

**BASIS OF BEARINGS**

N 01°28'52" W ALONG LARCH ST. CENTERLINE AS SHOWN ON SURVEY VOLUME 6 PAGE 295.  
NOTE: THERE SHALL BE AN EXCLUSIVE CUT UTILITY EASEMENT CORRESPONDING TO ALL PRIVATE ROADS WITHIN THIS PLAN.

**CONSTRUCTION NOTES**

- EXISTING UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. CONTRACTOR SHALL NOTIFY THE UNDERGROUND UTILITY LOCATION CENTER 48 HRS. IN ADVANCE OF ANY CONSTRUCTION.
- CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS, METHODS & TECHNIQUES OF CONSTRUCTION AS WELL AS MAINTAINING A SAFE WORK PLACE FOR ALL CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL CONTROL DUST IN ACCORDANCE WITH LOCAL AIR POLLUTION CONTROL AGENCY AND DEPT. OF ECOLOGY.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL PERMIT REQUIREMENTS.
- PLACE MARKINGS SHOWN PER CITY STD.
- CONTRACTOR SHALL PROVIDE OWNER WITH ONE SET OF PLANS SHOWING ALL CHANGES FROM THE APPROVED DESIGN DIMENSIONS AND ELEVATIONS FOR USE IN PREPARING CONSTRUCTION RECORD DRAWINGS.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO COMPLY WITH THE FOLLOWING CITY STD DETAILS (SHOWN ON SHEETS 11 & 12):
- 110.09 TYPICAL PAVED SIDEWALKS (LOCAL & COLLECTION STREETS)
- 110.08 ADA COMPLIANT T.E. 24 X 36
- 210.02 PAVED SIDEWALKS (LOCAL & COLLECTION STREETS)
- 210.03 PAVED SIDEWALKS (LOCAL & COLLECTION STREETS)
- 210.09 TRUNK BLOCK NOTES
- 210.10 TRUNK BLOCK CALCULATION TABLES
- 310.01 SANITARY SEWER SERVICE CONNECTION
- 310.02 SANITARY SEWER SERVICE CONNECTION
- 310.03 TRUNK BLOCK SERVICE CONNECTION
- 310.04 TRUNK BLOCK SERVICE CONNECTION

**SEWER & STORM WATER NOTES**

- CONTRACTOR'S ATTENTION IS DIRECTED TO CITY STD PLAN 310.00, SANITARY & STORM SEWER NOTES.
- ALL SANITARY SEWER AND STORM WATER FACILITIES TO BE PROVIDED. SEWER AND STORM SEWER PIPE TO BE 30" DIA. PVC IN 1.5' JOINTS. THE CONTRACTOR SHALL CHANGE SANITARY SEWER PIPE WITHIN 5 FT (UNLESS NOTED OTHERWISE) TO 18" DIA. PVC IN 1.5' JOINTS. THE EXTERIOR OF ALL MANHOLES SHALL BE COATED WITH MASTIC-TYPE SEALANT OR APPROVED EQUAL.
- TRUNK EXHAUSTION & BACKFLOW SHALL BE IN CONFORMANCE WITH CITY OF COLLEGE PLACE STD PLAN NO. 310.01 & 310.07.
- ALL PIPE SHALL BE FULLY BEGGED WITH A MINIMUM OF 4" UNBURIED PIPE AND 6" OVER PIPE WITH MATERIALS PER THE STANDARD SPECIFICATIONS OR AS APPROVED BY CITY ENGINEER PRIOR TO USE.
- SEWER SERVICE LINES ARE 4". SERVICE LATERALS SHALL BE FULLY BEGGED AND INSTALLED AT 2% MINIMUM GRADE.
- MANHOLE CONSTRUCTION IN ACCORDANCE WITH CITY OF COLLEGE PLACE STD PLAN NO. 310.01 & 310.06. THE EXTERIOR OF ALL MANHOLES SHALL BE COATED WITH MASTIC-TYPE SEALANT OR APPROVED EQUAL.
- SANITARY SEWER MANHOLES SHALL BE VACUUM TESTED FOR LEAKAGE PER ASTM-D244 AS REFERENCED IN C-18.9 OF THE MS DEPT OF ECOLOGY ORDER FOR SERVICE WORKS DESIGN MANUAL.
- SEWER SERVICE CONNECTIONS SHALL BE IN ACCORDANCE WITH CITY OF COLLEGE PLACE STD PLAN 310.03.
- END OF ALL SEWER STUBS SHALL BE LOCATED AND MARKED WITH A STEEL FENCE POST AND 12 GA COPPER TAPKOP WIRE.
- 24" MANHOLES SHALL BE PER DETAIL SHEET 11.
- CONTRACTOR SHALL CONTROL REQUIRED RETENTION FROM TREATMENT SOIL THICKNESSES AT THE DIRECTION OF THE CITY.
- CITY TO INSTALL METERS.
- CONTRACTOR SHALL STEER SIGHT LINE MARKERS FROM THE LINE SEPARATING FROM NON-APPROPRIATE LINES AND SERVICES ARE LESS THAN 10' HORIZONTAL AND 10' VERTICAL DISTANCE. SIGNING SHALL CONFORM TO DETAIL SHEET 6.

**WATER NOTES**

- THE CONTRACTOR'S ATTENTION IS DIRECTED TO CITY STD PLAN 310.00, WATER UTILITY SYSTEM NOTES, SHEET 11.
- WATER LINES TO BE 4" DIA. DUCTILE IRON.
- MINIMUM 30" COVER OVER PIPE. COMPACT SHOULDER TO 95% MINIMUM DENSITY PER ASTM D-1558.
- FIRE HYDRANTS TO BE PER CITY OF COLLEGE PLACE STANDARD 210.02. BELOW-OFF TO BE CITY OF WALLA WALLA STD 4-7.
- WATER SERVICES TO BE 1" COPPER WITH COPR STOP AT MAIN AND CURE STOP AT PROPERTY LINE OR 1" CSF POLYETHYLENE WITH SS BERRITS AT FITTINGS.
- INSPECT & TEST PER LATEST EDITION OF AWWA STANDARD. A MINIMUM OF 4 BACT TESTS ARE REQUIRED FOR THIS PROJECT.
- TRUNK BLOCK ALL FITTINGS IN ACCORDANCE WITH CITY STD 210.00-210.11, ADDITIONALLY, ALL BENDS SHALL BE WITH WELD-LIKE FITTINGS WITH FIELD LOCK JOINTS. ALL JOINTS SHALL BE MECHANICALLY RESTRAINED WITH FIELD LOCK JOINTS AND WELDED JOINTS.
- CONTRACTOR TO SUBMIT WASTEWATER FLUSHING PLAN FOR APPROVAL. CITY OF COLLEGE PLACE STD PLAN NO. 310.01.
- CHANGING WATER IS NOT FLUSHED INTO GARRISON CREEK.
- ALL BURIED FIREPROOFERS AND WATER SERVICE LINES FROM THE MAIN ARE PRIVATE.
- WATER SERVICES PARALLEL TO FOUNDATION SHALL BE OUTSIDE 1:1 LINE DRAWN FROM BOTTOM OF FOUNDATION.
- CITY TO INSTALL METERS.
- CONTRACTOR SHALL STEER SIGHT LINE MARKERS FROM THE LINE SEPARATING FROM NON-APPROPRIATE LINES AND SERVICES ARE LESS THAN 10' HORIZONTAL AND 10' VERTICAL DISTANCE. SIGNING SHALL CONFORM TO DETAIL SHEET 6.

**IRRIGATION NOTES**

- IRRIGATION PIPE TO BE SCH 40 PVC. ALL IRRIGATION PIPE IS PRIVATE.
- IRRIGATION WATER OFF TAKEOFF SHALL BE 4".
- IRRIGATION LETTER AND DOWN SHALL BE 2" PER DETAIL.
- STOP-OFFS FOR EACH LOT SHALL BE 1" WITH BALL VALVE AND VALVE BOX.

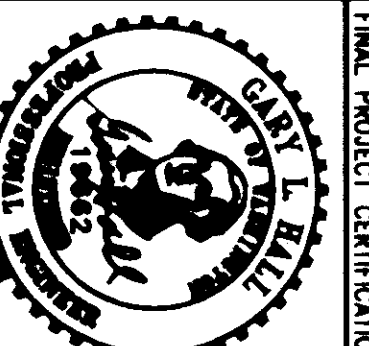
**UTILITIES**

- WELLS: CONTRACTOR SHALL LOCATE TRUNK AND BRANCH COORDINATE FOR BEST ACCESS TO THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.
- CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL. CONTRACTOR SHALL VERIFY THE LOCATION OF THE WELL AND THE DEPTH OF THE WELL.

**RECORD DRAWING**

NOTICE: THIS DRAWING IS BASED ON INFORMATION PROVIDED BY OTHERS. HALL ENGINEERING ASSOCIATES HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN.

NOTE: THESE ELEVATIONS SHOWN IN THIS PLAN ARE BASED ON THE 1985 MEAN SEA LEVEL DATUM. THE 1985 MEAN SEA LEVEL DATUM IS THE DATUM USED FOR ALL ELEVATIONS SHOWN IN THIS PLAN. THE 1985 MEAN SEA LEVEL DATUM IS THE DATUM USED FOR ALL ELEVATIONS SHOWN IN THIS PLAN. THE 1985 MEAN SEA LEVEL DATUM IS THE DATUM USED FOR ALL ELEVATIONS SHOWN IN THIS PLAN.



FINAL PROJECT CERTIFICATION

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	P/P SE GREENDALE DR
3	P/P SE COLLENDRE DR
4	P/P ALIGNMENT A
5	ALTERNATE SE NUTTALL DR/ALETT B SEWER
6	GRADING PLAN & POND SECTIONS
7	DETAILS
8	EOP CURVES & SIGN PLAN
9	REVISED EROSION CONTROL PLAN
10	CITY SPECIFICATIONS
11	CITY DETAILS
12	COMPACTION TESTING

