

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name Sludge Press House, Fields Point Sewage Treatment Plant

other names/site number Filter Building

2. Location

street & number Ernest Street (east end, at Fields Point) n/a not for publication

city, town Providence n/a vicinity

state Rhode Island code RI county Providence code 007 zip code 02905

3. Classification

Ownership of Property

- private
- public-local
- public-State
- public-Federal

Category of Property

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

Contributing	Noncontributing
<u>1</u>	<u> </u> buildings
<u> </u>	<u> </u> sites
<u> </u>	<u> </u> structures
<u> </u>	<u> </u> objects
<u>1</u>	<u>0</u> Total

Name of related multiple property listing: Historic and Architectural Resources of Providence, 1636-present (Sewage Treatment, 1895-1935) Number of contributing resources previously listed in the National Register 0

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of certifying official

Date

State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. See continuation sheet.

Signature of commenting or other official

Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

- entered in the National Register.
 See continuation sheet.
- determined eligible for the National Register. See continuation sheet.
- determined not eligible for the National Register.
- removed from the National Register.
- other, (explain:)

Signature of the Keeper

Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)
GOVERNMENT: Public Works

Current Functions (enter categories from instructions)
GOVERNMENT: Public Works

7. Description

Architectural Classification
(enter categories from instructions)

LATE VICTORIAN: Other: Industrial
Mill

Materials (enter categories from instructions)

foundation concrete

walls brick

roof asphalt

other

Describe present and historic physical appearance.

The Sludge Press House (also known as the Filter Building) is sited toward the center of the Fields Point sewage treatment plant operated by the Narragansett Bay Commission in Providence. The building is two stories high, with exterior dimensions of approximately 138' by 51'. Foundations and floors are of concrete, exterior walls are of red brick, and the composition-shingled hipped roof (originally slate-covered) is carried on steel trusses.

The west, south and east elevations are symmetrically arranged, with vertical bays of varying width set off with brick piers that rise the full height of the walls, where their caps form part of the narrow corbelled cornice. The walls are extensively pierced with segmentally-arched openings; most of these (where not filled in) are variously fitted with 6/6 double hung sash (first story) and taller 6/6 sash with transom panels that occur singly, and in pairs and triples (second story). Single leaf doors on the south elevation mark employee entrances. On the west end are two wider vehicular entries, originally fitted with double-leaf doors, now with metal overhead roll doors.

The interior of the building is divided into two areas. The eastern third is set off from the remainder by a full-height concrete block wall. Within, the first floor is used for electrical and storage areas. The second floor contains a locker room, shower, and small office.

The remaining two-thirds of the interior contains two levels, the upper unpartitioned and open to the exposed roof trusses. The floor of this level, composed of concrete and metal grating, contains three vacuum filters and appurtenant machinery. The lower level is divided longitudinally (east-west) into three aisles or corridors, the center aisle being set some 11 feet below the others. The north aisle contains plunger pumps (which pump sludge to the filters), the south aisle a city water line and boiler, while the middle aisle is empty with the exception of several sump pumps.

The sludge press house is in deteriorated condition, and has

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Continuation Sheet**

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experienced a variety of physical, as well as functional, alterations since its completion in 1901. Many window openings have been filled in, doors replaced, and the central bay of the south elevation reconstructed. In 1934 this bay was opened in order to move filter presses into the building. At the same time, the second floor in the west end was strengthened with steel beams. The east end of the building was originally set off by a full-height brick wall, pierced with pairs of tall windows at the second floor level. The upper portion of this wall has been removed, and the new full height concrete block wall erected further to the east. No original equipment remains, the original mechanical presses having been replaced in 1930-34 and again in 1959-63. Five concrete sludge reservoirs, which extend across the north elevation, were remodeled in 1947-9 and are now in process of being removed.

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the Providence City Engineer, then under Otis F. Clapp. The character of the structural shell appears to have been modeled on that of late 19th century mill buildings in Providence, as evidenced by the brick pier construction which permitted insertion of large window expanses in each bay, and the use of the segmental arch to more effectively distribute load to the piers.

