AFCU Cedar Hills Branch

4800 West Cedar Hills Drive
Cedar Hills, Utah

Vicinity Map
Not to Scale

Survey Control Note

The contractor or surveyor shall be responsible for following the National Society of Professional Surveyors (NSPS) model standards for any surveying or construction layout to be completed using Anderson Wahlen and Associates ALTA Surveys or Anderson Wahlen and Associates construction improvement plans. Prior to proceeding with construction staking, the surveyor shall be responsible for verifying horizontal control from the survey monuments and for verifying any additional control points shown on an ALTA survey, improvement plan, or on electronic data provided by Anderson Wahlen and Associates. The surveyor shall also use the benchmarks as shown on the plan, and verify them against no less than three existing hard improvement elevations included on these plans or on electronic data provided by Anderson Wahlen and Associates. If any discrepancies are encountered, the surveyor shall immediately notify the engineer and resolve the discrepancies before proceeding with any construction staking.

Abbreviations

BOL	Bollard	PP	Power Pole
BRW	Finish Grade – Bottom of Retaining Wall	PVC	Poly Vinyl Chloride
CATV	Cable Television Box	RCP	Reinforced Concrete Pipe
CB	Catch Basin	RD	Roof Drain
CMP	Corrugated Metal Pipe	SB	Signal Box
COB	Cleanout Box	SD	Storm Drain
COTG	Cleanout to Grade	SDMH	Storm Drain Manhole
EA	Edge of Asphalt	SMH	Sanitary Sewer Manhole
EB	Electrical Box	SP	Signal Pole
ECAB	Electrical Cabinet	SS	Sanitary Sewer
EMH	Electrical Manhole	SVZ	Sight Visibility Zone
FH	Fire Hydrant	SW	Secondary Water
FL	Flowline	TA	Top of Asphalt
G	Ground	TB	Telephone Box
GB	Grade Break	TBC	Top Back of Curb
GM	Gas Meter	TC	Top of Grate
HB	Hose Bib	TMH	Telephone Manhole
I	Irrigation Line	TP	Top of Concrete
ICB	Irrigation Control Box	TRW	Finish Grade – Top of Retaining Wall
Lip	Lip of Gutter	TW	Top of Walk
LP	Light Pole	WL	Waterline
MH	Manhole	WP	Working Point
Mon	Monument	WV	Water Valve
PM	Power Meter		

Legend

Proposed Curb & Gutter		Existing Improvements	
Proposed Open Face C & G		Existing Asphalt	
Proposed Asphalt		Existing Concrete	
Proposed Concrete		Existing Inlet Box	
Proposed Truncated Domes		Existing Catch Basin	
Proposed Inlet Box		Existing Manhole	
Proposed Catch Basin		Existing Fire Hydrant	FH
Proposed Manhole		Existing Water Valve	WV
Proposed Transformer	T	Existing Overhead Power Line	OHP
Proposed Meter Box		Existing Water	W
Proposed Water Meter		Existing Secondary Water	SW
Proposed Combo Box		Existing Sewer	S
Proposed Fire Hydrant		Existing Storm Drain	SD
Proposed Water Valve		Existing Gas	G
Proposed Water Line	W	Existing Power	P
Proposed Sanitary Sewer	S	Existing Telephone	T
Proposed Storm Drain	SD	Existing Fence	X
Proposed Conduit Line	C	Flowline	
Proposed Power Line	P	Centerline	
Proposed Gas Line	G	Existing Contour	100
Proposed Secondary Water Line	SW	Existing Spot	78.00TA
Proposed Roof Drain	RD	Existing Light Pole	
Proposed Fence	X	Existing Street Light	
Ridge line	R	Existing Building	
Grade Break	GB	Existing Telephone Box	TB
Proposed Contour	78	Existing Power Meter	PM
Direction of Drainage		Existing Electrical Box	EB
Proposed Spot	78.00TA	Existing Electrical Cabinet	ECAB
ADA Accessible Route		Existing Gas Meter	GM
Property Line		Existing Water Meter	WM
Sawcut Line		Existing Irrig. Control Box	ICB
Proposed Light Pole		Existing Bollard	BOL
Proposed Street Light		Existing Hose Bib	HB
Proposed Building		Working Point	
Existing Power Pole		Existing Deciduous Tree	
Existing Power Pole w/ Guy			
Existing Utility Marker		Existing Coniferous Tree	
Existing Post			
Detail Number	XX		
Sheet Number	XX		

Civil Sheet Index

CV	Cover Sheet
C0.1	Demolition Plan
C1.1	Site Plan
C2.1	Grading Plan
C3.1	Utility Plan
C4.1	Detail Sheet
C4.2	Detail Sheet
C4.3	Detail Sheet
C5.1	Erosion Control Plan
L1.1	Landscape Plan
L2.1	Irrigation Plan
L3.1	Landscape & Irrigation Details

ADA Note

ADA Note:
Contractor must maintain a running slope on Accessible routes no steeper than 5.0% (1:20). The cross slope for Accessible routes must be no steeper than 2.0% (1:50). All Accessible routes must have a minimum clear width of 36". If Grades on plans do not meet this requirement notify Consultant immediately.
The Client, Contractor and Subcontractor should immediately notify the Consultant of any conditions of the project that they believe do not comply with the current state of the ADA (ICC/ANSI A117.1–Latest Edition) and/or FHAA.

Private Engineers Notice to Contractors

The Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the contractor shall defend, indemnify, and hold the owner and the engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the owner or the engineer.

Flood Zone

This property lies entirely within Flood Zone X as designated on FEMA Flood Insurance Rate Map for Utah County (unincorporated areas) Community Panel No. 4955170110 B dated July 17, 2002. Flood Zone X is defined as "Areas determined to be outside 500–year floodplain." (No Shading)

Basis of Bearings

A line between monuments found the West Quarter Corner and the Northwest Corner of Section 6 was assigned the Utah County bearing of N 0°02'42" W as the Basis of Bearings to retrace and honor the previous Survey.

Benchmark

Brass Cap Monument for the West Quarter Corner of Section 6, T5S, R2E, SLB&M
Elevation = 4866.34 feet (assigned to honor the previous 2003 survey)
Observed January 6, 2014

REV	DATE	DESCRIPTION
1	19 Jun 2014	Addendum 1

Designed by: SY
Drafted by: SY
Client Name:
Smith's Food & Drug Stores
13-037GR

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 – AWengineering.net

Cover Sheet

Smith's Fuel Center #274
7783 South and Highlands Loop Road
West Jordan City, Utah

REGISTERED PROFESSIONAL ENGINEER
No. 7879289
SHAUN H YOUNG
STATE OF UTAH

10 Jun, 2014

SHEET NO.
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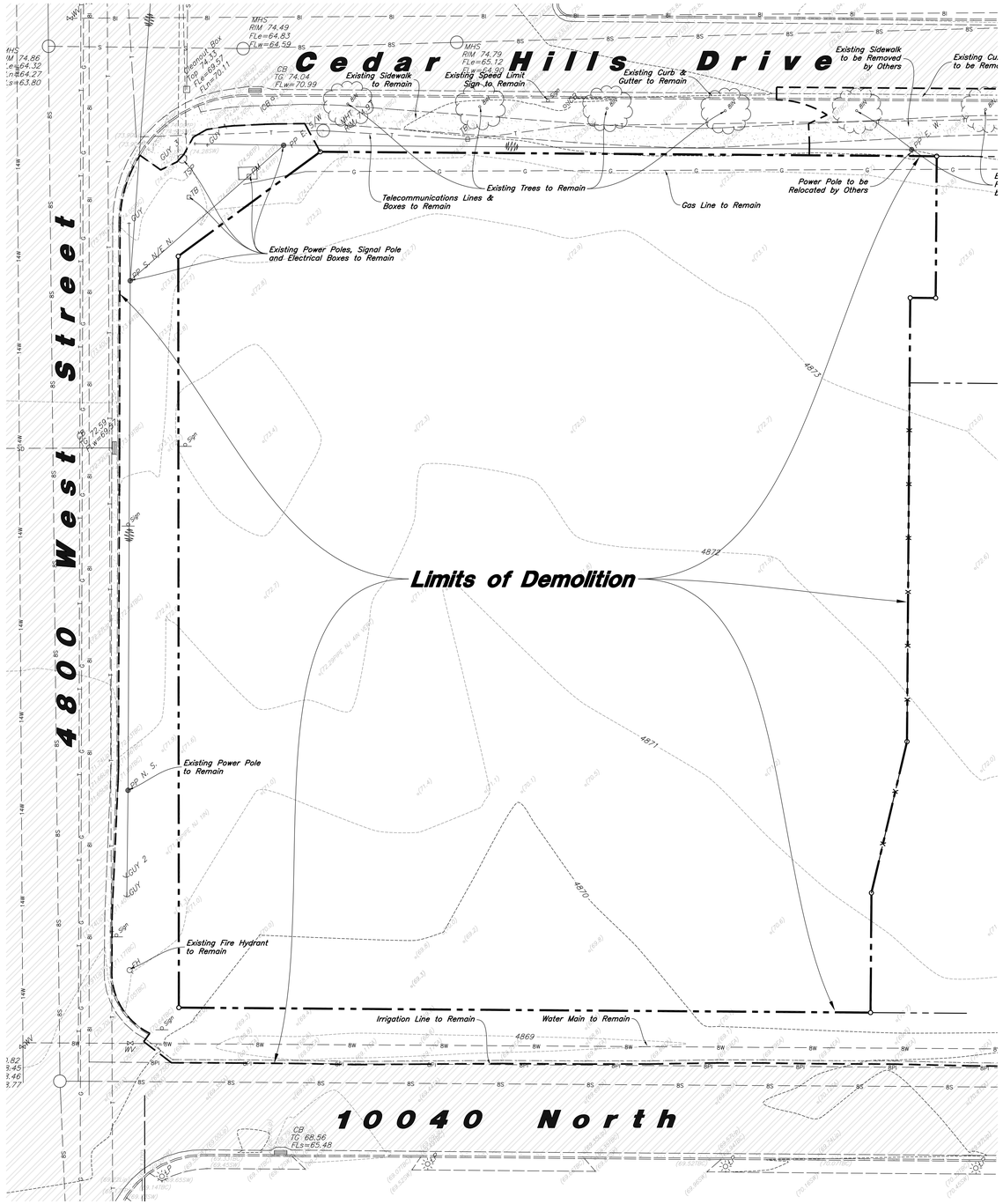

Scale: 1" = 20'

20' 0 20' 40'

General Demolition Notes:

1. Demolition and site clearing for this contract are to include all areas shown within demolition limits or by note.
2. Refer to site improvement plans for more details on limits of removal.
3. All curbs, gutters, walks, slabs, walls, fences, flatwork, asphalt, waterlines and meters, gas lines, sewer lines, light poles, buried cables, storm drain piping and structures to be cleared from site unless otherwise shown.
4. All utilities, sewer, water, gas, telephone and electrical services to be disconnected and capped According to city, county and utility company requirements, unless otherwise shown.
5. Excavated areas to be backfilled with clean granular material compacted to 95% of maximum lab density as determined by ASTM D 1557-78. (Test results to be given to owner) Excavated areas should be backfilled per the geotechnical report prepared for the project.
6. Clear and grub trees, shrubs, and vegetation within construction limits, disposal to be off-site Except where noted otherwise.
7. DO NOT interrupt any services or disrupt the operation of any businesses shown outside the demolition limits.
8. Remove debris, rubbish, and other materials resulting from the demolition and site clearing operations from the site and dispose of in a legal manner.
9. The location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied upon as being exact or complete. Contractor shall contact authorities having jurisdiction for field locations. Contractor shall be responsible for protection of in place and relocated utilities during construction.
10. Stockpiles shall be graded to maintain slopes not greater than 3 horizontal to 1 vertical. Provide erosion control as needed to prevent sediment transport to adjacent drainage ways.
11. Contractor shall be responsible for disposal of all waste material. Disposal shall be at an approved site for such material. Burning onsite is not permitted.
12. Contractor shall verify with city any street removal, curb cuts, and any restoration required for utility line removal.
13. Install traffic warning devices as needed in accordance with local standards.
14. Contractor shall obtain all permits necessary for demolition from City, County, State or Federal Agencies as required.
15. If Contractor observes evidence of hazardous materials or contaminated soils he shall immediately contact the project engineer to provide notification and obtain direction before proceeding with disturbance of said materials or contaminated soil.

CAUTION :

The location and/or elevation of existing utilities as shown on these plans is based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete.

Know what's below. Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
www.bluestakes.org
1-800-662-4111

REV	DESCRIPTION
X	XXXX
DATE	XXX

Designed by: DA
Drafted by: LC
Client Name:
America First
13-0370M

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801-521-8529 AWengineering.net

Demolition Plan

AFCU Cedar Hills Branch

4800 West Cedar Hills Drive
Cedar Hills, Utah

REGISTERED PROFESSIONAL ENGINEER
No. 7879289
SHAUN H YOUNG
STATE OF UTAH

23 Jun, 2014

SHEET NO.
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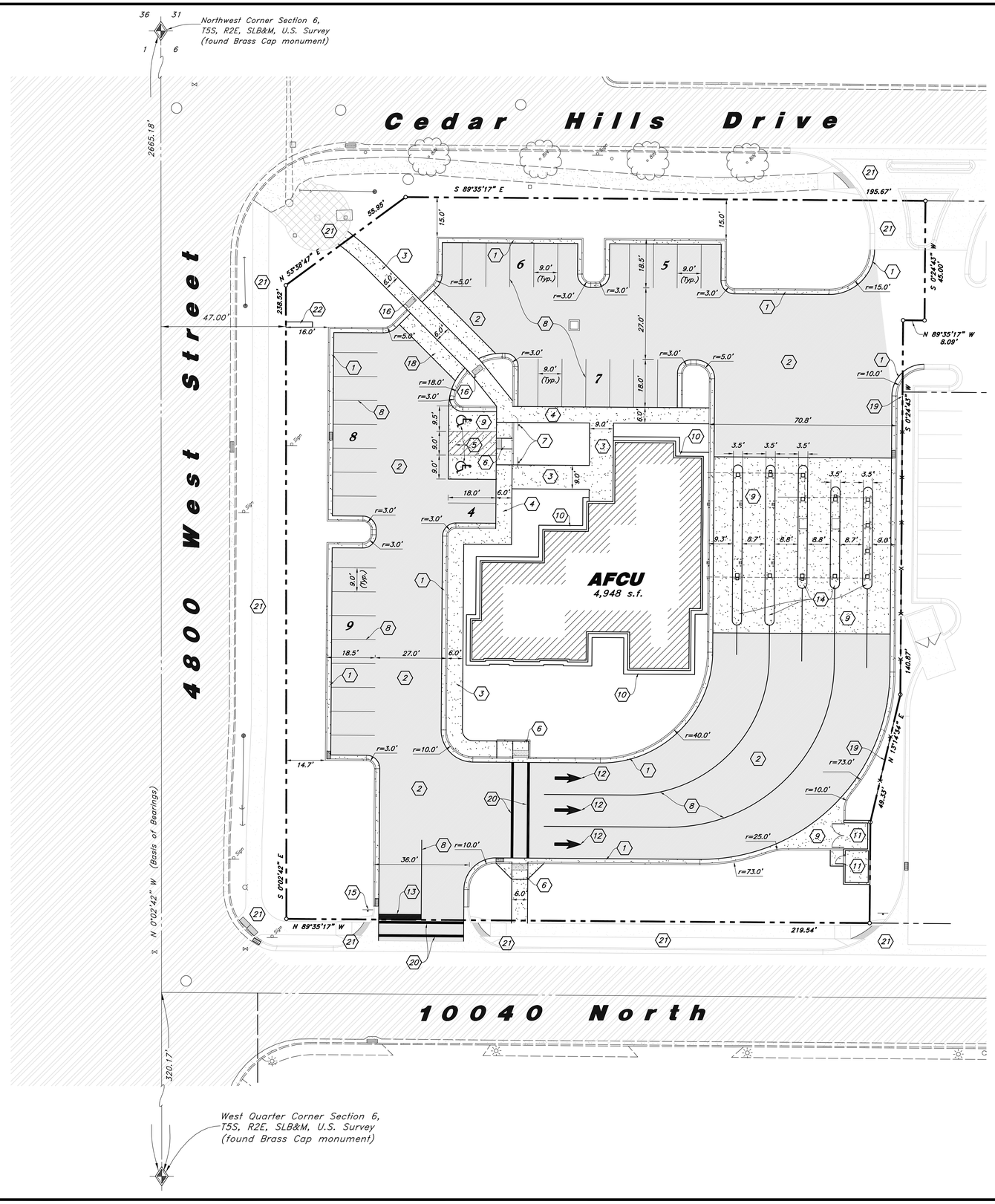

Scale: 1" = 20'

20' 0 20' 40'

Site Data

Site Area = 61,912 s.f. (1.42 ac.)
Building Area = 4,948 s.f (8.0%)
Parking Provided = 39 stalls (7.9/1,000)

Overall Development
Landscape Area Provided = 41,294 s.f. (36.2%)

General Site Notes:

1. Stalls designated as Accessible will require a painted Accessible symbol and sign. (See Details)
2. Fire lane markings and signs to be installed as directed by the Fire Marshall.
3. Aisle markings, directional arrows and stop bars will be painted at each driveway as shown on the plans.
4. All dimensions are to back of curb unless otherwise noted.
5. Const. curb transition at all points where curb abuts sidewalk, see detail.

