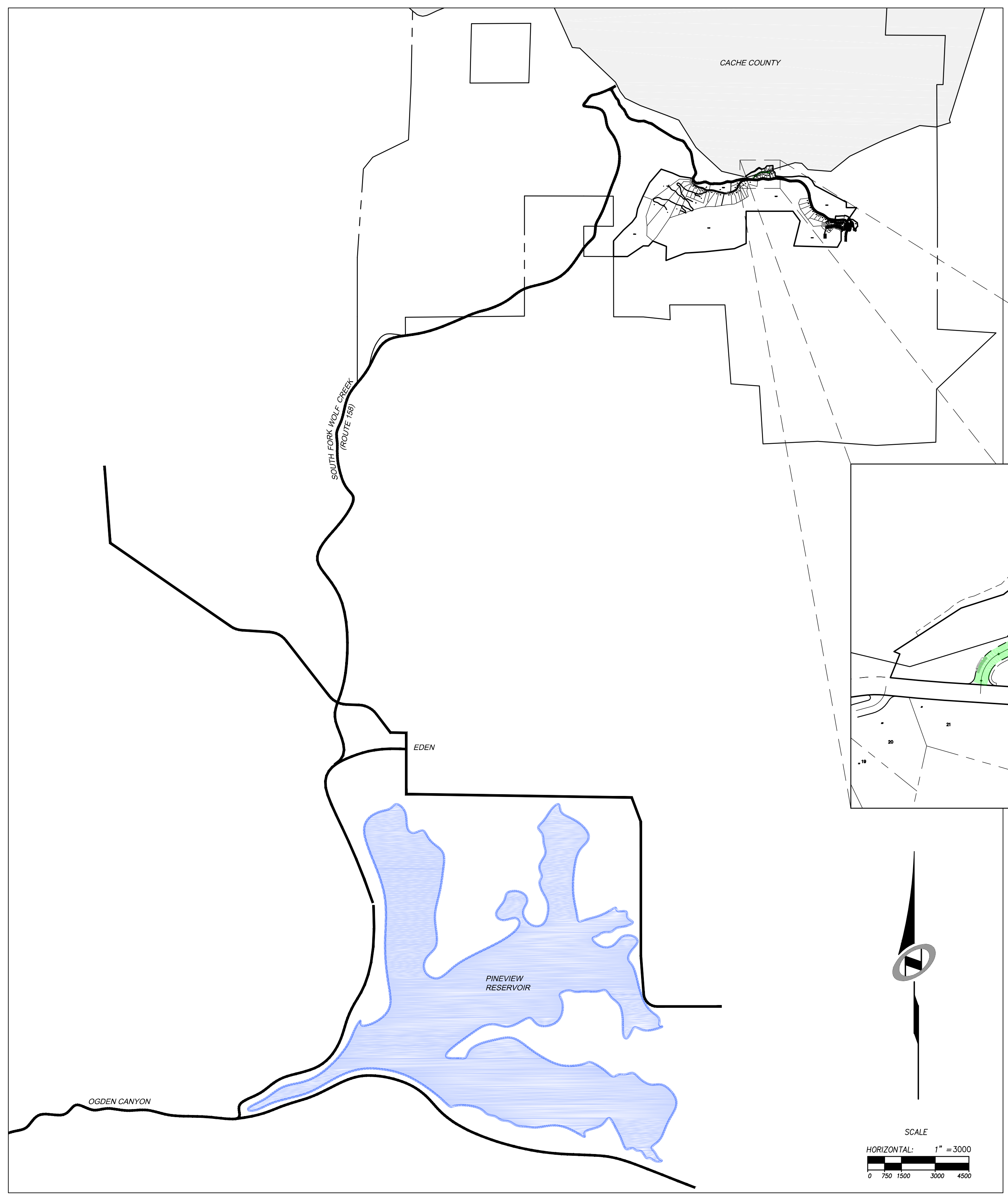


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SUMMIT EDEN PHASE 1B

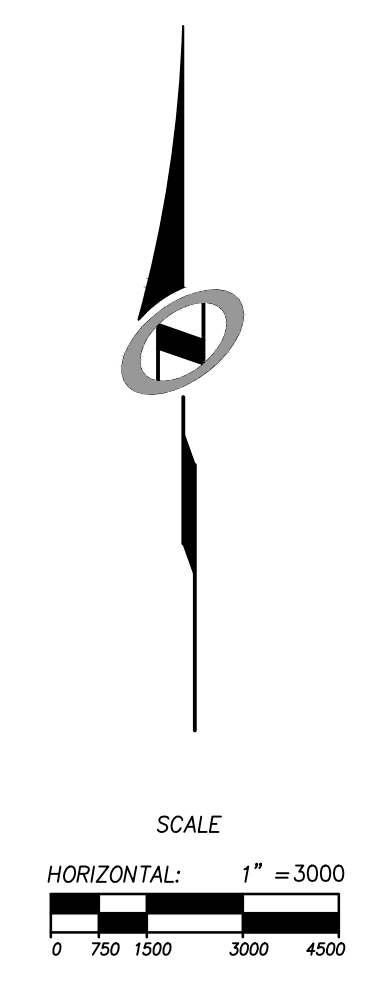
ROADWAY AND UTILITY CONSTRUCTION DRAWINGS

Located in Sec 01 T7N R1E
Weber County, Utah



SHEET INDEX:

SHEET NO.	SHEET DESCRIPTION
1.00	CIVIL TITLE SHEET
1.01	GENERAL NOTES, LEGEND, AND KEYNOTES
1.02	OVERALL UTILITY
1.03	OVERALL GRADING & DRAINAGE - HEARTWOOD DRIVE
1.04	ROADWAY TYPICAL SECTION
2.00	PLAN & PROFILE - HEARTWOOD DRIVE
3.00	EARTHWORK & SECTIONS - HEARTWOOD DRIVE
4.00	EROSION CONTROL PLAN - HEARTWOOD DRIVE
5.00	STORM DRAIN DETAILS
5.01	WATER DETAILS
5.02	WATER DETAILS
5.10	GRINDER PUMP VAULT - SEWER DETAILS
5.11	SEWER DETAILS
5.12	MISCELLANEOUS DETAILS
5.20	ELECTRICAL DETAILS
5.30	MISCELLANEOUS DETAILS
6.00	DRY UTILITY PLAN
E1	ELECTRICAL NOTES AND DETAILS
E2	ELECTRICAL SITE PLAN SEWAGE LIFT STATION #5
E3	LIFT STATION #5 POWER ONE-LINE DIAGRAM
GE-1	ELECTRICAL DETAILS
GE-2	ELECTRICAL DETAILS

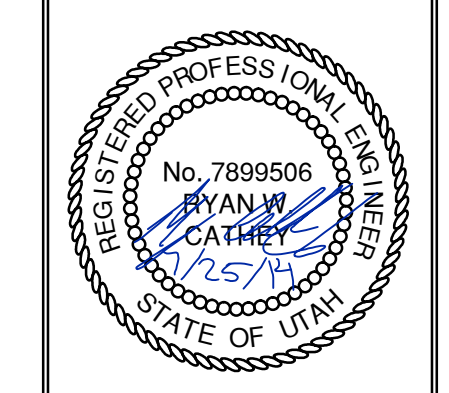


NO.	BY	DATE	REVISIONS
1	RHC	8/27/2013	ADD/REMOVE
2	RHC	5/27/2014	REVISIONS
3	RHC	5/27/2014	REVISIONS
4	RHC	7/29/2014	REVISIONS

CAUTION
 The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. Any such changes or uses must be approved by the preparer of these plans.

SUMMIT EDEN PHASE 1B
CIVIL TITLE SHEET

NV5
 BEYOND ENGINEERING
 5217 SOUTH STATE STREET, SUITE 200
 MURRAY, UT 84107
 WWW.NV5.COM

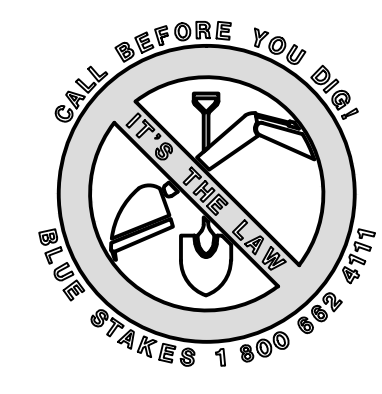


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1.00

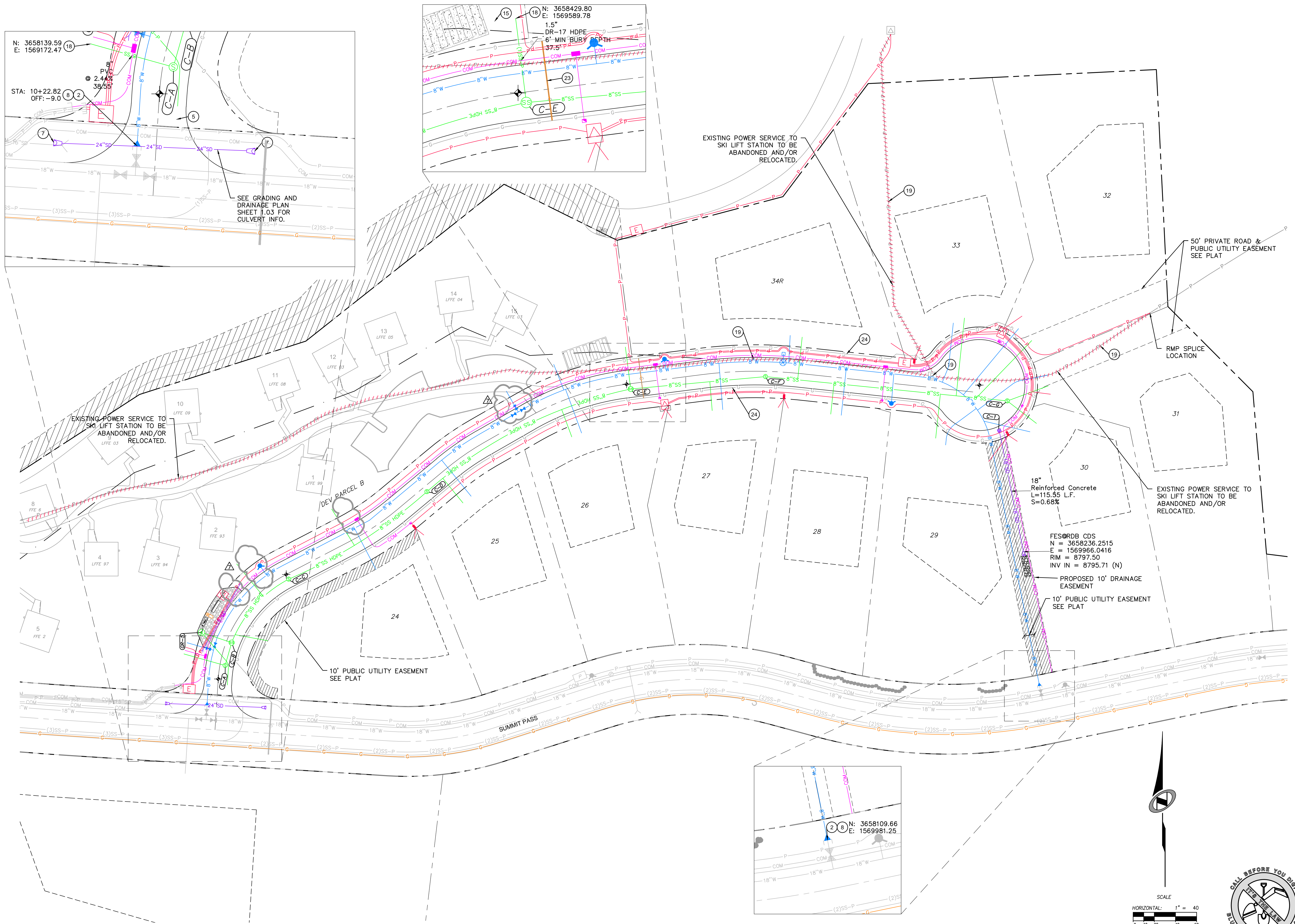
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JOB NUMBER
SLB079306

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC DATE SUBMITTED: 01/07/2014



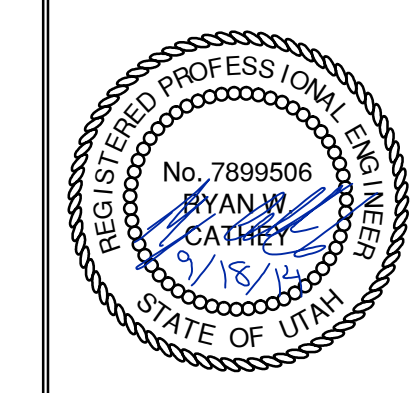
BOWDEN
 XREFS:



SUMMIT EDEN PHASE 1B

OVERALL UTILITY PLAN

NV5
 BEYOND ENGINEERING
 5217 SOUTH STATE STREET, SUITE 200
 MURRAY, UT 84107
 WWW.NV5.COM



SHEET NUMBER
1.02

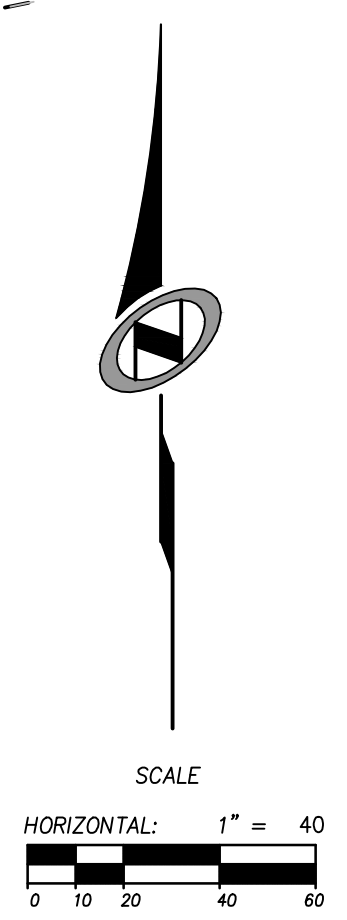
SCALE
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JOB NUMBER
SLB079306

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC DATE SUBMITTED: 01/07/2014

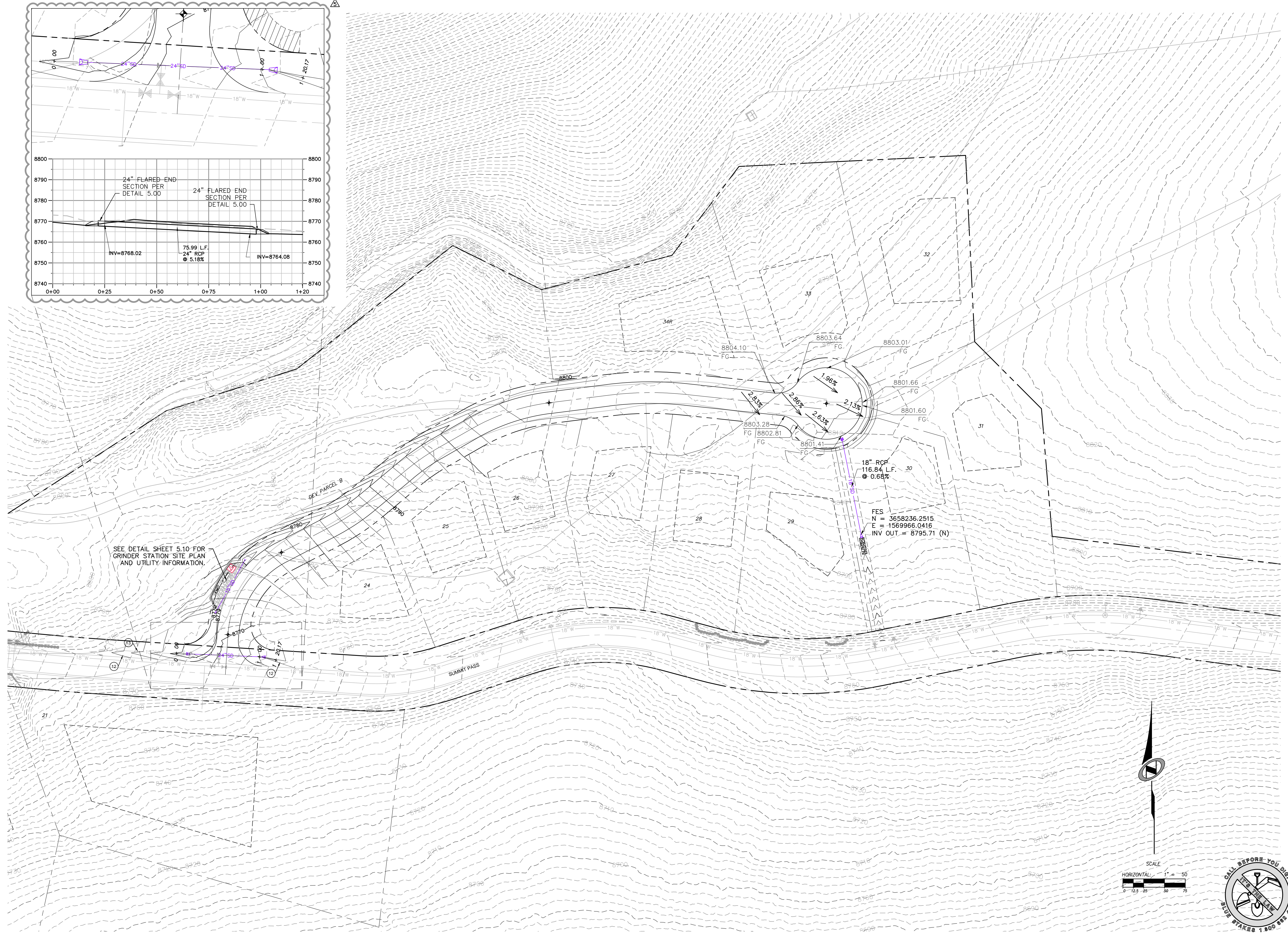
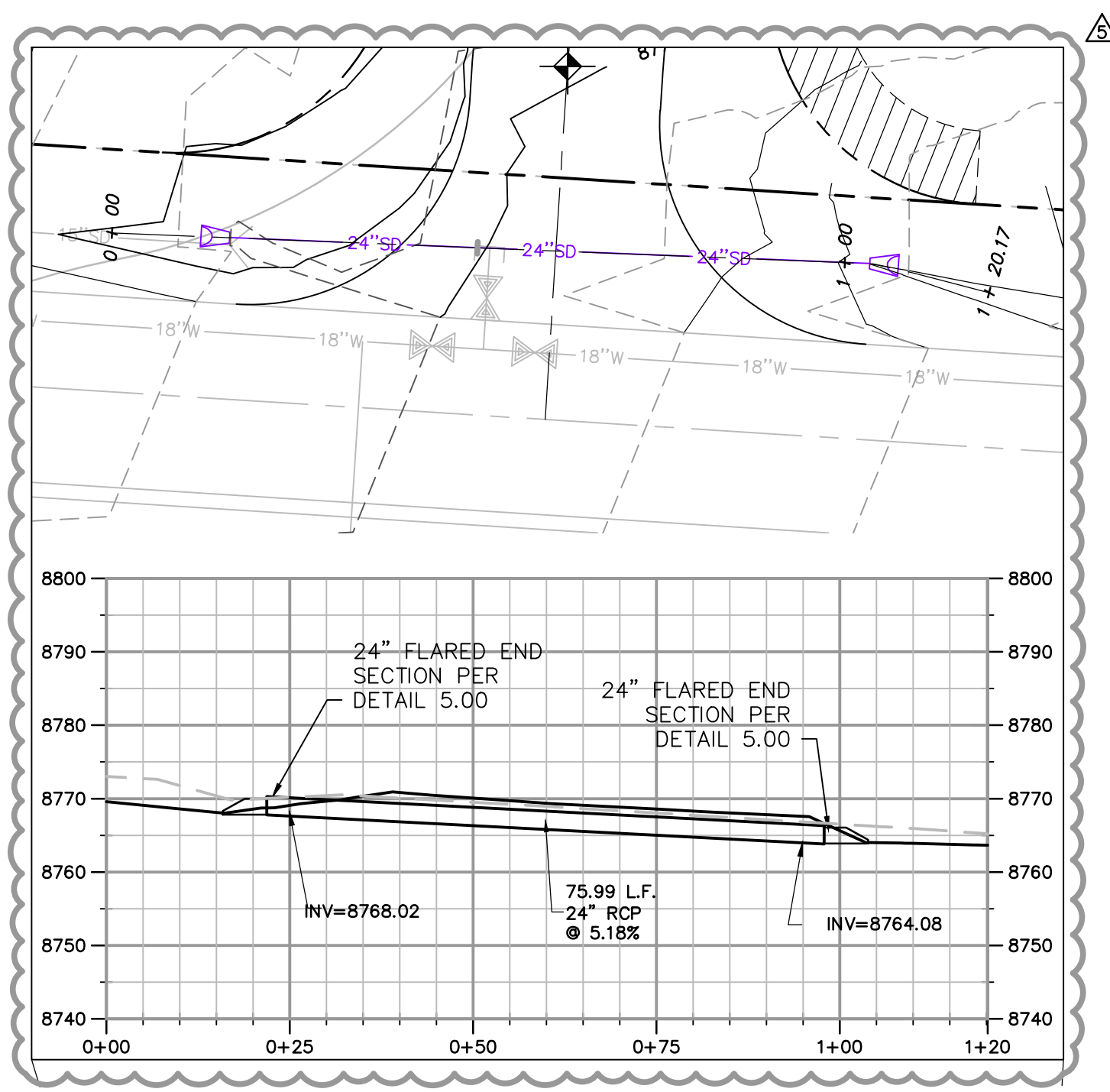
NO.	BY	DATE	REVISIONS
1	RMC	8/27/2014	ADDITIONAL 1
2	RMC	9/17/2014	REVISED GAS & SEWER REVISIONS
3	RMC	9/27/2014	REVISED GAS & SEWER REVISIONS
4	RMC	7/29/2014	COUNTY COMMENTS
5	RMC	8/21/2014	ELECTRICAL UPDATES
6	RMC	9/18/2014	WATER CONNECTION PARCEL B
7	RMC	9/19/2014	

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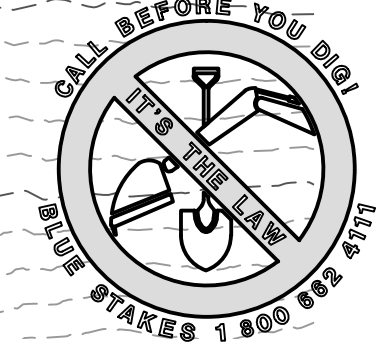
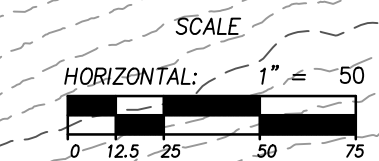
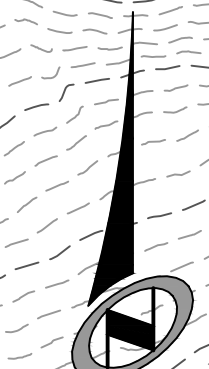


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 PATH: H:\B0793\CADD\PHASE 1\DWG\1-B DESIGNER: ### PROJ. MGR: ###

BOWDEN
 XREFS:



SEE DETAIL SHEET 5.10 FOR GRINDER STATION SITE PLAN AND UTILITY INFORMATION.



NO.	BY	DATE	REVISIONS
1	RWC	8/27/2013	ADDRESS
2	RWC	5/27/2014	FIELD SCALE & SHEET REVISIONS
3	RWC	5/27/2014	FIELD SCALE & SHEET REVISIONS
4	RWC	8/27/2014	ELECTRICAL UPDATES
5	RWC	8/27/2014	ELECTRICAL UPDATES

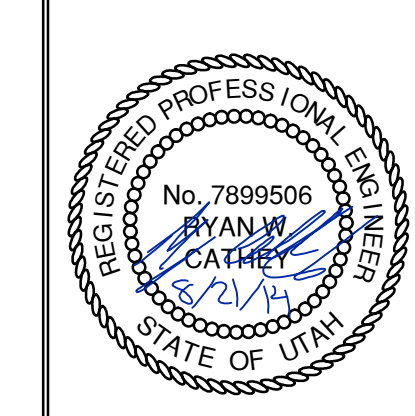
The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. Any such changes or uses must be approved by the preparer of these plans.

