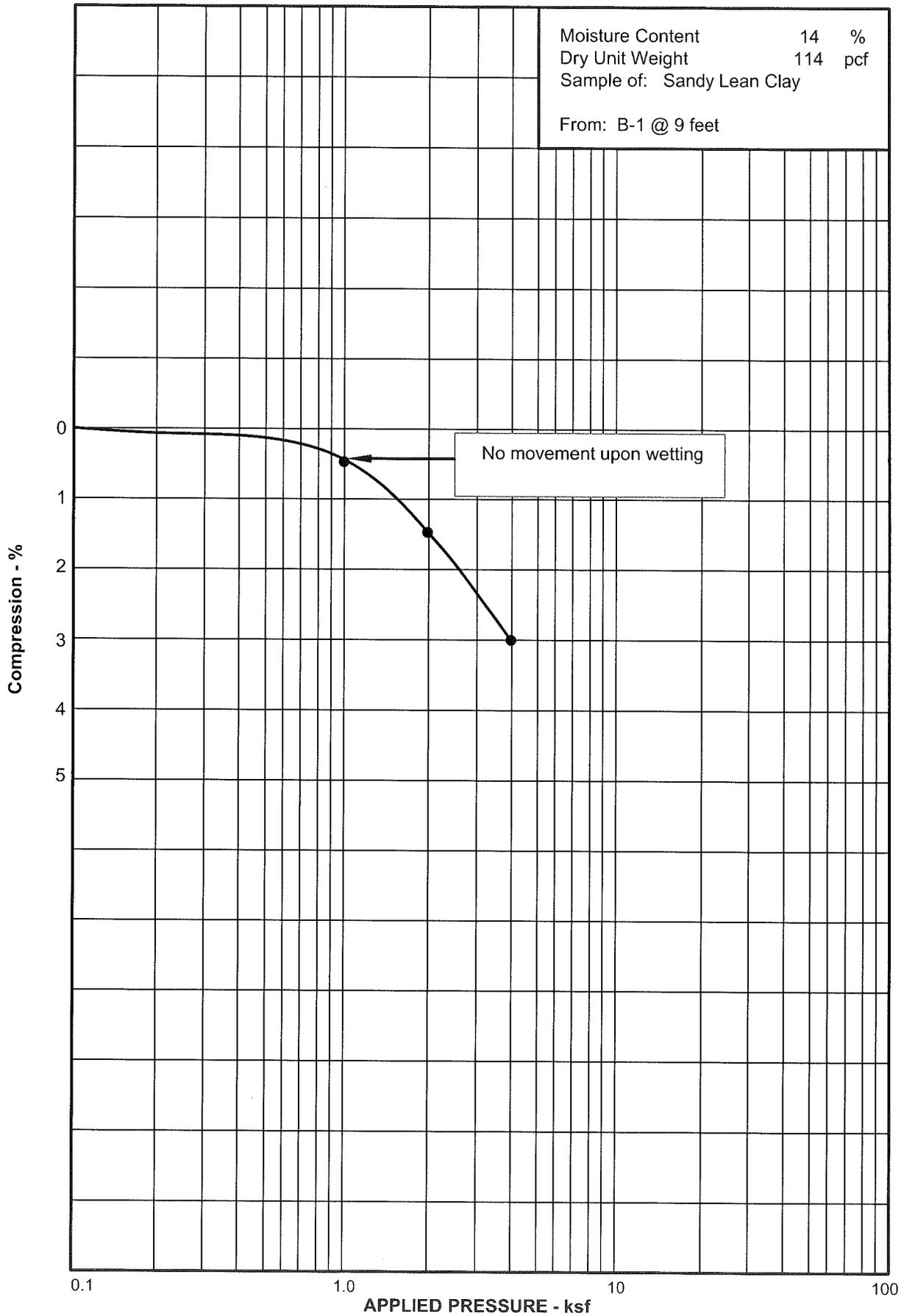


Approximate bottom of collapsible soil.

