

## List of Standard Plans – Streets and Storm Drains

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NOTES:

1. ALL CONSTRUCTION TO BE TO CITY OF KEIZER STANDARD CONSTRUCTION SPECIFICATIONS AND DESIGN STANDARDS.
2. COORDINATION WITH UTILITIES:
  - A. THE LOCATION AND DESCRIPTION OF EXISTING UTILITIES SHOWN ARE COMPILED FROM AVAILABLE RECORDS AND/OR FIELD SURVEYS. THE CITY OR UTILITY COMPANIES DO NOT GUARANTEE THE ACCURACY NOR THE COMPLETENESS OF SUCH RECORDS.
  - B. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF ORS 757.541 AND 757.571. THE CONTRACTOR SHALL NOTIFY EACH UNDERGROUND UTILITY AT LEAST 48 BUSINESS DAY HOURS PRIOR TO EXCAVATING, BORING, OR POTHOLING. ALL UTILITY CROSSINGS SHALL BE POTHOLED AS NECESSARY PRIOR TO EXCAVATING OR BORING TO ALLOW THE CONTRACTOR TO PREVENT GRADE OR ALIGNMENT CONFLICTS.
  - C. PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO KEEP ALL EXISTING UTILITIES IN SERVICE AND PROTECT THEM DURING CONSTRUCTION.
  - D. UTILITIES, OR INTERFERING PORTIONS OF UTILITIES, THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO ACCOMPLISH THE WORK. THE CONTRACTOR SHALL PLUG THE REMAINING EXPOSED ENDS AS DIRECTED BY THE CITY.
3. CONTRACTORS TO NOTIFY THE ENGINEER 48 HOURS PRIOR TO ANY CONSTRUCTION. A PRE CONSTRUCTION MEETING IS REQUIRED.
4. STORM DRAIN PIPE SHALL BE PVC CONFORMING TO THE FOLLOWING:
  - 4" - 15" - ASTM D3034, SDR 35
  - 18" - 27" - ASTM F679, PS 46
  - 30" - 48" - ASTM F793, PS 46, SEAMLESS  
OR ASTM F1803, PS 46
  - 48" - 60" - ASTM F1803, PS 46FITTINGS SHALL BE OF THE SAME MATERIAL AS THE PIPE. PVC PIPE AND FITTINGS SHALL HAVE GASKETED JOINTS CONFORMING TO ASTM D3212 AND F477 AND BE INSTALLED IN ACCORDANCE WITH ASTM D2321. REINFORCED CONCRETE PIPE CONFORMING TO ASTM C-14 MAY BE USED UNDER DRIVEWAYS OR ELSEWHERE AS APPROVED BY THE ENGINEER. MINIMUM COVER FOR ALL PIPE SHALL BE 2.5 FEET UNDER PAVEMENT AND 2.0 FEET ELSEWHERE, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. ALL CATCH BASINS TO BE TYPE 2 WITH A MINIMUM 18" SUMP EXCEPT WHERE NOTED OTHERWISE.
6. RIM ELEVATIONS SHOWN ON PLAN ARE FOR REFERENCE ONLY. CONTRACTOR TO SET MANHOLE RIMS TO FINISH GRADE IMMEDIATELY AFTER COMPLETION OF BASE ROCK GRADING AND PRIOR TO A.C. OVERLAY.
7. EMBANKMENTS SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR CITY OF KEIZER. MATERIALS TO BE COMPACTED TO 95% OF SPT RELATIVE MAXIMUM DENSITY.
8. GRANULAR BACKFILL OR CONTROL DENSITY BACKFILL FOR ALL PIPELINES CONSTRUCTED IN THE IMPROVED PORTION OF THE ROADWAY. USE CONTROL DENSITY BACKFILL IN STREET CROSSINGS AS NOTED ON THE PLAN.
9. PRIOR TO FINAL APPROVAL, PROJECT ENGINEER TO SUPPLY CITY OF KEIZER WITH A COMPLETE SET OF "AS BUILT" DRAWINGS SHOWING SERVICE LENGTHS AND DEPTHS, LENGTHS BETWEEN STRUCTURES, AND SERVICE LOCATIONS OR TEES OR CORPORATION STOPS.
10. DIMENSIONS AND NOTES TAKE PRECEDENCE OVER GRAPHICAL REPRESENTATION.

REVISED NOTE 3 MAR. 20, 2001 S.W.P.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

STANDARD GENERAL NOTES

DRAWN: S.W.P.

DATE: 01-25-00

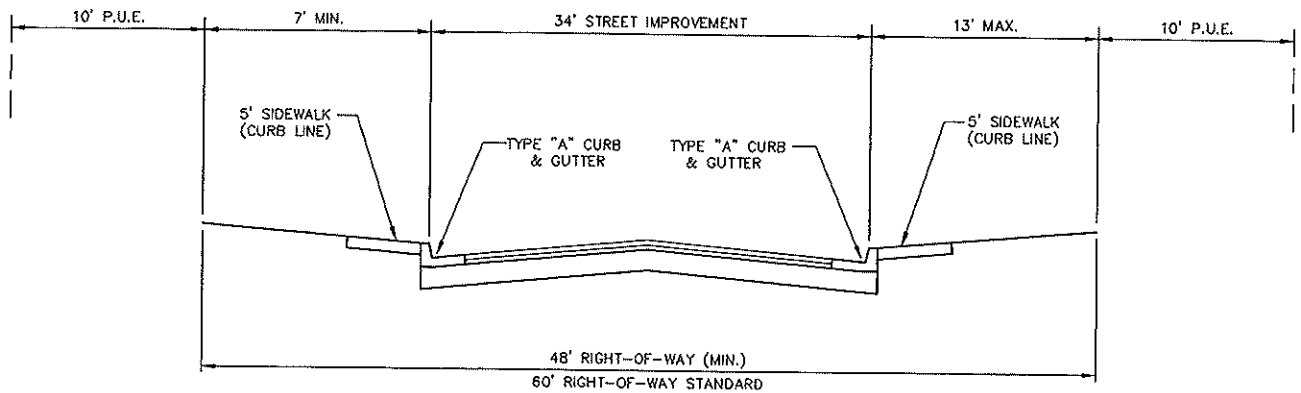
APPROVED: W.I.P.

NUMBER: ST-9

# RESIDENTIAL STREETS

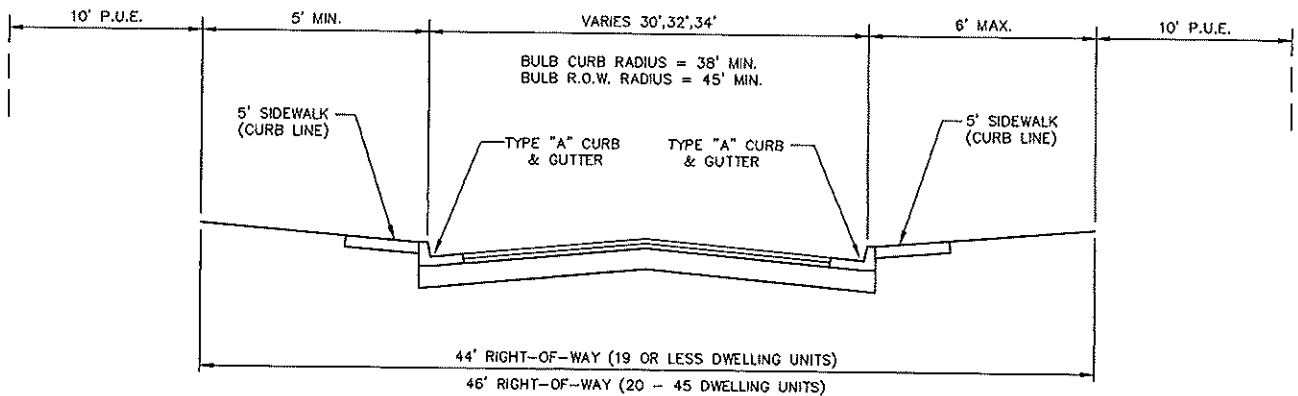
## SERVICE AREA

80 OR MORE DWELLING UNITS  
800 OR MORE ADT OR  
MORE THAN 320,000 SQ. FT.



## CUL DE SACS

MAX. LENGTH 800' OR  
LESS THAN 450 ADT OR  
LESS THAN 183,999 SQ. FT.



## NOTES:

1. ADT = AVERAGE DAILY TRAFFIC BASED ON INSTITUTE OF TRAFFIC ENGINEERS, TRIP GENERATION MANUAL.
2. TRIP GENERATION RATE FOR SINGLE FAMILY DWELLINGS - 10 TRIPS PER DAY.
3. SIDEWALKS SHALL BE OF THEIR FULL UNOBSTRUCTED WIDTH AROUND SIGNS, MAILBOXES, UTILITY POLES, ECT. (SEE DETAIL ST-24)
4. LENGTH OF FULL HEIGHT CURB BETWEEN DRIVEWAYS SHALL BE 6" BOTH SIDES (1' TOTAL).
5. LOCATION & WIDTH OF UTILITY EASEMENTS TO BE DETERMINED BY CITY OF KEIZER PUBLIC WORKS.
6. SLOPES IN UTILITY EASEMENTS TO BE 2:1 MAX. UNLESS NOTED BY CITY OF KEIZER PUBLIC WORKS.
7. 18" BEHIND SIDEWALK RESERVED FOR WATER UTILITIES.
8. STREET WIDTHS SHOWN OBTAINED FROM RESIDENTIAL STREET STANDARDS AS LISTED IN CITY OF KEIZER SUBDIVISION ORDINANCE.
9. SEE DETAIL ST-12 FOR TYPICAL STREET SECTION.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

**STREET & RIGHT OF WAY  
GUIDELINES** (SEE ALSO ST-11)

DRAWN: T.A.K.

DATE: 04-04-95

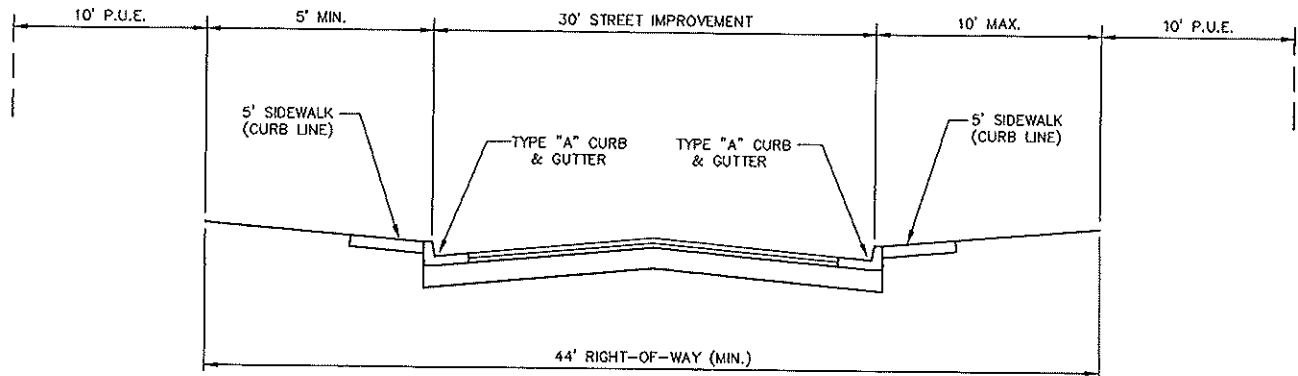
APPROVED: W.I.P.

NUMBER: ST-10

# RESIDENTIAL STREETS

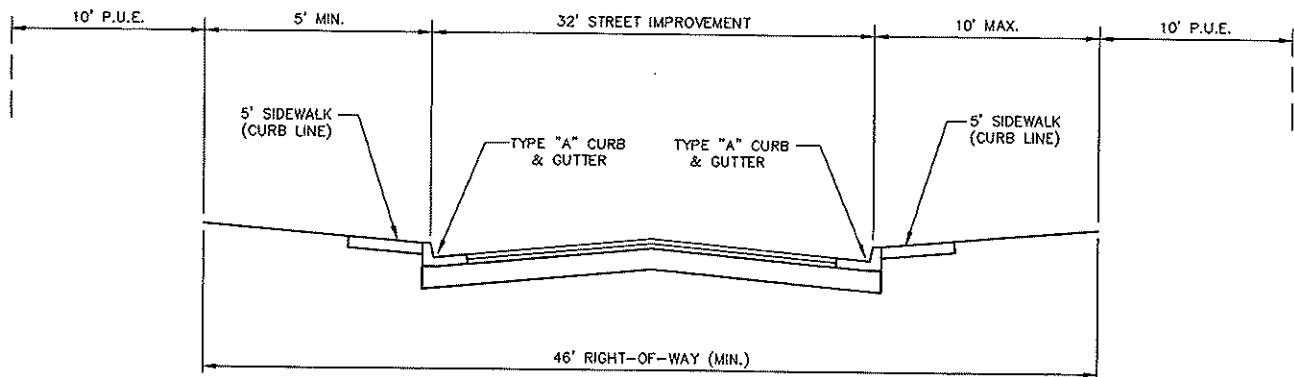
## SERVICE AREA

0 - 19 DWELLING UNITS  
OR SERVING 190 ADT  
OR 79,999 SQ. FT.



## SERVICE AREA

20 - 79 DWELLING UNITS  
OR 790 ADT OR 80,000  
TO 319,999 SQ. FT.



### NOTES:

1. ADT = AVERAGE DAILY TRAFFIC BASED ON INSTITUTE OF TRAFFIC ENGINEERS, TRIP GENERATION MANUAL.
2. TRIP GENERATION RATE FOR SINGLE FAMILY DWELLINGS - 10 TRIPS PER DAY.
3. SIDEWALKS SHALL BE OF THEIR FULL UNOBSTRUCTED WIDTH AROUND SIGNS, MAILBOXES, UTILITY POLES, ECT. (SEE DETAIL ST-24)
4. LENGTH OF FULL HEIGHT CURB BETWEEN DRIVEWAYS SHALL BE 6" BOTH SIDES (1' TOTAL).
5. LOCATION & WIDTH OF UTILITY EASEMENTS TO BE DETERMINED BY CITY OF KEIZER PUBLIC WORKS.
6. SLOPES IN UTILITY EASEMENTS TO BE 2:1 MAX. UNLESS NOTED BY CITY OF KEIZER PUBLIC WORKS.
7. 18" BEHIND SIDEWALK RESERVED FOR WATER UTILITIES.
8. STREET WIDTHS SHOWN OBTAINED FROM RESIDENTIAL STREET STANDARDS AS LISTED IN CITY OF KEIZER SUBDIVISION ORDINANCE.
9. SEE DETAIL ST-12 FOR TYPICAL STREET SECTION.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

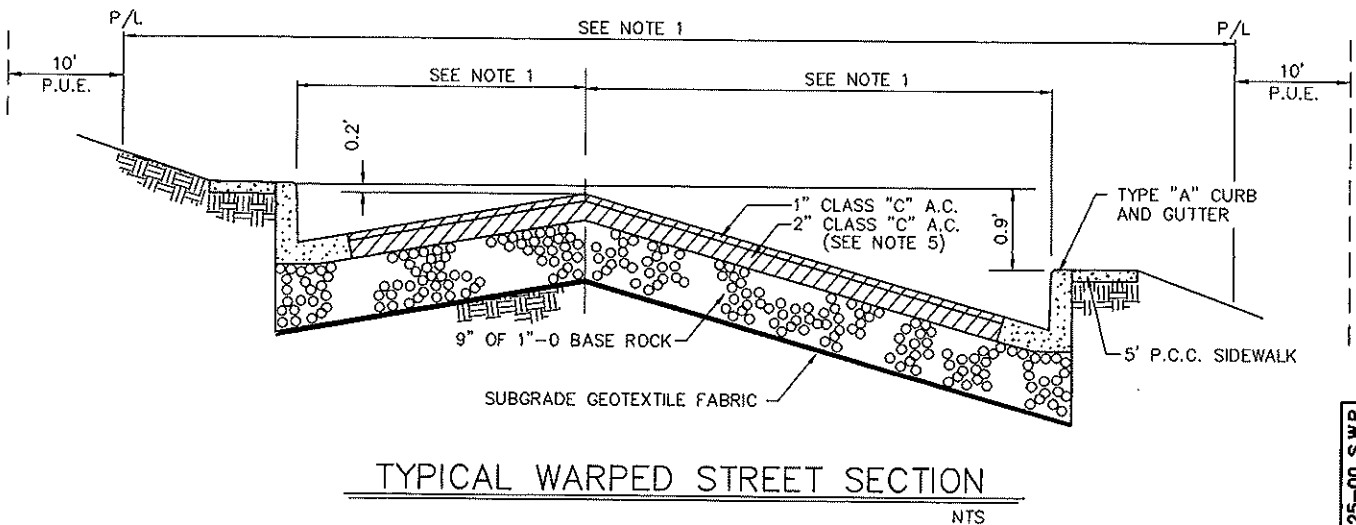
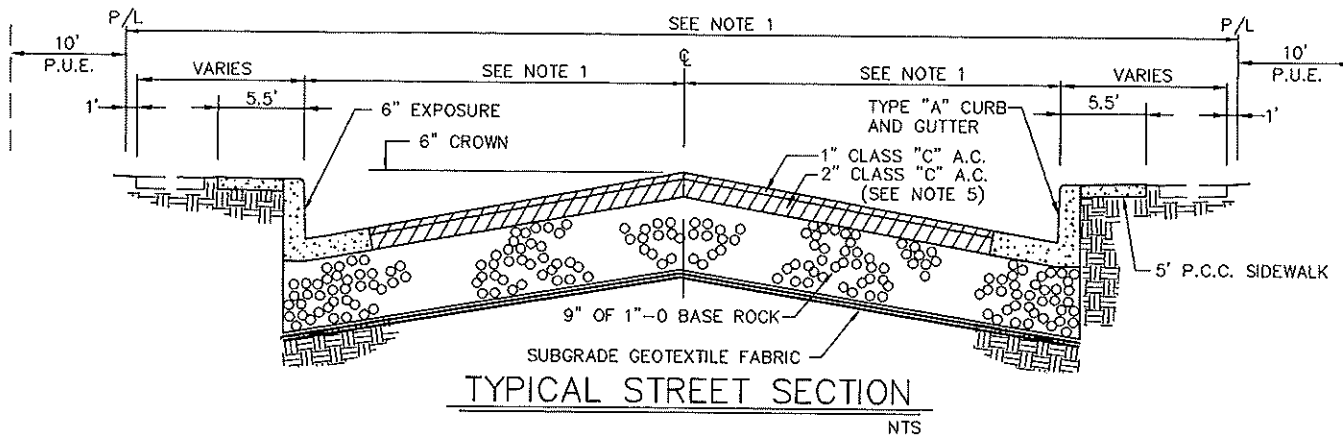
**STREET & RIGHT OF WAY  
GUIDELINES** (SEE ALSO ST-10)

DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

NUMBER: ST-11



#### NOTES:

1. SEE STD. DWG. ST-11 FOR STREET AND R.O.W. WIDTHS BASED ON SIZE OF DEVELOPMENT.
2. MAXIMUM SLOPE ON RESIDENTIAL STREETS IS 6.0%.
3. ALTERNATE DESIGNS TO BE APPROVED BY CITY OF KEIZER PUBLIC WORKS DEPT.
4. SEE DWG. ST-20 THROUGH ST-23 FOR CURB AND DRIVEWAY DETAILS.
5. 2" LIFT A.C. TO BE PLACED AT TIME OF STREET CONSTRUCTION. 1" LIFT A.C. TO BE PLACED (1) YEAR AFTER COMPLETION. PERFORMANCE SECURITY REQUIRED.

REVISED 1-25-00 S.W.P.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

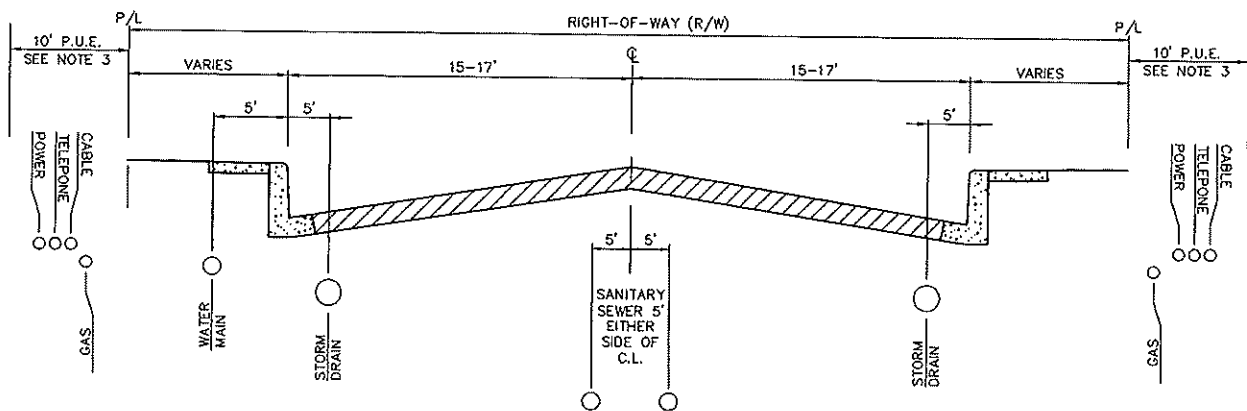
**STANDARD CROSS SECTIONS  
FOR RESIDENTIAL STREETS**

DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

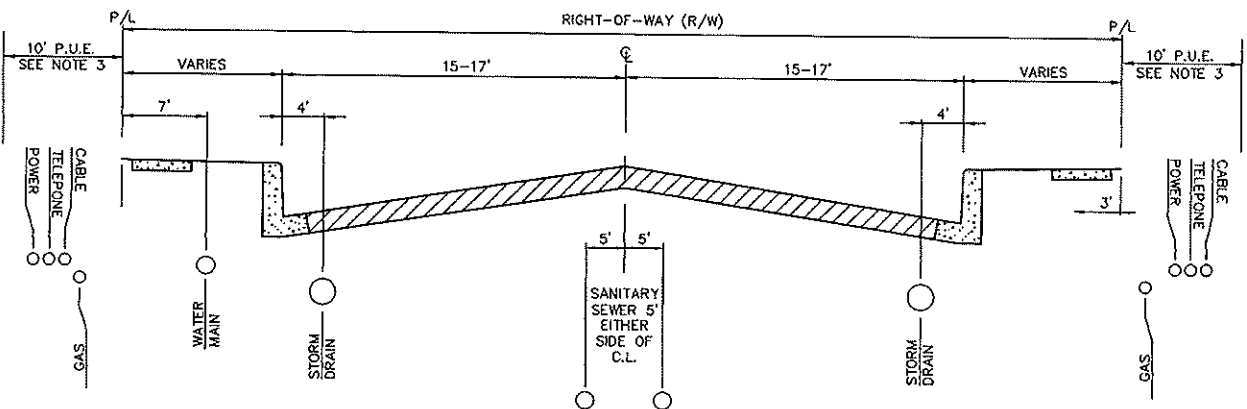
NUMBER: ST-12



**NOTES:**

1. DIMENSION FOR 50' RIGHT-OF-WAY (R/W)
2. CURB LINE SIDEWALKS ALLOWED ONLY ON CUL-DE-SAC STREETS OR WHERE NECESSITATED BY TERRAIN
3. WATER MAIN LOCATION TO BE DETERMINED BY THE DEPT. OF PUBLIC WORKS FOR RIGHT-OF-WAYS LESS THAN 50'.

