State of Utah

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Department of Administrative Services
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Executive Director

Division of Facilities Construction and Management
DAVID G. BUXTON
Director

ADDENDUM #2

Date: August 7, 2008

To: Contractors

From: Jeff Reddoor, Project Manager, DFCM

Reference: Facility Management Building
Southern Utah University – Cedar City, Utah, Utah
DFCM Project No. 08115730

Subject: **Addendum No. 2**

Pages			
	Addendum	1	page
	Revised Project Schedule	1	page
	Architects Addendum	64	pages
	Total	66	pages

Note: This Addendum shall be included as part of the Contract Documents. Items in this Addendum apply to all drawings and specification sections whether referenced or not involving the portion of the work added, deleted, modified, or otherwise addressed in the Addendum. Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to Disqualification.

While we contend that SB220 should only be potentially applicable to a contract issued after the effective date of said bill, this is to clarify that for purposes of this contract, regardless of the execution or effective dates of this contract, the status of Utah Law and remedies available to the State of Utah and DFCM, as it relates to any matter referred to or affected by said SB220, shall be the Utah law in effect at the time of the issuance of this Addendum.

1.1 **SCHEDULE CHANGES – There are changes to the project schedule.**
Bid date has been changed to **August 13, 2008 at 3:30 pm**
Sub-contractor list due **August 14, 2008 by 3:30 pm**

1.2 **GENERAL** – Sargent Design Group – Please see attached addenda.

Utah!
Where ideas connect

STATE OF UTAH - DEPARTMENT OF ADMINISTRATIVE SERVICES

Division of Facilities Construction and Management

DFCM

REVISED – PROJECT SCHEDULE
AS PER ADDENDUM NO. 2 DATED – August 7, 2008

PROJECT NAME: FACILITIES MANAGEMENT BUILDING
SOUTHERN UTAH UNIVERSITY – CEDAR CITY, UTAH
DFCM PROJECT NO:08115730

Event	Day	Date	Time	Place
Bidding Documents Available	Wednesday	July 23, 2008	1:00 PM	DFCM 4110 State Office Bldg SLC, UT and DFCM web site *
Mandatory Pre-bid Site Meeting	Wednesday	July 30, 2008	2:00 PM	SUU Campus-Physical Plant Building 351 W. Center, Cedar City, UT
Last Day to Submit Questions	Tuesday	August 5, 2008	3:00 PM	Jeff Reddoor – DFCM E-mail jreddoor@utah.gov Fax 801-538-3267
Addendum Deadline (exception for bid delays)	Thursday	August 7, 2008	3:00 PM	DFCM web site *
Prime Contractors Turn In Bid and Bid Bond	**Wednesday**	**August 13, 2008**	**3:30 PM**	DFCM 4110 State Office Building SLC, UT
Sub-contractor List Due	**Thursday**	**August 14, 2008**	**3:30 PM**	DFCM 4110 State Office Building SLC, UT Fax 801-537-9188
Substantial Completion Date	Friday	December 19, 2008	5:00 PM	

* **NOTE: DFCM's web site address is http://dfcm.utah.gov**

SARGENT DESIGN GROUP
ARCHITECTURE | PLANNING

36 North 300 West, Suite B
Cedar City, Utah 84720
Office: (435) 586-8510 | Fax: (435) 586-4873
Cell: (702) 234-7169
Email: jcoltons@email.com

August 7, 2008

DFCM Project Number: 08115730
SUU Facilities Management Building

Addendum Number 2

Items that are not in the contract:

1. Site
   a. University personnel to paint parking lot striping and not in contract.
   b. University to provide all site signage, including the building signage, University signage and the parking lot signage and not in contract.
   c. University to provide site lighting fixtures and not in contract. Base for site lighting will be in contract. Reference SUU Facilities Management Web Site, Standard Details: LT-5 Assembly Detail.
   d. Electrical Transformer, trenching, conduit, wiring and associated concrete pad provided and installed by the University and not in contract.
   e. University to provide underground conduit and wiring for the weather station and not in contract.
   f. The perimeter fence, which is currently being installed, and the gates are not in the contract.
   g. The hatched sidewalk to the south of the building is outside of the project's construction limits. As indicated in the A1.10 Sheet General Notes the hatched graphic is to illustrate the accessible route required by the IBC and is not part of this contract.
2. Building
   a. Drawing flat file drawers identified in the Cad/Cam Room to be provided by the owner.

Addendum Items:

1. Finish Material Items
   a. Exterior Finish Materials –
      i. Exterior Building Colors - See attached detail AD001.
      ii. Roofing - Elk Building Products, Prestique Plus High Definition, 50 year Warrantee, Color: Barkwood
   b. Interior Finish Materials –
      i. Restroom Tile Colors
         1. Wall Tile – Daltile, Field Tile - Golden Granite No. 0138; Accent Bullnose – Fawn No. 0136
         2. Floor Tile – Daltile, Almond No. VS04, 12x12
         3. Tile Base - Daltile, Almond No. VS04, 6x12
         4. Grout - Mapei, Pale Umber No. 44
      ii. Mechanical Room Tile Colors
         1. Floor Tile – Mannington, Sandrift No. 137
         2. Rubber Base -
      iii. Custodian Closet
         1. Wall Tile - Daltile, Field Tile – Golden Granite No. 0138; Accent Bullnose – Fawn No. 0136
            Wall tile occurs behind mop sink, 48"x60"
         2. Floor Tile - Daltile, Almond No. VS04, 12x12
         3. Tile Base - Daltile, Almond No. VS04, 6x12
         4. Grout - Mapei, Pale Umber No. 44

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iv. Entry Foyer and Vestibule - Carpet Tile – Lees Step-Up Mineral, T43965. The carpet tile will be included in the contract.
v. Offices - Carpet Tile – Shaw/Kinetic (Sheer Magnetic) with 4" carpet base. The carpet tile will be included in the contract.

2. Doors and Windows Items
a. See attached revised Hardware Section 08710 for additional information.
b. See attached hardware set schedule.
c. Exterior entry doors to have stand alone electronic access control.
i. Schlage CM 993 with Mag, keypad and ibutton credential capabilities.
d. VT Doors are acceptable alternates to doors identified in the specifications. See www.vtindustries.com/doors.
e. The access door identified on Sheet A3.10, Reflected Ceiling Plan and as Detail 13 on Sheet A11.30 will be located in the gypsum board ceiling in the Mechanical/Electrical Room.
f. The threshold at all doors where dissimilar floor material occurs (carpet and tile) will marble. See attached detail AD004.
g. Reverse the door swings for Door Numbers 118 and 119. Doors to swing to the South instead of opening into the wind.

3. General Items
a. All framed walls to be metal stud. Exterior wall furring to be 3 5/8" inch, 20 gauge metal studs. The interior walls to be 3 5/8", 20 gauge metal studs.
b. Provide sound batt insulation across the tops of all common walls between offices, conference room and all other spaces. Batt insulation to extend a minimum of 16" each side of the wall as a continuous batt.
c. Provide corner guards at all exterior corners along the hallways within the building. See Section
d. The roof decking will be ¾" APA.
e. Provide two (2) fire extinguishers. Extinguishers to be located along opposite ends of the longer hallways.
f. All cabinets identified on the drawings, located in the Business Office and Cad/Cam Room, are included as Add Alternate Number 3.
g. Gutters to be 5" wide x 4" deep and downspouts to be 3"x4".
h. Per DFCM General Conditions 4.6, "Superintendent – The contractor shall emply a competent superintendent and necessary assitents who shall be in attendance at the Project site during performance of the Work." The presents of supervision will be monitored.
i. Restroom Accessories to be provided by SUU: Toilet Paper Dispenser; Paper Towel Dispenser; and Soap Dispenser. All other accessories to be provided by the contractor. There are no robe hooks.
j. There will not be a fire sprinkler system. Delete Sections 13390 and 13935 from the bid documents.
k. Southern Utah University is tax exempt. The tax exempt number will be provided to the successful contractor at the time of the award of the contract.
l. Provide 10 Owens Corning, Ventsure High Profile Slant Back Roof Vent with Exterior Louver, Model #VTS455BR, Brown/Aluminum in conjunction with ridge vent and soffet vents. Locate the additional vents on the East side of the roof no lower than 3 feet from the roof ridge.
m. Milgard Aluminum Windows are an acceptable manufacturer.

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n. There are no impact fees and there are connection fees.
o. There is no trim, base or casework.
p. Sheet A10.10, Finish Schedule – AW1 and AW2 reference walls to receive accent colors. Accent colors are referenced in the schedule and are referenced in order that they occur.
q. Sheet A10.10, Finish Schedule – Window Blinds referenced are part of the contract.
r. All furniture to be provided by the University.
s. The casework identified in Room 120 is included as an add alternate.

4. Structural Questions

a. The reinforcing steel in the slabs will be per the structural drawings - #4 at 24" O.C.
b. Required frost dept is 30", (12" thick footing, 24" foundation wall) gives 6" wall above grade.
c. Stepped footing required to maintain 30" frost depth. Provide when required by site conditions.
d. The steel lintel plates identified in Details 1 and 4 on Sheet A11.31 are to be deleted from the project.

5. Civil Site Items

a. The handrail detail identified on Sheet C7 is located on Sheet C2, of the bid set, as Key Note 12.
b. The new gravel drive identified as Note 7 on Sheet C2 in the Northeast corner of the construction site will be 8" of road base over 8" of Type 1 gravel.

6. Architectural Site Items

a. The trash enclosure does not have a gate. See attached drawing, AD003, for additional information concerning the trash enclosure.
b. Contractor to provide a minimum 10' pvc down spout extension at all down spout locations and delete the splash blocks from the project.
c. A drip type sprinkler system will be included with the landscaping. The information concerning the sprinkler system is identified on the second landscaping sheet provided by the SUU Grounds Department.
d. All conduit intended for electrical wiring and future connections to solar panels, wind turbins and weather station to be routed and stubbed up into the electrical room.
e. Site grading to be finished with 6" of top soil.
f. Any export generated during site preparation can remain on site in area identified by SUU.
g. Downspout extension to be located in trench through sidewalk with metal lid where occurs.

7. Electrical Items

a. Provide conduit and wiring to site lighting locations.
b. Provide dual switching for lighting in Rooms 103, 115, 116 and 120.
c. Lighting fixtures in Room 109 should be F1 not F6.
d. Lighting fixtures in Room 114 should be F5 or similar surface mount not F2.
e. Sheet E3.1 shows communications stubbed into ceiling only. Change to located in conduit in slab. (1) ¾" to each jack.
f. Sheet E3.1 and other electrical sheets show a CT can at power service. It is not needed. SUU wants a 400 amp meter with – 200 amp breakers and lik by-pass.
g. Sheet E3.1 shows 2" conduit for cable tv. This is not needed. The cable for the tv can be pulled through the 4" communications conduit from SUU Campus. Delete the 2" conduit.

8. Mechanical Items

a. ACME Roof Mounted Inlets/Outlets are acceptable and can be added to the list of approved manufacturers.

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Attachements:

Add Alternate List

Specifications: 10263 – Corner Guards; 08710 – Hardware; Hardware Sets and Soils Report.

Drawings: All Civil Drawing Sheets; A1.10 Architectural Site Plan; AD001; AD002; AD003; AD004; Landscape drawings with plant list; and All Mechanical and Plumbing Drawing Sheets.

John Colton Sargent
Architect

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Add Alternates

1. Entry Canopy – See attached entry canopy details. Details – AD002.
2. Site Landscaping – See attached landscaping drawings and planting list developed by SUU Landscaping Department.
3. The cabinets and shelving identified in the Room 120 (Business Office) and the cabinets identified in Room 115 (Cad/Cam Room). Shelving in Room 115 (Cad/Cam Room) identified on Sheet A10.20. Casework in the Room 120 (Business Office) to be 5’-6” wide x 1’-1” deep x 3’-0” tall and 4’-10” wide x 1’-1” deep x 3’-0” tall with two adjustable shelves. Material to be wood and finish to match doors.

SECTION 08710

HARDWARE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Finish hardware for doors as specified and as listed in "Hardware Groups" and required by actual conditions.
   1. Include screws, special screws, bolts, special bolts, expansion shields, and other devices for proper application of hardware.

B. Related Sections:
   1. Section 06101 (06 10 10): Carpentry
   2. Section 08110 (08 11 00), Section 08120 (08 12 00), and Section 08211 (08 21 00) - Certain hardware items installed with doors.
   3. Division 16: Electrical.

1.02 GENERAL REQUIREMENTS

A. Provide items, articles, materials, operations and methods listed, mentioned or scheduled herein or on drawings, in quantities as required to complete project. Provide hardware that functions properly. Prior to furnishing hardware, advise Architect of items that will not operate properly, are improper for conditions, or will not remain permanently anchored.

1.03 SUBMITTALS

A. Hardware Schedule: Submit 5 copies of hardware schedule in vertical format as illustrated by the Sequence of Format for the Hardware Schedule as published by the Door and Hardware Institute. Schedules which do not comply will be returned for correction before checking.

B. Hardware schedule shall clearly indicate architect's hardware group and manufacturer of each item proposed.

C. The schedule shall be reviewed prior to submission by a certified Architectural Hardware Consultant (AHC), who shall attest to the completeness and correctness of the schedule.
   1. Provide 2 copies of illustrations from manufacturer’s catalogs and data in brochure form.
   2. Check specified hardware for suitability and adaptability to details and surrounding conditions. Indicate unsuitable or incompatible items and proposed substitutions in hardware schedule.
   3. Provide listing of manufacturer's template numbers for each item of hardware in hardware schedule.
   4. Furnish other Contractors and Subcontractors concerned with copies of final approved hardware schedule. Submit necessary templates and schedules as soon as possible to hollow metal, wood door, and aluminum door fabricators in accordance with schedule they require for fabrication.
   5. Samples: Lever design or finish sample: Provide 3 samples if requested by architect.

D. Installation Instructions: Provide manufacturer's written installation and adjustment instructions for finish hardware. Send installation instructions to site with hardware.

E. Templates: Submit templates and "reviewed Hardware Schedule" to door and frame supplier and others as applicable to enable proper and accurate sizing and locations of cutouts and reinforcing.

F. Contract Closeout Submittals: Comply with Section 01700 including specific requirements indicated below.
   1. Operating and maintenance manuals: Submit 3 sets containing the following:
   2. Complete information in care, maintenance, and adjustment, and data on repair and replacement parts, and information on preservation of finishes.
   3. Catalog pages for each product.
   4. Name, address, and phone number of local representative for each manufacturer.
   5. Parts list for each product.
   6. Copy of final approved hardware schedule, edited to reflect "As installed".

7. Copy of final keying schedule.
8. As installed "Wiring Diagrams" for each opening connected to power, both low voltage and 110 volts.
9. One complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

G. On additions and renovations to existing facilities, contractor shall meet with owner to determine specific owner requirements regarding keying, special applications, brands, etc. and advise Architect if any revisions to the specification are required. Any changes to the specification must be in writing. Verbal authorization is not considered as valid.

1.04 QUALITY ASSURANCE

A. Manufacturer: Obtain each type of hardware (ie. latch and locksets, hinges, closers) from single manufacturer, although several may be indicated as offering products complying with requirements.

B. Supplier: Recognized architectural finish hardware supplier, with warehousing facilities, who has been providing hardware for period of not less than 3 years. The supplier shall be, or employ, a certified Architectural Hardware Consultant (AHC), who is registered in the continuing education program as administered by the Door and Hardware Institute. The hardware schedule shall be prepared and signed by a certified AHC.

C. Installer: Firm with 3 years experience in installation of similar hardware to that required for this project, including specific requirements indicated.

D. Regulatory Label Requirements: Provide nationally recognized testing agency label or stamp on hardware for labeled openings. Where UL requirements conflict with drawings or specifications, hardware conforming to UL requirements shall be provided. Conflicts and proposed substitutions shall be clearly indicated in hardware schedule.

E. Pre-Installation Conference: Prior to the installation of hardware, manufacturer's representatives for locksets, closers, and exit devices shall arrange and hold a jobsite meeting to instruct the installing contractor's personnel on the proper installation of their respective products. A letter of compliance, indicating when this meeting is held and who is in attendance, shall be sent to the Architect and Owner.

1.05 DELIVERY, STORAGE AND HANDLING

A. Deliver hardware to jobsite in manufacturer's original packaging, marked to correspond with approved hardware schedule. Do not deliver hardware until suitable locked storage space is available. Check hardware against reviewed hardware schedule. Store hardware to protect against loss, theft or damage.

B. Deliver hardware required to be installed during fabrication of hollow metal, aluminum, wood, or stainless steel doors prepaid to manufacturer.

1.06 WARRANTY

A. Guarantee workmanship and material provided against defective manufacture. Repair or replace defective workmanship and material appearing within period of one year after Substantial Completion.

B. Provide ten year factory warranty on door closer body against defects in material and workmanship from date of occupancy of Project.

C. Replace shortages and incorrect items with correct material at no additional cost to Owner.

D. At completion of project, qualified factory representative shall inspect closer installations. After this inspection, letter shall be sent to Architect reporting on conditions, verifying that closers have been properly installed and adjusted.

PART 2 PRODUCTS

2.1 BUTTS AND HINGES

A. Acceptable Manufacturers and Types:

McKinney	T4A3795	TA2714	TA2314	T4A3786	T4A3386

B. Application:

1. Provide NRP (non-removable pins) at out-swinging lockable doors.

C. Size:

1.	2-1/4 inch Doors	5 inch by 5 inch
2.	1-3/4 inch Doors	4-1/2 inch by 4-1/2 inch
3.	1-3/8 inch Doors	3-1/3 inch by 3-1/2 inch

D. Quantity:

1. 2 - hinges per leaf for openings through 60 inches high.
2. 1 - additional hinge per leaf for each additional 30 inches in height or fraction thereof.
3. 4 - Dutch doors up to 90 inches in height.

E. Drill 5/32 inch hole and use No. 12, 1-1/4 inch steel threaded to the head wood screws for hinges on wood doors.

2.2 CONTINUOUS GEARED HINGES

A. Acceptable manufacturers:

Manufacturer		
McKinney	MCK-12HD	MCK-25HD
Markar	FM101	FM111
Pemko	FM__SLFHD	FM__HD

B. Provide one of the above two models of continuous hinges as appropriate for the type, inset, and thickness of door where specified. Coordinate hinge types with the door supplier.

2.3 LOCKSETS – MORTISE

A. Acceptable Manufacturer and Series:

Manufacturer	Series
Sargent	8200
Yale	8800FL
Corbin/Russwin	ML2000
Schlage	L9000

B. Provide lock functions specified in Hardware Groups, with following provisions:

1. Locksets shall meet the requirements of ANSI/BHMA A156.13-1994, Operational Grade 1, and Security Grade 1.
2. Backsets: 2-3/4 inches.
3. Strikes: Provide wrought boxes and strikes with proper lip length to protect trim but not to project more than 1/8 inch beyond trim, frame or inactive leaf. Where required, provide open back strike and protected to allow practical and secure operation.
4. All locksets and latches are to be BHMA Certified.

2.4 EXIT DEVICES

A. Acceptable Manufacturers:

Manufacturer	
Sargent	80 Series
Yale	7000 Series
Corbin/Russwin	ED5000 Series
Von Duprin	99/33 Series

B. Provide exit device series and functions as specified in Hardware Groups.

C. All exit devices shall be UL listed for panic. Exit devices for labeled doors shall be UL listed as “Fire Exit Hardware”.

D. Where lever trim is specified, provide lever design to match lockset levers.

E. Provide cylinders for exit devices with locking trim, key removable mullions and cylinder dogging.

F. All exit devices are to be BHMA Certified.

2.5 KEYING

A. Acceptable Manufacturers and Types:

Manufacturer
Match Owner’s existing key system.

B. Master key or Grand master key cylinders and key in groups, unless otherwise specified. Factory masterkey with manufacturer retaining permanent keying records.

C. Provide 6 masterkeys for each masterkey set. Provide 3 change keys for each lock. Provide 2 control keys for core removal. Stamp keys “DO NOT DUPLICATE.”

D. Submit proposed keying schedule to Architect. If requested, meet with Owner and Architect to review schedule.

E. Provide high security removable core cylinders, with patented key control, for each lock with construction masterkeying. Permanent cores shall be installed upon completion of the project.

2.6 DOOR TRIM

A. Acceptable Manufacturers and Types:

Manufacturer					
McKinney	DP503	P053	PB801	OP4513	OP810
Trimco	1013-3	1001-3	1741		1737
Quality	1510-5	40-5	473		484

B. Push Plates:

1. Push plates are to be 0.050” thick with four beveled edges.

C. Push Bars:

1. McKinney type PB801, unless otherwise indicated.

D. Pulls:

1. McKinney Series OP4015, unless otherwise indicated.

2. Where required, mount back to back with push bars.

E. Kick Plates and Armor Plates:
1. Minimum of 0.050 inch thick, beveled 4 edges.
2. Height of 10 inches, unless otherwise indicated.

F. Edge Guards:
1. Minimum .050" thick, stainless steel,
2. As noted in Hardware Groups.

2.7 DOOR CLOSERS

A. Acceptable Manufacturers and Types of Exposed Closers:

Manufacturer	
Norton	7500/PR7500
Sargent	351/351-P10
Yale	4400/PR4400
Corbin/Russwin	DC8000
LCN	4040 Series

B. Provide non-sized closers, adjustable to meet maximum opening force requirements of ADA.

C. Provide drop plates, brackets, or adapters for arms as required to suit details.

D. Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

E. Provide back-check for closers.

F. Provide hold-open arms where indicated.

G. Provide closers for doors as noted in Hardware Groups and, in addition, provide closers for labeled doors whether or not specifically noted in group.

H. Provide closers meeting the requirements of UBC 7-2, 1997 and UL 10C positive pressure tests.

I. All door closers shall be BHMA Certified.

2.8 WALL STOPS AND HOLDERS

A. Acceptable Manufacturers and Types:

Manufacturer					
McKinney	WS01	WS02	FS29	FS01	ADH02
Trimco	1270WXCP	1270SVCP	1214H	1211	1261
Rockwood	407	410	481H	441	531

B. Provide wall stop as applicable, for each door leaf. If a wall stop cannot be used, use a floor stop. If neither a wall stop nor a floor stop can be used, provide an overhead stop.

2.9 THRESHOLDS

A. Acceptable Manufacturers: McKinney, Pemko, and Reese Enterprises.

Manufacturer	

McKinney	MCK272A
Pemko	272A

B. Where thresholds are specified in hardware groups, provide MCK272A thresholds unless detailed otherwise.

C. Refer to drawings for special details. Provide accessories, shims and fasteners.

D. Where thresholds occur at openings with one or more mullions, they shall be cut for the mullions and extended continuously for the entire opening.

2.10 WEATHERSTRIPPING

A. Acceptable Manufacturers and Product:

Manufacturer	Sweep	Jamb	Raindrip
McKinney	MCK18061_NB	MCK303_PK	MCK346 _
Pemko	18061 _NB	303_PK	346 _

B. Where weatherstripping is specified in hardware groups, provide MCK303_PK unless detailed otherwise.

C. Provide self-tapping fasteners for weatherstripping being applied to hollow metal frames.

D. Where sweeps are specified in hardware groups, provide MCK18061_NB unless detailed otherwise.

E. Where rain drips are specified in hardware groups, provide MCK346C x full frame width, unless detailed otherwise.

2.11 KEY CABINET

A. Provide key cabinets by Lund Equipment, Telkee Incorporated, or Key Control.

B. Lund Deluxe wall type cabinet, Series 1200.

C. Provide cabinet with one hook for each lock or cylinder plus at least 50 percent extra hooks.

D. Provide each hook with one non-removable security key tag and one snap-on link duplicate key tag.

E. Provide tools, instruction sheets and accessories required to complete installation.

F. Owner will place keys in key cabinet and complete index cards furnished with key system.

2.12 KEY MANAGEMENT SOFTWARE

A. Provide Key Wizard® key management software. Provide a single license version (KW-SS1) or New Masterkey Version (DLKW1) as required.

B. Software shall provide tracking, issuing, collecting and transferring information regarding keys, doors, and hardware.

C. Provide training for Owner's personnel on the proper operation and application of the key management software.

2.13 FASTENERS

A. Including, but not limited to, wood or machine screws, bolts, bolts, nuts, anchors, etc. of proper type, material, and finish required for installation of hardware.

B. Use only manufacturer supplied fasteners to anchor, attach or otherwise install all pieces of hardware.

C. Install all door closers and exit devices with machine screws, whether or not self-tapping (self-drilling) fasteners are offered by the manufacturer. Provide sex bolts (SNB) or through bolts (TB) at all fire rated wood doors unless proper blocking is provided by the door manufacturer.

D. Use phillips head for exposed screws. Do not use aluminum screws to attach hardware.

E. Provide self-tapping (TEC) screws for attachment of sweeps and stop-applied weatherstripping only.

F. Replace all fasteners that have damaged heads due to improper installation methods.

2.14 TYPICAL FINISHES AND MATERIALS

A. Finishes, unless otherwise specified:

1. Butts: Outswinging Exterior Doors:
   a. US32D (BHMA 630) on Stainless Steel

2. Butts: Interior Doors and Inswinging Exterior Doors
   a. S26D (BHMA 652) on Steel

3. Continuous Hinges:
   a. US28 (BHMA 628) on Aluminum

4. Flush Bolts:
   a. US26D (BHMA 626) on Brass or Bronze

5. Exit Devices:
   a. US32D (BHMA 630) on Stainless Steel

6. Locks and Latches:
   a. US26D (BHMA 626) on Brass or Bronze

7. Push Plates, Pulls and Push Bars:
   a. US32D (BHMA 630) on Stainless Steel

8. Coordinators:
   a. USP (BHMA 600) on Steel

9. Kick Plates, Armor Plates, and Edge Guards:
   a. US32D (BHMA 630) on Stainless Steel

10. Overhead Stops and Holders:
    a. US26D (BHMA 626) on Brass or Bronze

11. Closers: Surface mounted.
    a. Sprayed Aluminum Lacquer.

12. Latch Protectors:
    a. US32D (BHMA 630) on Stainless Steel

13. Miscellaneous Hardware:
    a. US26D (BHMA 626) on Brass or Bronze

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine doors, frames, and related items for conditions that would prevent the proper application of finish hardware. Do not proceed until defects are corrected.

3.2 INSTALLATION

A. Prior to commencement of installation of the hardware, there shall be a pre-installation meeting of all installers with the factory representative or other appointed agent of hinges, door closers and exit devices to confirm that all installers are familiar with factory requirements for proper installation of the hardware. If the installers are factory trained and possess a current certification card, the pre-installation meeting is not required.

B. Install finish hardware in accordance with reviewed hardware schedule and manufacturer's printed instructions. Prefit hardware before finish is applied, remove and reinstall after finish is completed. Install hardware so that parts operate smoothly, close tightly and do not rattle.

C. Installation of hardware shall comply with NFPA 80 and NFPA 101 requirements.

D. Set units level, plumb and true to line and location. Adjust and reinforce attachment to substrate as necessary for proper installation and operation.

E. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.

F. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant, forming tight seal between threshold and surface to which set. Securely and permanently anchor thresholds, using countersunk non-ferrous screws to match color of thresholds (stainless steel screws at aluminum thresholds).

3.3 FIELD QUALITY CONTROL

A. After installation has been completed, provide services of qualified hardware consultant to check Project to determine proper application of finish hardware according to schedule. Also check operation and adjustment of hardware items.

B. Adjust door control devices to compensate for final operation of heating and ventilating equipment.

3.4 ADJUSTING AND CLEANING

A. At final completion, hardware shall be left clean and free from disfigurement. Make final adjustment to door closers and other items of hardware. Where hardware is found defective repair or replace or otherwise correct as directed.

B. Adjust door closers to meet opening force requirements of Uniform Federal Accessibility Standards.

C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of space or area, return to work during week prior to acceptance or occupancy, and make final check and adjustment of hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors.

D. Instruct Owner's personnel in proper adjustment and maintenance of door hardware and hardware finishes.

E. Clean adjacent surfaces soiled by hardware installation.

3.5 PROTECTION

A. Provide for proper protection of items of hardware until Owner accepts Project as complete.

3.6 HARDWARE GROUPS

A. The following schedule of hardware groups shall be considered a guide only, and the supplier is cautioned to refer to general conditions, special conditions, and the preamble to this section. It shall be the hardware supplier's responsibility to furnish all required hardware.

3.7 HARDWARE GROUPS

SET #01

1	Continuous Hinge	MCK-12HD	CLEAR	MC
1	Exit Device	43 8504 Less Pull/ Less Cylinder	32D	SA
1	Cylinder	(MATCH OWNER'S STANDARD)	US26D	----
1	Door Pull	OP4513	US32D	MC
1	Closer	PR7500	689	NO
1	Drop Plate	7788	689	NO
1	Wall Stop	WS01 (Convex)	US32D	MC
1	Sweep	MCK18062 CNB		MW
1	Threshold	MCK272A MS&A		MW

NOTE: Seals are furnished by the door supplier.

SET #02

1	Continuous Hinge	MCK-25HD	CLEAR	MC
1	Exit Device	43 LC 8804 x 826	32D	SA
1	Cylinder	(MATCH OWNER'S STANDARD)	US26D	----
1	Closer	PR7500	689	NO
1	Kickplate	KP50 10" X 2" LDW	US32D	MC
1	Wall Stop	WS01 (Convex)	US32D	MC
1	Raindrip	MCK346 C		MW
1	Weatherstrip	MCK303 APK (Head & Jamb)		MW
1	Sweep	MCK18062 CNB		MW
1	Threshold	MCK272A MS&A		MW

SET #03

1	Continuous Hinge	MCK-12HD	CLEAR	MC
1	Push Bar	PB801	US32D	MC
1	Door Pull	OP4513	US32D	MC
1	Closer	PR7500	689	NO
1	Drop Plate	7788	689	NO
1	Door Stop	FS29	US26D	MC

NOTE: Seals are furnished by the door supplier.