Site Construction Notes

1. Const. 24" Curb & Gutter (1/C4.1)
2. Const. Asphalt Paving (2/C4.1)
3. Const. Conc. Sidewalk (5/C4.1)
4. Const. Thickened Edge Sidewalk (4/C4.1)
5. Const. ADA Accessible Striping per MUTCD & ICC/ANSI A117.1 (Latest Editions)
6. Const. ADA Accessible Ramp per ICC/ANSI A117.1 (Latest Edition) (7/C4.1)
7. Const. ADA Accessible Sign per MUTCD & ICC/ANSI A117.1 (Latest Editions)
8. Const. 4" White Paint Stripe (Typ.)
9. Const. Conc. Paving (3/C4.1)
10. Const. 18" Concrete Mow Strip
11. Dumpster Enclosure/Shed (See Sheet A7.23, S001, S002, S501)
12. Const. Directional Arrows per MUTCD
13. Const. 24" White Stop Bar
14. Const. Conc. Drive Thru Island
15. Const. Stop Sign per MUTCD R1-1
16. Const. Detectable Warning Surface
17. Connect & Match Existing Grade Elevation
18. Const. Concrete Speed Hump
19. Const. 6' High Metal Ameristar Fence "Montage Commercial Classic Style" Color to be Selected by Arch. without Conc. Mowstrip
20. Const. 12" White Crosswalk Paint Stripe
21. Off-Site Improvements by Others
22. Monument Sign by Separate Permit

REV	DATE	DESCRIPTION
X	XXX	XXXX

Designed by: DA
Drafted by: LC
Client Name: America First

13-037SP

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 - AWAengineering.net

Site Plan

AFCU Cedar Hills Branch

4800 West Cedar Hills Drive
Cedar Hills, Utah

REGISTERED PROFESSIONAL ENGINEER
No. 7879289
SHAUN H YOUNG
STATE OF UTAH

23 Jun, 2014

SHEET NO.
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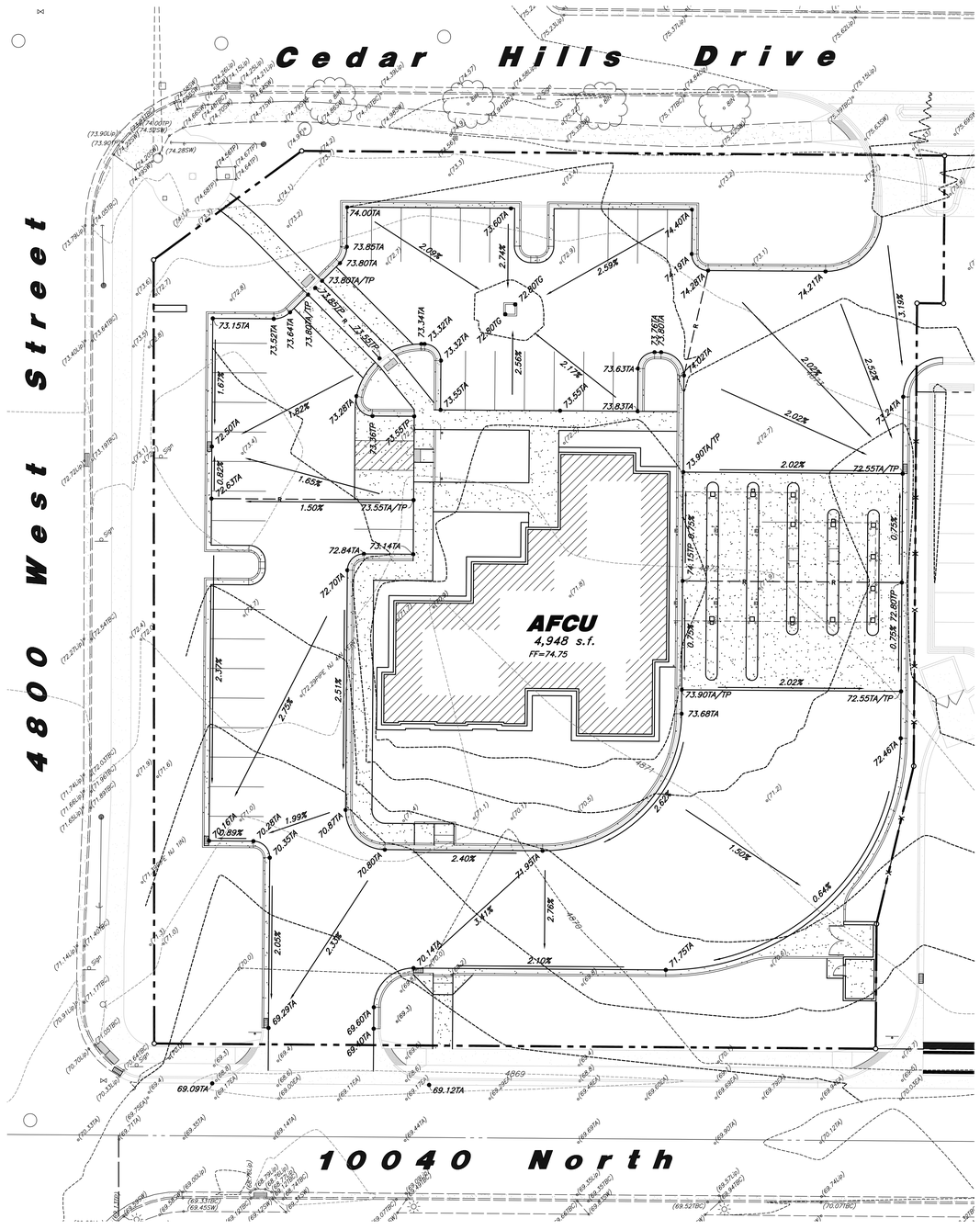

Scale: 1" = 20'

20' 0 20' 40'

General Grading Notes:

1. All grading shall be in accordance with the project geotechnical study.
2. Cut slopes shall be no steeper than 3 horizontal to 1 vertical.
3. Fill slopes shall be no steeper than 3 horizontal to 1 vertical.
4. Fills shall be compacted per the recommendations of the geotechnical report prepared for the project and shall be certified by a Geotechnical Engineer.
5. Areas to receive fill shall be properly prepared and approved by a Geotechnical Engineer prior to placing fill.
6. Fills shall be benched into competent material as per specifications and geotechnical report.
7. All trench backfill shall be tested and certified by a Geotechnical Engineer.
8. A geotechnical engineer shall perform periodic inspections and submit a complete report and map upon completion of the rough grading.
9. The final compaction report and certification from a Geotechnical Engineer shall contain the type of field testing performed. Each test shall be identified with the method of obtaining the in-place density, whether sand cone or drive ring and shall be so noted for each test. Sufficient maximum density determinations shall be performed to verify the accuracy of the maximum density curves used by the field technician.
10. Dust shall be controlled by watering.
11. The location and protection of all utilities is the responsibility of the permitee.
12. Approved protective measures and temporary drainage provisions must be used to protect adjoining properties during the grading process.
13. All public roadways must be cleared daily of all dirt, mud and debris deposited on them as a result of the grading operation. Cleaning is to be done to the satisfaction of the City Engineer.
14. The site shall be cleared and grubbed of all vegetation and deleterious matter prior to grading.
15. The contractor shall provide shoring in accordance with OSHA requirements for trench walls.
16. Aggregate base shall be compacted per the geotechnical report prepared for the project.
17. The recommendations in the following Geotechnical Engineering Report by GSH are included in the requirements of grading and site Preparation. The Report is titled "Proposed America First Credit Union Southeast Corner of Cedar Hills Drive and 4800 West, Cedar Hills, UT"

    Project No.: 1242-013-14
    Dated: January 14, 2014
18. As part of the construction documents, owner has provided contractor with a topographic survey performed by manual or aerial means. Such survey was prepared for project design purposes and is provided to the contractor as a courtesy. It is expressly understood that such survey may not accurately reflect existing topographic conditions.
19. If Contractor observes evidence of hazardous materials or contaminated soils he shall immediately contact the project engineer to provide notification and obtain direction before proceeding with disturbance of said materials or contaminated soil.
20. Contractor will be responsible to phase the construction development so that storm water improvements and storm water facilities including detention or retention improvement facilities are constructed and functional prior to an offsite storm water release and take necessary construction precautions so that no offsite flooding will occur.

Curb and Gutter Construction Notes:

1. Open face gutter shall be constructed where drainage is directed away from curb.
2. Open face gutter locations are indicated by shading and notes on the grading plan.
3. It is the responsibility of the surveyor to adjust top of asphalt grades to top of curb grades at the time of construction staking.
4. Refer to the typical details for a standard and open face curb and gutter for dimensions.
5. Transitions from open face to standard curb and gutter are to be smooth. Hand form these areas if necessary.

ADA Note:
Contractor must maintain a running slope on Accessible routes no steeper than 5.0% (1:20). The cross slope for Accessible routes must be no steeper than 2.0% (1:50). All Accessible routes must have a minimum clear width of 36". If Grades on plans do not meet this requirement notify Consultant immediately.
The Client, Contractor and Subcontractor should immediately notify the Consultant of any conditions of the project that they believe do not comply with the current state of the ADA (ICC/ANSI A117.1-Latest Edition) and/or FHAA.

REV	DATE	DESCRIPTION
X	XXX	XXXX

Designed by: DA
Drafted by: LC
Client Name:
America First

1.3-037GR

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 - AWEngineering.net

Grading Plan

AFCU Cedar Hills Branch
4800 West Cedar Hills Drive
Cedar Hills, Utah

REGISTERED PROFESSIONAL ENGINEER
No. 7879289
SHAUN H YOUNG
STATE OF UTAH

23 Jun, 2014

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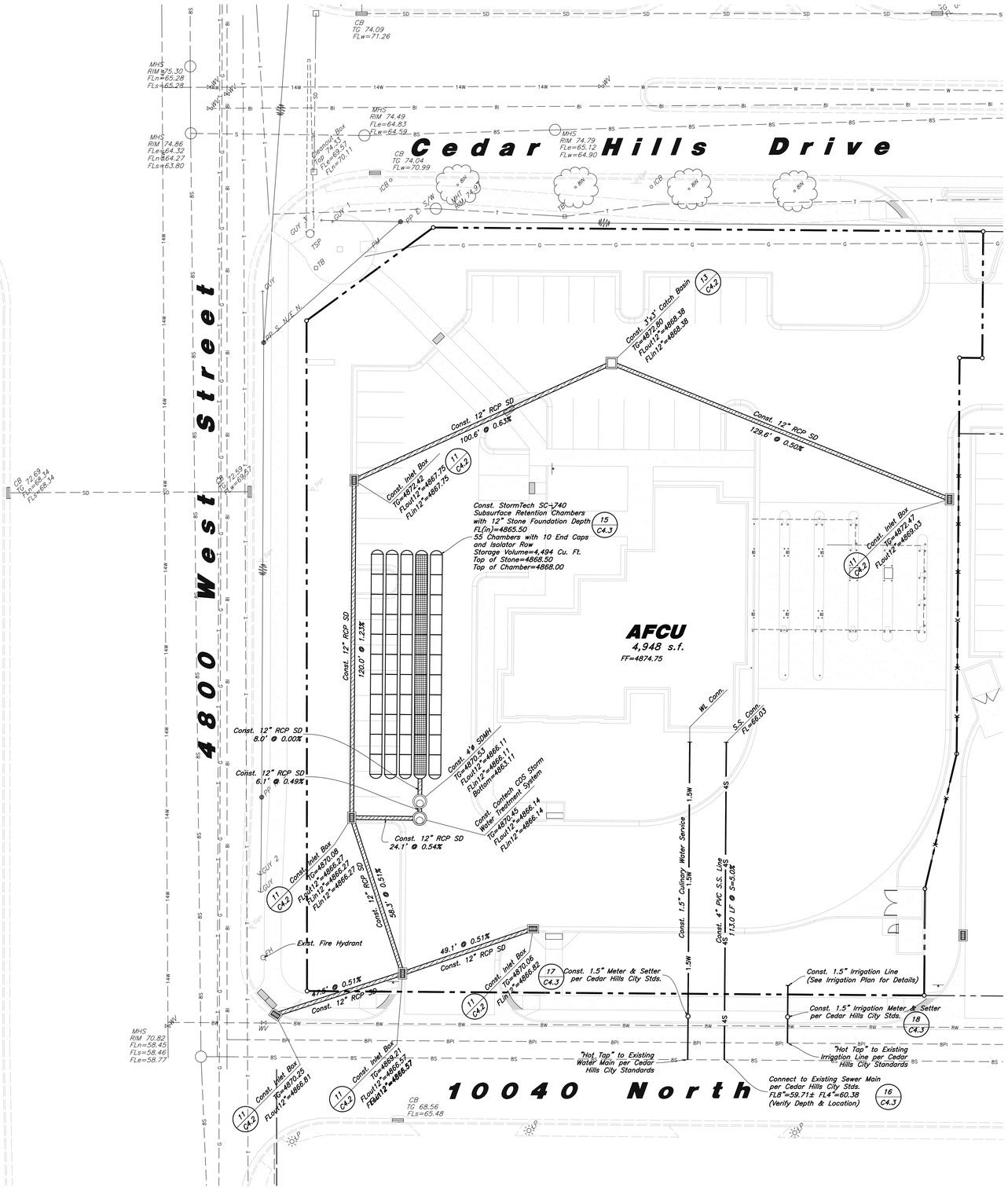

Scale: 1" = 20'

20' 0 20' 40'

General Utility Notes:

1. All sewer and water facilities shall be constructed per local jurisdiction standards and specifications. Contractor is responsible to obtain standards and specifications.
2. Coordinate all utility connections to building with plumbing plans and building contractor.
3. Verify depth and location of all existing utilities prior to constructing any new utility lines. Notify Civil Engineer of any discrepancies or conflicts prior to any connections being made.
4. All catch basin and inlet box grates are to be bicycle proof.
5. Refer to the site electrical plan for details and locations of electrical lines, transformers and light poles.
6. Gas lines, telephone lines, and cable TV lines are not a part of these plans.
7. Water meters are to be installed per city standards and specifications. It will be the contractor's responsibility to install all items required.
8. Water lines, valves, fire hydrants, fittings etc. are to be constructed as shown. Contractor is responsible, at no cost to the owner, to construct any vertical adjustments necessary to clear sewer, storm drain, or other utilities as necessary including valve boxes and hydrant spools to proper grade.
9. Contractor shall install a 12" concrete collar around all manholes, valves, catch basins, cleanouts & any other structures located within the asphalt.

