

m78 19

633

6/1/75

PUC Docket No. SXF \_\_\_\_\_

PUC Crossing No. 10B-001.70

DOT-AAR Crossing No. 66 881 X

BEFORE THE PUBLIC UTILITY COMMISSIONER  
OF OREGON

APPLICATION FOR AUTHORITY in connec-  
tion with a proposed grade crossing  
signalization project.

Formal Title:

In the matter of the application of Klamath County  
(name of applicant)

for the authority, pursuant to ORS 763.030, to alter a grade crossing  
of Altamont Drive  
(name of street or highway)

and the tracks and right-of-way of Burlington Northern, Inc.  
(name of railroad company)

Klamath Falls-Malin Branch, near South Klamath  
(name of branch or main line or other trackage) (in/near/at) (city, town

or nearest station), Klamath County, Oregon,  
(name of county)

by installing or modifying signal devices.

Check one of the following:

Allocation of funds from one of the following sources is requested or expected--

☒ State grade crossing protection account (ORS 763.270 and .290)  
Estimate of dollar cost to fund: \$ 5,797.20

☒ Federal-Aid Highway System Funds.\*  
Title II, 1976 Federal Highway Act

☐ Other Federal Funds\*  
\_\_\_\_\_

☐ None of above.

\*If Federal funding assistance is expected, please give appropriate federal statutory provision.

#### FORM SELECTION

Please answer each of the following questions:

1. Does the contemplated project involve construction of a new or relocated crossing? No  
(yes/no)

If yes, please use PUC Form 202 (31) 10-77 instead of this form.

2. Does the contemplated project involve any physical alteration of the crossing beyond normal maintenance or surface renewal (such as realignment of approaches, widening of the roadway, change in approach gradients, etc.)? No  
(yes/no)

If yes, please use PUC Form 202 (31) 10-77 instead of this form.

3. Does the contemplated project involve more than the addition or deletion of stop sign protection at the crossing?

Yes  
(yes/no)

If no, simplified PUC Form 204 (31) 10-77 may be used instead of this form.

**NOTE TO APPLICANT:** If assistance in completing this form is desired, please call 378-6659. On a question involving railroad data, the railroad involved can usually provide assistance as well:

|                                        |              |             |
|----------------------------------------|--------------|-------------|
| Burlington Northern, Engineering Dept. | 221-1300     | (Portland)  |
| Southern Pacific, Division Engineer    | 228-8181     | (Portland)  |
| Union Pacific, Division Engineer       | 288-8221     | (Portland)  |
| or--                                   | 208-232-4450 | (Pocatello) |

(Pocatello should be called for Union Pacific lines east of Huntington, including the line to Burns.)

1. Name of applicant: Klamath County  
 Address: County Courthouse, Klamath Falls, OR 97601
2. Location of the proposed project:  
 Railroad milepost 1+4825'  
 City \_\_\_\_\_  
 Nearest railroad station South Klamath  
 County Klamath
3. Name of public highway involved in this project:  
Altamont Drive  
 Name of public authority with jurisdiction over this highway:  
Klamath County
4. Name of railroad involved in this project: Burlington Northern, Inc.,  
Klamath Falls-Malin Branch  
 (include name of branch, main line or other track)
5. List the proper parties of interest in this matter:
  - a. Burlington Northern, Inc.
  - b. Klamath County
  - c. Oregon Department of Transportation, Highway Division
  - d. \_\_\_\_\_
  - e. \_\_\_\_\_
  - f. \_\_\_\_\_

Have you served each of these parties with a copy of this application?  
No If yes, please provide certificate of such service. (We  
 (yes/no) would prefer to serve the application ourselves.)

6. Describe the project, including a listing of the devices to be removed, those to be installed and their proposed location.

Install #2 Flashing Lights and #4 Automatic Gates each side of crossing  
20' from roadway centerline. Install Rural Guardrail adjacent to signals  
each side of crossing, face of rail to be 14' from roadway centerline.  
Remove existing crossbucks and STOP signs.

7. Is the project contemplated required by the public safety, necessity, convenience and general welfare? Yes  
 (yes/no)

If yes, why? To more adequately warn the motoring public of an impending  
train movement through the crossing.

8. Is it possible or practical to construct a separated crossing at this location: No  
 (yes/no)

If no, why not? Lack of funds.

9. Physical description of the crossing:

a. The Highway

(1) Width-- The highway is 28 feet wide at the crossing and consists of (from E to W):  
N or E S or W

A shoulder (or parking area) of 2 feet  
2 lane(s) of travel of 12 feet (each)  
 A center median of -- feet  
       lane(s) of travel of -- feet (each)  
 A shoulder (or parking area) of 2 feet

Explanation, if necessary \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

9.a. (Continued)

(2) Surface--

At present:

After completion:

Type of surface on  
traveled way:

on approaches

Asphalt

Asphalt

at crossing

Asphalt

Asphalt

Type of surface on  
shoulders:

Asphalt & Gravel

Asphalt & Gravel

Condition of surface:

on approaches

Good

Good

at crossing

Good

Good

Is the highway curbed  
on the approaches?

No

No

Is there one or more  
sidewalks at this  
crossing?

No

No

If either answer to the above question is "Yes", please describe below,  
including width and location of each sidewalk:

**NOTE:** If new sidewalks are to be constructed, please use PUC 202 (31) 10-77 rather than this form.--- No portion of any cost attributable to upgrading the surface of the road at the crossing, including cost of rail renewal, compromise joints, etc. may be allocated to the State Grade Crossing Protection Account.

(3) Nearest public roadway intersection on each approach---

(a) N approach: 740 ft; ADT 125

(b) S approach: 2000 ft; ADT 1800  
(N/S/E/W)

Name of road or highway:

(a) Anderson Avenue

(b) Johns Avenue

## 9.a.(3) (Continued)

Public authority with jurisdiction over road or highway:

(a) Klamath County(b) Klamath County

(If different public authority than that with jurisdiction over road at crossing, please add name to list of parties of interest in this matter--see item 5 of this application form.)

Are traffic signals (to be) installed at either of these intersections?

(a) No ; (b) No .  
(yes/no) (yes/no)

If yes to either, please explain below which intersection(s) is (are) (to be) signalized, and whether or not this signalization is (to be) interconnected with track circuitry on the railroad. If it is, are part-time turn restriction signs (to be) installed? (If there is to be interconnected circuitry, please include the interconnection and part-time turn restriction signs as items of protection proposed herein. If traffic signals at the adjacent intersection are to be installed in connection with this project and if costs of same are to be partially borne by the railroad and/or the state grade crossing protection account, they should also be listed under item 12 herein.)

- (4) Describe how the crossing is now protected. (For example: 2 crossbucks, 2 stop signs, 2 advance warning signs.) Also, please indicate which, if any, of the existing items of protection will remain in place after completion of this project:

2 crossbucks, 2 STOP signs to be removed. 2 advance warning signs

& 2 pavement markings to remain.

9.b. The Railroad

(1) Tracks---

(a) Number of tracks at crossing: 1

(b) Name of each track from N to S:  
(N or E) (S or W)

Mainline

(2) Angle of intersection--- 49°

If more than one track-highway angle exists, please give details below,  
track by track:

(3) Nearest switch---

E of crossing: 2000+ ft  
(N/S/E/W)

W of crossing: 105 ft

10. Use of the crossing:

a. The Highway

(1) Average daily traffic volume---

At present: 2819; After completion: 2819;

Expected 5 years after completion: 3120.

(2) Speed of vehicles (estimated 85th percentile speed)---

|                                                           | At present:   | Expected<br>after completion: |
|-----------------------------------------------------------|---------------|-------------------------------|
| 300 ft from crossing<br>on <u>N</u> approach:<br>(N or E) | <u>35</u> mph | <u>35</u> mph                 |
| on <u>S</u> approach:<br>(S or W)                         | <u>35</u> mph | <u>35</u> mph                 |
| At crossing:                                              | <u>5</u> mph  | <u>35</u> mph                 |

10.a.(2) (Continued)

Posted speed limit  
on approaches:

Not Posted mph

Not Posted mph

(3) Direction of traffic flow:

N & S  
(N & S, etc.)

b. The Railroad

(1) Train movements---  
(avg per day)

At present:

Expected  
after completion:

Freight trains:

9

9

Switching movements:

24

24

Passenger trains:

0

0

(2) Speed of trains---

Maximum allowable:

15 mph

15 mph

Typical:

10 mph

10 mph

Slowest normal:

5 mph

5 mph

NOTE: If the speed of trains over this crossing is to be increased from a speed limit previously ordered by the Commissioner at this crossing, include as part of this application, a petition to increase speed pursuant to ORS 763.035.

11. Visibility at the crossing from the standpoint of the approaching motor vehicle operator:

a. Of approaching trains---

(1) From a "stop" position  
(approx. 18 feet from  
edge of nearest rail)  
on the . . .

The motor vehicle operator  
can see along the  
railroad . . .

N approach:  
(N or E)

2000+ ft to right; 2000+ ft to left

S approach:  
(S or W)

2000+ ft to right; 2000+ ft to left

## 11.a. (Continued)

- (2) From a "safe stopping distance" (see table below) on the . . .

The motor vehicle operator can see along the railroad . . .

N approach:  
(N or E)

1000+ ft to right; 1000+ ft to left

S approach:  
(S or W)

1500+ ft to right; 1500+ ft to left

If these sight distances will be changed on completion of the project, please explain below:

NOTE: TABLE OF SAFE STOPPING DISTANCES ("SSD")

| Typical<br>Approach<br>Speed | "SSD"    | Typical<br>Approach<br>Speed | "SSD"    |
|------------------------------|----------|------------------------------|----------|
| 10 mph                       | 44 feet  | 35 mph                       | 210 feet |
| 15 mph                       | 69 feet  | 40 mph                       | 256 feet |
| 20 mph                       | 98 feet  | 45 mph                       | 306 feet |
| 25 mph                       | 131 feet | 50 mph                       | 360 feet |
| 30 mph                       | 169 feet | 55 mph                       | 418 feet |

b. Of the proposed protective devices---

- (1) Will vision of the protective devices to be installed at the crossing be obstructed on the main approach road within 1000 feet of the crossing? No  
(yes/no)

If yes, please explain by what and at what points it will be obstructed:

11.b. (Continued)

642

- (2) If roadside mounted protective devices (such as "STOP" signs or Standard No. 2 flashing light signals) are to be installed at the crossing, is the approaching driver's vision of these devices likely to be totally or partially obscured by parked vehicles? No  
(yes/no)

If yes, explain how you propose to overcome this problem:

---

---

---

If no, why not?

Adequate parking in area.

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12. List the number and types of protective devices to be installed at the crossing and on its approaches:

TYPES OF DEVICES (refer to rule OAR 860-42-060)

- Commissioner's Standard No. 1M, multiple track sign
- Commissioner's Standard No. 1P, reflectorized crossbuck for pedestrian crossings only
- Commissioner's Standard No. 1R, reflectorized crossbuck
- Commissioner's Standard No. 1S, vehicle stop sign (to stop vehicles)
- Commissioner's Standard No. 1T, railroad stop sign (to stop trains)
- Commissioner's Standard No. 2, flashing light signal
- Commissioner's Standard No. 2B, cantilevered flashing light signal
- Commissioner's Standard No. 2P, flashing light signal for ped. crossings only
- \*Commissioner's Standard No. 4, automatic gate signal
- Standard stop clearance lines
- Standard "EXEMPT" sign
- Standard advance "EXEMPT" sign
- \*\*Standard part-time turn restriction sign
- Standard "DO NOT STOP ON TRACKS" sign
- Standard advance warning sign
- Standard "STOP AHEAD" sign
- Standard advance warning pavement markings
- Standard highway guard rail
- Non-mountable curb
- \*\*Traffic signals at adjacent intersection
- Track circuitry to interconnect with traffic signals at adjacent intersection
- Traffic signals at crossing

\* To be used in conjunction with Standard No. 2 or No. 2B signals. Please indicate which it will be.

\*\* Please furnish description of traffic signal operation, including standard phasing and phasing upon train activation.

12.a. Protection type: #2 Flashing Lights w/gongs, #4 Automatic Gates

643

Number of such devices: 2 ea.; To be located as follows: Each side of crossing, 20 feet from roadway centerline.

(1) Who will perform the installation? Burlington Northern, Inc.

(2) Estimated cost of installation: \$54,972 \*

(3) Who will pay for said installation?

| <u>Name of Party</u>                                    | <u>Percent of Cost</u> |
|---------------------------------------------------------|------------------------|
| <u>Oregon Dept. of Transportation, Highway Division</u> | <u>90</u>              |
| <u>State Grade Crossing Protection Account</u>          | <u>10</u>              |

(4) Who will maintain these devices? Burlington Northern, Inc.

(5) Who will pay for said maintenance?

| <u>Name of Party</u>             | <u>Percent of Cost</u> |
|----------------------------------|------------------------|
| <u>Burlington Northern, Inc.</u> | <u>100</u>             |

b. Protection type: Rural Guardrail

Number of such devices: 2; To be located as follows: Each side of crossing, adjacent to signals. Face of rail to be 14 feet from roadway centerline.

(1) Who will perform the installation? Oregon Dept. of Trans., Highway Division

(2) Estimated cost of installation: \$3,000 \*

(3) Who will pay for said installation?

| <u>Name of Party</u>                                    | <u>Percent of Cost</u> |
|---------------------------------------------------------|------------------------|
| <u>Oregon Dept. of Transportation, Highway Division</u> | <u>90</u>              |
| <u>State Grade Crossing Protection Account</u>          | <u>10</u>              |

\* Include cost of furnishing the protective device(s).

12.b. (Continued)

(4) Who will maintain these devices? Klamath County

(5) Who will pay for said maintenance?

| <u>Name of Party</u>  | <u>Percent of Cost</u> |
|-----------------------|------------------------|
| <u>Klamath County</u> | <u>100</u>             |
| _____                 | _____                  |

c. Protection type: Advance Warning Signs & Pavement Markings

Number of such devices: 2 ea ; To be located as follows: At existing loca-  
tions.

(1) Who will perform the installation? In place.

(2) Estimated cost of installation: \$ -- \*

(3) Who will pay for said installation?

| <u>Name of Party</u> | <u>Percent of Cost</u> |
|----------------------|------------------------|
| <u>N/A</u>           | _____                  |
| _____                | _____                  |
| _____                | _____                  |

(4) Who will maintain these devices? Klamath County

(5) Who will pay for said maintenance?

| <u>Name of Party</u>  | <u>Percent of Cost</u> |
|-----------------------|------------------------|
| <u>Klamath County</u> | <u>100</u>             |
| _____                 | _____                  |

NOTE: If additional devices are involved, add 12d, e, etc., on separate sheet.

13. Who will maintain the crossing?

a. Between the rails and for a distance of two feet outside thereof:

Burlington Northern, Inc.

B. Remainder of crossing area: Klamath County

\* Include cost of furnishing the protective device(s).

14. Who will pay for said maintenance?

a. Between the rails and for a distance of two feet outside thereof:

Burlington Northern, Inc.

b. Remainder of crossing area: Klamath County

15. If automatic protective devices are (to be) installed at the crossing, please answer the following:

a. What type of device will be used to activate them?

(Each track at the crossing should be covered in the answer.  
Example: Main track--predictor units; Spur tracks--island circuits.)

Motion Sensors

b. If automatic gates are to be installed, are there any overhead wires or other obstacles which might impair the operation of the gate arm? No

If so, describe the obstacles, identify the owner and make the owner a party of interest in this matter.