SET #04

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Office Lock	LC 8205 LNP	26D	SA
1	Cylinder	(MATCH OWNER'S STANDARD)	US26D	----
1	Wall Stop	WS01 (Convex)	US32D	MC
3	Door Silencers	S1M		MC

SET #05

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Storeroom Lock	LC 8204 LNP	26D	SA
1	Cylinder	(MATCH OWNER'S STANDARD)	US26D	----
1	Wall Stop	WS01 (Convex)	US32D	MC
3	Door Silencers	S1M		MC

SET #06

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Privacy Latch	8265 LNP	26D	SA
1	Closer	7500	689	NO
1	Kickplate	KP50 10" X 2" LDW	US32D	MC

1	Wall Stop	WS01 (Convex)	US32D	MC
3	Door Silencers	S1M		MC

SET #07

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Classroom Lock	LC 8237 LNP	26D	SA
1	Cylinder	(MATCH OWNER'S STANDARD)	US26D	----
1	Closer	7500	689	NO
1	Kickplate	KP50 10" X 2" LDW	US32D	MC
1	Wall Stop	WS01 (Convex)	US32D	MC
3	Door Silencers	S1M		MC

SET #08

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Passage Latch	8215 LNP	26D	SA
1	Wall Stop	WS01 (Convex)	US32D	MC
3	Door Silencers	S1M		MC

SET #09

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Classroom Lock	LC 8237 LNP	26D	SA
1	Cylinder	(MATCH OWNER'S STANDARD)	US26D	----
1	Wall Stop	WS01 (Convex)	US32D	MC
3	Door Silencers	S1M		MC

SET #10

3	Hinges	TA2714 4 1/2 X 4 1/2	26D	MC
1	Push Plate	P053	US32D	MC
1	Door Pull	DP503	US32D	MC
1	Closer	PR7500	689	NO
1	Kickplate	KP50 10" X 2" LDW	US32D	MC
1	Wall Stop	WS01 (Convex)	US32D	MC
3	Door Silencers	S1M		MC

END OF SECTION

Southern Utah University Facilities Management Office
Cedar City, Utah

Opening List

Opening	Hdw Set	Opening Label	Door Type	Frame Type
100	01	None	AL	AL
101	03	None	AL	AL
102	04	None	WD	HM
103	04	None	WD	HM
104	04	None	WD	HM
105	04	None	WD	HM
106	04	None	WD	HM
107	04	None	WD	HM
108	05	None	WD	HM
109	06	None	WD	HM
110	05	None	WD	HM
111	06	None	WD	HM
112	05	None	WD	HM
113	07	None	WD	HM
114	08	None	WD	HM
115	08	None	WD	HM
116	09	None	WD	HM
117	09	None	WD	HM
118	10	None	HM	HM
119	02	None	HM	HM
120	04	None	WD	HM
121	07	None	WD	HM

SECTION 10260

WALL AND CORNER GUARDS

PART 1 GENERAL

1.1SECTION INCLUDES

A. Corner guards.

1.2REFERENCES

A. ANSI A117.1 - Specifications for Making Buildings and Facilities Accessible To and Usable By Physically Handicapped People.

1.3PERFORMANCE REQUIREMENTS

A. Corner guards to resist lateral impact force of 100 lbs at any point without permanent damage.

1.4SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Indicate physical dimensions, features, wall mounting brackets with mounted measurements, anchorage details, and rough-in measurements.

C. Samples: Submit two sections of corner guard, 24 inches long illustrating component design, configuration, and color and finish. Provide samples of manufacturer’s standard colors.

D. Manufacturer's Installation Instructions: Indicate installation rough-in measurements and instructions.

PART 2 PRODUCTS

2.1MANUFACTURERS

A. InPro Corporation.

B. Tepromark International, Inc.

C. Wallguard

D. Or Approved Equal

2.2COMPONENTS

A. Corner Guard - Surface Mounted: Projecting 3 inches from wall to outside of guard, high impact vinyl, extend 48” from top of carpet wall base with preformed end caps.

B. Mounting Brackets and Attachment Hardware: Appropriate to component and substrate.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify site conditions.

B. Verify that rough-in for components are correctly sized and located.

3.2 INSTALLATION

A. Install components in accordance with manufacturer's instructions, level and plumb, secured rigidly in position.

B. Position corner guard 48 inches, coordinate length with carpet wall base height.

END OF SECTION

GEM

Geotechnical **E**nvironmental **M**aterials Testing

Geotechnical Investigation

Proposed SUU Facilities Management Office Building

Approximately 1275 West and 400 South

Cedar City, Iron County, Utah

Prepared For:

Sargent Design Group
36 North 300 West Street
Cedar City, Utah 84720

June 13, 2008

Report Number: RG0828

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June 16, 2008

Sargent Design Group
36 North 300 West Street
Cedar City, Utah 84720

Subject: Proposed SUU Facilities Management Office Building
Approximately 1275 West and 400 South
Cedar City, Iron County, Utah

Enclosed is our geotechnical investigation report for the subject office building to be constructed at the subject site in Cedar City, Utah.

The report details our field exploration and laboratory testing program and presents our analysis, opinions and recommendations for the proposed project.

Moderately collapsible/compressible soils were encountered which will need to be overexcavated and recompacted as outlined in this report.

We appreciate this opportunity to be of service on this phase of the project and look forward to being of service as the project progresses. If you have any questions, please contact this office at your convenience.

Sincerely,

Joel A. Myers, P.E.
President

TABLE OF CONTENTS

APPENDICES

Appendix A

1.0 INTRODUCTION

1.1 GENERAL

This report presents the results of a geotechnical investigation performed for the proposed SUU Facilities Management Office Building at approximately 1275 West and 400 South in Cedar City, Iron County, Utah. The study was conducted in accordance with your authorization.

The purposes of this investigation were to: (1) evaluate the general site geologic conditions and identify potential geotechnical hazards to the proposed structures; (2) evaluate the general nature and engineering properties of the subsurface soils at the site; and (3) provide recommendations and opinions regarding general site grading and the design and construction of foundations, concrete slabs-on-grade, and asphaltic concrete pavements. The investigation included a site reconnaissance, subsurface explorations, representative soil sampling, laboratory testing, engineering analyses, and preparation of this report.

The recommendations contained in this report are subject to the limitations presented in the "Limitations" section of the report. We recommend that all individuals reading this report read the limitations section of this document.

1.2 PROJECT DESCRIPTION

We understand that a single-story or multi-story office building will be constructed at the location described in Cedar City, Utah. Structural loads are expected to be low to moderate.

The proposed site plan on Plate 1 shows the approximate property boundaries with respect to the approximate trench locations.

2.0 FIELD EXPLORATION

The subsurface soil conditions were explored by excavating with a backhoe two exploratory trenches to depths of approximately 8 to 10 feet below the existing site grade. The approximate locations of these explorations are shown on Plate 1. Soils and subsurface conditions encountered in the explorations were classified, logged, and recorded at the time of excavation by our field geologist. The results of the explorations are presented on the enclosed Plates 2 and 3. A key to soil symbols and terms is found on Plate 4.

3.0 LABORATORY TESTING

Representative soil samples from the explorations were tested in the laboratory for solubility, Atterberg limits, maximum density, and consolidation behavior. Results are presented on Plates 5 and 6.

Soil samples are normally discarded 30 days after submittal of the report unless this office receives a specific request to retain the samples for a longer period.

4.0 SITE CONDITIONS

4.1 SURFACE CONDITIONS

The site is located at approximately 1275 West and 400 South in Cedar City, Iron County, Utah, as shown on Plate 1. At the time of our investigation it was vacant with numerous University and residential buildings nearby. Interstate 15 lies directly to the west. The surface slopes downward to the west.

4.2 SUBSURFACE CONDITIONS

Based on the explorations performed for this investigation, the on-site soils generally consisted of soft sandy clay extending to a depth of approximately 1 foot below the existing site grade. This material was underlain by stiff to hard or dense sandy clay and clayey gravel extending to the bottoms of the trenches.

Groundwater was not encountered during the explorations. The soils were in a slightly moist to moist condition throughout the depths explored.

The encountered subsurface conditions are described in detail on the enclosed trench logs, Plates 2 and 3. Due to the nature and depositional characteristics of the native soils, care should be taken in extrapolating subsurface conditions beyond or interpolating them between the exploration locations.

The laboratory test results indicated that the on-site soils exhibited a low solubility, a moderate plasticity, and a moderate collapse potential.

5.0 ENGINEERING ANALYSIS AND RECOMMENDATIONS

5.1 GENERAL

Based on the subsurface conditions encountered at the site, it is our opinion that the subject site is suitable for the proposed construction provided that the recommendations contained in this report are followed. Specifically, it is our opinion that any loose surface materials are not suitable for support of the proposed structures or pavements and should be excavated and hauled off the site. Following that, the anticipated zone of overexcavation should extend a minimum of 2 feet below footings or 2 feet below the existing site grade, whichever is greater. Overexcavations may be terminated on competent, medium-dense granular soils if encountered.

The majority of the on-site soils free of organics and debris should be suitable for reuse as structural fill. However, care should be taken to remove all debris and organics from the soils that exist at the site. The proposed structure should then receive adequate support from conventional foundations established on a zone of structural fill.

It should be noted that loose, soft, and/or collapsible soils were encountered which may require stabilization prior to the placement of structural fill. If loose, soft, or pumping soils are encountered at the bottom of the overexcavations, stabilization and/or additional overexcavation will be required prior to the placement of structural fill.

Slabs-on-grade, exterior concrete flatwork, and pavements should be supported by a zone of properly placed and compacted structural fill. Overexcavations on the order of 12 inches below the supportive gravel layer or 12 inches below the existing site grade, whichever is greater, will be required. The majority of the on-site soils should be suitable for use as compacted structural fill, although approximately 15 to 20% shrinkage can be expected. As an alternative, 8 inches of Type 1 pit run gravel can be substituted for the 12 inches of recompacted native soil.

Because of the flatness of the slope we recommend that the finished floor slab elevations be raised high enough to facilitate proper drainage away from the structures.

The following sections of this report present our recommendations to reduce the potential for structural damage. They contain specific opinions and recommendations concerning

construction considerations, site preparation and grading, structural fill, foundation design, retaining walls, concrete slabs-on-grade, soil corrosion, moisture protection, and structural pavement sections.

5.2 CONSTRUCTION CONSIDERATIONS

5.2.1 Foundation Systems

After overexcavation and recompaction are completed, the structures can be supported by conventional strip and/or spread footings founded on properly placed and compacted structural fill. If loose, soft, or pumping soils are encountered at the bottom of the overexcavation, stabilization will be required prior to the placement of structural fill.

5.3 EARTHWORK

5.3.1 Site Preparation and Grading

Within the areas to be graded, existing vegetation, loose soils, and debris should be removed and hauled off the site. Any undocumented fill soils and soft, loose, collapsible and/or disturbed native soils should also be excavated to expose competent, dense or medium-dense native soils. Excavations may be terminated if competent, medium-dense granular soils are encountered. A representative of this office should observe the site grading operations to verify that unsuitable soils are identified and treated as recommended below.

Overexcavations of 2 feet below footings or 2 feet below site grade, whichever is greater, are recommended based on the soil types and our laboratory consolidation tests. Slabs-on-grade, exterior concrete flatwork, and pavements should be supported by a zone of properly placed and compacted structural fill. Overexcavations on the order of 12 inches below the supportive gravel layer or 12 inches below the existing site grade, whichever is greater, will be required. Excavations may be terminated if competent, medium-dense granular soils are encountered. As an alternative to the above, 8 inches of Type 1 pit run gravel can be substituted for the 12 inches of recompacted native soils. The majority of the on-site soils should be suitable for use as compacted structural fill, although approximately 15 to 20% shrinkage can be expected.

Excavations should extend laterally at least 5 feet beyond the building areas, or to a distance equal to the depth of structural fill, whichever is greater. The excavations should extend laterally at least 2 feet beyond exterior flatwork and pavement areas. The majority of the on-site soils should be reusable for compacted structural fill, although approximately 15 to 20% shrinkage can be expected.

Following excavation of the unsuitable soils as described above, a representative of this office should observe the excavation bottoms prior to the continuance of grading to verify that unsuitable materials have been removed and that competent soils have been exposed. The native soils exposed after overexcavation should be scarified to a depth of 6 inches, brought to within 2 percent of the optimum moisture content for granular soils and slightly above optimum for fine-grained soils, and compacted to at least 90 percent of the maximum dry density as determined by ASTM D-1557. The site should then be brought to rough pad grade with structural fill as described in the following section.

Subgrade materials supporting slabs-on-grade, exterior concrete flatwork, and pavements should be kept moist and not be allowed to dry out and crack. If the subgrade has been disturbed or dried out prior to placement of aggregate base, the exposed soils should be moisture-conditioned and recompacted as outlined in the Structural Fill section of this report.

We recommend that a representative of this office be allowed to review the grading plans when prepared to evaluate their compatibility with our recommendations.

5.3.2 Excavations

The majority of the soils encountered in our explorations should be readily excavatable with conventional earthwork equipment. It is also possible that soft pumping soils may be encountered. Pumping soils will need to be stabilized prior to placing of structural fill. Safety of construction personnel is the responsibility of the Contractor.

5.3.3 Material Volume Changes

There will be shrinkage losses when excavating and compacting the on-site soils. An estimated average shrinkage factor of 15 to 20 percent is applicable for the loose to

medium-dense near-surface native soils. A subsidence factor of 0.1 feet should be used in all areas where the surficial soils are scarified and recompacted to a depth of 6 inches.

5.3.4 Structural Fill

All fill placed for the support of slabs-on-grade, exterior concrete flatwork, and pavements should be structural fill. Structural fill may consist of approved excavated on-site soils or imported fill materials. Structural fill should have a swell potential less than 4 percent under a 60 psf surcharge, have a solubility of less than 3 percent, be free of organics, salts, or inert materials larger than 4 inches nominal size, and be similar in gradation to the on-site soils.

Structural fill should be placed in maximum eight-inch loose lifts and compacted on a horizontal plane, unless otherwise approved by the Geotechnical Engineer. Soils in compacted fills should be compacted to at least 90 percent of the maximum dry density as determined by ASTM-D1557 for fine grained soils and 95 percent for granular soils. The moisture content should be within 2 percent of optimum for granular soils and at least 2 percent above optimum for fine-grained soils. Any imported fill materials should be approved prior to importing. Also, prior to placing any fill, the excavations should be observed by a GEM Engineering representative to observe that unsuitable materials have been removed.

5.4 FOUNDATIONS

5.4.1 Conventional Foundations

General: Conventional shallow foundations consisting of strip and/or spread footings can be utilized for the proposed building provided that overexcavation of soils described previously is accomplished. Foundation areas should be prepared in accordance with site preparation recommendations previously provided. Exterior conventional spread foundations should be established at least 30 inches below the lowest adjacent final compacted subgrade for frost protection.

Foundations for structures established as described above may be designed for an allowable net bearing pressure of 900 psf. The bearing pressure may be increased by one-third for seismic or wind load design.

The net allowable bearing pressure can be increased to 2000 psf if pit run gravel is utilized beneath the structure instead of the native soils. The pit run gravel must have a maximum dry density of at least 135 pcf utilizing ASTM D1557. The pit run gravel must also meet all of the requirements contained in the structural fill section of this report.

Prior to constructing the foundations, the footing excavations should be observed by the Geotechnical Engineer to verify that the specified removals have been accomplished.

Settlement: Foundations established in accordance with the recommendations provided are estimated to be subject to less than 1½ inch of settlement if the soils beneath the overexcavation do not become moistened. We anticipate that differential settlement could be on the order of ½ the total settlement.

Resistance to Lateral Loads: Horizontal loads acting on foundations will be resisted by friction acting at the base of foundations and by passive earth pressures. If design makes use of passive earth pressures, it is important that the Geotechnical Engineer be present during any footing backfill placement.

The friction acting along the base of footings founded on suitable foundation soils may be computed by using a coefficient of friction of 0.35 with the normal dead load. An allowable lateral passive earth pressure may be computed by using an equivalent fluid weighing 209 pcf for the side of footings poured against natural soils or properly placed and compacted backfill. Passive resistance in the upper one foot should be neglected unless the surface is covered by paving or concrete slabs-on-grade. The maximum allowable passive pressure should not exceed 1,600 psf. Retaining walls may be constructed utilizing an equivalent fluid pressure of 41 (pcf).

Lateral loads acting on buried utility lines may be resisted by thrust blocks reacting against undisturbed native soil or properly placed and compacted structural fill. The above referenced allowable passive lateral earth pressure equivalent fluid density and coefficient of friction may be used for thrust block design. The values given may be increased by one-third for transient wind or seismic loads.

5.5 CONCRETE SLABS ON GRADE

Satisfactory support for concrete slabs-on-grade and exterior concrete flatwork may be provided by a 6-inch layer of compacted gravel overlying properly placed and compacted structural fill as recommended in the Site Grading section of this report. The layer of compacted gravel may consist of road base or pit-run gravel with a 2-inch maximum particle size and no more than 12 percent fines passing the No. 200 sieve. The gravel layer should be compacted to at least 95 percent of the maximum dry density as determined by ASTM-D1557.

All concrete slabs should be designed to minimize cracking as a result of shrinkage. It is our opinion that concrete floor slabs should be reinforced in accordance with recommendations provided by the Structural Engineer. Reinforcement should be installed at mid-height in the slab unless directed otherwise by the Structural Engineer.

Special precautions must be taken during the placement and curing of all concrete slabs. Excessive slump (high water-cement ratio) of the concrete and/or improper curing procedures used during either hot or cold weather conditions could lead to excessive shrinkage, cracking or curling in the slabs. We recommend that all concrete placement and curing operations be performed in accordance with the American Concrete Institute (ACI) Manual.

5.6 SOIL CORROSION

Based on similar studies performed in the area, the on-site soils contain salts in sufficient concentration to be considered corrosive to both concrete and metal. Therefore, all concrete in contact with the on-site soils and used in stemwalls should contain Type V or equivalent sulfate-resistant cement, and should be placed with a maximum four inch slump. Special protection to buried metal pipes and water lines should be considered for long term performance of these underground utilities. Consideration should be given to cathodic protection of buried metal pipes, or to the use of PVC pipe where permitted by local building codes.

5.7 MOISTURE PROTECTION AND DRAINAGE

It is imperative that precautions are taken during and after construction to eliminate, or at least minimize, saturation of foundation soils. Overwetting the soils prior to or during construction may result in softening and pumping, causing equipment mobility problems and difficulty in achieving compaction. Positive drainage should be established away from the exterior walls of the structures. The recommended minimum slope is five percent (5%) in landscape area and two percent (2%) in pavement areas, for a minimum distance of 10 feet from the structures. Roof runoff and other sources of moisture should not be allowed to infiltrate the soils in the vicinity of, or upslope from, the structures. Outlets to roof drains should be constructed to drain through the curb and gutter to the street. No roof moisture should infiltrate the soils beneath the foundations.

All utility trenches leading into the structure should be backfilled with compacted non-pervious fill. Special care should be taken during installation of sub floor sewer and water lines to reduce the possibility of future subsurface saturation.

Landscape watering adjacent to the structures should be eliminated. As an additional protection a concrete slab could be placed around the structure to facilitate drainage away from the structure as described above. Any planters adjacent to the structure should have sealed bottoms. Desert landscaping techniques should be utilized.

5.8 ASPHALTIC CONCRETE PAVEMENTS

Asphaltic concrete pavement sections were developed for non-dedicated areas. In developing our recommendations, we have assumed that: (1) a minimum of 8 inches of Type 1 gravel (3-inch minus pit run) will be provided beneath the pavement section; (2) a Traffic Index value of 5.5 for automobile traffic and parking areas is appropriate; and (3) an R-value of 35 is representative of recompacted native soils. The following table presents the minimum recommended structural pavement sections:

Asphaltic Concrete Pavements

Traffic Condition	Assumed Traffic Index (T.I.)	Asphalt Thickness (Inches)	Road Base Thickness (Inches)	Compacted Type 1 Gravel (Inches)
Light Traffic/Parking	6.0	3	8	8

Asphalt and aggregate base material should conform to local requirements. All base material should be compacted to at least (95%) of the maximum dry density (ASTM D-1557). Asphalt should be compacted to minimum of (97%) of the Marshall maximum density. Asphaltic concrete and base materials should be tested prior to delivery to the site and during placement to determine conformance with the project specifications.

It is important that parking area grades be set to provide positive drainage to suitable drainage structures. A desirable slope for drainage in paved areas is two percent.

6.0 CLOSURE

6.1 LIMITATIONS

The recommendations contained in this report are based on the field explorations, laboratory tests, and our understanding of the proposed construction. The subsurface data used in the preparation of this report were obtained from the explorations made during this investigation. It is possible that variations in the soil and groundwater conditions could exist elsewhere on the site. The nature and extent of variations may not be evident until construction occurs. If any conditions are encountered at the site which are different from those described in this report, our firm should be immediately notified so that we may make any necessary revisions to recommendations contained in this report. In addition, if the scope of the proposed construction changes from that described in this report, our firm should likewise be notified.

This report was prepared in accordance with the generally accepted standard of practice at the time the report was written. No warranty, express or implied, is made. It is the Client's responsibility to see that all parties to the project, including the Designer, Contractor, Subcontractors, etc., are made aware of this report in its entirety. The use of information contained in this report for bidding purposes should be done at the Contractor's option and risk.

6.2 ADDITIONAL SERVICES

The recommendations made in this report are based on the assumption that an adequate program of tests and observations will be made during the construction to verify compliance with the recommendations. These tests and observations should include, but not necessarily be limited to, the following:

- Observations and testing during site preparation, earthwork and structural fill placement
- Observations of footing excavations
- Consultation as may be required during construction

We also recommend that project plans and specifications be reviewed by us to verify compatibility with our conclusions and recommendations. Additional information concerning the scope and cost of these services can be obtained from our office.

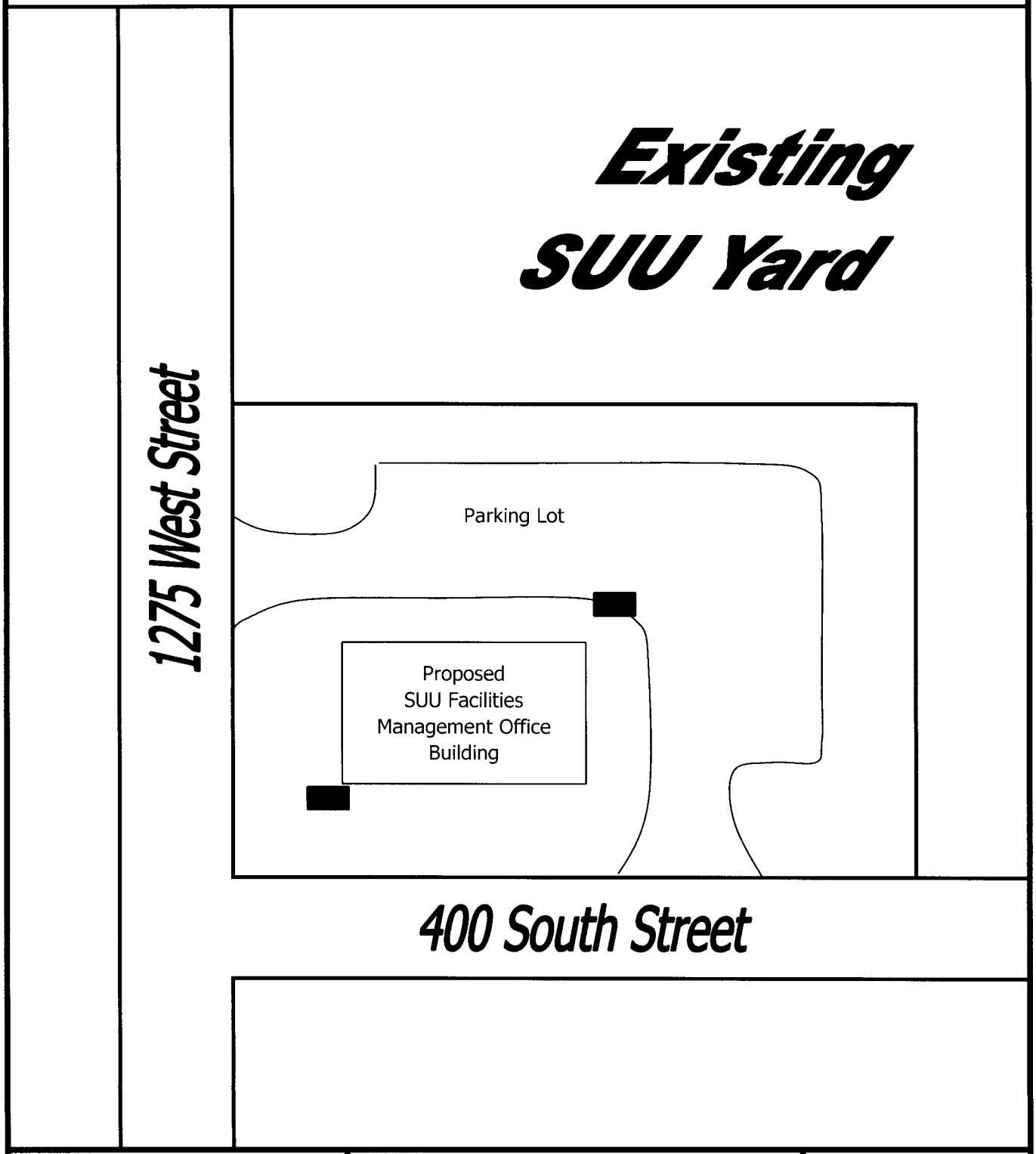
Key

- Approximate Trench Location

Site Plan

Not to Scale

North



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Site Plan

SUU Facilities Management Office Building,
Approx. 1275 West and 400 South,
Cedar City, Iron County, Utah

Plate

1

Date Excavated: 5/28/2008 Elev: Not Measured

Location: see plate 1

TRENCH NO. T-1

Depth (ft.)	Field Moisture %	Dry Density (pcf)	Other Tests *	Samples	SYMBOL +	SOIL DESCRIPTION	MOISTURE	CONSISTENCY
0						(CL) - Sandy Clay with Cobble.	Moist	Soft
						- Evaporite stingers and pinhole voids observed.		Stiff to Very Stiff
						- Dark Brown		
						(GC) - Clayey Gravel with Cobble.	Slightly Moist	Dense
			SOL AT,P			- Ocassional boulders observed within layer.		
5						- Some caliche observed within matrix and coating rocks.		
						- Light Red Brown		
10						Bottom @ 10 feet.		
15								
20								

* Other Tests: C = Consolidation, AT = Atterberg, S = Shear, G = Grain Size, E = Expansion, SOL = Solubility, DS = Direction Shear, P = Proctor

\+ Sample Type: ■ = Drive Sample; □ = Bulk Sample; ⊠ = No Recovery

Notes:
- No groundwater encountered.
- No caving of sidewalls.

Project:

SUU Facilities Management Office Building,
Approx. 1275 West and 400 South,
Cedar City, Iron County, Utah

GEM ENGINEERING, INC

Plate: 2

Date Excavated: 5/28/2008 Elev: Not Measured

Location: see plate 1

TRENCH NO. T-2

Depth (ft.)	Field Moisture %	Dry Density (pcf)	Other Tests *	Samples	SYMBOL +	SOIL DESCRIPTION	MOISTURE	CONSISTENCY
0						(CL) - Sandy Clay with Cobble.	Moist	Soft
						- Pinhole and larger, up to 1/8", voids observed.		Stiff to Very Stiff
	15.4	97.1	AT, C			- Ocassional thin, up to 3" thick, silt lenses observed.		
						- Some roots up to 1/4" diameter observed.		Very Stiff to Hard
			SOL P			- Brown	Slightly Moist	
5						(CL) - Gravelly Clay with Sand.		Hard
						- Brown		
						Hard clay refusal @ 8 feet.		
10								
15								
20								

* Other Tests: C = Consolidation, AT = Atterberg, S = Shear, G = Grain Size, E = Expansion, SOL = Solubility, DS = Direction Shear, P = Proctor

\+ Sample Type: ■ = Drive Sample; □ = Bulk Sample; ⊠ = No Recovery

Notes:
- No groundwater encountered.
- No caving of sidewalls.

