

# Development Services

## From Concept to Construction

Phone: 503-823-7300 Email: [bds@portlandoregon.gov](mailto:bds@portlandoregon.gov) 1900 SW 4th Ave, Portland, OR 97201

More Contact Info (<http://www.portlandoregon.gov/bds/article/519984>)



### APPEAL SUMMARY

**Status:** Decision Rendered

|                                                                         |                                                                       |
|-------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <b>Appeal ID:</b> 28113                                                 | <b>Project Address:</b> 5001 N Columbia Blvd                          |
| <b>Hearing Date:</b> 10/26/22                                           | <b>Appellant Name:</b> julietta rad                                   |
| <b>Case No.:</b> B-006                                                  | <b>Appellant Phone:</b> 503-516-0305                                  |
| <b>Appeal Type:</b> Building                                            | <b>Plans Examiner/Inspector:</b> Chanel Horn                          |
| <b>Project Type:</b> commercial                                         | <b>Stories:</b> 1 <b>Occupancy:</b> F-1 <b>Construction Type:</b> V-B |
| <b>Building/Business Name:</b> Columbia Blvd Wastewater Treatment Plant | <b>Fire Sprinklers:</b> No                                            |
| <b>Appeal Involves:</b> Alteration of an existing structure             | <b>LUR or Permit Application No.:</b> 21-09623-REV-02-CO              |
| <b>Plan Submitted Option:</b> pdf [File 1] [File 2]                     | <b>Proposed use:</b> Wastewater Treatment Facility                    |

### APPEAL INFORMATION SHEET

#### Appeal item 1

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Code Section</b>                             | 2019 Oregon Structural Specialty Code (OSSC) Chapter 5, Table 506.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Requires</b>                                 | The allowable building area for Non-sprinklered Type VB Construction and F-1 Occupancy group is 8,500 SF.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Code Modification or Alternate Requested</b> | The existing area of the SLPR (Sludge Processing) Building is 10,380 square feet. Requesting a modification to allow an increased building area of 10,380 SF for the existing SLPR Building.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Proposed Design</b>                          | <p>The building was originally permitted in the 1970's as an F-2 Occupancy Group, non-sprinklered VB Construction Type structure which under the current code allows a building area of 13,000 SF which is greater than the building's existing area.</p> <p>The existing SLPR building is non-combustible and constructed of cast-in-place concrete walls and a pre-cast concrete roof. If newly permitted, this type of construction would meet the requirements for Type II-B or III-B construction which for occupancy group F-1 have an allowable area for non-sprinklered structure of 15,500 SF and 12,000 SF respectively, which are greater than the existing building area.</p> <p>Had the occupancy group not been changed in recent history the existing building area would meet the allowed area by code for the original occupancy group. Or had the building been permitted originally under an alternative and applicable construction type the exiting building would comply with the revised occupancy group.</p> |
| <b>Reason for alternative</b>                   | The existing SLPR building at 10,380 SF is larger than the current code allows for Non-sprinklered Type VB Construction and F-1 Occupancy Group of 8,500 SF. The SLPR Building has been existing on this site since the 1970's at the current size. The SLPR building is slated to be decommissioned and demolished in the next few years after the new SOFA (Solids Facility)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

Building is constructed and operational. The existing building has not posed any danger to the health, safety, or welfare of the public and as no changes to the building size are proposed the building will continue to pose no danger.

---

## APPEAL DECISION

**Increase in maximum allowable area of existing SLPR building from 8,500 s.f. to 10,380 s.f.: Granted provided a demolition permit for the SLPR building is issued prior to occupancy of the SOFA building.**

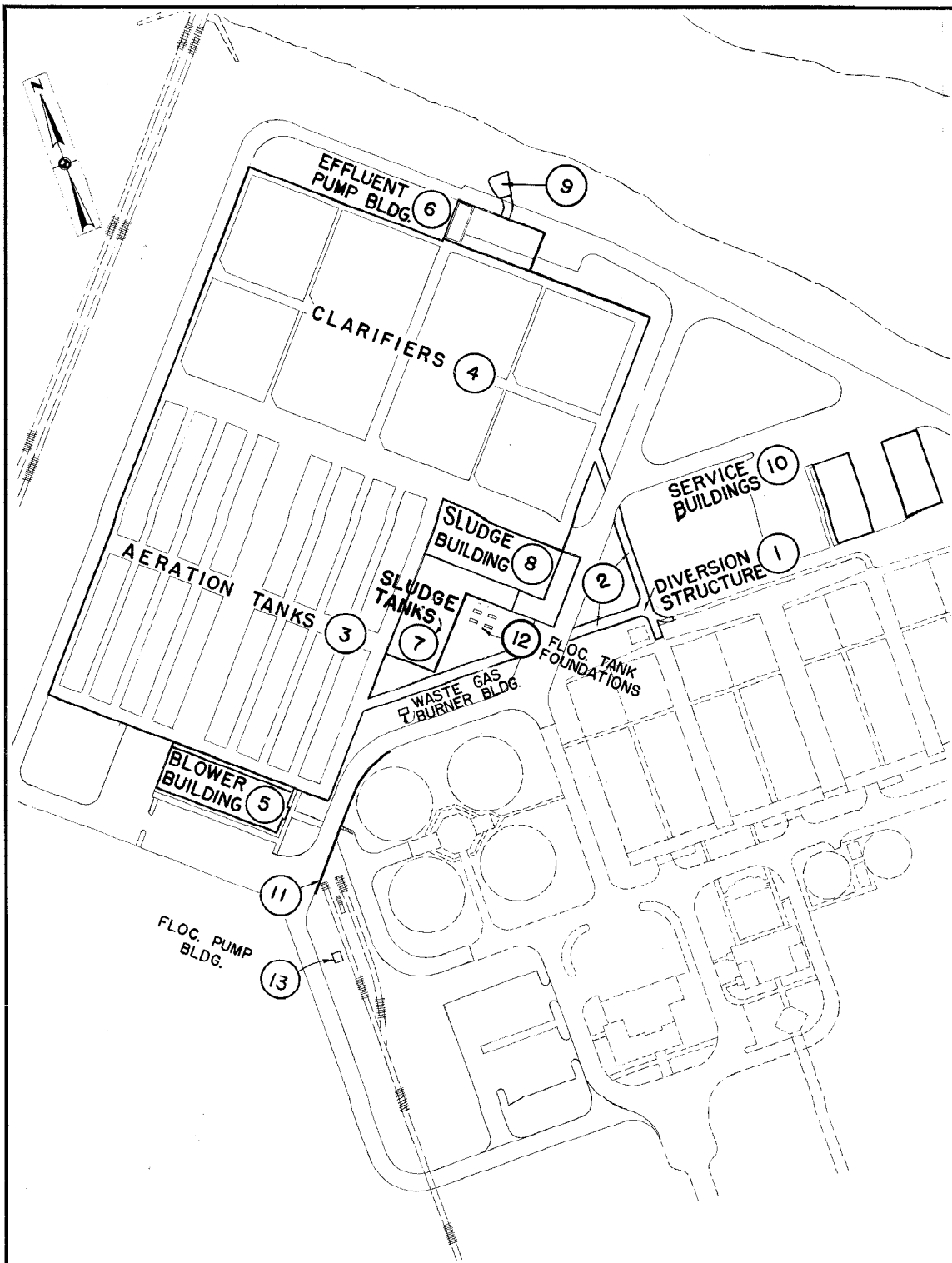
**Appellant may contact John Butler (503 865-6427) or e-mail at [John.Butler@portlandoregon.gov](mailto:John.Butler@portlandoregon.gov) with questions.**

The Administrative Appeal Board finds with the conditions noted, that the information submitted by the appellant demonstrates that the approved modifications or alternate methods are consistent with the intent of the code; do not lessen health, safety, accessibility, life, fire safety or structural requirements; and that special conditions unique to this project make strict application of those code sections impractical.

Pursuant to City Code Chapter 24.10, you may appeal this decision to the Building Code Board of Appeal within 90 calendar days of the date this decision is published. For information on the appeals process, go to [www.portlandoregon.gov/bds/appealsinfo](http://www.portlandoregon.gov/bds/appealsinfo), call (503) 823-7300 or come in to the Development Services Center.

---





| SHEET NO. | TITLE                                            |
|-----------|--------------------------------------------------|
| S 1       | GENERAL STRUCTURAL NOTES & INDEX OF DRAWINGS     |
| S 2       | DIVERSION STRUCTURE PLANS & DETAILS ①            |
| S 3       | INFLUENT AND BYPASS CHANNEL PLANS & DETAILS ②    |
| S 4       | SECTIONS & DETAILS                               |
| S 5       | AERATION TANKS FOUNDATION PLAN ③                 |
| S 6       | TOP PLAN - SOUTH                                 |
| S 7       | TOP PLAN - NORTH                                 |
| S 8       | SECTIONS                                         |
| S 9       | SECTIONS & DETAILS                               |
| S 10      | SECTIONS & DETAILS                               |
| S 11      | SECTIONS & DETAILS                               |
| S 12      | SECTIONS & DETAILS                               |
| S 13      | SECTIONS & DETAILS                               |
| S 14      | SECTIONS & DETAILS                               |
| S 15      | SECTIONS & DETAILS                               |
| S 16      | SECTIONS & DETAILS                               |
| S 17      | CLARIFIERS FOUNDATION PLAN ④                     |
| S 18      | TOP PLAN                                         |
| S 19      | TOP PLAN & SECTIONS                              |
| S 20      | SECTIONS                                         |
| S 21      | SECTIONS & DETAILS                               |
| S 22      | SECTIONS & DETAILS                               |
| S 23      | SECTIONS & DETAILS                               |
| S 24      | SECTIONS & DETAILS                               |
| S 25      | SECTIONS & DETAILS                               |
| S 26      | SECTIONS & DETAILS                               |
| S 27      | SECTIONS & DETAILS                               |
| S 28      | SECTIONS & DETAILS                               |
| S 29      | SECTIONS & DETAILS                               |
| S 30      | SECTIONS & DETAILS                               |
| S 31      | SECTIONS & DETAILS                               |
| S 32      | BLOWER BUILDING PILING PLAN ⑤                    |
| S 33      | FOUNDATION PLAN EL. 12.17 AND DETAILS            |
| S 34      | SECTIONS & DETAILS                               |
| S 35      | FLOOR PLAN EL. 24.00 AND DETAILS                 |
| S 36      | FLOOR PLAN EL. 34.50 AND DETAILS                 |
| S 37      | FLOOR PLAN EL. 48.50 AND DETAILS                 |
| S 38      | SECTIONS & DETAILS                               |
| S 39      | ROOF PLAN & DETAILS                              |
| S 40      | SLAB, BEAM & COLUMN SCHEDULES                    |
| S 41      | EFFLUENT PUMP HOUSE PILING PLAN ⑥                |
| S 42      | FOUNDATION PLAN EL. 12.00                        |
| S 43      | FOUNDATION PLAN EL. 20.80                        |
| S 44      | FLOOR PLAN EL. 36.62 & EL. 33.00                 |
| S 45      | ROOF PLAN & ELEVATIONS                           |
| S 46      | SECTIONS & DETAILS                               |
| S 47      | SECTIONS & DETAILS                               |
| S 48      | SLUDGE HOLDING TANKS FOUNDATION PLAN & DETAILS ⑦ |
| S 49      | PLAN EL. 27.00, SECTIONS & DETAILS               |
| S 50      | ROOF PLAN & DETAILS                              |
| S 51      | SECTIONS & DETAILS                               |
| S 52      | SECTIONS & DETAILS                               |
| S 53      | SLUDGE PROCESSING BUILDING PILING PLAN ⑧         |
| S 54      | FOUNDATION PLAN - EL. 12.00                      |
| S 55      | FLOOR PLAN - EL. 34.21                           |
| S 56      | SLAB & BEAM SCHEDULES                            |
| S 57      | ROOF PLAN & DETAILS                              |
| S 58      | ROOF PLAN & DETAILS                              |
| S 59      | COLUMN SCHEDULE & DETAILS                        |
| S 60      | SECTIONS & DETAILS                               |
| S 61      | SECTIONS & DETAILS                               |
| S 62      | SECTIONS & DETAILS                               |
| S 63      | SECTIONS & DETAILS                               |
| S 64      | OUTFALL STRUCTURE PLAN, SECTIONS & DETAILS ⑨     |
| S 65      | PLAN & SECTIONS                                  |
| S 66      | SERVICE BUILDINGS FOUNDATION PLAN & DETAILS ⑩    |
| S 67      | STORAGE BALCONY                                  |
| S 68      | RETAINING WALL - PLAN & SECTIONS ⑪               |
| S 69      | GENERAL TYPICAL DETAILS                          |
| S 70      | MISCELLANEOUS DETAILS                            |
| S 71      | MISCELLANEOUS DETAILS                            |
| S 72      | MISCELLANEOUS DETAILS ⑫ ⑬                        |
| S 73      | MISCELLANEOUS DETAILS                            |

#### GENERAL

- SEE MECHANICAL AND ARCHITECTURAL PLANS FOR GENERAL DETAILS AND DIMENSIONS NOT SHOWN, VERIFY ALL OPENINGS.
- DESIGN LOADS.

