

Report only

Portland, Ore. May 21, 1917.

The following is a report of conditions found in the buildings along the proposed line of the Tanner Creek Sewer and along that portion of the old sewer that is to be filled.

This survey was made by Mr. J. V. Gongwer, of the Engineering Department, and myself, having been detailed by the Bureau of Buildings to make the same.

This survey is for the purpose of having on file a record of the condition of these buildings before and after construction of the sewer.

Job No. W-1384

SURVEY NO. 1.

208 17th St. Inspection made February 17th, 1917.

This is a 2 story frame flat building, and stands on low ground on a cement foundation. There is a crack in the south wall at the corner of the 3rd window back, that is open 1/16". We made a horizontal scratch 3" long across the crack 18" below the window. There is a finer crack at the south-west corner of the building just back of the roof drain pipe.

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B. M. Ring bolt in front of #528 Taylor St. - Elevation 119.327

-:-

Small nail head in Wooden Water Table at S.W. Cor. Elev. 118.262

Chiseled small knob Concrete Water Table N. W. " " 117.790

Above levels taken Feby. 19th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job No. W. 1384.

SURVEY NO. 2.

Report of inspection made February 17th, 1917, of a frame residence at 529 Taylor St., 50' back from 17th St. The building has a brick foundation with a large crack at N. W. corner of foundation open $1 \frac{7}{16}$ " at top of crack, at seventh brick down from rustic.

Tanner Creek Sewer Survey

-4-

Job No. W- 1384.

SURVEY NO. 3.

188 - 190 17th St. Inspection made Feby. 17th, 1917.

This is a 2-story frame house. There are no visible cracks in concrete foundation. There is an old crack in cement walk leading to basement door, and in retaining wall at north side of this walk. There is a crack 1/16" wide in a cement step buttress.

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B. M. Ring bolt in front of #528 Taylor St. Elev. 119.327

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On Concrete Walk against south post of south steps Elev. 119.106

" " " " north post of north steps Elev. 118.706

Above elevations taken Feby. 19th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job No. W-1584.

SURVEY NO. 4.

187 17th St. Inspection made Feby. 17th, 1917.

This is a 3 story frame apartment house. The basement floor is on side-walk level. The basement wall is of concrete to about 3' above the floor. There are two fine cracks in front wall north of entrance, and one south of entrance. We made vertical and horizontal scratches across diagonal portions of these cracks. The marble steps in front are in perfect condition. A crack on north side 16' back has been painted over. We made a scratch 3" long near top.

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B. M. Ring bolt in front of #528 Taylor St. Elev. 119.327

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Middle of concrete wall against South entrance post Elev. 116.035
 " " " " " north entrance post Elev. 115.828

Above elevations taken Feby. 19th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job No. W - 1384

SURVEY NO. 5.

181 17th St. Inspection made Feby. 17th, 1917.

This is a 2 story frame residence. There is a concrete retaining wall around the lot. There is a crack at the south-east corner of the wall, $\frac{1}{2}$ " wide. There is a crack in the center of the side walk $3\frac{1}{2}$ ' long and $\frac{1}{8}$ " wide. There is a crack under the top cement step which is $\frac{3}{8}$ " wide at south end and $\frac{3}{16}$ " at north end. The front porch is settling badly.

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B. M. Ring bolt in front of 528 Taylor St. Elev. 119.327

-:-

South end of third step on front edge Elev. 115.290

Above elevations taken Feby. 19th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job No. W - 1384.

SURVEY NO. 6.

180 - 182 17th St. Inspection made Feby. 17th, 1917.

This is a 2 story frame residence with brick basement walls. There are no visible cracks in walls.

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B. M. Ring bolt in front of #528 Taylor St. Elev. 119.327

-:-

South end of sill of south basement window Elev. 118.010

North " " " " north basement window Elev. 118.099

Above elevations taken Feby. 19th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Tanner Creek Sewer Survey

Job No. W - 1384

SURVEY NO. 7.

163 17th St. Inspection made Feby. 17th, 1917.

This is a 2 story frame residence. The foundation is brick, plastered on the outside, and shows no settlement cracks. There is a crack in the side-walk in front of the entrance, running through four sections of walk. It is open in the middle 3/16". There is a crack across the parking walk, about 2' from curb, open 1/8".

-:-

B. M. High point in middle of Cap Stone at end of wall, south side of Morrison St., 100' E. of 17th St. Elev. 112.761

-:-

Intersection of cross scratch ⊕ N. E. corner of concrete foundation Elev. 113.015

Intersection of cross scratch ⊕ S. E. corner wood porch, under second post Elev. 113.015

Ring bolt nearest Parking Walk Elev. 107.819

Above elevations taken February 21st, 1917.

J. V. Gongwer, Inst.
B. W. Arnold, Rod.

Tanner Creek Sewer Survey

Job. No. W - 1384

SURVEY NO. 8.

534 Morrison St. Inspection made February 17th, 1917.

This is a 2 story frame residence. The basement wall is of brick. There is a fine crack at S. W. corner, full height of wall. We crossed the crack with a 3" horizontal scratch. The brick seem to be crushing at S. E. corner of building. A fine crack appears over window at right of basement entrance. A joint in basement walk is open about 1/8". The side-walk is in good shape. The stone retaining wall is drawn away 3/8", where joined to basement wall. There is a crack in the retaining wall 6' E. of N. W. corner of lot, open 3/16". A crack 3' south of corner is open about 3/8".

-:-

B. M. High point in middle of Cap Stone at end of wall,
S. side of Morrison St., 100' E. of 17th St. Elev. 112.761

-:-

Intersection of cross scratch ⊕ N. W. corner of concrete founda-
tion Elev. 113.015
Intersection of cross scratch ⊕ S. W. corner of concrete foundat-
tion Elev. 113.015
High point on Cap Stone of wall at S. E. corner of 17th and Morri-
son Sts. Elev. 110.705
High point on Cap Stone of wall at end near basement
door Elev. 111.675

Above elevations taken Feby. 21, 1917.

J. V. Gongwer, Inst.
B. W. Arnold, Rod.

Job No. W - 1384

SURVEY NO. 9.

N. E. corner 17th & Morrison Sts. Inspection made February 19th, 1917.

This is a 3 story frame building. The south half of the building rests on a rubble stone foundation. There are no cracks showing, except that south wall, which is only about 2' high, is very loosely bonded. The north portion of the building has rubble stone sub basement, with plastered brick basement wall above. The ground at the north side of the building is 15' or 20' below grade, leaving the outside of the basement walls exposed.

A crack in the north wall extends above and below a window in center of wall, from top to bottom of wall, a distance of about 18'. Below the window the crack is open about 3/16", and ranges vertically. We made a scratch across crack at this point 3" long, and a vertical scratch across a horizontal portion of crack. Fine cracks show in arch over each of west basement windows in north half of building. The side-walk and curb are badly broken in front of the north half of the building.

-:-

B. M. High point in middle Cap Stone at end of wall, south side of Morrison St., 100' E. of 17th St. Elev. 112.761

-:-

Point on stone foundation, S.W. Cor. between 2 scratches in base-board Elev. 108.912
 Ring bolt in E. curb opposite above point Elev. 105.716
 Ring bolt in W. curb opposite 151 17th St. Elev 103.349
 On window sill, S. side of middle window, #146 17th St., against

SURVEY NO. 9 continued.

concrete, face of rod flush with edge of sillElev. 100.678
 On window sill, N. side of north window, #146 17th St., rod held
 as above 100.633

Above elevations taken Feby. 21, 1917.

-:-

B. M. 3rd Ring bolt in N. curb of Alder St., W. of 17th
 Street Elev. 89.615
 Small horizontal projection in N. stone wall, #146 17th St.,
 under window, 4½ ft. from ground, marked with blue crayon,
 Elev. 92.743

(Last elevation taken March 8th, 1917)

Elevations taken on date noted above.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job No. W - 1294

SURVEY NO. 10.

540 Alder St., S. W. Cor. 17th. First inspection was made February 19th, 1917.

This is a brick stable with concrete basement. There is a large crack in south wall, about 50' back from east front, which ranges vertically from top of wall to ground. This crack is open near ground $3/16$ " and open at top $13/16$ ". Building shows settlement on rear side of crack $3/16$ ". Nails were set in wall just above concrete wall 4.26" O/C, and on level. A horizontal scratch was made 3.02" long, in brick across crack just below coping at top of wall.

another large crack about 10' farther back, starts at ground and ranges nearly vertical to top of concrete wall, then diagonally up and backward to a point about 5' above concrete wall, then horizontally back about 20'. This crack is open $9/16$ " at a point 5' above ground. Nails were set in wall on opposite sides of crack, on level, 5.31" O/C. Crack increases in width farther up. Wall shows outward movement of $1/4$ " and settlement of $1/4$ " at rear of crack. Rear end of this wall is about 4" lower than center. There are two smaller cracks in brick wall between those above mentioned, ranging upward and backward. There are several small cracks through coping on top of wall that do not show in wall. There is a crack in E. basement wall near center, full height of wall. This is open $1/16$ " as seen from area way under side-walk. There are cracks $1/32$ " wide in arches over doors at ends of area way, extending upward to side-walk.

SURVEY NO. 10 continued

There is a horizontal crack 40' long in retaining wall of area way, about 7' above basement floor. This crack is fine, but water seeps through.

There are cracks on north side below 1st, 2nd, 5th, 7th and 8th basement windows, ranging downward to walk. These are too fine for accurate measurement. The sidewalks on both 17th and Alder Sts. are in good condition.

Levels are to be taken later. We should have photographs of south wall.

-:-

B. M. High point in middle of Cap Stone at end of wall, S. side of Morrison St., 100' E. of 17th St. Elev. 112.761

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On brick water table at S. E. Cor. of stable, between two vertical scratches, rod tight against wall Elev. 100.756

On brick water table just north of door, between two vertical scratches, rod tight against wall Elev. 100.638

On brick water table, S. side of pilaster, 30' from N.E. Cor., between two vertical scratches, rod tight against wall Elev. 96.409

On brick water table, N. E. Cor. of stable, between two vertical scratches, rod tight against wall Elev. 96.323

Small iron knob, S.E. Cor. of south side-walk door frame,
Elev. 96.236

Above elevations taken Feby. 21st, 1917.

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SURVEY NO. 10 continued

B. M. Third ring bolt in N. curb of Alder St., W. of 17th St.

Elev. 89.615

-:-

Under side of extreme Cor. of water table, E. side of N. door of
stable Elev. 95.780

(Last elevation taken March 8th, 1917)

Elevations taken on dates mentioned above.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job. No. W - 1384

SURVEY NO. 11

S. E. Cor. 17th and Washington Sts. Inspection made Feby. 19th, 1917.

This is a three story stucco frame building on concrete foundation. There is a crack open $1/32$ " in foundation about 20' back from Washington St. on the 17th St. side, ranging downward from top of wall to side-walk, approximately 2'. A horizontal scratch 3" long, was made across crack. There is a crack open $3/16$ " in foundation on Washington St. side, about 1' from corner at 17th St. This crack was crossed with scratch 3.02" long. There is a crack in foundation at first door east of corner, open $1/16$ ". A scratch was made across crack 3" long. There is a crack open $1/4$ " about $2\frac{1}{2}$ ' from east corner on Washington St. This was crossed with scratch 3.02" long. The wall on west side of crack shows an outward movement of $3/32$ ". The crack extends across one section of side-walk. The basement does not extend to Washington St.; therefore the inside of foundation cannot be inspected. There are no cracks showing on inside of basement. There is no sign of settlement in floor of basement. The side-walk is badly broken at corner of 17th and Alder.

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B. M. Second ring belt in W. curb of 17th St., N. of Washington St.

Elev. 83.783

-:-

On N.W. Cor. of Iron Column Base, #534 Washington St.

Elev. 82.137

Concrete Foundation, in corner 8' E. of $530\frac{1}{2}$ Washington St. 81.259

Above elevations taken March 7th, 1917.

Tanner Creek Sewer Survey

SURVEY NO. 11 continued

B. M. Third ring bolt in N. curb of Alder St. W. of 17th St.

Elev. 89.615

-:-

Concrete water table, S.W. Cor. of 535 Alder, Rod facing S.

Elev. 91.085

Concrete water table W. side of frame building against S. door
pilaster, Rod facing W. Elev. 91.035

(Last two elevations taken March 8th, 1917.)

