FORM HD-41(73) APPLICATION FOR PERMIT TO ALTER, EXTEND OR REPAIR INDIVIDUAL SEWAGE DISPOSAL SYSTEM

City Ordinance No. 9150 ☒
County Resolution No. 2832 ☐

LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT
Division of Environmental Health
2200 St. Marys Ave.
Lincoln, Nebraska 68502 (Phone: 471-7800)

FILE NO._____

TO: Division of Environmental Health
Lincoln-Lancaster County Health Dept.

DATE: 9/2/92

The undersigned hereby applies for a permit to ALTER ☑, EXTEND ☑, or REPAIR ☐ an existing Individual Sewage Disposal System, in conformance with appropriate Ordinance or Resolution, as described in this application and drawings attached hereto.

1. Legal description of property: Twp. 9N ; Range 7E ; Section 11 ;
Block_____; Lot_____; Addition_____
Street Address 9001 Pioneer Blvd

2. Property Use: Residential_____ ☐; Commercial_____ ☑
No. Bedrooms_____
Describe Clubhouse for golf course.
Other Use ☐
Describe_____

3. Type of existing Individual Sewage Disposal System: Septic Tank ☑; Other ☐

4. Description of proposed alteration, extension or repair: Add a New 1000 gallon Septic tank to existing 1000 gallon Septic. ADD 150' NEW LATERAL

5. Work to be done by: Owner ☐ ; or Contractor ☑ ; _____
Contractor's Name

6. Estimated cost of project:

a. Materials	$_____
b. Labor	$_____
c. Other	$_____
TOTAL	$OVER 4400.00

Drew Lamme
Signature of Applicant (owner or lessee)

9001 Pioneer Blvd Lincoln, NE. 68520
Address

(Do not write below this line)

REVIEWING ACTION

1. Date Rec'd:_____
Filing Fee: $ 50.00

2. Site Visits:
Date: 10-13-92 by: P.D.
Date:_____ by:_____
Date:_____ by:_____

3. Date: Approved ☒ ; Disapproved ☐
by: Jerrold C. Hood

4. INSTALLATION FINAL WRITTEN APPROVAL
Date:_____ by:_____

DAVIS DESIGN

ARCHITECTURE
ENGINEERING
INTERIOR DESIGN

PRINCIPALS:

DOUGLAS V. ELTING, AIA
LYNN L. JONES, AIA
MATTHEW C. METCALF, AIA
J. MATTHEW MORRISSEY, PE
ROBYN L. MYERS, ASID

LINCOLN:

211 N. 14TH STREET
LINCOLN, NEBRASKA 68508
PHONE (402) 476-9700
FAX: (402) 476-9722

OMAHA:

1110 DOUGLAS STREET
OMAHA, NEBRASKA 68102
PHONE (402) 341-6600
FAX: (402) 341-6611

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PRELIMINARY ENGINEERING REPORT
WASTEWATER TREATMENT
(REVISED)

Highmark Golf Course Clubhouse Expansion
9001 Pioneers Blvd., Lincoln, Nebraska

General:

Opened in 1993, Himark golf course is an eighteen hole golf course located on the south side of Pioneers Blvd. at about 90th Street in the Section 11, T9N, R7E, Lincoln, Nebraska. (see Exhibit 1). Almost all of the golf course lies within the Stevens Creek Watershed. The clubhouse and parking areas serving the course are located adjacent to PIoneers Blvd. at the north end of the golf course in the Northeast Quarter of the Northwest Quarter of Section 11. The existing clubhouse has a pro shop, toilet facilities and a bar with table seating area. The clubhouse currently has deli-style food service.

A connection to the rural water district water main in Pioneers Blvd. provides water for domestic uses, cart washing and clubhouse lawn irrigation. Water for golf course irrigation is supplied from two irrigation wells located on the south half of the course (see Exhibit 1). Wastewater treatment is provided by a septic system consisting of two 1,000 gallon septic tanks in series and a soil absorption field with 250 linear feet of laterals located immediately east of the clubhouse.

There is an existing residence which has a private well located about 3/8 of a mile south of Pioneers that is somewhat surrounded by the course and owned by the course owners. There are two residences on the south side of Pioneers Blvd. lying east of the course and several residences on the north side of Pioneers Blvd. across from the course. There are existing residences located to the west of the course near the center of the Northwest Quarter of the section. There are no wells within 200 feet of the proposed soil absorption system and septic tanks and no public water supply wells within 1,000 feet. The rural water district pressure water main is more than 25 feet from the proposed soil absorption system and septic tanks. There is a soil conservation type reservoir on the golf course located approximately 250 feet southwest of the proposed soil absorption field.

Must be 30'

Proposed Expansion:

The Owners are proposing to expand the existing clubhouse from 4035 square feet to 9660 square feet and add more toilets, showers, and kitchen and dining

facilities. The expanded clubhouse would include a dining area which would seat a maximum of 200 people and a bar service area that would seat a maximum of 50 people. No party rooms are included. The kitchen would have capacity to provide short-order type menu service with disposable and limited dish and silverware service as would be provided at a sports-bar type establishment. For larger gatherings, outside catered food service would be possible. The wastewater treatment needs of this expansion will likely exceed the capacity of the existing soil absorption field. Adding more lateral to the existing field does not appear to be possible.

Wastewater Volume:

Water meter records for the clubhouse for the entire year of 1994 indicate an average water use of 600 gpd for domestic, cart washing and clubhouse lawn irrigation. More careful observation of the meter records from March 15, 1995 to June 21, 1995 shows an average use of 520 gpd for domestic use and cart washing only (please note that the cart washing water is discharged on the surface).

The existing clubhouse has 44.5 waste fixture-units (based on the City of Lincoln Plumbing Code) in it's plumbing system. The proposed expansion will increase the number of waste fixture units to 95.0 which represents an increase of 213%. It should be noted that the new water closets, urinals and showers to be installed in the expanded clubhouse will be lower water consuming fixtures than those fixtures now existing in the clubhouse, but the existing and expanded waste fixture units used herein are identical in value (for example, both the existing and the new water closets are rated at 6 waste fixture units each).

Considering the full 600 gpd average water use as the current wastewater discharge and increasing that discharge in the same proportion as the existing to the proposed waste fixture units, and then allowing for an approximate 60% increase in future water use because of changes in food service:

Future Average Wastewater Discharge: $Q = 600(2.13)(1.60) \approx 2{,}000$ gpd

Proposed Watewater Treatment System:

We propose installing a 70 lb. capacity internal grease trap to the building plumbing system to intercept flows from the kitchen three-compartment sink prior to discharge into the wastewater treatment system. Also, we propose installing two 1500 gallon precast concrete septic tank in series for primary treatment. A diversion box will be provided so that the two existing 1000 gallon tanks can be

operated in series and the existing soil absorption system utilized when the pumping station is being repaired or is undergoing maintenance. A small two-pump pumping station would be added downstram from the new septic tank to pump the effluent from both septic tanks through a 3-inch force main up to a new dosing tank and soil absorption system to be located immediately west of the existing clubhouse parking lot (see Site Plan, Sheet C2-1). The 12' x 8' x 4' dosing tank, with two automatic siphons, has the capacity to provide alternating dosages of approximately 1020 gallons to each half of the soil absorption system, thus allowing each half of the absorption system to rest between doses (see tank details on Sheet C2-2).

Proposed Soil Absorption System:

Percolation tests made at the site of the proposed soil absorption system indicate an average percolation rate of 12.8 minutes per inch (see attached reports of Terracon Consultants, Inc. dated September 8, 1995). Using this percolation rate, from *Diagram C*, we calculate the allowable rate for application of sewage to the apsorption system Q = 1.4 gal. / sq. ft. / day.

Using a design flow of 2,000 gal. / day, the area required would be ≈ 1430 sq. ft.

Based on a 4 ft. wide trench, the total lateral length required would be ≈ 360 lin. ft.

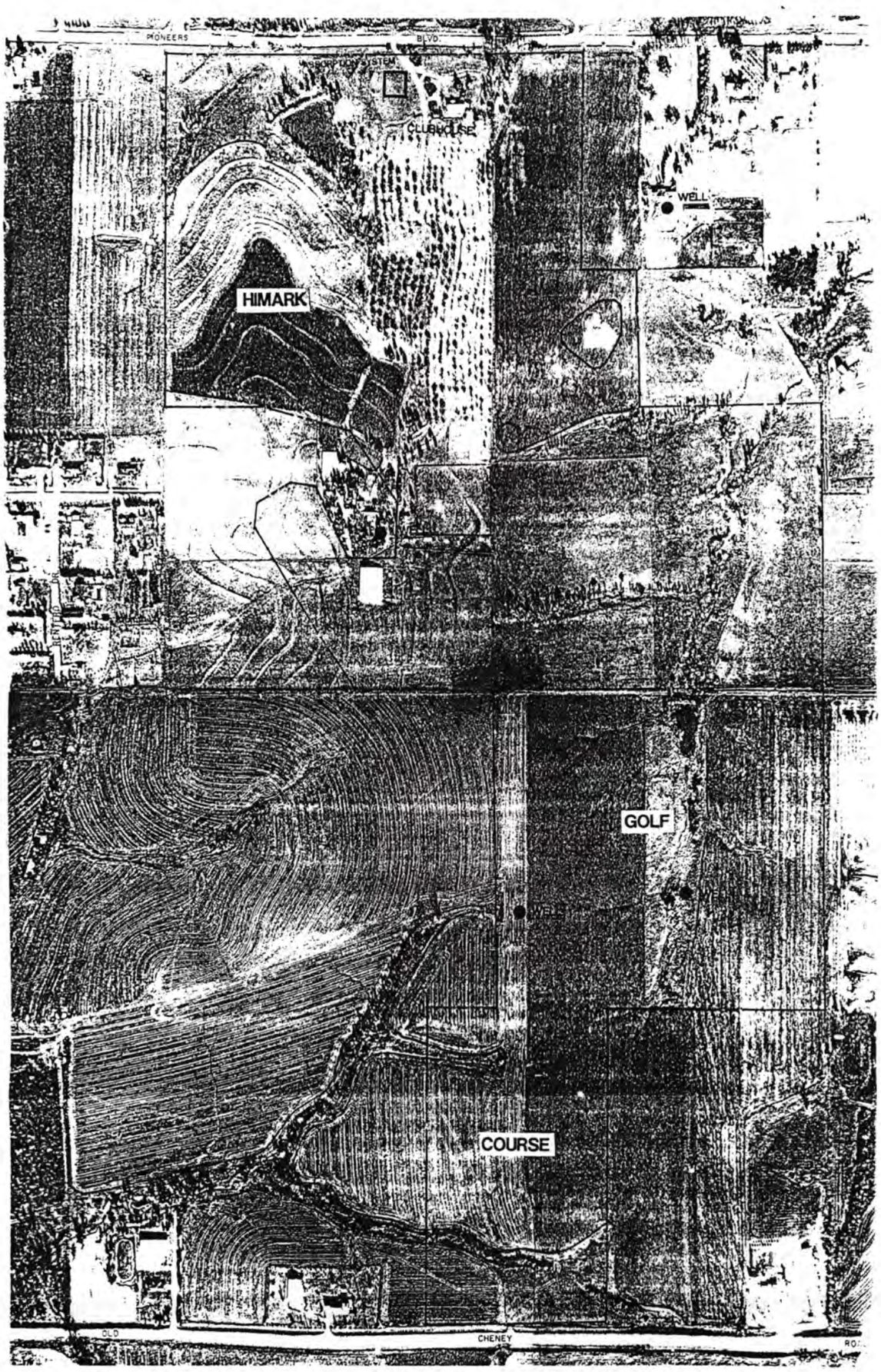
We propose to construct 5 - 38' x 4' trenches with 36' of C-Crete half moon laterals in each half of the soil absorption system for a total length of 360 lin. ft. of lateral in the system (see plan of soil absorption system on Sheet C2-1 and typical cross-section of laterals on Sheet C2-2).