|                                        |            |
|----------------------------------------|------------|
| L. L. - ROOF                           | 25 PSF     |
| SLUDGE TANK ROOF                       | 50         |
| CLARIFIER & AERATION TUNNEL SLABS      | 50         |
| INFLUENT CHANNEL TOP SLABS             | 100 + H-20 |
| 30' E-W TUNNEL SLAB @ SLUDGE BLDG.     | 100        |
| BLOWER BLDG. - BASEMENT @ 24.0         | 125        |
| BLOWER & FILTER RM. @ 34.5             | 125        |
| LAB & LOCKER RM. @ 34.5                | 50         |
| MECH. & CONTROL RM. @ 48.5             | 75         |
| UTILITY RM. @ 48.5                     | 50         |
| SLUDGE BLDG. - OPERATING FLOOR @ 48.5  | 100        |
| EFFLUENT PUMP STRUC. - TOP SLAB @ 33.0 | 50         |
| MECH.-ELECT. RM.                       | 150        |
| OPERATING SLAB @ 36.5                  | 150        |
| OUTFALL STRUC. - TOP SLAB              | 100 + H-20 |
| SERVICE BLDG. - STORAGE BALCONY        | 150        |

ALL EXTERIOR WALLS BELOW GRADE DESIGNED FOR AN EQUIVALENT LATERAL SOIL PRESSURE OF 35# PCF PLUS GROUND WATER AT ELEVATION 19.5. STRUCTURES DESIGNED FOR INTERNAL HYDRAULIC HEAD AS SHOWN ON THE PLANS BY THE SYMBOL

SEISMIC - ZONE 2  
WIND 20 PSF 0-30' 25 PSF ABOVE 30'

- FOUNDATIONS AND BASE SLABS OF AERATION TANKS, CLARIFIERS, SLUDGE HOLDING TANKS, INFLUENT CHANNEL TO REST ON 12" PEA GRAVEL OVER 6" MEDIUM SAND. BLOWER BLDG., SLUDGE BLDG., EFFLUENT PUMP AND OUTFALL STRUCTURES ON TIMBER PILING WITH 12" GRAVEL BLANKET. REFER TO SPECIFICATIONS FOR CLASSIFICATIONS AND PLACEMENT OF MATERIAL.
- MAINTAIN GROUND WATER 2' 0" BELOW EXCAVATION, REFER SOILS REPORT (SHANNON & WILSON, SEPTEMBER, 1969) AND SPECIFICATIONS FOR SITE CONDITIONS AND SUGGESTED EXCAVATION PROCEDURE. NOV 28, 1969 & JUNE 19, 1969
- BACKFILL EXTERIOR WALLS BELOW GRADE WITH 1 1/2" MINUS GRAVEL 1' 6" OUT FROM FACE AND 2' 0" BELOW FINISH GRADE. SEE SPECIFICATIONS FOR PLACEMENT AND WATERPROOFING REQUIREMENTS.
- REFERENCE NORTH 7. BACKFILL

#### PILING

- PILING TO BE CLASS B, DOUGLAS FIR, PRESSURE TREATED WITH CREOSOTE TO 10#/FT<sup>3</sup> RETENTION.
- BEARING CAPACITY OF PILES AS SHOWN ON PLANS. MINIMUM PILE PENETRATION - 3' 0" INTO DENSE SAND AND GRAVEL STRATA. CONTRACTOR SHALL BE RESPONSIBLE FOR PILE LENGTH DETERMINATION.

#### REINFORCING

- ALL REINFORCING STEEL (EXCEPT AS NOTED) SHALL CONFORM TO ASTM 615 GRADE 40, DETAIL AND PLACE PER ACI MANUAL 315 & CODE 318. WELDED WIRE FABRIC (WWF) TO BE ASTM A-185.
- UNLESS OTHERWISE SHOWN, REINFORCE ALL WALLS AND SLABS WITH 1/4 OF 1# EACH WAY AND 2 - #5 ADDITIONAL AT TOP, BOTTOM & SIDES OF ALL OPENINGS EXCEEDING 12 INCHES. SEE DETAILS FOR ADDITIONAL REINFORCING AROUND PIPE PENETRATIONS, EQUIPMENT MOUNTING & ARCHITECTURAL ITEMS.
- PROVIDE 2' 0" x 2' 0" CORNER BARS OR TERMINATE W/STD. HOOK ALL HORIZONTAL WALL STEEL AT CORNERS AND INTERSECTIONS UNLESS OTHERWISE NOTED.
- CONCRETE COVER FOR MAIN REINFORCING STEEL, EXCEPT AS NOTED.
  - 1 1/2" - FOR #5 AND SMALLER WHEN EXPOSED TO WEATHER, WATER OR SOIL.
  - 2" - FOR #6 AND UP WHEN EXPOSED TO WEATHER, WATER OR SOIL.
  - 1" - FOR SLABS AND WALLS NOT EXPOSED TO ELEMENTS OR WATER.
  - 1 1/2" - FOR BEAMS AND GIRDERS NOT EXPOSED TO ELEMENTS OR WATER.
  - 3" - BOTTOM BARS FOR FOOTINGS POURED ON SOIL, FILL OR PILING.
- SPLICES IN REINFORCEMENT IN ACCORDANCE WITH ACI 318, SECTION 805 UNLESS SHOWN OR NOTED OTHERWISE. HORIZONTAL WALL REINFORCEMENT CONSIDERED AS TOP BARS. BAR LAPS 30 DIA.
- WHERE STIRRUPS AND/OR TIES ARE SPECIFIED, PLACE FIRST TIE AT HALF THE TIE SPACING FROM TOP/BOTTOM OF COLUMN OR FACE OF SUPPORT. 7. DOWELS 8. SLAB TOP BARS

#### CONCRETE

- UNLESS SHOWN OTHERWISE, STONE CONCRETE TO BE 3,000 PSI AT 28 DAYS
- CONCRETE FOR BELOW GRADE AND LIQUID CONTAINING STRUCTURES TO CONTAIN A WATER REDUCING ADMIXTURE AT THE RATE OF 12% WATER CONTENT REDUCTION.
- CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH ACI 614; IN THE CASE OF EXTREME WEATHER CONDITIONS, ACI 605 AND 306 SHALL BE FOLLOWED.
- FOR CONSTRUCTION JOINTS NOT SHOWN, SEE SPECIFICATIONS; BEAMS AND SLABS SHALL BE POURED IN ONE CONTINUOUS OPERATION.

#### STRUCTURAL STEEL

- ALL STRUCTURAL STEEL ASTM A-36, DETAIL AND FABRICATE TO AISC SPECIFICATIONS.
- WELDING TO BE DONE BY CERTIFIED WELDER AND SHALL CONFORM TO AWS STANDARDS.
- CONNECTION BOLTS, ANCHOR BOLTS, HOOKS, AND OTHER FASTENING HARDWARE AS PER ASTM A-307, UNLESS OTHERWISE SPECIFIED.
- GALVANIZE STRUCTURAL STEEL, BOLTS, ANCHORS, ETC., WHERE NOTED ON THE PLANS IN ACCORDANCE WITH ASTM A-123 AND/OR A-153. GALVANIZING SHALL INCLUDE ALL FASTENERS & ALL ASSOCIATED HARDWARE. ---

#### PRESTRESSED CONCRETE

- ALL PRESTRESSED CONCRETE UNITS TO BE DESIGNED AND DETAILED IN ACCORDANCE WITH CHAPTER 26 OF ACI CODE 318. NO TENSION ALLOWED IN BOTTOM FLANGE FOR ANY LOAD COMBINATION.
- CONCRETE TO BE HARD ROCK, 150 PCF, 5,000 PSI COMPRESSIVE STRENGTH IN 28 DAYS. NO ADMIXTURES CONTAINING CALCIUM CHLORIDE MAY BE USED.
- PRESTRESSING STEEL - 270 K COMPLYING WITH ASTM A-416.
- TOP SURFACE OF UNITS USED AT SLUDGE TANKS TO BE ROUGHENED TO DEVELOP 40 PSI BOND WITH TOPPING CONCRETE.
- MANUFACTURER TO SUBMIT DETAILS WITH CALCULATIONS FOR ALL UNITS.

#### BLOCK

- CONCRETE BLOCK SHALL BE NORMAL WEIGHT UNITS CONFORMING TO ASTM C-90, GRADE A UNITS WITH TYPE S MORTAR AS PER UBC.
- UNLESS OTHERWISE SHOWN, REINFORCE ALL BLOCK WALLS WITH 3/16" DIAMETER TRUSSED WIRE REINFORCING EVERY THIRD COURSE. 1 - #5 VERTICAL @ 32 AND 1 - #5 IN CONTINUOUS BOND BEAM AT TOP. REINFORCE OPENINGS AS PER REINFORCING NOTE 2; PROVIDE 2' 0" x 2' 0" HORIZONTAL CORNER BARS IN ALL BOND BEAMS.
- CROUT FOR REINFORCED BLOCK WALLS TO BE 2,000 PSI CEMENT WITH 3/8 AGGREGATE.

#### WATERSTOPS AND JOINTS

SEE SHEET S73 FOR NOTES

ADD. NO. 2 ITEM 64 - FOR COMPLETE TEXT.

|                 |                       |
|-----------------|-----------------------|
| DESIGNED J.G.S. | APPROVED              |
| DRAWN E.L.R.    | SCALE NONE DATE 12-70 |
| CHECKED J.G.S.  | FILE 69P-461-8308     |

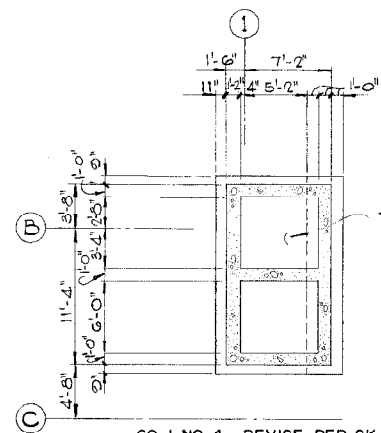
**Stevens, Thompson & Runyan, Inc.**  
Engineers/Planners  
PORTLAND, OREGON SEATTLE, WASHINGTON

CITY OF PORTLAND, OREGON  
COLUMBIA BLVD. SEWAGE TREATMENT PLANT  
SECONDARY TREATMENT FACILITIES

**GENERAL**  
STRUCTURAL NOTES & INDEX OF DRAWINGS

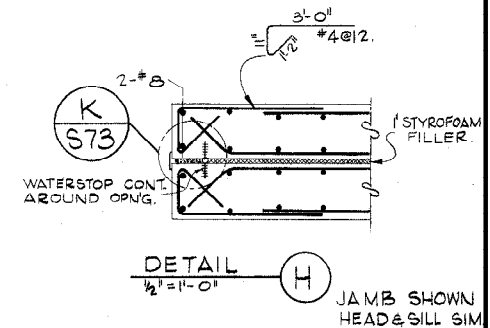
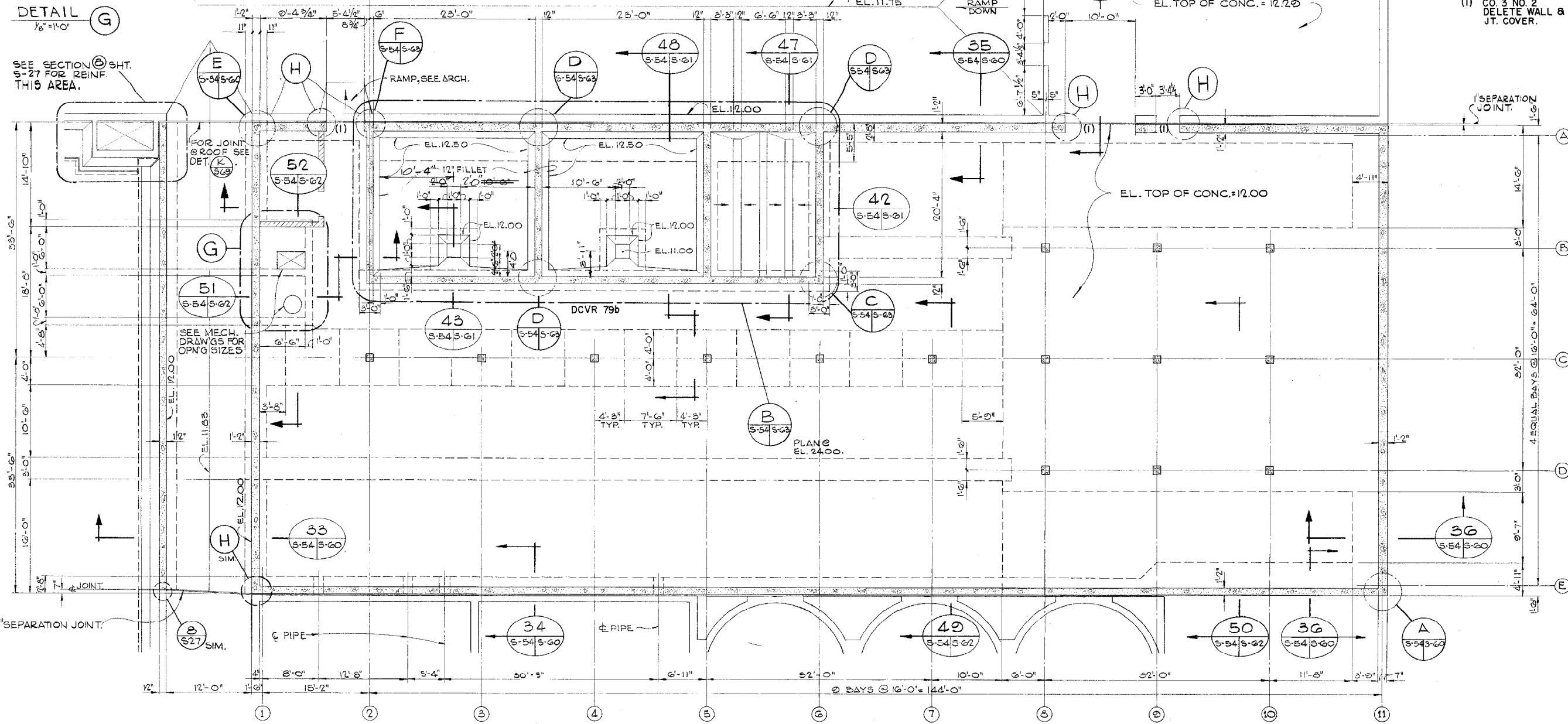
S1  
274





DETAIL G  
1/8" = 1'-0"

SEE SECTION C-SHT. S-27 FOR REINF. THIS AREA.