Elevations taken on dates noted above.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

540 Washington St. Inspection made Feby. 19th, 1917.

This is a 2 story frame building on west side of 17th, extending from Washington to Alder. This building has no foundation, and has recently been underpinned. The side-walk has settled next to building for 24' north from Alder St. The settlement at lowest point is $2\frac{3}{4}$ " , as indicated by wooden curb next to building. The walk on south side of building for 40' west from corner, has also settled. The lowest settlement is $4\frac{1}{2}$ " at a point 10' from corner. There is no sign of settlement at the curb.

-:-

B.M.

2nd Ring bolt in W. curb of 17th St. N. of Washington St.

Elev. 83.783

-:-

On E. side of hub of rain drain, rod facing east. Elev. 84.067

S.E. end of wood step on screw head - front #540 Washington St.

Elev. 83.729

Above elevations taken March 7, 1917.

-:-

B. M. Third ring bolt in N. curb of Alder St., W. of 17th St.

Elev. 89.615

-:-

S. end of S. window sill. E. side, against Bldg. Rod facing S.

Elev. 90.690

Cor. of sunken portion of side walk at S.E. Cor. of Bldg.

Elev. 90.070

Side-walk joint, W. side of 1st window on S. side of Bldg.

Elev. 89.860

Tanner Creek Sewer Survey

SURVEY NO. 12 Continued.

(Last three elevations taken March 8th, 1917.)

Elevations taken on dates previously noted.

J. V. Gongwer, Inst .

B. W. Arnold, Rod.

Job No. W - 1384.

SURVEY NO. 13.

565 $\frac{1}{2}$ Washington St. Inspection made Feby. 20th, 1917.

This is a 3 story brick hotel building. There are no apparent cracks in the brick walls. In the basement there is a crack in the west retaining wall of the area way off the boiler room at S.W. corner of building. The crack starts from the floor, about 4' from the building line, and ranges upward and toward the building, disappearing near arch at foundation line. It is open $\frac{1}{4}$ " near the floor. Vertical and horizontal scratches were made in wall 4' above floor, to determine future movement.

There is a crack open $\frac{1}{16}$ " in west basement wall about 10' from front of building, which ranges vertically from top to bottom of wall. A horizontal scratch was made across crack 3.02" long. The basement floor is of earth. There are slight cracks in the tile wainscoting at hotel entrance. The cracks range vertically. The tile block at top of largest crack on east side measures 6". There are several small cracks in the step at the hotel entrance. The east portion of the basement is under a store at #561 Washington St. There is a vertical crack in the front wall 10' from west side of this basement, and directly under a floor girder, that is open $\frac{1}{32}$ ". We made a horizontal scratch 12" below girder, 3.04" long.

There is another crack in front wall about 8' from southeast corner of building, which ranges vertically. It is open $\frac{3}{16}$ " at top and disappears near floor. We have made a horizontal scratch across this crack near the top, 3" long. There is a crack in east wall about 10' north of corner, that is open $\frac{1}{8}$ ", but not accessible.

SURVEY NO. 13 Continued.

These cracks show in foundation on outside above side-walk.

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B. M. Second ring bolt in W. curb of 17th St. N. of Washington St.

Elevation 83.783

-:-

Water table, S.E. Cor. of S.W. column Bushmark, Rod 45°

Elevation 84.672

Water table, S.W. Cor. of column, E. side of entrance, Rod 45°

Elevation 84.542

E. Cor. of concrete foundation, 15' W. of #561 Washington St., Rod 45°

Elevation 81.863

S.E. extreme corner of concrete foundation, 15' E. of #561 Washington

St., rod facing S.Elevation 81.227

Above elevations taken March 7th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job No. W - 1384

SURVEY NO. 14.

553 - 555 Washington St. Inspection made Feby. 20, 1917.

This is a 2 story frame store building at N. E. corner of 17th and Washington. In the west half of the building, there are no cracks in the concrete basement wall or in the inside plaster that would indicate settlement. On the east side of the building, seen from outside, there is a crack about 10' back from front that is open 3/64" at the top of concrete wall, and ranges down to ground. This is crossed by scratch 3" long near top of wall. There is a similar crack about 30' back from the front. There is a crack in top of foundation at entrance of 553 1/2. This is crossed by scratch 3.02" long.

-:-

B. M. Second ring bolt in W. curb of 17th St., N. of Washington St.

Elev. 83.783

-:-

N. W. Cor. of Foundation, #555 Washington St. Elev. 79.941

W. end of step, entrance to #555 Elev. 79.592

Water table S.E. Cor. of building, S.W. Cor. of pilaster

Elev. 79.534

Ring bolt, N. curb of Washington St., 1st E. of 17th St.

Elev. 78.908

Above elevations taken March 7th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Tanner Creek Sewer Survey

Job. No. W - 1384

SURVEY NO. 15

549-551 Washington St. Inspection made Feby. 20th, 1917.

This is a 3 story frame apartment house. No cracks show on either the outside or inside of basement. The side-walk is broken in front of entrance.

-:-

B. M. Second ring bolt in W. curb of 17th St., N. of Washington St.

Elev. 83.783

-:-

On wood water table, S.W. Cor. of Building

Elev. 81.857

E. end of 2nd step, 549-551 Washington St.

Elev. 78.862

On wood water table, S.E. Cor. of Bldg.

Elev. 81.777

Small stone projection near S.W. Cor. of Bldg.,

long rod, foot of rod held tight, rod tight

against water table Elev. 78.463

Same between 2 East basement windows..... Elev. 78.427

Above elevations taken March 7th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job No. W- 1384.

SURVEY NO. 16

545-547 Washington St. - Inspection made Feby. 20th, 1917.

This is a 3 story brick (stores and rooms). This building has no basement. The front is faced with cement blocks. Cracks show in mortar joints between the 2nd and 3rd story windows, and above the 3rd story windows at both east and west corners. These can not be seen from inside, as the rooms have been recently papered. Further opening would be shown by cracking of paper.

-:-

B. M. 2nd ring bolt in E. curb of 16th St., N. of Washington St.

Elev. 76.636

-:-

S. E. Cor. of Footing, W. Column of #547 Washington St.

Elev. 77.382

S. E. Cor. of footing, column E. side of entrance to Northwest Apts.

Elev. 77.355

S. E. Cor. of footing, E. column, same building

Elev. 77.257

All readings above taken with rod tight against building, facing east, flush with east side of column.

Above elevations taken March 8th, 1917.

J. V. Congwer, Inst.

B. W. Arnold, Rod.

Job No. W - 1384.

SURVEY NO. 17.

534 - 536 Alder. Inspection made Feby. 20th, 1917.

This building is located at the S. E. Cor. of Alder and 17th St. The S. W. Cor. of the building bows out toward the west at second floor line.

-:-

B. M. 3rd ring bolt in N. curb of Alder St., W. of 17th St.

-:-

Elev. 89.615

N. end of S. window sill against wall and casing, W. side of Bldg.

Elev. 94.937

Cor. of wood water table, N. W. Cor. of Bldg., Rod facing N. W.

Elev. 93.456

Elevations taken March 8th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Tanner Creek Sewer Survey

Job No. W - 1384.

SURVEY NO. 18.

528 - 530 Washington. Inspection made Feby. 20th, 1917.

This is a 2 story frame store building. There is no basement. The plate glass is broken in front of store at #530. No apparent signs of settlement.

-:-

B. M. 2nd ring bolt in W. curb of 17th St., N. of Washington St.

Elev. 83.783

-:-

On wood strip in front of 1/4-round at window angle, W. of entrance to #530 Washington St. Elev. 81.943
Same - E. end of window, #528 Washington St. Elev. 81.367

Above elevations taken March 7, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

-:-

526 Washington St.

B. M. 2nd Ring Bolt in W. curb of 17th St., N. of Washington St.

Elev. 83.783

-:-

On wood strip in front of 1/4-round at window angle east of entrance to 526 Washington St. Elev. 80.395

Above elevations taken March 7th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job. No. W - 1384.

SURVEY NO. 19.

520 - 522 Washington. Inspection made Feby. 20th, 1917.

This is a 2 story frame building with no basement. The side-walk has settled at N. W. Cor, of building. The shear at section joint is 3/4". Several cracks show in cement wall below store front.

-:-

B. M. Second ring bolt in E. curb of 16th St., N. of Washington St.,
Elev. 76.636

-:-

On side-walk, W. side of door-way, between 522 and 524 Washington St..	
Rod facing E., flush with front of building	Elev. 77.933
Concrete foundation, W. side of door-way, 522 Washington St., rod	
held as above78.153
Concrete foundation, against jamb and 1/4-round, W. side of door,	
#520 Washington St.78.167

Above elevations taken March 8th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job No. W - 1384.

SURVEY NO. 20.

512 - 514 Washington St. Inspection made Feby. 20, 1917.

This is a two story frame store building with cement and brick foundation. The front basement wall and side-walk are new. No signs of settlement in the building.

-:-

B. M. Second ring bolt in E. curb of 16th St., N. of Washington St.

Elev. 76.636

-:-

Top of concrete foundation, W. side of rod flush with E. door jamb,
#514 Washington St., Rod facing N. Elev. 75.847

E. end of same, near center of Bldg.; rod tight, facing N.

Elev. 75.891

Above elevations taken March 8th, 1917.

J. V. GONGWER, Inst.

B. W. ARNOLD, Rod.

-:-

512 Washington St.

B. M. Second ring bolt, E. curb 16th, N. of Washington St.

Elev. 76.636

-:-

Top of cement sill, N. E. Cor. of Bldg.

Elev. 75.243

Above elevations taken March 12th, 1917.

J. C. Russell, Inst.
C. E. Harding, Rod.

SURVEY NO. 21.

533 - 535 Burnside St. Inspection made Feby. 20, 1917.

This is a two story frame building. The basement walls are of brick. There is a vertical crack in east wall of basement about 8' back from corner, open 1/8".

-:-

B. M. 2nd Ring Bolt E. curb 16th St., N. of Washington St.

Elev. 76.636

7:-

Top of fancy bracket, W. end, at S. E. Cor. of Bldg. (Red Crayon)

Elev. 76.697

Tack in door sill, S. E. Cor. of Bldg. #533 Burnside

Elev. 75.378

Elevations taken March 12th, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

Job No. W - 1384.

SURVEY NO. 22.

529 - 531 Burnside St. Inspection made Feby. 20th, '17.

This is a 2 story brick garage. There are no apparent cracks in the brick walls. In the basement there is a crack near the center of the S. wall, open 1/8". We made a scratch across this crack 3.03" long, 18" below floor. The sidewalk is in good condition

-:-

B. M. Second ring bolt, E. curb 16th St., N. of Washington St.,

Elevation 76.636

-:-

Tack in window sill, W. side of entrance. Elevation 74.503

On concrete sill, E. end of E. window. Elevation 73.509

Nail in brick column, S. E. Cor. of Bldg. Elevation 75.219

Above elevations taken March 12th, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

Job No. W - 1384.

SURVEY NO. 23.

527 Burnside St. Inspection made Feby. 20th, 1917.

This is a 2 story frame building. There is no basement under this building. The sidewalk is settling at the S. E. corner of the building. There is a shear of 1" at break between two sections of the walk.

-:-

B. M. Third ring bolt, E. curb 15th St., N. of Burnside St.

Elev. 72.635

-:-

Tack in sill, 1 ft. W. of E. door of garage Elev. 71.670

Tack in sill, 3 ft. N. of S. E. Cor. of Bldg. on 15th St.

Elev. 71.587

-:-

B. M. Second ring bolt, E. curb 16th St., N. of Washington St.

Elev. 76.636

-:-

Tack in top of pier, 10' E. of S. W. Corner . . . Elev. 72.853

Tack in top of pier, E. side of W. door Elev. 72.898

Above elevations taken March 12th, 1917.

J. C. Russell, Inst.

C. B. Harding, Rod.

Job No. W - 1384.

SURVEY NO. 24.

512 - 520 Washington St. Inspection made Feby. 20, 1917.

This is a 2-story frame building. The sidewalk on north side of this building is badly broken, and has settled along the center line. The basement seems to be vacant and inaccessible.

-:-

B. M. Third ring bolt, E. curb of 15th St., N. of Burnside St.

Elev. 72.635

-:-

Nail in N. W. Cor. of Bldg. S. E. Cor. 15th and Burnside St.

Elev. 72.403

Tack in water table, about center of Bldg.

Elev. 71.917

Tack in water table, N. E. Cor. of Bldg.

Elev. 71.878

Above elevations taken March 12th, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

Job No. W - 1384.

SURVEY NO. 25.

S. W. Cor. Lowndale and Washington. Inspection made
February 20th, 1917.

This building is unfinished. Brick work is done.
There are no signs of settlement or cracks.

