

GENERAL NOTES

- ALL CONSTRUCTION MUST STRICTLY FOLLOW THE STANDARDS AND SPECIFICATIONS SET FORTH BY: GOVERNING UTILITY MUNICIPALITY, GOVERNING CITY OR COUNTY (IF UN-INCORPORATED), INDIVIDUAL PRODUCT MANUFACTURERS, THE DESIGN ENGINEER, AND AMERICAN PUBLIC WORKS ASSOCIATION (APWA). THE ORDER LISTED ABOVE IS ARRANGED BY SENIORITY. IF A CONSTRUCTION PRACTICE IS NOT SPECIFIED BY ANY OF THE LISTED SOURCES, CONTRACTOR MUST CONTACT DESIGN ENGINEER FOR DIRECTION.
- CONTRACTOR TO STRICTLY FOLLOW GEOTECHNICAL RECOMMENDATIONS FOR THIS PROJECT. ALL GRADING INCLUDING BUT NOT LIMITED TO CUT, FILL, COMPACTION, ASPHALT SECTION, SUBBASE, TRENCH EXCAVATION/BACKFILL, SITE GRUBBING, RETAINING WALLS AND FOOTINGS MUST BE COORDINATED DIRECTLY WITH THE PROJECT GEOTECHNICAL ENGINEER.
- TRAFFIC CONTROL, STRIPING & SIGNAGE TO CONFORM TO CURRENT UDOT TRANSPORTATION ENGINEER'S MANUAL AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.
- CONSULT ALL OF THE DRAWINGS AND SPECIFICATIONS FOR COORDINATION REQUIREMENTS BEFORE COMMENCING CONSTRUCTION.
- AT ALL LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING PAVEMENT SHALL BE SAWCUT TO A CLEAN, SMOOTH EDGE.
- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE MOST RECENT, ADOPTED EDITION OF ADA ACCESSIBILITY GUIDELINES.
- PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED THOROUGHLY REVIEWED PLANS AND OTHER DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.
- CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND NOTIFYING ENGINEER OR INSPECTING AUTHORITY 48 HOURS IN ADVANCE OF COVERING UP ANY PHASE OF CONSTRUCTION REQUIRING OBSERVATION.
- ANY WORK IN THE PUBLIC RIGHT-OF-WAY WILL REQUIRE PERMITS FROM THE APPROPRIATE, CITY, COUNTY OR STATE AGENCY CONTROLLING THE ROAD, INCLUDING OBTAINING REQUIRED INSPECTIONS.
- ALL DIMENSIONS, GRADES & UTILITY DESIGNS SHOWN ON THE PLANS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY PLAN OR GRADE CHANGES.
- CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS BEFORE BIDDING AND BRING UP ANY QUESTIONS BEFOREHAND.
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH BY THE GEOTECHNICAL ENGINEER.
- CATCH SLOPES SHALL BE GRADED AS SPECIFIED ON GRADING PLANS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FLAGGING, CAUTION SIGNS, LIGHTS, BARRICADES, FLAGMEN, AND ALL OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.
- CONTRACTOR SHALL, AT THE TIME OF BIDDING AND THROUGHOUT THE PERIOD OF THE CONTRACT, BE LICENSED IN THE STATE OF UTAH AND SHALL BE BONDABLE FOR AN AMOUNT EQUAL TO OR GREATER THAN THE AMOUNT BID AND TO DO THE TYPE OF WORK CONTEMPLATED IN THE PLANS AND SPECIFICATIONS. CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL INSPECT THE SITE OF THE WORK PRIOR TO BIDDING TO SATISFY HIMSELF BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS HE MAY PREFER OF THE LOCATION OF THE PROPOSED WORK AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK. IF, DURING THE COURSE OF HIS EXAMINATION, A BIDDER FINDS FACTS OR CONDITIONS WHICH APPEAR TO HIM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS, HE SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING HIS BID. SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, HE HAS RELIED AND IS RELYING ON HIS OWN EXAMINATION OF (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND HIS OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT. THE INFORMATION PROVIDED BY THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO, THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT HE HAS NOT RELIED SOLELY UPON OWNER- OR ENGINEER-FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING HIS BID.
- CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTOR'S USE DURING CONSTRUCTION.
- CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER, ENGINEER, AND/OR GOVERNING AGENCIES.
- CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.
- CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS RESPONSIBILITY SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER; ALL RE-TESTING AND/OR RE-INSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.
- IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT. THERE WILL BE NO EXTRA COST DUE TO THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS.
- WHenever existing facilities are removed, damaged, broken, or cut in the installation of the work covered by these plans or specifications, said facilities shall be replaced at the contractor's expense with materials equal to or better than the materials used in the original existing facilities. The finished product shall be subject to the approval of the owner, the engineer, and the respective agency.
- CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL STRUCTURES AND OTHER FACILITIES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO THE ENGINEER ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.
- WHERE THE PLANS OR SPECIFICATIONS DESCRIBE PORTIONS OF THE WORK IN GENERAL TERMS BUT NOT IN COMPLETE DETAIL, IT IS UNDERSTOOD THAT ONLY THE BEST GENERAL PRACTICE IS TO PREVAIL AND THAT ONLY MATERIALS AND WORKMANSHIP OF THE FIRST QUALITY ARE TO BE USED.

GENERAL NOTES CONT.

- CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR. PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THE TRUE INTENT AND PURPOSE OF THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE AND HAVE SPECIAL SKILLS IN THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN PECULIAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO THE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE BY GRINDING OR SANDBLASTING.
- CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4' OR MORE. FOR EXCAVATIONS 4 FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL COMPLY WITH INDUSTRIAL COMMISSION OF UTAH SAFETY ORDERS SECTION 68 - EXCAVATIONS, AND SECTION 69 - TRENCHES, ALONG WITH ANY LOCAL CODES OR ORDINANCES.
- ALL EXISTING GATES AND FENCES TO REMAIN UNLESS OTHERWISE NOTED ON PLANS. PROTECT ALL GATES AND FENCES FROM DAMAGE.
- CONTRACTOR TO PROVIDE TEMPORARY ADDRESS MARKERS AT THE BUILDING SITE DURING CONSTRUCTION.

UTILITY NOTES

- 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.
- EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS USING A COMBINATION OF ON-SITE SURVEYS (BY OTHERS). PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE, IN THE FIELD, THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY BLUE STAKES AT 1-800-682-4111 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK. THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTOR. THE CONTRACTOR SHALL BE REQUIRED TO COOPERATE WITH OTHER CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.
- CONTRACTOR SHALL POT HOLE ALL UTILITIES TO DETERMINE IF CONFLICTS EXIST PRIOR TO BEGINNING ANY EXCAVATION. NOTIFY ENGINEER OF ANY CONFLICTS. CONTRACTOR SHALL VERIFY LOCATION AND INVERTS OF EXISTING UTILITIES TO WHICH NEW UTILITIES WILL BE CONNECTED. PRIOR TO COMMENCING ANY EXCAVATION WORK THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN ACCORDANCE WITH THE REQUIRED PROCEDURES.
- CARE SHOULD BE TAKEN IN ALL EXCAVATIONS DUE TO POSSIBLE EXISTENCE OF UNRECORDED UTILITY LINES. EXCAVATION REQUIRED WITHIN PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT HIS EXPENSE.
- ALL VALVES AND MANHOLE COVERS SHALL BE RAISED OR LOWERED TO MEET FINISHED GRADE.
- CONTRACTOR SHALL CUT PIPES OFF FLUSH WITH THE INSIDE WALL OF THE BOX OR MANHOLE.
- CONTRACTOR SHALL GROUT AT CONNECTION OF PIPE TO BOX WITH NON-SHRINKING GROUT, INCLUDING PIPE VOIDS LEFT BY CUTTING PROCESS, TO A SMOOTH FINISH.
- CONTRACTOR SHALL GROUT WITH NON-SHRINK GROUT BETWEEN GRADE RINGS AND BETWEEN BOTTOM OF INLET LID FRAME AND TOP OF CONCRETE BOX.
- SILT AND DEBRIS IS TO BE CLEANED OUT OF ALL STORM DRAIN BOXES. CATCH BASINS ARE TO BE MAINTAINED IN A CLEANED CONDITION AS NEEDED UNTIL AFTER THE FINAL BOND RELEASE INSPECTION.
- CONTRACTOR SHALL CLEAN ASPHALT, TAR OR OTHER ADHESIVES OFF OF ALL MANHOLE LIDS AND INLET GRATINGS TO ALLOW ACCESS.
- EACH TRENCH SHALL BE EXCAVATED SO THAT THE PIPE CAN BE LAID TO THE ALIGNMENT AND GRADE AS REQUIRED. THE TRENCH WALL SHALL BE SO BRACED THAT THE WORKMEN MAY WORK SAFELY AND EFFICIENTLY. ALL TRENCHES SHALL BE DRAINED SO THE PIPE LAYING MAY TAKE PLACE IN DEWATERED CONDITIONS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE COST OF DEWATERING AND NO COST CHANGE WILL BE PROVIDED.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN AT ALL TIMES AMPLE MEANS AND DEVICES WITH WHICH TO REMOVE PROMPTLY AND TO PROPERLY DISPOSE OF ALL WATER ENTERING THE TRENCH EXCAVATION.
- MAINTAIN A MINIMUM 18" VERTICAL SEPARATION DISTANCE BETWEEN ALL UTILITY CROSSINGS.
- CONTRACTOR SHALL START INSTALLATION AT LOW POINT OF ALL NEW GRAVITY UTILITY LINES.
- ALL BOLTED FITTINGS MUST BE GREASED AND WRAPPED.
- UNLESS SPECIFICALLY NOTED OTHERWISE, MAINTAIN AT LEAST 2 FEET OF COVER OVER ALL STORM DRAIN LINES AT ALL TIMES (INCLUDING DURING CONSTRUCTION).
- ALL WATER LINES SHALL BE INSTALLED A MINIMUM OF 60" OF COVER TO TOP OF PIPE BELOW FINISHED GRADE.
- ALL SEWER LINES AND SEWER SERVICES SHALL HAVE A MINIMUM SEPARATION OF 10 FEET, PIPE EDGE TO PIPE EDGE, FROM THE WATER LINES.
- CONTRACTOR SHALL INSTALL THRUST BLOCKING AT ALL WATERLINE ANGLE POINTS AND TEES.
- ALL UNDERGROUND UTILITIES SHALL BE IN PLACE PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK AND STREET PAVING.
- CONTRACTOR SHALL INSTALL MAGNETIC LOCATING TAPE CONTINUOUSLY OVER ALL NONMETALLIC PIPE.
- THE CONTRACTOR SHALL NOTIFY NOLTE ASSOCIATES, INC. IN WRITING AT LEAST 48 HOURS PRIOR TO BACKFILLING OF ANY PIPE WHICH STUBS TO A FUTURE PHASE OF CONSTRUCTION FOR INVERT VERIFICATION. TOLERANCE SHALL BE IN ACCORDANCE WITH THE REGULATORY AGENCY STANDARD SPECIFICATIONS.
- UNDER NO CIRCUMSTANCE SHALL THE PIPE OR ACCESSORIES BE DROPPED INTO THE TRENCH

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 WEBER COUNTY ORDINANCES AND ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE COUNTIES. ALSO, INSPECTORS WILL HAVE THE RIGHT TO CHANGE THE FACILITIES AS NEEDED.

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.

LEGEND:

| SYMBOL / LINETYPE | DESCRIPTION | DETAIL |
|-------------------|--|--|
| | 18" HDPE DR-13.5 WATER PIPE (UNLESS NOTED OTHERWISE) | APWA PLAN NO. 381,382 |
| | 16" HDPE DR-13.5 WATER PIPE (UNLESS NOTED OTHERWISE) | APWA PLAN NO. 381,382 |
| | 14" HDPE DR-13.5 WATER PIPE (UNLESS NOTED OTHERWISE) | APWA PLAN NO. 381,382 |
| | 12" HDPE DR-13.5 WATER PIPE (UNLESS NOTED OTHERWISE) | APWA PLAN NO. 381,382 |
| | 10" HDPE DR-13.5 WATER PIPE (UNLESS NOTED OTHERWISE) | APWA PLAN NO. 381,382 |
| | 8" HDPE DR-13.5 WATER PIPE (UNLESS NOTED OTHERWISE) | APWA PLAN NO. 381,382 |
| | 6" HDPE DR-13.5 WATER PIPE (UNLESS NOTED OTHERWISE) | APWA PLAN NO. 381,382 |
| | 21" SD CLUII RCP DRAINAGE PIPE | APWA PLAN NO. 381,382 |
| | 18" SD CLUII RCP DRAINAGE PIPE | APWA PLAN NO. 381,382 |
| | 15" SD CLUII RCP DRAINAGE PIPE | APWA PLAN NO. 381,382 |
| | DRAINAGE SWALE | N/A |
| | 8" SDR-35 PVC SEWER PIPE | APWA PLAN NO. 381,382 |
| | 8" DR-17 HDPE SEWER PIPE | APWA PLAN NO. 381,382 |
| | PRESSURE SEWER PIPE | APWA PLAN NO. 381,382 |
| | (2) JOINT TRENCHED PRESSURE SEWER PIPES | APWA PLAN NO. 381,382 |
| | (3) JOINT TRENCHED PRESSURE-SEWER PIPES | APWA PLAN NO. 381,382 |
| | (4) JOINT TRENCHED PRESSURE-SEWER PIPES | APWA PLAN NO. 381,382 |
| | PROPOSED FIRE HYDRANT ASSEMBLY | APWA PLAN NO. 511 |
| | 4' SEWER MANHOLE | APWA PLAN NO. 411 |
| | 5' SEWER MANHOLE | APWA PLAN NO. 411 |
| | STORM DRAIN MANHOLE | APWA PLAN NO. 341 |
| | CURB INLET BOX | APWA PLAN NO. 315 |
| | FLARED END PIPE SECTION FOR ROUND PIPE | PER DETAIL ON SHEET 5.00 |
| | 3' X 3' CATCH BASIN | PER DETAIL ON SHEET 5.00 |
| | PROPOSED ELECTRICAL PULLBOX | N/A |
| | PROPOSED PAVEMENT SECTION | PER IGES GEOTECH REPORT 11/09/12 |
| | ADJOINING PROPERTY BOUNDARY | N/A |
| | WEBER/CACHE COUNTY LINE | N/A |
| | PROPOSED LOT LINE | N/A |
| | PROPOSED ROAD RIGHT OF WAY | N/A |
| | PROPOSED ROAD CENTERLINE | N/A |
| | SURVEY MONUMENT MARKER | PER WEBER COUNTY SPECS. SEE SHEET 5.30 |
| | EXISTING 6" WATER PIPE | N/A |
| | EXISTING SEWER PIPE | N/A |
| | EXISTING 4" WATER PIPE | N/A |
| | EXISTING SEWER MANHOLE | N/A |
| | EXISTING ELECTRICAL PULLBOX | N/A |

NOTE: LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED IN PLAN SET.

EROSION CONTROL GENERAL NOTES CONT.:

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 UTAH DIVISION OF WATER QUALITY.

MAINTENANCE:

ALL BEST MANAGEMENT PRACTICES (BMP'S) SHOWN ON THIS PLAN MUST BE MAINTAINED AT ALL TIMES UNTIL VEGETATION IS RE-ESTABLISHED.

THE CONTRACTOR'S RESPONSIBILITY SHALL INCLUDE MAKING BI-WEEKLY CHECKS ON ALL EROSION CONTROL MEASURES TO DETERMINE IF REPAIR OR SEDIMENT REMOVAL IS NECESSARY. CHECKS SHALL BE DOCUMENTED AND COPIES OF THE INSPECTIONS KEPT ON SITE.

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 ON 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.

EXPOSED SLOPES:

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

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

SCOPE OF WORK:

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED, THE DETAILS NOTED, AND/OR AS SHOWN ON THE CONSTRUCTION DRAWINGS:

HATCHING INDICATES AREAS TO RECEIVE 4" TOPSOIL AND TO BE SEEDED FOR NATURAL VEGETATION*. AREAS RECEIVING SEEDING FOR NATURAL VEGETATION 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 PROJECT PRIOR TO GRADING.

KEYNOTE CALLOUTS

- 3" WATER SERVICE LATERAL PER APWA STANDARD DRAWING 521 AND SPECIFICATIONS (TYP.)
- NOT USED
- 8" 11.25 DI BEND PER APWA PLAN NO. 561,562
- CONNECT TO EXISTING SEWER STUB WITH PVC PIPE COUPLING SLEEVE
- (1)3" IPS DR-17 HDPE PIPE PER APWA PLAN NO. 381,382
- SEWER SERVICE LATERAL PER DETAIL B/5.10
- FLARED END SECTION PER DETAIL SHEET 5.00
- CONNECT TO EXISTING WATER STUB WITH HDPE ELECTRO FUSION COUPLING
- STOP SIGN "R1-1" PER MUTCD
- INSTALL RD NAME SIGN PER MUTCD
- 12" STOP BAR PER MUTCD
- ROADSIDE DRAINAGE CHANNEL PER TYPICAL ROADWAY SECTION
- REMOVE EXISTING CULVERT
- 8" DI TEE PER APWA PLAN NO. 561,562
- STUB WATERLINE FOR FUTURE CONNECTION PER APWA PLAN NO. 561,562
- NOT USED
- 8" MxFL GATE VALVE PER APWA PLAN NO. 561,562
- STUB AND PLUG SEWER LINE FOR FUTURE CONNECTION. SEE PLANS FOR SIZE.
- EXISTING POWER CONDUIT VAULTS TO BE RELOCATED
- AIR RELEASE ASSEMBLY PER APWA DRAWING 575 AND SPECIFICATIONS
- INSTALL "NO PARKING" SIGN PER MUTCD
- (1)1.5" IPS DR-17 HDPE PIPE PER APWA PLAN NO. 381,382

- * SEED MIXTURE FOR REVEGETATION
- MEADOW BROME (RIGOR) 14lb/ac
 - ORCHARD GRASS 10lb/ac
 - ALFALFA (ADAK) 4lb/ac

GEOTECHNICAL REPORT

CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND READ A COPY OF THE GEOTECHNICAL REPORT "DESIGN GEOTECHNICAL INVESTIGATION POWDER MOUNTAIN RESORT WEBER, COUNTY, UTAH" PRODUCED BY IGES. IGES PROJECT NUMBER 01628-003, DATED NOVEMBER 9, 2012. CONTRACTOR SHALL FOLLOW THE RECOMMENDATIONS AND GUIDELINES FOUND THEREIN.



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|-----|-----|-----------|-------------------------------|
| NO. | BY | DATE | REVISIONS |
| 1 | PNC | 8/17/2013 | ADDENDUM 1 |
| 2 | PNC | 8/17/2014 | WEBER COUNTY SEWER RESOURCES |
| 3 | PNC | 8/17/2014 | PUMP, PIPE, & MANHOLE DETAILS |

DATE SUBMITTED: 01/07/2014

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC

NV5
 BEYOND ENGINEERING
 5217 SOUTH STATE STREET, SUITE 200
 801743.0300 TEL. 801743.0300 FAX
 MURRAY, UT 84407
 WWW.NV5.COM

SHEET NUMBER
1.01

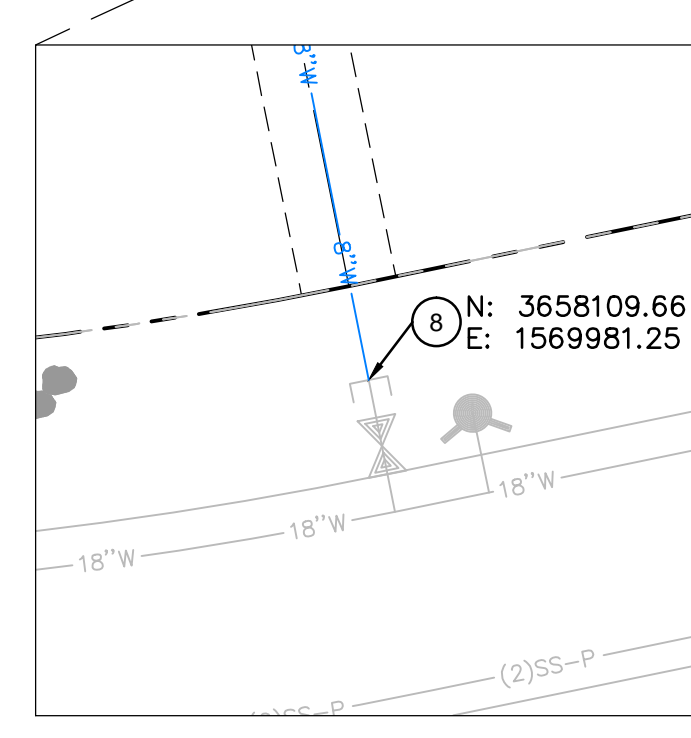
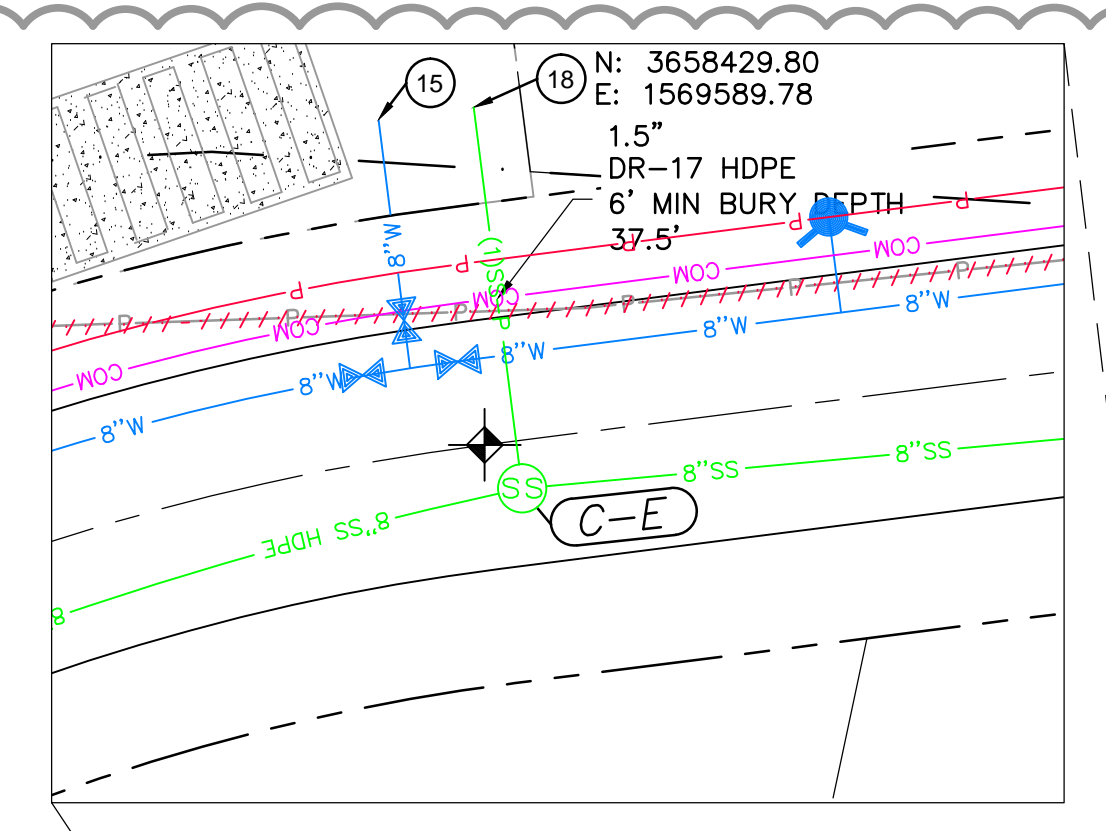
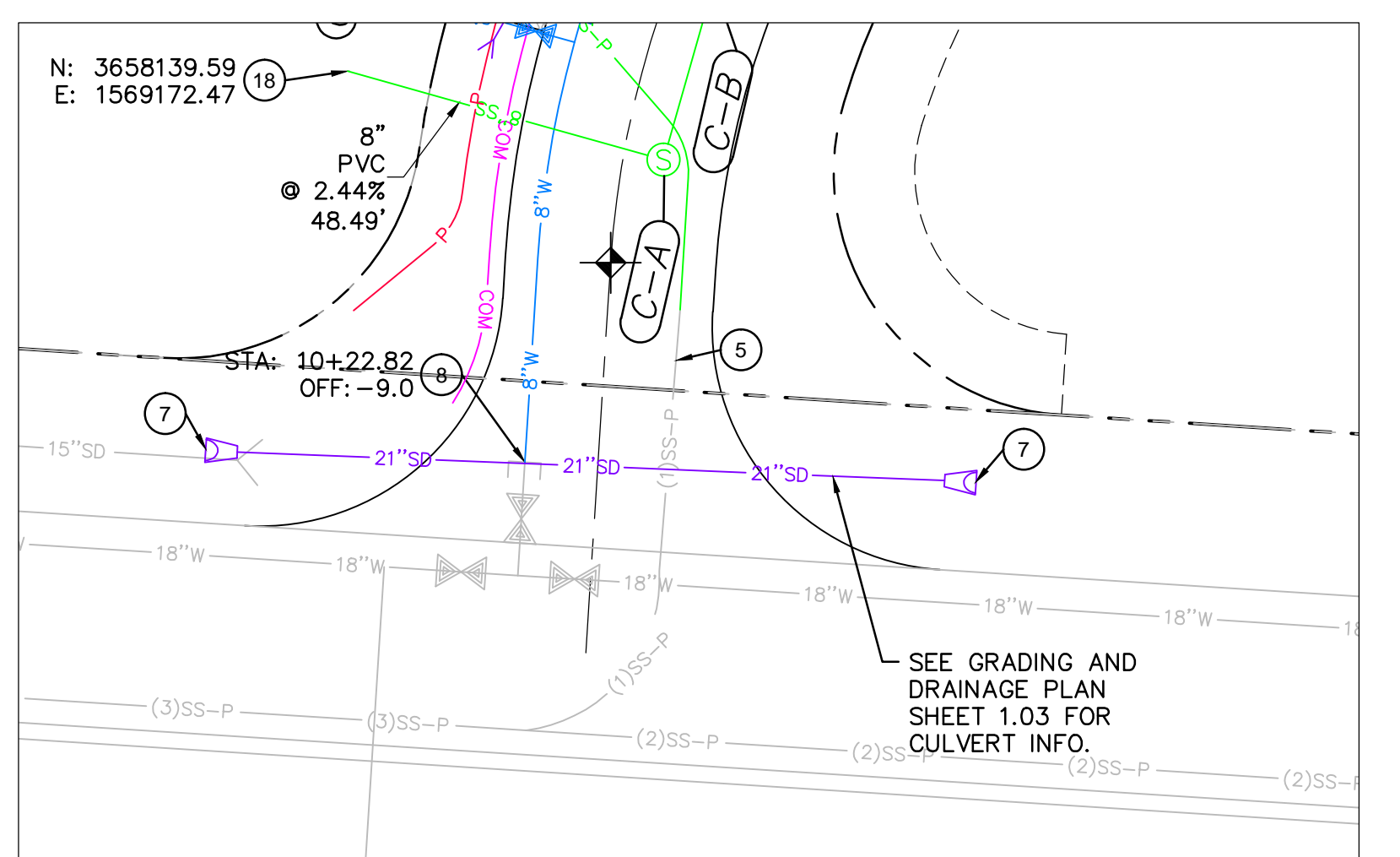
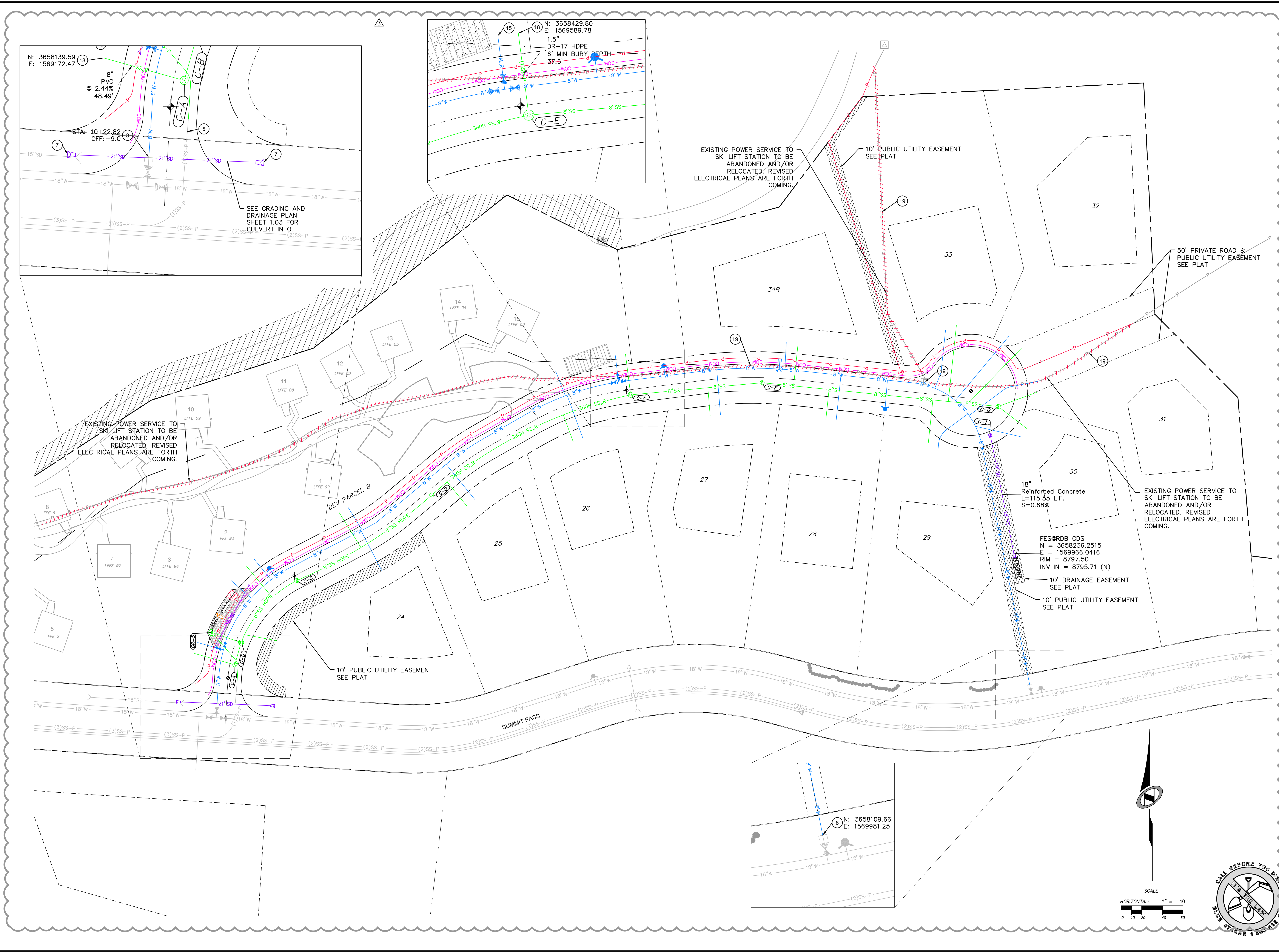
SCALE
 VERTICAL: 1" = N/A
 HORIZONTAL: 1" = N/A

