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May 28, 2008

Ms. Young Chang, Project Manager
Emergency and Remedial Response Branch
United States Environmental Protection Agency – Region II
290 Broadway, 20th Floor
New York, New York 10007-1866

Re: Responses to Comments on the 95% Design
Herrick Hollow Creek Restoration
Richardson Hill Landfill Site

File: 824.006

Dear Ms. Chang:

On behalf of the Amphenol and Honeywell Corporations we are submitting these responses to the comments (attached) received from you via email on April 30, 2008. We have also included a set of the revised (final) design plans for your records.

It is our understanding that this completes the design document review. We look forward to the implementation of this design this summer.

If you have any questions regarding these responses, please call John Condino or myself at 315-457-5200.

Very truly yours,

BARTON & LOGUIDICE, P.C.

James I. Saxton
Project Environmental Scientist

JIS/akg
Enclosures
cc: Mr. Joseph Bianchi, Amphenol
Mr. Sam Waldo, Amphenol
Mr. Rich Galloway, Honeywell
Mr. Shaun McAdams, The Bioengineering Group
Mr. Gerard Burke, New York State Department of Environmental Conservation
Mr. Corbin Gosier, New York State Department of Environmental Conservation
Ms. Sarah Miller, New York City Department of Environmental Protection
Mr. Joseph Damrath, New York City Department of Environmental Protection
Mr. Jerald Fraine, New York State Department of Environmental Conservation
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Comments from USEPA, USFWS and NYSDEC
Contained in USEPA's Letter Dated April 30, 2008

General Comments

Comment G1 - The SWPPP as included is acceptable to a point, but the Contractor needs to demonstrate how he/she will implement the SWPPP during site work. The NYS DEC will need to be provided with the Contractor's work plan prior to it being able to approve the SWPPP for the HHC Restoration. In said work plan, the Contractor must identify how he/she will comply with the SWPPP including how many pump-arounds will be necessary for the work, the location of the pump-arounds, the pump size, the pipe size, maximum flow that the pump around can handle. The Contractor should also identify where, if any, he/she will have fuel storage/filling areas with the necessary containment as specified in the SWPPP. Please note that a sheet of paper in which the Contractor signs and agrees to comply with the SWPPP written by B&L and TBG will not suffice.

> Response: It should be noted that the pump arounds will be installed on a daily basis, affecting only that section of stream which will be completed that day. The number and location of pump arounds will be determined by the length of reach that can be completed on a given day and cannot be quantified at this time. The contractor's plan is attached providing the details as they are known at this time.

Specific Comments

Comment 1. Stream Restoration Specification SR-07, Stream Channel Excavation Section 2.2: It is noted that in some instances borrow areas will be left as ponds. Please note whether the borrow areas will be in close proximity to the stream, and whether the ponds and surrounding areas will be contoured to allow for water (in the pond) to exchange/flush during high water events. These areas should be clearly indicated on site figures. In addition, it is recommended that the bottoms of the borrows be varied (rather than flat) to provide increased habitat potential, and a side slope of 5:1 is preferred rather then one which does not exceed 2:1.

> Response: Two potential borrow areas are identified on the plans (Sheet 8). The text of the referenced specification has been modified to incorporate the bottom roughening and flattened side slopes. It is important to note that the mention of borrow areas is included in the construction specifications as a provision, should additional fill material need to be generated to complete the construction effort. Initial calculations indicate that the likely need for such borrow areas is minimal; all fill requirements should be met through excavation of the new stream channel and associated earth moving as described in the design.

Specific Comments

Comment 1 - Constructions Specification ST-01, Bioengineered Streambank Treatments: Although streambank treatments will be constructed primarily of biodegradable materials, other materials will be incorporated. Once the streambanks have stabilized and the usefulness of other materials (e.g., steel cables) has expired, they should be removed from the project site.

Response – Once the restoration project is complete there will be periodic monitoring of the system for several years. During this monitoring these items will be inspected and the portions above the ground surface will be removed, once it has been determined that they are no longer useful or needed for their intended purpose.

Comment 2 - Construction Specification ST-02: Please note that pages 26 and 28 are the same and pages 27 and 29 are also same, page number count is on the PDF file since no pagination is given. Please delete duplicate.

Response – So noted.

Comment 3 - Specification: Seeding, Section 2.1.1.3: Please include a list of seed species composition for the wetland restoration areas (similar to what is provided for the non-wetland areas). Information on wetland seed mixes (FACW Wetland Meadows [122] and Flood Plain Wildlife [154]) was not readily available on the Ernst website.

Response – The species lists for these two mixes are attached.

Comment 4 - Specification: Landscaping, Section 3.02 B: Please provide clarification regarding material that may be "harmful to root growth."

Response – This term refers to rocks and other miscellaneous debris (refuse, metallic objects, etc.) which may inhibit rooting and would therefore be removed from the planting substrate.

Comment 5 - 95% Design Cover letter and Design Drawings: The B&L's March 14, 2008 cover letter states in #2 that series of vernal pools have been designed along the restored corridor. However, only one is apparent on the design drawings. Please identify the other locations of the vernal pools.

Response – The other pools have been identified on the design plans.

Comment 6 - Design Drawings, Sediment Basins: NYS DEC previously commented on December 14, 2007 on the Preliminary Design Document, comment #7 regarding reducing berm height along with planting vegetation. B&L responses that the plans will be adjusted accordingly. Shrub plantings are detailed in these submittal drawings however no mention is given regarding the berm height reduction. Please explain.

Response – Our analysis of the basin volumes indicates that excess capacity is not present in these structures. We have however, in response to a suggestion from NYSDEC, reconfigured this basin to fit the landscape better and provide better habitat for wildlife.

General

1. The use of silt fence for providing temporary erosion control along the streambank is not recommended. The use of this practice in this situation would be highly labor intensive, may inhibit construction and would have to be removed before a flooding event. DEP recommends an alternative such as using a hydroseeder to spread a tackifier with the wetland mix to assist in keeping the seed bed in place and out of the stream until vegetation can be established.

   Response – Silt fencing is not intended to be installed for long periods of time. It will be used to prevent the freshly tilled soils in the wetland restoration areas from entering the stream should a rain event happen before stabilization is complete. However, where possible the approach suggested by DEP will be substituted for silt fencing. There are certain activities that will require the use of silt fence such as the road removal and grading operation that would necessarily require some soils be exposed for a brief period of time before stabilization can be done. Silt fence is most advisable for these sections.

2. The locations and dimension of the vernal pools should be shown on the plans. The limits of disturbance should be included for the construction of these areas.

   Response – The locations of the vernal pools have been identified on the design plans. All of these pools are contained within areas to receive the tilling and re-seeding so their construction limits are not distinct from the tillage activity. Also, none of the vernal pools (with the exception of potential borrow areas) will be created by excavation.

3. The location of stock piles should be approved before construction commences. The plan should discuss possible locations. Please provide a detail for proper stabilization of stockpile material.

   Response – The potential stock pile locations have already been identified on the design plans. A detail has been added that specifies the appropriate erosion and sediment control measures and stabilization measures for these stock piles.

4. There were channels coming off Richardson Hill Road and entering the west side of HHC causing substantial erosion to the flood plain around station 27+00. These channels should be shown on the plan and provided a stabilized conveyance to the HHC channel.

   Response – The channels that were observed cutting across the access road are primarily the result of a series of ditches constructed as part of the access road construction that consolidated the diffuse flows coming off the uphill slope and conveyed them across the access road and thence into the stream. The wetland restoration plan intends to re-distribute this water back across the slope by filling these ditches and regrading the

access road area. As a result, there will be no need for stabilized conveyances entering HHC.

Sheet 9

1. Level spreaders are not the appropriate structure for establishing grade control at the outlets of the wetlands to HHC as shown on sheets 2, 4 and 7. DEP suggests the use of Cross Vanes for the purpose of establishing grade control.

   Response – Perhaps the term level spreader is inappropriate for these structures. These are actually small dams or berms intended to regulate the water levels in the wetlands and remove the concentrated flows that have developed since the stream remediation. Here again, the intent is to back up the water and spread it out along a broad front to support the development of wet meadow hydrology along the stream bank and in other instances to develop small pooled areas for amphibian use.

2. If possible use biodegradable materials to anchor geotextile or other materials instead of rebar.

   Response – The use of rebar has been eliminated from the design drawings.

3. Potted materials planted on slopes should be placed upright, not normal to the slope as shown.

   Response – The detail has been corrected to minimize the need for geotropism on the part of the plant.

Sheet 11

1. Fueling should always be conducted outside of stream and wetland corridors.

   Response – The note on this sheet has been modified to prohibit the fueling of equipment within the stream and wetland corridors.

2. All activities should produce NO visible contrast rather than no "substantial" visible contrast.

   Response – This change has been made.

3. Is the ERNMX-120 composed of native species? If not, please choose a seed mix that is.

   Response – The ERNMX-120 mix includes many native species

4. Will compaction of grassed swale materials interfere with establishment of vegetative cover. If so, perhaps less compaction or post-compaction roughening of the surface should be employed.

Response – The note on this detail has been changed to specify post compaction roughening of the seedbed to improve root development.

Sheets 15-18

1. If log vanes and cross vanes have the same angle specifications (20-30 degrees from the bank and 4-7 degrees arm angle), and both start from bankfull elevation and end at invert elevation, how can log vanes span the entire channel while rock vane arms span 1/3 of bankfull channel? This needs careful consideration, particularly since designs show the entire lower channel from approximately 20+00 to 32+00 to contain only log vane structures. Please address design concern outlined.

   Response – Item 2 below has been noted, and edits will be made to reflect that log vanes will be keyed into the streambed invert in the center of the channel (1/2 channel width). This change is relevant to the following response, which addresses Item #1

   Manipulation of log vane and cross vane arm orientation within acceptable ranges (20-30 degrees from the bank and 4-7 degrees arm angle) allows for both log vanes and cross vanes to be installed in the manner prescribed. This is due to the narrow nature of the channel. Specifically, because the design channel width in Segment III (where log vanes are prescribed) is 10.6 feet, the difference between 1/3 channel width (3.5 feet) and ½ channel width (5.3 feet) is only 1.8 feet. Adhering to the range of allowable log vane orientation (20-30 degrees from bank and 4% to 7% arm slope angle) allows for the extension of the upstream invert of the log vane so that it can span ½ of the channel width (at 30 degree angle from bank and 4% arm angle, for instance), while a cross vane arm can adhere to the same acceptable range of orientation and span only 1/3 channel width (at something closer to 30° from bank and a 7% arm angle, for instance).

   Please refer further to the response to item 2 below.

2. Please justify the choice of log vane structures in this area vs. cross vanes or cascades. As noted in Specifications SR-12, these structures are designed to reduce shear stress on the banks. If the lowest point of the structure is at the tie-in to the bank, that location will be the thalweg and as such will be the point of greatest shear stress. These structures should therefore be redesigned to meet the invert away from the bank as for rock or cross vanes, or other structures should be used that better meet stated design goals.

   Response – Plans, details, and specifications (Construction Specification SR-12: Log Vane) have been edited to reflect the following change:

   > The upstream terminus of the log vanes will be located at mid-channel. The log vane shall be keyed into the streambed at the desired bed elevation so that the log vane spans ½ channel width. The log vane will only tie into the downstream outer bank (at the bankfull elevation) and into the upstream streambed invert at ½

the channel width. This will maintain the thalweg in the center, or just off center, of the channel.

The use of log vanes in Segment III was selected over other methods, such as cascades or cross vanes, because the are the least inhibitive method to fish passage, identified in the Goals and Objectives Memorandum as a primary consideration in the restoration design of the lower third (Segment III) of the stream reach to be reconstructed. Log vanes also provide a component of large woody debris (LWD) in the channel, identified in the Basis of Design Report as a significant physical component affecting form and function of the reference reaches. Addition of LWD in the lower third of the channel augments instream habitat.

3. Additional vegetative materials should be placed at banks upstream and downstream from log vane tie-in to prevent flanking.

Response – Substantial streambank treatments, including coir logs, coir mats, live stakes, and erosion control fabric are prescribed as bank treatments throughout the course of the restored channel. It is envisioned that, commensurate with the prescribed amending of streamside soils, a great deal of colonization from adjacent intact vegetation will occur. Even in the existing poor soil conditions we have seen rapid and extensive colonization of the riparian area by herbaceous and woody species since the last significant disturbance of the near channel area occurred in September '06.

Sheet 19

1. Location of which of various bioengineered streambank treatments (ST-01) will be used are not clearly noted on plan drawings – please note the location and length of each proposed treatment option, or clearly describe in the specifications the conditions under which each might be field engineered.

Response – Specification ST-01 has been edited to reflect the following:

> Except for the area immediately upstream and downstream of the Dimatos Crossing, the entire right and left bank of the restored channel will be stabilized using Streambank Treatment #1 (see Detail #3). Both streambanks in the vicinity of the Dimatos Crossing will be treated with an additional coir fascine superimposed upon the first (see Detail #4, Streambank Treatment 2).

2. Design appears to show a coir fascine toe along the entire length of the project judging from typical cross sections for each segment, or more than a mile of coir fascine in all. Some reaches may have two courses, its not clear which, as a few different bank treatment options are shown but not clarified on the plans (as noted in 1. above). Specifications note these materials are biodegradable – how long will it take for these materials to degrade and return the stream to a self-adjusting morphology? In all cases, degradable materials should be used as much as possible in favor of metal, plastics or

treated materials for anchors and pins (note coir logs are anchored with cabling and metal anchors, for example).

Response – It is true that the entire stream course will include a coir fascine toe (see response above). It is anticipated that the material will biodegrade over the course of 2 years, during which time the fibers will collect silts and other fine sediments, and will be colonized by adjacent vegetation. The channel will be able to self-adjust at that time, although the added stabilization of the banks through recruitment of vegetation will provide initial stability against storm events that could inappropriately reconfigure the channel prior to the substantial reestablishment of floodplain vegetation following construction.

To whatever degree possible, the preferred approach is to utilize biodegradable materials for initial stabilization of the streambanks and adjacent floodplain immediately following construction. However, it has been our professional experience with installations of this kind that the anchors and cables used to secure coir logs in place are exposed to a great deal of stress that test the tensile- and abrasion-resistant qualities of the materials used. These stresses result from three primary sources:

- Tension caused from driving of the anchors into the streambed
- Abrasion of the cable while driving the anchor and cable through streambed sediments
- Abrasion of the cable due to contact from streambed sediments and/or debris mobilized during high flow events

In order to function properly and to stabilize the channel in the initial period following construction, it is imperative that the coir fascines stay firmly secured in place. Displacement of the coir logs due to disconnection of the earth anchors can lead to bypassing (back-washing) of the coir fascines, over-widening the channel and creating a sediment discharge problem. It is our best professional judgment, borne of past experience, that the most appropriate application is the use of steel anchors and cables with high abrasion and tension resistance. Any portions of the cables remaining exposed will be removed once the need for them has expired (when the fascines have significantly biodegraded, or have been significantly 'rooted in" by vegetation.

3. Is the low-flow crossing design shown still acceptable to the Dimatos?

Response – The low flow crossing design is the one approved by EPA for this project.

4. Live staking in active channel and bank areas should have tighter spacing than 2' on center – we recommend 12-18" OC in this setting, particularly in the lower reaches that are more dependent on established vegetation for ongoing stability. This may also limit need for such extensive use of coir logs in proposed bank treatments. One detail and specification ST-02 note a 3' OC spacing and makes no reference to a tighter spacing even as shown on plan details – please clarify this and amend to a tighter spacing.

Response – Familiarity with the project site shows that rapid and extensive colonization of disturbed areas occurs shortly after disturbance. In preparing the vegetation plan accompanying the stream design, this was taken into account. It is anticipated that, in addition to the prescribed live stakes, stabilization of the floodplain will be enhanced by the placement of coir fascines and mats at the stream bank. Assisted by the prescribed amending of the floodplain soils, rapid and extensive colonization is anticipated, meeting or exceeding that experienced to date. It is the judgment of the design team that the prescribed floodplain vegetation plan, augmented with coir fascines and mats and expectant of significant colonization from existing vegetation sources, will suitably stabilize the streambank.

In regards to replacing the prescribed coir fascines with additional live stakes, this approach was initially considered. However, because the channel is built in fairly unconsolidated fill material, there is an evident susceptibility of the streambanks to failure (as seen to result from past flood events). As such, it is the opinion of the design team that a more substantive method is needed to maintain bank stability in the short term following construction. Given the specific site conditions, it is our opinion that replacing the coir fascines and mats with additional live stakes will expose the channel to a greater risk of bank failure, jeopardizing the success of the restoration effort. It should be noted that areas more susceptible to bank stress (outside meanders with higher-than-normal sheer stress values, for example) have been identified in the design. These areas of the bank will receive additional plantings and live stakings, in addition to the prescribed streambank stabilization treatment.

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ERNST Conservation Seeds

Ernst Seed Mixes

The following seed mix information is subject to change. Please contact us at **800-873-3321** for more detailed information and product specifications.

Return to Seed Mixes List

FACW Wetland Meadow Mix

Description	ERNMX-122
Seeding Rate	15 bulk lbs per acre or 1/3-1/2 lbs per 1,000 ft2
Price	Call for current pricing.

Specie List

(click for details)

Asclepias incarnata (Swamp Milkweed)

Aster prenanthoides (Symphyotrichum p.) (Zigzag Aster)

Aster puniceus (Symphyotrichum puniceum) (Purple Stemmed Aster)

Aster umbellatus (Doellingeria umbellata) (Flat Topped White Aster)

Bidens cernua (Nodding Bur Marigold)

Carex comosa (Cosmos (Bristly) Sedge)

Carex lupulina (Hop Sedge)

Carex lurida (Lurid (Shallow) Sedge)

Carex scoparia (Blunt Broom Sedge)

Carex stipata (Awl Sedge)

Carex vulpinoidea (Fox Sedge)

Elymus virginicus (Virginia Wild Rye)

Eupatorium fistulosum (Joe Pye

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Eupatorium perfoliatum (Boneset)

Euthamia graminifolia (Solidago g.) (Grass Leaved Goldenrod)

Geum laciniatum (Rough Avens)

Glyceria canadensis (Rattlesnake Grass)

Glyceria grandis (American Mannagrass)

Helenium autumnale (Common Sneezeweed)

Heliopsis helianthoides (Ox Eye Sunflower)

Juncus effusus (Soft Rush)

Juncus tenuis (Path Rush)

Ludwigia alternifolia (Seedbox)

Mimulus ringens (Square Stemmed Monkey Flower)

Onoclea sensibilis (Sensitive Fern)

Scirpus polyphyllus (Many Leaved Bulrush)

Verbena hastata (Blue Vervain)

Vernonia gigantea (V. altissima) (Giant Ironweed)

Zizia aurea (Golden Alexanders)

ATTN: James Saxton @ Barton + Loguidice, P.C.
fax: 315-451-0052
Total pg: 1

Ernst Conservation Seeds
9006 Mercer Pike
Meadville, PA 16335
(800) 873-3321 Fax (814) 336-5191
www.ernstseed.com

Date: **May 21, 2008**

Flood Plain Wildlife Mix - ERNMX-154

%	Botanical Name	Common Name	Price/lb	Cost
20.00%	*Carex vulpinoidea*	Fox Sedge	16.00	320.00
20.00%	*Elymus virginicus*	Virginia Wild Rye	7.24	144.80
10.00%	*Andropogon gerardii, 'Niagara'*	'Niagara' Big Bluestem	14.49	144.90
10.00%	*Sorghastrum nutans, PA ecotype*	Indiangrass, PA Ecotype	11.12	111.20
5.00%	*Carex scoparia*	Blunt Broom Sedge	40.00	200.00
5.00%	*Panicum virgatum, 'Shelter'*	'Shelter' Switchgrass	9.40	47.00
5.00%	*Verbena hastata*	Blue Vervain	60.00	300.00
4.00%	*Carex crinita*	Fringed (Nodding) Sedge	108.00	432.00
4.00%	*Helenium autumnale*	Common Sneezeweed	80.00	320.00
3.00%	*Euthamia graminifolia*	Grass Leaved Goldenrod	120.00	360.00
2.00%	*Carex stipata*	Awl Sedge	120.00	240.00
2.00%	*Desmodium canadense*	Showy Tick Trefoil	32.32	64.64
2.00%	*Eupatorium fistulosum*	Joe Pye Weed	160.00	320.00
2.00%	*Eupatorium perfoliatum*	Boneset	160.00	320.00
2.00%	*Heliopsis helianthoides*	Ox Eye Sunflower	16.00	32.00
1.00%	*Asclepias incarnata*	Swamp Milkweed	300.00	300.00
1.00%	*Aster puniceus*	Purple Stemmed Aster	200.00	200.00
1.00%	*Ludwigia alternifolia*	Seedbox	240.00	240.00
1.00%	*Monarda fistulosa*	Wild Bergamot	196.00	196.00
100.00%			Total:	4,292.34
			Price/lb:	**$42.93**

Seeding Rate: 15 lb per acre, or 1/3-1/2 lb per 1,000 sq ft
Use: Wetland sites.