Utility Piping Materials:

All piping materials shall be per local agency standards or the specifications below at a minimum. All utility piping shall be installed per manufacturers recommendations. Refer to project specifications for more detailed information regarding materials, installation, etc.

Culinary Service Laterals

1. Polyethylene (PE) Water Pipe (Up to 3 inches diameter), AWWA C901, PE 3408, SDR 9 (200 psi)
2. Copper Pipe (Up to 3 inches diameter): Type 'K.'

Water Main Lines and Fire Lines

1. Polyvinyl Chloride (PVC) (4 inches to 12 inches diameter): AWWA C900, Class 200

Sanitary Sewer Lines

1. All sewer piping to be Polyvinyl Chloride (PVC) sewer pipe, ASTM D3034, Type PSM, SDR 35

Storm Drain Lines

1. 12" pipes or smaller – Polyvinyl Chloride (PVC) sewer pipe, ASTM D3034, Type PSM, SDR 35
2. 15" pipes or larger – Reinforced Concrete Pipe, ASTM C76, Class III

CAUTION :

The locations and/or elevations of existing utilities as shown on these plans are based on records of the various utility companies and, where possible, measurements taken in the field. The information is not to be relied on as being exact or complete.

Storm Drain Note:

All Storm Drainage Pipe Lengths and Slopes are from Center of Box to Center of Box.

Know what's below. Call 811 before you dig.
BLUE STAKES OF UTAH
UTILITY NOTIFICATION CENTER, INC.
www.bluestakes.org
1-800-662-4111

X	XXX	XXXX
REV.	DATE	DESCRIPTION

Designed by: DA
Drafted by: LC
Client Name: America First
13-037GR

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 – AWEngineering.net

Utility Plan

AFCU Cedar Hills Branch
4800 West Cedar Hills Drive
Cedar Hills, Utah

LICENSED PROFESSIONAL ENGINEER
No. 7879289
SHAUN H YOUNG
STATE OF UTAH

23 Jun, 2014

SHEET NO.
C3.1

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1. REINFORCEMENT: ASTM A 615, grade 60, galvanized or epoxy coated deformed steel rebar or smooth steel dowels with diameter and length as indicated.

   A. Space rebar and dowels at 12 to 15 inches on center.
   B. Grease dowels to provide movement in expansion joints.
   C. Keep tie bars in the vertical center of the concrete slab and perpendicular to the joint during concrete placement.

2. SAWING: Keep at least 3 working power saws on-site when concrete is being placed. Saw crack control joints (contraction joints) before shrinkage cracking takes place. Do not tear or ravel concrete during sawing. In cool weather, the joint sawing may be delayed only for the time required to prevent tearing and raveling the concrete. Cut joints to dimensions recommend by sealant manufacturer and approved by ENGINEER.

3. JOINTS: Lay out joints to aid construction and control random cracking.

   A. Joint Spacing shall be 12 feet maximum on center in both directions.
   B. Extend transverse contraction joints continuously across the full width of the concrete. Make the joints coincide with curb and gutter joints.
   C. Make adjustments in joint locations to meet inlet or manhole locations.
   D. Expansion Joints shall be placed where concrete abuts a building wall, sidewalk, curb, gutter or any immovable structure.

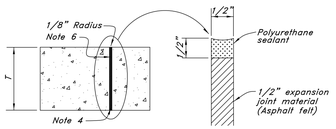
4. JOINT FILLER: Bituminous (Asphalt or tar) mastic, ASTM D994. Formed and encased between 2 layers of bituminous saturated felt or 2 layers of glass-fiber felt extending to the bottom of the concrete slab.

5. BACKER ROD: Round Rods. It must be oversized approximately 25 percent to fit tightly into each joint and compatible with hot poured sealant.

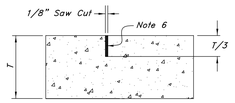
6. JOINT SEALANT: Hot applied, Asphalt base type, ASTM D 3405. Remove dirt, oil, and curing compounds from joint reservoir. Seal joints immediately after cleaning.

Contraction Joints

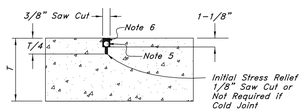
A. Spacing = 10' o.c.
B. 1/8" wide by 2" deep



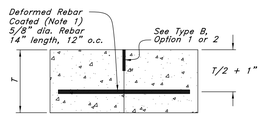
Type A Expansion Joint



Type B Contraction Joint (Option 2)

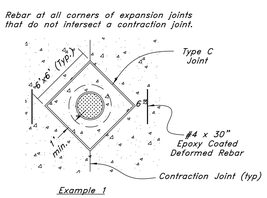


Type B Contraction Joint (Option 1)

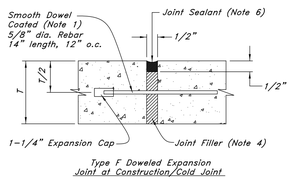


Type C Construction/Cold Joint

Rebar at all corners of expansion joints that do not intersect a contraction joint.



Example 1

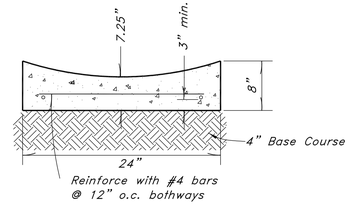


Type F Doweled Expansion Joint at Construction/Cold Joint

7 Concrete Joint Detail

Not to Scale

1. See Concrete Joint Detail



6 Typical Sidewalk Detail

Not to Scale

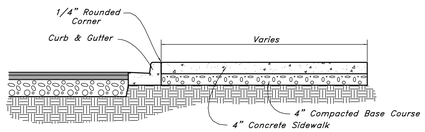
1. See Concrete Joint Detail

Contraction Joints

A. Spacing = 10' o.c.

Expansion Joints

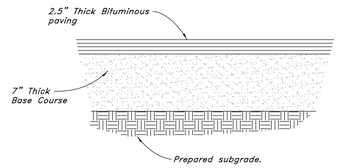
A. Make expansion joints full depth, see joint detail
B. Place expansion joint at all cold joints
C. Expansion joints are required at the start or end of curb radius



5 Typical Sidewalk Detail

Not to Scale

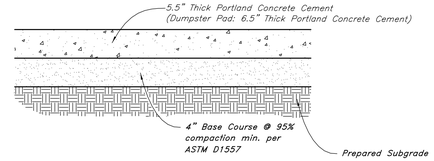
See Geotechnical Report for Project



2 Standard Asphalt Section

Not to Scale

1. See Geotechnical Report for Further Details
2. See Concrete Joint Detail



3 Concrete Paving Section

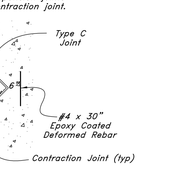
Not to Scale

REV	DESCRIPTION
X	XXXX
DATE	XXX

Designed by: DA
Drafted by: LC
Client Name: America First

13-037DT

Type A



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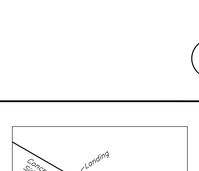

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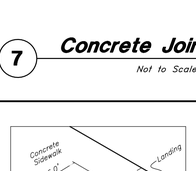


Type D

Notes:

1. Provide truncated domes per ICC/ANSI A117.1 (Latest Edition) ADA Requirements (Minimum of 2' deep by the width of ramp). Truncated domes shall be Armor-Tile or ADA Solutions or equivalent cast in place detectible warning tiles. Color shall be approved by owner.
2. All landings must have 1:50 cross slope & running slope. Landing must be as wide as the ramp.
3. Cross slope on ramp must be 1:50 or less.
4. Counter slopes of adjoining gutters & paving adjacent to the curb ramp shall not be steeper than 1:20.

7 Curb Ramp Detail

Not to Scale

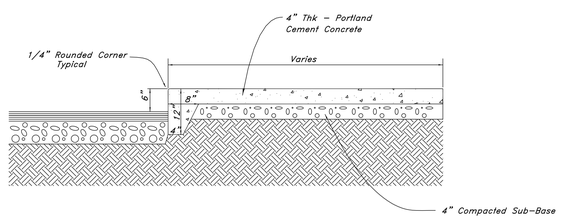
Contraction Joints

A. Spacing = 10' o.c.

Expansion Joints

A. Make expansion joints full depth, see joint detail
B. Place expansion joint at all cold joints
C. Expansion joints are required at the start or end of curb radius

1. See Concrete Joint Detail



5 Thickened Edge Walk

Not to Scale

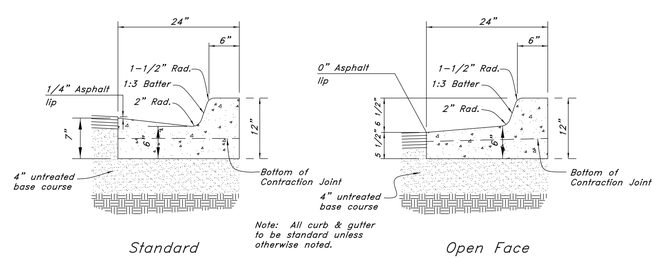
Contraction Joints

A. Spacing = 10' o.c.

Expansion Joints

A. Make expansion joints full depth, see joint detail
B. Place expansion joint at all cold joints
C. Expansion joints are required at the start or end of curb radius

1. See Concrete Joint Detail



Note: All curb & gutter to be standard unless otherwise noted.

1 24" Curb And Gutter

Not to Scale

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 - AWAengineering.net

Detail Sheet

AFCU Cedar Hills Branch
4800 West Cedar Hills Drive
Cedar Hills, Utah

REGISTERED PROFESSIONAL ENGINEER
No. 7879289
SHAUN H YOUNG
STATE OF UTAH

23 Jun, 2014

SHEET NO.
C4.1

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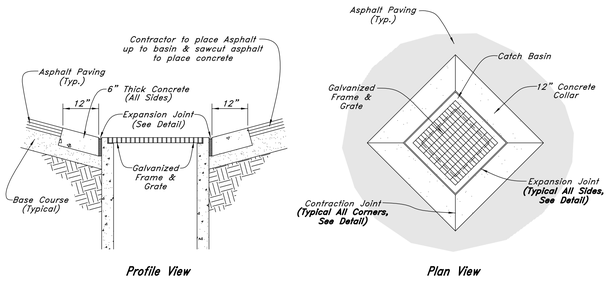
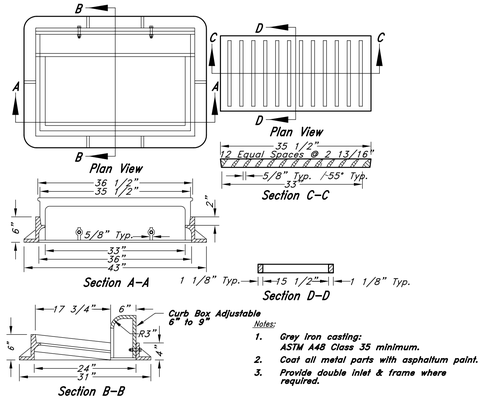


Profile View

Plan View

14 12" Concrete Collar

Not to Scale

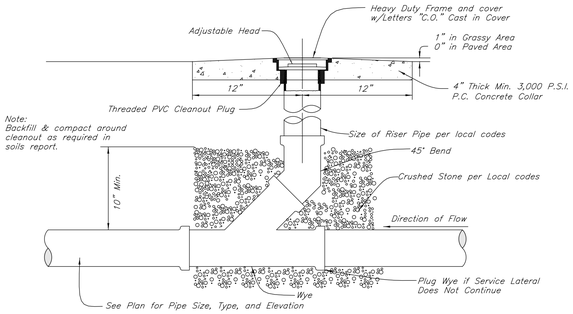


Notes:

1. Grey Iron casting: ASTM A48 Class 35 minimum.
2. Coat all metal parts with asphaltum paint.
3. Provide double inlet & frame where required.

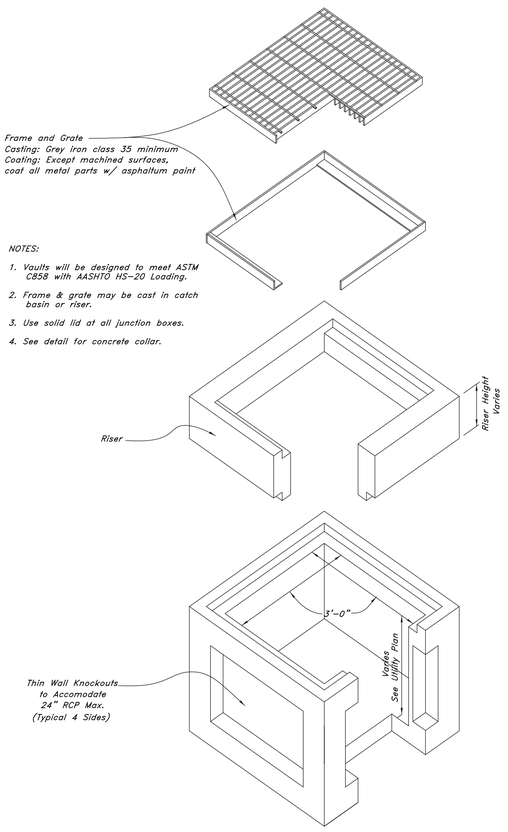
12 Inlet Grate Frame

Not to Scale



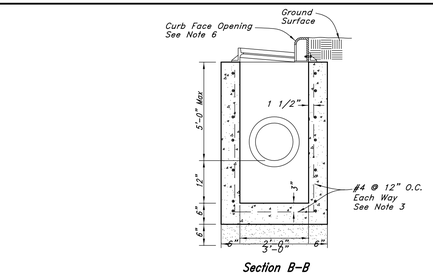
10 Cleanout

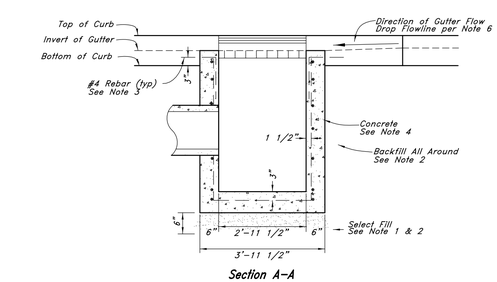
Not to Scale



13 Precast 36" x 36" Catch Basin

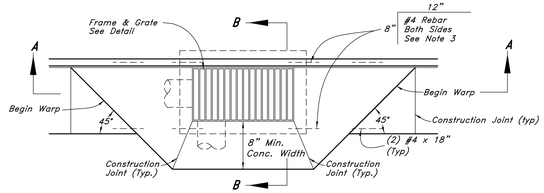
Not to Scale





Catch Basin Notes:

1. Select Fill: Use untreated base course grade 1 or grade 3/4 per APWA Section 02060. Use of sewer rock or recycled aggregate requires Engineers written approval.
2. Backfill: Install and compact all backfill material or APWA Section 02321.
3. Reinforcement: Use ASTM A 615, grade 60 deformed steel rebar. See APWA Section 03200.
4. Concrete: Class 4,000 per APWA Section 03304. Place per APWA Section 03310. Apply a sealing / curing compound per APWA Section 03390 or use an acceptable alternate curing method.
5. Pipe Laterals: The drawing shows alternate connections to the curb outlet. Refer to construction drawings for connection locations.
6. Curb Face Opening: Make opening 4 inches high. Provide at least a 2 inch drop from the gutter flowline to the invert of the curb face opening.
7. Conc. Apron in front of Inlet Grate to be 8" min. & 12" max.