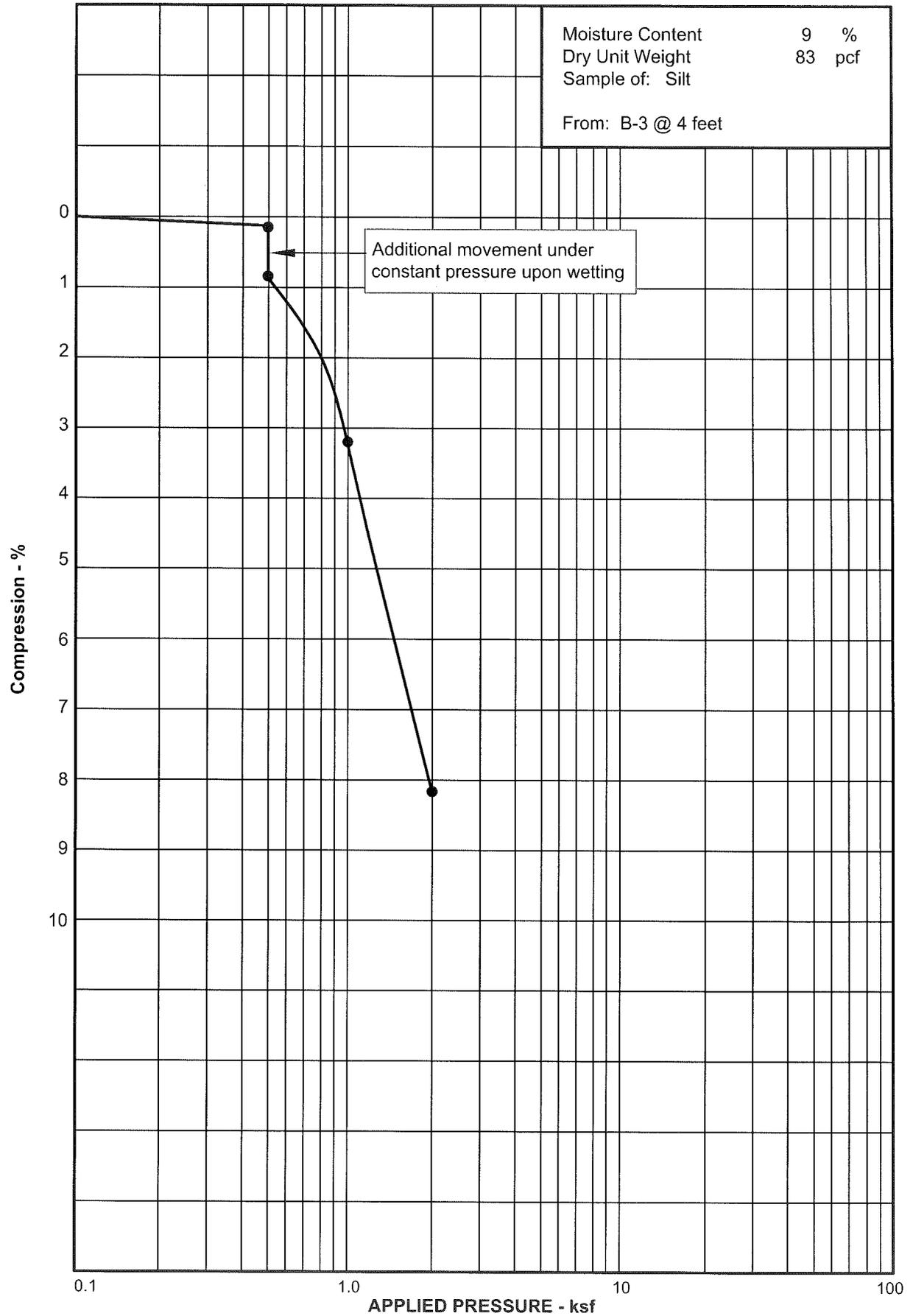
NOTES:

1. The borings were drilled on July 20, 2012 with 8-inch diameter hollowstem auger and 4-inch solid flight auger. The test pits were excavated on July 20, 2012 with a rubber-tired backhoe.
2. Locations of the borings and test pits were measured approximately by pacing from features shown on the site plan provided.
3. Elevations of the borings and test pits were measured by GPS and refer to the bench mark shown on Figure 1.
4. The boring and test pit locations and elevations should be considered accurate only to the degree implied by the method used.
5. The lines between the materials shown on the boring and test pit logs represent the approximate boundaries between material types and the transitions may be gradual.
6. No free water was encountered in the borings or test pits at the time of drilling or excavating.
7. WC = Water Content (%);
DD = Dry Density (pcf);
-200 = Percent Passing No. 200 Sieve;
WSS = Water Soluble Sulfates (%).

