



State of Utah

GARY R. HERBERT
Governor

GREGORY S. BELL
Lieutenant Governor

Department of Administrative Services

KIMBERLY K. HOOD
Executive Director

Division of Facilities Construction and Management

DAVID G. BUXTON
Director

ADDENDUM #1

Date: September 23, 2009

To: Contractors

From: Michael Ambre, Project Manager, DFCM

Reference: Tie Fork Visitor Center
Utah Department of Transportation – Utah
Project No. 08264900

Subject: **Addendum No. 1**

Pages	Addendum	1 page
	Revised Schedule	1 page
	Revised Bid Form	2 pages
	<u>Architects Addendum</u>	<u>42 pages</u>
	Total	46 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.

The completion date has been changed to April 30, 2010.

1.2 **GENERAL** – ArchiPLEX Addendum. Please see attached.

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**REVISED –MULTI-STEP PROJECT SCHEDULE
PER ADDENDUM #1 – dated September 23, 2009**

PROJECT NAME:		UDOT – TIE FORK VISITOR CENTER		
DFCM PROJECT NO. :		08264900		
Event	Day	Date	Time	Place
Document Available, including Plans and Specifications	Wednesday	August 19, 2009	2:00 PM	DFCM 4110 State Office Building SLC, UT and DFCM web site*
Mandatory Pre-Submittal Meeting	Monday	August 24, 2009	2:00 PM	DFCM 4110 State Office Building SLC, UT
Last Day to Submit Questions on Shortlisting (In Writing)	Thursday	August 27, 2009	4:00 PM	<i>Michael Ambre</i> - DFCM E-mail mambre@utah.gov Fax 801-538-3267
Addendum on Shortlisting	Tuesday	September 1, 2009	2:00 PM	DFCM web site*
List of References, Statement of Qualifications, Project Management Plan, and Termination/Debarment Certification Due	Tuesday	September 8, 2009	12:00 NOON	DFCM 4110 State Office Building SLC, UT
Interviews by Selection Committee (if necessary)	Wednesday	September 9, 2009	To Be Announced	
Short-List Announced	Thursday	September 10, 2009		DFCM web site*
Notice: Only Short-Listed Firms Will Be Allowed To Bid On This Project				
Mandatory Pre – Bid site meeting	Monday	September 14, 2009	10:45 AM	Tie Fork Site: located on highway 6 between Spanish fork and Price at mile post 202.
Last Day to Submit Questions (In Writing)	Thursday	September 17, 2009	12:00 PM	<i>Michael Ambre</i> - DFCM E-mail mambre@utah.gov Fax 801-538-3267
Final Addendum (exception for bid delays)	Wednesday	September 23, 2009	2:00 PM	DFCM web site*
Prime Contractors Turn in Bid and Bid Bond/Bid Opening in DFCM Conference Room	Tuesday	September 29, 2009	2:00 PM	DFCM 4110 State Office Building SLC, UT
Subcontractors List Due	Wednesday	September 30, 2009	2:00 PM	DFCM 4110 State Office Building SLC, UT Fax 801-538-3677
Project Completion Date		April 30, 2010	5:00 PM	

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



Division of Facilities Construction and Management

REVISED BID FORM

NAME OF BIDDER _____ DATE _____

To the Division of Facilities Construction and Management
4110 State Office Building
Salt Lake City, Utah 84114

The undersigned, responsive to the "Notice to Contractors" and in accordance with the "Instructions to Bidders", in compliance with your invitation for bids for the UDOT - Tie Fork Visitor Center - DFCM Project No. 08264900 and having examined the Contract Documents and the site of the proposed Work and being familiar with all of the conditions surrounding the construction of the proposed Project, including the availability of labor, hereby proposes to furnish all labor, materials and supplies as required for the Work in accordance with the Contract Documents as specified and within the time set forth and at the price stated below. This price is to cover all expenses incurred in performing the Work required under the Contract Documents of which this bid is a part:

I/We acknowledge receipt of the following Addenda: _____

I/We acknowledge the BUY AMERICA requirement Title 23, U.S. Code of Federal Regulations, Part 635.410, page 60 of "Special Supplementary Conditions" and hereby propose (check one):

_____ I/We intend to use steel or iron or both of 100 percent domestic supply; or

_____ I/We intend to use steel or iron with some foreign supply.

For all work shown on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

BASE BID: _____ DOLLARS (\$_____)

(In case of discrepancy, written amount shall govern)

For all work shown AS Add Alternate #1 on the Drawings and described in the Specifications and Contract Documents, I/we agree to perform for the sum of:

ADD ALTERNATE NO. 1 - ROUNDHOUSE _____ DOLLARS (\$_____)

(In case of discrepancy, written amount shall govern)

I/We guarantee that the Work will be Substantially Complete by April 30, 2010 should I/we be the successful bidder, and agree to pay liquidated damages in the amount of \$300.00 per day for each day after expiration of the Contract Time as stated in Article 3 of the Contractor's Agreement.

This bid shall be good for 45 days after bid opening.

Enclosed is a 5% bid bond, as required, in the sum of _____

PAGE NO. 2

The undersigned Contractor's License Number for Utah is _____.

Upon receipt of notice of award of this bid, the undersigned agrees to execute the contract within ten (10) days, unless a shorter time is specified in the Contract Documents, and deliver acceptable Performance and Payment bonds in the prescribed form in the amount of 100% of the Contract Sum for faithful performance of the contract.

The Bid Bond attached, in the amount not less than five percent (5%) of the above bid sum, shall become the property of the Division of Facilities Construction and Management as liquidated damages for delay and additional expense caused thereby in the event that the contract is not executed and/or acceptable 100% Performance and Payment bonds are not delivered within the time set forth.

Type of Organization:

(Corporation, Partnership, Individual, etc.)

Any request and information related to Utah Preference Laws:

Respectfully submitted,

Name of Bidder

ADDRESS:

Authorized Signature



Addendum #1

DATE: September 23, 2009

DFCM Project No.: 08264900

Archiiplex Group Project No.: 0832.01

ADDENDUM NO. 1 to the Contract Documents for the Construction of UDOT Tie Fork Visitor Service Center, Spanish Fork, Utah.

The contents of this addendum supersede the information contained in the original Contract Documents and are hereby incorporated therein. Unless otherwise so stated, any changes herein offset only the specific drawings, words, or paragraphs mentioned, and the balance of the drawings and specifications remain in full force.

A. QUESTIONS RECEIVED:

1. **Q.** Given UDOT's requirements for temperatures for asphalt installation, I envision the asphalt going down in the fall of 2009 or April of 2010. Is it acceptable to you to have our schedule complete at the end of April rather than March?

A. Yes, we can make that change. The new Project completion date will be April 30th, 2010 @ 5:00 P.M.

2. **Q.** How often are the "Keep Out" signs to be posted on the rail fence?

A. 200' maximum spacing. See Civil Addendum Sheet C200 item "i".

3. **Q.** How deep is the well?

A. See detail "A" on sheet C505. Contractor bidding note #3 States: Well bottom depth is variable. Contractor to use 300' total depth for base bid and provide cost for adjustments in depth.

4. **Q.** Who provides the propane tank?

A. Propane tank is supplied by Amerigas, who has a propane supply contract with UDOT. Contractor to coordinate with Ellis Willson 435-637-0393, 435-820-0133 for delivery date of propane tank. Contractor responsible to connect tank to main supply line. See Civil Addendum Sheet C200 item "j".

5. **Q.** Do the concrete structures inside the railroad right of way but outside the new fence need to be removed? Sheet C200 shows them as remaining.

A. Existing concrete structures are to be removed as shown on Demolition Plan Sheet C100.

6. **Q.** Is Blanketing the colored concrete an acceptable means of weather protection or is tenting required to help prevent modeling and color deterioration?

A. This appears to be a means & methods issue. Contractor to take the appropriate measures to protect the concrete. Finished product should be clear of scuffing. Color deterioration and other blemishes should be kept to a minimum.

7. **Q.** Curing paper is specified for the architectural concrete as well as curing agents. Are they both required? If they are, is the paper strong enough to withstand construction traffic or does all of the concrete need to be covered with the curing paper as well as OSB?

A. This again looks more like a means and methods question as it relates to keeping the concrete in pristine condition until the completion of the project.

8. **Q.** The project specifications call for 4000 PSI for the slabs, and the structural drawings call for 3000 PSI. Please clarify.

A. Interior slab on grades can be 3000 PSI. Exterior slabs should be 4000 PSI. See attached revised specification 03300.

9. **Q.** Please confirm 4000 PSI is wanted for the site concrete.

A. 4000 PSI is wanted for exterior concrete with the exception of the dumpster pad which needs to be 5500 PSI min. as stated in the geotechnical report. See Civil Addendum Sheet C500 item "c".

10. **Q.** P001 note 8 calls for cast iron waste and vent piping. Please advise if PVC can be substituted.

A. No substitution will be allowed, provide cast iron waste and vent piping.

B. PRODUCT APPROVALS:

Listed products and manufacturers are approved for bidding. This approval does not relieve the supplier, bidder or manufacturer from satisfying the intent of the contract documents including the addenda in every aspect. Failure to conform to the design quality may result in later disapproval. If any product is disapproved after bidding, the product supplier shall supply specified equipment at no extra cost to the owner. Items listed are approved in general and specific details of performance, ratings, model number, etc. are required as part of the shop drawing process and shall be as submitted.

1. **Spec. Section 10800: Toilet and Bath Accessories:**
 - a. Columbia Accessories.
 - b. Veltia – Hand Dryers



2. **Spec. Section 15410: Plumbing Fixtures**
 - a. Moen – Faucets and Sensor Operated Flush Valves
 - b. McGuire – Stop and Supply Kits, P-Traps & Strainers
3. **Spec. Section 15486: Fuel Fired Water Heaters**
 - a. Heat Transfer Products - Phoenix
4. **Spec. Section 15530: Furnaces**
 - a. Day and Night – Furnaces
 - b. Day and Night – Air Cooled Condensing Units
5. **Spec. Section 15820: Duct Accessories**
 - a. Air Rite – High Efficiency Takeoff's and Dampers
 - b. Hart and Colley – Flexible Duct
6. **Spec. Section 15838: Power Ventilators**
 - a. Soler & Palau – Exhaust Fans
 - b. Captive Aire – Exhaust Fans
 - c. Carnes – Exhaust Fans
7. **Spec. Section 15855: Diffusers, Registers and Grilles**
 - a. Carnes
8. **Spec. Section 15877: Louvers and Vents**
 - a. Air Rite
 - b. Cesco

C. PRODUCTS NOT APPROVED:

1. **Spec. Section 10155: Toilet Compartments:**
 - a. Bradley Toilet Partitions.

D. DESCRIPTION OF ADDENDUM ITEMS:

1. Verbal Information:

- a. The Bidders are responsible for delivering a completed project to the State of Utah including completed utility connections to the point of service provided by the utility company.
- b. The bidders must use a DFCM pre-approved welding shop for steel pre-fabricated off-site; See attached Approved Fabricator List.
- c. All of the IT conduit must homerun back to the panel board, not stop up at the ceiling. See specification section 16740 and Detail B/E401.



- d. Use of UDOT's Project Development Business System (PDBS) is required on this project. See attached Access Form.
- e. Water Lines: C900 is not available in diameters less than 4" Contractor should use 2" Class 200 PVC with gasketed joints. NSF 61 standards and classification still apply.
- f. Ductile iron flanged fittings: These are not available in 2" sizes. The reduced pressure backflow preventer shall be constructed using 2" galvanized iron with threaded fittings. The below ground elbows shall be galvanized iron and then tie back into the Class 200 PVC at that point.

2. Civil Revised & Re-issued drawings:

Sheet C100:

- a. Revised note 7 to read: **Contractor shall identify and coordinate with UDOT for tree removal. All tree removal will be done by UDOT and will not be provided by contractor.**
- b. Added note: **All the existing information is based upon drawings received from others. No verification of this information has been done by PEPG. Contractor shall verify existing information and notify engineer of any discrepancies.**
- c. Removed existing dirt piles at west end of site, pipes and picnic tables from scope of work. Demolition has been done by UDOT prior to beginning of this contract.

Sheet C200:

- a. Revised general note 23 to read: **Sewer cleanout @ every 50' req'd.**
- b. Revised general note 24: Corrected detail reference.
- c. Revised general note 28 to read: **Dumpster enclosure req'd (See Architects sheet AE503 for dumpster design)(See detail-D on sheet C500 for colored concrete design)**
- d. Revised general note 30 to read: **1000 gal. propane tank with 20' x 8' concrete pad, bollards and screen wall req'd. (See detail – A2 on sheet AE503) (See detail –D on sheet C500 for concrete design)**
- e. Deleted shown concrete structures that are to be removed in demolition phase.
- f. Revised general note 56: Corrected detail reference.
- g. Added general note 63: **Floor drain req'd. (See sheet C300 for storm drain layout).**
- h. Floor Drain shown on plan.
- i. Added general note 64: **"Keep out" sign req'd. as shown (See "keep out" sign detail-E on sheet C502) 200' max. spacing.**
- j. Added note 9: **Propane tank to be provided by owner. Contractor to coordinate time of delivery of propane tank with owner.**

Sheet C201:

- a. Revised dumpster pad note to read: **Dumpster enclosure req'd (See Architects sheet AE503).**
- b. Revised legend: wood plank pattern to be colored & stained concrete.



- c. Added note 1: **All the existing information is based upon drawings received from others. No verification of this information has been done by PEPG. Contractor shall verify existing information and notify engineer of any discrepancies.**

Sheet C202:

- a. Deleted shown concrete structures that are to be removed in demolition phase.

Sheet C300:

- a. Deleted shown concrete structures that are to be removed in demolition phase.
- b. Added cut and fill quantities.
- c. Added note to drawing: **See Detail-E on sheet C500 for accessible route and parking area.**
- d. Added note 2 to read: **All the existing information is based upon drawings received from others. No verification of this information has been done by PEPG. Contractor shall verify existing information and notify engineer of any discrepancies.**
- e. Added note 3 to read: **Contractor shall verify finish grade elevations at project entrance due to recent construction along US-6 and notify engineer of any discrepancies.**

Sheet C400:

- a. Deleted shown concrete structures that are to be removed in demolition phase.
- b. Revised legend wording of new contours.

Sheet C500:

- a. Revised Detail "E" to show accessible route.
- b. Revised Detail "D" – Added propane tank concrete section.
- c. Added 5500 PSI requirement to dumpster pad section.
- d. Revised Detail "H" - Removed structural fill requirement & revised note to read: **Excavate 4 feet and replace material in 6" to 8" lifts compacted to 95% of maximum density at plus or minus 2% optimum moisture req'd.**

Sheet C504:

- a. Deleted note 4, note used.
- b. Revised Contractor bidding note to read: **Project scope assumes well water is potable. If any problems with water quality are encountered, treatment device(s) shall be installed and administered at the Rest Area building and will be regarded as an extra to the contract.**

3. Architectural Revised & Re-issued drawings:

Sheet AE704:

- a. Add Keynote 10100.D1 to Keynote Legend which reads: **New display boards mounted – See D4/AE705**
- b. Section C3: Change keynote 10100.D0 to 10100.D1.



Sheet AE705:

- a. Keynote Legend 10100.D1 Change detail reference to D4/AE705

4. Structural Revised & Re-issued drawings:

Sheet SJ001 – Special Inspection and Quality Assurance

- a. Added Note: Refer to architectural drawings G003 for additional Special Inspection Requirements.
- b. Added Note: Special inspection of shop fabricated steel shall be made in accordance with IBC section 1704.2. Special inspection of shop fabrications is not required if the fabricator is registered and approved to perform such work without special inspection in accordance with IBC section 1704.2.2. A list of fabricators approved for the project can be found at the following website: <http://dfcm.utah.gov/BldgOHP/index.html>

5. Landscape Addendum Items:

Sheet L100:

- a. Revised legend: wood plank pattern to be colored & stained concrete

Sheet L101:

- a. Revised General Note 14 to read: **Existing trees to remain shall be safely pruned by a professional arborist and existing trees to be removed shall be remove by UDOT.**

Sheet L102:

- a. Revised Note 3 to read: **Control box to be located in the northeast corner of the mechanical room 102.**
- b. Deleted shown concrete structures that are to be removed in demolition phase.

E. SPECIFICATIONS:

1. **10155 – Toilet Compartments:** Revised 10155.2.B: *Toilet-Enclosure Style: Floor, wall and ceiling anchored.* Revised 10155.2.C: *Deleted entrance screen requirement-none needed for this project.*
2. **03300 – Cast in place Concrete:** Modified Section 03300.2.5.C to include design mixes for interior & exterior slabs on grade. Revised portion in bold font.
3. **10800 – Toilet & Bath Accessories:** Added ETL listed in accordance with UL507 are acceptable.



F. ATTACHMENTS:

- 1. Specifications:**
 - a. 03300 – Re-issue entire section
 - b. 10155 – Re-issue page 2.
- 2. Approved Fabricator List**
- 3. PDBS Access Form**

G. REISSUED DRAWING LIST:

- | | |
|-----------|--------------------------------|
| 1. C100 | Demolition Plan |
| 2. C200 | Site & Utility Plan (Base Bid) |
| 3. C201 | Horizontal Control Plan |
| 4. C202 | Site Plan (Add Alternate #1) |
| 5. C300 | Grading Plan |
| 6. C400 | Erosion Control Plan |
| 7. C500 | Typical Sections & Details |
| 8. C504 | Typical Sections & Details |
| 9. AE704 | Round House Building Sections |
| 10. AE705 | Round House Details |
| 11. SJ001 | General Structural Notes |
| 12. L100 | Landscape Plan |
| 13. L101 | Landscape Notes & Schedule |
| 14. L102 | Irrigation Plan |

SECTION 03300 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies cast-in place concrete, including formwork, reinforcing, mix design, placement procedures, and finishes.
- B. Cast-in-place concrete includes but is not limited to the following:
 - 1. Foundations and footings.
 - 2. Slabs-on-grade.
 - 3. Stem walls.
 - 4. Equipment pads and bases.

1.3 SUBMITTALS

- A. General: Submit the following according to Conditions of the Contract and Division 1 Specification Sections.
- B. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, joint systems, curing compounds, and others if requested by Architect.
 - 1. Letter from concrete supplier, certifying type of cement to be used in concrete mix.
- C. Shop drawings for reinforcement detailing fabricating, bending, and placing concrete reinforcement. Comply with ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures" showing bar schedules, stirrup spacing, bent bar diagrams, and arrangement of concrete reinforcement. Include special reinforcing required for openings through concrete structures.
- D. Samples of materials as requested by Architect, including names, sources, and descriptions, as follows:
 - 1. Waterstops
- E. Laboratory test reports for concrete materials and mix design test.
- F. Material certificates in lieu of material laboratory test reports when permitted by Architect. Material certificates shall be signed by manufacturer and Contractor, certifying that each material item complies with or exceeds specified requirements. Provide certification from admixture manufacturers that chloride content complies with specification requirements.

1.4 QUALITY ASSURANCE

- A. Codes and Standards: Comply with provisions of the following codes, specifications, and standards, except where more stringent requirements are shown or specified:

1. International Building Code, Chapter 19.
 2. American Concrete Institute (ACI) 301, "Specifications for Structural Concrete for Buildings."
 3. ACI 318, "Building Code Requirements for Reinforced Concrete."
 4. Concrete Reinforcing Steel Institute (CRSI) "Manual of Standard Practice."
- B. Concrete Testing Service: Provide a qualified testing agency , acceptable to Architect, to provide pre-construction testing and material evaluation tests.
- C. Materials and installed work may require testing and retesting at any time during progress of Work. Retesting of rejected materials for installed Work, shall be done at Contractor's expense.
- D. Special Inspection: Owner will provide special inspection services for concrete work as required by Contract Documents.
1. General: Contractor to coordinate work with the special inspection requirements of this section, the latest edition in practice of the International Building Code, Chapter 17, and specific requirements of the Owner.

1.5 WARRANTY

- A. Provide two year written guarantee to the End User, in form approved by the Architect to promptly remove and/or repair defective concrete (cracking, spalling, pitting or honeycombing) as directed by Architect and at Contractor's expense. New replacement work shall carry a similar new two year written guarantee. Guarantee shall start from Date of Substantial Completion.

PART 2 - PRODUCTS

2.1 FORM MATERIALS

- A. Forms for Exposed Finish Concrete: Plywood, metal, metal-framed plywood faced, or other acceptable panel-type materials to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings.
1. Use overlaid plywood complying with U.S. Product Standard PS-1 "A-C or B-B High Density Overlaid Concrete Form," Class I.
- B. Forms for Unexposed Finish Concrete: Plywood, lumber, metal, or another acceptable material. Provide lumber dressed on at least two edges and one side for tight fit.
- C. Form Release Agent: Provide commercial formulation form release agent with a maximum of 350 mg/l volatile organic compounds (VOCs) that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.
- D. Form Ties: Factory-fabricated, adjustable-length, removable or snap-off metal form ties designed to prevent form deflection and to prevent spalling of concrete upon removal. Provide units that will leave no metal closer than 1-1/2 inches to the plane of the exposed concrete surface.
1. Provide ties that, when removed, will leave holes not larger than 1 inch in diameter in the concrete surface.
- E. Chamfer exterior corners and edges of permanently exposed concrete 3/4" by 3/4".

2.2 REINFORCING MATERIALS

- A. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
- B. Epoxy-Coated Reinforcing Bars: ASTM A 615, Grade 60, deformed bars, epoxy coated, with less than 2 percent damaged coating in each 12-inch bar length.
- C. Supports for Reinforcement: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place. Use wire bar-type supports complying with CRSI specifications.
 - 1. For slabs-on-grade, use supports with sand plates or horizontal runners where base material will not support chair legs.
 - 2. For epoxy-coated reinforcement, use epoxy-coated or other dielectric-polymer-coated wire bar supports.

2.3 CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150, Type I/II.
 - 1. Use one brand of cement throughout Project unless otherwise acceptable to Architect.
- B. Fly Ash: Conform to ASTM C 618 Class C or F
- C. Normal-Weight Aggregates: ASTM C 33 and as specified. Provide aggregates from a single source for exposed concrete.
 - 1. For exposed exterior surfaces, do not use fine or coarse aggregates that contain substances that cause spalling.
- D. Water: Potable.
- E. Admixtures, General: Provide concrete admixtures that contain not more than 0.1 percent chloride ions.
- F. Air-Entraining Admixture: ASTM C 260, certified by manufacturer to be compatible with other required admixtures.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated in the Work include, but are not limited to, the following:
 - a. Air-Mix or Perma-Air, Euclid Chemical Co.
 - b. Darex AEA or Daravair, W.R. Grace & Co.
 - c. MB-VR or Micro-Air, Master Builders, Inc.
 - d. Sika AER, Sika Corp.
- G. Water-Reducing Admixture: ASTM C 494, Type A.
- H. Water-Reducing, Accelerating Admixture: ASTM C 494, Type E.
- I. Water-Reducing, Retarding Admixture: ASTM C 494, Type D.

2.4 RELATED MATERIALS

- A. Sand Cushion: Clean, manufactured or natural sand.
- B. Bonding Agent: Polyvinyl acetate or acrylic base.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated in the Work include, but are not limited to, the following:
 - a. Polyvinyl Acetate (Interior Only):
 - 1) Euco Weld, Euclid Chemical Co.
 - 2) Everweld, L&M Construction Chemicals, Inc.
 - 3) Ready Bond, Symons Corp.
 - b. Acrylic or Styrene Butadiene:
 - 1) SBR Latex, Euclid Chemical Co.
 - 2) Daraweld C, W.R. Grace & Co.
 - 3) Everbond, L&M Construction Chemicals, Inc.
 - 4) Acryl-Set, Master Builders Inc.
- C. Epoxy Adhesive: ASTM C 881, two-component material suitable for use on dry or damp surfaces. Provide material type, grade, and class to suit Project requirements.
 - 1. Available Products: Subject to compliance with requirements, products that may be incorporated in the Work include, but are not limited to, the following:
 - a. Euco Epoxy System #452 or #620, Euclid Chemical Co.
 - b. Concesive Standard Liquid, Master Builders, Inc.
 - c. Sikadur 32 Hi-Mod, Sika Corp.
- D. Dress Coat: Second coat of water-based acrylic membrane curing compound, same product used for curing; see para. C. above.