SUMMIT EDEN PHASE 1B

OVERALL GRADING AND DRAINAGE

HEARTWOOD DRIVE

NV5
 BEYOND ENGINEERING
 6217 SOUTH STATE STREET, SUITE 200
 MURRAY, UT 84107
 801.743.0300 TEL. 801.743.0300 FAX
 WWW.NV5.COM

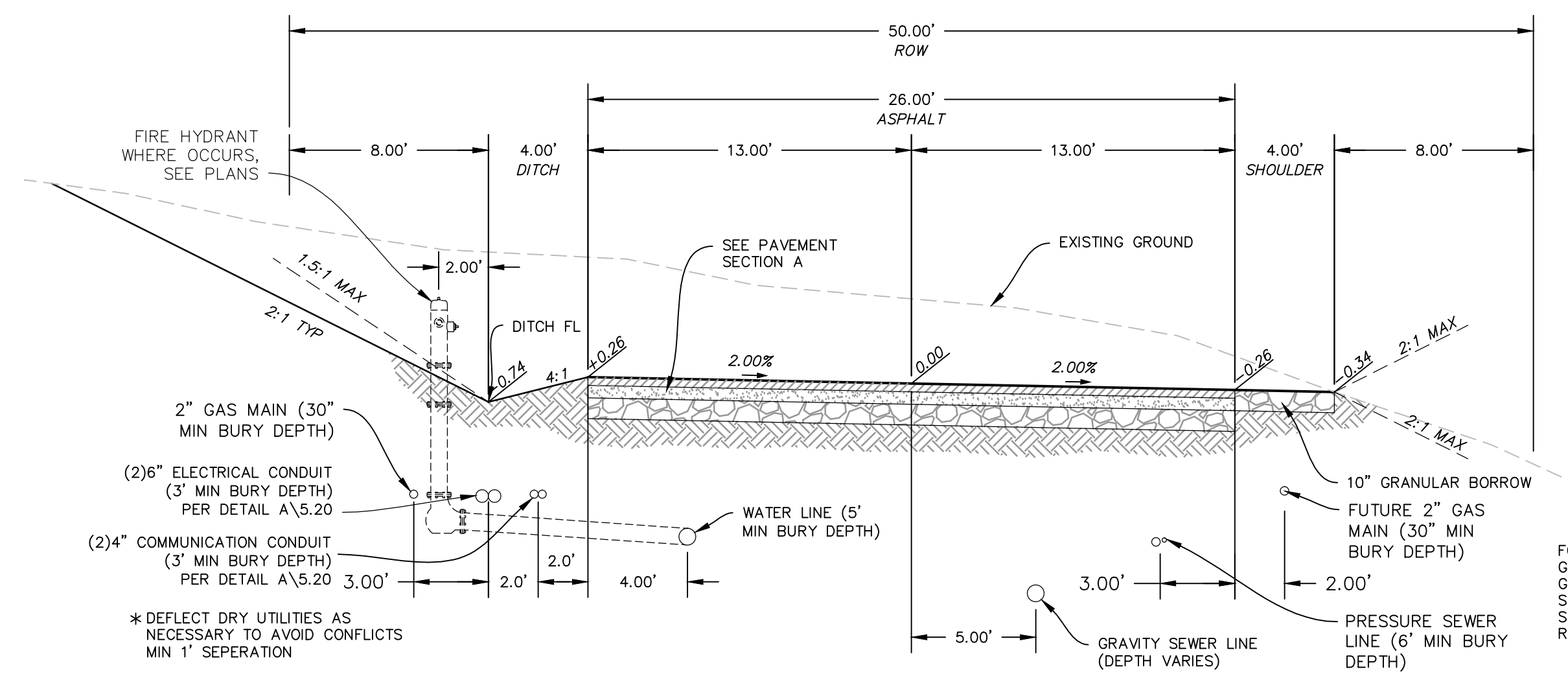


SHEET NUMBER
1.03

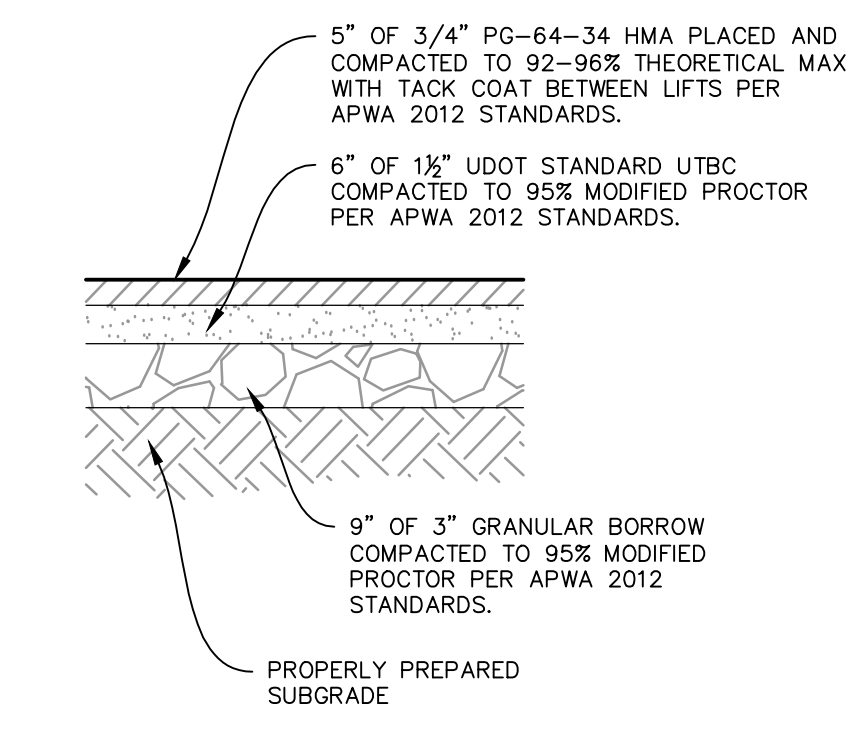
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 HORIZONTAL: 1" = 250'

JOB NUMBER
SLB079306

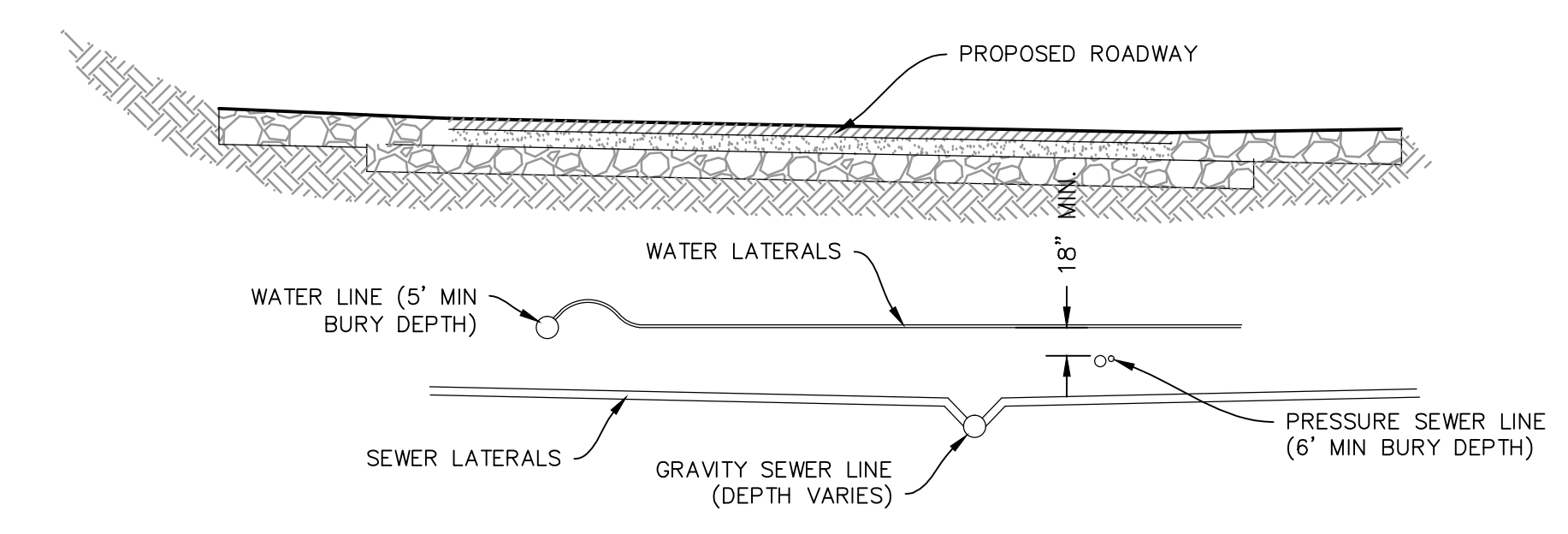
PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC DATE SUBMITTED: 01/07/2014



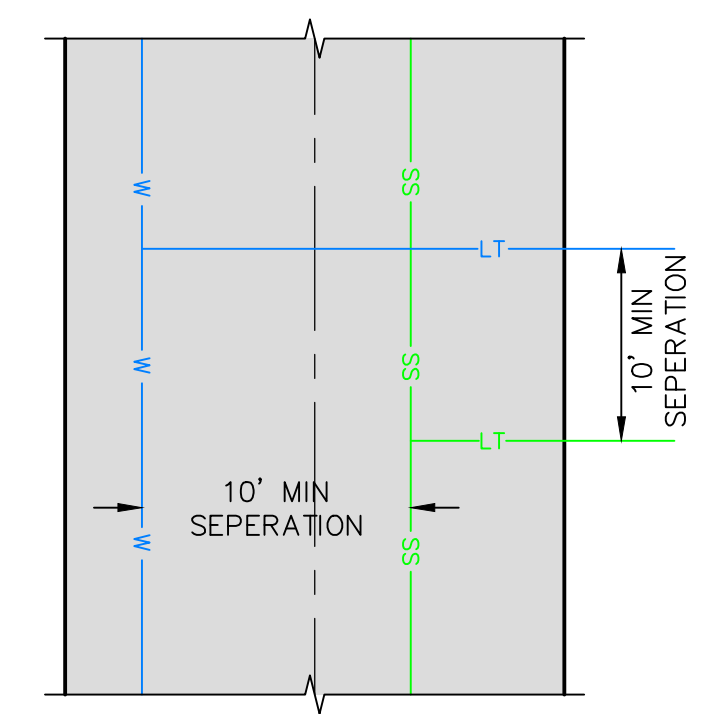
TYPICAL ROADWAY SECTION A-A
 (50' RIGHT OF WAY SECTION)
 STA: 10+00.00 TO 18+14.86



PAVEMENT SECTION A



SECTION



PLAN

WATER AND SEWER SEPARATION DETAIL

FOR CUT AND FILL SLOPES GREATER THAN 2:1 REFER TO GEOTECHNICAL REPORT AND SUPPLEMENTAL LETTERS FOR SPECIAL STABILIZATION REQUIREMENTS

* DEFLECT DRY UTILITIES AS NECESSARY TO AVOID CONFLICTS MIN 1' SEPERATION

NO.	BY	DATE	REVISIONS
1	RHC	8/27/2013	ADDITIONAL 1
2	RHC	8/27/2014	REVISIONS TO SWER REVISIONS
3	RHC	8/27/2014	REVISIONS TO SWER REVISIONS
4	RHC	8/27/2014	REVISIONS TO SWER REVISIONS
5	RHC	8/27/2014	REVISIONS TO SWER REVISIONS
6	RHC	9/2/2014	ELECTRICAL UPDATES

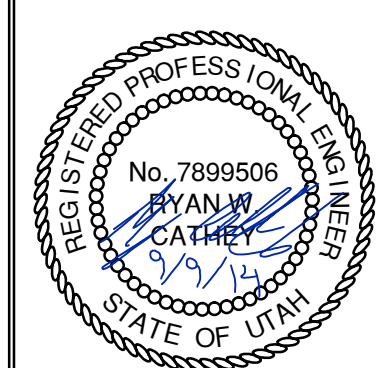
CAUTION

The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. Any such changes or uses must be approved by the preparer of these plans.

SUMMIT EDEN PHASE 1B
ROADWAY TYPICAL SECTIONS

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC DATE SUBMITTED: 01/07/2014

NV5
 BEYOND ENGINEERING
 627 SOUTH STATE STREET, SUITE 200
 MURRAY, UT 84107
 801.743.0300 TEL. 801.743.0300 FAX
 WWW.NV5.COM

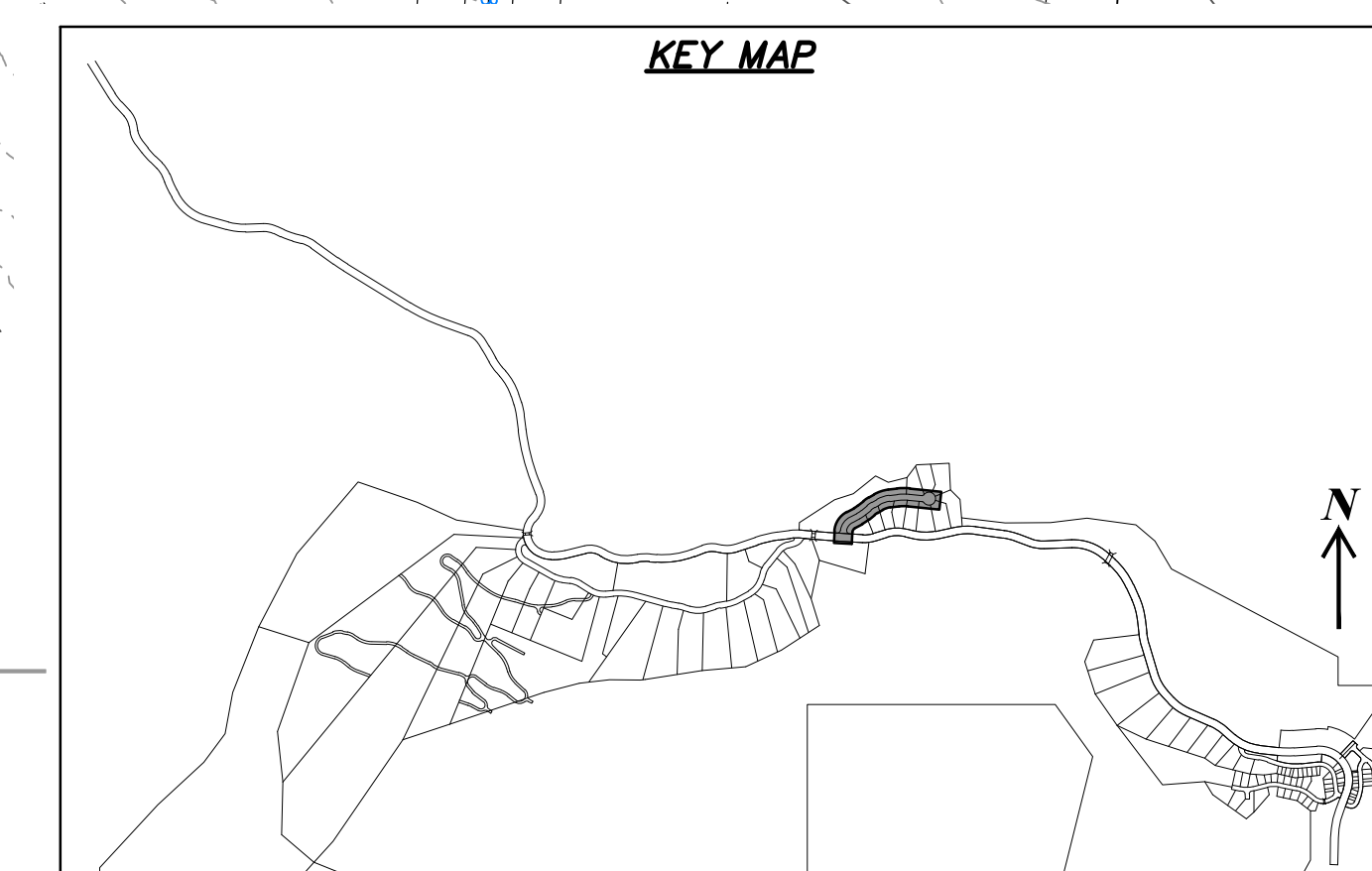
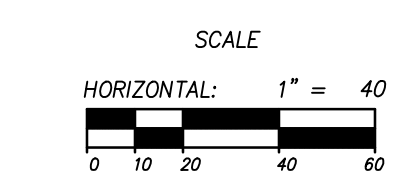
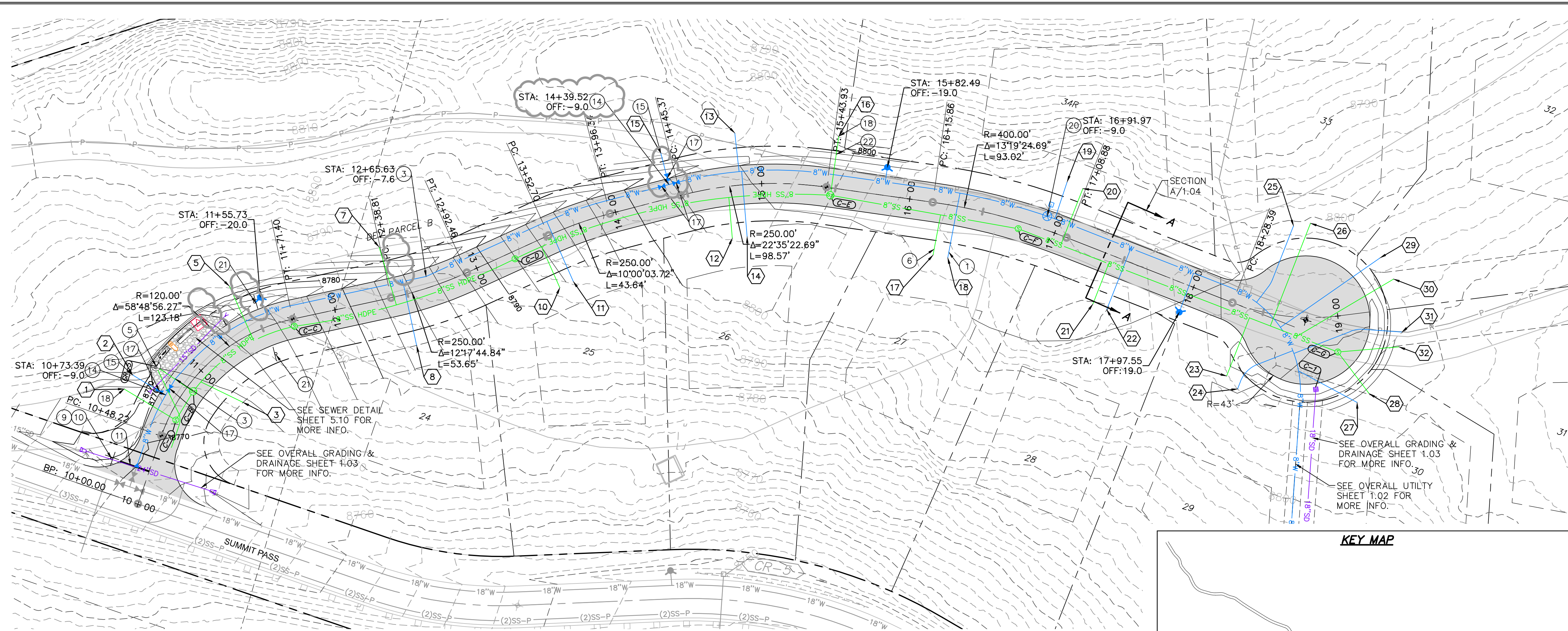


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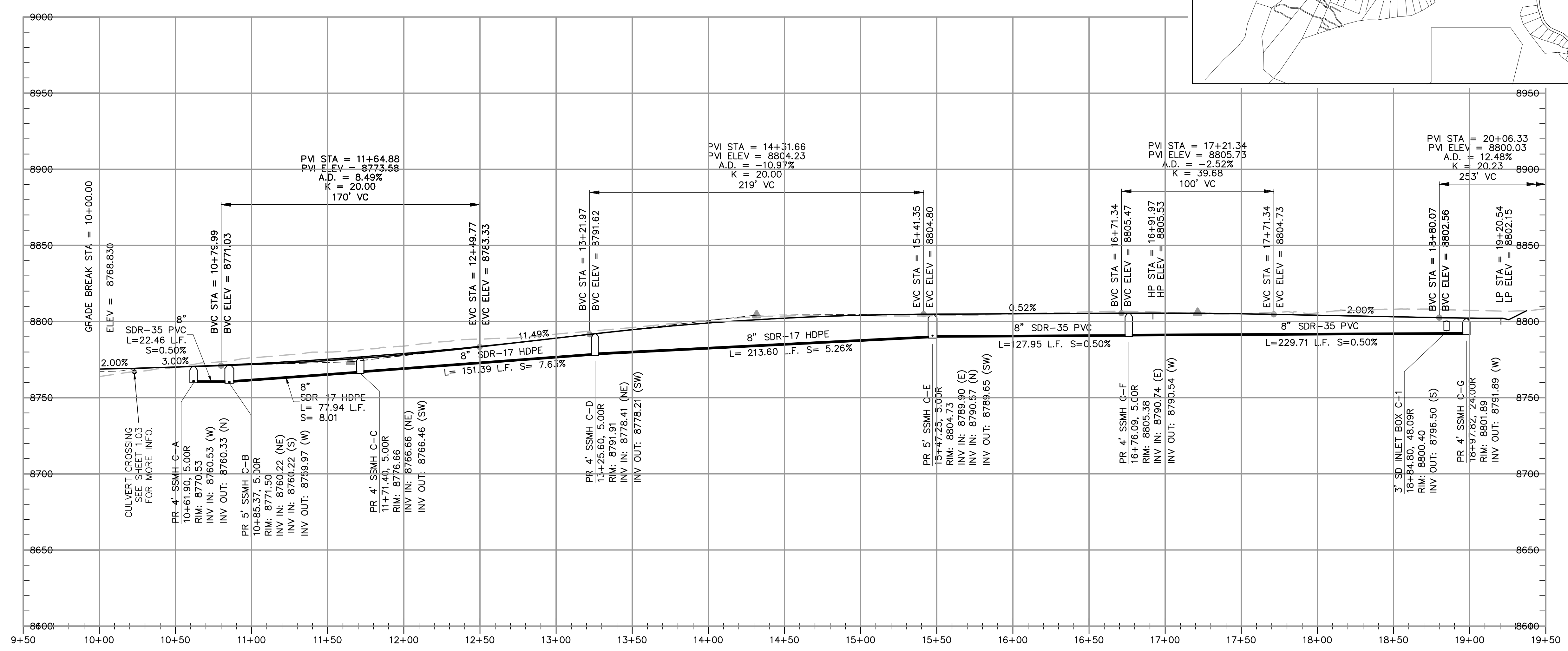
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 HORIZONTAL: 1" = N/A

JOB NUMBER
SLB079306



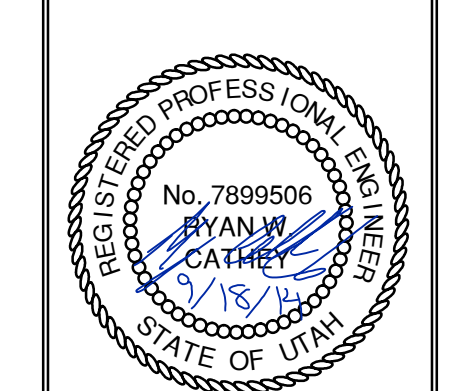


LATERAL LABEL		
NO.	STATION	OFFSET
1	10+64.89	-35
2	10+73.39	-35
3	11+05.46	35
4	11+42.55	35
5	11+71.40	35
6	12+38.11	-35
7	12+47.58	35
8	13+44.96	35
9	13+55.33	35
10	14+76.00	35
11	14+85.53	-35
12	14+87.63	35
13	12+79.22	-34
14	15+47.25	-35
15	16+21.56	35
16	16+32.56	35
17	16+96.66	-35
18	17+07.21	-35
19	17+41.58	35
20	17+51.58	35
21	18+39.15	48
22	18+46.12	54
23	18+61.80	-61
24	18+81.50	-63
25	19+05.83	59
26	19+14.52	54
27	19+33.36	-35
28	19+40.56	-20
29	19+41.63	16
30	19+38.38	-26



NO.	BY	DATE	REVISIONS
1	RMC	8/27/2014	ADDITIONAL 1
2	RMC	8/27/2014	REVISED GRADE, SEWER REVISIONS
3	RMC	8/27/2014	REVISED GRADE, SEWER REVISIONS
4	RMC	8/27/2014	ELECTRICAL UPDATES
5	RMC	8/27/2014	ELECTRICAL UPDATES
6	RMC	8/27/2014	WATER CONNECTION PARCEL B
7	RMC	9/18/2014	WATER CONNECTION PARCEL B

