

Project Narrative/Notes/Revisions

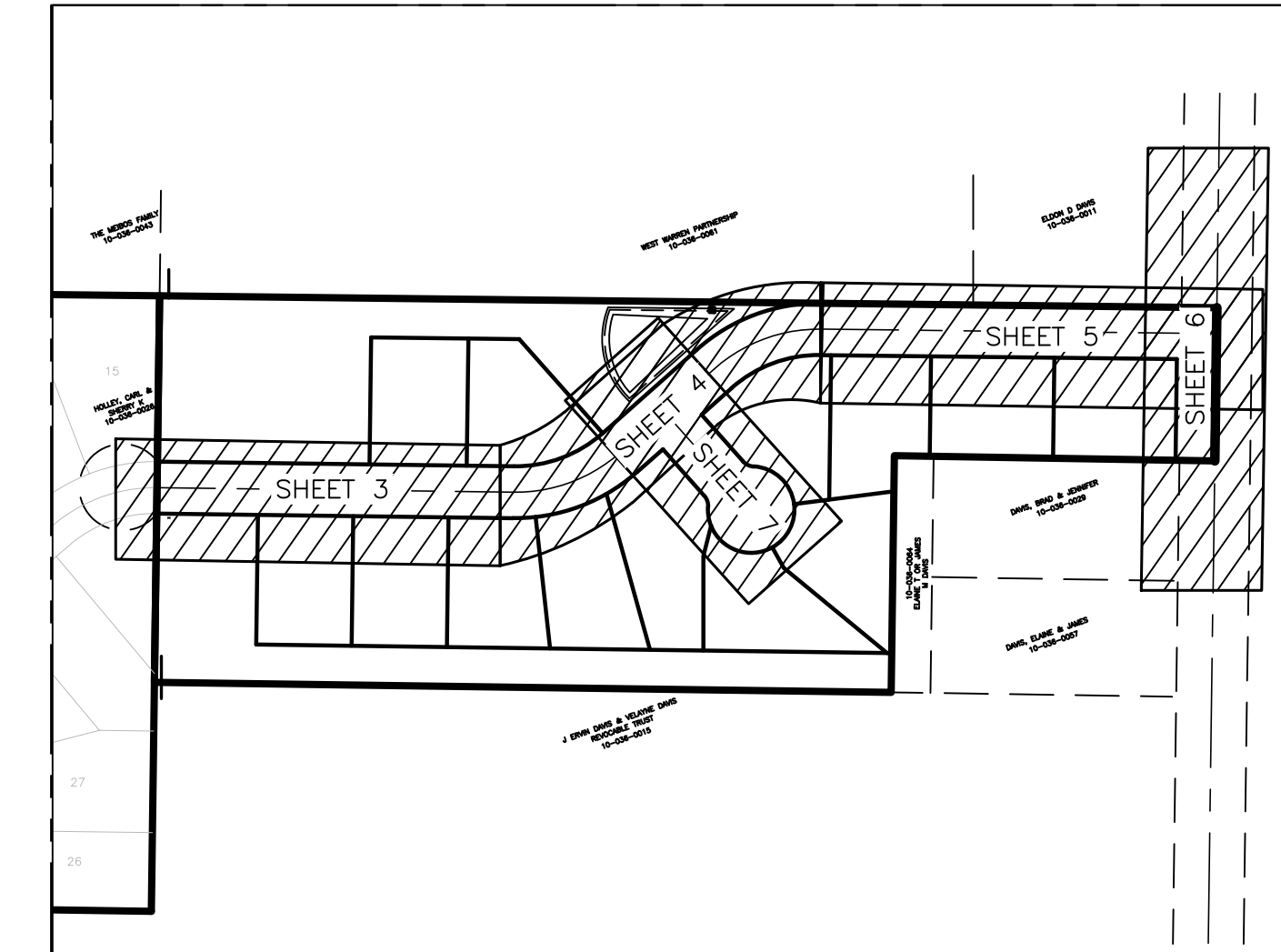
- 1) 4/8/16 CK - COMPLETED DESIGN FOR CLIENT & CITY REVIEW.
- 2) 9/20/16 CK - UPDATED PER COUNTY COMMENTS.
- 3) 12/13/16 ER - UPDATED PER COUNTY COMMENTS.
- 4) 12/22/16 CK - UPDATED PER COUNTY COMMENTS.
- 5) 1/24/17 KH - UPDATED PER COUNTY COMMENTS.
- 6) 2/2/17 KH - UPDATED PER DEQ COMMENTS.
- 7) 4/3/17 RH - UPDATED PER REVIEW COMMENTS.

Vaquero Village Cluster Subdivision Phase 1 Improvement Plans

WEBER COUNTY, UTAH
APRIL, 2016



Vicinity Map
NOT TO SCALE



Sheet Index Key Map
NOT TO SCALE

Sheet Index

- Sheet 1 - Cover/Index Sheet
- Sheet 2 - Notes/Legend/Street Cross-Section
- Sheet 3 - 7100 West 5+00.00 - 9+53.70
- Sheet 4 - 7100 West 9+53.70 - 14+09.56
- Sheet 5 - 7100 West 14+09.56 - 19+50.00
- Sheet 6 - 900 South St. 6+00.00 - 8+50.00
- Sheet 7 - Vaquero Court 5+00.00 - 7+50.00
- Sheet 8 - Grading & Drainage Plan
- Sheet 9 - Utility & Irrigation Plan
- Sheet 10 - Irrigation Reservoir Exhibit
- Sheet 11 - Storm Water Pollution Prevention Plan Exhibit
- Sheet 12 - Storm Water Pollution Prevention Plan Details
- Sheet 13 - Landscape
- Sheet 14 - Landscape Details

Revised: 4-3-17

Engineer's Notice To Contractors

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE INFORMATION PROVIDED BY OTHERS. THE LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR IS REQUIRED TO CONTACT THE UTILITY COMPANIES AND TAKE DUE PRECAUTIONARY MEASURE TO PROTECT ANY UTILITY LINES SHOWN, AND ANY OTHER LINES OBTAINED BY THE CONTRACTOR'S RESEARCH, AND OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

Developer Contact:

Barrow Land Livestock, LLC
Dean & Justin Barrow
6835 W. 900 S.
Ogden, UT. 84404
(801) 514-8194

Blue Stakes Location Center

Call: Toll Free
1-800-662-4111
Two Working Days Before You Dig

Project Info.

Engineer: J. NATE REEVE
Drafted: C. KINGSLEY
Begin Date: 4-4-16
Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
Number: 6352-01

Sheet **14**
1 Sheets

Vaquero Village Cluster Subdivision Phase 1
WEBER COUNTY, UTAH

Cover/Index Sheet

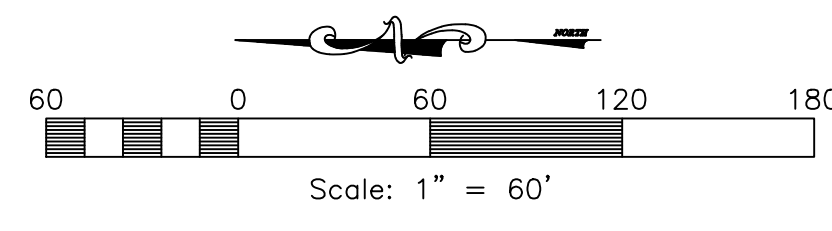
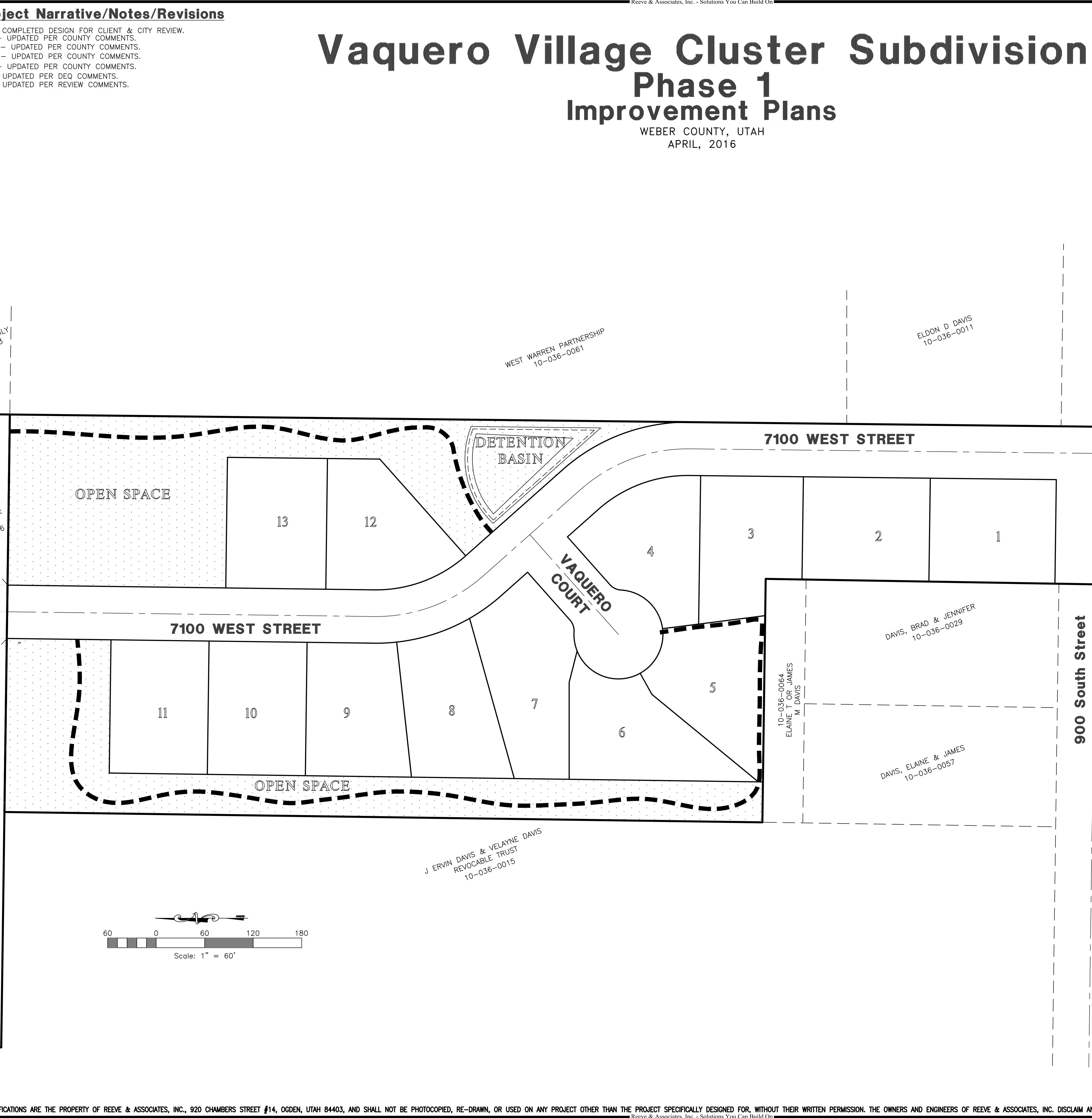


DATE	REVISIONS	DESCRIPTION
09-20-16	CK	County Comments
12-13-16	ER	County Comments
12-22-16	CK	Storm Drain
1-24-17	KH	Storm Drain
2-2-17	KH	DEQ comments
4-3-17	RH	Review Comments

Reeve & Associates, Inc.
920 CHAMBERS STREET, SUITE 14, OGDEN, UTAH 84403
TEL: (801) 621-3100 FAX: (801) 621-3666 www.reeve-assoc.com
LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

1/4/2016 | 100360013\Improvements\Barrow_imp_1.dwg | Parcel 100360013 | jnate | 6/3/2016

THE MEIBOS FAMILY 10-036-0043
HOLLEY, CARL & SHERRY K 10-036-0026
WEST WARREN PARTNERSHIP 10-036-0061
ELDON D DAVIS 10-036-0011
7100 WEST STREET
900 South Street
10-036-0064 ELAINE & JAMES M. DAVIS
DAVIS, BRAD & JENNIFER 10-036-0029
DAVIS, ELAINE & JAMES 10-036-0057
J ERVIN DAVIS & VELAYNE DAVIS REVOCABLE TRUST 10-036-0015



General Notes:

- 1. ALL CONSTRUCTION MUST STRICTLY FOLLOW THE STANDARDS AND SPECIFICATIONS SET FORTH BY: GOVERNING UTILITY MUNICIPALITY, GOVERNING CITY OR COUNTY (IF UN-INCORPORATED), INDIVIDUAL...

Utility Notes:

- 1. CONTRACTOR SHALL COORDINATE LOCATION OF NEW "DRY UTILITIES" WITH THE APPROPRIATE UTILITY COMPANY, INCLUDING BUT NOT LIMITED TO: TELEPHONE SERVICE, GAS SERVICE, CABLE, POWER, INTERNET...

Culinary Water Notes:

- 1. ALL MATERIALS THAT MAY COME IN CONTACT WITH DRINKING WATER, INCLUDING PIPES, GASKETS, LUBRICANTS AND O-RINGS, SHALL BE ANSI-CERTIFIED AS MEETING THE REQUIREMENTS OF ANSI/NSF STANDARD 61...

Erosion Control General Notes:

THE CONTRACTOR TO USE BEST MANAGEMENT PRACTICES FOR PROVIDING EROSION CONTROL FOR CONSTRUCTION OF THIS PROJECT. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO GOVERNING AGENCIES ORDINANCES AND ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE COUNTIES...

CONTRACTOR SHALL KEEP THE SITE WATERED TO CONTROL DUST. CONTRACTOR TO LOCATE A NEARBY HYDRANT FOR USE AND TO INSTALL TEMPORARY METER. CONSTRUCTION WATER COST TO BE INCLUDED IN BID.

WHEN GRADING OPERATIONS ARE COMPLETED AND THE DISTURBED GROUND IS LEFT *OPEN* FOR 14 DAYS OR MORE, THE AREA SHALL BE FURROWED PARALLEL TO THE CONTOURS.

THE CONTRACTOR SHALL MODIFY EROSION CONTROL MEASURES TO ACCOMMODATE PROJECT PLANNING.

ALL ACCESS TO PROPERTY WILL BE FROM PUBLIC RIGHT-OF-WAYS. THE CONTRACTOR IS REQUIRED BY STATE AND FEDERAL REGULATIONS TO PREPARE A STORM WATER POLLUTION PREVENTION PLAN AND FILE A "NOTICE OF INTENT" WITH THE GOVERNING AGENCIES.

Maintenance:

ALL BEST MANAGEMENT PRACTICES (BMP'S) SHOWN ON THIS PLAN MUST BE MAINTAINED AT ALL TIMES UNTIL PROJECT CLOSE-OUT.

THE CONTRACTOR'S RESPONSIBILITY SHALL INCLUDE MAKING BI-WEEKLY CHECKS ON ALL EROSION CONTROL MEASURES TO DETERMINE IF REPAIR OR SEDIMENT REMOVAL IS NECESSARY.

SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF BARRIER.

SEDIMENT TRACKED ONTO PAVED ROADS MUST BE CLEANED UP AS SOON AS PRACTICAL, BUT IN NO CASE LATER THAN THE END OF THE NORMAL WORK DAY. THE CLEAN UP WILL INCLUDE SWEEPING OF THE TRACKED MATERIAL, PICKING IT UP, AND DEPOSITING IT TO A CONTAINED AREA.

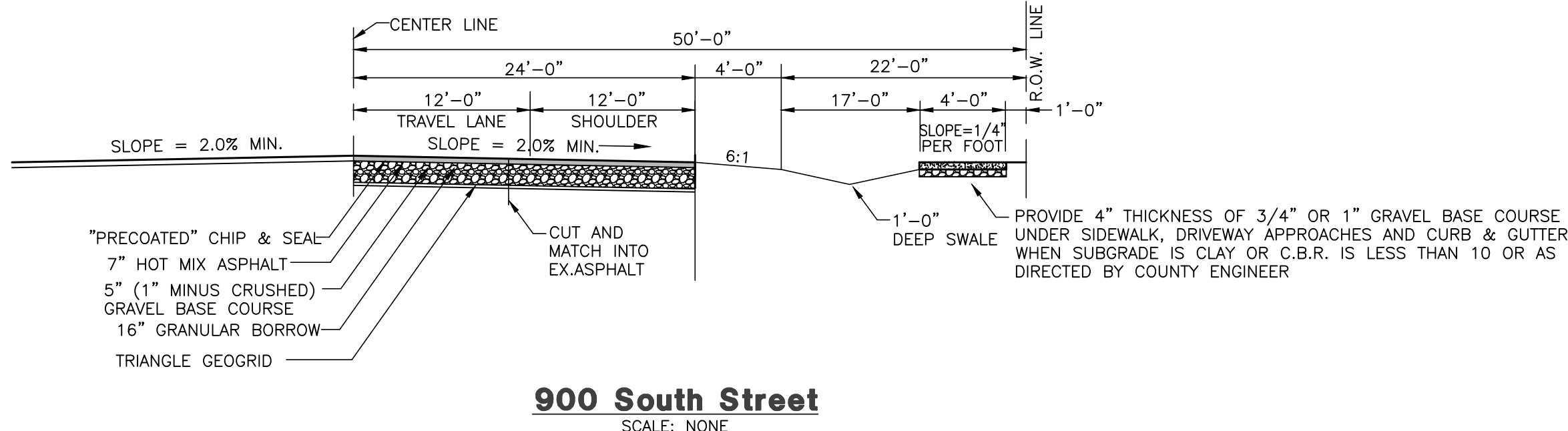
EXPPOSED SLOPES:

ANY EXPOSED SLOPE THAT WILL REMAIN UNTOUCHED FOR LONGER THAN 14 DAYS MUST BE STABILIZED BY ONE OR MORE OF THE FOLLOWING METHODS:

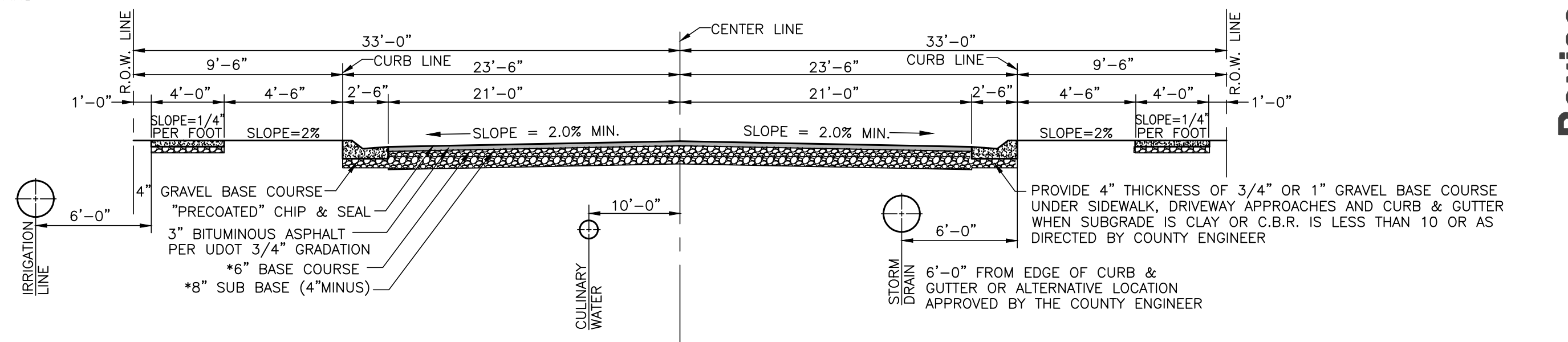
- A) SPRAYING DISTURBED AREAS WITH A TACKIFIER VIA HYDROSEED
B) TRACKING STRAW PERPENDICULAR TO SLOPES
C) INSTALLING A LIGHT-WEIGHT, TEMPORARY EROSION CONTROL BLANKET

Legend

Table listing symbols for utility lines (Proposed Culinary Water, Sanitary Sewer, Storm Drain, etc.), fences, manholes, valves, and pavement types.



900 South Street SCALE: NONE



Street Section (66' R.O.W.) SCALE: NONE

*1. THESE PAVEMENT THICKNESS SHALL BE CONSIDERED AS MINIMUMS AND MAY BE INCREASED BY THE COUNTY ENGINEER WHEN THE SUBGRADE C.B.R. IS LESS THAN 10 OR WHEN A GREATER DEPTH IS NECESSARY TO PROVIDE SUFFICIENT STABILITY...

1/4/2016 1:10:13 PM I:\projects\100360013\Improvements\Borrow Imp 1.dwg

Reeve & Associates, Inc. logo and contact information including address, phone, and email.

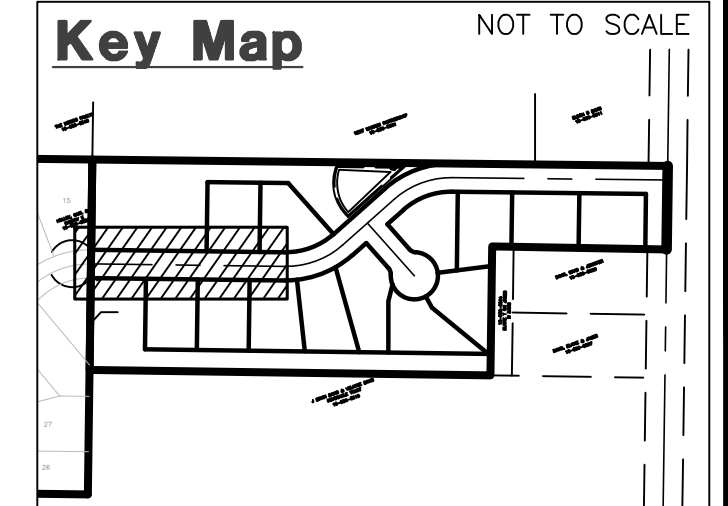
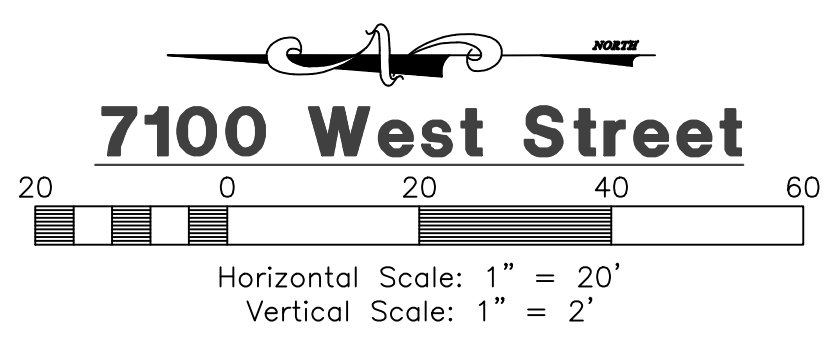
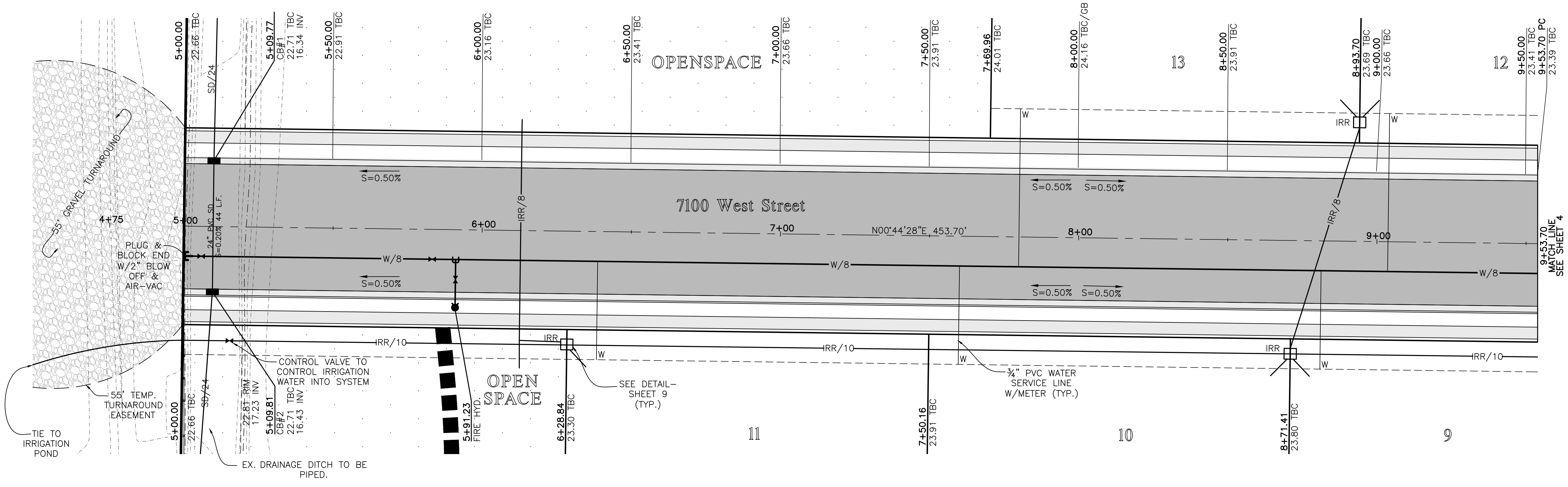
REVISIONS table with columns for DATE, DESCRIPTION, and COMMENTS. Includes entries for county comments and storm drain details.