2.5 PROPORTIONING AND DESIGNING MIXES

- A. Prepare design mixes for each type and strength of concrete by laboratory trial batch. For the trial batch method, use an independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.
 - 1. Do not use the same testing agency for field quality control testing.
- B. Submit written reports to Architect of each proposed mix for each class of concrete at least 15 days prior to start of Work. Do not begin concrete production until proposed mix designs have been reviewed by Architect. Allow 14 days for review response.
- C. Design mixes to provide normal weight concrete with the following properties as indicated on drawings and schedules:
 - 1. Footings, 3,000-psi, 28-day compressive strength (minimum 5 bag mix); water-cement ratio: 0.53 maximum.
 - 2. Foundations, 3,000-psi, 28-day compressive strength (minimum 5 bag mix); water-cement ratio: 0.53 maximum.
 - 3. **Interior slabs on grade, 3,000-psi, 28-day compressive strength (minimum 5 bag mix); water-cement ratio: 0.53 maximum.**
 - 4. **Exterior Slabs-on-grade and all other concrete: 4,000-psi, 28-day compressive strength (minimum 6 bag mix); water-cement ratio: 0.45 maximum.**
 - 5. Fly Ash Conform to ASTM C 618 Class C or F
 - 6. For air-entrainment requirements see paragraph 2.6.C.

- D. Slump Limits: Proportion and design mixes to result in concrete slump at point of placement as described below. Modification of slump limits shall not be made without prior approval from the Engineer.
 - 1. Slabs: Not more than 4 inches.
 - 2. Reinforced foundation systems: Not less than 2 inch and not more than 4 inches.
- E. Adjustment to Concrete Mixes: Mix design adjustments may be requested by Contractor when characteristics of materials, job conditions, weather, test results, or other circumstances warrant, as accepted by Architect. Laboratory test data for revised mix design and strength results must be submitted and accepted by Architect before using in Work.

2.6 ADMIXTURES

- A. Use water-reducing admixture in concrete, as required, for placement and workability.
- B. Use accelerating admixture in concrete slabs placed at ambient temperatures below 50 deg F (10 deg C).
- C. Use air-entraining admixture in exterior exposed concrete including foundation stem walls, unless otherwise indicated. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having total air content of 6-1/2 percent plus or minus 1-1/2 percent.
- D. Use admixtures for water reduction and set accelerating or retarding in strict compliance with manufacturer's directions.

2.7 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with requirements of ASTM C 94, and as specified.
 - 1. When air temperature is between 85 deg F (30 deg C) and 90 deg F (32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes, and when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 GENERAL

- A. Coordinate the installation of joint materials, vapor barrier, and other related materials with placement of forms and reinforcing steel.

3.2 FORMS

- A. General: Design, erect, support, brace, and maintain formwork to support vertical, lateral, static, and dynamic loads that might be applied until concrete structure can support such loads. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation, and position. Maintain formwork construction tolerances and surface irregularities complying with the following ACI 347 limits:
 - 1. Provide Class A tolerances for concrete surfaces exposed to view.
 - 2. Provide Class C tolerances for other concrete surfaces.
- B. Construct forms to sizes, shapes, lines, and dimensions shown and to obtain accurate alignment, location, grades, level, and plumb work in finished structures. Provide for

openings, offsets, sinkages, keyways, recesses, moldings, rustications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required in the Work. Use selected materials to obtain required finishes. Solidly butt joints and provide backup at joints to prevent cement paste from leaking.

- C. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only. Kerf wood inserts for forming keyways, reglets, recesses, and the like for easy removal.
- D. Provide temporary openings for clean-outs and inspections where interior area of formwork is inaccessible before and during concrete placement. Securely brace temporary openings and set tightly to forms to prevent losing concrete mortar. Locate temporary openings in forms at inconspicuous locations.
- E. Chamfer all exposed corners and edges unless noted otherwise, using wood, metal, PVC, or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.
- F. Provisions for Other Trades: Provide openings in concrete formwork to accommodate work of other trades. Determine size and location of openings, recesses, and chases from trades providing such items. Accurately place and securely support items built into forms.
- G. Cleaning and Tightening: Thoroughly clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, or other debris just before placing concrete. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

3.3 PLACING REINFORCEMENT

- A. General: Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars," for details and methods of reinforcement placement and supports and as specified.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials that reduce or destroy bond with concrete.
- C. Accurately position, support, and secure reinforcement against displacement. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as approved by Architect.
- D. Place reinforcement to maintain minimum coverages as indicated for concrete protection. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement operations. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

3.4 JOINTS

- A. Construction Joints: Locate and install construction joints so they do not impair strength or appearance of the structure, as acceptable to Architect.
- B. Isolation Joints in Slabs-on-Grade: Construct isolation joints in slabs-on-grade at points of contact between slabs-on-grade and vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

1. Joint fillers and sealants are specified in Division 7 Section "Joint Sealants."
- C. Shrinkage (Control) Joints in Slabs-on-Grade: Construct contraction joints in slabs-on-grade to form panels of patterns as shown on drawings. Depth and width of saw cut per details on drawings.
1. Contraction joints in unexposed floor slabs may be formed by saw cuts as soon as possible after slab finishing as may be safely done without dislodging aggregate.
 2. If joint pattern is not shown, provide joints not exceeding 15 feet in either direction and located to conform to bay spacing wherever possible (at column centerlines, half bays, third bays).
 3. Joint fillers and sealants are specified in Division 7 Section "Joint Sealants."

3.5 INSTALLING EMBEDDED ITEMS

- A. General: Set and build into formwork anchorage devices and other embedded items required for other work that is attached to or supported by cast-in-place concrete. Use setting drawings, diagrams, instructions, and directions provided by suppliers of items to be attached.
- B. Forms for Slabs: Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and contours in finished surfaces. Provide and secure units to support screed strips using strike-off templates or compacting-type screeds.

3.6 PREPARING FORM SURFACES

- A. General: Coat contact surfaces of forms with an approved, non-residual, low-VOC, form-coating compound before placing reinforcement.
- B. Do not allow excess form-coating material to accumulate in forms or come into contact with in-place concrete surfaces against which fresh concrete will be placed. Apply according to manufacturer's instructions.
1. Coat steel forms with a non-staining, rust-preventative material. Rust-stained steel formwork is not acceptable.

3.7 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. General: Comply with ACI 304, "Guide for Measuring, Mixing, Transporting, and Placing Concrete," and as specified.
- C. Deposit concrete continuously or in layers of such thickness that no new concrete will be placed on concrete that has hardened sufficiently to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as specified. Deposit concrete to avoid segregation at its final location.
- D. Placing Concrete in Forms: Deposit concrete in forms in horizontal layers no deeper than 24 inches and in a manner to avoid inclined construction joints. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.
1. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding, or tamping. Use equipment and procedures for consolidation

- of concrete complying with ACI 309.
2. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations no farther than the visible effectiveness of the machine. Place vibrators to rapidly penetrate placed layer and at least 6 inches into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to set. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mix to segregate.
- E. Placing Concrete Slabs: Deposit and consolidate concrete slabs in a continuous operation, within limits of construction joints, until completing placement of a panel or section.
1. Consolidate concrete during placement operations so that concrete is thoroughly worked around reinforcement, other embedded items and into corners.
 2. Bring slab surfaces to correct level with a straightedge and strike off. Use bull floats or darbies to smooth surface free of humps or hollows. Do not disturb slab surfaces prior to beginning finishing operations.
 3. Maintain reinforcing in proper position on chairs during concrete placement.
- F. Cold-Weather Placement: Comply with provisions of ACI 306 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
- G. When air temperature has fallen to or is expected to fall below 40 deg F (4 deg C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F (10 deg C) and not more than 80 deg F (27 deg C) at point of placement.
1. Do not use frozen materials or materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
 2. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise accepted in mix designs.
- H. Hot-Weather Placement: When hot weather conditions exist that would impair quality and strength of concrete, place concrete complying with ACI 305 and as specified. Concrete should not be placed when temperature is above 95 F unless approved by the Architect.
1. Cool ingredients before mixing to maintain concrete temperature at time of placement to below 90 deg F (32 deg C). Mixing water may be chilled or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
 2. Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedding in concrete.
 3. Fog spray forms, reinforcing steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without puddles or dry areas.
 4. Use water-reducing retarding admixture when required by high temperatures, low humidity, or other adverse placing conditions, as acceptable to Architect.
- I. Notify Architect/Engineer minimum 24 hours prior to commencement of operations.

3.8 FINISHING FORMED SURFACES

- A. Rough-Formed Finish: Provide a rough-formed finish on formed concrete surfaces not exposed to view in the finished Work or concealed by other construction. This is the concrete surface having texture imparted by form-facing material used, with tie holes and defective

areas repaired and patched, and fins and other projections exceeding 1/4 inch in height rubbed down or chipped off.

- B. Smooth-Formed Finish: Provide a smooth-formed architectural finish on formed concrete surfaces exposed to view or to be covered with a coating material applied directly to concrete, or a covering material applied directly to concrete, such as waterproofing, dampproofing, veneer plaster, painting, or another similar system. This is an as-cast concrete surface obtained with selected form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch defective areas per Section 3.15 with fins and other projections completely removed and smoothed and voids repaired when forms are removed. Refer to drawings for tie pattern and placement.
- C. Related Unformed Surfaces: At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike-off smooth and finish with a texture matching adjacent formed surfaces. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces unless otherwise indicated.

3.9 MONOLITHIC SLAB FINISHES

- A. Scratch Finish: Apply scratch finish to monolithic slab surfaces to receive concrete floor topping or mortar setting beds for tile, and other bonded applied cementitious finish flooring material, and where indicated.
 - 1. After placing slabs, finish surface to tolerances of F(F) 15 (floor flatness) and F(L) 13 (floor levelness) measured according to ASTM E 1155. Slope surfaces uniformly to drains where required. After leveling, roughen surface before final set with stiff brushes, brooms, or rakes.
 - 2. Do not apply curing compounds to surfaces which receive tile finishes or in any way interfere with concrete performance.
- B. Trowel Finish: Apply a trowel finish to monolithic slab surfaces exposed to view and slab surfaces to be covered with resilient flooring, carpet, ceramic or quarry tile, paint, or another thin film-finish coating system.
 - 1. After floating, begin first trowel-finish operation using a power-driven trowel. Begin final troweling when surface produces a ringing sound as trowel is moved over surface. Consolidate concrete surface by final hand-troweling operation, free of trowel marks, uniform in texture and appearance, and finish surfaces to tolerances of F(F) 20 (floor flatness) and F(L) 17 (floor levelness) measured according to ASTM E 1155. Grind smooth any surface defects that would telegraph through applied floor covering system.
- C. Non-slip Broom Finish: Apply a non-slip broom finish to exterior concrete platforms, steps, and ramps, and elsewhere as indicated.
 - 1. Immediately after float finishing, roughen concrete surface by brooming with fiber-bristle broom perpendicular to main traffic route. Coordinate required final finish with Architect before application.

3.10 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place, and cure concrete as specified to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete Work.

3.11 CONCRETE CURING AND PROTECTION

- A. General: Protect freshly placed concrete slabs from premature drying and excessive cold or hot temperatures. In hot, dry, and windy weather protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply according to manufacturer's instructions after screeding and bull floating, but before power floating and troweling.
- B. Start initial slab curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting, keep continuously moist for not less than 7 days.
- C. Curing Methods: Wet cure all unformed concrete surfaces. Curing compound may be used only where its use will not adversely affect the application of hardners/sealers or finish floor covering, as approved by the Architect by submittal documenting compatibility prior to the application of the curing compound.
- D. Provide moisture curing by the following methods:
 - 1. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches (300 mm), and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
 - a. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive floor coverings.
 - b. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive penetrating liquid floor treatments.
 - 2. Apply curing compound on exposed interior slabs and on exterior slabs, walks, and curbs as follows:
 - a. Apply curing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours and after surface water sheen has disappeared). Apply uniformly in continuous operation by power spray or roller according to manufacturer's directions. Recoat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period.
 - b. Use membrane curing compounds that will not affect surfaces to be covered with finish materials applied directly to concrete. Fugitive dye required in all curing compounds.
- E. Curing Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces by leaving forms in place for the full curing period. Forms may be removed, but continue curing by an approved moisture curing method.

3.12 REMOVING FORMS

- A. General: Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after maintaining not less than 50 deg F (10 deg C) for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form-removal operations, and provided curing operations are started and protection operations are maintained.

3.13 REUSING FORMS

- A. Clean and repair surfaces of forms to be reused in the Work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-coating compound as specified for new formwork.
- B. When forms are extended for successive concrete placement, thoroughly clean surfaces, remove fins and laitance, and tighten forms to close joints. Align and secure joint to avoid offsets. Do not use patched forms for exposed concrete surfaces except as acceptable to Architect.

3.14 CONCRETE SURFACE REPAIRS

- A. Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after removing forms to satisfaction of Architect.
- B. Mix dry-pack mortar, consisting of one part portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing.
 - 1. Cut out honeycombs, rock pockets, voids over 1/4 inch in any dimension, and holes left by tie rods and bolts down to solid concrete but in no case to a depth less than 1 inch. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water, and brush-coat the area to be patched with bonding agent. Place patching mortar before bonding agent has dried.
 - 2. For surfaces exposed to view, blend white portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Provide test areas at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.
- C. Repairing Formed Surfaces: Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of Architect. Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycomb, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning. Flush out form tie holes and fill with dry-pack mortar or precast cement cone plugs secured in place with bonding agent.
 - 1. Repair concealed formed surfaces, where possible, containing defects that affect the concrete's durability. If defects cannot be repaired, remove and replace the concrete.
- D. Repairing Unformed Surfaces: Test unformed surfaces, such as monolithic slabs, for smoothness and verify surface tolerances specified for each surface and finish. Correct low and high areas as specified. Test unformed surfaces sloped to drain for trueness of slope and smoothness by using a template having the required slope.
 - 1. Repair finished unformed surfaces containing defects that affect the concrete's durability. Surface defects include crazing and cracks in excess of 0.01 inch wide or that penetrate to the reinforcement or completely through nonreinforced sections regardless of width, spalling, popouts, honeycombs, rock pockets, and other objectionable conditions.
 - 2. Correct high areas in unformed surfaces by grinding after concrete has cured at least 14 days.
 - 3. Repair defective areas, except random cracks and single holes not exceeding 1 inch in diameter and areas retaining more than 1/8" deep liquid to nearest designated

joint, by cutting out and replacing with new concrete. Remove defective areas with clean, square cuts and expose reinforcing steel with at least 3/4-inch clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials to provide concrete of same type or class as original concrete. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.

- E. Repair isolated random cracks and single holes 1 inch or less in diameter by dry-pack method. Groove top of cracks and cut out holes to sound concrete and clean of dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding compound. Place dry-pack before bonding agent has dried. Compact dry-pack mixture in place and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.
- F. Perform structural repairs with prior approval of Architect for method and procedure, using specified epoxy adhesive and mortar.
- G. Repair methods not specified above may be used, subject to acceptance of Architect.

3.15 QUALITY CONTROL TESTING DURING CONSTRUCTION

- A. General: Owner to provide a testing agency to perform material tests, special inspections and to submit test reports. Contractor to coordinate with testing agency for sequence of work and inform testing agency when work is ready for testing and inspections.
- B. Sampling and testing for quality control during concrete placement to include the following:
 - 1. Sampling Fresh Concrete: ASTM C 172, except modified for slump to comply with ASTM C 94.
 - a. Slump: ASTM C 143; one test at point of discharge for each 20 cu. yd. of each type of concrete; additional tests when concrete consistency seems to have changed.
 - b. Air Content: ASTM C 173, volumetric method for lightweight or normal weight concrete; ASTM C 231, pressure method for normal weight concrete; one for each 20 cu. yd. of each type of air-entrained concrete.
 - c. Concrete Temperature: ASTM C 1064; one test hourly when air temperature is 40 deg F (4 deg C) and below, when 80 deg F (27 deg C) and above, and one test for each set of compressive-strength specimens.
 - d. Compression Test Specimen: ASTM C 31; one set of three standard cylinders for each compressive-strength test, unless otherwise directed. Mold and store cylinders for laboratory-cured test specimens except when field-cured test specimens are required.
 - e. Compressive-Strength Tests: ASTM C 39; one set of three cylinders for each 20 cu. yd. of each concrete class placed in any one day; one specimen tested at 7 days, one specimen tested at 28 days, and one specimen retained in reserve for later testing if required.
- C. When strength of field-cured cylinders is less than 85 percent of companion laboratory-cured cylinders, evaluate current operations and provide corrective procedures for protecting and curing the in-place concrete.
 - 1. Strength level of concrete will be considered satisfactory if averages of sets of three consecutive strength test results equal or exceed specified compressive strength and

no individual strength test result falls below specified compressive strength by more than 500 psi.

- D. Test results will be reported in writing to Owner, Architect, Structural Engineer, ready-mix producer, and Contractor within 24 hours after tests. Reports of compressive strength tests shall contain the Project identification name and number, date of concrete placement, name of concrete testing service, concrete type and class, location of concrete batch in structure, design compressive strength at 28 days, concrete mix proportions and materials, compressive breaking strength, and type of break for both 7-day tests and 28-day tests.
- E. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted but shall not be used as the sole basis for acceptance or rejection.
- F. Additional Tests: The testing agency will make additional tests of in-place concrete when test results indicate specified concrete strengths and other characteristics have not been attained in the structure, as directed by Architect. Testing agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C 42, or by other methods as directed (see 1.4.C).

END OF SECTION 03300

1.5 PROJECT CONDITIONS

- A. Field Measurements: Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 PHENOLIC-CORE UNITS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Columbia Partitions.
 2. General Partitions.
 3. Approved equal.
 4. Substitutions: See Section 01631 – Product Substitutions
- B. Toilet-Enclosure Style: Floor, wall **and ceiling** anchored.
- ~~C. Entrance Screen Style: Floor anchored.~~ **No entrance screen required for this project.**
- D. Urinal-Screen Style: Wall hung.
- E. Door, Panel, Screen, and Pilaster Construction: Solid phenolic-core panel material with melamine facing on both sides fused to substrate during panel manufacture (not separately laminated), and with eased and polished edges and no-sightline system. Provide minimum 3/4-inch- (19-mm-) thick doors, minimum 1”-(25.4-mm-) pilasters and minimum 1/2-inch- (13-mm-) thick panels.
- F. Pilaster Shoes: Fabricated from stainless-steel sheet, not less than 3 inches (76 mm) high, finished to match hardware.
- G. Brackets (Fittings):
1. Stirrup Type: Ear or U-brackets, stainless steel.
 2. Full-Height (Continuous) Type: Manufacturer's standard design; stainless steel.
- H. Phenolic-Panel Finish: Facing sheet of one color and pattern in each room.
1. Color and Pattern: Color to match:
 - a. Cressida AT371 – Suede, Pionite or
 - b. Sable Soapstone 4883-38 Wilsonart Laminate or
 - c. Dark Chocolate 2200-58 Formica – Matte Finish
- I. Door Strike & Keeper: Door strike & keeper with rubber bumper; mounted on pilaster in alignment with door latch.

APPROVED FABRICATOR LIST FOR 2009

All approvals are site specific. Additional shop locations must be approved individually.

MEDIUM AND HIGH STRENGTH STEEL CATEGORY

<u>Company Name</u>	<u>Address</u>	<u>Certification</u>	<u>Expiration Date</u>
American Building Company 775-887-2900 Fax 775-882-1751 Wayne Thompson QA Supervisor wthompson@americanbuildings.com	2401 Conestoga Drive Carson City NV. 89706	IAS	08-01-2009
AMFAB STEEL SPECIALTIES 801 298-2900 Kathy Jarvie Kathy@amfabsteel.com	787 South 950 West Woods Cross, UT 84087	4 quarterly inspections	12-31-2009
BEHLEN MFG. CO. 402-562-4199 Roland Augspurger, S.E. Director of Engineering roland.augspurger@behlenedge.com	4025 East 23 rd Street PO Box 569 Columbus, NE 68602-0569	SGS (ISO)	12-31-2009
Beko Associates, Inc. 801-655-0220 Robert Koev Robert@BEKOAssociates.com Beatrix Koev Beatrix@BEKOAssociates.com	701 South 100 East Provo, Utah 84606	AISC	03-31-2010
BlueScope Buildings North America, Inc 559-972-5298 Ulysses Rodriguez urodriguez@butlermfg.com	7440 Doe Avenue Visalia, CA 93279 & 7440 Doe Avenue 18520 67 th Avenue Northeast Arlington,WA 98223-8942	IAS CWB	04-23-2010 01-22-2009

BLUE STAR STEEL 801 908-8302 Jeff Wright Jeff@buestarsteel.com Andre Olsen Andre@bluestarsteel.com	3692 West 500 South Salt Lake City, UT 84104	AISC	10-31-2009
BRAHMA GROUP, Inc. 801 282-2700 Fax: 801-260-0696 Chelsey Lucero ChelseyL@brahmagroupinc.com	5621 West Wells Park Rd. West Jordan, UT 84081	CCDDS-BD	06-27-2010
CBC STEEL BUILDINGS (A NUCOR COMPANY) 209 983-0910 David Burila dburila@cbcsteelbuildings.com	1700 East Louise Avenue Lathrop, CA 95330	CCDDS-BD	05-19-2010
Ceco Building Systems 319-385-8001 Lee Frankenberger frankenberger@cecobuildings.net	305 North Iris Road Mt. Pleasant, IA 52641	CWB	01-02-2010
CO Building Systems Inc. 435-283-4040 Fax 435-283-8326 Brooks Walk Brooks109@cobuildings.net	320 West 100 North Ephraim, UT 84642	CCDDS-BD	05-19-2010
Eagle Span (970) 593-0596 Frank Humbert fhumbert@eaglespan.com	120 NE Frontage Rd. Fort Collins, CO	CWB	08-31-2009
F & J STEEL FABRICATION, INC 801 295-1079 John Parlett admin@f-jsteelfab.com	PO BOX 540414 No. Salt Lake City, UT 84054	AISC 4 Audits in 2008	12-31-2009
GARCO Building Systems (509) 444-7129 Glen Morris	2714 South Garfield RD. Airway Heights, WA 99001	IAS	12-31-2009

GEM (Golden Empire Manuf.) 435-538-5390 Kevin Kotter Clarke@gembuildings.com	1025 North Watery Lane Brigham City, UT 84302	AISC & IAS	04-30-2010
Gos's Welding, Inc. 801-392-9611 Fax:801-392-0425 Robert Emenger, President bob@gwisteel.com	1673 West 2650 South Ogden, Utah 84401	AISC	09-30-2010
H.A. Fabricators 435-750-5096 Fax: 435-750-5096 Tyson Drysdale Tyson@hafab.net	349 West 2500 North Logan, Utah 84341	AISC	10-31-2009
HCI Steel Building Systems, Inc 801-201-3857 Fax 435-753-0155 Larry Lefever larryl@hcisteel.com	937 East 320 North Logan, UT 84321	CWB	09-22-2009
JT STEEL (801) 280-3520 Brian Stephensen bstephensen@jtsteel.com	9550South Hawley park Rd West Jordan, UT 84088	CCDDS-BD	03-15-2010
Legacy Steel Fabricators 801-262-3303 Fax 801262-3487 Todd Reed drawings@legacysteel.net	575 West 3615 South Salt Lake City 84115	AISC	10-31-2009
Lundahl Ironworks Company (208) 646-2600 Fax (208) 646-2700 Additional contact: Steel Concepts Craig Eggli (801) 452-6699	102 South 100 West P.O. Box 59 Franklin, Idaho 83237	AISC	09-30-2009