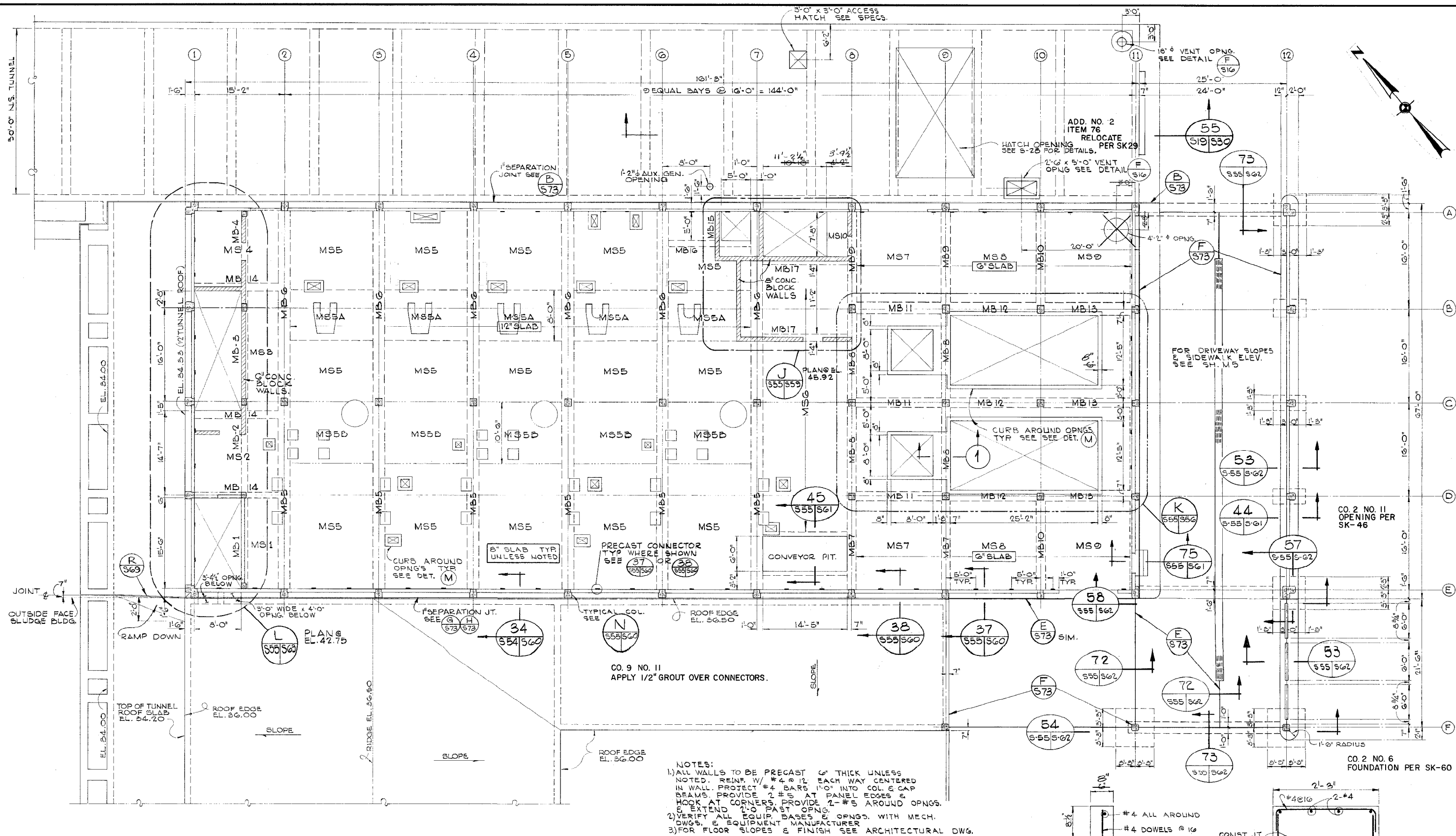


DETAIL H  
1/2" = 1'-0"

FOUNDATION PLAN ~ EL. 12.00  
1/8" = 1'-0"

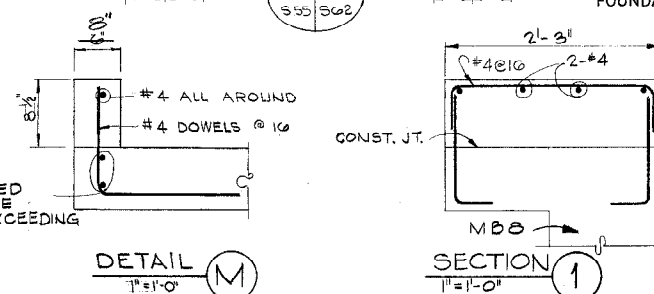


|                                                           |                                                                                                                   |                                                                                                                                                                                                 |                                                                                                     |                                                          |            |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------|
| DATE NO. REVISION<br>BY CHECKED J.G.S. FILE 67-P-461-8361 | DESIGNED C.K. APPROVED [Signature]<br>DRAWN J.D.H. SCALE As Shown DATE 12-70<br>CHECKED J.G.S. FILE 67-P-461-8361 |  <b>Stevens, Thompson &amp; Runyan, Inc.</b><br>Engineers/Planners<br>PORTLAND, OREGON SEATTLE, WASHINGTON | CITY OF PORTLAND, OREGON<br>COLUMBIA BLVD. SEWAGE TREATMENT PLANT<br>SECONDARY TREATMENT FACILITIES | SLUDGE PROCESSING BUILDING<br>FOUNDATION PLAN EL. 12.00' | S54<br>274 |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------|



FLOOR PLAN ~ EL. 34.21  
1/8" = 1' - 0"

#5 T&B EXCEPT AS NOTED  
OPENING +2'-0" EA. SIDE  
TYP ALL OPENINGS EXCEEDING  
1'-6" ANY DIMENSION.



|      |     |          |    |                |                                                                                              |
|------|-----|----------|----|----------------|----------------------------------------------------------------------------------------------|
|      |     |          |    | DESIGNED C.K.  | APPROVED  |
|      |     |          |    | DRAWN J.D.H.   | SCALE $\Delta$ 6" SHOWN DATE 12-70                                                           |
| DATE | NO. | REVISION | BY | CHECKED J.G.S. | FILE 67-P-461-8362                                                                           |



**Stevens, Thompson & Runyan, Inc.**  
Engineers/Planners  
PORTLAND, OREGON SEATTLE, WASHINGTON

CITY OF PORTLAND, OREGON  
COLUMBIA BLVD. SEWAGE TREATMENT PLANT  
SECONDARY TREATMENT FACILITIES

SLUDGE PROCESSING BUILDING  
FLOOR PLAN EL.34.21'