**CURB LINE SIDEWALK**



**PROPERTY LINE SIDEWALK**

**NOTE:**

1. POWER, TELEPHONE, GAS, & CABLE TO BE COMBINED IN ONE COMMON JOINT TRENCH WHERE PRACTICAL.
2. 30" MINIMUM COVER FOR POWER, TELEPHONE, GAS, & CABLE LINES. 36" MINIMUM COVER FOR WATER MAINS; UNLESS A SPECIAL EXCEPTION IS PRE-APPROVED BY THE PUBLIC WORKS DEPARTMENT.
3. 10' P.U.E. IS REQUIRED ALONG ALL FRONT LOT LINES.

REVISED 1/25/00 S.W.P.



**CITY OF KEIZER**

**DEPARTMENT OF PUBLIC WORKS**

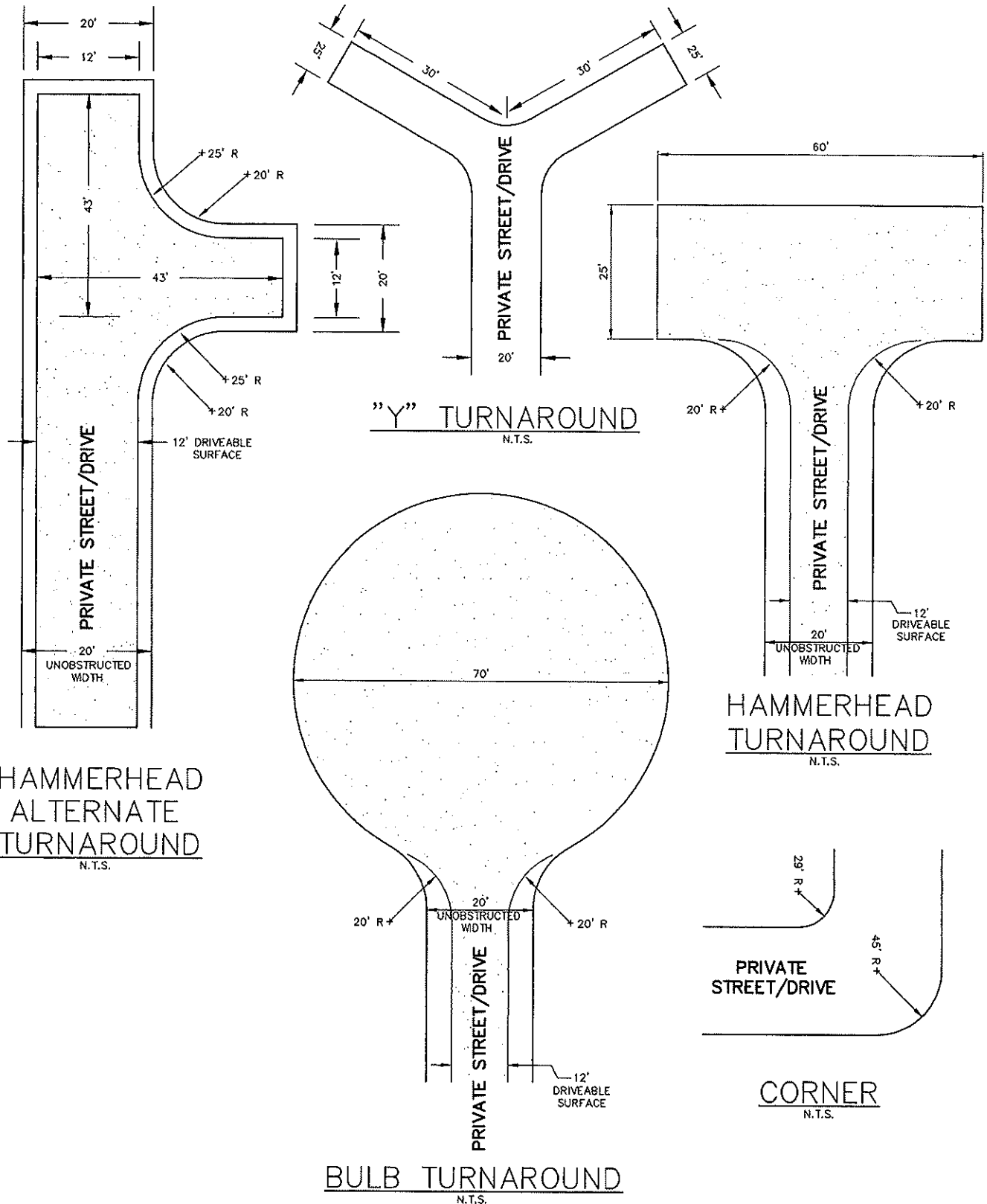
**STANDARD UTILITY LOCATIONS**  
RESIDENTIAL STREETS

DRAWN: T.A.K.

DATE: 04-05-95

APPROVED: W.I.P.

NUMBER: ST-13



APPROVED BY:

\_\_\_\_\_

DATE

\_\_\_\_\_

# STANDARD DETAIL DRAWING

## **FIRE APPARATUS ACCESS ROAD REQUIREMENTS \ PRIVATE STREETS**

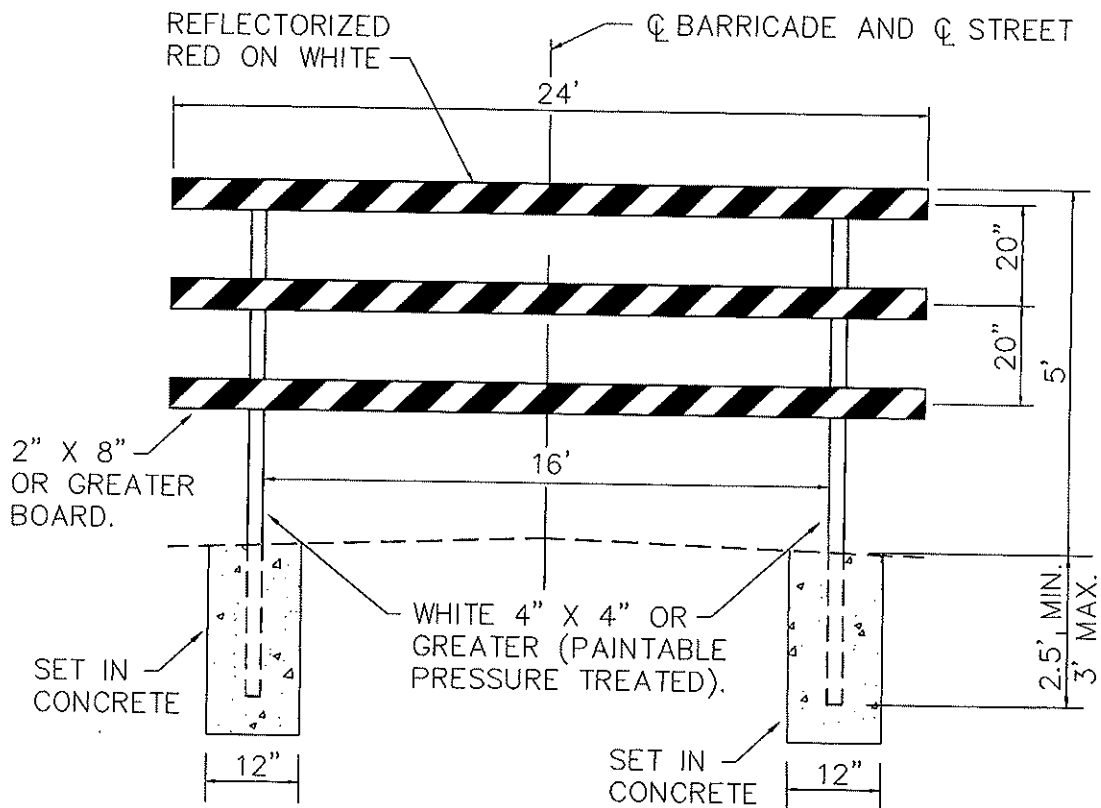
DRAWN: S.W.P.

DATE: 04-10-96

APPROVED: W.I.P.

NUMBER: ST-14





**NOTES:**

1. REFLECTORIZED TAPE, CONFORM TO O.D.O.T. STANDARD SPECIFICATIONS.  
SEC: 02910.30
2. CONSTRUCT TWO (2) BARRICADES AT END OF ALL STREETS 25 FEET OR WIDER.

REVISED 1/25/00 S.W.P.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

**STREET BARRICADE**

DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

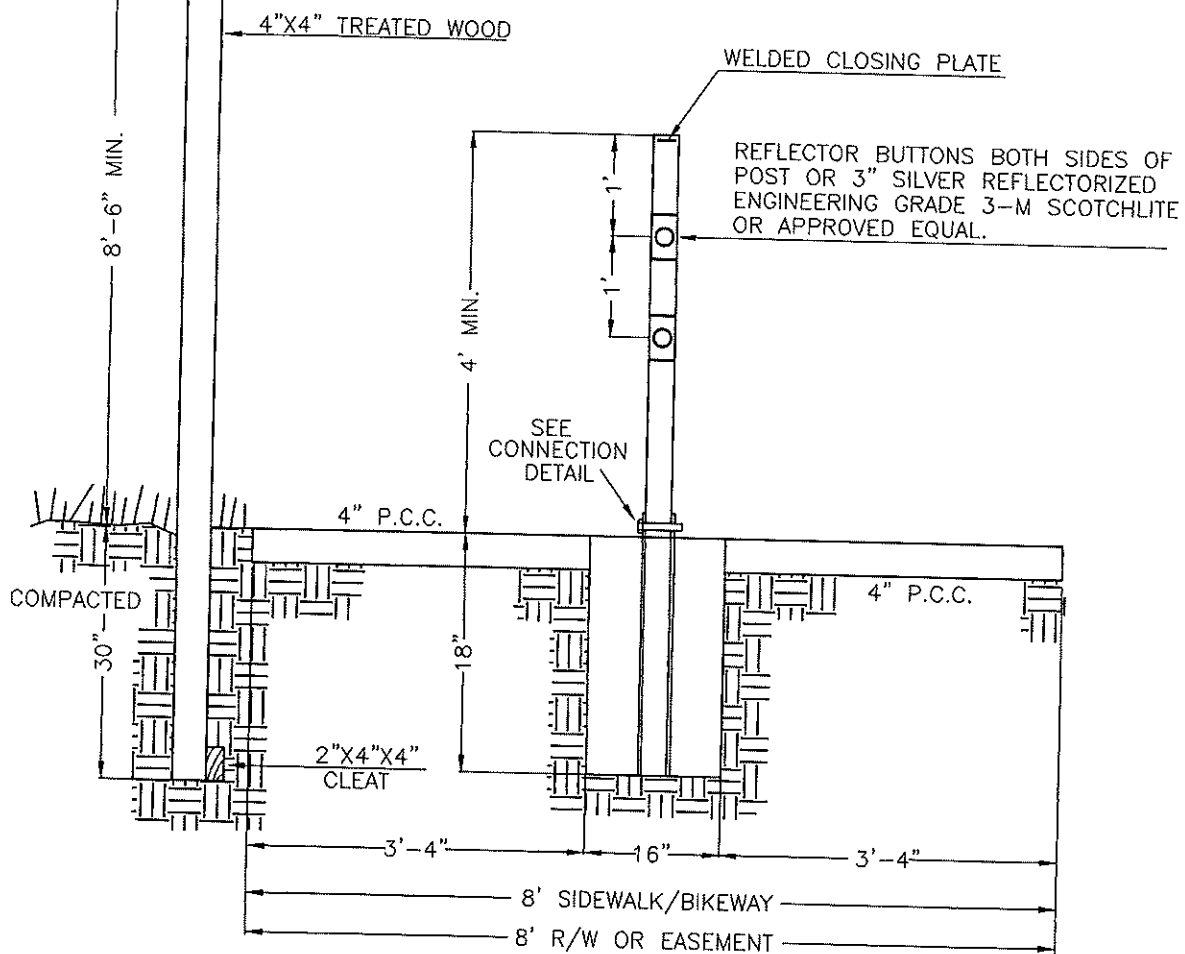
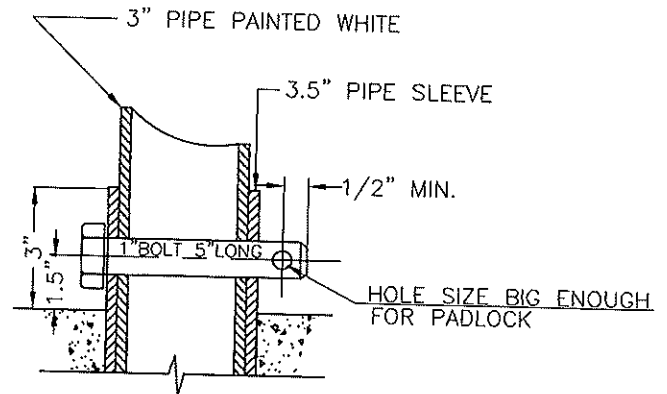
NUMBER: ST-15

BLACK ON WHITE  
REFLECTORIZED ENGINEERING  
GRADE 3-M SCOTCHLITE OR  
APPROVED EQUAL.



OBR-10-11-18  
30"x18"

## REFLECTOR POST CONNECTION DETAIL



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

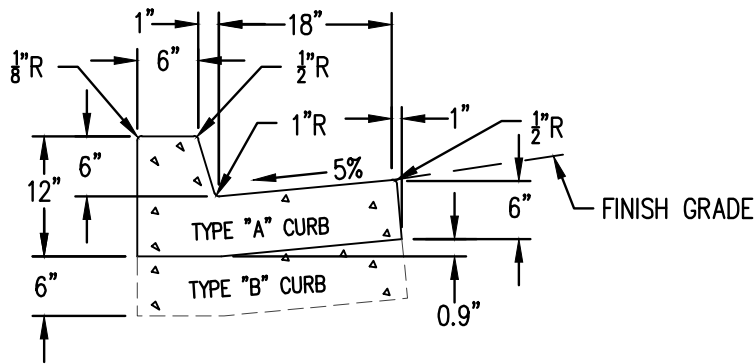
## BIKE PATH ACCESS DETAIL

DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

NUMBER: ST-18

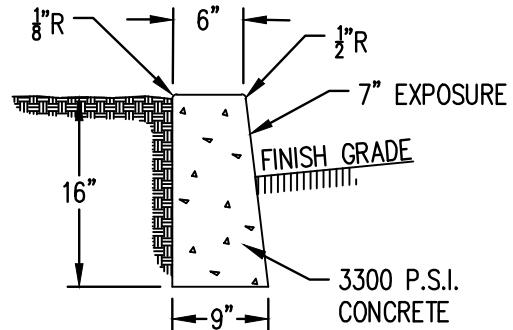


TYPE "A" & "B" CURB & GUTTER

-N.T.S.-

**NOTES:**

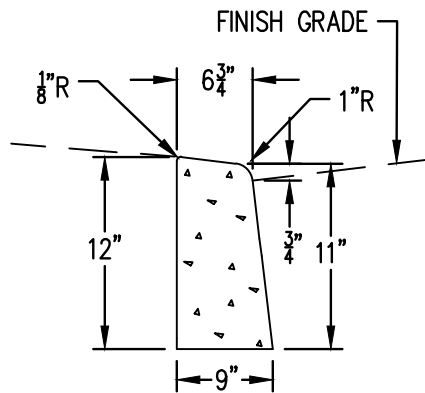
1. CURB AND GUTTER SHOWN MAY BE USED WITH EITHER A.C. OR P.C.C. PAVEMENTS.
2. ANY CURB TRANSITIONS WILL BE DETAILED ON PROJECT PLANS AS NECESSARY.
3. "TEE-BAR," CONTRACTION JOINT TO BE INSTALLED EVERY 15' OF CURB.
4. 3300 P.S.I. CONCRETE TO BE USED FOR ALL CURBS.
5. CURB TO BE TYPE "A" CURB AND GUTTER UNLESS OTHERS APPROVED BY CITY ENGINEER.
6. GUTTER PAN SLOPE: 5.0% (NORMAL)



\*TRAFFIC ISLANDS & SPECIAL DESIGN SITUATIONS ONLY.

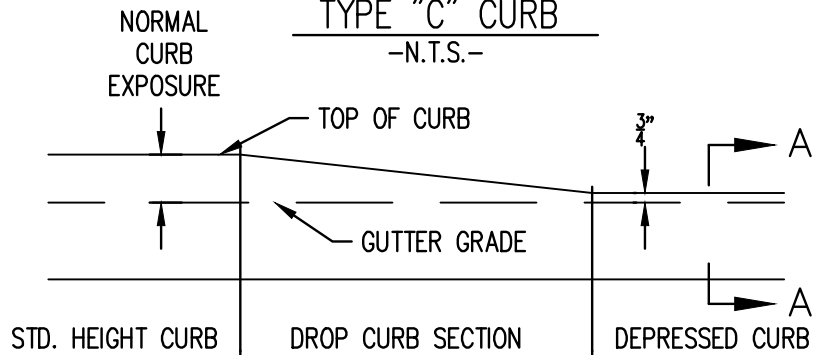
TYPE "C" CURB

-N.T.S.-



SECTION A-A

-N.T.S.-



60" MINIMUM FOR CURB LINE  
SIDEWALK. 36" MINIMUM, 48"  
MAXIMUM FOR PROPERTY LINE  
SIDEWALK

TYPICAL DRIVEWAY TRANSITION

-N.T.S.-



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

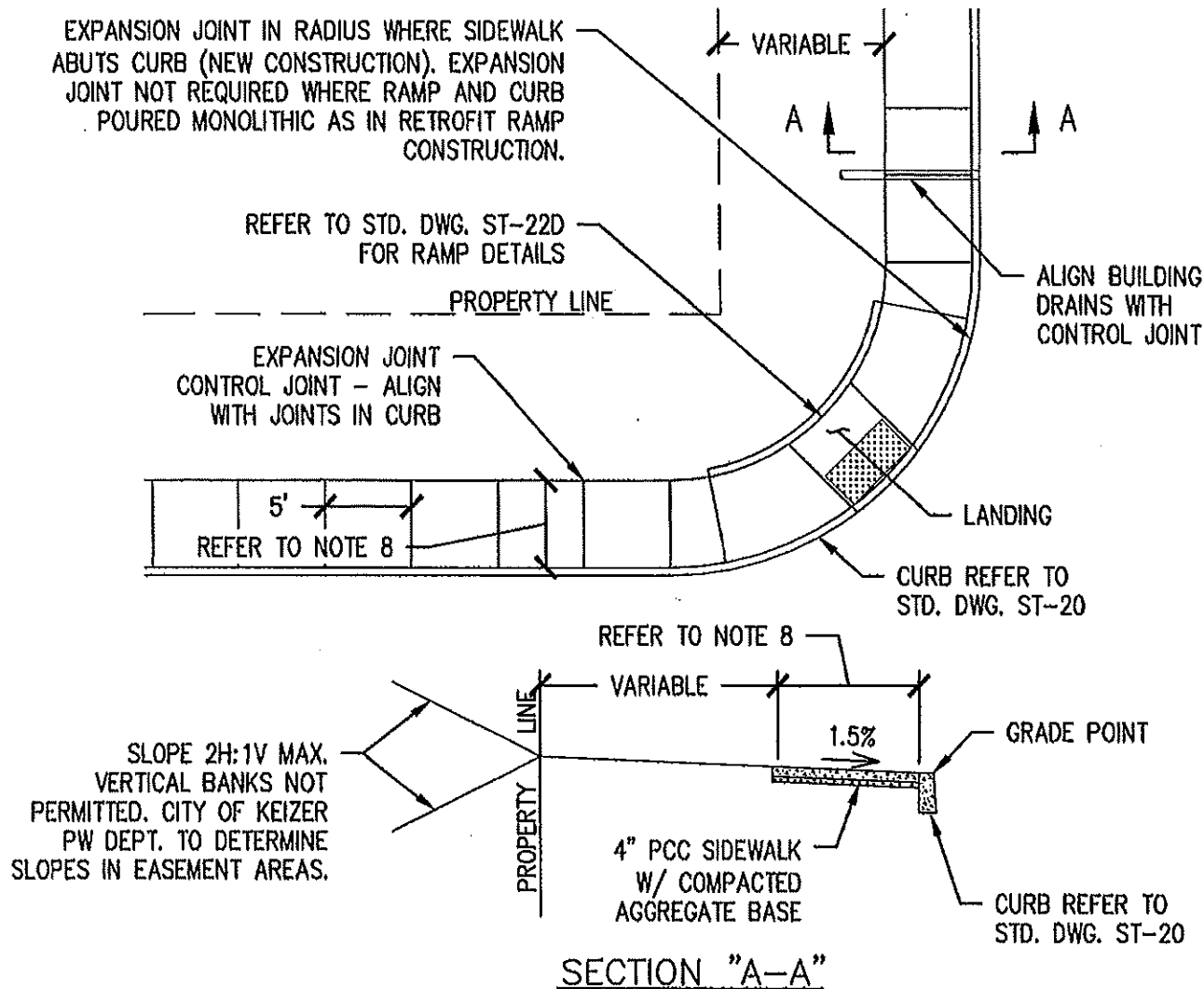
CURB & CURB/GUTTER SECTIONS

DRAWN: A.D.M.

DATE: 01-31-23

APPROVED: W.I.P.

NUMBER: ST-20



NOTES:

1. EXPANSION JOINTS 1/2" X 4" PREMOLDED JOINT FILLER MATERIAL AT LOCATIONS SHOWN, HEREON AND ON STANDARD DRAWING NO. 22. MATERIAL SHALL BE RECESSED OR CUT TO WITHIN 1/2" OF THE FINISHED CONCRETE SURFACE.
2. CONTROL JOINTS SHALL BE 1-1/4" DEEP, SPACED AT 5' INTERVALS.
3. 28 DAY CONCRETE STRENGTH SHALL BE 3300 P.S.I.
4. PAVEMENT, TURF, OR PLANTED AREAS DISTURBED BY SIDEWALK CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION.
5. FINISH SIDEWALK WITH LIGHT TRANSVERSE BROOMING EXCEPT AT RAMPS.
6. ALL EDGES SHALL BE TOOL ROUNDED AND SHINED (3") AFTER BROOMING.
7. SEE STD. DRAWING ST-24 FOR STD. SIDEWALK DEPTHS AT MAILBOX LOCATIONS.
8. 5' MIN. SIDEWALK WIDTH FOR LOCAL STREETS - 6' MIN. SIDEWALK WIDTH FOR ARTERIAL AND COLLECTOR STREETS. SLOPE 1.5% TYPICAL, 2% MAXIMUM



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

CURB LINE SIDEWALK

DRAWN: G.H.B.