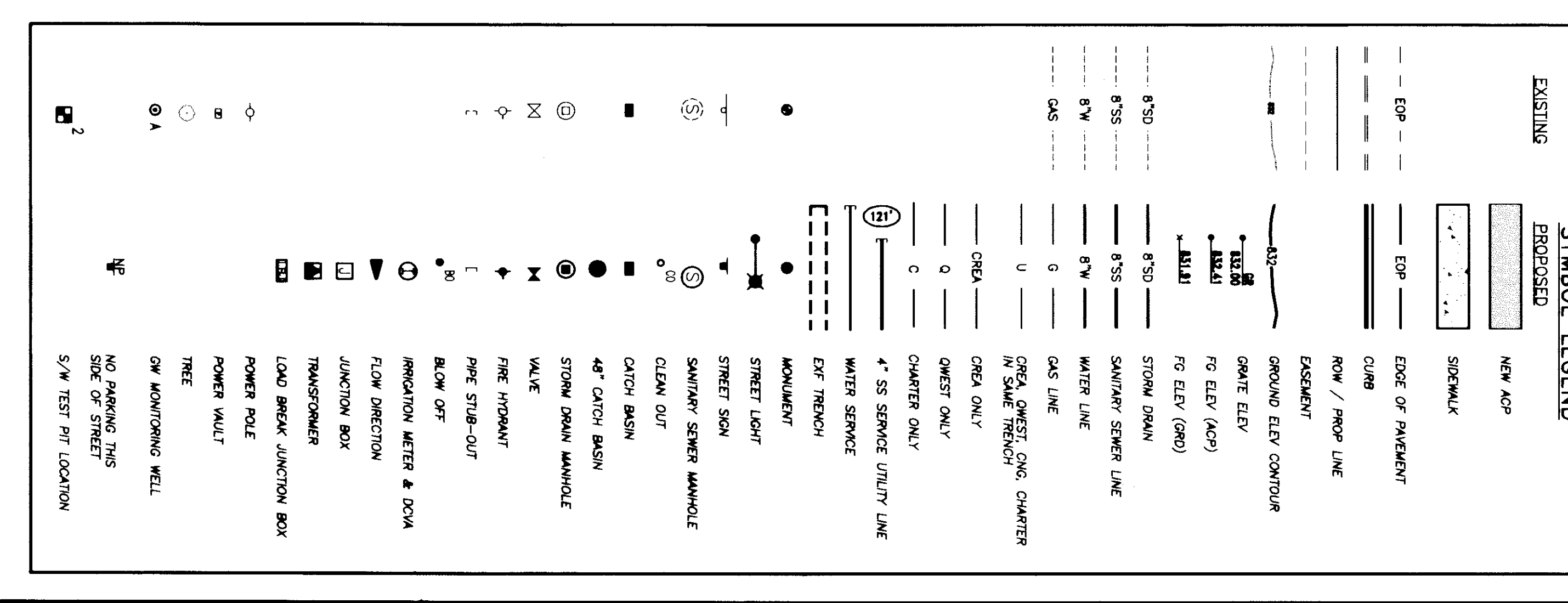
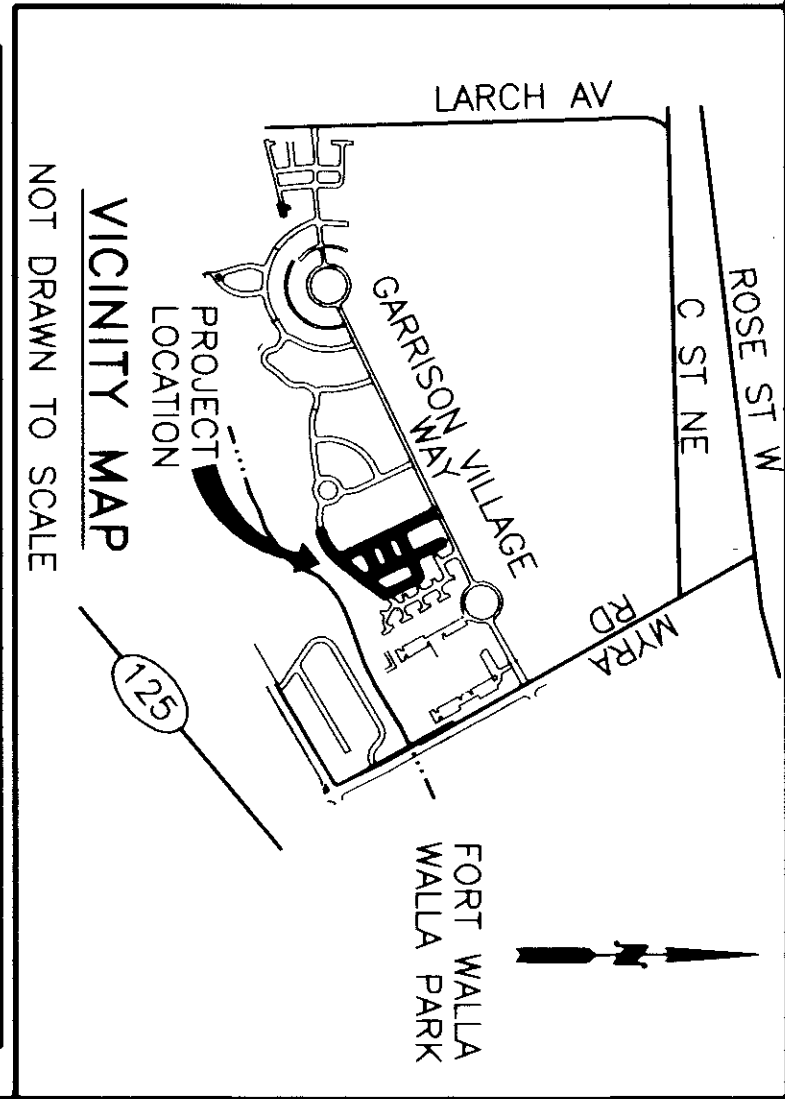
**PHASE FIVE DEVELOPMENT, LLC**  
INFORMATION PROVIDED BY USKH

**SHEET 1 OF 12**

**VILLAGES AT GARRISON CREEK PHASE VIII RECORD DRAWINGS**  
COVER SHEET

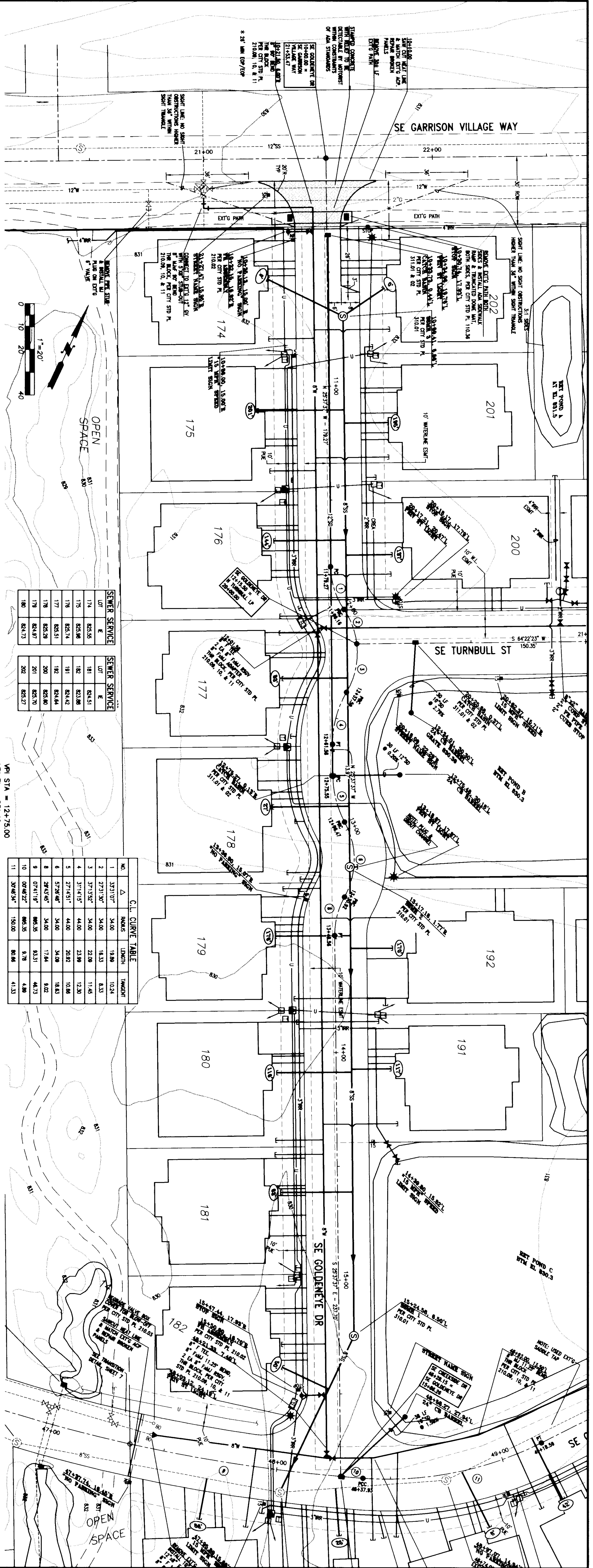
DATE: 08-10-10  
DRAWN BY: ALB  
DWG. NO.: 061-0115

**HALL ENGINEERING ASSOCIATES**  
10 SOUTH MAIN ST., WENDELL, WA 98590  
(509) 525-2200 • FAX (509) 586-2877



**HALL ENGINEERING ASSOCIATES**  
10 SOUTH MAIN ST., WENDELL, WA 98590  
(509) 525-2200 • FAX (509) 586-2877



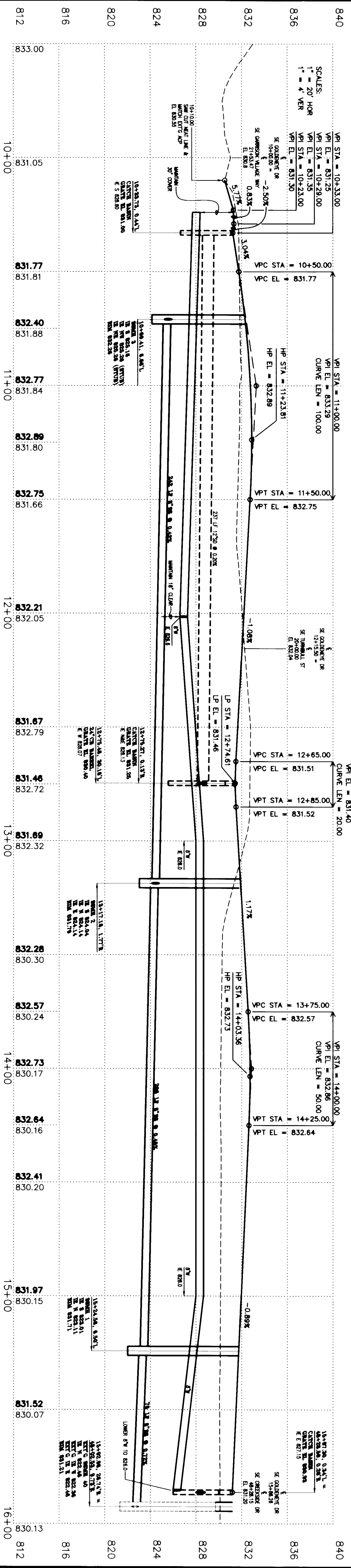


**SEWER SERVICE**

LOT	E	E
174	828.56	828.56
175	828.56	828.56
176	828.56	828.56
177	828.56	828.56
178	828.56	828.56
179	828.56	828.56
180	828.56	828.56
181	828.56	828.56
182	828.56	828.56
191	828.56	828.56
192	828.56	828.56

**C.L. CURVE TABLE**

NO.	Δ	RADIUS	LENGTH	TANGENT
1	33°31'07"	34.00	19.89	10.24
2	27°31'30"	34.00	18.33	8.33
3	37°13'52"	34.00	22.08	11.46
4	31°14'15"	44.00	23.89	12.30
5	27°14'51"	44.00	20.92	10.86
6	57°26'46"	34.00	17.64	18.83
7	28°43'46"	34.00	17.64	9.02
8	07°41'18"	666.35	83.31	44.73
9	07°46'22"	666.35	87.78	48.88
10	07°46'22"	150.00	80.86	41.33
11	30°46'34"	150.00	80.86	41.33



**PROFILE LEGEND**  
 --- EXISTING GROUND  
 --- EXISTING & PROPOSED GRADE

**EXT'G. & ELEVATION**

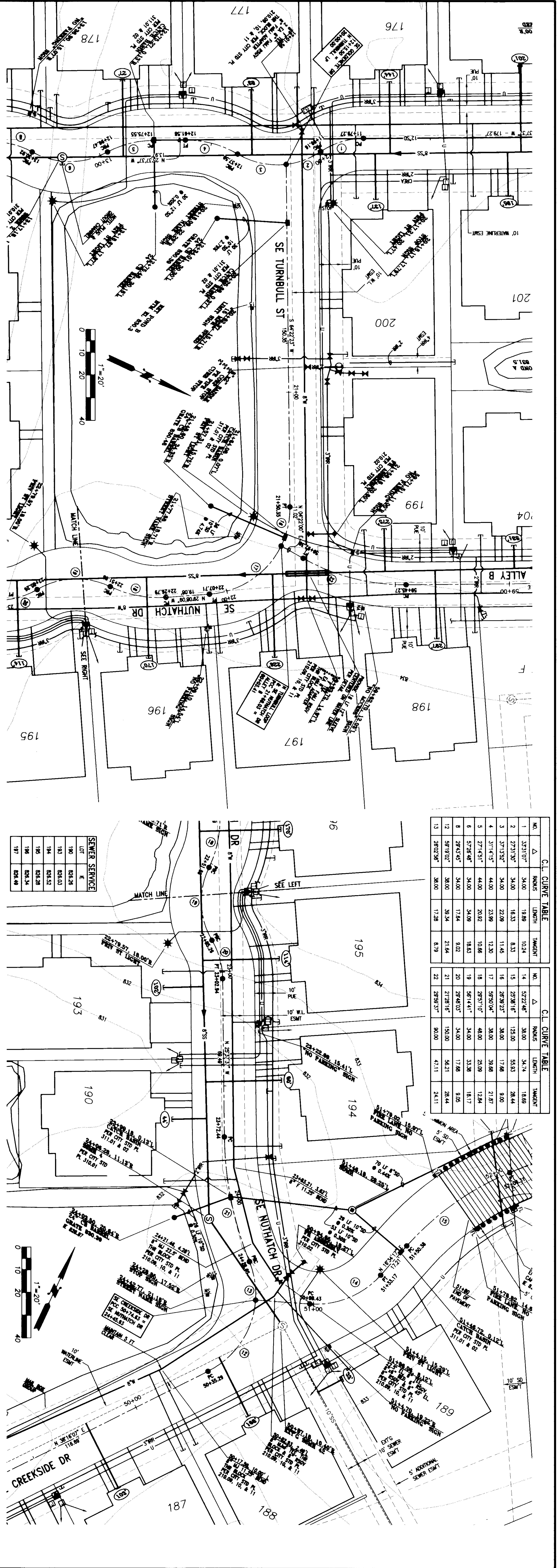
**RECORD DRAWING**  
 NOTICE: THIS DRAWING IS BASED ON THE INFORMATION PROVIDED BY THE CLIENT. THE ENGINEER HAS CONDUCTED VISUAL VERIFICATION OF THE INFORMATION AND HAS NOT CONDUCTED ANY FIELD SURVEYING. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN.