Project:

SUU Facilities Management Office Building,
Approx. 1275 West and 400 South,
Cedar City, Iron County, Utah

GEM ENGINEERING, INC

Plate: 3

THE UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			Group	Symbol	TYPICAL NAMES
COARSE GRAINED SOILS More than 50% of material is larger than the No. 200 sieve.	**GRAVELS** More than 50 % of coarse part is larger than the No. 4 sieve.	**CLEAN GRAVELS** Little or no fines	GW		Well graded gravels, gravel sand mixtures, little or no fines
			GP		Poorly graded gravels/gravel sand mixtures
		GRAVELS WITH FINES Appreciable amount of fines	GM		Silty gravels, gravel-sand-silt mixtures
			GC		Clayey gravels, gravel-clay-sand mixtures
	SANDS More than 50 % of coarse part is smaller than the No. 4 sieve.	**CLEAN SANDS** Little or no fines	SW		Well graded sands, gravely sands, little or no fines
			SP		Poorly graded sands or gravely sands, little or no fines
		SANDS WITH FINES Appreciable amount of fines	SM		Silty sands, sand-silt mixtures
			SC		Clayey sands, sand clay mixtures
FINE GRAINED SOILS More than 50% of material is smaller than the No. 200 sieve.	**SILTS AND CLAYS** Liquid limit less than 50		ML		Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with low plasticity
			CL-ML		Inorganic clay-silt mixture and very fine sand, silty or clayey fine sands or clayey silts with low plasticity.
			CL		Inorganic clays of low to medium plasticity, gravely Claus, sandy clays, silty clays, lean clays
			OL		Organic silts and organic silty clays of low plasticity
	SILTS AND CLAYS Liquid limit greater than 50		MH		Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts
			CH		Inorganic clays of high plasticity, fat clays
			OH		Organic clays or medium to high plasticity, organic silts
	HIGHLY ORGANIC SOILS		PT		Peat and other highly organic silts

Project:

SUU Facilities Management Office Building,
Approximately 1275 West and 400 South,
Cedar City, Iron County, Utah

SUU Facilities Management Office Building,
Approximately 1275 West and 400 South,
Cedar City, Iron County, Utah

Table # 1: Solubility Analysis

Sample Location	Soil Classification / Description	Percent Soluble by Weight
T-1 @ 5 feet	Clayey Gravel	< 1
T-2 @ 5 feet	Sandy Clay	< 1

Table # 2 Atterberg Limits

Sample Location	UCS Type	Percent Passing # 4 Sieve	Percent Passing # 10 Sieve	Percent Passing # 40 Sieve	Percent Passing # 200 Sieve	Liquid Limit	Plastic Limit	Plasticity Index
T-1 @ 5'	GC	40.5	36.9	31.9	15.6	23	18	5
T-2 @ 3'	CL	100	100	99.3	98.2	32	18	14

Table #3 Maximum Density Test Summary

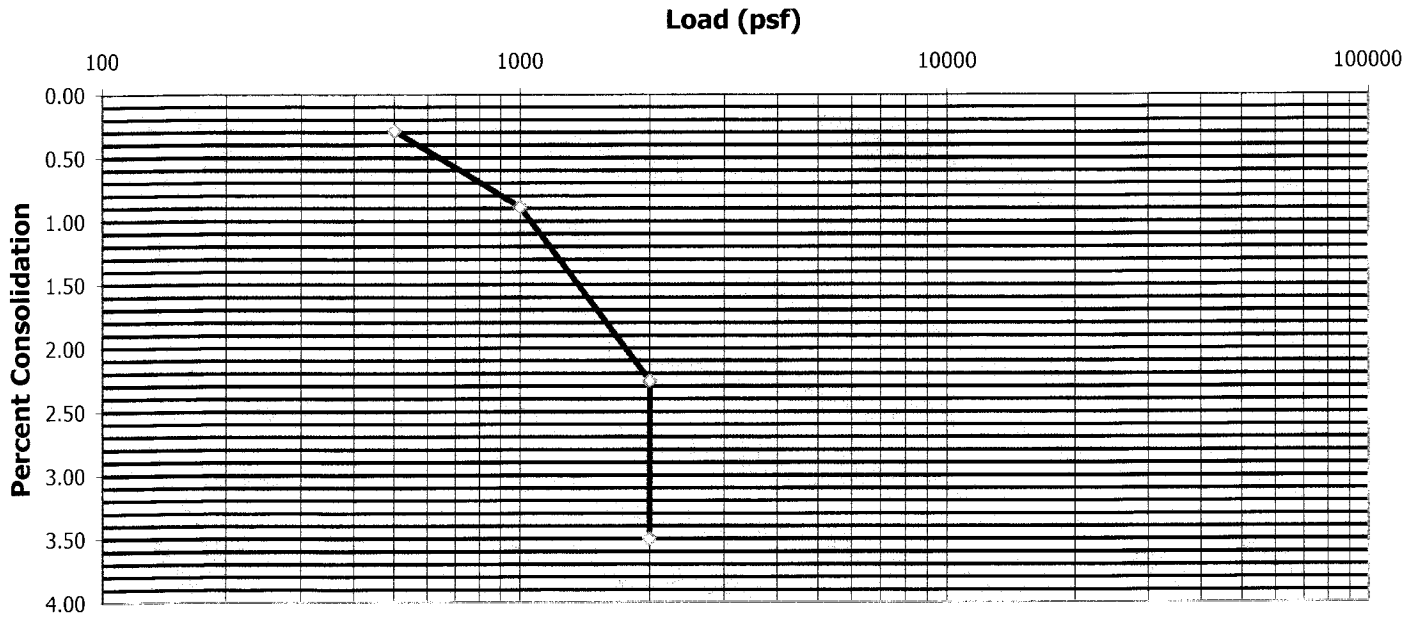
Sample Location	Soil Classification / Description	Maximum Dry Density (pcf)	Optimum Moisture (%)
T-1 @ 5 feet	Clayey Gravel	131.5	7.0
T-2 @ 5 feet	Sandy Clay	123.0	11.5

Plate: 5

Set Value
0.0767

Consolidation Test Data

Load	Displacement	Calculated %
500	0.0796	0.29
1000	0.0856	0.89
2000	0.0993	2.26
2000	0.1117	3.50



SAMPLE LOCATION T-2 @ 3', Water added at 2000 psf

Project:

SUU Facilites Management Office Building,
Approx. 1275 Weat and 400 South,
Cedar City, Iron County, Utah

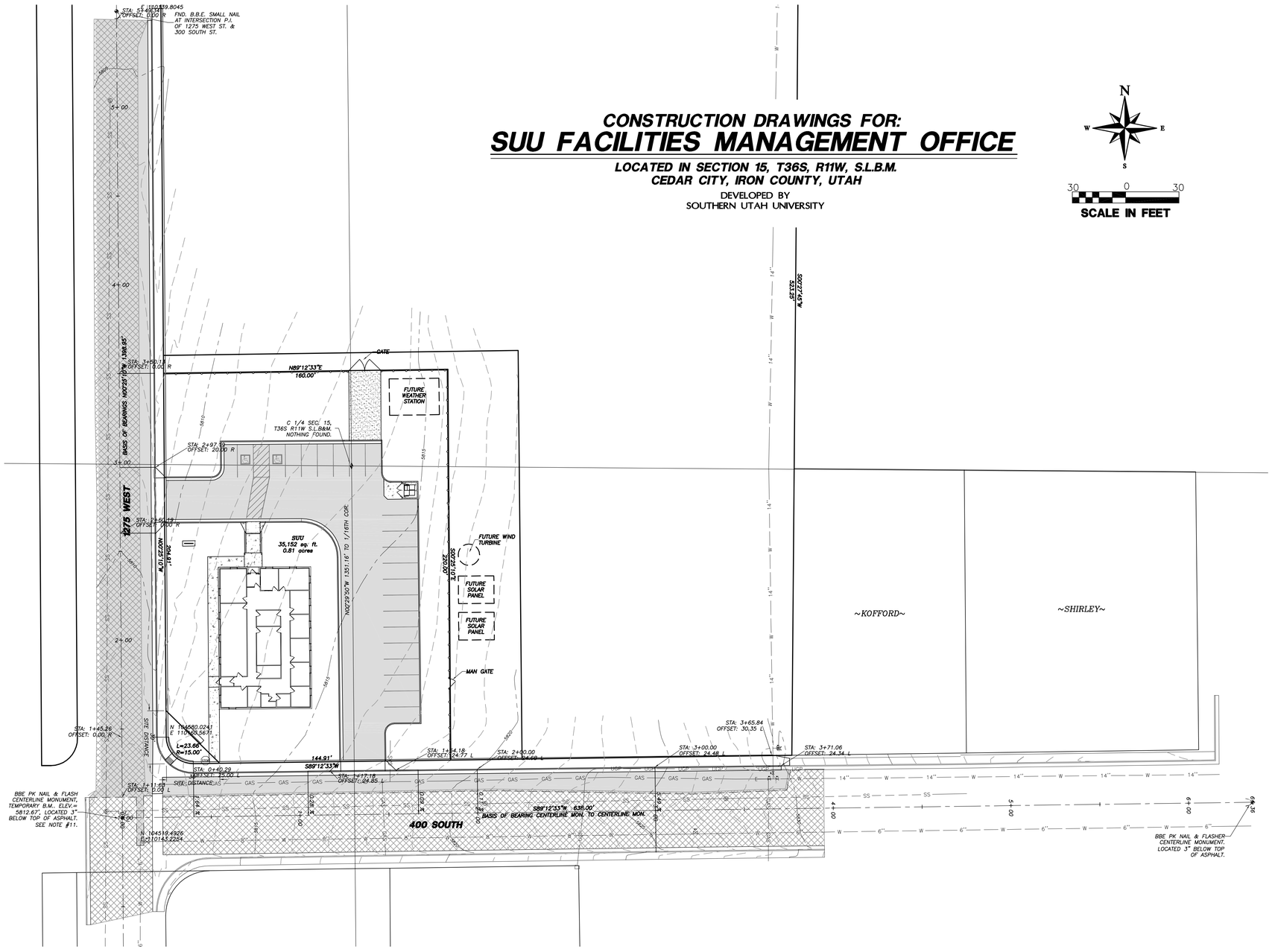
GEM ENGINEERING, INC.

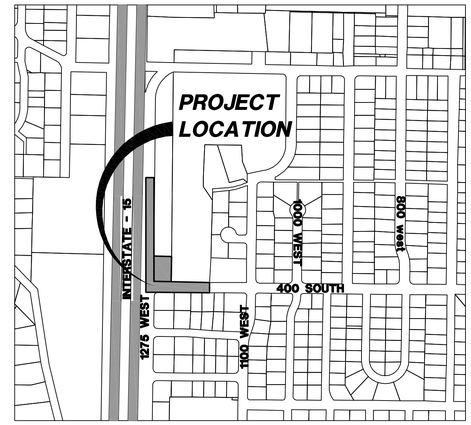
Plate: 6

CONSTRUCTION DRAWINGS FOR:
SUU FACILITIES MANAGEMENT OFFICE

LOCATED IN SECTION 15, T36S, R11W, S.L.B.M.
CEDAR CITY, IRON COUNTY, UTAH

DEVELOPED BY
SOUTHERN UTAH UNIVERSITY





VICINITY MAP

GENERAL NOTES

1. UTILITY LOCATIONS MUST BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION AND RESTORATION OF ALL BURIED OR ABOVE GROUND UTILITIES, SHOWN OR NOT SHOWN ON THE PLANS. THE CONTRACTOR MUST CALL BLUE STAKES PRIOR TO ANY EXCAVATION. (BLUE STAKES 1-800-662-4111)

2. THE GROUND SURFACE SURROUNDING THE EXTERIOR OF THE BUILDINGS SHOULD BE SLOPED TO DRAIN AWAY IN ALL DIRECTIONS. A MINIMUM SLOPE OF 6" IN THE FIRST 10' IS RECOMMENDED.

3. ALL IMPROVEMENTS MUST BE BUILT TO CEDAR CITY SPECIFICATIONS AND STANDARDS. ALL CONSTRUCTION SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH CEDAR CITY CORPORATION STANDARDS AND SPECIFICATIONS AND ALL APPLICABLE CODES.

4. DIMENSIONS TAKE PRECEDENCE OVER SCALING, ANY DISCREPANCIES SHOULD BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

5. CONTRACTOR TO MINIMIZE ROAD CLOSURES OF EXISTING ROADS AS MUCH AS POSSIBLE. PROVIDE TRAFFIC CONTROL DEVICES AS REQUIRED FOR CONSTRUCTION AND ROAD CLOSURES PER REQUIREMENTS OF MUTCD (MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION).

6. BUILDING FOUNDATION, EXCAVATION, RETAINING WALLS, AND PAVEMENT SHOULD FOLLOW THE RECOMMENDATIONS OF THE SOILS REPORT.

7. THE CURRENT ZONE FOR THIS PROPERTY IS R3.

8. THIS PROPERTY LIES WITHIN THE AIRPORT INFLUENCE ZONE.

9. THIS PROJECT DOES NOT LIE WITHIN ANY FLOOD ZONE.

10. THE BASIS OF BEARINGS FOR THIS PROJECT IS N00°25'10"W, 1398.95 FEET FROM THE INTERSECTION OF 1275 WEST STREET AND 400 SOUTH STREET TO THE INTERSECTION P.I. OF 1275 WEST STREET AND 300 SOUTH STREET.

NOTE: THIS PROJECT IS NOT ON THE CEDAR CITY GPS COORDINATE CONTROL NETWORK. THIS PROJECT IS BASED ON THE BULLOCH BROTHERS ENGINEERING CONTROL SHEET THAT WAS USED FOR CREATING ALL EXISTING SUBDIVISIONS, STREETS, AND IMPROVEMENTS IN THIS AREA.

11. BENCH MARK=B.B.E. P.K. NAIL AND FLASH AT THE INTERSECTION OF 1275 WEST STREET AND 400 SOUTH STREET. ELEVATION=5812.67. THIS IS A TEMPORARY BENCH MARK. THIS MONUMENT WILL BE REPLACED WITH A BRASS CAP CENTERLINE MONUMENT DURING CONSTRUCTION.

12. **ALL PUBLIC IMPROVEMENTS IN 1275 WEST STREET AND 400 SOUTH STREET SHOWN ON THESE PLANS TO BE DONE BY OTHERS.**

UTILITY INFORMATION

UTILITY STATEMENT:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION AND RESTORATION OF ALL BURIED OR ABOVE GROUND UTILITIES, SHOWN OR NOT SHOWN ON THE PLANS. (BLUE STAKES 1-800-662-4111)

UTILITY CONTACTS:

ROCKY MOUNTAIN POWER
KENDALL CRIPPS
2217 KITTYHAWK DRIVE
CEDAR CITY, UTAH 84720
(435) 865-3380

QWEST
TIM SQUIRES
CEDAR CITY OFFICE
(435) 586-2470

CITY STREETS
SANDY WEBB
(435) 586-2967

CITY WATER
ROB MITCHELL
(435) 586-2968

CITY STORM DRAIN
RICK HOLMAN
(435) 586-2912

QUESTAR GAS
JIM McPHIE
946 PRODUCTION ROAD
CEDAR CITY, UTAH 84720
(435) 865-6255

BRESNAN CABLEVISION
MARK MARTELL
98 WEST HARDING AVENUE
CEDAR CITY, UTAH 84720
(435) 586-8334

CITY SEWER
DARRELL OLMSTED
(435) 867-9426

CITY ENGINEERING
KIT WAREHAM
(435) 865-5119

SUU FACILITIES MANAGEMENT ROAD IMPROVEMENT KEY

SOILS NOTE

DUE TO SOIL CONDITIONS EXISTING IN CEDAR CITY, UTAH, WHICH OCCASIONALLY CAUSE SOIL SUBSIDENCE PROBLEMS RESULTING IN DAMAGE TO STRUCTURES ERECTED THEREON, THE CITY COUNCIL OF CEDAR CITY REQUIRES PROPOSED SUBDIVISIONS TO CONDUCT TESTING OF THE SOIL CONDITIONS EXISTING IN SAID SUBDIVISION. A COPY OF THE FINDINGS OF THAT TESTING ALONG WITH RECOMMENDATIONS BASED ON THE SAME HAS BEEN FILED WITH THE SUBDIVIDER OF THE PROPERTY, WHOSE NAME AND ADDRESS ARE LISTED BELOW AND WITH THE BUILDING INSPECTOR OF CEDAR CITY. COPIES OF THIS REPORT MAY BE INSPECTED AT BOTH LOCATIONS BY THE GENERAL PUBLIC AND ANY PERSONS INTERESTED IN PURCHASING PROPERTY LOCATED WITHIN SAID SUBDIVISION.

PUBLIC WORKS DIRECTOR'S APPROVAL

I, RICK HOLMAN, PUBLIC WORKS DIRECTOR FOR CEDAR CITY CORPORATION, DO HEREBY CERTIFY THAT THESE CONSTRUCTION DRAWINGS HAVE BEEN EXAMINED AND ACCEPTED BY ME THIS_____DAY OF_____,_____.

_____
RICK HOLMAN – PUBLIC WORKS DIRECTOR

CITY ENGINEER'S APPROVAL

I, KIT C. WAREHAM, CITY ENGINEER FOR CEDAR CITY CORPORATION, DO HEREBY CERTIFY THAT THESE CONSTRUCTION DRAWINGS HAVE BEEN EXAMINED AND ACCEPTED BY ME THIS_____DAY OF_____,_____.

_____
KIT C. WAREHAM – CITY ENGINEER

ENGINEER'S CERTIFICATION

ALL COMMON STREETS, DRAINAGE, WATER, AND SEWER IMPROVEMENTS FOR THIS PROJECT ARE DESIGNED ACCORDING TO APPLICABLE CODES AND STANDARDS.

_____
RONALD LARSEN P.E. DATE

SHEET INDEX

ALL EXISTING UTILITY LOCATIONS MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

NO	DESCRIPTION	DATE	BY
1	REV. PER CITY COMMENTS	6/30/08	TS

InSite Engineering, P.C.
Civil Engineers - Land Surveyors - Land Planners
1883 W. Royal Hunte Dr., Suite 200
Cedar City, Utah 84720
phone: (435) 867-4565
fax: (435) 867-4459

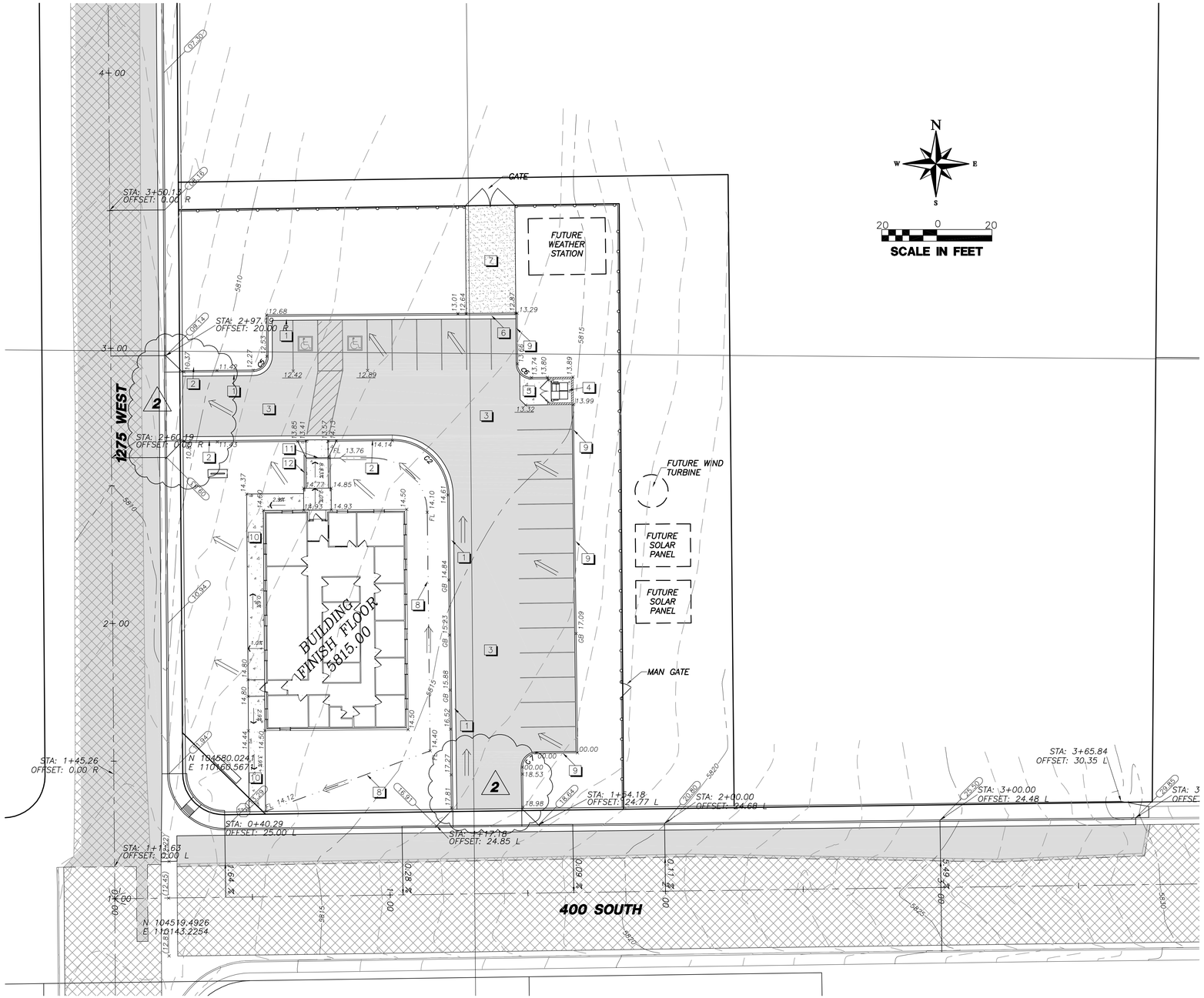
COVER PAGE FOR:
SUU FACILITIES MANAGEMENT OFFICE
400 S. STREET & 1275 W. STREET
CEDAR CITY, UTAH 84720
LOCATED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 15 R11W T36S SLBM

DATE: JUNE 23, 2008
SCALE: 1"=30'

JOB NO.
2750C

SHEET NO:
C1

PROJECT: 2750C – SUU FAC. MGMT. OFFICE (CIVIL)\SITE PLAN.dwg



N

W E

S

20 0 20

SCALE IN FEET

LEGEND

—x—x—x—	EXISTING FENCE
⊠	FOUND MONUMENT AS DESCRIBED
	EXISTING CENTERLINE MONUMENT
×XX.XX	TBC GRADE
×(XX.XX)	EXISTING GRADE
×XX.XX	TOP OF ASPHALT
	PROPOSED STRIPING BY CONTRACTOR
	PROPOSED DRAINAGE FLOW
T.O.W.	TOP OF WALL ELEVATION
B.O.W.	BOTTOM OF WALL ELEVATION
	PROPOSED SPILL CURB

CONSTRUCTION NOTES

1. NEW 24" CATCH CURB
2. NEW 24" SPILL CURB
3. PARKING LOT PAVING DESIGN
   3" ASPHALT OVER 8" ROAD BASE OVER 8" TYPE 1 GRAVEL PER SOILS REPORT
4. NEW TRASH ENCLOSURE PER DTL.
5. CONCRETE APRON
6. CURB CUT FOR ACCESS TO NORTH PROPERTY
7. NEW GRAVEL DRIVE
8. DRAINAGE SWALE
9. NEW 6" CURB PER DTL.
10. NEW 6' SIDEWALK PER DTL. SHEET C6
11. 4" MAX .25" SQUARE STEEL TUBING
12. NEW HANDICAP RAMP RAILING PER DTL.

PUBLIC IMPROVEMENTS NOTE:

ALL PUBLIC IMPROVEMENTS IN 1275 WEST STREET AND 400 SOUTH STREET SHOWN ON THESE PLANS TO BE DONE BY OTHERS.

CURVE TABLE

CURVE	LENGTH	RADIUS	TANGENT	DELTA	CHORD	CHORD BEARING
C1	18.85	12.00	12.00	90°00'00"	16.97	N44°19'24"E
C2	31.33	20.00	19.91	89°44'34"	28.22	N45°32'53"W
C3	18.85	12.00	12.00	90°00'00"	16.97	S44°34'50"W
C4	18.85	12.00	12.00	90°00'00"	16.97	S45°25'10"E
C5	7.85	5.00	5.00	90°00'00"	7.07	N44°34'50"E
C6	7.88	5.00	5.02	90°15'26"	7.09	S45°32'53"E
C7	7.85	5.00	5.00	90°00'00"	7.07	S44°19'24"W
C8	18.85	12.00	12.00	90°00'00"	16.97	S45°40'36"E

2

ALL EXISTING UTILITY LOCATIONS MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

REVISIONS

NO	DESCRIPTION	DATE	BY
1	REV. PER CITY COMMENTS	6/30/08	TS
2	REV. PER SUU REVIEW	7/23/08	TS

InSite Engineering, P.C.
Civil Engineers - Land Surveyors - Land Planners
1883 W. Royal Hunte Dr., Suite 200
Cedar City, Utah 84720
phone: (435) 867-4565
fax: (435) 867-4569

SITE GRADING PLAN FOR:

SUU FACILITIES MANAGEMENT OFFICE

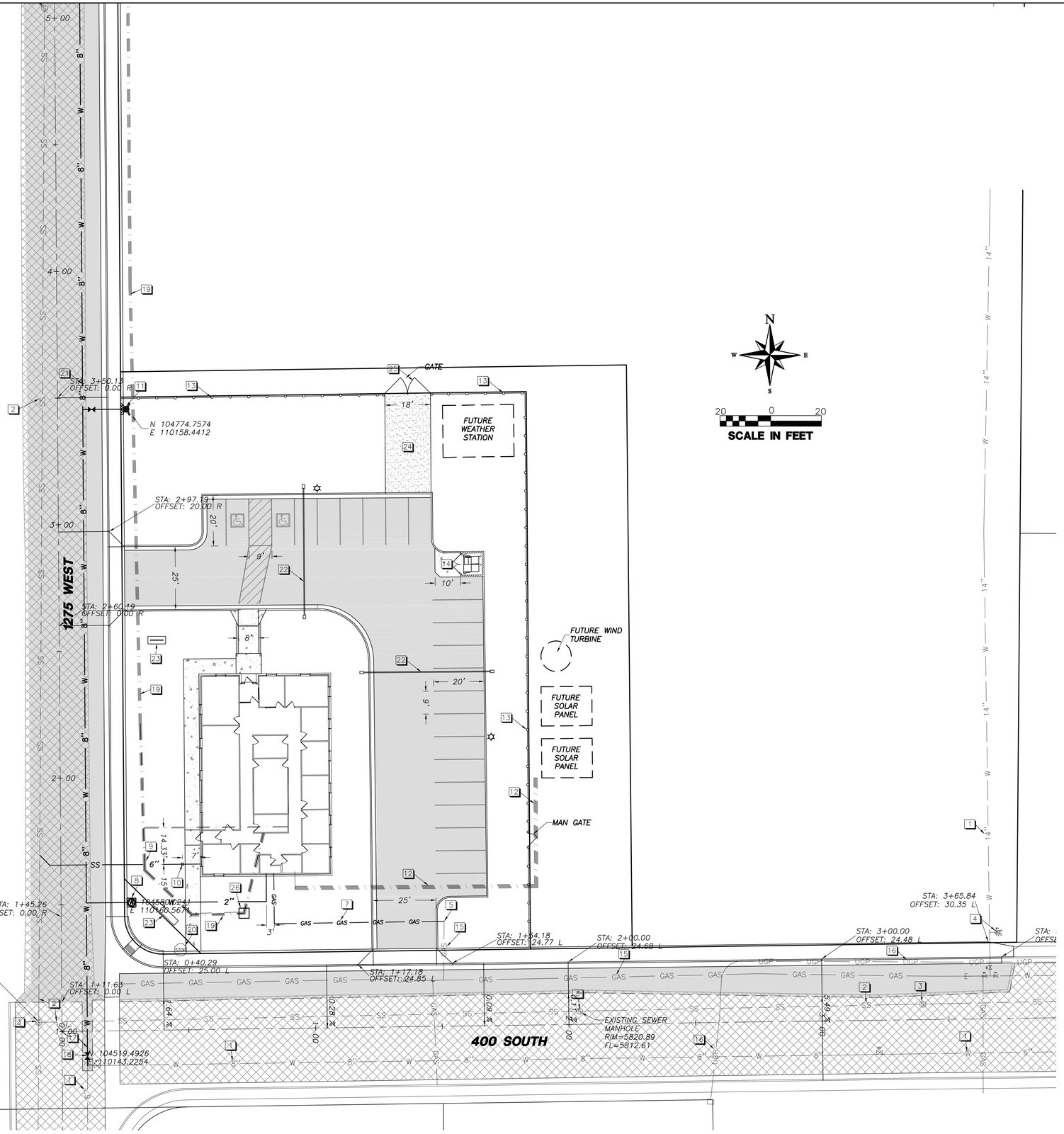
400 S. STREET & 1275 W. STREET
CEDAR CITY, UTAH 84720
LOCATED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 15 R11W T36S SLBM

DATE: JUNE 23, 2008
SCALE: 1"=20'

JOB NO.
2750C

SHEET NO:
C2

PROJECT: 2750C – SUU FAC. MGMT. OFFICE (CIVIL)\SITE PLAN.dwg



N

W E

S

20 0 20

SCALE IN FEET

LEGEND

- GAS — EXISTING GAS LINE
- W — W — EXISTING WATER LINE
- SS — SS — EXISTING SEWER LINE
- SS — SS — NEW PVC SDR-35 SEWER LINE
- GAS — NEW GAS LINE
- W — 8" — NEW DUCTILE IRON WATER LINE (SIZE AS NOTED)
- EXISTING ASPHALT
- PROPOSED CONCRETE
- PROPOSED ASPHALT
- PROPOSED GRAVEL DRIVE
- EXISTING FIRE HYDRANT
- NEW FIRE HYDRANT
- NEW WATER METER PER CEDAR CITY STANDARD DETAIL W-2
- NEW GATE VALVE PER CEDAR CITY STANDARD DETAIL W-1
- EXISTING WATER VALVE
- EXISTING STREET LIGHT
- EXISTING SEWER MANHOLE
- NEW SEWER MANHOLE

UTILITY NOTES

1. EXISTING WATER LINE
2. EXISTING 8"ø PVC SDR-35 SEWER MAIN
3. EXISTING SEWER MANHOLE
4. EXISTING FIRE HYDRANT
5. TIE INTO EXISTING GAS STUB
6. NOT USED
7. NEW GAS LINE CONNECTION TO BUILDING
8. EXISTING 2"ø WATER METER AND LATERAL PER CEDAR CITY DETAIL W-5, CONNECT TO EX. 8"ø WATER LINE.
9. EXISTING 6" SDR-35 SEWER LATERAL PER CITY DETAIL S-1, CONNECT TO EXISTING 8"ø SEWER LINE.
10. NEW SEWER CLEANOUT 5' OFF BUILDING
11. EXISTING FIRE HYDRANT PER CEDAR CITY DETAIL W-2
12. INSTALL (4) 4"ø CONDUIT FROM FUTURE SOLAR PANEL LOCATION
13. NEW BLACK VINYL CHAIN LINK FENCE (WORK BY SUU)
14. NEW DUMPSTER ENCLOSURE PER DETAIL SHEET A1.20
15. EXISTING GAS LINE
16. EXISTING UNDERGROUND POWER
17. EXISTING 8"ø WATER MAIN
18. EXISTING 8"ø WATER VALVE
19. EXISTING POWER & CABLE CONDUIT ENCASED IN CONCRETE
20. RELOCATE EXISTING STOP SIGN
21. STUB AND CAP FOR FUTURE USE
22. 4"ø CONDUIT FOR IRR. SYSTEM W/ BOXES EACH SIDE
23. NEW SIGNAGE (SEE ARCH.) (WORK BY SUU)
24. GRAVEL ACCESS LANE
25. VEHICULAR GATE (WORK BY SUU)
26. NEW ELECTRICAL TRANSFORMER (WORK BY SUU)

PUBLIC IMPROVEMENTS NOTE:

ALL PUBLIC IMPROVEMENTS IN 1275 WEST STREET AND 400 SOUTH STREET SHOWN ON THESE PLANS TO BE DONE BY OTHERS.

