STUARTS CROSSING BASIN 106C
SHORELINE STABILIZATION
ST. CHARLES, ILLINOIS

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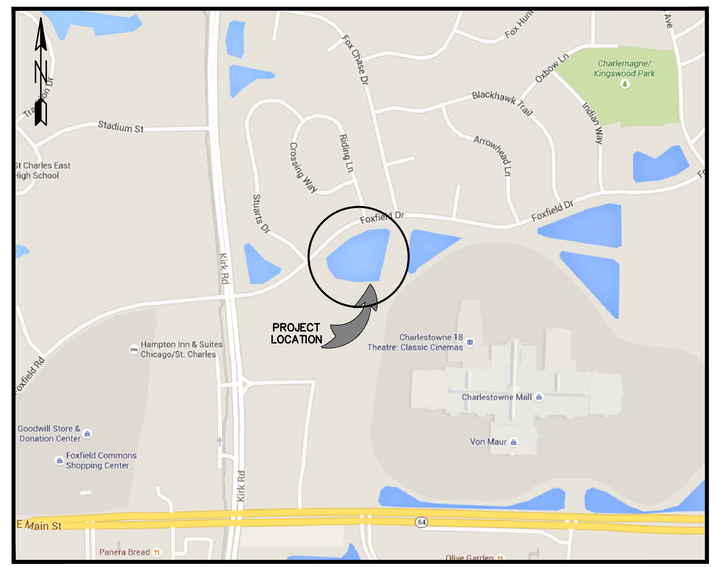

LOCATION MAP

PREPARED FOR:

CITY OF ST. CHARLES
TWO EAST MAIN STREET
ST. CHARLES, IL. 60174
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Marty J. Michalisko, P.E.
IL. P.E. NO. 062-058762
Expires: November 30, 2017

FINAL PLANS: MAY 24, 2016

ERA JOB NO.: 140905

H:\StCharles,City\140905 StuartsCrossingBasin\CADD\140905 Cover.dwg Updated by: rtamer 5/24/2016

GENERAL NOTES

ROCK TOE INSTALLATION

1. Materials:

A. Rock shall be 3–9 inch diameter bank–run rounded to sub–rounded and free of any defects that would lead to accelerated weathering.
B. The stakes shall be 100% biodegradable hardwood pins designed to safely and effectively secure erosion control blankets. The stakes must exhibit ample rigidity to enable being driven into hard ground, with sufficient flexibility to resist breakage. All anchors should be between 6–18 in (150–450 mm) long and have sufficient ground penetration to resist pullout. Longer anchors may be required for loose soils.

2. Installation:

A. The rock shall be placed into a 6 inch trench along the toe of the slope. the top of the rock shall be approximately 12 to 18 inches above the existing pond bed.
B. Anchor spacing based on slope gradient and/or anticipated flow conditions are as follows: 2 anchors/yd^2 for slopes steeper than 2:1; 1½ anchor/yd^2 for slopes steeper than 3:1; 1 anchors/yd^2 for slopes less than 3:1.
C. Banks shall be reshaped to a 3:1 slope or flatter using soil layering where called out on the plans. Soil shall be stabilized with sc150bn erosion control blanket from top of rock to top of bank. Disturbed areas outside the top of bank shall be stabilized with s75bn.

RE–SHAPE SLOPES WITH EROSION CONTROL BLANKET

1. Materials:

A. Topsoil from shoreline re–grading shall be used where unsuitable soils are found. reused topsoil shall be loam from the a–horizon and free of all roots, sticks, and rocks and clumps greater than 1" in diameter. All clumps, stones, and debris shall be removed and disposed of legally off–site. The top 3 inches of the soil shall be raked prior to seeding within the planting areas. Imported topsoil shall not be used without written approval from the owner.
B. Erosion control blanket shall be North American Green (NAG) SC150 BN or equivalent.
C. Staples shall be NAG 6–12"Eco–Stakes or equivalent. The stakes shall be 100% biodegradable hardwood pins designed to safely and effectively secure erosion control blankets. The stakes must exhibit ample rigidity to enable being driven into hard ground, with sufficient flexibility to resist breakage. All anchors should be between 6–18 in (150–450 mm) long and have sufficient ground penetration to resist pullout. Longer anchors may be required for loose soils.
D. See plant lists for quantities, locations, and specifications.
E. Live stakes shall be used with all areas note on plans and details. See plant lists for quantities, locations, and specifications.

2. Construction:

A. Graded portions of the planting areas that do not expose suitable planting mediums shall be over excavated and re spread with 12 inches of topsoil.
B. Install native seed mixes according to plans.
C. Excavate trenches and install sediment erosion control detail per manufacturer's specifications.
D. Anchor spacing based on slope gradient and/or anticipated flow conditions are as follows: 2 anchors/yd^2 for slopes steeper than 2:1; 1½ anchors/yd^2 for slopes steeper than 3:1; 1 anchors/yd^2 for slopes less than 3:1.
E. Plant native plugs and live stakes according to plans and specifications.

CONSTRUCTION ACCESS AND RESTORATION

A. Traffic and staging areas: minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during construction operations.

1. The contractor is responsible for restoring the site to its original condition or better.
2. Equipment and materials staging areas, including temporary storage areas are also identified on the plans.
3. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from owner and authorities having jurisdiction.
4. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction. Delete paragraph below if not required. Coordinate with owner. Post construction signage.

B. When not in use, contractor vehicles, equipment and supplies shall be stored at the staging areas shown on the plan in order to limit the movement of equipment and materials on site. The owner is not responsible for the security of or damage to equipment or materials during construction drawings or in schedules.

C. Salvable improvements: Carefully remove items indicated to be salvaged and store in temporary staging area.

D. Notify utility locator service for area where project is located before beginning any work.

COIR FIBER ROLL INSTALLATION

1. Materials:

A. Coir fiber rolls shall be 12 inches in diameter and in 10 or 20 foot lengths with a density of 9 pounds per cubic foot. The fibers shall be within a 2X2 inch knotted mesh polypropylene netting.

B. Stakes shall be 4x2x36 inch hardwood with the bottom cut at a diagonal to allow driving into the sub grade.

C. Rope shall be ½ inch polypropylene or ¼ inch nylon rope.

2. Installation:

A. Coir fiber rolls shall be installed into a shallow trench along the toe of the slope with ½ to 1/3 width of the roll above the normal water level or above the 2 year event.

B. Ends of adjacent coir rolls shall be tied together with the above referenced rope. Extra loops of rope shall be laced through the outer netting around the entire perimeter of both adjoining coir rolls.

C. The ends of the coir rolls shall be keyed into the bank by inserting at least 2 lineal feet of the roll into the bank at a 45° angle, staked and backfilled with rock on the upstream side which is also keyed into the bank.

D. Coir fiber rolls shall be staked per the manufacturer's specifications.

STONE OUTCROPPING

1. Materials:

A. Filter fabric shall be non–woven 100% polypropylene with a tensile strength of 160 pounds, tear strength of 65 pounds and water flow rate of 90 gallons/minute/square foot. (gmp/ft2).

B. Rock shall be 4"–8" thick, 3'–6' long, 3'–5' wide and free of any defects that would lead to accelerated weathering.

C. The aggregate base shall be 4"–6" deep bank–run gravel and conform to the following sizes:
D100 = 2 inch
D50 = 0.5 inch
D10 = 0.05 inch
D10 shall not exceed 20% of the mixture.

D. The stakes shall be 100% biodegradable hardwood pins designed to safely and effectively secure erosion control blankets. The stakes must exhibit ample rigidity to enable being driven into hard ground, with sufficient flexibility to resist breakage. All anchors should be between 6–18 in (150–450 mm) long and have sufficient ground penetration to resist pullout. Longer anchors may be required for loose soils.