An area approximately 105 feet by 50 feet adjacent to the west side of the proposed soil absorption system will be reserved for possible future replacement of the proposed system should it fail (see site plan Sheet C2-1).

DAVIS DESIGN

Richard L. Chase, P.E.

Revised October 3, 1995



Himark Golf Course Clubhouse Expansion

PRELIMINARY ENGINEERING REPORT
WASTEWATER TREATMENT

SCALE: 1" = 400'

EXHIBIT 1 - LOCATION PHOTO

Terracon
CONSULTANTS, INC.
4921 North 57th Street, Suite 1
Lincoln, Nebraska 68507
(402) 466-3911

Date: September 8, 1995

Davis Design
211 N. 14th Street
Lincoln, NE 68508

Attention: Mr. Matt Metcalf

Re: Himark Golf Course Percolation Testing

Job No: 05957020

Gentlemen:

We are transmitting
- [x] herewith
- [ ] under separate cover _____ copies of the

- [x] Field Data
- [ ] Laboratory Data
- [x] Report

Regarding:

- [ ] Compacted Fills
- [ ] Footings
- [ ] Drilled Piers
- [ ] Piles
- [ ] Concrete
- [ ] Asphalt
- [ ] Roofing
- [ ] Aggregate
- [ ] Non-destructive Testing of Steel
- [ ] Non-destructive Testing of Concrete
- [ ] Grain Size Analysis
- [x] Boring Logs
- [x] Location Diagram
- [ ] Soil Samples
- [ ] Rock Core Samples
- [ ] Construction Material Samples
- [ ] Moisture-Density
- [ ] Consolidation
- [ ] Triaxial Compression
- [ ] Permeability
- [ ] Field Boring Logs
- [x] Percolation Tests
- [ ] Geologic Report of
  - [ ] Seismic Survey
  - [ ] Resistivity Survey
  - [ ] Site Rock Conditions
  - [ ] Aggregate Development
- [ ] General Information
  - [ ] Technical Expertise
  - [ ] Resumes
  - [ ] Other
- [ ] Report will follow under separate cover

On-site observation services were provided [ ] Full time [ ] Part time N/A

We have not been asked to interpret the data or to make design and/or construction recommendations based on the data, and cannot assume responsibility or liability for interpretation of this data by others.

Remarks: We appreciate the opportunity to be of service to you on this project. Please contact us if you have any questions regarding this data.

Yours truly,

TERRACON CONSULTANTS, INC.

Douglas S Carlson

Douglas S. Carlson - Operations Manager

PERCOLATION TEST REPORT

PROJECT NAME: HIMARK GOLF COURSE PROJECT NUMBER: 05957020

DEPTH OF BORING: 36 inches	DIAMETER OF BORING: 8 inches
PRESATURATION PERIOD: 24 hours	TEST NUMBER: 1
SOIL TYPE: LEAN CLAY, TRACE SAND	

FIELD TEST DATA

TEST DATE	TEST TIME	ELAPSED TIME	WATER LEVEL, INCHES	PERCOLATION RATE
9-7-95	1438	0	12.00	
"	1453	15	9.75	
"	1508	30	8.25	
"	1538	60	2.50	
"	1638	120	0 @ 1611, REFILLED 10.75	

AVERAGE PERCOLATION RATE OVER FINAL 60 MINUTES: 16 MINUTES/INCH

Terracon

PERCOLATION TEST REPORT

PROJECT NAME: HIMARK GOLF COURSE PROJECT NUMBER: 05957020

DEPTH OF BORING: 36 inches	DIAMETER OF BORING: 8 inches
PRESATURATION PERIOD: 24 hours	TEST NUMBER: 2
SOIL TYPE: LEAN CLAY, TRACE SAND	

FIELD TEST DATA

TEST DATE	TEST TIME	ELAPSED TIME	WATER LEVEL, INCHES	PERCOLATION RATE
9-7-95	1440	0	12.00	
"	1455	15	8.75	
"	1510	30	8.00	
"	1540	60	6.00	
"	1640	120	0 @ 1613, REFILLED 10.00	

AVERAGE PERCOLATION RATE OVER FINAL 60 MINUTES: 7.5 MINUTES/INCH

Terracon

PERCOLATION TEST REPORT

PROJECT NAME: HIMARK GOLF COURSE PROJECT NUMBER: 05957020

DEPTH OF BORING: 36 inches	DIAMETER OF BORING: 8 inches
PRESATURATION PERIOD: 24 hours	TEST NUMBER: 3
SOIL TYPE: LEAN CLAY, TRACE SAND	

FIELD TEST DATA

TEST DATE	TEST TIME	ELAPSED TIME	WATER LEVEL, INCHES	PERCOLATION RATE
9-7-95	1441	0	12.00	
"	1456	15	9.00	
"	1511	30	8.75	
"	1541	60	0 @ 1530, REFILLED 10.75	
"	1641	120	6.75	

AVERAGE PERCOLATION RATE OVER FINAL 60 MINUTES: 15 MINUTES/INCH

Terracon

LOG OF BORING NO. 1

CLIENT	ARCHITECT/ENGINEER
HIMARK GOLF COURSE	DAVIS DESIGN
SITE	**PROJECT**
LINCOLN, NEBRASKA	HIMARK GOLF COURSE

GRAPHIC LOG	DESCRIPTION	DEPTH (FT.)	USCS SYMBOL	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES RECOVERY	SAMPLES SPT - N BLOWS / FT.	TESTS MOISTURE, %	TESTS DRY DENSITY PCF	TESTS UNCONFINED STRENGTH PSF
	Est. Surface Elev.: 100 ft.									
	4" Root Zone At Surface				HA					
	LEAN CLAY, TRACE SAND		CL	1	AS			14.5		
	Brown Gray To Brown									
	(LOESS)				HA					
	4 96									
	LEAN CLAY, WITH SAND		CL	2	AS			21.4		
	6 0Brown Orange, (LOESS) 94	5								
	LEAN TO FAT CLAY WITH SAND				HA					
	Brown to Brown Gray		CL /CH	3	AS			17.2		
	(GLACIAL TILL)	10	CL /CH	4	AS			14.8		
	13 87		~~CL~~/CH	5	AS			16.5		
	BOTTOM OF BORING									

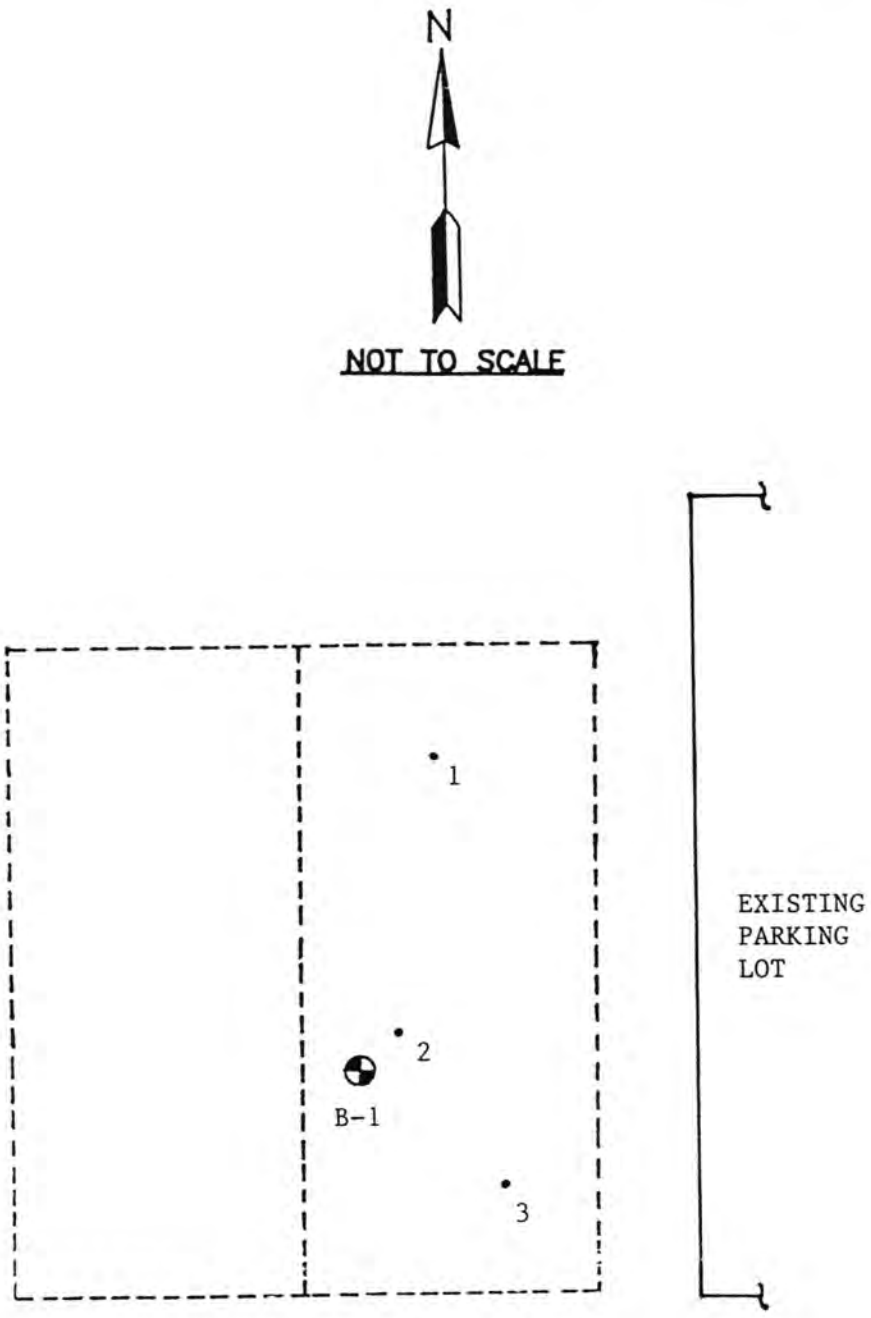
THE STRATIFICATION LINES REPRESENT THE APPROXIMATE BOUNDARY LINES BETWEEN SOIL AND ROCK TYPES: IN-SITU, THE TRANSITION MAY BE GRADUAL.