Within the basic shell, the interior was subdivided both vertically and horizontally in a manner specific to the intended function. In the original process, sludge settled out from precipitation tanks was conveyed via subterranean channels to a sludge well, located outside the southeast corner of the Sludge Press House. From the sludge well, the sludge passed into the ejector well, located within the southeast corner-of the building. Within the partitioned-off east end were the ejector well and two motor driven air compressors. One of these provided compressed air to the ejectors (cast-iron pipes with inlet and outlet pipes) which forced sludge from the ejector well up to the concrete sludge reservoirs outside the north wall of the building. From these reservoirs, the sludge was introduced back into the building, into forcing receivers located in a concrete pit some 11 feet below the ground floor (in what is now the "center aisle"). Compressed air provided by the second of the two compressors forced the sludge into 16 mechanical sludge presses, located in parallel rows on the second level. In the presses, the sludge liquid was removed, and the remaining solids shaped into flat, square "cakes". These cakes were dropped out of the presses into steel cars, which moved in and out of the ground level (along the north and south aisles) on rails through two doorways in the west wall, and by this means carried away for disposal.

Although the original machinery is no longer present, and the processes altered through technological improvements over half a century and more, the Sludge Press House retains an appropriate measure of its original structural character. Although the interior has been altered to meet changing needs, the retention of the basic interior configuration, as well as the architectural and structural qualities of the brick industrial shell, constitute sufficient integrity to convey the historical association for which the Sludge Press House is important.

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Verbal Boundary Description:

The boundaries conform to the exterior dimensions or footprint of the Sludge Press House, encompassing an area approximately 138' x 51'.

Boundary Justification:

Due to extensive renovation and new construction at Field Point, both subsequent to 1935 and in process today, features adjacent to or in the vicinity of the Sludge Press House which in the past could be associated with this resource and contribute to its significance have been completely removed or altered beyond recognition of their original character. While the Fields Point plant continues to perform, in a broad sense, its historic function, the built environment, both above and below ground, in which the Sludge Press House achieved significance no longer exists. Restriction of the boundary to the outer edges of the structure permits inclusion of all significant elements and excludes no features which contribute to the importance of the resource.

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)
Community Planning and Development

Period of Significance
1901-1935

Significant Dates
1901

Cultural Affiliation
N/A

Significant Person
N/A

Architect/Builder
Office of City Engineer, Providence

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

The Sludge Press House at Fields Point is significant in the area of Community Planning and Development under Criterion A for its association with the historical development of sewage treatment facilities in Providence. It represents a property type associated with the historic context Historic and Architectural Resources of Providence, 1635-present (The Making of a Metropolis, 1865-1945; Public Works and Utilities: Sewage Treatment, 1895-1935). This property type consists of buildings and structures designed and built to function in the processing and treatment of sewage, constructed under City auspices between 1895 and 1935. The Sludge Press House conforms to this property type definition, having been built in 1899-1901 as an integral component of the first sewage treatment facility at Fields Point, which was put into operation in April, 1901. The Sludge Press House has experienced almost total "mechanical" alteration, as well as a variety of physical changes. However, the exterior design intent remains readily appreciable, and the general configuration of the interior as originally built can still be discerned. The building retains a sufficient level of integrity, in terms of location, design, materials and workmanship, to convey its important association with the history of sewage treatment in Providence: it is one of the two remaining structures at the facility that can be directly associated with the original design and construction of Fields Point.

The Sludge Press House has historically performed an important role in the processing and treatment of sewage at Fields Point. Its role occurs at the end of the process in which solids in sewage were settled out by passing through settling tanks or clarifiers, having been treated to convert organic solids to a stable, mineralized form, then "dewatered" to remove remaining liquid and to facilitate removal and disposal. Designs for the Sludge Press House were generated in 1899-1900 in the office of

See continuation sheet

9. Major Bibliographical References

City Engineer, Providence. Annual Report for 1901.

Narragansett Bay Commission, Drawing Files: FP-97,98,211,212,246; also Sheets 2, 7 and 8 from set dated July 1948 for "Sewage Treatment Plant Improvements at Fields Point," Havens & Emerson, Consulting Engineers.