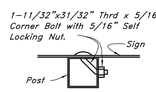


11 Curb Inlet with Single Grate

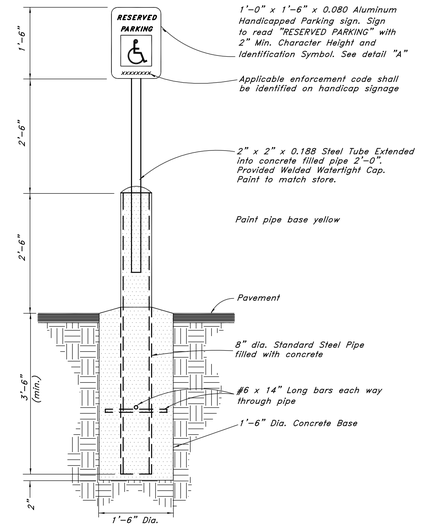
Not to Scale

ADA Van Stall Alternate Sign

This sign shall be used for all ADA Stalls Identified as "VAN" on Site Plan. 1'-0" x 1'-6" x 0.080 Aluminum Handicapped Van Stall Parking sign Sign to read "RESERVED PARKING" and "VAN ACCESSIBLE" with Identification Symbol. See Detail A



Detail A
Sign Mounting



9 ADA Parking Sign

Not to Scale

REV	DATE	DESCRIPTION
X	XXX	XXXX

Designed by: DA
Drafted by: LC
Client Name: America First
13-037DT

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 - AWAengineering.net

Detail Sheet

AFCU Cedar Hills Branch
4800 West Cedar Hills Drive
Cedar Hills, Utah

KEITH LEWIS PROFESSIONAL ENGINEER
No. 7879289
SHAUN H YOUNG
STATE OF UTAH

23 Jun, 2014

SHEET NO.
C4.2

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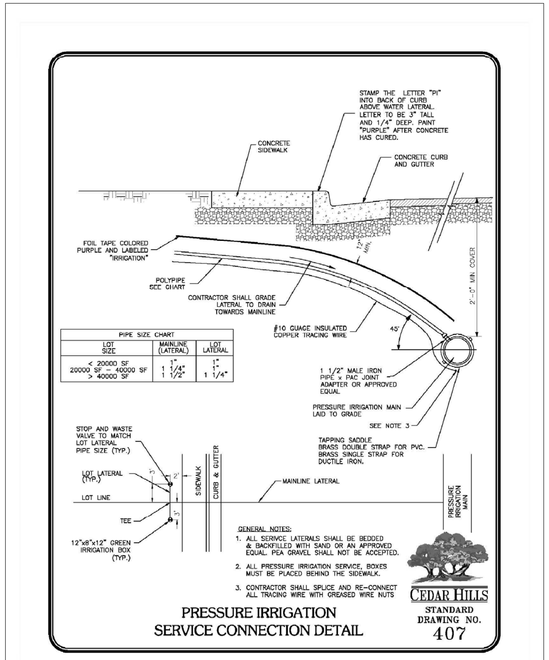
20 **Not Used**

Not to Scale



PIPE SIZE CHART		
LOT SIZE	MAINLINE (LATERAL)	LOT LATERAL
< 20000 SF	1"	1"
20000 SF - 40000 SF	1 1/4"	1 1/4"
> 40000 SF	1 1/2"	

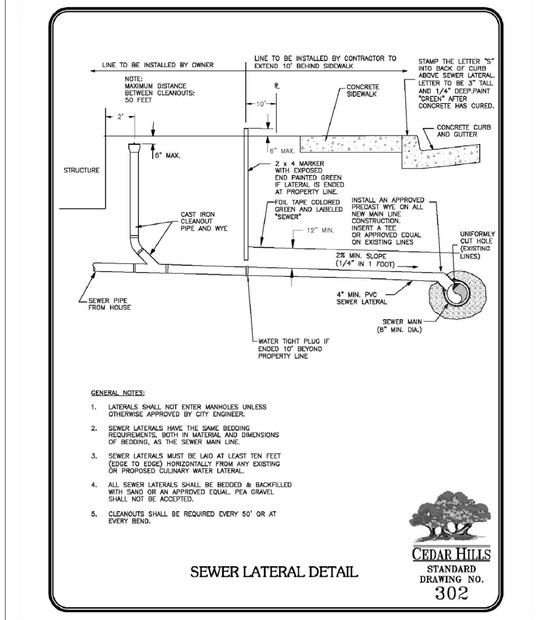
GENERAL NOTES:
1. ALL SERVICE LATERALS SHALL BE BEDDED & BACKFILLED WITH SAND OR AN APPROVED EQUAL. PEA GRAVEL SHALL NOT BE ACCEPTED.
2. ALL PRESSURE IRRIGATION SERVICE, BOXES MUST BE PLACED BEHIND THE SIDEWALK.
3. CONTRACTOR SHALL SPLICE AND RE-CONNECT ALL TRACING WIRE WITH GREASED WIRE NUTS

CEDAR HILLS
STANDARD DRAWING NO. 407

PRESSURE IRRIGATION SERVICE CONNECTION DETAIL

Cedar Hills Std. Dwg. #407
Pressure Irrigation Detail

18 *Not to Scale*



GENERAL NOTES:
1. LATERALS SHALL NOT ENTER MANHOLES UNLESS OTHERWISE APPROVED BY CITY ENGINEER.
2. SEWER LATERALS HAVE THE SAME BEDDING REQUIREMENTS, BOTH IN MATERIAL AND DIMENSIONS OF BEDDING, AS THE SEWER MAIN LINE.
3. SEWER LATERALS MUST BE LAID AT LEAST TEN FEET (EDGE TO EDGE) HORIZONTALLY FROM ANY EXISTING OR PROPOSED CULINARY WATER LATERAL.
4. ALL SEWER LATERALS SHALL BE BEDDED & BACKFILLED WITH SAND OR AN APPROVED EQUAL. PEA GRAVEL SHALL NOT BE ACCEPTED.
5. CLEANOUTS SHALL BE REQUIRED EVERY 50' OR AT EVERY BEND.

CEDAR HILLS
STANDARD DRAWING NO. 302

SEWER LATERAL DETAIL

Cedar Hills Std. Dwg. #302
Sewer Lateral Details

16 *Not to Scale*

REV.	DATE	DESCRIPTION
X	XX/X	XXXX

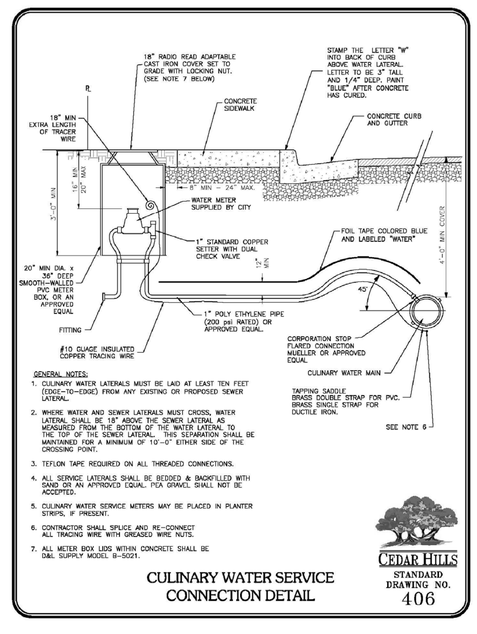
Designed by: DA
Drafted by: LC
Client Name:
America First

13-037DT

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 - AWAengineering.net

19 **Not Used**

Not to Scale



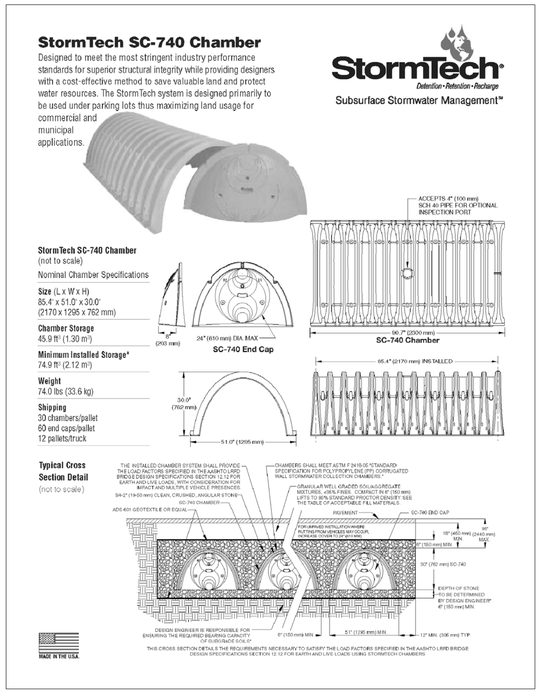
GENERAL NOTES:
1. CULINARY WATER LATERALS MUST BE LAID AT LEAST TEN FEET (EDGE-TO-EDGE) FROM ANY EXISTING OR PROPOSED SEWER LATERAL.
2. WHERE WATER AND SEWER LATERALS MUST CROSS, WATER LATERAL SHALL BE 18" ABOVE THE SEWER LATERAL AS MEASURED FROM THE BOTTOM OF THE WATER LATERAL TO THE TOP OF THE SEWER LATERAL. THIS SEPARATION SHALL BE MAINTAINED FOR A MINIMUM OF 10'-0" EITHER SIDE OF THE CROSSING POINT.
3. TEFLON TAPE REQUIRED ON ALL THREADED CONNECTIONS.
4. ALL SERVICE LATERALS SHALL BE BEDDED & BACKFILLED WITH SAND OR AN APPROVED EQUAL. PEA GRAVEL SHALL NOT BE ACCEPTED.
5. CULINARY WATER SERVICE METERS MAY BE PLACED IN PLANTER STRIPS, IF PRESENT.
6. CONTRACTOR SHALL SPLICE AND RE-CONNECT ALL TRACING WIRE WITH GREASED WIRE NUTS.
7. ALL METER BOX LIDS WITHIN CONCRETE SHALL BE D&L SUPPLY MODEL B-5021.

CEDAR HILLS
STANDARD DRAWING NO. 406

CULINARY WATER SERVICE CONNECTION DETAIL

Cedar Hills Std. Dwg. #406
Water Service Detail

17 *Not to Scale*

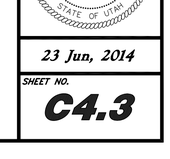


Stormtech SC-740 Underground Storage Chambers

15 *Not to Scale*

Detail Sheet

AFCU Cedar Hills Branch
4800 West Cedar Hills Drive
Cedar Hills, Utah



23 Jun, 2014

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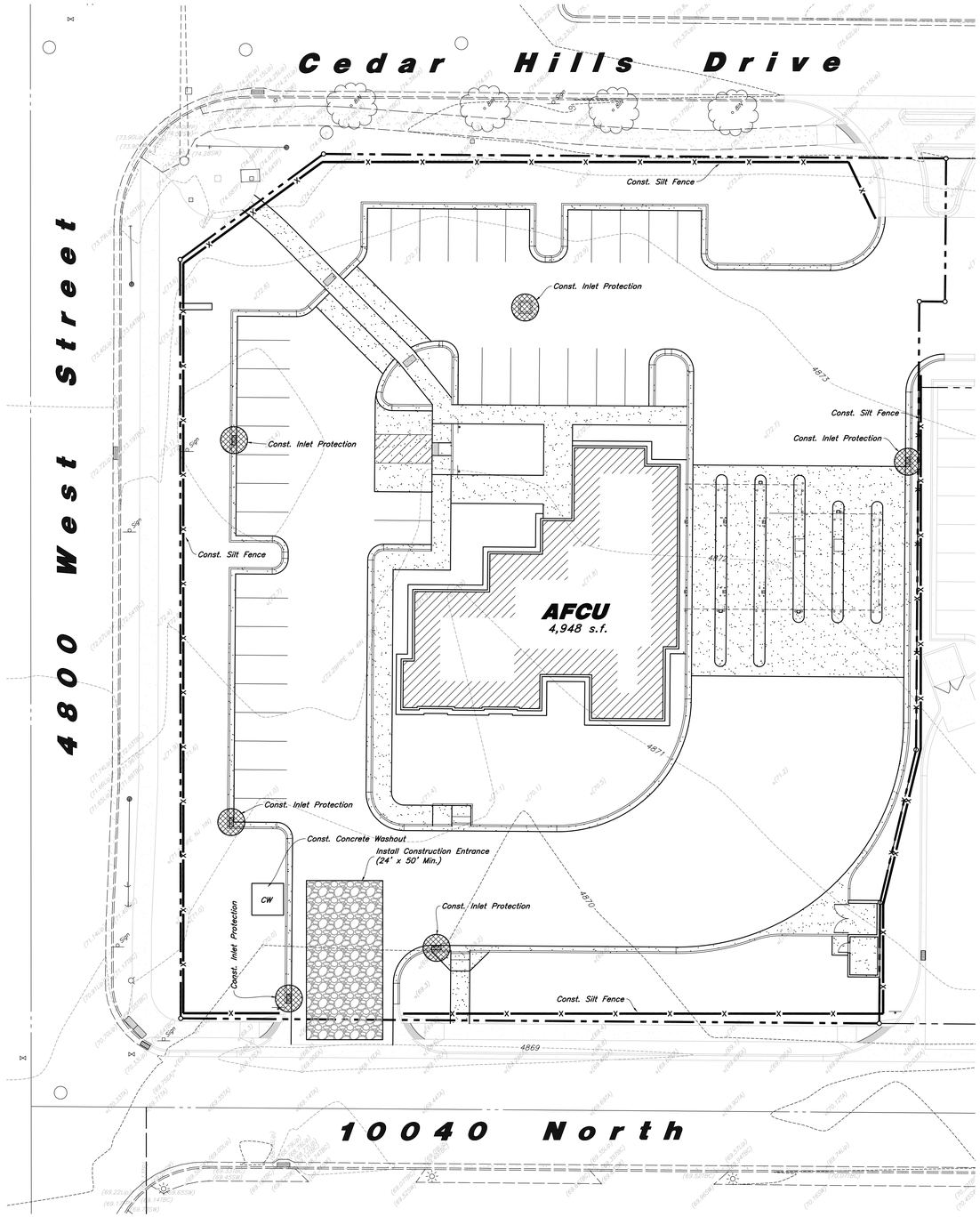
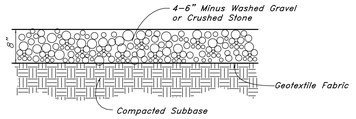
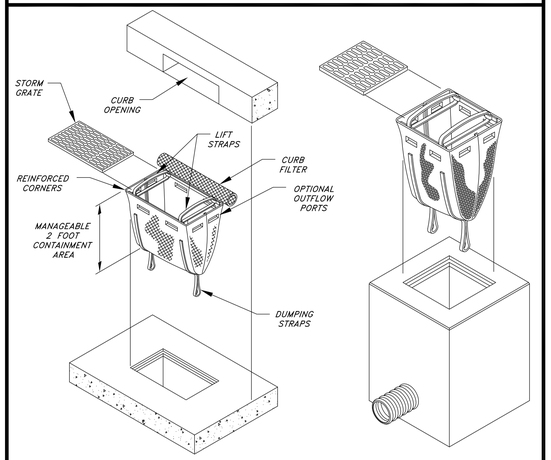




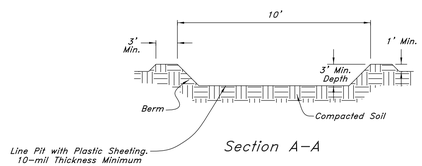
Stabilized Construction Entrance Section

Not to Scale

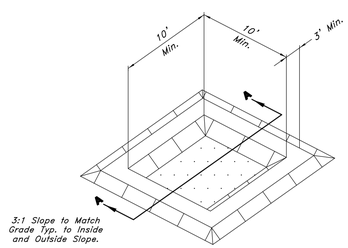


Dandy Sack ™

Not to Scale

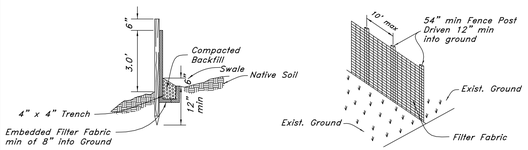


Section A-A



Concrete Washout

Not to Scale



Posts: Steel Either T or U Type or 2"x2" Hardwood
Filter Fabric: 1. MIRAFI 140N
2. Dupont TYPAR 3341
3. or Approved Equal

Notes:

1. Filter cloth to be fastened securely to fence posts with wire ties or staples.
2. When two sections of filter cloth adjoin each other they shall be overlapped by six inches and folded.
3. Collected material shall be removed when "bulges" develop in the silt fence.

