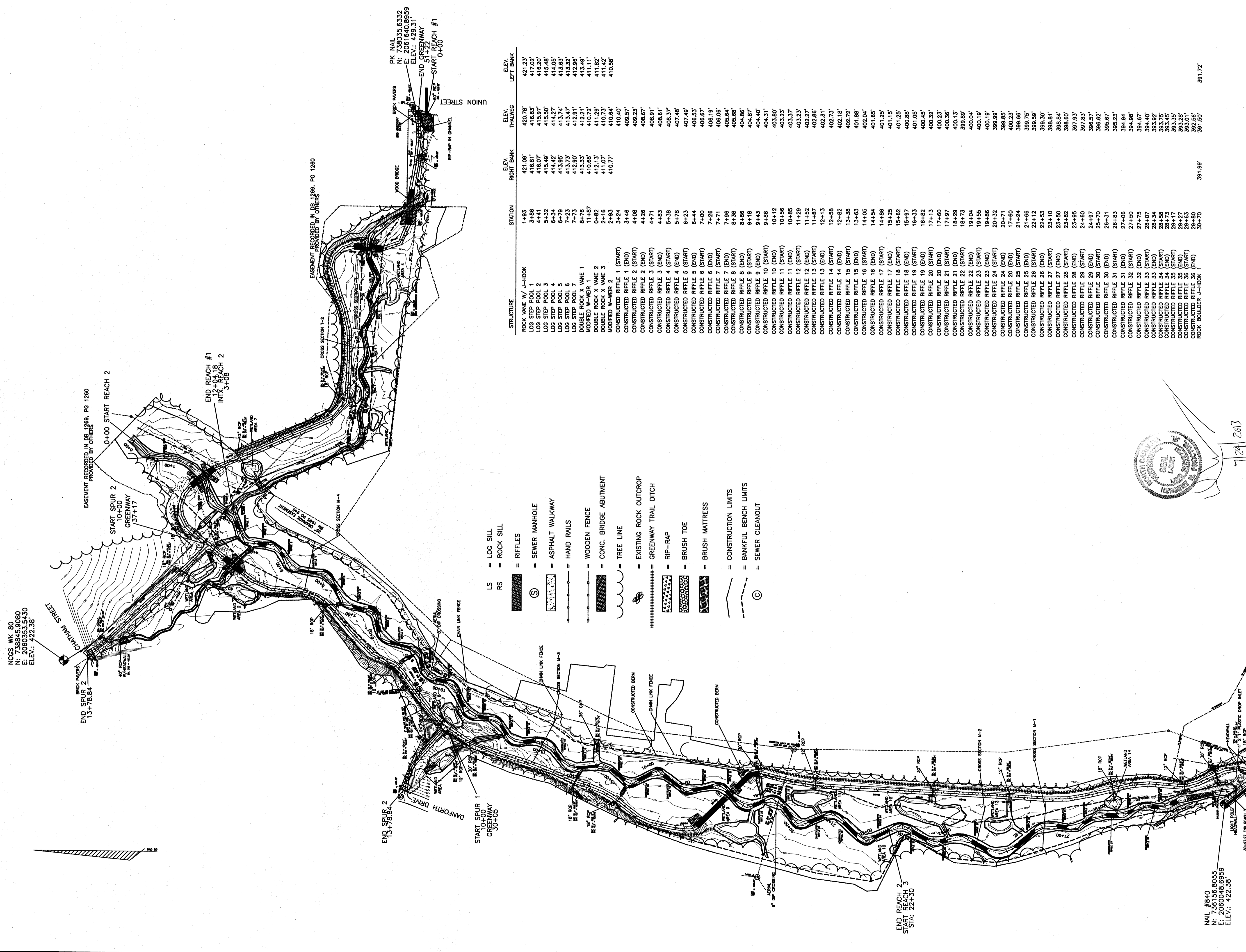


NCS, WK 80
 N: 736845.9080
 E: 206035.5430
 ELEV.: 422.38'



NAIL #840
 N: 736156.8055
 E: 2060048.6959
 ELEV.: 422.38'

- LS = LOG SILL
- RS = ROCK SILL
- [Symbol] = RIFLES
- [Symbol] = SEWER MANHOLE
- [Symbol] = ASPHALT WALKWAY
- [Symbol] = HAND RAILS
- [Symbol] = WOODEN FENCE
- [Symbol] = CONC. BRIDGE ABUTMENT
- [Symbol] = TREE LINE
- [Symbol] = EXISTING ROCK OUTCROP
- [Symbol] = GREENWAY TRAIL DITCH
- [Symbol] = RIP-RAP
- [Symbol] = BRUSH TOE
- [Symbol] = BRUSH MATTRESS
- [Symbol] = CONSTRUCTION LIMITS
- [Symbol] = BANKFUL BENCH LIMITS
- [Symbol] = SEWER CLEANOUT

STRUCTURE	STATION	ELEV. RIGHT BANK	ELEV. THALWEG	ELEV. LEFT BANK
ROCK VANE W/ J-HOOK	1+83	421.09'	420.78'	421.23'
LOG STEP POOL 2	3+49	418.07'	418.97'	418.20'
LOG STEP POOL 3	4+41	415.49'	415.50'	415.48'
LOG STEP POOL 4	6+34	414.42'	414.27'	414.05'
LOG STEP POOL 5	6+79	413.95'	413.74'	413.63'
LOG STEP POOL 6	7+23	413.73'	413.47'	413.32'
LOG STEP POOL 7	7+72	412.90'	412.91'	412.96'
LOG STEP POOL 8	8+18	412.88'	412.88'	412.91'
MODIFIED W-WEIR #1	11+87	410.68'	410.72'	411.11'
DOUBLE ROCK X VANE 3	0+82	411.07'	411.28'	411.82'
MODIFIED W-WEIR 2	2+83	410.77'	410.64'	411.42'
CONSTRUCTED RIFLE 1 (START)	3+24	410.40'	410.40'	410.58'
CONSTRUCTED RIFLE 1 (END)	3+46	408.57'	408.57'	
CONSTRUCTED RIFLE 2 (START)	4+08	408.23'	408.23'	
CONSTRUCTED RIFLE 2 (END)	4+26	408.67'	408.67'	
CONSTRUCTED RIFLE 3 (START)	4+71	408.91'	408.91'	
CONSTRUCTED RIFLE 3 (END)	4+83	408.37'	408.37'	
CONSTRUCTED RIFLE 4 (START)	5+38	407.48'	407.48'	
CONSTRUCTED RIFLE 4 (END)	5+78	407.48'	407.48'	
CONSTRUCTED RIFLE 5 (START)	6+23	406.53'	406.53'	
CONSTRUCTED RIFLE 5 (END)	6+44	406.87'	406.87'	
CONSTRUCTED RIFLE 6 (START)	7+00	406.19'	406.19'	
CONSTRUCTED RIFLE 6 (END)	7+26	406.08'	406.08'	
CONSTRUCTED RIFLE 7 (START)	7+71	405.64'	405.64'	
CONSTRUCTED RIFLE 7 (END)	7+86	405.64'	405.64'	
CONSTRUCTED RIFLE 8 (START)	8+38	404.86'	404.86'	
CONSTRUCTED RIFLE 8 (END)	8+86	404.87'	404.87'	
CONSTRUCTED RIFLE 9 (START)	9+43	404.40'	404.40'	
CONSTRUCTED RIFLE 9 (END)	9+86	403.80'	403.80'	
CONSTRUCTED RIFLE 10 (START)	10+12	403.23'	403.23'	
CONSTRUCTED RIFLE 10 (END)	10+56	402.27'	402.27'	
CONSTRUCTED RIFLE 11 (START)	10+85	402.27'	402.27'	
CONSTRUCTED RIFLE 11 (END)	11+29	402.27'	402.27'	
CONSTRUCTED RIFLE 12 (START)	11+52	402.31'	402.31'	
CONSTRUCTED RIFLE 12 (END)	11+87	402.18'	402.18'	
CONSTRUCTED RIFLE 13 (START)	12+15	402.18'	402.18'	
CONSTRUCTED RIFLE 13 (END)	12+56	402.18'	402.18'	
CONSTRUCTED RIFLE 14 (START)	13+36	402.04'	402.04'	
CONSTRUCTED RIFLE 14 (END)	13+83	401.88'	401.88'	
CONSTRUCTED RIFLE 15 (START)	14+05	401.65'	401.65'	
CONSTRUCTED RIFLE 15 (END)	14+54	401.25'	401.25'	
CONSTRUCTED RIFLE 16 (START)	14+86	401.15'	401.15'	
CONSTRUCTED RIFLE 16 (END)	15+25	401.25'	401.25'	
CONSTRUCTED RIFLE 17 (START)	15+62	400.88'	400.88'	
CONSTRUCTED RIFLE 17 (END)	15+97	400.45'	400.45'	
CONSTRUCTED RIFLE 18 (START)	16+33	400.32'	400.32'	
CONSTRUCTED RIFLE 18 (END)	16+82	400.32'	400.32'	
CONSTRUCTED RIFLE 19 (START)	17+13	400.32'	400.32'	
CONSTRUCTED RIFLE 19 (END)	17+60	400.13'	400.13'	
CONSTRUCTED RIFLE 20 (START)	17+97	399.87'	399.87'	
CONSTRUCTED RIFLE 20 (END)	18+29	400.19'	400.19'	
CONSTRUCTED RIFLE 21 (START)	18+73	399.89'	399.89'	
CONSTRUCTED RIFLE 21 (END)	19+55	399.89'	399.89'	
CONSTRUCTED RIFLE 22 (START)	19+86	399.85'	399.85'	
CONSTRUCTED RIFLE 22 (END)	20+32	399.66'	399.66'	
CONSTRUCTED RIFLE 23 (START)	20+71	399.75'	399.75'	
CONSTRUCTED RIFLE 23 (END)	21+24	399.59'	399.59'	
CONSTRUCTED RIFLE 24 (START)	21+66	399.30'	399.30'	
CONSTRUCTED RIFLE 24 (END)	22+12	398.81'	398.81'	
CONSTRUCTED RIFLE 25 (START)	22+53	398.60'	398.60'	
CONSTRUCTED RIFLE 25 (END)	23+10	397.83'	397.83'	
CONSTRUCTED RIFLE 26 (START)	23+50	396.57'	396.57'	
CONSTRUCTED RIFLE 26 (END)	23+82	395.23'	395.23'	
CONSTRUCTED RIFLE 27 (START)	24+60	394.94'	394.94'	
CONSTRUCTED RIFLE 27 (END)	24+97	394.40'	394.40'	
CONSTRUCTED RIFLE 28 (START)	25+70	393.92'	393.92'	
CONSTRUCTED RIFLE 28 (END)	26+31	393.45'	393.45'	
CONSTRUCTED RIFLE 29 (START)	26+63	393.35'	393.35'	
CONSTRUCTED RIFLE 29 (END)	27+06	393.28'	393.28'	
CONSTRUCTED RIFLE 30 (START)	27+50	392.56'	392.56'	
CONSTRUCTED RIFLE 30 (END)	27+87	391.50'	391.50'	
CONSTRUCTED RIFLE 31 (START)	28+07			
CONSTRUCTED RIFLE 31 (END)	28+34			
CONSTRUCTED RIFLE 32 (START)	28+73			
CONSTRUCTED RIFLE 32 (END)	28+17			
CONSTRUCTED RIFLE 33 (START)	28+27			
CONSTRUCTED RIFLE 33 (END)	28+80			
CONSTRUCTED RIFLE 34 (START)	29+27			
CONSTRUCTED RIFLE 34 (END)	29+70			
CONSTRUCTED RIFLE 35 (START)	30+10			
CONSTRUCTED RIFLE 35 (END)	30+70			
CONSTRUCTED RIFLE 36 (START)				
CONSTRUCTED RIFLE 36 (END)				
ROCK BOULDER J-HOOK 1				