JOB NUMBER
SLB079306

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 engineer of these plans.

DATE: 5/20/14 TIME: 5:14:50 PM DRAWING NAME: P10201.DWG
 NONE PAGE SETUP: P10201-24-08 LAYOUT: LAYOUT1
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BOWDEN
 XREFS:



| NO. | BY | DATE | REVISIONS |
|-----|-----|-----------|-------------------------------|
| 1 | JMC | 8/7/2013 | ADD ROOM 1 |
| 2 | JMC | 7/27/2014 | FIELD COUNTY REVIEW REVISIONS |
| 3 | JMC | 5/27/2014 | FINAL PRELIMINARY REVISIONS |

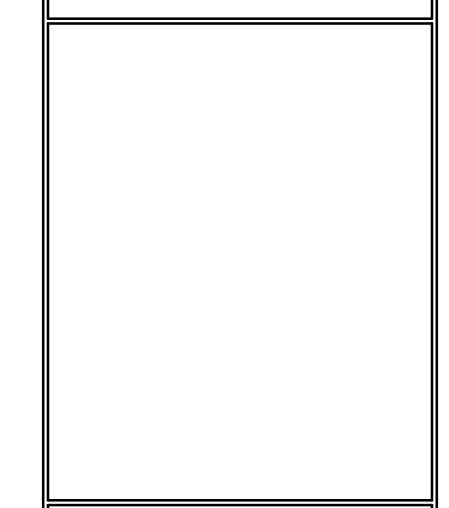
SUMMIT EDEN PHASE 1B
OVERALL UTILITY PLAN

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC

DATE SUBMITTED: 01/07/2014

NV5
 BEYOND ENGINEERING

627 SOUTH STATE STREET, SUITE 200
 MURRAY, UT 84107
 WWW.NV5.COM

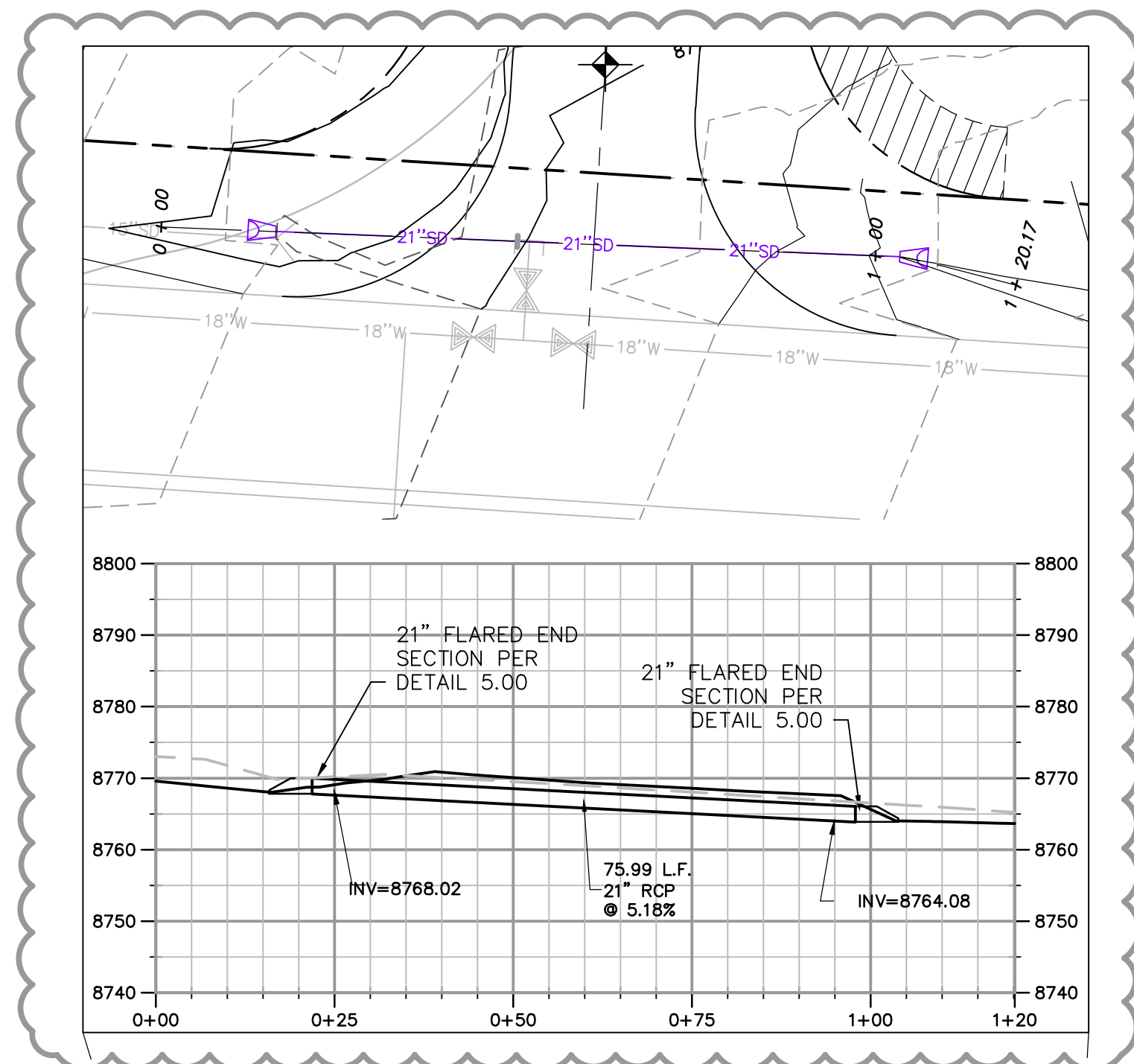
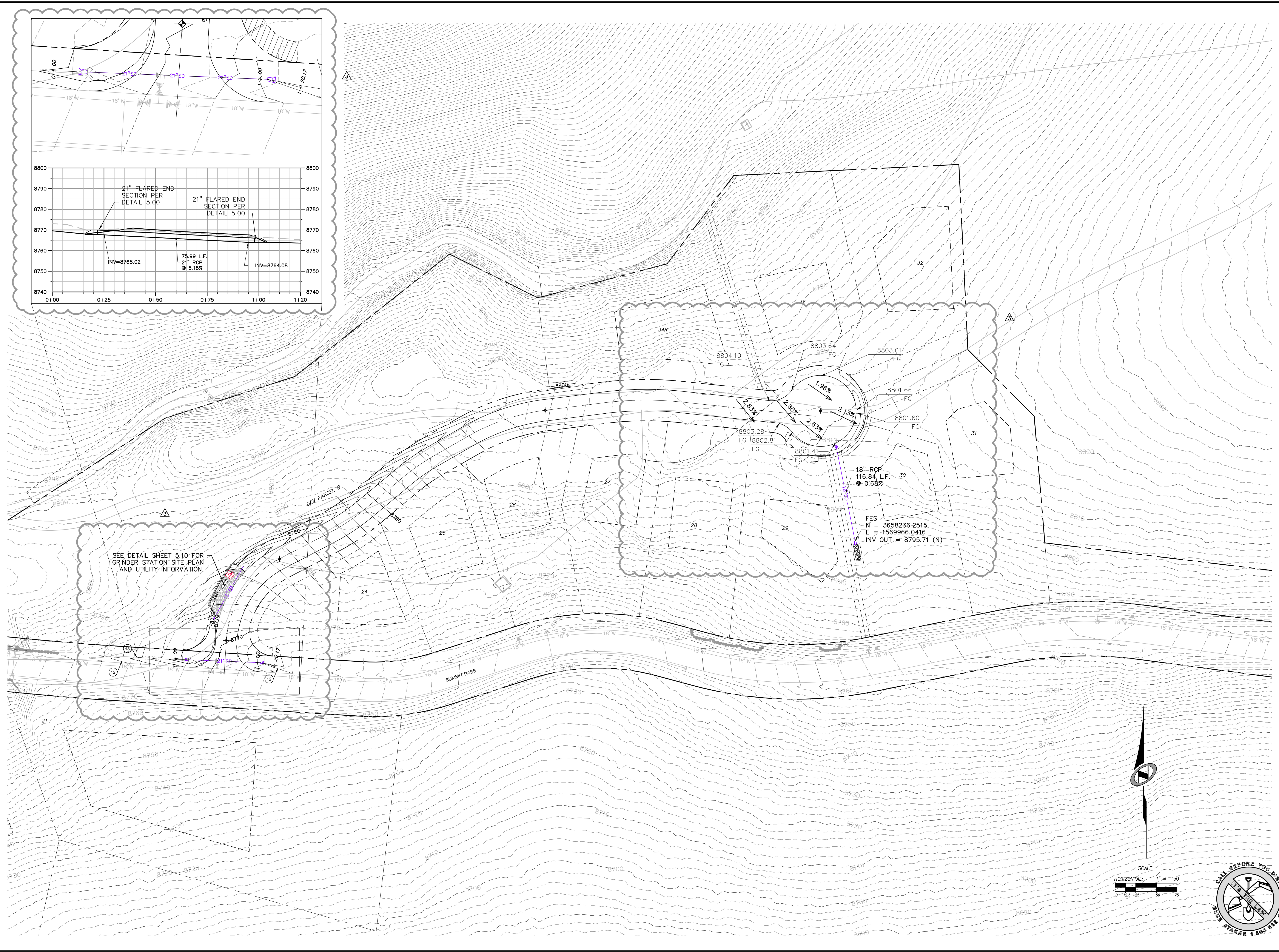


| | |
|--------------|---|
| SHEET NUMBER | 1.02 |
| SCALE | VERTICAL: 1" = 4' HORIZONTAL: 1" = 40' |
| JOB NUMBER | SLB079306 |

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.

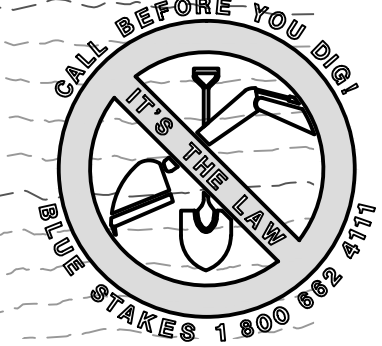
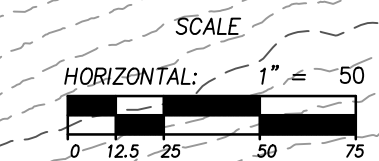
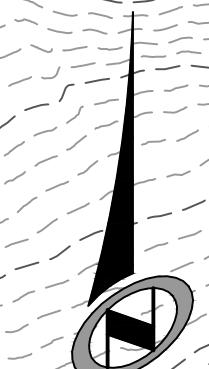
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 PATH: H:\B07930\CADD\PHASE 1\VP\PI-B 030808_### PROJ. WDR: ###

BOWDEN
 XREFS:



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

18" RCP
 116.84 L.F.
 @ 0.68%
 FES
 N = 3658236.2515
 E = 1569966.0416
 INV OUT = 8795.71 (N)



| NO. | BY | DATE | REVISIONS |
|-----|-----|------------|---------------------------------------|
| 1 | RMC | 8/7/2013 | ADDENDUM 1 |
| 2 | RMC | 10/27/2014 | WEBB COUNTY REVIEW REVISIONS |
| 3 | RMC | 5/27/2014 | POST, PREL & GRADER STATION REVISIONS |

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.

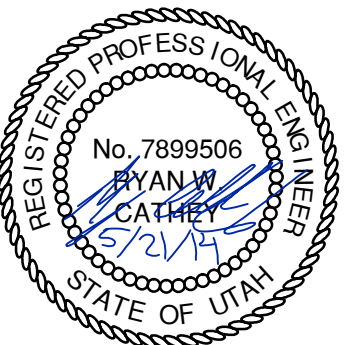
SUMMIT EDEN PHASE 1B

OVERALL GRADING AND DRAINAGE

HEARTWOOD DRIVE

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

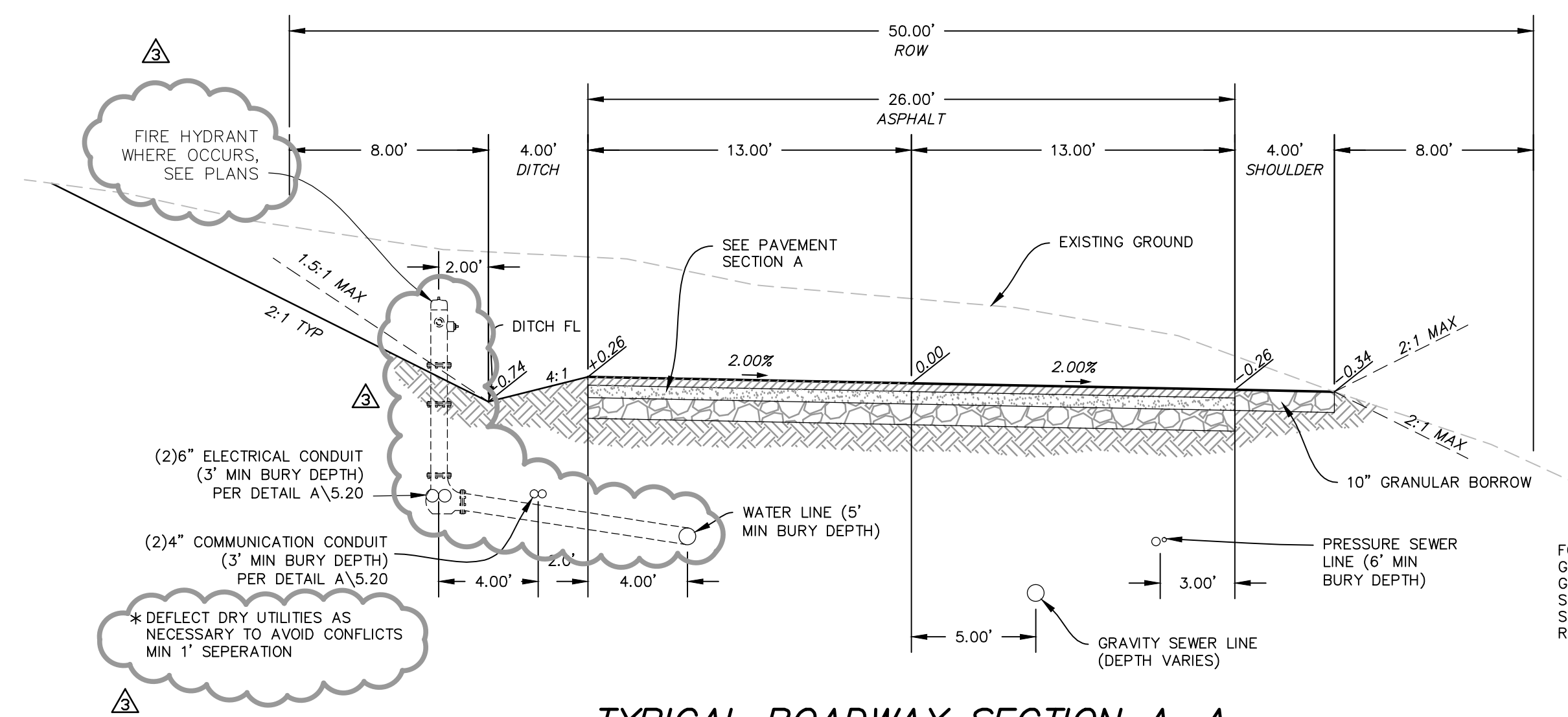
NV5
 BEYOND ENGINEERING
 6217 SOUTH STATE STREET, SUITE 200
 MURRAY, UT 84107
 801.743.0300 TEL. 801.743.0300 FAX
 WWW.NV5.COM



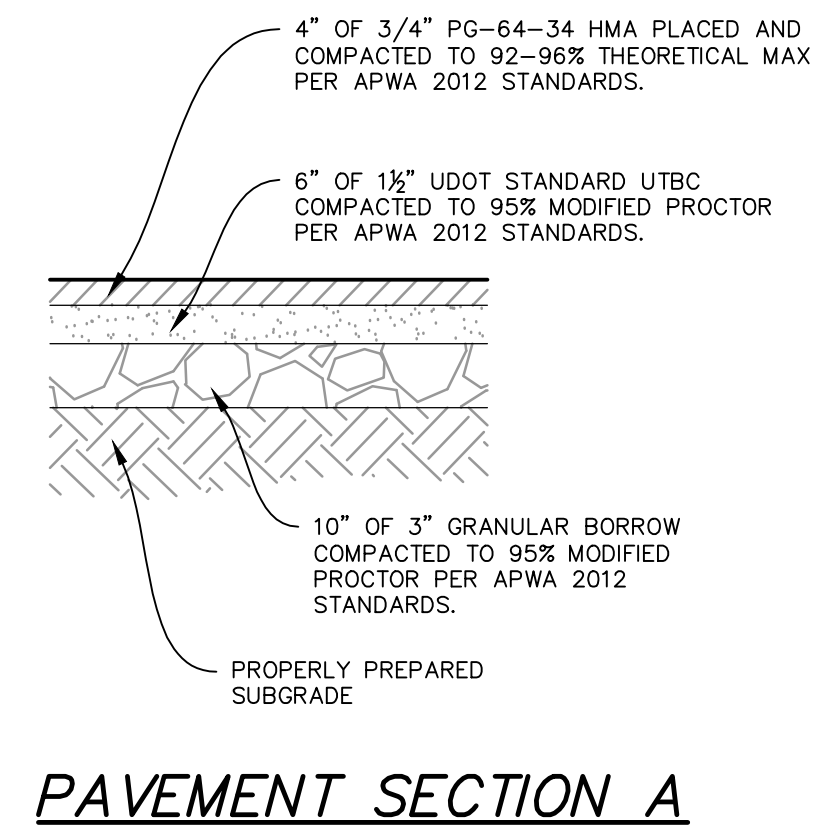
SHEET NUMBER
1.03

SCALE
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 HORIZONTAL: 1" = 250'

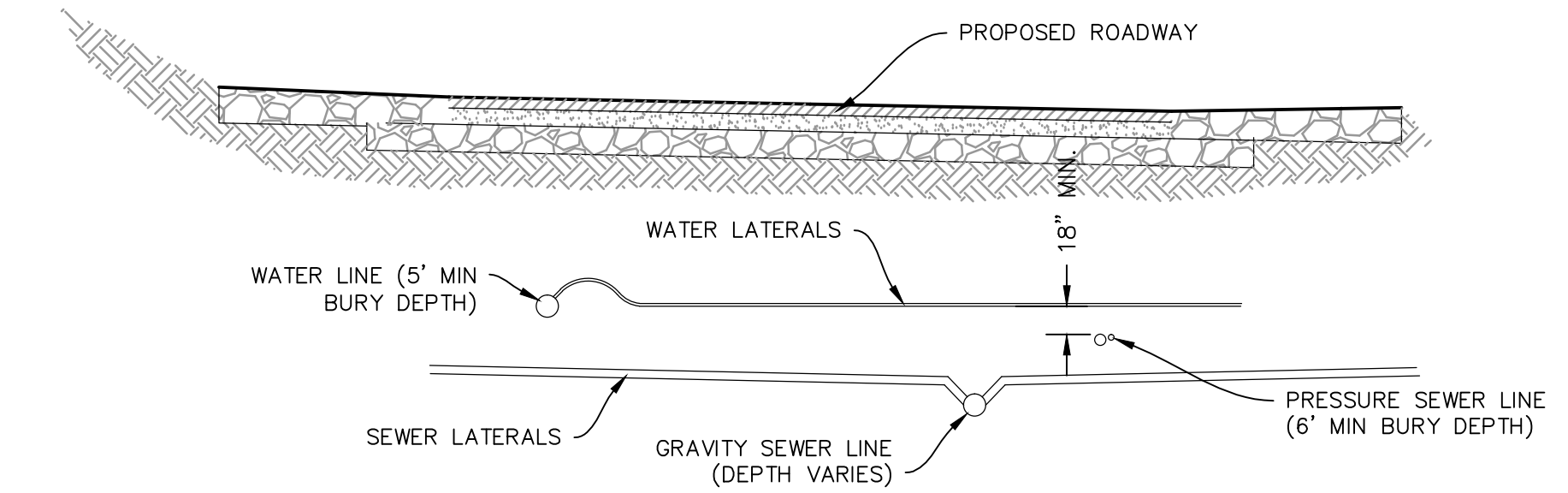
JOB NUMBER
SLB079306



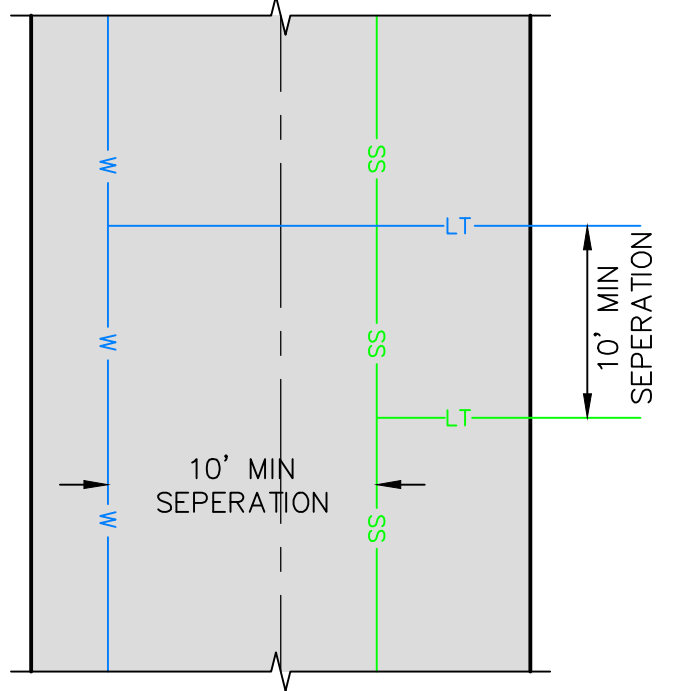
TYPICAL ROADWAY SECTION A-A
 (50' RIGHT OF WAY SECTION)
 STA: 10+00.00 TO 18+14.86



PAVEMENT SECTION A



SECTION



PLAN

WATER AND SEWER SEPARATION DETAIL

| NO. | BY | DATE | REVISIONS |
|-----|-----|-----------|-------------------------------------|
| 1 | RHC | 8/7/2013 | ADD ROW 1 |
| 2 | RHC | 10/7/2014 | REVIS GRAVITY SEWER REVISIONS |
| 3 | RHC | 2/27/2014 | REVIS PAVEMENT & SHOULDER REVISIONS |

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.