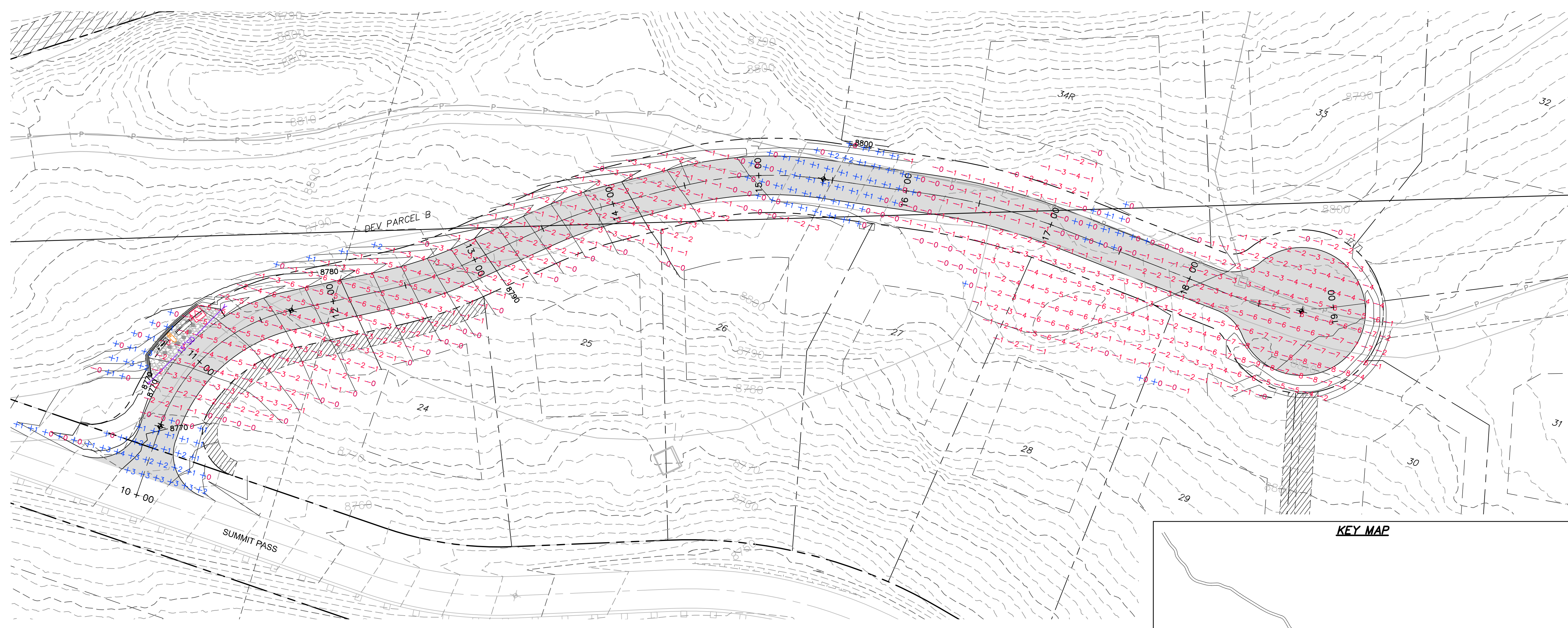
SUMMIT EDEN PHASE 1B
PLAN AND PROFILE
HEARTWOOD DRIVE



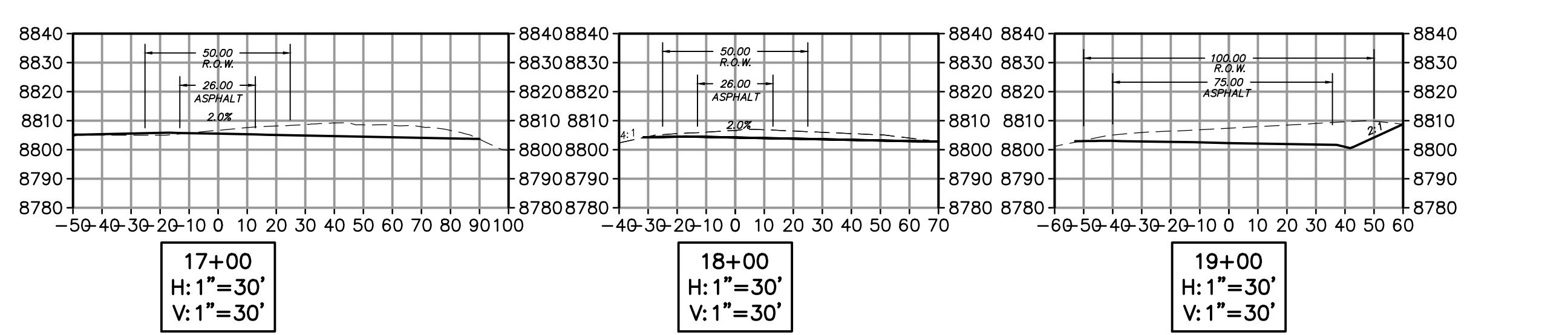
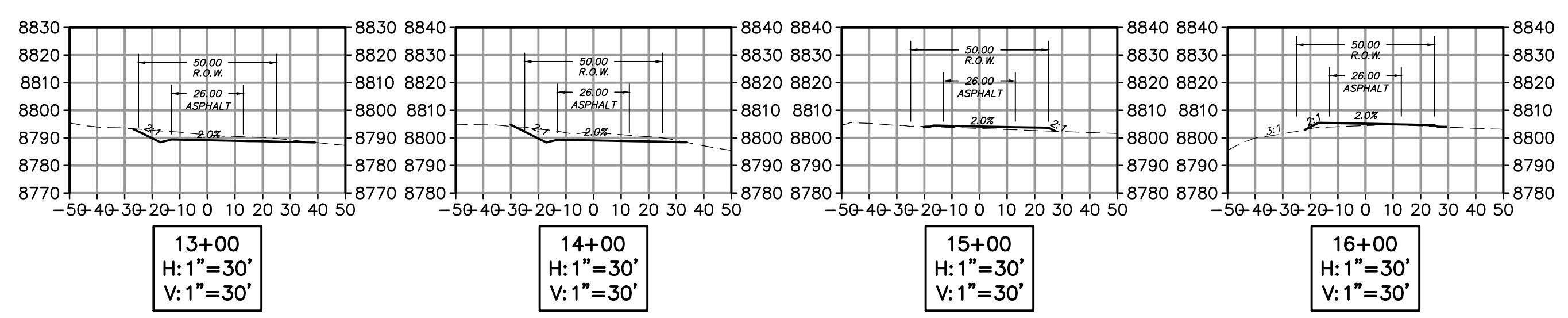
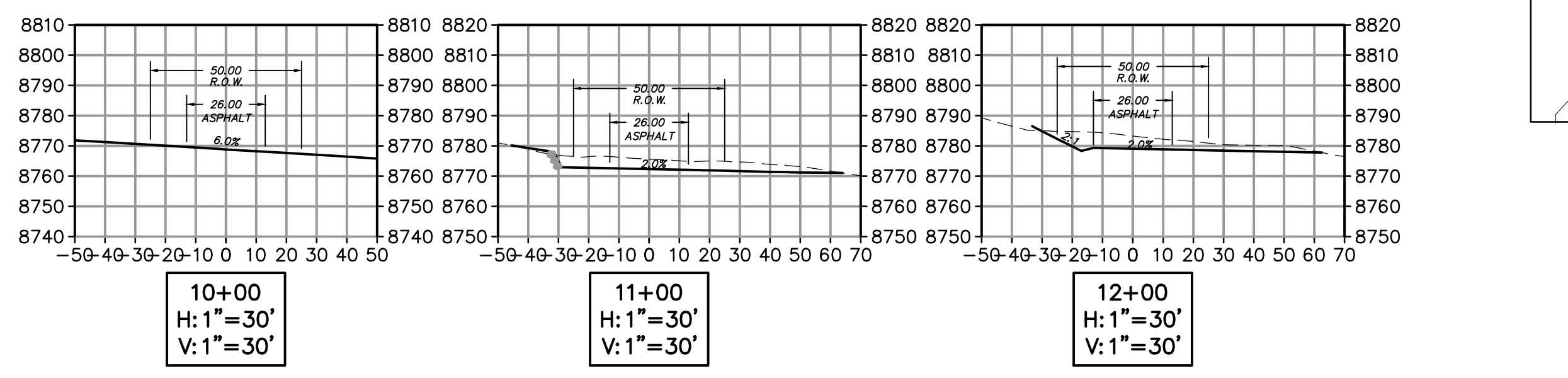
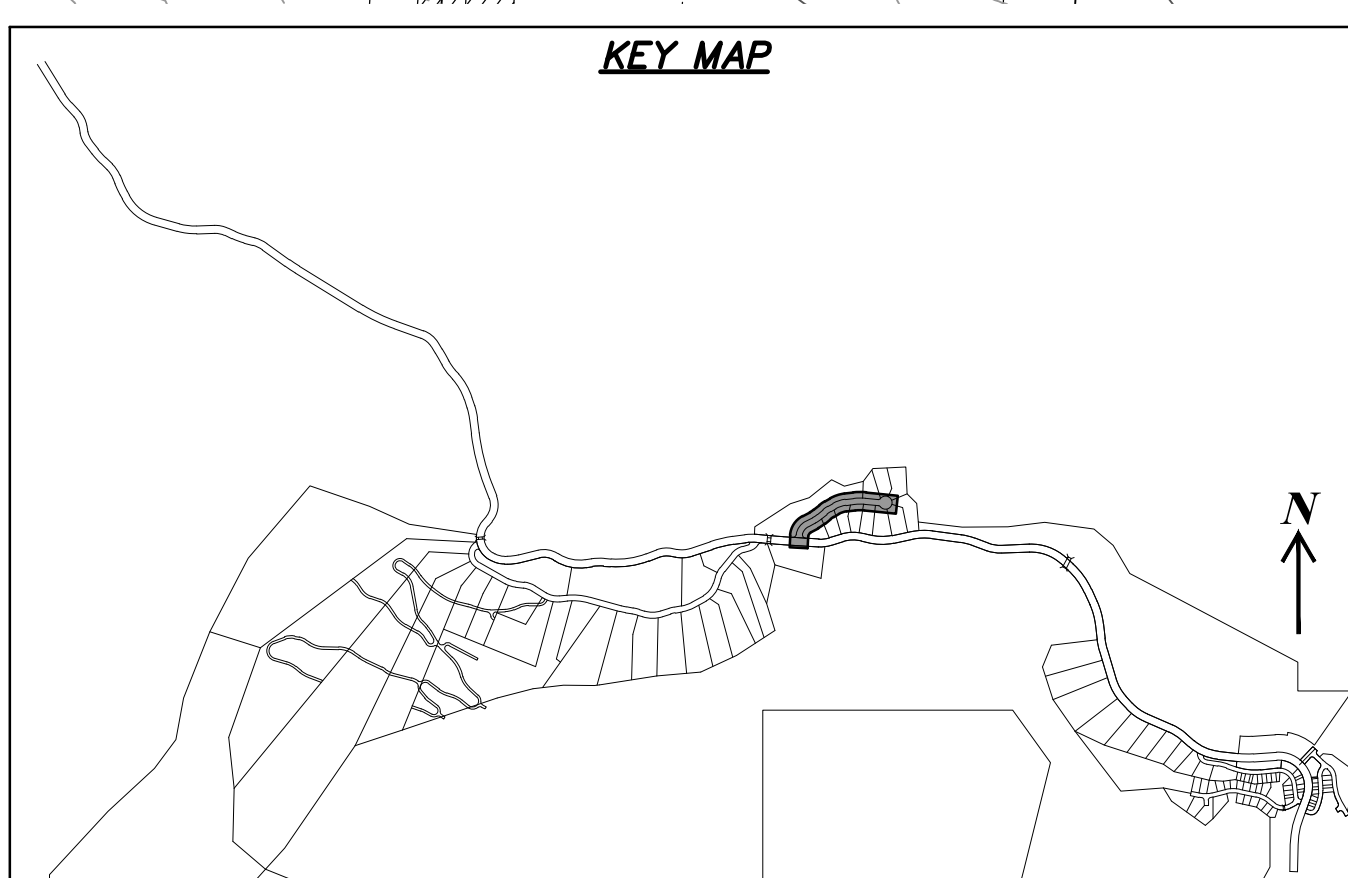
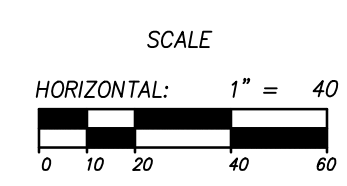
The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. The engineer's liability is limited to the design and construction of these plans.

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BOWDEN
 XREFS:



HEARTWOOD DRIVE
 STA: 10+00.00 TO 19+25.00



NO.	BY	DATE	REVISIONS
1	RMC	8/27/14	ADD/NOV 1
2	RMC	07/27/14	ARREST COUNTY SEWER REVISIONS
3	RMC	8/27/14	POST, PREL & OTHER UTILITY REVISIONS

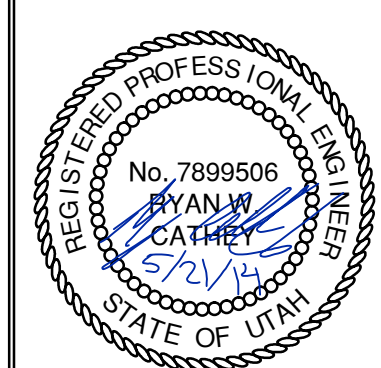
CAUTION

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SUMMIT EDEN PHASE 1B
EARTHWORK AND SECTIONS
HEARTWOOD DRIVE

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC DATE SUBMITTED: 01/07/2014

NV5
 BEYOND ENGINEERING
 5217 SOUTH STATE STREET, SUITE 200
 801743.0000 TEL. 801743.0000 FAX
 MURRAY, UT 84107
 WWW.NV5.COM



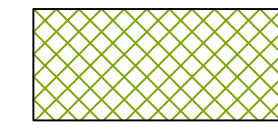
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3.00

SCALE
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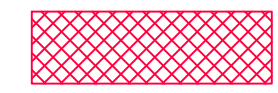
JOB NUMBER
SLB079306



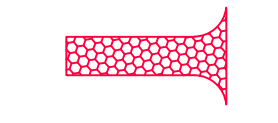
LEGEND



HATCHING INDICATES AREAS TO RECEIVE 4" TOPSOIL AND TO BE SEEDED FOR NATURAL VEGETATION. AREAS RECEIVING SEEDING FOR NATURAL REVEGETATION MUST BE COVERED WITH AN EROSION CONTROL BLANKET AFTER THE FINAL GRADING AND SEEDING ARE FINISHED. INSTALL NORTH AMERICAN GREEN SC-150 BLANKET OR APPROVED EQUAL. FOLLOW MANUFACTURER'S SPECIFICATIONS. INSTALL NORTH AMERICAN GREEN P300 EROSION CONTROL BLANKET ON ALL SLOPES GREATER THAN 1.5:1.



INSTALL 15' X 50' VEHICLE WASH DOWN AREA WITH 1"-2.5" COARSE AGGREGATE PLACED A MINIMUM 8" THICK. SUPPLY WATER FOR VEHICLE WASH DOWN.



STABILIZED CONSTRUCTION ENTRANCE FOR SITE INGRESS/EGRESS. IF ALTERNATE ACCESS POINTS ARE APPROVED BY OWNER, ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES WILL BE REQUIRED.



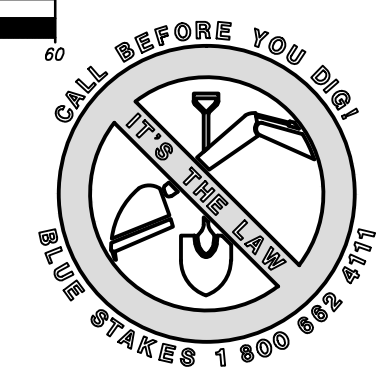
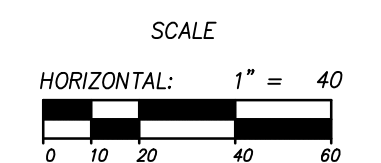
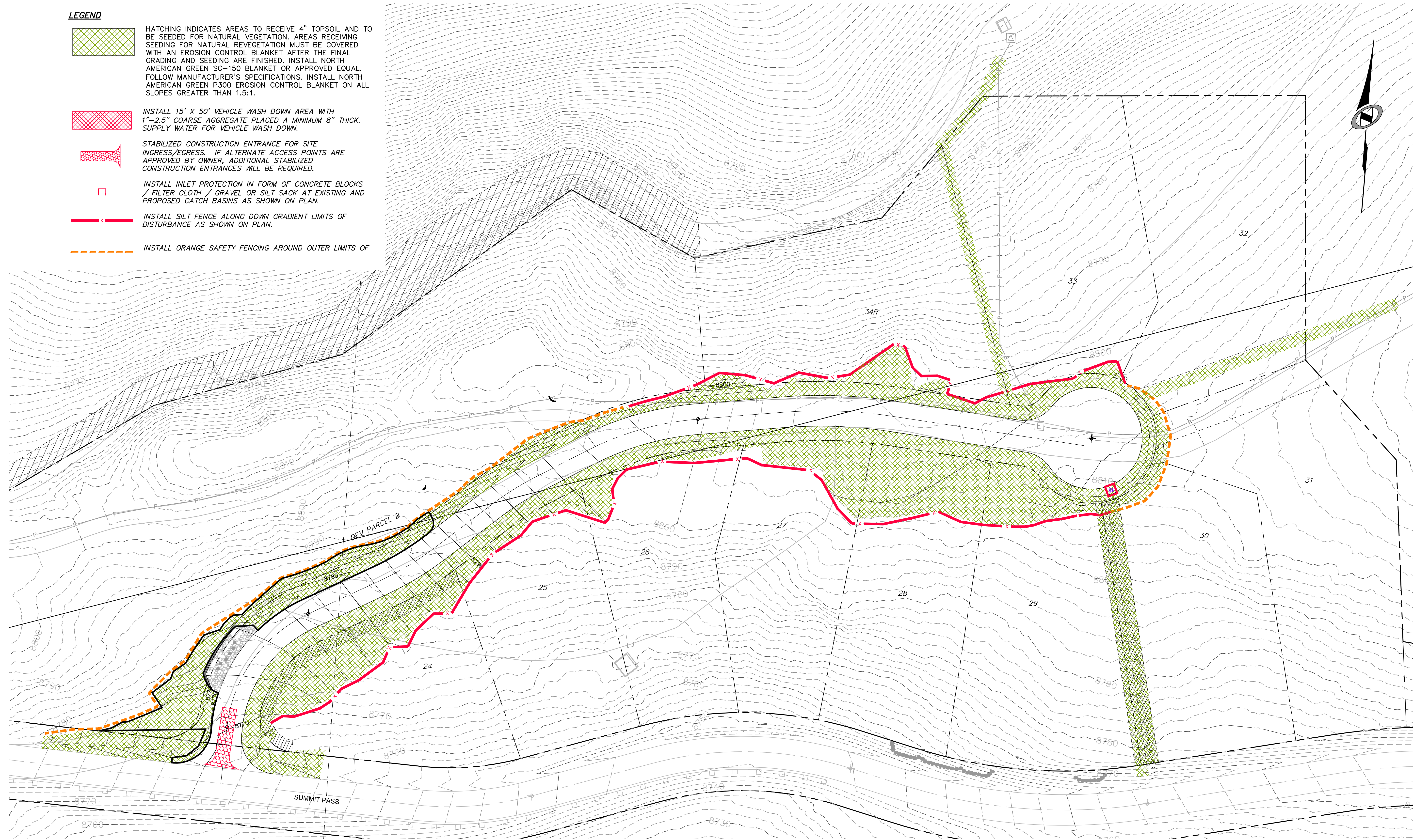
INSTALL INLET PROTECTION IN FORM OF CONCRETE BLOCKS / FILTER CLOTH / GRAVEL OR SILT SACK AT EXISTING AND PROPOSED CATCH BASINS AS SHOWN ON PLAN.



INSTALL SILT FENCE ALONG DOWN GRADIENT LIMITS OF DISTURBANCE AS SHOWN ON PLAN.



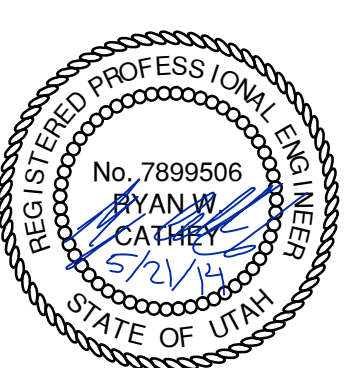
INSTALL ORANGE SAFETY FENCING AROUND OUTER LIMITS OF



NO.	BY	DATE	REVISIONS
1	RWC	8/27/2013	ADDENDUM 1
2	RWC	10/27/2014	ARREST COUNTY SEWER REVISIONS
3	RWC	8/27/2014	POST, PREL. & OWNER STATION REVISIONS

SUMMIT EDEN PHASE 1B
EROSION CONTROL PLAN
HEARTWOOD DRIVE

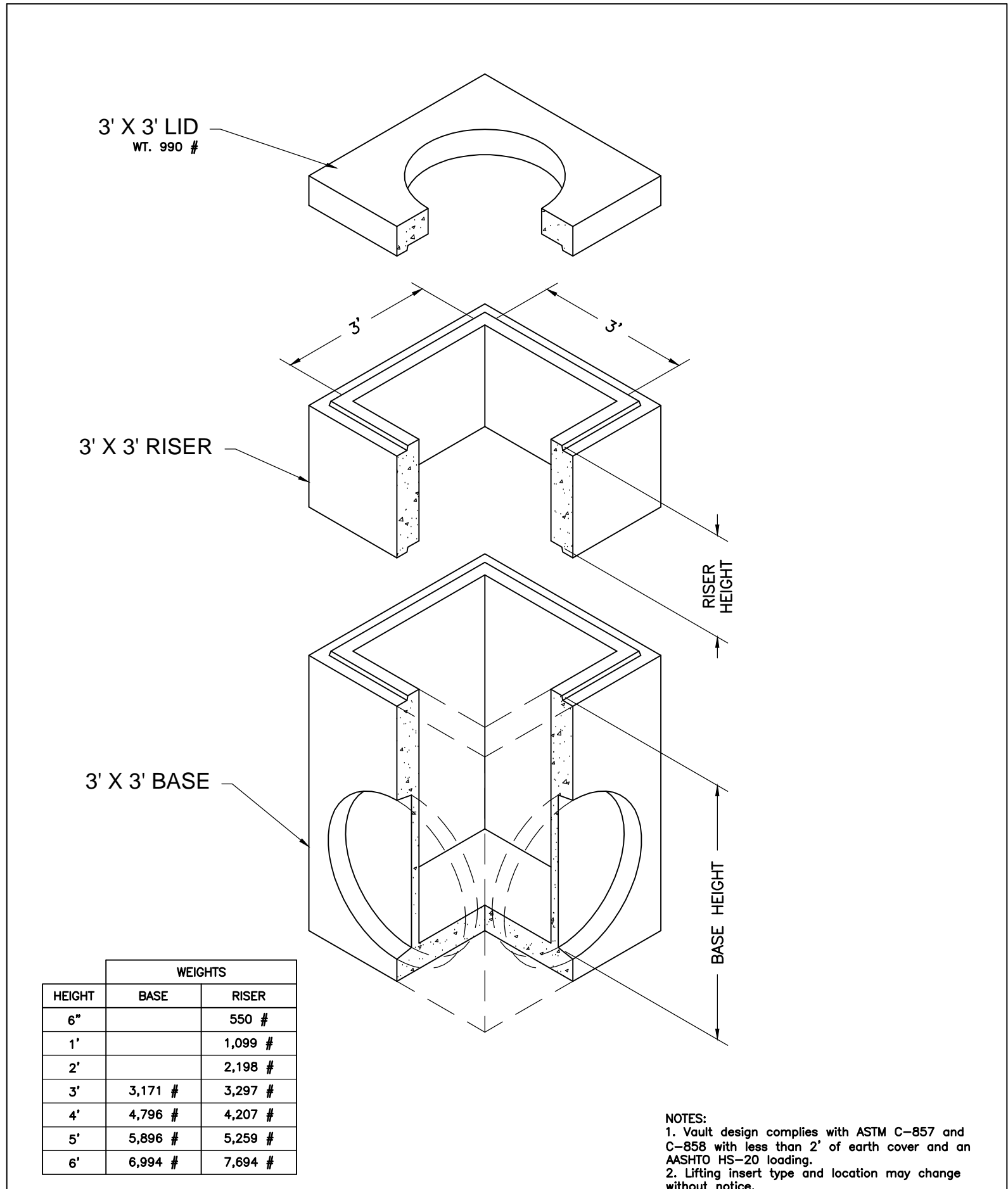
NV5
 BEYOND ENGINEERING
 5217 SOUTH STATE STREET, SUITE 200
 801743.000 TEL. 801743.000 FAX
 MURRAY, UT 84107
 WWW.NV5.COM



SHEET NUMBER
4.00
 SCALE
 VERTICAL: 1" = 40'
 HORIZONTAL: 1" = 40'
 JOB NUMBER
SLB079306

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC DATE SUBMITTED: 01/07/2014

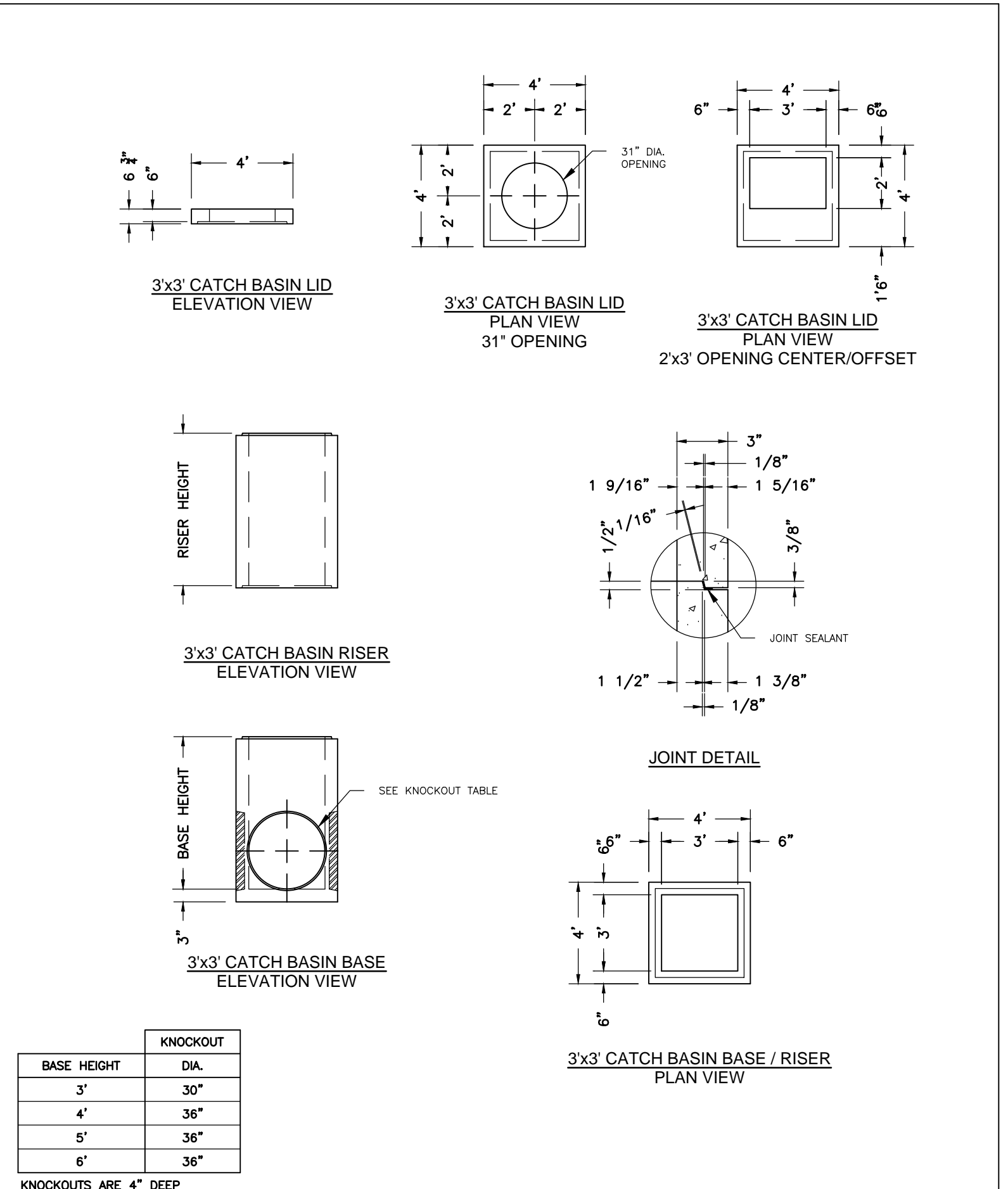
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 CAUTION



Oldcastle Precast
 801 West 12th Street, Ogden, Utah 84404
 Phone: 801-399-1171 Fax: 801-392-7849

3' x 3' Basin
 FILE NAME: 2100C3X3CB000
 ISSUE DATE: 1/08
 www.oldcastleprecast.com

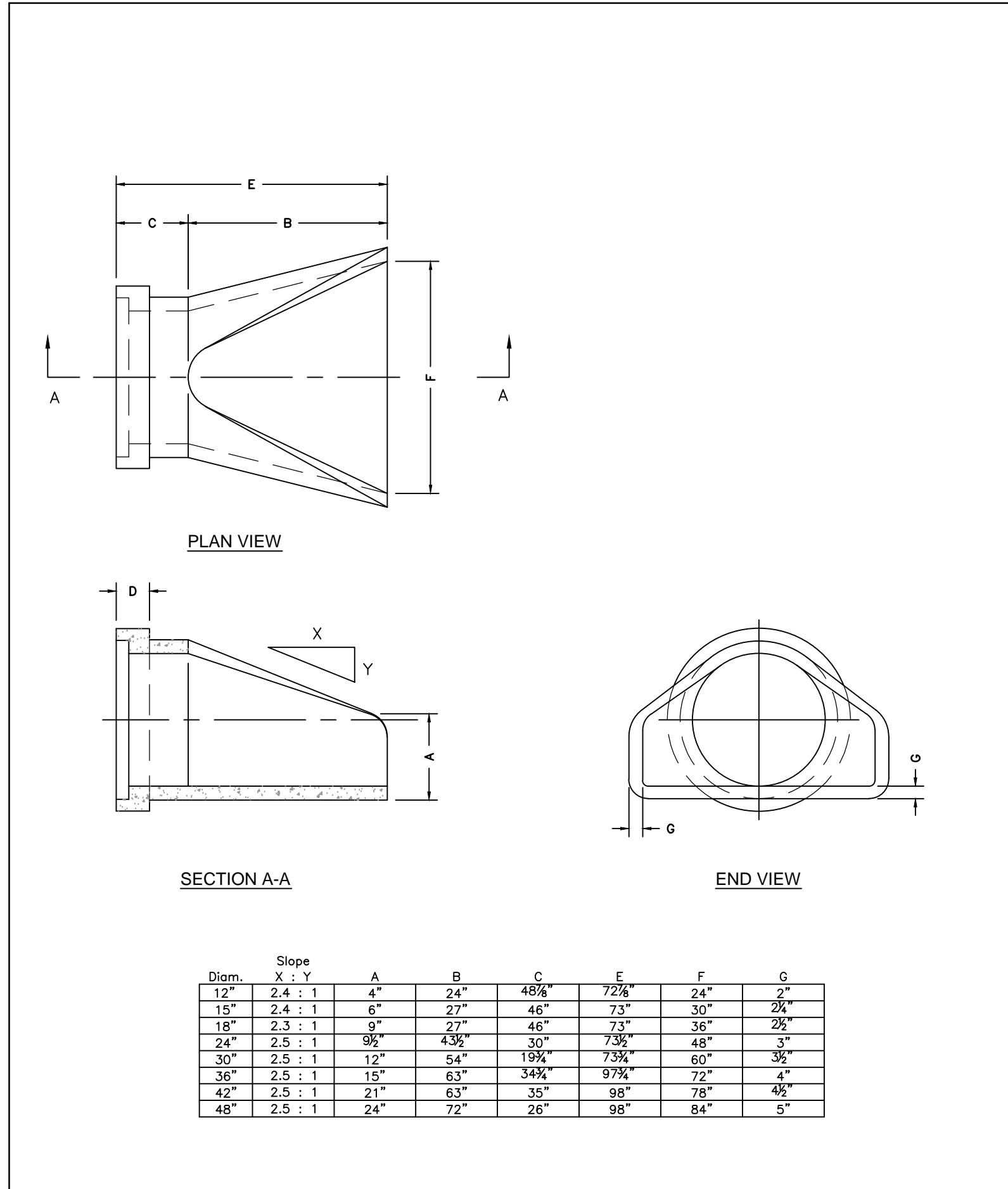
3' x 3' Catch Basin Bases, Risers and lid
 Copyright © 2008