**PHASE FIVE DEVELOPMENT, LLC**  
 INFORMATION PROVIDED BY USKH

**HALL ENGINEERING ASSOCIATES**  
 10 SOUTH ALABAMA • DENVER, CO, 80202  
 (303) 582-2200 • FAX (303) 584-2877

**DATE:** 08-10-10  
**DRAWN BY:** AIB  
**DWG. NO.:** 061-0117

**SHEET 3 OF 12**  
**PHASE FIVE DEVELOPMENT, LLC**  
**VILLAGES AT GARRISON CREEK PHASE VIII RECORD DRAWINGS**  
**PIP SE GOLDENEYE DR 9+50 TO 16+00**

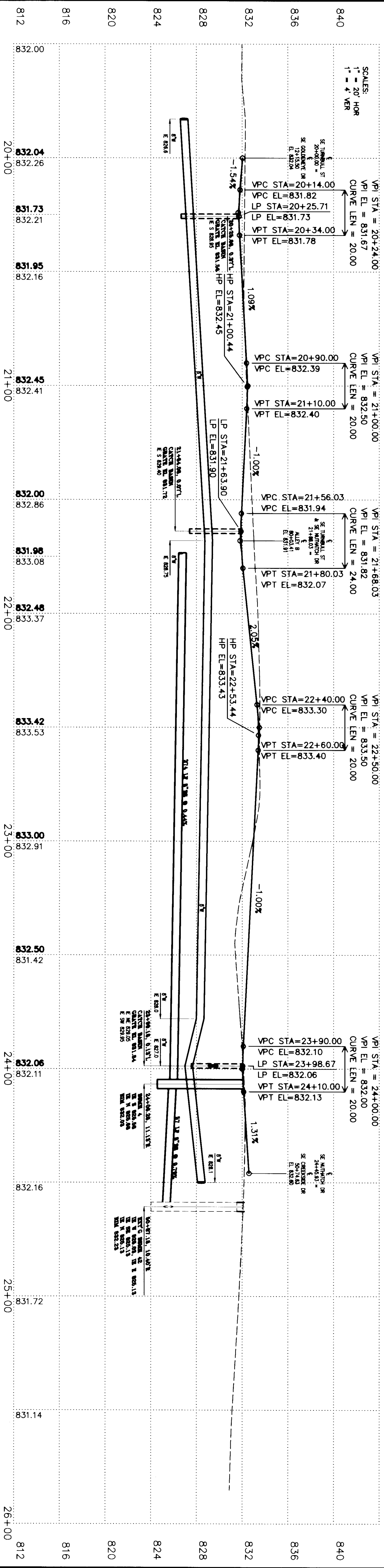


NO.	Δ	POINTS	LENGTH	TANGENT
1	333°10'27"	34.00	19.89	10.24
2	27°31'30"	34.00	16.33	8.33
3	37°13'52"	34.00	22.09	11.45
4	31°14'53"	44.00	23.99	12.30
5	27°14'51"	44.00	20.92	10.66
6	57°28'46"	34.00	34.09	18.63
8	29°43'45"	34.00	17.64	9.02
12	59°19'02"	38.00	39.34	21.64
13	28°02'38"	38.00	17.28	8.79
22	28°29'37"	30.00	17.28	8.79

NO.	Δ	POINTS	LENGTH	TANGENT
14	52°22'46"	38.00	30.74	18.69
15	23°28'16"	123.00	55.93	28.44
16	25°29'23"	38.00	17.66	9.00
17	31°14'53"	38.00	19.88	11.87
18	29°57'10"	48.00	20.09	12.84
19	56°14'41"	34.00	33.38	18.17
20	28°40'05"	34.00	17.66	9.02
21	21°28'16"	150.00	56.21	28.44
22	28°29'37"	30.00	17.28	8.79

LOT	E
180	838.28
181	838.03
184	838.52
186	838.28
188	838.34
187	838.49



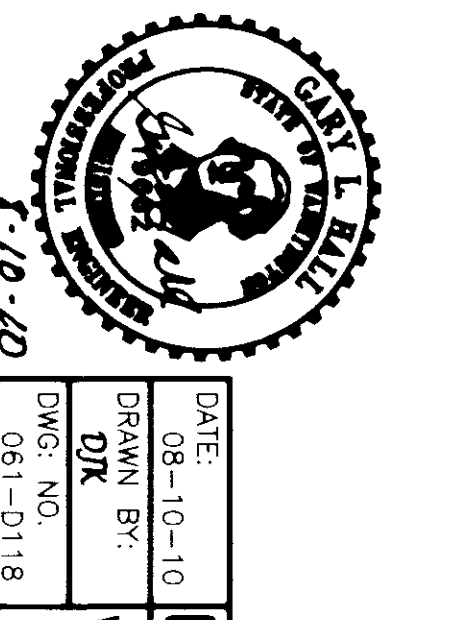
**PROFILE LEGEND**  
 --- EXISTING GROUND  
 --- DESIGN & FINISH GRADE  
 --- CRUSHED AGGREGATE  
 --- CL B ACP  
 --- 10" CRUSHED AGGREGATE  
 --- EXT'G GROUND  
 --- (FILL SECTION)  
 --- (CUT SECTION)

**ALIGNMENT A SECTION**

NOTE: THESE ELEVATIONS SHOWN IN THIS DRAWING ARE BASED ON THE PROPOSED FINISH GRADE. THE EXISTING ELEVATIONS WERE OBTAINED BY FIELD SURVEY AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN.

**RECORD DRAWING**

NOTICE: THIS DRAWING IS BASED ON THE INFORMATION PROVIDED BY THE CLIENT. THE ENGINEERING ASSOCIATES HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN.

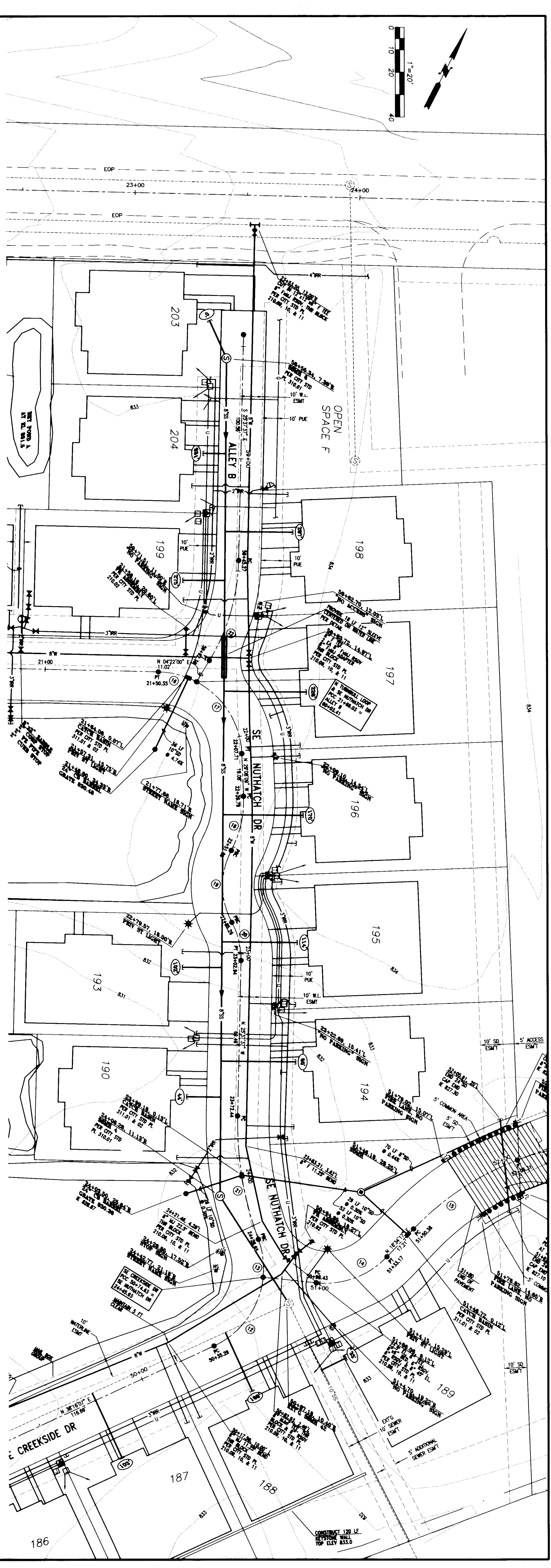
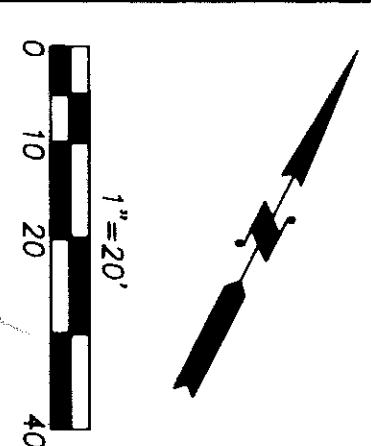


**PHASE FIVE DEVELOPMENT, LLC**  
 INFORMATION PROVIDED BY USKH

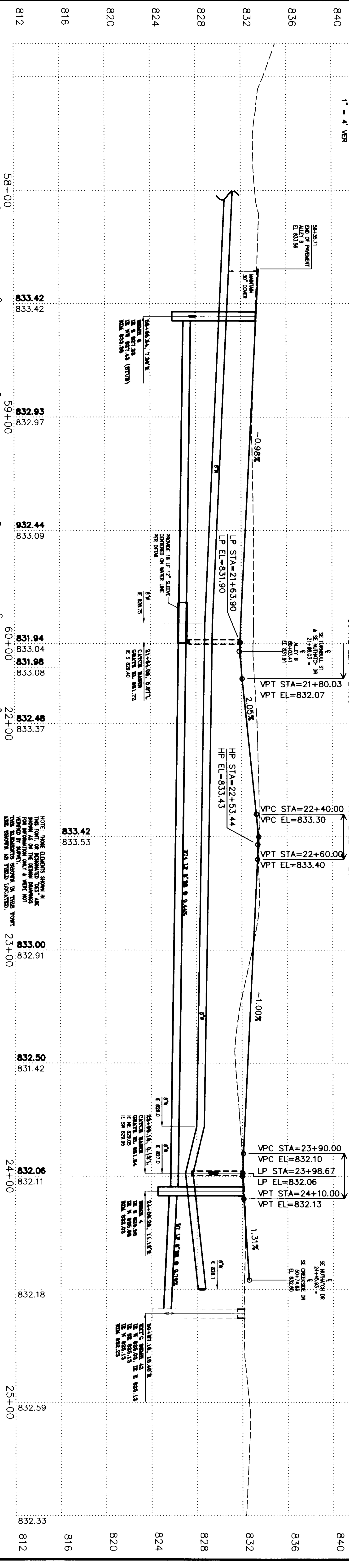
**HALL ENGINEERING ASSOCIATES**  
 10 SOUTH ALBANY  
 KENNESAW, VA 24036  
 (540) 582-2300  
 FAX (540) 582-2807

DATE: 08-10-10  
 DRAWN BY: DJK  
 DWG. NO.: 061-D118

VILLAGES AT GARRISON CREEK PHASE VIII RECORD DRAWINGS  
 PIP ALIGNMENT A

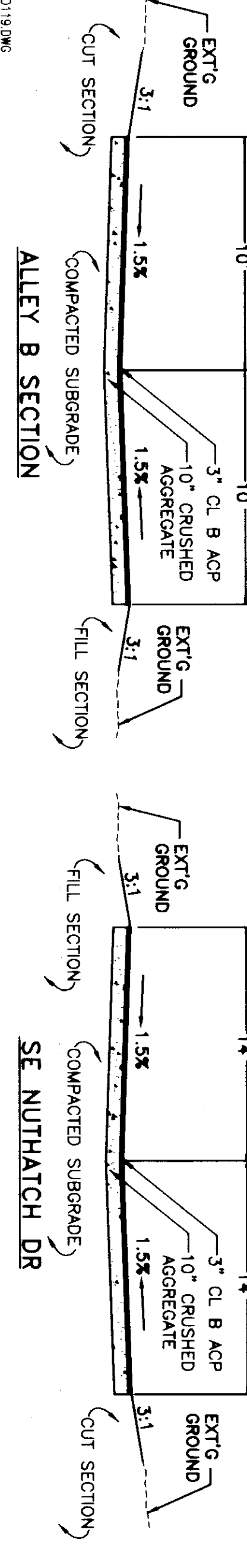


SCALES:  
 1" = 20' HOR  
 1" = 4' VER



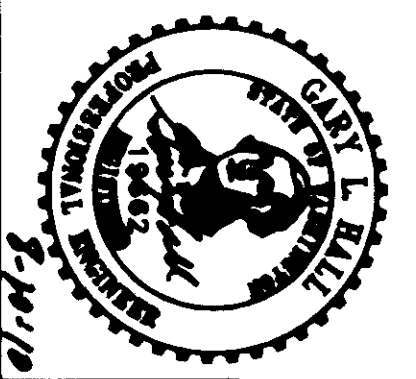
**PROFILE LEGEND**

	EXISTING GROUND
	DESIGN & FINISH GRADE
	CUT SECTION
	FILL SECTION
	COMPACTED SUBGRADE
	3' CL. B. AP
	10' CRUSHED AGGREGATE



NOTE: THESE ELEVATIONS SHOWN IN THIS DRAWING ARE BASED ON THE DATUM OF MEAN SEA LEVEL. THE ELEVATIONS SHOWN IN THIS DRAWING ARE BASED ON THE DATUM OF MEAN SEA LEVEL. THE ELEVATIONS SHOWN IN THIS DRAWING ARE BASED ON THE DATUM OF MEAN SEA LEVEL.