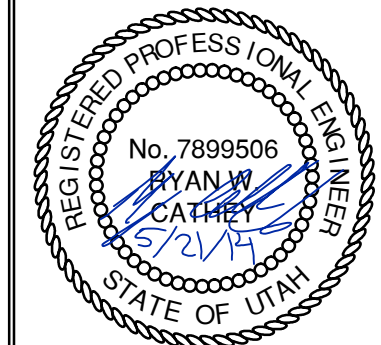
DATE SUBMITTED: 01/07/2014

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC

SUMMIT EDEN PHASE 1B
ROADWAY TYPICAL SECTIONS



6217 SOUTH STATE STREET, SUITE 200
 801743.0000 TEL 801743.0000 FAX
 MURRAY, UT 84107
 WWW.NIV5.COM

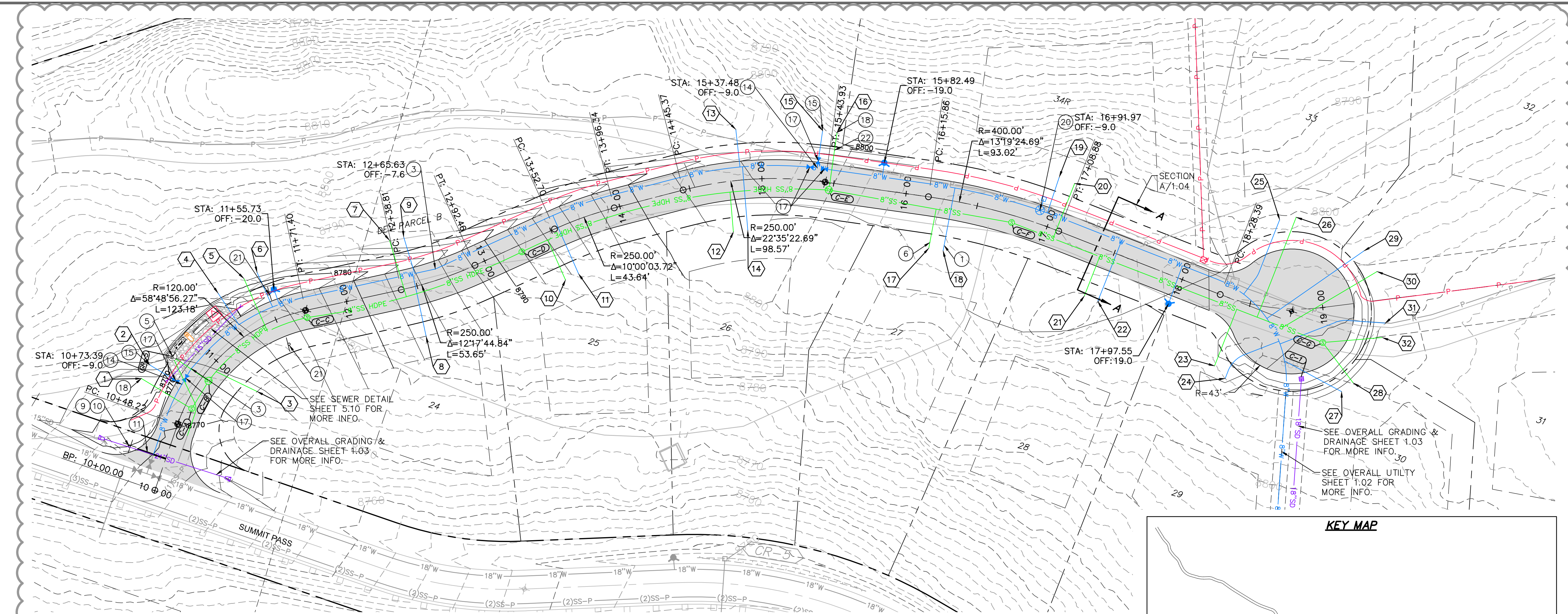


SHEET NUMBER
1.04

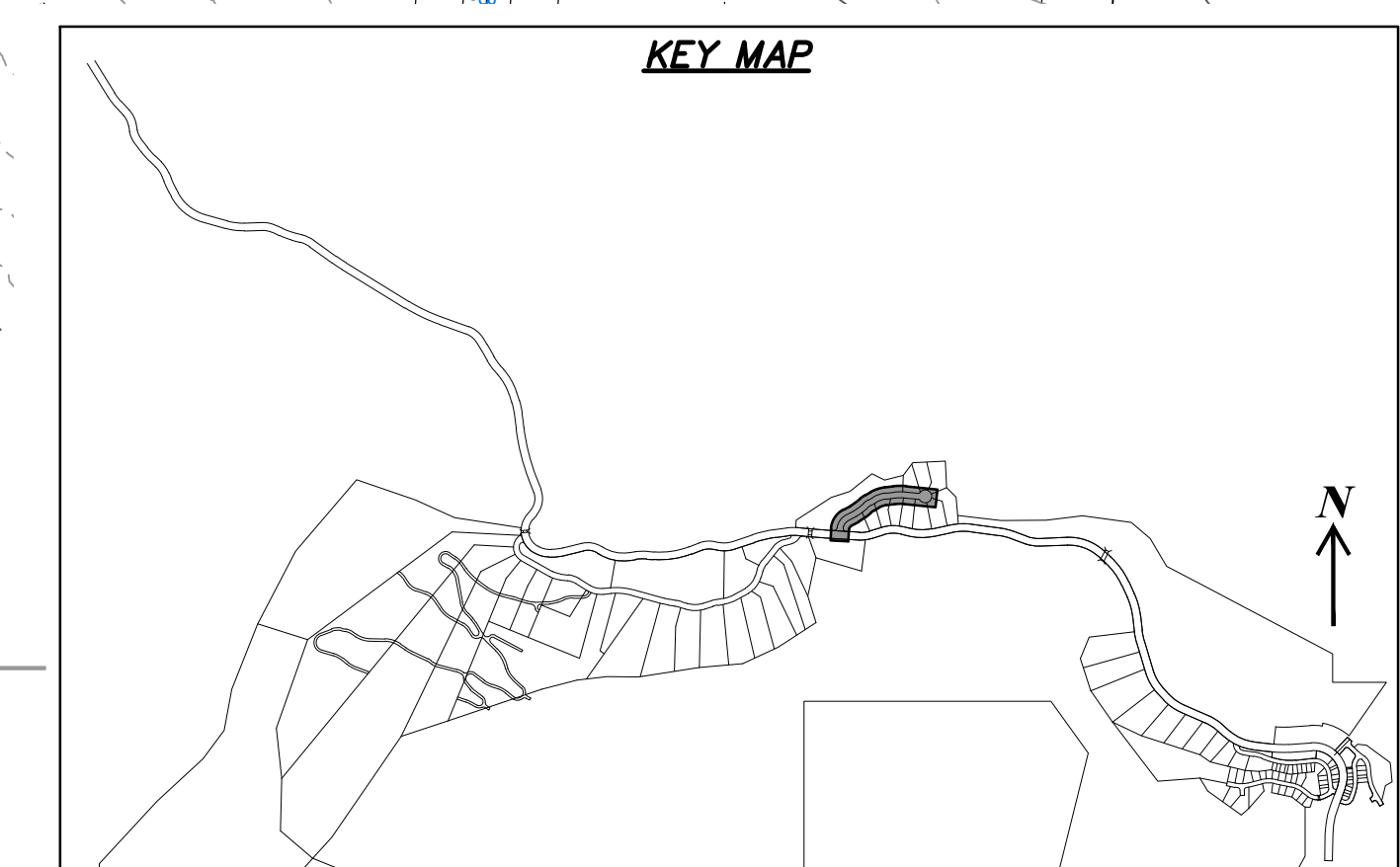
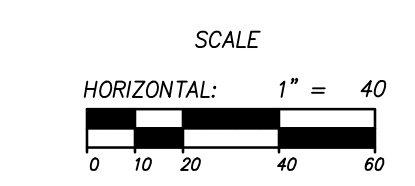
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 HORIZONTAL: 1" = N/A

JOB NUMBER
SLB079306

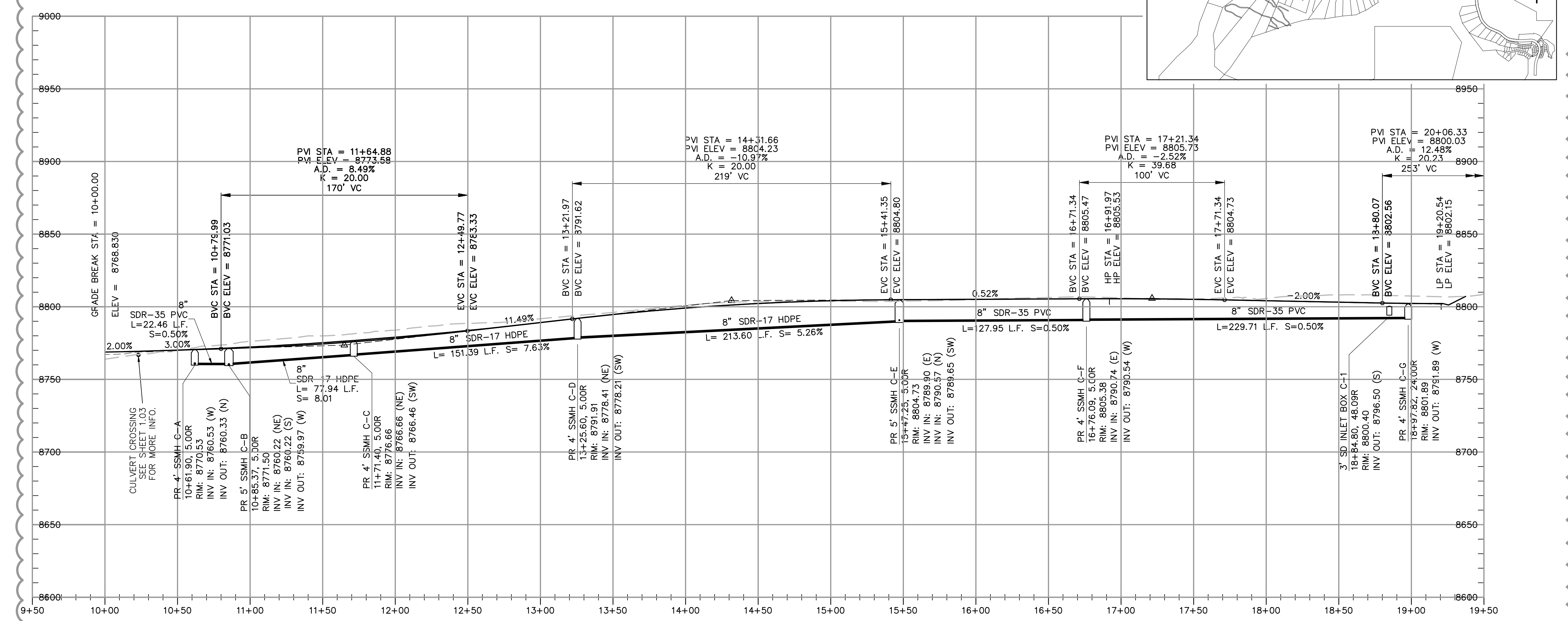




HEARTWOOD DRIVE
 STA: 10+00.00 TO 19+25.00

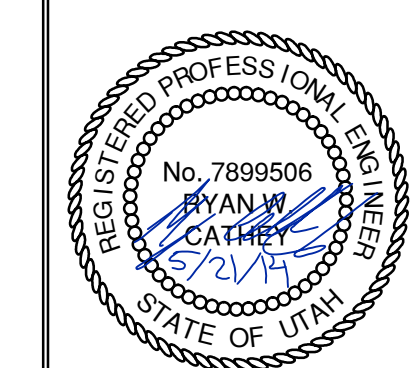


| LATERAL LABEL | | |
|---------------|----------|--------|
| NO. | STATION | OFFSET |
| 1 | 10+64.89 | -35 |
| 2 | 10+73.39 | -35 |
| 3 | 11+05.46 | 35 |
| 4 | 11+26.68 | -35 |
| 5 | 11+42.55 | -35 |
| 6 | 11+50.29 | -35 |
| 7 | 12+38.11 | -35 |
| 8 | 12+47.58 | 35 |
| 9 | 12+49.64 | -35 |
| 10 | 13+44.96 | 35 |
| 11 | 13+55.33 | 35 |
| 12 | 14+76.00 | 35 |
| 13 | 14+85.53 | -35 |
| 14 | 14+87.63 | 35 |
| 15 | 15+38.07 | -35 |
| 16 | 15+47.25 | -35 |
| 17 | 16+21.56 | 35 |
| 18 | 16+32.56 | 35 |
| 19 | 16+96.66 | -35 |
| 20 | 17+07.21 | -35 |
| 21 | 17+41.58 | 35 |
| 22 | 17+51.58 | 35 |
| 23 | 18+39.15 | 48 |
| 24 | 18+46.12 | 54 |
| 25 | 18+61.80 | -61 |
| 26 | 18+81.50 | -63 |
| 27 | 19+05.83 | 59 |
| 28 | 19+14.52 | 54 |
| 29 | 19+33.36 | -35 |
| 30 | 19+40.56 | -20 |
| 31 | 19+41.63 | 16 |
| 32 | 19+38.38 | -26 |



| NO. | BY | DATE | REVISIONS |
|-----|-----|-----------|-------------------------------------|
| 1 | PMC | 8/7/2013 | ADDITION 1 |
| 2 | PMC | 7/27/2014 | ADJUST COUNTY SEWER REVISIONS |
| 3 | PMC | 5/27/2014 | POST, PREL & OWNER ACTION REVISIONS |

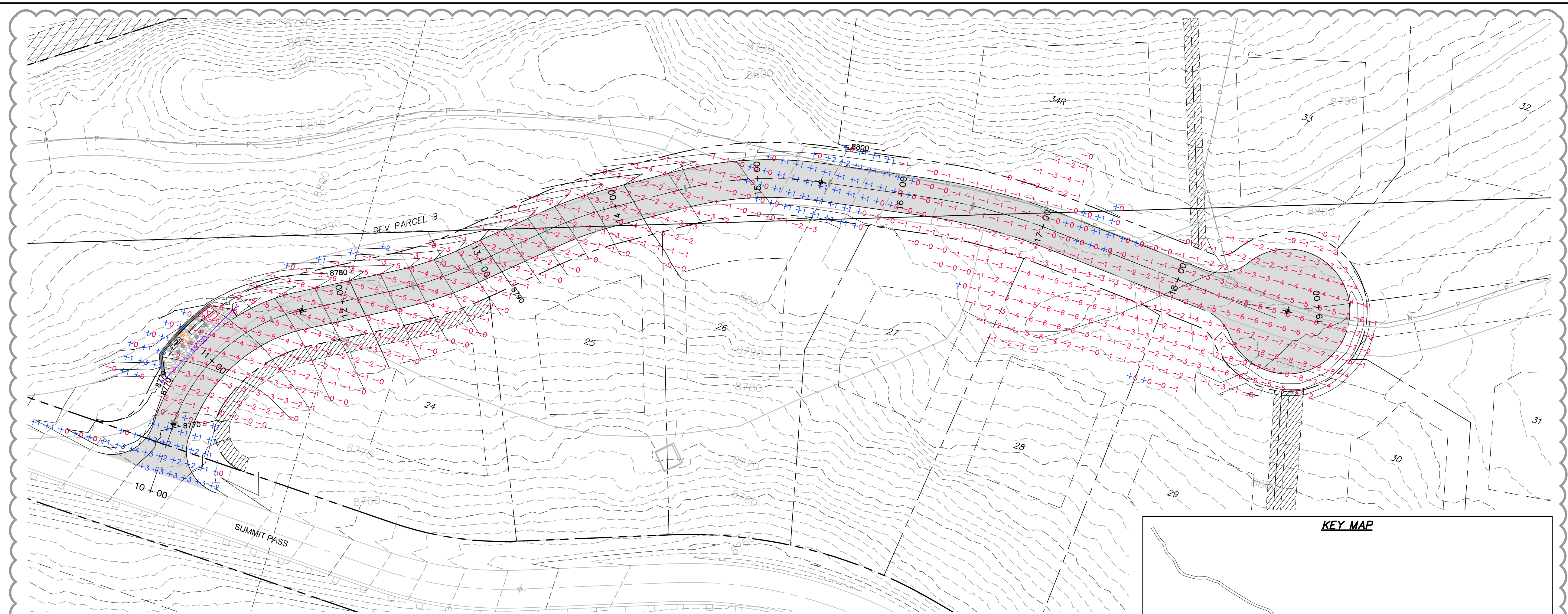
SUMMIT EDEN PHASE 1B
PLAN AND PROFILE
HEARTWOOD DRIVE



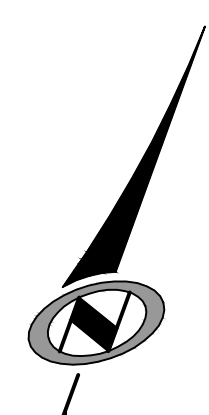
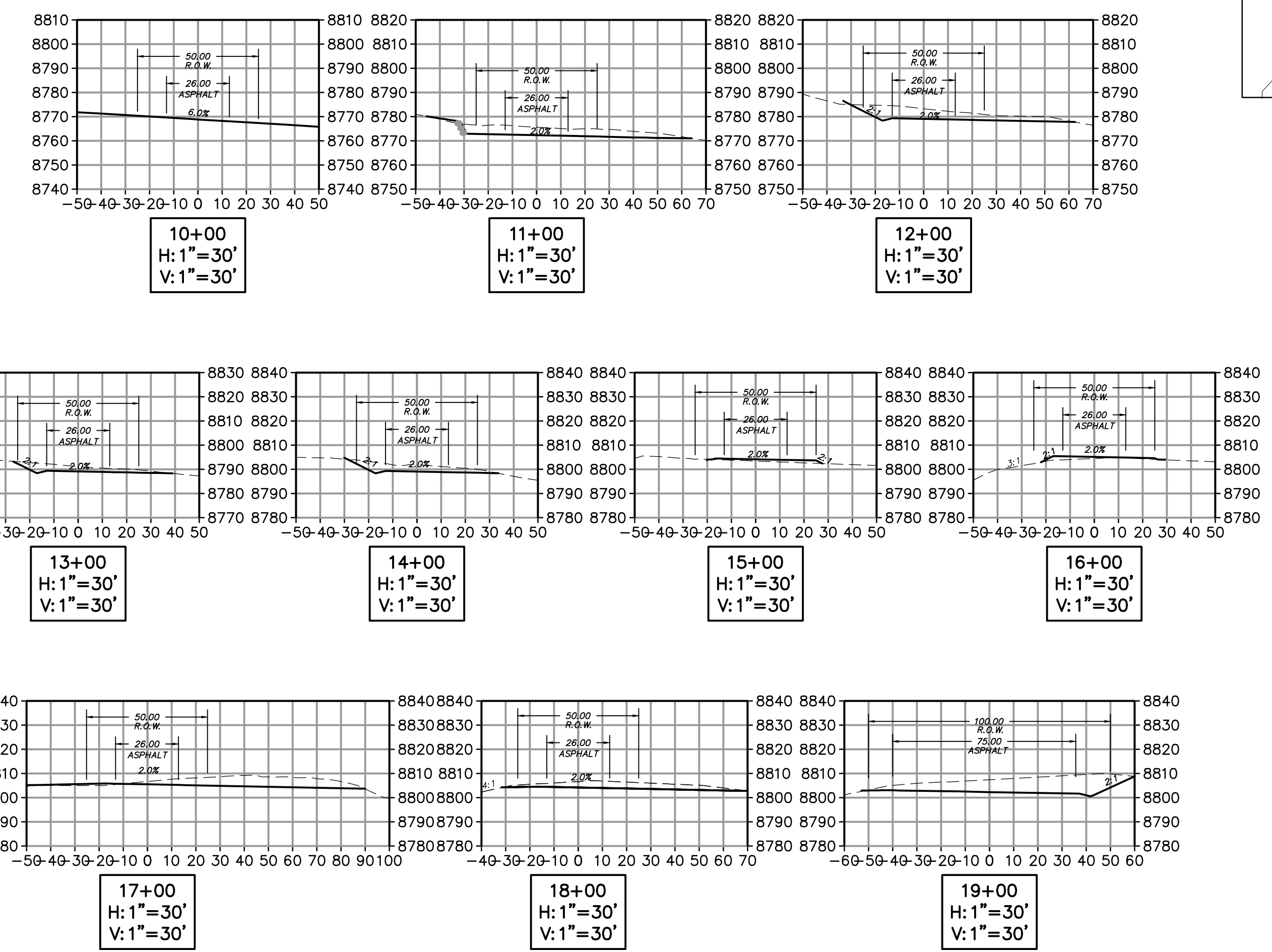
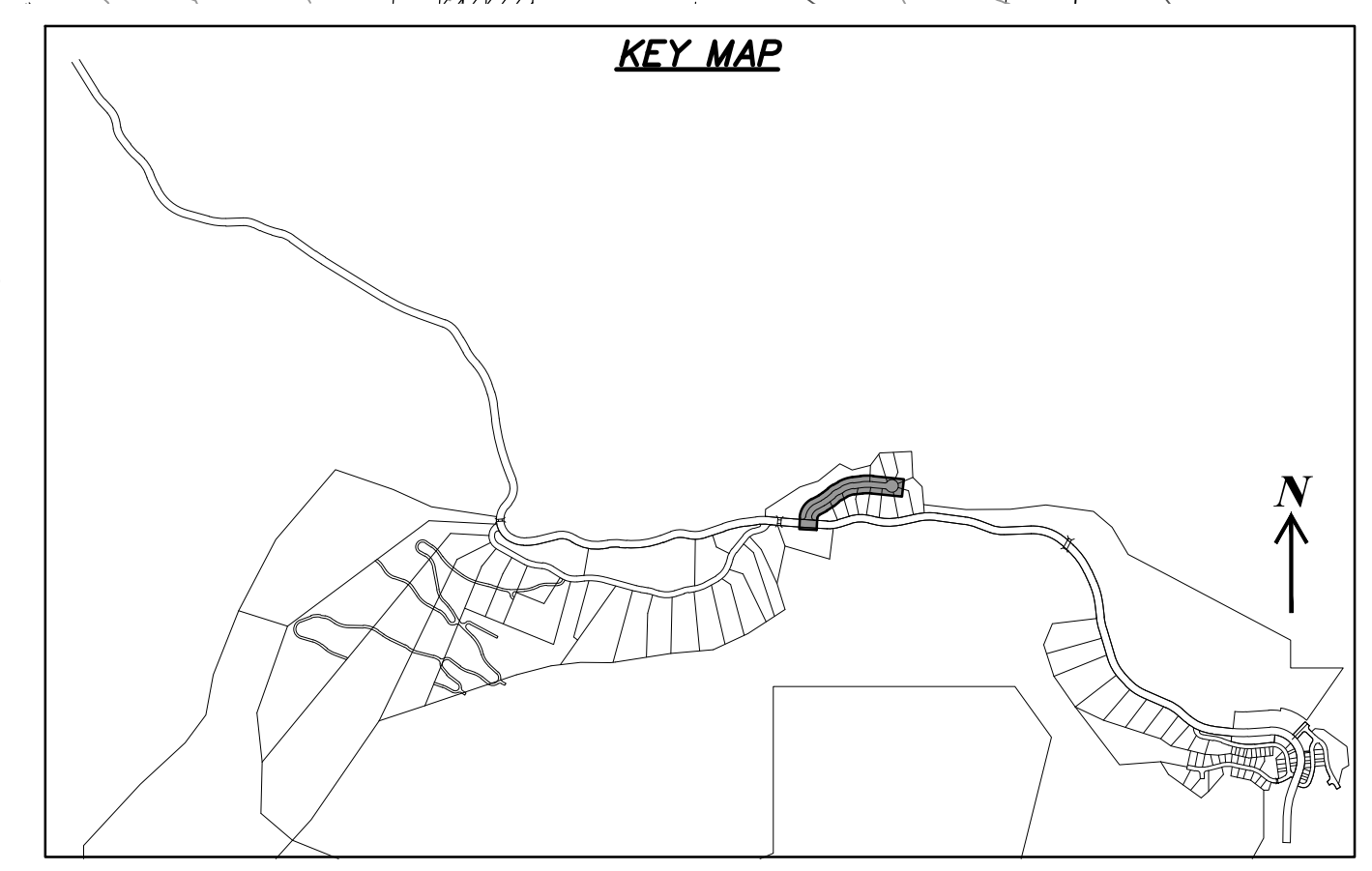
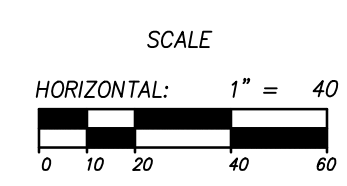
The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans, and must be approved by the preparer of these plans.

DATE: 5/20/14 TIME: 5:44:16 PM DRAWING NAME: P230002.DWG
 NONE PAGE SETUP: P23-030-24-08 LAYOUT: 1
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BOWDEN
 XREFS:



HEARTWOOD DRIVE
 STA: 10+00.00 TO 19+25.00

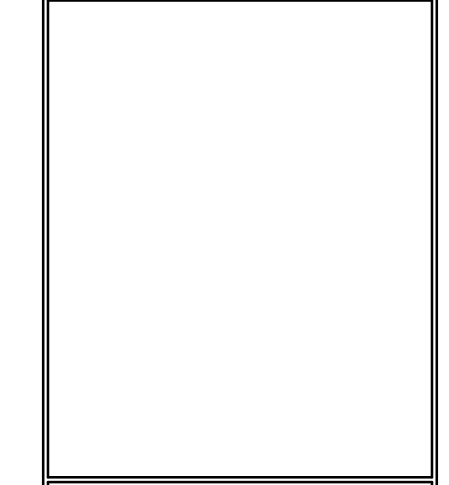


| NO. | BY | DATE | REVISIONS |
|-----|-----|----------|-------------------------------------|
| 1 | RMC | 8/27/03 | ADD/REMOVE |
| 2 | RMC | 07/20/04 | ADJUST COUNTY SEWER REVISIONS |
| 3 | RMC | 5/27/04 | POST, PREL & OWNER ACTION REVISIONS |

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

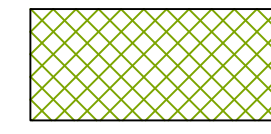


| | |
|--------------|--|
| SHEET NUMBER | 3.00 |
| SCALE | VERTICAL: 1" = 30' HORIZONTAL: 1" = 40' |
| JOB NUMBER | SLB079306 |

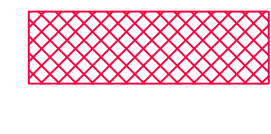
The engineer preparing these plans will not be responsible for, or liable for, unauthorized changes to or uses of these plans, and must be approved by the preparer of these plans.