Price Quotes guaranteed for 30 days.
All prices are FOB Meadville, PA
Please check our website at www.ernstseed.com for current pricing when placing orders.

X: XREF(S)_W/_(ROT/TWIST)
LM: LS=,OR L:ON=;OFF=
P: STANDARD.PC3.CTB

10/09/07-SYR-JGS, 10/31/07-JGS
I:\SHARED\800\824006\824006_01-05

LEGEND

— — —	DELINEATED WETLAND LINE
— · —	LIMITS OF STREAM
—1745—	EXISTING CONTOUR
—1660—	PROPOSED CONTOUR
— OHE —	OVER HEAD ELECTRIC LINE
— · —	DITCH
—□—□—	PROPOSED SILT FENCE (SEE EROSION AND SEDIMENT CONTROL NOTES, SHEET 12)
	RIP RAP DITCH
	DIRT ROAD
	WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 1)
	WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 2)

In charge of	SDN
Designed by	JIS
Drawn by	JGS
Checked by	

Date: MAY, 2008

Scale: 1"=150' (150' 0 150' 300')

NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

REVISIONS

COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By ______ Date ______

Ck'd ______ Date ______

Bioengineering GROUP — Building Sustainable Communities on an Ecological Foundation

Barton & Loguidice, P.C.

Engineers · Environmental Scientists · Planners · Landscape Architects

AMPHENOL CORPORATION
HERRICK HOLLOW CREEK RESTORATION
CONSTRUCTION DRAWING

WETLAND RESTORATION OVERALL SITE PLAN

TOWN OF SIDNEY AND MASONVILLE — DELAWARE COUNTY, NEW YORK

Sheet Number: 1

File Number: 824.006-02F

LEGEND

- DELINEATED WETLAND LINE
- LIMITS OF STREAM
- 1745 — EXISTING CONTOUR
- 1660 — PROPOSED CONTOUR
- OHE — OVER HEAD ELECTRIC LINE
- DITCH
- PROPOSED SILT FENCE (SEE EROSION AND SEDIMENT CONTROL NOTES, SHEET 12)
- PROPOSED STREAM CENTERLINE
- PROPOSED SHRUB PLANTINGS
- RIP RAP DITCH
- DIRT ROAD
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 1)
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 2)

N

MATCH LINE

LEVEL SPREADER (SEE DETAIL SHEET 9)

B

EL.= 1745

STREAM

1740

OHE

1745

LEVEL SPREADER (SEE DETAIL SHEET 9)

EL.= 1746

A

1745

STREAM

1742

1747

SOUTH POND

STREAM

ADDITIONAL SHRUB PLANTINGS SEE SHEET NUMBER 9 FOR ADDITIONAL NOTES, DETAILS, AND PLANT SCHEDULE
FIELD CONDITIONS WILL DICTATE ACTUAL PLANTING LOCATIONS

1747

RIP RAP

SEDIMENT BASIN 1

DITCH

1750

ADDITIONAL SHRUB PLANTINGS SEE SHEET NUMBER 9 FOR ADDITIONAL NOTES, DETAILS, AND PLANT SCHEDULE
FIELD CONDITIONS WILL DICTATE ACTUAL PLANTING LOCATIONS

1745

1750

1750

1755

1755

MATCH LINE

X: XREF(S)_W/_(ROT/TWIST)
LAY: LTS=ON; LTON=; LTOFF=
P: STANDARD.PC3,CTB

10/09/07--SYR--JGS, 03/12/08--JGS
I:\SHARED_801\824.006\824.006_01-05

In charge of: SDN	Date: MAY, 2008	REVISIONS	COMPLETED CONSTRUCTION
Designed by: JIS	Scale: 1"=20' (20' 0 20' 40')		Significant Construction Changes Are Shown
Drawn by: JGS	NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.		By _____ Date _____
Checked by:			Ck'd _____ Date _____

Bioengineering GROUP
Building Sustainable Communities on an Ecological Foundation

Barton & Loguidice, P.C.
Engineers · Environmental Scientists · Planners · Landscape Architects

AMPHENOL CORPORATION
HERRICK HOLLOW CREEK RESTORATION
CONSTRUCTION DRAWING

WETLAND RESTORATION (SHEET 1 OF 7)

TOWN OF SIDNEY AND MASONVILLE DELAWARE COUNTY, NEW YORK

Sheet Number: 2

File Number: 824.006-03F

MATCH LINE

N

LEGEND

- DELINEATED WETLAND LINE
- LIMITS OF STREAM
- 1745 EXISTING CONTOUR
- **1660** PROPOSED CONTOUR
- OHE OVER HEAD ELECTRIC LINE
- DITCH
- PROPOSED SILT FENCE (SEE EROSION AND SEDIMENT CONTROL NOTES, SHEET 12)
- PROPOSED STREAM CENTERLINE
- PROPOSED SHRUB PLANTINGS
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- DIRT ROAD
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 1)
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 2)

1753
1752
1750
1745
1740
1739
1744
1746
1747

DIRT ROAD

ADDITIONAL SHRUB PLANTINGS SEE SHEET NUMBER 9 FOR ADDITIONAL NOTES, DETAILS, AND PLANT SCHEDULE
FIELD CONDITIONS WILL DICTATE ACTUAL PLANTING LOCATIONS

FORD CROSSING

STREAM

0+50
1+00
1+50
2+00
2+50

REBAR CAPPED B&B HI TECH

WET AREA

STONE WALL

GRAVEL DITCH

RIP RAP DITCH

DITCH

RIP RAP

ADDITIONAL SHRUB PLANTINGS SEE SHEET NUMBER 9 FOR ADDITIONAL NOTES, DETAILS, AND PLANT SCHEDULE
FIELD CONDITIONS WILL DICTATE ACTUAL PLANTING LOCATIONS

STONE TO BE REMOVED, GRASSED WATERWAY TO BE INSTALLED (SEE DETAIL SHEET 11)

STONE TO BE REMOVED, GRASSED WATERWAY TO BE INSTALLED (SEE DETAIL SHEET 11)

TRAILER RUINS

SEDIMENT BASIN 2
(SEE SHEET 3A FOR RECONSTRUCTION PLANS)

MATCH LINE

MATCH LINE

MATCH LINE

X: XREF(S)_W_(ROT/TWST)
LM: LS=ON LC=ON=OFF=
P: STANDARD)-C1.CTB

10/09/07-SVP--JIS, 03/12/08--JIS
I:\SHARED\800\824006\824006_01-05

In charge of SDN	Date MAY, 2008	REVISIONS	COMPLETED CONSTRUCTION
Designed by JIS	Scale 1"=20' (20' 0 20' 40')		Significant Construction Changes Are Shown
Drawn by JGS	NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.		By _____ Date _____
Checked by			Ck'd _____ Date _____

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HERRICK HOLLOW CREEK RESTORATION
CONSTRUCTION DRAWING

WETLAND RESTORATION (SHEET 2 OF 7)

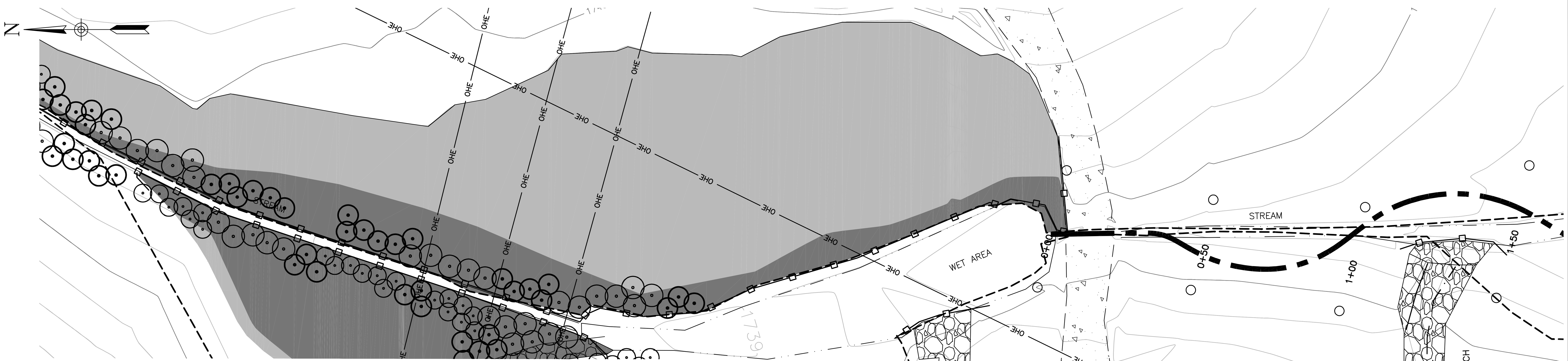
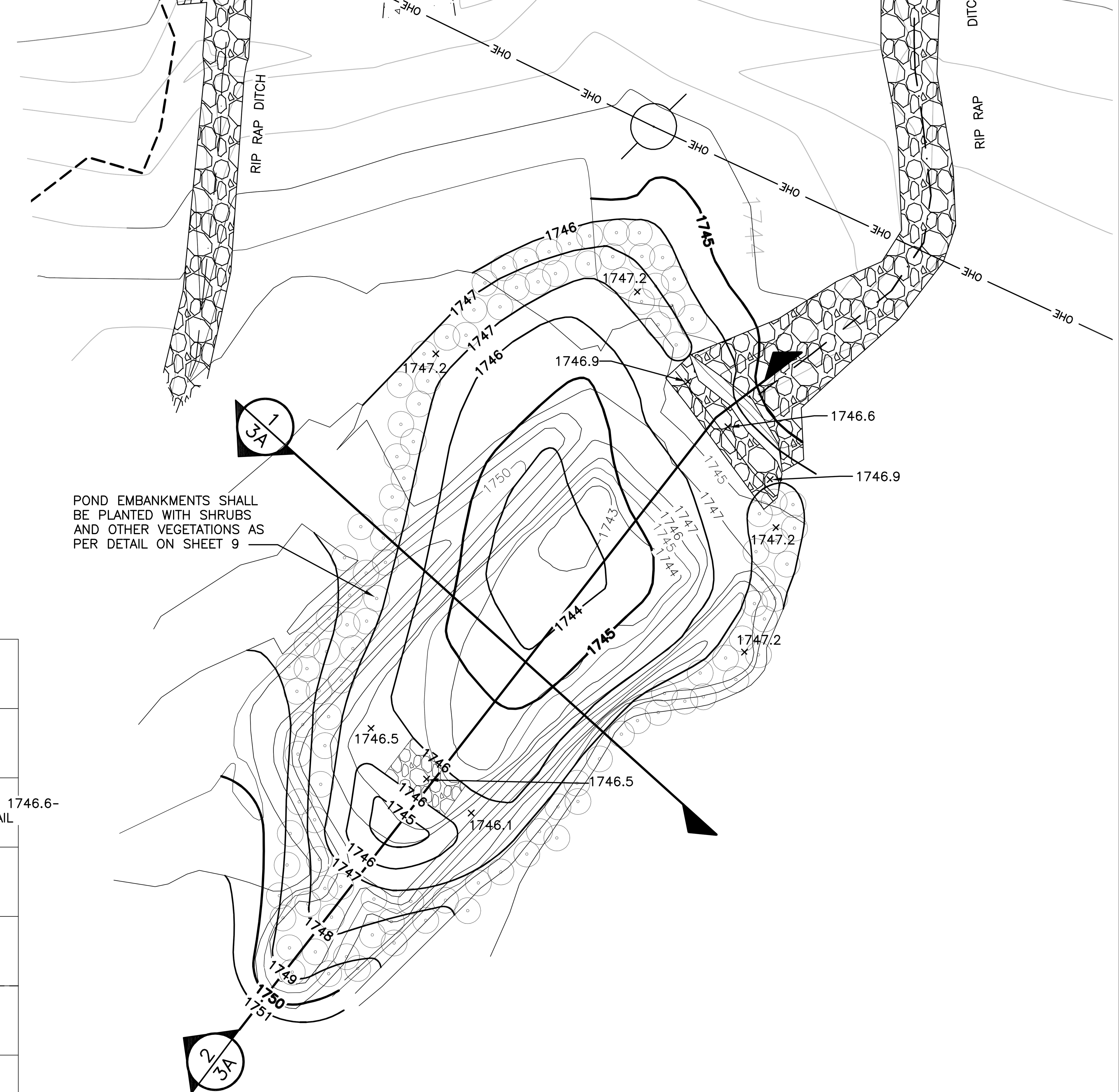
TOWN OF SIDNEY AND MASONVILLE DELAWARE COUNTY, NEW YORK

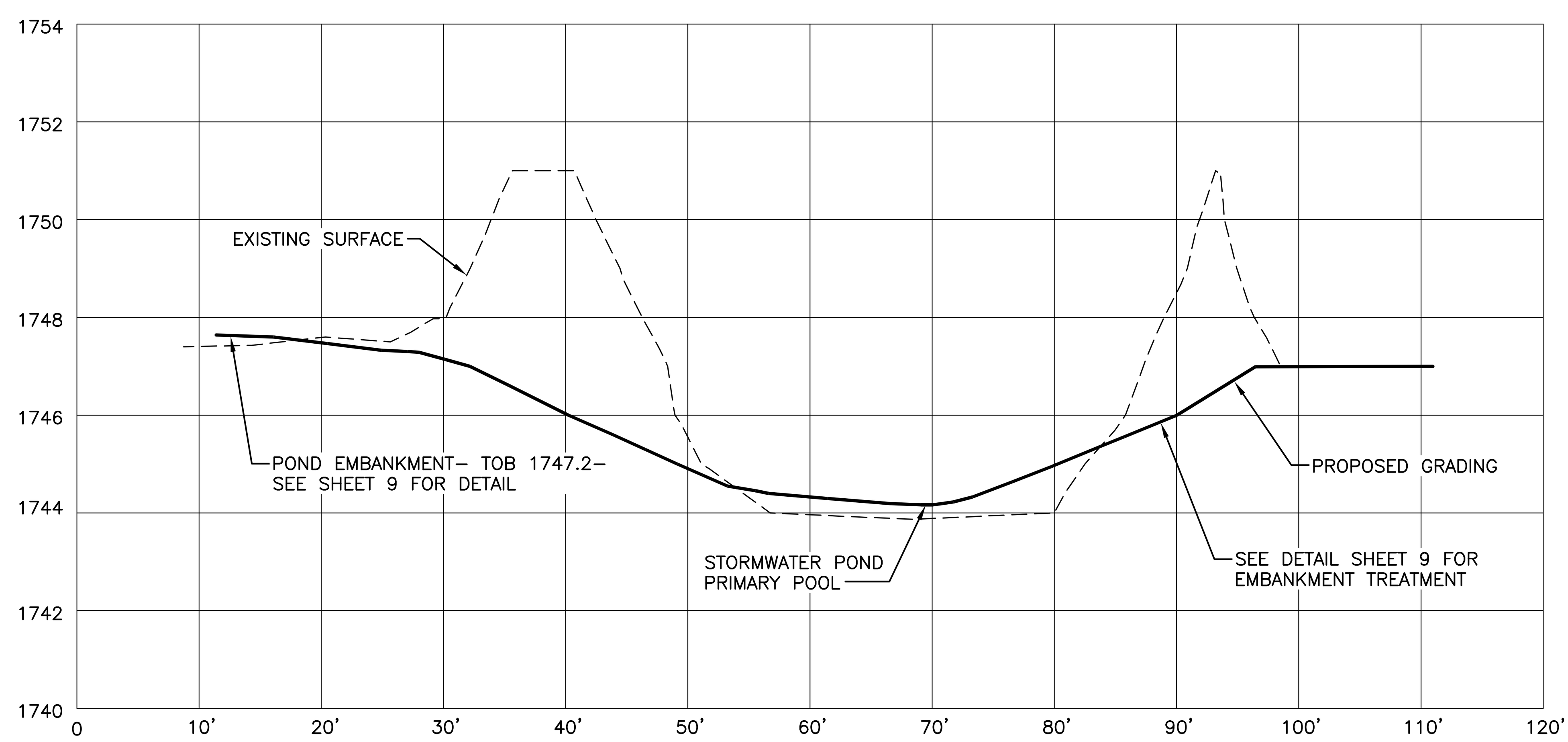
Sheet Number 3

File Number 824.006-04F

LEGEND

- DELINEATED WETLAND LINE
- LIMITS OF STREAM
- EXISTING CONTOUR (1745)
- PROPOSED CONTOUR (1660)
- OVER HEAD ELECTRIC LINE (OHE)
- DITCH
- PROPOSED SILT FENCE (SEE EROSION AND SEDIMENT CONTROL NOTES, SHEET 12)
- PROPOSED STREAM CENTERLINE
- PROPOSED SHRUB PLANTINGS
- RIP RAP DITCH
- DIRT ROAD
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 1)
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 2)

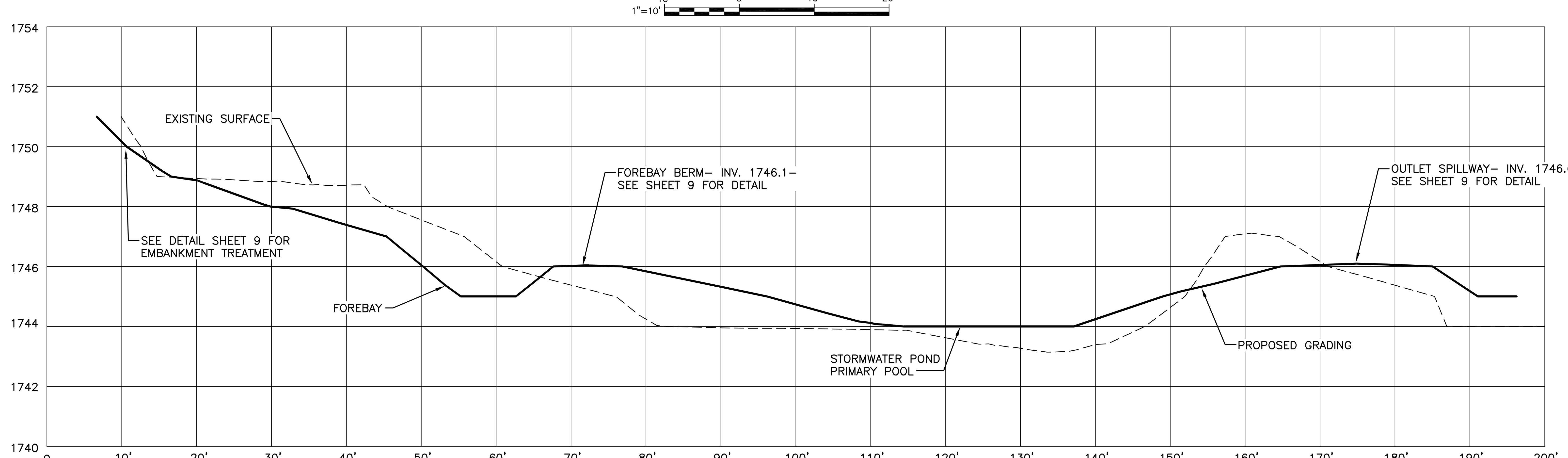





SECTION 1/3A

SCALE: 1" = 10'-0"