RECORD DRAWING  
 NOTICE: THIS DRAWING IS BASED ON INFORMATION PROVIDED BY OTHERS. HALL ENGINEERING ASSOCIATES HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN.



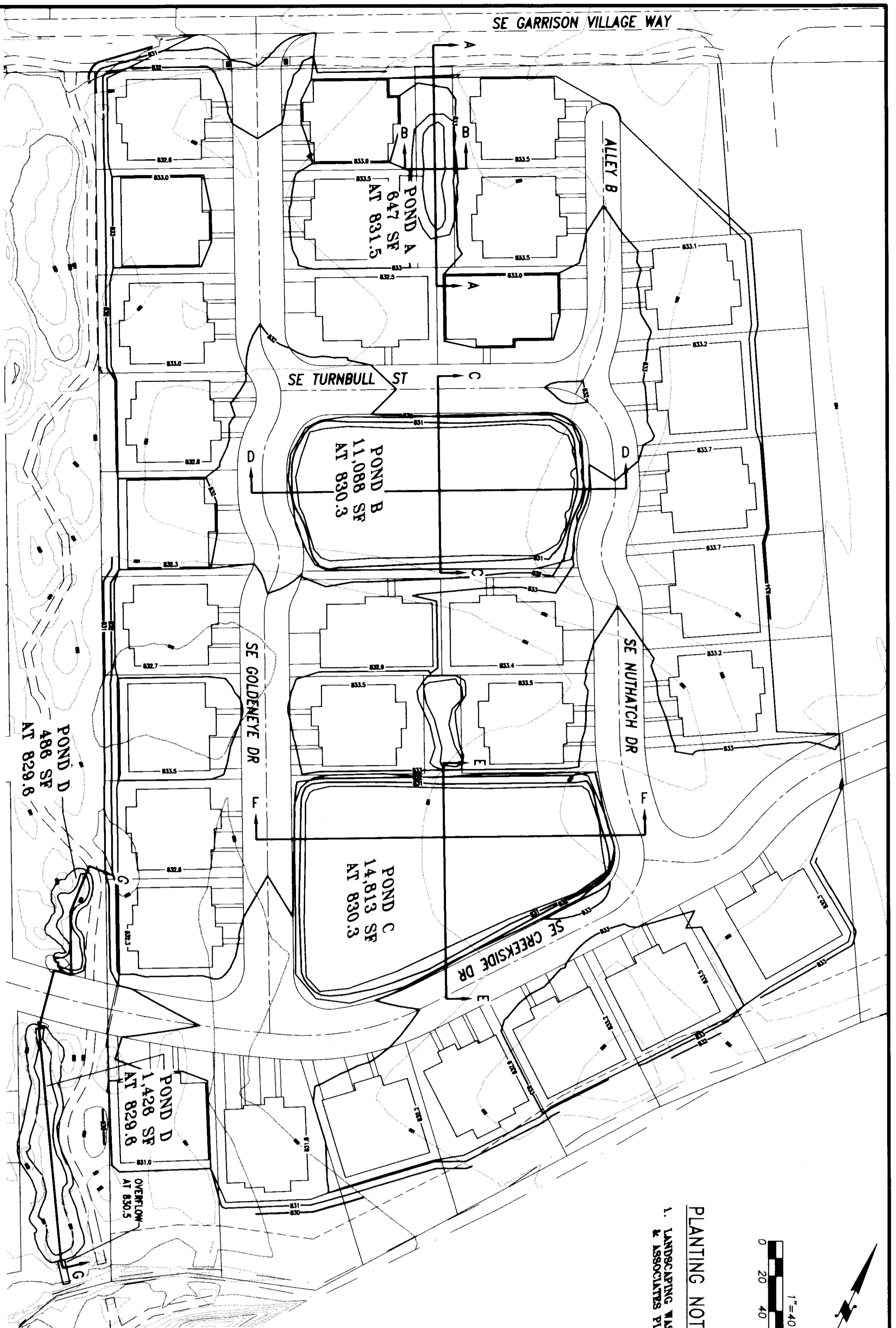
**PHASE FIVE DEVELOPMENT, LLC**  
 INFORMATION PROVIDED BY USKH

**HALL ENGINEERING ASSOCIATES**  
 10 SOUTH ALABAMA  
 MEMPHIS, TN 38138  
 (901) 562-2200  
 FAX (901) 562-2887

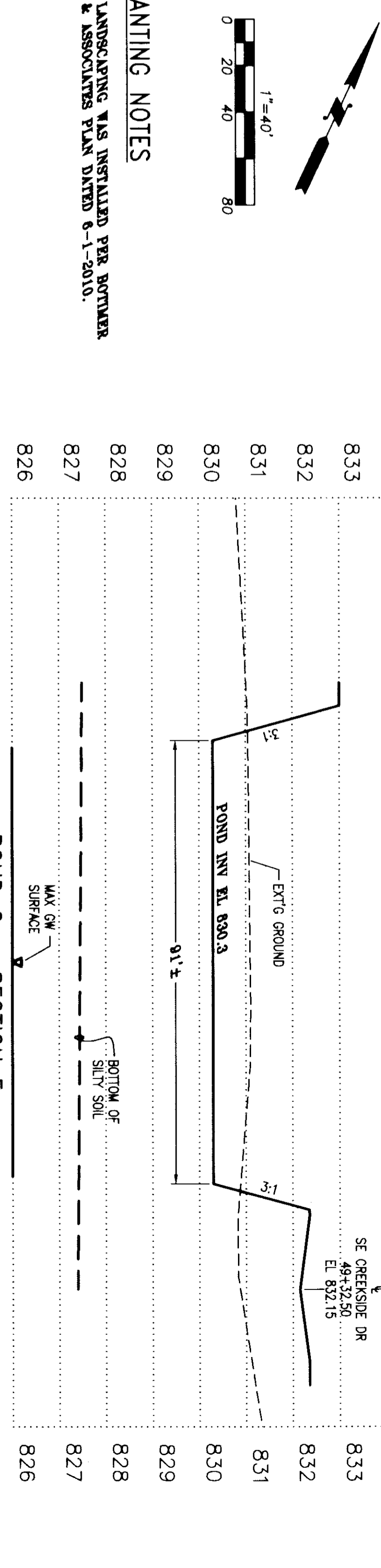
DATE: 08-10-10  
 DRAWN BY: DJK  
 DWG. NO.: 061-0119

VILLAGES AT GARRISON CREEK PHASE VIII RECORD DRAWINGS  
 ALTERNATE SE NUTHATCH DR/ALLEY B SEWER

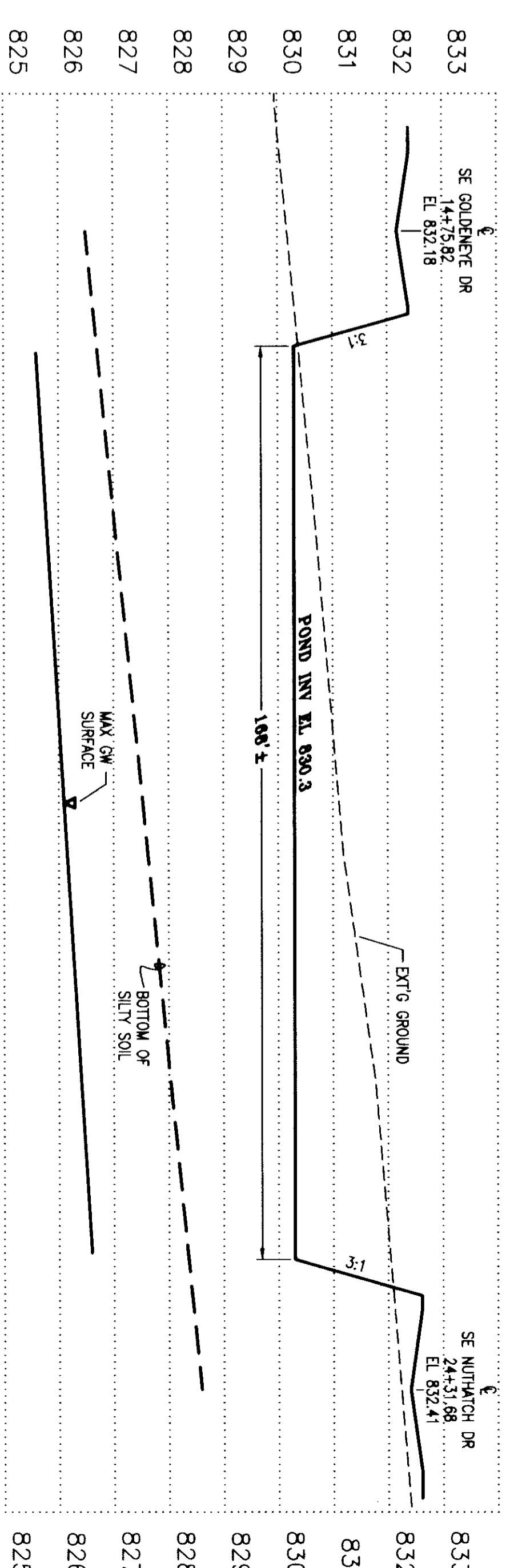
SHEET 5 OF 12



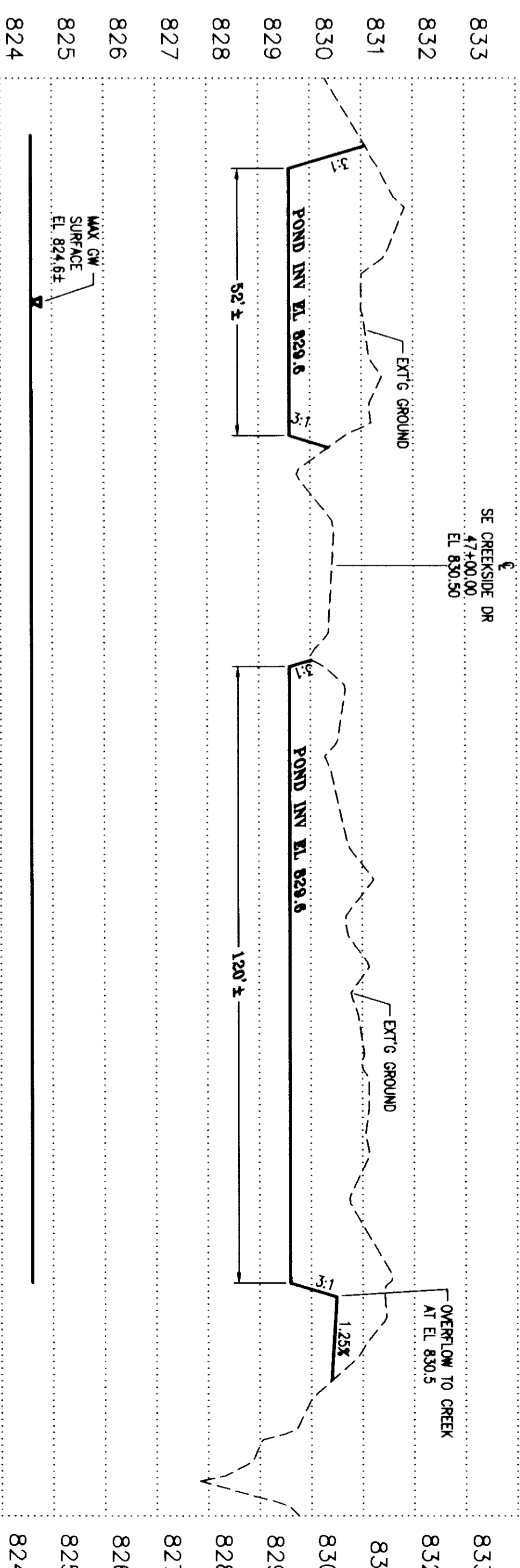
**PLANTING NOTES**  
 1. LANDSCAPING WAS INSTALLED PER BORMER & ASSOCIATES PLAN DATED 6-1-2010.