16. Upon completion of this project, will it be possible to close any existing grade crossing(s) in the area? No  
(yes/no)

If yes, please identify the crossing(s) to be closed in connection with this project:

(The public authority with jurisdiction over the road at the crossing to be closed should be made a party of interest in the proceeding, if not one already. If it is likely that any party of interest in the closure will object, or that the matter will be decided at a public hearing before the Commissioner, an application for closure should be submitted on PUC Form 203 by completing Sections I, IV, V, and the applicable portions of numbers 11, 12 and 13.)

16. (Continued)

If no, explain why not: No other grade crossings in immediate vicinity.

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17. Other items:

None

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18. Are the maps and drawings required by the Division IV Commissioner's Rules and Regulations attached to this application? Yes - BN Dwg. dtd. 1-26-78

PLEASE FURNISH SUFFICIENT COPIES OF THE APPLICATION AND DRAWINGS TO ENABLE US TO SERVE ALL PARTIES OF INTEREST (INCLUDING STATE HIGHWAY DIVISION, COUNTY, CITY, DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT AND REGIONAL COUNCIL OF GOVERNMENTS) PLUS AN ORIGINAL AND ONE COPY FOR OUR USE.

617

Applicant prays for an order permitting construction in accordance with this application, or for such other and further order as may be proper in the premises.

Dated at Klamath Falls,, Oregon, this 24th day of February, 1978. Klamath County, Oregon  
(Applicant)

BOARD OF COUNTY COMMISSIONERS

Paul Kuonen Harold L. Myrnes Lloyd Giff  
Chairman of the Board County Commissioner County Commissioner

We, Board of County Commissioners, Klamath County, Oregon, being first duly sworn, say that we are the applicants in the within entitled cause, and that the foregoing application is true, as we verily believe.

BOARD OF COUNTY COMMISSIONERS

Paul Kuonen  
CHAIRMAN

Harold L. Myrnes  
COMMISSIONER  
Lloyd Giff  
COMMISSIONER

STATE OF OREGON     )  
County of Klamath    )     ss.

Subscribed and sworn to before me this 24th day of February, 1978.

Virginia Bichey  
(Notary Public for Oregon)

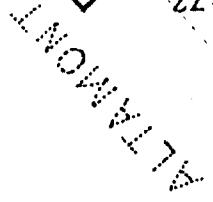
My Commission Expires: September 23, 1980

Exhibit A

PORTLAND DIVISION, 5 SUB. DIV.

SOUTH KLAMATH ORE.

SCALE 1"=100' DATE 1-26-78



90+97 = M.P. 1+4825'  
 & Xing # 66-881 X

Kilmath County,  
Roadway ID. 44499, 5-12-54

90497-FUSILIO CRISTINO-26 RACIOP  
15" culv. with 12" Gole valve 62.1g on R.  
91+22-24" Cor. M. P. 35.1g. N=1.73  
90+68-30" Cor. M. P. 84.1g. N=1.72  
90+40-36" Cor. M. P. 110.1g. N=1.71

U.S. of A. 5-10-44  
Oregon Water Corp.  
6 W. P. 11-22-55  
Klamath Cable TV,  
AH. Hopec. Pw. EL. Co. Poles,  
6762

Install shoulder mounted automatic flashing light signals with 22 gates - side lights in SW quadrant

ANDERSON

ALTAMONT

ANDERSON WAY

28' Rock Fines Drive

Room

DRIVE

16-10-1954  
 16-10-1954

100-443887-100

Clark

gm 78 19 613

February 24, 1978

Mr. Larry Asburry  
Regional Federal Aid Engineer  
Oregon State Highway Division  
P.O. Box 1249  
Bend, OR 97701

Dear Mr. Asburry:

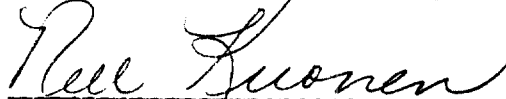
We, the Board of Commissioners and the Department of Public Works have reviewed the plans for the S. 6th Street-Eastside By-Pass Section of F.A.U. 2298 (Shasta Way).

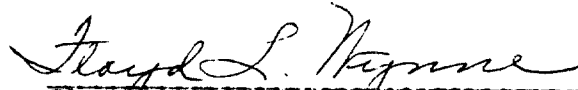
The Public Works Department recommends that on sheet 6, item 23, the 36 inch pipe be enlarged to a 48 inch pipe. We question item 20 on the same sheet. On sheet 7, item 7, we request the existing structure be salvaged.

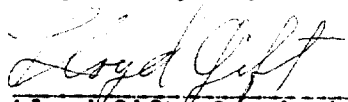
Thank you for the opportunity to review the plans.

Sincerely yours,

BOARD OF COUNTY COMMISSIONERS

  
Neil Kuonen, Chairman

  
Floyd L. Wynne, Commissioner

  
Lloyd Gift, Commissioner

| INDEX OF SHEETS |                  |
|-----------------|------------------|
| SHEET NO.       | DESCRIPTION      |
| 1               | Title Sheet      |
| 2               | Typical Sections |
| 2A              | Details          |
| 2B 2B2          | Pipe Data        |
| 2C              | Signing          |
| 2D              | Summary          |
| 3-7 Incl        | Plan & Profile   |

} Not Incl.

STAT  
STATE HI

PLANS F

S. 6<sup>TH</sup> ST. - E. SIDE BY

FAU 2

Note -  
Temp Prot & Direction of  
Traffic To Be Written In Spacs

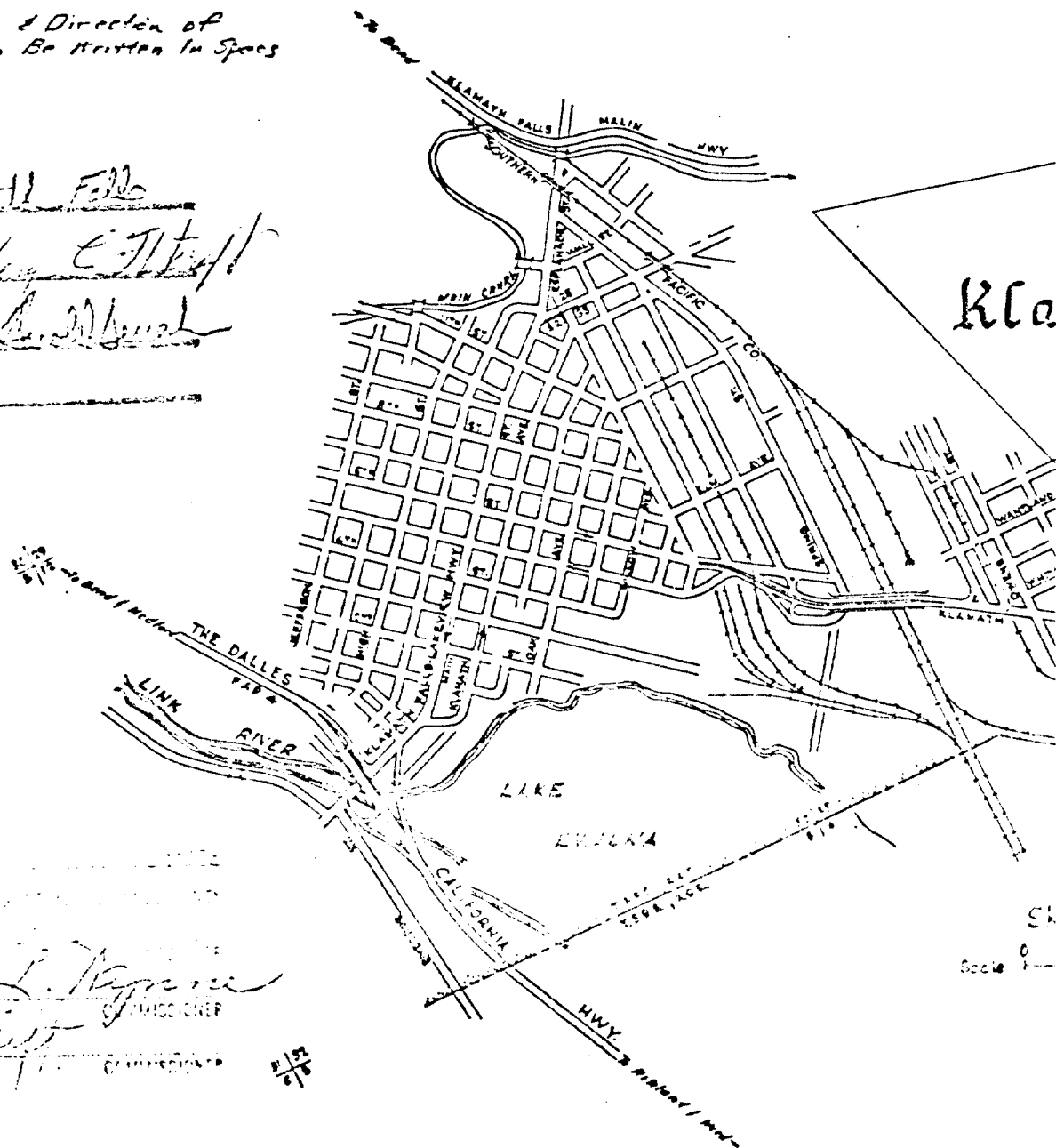
APPROVED

CITY OF Donnell Falls

BY MAYOR Lee E. Threlk

BY RECORDER W. W. Wood

DATE 1-20-28



Frank L. Kyrre  
COMMISSIONER

OF OREGON  
WAY DIVISION

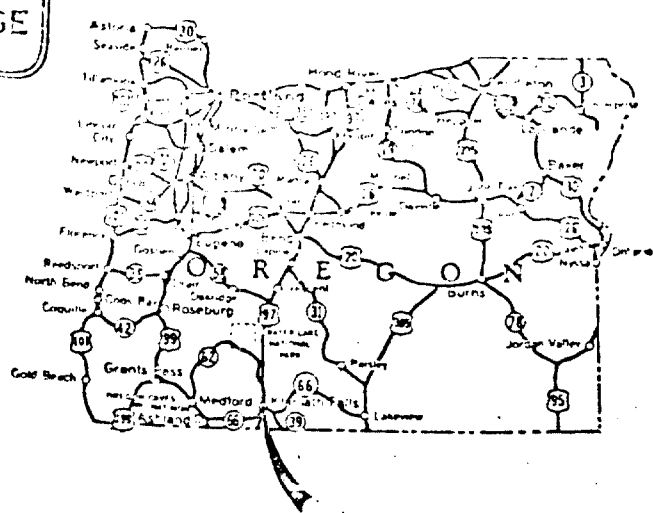
PROPOSED PROJECT

SS (KLAMATH FALLS) SEC.  
(SHASTA WAY)  
TH COUNTY

PRELIMINARY COPY  
DEC 12 1977  
SUBJECT TO CHANGE  
FINAL DESIGN UNIT

| S 6TH ST. - E. SIDE BYPASS (KLAMATH FALLS) SEC.<br>FAU 2298 (SHASTA WAY)<br>KLAMATH COUNTY |        |                   |                | SHEET<br>No. 1  |
|--------------------------------------------------------------------------------------------|--------|-------------------|----------------|-----------------|
| FED. ROAD<br>Dist. No.                                                                     | STATE  | PROJECT<br>NUMBER | FISCAL<br>YEAR | TOTAL<br>SHEETS |
| 10                                                                                         | OREGON |                   |                | See<br>Index    |

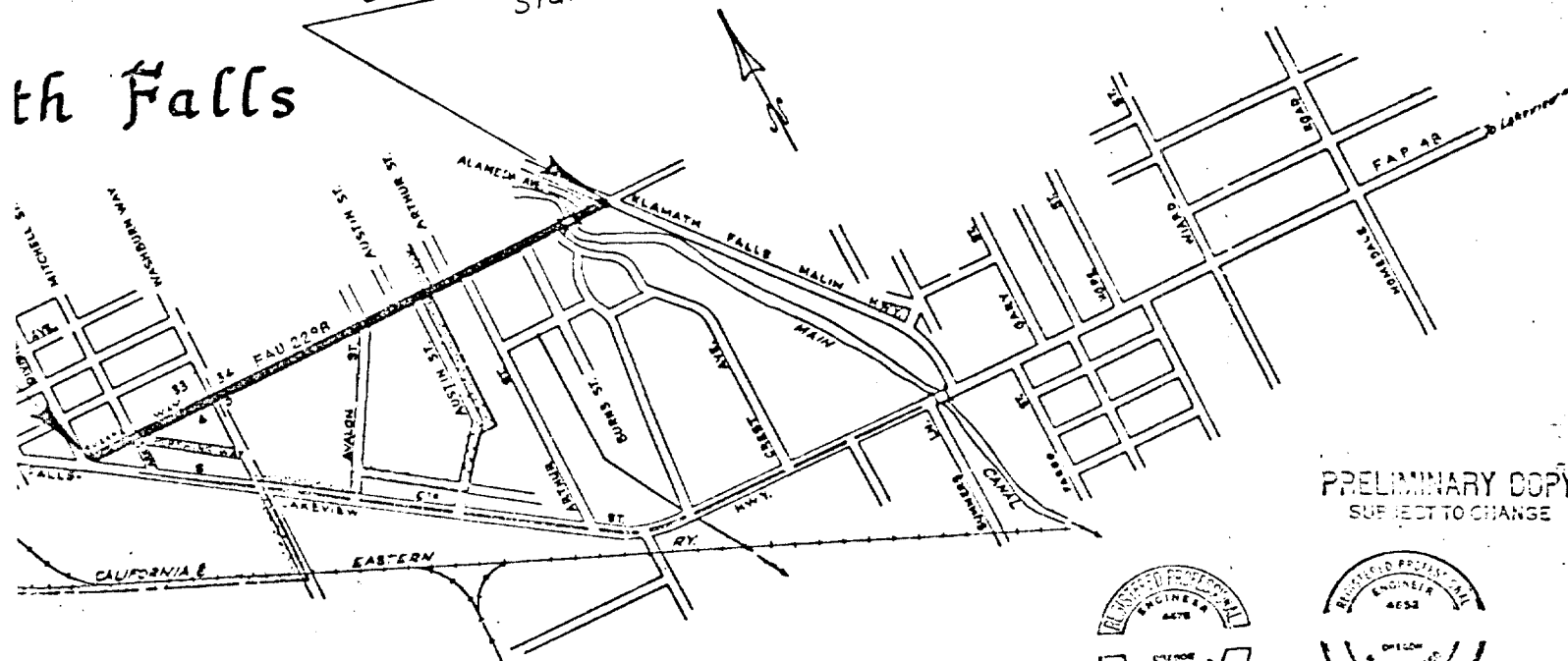
FAU



GINNING OF PROJECT  
Sta. 2+20

END OF PROJECT  
Sta. 52+64

th Falls



PRELIMINARY COPY  
SUBJECT TO CHANGE



H S Coulter

STATE HIGHWAY ENGINEER

E S Hunter

TECHNICAL SERVICES ENGINEER

Map  
1600  
Feet

OREGON TRANSPORTATION COMMISSION

Glenn L. Jackson  
Gordon Coleman  
Michael P. Hollern  
Peter J. Brix  
Tom Walsh  
Robert A. Burco  
Fred B. Klabor

CHAIRMAN  
COMMISSIONER  
COMMISSIONER  
COMMISSIONER  
COMMISSIONER  
DIRECTOR OF TRANSPORTATION  
ASSISTANT DIRECTOR FOR OPERATIONS