-:-

B. M. Second ring bolt, E. curb 16th St., N. of Washington St.

Elevation 76.636

-:-

E. side of column at N. W. Cor. of Bldg., on concrete sill

Elevation 74.861

E. side of 2nd column from N.W. Cor. of Bldg. on concrete sill

Elevation 74.819

E. side of 3rd column from N. W. Cor. of Bldg. on concrete sill

Elevation 74.839

E. side of 4th column from N. W. Cor. of Bldg. on concrete sill

Elevation 74.875

E. side of 5th column from N. W. Cor. of Bldg. on concrete sill

Elevation 74.909

W. side of column at N. E. Cor. of Bldg. on concrete sill

Elevation 74.920

Rod held close to building, which makes rod angle out
(H.I. 79.267) (Set upon N.E. round Cor. 16th and Wash.)

Above elevations taken March 12th, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

Job No. W - 1384

SURVEY NO. 26.

Washington & Burnside. Inspection made Feby. 20th, 1917.

This is a concrete hotel with seven stories and basement, on W. side of 14th. The basement is used for stores on the Burnside front. The W. 2/3 of the N. front is only 1 story and basement. On the N. side there are fine cracks through the concrete beams at the ends near the columns; at both ends of the beam over the entrance at 508 Burnside; the W. end of the beam over #506; at both ends of beam over #504. No. 502 is under the seven story portion and there is a crack at each end and one in the middle of the beam over the glass front. The above cracks are too fine for measurement. On the east side at the first window south of N. E. corner, there are three cracks that extend from first story window down to the basement window, and corresponding cracks appear below. The first crack below basement window is crossed with a scratch 3.04" long, the second, by a scratch 3.03" long, and the third by a scratch 3.01" long. There are two cracks in the beam below the second window, between the center and S. end. The center crack extends down to walk, and is crossed by a scratch 2.99" long. Three cracks at the third window extend from the window down to the walk. The first and third are crossed by scratches 3.01" long, the center one by a scratch 3" long. In the center of the fourth window a fine crack runs from the window down to the walk. The above mentioned cracks are all too fine for measurement. Where accessible these cracks are tracable on the inside of the basement.

CARLTON HOTEL continued. Inspection made March 10th, '17.

On the inside of Room 508, Burnside St., in the west wall, there is a fine crack about 8' back from N. W. corner, ranging downward

Job No. W-1384

SURVEY NO. 26 Continued.

and back from beam above to a scratch on the wall about 3' above the floor. A similar crack about 4' farther back, runs down and back to column, and ends at a point 3' above floor, indicated by scratch on the wall. A heavy beam about 20' back from N. W. corner has a horizontal crack at its top running its full length. There is a crack in the floor of this N. W. room, open about $3/16$ ".

In Room 504 there is a slight crack at top of beam about 20' back of front. In the N. E. corner of this room there is a vertical crack at intersection of the wall with a column. Another crack in the wall about 2' S. of this corner runs from floor up to a point about $5\frac{1}{2}$ ' above floor, indicated by a scratch on the wall.

In Room 502 Burnside St. there is a vertical crack in the N. W. corner, at intersection of wall with column, that runs from beam to floor. About 5' back of this a diagonal crack runs from floor up to near beam and is open very slightly. In the E. wall of this room, about 20' back from front, are ^{three} fine vertical cracks. About 4' back of front, in E. wall, a disconnected crack follows a vertical course from ceiling to floor. On the first floor at the N. E. corner, there is a crack under the end of the window extending down to base board. In the N. W. corner of the N. E. room, there is a crack at the intersection of the partition with outer wall. A large crack at wall intersection at S. E. corner runs from floor to ceiling. There are closed vertical cracks over the N. window; similar cracks over 2nd window W. of corner.

CARLTON HOTEL continued. Inspection made April 12, 1917.

Tanner Creek Sewer Survey

Job No. W - 1384.

SURVEY NO. 26 Continued.

CARLTON HOTEL continued. Inspection made April 12, 1917.

On the 7th floor in the N. W. corner room, there is a crack in the N. W. corner above and below the window. At the second window E. of the corner, there is a crack at the ceiling line. In the N. E. corner room there is a crack at the ceiling line on the E. side of the room. In the hall in the center of the N. wall, there is a crack in the wall at the lower right corner down to the floor. In the men's toilet at the N. end of the hall there are vertical cracks in the S. E. corner of the room. In the stair hall at west side of hall, leading to the 6th floor, there are several cracks in the west wall. On the 6th floor in room 623, near the N. W. corner, there are no cracks. In the ladies' toilet in the N. W. corner, there is a crack at lower left corner of the N. window. In the N. end of the hall, there is a crack at the lower right corner of the double window, and at the lower left of the single window. These cracks show on the outside, and can be seen from the fire escape. In the N. E. corner room, #424, there are cracks at the lower corners of the windows next the corner of the building. In the stair hall leading to the 5th floor, there is a crack in the outer wall at the lower left corner of the window, and between the window and the S. wall of the stair enclosure. Another in the N. wall of the enclosure runs from landing above to near floor about 5' back from outer wall. In Room 523 on 5th floor, there is a small crack at the lower right corner of the window, and in the N. wall ranging from the top of a closet door to the ceiling. In the ladies' toilet in the N. W. corner there is a crack above and below the left side of the window, and vertical cracks

Job No. W. 1384.

SURVEY NO. 26 Continued.

in the S. corners of the room. In the hall there is a crack over the center of the double window, and above and below the right corners. At the single window in the hall there are cracks above and below the left corners. In the men's toilet there are cracks at the S. E. corners. These corners seem to be formed by a shaft or flue extending through building. In the N. E. corner, room 524, there are cracks at the lower corners of the windows, on the side toward the corner of the building. In room 522 there are cracks at the lower corners of the window. In room 521 there are cracks at the lower corners of the window. In room 520 there is a crack at the lower right corner of the window, that shows outside. Another crack shows at the upper right corner of a door on the S. wall. In room 519 there is a crack at the lower right corner of the window. In 518 there is a crack at the lower left corner of the window. In the hall at the corner of the stair enclosure, there are irregular cracks from ceiling to the floor. In the stair enclosure, cracks show in the same relative positions as on floors above. On the 4th floor at N. wall, the cracks show in the same relative positions as on floors above. In rooms 424, 423 and 422, cracks show in the same relative positions. On the W side of the hall at door 423, a crack runs diagonally from right of door to ceiling above upper left corner of the door. There is a crack at the corner of the stair hall the same as floor above. On the 3rd floor in the stair enclosure, and in the N. wall of the building, the cracks show the same as on the floors above. In the men's toilet the cracks around the column show same as above, only more open. Room 323 and 322 show same relative cracks as rooms above. Stair hall to second floor shows same relative cracks as above. On all floors there are plaster cracks above most of the hall doors, and cracks in N. E. corner of building show discoloration from seepage of water.

Job No. W - 1384.

SURVEY NO. 26 Continued.

In room 224 there are cracks the same as above. In the bath room in connection with this room, a diagonal crack shows in the S. wall. Cracks in ladies' toilet at the N. W. corner, show the same as above. Same in the men's toilet. All cracks in the N. wall and in the walls of the toilet rooms, increase from the upper story down. On the first floor in the room back of the office, there is a crack in the N. E. corner from ceiling to floor, and one over the center of the window. In the tailor shop there is a slight crack in each outer corner. In room B there is a crack at the upper left corner of the window, and at ceiling line, and below left corner of the window.

-:-

B. M. Second ring bolt, S. curb of Burnside, E. of 14th St.

Elev. 69.770

-:-

Iron rod in wall, 3rd column from N. W. corner of Bldg. on Burnside St.,

Elev. 72.213

Iron rod in wall, 2nd column from N. E. corner of Bldg. on Burnside St.,

Elev. 72.206

On step, W. side of column, N. E. Cor. of Bldg. on Burnside St., rod held against building on step Elev. 71.196

Under side of iron rod in floor beam, 20' S. of N. E. Cor. of building on 14th St Elev. 81.074

Job No. W 1384.

SURVEY NO. 26 Continued.

B. M. Third ring bolt, E. curb of 15th St., N. of Burnside St.

Elev. 72.635

-:-

Under end of concrete beam, extreme N. W. Cor, of Carlton Bldg.

Elev. 80.263

Above elevations taken March 12th, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

Job No. W 1384.

SURVEY NO. 27.

S.E. Cor. 14th and Burnside. Inspection made Feby. 20, '17.

This is a 4 story brick building, known as Ringler's Hall. There is a crack in the sidewalk that runs near building full length of the west side, and about 30' east from corner on north side. This crack is open about 1/8". Inside on the ground floor, there is a crack in the S. end of the first girder E. of the west wall. There is a crack in the basement wall in the 2nd panel E. of Cor. that is open 1/16".

-:-

B. M. Second ring bolt, S. curb of Burnside St., E. of 14th St.

Elev. 69.770

-:-

On top of concrete foundation, at S. W. Cor. of Bldg. on 14th St.

Elev. 73.474

On top of concrete foundation at N.W. Cor. of Bldg.

Elev. 72.043

On top of concrete foundation, N.W. Cor. of column, W. side of entrance to garage on Burnside St.

Elev. 71.963

On top of concrete foundation, N.E. Cor. of column, about center of building, on Burnside St.

Elev. 71.988

Above elevations taken March 13th, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

Tanner Creek Sewer Survey

Job No. W 1384.

SURVEY NO. 28.

509-511 Burnside St. Inspection made February 23, '17.

This is a 1 story brick shop. There is a crack in the sill of the window between the front entrances, which runs down to the sidewalk. This has been painted over, but has reopened about half way from top down. We crossed this crack with a horizontal scratch 3" long. There are cracks in the cement floor at the entrance at #511, and in the sidewalk on the east side of this entrance. There is a large crack in the west wall about 16' back from the front, seen from inside. This crack runs from the ground to the top of the wall, diagonally up and forward. This crack was once filled, but is now open 5/16" at a point 5' above the floor at a horizontal scratch across the crack 3" long. It is open wider nearer the top. See photograph #28. There is a crack in the E. wall 30' back from the front, at 2nd column. This is crossed with a 3" scratch 5' above floor. At this point the crack is open 1/8". These cracks are caused from settlement at the rear of the building. The cement floor at the rear has settled several inches. The columns at the N.E. and S.E. corners of this room are separating from the wall, owing to lack of bond. It seems that two buildings have been joined here, without proper bond.

-:-

B. M. Third ring bolt, E. curb of 15th St., N. of Burnside St.

Elev. 72.635

-:-

On window sill, flush with outside edge, W. of column at entrance to
 #509 Burnside Elev. 72.837
 Nail in column, S. W. Cor. of building, #511 Burnside St. Elev. 70.773

Tanner Creek Sewer Survey

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Job. No. W - 1384

SURVEY NO. 28 continued.

Elevations taken March 12th, 1917.

J. C. Russell, Inst .

C. E. Harding, Rod.

Tanner Creek Sewer
Job. No. W - 1334.

Crack
There is a large crack
N. W. Cor seen from outside
See Photo 29.

SURVEY NO. 29.

505

917.

This

Crack in the

W. wall at the 2nd

the top of

the wall. This crack

open 1/8"

at point 12 bricks

as this

crack at this point

1/8" at

bottom, and about 2'

feet. These

cracks are caused by

building. The

cement floor has set

is broken and

settled at the entrance

There are

three cracks in each cement window sill, above and below window. These cracks do not show below the window. A crack at S. E. Cor. of the shop/ is seen from outside.

-:-

B. M. Second ring bolt. S. curb of Burnside St., E. of 14th St.

Elev. 69.770

On concrete foundation, S.E. Cor. of column, N.E. Cor. of Bldg.

on 14th St. Elev. 70.388

On concrete foundation, N.E. Cor. of column, at S. side of entrance on

14th St. Elev. 70.595

On concrete foundation, S.E. Cor. of Bldg. Elev. 70.711

On concrete foundation, S.W. Cor. of column, 35' W. of S.E. Cor. of

Bldg. on Burnside St. Elev. 70.914

On concrete foundation, S.W. Cor. of column, at entrance to 505 Burn-

side St. Elev. 70.634

Job. No. W - 1364.

SURVEY NO. 29.