DATE: 12-21-16

APPROVED: W.I.P.

NUMBER: ST-22A

EXPANSION JOINT IN RADIUS WHERE SIDEWALK ABUTS CURB (NEW CONSTRUCTION). EXPANSION JOINT NOT REQUIRED WHERE RAMP AND CURB POURED MONOLITHIC AS IN RETROFIT RAMP CONSTRUCTION.

REFER TO STD. DWG. ST-22D, E AND F FOR RAMP DETAILS

PROPERTY LINE

EXPANSION JOINT  
CONTROL JOINT - ALIGN  
WITH JOINTS IN CURB

VARIABLE

ALIGN BUILDING  
DRAINS WITH  
CONTROL JOINT

5'

REFER TO NOTE 8

REFER TO NOTE 8

CURB REFER TO  
STD. DWG. ST-20

LANDING

SLOPE 2H:1V MIN.  
VERTICAL BANKS NOT  
PERMITTED. CITY OF KEIZER  
PW DEPT. TO DETERMINE  
SLOPES IN EASEMENT AREAS.

PROPERTY  
LINE

1'

VARIABLE  
5' MIN.

GRADE POINT

1.5%

4" PCC SIDEWALK  
W/ COMPACTED  
AGGREGATE BASE

CURB REFER TO  
STD. DWG. ST-20

### SECTION "A-A"

#### NOTES:

1. EXPANSION JOINTS 1/2" X 4" PREMOLDED JOINT FILLER MATERIAL AT LOCATIONS SHOWN, HEREON AND ON STANDARD DRAWING NO. 22. MATERIAL SHALL BE RECESSED OR CUT TO WITHIN 1/2" OF THE FINISHED CONCRETE SURFACE.
2. CONTROL JOINTS SHALL BE 1-1/4" DEEP, SPACED AT 5' INTERVALS.
3. 28 DAY CONCRETE STRENGTH SHALL BE 3300 P.S.I.
4. PAVEMENT, TURF, OR PLANTED AREAS DISTURBED BY SIDEWALK CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION.
5. FINISH SIDEWALK WITH LIGHT TRANSVERSE BROOMING EXCEPT AT RAMPS.
6. ALL EDGES SHALL BE TOOL ROUNDED AND SHINED (3") AFTER BROOMING.
7. SEE STD. DRAWING ST-24 FOR STD. SIDEWALK DEPTHS AT MAILBOX LOCATIONS.
8. 5' MIN. SIDEWALK WIDTH FOR LOCAL STREETS - 6' MIN. SIDEWALK WIDTH FOR ARTERIAL AND COLLECTOR STREETS. SLOPE 1.5% TYPICAL, 2% MAXIMUM



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

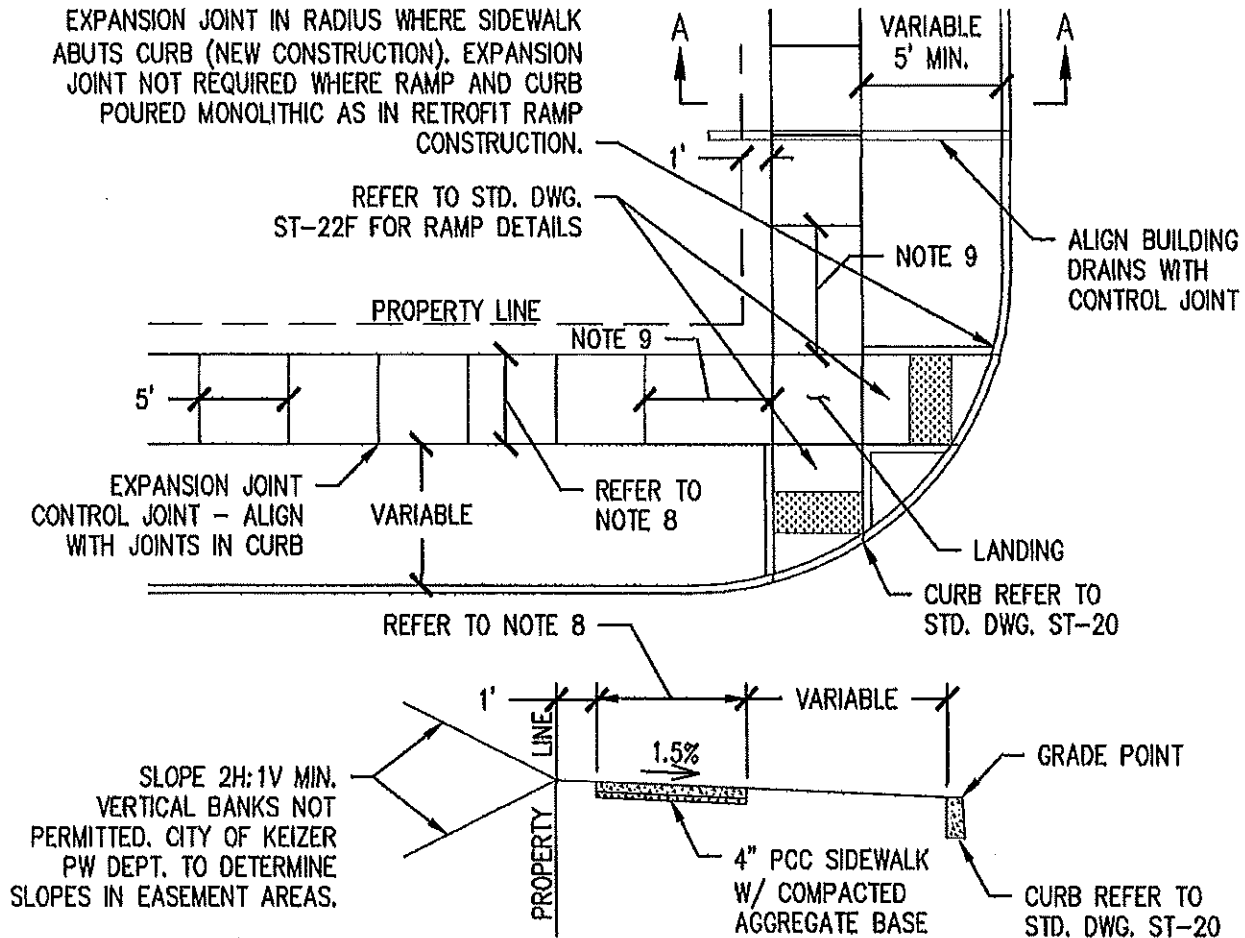
CURB-PROPERTY LINE SIDEWALK

DRAWN: G.H.B.

DATE: 12-21-16

APPROVED: W.I.P.

NUMBER: ST-22B



NOTES:

1. EXPANSION JOINTS 1/2" X 4" PREMOLDED JOINT FILLER MATERIAL AT LOCATIONS SHOWN, HEREON AND ON STANDARD DRAWING NO. 22. MATERIAL SHALL BE RECESSED OR CUT TO WITHIN 1/2" OF THE FINISHED CONCRETE SURFACE.
2. CONTROL JOINTS SHALL BE 1-1/4" DEEP, SPACED AT 5' INTERVALS.
3. 28 DAY CONCRETE STRENGTH SHALL BE 3300 P.S.I.
4. PAVEMENT, TURF, OR PLANTED AREAS DISTURBED BY SIDEWALK CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION.
5. FINISH SIDEWALK WITH LIGHT TRANSVERSE BROOMING EXCEPT AT RAMPS.
6. ALL EDGES SHALL BE TOOL ROUNDED AND SHINED (3") AFTER BROOMING.
7. SEE STD. DRAWING ST-24 FOR STD. SIDEWALK DEPTHS AT MAILBOX LOCATIONS.
8. 5' MIN. SIDEWALK WIDTH FOR LOCAL STREETS - 6' MIN. SIDEWALK WIDTH FOR ARTERIAL AND COLLECTOR STREETS. SLOPE 1.5% TYPICAL, 2% MAXIMUM
9. TRANSITION LENGTHS ARE VARIABLE AND BASED ON STREET GRADES - 8.3% MAX. SLOPE OR 15' MAX. LENGTH.

SECTION "A-A"



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

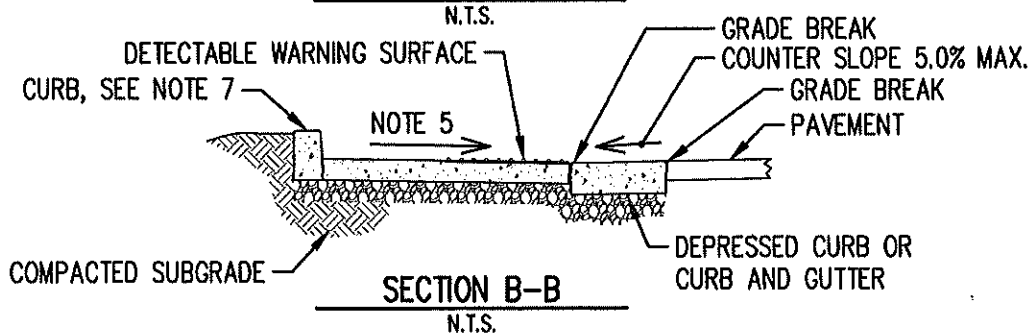
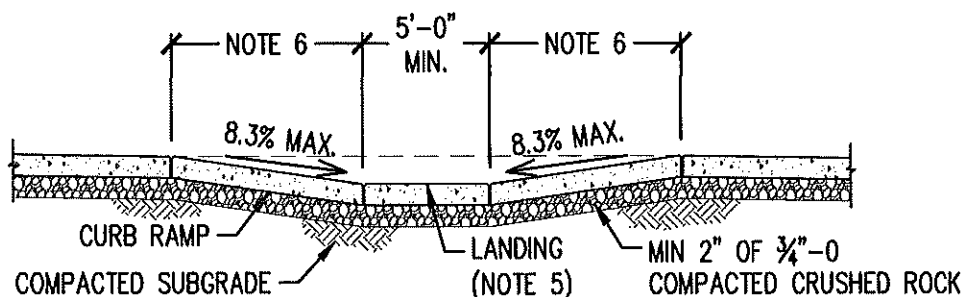
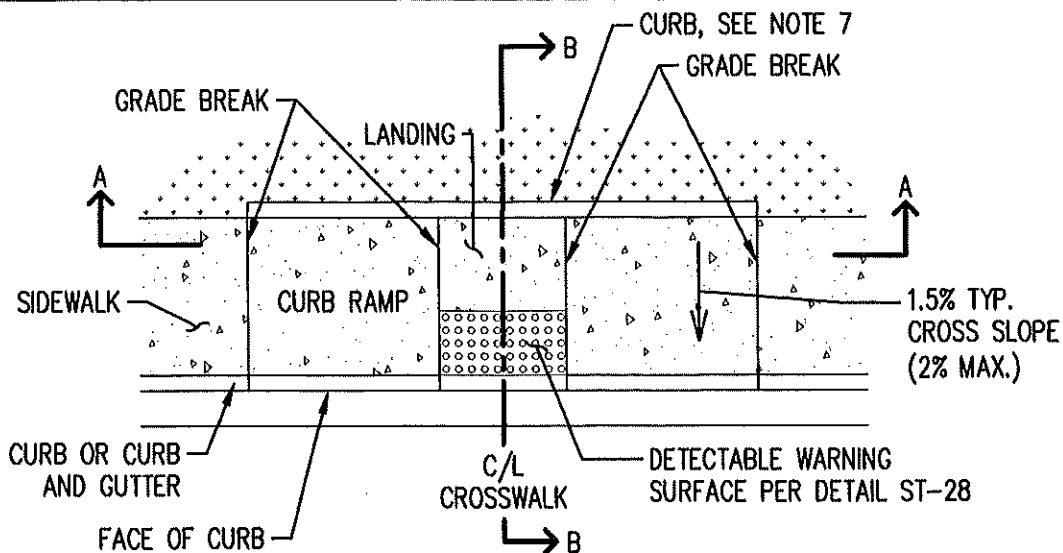
PROPERTY LINE SIDEWALK

DRAWN: G.H.B.

DATE: 12-21-16

APPROVED: W.I.P.

NUMBER: ST-22C



#### NOTES:

1. CONCRETE SHALL BE 3300 PSI AT 28 DAYS.
2. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
3. DO NOT PLACE GRATES, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
4. BROOM FINISH CURB RAMP, LANDING, AND FLARES.
5. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2.0% IN ANY DIRECTION.
6. TRANSITION LENGTHS ARE VARIABLE AND BASED ON STREET GRADES - 8.3% MAX. SLOPE OR 15' MAX. LENGTH.
7. CONSTRUCT CURB WHERE REQUIRED TO RETAIN SOIL. 6" NOMINAL CURB EXPOSURE, MAY BE MONOLITHICALLY POURED. LANDSCAPE BLOCKS MAY BE USED IN PLACE OF CURB WHEN APPROVED BY PUBLIC WORKS DEPT.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

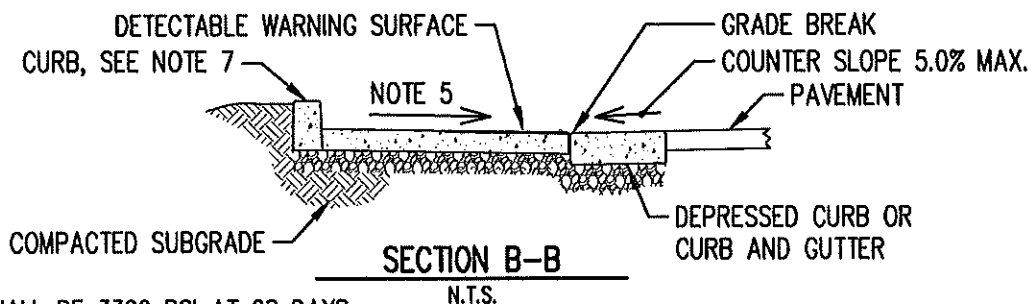
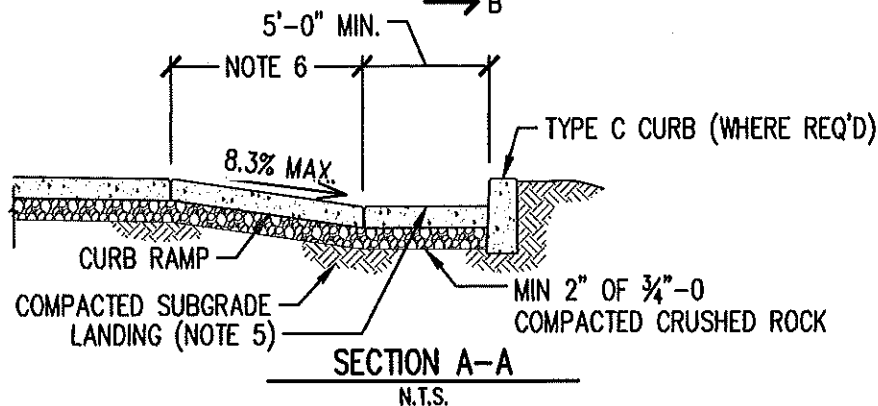
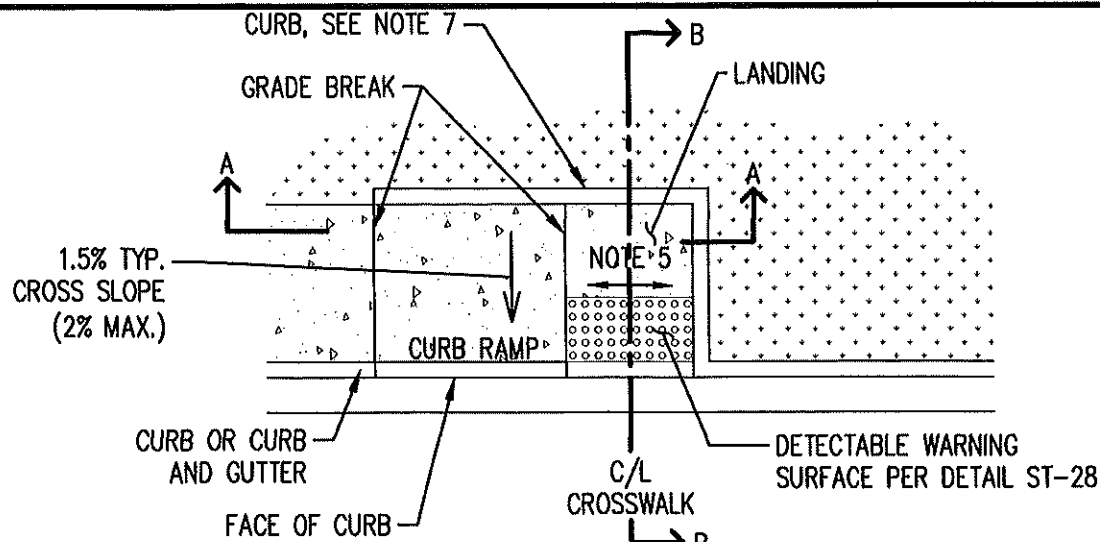
*CURB RAMP - PARALLEL TYPE A*

DRAWN: G.H.B.

DATE: 03-22-17

APPROVED: W.I.P.

NUMBER: ST-22D



#### NOTES:

1. CONCRETE SHALL BE 3300 PSI AT 28 DAYS.
2. WHERE "GRADE BREAK" IS CALLED OUT, THE ENTIRE LENGTH OF THE GRADE BREAK BETWEEN THE TWO ADJACENT SURFACE PLANES SHALL BE FLUSH.
3. DO NOT PLACE GRATES, JUNCTION BOXES, ACCESS COVERS, OR OTHER APPURTENANCES IN FRONT OF THE CURB RAMP OR ON ANY PART OF THE CURB RAMP OR LANDING.
4. BROOM FINISH CURB RAMP, LANDING, AND FLARES.
5. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2.0% IN ANY DIRECTION.
6. TRANSITION LENGTHS ARE VARIABLE AND BASED ON STREET GRADES - 8.3% MAX. SLOPE OR 15' MAX. LENGTH.
7. CONSTRUCT CURB WHERE REQUIRED TO RETAIN SOIL. 6" NOMINAL CURB EXPOSURE, MAY BE MONOLITHICALLY POURED. LANDSCAPE BLOCKS MAY BE USED IN PLACE OF CURB WHEN APPROVED BY PUBLIC WORKS DEPT.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

*CURB RAMP - PARALLEL TYPE B*

DRAWN: G.H.B.

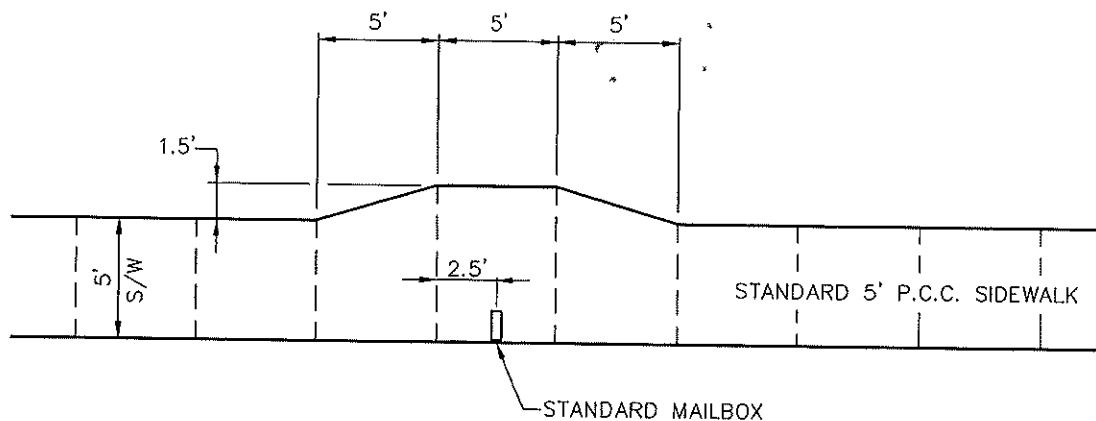
DATE: 03-22-17

APPROVED: W.I.P.