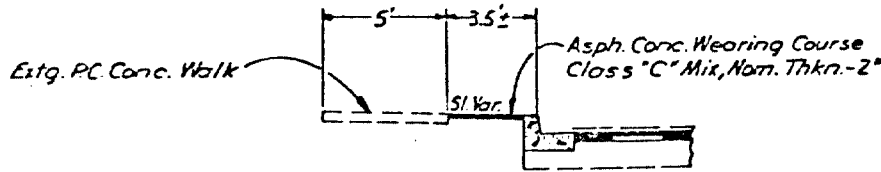
DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

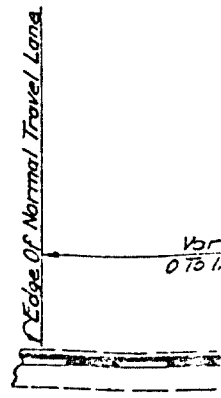
SUBJECT ENGINEER: \_\_\_\_\_

# TYPICAL

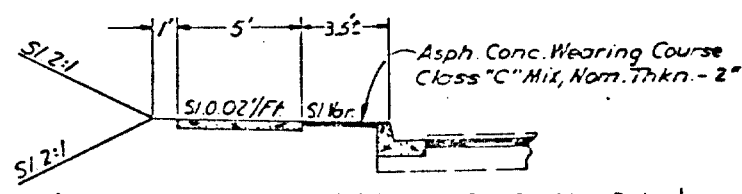
R/W Map 9B-15-12



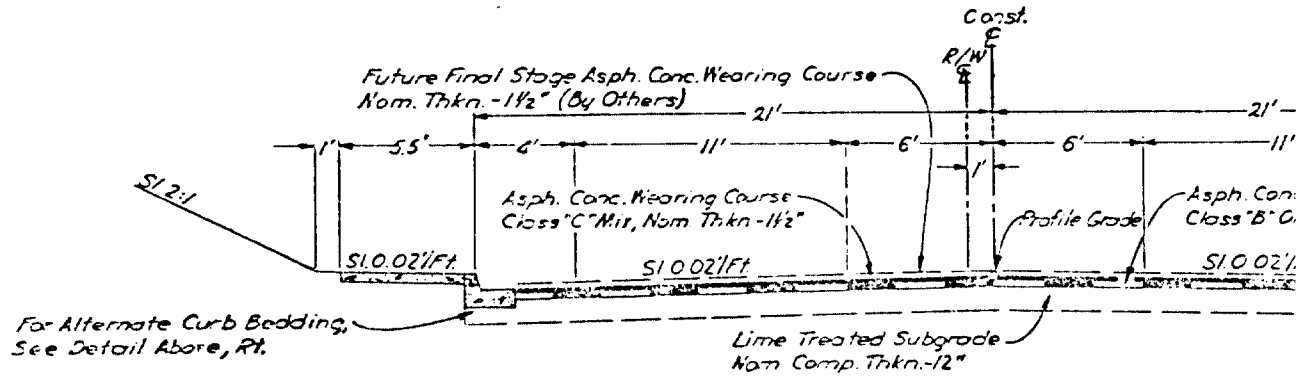
(For Surfacing Details Not Shown, See Section Below)  
STA. 3+55 To STA. 6+52



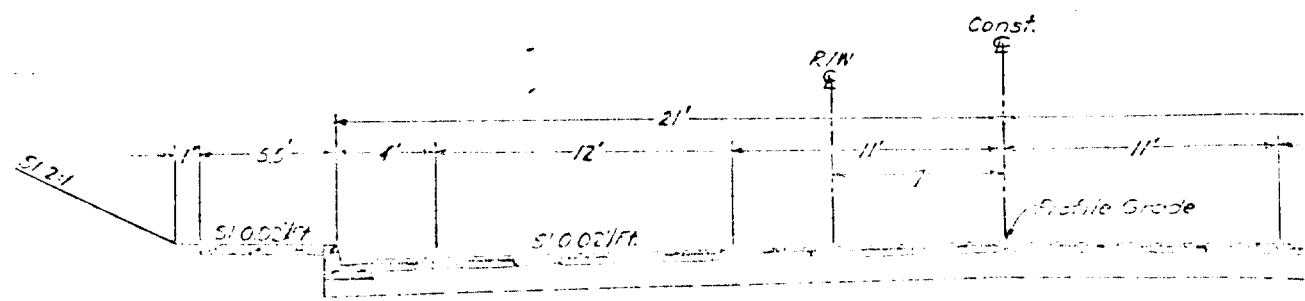
(For Surfacing Details Not Shown, See Section Below)  
STA. 6+52 To STA. 7+70



(For Surfacing Details Not Shown, See Section Below)  
STA. 2+20 To STA. 3+55, Lt.  
6+52 To 7+70, Lt.



STA. 2+20 To STA. 15+10  
35+00 To 52+64



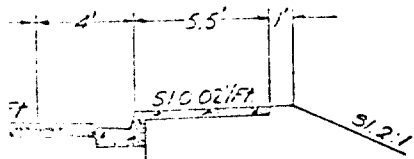
(For Surfacing Details Not Shown, See Section Above)

STA. 15+70 To STA. 33+80  
33+80 To 35+00 (To)

Cole, Haynes, Wetzol

## S E C T I O N S

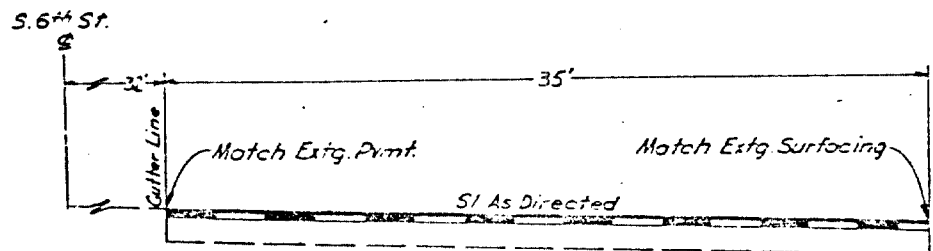
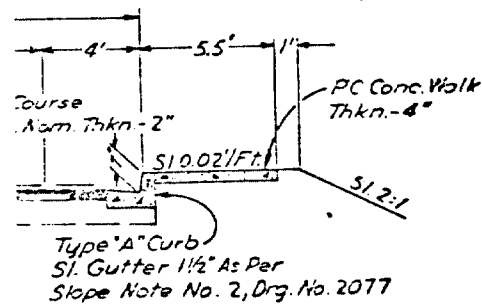
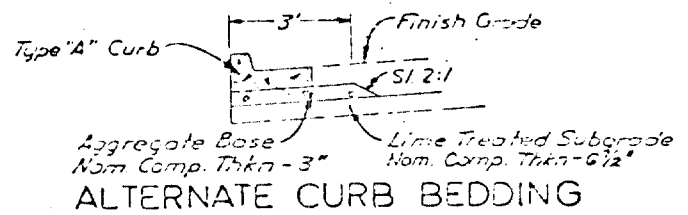
| S 6 <sup>TH</sup> ST. - E SIDE BYPASS (KLAMATH FALLS) SEC. FAU 2298 (SHASTA WAY) KLAMATH COUNTY |        |                |             | SHEET No. 2  |
|-------------------------------------------------------------------------------------------------|--------|----------------|-------------|--------------|
| FED. ROAD Dist. No.                                                                             | STATE  | PROJECT NUMBER | FISCAL YEAR | TOTAL SHEETS |
| 10                                                                                              | OREGON |                |             | See Index    |



Not Shown, See Section Below)

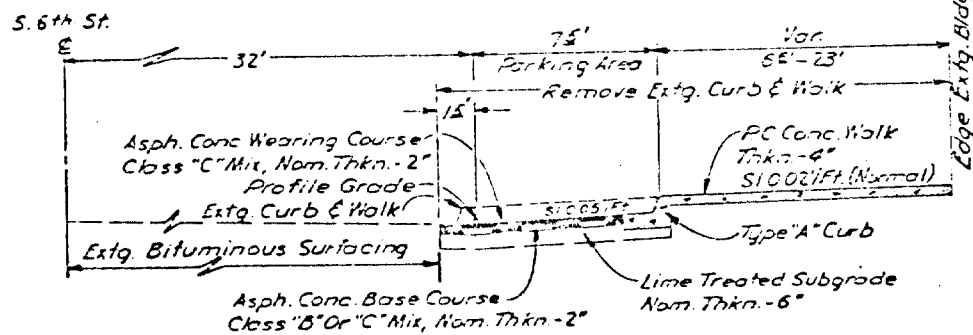
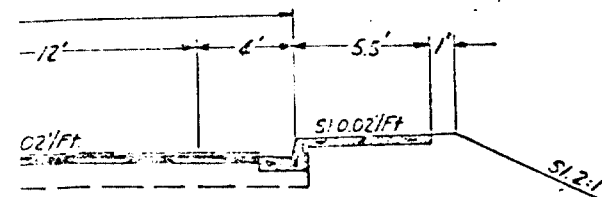
## TURN LANE

- 0 To STA. 17+85
- 0 To 20+25 (Taper Section) Lt.
- 0 To 51+00 (Taper Section) Rt.
- 0 To 52+45



(For Location, See Sht. 3)  
(For Surfacing Details Not Shown, See Section Lt.)

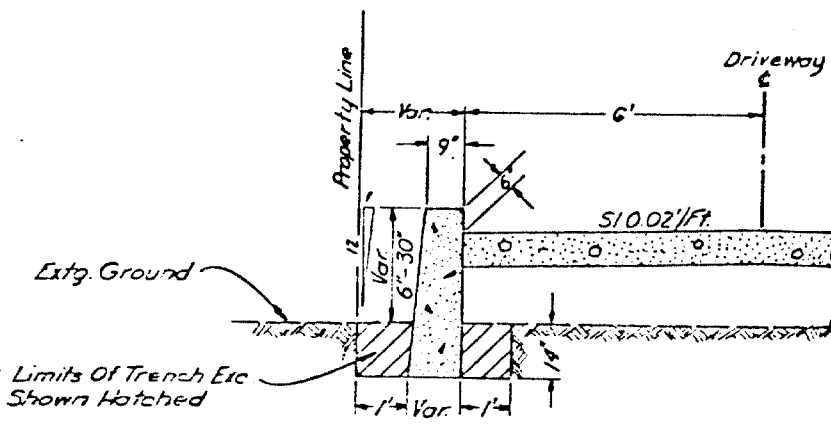
## SECTION A-A



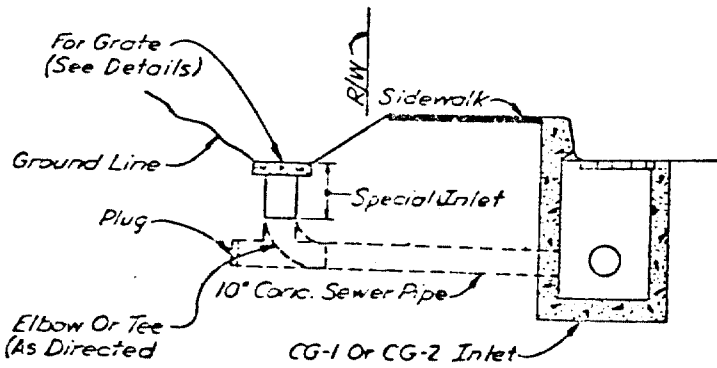
(For Location, See Sht. 3)

S. 6th STREET  
STA. 63+37 TO STA. 65+35

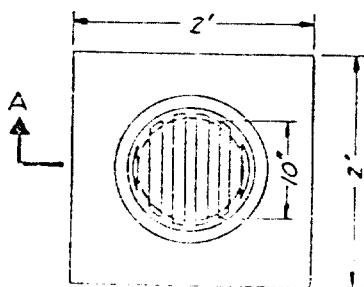
Section)



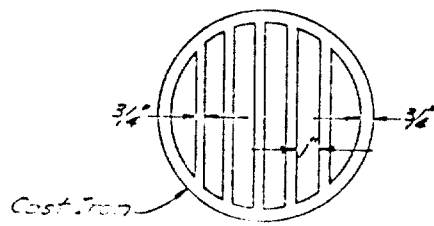
RETAINING WALL SECTION  
FOR DRIVEWAY AT STA. 40+85 (Rt.)



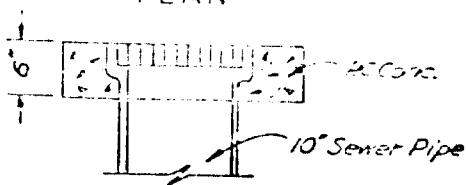
SPECIAL INLET



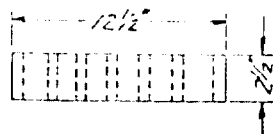
PLAN



PLAN VIEW



SECTION A-A



SIDE VIEW

SPECIAL INLET GRATE

(Dimensions May Vary To Allow Use Of  
Standard Commercial Product)

GENERAL NOTES

1. A check (w) indicates column heading applies
2. A new pipe culvert installation shall be of like material throughout
3. Extension of existing metal culverts may be of unlike metal or corrugations. For connecting details, see standard detg 2091-B
4. Dimensions shown are nominal
5. Corrugation dimensions shown are nominal for commonly corrugated metal pipe. Variable helical corrugation dimensions and the permissible tolerances for both corrugation ends shall conform to the AASHTO specification for the type of material and the diameter of pipe involved.

## FOOTNOTES

- ① Cross-sectional dimensions shown are for galvanized iron or steel. Where aluminum is an acceptable alternate material, the applicable dimensions will be shown in the "Remarks" column thus: span a rise (corner rod).
- ② See Sec 60339 Standard Specifications.
- ③ Cross-sectional shape of pipe, normal to longitudinal axis, with minimum cover.  
A = Arch Type  
R = Round  
E = Elliptical (5% nominal elongation by shop fabrication, strutting or full-time monitored backfill compaction.)
- ④ Types of metal pipe coatings  
Type A = Asphalt coated  
Type C = Asphalt coated with paved invert.  
Type D = Asphalt coated and fully lined.  
For further details, refer to Standard Specifications, sub-section 707.03.

- ⑤ Minimum allowable diameter for Class I nonreinforced pipe is 15 inches.

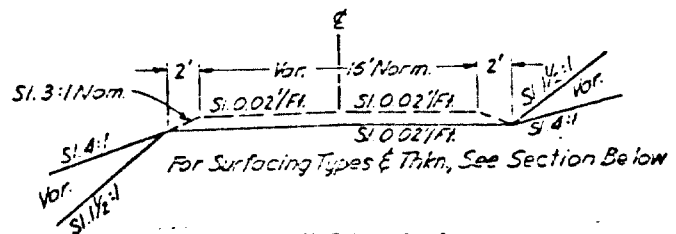
- ⑥ Design height of cover shall be measured to subgrade.