Oldcastle Precast
 801 West 12th Street, Ogden, Utah 84404
 Phone: 801-399-1171 Fax: 801-392-7849

3' x 3' Basin
 FILE NAME: 2100C3X3CB000
 ISSUE DATE: 1/08
 www.oldcastleprecast.com

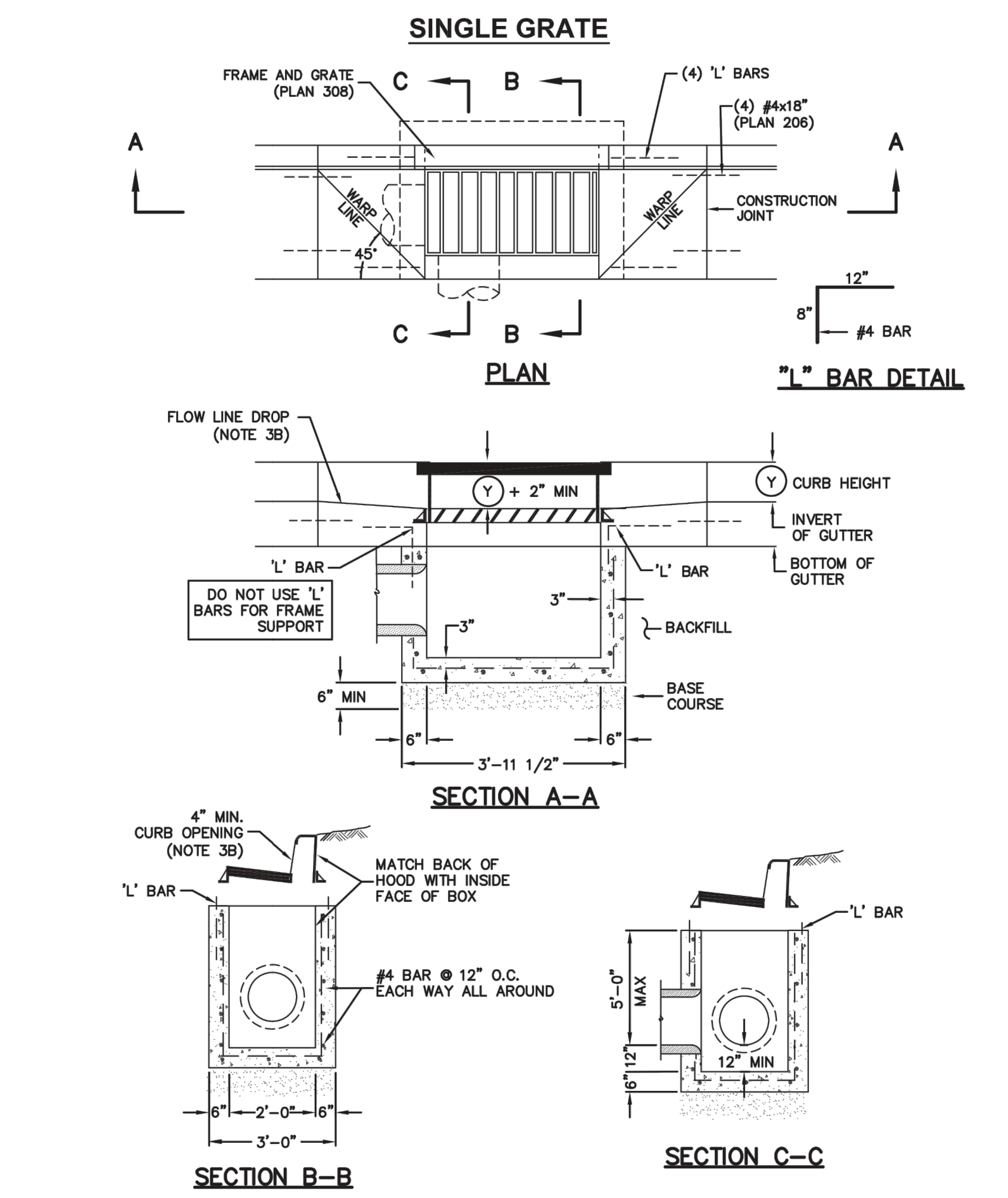
3' x 3' Catch Basin Bases, risers and lid
 Copyright © 2008



Oldcastle Precast
 801 West 12th Street, Ogden, Utah 84404
 Phone: 801-399-1171 Fax: 801-392-7849

Flared End
 FILE NAME: 2100PERNDFLARE
 ISSUE DATE: 5/2008
 www.oldcastleprecast.com

Flared End Section for Round Pipe
 Copyright © 2008



Oldcastle Precast
 801 West 12th Street, Ogden, Utah 84404
 Phone: 801-399-1171 Fax: 801-392-7849

Catch basin
 Plan
315
 Sheet 1 of 2

September 2010 155

SUMMIT EDEN PHASE 1B
STORM DRAIN DETAILS

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC DATE SUBMITTED: 01/07/2014

REVISIONS:
 NO. BY DATE DESCRIPTION
 1 RMC 8/27/03 ADDITION 1
 2 RMC 10/27/04 REBET COUNTY REVIEW REVISIONS
 3 RMC 5/27/08 REBET, PRICE & OTHER REVISIONS

CAUTION
 The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans, and must be approved by the preparer of these plans.

NV5
 BEYOND ENGINEERING
 5217 SOUTH STATE STREET, SUITE 200
 801743.0300 TEL. 801743.0300 FAX
 MURRAY, UT 84107
 WWW.NV5.COM

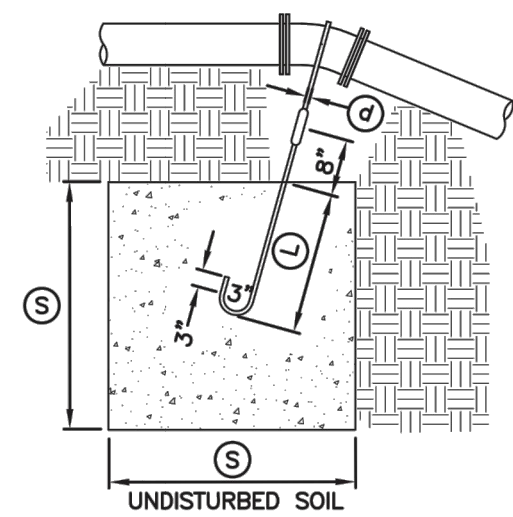
REGISTERED PROFESSIONAL ENGINEER
 No. 7899506
 RYAN W. CATHEY
 8/21/14
 STATE OF UTAH

SHEET NUMBER
5.00

SCALE
 VERTICAL: 1" = N/A
 HORIZONTAL: 1" = N/A

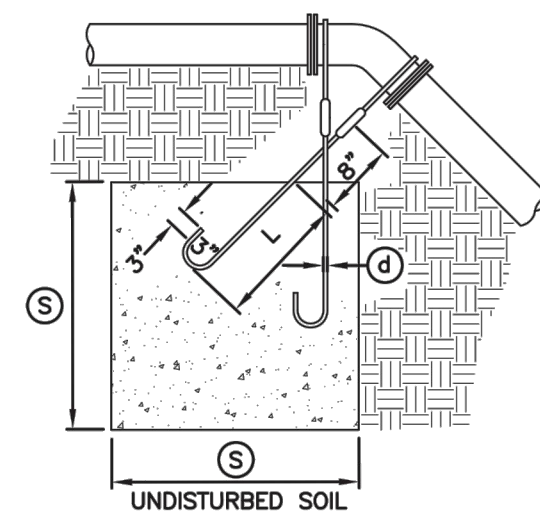
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SLB079306





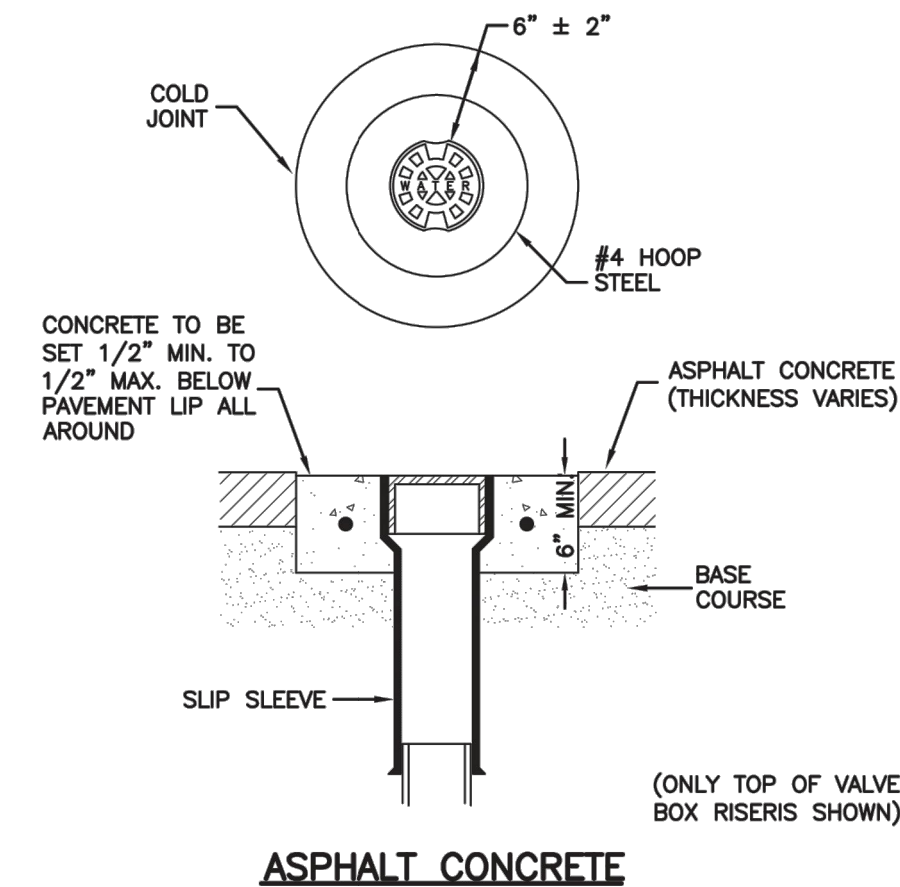
TYPE A RESTRAINT
 FOR 11 1/4" - 22 1/2" VERTICAL BENDS

PIPE SIZE NOMINAL DIAMETER - INCH	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	SIDE OF CURVE - FEET	DIAMETER OF SHANK OR REBAR RODS - INCH	DEPTH OF ROD CONCRETE - FEET
4"	11 1/4"	8	2.0	5/8"	1.5
	22 1/2"	15.6	2.5	5/8"	2.0
6"	11 1/4"	15.6	2.5	5/8"	2.0
	22 1/2"	34.3	3.25	5/8"	2.0
8"	11 1/4"	27	3.0	5/8"	2.0
	22 1/2"	64	4.0	5/8"	2.0
12"	11 1/4"	64	4.0	5/8"	2.0
	22 1/2"	125	5.0	3/4"	3.0
16"	11 1/4"	107	4.25	7/8"	3.0
	22 1/2"	216	6.0	7/8"	3.0
20"	11 1/4"	138	5.17	1"	3.5
	22 1/2"	334	6.94	1"	4.0
24"	11 1/4"	240	6.22	1"	4.0
	22 1/2"	478	7.81	1"	4.0
30"	11 1/4"	369	7.17	1"	4.0
	22 1/2"	733	9.02	1"	4.0

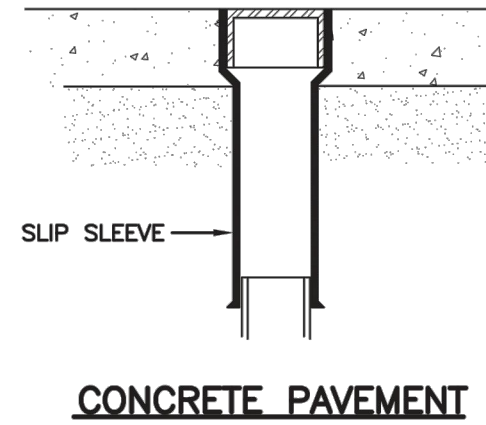


TYPE B RESTRAINT
 FOR 45° VERTICAL BENDS

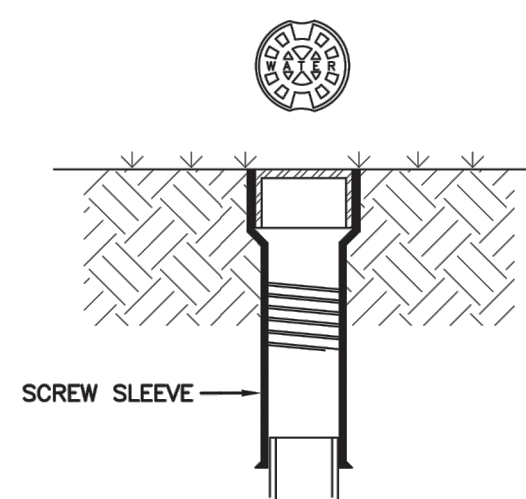
PIPE SIZE NOMINAL DIAMETER - INCH	VERTICAL BEND IN DEGREES	CONCRETE BLOCKING IN CUBIC FEET	SIDE OF CURVE - FEET	DIAMETER OF SHANK OR REBAR RODS - INCH	DEPTH OF ROD CONCRETE - FEET
4"	45°	1	3.0	5/8"	2.0
		2.37	4.0	5/8"	2.5
6"	45°	3.97	4.75	5/8"	3.0
		9.04	6.25	5/8"	4.0
8"	45°	17.24	7.75	3/4"	4.0
		26.52	9.25	3/4"	4.0
12"	45°	37.82	10.07	3/4"	4.0
		58.26	11.63	3/4"	4.0



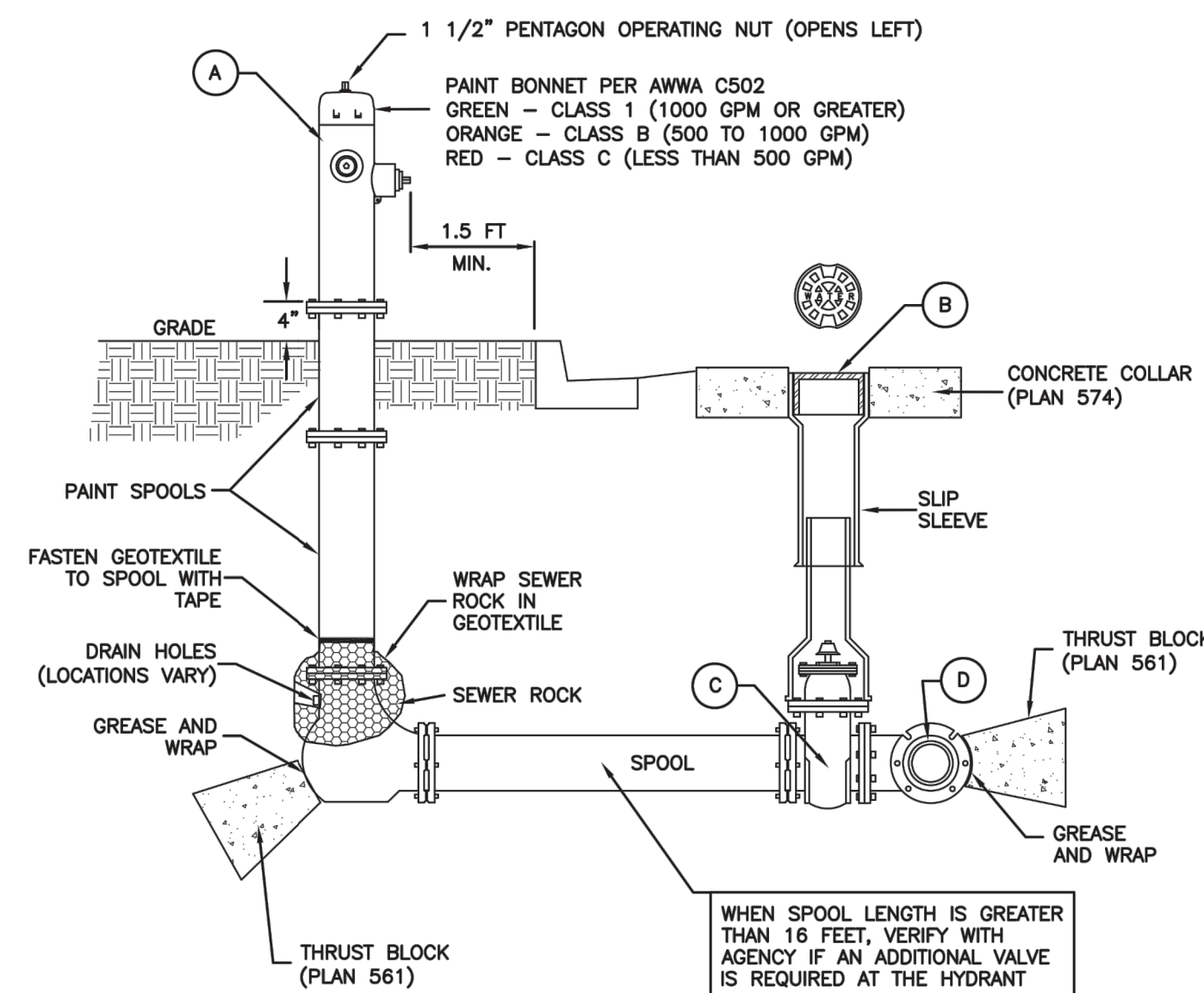
ASPHALT CONCRETE



CONCRETE PAVEMENT



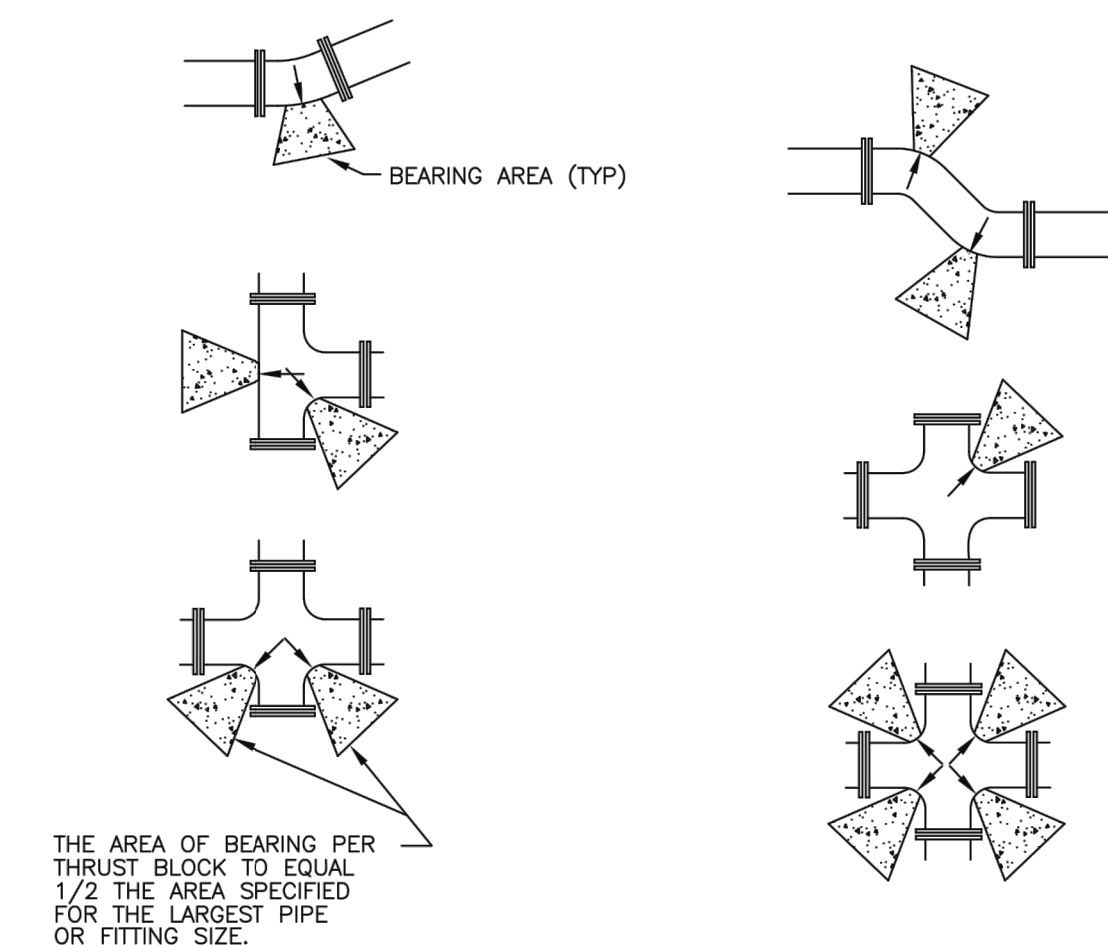
LANDSCAPED AREA



No.	ITEM	DESCRIPTION
(A)	FIRE HYDRANT	AWWA C502
(B)	VALVE BOX WITH LID	2-PIECE CAST IRON
(C)	GATE VALVE WITH 2" X 2" NUT	AWWA C509
(D)	TEE WITH 125 # FLANGE	AWWA C110

SECTION

Plan 562
 Tie-down thrust restraints
 April 1997 269

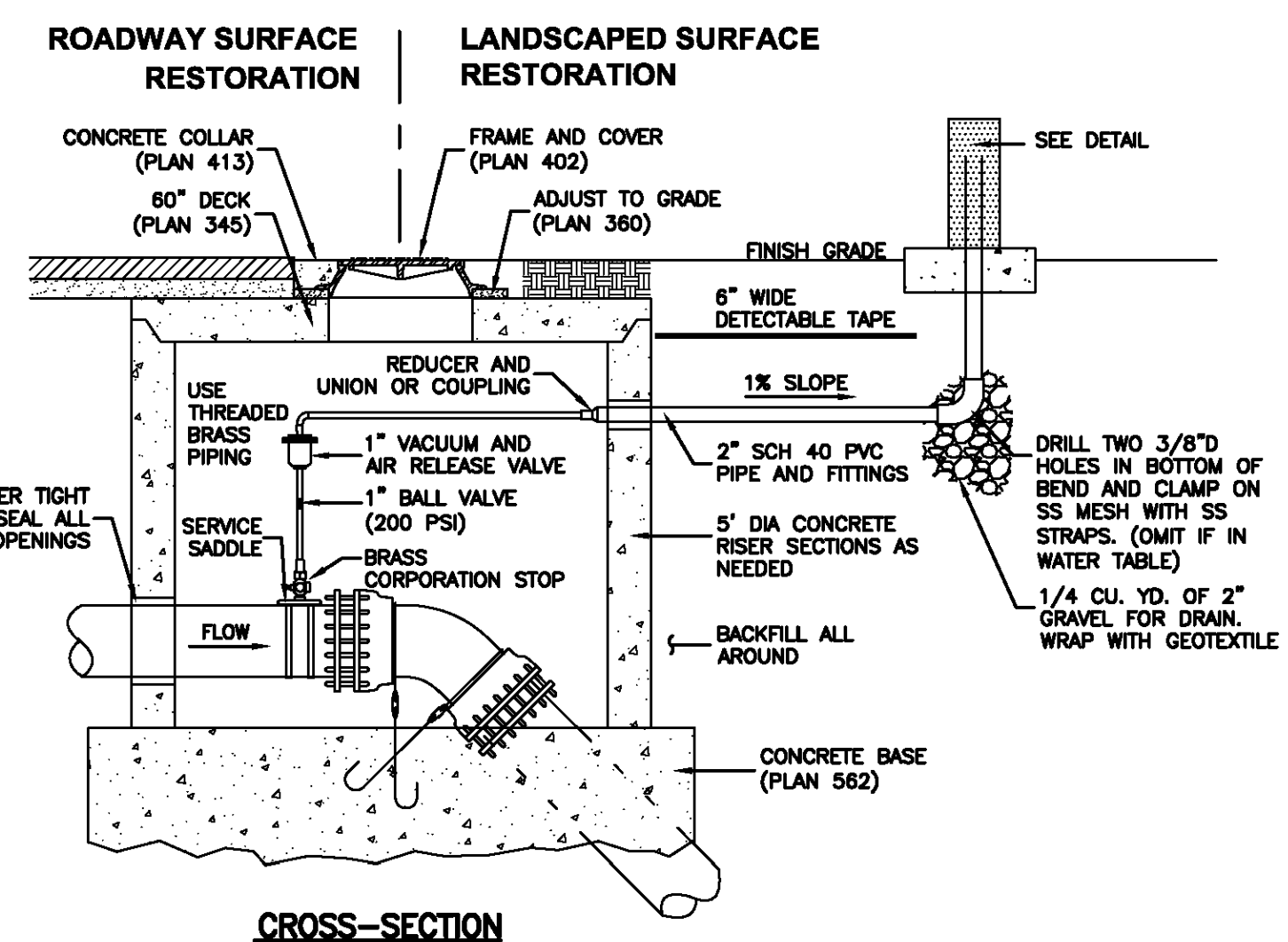


SIZE OF PIPE	TEES, VALVES, DEAD ENDS	90° BENDS	45° BENDS	22 1/2° BENDS	11 1/4° BENDS
4"	2	3	2	2	2
6"	4	5.5	3	1.5	1
8"	6.5	9.5	5	2.75	1.5
12"	14	20	11	5.5	3
14"	19	26.5	14.5	7.5	4
16"	24	34	18.5	9.5	6
20"	27	52	28.5	14.5	16
24"	53	74	41	21	53
30"	81	114	62	32	16