Vaquero Village Cluster Subdivision Phase 1 Notes/Legend/Street Cross-Section. Includes project location (WEBER COUNTY, UTAH) and revision number (4-3-17).



Project Info table with fields for Engineer (J. NATE REEVE), Drafter (C. KINGSLEY), Begin Date (4-4-16), Name (VAQUERO VILLAGE SUBDIVISION PHASE 1), and Number (6352-01).

Sheet 2 of 14 Sheets table.



- Construction Notes:**
- 1) ALL CONSTRUCTION IS TO CONFORM TO THE STANDARD DRAWINGS AND SPECIFICATIONS OF WEBER COUNTY.
 - 2) CONSTRUCT HANDICAP RAMP PER ADA AND COUNTY REQUIREMENTS.
- CULINARY WATER**
W/8 - 8" PVC C-900 CLASS 200 WATER
- STORM DRAIN**
SD/12 - 12" PVC C-900 STORM DRAIN
SD/15 - 15" RCP STORM DRAIN
SD/24 - 24" PVC C-900 STORM DRAIN
- IRRIGATION**
IRR/8 - 8" PVC C-900 IRRIGATION LINE
IRR/10 - 10" PVC C-900 IRRIGATION LINE
IRR/12 - 12" PVC C-900 IRRIGATION LINE
IRR/24 - 24" PVC C-900 IRRIGATION LINE

Reeve & Associates, Inc.
IRA
 920 CHAMBERS STREET SUITE 14, OGDEN, UTAH 84403
 TEL: (801) 621-3100 FAX: (801) 621-3666 WWW.REEVE-ASSOC.COM
 LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
 TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DATE	DESCRIPTION
09-20-16	CK	County Comments
12-13-16	ER	County Comments
12-22-16	CK	Storm Drain
1-24-17	KH	Storm Drain
2-2-17	KH	DEQ comments
4-3-17	RH	Review Comments

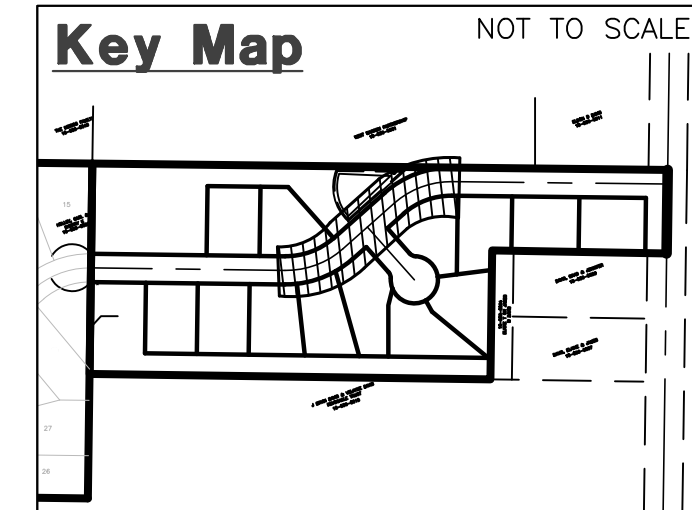
Vaquero Village Cluster Subdivision
Phase 1
 WEBER COUNTY, UTAH
7100 West Street
5+00.00 - 9+53.70



Project Info.

Engineer: J. NATE REEVE
 Drafter: C. KINGSLEY
 Begin Date: 4-4-16
 Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
 Number: 6352-01

Blue Stakes Location Center
Call: Toll Free 1-800-662-4111
 Two Working Days Before You Dig



Construction Notes:

- ALL CONSTRUCTION IS TO CONFORM TO THE STANDARD DRAWINGS AND SPECIFICATIONS OF WEBER COUNTY.
 - CONSTRUCT HANDICAP RAMP PER ADA AND COUNTY REQUIREMENTS.
- CULINARY WATER**
W/8 - 8" PVC C-900 CLASS 200 WATER
- STORM DRAIN**
SD/12 - 12" PVC C-900 STORM DRAIN
SD/15 - 15" RCP STORM DRAIN
SD/24 - 24" PVC C-900 STORM DRAIN
- IRRIGATION**
IRR/8 - 8" PVC C-900 IRRIGATION LINE
IRR/10 - 10" PVC C-900 IRRIGATION LINE
IRR/12 - 12" PVC C-900 IRRIGATION LINE
IRR/24 - 24" PVC C-900 IRRIGATION LINE

Reeve & Associates, Inc.
920 CHAMBERS STREET SUITE 14, OGDEN, UTAH 84403
TEL: (801) 621-2100 FAX: (801) 621-2666 www.reeve-assoc.com

LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DATE	DESCRIPTION
09-20-16	CK	County Comments
12-13-16	ER	County Comments
12-22-16	CK	Storm Drain
1-24-17	KH	Storm Drain
2-2-17	KH	DEQ comments
4-3-17	RH	Review Comments

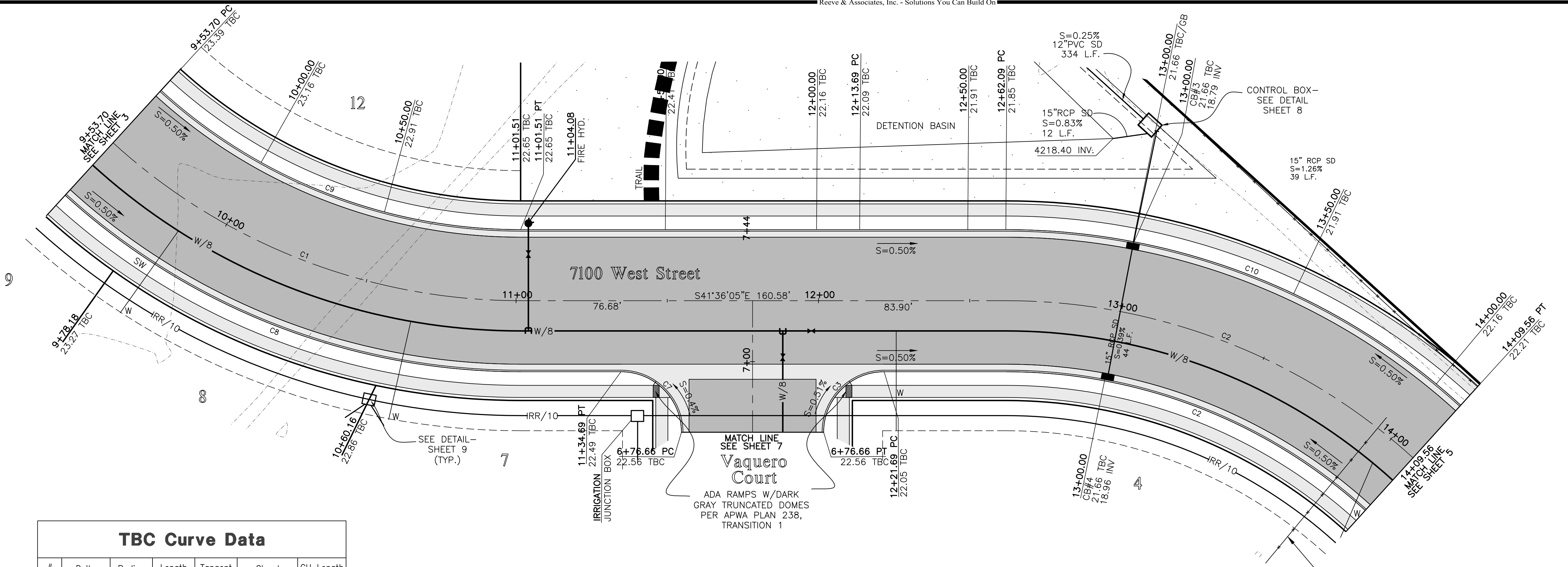
Vaquero Village Cluster Subdivision
Phase 1
WEBER COUNTY, UTAH

7100 West Street
9+53.70 - 14+09.56



Project Info.

Engineer: J. NATE REEVE
 Drafter: C. KINGSLEY
 Begin Date: 4-4-16
 Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
 Number: 6352-01



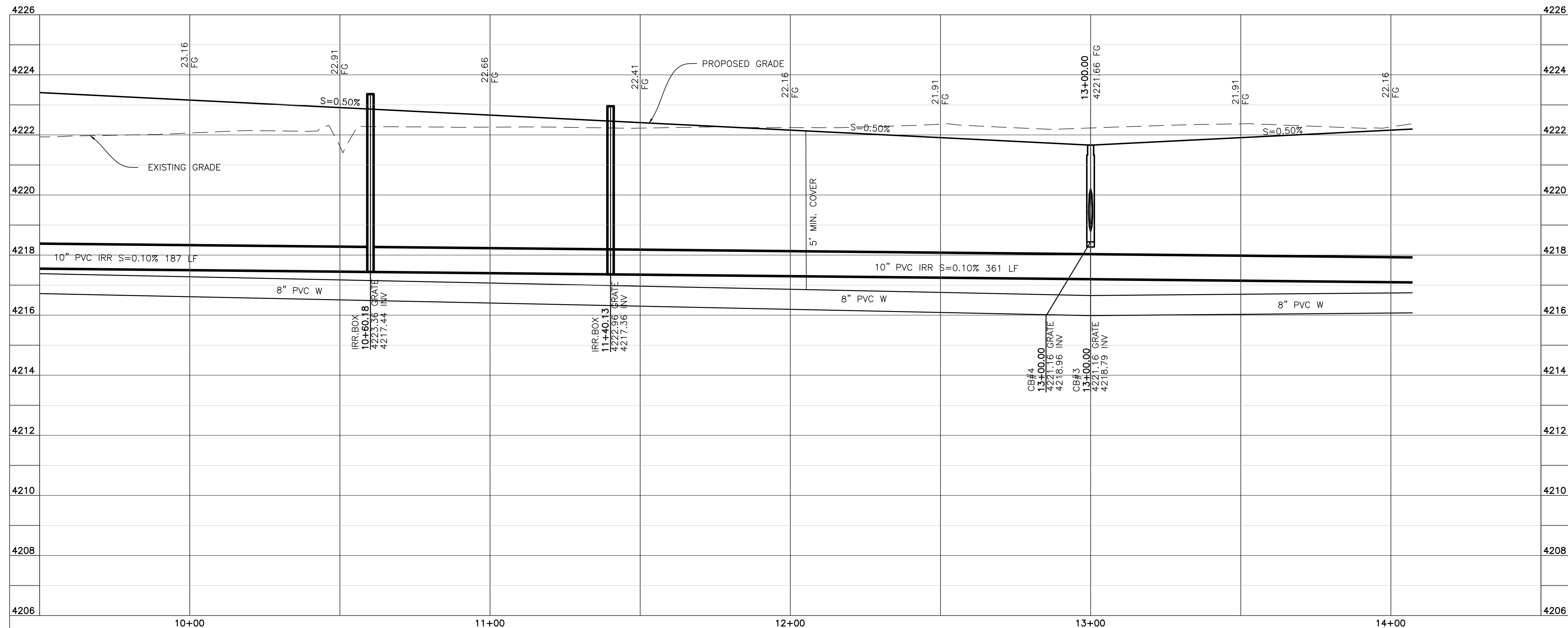
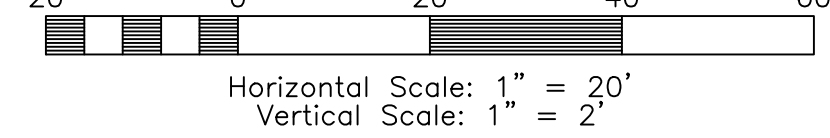
TBC Curve Data

#	Delta	Radius	Length	Tangent	Chord	CH Length
C2	42°14'48"	176.50'	130.14'	68.19'	S20°28'41"E	127.21'
C3	90°00'00"	20.00'	31.42'	20.00'	N86°36'05"W	28.28'
C7	90°00'00"	20.00'	31.42'	20.00'	N3°23'55"E	28.28'
C8	42°20'33"	223.50'	165.17'	86.56'	S20°25'48"E	161.44'
C9	42°20'33"	176.50'	130.44'	68.36'	N20°25'48"W	127.49'
C10	42°14'48"	223.50'	164.80'	86.35'	N20°28'41"W	161.09'

Centerline Curve Data

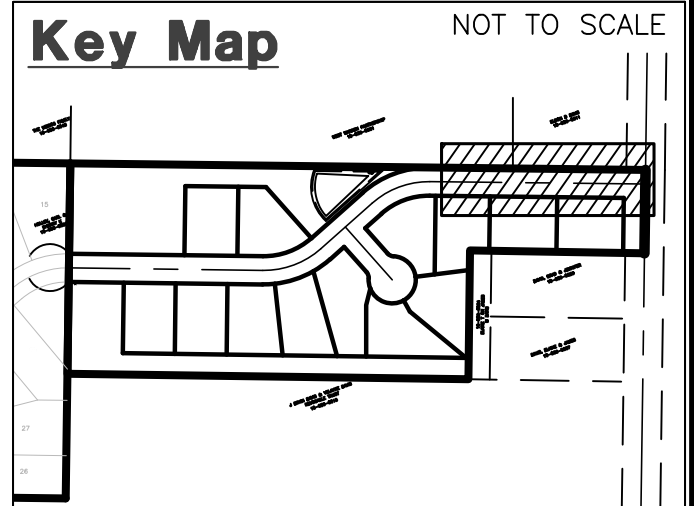
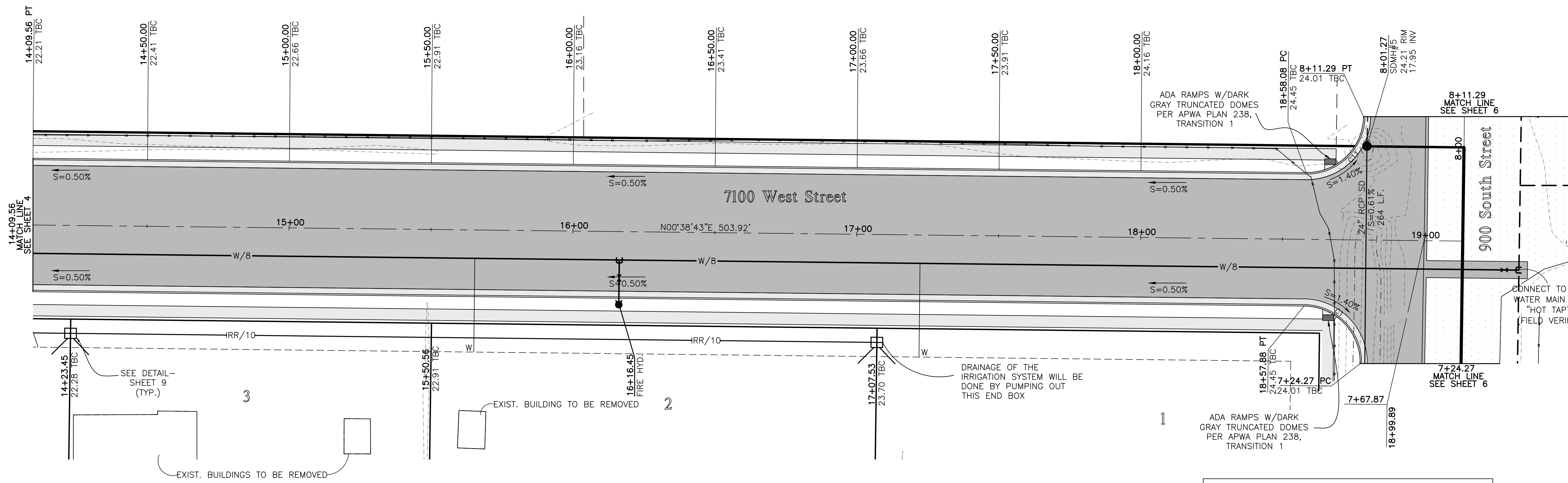
#	Delta	Radius	Length	Tangent	Chord	CH Length
C1	42°20'33"	200.00'	147.80'	77.46'	S20°25'48"E	144.46'
C2	42°14'48"	200.00'	147.47'	77.27'	S20°28'41"E	144.15'

7100 West Street

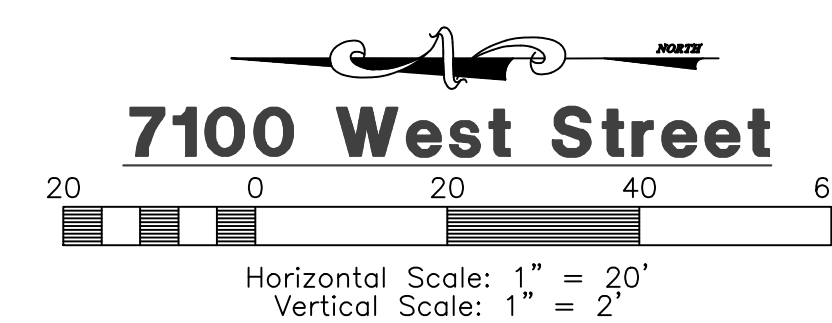


Blue Stakes Location Center
Call: Toll Free 1-800-662-4111
 Two Working Days Before You Dig

Revised: 4-3-17

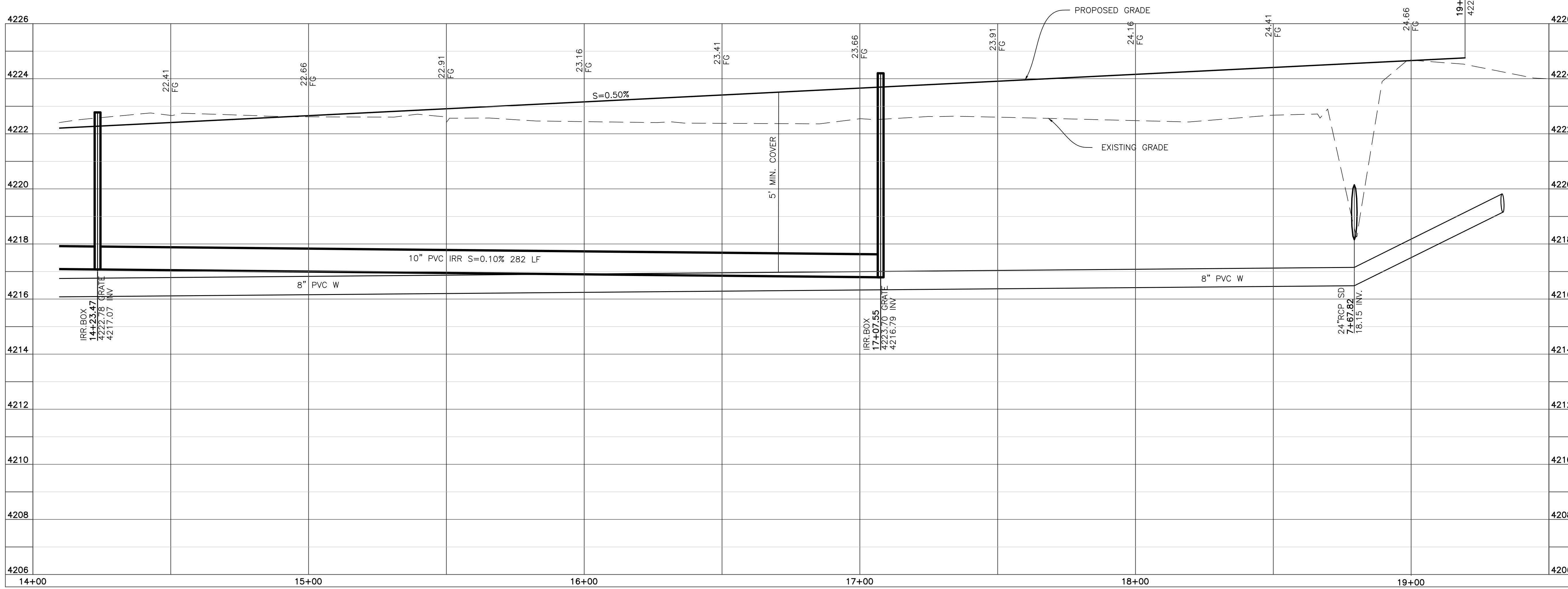


- Construction Notes:**
- 1) ALL CONSTRUCTION IS TO CONFORM TO THE STANDARD DRAWINGS AND SPECIFICATIONS OF WEBER COUNTY.
 - 2) CONSTRUCT HANDICAP RAMP PER ADA AND COUNTY REQUIREMENTS.
- CULINARY WATER**
W/8 - 8" PVC C-900 CLASS 200 WATER
- STORM DRAIN**
SD/12 - 12" PVC C-900 STORM DRAIN
SD/15 - 15" RCP STORM DRAIN
SD/24 - 24" PVC C-900 STORM DRAIN
- IRRIGATION**
IRR/8 - 8" PVC C-900 IRRIGATION LINE
IRR/10 - 10" PVC C-900 IRRIGATION LINE
IRR/12 - 12" PVC C-900 IRRIGATION LINE
IRR/24 - 24" PVC C-900 IRRIGATION LINE