505 Burnside. Inspection made Feby. 23rd, 1917.

This is a 1 story brick shop. There is a crack in the W. wall at the 2nd pilaster back, which runs from floor to the top of the wall. This crack has been filled at some time, but is open 1/8" at point 12 bricks above floor. A 3" scratch was made across this crack at this point. A crack in the N. E. Cor. is open 1-1/8" at bottom, and about 2" at the top. This is about 50' from street. These cracks are caused from ground settling at the rear of the building. The cement floor has settled several inches at rear. The walk is broken and settled at the entrance, and at S.W. Cor. of the building. There are three cracks in each cement window sill, at front of building. These cracks do not show below the window. ^{above and below window} A crack at S. E. Cor. of the shop/ is seen from outside.

-1-

B. M. Second ring bolt. S. curb of Burnside St., E. of 14th St.

Elev. 69.770

On concrete foundation, S.E. Cor. of column, N.E. Cor. of Bldg.

on 14th St. Elev. 70.388

On concrete foundation, N.E. Cor. of column, at S. side of entrance on 14th St. Elev. 70.595

On concrete foundation, S.E. Cor. of Bldg. Elev. 70.711

On concrete foundation, S.W. Cor. of column, 35' W. of S.E. Cor. of Bldg. on Burnside St. Elev. 70.914

On concrete foundation, S.W. Cor. of column, at entrance to 505 Burnside St. Elev. 70.634

Lanner Creek Sewer Survey

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Job No. W - 1384

SURVEY NO. 29 continued.

Above elevations taken March 13th, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

SURVEY NO. 30.

N. W. Corner 14th and Burnside. Inspection made Feby. 23, '17.

This is a 1 story brick shop. There is a crack in the N. W. Cor. which extends from top down about 4'. The cement floor at the N. side has settled slightly. There is a crack in the foundation wall near the center of the window N. of E. entrance. This crack extends out into sidewalk through one section. A crack runs parallel to wall line, full length of door-way.

-:-

B. E. Second ring bolt, S. curb of Burnside St., E. of 14th St.

Elev. 69.770

-:-

On concrete foundation, S. E. Cor. of column, N. E. Cor. of building, on 14th St. Elev. 70.388

On concrete foundation, N. E. Cor. of column, at S. side of entrance on 14th St. Elev. 70.595

On concrete foundation, S. E. Cor. of building Elev. 70.711

On concrete foundation, S. W. Cor. of column, 35' W. of S.E. Cor. of building, on Burnside St. Elev. 70.914

On concrete foundation, S. W. Cor. of column, at entrance to 506 Burnside St. Elev. 70.634

Above elevations taken March 13th, 1917.

J. C. Russell Inst.
C. E. Harding, Rod.

Tanner Creek Sewer Survey

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Job No. W - 1384

At 25 N. 14th. March 6th, 1917.

Sidewalk badly broken.

SURVEY NO. 31.

S. W. Cor. 14th & Couch. Inspection made Feby. 23rd, '17.

This is a 3 story brick. There is a crack in the side-walk at the S. E. Cor. near the building, which runs from corner about 6' N. There is a crack at the intersection of walk and building, which extends the full length of building, 100'. A shear in the crack at the N. E. corner of the building shows building $1/4$ " lower than the walk. A crack at intersection of walk on building along N. side, runs full length of building. The walk on N. side is broken and settled. The difference in settlement of different sections of walk is $2\frac{1}{2}$ " near center of north side. The difference in settlement of cement floor of building and incline run way at N. entrance is $1\frac{1}{2}$ ". This is probably due to shrinkage of joist over which floor is laid.

In basement a fine crack shows just west of 2nd column, under S. wall. A pencil mark on the wall 3' above floor indicates lower end. There are similar cracks at each side of first column under S. wall marked with pencil at lower ends of cracks. A crack E. of 3rd column is $1/32$ " wide at point 4' above floor. A fine crack in the center of 1st panel from street on N. side extends from top of basement wall to within 30" of floor. A pencil mark shows the lower end. A crack in the first panel from N. on east side near 1st column extends half way down to the floor. We made a pencil mark at lower end. A crack near north side of center column on east side, extends from top of the wall to the bottom. Water seeps through. A scratch 3.01" long was made 5' from floor. The crack is open $1/32$ ". There is no apparent settlement shown at the floor around the columns. No cracks show in brick walls above grade.

Job No. W - 1384

SURVEY NO. 31. (Continued) February 28th, 1917.

Further inspection was made of the W. wall from the outside. The bottom of the wall is about 15' below grade. The ground west of the wall is several feet lower than the footing of the wall. The earth has caved away between the piers supporting the wall, leaving caves 2' to 4' back under the cement floor of the building. The supporting piers are about 25' OC. There are three cracks in the basement wall about 30' N. of S. W. Cor. of building. The first runs nearly vertical, the second diagonally up and North. We crossed each with a scratch 3.02" long. The 3rd runs diagonally up and N. for about 5'. The end is indicated by a mark on the wall, and a horizontal scratch near bottom 3.01" long. Another vertical crack within 10' of N. wall runs from top to bottom of basement wall. It is open 1/16", and crossed by scratch 3.01 long. See photograph 31 of cave under wall. This is near the old sewer.

-:-

B. M. Second ring bolt N. curb of Couch St., 50' E. of 14th St.

Elev. 63.877

-:-

On top of foundation, N. W. Cor. of column, in entrance to office

Elev. 69.163

S. side of column, N. E. Cor. of Bldg., S.W. Cor. 14th and Couch

Elev. 68.578

E. side of column, 25' W. of N. E. Cor. of Bldg. on Couch St.

Elev. 67.381

On W. end of step N.W. Cor. of Bldg. on Couch St.

Elev. 71.525

Tanner Creek Sewer Survey

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Job. No. W - 1384

SURVEY NO. 31 (Continued)

Above elevations taken March 14th, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

SURVEY NO. 32.

45 N. 14th. Inspection made February 23rd, 1917.

This is a 2 story brick building, occupied by Oregon Auto Top Co. The sidewalk on both sides of the building shows settlement, and there is an open crack at intersection with building. The first joint in the sidewalk on both sides of building, is cracked open. The walk has settled from beneath cement step on E. side, leaving crack open about 1". See photo No. 32. There is a crack in the N. Wall 15' back from front, which extends from top of basement wall to the ground. This crack is crossed with a horizontal scratch 3" long, 5' above ground. There is a similar crack 40' back from front crossed with scratch 3.01" long, 6' above ground. Another crack 55' back runs from top of wall to 1' above ground. This is crossed with a scratch 3.01" long 5' above ground. The earth has settled under the wall at this point, leaving opening large enough to admit one's hand under the wall. On the inside of basement, the above mentioned cracks in N. wall can be traced. A crack in the E. wall N. of 1st column N. of S. E. corner, runs from top of wall to within $3\frac{1}{2}$ ' of the floor. The end of the crack is marked. There are cracks around the base of the piers on the N. side at the intersection with the floor. There are also cracks at the intersection of the north wall, with the cement floor. On the first floor there are fine cracks in the S. wall of the E. entrance in the plaster. These cracks all range upward and back.

-:-

B. M. 2nd Ring Bolt N. curb Couch St., 50' E. of 14th St.

Elev. 63.877

-:-

SURVEY NO. 32 Continued.

On brick ledge S. W. corner of Bldg.	Elev. 71.050
" " " E. side of door on Couch St.	" 71.033
" " " 20' W. of S. E. corner of Bldg. E. end of 2nd window on Couch St.	" 70.985
" " " S. E. corner of Bldg.,	" 70.945
" " " S. E. corner of column, N. E. corner of building	" 70.985
" " " N. E. corner of column, 1st column N. of S. E. corner of Bldg.	" 70.961

Above elevations taken March 14th, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

SURVEY NO. 53. Inspection made Feby. 23rd, 1917.

E. side of N. 14th from Couch to Davis.

This is a one story brick building. At the S. end near the corner of 14th St. there is a large crack which runs from half way up the corner diagonally down and east to the lower corner of the 1st window, and down to the ground. This crack was once filled, but is opening again. The extreme movement at a point below the window where scratched is $1 \frac{5}{32}$ ". The scratch is 4.02" long. Another scratch near the corner is 4" long. The portion of the wall above the diagonal crack has moved S. and E. 1" in each direction. A crack runs from top of wall near the corner down and east to near the 1st window. A blue mark indicates the end. The arch over this window is badly cracked, the cracks running up to near top of wall; (See photo 33 C.) There are cracks over 3rd window E. of this corner, running upward to the top of the wall. This is probably caused by shrinkage of the wood lintel. A crack N. of 1st door N. of corner on west side runs from the walk to the coping. This is crossed by a scratch 3.01" long. About 80' S. of N. W. corner is a joint in the wall where two portions of the building meet. This joint is open. This crack is crossed by a scratch 3" long. In the N. end of the building on Davis St. there is a crack from top of the wall down and back to the top of the 1st door E. of the corner. The crack is open at the top about 1". There is a crack in the W. wall over the 1st door S. of the corner, from the top of the wall down to the door. The door has a wood lintel. There are depressions in the walk and pavement just N. of the N. W. corner. See Photo 33 A. At the E. end of the N. wing are numerous fine cracks in the foundation and over the brick arch of N. door.

Job No. W 1384.

SURVEY NO. 33 Continued.

B. M. 3rd Ring Bolt on S. curb, Davis St., W. of 13th St. Elev. 57.003

-:-

Nail in wall about 35' N. of door, #48	"	63.029
" " " at joint, wall south	"	62.411
" " " " " north	"	62.420
" " " at S. side of N. door	"	61.953

Above elevations taken March 15th, 1917.

-:-

B. M. 2nd Ring Bolt, west curb 13th St. S. of Davis St. Elev. 57.162

-:-

On foundation at E. side of 2nd vent hole about 75' W. of N.E. Cor. of Bldg.	Elev. 59.826
On nail, 30' W. of N. E. Cor. of Bldg.	" 57.353
" " N. E. corner of Bldg.	" 57.529
On foundation at S. E. Cor. of Bldg.	" 57.588

Above elevations taken March 15th, 1917.

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B. M. 2nd Ring bolt, N. curb of Couch St., 50' E. of 14th St.	Elev. 63.877
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-:-

On window sill, N. side of window, 1st window S. of door #48, on 14th St.	Elev. 66.931
" " " " " " " 3rd " " " " #48 on 14th St.	Elev. 67.125

On nail in S. W. Cor. of Bldg.	" 64.900
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Job No. 1384

SURVEY NO. 33 Continued.

On nail in S. W. corner of Bldg.	Elev. 64.900
On nail about center of Bldg., on Couch St.	" 64.687
On nail in S. E. corner of Bldg. on Couch St.	64.881

Above elevations taken March 14th, 1917.

Elevations taken on dates above mentioned

J. C. Russell, Inst.

C. E. Harding, Rod.

SURVEY NO. 34

N. W. Cor. N. 13th & Davis. Inspection made Feby. 23rd, '17.

This is a 5 story brick building, occupied by Wadhams & Kerr. There is a crack in the S. wall near the center from 1st story window to basement window, open $1/32$ ". This is crossed by a scratch 3" long. There is a crack at the intersection of the building and the sidewalk along E. half of S. side. There is a crack in the cement step at the 1st door west of the corner. There are two fine cracks in the first panel W. of the corner on the S. side, in the concrete wall below the window. A scratch on the first from the corner is 2.99" long, and a scratch across the second is 3.01" long. There is a crack in the E. wall at the 1st window N. of S. E. corner, which extends from 1st story window to basement window, open $1/32$ ". This is crossed by a horizontal scratch 3" long. There is a similar crack at the 2nd window, crossed with a scratch 3" long. There is a crack at the N. side of the 2nd column N. of corner, from the 1st story window down and north, and intersects with the crack above mentioned. There is a fine crack below the center of the 3rd window from corner, and another N. of the column. The sidewalk has settled some at the S. E. corner of the building.

There is a crack in step at office entrance, crossed with a scratch 3.03" long.

N. W. Cor. Davis and 13th, Wadhams & Kerr warehouse, inside of basement.

We found a crack ranging down from top of basement wall under office entrance about 25' from S. E. corner. We found another fine crack at lower left corner of first window W. of corner, ranging down and to left, to within about 30" of floor. We made a mark at the end. Another crack runs from lower left corner of first window N. of corner. This crack runs to within 2' of floor. Lower end is marked.

SURVEY NO. 34 continued.

A crack at lower right corner of 2nd window N. of corner, ranges down and to right to the floor, and is open 1/32". We made scratch 3.02" long 5' above floor. There are fine cracks at both lower corners of 3rd window north of corner. A crack at 4th window N. of corner runs half way to floor. A crack at last window from corner runs from window to floor, and is open 1/32". There is a crack at intersection of walk and building from corner west about half length of building. In W. half of building there is a horizontal crack in foundation about 6" above walk, open 1/16". A larger crack runs across sidewalk near center of S. side.