STEWART-PROCTOR, PLLC
 ENGINEERING and SURVEYING
 319 CHAPANOKE ROAD SUITE 106
 RALEIGH, NC 27603
 TEL. 919 779-1655 FAX 919 779-1661

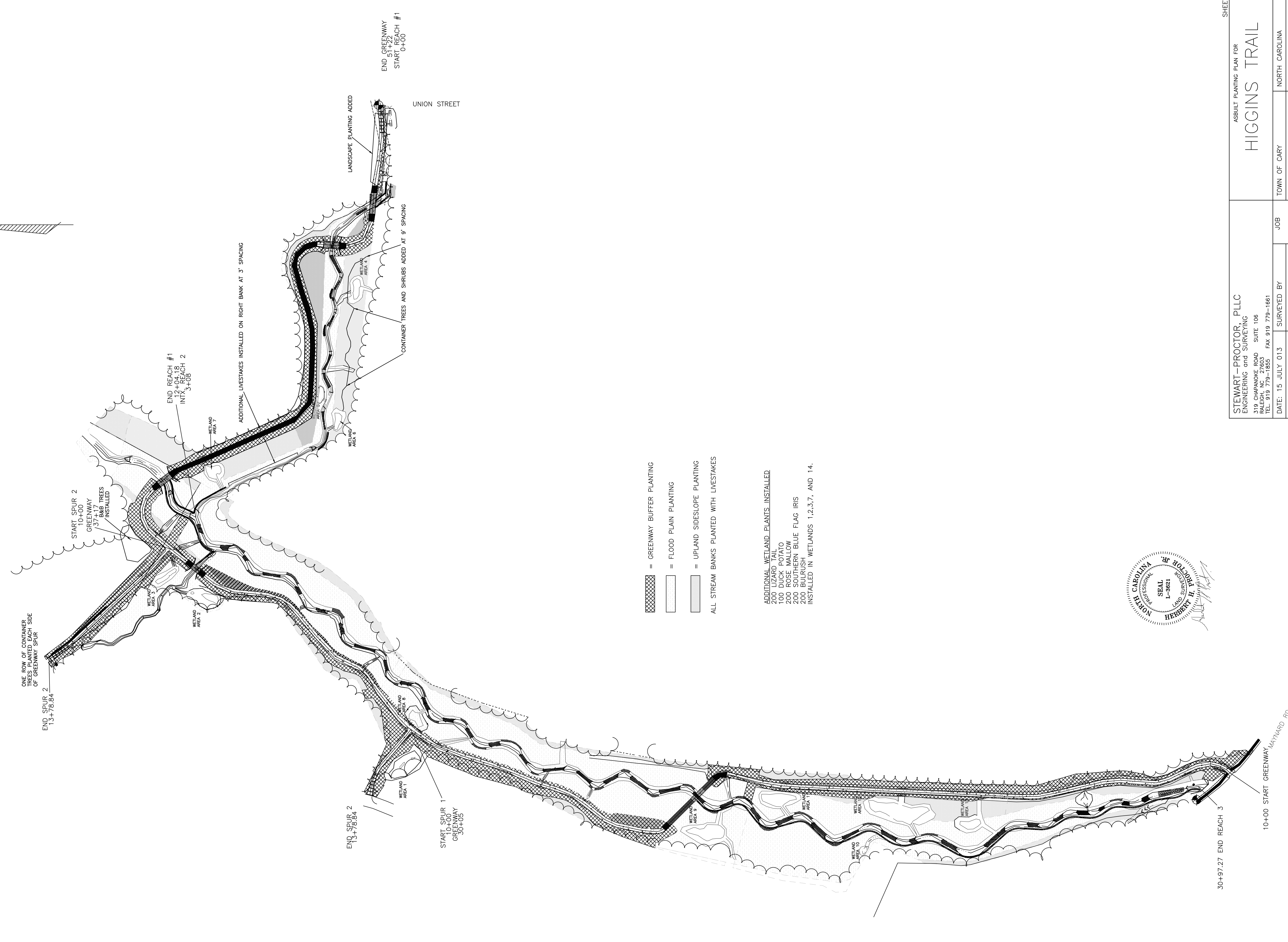
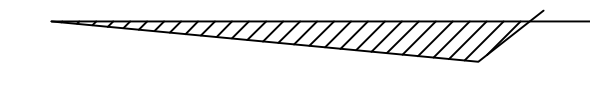
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 SCALE: 1"=100' DRAWN BY: [Blank]

ASBUILT SURVEY FOR
 HIGGINS TRAIL GREENWAY
 IMPROVEMENT AND ADJACENT
 STREAM RESTORATION
 PROJECT

TOWN OF CARY
 WAKE COUNTY
 ZONED [Blank]

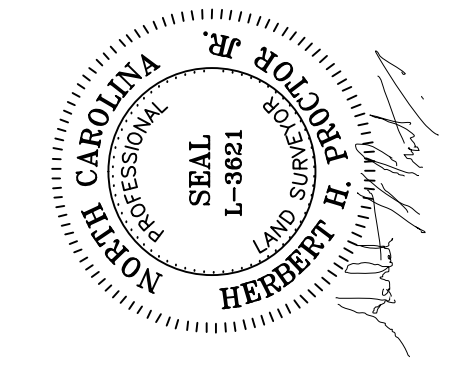
JOB DWG. NO. [Blank]
 PROJECT NUMBERS
 GG - 1051, GG - 1082, PR - 1125
 NORTH CAROLINA
 OWNER [Blank]

P.I.N. [Blank]

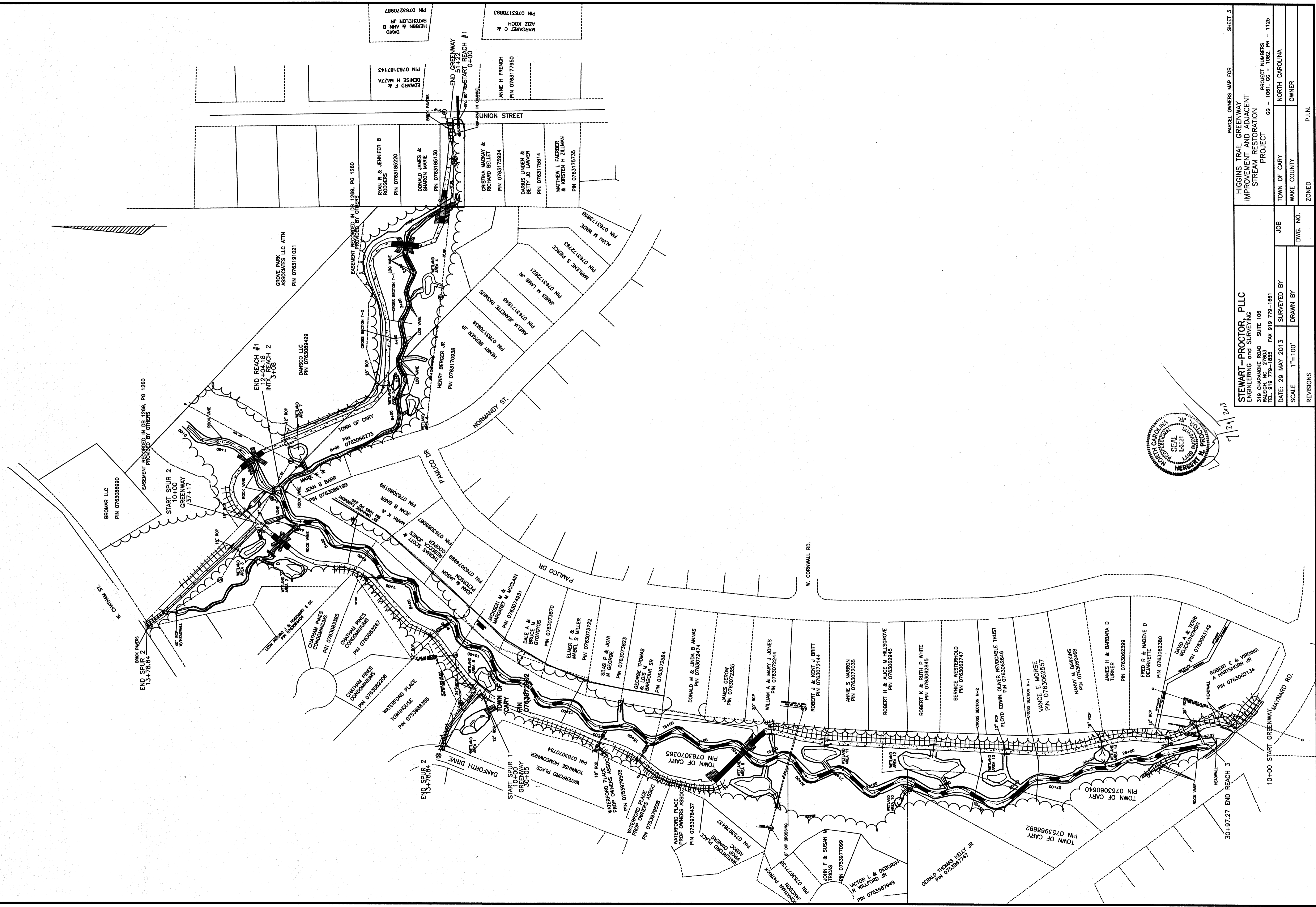


- = GREENWAY BUFFER PLANTING
- = FLOOD PLAIN PLANTING
- = UPLAND SIDESLOPE PLANTING
- ALL STREAM BANKS PLANTED WITH LIVESTAKES

ADDITIONAL WETLAND PLANTS INSTALLED
 200 LIZARD TAIL
 100 DUCK POTATO
 200 SOUTHERN BLUE FLAG IRIS
 200 BULRUSH
 INSTALLED IN WETLANDS 1, 2, 3, 7, AND 14.