- ⑦ Pipe material abbreviations

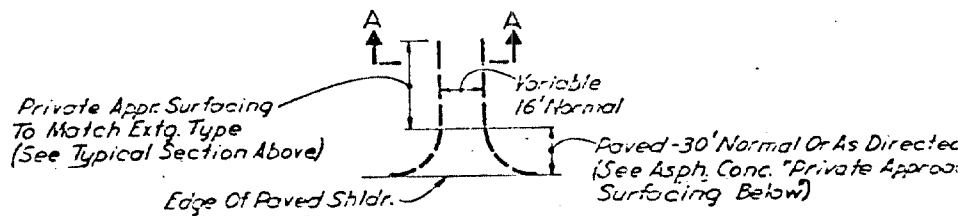
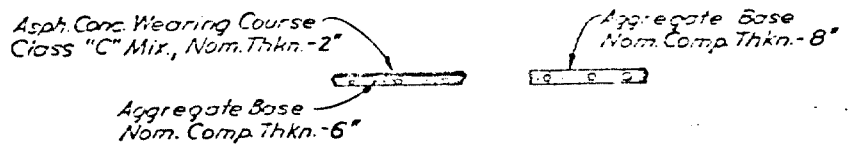
- |      |                              |            |
|------|------------------------------|------------|
| CA   | - Corrugated                 | } Aluminum |
| CAA  | - Corrugated pipe arch       |            |
| PA   | - Perforated                 |            |
| CS   | - Corrugated                 |            |
| CSA  | - Corrugated pipe arch       | } Steel    |
| PS   | - Perforated                 |            |
| NC   | - Nonreinforced              | } Concrete |
| RC   | - Reinforced                 |            |
| CIPC | - Cast-in-place              |            |
| PC   | - Perforated                 |            |
| PAC  | - Perforated asbestos cement |            |

[illegible]

| S. 6 <sup>TH</sup> ST. - E. SIDE BYPASS (KLAMATH FALLS) SEC. 2A |        |                   |                | SHEET<br>No. 2A |
|-----------------------------------------------------------------|--------|-------------------|----------------|-----------------|
| FAU 2298 (SHASTA WAY)<br>KLAMATH COUNTY                         |        |                   |                |                 |
| FED. ROAD<br>Dist. No.                                          | STATE  | PROJECT<br>NUMBER | FISCAL<br>YEAR | TOTAL<br>SHEETS |
| 10                                                              | OREGON |                   |                | See<br>Index    |



SECTION A-A

PLAN  
APPROACH

ASPHALT CONC. GRAVEL

PRIVATE APPROACH SURFACING

GENERAL NOTES

1. A check (✓) indicates column heading applies.
2. A new pipe culvert installation shall be of like material throughout.
3. Extension of existing metal culverts may be of unlike metal or corrugations. For connecting details, see standard dwg. 2091-B.
4. Dimensions shown are nominal.
5. Corrugation dimensions shown are nominal for annularly corrugated metal pipe. Variable vertical corrugation dimensions and the permissible tolerances for both corrugation ends shall conform to the AASHTO specification for the type of material and the diameter of pipe involved.

FOOTNOTES

- ① Cross-sectional dimensions shown are for galvanized iron or steel. Where aluminum is an acceptable alternate material, the applicable dimensions will be shown in the "Remarks" column thus: span a rise (corner radii).
- ② See Sec 603.39 Standard Specifications.
- ③ Cross-sectional shape of pipe, normal to longitudinal axis, with minimum cover:  
A = Arch Type  
R = Round  
E = Elliptical (5% nominal elongation by shop fabrication, strutting or split-plate monitored backfill compaction).
- ④ Types of metal pipe coatings:  
Type A = Asphalt coated  
Type C = Asphalt coated with paved invert.  
Type D = Asphalt coated and fully lined.  
For further details, refer to Standard Specifications, sub-section 707.03.

- ⑤ Minimum allowable diameter for Class I nonreinforced pipe is 15 inches.
- ⑥ Design height of cover shall be measured to topgrade.
- ⑦ Pipe material abbreviations:  
CA = Corrugated  
CAA = Corrugated pipe arch } Aluminum  
PA = Perforated  
CS = Corrugated  
CSA = Corrugated pipe arch } Steel  
PS = Perforated  
NC = Nonreinforced  
RC = Reinforced  
C/PC = Cast-in-place  
PC = Perforated  
PAC = Perforated asbestos cement

| GAGE |
|------|
| 18   |
| 16   |
| 14   |
| 12   |
| 10   |
| 8    |

| SHEET NO. | NOTE REFERENCE NO.<br>[AS SHOWN OR PLANS] | DESIGN HEIGHT OF COVER (ft) | PIPE                   |    |    |    |    |    |  |  |  |  | USE/INSTALLATION CRITERIA  |      |      |               |        |        |               |        |      |      | TERMINAL TREATMENT |      |      |      | ANNULAR OR ALUM |      |      |      |      |  |  |
|-----------|-------------------------------------------|-----------------------------|------------------------|----|----|----|----|----|--|--|--|--|----------------------------|------|------|---------------|--------|--------|---------------|--------|------|------|--------------------|------|------|------|-----------------|------|------|------|------|--|--|
|           |                                           |                             | CIRCULAR OR ELLIPTICAL |    |    |    |    |    |  |  |  |  | ARCH TYPE                  |      |      |               |        |        |               |        |      |      | METAL PIPE         |      |      |      | RIGID PIPE      |      |      |      |      |  |  |
|           |                                           |                             | SIZE IN INCHES         |    |    |    |    |    |  |  |  |  | CROSS SECTIONAL DIMENSIONS |      |      |               |        |        |               |        |      |      | WATER TIGHT JOINTS |      |      |      | SLOPE ANCHORS   |      |      |      |      |  |  |
|           |                                           |                             | 5                      | 10 | 12 | 15 | 24 | 36 |  |  |  |  | SIZE                       | SPAN | RISE | CORNER RADIUS | LENGTH | INCHES | FEET - INCHES | INCHES | FEET | FEET | FEET               | FEET | FEET | FEET | FEET            | FEET | FEET | FEET | FEET |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
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|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
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|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
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|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
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|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
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|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
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|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
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|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
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|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
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|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |
|           |                                           |                             |                        |    |    |    |    |    |  |  |  |  |                            |      |      |               |        |        |               |        |      |      |                    |      |      |      |                 |      |      |      |      |  |  |

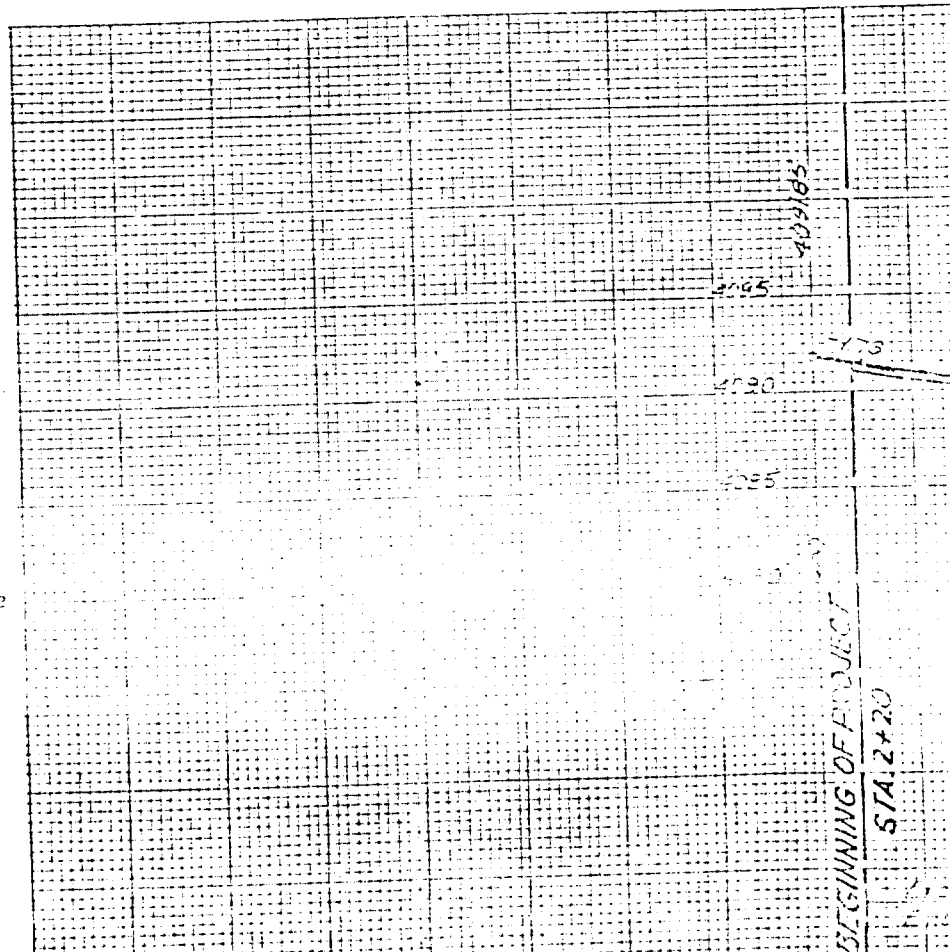
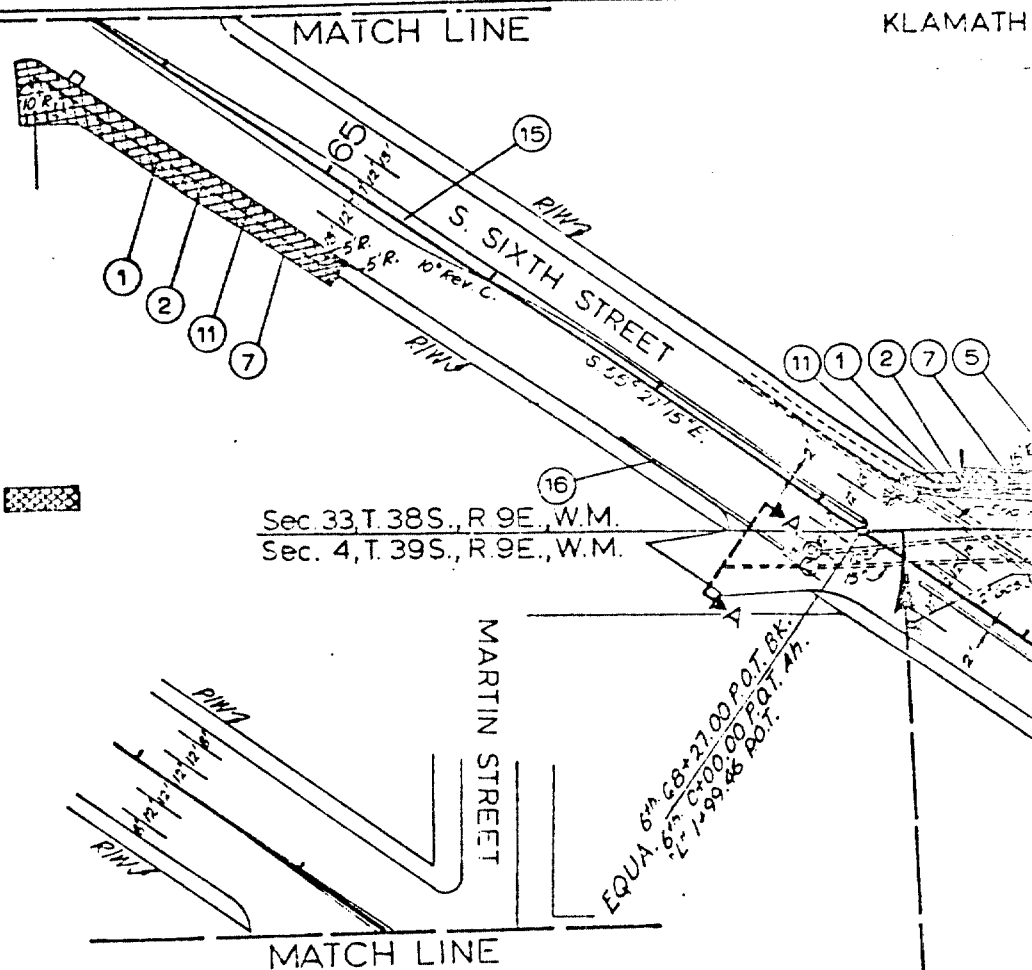
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|--------------------------------------------------------|--------|----------------|-------------|--------------|
| S. 6TH ST. ~ E. SIDE BYPASS (KLAMATH FALLS), SEC. 2B-2 |        |                |             | SHEET NO.    |
| FAU 2298 (SHASTA WAY)<br>KLAMATH COUNTY                |        |                |             |              |
| FED. ROAD DIST. NO.                                    | STATE  | PROJECT NUMBER | FISCAL YEAR | TOTAL SHEETS |
| 10                                                     | OREGON |                |             | See Index    |

# PIPE DATA SHEET

| GAGE | GALV. IRON & STEEL  | ALUMINUM |
|------|---------------------|----------|
|      | THICKNESS IN INCHES |          |
| 18   | 0.052               | 0.048    |
| 18   | 0.064               | 0.060    |
| 14   | 0.079               | 0.075    |
| 12   | 0.109               | 0.105    |
| 10   | 0.138               | 0.135    |
| 8    | 0.168               | 0.164    |

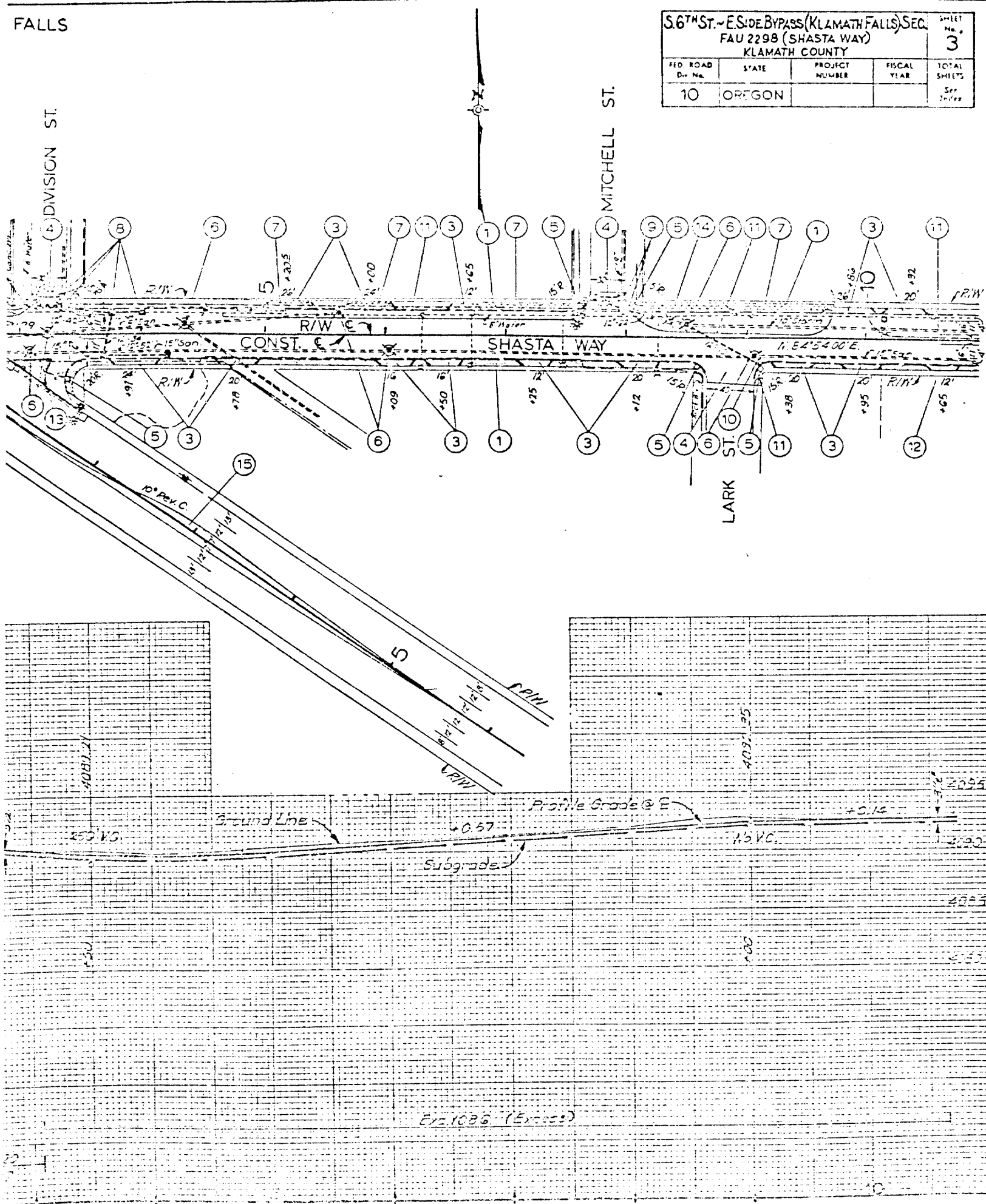
[illegible]

