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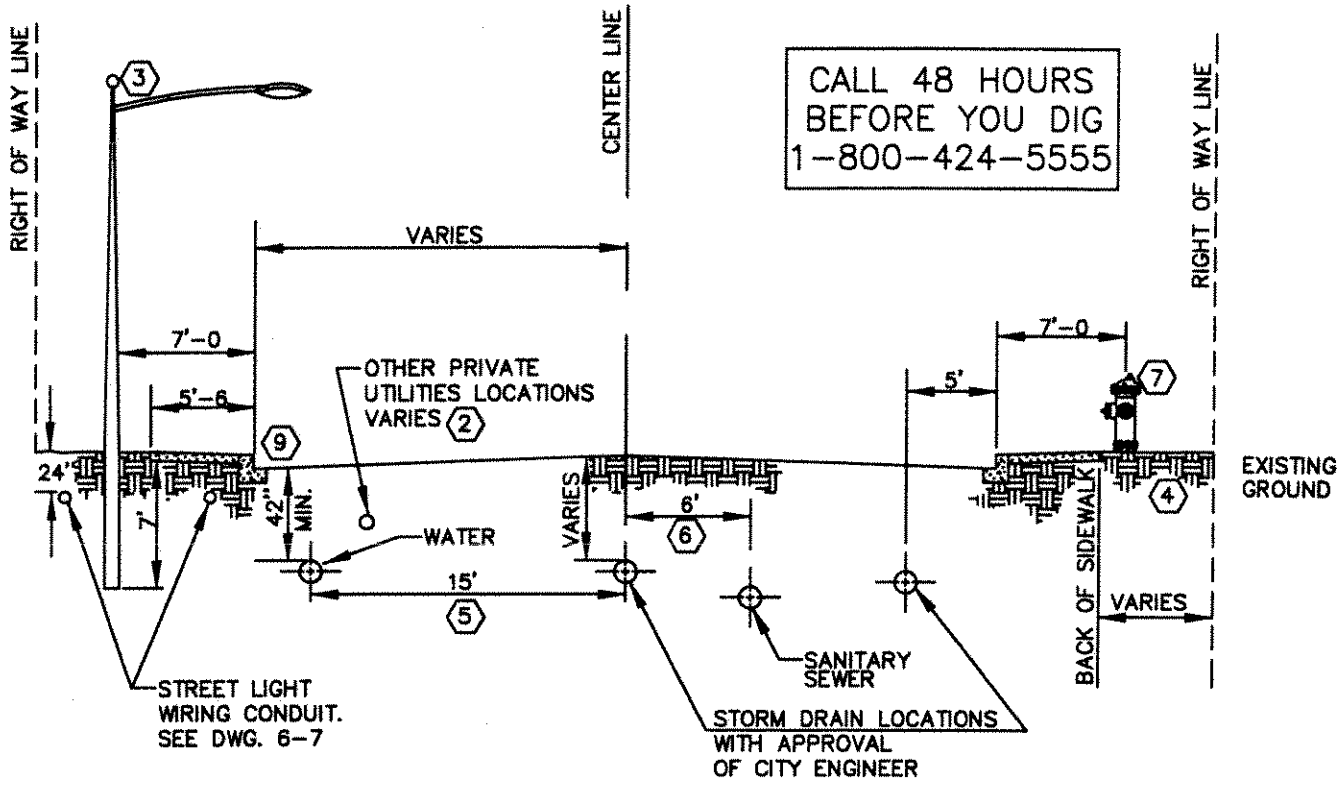


NOTES:

(1) Developer or Contractor is required to call 1-800-424-5555 a minimum of 48 hours prior to digging within the limits of City right-of-way for the location marking of all underground utilities.

(2) Typical locations for other proposed or existing public utilities shall be verified by the Developer or Contractor. A minimum horizontal separation of 3 foot shall be maintained from city water mains and a minimum 5 foot horizontal separation shall be maintained from City sewer and storm sewer mains.

(3) Street light poles typically will be installed on alternating sides of the street and spaced as indicated above.

(4) Water meter boxes will be installed at the back of new or existing sidewalks.

(5) Potable water lines typically shall be installed 15 feet from and parallel to the centerline of the right-of-way on the north or west side.

(6) Sanitary sewer line typically shall be installed 6 feet from and parallel to the centerline of the right-of-way on the south or east side.

(7) Fire hydrants typically will be installed on alternating sides of the street on 400 foot max. spacing in industrial and commercial areas and on 600 foot max. spacing in residential areas.

(8) Gas, power, telephone and other utilities shall maintain a minimum 3 foot horizontal clearance from City water lines, and 5 foot horizontal clearance from City sewer lines.

(9) If conflicts require alternate water or sewer main locations, approval shall be obtained from the City Engineer for the location. A minimum 3 foot separation from the face of curb is required.

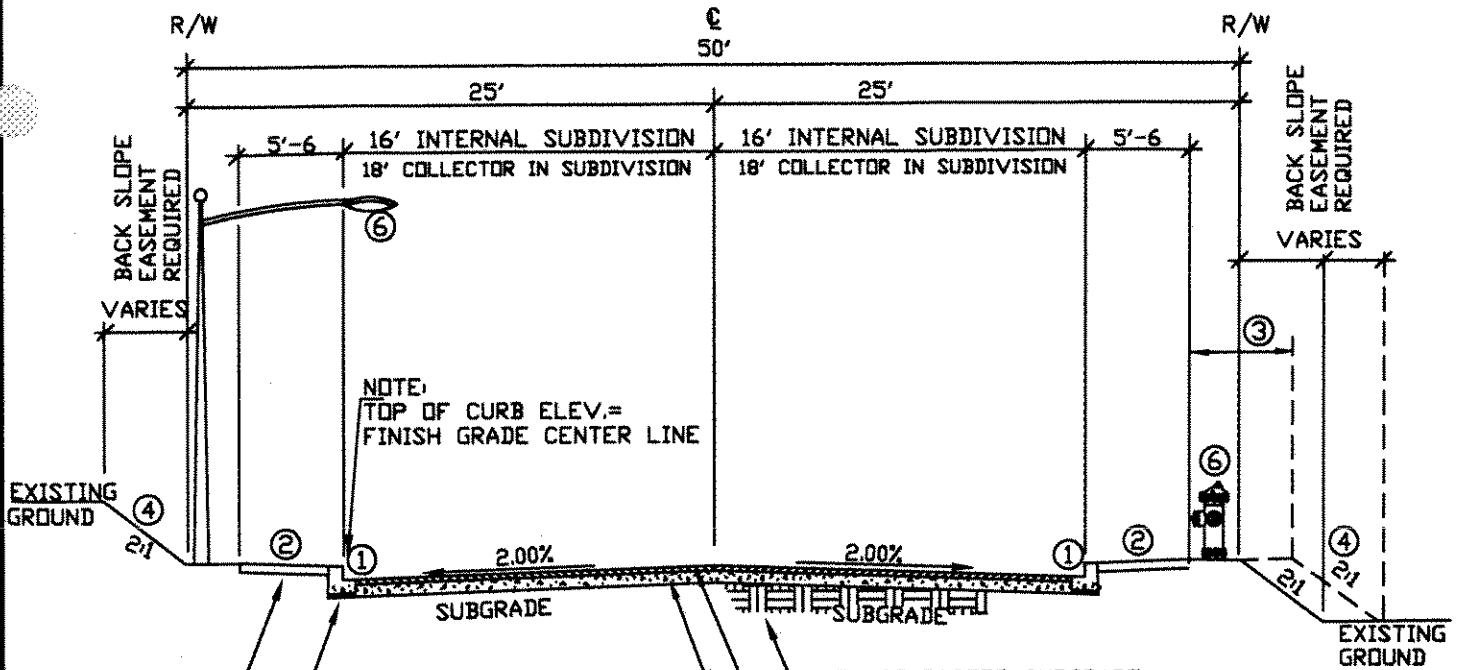
(10) Contact Sunnyside Valley Irrigation District for information as to the location of irrigation waterlines.

TYPICAL CITY UTILITY LOCATION

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
1-6

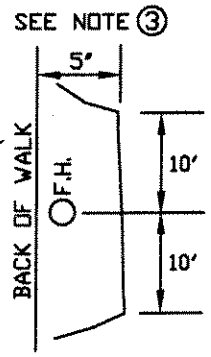


NOTES:

① CONCRETE CURB & GUTTER

② CONCRETE SIDEWALK

③ MINIMUM 1' FROM BACK OF WALK
AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)



④ SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS

⑤ PARKING PERMITTED ON BOTH SIDES OF STREET (SUBJECT TO PLAT APPROVAL)

⑥ SEE STD. DWG. 1-6 FOR HYDRANT AND ST. LIGHT LOCATION

⑦ DESIGN
ON ALL THROUGH STREETS, OTHER THAN MINOR LOOP STREETS, THE MINIMUM CENTERLINE RADIUS SHALL BE 200' UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
ON MINOR LOOP STREETS, THE MINIMUM CENTERLINE RADIUS SHALL 100'. THE MAXIMUM STREET GRADE SHALL NOT EXCEED 8% UNLESS APPROVED BY CITY ENGINEER.