-:-

B. M. 2nd ring bolt, W. curb, 13th St. S. of Davis St., Elev. 57.162

-:-

E. side of column in Cor., S. W. Cor. of Bldg.	"	58.160
Top of angle iron on column base at entrance at center door"		58.089
On top of cement base, W. side of entrance of office door "	"	58.275
On top of angle iron, S. E. Cor of Bldg.,	"	58.138
On cement flange, S. E. Cor of 2nd column N. from S. E. Cor. of Bldg.	"	58.257
On cement flange, S. E. Cor of 4th column N. from S. E. Cor. of Bldg.	"	58.155

Above elevations taken March 15th, 1917.

J. C. Russell, Inst.,
C. E. Harding, Rod.

Job No. W. 1384

SURVEY NO. 35.

Armory, S. E. corner 11th and Davis, Inspection made
Feb. 26th, 1917.

There is a slight crack in stone wall at second window
E. of corner on N. side, ranging downward to near sidewalk.

(See Page 55)

SURVEY NO. 35

O. N. G. Armory.

B. M. 2nd ring bolt W. curb of 11th St., S. of Davis St., Elev. 50.457

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On top of monument, intersection of 11th and Davis Sts. Elev. 48.009

North end of stone sill, N. window on W. side of Armory " 53.480

Above elevations taken March 2nd, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

FS.

Job. No. W. 1384.

SURVEY NO. 36.

W. P. Fuller warehouse on Davis, from N. 12th to N. 13th; inspection made Feby. 24th, 1917.

Inspection begun at S. W. Cor. of Bldg., 4th floor.

A crack at W. end of 2nd window beam shows little further than depth of beam. Similar crack at W. end of 3rd beam. Same at both ends of 4th. A large crack above center of door in division wall extends up to roof. It is open $3/8$ " at bottom. A crack at E. end of beam over 1st window E. of division wall runs from roof girder down and to right to window. Similar crack from same girder down and to left to 2nd window. Similar action at 2nd girder E. of division wall. Same condition found at 3rd and 4th girder ends. There is a crack at upper right corner of 1st window N. of S. E. corner, running diagonally upward to roof.

On 3rd floor, began inspection at S. W. Cor. of building.

Found crack at lower left corner of 1st window E. of corner ranging down and left; open to within $1/2$ " of corner of window. A crack at upper N. corner of doorway in division wall is open $1/4$ ". Several of the windows have small cracks at ends of lintels and at lower corners.

On 2nd floor, cracks were found at both ends of concrete frame over window on S. side at S. E. Cor. of Bldg., and at S. end of beam over 1st window N. of Cor. Another crack found at S. end of beam over doorway in division wall. On all floors, goods stored prevent thorough inspection.

Basement: Beginning at S. W. Cor. of Bldg. A crack at W. end of 1st window shows above and below window, largest below. Open $1/8$ " below window, and less above. Inaccessible. There is a crack on W. wall about 25' N. of Corner, open about $1/4$ "; inaccessible. A crack in both side walls of area way on W. side just outside of basement walls. These cracks are connected by a crack in the cement floor. The cracks are open

SURVEY NO. 36 continued.

most at the bottom. A crack at S. end of concrete beam over area way runs from a floor beam to bottom of concrete beam. Another crack was found about 30' south of area way running from top of wall to floor; open about $1/16"$. There are cracks at upper corners of 2nd window E. of S. W. Cor. of Bldg., each crack extending upward past floor above, and open $1/16"$. Another crack found under first entrance E. of Cor., open about $1/8"$, and a fine crack in lintel over 1st window W. of division wall. Small crack found on each side of door way in division wall. At the area way east of the division wall, there are cracks extending upward at each upper corner of opening, and cracks in each side of area just outside of foundation. These cracks are connected by a crack running across the arch. Joint between arch and wall above is opening slightly. The largest of these cracks is the one on the E. side of area near floor, where it is open about $3/16"$. There was another fine crack found about 10' E. of area. Cracks were found at each end of office entrance extending down to bottom of basement wall. There are cracks at both ends, and under the center of 1st window W. of S. E. Cor. of building. The largest crack is open about $3/16"$. Similar cracks were found at 1st window N. of the corner. The same condition was found at 2nd and 3rd windows with cracks less open. Same condition at 4th and 5th windows. Largest crack at upper corner of 5th window, which is open $3/16"$. No perceptible settlement in floor of basement. Near the S. W. corner water pours into basement through a crack.

On first floor there is a crack running diagonally upward

SURVEY NO. 36 continued.

through lintel over doorway in division wall, but it does not extend above lintel. The walls are of concrete from the basement floor to 1st story window sills. Inspection of outer wall started at S. W. corner. Crack found in wall extending from upper left corner of basement window upward to brick wall, a distance of about $7\frac{1}{2}'$. The crack is open $\frac{1}{32}"$ at a point 5' above walk, where 3" scratch was made across crack. Another crack at end of window ranges upward to first story window sill. Crack is open $\frac{1}{4}"$ at point where 3.01" scratch was made, about 4' above walk. A crack at W. end of 2nd window ranges upward from walk to brick wall above. This is open $\frac{1}{16}"$ at point 5' above walk, where scratch 2.42" long crosses crack. A similar crack at east end of window extends about 3' into brick above. The crack is open $\frac{3}{32}"$ at 3.01" scratch made across crack 5' above walk. Crack extends out into sidewalk. There is a crack in cement floor just inside of walls at loading entrance, running full length of opening. A crack at 1st window E. of loading entrance, at W. side of window, runs from basement window to first story window, and then horizontally under window sill. This crack is open $\frac{1}{32}"$ at scratch 3.01" long, 4' above walk. A crack at E. end of this window is inaccessible. A crack at 2nd window E. of entrance at W. side of window is open $\frac{1}{32}"$ at scratch $6\frac{1}{2}'$ above walk. This scratch was made 3.03" long. Another finer crack is at E. side of window. Crossed crack with scratch 3.01" long 5' above walk. There is a large crack in sidewalk at this point. The concrete steps are cracked at small door, just east of 2nd loading entrance. A crack near center of first window east of this door extends through first story window sill down nearly to walk. We crossed crack

SURVEY NO. 36 continued

with scratch 3.01" long, $4\frac{1}{2}$ ' above walk. There is a crack at each end of window W. of office entrance, and one near center. These run from sill down to walk, about 6'. We crossed each crack with a scratch 3" long about 5' above walk. There are several small cracks in office door steps. The joint where step buttresses join onto brick wall have opened $7/16$ ". The sidewalk is cracked in front of entrance and toward corner. A crack at west end of window nearest corner, runs from about six bricks above sill to walk. This crack is open $1/8$ " at scratch 5' above walk. The scratch is 2.99" long. There are two cracks at east end of window running down to walk. One extends out into walk one section. We made scratches across cracks 5' above walk. West scratch 3.01" long; east scratch 3" long. The largest of these cracks is open $3/32$ ". On east side of building there are cracks from ends of every window sill down to basement windows, or to walk below. There is a crack at left of first window from corner, open $1/16$ ", crossed with scratch 3.01" long. At right of window there are two cracks, the first crossed with 3" scratch, the second crossed with a 3.61" scratch. The second crack is open $1/16$ ". At left of second window, the crack is open $1/16$ " and crossed with scratch 2.99". The crack at right of 2nd window extends 6 bricks above sill in brick wall; the crack is open $1/16$ " and is crossed by a scratch 3" long. There are fine cracks at left of 3rd window crossed with scratch 3.01" long. A crack at right of 3rd window runs upward from basement window about 30". A mark was made at limit of crack. A larger crack runs from 9 bricks above 1st story window sill to walk. This crack is open $3/32$ " and is crossed by a scratch 3.01" long. The crack at left of 4th window is open $3/32$ ", and is crossed by scratch 3" long. Crack at

SURVEY NO. 36 continued.

right is open $1/16''$, and is crossed with a scratch 3.01" long. The crack at left of 5th window extends from 12 bricks above window sill to walk, is open $3/32''$, and is crossed by scratch 3" long $4\frac{1}{2}'$ above walk. There is a finer crack at right of window crossed with scratch 3" long. There is a fine crack at left of 6th window crossed by scratch 3" long. The crack at right is open $3/64''$, and is crossed by a scratch 3" long. There are fine cracks at upper corners of first door way under marquise. There is a crack in run way in this door extending from one jamb to the other. There is a fine crack just north of this door which runs from walk upward and to right to about 5' above walk. A scratch in wall indicates the end. A crack at upper left corner of 1st window under marquise runs up to window above. This crack is open $1/64''$, and is crossed by a scratch 3" long. A similar crack at upper right corner is crossed with a 3" scratch. There is a vertical crack through cement steps at entrance of Gauld Co's. office, crossed on 2nd step by a scratch 3.01" long. A crack at upper left corner of basement door N. of office is open $3/16''$ and is crossed by scratch 3.01" long. This crack runs up into brick wall nine courses. A crack at upper left corner of 2nd basement door N. of office, runs up to brick. It is open most at top. It runs out near opening. A mark on wall indicates the lower end. There is a similar crack at upper right corner, open about $1/32''$, that is out of reach for scratching. A crack at upper left corner of last window on east side runs from window to brick wall above. It is open about $1/32''$ and is out of reach. There is a similar crack at upper right corner of same window. At the center of this window a crack runs through sill down to walk, crossed with a scratch 3.01" long. The window sill is cracked horizontally from left end nearly to right. The sidewalk at N. E. corner of building is badly broken and has settled several inches, most on side nearest building.

SURVEY NO 36 continued.

A crack in walk runs from corner about 50' south within a few inches of building. On the N. side of building there is a crack at upper left corner of doorway which extends from brick down to near opening. A scratch on wall indicates lower end. At the upper right corner of this doorway a crack runs from brick down along the side of the door. A scratch across this crack 6' above walk is 3" long. A scratch on wall about 9" from upper left corner of 1st window W. of corner indicates the lower end of a crack which extends down from wall above. A crack in center of this window from sill down, is open $\frac{3}{32}$ ", and is crossed by a scratch 3.01" long. A crack at upper right corner of this window extends up about 9 bricks above basement wall. This crack is open $\frac{1}{8}$ " at scratch 3.01" 5' above walk, and is open more farther up. A crack at upper left corner of 2nd window runs from brick down to line of top of window, then horizontally to left. A scratch on wall indicates end. A crack through center of this window sill runs down to walk. A crack at upper right corner from brick down to window is open $\frac{3}{32}$ " at scratch 4.02" long. A mark on wall about 4' above walk indicates lower end of crack. At 3rd window west, a crack runs from brick down to near upper left Cor. of window, and joins a fine horizontal crack which extends from this window to window to the left. The vertical crack is open $\frac{1}{64}$ " at scratch which is 3.01" long. A crack at upper right corner from brick down to window to mark 4' above walk that indicates present limit. A scratch 6' above walk is 3" long. The sidewalk is settled some in front of this window. A crack at 4th window runs from brick down to upper left corner. It is open $\frac{1}{64}$ " and is crossed by a scratch 3" long. A similar crack crossed by a scratch is at upper right corner of this window. At right of 5th window a crack runs from 4 bricks above basement wall to walk and is open $\frac{3}{32}$ " at 2.99" scratch 5' above walk.

