CITY OF ABILENE

DESIGN STANDARDS

The following design drawings are intended to aide the Engineer in arriving at a uniform design for the construction of streets and alleys in the City of Abilene (City). In most cases, there are circumstances that will be considered should the designer see a need to vary from these standards

Typical sections may vary to accommodate for street design that is necessary because the new street is in a location that will ultimately carry extreme loads. There are other design features that can not vary because of mandates from others. For example, Americans with Disabilities Act projects have requirements that can not vary. Request for variances from these standards shall be presented to the City Engineer and his ruling will be final.

Please note that all structural fill made on the street are Density Controlled. Testing of concrete and other materials will be required. Proof that all materials meet minimum standards for that material is mandatory. Some materials used in construction projects will be precertified by material testing laboratories. The City will accept precertification from a reputable testing laboratory, but may require verification test as well. Material not meeting the required specifications will not be accepted for payment.

All design of pavement structure shown have been studied by a computer program that was developed by the Texas Department of Transportation and refined and upgraded by the Texas Transportation Institute. This computer program is a tool that should only be used to give the designer adequate parameters to work with.

The intent of these design standards is to provide a transportation system that will have a design life of twenty to thirty years with normal routine maintenance. Changes in depth of materials etc., are made necessary because of increased traffic volume and increased load limits.

Designed By:

Bobby R. Lindley, P.E.
City Engineer

Verified By:

Cody Marshall
Design Engineer

Approved By:

Paul Knippel, P.E.
Director of Public Works

CITY OF ABILENE

PUBLIC WORKS
DEPARTMENT

ENGINEERING DIVISION

Design, Details, and Construction Standards

Norm Archibald, Mayor

City Council

Laura Moore	**Celia Davis**
Sam Chase	**Stormy Higgins**
Joe Spano	**Anthony Williams**

Larry D. Gilley, City Manager

August, 2006

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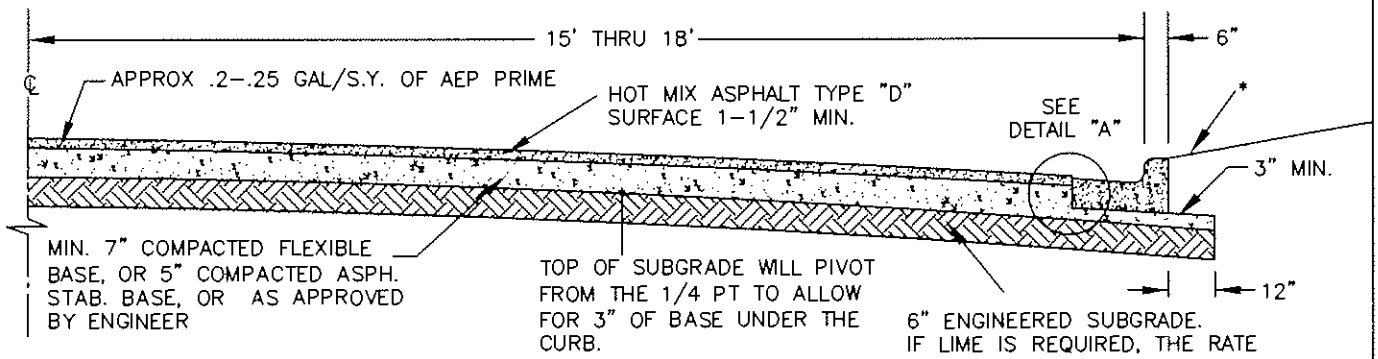
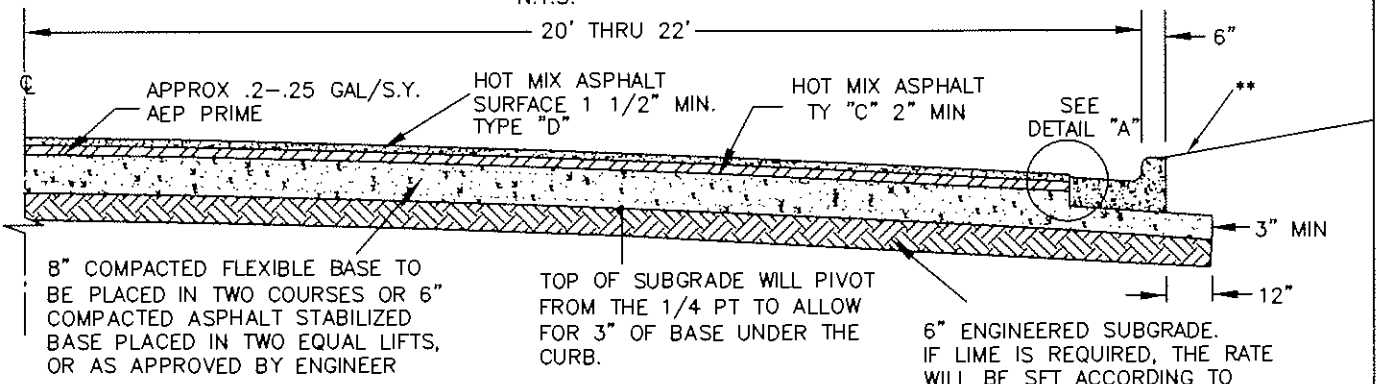


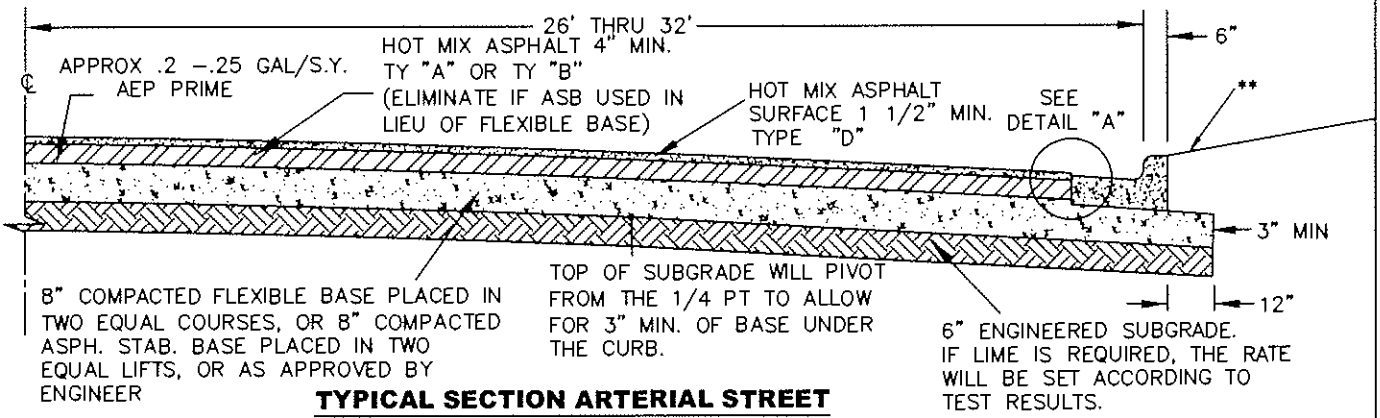
TYPICAL SECTION RESIDENTIAL STREET

N.T.S.



TYPICAL SECTION COLLECTOR STREET

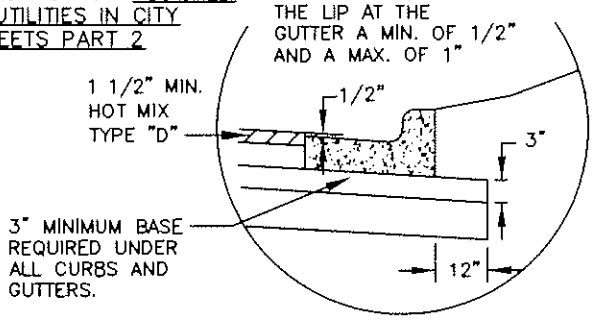
N.T.S.



TYPICAL SECTION ARTERIAL STREET

*REFER TO STANDARD FOR ASSIGNED LOCATIONS FOR UTILITIES IN CITY ALLEYS AND STREETS PART 1

**REFER TO STANDARD FOR ASSIGNED LOCATIONS FOR UTILITIES IN CITY ALLEYS AND STREETS PART 2



DETAIL "A"

NOTE: ALL BASE AND SUBGRADE WILL BE DENSITY CONTROLLED AND WILL MEET ALL SPECIFICATION REQUIREMENTS FOR THE CITY OF ABILENE.

CROWN SCHEDULE						
WIDTH	TOTAL CROWN "A"		1/2 POINT CROWN "B"		1/4 POINT WIDTH "C"	
FACE TO FACE	TENTHS	INCHES	FROM LIP OF GUTTER		FROM LIP OF GUTTER	
30'	.50	9"	13.50'	13'6"	6.75	6'9"
36'	.58	7"	18.50'	18'6"	8.25	8'3"
40'	.67	8"	18.50'	18'6"	9.25	9'3"
50'	.75	9"	23.50'	23'6"	11.75	11'9"
60'	.83	10"	28.50'	28'6"	14.25	14'3"
64'	.83	10"	30.50'	30'6"	15.25	15'3"

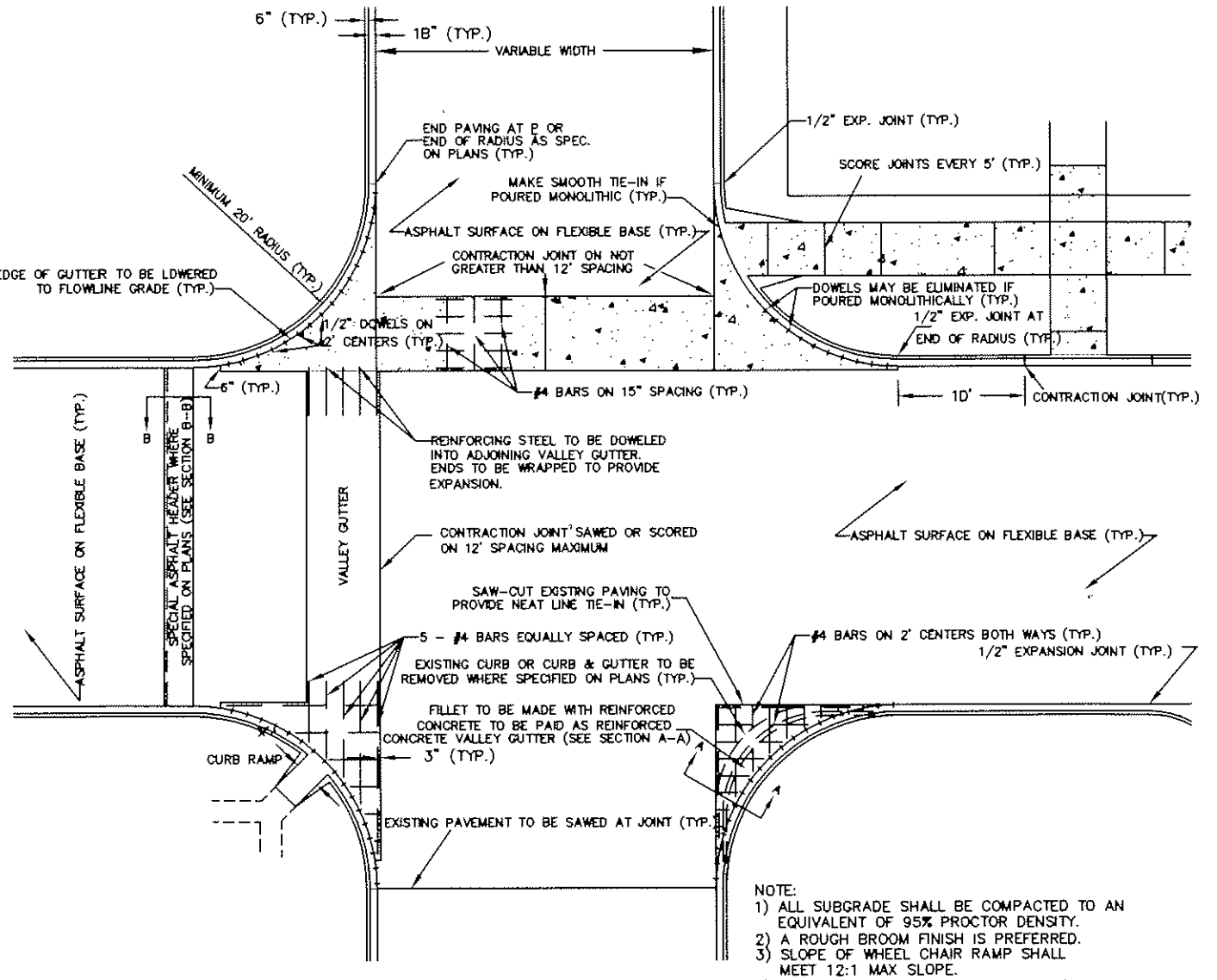
NOTE: IT IS THE GOAL OF THE CITY OF ABILENE TO DESIGN AND CONSTRUCT A STREET SYSTEM THAT WILL HAVE A LIFE EXPECTANCY OF TWENTY YEARS WITH NORMAL MAINTENANCE. STREETS THAT ARE CONSTRUCTED IN INDUSTRIAL AREAS WHERE HEAVY LOADS ARE EXPECTED WILL REQUIRE INDIVIDUAL DESIGN PROCESSES.