⑧ FOR CUL-DE-SAC SEE STD. DWG. 2-1A

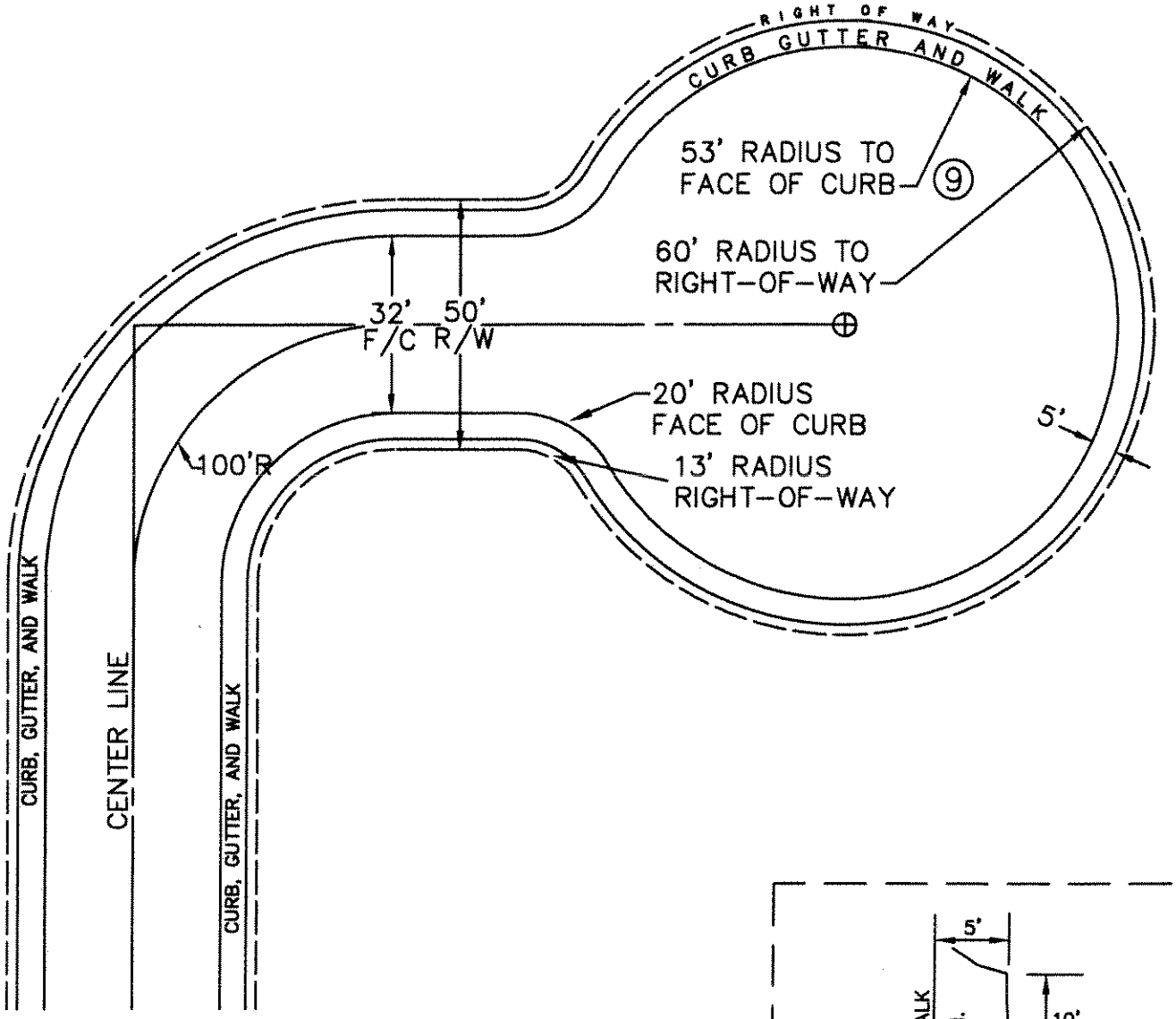
TYPICAL CROSS SECTION

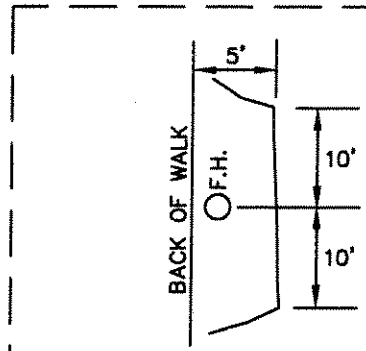
RESIDENTIAL/NEIGHBORHOOD

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
2-1

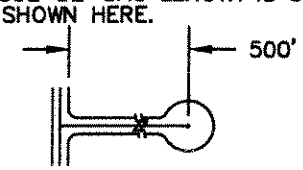




DETAIL
SEE SHT. 2-1

NOTE:

THE MAXIMUM CUL-DE-SAC LENGTH IS 500 FEET MEASURED AS SHOWN HERE.

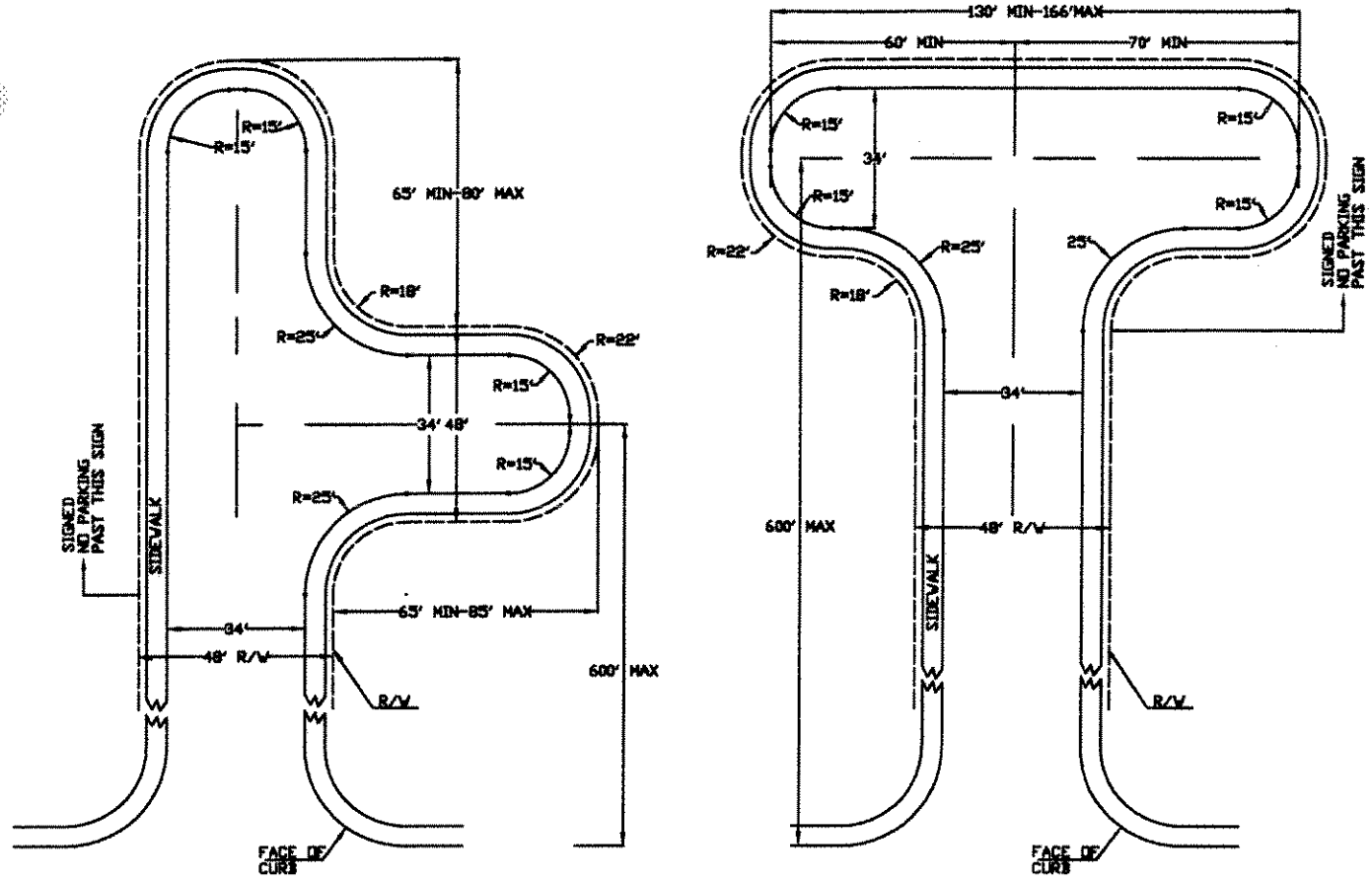


CUL-DE-SAC

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
2-1A



NOTES:

With the prior approval of both the City Engineer and Fire Marshal, an alternate turn-around may be used. Approval will be considered only when the following minimum criterias are met.

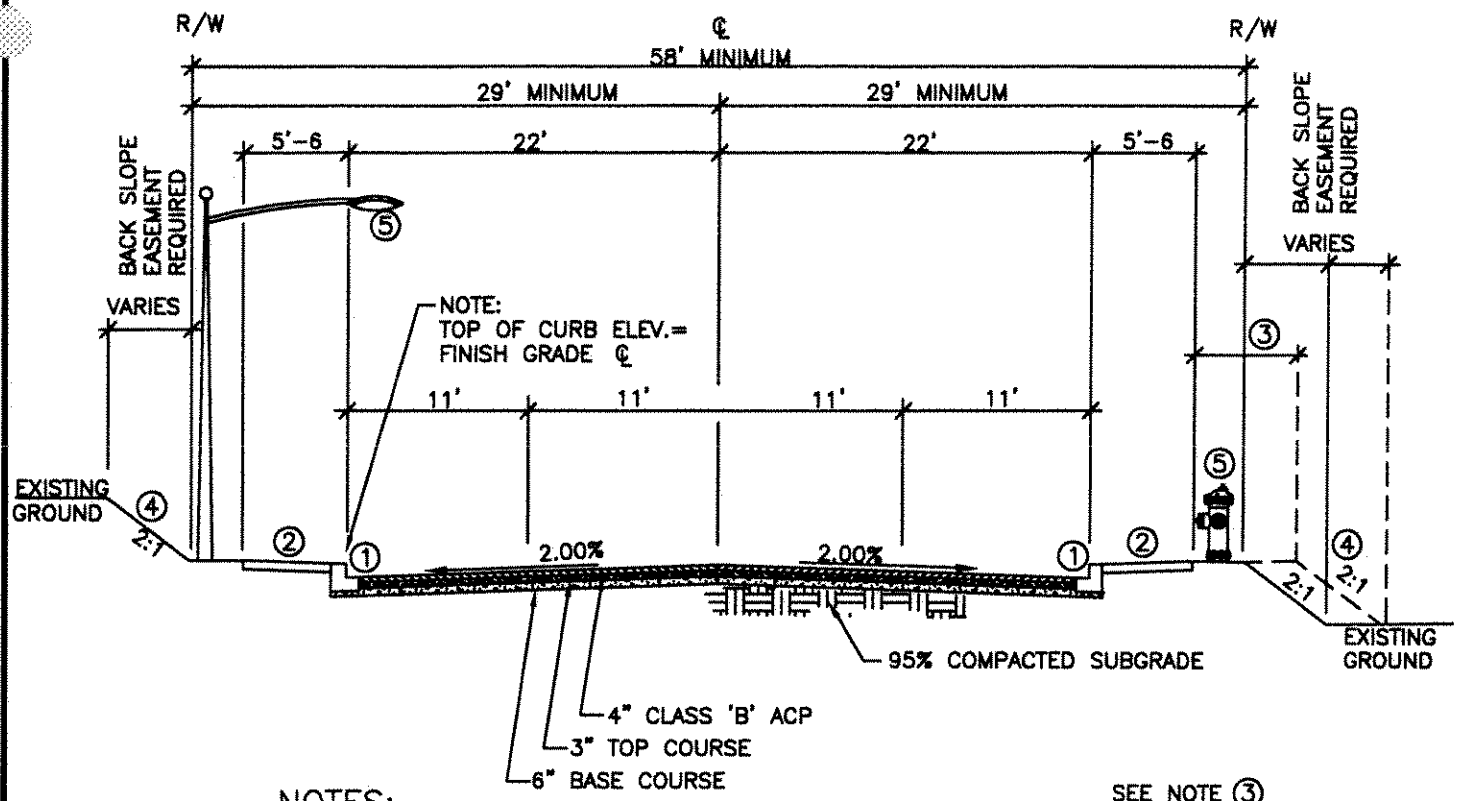
1. Must be an in-fill area between developed residential lots where, a full size cul-de-sac would not be practical as determined by the City Engineer and Fire Marshal; or
   must be an in-fill area between lots zoned for other than residential use, where a full sized cul-de-sac would not be practical, as determined by the City Engineer and Fire Marshal: and
2. The undeveloped lot must have a maximum lot width of 180 feet; and,
3. The maximum length of the dead end street will be 600 feet.
4. An alternate design, similar to this drawing, may be submitted for consideration of approval by both the City Engineer and Fire Marshal.
5. The turn around area shall be signed for no parking.
6. For construction details not shown, see city standard plan 2-1A.

