

1. All grading shall conform to Santa Barbara County Code Chapter 14 and standards and requirements pertaining thereto, these construction drawings and the recommendations of the soils engineer and engineering geologist.
2. Contractor to notify the county grading inspector and soils laboratory at least 48 hours before start of grad work or any pre-construction meeting.
3. Contractor shall employ all labor, equipment and methods required to prevent his operations from producing dust in amounts damaging to adjacent property, cultivated vegetation and domestic animals or causing a nuisance to persons occupying buildings in the vicinity of the job site. Contractor shall be responsible for damage caused by dust from his grading operation.
4. Before beginning work requiring exporting or importing of materials, the contractor shall obtain approval from Public Works Road Division for haul routes used and methods provided to minimize the deposit of soils on county roads. Grading/road inspectors shall monitor this requirement with the contractor.
5. The Geotechnical Engineer shall provide observation and testing during grading operations in the field and shall submit a final report stating that all earth work was properly completed and is in substantial conformance with the requirements of the grading ordinance.
6. Areas to be graded shall be cleared of all vegetation including roots and other unsuitable materials for a structural fill, then scarified to a depth of 6" prior to placing any fill. Call grading inspector for initial inspection.
7. A thorough search shall be made for all abandoned man-made facilities such as septic tank systems, fuel or water storage tanks, and pipelines or conduits. Any such facilities encountered shall be removed and the depression properly filled and compacted under observation of the geotechnical engineer.
8. Areas with existing slopes which are to receive fill materials shall be keyed and benched. The design and installation of the roadway shall be per the geotechnical engineer's recommendation or per County Standard Detail No. G-13.
9. Fill materials shall be spread in lifts not exceeding 6" in compacted thickness, moistened or dried as necessary to near optimum moisture content and compacted by an approved method. Fill materials shall be compacted to a minimum of 90% maximum density as determined by 1957 ASTM D-1557-01 modified proctor (ASHO) test or similar approved methods. Some fill areas may require compaction to a greater density if called for in the construction documents. Soil tests shall be conducted at not less than one test for each 18" of fill and/or for each 500 cubic yards of fill placed.
10. Cut slopes shall not exceed a grade of 1 1/2 horizontal to 1 vertical. Fill and combination fill and cut slopes shall not exceed 2 horizontal to 1 vertical. Slopes over three feet in vertical height shall be planted with approved perennial or treated with equally approved erosion control measures prior to final inspection.
11. Surface drainage shall be provided a minimum of 2% for 5 feet away from the foundation line of any structure.
12. All trees that are to remain on site shall be temporarily fenced and protected around the drip line during grading.
13. An erosion and sediment control plan shall be required as part of the grading plan and permit requirements.
14. "Best Management Practices for Construction Activities: Eroded sediments and other pollutants must be retained onsite and must not be transported from the site via sheet flow swales, area drains, natural drainage courses, or wind. Stockpiles of earth and other construction related materials must be protected from being transported from the site by forces of wind or water. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills may not be washed into the drainage system. Excess or waste concrete may not be washed into public way or any other drainage system. Provisions must be made to retain concrete wastes on site until they can be disposed as solid waste. Trash and construction related solid waste must be deposited into a covered waste receptacle to prevent contamination of rainwater and dispersal by wind. Sediments and other material may not be tracked from the site by vehicular traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental deposition must be swept up immediately and may not be washed down by rain or other means. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to minimize erosion by wind and water."
15. If grading occurs during Nov 1 through Apr 15, no grading shall occur unless approved erosion and sediment control measures are in place. Discharges of sediment from the project site may result in a Stop Work Order.
16. All earthwork on hillsides, sloping or mountainous terrain shall be stabilized to protect and prevent loss of soils, as necessary, year-round.

Earthwork Estimates

Cut: 132,833 C.Y. Fill: 127,047 C.Y. Import: 0 C.Y. Export: 0 C.Y. Quantities based on 30% shrinkage

Erosion Control Notes

1. Erosion control measures shall be implemented on all projects and shall include source control, including protection of stockpiles, protection of slopes, protection of all disturbed areas, and protection of accesses. In addition, perimeter containment measures shall be placed prior to the commencement of grading and site disturbance activities unless the Public Works Department determines temporary measures to be unnecessary based upon location, site characteristics or time of year. The intent of erosion control measures shall be to keep all sediment from entering a swale, drainage way, watercourse or onto adjacent properties.
2. Site inspections and appropriate maintenance of erosion control devices shall be conducted and documented prior to, during, and after rain events.
3. The developer shall be responsible for the placement and maintenance of all erosion control devices as specified by the approved plan until such time that the project is accepted as complete by the Public Works Department. Erosion control devices may be relocated, deleted or added as needed depending on the actual soil conditions encountered. Additional erosion control devices shall be placed at the discretion of the Engineer of Work, County Inspector, SWPPP Monitor, or RWQCB Inspector. Guidelines for determining appropriate erosion control devices are included in the appendix of the Public Improvement Standards.
4. All erosion control devices shall be the first order of work and shall be in place between Oct 15 and April 15 or anytime when the rain probability exceeds 30%. This work shall be installed or applied after each area is graded and no later than five (5) working days after the completion of each area.
5. The Engineer of Work and the Public Works Department shall be notified before October 15 for inspection of installed erosion control devices.
6. A standby crew for emergency work shall be available at all times during the rainy season (October 15 through April 15). Necessary materials shall be available and stock piled at convenient locations to facilitate rapid construction or maintenance of temporary devices when rain is imminent.
7. Permanent erosion control shall be placed and established with 90% coverage on all disturbed surfaces other than paved or gravel surfaces, prior to final inspection. Permanent erosion control shall be fully established prior to final acceptance. Temporary erosion control measures shall remain in place until permanent measures are established.
8. In the event of a failure, the developer and/or his representative shall be responsible for cleanup and all associated costs or damages.
9. All projects involving site disturbance of one acre or greater shall comply with the requirements of the National Pollutant Discharge Elimination System (NPDES). The developer shall submit a Notice of Intent (NOI) to comply with the General Permit for Construction Activity with the Regional Water Quality Control Board (RWQCB). The developer shall provide the County with the Waste Discharge Identification Number (WDID #) or with verification that an exemption has been granted by RWQCB.

WDID# _____
10. Person to contact 24 hours a day in the event there is an erosion control/sedimentation problem (Storm Water Compliance Officer):
Name Kevin Merrill
Local Phone Number 310-3989

Project Air Quality Control Notes:

During Construction the contractor shall designate a person or persons to monitor the Dust Control Program and to order increases measures as necessary to prevent the transport of dust off-site. Their duties shall include holiday and weekend periods when work may or may not be in progress. The name and telephone number for such persons shall be provided to the APCD prior to the commencement of construction. The measures for dust control are as follows but not limited to:

Reduce the amount of disturbed area where possible.

1. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15mph. Reclaimed (non-potable) water should be used whenever possible.
2. All dirt stockpile areas shall be sprayed daily as needed.
3. Exposed ground areas that are planned to be reworked at dates later than one month after initial grading should be seeded with a fast germinating native grass seed and watered until vegetation is established.
4. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD.
5. All external slopes shall be hydroseeded as soon as possible upon completion.
6. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
7. All trucks hauling dirt, sand, soil, or other loose material are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.
8. Install wheel washers where vehicles enter and exit paved roads and streets, or wash off trucks and equipment leaving the site.
9. Prior to final inspection all disturbed areas shall be vegetated with a fast-growing, native seed mix.

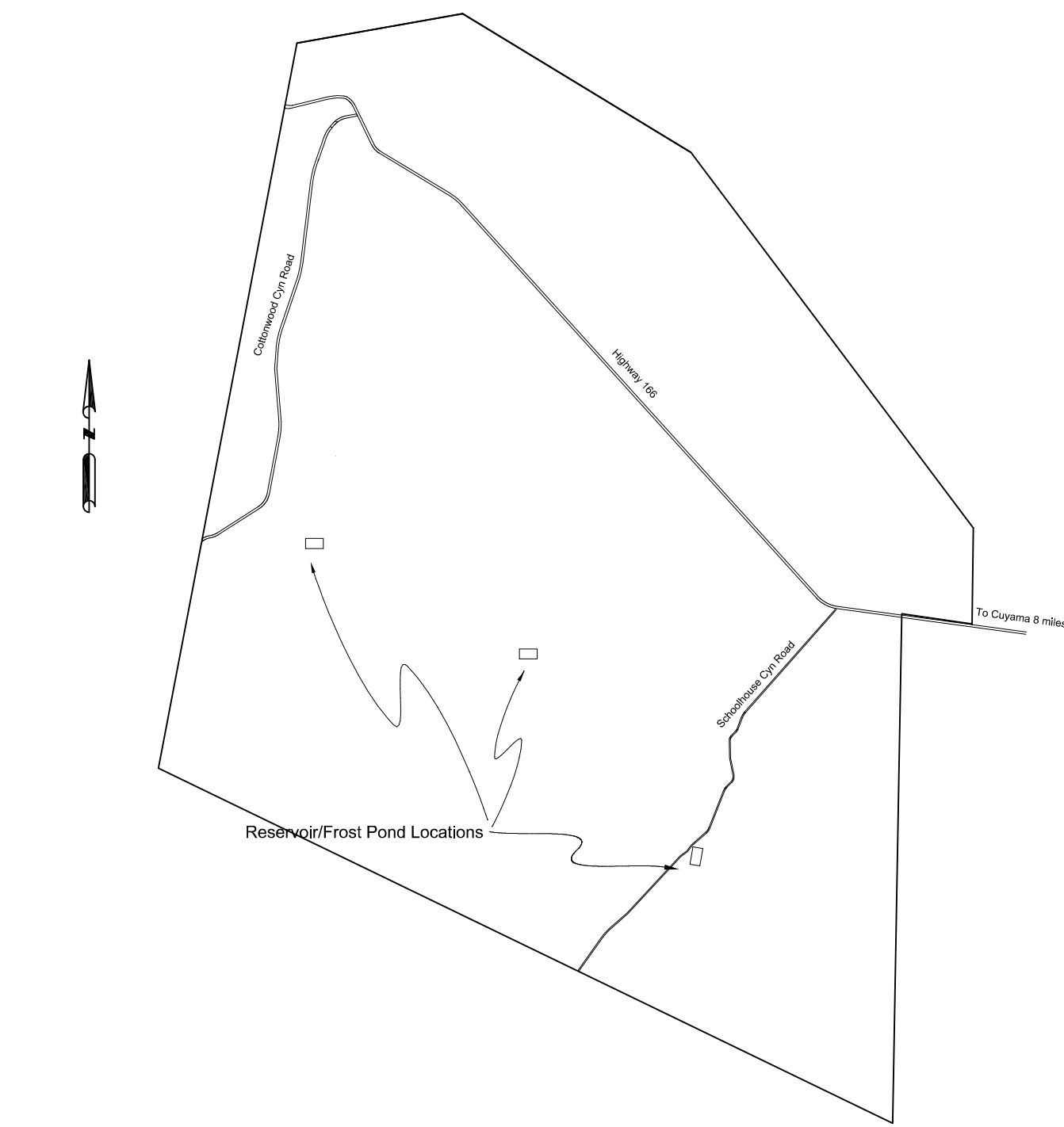
General Notes

1. No construction shall be started without plans approved by the County Planning Department. The Planning Department shall be notified at least 24 hours prior to the start of construction and the time and location for the preconstruction conference.
2. All construction work and installations shall conform to the County Standards and Specifications.
3. Soils tests shall be done in accordance with the County Standards. The test results shall clearly indicate the location and source of materials.
4. Compaction tests shall be made on all embankment materials, subgrades and ditch backfill.
5. There will be no need for special concrete inspection. Concrete for the anchor pad shall be 2000 psi. The rebar shall be inspected prior to the placement of the concrete. All concrete and the two sack slurry for the anti-seep collars and ditch backfill where shown shall be properly vibrated.
6. The Design Engineer shall inspect the installation of the HDPE Liner. The liner shall be installed by a contractor specializing in lining ponds.
7. The Engineer of Record shall certify that the improvements when completed are in accordance to the plans prior to the request for Final Inspection. As-built plans are to be prepared after construction is completed. The Engineer certifying the improvements shall be present at the Final Inspection.
8. Final Reports for grading and earthwork shall be prepared in accordance with the requirements of the UBC, Chapter 33.
9. Upon completion of the work, the Geotechnical Engineer shall submit to the Engineer of Record a complete summary of all testing done during the project.
10. The Construction Contractor shall maintain a current, complete and accurate record of all changes which deviate from the approved plans. No changes shall be made without the prior approval of the Engineer of Record and the County.

North Fork Reservoirs/Frost Ponds #1-3

APN 147-020-045

Vicinity Map



Best Management Practices for Construction Activities

Eroded sediments and other pollutants must be retained onsite and may not be transported from the site via sheet flow, swales, area drains, natural drainage courses, or wind. Stockpiles of earth and other construction related materials must be protected from being transported from the site by the forces of wind or water. Fuels, oils, solvents, and other toxic materials must be stored in accordance with their listing and are not to contaminate the soil and surface waters. All approved storage containers are to be protected from the weather. Spills may not be washed into the drainage system. Excess or waste concrete may not be washed into public way or any other drainage system. Provisions must be made to retain concrete wastes on site until they can be disposed as a solid waste. Trash and construction related solid waste must be deposited into a covered waste receptacle to prevent contamination of rainwater and dispersal by wind. Sediments and other material may not be tracked from the site by vehicle traffic. The construction entrance roadways must be stabilized so as to inhibit sediments from being deposited into the public way. Accidental deposition must be swept up immediately and may not be washed down by rain or other means. Any slopes with disturbed soils or denuded of vegetation must be stabilized so as to minimize erosion by wind and water.

GSi Soils, Inc shall perform all special inspections for the earthwork for this project.

GSi Geotechnical Investigation dated January 4, 2016 Project 15-7274 shall be a part of these documents.

Call 48 hours prior to inspection to set up an appointment.

Table 1705.6
Required Verification and Inspection of Soils

Verification and Inspection Task	Continuos During Task Listed	Periodically During Task Listed
1. Verify materials below embankments are adequate to achieve the design capacity	_____	X
2. Verify excavations are extended to proper depth and have reached proper material.	_____	X
3. Perform classification and testing of controlled filled materials.	_____	X
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill.	X	_____
5. Prior to placement of controlled fill, observe subgrade	_____	X

Scope of Work

The work consists of constructing three new lined reservoirs/frost ponds for frost control purposes. All areas to receive fill shall be excavated a minimum of three feet, the exposed surface scarified and moisture conditioned, then recompacted to 90% relative compaction. The intent is to balance the earthwork with no import or export. The completed interior slopes shall be fine graded and all rocks removed, then rolled with a smooth drum roller. A 40 mil HDPE geomembrane liner will then be installed on the slopes and bottom. The liner will be installed per manufacturer's recommendations by a company specializing in liner installation. A five foot by twenty three foot by eight inch reinforced concrete pad for anchoring the liner shall be constructed around the pump inlet pipes. No special inspection for the concrete work shall be required. A 6 foot non-climb fence will be built around the exterior perimeter. Coast Guard Approved buoys with a minimum of 90 feet of line shall be placed at no more than 200 foot intervals around the top interior slope of the reservoirs. The sources of water are pvc waterlines from existing wells and no surface water shall enter the reservoir. Valving, filters and pumps will be installed after the reservoirs are constructed by the Irrigation Contractor and are not part of this permit. This contract is for stubbing inlet pipes through the exterior slope for future connection to the fill and transfer lines by an Irrigation Contractor. These pipes shall have 2 sack concrete slurry anti-seep collars. A 15" PVC Drop Pipe Outlet Structure will serve as an emergency overflow in the event the high water limit switch fails and is sized to prevent the reservoir from overtopping. Access to the reservoir is by existing dirt farm roads. No driveways will be constructed. The existing farm fields sheet flow gently across the locations and earthen swales will be constructed around the perimeters where necessary to keep any surface flow away from the toe of the fill slopes. No electrical work is included in this permit.

Benchmark and Basis of Bearing

Benchmark is a 2 1/2" aluminum disc, stamped h-2,
Cal-Trans Monument sb166 pm-55.01
elevation = 1824.55 NAVD88

Basis of Bearing is GPS established true north from NAD
83(92) from Cal-Trans Monuments
sb166 pm-55.01 and sb166 pm-55.43

Project Information

Address: 7400 Hwy 166, Cuyama Valley

APN 147-020-045

Zoning AG

Project Description: Construct three 49 ac-ft Reservoirs/Frost Ponds for irrigation and frost protection purposes

Pre-Construction Meeting

Prior to construction a pre-construction meeting is required with the inspector to go over the special inspection reporting requirements, final and progress reports, & erosion control. E-mail inspection-North@countyofsb.org

Contacts:

Owner: Grapevine Land Management

Matt Turrentine
444 Higuera St Suite 202
San Luis Obispo, CA 93401
805 312-1828

Engineer: Tom A Howell

1812 N Vine
Santa Maria, CA 93454
805 925-5311

Geotechnical Engineer: GSI Soils, Inc

Rick Amero
524 East Chapel
Santa Maria, CA 93454
805 349-0140

Sheet Index

Sheet 1: Front sheet, notes and title

Sheet 2: Overall Layout & Existing Contours

Sheet 3: Overall Site Piping Layout

Sheet 4: Reservoir/Frost Pond #1 Grading Plan

Sheet 5: Reservoir/Frost Pond #1 Details

Sheet 6: Reservoir/Frost Pond #2 Grading Plan

Sheet 7: Reservoir/Frost Pond #2 Details

Sheet 8: Reservoir/Frost Pond #3 Grading Plan

Sheet 9: Reservoir/Frost Pond #3 Details

Sheet 10: Common Details

Sheet 11: Erosion and Sedimentation Control Plan

Sheet 12: BMP Details

The undersigned civil engineer will provide supervision of the civil improvements, including grading and drainage, certifies that this work will be completed in accordance with the Santa Barbara County Grading Ordinance #4477.