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

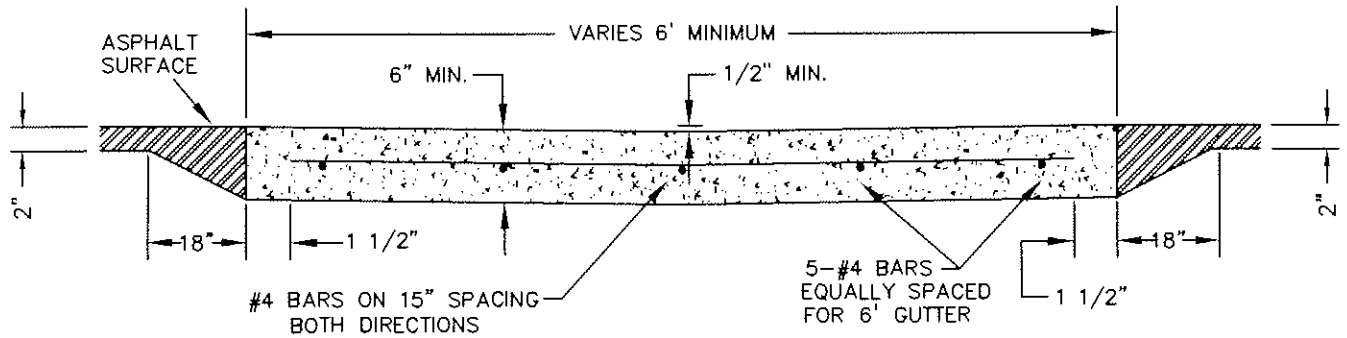
TYPICAL STREET SECTIONS

DESIGNED BY: B. LINDLEY
DRAWN BY: B. BAKER
CHECKED BY: C. MARSHALL

APPROVED 8-9-06
CITY ENGINEER DATE

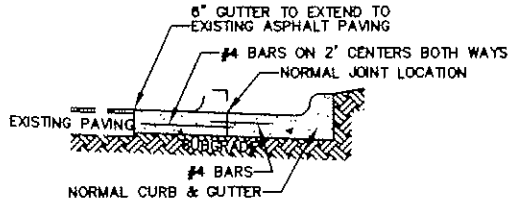


NOTE:
1) ALL SUBGRADE SHALL BE COMPACTED TO AN EQUIVALENT OF 95% PROCTOR DENSITY.
2) A ROUGH BROOM FINISH IS PREFERRED.
3) SLOPE OF WHEEL CHAIR RAMP SHALL MEET 12:1 MAX SLOPE.
4) WET SUBGRADE SHALL BE CORRECTED PRIOR TO PLACEMENT OF CONCRETE AND SHALL BE NON-YIELDING.



VALLEY GUTTER DETAIL

(SECTION B-B)



CONCRETE VALLEY GUTTER FILLET

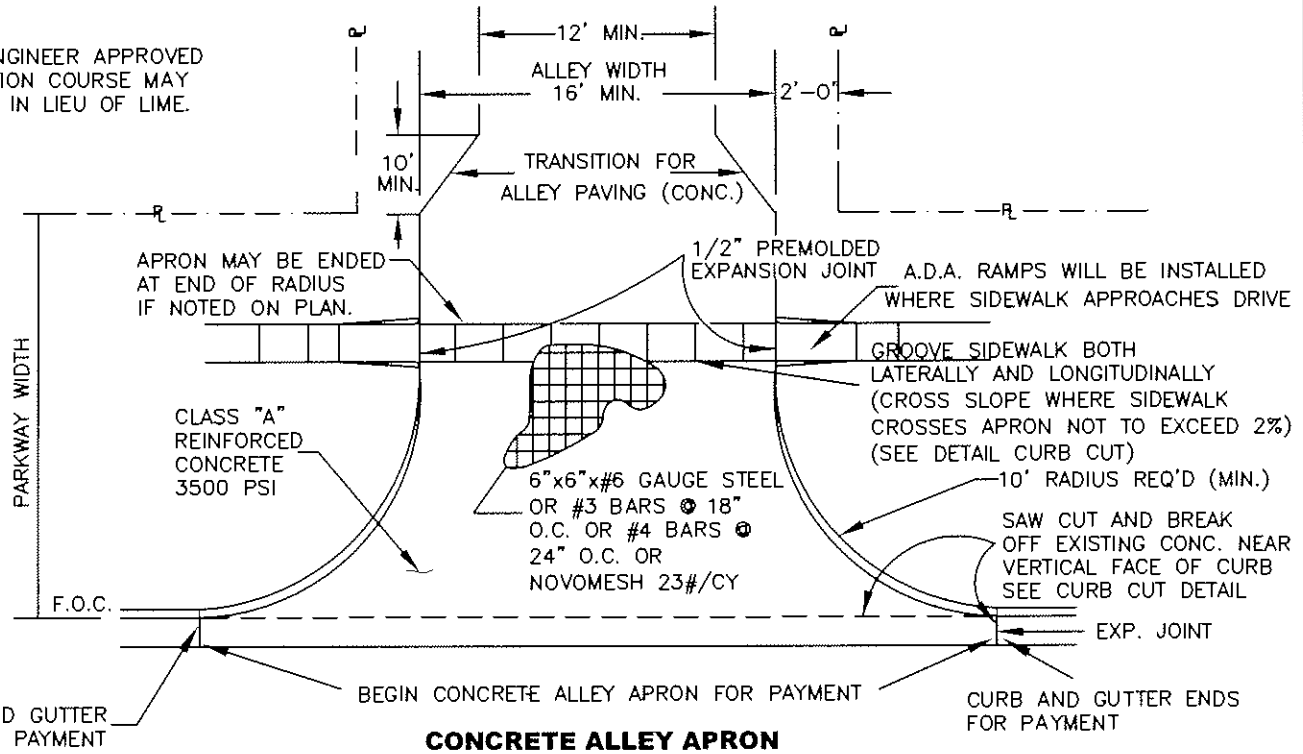
(SECTION A-A)

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

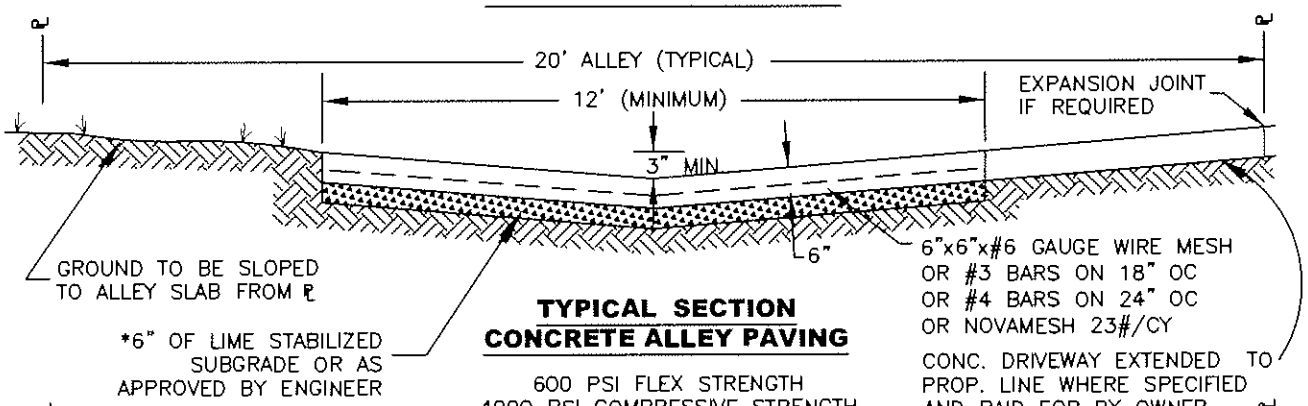
INTERSECTION AND VALLEY GUTTER DETAILS

DESIGNED BY: B. LINDLEY	APPROVED	5-06
DRAWN BY: B. BAKER	CITY ENGINEER	DATE
CHECKED BY: C. MARSHALL		

* NOTE:
6" OF ENGINEER APPROVED FOUNDATION COURSE MAY BE USED IN LIEU OF LIME.