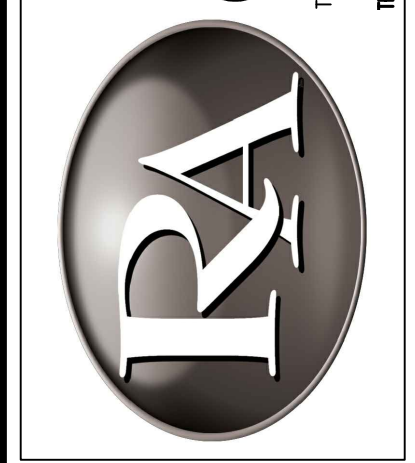


TBC Curve Data

#	Delta	Radius	Length	Tangent	Chord	CH Length
C1	90°07'58"	20.00'	31.46'	20.05'	S45°42'42"W	28.32'
C11	89°52'55"	20.00'	31.37'	19.96'	N44°17'45"W	28.26'



Reeve & Associates, Inc.
920 CHAMBERS STREET SUITE 14, OGDEN, UTAH 84403
TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-assoc.com



REVISIONS

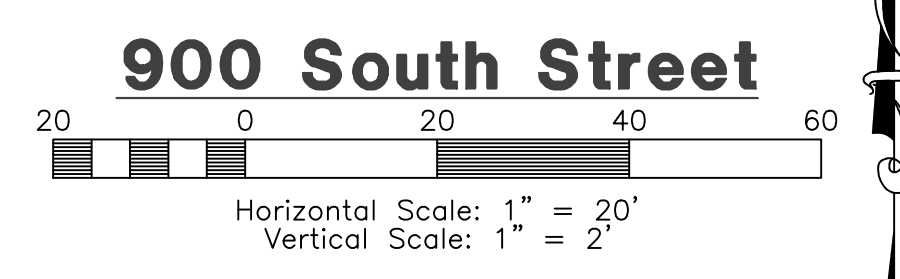
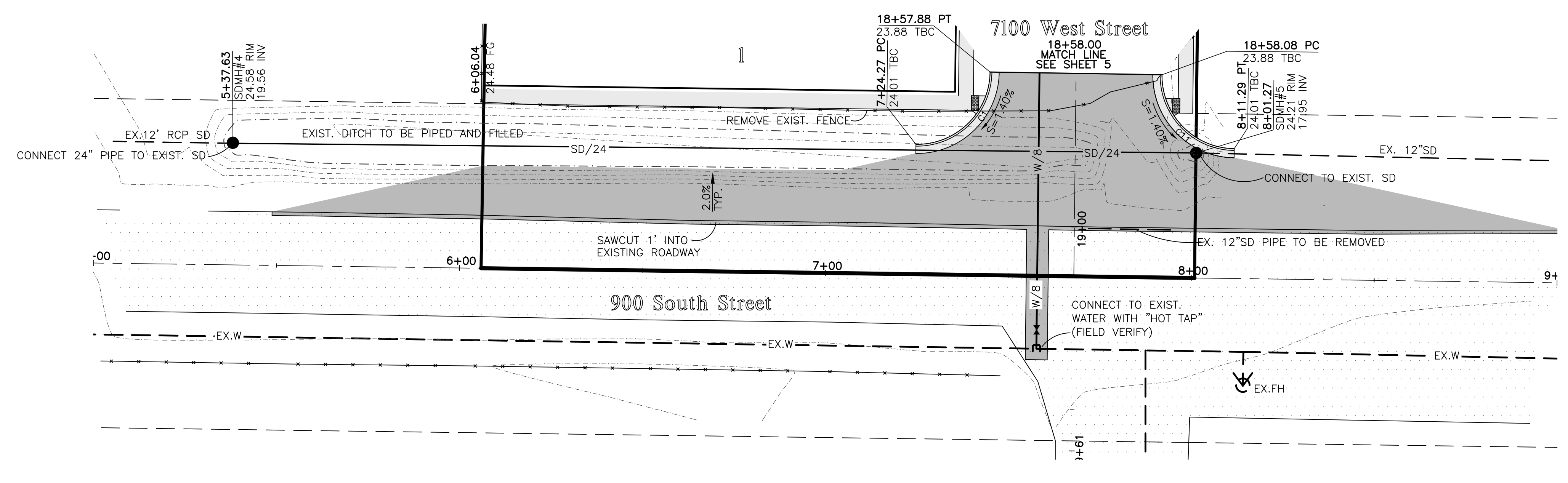
DATE	DESCRIPTION
09-20-16	CK County Comments
12-13-16	ER County Comments
12-22-16	CK Storm Drain
1-24-17	KH Storm Drain
2-2-17	KH DEQ comments
4-3-17	RH Review Comments

Vaquero Village Cluster Subdivision Phase 1
WEBER COUNTY, UTAH
7100 West Street
14+09.56 - 19+50.00

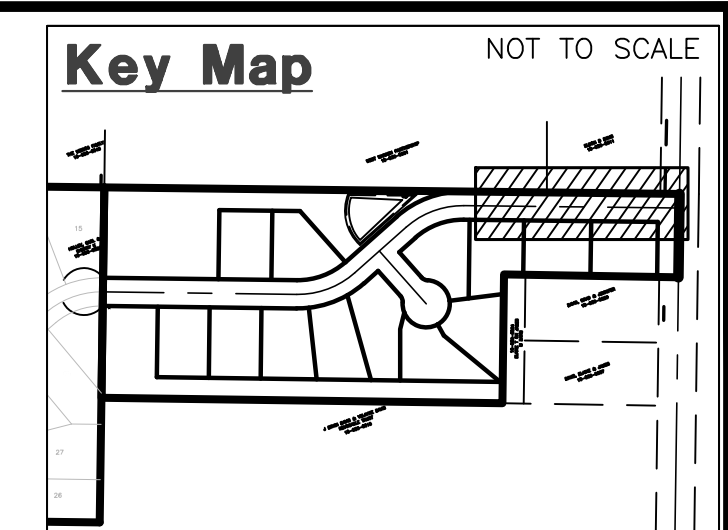
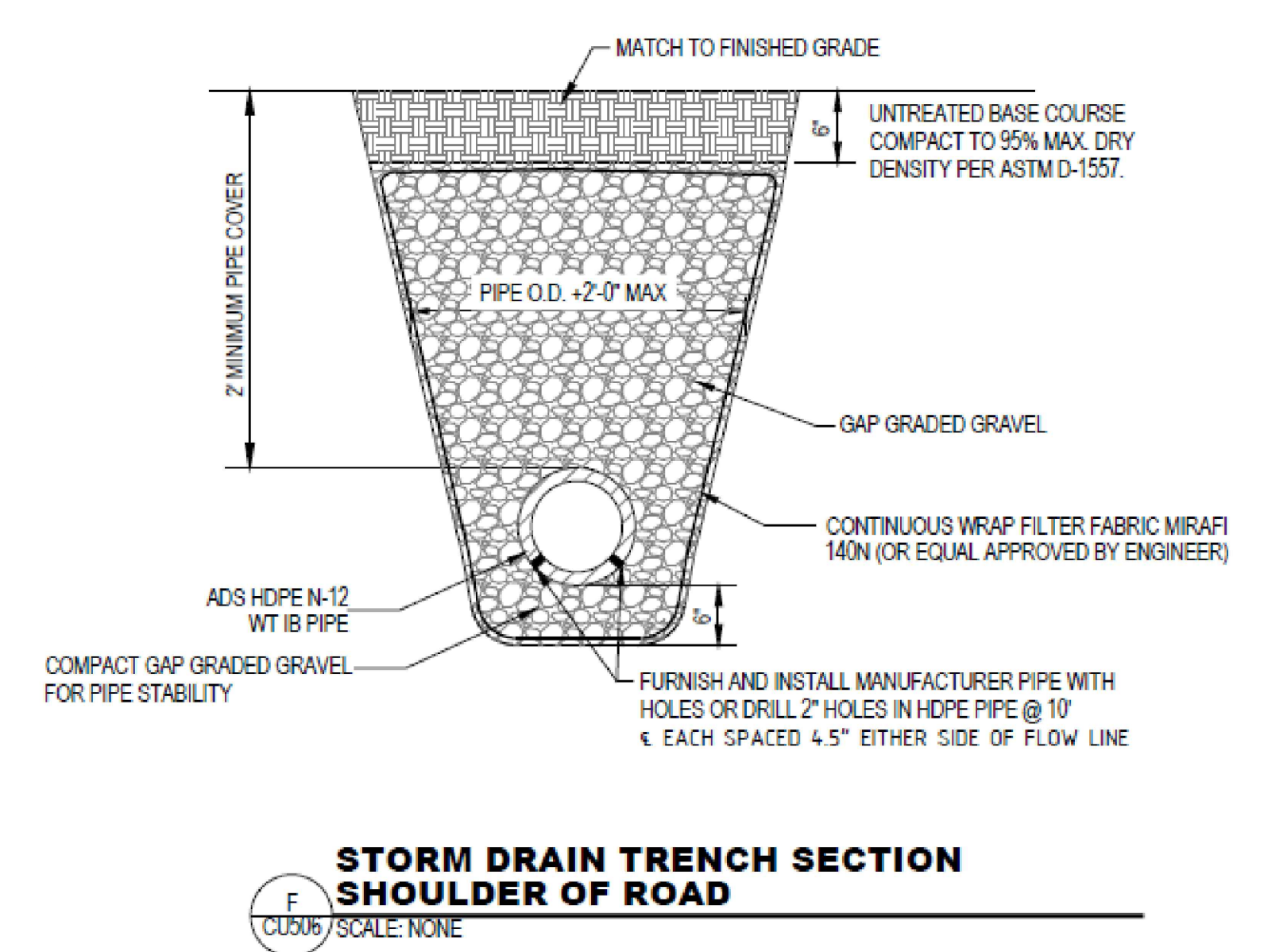
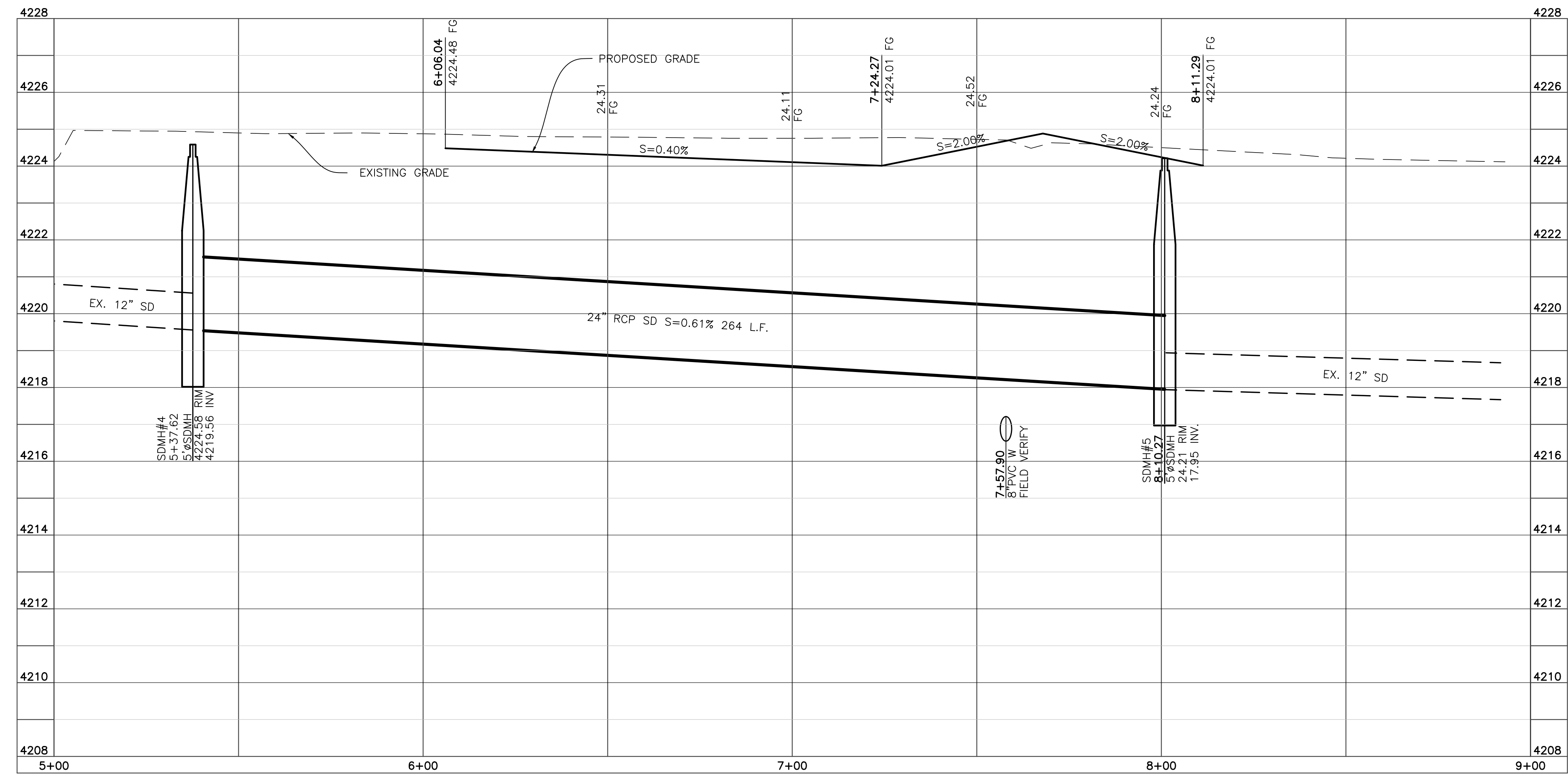
Revised: 4-3-17

Project Info.
Engineer: J. NATE REEVE
Drafted: C. KINGSLEY
Begin Date: 4-4-16
Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
Number: 6352-01

Blue Stakes Location Center
Call: Toll Free 1-800-662-4111
Two Working Days Before You Dig



TBC Curve Data						
#	Delta	Radius	Length	Tangent	Chord	CH Length
C1	90°07'58"	20.00'	31.46'	20.05'	S45°42'42"W	28.32'
C11	89°52'55"	20.00'	31.37'	19.96'	N44°17'45"W	28.26'



- Construction Notes:**
- 1) ALL CONSTRUCTION IS TO CONFORM TO THE STANDARD DRAWINGS AND SPECIFICATIONS OF WEBER COUNTY.
 - 2) CONSTRUCT HANDICAP RAMP PER ADA AND COUNTY REQUIREMENTS.
- CULINARY WATER**
W/8 - 8" PVC C-900 CLASS 200 WATER
- STORM DRAIN**
SD/12 - 12" PVC C-900 STORM DRAIN
SD/15 - 15" RCP STORM DRAIN
SD/24 - 24" PVC C-900 STORM DRAIN
- IRRIGATION**
IRR/8 - 8" PVC C-900 IRRIGATION LINE
IRR/10 - 10" PVC C-900 IRRIGATION LINE
IRR/12 - 12" PVC C-900 IRRIGATION LINE
IRR/24 - 24" PVC C-900 IRRIGATION LINE

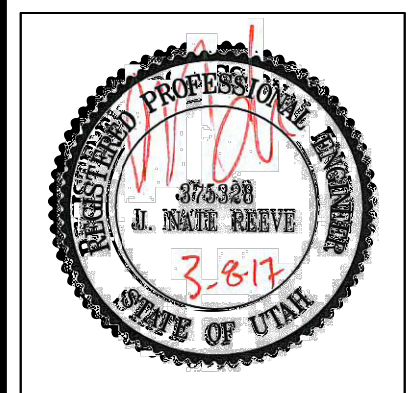
Reeve & Associates, Inc.
920 CHAMBERS STREET SUITE 14, OGDEN, UTAH 84403
TEL: (801) 621-3100 FAX: (801) 621-8666 WWW.REEVE-ASSOC.COM

IRA
LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DATE	DESCRIPTION
09-20-16	CK	County Comments
12-13-16	ER	County Comments
12-22-16	CK	Storm Drain
1-24-17	KH	Storm Drain
2-2-17	KH	DEQ comments
4-3-17	RH	Review Comments

Vaquero Village Cluster Subdivision
Phase 1
WEBER COUNTY, UTAH

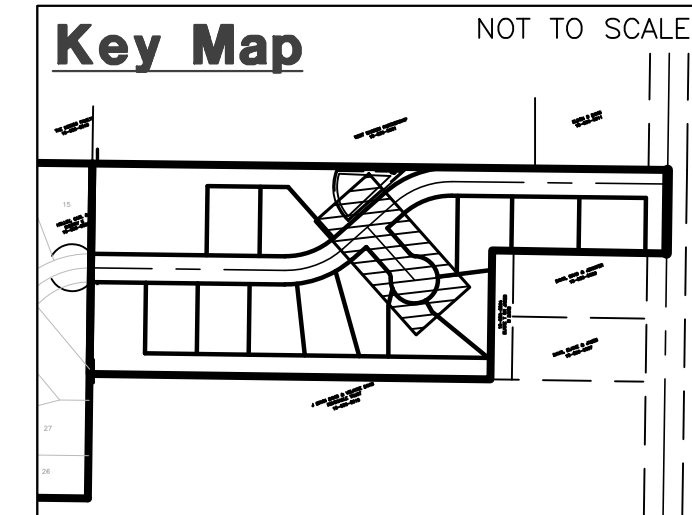
900 South Street
6+00.00 - 8+50.00



Project Info.
Engineer: J. NATE REEVE
Drafted: C. KINGSLEY
Begin Date: 4-4-16
Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
Number: 6352-01

Sheet **14**
6 Sheets

1/4/2016 | jpalitis | G:\6352\01 - Parcel 100360013\Improvements\Borrow Imp 1.dwg



Construction Notes:

1) ALL CONSTRUCTION IS TO CONFORM TO THE STANDARD DRAWINGS AND SPECIFICATIONS OF WEBER COUNTY.

2) CONSTRUCT HANDICAP RAMP PER ADA AND COUNTY REQUIREMENTS.