NUMBER: ST-22E







**NOTE:**

1. SEE DETAIL ST-21 FOR STANDARD SIDEWALK SPECIFICATIONS.
2. CONSTRUCT WIDENED SIDEWALK AT ALL MAILBOX LOCATIONS.
3. MAILBOX PLACEMENT SPECIFICATIONS:
  - FRONT FACE OF MAILBOX TO BE SET BACK 6" FROM FACE OF CURB.
  - BASE OF MAILBOX TO BE BETWEEN 38" AND 40" FROM CURB GUTTER OR PAVEMENT GRADE.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

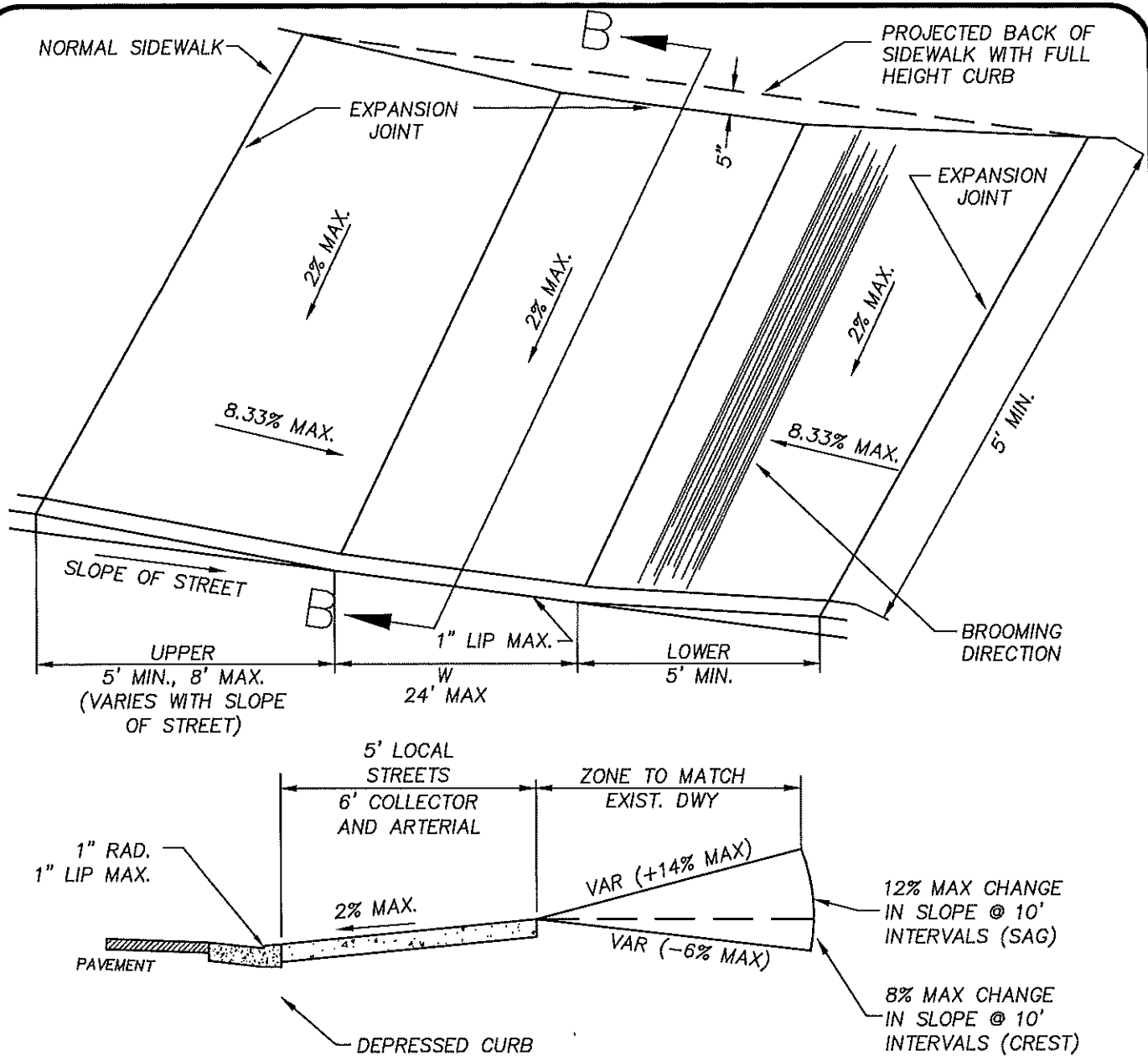
**WIDENED SIDEWALK AT  
MAILBOX LOCATIONS**

DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

NUMBER: ST-24

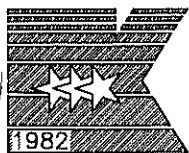


### SECTION B-B NTS

#### NOTES:

1. DRIVEWAY WIDTH (W) WILL USUALLY APPEAR ON THE PROJECT PLANS. WHEN NOT SHOWN, THE WIDTH WILL BE AS FOLLOWS:  

<b>RESIDENTIAL</b>	<b>COMMERCIAL</b>
12' MIN. - 24' MAX.	36' MAX.
2. SIDEWALKS, INCLUDING THAT PORTION CROSSING THE DRIVEWAY, SHALL HAVE TRANSVERSE CONTRACTION JOINTS AT 5' INTERVALS AND TOOL ROUNDED BEFORE BROOMING. ALL EDGES SHALL BE TOOL ROUNDED AND SHINED (3") AFTER BROOMING.
3. WHEN EXISTING DRIVEWAY CANNOT BE MATCHED TO NEW DRIVEWAY APPROACH WITHIN SLOPE LIMITATIONS SHOWN, ADJUST EXISTING DRIVEWAY - NOT THE CURB, APPROACH OR SIDEWALK.
4. PROVIDE PREMOLDED EXPANSION JOINTS 1/2" x 3 1/2" AT THE LOCATIONS SHOWN.
5. THE DIMENSIONS OF DRIVEWAY APPROACH SHALL NOT BE ADJUSTED WITHOUT SPECIFIC PRIOR APPROVAL (BEFORE FORMING) FROM THE INSPECTOR.
6. CONCRETE STRENGTH SHALL BE 3300 P.S.I. IN 28 DAYS.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

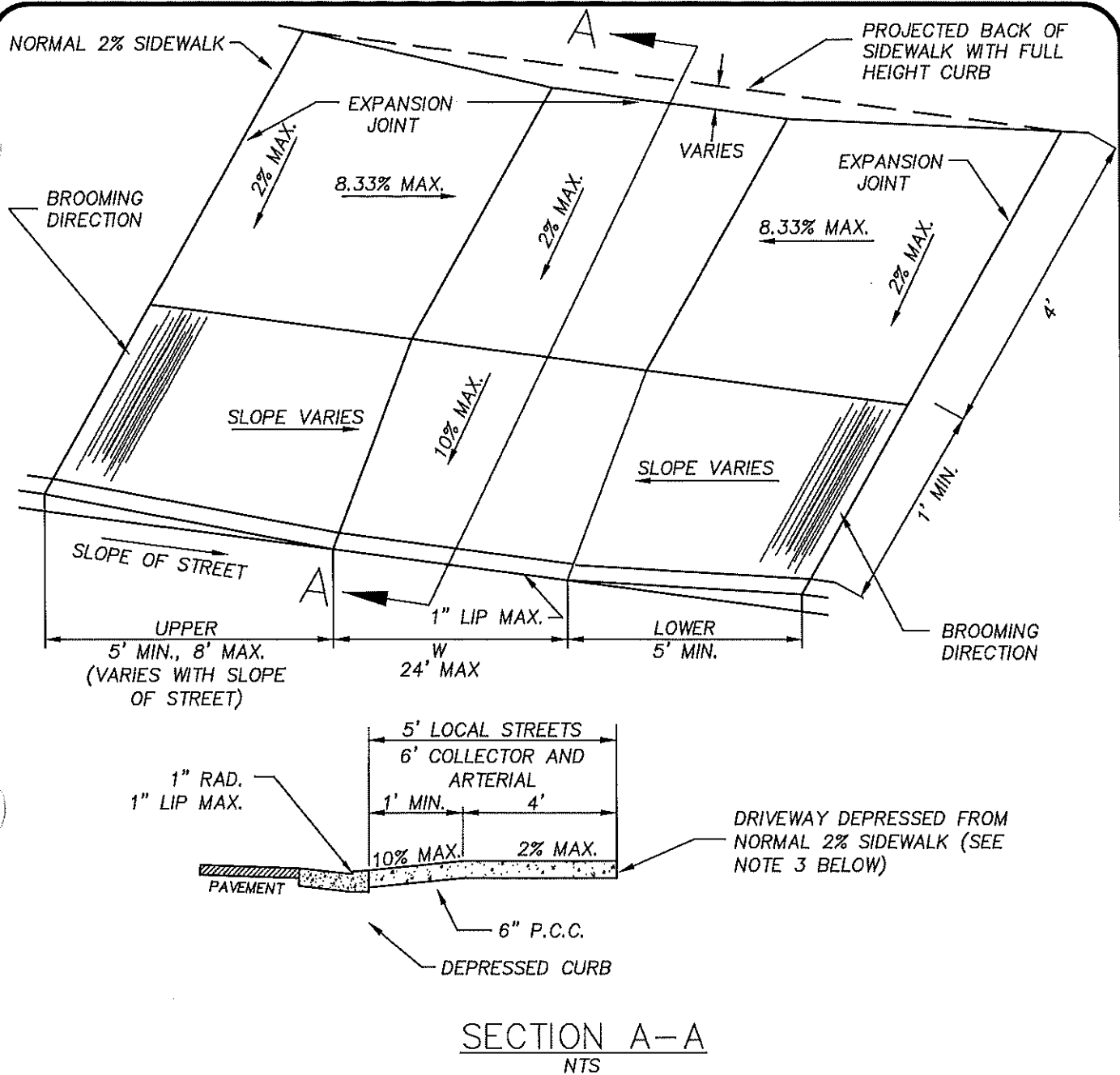
DRIVEWAY APPROACH W/ CURB  
LINE WALK OPTION #1

DRAWN: G.H.B.

DATE: 08-10-2016

APPROVED: W.I.P.

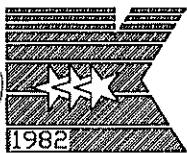
NUMBER: ST-25



#### NOTES:

1. DRIVEWAY WIDTH (W) WILL USUALLY APPEAR ON THE PROJECT PLANS. WHEN NOT SHOWN, THE WIDTH WILL BE AS FOLLOWS:  

<b>RESIDENTIAL</b>	<b>COMMERCIAL</b>
12' MIN. - 24' MAX.	36' MAX.
2. SIDEWALKS, INCLUDING THAT PORTION CROSSING THE DRIVEWAY, SHALL HAVE TRANSVERSE CONTRACTION JOINTS AT 5' INTERVALS AND TOOL ROUNDED BEFORE BROOMING. ALL EDGES SHALL BE TOOL ROUNDED AND SHINED (3") AFTER BROOMING.
3. WHEN EXISTING DRIVEWAY CANNOT BE MATCHED TO NEW DRIVEWAY APPROACH WITHIN SLOPE LIMITATIONS SHOWN, ADJUST EXISTING DRIVEWAY - NOT THE CURB, APPROACH OR SIDEWALK.
4. PROVIDE PREMOLDED EXPANSION JOINTS 1/2" x 3 1/2" AT THE LOCATIONS SHOWN.
5. THE DIMENSIONS OF DRIVEWAY APPROACH SHALL NOT BE ADJUSTED WITHOUT SPECIFIC PRIOR APPROVAL (BEFORE FORMING) FROM THE INSPECTOR.
6. CONCRETE STRENGTH SHALL BE 3300 P.S.I. IN 28 DAYS.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

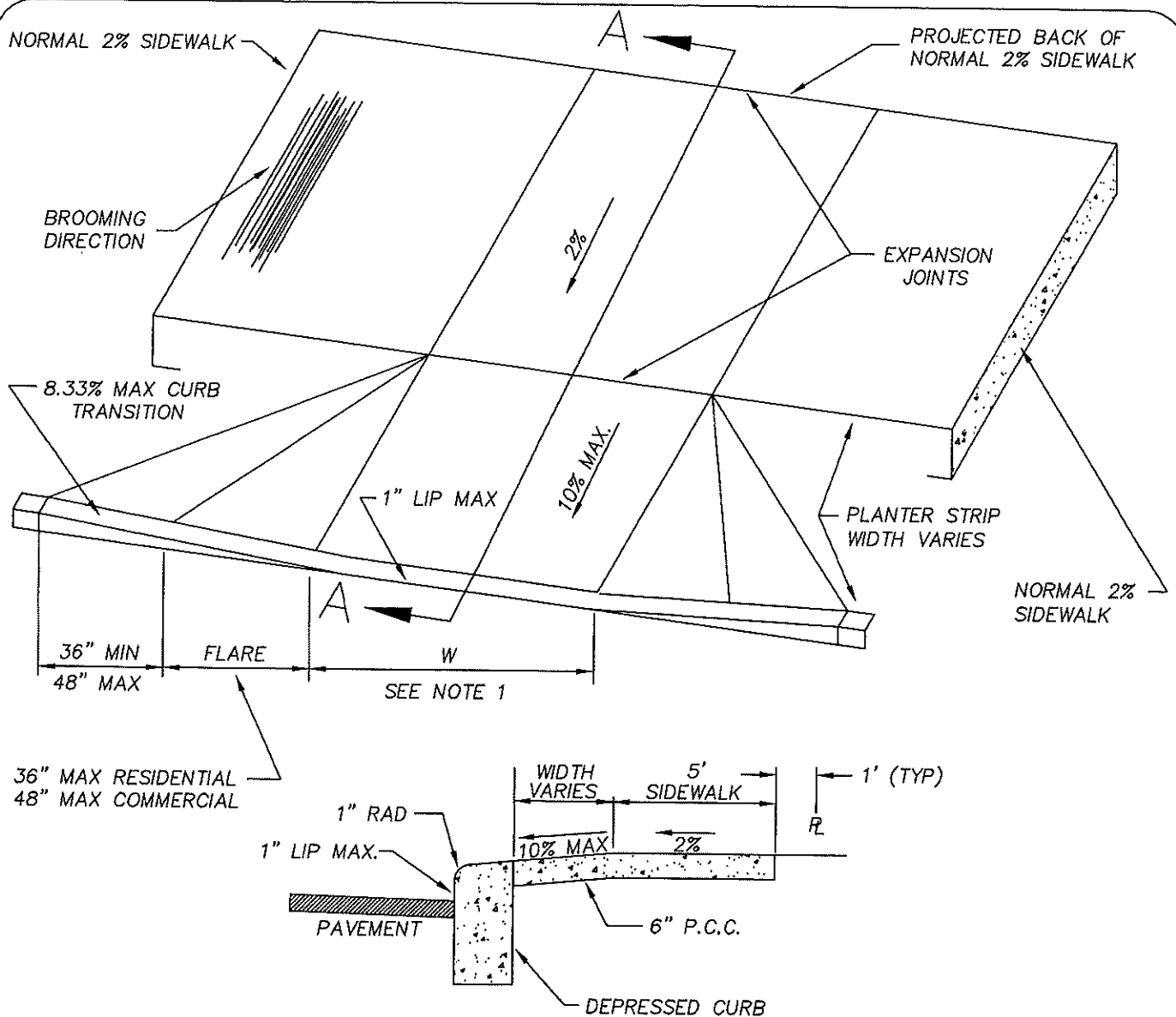
DRIVEWAY APPROACH W/ CURB  
LINE WALK OPTION #2

DRAWN: G.H.B.

DATE: 08-10-2016

APPROVED: W.I.P.

NUMBER: ST-26



SECTION A-A  
NTS

**NOTES:**

1. DRIVEWAY WIDTH (W) WILL USUALLY APPEAR ON THE PROJECT PLANS. WHEN NOT SHOWN, THE WIDTH WILL BE AS FOLLOWS:  

<b>RESIDENTIAL</b>	<b>COMMERCIAL</b>
12' MIN. - 24' MAX.	36' MAX.
2. SIDEWALKS, INCLUDING THAT PORTION CROSSING THE DRIVEWAY, SHALL HAVE TRANSVERSE CONTRACTION JOINTS AT 5' INTERVALS AND TOOL ROUNDED BEFORE BROOMING. ALL EDGES SHALL BE TOOL ROUNDED AND SHINED (3") AFTER BROOMING.
3. WHEN EXISTING DRIVEWAY CANNOT BE MATCHED TO NEW DRIVEWAY WITHIN SLOPE LIMITATIONS SHOWN, ADJUST EXISTING DRIVEWAY - NOT THE CURB, APPROACH OR SIDEWALK.
4. PROVIDE PREMOLDED EXPANSION JOINTS 1/2" x 3 1/2" AT THE LOCATIONS SHOWN.
5. THE DIMENSIONS OF DRIVEWAY APPROACH SHALL NOT BE ADJUSTED WITHOUT SPECIFIC PRIOR APPROVAL (BEFORE FORMING) FROM THE INSPECTOR.
6. CONCRETE STRENGTH SHALL BE 3300 P.S.I. IN 28 DAYS.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

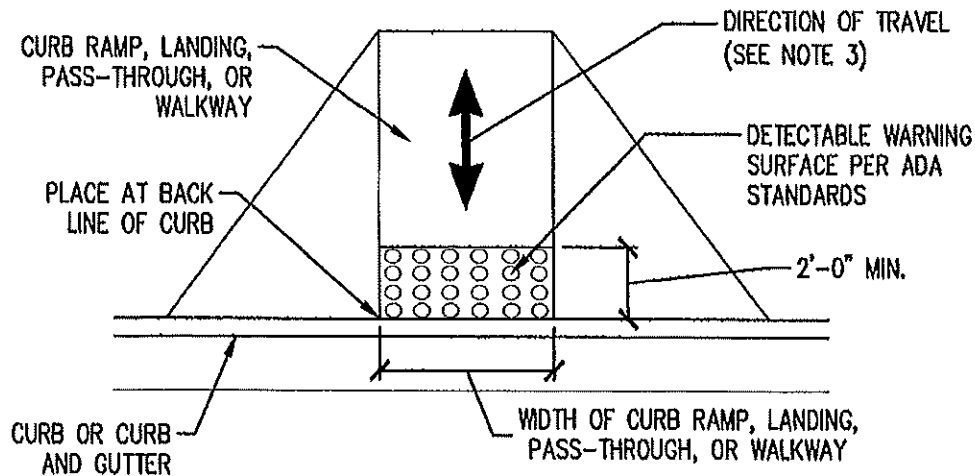
DWY W\PROPERTY LINE WALK  
OPTION #3

DRAWN: S.W.P.

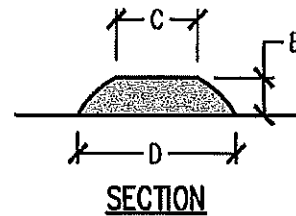
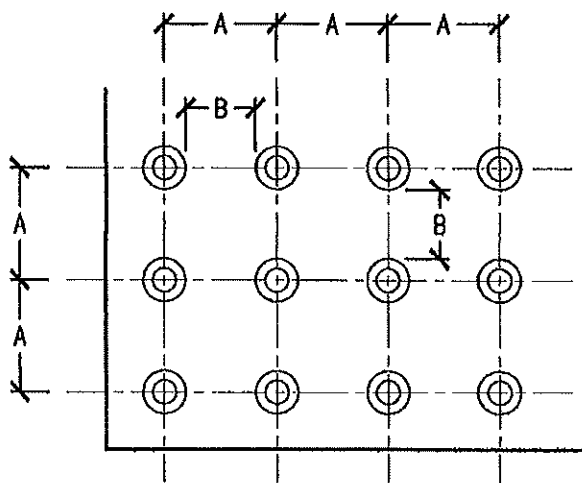
DATE: 01-04-01

APPROVED: W.I.P.

NUMBER: ST-27



### DETECTABLE WARNING SURFACE DETAIL



	MIN	MAX
A	1.60"	2.40"
B	0.60"	0.60"
C	0.45"	0.90"
D	0.90"	1.40"
E	0.20"	0.20"

### TRUNCATED DOMES DETAILS

#### NOTES:

1. THE DETECTABLE WARNING SURFACE (DWS) SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP (EXCLUSIVE OF FLARES) OR THE LANDING.
2. THE EDGE OF THE DWS, SHALL BE PLACED ALONG THE BACK OF THE CURB LINE.
3. THE ROWS OF TRUNCATED DOMES IN A DWS SHALL BE ALIGNED WITH THE DIRECTION OF TRAVEL.
4. PLACE TRUNCATED DOME DETECTABLE WARNING TEXTURE IN THE LOWER 2' OF THROAT OF RAMP ONLY BEHIND CURB. ARRANGE DOMES USING IN-LINE PATTERN AS SHOWN. COLOR OF TEXTURE TO BE RED.
5. TRUNCATED DOMES SHALL BE EITHER ARMOR-TILE, CERAMIC STYLE, OR APPROVED EQUAL.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

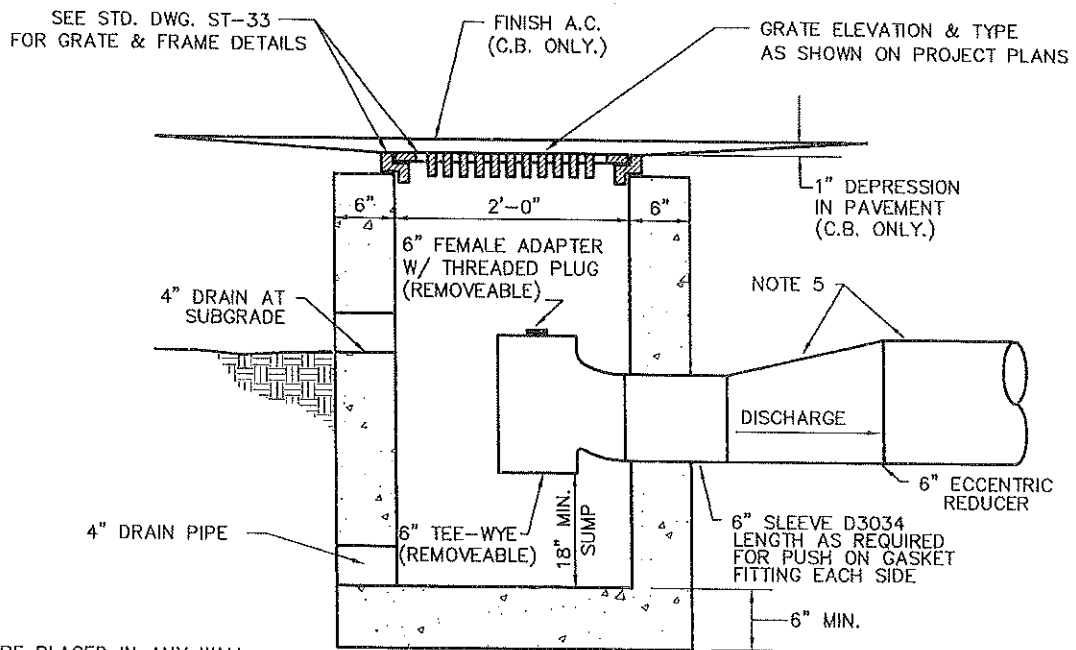
DETECTABLE WARNING SURFACES

DRAWN: G.H.B.

DATE: 12-21-16

APPROVED: W.I.P.

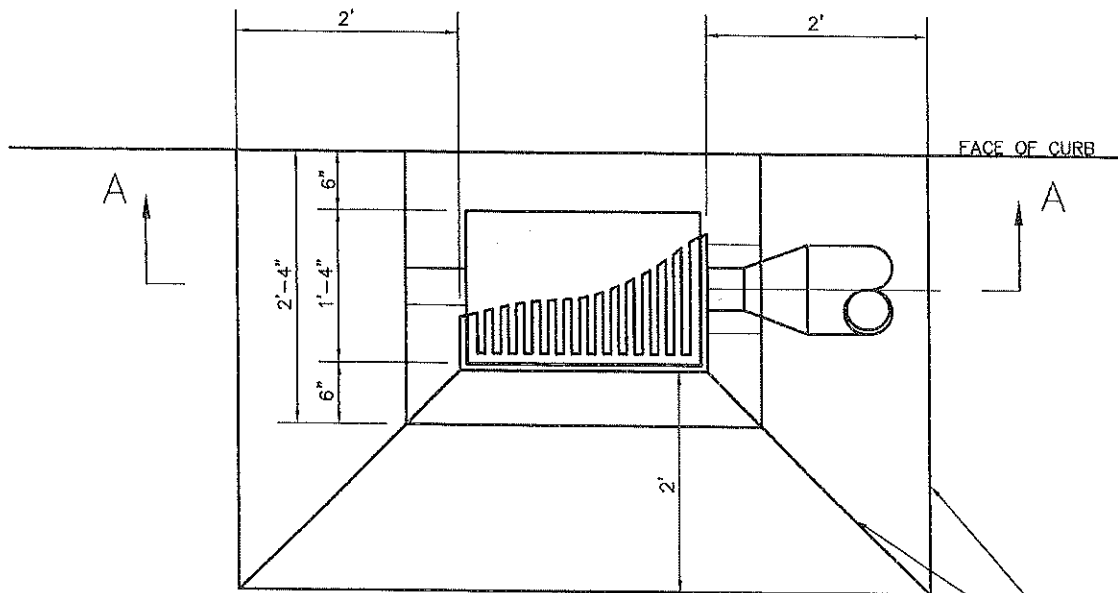
NUMBER: ST-28



**NOTES:**

1. PIPE(S) CAN BE PLACED IN ANY WALL
2. ALL CONCRETE TO BE 3300 P.S.I.
3. 4" DRAINS TO BE P.V.C. PIPE.
4. SEE DWG. ST-33 FOR C.B. FRAME & GRATES.
5. INSTALL ECCENTRIC REDUCER FROM 6" TEE-WYE TO STORM DRAIN PIPE. FOR STORM DRAIN PIPE SIZE, LOCATION, & INVERT ELEVATION SEE PROJECT PLANS.