2. Installation:

A. Area shall be excavated 4"–6" below the proposed lowest stone.

B. Filter fabric shall surround the gravel base. The filter fabric shall not be visible upon completion.

C. Largest stones shall be laid as the foundation. The bottom stone shall be 2/3 buried.

D. Anchor spacing based on slope gradient and/or anticipated flow conditions are as follows: 2 anchors/yd^2 for slopes steeper than 2:1; 1½ anchors/yd^2 for slopes steeper than 3:1; 1 anchor/yd^2 for slopes less than 3:1.

E. Disturbed areas outside the stone outcropping shall be stabilized with NAG S75BN.

F. Plantings shall occur at the rate noted within the planting specification and location on the slope.

SOIL EROSION AND SEDIMENT CONTROL NOTES

A. If the turbidity curtain does not sufficiently contain sediment during construction of the rock toe, a cofferdam/dewatering system shall be used in place of the curtain.

B. No work shall be performed in flowing water. Work in and near the critical areas should be isolated from concentrated flows or stream flow. Once work in this area begins, priority shall be given to the completion of the work and final stabilization of all disturbed areas.

C. Work in the waterway should be timed to take place during low or no–flow conditions. Low flow condition is flow at or below the normal water elevation.

D. Winter shutdown shall be addressed early in the fall growing season so that slopes and other bare areas may be stabilized with temporary and/or permanent vegetative cover for proper erosion and sediment control.

E. Unless otherwise indicated, all vegetative and structural erosion and sediment control practices will be constructed according to minimum standards and specifications in the Illinois Urban Manual latest edition.

F. A copy of the approved erosion and sediment control plan shall be maintained on the site at all times.

G. Prior to commencing land–disturbing activities in the areas other than the indicated on these plans (including but not limited to, additional phases of development and off–site borrow or waste areas) a supplementary erosion control plan shall be submitted for review by the City.

H. The contractor is responsible for installation of any additional erosion control measures as necessary to prevent erosion and sedimentation.

I. During dewatering operations, water will be filtered and/or pumped into sediment basins or silt traps. Dewatering sediment laden water directly into streams, wetlands, field tiles, or stormwater structures is prohibited.

J. It is the responsibility of the landowner and/or general contractor to inform any sub–contractor(s) who may perform work on this project, of the requirements in implementing and maintaining these erosion control plans and assure compliance with all applicable local, state, and federal regulations.

SPECIFICATIONS

PLANT LISTS

Seed Mixes:

Materials:

1. All seed shall be healthy, vigorous, and true to species and variety. All materials shall be provided by a certified nursery and shall be free of pests and disease. The Owner reserves the right to reject any unsuitable or objectionable plant material. Written approval shall be received from the owner for plant material substitutions.
2. Seed shall be obtained originate as close as possible to the project site. Written approval shall be received from the owner for substitutions and plant material purchased outside a 150 mile radius of the site.
3. Erosion Control Blanket shall be North American Green (NAG) SC150BN or equivalent along streambanks and NAG S75BN or equivalent for disturbed areas outside top of bank.

Submittals:

1. Submit name and location of seed suppliers including origin and date of harvest for each of the various kinds of seed.
2. Submit the species and number of each species along with a statement of the purity of the seeds. The native seed mixes shall be tested no greater than 6–months in advance to determine the percentage of Pure Live Seed (PLS) and shall meet minimum PLS levels. Also, furnish any seed preparation required for germination, seeding method, and seeding dates.
3. All seed tags shall be provided to the owner or engineer for verification prior to installation.

Delivery, Storage, and Handling

1. All seeds should be packed and covered in such a manner as to ensure adequate protection against damage and maintain dormancy while in transit, storage, or during planting operations. Delivery of seed shall not be accepted until preparations for plantings have been completed.
2. Seed will be in good condition at the time of planting, without disease, mold, or mildew.
3. Seed will be specified as "weed free" according to the Association of Official Seed Analysis: Rules for Testing Seeds, Journal of Seed Technology, 1991.

Installation:

1. Seedbed Preparation:

A. Seedbed preparation method shall be approved by the Owner. Contractor is required to submit seedbed preparation material method in writing to the Owner one week prior to commencement for approval.
B. Seedbed preparation shall include application of herbicide applied according to the manufacturer's instructions by a licensed herbicide applicator. Selection of the specific herbicide to be applied will be effective in controlling weed species without damaging desirable vegetation. The seedbed shall be free of weeds, with sufficient time since application of herbicide to allow seed germination. Seeding shall occur no less than 14 days after herbicide application.
C. Surface of rooting media shall be free from clods and shall conform to the lines and grades shown on the plans. All clumps, stones, and debris shall be removed and disposed of legally off–site.
D. The seedbed shall be prepared by working or disking the rooting media to a minimum depth of three (3) inches, reducing all soil particles to a size of not larger than one (1) inch in diameter, but without compacting the soil or destroying the capillary pore space of the soil.
E. Seed shall not be sown until the seedbed has been approved by the Owner and Engineer.

2. Seeding Methods:

A. Seeds for each native type shall be mixed prior to seeding.
B. Seeding shall take place before June 10th or after October 15th. Time of planting is critical in the success of establishing plants from seed. Cover crop seed may be installed after these dates but must be mowed and bailed and overseeded with permanent matrix during approved time frame. Approval from the Owner must be received for all planting dates.
C. Seed shall be hand broadcast and cross raked. No mechanical installation methods shall be used.
D. Seeds shall not be sown during times of high winds, periods of soil saturation, or when seeding activities would cause soil compaction.
E. See plans for seed locations.
F. Wet to mesic seed mixes shall be installed at the lower slope or within wetland. Low profile prairie grass seed mix shall be installed along the middle and upper slope areas. Plant seed mixes in overlapping zones to provide a natural gradient.
G. Seed along streambanks shall be installed under North American Green (NAG) SC150 BN or equivalent Erosion Control Blanket. Seed for disturbed areas outside top of bank shall be installed under NAG S75 BN or equivalent Erosion Control Blanket.
H. Water shall be applied immediately after installation of the erosion control blanket with a fine spray. The area should be saturated to a minimum depth of six (6) inches.
I. Contractor shall provide and maintain all equipment necessary for seeding and establishment of seed, including watering equipment, water, and hoses.
J. Contractor shall provide maintenance of invasive species, water, etc. in order to meet the first year performance criteria.

Native Plant Plugs:

Materials:

1. All plants shall be healthy, vigorous, and true to species and variety. All materials shall be provided by a certified nursery and shall be free of pests and disease. All plant materials shall comply with State and Federal laws with respect to inspection for plant diseases and infestations. The Owner reserves the right to reject any unsuitable or objectionable plant material. Written approval shall be received from the owner for plant material substitutions.
2. Plugs shall be obtained as close as possible to the project site. Written approval shall be received from the owner for substitutions and plant material purchased outside a 150 mile radius of the site.

Submittals:

1. Submit name and location of plant suppliers including origin and date of harvest for each of the various kinds of plants.
2. Submit the species and number of each species along with the planting method and start/finish dates.

Delivery, Storage, and Handling

1. Each species should be handled and packed in the manner approved for that plant, having regard for the soil climactic conditions at the time and place of digging and delivery, and for the time that will be consumed for transit and delivery.
2. Plant materials shall be packed to ensure adequate protection against damage during transit. The plants shall be protected with wet material to ensure that the plant materials are delivered in a moist and cool condition. The vehicle should be ventilated to prevent over heating during transit.
3. Plant materials shall be stored in a shaded area. Watering shall occur to maintain plant vigor during on–site storage.