CULINARY WATER

W/8 - 8" PVC C-900 CLASS 200 WATER

STORM DRAIN

SD/12 - 12" PVC C-900 STORM DRAIN

SD/15 - 15" RCP STORM DRAIN

SD/24 - 24" PVC C-900 STORM DRAIN

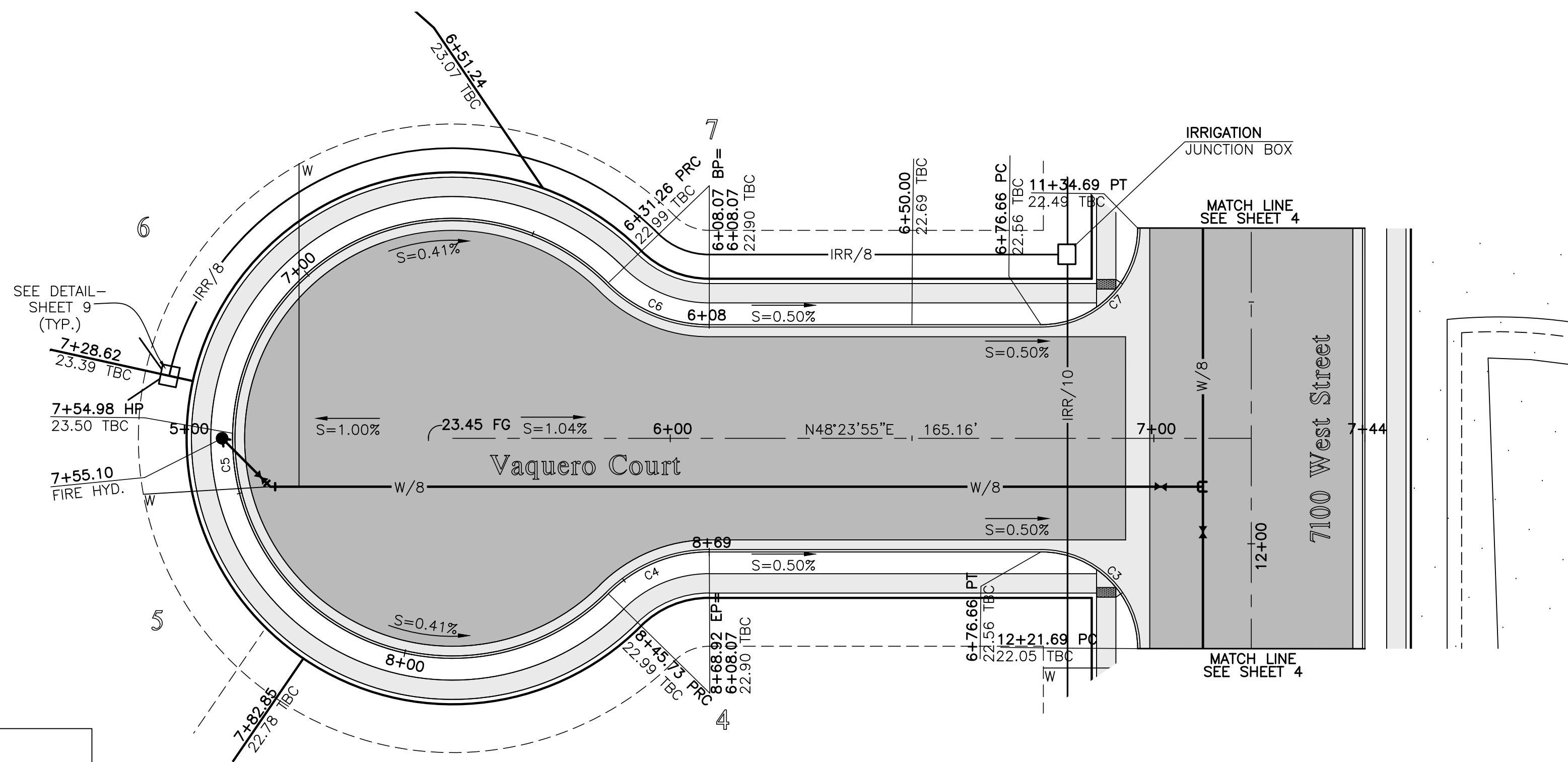
IRRIGATION

IRR/8 - 8" PVC C-900 IRRIGATION LINE

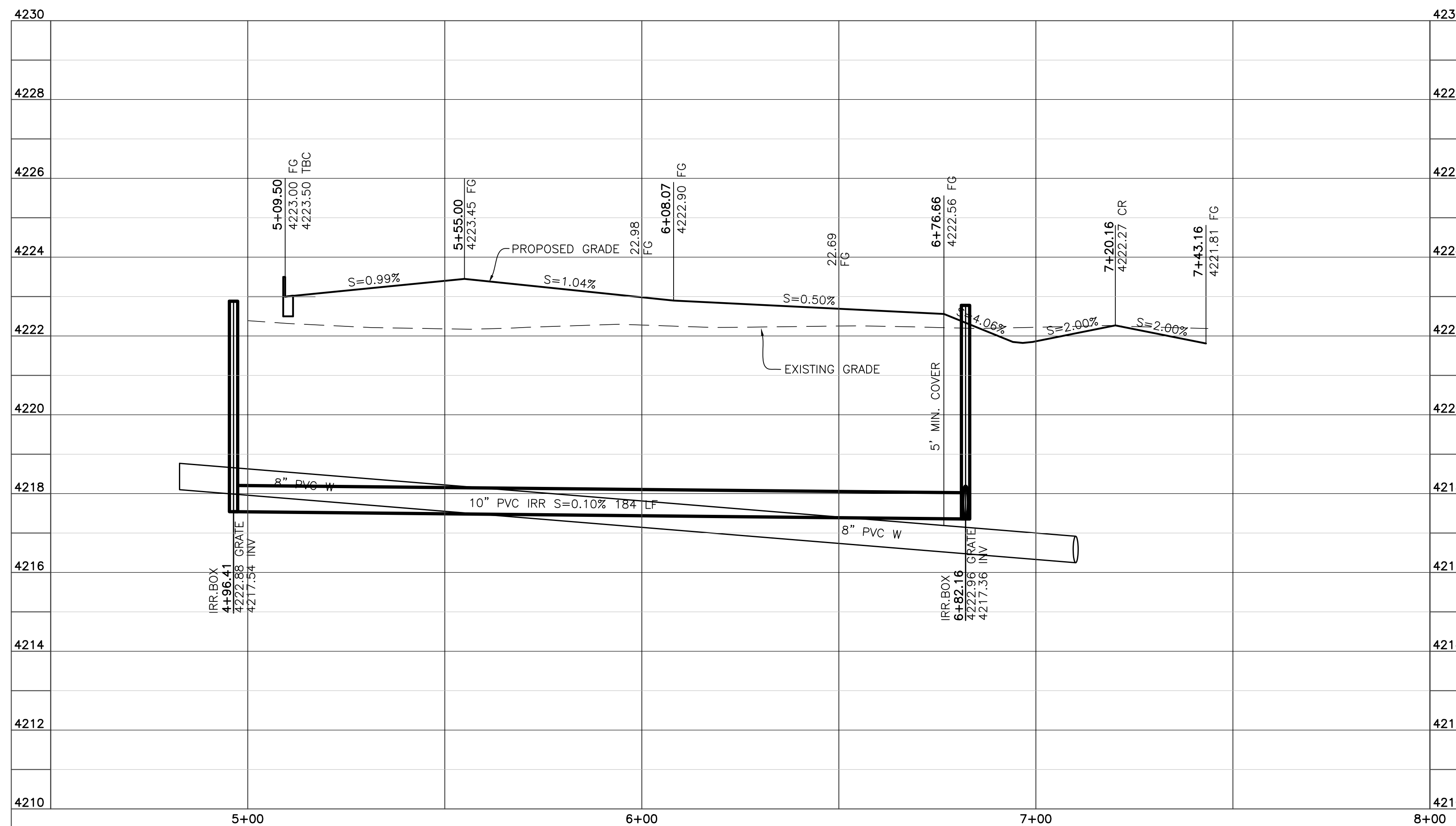
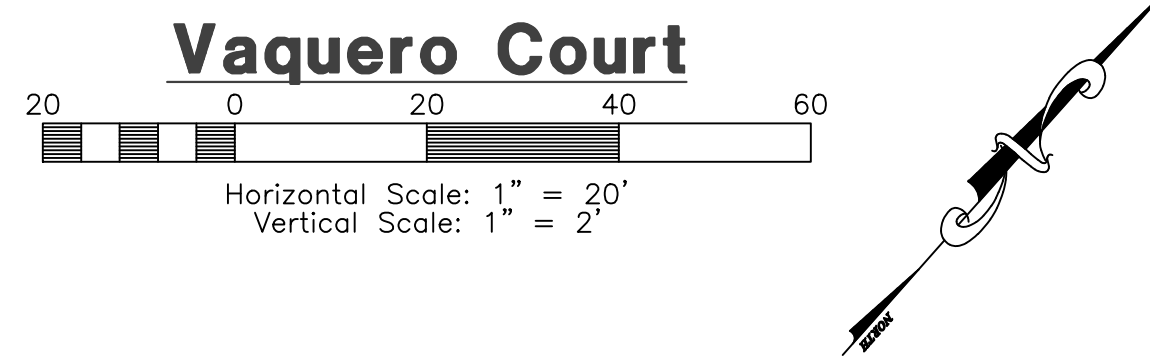
IRR/10 - 10" PVC C-900 IRRIGATION LINE

IRR/12 - 12" PVC C-900 IRRIGATION LINE

IRR/24 - 24" PVC C-900 IRRIGATION LINE



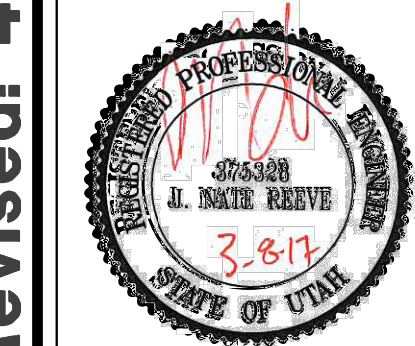
TBC Curve Data						
#	Delta	Radius	Length	Tangent	Chord	CH Length
C3	90°00'00"	20.00'	31.42'	20.00'	N86°36'05"W	28.28'
C4	45°02'07"	29.50'	23.19'	12.23'	S25°52'51"W	22.60'
C5	270°04'18"	45.50'	214.47'	45.44'	S41°36'05"E	64.31'
C6	45°02'07"	29.50'	23.19'	12.23'	N70°54'59"E	22.60'
C7	90°00'00"	20.00'	31.42'	20.00'	N3°23'55"E	28.28'



Reeve & Associates, Inc.
 920 CHAMBERS STREET SUITE 14, OGDEN, UTAH 84403
 TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-assoc.com
 LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
 TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DATE	DESCRIPTION
09-20-16	CK	County Comments
12-13-16	ER	County Comments
12-22-16	CK	Storm Drain
1-24-17	KH	Storm Drain
2-2-17	KH	DEQ comments
4-3-17	RH	Review Comments

Vaquero Village Cluster Subdivision
Phase 1
 WEBER COUNTY, UTAH
Vaquero Court
5+00.00 - 7+50.00



Project Info.

Engineer: J. NATE REEVE
 Drafter: C. KINGSLEY
 Begin Date: 4-4-16
 Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
 Number: 6352-01

Blue Stakes Location Center
Call: Toll Free 1-800-662-4111
 Two Working Days Before You Dig

Storm Runoff Calculations

Vaquero
1/19/2017

The following runoff calculations are based on the Rainfall - Intensity - Duration Frequency Curve for the Wasatch. LT area taken from NOAA Atlas 14 using a 10 year storm for collection and a 100 year storm for storage. Storage facilities have been designed per requirements provided by the City for a regional detention pond. A majority of water run off collected from the property will be diverted into a holding pond and released at a reduced rate as part of the detention pond. Design calculations here are presented for the overall property development.

The calculations are as follows:

1. Drainage Area:

Total Area =	12.42	acres or	541,203	sq. ft.
Total Collected Area	6.31		268,888	

Developed Runoff Coefficient

Runoff Coefficients				
Single Family Residence Paved Area	79,905	C = 0.9		
Landscaped Area	178,983	C = 0.2		
Roof	30,000	C = 0.9		
Weighted Runoff Coefficient		C = 0.47		

2. Time of Concentration:

Use: Estimated from storm water runoff overland flow time
30 min.

3. Rainfall Intensities:

10-yr 30-min (conveyance) 1.39 in/hr

4. Peak Run-off:

Runoff Coefficient	C = 0.47
Rainfall Intensity	i = 1.39 IN./HR.
Area	A = 6.63 ACRES
Runoff Quantity	Q = CIA
Q (max at pond internal)	Q = 4.30 ft ³ /s

5. Allowable Discharge:

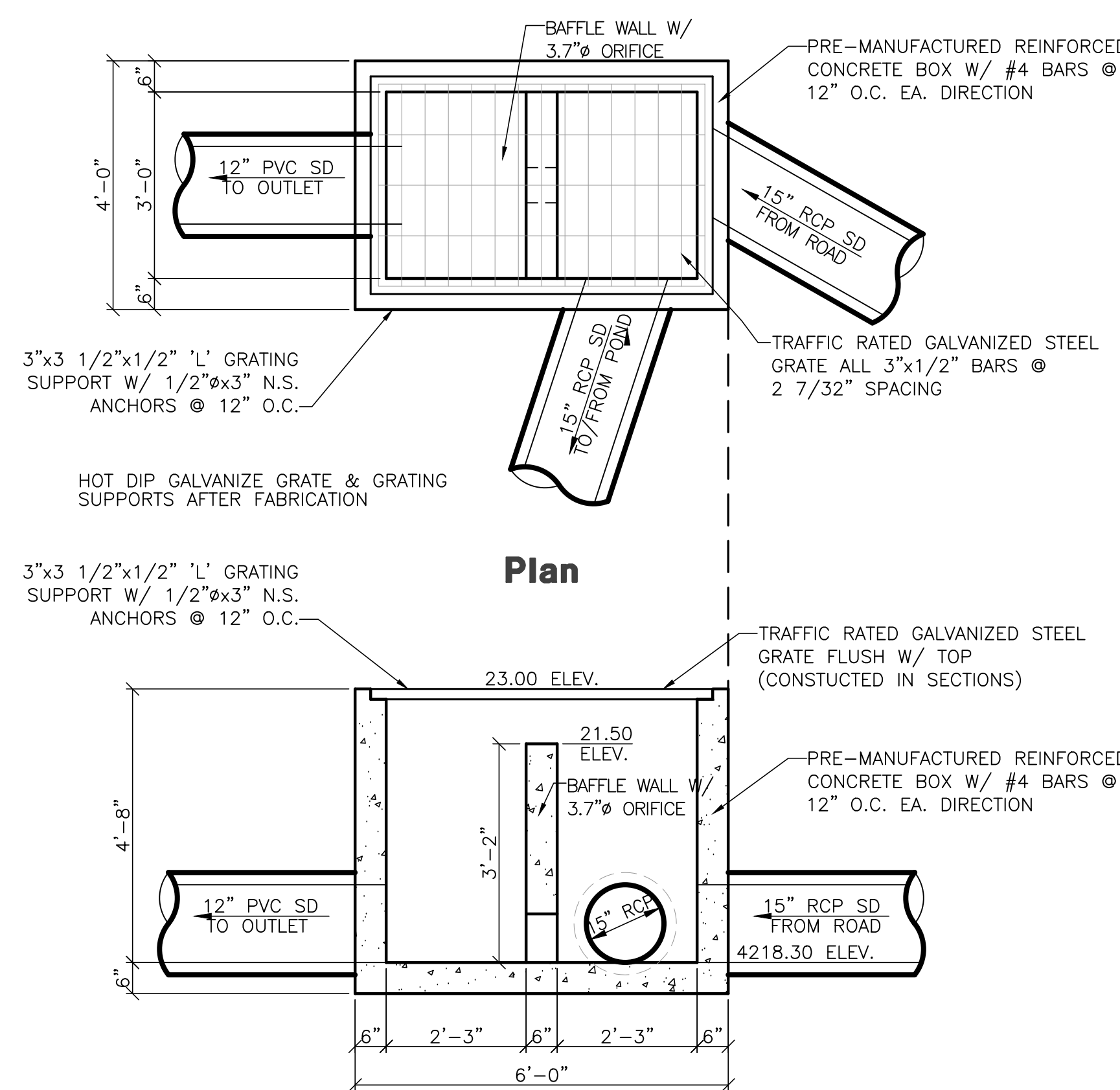
Typical allowable discharge Q = (0.1 x acres) = 0.65 ft³/s

6. Volume of Run-off for 100-year 24-Hour Storm Event:

C =	0.47										
A =	268,888 sq. ft.										
Q(out) =	0.65 ft ³ /s										
time (min)	0	5	10	15	30	60	120	180	360	720	1440
time (sec)	0	300	600	900	1800	3600	7200	10800	21600	43200	86400
i (in./hr.)	0.00	0.59	0.50	0.44	0.27	0.17	0.10	0.06	0.03	0.02	0.01
Q (cfs)	0.00	20.55	15.59	12.91	7.79	4.84	2.94	1.82	0.96	0.52	0.26
Vol. in (cfs)	0	6,165	9,355	11,619	15,660	19,309	21,195	21,621	24,113	29,638	33,408
Vol. out (cfs)	0	199	398	597	1,194	2,388	4,775	7,163	14,325	28,650	57,300
Difference (cfs)	0	5,966	8,957	11,022	14,466	16,921	16,420	14,459	9,788	986	-23,892

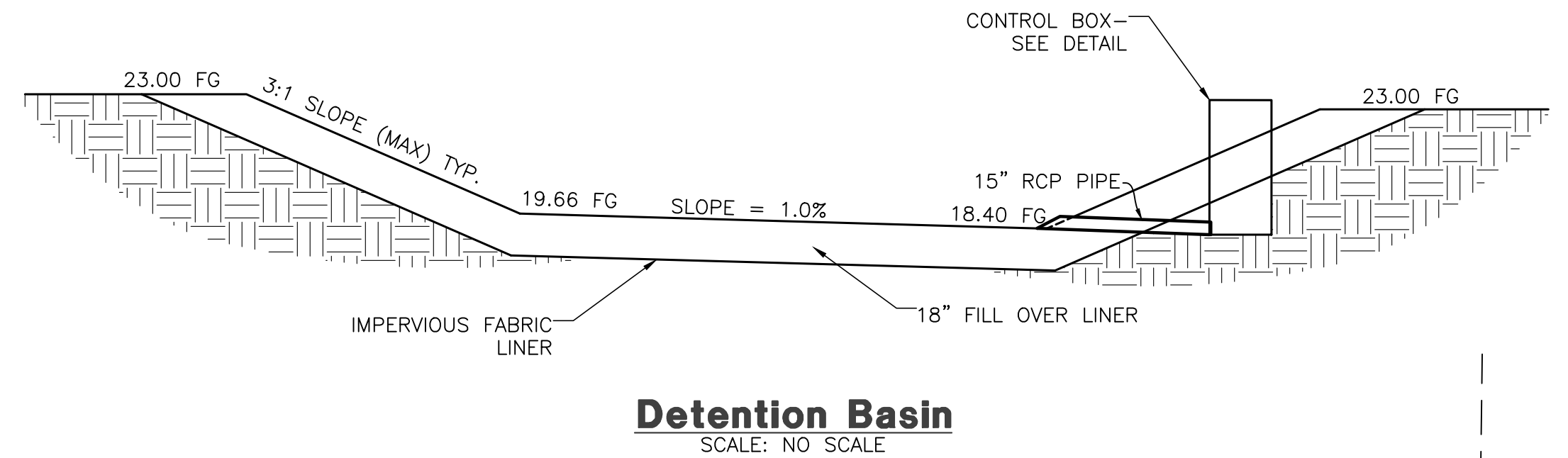
7. Orifice Sizing Area:

Given: Q = 0.65 cfs
 2g = 64.4 ft/s²
 H = 2.50 ft
 Cd = 0.7 for circular openings
 R = SQRT(Q/(0.7²gH³)) = 0.64 ft
 R = 0.15 feet
 R = 1.85 inches
 D = 3.70 inches

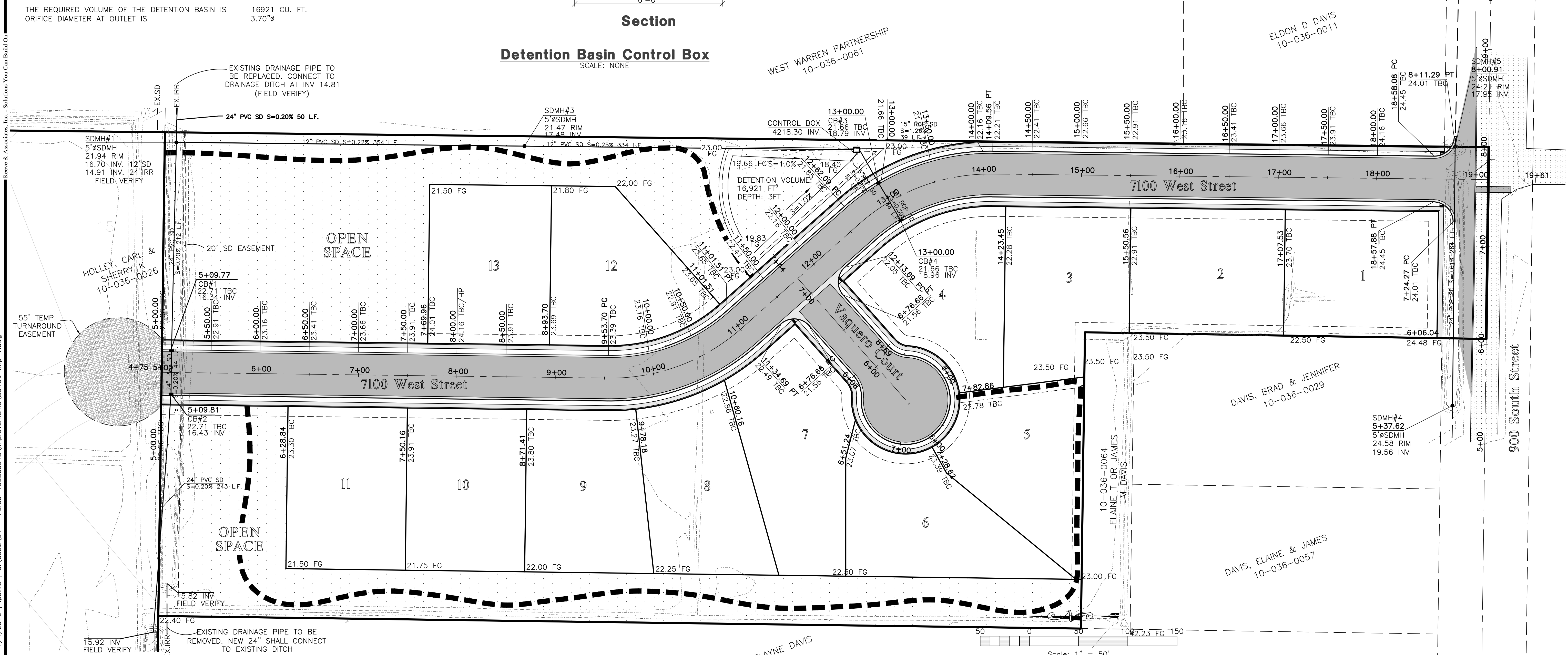


STAGE STORAGE TABLE

ELEV.	AREA (sq. ft.)	DEPTH (ft)	CONIC TOTAL VOL. (cu. ft.)
4218.40	0.00	0.000	0.00
4218.65	511.70	0.250	64.78
4219.65	6,629.51	1.250	3059.12
4220.65	8,609.00	2.250	10656.85
4221.65	10,027.57	3.250	19966.12



Detention Basin Control Box
SCALE: NONE



Reeve & Associates, Inc.
 920 CHAMBERS STREET SUITE 14, OGDEN, UTAH 84403
 TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-assoc.com
 LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
 TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS

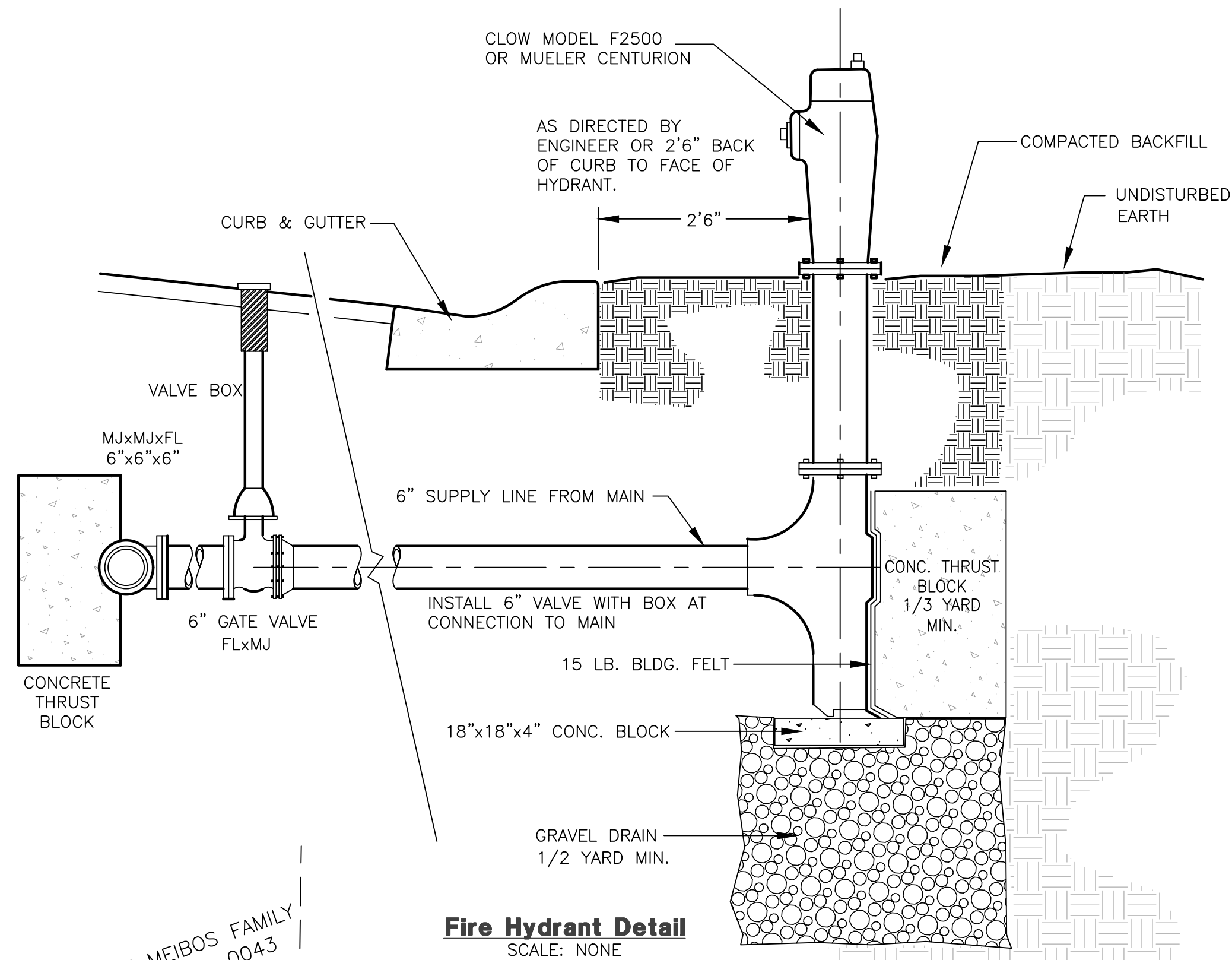
DATE	DESCRIPTION
09-20-16	CK County Comments
12-13-16	ER County Comments
1-22-17	CK Storm Drain
2-2-17	KH Storm Drain
2-2-17	KH DEQ comments
4-3-17	RH Review Comments