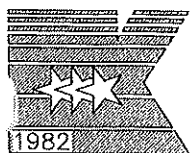
**SECTION A-A**



**PLAN**

WARP PAVING AS SHOWN TO FORM LOCAL DEPRESSION

REVISED 6/12/06 K.L.C.  
REVISED 1/20/00 S.W.P.



**CITY OF KEIZER**

**DEPARTMENT OF PUBLIC WORKS**

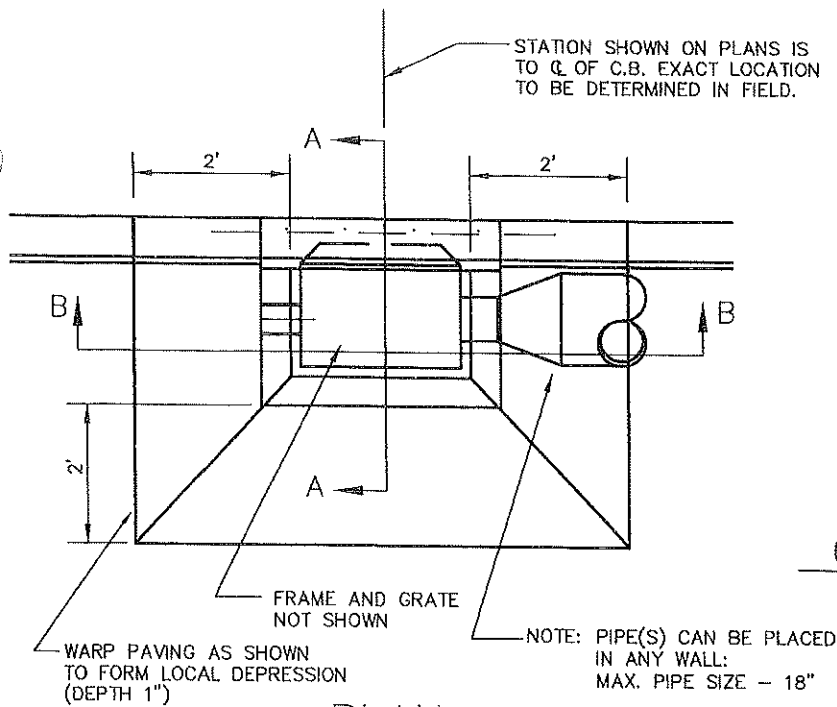
**TYPE 1  
CATCH BASIN**

DRAWN: T.A.K.

DATE: 04-04-95

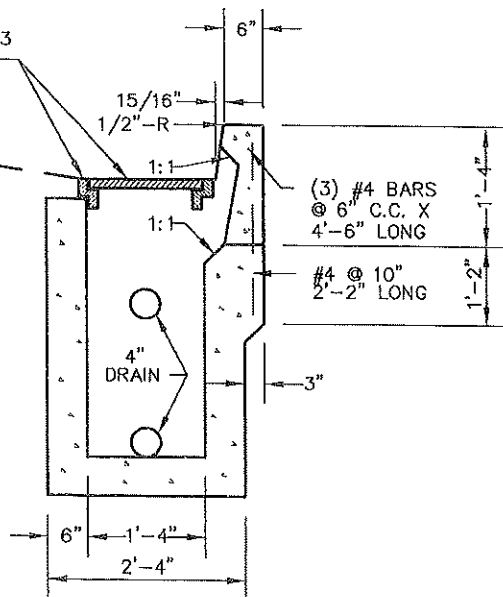
APPROVED: W.I.P.

NUMBER: ST-30

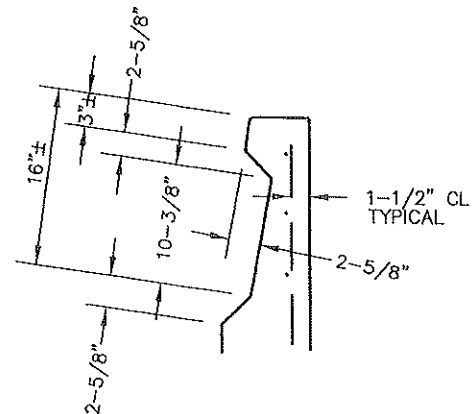


PLAN

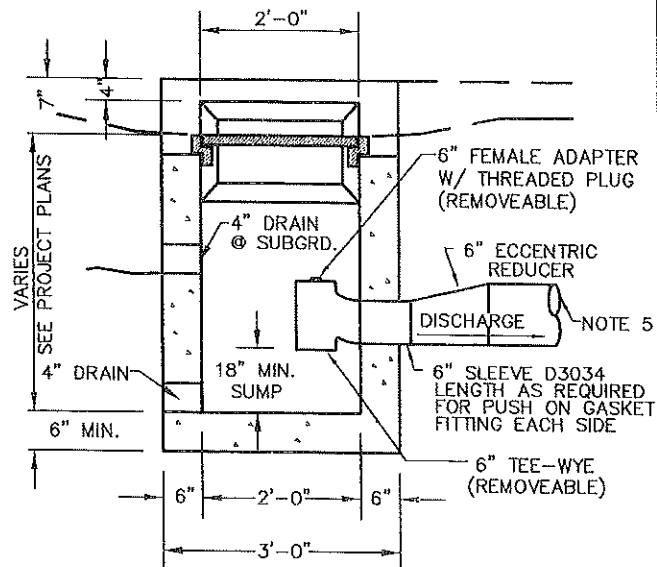
SEE DETAIL ST-33  
GRATE & FRAME  
DETAILS



SECTION A-A



CURB OPENING DETAIL

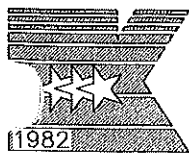


SECTION B-B

NOTES:

1. ALL CONCRETE SHALL BE CLASS 3300 PSI.
2. DRAINS SHALL BE 4-INCH P.V.C. PIPE.
3. FOR OUTLET PIPE SIZE, LOCATION, AND INVERT ELEVATION SEE PROJECT PLANS.
4. SEE DWG. ST-33 FOR C.B. FRAME & GRATES.
5. INSTALL ECCENTRIC REDUCER FROM 6" TEE-WYE TO STORM DRAIN PIPE. FOR PIPE SIZE, LOCATION, AND INVERT ELEVATION SEE PROJECT PLANS.

REVISED 6/12/06 K.L.C.  
REVISED 1/20/00 S.W.P.



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

TYPE 2  
CATCH BASIN

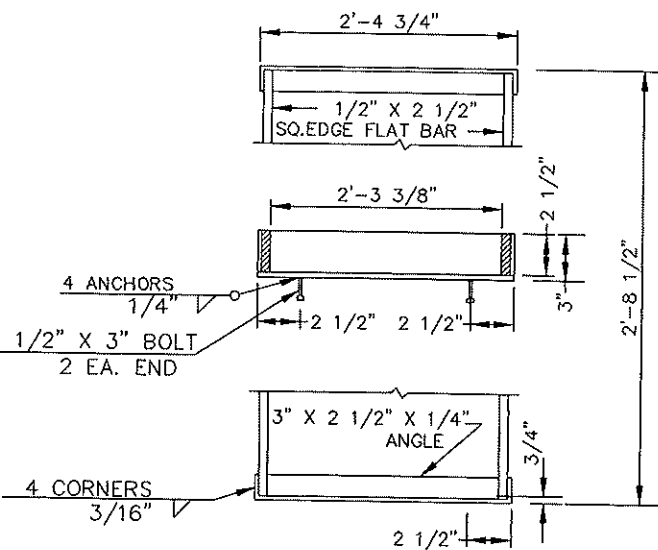
DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

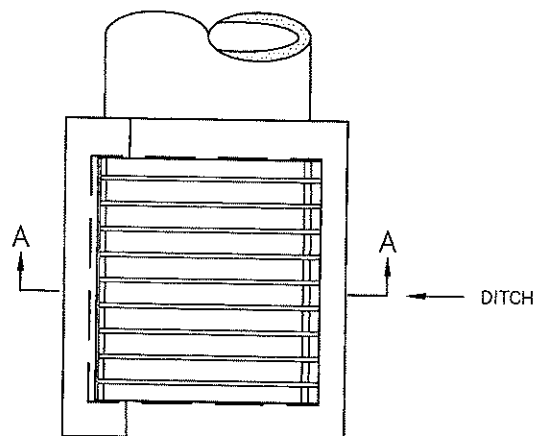
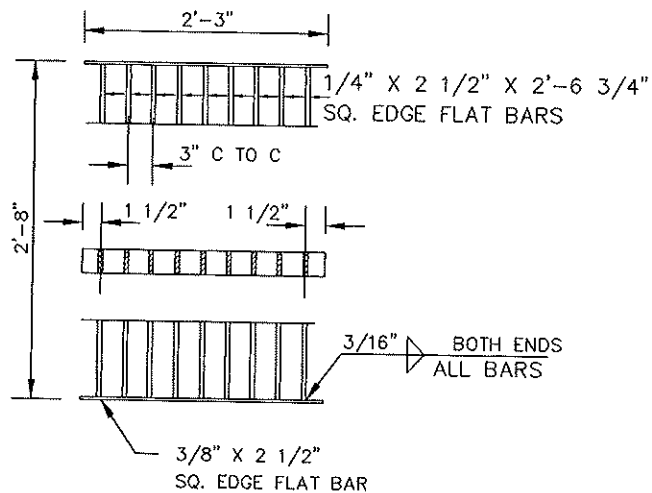
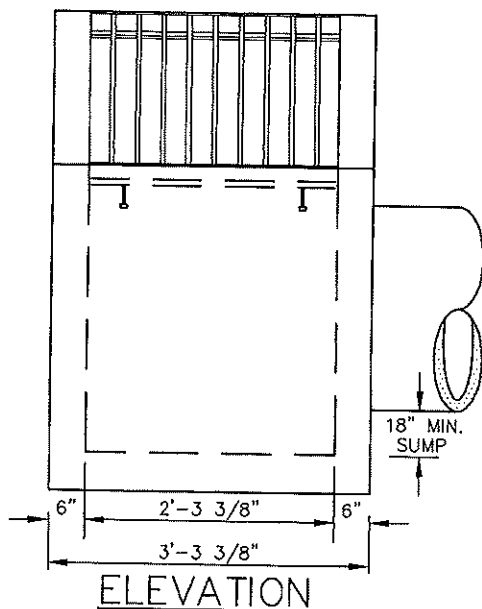
NUMBER: ST-31



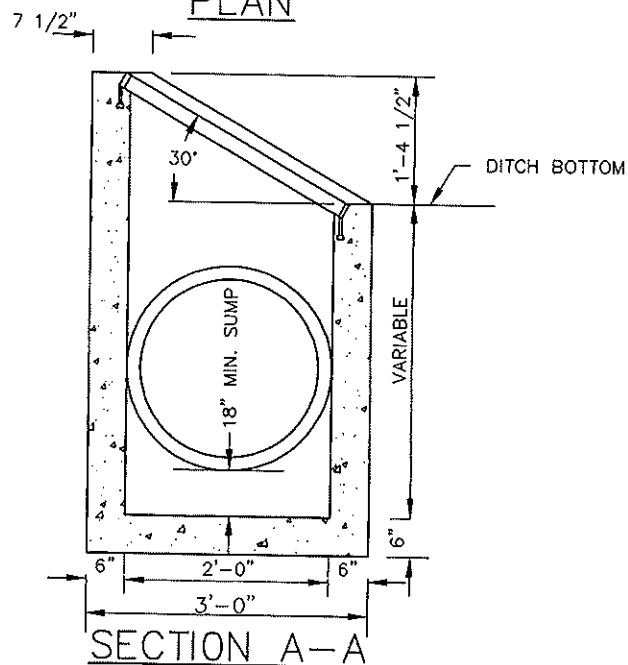


NOTES:

1. ALL CONCRETE SHALL BE CLASS 3000 PSI.
2. DRAINS SHALL BE 4-INCH CONC. DRAIN TILE.
3. FOR OUTLET PIPE SIZE, LOCATION, AND INVERT ELEVATION SEE PROJECT PLANS.



PLAN



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

TYPE 3  
CATCH BASIN

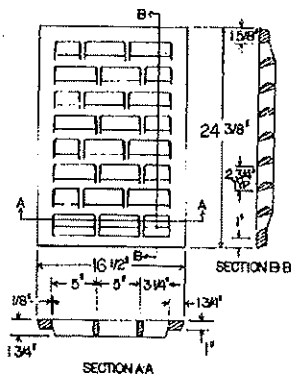
DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

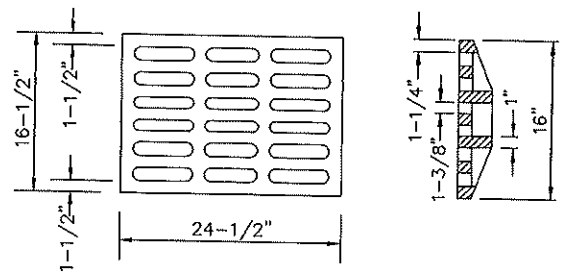
NUMBER: ST-32

REVISED 1/20/00 S.W.P.



Style D-1 Grate

GRIND SMOOTH FINISH  
ON BEARING SURFACES

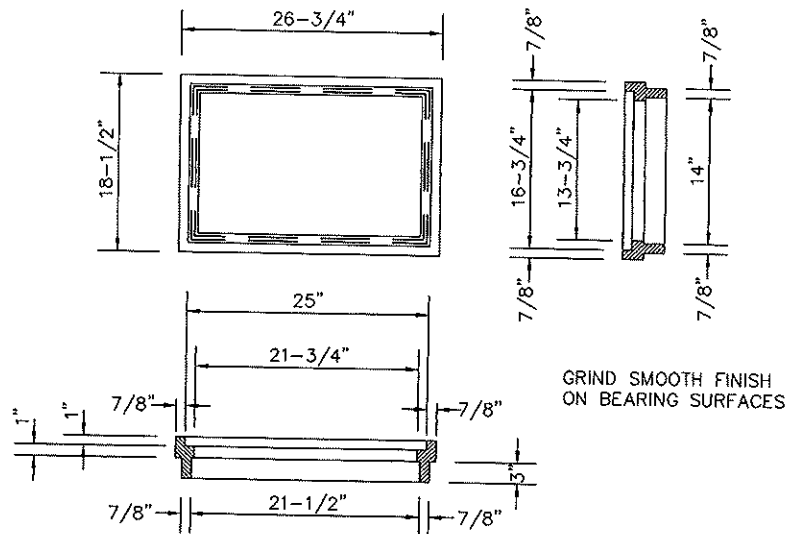


TYPE A GRATE  
1-3/8" CLEAR SPACING

ONLY TO BE USED IN CASES PRE-AUTHORIZED  
BY THE CITY OF KEIZER DEPT. OF PUBLIC WORKS.

### DIRECTIONAL FLOW GRATE

### CAST IRON / CAST STEEL GRATES



GRIND SMOOTH FINISH  
ON BEARING SURFACES

### CAST IRON / CAST STEEL GRATE FRAMES

#### NOTES:

1. ALL CASTINGS SHALL CONFORM TO ASTM A 48(AASHTO M 105) FOR GRAY IRON CASTINGS, CLASS 30, OR (AASHTO M 192K CLASS 70) FOR CAST STEEL.
2. ROUNDS, FILLETS, TAPERS AND OTHER MINOR MODIFICATIONS TO THE DIMENSIONS SHOWN FOR CASTINGS MAY BE MADE TO CONFORM TO COMMON SHOP PRACTICES.
3. USE TYPE "B" GRATE UNLESS OTHERWISE NOTED.



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

### CATCH BASIN FRAMES & GRATES

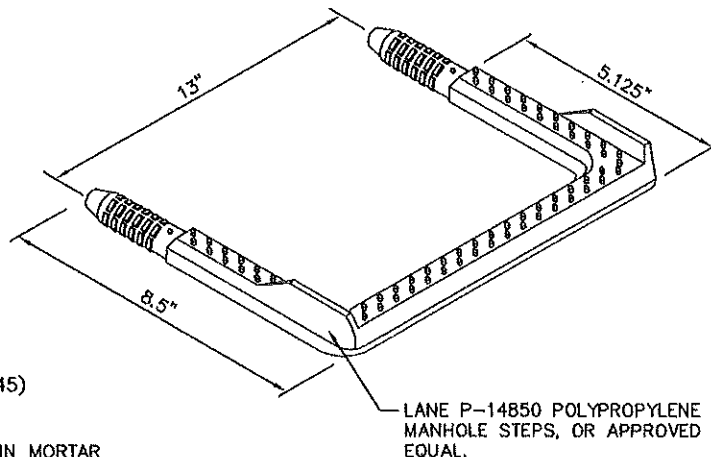
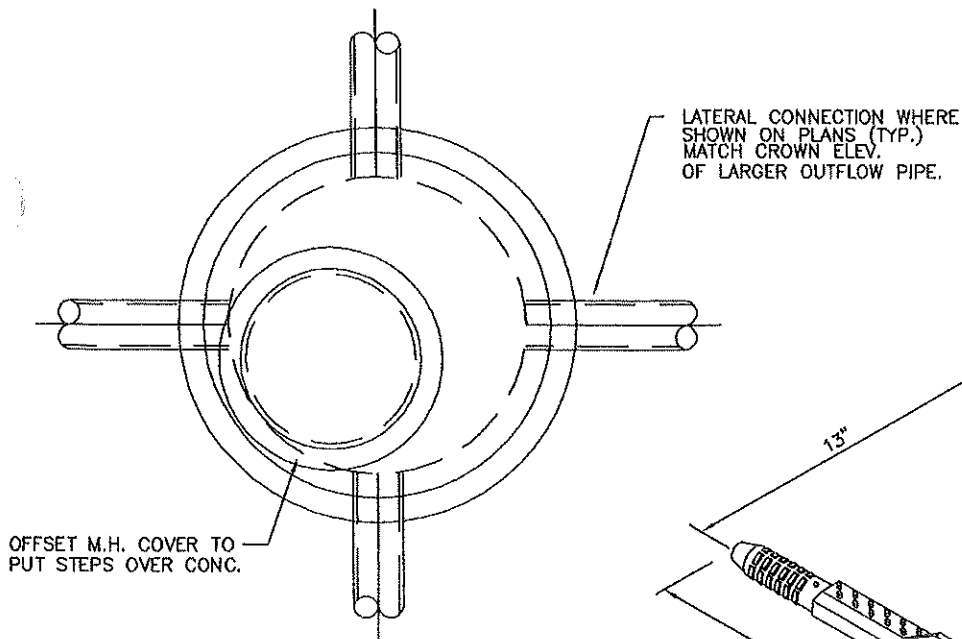
DRAWN: T.A.K.

DATE: 04-04-95

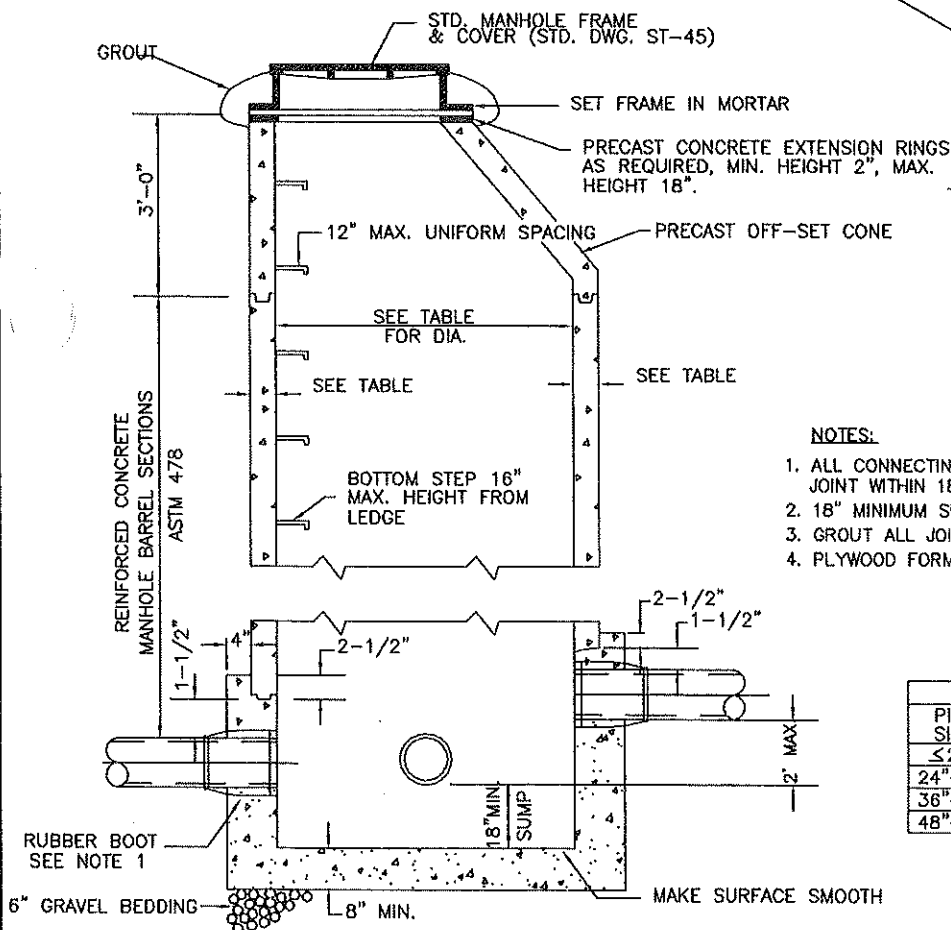
APPROVED: W.I.P.

NUMBER: ST-33

REVISED 1/20/00 S.W.P.



### STEP DETAIL

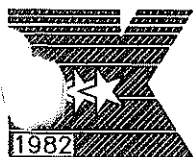


#### NOTES:

1. ALL CONNECTING PIPES SHALL HAVE A FLEXIBLE JOINT WITHIN 18" OF MANHOLE WALL.
2. 18" MINIMUM SUMP REQUIRED.
3. GROUT ALL JOINTS (KEY LOCK ONLY)
4. PLYWOOD FORM ALL BASES

TABLE		
PIPE SIZE	MANHOLE DIAMETER	WALL THICKNESS
≤ 21"	48"	5"
24"-30"	60"	6"
36"-42"	72"	7"
48"-54"	84"	8"

REVISED 8/02/07 K.L.C. ADDED TABLE  
REVISED 9/15/00 S.W.P., NO CHANNELS  
REVISED 1/20/00 S.W.P.