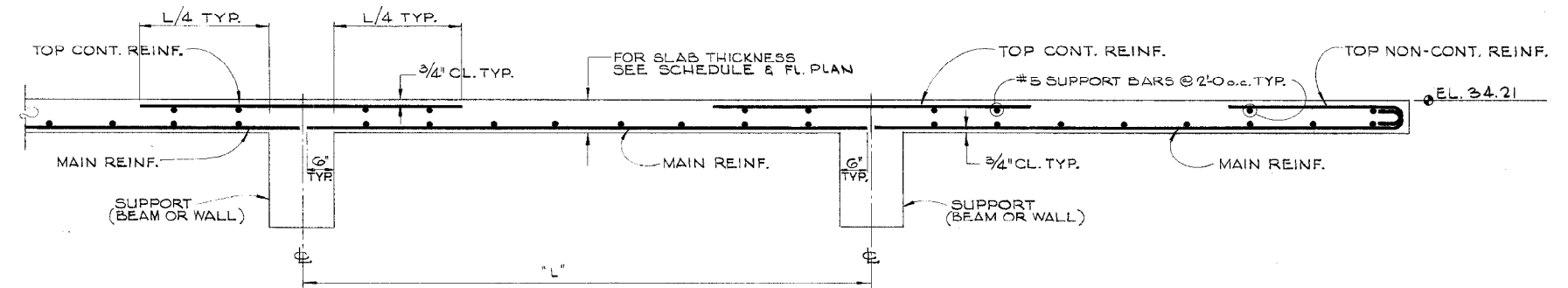
S55 ✓

274

12-1-70  
3-1-71

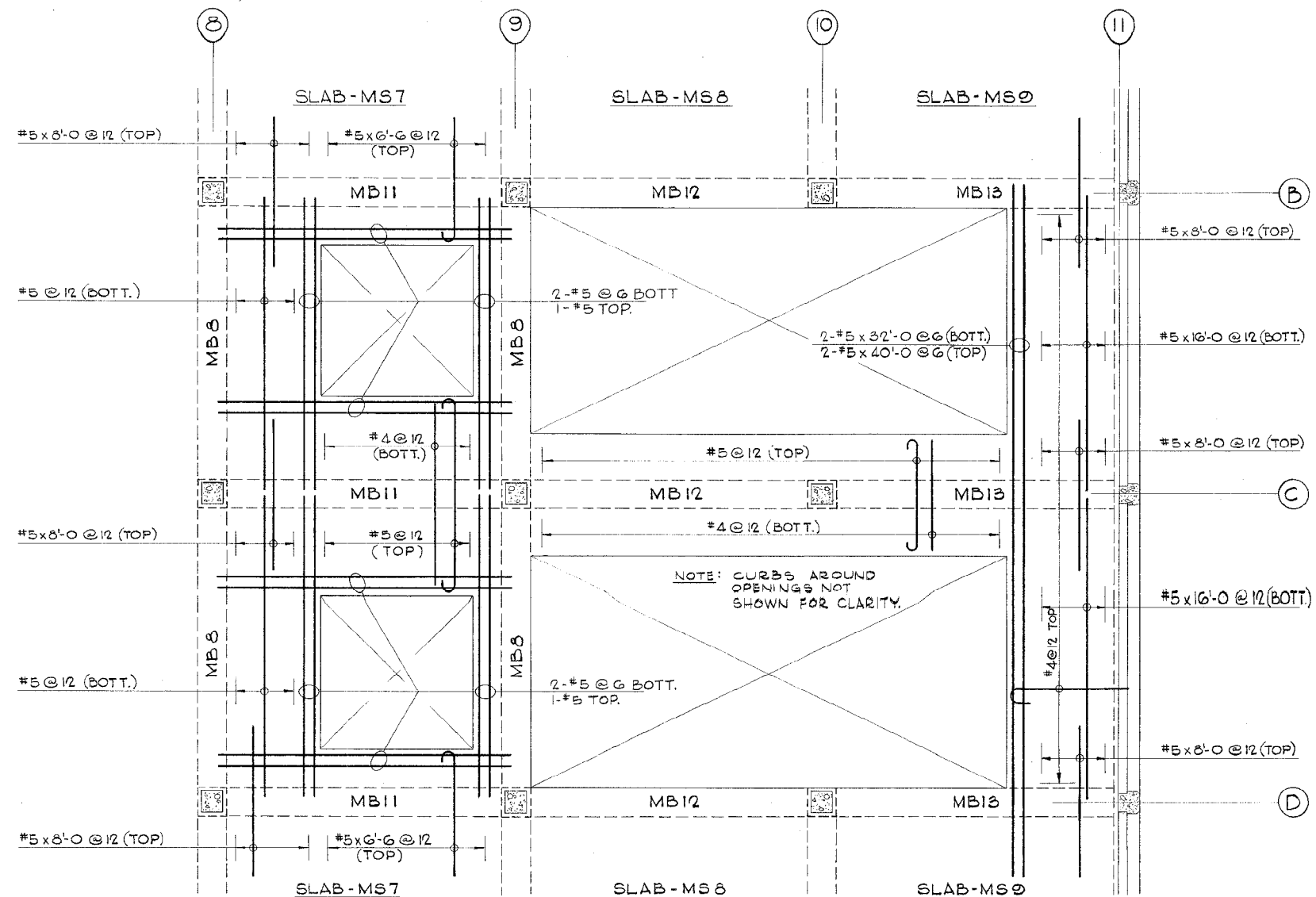
# BEAM SCHEDULE

| BEAM MARK                                                                              | SIZE W | SIZE D  | REINFORCING |      |        | BAR POSITION |      |          | STIRRUPS |         |    | REMARKS |                            |                                                 |
|----------------------------------------------------------------------------------------|--------|---------|-------------|------|--------|--------------|------|----------|----------|---------|----|---------|----------------------------|-------------------------------------------------|
|                                                                                        |        |         | NO          | SIZE | LENGTH | TOP          | BOTT | S. or W. | SUPPORTS | N or E. | NO | SIZE    | SPACING, EA. END           |                                                 |
| MAIN FLOOR @ EL. 34.21                                                                 |        |         |             |      |        |              |      |          |          |         |    |         |                            |                                                 |
| NOTE : BAR LENGTHS SHOWN ARE OUT TO OUT, ADD HOOK LENGTHS. USE 90° HOOK WHERE POSSIBLE |        |         |             |      |        |              |      |          |          |         |    |         |                            |                                                 |
| MB1                                                                                    | 12"    | 28"     | 2           | #7   | 21'-0  | ✓            |      |          |          |         | 10 | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB2                                                                                    | 12"    | 28"     | 2           | #7   | 23'-0  | ✓            |      |          |          |         | 8  | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB3                                                                                    | 12"    | 28"     | 2           | #8   | 20'-0  | ✓            |      |          |          |         | 20 | #3      | 6 @ 8, 2 @ 12, FILL @ 18   |                                                 |
| MB4                                                                                    | 12"    | 28"     | 2           | #7   | 19'-0  | ✓            |      |          |          |         | 8  | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB5                                                                                    | 24"    | 44 1/2" | 2           | #9   | 26'-0  | ✓            |      |          |          |         | 25 | #5      | 5 @ 12, 5 @ 15, FILL @ 18. | 2-#5 x 33'-0" (1 EA. SIDE) @ MID DEPTH OF BEAM. |
| MB6                                                                                    | 24"    | 44 1/2" | 3           | #11  | 20'-0  | ✓            |      |          |          |         | 25 | #5      | 5 @ 12, 3 @ 15, FILL @ 18. | 2-#5 x 33'-0" (1 EA. SIDE) @ MID DEPTH OF BEAM. |
| MB7                                                                                    | 14"    | 24"     | 2           | #7   | 21'-6  | ✓            |      |          |          |         | 10 | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB8                                                                                    | 14"    | 24"     | 2           | #7   | 24'-0  | ✓            |      |          |          |         | 10 | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB9                                                                                    | 14"    | 24"     | 2           | #7   | 21'-6  | ✓            |      |          |          |         | 10 | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB10                                                                                   | 14"    | 24"     | 2           | #7   | 17'-0  | ✓            |      |          |          |         | 10 | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB11                                                                                   | 14"    | 18"     | 2           | #7   | 20'-6  | ✓            |      |          |          |         | 10 | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB12                                                                                   | 14"    | 18"     | 2           | #7   | 24'-0  | ✓            |      |          |          |         | 10 | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB13                                                                                   | 14"    | 18"     | 2           | #7   | 16'-0  | ✓            |      |          |          |         | 10 | #3      | 1 @ 12, FILL @ 18          |                                                 |
| MB14                                                                                   | 12"    | 36"     | 4           | #7   | 17'-0  | ✓            |      |          |          |         | 13 | #3      | CONT @ 12                  |                                                 |
| MB15                                                                                   | 12"    | 12"     | 2           | #6   | 6'-0   | ✓            |      |          |          |         |    |         |                            |                                                 |
| MB16                                                                                   | 12"    | 12"     | 2           | #6   | 21'-0  | ✓            |      |          |          |         | 11 | #3      | 1 @ 12, FILL @ 18          | HOOK TOP BARS @ STAIR OPENING                   |
| MB17                                                                                   | 16"    | 12"     | 2           | #6   | 19'-0  | ✓            |      |          |          |         | 11 | #3      | 1 @ 12, FILL @ 18          |                                                 |



TYPICAL SLAB DETAIL

NO SCALE



NOTES: 1. PROVIDE #4 @ 12 TEMP. REINF. @ 90° TO MAIN REINF.  
2. FOR OTHER SLAB REINF. SEE SCHEDULE.

PARTIAL PLAN @ EL. 34.21 - DETAIL

1/4" = 1'-0"

555554

| SLAB SCHEDULE ~ MAIN FLOOR @ EL. 34.21 |                |             |                              |                 |                 |                                                            |
|----------------------------------------|----------------|-------------|------------------------------|-----------------|-----------------|------------------------------------------------------------|
| SLAB MARK                              | REINF. DIRECT. | MAIN REINF. | REINFORCING ~ SIZE & SPACING |                 |                 | REMARKS                                                    |
|                                        |                |             | BOTT BARS                    | TOP CONT.       | TOP NON-CONT.   |                                                            |
| MS1                                    | N.-S.          | ✓           | #4 @ 12                      |                 | #4 x 4'-0" @ 9  | TOP NON-CONT. 1'-6" x 9'-0" HK TO MB1.                     |
| MS2                                    | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | CENTER TOP CONT. OVER MB2, MB14.                           |
| MS3                                    | N.-S.          | ✓           | #4 @ 12                      |                 |                 | TOP NON-CONT. 1'-6" x 9'-0" HK TO MB3.                     |
| MS4                                    | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | CENTER TOP CONT. OVER MB4 & MB14.                          |
| MS5                                    | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 9  |                 | TOP NON-CONT. 1'-6" x 9'-0" HK TO MB-14.                   |
| MS5A                                   | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 9  |                 | CENTER TOP CONT. OVER N.-S. BEAMS                          |
| MS5B                                   | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 9  |                 | CENTER TOP CONT. OVER N.-S. BEAMS                          |
| MS6                                    | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | CENTER TOP CONT. OVER BEAMS                                |
| MS7                                    | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | TOP NON-CONT. 1'-6" x 9'-0" HK TO MB17.                    |
| MS8                                    | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | CENTER TOP CONT. OVER N.-S. BEAMS, HK TOP-CONT. @ OPENINGS |
| MS9                                    | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | CENTER TOP CONT. OVER N.-S. BEAMS                          |
| MS10                                   | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | TOP NON-CONT. 1'-6" x 9'-0" HK TO MB12.                    |
| MS11                                   | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | HK TOP NON-CONT. @ MB13                                    |
| MS12                                   | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | 1'-6" x 9'-0" HK                                           |
| MS13                                   | N.-S.          | ✓           | #4 @ 12                      | #4 x 8'-0" @ 12 | #4 x 4'-0" @ 12 | #5 T&B N.-S @ UNSUPPORTED EDGE.                            |

|               |                |                    |            |
|---------------|----------------|--------------------|------------|
| DESIGNED C.K. | APPROVED       | SCALE AS SHOWN     | DATE 12-70 |
| DRAWN J.D.H.  | CHECKED J.G.S. | FILE G7-P-461-8363 |            |



Stevens, Thompson & Runyan, Inc.  
Engineers/Planners  
PORTLAND, OREGON SEATTLE, WASHINGTON

CITY OF PORTLAND, OREGON  
COLUMBIA BLVD. SEWAGE TREATMENT PLANT  
SECONDARY TREATMENT FACILITIES

SLUDGE PROCESSING BUILDING  
SLAB & BEAM SCHEDULES

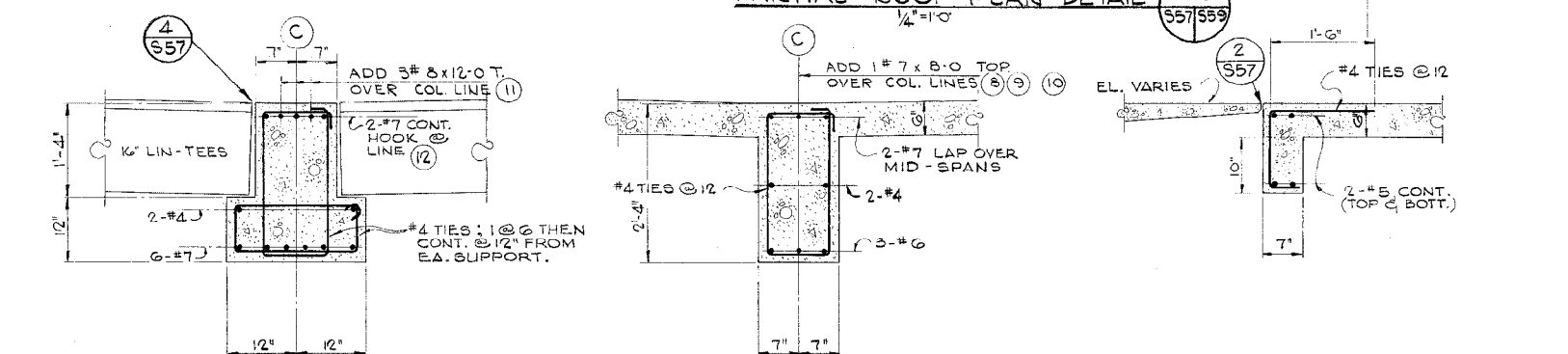
S56

274

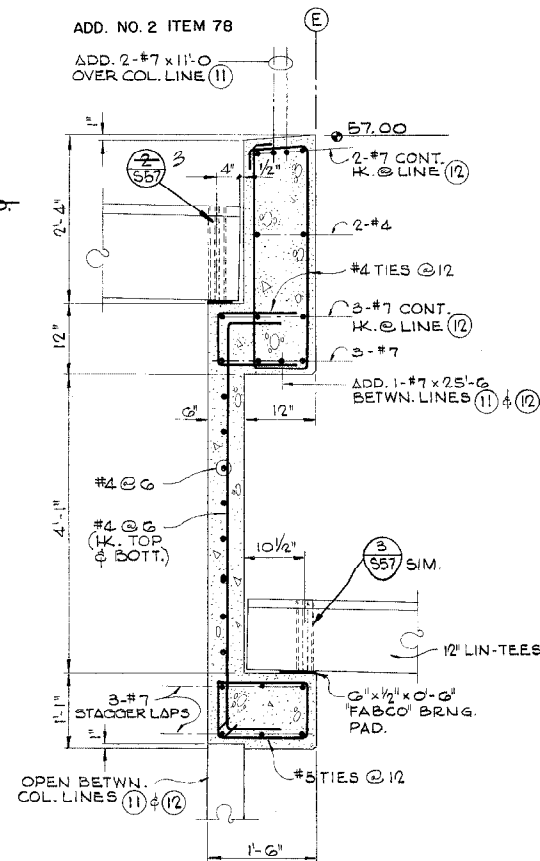


12-1-70  
5-1-71

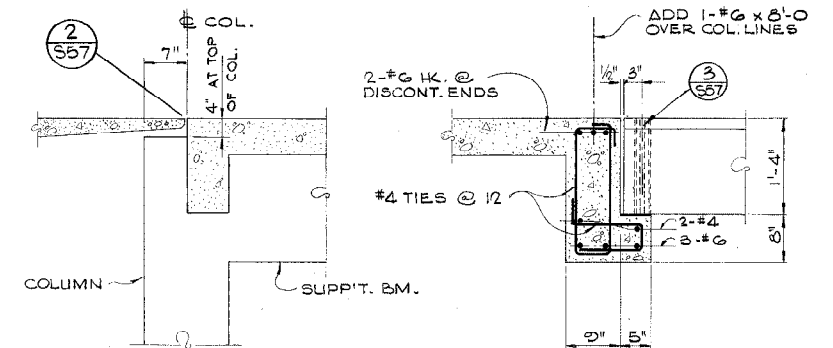




PARTIAL ROOF PLAN DETAIL

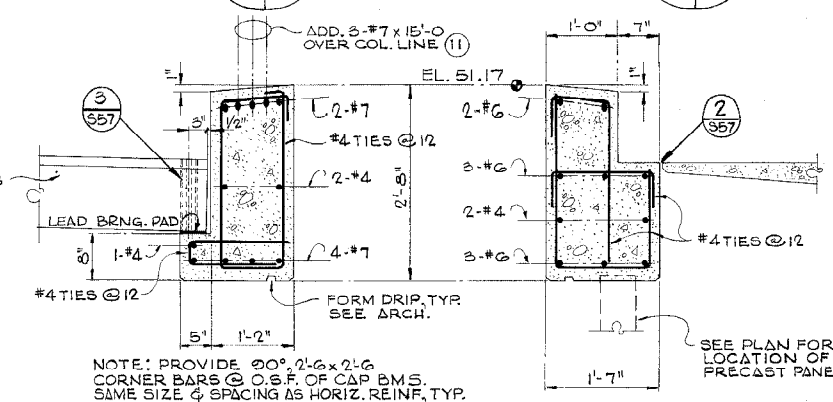


SECTION 10  
 $\frac{3}{4}" = 1'-0"$  S-57 S-58



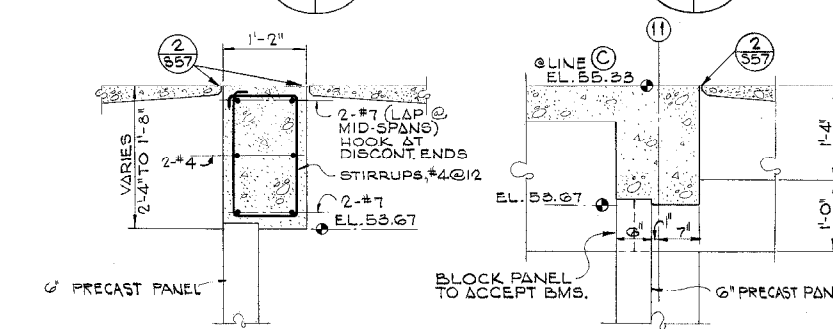
SECTION 11  
3/4" = 1' - 0"