Engineer's Certificate

I, Tom A Howell, RCE 27037, Engineer of Record, hereby certify that these plans are in accordance with the following codes: _____ Date: _____

2013 California Bldg Code (0112 IBC), Appdx Chp 33, 1997 UBC

2013 California Electric Code (2011 NEC)

2013 California Mechanical Code (2012 IAMPO UMC)

2013 California Plumbing Code (2012 IAMPO UPC)

California Title 24: 2011 California Energy Code and Accesibility Standards

County Ordinance(s) Title 19 (Building), (Inland)

Geotechnical Engineer's Certificate

I have reviewed the plans and specifications and have found them to be in

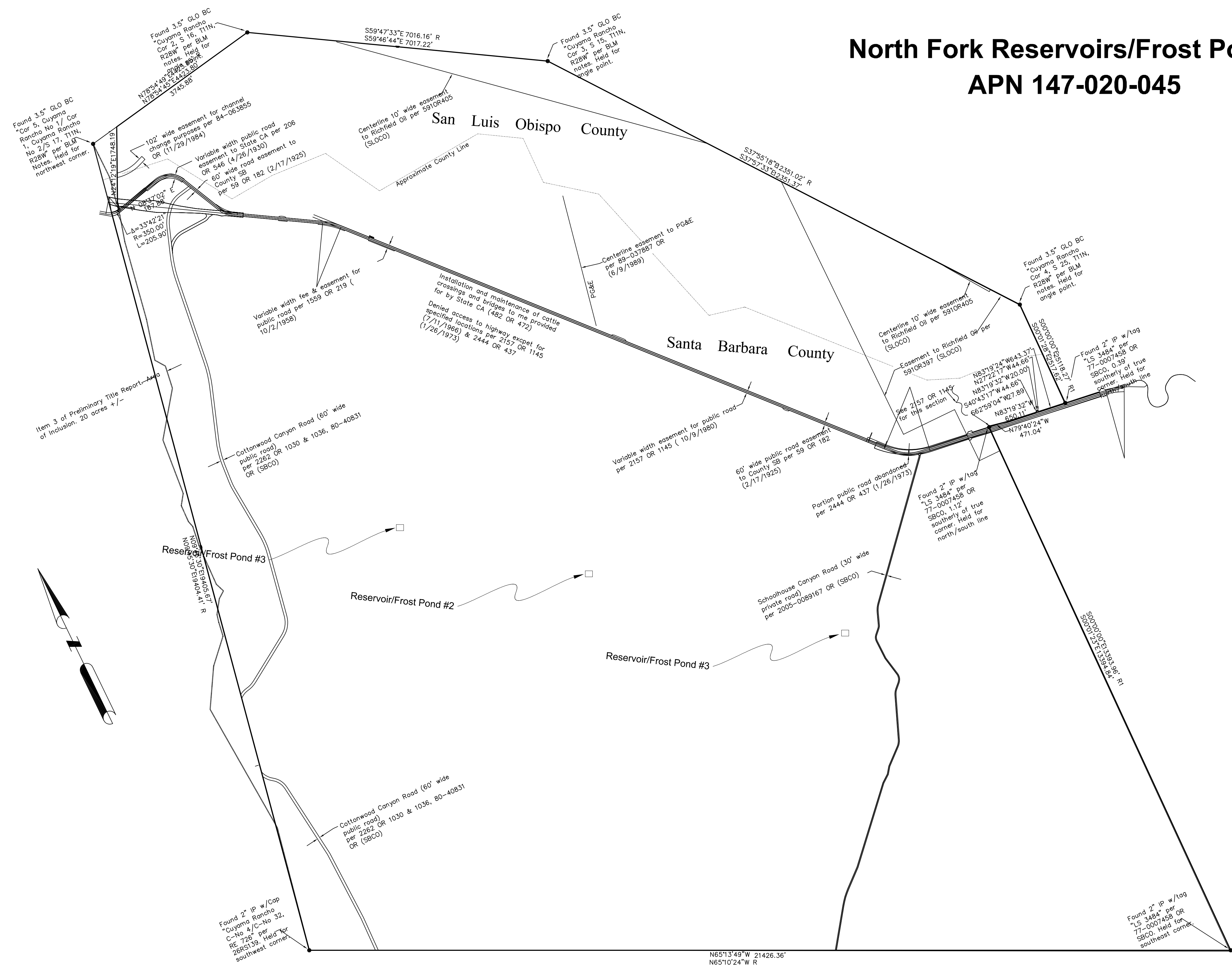
substantial conformance with the recommendations as found in my Soil Investigation.

Date: _____

North Fork Vineyards

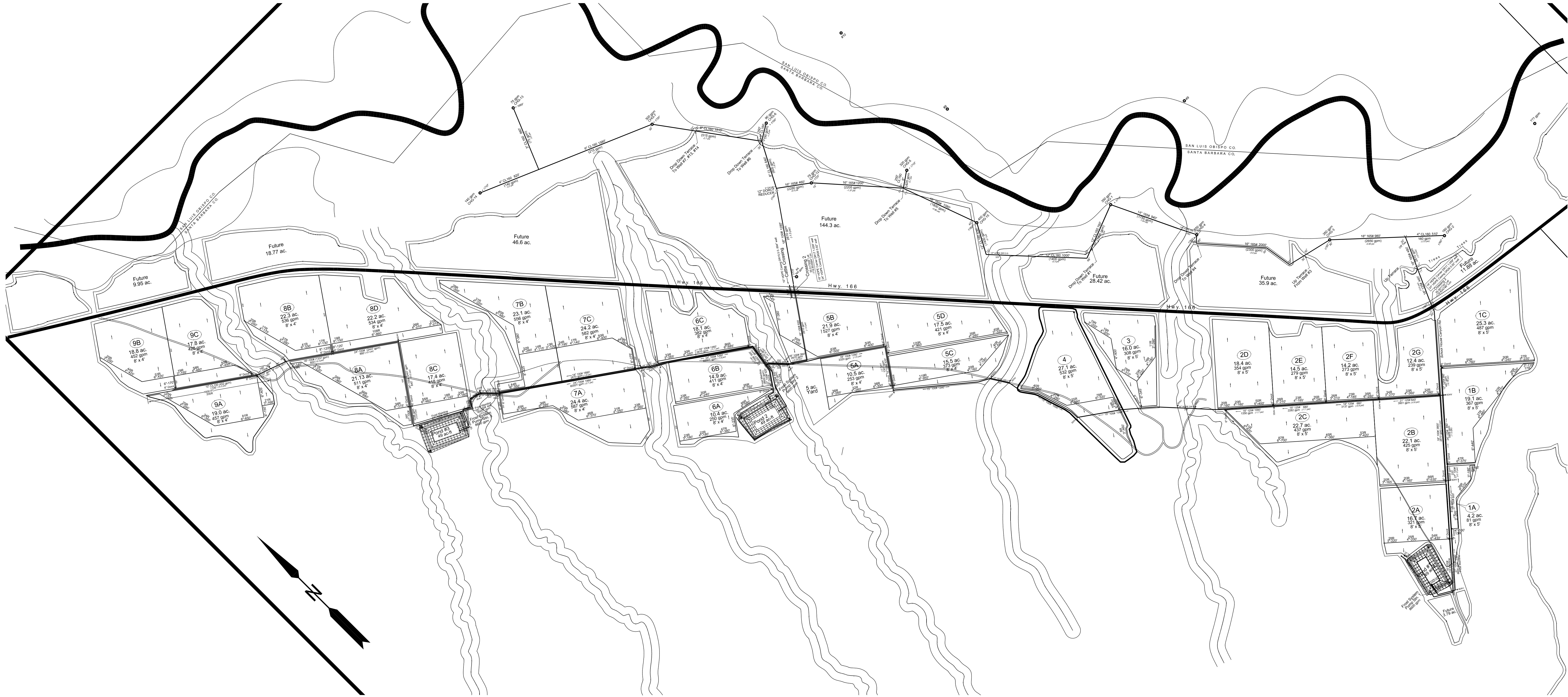
DRAWN TH	DATE 6/13/17	49 Ac-ft Frost Ponds Hwy 166 Cuyama, CA Cover Sheet
APPROVED	DATE	
SCALE Varies	SHEET 1 of 12	PROJECT NO. 101715-6233

North Fork Reservoirs/Frost Ponds #1-3
APN 147-020-045



North Fork Vineyards		
DRAWN	DATE	49 Ac-ft Frost Ponds
TH	6/13/17	Hwy 166
APPROVED	DATE	Cuyama, CA
		Overall Property
SCALE	SHEET	PROJECT NO.
1"=1200'	2 of 12	101715-6233

North Fork Vineyard Frost Protection Overall Site Plan



North Fork Vineyards		
DRAWN	DATE	Frost Ponds #1-3
TH	6/13/17	Overall Piping Plan
APPROVED	DATE	Existing Piping
SCALE	SHEET	PROJECT NO.
1"=600'	3 of 12	101715-6233

Reservoir/Frost Pond # 1 Grading Plan

Pond #1 Report

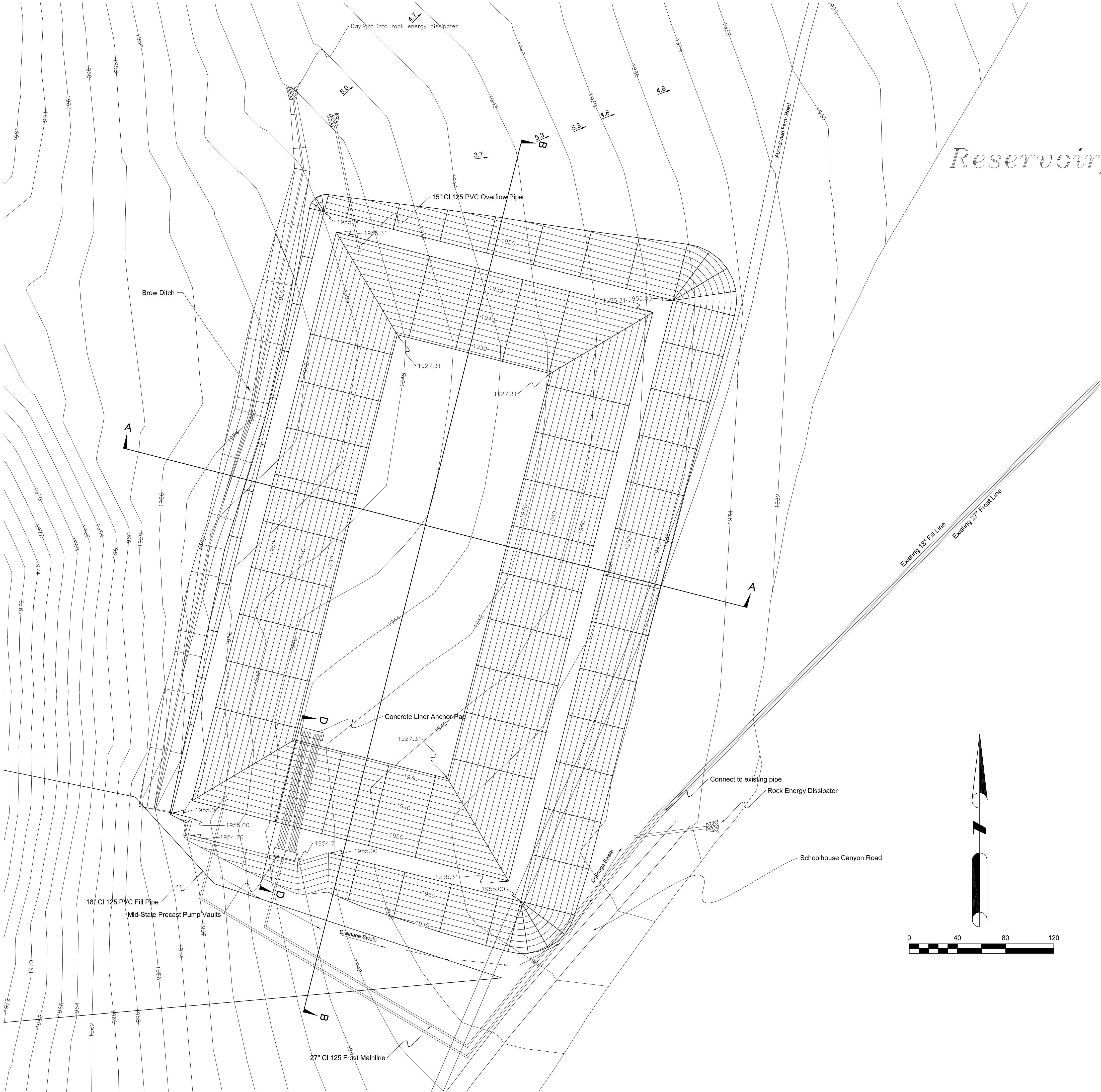
Top of dam elevation: 1955.3
Bottom of pond elevation: 1927.3
Top of dam width: 14.0
Cut Slope: 2.00:1
Fill Slope: 2.50:1
Interior Slope: 2.50:1

Pond Earthwork Volumes

Fill Factor: 1.30
Total cut : 44,062 C.Y.
Total fill: 44,589 C.Y.
Total Disturbed Area: 4.85 Acres

Pond Storage Volumes

Water Elev	Storage(AcreFt)	Area(Acre)
1927.31	0.00	1.046
1929.31	2.20	1.158
1931.31	4.63	1.274
1933.31	7.30	1.395
1935.31	10.21	1.520
1937.31	13.38	1.650
1939.31	16.81	1.784
1941.31	20.52	1.923
1943.31	24.51	2.066
1945.31	28.79	2.214
1947.31	33.37	2.366
1949.31	38.26	2.523
1951.31	43.46	2.684
1953.31	49.00	2.850
1955.31	54.87	3.020

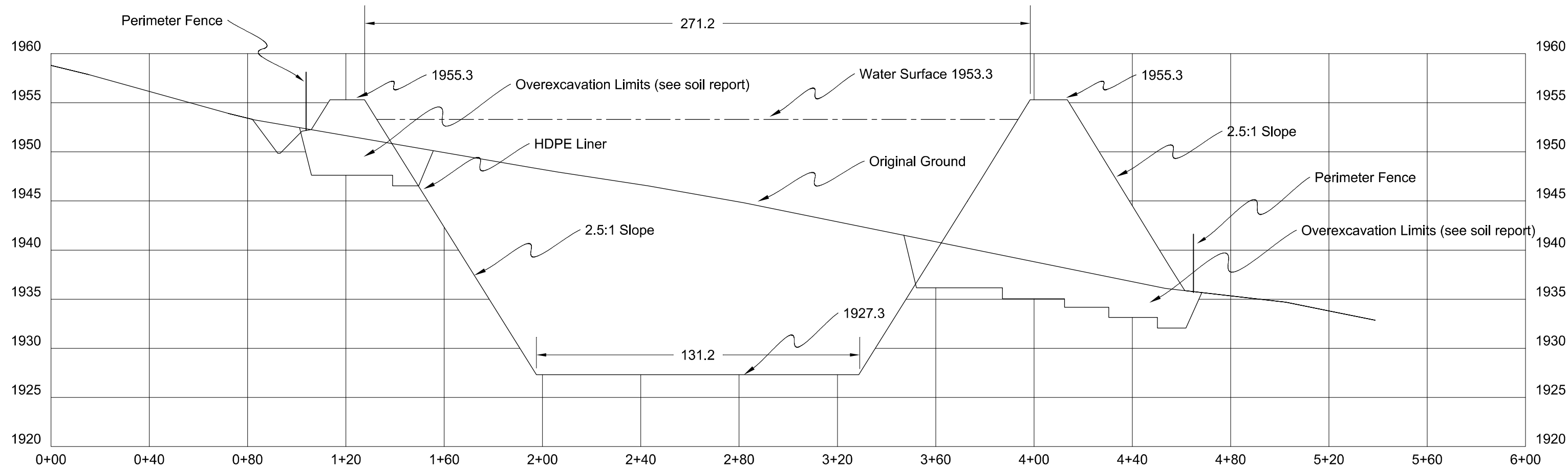


North Fork Vineyards

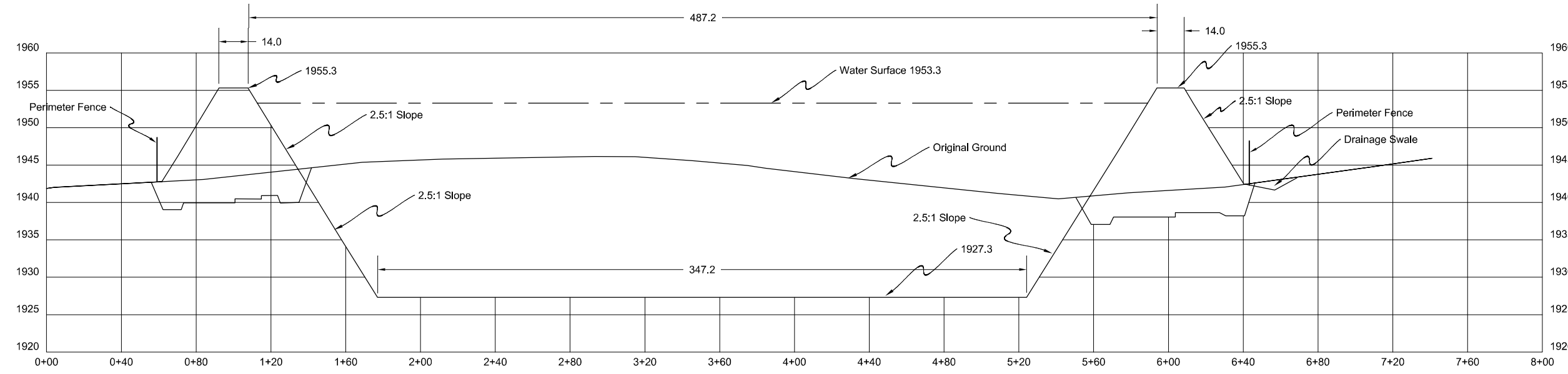
DRAWN <i>TH</i>	DATE 6/13/17	<i>Frost Pond #1 Grading Plan</i>
APPROVED	DATE	
SCALE 1"=40'	SHEET 4 of 12	PROJECT NO. 101715-6233