ALL EXISTING UTILITY LOCATIONS MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

REVISIONS

NO	DESCRIPTION	DATE	BY
1	REV. PER CITY COMMENTS	6/30/08	TS
2	REV. PER SUU REVIEW	7/23/08	TS

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Civil Engineers - Land Surveyors - Land Planners
1883 W. Royal Hunte Dr., Suite 200
Cedar City, Utah 84720
phone: (435) 867-4565
fax: (435) 867-4459

SITE/UTILITY PLAN FOR:

SUU FACILITIES MANAGEMENT OFFICE

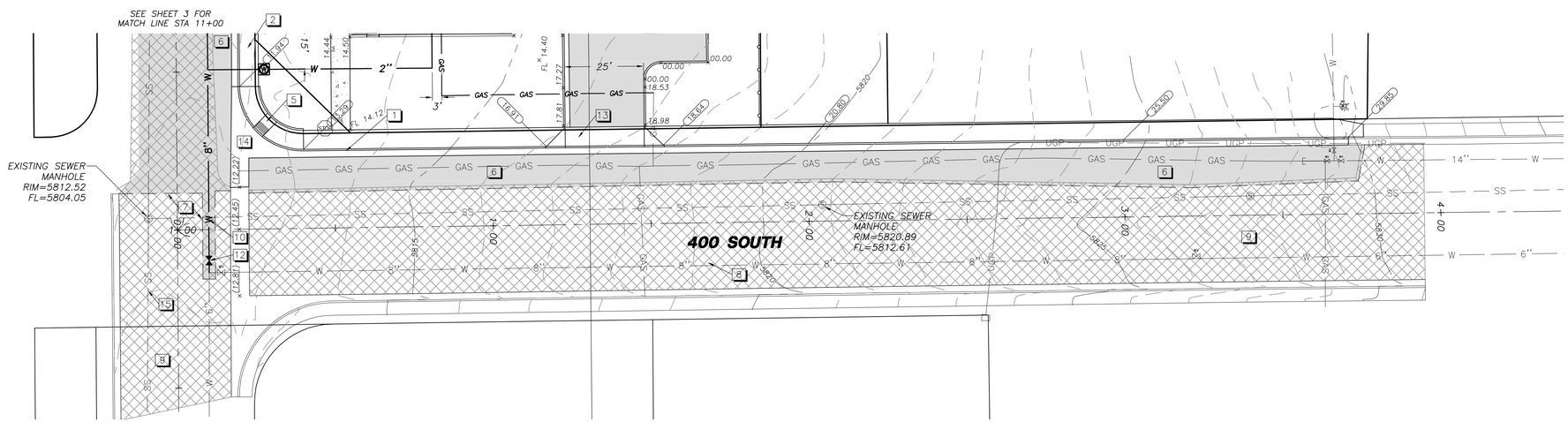
400 S. STREET • 1275 W. STREET
CEDAR CITY, UTAH 84720
LOCATED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 15 R11W T36S SLBM

DATE: JUNE 23, 2008
SCALE: 1"=20'

JOB NO.
2750C

SHEET NO:
C3

PROJECT: 2750C – SUU FAC. MGMT. OFFICE (CIVIL)\SITE PLAN.dwg



N
W E
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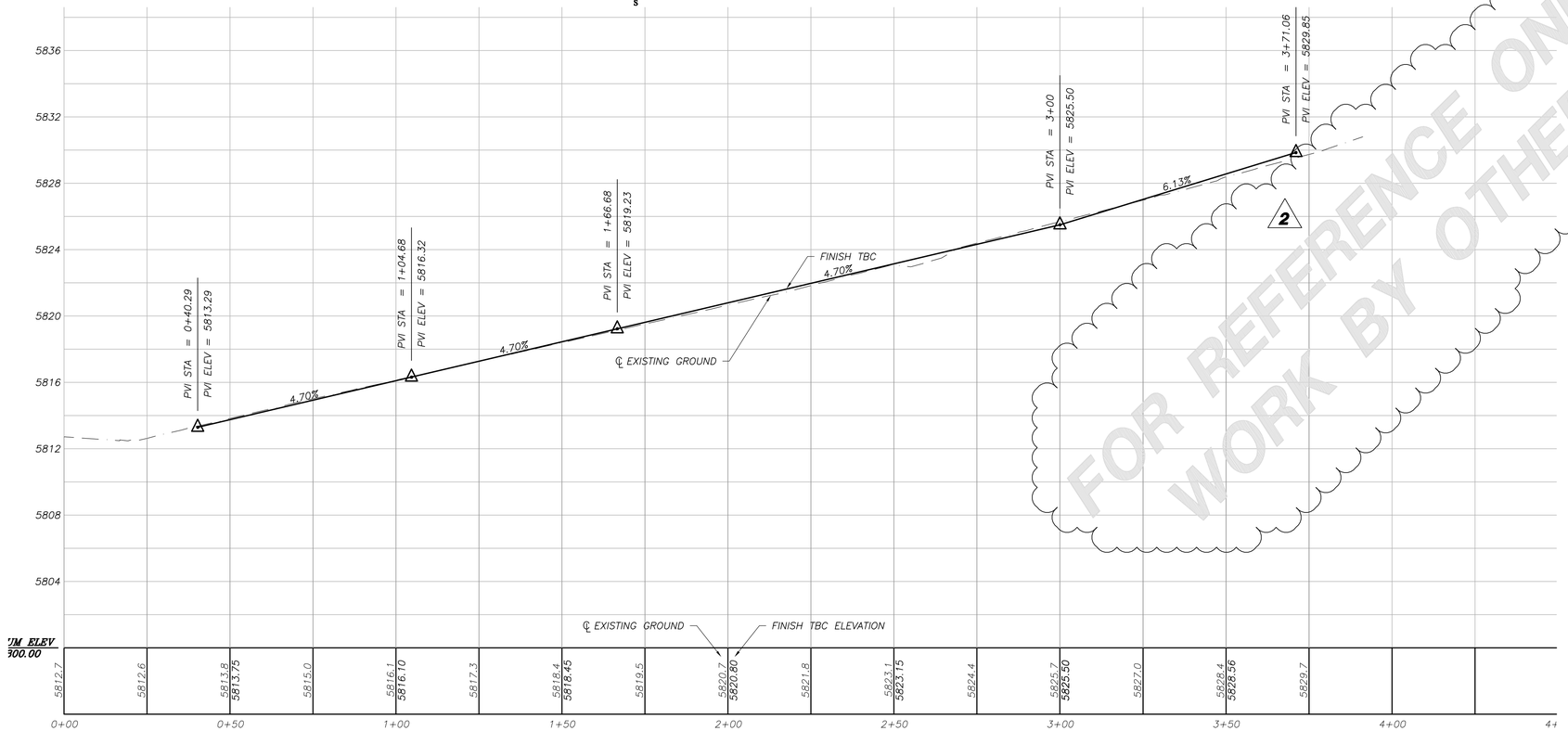
PLAN VIEW FOR 400 SOUTH STREET

SCALE: 1"=20'



PROFILE FOR 400 SOUTH STREET

HORIZONTAL SCALE: 1"=20' VERTICAL SCALE 1"=4'

PROJECT LEGEND

- NEW SEWER LINE (PVC-SDR-35)
- NEW WATER LINE (DUCTILE IRON)
- EXISTING SANITARY SEWER
- EXISTING WATER LINE
- NEW 4" SEWER LATERAL PER STD. DWG. S1
- NEW 1" WATER LATERAL & METER PER STD. DWG. W2
- NEW STOP SIGN PER CC STD DWG R9
- NEW STREET SIGN PER C.C. STD. DWG. R7.
- TBC ELEVATION
- EXISTING ASPHALT PAVING
- NEW ASPHALT PAVING
- EXISTING SEWER MANHOLE
- NEW SEWER MANHOLE
- NEW FIRE HYDRANT PER C.C. STD. DWG. W2.
- EXISTING FIRE HYDRANT
- NEW GATE VALVE
- EXISTING WATER VALVE
- NEW CENTERLINE MONUMENT PER C.C. STD. DWG. R7.
- SECTION CORNER AS DESCRIBED
- HANDICAP RAMP PER CEDAR CITY DTL. C5
- DRAINAGE FLOW ARROW
- NEW CONCRETE

CONSTRUCTION NOTES

1. NEW 30" CURB AND GUTTER PER DETAIL
2. NEW 6' SIDEWALK PER DETAIL
3. NEW 2"ø WATER SERVICE PER CEDAR CITY DETAIL TYP.
4. NEW 6"ø PVC SDR-35 SEWER LATERAL PER CEDAR CITY DETAIL TYP.
5. NEW HANDICAP RAMP PER DETAIL C5
6. NEW ASPHALT PAVEMENT IN ROADWAY (SEE NOTE THIS PAGE)
7. SAW CUT AND REMOVE EDGE OF EXISTING ASPHALT.
8. EXISTING WATER LINE TO REMAIN
9. EXISTING ASPHALT PAVING TO REMAIN
10. NEW 8"ø CLASS 50 DUCTILE IRON WATERLINE
11. NEW FIRE HYDRANT (PER CITY DETAIL)
12. NEW 8"ø GATE VALVE
13. COMMERCIAL DRIVEWAY PER CITY DETAIL
14. EXTEND EXISITNG CROSS GUTTER PER CITY DETAIL
15. EXISTING SEWER TO REMAIN
16. STUB & CAP EXISTING 8"ø WATER LINE
17. EXISTING ASPHALT TO BE REMOVED

PUBLIC IMPROVEMENTS NOTE:

ALL PUBLIC IMPROVEMENTS IN 1275 WEST STREET AND 400 SOUTH STREET SHOWN ON THESE PLANS TO BE DONE BY OTHERS.

PUBLIC STREET DESIGN

1275 WEST 3.5" ASPHALT OVER 6" ROAD BASE OVER 12" COMPACTED SUBGRADE
400 SOUTH 3" ASPHALT OVER 8" ROAD BASE OVER 12" COMPACTED SUBGRADE

ALL EXISTING UTILITY LOCATIONS MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

NO	DESCRIPTION	DATE	BY
1	REV. PER CITY COMMENTS	6/30/08	TS
2	REV. PER SUU REVIEW	7/23/08	TS

REVISIONS

InSite Engineering, P.C.
Civil Engineers - Land Surveyors - Land Planners
1883 W. Royal Hunte Dr., Suite 200
Cedar City, Utah 84720
phone: (435) 867-4565
fax: (435) 867-4459

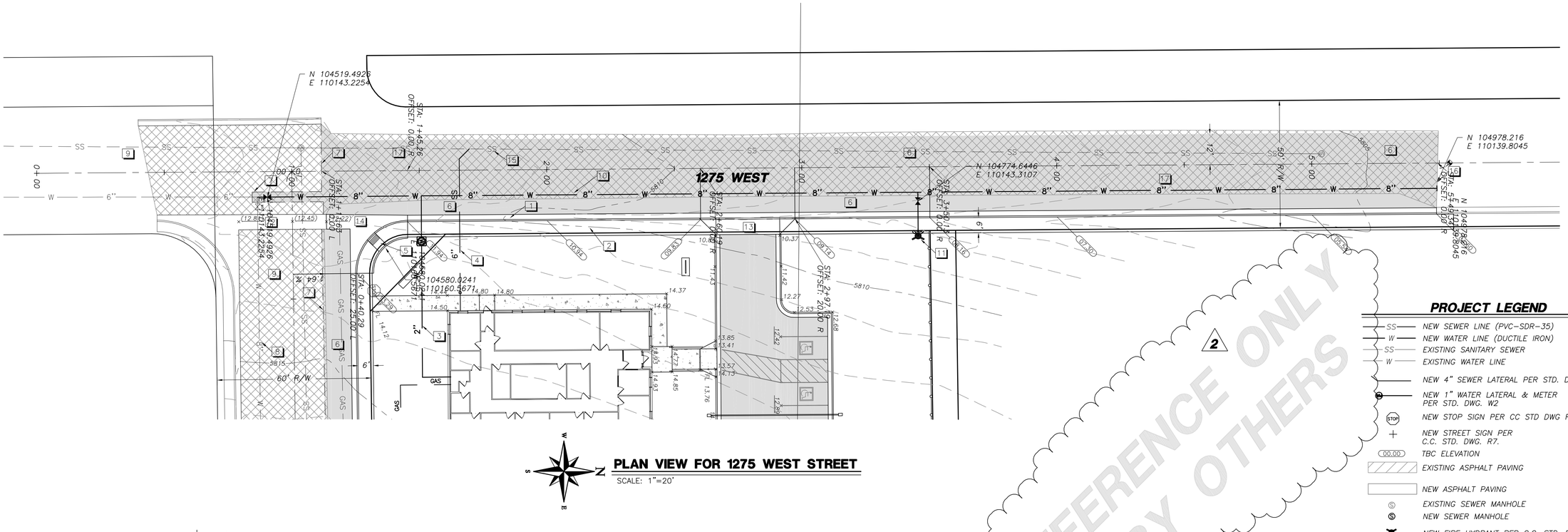
PLAN & PROFILE OF:
400 SOUTH STREET
400 S. STREET & 1275 W. STREET
CEDAR CITY, UTAH 84720
LOCATED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 15 R11W T36S SLBM

DATE: JUNE 23, 2008
SCALE: 1"=20'

JOB NO.
2750C

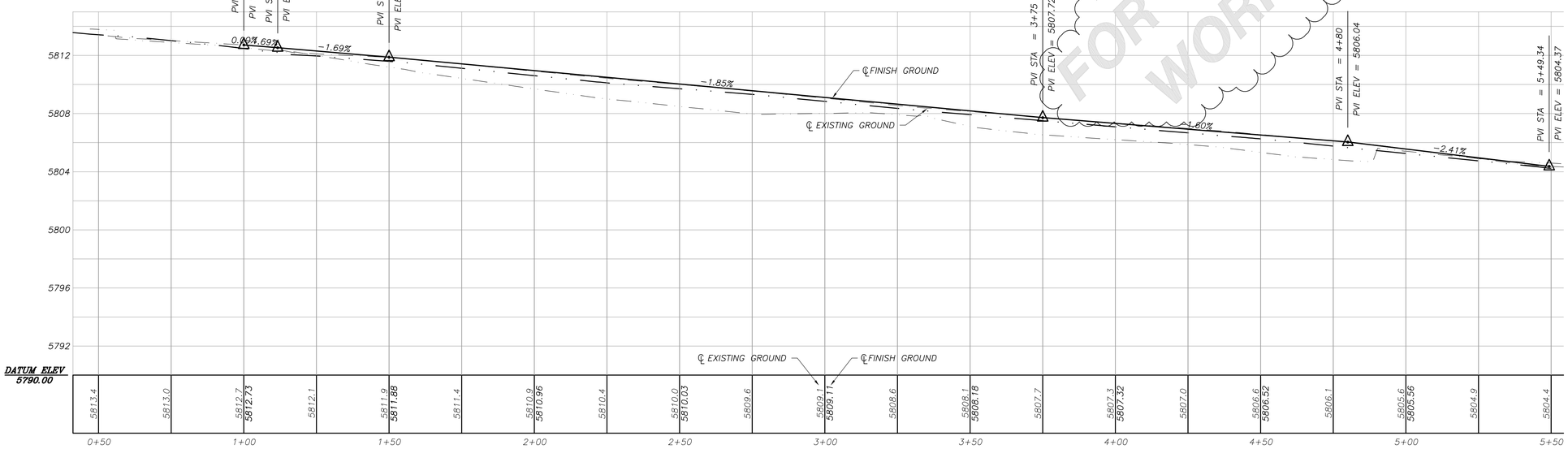
SHEET NO:
C4

PROJECT: 2750C - SUU FAC. MGMT. OFFICE (CIVIL)\SITE PLAN.dwg



PLAN VIEW FOR 1275 WEST STREET

SCALE: 1"=20'



PROFILE FOR 1275 WEST STREET

HORIZONTAL SCALE: 1"=20' VERTICAL SCALE 1"=4'

PROJECT LEGEND

- SS — NEW SEWER LINE (PVC-SDR-35)
- W — NEW WATER LINE (DUCTILE IRON)
- SS — EXISTING SANITARY SEWER
- W — EXISTING WATER LINE
- NEW 4" SEWER LATERAL PER STD. DWG. S1
- NEW 1" WATER LATERAL & METER PER STD. DWG. W2
- STOP — NEW STOP SIGN PER CC STD DWG R9
- NEW STREET SIGN PER C.C. STD. DWG. R7.
- 00.00 — TBC ELEVATION
- EXISTING ASPHALT PAVING
- NEW ASPHALT PAVING
- EXISTING SEWER MANHOLE
- NEW SEWER MANHOLE
- NEW FIRE HYDRANT PER C.C. STD. DWG. W2.
- EXISTING FIRE HYDRANT
- NEW GATE VALVE
- EXISTING WATER VALVE
- NEW CENTERLINE MONUMENT PER C.C. STD. DWG. R7.
- SECTION CORNER AS DESCRIBED
- HANDICAP RAMP PER CEDAR CITY DTL. C5
- DRAINAGE FLOW ARROW
- NEW CONCRETE

PUBLIC IMPROVEMENTS NOTE:

ALL PUBLIC IMPROVEMENTS IN 1275 WEST STREET AND 400 SOUTH STREET SHOWN ON THESE PLANS TO BE DONE BY OTHERS.

CONSTRUCTION NOTES

1. NEW 30" CURB AND GUTTER PER DETAIL
2. NEW 6' SIDEWALK PER DETAIL
3. NEW 2"ø WATER SERVICE PER CEDAR CITY DETAIL TYP.
4. NEW 6"ø PVC SDR-35 SEWER LATERAL PER CEDAR CITY DETAIL TYP.
5. NEW HANDICAP RAMP PER DETAIL C5
6. NEW ASPHALT PAVEMENT IN ROADWAY (SEE NOTE THIS PAGE)
7. SAW CUT AND REMOVE EDGE OF EXISTING ASPHALT.
8. EXISTING WATER LINE TO REMAIN
9. EXISTING ASPHALT PAVING TO REMAIN
10. NEW 8"ø CLASS 50 DUCTILE IRON WATERLINE
11. NEW FIRE HYDRANT (PER CITY DETAIL)
12. NEW 8"ø GATE VALVE
13. COMMERCIAL DRIVEWAY PER CITY DETAIL
14. EXTEND EXISITNG CROSS GUTTER PER CITY DETAIL
15. EXISTING SEWER TO REMAIN
16. STUB & CAP EXISTING 8"ø WATER LINE
17. EXISTING ASPHALT TO BE REMOVED

PUBLIC STREET DESIGN

1275 WEST 3.5" ASPHALT OVER 6" ROAD BASE OVER 12" COMPACTED SUBGRADE
400 SOUTH 3" ASPHALT OVER 8" ROAD BASE OVER 12" COMPACTED SUBGRADE

ALL EXISTING UTILITY LOCATIONS MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

REVISIONS

NO	DESCRIPTION	DATE	BY
1	REV. PER CITY COMMENTS	6/30/08	TS
2	REV. PER SUU REVIEW	7/23/08	TS

InSite Engineering, P.C.
Civil Engineers - Land Surveyors - Land Planners
1883 W. Royal Hunte Dr., Suite 200
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phone: (435) 867-4565
fax: (435) 867-4569

PROJECT: 2750C - SUU FAC. MGMT. OFFICE (CIVIL)\SITE PLAN.dwg

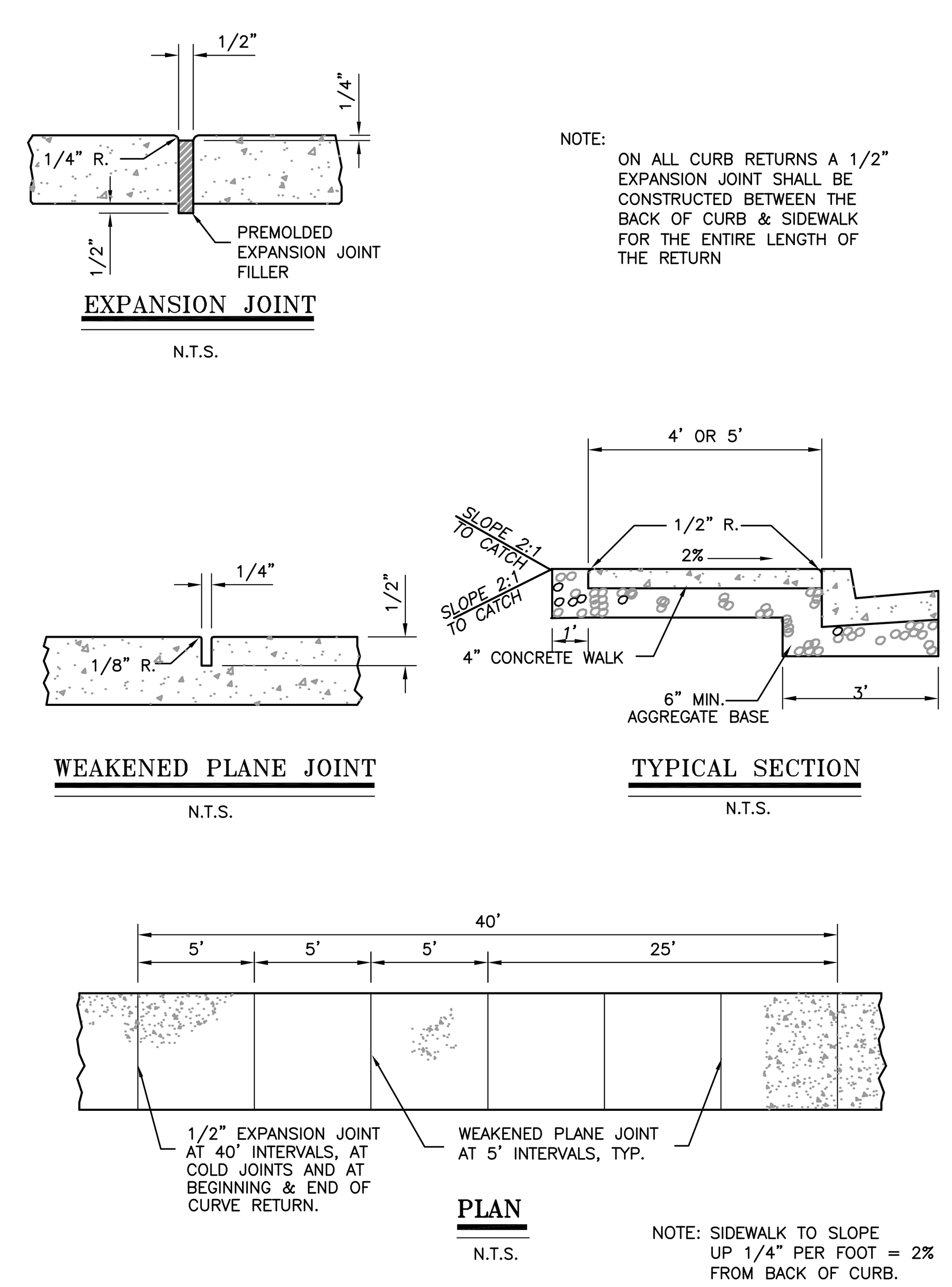
PLAN & PROFILE OF: 1275 WEST STREET

400 S. STREET & 1275 W. STREET
CEDAR CITY, UTAH 84720
LOCATED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 15 R11W T36S SLBM

DATE: JUNE 23, 2008
SCALE: 1"=20'

JOB NO.
2750C

SHEET NO:
C5

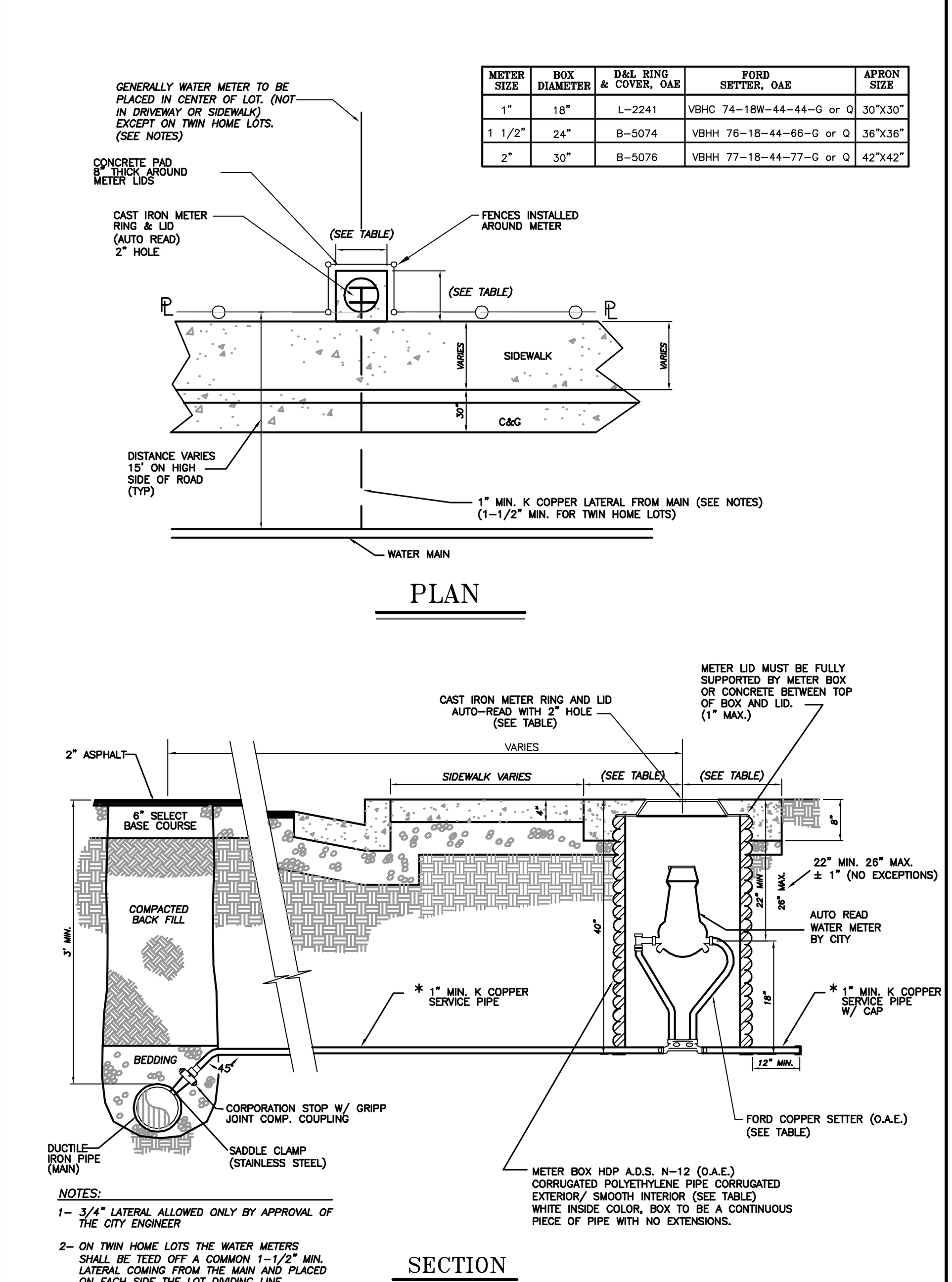


NOTE:
ON ALL CURB RETURNS A 1/2" EXPANSION JOINT SHALL BE CONSTRUCTED BETWEEN THE BACK OF CURB & SIDEWALK FOR THE ENTIRE LENGTH OF THE RETURN

NOTE: SIDEWALK TO SLOPE UP 1/4" PER FOOT = 2% FROM BACK OF CURB.