- ① Const. PC Conc. Walk
- ② Const. Type "A" Curb
- ③ Const. Type "A" Driveways-13 (Total)  
Drg. No. 2077
- ④ Const. Street Connections-3 (Total)
- ⑤ Const. Sidewalk Ramps-7 (Total)
- ⑥ Adjust. Manholes-7 (Total)
- ⑦ Remove Conc. Walks Shown Thus 
- ⑧ Sta. 3+38  
Remove Inlet  
Const. Manhole  
Const. Type "CG-1" Inlets-6 (Total)  
Inst. 12" Sewer Pipe-178' (Total)  
Tr. Exc. 80 C.Y.
- ⑨ Sta. 8+00  
Remove Inlet  
Const. Manhole  
Const. Type "CG-1" Inlets-3 (Total)  
Inst. 12" Sewer Pipe-46' (Total)  
Tr. Exc. 22 C.Y.
- ⑩ Const. Type "CG-1" Inlet  
Inst. 12" Sewer Pipe-70'  
Tr. Exc. 35 C.Y.
- ⑪ Remove Curbs
- ⑫ Const. Type "A" Driveway  
See Sheet 4, Note 3
- ⑬ Const. Type "C-1" Conc. Island  
Drg. No. 2077
- ⑭ Remove Inlet  
Inst. 10" Sewer Pipe-4'  
Tr. Exc. 1 C.Y.
- ⑮ Painted Traffic Markers (By Office)
- ⑯ Sta. 0+00 To Sta. 6+00  
Place Buffer Gravel To Provide Drainage  
As Directed  
Class "C" Mix-2100s

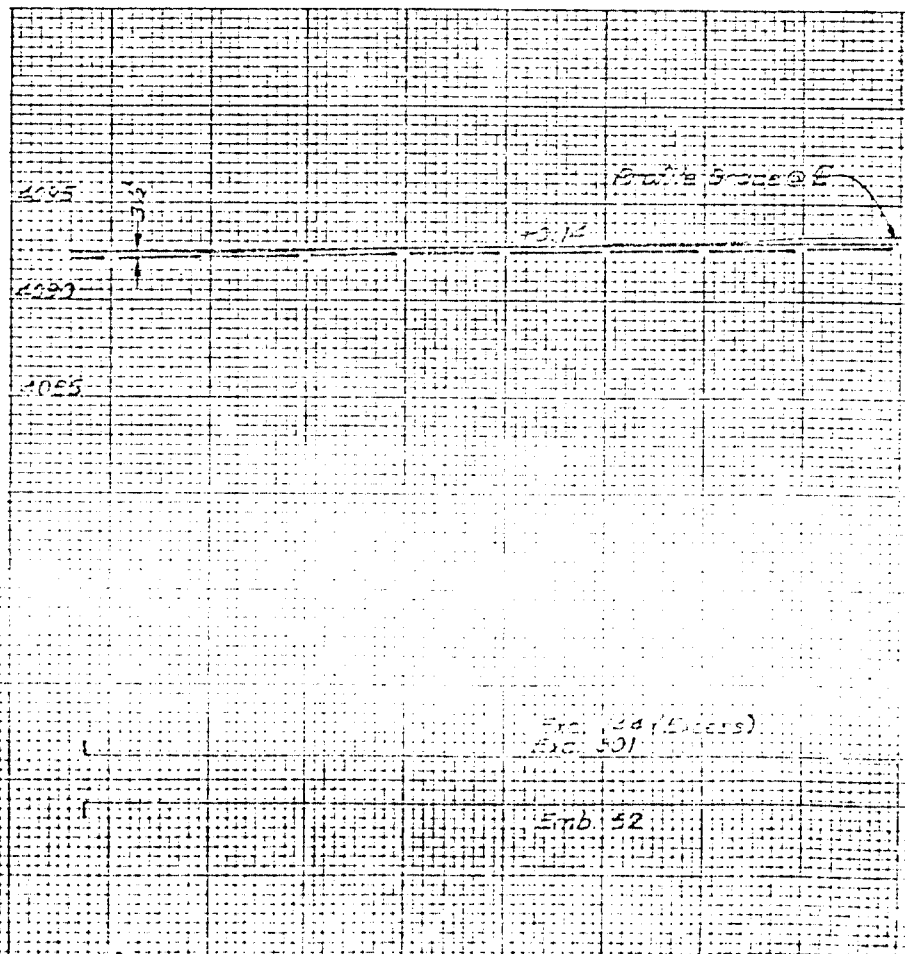
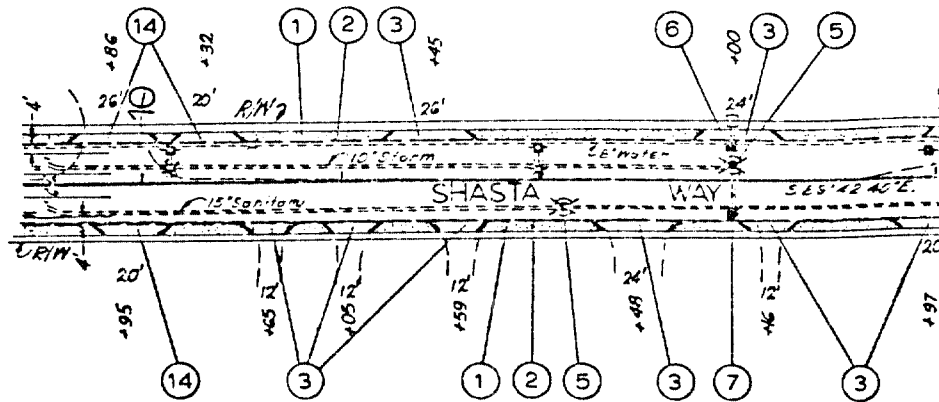


651

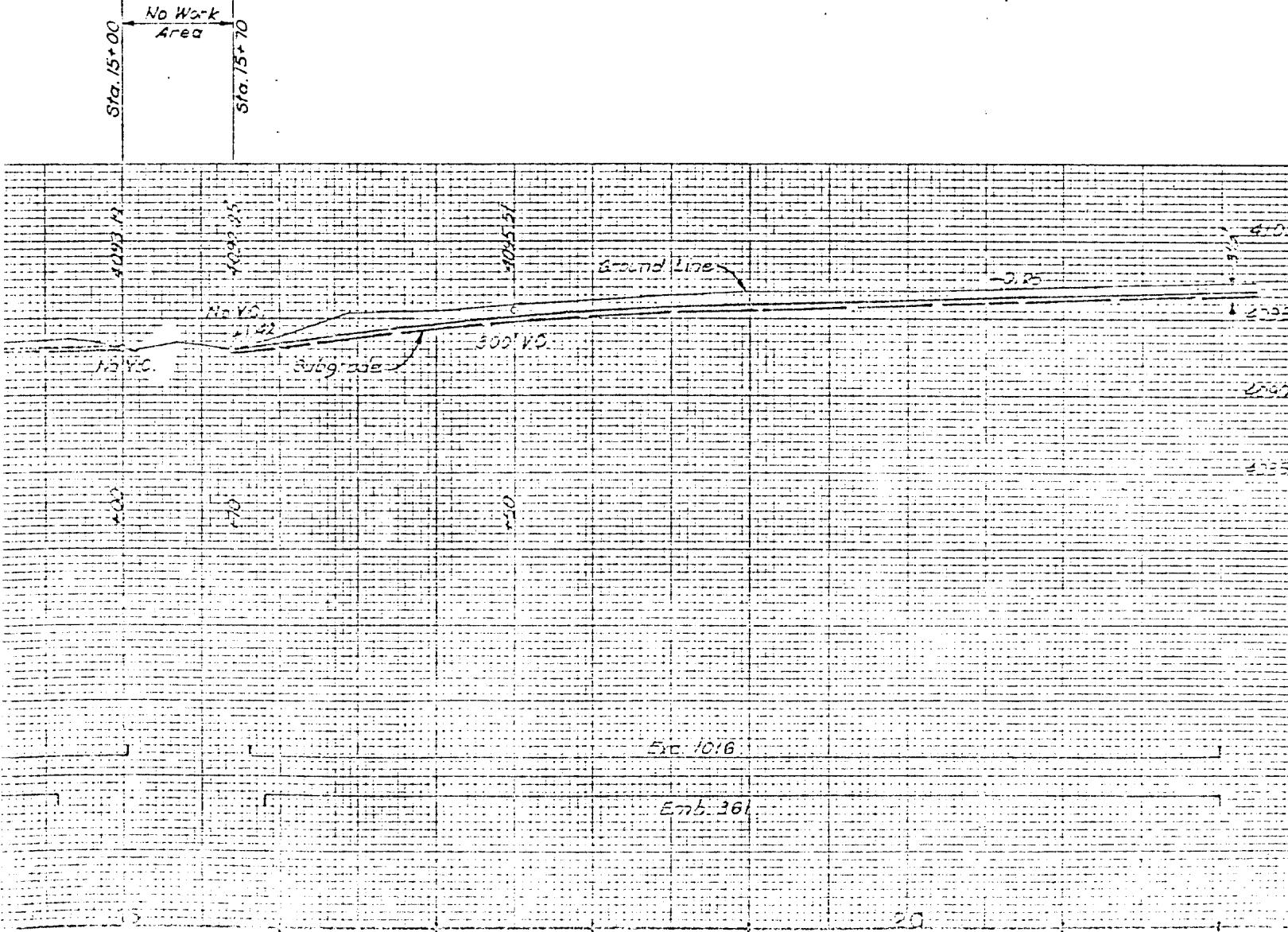
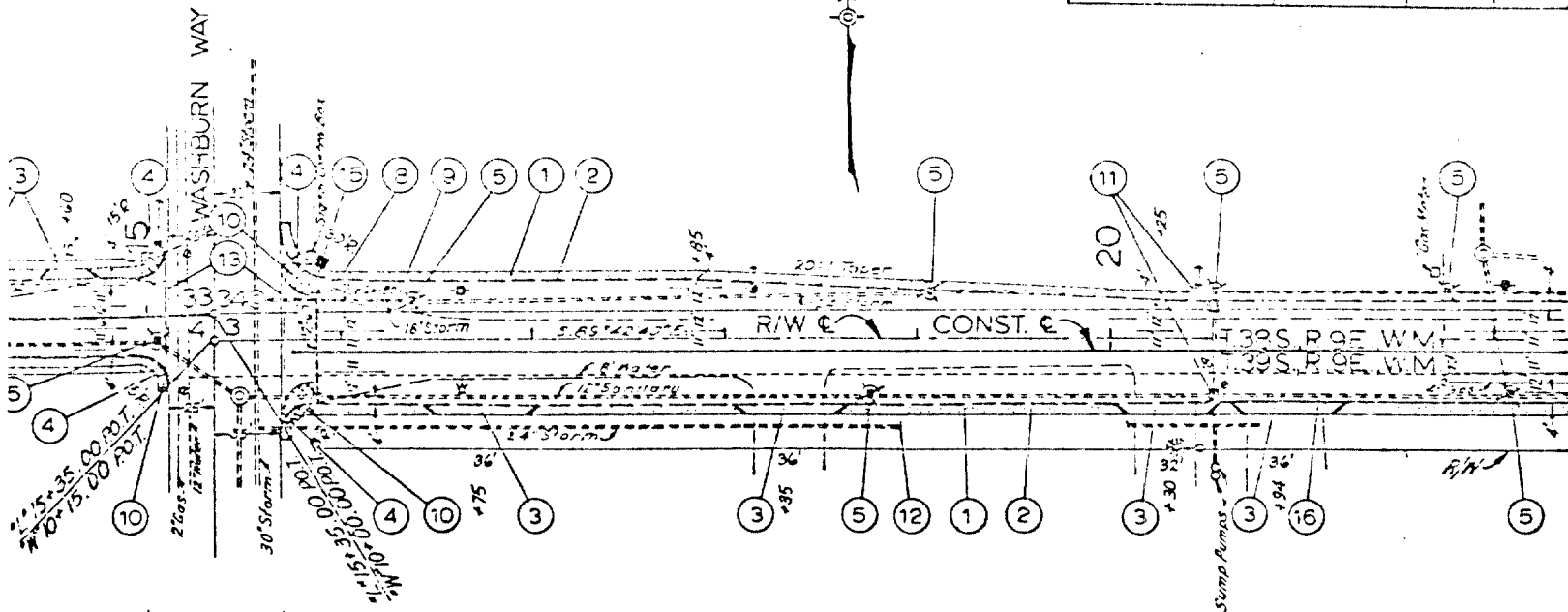
|                                                 |        |                   |                |                 |
|-------------------------------------------------|--------|-------------------|----------------|-----------------|
| S.6TH ST. ~ E. SIDE BYPASS (KLAMATH FALLS) SEC. |        |                   |                | SHEET<br>No.    |
| FAU 2298 (SHASTA WAY)                           |        |                   |                | 3               |
| KLAMATH COUNTY                                  |        |                   |                |                 |
| FED. ROAD<br>Dist. No.                          | STATE  | PROJECT<br>NUMBER | FISCAL<br>YEAR | TOTAL<br>SHEETS |
| 10                                              | OREGON |                   |                | See<br>Index    |



- ① Const. P.C. Conc. Walk
- ② Const. Type "A" Curb
- ③ Const. Type "A" Driveways - 14 (Total)
- ④ Const. Sidewalk Ramps - 4 (Total)
- ⑤ Adjust Manholes - 9 (Total)
- ⑥ Sta. 12+98 (Lt.)  
Const. Type "G-1" Inlet
- ⑦ Sta. 12+98 (Rt.)  
Const. Type "CG-1" Inlet
- ⑧ Sta. 15+86  
Const. Type "CG-1" Inlets - 2 (Total)  
Inst. 12" Sewer Pipe - 60'  
Tr. Exc. 21 C.Y.
- ⑨ Sta. 15+55 To Sta. 16+38  
Remove Extg. 18" Sewer Pipe - 80'  
Inst. 24" Sewer Pipe - 80'  
Under Prmt. - 20'
- ⑩ Remove Conc. Curb & Walks Shown Thus 
- ⑪ Sta. 20+54  
Remove Inlet Rt.  
Const. Type "CG-1" Inlets - 2 (Total)
- ⑫ Plug Extg. 24" C.M.P.
- ⑬ Remove Conc. Gutter
- ⑭ Const. Type "A" Driveways  
See Sheet 3, Note 3
- ⑮ Sta. 15+86  
Const. Special Inlet  
Inst. 10" Sewer Pipe - 6'  
Tr. Exc. 2 C.Y.
- ⑯ Sta. 20+45 To Sta. 22+00  
Remove Curb



| S 6 <sup>TH</sup> ST. - E SIDE BYPASS (KLAMATH FALLS) SEC. 4 |        |                |             |              |
|--------------------------------------------------------------|--------|----------------|-------------|--------------|
| FAU 2298 (SHASTA WAY) KLAMATH COUNTY                         |        |                |             |              |
| FED. ROAD Div. No.                                           | STATE  | PROJECT NUMBER | FISCAL YEAR | TOTAL SHEETS |
| 10                                                           | OREGON |                |             | See Index    |



- ① Const. P.C. Conc. Walk
- ② Const. Type "A" Curb
- ③ Const. Type "A" Driveways - 10 (Total)
- ④ Const. Type "A" (AM) Driveways - 2 (Total)

- ⑤ Const. Sidewalk Ramps - 7 (Total)

- ⑥ Const. Street Connections - 4 (Total)

Sec. 34, T. 38 S., R. 9 E., W. 1 M.