ALTERNATE TURN-AROUND

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

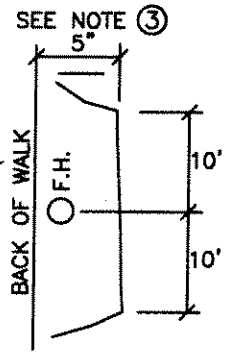
DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 2-1B



NOTES:

1. CONCRETE CURB & GUTTER
2. CONCRETE SIDEWALK
3. MINIMUM 1' FROM BACK OF WALK AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)
4. SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS
5. SEE STD. DWG. 1-6 FOR HYDRANT AND ST. LIGHT LOCATION
6. ON STREET PARKING PROHIBITED
7. WHEN THE CITY ENGINEER DETERMINES THAT A COMMERCIAL INDUSTRIAL USE OR DEVELOPMENT WILL NOT REQUIRE LARGE DELIVERY TRUCKS OR USAGE, DWG 2-2A MAY APPLY. SEE DWG 2-3 AND 2-4 FOR HEAVY COMMERCIAL AND WHERE LARGE TRUCKS OR HEAVY TRAFFIC USAGE OF INDUSTRIAL AREAS WILL APPLY.

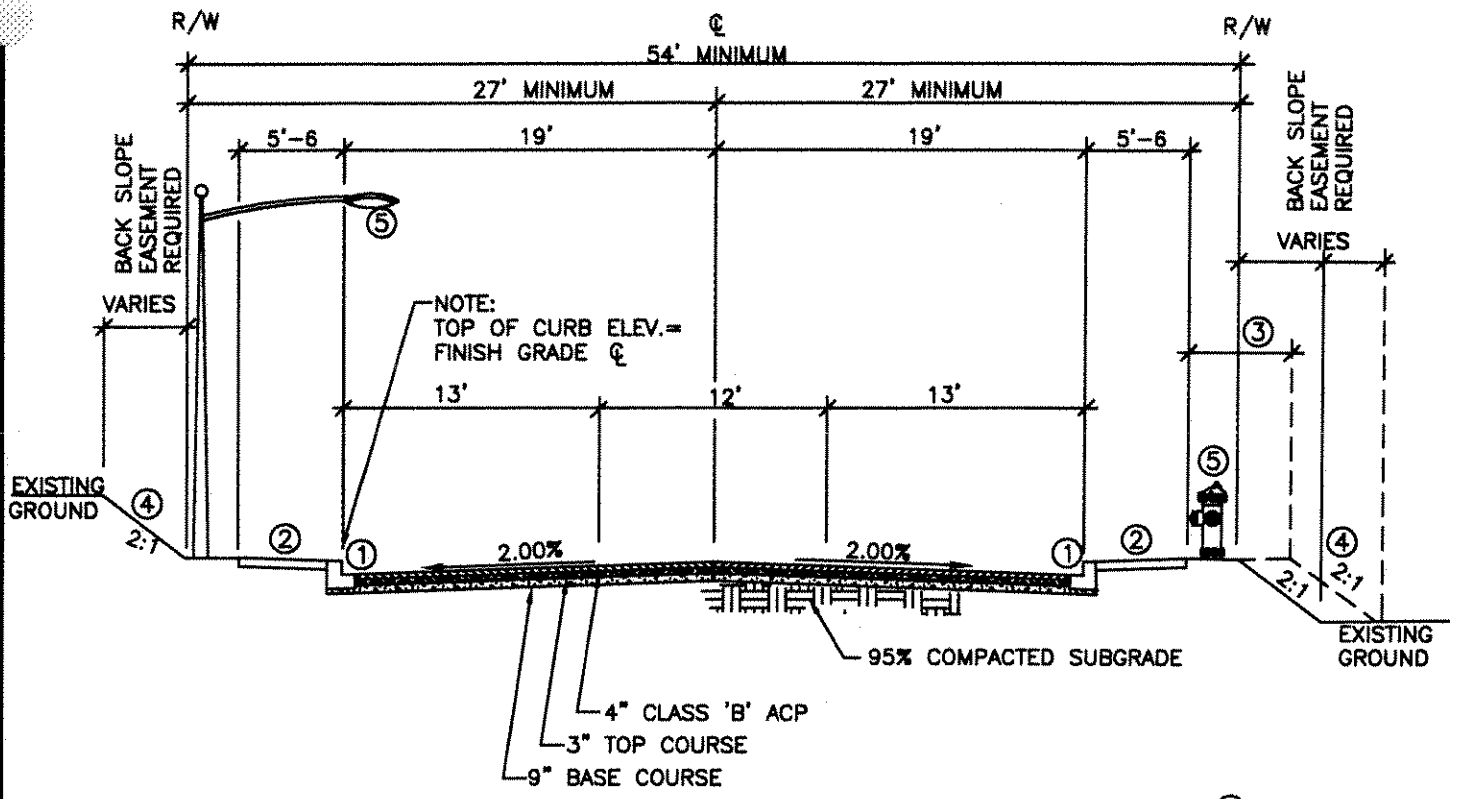


4 LANE/MINOR ARTERIAL
RESIDENTIAL COLLECTOR
LIGHT TO MEDIUM DENSITY COMMERCIAL AND INDUSTRIAL AREAS (SEE NOTE 7)

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 2-2



NOTES:

① CONCRETE CURB & GUTTER

② CONCRETE SIDEWALK

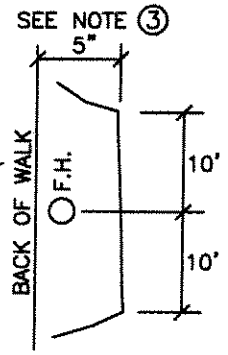
③ MINIMUM 1' FROM BACK OF WALK AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)

④ SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS

⑤ SEE STD. DWG. 1-6 FOR HYDRANT AND ST. LIGHT LOCATION

⑥ ON STREET PARKING PROHIBITED

⑦ WHEN THE CITY ENGINEER DETERMINES THAT A LIGHT COMMERCIAL /INDUSTRIAL USE OR DEVELOPMENT WILL REQUIRE LARGE DELIVERY TRUCKS OR USAGE, DWG 2-2, 2-3 OR 2-4 AS DETERMINED BY THE CITY ENGINEER WILL APPLY.



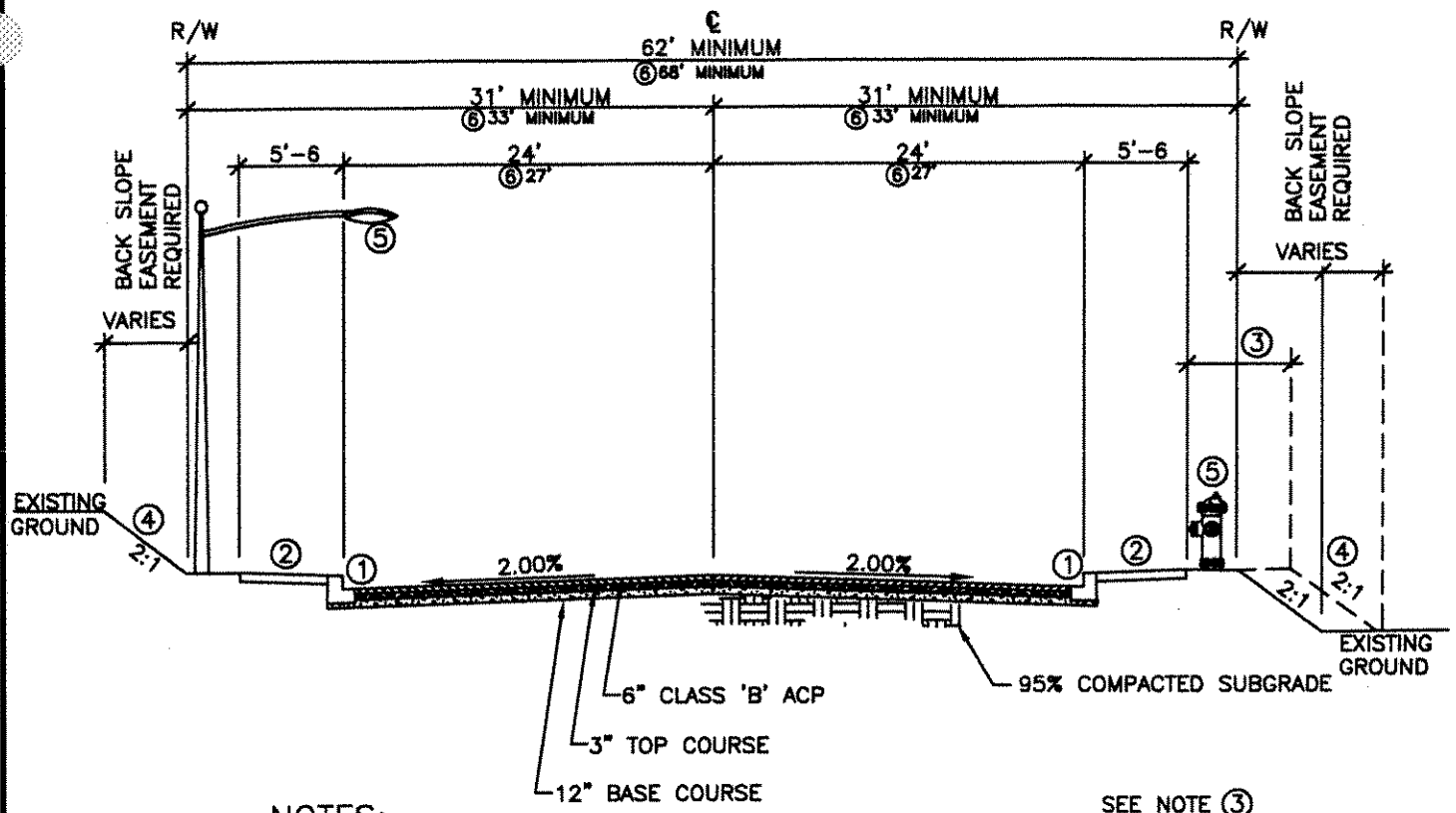
TYPICAL CROSS SECTION

3 LANE/SECONDARY ARTERIAL
LIGHT DENSITY COMMERCIAL/INDUSTRIAL USE. (SEE NOTE 7)

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 2-2A



NOTES:

① CONCRETE CURB & GUTTER

② CONCRETE SIDEWALK

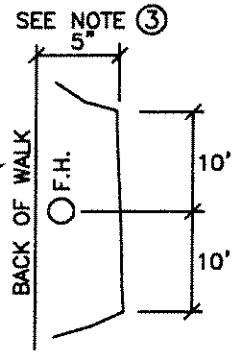
③ MINIMUM 1' FROM BACK OF WALK AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)

④ SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS

⑤ SEE STD. DWG. 1-6 FOR HYDRANT AND ST. LIGHT LOCATION

⑥ WHEN REQUIRED BY THE CITY ENGINEER, AND WHEN THE ARTERIAL IS ON A DESIGNATED BIKE ROUTE, INCREASE WIDTHS AS INDICATED. (4-11' LANES AND 2-5' BIKE PATHS)