Mountain States Steel 801-785-5085 ext.227 Fax: 801-785-1100 Geaniel Rowley geaniel@mssteel.com	325 South Geneva Rd. Lindon, Utah 84042	AISC	03-31-2010
NCI Building Systems LP (Metallic Building Systems) 1-800-643-5555 Mike Turner Approved Shops	2612 Gribble St. No. Little Rock, AR 72114	IAS	12-31-09
	550 Industry Way Atwater, Ca 95301		
	7301 Fairview Huston, Texas 77041		
	422 Kirby Drive Lexington, Tennessee 77381		
NUCOR BUILDING SYSTEMS 435 919-3185 Scott A. Russell srussell@nbsut.com	PO BOX 907 1050 North Watery Lane Brigham City, UT 84302	CWB	06-30-2010
Rigid Building Systems 281-443-9065	18933 Aldine Westfield Huston, Texas 77073	AISC	09-30-2009
PORTER CORP 616 399-1963 Eric Pelak ericp@portercorp.com Utah Representative Diana Ross (801) 274-0212 playspace2@earthlink.net	4240 North 136 th Avenue Holland, MI 49424	CCDDS-BD	03-20-2010
Sanpete Steel 435-436-8310 Douglas E. Johnson	PO Box 599 685 East Main Moroni, Utah 84646	AISC	01-31-2010

SME Steel Contractors 801-280-4932 Fax: 801-280-6679 Richard Cook woodyc@smesteel.com	5955 West Wells Park Rd. West Jordan, Utah 84088	CCDDS-BD AISC	01-01-2010 03-31-2010
S & S STEEL 435 635-9801 Charlie Gubler charles@sssteelfab.com or Jeffrey Staples PLEASE FAX MATERIAL TO: 435 635-9804	PO BOX 129 2292 West 500 North Hurricane, UT 84737	AISC	12-31-2009
T & M Manufacturing Inc. 435-257-1400 Travis Scott	1110 North 1000 West Tremonton, Utah, 84337	AISC	03-31-2010
TECH-STEEL, INC 801 328-2543 Quin Harmon quin@tech-steel.com	PO BOX 160386 Clearfield, UT 84016	AISC	10-30-2009
UTAH ORNAMENTAL & IRON WORKS 801 973-8678 John (Vice Pres.) utahornjohnjr@qwest.net	2750 West 900 South Salt Lake City, UT 84104		
Approved Shops	2750 West 900 South Salt Lake City, UT 84104	CCDDS-BD	01-23-2010
	568 South Redwood Rd. Salt Lake City, UT 84104	CCDDS-BD	01-16-2010
VERCO DECKING INC. (602) 272-1347 Approved Shops	4340 N. 42 nd Avenue Phoenix, Arizona 85019 4340 N. 42 nd Avenue Phoenix, Arizona 85019	ICBO	12-31-2009
	607 Wilbur Avenue Antioch, California 94509		
	8333 Lime Street Fontana, California 92334		

VP Buildings

Travis Lefever

travis@buildingsbydesign.com

8-31-09

2250 Lower Lake Rd.
St. Josephm MO 64504

CWB

02-12-2010

Utah Department of Transportation
Project Development Business System
(PDBS)

Access Form

Date: _____

Name: _____

Org. No.: _____

Email: _____

Lan ID: _____ (if one is already assigned, i.e. jdoe)

Password: _____ (no more than 8 characters)

PDBS access needed in order to: _____

Region/Division: _____ Title: _____

Physical Address: _____

Office Phone #: _____ Cell/Pager #: _____

Applicant's Signature

____/____/____

Date

Supervisor Name (Please Print)

Supervisor Phone

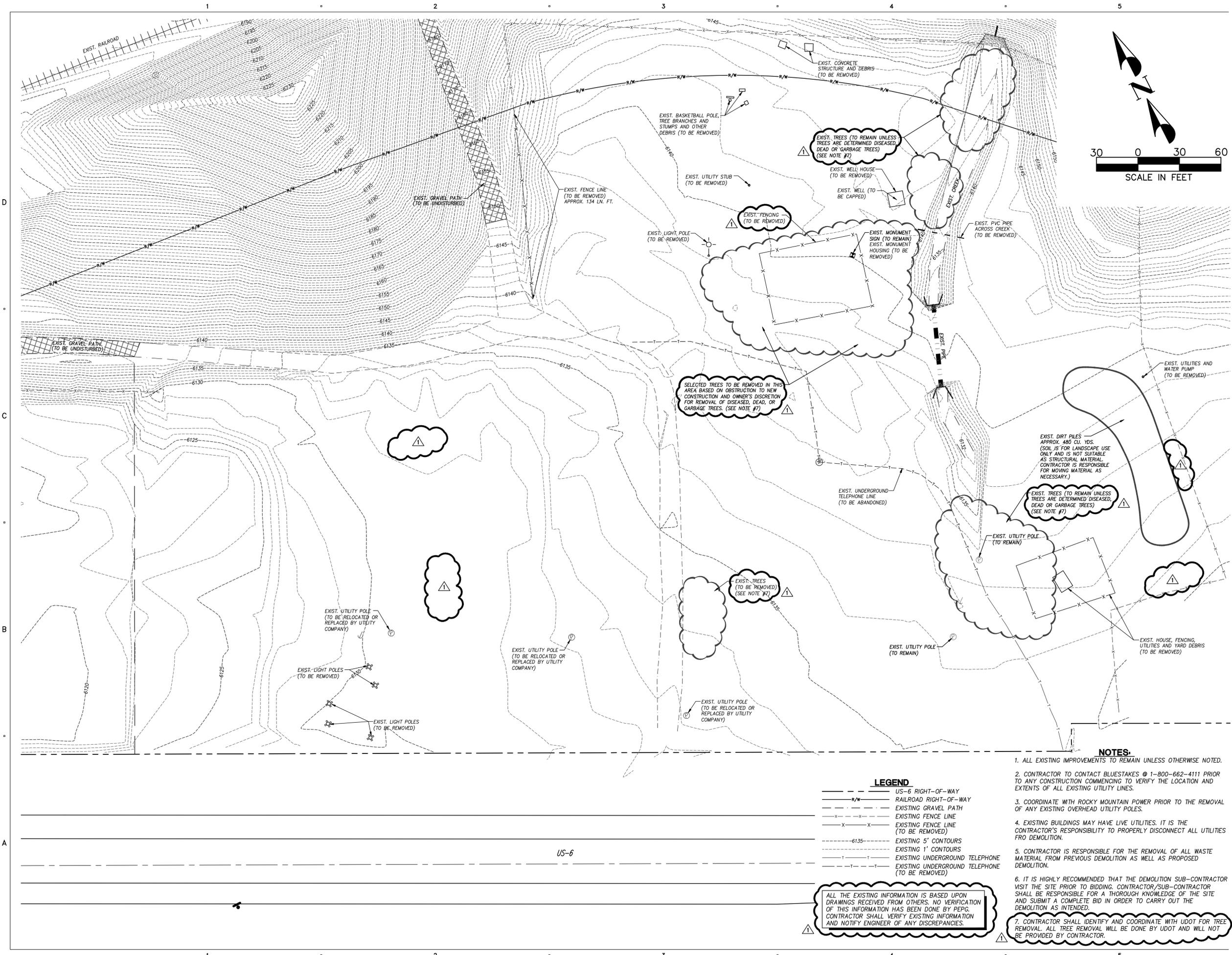
Supervisor Signature

____/____/____

Date

Fax completed form to Construction:
Fax: (801) 965-4403

Pamela Moyer
eMail: pmoyer@utah.gov



CLIENT
UDOT
 CONNECTING COMMUNITIES
 TIE FORK VISITORS CENTER
 17845 E HIGHWAY 6
 SPANISH FORK, UTAH 84660

DESIGNER
ARCHIPIXEL
 GROUP
 architecture • planning • design services
 255 Crossroad Square
 Salt Lake City, UT 84115
 P:(801) 961-7070
 F:(801) 961-7373

CONSULTANTS
PEPG ENGINEERING, L.L.C.
 8805 S. SANDY PARKWAY • SANDY, UT 84070
 PHONE: (801) 562-2521 • FAX: (801) 562-2551

PROFESSIONAL SEAL


ISSUE

MARK	DATE	DESCRIPTION
△	9-23-09	ADDENDUM #1
	8-09	CONSTRUCTION DOCUMENTS
	6-22-09	PS & E REVIEW
	3-09	95% REVIEW SUBMITTAL
	1-5-09	50% REVIEW SUBMITTAL

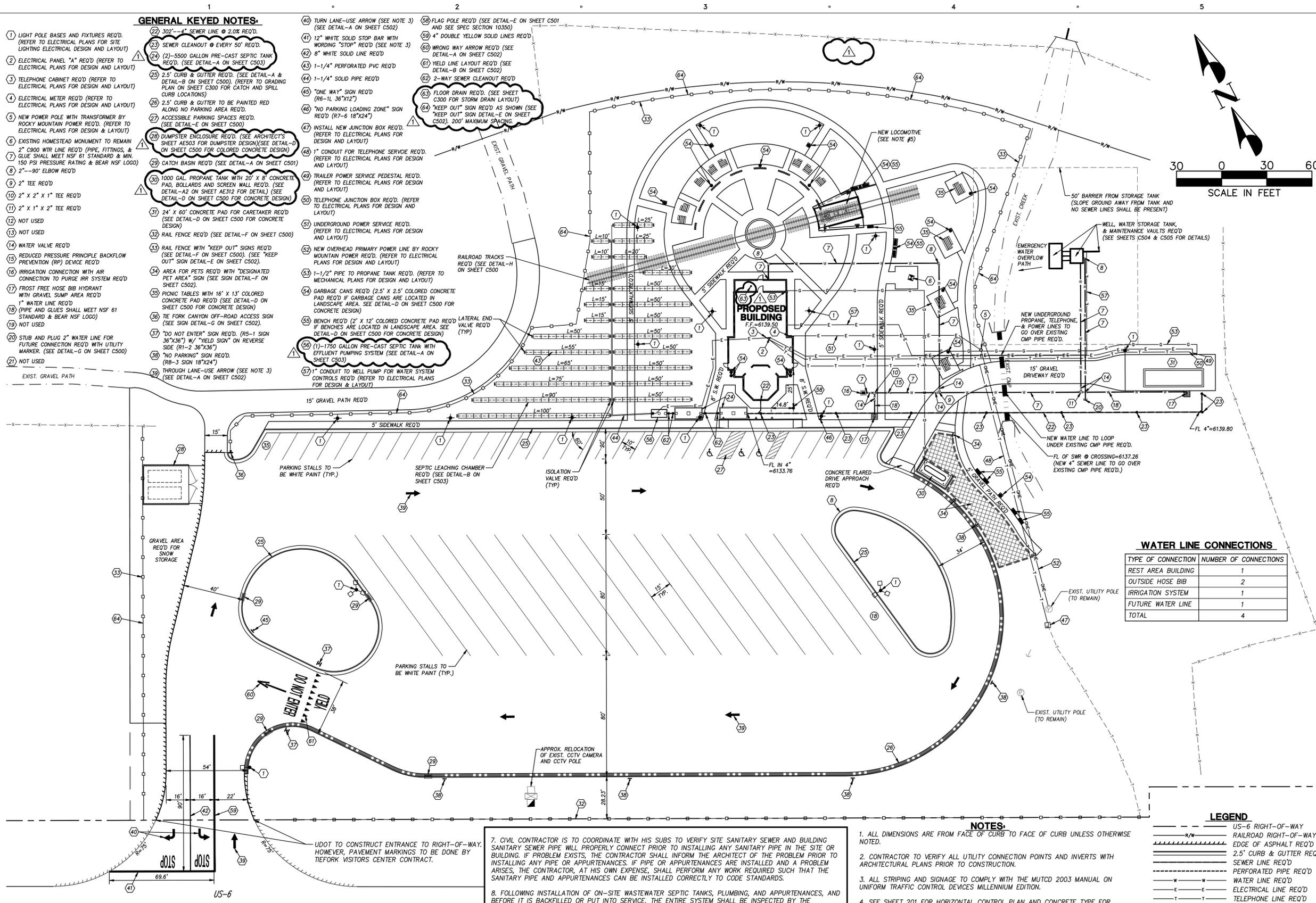
DFCM PROJECT NO:	08264900
DFCM CONTRACT NO:	097130
ARCHIPIXEL PROJECT NO:	0832.01
PEPG PROJECT NO:	6600.0817
DRAWN BY:	BCB
CHECKED BY:	DRS
SCALE:	1"=30'
DATE:	SEPTEMBER, 2009

SHEET TITLE
DEMOLITION PLAN
C100

- NOTES:**
- ALL EXISTING IMPROVEMENTS TO REMAIN UNLESS OTHERWISE NOTED.
 - CONTRACTOR TO CONTACT BLUESTAKES @ 1-800-662-4111 PRIOR TO ANY CONSTRUCTION COMMENCING TO VERIFY THE LOCATION AND EXTENTS OF ALL EXISTING UTILITY LINES.
 - COORDINATE WITH ROCKY MOUNTAIN POWER PRIOR TO THE REMOVAL OF ANY EXISTING OVERHEAD UTILITY POLES.
 - EXISTING BUILDINGS MAY HAVE LIVE UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY DISCONNECT ALL UTILITIES FROM DEMOLITION.
 - CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ALL WASTE MATERIAL FROM PREVIOUS DEMOLITION AS WELL AS PROPOSED DEMOLITION.
 - IT IS HIGHLY RECOMMENDED THAT THE DEMOLITION SUB-CONTRACTOR VISIT THE SITE PRIOR TO BIDDING. CONTRACTOR/SUB-CONTRACTOR SHALL BE RESPONSIBLE FOR A THOROUGH KNOWLEDGE OF THE SITE AND SUBMIT A COMPLETE BID IN ORDER TO CARRY OUT THE DEMOLITION AS INTENDED.
 - CONTRACTOR SHALL IDENTIFY AND COORDINATE WITH UDOT FOR TREE REMOVAL. ALL TREE REMOVAL WILL BE DONE BY UDOT AND WILL NOT BE PROVIDED BY CONTRACTOR.

- LEGEND**
- US-6 RIGHT-OF-WAY
 - R/W RAILROAD RIGHT-OF-WAY
 - EXISTING GRAVEL PATH
 - EXISTING FENCE LINE
 - EXISTING FENCE LINE (TO BE REMOVED)
 - EXISTING 5' CONTOURS
 - EXISTING 1' CONTOURS
 - EXISTING UNDERGROUND TELEPHONE
 - EXISTING UNDERGROUND TELEPHONE (TO BE REMOVED)

ALL THE EXISTING INFORMATION IS BASED UPON DRAWINGS RECEIVED FROM OTHERS. NO VERIFICATION OF THIS INFORMATION HAS BEEN DONE BY PEPG. CONTRACTOR SHALL VERIFY EXISTING INFORMATION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

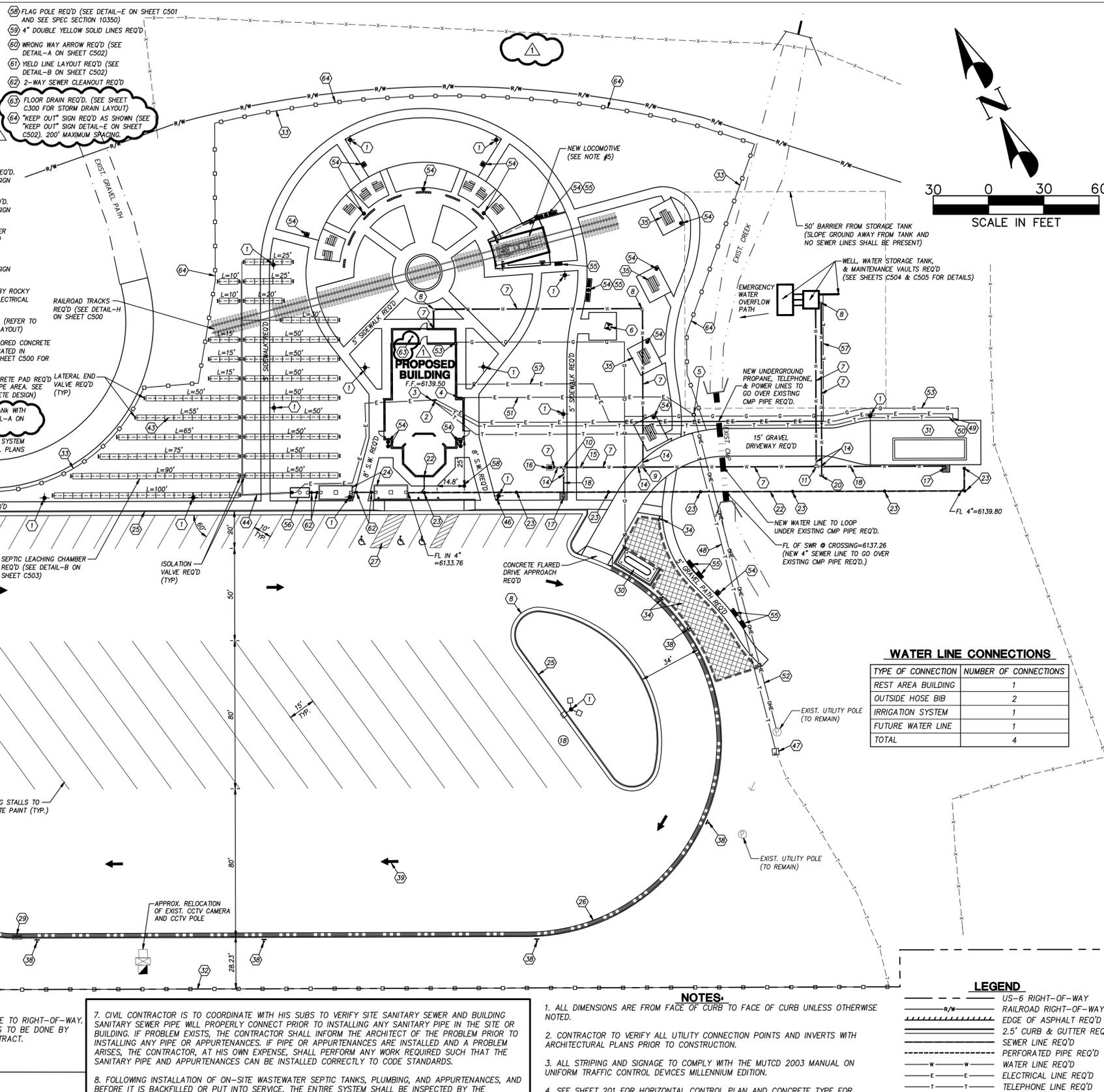


GENERAL KEYED NOTES:

- 1 LIGHT POLE BASES AND FIXTURES REQ'D. (REFER TO ELECTRICAL PLANS FOR SITE LIGHTING ELECTRICAL DESIGN AND LAYOUT)
- 2 ELECTRICAL PANEL "A" REQ'D (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 3 TELEPHONE CABINET REQ'D (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 4 ELECTRICAL METERS REQ'D (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 5 NEW POWER POLE WITH TRANSFORMER BY ROCKY MOUNTAIN POWER REQ'D. (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 6 EXISTING HOMESTEAD MONUMENT TO REMAIN 2" C900 WTR LINE REQ'D (PIPE, FITTINGS, & GUE SHALL MEET NSF 61 STANDARD & MIN 150 PSI PRESSURE RATING & BEAR NSF LOGO)
- 8 2"-90° ELBOW REQ'D
- 9 2" TEE REQ'D
- 10 2" x 2" x 1" TEE REQ'D
- 11 2" x 1" x 2" TEE REQ'D
- 12 NOT USED
- 13 NOT USED
- 14 WATER VALVE REQ'D
- 15 REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION (RP) DEVICE REQ'D
- 16 IRRIGATION CONNECTION WITH AIR CONNECTION TO PURGE IRR SYSTEM REQ'D
- 17 FROST FREE HOSE BIB HYDRANT WITH GRAVEL SUMP AREA REQ'D
- 18 1" WATER LINE REQ'D
- 19 PIPE AND GLUES SHALL MEET NSF 61 STANDARD & BEAR NSF LOGO
- 20 STUB AND PLUG 2" WATER LINE FOR FUTURE CONNECTION REQ'D WITH UTILITY MARKER. (SEE DETAIL-G ON SHEET C500)
- 21 NOT USED
- 22 302"-4" SEWER LINE @ 2.0% REQ'D.
- 23 SEWER CLEANOUT @ EVERY 50' REQ'D.
- 24 24"-5500 GALLON PRE-CAST SEPTIC TANK REQ'D. (SEE DETAIL-A ON SHEET C503)
- 25 2.5' CURB & GUTTER REQ'D. (SEE DETAIL-A & DETAIL-B ON SHEET C500). (REFER TO GRADING PLAN ON SHEET C500 FOR CATCH AND SKILL CURB LOCATIONS)
- 26 2.5' CURB & GUTTER TO BE PAINTED RED ALONG NO PARKING AREA REQ'D.
- 27 ACCESSIBLE PARKING SPACES REQ'D. (SEE DETAIL-E ON SHEET C500)
- 28 DUMPSTER ENCLOSURE REQ'D. (SEE ARCHITECT'S SHEET AEO3 FOR DUMPSTER DESIGN)(SEE DETAIL-D ON SHEET C500 FOR COLORED CONCRETE DESIGN)
- 29 CATCH BASIN REQ'D (SEE DETAIL-A ON SHEET C501)
- 30 1000 GAL. PROPANE TANK WITH 20' X 8' CONCRETE PAD, BOLLARDS AND SCREEN WALL REQ'D. (SEE DETAIL-A2 ON SHEET AEO32 FOR DETAILS) (SEE DETAIL-D ON SHEET C500 FOR CONCRETE DESIGN)
- 31 24' X 60' CONCRETE PAD FOR CARETAKER REQ'D (SEE DETAIL-D ON SHEET C500 FOR CONCRETE DESIGN)
- 32 RAIL FENCE REQ'D (SEE DETAIL-F ON SHEET C500)
- 33 RAIL FENCE WITH "KEEP OUT" SIGNS REQ'D (SEE DETAIL-F ON SHEET C500). (SEE "KEEP OUT" SIGN DETAIL-E ON SHEET C502)
- 34 AREA FOR PETS REQ'D WITH "DESIGNATED PET AREA" SIGN (SEE SIGN DETAIL-F ON SHEET C502)
- 35 BENCH REQ'D WITH 16' X 13' COLORED CONCRETE PAD REQ'D (SEE DETAIL-D ON SHEET C500 FOR CONCRETE DESIGN)
- 36 TIE FORK CANYON OFF-ROAD ACCESS SIGN (SEE SIGN DETAIL-G ON SHEET C502)
- 37 "DO NOT ENTER" SIGN REQ'D. (R5-1 SIGN 36"x36" W/ "YIELD SIGN" ON REVERSE SIDE (R1-2 36"x36"))
- 38 "NO PARKING" SIGN REQ'D. (R8-3 SIGN 18"x24")
- 39 THROUGH LANE-USE ARROW (SEE NOTE 3) (SEE DETAIL-A ON SHEET C502)
- 40 TURN LANE-USE ARROW (SEE NOTE 3) (SEE DETAIL-A ON SHEET C502)
- 41 12" WHITE SOLID STOP BAR WITH WORDING "STOP" REQ'D (SEE NOTE 3)
- 42 8" WHITE SOLID LINE REQ'D
- 43 1-1/4" PERFORATED PVC REQ'D
- 44 1-1/4" SOLID PIPE REQ'D
- 45 "ONE WAY" SIGN REQ'D (R6-1L 36"x12")
- 46 "NO PARKING LOADING ZONE" SIGN REQ'D (R7-B 18"x24")
- 47 INSTALL NEW JUNCTION BOX REQ'D. (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 48 1" CONDUIT FOR TELEPHONE SERVICE REQ'D. (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 49 TRAILER POWER SERVICE PEDESTAL REQ'D. (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 50 TELEPHONE JUNCTION BOX REQ'D. (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 51 UNDERGROUND POWER SERVICE REQ'D. (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 52 NEW OVERHEAD PRIMARY POWER LINE BY ROCKY MOUNTAIN POWER REQ'D. (REFER TO ELECTRICAL PLANS FOR DESIGN AND LAYOUT)
- 53 1-1/2" PIPE TO PROPANE TANK REQ'D. (REFER TO MECHANICAL PLANS FOR DESIGN AND LAYOUT)
- 54 GARBAGE CANS REQ'D (2.5' X 2.5' COLORED CONCRETE PAD REQ'D IF GARBAGE CANS ARE LOCATED IN LANDSCAPE AREA. SEE DETAIL-D ON SHEET C500 FOR CONCRETE DESIGN)
- 55 BENCH REQ'D (2' X 12' COLORED CONCRETE PAD REQ'D IF BENCHES ARE LOCATED IN LANDSCAPE AREA. SEE DETAIL-D ON SHEET C500 FOR CONCRETE DESIGN)
- 56 (1)-1750 GALLON PRE-CAST SEPTIC TANK WITH EFFLUENT PUMPING SYSTEM (SEE DETAIL-A ON SHEET C503)
- 57 1" CONDUIT TO WELL PUMP FOR WATER SYSTEM CONTROLS REQ'D (REFER TO ELECTRICAL PLANS FOR DESIGN & LAYOUT)
- 58 FLOOR DRAIN REQ'D. (SEE SHEET C300 FOR STORM DRAIN LAYOUT)
- 59 4" DOUBLE YELLOW SOLID LINES REQ'D
- 60 WRONG WAY ARROW REQ'D (SEE DETAIL-A ON SHEET C502)
- 61 YIELD LINE LAYOUT REQ'D (SEE DETAIL-B ON SHEET C502)
- 62 2-WAY SEWER CLEANOUT REQ'D
- 63 "KEEP OUT" SIGN REQ'D AS SHOWN (SEE "KEEP OUT" SIGN DETAIL-E ON SHEET C502). 200' MAXIMUM SPACING.
- 64 "KEEP OUT" SIGN REQ'D AS SHOWN (SEE "KEEP OUT" SIGN DETAIL-E ON SHEET C502). 200' MAXIMUM SPACING.