See continuation sheet

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:

Narragansett Bay Commission

10. Geographical Data

Acreage of property less than one

UTM References

A

1	9	3	0	1	4	3	0
Zone		Easting		Northing			

C

Zone		Easting		Northing			

B

Zone		Easting		Northing			

D

Zone		Easting		Northing			

See continuation sheet

Verbal Boundary Description

See continuation sheet

Boundary Justification

See continuation sheet

11. Form Prepared By

name/title Martha H. Bowers, Architectural Historian

organization Louis Berger & Associates, Inc. date September, 1987

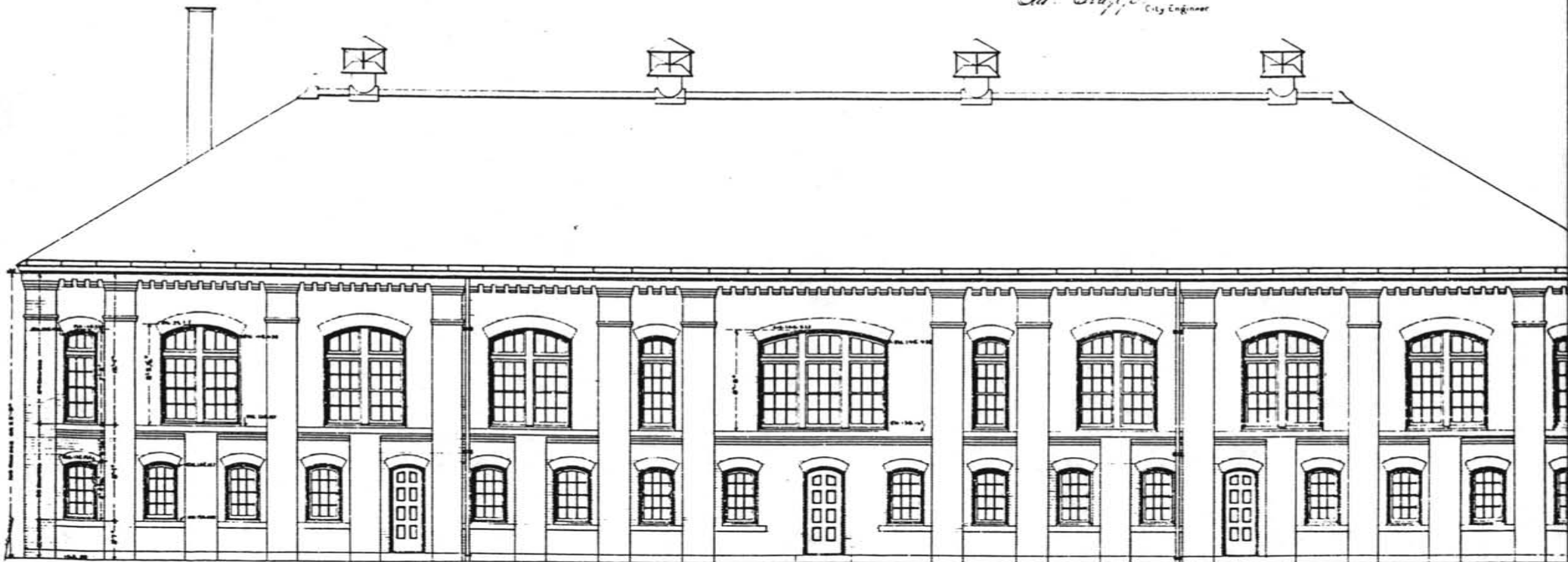
street & number 20 Williams Street telephone 617-235-5874

city or town Wellesley state MA zip code 02181

PRESS HOUSE
FOR
SLUDGE PRESSING PLANT
AT
Fields Point, Providence R.I.

Scale $\frac{1}{8}$ " per foot.