⑦ ON STREET PARKING PROHIBITED



TYPICAL CROSS SECTION

MAJOR ARTERIAL/TYPE A

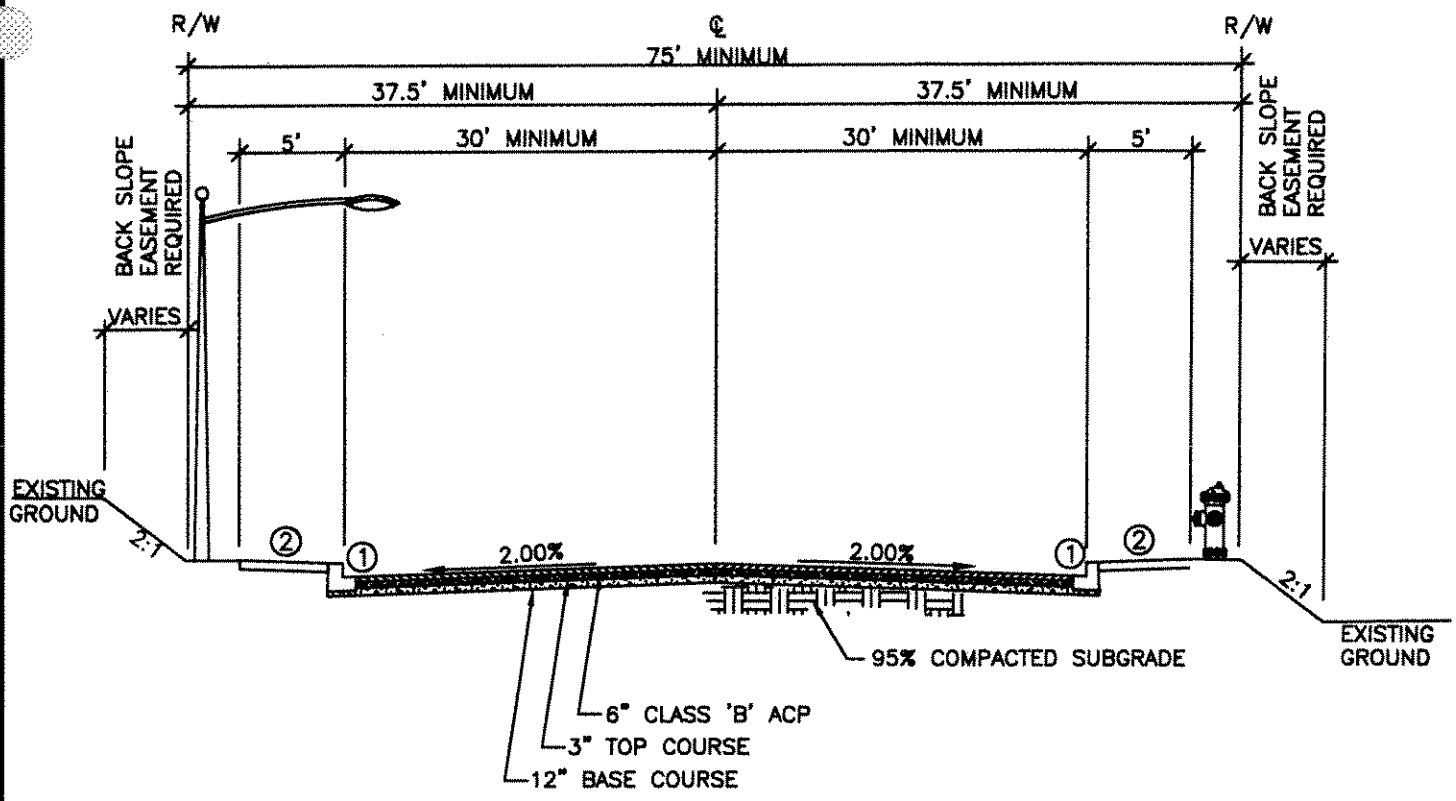
HEAVY COMMERCIAL
MEDIUM TO LIGHT INDUSTRIAL

CITY OF SUNNYSIDE

PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 2-3



NOTES:

① CONCRETE CURB & GUTTER

② CONCRETE SIDEWALK
NOTE: ON STREET PARKING PROHIBITED

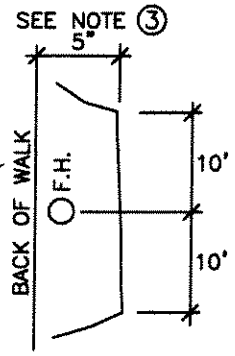
③ MINIMUM 1' FROM BACK OF WALK
AT FIRE HYDRANTS, INCREASE TO 5' FOR A DISTANCE OF 10' ON EACH SIDE OF FIRE HYDRANT (SEE DWG)

④ SLOPE TO BE FLATTENED TO A MINIMUM OF 6:1, OR AS DIRECTED BY ENGINEER, IN DEVELOPED LANDSCAPE AREAS

⑤ SEE STD. DWG. 1-6 FOR HYDRANT AND ST. LIGHT LOCATION

⑥ WHEN REQUIRED BY THE CITY ENGINEER, AND WHEN THE ARTERIAL IS ON A DESIGNATED BIKE ROUTE, INCREASE WIDTHS AS INDICATED.
(4-11' LANES AND 2-5' BIKE PATHS)

⑦ ON STREET PARKING PROHIBITED



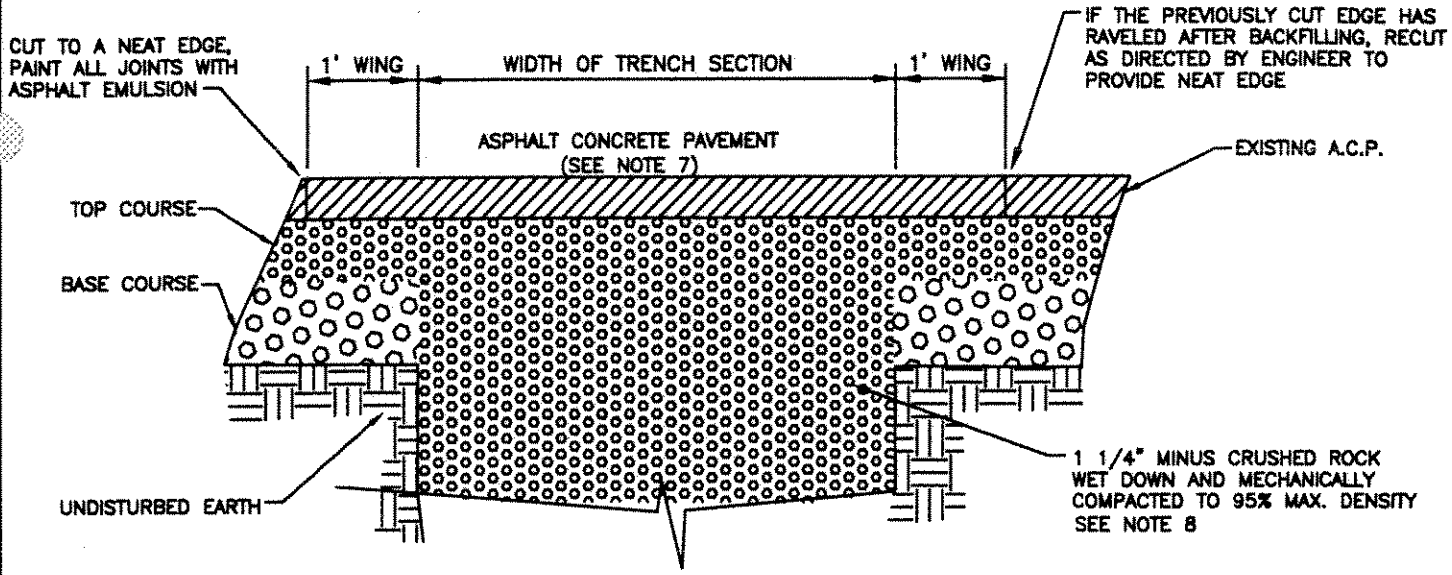
TYPICAL ROAD CROSS SECTION

MAJOR ARTERIAL- TYPE B
HEAVY COMMERCIAL AND INDUSTRIAL AREAS

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 2-4



ASPHALT CONCRETE PAVEMENT REQUIREMENTS

1) ALL STREETS: "CLASS B MODIFIED" ASPHALT, AS PER THESE SPECIFICATIONS SECTION 2-8.02.

2) ASPHALT CONCRETE PAVEMENT SHALL BE PLACED IN LIFTS NOT TO EXCEED 2" IN DEPTH.

3) 5/8" MINUS ROCK IN ACCORDANCE WITH SECTION 2-6 OF THESE SPECIFICATIONS.

NOTES:

1) ALL ROADWAY ACCESSORIES, INCLUDING SIGNS, ARE TO REMAIN IN PLACE AND TO BE PROTECTED. ONE WAY TRAFFIC IS TO BE MAINTAINED UNLESS OTHERWISE DIRECTED BY THE ENGINEER. CONTRACTOR SHALL INSTALL TEMPORARY LANE STRIPING AS PER STD. SPEC. 5-04.3(7) WHERE DIRECTED BY CITY ENGINEER.

2) DO NOT BEGIN STREET CUT UNTIL COMPACTION EQUIPMENT IS ON SITE.

3) DO NOT BEGIN STREET CUT UNTIL WATER (TRUCK OR HOSE) IS ON SITE.

4) WATER SETTLING PERMITTED ONLY WITH APPROVAL OF THE ENGINEER.

5) MATERIAL REMOVED IN TRENCHING WHICH IS DETERMINED BY THE ENGINEER AT TIME OF EXCAVATION TO BE UNSUITABLE FOR REPLACEMENT IN THE BACKFILL IS DEFINED AS UNSUITABLE BACKFILL.

6) IF PERMANENT PATCH CANNOT BE PLACED, AND IF DIRECTED BY THE ENGINEER, A TEMPORARY COLD MIX PATCH SHALL BE PLACED IMMEDIATELY AFTER BACKFILLING AND COMPACTION OPERATIONS. THE COLD MIX PATCH SHALL BE REMOVED AND A PERMANENT PATCH PLACED AS SOON AS CONSTRUCTION AND WEATHER CONDITIONS PERMIT UNLESS STATED OTHERWISE IN THE SPECIAL PROVISIONS OR DIRECTED BY THE ENGINEER.

7) THE DEPTH OF THE ASPHALT PATCH SHALL BE TWO INCHES (2") DEEP ON ALL STREETS 40' AND LESS IN WIDTH AND THREE INCHES (3") DEEP ON ALL STREETS GREATER THAN 40' IN WIDTH AND THREE INCHES (3") DEEP ON 38' WIDE MINOR ARTERIALS.