Installation:

1. Planting shall take place between May 1st and June 15th within two days of delivery. Time of planting is critical in the success of establishing plant plugs. Approval from the Owner must be received for all planting dates.
2. Plugs shall be planted on approximately one foot centers from top of bank to toe of slope where indicated on plans, except in areas where planting medium is not present (i.e. Rock Toe etc.).
3. Install native plant plugs through erosion control blanket with planting bar. Holes shall be sufficient size to allow placing the plant without bending the roots. Plants shall be placed flush with the earth surface. Holes shall be filled with soil and pressed to firm earth surface.
4. See plans for plug locations.
5. Wet to mesic plugs shall be installed at the lower slope and within the wetland. Plant plugs in overlapping zones to provide a natural gradient.
6. Contractor shall provide and maintain all equipment necessary for planting and establishment of seed, including watering equipment, water, and hoses.
7. Contractor shall provide maintenance of invasive species, water, etc. in order to meet the performance criteria.

Low Profile Grasses, Sedges, & Rushes Supplemental Plugs

(3ft centers throughout Low Profile Grasses, Sedges & Rushes Seeding area)

Scientific Name	Common Name	Quantity
Andropogon scoparius	Little Bluestem Grass	288
Bouteloua curtipendula	Side Oats Gramma	288
Carex bebii	Bebb's Oval Sedge	324
Carex molesta	Field Oval Sedge	288
Elymus villosus	Silky Wild Rye	324
Eragrostis spectabilis	Purple Love Grass	468
Koeleria cristata	June Grass	468
Sporabolus heterolepis	Prairie Dropseed	468
	Total	2916

Low-profile Prairie Grasses Sedges & Rushes Seed Mix

Scientific Name	Common Name	PLS Lbs/Acre
Andropogon scoparius	Little Bluestem Grass	2
Bouteloua curtipendula	Side-Oats Grama	4
Eragrostis spectabilis	Purple Love Grass	0.06
Koeleria cristata	June Grass	0.06
Carex brevior	Plains Oval Sedge	0.25
Carex scoparia	Lance-Fruited Oval Sedge	0.13
Elymus canadensis	Canada Wild Rye	3
Elymus virginicus	Virginia Wild Rye	3
Juncus dudleyi	Dudley's Rush	0.02
Juncus torreyi	Torrey's Rush	0.02
Panicum virgatum	Switch Grass	1.5
	Total	**14.04**

Shoreline Supplemental Plugs

(1 per LF of Coir Fiber Roll)

Scientific Name	Common Name	Quantity
Calamagrostis canadensis	Blue Joint Grass	72
Carex comosa	Bristly Sedge	72
Carex emoryi	Riverbank Sedge	36
Carex frankii	Bristly Cattail Sedge	36
Carex projecta	Loose Headed Oval Sedge	72
Carex stricta	Common Tussock Sedge	72
Eleocharis ovata	Blunt Spike Rush	36
Glyceria striata	Fowl Mana Grass	72
Scirpus pungens	Chairmakers Rush	72
Scirpus validus creber	Great Bulrush	72
	Total	612

Shoreline Seed Mix

Scientific Name	Common Name	PLS Lbs/Acre
Calamagrostis canadensis	Bluejoint Grass	0.25
Carex comosa	Bristly Sedge	0.50
Carex cristatella	Crested Oval Sedge	0.50
Carex frankii	Bristly Cattail Sedge	0.38
Carex lupulina	Common Hop Sedge	0.63
Carex lurida	Bottlebrush Sedge	1.00
Carex stipata	Common Fox Sedge	0.25
Carex vulpinoidea	Brown Fox Sedge	1.00
Elymus virginicus	Virginia Wild Rye	7.50
Glyceria striata	Fowl Manna Grass	0.13
Juncus effusus	Common Rush	0.25
Leersia oryzoides	Rice Cut Grass	0.25
Panicum virgatum	Switch Grass	0.25
Scirpus atrovirens	Dark Green Rush	0.19
Scirpus pendulus	Red Bulrush	0.06
Scirpus validus	Great Bulrush	0.25
Spartina pectinata	Prairie Cord Grass	0.50
	Total	**13.88**

Low Profile Prairie with Flowers Plugs

(3ft centers throughout Low Profile Prairie W/ Flowers area)

Scientific Name	Common Name	Quantity
Asclepias tuberosa	Butterfly Weed	144
Coreopsis palmata	Prairie Coreopsis	144
Dalea purpureum	Purple Prairie Clover	108
Dodecatheon meadia	Shooting Star	108
Echinacea purpurea	Broad-Leaved Purple Coneflower	180
Eryngium yuccifolium	Rattlesnake Master	108
Geum triflorum	Prairie Smoke	108
Liatris cylindracea	Cylindrical Blazing Star	144
Rudbeckia subtomentosa	Sweet Black-Eyed Susan	144
Ruellia humilis	Hairy Ruellia	144
Sisyrinchium angustifolium	Stout Blue-Eyed Grass	144
Sporabolus heterolepis	Prairie Dropseed	144
Tradescantia ohiensis	Common Spiderwort	144
	Total	1764

Transitional Buffer Seed Mix

Scientific Name	Common Name	PLS Lbs/Acre
Andropogon scoparius	Little Bluestem Grass	15.00
Bouteloua curtipendula	Side-Oats Grama	10.00
Buchloe dactyloides 'BOWIE'	Bowie Buffalo Grass	2.00
	Total	**27.00**

REVISIONS:					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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APPROVED BY: EP

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STUARTS CROSSING BASIN 106C
SHORELINE STABILIZATION
CITY OF ST. CHARLES, ILLINOIS

TITLE: GENERAL NOTES

SCALE: N.T.S.
DATE: May, 2016
JOB NO: 140905
SHEET 2 OF 10

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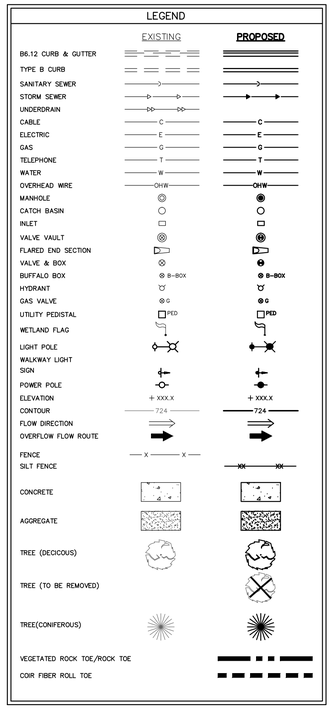