Silt Fence

Not to Scale

Scale: 1" = 20'

20' 0 20' 40'

Legend

- Place Inlet Protection at all Inlet Locations to prevent boxes from silting.
- Silt Fence — X
- Construction Entrance / Truck Wash (50'x24' Min.)
- Concrete Washout Area — CW

Erosion Control Notes

1. Storm water will be discharged into an existing drainage system. Existing Lines shall be inspected prior to Certificate of Occupancy and cleaned if necessary.
2. The Storm Water Prevention Plan shall conform to all State Division of Environmental Protection Regulations.
3. All Construction equipment will enter thru Designated Construction Entrances.
4. Coordinate Entrance locations with the local jurisdiction.
5. Inlet Protection Devices and Barriers shall be Repaired or Replaced if they Show Signs of Undermining or Deterioration.
6. Silt Fences shall be Repaired to their Original Conditions if Damaged, Sediment shall be Removed from Silt Fences when it Reaches one-half the Height of the Silt Fence.
7. The Construction Entrances shall be Maintained in a Condition which will Prevent Tracking or Flow of Mud onto Public Right-of-Way. This may Require Periodic Top Dressing of the Construction Entrances as Conditions Demand.
8. All Materials Spilled, Dropped, Washed or Tracked from Vehicles onto Roadways or into Storm Drains must be Removed Immediately.
9. Due to the Grade Changes During the Development of the Project, the Contractor shall be Responsible for Adjusting the Erosion Control Measures (Silt Fences, Inlet Protection, Etc...) to Prevent Erosion.
10. Contractor shall use Vehicle Tracking Control at all Locations where Vehicles will Enter or Exit the Site. Control Facilities will be Maintained while Construction is in Progress, Moved when Necessary and Removed when the Site is Paved.
11. Inlet Protection Devices shall be Installed Immediately upon Individual Inlets becoming Functional.
12. This Document is Fluid Allowing for Changes, Modifications, Updates and Alternatives. It is the Responsibility of the Contractor to Keep Record of all Alterations made to the Erosion Control Measures Implemented for the Project on this Plan and in the Storm Water Pollution Prevention Plan.
13. Cover Exposed stockpiles of soils, construction and landscaping materials with heavy plastic sheeting.
14. Re-vegitate areas where landscaping has died or not taken hold.
15. Divert storm water runoff around disturbed soils with berms or dirt swales.
16. Contractor to provide permanent stabilization to any areas disturbed by construction by hydroseeding native vegetation (if not otherwise stabilized).

REV	DATE	DESCRIPTION
X	XXX	XXXX

Designed by: DA
Drafted by: LC
Client Name: America First
13-037EC

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 - AWEngineering.net

Erosion Control Plan

AFCU Cedar Hills Branch

4800 West Cedar Hills Drive
Cedar Hills, Utah

PROFESSIONAL ENGINEER
No. 7879289
SHAUN H YOUNG
STATE OF UTAH
REGISTERED

23 Jun, 2014

SHEET NO.
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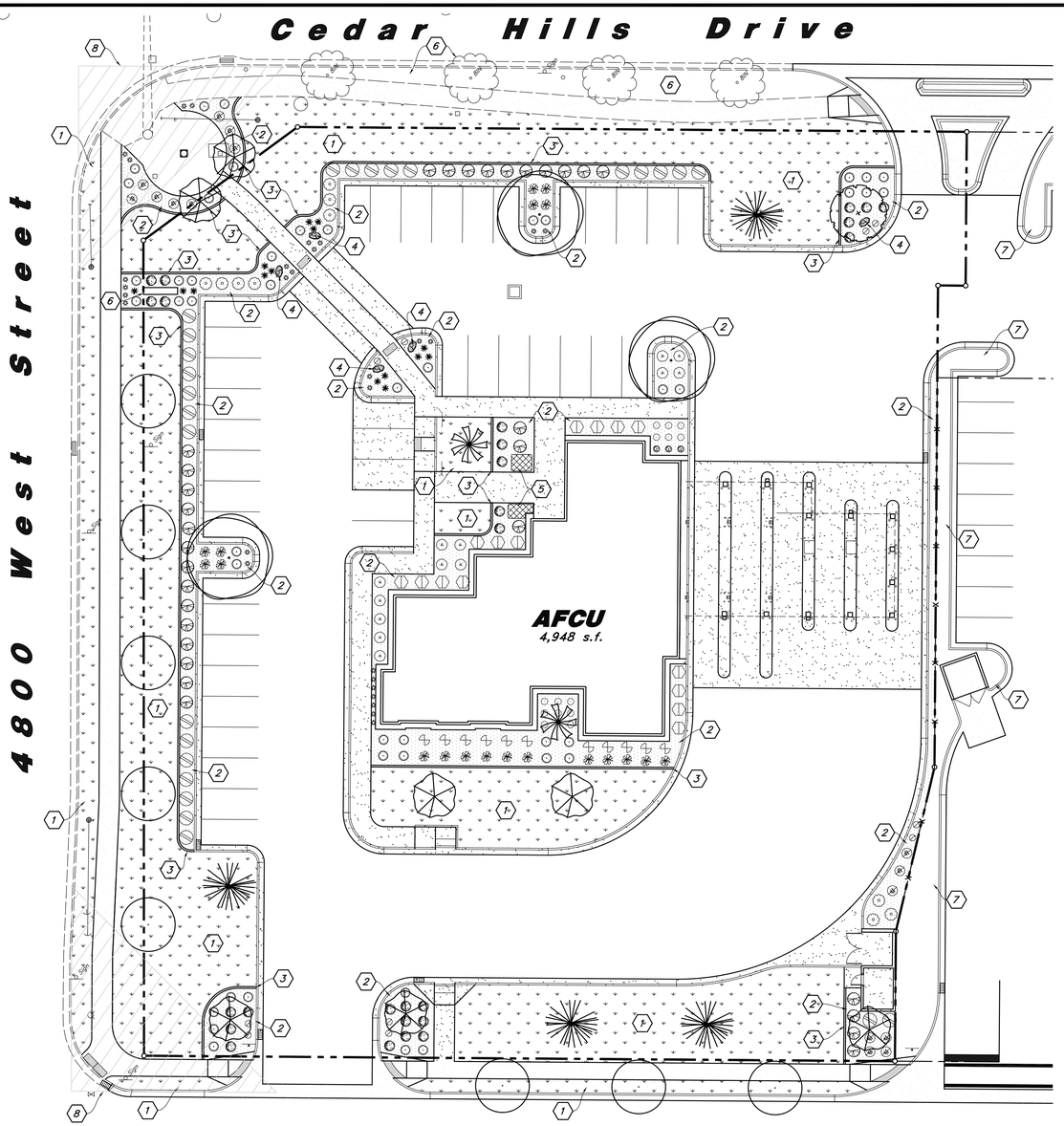


Plant Legend

Trees

Symbol	Qty.	Botanical Name	Common Name	Plant Size/Spacing	Detail
	7	Pyrus c. 'Capital'	Capital Flowering Pear	2 1/2" Cal., B&B	2/L3.1
	1	Acer p. 'Crimson Sentry'	Crimson Sentry Maple	2 1/2" Cal., B&B	2/L3.1
	8	Pyrus c. 'Chanticleer'	Chanticleer Flowering Pear	2 1/2" Cal., B&B	2/L3.1
	2	Prunus s. 'Snow Fountains'	Weeping Flowering Cherry	2" Cal., B&B	2/L3.1
	4	Picea p. 'Bakerii'	Colorado Green Spruce	8' Min Ht., B&B	3/L3.1
	3	Gleditsia t. 'Skyline'	Skyline Honeylocust	2 1/2" Cal., B&B	2/L3.1

Shrubs

	11	Cornus s. 'Isanti'	Isanti Dogwood	5 Gal. Cont., 15" Min. Ht.	1/L3.1
	26	Spirea b. 'Limemound'	Limemound Spirea	5 Gal. Cont., 15" Min. Ht.	1/L3.1
	19	Potentilla f. 'Gold Drop'	Gold Drop Potentilla	5 Gal. Cont., 18" Min. Ht.	1/L3.1
	13	Berberis t. a. 'Crimson Pygmy'	Crimson P. Barberry	5 Gal. Cont., 15" Min. Ht.	1/L3.1
	46	Pinus m. m. 'Slowmound'	Slowmound Mugo Pine	5 Gal. Cont., 15" Min. Ht.	1/L3.1
	15	Prunus l. 'Otto Luykens'	Otto Luyken Laurel	5 Gal. Cont., 24" Min. Ht.	1/L3.1
	26	Prunus cistena	Purple Leaf Sand Cherry	5 Gal. Cont., 24" Min. Ht.	1/L3.1
	31	Buxus k. 'Wintergreen'	Wintergreen Boxwood	5 Gal. Cont., 18" Min. Ht.	1/L3.1
	15	Caryopteris x. c. 'Dark Knight'	Blue Mist Spirea	5 Gal. Cont., 24" Min. Ht.	1/L3.1
	14	Cornus s. 'Kelseyi'	Kelseyi Dogwood	5 Gal. Cont., 12" Min. Ht.	1/L3.1
	10	Juniperus s. 'Scandia'	Scandia Juniper	5 Gal. Cont., 12" Min. Ht.	1/L3.1

Perennials/Ornamental Grasses

	3	Hosta 'Pizzazz'	Hosta	2 Gal. Cont., 12" Min. Ht.	1/L3.1
	29	Hemerocallis x. 'Happy Returns'	Daylily	1 Gal. Cont., 12" Min. Ht.	1/L3.1
	15	Calamagrostis 'Karl Forester'	Karl Forester Grass	2 Gal. Cont., 18" Min. Ht.	1/L3.1
	10	Lavandula a. 'Munstead'	English Lavender	2 Gal. Cont., 18" Min. Ht.	1/L3.1

Misc. Materials

Kentucky Bluegrass Blend from a Local Source. Install over a 4 inch depth of Topsoil. Mix in a 2 Inch depth of Soil Pep. — Sod — 4/L3.1

Colorful Annual Flowers:

Fall Annual Flower Plantings:

1. 60% Pansy Mix w/ 40% Tulip Mix; Mixes to consist of blue(85%) & white(15%) colors w/ white being the accent color.
2. Tulip Bulbs to remain in planting area for next year while Pansy's are to be discarded and replaced w/ summer annual flowers.
3. Annuals & bulbs to be planted and grouped @ 10" o.c. to fill planter. 3" depth of Shredded Bark mulch to be used around annual flowers. — 1/L1.1

Summer Annual Flower Plantings:

1. Summer annuals to consist of a Petunnia Mix. (85%) of mix to be a blue color & (15%) to be white w/ white being the accent color.
2. Add 2" depth of Topsoil and till in a 2 Inch depth of Soil Pep so the planter is mounding. Annuals to be planted using triangular spacing at 10 inches o.c.

Shredded Bark Mulch – Install a 3 inch depth over Dewitt Pro5 Weed Barrier or equal. Mulch to be used in all Planting Areas. Mulch to be a dark color. Submit Sample for Approval. — 4/L3.1

4" x 6" Concrete Mowstrip – Install Flush to all Concrete Edges between Lawn and Planting Areas. — 4/L3.1

3–4' Dia. Minimum Decorative Landscape Boulder. Boulders to Match Stone Veneer on Bldg. Boulders to be flat or buried in the ground at a Max. Ht. of 24". Submit Sample or Photo for Approval. — 5/L3.1

Plant Quantities Provided for Bidding Purposes Only. If there is a Discrepancy between Plant Legend Quantities and Plants Shown on the Plan, Plans take Precedence over Plant Legend.

Scale: 1" = 20'

20' 0 20' 40'

Landscape Keynotes

1. New Lawn
2. New Planting Bed
3. Concrete Mowstrip
4. Decorative Landscape Boulder
5. Annual Plantings
6. Pylon Sign by Separate Permit
7. Landscape by Others
8. 60' Clear View Triangle

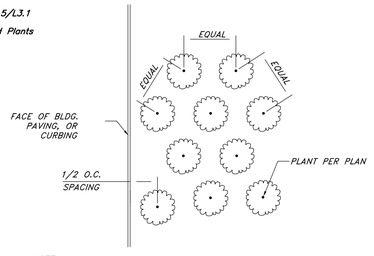
Irrigation Notes:

1. See Sheet L3.1 for Landscape Details.
2. All landscape material shall be fully irrigated by an automatic irrigation system. See Sheet L2.1 Irrigation Layout & L3.1 for Details.

Site Data

Zone = SC-1 Commercial
Site Area = 114,219 s.f. (2.62 ac.)
Landscape Area Required = 34,266 s.f. (30%)

Overall Development
Landscape Area Provided = 41,294 s.f. (36.2%)



NOTE:
1. ALL PLANTS TO BE INSTALLED USING TRIANGULAR SPACING. SEE PLANT LEGEND FOR SPACING.

1 PLANT SPACING
Not to Scale

Landscape Notes:

1. Plant material quantities are provided for bidding purposes only. It is the contractors responsibility to verify all quantities listed on the plans and the availability of all plant materials and their specified sizes prior to submitting a bid. The contractor must notify the Landscape Architect prior to submitting a bid if the contractor determines a quantity deficiency or availability problem with specified material. The contractor shall provide sufficient quantities of plants equal to the symbol count or to fill the area shown on the plan using the specified spacing. Plans take precedence over plant legend quantities.
2. Contractor shall call 811 before excavation for plant material.
3. Prior to construction, the contractor shall be responsible for locating all underground utilities and shall avoid damage to all utilities during the course of the work. It shall be the responsibility of the contractor to protect all utility lines during the construction period, and repair any and all damage to utilities, structures, site appurtenances, etc. which occurs as a result of the landscape construction.
4. The landscape contractor shall examine the site conditions under which the work is to be performed and notify the general contractor in writing of unsatisfactory conditions. Do not proceed until conditions have been corrected.
5. The contractor shall provide all materials, labor and equipment required for the proper completion of all landscape work as specified and shown on the drawings.
6. See civil and architectural drawings for all structures, hardscape, grading, and drainage information.
7. Contractor safety and cleanup must meet OSHA standards at all times. All contractors must have adequate liability, personnel injury and property damage insurance. Clean-up must be performed daily, and all hardscape areas must be washed free of dirt and mud on final cleanup. Construction must occur in a timely manner.
8. All new plant material shall conform to the minimum guidelines established by the American Standard for Nursery Stock Published by the American Association of Nurseryman, Inc. In addition, all new plant material shall be of specimen quality.
9. The Owner/Landscape Architect has the right to reject any and all plant material not conforming to the plans and specifications.
10. Any proposed substitutions of plant species shall be made with plants of equivalent overall form, height, branching habit, flower, leaf, color, fruit and culture only as approved by the Landscape Architect.
11. It is the contractors responsibility to furnish all plant materials free of pests or plant diseases. It is the contractor's obligation to maintain and warranty all plant materials.
12. The contractor shall take all necessary scheduling and other precautions to avoid winter, climatic, wildlife, or other damage to plants. The contractor shall install the appropriate plants at the appropriate time to guarantee life of plants
13. The contractor shall install all landscape material per plan, notes and details.
14. All existing and relocated trees shall be properly protected. Trees damaged during construction shall be replaced at no cost to the owner.
15. Plant names are abbreviated on the drawings, see plant legend for symbols, abbreviations, botanical, common names, sizes, estimated quantities and remarks.
16. No grading or soil placement shall be undertaken when soils are wet or frozen.
17. Existing topsoil to be stripped and stockpiled for landscape use. Contractor shall verify existing topsoil amounts and quality with the general contractor. The landscape contractor shall perform a soil test on existing & imported topsoil and amend per soil test recommendations. Soil test to be done by certified soil testing agency. Provide new imported topsoil as needed from a local source. Imported topsoil must be a premium quality dark sandy loam, free of rocks, clods, roots, and plant matter. Topsoil to be installed in all landscaping areas.
18. Prior to placement of topsoil in all landscaping areas, all subgrade areas shall be loosened by scarifying the soil to a depth of 6 inches in order to create a transition layer between existing and new soils.
19. Provide a 8 inch depth of stockpiled or imported topsoil in all shrub areas.
20. All plant material holes shall be dug twice the diameter of the rootball and 6 inches deeper. Excavated material shall be removed from the site and replaced with plant backfill mixture. The top of the root balls, shall be planted flush with the finish grade.
21. Plant Backfill Mix shall be composed of 3 parts Topsoil to 1 Part Soil Pep, and shall be mixed on-site prior to installation. All plants to receive 20-10-5 'Agriform' brand 21 gram tablets applied per manufacturer's recommendations. Deep water all plant material immediately after planting. Add backfill mixture to depressions as needed.
22. All new plants to be balled and burlapped or container grown, unless otherwise noted on plant legend.
23. Upon completion of planting operations, all landscape areas with trees, shrubs, and perennials, shall receive a 4 inch depth of specified mulch over Dewitt Pro5 Weed Barrier or equal. Mulch shall be evenly spread on a carefully prepared grade free of weeds. The top of mulch should be slightly below finish grade and concrete areas. Weed barrier and mulch not to be used in seasonal annual beds and groundcover areas.
24. All deciduous trees to be double staked and evergreen trees to be guyed per tree staking details. It is the contractors responsibility to remove tree staking in a timely manner once staked trees have taken root. Trunks sensitive to winter damage to be wrapped in the fall to protect the tree bark from the winter sun. Tree wrap to be removed the following spring. Deciduous Tree ties to be V.I.T. Cinche Ties #CT32. Evergreen Tree Guying to be Duckbill Tree Support System #68-DTS.
25. Install concrete mowstrip between lawn and planting areas. Curbing to be installed level and uniform and shall match top finish grades of concrete walks and curbs. See concrete mowstrip detail.
26. Provide a 4 inch depth of stockpiled or imported topsoil in all lawn areas.
27. Sod must be premium quality, evenly cut, established, healthy, weed and disease free, and from an approved source.
28. All lawn areas to have uniform grades by float raking. Prior to laying sod, apply a starter fertilizer at a rate recommended by the manufacturer. Sod must be laid with no gaps between pieces on a carefully prepared topsoil layer. Sod to be slightly below finish grade and concrete walks and curbing. The laid sod must be immediately watered after installation. Any burned areas will require replacement. Adjust sprinkler system to assure healthy green survival of the sod without water waste.
29. All trees located in lawn areas shall have a 36 inch diameter sod-free ring with a 4 inch depth of specified mulch. All trees in turf to have a 8" wide x 3' deep augured hole filled with 3/4" crushed gravel. See tree planting details.
30. The contractor shall comply with all warranties and guarantees set forth by the Owner, and in no case shall that period be less than one year following the date of completion and final acceptance.
31. Landscape maintenance shall be required for a period through the second mowing of the lawn (30 days minimum) and shall include mowing, weeding, pruning and one fertilization. In addition to the initial maintenance period, the contractor shall provide a separate price to extend the maintenance period through the one-year warranty period. Maintenance requirements shall be as follows:
   1) Weekly mowing of the lawn, including discarding of all grass materials off-site at no cost to Owner.
   2) Weekly edging along all sidewalks and concrete mow curbs.
   3) Weekly weeding of all planting beds as required.
   4) Pre-emergent herbicide application in early spring
   5) Fertilization of all lawn areas (5 applications) as follows: Mid-April, End of May, Early July, Early Sept., and End of October.
   6) Fertilization of all trees and shrubs (1 application) as follows: End of April
   7) Spring clean-up of all planting beds and lawn areas.
   8) Aeration of all lawn areas with mechanical aerator.
   9) Fall clean-up of all leaves and debris to prepare for winter months.

811 Know what's below. Call before you dig.

		XXX	XXXX
		XXX	DATE
		X	REV.

Designed by: JRM
Drafted by: JRM
Client Name:
AFFCU

13-037LS

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 – AWEngineering.net

Landscape Plan

AFCU Cedar Hills Branch
4800 West Cedar Hills Drive
Cedar Hills, Utah

State of Utah — Licensed Landscape Architect — Jared R. Manscill No. 7740426-5301

23 Jun, 2014

SHEET NO.
L1.1

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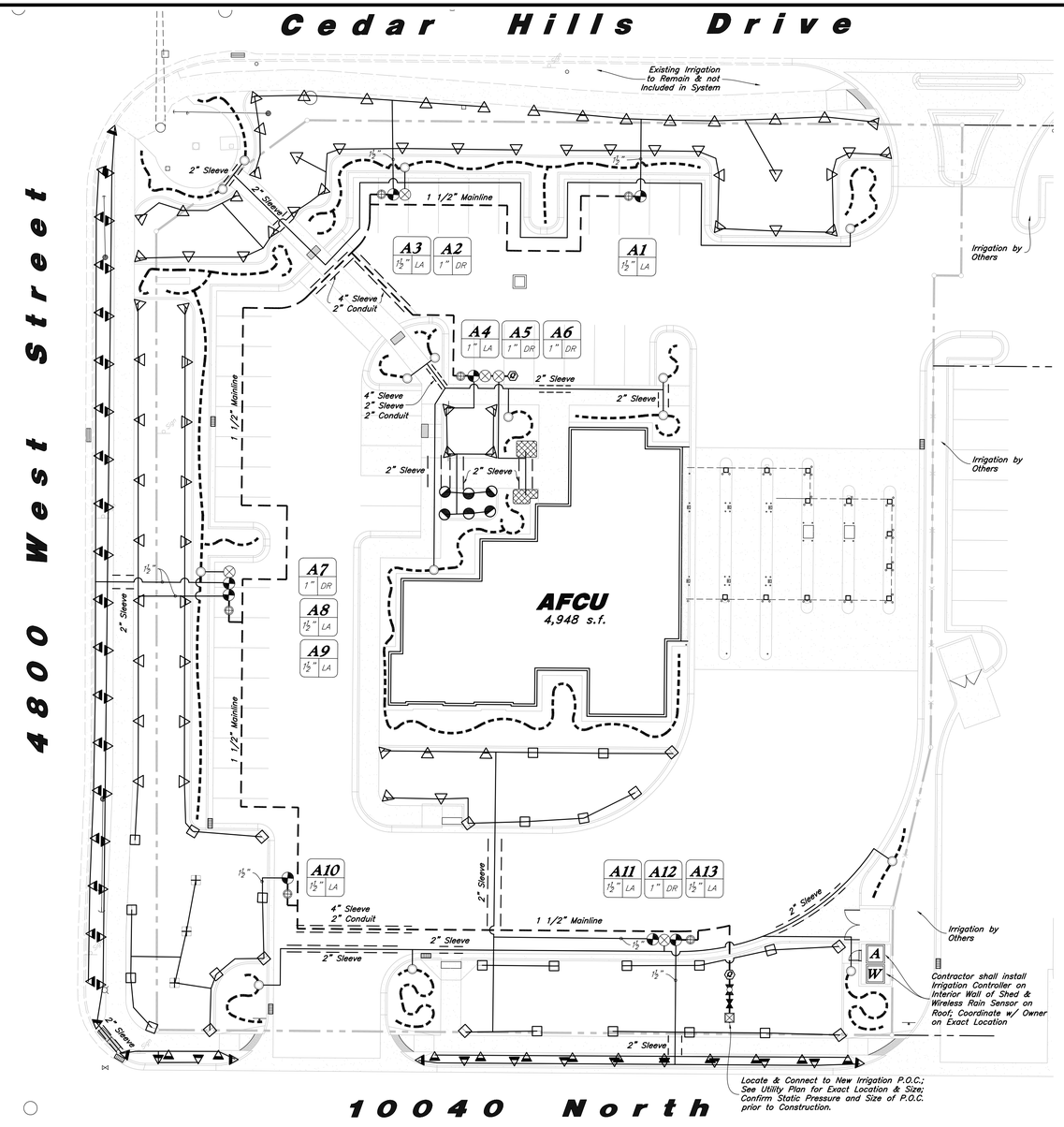

Irrigation Legend

Sprayheads

Symbol	Manufacturer/Model #	Description	Notes	Detail
	Hunter PROS-04-PRS40-MP1000XX	4" Pop-Up Sprayhead w/ MPR Rotator Nozzle as Required	Adjust Radius Reduction Screws as Needed to Achieve Appropriate Radii Coverages	18/L3.1
	Hunter PROS-04-PRS40-MP2000XX	4" Pop-Up Sprayhead w/ MPR Rotator Nozzle as Required	Adjust Radius Reduction Screws as Needed to Achieve Appropriate Radii Coverages	18/L3.1
	Hunter PROS-04-PRS40-MP3000XX	4" Pop-Up Sprayhead w/ MPR Rotator Nozzle as Required	Adjust Radius Reduction Screws as Needed to Achieve Appropriate Radii Coverages	18/L3.1
	Hunter PROS-04-PRS40-MPSSXXX	4" Pop-Up Sprayhead w/ MPR Rotator Nozzle as Required	Adjust Radius Reduction Screws as Needed to Achieve Appropriate Radii Coverages	18/L3.1

Valves

Symbol				
	Rain Bird 100-PESB Rain Bird 150-PESB	1 Inch Remote Control Valve 1 1/2 Inch Remote Control Valve	Install in Standard Valve Box w/ 3" Depth of Gravel over Weed Barrier; Refer to Plan for Location of Valve and Sizes	7/L3.1
	Rain Bird XCZ-100-PRB-COM	1 Inch Remote Control Valve	Drip Control Zone Kit; Install 1 in Standard Valve Box w/ 3" Depth of Gravel over Weed Barrier	8/L3.1
Q	Rain Bird 33DLRC	3/4" Quick Coupler Valve	Provide: 2 Valve Keys (Rain Bird 33-DK) & 2 Swivel Hoses (Rain Bird SH-O); Install in 10" Round Valve Box w/ 3" Depth of Gravel over Weed Barrier	10/L3.1
	Nibco T-580-A (Brass)	Isolation Ball Valve	Size to Match Line Size/Install in 10" Round Valve Box w/ 3" Depth of Gravel over Weed Barrier	None
None	Manual Drain Valve	3/4 Inch Drain Valve	Install at all Low Points & in 10" Round Valve Box w/ Gravel Sump at 6" Depth over Weed Barrier	11/L3.1

Drip

Symbol				
	PVC Pipe To 3/4" Distribution Tubing	Provide Connection Fittings	Install 1" Feeder Line To All Drip Areas	13/L3.1
	Rain Bird XT-700 Rain Bird XD-100 Rain Bird XB-10PC / XB-20PC(Tree) Rain Bird TS025 Rain Bird DBC-025 Rain Bird MDCFCAP	3/4" Distribution Tubing - Pipe shown on Plan is Schematic; Adjust as Needed 1/4" Distribution Tubing - Install one per Emitter Xeri-Bug Emitter (1 Gal/Hr.)-1 per Per., 2 per Shb./Grn. Grass./Gdcvr., 4 per Tree Tie Down Stake - Tubing to be Staked every 3' Diffuser Bug Cap - Install one per Emitter Removable Flush Cap - Install at the End of Each Line		14/L3.1

P.O.C. Components

Symbol				
	Mueller Oriseal Mark II	Stop & Waste Valve	1 1/2 Inch Size; Installed in 10" Round Valve Box	6/L3.1
	Amiad Filter	Secondary Water Filter	1 1/2 Inch Plastic Filter w/ 300 Micron Stainless Steel Weave-Wire Screen Filter Element; Install in Jumbo Valve Box w/ Gravel Sump at 6" Depth over Weed Barrier	17/L3.1
	Watts 223-HP Series	Pressure Regulator	1 1/2 Inch Size; Install in Standard Valve Box w/ 3" Depth of Gravel over Weed Barrier Install as Needed; See Irrigation Note 28.	none

Pipes

Symbol				
	Schedule 40 PVC	Mainline Pipe	1 1/2 Inch Size Throughout/Rated ASTM D 1784	9/L3.1
	Schedule 40 PVC	Lateral Line Pipe	See Plan for Pipe Sizes; Pipes unmarked to be 1 Inch; Minimum pipe size to be 1 Inch for PVC Pipe	9/L3.1

Controller

Symbol				
A	Rain Bird ESP12LXMM Rain Bird ESPLXMSM4	12 Station Controller w/ 4 Station Module in Locking Metal Cabinet	See Plan for Location of Controller; Coordinate 120 Volt Power Supply With Building Electrical Contractor; Controller to be "Hardwired" In Module	16/L3.1
W	Rain Bird WR2-RFC	Wireless Rain/Freeze	Mount on Roof; Install per Manufacturer's Specifications;	None

Sleeving

Symbol				
	Schedule 40 PVC	Provide for Irr. Mainlines, Laterals, and Controller Wire Located under Concrete and Asphalt Paving at specified depths	Contractor shall Coordinate the Installation of Sleeving with the Installation of Concrete Flatwork and Asphalt Paving. All Sleeving is by the Landscape Contractor unless otherwise noted.	12/L3.1

A1 — Controller/Station
Valve Size — 1" DR — Watering Type (DR-Drip / LA-Lawn)

Irrigation Controller Valve Sch.

Valve Data					Hydraulic Data	
#	Size	Head Type	GPM	PSI	Landscape Zone	Prec. Rate-inch/hr
1	1 1/2"	Spray	15.0	40	Lawn-Sun	0.45
2	1"	Drip	2.5	30	Plantings-Sun	Drip
3	1 1/2"	Spray	16.3	40	Lawn-Sun	0.45
4	1"	Spray	5.2	40	Lawn-Sun	0.45
5	1"	Drip	2.5	30	Plantings-Sun	Drip
6	1"	Drip	1.0	30	Plantings-Sun	Drip
7	1"	Drip	2.5	30	Plantings-Sun	Drip
8	1 1/2"	Spray	19.3	40	Lawn-Sun	0.45
9	1 1/2"	Spray	18.8	40	Lawn-Sun	0.45
10	1 1/2"	Spray	23.7	40	Lawn-Sun	0.45
11	1 1/2"	Spray	23.7	40	Lawn-Sun	0.45
12	1"	Drip	2.5	30	Plantings-Sun	Drip
13	1"	Drip	2.5	30	Plantings-Sun	Drip

Scale: 1" = 20'
20' 0 20' 40'

General Irrigation Note

Main Service Line & Other Irrigation Components Are Shown In Paved Or Hardscape Surfaced For Clarity Purposes ONLY! Install All Irrigation Components within Landscaped Areas.