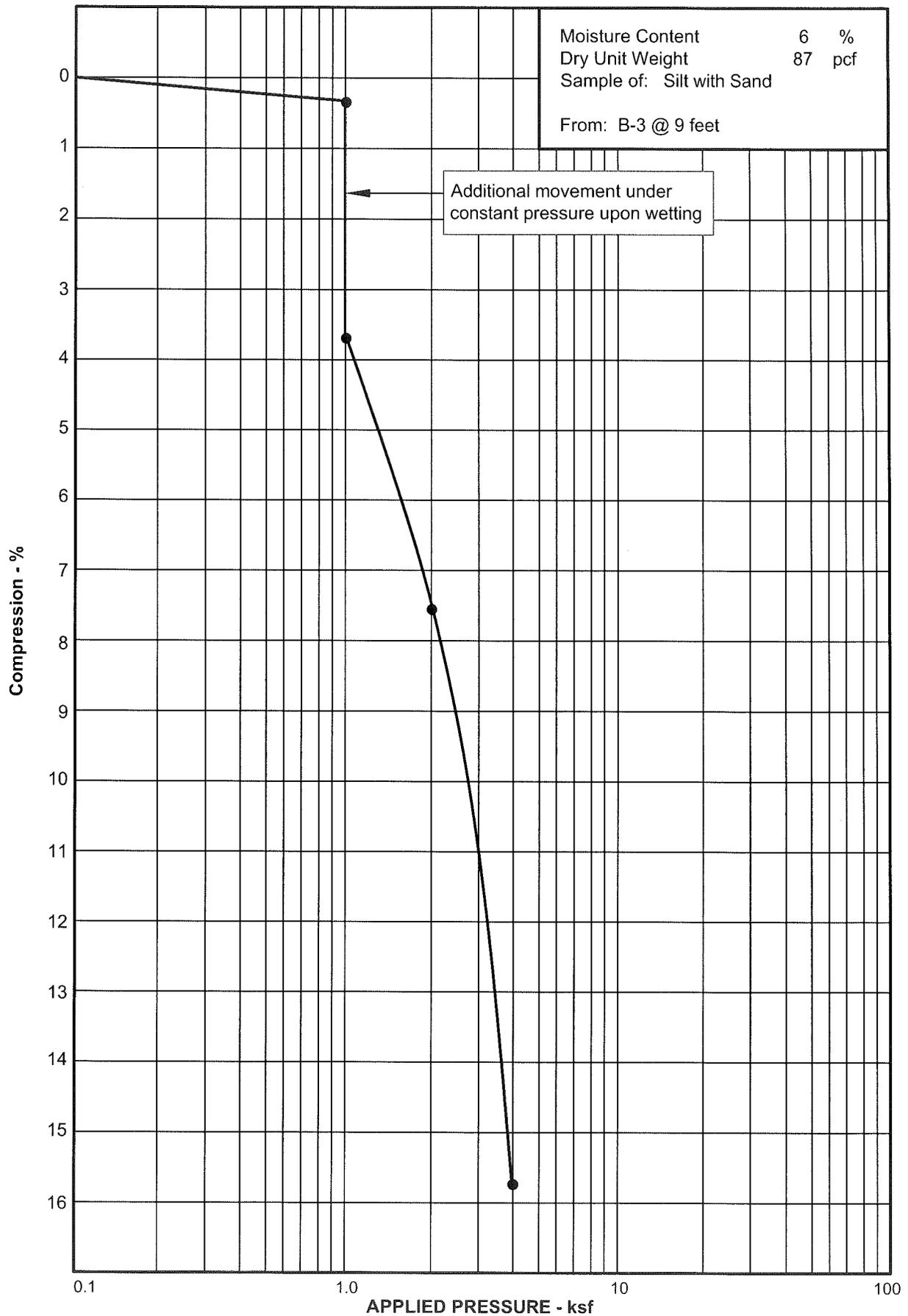
Applied Geotechnical Engineering Consultants, Inc.



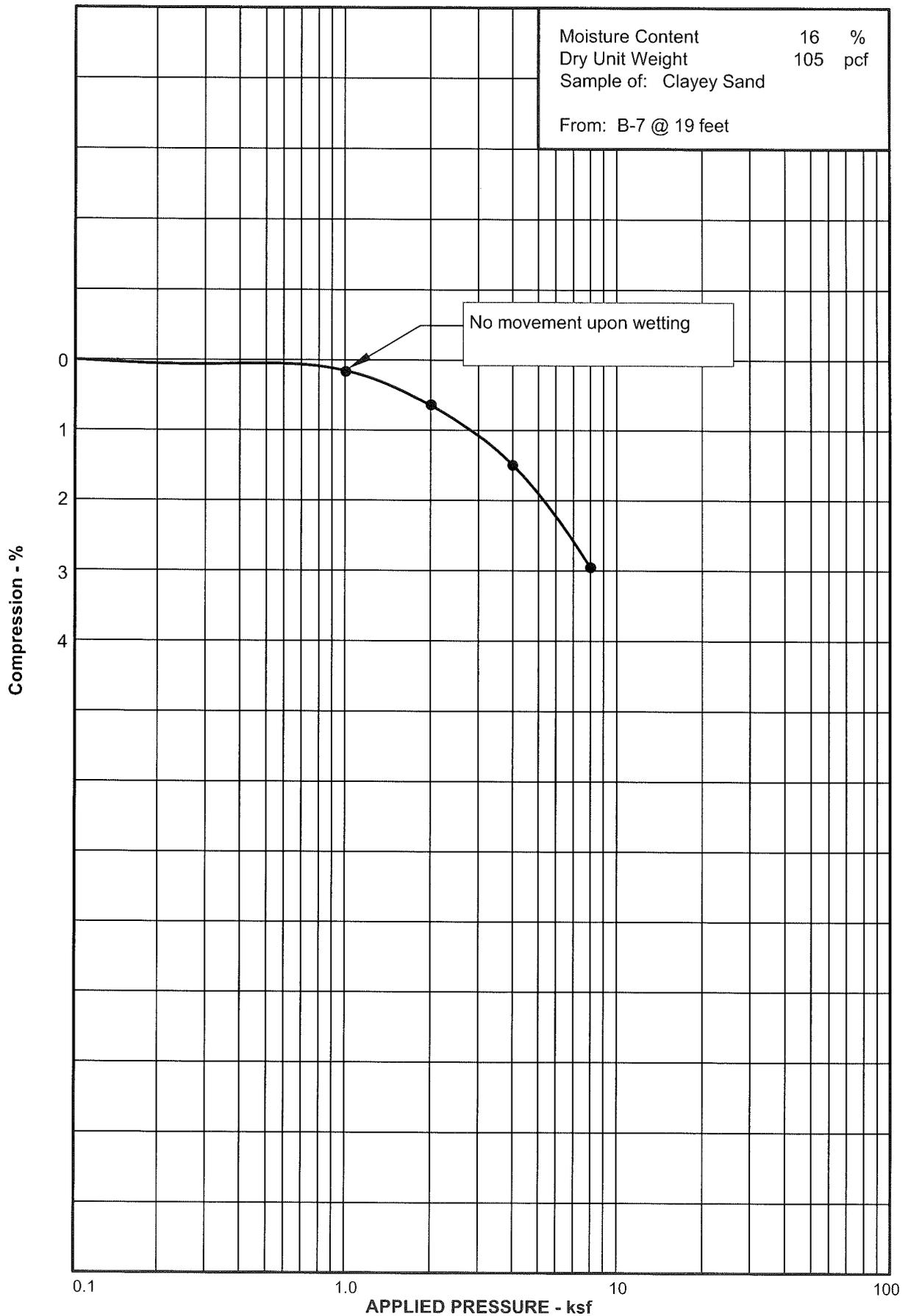
Applied Geotechnical Engineering Consultants, Inc.