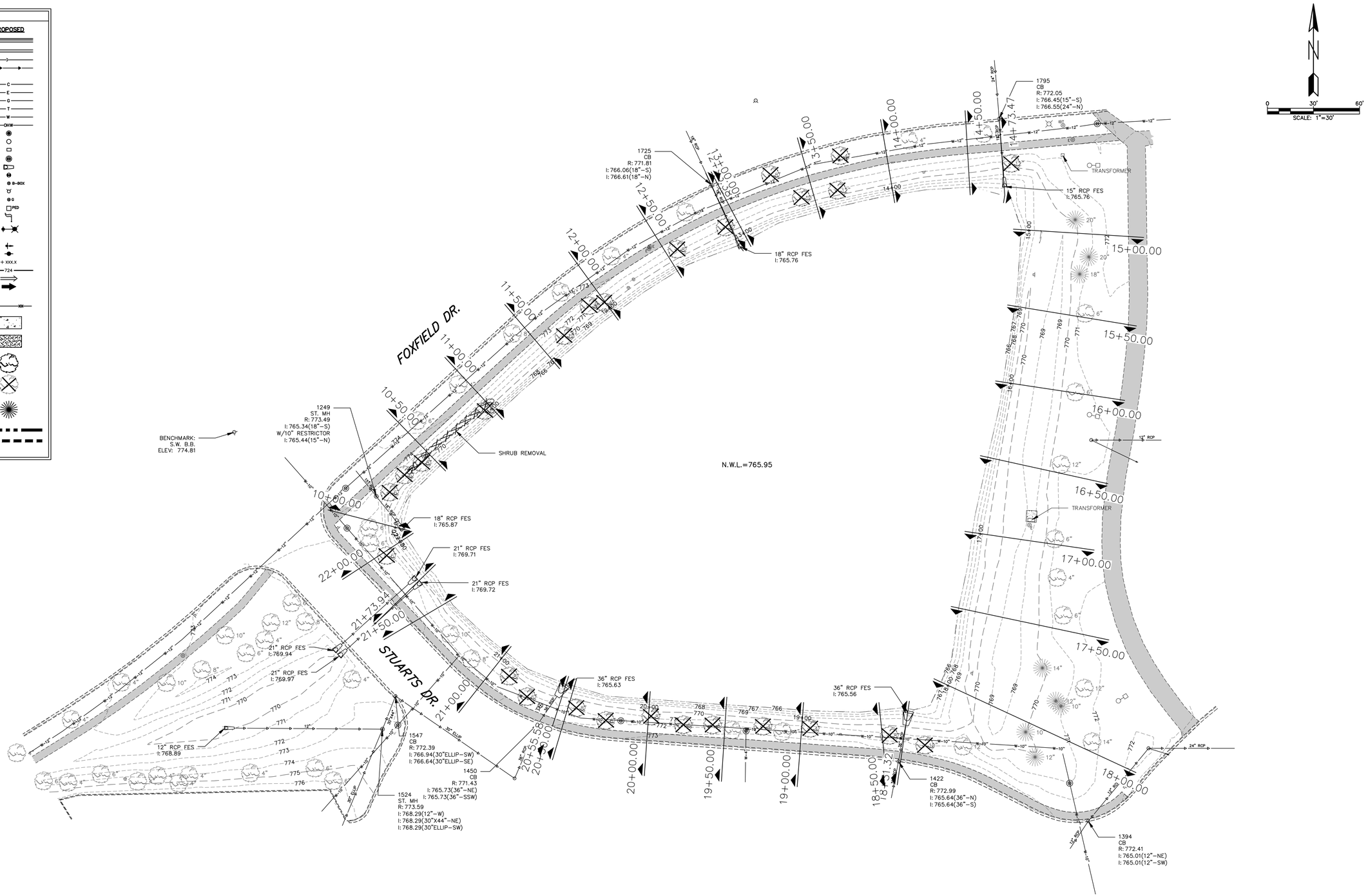

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STUARTS CROSSING BASIN 106C
SHORELINE STABILIZATION
CITY OF ST. CHARLES, ILLINOIS

TITLE:

EXISTING CONDITIONS AND REMOVALS PLAN

SCALE: 1"=30'
DATE: May, 2016
JOB NO: 140905
SHEET 3 OF 10

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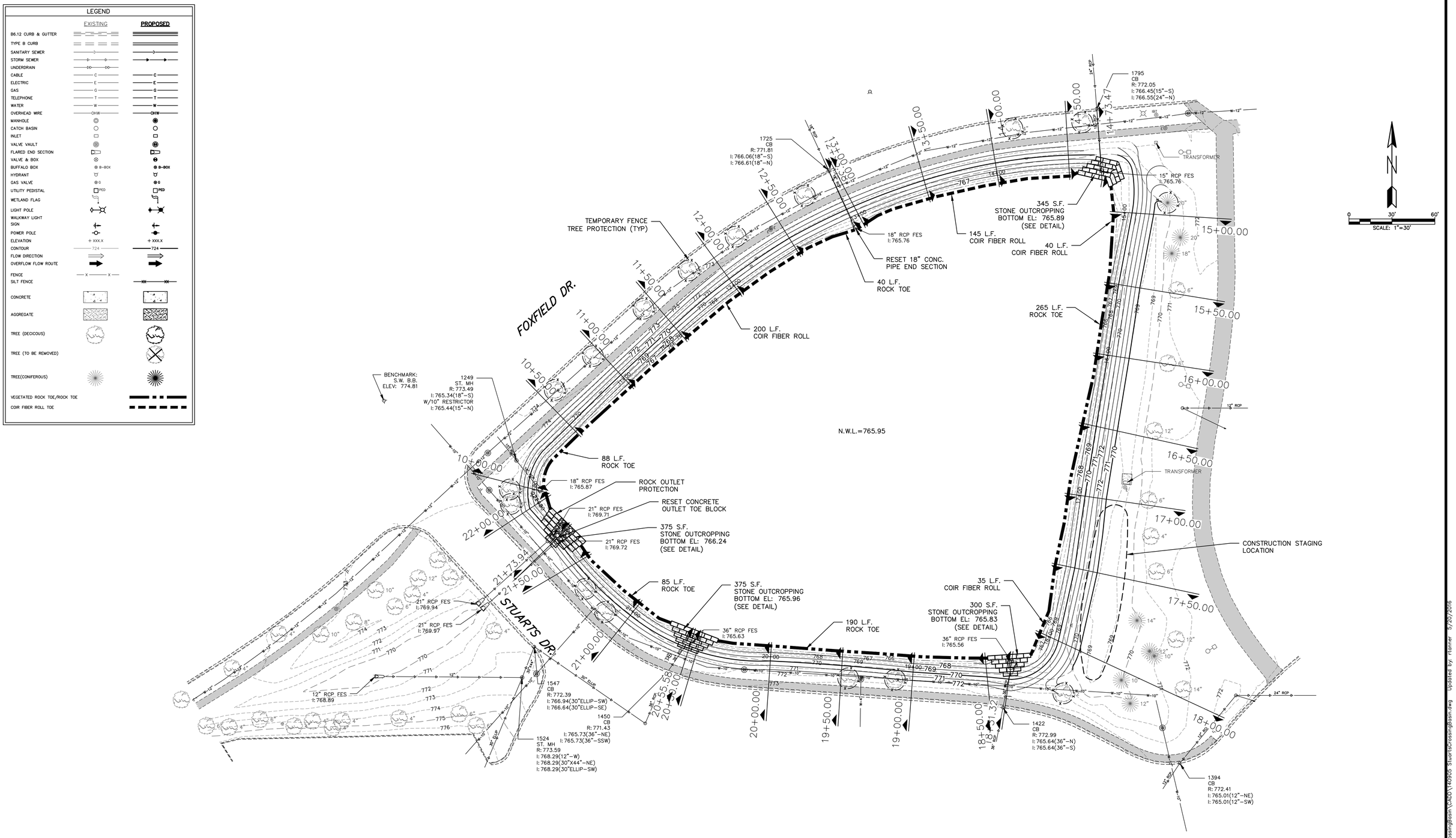

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STUARTS CROSSING BASIN 106C
SHORELINE STABILIZATION
CITY OF ST. CHARLES, ILLINOIS

TITLE:

PROPOSED GRADING PLAN

SCALE: 1"=30'
DATE: July, 2015
JOB NO: 140905
SHEET 4 OF 10

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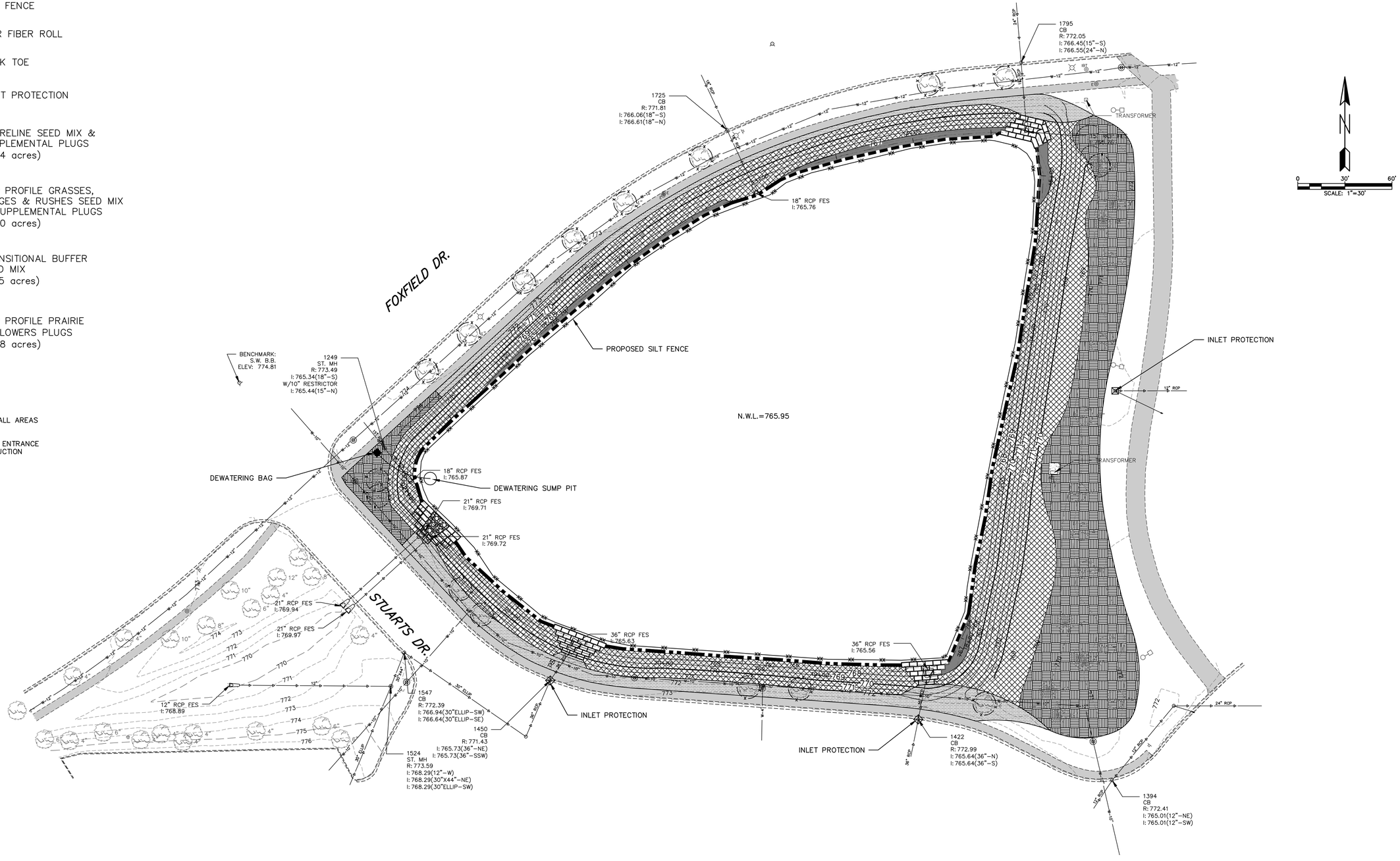
LEGEND

- SILT FENCE
- COIR FIBER ROLL
- ROCK TOE
- INLET PROTECTION
- SHORELINE SEED MIX & SUPPLEMENTAL PLUGS (0.04 acres)
- LOW PROFILE GRASSES, SEDGES & RUSHES SEED MIX & SUPPLEMENTAL PLUGS (0.60 acres)
- TRANSITIONAL BUFFER SEED MIX (0.15 acres)
- LOW PROFILE PRAIRIE W/FLOWERS PLUGS (0.38 acres)

NOTES:

GOOSE GRID SHALL BE INSTALLED OVER ALL AREAS WITH NATIVE PLUGS.

LOCATION OF TEMPORARY CONSTRUCTION ENTRANCE WILL BE IDENTIFIED DURING PRE-CONSTRUCTION MEETING.



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SHORELINE STABILIZATION
CITY OF ST. CHARLES, ILLINOIS

TITLE:

PROPOSED PLANTING AND SEDIMENT EROSION CONTROL PLAN

SCALE: 1"=30'
DATE: May, 2016
JOB NO: 140905
SHEET 5 OF 10

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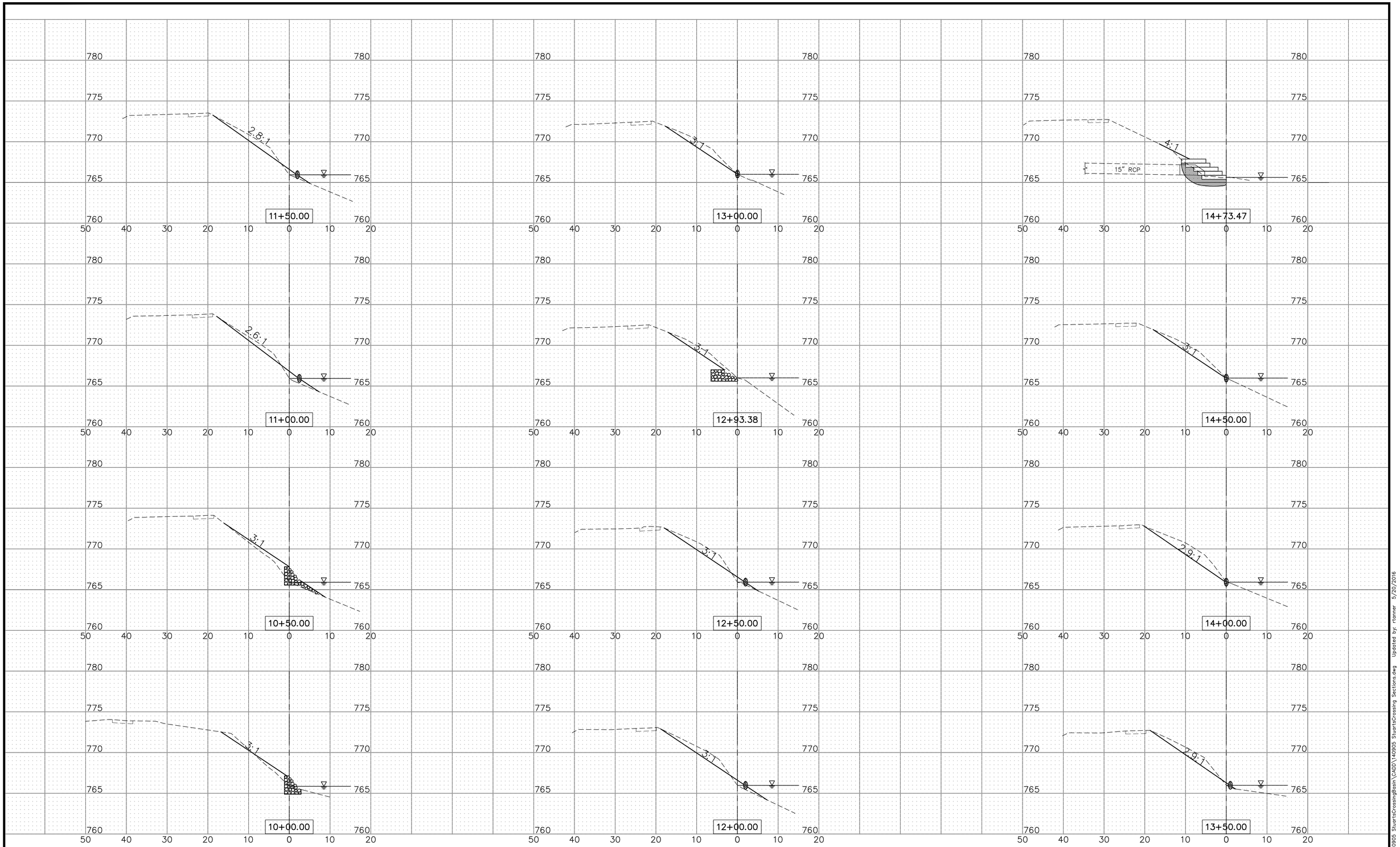