Reservoir/Frost Pond #1 Details

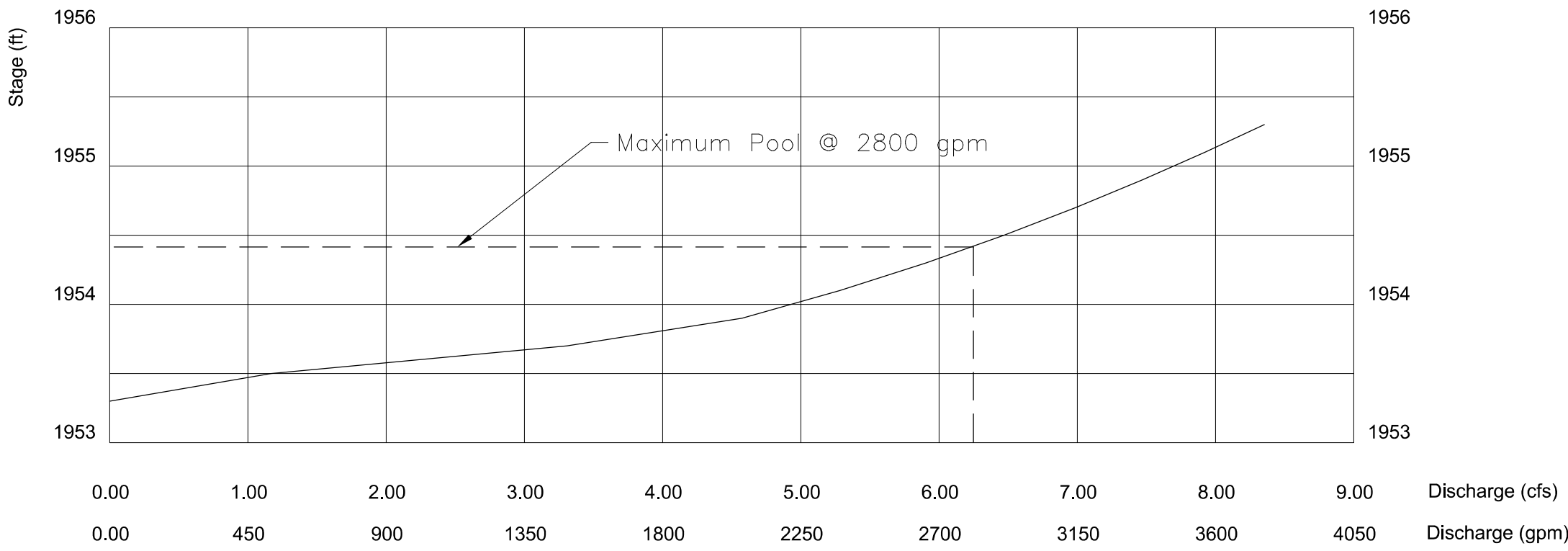
Reservoir/Frost Pond #1 Section A-A



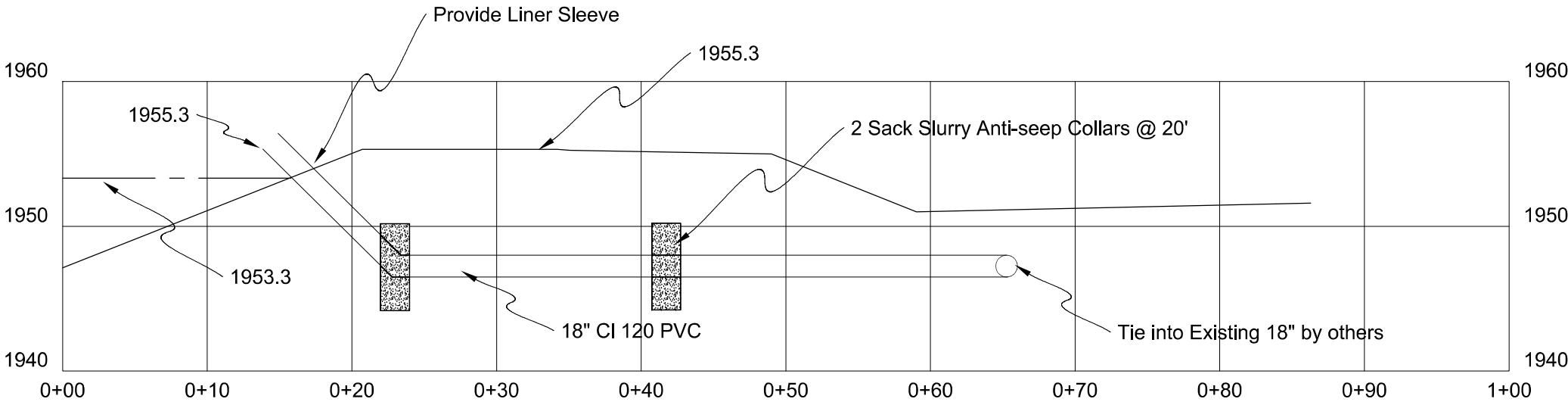
Reservoir/Frost Pond #1 Section B-B



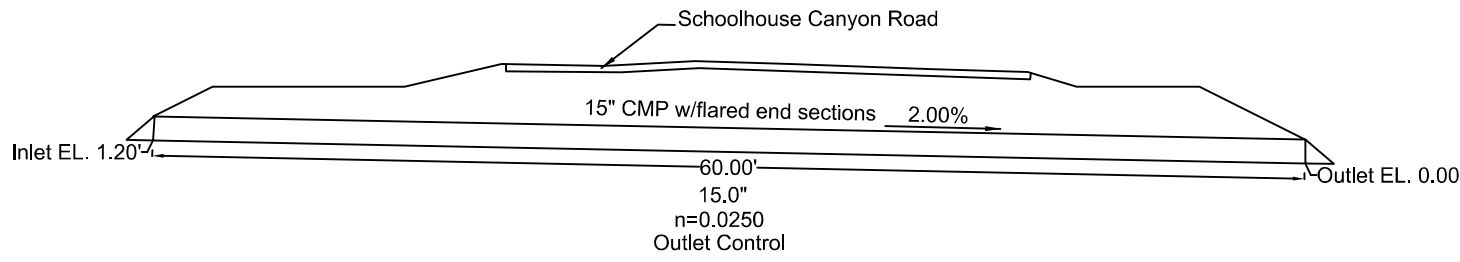
Pond #1 Stage-Storage



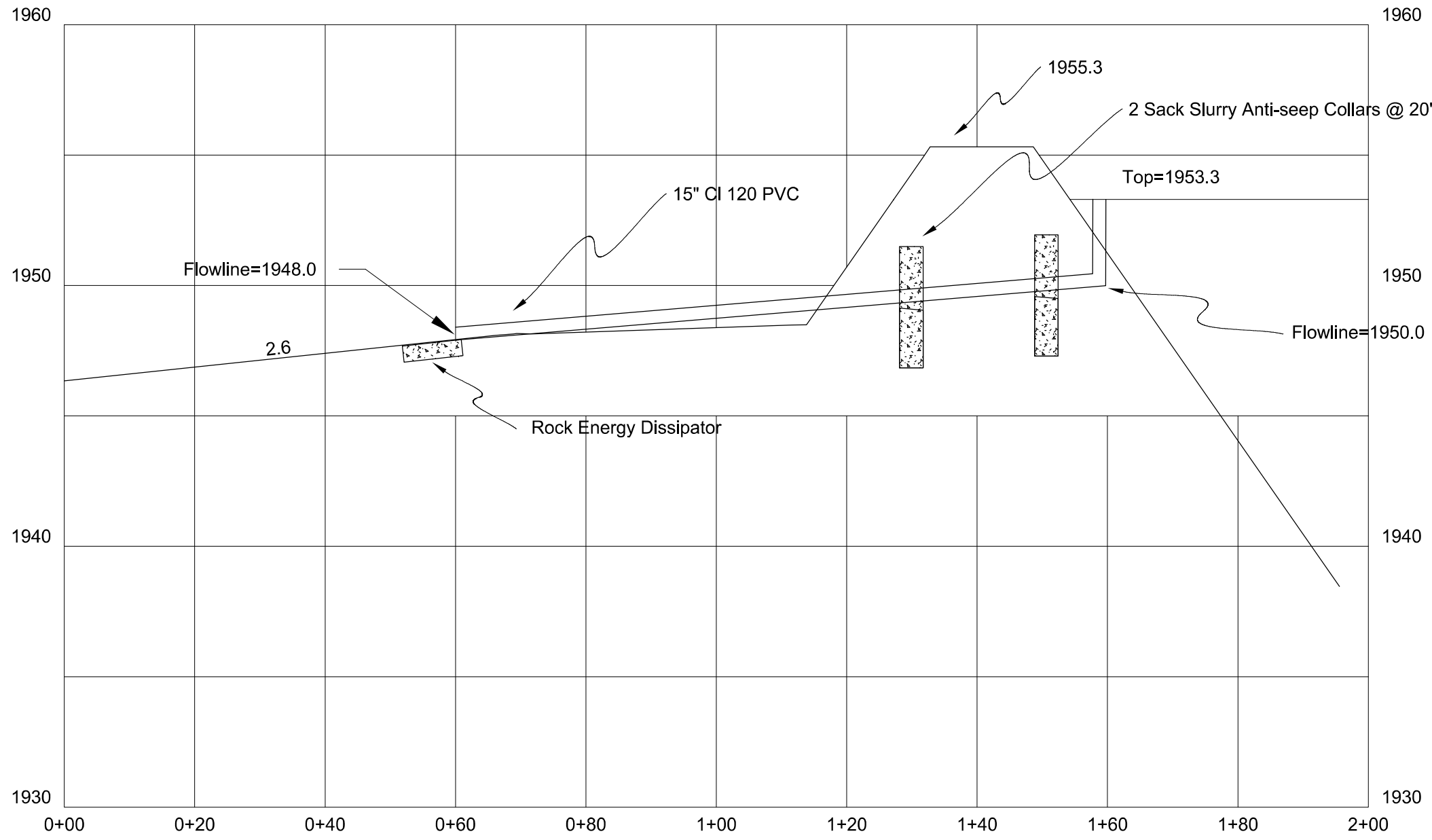
Reservoir/Frost Pond #1 Filler Pipe



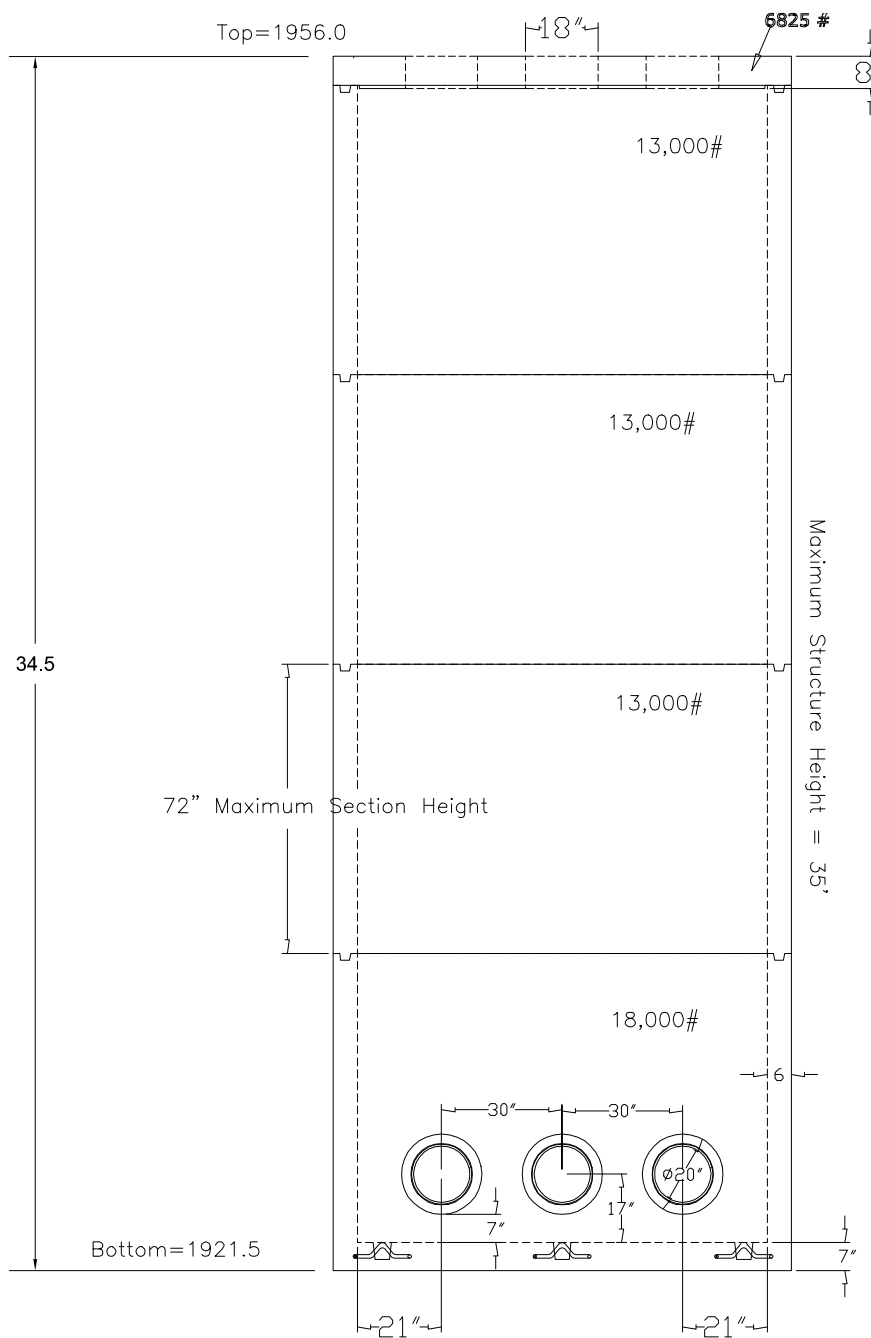
15" CMP Under Schoolhouse Road



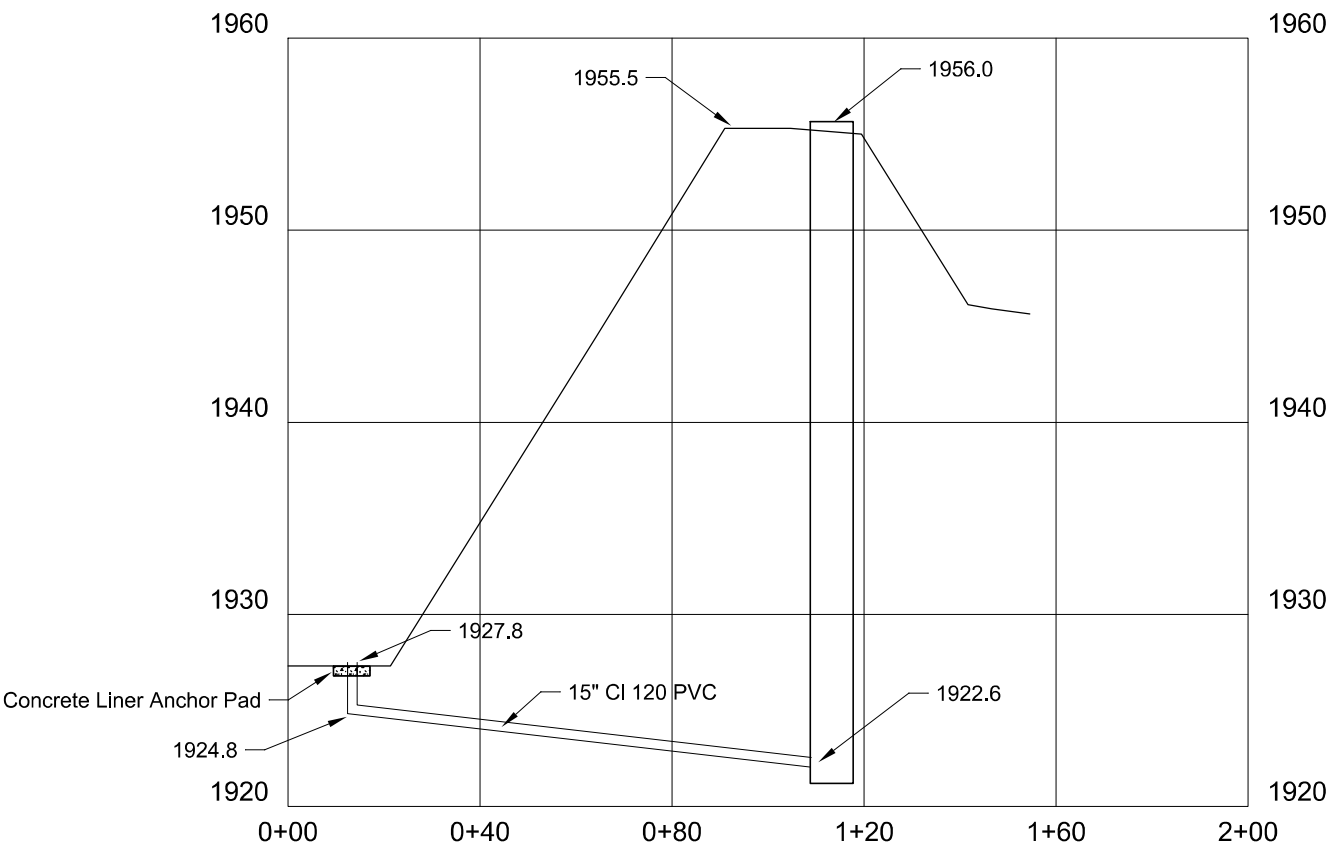
Reservoir/Frost Pond #1 Overflow Detail



Mid-State Concrete Products
Pump Housing Vault Reservoir/Frost Pond #1

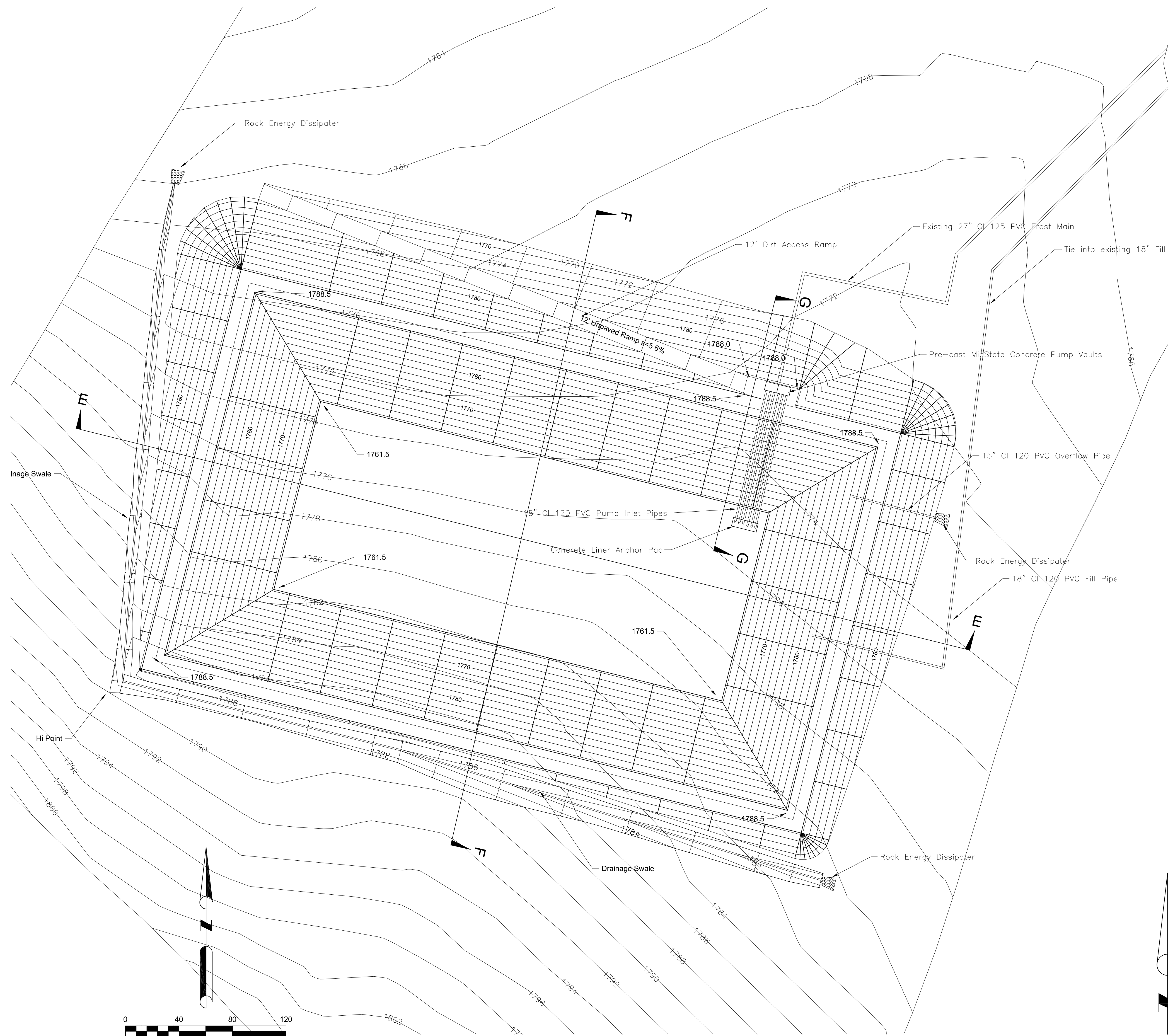


Reservoir/Frost Pond #1 Pump Inlet



North Fork Vineyards		
DRAWN <i>TH</i>	DATE 6/13/17	Frost Pond #1 Details
APPROVED	DATE	
SCALE <i>Varies</i>	SHEET 5 of 12	PROJECT NO. 101715-6233

Reservoir/Frost Plan #2 Grading Plan



Pond Report

Tue Oct 20 14:36:54 2015

Top of dam elevation: 1788.50
Bottom of pond elevation: 1761.50
Top of dam width: 14.00
Cut Slope: 2.00:1
Fill Slope: 2.50:1
Interior Slope: 2.50:1
Existing Surface: C:\Carlson Projects\North Fork\Reservoir 2B OG.tin