STEWART-PROCTOR, PLLC ENGINEERING and SURVEYING 319 CHAPANOKE ROAD SUITE 106 RALEIGH, NC 27603 TEL. 919 779-1885 FAX 919 779-1661		ABSULT PLANTING PLAN FOR HIGGINS TRAIL	
DATE: 15 JULY 013	SURVEYED BY	JOB	TOWN OF CARY
SCALE 1"=100'	DRAWN BY	DWG. NO.	WAKE COUNTY
REVISIONS		OWNER	
		ZONED	
		P.I.N.	



PARCEL OWNERS MAP FOR SHEET 3

HIGGINS TRAIL GREENWAY IMPROVEMENT AND ADJACENT STREAM RESTORATION PROJECT

PROJECT NUMBERS 06 - 1061, 06 - 1062, PR - 1125

TOWN OF CARY

WAKE COUNTY

OWNER

PLIN.

DATE: 29 MAY 2013 SURVEYED BY

SCALE 1"=100' DRAWN BY

DWG. NO.

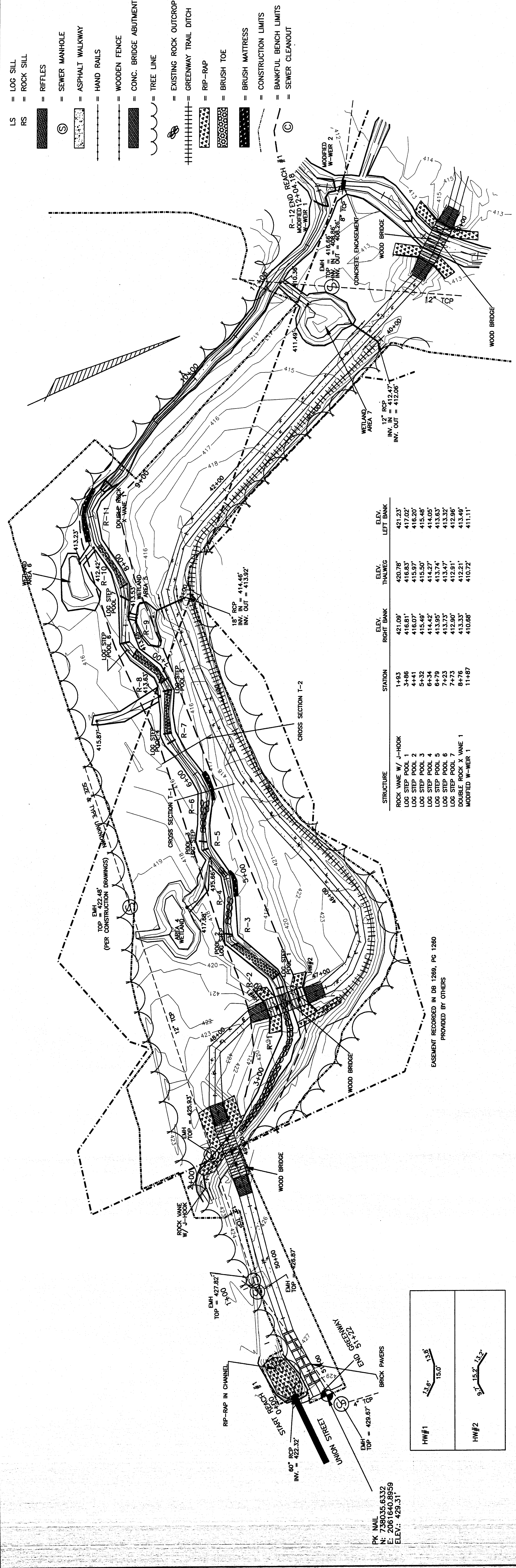
ZONED

REVISIONS

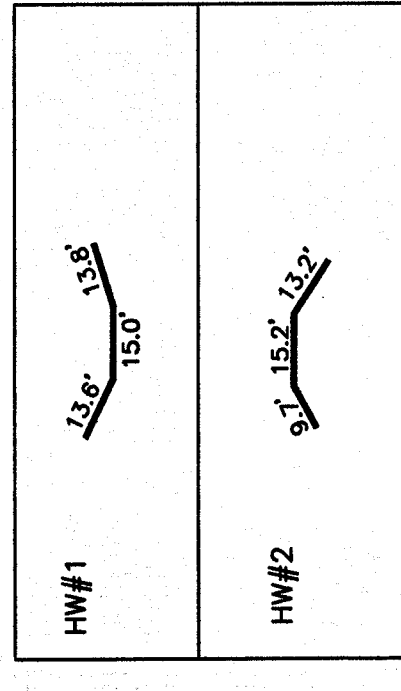
STEWART-PROCTOR, PLLC
 ENGINEERING and SURVEYING
 319 CHAPMAN ROAD SUITE 106
 RALEIGH, NC 27603
 TEL: 919 779-1855 FAX: 919 779-1661



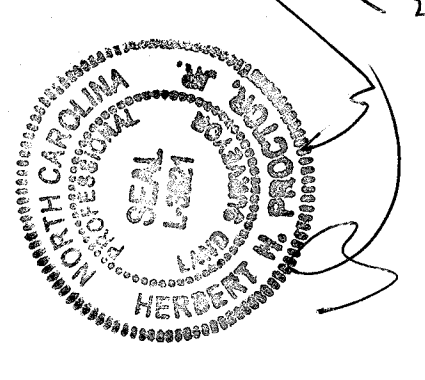
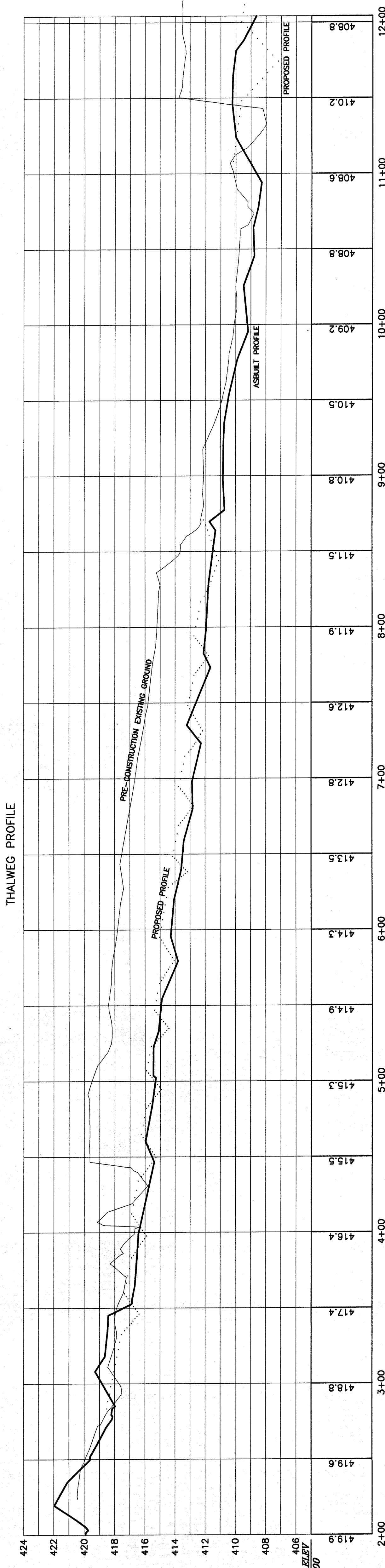
1121



STRUCTURE	STATION	ELEV. RIGHT BANK	ELEV. THALWEG	ELEV. LEFT BANK
ROCK WEIR W/ HOOK	1+93	421.87	420.78	421.37
LOG STEP POOL 1	3+86	418.81	418.83	417.02
LOG STEP POOL 2	4+41	418.07	415.97	418.20
LOG STEP POOL 3	5+32	415.48	415.50	415.48
LOG STEP POOL 4	6+34	414.42	414.27	414.05
LOG STEP POOL 5	6+79	413.95	413.74	413.63
LOG STEP POOL 6	7+23	413.73	413.47	413.32
LOG STEP POOL 7	7+72	412.90	412.91	412.96
LOG STEP POOL 8	8+25	412.55	412.55	412.55
LOG STEP POOL 9	8+72	412.55	412.55	412.55
LOG STEP POOL 10	9+18	412.55	412.55	412.55
LOG STEP POOL 11	9+65	412.55	412.55	412.55
LOG STEP POOL 12	10+12	412.55	412.55	412.55
LOG STEP POOL 13	10+59	412.55	412.55	412.55
LOG STEP POOL 14	11+06	412.55	412.55	412.55
LOG STEP POOL 15	11+53	412.55	412.55	412.55
LOG STEP POOL 16	12+00	412.55	412.55	412.55