SECTION 12



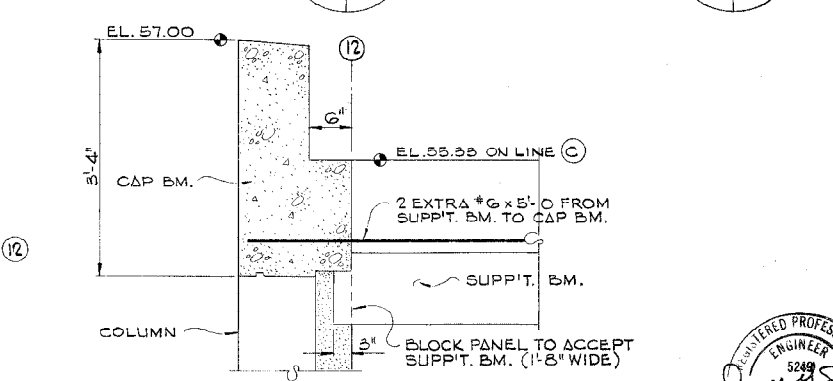
SECTION 13  
3/4" = 1'-0"  
S-57 S-58

SECTION 14  
3/4" = 1'-0" S-57 S-58



SECTION 15  
2/4" = 1'-0"

SECTION 16  
3/4" = 1' - 0"  
5-57 5-58

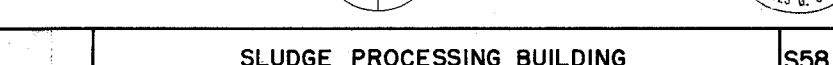


SECTION 18  
 $\frac{3}{4}" = 1'-0"$  5-57 5-5

OREGON  
JULY 1  
JAMES



SECTION 17  
3/4" = 1'-0" 5-57 5-58



SLUDGE PROC

|          |   |
|----------|---|
| BUILDING | S |
|----------|---|

|      |     |          |    |                |                                   |
|------|-----|----------|----|----------------|-----------------------------------|
|      |     |          |    | DESIGNED C.K.  | APPROVED <i>[Signature]</i>       |
|      |     |          |    | DRAWN J.D.H.   | SCALE $\Delta 5$ SHOWN DATE 12-70 |
| DATE | NO. | REVISION | BY | CHECKED J.G.S. | FILE 67-P-461-8305                |



**Stevens, Thompson & Runyan, Inc.**  
*Engineers/Planners*  
PORTLAND, OREGON      SEATTLE, WASHINGTON

CITY OF PORTLAND, OREGON  
COLUMBIA BLVD. SEWAGE TREATMENT PLANT  
SECONDARY TREATMENT FACILITIES

**SLUDGE PROCESSING BUILDING**  
**ROOF PLAN & DETAILS**

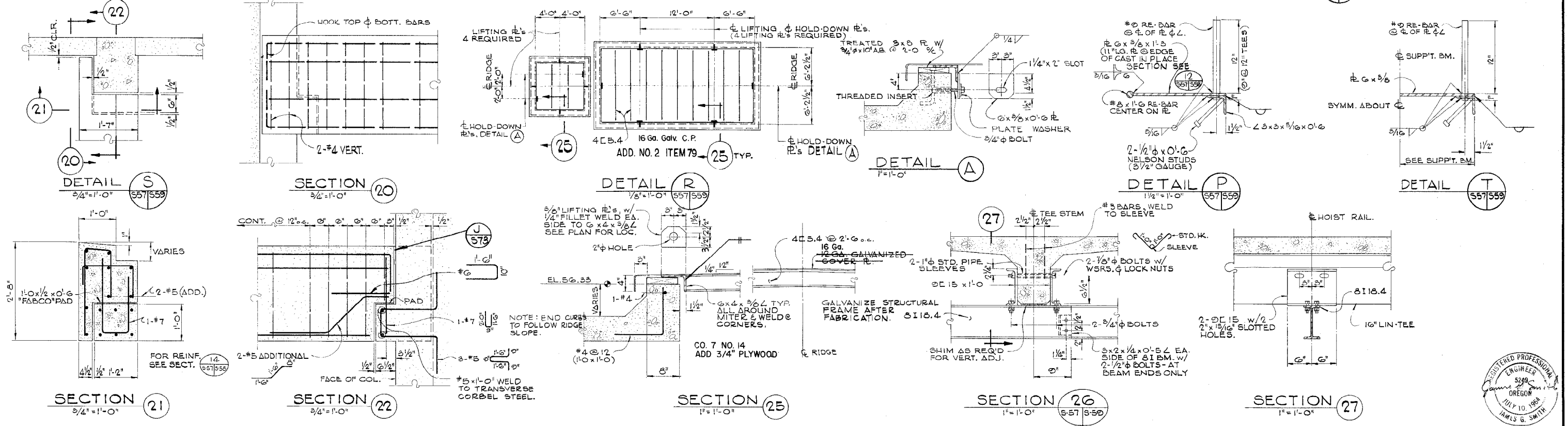
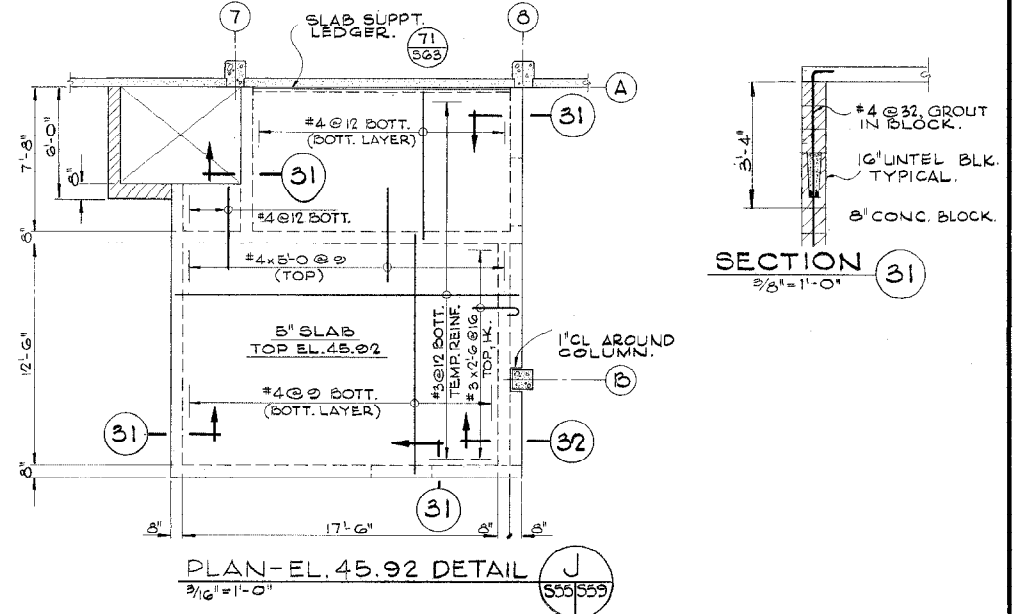
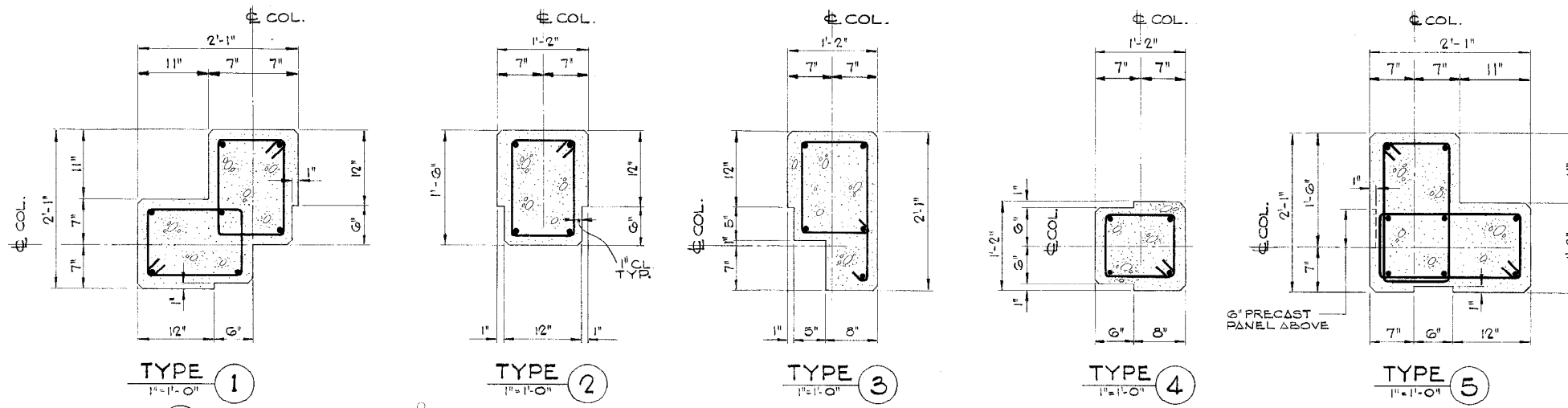
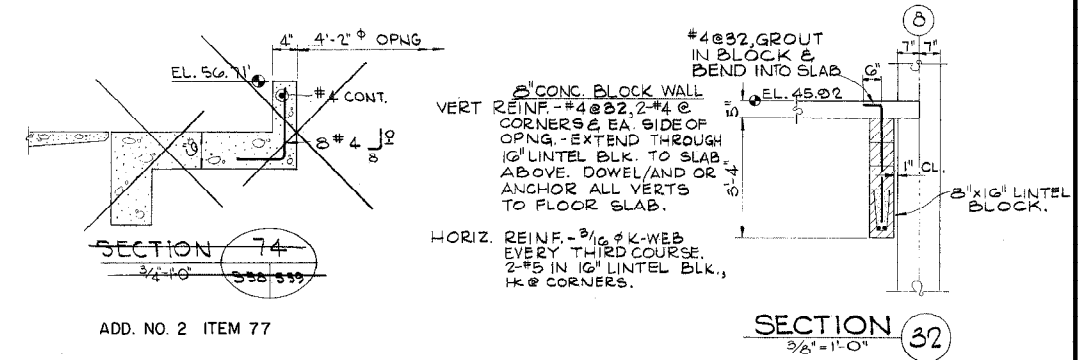
S58/