1"=10' 10' 0 10' 20'



SECTION 2/3A

SCALE: 1" = 10'-0"

1"=10' 10' 0 10' 20'

10/09/07-SYR-JGS, 03/12/08-JGS
I:\SHARED\800\824006/CREEK RESTORATION\CONST DRAWINGS\824006_3A
X: XREF(S)_W/_(ROT/TWIST)
LM: LS=,OR L:ON=;OFF=
P: STANDARD.PC3.CTB

In charge of	SDN
Designed by	JIS
Drawn by	JGS
Checked by	

Date: MAY, 2008

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

REVISIONS

COMPLETED CONSTRUCTION

Significant Construction Changes Are Shown

By ______ Date ______

Ck'd ______ Date ______

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CONSTRUCTION DRAWING

STORMWATER BASIN 2 RECONSTRUCTION

TOWN OF SIDNEY AND MASONVILLE — DELAWARE COUNTY, NEW YORK

Sheet Number: 3A

File Number: 824.006-05F

MATCH LINE

N

1735

STONE WALL

1730

2+50

3+00

3+50

STREAM

1+00

4+50

5+00

5+50

6+00

6+50

STONE WALL

1725

1720

DIKE

ADDITIONAL SHRUB PLANTINGS
SEE SHEET NUMBER 9 FOR
ADDITIONAL NOTES, DETAILS,
AND PLANT SCHEDULE

CREATED
VERNAL POOL

LEVEL SPREADER
(SEE DETAIL SHEET 9)
EL.= 1716

SILT FENCE

INV=1716.65

INV=1716.94

7+50

STREAM

DIMATOS
CROSSING

7+69

EXISTING CULVERT
TO BE REMOVED

18"SICPP

8+50

9+50

SATELLITE DISH

DITCH

DITCH

1735

1725

1730

BUILDING

DIRT ROAD

ACCESS ROAD

1720

1721

FILL DITCH
(SEE NOTE)

MATCH LINE

MATCH LINE

X: XREF(S)_W/_(ROT/TWST)
LM: LS=,OR LC=N=,OFF=
P: STANDARD.CTB

10/09/07-SVP--JIS, 03/12/08-JGS
I:\SHARED\8240\824006_01-05

LEGEND

- DELINEATED WETLAND LINE
- LIMITS OF STREAM
- 1745 EXISTING CONTOUR
- **1660** PROPOSED CONTOUR
- OHE OVER HEAD ELECTRIC LINE
- DITCH
- PROPOSED SILT FENCE (SEE EROSION AND SEDIMENT CONTROL NOTES, SHEET 12)
- PROPOSED STREAM CENTERLINE
- PROPOSED SHRUB PLANTINGS
- RIP RAP DITCH
- DIRT ROAD
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 1)
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 2)

In charge of SDN	Date MAY, 2008	REVISIONS	COMPLETED CONSTRUCTION
Designed by JIS	Scale 1"=20' (20' 0 20' 40')		Significant Construction Changes Are Shown
Drawn by JGS	NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.		By _____ Date _____
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HERRICK HOLLOW CREEK RESTORATION
CONSTRUCTION DRAWING

WETLAND RESTORATION (SHEET 3 OF 7)

TOWN OF SIDNEY AND MASONVILLE DELAWARE COUNTY, NEW YORK

Sheet Number 4

File Number 824.006-06F

MATCH LINE

N

ADDITIONAL SHRUB PLANTINGS
–STA. 10+00 TO 13+00
–PLANT SIMILIAR SPP. IN GROUPS AND MASSES
–PROVIDE EQ. PROPORTIONS OF SPP. # IN EACH AREA
–SEE SHEET 9 FOR ADDITIONAL NOTES, DETAILS, AND PLANT SCHEDULE
–FIELD CONDITIONS WILL DICTATE ACTUAL PLANTING LOCATIONS

STONE PILE

ADDITIONAL SHRUB PLANTINGS
–STA. 13+50 TO 14+75
–PLANT SIMILIAR SPP. IN GROUPS AND MASSES
–PROVIDE EQ. PROPORTIONS OF SPP. # IN EACH AREA
–SEE SHEET 9 FOR ADDITIONAL NOTES, DETAILS, AND PLANT SCHEDULE
–FIELD CONDITIONS WILL DICTATE ACTUAL PLANTING LOCATIONS

STREAM

ACCESS ROAD

DOCK SPIKE
IN TREE STUMP

DITCH

STONE WALL

DITCH TO BE FILLED

DITCH TO BE FILLED

REMOVE ACCESS ROAD MATERIALS.
RESTORE WITH STOCKPILED BERM MATERIALS
SITUATED ON WEST SIDE OF THE ROAD.

MATCH LINE

LEGEND

- DELINEATED WETLAND LINE
- LIMITS OF STREAM
- 1745 EXISTING CONTOUR
- 1660 PROPOSED CONTOUR
- OHE OVER HEAD ELECTRIC LINE
- DITCH
- PROPOSED SILT FENCE (SEE EROSION AND SEDIMENT CONTROL NOTES, SHEET 12)
- PROPOSED STREAM CENTERLINE
- PROPOSED SHRUB PLANTINGS
- RIP RAP DITCH
- DIRT ROAD
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 1)
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 2)

X: XREF(S)_W/_(ROT/TWIST)
LM: LS=ON LC=ON PE=OFF
P: STANDARD.CTB

10/09/07-SYR-JGS, 03/12/08-JGS
I:\SHARED\800\824006\824006_01-05

In charge of: SDN	Date: MAY, 2008	REVISIONS	COMPLETED CONSTRUCTION
Designed by: JIS	Scale: 1"=20' (20' 0 20' 40')		Significant Construction Changes Are Shown
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Checked by:			Ck'd _____ Date _____

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HERRICK HOLLOW CREEK RESTORATION
CONSTRUCTION DRAWING

WETLAND RESTORATION (SHEET 4 OF 7)

TOWN OF SIDNEY AND MASONVILLE DELAWARE COUNTY, NEW YORK

Sheet Number: 5

File Number: 824.006–07F

LEGEND

- DELINEATED WETLAND LINE
- LIMITS OF STREAM
- 1745 — EXISTING CONTOUR
- 1660 — PROPOSED CONTOUR
- OHE — OVER HEAD ELECTRIC LINE
- DITCH
- PROPOSED SILT FENCE (SEE EROSION AND SEDIMENT CONTROL NOTES, SHEET 12)
- PROPOSED STREAM CENTERLINE
- PROPOSED SHRUB PLANTINGS
- RIP RAP DITCH
- DIRT ROAD
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 1)
- WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 2)

X: XREF(S)_W/_(ROT/TWIST)
LM: LS=,OR L:ON=;OFF=
P: STANDARD.PC3.CTB

10/09/07-SYR-JGS, 03/12/08-JGS
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In charge of	SDN
Designed by	JIS
Drawn by	JGS
Checked by	

Date: MAY, 2008
Scale: 1"=20' (20' 0 20' 40')

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REVISIONS

COMPLETED CONSTRUCTION
Significant Construction Changes Are Shown
By ______ Date ______
Ck'd ______ Date ______

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CONSTRUCTION DRAWING

WETLAND RESTORATION (SHEET 5 OF 7)

TOWN OF SIDNEY AND MASONVILLE — DELAWARE COUNTY, NEW YORK

Sheet Number: 6
File Number: 824.006-08F


MATCH LINE
CREATED VERNAL POOL
EL.= 1660
LEVEL SPREADER (SEE DETAIL SHEET 9) EL.= 1660
-ADDITIONAL SHRUB PLANTINGS SEE SHEET NUMBER 9 FOR ADDITIONAL NOTES, DETAILS, AND PLANT SCHEDULE
-FIELD CONDITIONS WILL DICTATE ACTUAL PLANTING LOCATIONS
LEVEL SPREADER (SEE DETAIL SHEET 9) EL.= 1655
CREATED VERNAL POOL
STREAM
23+00
23+50
24+00
24+50
25+00
25+50
26+00
26+50
27+00
27+50
28+00
28+50
29+00
DITCH
DIRT ROAD
RIP RAP DITCH
5.5" PCP TO BE REMOVED
INV= 1655.66
INV= 1655.73
EXISTING VERNAL POOL TO BE RETAINED
WET AREA
1665
1660
1659
1657
1655
DITCH TO BE FILLED
REMOVE RIPRAP (SEE GRASSED WATERWAY DETAIL SHEET 6)
LEGEND
DELINEATED WETLAND LINE
LIMITS OF STREAM
EXISTING CONTOUR
PROPOSED CONTOUR
OVER HEAD ELECTRIC LINE
DITCH
PROPOSED SILT FENCE (SEE EROSION AND SEDIMENT CONTROL NOTES, SHEET 12)
PROPOSED STREAM CENTERLINE
PROPOSED SHRUB PLANTINGS
RIP RAP DITCH
DIRT ROAD
WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 1)
WETLAND RESTORATION AREA TILLAGE AND SEEDING (WETLAND MIX 2)

X: XREF(S)_W/_(ROT/TWIST)
LM: LS=,OR L:ON=;OFF=
P: STANDARD.PC3.CTB

10/09/07-SYR-JGS, 03/12/08-JGS
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In charge of	SDN
Designed by	JIS
Drawn by	JGS
Checked by	

Date: MAY, 2008

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

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REVISIONS

COMPLETED CONSTRUCTION
Significant Construction Changes Are Shown
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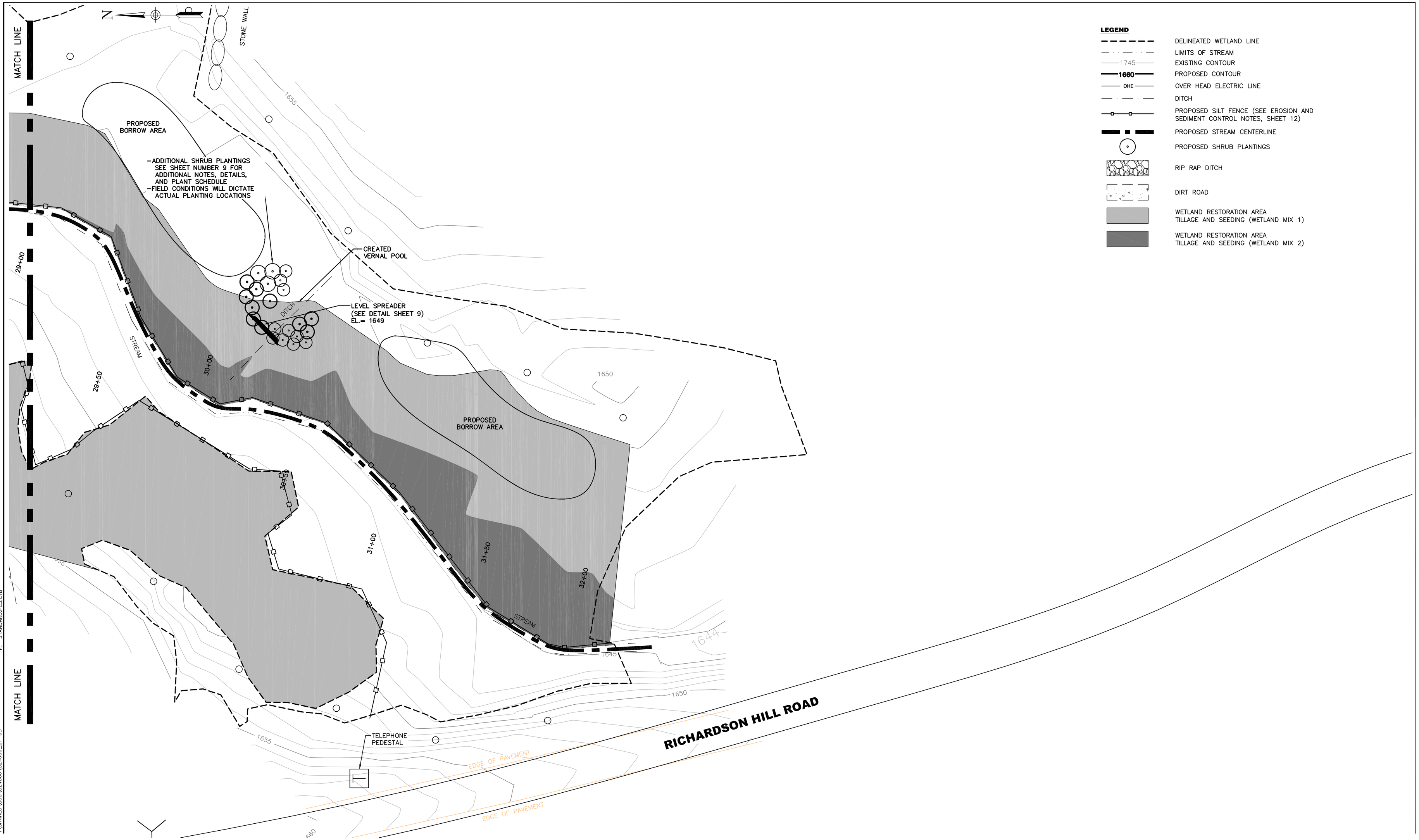
CONSTRUCTION DRAWING

WETLAND RESTORATION (SHEET 6 OF 7)

TOWN OF SIDNEY AND MASONVILLE — DELAWARE COUNTY, NEW YORK

Sheet Number: 7

File Number: 824.006-09F



X: XREF(S)_W_(ROT/TWST)
LM: LS+XR (ON+;OFF=
P: STANDARD.CTB

10/09/07-SYF--JIS, 03/12/08--JIS
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In charge of SDN	Date MAY, 2008	REVISIONS	COMPLETED CONSTRUCTION
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CONSTRUCTION DRAWING

WETLAND RESTORATION (SHEET 7 OF 7)

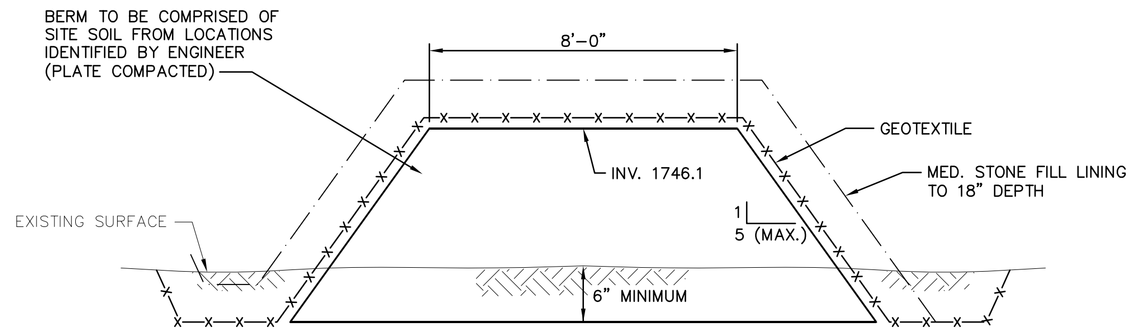
TOWN OF SIDNEY AND MASONVILLE DELAWARE COUNTY, NEW YORK

Sheet Number 8

File Number 824.006-10F

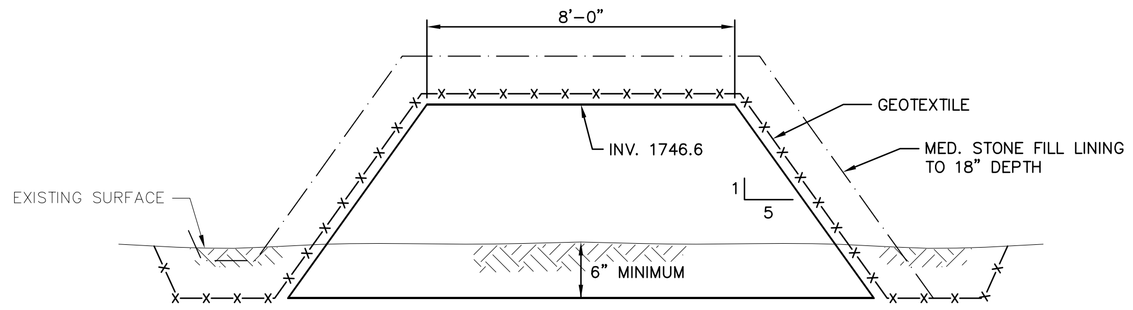
GENERAL NOTES:

1. A SOIL AMENDMENT CONSISTING OF PEAT AT A RATIO OF 18.8 TONS PER ACRE IS TO BE SPREAD ON THE SOIL SURFACE IN THOSE AREAS WHERE TILLING AND SEEDING ARE TO OCCUR. THIS MATERIAL IS TO BE INCORPORATED INTO THE UPPER SIX INCHES OF THE SOIL DURING THE TILLAGE OPERATION.
2. TILLING IS TO BE DONE USING ROTARY OR CHISEL TYPE EQUIPMENT TO A DEPTH OF 6–INCHES. DISCING OF THE SOIL IS NOT ALLOWED.
3. TRACKING OF TILLED SOILS IS TO BE AVOIDED WHEREVER POSSIBLE.
4. FOLLOWING TILLAGE, THESE AREAS ARE TO RECEIVE THE SPECIFIED WETLAND SEED MIX AT THE SUPPLIER'S RECOMMENDED RATE AND AN OVERSEEDING CONSISTING OF ANNUAL RYEGRASS AT A RATE OF 20 POUNDS PER ACRE.
5. ALL SEED USED ON THE PROJECT IS TO BE CERTIFIED FREE OF INVASIVE OR NOXIOUS SPECIES. SPECIFIED SEED MIXES SHALL BE THOSE SHOWN ON THE SCHEDULE CONTAINED ON THIS SHEET.
6. SPECIFIED SHRUB PLANTINGS ARE TO BE OBTAINED FROM RPM ECOSYSTEMS WHEREVER POSSIBLE. IN THE EVENT THAT RPM ECOSYSTEMS CANNOT SUPPLY A PARTICULAR SPECIES THAT SPECIES SHALL BE OBTAINED FROM ANOTHER VENDOR WITH PRIOR APPROVAL OF THE ENGINEER.