Chas. G. Glaff
City Engineer



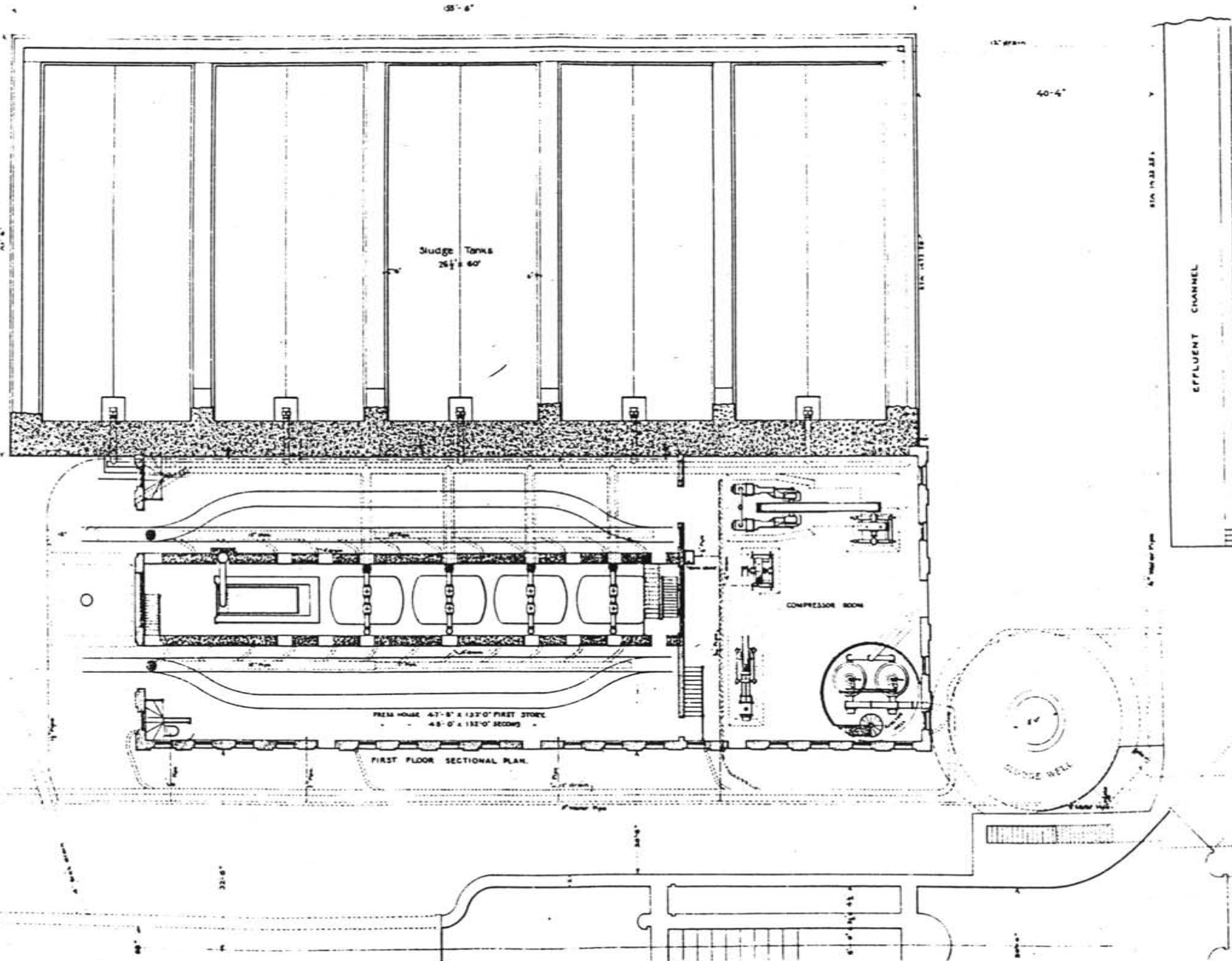
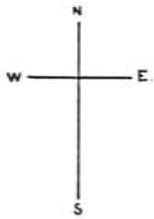
South Elevation.