CAUTION

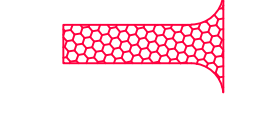
LEGEND



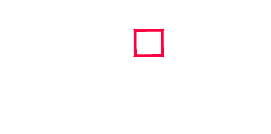
HATCHING INDICATES AREAS TO RECEIVE 4" TOPSOIL AND TO BE SEEDED FOR NATURAL VEGETATION. AREAS RECEIVING SEEDING FOR NATURAL REVEGETATION MUST BE COVERED WITH AN EROSION CONTROL BLANKET AFTER THE FINAL GRADING AND SEEDING ARE FINISHED. INSTALL NORTH AMERICAN GREEN SC-150 BLANKET OR APPROVED EQUAL. FOLLOW 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.



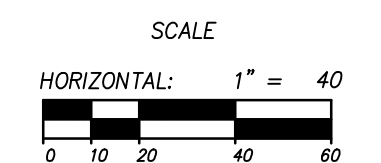
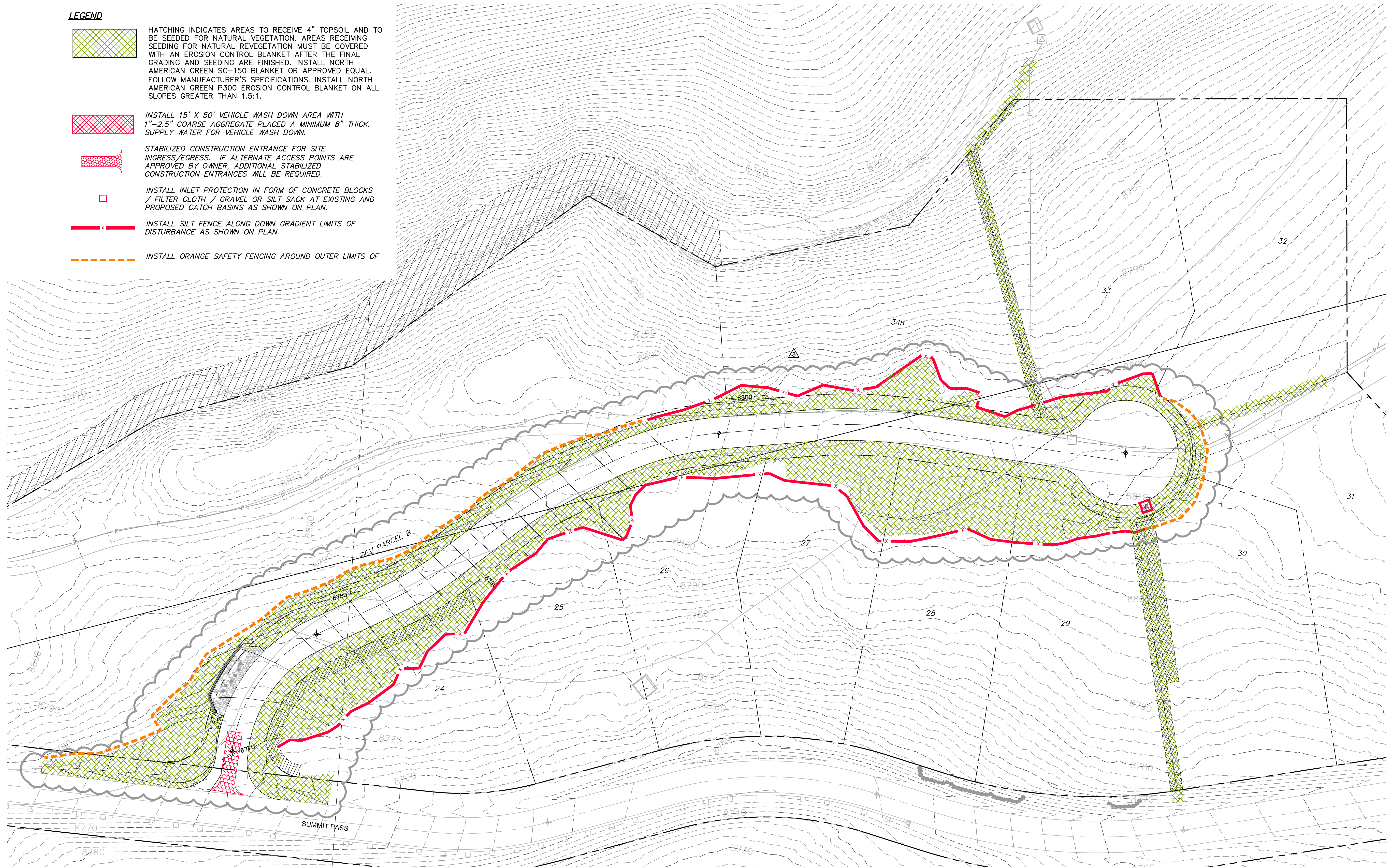
INSTALL INLET PROTECTION IN FORM OF CONCRETE BLOCKS / FILTER CLOTH / GRAVEL OR SILT SACK AT EXISTING AND PROPOSED CATCH BASINS AS SHOWN ON PLAN.



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



INSTALL ORANGE SAFETY FENCING AROUND OUTER LIMITS OF



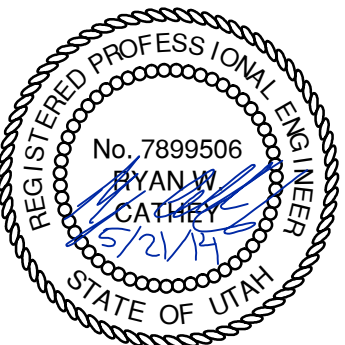
SUMMIT EDEN PHASE 1B
EROSION CONTROL PLAN
HEARTWOOD DRIVE

| NO. | BY | DATE | REVISIONS |
|-----|-----|------------|---------------------------------------|
| 1 | RWC | 8/27/2013 | ADD ROW 1 |
| 2 | RWC | 10/27/2014 | REVISIT COUNTY SEWER REVISIONS |
| 3 | RWC | 5/27/2014 | POST, PREP. & OWNER STATION 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.

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

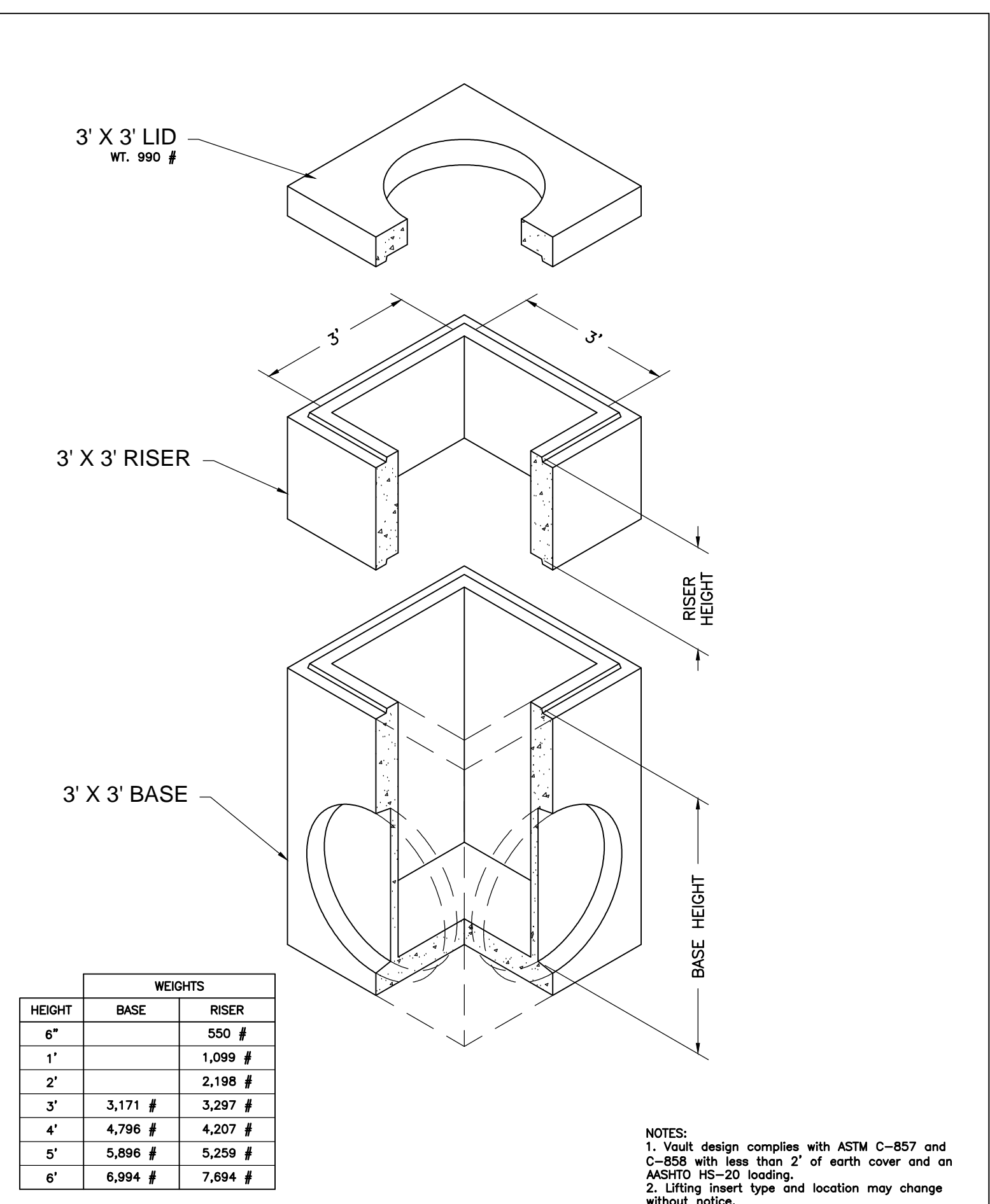
NV5
 BEYOND ENGINEERING
 5217 SOUTH STATE STREET, SUITE 200
 801743.000 TEL. 801743.000 FAX
 MURRAY, UT 84107
 WWW.NV5.COM



SHEET NUMBER
4.00

SCALE
 VERTICAL: 1" = 40'
 HORIZONTAL: 1" = 40'

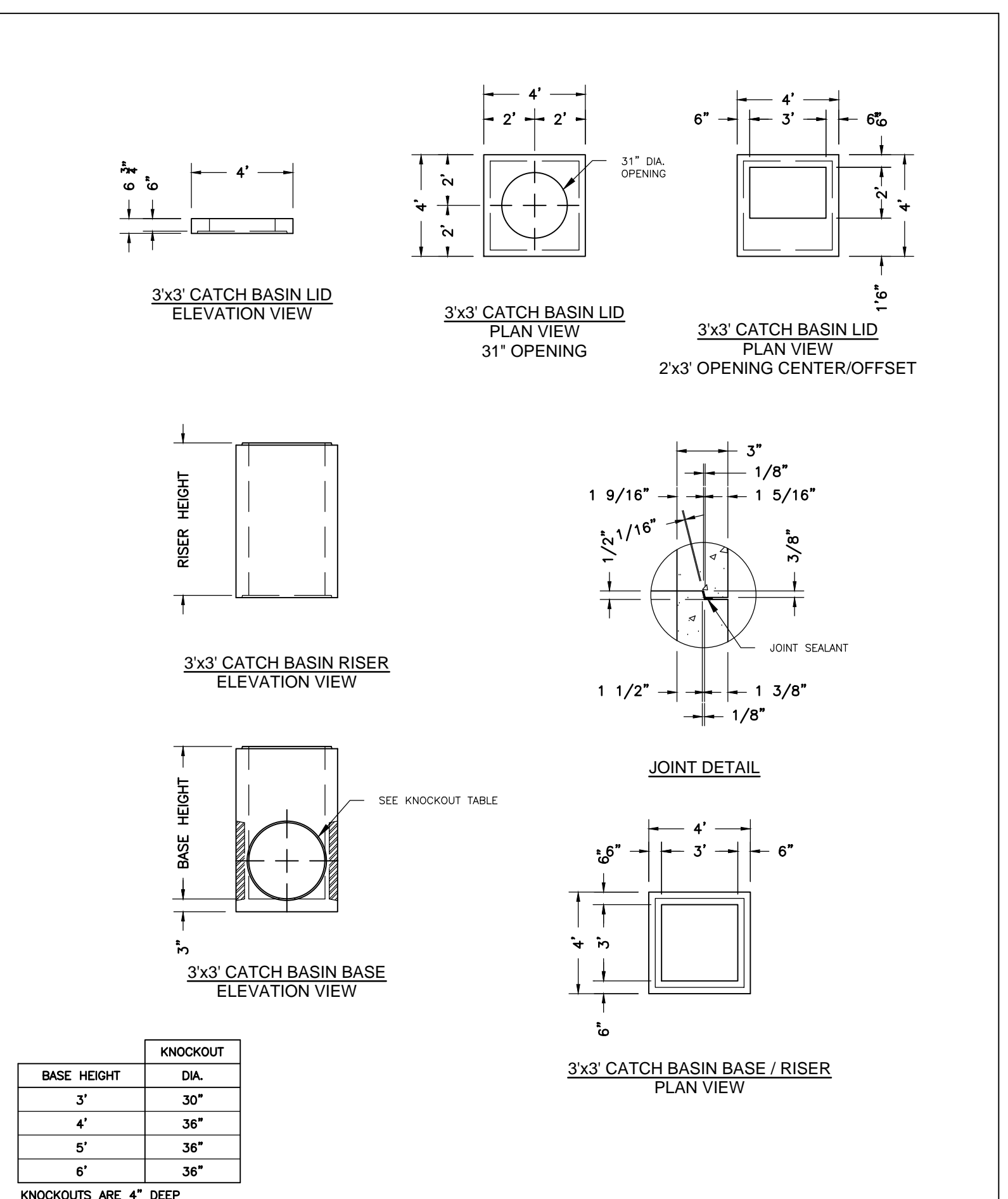
JOB NUMBER
SLB079306



Oldcastle Precast

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

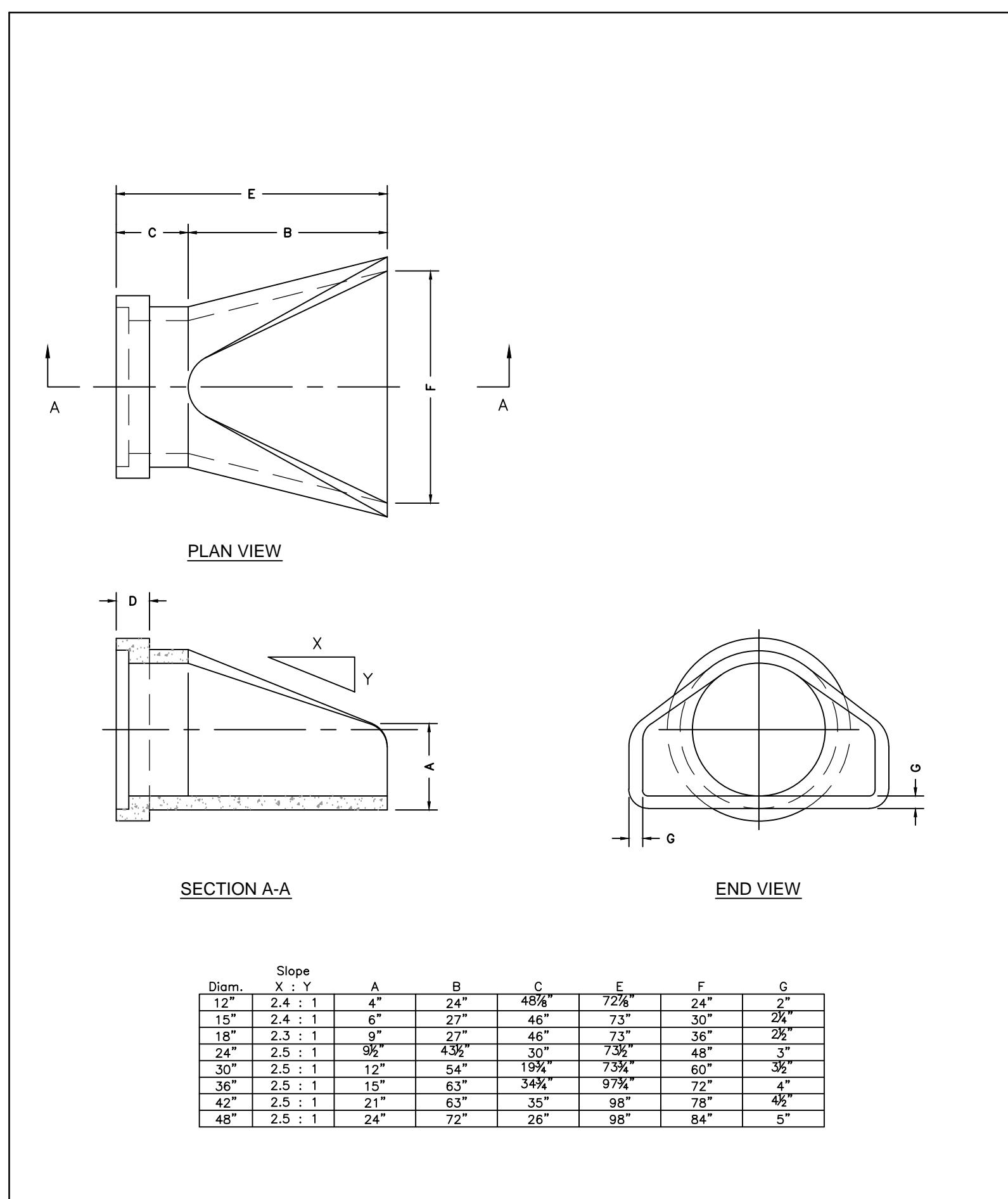
3' x 3' Catch Basin Bases, Risers and lid
 Copyright © 2008



Oldcastle Precast

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

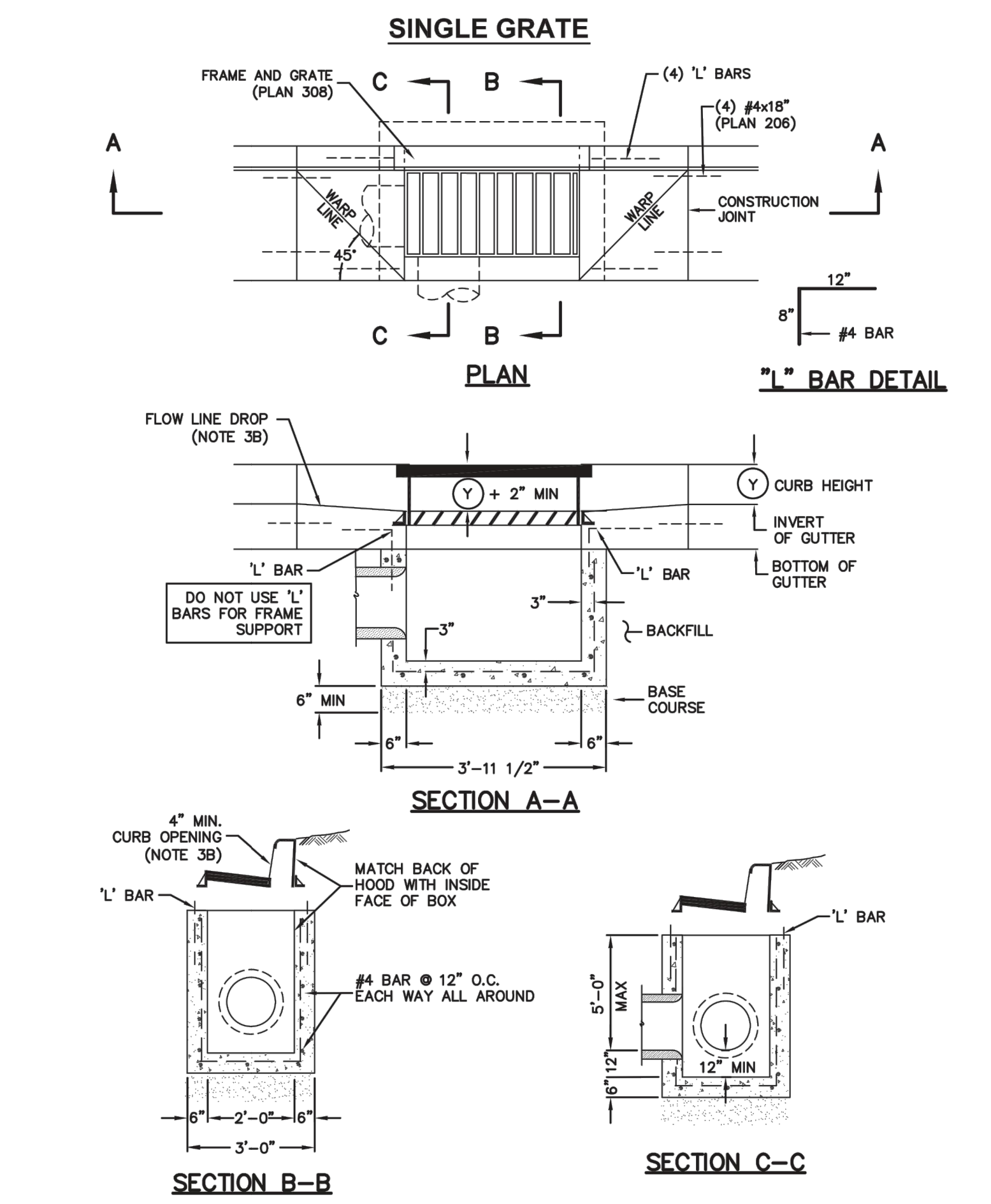
3' x 3' Catch Basin Bases, risers and lid
 Copyright © 2008



Oldcastle Precast

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

Flared End Section for Round Pipe
 Copyright © 2008



Oldcastle Precast

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 | REVISIONS |
|-----|-----|-----------|--------------------------------------|
| 1 | PHC | 8/7/2013 | ADD ROOM 1 |
| 2 | PHC | 7/27/2014 | REBET COUNTY REVIEW REVISIONS |
| 3 | PHC | 5/27/2014 | FINAL PRICE & ORDER LISTEN REVISIONS |

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NV5
 BEYOND ENGINEERING

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

REGISTERED PROFESSIONAL ENGINEER

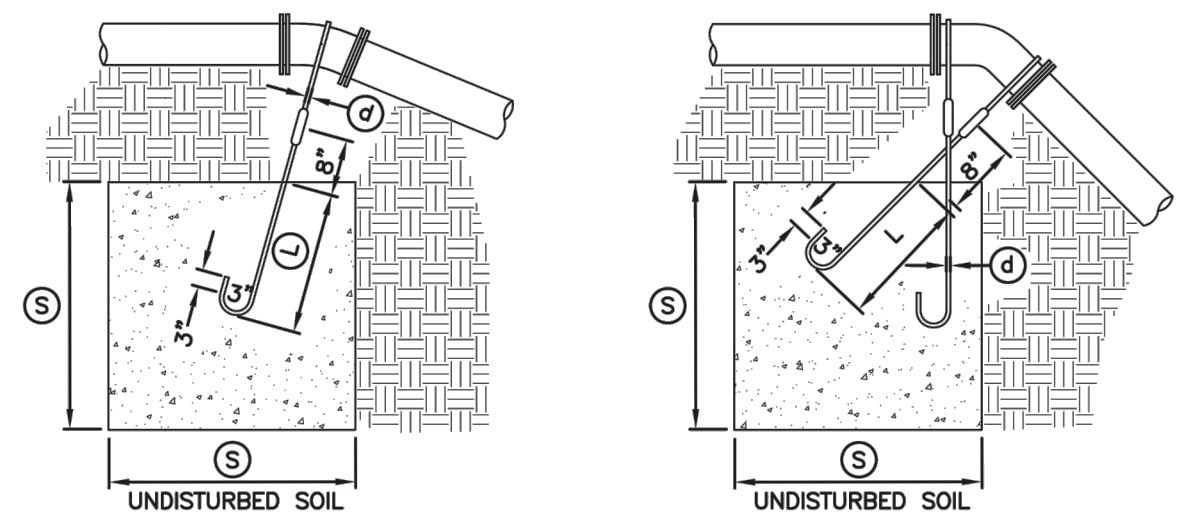
No. 7899506
 RYAN W. CATHEY
 5/27/14
 STATE OF UTAH