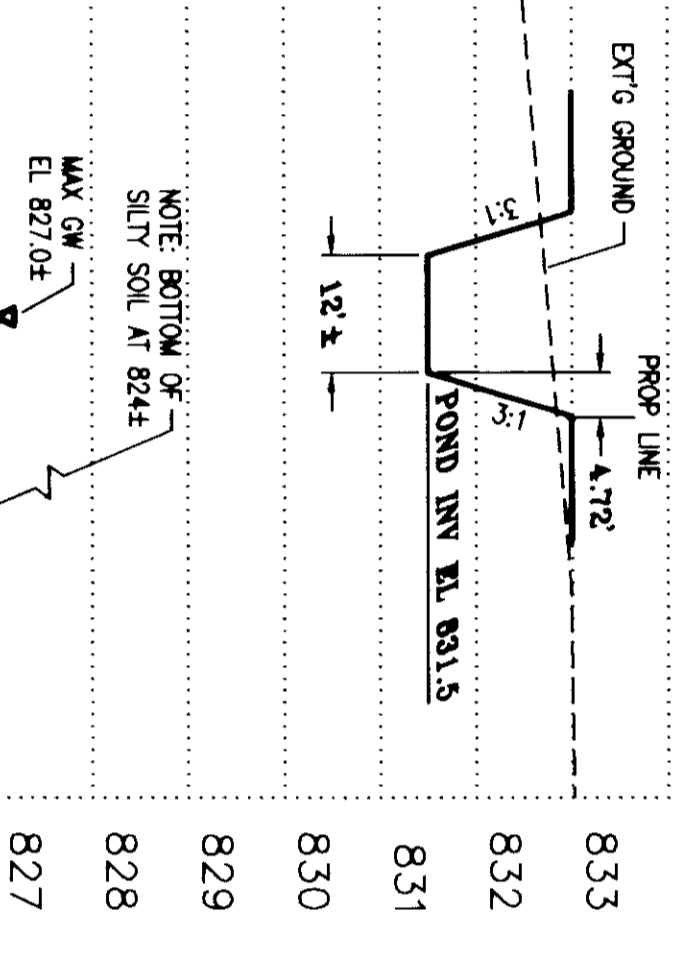
**POND C - SECTION E**  
 1" = 20' HOR, 1" = 2' VER



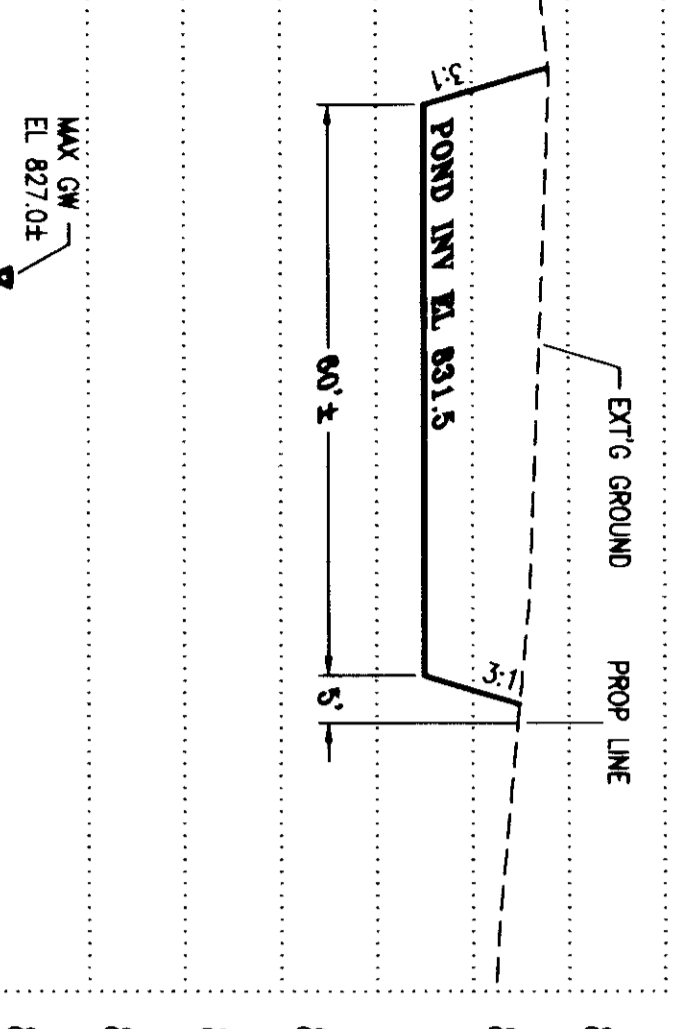
**POND C - SECTION F**  
 1" = 20' HOR, 1" = 2' VER



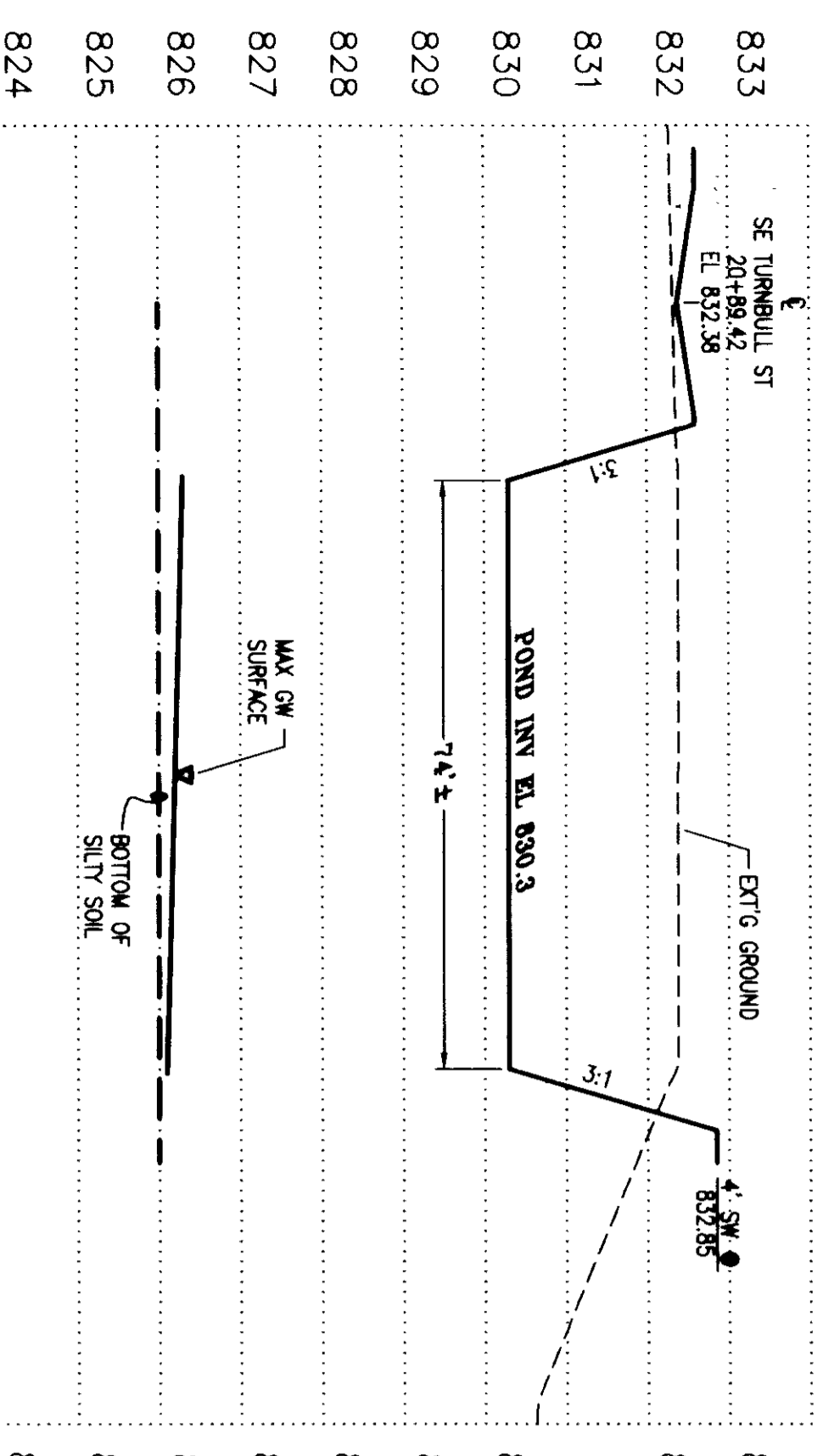
**POND D - SECTION G**  
 1" = 20' HOR, 1" = 2' VER



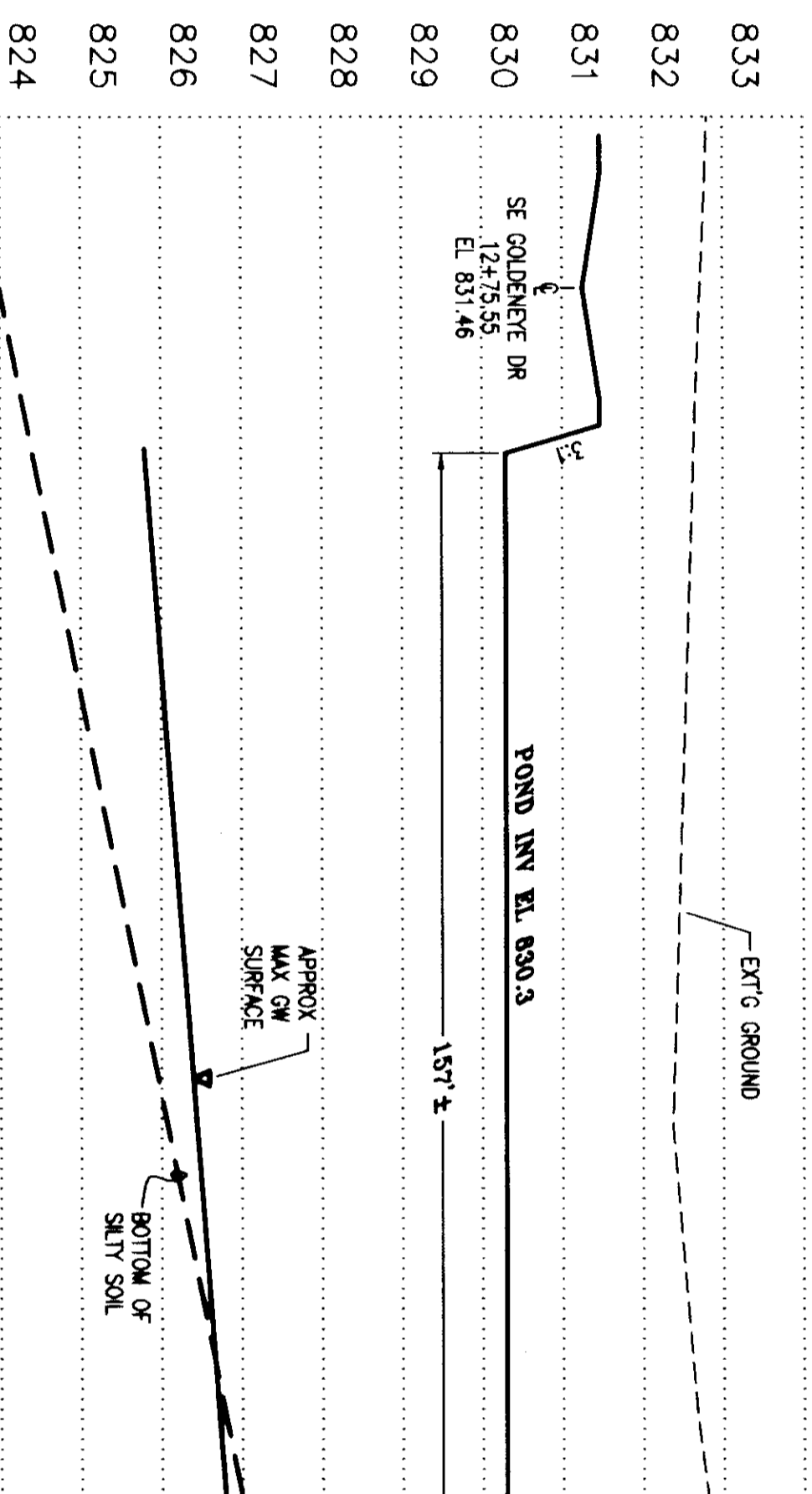
**POND A - SECTION B**  
 1" = 20' HOR, 1" = 2' VER