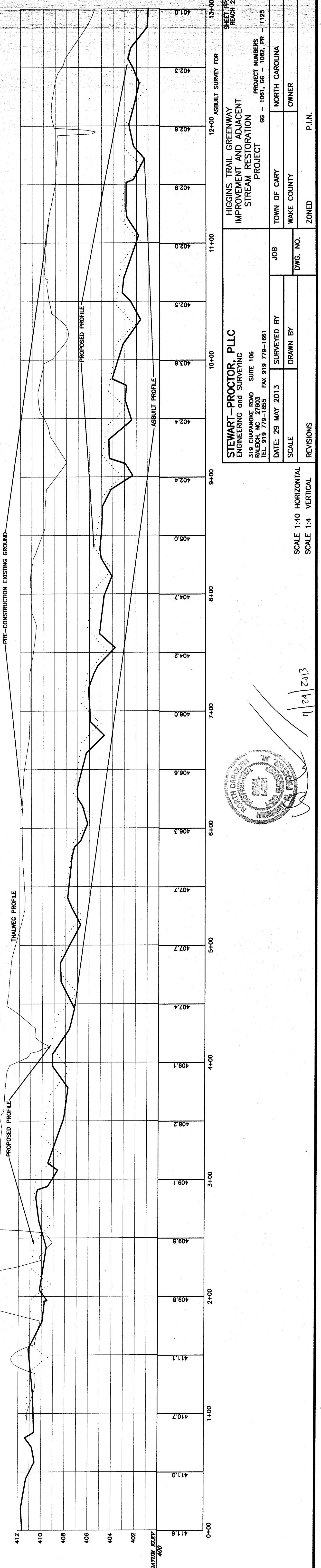
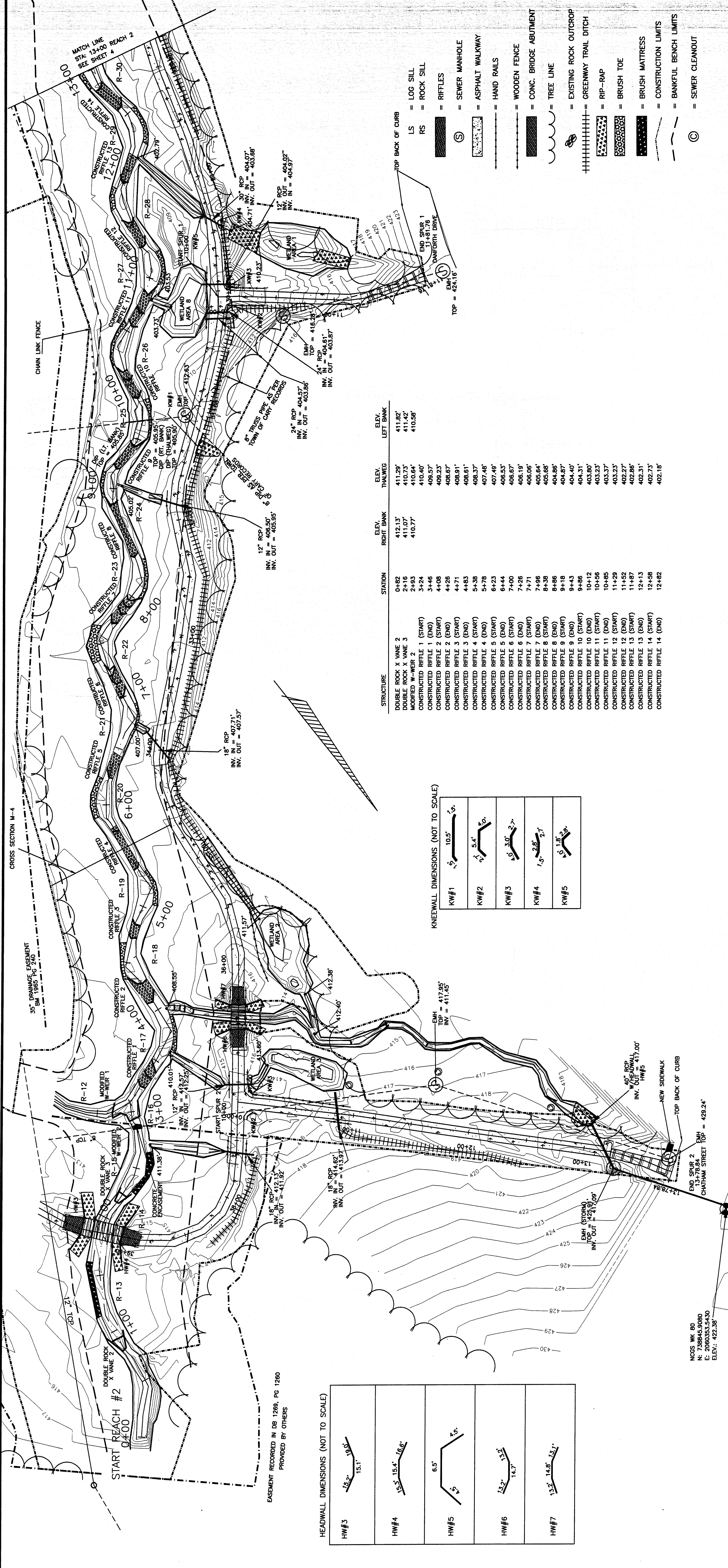


PK NAIL
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ELEV.: 429.51

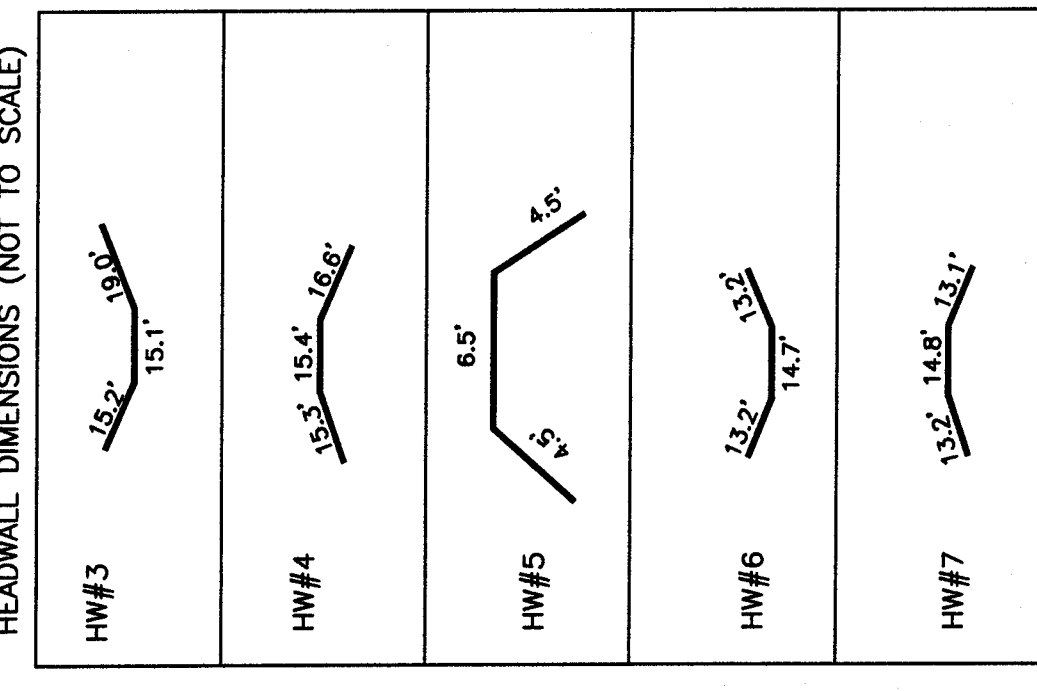
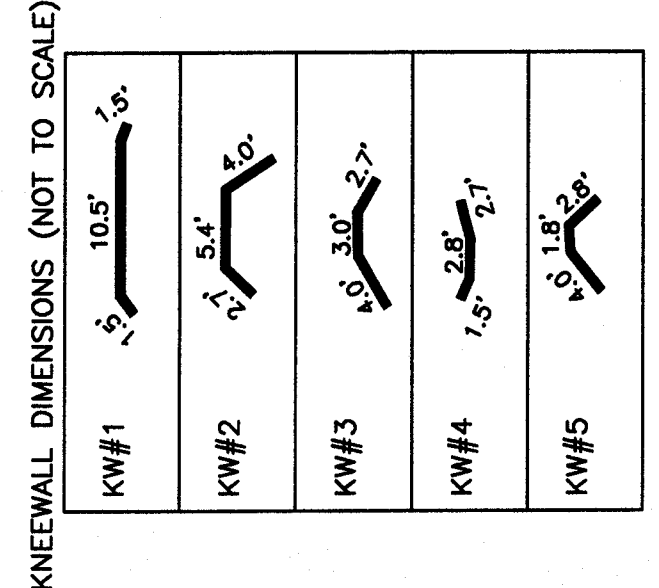


ASBUILT SURVEY FOR SHEET PFI
REACH 1
HIGGINS TRAIL GREENWAY
IMPROVEMENT AND ADJACENT
STREAM RESTORATION
PROJECT
PROJECT NUMBER
66 - 1061, 06 - 1082, PR - 1125
OWNER
NORTH CAROLINA
TOWN OF CARY
WAKE COUNTY
JOB
DWG. NO.
DATE: 29 MAY 2013
SURVEYED BY
DRAWN BY
SCALE
REVISIONS
SCALE 1:40 HORIZONTAL
SCALE 1:4 VERTICAL
P.I.N.

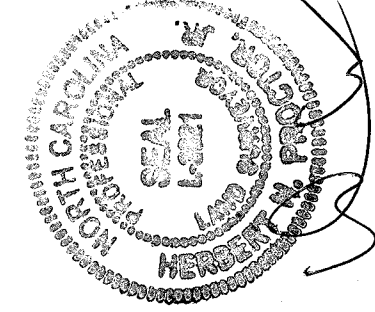
11/24/2013



STATION	ELEV. RIGHT BANK	ELEV. THALWEG	ELEV. LEFT BANK
0+82	412.13'	411.28'	411.82'
2+93	411.07'	410.73'	411.42'
3+24	410.77'	410.64'	410.58'
3+46		410.40'	
4+08		409.57'	
4+26		409.23'	
4+71		408.67'	
4+83		408.91'	
5+38		408.37'	
5+78		407.48'	
6+23		407.46'	
6+44		406.53'	
7+00		406.67'	
7+26		406.19'	
7+71		406.06'	
7+96		405.64'	
8+38		405.68'	
8+86		404.86'	
9+18		404.87'	
9+43		404.40'	
9+86		404.31'	
10+12		403.80'	
10+56		403.23'	
10+85		403.37'	
11+29		403.23'	
11+52		402.27'	
11+87		402.86'	
12+13		402.31'	
12+58		402.73'	
12+82		402.18'	



- LS = LOG SILL
- RS = ROCK SILL
- = RIFFLES
- ⊙ = SEWER MANHOLE
- ▭ = ASPHALT WALKWAY
- = HAND RAILS
- = WOODEN FENCE
- ▨ = CONC. BRIDGE ABUTMENT
- = TREE LINE
- ⊕ = EXISTING ROCK OUTCROP
- ⊕ = GREENWAY TRAIL DITCH
- ▨ = RIP-RAP
- ▨ = BRUSH TOE
- ▨ = BRUSH MATTRESS
- = CONSTRUCTION LIMITS
- = BANKFUL BENCH LIMITS
- ⊙ = SEWER CLEANOUT