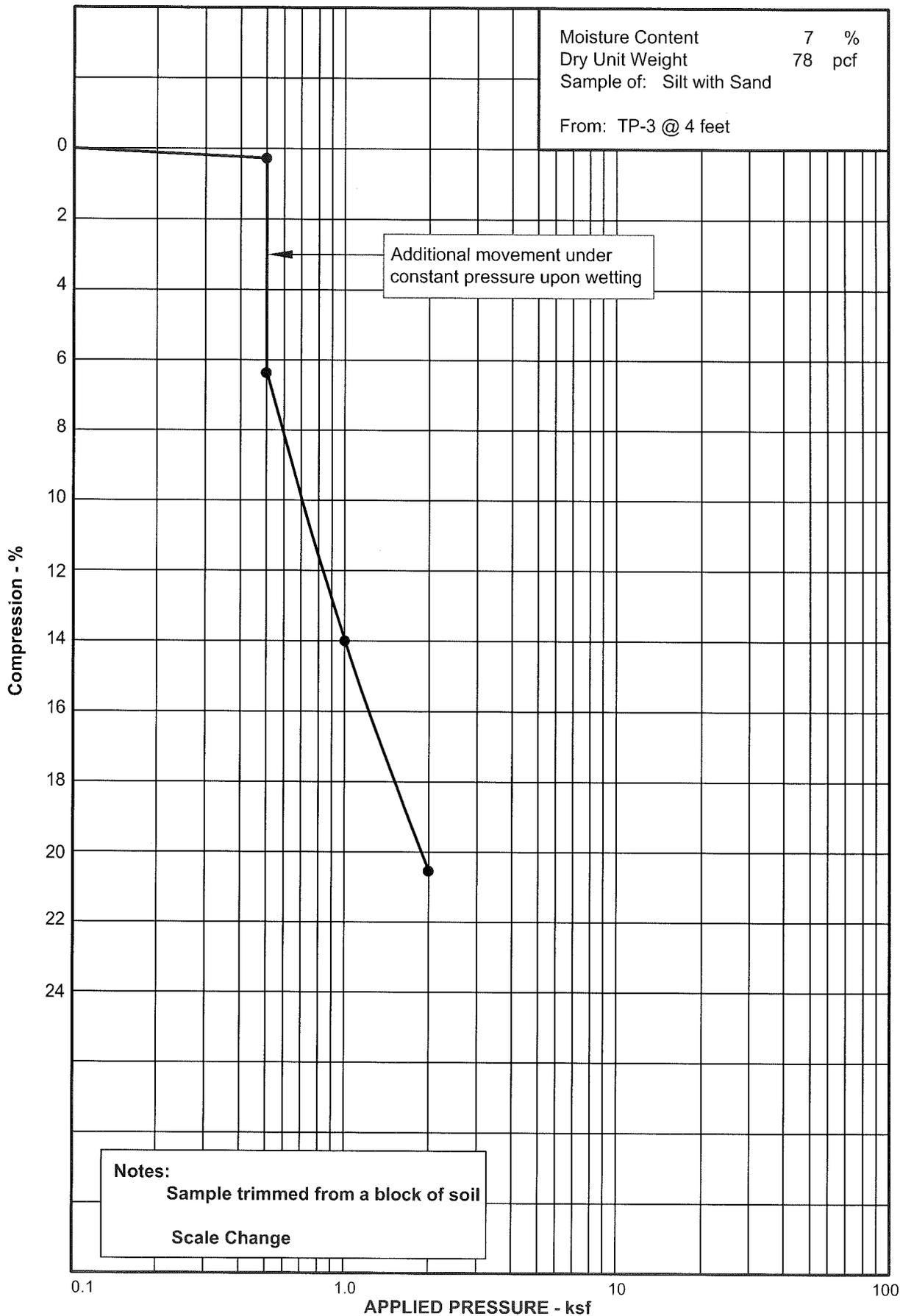
Applied Geotechnical Engineering Consultants, Inc.