SHEET NUMBER
5.00

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

JOB NUMBER
SLB079306



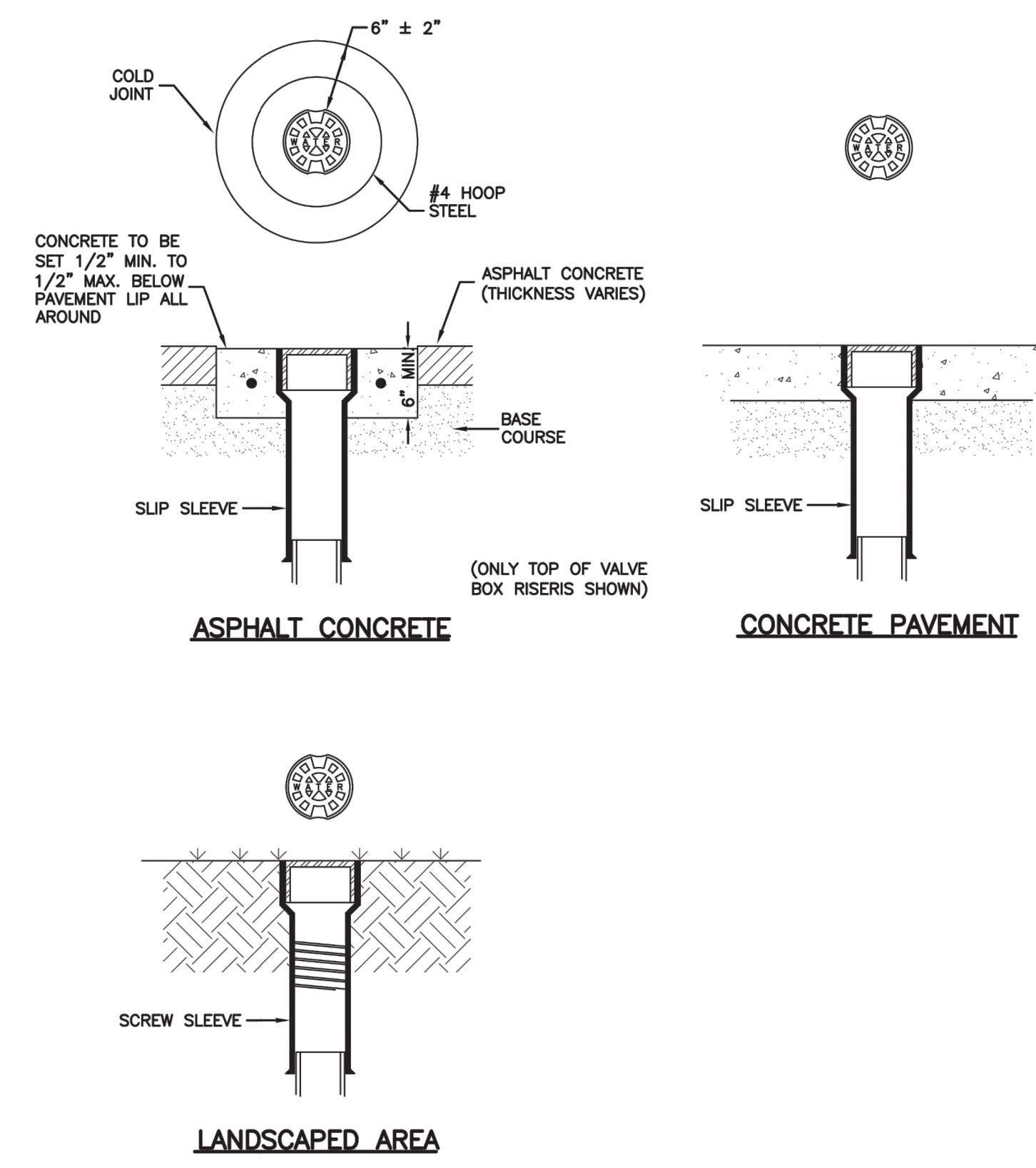


TYPE A RESTRAINT
 FOR 11 1/4" - 22 1/2" VERTICAL BENDS

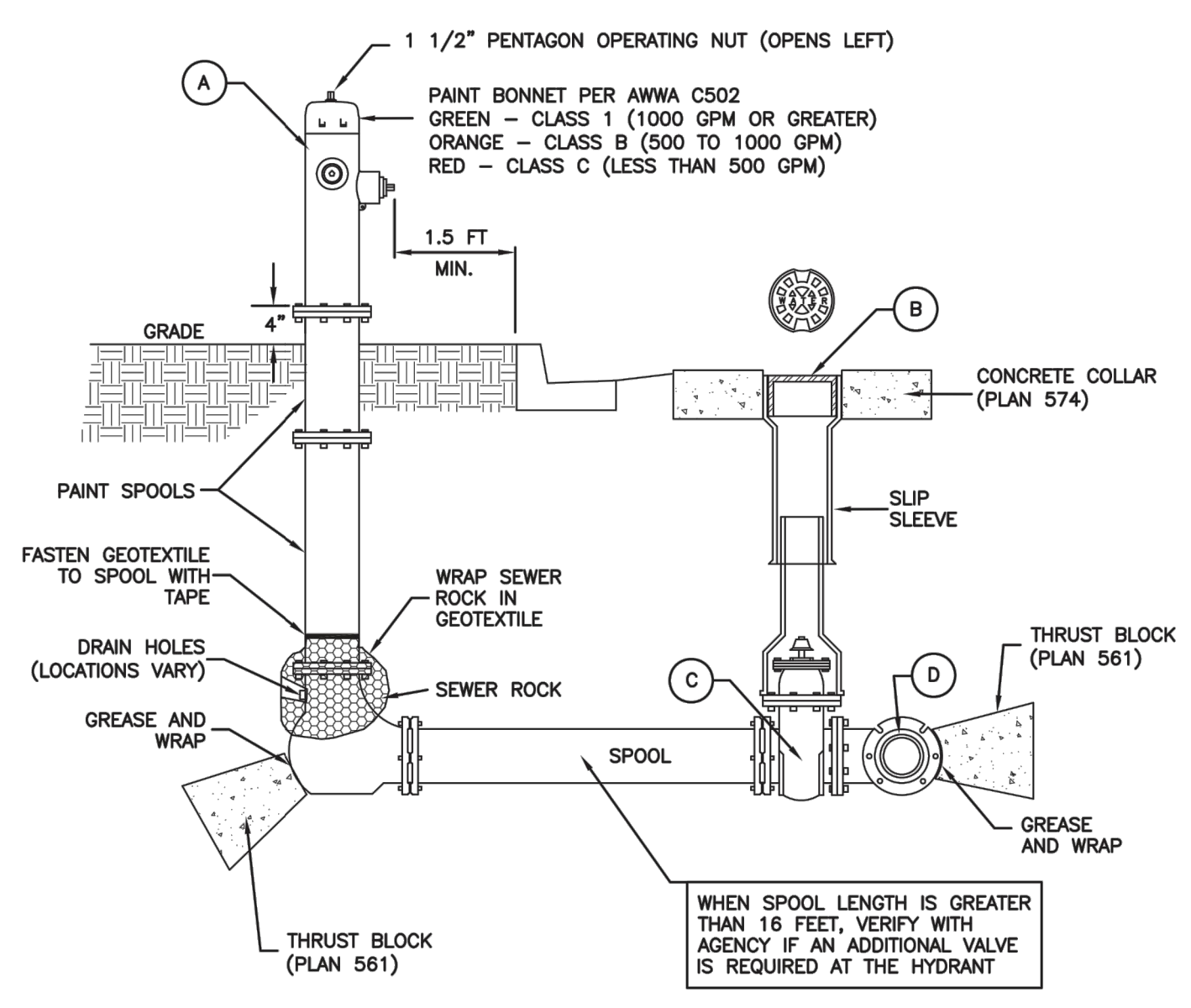
TYPE B RESTRAINT
 FOR 45" VERTICAL BENDS

| PIPE SIZE NOMINAL DIAMETER - INCH | VERTICAL BEND IN DEGREES | CONCRETE BLOCKING IN CUBIC FEET | SIDE OF CUBE - 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 |

| PIPE SIZE NOMINAL DIAMETER - INCH | VERTICAL BEND IN DEGREES | CONCRETE BLOCKING IN CUBIC FEET | SIDE OF CUBE - FEET | DIAMETER OF SHANK OR REBAR RODS - INCH | DEPTH OF ROD CONCRETE - FEET |
|-----------------------------------|--------------------------|---------------------------------|---------------------|--|------------------------------|
| 4" | 45" | 1 | 3.0 | 5/8" | 2.0 |
| 6" | | 2.37 | 4.0 | 5/8" | 2.5 |
| 8" | | 3.97 | 4.75 | 5/8" | 3.0 |
| 12" | | 9.04 | 6.25 | 5/8" | 4.0 |
| 16" | | 17.24 | 7.75 | 3/4" | 4.0 |
| 20" | | 26.52 | 9.25 | 3/4" | 4.0 |
| 24" | | 37.82 | 10.07 | 3/4" | 4.0 |
| 30" | | 58.26 | 11.63 | 3/4" | 4.0 |



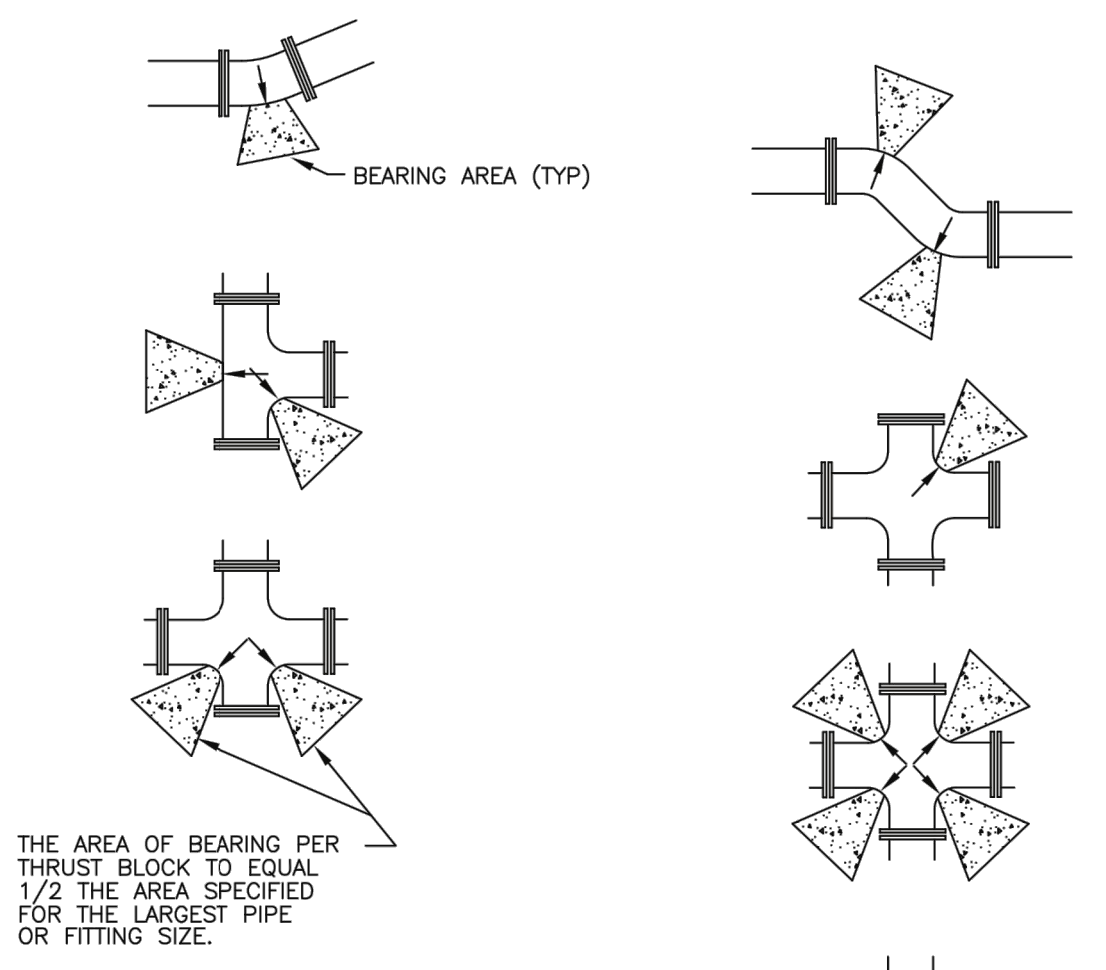
LANDSCAPED AREA



| 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

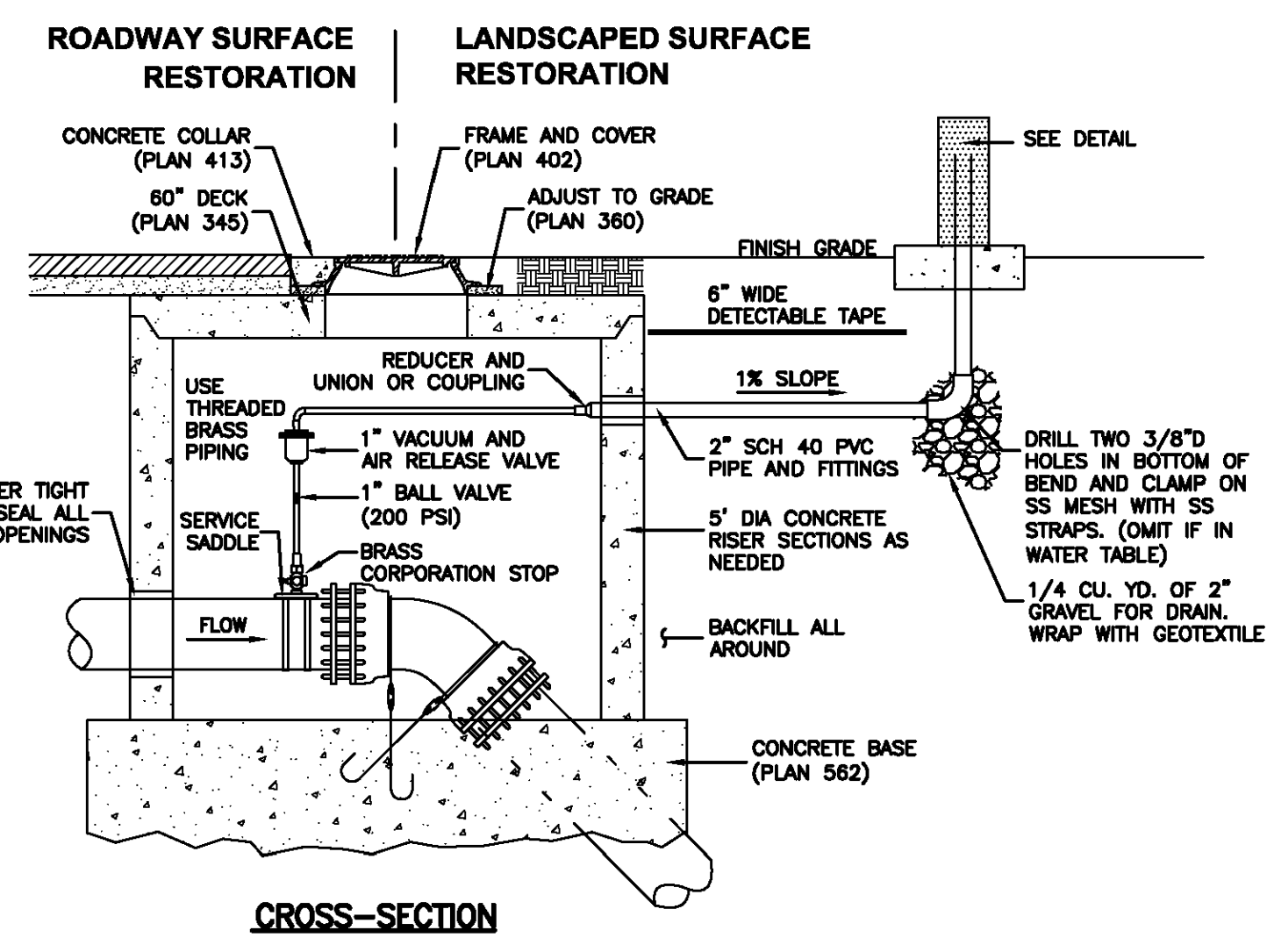


| SIZE OF PIPE | TEES, VALVES, DEAD ENDS | 90° BENDS | 45° BENDS | 22 1/2° BENDS | 11 1/4° BENDS |
|--------------|-------------------------|-----------|-----------|---------------|---------------|
| 4" | 2 | 3 | 2 | 2 | 2 |
| 6" | 4 | 5.5 | 3 | 1.5 | 1 |
| 8" | 6.5 | 9.5 | 5 | 2.75 | 1.5 |
| 12" | 14 | 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 |