Vaquero Village Cluster Subdivision Phase 1
 WEBER COUNTY, UTAH
Grading & Drainage Plan

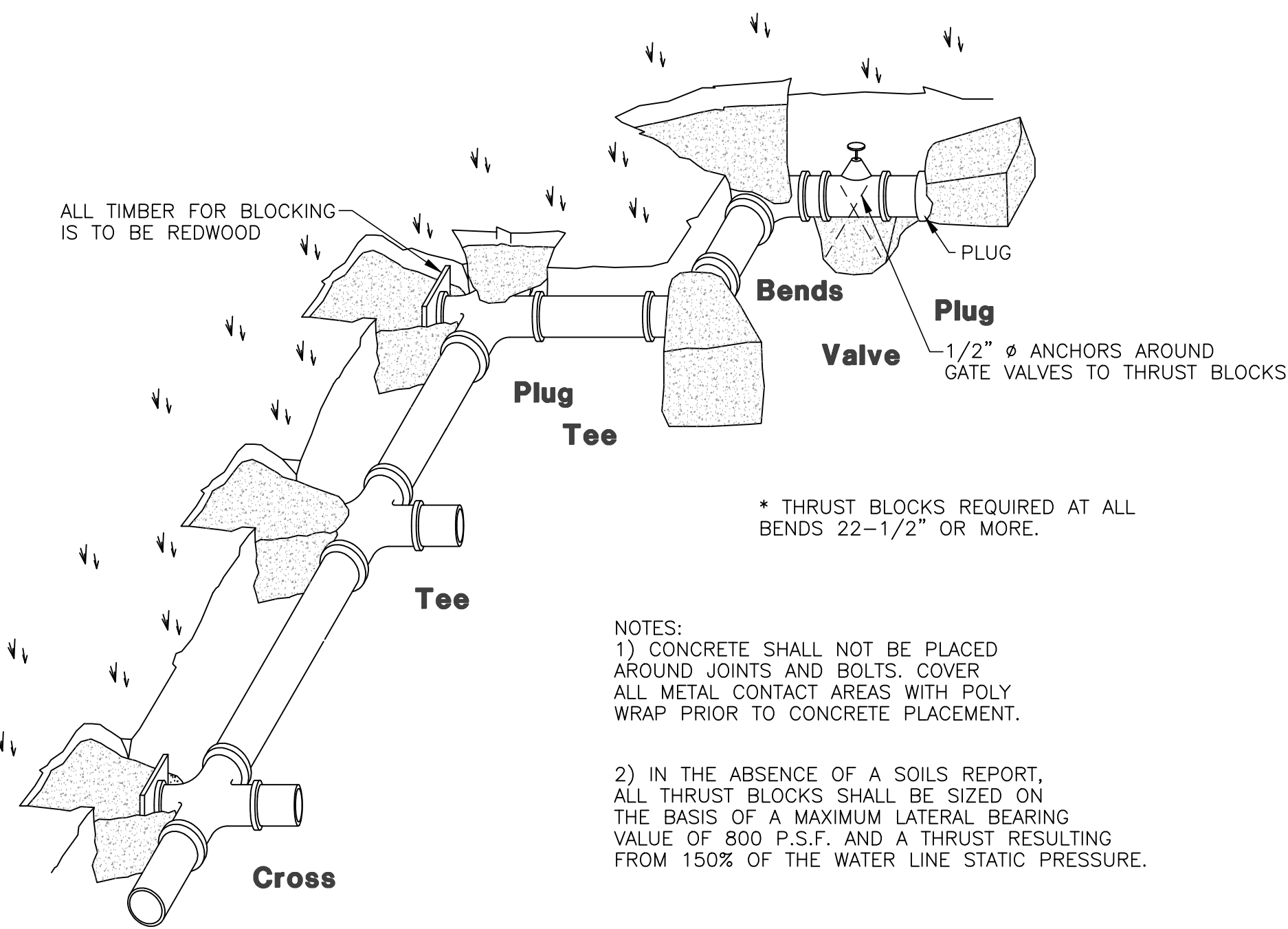
Revised: 4-3-17

Project Info.

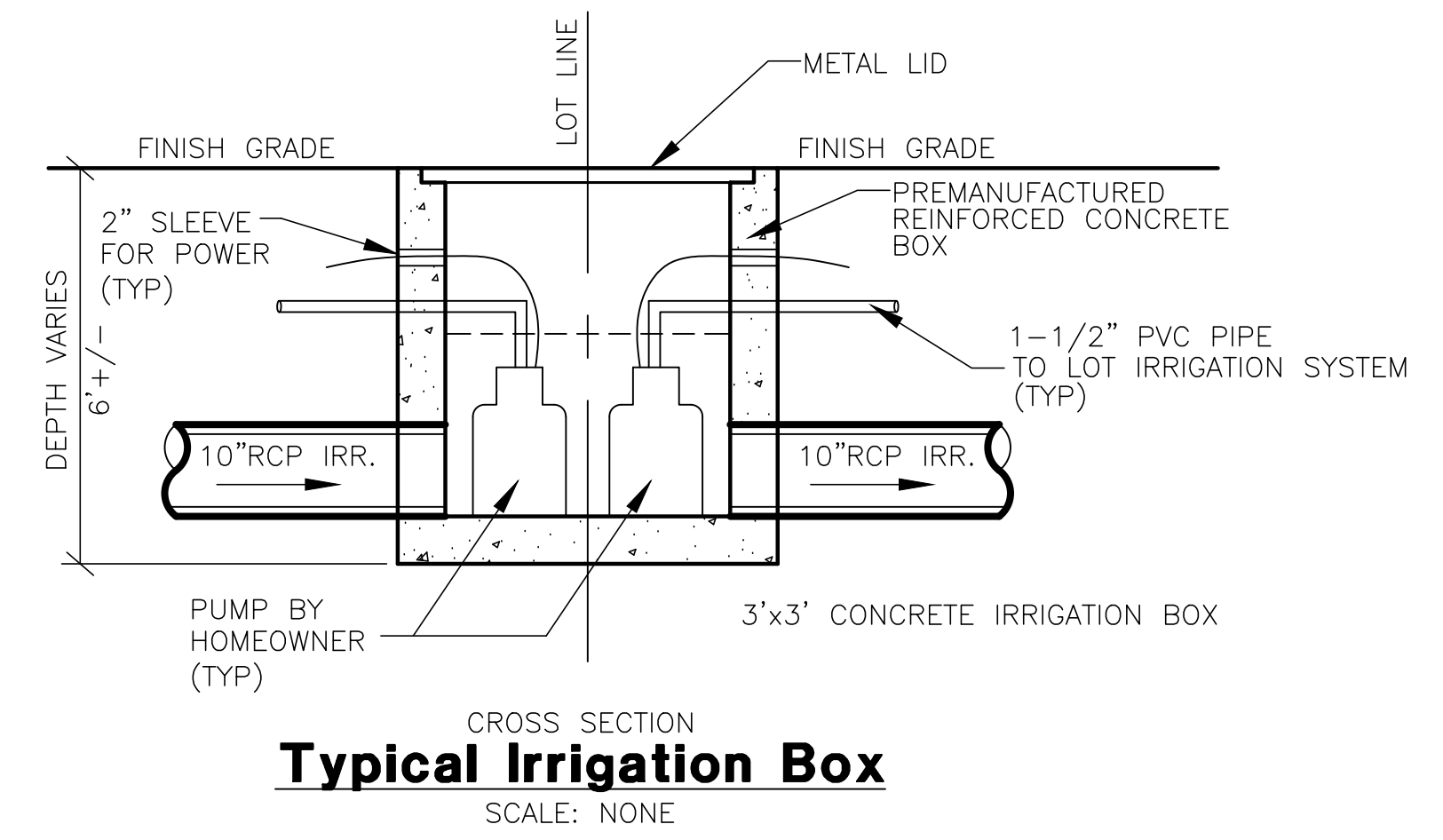
Engineer: J. NATE REEVE
 Drafter: C. KINGSLEY
 Begin Date: 4-4-16
 Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
 Number: 6352-01



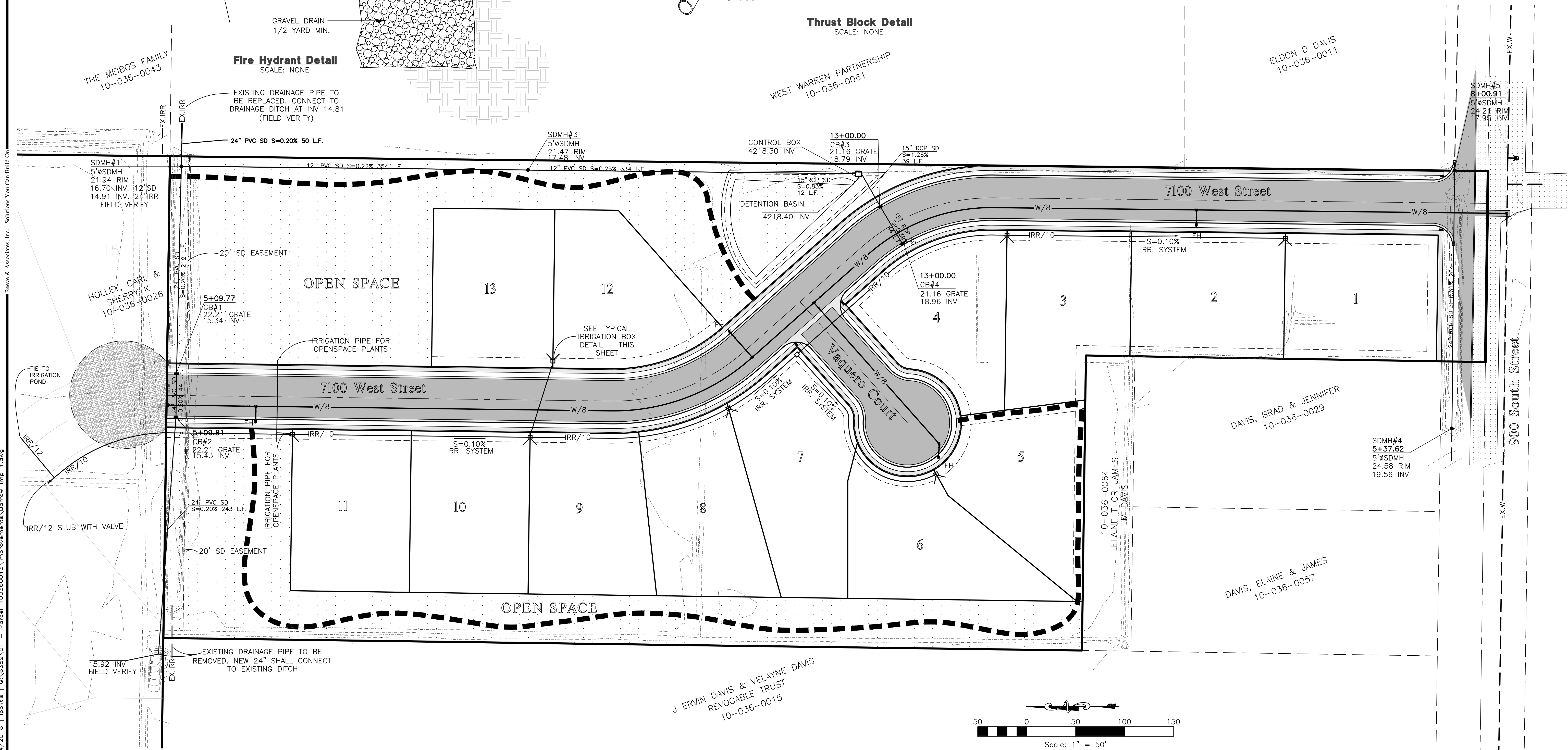
Fire Hydrant Detail
SCALE: NONE



Thrust Block Detail
SCALE: NONE



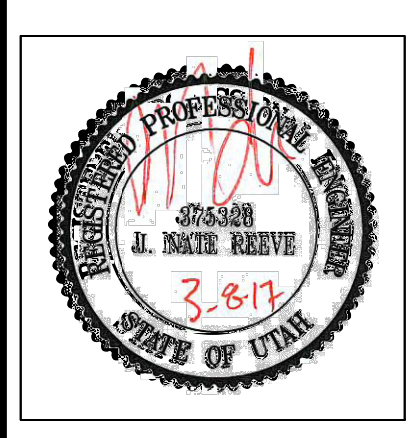
Typical Irrigation Box
SCALE: NONE



Reeve & Associates, Inc.
IRA
 920 CHAMBERS STREET SUITE 14, OGDEN, UTAH 84403
 TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-assoc.com
 LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
 TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

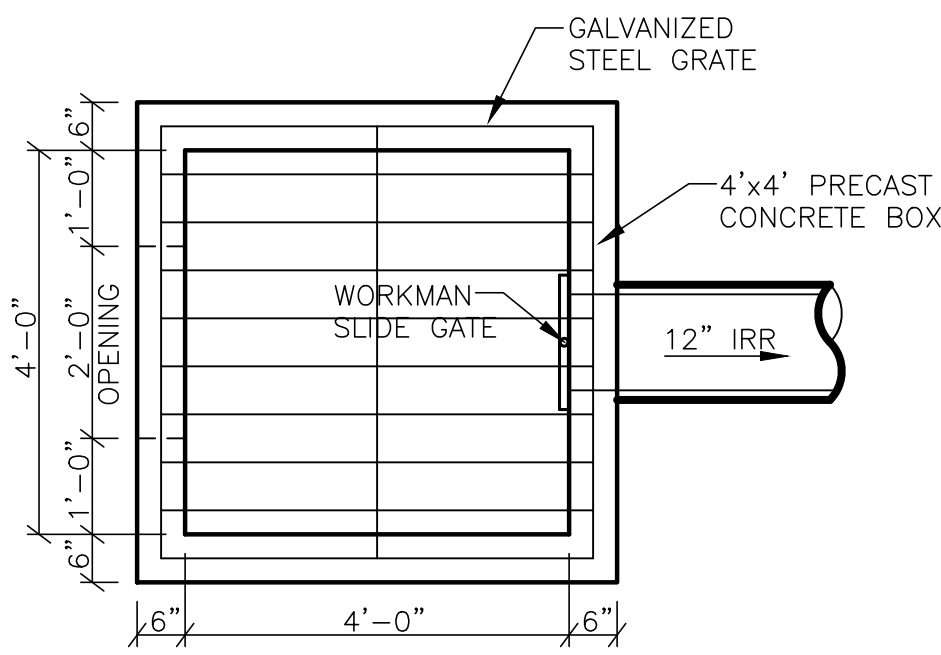
REVISIONS	DATE	DESCRIPTION
09-20-16	CK	County Comments
12-13-16	ER	County Comments
12-22-16	CK	Storm Drain
1-24-17	KH	Storm Drain
2-2-17	KH	DEQ comments
4-3-17	RH	Review Comments

Vaquero Village Cluster Subdivision
Phase 1
 WEBER COUNTY, UTAH
Utility & Irrigation Plan

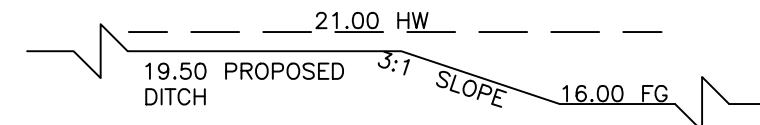
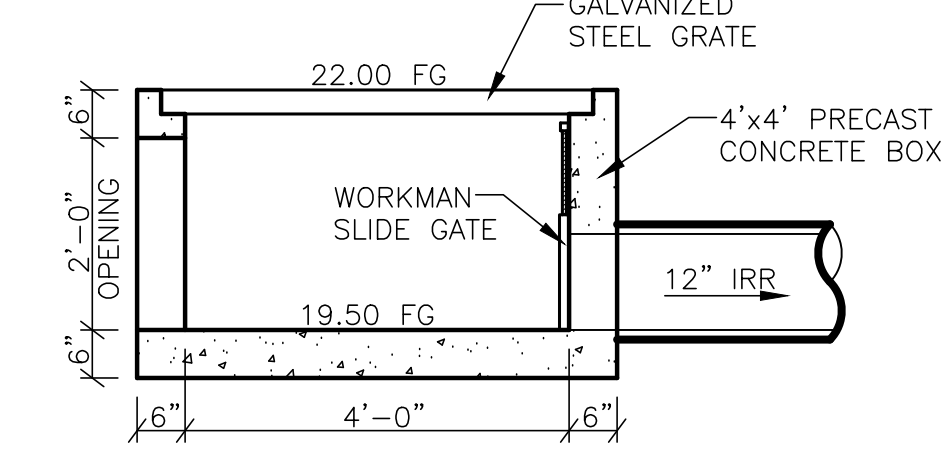


Project Info.

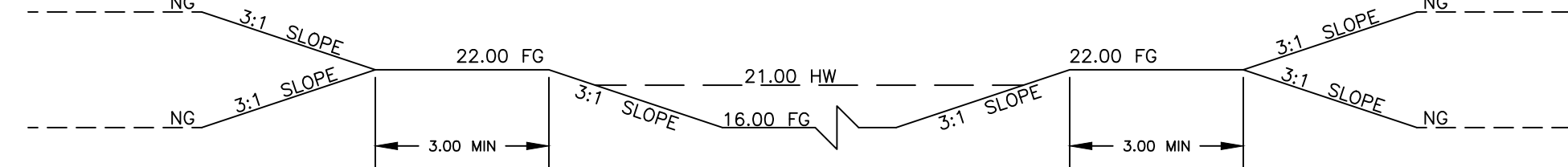
Engineer: J. NATE REEVE
 Drafter: C. KINGSLEY
 Begin Date: 4-4-16
 Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
 Number: 6352-01



Section Irrigation Control Box
SCALE: NONE



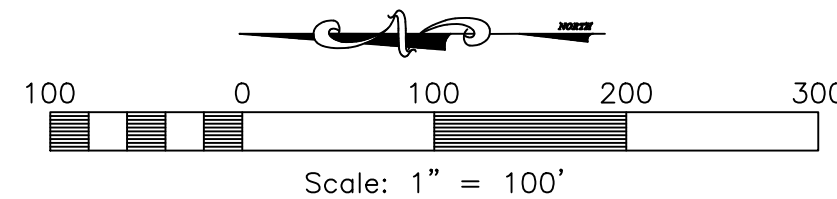
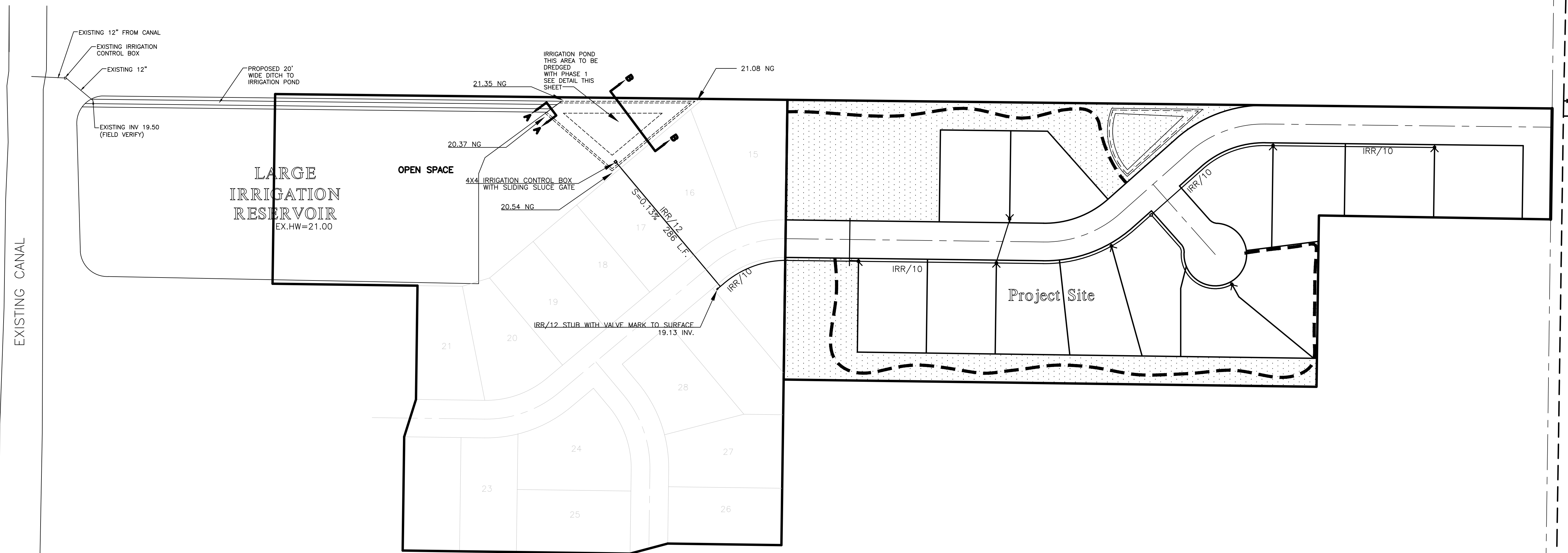
Section A-A Reservoir-Dredge Water Connection Detail
SCALE: NONE



Section B-B Reservoir Dredge And Berm Detail
SCALE: NONE



Vicinity Map
NOT TO SCALE



Reeve & Associates, Inc.

 920 CHAMBERS STREET, SUITE 14, OGDEN, UTAH 84403
 TEL: (801) 621-3100 FAX: (801) 621-2666 www.reeve-assoc.com
 LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
 TRAFFIC ENGINEERS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DATE	DESCRIPTION
09-20-16	CK	County Comments
12-13-16	ER	County Comments
12-22-16	CK	Storm Drain
1-24-17	KH	Storm Drain
2-2-17	KH	DEQ comments
4-3-17	RH	Review Comments

Vaquero Village Cluster Subdivision Phase 1
 WEBER COUNTY, UTAH
Irrigation Reservoir Exhibit



Project Info.