Calibrated Hand Penetrometer*

WATER LEVEL OBSERVATIONS				
WL	▼NONE	WD	▼NONE	AB
WL				
WL				

Terracon

BORING STARTED	9-6-95
BORING COMPLETED	9-6-95
RIG HAND AUGER	FOREMAN
APPROVED DSC	JOB # 05957020



NOTE: Taken from drawing provided by Davis Design

PERCOLATION TEST AND BORING LOCATION DIAGRAM
HIMARK GOLF COURSE
LINCOLN, NEBRASKA

Job # 05957020	Date 9/8/95	Drawn ------

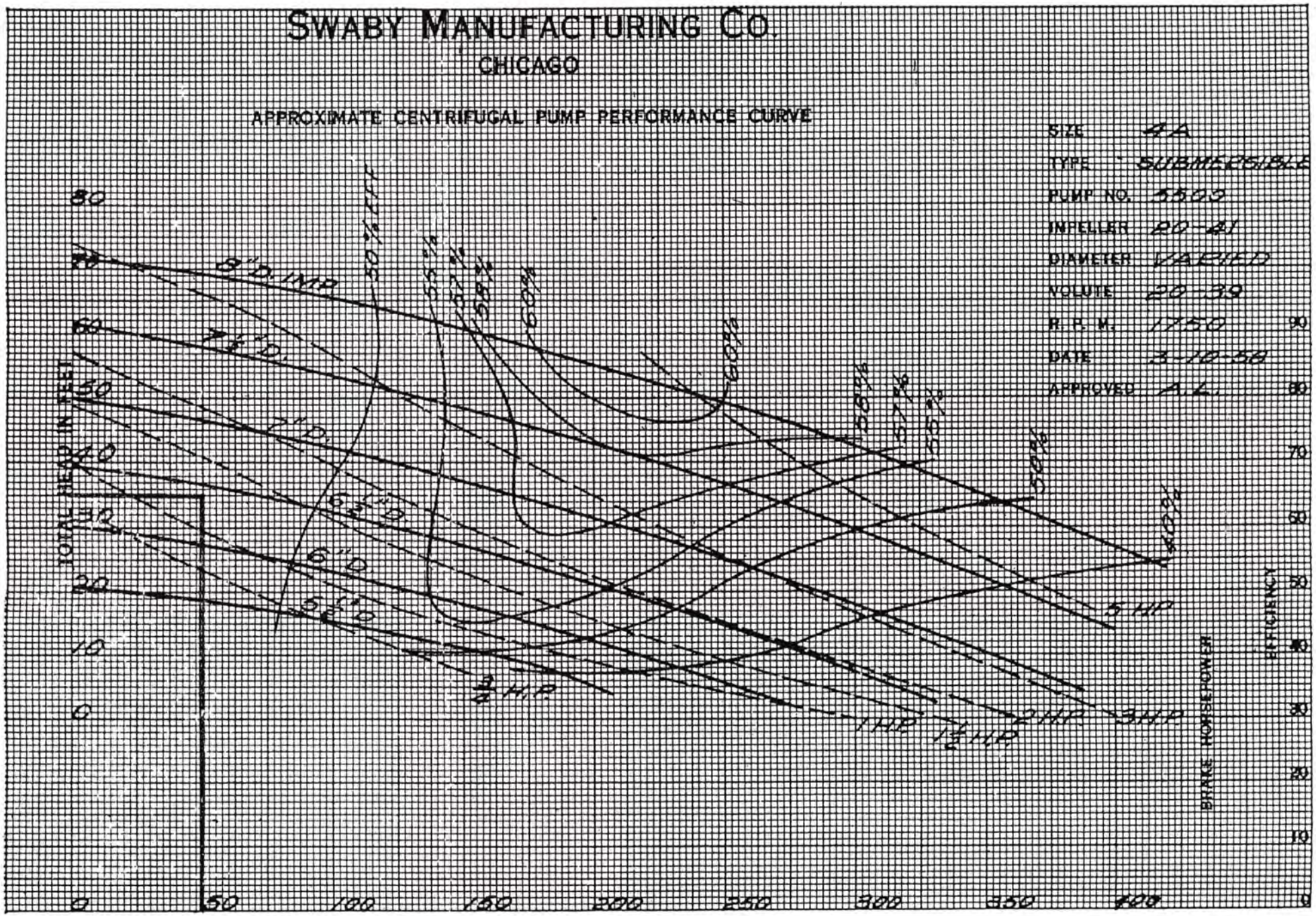
Terracon

SWABY MANUFACTURING CO.

CHICAGO

APPROXIMATE CENTRIFUGAL PUMP PERFORMANCE CURVE

SIZE 4A
TYPE SUBMERSIBLE
PUMP NO. 3303
IMPELLER 20-21
DIAMETER CASED
VOLUTE 20-39
R. P. M. 1750
DATE 3-10-38
APPROVED A. L.



CP-511

TO: Board of Health

FROM: John Miner, Team Supervisor, Division of Consumer Services

SUBJECT: Waiver request of Policy 0202.27

Himark Golf Course, located at 9001 Pioneers Blvd., is requesting a waiver of Policy No. 0202.27 to allow the expansion of a septic system for a related expansion of their clubhouse. The proposed expansion includes a doubling in size and addition of a kitchen.

Board of Health Policy No. 0202.27 states: "The use of septic tanks and lateral fields shall not be considered as an acceptable method of sewage disposal for new eating establishments in Lancaster County because of the inability of this type of system to handle the grease loading accompanying food establishments."

The engineering firm "Davis Design" has not provided supporting data for justification of a waiver. The only reference to grease interception was with the standard grease trap at the three compartment sink.

Additional lateral lines were last added to the existing system in October 1992 to cover addition of the present clubhouse. No plans were submitted at that time.

Based upon designs submitted at this time by Davis Design, Health Department Staff can not recommend approval of this waiver.

Staff do NOT recommend approval
of waiver for BOH Policy 0202.27
for the Himark Golf Course
septic system expansion

BORING LOG

Drill Hole No.	Location of Drill Hole	Elevation	Datum	Driller	Logger
DH-1	See Plan	1368	Topo Map	K. Kuehn (CED)	R. Kuehn (CED)

Type of Surface	Drill Rig	Drilling Method	Total Depth
Grass	CME-55	4" CFA	13'

Water Level Observations

While Drilling	End of Drilling	24 Hours After Drilling	____ Hours
--	--	--	--

Depth (Feet)	Sample Data			Sediment Description					Depth (Feet)
	Sample No. & Type	% Rec.	Blow Count	Color	Moist	Cons.	Group Name	Geologic Description & Other Remarks	
				Reddish brn.	Moist	Hard	CL/CH	Developed zone, roots	
				Reddish brn-yellow			CH	Glacial till, fat clay, fine to coarse sand mixed in evenly, large calcite concretions	
5	U-1	100							5
10	SS-2	100	10/15/21						10
	SS-3	100	7/11/15						
15								Bottom of Hole at 13'	15
20									20

OLSSON ENVIRONMENTAL SCIENCES

Project Himark Golf Course

Location Lincoln, Nebraska

Job No. 95-083ES **Date** 12-13-95

BORING LOG

Drill Hole No.	Location of Drill Hole	Elevation	Datum	Driller	Logger
DH-2	See Plan	1370	Topo Map	K. Kuehn (CED)	R. Kuehn (CED)

Type of Surface	Drill Rig	Drilling Method	Total Depth
Grass	CME-55	4" CFA	16'

Water Level Observations

While Drilling	End of Drilling	24 Hours After Drilling	____ Hours
--	--	--	--

Depth (Feet)	Sample Data			Sediment Description					Depth (Feet)
	Sample No. & Type	% Rec.	Blow Count	Color	Moist	Cons.	Group Name	Geologic Description & Other Remarks	
	1-15' Proctor			Reddish brn.	Moist	Hard	CL/CH	Developed zone, roots	
				Reddish brn-Yellow			CH	Glacial till, fat clay, fine to medium sand mixed in evenly, large calcite concretions	
5									5
	U-1	100							
10	SS-2	100	10/15/21						10
15									15
	SS-3	100	11/13/15						
20								Bottom of Hole at 16'	20

OLSSON ENVIRONMENTAL SCIENCES

Project Himark Golf Course

Location Lincoln, Nebraska

Job No. 95-083ES **Date** 12-13-95

BORING LOG

Drill Hole No.	Location of Drill Hole	Elevation	Datum	Driller	Logger
DH-3	See Plan	1375	Topo Map	K. Kuehn (CED)	R. Kuehn (CED)

Type of Surface	Drill Rig	Drilling Method	Total Depth
Grass	CME-55	4" CFA	25'

Water Level Observations

While Drilling	End of Drilling	24 Hours After Drilling	____ Hours
--	--	--	--

Depth (Feet)	Sample Data			Sediment Description					Depth (Feet)
	Sample No. & Type	% Rec.	Blow Count	Color	Moist	Cons.	Group Name	Geologic Description & Other Remarks	
	2-8' Proctor			Dk. reddish brown	Moist	Firm	Sandy silty clay, CL	Developed zone, roots	
								Loveland formation, lean clay, small amount of fine sand mixed in evenly and in fine seams, rust, root and rootholes	
5	SS-1	100	7/8/10						5
				Reddish brn-Yellow		Hard	CH	Glacial till, fat clay, fine to coarse sand mixed in evenly, large calcite concretions, rust stains	
10									10
	U-2	100							
15	SS-3	100	8/11/13						15
20	SS-4	100	8/12/17						20

OLSSON ENVIRONMENTAL SCIENCES

Project Himark Golf Course

Location Lincoln, Nebraska

Job No. 95-083ES **Date** 12-13-95

BORING LOG

Drill Hole No.	Location of Drill Hole	Elevation	Datum	Driller	Logger
DH-3	See Plan	1375	Topo Map	K. Kuehn (CED)	R. Kuehn (CED)

Depth (Feet)	Sample No. & Type	% Rec.	Blow Count	Color	Moist	Cons.	Group Name	Geologic Description & Other Remarks	Depth (Feet)
25	SS-5	100	8/12/15						25
								Bottom of Hole at 25'	
30									30
35									35
40									40
45									45