Pond Earthwork Volumes

Fill Factor: 1.30
Total cut : 44,064.35 C.Y.
Total fill: 142,205.16 C.Y.
Total Disturbed Area: 4.93 ac

Pond Storage Volumes

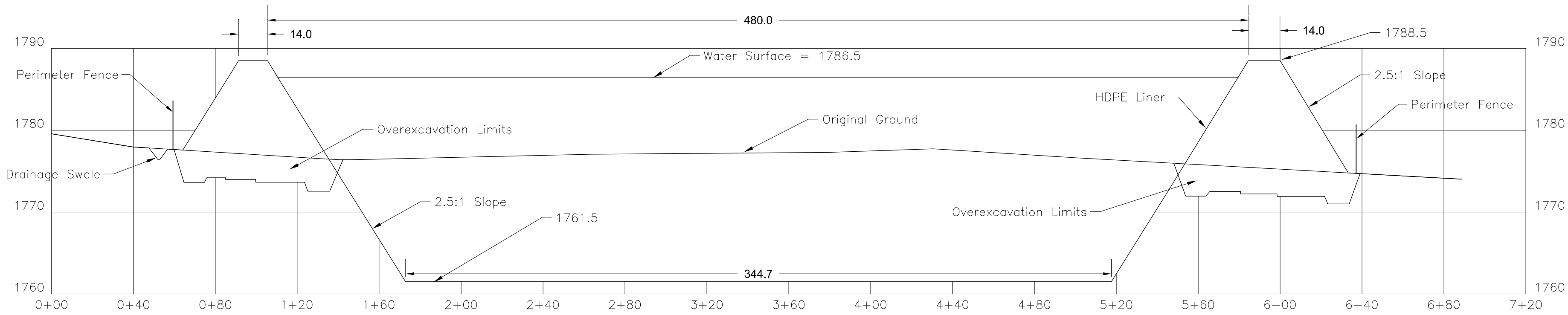
Water Elev	Storage(AcreFt)	Area(Acre)
1761.50	0.00	1.146
1763.50	2.40	1.259
1765.50	5.04	1.378
1767.50	7.91	1.502
1769.50	11.05	1.630
1771.50	14.44	1.762
1773.50	18.10	1.899
1775.50	22.03	2.040
1777.50	26.26	2.186
1779.50	30.73	2.336
1781.50	35.60	2.490
1783.50	40.74	2.649
1785.50	46.20	2.813
1787.50	52.00	2.981
1788.50	55.02	3.067



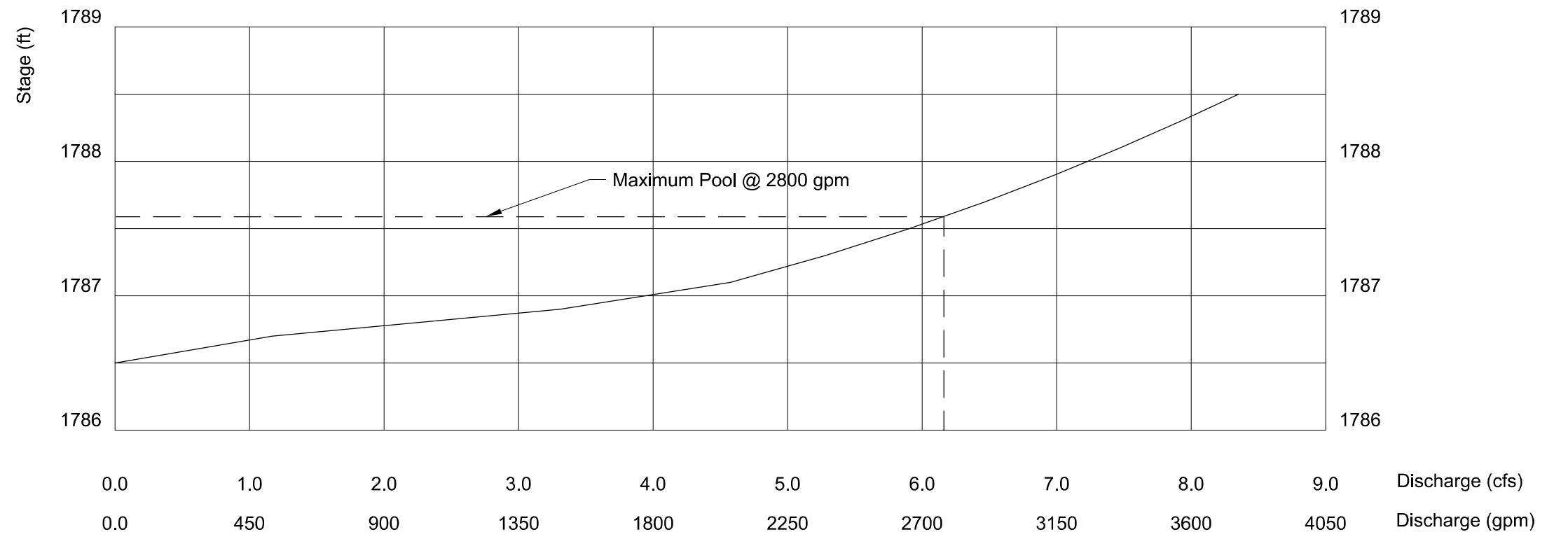
North Fork Vineyards

DRAWN <i>TH</i>	DATE 6/13/17	Frost Pond #2 Grading Plan
APPROVED	DATE	
SCALE 1"=40'	SHEET 6 of 12	PROJECT NO. 101715-6233

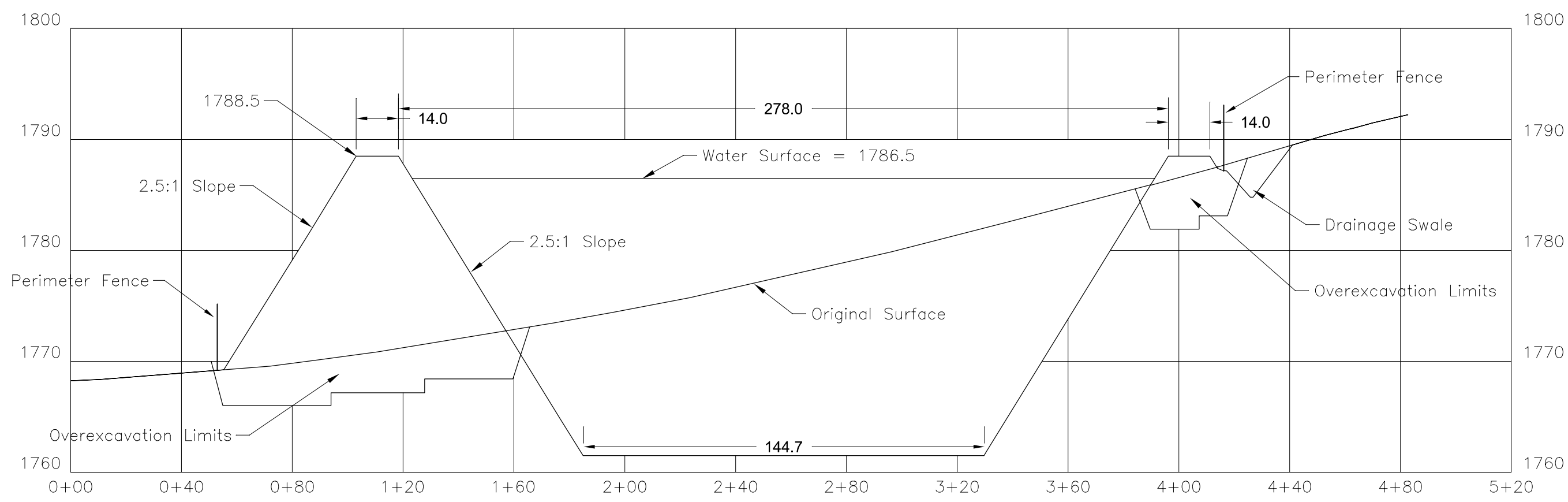
Reservoir/Frost Pond #2 Section E-E



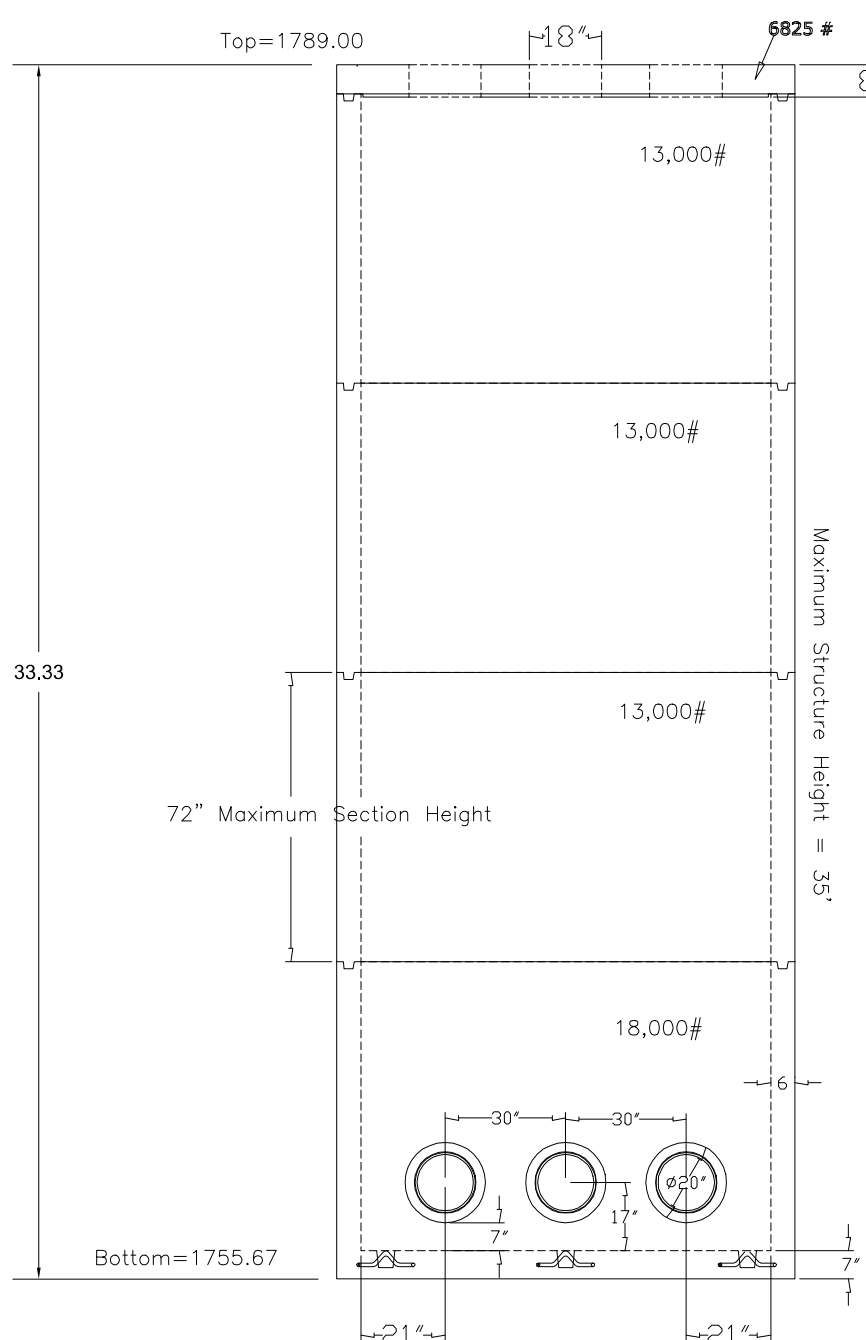
Reservoir #2 Stage Storage



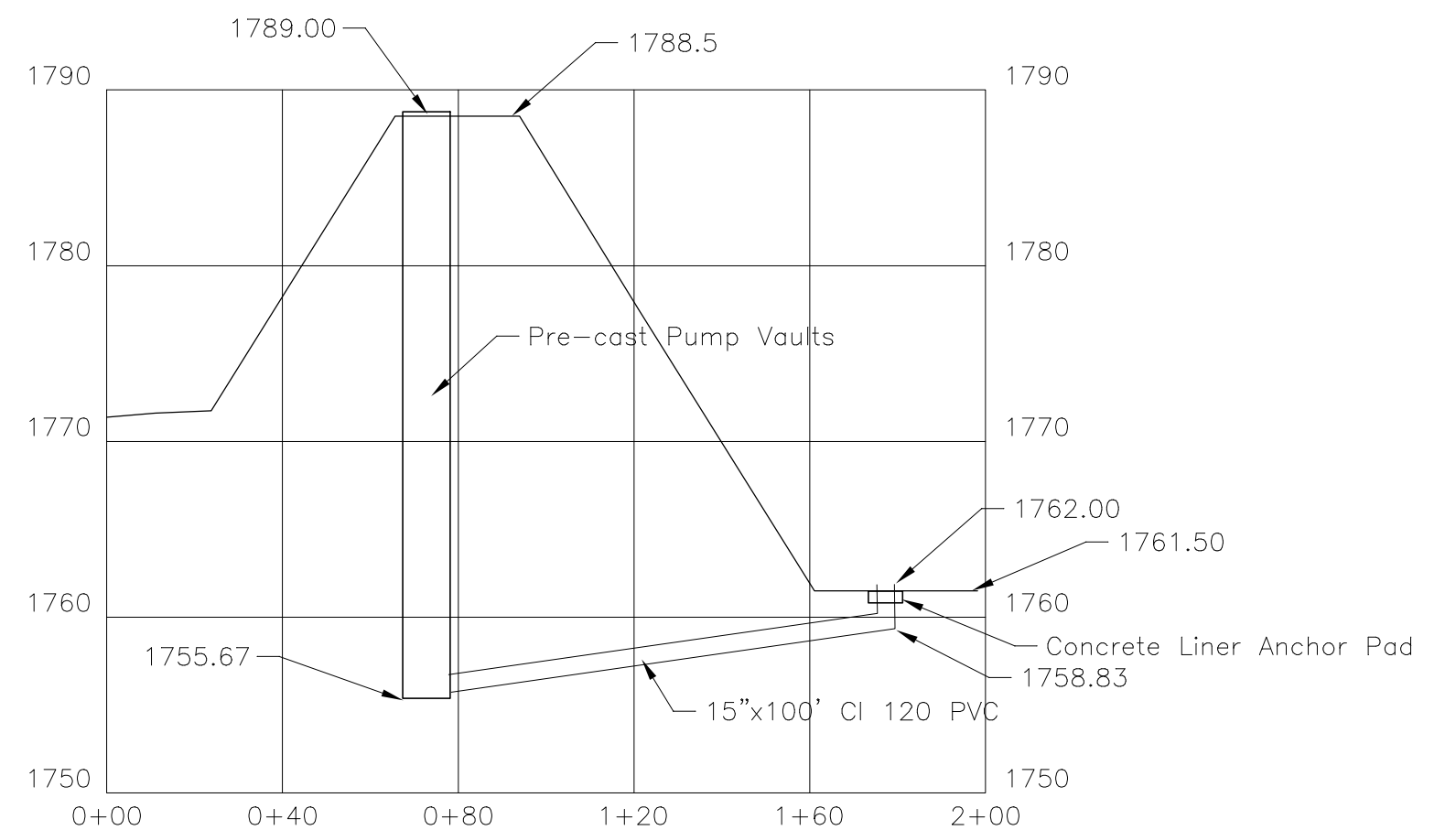
Reservoir/Frost Pond #2 Section F-F



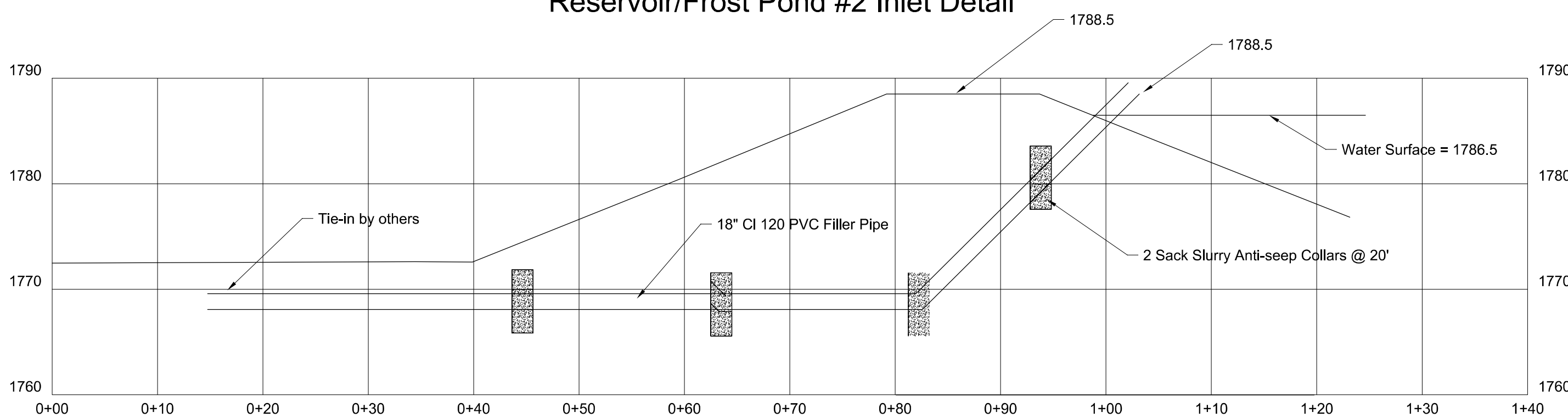
Reservoir/Frost Pond #2 Pump Vault



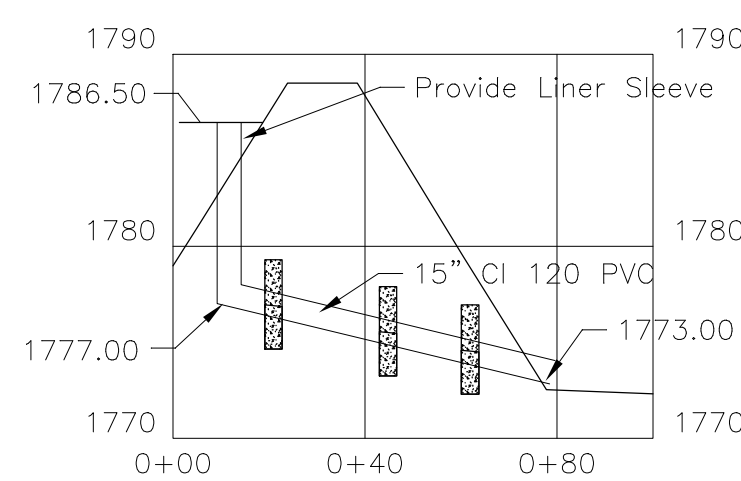
Reservoir/Frost Pond #2 Pump Vaults Section G-G