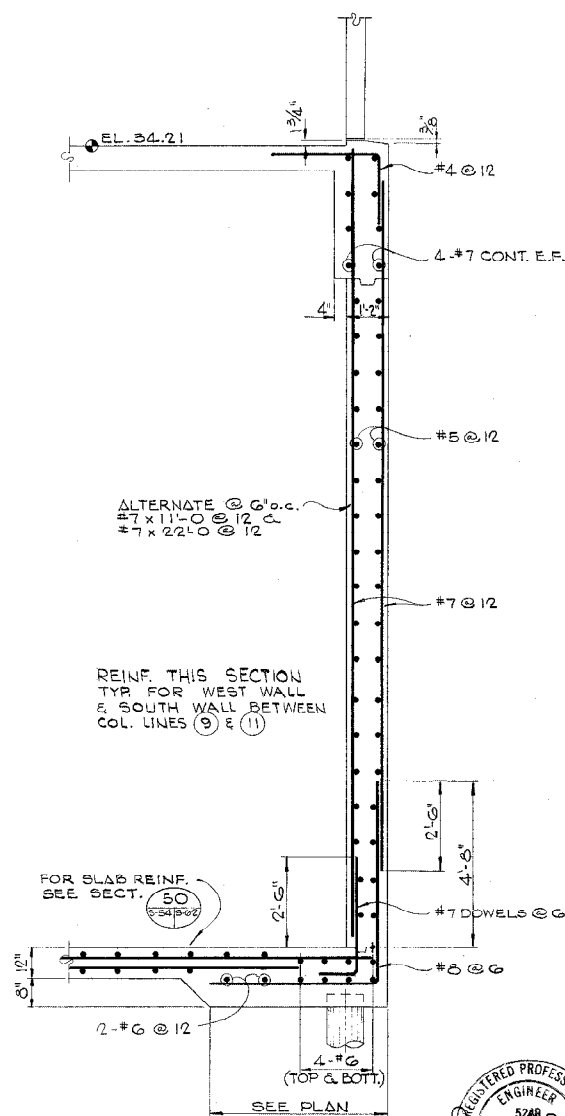
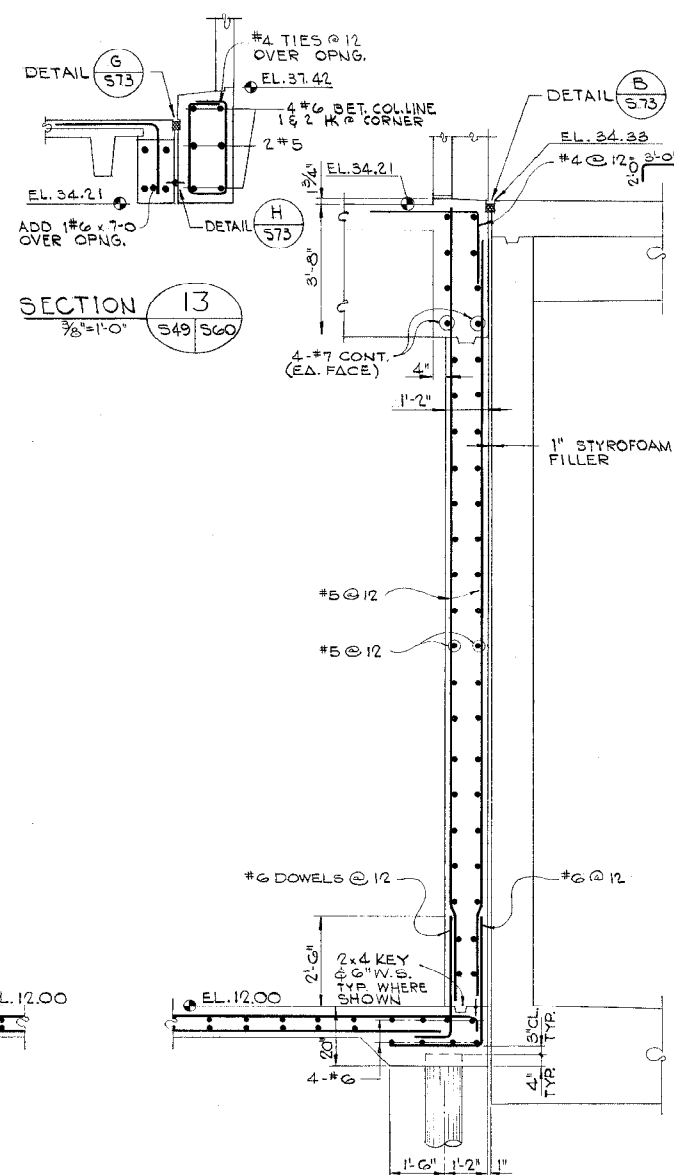
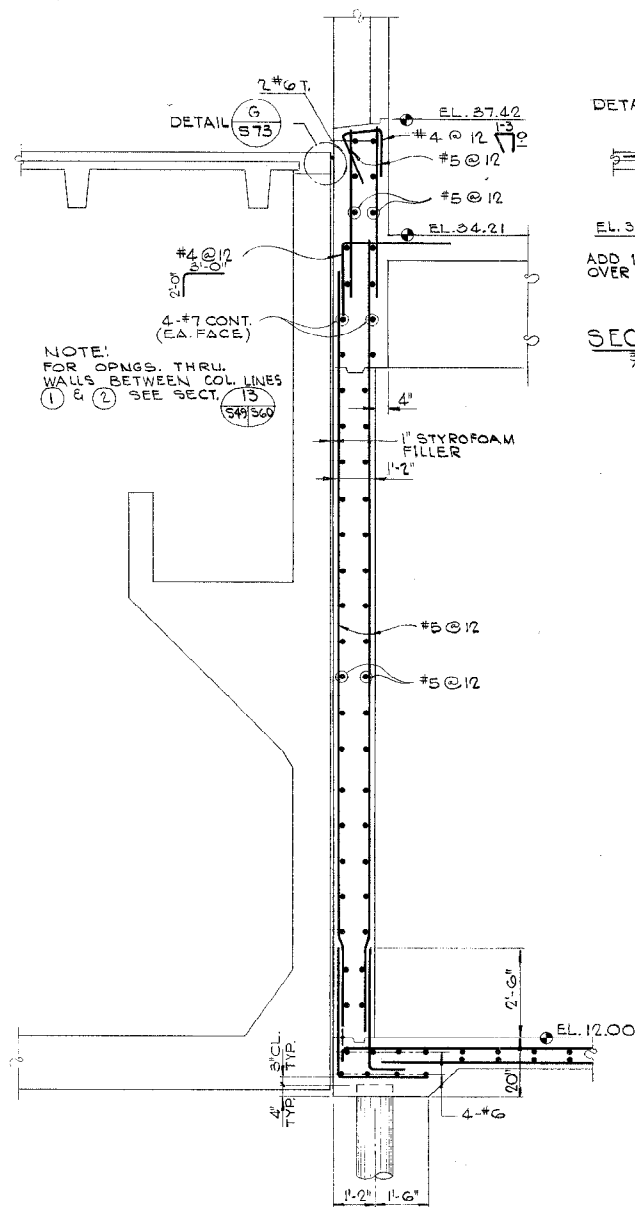
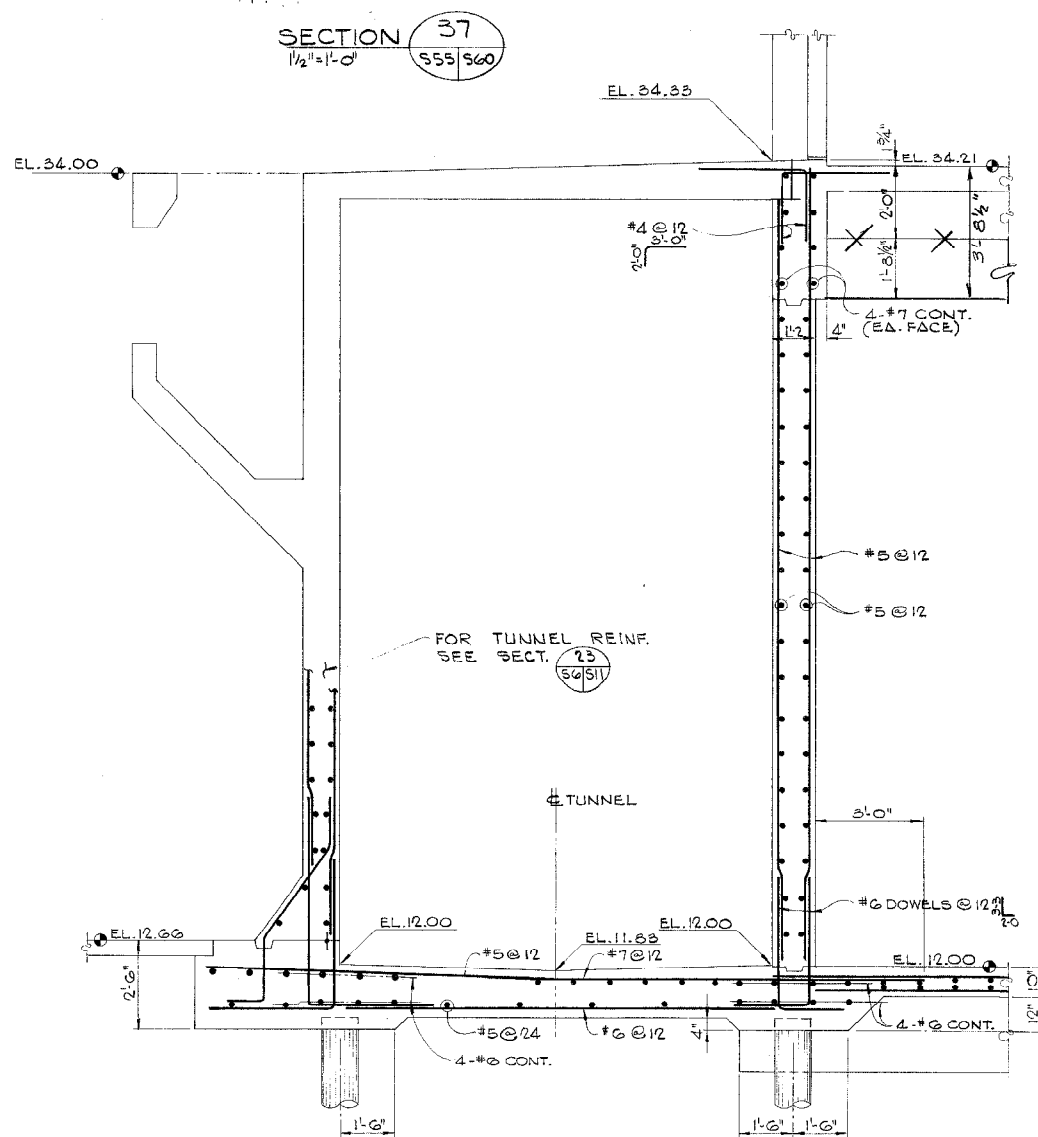
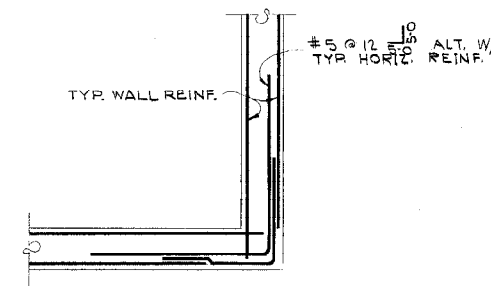
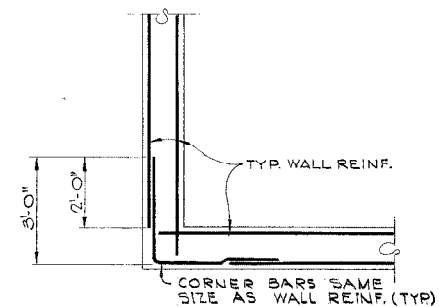
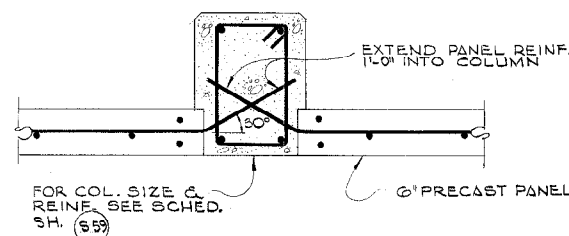
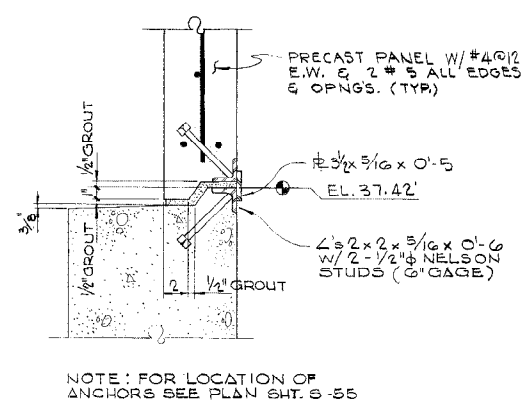
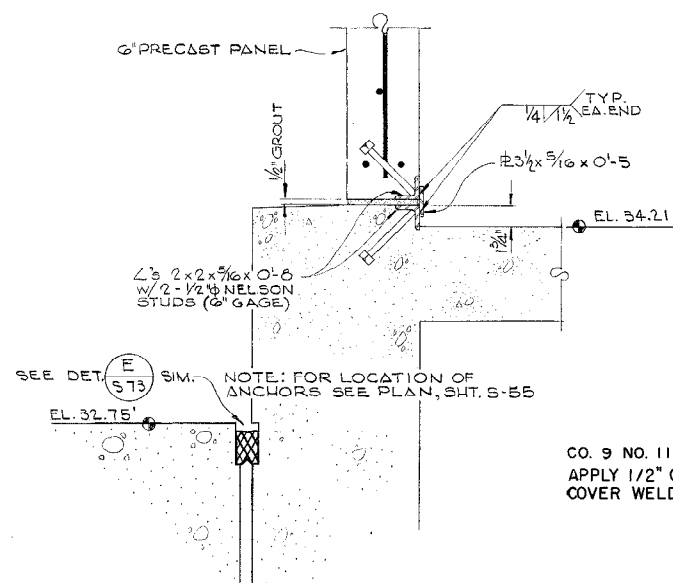
✓ 274

REGISTERED PROFESSIONAL  
ENGINEER  
5249  
JULY 10, 1964  
JAMES G. SMITH

# COLUMN SCHEDULE

| COLUMN                                          | C-2<br>THRU<br>C-7 | C-8<br>THRU<br>C-10 | B-8 THRU B-10<br>D-8 THRU D-10 | A-1<br>E-1 | B-1, C-1, D-1<br>A-2 THRU A-10<br>E-2 THRU E-10 | A-11<br>E-11 | B-11<br>C-11<br>D-11 | A-12<br>E-12               | B-12<br>C-12<br>D-12       | F-9                          | F-11                      | F-12                   |
|-------------------------------------------------|--------------------|---------------------|--------------------------------|------------|-------------------------------------------------|--------------|----------------------|----------------------------|----------------------------|------------------------------|---------------------------|------------------------|
| EL. BOTT. ROOF BM.                              | 53.00              | 53.00               | 53.33                          | 53.67      | 53.67                                           | 53.67        | 53.67                | 53.67                      | 53.67                      | 48.50                        | 48.50                     | 48.50                  |
| COL. TYPE OR SIZE.                              | 14x14              | 14x14               | 14x14                          | TYPE ①     | TYPE ②                                          | TYPE ③       | TYPE ④               | TYPE ⑤                     | TYPE ②                     | 14x14                        | 14x14                     | 14x14                  |
| VERT. REINF.                                    | 4-#8               | 4-#8                | 4-#8                           | 7-#8       | 4-#8                                            | 5-#8         | 4-#8                 | 8-#8                       | 4-#8                       | 4-#10                        | 4-#10                     | 4-#10                  |
| TIES.                                           | #3@14              | #3@14               | #3@14                          | #3@14      | #3@14                                           | #3@14        | #3@14                | #3@14                      | #3@14                      | #3@14                        | #3@14                     | #3@14                  |
| MAIN FLOOR,<br>EL. TOP OF CONC.<br>OR AS NOTED. | 34.21              | 34.21               | 34.21                          | 34.21      | 34.21                                           | 34.21        | 34.21                | 33.00<br>(TOP OF CURB)     | 33.00<br>(TOP OF CURB)     | 33.50<br>(TOP OF WALL)       | 31.00<br>(TOP OF PIER)    | 33.00<br>(TOP OF CURB) |
| SIZE.                                           | 16x16              | 14x14               | 14x14                          |            |                                                 |              |                      | SEE<br>SECT.<br>57         | SEE<br>SECT.<br>44         | 14x14                        | 24x24                     | SEE<br>SECT.<br>54     |
| VERT. REINF.                                    | 4-#8               | 4-#8                | 4-#8                           |            |                                                 |              |                      |                            |                            | 4-#10                        | 4-#10                     |                        |
| TIES.                                           | #3@16              | #3@14               | #3@14                          |            |                                                 |              |                      |                            |                            | #3@14                        | #3@14                     |                        |
| BASEMENT,<br>EL. TOP OF CONC.<br>OR AS NOTED.   | 12.25              | 12.25               | 12.25                          |            |                                                 |              |                      | 29.50<br>(TOP OF PILE CAP) | 29.50<br>(TOP OF PILE CAP) | 10.67±<br>(TOP OF BASE SLAB) | 27.00<br>(TOP OF FOOTING) | 27.00<br>(TOP OF FTG.) |
| DOWELS.                                         | 4-#8               | 4-#8                | 4-#8                           | 7-#8       | 4-#8                                            | 4-#8         | 4-#8                 | 8-#8                       | 4-#8                       | 4-#10                        | 4-#10                     | 4-#10                  |