SEPTIC SYSTEM NOTES:

1. SEE SEPTIC TANK MANUFACTURER FOR REBAR REQUIREMENTS.
2. SEPTIC TANKS SHALL BE CONSTRUCTED OF SOUND, DURABLE WATER TIGHT MATERIALS THAT ARE NOT SUBJECT TO EXCESSIVE CORROSION, FROST DAMAGE, OR DECAY.
3. SEPTIC TANKS SHALL BE DESIGNED TO BE WATER TIGHT.
4. CONTRACTOR SHALL INSPECT SEPTIC TANKS FOR CRACKS PRIOR TO INSTALLATION.
5. DWQ OR THE LOCAL HEALTH DISTRICT MAY, AT THEIR OPTION, REQUIRE FILLING TANKS WITH WATER TO CHECK FOR LEAKS PRIOR TO BACKFILL.
6. SEPTIC TANKS MANUFACTURER SHALL CERTIFY IN WRITING THAT HOLDING TANK COMPLIES WITH R317-4.
7. CIVIL CONTRACTOR IS TO COORDINATE WITH HIS SUBS TO VERIFY SITE SANITARY SEWER AND BUILDING SANITARY SEWER PIPE WILL PROPERLY CONNECT PRIOR TO INSTALLING ANY SANITARY PIPE IN THE SITE OR BUILDING. IF PROBLEM EXISTS, THE CONTRACTOR SHALL INFORM THE ARCHITECT OF THE PROBLEM PRIOR TO INSTALLING ANY PIPE OR APPURTENANCES. IF PIPE OR APPURTENANCES ARE INSTALLED AND A PROBLEM ARISES, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL PERFORM ANY WORK REQUIRED SUCH THAT THE SANITARY PIPE AND APPURTENANCES CAN BE INSTALLED CORRECTLY TO CODE STANDARDS.
8. FOLLOWING INSTALLATION OF ON-SITE WASTEWATER SEPTIC TANKS, PLUMBING, AND APPURTENANCES, AND BEFORE IT IS BACKFILLED OR PUT INTO SERVICE, THE ENTIRE SYSTEM SHALL BE INSPECTED BY THE APPROPRIATE REGULATORY AUTHORITY TO DETERMINE COMPLIANCE WITH UTAH DWQ REGULATORY RULES R317-4.
9. ON-SITE WASTEWATER SEPTIC TANKS SHALL BE TESTED FOR WATER TIGHTNESS. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS AND PROCEDURE OUTLINED IN THE AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) C-1227, OR CONCRETE TANKS SHALL BE FILLED 24 HOURS BEFORE INSPECTION TO ALLOW STABILIZATION OF THE WATER LEVEL. DURING THE INSPECTION, THERE SHALL BE NO CHANGE IN THE WATER LEVEL FOR 30 MINUTES, NOR SHALL THERE BE MOVING WATER INTO OR OUT OF THE SEPTIC TANKS. THE REGULATORY AUTHORITY MAY ALLOW TWO PIECE TANKS, WITH THE JOINT BELOW THE WATER LEVEL, TO BE BACKFILLED UP TO THREE (3) INCHES BELOW THE WATER LEVEL. TESTING FOR WATER TIGHTNESS SHALL BE SUPERVISED BY THE REGULATORY AUTHORITY. TANKS EXHIBITING OBVIOUS DEFECTS OR LEAKS SHALL NOT BE APPROVED UNLESS SUCH DEFICIENCIES ARE REPAIRED TO THE SATISFACTION OF THE REGULATORY AUTHORITY.
10. HIGH WATER SENSOR AND ALARM SYSTEM SHALL BE PROVIDED BY THE MANUFACTURER AND CONTAIN AN 88DB AT 10 FEET AUDIBLE AND VISUAL BEACON ALARM OR APPROVED EQUAL.



WATER LINE CONNECTIONS

TYPE OF CONNECTION	NUMBER OF CONNECTIONS
REST AREA BUILDING	1
OUTSIDE HOSE BIB	2
IRRIGATION SYSTEM	1
FUTURE WATER LINE	1
TOTAL	4

LEGEND

- US-6 RIGHT-OF-WAY
- RAILROAD RIGHT-OF-WAY
- EDGE OF ASPHALT REQ'D
- 2.5' CURB & GUTTER REQ'D
- SEWER LINE REQ'D
- PERFORATED PIPE REQ'D
- WATER LINE REQ'D
- ELECTRICAL LINE REQ'D
- TELEPHONE LINE REQ'D
- GAS LINE REQ'D
- EXISTING GRAVEL PATH
- EXISTING FENCE LINE
- EXISTING UNDERGROUND TELEPHONE LINE

PARKING SUMMARY

REGULAR PARKING	31 STALLS
TRUCK WITH TRAILER	18 STALLS
ACCESSIBLE PARKING	3 STALLS
LOADING ZONE	1 STALL
TOTAL	53 STALLS

NOTES:

1. ALL DIMENSIONS ARE FROM FACE OF CURB TO FACE OF CURB UNLESS OTHERWISE NOTED.
2. CONTRACTOR TO VERIFY ALL UTILITY CONNECTION POINTS AND INVERTS WITH ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION.
3. ALL STRIPING AND SIGNAGE TO COMPLY WITH THE MUTCD 2003 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES MILLENNIUM EDITION.
4. SEE SHEET 201 FOR HORIZONTAL CONTROL PLAN AND CONCRETE TYPE FOR SIDEWALKS.
5. LOCOMOTIVE TO BE FURNISHED AND INSTALLED BY OWNER. THE RAIL BED, RAILS, AND TIES ARE TO BE INSTALLED BY THE CONTRACTOR. CONTRACTOR NEEDS TO COORDINATE TIMING SCHEDULE OF THE LOCOMOTIVE WITH THE OWNER AND MEET THE TRAIN INSTALLATION SCHEDULE REQUIREMENTS.
6. SALT PROTECTION REQ'D FOR ALL EXTERIOR CONCRETE. (SEE SPEC SECTION 03055)
7. ALL PAVEMENT MARKINGS SHALL BE COLOR WHITE UNLESS OTHERWISE NOTED.
8. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY PERMITTING AND INSTALLATION COSTS.
9. PROPANE TANK TO BE PROVIDED BY OWNER. CONTRACTOR TO COORDINATE TIME OF DELIVERY OF PROPANE TANK WITH OWNER.

CLIENT



TIE FORK VISITORS CENTER
17845 E HIGHWAY 6
SPANISH FORK, UTAH 84660

DESIGNER



architecture • planning • design services
255 Crossroad Square
Salt Lake City, UT 84115
P:(801) 961-7070
F:(801) 961-7373

CONSULTANTS



8805 S. SANDY PARKWAY • SANDY, UT 84070
PHONE: (801) 562-2521 • FAX: (801) 562-2551

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MARK DATE DESCRIPTION

DFCM PROJECT NO:	08264900
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PEPG PROJECT NO:	6600.0817
DRAWN BY:	BCB
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SCALE:	1"=30'
DATE:	SEPTEMBER, 2009

SHEET TITLE

SITE & UTILITY PLAN (BASE BID)

C200

LINE	LENGTH	BEARING	LINE	LENGTH	BEARING	LINE	LENGTH	BEARING
L1	2.70'	N 26°49'17" E	L40	7.62'	S 63°10'43" E	L79	15.13'	N 39°43'13" E
L2	20.99'	N 80°33'10" E	L41	5.47'	S 26°49'17" W	L80	2.56'	N 26°43'11" W
L3	20.89'	N 42°51'09" E	L42	13.95'	S 63°10'43" E	L81	44.41'	S 77°57'17" W
L4	11.32'	N 27°19'09" E	L43	13.95'	S 63°10'43" E	L82	15.00'	S 26°49'17" W
L5	104.50'	S 64°05'27" E	L44	13.95'	N 71°49'17" E	L83	4.42'	S 63°10'43" E
L6	2.69'	N 13°21'49" E	L45	5.47'	N 26°49'16" E	L84	3.50'	N 26°49'17" E
L7	2.69'	S 13°21'49" W	L46	7.60'	S 63°10'43" E	L85	15.00'	S 63°10'43" E
L8	136.01'	N 64°05'27" W	L47	23.96'	S 11°59'48" W	L86	15.00'	S 26°49'17" W
L9	1.81'	N 58°51'17" W	L48	61.19'	N 63°10'43" E	L87	15.00'	N 63°10'43" E
L10	55.69'	N 26°49'17" W	L49	23.92'	N 11°05'14" E	L88	3.50'	N 26°49'17" E
L11	67.34'	N 40°39'17" E	L50	19.50'	N 71°49'17" E	L89	5.94'	N 63°10'43" E
L12	9.03'	N 27°19'09" E	L51	3.80'	S 63°10'43" E	L90	75.00'	S 26°49'17" W
L13	16.42'	N 27°19'09" E	L52	32.67'	S 26°49'17" W	L91	19.63'	S 62°45'30" E
L14	3.54'	N 67°52'18" W	L53	2.89'	N 63°10'43" E	L92	15.64'	S 54°00'12" E
L15	34.17'	N 56°49'17" E	L54	16.38'	S 71°49'17" W	L93	43.87'	S 77°57'17" E
L16	56.62'	S 63°10'43" E	L55	43.40'	S 63°10'43" E	L94	2.56'	N 26°43'11" W
L17	10.34'	S 77°25'3" E	L56	16.38'	N 18°10'43" W	L95	10.49'	S 35°43'13" W
L18	60.00'	S 63°10'43" E	L57	15.98'	S 80°33'10" W	L96	24.09'	S 59°03'37" W
L19	24.00'	S 26°49'17" W	L58	42.32'	N 18°10'43" E	L97	24.09'	N 59°03'37" E
L20	60.00'	N 63°10'43" W	L59	4.66'	N 64°52'53" E	L98	24.09'	S 05°25'02" E
L21	14.46'	N 49°08'32" W	L60	26.17'	N 67°12'30" W	L99	24.09'	N 05°25'02" W
L22	52.62'	N 63°10'43" W	L61	2.91'	N 63°10'43" W	L100	24.09'	S 48°24'09" E
L23	31.80'	S 56°49'17" W	L62	32.67'	N 26°49'17" E	L101	5.77'	N 56°49'17" E
L24	42.83'	N 71°49'17" E	L63	3.94'	N 63°10'43" E	L102	236.41'	S 63°10'43" E
L25	20.89'	N 26°54'36" W	L64	19.48'	S 18°10'43" E	L103	123.24'	N 26°49'17" E
L26	2.34'	S 26°49'17" W	L65	24.00'	S 64°52'53" W	L104	85.91'	S 09°10'43" E
L27	21.30'	N 78°00'28" W	L66	38.79'	S 63°10'43" E	L105	38.06'	N 37°10'43" W
L28	4.82'	S 11°05'14" E	L67	75.34'	N 26°49'17" E	L106	3.43'	N 40°39'17" E
L29	20.89'	N 10°43'55" E	L68	19.80'	N 67°12'30" W	L107	22.03'	S 09°10'43" E
L30	20.99'	S 26°54'36" E	L69	33.46'	S 64°52'53" W	L108	0.36'	N 63°10'43" E
L31	19.99'	S 48°24'09" E	L70	2.98'	N 26°49'17" W	L109	15.30'	N 56°49'17" E
L32	33.52'	S 11°05'14" E	L71	35.21'	S 11°59'48" W	L110	418.70'	S 63°10'43" E
L33	23.42'	S 26°49'17" W	L72	15.05'	S 17°49'49" E	L111	10.68'	S 62°29'46" E
L34	35.23'	S 41°44'01" W	L73	2.98'	S 04°18'57" E	L112	16.45'	S 54°00'12" E
L35	44.78'	N 63°10'43" W	L74	4.40'	S 19°22'14" E	L113	2.79'	S 26°49'17" W
L36	123.24'	N 26°49'17" E	L75	5.00'	N 70°37'46" E	L114	16.52'	S 56°49'17" W
L37	19.99'	S 48°24'09" E	L76	4.40'	N 19°22'14" W	L115	279.33'	N 63°10'43" E
L38	23.97'	N 41°44'01" E	L77	2.98'	N 04°18'57" E	L116	59.08'	N 37°10'43" W
L39	23.97'	N 41°44'01" E	L78	15.05'	N 17°49'49" W	L117	1.64'	N 26°49'17" E

LINE	LENGTH	BEARING
L200	563.89'	N 63°10'43" W
L201	260.88'	N 26°49'17" E
L202	12.54'	N 27°19'09" E
L203	13.47'	N 71°36'51" E
L204	107.77'	S 64°05'27" E
L205	28.65'	S 67°43'14" E
L206	56.22'	N 36°25'09" E
L207	85.09'	N 26°48'52" E
L208	31.36'	S 45°00'14" E
L209	108.77'	S 46°47'05" W
L210	22.07'	S 26°34'47" W
L211	31.87'	S 07°50'38" W

CURVE	RADIUS	LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD
C200	92.00'	106.14'	66°05'58"	59.86'	N 82°51'35" W	100.35'
C201	561.80'	265.80'	27°06'29"	135.44'	S 62°38'59" E	263.33'

CURVE	RADIUS	LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD
C1	17.00'	8.65'	29°08'30"	4.42'	N 32°28'28" W	8.55'
C2	37.89'	22.36'	33°48'55"	11.52'	N 30°08'16" W	22.04'
C3	150.00'	23.19'	68°35'24"	14.64'	S 71°36'51" W	20.95'
C4	90.00'	161.08'	102°32'44"	112.23'	N 64°38'11" E	140.42'
C5	75.00'	134.23'	102°32'44"	93.52'	N 64°38'11" E	117.02'
C6	50.00'	27.53'	31°32'36"	14.12'	S 48°19'09" E	20.24'
C7	40.00'	18.37'	26°18'26"	9.35'	N 45°42'04" W	18.21'
C8	75.00'	31.50'	24°03'59"	15.99'	S 14°47'18" W	31.27'
C9	75.00'	32.34'	24°42'14"	16.42'	N 39°10'24" E	32.09'
C10	150.00'	36.22'	13°30'00"	18.20'	S 33°44'17" W	36.13'
C11	200.00'	46.65'	13°30'00"	23.38'	N 33°58'13" E	46.45'
C12	15.00'	21.25'	81°09'31"	12.85'	N 13°15'36" E	19.51'
C13	60.00'	22.30'	21°17'31"	11.28'	S 43°11'36" E	22.17'
C14	30.00'	13.77'	26°18'26"	7.01'	N 45°42'04" W	13.65'
C15	67.50'	70.69'	60°00'00"	38.97'	S 86°49'17" W	67.50'
C16	25.00'	6.12'	14°02'10"	3.08'	S 70°11'48" E	6.11'
C17	25.00'	6.12'	14°02'10"	3.08'	N 70°11'48" W	6.11'
C18	25.00'	6.12'	14°02'10"	3.08'	S 56°09'38" E	6.11'
C19	25.00'	6.12'	14°02'10"	3.08'	N 56°09'38" W	6.11'
C20	52.50'	54.98'	60°00'00"	30.31'	S 86°49'17" W	52.50'
C21	17.00'	19.09'	64°21'20"	10.70'	S 22°27'21" W	18.11'
C22	37.89'	21.48'	32°29'09"	11.04'	S 43°03'52" W	21.20'
C23	59.00'	31.22'	30°19'02"	15.98'	N 04°04'17" E	30.86'
C24	17.00'	8.66'	29°11'07"	4.43'	S 86°09'21" W	8.57'

CURVE	RADIUS	LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD
C25	37.89'	22.39'	33°51'32"	11.53'	S 83°48'09" W	22.07'
C26	100.00'	26.00'	14°53'39"	13.07'	N 34°04'39" E	25.92'
C27	100.00'	26.00'	14°53'39"	13.07'	S 14°08'09" W	25.92'
C28	64.00'	56.35'	50°26'46"	30.15'	S 33°21'15" W	54.55'
C29	83.75'	19.10'	13°03'56"	9.59'	S 33°21'15" W	19.06'
C30	17.00'	21.69'	73°05'13"	12.60'	S 63°10'43" E	20.24'
C31	32.89'	18.32'	31°54'35"	9.40'	N 10°52'00" E	18.08'
C32	17.00'	19.09'	64°21'20"	10.70'	N 31°11'14" E	18.11'
C33	59.00'	38.34'	37°13'42"	19.87'	N 46°16'02" E	37.66'
C34	105.00'	46.74'	14°42'07"	13.55'	N 34°10'20" E	26.87'
C35	64.00'	42.01'	37°36'32"	21.78'	N 46°04'37" E	41.26'
C36	55.00'	40.29'	41°58'30"	21.10'	S 03°09'26" W	39.40'
C37	95.00'	22.41'	13°30'52"	11.26'	N 11°04'23" W	22.36'
C38	55.00'	14.45'	15°03'12"	7.27'	S 11°50'35" E	14.41'
C39	50.00'	13.14'	15°03'12"	6.61'	S 11°50'35" E	13.10'
C40	100.00'	23.59'	13°30'52"	11.85'	N 11°04'23" W	23.53'
C41	50.00'	46.74'	14°42'07"	13.55'	S 08°36'42" W	45.05'
C42	105.00'	28.10'	15°22'48"	14.18'	S 23°18'39" W	28.10'
C43	91.00'	55.50'	34°56'51"	28.65'	S 33°05'40" W	54.65'
C44	75.00'	31.22'	23°50'55"	15.84'	N 38°38'38" E	30.99'
C45	20.00'	36.54'	104°40'27"	25.91'	S 25°37'03" E	31.66'
C46	88.75'	57.70'	37°14'54"	29.91'	N 22°53'55" E	56.69'
C47	83.75'	55.13'	37°42'56"	28.60'	N 22°39'55" E	54.14'
C48	59.68'	39.77'	38°10'50"	20.65'	N 63°05'40" E	39.04'

CURVE	RADIUS	LENGTH	DELTA	TANGENT	CHORD BEARING	CHORD
C49	15.00'	27.40'	104°40'27"	19.43'	S 25°37'03" E	23.75'
C50	70.00'	29.14'	23°30'55"	14.78'	N 38°38'38" E	28.93'
C51	96.00'	58.55'	34°56'51"	30.22'	S 33°05'40" W	57.65'
C52	100.00'	29.46'	16°52'44"	14.84'	S 24°03'37" W	29.35'
C53	55.00'	6.04'	67°148"	3.03'	S 32°34'18" W	6.04'
C54	83.75'	48.29'	33°02'12"	24.84'	N 12°42'39" W	47.62'
C55	83.75'	89.25'	61°03'23"	49.39'	N 63°10'43" W	85.08'
C56	83.75'	57.83'	39°33'50"	30.12'	S 63°05'24" W	56.69'
C57	88.75'	243.89'	157°27'12"	445.23'	N 74°27'07" W	174.08'
C58	70.50'	117.60'	95°34'16"	72.71'	N 09°10'43" W	104.43'
C59	12.50'	28.84'	132°12'53"	28.22'	S 56°55'44" W	28.86'
C60	12.50'	28.84'	132°12'53"	28.22'	S 75°17'09" E	22.86'
C61	24.50'	33.28'	77°50'00"	19.78'	S 01°44'17" W	30.78'
C62	39.50'	89.74'	130°10'00"	85.03'	N 74°15'43" W	71.65'
C63	29.50'	78.26'	152°00'00"	118.32'	N 66°49'17" E	57.25'
C64	4.50'	7.11'	90°29'52"	4.54'	S 17°55'47" E	6.39'
C65	13.50'	14.14'	60°00'00"	7.79'	N 88°49'17" E	13.50'
C66	6.00'	6.00'	90°00'00"	6.00'	S 63°10'43" E	59.38'
C67	4.50'	8.24'	104°53'31"	5.85'	S 04°22'30" W	7.14'
C68	105.50'	303.43'	164°47'18"	790.07'	N 34°25'39" E	208.14'
C69	50.50'	22.92'	26°00'01"	11.66'	S 50°10'43" E	22.72'
C70	29.50'	59.73'	116°00'00"	47.21'	S 84°49'17" W	50.03'
C71	59.68'	31.51'	30°15'24"	16.13'	S 13°24'49" E	31.15'

LEGEND

- US-6 RIGHT-OF-WAY
- RAILROAD RIGHT-OF-WAY
- EDGE OF ASPHALT REQ'D
- CURB & GUTTER REQ'D
- EXISTING GRAVEL PATH
- EXISTING GRAVEL REQ'D
- FENCE LINE REQ'D
- EXISTING FENCE LINE
- COLORED STAINED CONCRETE WITH WOOD PLANK PATTERN
- COLORED CONCRETE WITH HERRINGBONE PATTERN
- COLORED CONCRETE
- REGULAR CONCRETE (NO HATCH)
- GRAVEL AREA
- ASPHALT AREA

NOTES:
 1. ALL THE EXISTING INFORMATION IS BASED UPON DRAWINGS RECEIVED FROM OTHERS. NO VERIFICATION OF THIS INFORMATION HAS BEEN DONE BY PEPG. CONTRACTOR SHALL VERIFY EXISTING INFORMATION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

CLIENT

UTAH COUNTY SURVEY CONTROL BRASS CAP SKY VIEW (SEE NOTE #1)

ARCHIPLEX GROUP
 architecture • planning • design services
 255 Crossroad Square
 Salt Lake City, UT 84115
 P:(801) 961-7070
 F:(801) 961-7373