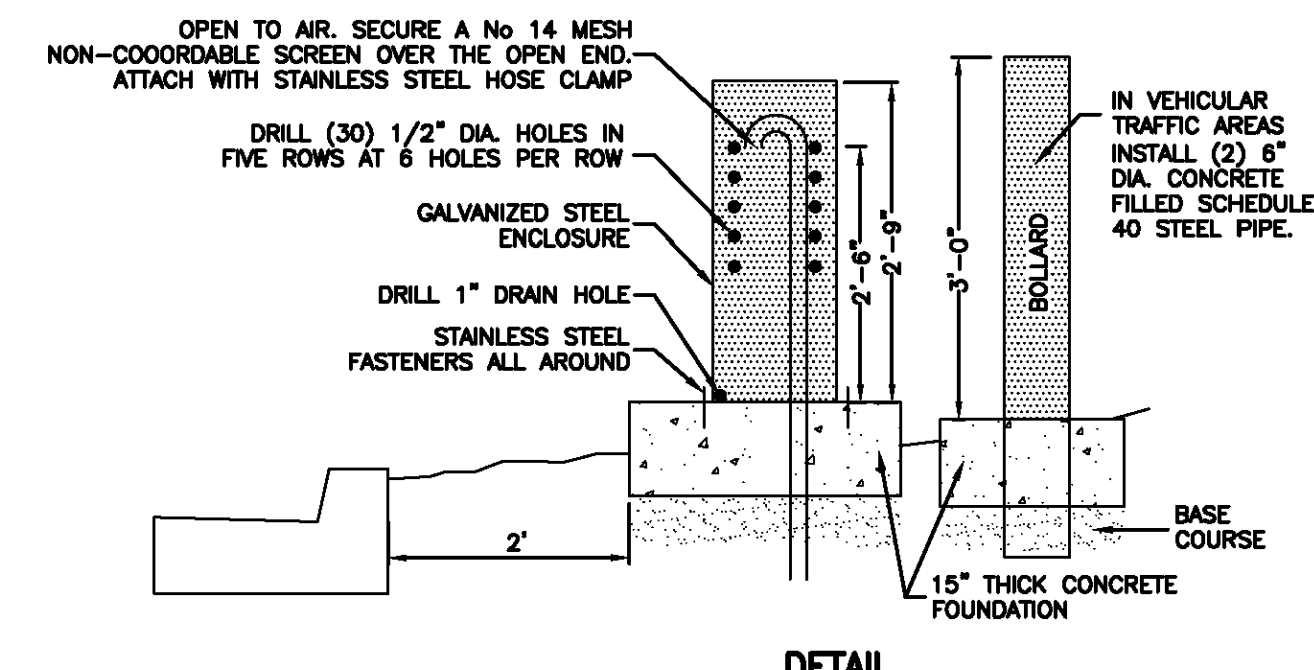
Direct bearing thrust block

Plan No. 561
 April 1997 239

Plan 574
 Cover collar for water valve box
 August 2010 277



CROSS-SECTION



DETAIL

Plan 575
 February 2011 279

Plan 511
 Fire hydrant with valve
 February 2011 237

SUMMIT EDEN PHASE 1B
WATER DETAILS

NO.	BY	DATE	REVISIONS
1	RMC	8/27/2013	ADD ITEM 1
2	RMC	7/27/2014	REVIEW COUNTY SEWER REVISIONS
3	RMC	7/27/2014	REVIEW PIPE & COVER LAYOUT REVISIONS

DATE SUBMITTED: 01/07/2014

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC

NV5
 BEYOND ENGINEERING
 5217 SOUTH STATE STREET, SUITE 200
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 MURRAY, UT 84107
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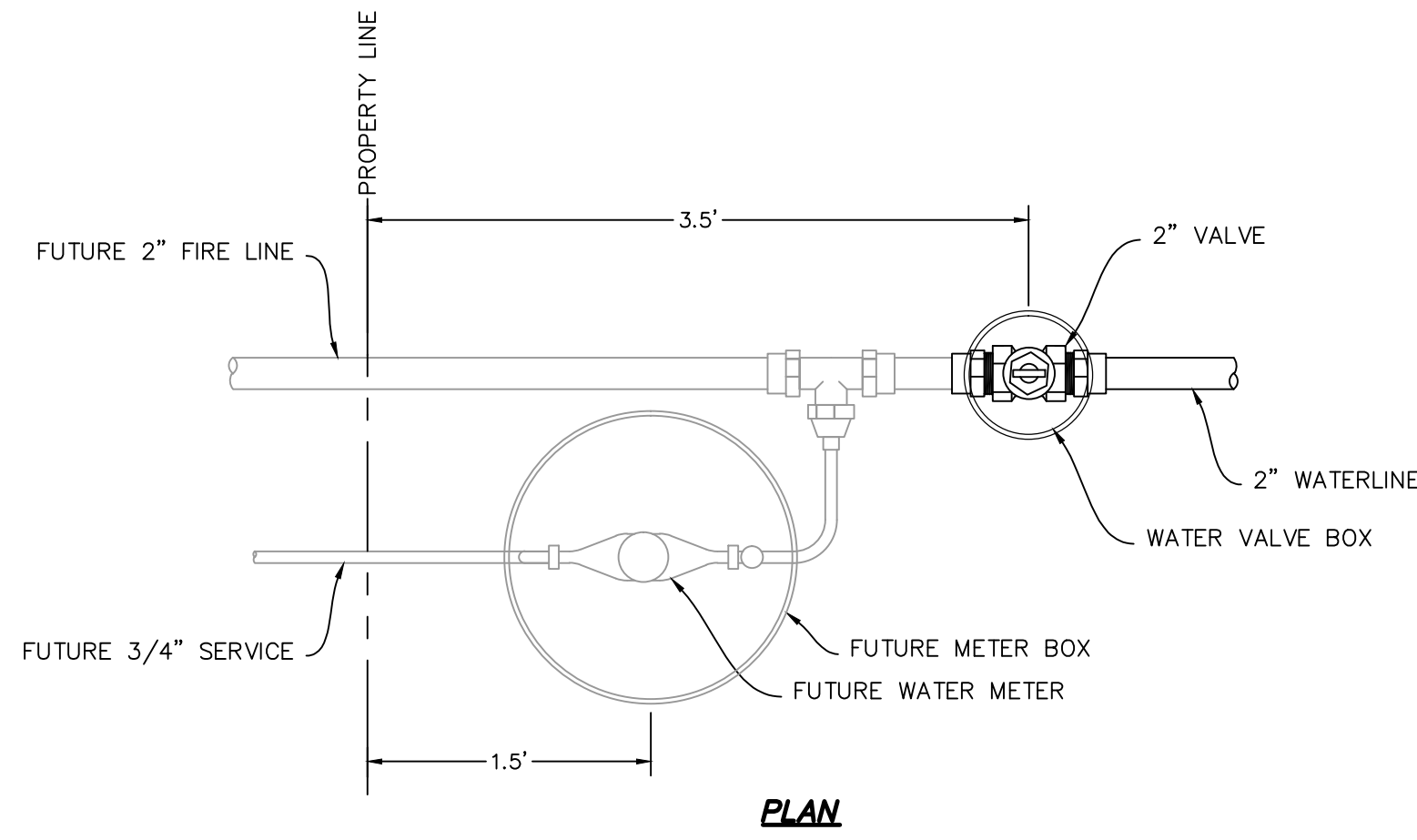
REGISTERED PROFESSIONAL ENGINEER
 No. 7899506
 RYAN W. CATHEY
 8/21/14
 STATE OF UTAH

SHEET NUMBER
5.01

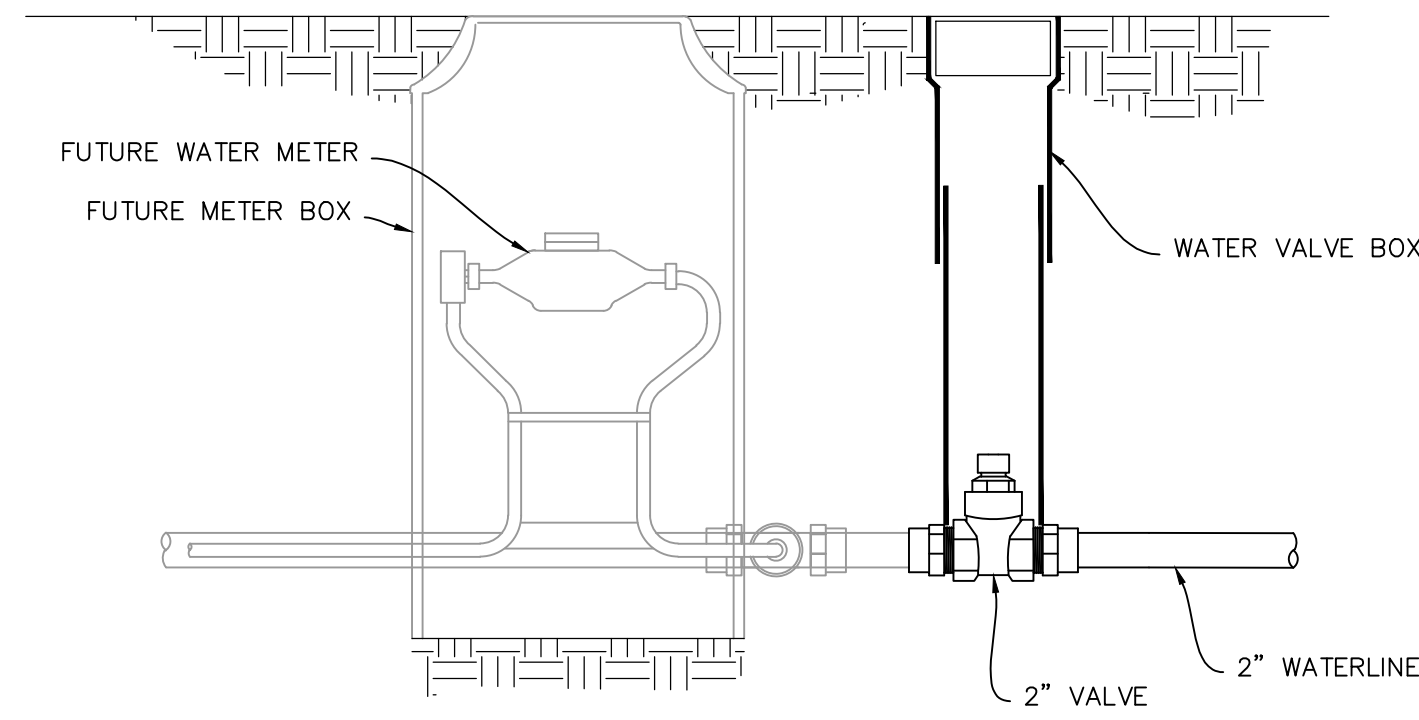
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 HORIZONTAL: 1" = N/A

JOB NUMBER
SLB079306





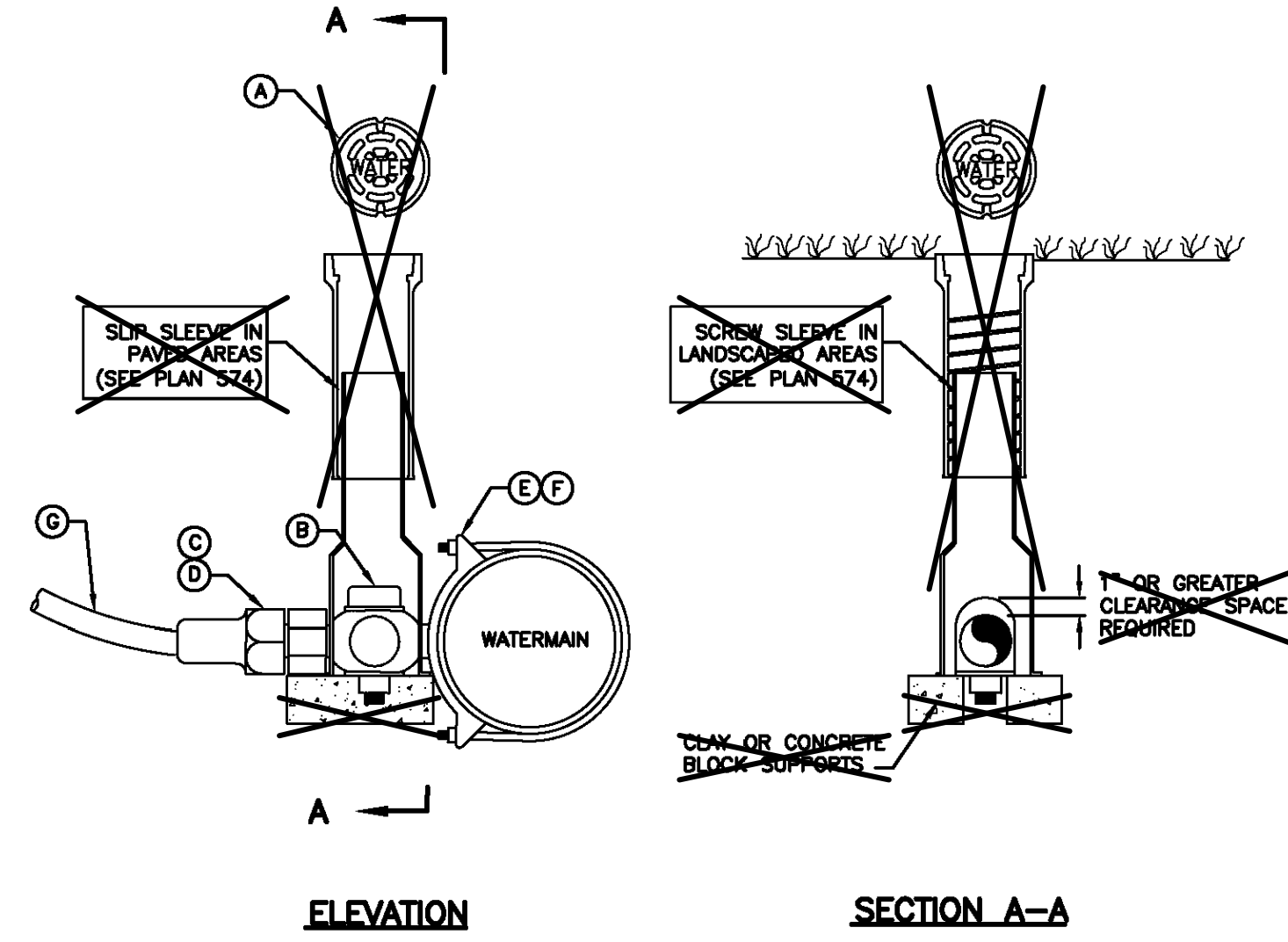
PLAN



SECTION

NOTE:
 FUTURE SIZES ARE PRELIMINARY.
 ACTUAL SIZE TO BE DETERMINED
 BY BUILDING DESIGNER

WATER LATERAL DETAIL
 NO SCALE



ELEVATION

SECTION A-A

LEGEND			
No.	*	ITEM	DESCRIPTION
(A)		VALVE BOX WITH LID	2-PIECE CAST IRON
(B)		CORPORATION STOP	BRASS
(C)		COPPER ADAPTER	
(D)		FLARE OR PACK JOINT COPPER ADAPTER	
(E)		SERVICE SADDLE CLAMP	D.I., A.C., C.I.
(F)		SERVICE SADDLE CLAMP	P.V.C.
(G)		COPPER PIPE (SERVICE LINE)	TYPE K (SOFT)

OMIT VALVE BOX

1 1/2" and 2" Service taps

August 2001

265

Plan
552

SUMMIT EDEN PHASE 1B
WATER DETAILS

NO.	BY	DATE	REVISIONS
4	RMC	7/27/2014	COUNTY COMMENTS

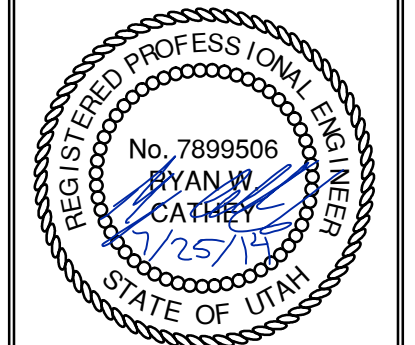
CAUTION
 The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. Any such changes or uses must be approved by the preparer of these plans.

DATE SUBMITTED: 01/07/2014

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC



6217 SOUTH STATE STREET, SUITE 200
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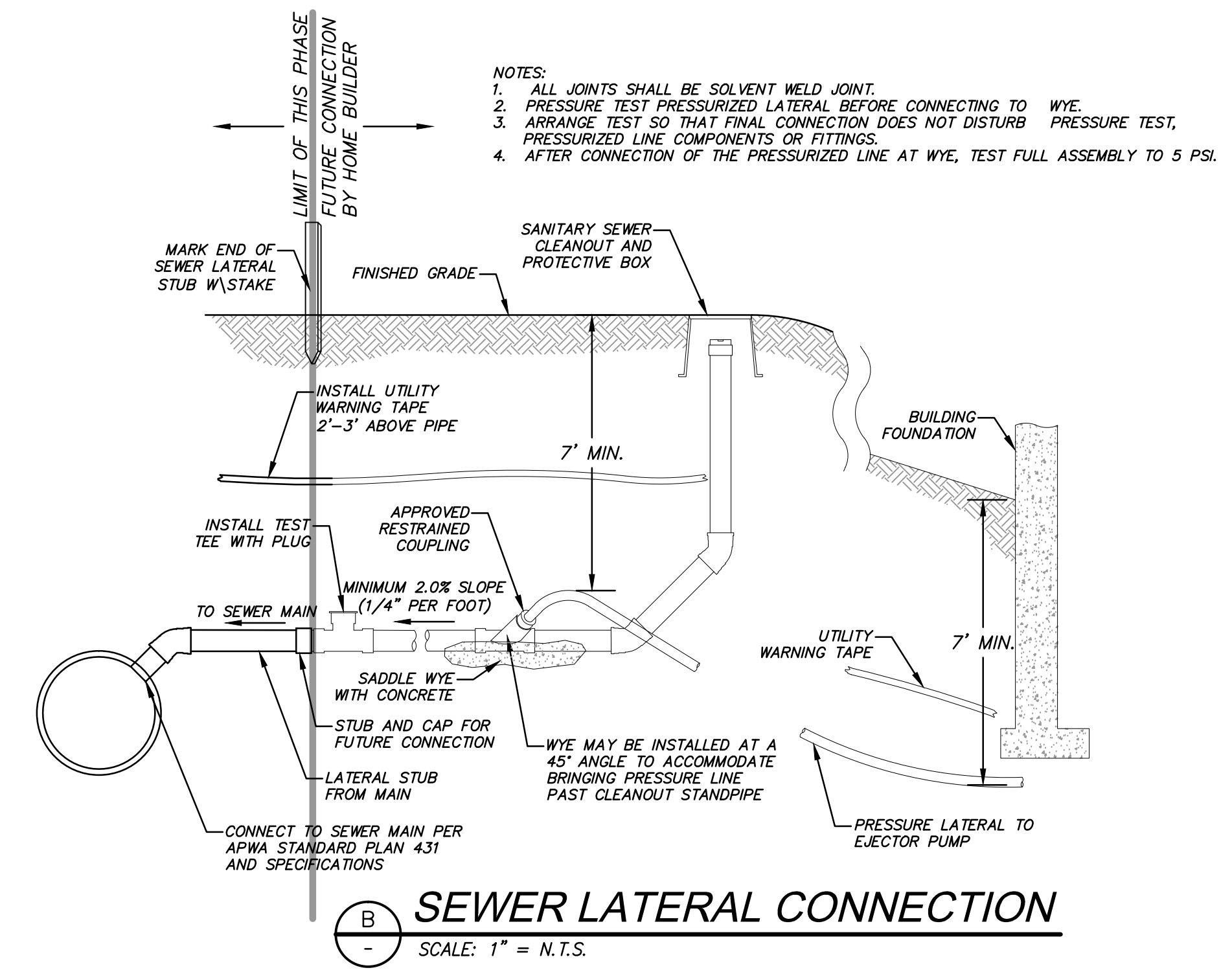
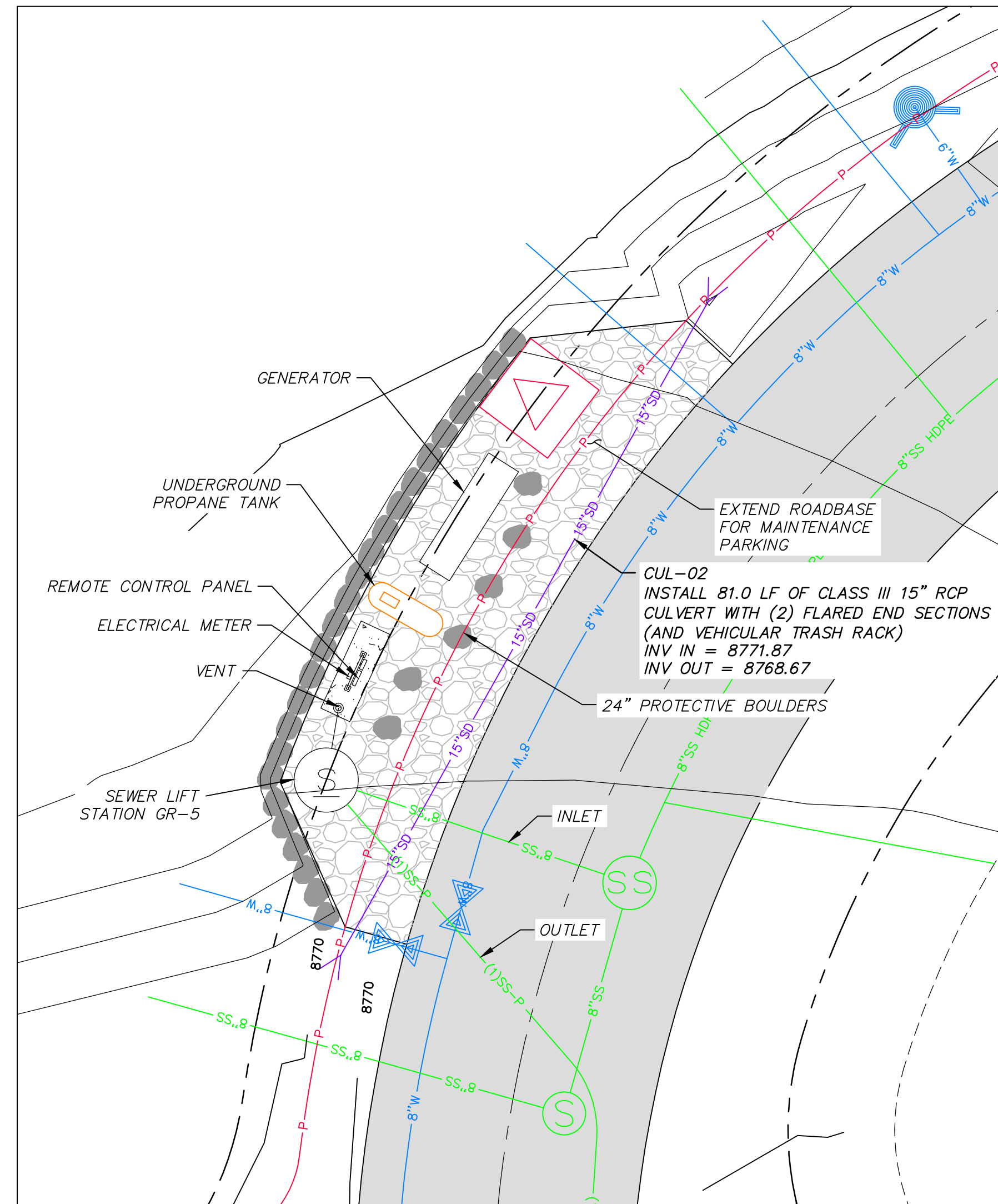
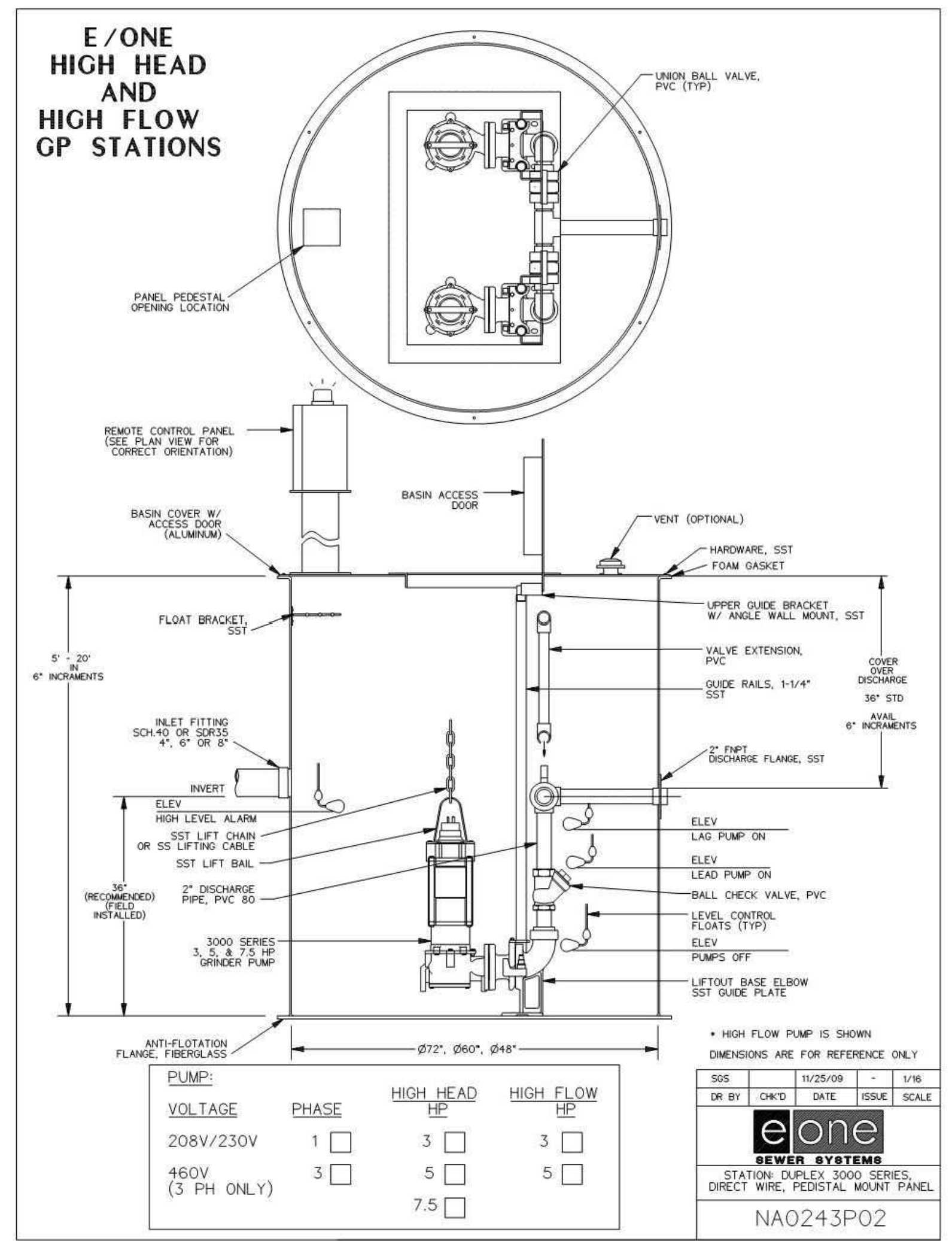


SHEET NUMBER
5.02

SCALE
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 HORIZONTAL: 1" = N/A

JOB NUMBER
SLB079306

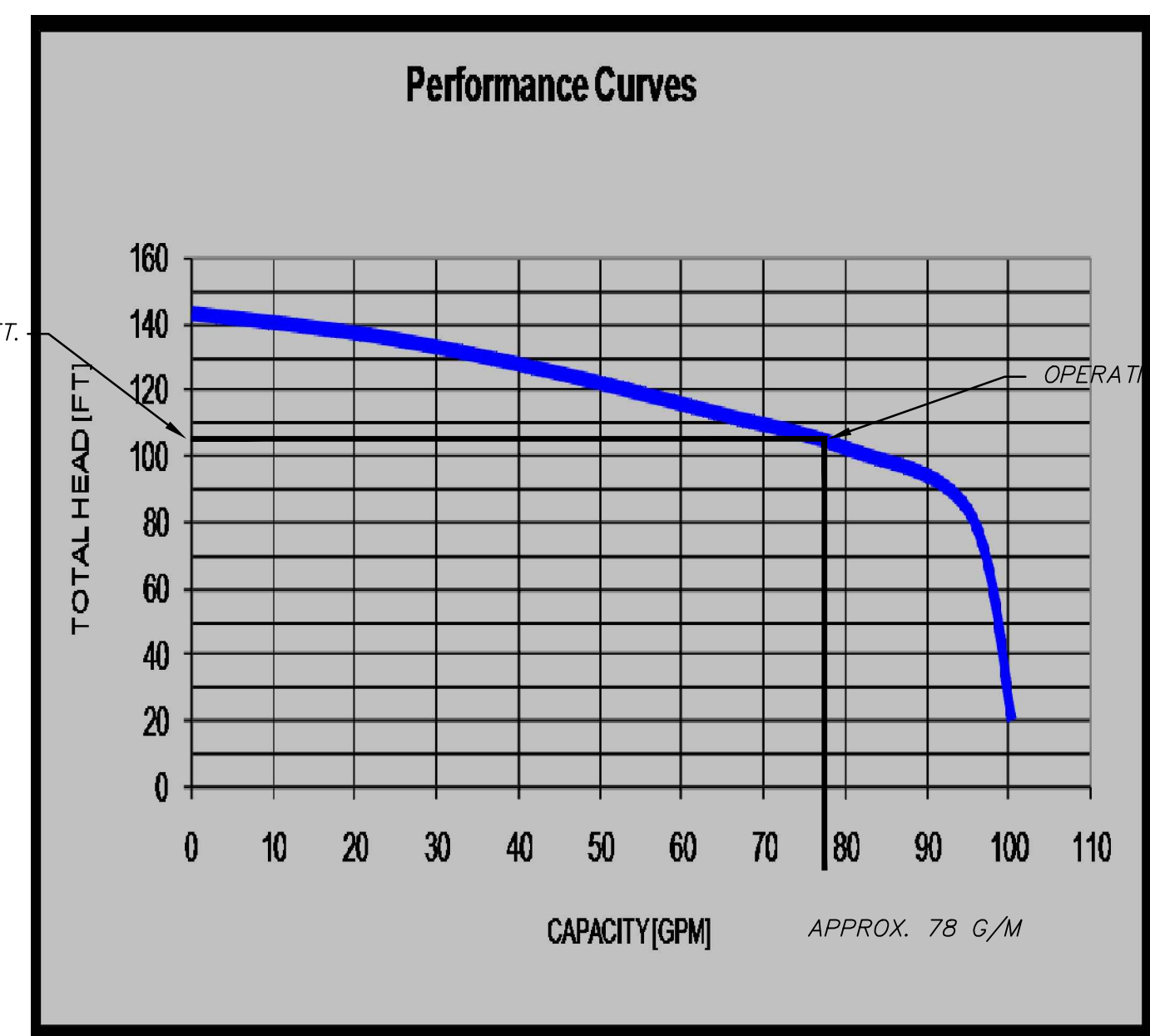




PUMP NAME	INVERT IN	INVERT IN SIZE	SUMP ELEV	BASIN DIA.	PUMP HEAD	PUMP HP	DISCHARGE DIA	DISCHARGE VELOCITY	MIN STORAGE VOLUME (gal)	STATION DETAIL	PUMP	PEAK FLOW (GPM)	AUTO DIALER	MAIN POWER TRANSFER SWITCH	POWER
GR-5	8759.37	8"	8754.37	72"	105	5	3"	3.66	1050	DUPLEX 3000 SERIES	SUBMERSIBLE GRINDER PUMP E-ONE 3H51	78	CELLULAR	MANUAL	1 PHASE/240 VOLT

SEWER GRINDER PUMP DETAILS
 SCALE: 1" = N.T.S.