OLSSON ENVIRONMENTAL SCIENCES

Project Himark Golf Course

Location Lincoln, Nebraska

Job No. 95-083ES

Date 12-13-95

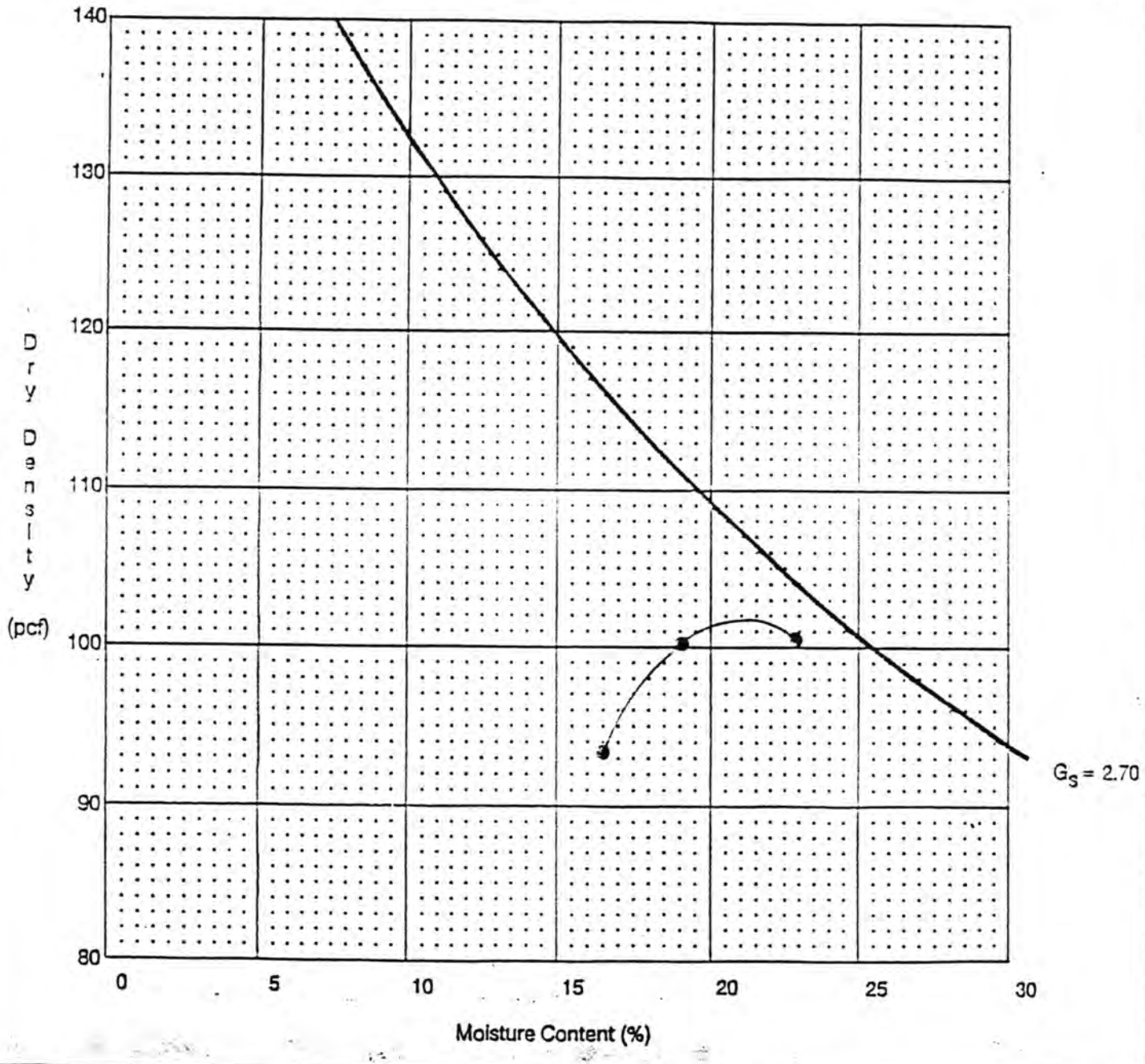
MOISTURE - DENSITY RELATIONSHIP

Sample Identification DH-2 2' - 15'

Sample Description Lt Brn Till

Liquid Limit _____ Plastic Limit _____ Plasticity Index _____ Classification _____

Type of Test D698 Maximum Dry Density 101.9 pcf Optimum Moisture Content 21 %



OLSSON ENVIRONMENTAL SCIENCES	Project: Himark Golf	
	Location:	
	Job Number: 95-083ES	Date: 1/15/96

File Name HIGHD01.WK3 Date 1-10-96
Job No. 95-083ES Curve No. - Lab No. 2944
Project Name Highmark Golf Course; Olsson Environmental Services
Sample I.D. DH-1; U-1; 3-5'
Soil Type Glacial Till

Type of Sample (Mark One) Undisturbed X Remolded
Direction of Flow (Mark One) X Vertical Lateral
Max. Dry Unit Wt. - lb/cu ft Optimum Moisture - %
Desired Compaction - % Desired Moisture 21.0 %

MOISTURE DETERMINATION

Container No.	99
Total Wet Wt.	144.40
Total Dry Wt.	125.83
Wt. of Water	18.57
Container Wt.	35.30
Net Wt. Dry	90.53
Water, %	20.51

UNIT WEIGHT DETERMINATION

Permeameter No.		64
Sample Diameter	in.	2.853
Sample Height	in.	3.017
Sample Volume	cu. ft.	
Spacer Thickness	in.	
Wt. of Perm. + Wet Soil	gm	
Wt. of Permeameter	gm	
Wet Wt. of Soil	gm	594.70
Dry Density	lb/cu.ft.	97.47
Compaction	%	

Small Burette Area	cc	
Other, cc.	cc	
Sample Length	cm	7.66
Area of Sample	cc	41.24
Head Correct.	cm	-184.5
Soaking @		

Burette No.		6
Area of Burette	sq. cm.	0.15278121

START TEMP	END TEMP	START DATE	START HOUR	START MINUTE	END DATE	END HOUR	END MINUTE
24.50	24.70	10.00	8.00	19.00	10.00	8.00	53.00
24.70	24.90	10.00	8.00	54.00	10.00	9.00	43.00
24.90	24.80	10.00	9.00	44.00	10.00	11.00	9.00
24.80	24.70	10.00	11.00	10.00	10.00	15.00	41.00
24.80	24.70	11.00	8.00	27.00	11.00	11.00	8.00
24.70	25.20	15.00	9.00	20.00	15.00	14.00	0.00
25.30	24.80	15.00	17.00	10.00	16.00	8.00	34.00
24.80	25.10	16.00	8.00	37.00	16.00	10.00	50.00
25.10	24.80	16.00	10.00	50.00	16.00	16.00	0.00
24.80	24.70	16.00	16.00	1.00	17.00	8.00	55.00
24.70	24.30	17.00	9.00	2.00	17.00	15.00	36.00

Start Quantity	End Quantity	Log H0/H1	Total Seconds	2.3*a*L/A	K at Test Temp	Temp Correction	K AT 20 C	Average K @ 20 C
341.90	334.20	0.021783	2040	1.422E-03	6.972E-07	0.886620	6.181E-07	6.181E-07
343.90	332.80	0.031347	2940	2.047E-03	6.961E-07	0.881560	6.137E-07	6.159E-07
345.30	325.90	0.055837	5100	3.646E-03	7.148E-07	0.880295	6.293E-07	6.204E-07
346.50	298.20	0.153755	16260	1.004E-02	6.174E-07	0.882825	5.450E-07	6.015E-07
342.00	317.90	0.072125	9660	4.709E-03	4.875E-07	0.882825	4.304E-07	5.546E-07
344.00	328.30	0.045002	16800	2.938E-03	1.749E-07	0.877765	1.535E-07	4.395E-07
339.10	300.80	0.123630	55440	8.072E-03	1.456E-07	0.875235	1.274E-07	3.141E-07
352.80	343.00	0.026055	7980	1.701E-03	2.132E-07	0.877765	1.871E-07	2.246E-07
343.00	327.30	0.045301	18600	2.958E-03	1.590E-07	0.877765	1.396E-07	1.519E-07
356.80	311.50	0.132482	60840	8.650E-03	1.422E-07	0.882825	1.255E-07	1.449E-07
356.20	337.80	0.049228	23640	3.214E-03	1.360E-07	0.889150	1.209E-07	1.433E-07

Figure 1

File Name HIGHD03.WK3 Date 1-10-96
Job No. 95-083ES Curve No. - Lab No. 2945
Project Name Highmark Golf Course; Olsson Environmental Services
Sample I.D. DH-3; U-2; 10-12'
Soil Type Glacial Till

Type of Sample (Mark One) Undisturbed X Remolded
Direction of Flow (Mark One) X Vertical Lateral
Max. Dry Unit Wt. - lb/cu ft Optimum Moisture - %
Desired Compaction - % Desired Moisture 21.0 %

MOISTURE DETERMINATION

Container No.	143
Total Wet Wt.	150.16
Total Dry Wt.	131.83
Wt. of Water	18.33
Container Wt.	48.96
Net Wt. Dry	82.87
Water, %	22.12

UNIT WEIGHT DETERMINATION

Permeameter No.		67
Sample Diameter	in.	2.850
Sample Height	in.	3.027
Sample Volume	cu. ft.	
Spacer Thickness	in.	
Wt. of Perm. + Wet Soil	gm	
Wt. of Permeameter	gm	
Wet Wt. of Soil	gm	598.70
Dry Density	lb/cu.ft.	96.72
Compaction	%	