DESIGNER

ARCHIPLEX GROUP
 architecture • planning • design services
 255 Crossroad Square
 Salt Lake City, UT 84115
 P:(801) 961-7070
 F:(801) 961-7373

CONSULTANTS

PEPG ENGINEERING, L.L.C.
 8805 S. SANDY PARKWAY • SANDY, UT 84070
 PHONE: (801) 562-2521 • FAX: (801) 562-2551

PROFESSIONAL SEAL

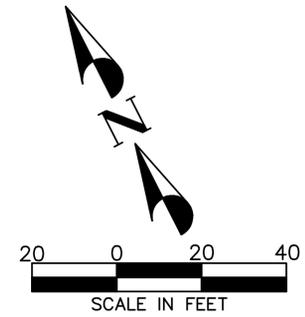
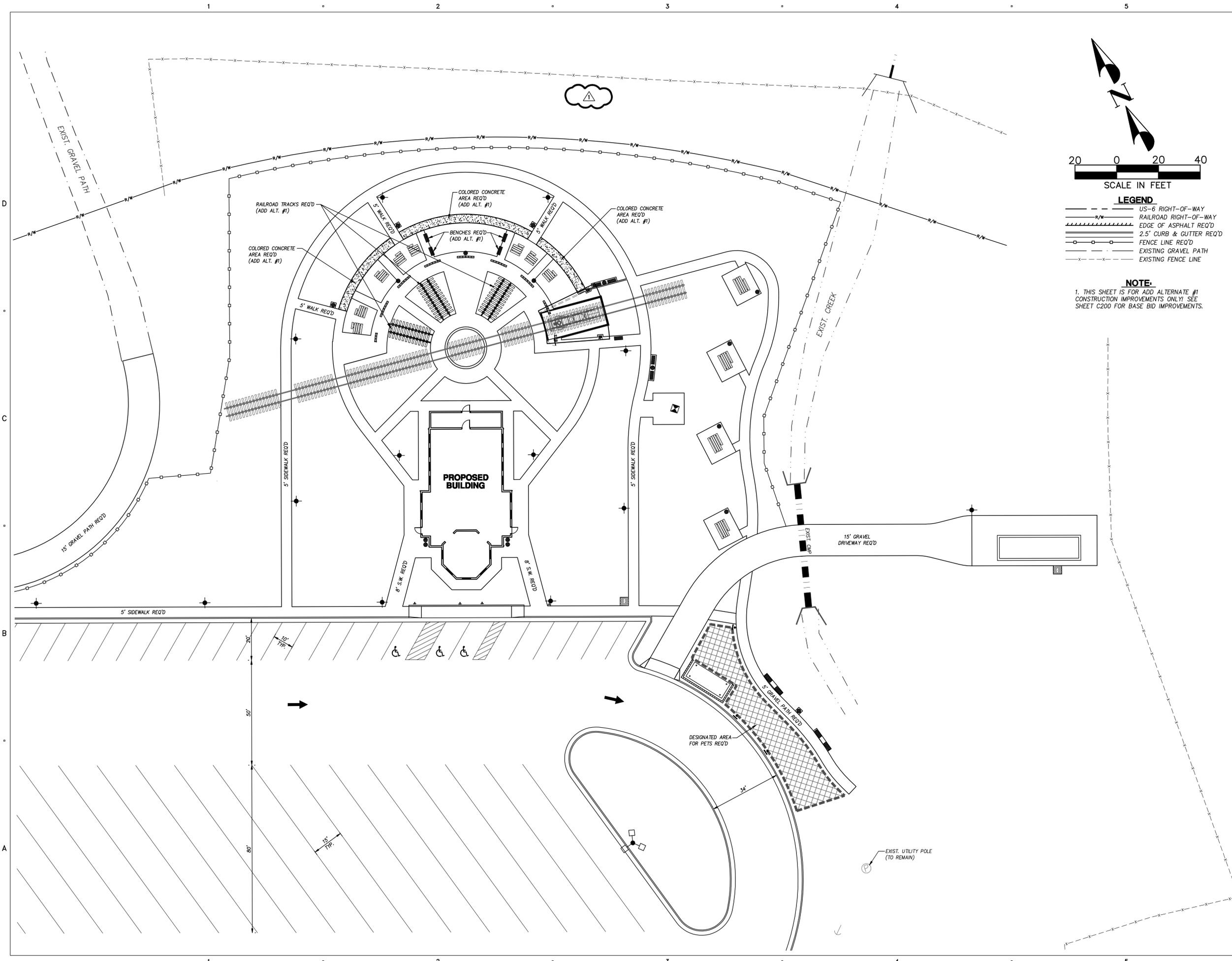
DARRIN R. SMITH
 9-17-2009
 STATE OF UTAH

ISSUE

DATE	DESCRIPTION
9-23-09	ADDENDUM #1
8-09	CONSTRUCTION DOCUMENTS
6-22-09	PS & E REVIEW
3-09	95% REVIEW SUBMITTAL
1-5-09	50% REVIEW SUBMITTAL

MARK DATE DESCRIPTION

MARK	DATE	DESCRIPTION
DFCM PROJECT NO:		08264900
DFCM CONTRACT NO:		097130
ARCHIPLEX PROJECT NO:		0832.01
PEPG PROJECT NO:		6600.0817
DRAWN BY:		BCB
CHECKED BY:		



- LEGEND**
- US-6 RIGHT-OF-WAY
 - R/W RAILROAD RIGHT-OF-WAY
 - EDGE OF ASPHALT REQ'D
 - 2.5' CURB & GUTTER REQ'D
 - FENCE LINE REQ'D
 - EXISTING GRAVEL PATH
 - EXISTING FENCE LINE

NOTE:
 1. THIS SHEET IS FOR ADD ALTERNATE #1 CONSTRUCTION IMPROVEMENTS ONLY! SEE SHEET C200 FOR BASE BID IMPROVEMENTS.

CLIENT
UTDOT
 CONNECTING COMMUNITIES
 TIE FORK VISITORS CENTER
 17845 E HIGHWAY 6
 SPANISH FORK, UTAH 84660

DESIGNER
ARCHIPLEX GROUP
 architecture • planning • design services
 255 Crossroad Square
 Salt Lake City, UT 84115
 P:(801) 961-7070
 F:(801) 961-7373

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PEPG ENGINEERING, L.L.C.
 8805 S. SANDY PARKWAY • SANDY, UT 84070
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DFCM PROJECT NO:	08264900	
DFCM CONTRACT NO:	097130	
ARCHIPLEX PROJECT NO:	0832.01	
PEPG PROJECT NO:	6600.0817	
DRAWN BY:	BCB	
CHECKED BY:	DRS	
SCALE:	1"=20'	
DATE:	SEPTEMBER, 2009	

SHEET TITLE
**SITE PLAN
 (ADD ALTERNATE #1)**

C202



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TIE FORK VISITORS CENTER
17845 E HIGHWAY 6
SPANISH FORK, UTAH 84660

DESIGNER



architecture • planning • design services

255 Crossroad Square
Salt Lake City, UT 84115
P:(801) 961-7070
F:(801) 961-7373

CONSULTANTS



8805 S. SANDY PARKWAY • SANDY, UT 84070
PHONE: (801) 562-2521 • FAX: (801) 562-2551

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ISSUE

9-23-09	ADDENDUM #1
8-09	CONSTRUCTION DOCUMENTS
6-22-09	PS & E REVIEW
3-09	95% REVIEW SUBMITTAL
1-5-09	50% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
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		DFCM CONTRACT NO: 097130
		ARCHIPLEX PROJECT NO: 0832.01
		PEPG PROJECT NO: 6600.0817
		DRAWN BY: BCB
		CHECKED BY: DRS
		SCALE: 1"=30'
		DATE: SEPTEMBER, 2009

SHEET TITLE

EROSION CONTROL PLAN

C400

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TIE FORK VISITORS CENTER
17845 E HIGHWAY 6
SPANISH FORK, UTAH 84660

DESIGNER



architecture • planning • design services

255 Crossroad Square
Salt Lake City, UT 84115
P:(801) 961-7070
F:(801) 961-7373

CONSULTANTS



8805 S. SANDY PARKWAY • SANDY, UT 84070
PHONE: (801) 562-2521 • FAX: (801) 562-2551

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ISSUE

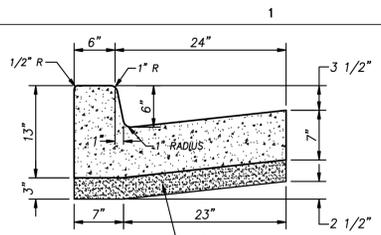
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8-09	CONSTRUCTION DOCUMENTS
6-22-09	PS & E REVIEW
3-09	95% REVIEW SUBMITTAL
1-5-09	50% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
DFCM PROJECT NO:	08264900	
DFCM CONTRACT NO:	097130	
ARCHIPLEX PROJECT NO:	0832.01	
PEPG PROJECT NO:	6600.0817	
DRAWN BY:	BCB	
CHECKED BY:	DRS	
SCALE:	NOT TO SCALE	
DATE:	SEPTEMBER, 2009	

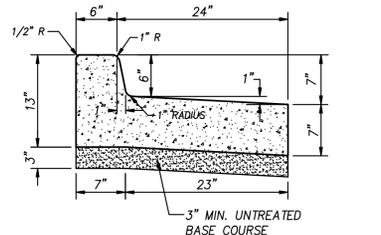
SHEET TITLE

TYPICAL SECTIONS & DETAILS

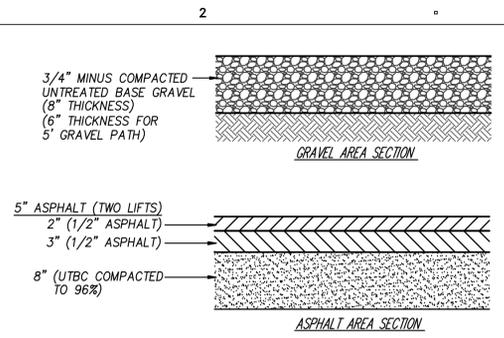
C500



DETAIL-A
TYPE B1 CONCRETE CURB AND GUTTER
SEE UDOT STD DWG GW 2
(NOT TO SCALE)



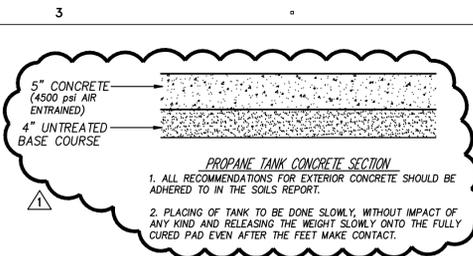
DETAIL-B
SPILL CURB AND GUTTER
(NOT TO SCALE)



NOTES:

- ASPHALT PAVING DESIGN IS BASED ON THE GEOTECHNICAL EVALUATION REPORT PREPARED BY PEPG ENGINEERING, LLC.
- THE 5" ASPHALT LAYER SHOULD BE PLACED IN TWO LIFTS. THE FIRST LIFT COMPRISED OF 1/2 INCH ROCK AND PLACED IN A 3 INCH THICK LAYER (COMPACTED TO 95%). THE TOP LAYER SHOULD CONSIST OF 1/2 INCH ROCK PLACED IN A 2 INCH THICK LAYER (COMPACTED TO 95%). THE ASPHALT SHOULD BE AT A MINIMUM 250 DEGREES WHEN CONTRACTOR BEGINS ROLLER TO ACHIEVE THE 95% COMPACTION.

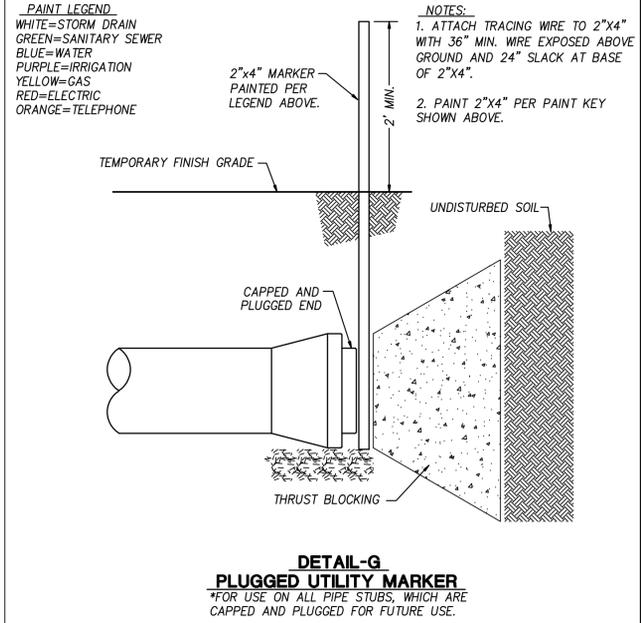
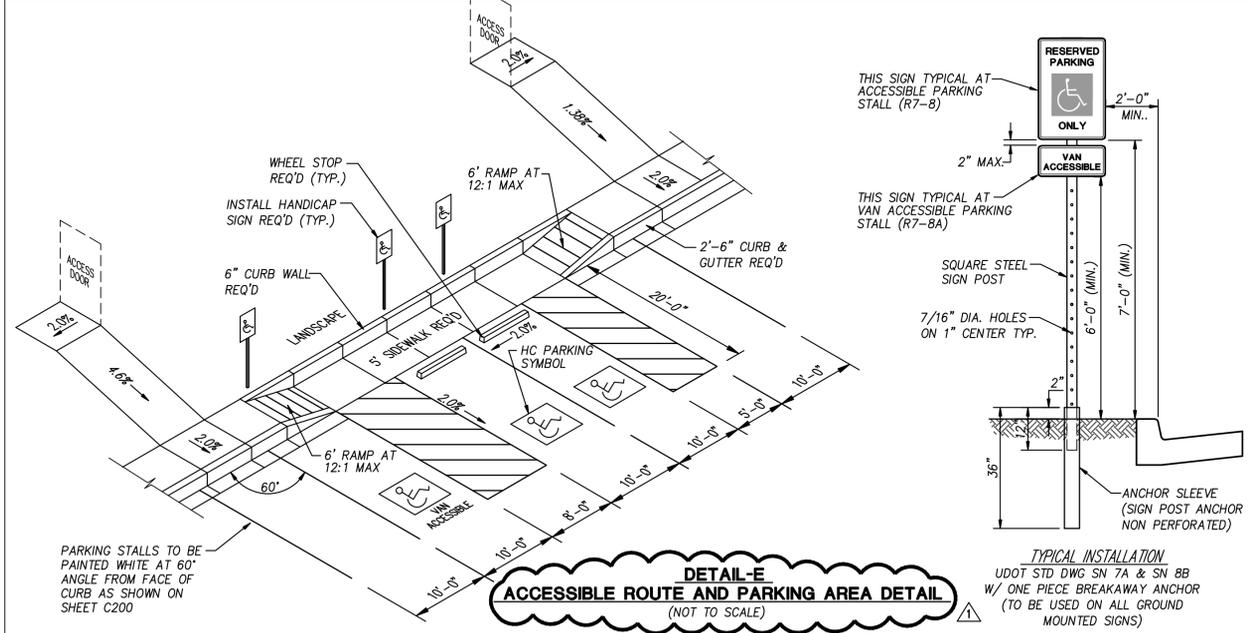
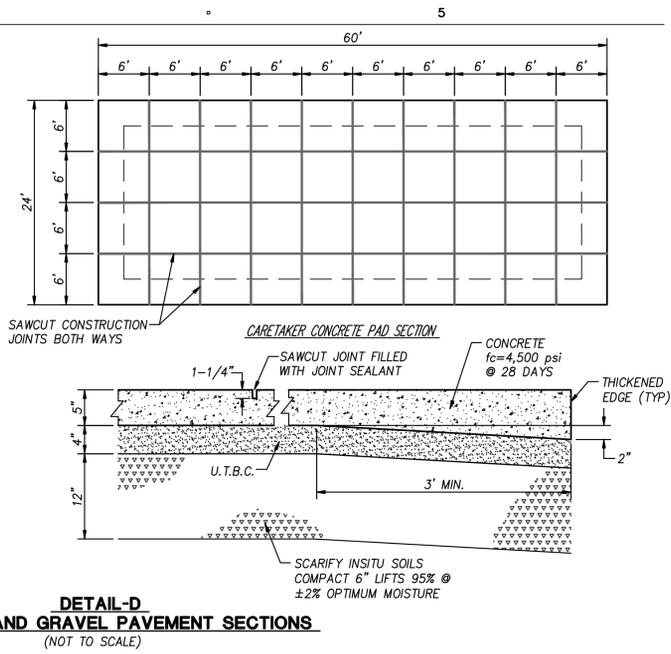
DETAIL-C
ASPHALT PAVING AND GRAVEL SECTION
(NOT TO SCALE)



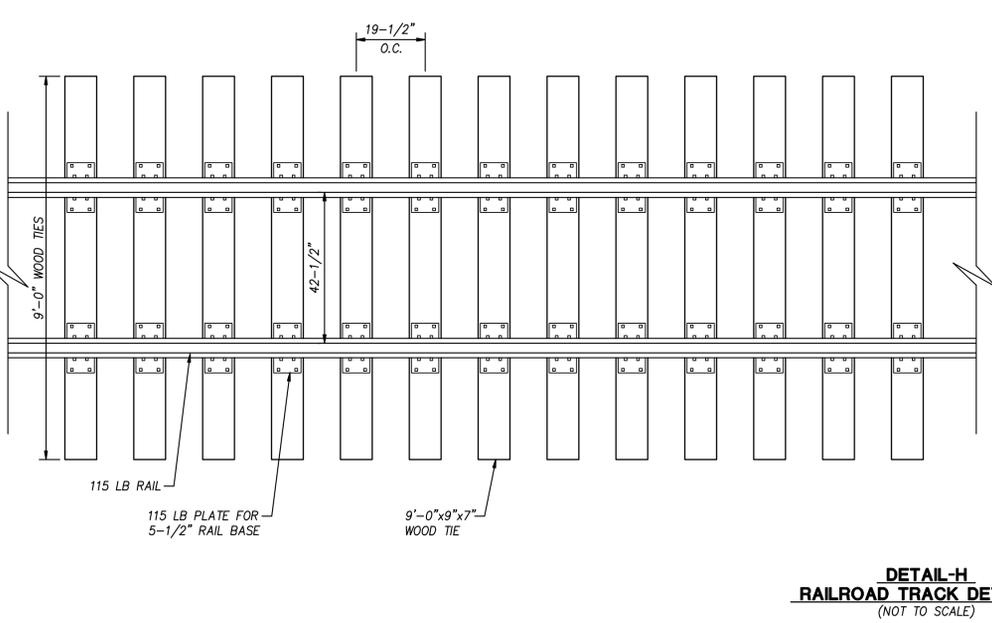
NOTE:

- ALL RECOMMENDATIONS FOR EXTERIOR CONCRETE SHOULD BE ADHERED TO IN THE SOILS REPORT.
- PLACING OF TANK TO BE DONE SLOWLY, WITHOUT IMPACT OF ANY KIND AND RELEASING THE WEIGHT SLOWLY ONTO THE FULLY CURED PAD EVEN AFTER THE FEET MAKE CONTACT.

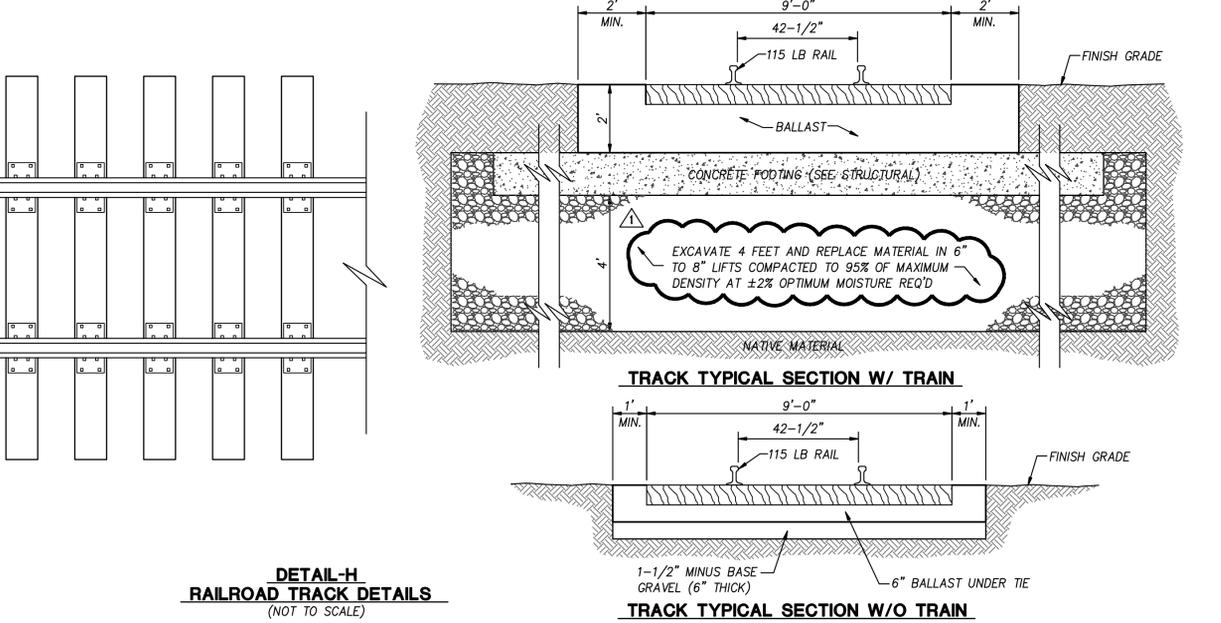
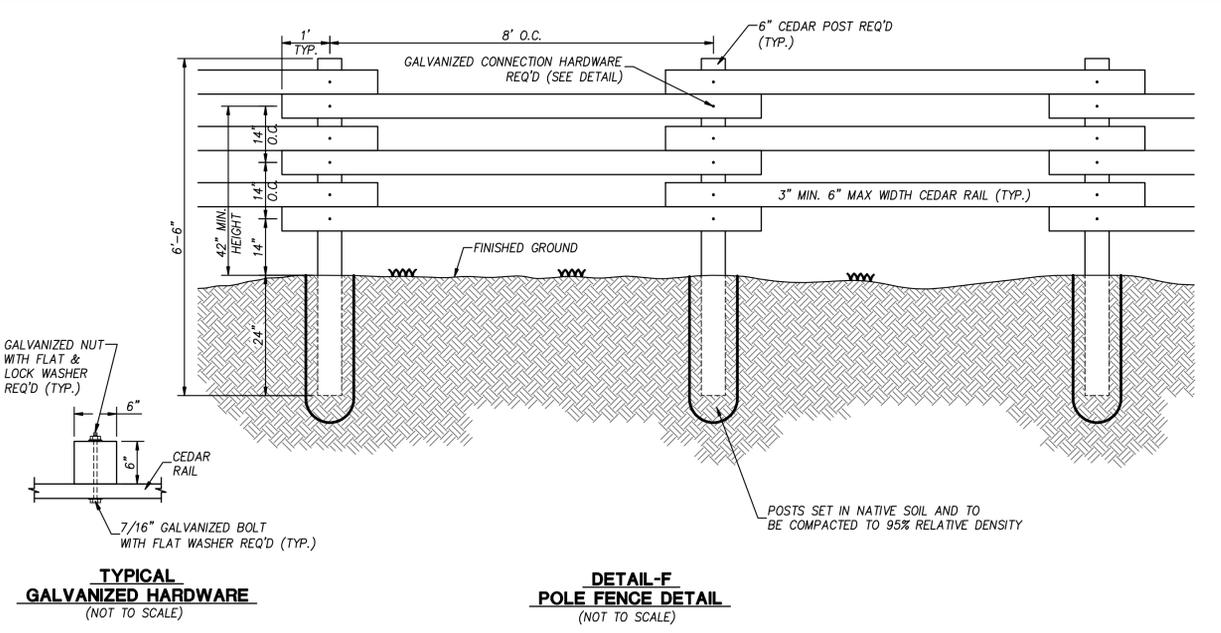
DETAIL-D
CONCRETE AND GRAVEL PAVEMENT SECTIONS
(NOT TO SCALE)



DETAIL-G
PLUGGED UTILITY MARKER
*FOR USE ON ALL PIPE STUBS, WHICH ARE CAPPED AND PLUGGED FOR FUTURE USE.