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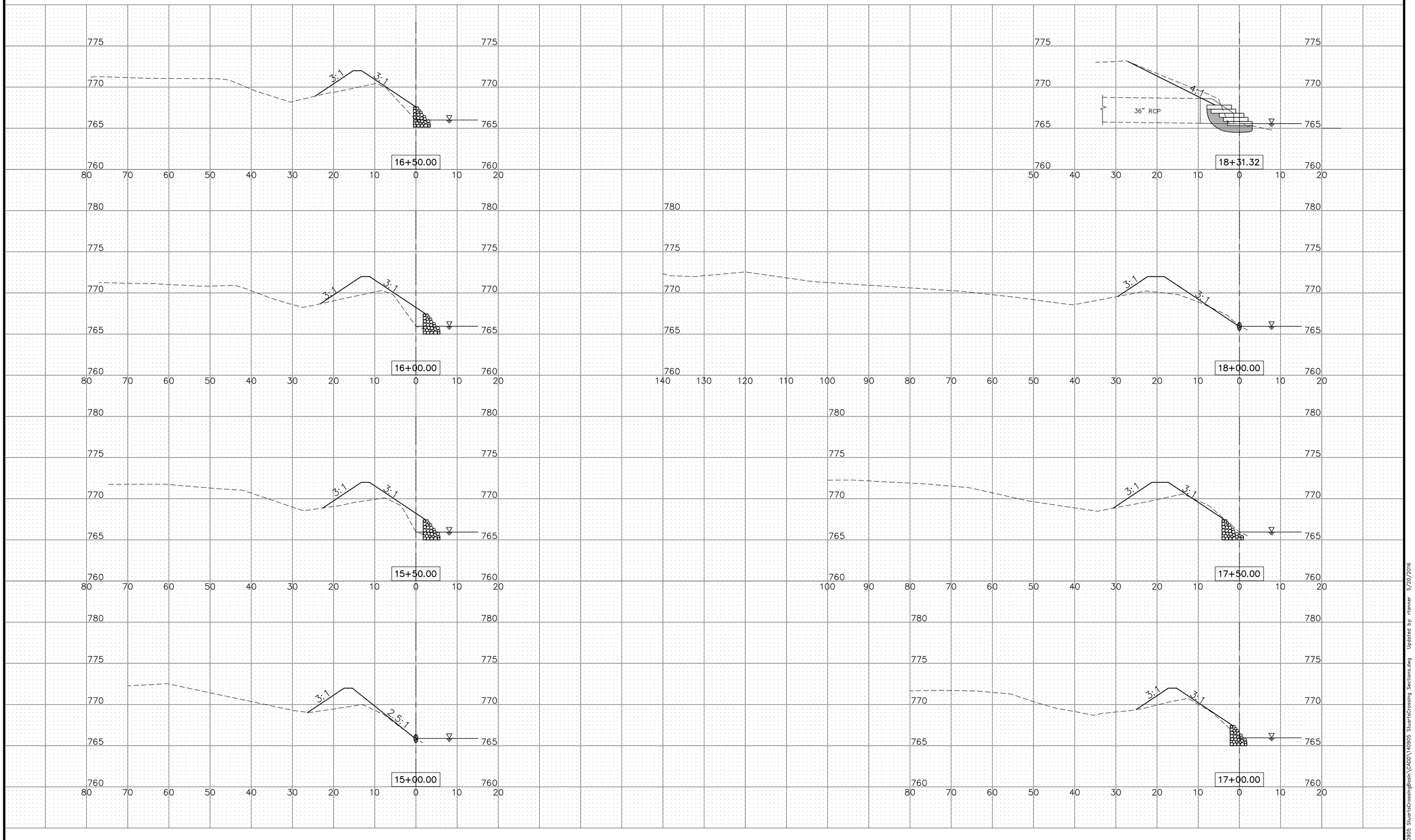
STUARTS CROSSING BASIN 106C
SHORELINE STABILIZATION
CITY OF ST. CHARLES, ILLINOIS

TITLE:
BASIN 106C
CROSS SECTIONS
STA. 10+00 TO STA. 14+73.47

SCALE: 1"=10'H; 1"=5'V
DATE: May, 2016
JOB NO: 140905
SHEET 6 OF 10

H:\StCharles,City\140905 StuartsCrossingBasin\CADD\140905 StuartsCrossing Sections.dwg Updated by: rtanner 5/20/2016



REVISIONS:					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DRAWN BY: RT
CHECKED BY: AK
APPROVED BY: EP

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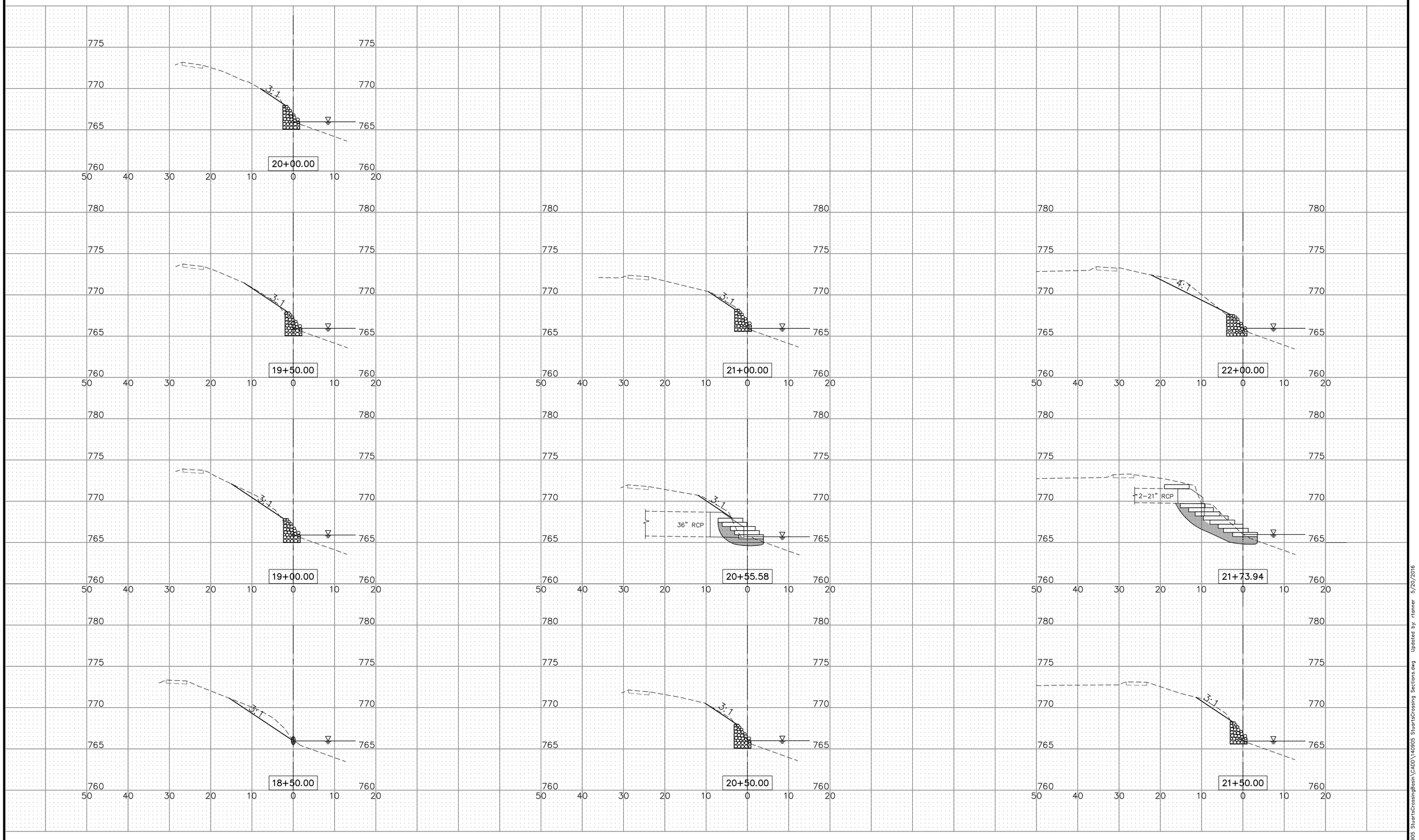
STUARTS CROSSING BASIN 106C
SHORELINE STABILIZATION
CITY OF ST. CHARLES, ILLINOIS