SURVEY NO. 36 continued. (Inspection of March 6th, 1917)

At left of 6th window a crack runs from brick down to near basement window. A scratch on wall indicates lower end. A horizontal scratch 3.01" long crosses crack about 5' above walk. Crack is open $1/32$ ". There are several fine cracks extending upward over this basement window. At right of 6th window a crack runs from top of concrete wall down to scratch on wall about 12" above walk. A 3" scratch crosses crack 5' above walk. There is a large crack at left of 7th window from 9 bricks above concrete wall to sidewalk. This crack is open $5/32$ " at scratch 3" long 2' above walk. A finer crack at right of 7th window runs from brick down to mark on wall about 12" above walk. This crack is open $1/32$ " at scratch 3" long, 5' above walk. At left of 8th window on N. side a crack runs through end of window sill down to basement window below. This crack is open $5/32$ " at window sill and is crossed with a 3" scratch 15" above walk. A finer crack at right of window runs through first story window sill to walk below, and is crossed with a 3" scratch 4' above walk. There are cracks at both sides of Apron wall between 1st and 2nd story windows 8th from N. E. corner. The cracks range vertically for full distance, and are open about $3/16$ ". On west side of building there are two cracks at right of 1st window from N. W. corner. These cracks extend from 12 bricks above concrete wall down to loading platform and are open $1/8$ ". Left crack crossed by a scratch 3.01" long; the right 2.99" long. A crack at left of this window runs from brick down to platform, and is crossed by a scratch 3.5" long. In the apron wall above corner door there are cracks at each side. On the 4th floor there are small cracks at the ends of 3 lintels on the N. side of building. There is quite a large crack in division wall on S. of N. 1/2

SURVEY NO. 36 continued.

of building, which runs from top to bottom of wall about 40' W. of east side. This crack is open 1/4". This crack appears also on 3rd floor, but runs out near floor. There are slight cracks at ends of some of lintels on 3rd floor on north side. The largest crack is at E. end of 1st window W. of N. E. corner. The second story is hard to inspect, owing to shelving being against walls. There is a crack under 1st window S. of N. E. corner, extending diagonally downward to floor, open 1/16". There is a similar crack at left of 1st window W. of corner, open 1/8". At right of 3rd window W. a crack runs from window down to floor and is open 1/16". On the balcony floor of 1st story there is a crack at N. end of first window S. of N. E. corner open 1/4". There is a similar crack at E. end of lintel over 1st window W. of corner. A similar crack open 1/8" was found at east end of 2nd window west of corner. The first story has been ceiled and covered with shelves, so no inspection can be made.

(2/7/'17) In basement the wall cracks found on outside are traceable on inside. At the S. 1/2 of the east wall of basement, the wall seems to have moved out slightly, shearing off the spikes in the wall anchors of the floor beams, and causing a slight spalling off of the concrete under the ends of the beams. There are numerous old cracks in floor, especially near N. E. corner.

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B. M. 2nd Ring Bolt , W. curb 13th St. S. of Davis St. Elev. 57.162

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On top of cement, N. side of column, S.W. corner of Bldg.
 on W. side of Bldg. Elev. 58.767
 Nail in S. W. Cor. of 4th column from S. W. Cor of Bldg.
 on W. side " 59.127

SURVEY NO. 36 continued.

Under E. end of concrete window sill, 2nd window next to S. entrance	Elev. 61.525
-:-	
B. M. 2nd Ring Bolt W. curb 12th St., about 80' S. of Davis St.	" 54.288
-:-	
On top of W. nail of awning chain reel, 60' W. of S. E. corner of Bldg.	" 56.900
N. E. Cor. of column, W. side of entrance to office, on cement floor	" 55.769
On S. E. Cor. of Bldg., cross mark ⊕	57.768
Under cement sill, N. end of second sill, E. side of Bldg., on 12th St.	" 59.491
Under cement sill, N. end of 5th sill, E. side of Bldg., on 12th St.	58.422

Above elevations taken March 15th, 1917

J. C. Russell, Inst.

G. E. Harding, Rod.

SURVEY NO. 37.

Pacific Coast Biscuit Co., N. E. Cor. 13th and Davis.

The third basement window from corner on west side has old crack in center of sill extending down to walk about 12". First window N. of corner has similar crack, crossed with scratch 3.01" long. There are several cracks in walk on W. side. A crack at west lower corner of 1st story window first east of corner, extends down and to right about 2'. This is about 8' above walk. The sidewalk at the corner of building is cracked away from building $5/16$ " on S. and $1/8$ " on W. There are five fine cracks in first basement window sill east of corner, and similar cracks in 2nd window east. Five or six bricks seem cracked and broken at upper left corner of two first story windows. Cement steps at entrance seem pulled away from building, making crack $1/4$ ". An old crack about 3' back of front wall at west side of shipping court runs from window opening to walk. This is crossed with a 3" scratch. A larger crack about 30' back from front in W. wall of court is open $5/32$ ", crossed with a scratch 3.01". There is a crack at left of 1st window E. of court running from arch to walk, open $1/32$ ", crossed with a 3" scratch. There is a slight crack at left of 3rd and 4th basement windows E. of court. In the west half basement, there is a crack in E. wall about 30' back from front, running from top to bottom, the same as one noted in shipping court. This crack is open $1/8$ " at scratch 5' above floor. Scratch is 3.01" long. There is another crack from top to bottom about 50' back from front in same division wall, open $1/32$ " at scratch 3.03" long. On the west wall cracks show below 3rd window back. These cracks are not accessible, on account of material stored. Noted above in outside inspection. There is a crack from top to bottom of concrete foundation wall between first and second windows from S. on W. side, crossed with a scratch 3.01" long. There is another crack under 1st win-

SURVEY NO. 37 continued.

dow from corner, crossed with scratch 3.03" long, open 1/16". A slight crack in S. wall about 4' from corner extends to near floor, and is crossed with a scratch 3.02" long. There are numerous cracks in sidewalk on both S. and E. sides. A crack at N. window on E. side can be traced from walk to top of Bldg. It seems to be open most near top of building; it is open very slightly at bottom; open 1/8" near roof. We made scratch in brick across crack near coping 3.01" long.

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B. M. 2nd Ring Bolt, W. curb of 11th St. S. of Davis St. Elev. 50.457

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On top of monument, intersection of 11th and Davis Sts.	"	48.009
On stone water table, E. side of Bldg. against S. coping of window arch	"	52.808
Similar point S. of E. doorway arch		52.789
" " E. of N. window arch, E. side of Bldg. . .		52.750
" " W. of E. window arch, S. side of Bldg. . .		52.843
E. end of C.I Extension Base of Column, E. side of shipping court		52.875

Above elevations taken March 2, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

SURVEY NO. 37.

Pacific Biscuit Co.

Gongwer & Arnold have also taken some elevations on this same building.

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B. M. 2nd ring bolt W. curb 12th St., about 80' S. of Davis St.,

Elev. 54.228

-:-

Cement foundation N. W. Cor. of Bldg., S. of down spout	"	52.778
" " S. side of 2nd arch from N. W. corner	"	52.810
" " S. " " 4th " " N. W. "	"	52.815
" " S. W. corner of building	"	52.822
" " W. side of 2nd basement window, S. side of building		Elev. 52.833
Center bolt in cement, steel column in Drive Way	"	52.578

Above elevations taken March 15, 1917.

J. G. Russell, Inst.

C. E. Harding, Rod.

SURVEY NO. 38.

1 story brick stable, S. E. Cor. 11th and Everett,
Inspection made Feby. 26th, 1917.

No apparent settlement.

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B. M. Broken Ring Bolt staple, S. curb of Everett St. between 11th &
12th Sts., just W. of Alley Drive Elev. 43.266

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On nail at N. W. Cor. of Bldg.	Elev. 42.961
" " " S. W. Cor. of Bldg.	" 46.599
" first Ring Bolt in E. curb of 11th St. N. of W. door	" 44.894

Above elevations taken March 2nd, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

SURVEY NO. 39.

428 - 430 Flanders. Inspection made March 9th, 1917.

This is a 4 story brick warehouse. On the front there are four slight cracks in the concrete foundation under the N. window. There is also a fine horizontal crack to the left of the door at the N. W. corner. There is a longitudinal crack full length of the step at the main entrance. There are a few small cracks in the sidewalk. No cracks show in the walls.

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B. M. Ring Bolt in S. curb of Flanders St., just W. of Alley Drive between 11th and 12th Sts. Elev. 39.235

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On brick water table at N. E. Cor. of Bldg.	Elev. 40.799
" " " " " N. W. " " "	" 40.923
Ring Bolt on E. curb 15' S. of Blacksmith Shop, between Everett and Flanders Sts.	" 40.265

Above elevations taken March 2, 1917.

J. V. Congwer, Inst.

B. W. Arnold, Rod.

SURVEY NO. 40.

N. W. Cor. 11th and Everett. Inspection made Feby. 26, 1917.

This is a 1 story brick building occupied by the Royal Bakery. There is a crack near corner on S. side ranging up and west from upper right corner of window. This may be caused from the strain of suspension rods holding marquise. The concrete sills of the windows on the E. side are all badly cracked, and the finish coat of cement is loose in places. A crack in N. wall about 4' from N. E. Cor. extends from ground up through foundation wall and into brick above to several feet above ground. We made a scratch 3"-long 5' above ground. There is a crack in foundation in N. wall, about 15' back from street, open 1/16". The column west of elevator entrance is badly shattered. In the basement there is a horizontal crack in area under 11th St. sidewalk, at bottom of curb, running full length of wall. There is a slight crack in N. W. corner of area, and one near center of S. side under column mentioned above, not open enough for measurement. There is a crack in arch over room west of the ovens. See photograph of upper S. E. corner.

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B. M. Broken Ring Bolt staple, S. curb of Everett St., between 11th and 12th Sts., just west of Alley Drive. Elev. 43.266

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On N. end of iron door frame in wall, N.E. corner of building,	Elev. 44.187
On corner of water table at S. side of E. entrance	" 46.652
On knob on extreme corner of water table, S.E. corner of building	" 46.763

Job No. W 1384.

-70-

SURVEY NO. 40.

Under W. end of steel lintel, W. side of elevator entrance

Elev. 53.528

Above elevations taken March 2nd, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

SURVEY NO. 41.

N. W. corner 11th and Flanders. Inspection made Feby. 27th, 1917.

This is a 1 story brick stable. There is a large crack in S. wall 30' back of front, which ranges vertically from top of wall to bottom. Several brick are loose near top, so it is hard to measure the amount of movement. This crack is open approximately $1\frac{1}{2}$ " and is open $\frac{7}{8}$ " near center. We made vertical and horizontal scratches 10 bricks below window. Horizontal scratch is 4.03" long. Rear of building on S. side is in dilapidated condition. Parapet wall at S. E. corner has about 4 courses of loose brick. There is a sag in cobble stone pavement at entrance. There is a crack in N. wall about 30' back from front, in practically the same condition as the one on S. side. We made vertical and horizontal scratches across crack 12 brick courses below window. Horizontal scratch is 4.03" long. There are several loose brick near bottom.

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B. M. Ring Bolt in S. curb of Flanders St., just W. of Alley Drive, between 11th and 12th Sts. Elev. 39.235

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On nail head at N. E. corner of Bldg.	"	39.296
" " " " S. E. " " "	"	39.289
" " " " S. W. " " "	"	40.015

Above elevations taken March 2nd, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

SURVEY NO. 42.

S. W. corner 11th & Glisan. Inspection made Feby. 27 1917

This is a 3 story concrete building occupied by the Oregon News Co. There is a crack in walk at intersection with building, nearly full length of east side, not open over $1/16$ " , and another crack lengthwise in center of walk in front. On the W. side of this building there are several fine cracks which do not extend to top or bottom of wall. The lower ends of six of these are marked with red and scratched in surfaces. The largest crack is 6' back from front, and is crossed by vertical and horizontal scratches 3.01" long, 5' from ground. A smaller one nearer front is crossed by a 3" scratch. On the E. and N. sides there are fine cracks at ends of concrete beams over every basement window. The most of these cracks extend about half way from top to bottom. In some of the beams there are fine cracks near center from bottom up about half way. The two largest cracks are about 2' from N. ends of 3rd and 4th beams S. of N. E. corner. These two extend across the beam. Another fine crack was found in foundation under 3. door on E. side, which runs from walk to within 1' of top of foundation. In the basement in the elevator enclosure, there is a horizontal crack at grade level. A red pencil mark on wall indicates the present limit. There is a vertical crack in the N. E. corner of elevator enclosure marked with scratch 3.01" long. A crack near center of first basement window extends downward from window about 16". A red mark marks end. A crack below center of middle basement window on E. side, runs from window down about 3'. The limit is marked with red pencil. There are three fine cracks below 2nd window N. of front on E. side, which run down several inches. These cracks are inaccessible. There are also three fine cracks under 1st window which extend downward several inches and are marked at end with scratch and red pencil. There is a crack

SURVEY NO. 42 continued.

in basement floor about 8' from east wall which runs parallel to wall from opposite 2nd column from front, to opposite 5th column. On first floor there is a fine crack 8" north of rear partition in W. wall, that runs from floor to ceiling. This crack is open about 1/64". There is another crack in W. wall, a little back of middle of stock room, open 1/64", which runs from floor to ceiling. There is another similar crack in W. wall, between dumb waiter and basement stair door. At front end of west wall there is a vertical crack in concrete chimney, running from floor to within a few inches of floor above. The cracks noted above at front of wall on W. side outside, are noticeable on inside in N. W. corner. On 2nd floor there is a crack in W. wall at head of stairs, crossed with scratch 3.01" long, 5' above floor. There is a crack at corner formed by partition and E. wall near center of building, which extends from floor to ceiling, and along ceiling at top of partition for about 3'. In the E. wall there is a crack at lower right corner of 2nd window from rear, which extends from window down to within 4" of floor. There is another crack at lower left corner of 3rd window from rear that extends from window to within 10" of floor. A crack at 4th window, lower right corner, extends to floor, and is open at top 1/64". A crack at lower left corner of 5th window, extends to within 18" of floor. A crack at lower right corner of 5th window, extends to floor, and is open not over 1/64". A crack at lower left corner of 1st window N. of partition, runs half way to floor, and is inaccessible. A crack at lower right corner of 2nd window runs to floor, and is open not over 1/64". At lower left corner of 3rd window, a crack runs to floor; open not over 1/64". At 1st window from N. end, at lower right corner, a crack runs to floor, and is open not over 1/64". The crack in chimney is noticeable on 2nd floor, and is open from near floor to near ceiling.