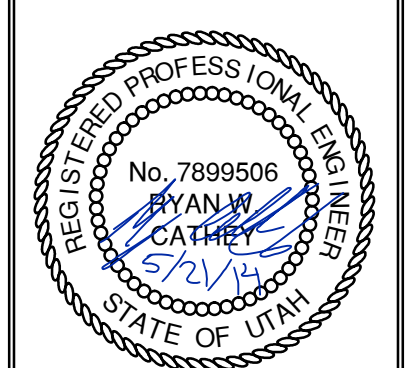
Grinder Station Calculations	
GR-5	
Head Difference	8754.34-8848.06=93.72 ft.
Pipe Length	1210 ft.
Friction Loss	10.81 ft.
Flow Calc.	(26 units) (3.2 People/household)(100 gallons/day/capita)=5.78 g/m average
Peaking Factor (Ten States Method)	$Q_{peak}/Q_{avg} = 18 + VP/4 + VP = 4.5$ $Q_{peak} = 23.0$ g/m
Pump Curve	See Pump Curve = 78 g/m



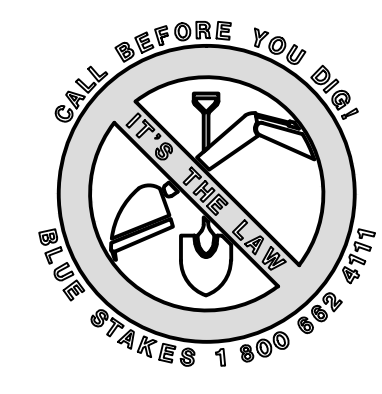
NO.	BY	DATE	REVISIONS
1	PHC	8/27/14	ADD ROOM 1
2	PHC	10/27/14	ARREST COUNTY SEWER REVISIONS
3	PHC	5/27/14	POST, PREP & OWNER STATION REVISIONS

SUMMIT EDEN PHASE 1B
GRINDER PUMP VAULT
SEWER DETAILS

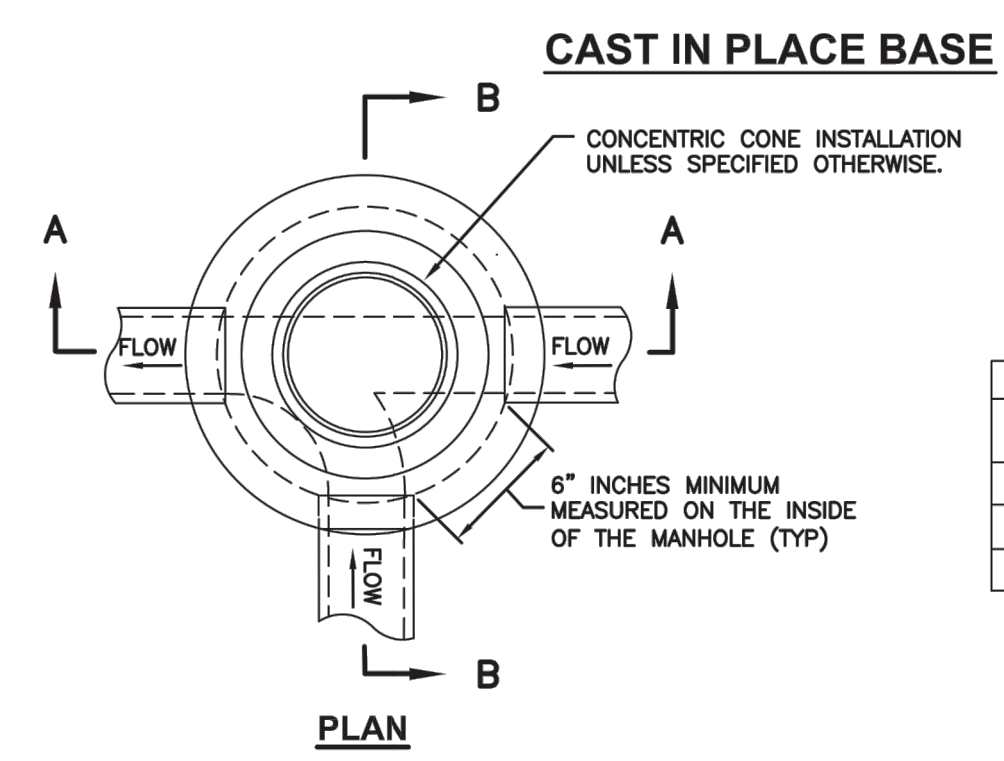
DATE SUBMITTED: 01/07/2014
 PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC



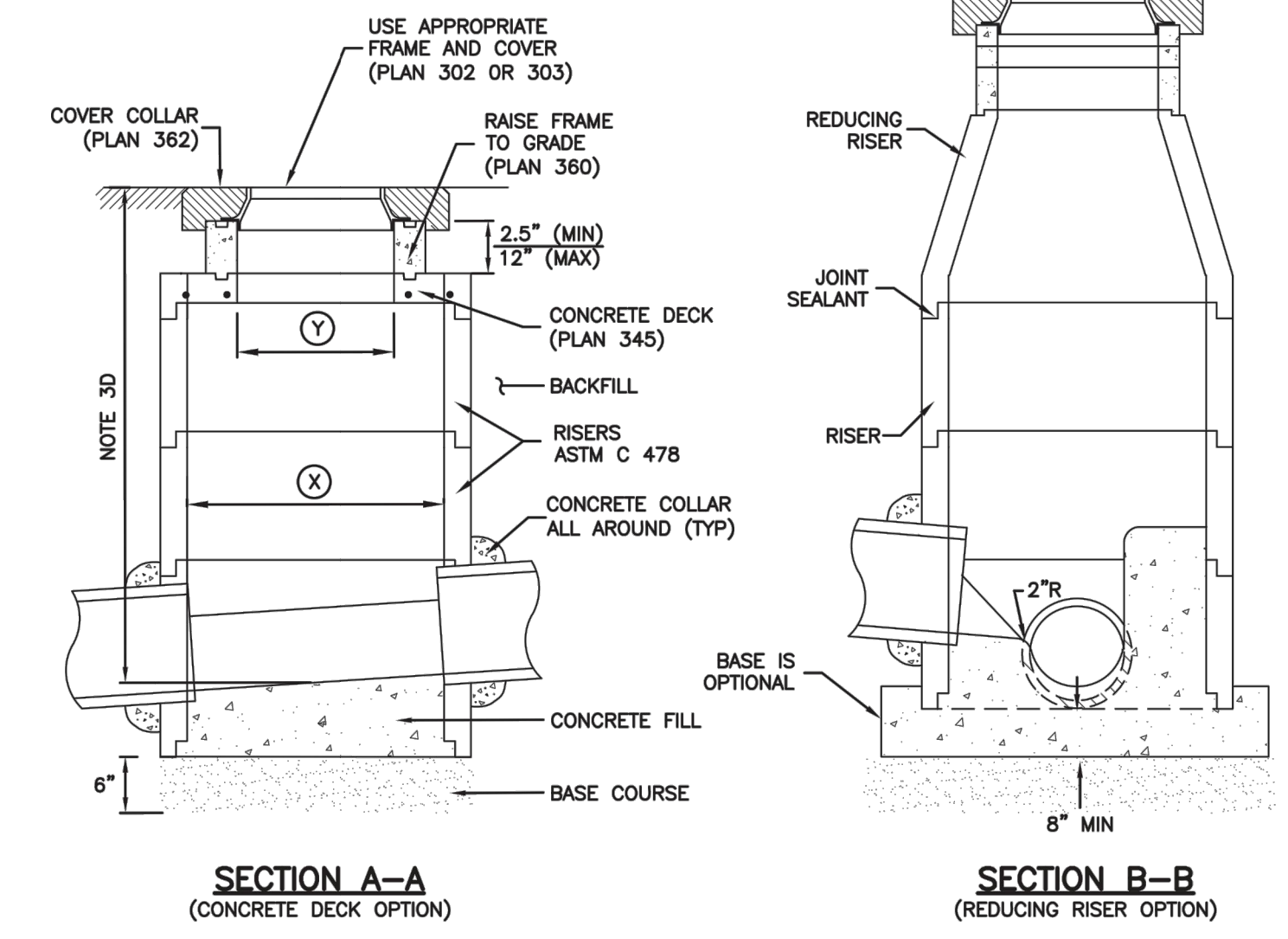
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 SCALE: VERTICAL: 1" = N/A, HORIZONTAL: 1" = N/A
 JOB NUMBER: **SLB079306**



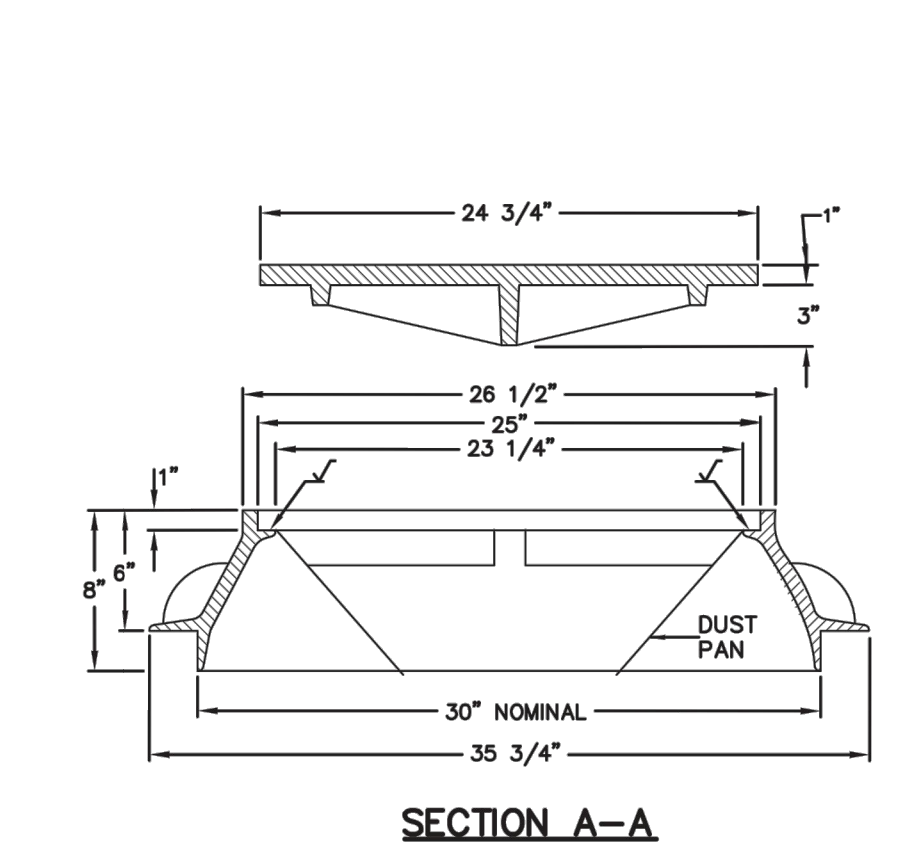
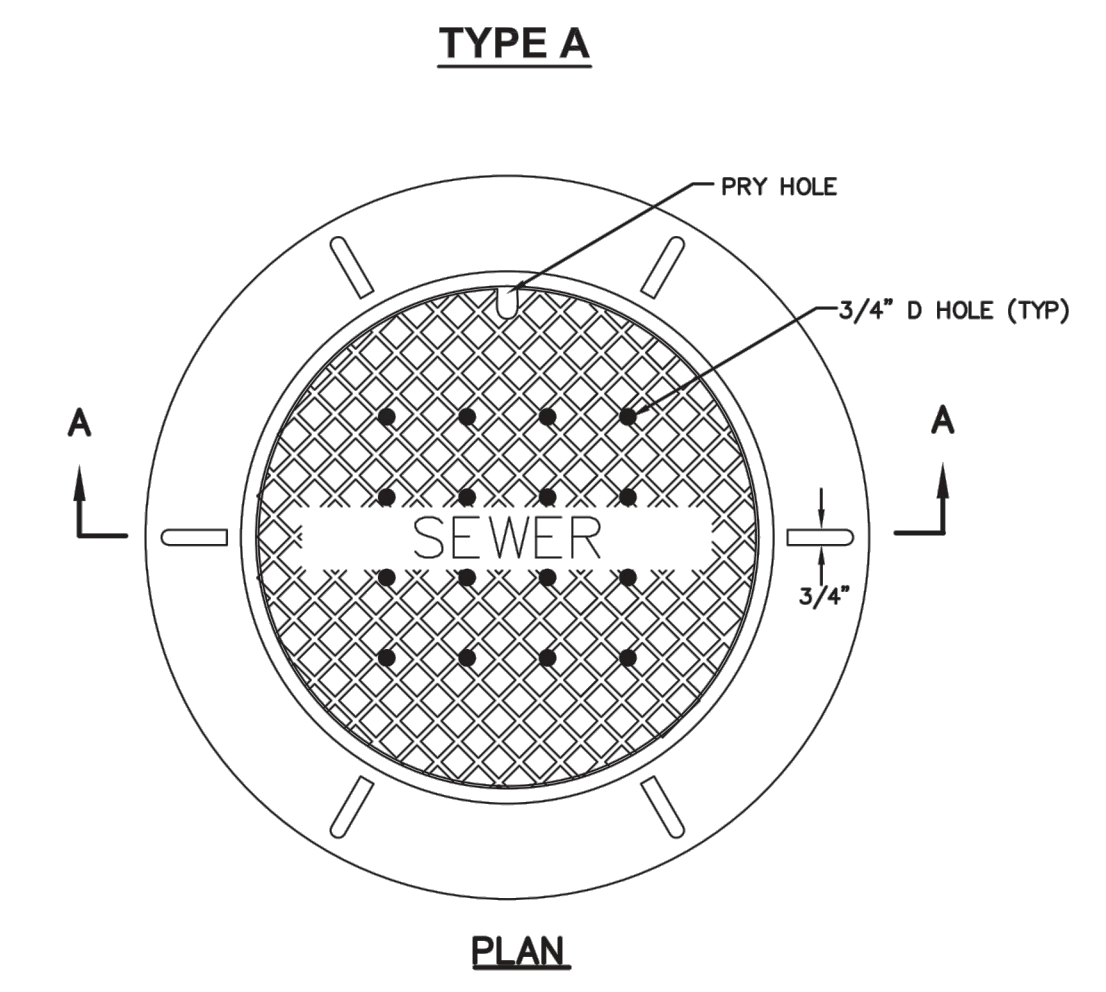
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 PATH: N:\B07930\AD\PHASE 1\IP\IP-B DESIGNER: HHH PROJ. MGR: HHH



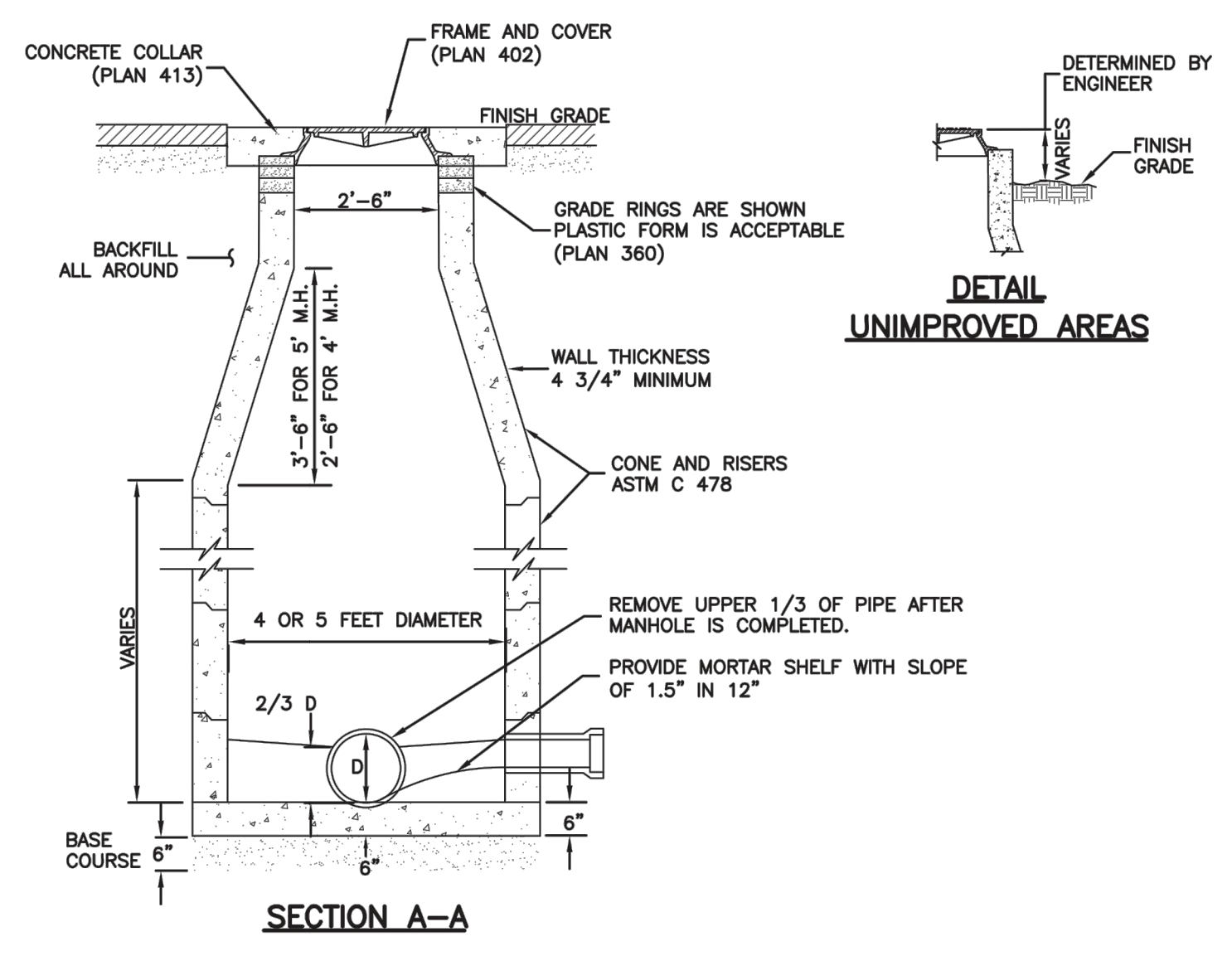
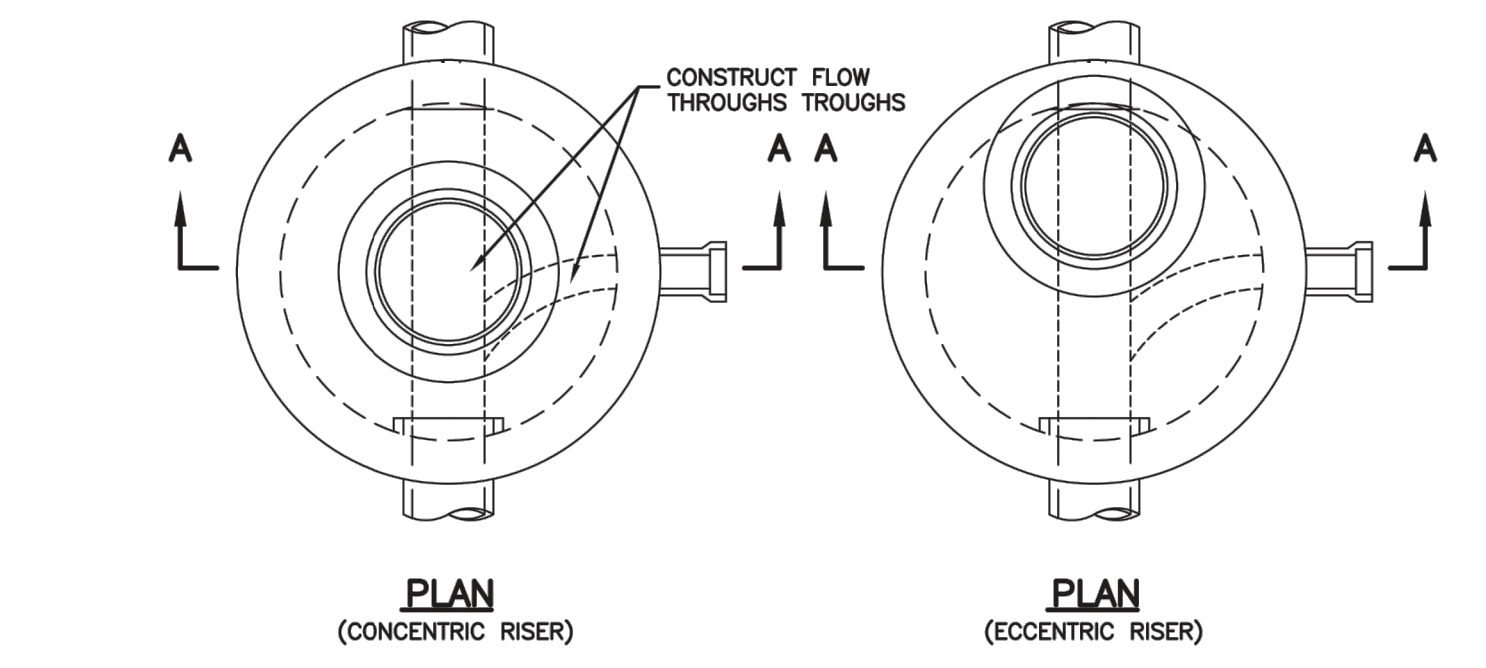
MANHOLE STYLE	DIMENSION	
A	⊗=48" ⊙=30"	
B	⊗=60" ⊙=44"	
C	⊗=60" ⊙=30"	