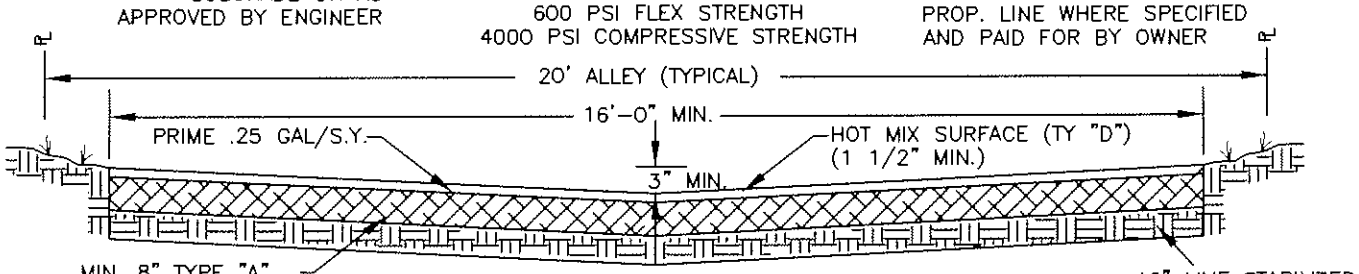


CONCRETE ALLEY APRON

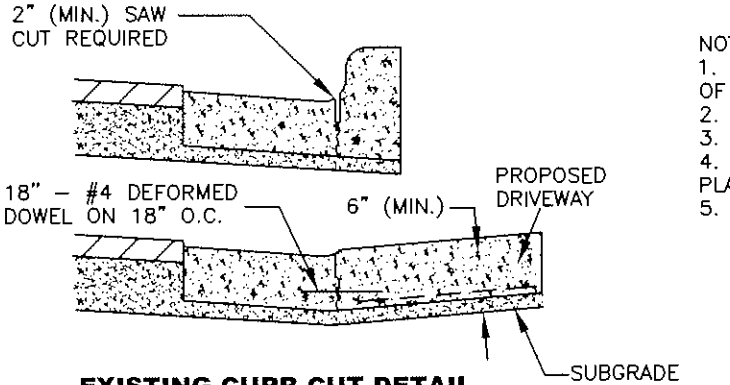


TYPICAL SECTION CONCRETE ALLEY PAVING

600 PSI FLEX STRENGTH
4000 PSI COMPRESSIVE STRENGTH



TYPICAL SECTION ASPHALT ALLEY PAVING



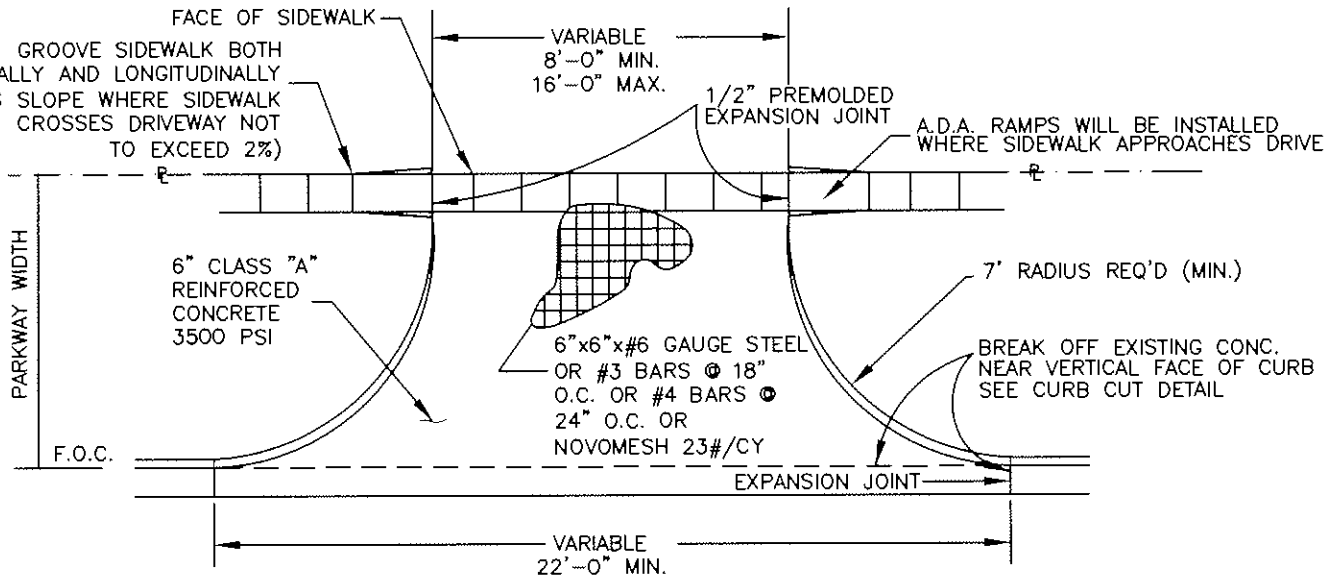
EXISTING CURB CUT DETAIL

NOTES:
1. ALL SUBGRADE SHALL BE COMPACTED TO EQUIVALENT OF 95% PROCTOR DENSITY.
2. A ROUGH BROOM FINISH IS PREFERRED.
3. SLOPE OF DRIVEWAY SHALL MEET 12:1 SLOPE MAX.
4. WET SUBGRADE SHALL BE CORRECTED PRIOR TO PLACEMENT OF CONCRETE.
5. FOR GUTTER DETAILS SEE CONCRETE APPROACH DETAILS

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

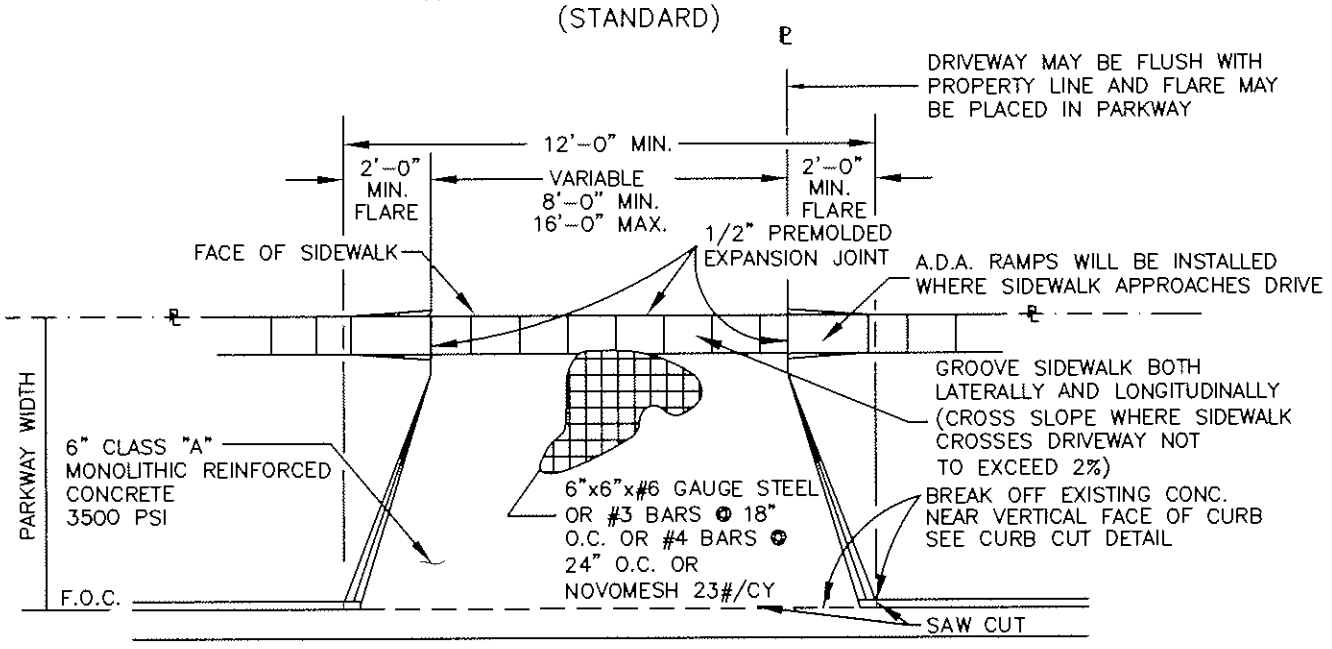
ALLEY DESIGN

DESIGNED BY: B. LINDLEY	APPROVED CITY ENGINEER
DRAWN BY: B. BAKER	DATE 5-06
CHECKED BY: C. MARSHALL	



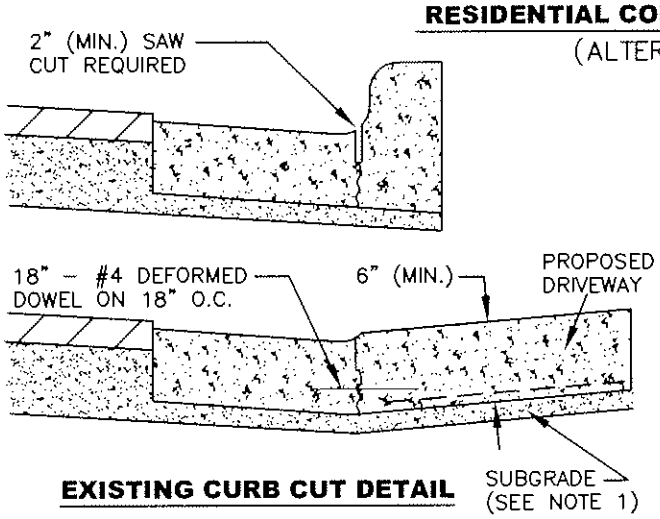
RESIDENTIAL CONCRETE APPROACH

(STANDARD)



RESIDENTIAL CONCRETE APPROACH

(ALTERNATE)



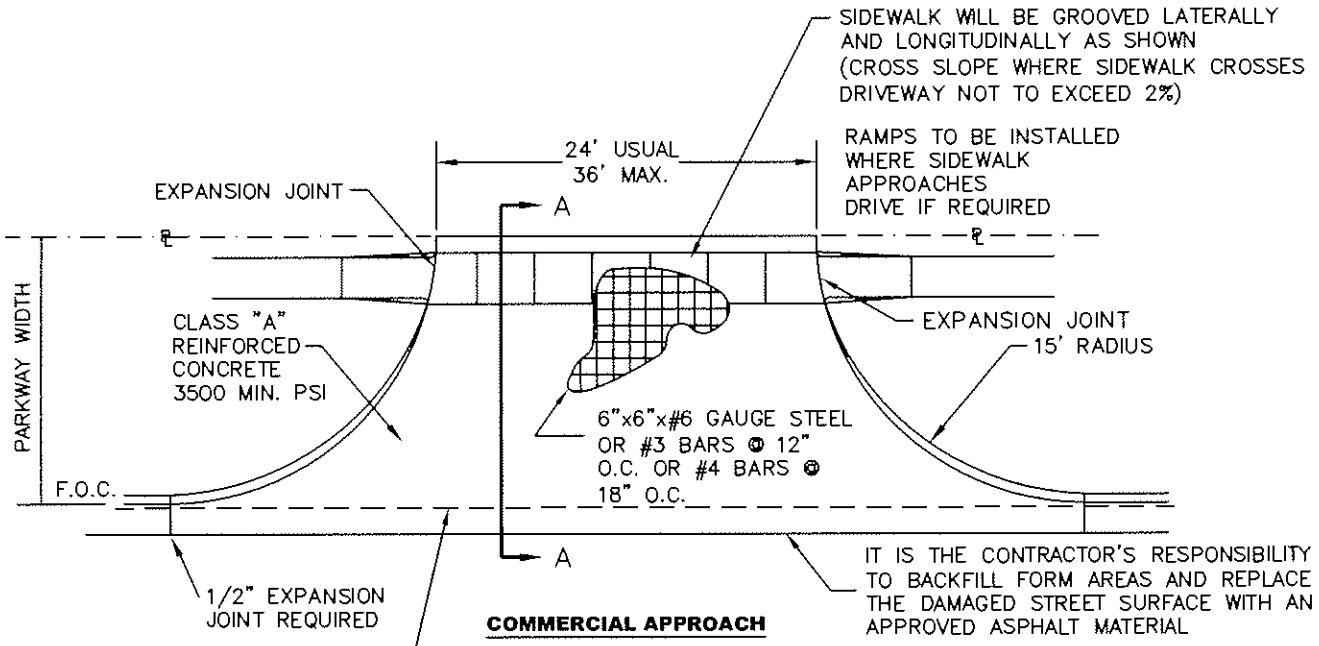
EXISTING CURB CUT DETAIL

NOTE:
1. ALL SUBGRADE SHALL BE COMPACTED TO EQUIVALENT OF 95% PROCTOR DENSITY.
2. A ROUGH BROOM FINISH IS PREFERRED.
3. SLOPE OF DRIVEWAY SHALL NOT EXCEED 12:1 SLOPE.
4. WET SUBGRADE SHALL BE CORRECTED PRIOR TO PLACEMENT OF CONCRETE.
5. DRIVEWAY MAY BE FLUSH WITH THE PROPERTY LINE.
6. IF THE SIDEWALK CROSSES THE DRIVEWAY THE SLOPE OF THE SIDEWALK WILL NOT EXCEED 1/4" PER FOOT.