8) ALL TRENCH BACKFILL IN CITY STREETS TO BE 100% CRUSHED ROCK AND COMPACTED TO 95%. (FULL WIDTH AND DEPTH OF TRENCH)

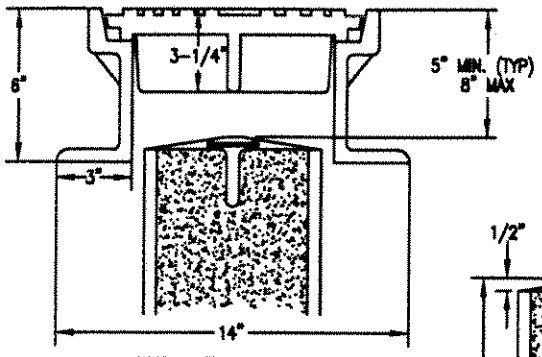
TYPICAL ROADWAY ASPHALT CONCRETE PAVEMENT RESTORATION

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

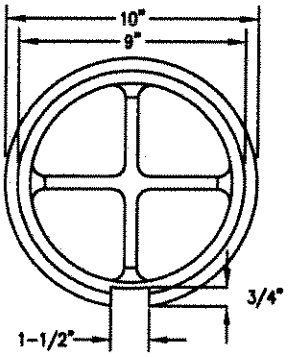
DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 2-6

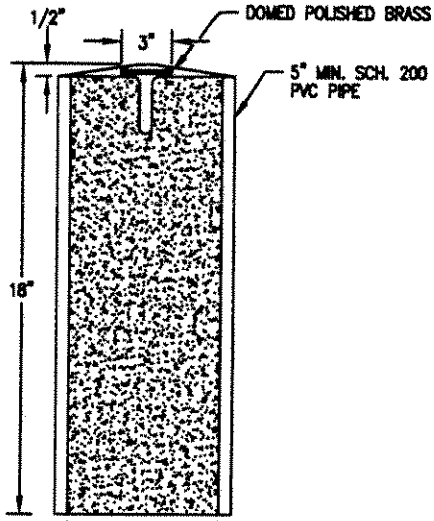
MONUMENT FRAME AND COVER
INLAND FOUNDRY CO. MODEL #1036
OR APPROVED EQUAL (LESS COVER CHAIN)



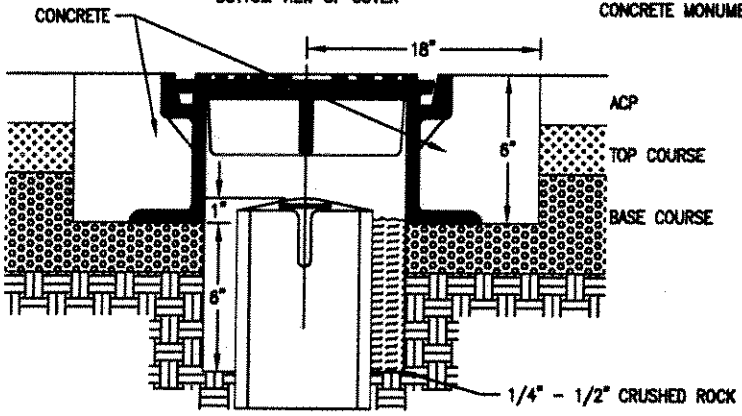
SECTION FRAME & COVER



BOTTOM VIEW OF COVER



CONCRETE MONUMENT



SURVEY MONUMENT

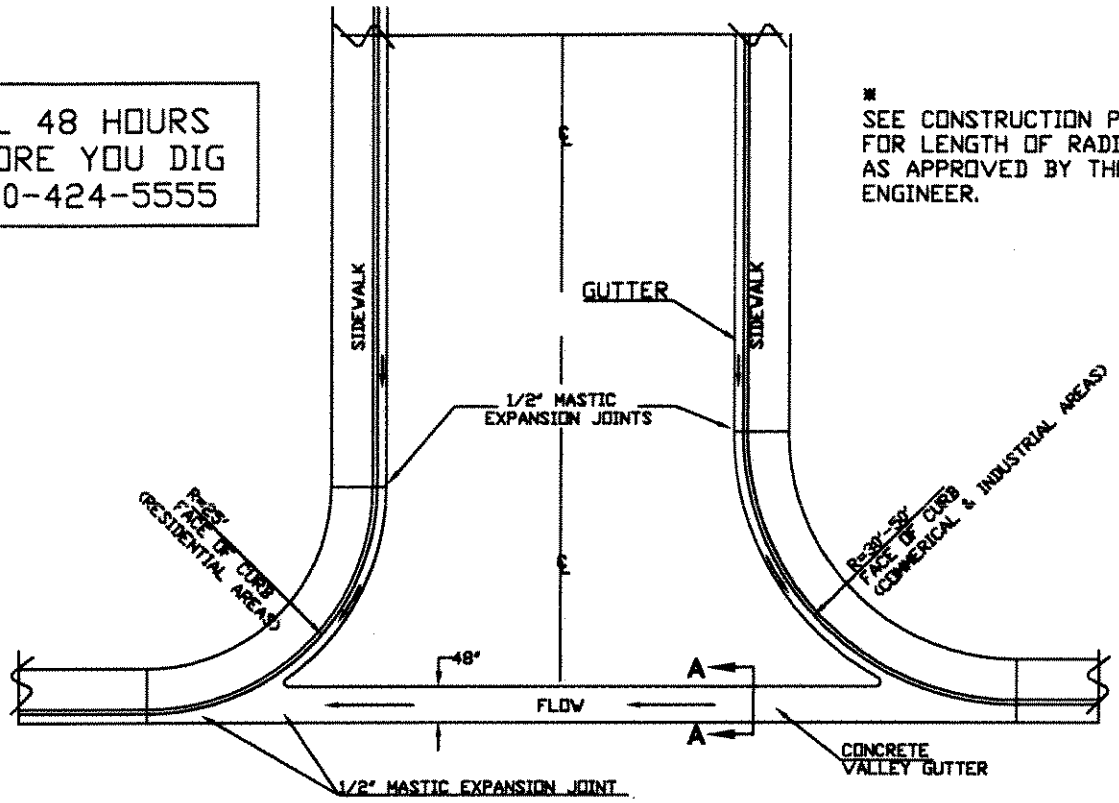
WASHINGTON LICENSED PROFESSIONAL LAND SURVEYOR OR PARTY UNDER THE LICENSED LAND SURVEYOR'S DIRECT SUPERVISION TO REFERENCE MONUMENT LOCATION FOR INSTALLATION AND PUNCH BRASS CAP AFTER INSTALLATION. THE CAP SHALL BE SET IN SUCH A FASHION AS TO INSURE THAT THE PUNCH MARK MAY BE SET WITHIN A MAXIMUM DISTANCE OF 1/2-INCH FROM THE CENTER OF THE CAP. CAP TO BE SUPPLIED AND SET BY CONTRACTOR USING SURVEY CROSS TIES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

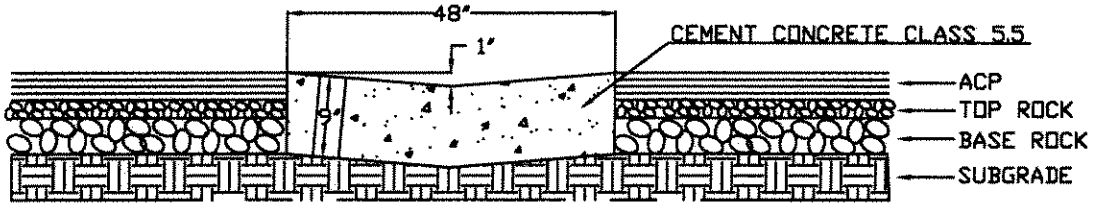
DWG. NO.
2-8

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555



* SEE CONSTRUCTION PLANS FOR LENGTH OF RADIUS OR AS APPROVED BY THE CITY ENGINEER.

NOTE: SEE CITY OF SUNNYSIDE STD. DWG. No.2-12 OR 2-12A FOR WHEELCHAIR RAMP DETAILS AND LOCATIONS.



SECTION A-A

VALLEY GUTTER DETAIL

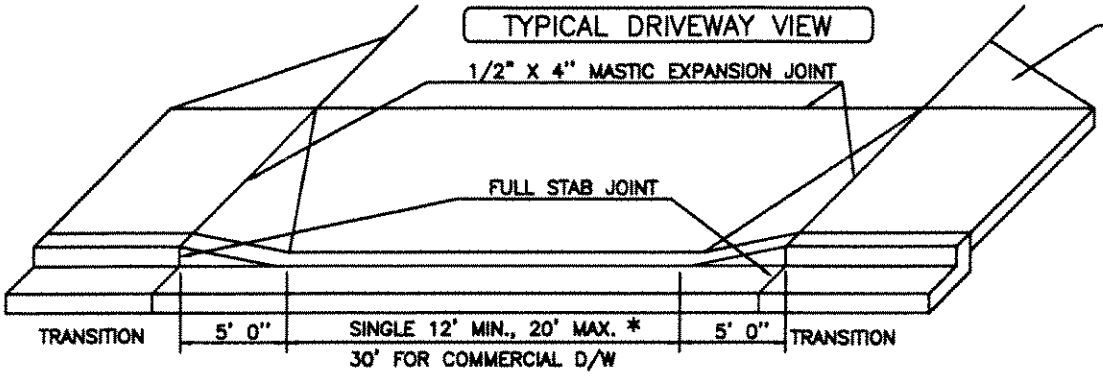
NOTE: REQUIRES APPROVAL OF CITY ENGINEER.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

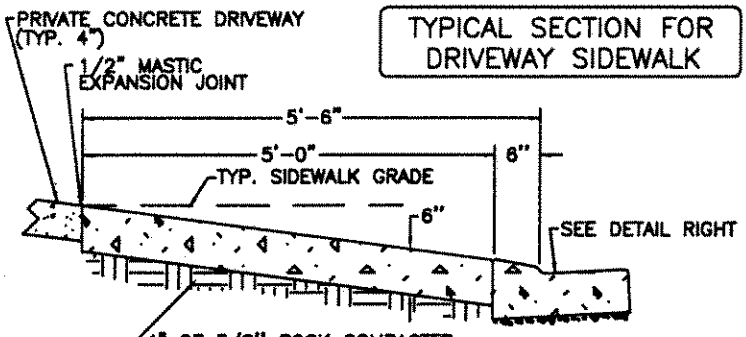
DWG. NO.
2-9

TYPICAL DRIVEWAY VIEW



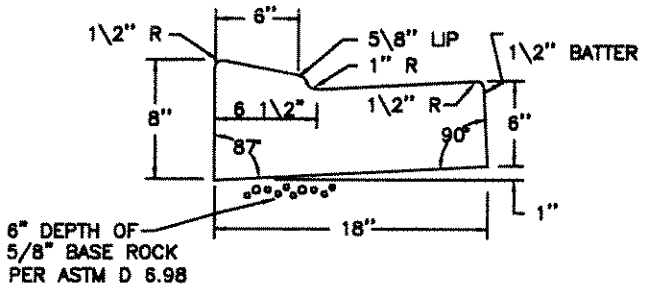
MUST PROVIDE A 5'X5' TAPER FOR ADA BYPASS IF SIDEWALK DOES NOT HAVE A 48:1 CROSS SLOPE AT THE D/W.

TYPICAL SECTION FOR DRIVEWAY SIDEWALK



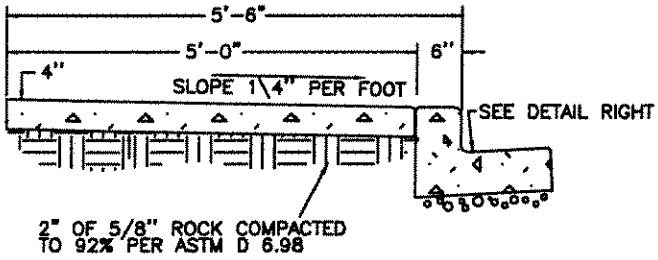
1. DRIVEWAY SIDEWALK DUMMY JOINTS ON 5' CENTERS.
2. CLASS 5 CONCRETE (SEE C.O.S. STD. DWG. 2-14)
3. 1/2" X 4" MASTIC AT TOP OF TRANSITIONS

TYPICAL SECTION FOR DRIVEWAY DEPRESSED CURB & GUTTER



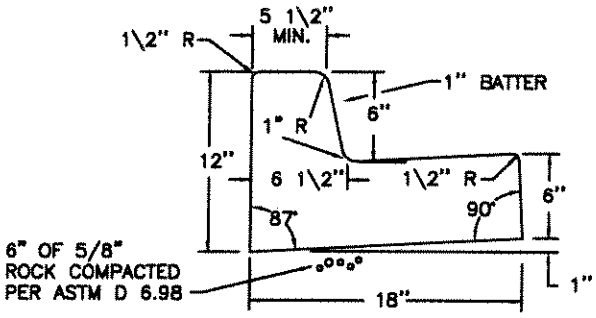
1. FULL STAB JOINTS ON 10' MIN. CENTERS
2. CLASS '5' CONCRETE (SEE C.O.S. STD. DWG. 2-14)

TYPICAL SECTION FOR SIDEWALK



1. SIDEWALK DUMMY JOINTS ON 5' CENTERS.
2. 1/2" MASTIC EXPANSION JOINTS EVERY 20' AND AT POINTS OF CURVATURE ON CURB RETURNS.
3. CLASS 5 CONCRETE (SEE C.O.S. STD. DWG. 2-14).