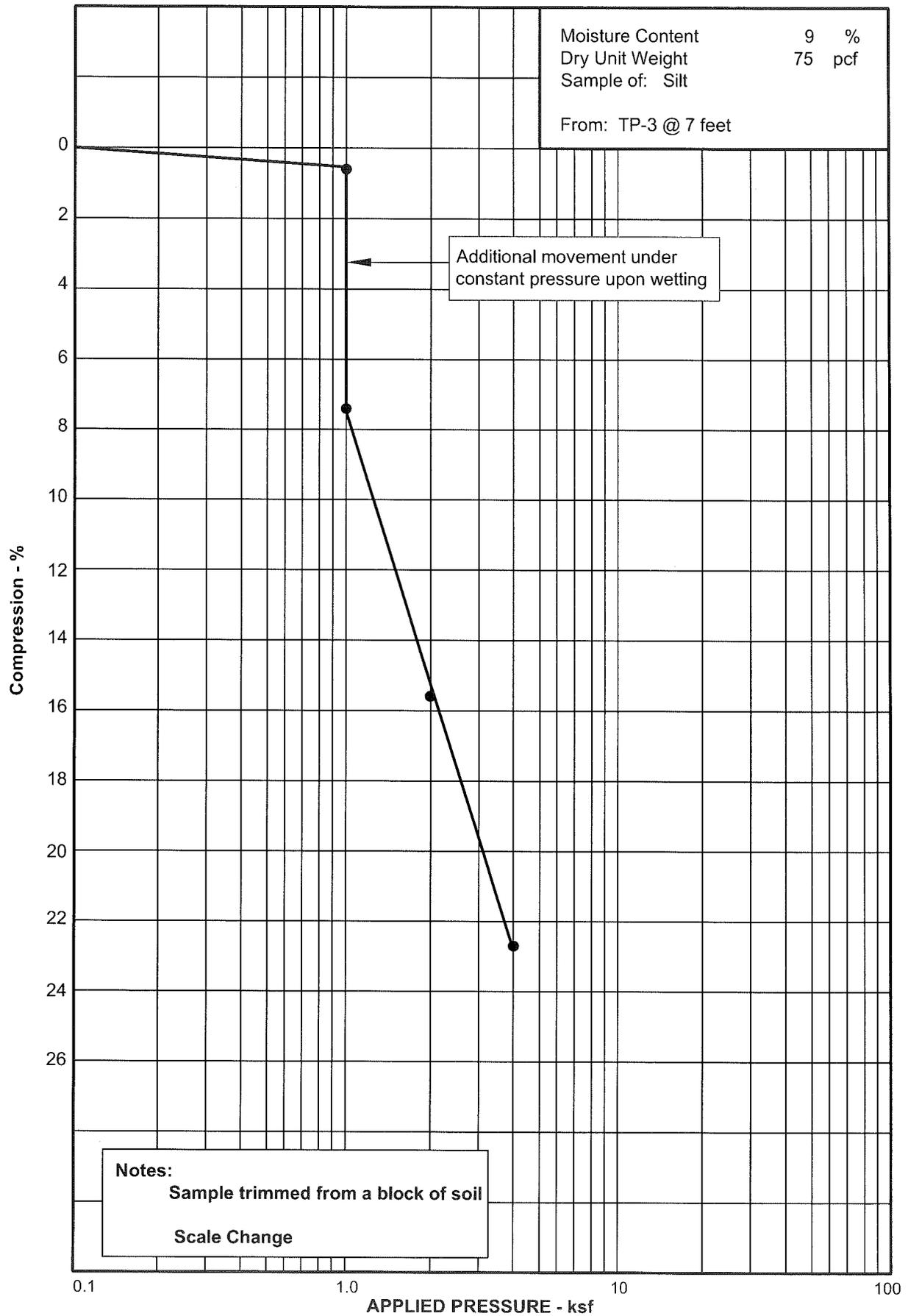
Applied Geotechnical Engineering Consultants, Inc.



Applied Geotechnical Engineering Consultants, Inc.



Applied Geotechnical Engineering Consultants, Inc.