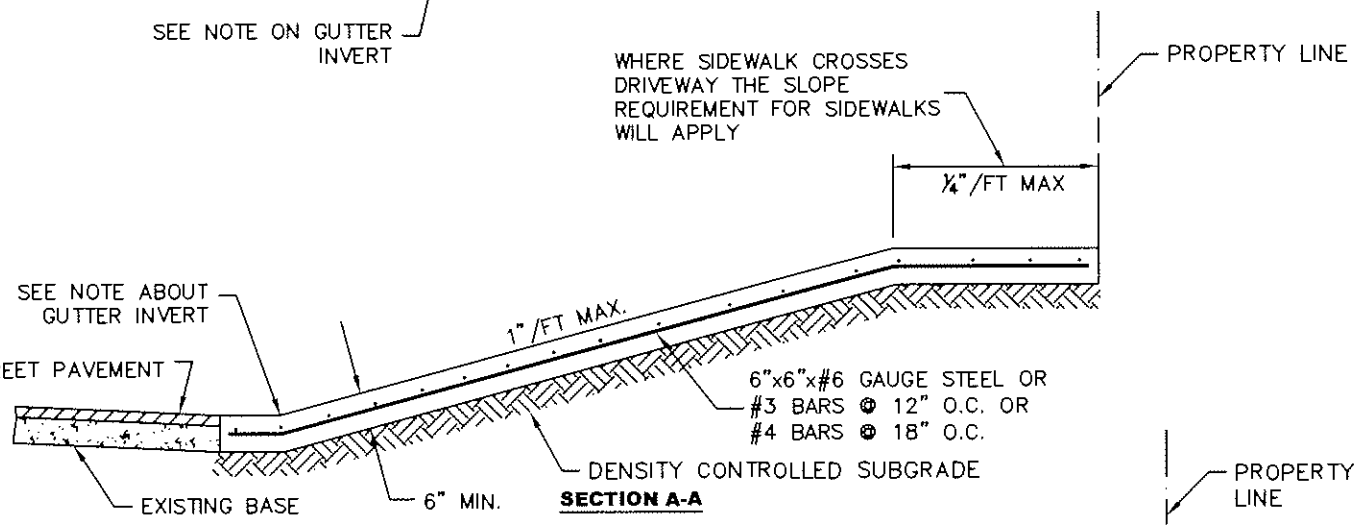
CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

RESIDENTIAL CONCRETE APPROACH

DESIGNED BY: B. LINDLEY	
DRAWN BY: B. BAKER	APPROVED CITY ENGINEER 5-06 DATE
CHECKED BY: C. MARSHALL	

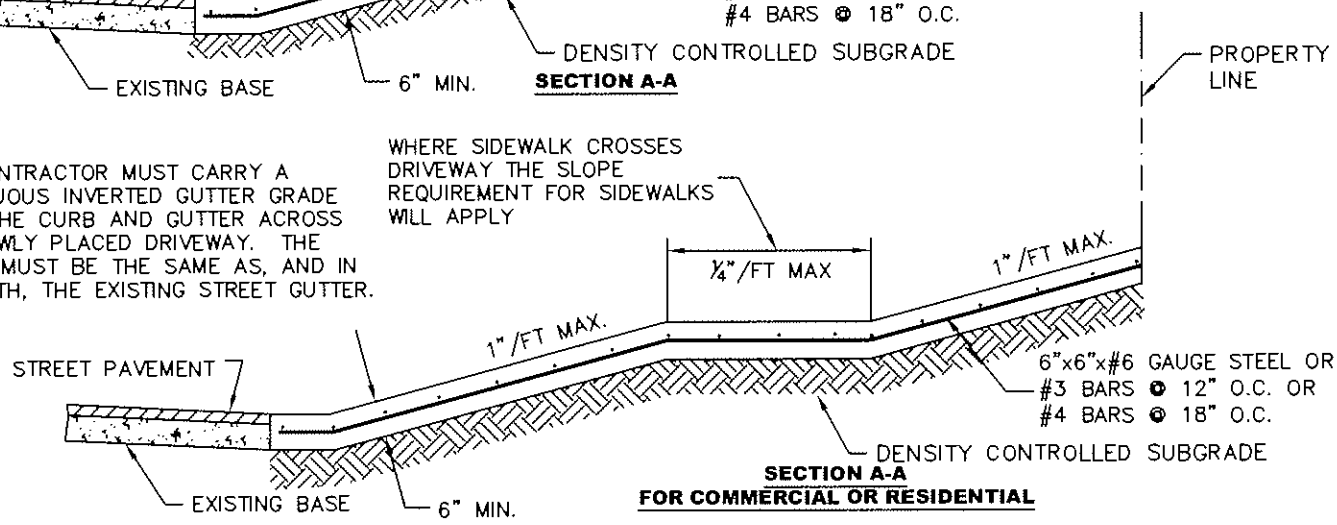


COMMERCIAL APPROACH



SECTION A-A

NOTE:
THE CONTRACTOR MUST CARRY A CONTINUOUS INVERTED GUTTER GRADE FROM THE CURB AND GUTTER ACROSS THE NEWLY PLACED DRIVEWAY. THE INVERT MUST BE THE SAME AS, AND IN LINE WITH, THE EXISTING STREET GUTTER.



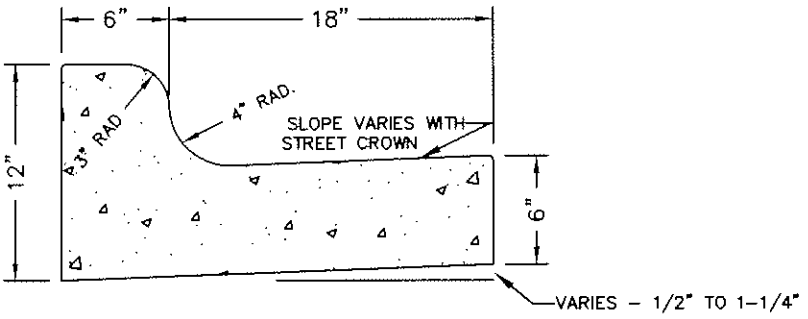
SECTION A-A
FOR COMMERCIAL OR RESIDENTIAL

NOTES:
1. ALL SUBGRADE SHALL BE COMPACTED TO EQUIVALENT OF 95% PROCTOR DENSITY.
2. A ROUGH BROOM FINISH IS PREFERRED.
3. SLOPE OF DRIVEWAY SHALL MEET 12:1 SLOPE MAX.
4. WET SUBGRADE SHALL BE CORRECTED PRIOR TO PLACEMENT OF CONCRETE.
5. DRIVEWAY MAY BE FLUSH WITH THE PROPERTY LINE.
6. IF THE SIDEWALK CROSSES THE DRIVEWAY THE SLOPE OF THE SIDEWALK SHALL NOT EXCEED 1/4" PER FOOT.
7. LOCATIONS FOR APPROACH WILL BE AS SHOWN ON THE APPROVED SITE PLAN OR AS DIRECTED BY THE ENGINEER.

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

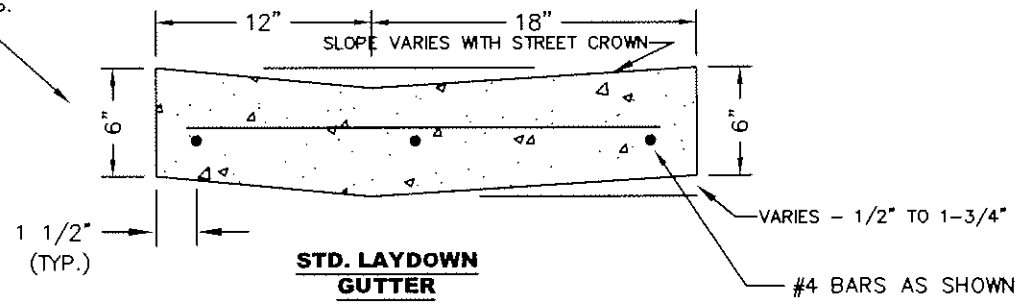
COMMERCIAL CONCRETE APPROACH

DESIGNED BY: B. LINDLEY	APPROVED: CITY ENGINEER — DATE: 7-20-06
DRAWN BY: B. BAKER	
CHECKED BY: C. MARSHALL	



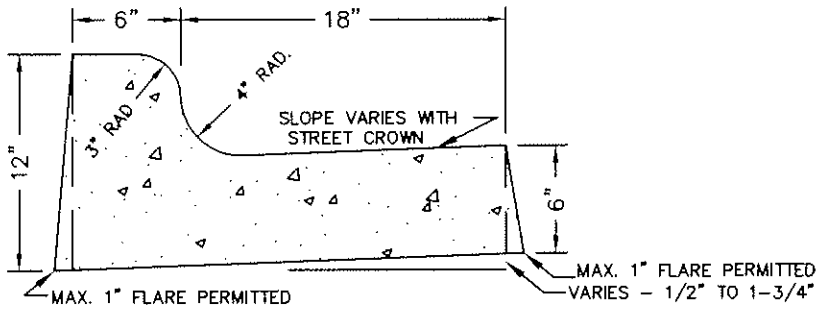
NOTE:
TOOLED CONTRACTION JOINTS ON 10' SPACING. EXPANSION JOINTS ON 40' SPACING OR AT INTERSECTIONS.

STD. CURB & GUTTER



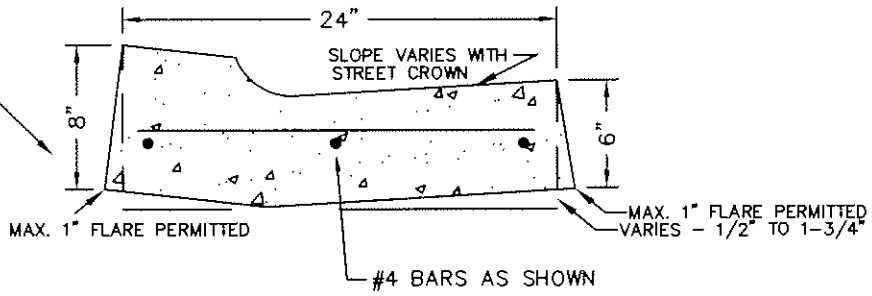
STD. LAYDOWN GUTTER

NOTE:
EXTRUDED CONCRETE MAY USE A MODIFIED GRADATION FOR MACHINE LAID CURB AND GUTTER AS APPROVED BY THE CITY ENGINEER. EXPANSION JOINTS WILL BE PERMITTED AT 100' INTERVALS AND AT ALL BEGINNING AND ENDING RADII. TOOLED CONTRACTION JOINTS WILL BE AT 10' SPACING.



MACHINE LAID CURB & GUTTER

NOTE:
TOOLED CONTRACTION JOINTS ON 10' SPACING. EXPANSION JOINTS AT 100' SPACING AND/OR BEGINNING OF RADII.