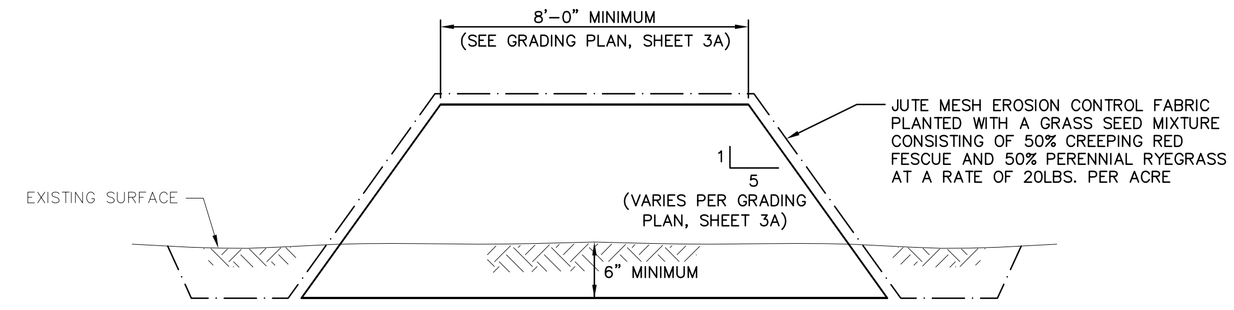
FOREBAY BERM DETAIL

NOT TO SCALE



POND OUTLET DETAIL

NOT TO SCALE



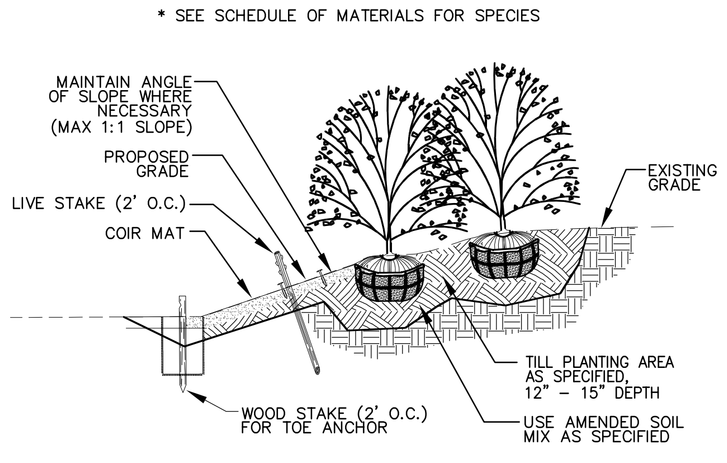
POND EMBANKMENT DETAIL

NOT TO SCALE

PLANTING SCHEDULE

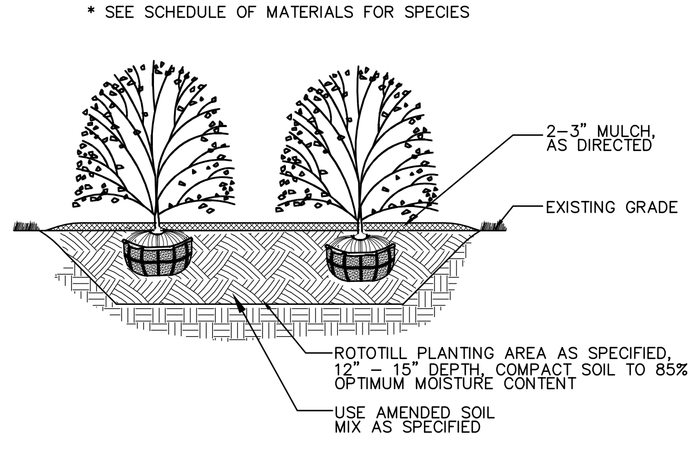
KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOTS	REMARKS
CA	190	CORNUS AMOMUM	SILKY DOGWOOD	3 GAL.	CONT.	LARGE UPRIGHT, SHRUB THICKET
CO	147	CEPHALANTHUS OCCIDENTALIS	BUTTONBUSH	3 GAL.	CONT.	LARGE, MULTI–STEMMED SHRUB
CR	147	CORNUS RACEMOSA	GRAY DOGWOOD	3 GAL.	CONT.	LOW–GROWING
SC	181	SAMBUCUS CANADENSIS	AMERICAN ELDERBERRY	3 GAL.	CONT.	DENSE FORM, RETAINS SLOPE

NOTES:
1. SLOPES SHALL BE 1:1 OR FLATTER FOR ALL BANK STABILIZATION SHRUB PLANTINGS
2. SHRUBS SHOULD BE PLANTED IN EARLY SPRING, PRIOR TO JUNE 1.
3. IMMEDIATELY AFTER PLANTING SHRUBS IN RESTORATION AREAS, WETLAND MIXES SHOULD BE APPLIED.
4. PLANT SIMILIAR SPECIES IN GROUPS AND MASSINGS OF ODD NUMBERS.
5. PROVIDE A GRADUATED HEIGHT OF PLANTINGS; LOW GROWING AT TOE OF SLOPES AND UPRIGHT FORMS TOWARDS TOP OF BANKS.
6. PLANTINGS DIRECTLY ON THE LEVEL SPREADER SHALL CONSIST OF SAMBUCUS CANADENSIS AND/OR CORNUS AMOMUM.
7. HEIGHT OF CONTAINER ROOTZONE SHALL BE SAME AS FINISHED GRADE; RESHAPE STREAM/SWALE BANKS AS NECESSARY.



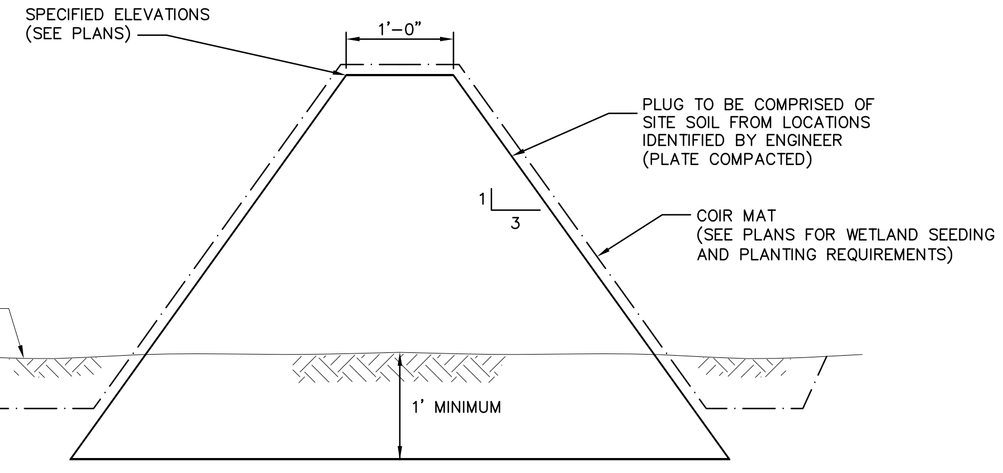
PLANTINGS WITH BANK STABILIZATION

NOT TO SCALE



PLANTINGS WITHOUT BANK STABILIZATION

NOT TO SCALE



LEVEL SPREADER DETAIL

NOT TO SCALE

X: XREF(S)_W/_(ROT/TWST)
LM: LS=ON,LOR=OFF=
PS: STANDARD.CTB

03/10/08–SYR–JGS LAST MODIFIED
805\824006\CREEK RESTORATION\February Set\824006_10

In charge of: SDN	Date: MAY, 2008	REVISIONS	COMPLETED CONSTRUCTION
Designed by: JIS	Scale: AS SHOWN		Significant Construction Changes Are Shown
Drawn by: JGS	NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.		By _____ Date _____
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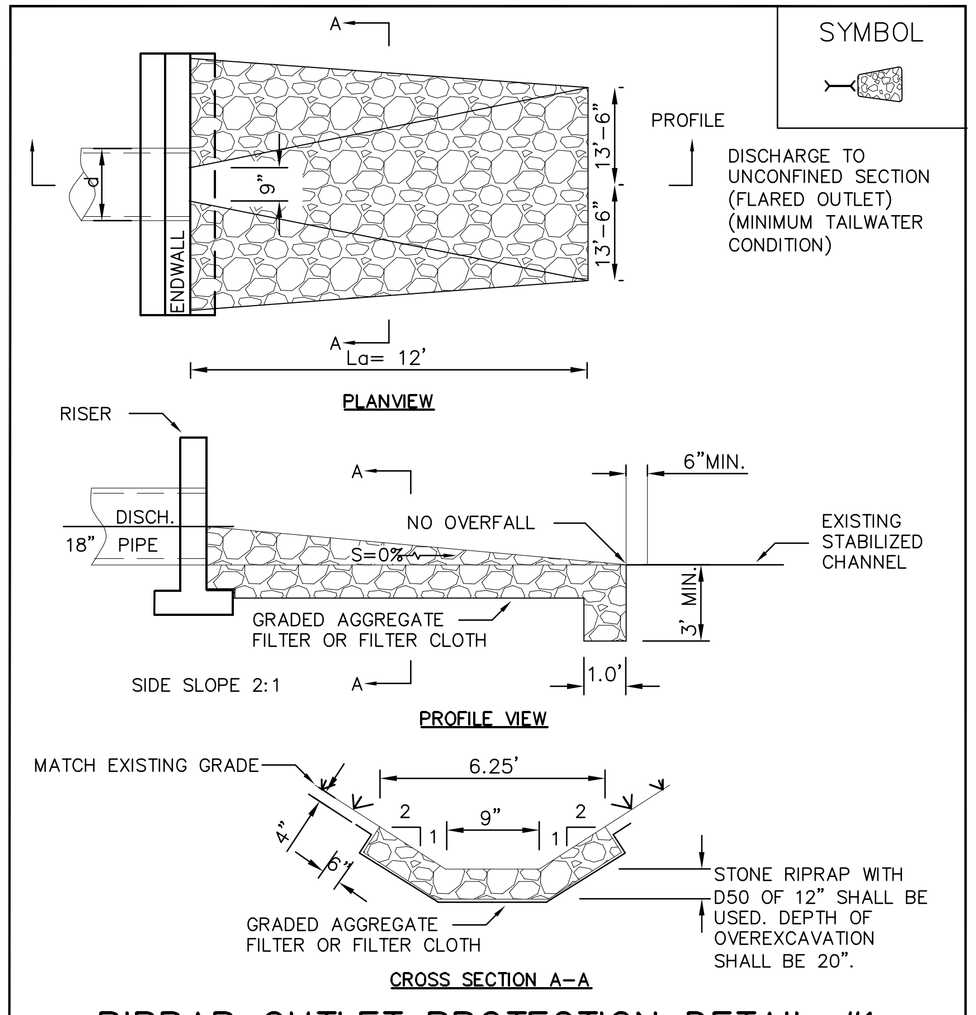
CONSTRUCTION DRAWING

PLANTING AND LEVEL SPREADER DETAILS

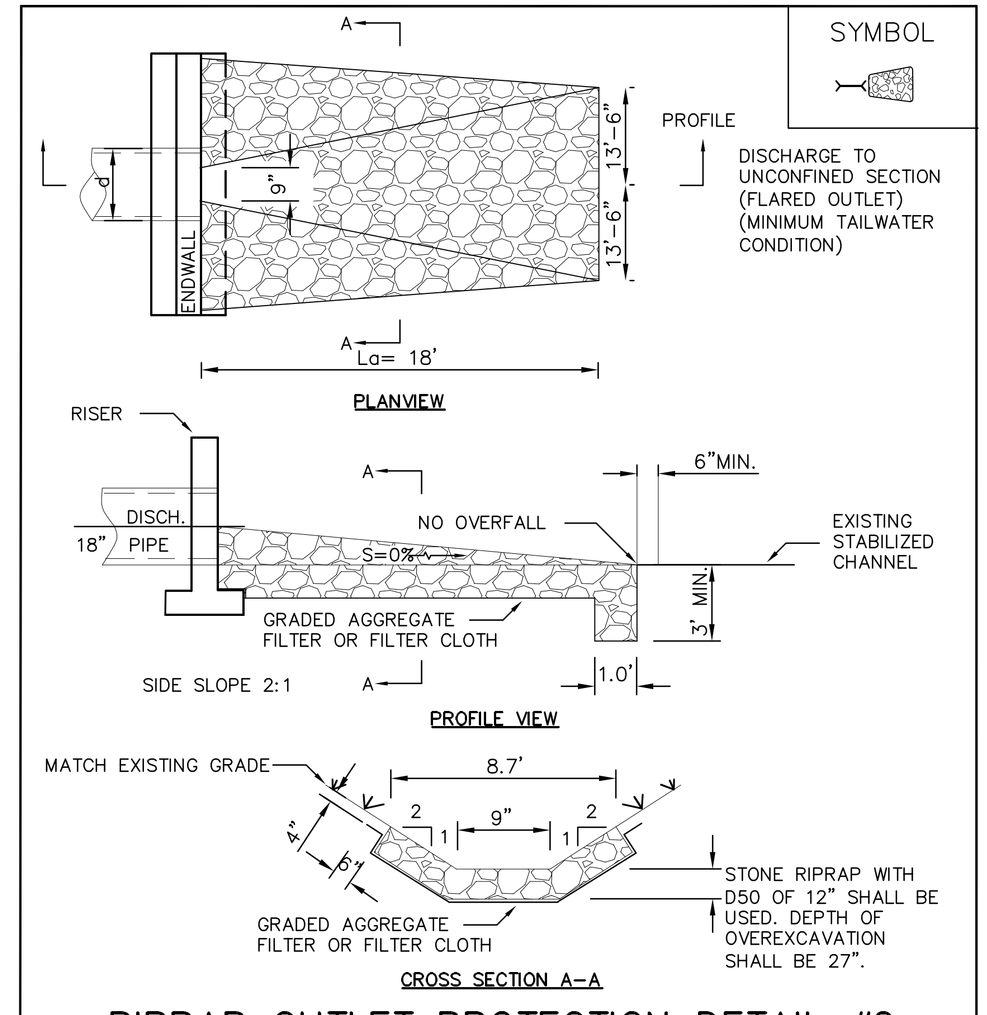
TOWN OF SIDNEY AND MASONVILLE DELAWARE COUNTY, NEW YORK

Sheet Number: 9
File Number: 824.006–11F



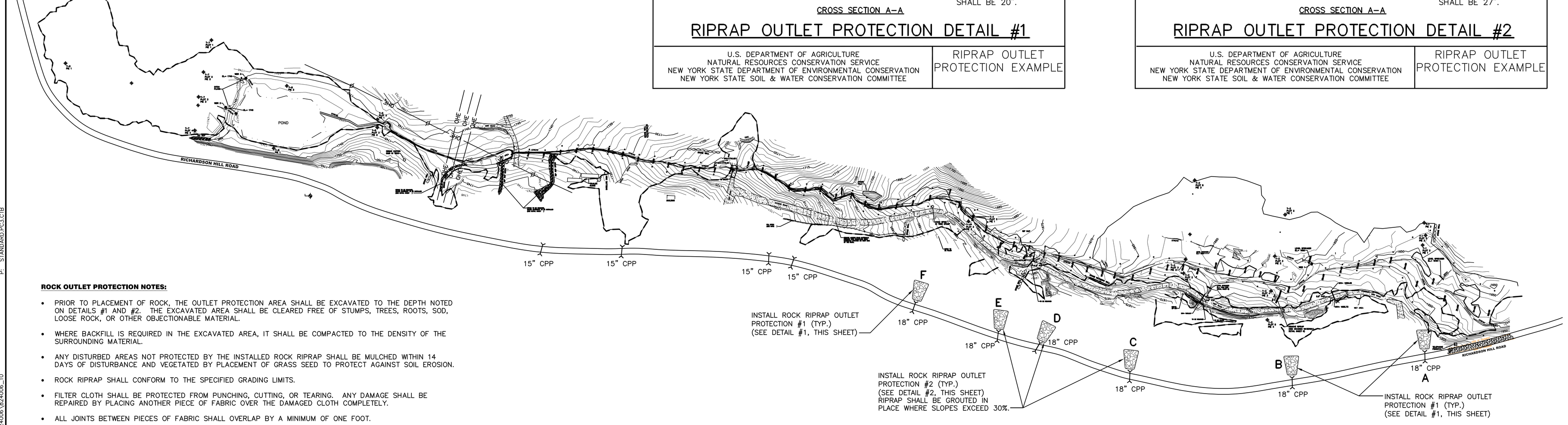
RIPRAP OUTLET PROTECTION DETAIL #1

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	RIPRAP OUTLET PROTECTION EXAMPLE



RIPRAP OUTLET PROTECTION DETAIL #2

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION NEW YORK STATE SOIL & WATER CONSERVATION COMMITTEE	RIPRAP OUTLET PROTECTION EXAMPLE



ROCK OUTLET PROTECTION NOTES:

- PRIOR TO PLACEMENT OF ROCK, THE OUTLET PROTECTION AREA SHALL BE EXCAVATED TO THE DEPTH NOTED ON DETAILS #1 AND #2. THE EXCAVATED AREA SHALL BE CLEARED FREE OF STUMPS, TREES, ROOTS, SOD, LOOSE ROCK, OR OTHER OBJECTIONABLE MATERIAL.
- WHERE BACKFILL IS REQUIRED IN THE EXCAVATED AREA, IT SHALL BE COMPACTED TO THE DENSITY OF THE SURROUNDING MATERIAL.
- ANY DISTURBED AREAS NOT PROTECTED BY THE INSTALLED ROCK RIPRAP SHALL BE MULCHED WITHIN 14 DAYS OF DISTURBANCE AND VEGETATED BY PLACEMENT OF GRASS SEED TO PROTECT AGAINST SOIL EROSION.
- ROCK RIPRAP SHALL CONFORM TO THE SPECIFIED GRADING LIMITS.
- FILTER CLOTH SHALL BE PROTECTED FROM PUNCHING, CUTTING, OR TEARING. ANY DAMAGE SHALL BE REPAIRED BY PLACING ANOTHER PIECE OF FABRIC OVER THE DAMAGED CLOTH COMPLETELY.
- ALL JOINTS BETWEEN PIECES OF FABRIC SHALL OVERLAP BY A MINIMUM OF ONE FOOT.
- STONE SHALL BE SELECTED, DELIVERED, AND PLACED IN A MANNER SUCH THAT IT IS REASONABLY HOMOGENOUS, WITH SMALLER STONES AND SPALLS FILLING IN VOIDS BETWEEN LARGER STONES.
- STONE MAY BE PLACED BY EQUIPMENT, BUT IN MANNER THAT PREVENTS DAMAGE OF THE FILTER CLOTH. STONE SHALL BE PLACED TO THE FULL COURSE THICKNESS IN ONE OPERATION. DISPLACEMENT OF THE UNDERLYING MATERIALS SHALL BE AVOIDED.

NOTE: BASE PLAN PROVIDED BY KEYSTONE ASSOCIATES.

In charge of SDN Designed by DHK Drawn by JGS Checked by	Date MAY, 2008 Scale 1"=150' (150' 0 150' 300') NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.	REVISIONS	COMPLETED CONSTRUCTION Significant Construction Changes Are Shown By _____ Date _____ Ck'd _____ Date _____

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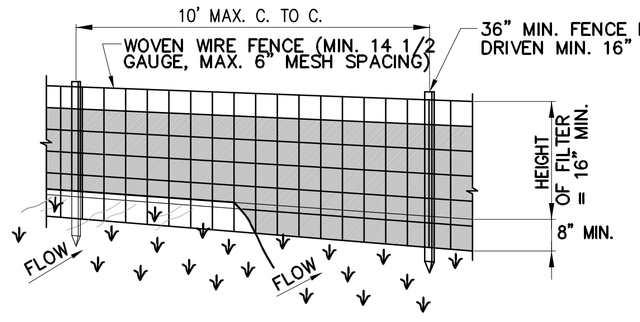
CONSTRUCTION DRAWING

RICHARDSON HILL ROAD OUTLET CULVERT PROTECTION

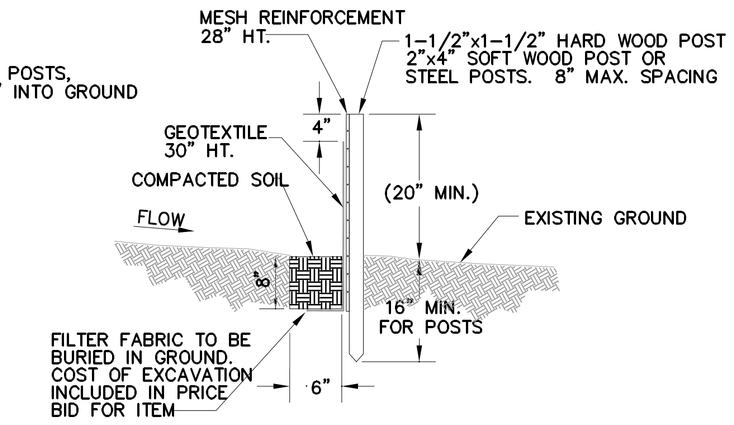
TOWN OF SIDNEY AND MASONVILLE DELAWARE COUNTY, NEW YORK

Sheet Number 10

File Number 824.006-12F



PERSPECTIVE VIEW



SECTION

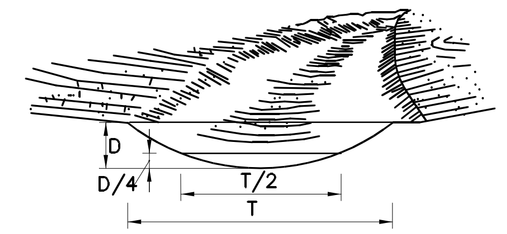
SILT FENCE DETAIL

NOT TO SCALE

CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

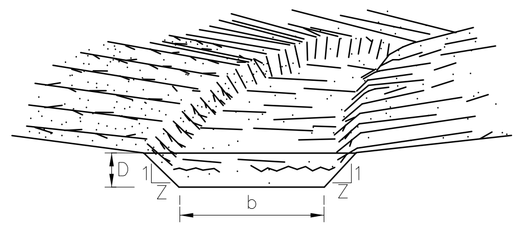
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS:	STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD
FENCE:	WOVEN WIRE, 14 1/2 GA. 6" MAX. MESH OPENING
FILTER CLOTH:	FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL
	PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL



GRASSED WATERWAY DETAIL PARABOLIC CROSS SECTION

NOT TO SCALE



GRASSED WATERWAY DETAIL TRAPEZOIDAL CROSS SECTION

NOT TO SCALE

GENERAL NOTE:

1. CONSTRUCTION MAY BE PERFORMED BY THE AMPHENOL CORPORATION STAFF OR AN INDEPENDENT CONTRACTOR. IN THE NOTES BELOW, THE TERM "CONTRACTOR" MAY PERTAIN TO THE AMPHENOL CORPORATION STAFF OR AN INDEPENDENT CONTRACTOR.