Engineer: J. NATE REEVE
 Drafter: C. KINGSLEY
 Begin Date: 4-4-16
 Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
 Number: 6352-01

Engineer's Notice To Contractors
 THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM AVAILABLE INFORMATION PROVIDED BY OTHERS. THE LOCATIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR, SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE IN ALIGNMENT AND/OR GRADE OF THE PROPOSED IMPROVEMENT. THE CONTRACTOR IS REQUIRED TO CONTACT THE UTILITY COMPANIES AND TAKE DUE PRECAUTIONARY MEASURE TO PROTECT ANY UTILITY LINES SHOWN, AND ANY OTHER LINES OBTAINED BY THE CONTRACTOR'S RESEARCH, AND OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

Developer Contact:
 Barrow Land Livestock, LLC
 Dean & Justin Barrow
 6835 W. 900 S.
 Ogden, UT. 84404
 (801) 514-8194

Blue Stakes Location Center
Call: Toll Free 1-800-662-4111
 Two Working Days Before You Dig

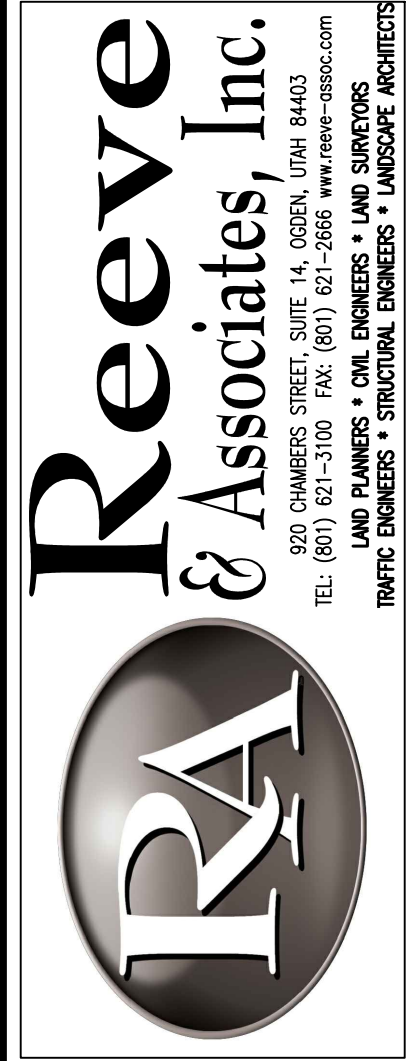
1/4/2016 10:35:21 AM C:\3352\01 - Parcel 100360013\Improvements\Barrow Imp 1.dwg

Reese Station Subdivision Phase 1 Storm Water Pollution Prevention Plan Exhibit

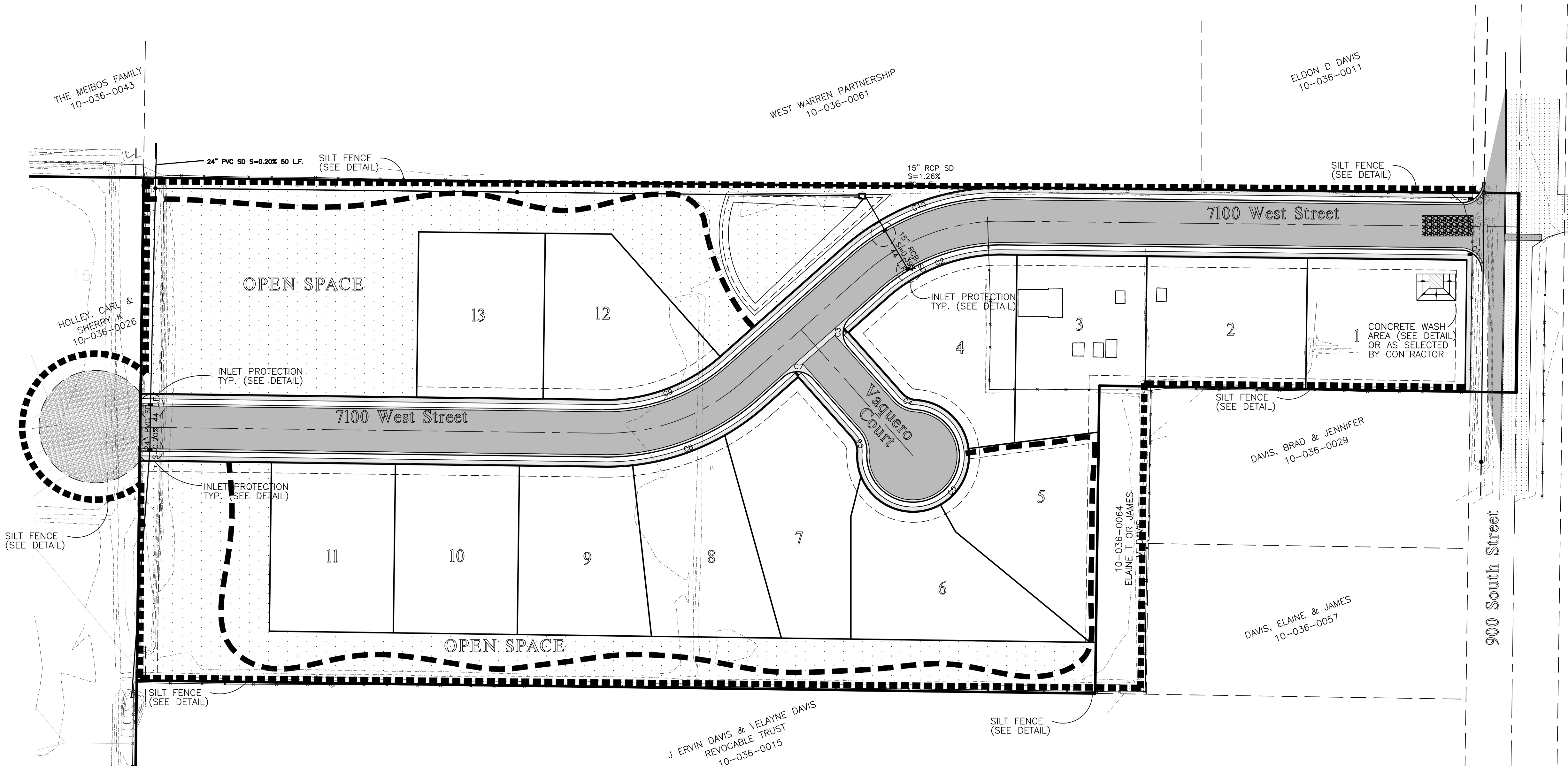
REESE CITY, WEBER COUNTY, UTAH
APRIL, 2016



Vicinity Map
NOT TO SCALE



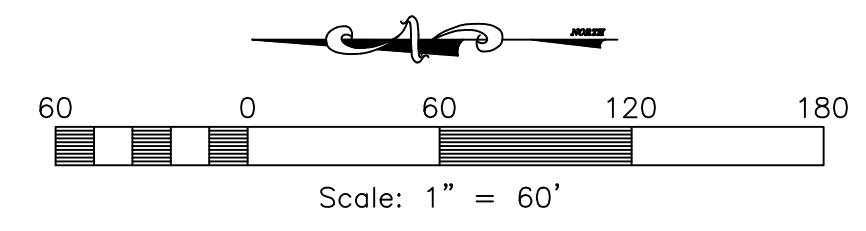
REVISIONS	DATE	DESCRIPTION
	09-20-16	CK County Comments
	12-13-16	ER County Comments
	1-2-22-16	CK Storm Drain
	1-24-17	KH Storm Drain
	2-2-17	KH DEQ comments
	4-3-17	RH Review Comments



STREETS TO BE SWEEP WITHIN 1000 FEET OF CONSTRUCTION ENTRANCE DAILY IF NECESSARY

ALL VEHICLES EXITING SITE TO PROCEED THROUGH CONSTRUCTION ENTRANCE TO REDUCE AMOUNTS OF SEDIMENT TRACKED ONTO ROADWAYS.

50'x20' CONSTRUCTION ENTRANCE W/8" COMPACTED CLEAN GRAVEL



**Vaquero Village Cluster Subdivision
Phase 1**
WEBER COUNTY, UTAH
**Storm Water Pollution
Prevention Plan Exhibit**

Revised: 4-3-17



Project Info.

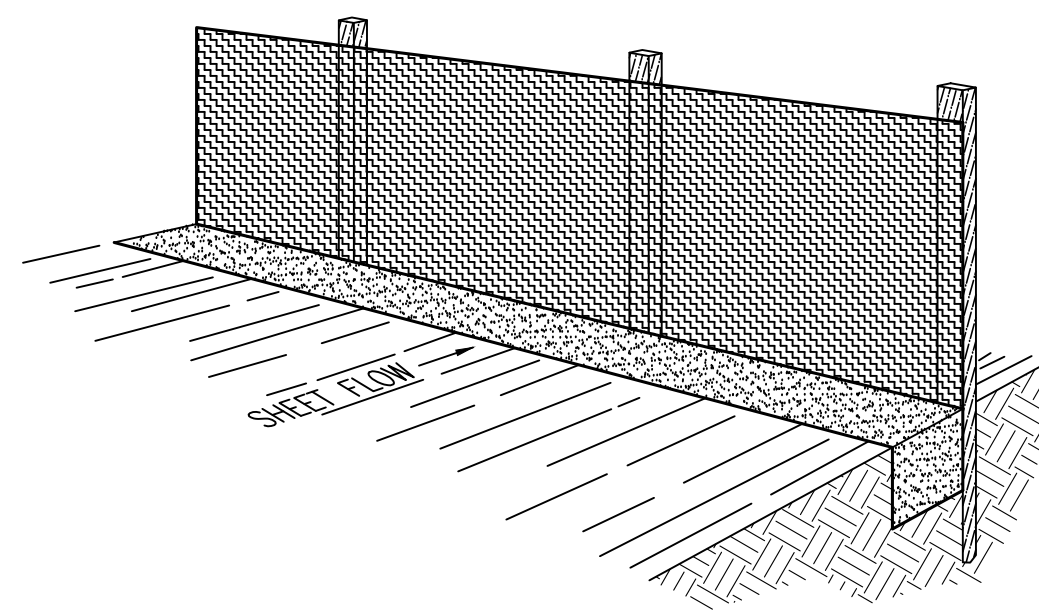
Engineer: J. NATE REEVE
 Drafter: C. KINGSLEY
 Begin Date: 4-4-16
 Name: VAQUERO VILLAGE SUBDIVISION PHASE 1
 Number: 6352-01

Construction Activity Schedule

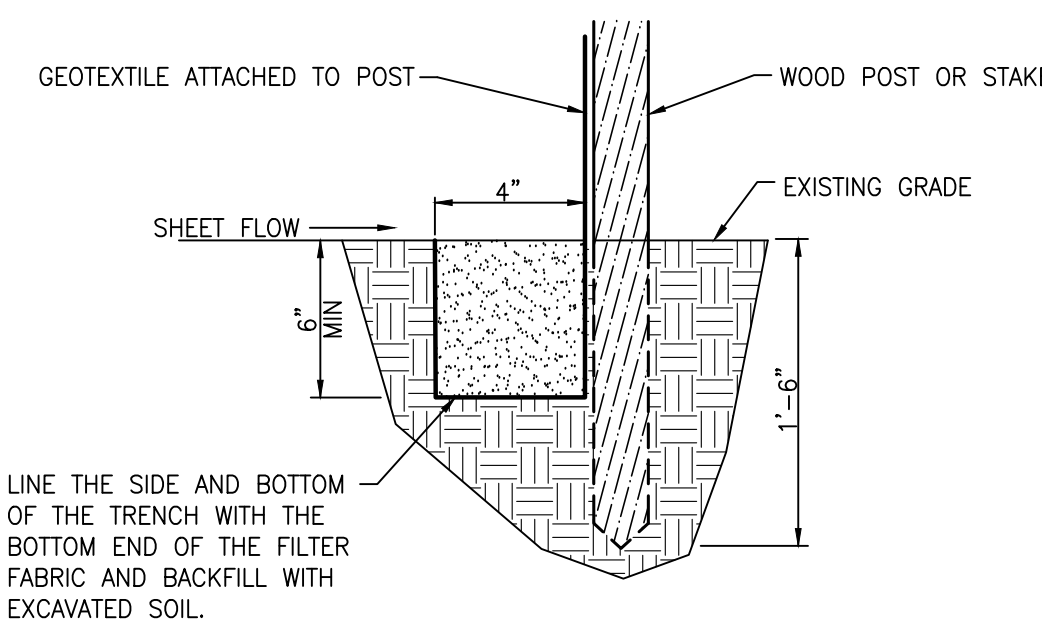
- PROJECT LOCATION.....REESE CITY, WEBER COUNTY, UTAH
 - PROJECT BEGINNING DATE.....APRIL 2016
 - BMP'S DEPLOYMENT DATE.....APRIL 2016
 - STORM WATER MANAGEMENT CONTACT / INSPECTOR.....CONTACT NAME (000) 000-0000
 - SPECIFIC CONSTRUCTION SCHEDULE INCLUDING BMP CONSTRUCTION SCHEDULE TO BE INCLUDED WITH SWPPP BY OWNER/DEVELOPER

Notes:

- Describe all BMP's to protect storm water inlets:
All storm water inlets to be protected by straw wattle barriers, or gravel bags (see detail).
- Describe BMP's to eliminate/reduce contamination of storm water from:
 - Equipment / building / concrete wash areas:
To be performed in designated areas only and surrounded with silt fence barriers.
 - Soil contaminated by soil amendments:
If any contaminants are found or generated, contact environmental engineer and contacts listed.
 - Areas of contaminated soil:
If any contaminants are found or generated, contact environmental engineer and contacts listed.
 - Fueling area:
To be performed in designated areas only and surrounded with silt fence.
 - Vehicle maintenance areas:
To be performed in designated areas only and surrounded with silt fence.
 - Vehicle parking areas:
To be performed in designated areas only and surrounded with silt fence.
 - Equipment storage areas:
To be performed in designated areas only and surrounded with silt fence.
 - Materials storage areas:
To be performed in designated areas only and surrounded with silt fence.
 - Waste containment areas:
To be performed in designated areas only and surrounded with silt fence.
 - Service areas:
To be performed in designated areas only and surrounded with silt fence.
- BMP's for wind erosion:
Stockpiles and site as needed to be watered regularly to eliminate / control wind erosion
- Construction Vehicles and Equipment:
 - Maintenance
 - Maintain all construction equipment to prevent oil or other fluid leaks.
 - Keep vehicles and equipment clean, prevent excessive build-up of oil and grease.
 - Regularly inspect on-site vehicles and equipment for leaks, and repair immediately.
 - Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site.
 - Segregate and recycle wastes, such as greases, used oil or oil filters, antifreeze, cleaning solutions, automotive batteries, hydraulic, and transmission fluids.
 - Fueling
 - If fueling must occur on-site, use designated areas away from drainage.
 - Locate on-site fuel storage tanks within a bermed area designed to hold the tank volume.
 - Cover retention area with an impervious material and install in a manner to ensure that any spills will be contained in the retention area. To catch spills or leaks when removing or changing fluids.
 - Use drip pans for any oil or fluid changes.
 - Washing
 - Use as little water as possible to avoid installing erosion and sediment controls for the wash area.
 - If washing must occur on-site, use designated, bermed wash areas to prevent waste water discharge into storm water, creeks, rivers, and other water bodies.
 - Use phosphate-free, biodegradable soaps.
 - Do not permit steam cleaning on-site.
- Spill Prevention and Control
 - Minor Spills:
Minor spills are those which are likely to be controlled by on-site personnel. After contacting local emergency response agencies, the following actions should occur upon discovery of a minor spill:
 - Contain the spread of the spill.
 - If the spill occurs on paved or impermeable surfaces, clean up using "dry" methods (i.e. absorbent materials, cat litter, and / or rags).
 - If the spill occurs in dirt areas, immediately contain the spill by constructing an earth dike. Dig up properly dispose of contaminated soil.
 - If the spill occurs during rain, cover the impacted area to avoid runoff.
 - Record all steps taken to report and contain spill.
 - Major Spills:
On-site personnel should not attempt to control major spills until the appropriate and qualified emergency response staff have arrived at the site. For spills of federal reportable quantities, also notify the National Response Center at (800) 424-8802. A written report should be sent to all notified authorities. Failure to report major spills can result in significant fines and penalties.
- Post Roadway / Utility Construction
 - Maintain good housekeeping practices.
 - Enclose or cover building material storage areas.
 - Properly store materials such as paints and solvents.
 - Store dry and wet materials under cover, away from drainage areas.
 - Avoid mixing excess amounts of fresh concrete or cement on-site.
 - Perform washout of concrete trucks offsite or in designated areas only.
 - Do not wash out concrete trucks into storm drains, open ditches, streets or streams.
 - Do not place material or debris into streams, gutters or catch basins that stop or reduce the flow of runoff water.
 - All public streets and storm drain facilities shall be maintained free of building materials, mud and debris caused by grading or construction operations. Roads will be swept within 1000' of construction entrance daily, if necessary.
 - Install straw wattle around all inlets contained within the development and all others that receive runoff from the development.
- Erosion Control Plan Notes
 - The contractor will designate an emergency contact that can be reached 24 hours a day 7 days a week.
 - A stand-by crew for emergency work shall be available at all times during potential rain or snow runoff events. Necessary materials shall be available on site and stockpiled at convenient locations to facilitate rapid construction of emergency devices when rain or runoff is eminent.
 - Erosion control devices shown on the plans and approved for the project may not be removed without approval of the engineer of record. If devices are removed, no work may continue that have the potential of erosion without consulting the engineer of record. If deemed necessary erosion control should be reestablished before this work begins.
 - Graded areas adjacent to fill slopes located at the site perimeter must drain away from the top of the slope at the conclusion of each working day. This should be confirmed by survey or other means acceptable to the engineer of record.
 - All silt and debris shall be removed from all devices within 24 hours after each rain or runoff event. Except as otherwise approved by the inspector, all removable protective devices shown shall be in place at the end of each working day and through weekends until removal of the system is approved.
 - All loose soil and debris, which may create a potential hazard to offsite property, shall be removed from the site as directed by the Engineer of record of the governing agency.
 - The placement of additional devices to reduce erosion damage within the site is left to the discretion of the Engineer of record.
 - Desilting basins may not be removed or made inoperable without the approval of the engineer of record and the governing agency.
 - Erosion control devices will be modified as need as the project progresses, and plans of these changes submitted for approval by the engineer of record and the governing agency.
- Conduct a minimum of one inspection of the erosion and sediment controls every two weeks. Maintain documentation on site.
 - Part III.D.4 of general permit UTR300000 identifies the minimum inspection requirements.
 - Part II.D.4.C identifies the minimum inspection report requirements.
 - Failure to complete and/or document storm water inspections is a violation of part III.D.4 of Utah General Permit UTR 300000.



Perspective View



Section

INSTALLATION

The silt fence should be installed prior to major soil disturbances in the drainage area. The fence should be placed across the slope along a line of uniform elevation wherever flow of sediment is anticipated. Table 1 shows generally-recommended maximum slope lengths (slope spacing between fences) at various site grades for most silt fence applications.

TABLE 1: Recommended Maximum Slope Lengths for Silt Fence (Richardson & Middlebrooks, 1991)	
Slope Steepness (%)	Max. Slope Length m (ft)
<2%	30.5m (100ft)
2-5%	22.9m (75ft)
5-10%	15.2m (50ft)
10-20%	7.6m (25ft)
>20%	4.5m (15ft)

PREFABRICATED SILT FENCE ROLLS

- *Excavate a minimum 15.2cm x 15.2cm (6"x6") trench at the desired location.
- *Unroll the silt fence, positioning the post against the downstream wall of the trench.
- *Adjacent rolls of silt fence should be joined by nesting the end post of one fence into the other. Before nesting the end posts, rotate each post until the geotextile is wrapped completely around the post, then abut the end posts to create a tight seal as shown in Figure 1.
- *Drive posts into the ground until the required fence height and/or anchorage depth is obtained.
- *Bury the loose geotextile at the bottom of the trench in the upstream trench and backfill with natural soil, tamping the backfill to provide good compaction and anchorage. Figure 2 illustrates a typical silt fence installation and anchor trench placement.

should generally be less than three (3) times the height of the fence.

- *If a steel or plastic mesh is required to reinforce the geotextile, it shall have a minimum mesh opening of 15.2cm (6").
- *Fasten the mesh to the upslope side of the posts using heavy duty wire staples, tie wires or hog strings. Extend the mesh into the bottom of the trench.
- *The geotextile shall then be stapled or wired to the posts. An extra 20-50cm (8-20") of geotextile shall extend into the trench.

INSPECTION

- *Inspect the silt fence daily during periods of rainfall, immediately after significant rainfall event and weekly during periods of no rainfall. Make any repairs immediately.
- *When sediment deposits behind the silt fence are one-third of the fence height, remove and properly dispose of the silt accumulations. Avoid damage to the fabric during cleanout.

REMOVAL

- *Silt fence should not be removed until construction ceases and the upslope area has been properly stabilized and/or revegetated.