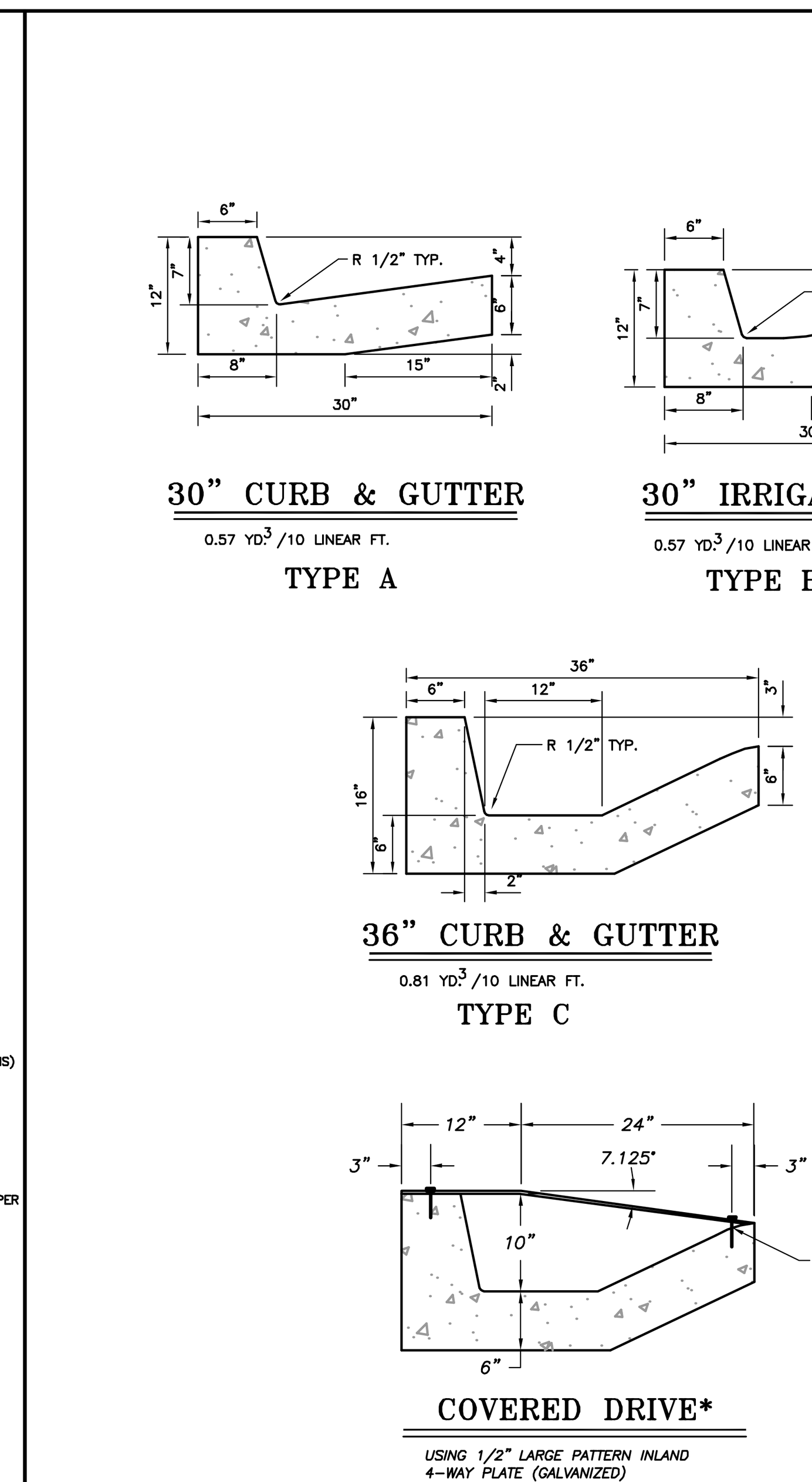
SHEET NO. C6 / FILE: C06	CONCRETE WALK DETAIL		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S. / DRAWN: J.R.B.	DATE: 06/2004 / CHECKED: J.C.N.

METER SIZE	BOX DIAMETER	D&L RING & COVER, OAE	FORD SETTER, OAE	APRON SIZE
1"	18"	L-2241	VBHC 74-18W-44-44-G or Q	30"X30"
1 1/2"	24"	B-5074	VBHH 76-18-44-66-G or Q	36"X36"
2"	30"	B-5076	VBHH 77-18-44-77-G or Q	42"X42"



NOTES:
1– 3/4" LATERAL ALLOWED ONLY BY APPROVAL OF THE CITY ENGINEER
2– ON TWIN HOME LOTS THE WATER METERS SHALL BE TEED OFF A COMMON 1-1/2" MIN. LATERAL COMING FROM THE MAIN AND PLACED ON EACH SIDE THE LOT DIVIDING LINE ACCORDING TO THE LAYOUT OF THE HOMES.

SHEET NO. W5 / FILE: W05	1"-2" WATER METER		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S. / DRAWN: J.R.B.	DATE: 08/2006 / CHECKED: J.C.N.

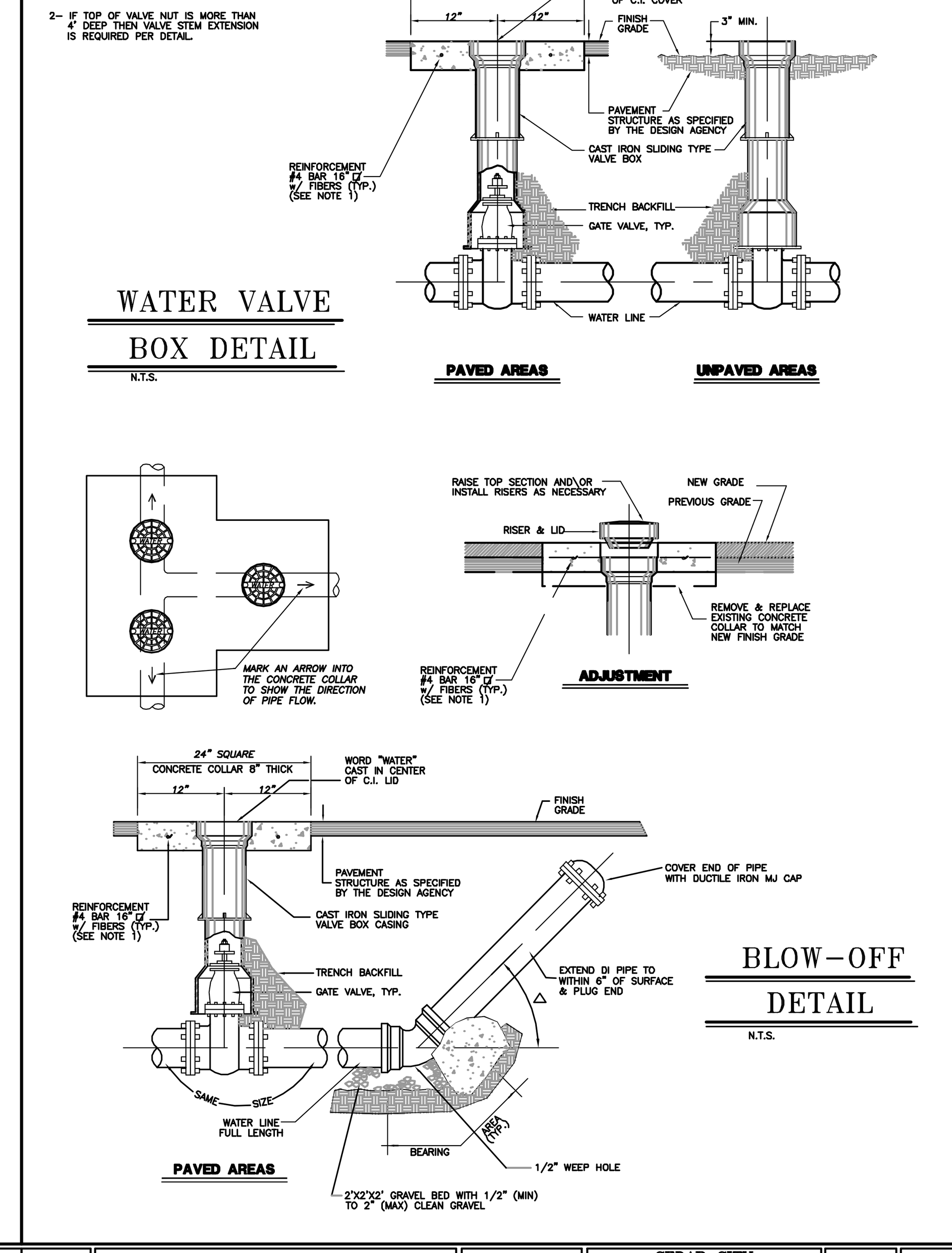


NOTE:
ALL CURB AND GUTTER TYPES SHALL HAVE WEAKENED PLANE JOINTS EVERY 10' O.C. 1/2" DEEP.

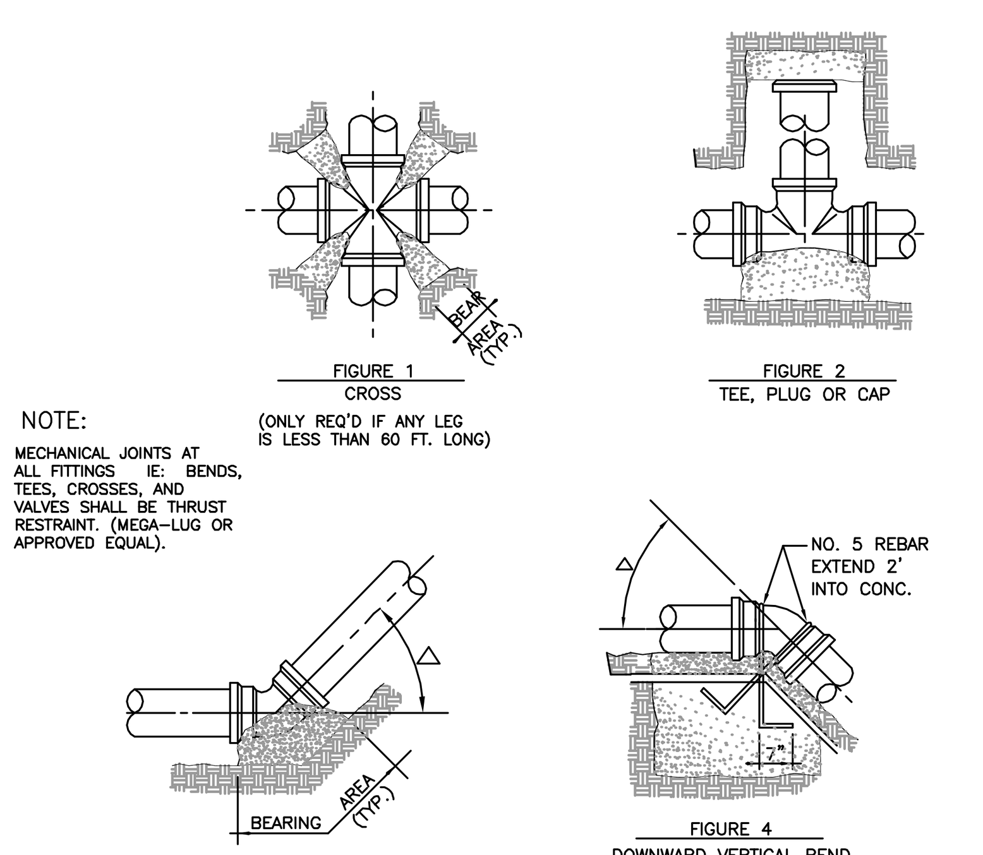
* USE ONLY WHEN APPROVED BY THE CITY ENGINEER.

SHEET NO. C1 / FILE: C01	CURB & GUTTER SECTIONS		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S. / DRAWN: J.R.B.	DATE: 01/98 / CHECKED: J.C.N.

NOTES:
1– TOP OF VALVE BOX AND CONCRETE COLLAR TO BE 1/4" BELOW FINAL STREET GRADE.
2– IF TOP OF VALVE NUT IS MORE THAN 4' DEEP THEN VALVE STEM EXTENSION IS REQUIRED PER DETAIL.



SHEET NO. W1 / FILE: W01	WATER VALVE BOX AND BLOW-OFF DETAIL		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S. / DRAWN: J.R.B.	DATE: 11/2006 / CHECKED: J.C.N.

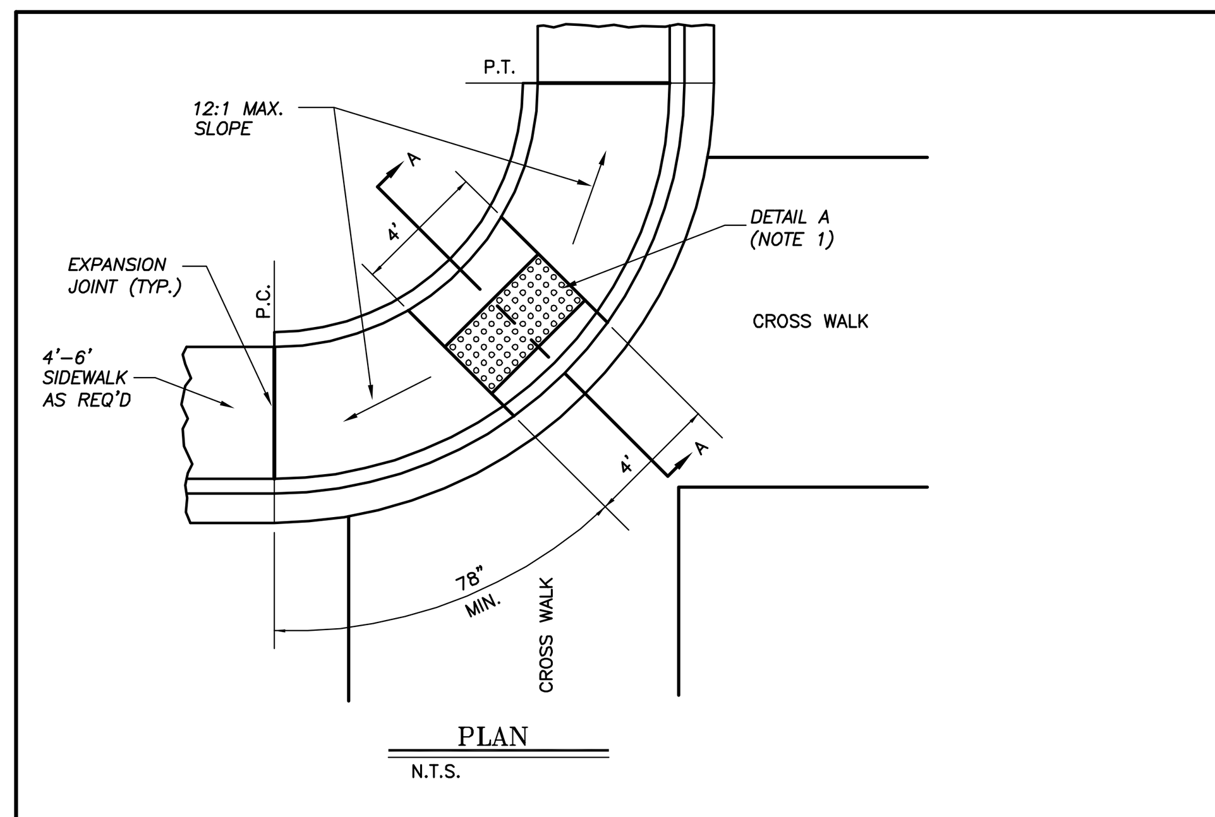


NOTE:
MECHANICAL JOINTS AT ALL FITTINGS IE: BENDS, TEES, CROSSES, AND VALVES SHALL BE THRUST RESTRAINT. (MEGA-LUG OR APPROVED EQUAL).

GENERAL NOTES:
1. ALL FITTINGS & EXPOSED REBAR TO BE WRAPPED W/ TWO LAYERS OF 6 MIL. POLYETHYLENE WHERE COVERED WITH CONCRETE.
2. ALL CONCRETE SHALL BE CLASS C 3000 P.S.I. MINIMUM 28 DAYS COMPRESSIVE STRENGTH.
3. PLACE CONCRETE AGAINST UNDISTURBED EARTH.
4. TABLE DENOTES MINIMUM BEARING AREA OR VOLUME OF THRUST BLOCK. SPECIAL DESIGN FOR EACH INSTALLATION IS REQUIRED IF ALLOWABLE SOIL BEARING CAPACITY IS LESS THAN 3000 P.S.F.
5. VERTICAL SURFACES NOT BEARING AGAINST UNDISTURBED EARTH SHALL BE FORMED.
6. KEEP CONCRETE AWAY FROM FLANGE BOLTS AND FITTINGS.

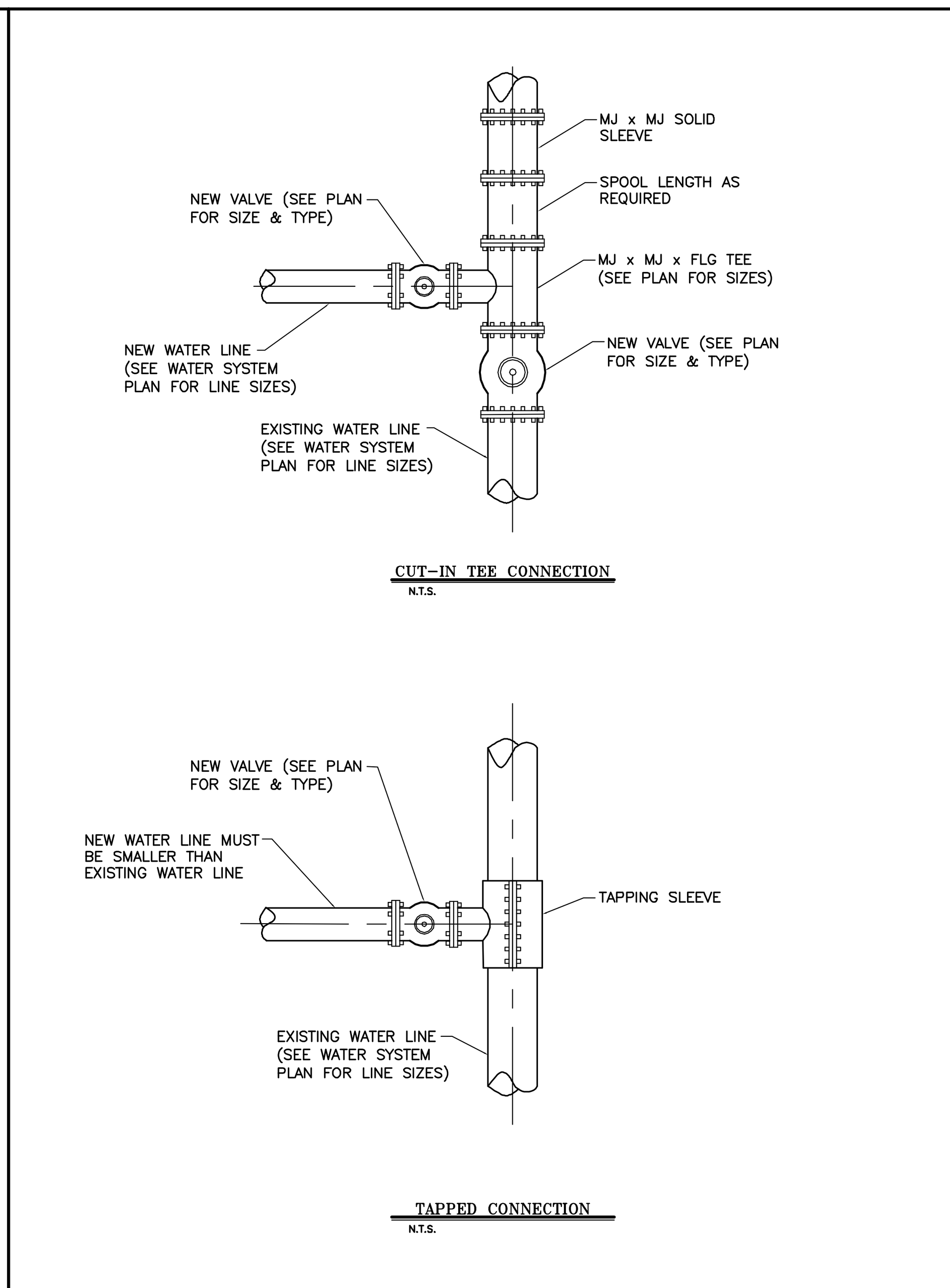
PIPE I.D.	BEARING AREA, SQUARE FEET						VOLUME OF CONC. CU.YD.		
	FIGURE 1	FIGURE 2	FIGURE 3, Δ				FIGURE 4, Δ		
			90°	45°	22-1/2°	11-1/4°	45°	22-1/2°	11-1/4°
4"	2	2	2	1	1	1	1.0	.5	.5
6"	2	3	3	2	1	1	1.5	1.0	.5
8"	2	5	6	3	2	1	2.0	1.0	.5
10"	3	7	10	5	3	1	4.0	2.0	1.0
12"	3	10	14	8	4	2			
14"	4	14	20	10	5	3			
16"	4	20	24	12	7	4			
18"	5	24	30	16	10	5			
20"	5	28	40	20	12	6			

SHEET NO. W3 / FILE: W03	THRUST BLOCK DETAIL		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S. / DRAWN: J.R.B.	DATE: 06/2004 / CHECKED: J.C.N.

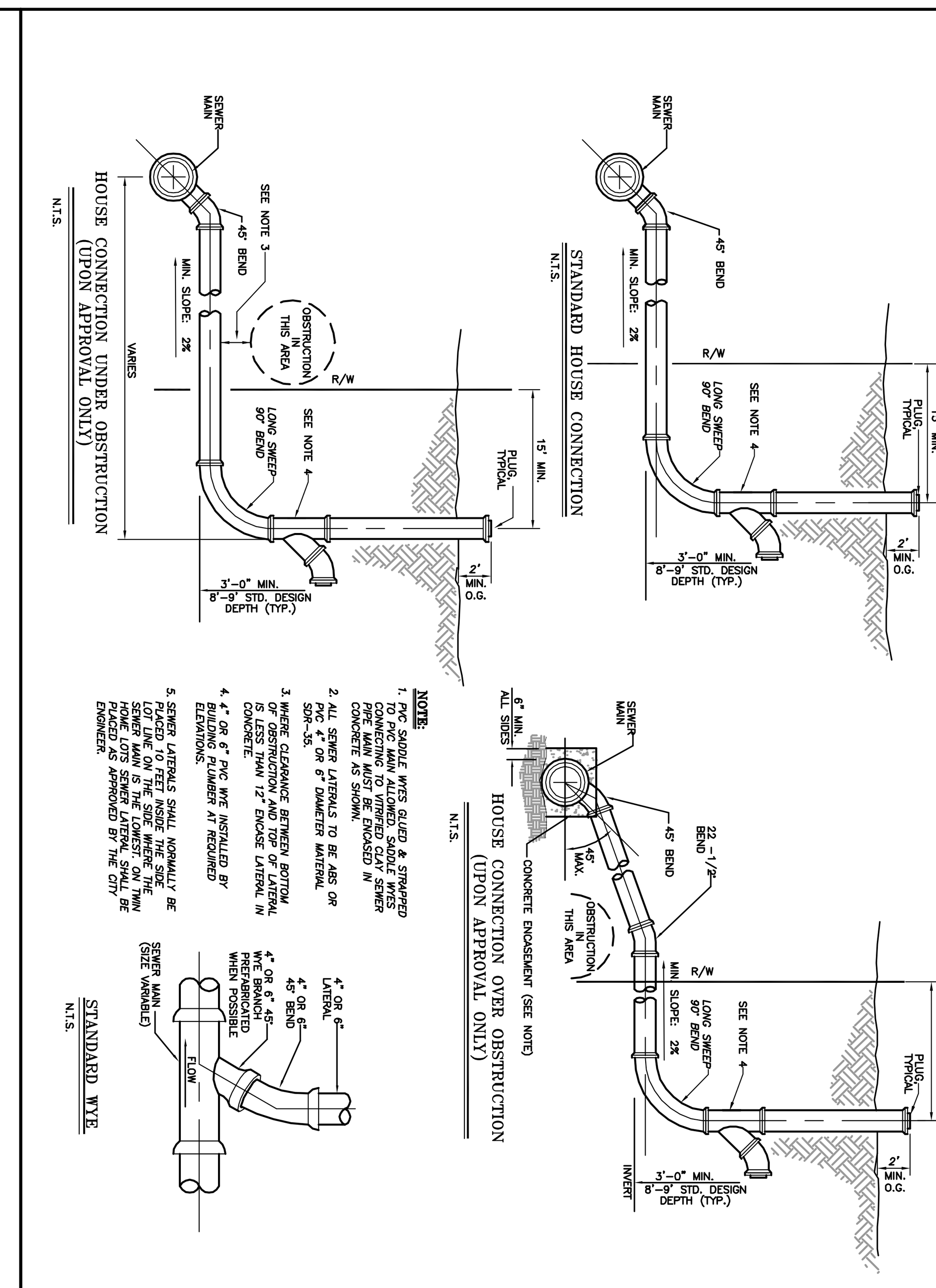


NOTES:
1– DETECTABLE WARNING CAST-IN-PLACE SYSTEM WITH TRUNCATED DOMES BY AMOR-TILE O.A.E. 24" x 48" SIZE, BACK RED COLOR O.A.E.
2– WHEELCHAIR RAMPS SHALL BE LOCATED AT THE MIDPOINT OF CURB RADIUS UNLESS OTHERWISE INDICATED ON PLAN.
3– RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE.

SHEET NO. C5 / FILE: C05	ACCESSIBLE RAMP DETAIL		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S. / DRAWN: J.R.B.	DATE: 06/2004 / CHECKED: J.C.N.

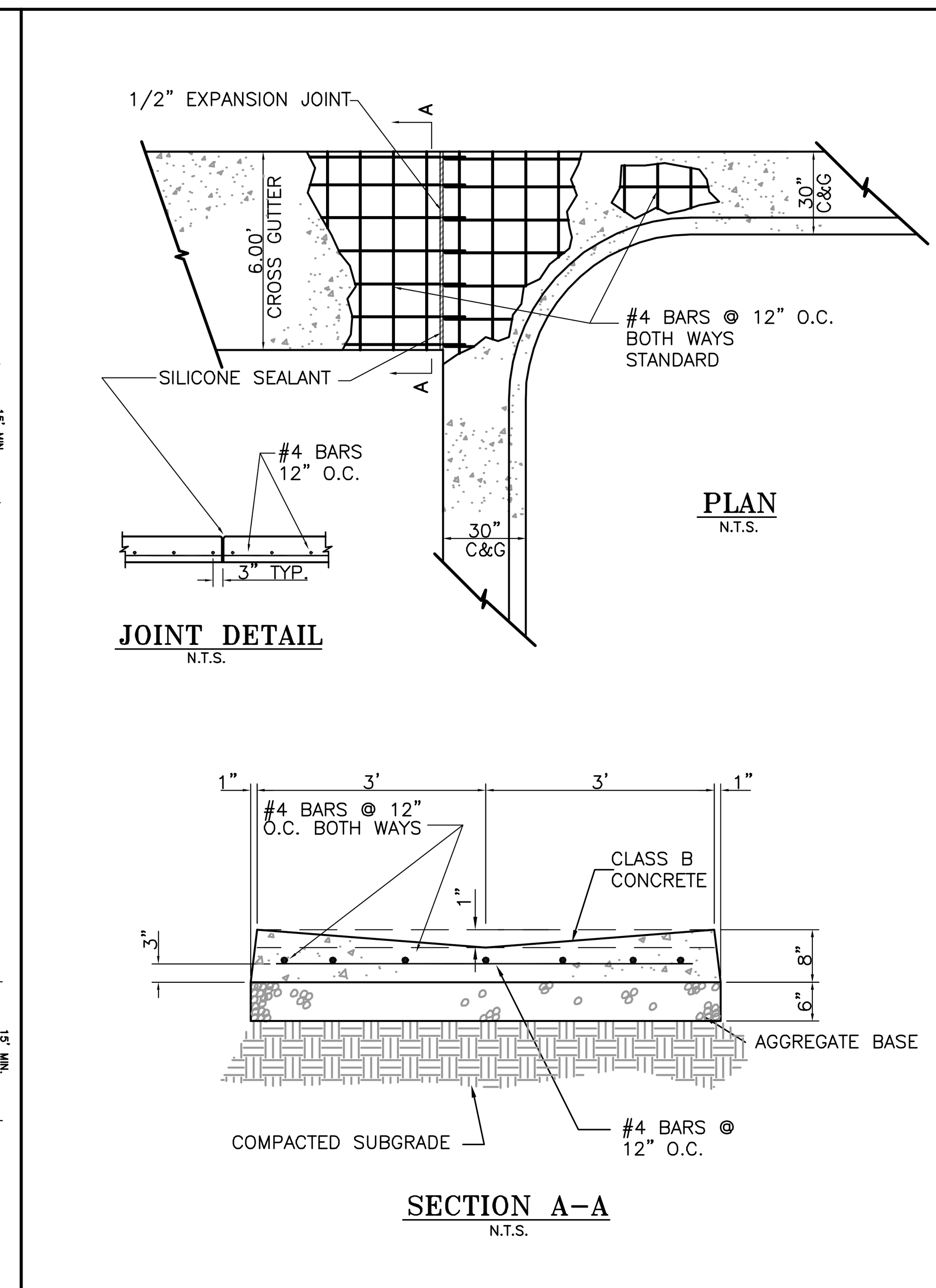


SHEET NO. W10 / FILE: W10	WATER MAIN TO MAIN CONNECTION DETAIL		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S. / DRAWN: J.R.B.	DATE: 05/2002 / CHECKED: J.C.N.