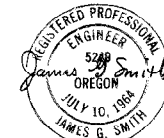
|                |                           |
|----------------|---------------------------|
| DESIGNED C.K.  | APPROVED                  |
| DRAWN J.D.H.   | SCALE AS SHOWN DATE 12-70 |
| CHECKED J.G.S. | FILE 67-P-461-8367        |



Stevens, Thompson & Runyan, Inc.  
Engineers/Planners  
PORTLAND, OREGON SEATTLE, WASHINGTON

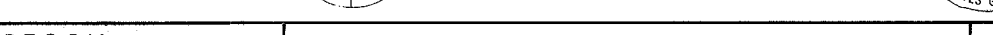
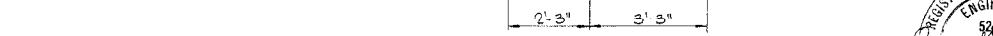
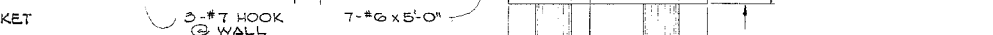
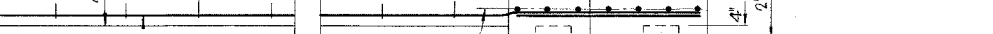
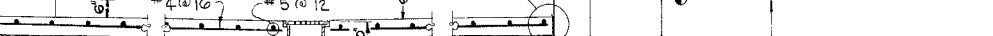
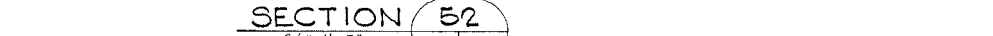
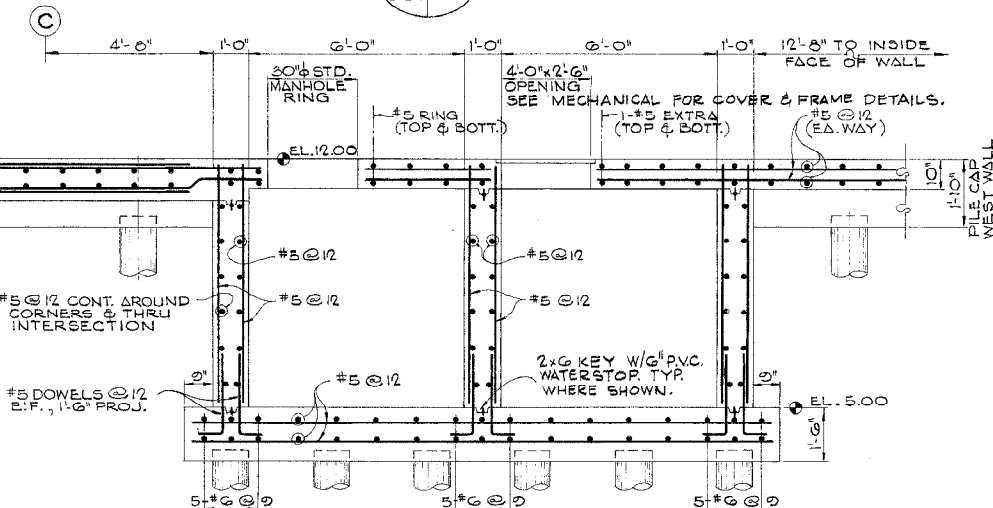
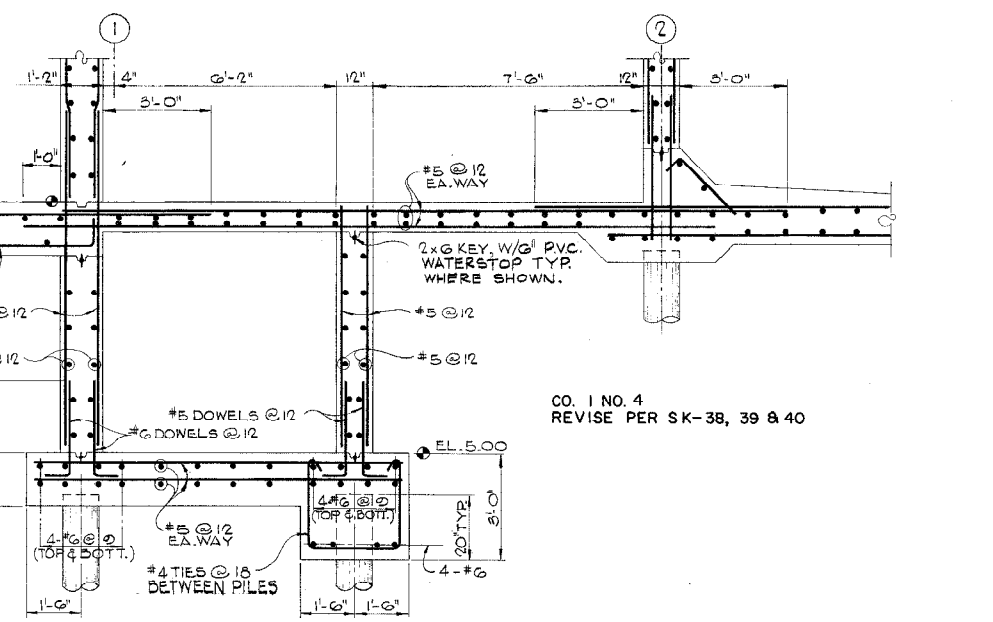
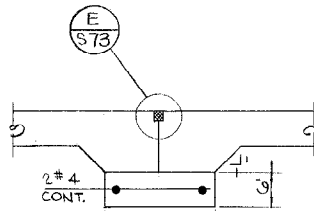
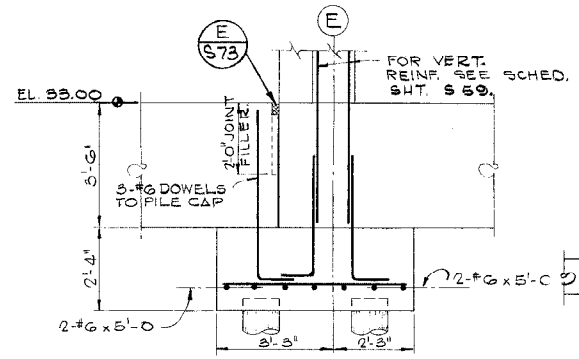
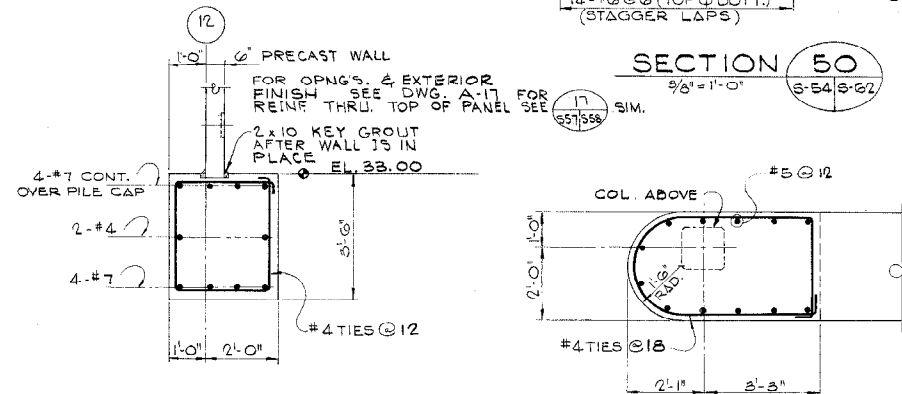
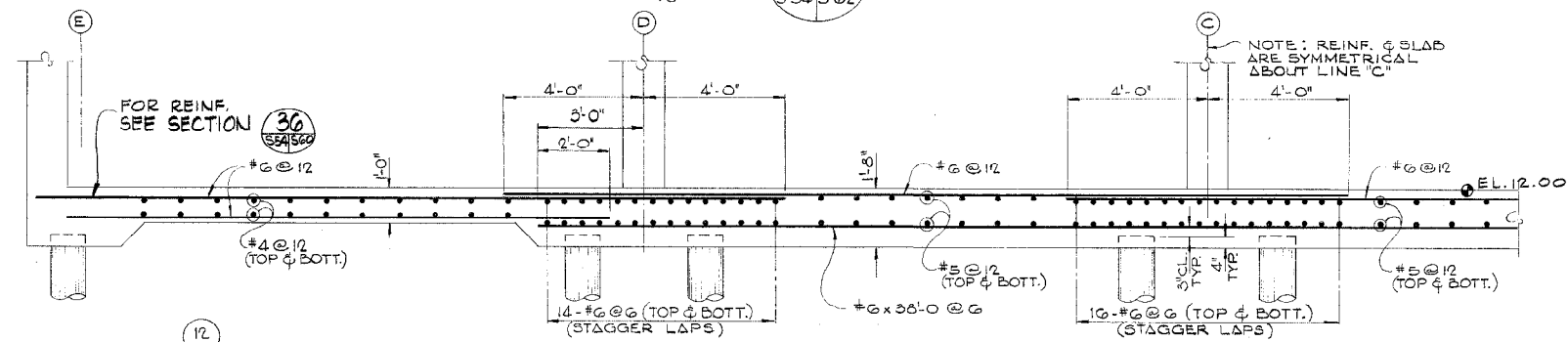
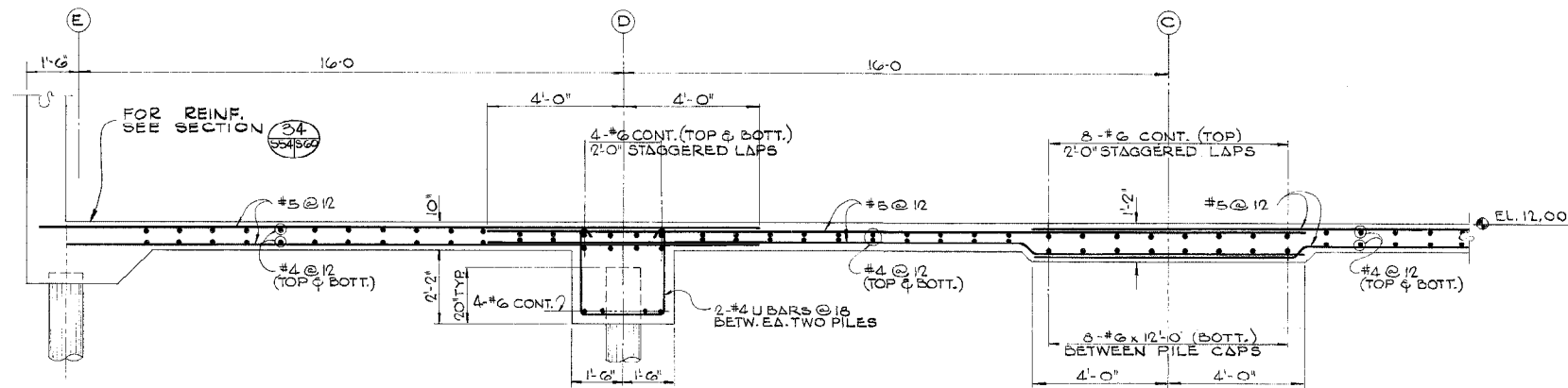
CITY OF PORTLAND, OREGON  
COLUMBIA BLVD. SEWAGE TREATMENT PLANT  
SECONDARY TREATMENT FACILITIES