MACHINE LAID LAYDOWN GUTTER

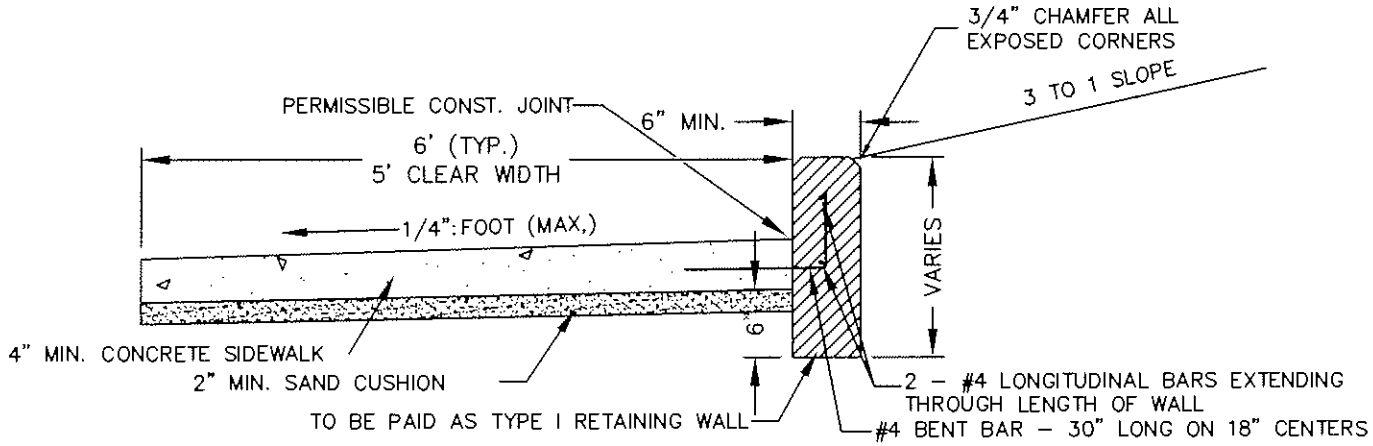
NOTE:

DIMENSIONS SHOWN ARE MINIMUM REQUIRED. THE DESIGNER MAY ADJUST WIDTH ACCORDING TO THE NEED. CONCRETE FOR CURB AND GUTTER SHALL BE 3500 PSI, CLASS "A" CONCRETE THE USE OF MORTAR TOPPING IS OPTIONAL BUT THE USE OF A "MULE" FINISHING TOOL IS NOT. **MORTAR TOPPING WILL NOT BE USED AS CONCRETE FOR FULL DEPTH PLACEMENT.**

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

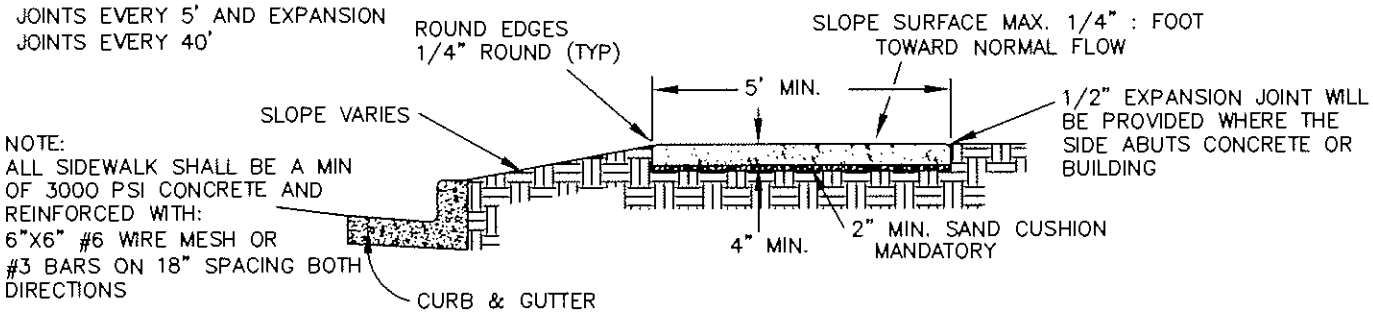
CURB AND GUTTER SECTIONS

DESIGNED BY: B. LINDLEY	APPROVED: 5-04
DRAWN BY: B. BAKER	CITY ENGINEER DATE
CHECKED BY: C. MARSHALL	



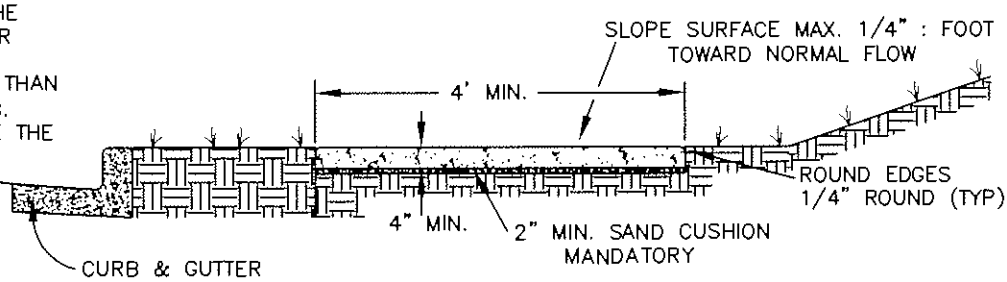
TYPICAL TYPE 1 RETAINING WALL

5' WIDE SIDEWALK
SAWED OR GROOVED CONTRACTION JOINTS EVERY 5' AND EXPANSION JOINTS EVERY 40'



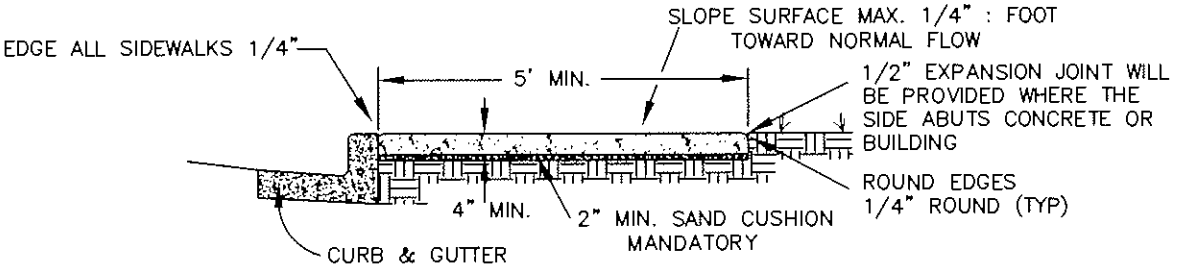
ARTERIAL, COLLECTORS & OCCASIONAL RESIDENTIAL STREETS

NOTE:
THE ENGINEER WILL ADJUST THE GRADE OF THE AREA BACK OF THE CURB TO ACCOMMODATE 100 YEAR FLOOD WATERS. THE SIDEWALK SHOULD NOT BE ELEVATED MORE THAN 4" FROM THE BACK OF THE CURB. FLOOD WATER DISCHARGE WILL BE THE CONTROL FACTOR IN SIDEWALK PLACEMENT AND ELEVATION.



4' WIDE SIDEWALK
SAWED OR GROOVED CONTRACTION JOINTS EVERY 4' AND EXPANSION JOINTS EVERY 32'

NORMAL LOCAL AND RESIDENTIAL STREET



LOCAL AND RESIDENTIAL, "ALTERNATE"

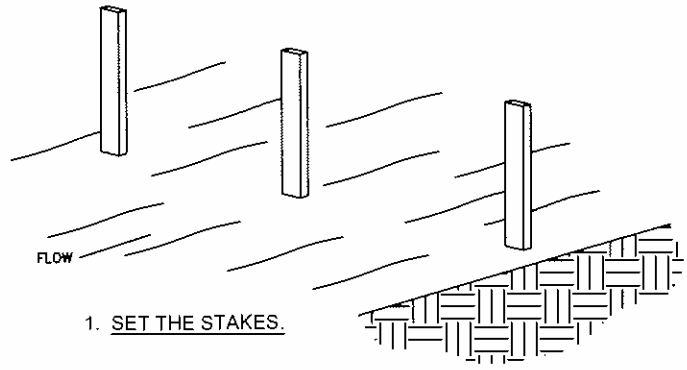
NOTE:

1) ALL SUBGRADE SHALL BE COMPACTED TO AN EQUIVALENT OF 95% PROCTOR DENSITY.
2) A ROUGH BROOM FINISH IS PREFERRED.
3) SLOPE OF SIDEWALK SHALL MEET 1/4":1 SLOPE MAX.
4) WET SUBGRADE SHALL BE CORRECTED PRIOR TO PLACEMENT OF CONCRETE.
5) ALL SIDEWALKS ACROSS DRIVEWAYS WILL BE 6" REINF. CONCRETE. (SEE CONCRETE APPROACH)
6) IN NARROW RIGHT OF WAY SITUATIONS, THE MINIMUM WIDTH OF CLEAR SIDEWALK TO BE 36 INCHES.

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

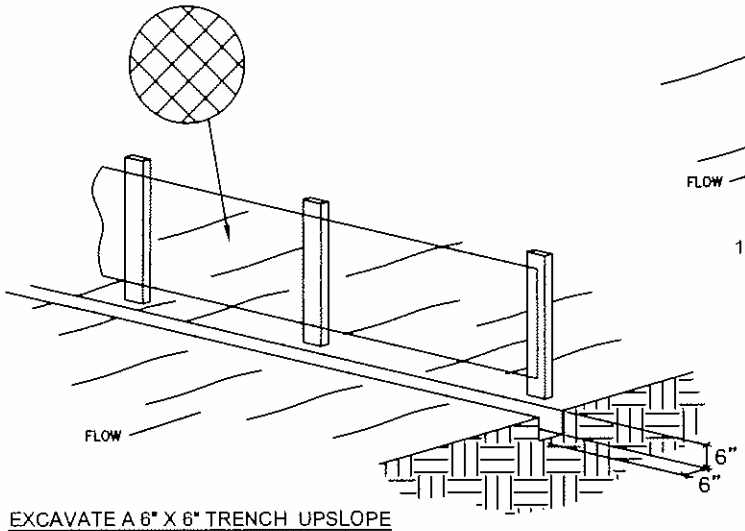
SIDEWALK DESIGN

DESIGNED BY: B. LINDLEY	APPROVED [signature] 7-20-04
DRAWN BY: B. BAKER	DIRECTOR OF PUBLIC WORKS DATE
CHECKED BY: C. MARSHALL	



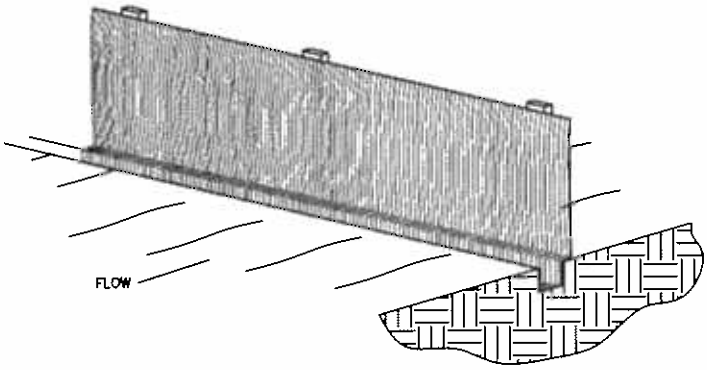
1. SET THE STAKES.

2" CHICKEN WIRE MESH
OR EQUIV. UNDER FABRIC

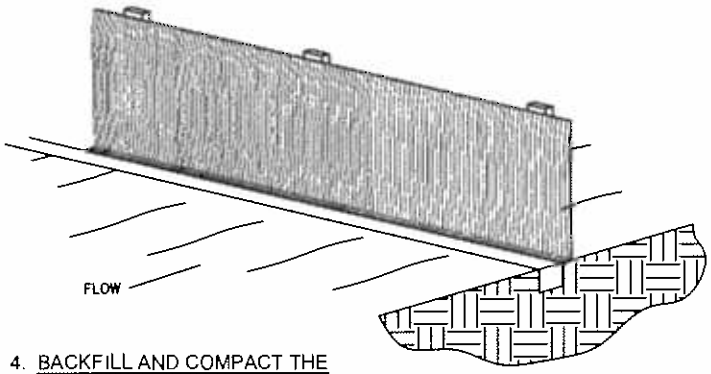


2. EXCAVATE A 6" X 6" TRENCH UPSLOPE ALONG THE LINE OF STAKES.

NOTE: WOODEN STAKES OR STEEL T-POST ACCEPTABLE. WIRE MESH AND FABRIC SHALL BE SECURELY ATTACHED TO THE POST. FABRIC WILL ALWAYS BE ON THE SIDE FACING THE FLOW.



3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT THE EXCAVATED SOIL.