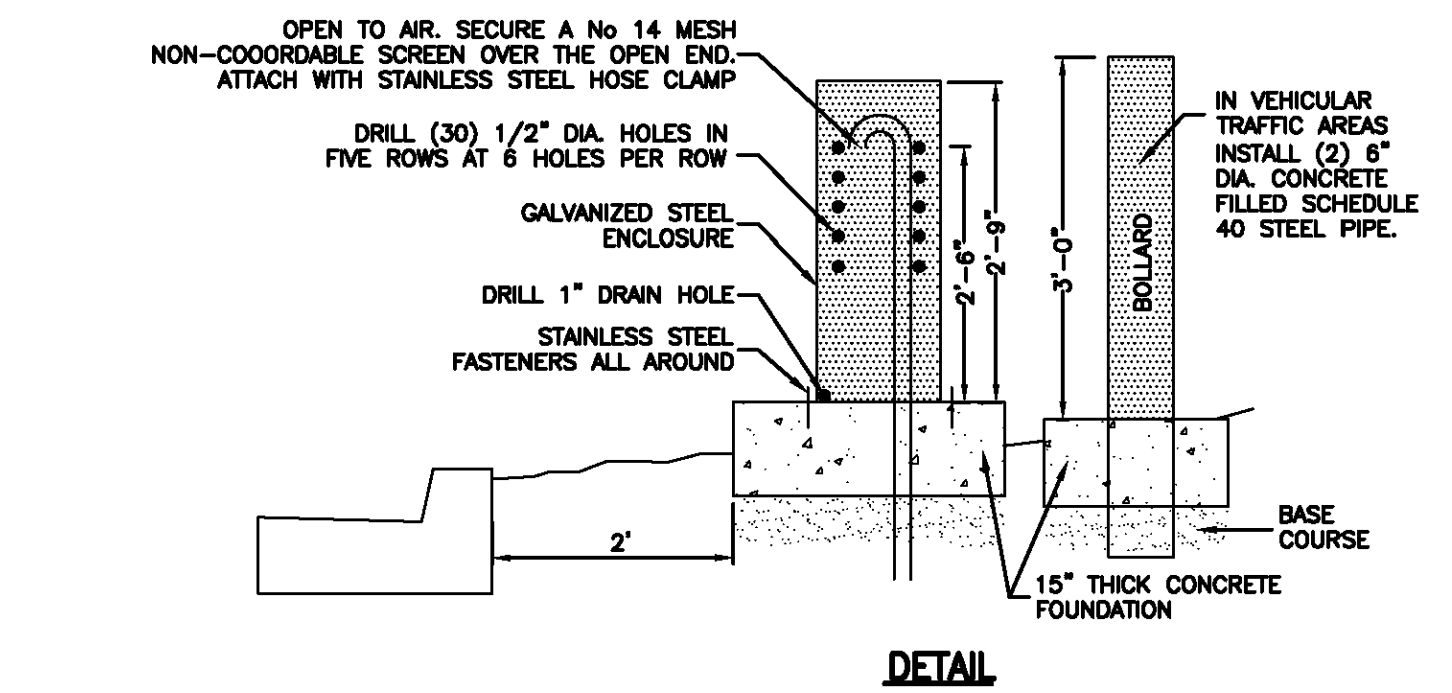
Direct bearing thrust block

Plan No. 561
 April 1997 239

Plan 574
 Cover collar for water valve box
 August 2010 277



CROSS-SECTION

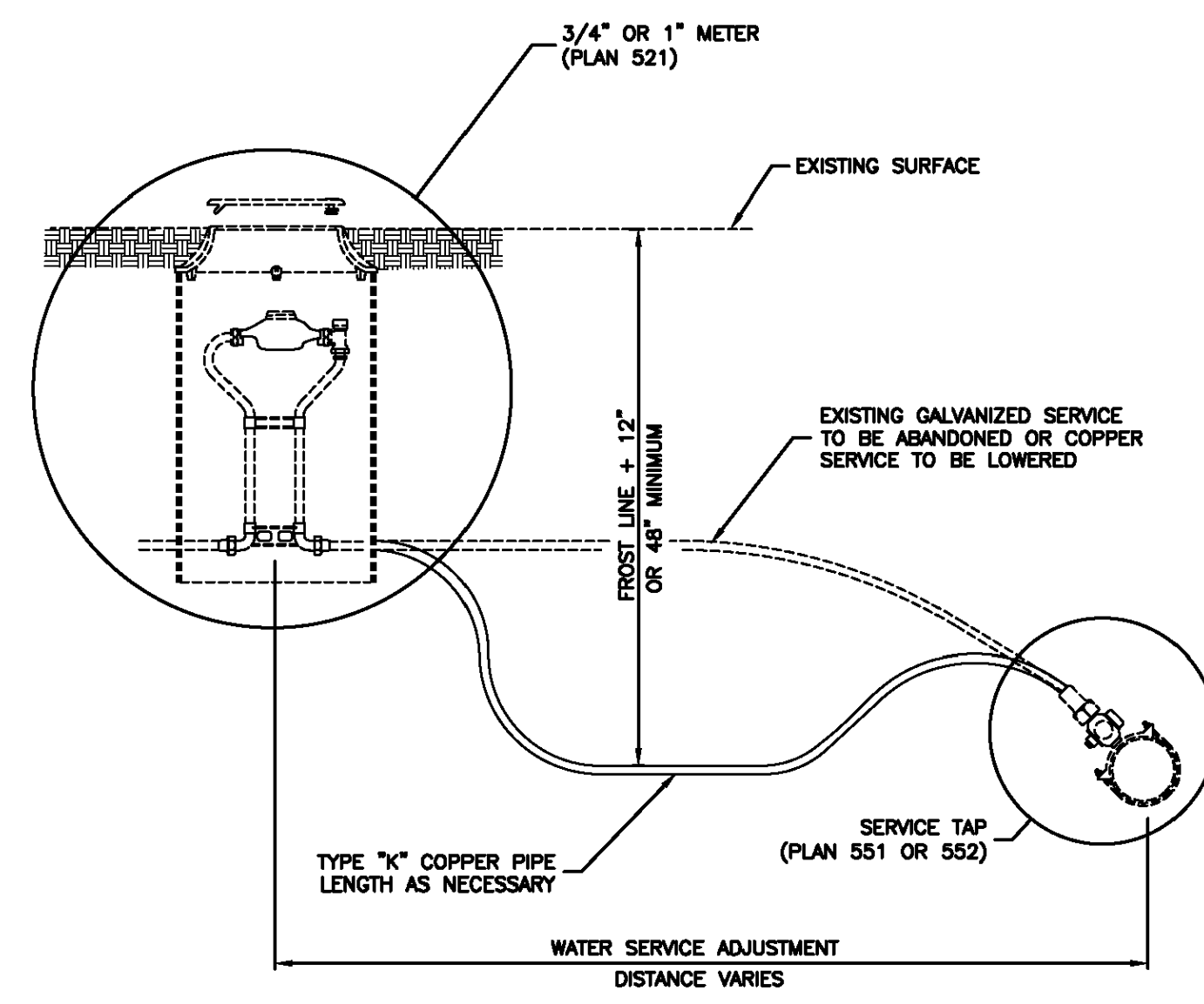


DETAIL

Air release assembly

Plan 575
 February 2011 279

Plan 511
 Fire hydrant with valve
 February 2011 237



Water service line

Plan 541
 August 2001 253

SUMMIT EDEN PHASE 1B
WATER DETAILS

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 5217 SOUTH STATE STREET, SUITE 200
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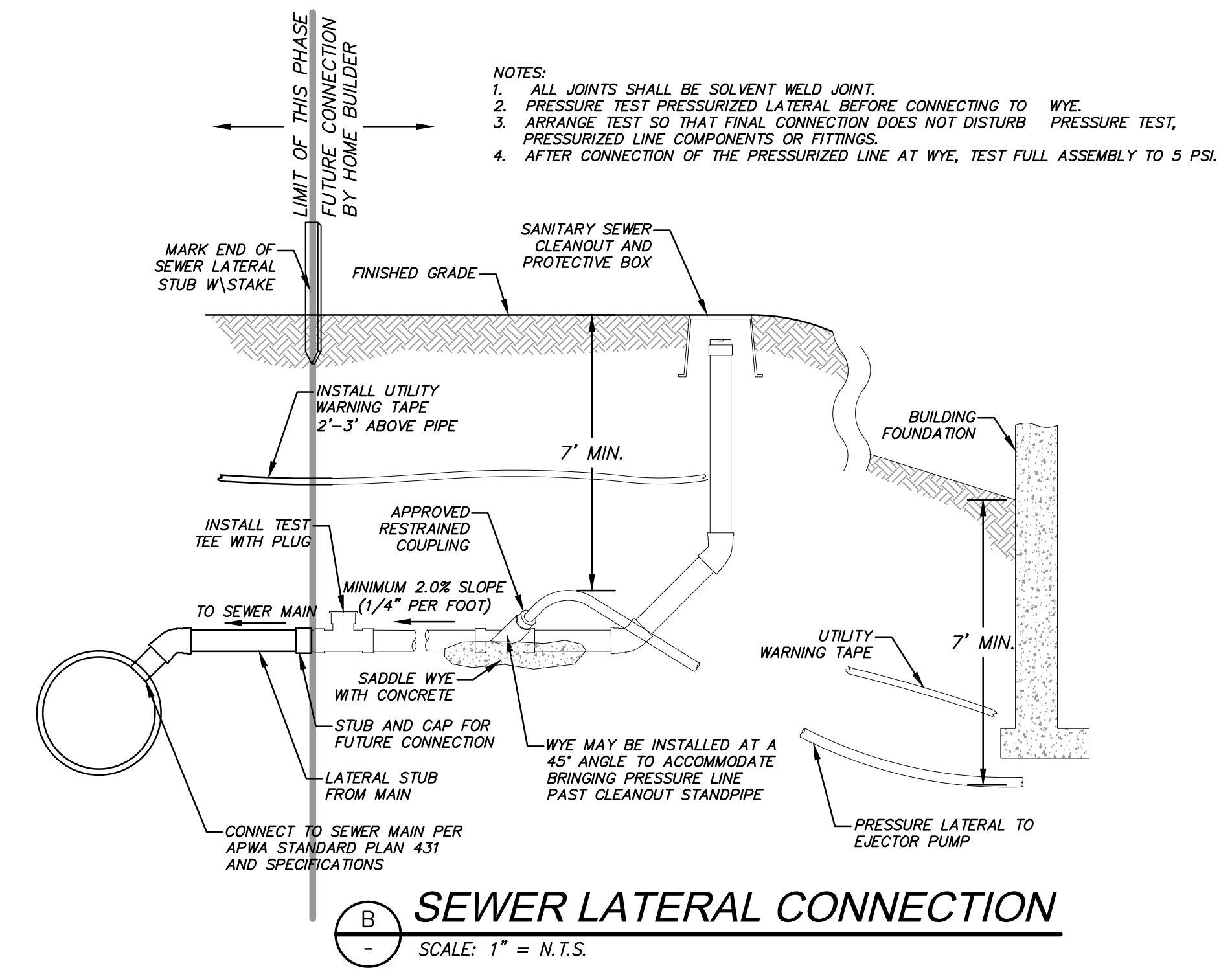
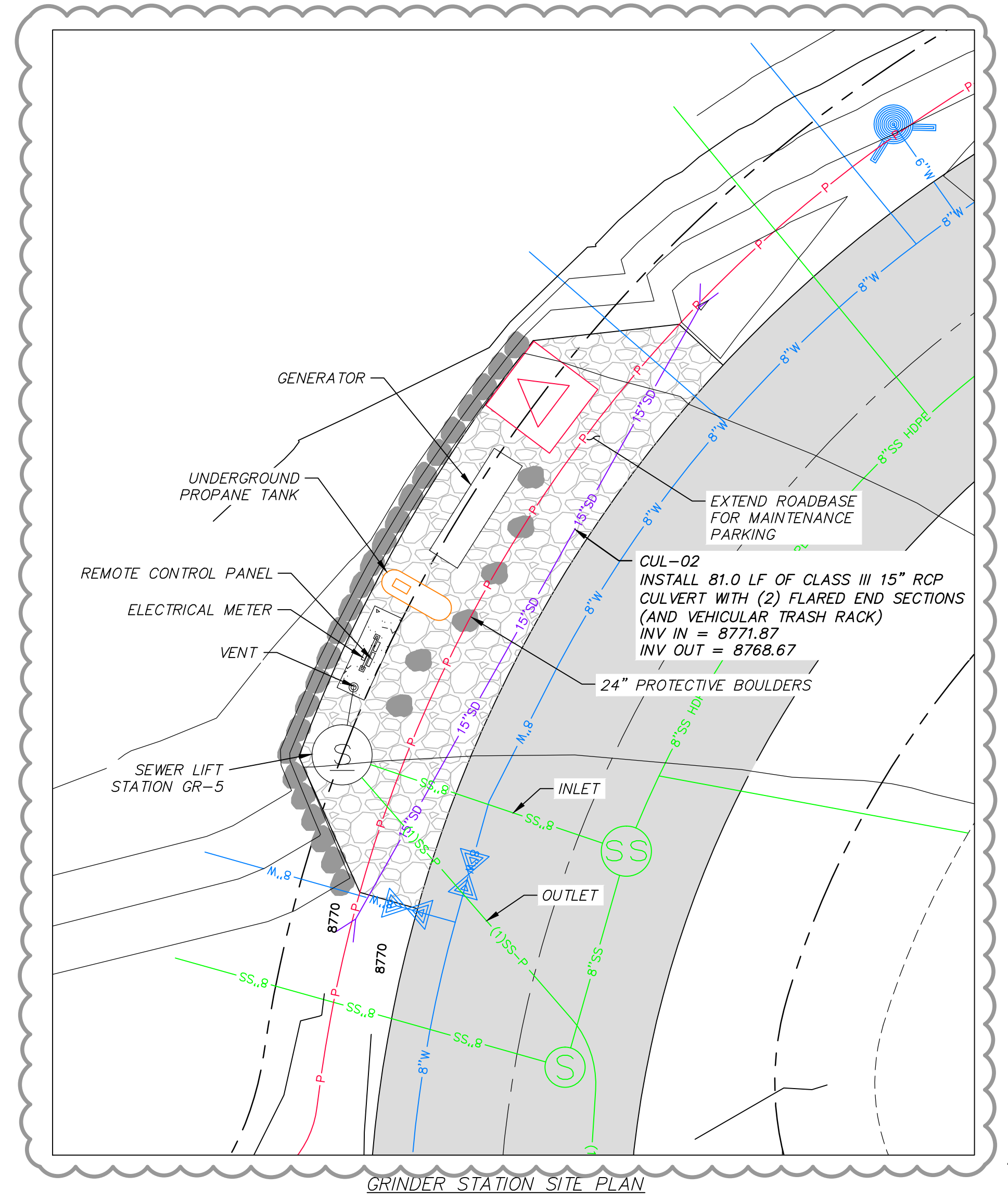
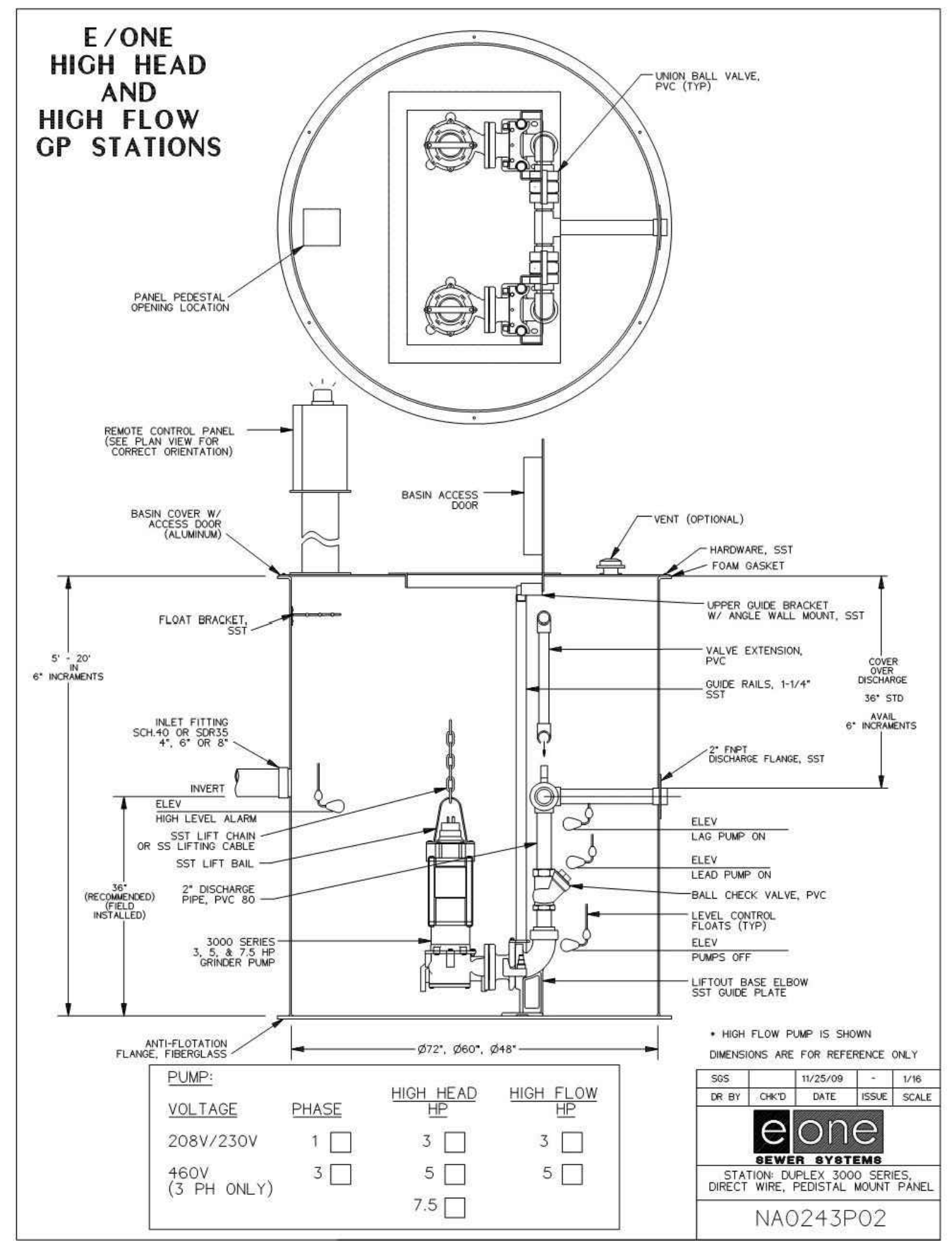
REGISTERED PROFESSIONAL ENGINEER
 No. 7899506
 RYAN W. CATHEY
 STATE OF UTAH

SHEET NUMBER
5.01
 SCALE
 VERTICAL: 1" = N/A
 HORIZONTAL: 1" = N/A
 JOB NUMBER
SLB079306

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

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.

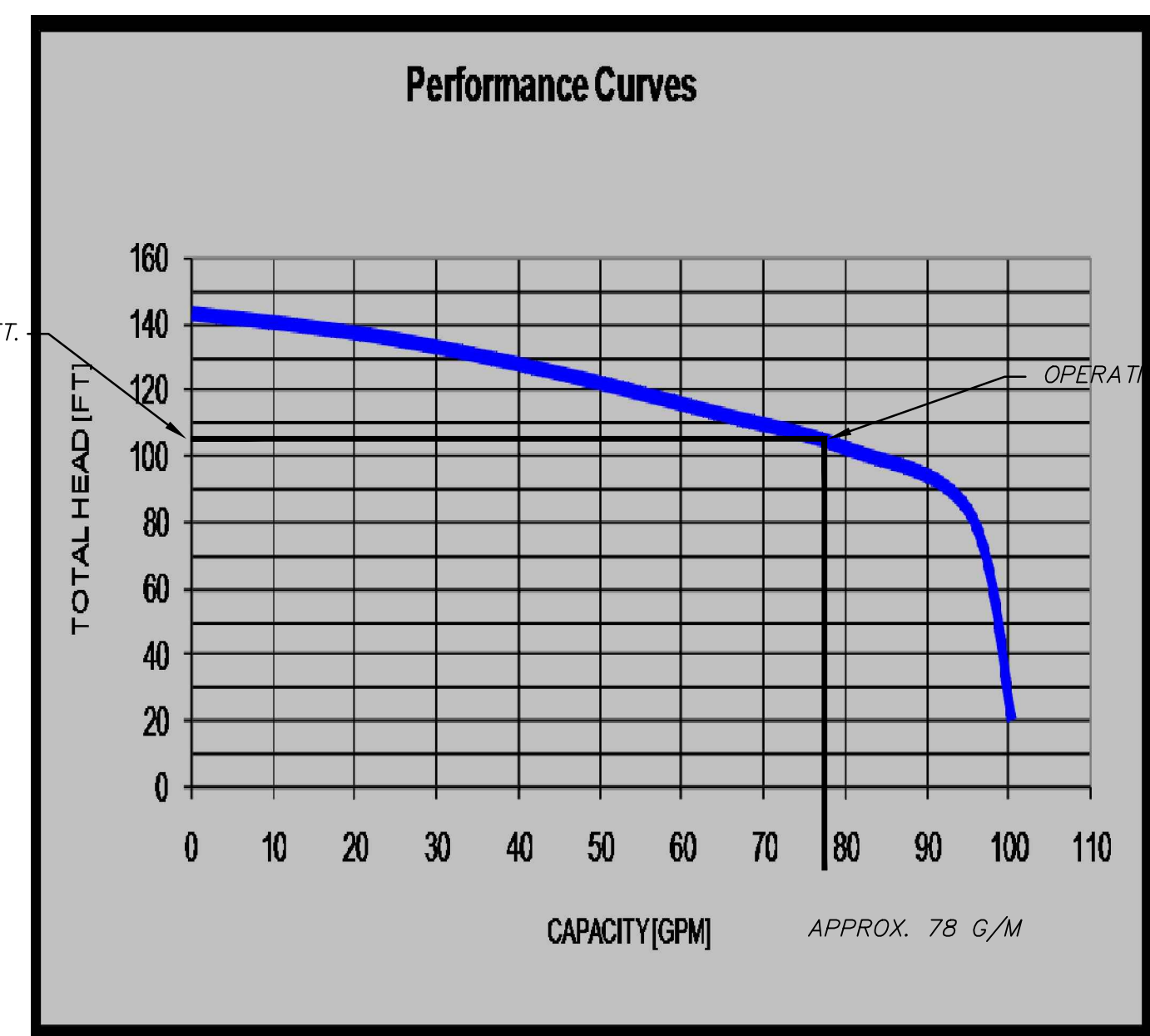




| PUMP NAME | INVERT IN | INVERT IN SIZE | SUMP ELEV | BASIN DIA. | PUMP HEAD | PUMP HP | DISCHARGE DIA | DISCHARGE VELOCITY | MIN STORAGE VOLUME (gal) | STATION DETAIL | PUMP | PEAK FLOW (GPM) | AUTO DIALER | MAIN POWER TRANSFER SWITCH | POWER |
|-----------|-----------|----------------|-----------|------------|-----------|---------|---------------|--------------------|--------------------------|-------------------|-------------------------------------|-----------------|-------------|----------------------------|------------------|
| GR-5 | 8759.37 | 8" | 8754.37 | 72" | 105 | 5 | 3" | 3.66 | 1050 | DUPLX 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 | |
|------------------------------------|--|
| 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 | JMM | 8/27/2014 | ADD ROOM 1 |
| 2 | JMM | 10/27/2014 | REVISIT COUNTY SEWER REVISIONS |
| 3 | JMM | 5/27/2014 | REVISIT PIPE & GRINDER 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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 STATE OF UTAH

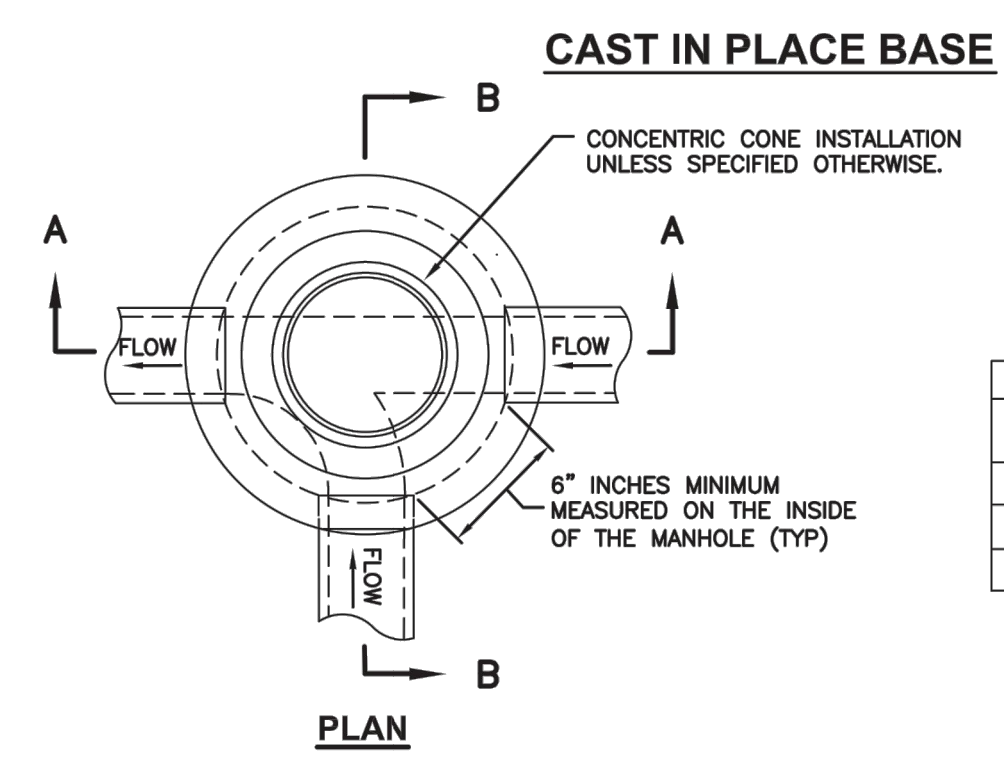
SHEET NUMBER
5.10

SCALE
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 HORIZONTAL: 1" = N/A

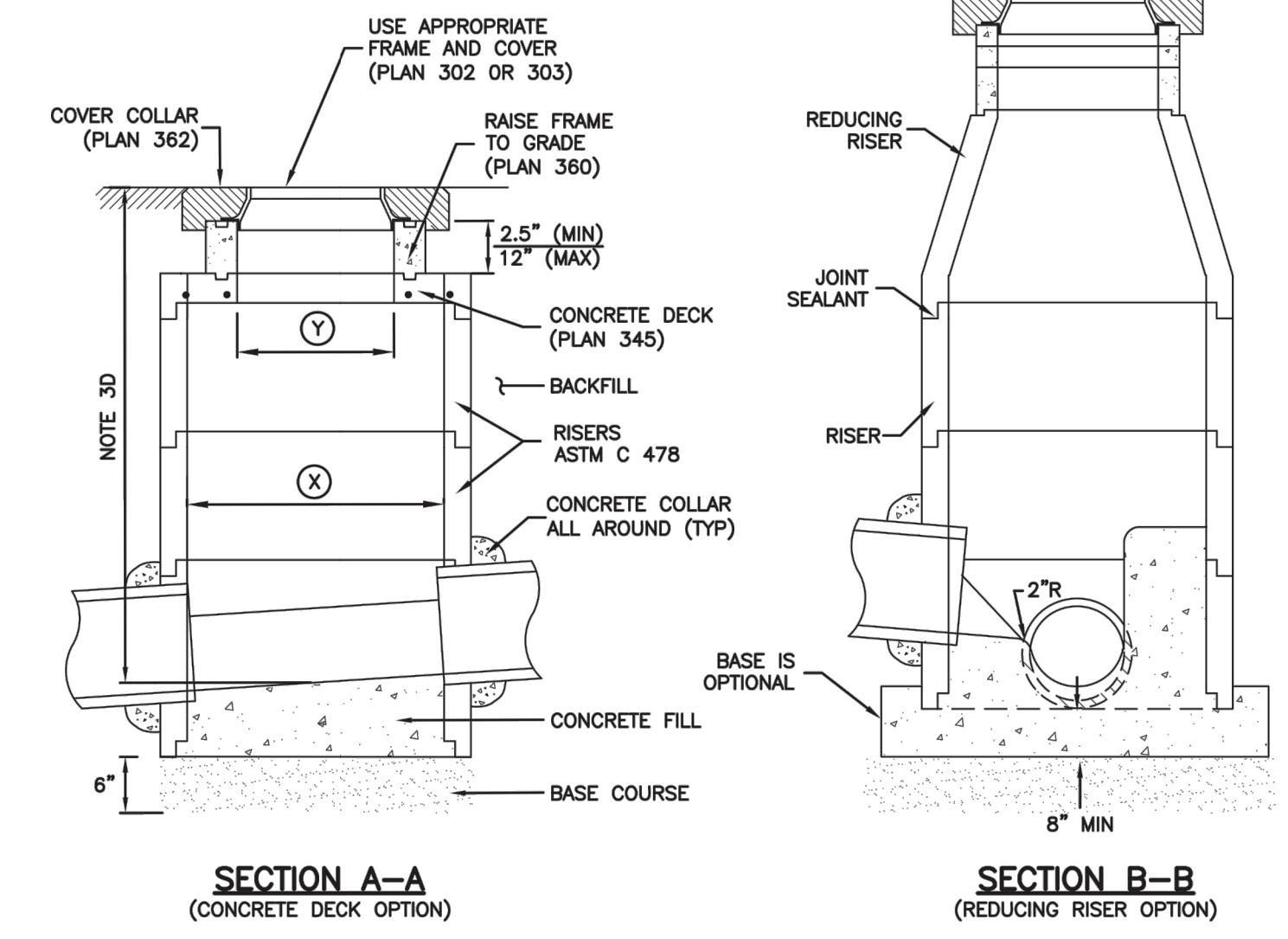
JOB NUMBER
SLB079306



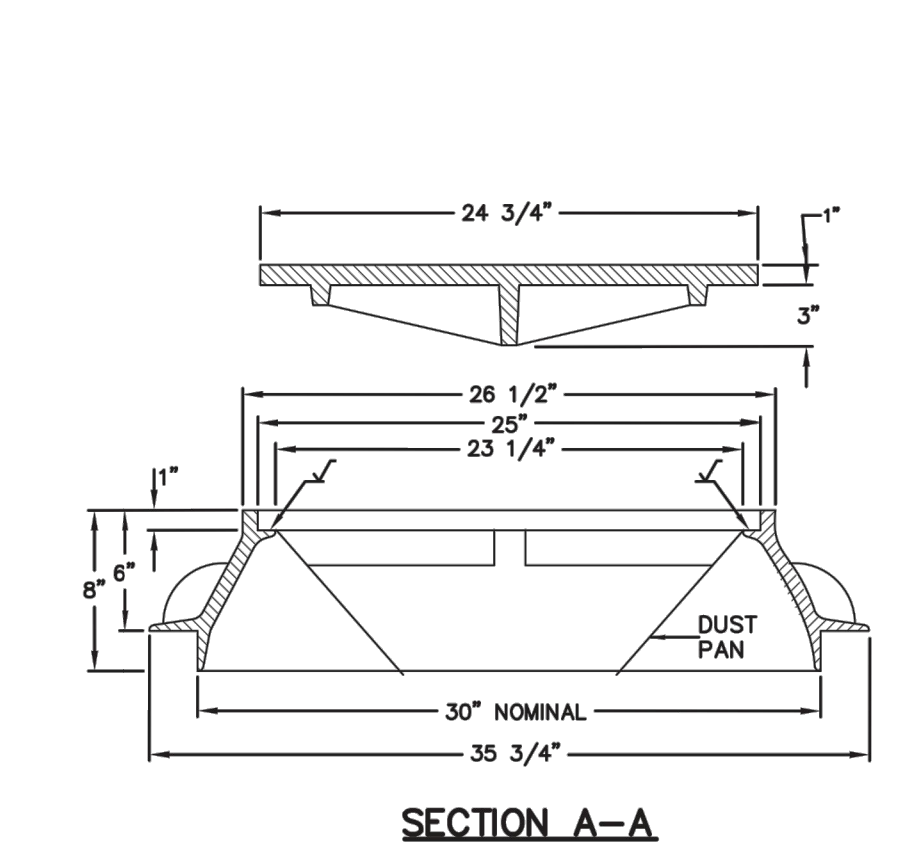
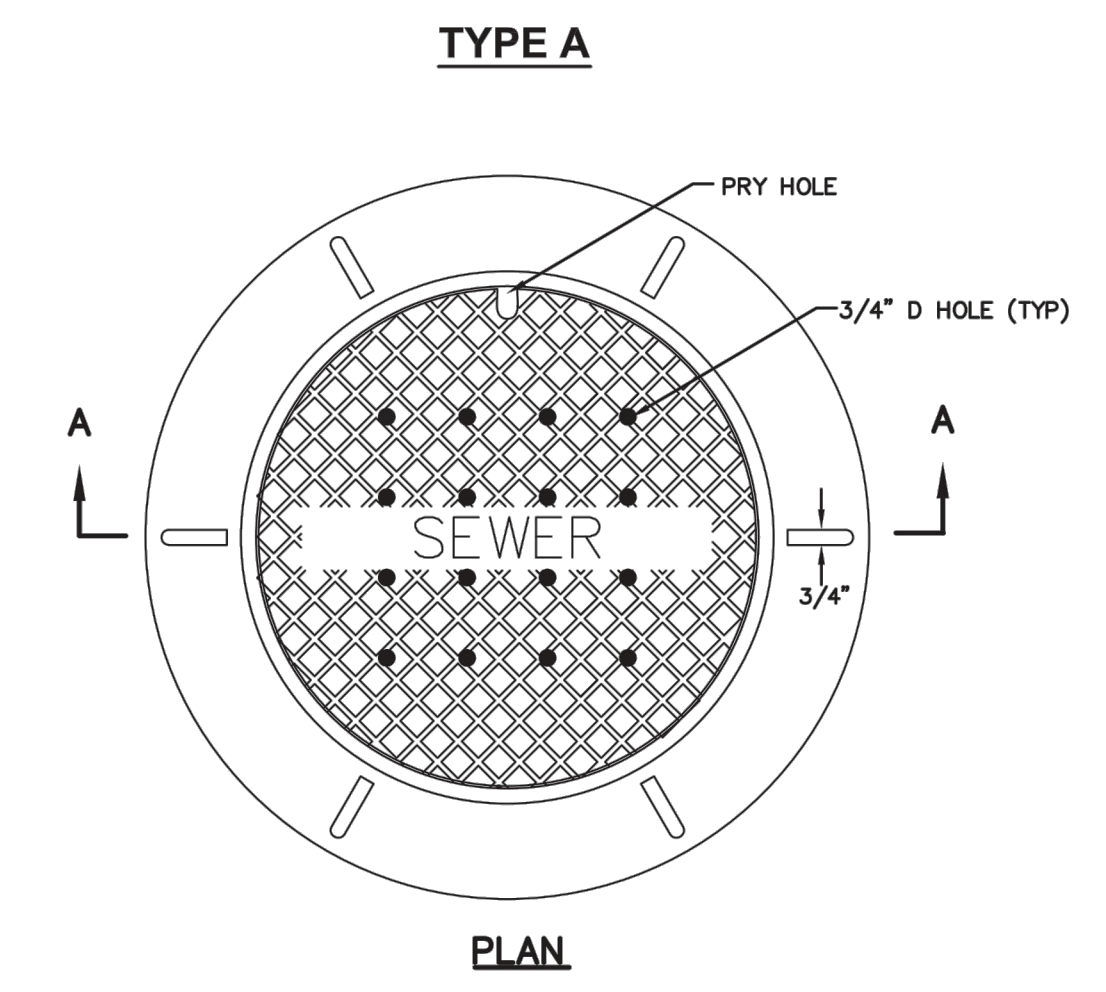
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 SERVER: NONE PLOT SETUP: PIP-330-24-38 LAYOUT: IPS101
 PATH: N:\B07930\AD\PHASE 1\IP101-B DESIGNER: JHH PROJ. NO: ###