CONSTRUCTION EQUIPMENT NOTES:

1. PRIOR TO INITIAL ON-SITE MOBILIZATION ALL EQUIPMENT SHALL BE FULLY CLEANED USING HIGH PRESSURE WATER AND STEAM TO THE SATISFACTION OF THE ENGINEER. NO VEGETATION, SOIL, GREASE, FUEL OR OTHER POTENTIAL CONTAMINANTS WILL BE ALLOWED ON THE EQUIPMENT FOLLOWING THE CLEANING.
2. ALL EQUIPMENT ON-SITE MUST BE MAINTAINED IN PROPER OPERATING CONDITION AT ALL TIMES.
3. ALL FACTORY INSTALLED ENVIRONMENTAL CONTROLS, SUPPRESSORS AND MUFFLERS MUST BE UTILIZED ON EQUIPMENT AT ALL TIMES.
4. ALL EQUIPMENT SHALL BE OPERATED IN A MANNER SO AS TO REASONABLY MINIMIZE NOISE LEVELS DURING OPERATING HOURS.
5. CONSTRUCTION EQUIPMENT SHALL ONLY BE OPERATED FROM 6:00 AM TO 9:00 PM UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. EQUIPMENT FUELING AND WASHING SHALL ONLY BE DONE IN LOCATIONS APPROVED BY THE ENGINEER. NO FUELING SHALL BE DONE IN WETLANDS OR WITHIN THE STREAM.

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN TO PREVENT WATER QUALITY VIOLATIONS INCLUDING, BUT NOT LIMITED TO INCREASES IN TURBIDITY THAT WILL CAUSE A VISIBLE CONTRAST TO NATURAL SITE CONDITIONS: INCREASES IN SUSPENDED, COLLOIDAL AND SETTLEABLE SOLIDS THAT WILL CAUSE DEPOSITION OR IMPAIR THE WATERS FOR THEIR BEST USAGES, AND PREVENTION OF RESIDUE FROM OIL AND FLOATING SUBSTANCES, VISIBLE OIL FILM, OR GLOBULES OF GREASE. CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL PRACTICES AS REQUIRED TO PREVENT WATER QUALITY VIOLATIONS.
2. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE SHALL BE ALLOWED TO ESCAPE INTO ANY WATERS, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVICES BE ALLOWED TO ENTER ANY WATERS.
3. ANY DEBRIS OR EXCESS MATERIALS FROM CONSTRUCTION SHALL BE IMMEDIATELY AND COMPLETELY REMOVED FROM ALL WATER AND WETLAND AREAS TO APPROPRIATE UPLAND AREAS FOR DISPOSAL IN ACCORDANCE WITH APPLICABLE STANDARDS.
4. ALL ACCESS DREDGED AND EXCAVATED MATERIAL SHALL BE DISPOSED OF ON AN UPLAND SITE IDENTIFIED BY THE OWNER AND BE SUITABLY STABILIZED SO THAT IT CANNOT RE-ENTER ANY BODY OF WATER.
5. INSPECTION, PERIODIC CLEANING AND MAINTENANCE OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE CONDUCTED AT LEAST ONCE PER 7 CALENDAR DAYS AND AFTER EACH RAINFALL EVENT >0.5 INCHES. ADDITIONAL PRACTICES WILL BE ADDED IF DETERMINED TO BE NEEDED BY ON-SITE INSPECTIONS. FAILURE TO PROPERLY INSTALL, MAINTAIN, AND OPERATE EROSION AND SEDIMENT CONTROL MEASURES MAY RESULT IN WORK STOPPAGE UNTIL MEASURES ARE ACCEPTABLE.
6. ALL EROSION, SEDIMENT & RUNOFF CONTROLS SHALL BE PLACED PRIOR TO STARTING CLEARING & EARTHWORK OPERATIONS AND SHALL REMAIN IN PLACE UNTIL THE CONTRIBUTING AREAS ARE STABILIZED WITH SEEDING AND/OR SLOPE PROTECTION AND AS ORDERED BY CONSTRUCTION MANAGER.
7. THE COST OF INSTALLING, CLEANING, AND REMOVING TEMPORARY SOIL EROSION AND WATER POLLUTION CONTROL DEVICES SHALL BE INCLUDED UNDER THE CONTRACT. ANY FINES AND/OR PENALTIES LEVIED DUE TO NONCOMPLIANCE WITH THE SWPPP AND/OR SPDES GP-02-01 SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
8. SILT FENCE SHALL NOT BE USED IN AREAS OF CONCENTRATED FLOW.
9. THE ENGINEER MAY CALL FOR BRACING SILT FENCE WITH HAY BALES OR WIRE FENCING.
10. ALL AREAS OF SOIL DISTURBANCE RESULTING FROM THIS PROJECT SHALL BE SEEDED WITH AN APPROPRIATE PERENNIAL GRASS SEED AND MULCHED WITH HAY OR STRAW WITHIN 14 DAYS OF FINAL GRADING EXCEPT WETLANDS THAT SHALL BE SEEDED WITH SPECIFIED WETLAND MIX. MULCH SHALL BE MAINTAINED UNTIL A SUITABLE COVER IS ESTABLISHED. ANY DISTURBED AREA LEFT EXPOSED FOR GREATER THAN 14 DAYS SHALL RECEIVE TEMPORARY SEED AND MULCH. THERE SHALL NOT BE GREATER THAN 5-ACRES OF DISTURBED SOIL AT ANY GIVEN TIME.
11. IN THE EVENT A DEWATERING OPERATION BECOMES NECESSARY, A SETTLING BASIN WILL BE REQUIRED UNLESS THE PUMP DISCHARGE IS AS CLEAN AND FREE OF SEDIMENT AS THE RECEIVING WATER.
12. ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED, MAINTAINED AND INSPECTED IN ACCORDANCE WITH THE SITE SPECIFIC STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT. THE CONTRACTOR IS REQUIRED TO CERTIFY THE SWPPP PRIOR TO LAND DISTURBANCE. A SIGNED COPY OF THE SWPPP, NOTICE OF INTENT (NOI), AND SPDES PERMIT ARE TO BE MAINTAINED ON-SITE. THE CONTRACTOR SHALL INSTALL A MAILBOX TO HOUSE THESE DOCUMENTS IF A FIELD TRAILER IS NOT PRESENT.
13. CONSTRUCTION SHALL BE PHASED SO THAT HERRICK HOLLOW CREEK WILL NOT BE CROSSED WHILE FLOWING. DEWATERING OPERATIONS SHALL BE COMPLETED AS NECESSARY TO ENSURE THAT STREAM IS DRY WHEN WORKED.
14. THE CONTRACTOR SHALL THOROUGHLY EXAMINE AND VERIFY IN THE FIELD ALL EXISTING AND GIVEN CONDITIONS, ELEVATIONS, AND DIMENSIONS SHOWN ON THE PLANS. IF FIELD CONDITIONS AND DIMENSIONS DIFFER FROM THOSE SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND MAKE ANY APPROPRIATE CHANGES REQUIRED TO COMPLETE THE WORK, AS APPROVED BY THE ENGINEER.
15. ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES EXCEPT STABILIZED ROADWAYS AND WETLAND OR WETLAND MITIGATION AREAS SHALL BE FINE GRADED, COVERED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL, SEEDED, FERTILIZED AND MULCHED. NO DISTURBED AREAS SHALL REMAIN FOR GREATER THAN 14 DAYS WITHOUT TEMPORARY SEEDING. ALL ADDITIONAL TOPSOIL STRIPPED SHALL BE STOCKPILED AND SEEDED AT SITES APPROVED BY THE ENGINEER.
16. ANY ADDITIONAL HAUL ROADS REQUIRED FOR COMPLETION OF THE CONSTRUCTION SHALL BE AT NO ADDITIONAL COST TO THE OWNER. ALL ADDITIONAL HAUL ROAD LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION AND SHALL BE STABILIZED IN ACCORDANCE WITH NYSDEC CONSTRUCTION ROAD STABILIZATION STANDARDS.
17. THE CONTRACTOR SHALL APPLY WATER TO ADEQUATELY CONTROL DUST WITHIN THE PROJECT AREA TO THE SATISFACTION OF THE ENGINEER. THE USE OF CALCIUM CHLORIDE OR OTHER CHEMICALS IS PROHIBITED.
18. THE CONTRACTOR SHALL SECURE ALL WATER REQUIRED FOR THE COMPLETION OF THE PROJECT. THE OWNER PROVIDES NO GUARANTEE OF THE QUALITY OR QUANTITY OF WATER AVAILABLE ON-SITE FOR THE CONTRACTOR'S USE.
19. THE EXISTING DITCH WEST OF THE EXISTING ACCESS ROAD SHALL REMAIN IN PLACE UNTIL BERM REMOVAL, REGRADING AND STABILIZATION ARE COMPLETE.

GRASSED WATERWAY DETAIL CONSTRUCTION SPECIFICATIONS

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.
2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE, AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
3. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED WATERWAY.
4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD IN AN AREA APPROVED BY THE ENGINEER OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY. SOILS SHALL BE SEEDED AND MULCHED WITHIN 14 DAYS.
5. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARD AND SPECIFCATIONS FOR VEGETATIVE PRACTICES. THE WATERWAY SHALL BE STABILIZED WITH SEEDING AND MULCHING PROTECTED BY JUTE TWISTED YARN MATTING INCLUDING TEMPORARY DIVERSION OF THE WATER UNTIL THE VEGETATION IS ESTABLISHED.
6. JUTE TWISTED YARN MATTING SHALL BE UNBLEACHED, UNDYED PLAIN WEAVE, WARP 78 ENDS PER YARD, WEFT 41 ENDS PER YARD, 60 TO 90 LBS PER ROLL.
7. SEED BED SHALL BE ROUGHENED PRIOR TO SEEDING AND JUTE PLACEMENT.

In charge of: PFD	Date: MARCH, 2007	REVISIONS	COMPLETED CONSTRUCTION
Designed by: DHK	Scale:		Significant Construction Changes Are Shown
Drawn by: JJB2	NO ALTERATION PERMITTED HEREON EXCEPT AS PROVIDED UNDER SECTION 7209 SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.		By Date
Checked by: JIS			Ck'd Date

Bioengineering GROUP
Building Sustainable Communities on an Ecological Foundation

Barton & Loguidice, P.C.
Engineers · Environmental Scientists · Planners · Landscape Architects

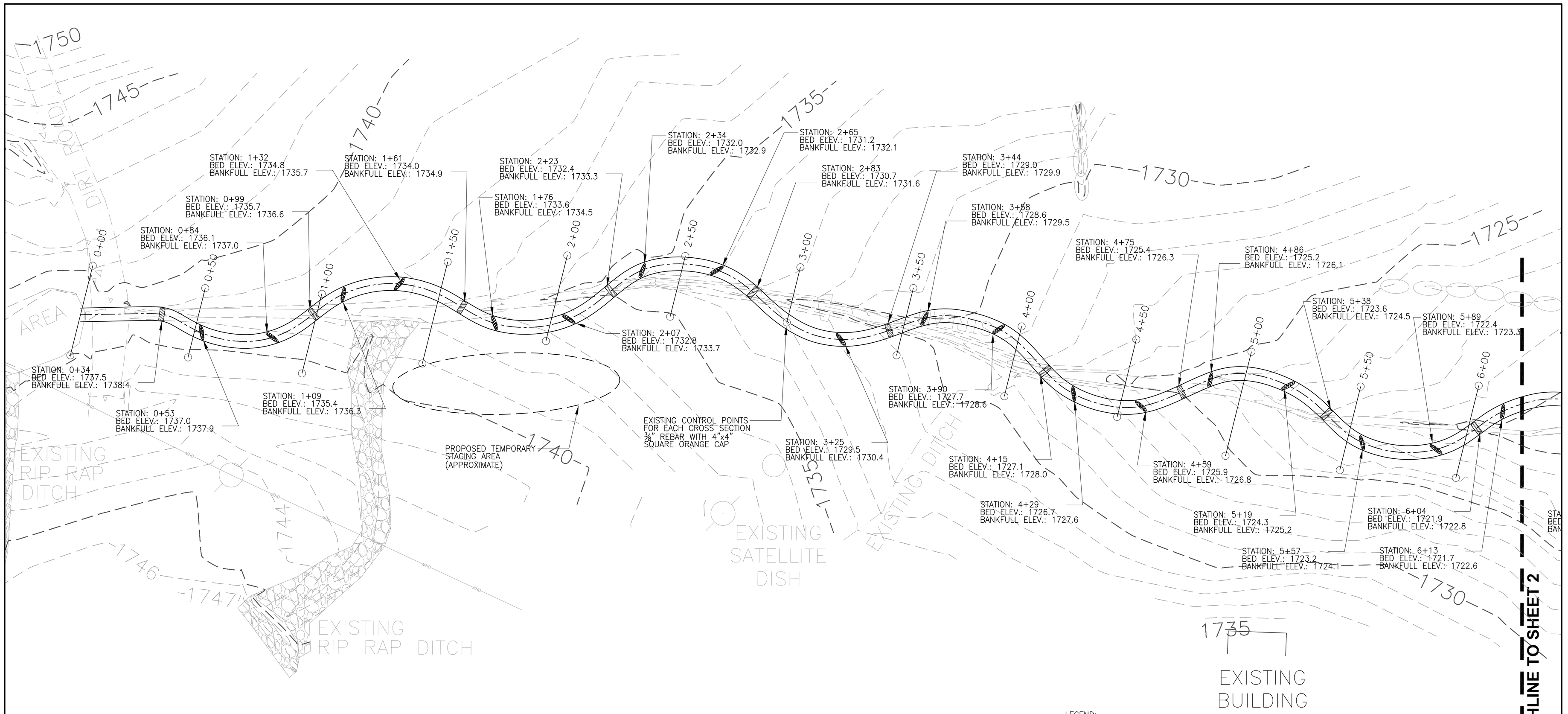
AMPHENOL CORPORATION
HERRICK HOLLOW RESTORATION
CONSTRUCTION DRAWING

DETAILS & NOTES

TOWN OF MASONVILLE — DELAWARE COUNTY, NEW YORK

Sheet Number: 11

File Number: 824.006-13F



NOTE: TOPOGRAPHIC SURVEY PROVIDED BY KEYSTONE ASSOCIATES IN JULY 2007

LEGEND:

- PROPOSED STREAM CENTERLINE
- CONTROL POINTS FOR EACH CROSS SECTION (EXISTING) ¾" REBAR WITH 4"x4" SQUARE ORANGE CAP
- PROPOSED INSTREAM STRUCTURE (CROSS VANE) SEE DETAIL 1 SHEET 7
- PROPOSED INSTREAM STRUCTURE (CONSTRUCTED CASCADE) SEE DETAIL 2 SHEET 7
- PROPOSED INSTREAM STRUCTURE (LOG VANE) SEE DETAIL 3 SHEET 7

20 10 0 20

NO.	DATE	REVISIONS	BY	CHK

DRAWN: SDR/BTT	PROJECT NO: 10047.00
ENGINEER: KW	SCALE: 1"=20'
CHECKED: SM	APPROVED: MU
DATE: FEB. 29, 2008	DATE: 22 MAY 2008

NICHOLAS JOHN LIGENZA No.37885 STATE OF FLORIDA PROFESSIONAL ENGINEER
MAY 22, 2008

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HERRICK HOLLOW CREEK DESIGN AND CONSTRUCTION SIDNEY CENTER, NEW YORK

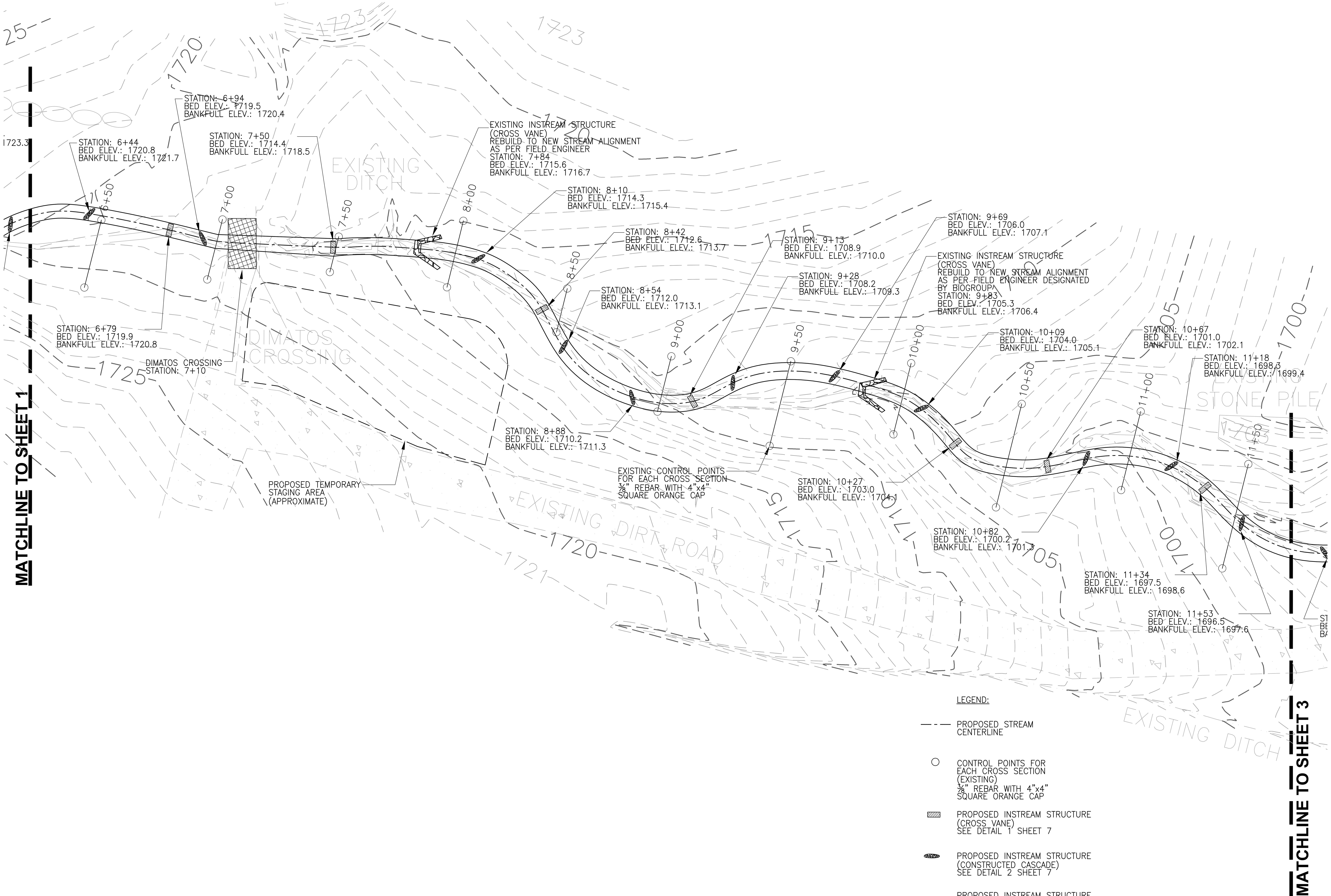
100% Construction Documents

SHEET TITLE:

STREAM RESTORATION PLAN

12

824.006-14F



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- PROPOSED INSTREAM STRUCTURE (LOG VANE) SEE DETAIL 3 SHEET 7
- VEHICULAR CROSSING AT DIMATOS CROSSING SEE DETAIL 7 SHEET 8

NOTE: TOPOGRAPHIC SURVEY PROVIDED BY KEYSTONE ASSOCIATES IN JULY 2007

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ENGINEER: KW	SCALE: 1"=20'
CHECKED: SM	APPROVED: MU
DATE: FEB. 29, 2008	DATE: 22 MAY 2008

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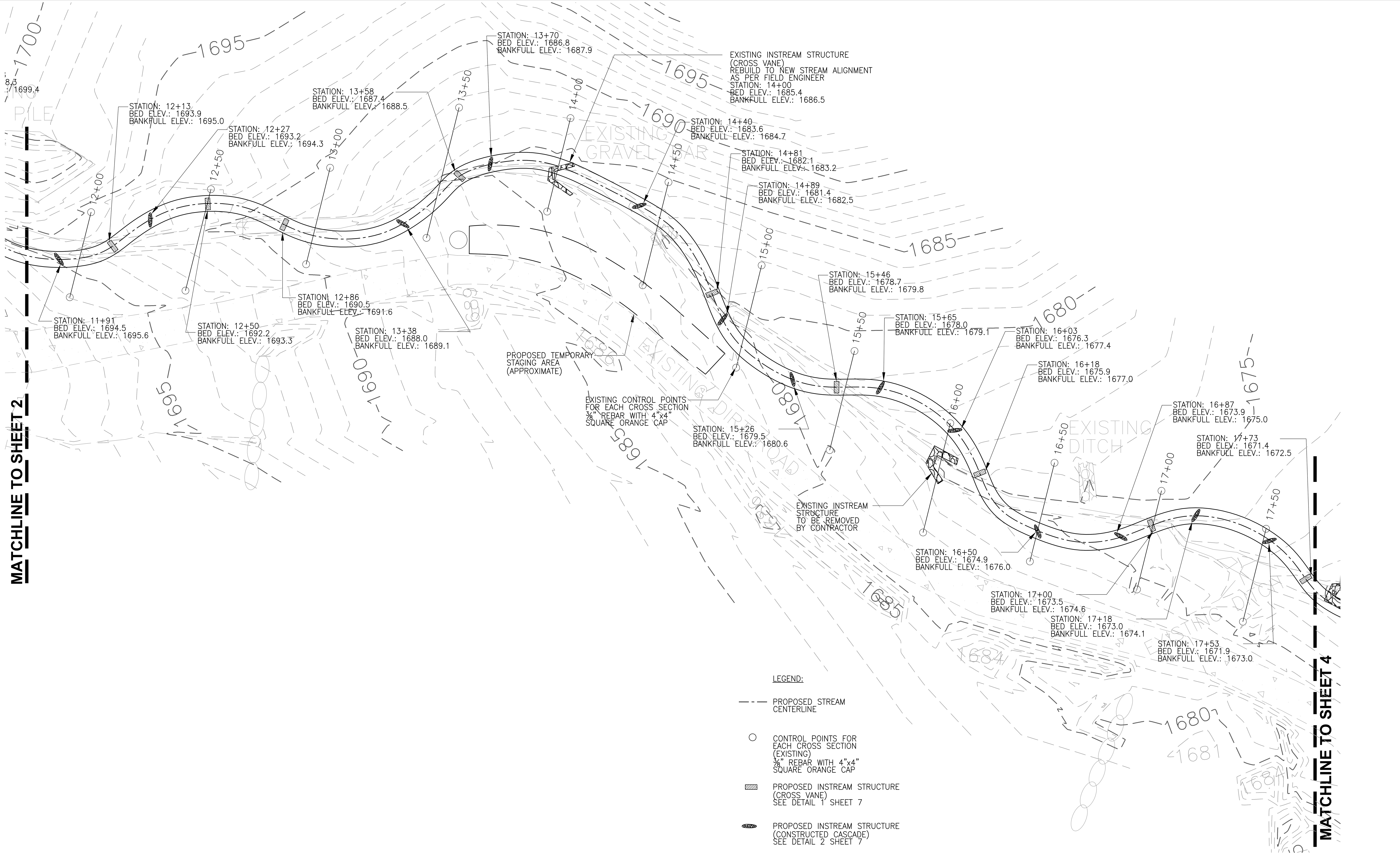
13

824.006-15F



LEGEND:

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● PROPOSED INSTREAM STRUCTURE (CONSTRUCTED CASCADE) SEE DETAIL 2 SHEET 7

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NOTE: TOPOGRAPHIC SURVEY PROVIDED BY KEYSTONE ASSOCIATES IN JULY 2007

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NO.	DATE	REVISIONS	BY	CHK

DRAWN: SDR/BTT	PROJECT NO: 10047.00
ENGINEER: KW	SCALE: 1"=20'
CHECKED: SM	APPROVED: MU
DATE: FEB. 29, 2008	DATE: 22 MAY 2008

MICHAEL JOHN ULEKOWSKI
LICENSE No.37886
STATE OF FLORIDA
PROFESSIONAL ENGINEER

[illegible]
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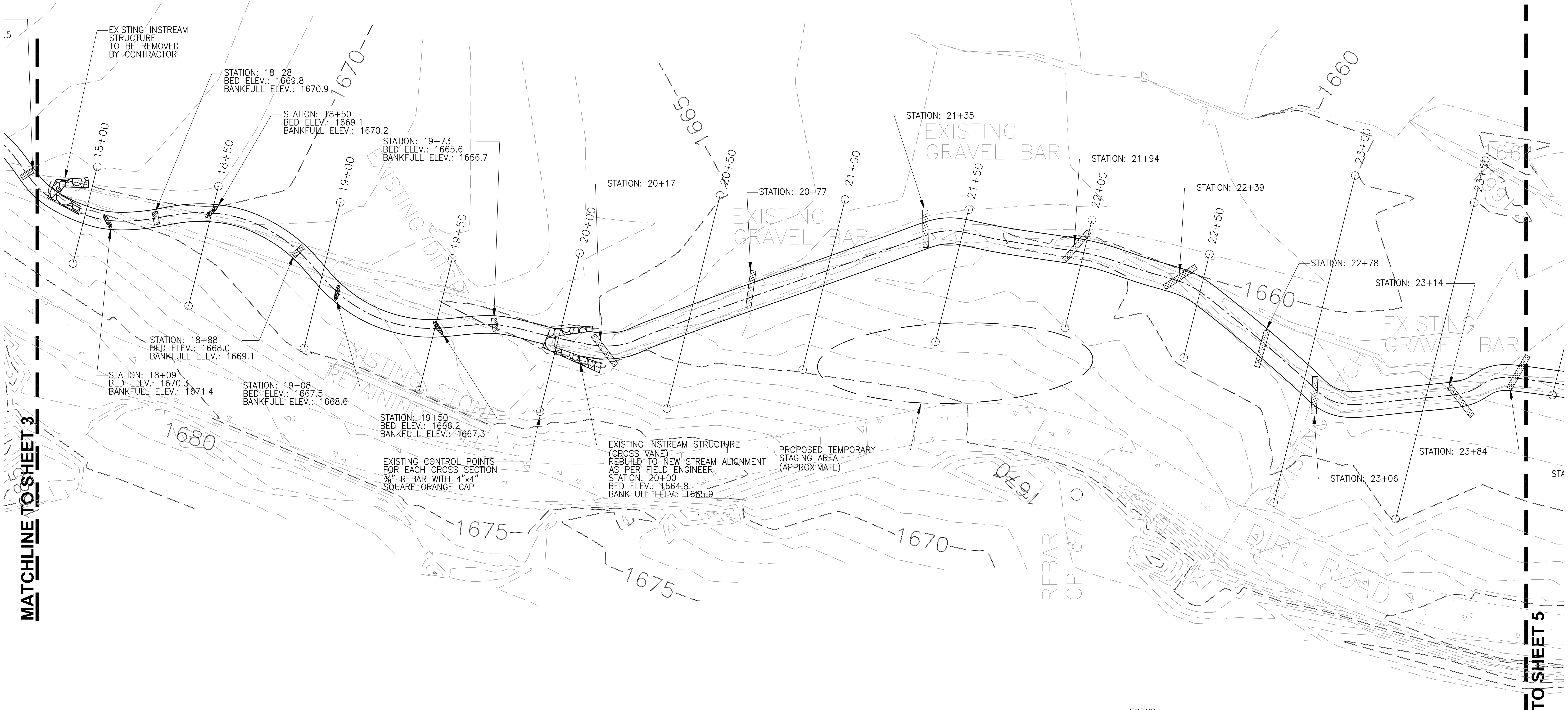

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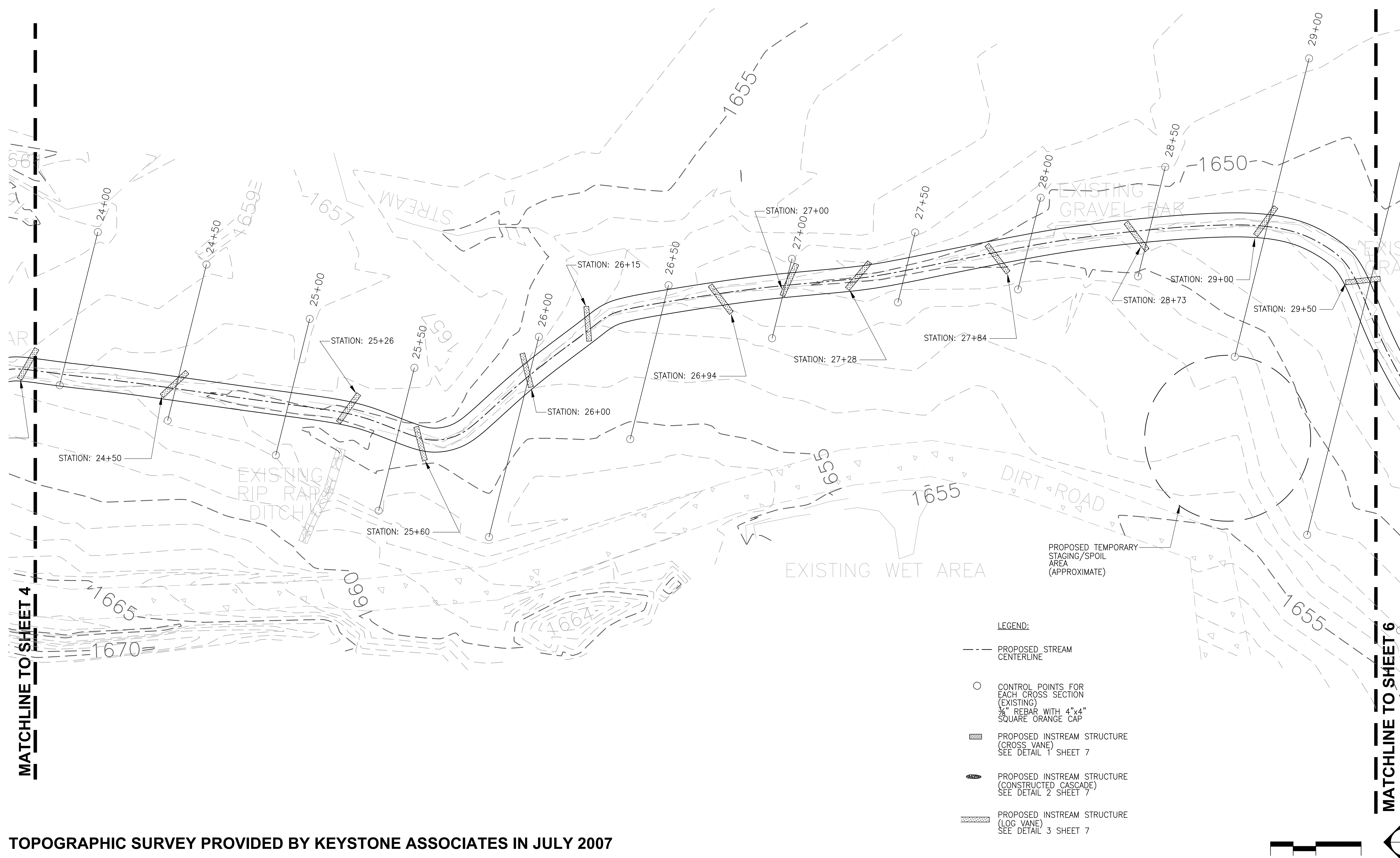

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DATE: FEB. 29, 2008
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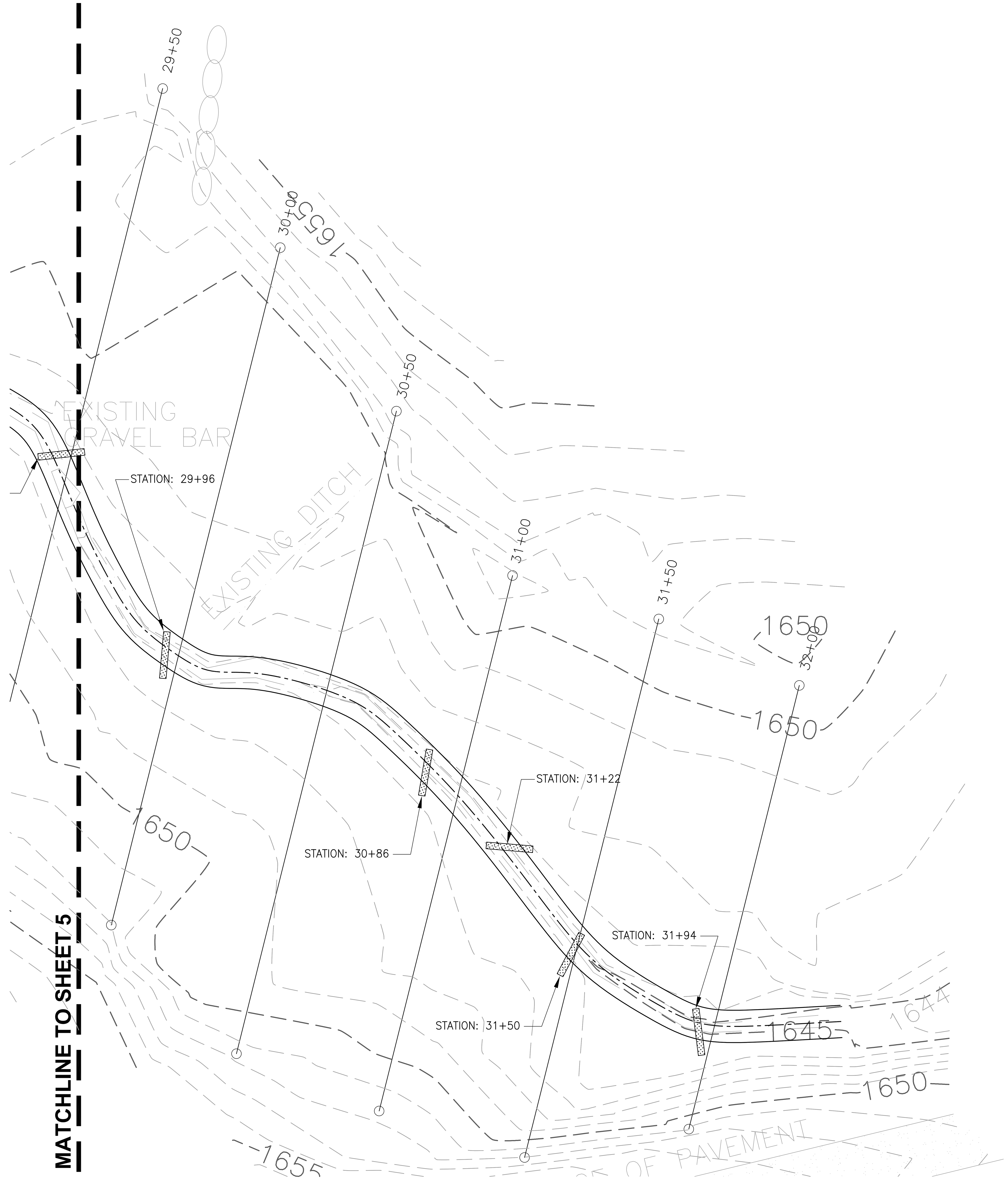

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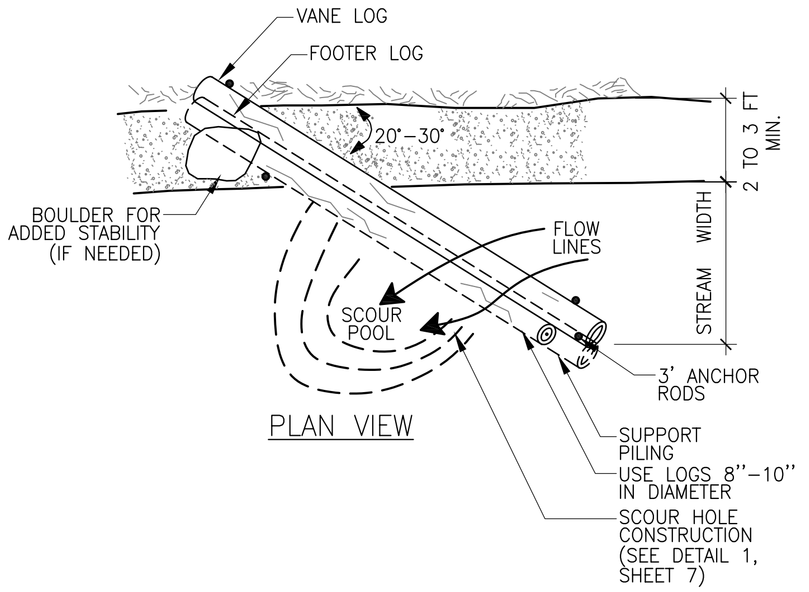
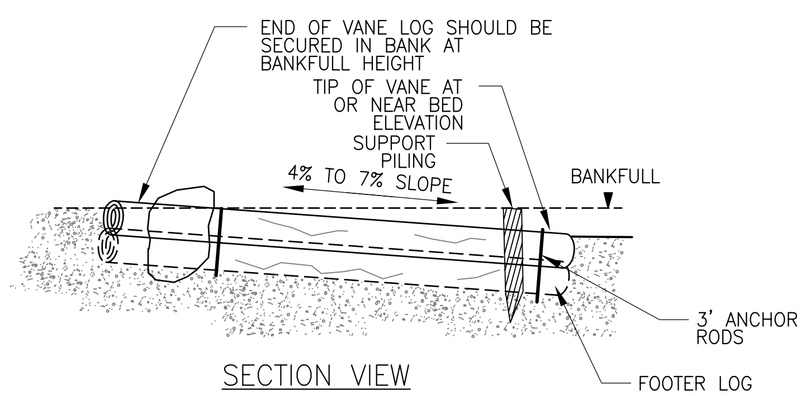
824.006-19F