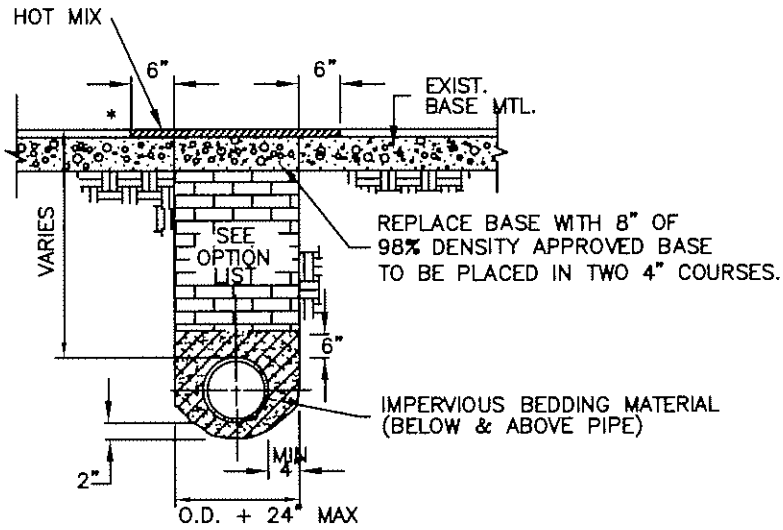
GENERAL NOTES:

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. AN ENGINEER APPROVED FILTER FABRIC WILL BE USED.
3. THE TRENCH MUST BE MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POST.
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES. THE SILT SHALL BE DISPOSED OF IN AN APPROVED SITE AND IN SUCH A MANNER AS TO NOT CONTRIBUTE TO ADDITIONAL SILTATION.

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

SILT FENCE STANDARDS

DESIGNED BY: B. LINDLEY	APPROVED 5-06
DRAWN BY: B. BAKER	CITY ENGINEER DATE
CHECKED BY: C. MARSHALL	



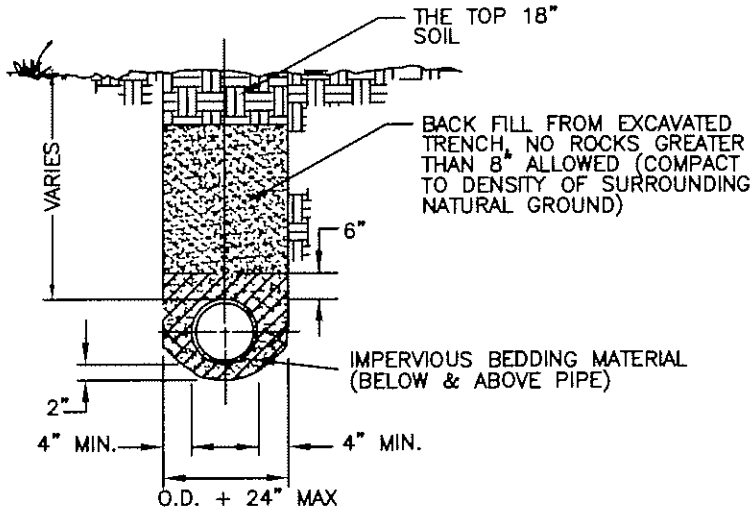
OPTIONAL FILL LIST

1. DENSITY CONTROLLED FILL (MIN. 95% PROCTOR DENSITY)
* 2. FLOWABLE FILL OR TWO SACK BACKFILL
3. DENS. CONTROLLED BASE (98%)
4. MANUFACTURED SAND
5. DRY BUCK SHOT
6. DRY BLOW SAND
7. COMPACTED WET SAND

* CITY OF ABILENE APPROVED DESIGN

TYPE "A" BACKFILL

ALL PAVEMENT, ROADWAYS, ALLEYS, DRIVEWAYS AND ALL AREAS INSIDE THE CITY R.O.W. OR AS DIRECTED BY THE ENGINEER.



NOTE: IN SPECIFIED LOCATIONS THE ENGINEER MAY REQUIRE A TYPE "A" BACKFILL. THE NAME "BUCKSHOT" IDENTIFIES A GRANULAR AGGREGATE THAT IS FREE FROM DELETERIOUS MATTER AND IS A UNIFORM NON-GRADED SIZE. PREFERENCE IS A SILICEOUS AGGREGATE THAT WILL MEET THE FOLLOWING GRADATION: 100% PASSING THE ⅜" SCREEN, 50-85% PASSING THE #4 SCREEN, AND 0-5% PASSING THE #18 SCREEN; OR AS APPROVED BY THE ENGINEER.

TYPE "B" BACKFILL

OUTSIDE ROADWAYS, RURAL AREAS AND UNDEVELOPED AREAS. (NON ROADWAY AREAS)

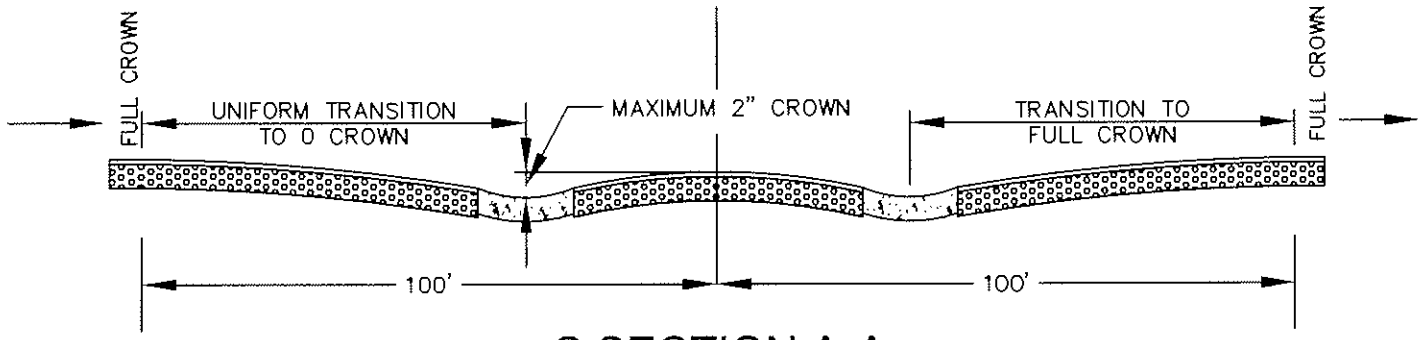
NOTES:
1. THE PERIMETER OF THE SURFACE CUT WILL BE SHAPED BY USING A SPADE, SAW OR OTHER APPROVED METHODS. THE EXPOSED SIDES AND SURFACE WILL BE TACK COATED WITH AN APPROVED ASPHALT.
2. TRAFFIC MAY BE PERMITTED TO RUN ON THE FINISHED BASE UNTIL THE PERMANENT SURFACE IS PLACED, BUT NOT TO EXCEED TWO WORKING DAYS, EXCEPT FOR EXTENUATING CIRCUMSTANCES.
3. THE AREA UNDER CONSTRUCTION SHALL BE BARRICADED IN ACCORDANCE WITH THE "TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".
4. ALL WORK PERFORMED ON THIS PROJECT WILL BE IN ACCORDANCE WITH OSHA (OCCUPATIONAL SAFETY & HEALTH ACT) STANDARDS.