Reservoir/Frost Pond #2 Inlet Deta

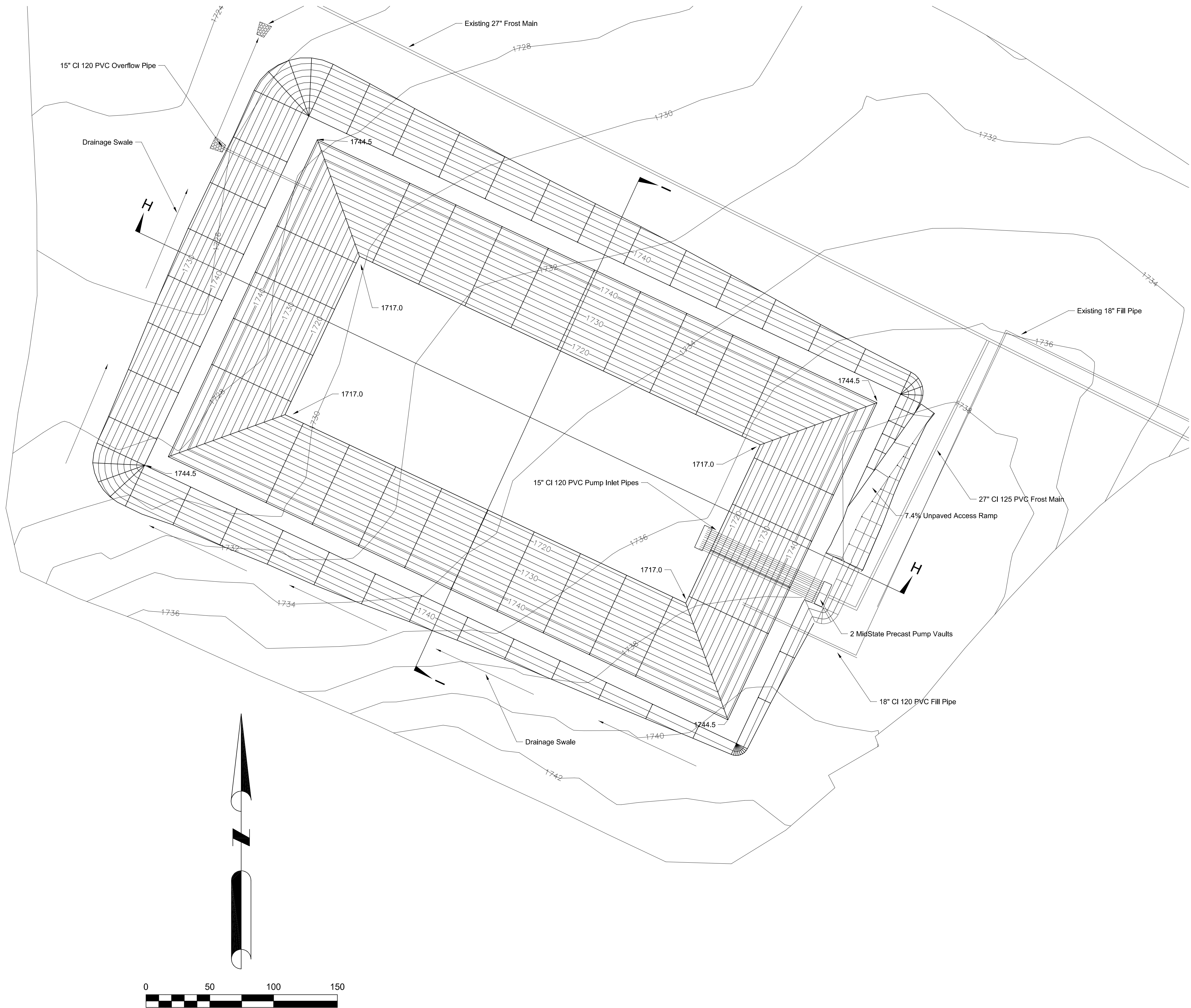


Reservoir/Frost Pond #2 Overflow



<i>North Fork Vineyards</i>		
DRAWN <i>TH</i>	DATE <i>6/13/17</i>	<i>Frost Pond #2 Details</i>
APPROVED	DATE	
SCALE <i>Varies</i>	SHEET <i>7 of 12</i>	PROJECT NO. <i>101715-6233</i>

Reservoir/Frost Pond #3 Grading Plan



Pond Report

Top of dam elevation: 1744.50
Bottom of pond elevation: 1717.00
Top of dam width: 14.00
Cut Slope: 2.00:1
Fill Slope: 2.50:1
Interior Slope: 2.50

Pond Earthwork Volumes

Fill Factor: 1.30
Total cut : 42,770.71 C.Y.
Total fill: 40,253.87 C.Y.
Total Disturbed Area: 4.68 ac

Pond Storage Volumes

Water Elev	Storage(AcreFt)	Area(Acre)
1717.00	0.00	1.093
1719.00	2.29	1.206
1721.00	4.82	1.323
1723.00	7.59	1.445
1725.00	10.60	1.571
1727.00	13.87	1.701
1729.00	17.41	1.835
1731.00	21.22	1.973
1733.00	25.30	2.116
1735.00	29.68	2.263
1737.00	34.36	2.414
1739.00	39.34	2.570
1741.00	44.64	2.729
1743.00	50.26	2.893
1744.50	54.70	3.019

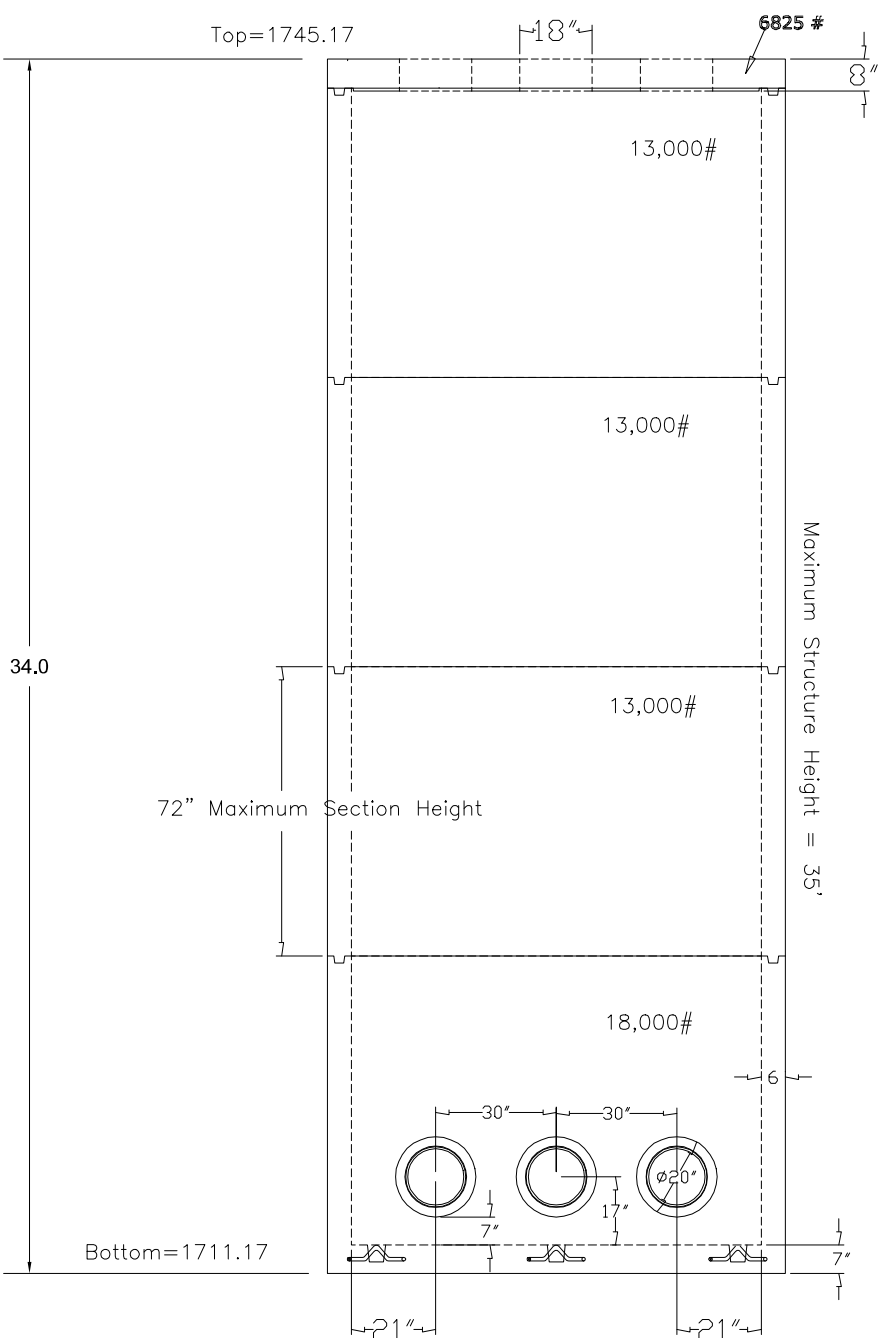
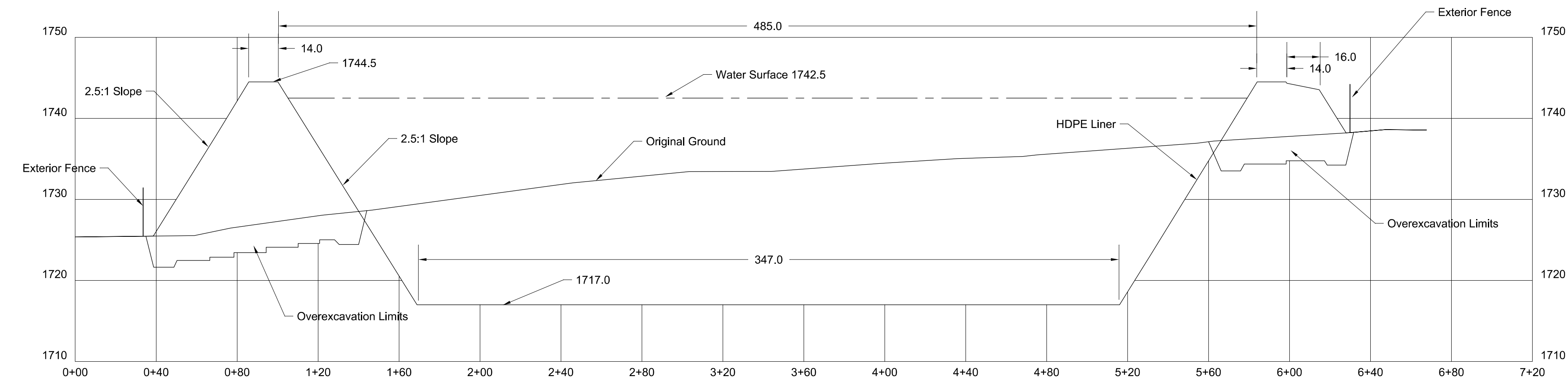


North Fork Vineyards		
DRAWN <i>TH</i>	DATE 6/13/17	Frost Pond Grading Plan
APPROVED	DATE	
SCALE 1"=40'	SHEET 8 of 12	PROJECT NO. 101715-6233