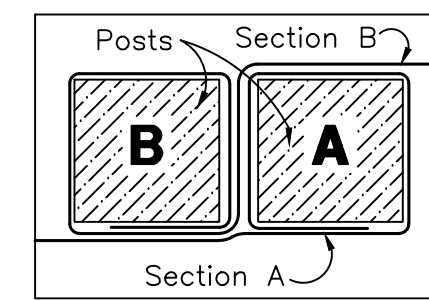
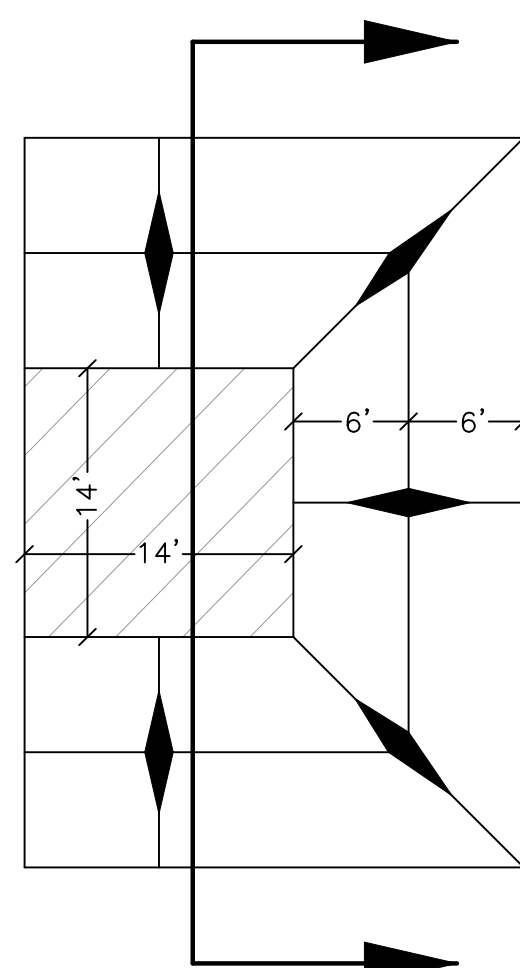


Figure 1:
Top View of
Roll-to-Roll Connection

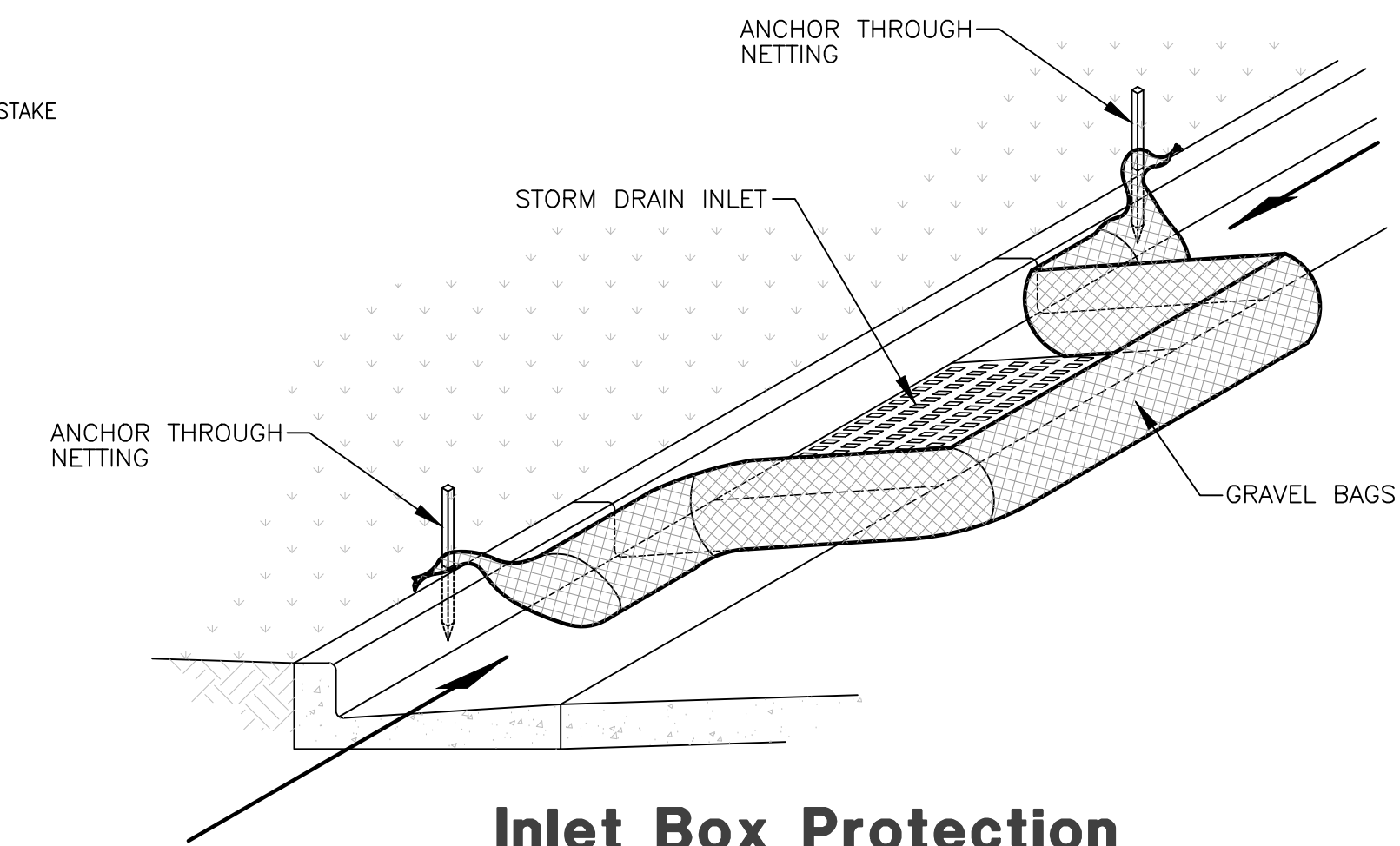
Silt Fence Detail

SCALE: NONE

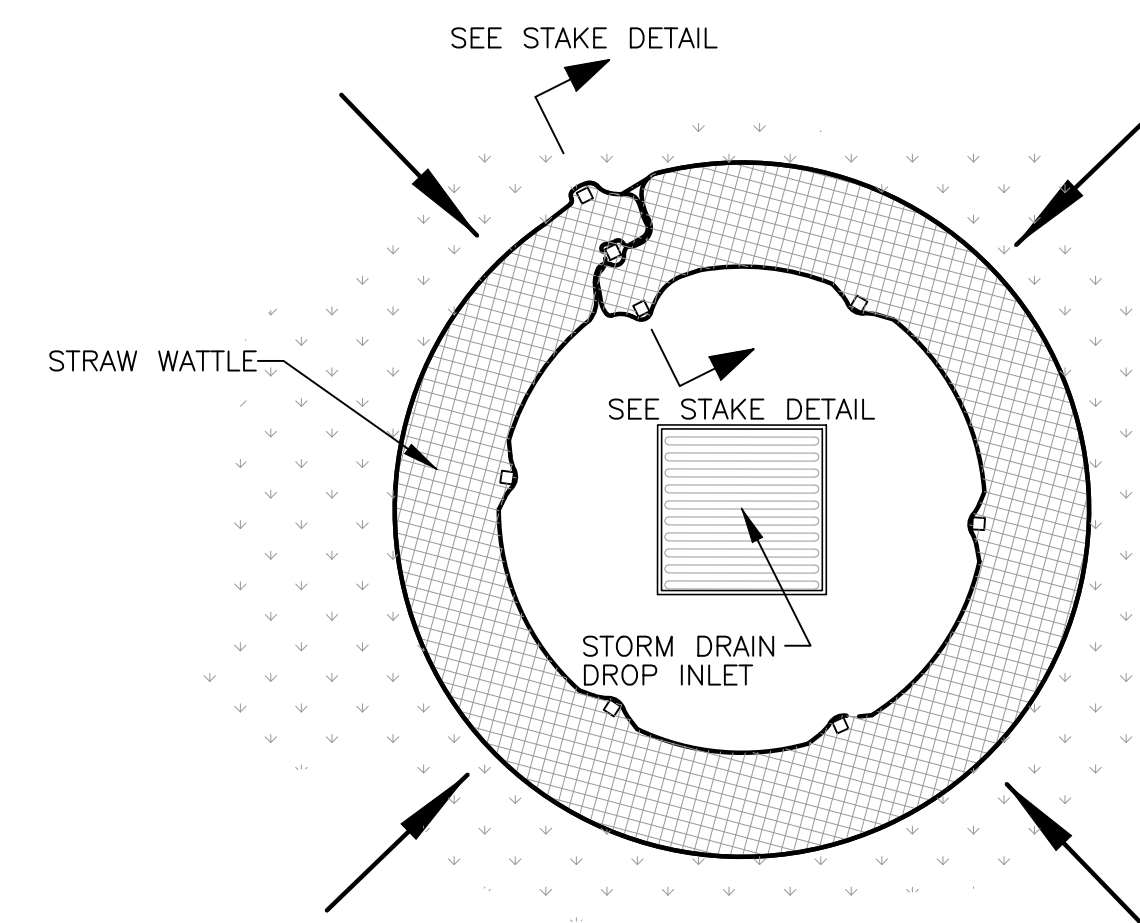


**Concrete Washout Area
w/ 10 mil Plastic Liner**

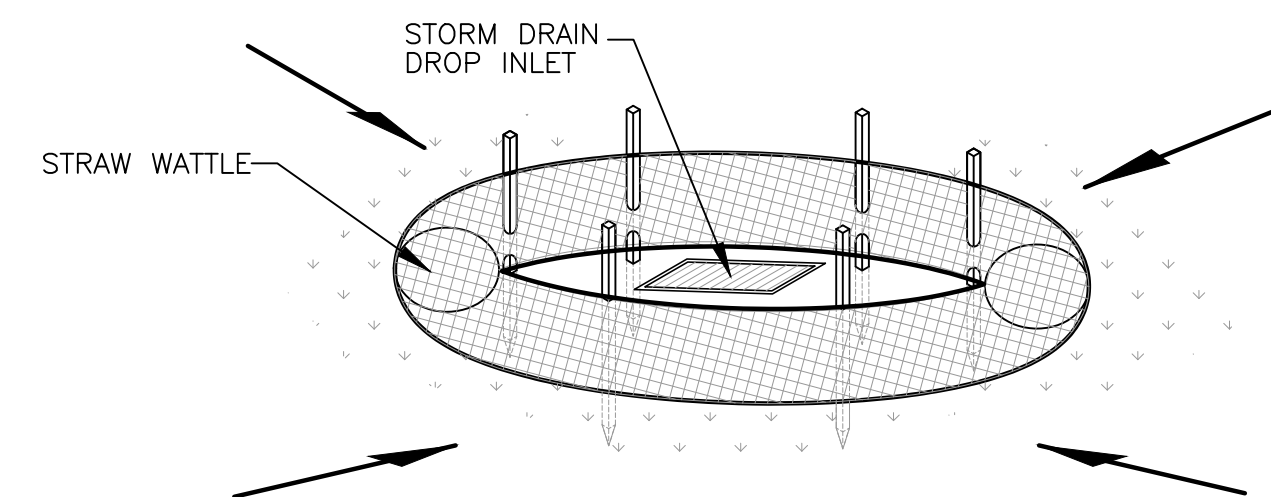
SCALE: NONE



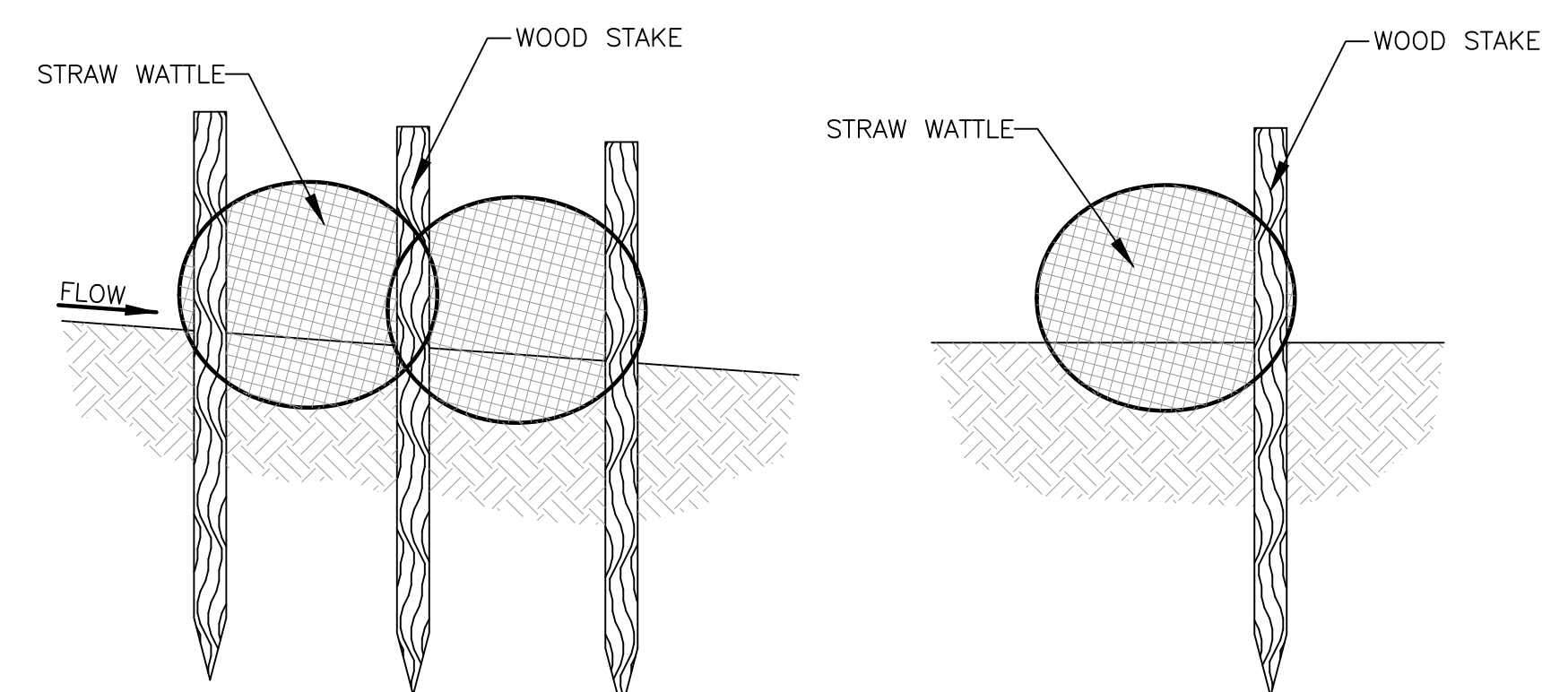
Inlet Box Protection



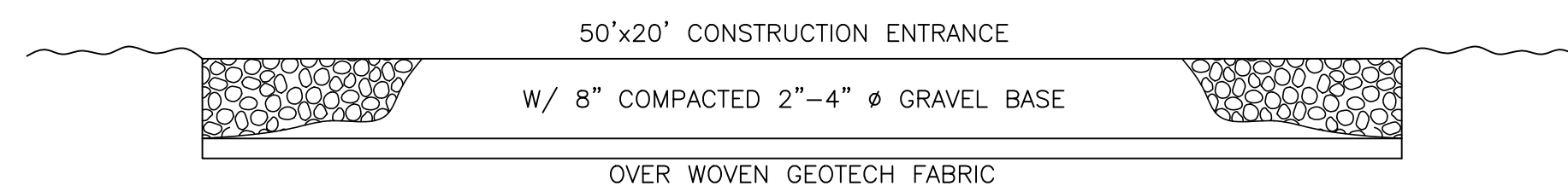
Plan View



Drop Inlet Protection



Stake Detail



Cross Section 50' x 20' Construction Entrance

Reeve & Associates, Inc.
IRA
 920 CHAMBERS STREET, SUITE 14, OGDEN, UTAH 84403
 TEL: (801) 621-2100 FAX: (801) 621-2666 www.reeve-assoc.com
 LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
 PROFESSIONAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DATE	DESCRIPTION
09-20-16	CK	County Comments
12-13-16	ER	County Comments
12-22-16	CK	Storm Drain
1-24-17	KH	Storm Drain
2-2-17	RH	DEQ comments
4-3-17	RH	Review Comments

**Vaquero Village Cluster Subdivision
Phase 1**
 WEBER COUNTY, UTAH
**Storm Water Pollution
Prevention Plan Details**

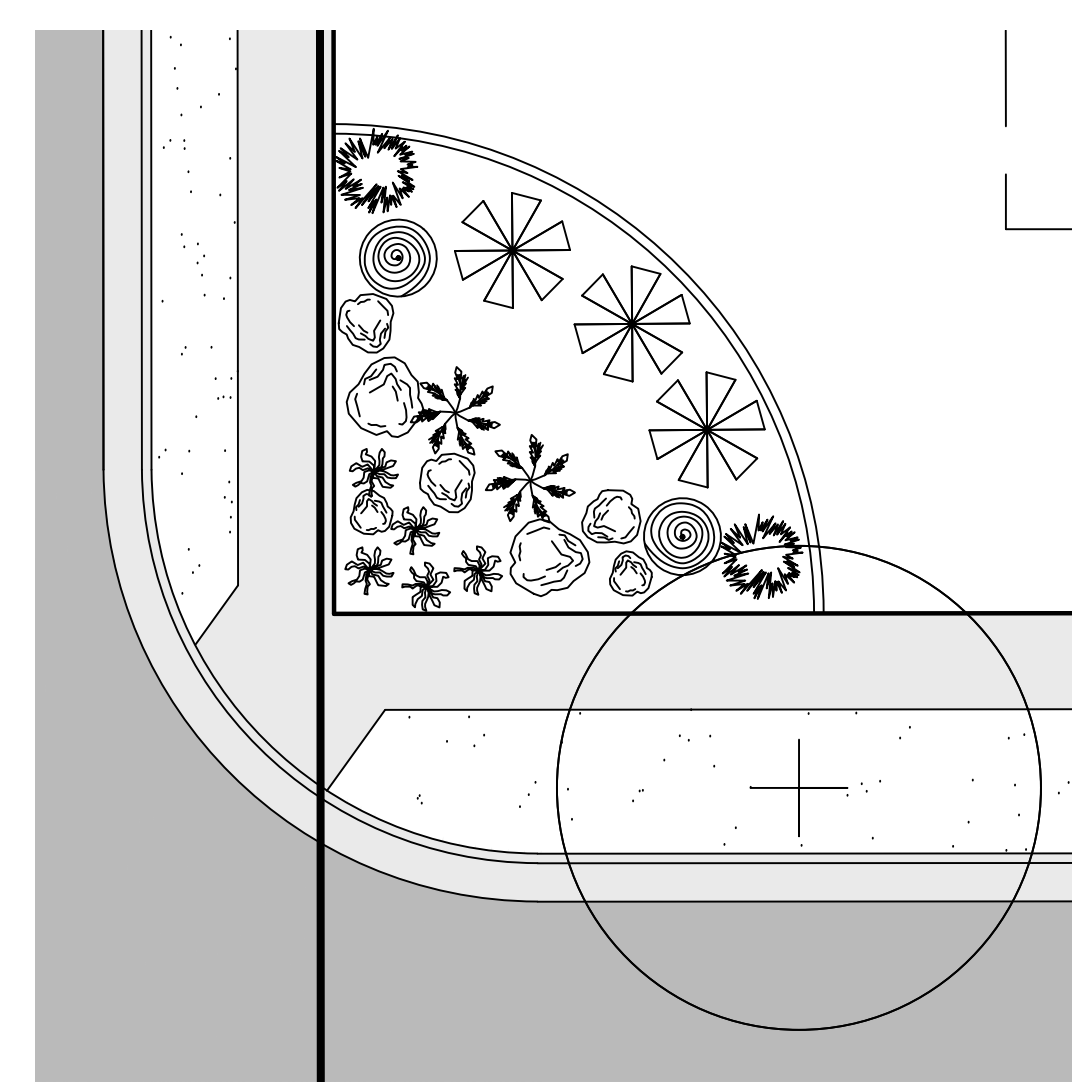
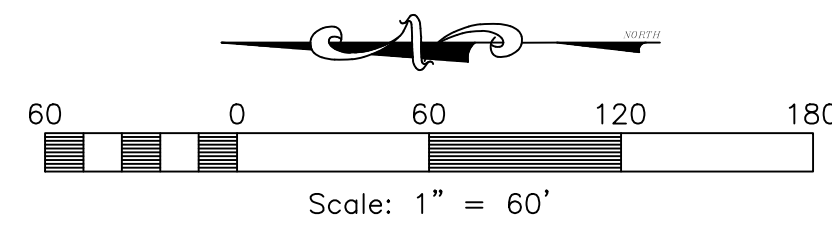
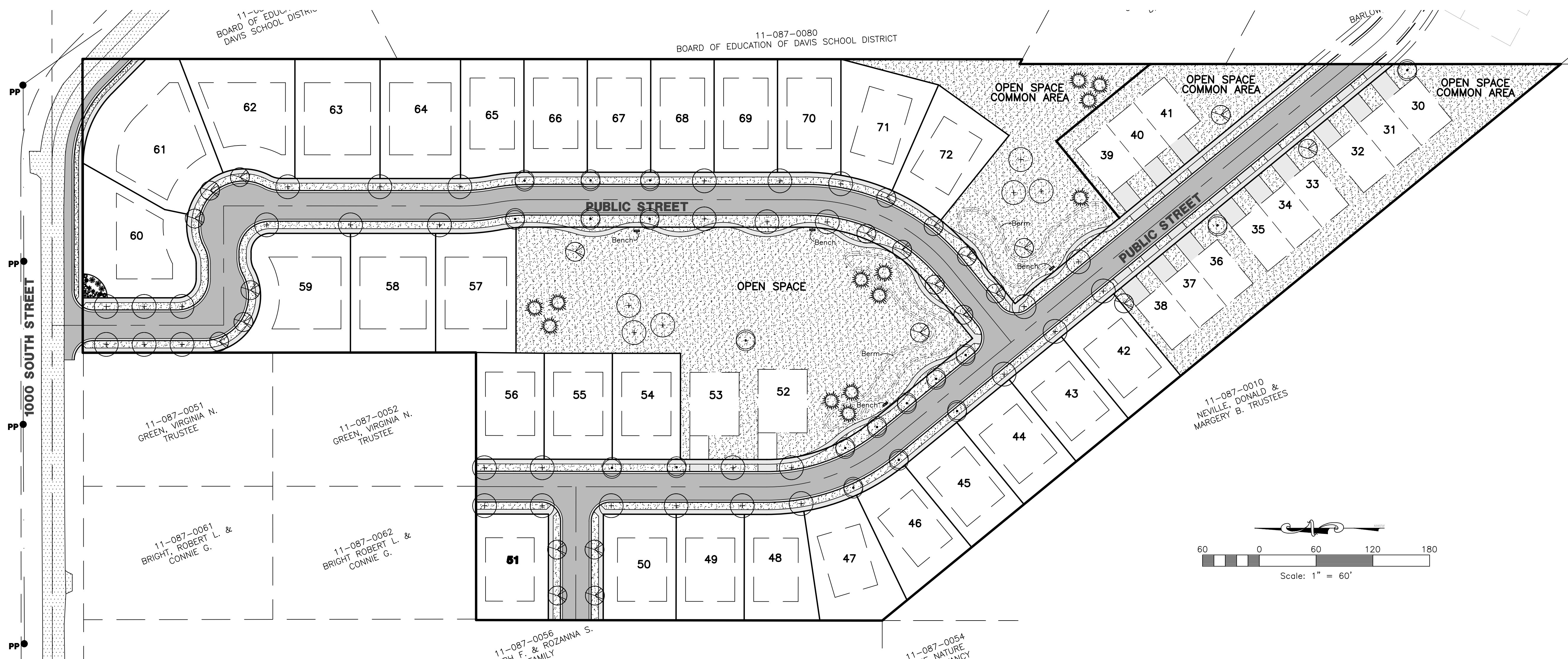


Project Info.