PROV
CITY ENGR
APPROV
OCT.
02

FP 2
20394 5

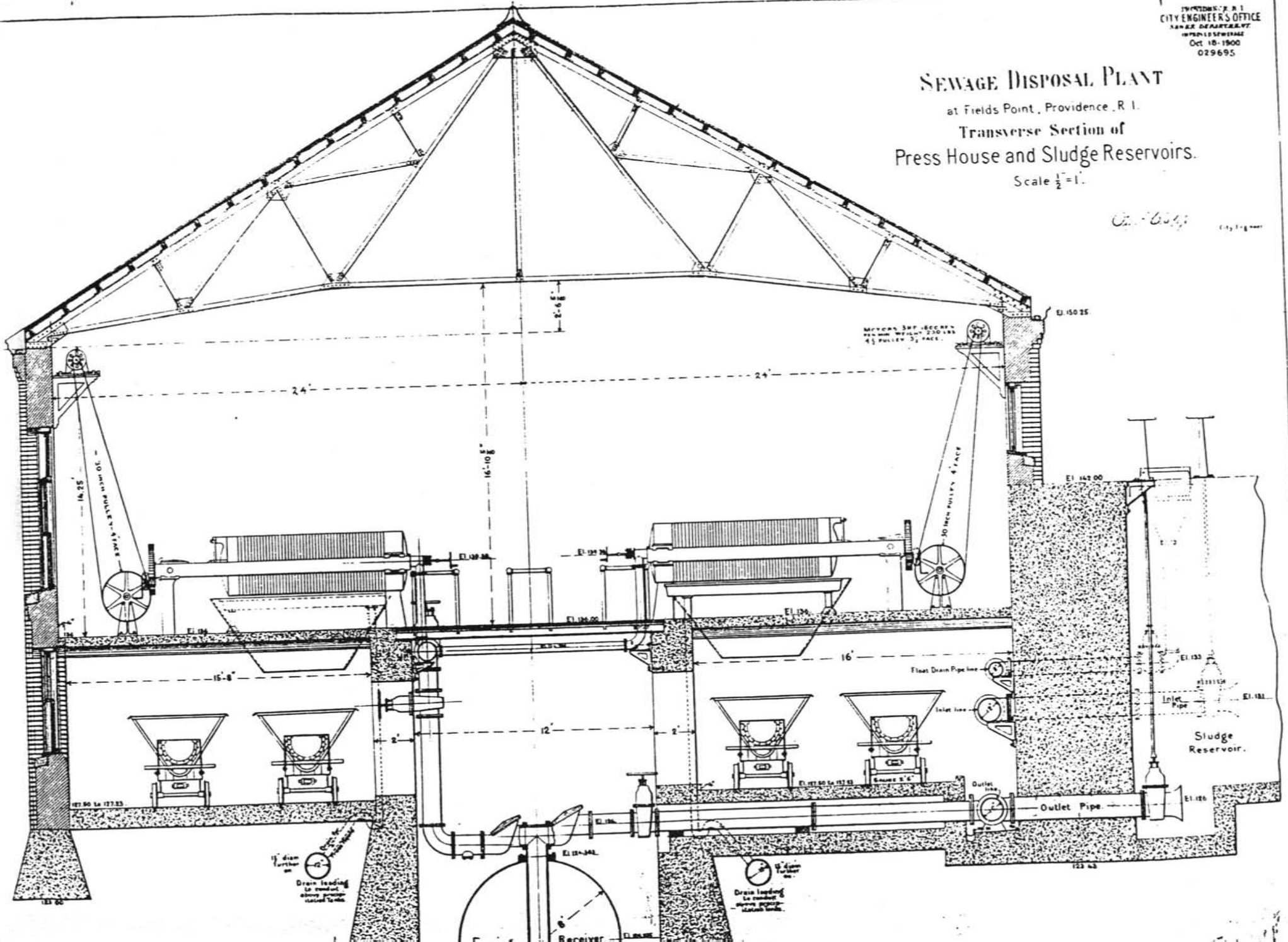
Sewage Disposal Plant. Press House and Sludge Tank Plan, with water pipes and drains. Scale $\frac{1}{8}$ " per foot.

PROVIDE
CITY ENGINEER
APPROVE
DATE
FEB
03



SEWAGE DISPOSAL PLANT
 at Fields Point, Providence, R. I.
Transverse Section of
Press House and Sludge Reservoirs.
 Scale $\frac{1}{2}''=1'$.

C. G. ...



Motor 3HP. 3000 RPM
 4 1/2 inch pulley 250 lbs
 4 1/2 inch pulley 3 1/2 face

E1. 142.00

E1. 133

E1. 131

E1. 126

123.00

1 1/2" diam
 further on
 Drain leading
 to ...

Drain leading
 to ...

Receiver

Float Drain Pipe line

Inlet line

Outlet line

Outlet Pipe

Sludge
 Reservoir

24'

15'-8"

2'

12'

2'

16'