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DATE: 29 MAY 2013 SURVEYED BY
 SCALE DRAWN BY
 REVISIONS

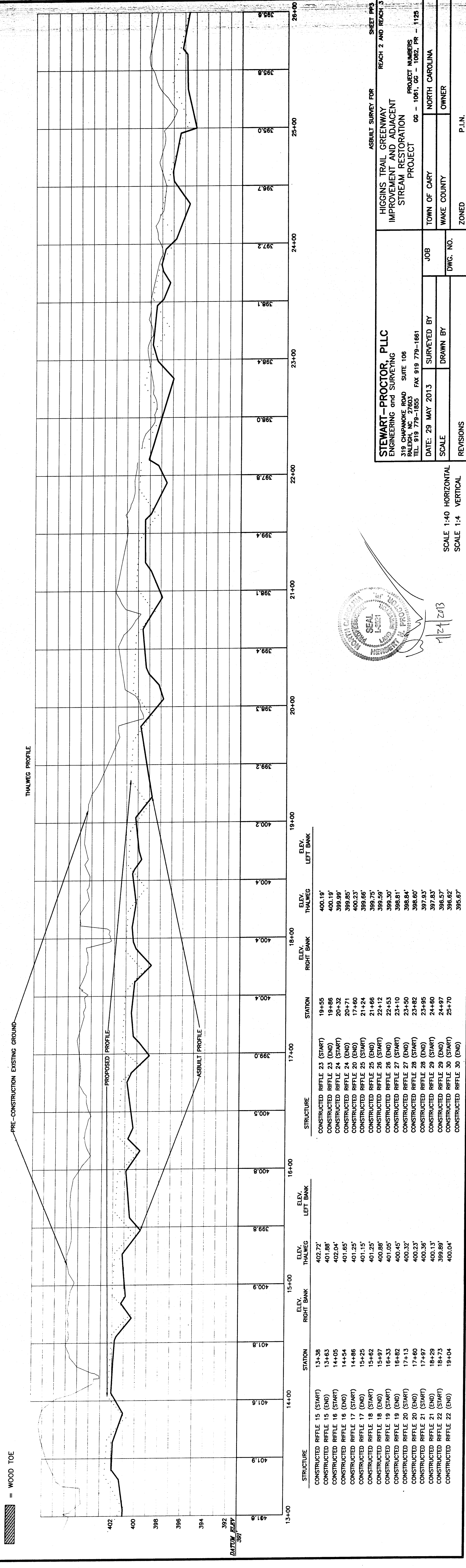
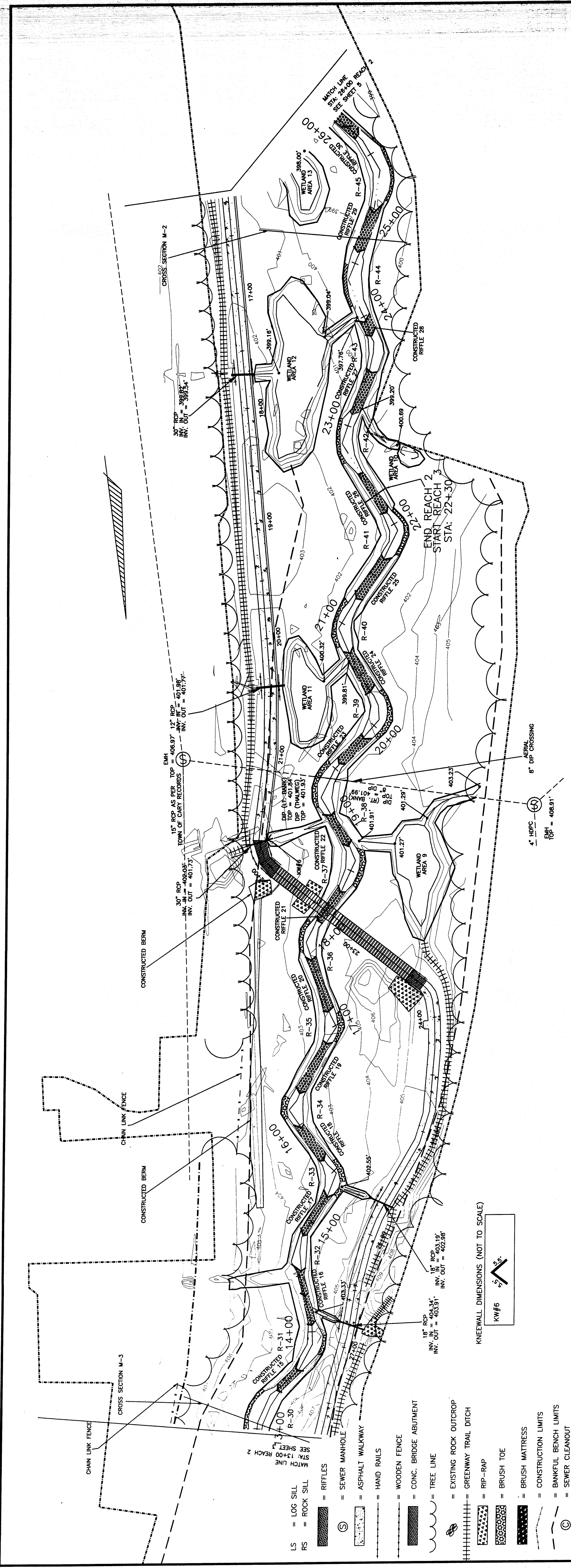
HIGGINS TRAIL GREENWAY
 IMPROVEMENT AND ADJACENT
 STREAM RESTORATION
 PROJECT NUMBER
 66 - 1061, 66 - 1082, PR - 1125

TOWN OF CARY
 WAKE COUNTY
 OWNER

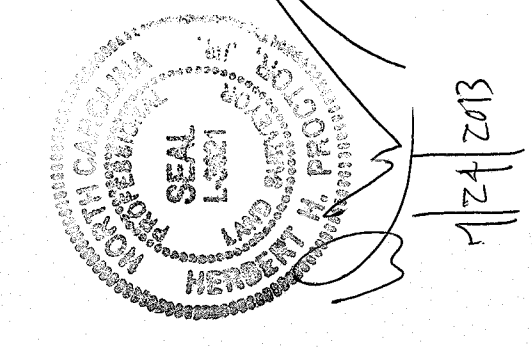
JOB
 DWG. NO.
 ZONED
 P.I.N.

SCALE 1:40 HORIZONTAL
 SCALE 1:4 VERTICAL

12420



STRUCTURE	STATION	ELEV. RIGHT BANK	ELEV. THALWEG	ELEV. LEFT BANK	STRUCTURE	STATION	ELEV. RIGHT BANK	ELEV. THALWEG	ELEV. LEFT BANK
CONSTRUCTED RIFLE 15 (START)	13+38	401.9	402.72'	400.4	CONSTRUCTED RIFLE 23 (START)	19+55	400.4	400.19'	398.6
CONSTRUCTED RIFLE 15 (END)	13+63	401.8	401.88'	400.4	CONSTRUCTED RIFLE 23 (END)	19+86	400.4	400.19'	398.6
CONSTRUCTED RIFLE 16 (START)	14+05	401.9	402.04'	400.4	CONSTRUCTED RIFLE 24 (START)	20+32	400.4	399.85'	398.6
CONSTRUCTED RIFLE 16 (END)	14+54	401.8	401.85'	400.4	CONSTRUCTED RIFLE 24 (END)	20+71	400.4	399.85'	398.6
CONSTRUCTED RIFLE 17 (START)	14+86	401.9	401.25'	400.4	CONSTRUCTED RIFLE 25 (START)	21+60	400.4	400.23'	398.6
CONSTRUCTED RIFLE 17 (END)	15+25	401.8	401.15'	400.4	CONSTRUCTED RIFLE 25 (END)	21+66	400.4	400.23'	398.6
CONSTRUCTED RIFLE 18 (START)	15+62	401.9	401.25'	400.4	CONSTRUCTED RIFLE 26 (START)	22+12	400.4	399.59'	398.6
CONSTRUCTED RIFLE 18 (END)	15+97	401.8	400.88'	400.4	CONSTRUCTED RIFLE 26 (END)	22+53	400.4	399.30'	398.6
CONSTRUCTED RIFLE 19 (START)	16+33	401.9	400.05'	400.4	CONSTRUCTED RIFLE 27 (START)	23+10	400.4	398.81'	398.6
CONSTRUCTED RIFLE 19 (END)	16+82	401.8	400.45'	400.4	CONSTRUCTED RIFLE 27 (END)	23+50	400.4	398.84'	398.6
CONSTRUCTED RIFLE 20 (START)	17+13	401.9	400.32'	400.4	CONSTRUCTED RIFLE 28 (START)	24+82	400.4	398.60'	398.6
CONSTRUCTED RIFLE 20 (END)	17+60	401.8	400.23'	400.4	CONSTRUCTED RIFLE 28 (END)	24+85	400.4	397.83'	398.6
CONSTRUCTED RIFLE 21 (START)	17+87	401.9	400.35'	400.4	CONSTRUCTED RIFLE 29 (START)	24+97	400.4	398.57'	398.6
CONSTRUCTED RIFLE 21 (END)	18+29	401.8	399.89'	400.4	CONSTRUCTED RIFLE 29 (END)	25+70	400.4	398.62'	398.6
CONSTRUCTED RIFLE 22 (START)	18+73	401.9	400.04'	400.4	CONSTRUCTED RIFLE 30 (START)	25+70	400.4	395.67'	398.6
CONSTRUCTED RIFLE 22 (END)	19+04	401.8	400.04'	400.4	CONSTRUCTED RIFLE 30 (END)	25+70	400.4	395.67'	398.6

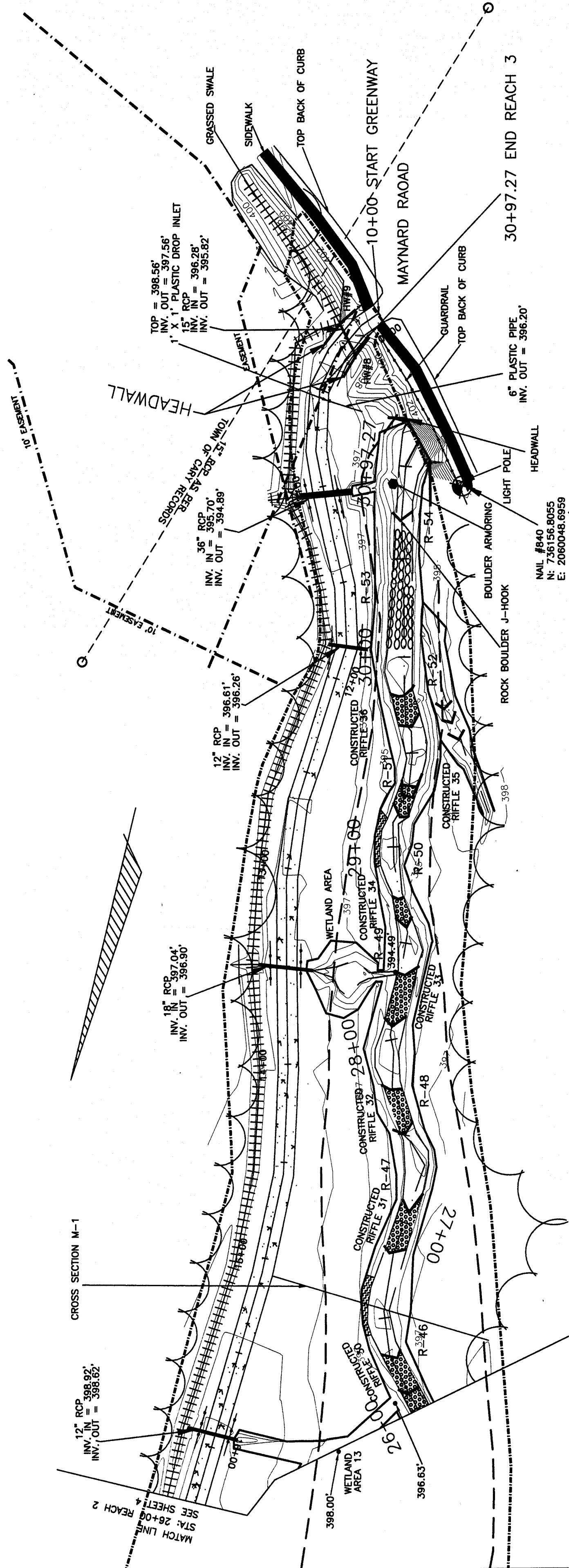


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HIGGINS TRAIL GREENWAY
 IMPROVEMENT AND ADJACENT
 STREAM RESTORATION
 PROJECT NUMBER
 06 - 1061, 05 - 1062, 04 - 1125