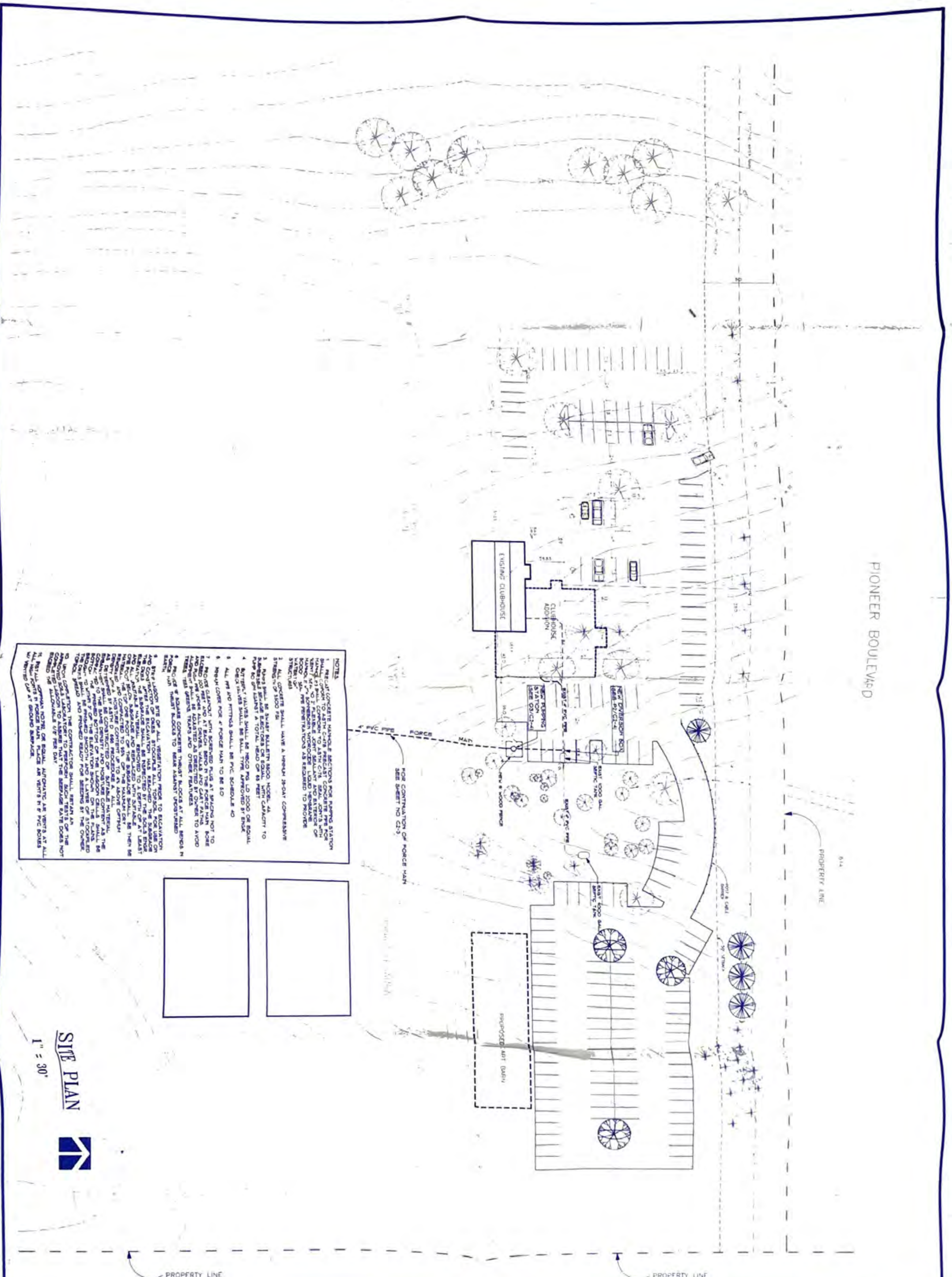
Small Burette Area	cc	
Other, cc.	cc	
Sample Length	cm	7.69
Area of Sample	cc	41.16
Head Correct.	cm	54.7
Soaking @		

Burette No.		7
Area of Burette	sq. cm.	0.15256646

START TEMP	END TEMP	START DATE	START HOUR	START MINUTE	END DATE	END HOUR	END MINUTE
24.50	24.70	10.00	8.00	18.00	10.00	8.00	51.00
24.70	24.90	10.00	8.00	52.00	10.00	9.00	42.00
24.90	24.80	10.00	9.00	42.00	10.00	11.00	11.00
24.80	24.70	10.00	11.00	12.00	10.00	15.00	40.00
24.90	25.30	11.00	8.00	26.00	11.00	11.00	10.00
25.20	25.40	15.00	14.00	5.00	15.00	15.00	35.00
25.40	25.20	15.00	15.00	35.00	15.00	16.00	10.00
25.40	25.30	15.00	16.00	10.00	15.00	17.00	10.00
24.80	25.10	16.00	8.00	37.00	16.00	10.00	36.00
25.10	24.80	16.00	10.00	50.00	16.00	16.00	3.00
24.70	24.30	17.00	9.00	4.00	17.00	15.00	37.00

Start Quantity	End Quantity	Log H0/H1	Total Seconds	2.3*a*L/A	K at Test Temp	Temp Correction	K AT 20 C	Average K @ 20 C
102.50	75.80	0.080842	1980	5.299E-03	2.676E-06	0.886620	2.373E-06	2.373E-06
109.90	76.00	0.100154	3000	6.565E-03	2.188E-06	0.881560	1.929E-06	2.151E-06
109.70	58.30	0.162823	5340	1.067E-02	1.999E-06	0.880295	1.760E-06	2.021E-06
110.40	6.20	0.433130	16080	2.839E-02	1.766E-06	0.882825	1.559E-06	1.905E-06
102.70	48.80	0.182064	9840	1.193E-02	1.213E-06	0.873970	1.060E-06	1.577E-06
107.00	58.20	0.156016	5400	1.023E-02	1.894E-06	0.868910	1.646E-06	1.506E-06
105.90	76.40	0.088143	2100	5.778E-03	2.751E-06	0.868910	2.391E-06	1.664E-06
76.40	40.30	0.139879	3600	9.169E-03	2.547E-06	0.867645	2.210E-06	1.827E-06
109.40	54.30	0.177682	7140	1.165E-02	1.631E-06	0.877765	1.432E-06	1.920E-06
113.20	13.20	0.393181	18780	2.577E-02	1.372E-06	0.877765	1.205E-06	1.809E-06
113.40	10.80	0.409326	23580	2.683E-02	1.138E-06	0.889150	1.012E-06	1.465E-06

Figure 2



REV NO	△
SHEET NO	C2-1
DATE	1-09-96
CHECKED	
DRAWN	RLC
PROJECT NO	95006

TITLE Site Plan
Clubhouse Vicinity

PROJECT Wastewater System
Himark Golf Course
Clubhouse Expansion
Lincoln, Nebraska

DAVIS DESIGN

Architecture
Engineering
Interior Design

Lincoln:
211 North 14th Street
Lincoln, Nebraska 68508
Phone (402) 476-9700
FAX (402) 476-9722

Omaha:
1110 Douglas Street
Omaha, Nebraska 68102
Phone (402) 341-6600
FAX (402) 341-6611

REGISTERED PROFESSIONAL ENGINEER
RICHARD L. CHASE
E-2486
STATE OF NEBRASKA

NO.	DATE	REVISIONS
1	1-23-96	ADD AIR VENTS TO FORCE MAIN - FENCE LIFT STATION

PROJECT NO.	95006	TITLE	Site Plan Lagoon
DRAWN	RLC	PROJECT	Wastewater System Himark Golf Course Clubhouse Expansion Lincoln, Nebraska
CHECKED	2 3		
DATE	1-09-96		
SHEET NO.	C2-2		
REVISION NO.	△		

DAVIS DESIGN

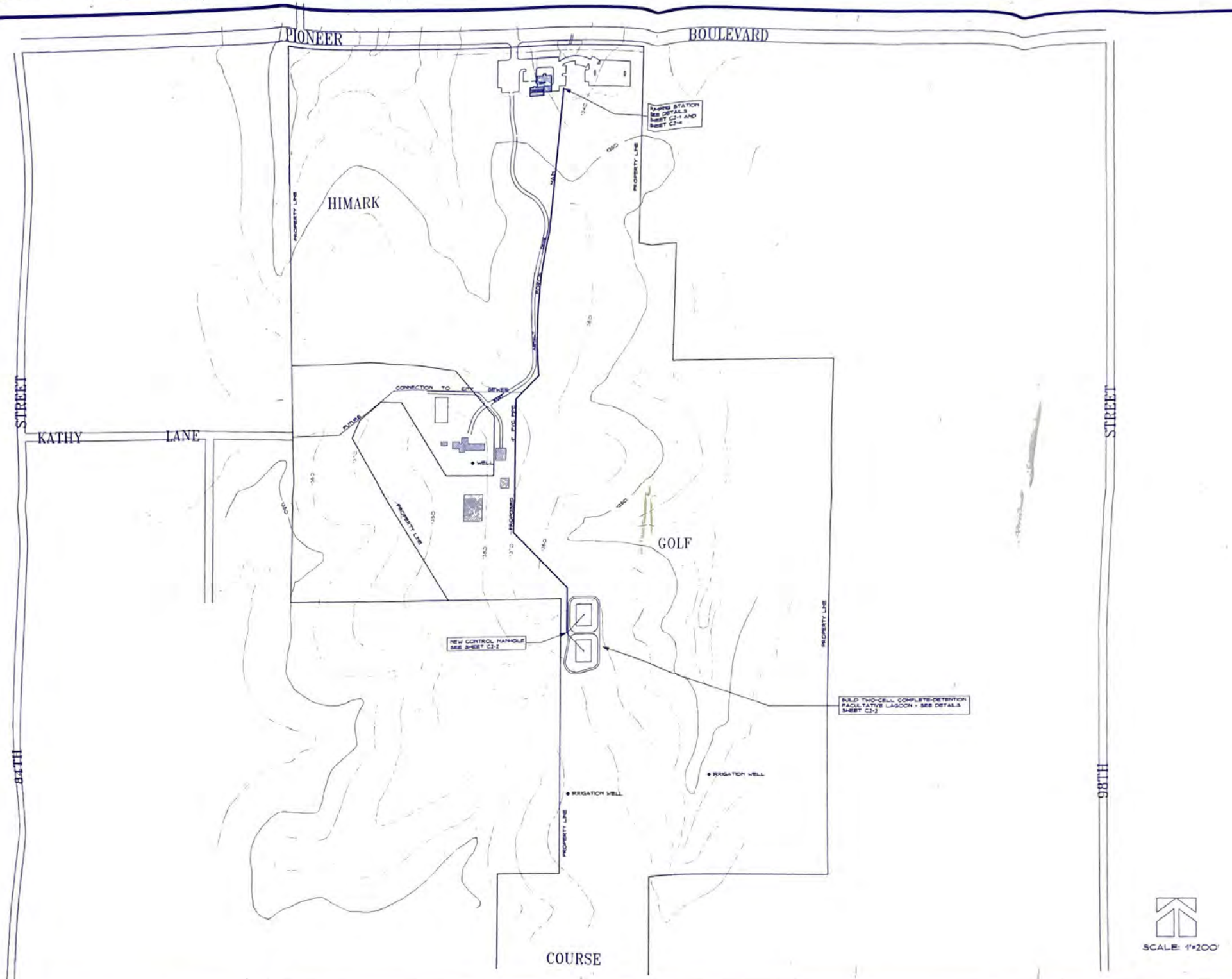
Architecture
Engineering
Interior Design

Lincoln:
211 North 14th Street
Lincoln, Nebraska 68508
Phone (402) 476-9700
FAX (402) 476-9722

Omaha:
1110 Douglas Street
Omaha, Nebraska 68102
Phone (402) 341-6600
FAX (402) 341-6610