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

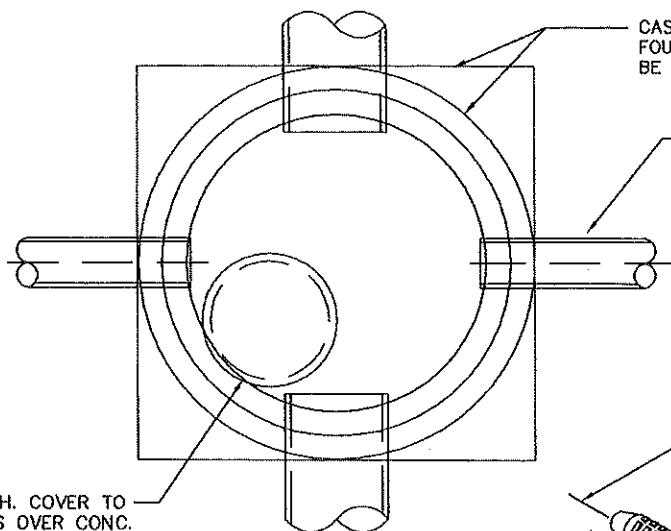
STANDARD MANHOLE

DRAWN: T.A.K.

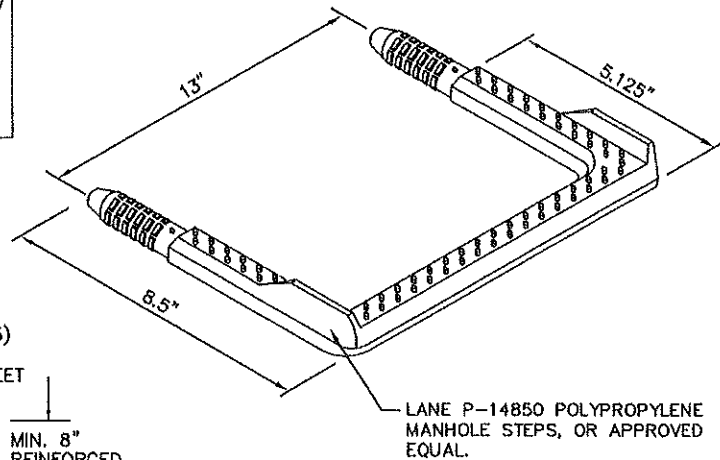
DATE: 04-04-95

APPROVED: W.I.P.

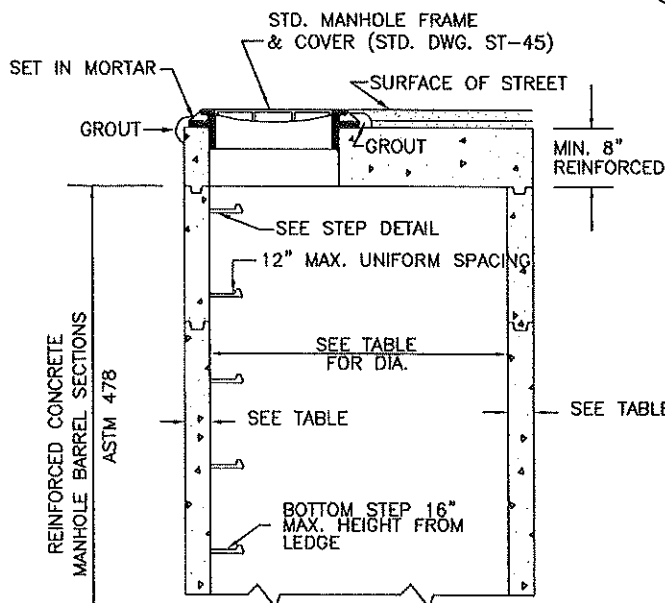
NUMBER: ST-40



OFFSET M.H. COVER TO PUT STEPS OVER CONC.



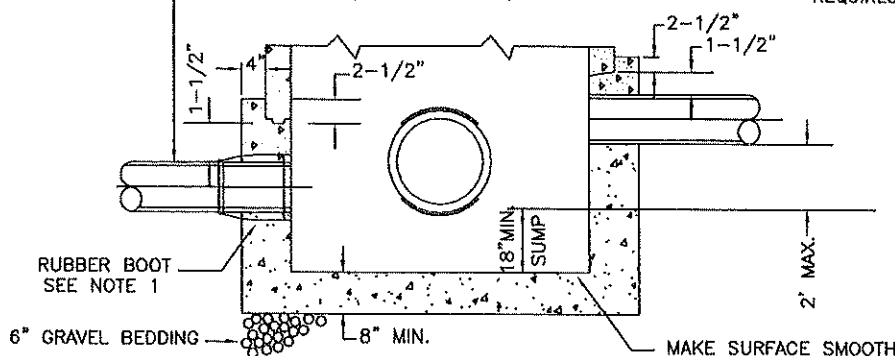
### STEP DETAIL



### NOTES:

1. ALL CONNECTING PIPES SHALL HAVE A FLEXIBLE JOINT WITHIN 18" OF MANHOLE WALL.
2. 18" MINIMUM SUMP REQUIRED.
3. GROUT ALL JOINTS (KEY LOCK ONLY)
4. PLYWOOD FORM ALL BASES
5. APPROVAL FROM PUBLIC WORKS DEPT. REQUIRED BEFORE INSTALLATION.

PIPE SIZE	MANHOLE DIAMETER	WALL THICKNESS
≤ 21"	48"	5"
24"-30"	60"	6"
36"-42"	72"	7"
48"-54"	84"	8"



REVISED 8/02/07 K.L.C. ADDED TABLE  
REVISED 9/15/00 S.W.P., NO CHANNELS  
REVISED 5/28/99 S.W.P. REVISED 1/20/00 S.W.P.



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

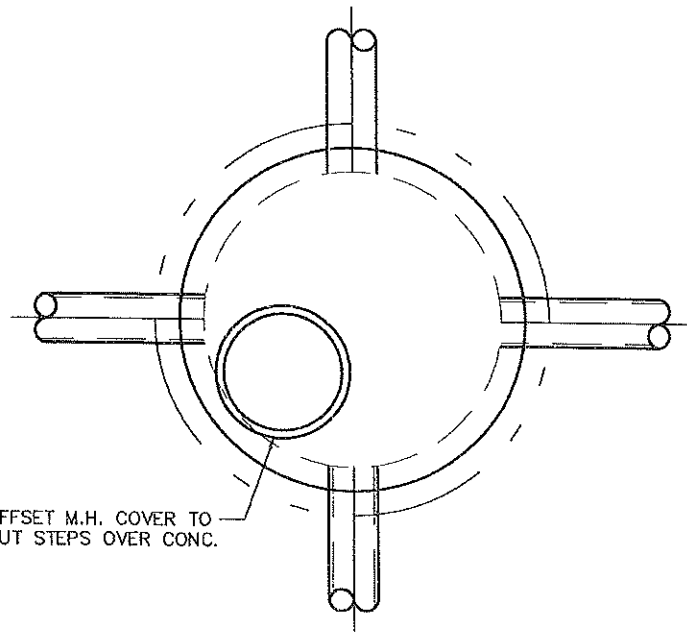
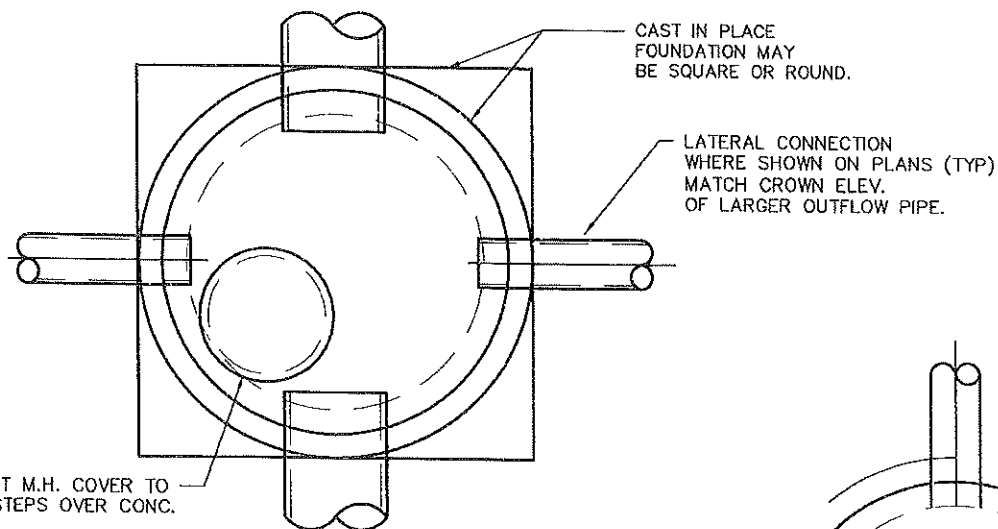
ALTERNATE DIAMETER MANHOLE

DRAWN: T.A.K.

DATE: 04-04-95

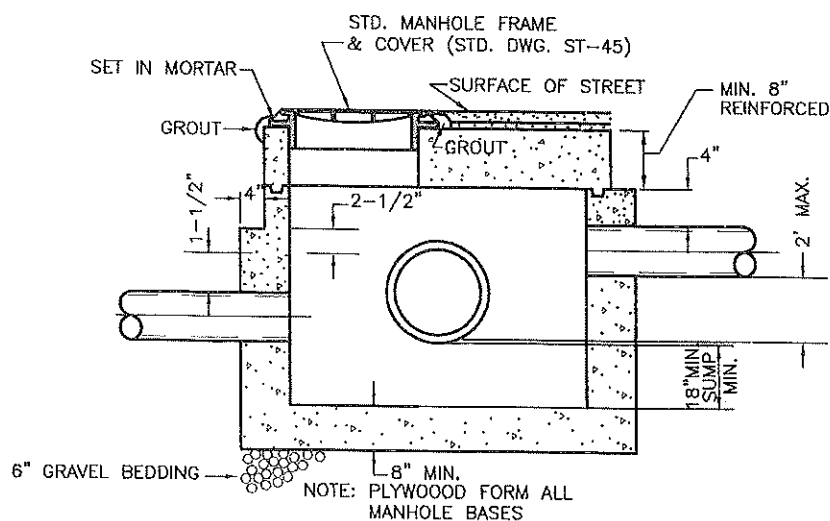
APPROVED: W.I.P.

NUMBER: ST-41

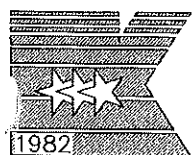


#### NOTES:

1. SPECIAL EXCEPTION DRAWINGS ST-43 & ST-44 FOR SHALLOW MANHOLES MAY BE USED AS APPROVED BY CITY OF KEIZER PUBLIC WORKS.
2. SHALLOW MANHOLES TO BE USED FOR DEPTHS LESS THAN 4 FEET.



REVISED 4/19/06 K.L.C.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

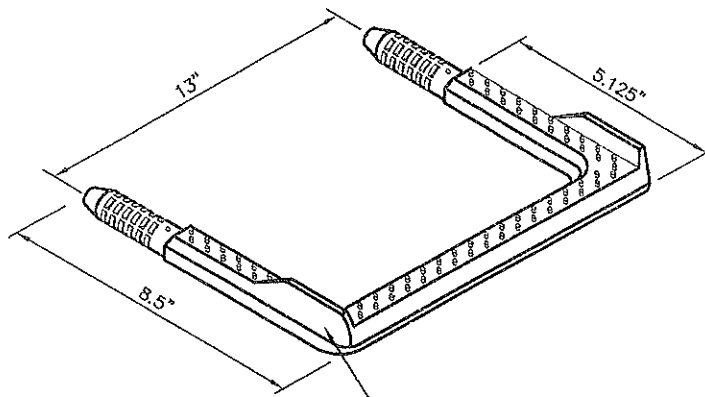
STANDARD SHALLOW MANHOLE

DRAWN: T.A.K.

DATE: 04-04-95

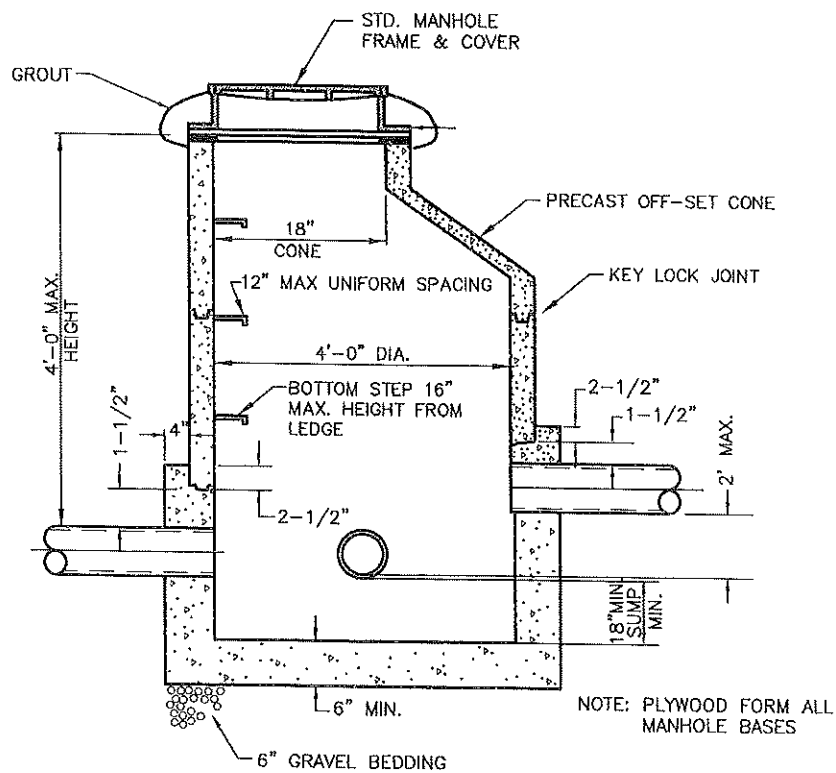
APPROVED: W.I.P.

NUMBER: ST-42

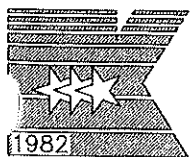


LANE P-14850 POLYPROPYLENE  
MANHOLE STEPS, OR APPROVED  
EQUAL.

### STEP DETAIL



REVISED 4/19/06 K.L.C.  
REVISED 1/25/00 S.W.P.



**CITY OF KEIZER**

SPECIAL EXECPTION DRAWING

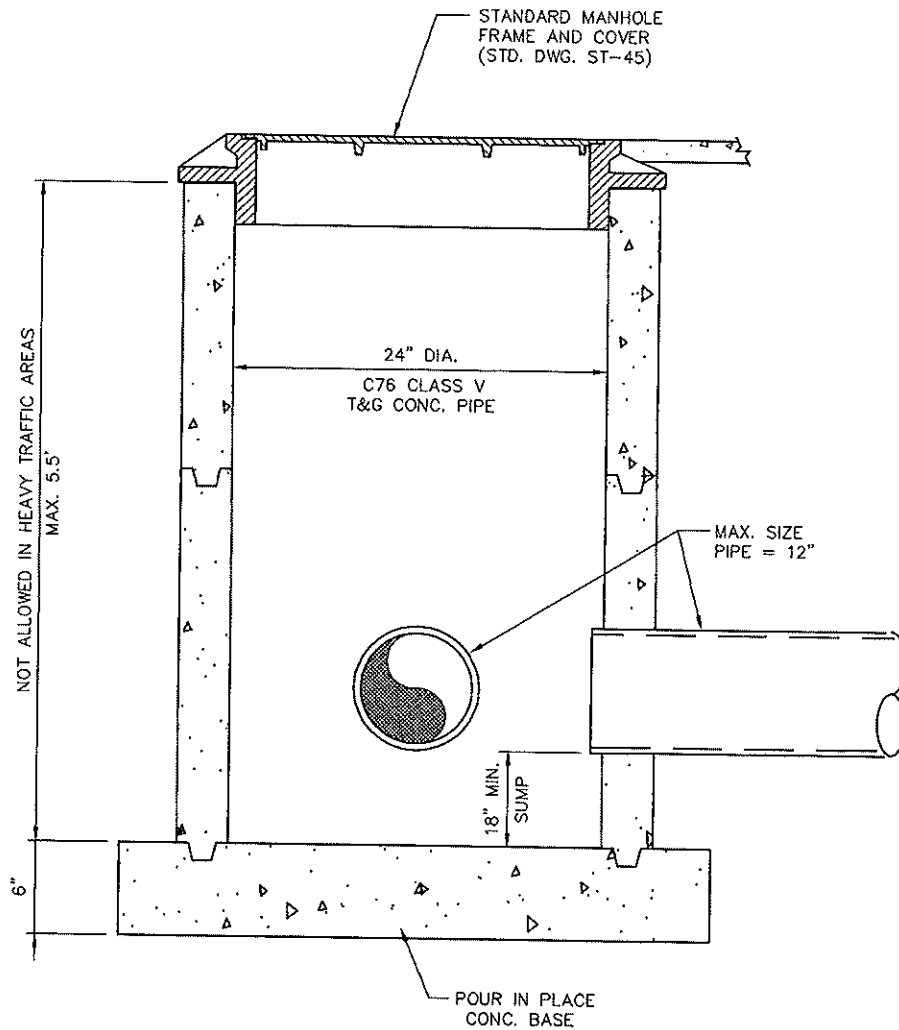
SHALLOW MANHOLE  
HEAVY-TRAFFIC AREAS

DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

NUMBER: ST-43



ONLY TO BE USED IN CASES PRE-AUTHORIZED  
BY THE CITY OF KEIZER DEPT. OF PUBLIC WORKS.



**CITY OF KEIZER**

SPECIAL EXCEPTION DRAWING

**SHALLOW MANHOLE  
NON-HEAVY TRAFFIC AREAS**

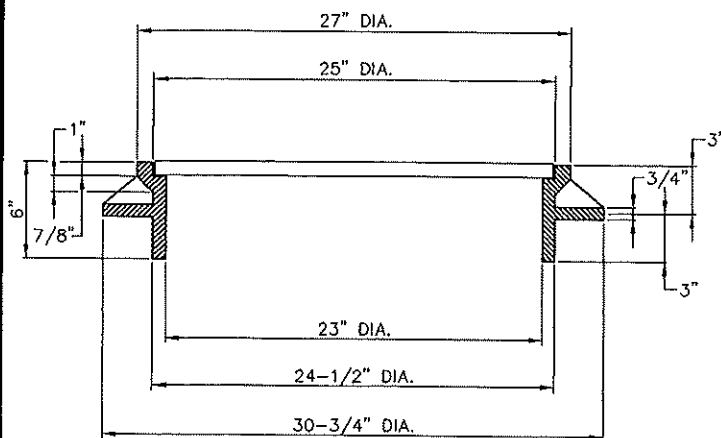
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DATE: 04-04-95

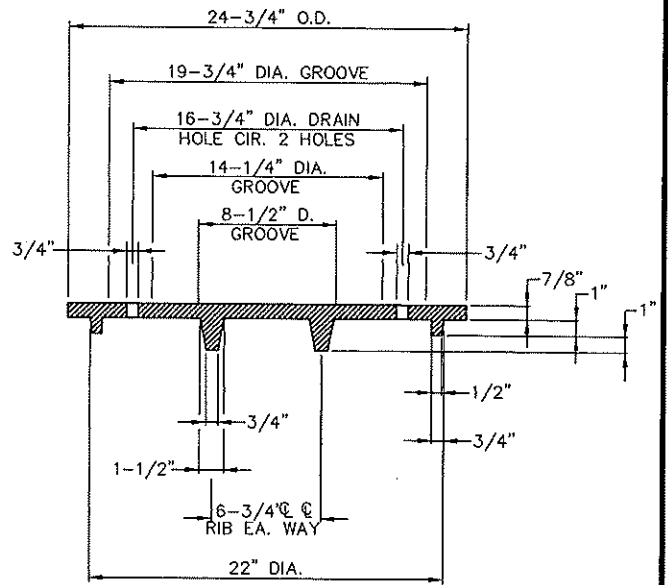
APPROVED: W.I.P.

NUMBER: ST-44

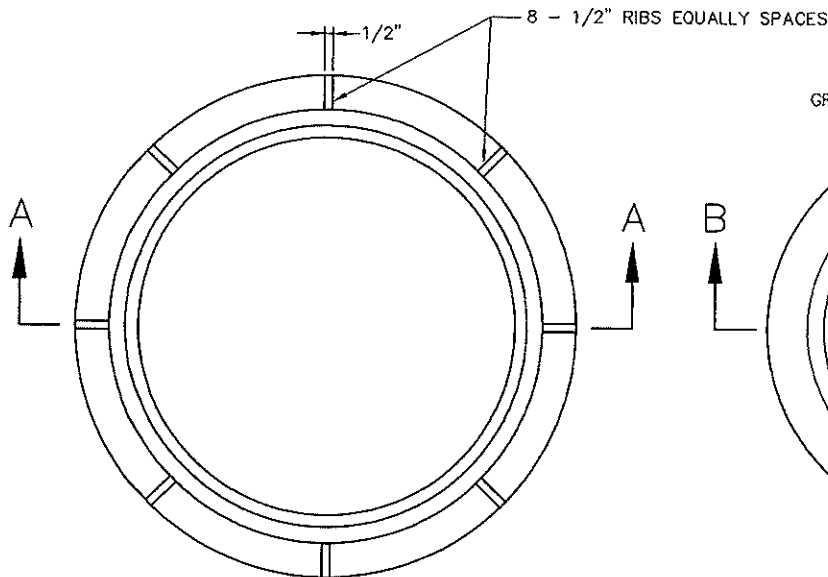
REVISED 1/20/00 S.W.P.