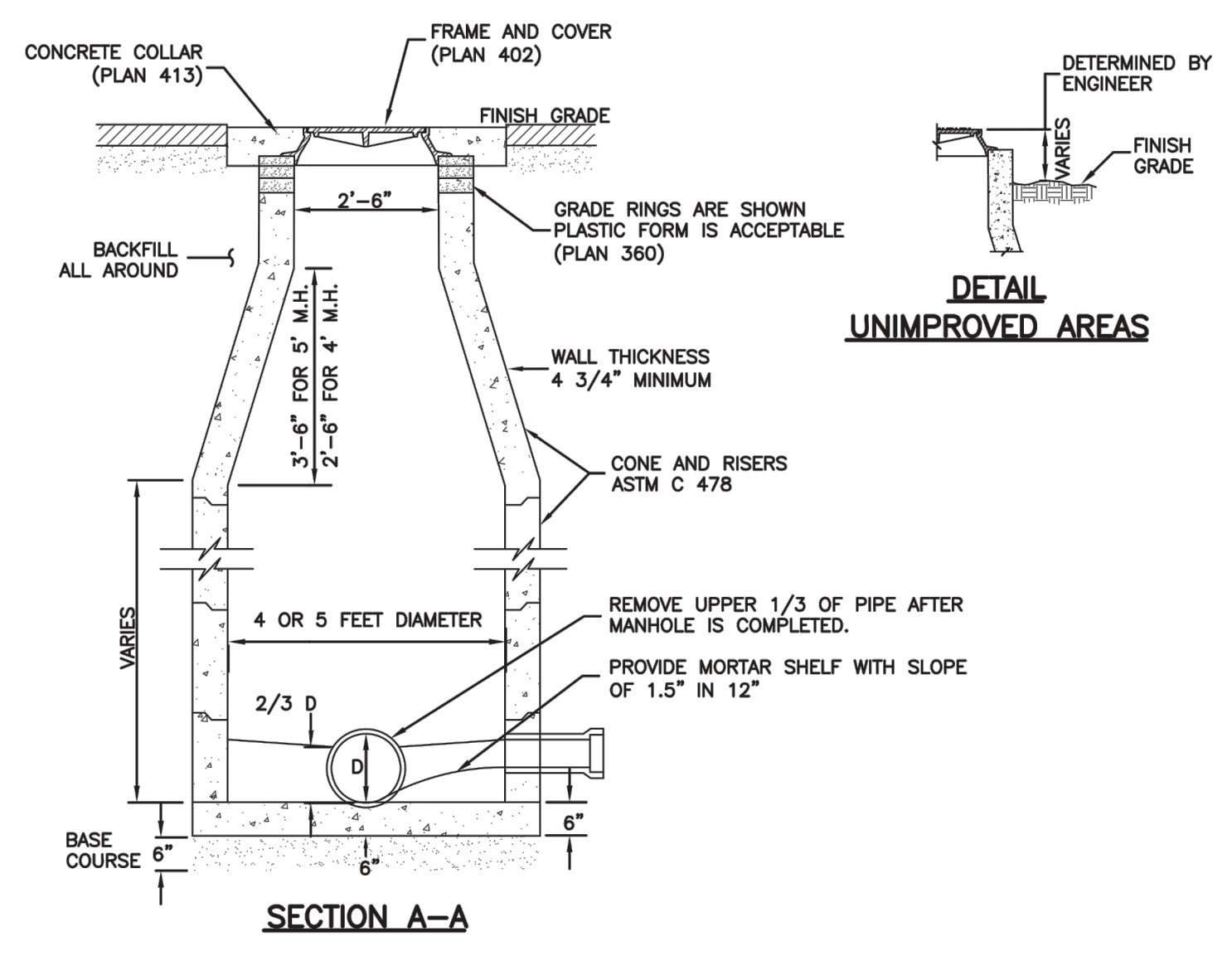
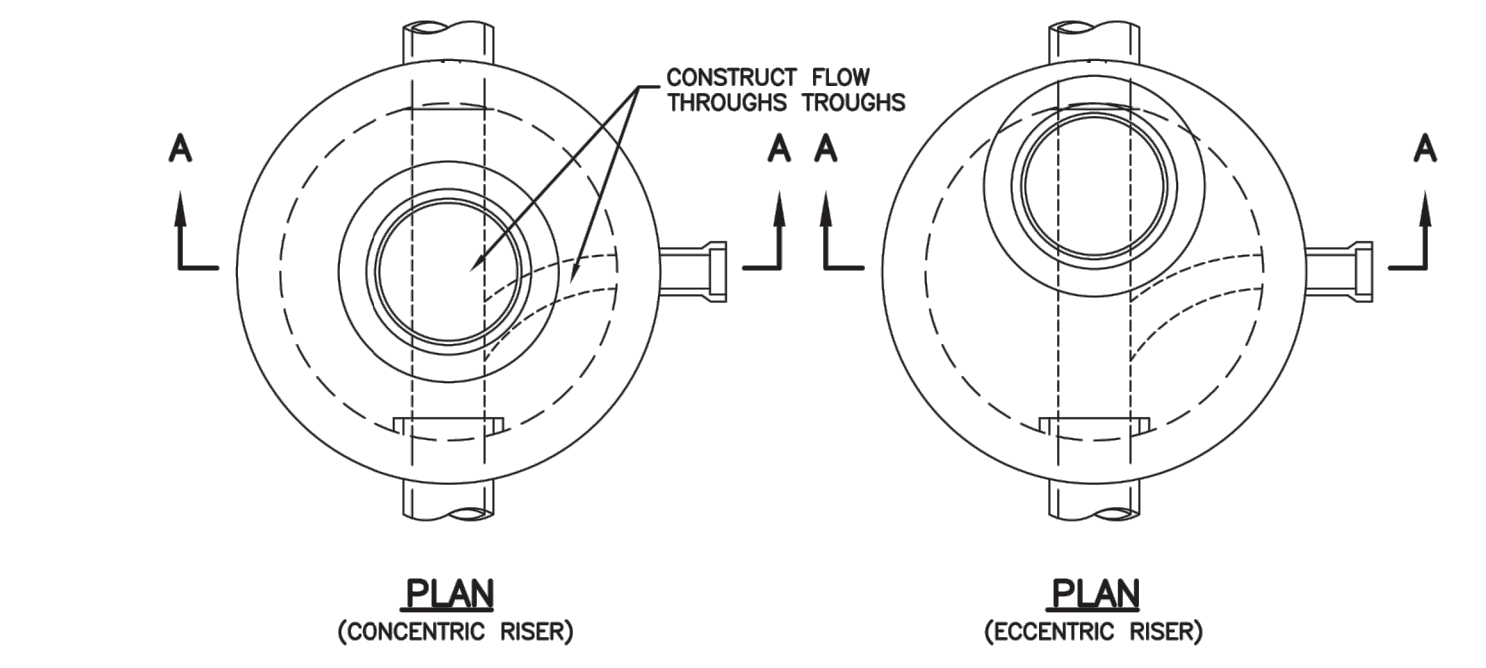
| MANHOLE STYLE | DIMENSION | |
|---------------|-------------|--|
| A | ⊗=48" ⊙=30" | |
| B | ⊗=60" ⊙=44" | |
| C | ⊗=60" ⊙=30" | |



Precast manhole Plan 341
 November 2010 187 Sheet 1 of 2

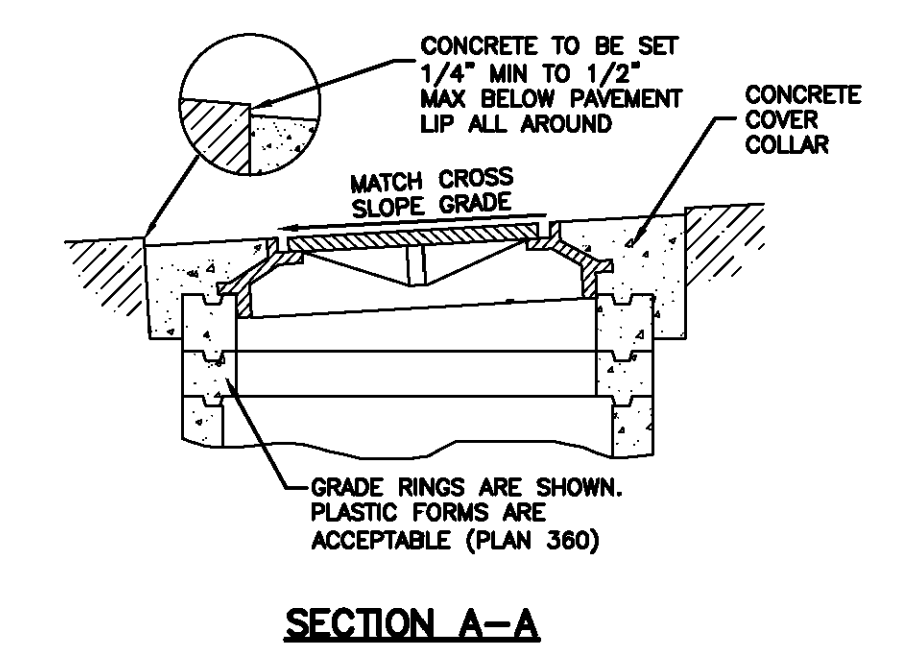
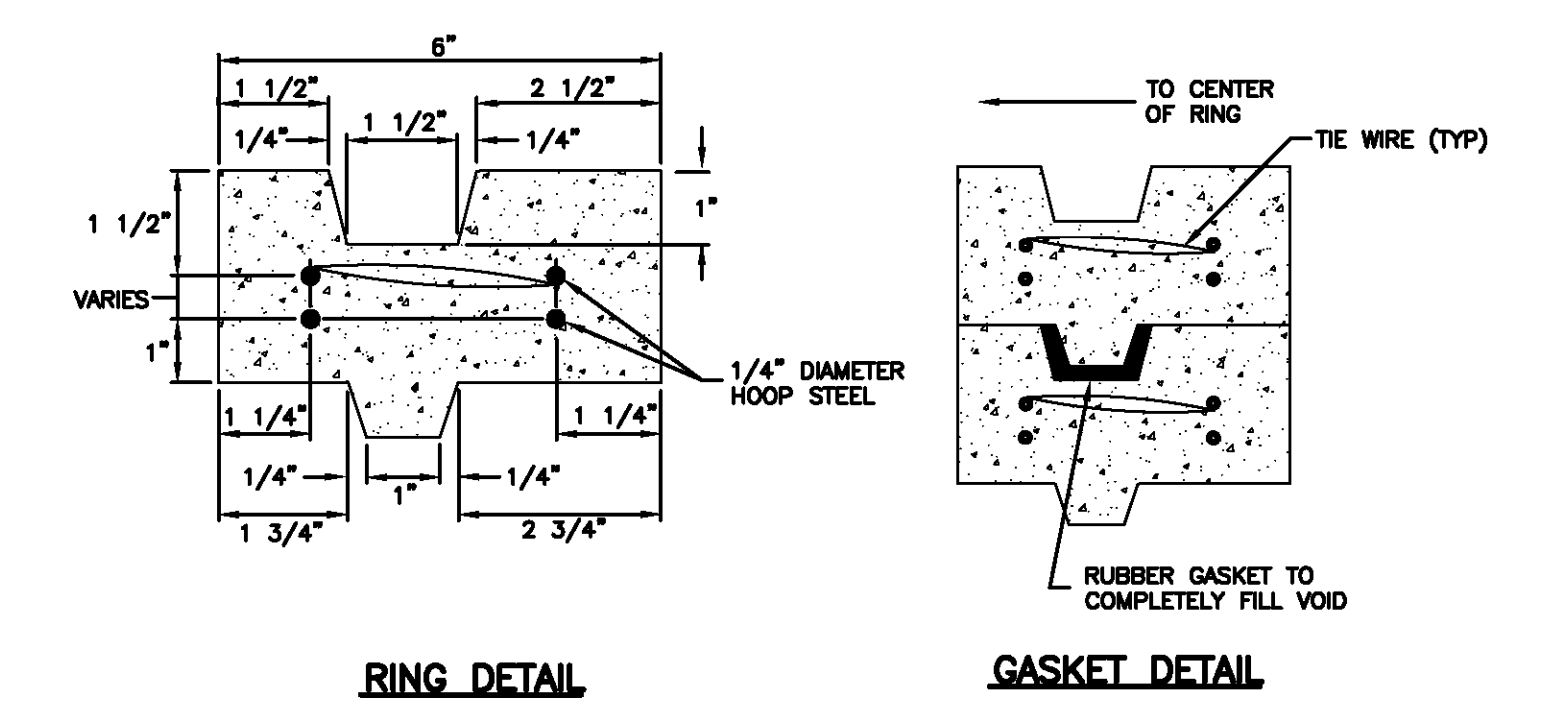
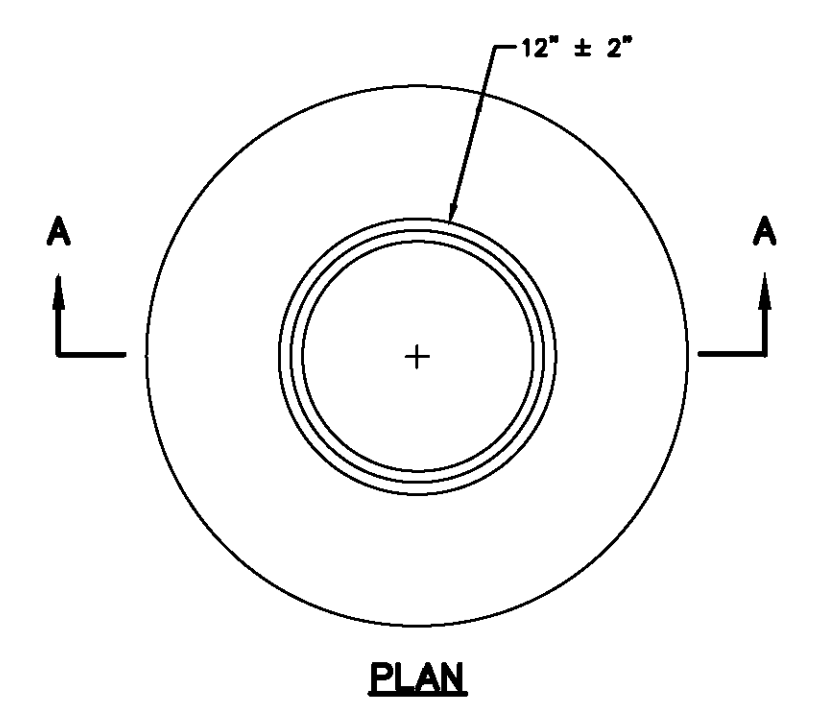
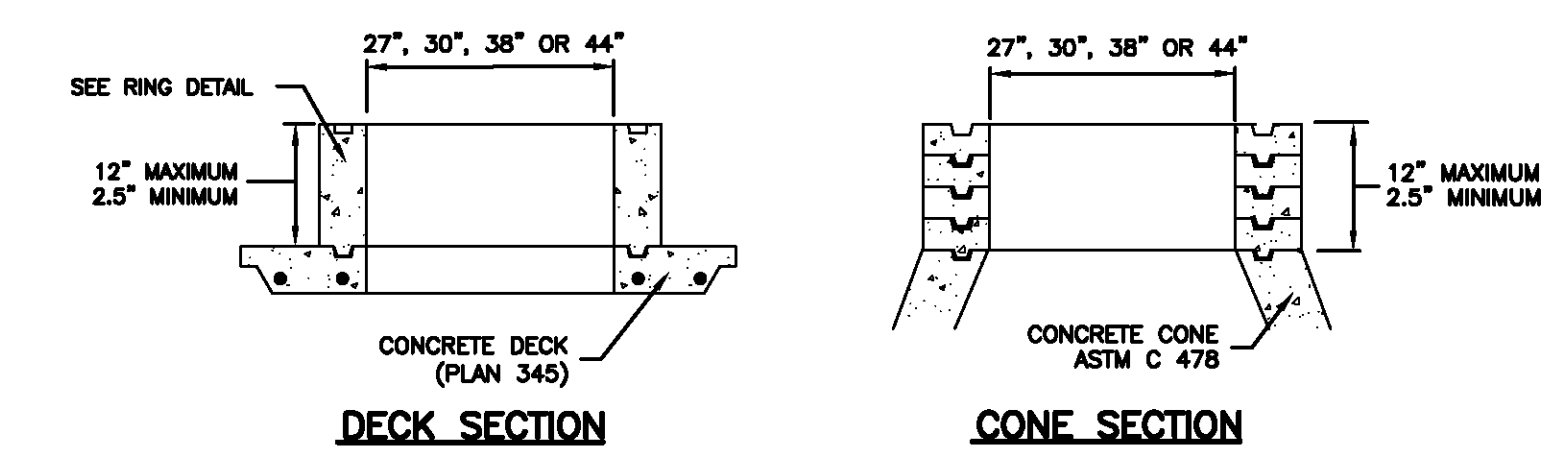


30" Frame and cover Plan 402
 April 1997 211

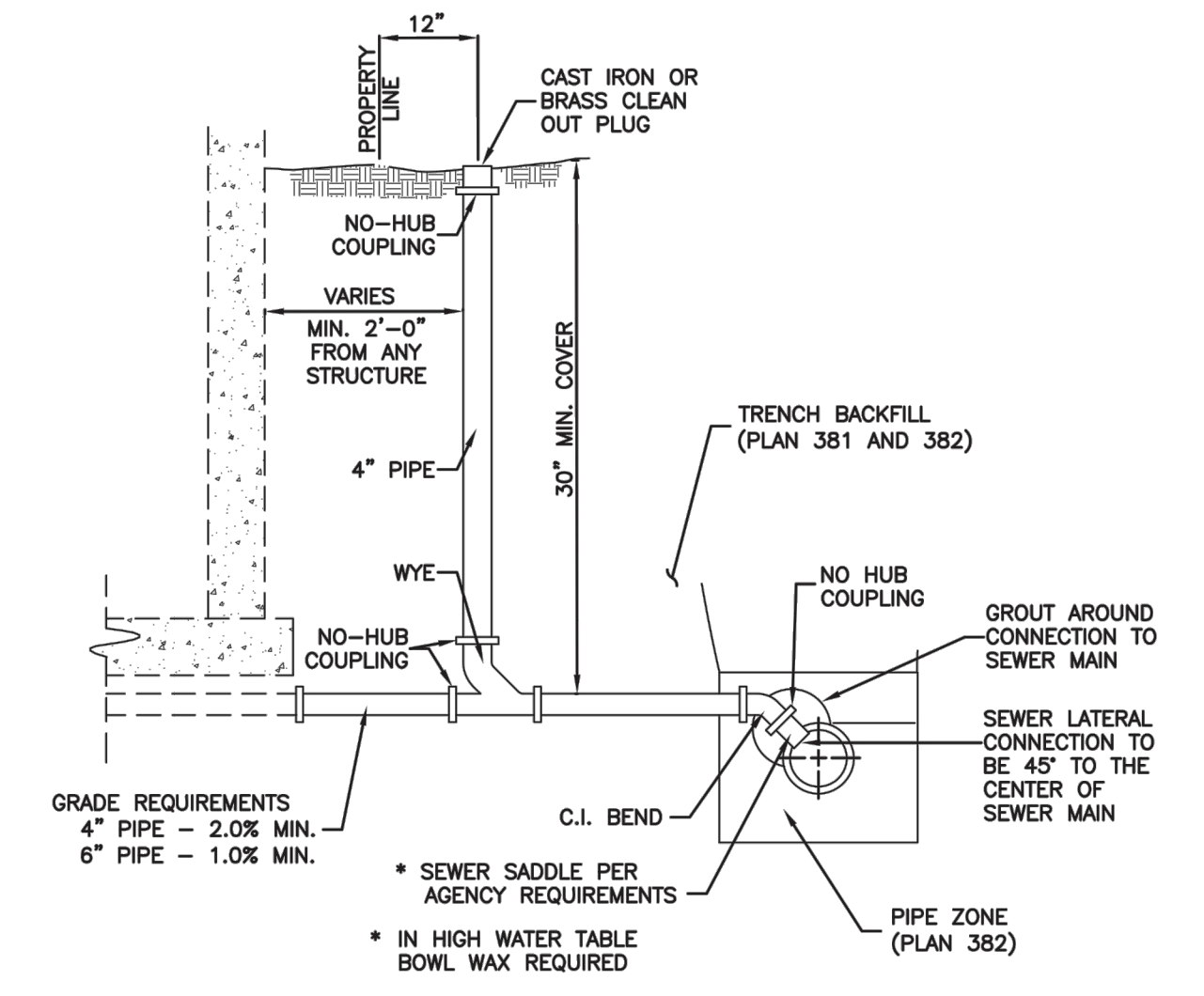


Sanitary sewer manhole Plan 411
 April 2011 213

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 | RMC | 8/7/2013 | ADD COLUMN 1 |
| 2 | RMC | 10/27/2014 | REBID COUNTY SEWER REVISIONS |
| 3 | RMC | 2/27/2014 | CONC. PIPE & COVER LAYOUT REVISIONS |

SUMMIT EDEN PHASE 1B
SEWER DETAILS

PREPARED FOR: SUMMIT MOUNTAIN HOLDING GROUP, LLC

DATE SUBMITTED: 01/07/2014

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SHEET NUMBER
5.11

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

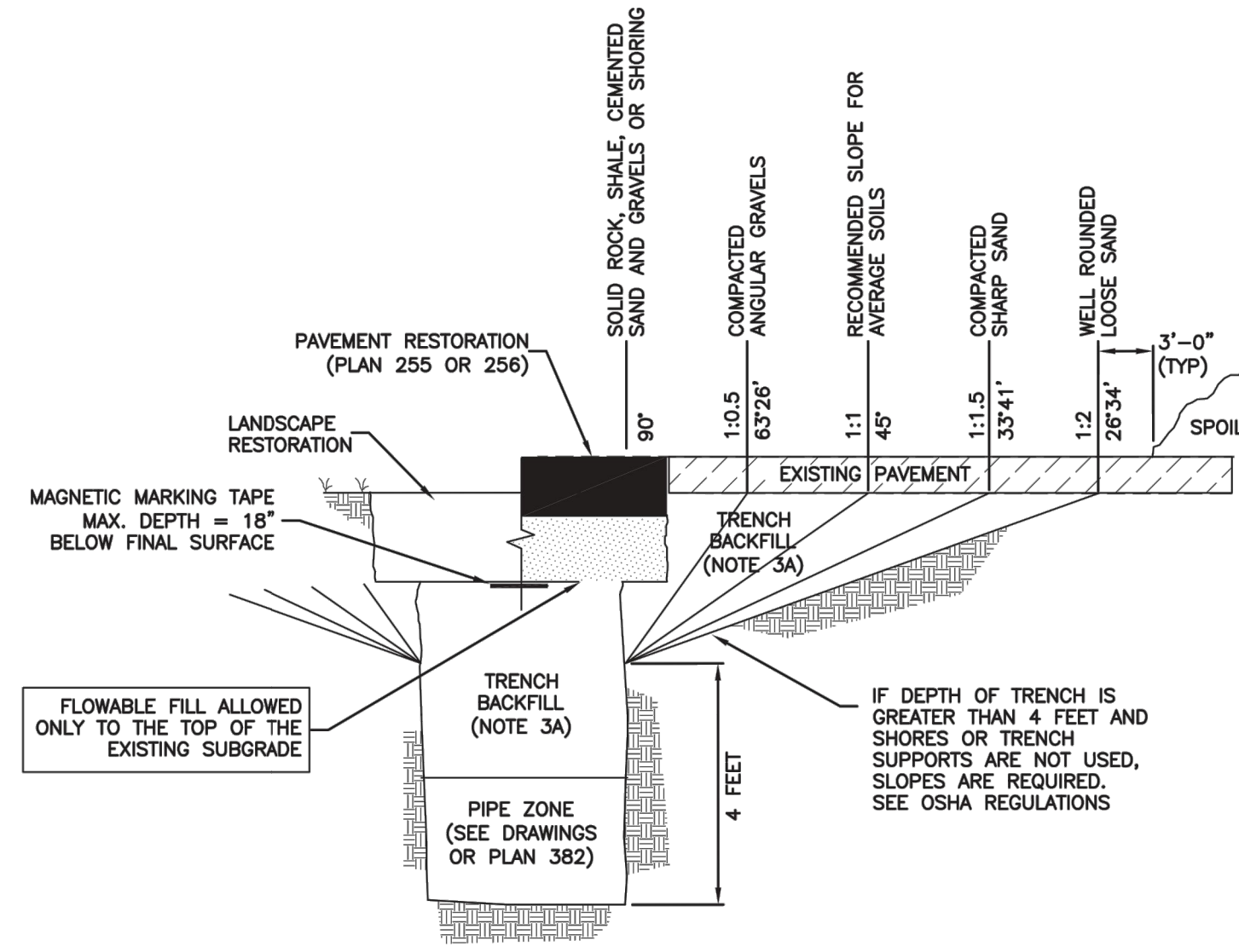
JOB NUMBER
SLB079306



BURNINGHAM
 XREFS:

Trench backfill

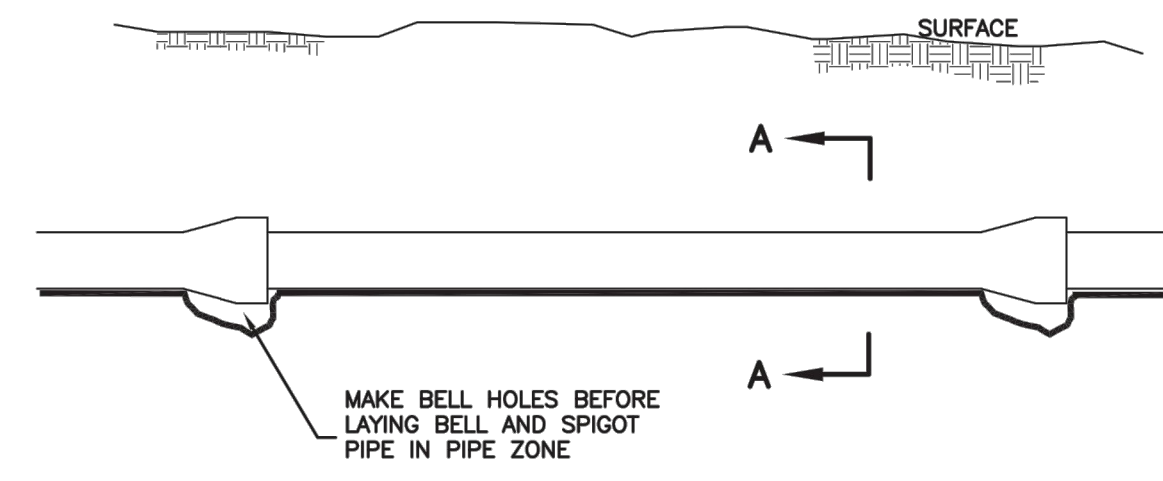
1. **GENERAL**
 - A. The drawing applies to backfilling the trench above the pipe zone.
2. **PRODUCTS**
 - A. Backfill: Common fill, APWA Section 31 05 13. Maximum particle size 3-inches.
 - B. Flowable Fill: Target is 60 psi in 28 days with 90 psi maximum in 28 days, APWA Section 31 05 15. It must flow 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).