TYPICAL SECTION FOR CURB & GUTTER



1. FULL STAB JOINTS ON 10' CENTERS
2. 1/2" MASTIC MATERIAL AT POINTS OF TANGENCY ON ALL CURB RETURNS AND AT ALL POINTS OF TERMINUS.
3. CLASS 5 CONCRETE (SEE C.O.S. STD. DWG. 2-14).

CURB, GUTTER, SIDEWALK & DRIVEWAY STANDARD

NOTE: SEE STD. DWG. 2-11 FOR TYPE E-1 VERTICAL FACE CURB & EXTRUDED CURB DETAIL

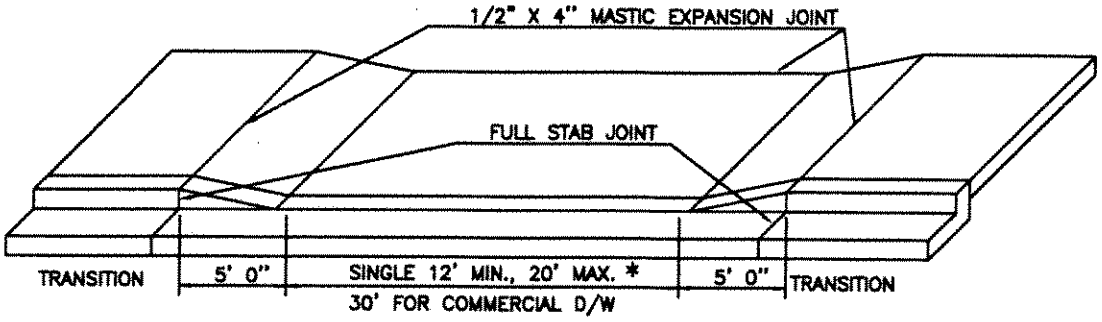
CITY OF SUNNYSIDE

PUBLIC WORKS DEPARTMENT

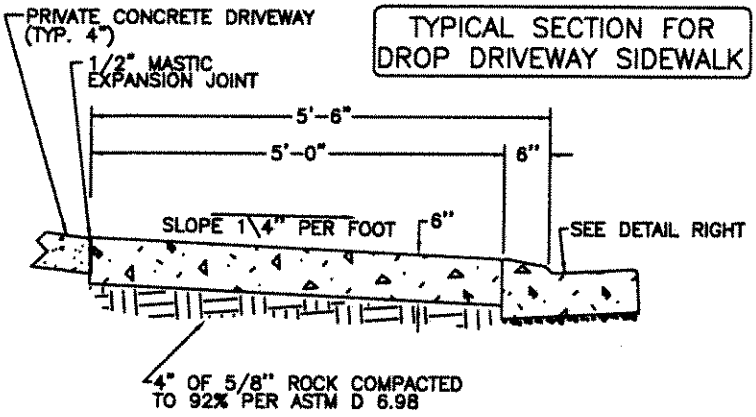
DATE	6/05
DWN	SRF
REV	9/05
CHK	JLB
SCALE	NTS

DWG. NO. 2-10

TYPICAL DROP DRIVEWAY VIEW

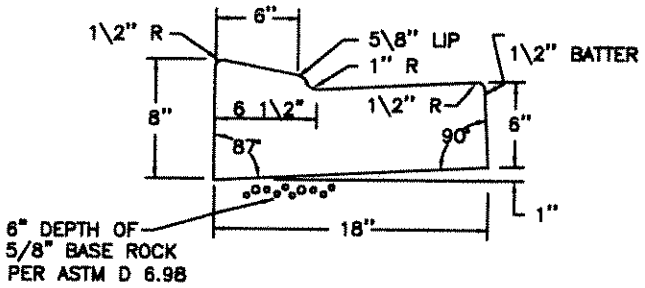


TYPICAL SECTION FOR DROP DRIVEWAY SIDEWALK



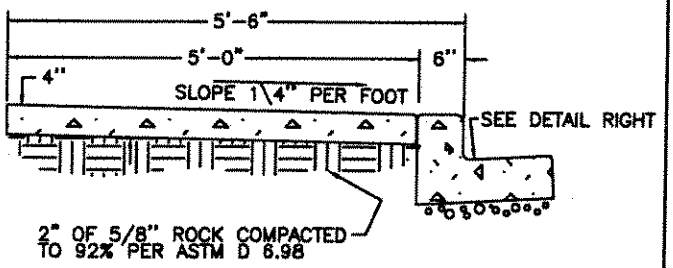
1. DRIVEWAY SIDEWALK DUMMY JOINTS ON 5' CENTERS.
2. CLASS 5 CONCRETE (SEE C.O.S. STD. DWG. 2-14)
3. 1/2" X 4" MASTIC AT TOP OF TRANSITIONS

TYPICAL SECTION FOR DRIVEWAY APPROACH CURB & GUTTER



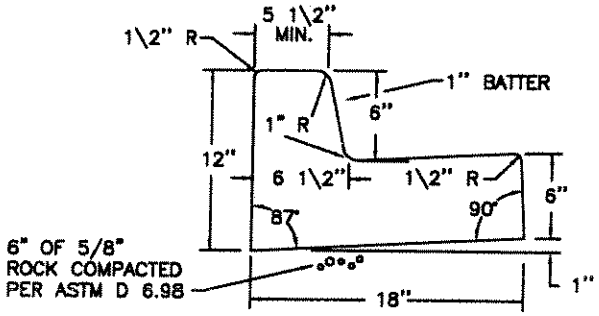
1. FULL STAB JOINTS ON 10' MIN. CENTERS
2. CLASS '5' CONCRETE (SEE C.O.S. STD. DWG. 2-14)

TYPICAL SECTION FOR SIDEWALK



1. SIDEWALK DUMMY JOINTS ON 5' CENTERS.
2. 1/2" MASTIC EXPANSION JOINTS EVERY 20' AND AT POINTS OF CURVATURE ON CURB RETURNS.
3. CLASS 5 CONCRETE (SEE C.O.S. STD. DWG. 2-14).

TYPICAL SECTION FOR CURB & GUTTER



1. FULL STAB JOINTS ON 10' CENTERS
2. 1/2" MASTIC MATERIAL AT POINTS OF TANGENCY ON ALL CURB RETURNS AND AT ALL POINTS OF TERMINUS.
3. CLASS 5 CONCRETE (SEE C.O.S. STD. DWG. 2-14).

CURB, GUTTER, & SIDEWALK W/ DROP BACK FOR ADA

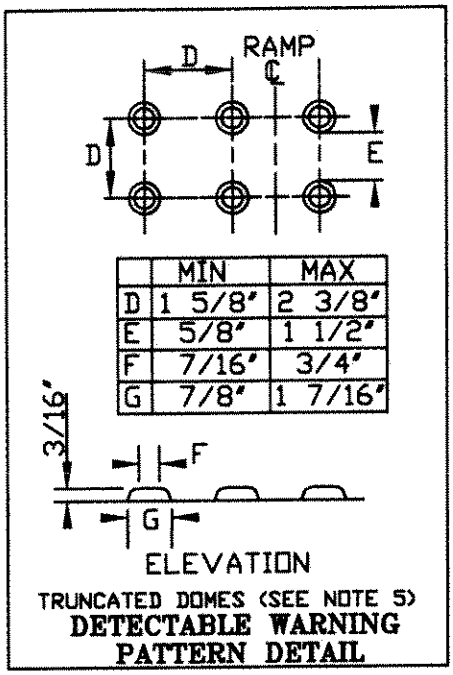
NOTE: SEE STD. DWG. 2-11 FOR TYPE E-1 VERTICAL FACE CURB & EXTRUDED CURB DETAIL

CITY OF SUNNYSIDE

PUBLIC WORKS DEPARTMENT

DATE	6/05
DWN	SRF
REV	9/05
CHK	JLB
SCALE	NTS

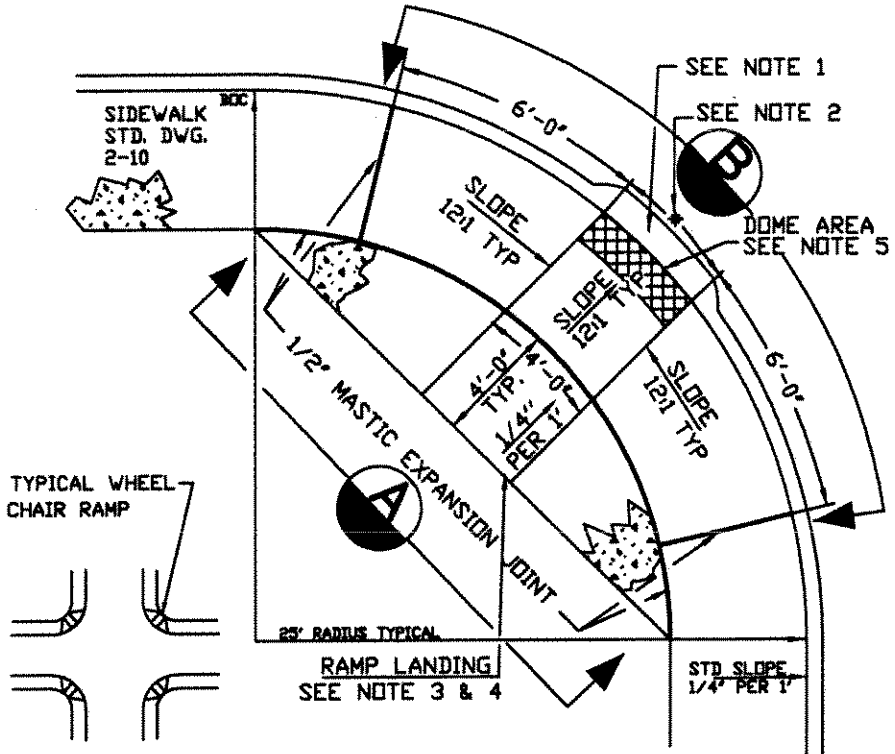
DWG. NO. 2-10A

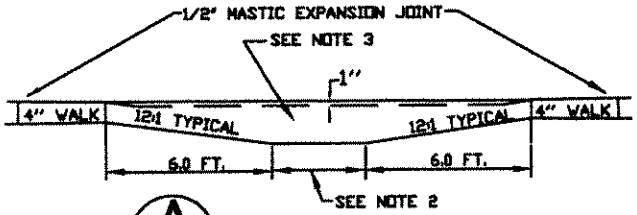


	MIN	MAX
D	1 5/8"	2 3/8"
E	5/8"	1 1/2"
F	7/16"	3/4"
G	7/8"	1 7/16"

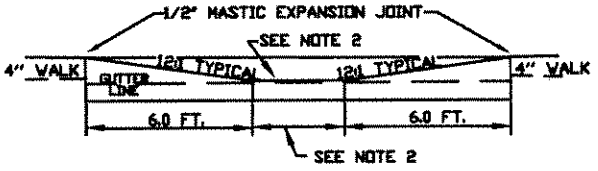
TRUNCATED DOMES (SEE NOTE 5)

DETECTABLE WARNING PATTERN DETAIL





A BACK OF WALK



B FACE OF CURB

NOTES:

1) WHERE CONCRETE CURB , GUTTER AND WALK ARE EXISTING, SAW CUT AND REMOVE ALONG LIMITS OF NEW RAMP WIDEN GUTTER AT BOTTOM OF RAMP TO 24" TO PROVIDE 24 : 1 GUTTER SLOPE. CATCH BASINS SHALL NOT BE LOCATED IN THE RAMP APPROACH AREA.