SURVEY NO. 42.

On the 3rd floor in the W. wall, there is a diagonal crack from the floor upward and to the right to the 1st column N. of S. end. The crack follows column up to beam above. Crack is crossed with 3" scratch 5' above floor. On east side under 4th window from rear, there is a fine crack from window to floor. At lower right corner of 5th window, there is a crack from window to within 12" of floor. Under 6th window, a crack runs to within 16" of floor. Under 5th window from rear, a crack runs to within 6" of floor. At lower left corner of 2nd window from front, a crack runs diagonally from second window to scratch made on wall. There are no apparent cracks in floor or floor beams.

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B. M. 2nd Ring Bolt, N. curb of Glisan St. E. of 11th St. near 2nd pole
 Elev. 37.386

-:-

On water table 2" above walk, N. W. Cor. of Bldg.	"	38.865
" " " 6" above walk, N. E. Cor. " "	"	38.691
" " " 6" above walk, E. side on pilaster just south of faucet	"	38.716
On N. end of angle iron against jamb at E. door.	"	42.505
On S. E. Cor. of sidewalk door frame, E. side of Bldg.	"	38.089

Above elevations taken March 2nd, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

SURVEY NO. 43.

441 Glisan. Inspection made Feby. 27th, 1917.

This is a 2 story frame. The sidewalk on 11th St. side has settled on side next to building, a length of 50'. The shear at ends is 1 1/2". Building has no foundation, and has settled out of shape.

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B. M. 2nd Ring bolt N. curb of Glisan St. E. of 11th St. near 2nd pole	Elev. 37.386
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Pencil cross on N. E. Cor. of Building	" 42.843
" " " S. E. " " "	" 42.843
Back of sidewalk near N. E. Cor. of Bldg., low side of joint	" 36.975
Back of sidewalk near S. E. Cor. of Bldg. low side of joint	Elev. 37.675
On 1st Ring Bolt, W. curb of 11th St. N. of Glisan St.	" 37.431

Above elevations taken March 2nd, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

SURVEY NO. 44.

435 Glisan St., Cor. 11th.

2 Story Residence ; brick foundation.

The front wall is cracked down the center. 11th St. walk is in good condition. Foundation is settling badly near middle of W. side. One brick pier about 7' high, under 1 story addition, on W. side, is about 3/4 gone at bottom.

SURVEY NO. 45.

North Bank Ry. Depot, N. E. Cor. 11th & Hoyt. Inspection made Feby 27th, 1917.

This is a 2 story brick. There is a fine crack at 1st pilaster E. of corner, running down through concrete foundation to walk, and up through two bricks. A scratch was made across crack 5' above walk, 3" long. There are numerous hair cracks in foundation that apparently are not deep. On the W. side of the building there is a fine crack extending down from top of foundation wall to about 4' to scratch and blue pencil mark made on wall. Just N. of first pilaster N. of corner, is a larger crack from 5 bricks above wall to ground below, crossed with scratch 3.01" long. To the left of 2nd pilaster N. of corner at the end of a concrete beam, in foundation, is a crack from top to bottom of beam, open 3/16" at top near scratch made across crack 2.99" long. A crack below 1st steel column extends upward to within 12" of top at blue pencil mark; open 1/32". A crack at right of 2nd steel column extends from top of concrete foundation downward. It is open about 1/32", and is crossed with a scratch 3" long. Another crack extends from top of wall downward to ground about 4' S. of 4th steel column. The opening is 1/8" and is crossed with scratch 3.01" long. Another crack 3' S. of 5th column is open 3/8". Very little of wall can be seen at this point. Further N. on this wall the foundation is covered, making inspection impossible. Two brick fire walls in freight sheds show no cracks. At extreme N. end end of building, on N. side, is a crack about midway from top of foundation to ground, open nearly 1/8", and crossed with scratch 3.05" long. Another crack on W. side, 25" from corner, in foundation, is open only 1/16", and is crossed with a scratch 3" long.

SURVEY NO. 45 continued.

B. M. Ring Bolt in S. curb by meter box, between #428 and #430 Hoyt St.,
Elev. 33.661

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- Short horizontal scratch in bricks, S.W. Cor. Passenger Station, 4th course of brick. Elev. 39.925
- Short horizontal scratch in bricks, S.E. Cor. Passenger Station, 5th course of bricks Elev. 39.925
- Small point of cement mortar on water table, just S. of pilaster, S. of 1st iron door, W. side of Passenger Station, between 2 vertical scratches in brick Elev. 39.365
- Bottom of front rivet in Conn. angle, N. side of 1st column, W. side of passenger station. Elev. 47.752
- Bottom of front rivet in Conn. angle, N. side of 2nd column, W. side of Passenger Station Elev. 47.833
- Bottom of front rivet in Conn. angle, S. side of 3rd column, W. side of Passenger station Elev. 47.890
- Bottom of front rivet in Conn. angle, S. side of 4th column, W. side of Passenger Station Elev. 47.976
- Bottom of front rivet in Conn. angle, S. side of 5th column, W. side of Passenger Station. Elev. 48.164
- Bottom of front rivet in Conn. angle, S. side of 6th column, W. side of passenger station Elev. 48.145
- Bottom of front rivet in Conn. angle, S. side of 7th column, W. side of Passenger Station Elev. 48.230

(Above elevations taken March 1, 1917, from B. M. above)

Job No. W 1384.

SURVEY NO. 45 continued.

On nail in W. end of end wall of Passenger Station, N. of 7th column,
Elev. 40.596

On nail in W. end of S. fire wall of Freight Shed Elev. 40.358

(Last two elevations taken March 2nd, 1917, from B. M. above.

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B. M. Class "C", W. end of angle iron, N. W. Cor. 12th and Lovejoy Sts.
Elev. 34.661

-:-

E. end of granite step, against jamb, flush with N. edge at N.E. corner
of cold storage Elev. 40.168

On head of large cut nail at N. W. corner of cold storage," 39.668

On nail at S. W. corner of cold storage " 39.748

On nail in W. end of N. fire wall of Freight Shed " 40.200

(Last four elevations taken March 2, 1917, from B. M. above)

Elevations taken on dated noted above,

J. V. Congwer, Inst.

B. W. Arnold, Rod.

SURVEY NO. 46

N. W. Cor. 11th & Hoyt. North Bank Freight Depot. Inspection made Feby. 27th, 1917.

This is a 2 story brick. There is a crack in foundation of freight shed at left of 3rd steel column from south, which is open $1/32$ " , and is crossed with a scratch 2.99" long. Another crack 3' S. of 1st column extends downward about 2' to mark indicating end; crossed near top with 3.61" scratch. There is a short crack at N. corner of brick wall in concrete foundation, running upward from opening about 12" to mark made at end. A crack at middle of brick wall about 25' back from corner, runs from 3 bricks above to bottom of foundation. The crack is open $1/16$ " and is crossed with a scratch 3" long. A crack about 14' back of corner runs from 5 bricks above concrete wall to ground. The crack is open $1/32$ " , and is crossed with a scratch 3" long. On the S. side there is a crack at 1st basement window, which shows from opening up to brick wall and down to sidewalk. We crossed crack with a scratch 3" long. The same condition was found at 2nd and 3rd windows. There are no cracks in interior walls. Two fire walls in sheds show no cracks. About 40' S. of extreme N. end of Bldg. in the foundation, is a crack from 7 bricks above foundation to ground. The crack is open $1/32$ " , and is crossed with a scratch 3.02" long. Fifteen feet from corner a crack runs from top of foundation down about 30" to mark made at present end. There is a similar crack about 12' from corner. At the corner there is an irregular crack that ranges upward on N. side of corner from ground to top of wall, then diagonally to left to corner, then upward and to left on E. side of corner to near roof, then crosses around the corner to N. side of building, and down and to the right through top of door way, and down to foundation about 20' W. of corner. From this point a crack ranges vertically upward to near roof. On E. side of corner, vertical and horizontal scratches were made 3" long. On N. side near corner

SURVEY NO. 46 continued

a scratch 3" long was made. Another 3" scratch was made at lower end of crack, 20' from corner. There is another short diagonal crack just W. of corner crossed by a 3" scratch. See photo.

The sidewalk on the W. side of N. 11th St. from Glisan S. 100' is in bad condition, owing to settlement on the property side. Should have levels taken. The curb is broken and removed in places. The walk is in front of vacant lot. On E. side of street about 50' S. of Glisan, the walk has settled several inches.

-:-

B. M. Ring Bolt in S. curb by meter box, between #428 and #430 Hoyt St.

Elev. 33.661

-:-

On nail head, S.W. Cor. of S.P.& S. Freight Depot, Elev. 39.465

" " " S.E. " " " " " " " 39.347

On top of 3/4" Tee, 35' N. of S.E. Cor. of Freight Depot,

(back end of tee) " 39.347

East Side of Freight Shed

Bottom of front rivet in Conn. angle, N. side of 1st column Elev. 47.885

" " " " " " " N. " " 2nd " " 47.964

" " " " " " " S. " " 3rd " " 48.044

" " " " " " " S. " " 4th " " 48.132

" " " " " " " S. " " 5th " " 48.240

" " " " " " " S. " " 6th " " 48.238

" " " " " " " S. " " 7th " " 48.220

Above elevations taken March 1, 1917, from B. M. above.

SURVEY NO. 46 continued

On nail in E. end of end wall of Freight Shed, N. of 7th column
Elev. 40.629

On nail in E. end of S. Fire Wall of Freight Shed " 40.634

(Last two elevations taken March 2, 1917, from B. M. above)

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B. M. Class "C" W. end of angle iron, N. W. corner of 12th and Love-
joy Sts. Elev. 34.661

-:-

On nail at N. E. Cor. of Cold Storage, at N. end of Freight Shed,
Elev. 39.835

Small knob of cement plaster at S.E. Cor. of Cold Storage, at N.
end of Freight Shed Elev. 39.740

On nail head in E. end of N. Fire wall of Freight Shed " 40.602

(Last three elevations taken March 2, 1917 from B. M. above)

Elevations taken on dates noted above.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

Job No. W. 1384.

SURVEY NO. 47 Inspection made Feby. 28th, 1917.

No. 26 15th St., 3rd door N. of Burnside.

This is a two story frame shop. No foundation. The old sewer runs under this building. The ground underneath is 10' to 15' below grade. At one place the ground seems sunken, as if top of sewer had broken. The walk in front of building has settled and broken. There is also a settlement in curb near corner of 15th and Burnside. The retaining wall at street line under front of building shows dilapidation. The area walls are broken away from retaining wall.

SURVEY NO. 48

S. E. Cor. 15th and Couch. Inspection made Feby. 28, 1917.

This is a two story frame building. It stands on posts and mudsills. The underpinning seems to have been recently repaired and put in good condition. The ground under this building is 20' to 25' below grade. The sidewalk is settled several inches on W. side of Building. The sidewalk on N. side of building is of wood, and badly settled out of shape. The curb is of cement, and has settled near center of N. side, and also has moved toward building.

Job No. W 1384.

SURVEY NO. 49.

N. W. Cor. Everett and 12th Sts. Inspection Made Mch. 7, '17.

OREGON-AUTO DESPATCH: This is a 2 story brick. At 2nd window W. of corner there is a crack that runs from the ground to the top of the building. It is open $1/8$ " at point where 3" scratch was made 6 bricks above concrete basement wall. There is a branch of this crack about 3' to the left, crossed by scratch 3" long. There is a crack over arch at entrance, about 80' west of corner, that runs diagonally up to top of wall, open about $1/4$ ". On the E. side of the building there is a short crack over each basement window, extending upward to brick above, a distance of 14".

SURVEY NO. 50.