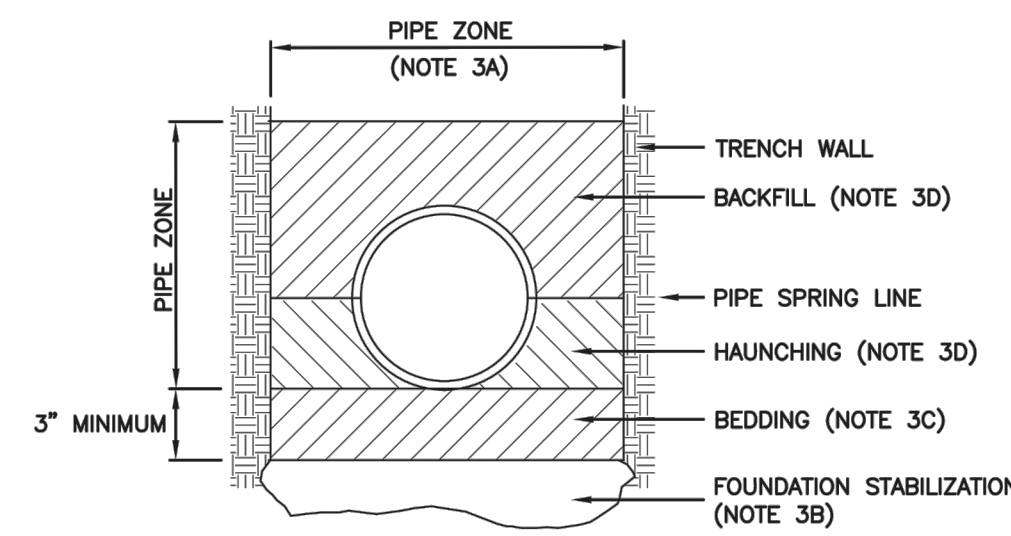
Trench backfill Plan 381
 January 2011 203

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
 January 2011 205

SUMMIT EDEN PHASE 1B
MISCELLANEOUS DETAILS

| NO. | BY | DATE | REVISIONS |
|-----|-----|------------|--------------------------------------|
| 1 | RHC | 8/27/2013 | ADD ROOM 1 |
| 2 | RHC | 10/27/2014 | REBID COUNTY SEWER REVISIONS |
| 3 | RHC | 5/27/2014 | POST, PIPE, & OTHER TRENCH REVISIONS |

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

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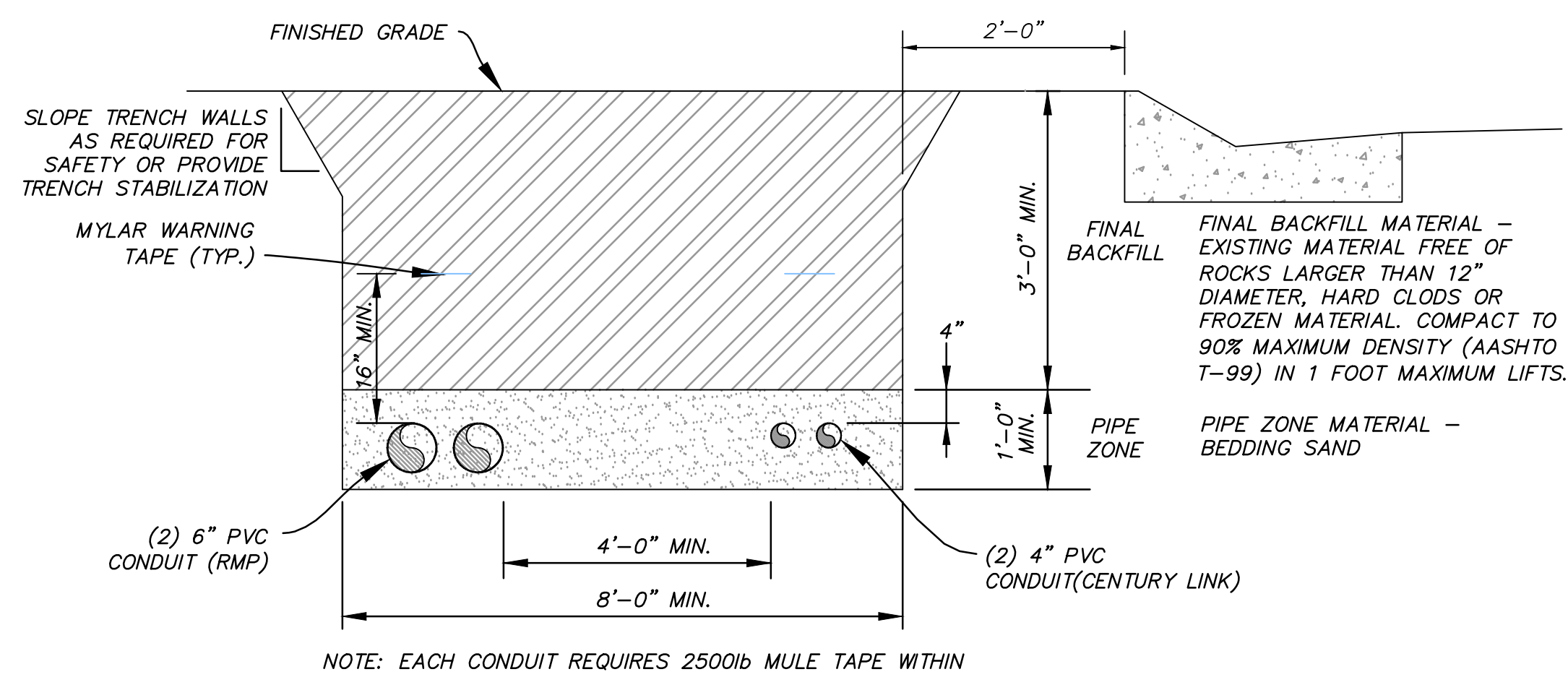
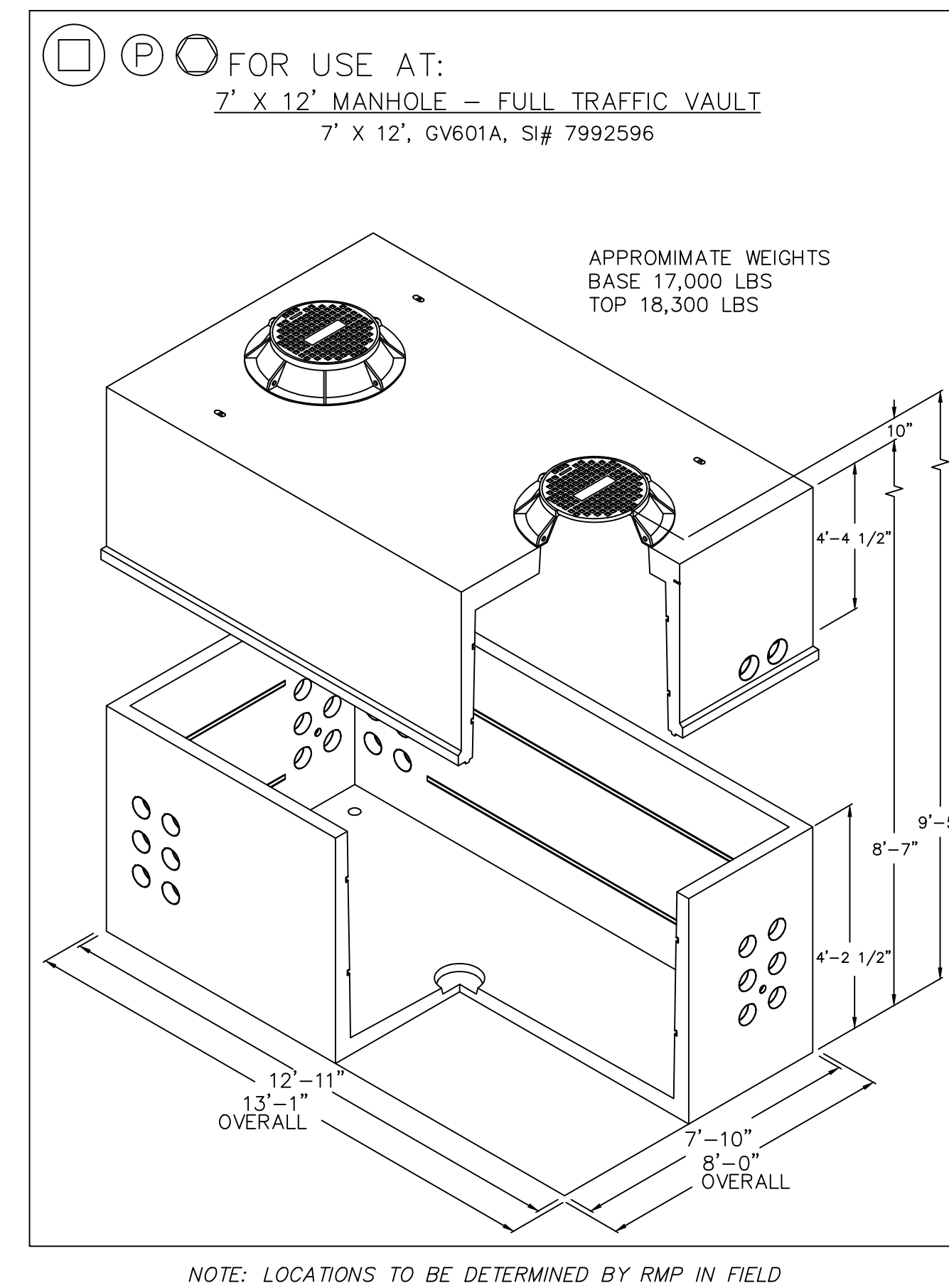
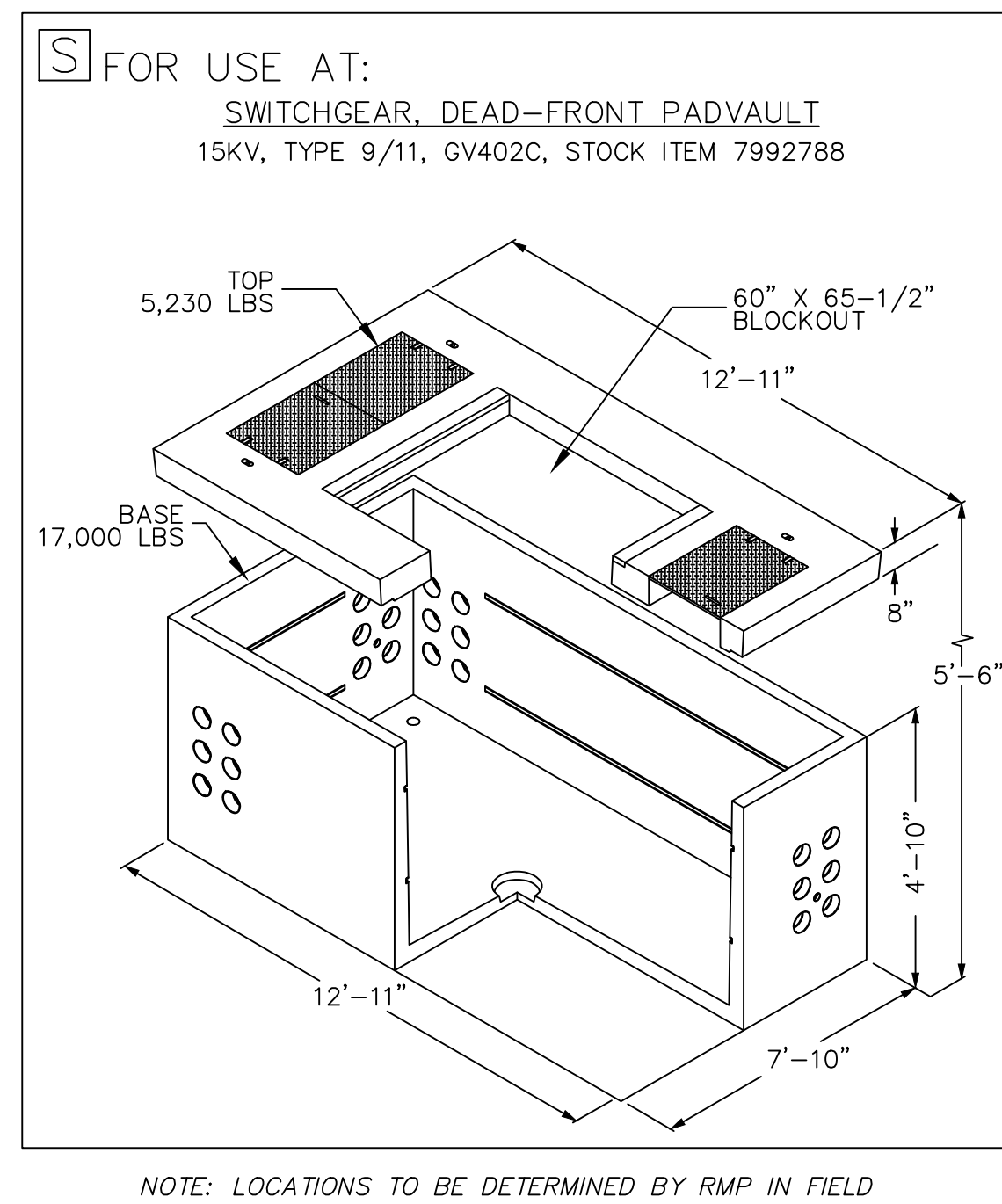
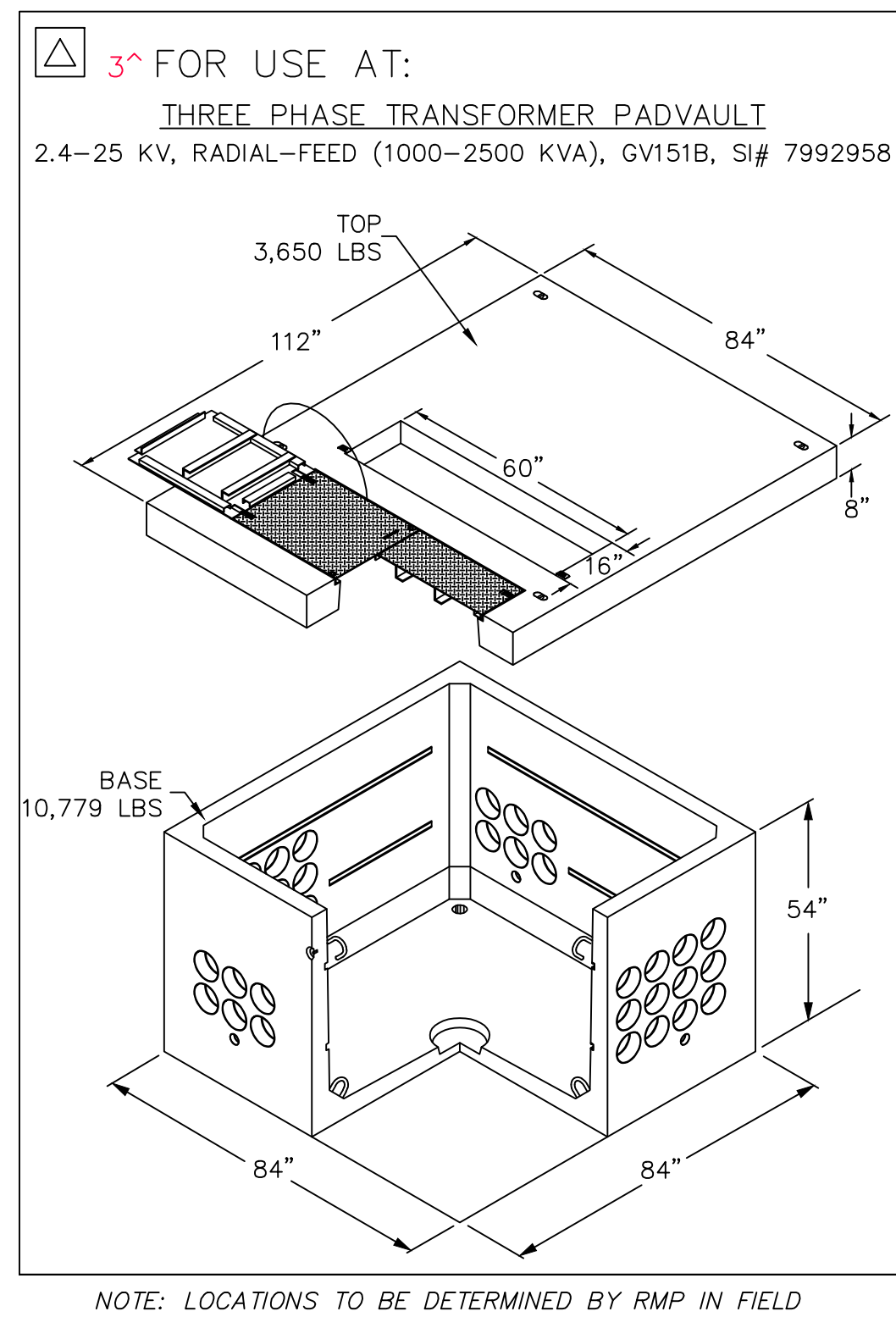
REGISTERED PROFESSIONAL ENGINEER
 No. 7899506
 RYAN W. CATHEY
 5/27/14
 STATE OF UTAH

SHEET NUMBER
5.12

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

JOB NUMBER
SLB079306





POWER CONDUIT TRENCH
 NTS

SUMMIT EDEN PHASE 1B
ELECTRICAL DETAILS

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

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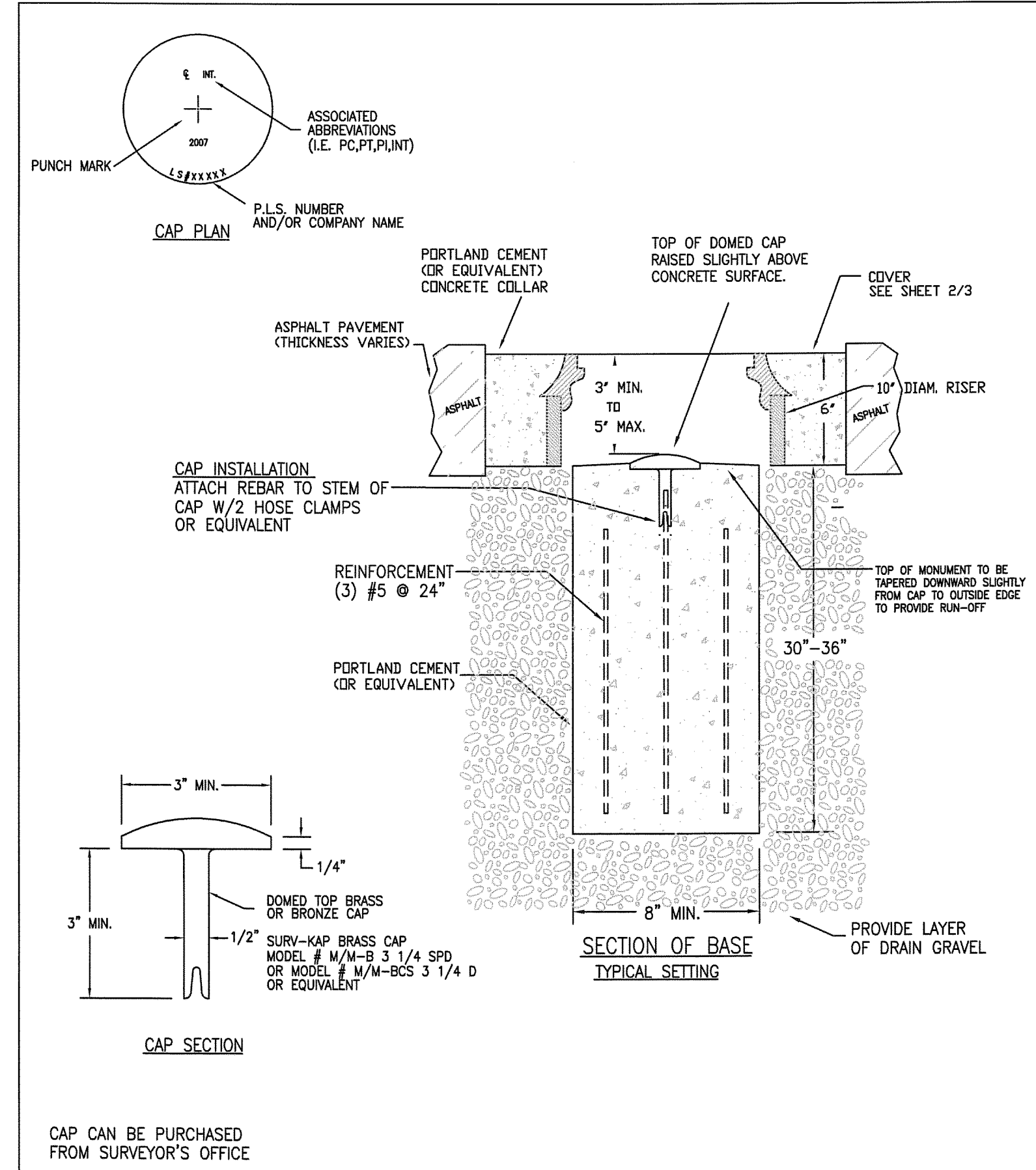
REGISTERED PROFESSIONAL ENGINEER
 No. 7899506
 RYAN W. CATHEY
 5/21/14
 STATE OF UTAH

SHEET NUMBER
5.20

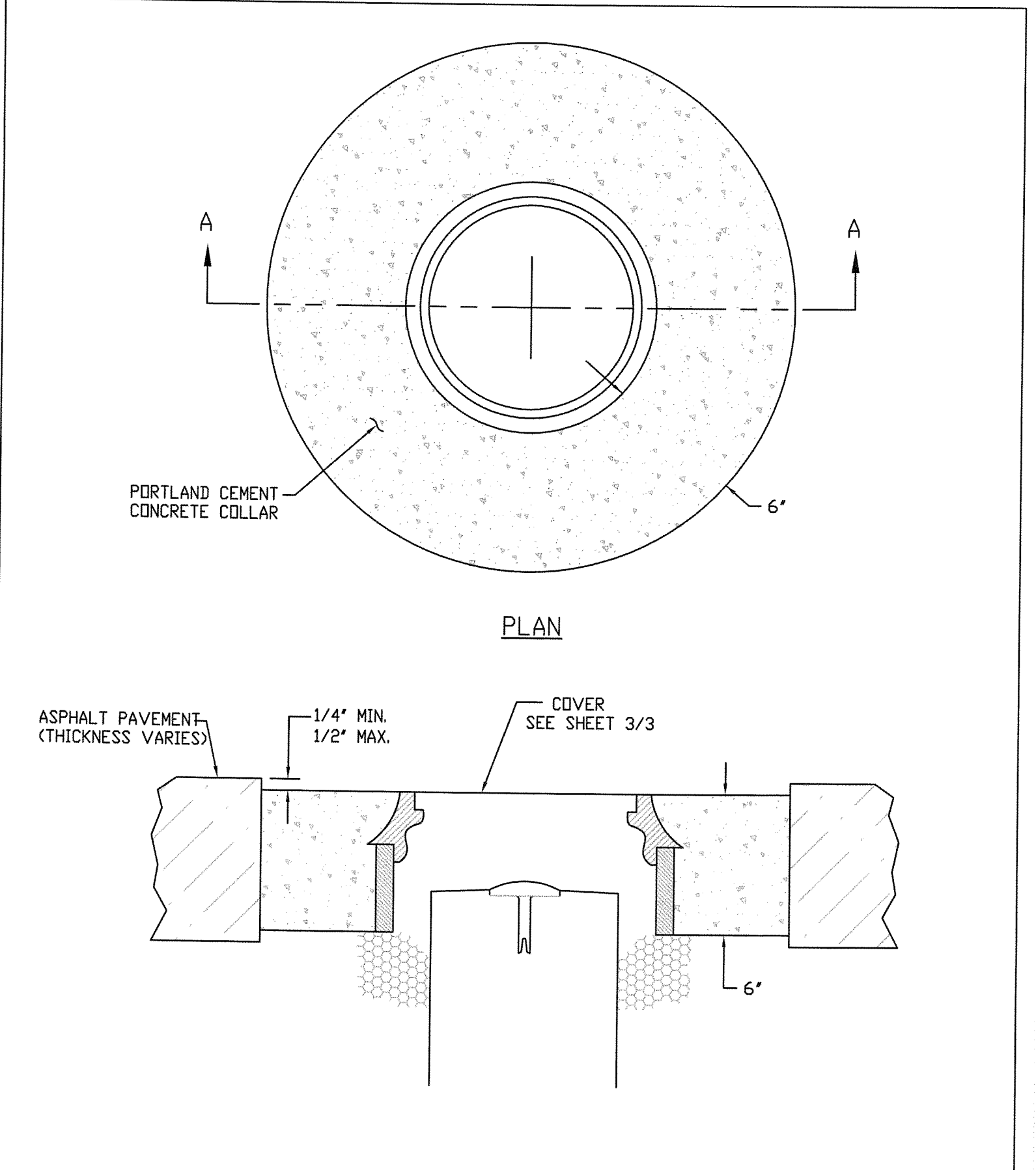
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JOB NUMBER
SLB079306

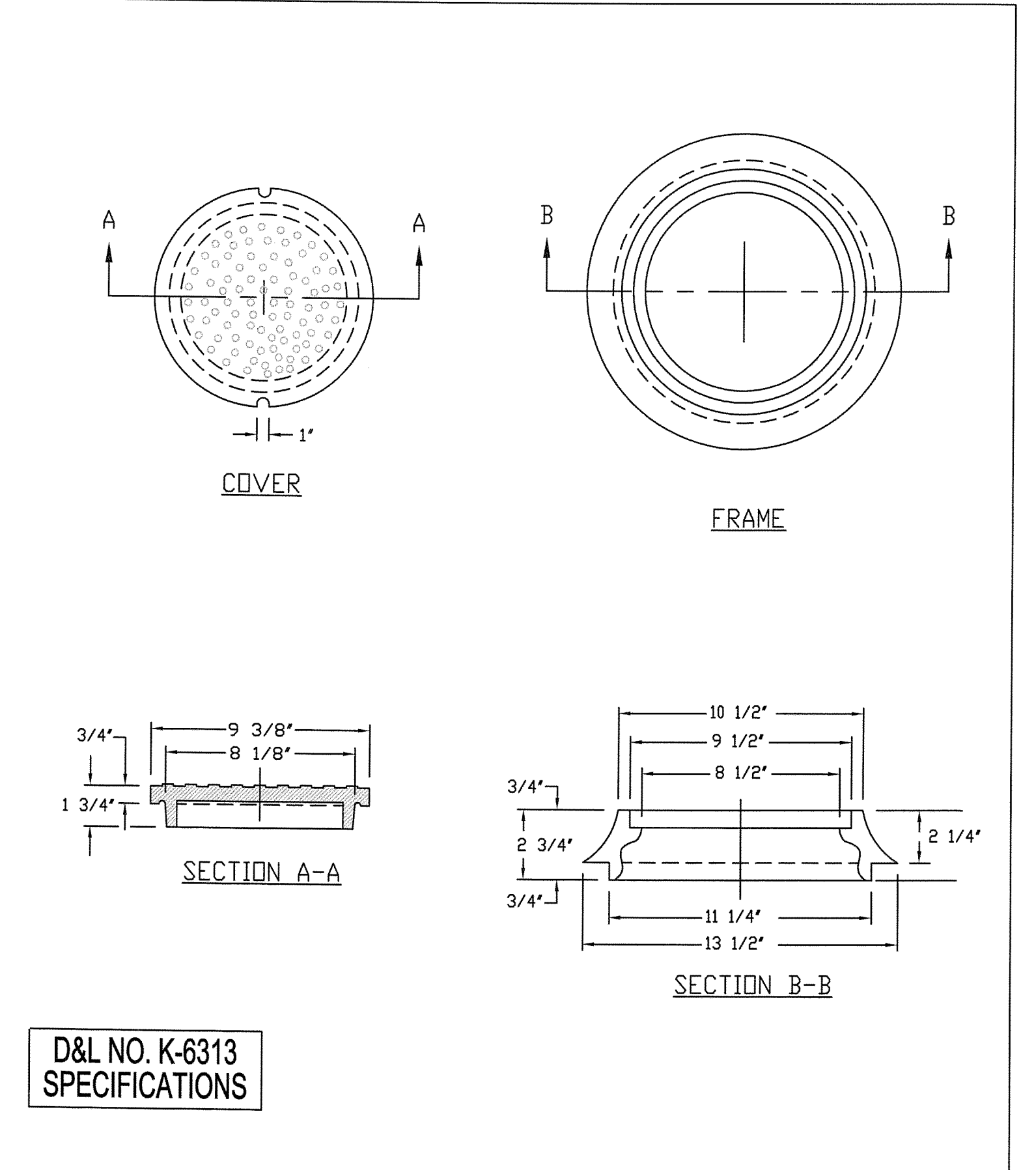




| | | |
|-------------------------------|-------------------------------|----------------------|
| WEBER COUNTY SURVEY OFFICE | RING & LID SURVEY MONUMENT | STANDARD PLANS |
| | | Monument Standard |
| 3/28/10 | 399-8020 | SHEET 1 OF 3 |



| | | |
|-------------------------------|--------------------------------------|----------------------------|
| 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 | 8/27/03 | ADDendum 1 |
| 2 | RHC | 7/27/04 | WEBER COUNTY SEWER REVISIONS |
| 3 | RHC | 5/27/04 | POST, PIPES & COVER LAYOUT REVISIONS |

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

SUMMIT EDEN PHASE 1B
MISCELLANEOUS DETAILS

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