SLUDGE PROCESSING BUILDING  
SECTIONS & DETAILS



S60  
274





CO. 2 NO. 6  
ADD PER SK-60  
CO. 7 NO. 15  
ADD CURB PER STF 73-13

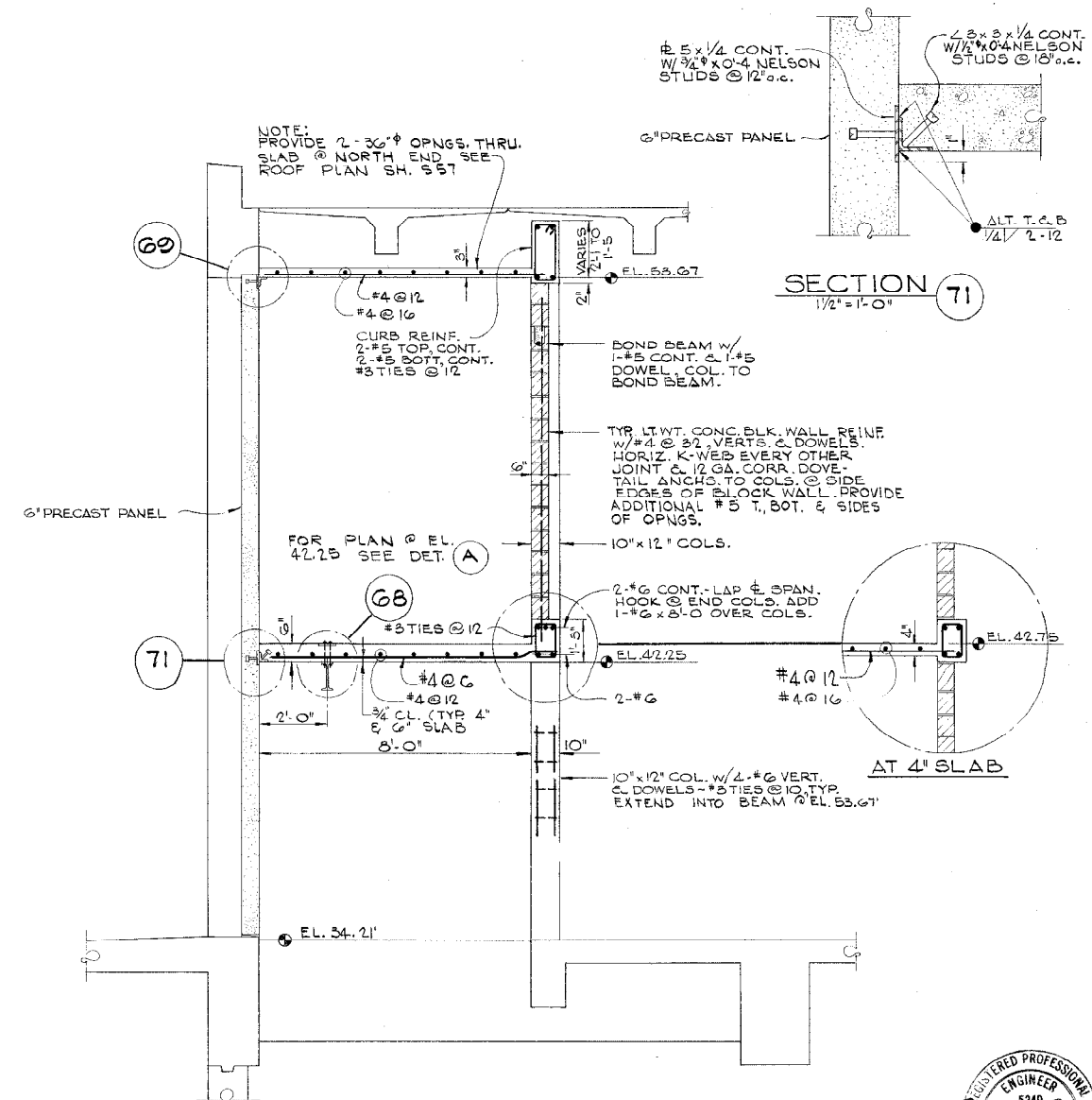
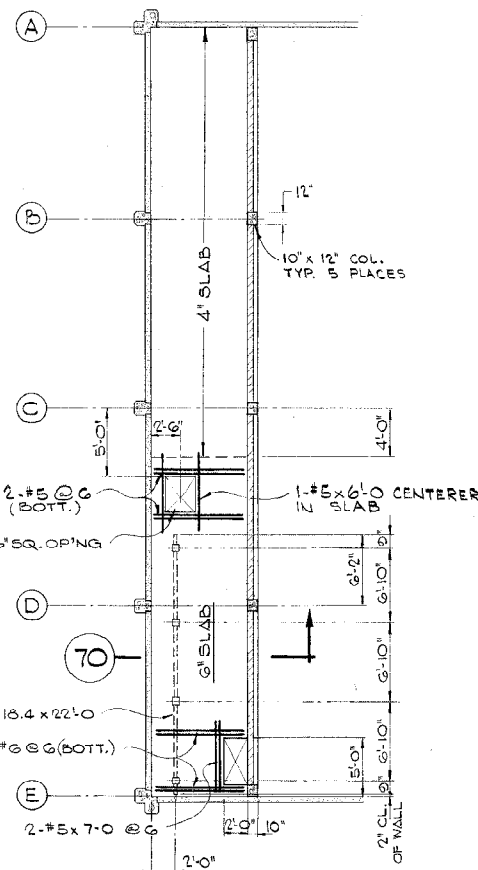
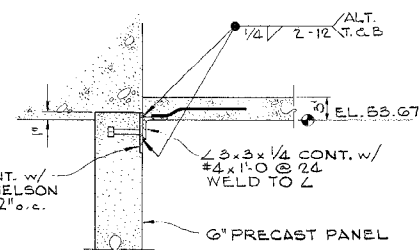
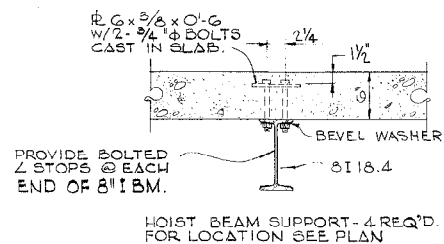
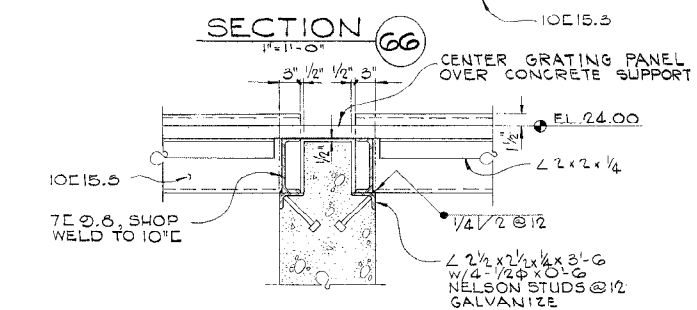
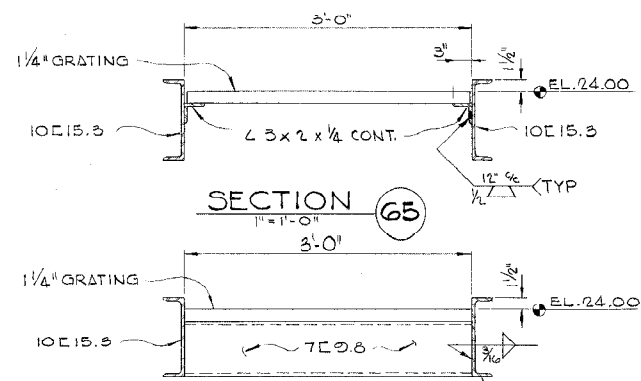
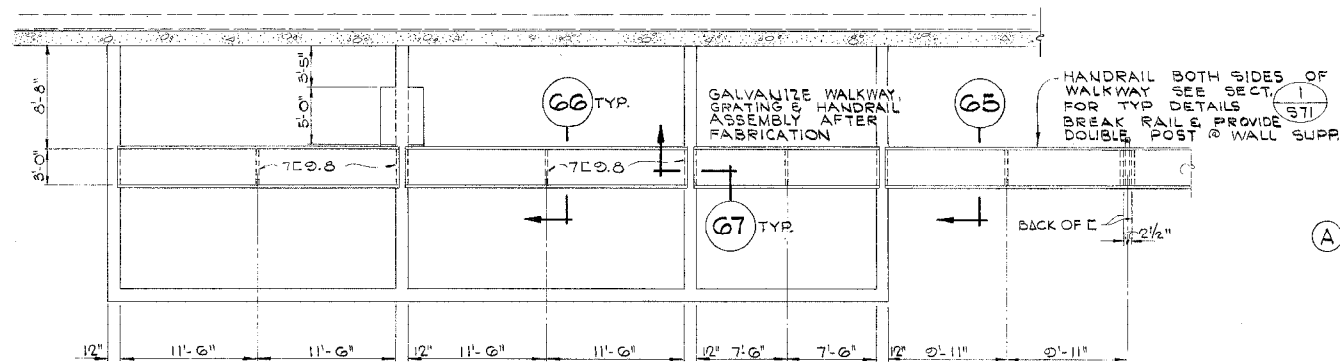
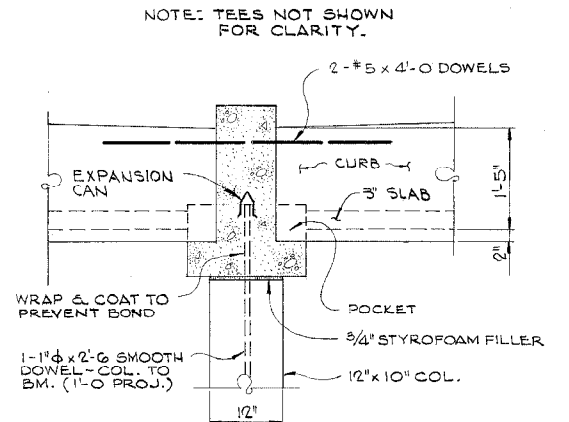
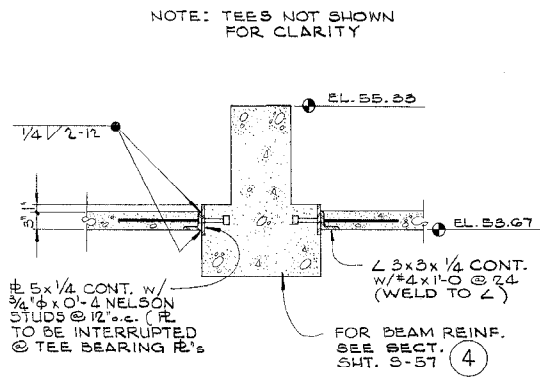
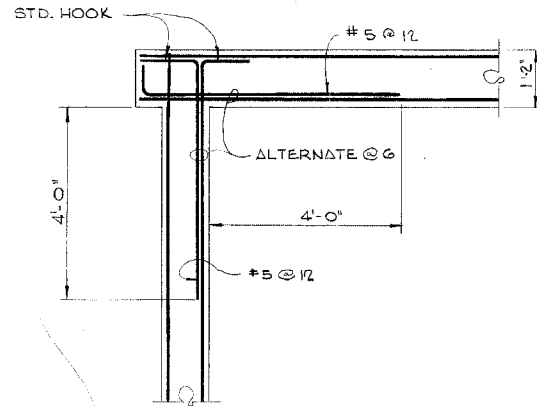
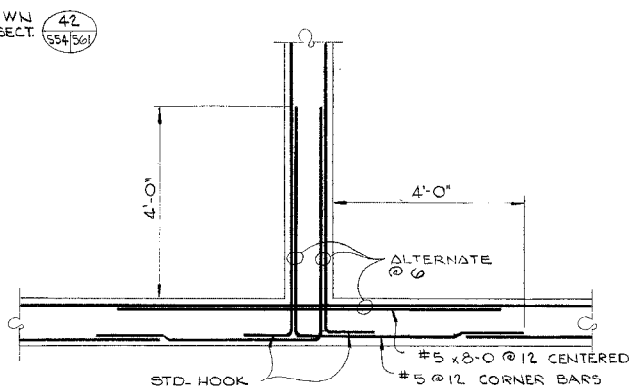
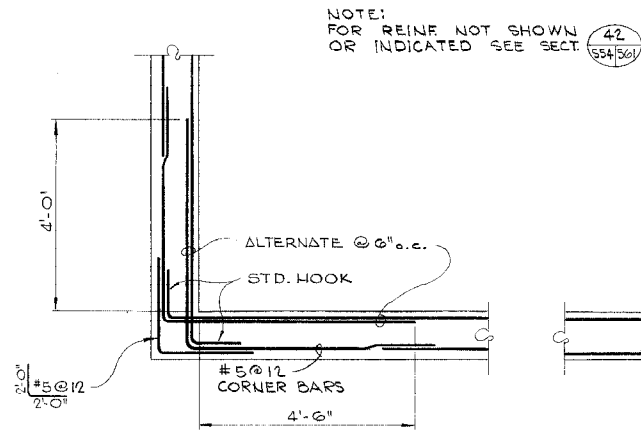
SECTION 54  
S-55 S-62

SECTION 56  
S-55 S-62

SECTION 58  
S-55 S-62



|                    |                |                                      |                                       |                            |     |
|--------------------|----------------|--------------------------------------|---------------------------------------|----------------------------|-----|
| DESIGNED C.K.      | APPROVED       | Stevens, Thompson & Runyan, Inc.     | CITY OF PORTLAND, OREGON              | SLUDGE PROCESSING BUILDING | S62 |
| DRAWN J.D.H.       | SCALE AS SHOWN | Engineers/Planners                   | COLUMBIA BLVD. SEWAGE TREATMENT PLANT | SECTIONS & DETAILS         | 274 |
| CHECKED J.G.S.     | DATE 12-70     | PORTLAND, OREGON SEATTLE, WASHINGTON | SECONDARY TREATMENT FACILITIES        |                            |     |
| FILE G7-P-461-8869 |                |                                      |                                       |                            |     |



|          |               |          |          |
|----------|---------------|----------|----------|
| DESIGNED | C.K.          | APPROVED |          |
| DRAWN    | J.D.H.        | SCALE    | AS SHOWN |
| CHECKED  | JGS           | DATE     | 12-70    |
| FILE     | 67-P-461-8370 |          |          |



**Stevens, Thompson & Runyan, Inc.**  
Engineers/Planners  
PORTLAND, OREGON SEATTLE, WASHINGTON

**CITY OF PORTLAND, OREGON**  
COLUMBIA BLVD. SEWAGE TREATMENT PLANT  
SECONDARY TREATMENT FACILITIES

**SLUDGE PROCESSING BUILDING**  
SECTIONS & DETAILS

**S63**  
**274**