DETAIL-H
RAILROAD TRACK DETAILS
(NOT TO SCALE)



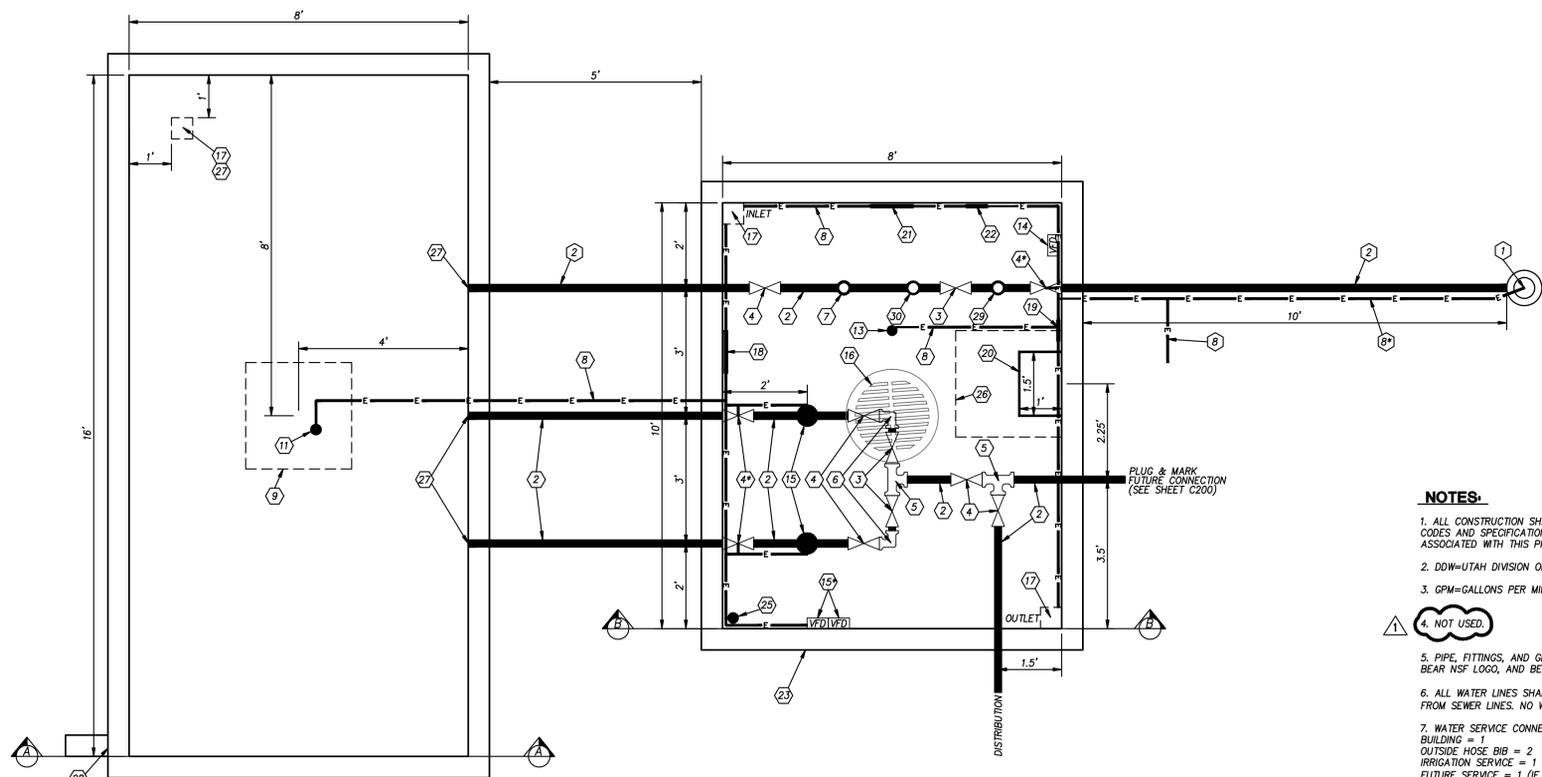
TRACK TYPICAL SECTION W/ TRAIN
TRACK TYPICAL SECTION W/O TRAIN

CONTRACTOR BIDDING NOTES
 PROJECT SCOPE ASSUMES WELL WATER IS POTABLE. IF ANY PROBLEMS WITH WATER QUALITY ARE ENCOUNTERED, TREATMENT DEVICE(S) SHALL BE INSTALLED AND ADMINISTERED AT THE REST AREA BUILDING AND WILL BE REGARDED AS AN EXTRA TO THE CONTRACT.

CLIENT
UTAH
 CONNECTING COMMUNITIES
 TIE FORK VISITORS CENTER
 17845 E HIGHWAY 6
 SPANISH FORK, UTAH 84660

DESIGNER
ARCHIPLEX
 GROUP
 architecture • planning • design services
 255 Crossroad Square
 Salt Lake City, UT 84115
 P:(801) 961-7070
 F:(801) 961-7373

CONSULTANTS
PEPG ENGINEERING, L.L.C.
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GENERAL KEYED NOTES:

- 1 WELL LOCATION (SEE DETAIL, SHEET C505)
- 2 2" PVC C900 WATER LINE
- 3 2" CHECK VALVE
- 4 2" FULL PORT BALL VALVE
* ELECTRIC ACTUATOR WITH MANUAL OVERRIDE REQ'D TO HAVE BOTH AUTOMATIC AND MANUAL CONTROLS
- 5 2" TEE
- 6 2" - 90° BEND
- 7 2" WATER METER WITH NECESSARY FITTINGS AND SWIVEL-SLIP COUPLINGS FOR EASY REMOVAL
- 8 SINGLE PHASE ELECTRICAL LINE (SERVES THE FLOAT ACTIVATED WELL PUMP, THE BOOSTER PUMPS WITH VARIABLE FREQUENCY DRIVES, AUTOMATIC SHUT-OFF VALVES, ALARMS, AIR EXHAUST FAN, LIGHT, OUTLETS, AND SPACE HEATER).
* 3-PHASE POWER (CONVERTED BY THE VFD IN THE VAULT).
- 9 30" X 30" ALUMINUM, SINGLE LEAF, WATER TIGHT (NO PENETRATIONS & OVERLAP FRAME 2"), LOCKED, VAULT ACCESS DOOR
- 10 16" X 8" X 9" WATER STORAGE TANK
CAPACITY = 7,181 GAL ABOVE WTR LINE & 6" BELOW OVERFLOW (TRAFFIC LOADING NOT REQ'D, BUT MUST BE STRUCTURALLY CERTIFIED & PRESSURE SEALED ACCORDING TO SPECS)
- 11 FLOAT TO ACTIVATE WELL PUMP VFD WHEN WATER LEVEL DROPS TO A DEPTH OF 2' ABOVE THE WATER LINES (1,676 GALLONS) AND TURN OFF THE VFD WHEN THE TANK IS WITHIN 1' FROM THE ROOF. IF WATER LEVEL DROPS 6" BELOW THE TURN-ON LEVEL, A WARNING SHALL BE ACTIVATED. FLOAT SHALL ALSO DEACTIVATE BOOSTER PUMPS IF WATER DROPS TO WITHIN 1' OF STORAGE TANK FLOOR (SEE SPECS).
- 12 FINISHED GROUND SHALL SLOPE AWAY FROM TANK/VAULT ON ALL SIDES AT A MINIMUM OF 5% FOR 10'
- 13 VAULT LIGHT
- 14 VARIABLE FREQUENCY DRIVE AND SINGLE PHASE TO 3-PHASE CONVERTER FOR THE WELL PUMP. THE FLOATS IN THE STORAGE TANK WILL CONTROL THE DRIVE.
- 15 CONSTANT PRESSURE BOOSTER PUMP WITH VARIABLE FREQUENCY DRIVES. THE PRESSURE TRANSDUCER FOR THE DRIVES SHALL BE LOCATED IN THE MECHANICAL ROOM NEXT TO THE BLADDER TANKS. TIMER SHALL SWITCH BETWEEN WHICH PUMP IS PRIMARY AND WHICH IS SECONDARY (SEE SPECS).
* LOCATION OF THE BOOSTER PUMP VFD'S.
- 16 2" GRATE AND SUMP DRAIN. SUMP SHALL HAVE 3' OF 24" DIAMETER PERFORATED PIPE WITH 1/2" MEDIAN WASHED GRAVEL 1-FOOT THICK ON THE SIDE AND 2-FEET THICK BELOW THE PIPE.
- 17 AIR VENTS: STORAGE TANK VENT SHALL BE SCREENED WITH #14 OR FINER MESH, HAVE A SCREEN PROTECTOR, & HAVE A 6" CONCRETE CURB AT ITS BASE POURED WITH THE ROOF DECK. THE VAULT INLET VENT SHALL HAVE A 6" DIAMETER PIPE FROM THE VENT OPENING ON TOP TO 1' WITHIN THE VAULT FLOOR. THE VAULT OUTLET VENT SHALL HAVE AN EXHAUST FAN TO MAINTAIN AIR CIRCULATION (SEE PLAN FOR INLET AND OUTLET DESIGNATION ON VAULT VENTS). ALL VENTS SHALL BE 6" IN DIAMETER.
- 18 ELECTRICAL CONTROL PANEL FOR THE PUMPS, CIRCUITS, AND VFD'S (SEE SPECS FOR SEQUENCE OF OPERATIONS).
- 19 SWITCH FOR LIGHT AND EXHAUST FAN
- 20 INSTALL STEPS MOUNTED INTO THE VAULT WALL TO PROVIDE MAINTENANCE ACCESS AS SHOWN ON PLAN
- 21 INSTALL SPACE HEATER TO MAINTAIN VAULT TEMPERATURE AT 40° F MINIMUM
- 22 ELECTRICAL OUTLETS FOR MISCELLANEOUS PURPOSES
- 23 10" X 8" X 8" MAINTENANCE VAULT (TRAFFIC LOADING STANDARDS NOT REQ'D)
- 24 SLOPE VAULT FLOOR TOWARD DRAINAGE GRATE
- 25 FLOAT TO AUTOMATICALLY SHUT OFF 2" FULL PORT BALL VALVES (INDICATED WITH A *), THE WELL PUMP, AND THE BOOSTER PUMPS IF WATER IN THE VAULT REACHES 6" DEEP. A WARNING SHALL ALSO BE ACTIVATED, WHICH CAN ONLY BE RESET MANUALLY (SEE SPECS).
- 26 30" X 30" ALUMINUM, SINGLE LEAF, WATER TIGHT, LOCKED, VAULT ACCESS DOOR
- 27 POURED IN PLACE SEEPAGE RING REQ'D (PIPE PENETRATIONS SHALL BE WATER-TIGHT)
- 28 6" OVERFLOW DRAIN WITH #4 SCREEN & SCREEN PROTECTOR
- 29 2" SMOOTH-NOSED SAMPLING TAP WITH NECESSARY FITTINGS AND SWIVEL-SLIP COUPLINGS FOR EASY REMOVAL
- 30 2" PRESSURE GAUGE WITH NECESSARY FITTINGS AND SWIVEL-SLIP COUPLINGS FOR EASY REMOVAL

NOTES:

1. ALL CONSTRUCTION SHALL FOLLOW DOW & UTAH ADMINISTRATIVE CODES AND SPECIFICATIONS AS WELL AS THE SPECIFICATIONS ASSOCIATED WITH THIS PROJECT.
2. DOW=UTAH DIVISION OF DRINKING WATER
3. GPM=GALLONS PER MINUTE
4. NOT USED.
5. PIPE, FITTINGS, AND GLUES SHALL MEET NSF 61 STANDARDS, BEAR NSF LOGO, AND BE PRESSURE RATED FOR 150 PSI MIN.
6. ALL WATER LINES SHALL HAVE 10' MIN. HORIZONTAL SEPARATION FROM SEWER LINES. NO WATER/SEWER CROSSING ARE DESIGNED.
7. WATER SERVICE CONNECTIONS INCLUDE:
BUILDING = 1
OUTSIDE HOSE BIB = 2
IRRIGATION SERVICE = 1
FUTURE SERVICE = 1 (IF WELL IS REPLACED WITH WATER MAIN)
8. ALL WELL, STORAGE TANK, VAULT, AND WATER LINE STRUCTURES ARE OUTSIDE THE FEMA FLOODPLAIN.
9. SEE THE ELECTRICAL PLANS FOR DETAILS REGARDING THE ELECTRICAL SYSTEM (VENTILATION FAN, HEATER, VFD'S, LIGHTS, OUTLETS, CONTROL PANEL, AND FLOATS/ALARMS).

SIZING CALCULATIONS

THESE CALCULATIONS ASSUME ZONE 1 FOR OUTDOOR WATER USE

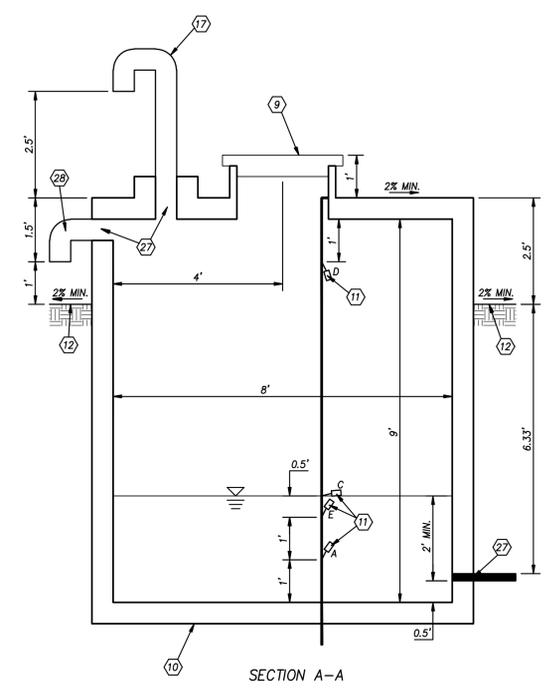
MAXIMUM DAILY DEMAND:
 CARETAKER = 800 GPD
 VISITORS = 7 GAL/VEH * 1,320 VPD = 9,240 GPD
 IRRIGATION = 2.26 GPM/AC (ZONE 1) * 1.15 AC = 2.60 PM = 3,743 GPD
 TOTAL = 13,783 GPD (9.57 GPM)

WATER RIGHTS REQUIRED:
 CARETAKER = 400 GPD * 365 DAYS = 146,000 GAL = 0.45 AC-FT
 VISITORS = 3.5 GAL/VEH * 1,320 VPD * 365 DAYS = 1,686,300 GAL = 5.17 AC-FT
 IRRIGATION = 1.17 AC-FT/AC * 1.15 AC = 1.35 AC-FT
 TOTAL = 8.97 AC-FT
 (34 AC-FT ARE AVAILABLE AND APPROVED)

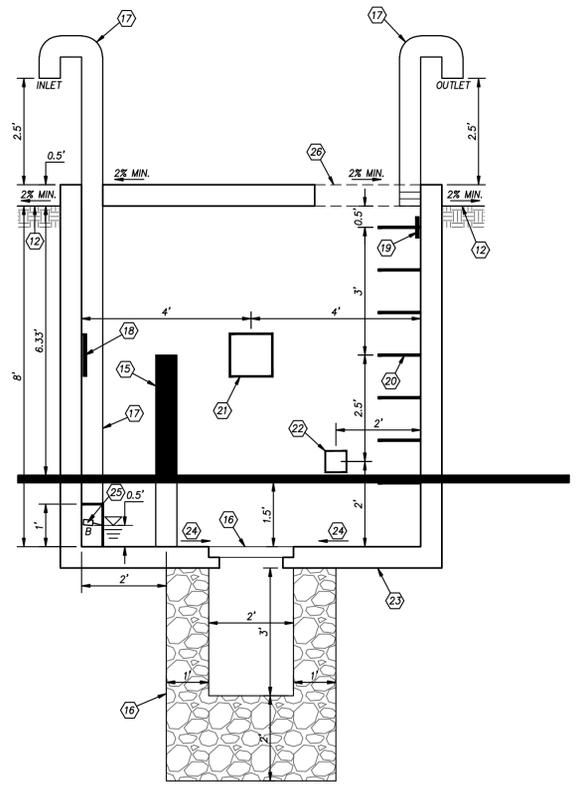
WATER STORAGE REQUIRED:
 CARETAKER = 400 GAL
 VISITORS = 3.5 GAL/VEH * 1,320 VEH = 4,620 GAL
 IRRIGATION = 1,782 GAL/AC (ZONE 1) * 1.15 AC = 2,049 GAL
 TOTAL = 7,069 GAL

PEAK INSTANTANEOUS DEMAND:
 CARETAKER = 10 GPM
 VISITORS (INDOOR USE) = 136 WATER SUPPLY FIXTURE UNITS = 76 GPM
 IRRIGATION = 4.52 GPM/AC (ZONE 1) * 1.15 AC = 5.20 GPM
 TOTAL = 91.2 GPM

NOTE THAT THERE IS NO FIRE SUPPRESSION ON SITE



SECTION A-A



SECTION B-B

PROFESSIONAL SEAL



ISSUE

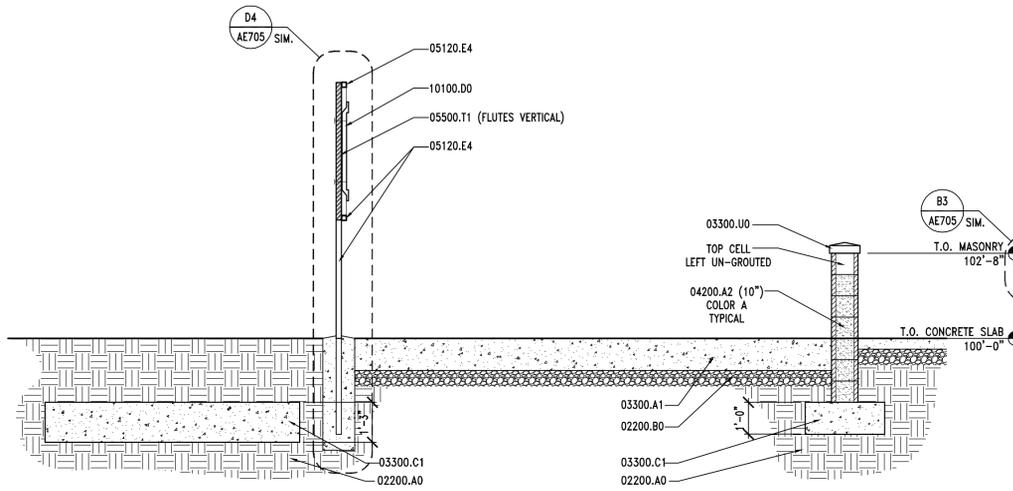
DATE	DESCRIPTION
9-23-09	ADDENDUM #1
8-09	CONSTRUCTION DOCUMENTS
6-22-09	PS & E REVIEW
3-09	95% REVIEW SUBMITTAL
1-5-09	50% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
DFCM PROJECT NO:		08264900
DFCM CONTRACT NO:		097130
ARCHIPLEX PROJECT NO:		0832.01
PEPG PROJECT NO:		6600.0817
DRAWN BY:		RLK
CHECKED BY:		DRS
SCALE:		NOT TO SCALE
DATE:		SEPTEMBER, 2009

SHEET TITLE

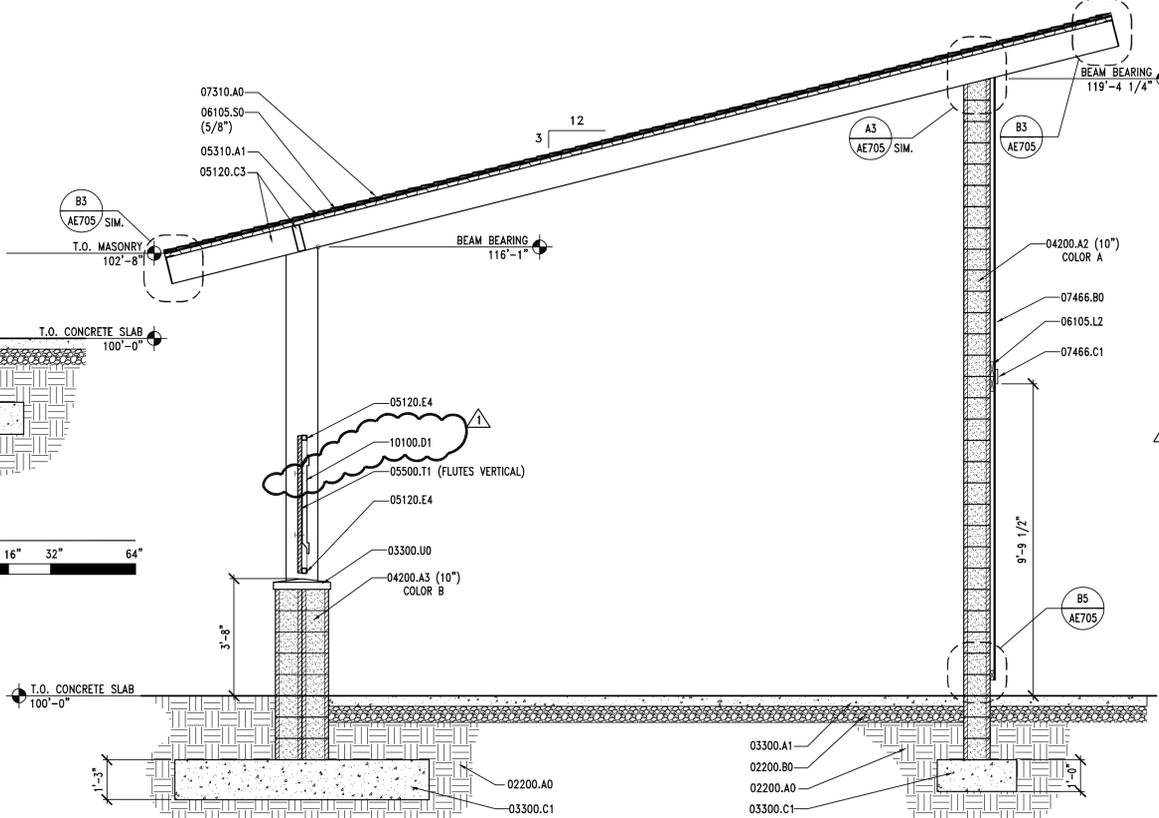
TYPICAL SECTIONS & DETAILS

C504



D1 | ROUND HOUSE BUILDING SECTION – BASE BID ONLY

AE704 REF. AE701 SCALE: 3/8" = 1'-0" 32' 24" 16" 8" 0' 16" 32" 64"