Sec. 3, T. 39 S., R. 9 E., W. 1 M.

- ⑦ Adjust Manholes - 10 (Total)

- ⑧ Sta. 25+75  
Const. Type "CG-1" Inlets - 2 (Total)  
Inst. 12" Sewer Pipe - 52' (Total)  
Tr. Exc. 24 C.Y.

- ⑨ Sta. 29+11  
Const. Type "CG-1" Inlets - 2 (Total)

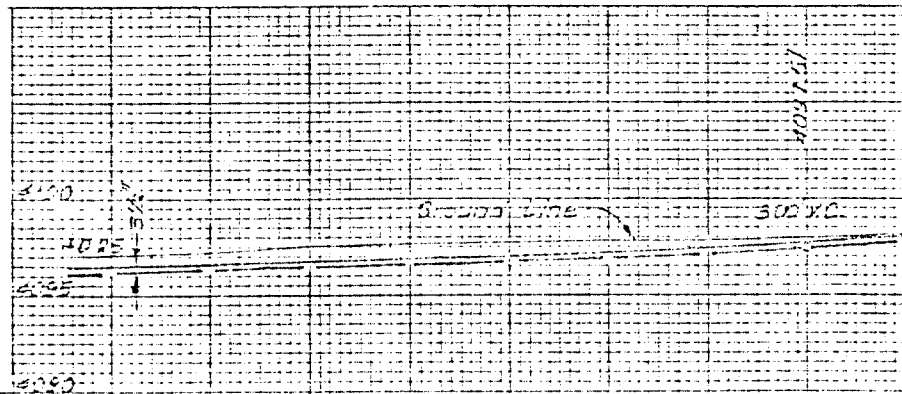
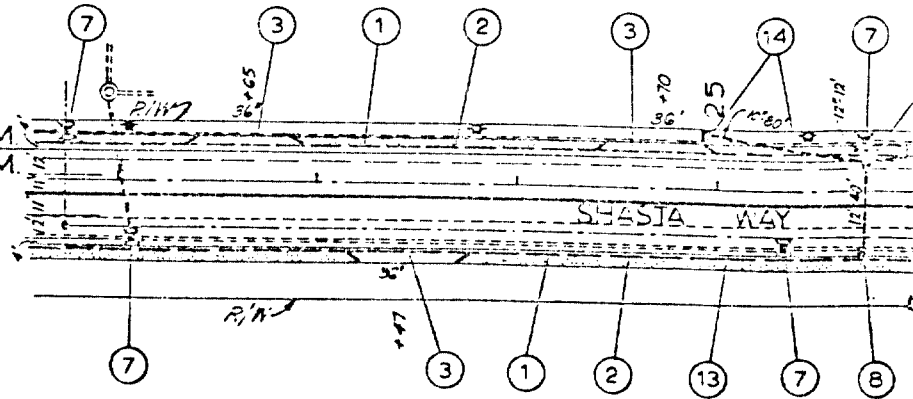
- ⑩ Const. Type "D" Inlets - 2 (Total)  
Inst. 12" Sewer Pipe - 50' (Total)  
Under Pmt. - 24'  
Tr. Exc. 22 C.Y.

- ⑪ Remove Type "D" Inlets - 2 (Total)

- ⑫ Sta. 52+00 To Sta. 54+70  
Const. Type "CG-1" Inlet  
Inst. 15" Sewer Pipe - 270' (Total)  
Tr. Exc. 135 C.Y.

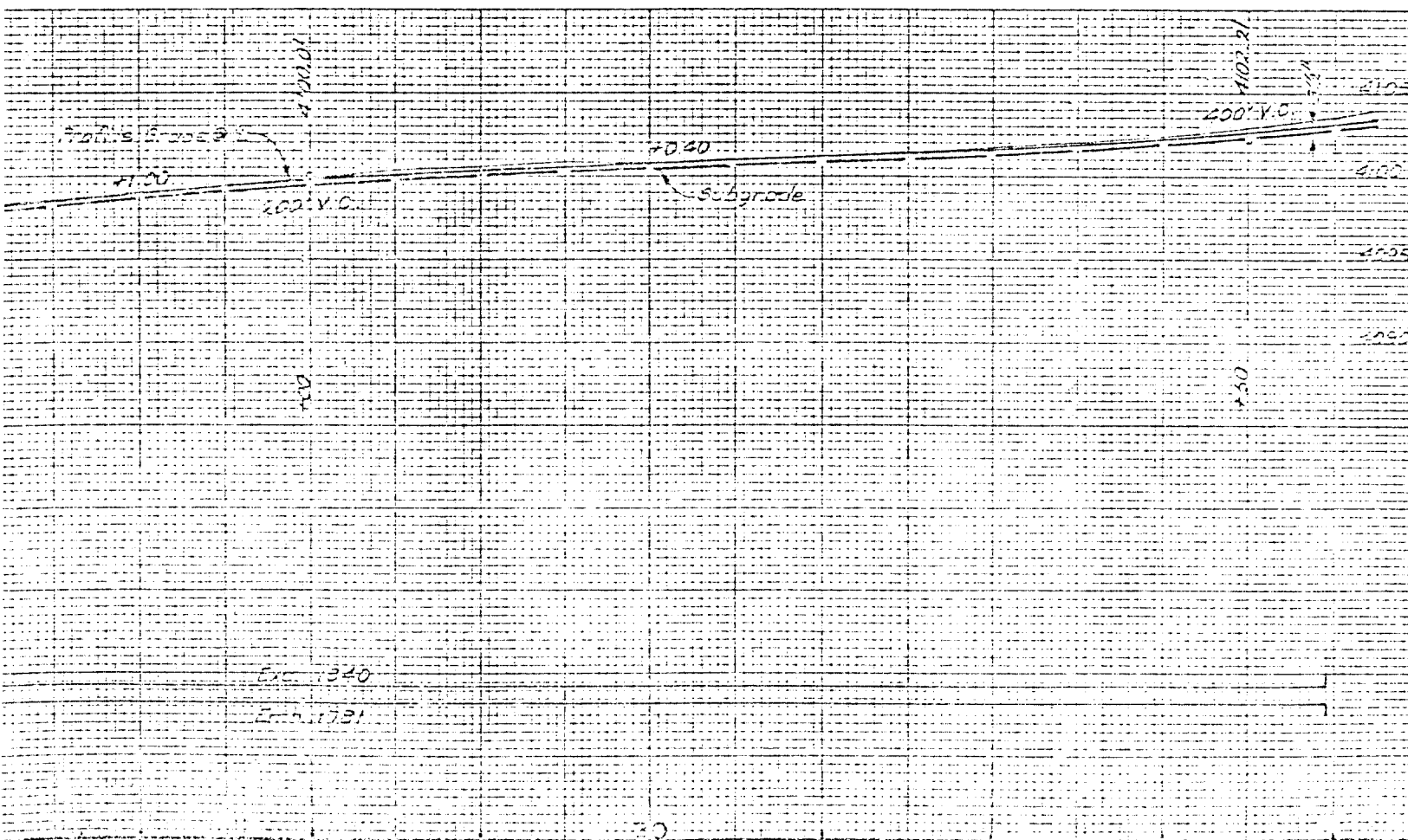
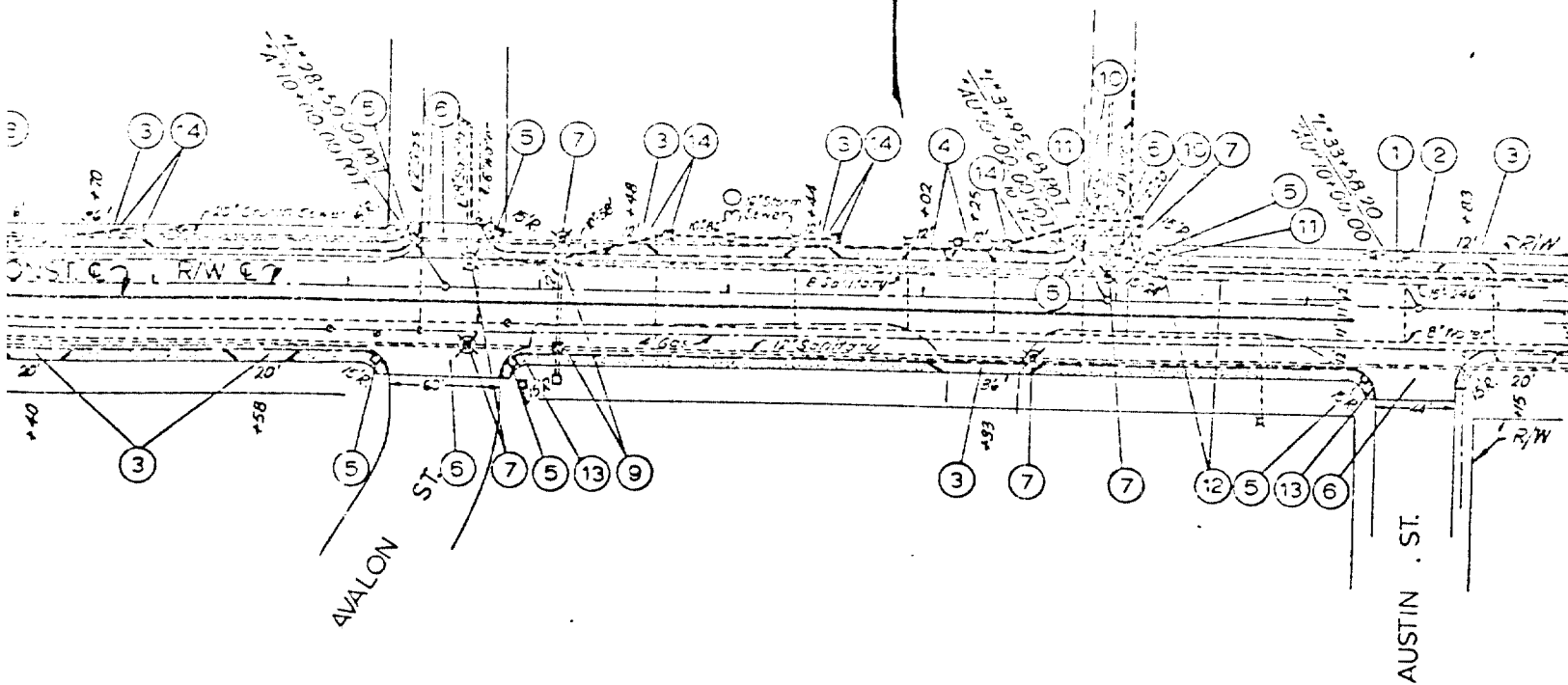
- ⑬ Sta. 22+00 To Sta. 25+25  
Remove Curb

- ⑭ Const. Special Inlets - 5 (Total)  
Inst. 10" Sewer Pipe - 362' (Total)  
Tr. Exc. 153 C.Y.



H FALLS

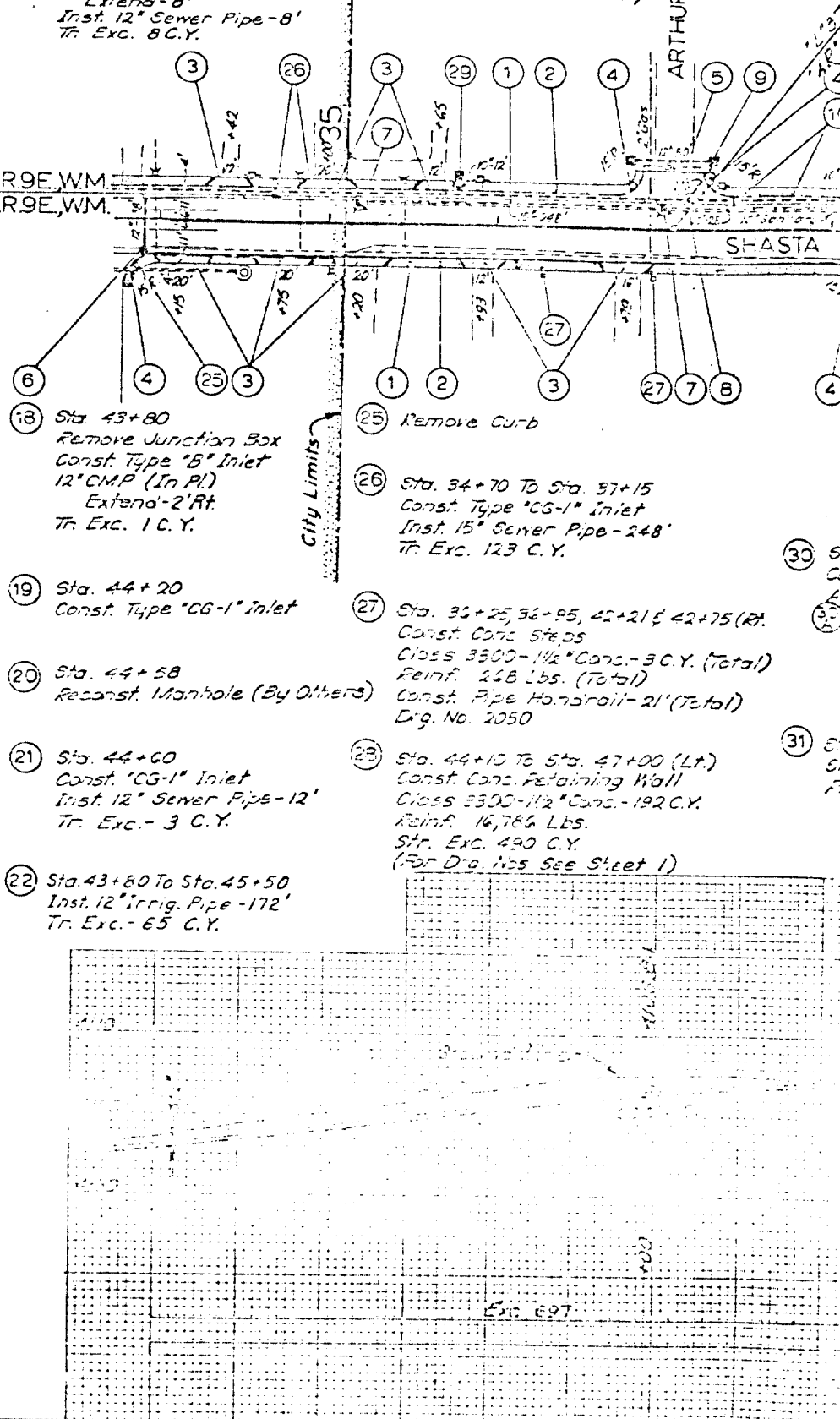
| S. 6 <sup>TH</sup> ST. - E. SIDE BYPASS (KLAMATH FALLS) SEC. 5 |        |                |             |              |
|----------------------------------------------------------------|--------|----------------|-------------|--------------|
| FAU 2298 (SHASTA WAY) KLAMATH COUNTY                           |        |                |             |              |
| FED. ROAD DIST. No.                                            | STATE  | PROJECT NUMBER | FISCAL YEAR | SHEET No.    |
| 10                                                             | OREGON |                |             | 5            |
|                                                                |        |                |             | TOTAL SHEETS |
|                                                                |        |                |             | See Index    |