N. E. Cor. 12th and Flanders. Inspection made March 7, 1917.
Royal Bakery Stables; brick; story and basement.

This building stands over old sewer. At N. end of W. wall there is a crack ranging from near basement window upward to near top of wall; open not over $1/8$ ". Over 1st window N. of main entrance, there is a crack that ranges diagonally upward to near top of wall; open about $1/8$ ". On the S. side of this building there are fine cracks at 4th and 5th basement windows from corner, which extend down to walk. At 6th window there is a crack extending from top to bottom of wall. This crack has been filled with mortar. The opening near top of wall was nearly 2" wide, before filling. The crack has opened some since. The crack at 3.01" scratch below basement window is open $1/4$ ". See photograph #1. There is a crack at intersection of walk and building for full length of building. There are fine cracks below 7th, 8th and 9th windows extending down to walk. There are two cracks across walk opposite 7th and 8th windows. Inside of basement in east wall, there is ^a fine crack from brick down to near floor, crossed by scratch 3" long. The large crack noted at 6th window on outside is traceable to floor of basement, across the floor and through a concrete division wall and on to and up the N. wall of the basement. Three other cracks appear in N. wall. A horizontal scratch was made in division wall and N. wall of basement, to determine unequal settlement. In S. wall of basement, just below windows, there is a horizontal crack from center to west end of wall. On the main floor the large crack in S. wall ^{the one in the} and ^{the} division wall are open to roof. We made a 3" horizontal scratch in partition wall 4' from floor. In N. room of main floor, in N. wall 35' from N. E. Cor. there is a crack running upward from floor half way to roof. The scratch made on this crack is 2.98" 5' above floor.

SURVEY NO. 50.

At E. wall near N. corner about 15' above floor there is a nearly horizontal crack about 12' long, open about $\frac{3}{4}$ " at end at N. wall.

SURVEY NO. 51

Four story brick with concrete basement, at S. E. corner 12th and Glisan. Inspection made March 8, 1917.

The S. E. corner of this building is over old sewer. The sidewalk is settled on W. and N. sides. There are minor cracks in basement window sills on W. side of building. There is a crack in E. wall about 5' from N. E. corner, ranging upward from walk to 15th brick above basement wall. It is open $1/16$ " and is crossed with a horizontal scratch 2' above walk. There is a finer crack in basement wall 10' S. of N. E. corner that cannot be traced in brick above. There are three similar cracks in E. wall, one 30' S. of corner, one under N. window in court, and one 30' from S. E. corner. These run from brick down to scratches made on wall to indicate ends. Another crack near the one 30' S. of N. E. corner, extends from ground up to scratch made in wall. None of these appears in brick above.

SURVEY NO. 52

A 4 story brick on Irving, between 9th and 10th Sts.
This is along the line of old sewer. Inspection made
March 8, 1917.

From outside inspection fine cracks were found in sills and
lintels as follows:

<u>From N.W. Cor. Going South</u>	<u>No. of fine cracks in basement lintel</u>	<u>No. of fine cracks in sill above.</u>
1st window	6	5
2nd "	9	7
3rd "	6	8
<u>From N.W. Cor. Going East</u>		
1st window	5	5
2nd "	1 (open 1/32")	2
3rd "	4 (1 open 1/32")	1
4th "	2	2
5th "	3 (1 open 1/32")	2
6th "	5 (1 open 1/32")	0
7th "	2	0
8th "	3	1
9th "	4	1
10th "	1	0
11th "	3	1
12th "	3 (1 open 1/32")	1 (extending from sill to basement win- dow.)
13th "	0	1

SURVEY NO. 52 Continued.

A few of the above lintel cracks extend a short distance into brick above. The walk on W. and N. sides is very much cracked and shows settlement next to building. The step on W. side has numerous cracks. In the basement there are a few fine cracks in brick panels under windows. One fine crack was found in basement floor at left of door in fire wall. There is a crack in the floor next to E. wall at N. E. corner. There is a crack in arch of door way in center fire wall open $1/8$ " , and a fine crack at each end of same arch. Complete inspection of the basement is impossible owing to the storage of furniture. The 1st floor walls are mostly inaccessible. Cracks were found in the plaster at lower corners of windows near the N. W. corner, and up the sides of 1st and 2nd east of the corner on 1st S. of same corner.

SURVEY NO. 53.

S. E. Cor. Everett and 9th. Inspection made March 9th, 1917.

This is a 2 story brick. In the W. wall there is a crack about 25' N. of corner, that runs vertically from the ground to the top of the building. We made a scratch on the concrete foundation wall across the crack 3.01" long, 16" above the ground. This crack is open 3/16". A finer crack was found about 35' N. of corner and was crossed with a scratch 3.01" long. Another crack about 50' N. of corner, once open nearly 2" and filled, is now open about 1/16". We made a horizontal scratch about 3' above ground. On the S. side there are slight cracks in concrete wall W. of 1st basement window E. of S.W. corner. Another fine crack is traceable at intervals from basement window up to window above.

It can be traced further in the mortar joints below 2nd story window. At 2nd basement window there is a crack at each upper corner. There is a crack near center of the 2nd arch E. of S.W. corner that ranges in an irregular line upward and westward through the second story window to several feet above window. There are fine cracks in the joints at upper corners of 1st and 2nd basement windows W. of S.E. corner. On the E. side between the 1st and 2nd doorways, there is a large crack open 1/4" that ranges upward and northward from basement wall to top of arch of 2nd door. Further signs of the same crack are noticeable in a horizontal crack at upper N. corner of the second story window above. We made horizontal scratch across this crack 1' above platform 3.01" long. South of the 1st door S. of the N. E. corner, there is a large crack open 3/32", that ranges upward and southward to top of window, then through 2nd story window, and appears in 3 cracks above. We made a horizontal scratch in brick pilaster 5' above platform, 2.99" long. Another large crack begins at top of arch of 1st door S. of N. E. corner, and ranges upward

SURVEY NO. 53 continued.

through window above, and then up and S. for several feet above. Another crack begins at top of wall just S. of 1st pilaster S. of corner, and ranges downward to about level with top of window. It is open nearly 1" at top of wall. At 2nd window S. of corner there is a crack that ranges upward from platform to and through first story window sill. On the N. side at the 1st window W. of corner, a crack starts at basement window and ranges upward through window about to second story window. We made a scratch 3" long 1' above basement window. The crack is open $3/32$ ". In the basement there are fine cracks at the lower corners and in lintels of first and second windows W. of S. E. Corner. A crack about 8' N. of corner is open $1/16$ ", crossed with scratch 3" long. A larger crack 16' N. of corner is open $3/16$ ", and is crossed by scratch 3.99" long. At an inside corner about 20' from S. wall and 20' from E. wall, a vertical crack runs from floor to top of wall, directly under end of girder. This is open $1/8$ ". There is another crack open $1/4$ " in division wall near a corner just west of above corner. A crack $1/8$ " wide appears in the center of the E. wall. A large crack $1/4$ " appears about 40' S. of N. E. Cor. Apparently all the larger cracks noted on the outside appear on the inside of basement. Cracks and slope in the basement floor indicate that the walls and most of the footings under posts have settled. This is from excessive loading, as shown by crushed bolster caps over posts. Two lines of extra shoring have been put in to relieve the strain.

9th and Johnson. Inspection made March 9th, 1917.

This is a 1 story brick foundry. On the S. side there is a crack in the top of the doorway, 1st W. of corner, that runs to top of wall. Another crack at 1st window W. of corner runs from ground to top of wall. It is open about $3/8$ " near top, and less at bottom. On the E. side a crack appears in chimney above roof of shed just N. of S. E. corner. Another crack about 20' N. of corner runs diagonally up and N. to top of wall. It is not accessible for marking.

SURVEY NO. 55.

Trade School on Davis St. between 11th and 12th.

Inspection made March 10, 1917.

This is a 2 story frame with plastered brick foundation.

On the E. side there is a crack 20' S. of N. E. corner, which extends from the top of wall down to scratch on the wall 4' 10" above the walk. About 8' S. of N. E. corner of west wing, a crack runs from top of wall to ground. We crossed this with 3" scratch. There are fine cracks at lower corners of the basement windows of N. W. wing. On the W. wall of the E. wing enclosed in a fuel shed, is a crack from a window down to ground. This we crossed with a horizontal scratch 3.01" long. The footings at this point are in bad shape, owing to an excavation below the footing level. On the 1st floor in N. W. room, there are numerous cracks in the plaster. In the E. wing there are very few cracks. One rather large crack in the upper N. E. corner. On the 2nd floor there are several cracks in the plaster in the N. E. wing. The plaster in the N. W. wing shows few cracks. In the walk in front of steps of N. entrance, there is a crack full width of walk.

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B. M. 2nd Ring Bolt, W. curb 12th St., about 80' S. of Davis St.

Elev. 54.228

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On E. end of window sill, E. window, N. side of school	"	57.277
" W. " " " " , W. " " " " "	"	57.363
" S. " " " " , 5th window S. of N. W. corner,		
W. side of school	"	57.380

Above elevations taken March 15, 1917.

J. C. Russell, Inst.
C. E. Harding

House No. 534 Taylor St.

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B. M. RING BOLT in front of 528 Taylor St., Elev. 119.327

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Pencil Mark with one brad in Board skirting, S.W. Cor. " 122.743

" " " " " " " " N.W. Cor. " 122.743

Above elevations taken Feby. 19, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

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House No. 540 Taylor St.,

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B. M. Ring Bolt in front of #528 Taylor St. Elev. 119.327

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Small notch on extreme corner of wooden water table,

N. E. Cor. Elev. 120.722

Top of wooden water table at S. E. Cor. just N. of corner

board Elev. 120.295

Above levels taken Feby. 19, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

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Euclid Hotel .

B. M. 2nd Ring Bolt in W. curb of 17th St. N. of Washington St.

Elev. 83.783

Euclid Hotel - continued.

Extreme S. E. Cor. of step, at Hotel entrance, Rod tight at 45 degrees i. e. facing S. E. Elev. 85.176

On concrete footing, level of step, S.E. corner of column at 571 Washington St., rod facing S. E. " 84.675

Cor. of water table, S. E. corner of hotel. Remove 3/8" iron pipe from down spout, rod facing S. E. " 85.468

Above elevations taken March 7th, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

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541 - 543 1/2 Washington. (Old frame building)

E. M. 2nd Ring bolt of E. curb of 16th St. N. of Washington St. Elev. 76.636

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Outer edge of wood window sill, by down spout W. of 543 1/2 Washington St. rod hanging over 1/2 Elev. 77.082

W. end of circular concrete step, #541 Washington St. Rod facing S. E., foot tight, leaning slightly out Elev. 75.764

Above elevations taken March 8, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

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Fire Station.

E. M. 2nd Ring bolt. E. curb 16th St. N. of Washington St. Elev. 76.636

Top of lower hinge W. side of W. door,	Elev. 76.034
" " " " E. " " E. "	" 75.723

Above elevations taken March 12, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod.

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#29 - 31 14th St. N.

B. M. 2nd Ring Bolt, N. curb Couch St., 50' E. of 14th St.	Elev. 63.877
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N. E. Cor. of column, 14th St., S. E. Cor. of Bldg.	" 67.586
S. E. Cor. of column, S. side of entrance to office.	" 67.628

Above elevations taken March 14, 1917.

J. C. Russell, Inst.

C. E. Harding, Rod

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Walk and curb on 11th St. between Glisan & Hoyt Sts.,	
B. M. Ring bolt in S. curb by meter box, between 428 and 430 Hoyt St.	Elev. 33.661

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Low point on W. curb (opposite broken corner) 25' S. of S. line of	
Hoyt St.	Elev. 34.860
Back of W. sidewalk at joint opposite S. end of Sign Board, 60'	
S. of S. line of Hoyt St., 4th joint S. of opening	Elev. 35.065

Walk and Curb on 11th St, between Glisan & Hoyt St.

Back of E. sidewalk, in joint opposite S. W. corner, 1 story frame shop, 40' S. of S. line of Hoyt St. Elev. 34.440

Horizontal scratch with cross, near top of north brick pier of old porch, facing on E. side of 11th St., between Glisan and Hoyt Sts.

Elev. 39.880

1st ring bolt on W. curb N. of Glisan St. " 37.431

Above elevations taken March 2, 1917.

J. V. Gongwer, Inst.

B. W. Arnold, Rod.

The foregoing is a report of examination of the buildings along the line of the proposed Tanner Creek sewer and that portion of the old sewer that is to be filled. This report is of conditions found before construction commenced.

B. W. Arnold

J. P. Sawyer

ES.