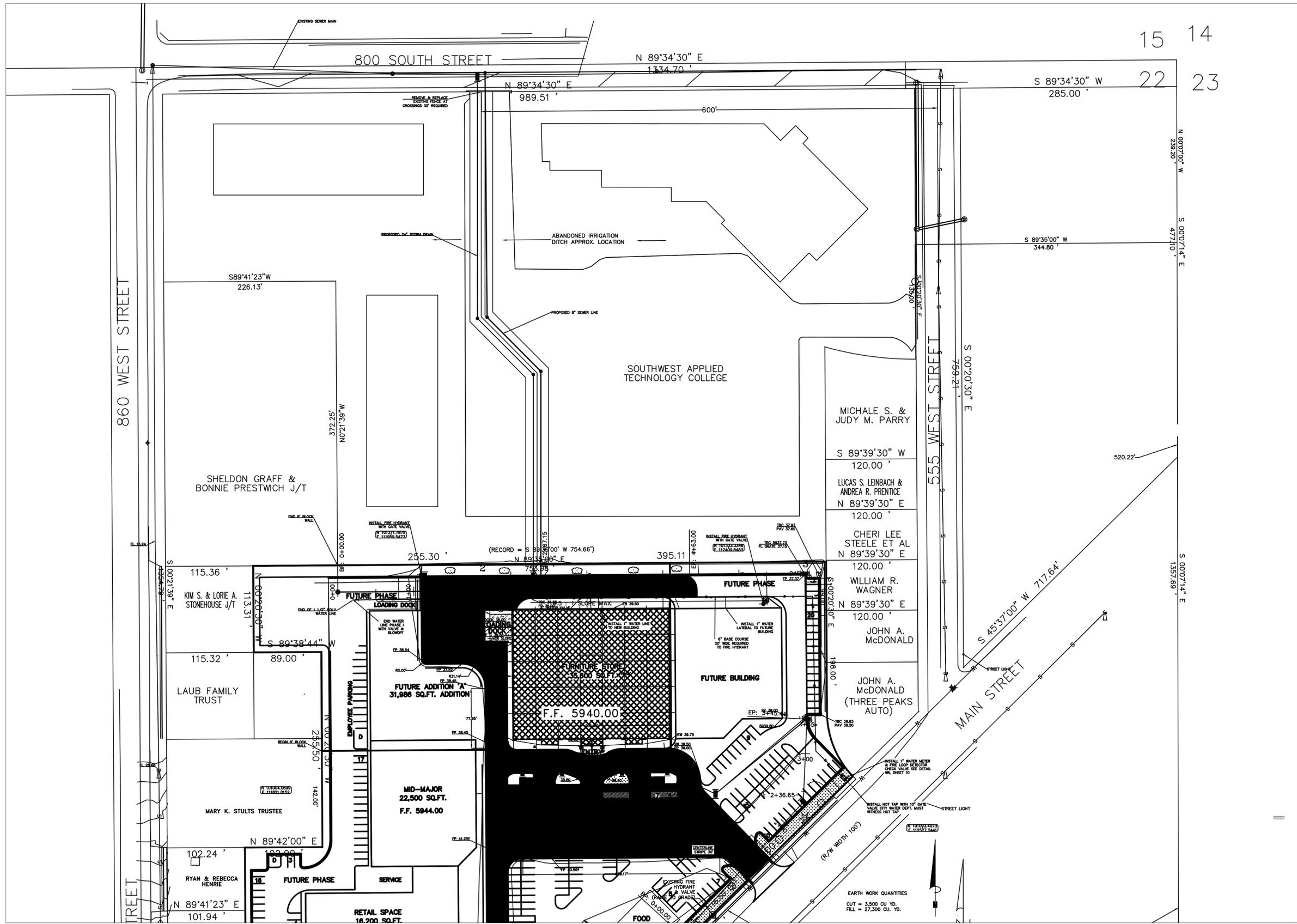




3.0 ATTACHMENTS

ATTACHMENT "D" SANITARY SEWER & STORM WATER UTILITY EASEMENT DRAWINGS

DATED AUGUST 16, 2012



860 WEST STREET

860 WEST STREET

800 SOUTH STREET

555 WEST STREET

MAIN STREET

SOUTHWEST APPLIED TECHNOLOGY COLLEGE

MICHALE S. & JUDY M. PARRY

S 89°39'30" W 120.00'

LUCAS S. LEINBACH & ANDREA R. PRENTICE

N 89°39'30" E 120.00'

CHERI LEE STEELE ET AL

N 89°39'30" E 120.00'

WILLIAM R. WAGNER

N 89°39'30" E 120.00'

JOHN A. McDONALD

JOHN A. McDONALD (THREE PEAKS AUTO)

SHELDON GRAFF & BONNIE PRESTWICH J/T

KIM S. & LORIE A. STONEHOUSE J/T

LAUB FAMILY TRUST

MARY K. STULTS TRUSTEE

RYAN & REBECCA HENRIE

FUTURE ADDITION A
31,986 SQ.FT. ADDITION

MID-MAJOR
22,500 SQ.FT.
F.F. 5944.00

FURNITURE STORE
35,800 SQ.FT.
F.F. 5940.00

FUTURE BUILDING

RETAIL SPACE
18,200 SQ.FT.