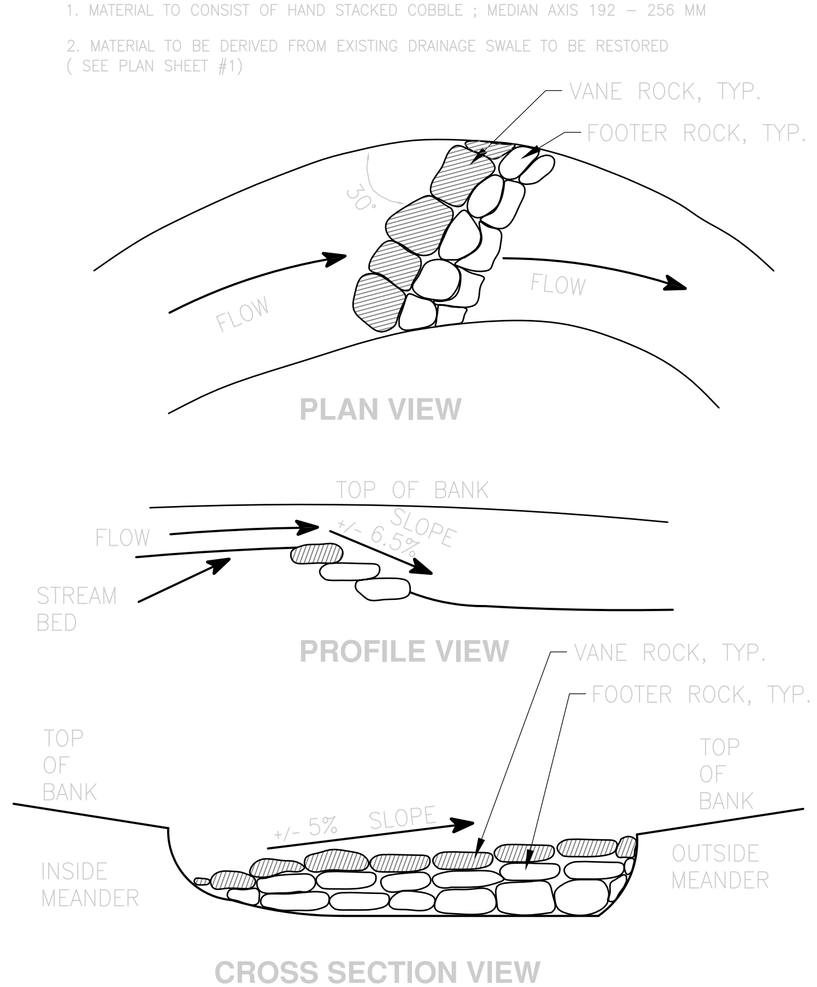




3 LOG VANE
NOT TO SCALE

NOTE:

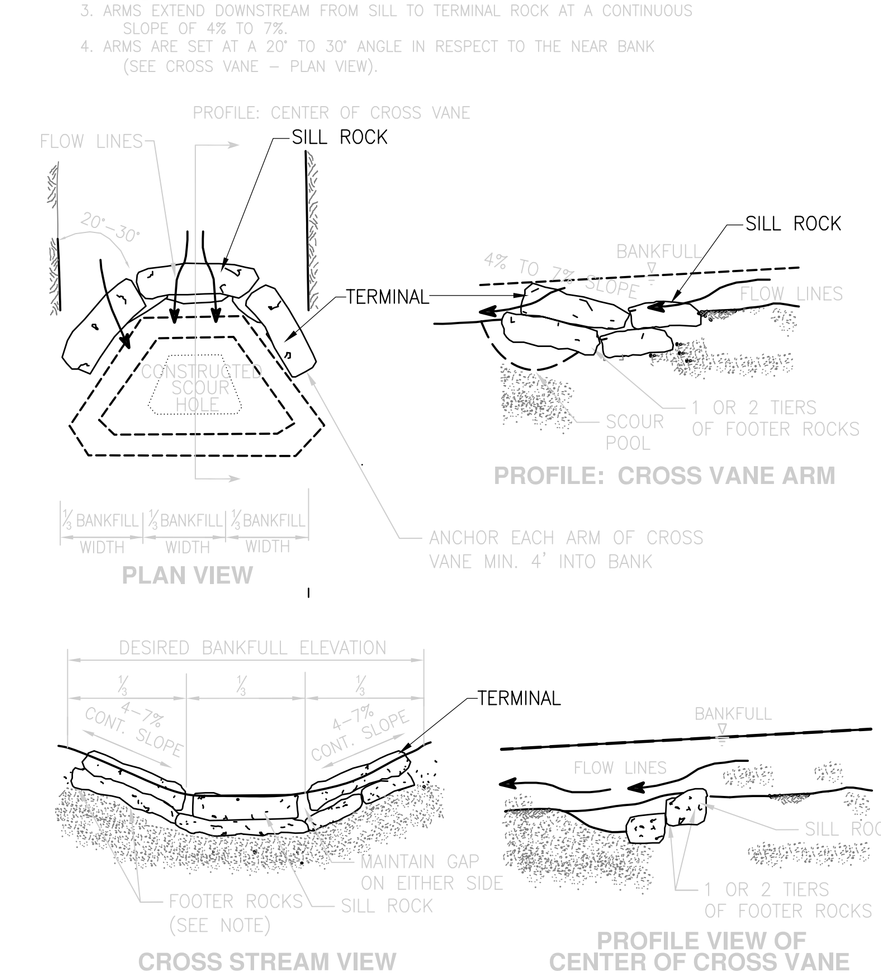
1. MATERIAL TO CONSIST OF HAND STACKED COBBLE ; MEDIAN AXIS 192 – 256 MM
2. MATERIAL TO BE DERIVED FROM EXISTING DRAINAGE SWALE TO BE RESTORED (SEE PLAN SHEET #1)



2 CONSTRUCTED CASCADE
NOT TO SCALE

NOTE:
FOOTER ROCKS WILL BE KEYED INTO BED AT THE PROPER DEPTH SUCH THAT THE UPPER TIER OF ROCK (VANE ROCKS) MAINTAINS THE FOLLOWING SPECIFICATIONS: (SEE SPECS SR3, SECTION 5)

1. TOP OF TERMINAL ROCK IS SET AT DESIRED BANKFULL ELEVATION.
2. END OF ARM ROCKS MEET THE DESIRED THALWEG ELEVATION OF ONE–THIRD THE CHANNEL WIDTH.
3. ARMS EXTEND DOWNSTREAM FROM SILL TO TERMINAL ROCK AT A CONTINUOUS SLOPE OF 4% TO 7%.
4. ARMS ARE SET AT A 20° TO 30° ANGLE IN RESPECT TO THE NEAR BANK (SEE CROSS VANE – PLAN VIEW).



1 CROSS VANE
NOT TO SCALE

NO.	DATE	REVISIONS	BY	CHK

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MICHAEL JOHN ULLMAN LICENSE No.37885 STATE OF FLORIDA PROFESSIONAL ENGINEER
MAY 22, 2008

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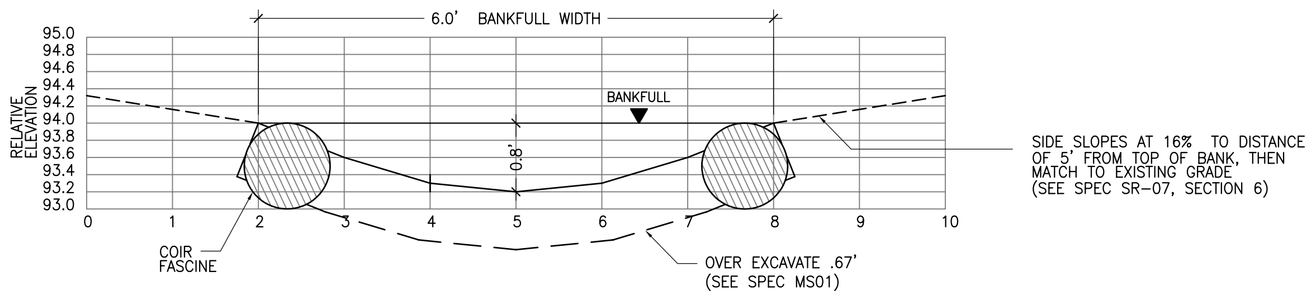
SHEET TITLE:

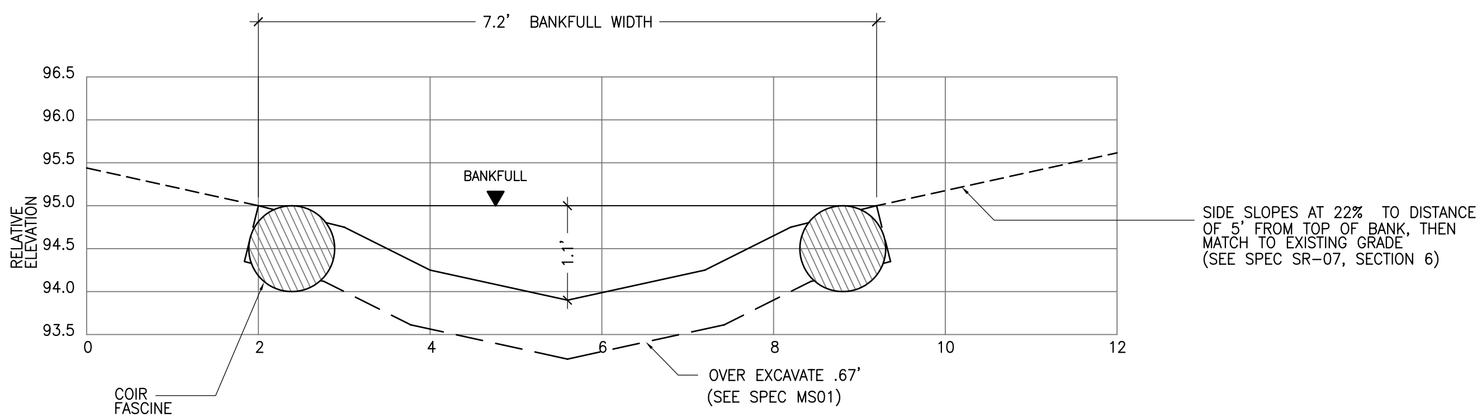
DETAILS - IN STREAM STRUCTURES

18

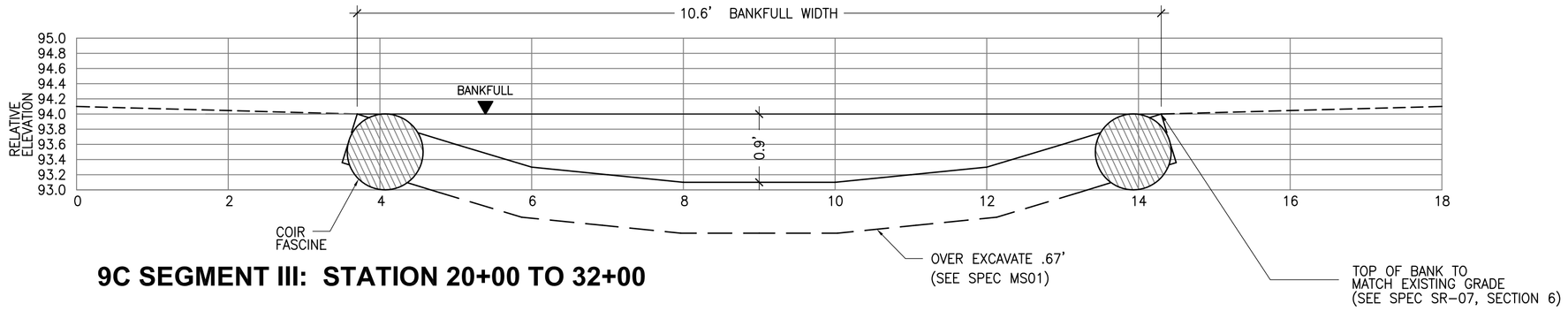
824.006-20F



9A SEGMENT I: STATION 0+00 TO 7+00

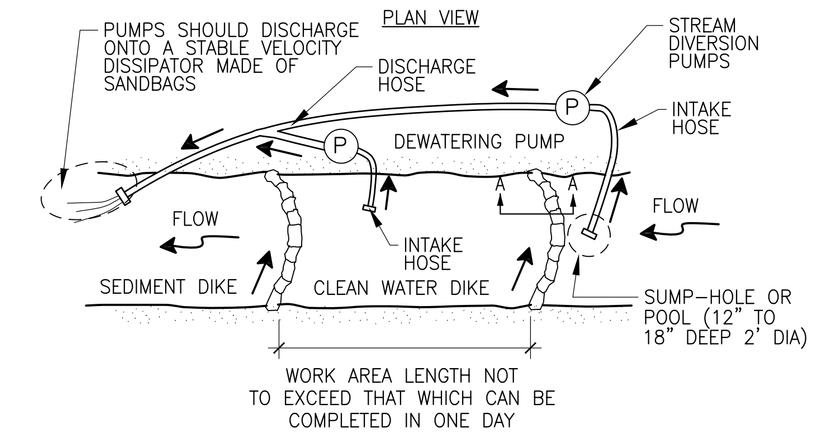


9B SEGMENT II STATION 7+50 TO 20+00



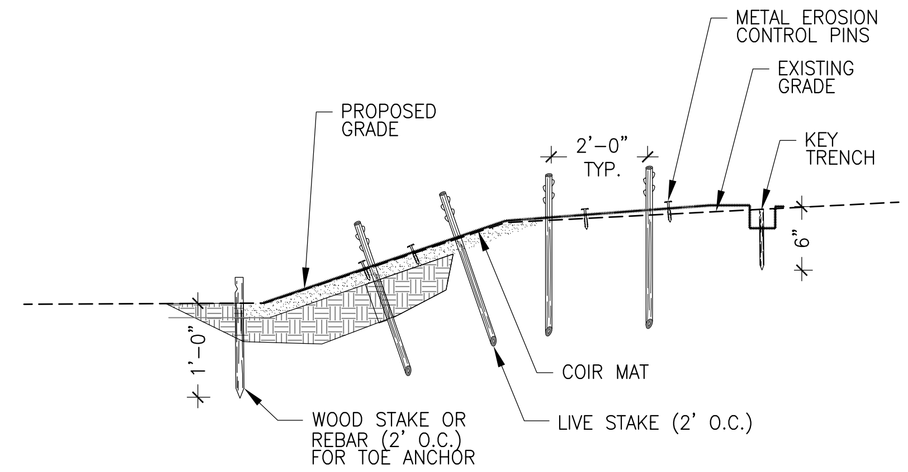
9C SEGMENT III: STATION 20+00 TO 32+00

9 TYPICAL STREAM CROSS SECTION
NOT TO SCALE



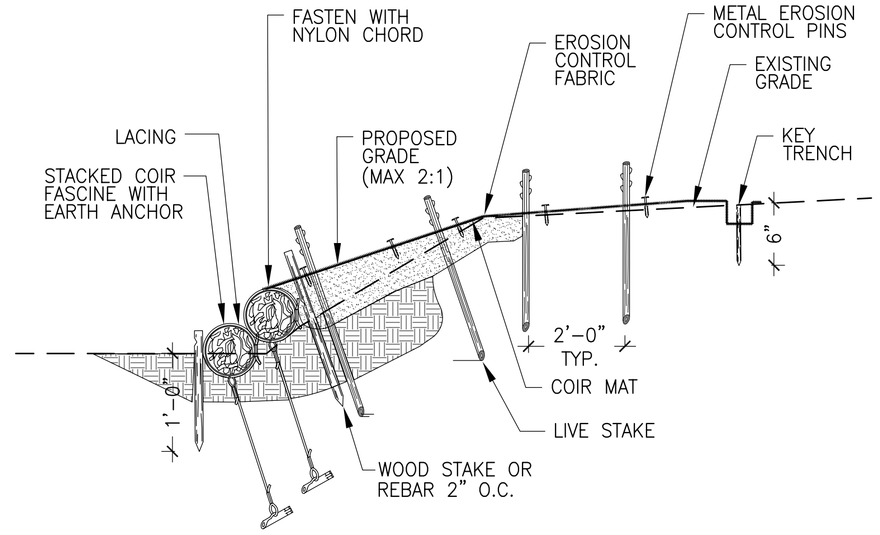
CROSS SECTION OF SANDBAG DIKE

6 PUMP AROUND
NOT TO SCALE

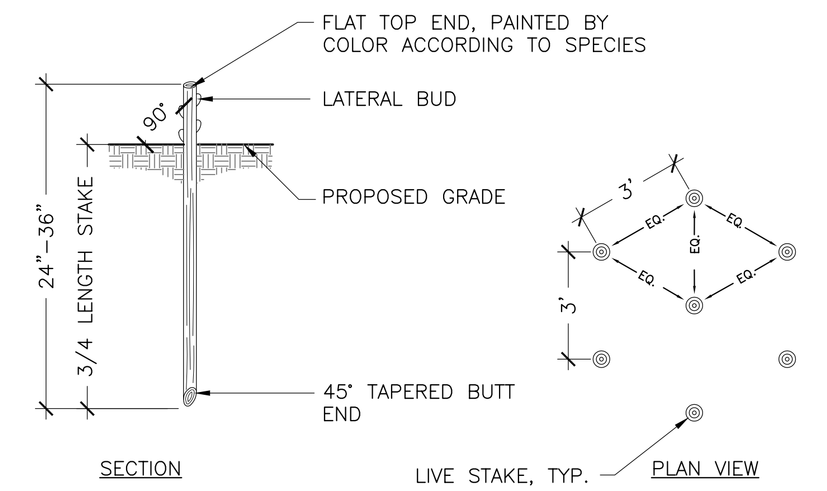


* SEE SCHEDULE OF MATERIALS FOR SPECIES (DETAIL 2/SHEET 9)

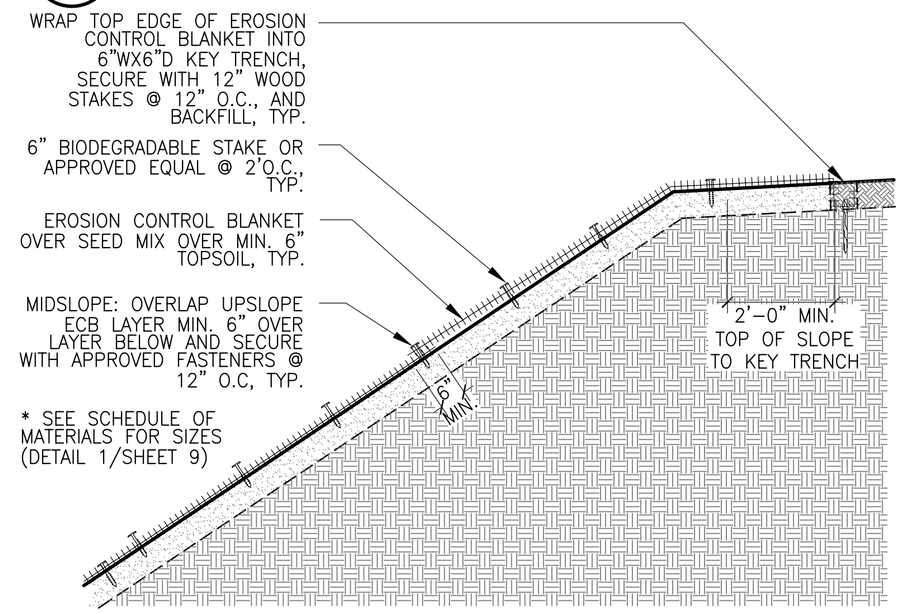
3 STREAMBANK STABILIZATION TREATMENT 1
NOT TO SCALE

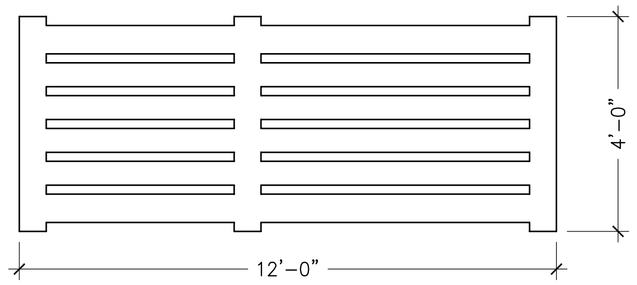


* SEE SCHEDULE OF MATERIALS FOR SPECIES (DETAIL 4/SHEET 9)