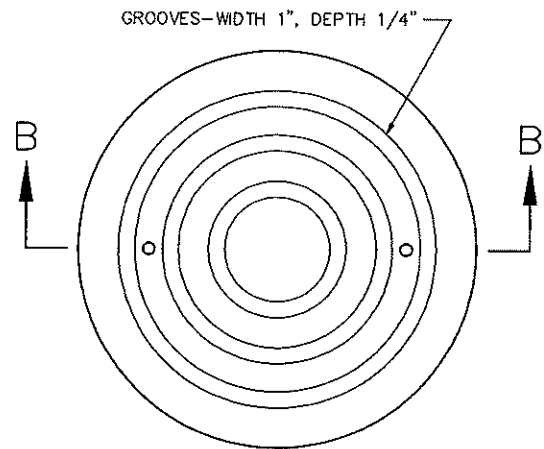
SECTION "A-A"



SECTION "B-B"



MANHOLE FRAME



MANHOLE COVER



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

**MANHOLE FRAMES,  
COVERS, & RISER RINGS**

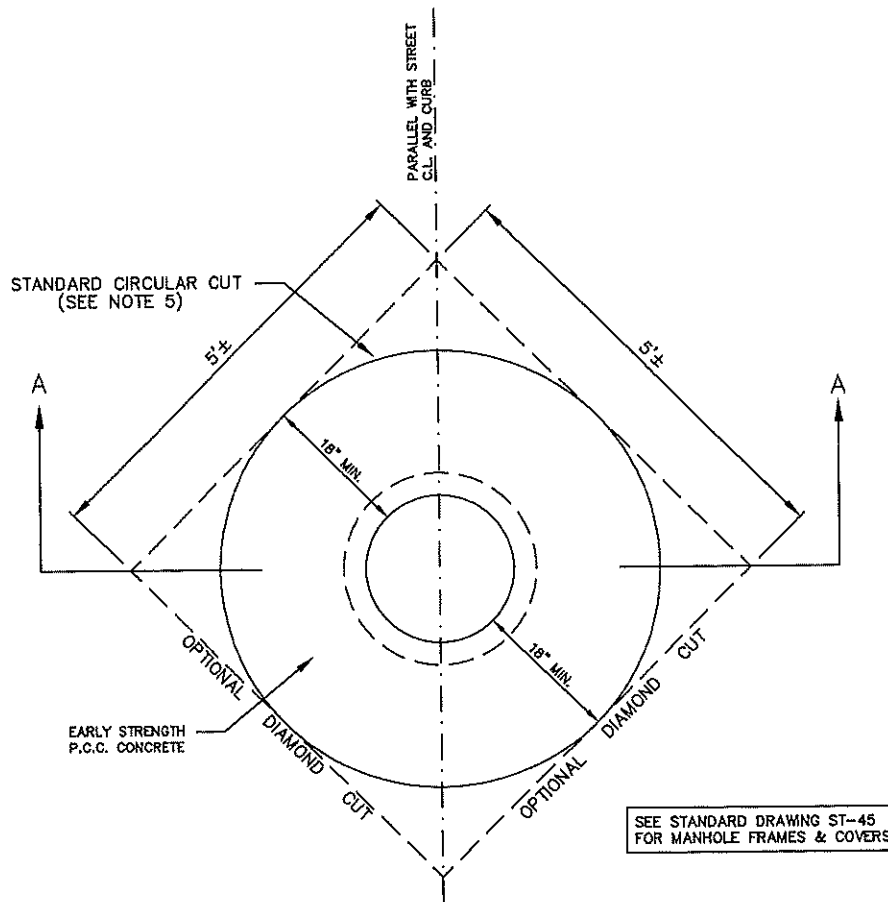
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DATE: 04-04-95

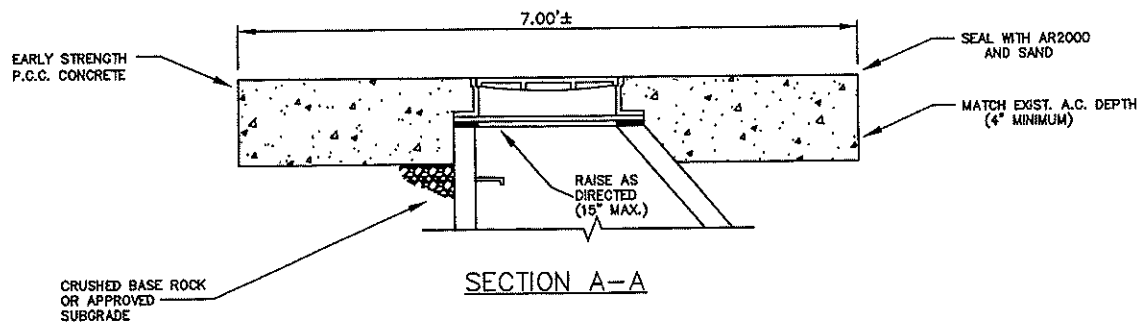
APPROVED: W.I.P.

NUMBER: ST-45





PLAN VIEW



SECTION A-A

**NOTES:**

1. CONTRACTOR TO LOCATE ALL MANHOLES PRIOR TO OVERLAY PAVING.
2. CONTRACTOR TO COVER MANHOLE WITH BUILDING PAPER AND PAVE OVER EXIST. MANHOLES.
3. MANHOLE ADJUSTMENTS TO BE MADE AFTER OVERLAY.
4. RAISE MANHOLE FRAME AND COVER TO FINISH GRADE WITH CONCRETE ADJUSTMENT RINGS AS NECESSARY.
5. WRITTEN APPROVAL BY PUBLIC WORKS DIRECTOR REQUIRED FOR OPTIONAL DIAMOND CUT.

**MANHOLE ADJUSTMENT DETAIL**

NTS

REVISED CIRCLE CUT MAR. 20, 2001 S.W.P.



**CITY OF KEIZER**

**STANDARD DETAIL DRAWING**

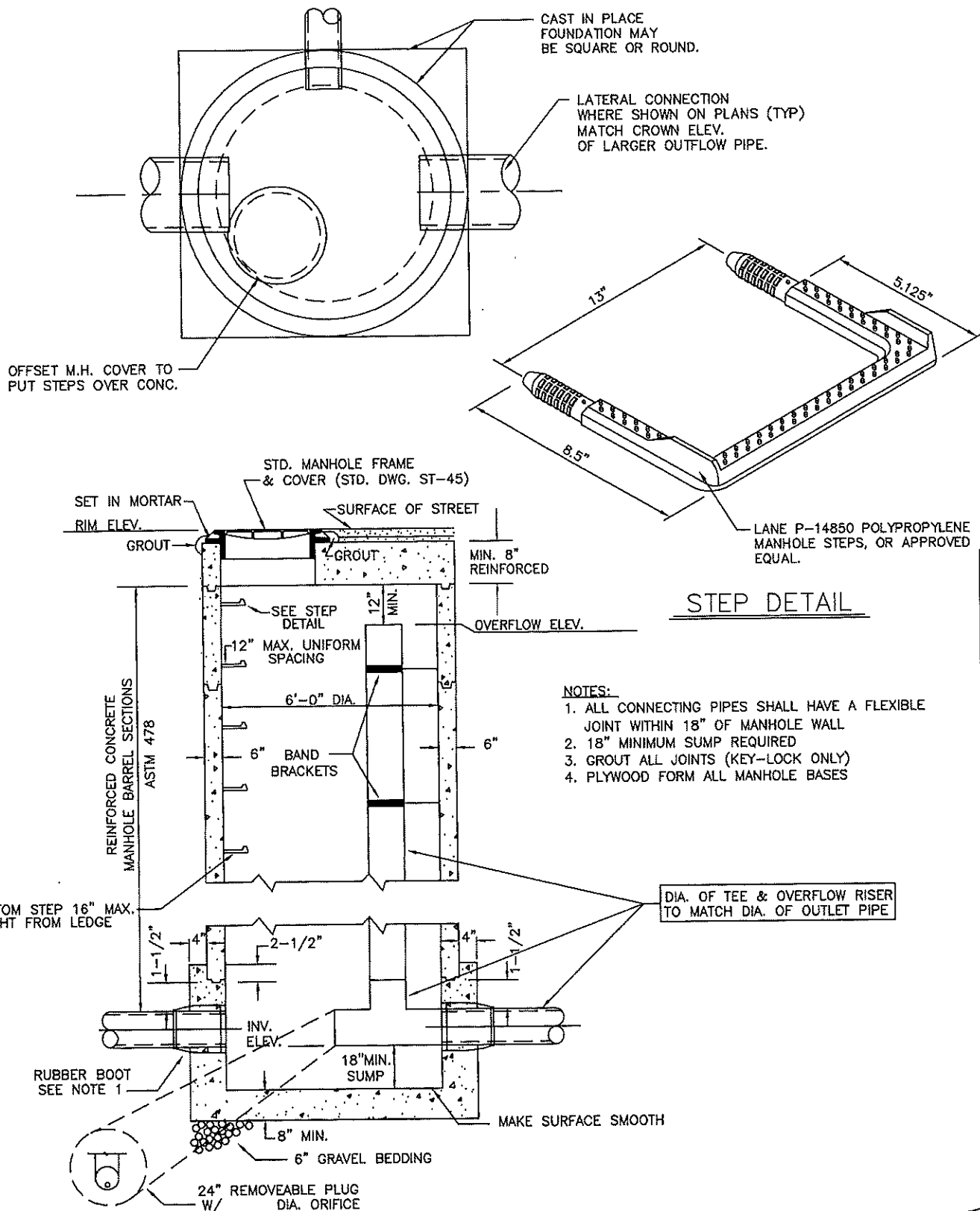
**MANHOLE ADJUSTMENT  
DETAIL**

DRAWN: S.W.P.

DATE: 01-25-00

APPROVED: W.I.P.

NUMBER: ST-46



REVISED TOP VIEW, NO CHANNELS SEPT., 2000 S.W.P.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

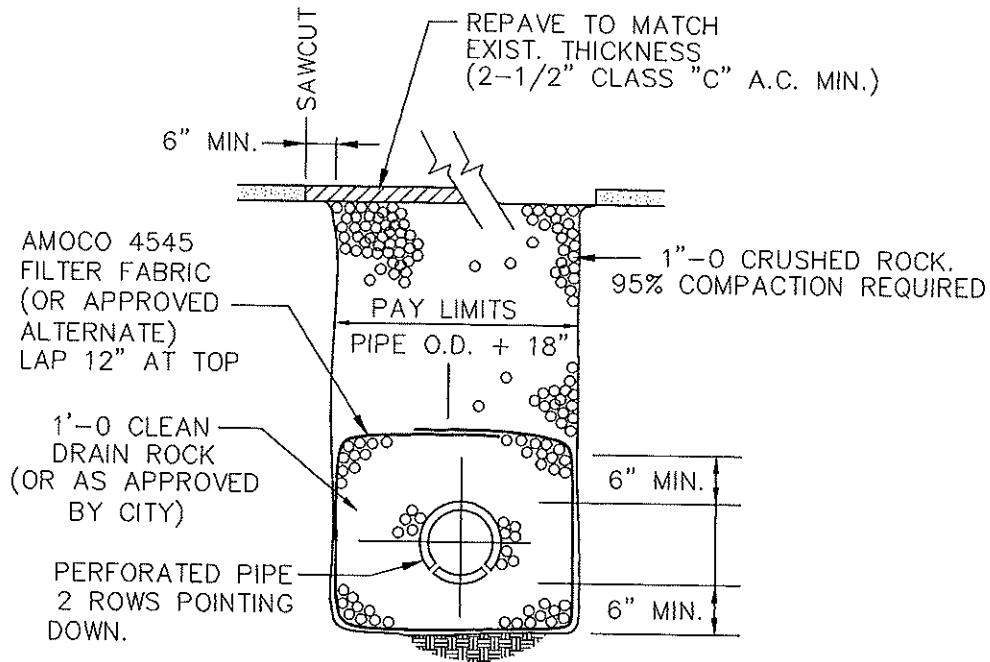
CONTROL STRUCTURE

DRAWN: S.W.P.

DATE: 01-25-00

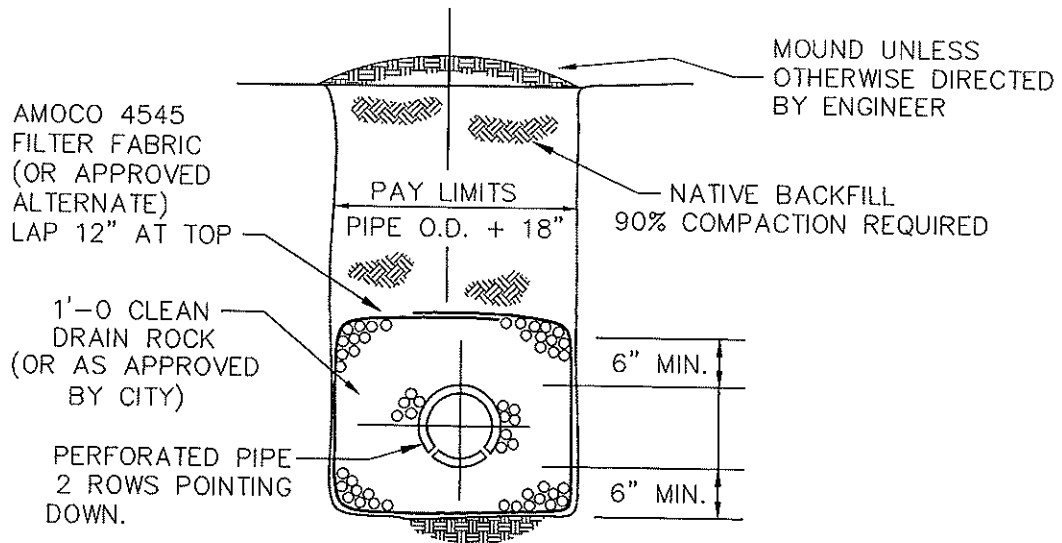
APPROVED: W.I.P.

NUMBER: ST-47



PAVED AREA DETAIL

NTS



NON-PAVED AREA DETAIL

NTS

SPECIAL NOTE:

THE PERFORATED P.V.C PIPE SHALL BE ASTM D3034 MATERIAL. DRILL 2 - 1/2" DIA. HOLES 12" ON CENTER ALONG PIPE 60' APART, AND PLACE HOLES FACING TRENCH BOTTOM.

TAKE CARE DURING THE INSTALLATION OF THE PIPE AND THE TRENCH CONSTRUCTION NOT TO SLICK THE TRENCH WALLS. CONSTRUCTION DURING WET WEATHER MAY CAUSE THE TRENCH WALLS NOT TO FUNCTION AS DESIGNED.

REVISED 1/25/00 S.W.P.  
REVISED 6/1/99 S.W.P.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

**PERFORATED PIPE TRENCH  
DETAILS**

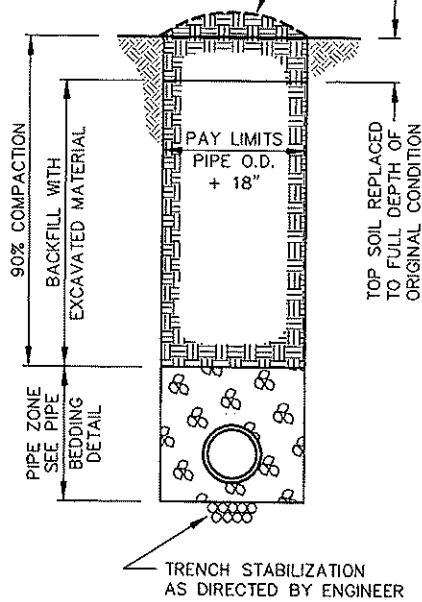
DRAWN: T.A.K.

DATE: 04-04-95

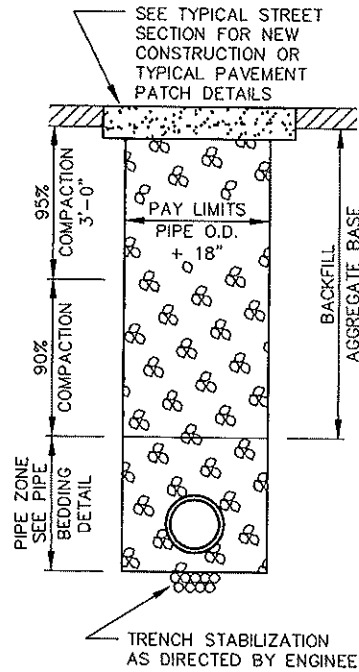
APPROVED: W.I.P.

NUMBER: ST-52

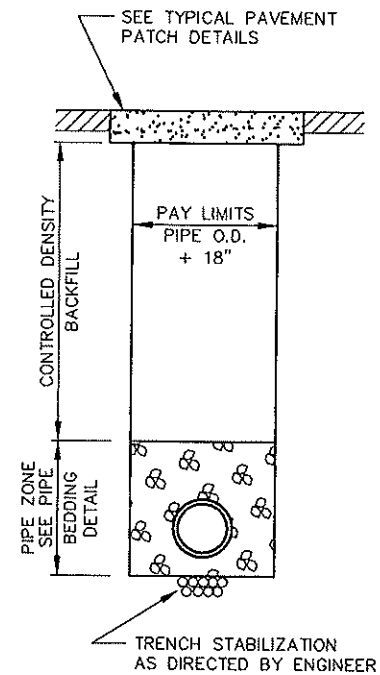
MOUND UNLESS OTHERWISE DIRECTED BY ENGINEER



NATIVE BACKFILL



GRANULAR BACKFILL



CONTROLLED DENSITY BACKFILL

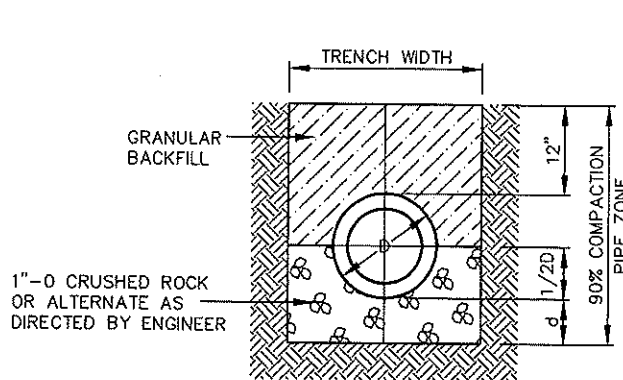
IF REQUIRED, POLYWRAP PIPE IN ACCORDANCE WITH POLYWRAP DETAILS

CONTROLLED DENSITY BACKFILL SHALL BE USED IN ALL EXIST. PAVED STREETS IF THE TRENCH MEETS ONE OR MORE OF THE FOLLOWING CRITERIA:

1. TRENCH DEPTH IS 5' OR LESS (SURFACE TO INV.)
2. TRENCH WIDTH IS 12" OR LESS
3. TRENCH LENGTH IS 50' OR LESS

## TRENCH BACKFILL DETAIL

NTS



D = OUTSIDE DIAMETER  
d = DEPTH OF BEDDING MATERIAL BELOW PIPE

DEPTH OF BEDDING MATERIAL BELOW PIPE	
D	d
12" & SMALLER	6"
15" - 36"	8"
42" & LARGER	10"

### NOTE:

WHERE DIRECTED BY THE ENGINEER, TRENCH STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF BEDDING. SIZE & DEPTH ARE DEPENDENT ON SOIL CONDITIONS. FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS, TRENCH SHALL BE OVER EXCAVATED A MIN. OF 6" & REFILLED WITH GRANULAR MATERIAL AS DIRECTED BY THE ENGINEER. BEDDING & BACKFILL MATERIALS IN PIPE ZONE SHALL BE COMPACTED AS SPECIFIED PRIOR TO BACKFILLING THE REMAINDER OF THE TRENCH.

## PIPE BEDDING DETAIL

NTS



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

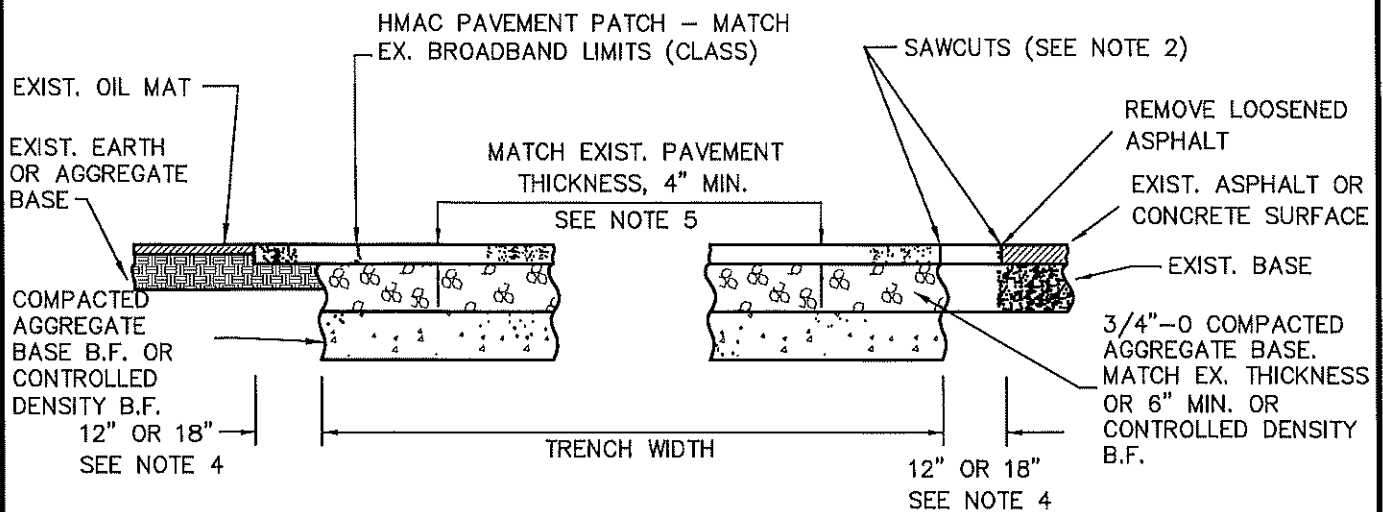
## **TRENCH BACKFILL & PIPE BEDDING**

DRAWN: J.M.M.

DATE: 01-25-00

APPROVED: W.I.P.

NUMBER: ST-55



## TYPICAL PATCH FOR FLEXIBLE PAVEMENT

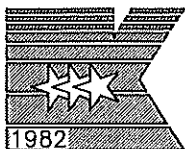
—N.T.S.—

### NOTES:

1. ALL PAVEMENT CUTS SHALL BE MADE WITH A CONCRETE SAW, SAW CUTTING SHALL NOT PROCEED UNTIL CUT LOCATIONS ARE APPROVED BY THE CITY INSPECTOR.
2. TWO SAWCUTS ARE REQUIRED: ONE FOR TRENCH AND ONE JUST PRIOR TO PAVEMENT PATCHING.
3. 1" — 0 AGGREGATE BASE MAY BE SUBSTITUTED FOR 3/4" — 0.
4. PAVEMENT REPLACEMENT WIDTH SHALL BE: TRENCH WIDTH PLUS 12 INCHES ON EACH SIDE FOR CONTROLLED DENSITY BACKFILL, AND TRENCH WIDTH PLUS 18 INCHES EACH SIDE FOR AGGREGATE BASE BACKFILL.
5. PAVEMENT REPLACEMENT THICKNESS SHALL BE AS SHOWN ABOVE FOR AGGREGATE BASE TRENCH BACKFILL, FOR CONTROLLED DENSITY TRENCH BACKFILL, PAVEMENT REPLACEMENT THICKNESS SHALL BE AS FOLLOWS:

STREET CLASSIFICATION	ARTERIAL	COLLECTOR	LOCAL
PORTLAND CEMENT CONCRETE (P.C.C.)	8" P.C.C.	7" P.C.C.	6" P.C.C.
H.M.A.C. OVER P.C.C.	4" H.M.A.C.	4" H.M.A.C.	4" H.M.A.C.
H.M.A.C.	6" H.M.A.C.	6" H.M.A.C.	4" H.M.A.C.