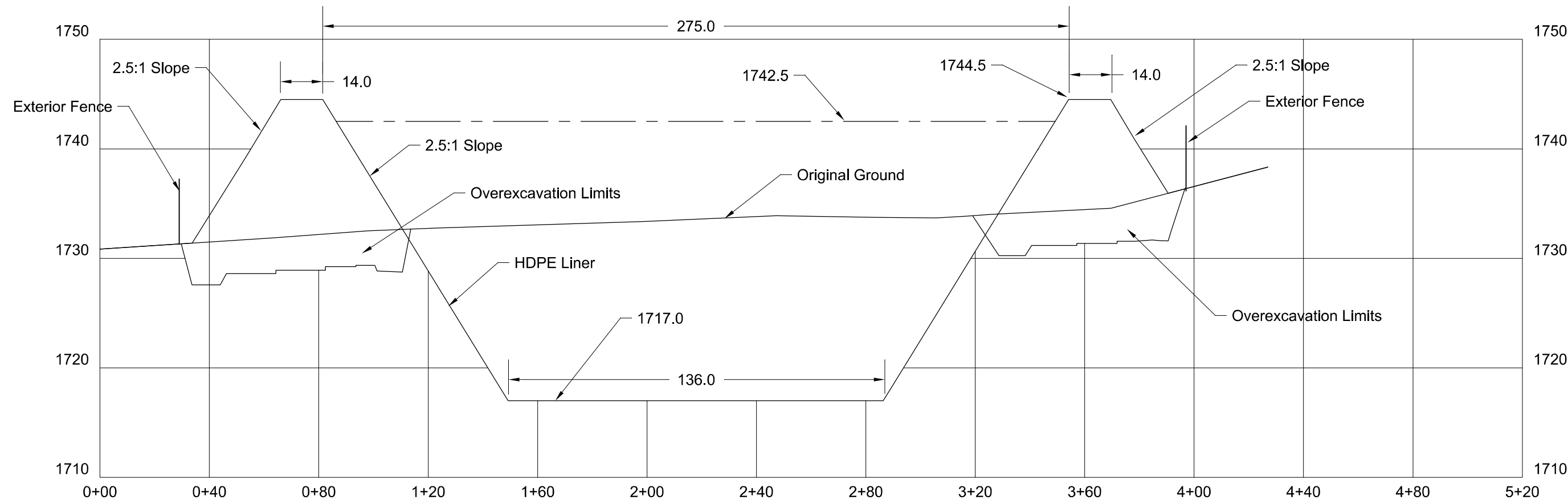
Reservoir/Frost Pond #3 Details

Mid-State Concrete Products
Pump Housing Vault Reservoir/Frost Pond #3

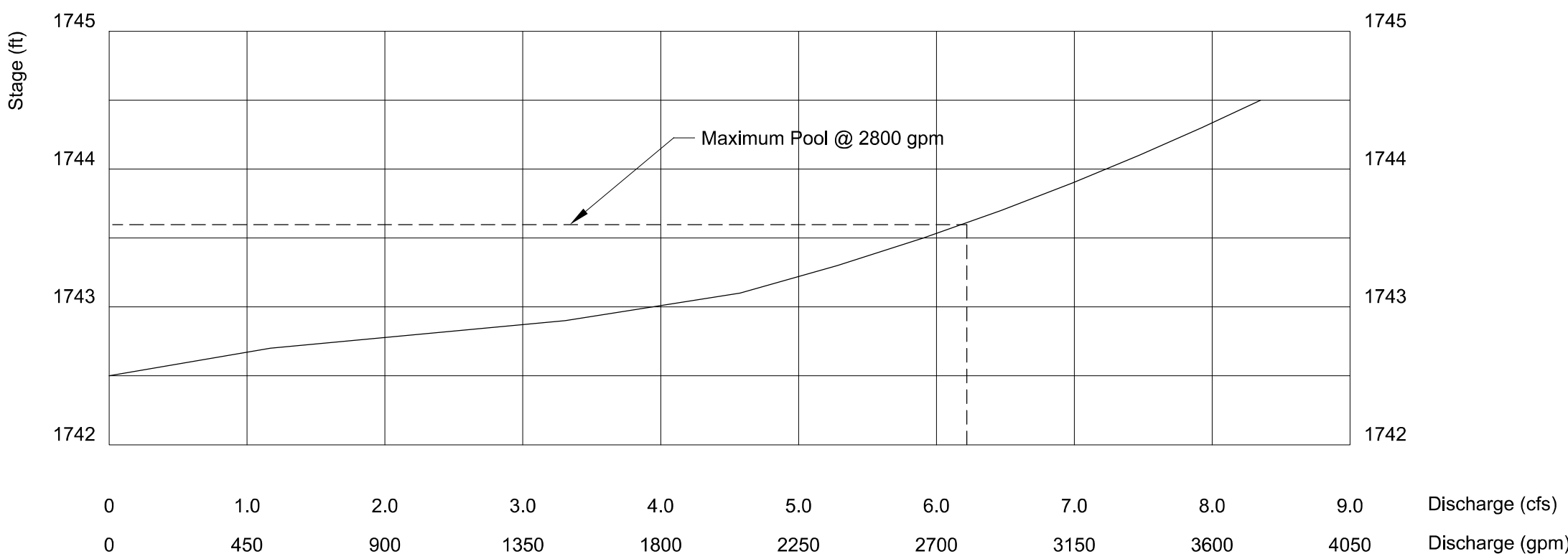
Reservoir/Frost Pond #3 Section H-H



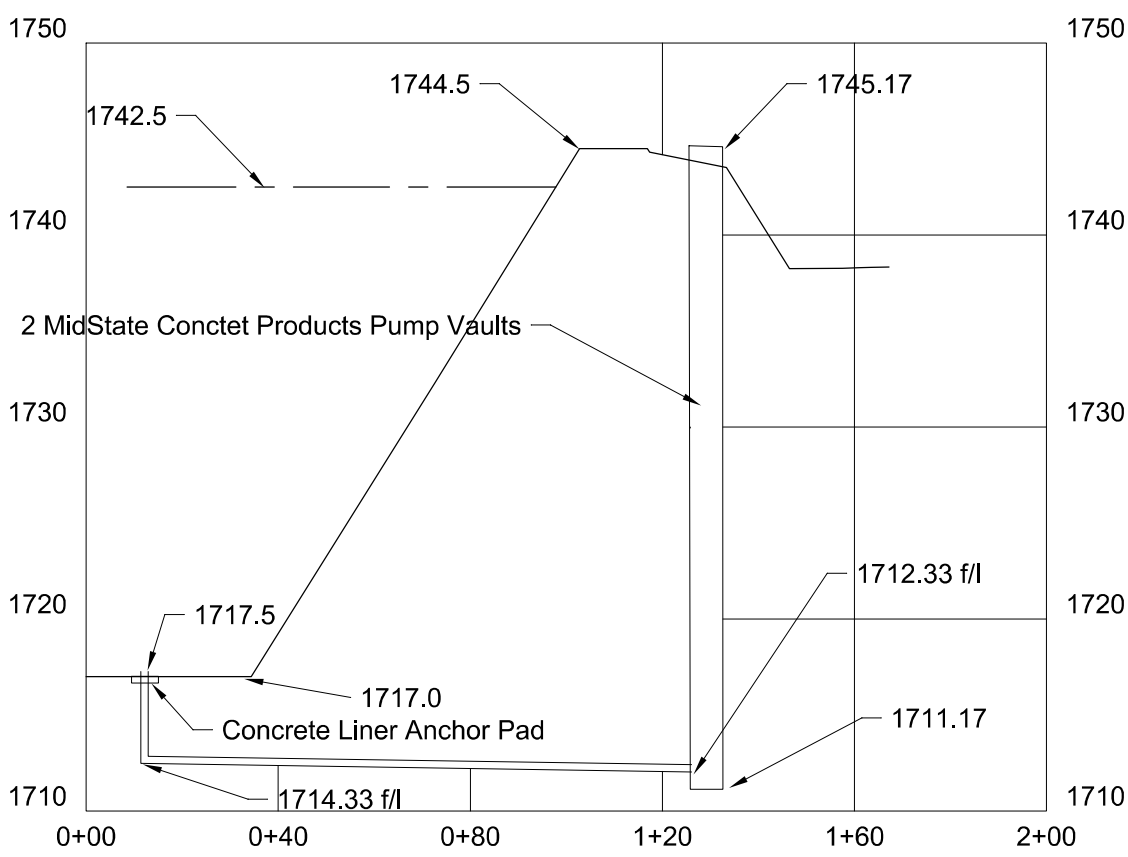
Reservoir/Frost Pond #3 Section I-I



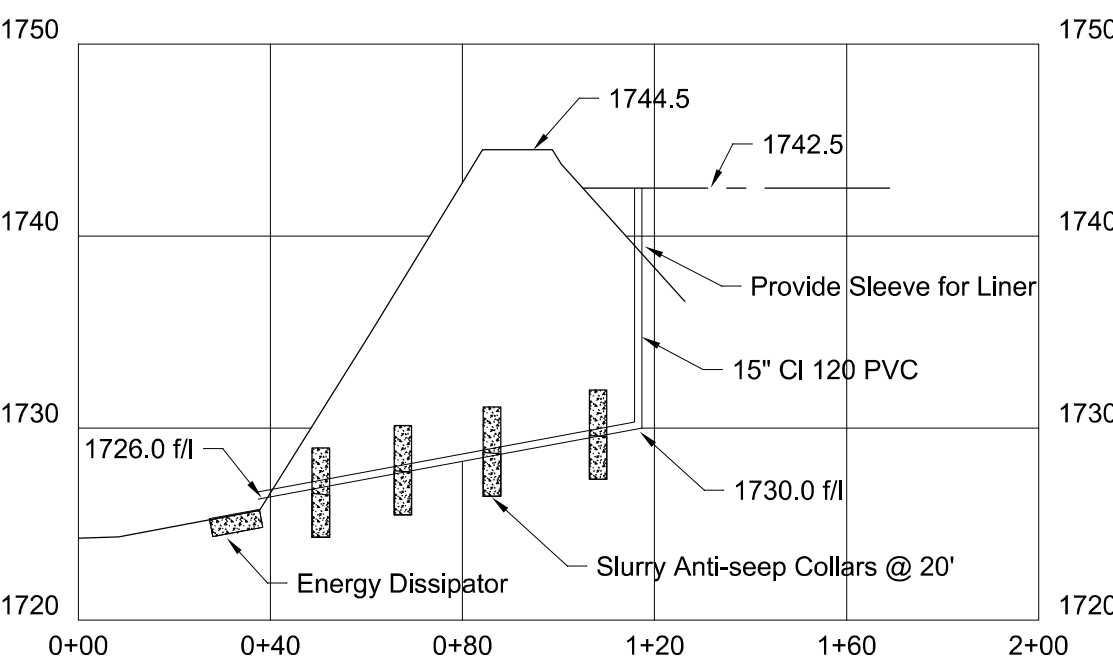
Reservoir/Frost Pond #3 Stage Storage



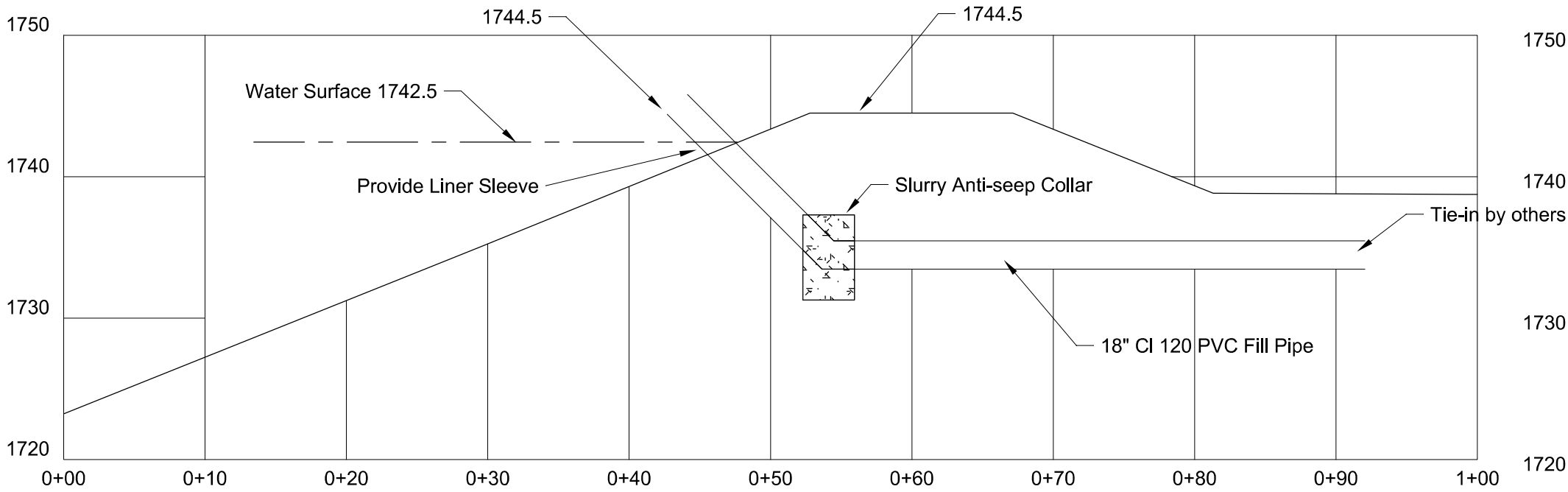
Reservoir/Frost Pond #3 Pump Vaults



Reservoir/Frost Pond #3 Overflow



Reservoir/Frost Pond #3 18" Fill Pipe

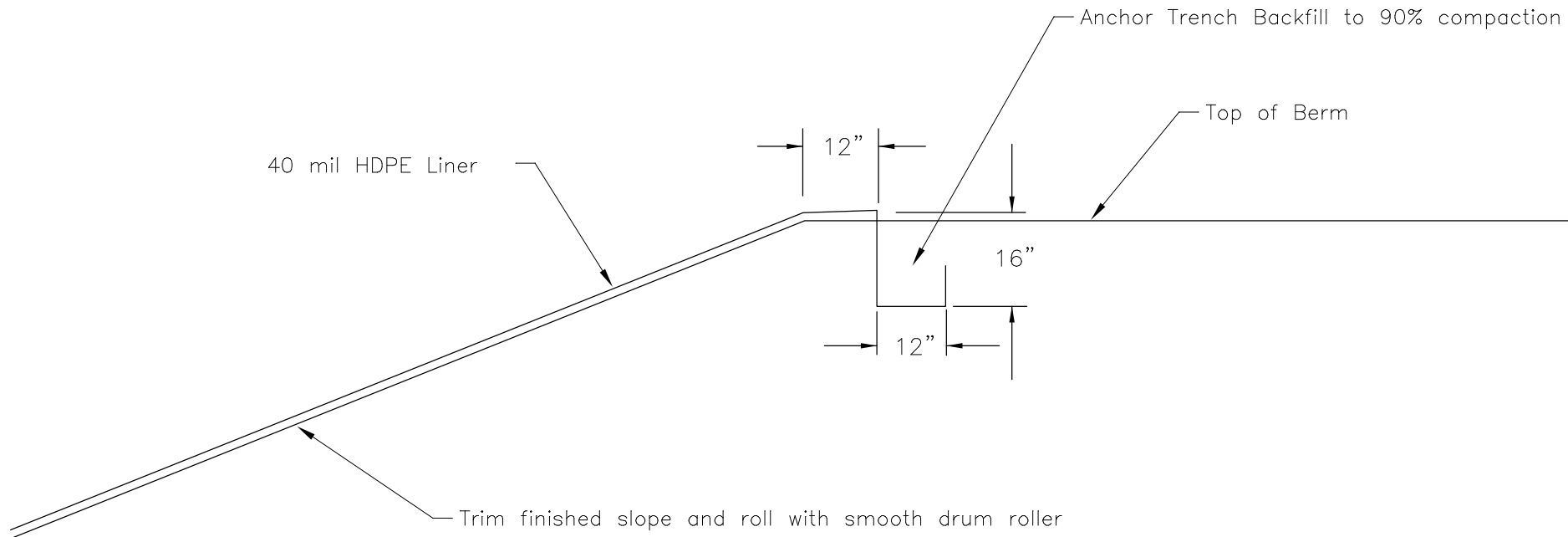


North Fork Vineyards

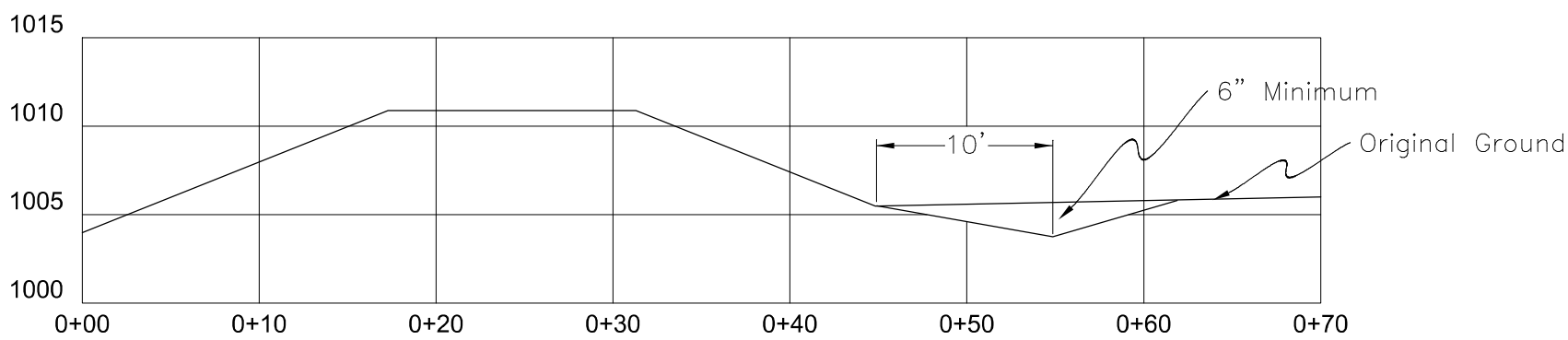
DRAWN <i>TH</i>	DATE 6/13/2017	Frost Pond #3 Details
APPROVED	DATE	
SCALE <i>Varies</i>	SHEET 9 of 12	PROJECT NO. 101715-6233