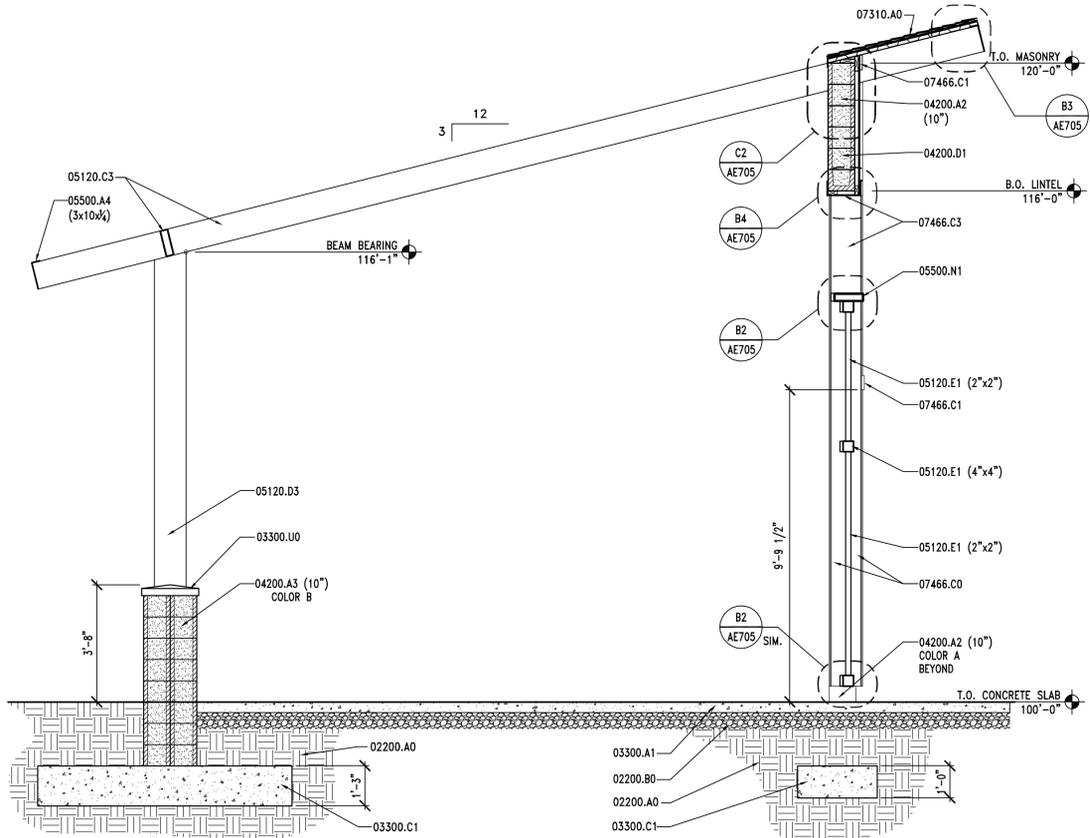
C3 | ROUND HOUSE BUILDING SECTION – BASE BID (C3a) & ADD ALTERNATE 1 (C3b)

AE704 REF. AE701, AE701A SCALE: 3/8" = 1'-0" 32' 24" 16" 8" 0' 16" 32" 64"

KEYNOTES	
02200.A0	COMPACTED FILL
02200.B0	GRAVEL BASE
03300.A1	CONCRETE SLAB ON GRADE – SEE STRUCTURAL
03300.C1	FOOTING – SEE STRUCTURAL
03300.U0	4" PRE-CAST COLORED CONCRETE CAP – SIZE BASED ON WALL THICKNESS
04200.A2	CMU (SIZE)
04200.A3	SPLIT-FACE (SIZE)
04200.D1	CMU LINTEL – SEE STRUCTURAL
05120.C3	TUBE STEEL BEAM – SEE STRUCTURAL – GALVANIZED & PAINTED
05120.D3	TUBE STEEL COLUMN – SEE STRUCTURAL & GALVANIZED & PAINTED
05120.E0	TUBE STEEL (SIZE)
05120.E1	TUBE STEEL (SIZE) – GALVANIZED AND PAINTED
05120.E2	TUBE STEEL FRAME (SIZE) – GALVANIZED AND PAINTED
05120.E4	TUBE STEEL 2x2 – GALVANIZED & PAINTED – CONTINUOUS WELD AT ALL CONTACT POINTS
05310.A1	METAL DECK – SEE STRUCTURAL
05500.N1	CUSTOM METAL GATE – PRIMED AND PAINTED
05500.T1	1/2" STEEL DECK – GALVANIZED – 20 GA. MINIMUM
06105.L2	2x BLOCKING
06105.P1	PRESSURE TREATED WOOD (SIZE)
06105.S0	SHEATHING – OSB (THICKNESS)
07310.A0	ASPHALT ROOF SHINGLE W/ICE AND WATER SHIELD
07466.B0	FIBER CEMENT CEDAR 8" GROOVE VERTICAL SIDING
07466.C0	7/16" FIBER CEMENT TRIM (3 1/2" WIDE) W/MITERED CORNERS
07466.C1	7/16" FIBER CEMENT TRIM (5 1/2" WIDE)
07466.C3	7/16" FIBER CEMENT TRIM (1 1/4" WIDE)
10100.D0	EXISTING DISPLAY BOARDS, REMOUNTED, BACK SURFACES PRIMED & PAINTED – SEE D3/AE702A
10100.D1	NEW DISPLAY BOARDS MOUNTED – SEE D4/AE705

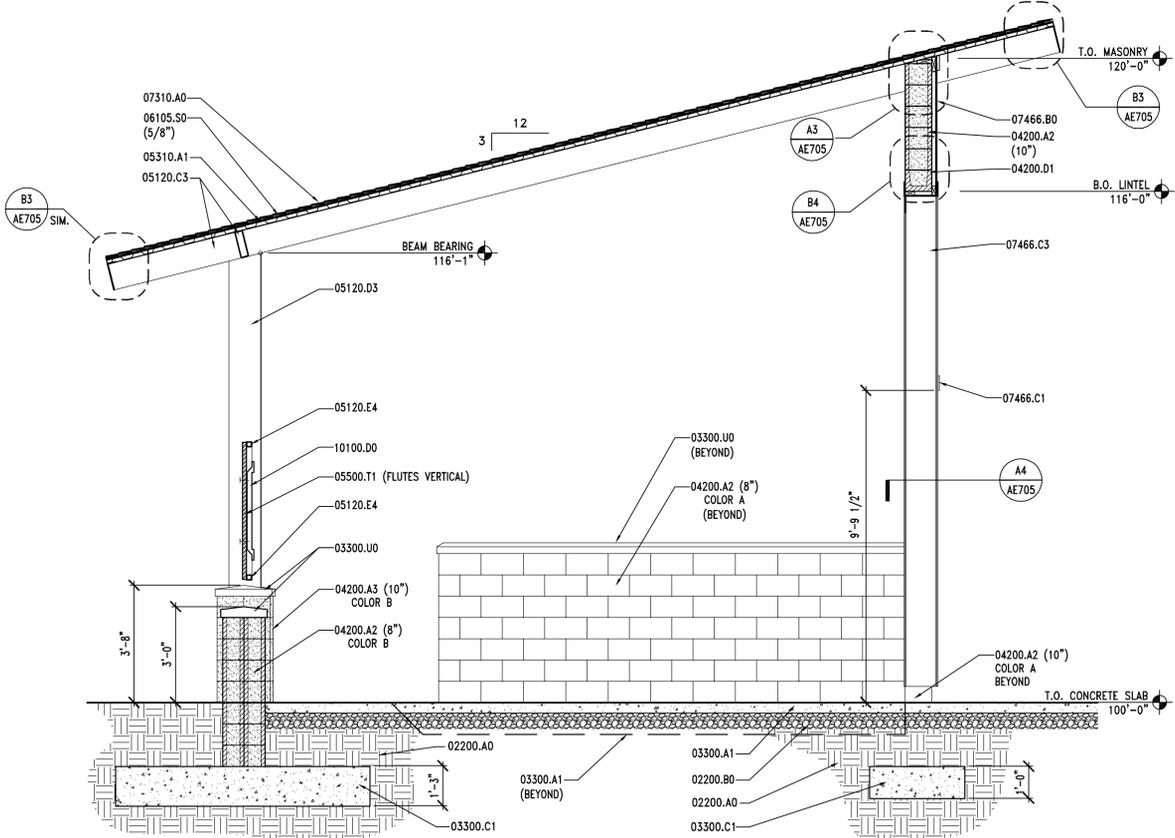
GENERAL NOTES

1. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
2. DO NOT SCALE DRAWINGS.
3. SEE CIVIL, STRUCTURAL, AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
4. ALL DIMENSIONS ARE TO FACE OF WALL, UNLESS NOTED OTHERWISE.
5. SEE SPECIFICATIONS FOR ALL EXTERIOR MATERIAL FINISHES AND COLORS.
6. PROVIDE ANTI-GRAFFITI COATING PER SPECIFICATION SECTION 09860 ON ALL EXPOSED CMU.
7. ALL CMU GROUT JOINTS TOOLED, SQUARE, 1/2" DEPTH FROM FACE OF BLOCK.
8. SEE SHEET AE503 FOR QUANTITY AND TYPES OF PICNIC TABLES, TRASH RECEPTACLES, AND BENCHES.



A1 | ROUND HOUSE BUILDING SECTION – ADD ALTERNATE 1 ONLY

AE704 REF. AE701A SCALE: 3/8" = 1'-0" 32' 24" 16" 8" 0' 16" 32" 64"



A3 | ROUND HOUSE BUILDING SECTION – ADD ALTERNATE 1 ONLY

AE704 REF. AE701A SCALE: 3/8" = 1'-0" 32' 24" 16" 8" 0' 16" 32" 64"

CLIENT

TIE FORK VISITORS CENTER
17845 E HIGHWAY 6
SPANISH FORK, UTAH 84660

DESIGNER

architecture • planning • design services
255 Crossroad Square
Salt Lake City, UT 84115
P:(801) 961-7070
F:(801) 961-7373

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	3-09	95% REVIEW SUBMITTAL
	1-5-09	50% REVIEW SUBMITTAL

MARK DATE DESCRIPTION

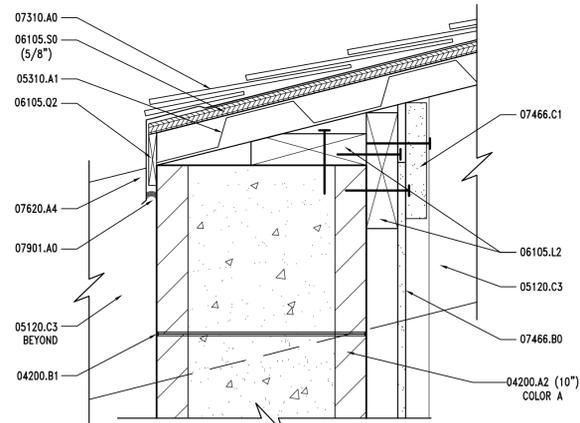
DFCM PROJECT NO: 08264900
DFCM CONTRACT NO: 097130
ARCHIPLEX PROJECT NO: 0832.01
DRAWN BY: B. BEECHER
CHECKED BY: R. STANISLAW
SCALE: 3/8" = 1'-0"
DATE: AUGUST, 2009

SHEET TITLE

ROUND HOUSE BUILDING SECTIONS

AE704

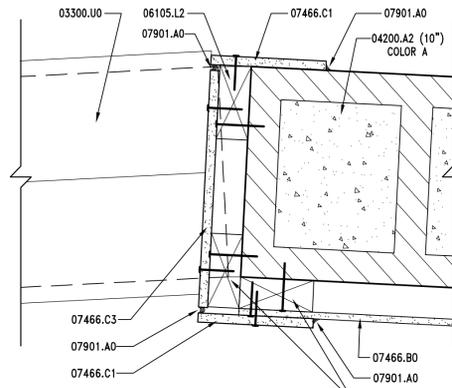
ADD-ALTERNATE 1 (ONLY) DETAILS



C2 | ROOF END DETAIL - TYP.

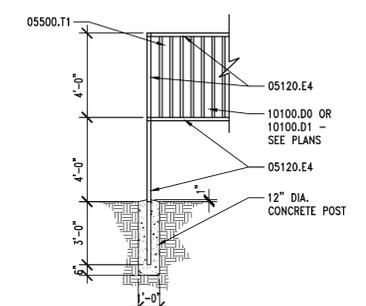
AE705 REF. AE704, AE705 SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"

BASE BID (ONLY) DETAILS



D3 | CMU WALL DETAIL

AE705 REF. AE701 SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"



D4 | SIGNAGE POST DETAIL

AE705 REF. AE701, AE702, AE703, AE704 SCALE: 1/4" = 1'-0"

KEYNOTES

- 03300.U0 4" PRE-CAST COLORED CONCRETE CAP - SIZE BASED ON WALL THICKNESS
- 04200.A2 CMU (SIZE)
- 04200.B1 GROUT JOINT TOOLED
- 04200.D1 CMU LINTEL - SEE STRUCTURAL
- 05120.C3 TUBE STEEL BEAM - SEE STRUCTURAL - GALVANIZED & PAINTED
- 05120.D3 TUBE STEEL COLUMN - SEE STRUCTURAL - GALVANIZED & PAINTED
- 05120.E0 TUBE STEEL (SIZE)
- 05120.E1 TUBE STEEL (SIZE) - GALVANIZED AND PAINTED
- 05120.E2 TUBE STEEL FRAME (SIZE) - GALVANIZED AND PAINTED
- 05120.E4 TUBE STEEL 2x2 - GALVANIZED & PAINTED - CONTINUOUS WELD AT ALL CONTACT POINTS
- 05310.A1 METAL DECK - SEE STRUCTURAL
- 05500.A4 CONTINUOUS STEEL ANGLE - (SIZE) GALVANIZED & PAINTED
- 05500.T1 1 1/2" STEEL DECK - GALVANIZED - 20 GA. MINIMUM
- 06105.L2 2x BLOCKING
- 06105.P1 PRESSURE TREATED WOOD (SIZE)
- 06105.Q2 SHIM AS REQUIRED
- 06105.S0 SHEATHING - OSB (THICKNESS)
- 07310.A0 ASPHALT ROOF SHINGLE W/ ICE AND WATER SHIELD
- 07466.B0 FIBER CEMENT CEDAR 8" GROOVE VERTICAL SIDING
- 07466.C0 7/16" FIBER CEMENT TRIM (3/2" WIDE) COLOR BY ARCHITECT W/MITERED CORNERS
- 07466.C1 7/16" FIBER CEMENT TRIM (5/2" WIDE)
- 07466.C3 7/16" FIBER CEMENT TRIM (1 1/4" WIDE)
- 07620.A4 METAL FLASHING - PRE FINISHED
- 07901.A0 CONTINUOUS SEALANT
- 10100.D0 EXISTING DISPLAY BOARDS REMOUNTED, BACK SURFACE PRIMED & PAINTED - SEE D3/AE702A
- 10100.D1 NEW DISPLAY BOARDS MOUNTED - SEE D4/AE705

GENERAL NOTES

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5. SEE SPECIFICATIONS FOR ALL EXTERIOR MATERIAL FINISHES AND COLORS.
6. PROVIDE ANTI-GRAFFITI COATING PER SPECIFICATION SECTION 09860 ON ALL EXPOSED CMU.
7. ALL CMU GROUT JOINTS TOOLED, SQUARE, 1/2" DEPTH FROM FACE OF BLOCK.
8. SEE SHEET AE503 FOR QUANTITY AND TYPES OF PICNIC TABLES, TRASH RECEPTACLES, AND BENCHES.

CLIENT

TIE FORK VISITORS CENTER
17845 E HIGHWAY 6
SPANISH FORK, UTAH 84660

DESIGNER

architecture • planning • design services
255 Crossroad Square
Salt Lake City, UT 84115
P:(801) 961-7070
F:(801) 961-7373

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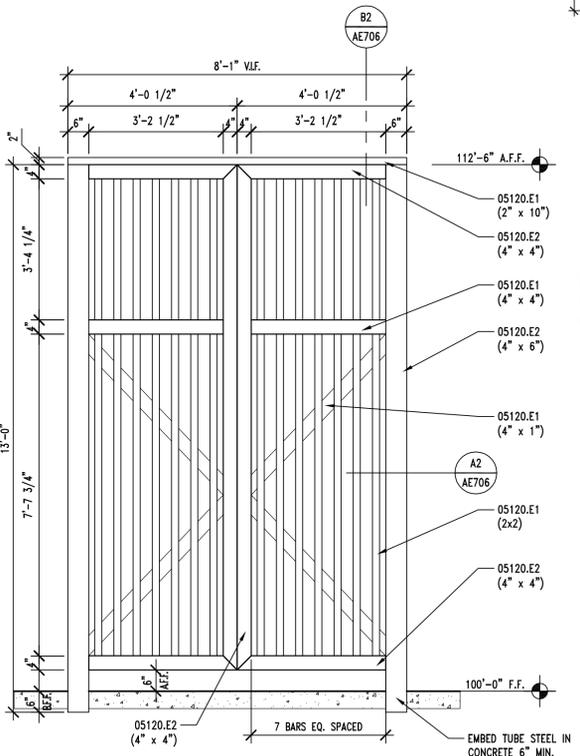
MARK DATE DESCRIPTION

DFCM PROJECT NO:	08264900
DFCM CONTRACT NO:	097130
ARCHIPLEX PROJECT NO:	0832.01
DRAWN BY:	B. BEECHER
CHECKED BY:	R. STANISLAW
SCALE:	AS SHOWN
DATE:	AUGUST, 2009

SHEET TITLE

ROUND HOUSE DETAILS

AE705

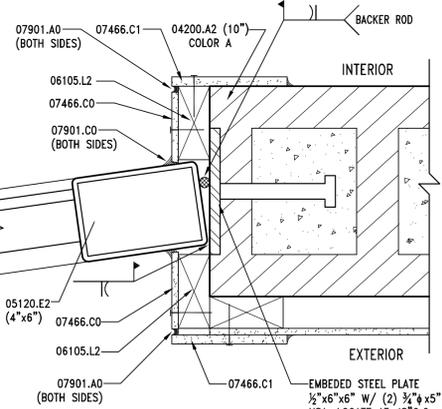


A1 | ROUND HOUSE METAL GATE DETAIL

AE705 REF. AE701, AE702 SCALE: 1/2" = 1'-0"
2' 16" 1' 6" 0' 1' 2' 4"

B2 | GATE HEADER DTL.

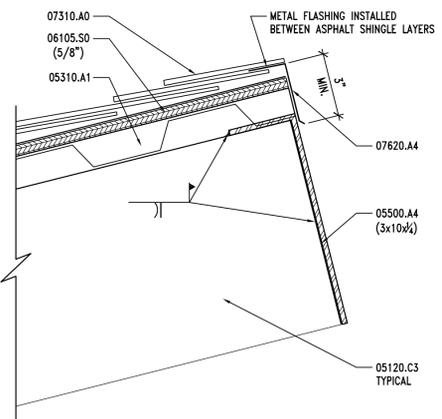
AE705 REF. AE704, AE706 SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"



A2 | GATE JAMB DTL.

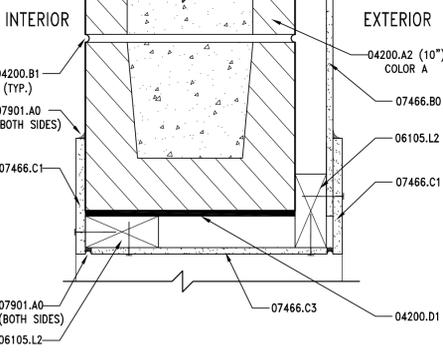
AE705 REF. AE704, AE706 SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"

BASE BID & ADD-ALTERNATE 1 DETAILS



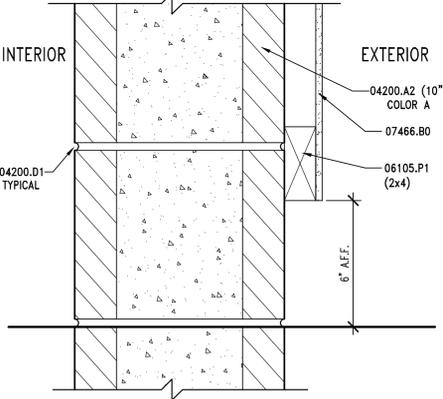
B3 | ROOF END DETAIL - TYP.

AE705 REF. AE704, AE705 SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"



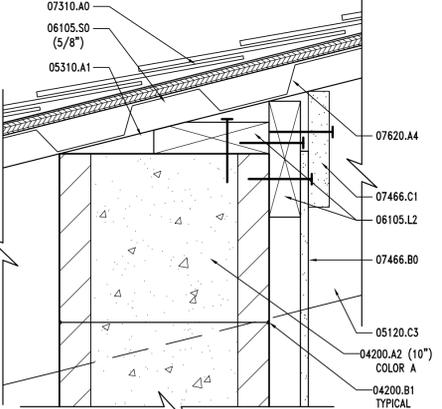
B4 | OPENING HEAD DTL.

AE705 REF. AE704, AE705 SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"



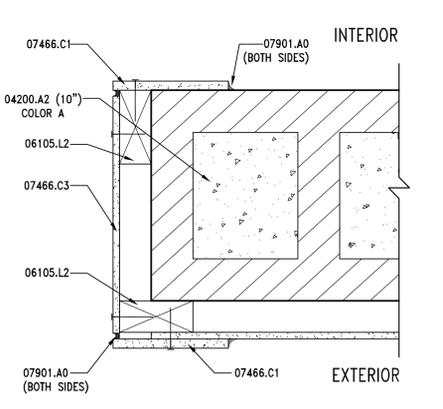
B5 | CEMENT BOARD DETAIL

AE705 REF. AE704 SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"



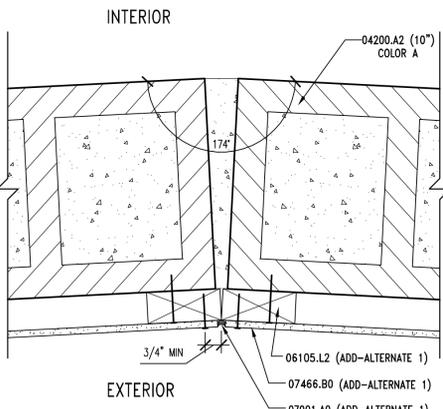
A3 | WALL & ROOF JOINT DTL.

AE705 REF. AE704, AE705 SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"



A4 | OPENING JAMB DTL.