REGISTERED PROFESSIONAL ENGINEER
RICHARD L. CHASE
E-2486
STATE OF NEBRASKA

NO.	DATE	REVISIONS



REVISIONS

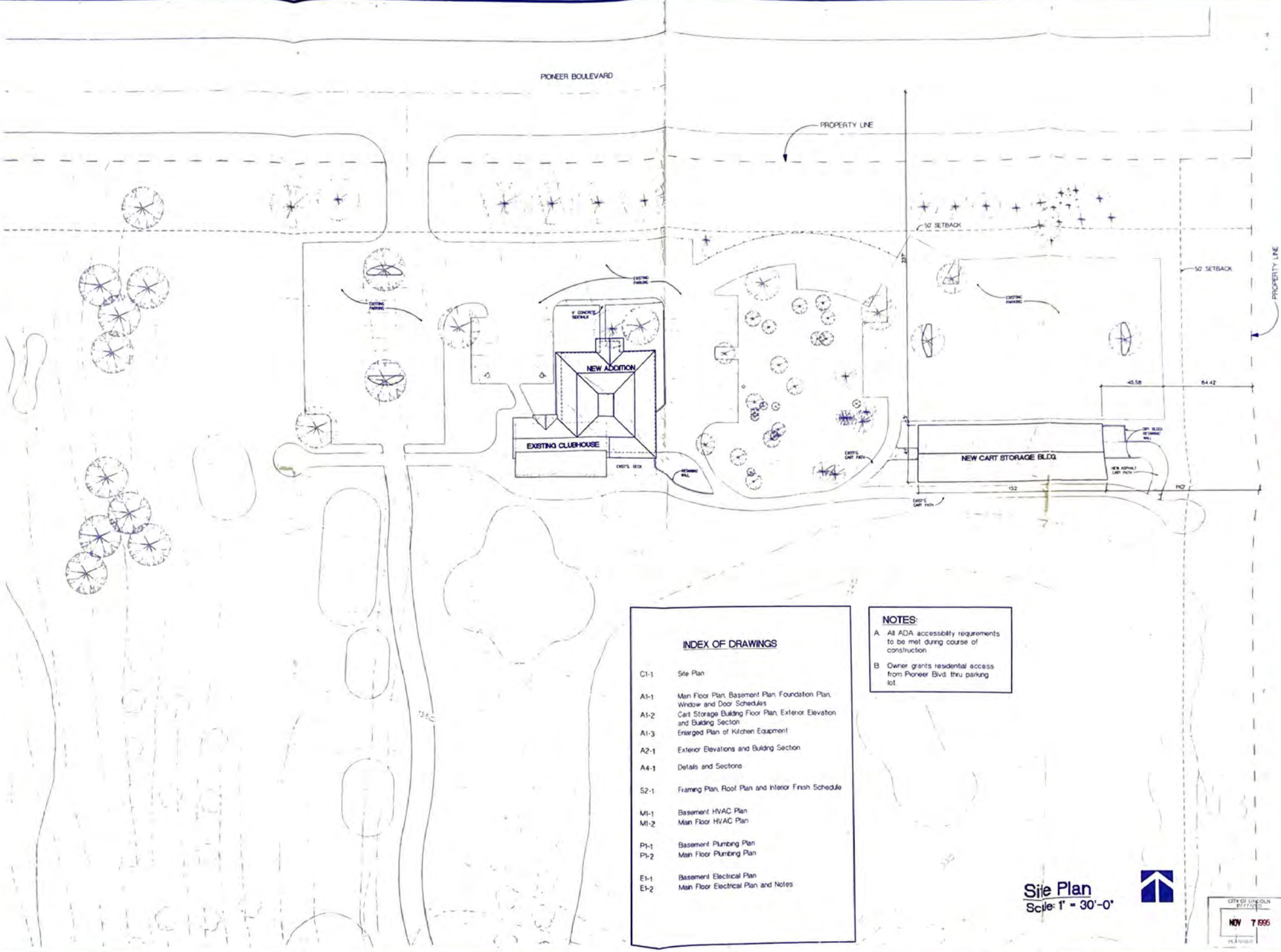
NO. | DATE

Anderson Engineering, Inc. of Lincoln
Davis Design
Omaha
Lincoln
DAVIS DESIGN

TITLE: Site Plan
Force Main

PROJECT: Wastewater System
Himark Golf Course
Clubhouse Expansion
Lincoln, Nebraska

PROJECT NO. 95006
DRAWN RLG/AFM
CHECKED 1 2 3
DATE 1-09-96
SHEET NO. C2-3
REV NO. △



INDEX OF DRAWINGS

C1-1	Site Plan
A1-1	Main Floor Plan, Basement Plan, Foundation Plan, Window and Door Schedules
A1-2	Cart Storage Building Floor Plan, Exterior Elevation and Building Section
A1-3	Enlarged Plan of Kitchen Equipment
A2-1	Exterior Elevations and Building Section
A4-1	Details and Sections
S2-1	Framing Plan, Roof Plan and Interior Finish Schedule
M1-1	Basement HVAC Plan
M1-2	Main Floor HVAC Plan
P1-1	Basement Plumbing Plan
P1-2	Main Floor Plumbing Plan
E1-1	Basement Electrical Plan
E1-2	Main Floor Electrical Plan and Notes

NOTES:

A. All ADA accessibility requirements to be met during course of construction.

B. Owner grants residential access from Pioneer Blvd. thru parking lot.

Site Plan

Scale: 1" = 30'-0"

CITY OF LINCOLN BUILDING & SAFETY
NOV 7 1995

REVISIONS

NO	DATE

PROFESSIONAL ENGINEER
RICHARD L. CHACE
E-2456
REGISTERED
STATE OF NEBRASKA

Architecture
Engineering
Interior Design

Omaha
1120 Dodge Street
Omaha, NE 68102
Phone (402) 341-4400
FAX (402) 341-4411

Lincoln
211 North 14th Street
Lincoln, NE 68508
Phone (402) 476-9700
FAX (402) 476-6722

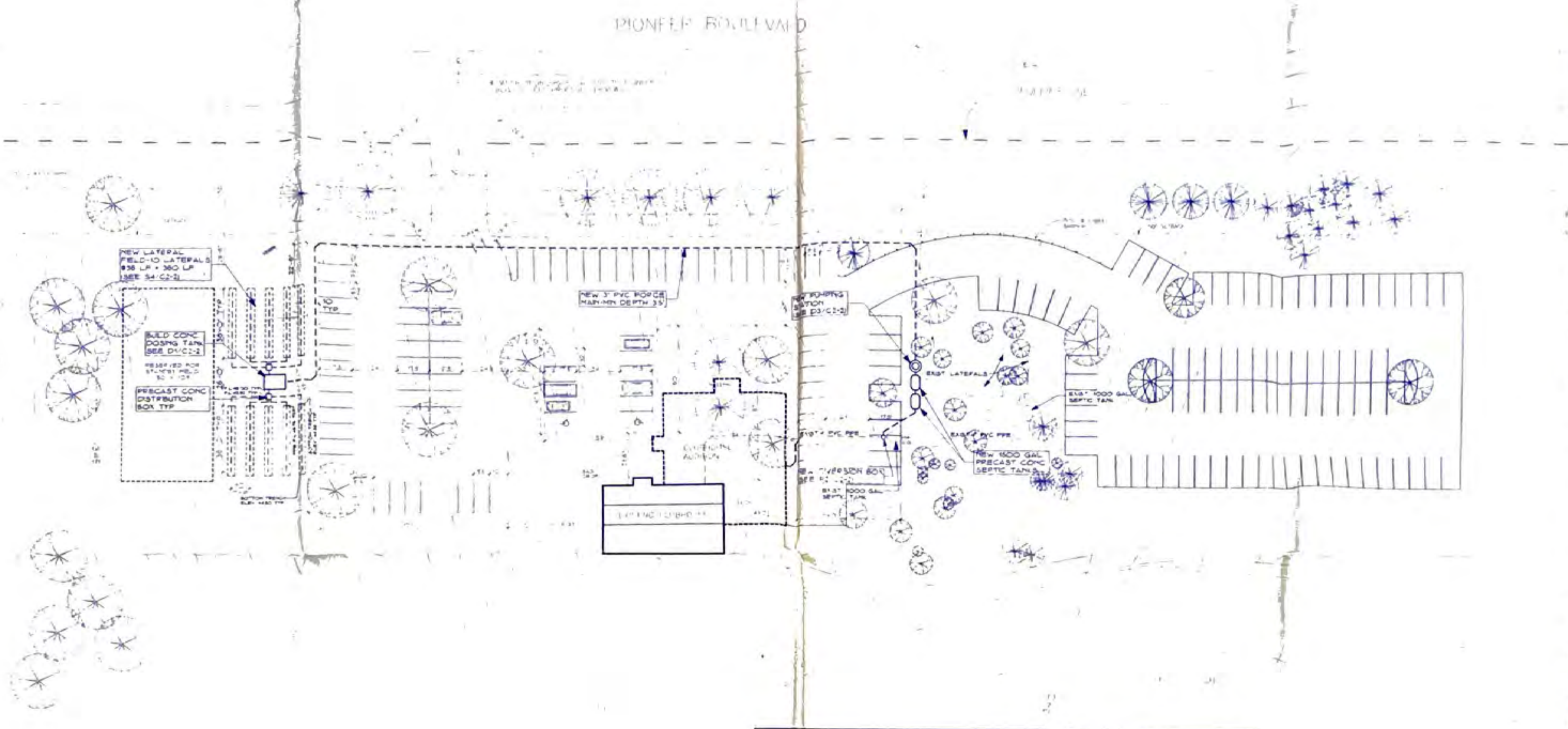
DAVIS DESIGN

TITLE: Site Plan

PROJECT: Himark Golf Course
Clubhouse Expansion &
New Cart Storage Building
Lincoln, Nebraska

PROJECT NO.	95006
DRAWN	DDH
CHECKED	1 2 3
DATE	
SHEET NO.	C1-1
REV NO.	△

11/06/1995



NOTES

1. NEW SEPTIC TANK SHALL BE 1500 GAL CAPACITY PRECAST CONCRETE AS MANUFACTURED BY "PRECAST STEP CO" LINCOLN NEBRASKA
2. DISTRIBUTION BOXES SHALL BE PRECAST CONCRETE AS MANUFACTURED BY "PRECAST STEP CO". DISTRIBUTION BOX SHALL HAVE AN INTERNAL BAFFLE OPPOSITE INLET
3. "HALFMOON" PRECAST CONCRETE TILE FOR LATERALS SHALL BE "C-CRETE" AS MANUFACTURED BY "PRECAST STEP CO"
4. DISTRIBUTION AND HEADER PIPES FOR SOIL ABSORPTION LATERALS SHALL BE 4" PVC PIPE SCHEDULE 40
5. PRESSURE MAIN PIPE SHALL BE 3" PVC SCHEDULE 40
6. RCPPE PUMP BASIN SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478
7. RCPPE PT MANHOLE AND TOP SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478
8. PROVIDE CONCRETE THRUST BLOCKS TO BEAR AGAINST UNDISTURBED EARTH AT ALL BENDS IN 3" FORCE MAIN
9. VERIFY WATER MAIN LOCATION - MIN CLEARANCE BETWEEN WATER MAIN AND SEWER LINE TO BE 18" VERT AND 10' HORIZ DISTANCE FROM LATERAL FIELD TO WATER MAIN TO BE 25 MIN
10. PROVIDE A 4" PERFORATED PVC PIPE MONITORING WELL WITH A REMOVABLE CAP AT THE CENTER OF THE CENTER LATERAL OF EACH HALF OF THE ABSORPTION FIELD. WELL TO EXTEND TO 6" ABOVE THE FINISH GRADE