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

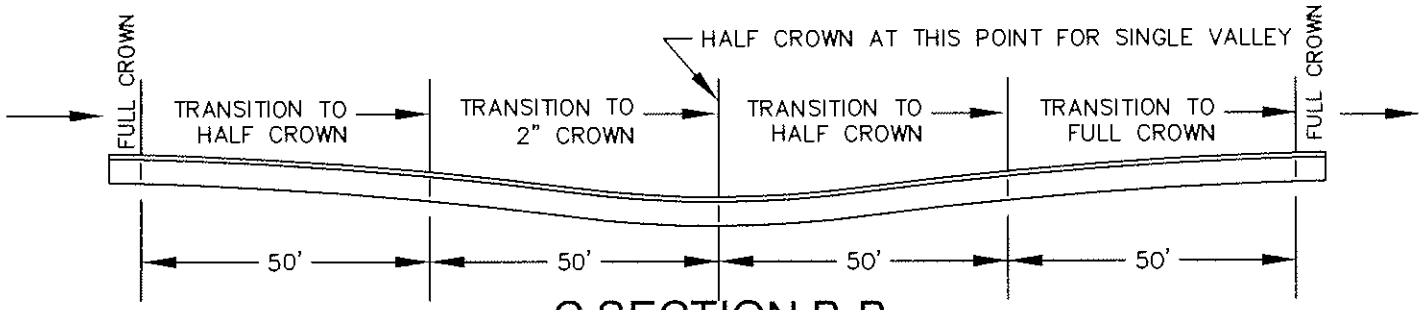
TRENCH DESIGN STANDARD

DESIGNED BY: B. LINDLEY
DRAWN BY: B. BAKER
CHECKED BY: C. MARSHALL

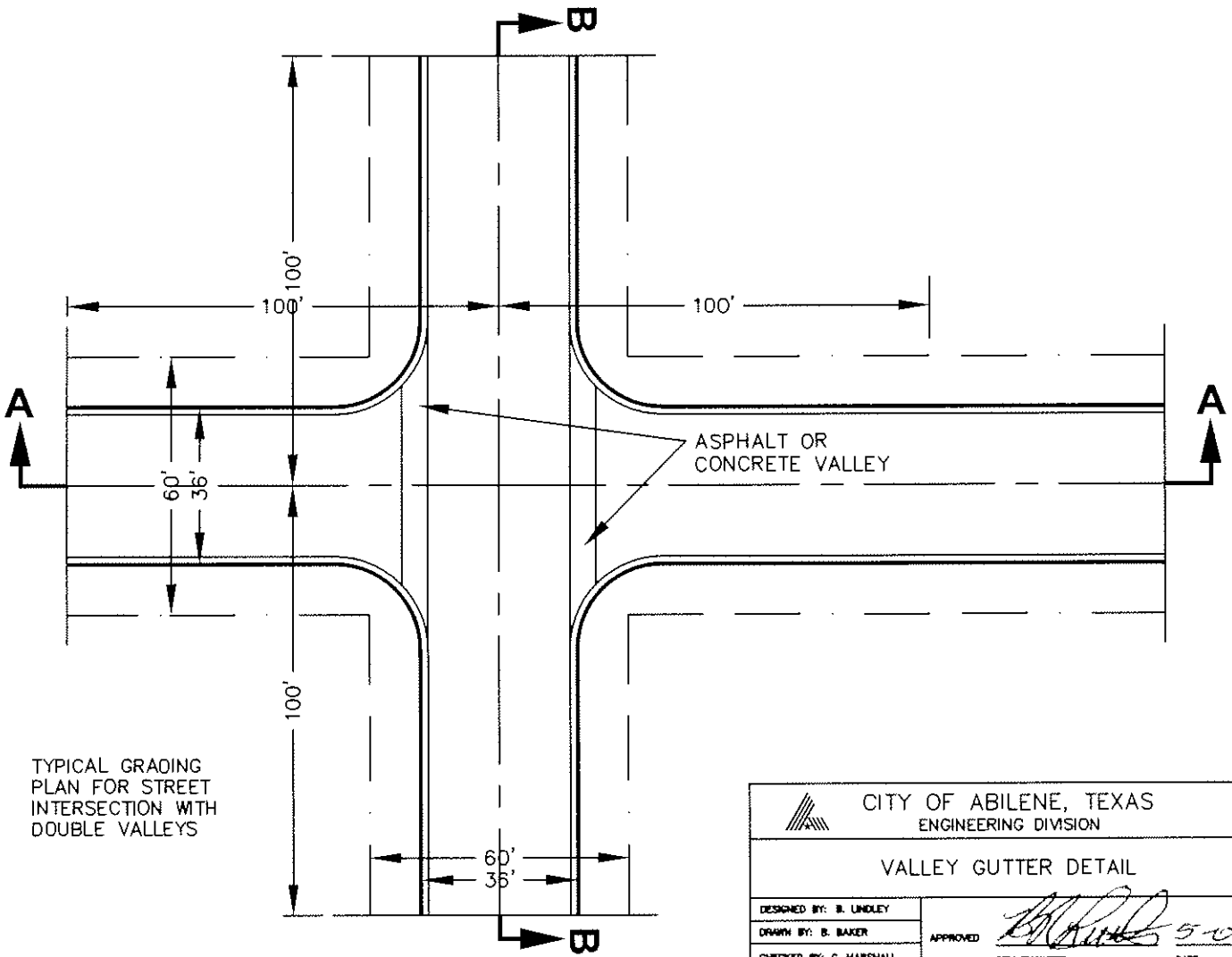
APPROVED: CITY ENGINEER — DATE: 5-04



℄ SECTION A-A



℄ SECTION B-B

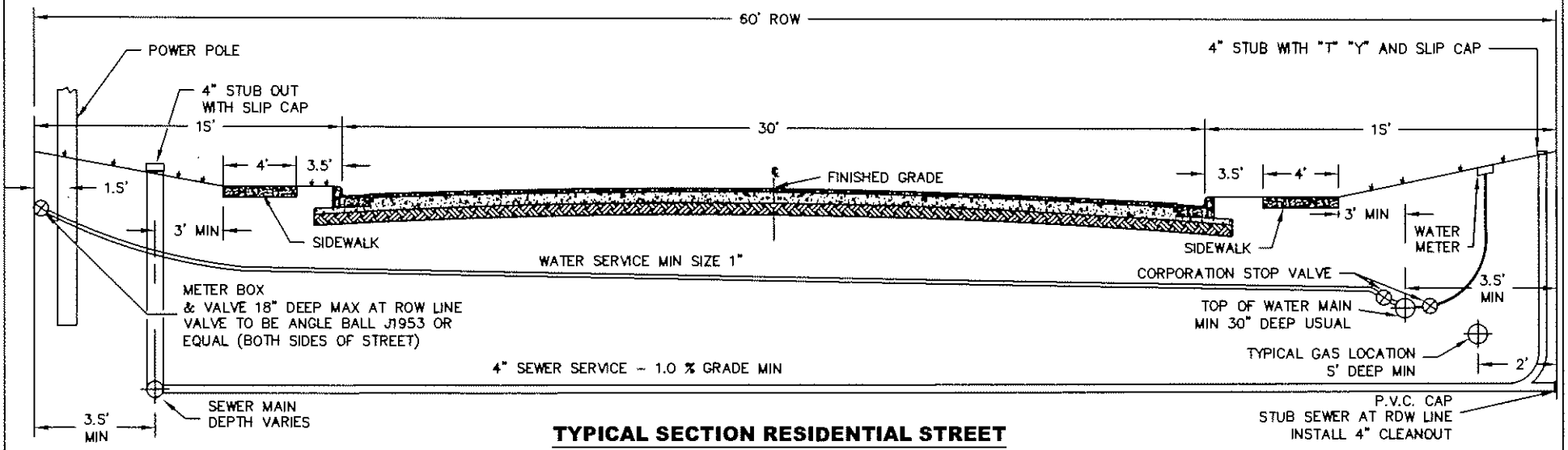


TYPICAL GRADING PLAN FOR STREET INTERSECTION WITH DOUBLE VALLEYS

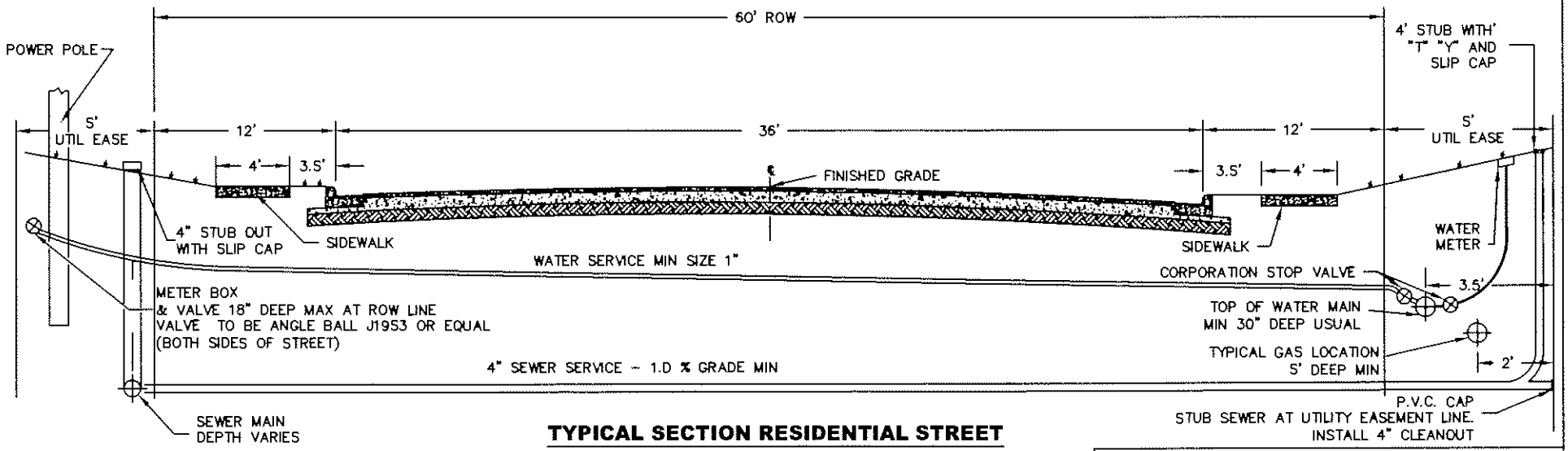
CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

VALLEY GUTTER DETAIL

DESIGNED BY: B. LINDLEY	APPROVED 5-06
DRAWN BY: B. BAKER	CITY ENGINEER DATE
CHECKED BY: C. MARSHALL	



TYPICAL SECTION RESIDENTIAL STREET



TYPICAL SECTION RESIDENTIAL STREET

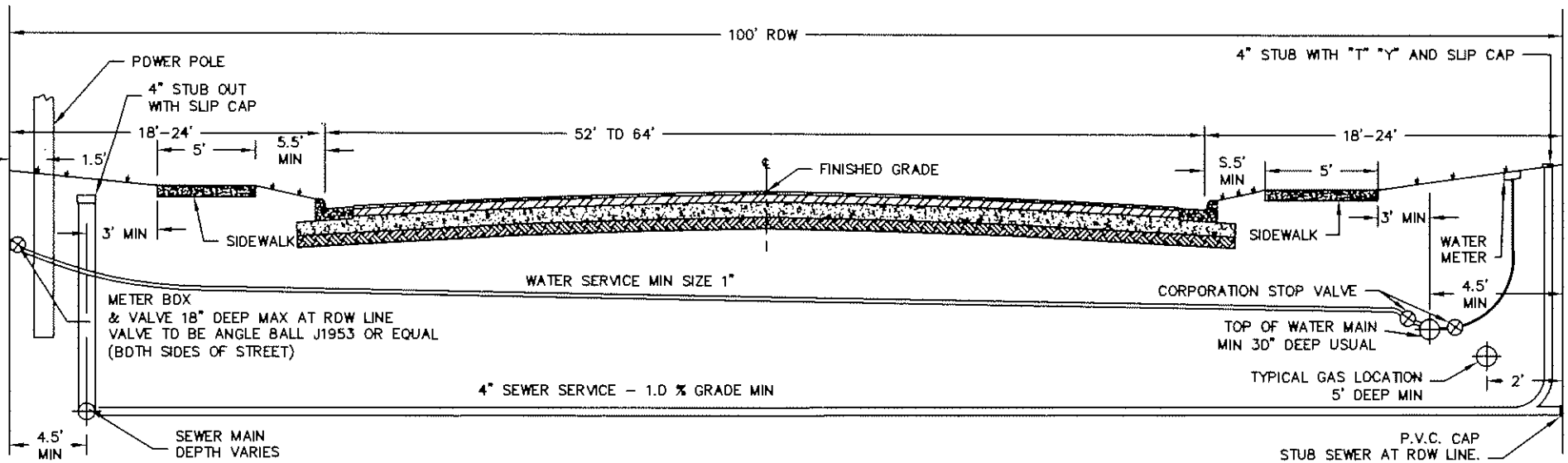
NOTE:
SEWER CLEAN OUT AND WATER METER ARE BOTH ON ROW LINE

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

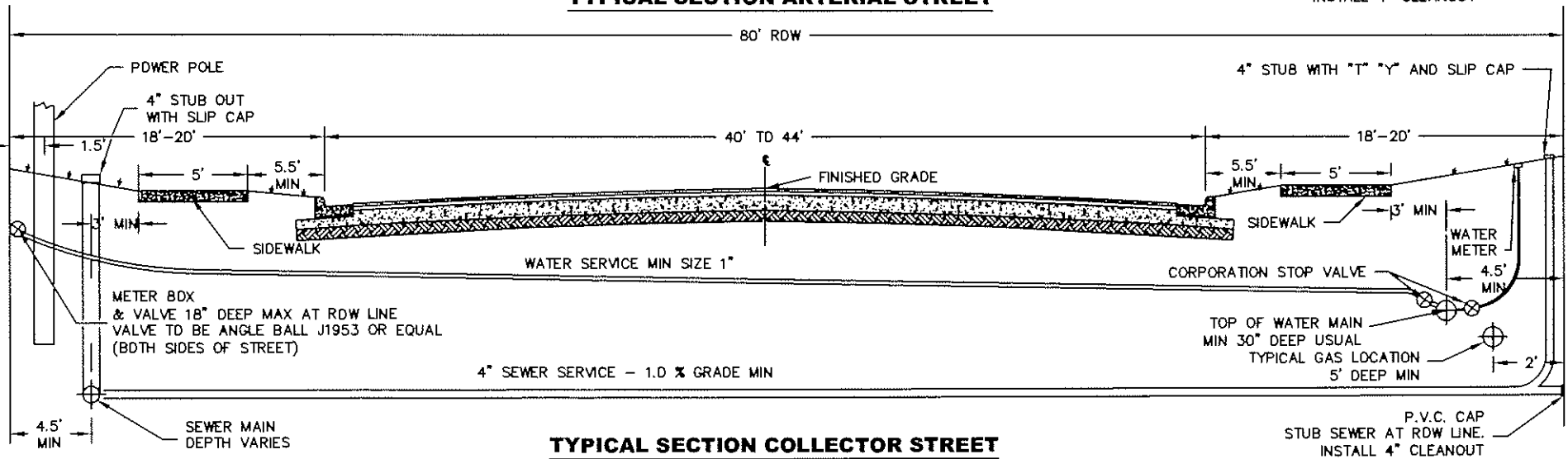
ASSIGNED LOCATIONS FOR UTILITIES IN CITY ALLEYS AND STREETS PART 1

DESIGNED BY: B. LINDLEY	APPROVED: 8-9-06
DRAWN BY: B. BAKER	CITY ENGINEER / DATE
CHECKED BY: C. MARSHALL	

DS-11



TYPICAL SECTION ARTERIAL STREET



TYPICAL SECTION COLLECTOR STREET

NOTES:

1. ALL UTILITIES SHALL BE INSTALLED UNDER THE PAVEMENT BEFORE THE SUBGRADE IS STABILIZED. ALL UNDERGROUND LINES TO BE INSTALLED AFTER THE PAVEMENT OPERATIONS HAVE BEGUN SHALL BE PLACED BY BORING UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
2. THE LOCATION OF ALL WATER AND SEWER SERVICE LINES TO EACH LOT SHALL BE PLAINLY MARKED BY THE ENGINEER (OR PERSON DESIGNATED BY THE DEVELOPER) ON THE CURB.
3. ALL MINOR UTILITY INSTALLATIONS WILL BE PLACED IN A PRE-DETERMINED UTILITY EASEMENT AT THE BACK OF THE PROPOSED LOT OR IN AN ALLEY AS APPROPRIATE.
4. ANY SIDEWALK WIDER THAN 5', INCLUDING HIKE AND BIKE TRAILS, WILL REQUIRE SPECIAL DESIGN AND/OR ROW WIDTH.
5. MAXIMUM ELEVATION OF SIDEWALK IS 4" ABOVE THE TOP OF CURB.