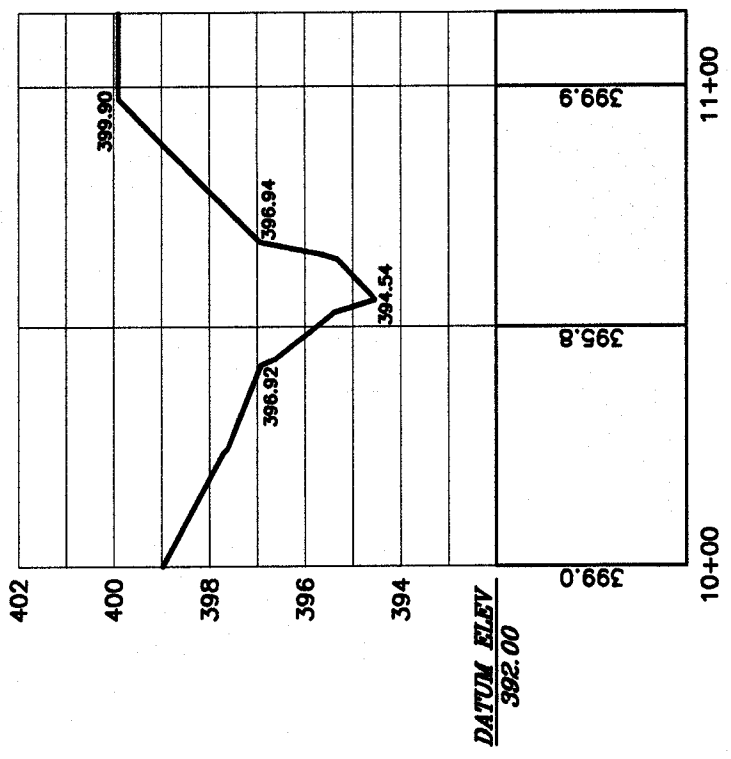
DATE: 29 MAY 2013 SURVEYED BY
 SCALE DRAWN BY
 JOB DWG. NO.
 TOWN OF CARY WAKE COUNTY ZONED
 OWNER
 P.I.N.

SCALE 1:40 HORIZONTAL
 SCALE 1:4 VERTICAL

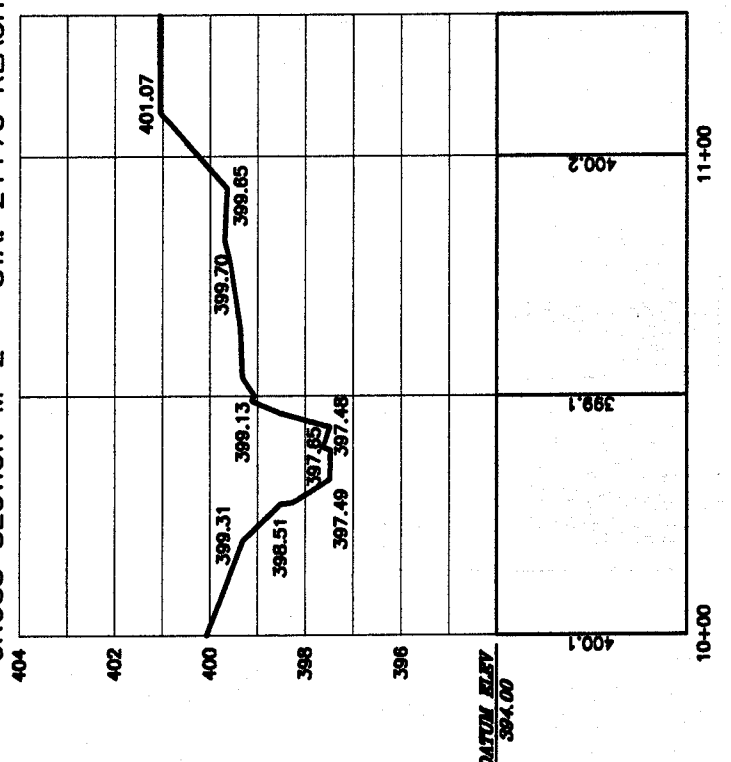


STRUCTURE	STATION	ELEV. RIGHT BANK	ELEV. THALWEG	ELEV. LEFT BANK
CONSTRUCTED RIFLE 30 (END)	26+31		395.67	
CONSTRUCTED RIFLE 31 (START)	26+83		395.23	
CONSTRUCTED RIFLE 31 (END)	27+06		394.94	
CONSTRUCTED RIFLE 32 (START)	27+50		394.96	
CONSTRUCTED RIFLE 32 (END)	27+75		394.67	
CONSTRUCTED RIFLE 33 (START)	28+07		394.40	
CONSTRUCTED RIFLE 33 (END)	28+34		393.92	
CONSTRUCTED RIFLE 34 (START)	28+58		393.45	
CONSTRUCTED RIFLE 34 (END)	28+73		393.35	
CONSTRUCTED RIFLE 35 (START)	29+17		393.27	
CONSTRUCTED RIFLE 35 (END)	29+27		393.28	
CONSTRUCTED RIFLE 36 (START)	29+54		392.54	
CONSTRUCTED RIFLE 36 (END)	29+80		392.54	
ROCK BOULDER J-HOOK	30+70	391.98		391.72

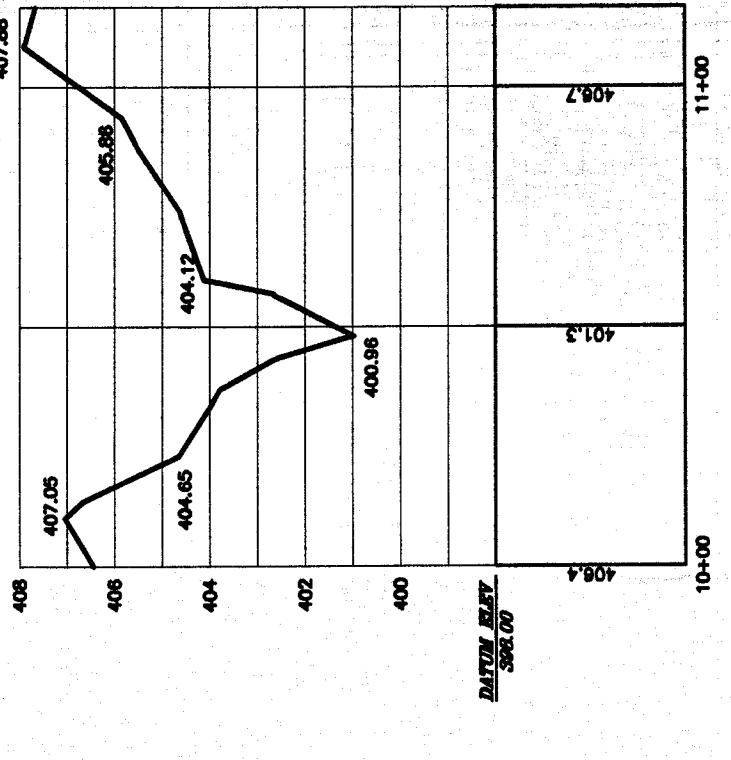
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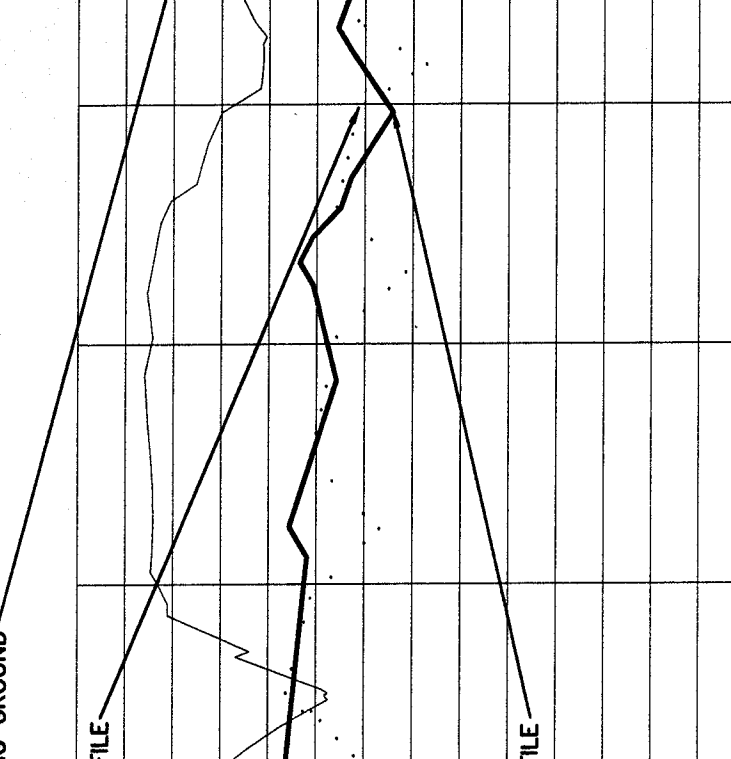
CROSS SECTION M-2 - STA: 24+73 REACH 3