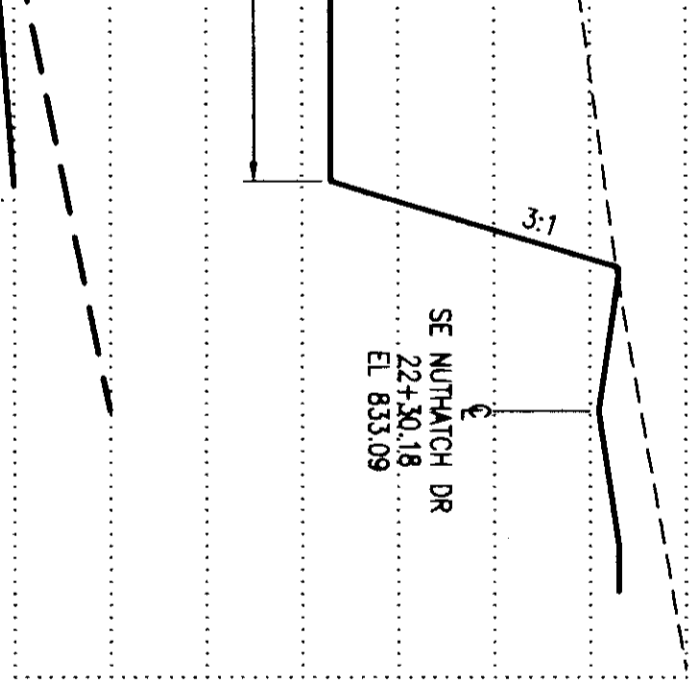
**POND A - SECTION A**  
 1" = 20' HOR, 1" = 2' VER



**POND B - SECTION C**  
 1" = 20' HOR, 1" = 2' VER



**POND B - SECTION D**  
 1" = 20' HOR, 1" = 2' VER



**OVERFLOW CHANNEL SECTION**  
 POND D

**STONEMATE CERTIFICATION**  
 I, **DAVID L. BILLY**, State of Virginia Professional Engineer No. 14662, do hereby certify that I am a duly Licensed Professional Engineer in the State of Virginia and I am the author of the design shown on this drawing. I have read the design and I am satisfied that it complies with the applicable codes and regulations. I have also read the design and I am satisfied that it complies with the applicable codes and regulations. I have also read the design and I am satisfied that it complies with the applicable codes and regulations.

**NOTE:** THESE ELEVATIONS SHOWN IN THIS DRAWING ARE BASED ON THE DATUM SHOWN AS THE REFERENCE POINT FOR THE DESIGN. THE INFORMATION ONLY IS FOR YOUR INFORMATION AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY KIND. THE INFORMATION IS NOT TO BE USED FOR ANY OTHER PURPOSES WITHOUT THE WRITTEN CONSENT OF HALL ENGINEERING ASSOCIATES, INC.

**ROAD ELEVATIONS ARE SHOWN AS DESIGNED.**

**RECORD DRAWING**  
 NOTICE: THIS DRAWING IS BASED ON INFORMATION PROVIDED BY OTHERS. HALL ENGINEERING ASSOCIATES HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN.

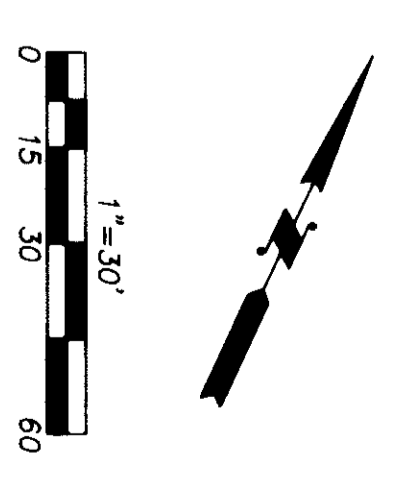
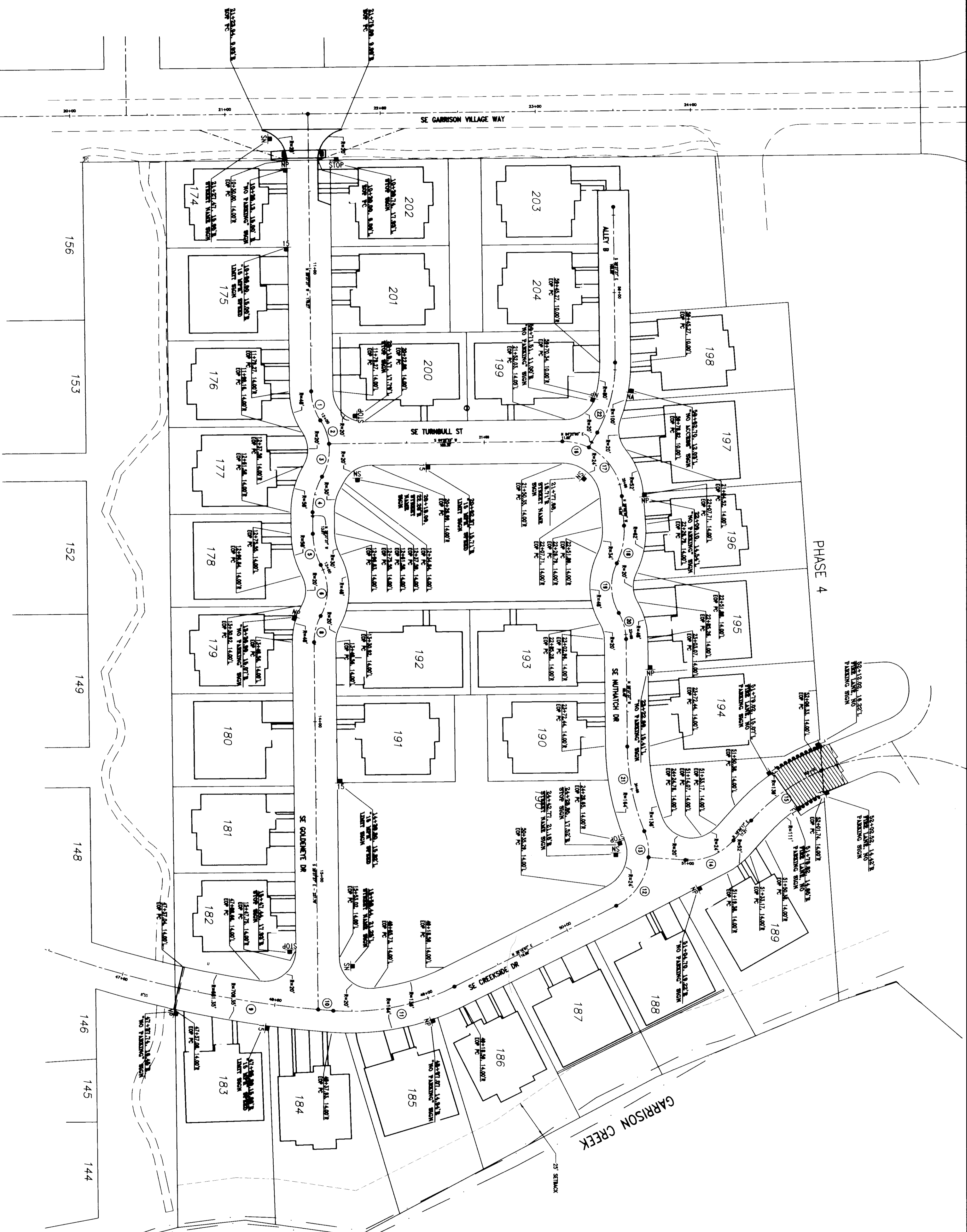
**PHASE FIVE DEVELOPMENT, LLC**  
 INFORMATION PROVIDED BY USKH

**HALL ENGINEERING ASSOCIATES**  
 10 SOUTH LAMAR - ROANOKE, VA 24010  
 (540) 526-2200 - FAX (540) 546-2807

**SHEET 6 OF 12**  
 GRADING PLAN & POND SECTIONS

DATE: 08-10-10  
 DRAWN BY: DJK  
 DWG. NO.: 061-0120





**SIGN LEGEND**

SYMBOL	DESCRIPTION	HEIGHT	STYLE
STOP SIGN	STOP SIGN (18" HEX)	4'	*
NO PARKING	NO PARKING (10"x12")	2'	*
NO ACCESS	NO ACCESS (10"x12")	2'	*
STREET NAME SIGN	STREET NAME SIGN (3'x6")	6'	*
15 MPH SPEED LIMIT	15 MPH SPEED LIMIT (10"x12")	4'	*

\* RUSTIC, REDWOOD-STAINED 4"x4" WITH PROPRIETARY SIGN TO MATCH EXISTING NEIGHBORHOODS SET IN CONCRETE.

**C.L. CURVE TABLE**

NO.	Δ	RADIUS	LENGTH	TANGENT
1	33°31'07"	34.00	19.86	10.24
2	27°31'30"	34.00	18.33	8.33
3	37°13'52"	34.00	22.08	11.45
4	31°14'15"	44.00	23.89	12.30
5	27°14'51"	44.00	20.82	10.86
6	32°43'45"	34.00	34.08	18.43
7	32°43'45"	34.00	34.08	18.43
8	32°43'45"	34.00	34.08	18.43
9	07°41'19"	66.35	8.78	4.89
10	07°46'22"	66.35	8.78	4.89
11	32°48'34"	150.00	80.86	41.33
12	32°48'34"	150.00	80.86	41.33
13	28°02'28"	30.00	17.28	8.79
14	32°22'48"	30.00	34.74	18.44
15	32°30'18"	125.00	55.83	28.44
16	28°39'23"	30.00	17.68	9.00
17	08°50'04"	30.00	36.88	21.87
18	28°39'10"	40.00	25.08	12.84
19	32°14'41"	34.00	33.38	18.17
20	28°48'03"	34.00	17.88	9.05
21	27°28'18"	150.00	56.21	28.44
22	28°29'37"	90.00	47.11	24.11

**RECORD DRAWING**

NOTICE: THIS DRAWING IS BASED ON INFORMATION PROVIDED BY THE CLIENT. THE ENGINEER HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN.