TITLE:
BASIN 106C
CROSS SECTIONS
STA. 15+00 TO STA. 18+31.32

SCALE: 1"=10'H; 1"=5'V
DATE: May, 2016
JOB NO: 140905
SHEET 7 OF 10

H:\StCharles,City\140905 StuartsCrossingBasin\CADD\140905 StuartsCrossing Sections.dwg Updated by: rtanner 5/20/2016



REVISIONS:					
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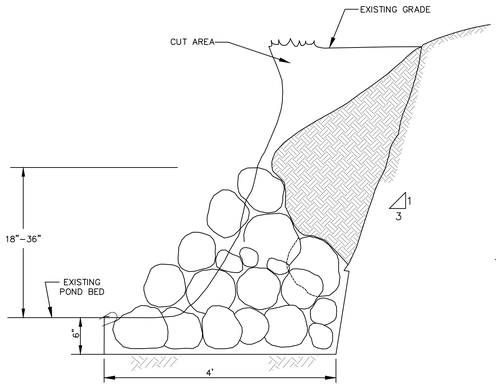
STUARTS CROSSING BASIN 106C
SHORELINE STABILIZATION
CITY OF ST. CHARLES, ILLINOIS

TITLE:
BASIN 106C
CROSS SECTIONS
STA. 18+50 TO STA. 22+00

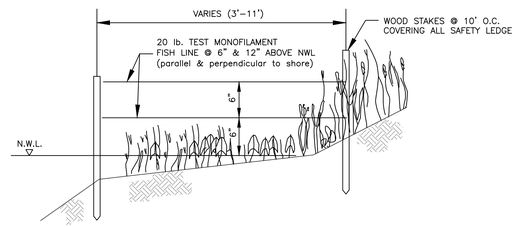
SCALE: 1"=10'H; 1"=5'V
DATE: May, 2016
JOB NO: 140905
SHEET 8 OF 10

H:\StCharles,City\140905 StuartsCrossingBasin\CADD\140905 StuartsCrossing Sections.dwg Updated by: rtanner 5/20/2016

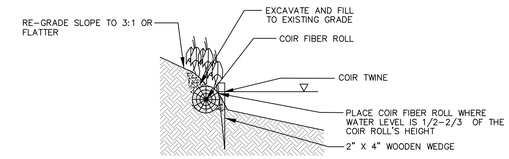


NOTES:
1. ROCK SLOPE SHALL BE CONSTRUCTED ON STABLE BASE MATERIAL.
2. CREATE A 2.5:1 MAXIMUM SLOPE.
3. INSTALL SC150BN OR EQUIVALENT ALONG DISTURBED AREAS FROM THE TOW OF SLOPE TO TOP OF BANK.
4. INSTALL S75BN OR EQUIVALENT ALONG DISTURBED AREAS BEYOND TOP OF BANK.

ROCK TOE
NOT TO SCALE



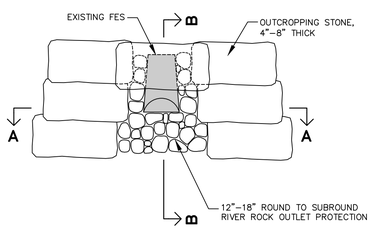
GOOSE GRID BARRIER DETAIL
NOT TO SCALE



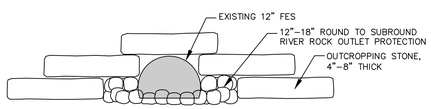
COIR FIBER ROLL PLACEMENT

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. PLANT SUITABLE NATIVE PLANTS AND ADDRESS ANY SPECIAL SITE CONDITIONS IF EXIST.

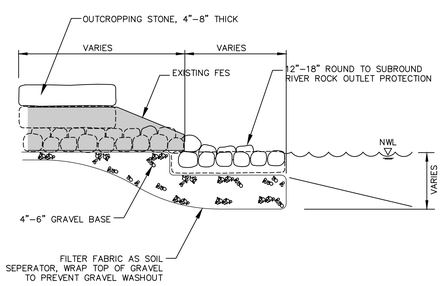
TYPICAL COIR FIBER ROLL APPLICATION
NOT TO SCALE



PLAN

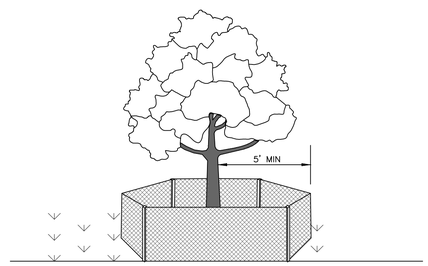


SECTION A-A

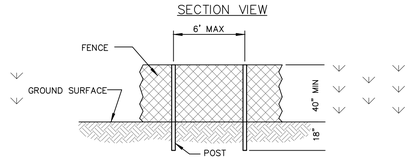


SECTION B-B

STONE OUTCROPPING AT OUTLET DETAIL
NOT TO SCALE



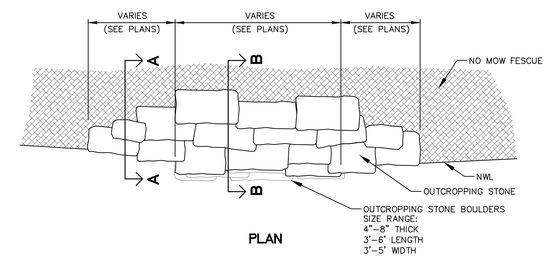
SECTION VIEW



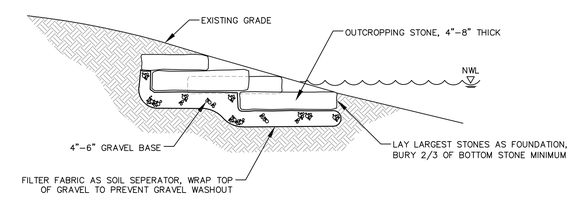
POST AND FENCE DETAIL

NOTES:
1. THE FENCE SHALL BE LOCATED A MINIMUM OF 1 FOOT OUTSIDE THE DRIP LINE OF THE TREE TO BE SAVED AND IN NO CASE CLOSER THAN 5 FEET TO THE TRUNK OF ANY TREE.
2. FENCE POSTS SHALL BE EITHER STANDARD STEEL POSTS OR WOOD POSTS WITH A MINUMUM CROSS SECTIONAL AREA OF 3.0 SQ. IN.
3. THE FENCE MAY BE EITHER 40" HIGH SNOW FENCE, 40" PLASTIC WEB FENCING OR ANY OTHER MATERIAL AS APPROVED BY THE PROJECT MANAGER.