2) RAMP WIDTH 4'-0" TO SERVE A SINGLE CROSSWALK, OR CROSSING AND 6'-0" TO SERVICE TWO WAY CROSSING, OR TWO CROSWALKS. BEVEL THE RAMP TO THE GUTTER FLOW LINE (NO LIP). 1/2" BEVEL RISE FROM FACE OF CURB TO BACK OF CURB.

3) FINISH GRADE OF THE RAMP, AT 5 FEET FROM THE BACK OF THE CURB, TO BE 1" BELOW TYPICAL SIDEWALK ELEVATION, TO PROVIDE 5" RISE AND 12:1 RAMP.

4) CONSTRUCT RAMP LANDING AND TRANSITION AS SHOWN TYP. 4'-0" DEEP. AT RETROFIT LOCATIONS, NARROW AS REQUIRED TO STAY WITHIN RIGHT OF WAY AND AS REQUIRED TO AVOID FIXED OBJECTS SUCH AS FIRE HYDRANTS, RETAINING WALLS AND POLES. DO NOT INSTALL NEW UTILITIES BEHIND RAMP LANDING, LOCATE AT PC OR PT OF RADIUS.

5) THE BOTTOM 2 FEET OF EACH RAMP SHALL HAVE A YELLOW DETECTABLE WARNING PATTERN AREA PER DETAIL ABOVE. DETECTABLE WARNING PATTERNS SHALL BE THE MASCO- CAST IN TACT TACTILE PANEL(MA TP22DOT).

6) LOCATE RAMPS AS DIRECTED BY ENGINEER

PUBLIC SIDEWALK PEDESTRIAN RAMP

EXISTING STREET ALTERATION AND RECONSTRUCTION.

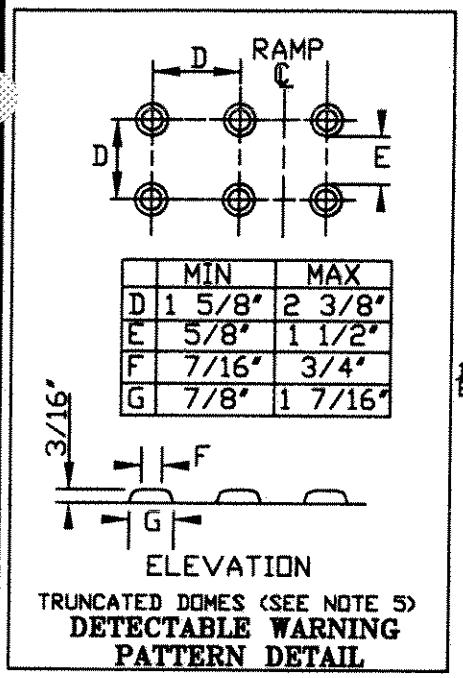
CITY OF SUNNYSIDE

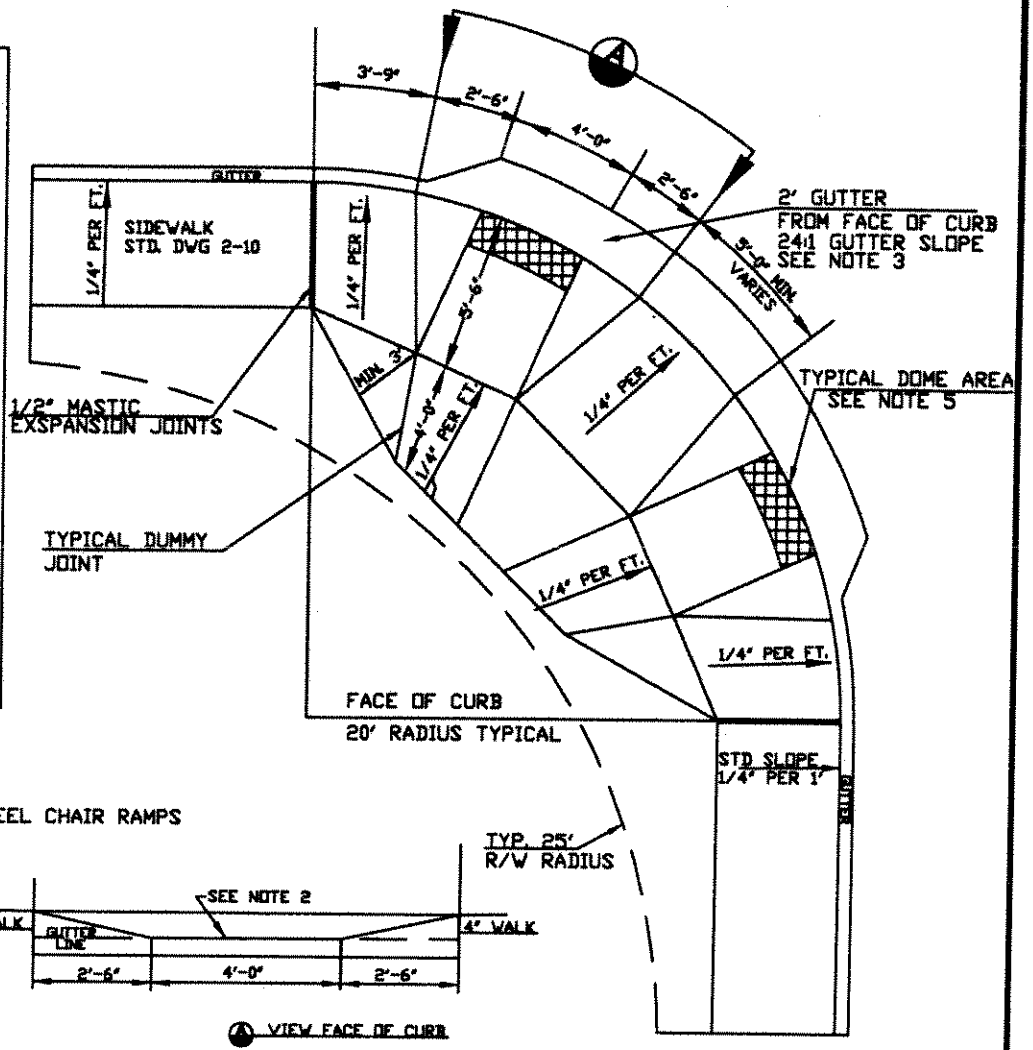
PUBLIC WORKS DEPARTMENT

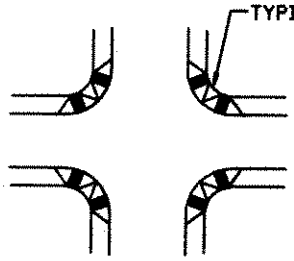
DATE	6/05
DWN	SRF
REV	9/05
CHK	JLB
SCALE	NTS

DWG. NO.

2-12







NOTES:

1) PEDESTRIAN LANDING AND RAMP SHALL BE CONSTRUCTED PER THIS DRAWING IN NEW SUBDIVISIONS, SHORT PLATS AND ALL NEW STREET CONSTRUCTION, AND RECONSTRUCTION. LOCATE RAMPS AS DIRECTED BY ENGINEER, TWO EACH CORNER.

2) BEVEL THE RAMP TO THE GUTTER FLOW LINE (NO LIP). 1/2" BEVEL RISE FROM FACE OF CURB TO BACK OF CURB.

3) WIDEN GUTTER AT BOTTOM OF RAMPS AS SHOWN.

4) DO NOT INSTALL NEW UTILITIES BEHIND RAMP LANDING, LOCATE AT PC OR PT OF RADIUS.

5) THE BOTTOM 2 FEET OF EACH RAMP SHALL HAVE A YELLOW DETECTABLE WARNING PATTERN AREA PER THE DETAIL ABOVE. DETECTABLE WARNING PATTERNS SHALL THE MASCO- CAST IN TACT TACTILE PANEL(MA TP22DOT).

6) IN NEW DEVELOPMENT, THE SIDEWALKS AND PEDESTRIAN RAMPS IN THE RADIUS AREA, SHALL BE CONSTRUCTED WITH THE INITIAL STREET CONSTRUCTION.

6) R/W RADIUS SHALL BE 25% LARGER THAN FACE OF CURB RADIUS AS DIRECTED BY THE CITY ENGINEER.