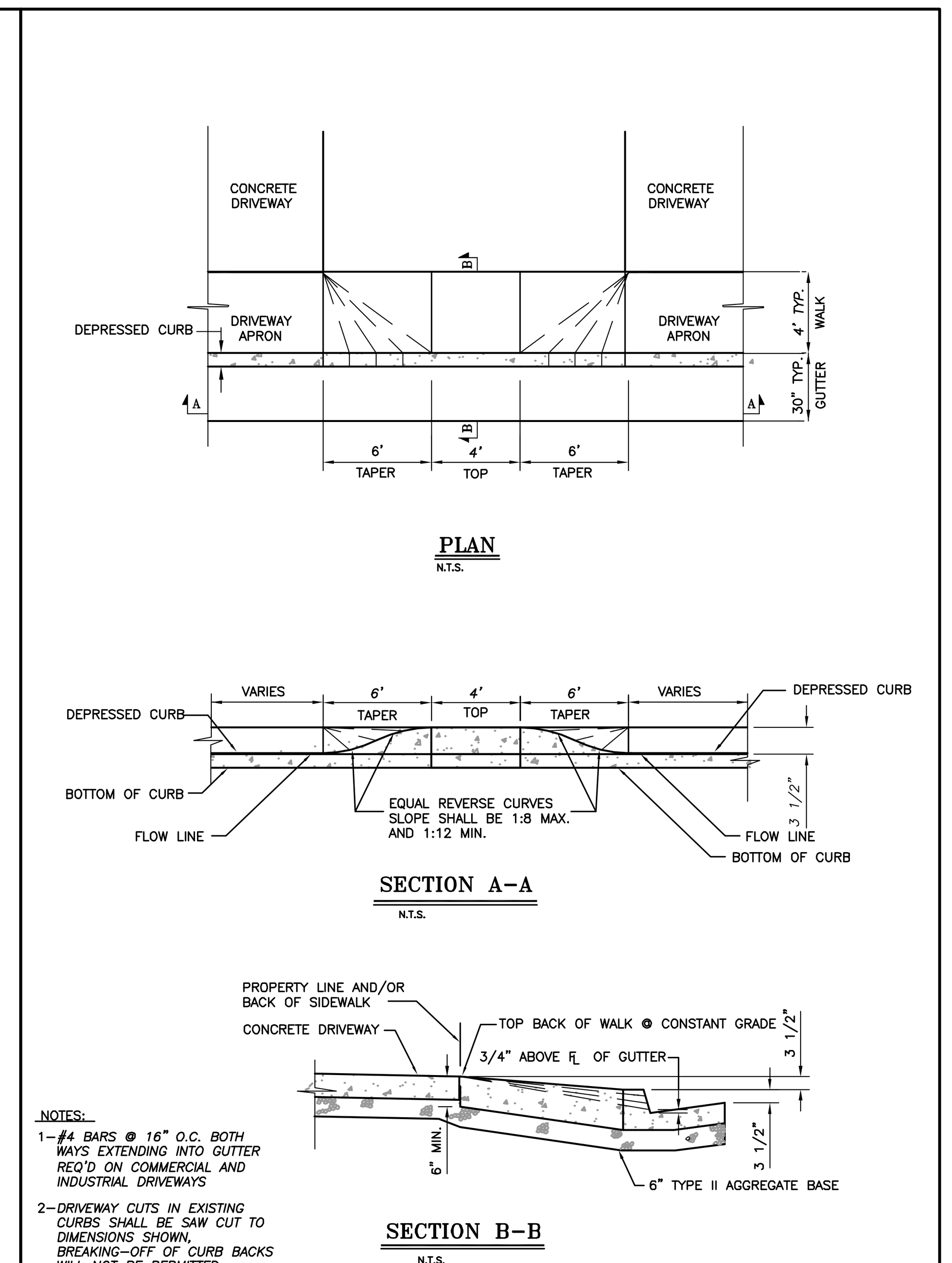


NOTE:
1. PVC SADDLE WYES GLUED & STRAPPED TO PVC MAIN ALLOWED. SADDLE WYES CONNECTING TO VITRIFIED CLAY SEWER PIPE MAIN MUST BE ENCASED IN CONCRETE AS SHOWN.
2. ALL SEWER LATERALS TO BE ABS OR PVC 4" OR 6" DIAMETER MATERIAL SDR-35.
3. WHERE CLEARANCE BETWEEN BOTTOM OF OBSTRUCTION AND TOP OF LATERAL IS LESS THAN 12" ENCASE LATERAL IN CONCRETE.
4. 4" OR 6" PVC WYE INSTALLED BY BUILDING PLUMBER AT REQUIRED ELEVATIONS.
5. SEWER LATERALS SHALL NORMALLY BE PLACED 10 FEET INSIDE THE SIDE LOT LINE ON THE SIDE WHERE THE SEWER MAIN IS THE LOWEST. ON TWIN HOME LOTS SEWER LATERAL SHALL BE PLACED AS APPROVED BY THE CITY ENGINEER.

SHEET NO. S1 / FILE: S01	SEWER LATERAL DETAIL		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S / DRAWN: T.B.M.	DATE: 04/2006 / CHECKED: J.C.N.



SHEET NO. C2 / FILE: C02	6'-0" CROSS GUTTER DETAIL		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S. / DRAWN: J.R.B.	DATE: 06/2004 / CHECKED: J.C.N.



NOTES:
1–#4 BARS @ 16" O.C. BOTH WAYS EXTENDING INTO GUTTER REQ'D ON COMMERCIAL AND INDUSTRIAL DRIVEWAYS
2–DRIVEWAY CUTS IN EXISTING CURBS SHALL BE SAW CUT TO DIMENSIONS SHOWN, BREAKING-OFF OF CURB BACKS WILL NOT BE PERMITTED.

SHEET NO. C4 / FILE: C04	COMMERCIAL/INDUSTRIAL DRIVEWAY BREAK DETAIL		CEDAR CITY P.O. BOX 249 10 NORTH MAIN STREET CEDAR CITY, UTAH 84721 PH. (435) 586-2963	SCALE: N.T.S. / DRAWN: T.B.M.	DATE: 06/2004 / CHECKED: J.C.N.

REVISIONS

NO	DESCRIPTION	DATE	BY
1	REV. PER CITY COMMENTS	6/30/08	TS

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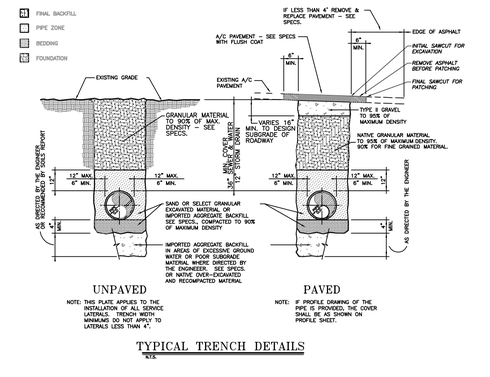
DETAILS FOR:
SUU FACILITIES MANAGEMENT OFFICE
400 S. STREET & 1275 W. STREET
CEDAR CITY, UTAH 84720
LOCATED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 15 R11W T36S SLBM

DATE: JUNE 23, 2008
SCALE: 1"=20'

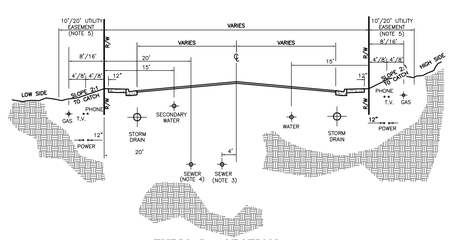
JOB NO.
2750C

SHEET NO:
C6

PROJECT: 2750C – SUU FAC. MGMT. OFFICE (CIVIL)\SITE PLAN.dwg



TYPICAL TRENCH DETAILS
N.T.S.

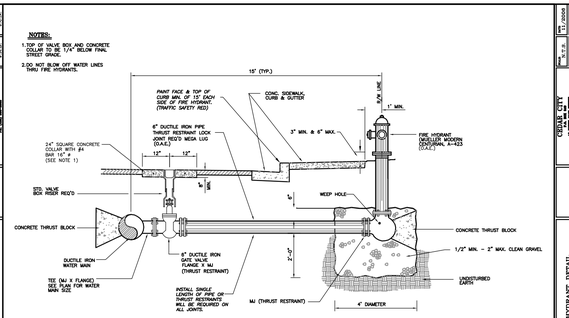


TYPICAL SECTION
N.T.S.

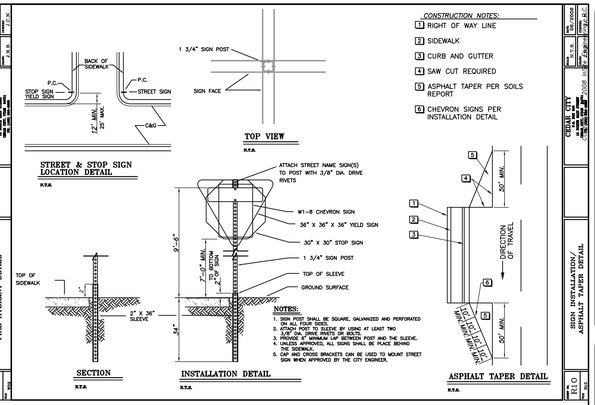
OPTION:
1 - ALL UTILITIES HAVE THE OPTION OF USING THE REAR LOT EASEMENT.
2 - LOCATE STORM DRAIN UNDER LIP OF CURB.
3 - FOR LOCAL & COLLECTOR STREETS
4 - FOR ARTERIAL STREETS
5 - 10' IN RESIDENTIAL AREAS / 20' IN INDUSTRIAL & COMMERCIAL AREAS

NOTE:
UTILITY EASEMENTS MUST BE PREPARED BY DEVELOPER TO RECEIVE UTILITIES.

MINIMUM DEPTHS	
WATER	36"
TELEPHONE	30"
POWER	40"
GAS	30"
SEC. WATER	24"
SAN. SEWER	9'
STORM DRAIN	–
TELEVISION	30"

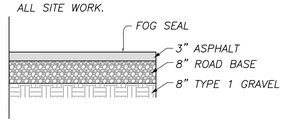


UTILITY LOCATION DETAIL
N.T.S.

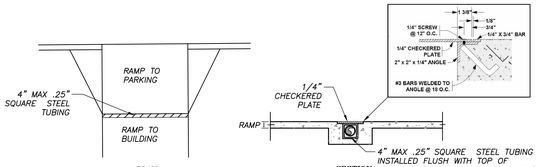


FIRE HYDRANT DETAIL
N.T.S.

NOTE:
SEE SOILS REPORT RECOMMENDATIONS FOR ALL SITE WORK.

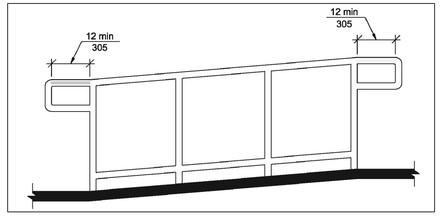


ASPHALT SECTION
N.T.S.



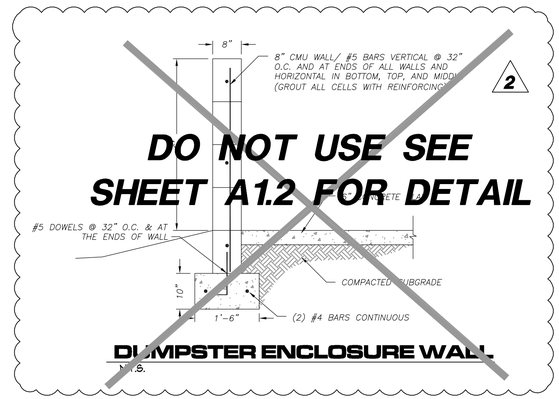
4" STEEL INLET PIPE DETAIL
N.T.S.

NOTES:
ALL EXPOSED METAL PARTS SHALL BE A-36 GALVANIZED STEEL AND ALL GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL)

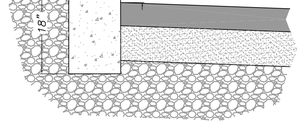


HANDRAIL DETAIL
N.T.S.

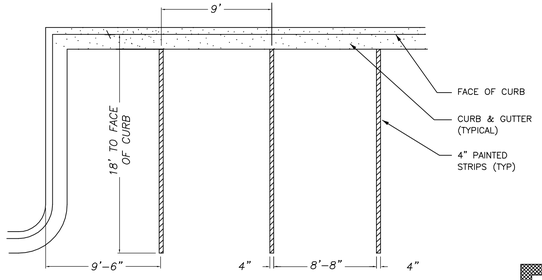
NOTES:
-HANDRAIL HEIGHT TO BE BETWEEN 34" AND 38"
-HANDRAIL DIAMETER TO BE 1.5" TO 2"



DUMPSTER ENCLOSURE WALL
N.T.S.

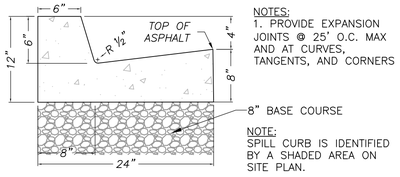


6" CURB DETAIL
N.T.S.



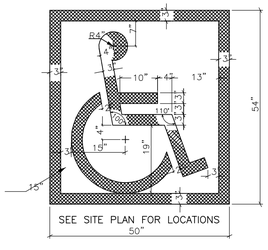
PARKING STALLS
N.T.S.

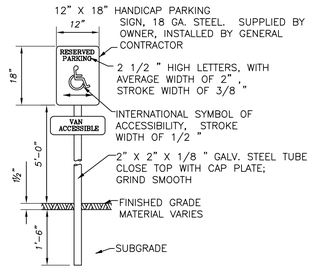
NOTES:
1-A CURB RAMP(S) MUST BE PROVIDED ALONG AN ACCESSILBLE PATH FROM THE PARKING LOT TO CURBED SIDEWALK.
2-A RAMP IS ANY SLOPE GREATER THAN 1:20 (5%) AND SHALL HAVE A MAX. SLOPE OF 1:12 (8.33%). THE MAX. SLOPE IS 1" OF RISE PER FOOT OF DISTANCE TRAVELED. ALL DETECTABLE WARNING AREAS OF THE RAMP ARE TO HAVE A RED COLOR.
3-THE MIN. WIDTH OF ANY RAMP IS 36".

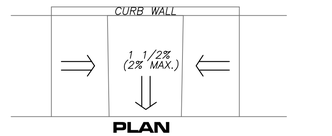


NOTES:
1. PROVIDE EXPANSION JOINTS @ 25' O.C. MAX AND AT CURVES, TANGENTS, AND CORNERS
8" BASE COURSE
NOTE:
SPILL CURB IS IDENTIFIED BY A SHADED AREA ON SITE PLAN.

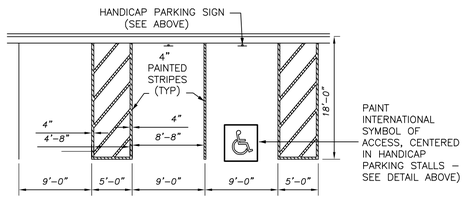
L-TYPE 24" FLOW CURB
N.T.S.







INLINE RAMP DETAIL
N.T.S.



TYPICAL HANDICAP STALLS
N.T.S.

CEDAR CITY TESTING REQUIREMENTS

DESCRIPTION	TEST / QUANTITY	QUANTITY	TESTS REQ'D
ROAD EMBANKMENT DENSITY TESTS	1/500 C.Y.	–	–
ROAD SUBGRADE DENSITY TESTS	1/1,000 S.Y.	360 S.Y.	1SETS
TRENCH DENSITY TESTS			
STORM DRAINS / CULVERTS	2/200 L.F. OF TRENCH	–	–
STORM DRAIN MANHOLES / INLET BOX	2/MANHOLE OR BOX	–	–
IRRIGATION LINE	2/200 L.F. OF TRENCH	–	–
WATER LINE (INCLUDES F. H. & SERVICE LATERALS)	2/200 L.F. OF TRENCH	475 L.F.	3 SETS
SEWER LINE (INCLUDE SERVICE LATERALS)	5/200 L.F. OF TRENCH	53 L.F.	1 SETS
SEWER MANHOLE	5/EACH MANHOLE	–	– SETS
VALVES	2/VALVE OR VALVE SET	2	2 SETS
UTILITY CONDUITS	2/200 L.F. OF TRENCH	–	–
ROAD BASE COURSE DENSITY TESTS	1/7,000 S.F.	16,906 S.F.	3 SETS
ROAD BASE THICKNESS TESTS	1/5,000 S.F.	16,906 S.F.	4 SETS
CURB/GUTTER BASE DENSITY TESTS	1/300 L.F.	772 L.F.	3 SETS
SIDEWALK BASE DENSITY TESTS	1/300 L.F.	772 L.F.	3 SETS
ASPHALT EXTRACTION TESTS	1/500 TONS OR 1 PER DAY WHICHEVER IS LESS	1 DAY	1 SET
ASPHALT DENSITY TESTS	1/7,000 S.F.	16,906 S.F.	3 SETS
ASPHALT THICKNESS TESTS	1/10,000 S.F.	16,906 S.F.	2 SETS
CONCRETE CYLINDER BREAKS	3/50 C.Y.	40 C.Y.	2 SETS
CONCRETE AIR ENTRAINMENT	2 CONSECUTIVE PASSING TESTS/LOAD	2 LOADS	2 SETS
CONCRETE SLUMP TESTS	2 CONSECUTIVE PASSING TESTS/LOAD	4 LOADS	4 SETS
ROAD BASE GRADATION TEST	1/15,000 S.F.	16,906 S.F.	2 SETS
CURB & GUTTER BASE COURSE GRAD.	1/2,000 L.F.	772 L.F.	1 SET
CURB & GUTTER THICKNESS TEST	1/200 L.F.	772 L.F.	4 SETS
SIDEWALK THICKNESS TEST	1/200 L.F.	772 L.F.	4 SETS

NO	DESCRIPTION	DATE	BY
1	REV. PER CITY COMMENTS	6/30/08	TS
2	REV. PER SUU REVIEW	7/23/08	TS

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DETAILS FOR:
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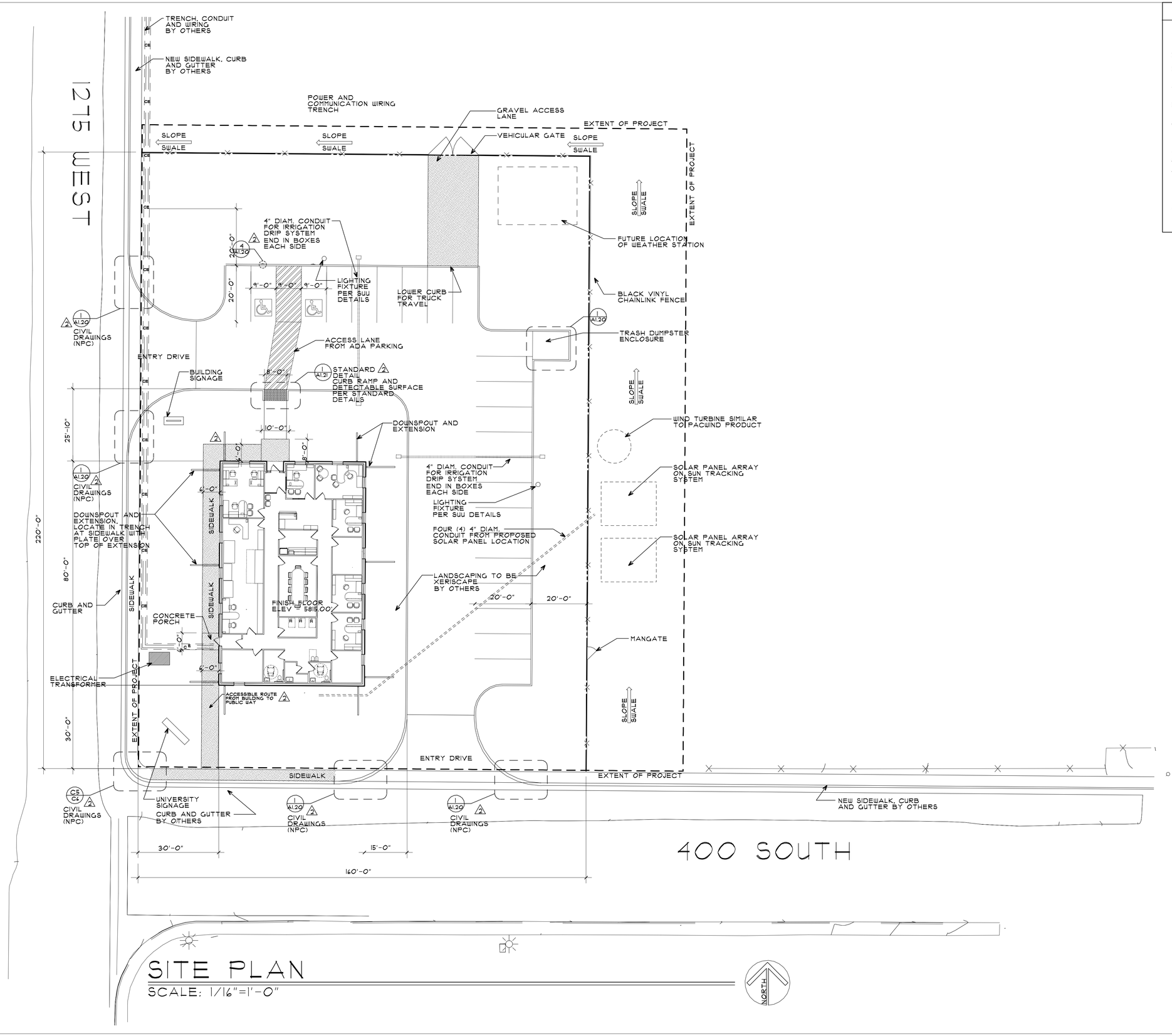
400 S. STREET • 1215 W. STREET
CEDAR CITY, UTAH 84720
LOCATED IN THE NW 1/4 OF THE SE 1/4 OF SECTION 15 R11W T36S SLBM

DATE: JUNE 23, 2008
SCALE: 1"=20'

JOB NO.
2750C

SHEET NO:
C7

PROJECT: 2750C - SUU FAC. MGMT. OFFICE (CIVIL)\SITE PLAN.dwg



SITE PLAN

SCALE: 1/16"=1'-0"

GENERAL NOTES

1. SIDEWALK, CURB AND GUTTER ALONG 400 SOUTH AND 1215 WEST BY OTHERS.
2. PARKING LOT STRIPING BY SUU.
3. SIDEWALK, CURB AND GUTTER TO BE CONSTRUCTED PER CEDAR CITY STANDARDS.
4. ALL WORK TO COMPLY WITH APPLICABLE GOVERNING STANDARDS.
5. THE BUILDING FOUNDATION SHALL EXTEND 8" ABOVE ADJOINING GRADE.
6. FINISH GRADE AROUND THE BUILDING SHALL SLOPE AWAY FROM THE BUILDING FOUNDATION AT MINIMUM OF 2%.
7. LANDSCAPING BY SUU.
8. - - - - - INDICATES EXTENT OF PROJECT.
9. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION CONCERNING SITE DESIGN.
10. ⇒ ⇒ INDICATES ACCESSIBLE WAY TO PUBLIC ACCESS.

SARGENT DESIGN GROUP
ARCHITECTURE | PLANNING
36 NORTH 300 WEST, SUITE B
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FAX: (435) 586-4873
jcoltons@email.com

State of Utah- Department of Administrative Services
DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
4110 State Office Building/Salt Lake City, Utah 84114/538-3018

Project: SUU FACILITIES MANAGEMENT OFFICE

Sheet Title: SITE PLAN

Revisions:
1 CODE REVIEW 04.30.08
2 CODE REVIEW 07.09.08

PROJECT NUMBER:	07483
DATE:	05.30.08
DRAWN BY:	J.C.S.
CHECKED BY:	J.C.S.
APPROVED BY:	J.C.S.

A1.10

SHEET NUMBER:
Sheet of

COMPOSITE SHINGLE ROOFING
ELK BUILDING PRODUCTS
50 YEAR WARRANTEE
COLOR: CEDAR BROWN

12" METAL FASCIA
COLOR: SUNSET

METAL GUTTER
COLOR: MATCH FASCIA

6" METAL COVERED
TRIM
COLOR: SUNSET

TWO COURSES OF
SPLIT FACE BLOCK
COLOR: SUNROC - SONOMA RED

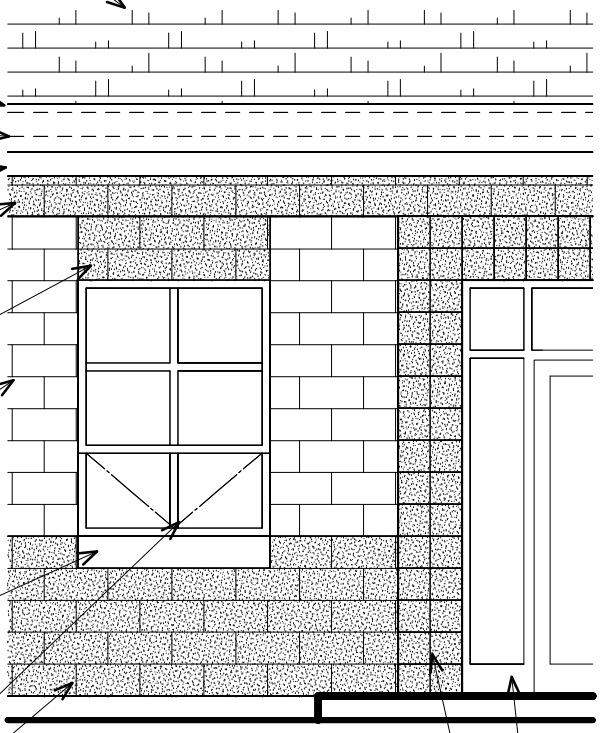
TWO COURSES OF
SPLIT FACE BLOCK
ABOVE WINDOW
COLOR: SUNROC - SONOMA RED

FIELD TO BE SPLIT
FACE BLOCK, COLOR:
SUNROC - DESERT SANDSTONE

PRE-CAST CONCRETE
WINDOW SILL
COLOR: INTERSTATE
"DESERT SAND"

ALUMINUM WINDOW
THERMAL BREAK
COLOR: BROWN ANNODIZED

FIVE COURSE OF
SPLIT FACE BLOCK
COLOR: SUNROC - SONOMA RED



SPLIT FACE BLOCK
WITH CENTER SCORE
LINE, COLOR:
SUNROC - SONOMA RED

ALUMINUM STOREFRONT
COLOR: BROWN
ANNODIZED

SARGENT DESIGN GROUP
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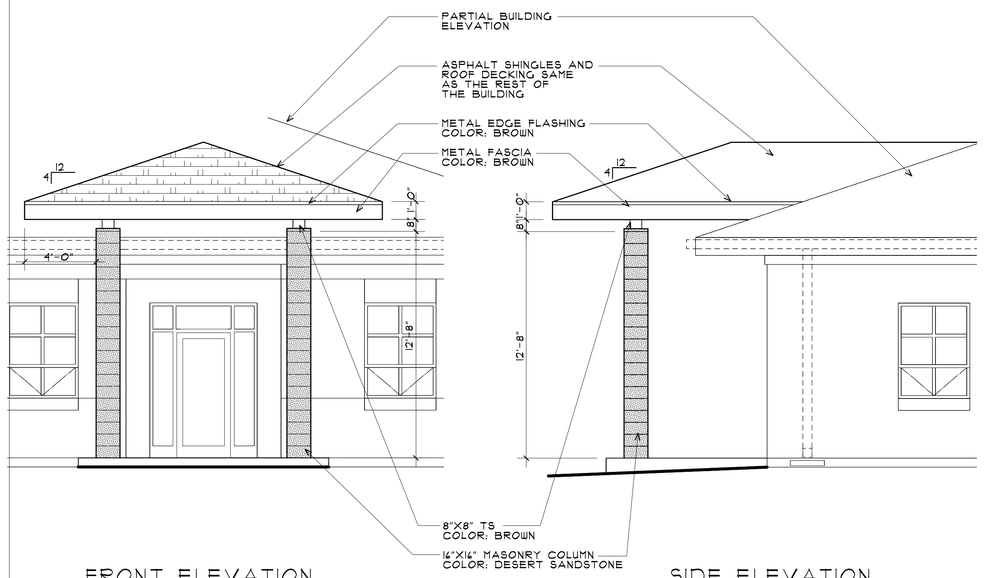
SHEET TITLE:
ENLARGED
PARTIAL
ELEVATION

SCALE:

NOT TO SCALE

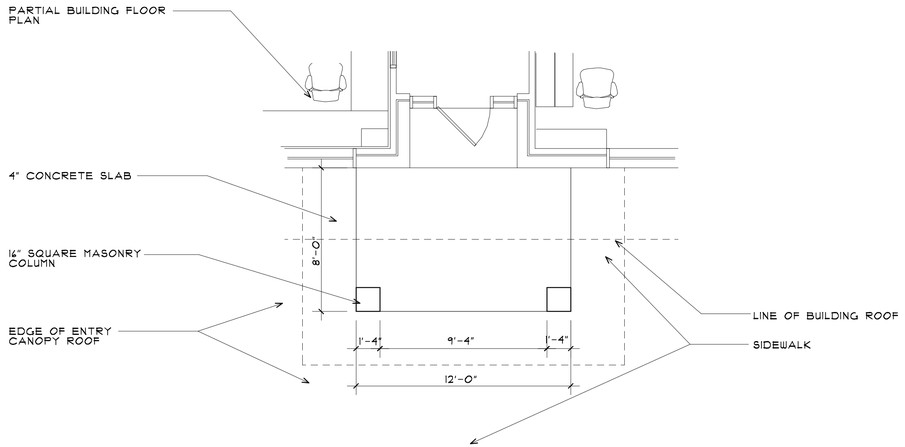
SHEET NUMBER:

AD.001



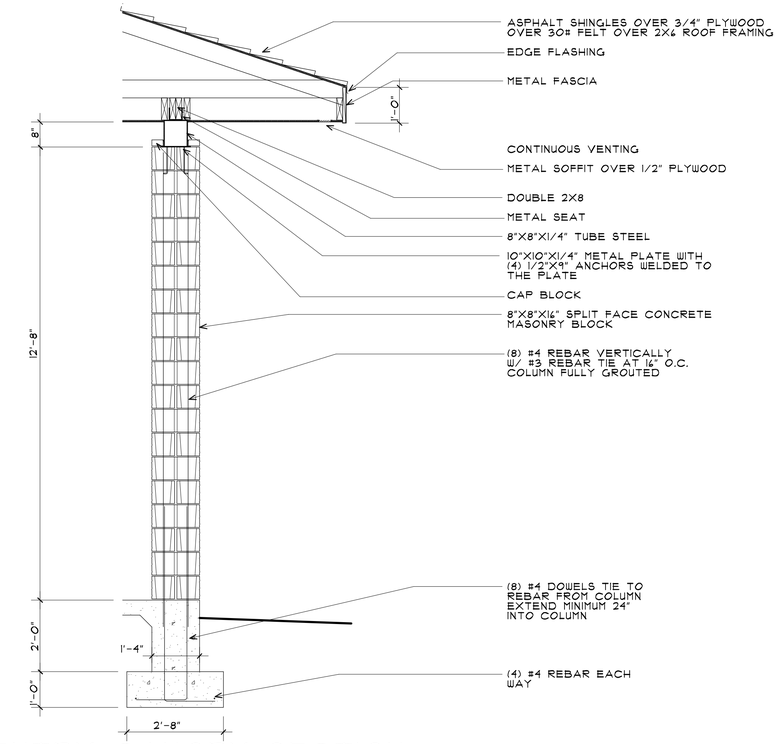
FRONT ELEVATION

SIDE ELEVATION



3 ENTRY CANOPY ELEVATION

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

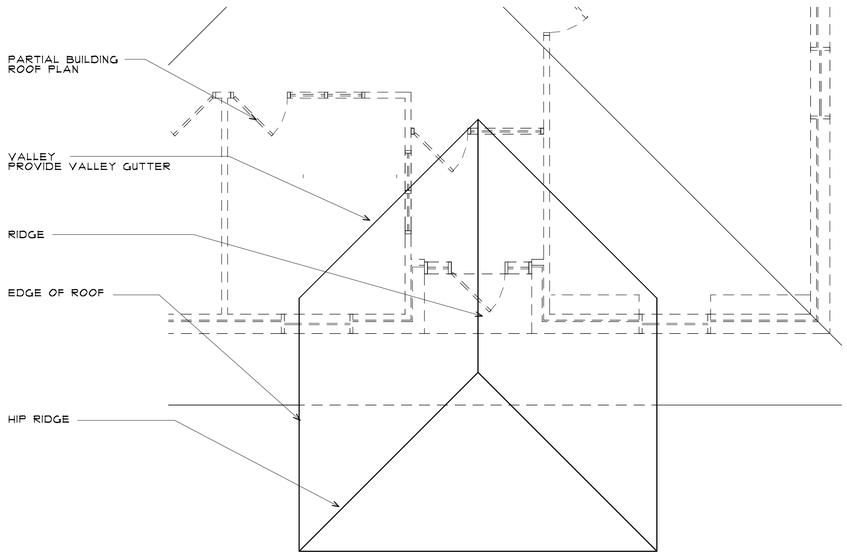


4 ENTRY CANOPY SECTION

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

1 ENTRY CANOPY FLOOR PLAN

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



2 ENTRY CANOPY ROOF PLAN

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

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State of Utah- Department of Administrative Services
DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
4110 State Office Building/Salt Lake City, Utah 84114/538-3018

Project: SUU FACILITIES MANAGEMENT OFFICE

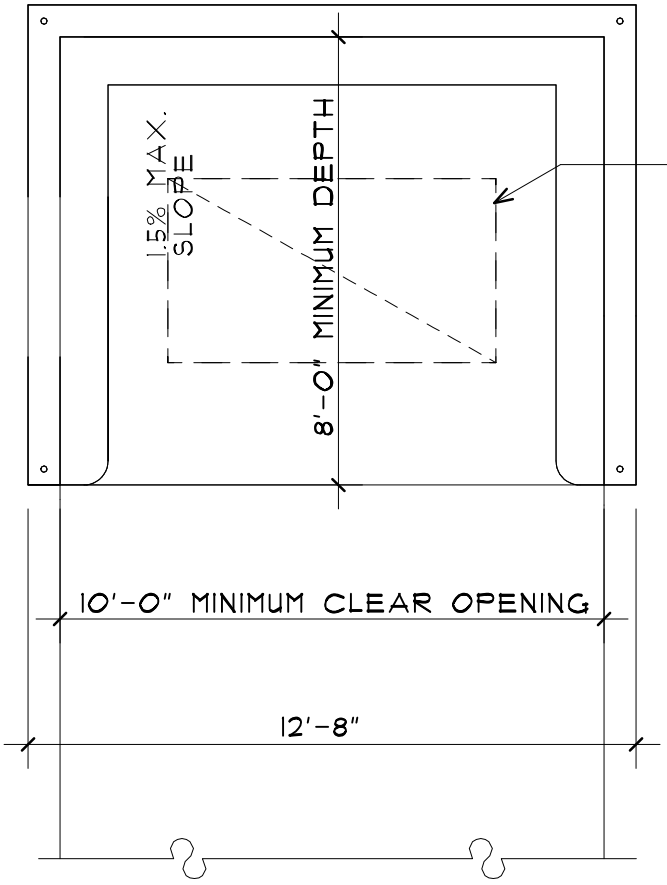
Sheet Title: ADDENDUM DRAWINGS ENTRY CANOPY

Revisions:

PROJECT NUMBER:	07483
DATE:	05.30.08
DRAWN BY:	J.C.S.
CHECKED BY:	J.C.S.
APPROVED BY:	J.C.S.