- 1 Const. PC Conc. Walk
- 2 Const. Type "A" Curb
- 3 Const. Type "A" Driveways - 16 (Total)
- 4 Const. Sidewalk Ramps - 7 (Total)
- 5 Const. Street Connections - 3 (Total)
- 6 Sta. 33+91  
Const. Type "CG-1" Inlet  
Inst. 12" Sewer Pipe - 38'  
Tr. Exc. 16 C.Y.
- 7 Adjust Manholes - 4 (Total)
- 8 Sta. 37+15  
Const. Manhole  
Inst. 12" Sewer Pipe - 56' (Total)  
Tr. Exc. 25 C.Y.
- 9 Const. Type "D" Inlets - 2 (Total)  
Inst. 12" Sewer Pipe - 50'  
Under Prmt. - 36'  
Tr. Exc. 25 C.Y.
- 10 Sta. 37+42 To Sta. 40+15  
Const. Type "CG-1" Inlet  
Inst. 12" Sewer Pipe - 274'  
Tr. Exc. 134 C.Y.
- 11 Sta. 35+70  
Const. "CG-1" Inlet  
Inst. 12" Sewer Pipe - 38'  
Tr. Exc. 18 C.Y.
- 12 Sta. 38+58 To Sta. 40+75 (Rt.)  
Const. Conc. Retaining Wall  
Class 3300-1 1/2" Conc. - 76 C.Y.  
Reinf. 3303 Lbs.  
Str. Exc. 90 C.Y.  
(For Drg. Nos. See Sheet 1)
- 13 Sta. 38+36 To Sta. 39+74 (Lr.)  
Const. Conc. Retaining Wall  
Class 3300-1 1/2" Conc. - 41 C.Y.  
Reinf. 2177 Lbs.  
Str. Exc. 32 C.Y.  
(For Drg. Nos. See Sheet 1)
- 14 Sta. 40+08 To Sta. 41+40 (Lr.)  
Const. Conc. Retaining Wall  
Class 3300-1 1/2" Conc. - 52 C.Y.  
Reinf. 2164 Lbs.  
Str. Exc. 14 C.Y.  
(For Drg. Nos. See Sheet 1)
- 15 Sta. 40+15 To Sta. 44+20  
Const. Type "CG-1" Inlet  
Inst. 12" Sewer Pipe - 405'  
Tr. Exc. 200 C.Y.

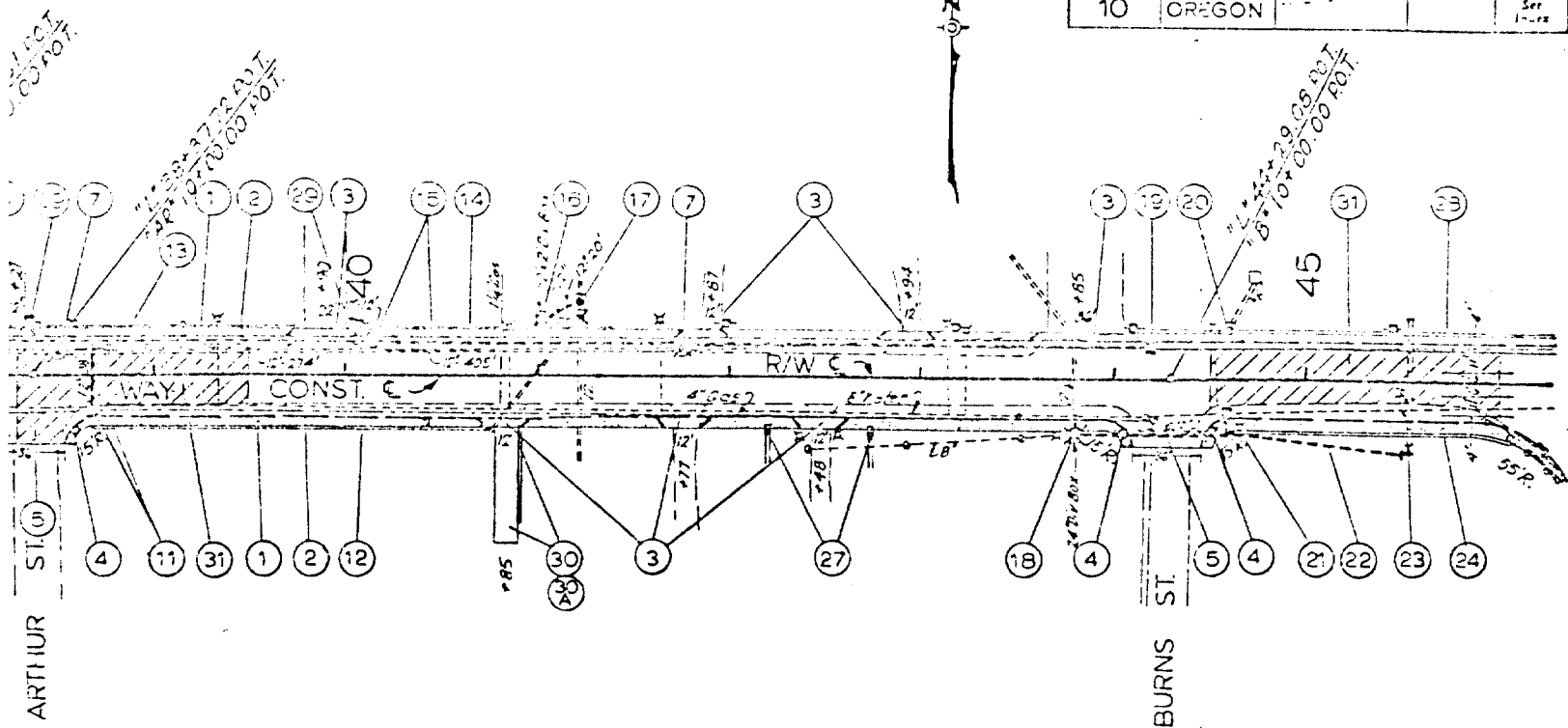
- 16 Sta. 41+02  
Remove Inlet  
Const. Type "D" Inlet  
Remove 12" CMP - 20'  
Inst. 12" Sewer Pipe - 20'  
Tr. Exc. 8 C.Y.
- 17 Sta. 41+22  
Remove Manhole  
Const. Manhole  
5" Sewer Pipe (In Pl.)  
Extend - 8'  
Inst. 12" Sewer Pipe - 8'  
Tr. Exc. 8 C.Y.
- 18 Sta. 43+80  
Remove Junction Box  
Const. Type "B" Inlet  
12" CMP (In Pl.)  
Extend - 2' Rt.  
Tr. Exc. 1 C.Y.
- 19 Sta. 44+20  
Const. Type "CG-1" Inlet
- 20 Sta. 44+58  
Reconst. Manhole (By Others)
- 21 Sta. 44+60  
Const. "CG-1" Inlet  
Inst. 12" Sewer Pipe - 12'  
Tr. Exc. - 3 C.Y.
- 22 Sta. 43+80 To Sta. 45+50  
Inst. 12" Irrig. Pipe - 172'  
Tr. Exc. - 65 C.Y.

- 23 Sta. 45+53  
36" CMP (In Pl.)  
Extend - 4' Rt.  
Tr. Exc. 1 C.Y.
- 24 Sta. 44+58 To Sta. 46+08 (Rt.)  
Const. Conc. Retaining Wall  
Class 3300-1 1/2" Conc. - 125 C.Y.  
Reinf. 12,519 Lbs.  
Str. Exc. 190 C.Y.  
(For Drg. Nos. See Sheet 1)
- 25 Remove Curb
- 26 Sta. 34+70 To Sta. 37+15  
Const. Type "CG-1" Inlet  
Inst. 15" Sewer Pipe - 248'  
Tr. Exc. 123 C.Y.
- 27 Sta. 36+25, 36+95, 42+21 & 42+75 (Rt.)  
Const. Conc. Steps  
Class 3300-1 1/2" Conc. - 30 C.Y. (Total)  
Reinf. 248 Lbs. (Total)  
Const. Pipe Handrail - 21' (Total)  
Drg. No. 2050
- 28 Sta. 44+10 To Sta. 47+00 (Lr.)  
Const. Conc. Retaining Wall  
Class 3300-1 1/2" Conc. - 192 C.Y.  
Reinf. 16,786 Lbs.  
Str. Exc. 490 C.Y.  
(For Drg. Nos. See Sheet 1)
- 29 Const. s  
Inst. 10  
Tr. Exc.
- 30 Sta. 36+25  
Co  
Lbs  
2050
- 31 Sta. 47+00  
Sh  
72



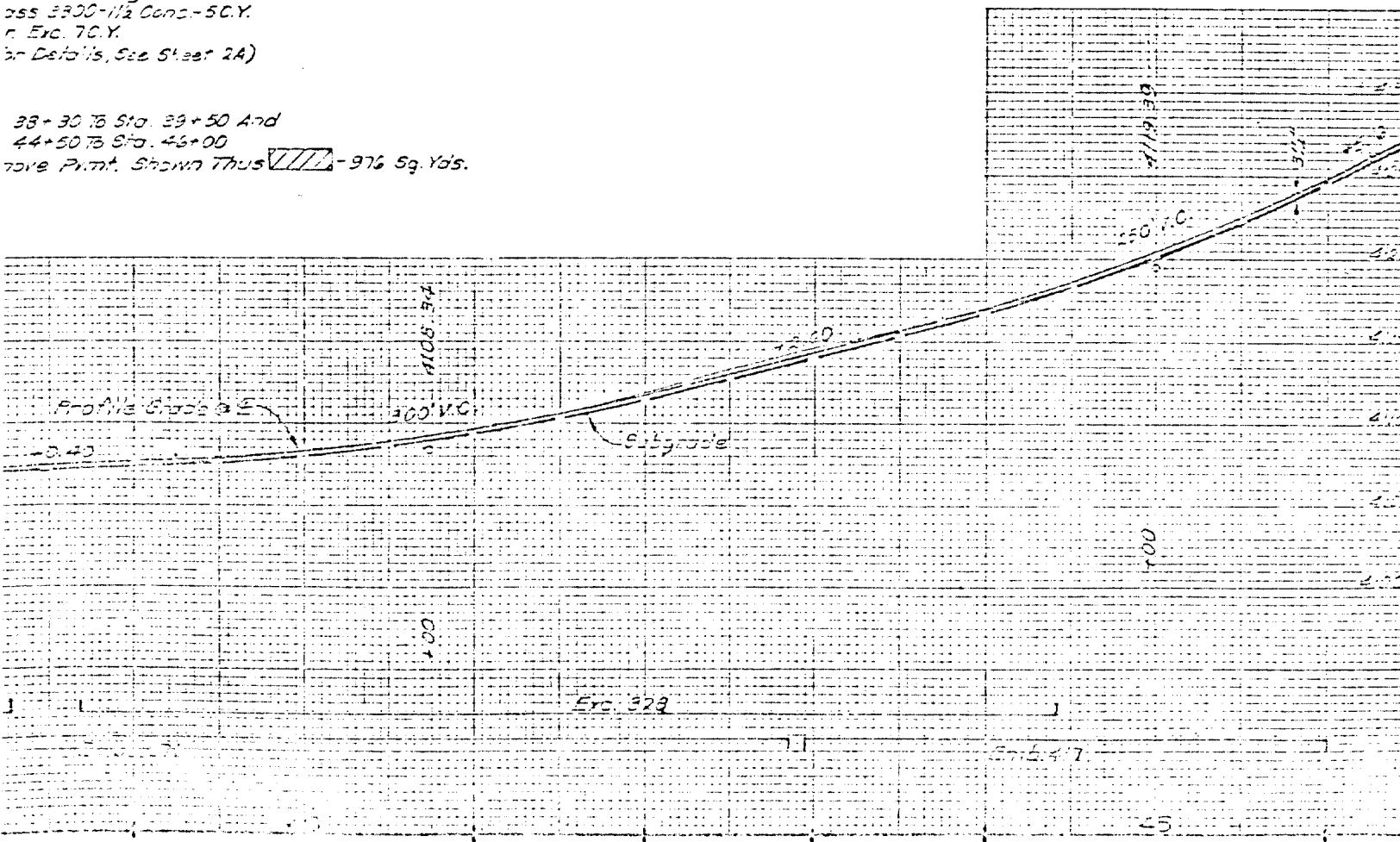
Special Inlets - 3 (Total)  
 Sewer Pipe - 36' (Total)  
 E.Y.

| S. 6TH ST. - E. SIDE BYPASS / KLAMATH FALLS SEC. 6 |        |                |             |                             |
|----------------------------------------------------|--------|----------------|-------------|-----------------------------|
| FAU 2298 (SHASTA WAY) KLAMATH COUNTY               |        |                |             |                             |
| FED. ROAD DIST. No.                                | STATE  | PROJECT NUMBER | FISCAL YEAR | SHEET No. 6                 |
| 10                                                 | OREGON |                |             | TOTAL SHEETS 6<br>See Index |

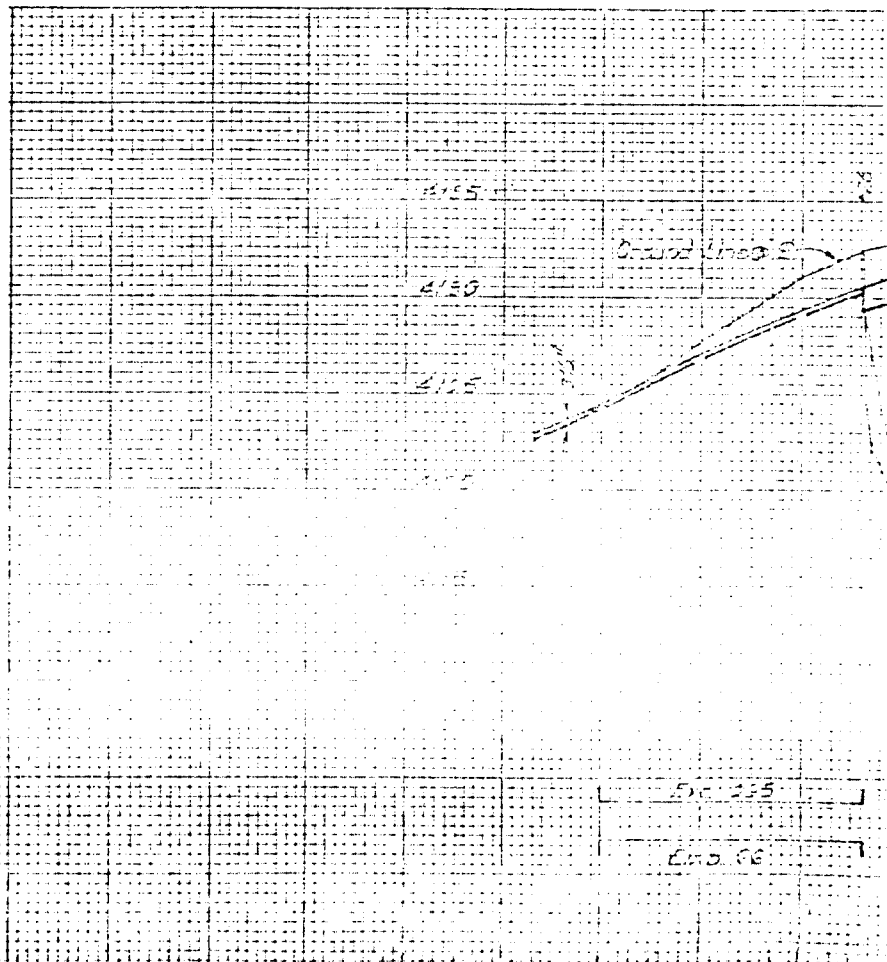
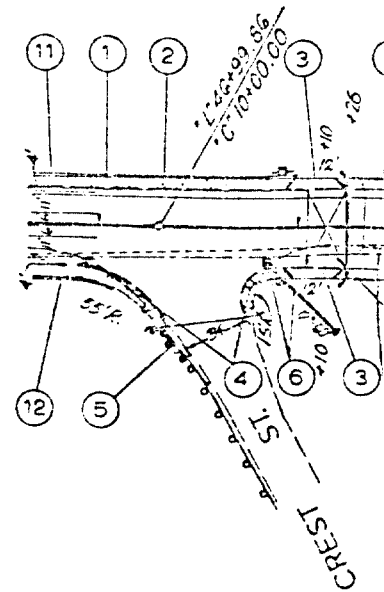