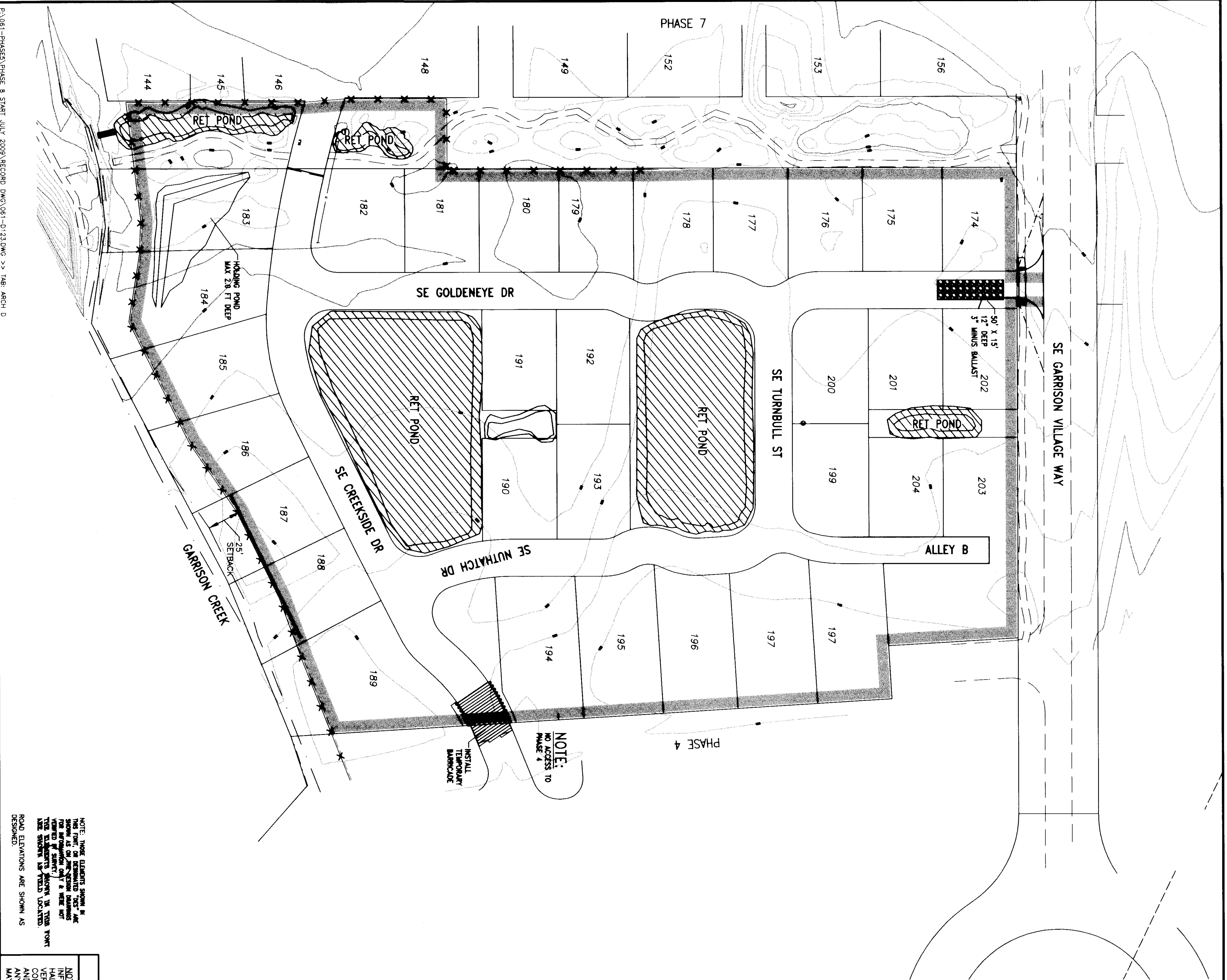


DATE: 08-10-10  
 DRAWN BY: AIB  
 DWG. NO.: 061-0122

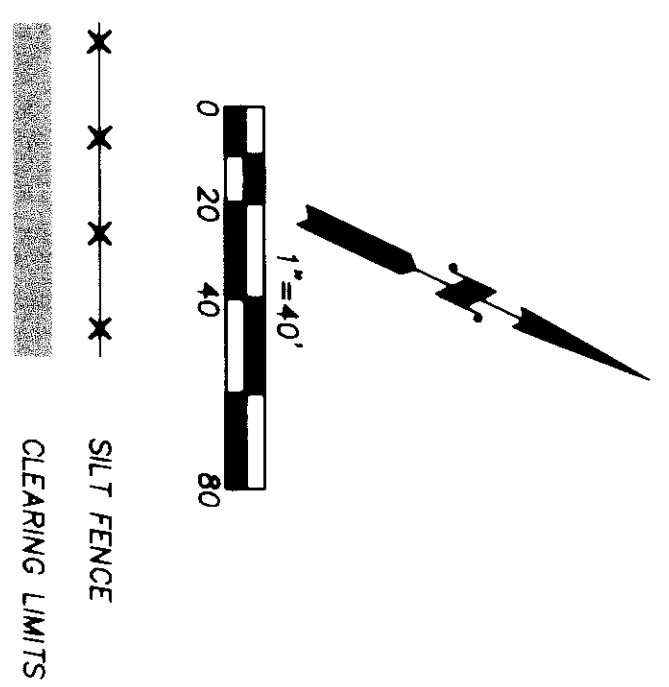
**PHASE FIVE DEVELOPMENT, LLC**  
 INFORMATION PROVIDED BY USKH  
 VILLAGES AT GARRISON CREEK PHASE VIII RECORD DRAWINGS  
 EOP CURVES & SIGN PLAN

**HALL ENGINEERING ASSOCIATES**  
 10 SOUTH ALUMINUM • KENNESAW, VA 24156  
 (800) 582-2200 • FAX (540) 584-2877



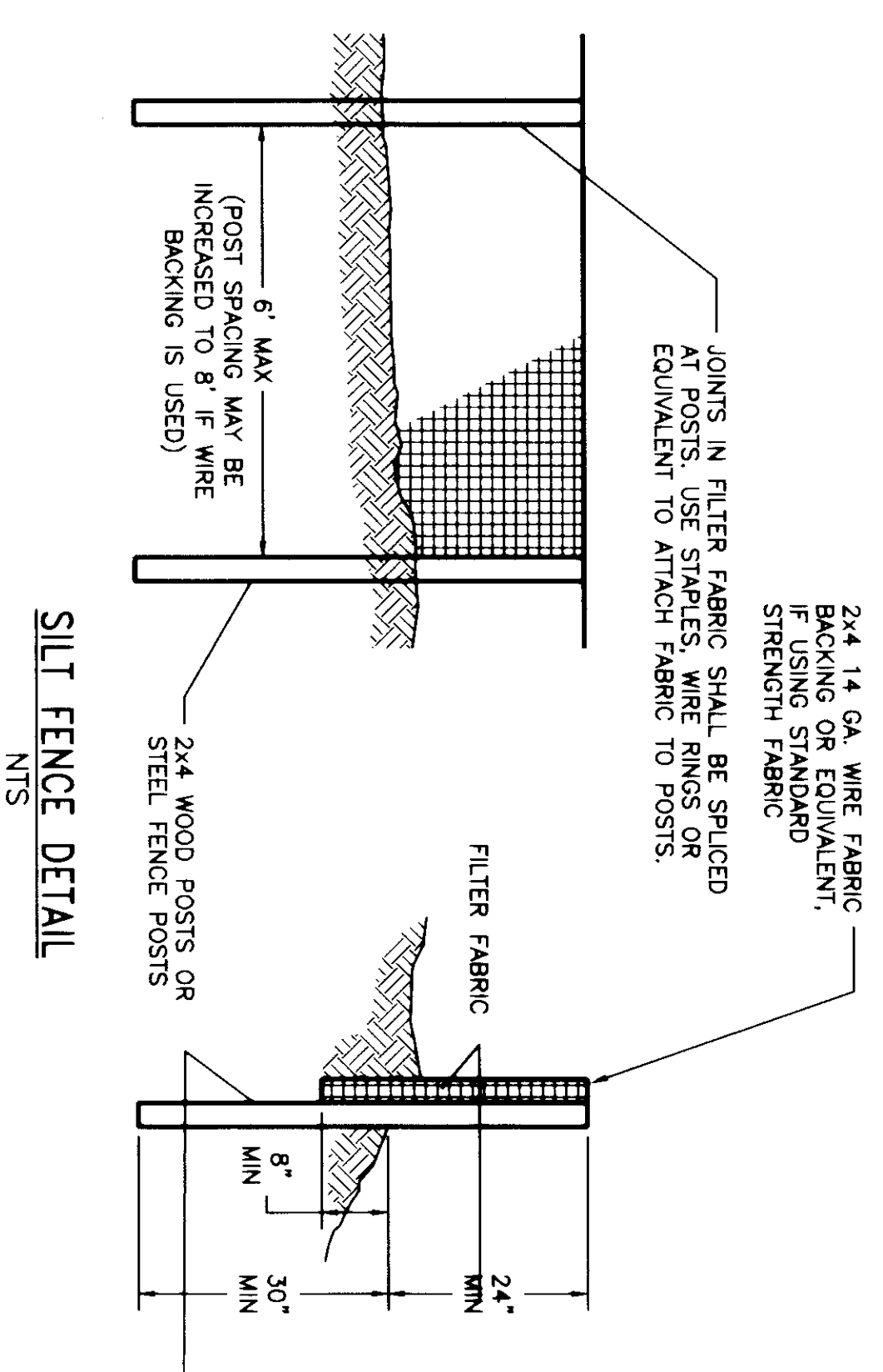


NOTE: THESE ELEVATIONS SHOWN IN THIS PLAN OF DEVELOPMENT ARE FOR INFORMATION ONLY & HAVE NOT BEEN VERIFIED BY SURVEY. THE ELEVATIONS SHOWN IN THIS PLAN ARE BASED ON THE ELEVATIONS SHOWN IN THE RECORD DRAWING. ROAD ELEVATIONS ARE SHOWN AS DESIGNED.



**EROSION CONTROL NOTES**

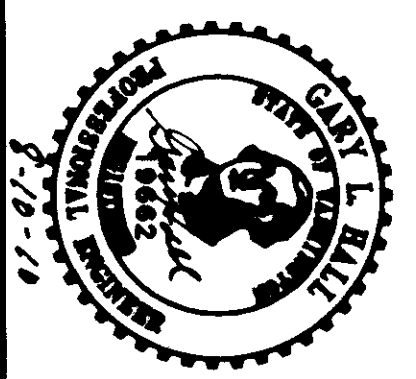
- CONTRACTOR SHALL HAVE SOLE RESPONSIBILITY FOR DUST CONTROL AND RUNOFF CONTROL AND SHALL TAKE NECESSARY ACTIONS TO PREVENT BLOWING DUST AND ANY RUNOFF FROM LEAVING THE SITE.
  - CONTRACTOR SHALL FURNISH WATER METER, HOSE, SPRINKLERS, WATER TRUCK, ANY OTHER NECESSARY EQUIPMENT AND LABOR TO MAINTAIN SURFACE MOISTURE ON SITE. OWNER SHALL PAY WATER FEES. SURFACE MOISTURE SHALL BE MAINTAINED TO PREVENT BLOWING DUST. THIS WILL INCLUDE WATERING DURING NON-WORKING HOURS AND ON WEEKENDS.
  - CONTRACTOR SHALL CONDUCT ITS ACTIVITIES AND CONSTRUCT BERMS, SWALES, SILT FENCES, AND/OR STRAW BALE FENCES TO PREVENT ANY EXCESS WATER OR RUNOFF FROM CROSSING PROPERTY LINES, RIGHT OF WAY (ROW) LINES, OR SETBACK LINES FROM WATER WAYS.
  - SILT FENCING SHALL BE INSTALLED AS DETAILED PRIOR TO ANY CONSTRUCTION WORK THAT INVOLVES EARTHWORK OR WILL POTENTIALLY DISTURB THE NATIVE VEGETATION. WHERE POSSIBLE, SILT FENCING SHALL FOLLOW THE EXISTING GROUND CONTOURS. WHERE SILT FENCING MUST BE INSTALLED ON A SLOPE, THE SLOPE SHALL BE LIMITED TO 3:1 (HORIZONTAL TO VERTICAL) AND GRAVEL CHECK DAMS SHALL BE PLACED AT 10 FOOT INTERVALS TO MINIMIZE RUNOFF FLOW ALONG THE FENCE. TO ENSURE SILT FENCING CAPTURES RUNOFF WATER, ENDS OF FENCING SHALL BE FLARED UPHILL.
  - ALL EXITS FROM THE SITE SHALL HAVE 50' x 15' x 12" DEEP (MIN) 3" MINUS BALLAST TO PREVENT TRACKING OF SEDIMENTS OFF-SITE.
  - THE CONTRACTOR SHALL FURNISH A 24-HOUR CONTACT NAME AND PHONE NUMBER TO THE CITY AND OWNER AND SHALL BE CAPABLE OF PROVIDING IMMEDIATE RESPONSE TO BLOWING DUST AND/OR RUNOFF COMPLAINTS AT ANY TIME UNTIL THE PROJECT IS ACCEPTED BY THE CITY.
  - WHENEVER PRACTICAL, CLEARING & GRADING SHALL BE DONE IN A PHASED MANNER TO PREVENT EXPOSED NAKED AREAS FROM BECOMING SOURCES OF EROSION. BASE AGGREGATE MATERIAL FOR ROAD CONSTRUCTION SHALL BE PLACED AS SOON AS PRACTICAL AFTER CUT & FILL ACTIVITIES.
  - THE CONTRACTOR SHALL MINIMIZE CLEARING AND DISTURBANCE TO EXISTING VEGETATION OUTSIDE AREAS REQUIRED FOR EARTHWORK. AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE REVEGETATED AND RESTORED BY HYDROSEEDING OR OTHER APPROVED METHODS AS DETAILED AS PRACTICAL.
  - WHEN TRUCKING SATURATED SOILS FROM THE SITE, THE LOADS SHALL BE DRAINED ON-SITE PRIOR TO CROSSING ANY PROPERTY OR ROW LINE.
  - DURING AND AFTER CONSTRUCTION OF CATCH BASINS AND SWALES, PLACE GEOTEXTILE BENEATH THE CATCH BASIN TO PREVENT SILT FROM ENTERING THE CATCH BASIN. THE GEOTEXTILE SHALL BE REPLACED DURING THE PROJECT WITH CLEAN MATERIAL FOLLOWING ANY RUNOFF EVENTS. THE GEOTEXTILE SHALL REMAIN IN PLACE BENEATH THE GRATES UNTIL THE PROJECT IS ACCEPTED BY THE CITY.
11. CONTRACTOR SHALL:
- TREAT MUDDY OR CONTAMINATED STORMWATER, CONSTRUCTION WATER, OR DEWATERING WATER SEPARATELY AND NOT DISPOSE OF UNTREATED WATER IN GARRISON CREEK.
  - REGULARLY INSPECT, MAINTAIN, AND REPAIR ALL BMP'S AT LEAST ONCE PER DAY AND 24 HOURS AFTER ANY DISCHARGE FROM THE SITE.
  - REMOVE ALL TEMPORARY BMP'S WITHIN 30 DAYS OF FINAL SITE STABILIZATION.
  - REMOVE OR STABILIZE ON-SITE TRAPPED SEDIMENT.