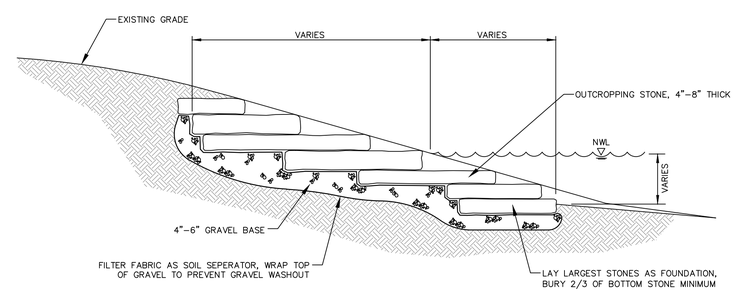
TREE PROTECTION
NOT TO SCALE



PLAN



SECTION A-A



SECTION B-B

STONE OUTCROPPING DETAIL
NOT TO SCALE

REVISIONS:					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DRAWN BY: RT
CHECKED BY: AK
APPROVED BY: EP

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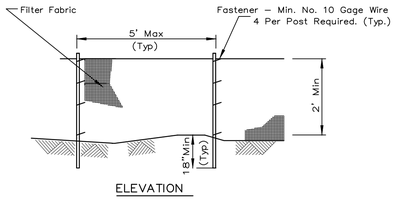
STUARTS CROSSING BASIN 106C
SHORELINE STABILIZATION
CITY OF ST. CHARLES, ILLINOIS

TITLE: DETAILS

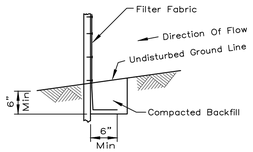
SCALE: N.T.S.
DATE: May, 2016
JOB NO: 140905
SHEET 9 OF 10

H:\StCharles,Cit\140905 StuartsCrossingBasin\CADD\140905-Details.dwg Updated by rtanner 5/20/2016

SILT FENCE PLAN



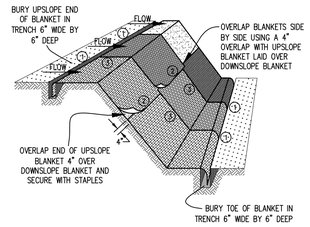
ELEVATION

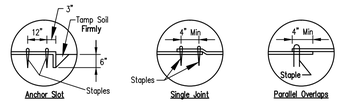


FABRIC ANCHOR DETAIL

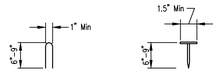
NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1 or 2, Class I with equivalent opening size of at least 30 for nonwoven and 40 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.

REFERENCE			STANDARD DWG. NO.
Project			IUM-620A
Designed	Date		SHEET 1 OF 2
Checked	Date		DATE 3-16-12
Approved	Date		





DETAIL 1 DETAIL 2 DETAIL 3



STAPLE DETAIL PUSH PIN DETAIL

NOTES:

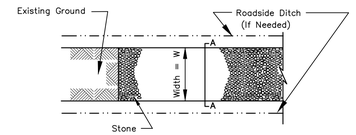
1. Staples shall be a minimum of 6" long and 100% biodegradable.
2. Staples shall be placed in a diamond pattern at 2 per s.y. for stiched blankets. Non-stiched shall use 4 staples per s.y. of material. This equates to 200 staples with stiched blanket and 400 staples with non-stiched blanket per 100 s.y. of material.
3. Staples or push pins lengths shall be selected based on soil type and conditions. (minimum staple length is 6" and be biodegradable)
4. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
5. All anchor slots shall be stapled at approximately 12" intervals.

No.	Date	Revision	By
1			
2			
3	03	Revised Per Comments	BL

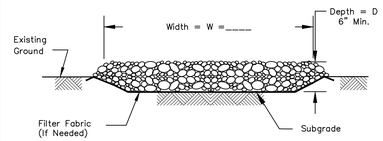
EROSION CONTROL
BLANKET INSTALLATION DETAILS

Date
Designed
Drawn S. JOSHOV
Checked
Approved

CONSTRUCTION ROAD STABILIZATION



PLAN VIEW

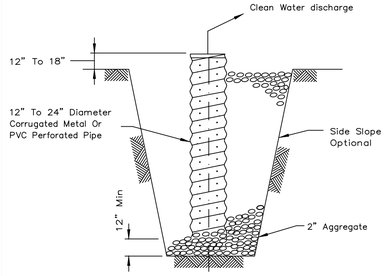


SECTION A–A

NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Stone shall meet one of the following IDOT coarse aggregate gradations, CA–1, CA–2, CA–3, or CA–4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. See plans for construction road location, D and W dimensions.
4. Minimum width is 14 feet for one–way traffic and 20 feet for two–way traffic. Two–way traffic widths shall be increased a minimum of 4 feet for trailer traffic. Depending on the type of vehicle or equipment, speed, loads, climatic and other conditions under which vehicles and equipment operate an increase in the minimum widths may be required.
5. Roadway shall follow the contour of the natural terrain to the extent possible.

REFERENCE			STANDARD DWG. NO.
Project			IL-506
Designed	Date		SHEET 1 OF 1
Checked	Date		DATE 1-29-99
Approved	Date		

SUMP PIT PLAN



SECTION

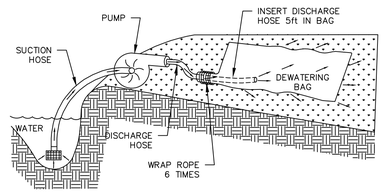
NOTES:
1. Pit dimensions are optional.
2. The standpipe will be constructed by perforating a 12"–24" diameter corrugated metal or PVC pipe.
3. A base of 2" aggregate will be placed in the pit to a minimum depth of 12". After installing the standpipe, the pit surrounding the standpipe will then be backfilled with 2" aggregate.
4. The standpipe will extend 12" to 18" above the lip of the pit.
5. If discharge will be pumped directly to a storm drainage system, the standpipe will be wrapped with filter fabric before installation.
6. If desired, 1/4"–1/2" hardware cloth may be placed around the standpipe prior to attaching the filter fabric. This will increase the rate of water seepage into the pipe.

REFERENCE			STANDARD DWG. NO.
Project			IL-650
Designed	Date		SHEET 1 OF 1
Checked	Date		DATE 8-11-94
Approved	Date		

DEWATERING BAG STANDARD DRAWING

THE PURPOSE OF A DEWATERING BAG IS TO COLLECT SEDIMENT CONTAINED IN THE DISCHARGE WATER, TO PREVENT THE SCOUR AND EROSION FROM EXITING A PIPE AT HIGH VELOCITY, TO DEFUSE THE WATER OVER A WIDER AREA TO MINIMIZE EROSION AS THE WATER DRAINED AWAY, AND TO RETAIN OIL CONTAINED WITHIN EFFLUENT.

A SedCatch DEWATERING BAG OR APPROVED EQUAL SHOULD BE USED ANYTIME WATER IS PUMPED ON THE SITE.



INSTALLATION AND USE:

1. PLACE DEWATERING BAG ON THE GROUND OR ON A TRAILER OVER A RELATIVELY LEVEL, STABILIZED AREA.
2. INSERT DISCHARGE PIPE A MINIMUM OF 5ft. INSIDE DEWATERING BAG AND SECURE WITH A ROPE WRAPPED 6 TIMES AROUND THE SNOUT OVER A 6 INCH WIDTH OF THE BAG.
3. REPLACE DEWATERING BAG WHEN HALF FULL OF SEDIMENT OR WHEN THE SEDIMENT HAS REDUCED THE FLOW RATE OF THE PUMP DISCHARGE TO AN IMPRACTICAL AMOUNT.

MAINTENANCE AND DISPOSAL:

1. REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT AWAY FROM WATERWAYS OR ENVIRONMENTALLY SENSITIVE AREAS. SLIT OPEN SEDIMENT BAG AND REMOVE ACCUMULATED SEDIMENT. DISPOSE OF BAG AT AN APPROPRIATE RECYCLING OR SOLID WASTE FACILITY. OR; AS DIRECTED BY THE ENGINEER.

DEWATERING BAG DETAIL
NOT TO SCALE

REVISIONS:					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

DRAWN BY: BL
CHECKED BY: AK
APPROVED BY: EP

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