FOOD

EARTH WORK QUANTITIES
CUT = 3,500 CU. YD.
FILL = 27,300 CU. YD.

15 14

22 23

SHEET 1 OF 1

EASEMENT FOR
BOULEVARD HOME FURNISHINGS PHASE I
SOUTH MAIN CEDAR CITY, UTAH
WITHIN THE NE1/4 SEC. 22, T. 36 S., R. 11 W., S.L.B. & M.

BY: **PLATT AND PLATT, INC.**
CONSULTING ENGINEERS & SURVEYORS
195 NORTH 100 EAST, CEDAR CITY, UTAH 84720
P.O. BOX 398 CEDAR CITY, UTAH 84721-0398 PHONE: 435-586-6151

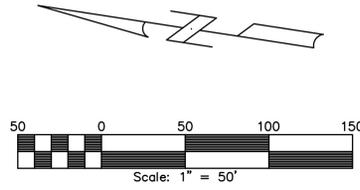
REVISED:

DRAWN BY
K.L. NELSON

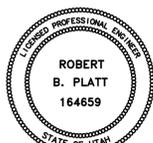
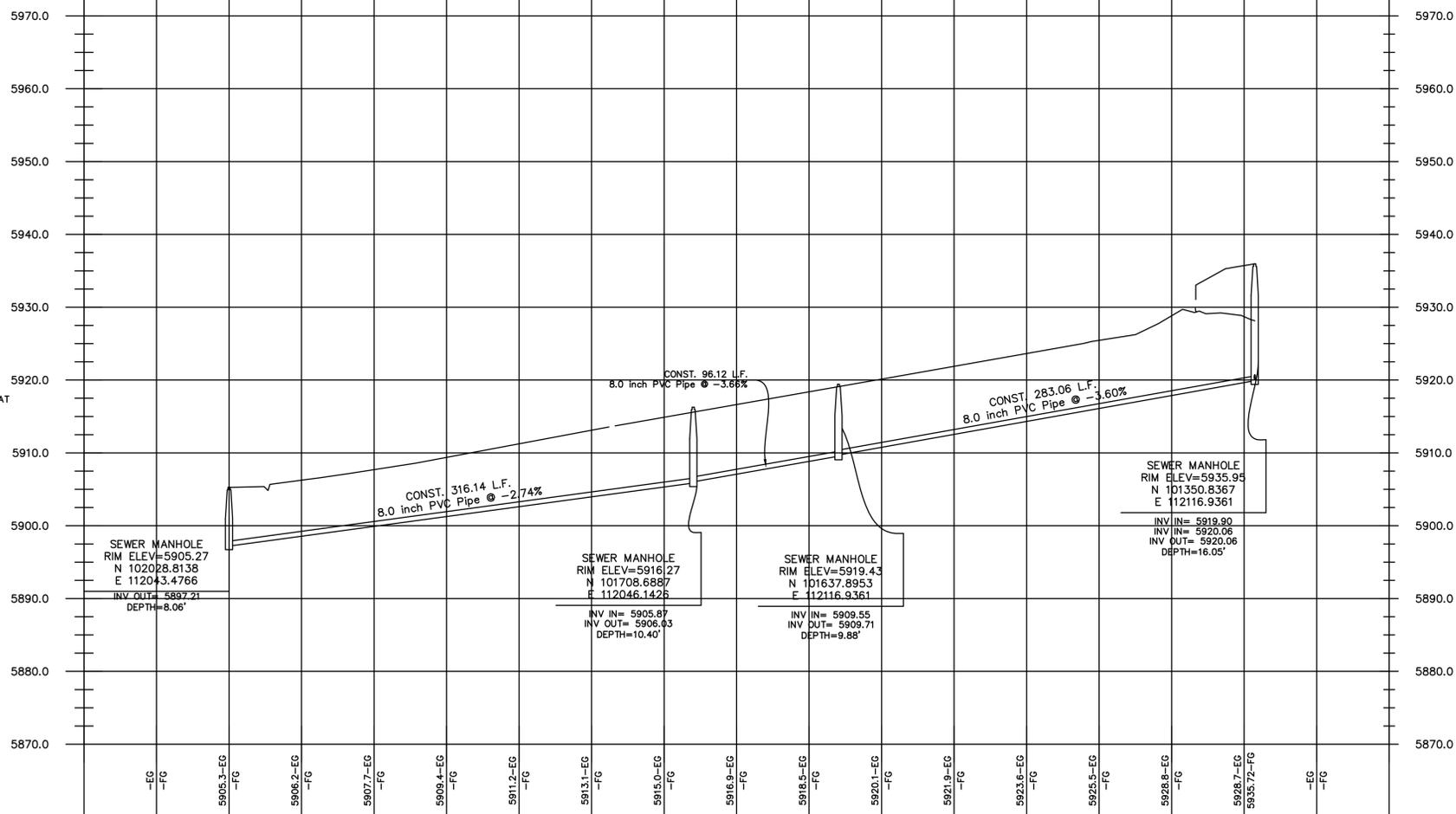
DATE
MAY, 2014

SCALE
N.T.S.