Details Common to All Reservoirs/Frost Ponds

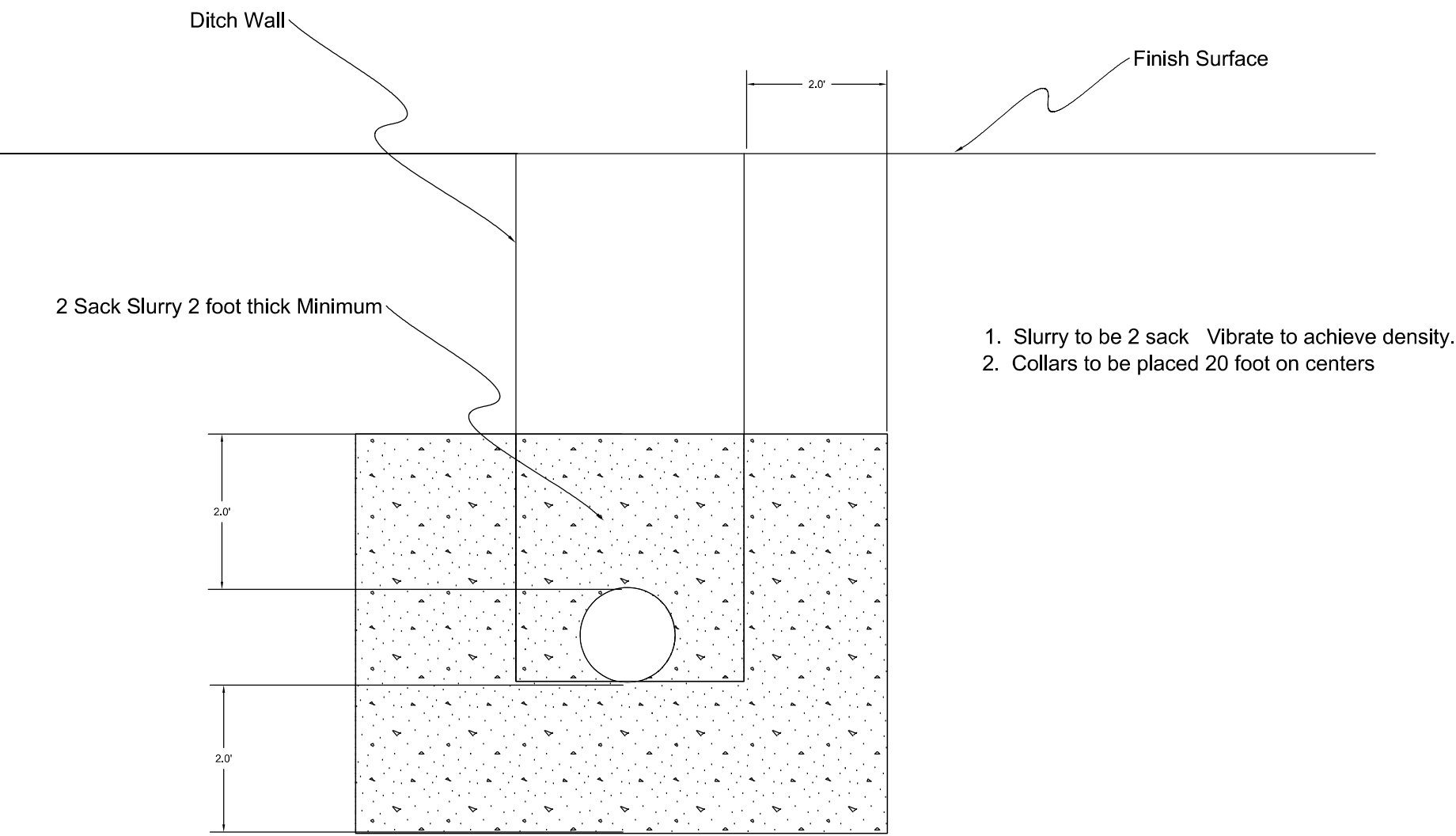
HDPE Liner Anchor Trench



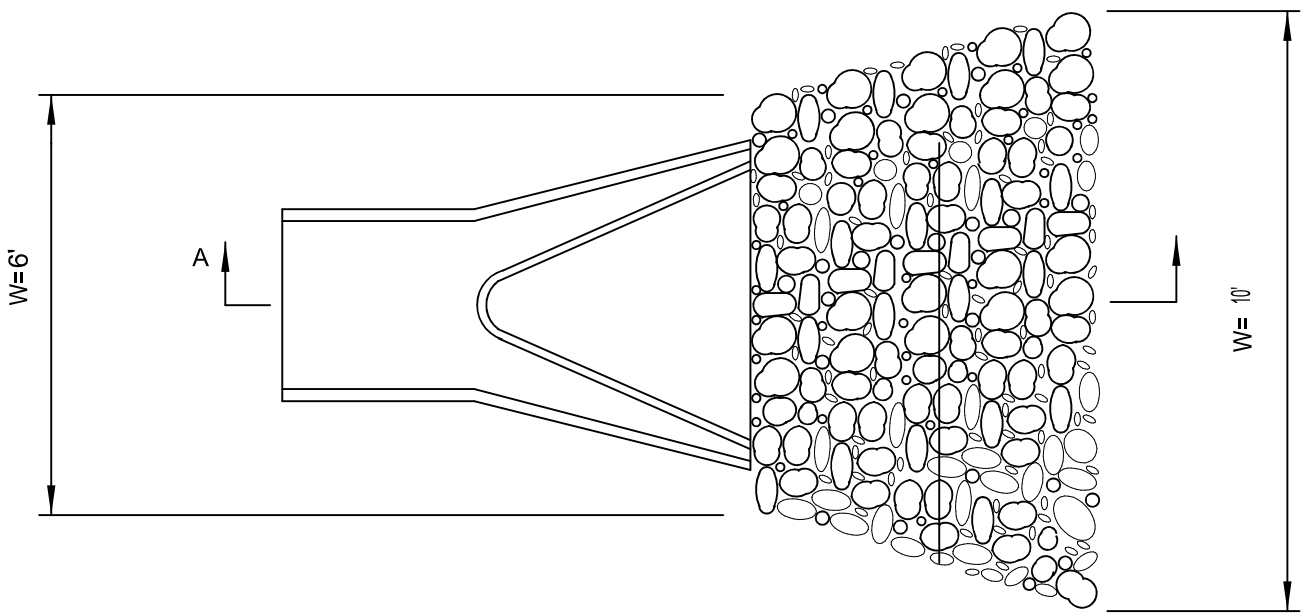
Drainage Swale Detail



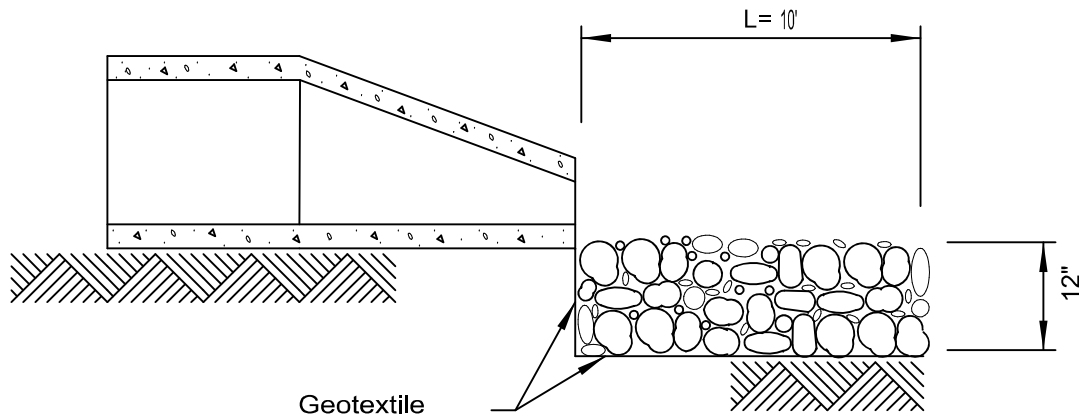
Anti-seep Collar Detail



Rock Energy Dissipater



PLAN



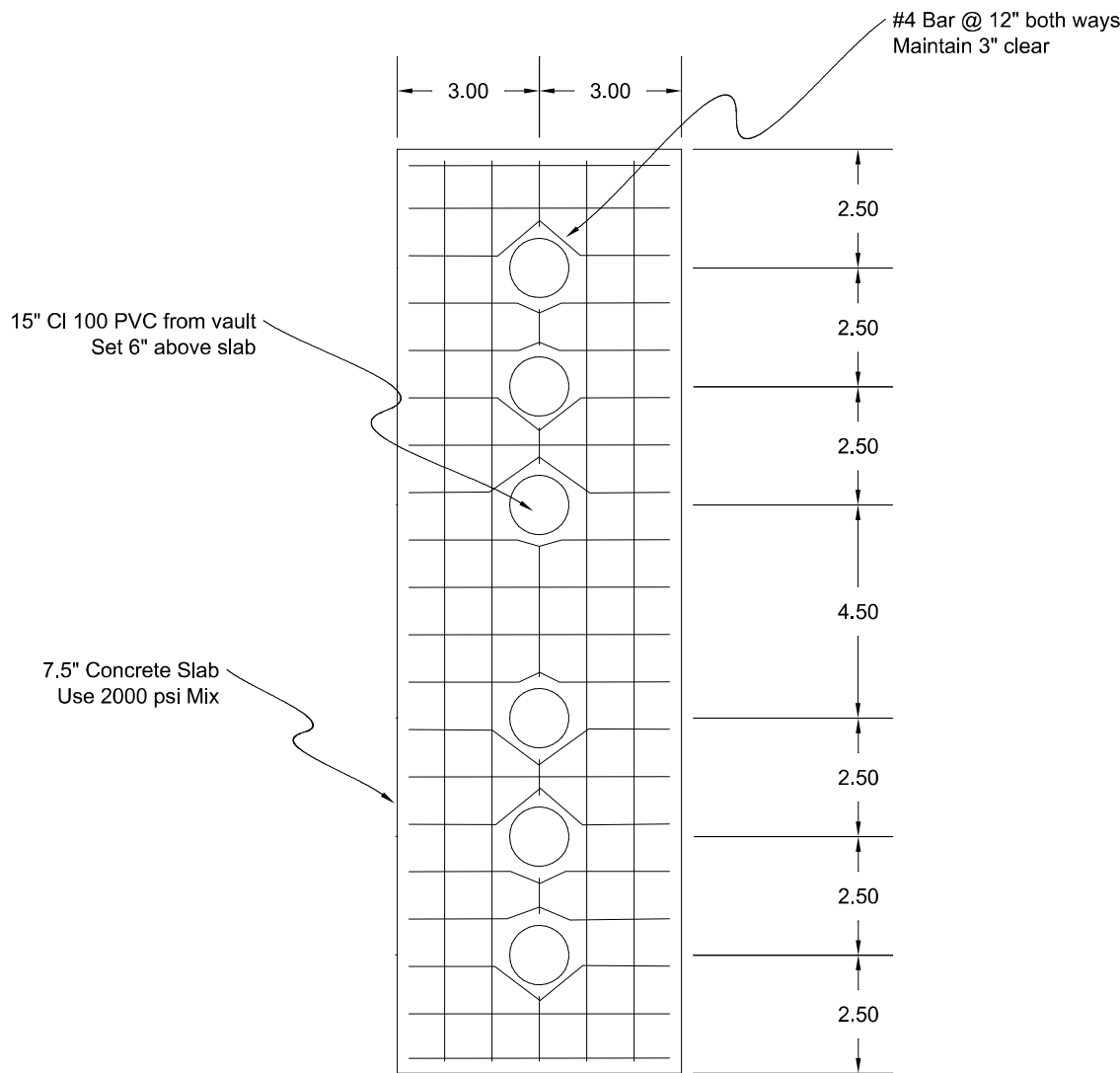
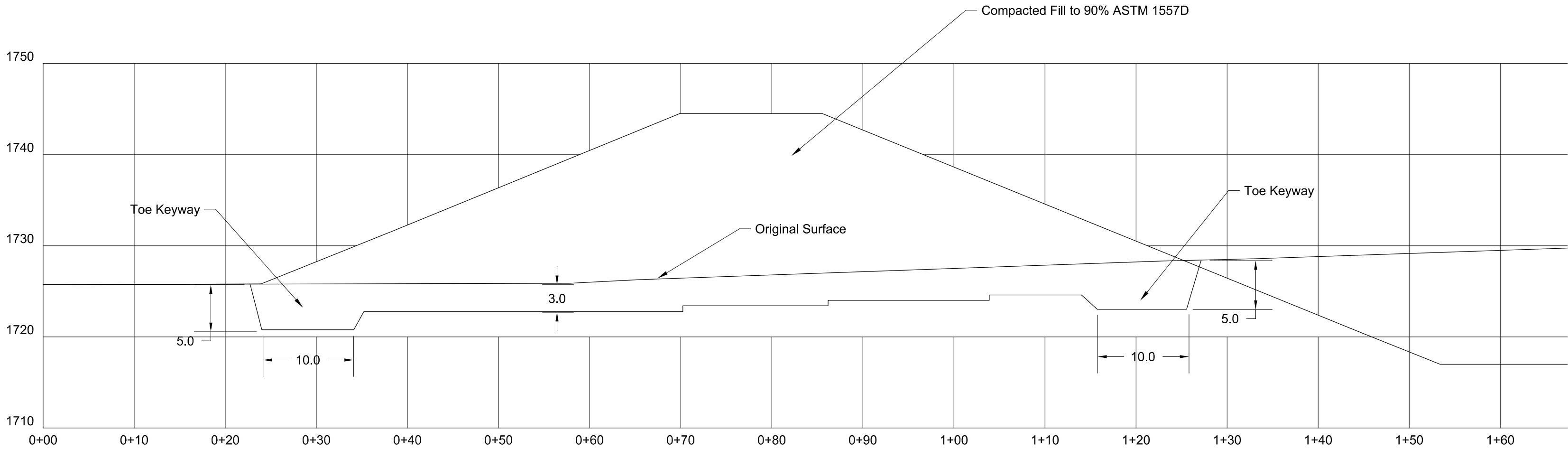
Notes:

1. Rock shall be 6" to 12" diameter
2. Minimum diminsion shall be 6' x 10' x 12"

General Notes:

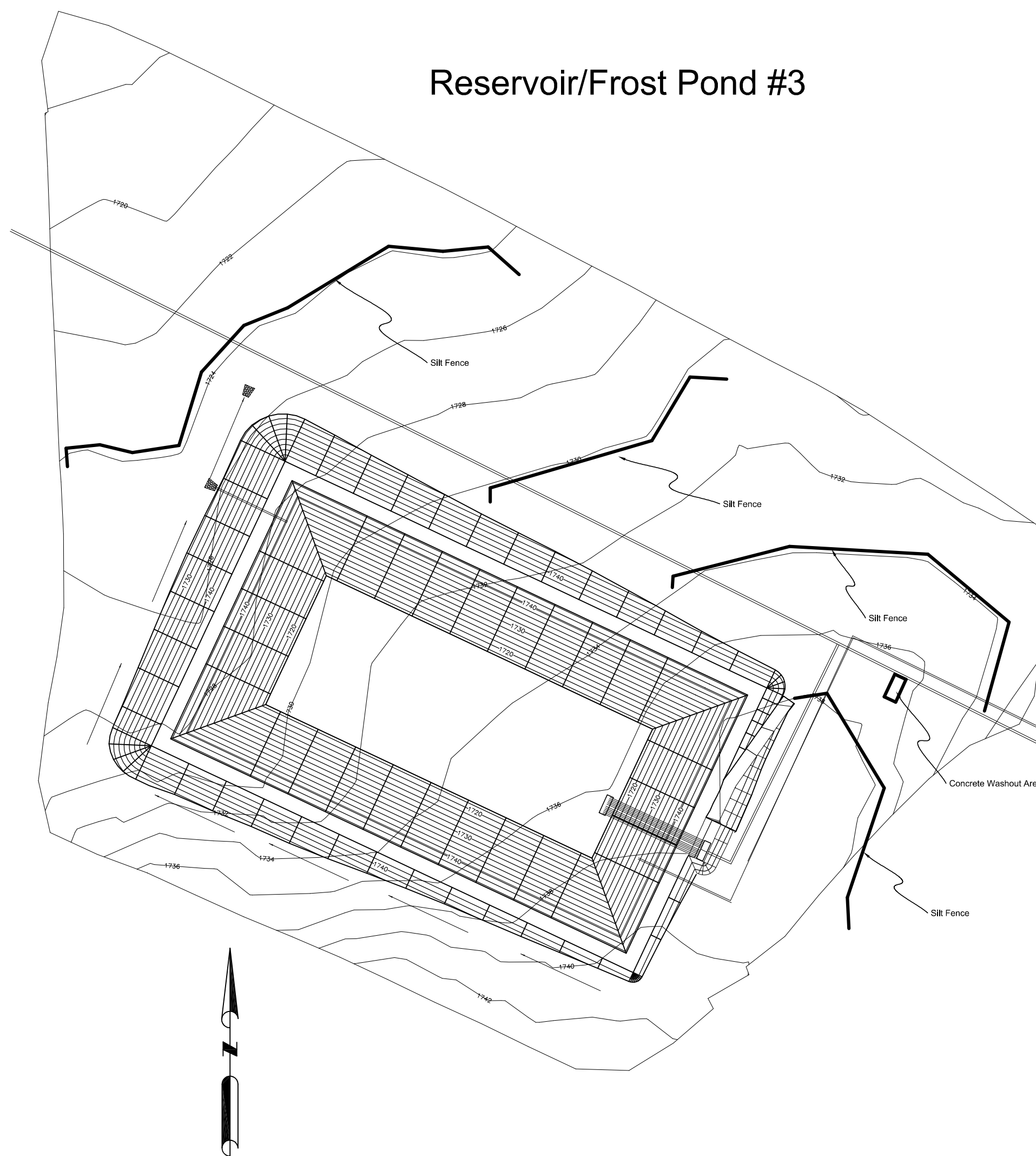
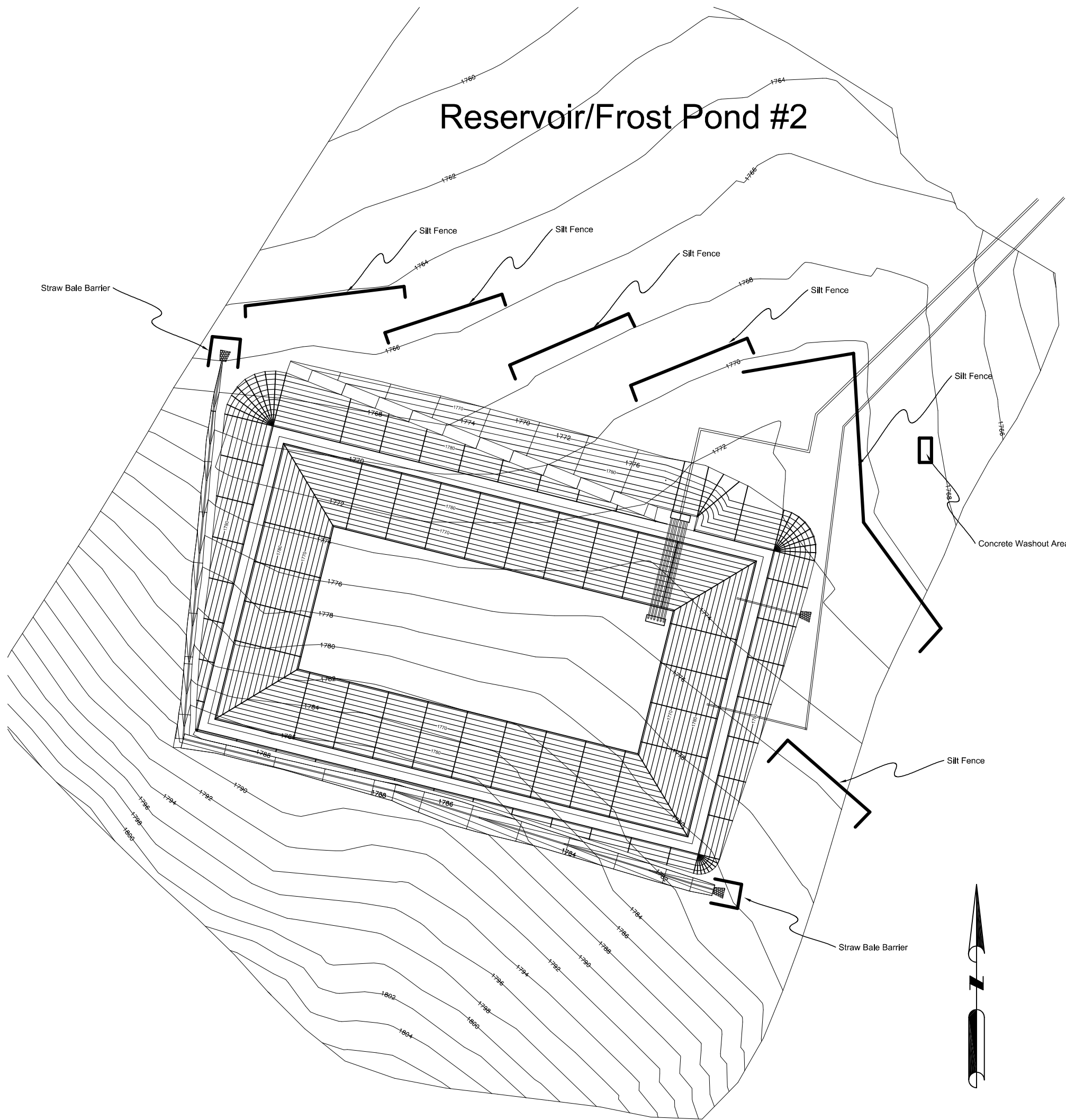
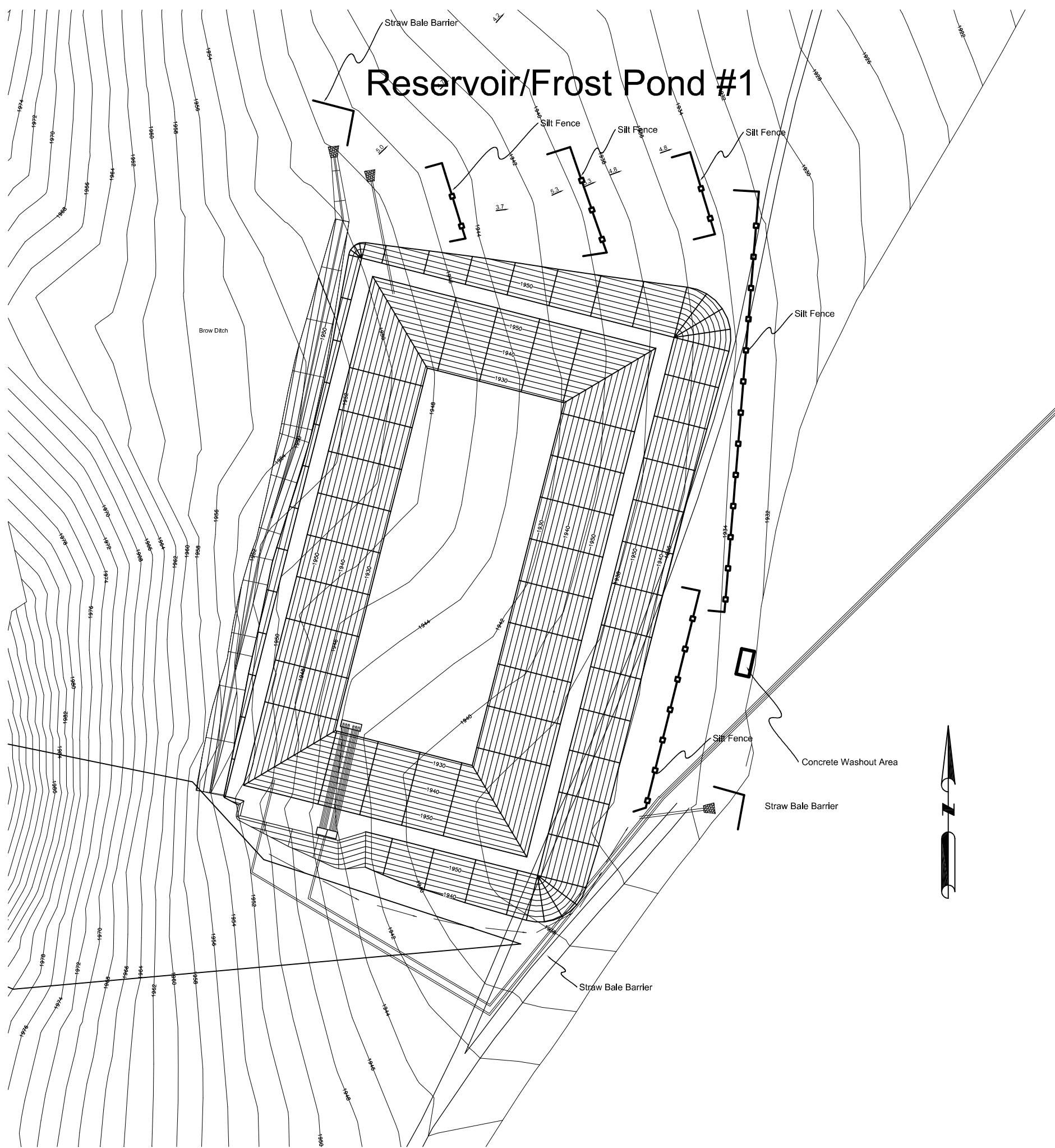
1. All grading shall conform to the Soil Report prepared by GSI Soils for this project dated January 4, 2016.
2. All slopes shall be overfilled than trimmed to finish grade to provide firm surfaces.
3. Finished slopes and the bottom surface shall be rolled with a smooth drum roller prior to placing fabric. The Engineer of Record shall inspect the surfaces to assure they are rock free and to the proper lines and grades before fabric shall be installed.
4. The liner shall be placed by a contractor specializing in pond liners and all pipes extending through the liner shall have sleeves and stainless bands to prevent leakage.
5. A 6 foot high non-climb fence shall be installed around the exterior perimeter of the reservoir. The fabric shall have 10 guage top and bottom wires with 12 1/2 guage 2x4 mesh filler fabric. Tee Posts shall be at 8 feet spacings and shall be heavy weight a minimum of 8 feet long.
6. The finished pond shall be surveyed by the Engineer of Record and the storage volume calculated. The 15" PVC Overflow Pipe shall be adjusted as necessary to ensure that the retained volume below the outflow inlet is no more than 49 acre feet and that there is a minimum of two feet of freeboard to the top of berm at the lowest point.