**SILT FENCE DETAIL**  
NTS

**RECORD DRAWING**

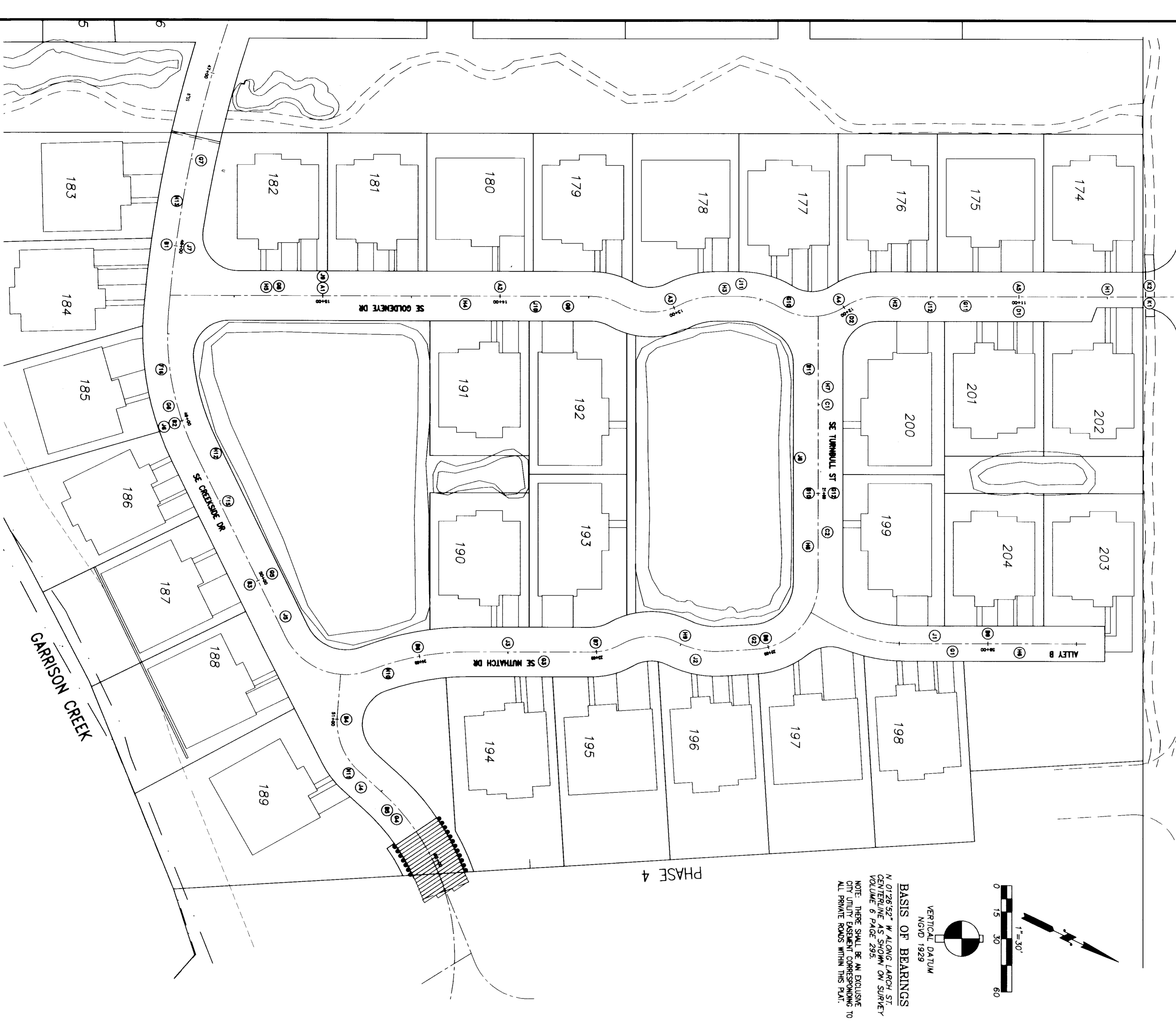
NOTICE: THIS DRAWING IS BASED ON INFORMATION PROVIDED BY OTHERS. HALL ENGINEERING ASSOCIATES HAS NOT VERIFIED THE ACCURACY AND/OR COMPLETENESS OF THIS INFORMATION AND SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH MAY BE INCORPORATED HEREIN.



DATE:	08-10-10	<b>PHASE FIVE DEVELOPMENT, LLC</b>	<b>HALL ENGINEERING ASSOCIATES</b>
DRAWN BY:	DJK		
DWG. NO.:	06-0123		
<b>VILLAGES AT GARRISON CREEK PHASE VIII RECORD DRAWINGS</b>		<b>REVISED EROSION CONTROL PLAN</b>	
		10 SOUTH MAIN ST. • CHARLESTON, VA 24034 (800) 362-2200 • FAX (800) 366-2007	







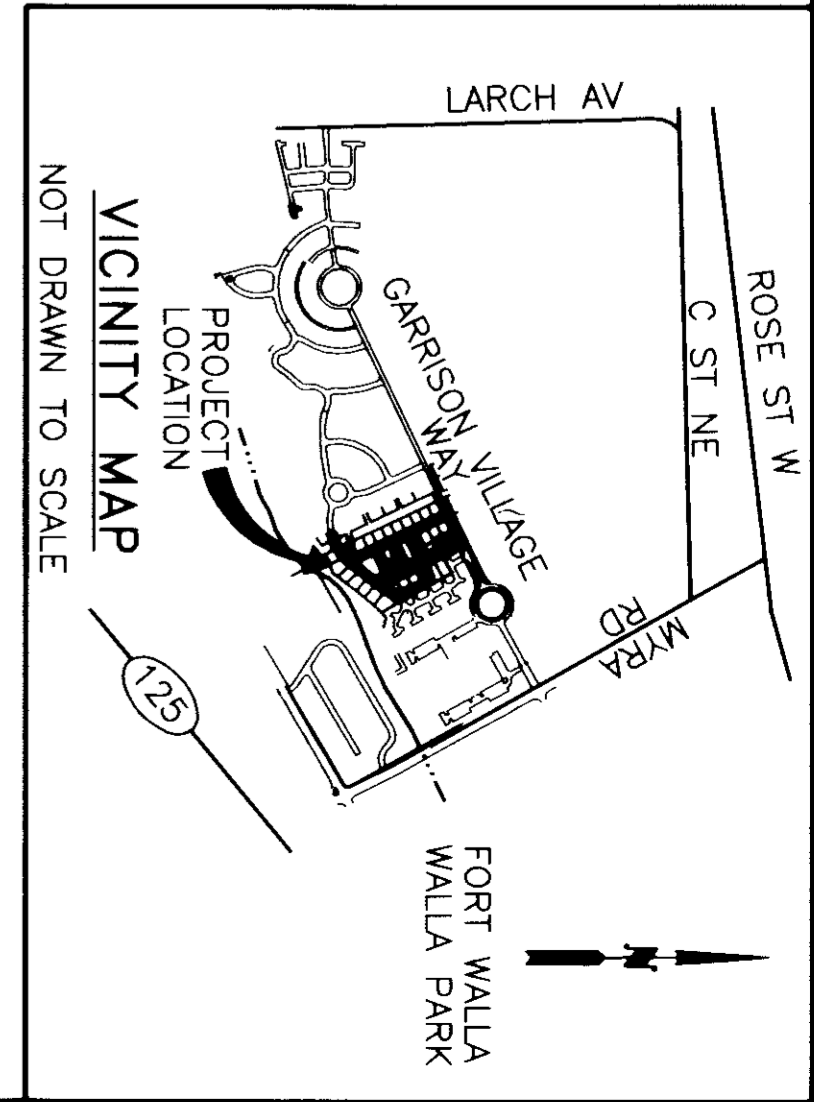
**COMPACTON TESTING**

1" = 30'

VERTICAL DATUM  
NGVD 1929

**BASIS OF BEARINGS**  
N 07°28'52" W ALONG LARCH ST.  
CENTRAL MERIDIAN  
VOLUME 6 PAGE 298.  
NOTE: THERE SHALL BE AN EXCLUSIVE  
CITY UTILITY EASEMENT CORRESPONDING TO  
ALL PRIVATE ROADS WITHIN THIS PLAN.

STREET/STA	COMPACTON	STREET/STA	COMPACTON
SE GOLDENEYE DRIVE/15+00, CL	97	06/30/10 - BASE COURSE	
SE GOLDENEYE DRIVE/14+00, 5'L	100	ALLEY B/59+20, 5'L	99
SE GOLDENEYE DRIVE/13+00, 5'R	100	SE NUTHATCH DRIVE/22+05, 5'R	98
SE GOLDENEYE DRIVE/12+00, CL	100	SE NUTHATCH DRIVE/23+30, 5'L	97
SE GOLDENEYE DRIVE/11+00, 8'L	98	SE CREEKSIDE DRIVE/51+65, 5'R	99
SE CREEKSIDE DRIVE/48+00, 6'L	95	SE CREEKSIDE DRIVE/50+00, 5'L	100
SE CREEKSIDE DRIVE/49+00, CL	100	SE CREEKSIDE DRIVE/48+90, 5'R	100
SE CREEKSIDE DRIVE/50+00, 6'R	100	SE CREEKSIDE DRIVE/47+50, 5'L	99
SE CREEKSIDE DRIVE/51+00, CL	83	SE GOLDENEYE DRIVE/15+25, 2'R	100
SE CREEKSIDE DRIVE/51+60, 4'L	99	SE GOLDENEYE DRIVE/13+60, 5'L	99
SE NUTHATCH DRIVE/24+00, CL	85	SE GOLDENEYE DRIVE/12+35, 3'R	98
SE NUTHATCH DRIVE/23+00, 7'R	100	SE GOLDENEYE DRIVE/11+30, 3'L	100
SE NUTHATCH DRIVE/22+00, CL	98	SE TURNBULL STREET/21+00, 4'L	100
ALLEY B/59+00, 4'L	86	07/02/10 - TOP COURSE	
SE TURNBULL STREET/21+00, CL	86	SE GOLDENEYE DRIVE/10+50, 2'R	99
SE TURNBULL STREET/20+30, 6'R	82	SE GOLDENEYE DRIVE/11+70, 2'L	100
SE TURNBULL STREET/20+50, 7'L	96	SE GOLDENEYE DRIVE/12+70, 3'R	99
SE TURNBULL STREET/21+25, 7'L	95	SE GOLDENEYE DRIVE/14+20, 3'L	99
SE GOLDENEYE DRIVE/12+00, 10'R	95	SE GOLDENEYE DRIVE/15+30, 3'R	100
SE GOLDENEYE DRIVE/12+90, 2'L	96	ALLEY B/58+80, 5'L	99
SE GOLDENEYE D	96	SE TURNBULL STREET/20+40, 5'L	97
		SE TURNBULL STREET/21+30, 5'R	100
		SE NUTHATCH DRIVE/22+50, 5'R	100
		SE NUTHATCH DRIVE/24+20, 4'L	97
		SE CREEKSIDE DRIVE/51+30, 4'R	97
		SE CREEKSIDE DRIVE/49+25, 12'L	95
		SE CREEKSIDE DRIVE/47+75, CL	97
		07/12/10 - ASPHALT DENSITY	
		ALLEY B/59+30, 5'R	91
		SE NUTHATCH DRIVE/22+40, 6'L	92
		SE NUTHATCH DRIVE/23+50, 5'R	91
		SE CREEKSIDE DRIVE/51+40, 6'R	91
		SE CREEKSIDE DRIVE/50+25, 5'L	95
		SE CREEKSIDE DRIVE/49+00, 6'R	92
		SE CREEKSIDE DRIVE/48+00, 5'L	95
		SE TURNBULL STREET/20+80, 5'R	92
		SE GOLDENEYE DRIVE/15+00, 5'R	92
		SE GOLDENEYE DRIVE/13+80, 6'L	93
		SE GOLDENEYE DRIVE/12+61, 7'R	96
		SE GOLDENEYE DRIVE/11+50, 6'L	92
		07/22/10 - BASE ROCK FOR CONCRETE ENTRANCE	
		SE GOLDENEYE DRIVE/10+28, NORTH	96
		ROUND LANE, L	
		SE GOLDENEYE DRIVE/10+28, SOUTH	95
		ROUND LANE, R	



DATE: 08-10-10  
DRAWN BY: ATB  
DWG. NO.: 06-1-D125

**PHASE FIVE DEVELOPMENT, LLC**  
VILLAGES AT GARRISON CREEK PHASE VIII RECORD DRAWINGS  
COMPACTON TESTING

**HALL ENGINEERING ASSOCIATES**  
10 SOUTH ALUMINUM • CHEWCHUCK, WA 99336  
(509) 525-2200 • FAX (509) 525-2877