40+05 (Rt.)  
 Driveway  
 Regate Base - 20 C.Y.  
 Inst. Retaining Wall  
 3300-11/2 Conc. - 50 C.Y.  
 r. Exc. 70 Y.  
 for Details, See Sheet 2A)

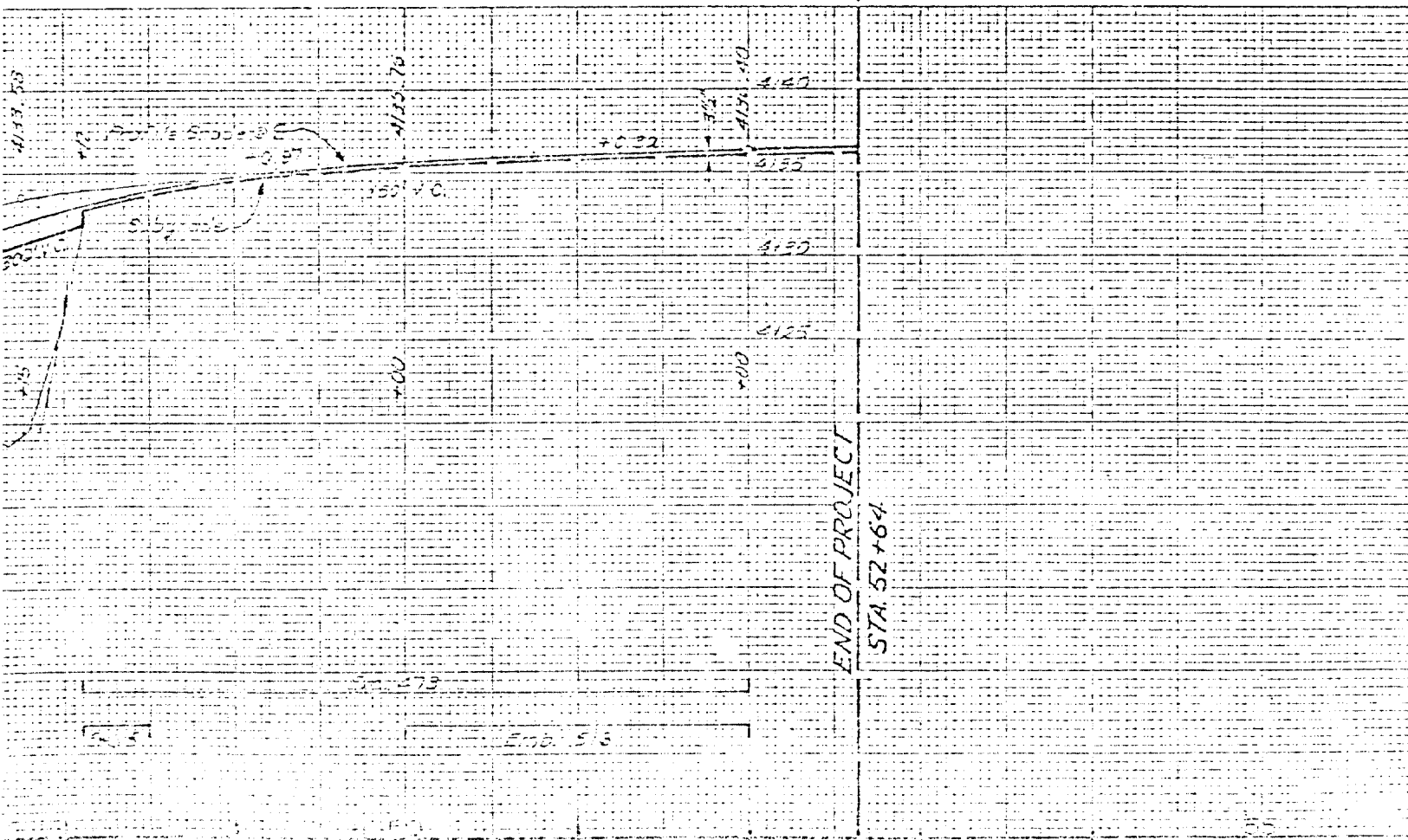
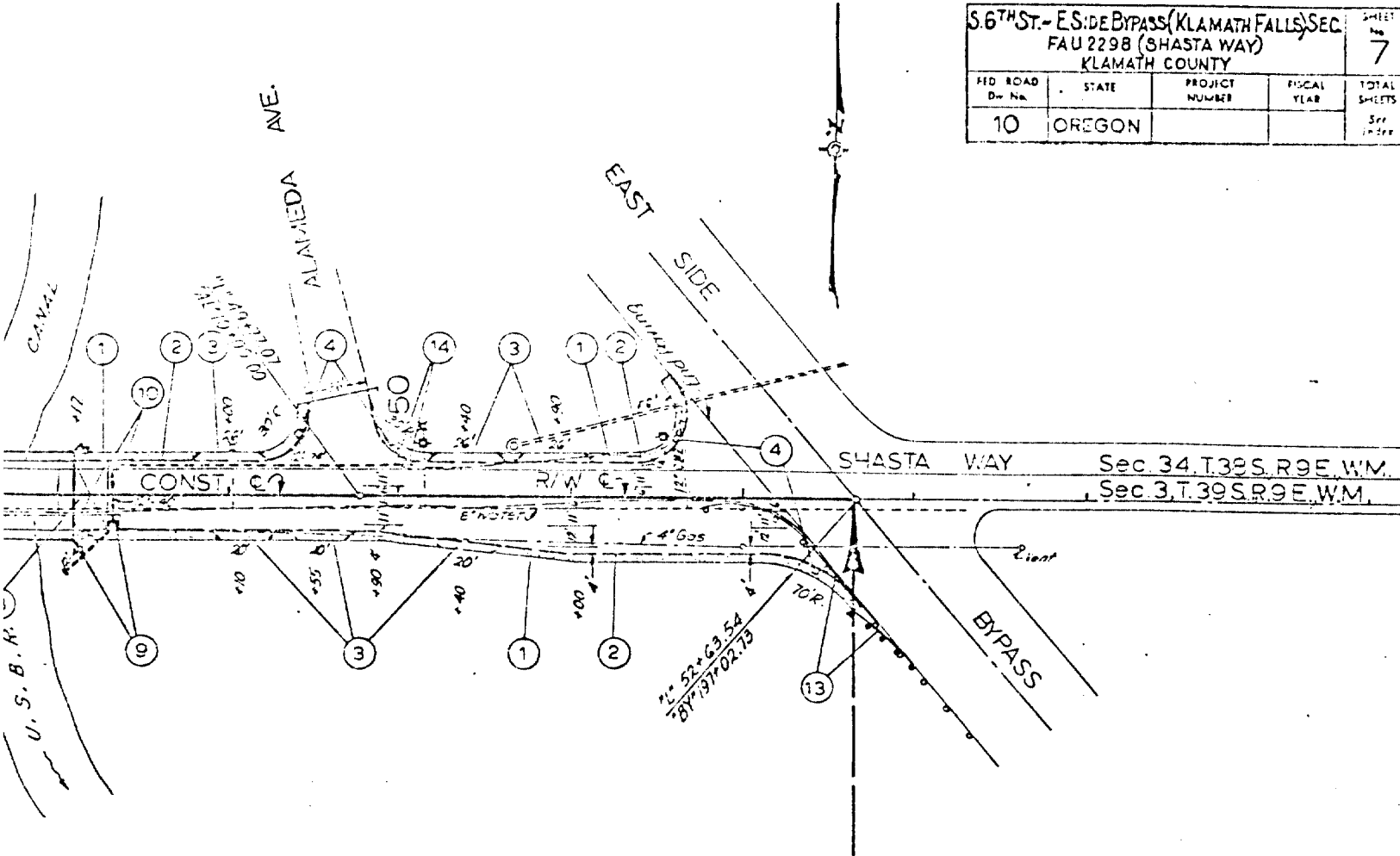
38+30 To Sta. 39+50 And  
 44+50 To Sta. 46+00  
 above Print. Shown Thus - 976 Sq. Yds.



- ① Const. PC Conc. Walk
- ② Const. Type "A" Curb
- ③ Const. Type "A" Driveways-8 (Total)
- ④ Const. Sidewalk Ramps-6 (Total)
- ⑤ Remove Guard Rail-80'  
Const. Guard Rail-25' (Type 1A)  
Const. Anchor-1 (Type 2)  
Inst. End Piece (Type "B")
- ⑥ Sta. 46+82  
Const. Type "CG-1" Inlet  
Inst. 12" Sewer Pipe-60'  
Tr. Exc. 30 C.Y.
- ⑦ Remove Extg. Structure  
Const. Prestressed Slab Span Structure-86'  
(Rwy. Width-42')  
(For Drg. Nos., See Sheet 1)
- ⑧ Const. Reinf. Conc. Bridge Panel-2 (Total)  
(For Drg. Nos., See Sheet 1)
- ⑨ Sta. 48+34  
Const. Type "CG-1" Inlet  
Inst. 12" Sewer Pipe-40'  
Tr. Exc. 24 C.Y.
- ⑩ Sta. 48+34  
Const. Type "CG-1" Inlet  
Inst. 12" Sewer Pipe-40'  
Tr. Exc. 15 C.Y.
- ⑪ Const. Conc. Retaining Wall  
(See Sheet 6, Note 28)
- ⑫ Const. Conc. Retaining Wall  
(See Sheet 6, Note 24)
- ⑬ Remove Guard Rail-160'  
Const. Guard Rail-50' (Type 1A)  
Const. Anchor (Type 2)  
Inst. End Piece (Type B)
- ⑭ Sta. 48+34 to Sta. 50+13  
Const. Type "CG-1" Inlet  
Inst. 12" Sewer Pipe-174'  
Tr. Exc. 65 C.Y.



| S. 6TH ST. - E. SIDE BYPASS (KLAMATH FALLS) SEC. 34, T. 39 S. R. 9 E. W. M. FAU 2298 (SHASTA WAY) KLAMATH COUNTY |        |                   |                |                 | SHEET<br>7   |
|------------------------------------------------------------------------------------------------------------------|--------|-------------------|----------------|-----------------|--------------|
| FED. ROAD<br>Dist. No.                                                                                           | STATE  | PROJECT<br>NUMBER | FISCAL<br>YEAR | TOTAL<br>SHEETS | See<br>Index |
| 10                                                                                                               | OREGON |                   |                |                 |              |



FILED  
February 24 1978  
Wm D. MILNE County Clerk  
By [Signature] DEPUTY

PUBLIC NOTICE

NOTICE OF

PUBLIC HEARING

The Board of County Commissioners of Klamath County, Oregon will be conducting a public hearing to consider the following:

PROPOSAL: the vacations of roads, driveways, paths and cemetery plotted lots for the purpose of replatting the cemetery lots to provide more cemetery plots.

DESCRIPTION: Legal description of that portion of the National Cemetery of the Consolidated Lodges of Malin, Oregon to be vacated, situated in the SW $\frac{1}{4}$ SW $\frac{1}{4}$  of section 10, T41S, R12EWM, Klamath County, Oregon, being more particularly described as follows:

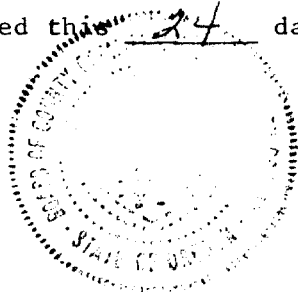
Beginning at a point on the south boundary of said cemetery, said point being East 380.72 feet from the southwest corner of said section 10; thence North 418.00 feet to the north boundary of said cemetery; thence East 455.00 feet to the northeast corner of said cemetery; thence South 418.00 feet to the southeast corner of said cemetery; thence West 455.00 feet to the point of beginning, EXCEPTING THEREFROM: Beginning at the northeast corner of said cemetery; thence South, along the east boundary of said cemetery, 264.00 feet; thence S79°01'30"W 168.07 feet; thence North 296.00 feet to the north boundary of said cemetery; thence East 165.00 feet to the point beginning.

APPLICANTS: the Malin Cemetery District, An Oregon Municipal Corporation.

The public hearing will be held in the Commissioners hearing room Klamath County Courthouse Annex, on Wednesday, April 12, 1978, at 10:30 a.m. All interested persons are invited to attend this hearing and express their opinions in regard to this matter.

A plat showing the proposed changes is on file with the County Clerk's Office, Klamath County, Oregon.

Dated this 24 day of February, 1978.



Wm D Milne C. Clerk  
Wm. D. Milne  
[Signature] Deputy

To be published March 1, 8, 15, 22, 29, April 5

41556

- WARRANTY DEED -

Vol. 78 Page 633

ELSIE I. HARMSSEN, hereinafter called grantor, conveys to JEAN GLADDEN and GRACE M. COX, all that real property situate in the County of Klamath, State of Oregon, described as:

Lots 1 and 2 in Block 4, LENOX, Klamath County, Oregon and covenant that grantor is the owner of the above described property free of all encumbrances, except reservations, restrictions, easements and rights of way of record and those apparent upon the land; and will warrant and defend the same against all persons who may lawfully claim the same, except as shown above.

The true and actual consideration for this transfer is Six Thousand and No/100ths (\$6,000 00) DOLLARS.

The foregoing recital of consideration is true as I verily believe.

DATED this 14th day of February, 1973.

Elsie I. Harmsen  
Elsie I. Harmsen

STATE OF OREGON )  
County of Klamath ) ss.

February 20, 1973.

Personally appeared the above named ELSIE I. HARMSSEN and acknowledged the foregoing recital of consideration to be her voluntary act. Before me:

William B. Drake  
Notary Public for Oregon  
My Commission expires: 7-1-74

STATE OF OREGON, COUNTY OF KLAMATH; ss.

Filed for record at request of \_\_\_\_\_  
this 11th day of January, A. D. 1978 at 9:26 clock A. M., and  
fully recorded in Vol. M78, of Deeds on Page 633

Wm D. MILNE, County Clerk  
By Bernard A. Ketch

Fee \$3.00

VANDENBERG & BRANDSNESS  
ATTORNEYS AT LAW  
KLAMATH FALLS, OREGON 97601

col  
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