Overexcavation and Keyway Details per Figure 3 of Soil Report



North Fork Vineyards		
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APPROVED	DATE	
SCALE <i>Varies</i>	SHEET 10 of 12	PROJECT NO. 101715-6233

Erosion and Sedimentation Control Plan



Erosion Control Notes:

- Erosion control measures shall be implemented on all projects and shall include source control, including protection of stockpiles, protection of slopes, protection of all disturbed areas, and protection of accesses. In addition, perimeter containment measures shall be placed prior to the commencement of grading and site disturbance activities unless the Engineer determines temporary measures to be unnecessary based upon location, site characteristics or time of year. The intent of the erosion control measures shall be to keep all sediment from entering a swale, drainage way, watercourse or onto adjacent properties. An approved Erosion Control and Sedimentation Control Plan will require County approval
- Site Inspections and appropriate maintenance of erosion control devices shall be conducted and documented prior to, during, and after rain events.
- The developer shall be responsible for the placement and maintenance of all erosion control devices as specified by the approved plan until such time that the project is accepted as complete by the Engineer. Erosion control devices may be relocated, deleted or additional items may be required depending on the actual soil conditions encountered. Additional erosion control shall be placed at the discretion of the Engineer of Work, Engineer, SWPPP Monitor or RWQCB Inspector. Guidelines for determining appropriate erosion control devices are included in the appendix of the Public Improvement Standards.
- All erosion control devices shall be the first order of work and shall be in place between October 15 and April 15 or anytime when the rain probability exceeds 30%. This work shall be installed or applied after each area is graded and no longer than five (5) working days after the completion of each area.
- The Engineer of Work and the Engineer shall be notified before October 15 for inspection of installed erosion control devices.
- A standby crew for emergency work shall be available at all times during the rainy season (October 15 through April 15). Necessary materials shall be available and stockpiled at convenient locations to facilitate rapid construction or maintenance of temporary devices when rain is imminent.
- Permanent erosion control shall be placed and established with 70% coverage on all disturbed surfaces other than paved or gravel surfaces prior to final inspection. Permanent erosion control shall be fully established prior to final inspection. Temporary erosion control measures shall remain in place until permanent measures are established. A water truck shall be used to water areas hydroseeded until the planting is established.
- In the event of a failure, the developer and/or his representative shall be responsible for cleanup and all associated costs or damages.
- Slurry Mix: The slurry mix shall be composed of the following materials:

Bromus mollis - Blando Brome (95%, 85%)	20 pounds per acre
Festuca megalura - Zorro Fescue (85%, 80%)	8
Trifolium hirtum "Hykon" - Rose Clover (95%, 90%)	30
inoculated with appropriate bacteria	3
Eschscholzia californica - California Poppy (95%, 75%)	3
Lupinus nanus - Sky Lupine (95%, 75%)	4

(Seed available at S&S Seeds (805) 684-0436)

Other Materials:

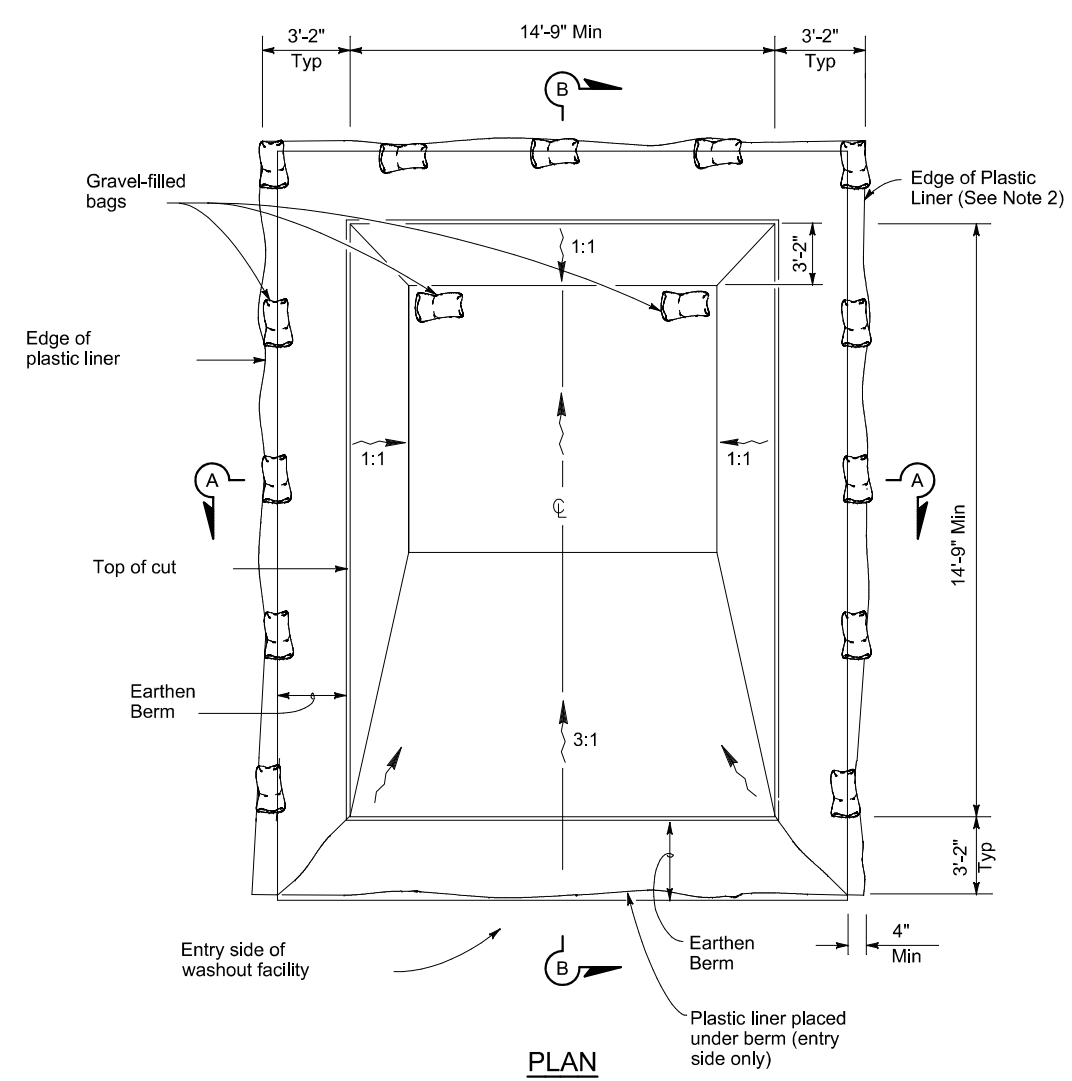
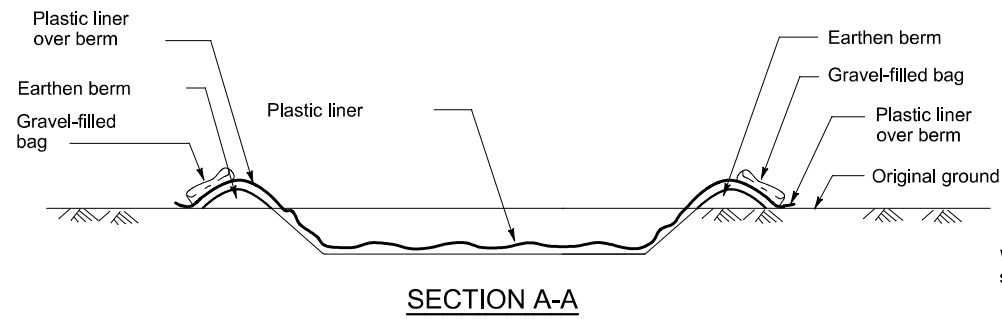
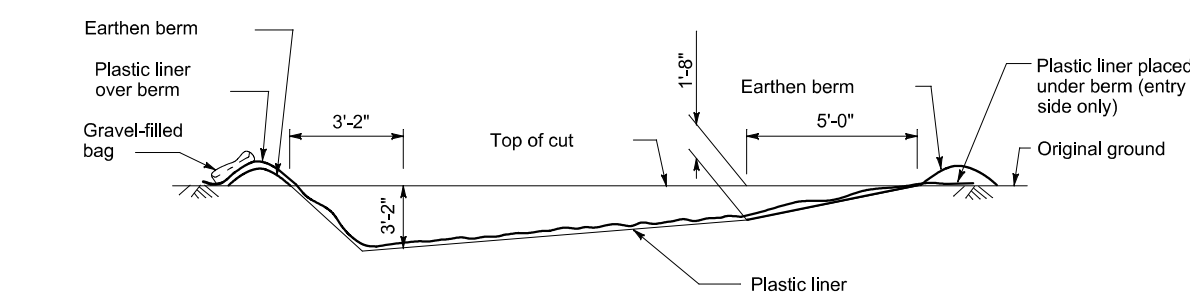
100% Wood fiber mulch (green)	1600 pounds per acre
Commercial Fertilizer (16-20-0)	400
"M-Binder" (stabilizing emulsion) or equal	120
Water (as needed for application and as specified by manufacturer)	
- Application: The slurry preparation shall take place at the site and in the presence of the Engineer. Spraying of the slurry shall be done by an experienced hydroseeding company and commence within five minutes after all the materials have been mixed thoroughly.
- The hydroseeded areas shall be watered with a fine mist periodically until the seed begins to germinate then every other day until the roots are established and 70% of the area is covered. Do not use the side spray of a watertruck but instead use a nozzle adjusted to spray a fine mist attached to a hose.
- BMP's to be constructed include but are not limited to:
 - Silt Fence
 - Straw bale barrier
 - Concrete washout area



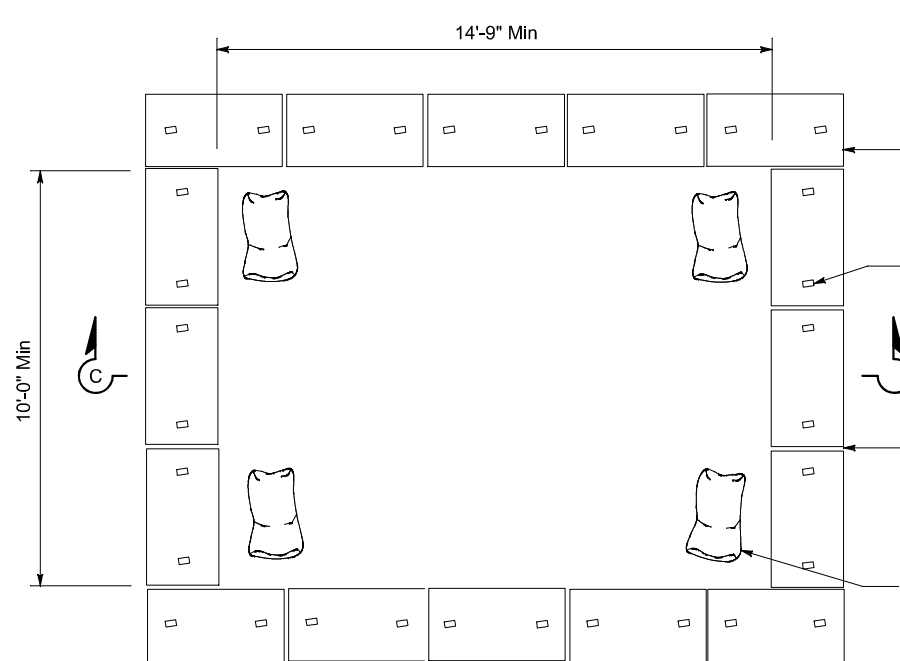
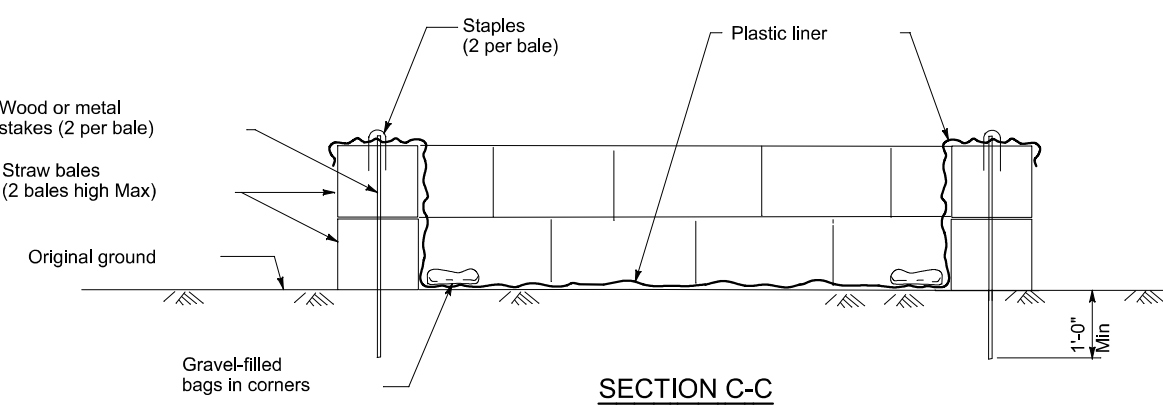
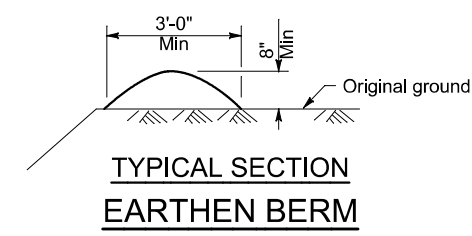
North Fork Vineyards

DRAWN <i>TH</i>	DATE 6/13/17	<i>Frost Ponds #1-3</i>
APPROVED	DATE	<i>Erosion & Sedimentation Control</i>
SCALE 1"=100'	SHEET 11 of 12	PROJECT NO. 101715-6233

Erosion Control BMP Details



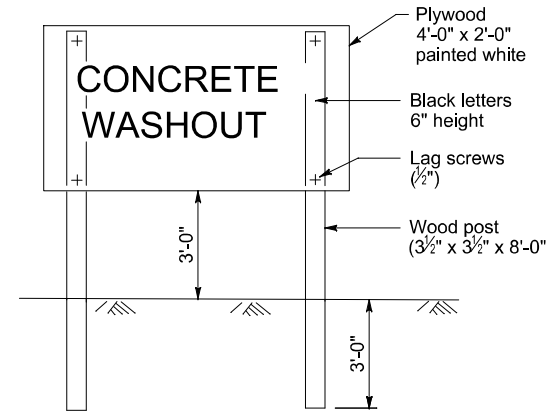
TEMPORARY CONCRETE WASHOUT FACILITY



TEMPORARY CONCRETE WASHOUT FACILITY

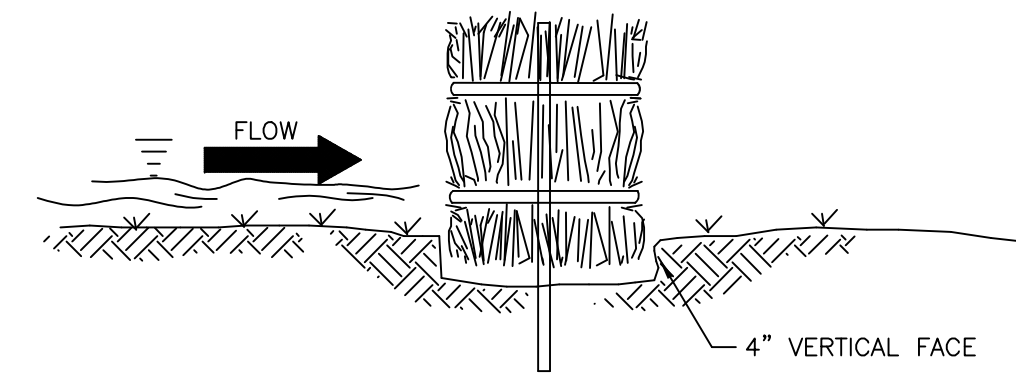
NOTES:

1. The concrete washout sign shall be installed within 32'-10" of the temporary concrete washout facility.
2. Plastic liner shall be anchored with gravel-filled bags for below grade concrete washout facility.

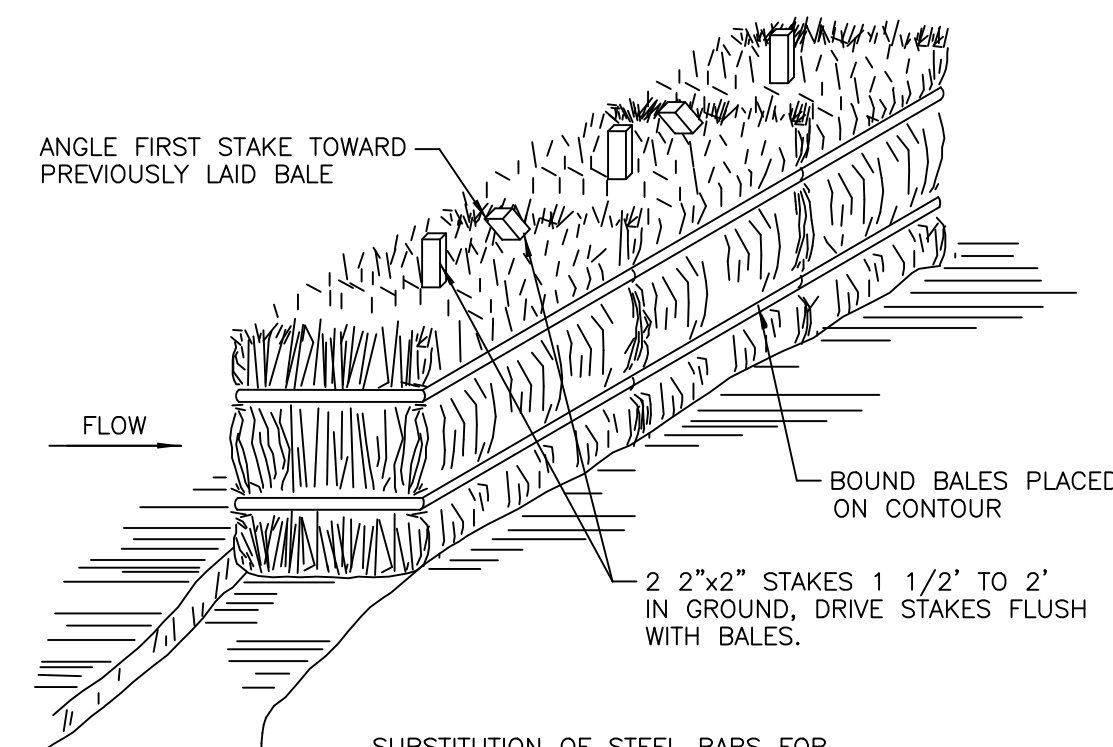


CONCRETE WASHOUT
SIGN DETAIL

NO SCALE

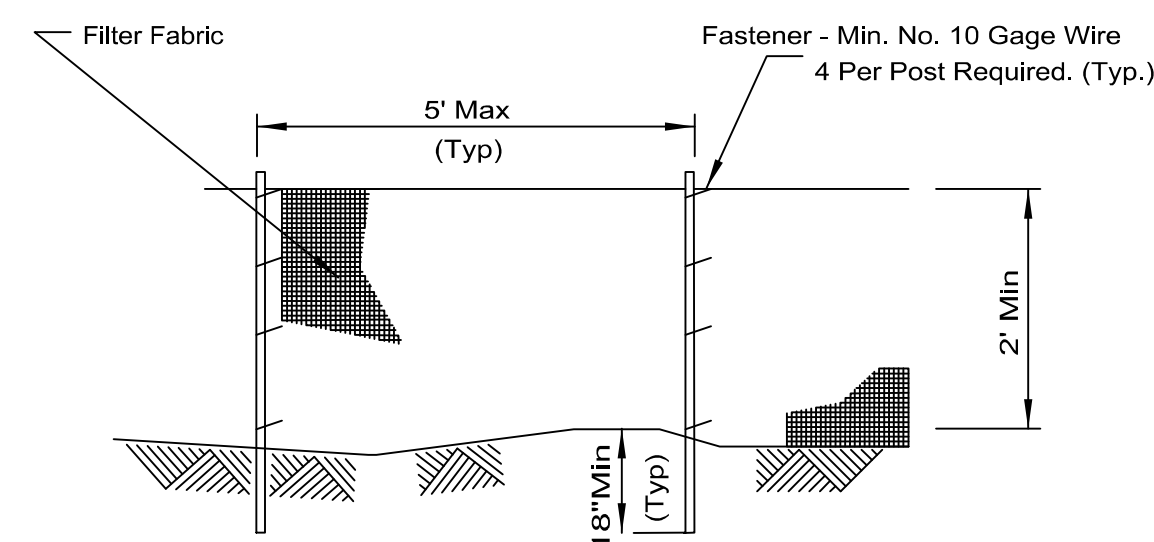


* PROMOTES ON SITE SEDIMENTATION
BY CREATING A TEMPORARY POND.

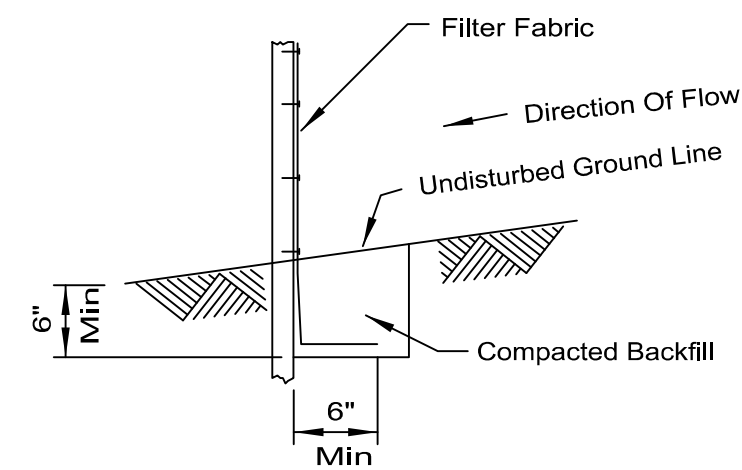


STRAW BALE BARRIERS

SILT FENCE PLAN



ELEVATION



FABRIC ANCHOR DETAIL

NOTES:

1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class with equivalent opening size of at least 30 for nonwoven and 50 for woven.
3. Fence posts shall be either standard steel post or wood post with a minimum cross-sectional area of 3.0 sq. in.



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