Irrigation Notes:

1. See Sheet L1.1 for Landscape Plan.
2. See Sheet L3.1 for Landscape & Irrigation Details.

Irrigation Notes:

1. Prior to construction, the contractor shall be responsible for locating all underground utilities and shall avoid damage to all utilities during the course of the work. It shall be the responsibility of the contractor to protect all utility lines during the construction period, and repair any and all damage to utilities, structures, site appurtenances, etc. which occurs as a result of the landscape construction.
2. The irrigation contractor shall examine the site conditions under which the work is to be performed and notify the general contractor in writing of unsatisfactory conditions. Do not proceed until conditions have been corrected.
3. The contractor shall provide all materials, labor and equipment required for the proper completion of all irrigation work as specified and shown on the drawings.
4. See civil and architectural drawings for all structures, hardscape, grading, and drainage information.
5. Contractor safety and cleanup must meet OSHA standards at all times. All contractors must have adequate liability, personnel injury and property damage insurance. Clean-up must be performed daily, and all hardscape areas must be washed free of dirt and mud on final cleanup. Construction must occur in a timely manner.
6. The Owner/Landscape Architect has the right to reject any and all irrigation material not conforming to the plans and specifications.
7. The contractor shall install all irrigation material per plan, notes and details.
8. Irrigation system components must be premium quality only and installed to manufactures requirements and specifications. The contractor is responsible for checking state and local laws for all specified materials and workmanship. Substitutions must be approved by landscape architect. Provide owner and maintenance personnel with instruction manual and all products data to operate, check, winterize, repair, and adjust system.
9. Irrigation system guarantee for all materials and workmanship shall be one year from the time of project acceptance. guarantee will include, but is not limited to winterizing, spring activation, repair, trench setting, backfilling depressions, and repairing freeze damage. Contractor must contact Landscape Architect to schedule pre and post guarantee inspection meetings. Failure to do so will mean the official guarantee period has not been activated or de-activated.
10. Irrigation system check must be done before the system is backfilled. Irrigation mainline and each control valve section must be flushed and pressure checked. Assure the complete system has no documented problems and full head to head coverage with adequate pressure for system operation. Adjust system to avoid spray on building, hardscape, and adjacent property. Any problems or plan discrepancies must be reported to the landscape architect.
11. Irrigation laterals must be schedule 40 P.V.C. with schedule 40 fittings. one (1) inch minimum size. Solvent weld all joints as per manufactures specifications for measured static p.s.i. Teflon tape all threaded fittings. The minimum depth of lateral lines shall be twelve (12) inches. Flows in g.p.m. for un-sized lines or changes shall be (1 inch-9-12 g.p.m.), (1 1/4 inch-13-22 g.p.m.),(1-1/2 inch-23-30 g.p.m.), (2 inch-31-50 g.p.m.), (2-1/2 inch-51-70 g.p.m.), (3 inch-71-110 g.p.m.). Adapt system to manual compression air blowout.
12. Irrigation mainline that are 3" and smaller mainlines shall be schedule 40 PVC pipe with schedule 80 fittings. Solvent weld all joints as per manufactures specifications for measured static pressure. Use teflon tape on all threaded joints. Line depth must be eighteenr (18) inches minimum.
13. The design and layout of all sprayheads shall provide for a minimum 60% DU (Distribution Uniformity) and 70% DU for rotor type heads.
14. Maximum flow velocity in any pipe shall not exceed 5 ft/s.
15. Controller valves to be grouped together wherever possible. Install valve boxes with long side perpendicular to walk, curb, lawn, building or landscape features. Valve boxes to conform with finish grades.
16. Control valve wire shall be #14 single conductor white for common wire, and #14 single conductor for the hot wire. Use red for the hot wire on all lawn control valve zones, green on all shrub control valve zones, and blue (2) as spares along the entire main service line. Spare wires shall be 'home run' to the controller. All wiring shall be UF-UL rated. All connections shall be made with water tight connectors, and contained in control valve boxes. Provide 36" extra wire length at each remote control valve in valve box. Install control wiring with main service line where possible, taped to the underside of the piping at regular intervals. Provide slack in control wires at all changes in direction.
17. Control valve size, type, quantity, and location to be approved by landscape architect. install in heavy duty plastic vandal proof box. Size boxes according to valve type and size for ease of maintenance and repair. Install one (1) cubic feet of pea gravel for sump in base of boxes. boxes to be Carson Brooks or equal.
18. Quick couplers shall be a Rain Bird 33DRC with a (one) 1 inch Lasco unitized swing joint assembly and 1" brass insert 90° ell outlet. Support with rebar in each retainer lug. Install where shown on the plans.
19. Irrigation system backfill must occur only after system check is completed as specified. Use only rock free clean fill around pipes, valves, drains, or any irrigation system components. Water settle all trenches and excavations.
20. All irrigation pipe running through walls, under sidewalk, asphalt, or other hard surface shall be sleeved prior to paving. It is the irrigation contractors responsibility to coordinate sleeving with concrete and pavement contractors. Sleeves will be schedule 40 P.V.C. The depth for mainline sleeves shall be eighteen (18) inches minimum. Depth for lateral sleeves shall be twelve (12) inches minimum. Sleeves shall be a minimum of two sizes larger than the pipe to be sleeved. All valve wiring shall be contained in separate sleeving.
21. Plans are diagrammatic and approximate due to scale. where possible, all piping is to be installed within the planting areas. No tees, ells, or changes in direction shall occur under hardscape.
22. It is the contractors responsibility to verify all quantities based upon the plan prior to completion of a construction cost estimate.
23. The irrigation contractor shall flush and adjust all sprinkler heads for optimum performance and to prevent possible overspray onto walks, roadways, and/or buildings as much as possible. This shall include selecting the best degree of arc to fit the site and to throttle the flow control of each valve to obtain the optimum operating pressure for each system. All mainlines shall be flushed prior to the installation of irrigation heads.
24. All sprinkler heads shall be set perpendicular to finish grade of the areas to be irrigated and shall be installed 6-8" from buildings walls, or within 2" of pavement, curbs, or header edges.
25. Drip system piping shall consist of a rigid schedule 40 PVC pipe distribution system connecting drip irrigated planter areas. Poly tubing or drip line shall be run off the rigid PVC in each planting area or island with a PVC to poly tubing adapter. No poly tubing shall run under pavement.
26. Electrical power source at the controller location shall be provided by electrical contractor. Contractor shall verify location of controller prior to installation with owner.
27. The sprinkler system design is based on the operating pressure shown on the irrigation drawings. The irrigation contractor shall verify water pressure prior to any construction. Report any difference between the water pressure indicated on the drawings and the actual pressure reading at the point of connection to the owner's authorized representative immediately.
28. Minimum static pressure at the point of connection required is 50 psi. If water pressure is above 90 psi, install pressure reduction valve, and set to an operating pressure of 75 psi at point of connection.
29. Provide and install all manufacturer's recommended surge and lighting protection equipment on all controllers.
30. All lines shall slope to manual drains (see details). If field conditions necessitate additional drains, these drains shall be installed for complete drainage of the entire system. Provide a gravel sump under each drain. All drains shall be a minimum of 6" below grade.
31. It shall be the responsibility of the sprinkler contractor to demonstrate to the Owner the proper winterization and start-up procedures for the entire system prior to final payment
32. Irrigation maintenance shall be required for a minimum of 30 days and shall include adjusting controller clock, adjusting sprayheads, and monitoring irrigation system for defects. In addition to the initial maintenance period, the contractor shall provide a separate price to extend the maintenance period through the one-year warranty period. Maintenance requirements shall be as follows:
    1) Spring start-up of irrigation system at approximately April 15. This process shall be demonstrated with the Owner's maintenance staff present, so they are aware of what needs to be done following the one year maintenance period.
    2) Weekly cleaning of secondary water filter screen, or as required on a regular interval basis.
    3) Adjusting controller as required to adapt to changes in temperatures as the growing season progresses.
    4) Monthly inspection or walkthrough of plant materials to see if there are any signs of irrigation components not working properly. All repairs or adjustments needed are to be a part of this process.
    5) Winterization (Blow-Out) of irrigation system following the approximate October 15 general turn down of the secondary water system. This shall also be demonstrated with the Owner's maintenance staff present.

Know what's below. Call before you dig.

XXXX	DESCRIPTION
XXX	DATE
X	REV

Designed by: JRM
Drafted by: JRM
Client Name: AFCU
13-037IR

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 - AWengineering.net

Irrigation Plan
AFCU Cedar Hills Branch
4800 West Cedar Hills Drive
Cedar Hills, Utah

State of Utah — Jared R. Manscill — No. 7740426-5301 — Licensed Landscape Architect

23 Jun, 2014

SHEET NO. L2.1

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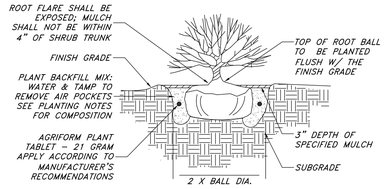
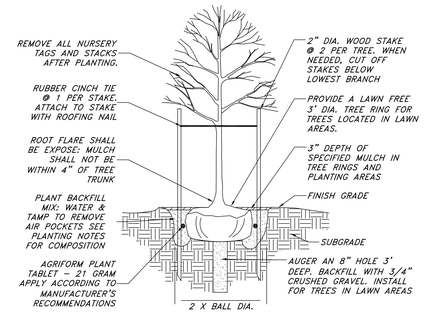


NOTE:

1. CUT AND REMOVE WIRE FROM TOP AND SIDES OF ROOTBALL. PEEL BACK BURLAP TO EXPOSE TOP 1/3 OF ROOTBALL.
2. REMOVE ALL NURSERY TAGS AND STACKS AFTER PLANTING.

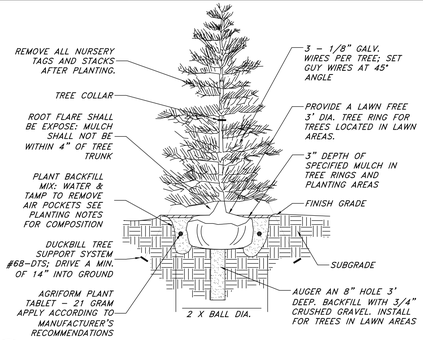
1 SHRUB PLANTING

Not to Scale



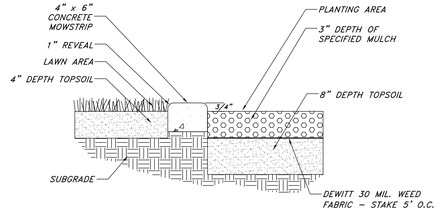
2 DECIDUOUS TREE PLANTING

Not to Scale



3 EVERGREEEN TREE PLANTING

Not to Scale

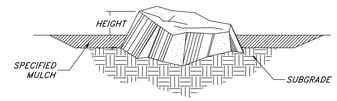


NOTE:

1. SMOOTH GRADE ENTIRE AREA PRIOR TO PLACEMENT OF MOWSTRIP AND SPECIFIED MULCH.
2. CONTROL JOINTS SHALL BE PLACED AT 5' O.C.
3. EXPANSION JOINTS SHALL BE PLACED AT 20' O.C. AND AT ALL HARDSURFACE ABUTEMENTS.

4 CONCRETE MOWSTRIP

Not to Scale

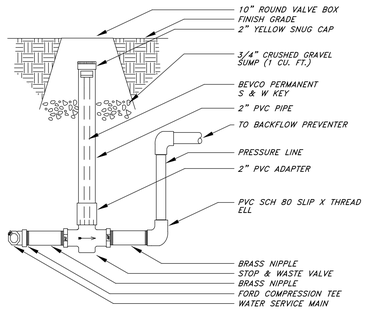


NOTE:

1. USE CARE TO MINIMIZE MARRING & SCRATCHING
2. BURY 1/3 OF BOULDER HEIGHT INTO SOIL, KEEPING BEST VISUAL SIDE ABOVE GROUND.

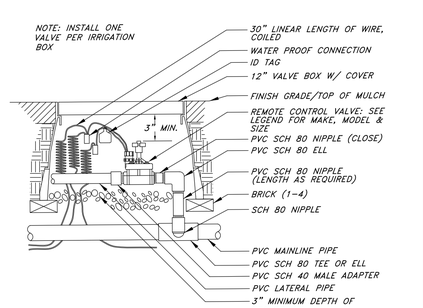
5 LANDSCAPE BOULDER

Not to Scale



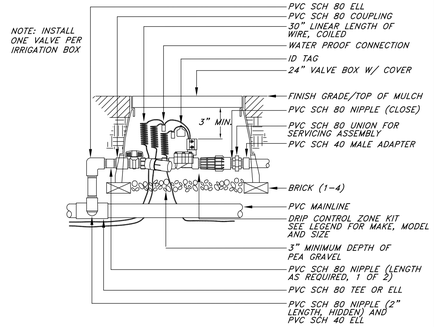
6 STOP & WASTE VALVE

NOT TO SCALE



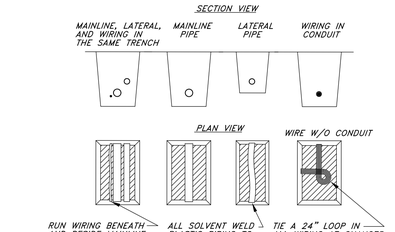
7 REMOTE CONTROL VALVE

Not to Scale



8 DRIP CONTROL VALVE

Not to Scale

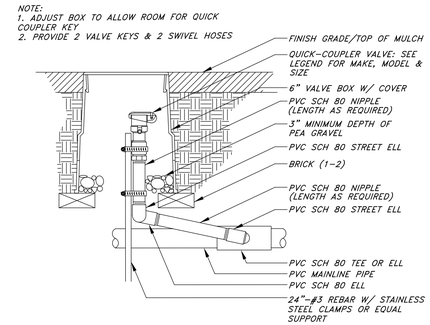


NOTES:

1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH. 40 PVC PIPE TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
2. FOR PIPE AND WIRE BURIAL DEPTHS SEE IRRIGATION NOTES.

9 PIPE & WIRE TRENCHING

Not to Scale

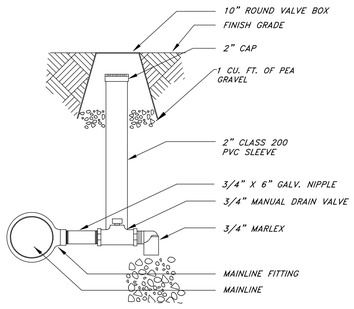


NOTE:

1. ADJUST BOX TO ALLOW ROOM FOR QUICK COUPLER KEY
2. PROVIDE 2 VALVE KEYS & 2 SWIVEL HOSES

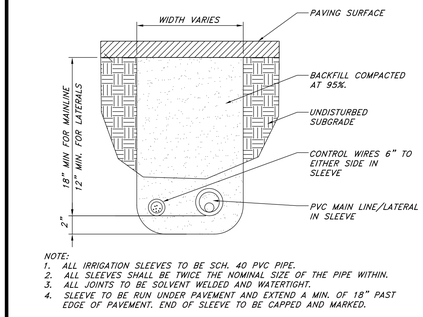
10 QUICK COUPLING VALVE

Not to Scale



11 MANUAL DRAIN VALVE

Not to Scale

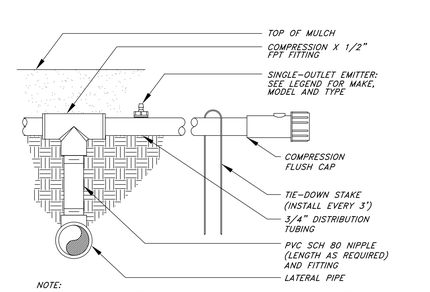


NOTE:

1. ALL IRRIGATION SLEEVES TO BE SCH. 40 PVC PIPE.
2. ALL SLEEVES SHALL BE TWICE THE NOMINAL SIZE OF THE PIPE WITHIN.
3. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
4. SLEEVE TO BE RUN UNDER PAVEMENT AND EXTEND A MIN. OF 18" PAST EDGE OF PAVEMENT. END OF SLEEVE TO BE CAPPED AND MARKED.