Precast manhole Plan 341
 November 2010 187 Sheet 1 of 2

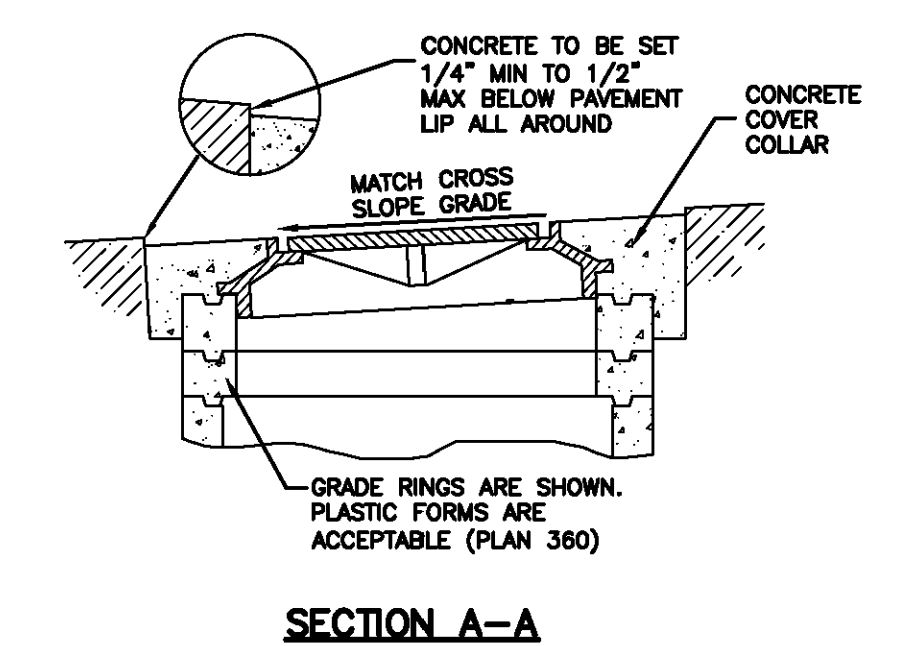
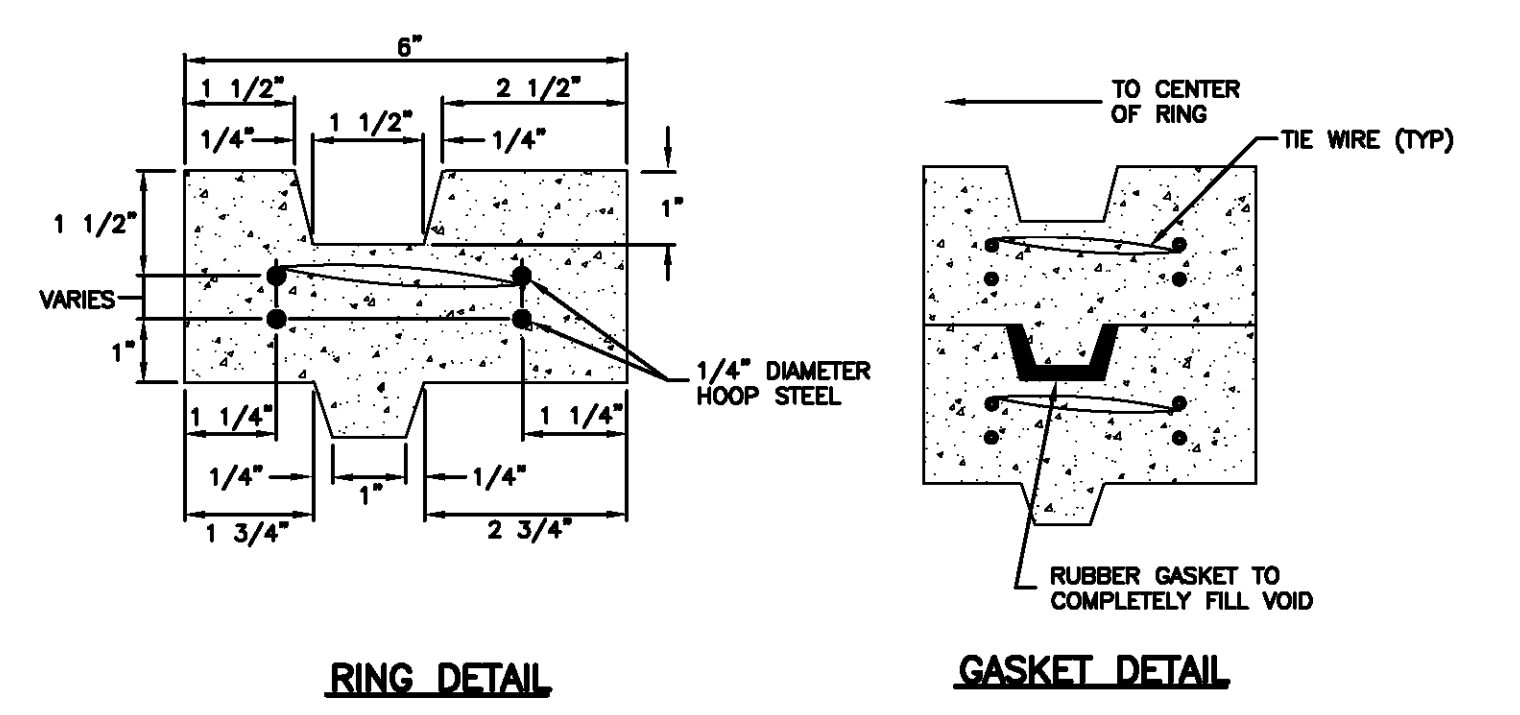
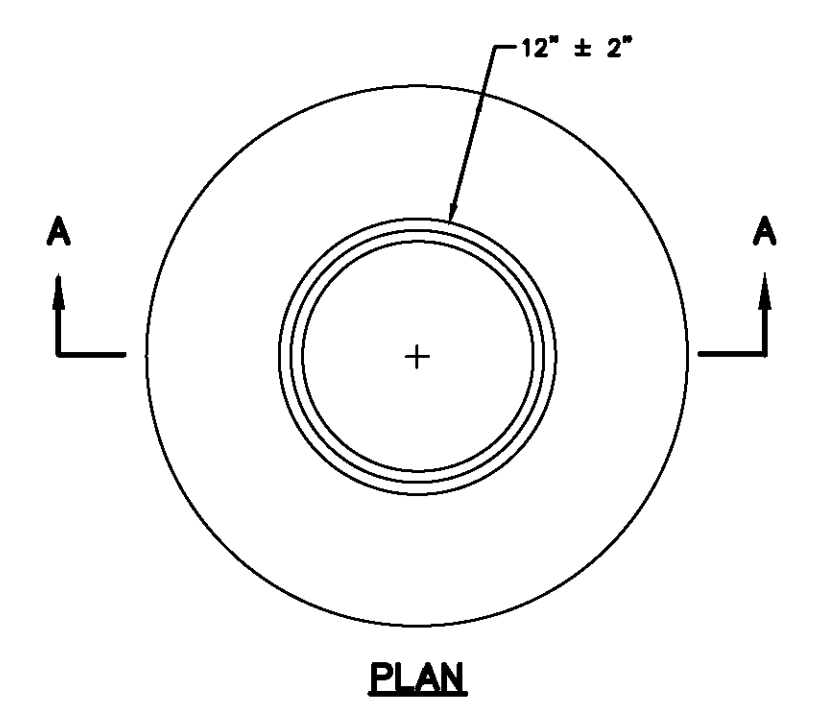
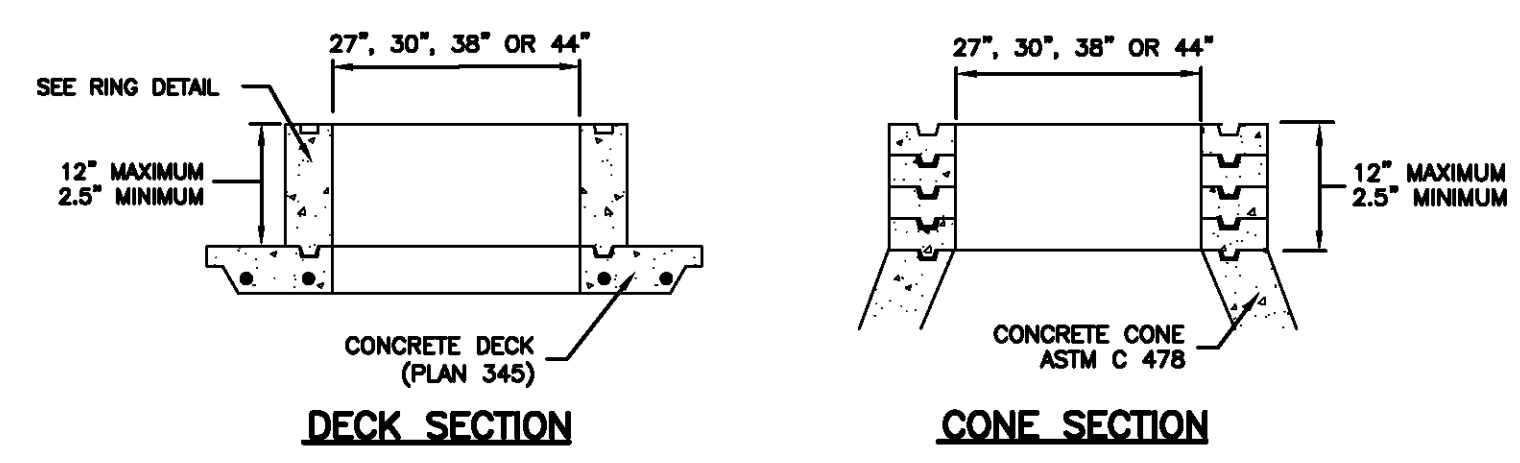


30" Frame and cover Plan 402
 April 1997 211

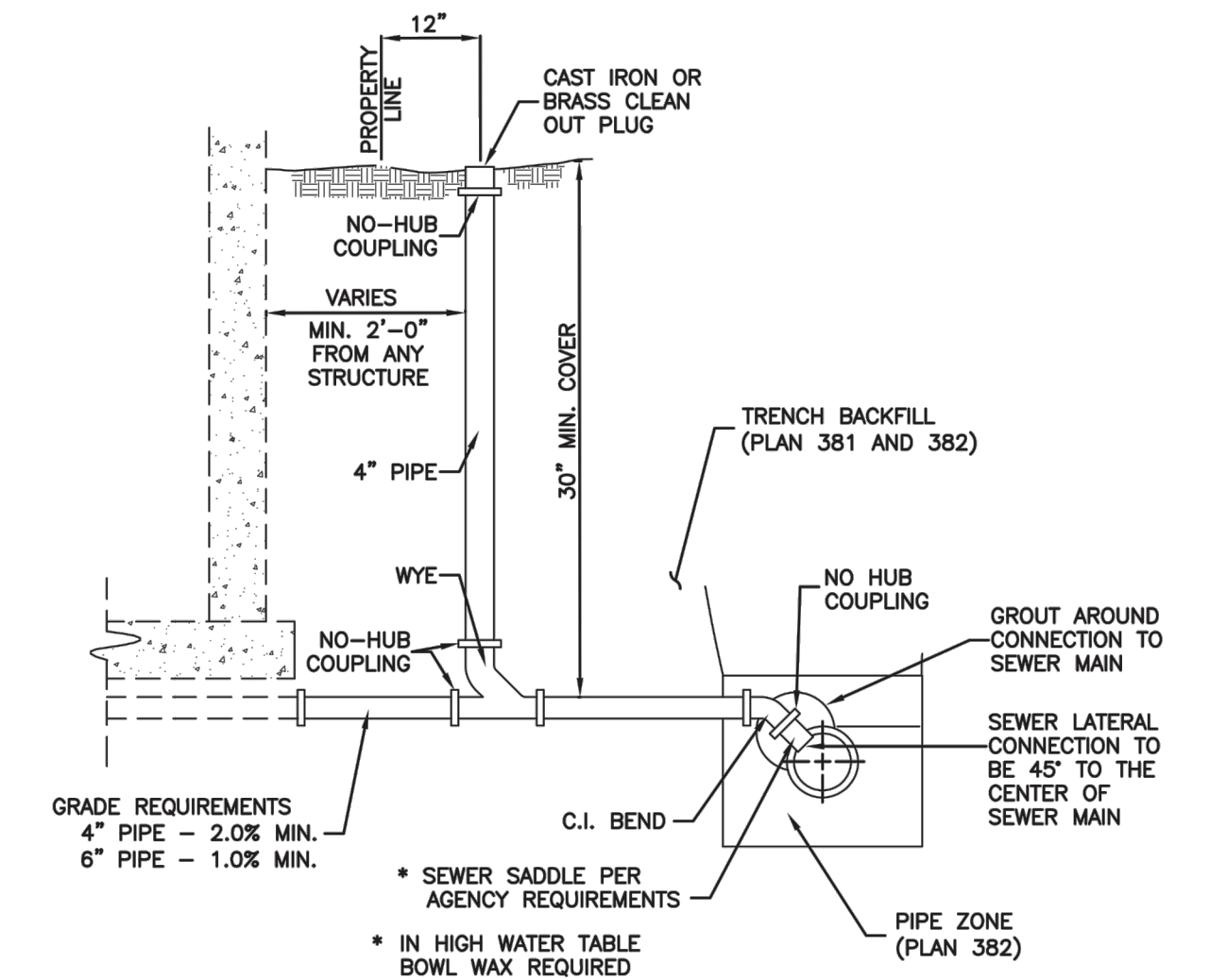


Sanitary sewer manhole Plan 411
 April 2011 213

GRADE RING



Cover collar for sanitary sewer manhole Plan 413
 September 2001 217



Sewer lateral connection Plan 431
 January 2011 219

Raise frame to grade Plan 360
 May 2008 193 Sheet 1 of 2

Cover collar for sanitary sewer manhole Plan 413
 September 2001 217

NO.	BY	DATE	REVISIONS
1	PHC	8/27/2014	ADDITION 1
2	PHC	10/27/2014	REBID COUNTY SEWER REVISIONS
3	PHC	2/27/2015	PHASE 1B & PHASE 2/3 REVISIONS

SUMMIT EDEN PHASE 1B
SEWER DETAILS

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC

DATE SUBMITTED: 01/07/2014

NV5
 BEYOND ENGINEERING

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REGISTERED PROFESSIONAL ENGINEER

No. 7899506

RYAN W. CATHEY

8/27/14

STATE OF UTAH

SHEET NUMBER
5.11

SCALE
 VERTICAL: 1" = N/A
 HORIZONTAL: 1" = N/A

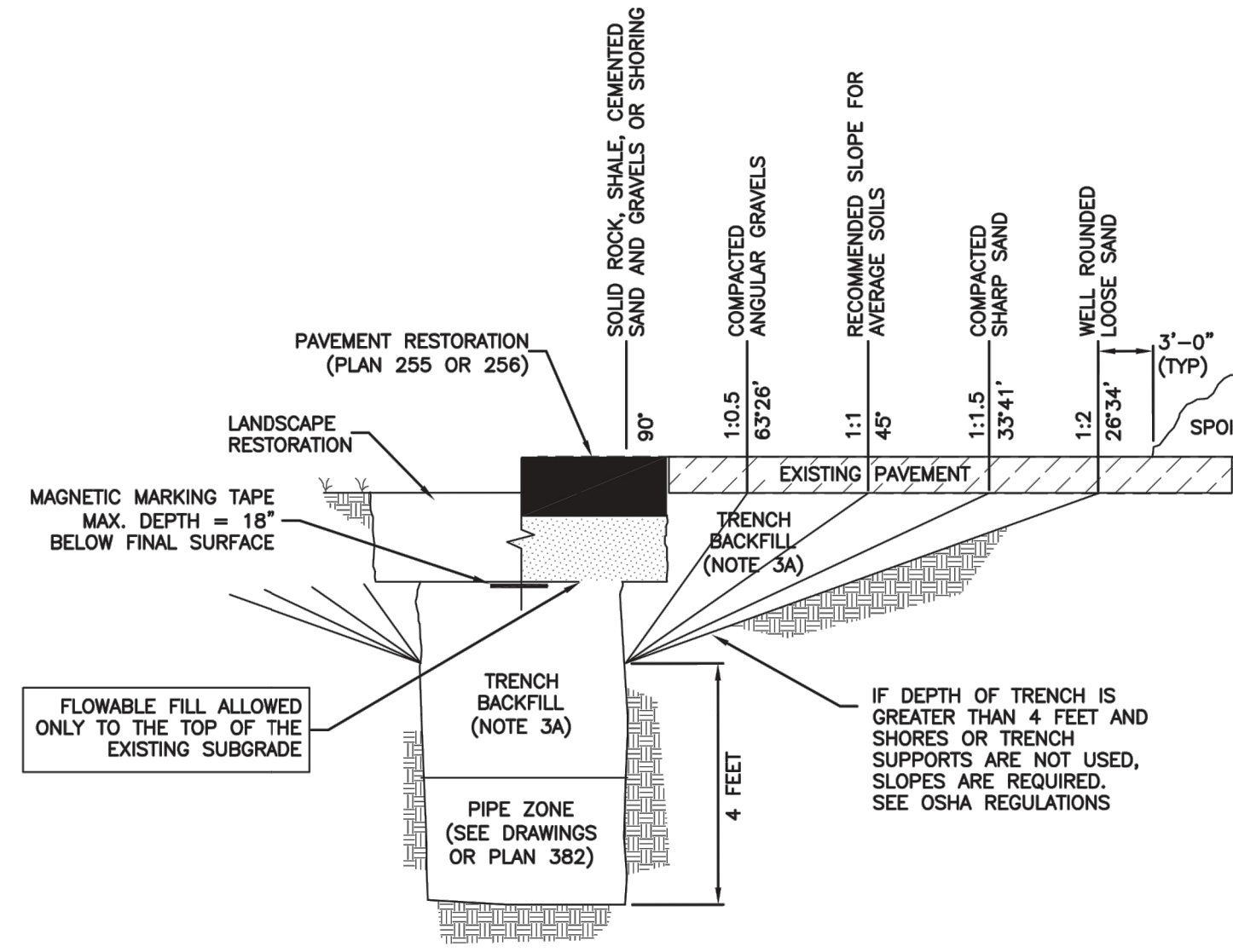
JOB NUMBER
SLB079306



BOWDEN
 XREFS:

Trench backfill

1. **GENERAL**
 - A. The drawing applies to backfilling the trench above the pipe zone.
2. **PRODUCTS**
 - A. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 3-inches.
 - B. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow easily requiring no vibration for consolidation.
3. **EXECUTION**
 - A. Trench Backfill:
 - 1) DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate as trench backfill.
 - 2) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a standard proctor density, APWA Section 31 23 26.
 - 3) Water jetting is NOT allowed.
 - 4) Submission of quality control compaction test result data developed for haunching areas may be requested by ENGINEER at any time. Provide results of tests immediately upon request.
 - B. Flowable Fill: When required, place controlled low strength material in the trench, APWA Section 31 05 15. Cure the fill before placing surface restorations.
 - C. Surface Restoration:
 - 1) Landscaped Surface: Rake to match existing grade. Replace vegetation to match pre-construction conditions. Follow APWA Section 32 92 00 (turf or grass) or APWA Section 32 93 13 (ground cover) requirements.
 - 2) Paved Surface: Do not install asphalt or concrete surfacing until trench compaction is acceptable to ENGINEER. Follow APWA Section 33 05 25 (asphalt surfacing), or APWA Section 33 05 25 (concrete surfacing).



Trench backfill

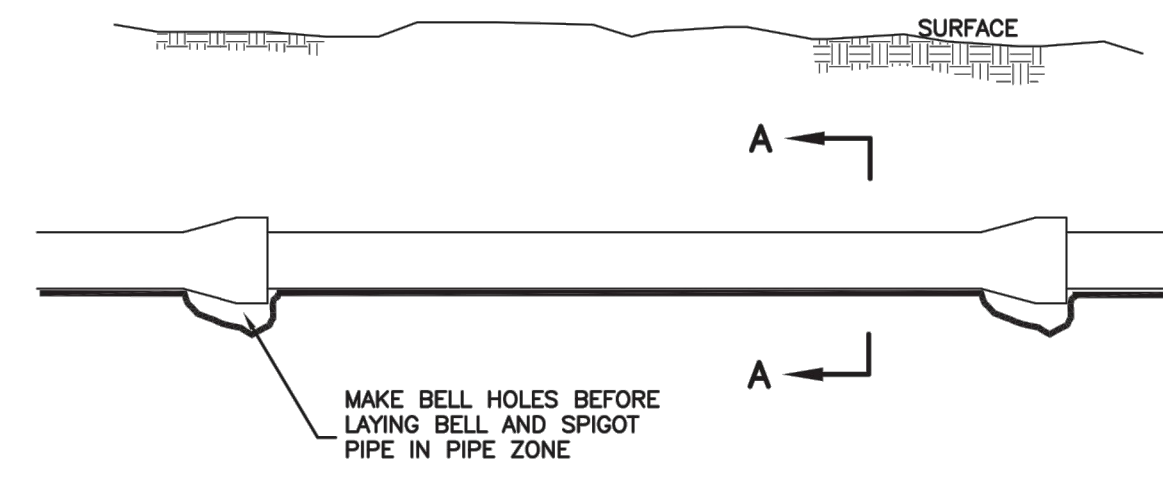
Plan
381

202

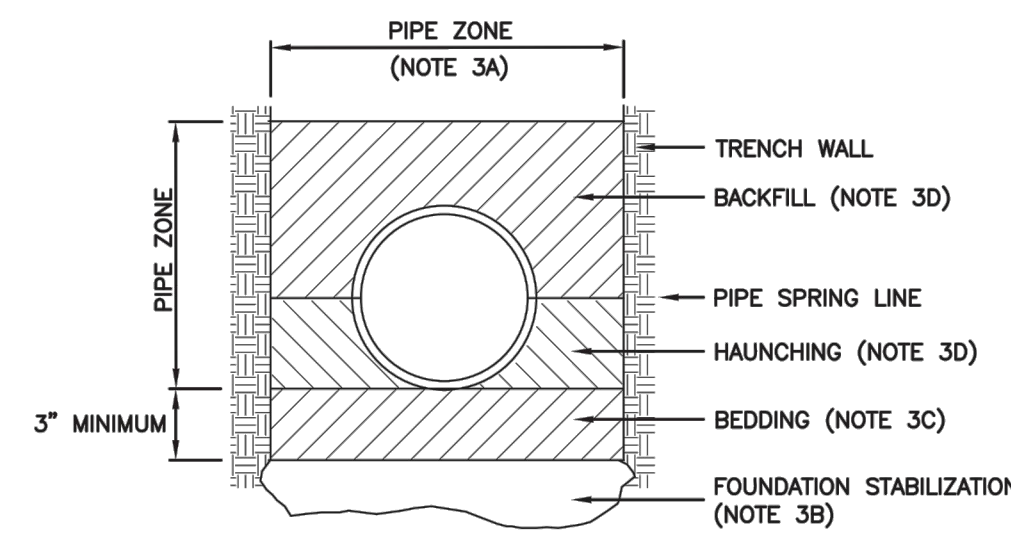
January 2011

Pipe zone backfill

1. **GENERAL**
 - A. Install the pipe in the center of the trench or no closer than 6-inches from the wall of the pipe to the wall of the trench.
2. **PRODUCTS**
 - A. Base Course: Untreated base course, APWA Section 32 11 23. Do not use gravel as a base course without ENGINEER's permission.
 - B. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 2-inches.
 - C. Concrete: APWA Section 03 30 04.
 - D. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow easily requiring no vibration for consolidation.
 - E. Stabilization-Separation Geotextile: Moderate or high at CONTRACTOR's choice, APWA Section 31 05 19.
3. **EXECUTION**
 - A. Excavate the Pipe Zone: Width is measured at the pipe spring line and includes any necessary sheathing. Provide width recommended by pipe manufacturer. Follow manufacturer's recommendations when using trench boxes.
 - B. Foundation Stabilization: Get ENGINEER's permission before installing common fill. Vibrate to stabilize. Installation of stabilization-separation geotextile will be required to separate backfill material and native subgrade materials if common fill cannot provide a working surface or prevent soils migration.
 - C. Base Course:
 - 1) Furnish untreated base course material unless specified otherwise by pipe manufacturer.
 - 2) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26.
 - 3) When using concrete, provide at least Class 2,000 per APWA Section 03 30 04.
 - D. Pipe Zone: DO NOT USE sewer rock, pea gravel, or recycled RAP aggregate in the pipe zone. Water jetting is NOT allowed.
 - 1) Maximum lift thickness is 8-inches before compaction. Compaction is 95 percent or greater relative to a modified proctor density, APWA Section 31 23 26 unless pipe manufacturer requires more stringent installation.
 - 2) Submission of quality control compaction test result data developed for the haunch zone may be requested by ENGINEER at any time. CONTRACTOR is to provide results of tests immediately upon request.
 - E. Flowable Fill (when required and if allowed by pipe manufacturer):
 - 1) Place the controlled low strength material. APWA Section 31 05 15.
 - 2) Prevent pipe flotation by installing in lifts and providing pipe restraints as required by pipe manufacturer.
 - 3) Reset pipe to line and grade if pipe "floats" out of position.



ELEVATION VIEW



SECTION A-A

INSTALLATION
 CONCRETE PIPE: FOLLOW ASTM C 1479
 STANDARD PRACTICE FOR INSTALLATION OF PRECAST CONCRETE SEWER, STORM DRAIN, AND CULVERT PIPE USING STANDARD INSTALLATIONS.
 PVC AND HDPE PIPE: FOLLOW ASTM D 2321
 STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS.
 CORRUGATED METAL PIPE: FOLLOW ASTM A 798
 STANDARD PRACTICE FOR INSTALLING FACTORY-WADE CORRUGATED STEEL PIPE FOR SEWERS AND OTHER APPLICATIONS.
 VITRIFIED CLAY PIPE: FOLLOW ASTM C 12.
 STANDARD RECOMMENDED PRACTICE FOR INSTALLING VITRIFIED CLAY PIPE LINES.

Pipe zone backfill

Plan
382

204

January 2011

SUMMIT EDEN PHASE 1B
MISCELLANEOUS DETAILS

NO.	BY	DATE	REVISIONS
1	RHC	8/27/2013	ADD/NOV 1
2	RHC	10/27/2014	REBID COUNTY SEWER REVISIONS
3	RHC	3/27/2014	POST, PIPE, & GREASE TRENCH REVISIONS

CAUTION

The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. Any such changes or uses must be approved by the preparer of these plans.