DRAWING NAME: c:\oldhdh\2012\BOULEVARD FURNITURE STORE\SITE PLAN PHASE 1.dwg



- NOTES:**
1. ALL WORK SHALL CONFORM TO CEDAR CITY ENGINEERING STANDARDS AND ENGINEERING STANDARD DRAWINGS, LATEST REVISIONS.
 2. SEE SHEET S1 TO SHEET S4 OF CEDAR CITY STANDARD DRAWINGS FOR SEWER LATERAL DETAILS AND SEWER MANHOLE DETAILS.
 3. SEWER LATERALS SHALL BE 6" DIAMETER AND SHALL CONFORM TO ASTM D-3034, SDR 35.
 4. SEWER MAIN SHALL BE 8" DIAMETER AND SHALL CONFORM TO ASTM D-3034, SDR 35.
 5. COORDINATES SHOWN ARE ON THE CEDAR CITY COORDINATE SYSTEM.
 6. ALL SEWER LINES MUST HAVE A MINIMUM OF 36" OF COVER OVER THE TOP OF THE PIPE.
 7. CONTRACTOR SHALL OBTAIN A ROAD BREAK PERMIT BEFORE PERFORMING ANY WORK IN 800 SOUTH STREET.
 8. THE PAVEMENT SECTION FOR THE 800 SOUTH STREET PATCH AREAS SHALL CONSIST OF 3" OF BITUMINOUS SURFACE COURSE OVER 12" OF UNTREATED BASE COURSE.
 9. THE SEWER INSTALLATION IN 800 SOUTH STREET SHALL BE DONE PER DETAIL R1, INCLUDING SAW CUTTING, ASPHALT REPLACEMENT, AND FLUSH COATING. PROPER TRAFFIC CONTROL MUST BE PROVIDED THAT WILL MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ON 800 SOUTH.
 10. A CONCRETE COLLAR IS REQUIRED AROUND THE NEW SEWER MANHOLE LID PER DETAIL S2.
 11. 11"x17" SHEETS ARE NOT TO SCALE.
 12. BLUE STAKES: REQUIRED.
 13. THE EXISTING IRRIGATION DITCH THROUGH THE SWATC PROPERTY NEEDS TO REMAIN IN SERVICE BECAUSE IT CARRIES STORMWATER. WHEN THE SEWER AND STORM DRAIN INSTALLATION IS COMPLETED THROUGH THE SWATC PROPERTY THE EXISTING IRRIGATION DITCH SHALL BE REGRADED TO ITS ORIGINAL CONDITION.
 14. THE EXISTING SEWER MAIN IN 800 SOUTH STREET IS 8" DIAMETER CLAY PIPE. THE CEDAR CITY SEWER DEPARTMENT WILL NEED TO BE ON-SITE WHEN THIS SEWER TIE IN IS MADE AND ALL WORK WILL NEED TO BE COORDINATED WITH THE CEDAR CITY SEWER DEPARTMENT AND THE CEDAR CITY ENGINEERING DEPARTMENT. IF AN EXISTING BELL IS IN PLACE AT THE TIE IN LOCATION, THE TIE IN SHALL BE MOVED SLIGHTLY WEST TO MISS THE BELL.
 15. A TROUGH SHALL BE FORMED IN THE CONCRETE BASE OF THE NEW MANHOLE WHERE THE LINE TIES INTO THE EXISTING 8" CLAY SEWER MAIN ON 800 SOUTH, PER DETAIL S2.



CHECK BY: 2ND REVIEW JULY 13, 2013 REVISED: JULY 25, 2013 LOWER LINE DRAWN BY: K.L. NELSON DATE: JUNE, 2013 SCALE: 1" = 50' DRAWING NAME: C:\OUR\2012\BOULEVARD FURNITURE STORE\SITE PLAN PHASE 1.dwg	
BY: PLATT AND PLATT, INC. CONSULTING ENGINEERS & SURVEYORS 195 NORTH 100 EAST, CEDAR CITY, UTAH 84720 P.O. BOX 398 CEDAR CITY, UTAH 84721-0398. PHONE: 435-586-6151	
SEWER PLAN AND PROFILE FOR BOULEVARD HOME FURNISHINGS 990 SOUTH MAIN CEDAR CITY, UTAH WITHIN THE NE1/4 SEC. 22, T. 36 S., R. 11 W., S.L.B. & M.	SHEET 6 OF 12