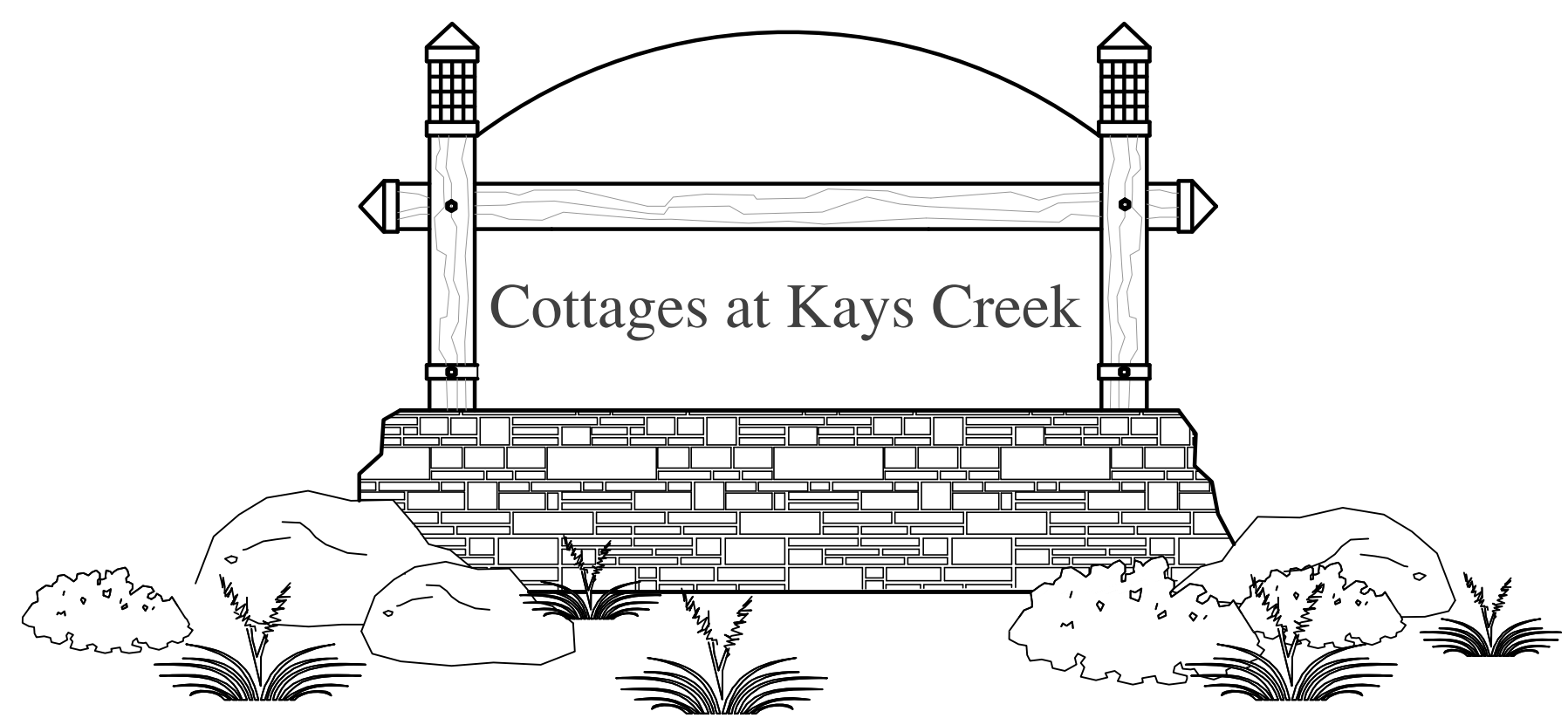
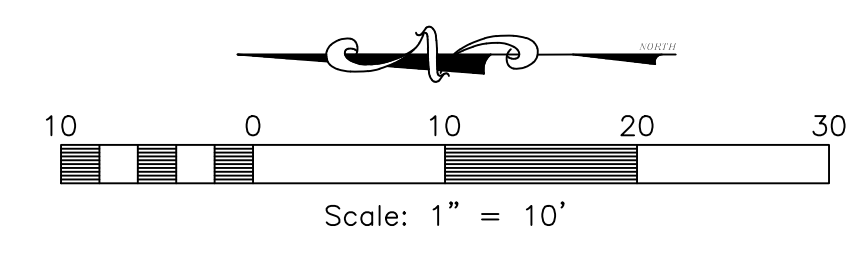
Engineer:	J. NATE REEVE
Drafter:	C. KINGSLEY
Begin Date:	4-4-16
Name:	VAQUERO VILLAGE SUBDIVISION PHASE 1
Number:	6352-01

Sheet	14
12	Sheets

1/4/2016 | ipalitis | G:\6352\01 - Parcel 100360013\Improvements\Borrow Imp 1.dwg



Entry Detail



Monument Sign
SCALE: NONE

Cottages at Kays Creek

Layton City, Davis County, Utah

Developer:
Ovation Homes
Brad Frost
893 N. Marshall Way #A
Layton, UT 84041
(801) 564-3898

Reeve & Associates, Inc.
920 CHAMBERS STREET, SUITE 14, OGDEN, UTAH 84403
TEL: (801) 621-2100 FAX: (801) 621-2666 WWW.REEVE-ASSOC.COM
LAND PLANNERS • CIVIL ENGINEERS • LAND SURVEYORS
ARCHITECTS • STRUCTURAL ENGINEERS • LANDSCAPE ARCHITECTS

REVISIONS	DESCRIPTION
DATE	

Cottages at Kays Creek
PART OF THE NORTH HALF OF SECTION 31, T.4N., R.1W.
LAYTON CITY, DAVIS COUNTY, UTAH

Landscape Plan

Revised: 11-28-16

Project Info.

Engineer:	G. THORSON
Designer:	
Begin Date:	
Name:	COTTAGES AT KAYS CREEK
Number:	5061-B83

Sheet	2
L1	Sheets

Plant Table

TREES

Symbol	Scientific Name	Common Name	Planting Size
	Acer x freemanii 'Jeffersred'	Autumn Blaze Maple	2" cal.
	Malus 'Prairie Fire'	Prairie Fire Crabapple	2" cal.
	Pinus nigra	Austrian Pine	6'-8' B&B
	Pyrus calleryana 'Aristocrat'	Aristocrat Flowering Pear	2" cal.

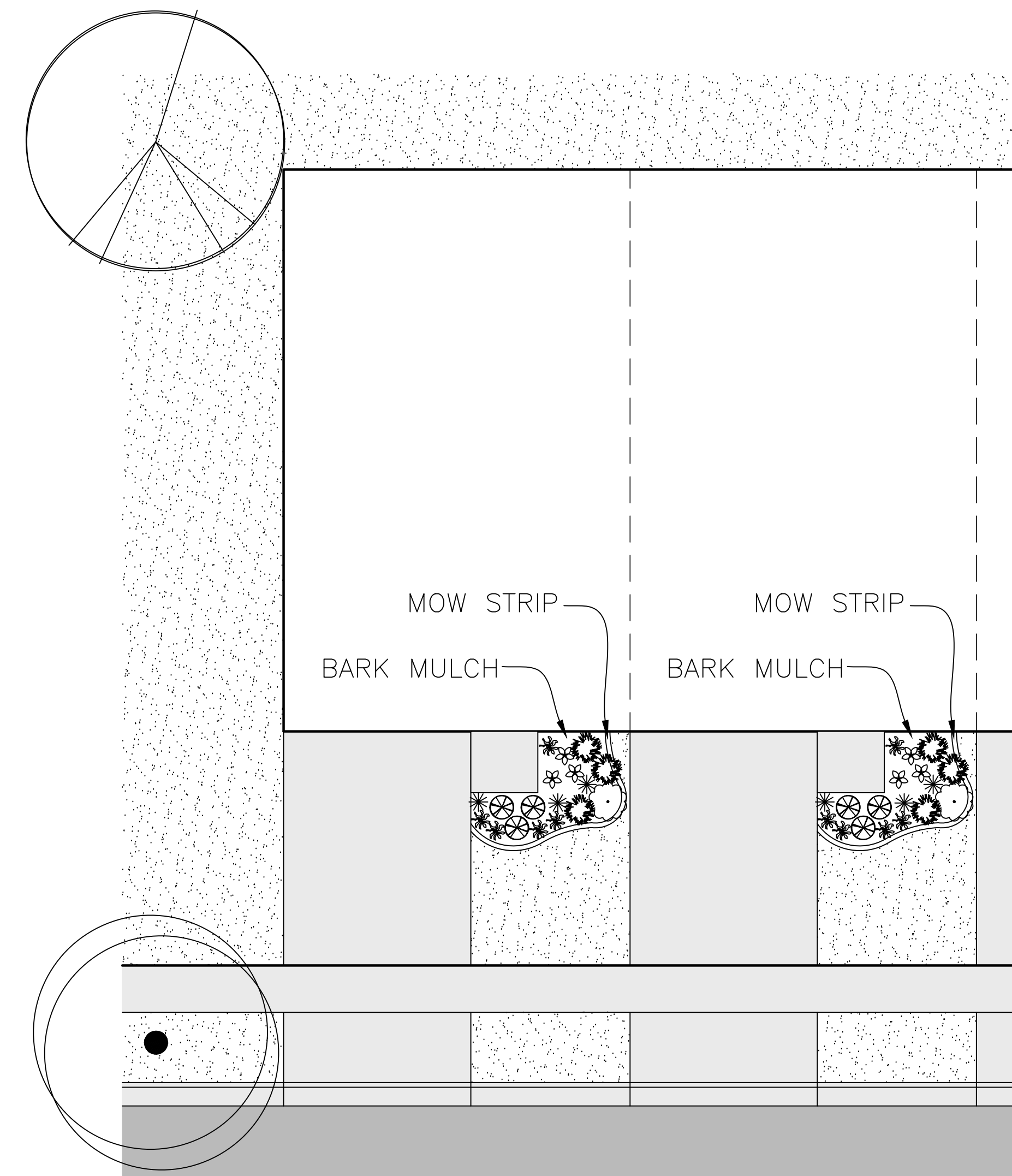
SHRUBS

Symbol	Scientific Name	Common Name	Planting Size
	Euonymus alatas 'Compacta'	Dwarf Burning Bush	5 gal.
	Pinus mugo 'Pumilio'	Dwarf Mugo Pine	5 gal.
	Spiraea japonica 'Magic Carpet'	Magic Carpet Spirea	5 gal.
	Rosa noatrum	Flower Carpet Rose	5 gal.

PERENNIALS

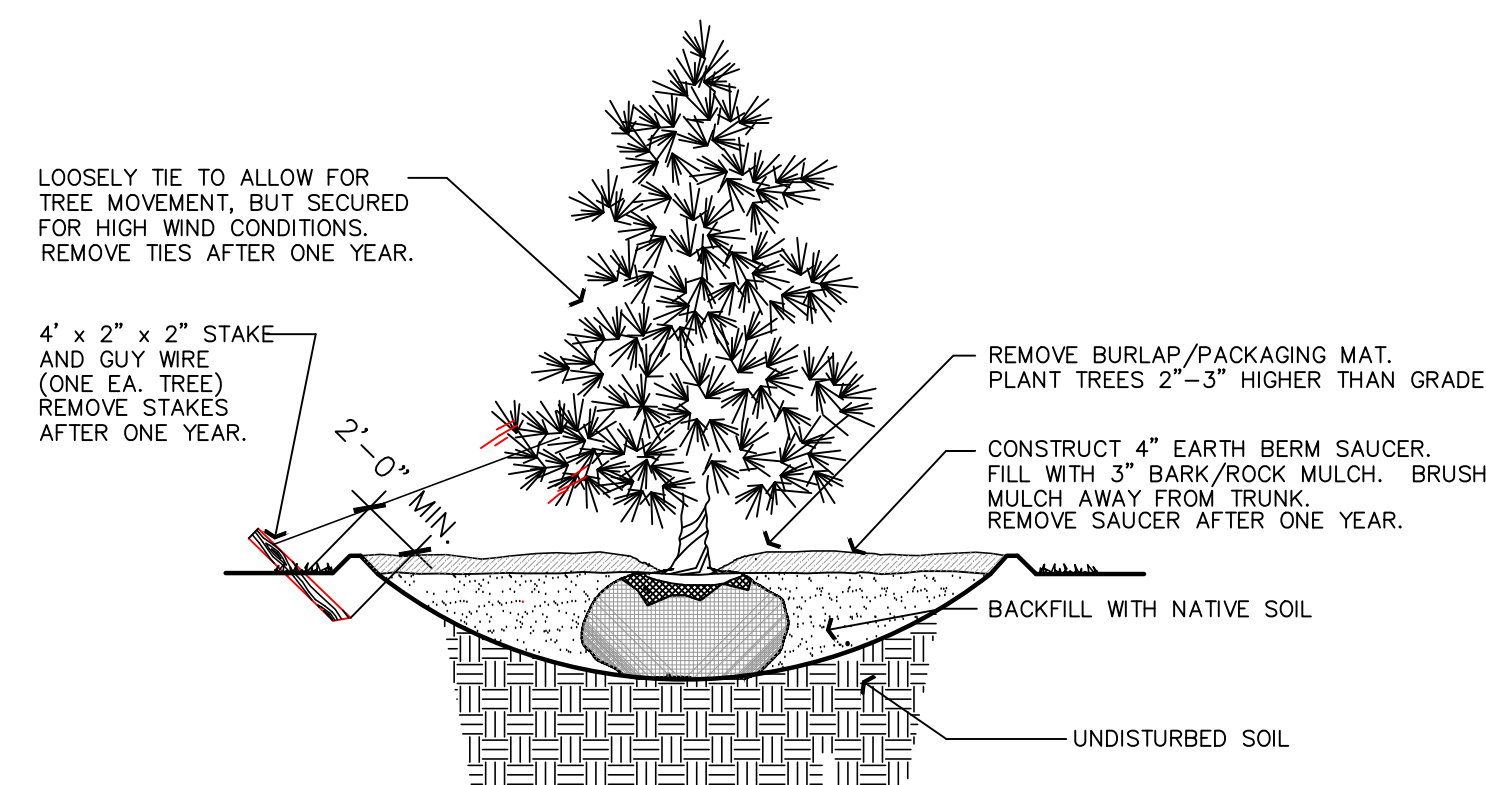
Symbol	Scientific Name	Common Name	Planting Size
	Calamagrostis 'Karl Foerster'	Karl Foerster Grass	5 gal.
	Hemerocallis 'Stella de Oro'	Stella de Oro Daylily	1 gal.
	Iris pallida 'Variegata'	Variegated Sweet Iris	1 gal.
	Sedum 'Autumn Joy'	Autumn Joy Sedum	1 gal.

Turf Grass - To be sodded.



Typical Home Planting Detail

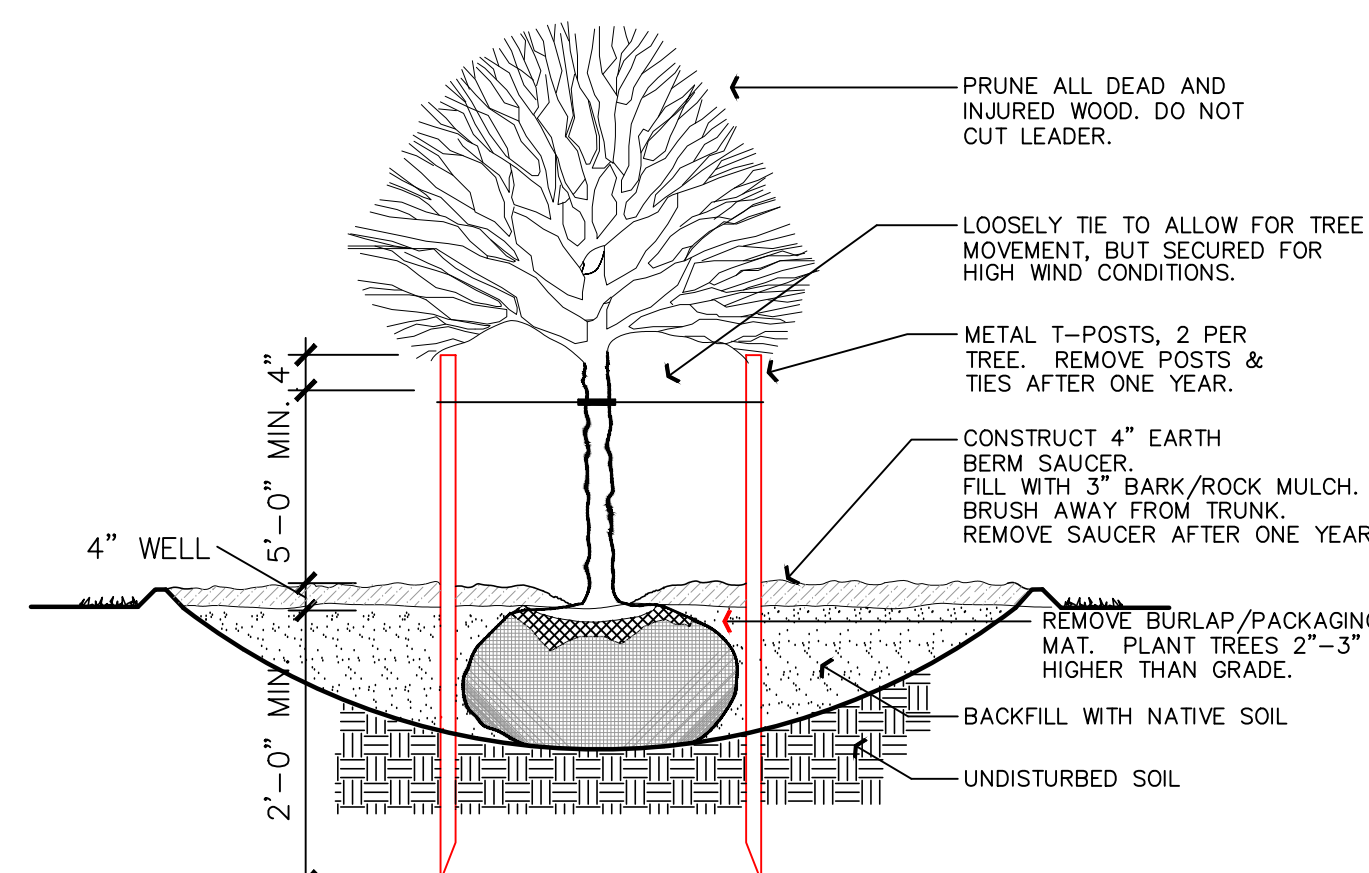
SCALE: NONE



NOTE: DIG HOLE THREE TIMES THE WIDTH AND AS DEEP AS ROOTBALL, EXCEPT WHERE NOTED.

CONIFEROUS TREE PLANTING

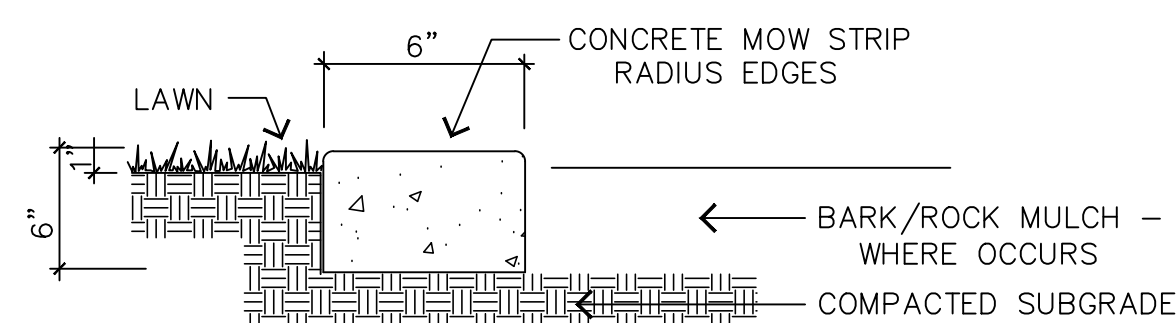
SCALE: NOT TO SCALE



NOTE: DIG HOLE THREE TIMES THE WIDTH AND AS DEEP AS ROOTBALL, EXCEPT WHERE NOTED.

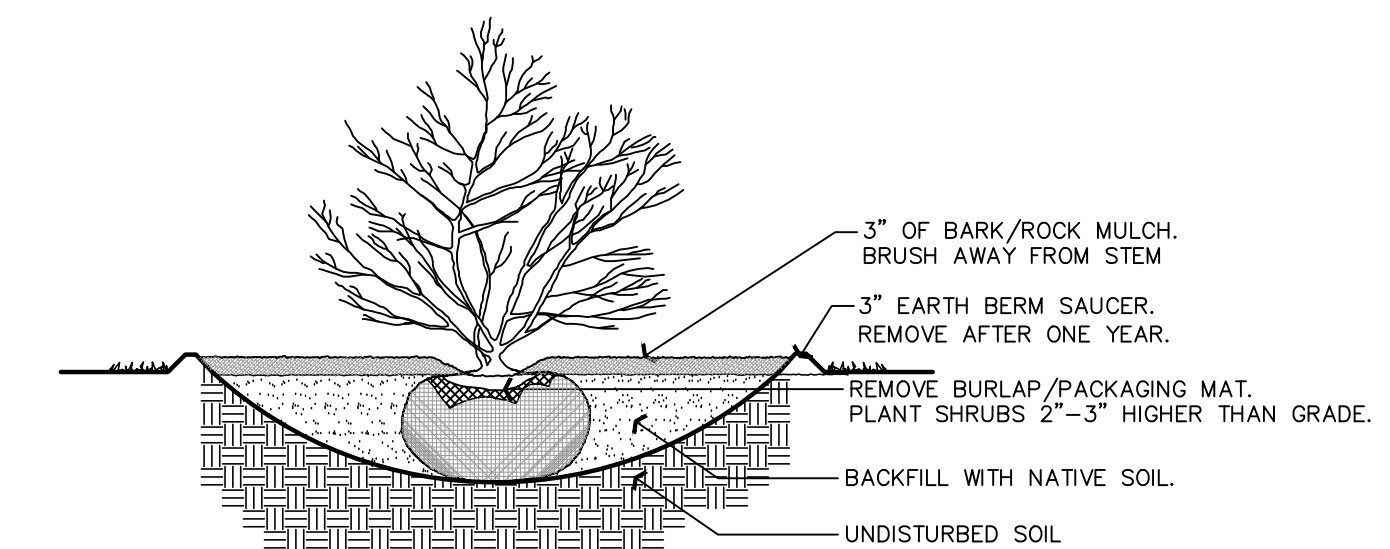
DECIDUOUS TREE PLANTING

SCALE: NOT TO SCALE



CONCRETE MOW STRIP

SCALE: NOT TO SCALE



NOTE: DIG HOLE THREE TIMES THE WIDTH AND AS DEEP AS ROOTBALL, EXCEPT WHERE NOTED.

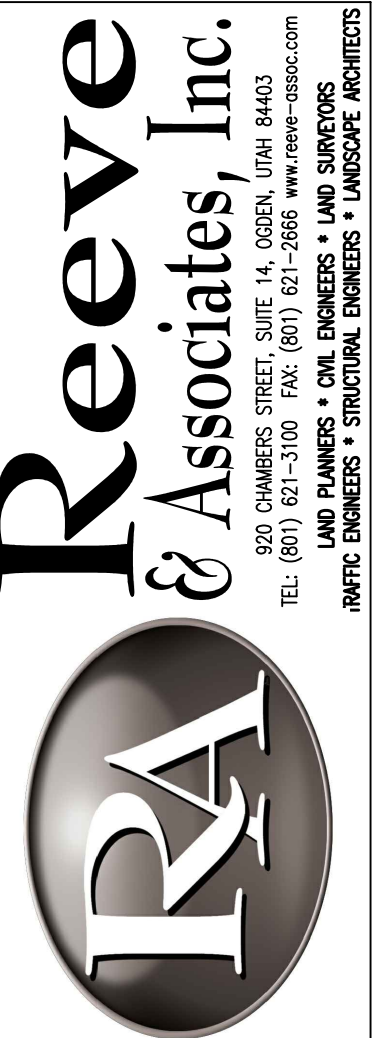
SHRUB PLANTING

SCALE: NOT TO SCALE

Cottages at Kays Creek

Layton City, Davis County, Utah

Developer:
Ovation Homes
Brad Frost
893 N. Marshall Way #A
Layton, UT 84041
(801) 564-3898



REVISIONS	DESCRIPTION
DATE	

Cottages at Kayscreek
PART OF THE NORTH HALF OF SECTION 31, T.4N., R.1W.
LAYTON CITY, DAVIS COUNTY, UTAH

Landscape Details

Revised: 11-28-16

Project Info.

Engineer:	G. THORSON
Designer:	
Begin Date:	
Name:	COTTAGES AT KAYS CREEK
Number:	5061-B83

Sheet	2
L2	Sheets