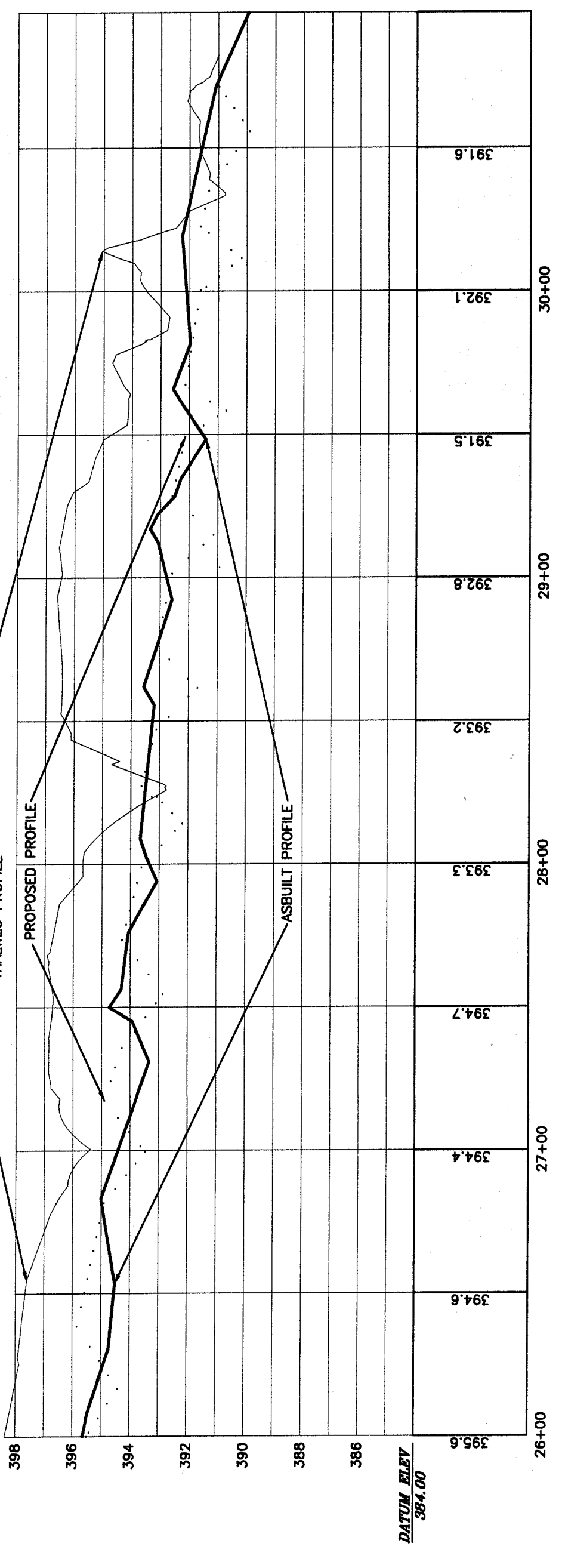
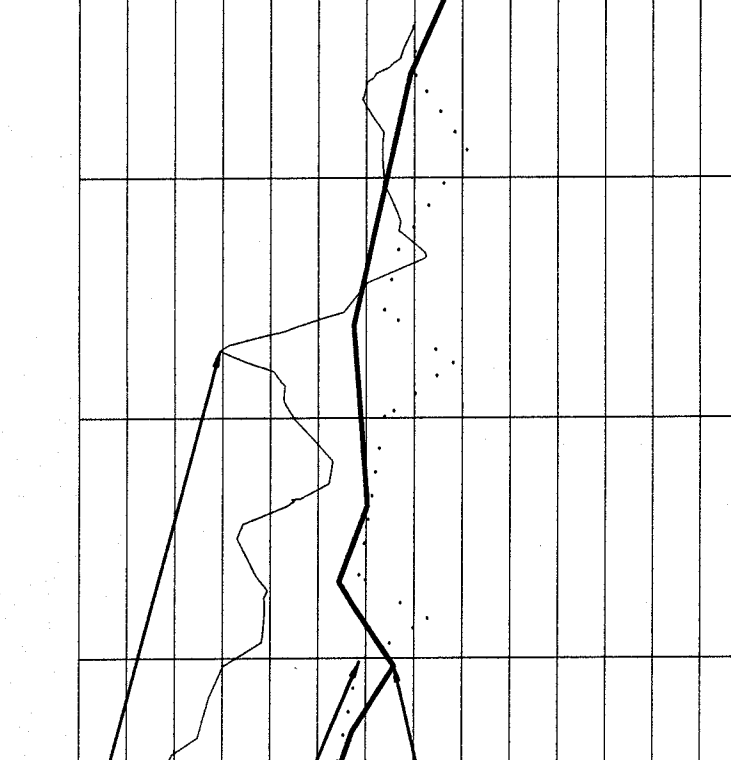
CROSS SECTION M-3 - STA: 13+05 REACH 2



CROSS SECTION T-1 - STA: 5+82 REACH 1



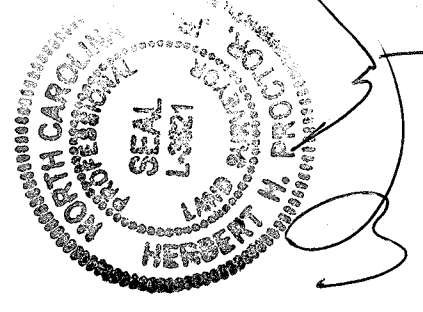
CROSS SECTION T-2 - STA: 6+22 REACH 1



HEADWALL DIMENSIONS (NOT TO SCALE)