SHEET NUMBER: A0001

Sheet of



TRASH ENCLOSURE OVERALL DIMENSIONS TO BE MODIFIED PER THIS DRAWING. ALL OTHER DIMENSIONS AND MATERIALS TO STAY PER THE ORIGINAL BID DOCUMENTS.

SARGENT DESIGN GROUP
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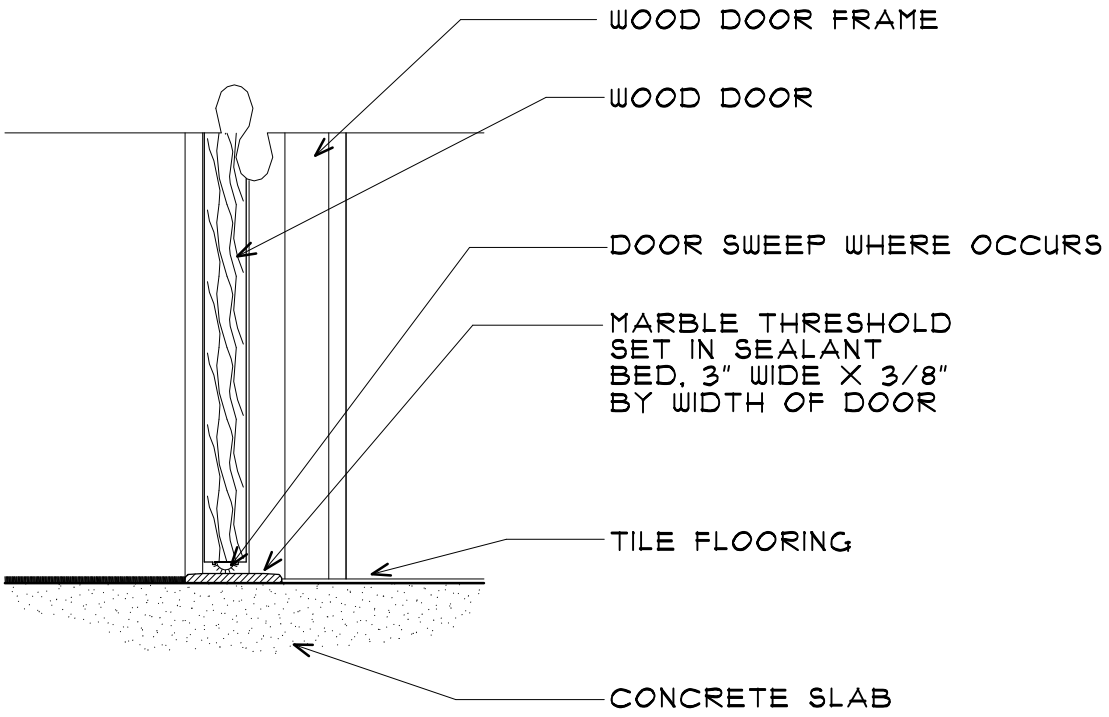
SHEET TITLE:
TRASH ENCLOSURE PLAN

SCALE:
NOT TO SCALE

SHEET NUMBER:
AD.003



GENERAL NOTES:
1. THRESHOLD AT DISSIMILAR FLOOR FINISHES.

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SHEET TITLE:
DOOR
MARBLE
THRESHOLD

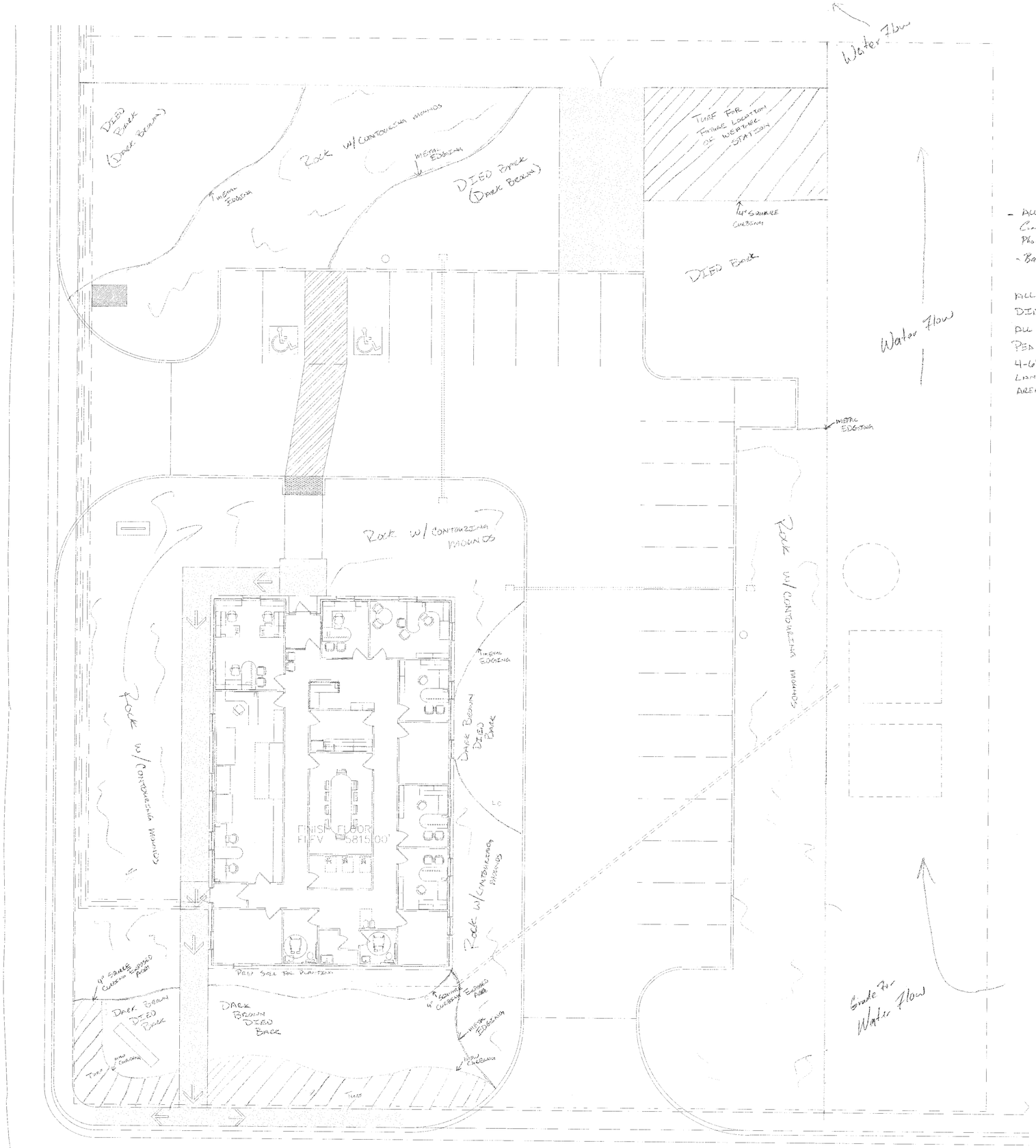
SCALE:
NOT TO SCALE

SHEET NUMBER:
AD.004

(3) Thuja 'Green Giant'
(1) American Smoke Tree Cotinus obovatus
(3) Turkish Filbert Corylus colurna
(2) Thuja 'Green Giant'
Bristlecone Pine (2) Pinus aristata
(1) chinkapin Oak Quercus muhlenbergii
(3) Cutleaf Sumac Rhus typhina 'Laciniata'
(4) Brilliant chokeberry Aronia arbutifolia 'Brilliantissima'
(6) Dark Leaf Elderberry Sambucus 'Black Beauty'
(1) Pink Weeping Crabapple Malus 'Louisa'
(2) Goldenrain Tree Koelreuteria paniculata
(7) Panicum 'Shenandoah'
(5) Miscanthus 'Adagio'
(1) Fringe Tree Chionanthus Virginicus
(1) Cut leaf Buckthorn Rhamnus frangula 'Asplenifolia'
(1) Persian Ironwood Parrotia persica
(1) Cut Leaf Sumac Rhus typhina 'Laciniata'
(5) Youngstown Juniper
(1) Tallgson's Weeping Juniper
(4) Prince of Wales Juniper
(2) American Smoke Tree Cotinus obovatus
(6) Cytisus 'Allgold'
(4) Diablo Ninebark
(3) Prostate Sand cherry Prunus 'Pawnee Buttes'
(5) Red-Leaf Smokebush Cotinus 'Royal Purple'
(3) Cut Leaf Buckthorn Rhamnus frangula 'Aspleniifolia'
(1) Green Leaf Mayday Tree Prunus padus
(4) Zelkova 'Wireless'
(4) Calgary Carpet Juniper
(5) Yucca 'Golden Sword'
(4) 'Pawnee Buttes' Sand Cherry
(5) Hardy Pampas Erianthus ravennae
(9) Red Yucca Hesperaloe
(5) Mormon Tea Ephedra viridis
(9) Switch Grass Panicum 'Shenandoah'
(7) Youngstown Juniper
(3) Little Bluestem 'Blaze'
(6) Miscanthus 'Arabesque'
(4) 'Powis Castle' Artemisia
(4) Cut-leaf sumac
5 'Marleen' Snowberry
4 Cut leaf Buckthorn
FINISH FLOOR ELEV = 5815.00'
(5) Red-Leaf Mayday Tree Prunus padus 'Amygdalifolia'
(4) Blue Arrow Juniper
(3) Green leaf Manzanita Arctostaphylos patula
Area left for perennials from grounds
Snowdrift Crabapple (3) Malus 'Snowdrift'
(3) Giro-low sumac
(2) Cut leaf sumac
(3) Rose 'Seafoam'
(5) Hardy Pampas Grass Erianthus ravennae
Turf
Turf
(3) Lydia Woodwaxen Genista Lydia
(3) Goldenrain Tree Koelreuteria Paniculata

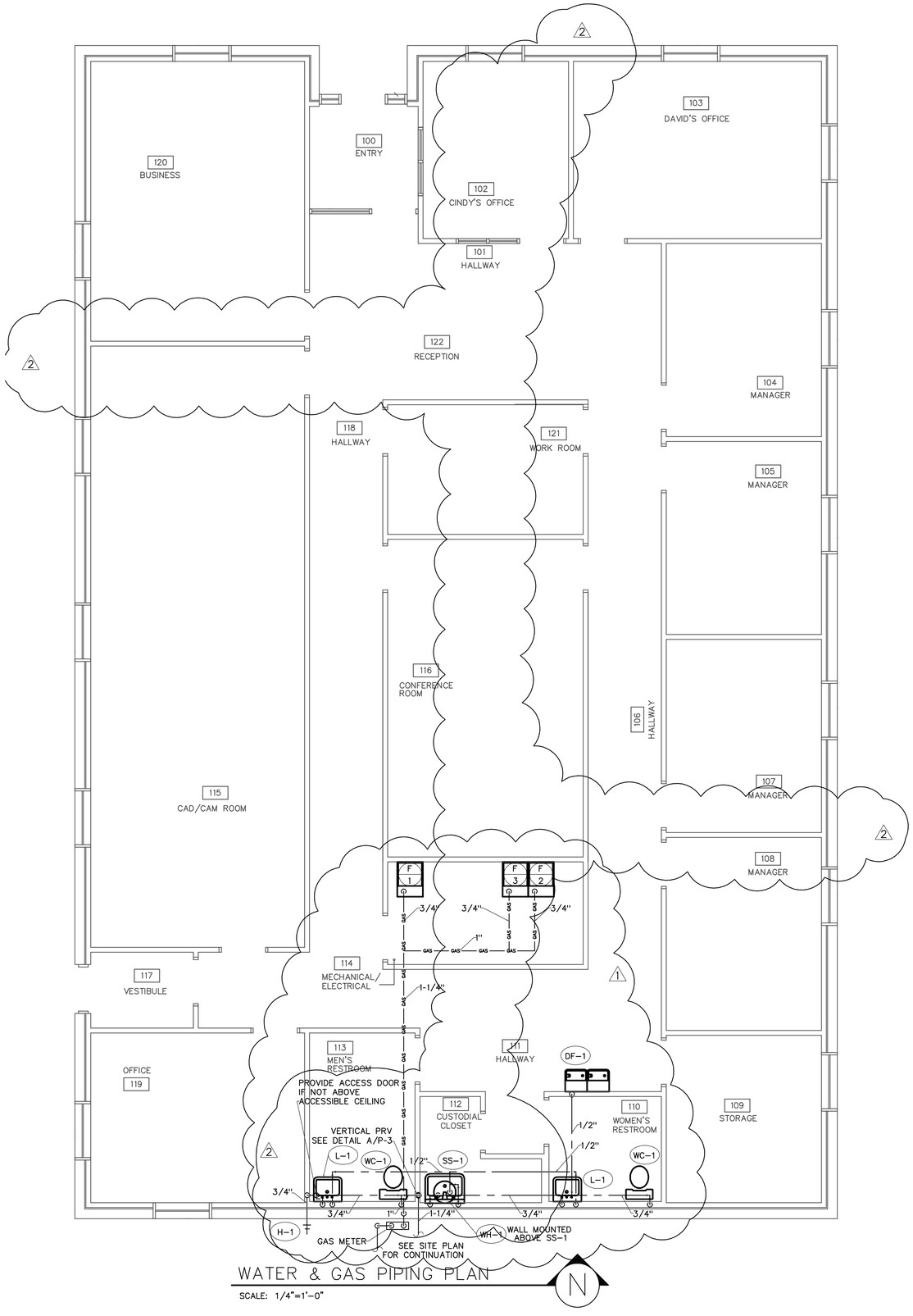
- ALL IRRIGATION TO BE RAINBIRD PRODUCTS
  Controller - ESP5at Rainbird (Check Design Standards)
  Phone line to Controller for Maxi-com
- Backflow preventor

ALL PLANTERS TO HAVE CONTOURING MOUNDS
DIED BARK WILL BE 3" PER SPEC BY SWA GROUNDS
ALL GRAVEL TO BE CARMEL COLOR
PEA GRAVEL CARMEL COLOR
4-6" ROCK CARMEL COLOR
LANDSCAPE CURBING
AREAS GOING FROM ROCK TO BARK TO HAVE BLACK METAL EDGING



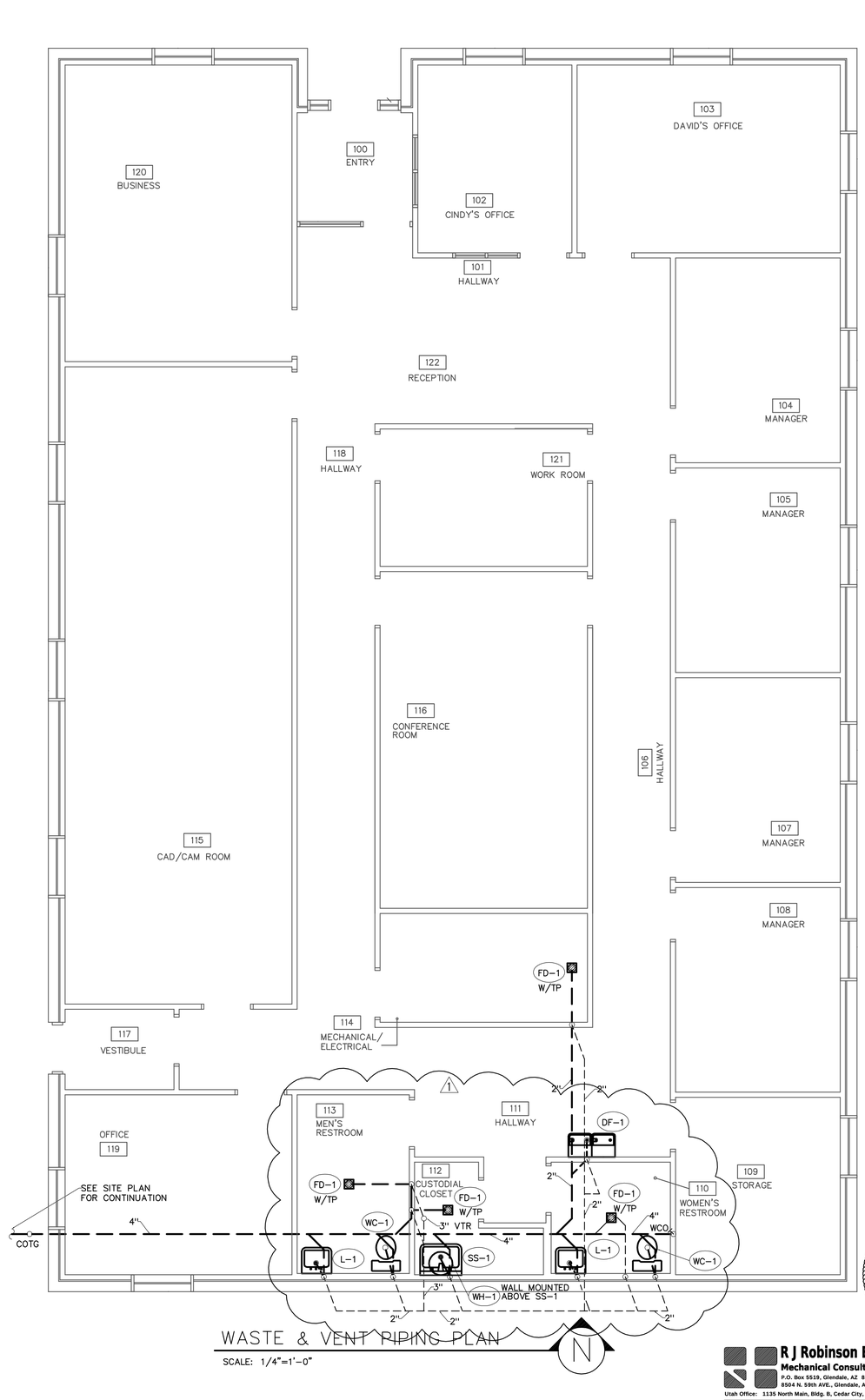
PLANT LIST

Quantity	Size	Name
4	2”	Zelkova serrata ‘Wireless’
3	5g	Woadwaxen Genista Lydia
8	5g	Hardy Pampas Grass, Erianthus ravennae
7	5g	Sand Cherry, Prunus ‘Pawnee Buttes’
5	1 ½”	Goldenrain Tree, Koelreuteria paniculata
1	1”	Persian Ironwood, Parrotia persica
7	5g	Cutleaf Buckthorn, Rhamnus ‘Asplenifolia’
4	5g	Juniper ‘Prince of Wales’
16	1g	Switch Grass, Panicum ‘Shenandoah’
1	2”	Chinkapin Oak, Quercu muhlenbergii
5	15g	Thuja “Green Giant’
3	1”	American Smoke Tree, Cotinu obovatus
3	2”	Turkish Filbert, Corylus colurna
2	4-5’	Bristlecone Pine, Pinus aristata
4	5g	Chokeberry, Aronia arbutifolia “Brilliantrissima’
10	5g	Cutleaf Sumac, Shustyphina ‘Laciniata’
1	1”	Fringe Tree, Chionauthus virginicus
5	1g	Miscanthus ‘Adagio’
5	5g	Red Smokebush, Cotinus ‘Royal Purple’
10	5g	Audorra Juniper ‘Youngstown’
1	1”	Pink Weeping Crabapple, Malus ‘Louisa’
6	5g	Black-leaf Elderberry, Sambucus ‘Black Beauty’
1	5g	Tolleson’s Weeping Juniper (Green)
4	5g	Ninebark Physocarpus ‘Diablo’
6	5g	Scotch Broom, Cytisus ‘Allgold’
5	5g	Mormon Tea, Ephedra viridis
9	5g	Red Yucca, Hesperabe parvifolia
4	5g	Juniper ‘Blue Arrow’
5	5g	Green leaf Manzanita, Arctostaphylos patula
3	1 ½”	Snowdrift Crabapple, Malus ‘Snowdrift’
3	5g	Rose ‘Seafoam’
3	5g	Sumac ‘Gro-low’
3	2”	Red leaf Mayday Tree, Prunus padus ‘Artropurpurea’
1	2”	Green leaf Mayday Tree, Prunus papus
4	5g	Juniper ‘Calbary Carpet’
5	5g	Yucca ‘Golden Sword’
9	1g	Little Bluestem, Schizachyrium ‘Blaze’
6	5g	Miscanthus ‘Arabesue’
4	1g	Artemisia ‘Powis Castle’
5	5g	Marleen Snowberry, Symphoricarpos ‘Marleen’



WATER & GAS PIPING PLAN

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



WASTE & VENT PIPING PLAN

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

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DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
4110 State Office Building/Salt Lake City, Utah 84114/538-3018

Project:
SUU FACILITIES MANAGEMENT OFFICE

Sheet Title:
PLUMBING FLOOR PLANS

Revisions:

1	15 JULY 2008
2	30 JULY 2008

PROJECT NUMBER:
DATE: 5 MAY 2008
DRAWN BY: BRR
CHECKED BY: RJR
APPROVED BY: RJR

P-1

SHEET NUMBER:
Sheet of

REGISTERED PROFESSIONAL ENGINEER
NO. 166273
RANDY JAY ROBINSON
30 July 2008
STATE OF UTAH
EXPIRES 3/31/09

R J Robinson Engineering, P.C.
Mechanical Consulting
JOB # R08030
P.O. Box 5519, Glendale, AZ 85312-5519
8504 N. 59th AVE., Glendale, AZ. Phone: (623) 930-1770
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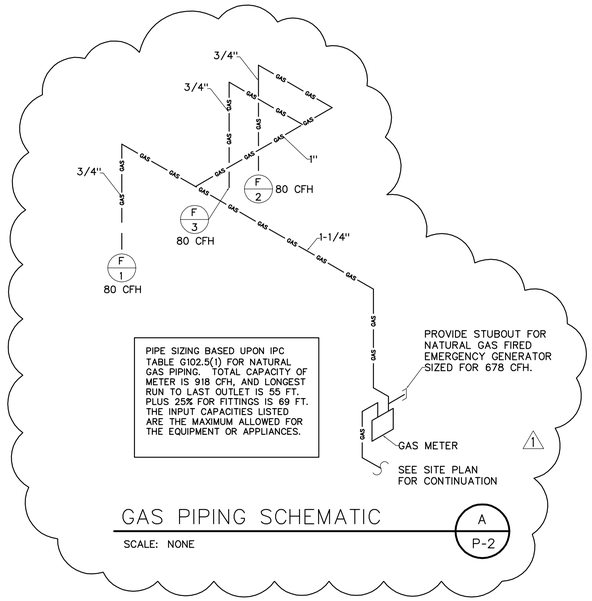


GAS PIPING SCHEMATIC — A / P-2

SCALE: NONE

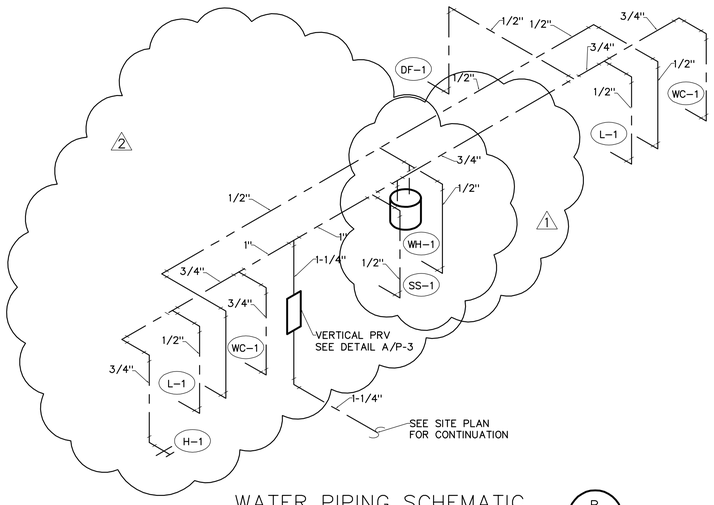
PLUMBING FIXTURE SCHEDULE																
MARK	FIXTURE	PIPE SIZE					REMARKS	QUAN	WASTE F.U. EACH	COLD WATER F.U. EACH	HOT WATER F.U. EACH	COMB. WATER F.U. EACH	WASTE F.U. TOTAL	COLD WATER F.U. TOTAL	HOT WATER F.U. TOTAL	COMB. WATER F.U. TOTAL
		TRAP	WASTE	VENT	C.W.	H.W.										
WC-1	WATER CLOSET	INT.	4"	2"	1/2"	-	FLUSH TANK, 18" RIM HEIGHT (ADA, MAX 1.5 GPF)	2	6	5	0	5	12	10	0	10
L-1	LAVATORY	1-1/4"	1-1/4"	1-1/2"	1/2"	1/2"	SELF SUPPORTING 20" x 18", MAX, 0.5 GPM FLOW RESTRICTOR	2	1	1.5	1.5	2	2	3	3	4
SS-1	SERVICE SINK	3"	3"	2"	1/2"	1/2"	FLOOR TYPE	1	3	2.25	2.25	3	3	2.25	2.25	3
FD-1	FLOOR DRAIN	2"	2"	2"	-	-	WITH DEEP SEAL P-TRAP	4	2	0	0	0	8	0	0	0
DF-1	DRINKING FOUNTAIN	1-1/2"	1-1/2"	1-1/2"	1/2"	-	ELECTRIC BI-LEVEL (ADA APPROVED) 1	1	1	0.25	0	0.25	1	0.25	0	0.25
H-1	HOSE BIB	-	-	-	3/4"	-	USE NON-FREEZE TYPE	4	0	3	0	3	0	12	0	12
WH-1	WATER HEATER	-	-	-	1/2"	1/2"	120 V, 1500 W ELECTRIC WALL HUNG WATER HEATER. 12 GALLON TANK. BRADFORD WHITE M-I-12UT5SS OR EQUIVALENT.	1	0	0	0	0	0	0	0	0
												TOTAL (F.U.)	26	27.5	5.25	29.25
												GPM		23.3	10.7	23.3

WATER CALCULATIONS

PRESSURE AVAILABLE AT PRV	50.0 PSI
LOSS THROUGH PRV	2.35 PSI
PRESSURE AVAILABLE FOR BUILDING SUPPLY	47.65 PSI
PIPING LENGTH PRV TO LAST FIXTURE	107 FT
MIN. PRESSURE REQUIRED AT FIXTURE	15.0 PSI
ALLOWABLE PRESSURE DROP THROUGH PIPING	32.65 PSI

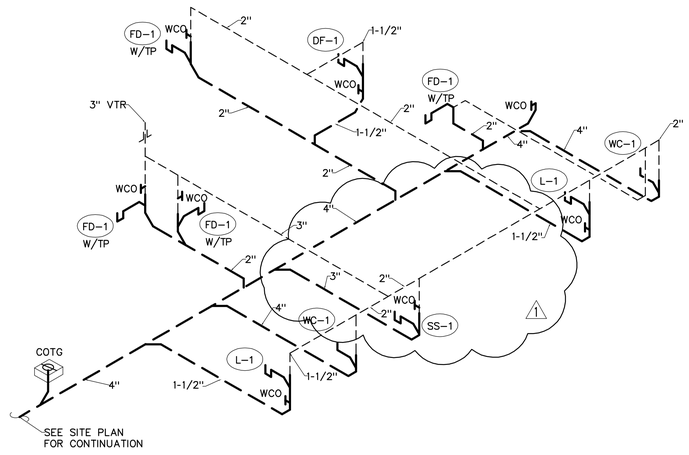
PIPE FRICTION LOSS ALLOWABLE = $\frac{\text{ALLOW PRESSURE DROP}}{\text{LENGTH TO MOST DIST FIXTURE}}$ X 100 FT

$\frac{32.65 \text{ PSI}}{107 \text{ FT}}$ X 100 FT = 30.0 PSI PER 100 FT.