12 PIPE SLEEVING

Not to Scale

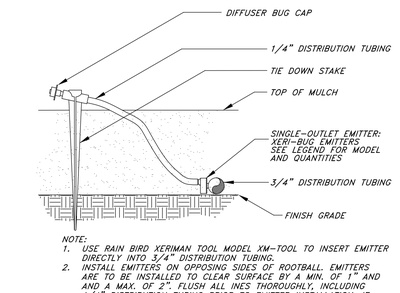


NOTE:

1. USE RAIN BIRD XERIMAN TOOL MODEL XM-TOOL TO INSERT EMITTER DIRECTLY INTO 3/4" DISTRIBUTION TUBING.

13 PVC TO POLY PIPE CONNECTION

Not to Scale

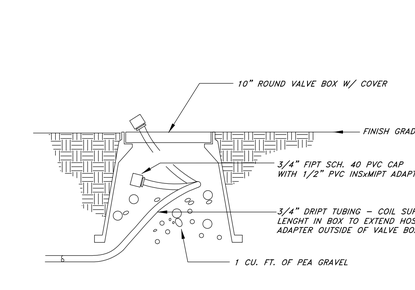


NOTE:

1. USE RAIN BIRD XERIMAN TOOL MODEL XM-TOOL TO INSERT EMITTER DIRECTLY INTO 3/4" DISTRIBUTION TUBING.
2. INSTALL EMITTERS ON OPPOSING SIDES OF ROOTBALL. EMITTERS ARE TO BE INSTALLED TO CLEAR SURFACE BY A MIN. OF 1" AND AND A MAX. OF 2". FLUSH ALL INES THOROUGHLY, INCLUDING 1/4" DISTRIBUTION TUBING PRIOR TO EMITTER INSTALLATION. IF PLANTING IN A 4:1 SLOPE OR GREATER, INSTALL BOTH EMITTERS ON UPHILL SIDE OF ROOTBALL.

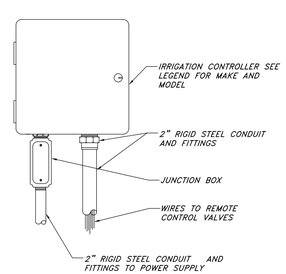
14 EMITTER INTO DISTRIBUTION TUBE

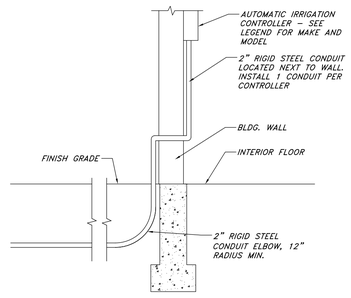
Not to Scale



15 COMPRESSION FLUSH CAP

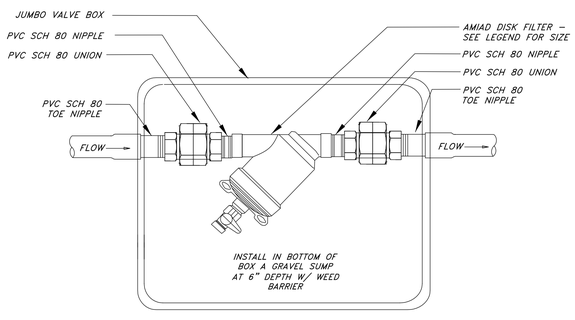
Not to Scale





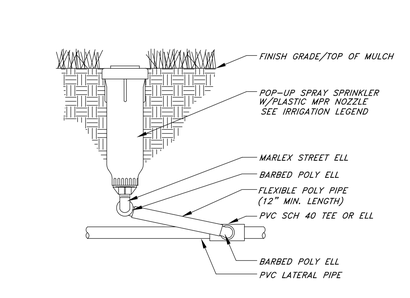
16 IRR. CONTROLLER - INDOOR WALL MOUNT

Not to Scale



17 AMIAD SECONDARY WATER FILTER

Not to Scale



18 POP-UP SPRAY SPRINKLER

Not to Scale

NO.	DESCRIPTION	DATE
X		

Designed by: JRM
Drafted by: JRM
Client Name:
AFFCU
13-037LS

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 - AWengineering.net

Landscape & Irrigation Details

AFCU Cedar Hills Branch
4800 West Cedar Hills Drive
Cedar Hills, Utah

State of Utah
Jared R. Mansell
No. 7740426-5301
Licensed Landscape Architect

23 Jun, 2014

SHEET NO.
L3.1

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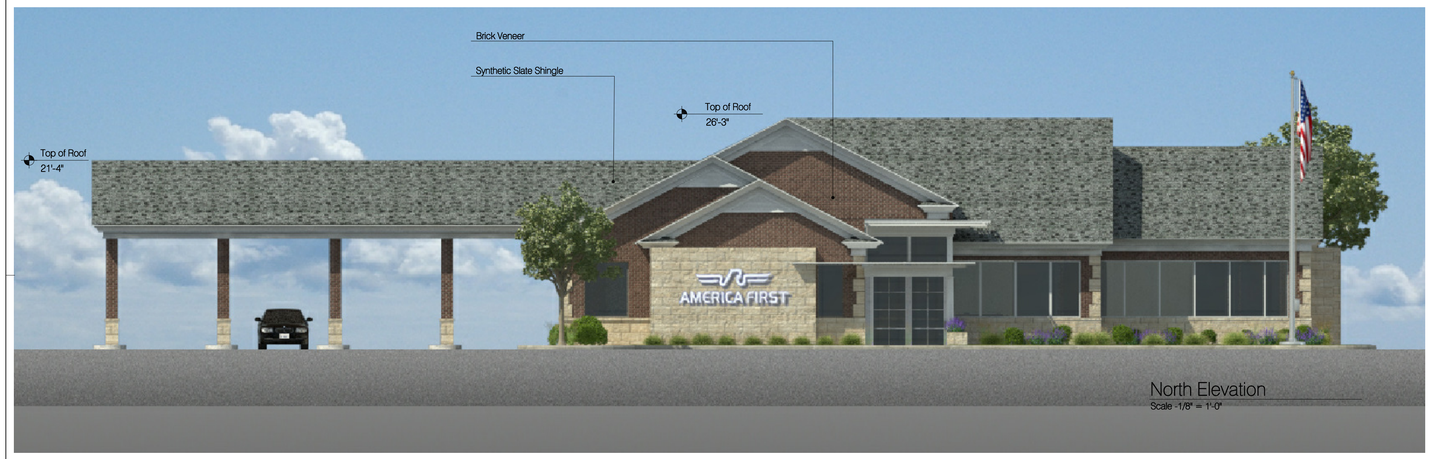
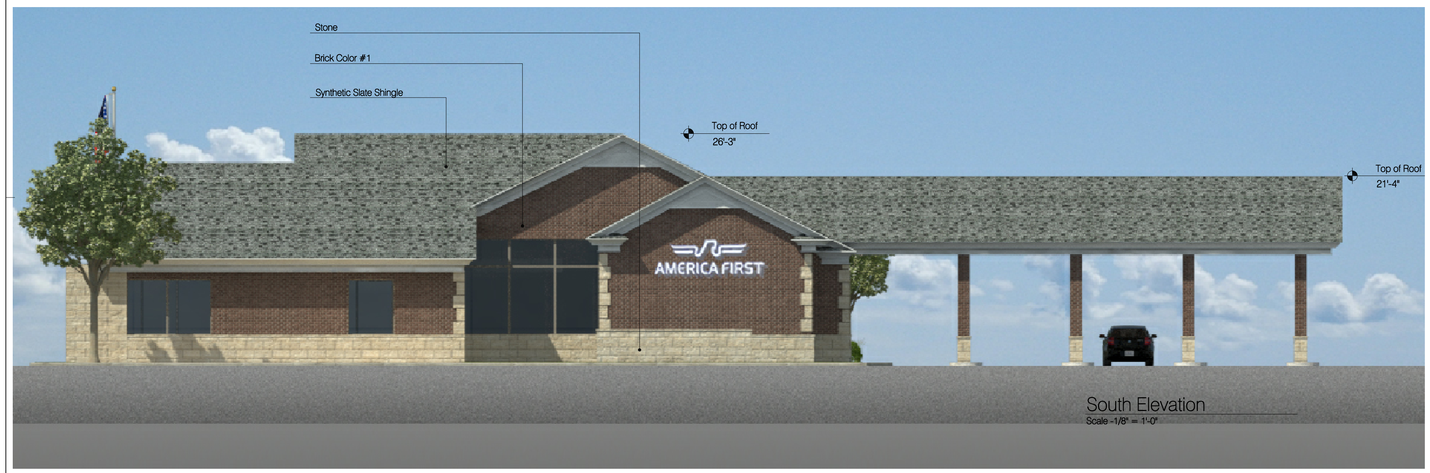
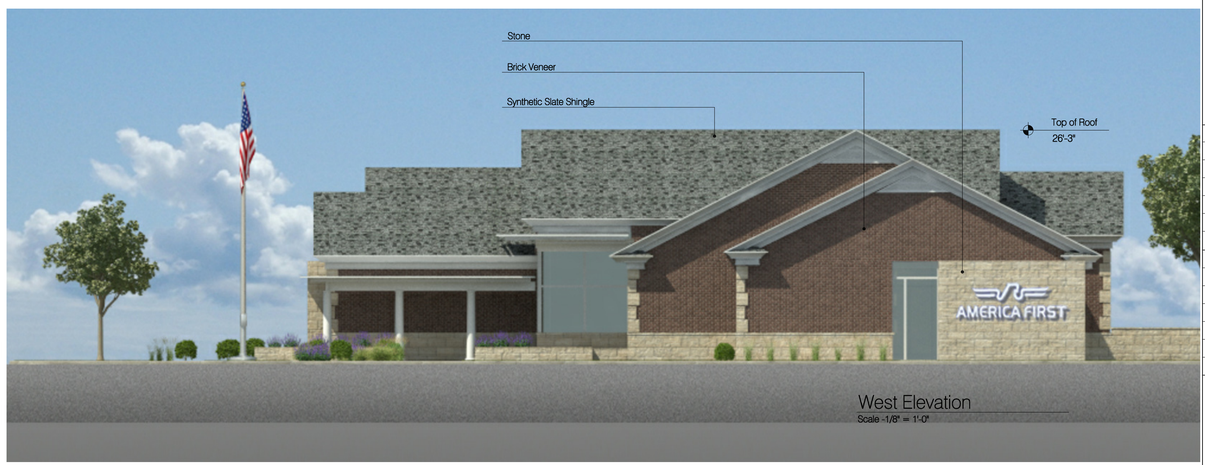


North Elevation
Scale -1/8" = 1'-0"



South Elevation
Scale -1/8" = 1'-0"

East Elevation
Scale -1/8" = 1'-0"



West Elevation
Scale -1/8" = 1'-0"

FFKR
ARCHITECTS

bogue building
730 pacific avenue
salt lake city
Utah 84104

o 801-521-6186
f 801-539-1916
ffkr.com

AMERICA FIRST CREDIT UNION
CEDAR HILLS BRANCH
Cedar Hills, Utah
Preliminary Site Plan Submittal

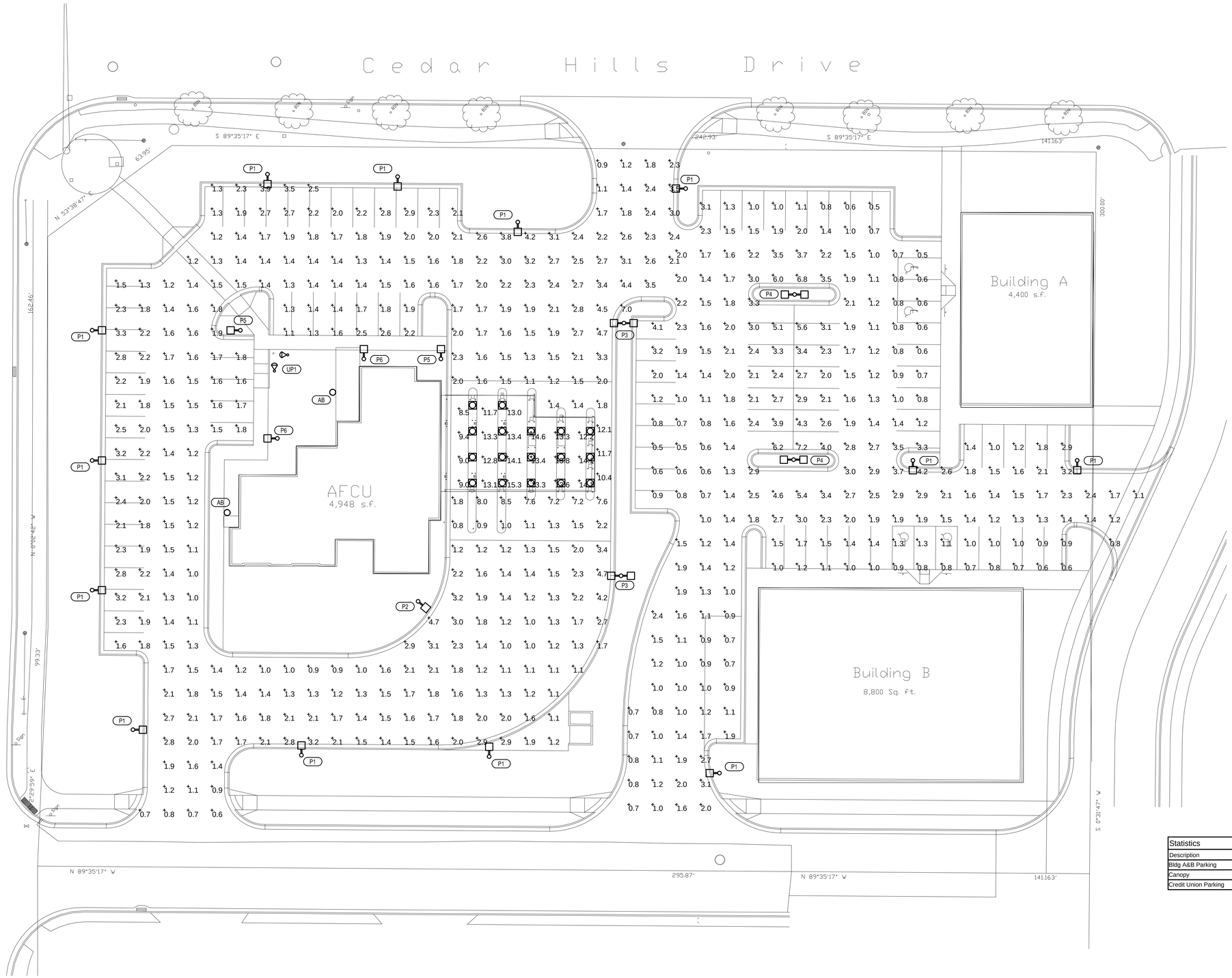
SEAL

DATE	STATUS
6-11-2014	P.C. - Resubmit

PROJECT NUMBER	14052
CAD DWG FILE	
DRAWN BY	
CHECKED BY	
SCALE	1/8" = 1'-0"

Exterior Elevations

A-1



ELECTRICAL SITE PLAN

SCALE: 1" = 20'-0"

NORTH

Statistics							
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Bldg A&B Parking	+	1.8 fc	7.2 fc	0.4 fc	18.0:1	4.5:1	0.3:1
Canopy	+	12.6 fc	15.3 fc	8.5 fc	1.8:1	1.5:1	0.8:1
Credit Union Parking	+	2.1 fc	12.1 fc	0.6 fc	20.2:1	3.5:1	0.2:1

ENVISION ENGINEERING
240 East Morris Ave. Suite 200
South Salt Lake City, UT 84115
P (801) 534-1130
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www.envisioneng.com

REV	DATE	DESCRIPTION

Designed by: ---
Drafted by: ---
Client Name:
Amsource / AFFCU
13-037SP

ANDERSON WAHLEN & ASSOCIATES
Great Basin Engineering South
2010 North Redwood Road, Salt Lake City, Utah 84116
801 521-8529 AWengineering.net

SITE LIGHTING CALCULATIONS

Cedar Hills Retail Center

4800 West Cedar Hills Drive
Cedar Hill, Utah

13 Mar, 2014

SHEET NO.
ES101