2 LIVE STAKE PLANTING
NOT TO SCALE





8 CATTLE SLAT
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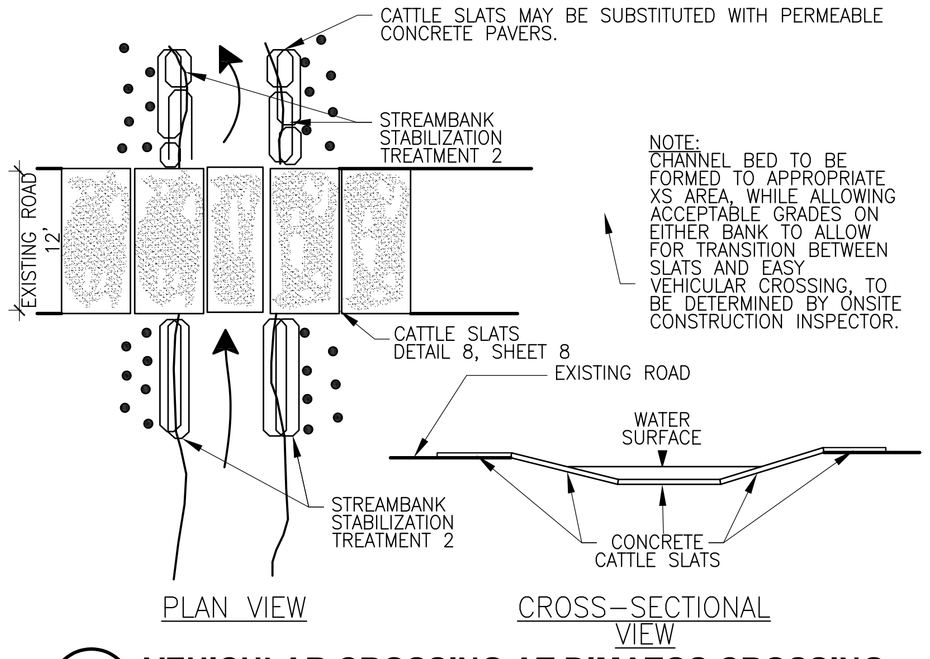
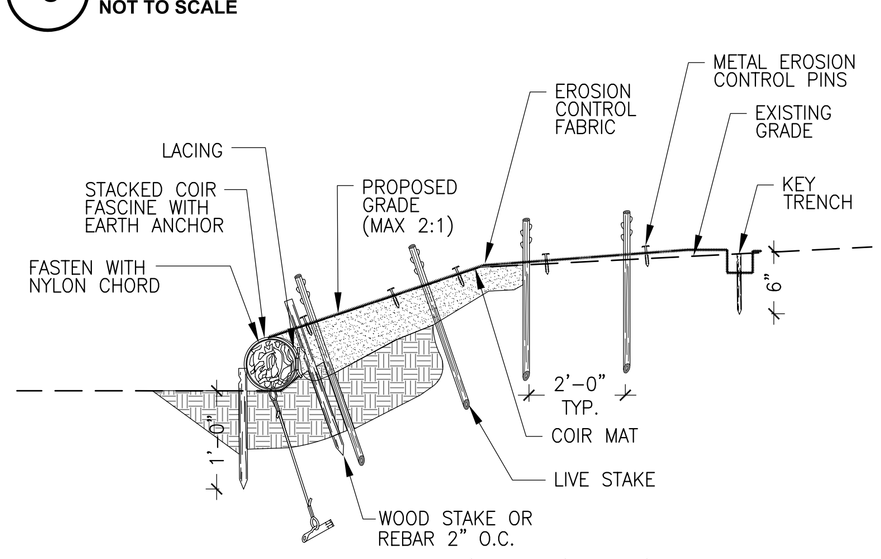


7 VEHICULAR CROSSING AT DIMATOS CROSSING
NOT TO SCALE



* SEE SCHEDULE OF MATERIALS FOR SPECIES (DETAIL 3/SHEET 9)

5 STREAMBANK STABILIZATION TREATMENT 3
NOT TO SCALE

4 STREAMBANK STABILIZATION TREATMENT 2
NOT TO SCALE

1 EROSION CONTROL BLANKET
NOT TO SCALE

NO.	DATE	REVISIONS	BY	CHK

DRAWN: SDR/BTT	PROJECT NO: 10047.00
ENGINEER: KW	SCALE: AS=NOTED
CHECKED: SM	APPROVED: MJ
DATE: FEB. 29, 2008	DATE: 22 MAY 2008

MICHAEL JOHN UHLIG LICENSE No.37885 STATE OF FLORIDA PROFESSIONAL ENGINEER
MAY 22, 2008

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SHEET TITLE: **DETAILS**

19

824.006-21F

SPECIES	DIMENSIONS
CORNUS AMOMUM (SILKY DOGWOOD)	24" TO 36"
SALIX DISCOLOR (PUSSY WILLOW)	24" TO 36"
CORNUS SERICEA STOLONIFERA (RED OSIER DOGWOOD)	24" TO 36"
SALIX NIGRA (BLACK WILLOW)	24" TO 36"

MATERIAL	DIMENSIONS
WOOD STAKES	12" PER EACH
EROSION CONTROL FABRIC	7.5' BY 96' PER ROLL
COIR MAT	2.5' BY 6' PER ROLL
BIODEGRADABLE STAKES (DEAD STAKES)	6" PER EACH
COIR FASCINE	12" BY 20' EACH
GALVANIZED CABLE	⅛" BY 4' EACH
U–CLAMP	⅛" PER EACH
DUCKBILL EARTH ANCHOR	88 MM PER EACH

4 SCHEDULE - STREAMBANK STABILIZATION TREATMENT 3

NOT TO SCALE

SPECIES	DIMENSIONS
CORNUS AMOMUM (SILKY DOGWOOD)	24" TO 36"
SALIX DISCOLOR (PUSSY WILLOW)	24" TO 36"
CORNUS SERICEA STOLONIFERA (RED OSIER DOGWOOD)	24" TO 36"
SALIX NIGRA (BLACK WILLOW)	24" TO 36"

2 SCHEDULE - LIVE STAKE PLANTING

NOT TO SCALE

NOT TO SCALE

SPECIES	DIMENSIONS
CORNUS AMOMUM (SILKY DOGWOOD)	24" TO 36"
SALIX DISCOLOR (PUSSY WILLOW)	24" TO 36"
CORNUS SERICEA STOLONIFERA (RED OSIER DOGWOOD)	24" TO 36"
SALIX NIGRA (BLACK WILLOW)	24" TO 36"

MATERIAL	DIMENSIONS
WOOD STAKES	12" PER EACH
EROSION CONTROL FABRIC	7.5' BY 96' PER ROLL
COIR MAT	2.5' BY 6' PER ROLL
BIODEGRADABLE STAKES (DEAD STAKES)	6" PER EACH

3 SCHEDULE - STREAMBANK STABILIZATION TREATMENT 1

NOT TO SCALE

MATERIAL	DIMENSIONS
EROSION CONTROL FABRIC	7.5' BY 96' EACH
BIODEGRADABLE STAKES	6" PER EACH
WOOD STAKES	12" PER EACH

1 SCHEDULE - EROSION CONTROL BLANKET

NOT TO SCALE

NO.	DATE	REVISIONS	BY	CHK

DRAWN: SDR/BTT
PROJECT NO: 10047.00
ENGINEER: KW
SCALE: AS NOTED
CHECKED: SM
APPROVED: MU
DATE: FEB. 29, 2008
DATE: 22 MAY 2008

MICHAEL JOHN ULIKOWSKI
LICENSE
No.37886
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

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MAY 22, 2008

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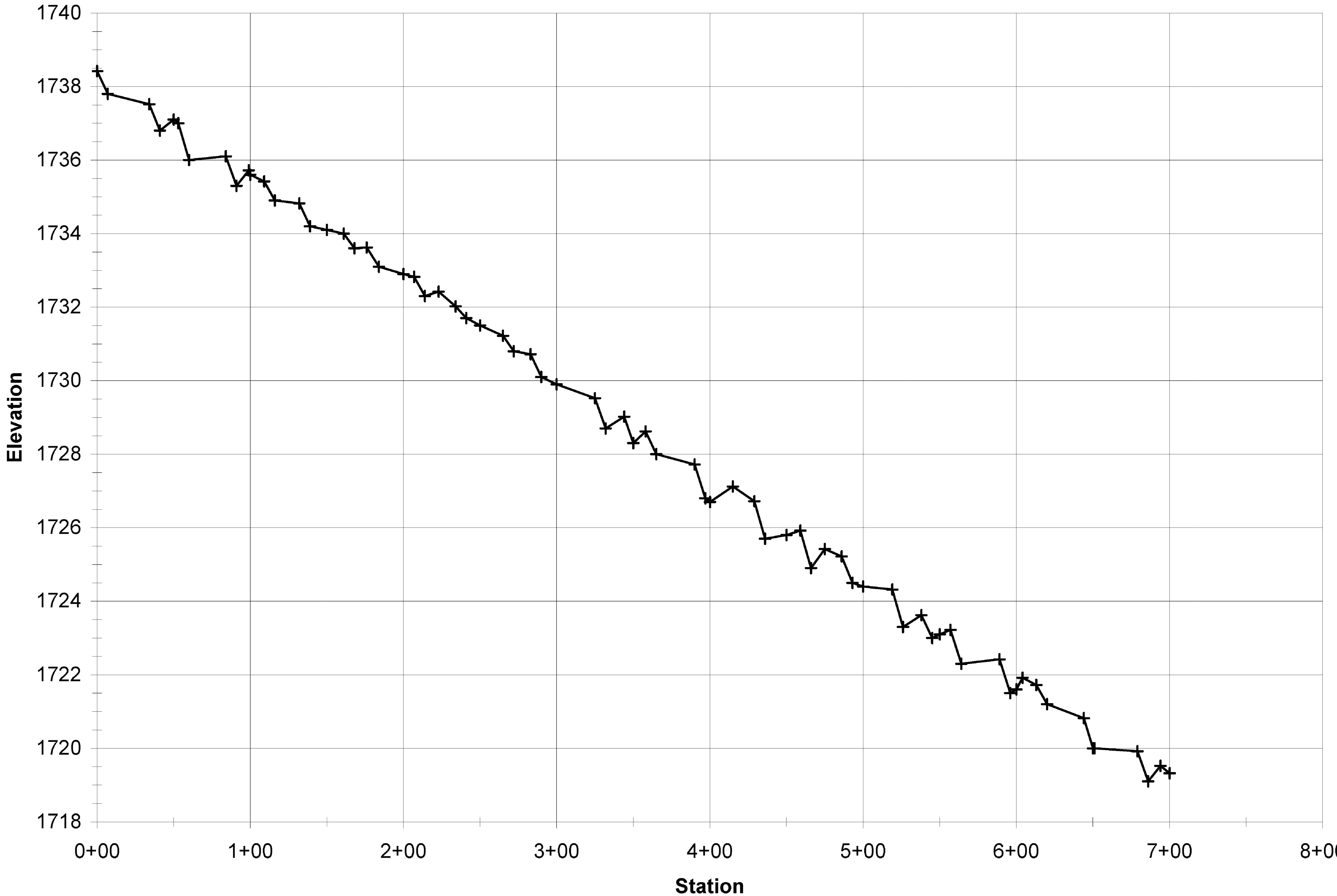
SHEET TITLE:

SCHEDULE OF MATERIALS

20

824.006-22F



Horizontal Scale: 1"=33 1/3'

NO.	DATE	REVISIONS	BY	CHK

DRAWN: SDR/BTT
ENGINEER: KW
CHECKED: SM
DATE: FEB. 29, 2008

PROJECT NO: 10047.00
SCALE: AS NOTED
APPROVED: MU
DATE: 22 MAY 2008

MICHAEL JOHN ULIKOWSKI LICENSE No.37886 STATE OF FLORIDA PROFESSIONAL ENGINEER

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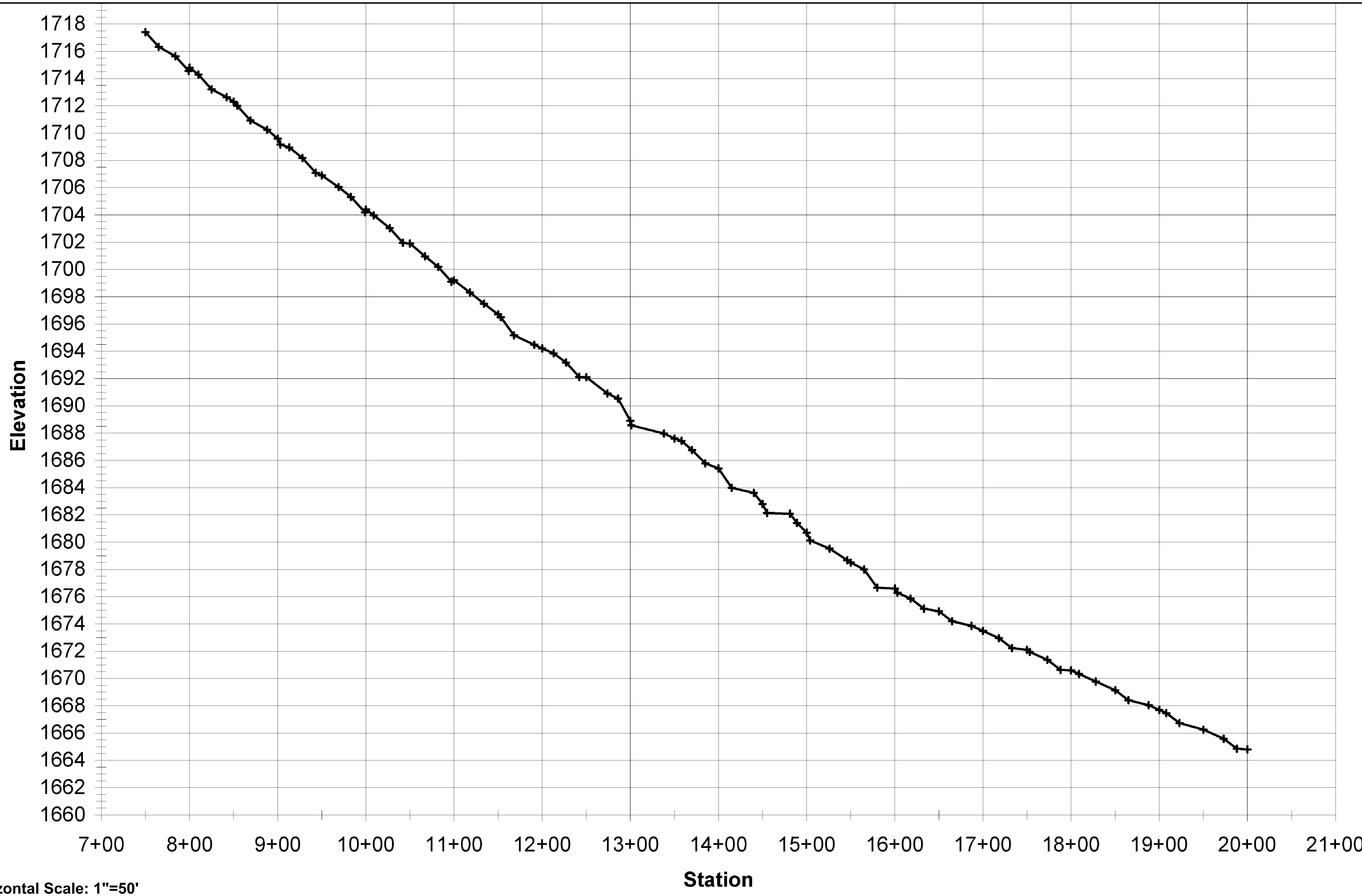
SHEET TITLE:

STREAM PROFILE - SEGMENT 1

21
824.006-23F



Horizontal Scale: 1"=50'

NO.	DATE	REVISIONS	BY	CHK	DRAWN: SDR/BTT	PROJECT NO: 10047.00
					ENGINEER: KW	SCALE: AS NOTED
					CHECKED: SM	APPROVED: MU
					DATE: FEB. 29, 2008	DATE: 22 MAY 2008

MICHAEL JOHN ULIKOWSKI LICENSE No.37886 STATE OF FLORIDA PROFESSIONAL ENGINEER

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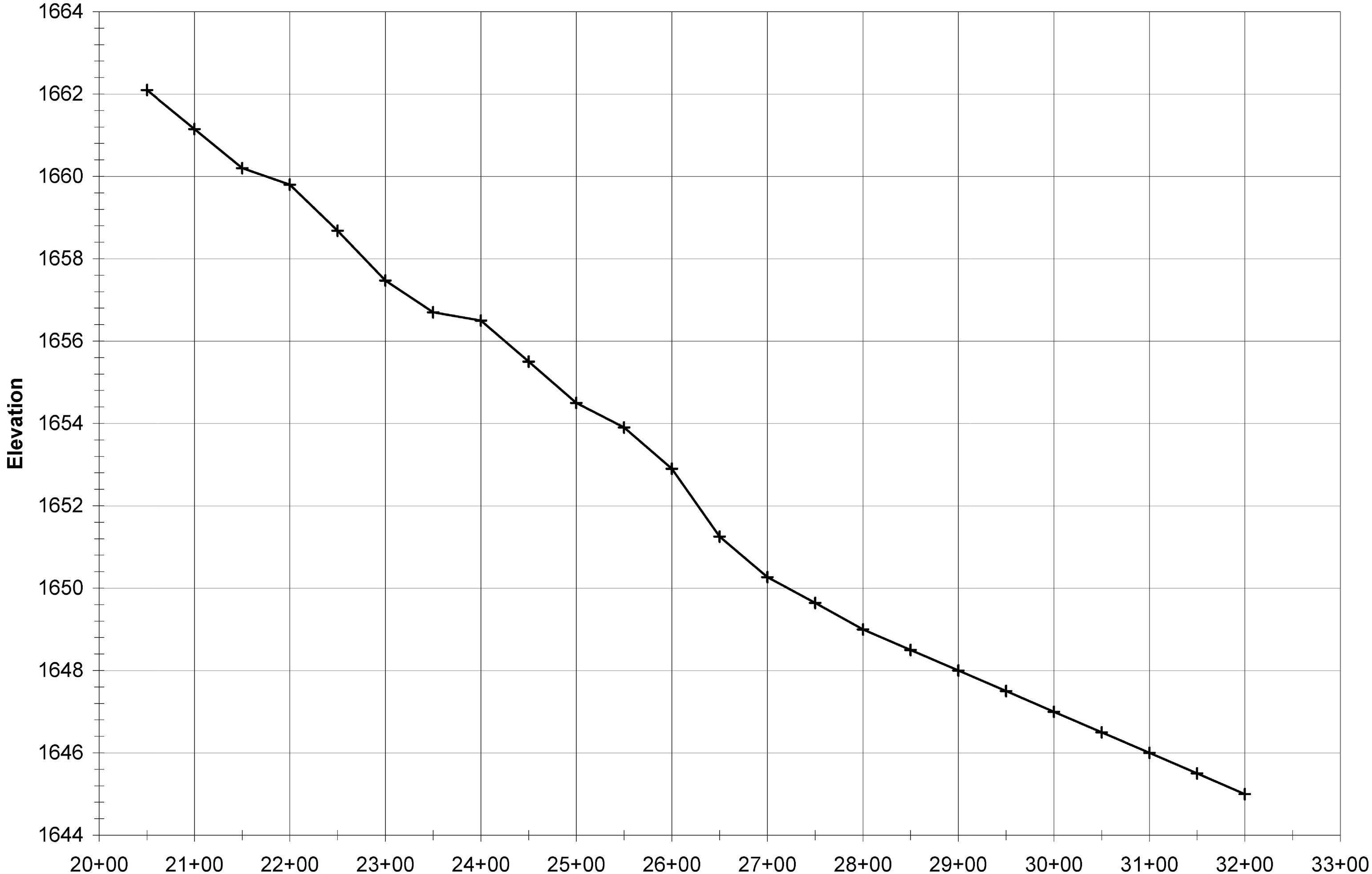
SHEET TITLE:

STREAM PROFILE - SEGMENT 2

22

824.006-24F



Horizontal Scale: 1"=50'

NO.	DATE	REVISIONS	BY	CHK

DRAWN: SDR/BTT	PROJECT NO: 10047.00
ENGINEER: KW	SCALE: AS NOTED
CHECKED: SM	APPROVED: MU
DATE: FEB. 29, 2008	DATE: 22 MAY 2008

NICHOLAS JOHN ULLMAN LICENSED No.37885 STATE OF FLORIDA PROFESSIONAL ENGINEER
MAY 22, 2008

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SHEET TITLE:

STREAM PROFILE - SEGMENT 3

23

824.006-25F

CONSTRUCTION DRAWINGS

AMPHENOL CORPORATION

HERRICK HOLLOW CREEK RESTORATION

TOWN OF SIDNEY AND MASONVILLE
DELAWARE COUNTY, NEW YORK

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MAY, 2008

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Building Sustainable Communities on an Ecological Foundation

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Engineers · Environmental Scientists · Planners · Landscape Architects

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