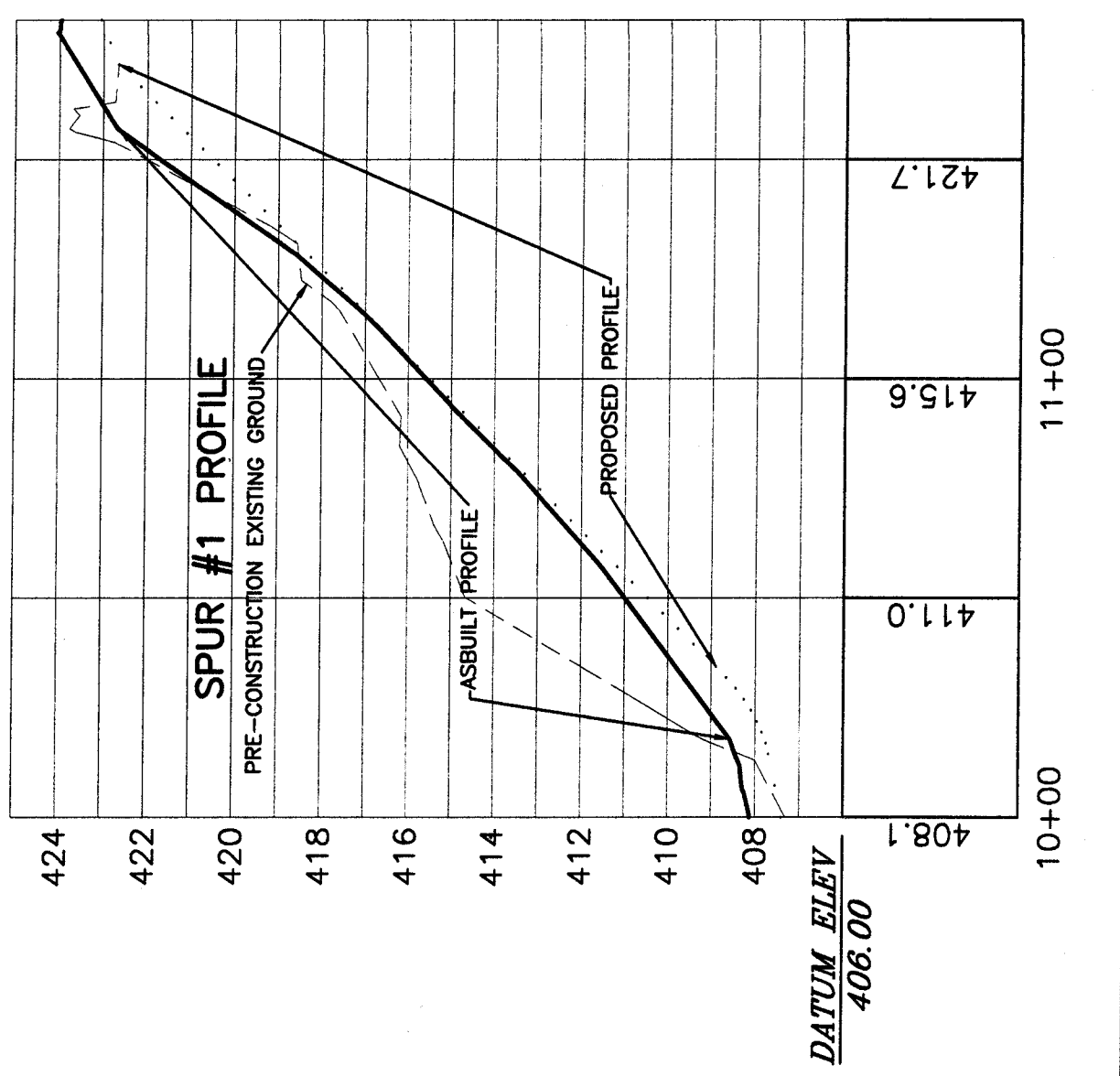
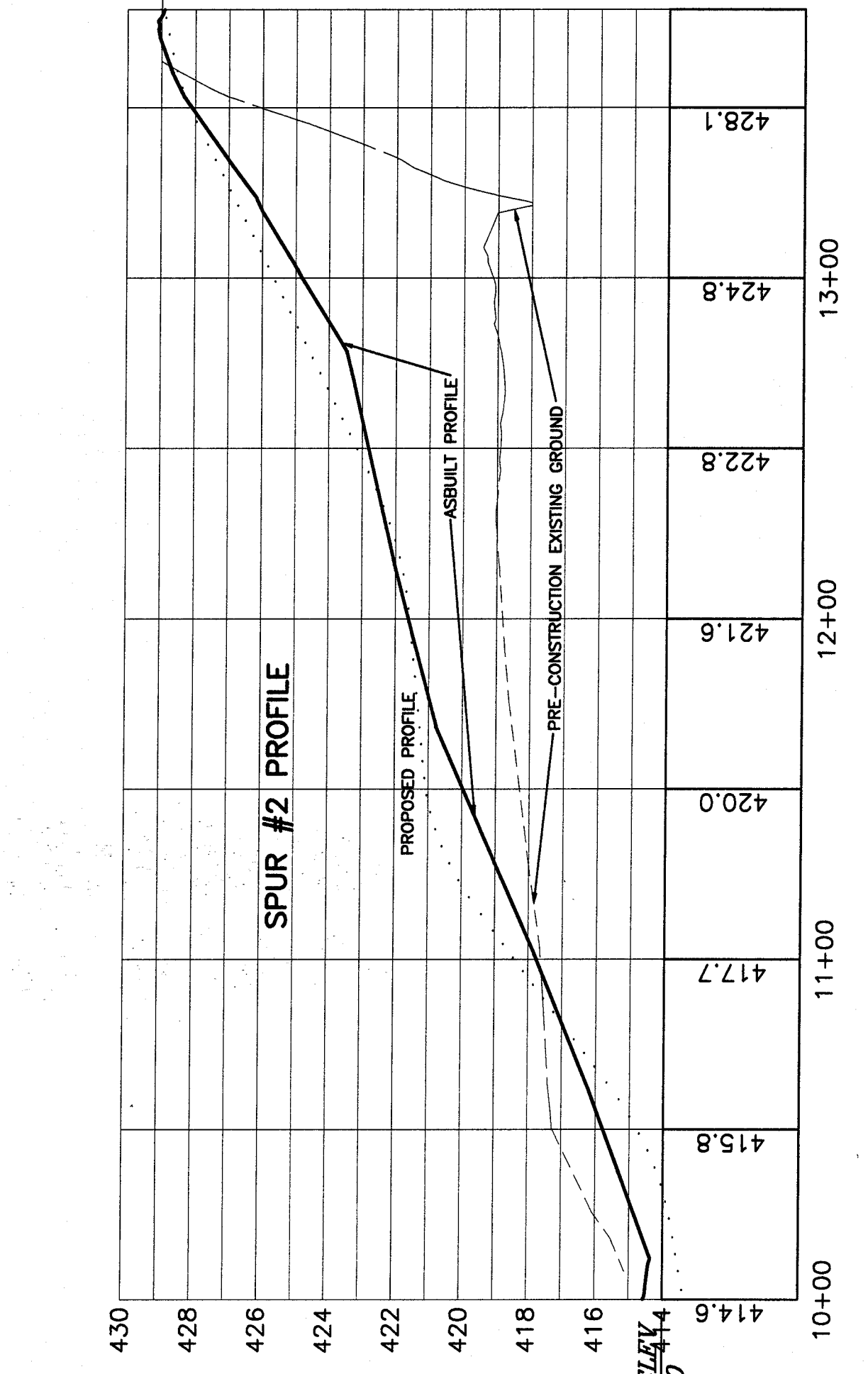
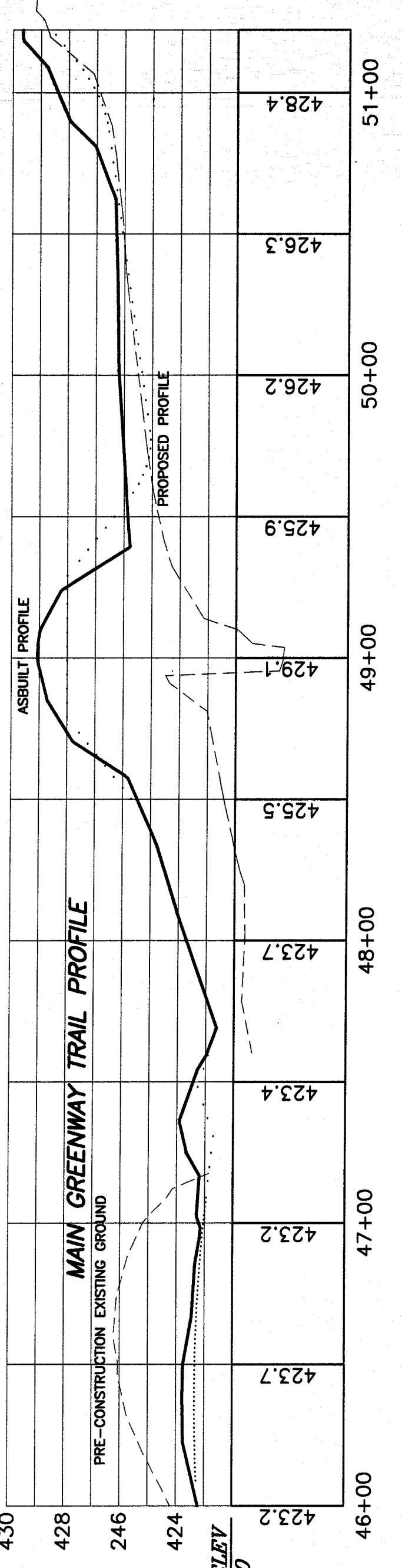
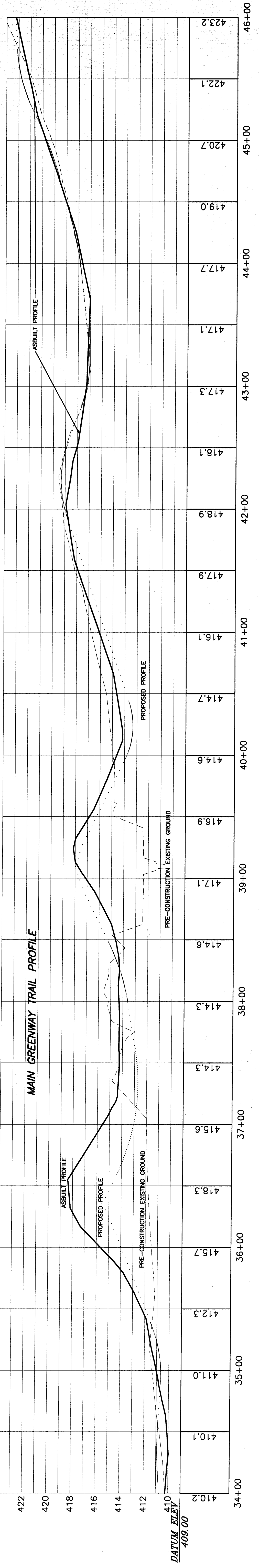
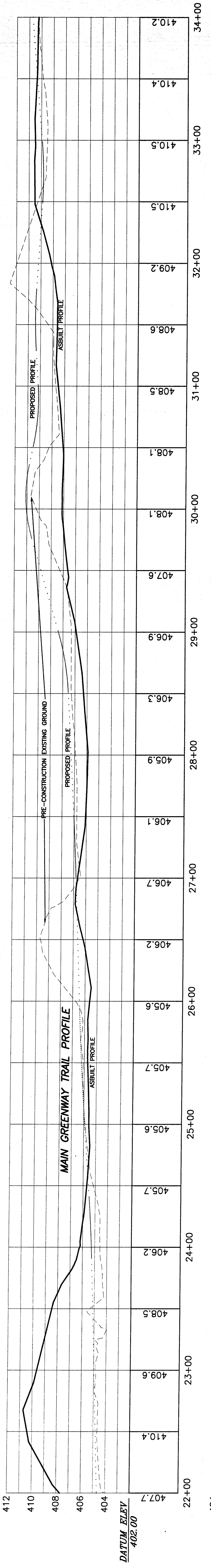
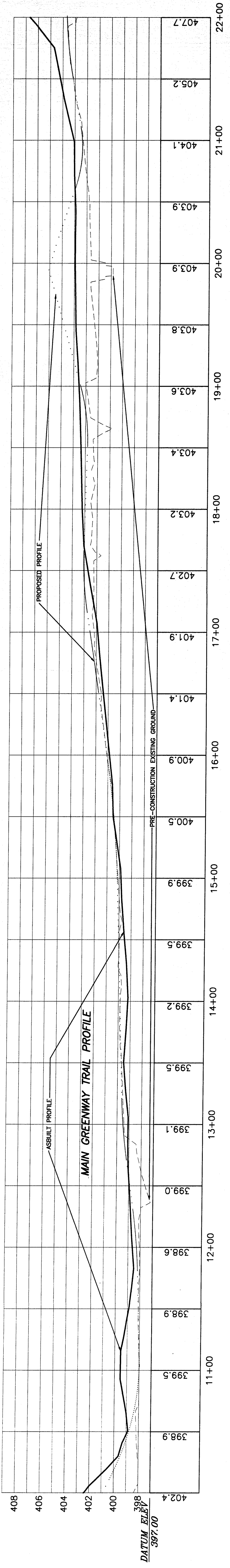
HW#8	12.7'	11.4'
HW#9	12.9'	10.7'

- LS = LOG SILL
- RS = ROCK SILL
- [Symbol] = RIFLES
- [Symbol] = SEWER MANHOLE
- [Symbol] = ASPHALT WALKWAY
- [Symbol] = HAND RAILS
- [Symbol] = WOODEN FENCE
- [Symbol] = CONC. BRIDGE ABUTMENT
- [Symbol] = TREE LINE
- [Symbol] = EXISTING ROCK OUTCROP
- [Symbol] = GREENWAY TRAIL DITCH
- [Symbol] = RIP-RAP
- [Symbol] = BRUSH TOE
- [Symbol] = BRUSH MATRESS
- [Symbol] = CONSTRUCTION LIMITS
- [Symbol] = BANKFUL BENCH LIMITS
- [Symbol] = SEWER CLEANOUT
- [Symbol] = WOOD TOE

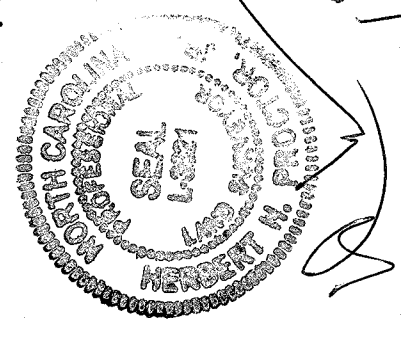


ASBUILT SURVEY FOR SHEET #P4
HICGINS TRAIL GREENWAY REACH 3 AND CROSS SECTIONS IMPROVEMENT AND ADJACENT STREAM RESTORATION PROJECT
STEWART-PROCTOR, PLLC
 ENGINEERING and SURVEYING
 319 CHAMPAGNE ROAD SUITE 106
 WAKE FOREST, NC 27708
 TEL: 919-779-1885 FAX: 919-779-1661
 PROJECT NUMBERS: GS - 1061, GS - 1082, PR - 1125
 TOWN OF CARY
 WAKE COUNTY
 OWNER
 ZONED
 P.I.N.
 DATE: 29 MAY 2013 SURVEYED BY
 SCALE: 1"=40' DRAWN BY
 JOB
 DWG. NO.
 REVISIONS
 SCALE 1:40 HORIZONTAL
 SCALE 1:4 VERTICAL

7/24/2013



FOR PLAN VIEW SEE SHEETS PP1-PP4



11/24/2013

STEWART-PROCTOR, PLLC ENGINEERING and SURVEYING 319 CHAPPAHOKE ROAD SUITE 106 RALEIGH, NC 27603 TEL: 919 779-1855 FAX: 919 779-1861		HIGGINS TRAIL GREENWAY IMPROVEMENT AND ADJACENT STREAM RESTORATION PROJECT	
DATE: 29 MAY 2013	SURVEYED BY	TOWN OF CARY	OWNER
SCALE: 1"=40'	DRAWN BY	WAKE COUNTY	ZONED
SCALE 1:40 HORIZONTAL		SCALE 1:4 VERTICAL	
P.I.N.		P.I.N.	