WATER PIPING SCHEMATIC — B / P-2

SCALE: NONE



WASTE & VENT PIPING SCHEMATIC — C / P-2

SCALE: NONE

PLUMBING LEGEND

MEANING	SYMBOL OR ABBREVIATION	MEANING	SYMBOL OR ABBREVIATION
HOT WATER LINE		WALL CLEANOUT	WCO
COLD WATER LINE		CLEANOUT TO GRADE	COTG
VENT LINE		BALL VALVE	
WASTE LINE		UNION	
GAS LINE	GAS GAS	FLOOR DRAIN	
VENT THRU ROOF	VTR	WITH TRAP PRIMER	W/TP

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DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
4110 State Office Building/Salt Lake City, Utah 84114/538-3018

Project: SUU FACILITIES MANAGEMENT OFFICE

Sheet Title: PLUMBING SCHEDULE & SCHEMATICS

Revisions:
1 15 JULY 2008
2 30 JULY 2008

PROJECT NUMBER:
DATE: 5 MAY 2008
DRAWN BY: BRR
CHECKED BY: RJR
APPROVED BY: RJR

P-2

SHEET NUMBER:
Sheet of

REGISTERED PROFESSIONAL ENGINEER
NO. 166273
RANDY JAY ROBINSON
30 July 2008
STATE OF UTAH
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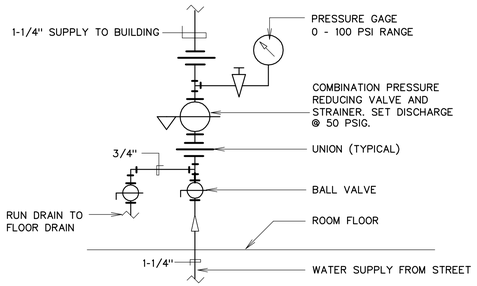
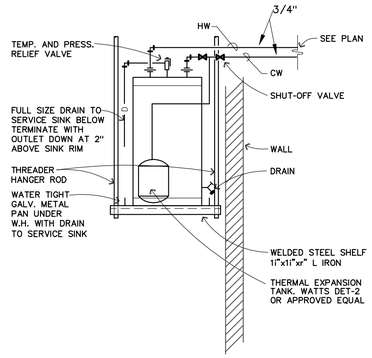


VERTICAL WATER PRESSURE REDUCING STATION DETAIL

SCALE: NONE

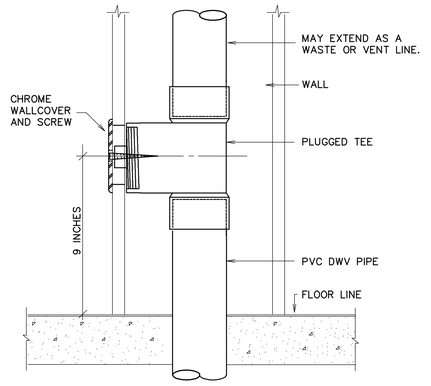
A / P-3



WATER HEATER DETAIL

SCALE: NONE

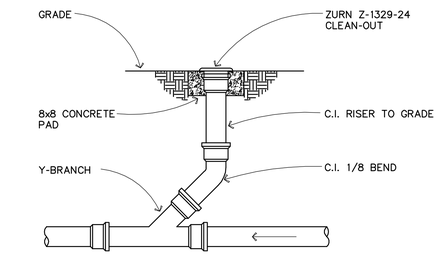
B / P-3



WALL CLEANOUT DETAIL

SCALE: NONE

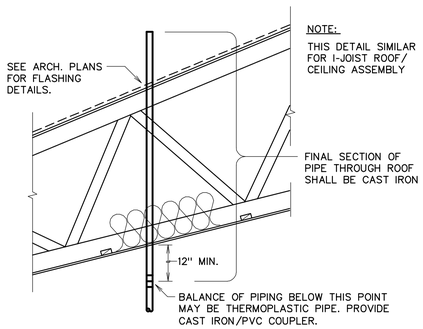
C / P-3



CLEANOUT TO GRADE DETAIL

SCALE: NONE

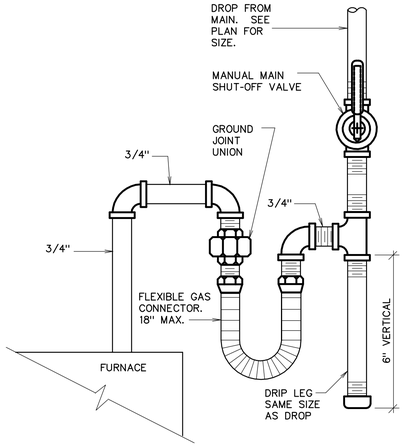
D / P-3



VENT THRU ROOF (VTR) DETAIL

SCALE: NONE

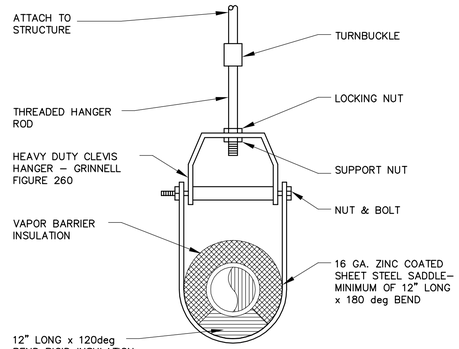
G / P-6



GAS LINE CONNECTION DETAIL

SCALE: NONE

E / P-4



CLEVIS HANGER DETAIL - INSULATED PIPE

SCALE: NONE

F / P-5

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REGISTERED PROFESSIONAL ENGINEER
No. 166273
RANDY JAY ROBINSON
6 MAY 2008
STATE OF UTAH
EXPIRES 3/31/09

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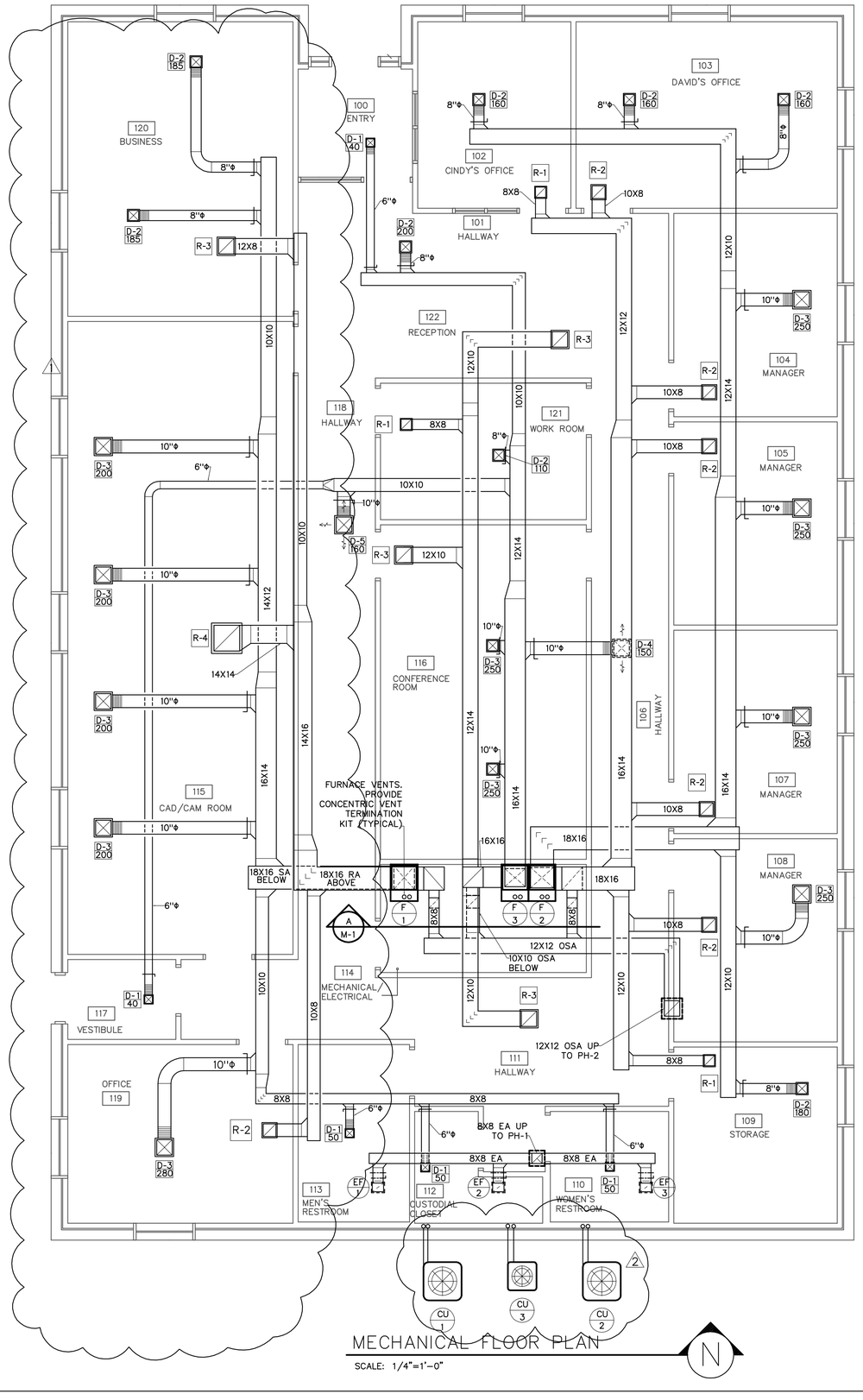


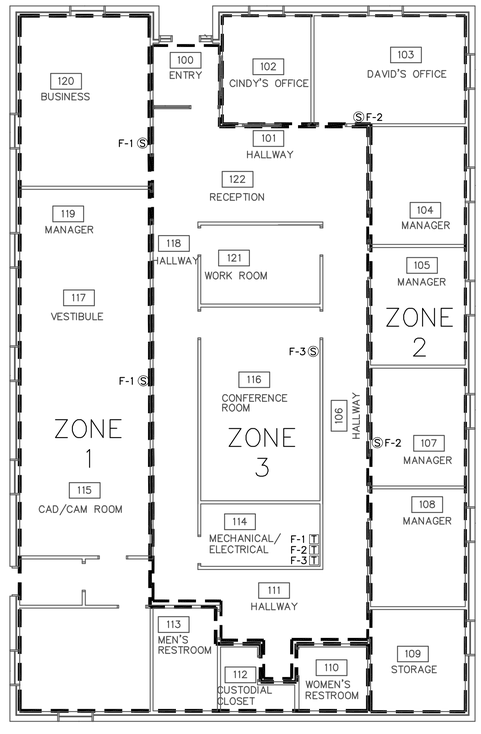
MECHANICAL FLOOR PLAN

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

N

L E G E N D			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	BRANCH DUCT TAKE-OFF		FLEX. CONNECTION 6'-0" MAX LENGTH
	SINGLE THICKNESS TURNING VANES		BACK DRAFT DAMPER
	DUCT TRANSITION	SA	SUPPLY AIR
	MOTORIZED DAMPER	RA	RETURN AIR
	MANUAL VOLUME DAMPER	OSA	OUTSIDE AIR
		EA	EXHAUST AIR
		T	THERMOSTAT
		S	REMOTE TEMPERATURE SENSOR

DESIGN CONDITIONS	OUTSIDE	INSIDE
WINTER	2°F	70°F
SUMMER	93°F db, 59°F wb	72°F db, 64°F wb



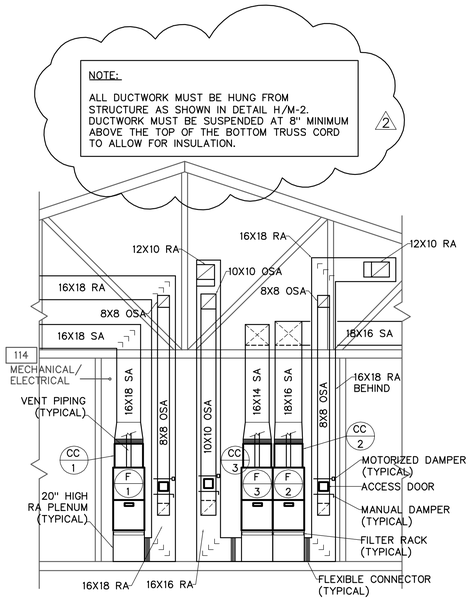
TEMPERATURE CONTROLS PLAN

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

N

GENERAL NOTES:

1. DUCT DIMENSIONS SHOWN ARE CLEAR INSIDE DUCT LINER.
2. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF GRILLES AND DIFFUSERS.
3. REMOTE CEILING DAMPER REGULATORS ARE REQUIRED ON ALL BALANCE DAMPERS THAT ARE NOT LOCATED DIRECTLY ABOVE REMOVABLE CEILINGS.
4. PRIOR TO FINAL INSPECTION PROVIDE "GREEN STICKER" TO VERIFY THAT ALL GAS APPLIANCES HAVE BEEN ADJUSTED FOR ALTITUDE AND GAS CONTENT.
5. WRAP ALL OUTSIDE AIR DUCTS WITH EXTERNAL INSULATION.
6. ALL PVC EQUIPMENT VENTS, PLUMBING VENTS, AND PENTHOUSES SHALL BE PAINTED TO MATCH ROOF COLOR.
7. ALL DUCT WORK AND VENTS ARE TO BE SUPPORTED AS PER SMACNA STANDARD BRACING REQUIREMENTS INCLUDING SEISMIC BRACING WHERE REQUIRED.
8. ALL SUPPLY AND RETURN DUCT IS TO BE LINED WITH 1" ACOUSTICAL LINER UNLESS OTHERWISE NOTED.
9. ALL SUPPLY AND RETURN DUCTS ABOVE THE CEILING SPACE ARE TO BE WRAPPED WITH 2" INSULATION FOR A COMBINED INSULATION VALUE OF R-8 OR BETTER.



MECHANICAL SECTION

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

A M-1

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STATE OF UTAH
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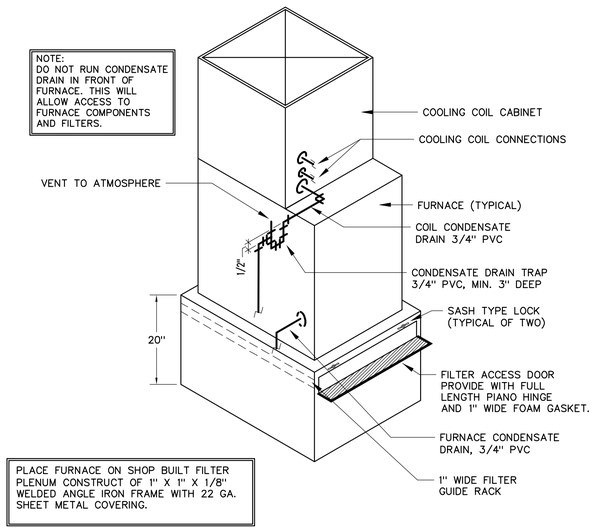
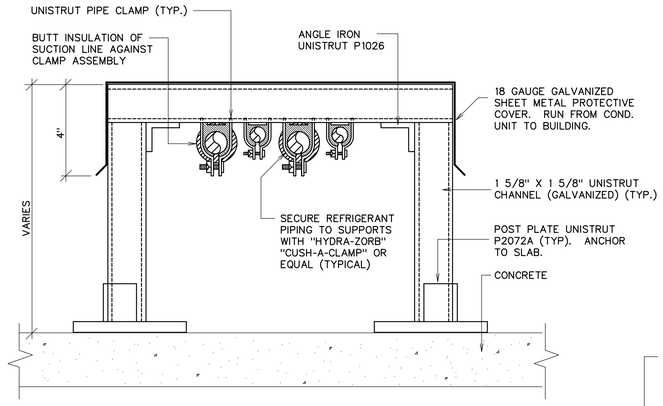


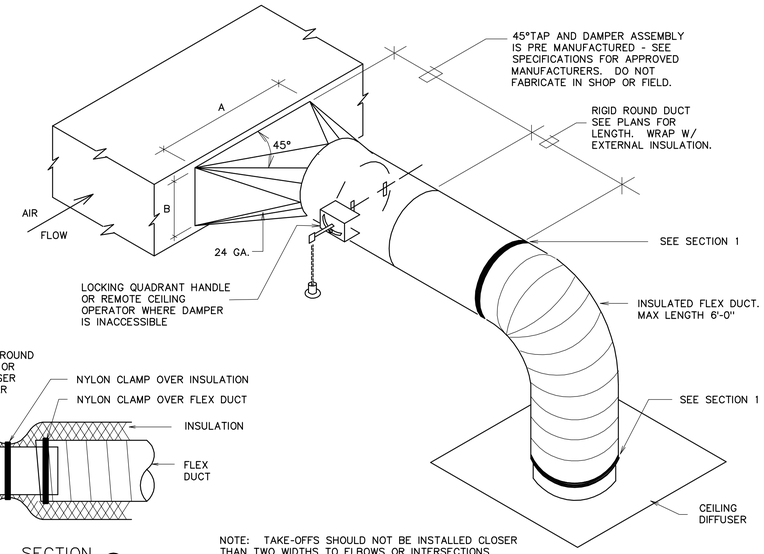
UPFLOW FURNACE DETAIL — A / M-2

SCALE: NONE



EXTERIOR REFRIGERANT PIPE SUPPORT DETAIL — B / M-2

SCALE: NONE



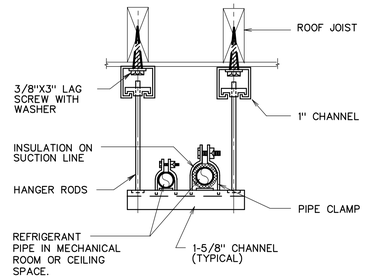
SECTION 1

NOTE: TAKE-OFFS SHOULD NOT BE INSTALLED CLOSER THAN TWO WIDTHS TO ELBOWS OR INTERSECTIONS

NOTE: AREA OF A X B SHALL BE EQUAL TO 1.5 X AREA BRANCH DUCT

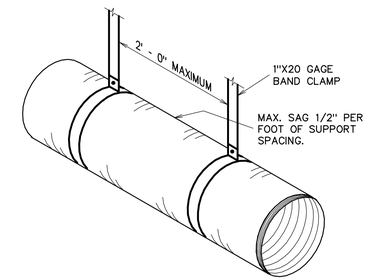
SQUARE TO ROUND TAKE-OFF DETAIL — C / M-2

SCALE: NONE



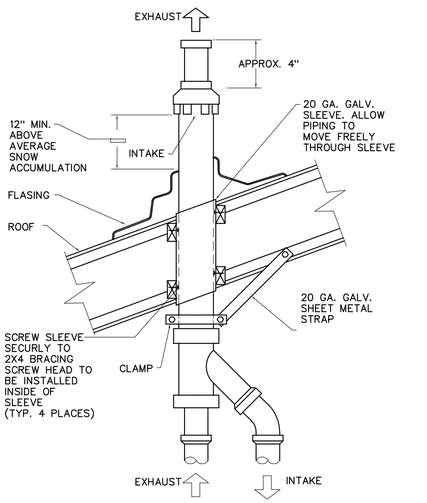
SUSPENDED REF. PIPE SUPPORT — D / M-2

SCALE: NONE



FLEXIBLE DUCT SUPPORT DETAIL — E / M-2

SCALE: NONE

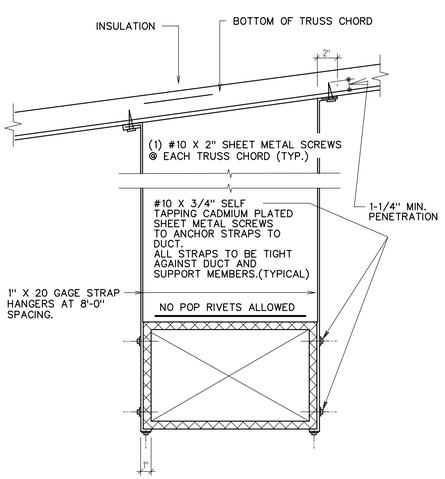


ROOF TERMINATION DETAIL — J / M-2

SCALE: NONE

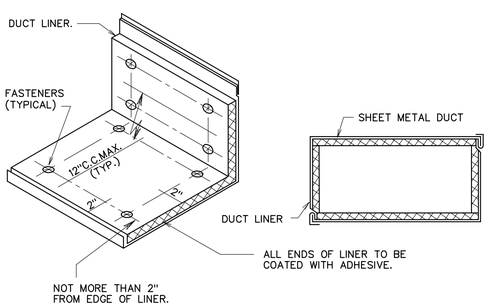
REFRIGERANT PIPE SUPPORT AT WALL — F / M-2

SCALE: NONE



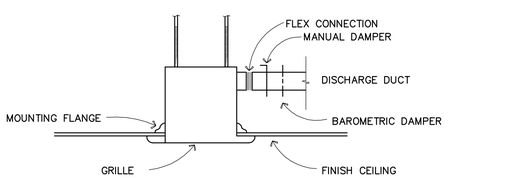
DUCT SUPPORT DETAIL — H / M-2

SCALE: NONE



DUCT LINER DETAIL — I / M-2

SCALE: NONE



CEILING MOUNTED EXHAUST FAN DETAIL — G / M-2

SCALE: NONE

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Project: SUU FACILITIES MANAGEMENT OFFICE

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REGISTERED PROFESSIONAL ENGINEER
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RANDY JAY ROBINSON
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M-2

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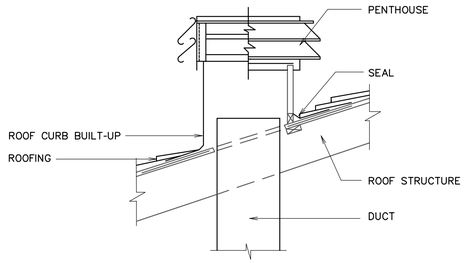
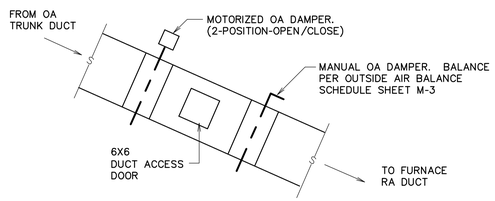


PENTHOUSE DETAIL — A / M-3

SCALE: NONE



TYPICAL OUTSIDE AIR DUCT DETAIL — B / M-3

SCALE: NONE

REGISTER, LOUVER & GRILLE SCHEDULE

MARK	TYPE	SERVICE	CFM RANGE (1)	NOMINAL SIZE	REMARKS
R-1	CEILING (3)	RA	110-200	8X8	(2)
R-2	CEILING (3)	RA	250-260	10X10	(2)
R-3	CEILING (3)	RA	360-370	12X12	(2)
R-4	CEILING (3)	RA	800	20X20	(2)
PH-1	PENTHOUSE	EA	200	8X8	(4)(5)(6)
PH-2	PENTHOUSE	OSA	550	12X12	(4)(5)(6)

(1) MAXIMUM NC=25 @ MAXIMUM CFM NOTED.
(2) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
(3) FINISH SHALL BE OFF-WHITE BAKED ENAMEL.
(4) BAKED ENAMEL FINISH TO MATCH ROOF COLOR OR COLOR AS DIRECTED BY ARCHITECT.
(5) PROVIDE ALUMINUM BIRD SCREENS.
(6) MAX. ACCEPTABLE FACE VELOCITY THROUGH NET FREE AREA: 400 FT/MIN.

DIFFUSER SCHEDULE (2)(3)

MARK	C.F.M. RANGE (1)	DIFFUSER SIZE	NECK. CONN.	BLOW	PATTERN	AIR DIST./SIDE A (%)	AIR DIST./SIDE B(%)
D-1	50	6X6	6"Φ	4 WAY	A B	25	25
D-2	110-200	9X9	8"Φ	4 WAY	A B	25	25
D-3	200-280	12X12	10"Φ	4 WAY	A B	25	25
D-4	150	12X12	10"Φ	2 WAY	A B	50	50
D-5	200	12X12	10"Φ	3 WAY	A B	33	33

(1) MAXIMUM NC=25 @ MAXIMUM CFM NOTED.
(2) SHALL BE TITUS TDC TYPE 6 OR EQUAL BY OTHER APPROVED MANUFACTURERS. (SEE SPECIFICATIONS)
(3) FINISH SHALL BE OFF-WHITE BAKED ENAMEL.

EXHAUST FAN SCHEDULE (2)(3)

MARK	SERVES ROOM	MIN. S.C.F.M. (1)	STATIC PRESSURE IN W.G.	MIN WATTS	REMARKS
EF-1	MEN'S RESTROOM 113	75	0.3	81W	
EF-2	CUSTODIAL CLOSET 112	50	0.3	81W	
EF-3	WOMEN'S RESTROOM 110	75	0.3	81W	

(1) SET BALANCE DAMPERS SHOWN ON M-1 TO CFM LISTED
(2) CONTROL BY ELECTRICAL CONTRACTOR
(3) VOLTAGE IS 115/1Φ/60
(4) PROVIDE MANUAL DAMPER AND BAROMETRIC DAMPER AT EACH EXHAUST FAN OUTLET

AIR COOLED CONDENSING UNIT SCHEDULE (1)(3)(5)

MARK	NO. REQ'D	AREA SERVED	MANUFACTURER MODEL NUMBER	MIN.(2) SIZE (TONS)	MIN CIRCUIT AMPS	COMPRESSOR MOTOR NO.	COMPRESSOR MOTOR Φ	COMPRESSOR MOTOR RLA	COMPRESSOR MOTOR LRA	OFM FLA	REMARKS (4)
CU-1	1	WEST ROOMS	123A	4	26.2	1	1	19.9	109.0	1.4	
CU-2	1	EAST ROOMS	123A	4	26.2	1	1	19.9	109.0	1.4	
CU-3	1	CENTRAL ROOMS	123A	3	19.0	1	1	14.1	77.0	1.4	

(1) REFRIGERANT R-410a
(2) AT DESIGN CONDITIONS AND 93°F ENTERING AIR TO CONDENSER.
(3) CONDENSING UNIT MARKS CORRESPOND WITH FURNACE AND COOLING COIL MARK NUMBERS.
(4) MANUFACTURER FOR MODEL LISTED IS BRYANT, SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
(5) VOLTAGE IS 208/1Φ/60.
(6) COMBINED FURNACE, COIL AND CONDENSING UNIT WITH CONNECTED REFRIGERANT PIPING MUST MEET THE CAPACITIES LISTED ON COOLING COIL SCHEDULE. SELECT AT 50°F SATURATED SUCTION TEMPERATURE.

FURNACE SCHEDULE (2)(4)

MARK	NO. REQ'D	MIN. REQ'D INPUT BTU/HR (1)	MIN. REQ'D OUTPUT BTU/HR (1)	MINIMUM S.C.F.M	EXT. S.P. IN W.G.	MOTOR MIN. H.P.	MOTOR Φ	MOTOR HERTZ	MOTOR VOLTS	REMARKS (3)
F-1	1	80,000	75,000	1600	0.5	1/2	1	60	115	(5)
F-2	1	80,000	75,000	1600	0.5	1/2	1	60	115	(5)
F-3	1	80,000	75,000	1200	0.5	1/3	1	60	115	(5)

(1) SEA LEVEL RATING
(2) FURNACE MARKS CORRESPOND WITH CONDENSING UNIT AND COOLING COIL MARKS.
(3) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
(4) CAPACITIES SHOWN ARE FOR INDIVIDUAL FURNACES AND NOT FOR TANDEM TOTALS.
(5) FURNACE TO BE 90% EFFICIENT SEALED COMBUSTION TYPE.

DX COOLING COIL SCHEDULE (1)

MARK	NO. REQ'D	MIN. REQ'D CAP. TOT. MBH	MIN. REQ'D CAP. SEN. MBH	COND. ENT. EVAP. DB °F	COND. ENT. EVAP. WB °F	S.C.F.M.	MAX. PR. DR. IN W.G.	REMARKS (2)
CC-1	1	35.0	35.0	77.9	58.9	1600	0.25	
CC-2	1	27.5	27.5	78.0	58.9	1600	0.25	
CC-3	1	25.5	25.5	81.0	58.5	1200	0.25	

(1) COMPLETE WITH FACTORY COIL BOX AND COIL
(2) SEE SPECIFICATIONS FOR APPROVED MANUFACTURERS.
(3) COMBINED FURNACE, COIL AND CONDENSING UNIT WITH CONNECTED REFRIGERANT PIPING MUST MEET THE CAPACITIES LISTED ON THIS SCHEDULE. SELECT AT 55°F SATURATED SUCTION TEMPERATURE TEMPERATURE.

OUTSIDE AIR BALANCE SCHEDULE

MARK	BALANCE TO CFM	MARK	BALANCE TO CFM
F-1	110	F-2	100
F-3	340		

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