NOTE:
SEWER CLEAN OUT AND WATER METER ARE BOTH ON ROW LINE

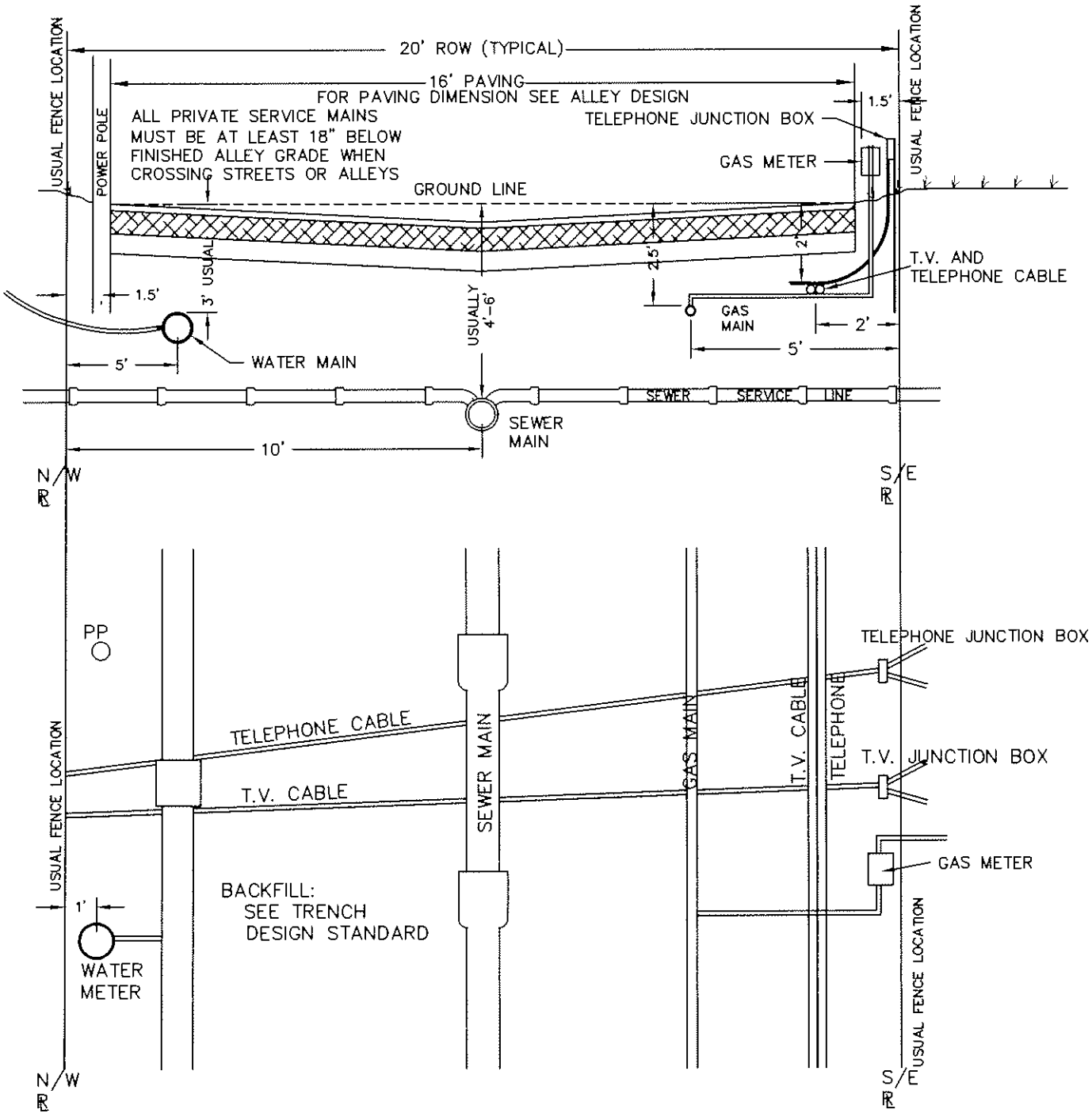
CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

ASSIGNED LOCATIONS FOR UTILITIES IN CITY ALLEYS AND STREETS PART 2

DESIGNED BY: B. LINDLEY
DRAWN BY: B. BAKER
CHECKED BY: C. MARSHALL

APPROVED 8-9-06
CITY ENGINEER DATE

DS-12



1. TELEPHONE SERVICE LINES WILL BE 24" DEEP WHEN INSTALLED ALONG WITH CABLE. WHEN INSTALLED AFTER CABLE OR GAS MAIN IS IN PLACE IT WILL BE LAID ABOVE GAS AND WATER MAINS.
2. ALL DIMENSIONS ARE REFERENCED TO ALLEY ROW OR CENTERLINE OF ALLEY.
3. LOCATION TOLERANCE WILL BE 6" IN EITHER DIRECTION HORIZONTALLY. ANY DEVIATION IN EXCESS OF ABOVE SHOULD BE AUTHORIZED BY THE CITY ENGINEER.
4. SANITARY SEWER MAINS WILL BE INSTALLED FIRST AND HAVE PRIORITY OVER OTHER UTILITIES BECAUSE OF GRADE REQUIREMENTS.
5. ALLEYS WILL NORMALLY BE EXCAVATED BELOW NATURAL GROUND FOR DRAINAGE PURPOSES.
6. T.V. CABLE MAY BE IN THE SAME DITCH AS TELEPHONE CABLE. UTILITIES COMPANY WILL CHECK WITH CITY ENGINEER FOR ALLEY GRADES.
7. DEPTH DIMENSIONS WILL APPLY TO STREETS AS WELL. FOR LOCATIONS OF UTILITIES SEE STANDARDS FOR STREET IN COMBINATION WITH THIS STANDARD.

SPECIAL NOTE

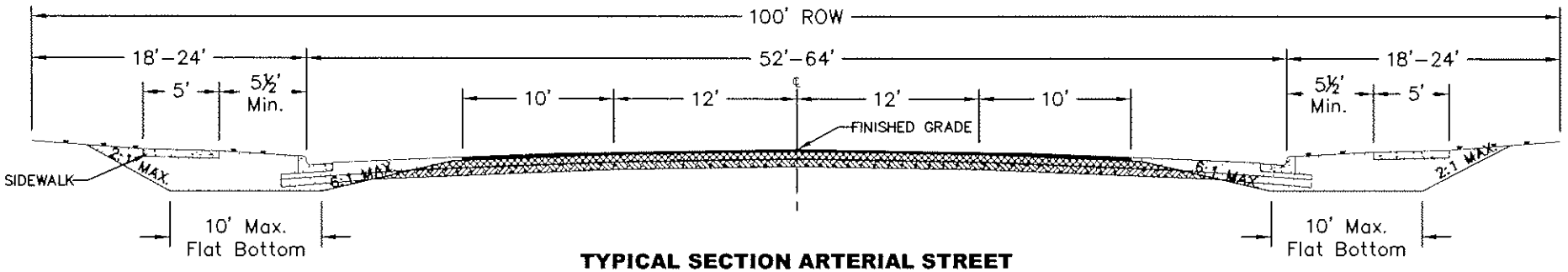
UTILITIES LOCATED IN EASEMENTS TO HAVE SAME RELATIVE POSITION AS IN ALLEY

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

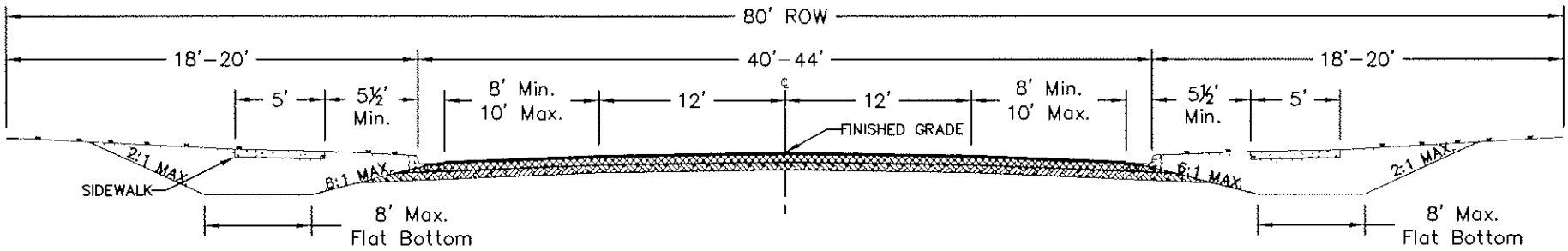
ASSIGNED LOCATIONS FOR UTILITIES IN CITY ALLEYS AND STREETS

DESIGNED BY: B. LINDLEY
DRAWN BY: B. BAKER
CHECKED BY: C. MARSHALL

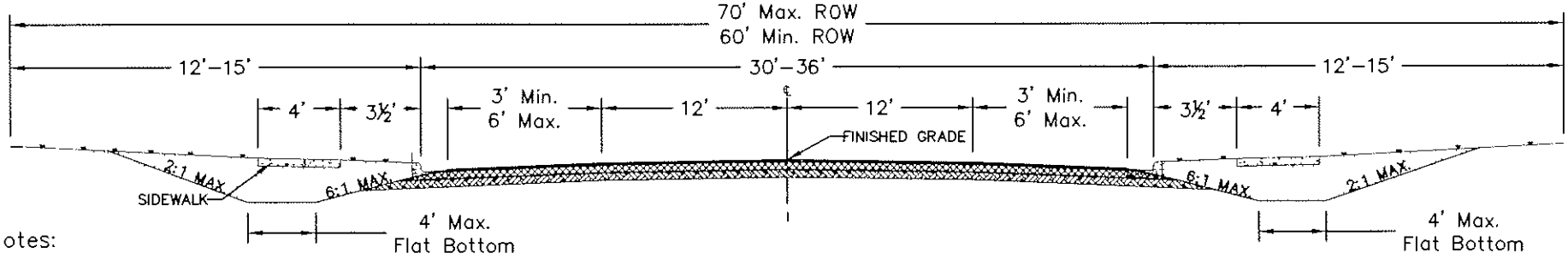
APPROVED
CITY ENGINEER
DATE 8-9-06



TYPICAL SECTION ARTERIAL STREET



TYPICAL SECTION COLLECTOR STREET



TYPICAL SECTION RESIDENTIAL STREET

Notes:

1. See Utility Location Layout

2. These typical sections may be used at the discretion of the City Engineer for lots 5 acres or more in residentional subdivisions.

3. For details, see Sheet DS–1.

Temporary Section to be backfilled; curb & gutter, and sidewalk placed for ultimate section.

CITY OF ABILENE, TEXAS
ENGINEERING DIVISION

INTERIM RURAL SECTION

DESIGNED BY: B. LINDLEY
DRAWN BY: V.DIAZ
CHECKED BY: C. MARSHALL

APPROVED _____ CITY ENGINEER

10-5-04 DATE