AE705 REF. AE701, AE701A, AE704, AE705 SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"



A5 | CMU WALL DETAIL

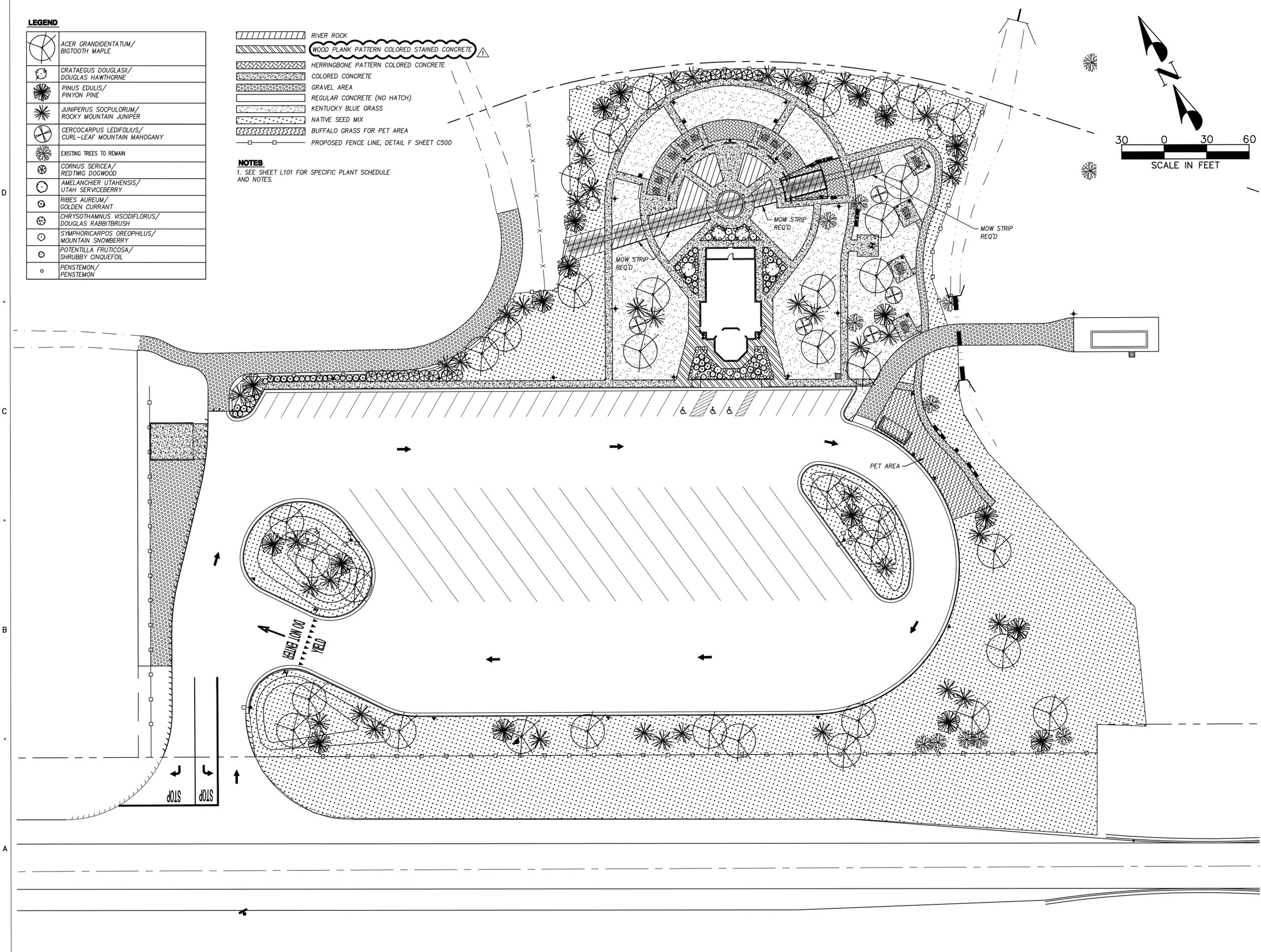
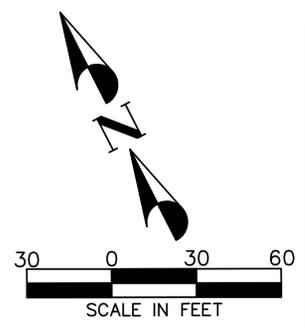
AE705 REF. AE701, AE701A SCALE: 3" = 1'-0"
4" 3" 2" 1" 0" 2" 4" 8"

LEGEND

	ACER GRANDIDENTATUM/ BIGTOOTH MAPLE
	CRATAEGUS DOUGLASII/ DOUGLAS HAWTHORNE
	PINUS EDULIS/ PINYON PINE
	JUNIPERUS SCOPIULORUM/ ROCKY MOUNTAIN JUNIPER
	CERCOCARPUS LEDIFOLIUS/ CURL-LEAF MOUNTAIN MAHOGANY
	EXISTING TREES TO REMAIN
	CORNUS SERICEA/ REDTWIG DOGWOOD
	AMELANCHIER UTAHENSIS/ UTAH SERVICEBERRY
	RIBES AUREUM/ GOLDEN CURRANT
	CHRYSOTHAMNUS VISCIDIFLORUS/ DOUGLAS RABBITBRUSH
	SYMPHORICARPOS OREOPHILUS/ MOUNTAIN SNOWBERRY
	POTENTILLA FRUTICOSA/ SHRUBBY CINQUEFOIL
	PENSTEMON/ PENSTEMON

	RIVER ROCK
	WOOD PLANK PATTERN COLORED STAINED CONCRETE
	HERRINGBONE PATTERN COLORED CONCRETE
	COLORED CONCRETE
	GRAVEL AREA
	REGULAR CONCRETE (NO HATCH)
	KENTUCKY BLUE GRASS
	NATIVE SEED MIX
	BUFFALO GRASS FOR PET AREA
	PROPOSED FENCE LINE, DETAIL F SHEET C500

NOTES
1. SEE SHEET L101 FOR SPECIFIC PLANT SCHEDULE AND NOTES.



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TIE FORK VISITORS CENTER
17845 E HIGHWAY 6
SPANISH FORK, UTAH 84660

DESIGNER



architecture · planning · design services
255 Crossroad Square
Salt Lake City, UT 84115
P:(801) 961-7070
F:(801) 961-7373

CONSULTANTS



8805 S. SANDY PARKWAY • SANDY, UT 84070
PHONE: (801) 562-2521 • FAX: (801) 562-2551

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DFCM PROJECT NO:	08264900	
DFCM CONTRACT NO:	097130	
ARCHIPLEX PROJECT NO:	0832.01	
PEPG PROJECT NO:	6600.0817	
DRAWN BY:	EAB	
CHECKED BY:	JCS	
SCALE:	1"=30'	
DATE:	SEPTEMBER, 2009	

SHEET TITLE

LANDSCAPE PLAN

L100

GENERAL CONSTRUCTION NOTES:

- CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, AND/OR FEDERAL LAWS PERTAINING TO THE PROJECT'S WORK.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL CONSTRUCTION ELEMENTS WITH OTHER TRADES PRIOR TO INSTALLATION AND BECOME FAMILIAR WITH THE LOCATION OF UNDERGROUND SERVICES AND IMPROVEMENTS.
- THE CONTRACTOR SHALL EXAMINE THE SITE AND FULLY DETERMINE THE CONDITIONS UNDER THIS CONTRACT. NO ALLOWANCE WILL BE MADE FOR FAILURE OF BIDDERS TO ASCERTAIN ALL ASPECTS OF THE PROJECT.
- PRIOR TO DIGGING, EXCAVATION, OR UNDERGROUND WORK, CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UTILITIES AND SUBSURFACE SYSTEMS. CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR REPAIR AND EXPENSES INCURRED TO UTILITIES THAT BECOME DAMAGED AS A RESULT OF HIS WORK.
- CONTRACTOR SHALL INSPECT WITH OWNER'S REPRESENTATIVE ALL PAVEMENT, SIDEWALK AND CURB DEFECTS PRIOR TO BEGINNING WORK. ALL HARDSCAPE SHALL BE RE-INSPECTED DURING FINAL INSPECTION. ANY DAMAGED AREAS SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE QUANTITIES AND MATERIALS REQUIRED TO COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS. CONTRACTOR SHALL PROVIDE OWNER/LANDSCAPE ARCHITECT ACTUAL AMOUNTS REQUIRED FOR FINISHED INSTALLATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING GRADES AS ESTABLISHED BY THE PROJECT ENGINEER. RUNOFF AND DRAINAGE FLOWS SHALL NOT BE ALTERED OR IMPEDED.
- THE CONTRACTOR SHALL FURNISH ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, EMPLOYEE AND SUBCONTRACTOR SUPERVISION FOR IT'S PORTION OF THE PROJECT TO IMPLEMENT PLANS AND SPECIFICATIONS.
- THE CONTRACTOR ASSUMES ALL RISKS IN THE PERFORMANCE OF THE WORK AND RESPONSIBILITY FOR LOSS AND EXPENSE RESULTING FROM ON-SITE INJURY.
- THE CONTRACTOR IS RESPONSIBLE FOR SUPERVISION, SAFETY, ADMINISTRATION, SCHEDULING, COORDINATION AND MANAGEMENT OF SUBCONTRACTORS.
- THE CONTRACTOR SHALL PROTECT ALL PERSONS NEAR OR ON THE PREMISES FROM UNREASONABLE RISK OF INJURY. PROVIDE WARNING SIGNS, LIGHTS, BARRICADES, RAILINGS, FLAGMEN OR OTHER NECESSARY SAFEGUARD.
- OWNER / LANDSCAPE ARCHITECT INSPECTIONS SHALL NOT BE DEEMED SUPERVISION OF CONTROL OF CONSTRUCTION BY CONTRACTOR OR SUBCONTRACTORS.
- OWNER / LANDSCAPE ARCHITECT SHALL REVIEW SHOP DRAWINGS, PRODUCT DATA AND SAMPLES SUBMITTED BY THE CONTRACTOR FOR THE SOLE PURPOSE OF COMPLIANCE WITH THE DESIGN CONCEPT AND WITH INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. OWNER AND LANDSCAPE ARCHITECT ASSUMES NO LIABILITY FOR CHANGES THAT HAVE NOT BEEN REVIEWED AND AUTHORIZED IN WRITING.
- WHERE TWO OR MORE REQUIREMENTS CREATE OVERLAPPING CONDITIONS, CONFLICTING MINIMUMS OR LEVELS OF QUALITY, ALL OR THE MORE STRINGENT REQUIREMENTS OR THE HIGHER QUALITY LEVEL IS INTENDED, AND SHALL BE ENFORCED. CONFLICTING REQUIREMENTS SHALL BE REFERRED TO THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE WHOSE INTERPRETATION WILL BE FINAL.
- WALKS AND PLANTERS SHOWN ON LANDSCAPE PLANS ARE FOR LAYOUT REFERENCE ONLY. REFER TO CIVIL PLANS FOR HORIZONTAL AND VERTICAL CONTROL.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE MOST CURRENT PLANS & SPECIFICATIONS ARE USED & CONVEYED TO ALL SUB-CONTRACTORS AS APPLICABLE.

GENERAL NOTES:

- CONTRACTOR IS RESPONSIBLE TO VERIFY ALL PLANT & MATERIAL QUANTITIES. THE SCHEDULE IS INTENDED AS A REFERENCE ONLY. SEE ENLARGED PLANTING PLANS FOR SHRUB AND PLANT LOCATIONS. QUANTITIES IN SCHEDULE ARE ESTIMATES ONLY.
- LANDSCAPE CONTRACTOR NEEDS TO APPROVE ANY AND ALL CHANGES TO BE MADE TO LANDSCAPE PLAN PRIOR TO CHANGES BEING MADE.
- PROVIDE MATCHING SIZES AND FORMS OF LIKE SHRUB SPECIES AS SHOWN ON DRAWINGS.
- APPLY A MINIMUM 4" OF TOPSOIL IN ALL TURF AREAS AND A MINIMUM 12" IN SHRUB AND TREE PLANTING AREAS. A SOIL TEST SHALL BE DONE TO VERIFY QUALITY. CONTRACTOR TO AMEND TOP SOIL AS NECESSARY FROM SOIL REPORT TO COMPLY WITH ACCEPTABLE SOIL STANDARDS AND SPECIFICATIONS, AND SHALL ALSO INCLUDE A MICROBIAL AMENDMENT.
- THE LANDSCAPE & IRRIGATION CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THEY OBTAIN ANY & ALL DRAWINGS, SPECIFICATIONS, CHANGE ORDERS & AS-BUILDS APPLICABLE TO CONTRACTORS SCOPE OF WORK PRIOR TO & DURING CONSTRUCTION ON SITE. CONFLICTING OR VAGUE INFORMATION SHALL BE NOTED AND SUBMITTED TO OWNER AND LANDSCAPE ARCHITECT FOR CLARIFICATION.
- CONTRACTOR IS RESPONSIBLE TO REPLACE ALL DAMAGED NEW & EXISTING LANDSCAPE, INCLUDING BUT NOT LIMITED TO ALL PLANTS, TOPSOIL, WEED BARRIER, CURBING, WALKS, ETC.
- CONTRACTOR SHALL TIE ALL PROPOSED LANDSCAPE MATERIALS WITH EXISTING INCLUDING BUT NOT LIMITED TO ALL PLANTS, TOPSOIL, WEED BARRIER, CURBING, WALKS, ETC.
- APPLY AT LEAST 4" OF WOOD FIBER MULCH UNDER ALL SHRUBS IN PLANTING AREAS SURROUNDING THE BUILDING AND ALONG NORTHWEST SIDE OF PARKING LOT. TO BE INSTALLED UNDER TREES PLANTED IN TURF AREAS INSIDE A MOWSTRIP. SEE NOTE 15. ALL NATIVE DISTURBED AREAS SHOULD BE COVERED WITH WOOD FIBER MULCH TO HOLD IN MOISTURE.
- CONTRACTOR SHALL CAREFULLY STUDY AND INSPECT CIVIL AND ARCHITECTURAL PLANS AS-BUILTS DRAWING AND VISUALLY INSPECT. MAKE ON-SITE ADJUSTMENTS TO LANDSCAPE BASED OF FINAL DIMENSIONS AND LAYOUTS OF SITE AND BUILDINGS. PROVIDE A UNIT PRICE CREDIT FOR ANY PLANTS, AREA, OR PORTIONS OF THE LANDSCAPE OMITTED.
- ANY PORTIONS OF THE LANDSCAPE NOT SHOWN OR CLEARLY IDENTIFIED BY THE LANDSCAPE CONSTRUCTION DOCUMENTS SHALL BE IDENTIFIED, AND A REQUEST FOR INFORMATION AND OR CHANGE ORDER SHALL BE SUBMITTED TO OWNERS REPRESENTATIVE TO ADDRESS.

LEGEND

*ALL QUANTITIES SHOWN ON SCHEDULE ARE ESTIMATES ONLY

SYMBOL <i>etc.</i>	BOTANICAL NAME COMMON NAME	QTY.	SIZE	NOTES/REQUIREMENTS
	Landscape Contractor shall be required to obtain the exact plant material shown by Botanical Name and reference, any substitutions or variations shall be approved by Landscape Architect prior to installation.			
	Landscape contractor shall verify on plans all plant quantities.			
	Report to Owner and or Landscape Architect any problems obtaining specified plant size.			
	All plants to be planted as shown on plan. Any discrepancies between actual conditions & plans shall be reported to Owner &/or Landscape Architect.			
	TREES ACER GRANDIDENTATUM/ BIGTOOTH MAPLE	37	# 5	All trees must be uniformly sized see notes/specifications
	CRATAEGUS DOUGLASII/ DOUGLAS HAWTHORNE	5	# 15	All trees must be uniformly sized see notes/specifications
	JUNIPERUS SCOPULORUM/ ROCKY MOUNTAIN JUNIPER	40	# 5	All trees must be uniformly sized see notes/specifications
	PINUS EDULIS/ PINYON PINE	20	5'	All trees must be uniformly sized see notes/specifications
	CERCOCARPUS LEDIFOLIUS/ CURL-LEAF MOUNTAIN MAHOGANY	5	5'	All trees must be uniformly sized see notes/specifications
	EXISTING TREES EXISTING TREES TO REMAIN	12		
	EXISTING TREES TO BE REMOVED	10		
	SHRUBS CORNUS SERICEA/ REDSIOSIER DOGWOOD	16	# 5	uniformly sized see notes/specifications
	POTENTILLA FRUTICOSA 'DAKOTA SUNSPOT'/ DAKOTA SUNSPOT CINQUEFOIL	34	# 5	uniformly sized see notes/specifications
	RIBES ALPINUM 'GREEN MOUND'/ GREEN MOUND CURRANT	23	# 5	uniformly sized see notes/specifications
	SYMPHORICARPOS OREOPHILUS/ MOUNTAIN SNOWBERRY	10	# 5	uniformly sized see notes/specifications
	AMELANCHIER UTAHENSIS/ UTAH SERVICEBERRY			
	CHRYSOTHAMNUS VISCIDIFLORUS/ DOUGLAS RABBITBRUSH			
	PERENNIALS PENSTEMON/ PENSTEMON	103	FLAT	uniformly sized see note 13 for varieties
	LANDSCAPE EDGING 4"x6" EXTRUDED MOW CURBING OVERALL SITE TYPICAL	± 210 linear ft	Control Joint Req'd Every 3' TYP.	SEE DETAIL tangent curbs, uniform radius req'd
	TURF / MULCH / EROSION CONTROL CLIMATE TOLERANT SOD Poa pratensis / Kentucky Bluegrass	± 22,011 SQ FT	Climate Tolerant Sod 2" Min. Cut	4" amended topsoil with Nutri-mulch & UteLite as needed. Top dress planter with premium fine organic mulch 4" depth
	PET AREA SOD Buchloe dactyloides / Buffalo Grass	± 2,300 SQ FT	Climate Tolerant Sod	SEE GENERAL NOTE #15
	RIVER ROCK MULCH	± 3,882 SQ FT	Approximately 2" in diameter or smaller	SEE LANDSCAPE PLAN
	NATIVE SEED AND FORBS MIX: Poa pratensis / Kentucky Blue @ 5 lbs. per acre Agropyron cristatum 'Roadcrest' / Roadcrest Wheatgrass @ 4 lbs. per acre Buchloe dactyloides / Buffalo Grass @ 5 lb. per acre Pascopyrum smithii / Western Wheatgrass @ 3 lb. per acre Granite Seed Low Growing Wildflower Seed Mix @ 7 lb. per acre *see note 12.	± 2 ACRE		SEE GENERAL NOTE #12

11. APPLY AT LEAST 4" OF ROCK MULCH IN SUGGESTED AREAS. A WEED BARRIER FABRIC SHOULD BE INSTALLED PRIOR TO THE INSTALLATION OF THE ROCK MULCH.

12. NATIVE SEED MIX AREAS TO INCLUDE GRANITE SEED LOW GROWING WILDFLOWER SEED MIX TO PROVIDE MORE NATIVE VARIETY IN VEGETATION. SEED MIX INCLUDES ANNUALS: SCARLET FLAX, GLIA SPECIES, CALIFORNIA POPPY, DRUMMOND PHLOX, BABY'S BREATH, WALLFLOWER, TIDY TIPS, WEATHERGLASS, WHITE ALYSSUM, SHIRLEY POPPY, BABY BLUE EYES. SEED MIX INCLUDES PERENNIALS: MOUNTAIN LUPINE, UTAH SWEETVETCH, LEWIS BLUE FLAX, ASTER SPECIES, PENSTEMON SPECIES, SCARLET GLOBEMALLOW, SULFUR BUCKWHEAT, PRIMROSE SPECIES, AND ROCKY MOUNTAIN IRIS.

13. PENSTEMON VARIETY TO INCLUDE PENSTEMON EATONII/ FIRECRACKER PENSTEMON, PENSTEMON CYANANTHUS/ WASATCH PENSTEMON, PENSTEMON HUMILIS/ LOW PENSTEMON, AND PENSTEMON PALMERI/ PALMER PENSTEMON.

14. EXISTING TREES TO REMAIN SHALL BE SAFELY PRUNED BY A PROFESSIONAL ARBORIST AND EXISTING TREES TO BE REMOVED SHALL BE REMOVED BY UDOT.

CLIENT



DESIGNER



CONSULTANTS



PROFESSIONAL SEAL



ISSUE

9-23-09	ADDENDUM #1
8-09	CONSTRUCTION DOCUMENTS
6-22-09	PS & E REVIEW
3-09	95% REVIEW SUBMITTAL
1-5-09	50% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
		DFCM PROJECT NO: 08264900
		DFCM CONTRACT NO: 097130
		ARCHIPLEX PROJECT NO: 0832.01
		PEPG PROJECT NO: 6600.0817
		DRAWN BY: EAB
		CHECKED BY: JCS
		SCALE: NOT TO SCALE
		DATE: SEPTEMBER, 2009

SHEET TITLE

LANDSCAPE NOTES & SCHEDULE

L101

CLIENT



TIE FORK VISITORS CENTER
17845 E HIGHWAY 6
SPANISH FORK, UTAH 84660

DESIGNER



architecture · planning · design services
255 Crossroad Square
Salt Lake City, UT 84115
P: (801) 961-7070
F: (801) 961-7373

CONSULTANTS



8805 S. SANDY PARKWAY • SANDY, UT 84070
PHONE: (801) 562-2521 • FAX: (801) 562-2551

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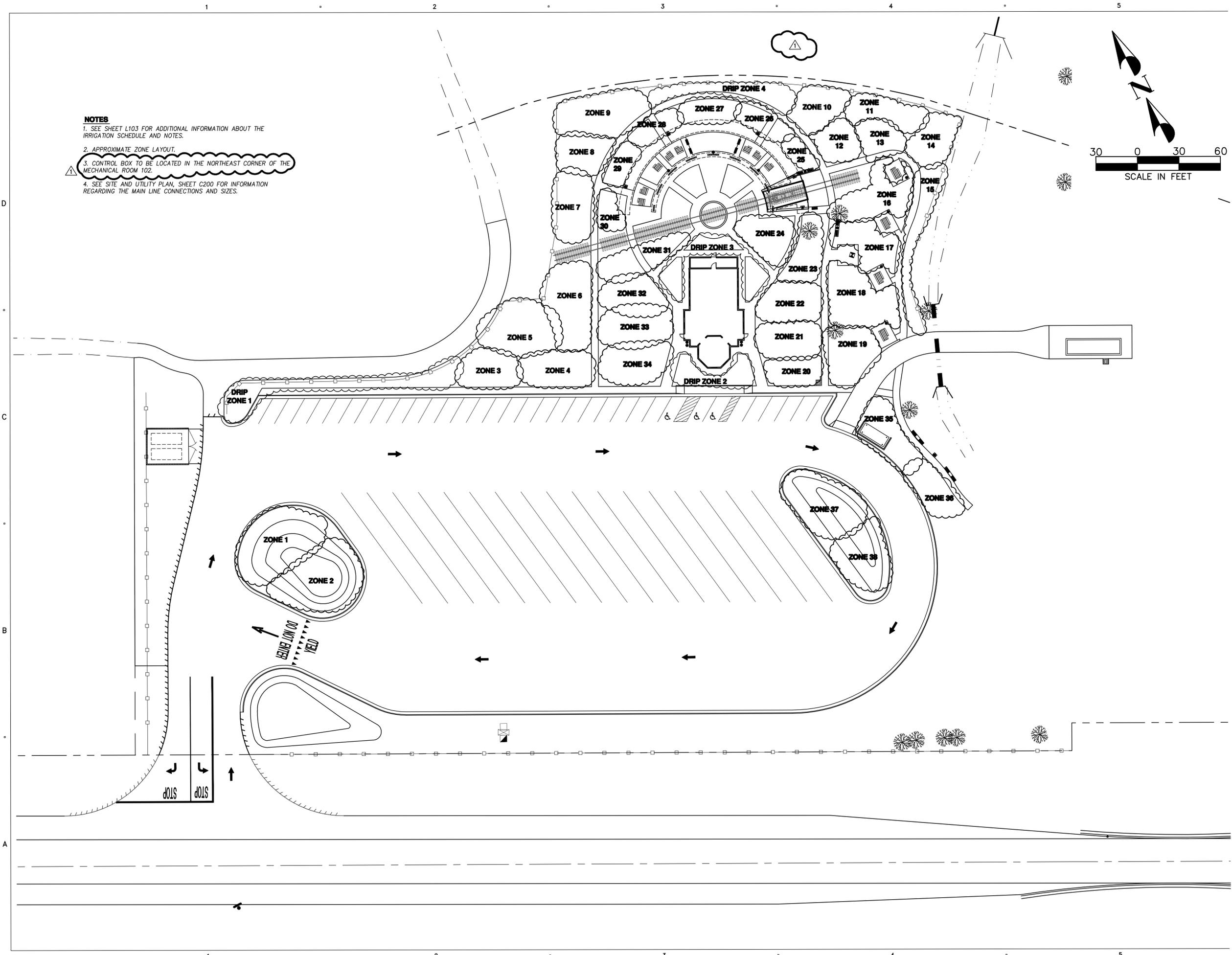
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DFCM CONTRACT NO:	097130	
ARCHIPLEX PROJECT NO:	0832.01	
PEPG PROJECT NO:	6600.0817	
DRAWN BY:	EAB	
CHECKED BY:	JCS	
SCALE:	1"=30'	
DATE:	SEPTEMBER, 2009	

SHEET TITLE

IRRIGATION PLAN

L102



NOTES

1. SEE SHEET L103 FOR ADDITIONAL INFORMATION ABOUT THE IRRIGATION SCHEDULE AND NOTES.
2. APPROXIMATE ZONE LAYOUT.
3. CONTROL BOX TO BE LOCATED IN THE NORTHEAST CORNER OF THE MECHANICAL ROOM 102.
4. SEE SITE AND UTILITY PLAN, SHEET C200 FOR INFORMATION REGARDING THE MAIN LINE CONNECTIONS AND SIZES.