DATE SUBMITTED: 01/07/2014

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC

NIV5
 BEYOND ENGINEERING
 5217 SOUTH STATE STREET, SUITE 200
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 MURRAY, UT 84107
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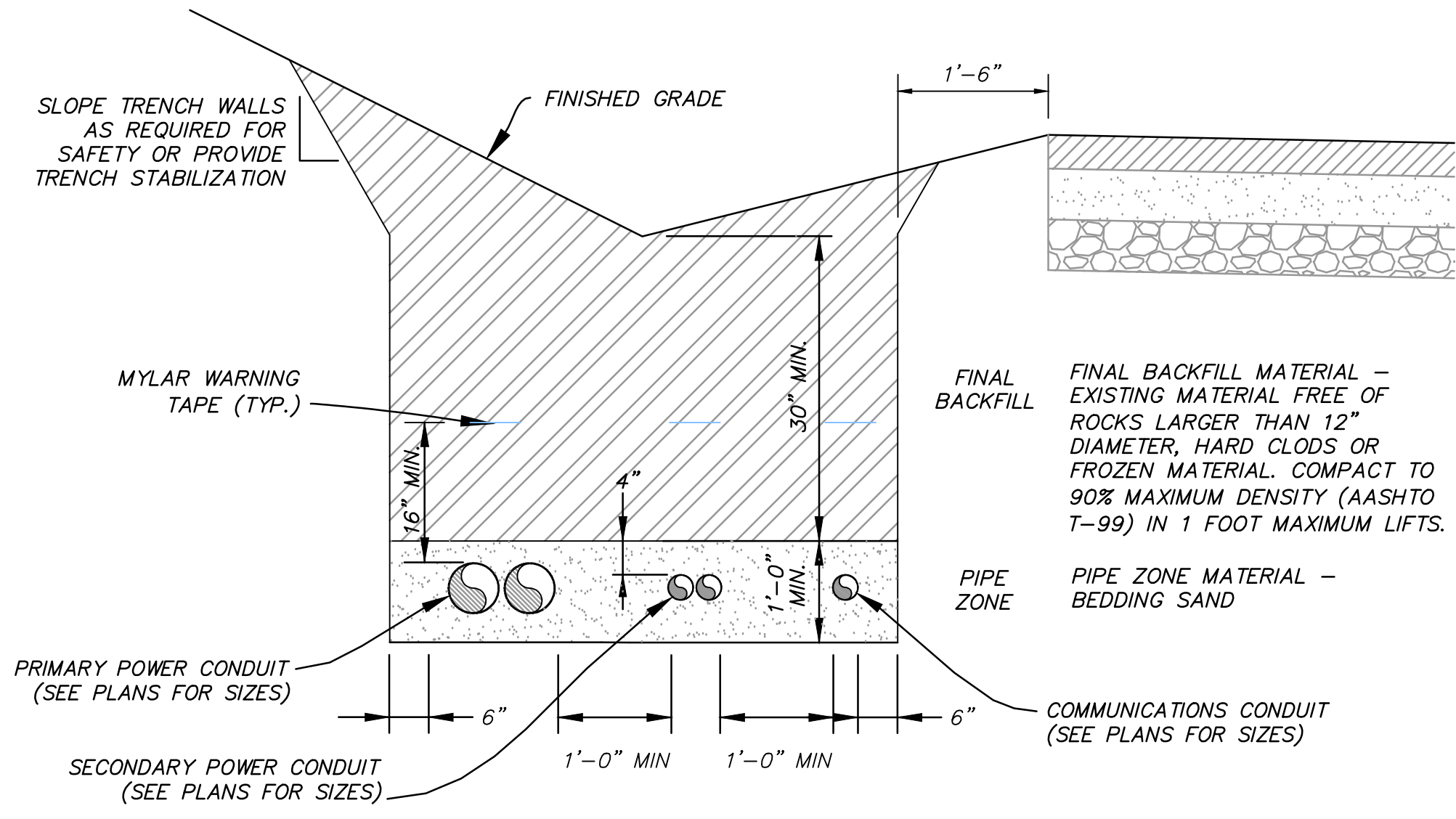
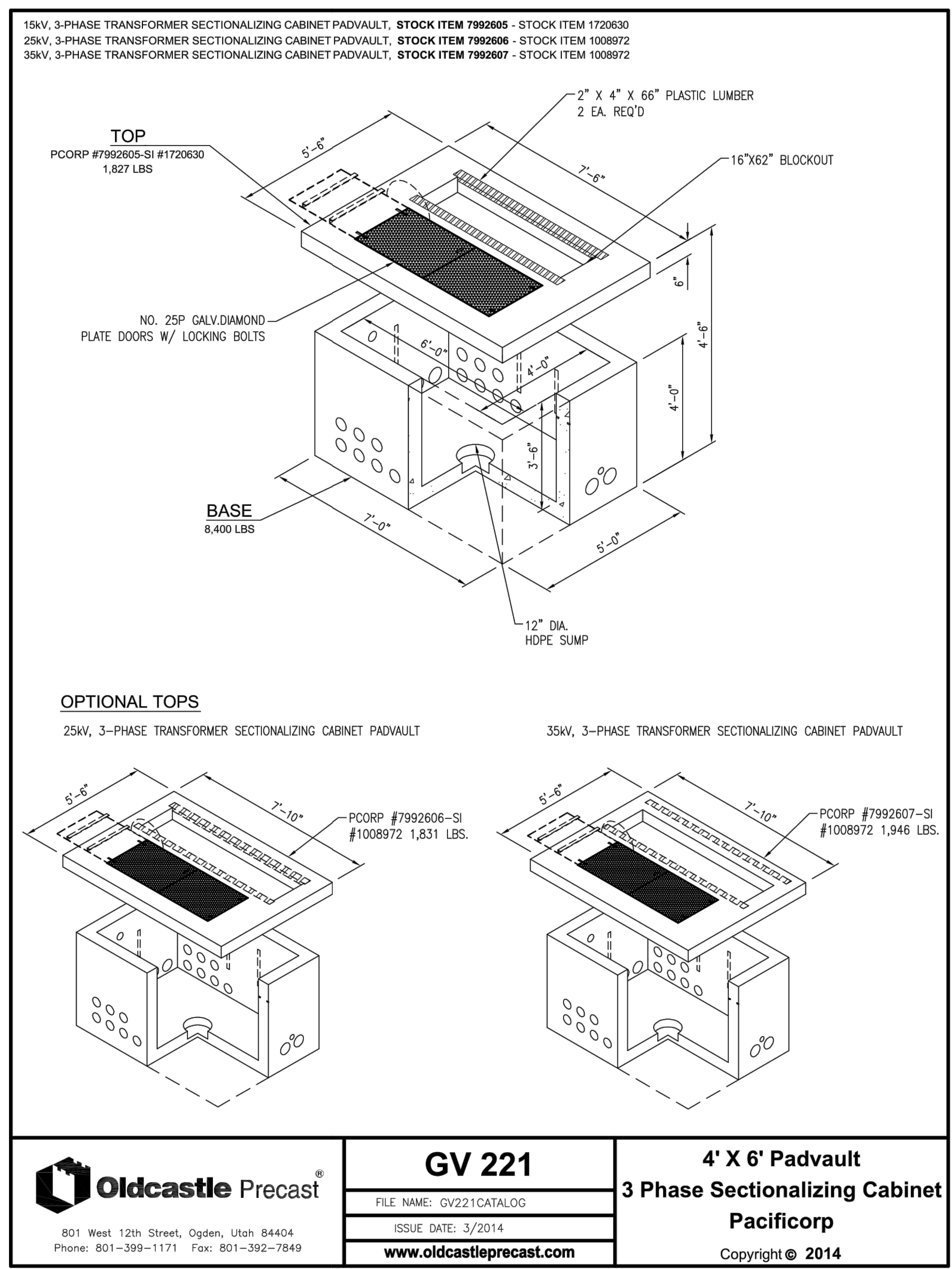
REGISTERED PROFESSIONAL ENGINEER
 No. 7899506
 RYAN W. CATHEY
 8/27/14
 STATE OF UTAH

SHEET NUMBER
5.12

SCALE
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 HORIZONTAL: 1" = N/A

JOB NUMBER
SLB079306



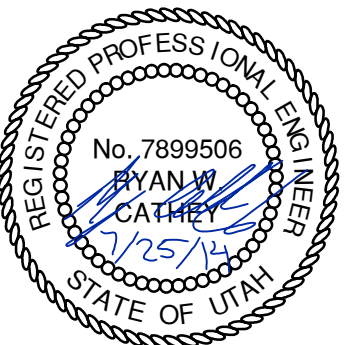


POWER CONDUIT TRENCH

SUMMIT EDEN PHASE 1B
ELECTRICAL DETAILS

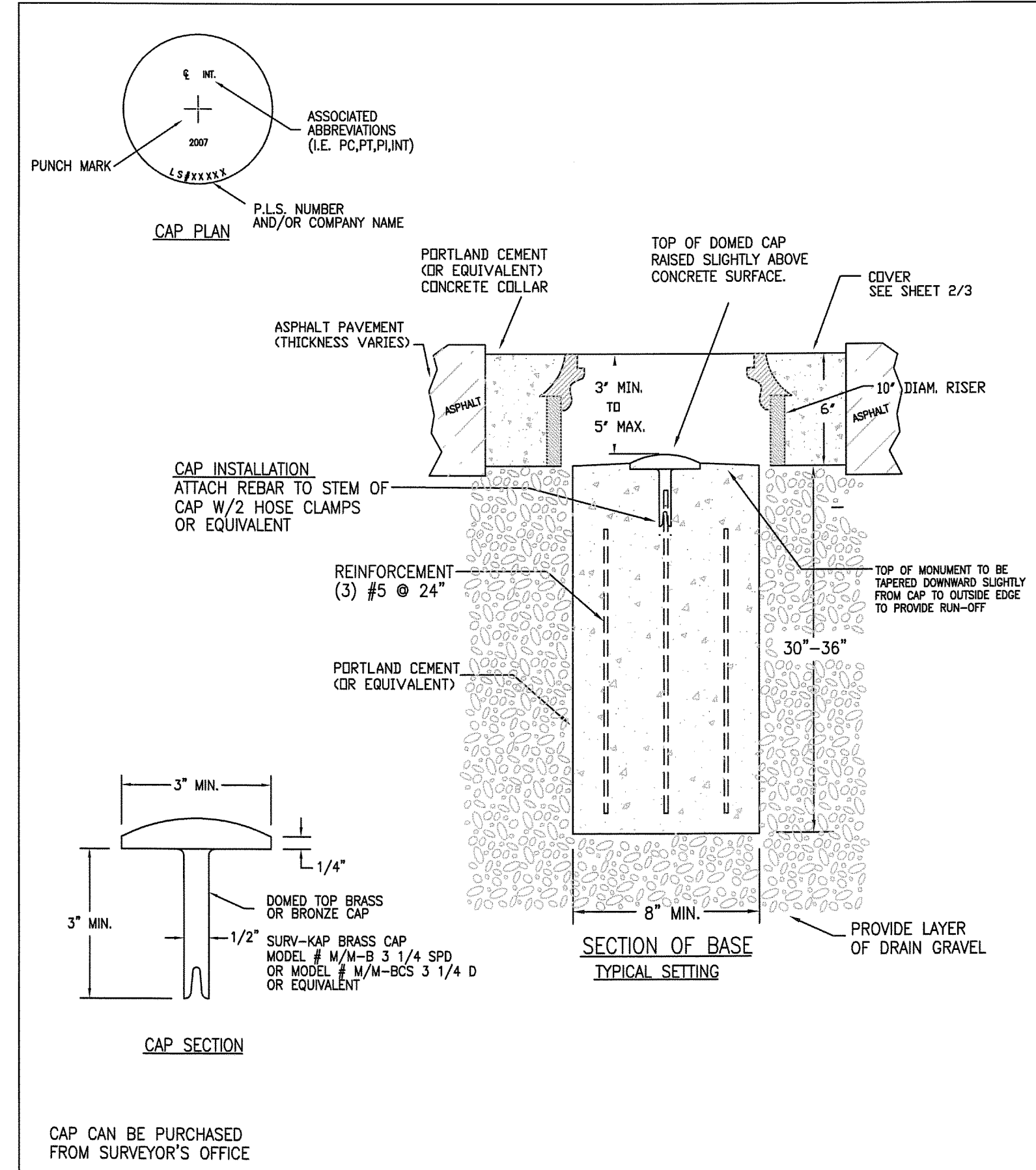
NO.	BY	DATE	REVISIONS
1	RMC	8/27/2014	ADD ROOM 1
2	RMC	8/27/2014	REVISIONS
3	RMC	8/27/2014	REVISIONS
4	RMC	7/25/2014	REVISIONS

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC DATE SUBMITTED: 01/07/2014

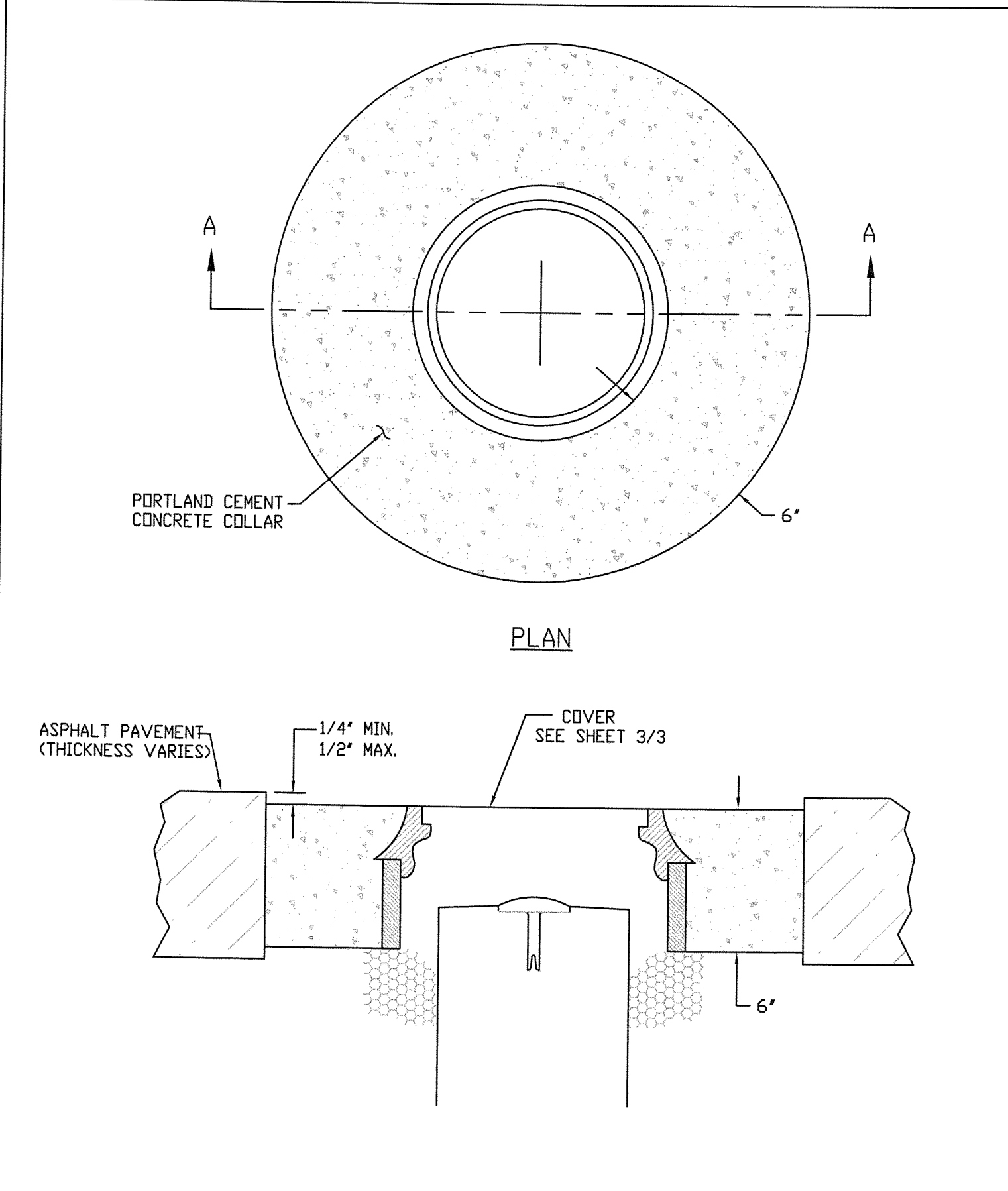


SHEET NUMBER	5.20
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JOB NUMBER	SLB079306

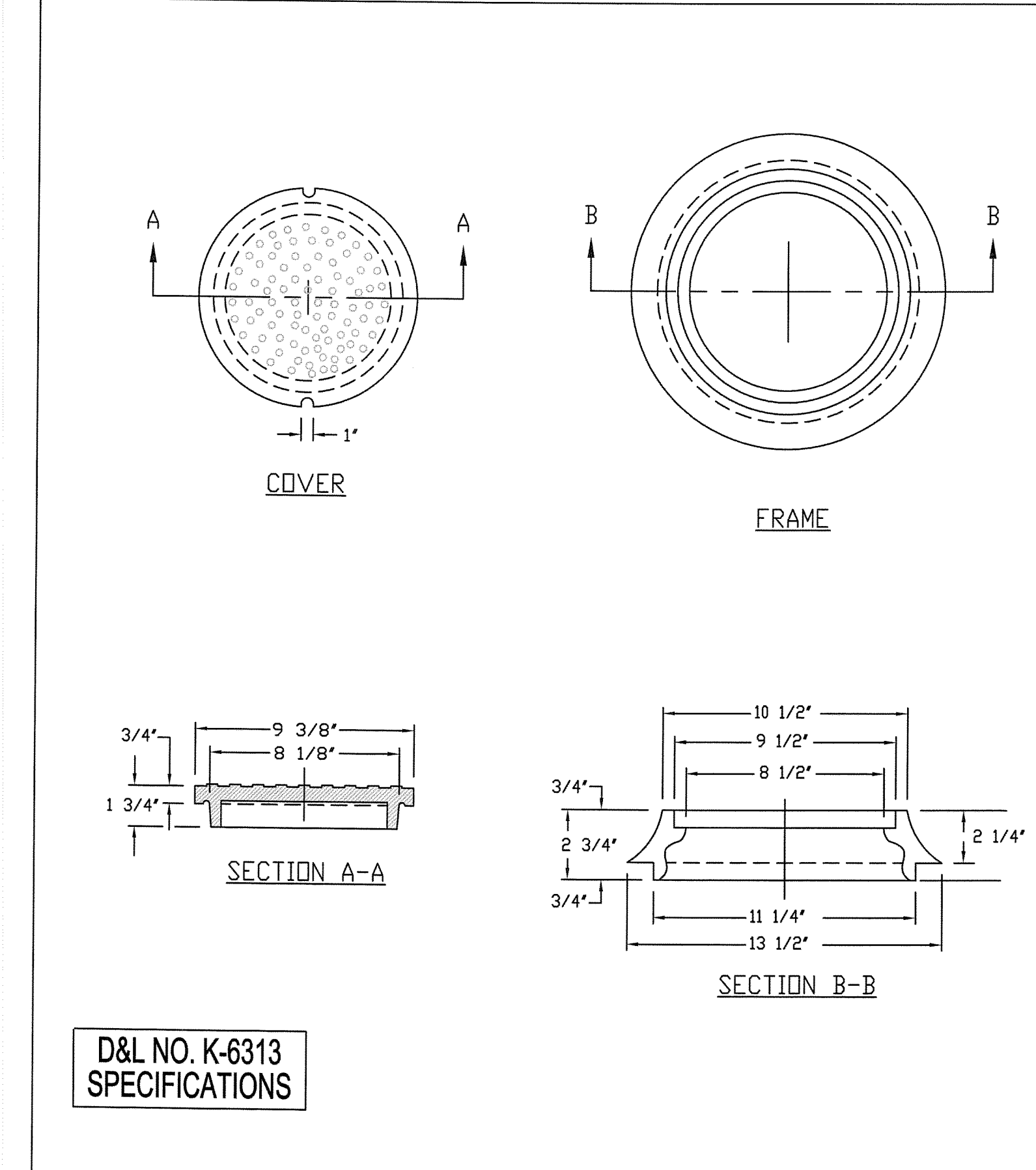




WEBER COUNTY SURVEY OFFICE	RING & LID SURVEY MONUMENT	STANDARD PLANS
		Monument Standard
3/28/10	399-8020	SHEET 1 OF 3



WEBER COUNTY SURVEY OFFICE	Cover Collar For Survey Monuments	STANDARD PLANS
		Monument Specifications
3/28/10	399-8020	SHEET 2 OF 3



WEBER COUNTY SURVEY OFFICE	RING & LID SURVEY MONUMENT	STANDARD PLANS
		Monument Specifications
3/28/10	399-8020	SHEET 3 OF 3

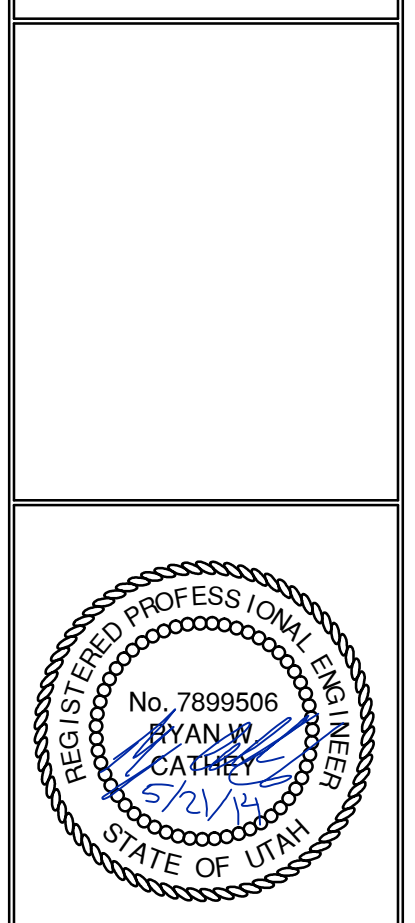
D&L NO. K-6313
SPECIFICATIONS

NO.	BY	DATE	REVISIONS
1	RHC	8/27/2013	ADDendum 1
2	RHC	07/27/2014	WEBER COUNTY SEWER REVISIONS
3	RHC	8/27/2014	POST, PIPES & COVER LAYOUT REVISIONS

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC DATE SUBMITTED: 01/07/2014

SUMMIT EDEN PHASE 1B
MISCELLANEOUS DETAILS

NV5
BEYOND ENGINEERING
627 SOUTH STATE STREET, SUITE 200
801743.0000 TEL. 801743.0000 FAX
MURRAY, UT 84107
WWW.NV5.COM

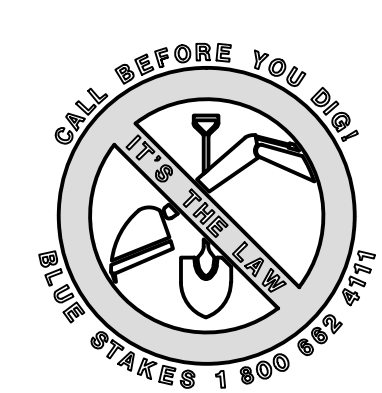
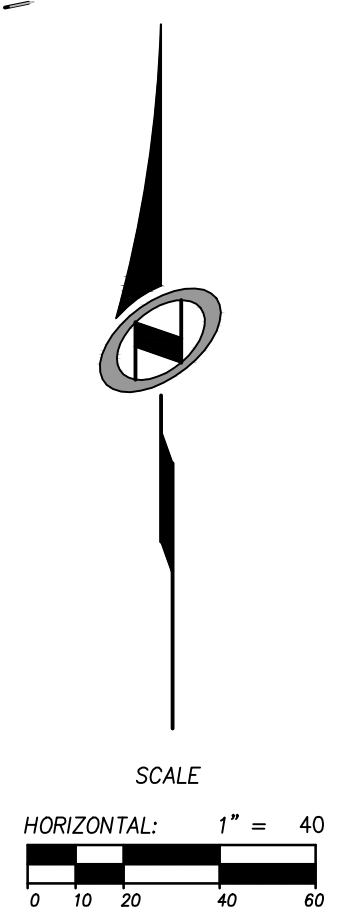
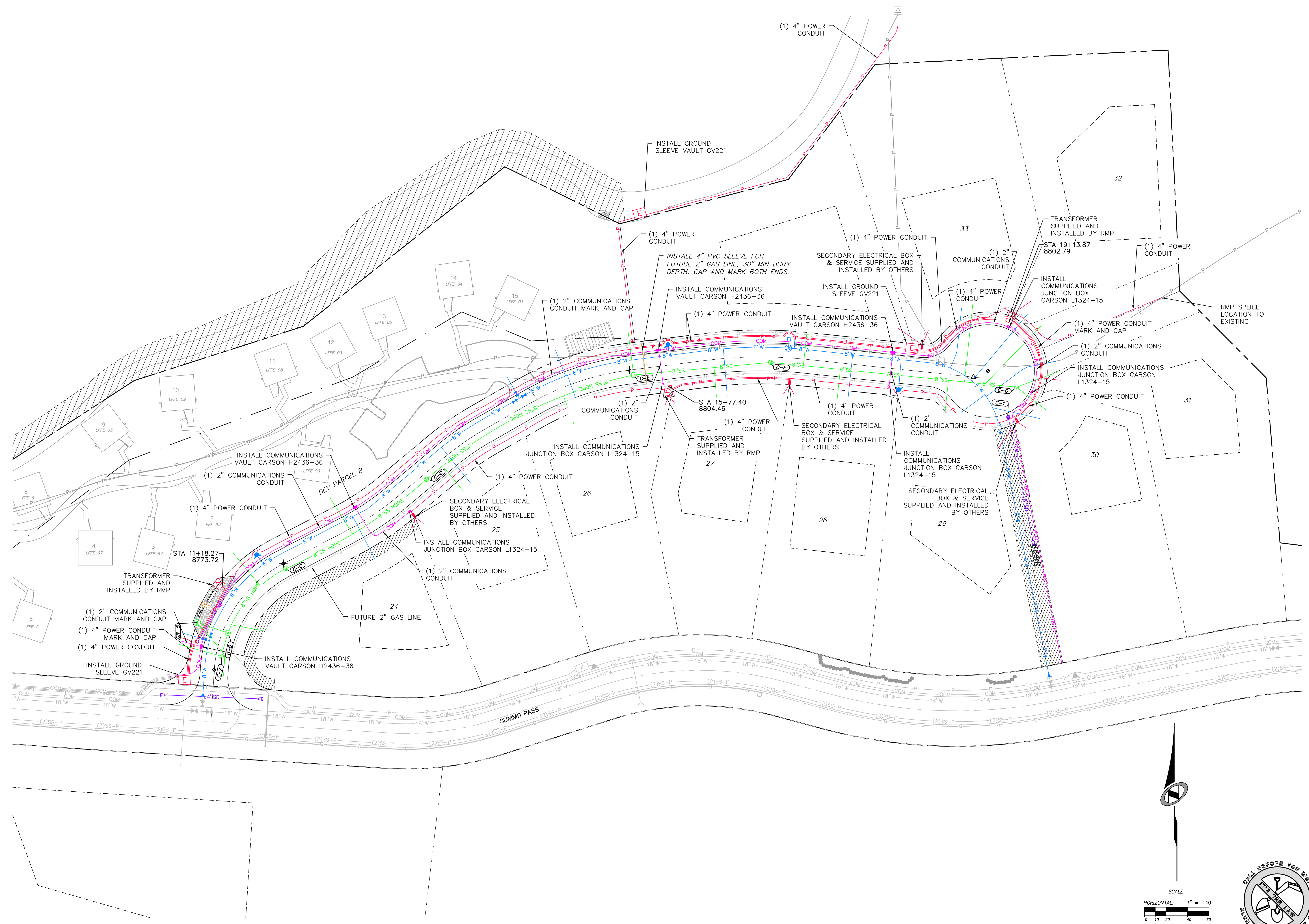


SHEET NUMBER	5.30
SCALE	VERTICAL: 1" = N/A HORIZONTAL: 1" = N/A
JOB NUMBER	SLB079306



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BOWDEN
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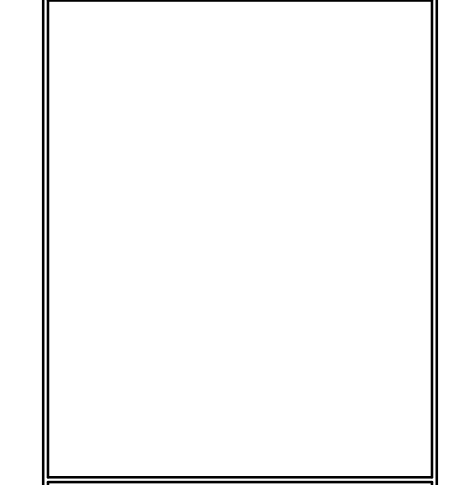
NO.	BY	DATE	REVISIONS
4	RMC	7/27/2014	COUNTY COMMENTS
5	RMC	8/27/2014	ELECTRICAL UPDATES
6	RMC	9/22/2014	ELECTRICAL CORRECS

CAUTION
 The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans. Any such changes or uses must be approved by the preparer of these plans.

SUMMIT EDEN PHASE 1B
DRY UTILITY PLAN

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC
 DATE SUBMITTED: 01/07/2014

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SHEET NUMBER	6.00
SCALE	VERTICAL: 1" = 40' HORIZONTAL: 1" = 40'
JOB NUMBER	SLB079306