E1. 138.00

E1. 137.00

E1. 134

E1. 134

E1. 127.50 to 127.50

E1. 127.50 to 127.50

E1. 124.00

E1. 124.00

E1. 127.50 to 127.50

E1. 123.00

E1. 124.00

E1. 124.00

E1. 124.00

E1. 124.00

E1. 124.00

E1. 124.00

E1. 124.00

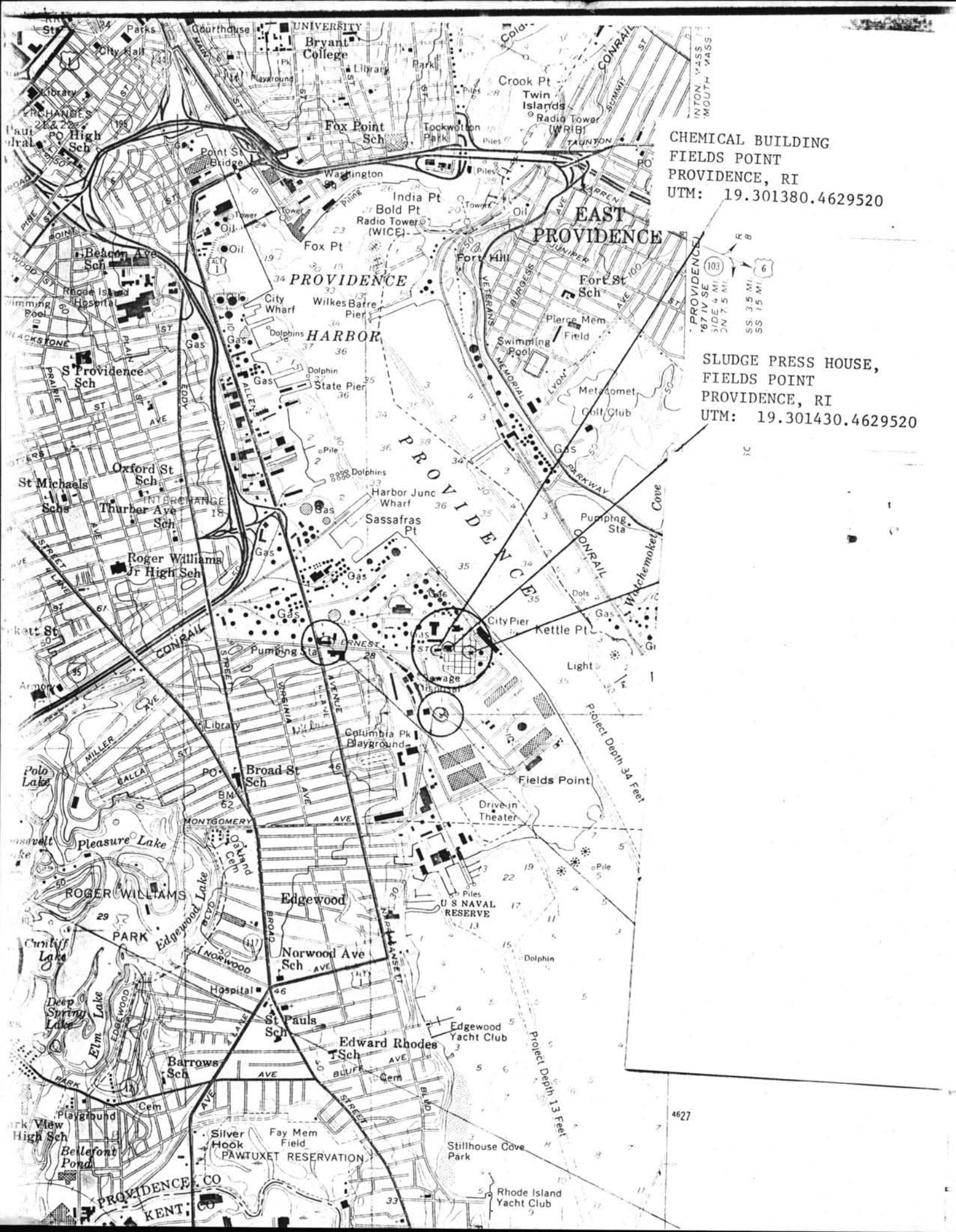
E1. 124.00

E1. 124.00

E1. 124.00

E1. 124.00

E1. 124.00



CHEMICAL BUILDING
FIELDS POINT
PROVIDENCE, RI
UTM: 19.301380.4629520

SLUDGE PRESS HOUSE,
FIELDS POINT
PROVIDENCE, RI
UTM: 19.301430.4629520



SLUDGE PRESS HOUSE (FILTER BUILDING), FIELDS POINT
PROVIDENCE, RI

PHOTO: M. H. BOWERS

JULY 1987

NEG. BY: LOUIS BERGER & ASSOC., INC.
EAST ORANGE, NJ

VIEW: LOOKING NORTHEAST

#1



SLUDGE PRESS HOUSE (FILTER BUILDING), FIELDS POINT
PROVIDENCE, RI

PHOTO: M. H. BOWERS
JULY 1987

NEG. AT: LOUIS BERGER & ASSOC., INC.
EAST ORANGE, NJ

VIEW: LOOKING NORTHEAST

Photo #2