SITE PLAN

1" = 30'

NO	DATE	REVISIONS
1	10-4-95	ADDED SEPTIC TANK AND REVISED LATERAL FIELD

DAVIS DESIGN — Architecture, Engineering, Interior Design — Lincoln / Omaha

TITLE: Wastewater System Site Plan

PROJECT: Himark Golf Course Clubhouse Expansion, 9200 Pioneers Blvd, Lincoln, Nebraska

PROJECT NO: 95006

DRAWN: RLC

CHECKED: 1 2 3

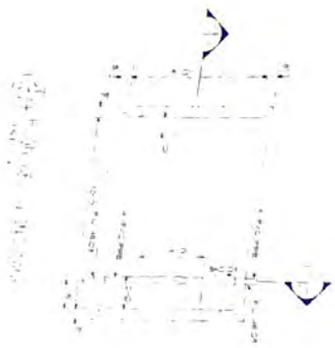
DATE: 9/15/95

SHEET NO: C2-1

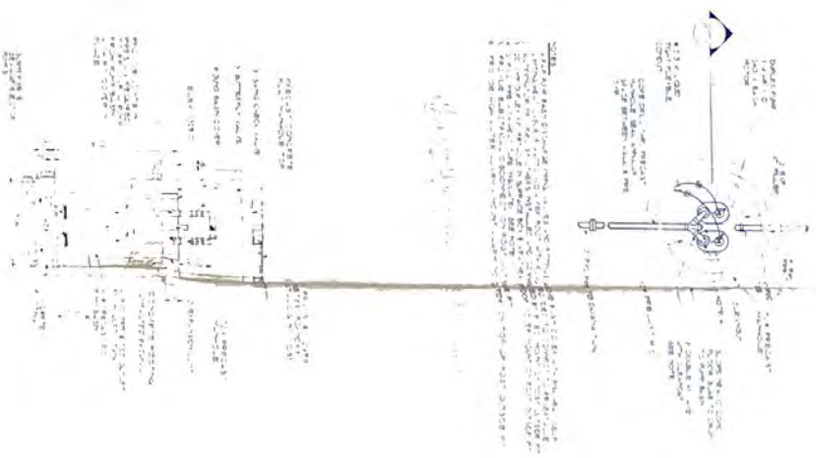
REV NO: 1









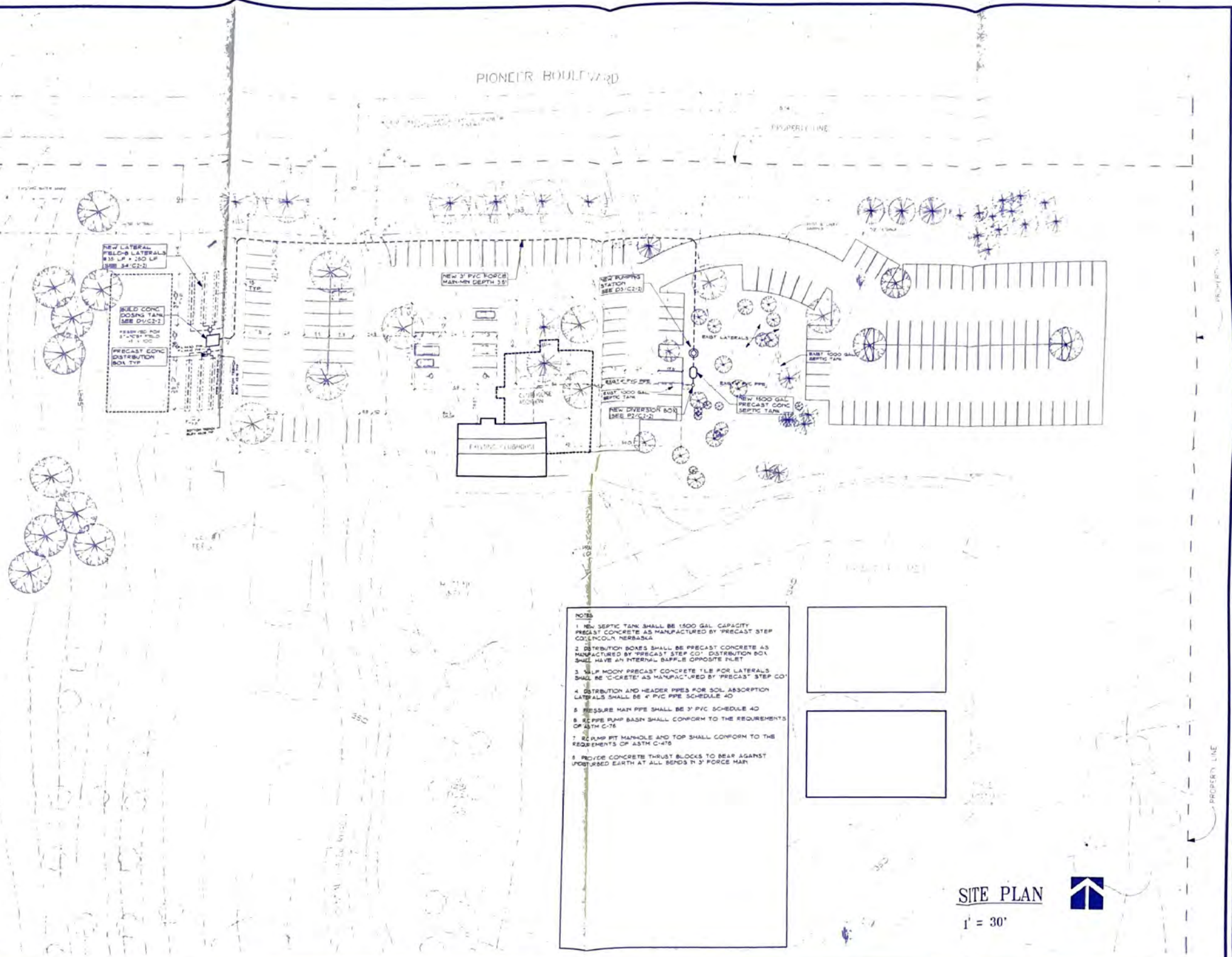


SHEET NO. C2-2	DATE 9/15/95	DESIGN	DRAWN	PROJECT NO. 95006	TITLE Wastewater System Details	DAVIS DESIGN	Architecture Engineering Interior Design
REV. NO. A		JMV	MWD		PROJECT Himark Golf Course Clubhouse Expansion 9200 Pioneers Blvd. Lincoln, Nebraska		Lincoln: 211 North 14th Street Lincoln, Nebraska 68508 Phone (402) 476-9700 FAX (402) 476-9722

Omaha: 110 Douglas Street Omaha Nebraska 68102 Phone (402) 341-6600 FAX (402) 341-6611

10/4/95

NO.	DATE	REVISIONS
1	10-4-95	REVISED DOORS, TYPE, ELEVATIONS, AND ADDED MAIN WATER SHUT-OFF PLUMBING STATION



NOTES

1. NEW SEPTIC TANK SHALL BE 1500 GAL. CAPACITY PRECAST CONCRETE AS MANUFACTURED BY "PRECAST STEP CO" LINCOLN, NEBRASKA
2. DISTRIBUTION BOXES SHALL BE PRECAST CONCRETE AS MANUFACTURED BY "PRECAST STEP CO". DISTRIBUTION BOX SHALL HAVE AN INTERNAL BAFFLE OPPOSITE INLET
3. HALF MOON PRECAST CONCRETE TILE FOR LATERALS SHALL BE "C-CRETE" AS MANUFACTURED BY "PRECAST" STEP CO"
4. DISTRIBUTION AND HEADER PIPES FOR SOIL ABSORPTION LATERALS SHALL BE 4" PVC PIPE SCHEDULE 40
5. PRESSURE MAIN PIPE SHALL BE 3" PVC SCHEDULE 40
6. RC PIPE PUMP BASIN SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-76
7. RC PUMP PIT MANHOLE AND TOP SHALL CONFORM TO THE REQUIREMENTS OF ASTM C-478
8. PROVIDE CONCRETE THRUST BLOCKS TO BEAR AGAINST UNDISTURBED EARTH AT ALL BENDS IN 3" FORCE MAIN

SITE PLAN

1" = 30'

REVISIONS

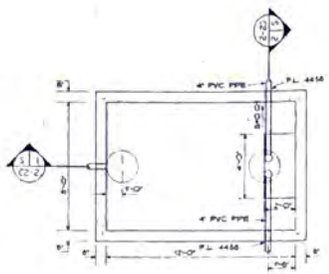
NO	DATE
1	
2	
3	

DAVIS DESIGN
Architecture, Engineering, Interior Design
Omaha
110 Douglas Street, Omaha, Nebraska 68102, Phone (402) 341-1500, FAX (402) 341-1501
Lincoln
233 South 13th Street, Lincoln, Nebraska 68508, Phone (402) 476-9700, FAX (402) 476-9722

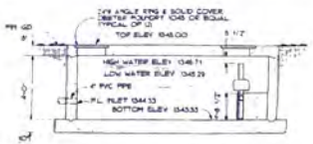
TITLE: Wastewater System Site Plan

PROJECT: Hmark Golf Course Clubhouse Expansion, 9200 Pioneers Blvd, Lincoln, Nebraska

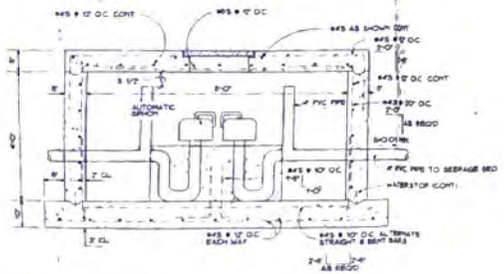
PROJECT NO	95006
DRAWN	RLC
CHECKED	1 2 3
DATE	9/15/95
SHEET NO	C2-1
REV NO	△



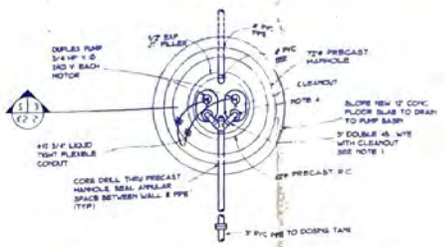
PLAN OF DOSING TANK
SCALE: 1/4" = 1'-0"



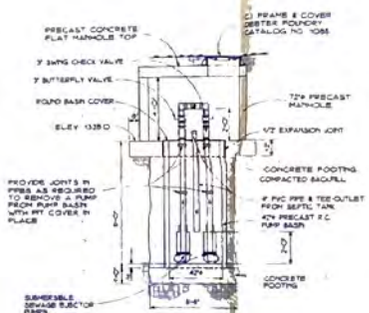
DOSING TANK SECTION
SCALE: 1/4" = 1'-0"



DOSING TANK SECTION
SCALE: 1/2" = 1'-0"



PARTIAL PLAN-NEW PUMP STATION
SCALE: 1/4" = 1'-0"



NEW PUMP STATION SECTION
SCALE: 1/4" = 1'-0"

ELECTRICAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES.