1. REVISED AS PER CITY OF KEIZER REVIEW 11-09-10  
1. REVISED AS PER CITY OF KEIZER REVIEW 08-23-08



CITY OF KEIZER

DEPARTMENT OF PUBLIC WORKS

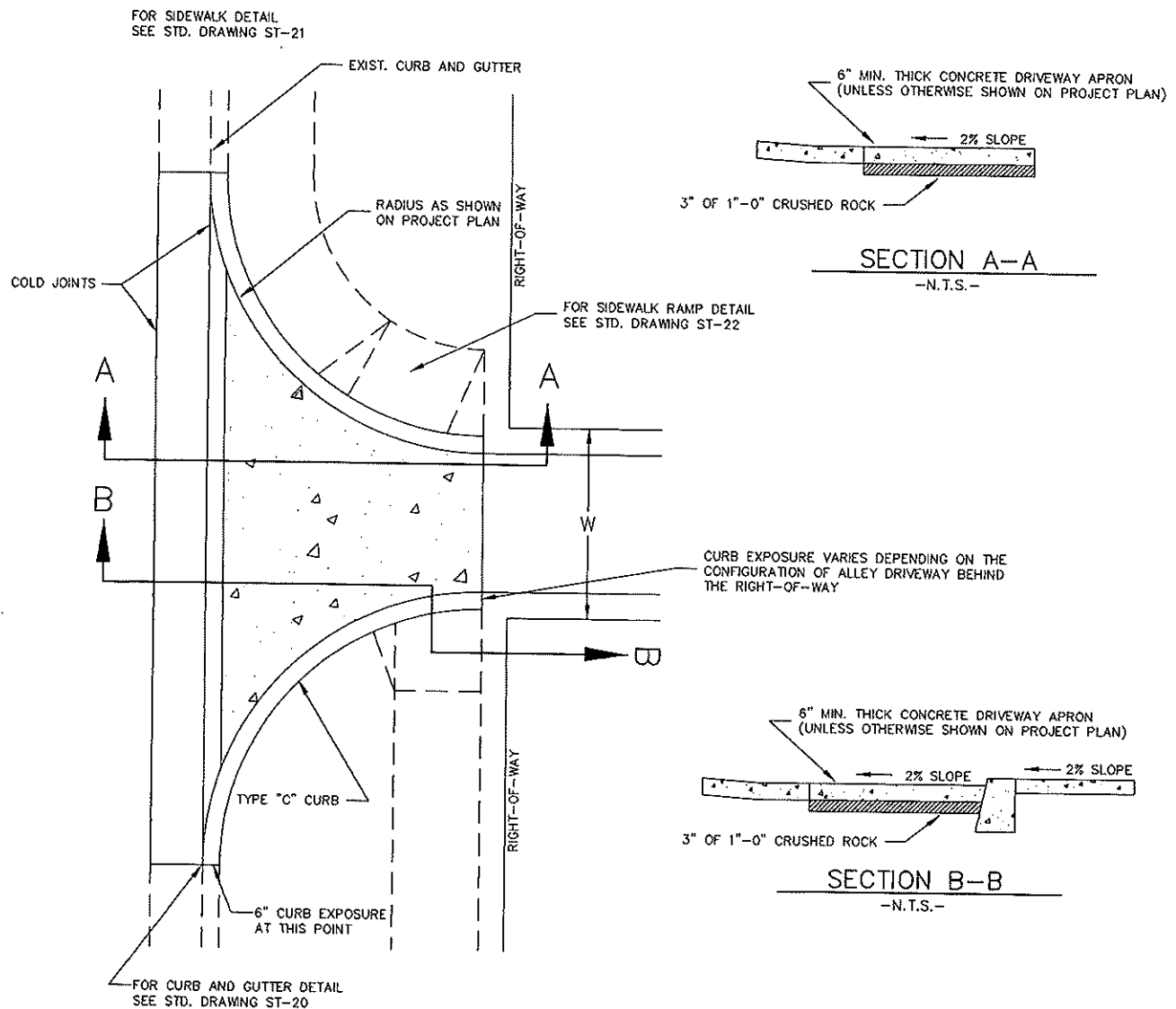
PAVEMENT PATCHING

DRAWN: S.W.P.

DATE: 01-25-00

APPROVED: W.I.P.

NUMBER: ST-56



**NOTES:**

1. ALL CONCRETE TO HAVE A MINIMUM 28 DAY STRENGTH RATING OF 4000 P.S.I.
2. W = WIDTH REQUIREMENTS AS SPECIFIED IN THE DEVELOPMENT CODE OR AS APPROVED
- 3.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

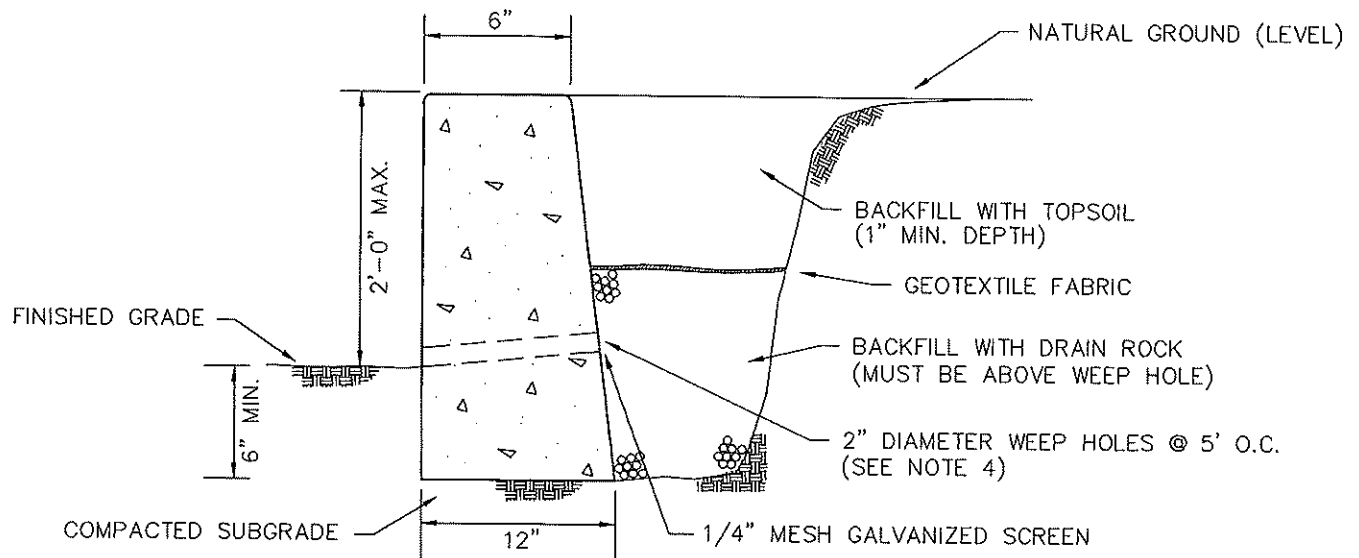
**CONCRETE APPROACH FOR  
PUBLIC/PRIVATE SEPERATION**

DRAWN: S.W.P.

DATE: 01-25-00

APPROVED: W.I.P.

NUMBER: ST-57



## RETAINING WALL

-N.T.S.-

### DESIGN NOTES:

1. ALL CONCRETE TO BE 3300 P.S.I.
2. LEVEL OFF BACKFILL.
3. E.F.W. = 40 P.C.F.

### CONSTRUCTION NOTES:

1. CONTRACTION JOINT: SCORE A 3/4" DEEP "V" NOTCHED GROOVE THE FULL HEIGHT OF THE EXPOSED FACE, ACROSS THE TOP, AND 6" DOWN THE BACK OF THE WALL. INSTALL "TEE BAR" CONTRACTION JOINTS TO SEPARATE THE LARGE AGGREGATE IN THE TOP 6" OF THE WALL AT THE "V" NOTCHED GROOVE. JOINTS SHALL BE UNIFORMLY SPACED AT 10' TO 15' CENTERS.
2. CONSTRUCTION JOINT: IF WALL IS TO BE POURED IN SECTIONS, USE 2-24", NO. 4 REINFORCING BARS EXTENDED 12" INTO EACH SECTION.
3. WHEN EXPOSED WALL HEIGHT IS LESS THAN 2 FEET, MAINTAIN 6" TOP DIMENSION AND REDUCE BASE TO MAINTAIN 1:5 BATTER ON BACK OF WALL.
4. AS ALTERNATIVE TO WEEPHOLES, USE CONTINUOUS 3-INCH DIAMETER PERFORATED PIPE WITH OUTLET TO APPROVED POINT OF DISPOSAL.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

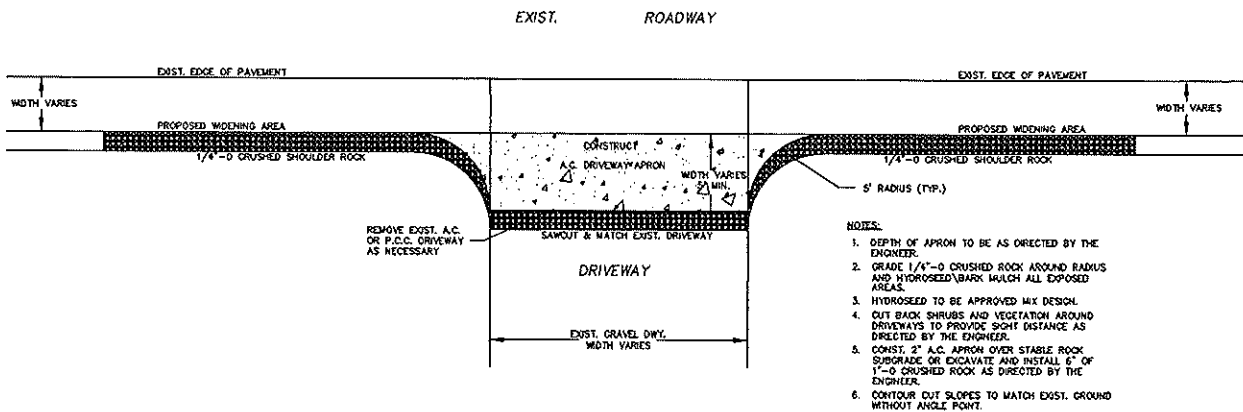
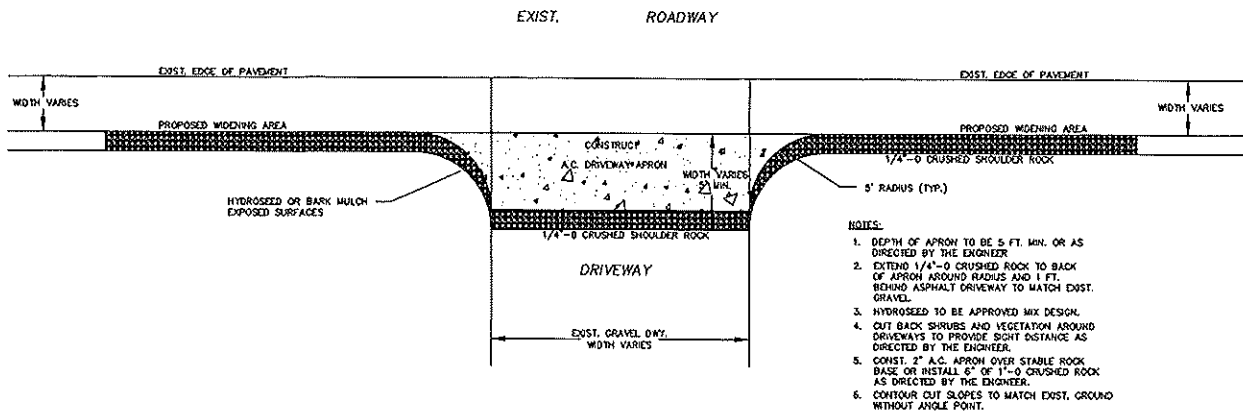
## RETAINING WALL 2'-0" MAXIMUM HEIGHT

DRAWN: S.W.P.

DATE: 01-25-00

APPROVED: W.I.P.

NUMBER: ST-58



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

**DRIVEWAY APPROACH  
(EXISTING)**

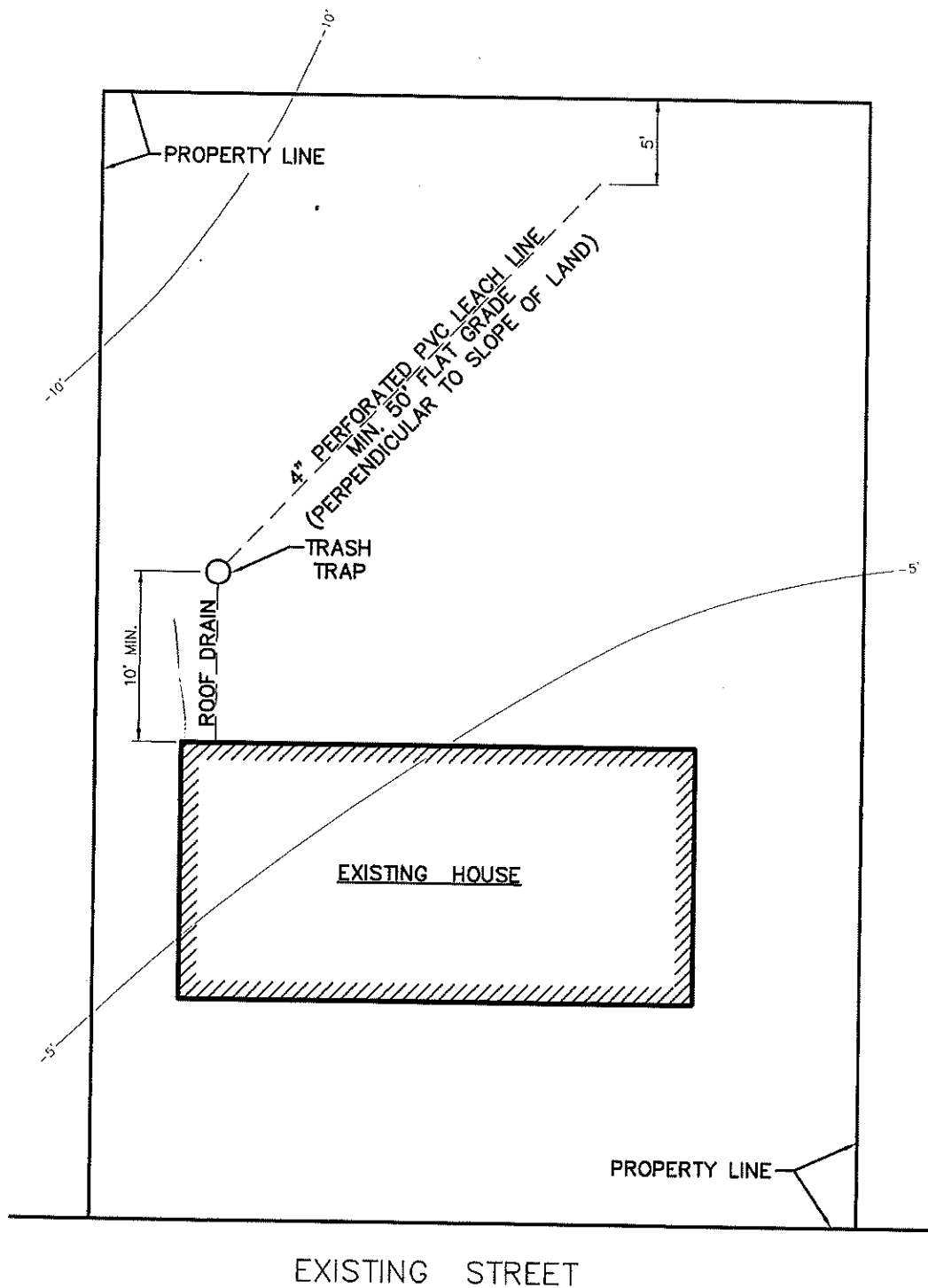
DRAWN: S.W.P.

DATE: 01-25-00

APPROVED: W.I.P.

NUMBER: ST-59





**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

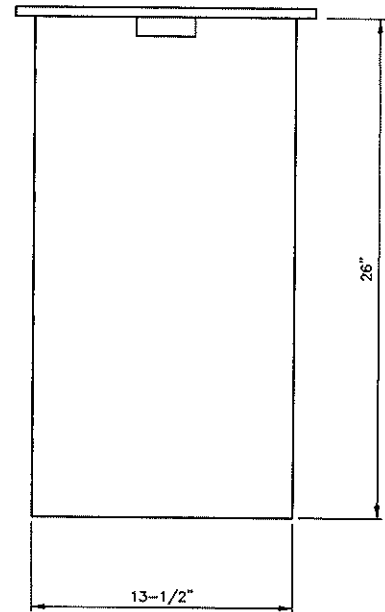
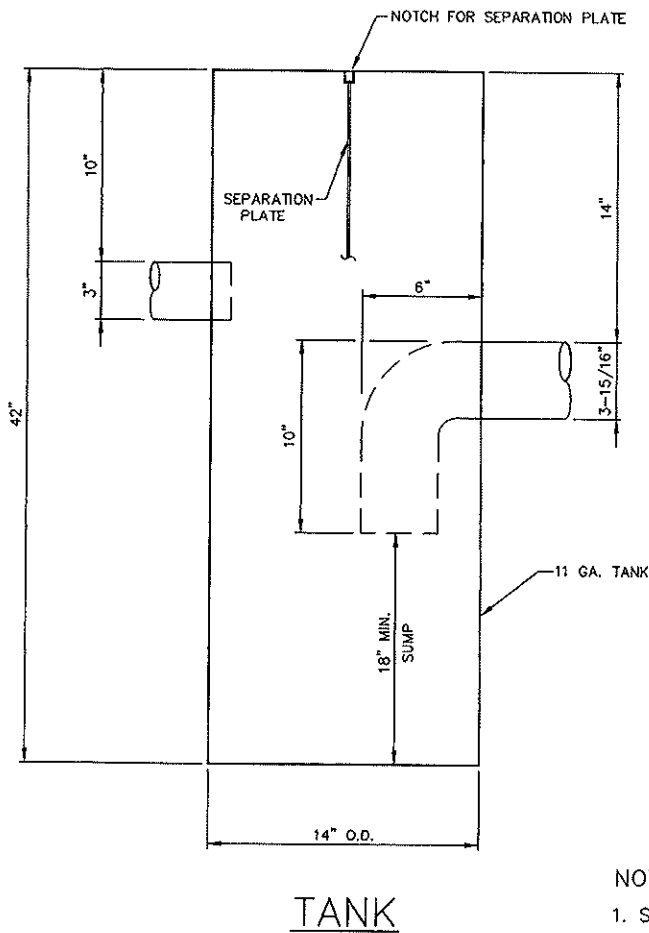
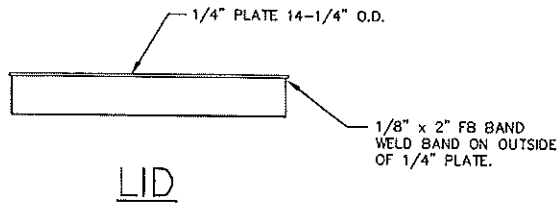
**STANDARD ROOF DRAIN  
LEACH LINE**

DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

NUMBER: ST-60



NOTES:

1. SHOP DRAWINGS PROVIDED BY WELLSER METAL PRODUCTS.
2. ALTERNATE LEACH LINE TRAPS MEETING UNIFORM PLUMBING CODE STANDARDS MAY BE USED, BUT MAINTAIN 18" MIN. SUMP.
3. SEE KEIZER STANDARD DETAIL ST-60 FOR LOCATION AND LEACH LINE STANDARD.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

**LEACH LINE TRAP**

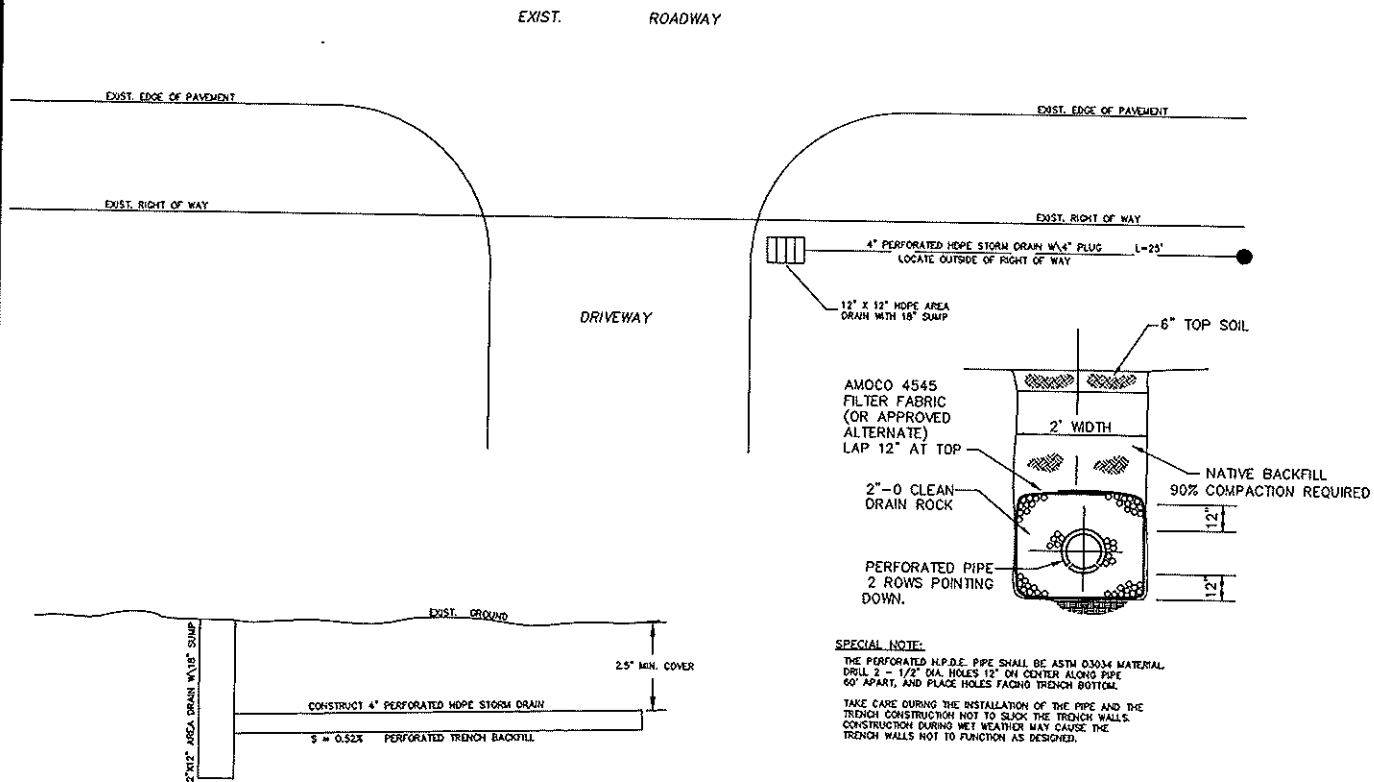
DRAWN: T.A.K.

DATE: 04-04-95

APPROVED: W.I.P.

NUMBER: ST-61

REVISED 1/27/00 S.W.P.  
REVISED 6/1/99 S.W.P.



# PERFORATED PRIVATE AREA DRAIN DETAIL

N.T.S.



**CITY OF KEIZER**

DEPARTMENT OF PUBLIC WORKS

## **PERFORATED AREA DRAIN (PRIVATE)**

DRAWN: S.W.P.

DATE: 01-25-00

APPROVED: W.I.P.

NUMBER: ST-62