2. ALL CONDUIT SHALL BE A MINIMUM OF 3/4" PVC COATED RIGID STEEL. ALL CONDUIT FROM CONTROLLER TO MOTOR'S SHALL BE PVC COATED LIQUID TIGHT FLEXIBLE METAL CONDUIT. ALL FITTINGS SHALL BE THREADED. SUPPORT STRAPS SHALL BE ONE HOLE PVC COATED WITH STAINLESS STEEL INSERTS AND STAINLESS STEEL BOLTS.

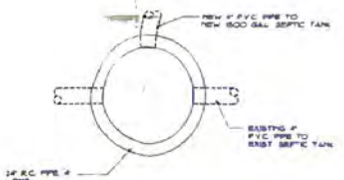
3. ALL WIRING SHALL BE A MINIMUM OF #12 AWG TYPE THW OR THHW. WIRING SHALL BE COLOR CODED THROUGHOUT ITS ENTIRE LENGTH. PHASE A BLACK, PHASE B RED. THE NEUTRAL SHALL BE WHITE OR GREY. A GROUND WIRE SHALL BE PROVIDED IN ALL CONDUIT RUNS. THE GROUND WIRE SHALL BE GREEN OR BARE.

4. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL REQUIREMENTS FOR THE SOURCE OF ELECTRICAL POWER TO SERVE PUMPING STATION.

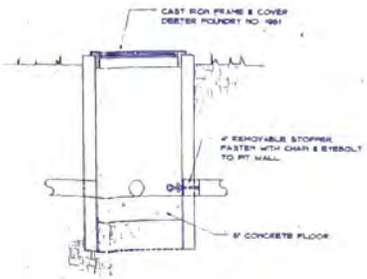
5. THE ELECTRICAL CONTRACTOR SHALL VERIFY WITH THE MECHANICAL CONTRACTOR ALL REQUIREMENTS FOR THE LOCATION OF THE PUMP CONTROLLER CONNECTION TO THE PUMP CONTROLLER AND FROM THE PUMP CONTROLLER TO THE MOTORS.



SECTION THRU LATERAL
SCALE: 1/2" = 1'-0"



PLAN OF DIVERSION BOX
SCALE: 3/4" = 1'-0"



SECTION OF DIVERSION BOX
SCALE: 3/4" = 1'-0"

NO	DATE	REVISIONS

Architecture
Engineering
Interior Design
Custom

DAVIS DESIGN

370 North 56th Street
Lincoln, Nebraska 68503
Phone (402) 476-2722
FAX (402) 476-6722

TITLE: Wastewater System Details
PROJECT: Hmark Golf Course Clubhouse Expansion
9200 Pioneers Blvd.
Lincoln, Nebraska

PROJECT NO.	95006
DRAWN	AFM
CHECKED	
DATE	9/15/95
SHEET NO.	C2-2
REV NO.	

LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION

2200 St. Marys Ave Lincoln, NE 68502-3785 (402) 471-8000

NON TRANSFERABLE

PERMIT

Permit
SEWAGE SYSTEM REPAIR

No. 92390029601

Issued 09/02/92
Expires 03/02/93
Revenue Code 18754

Establishment
DRU LAMMLE
T11N R9E SEC 7
9001 PIONEER BLVD

FEES: $50.00

TOTAL $50.00

Permittee
DRU LAMMLE
9001 PIONEER BLVD
LINCOLN NE 68520

Issued By M. Jane Ford
Health Director

THIS LICENSE OR PERMIT IS ISSUED SUBJECT TO REVOCATION AS PROVIDED BY LAW
"POST IN A PROMINENT PLACE"

FORM HD-41(73) APPLICATION FOR PERMIT TO ALTER, EXTEND OR REPAIR INDIVIDUAL SEWAGE DISPOSAL SYSTEM

City Ordinance No. 9150 ☒
County Resolution No. 2832 ☐

LINCOLN-LANCASTER COUNTY HEALTH DEPARTMENT
Division of Environmental Health
2200 St. Marys Ave.
Lincoln, Nebraska 68502 (Phone: 471-7800)

FILE NO._____

TO: Division of Environmental Health
Lincoln-Lancaster County Health Dept.

DATE: 9/2/92

The undersigned hereby applies for a permit to ALTER ☑, EXTEND ☑, or REPAIR ☐ an existing Individual Sewage Disposal System, in conformance with appropriate Ordinance or Resolution, as described in this application and drawings attached hereto.

1. Legal description of property: Twp. 9N; Range 7E; Section 11;
Block_____; Lot_____; Addition_____
Street Address 9001 Pioneer Blvd

2. Property Use: Residential_____ ☐; Commercial_____ ☑
No. Bedrooms_____
Describe Clubhouse for golf course.
Other Use ☐
Describe_____

3. Type of existing Individual Sewage Disposal System: Septic Tank ☑; Other ☐

4. Description of proposed alteration, extension or repair: Add a New 1000 gallon septic tank to existing 1000 gallon septic. ADD 150' NEW LATERAL

5. Work to be done by: Owner ☐; or Contractor ☑; _____
Contractor's Name

6. Estimated cost of project:

a. Materials	$_____
b. Labor	$_____
c. Other	$_____
TOTAL	$OVER $400.00

Drew Lammle
Signature of Applicant (owner or lessee)

9001 Pioneer Blvd. Lincoln, NE. 68520
Address

(Do not write below this line)

REVIEWING ACTION

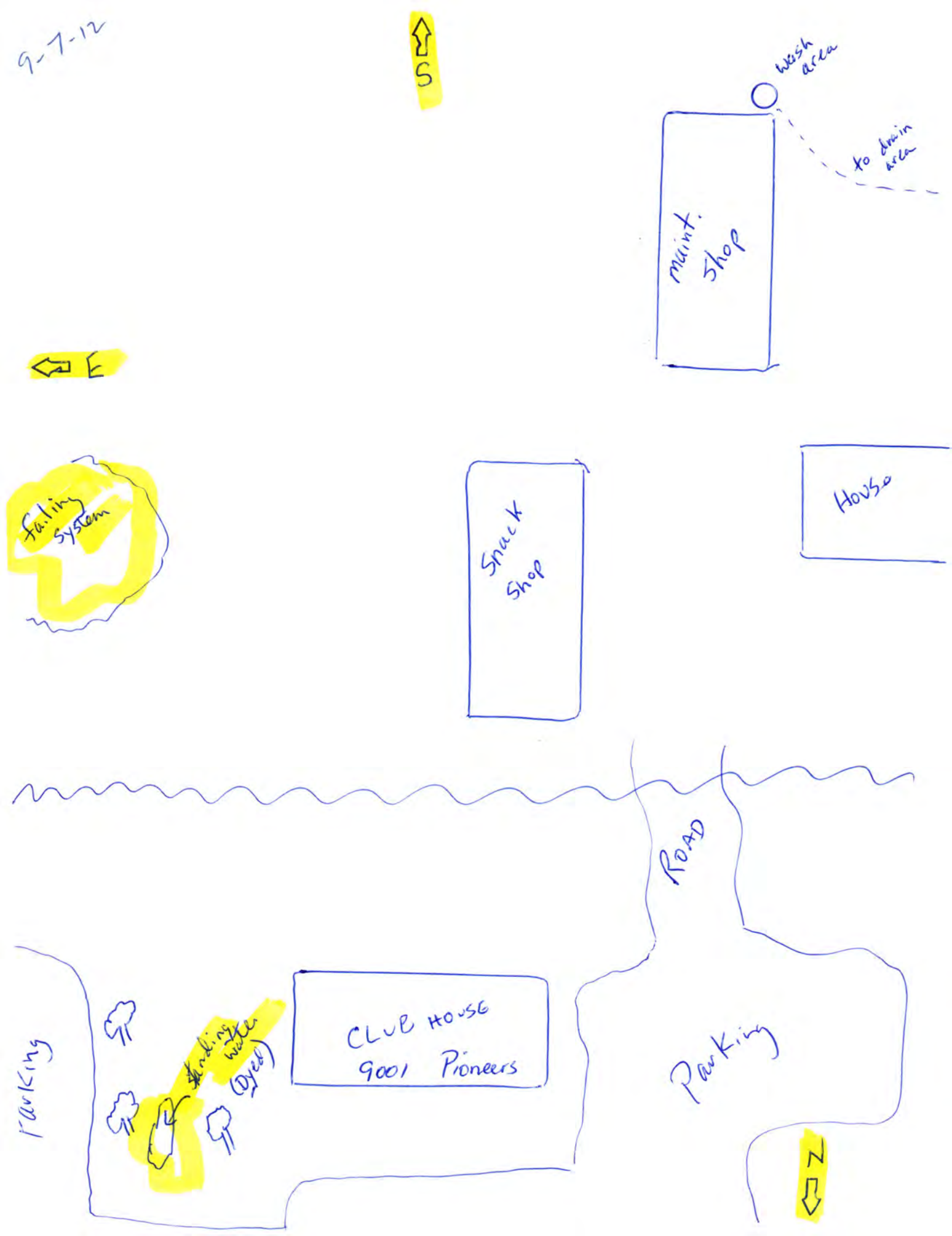
1. Date Rec'd:_____
Filing Fee: $50.00

2. Site Visits:
Date: 10-13-92 by: P.D.
Date:_____ by:_____
Date:_____ by:_____

3. Date: Approved ☒; Disapproved ☐
by: Jerrold E. Hood

4. INSTALLATION FINAL WRITTEN APPROVAL
Date:_____ by:_____

9-7-12


S
wash area
to drain area
maint. shop
E
fishing system
Snack Shop
House
ROAD
Parking
CLUB HOUSE
9001 Pioneers
Parking
N