PUBLIC SIDEWALK PEDESTRIAN RAMP

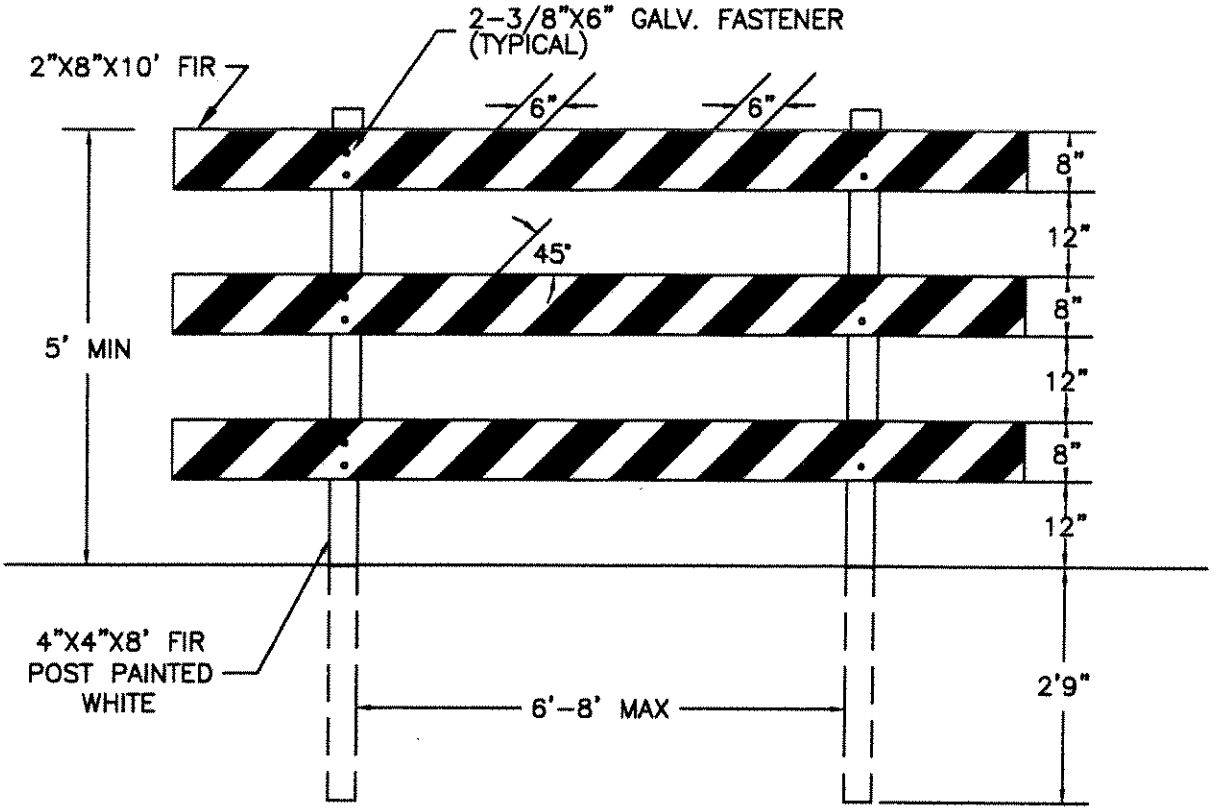
NEW STREET CONSTRUCTION AND DEVELOPMENT

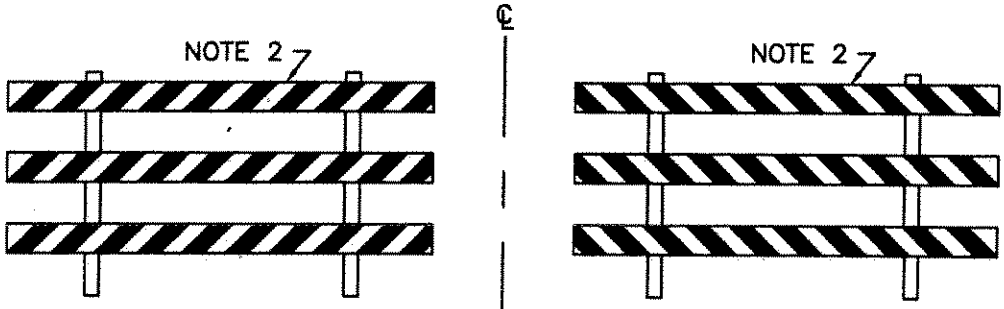
CITY OF SUNNYSIDE

PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 2-12A





NOTE:

1. THE ENTIRE AREA OF RED AND WHITE ALTERNATING STRIPES SHALL BE REFLECTORIZED WITH A MATERIAL THAT HAS A SMOOTH, SEALED OUTER SURFACE WHICH WILL DISPLAY THE SAME APPROXIMATE SIZE, HEIGHT, SHAPE AND COLOR DAY AND NIGHT.
2. WHEN A BARRICADE EXTENDS ACROSS THE ENTIRE ROADWAY, IT IS REQUIRED THAT THE STRIPES SLOPE DOWNWARD AT A 45° ANGLE IN THE DIRECTION TOWARD WHICH ONCOMING TRAFFIC MUST TURN.
3. BARRICADES SHALL MEET THE REQUIREMENTS OF 6C-8 AND 6C-9 OF THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".
4. BOTTOM THREE FEET (3') OF THE 4"X4"X8' SUPPORT POSTS SHALL BE TREATED WITH A WOOD PRESERVATIVE APPROVED BY THE ENGINEER.

TYPE III BARRICADE

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05	DWG. NO.
DWN	SRF	2-13
REV		
CHK	JLB	
SCALE	NTS	

CONSTRUCTION– CONCRETE MIXES

CLASSIFICATION AND USE

THE CLASS OF CONCRETE REFERS TO THE NOMINAL NUMBER OF SACKS OF CEMENT PER CUBIC YARD, ALTHOUGH THIS DESIGNATION DOES NOT CONSTITUTE A GUARENTEE OF YIELD.

H.E.S. INDICATES HIGH EARLY–STRENGTH CEMENT AND MAY BE REQUIRED AT THE OPTION OF THE ENGINEER FOR ANY OF THE CLASSES OF MIX. WHENEVER IT IS CALLED FOR, IT WILL BE MEASURED AND PAYEMENT WILL BE MADE AS PROVIDED.

THE CONTRACTOR MAY, WITH APPROVAL OF THE ENGINEER, ELECT TO USE HIGH EARLY–STRENGTH CEMENT IN ANY OF THE MIXES, BUT NO EXTRA COMPENSATION WILL BE MADE FOR THE HIGH EARLY–STRENGTH CEMENT.

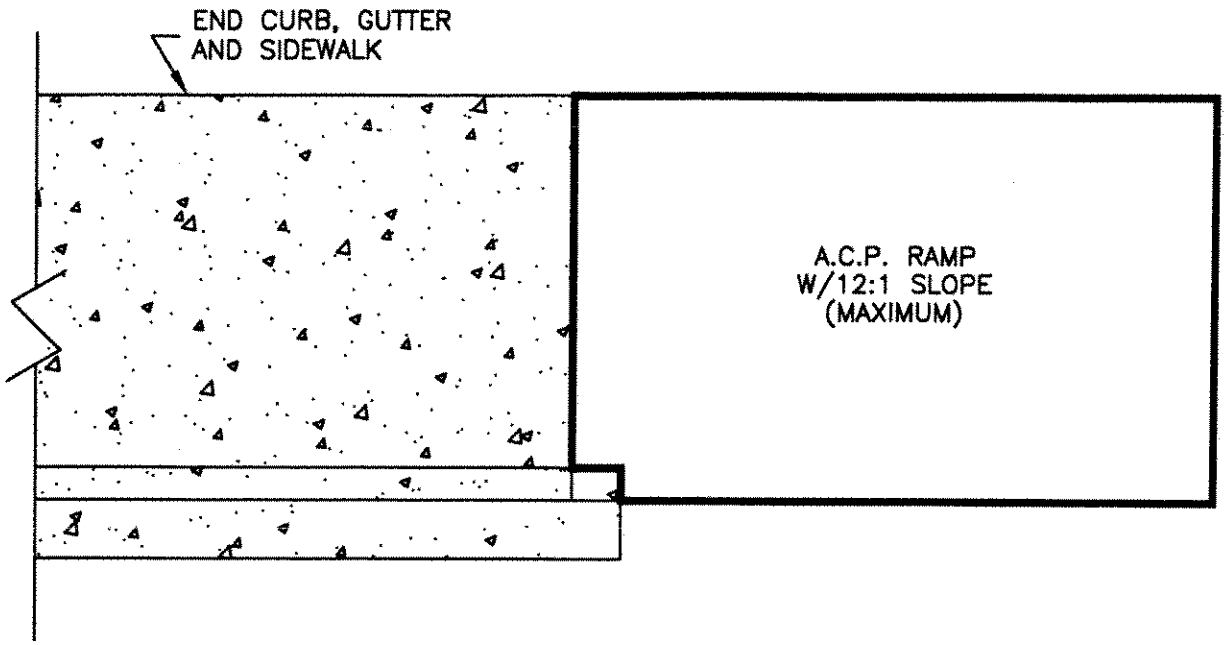
MINIMUM 28–DAY COMPRESSIVE STRENGTH SHALL BE 3,000 P.S.I. AIR–ENTRAINMENT ADMIXTURE SHALL NOT BE LESS THAN 4% OR MORE THAN 6% BY VOLUME.

CLASS OF CONCRETE	3	4	5	5.5	6	6.5
SACK PER YARD	3	4	5	5.5	6	6.5

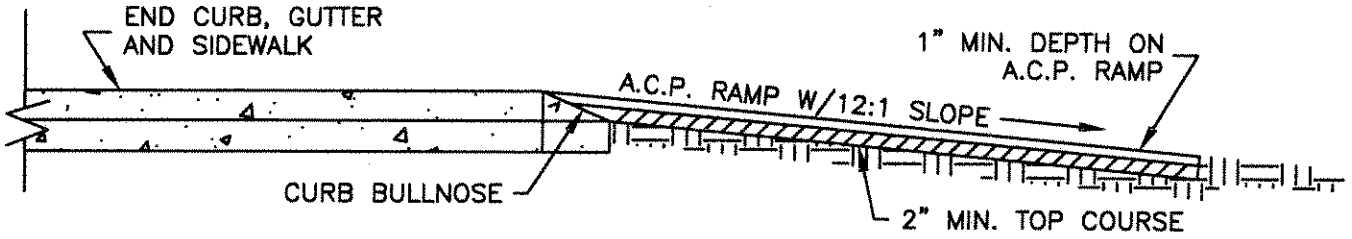
CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
2–14



TOP VIEW



SIDE VIEW

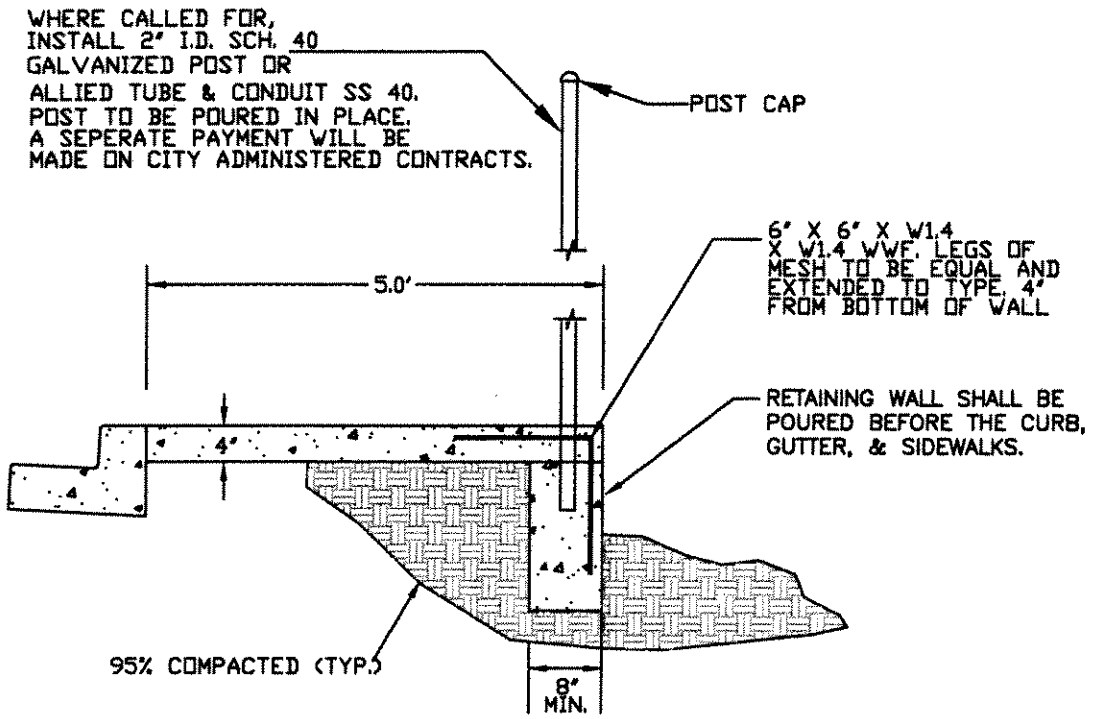
CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

SIDEWALK ASPHALT RAMP

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

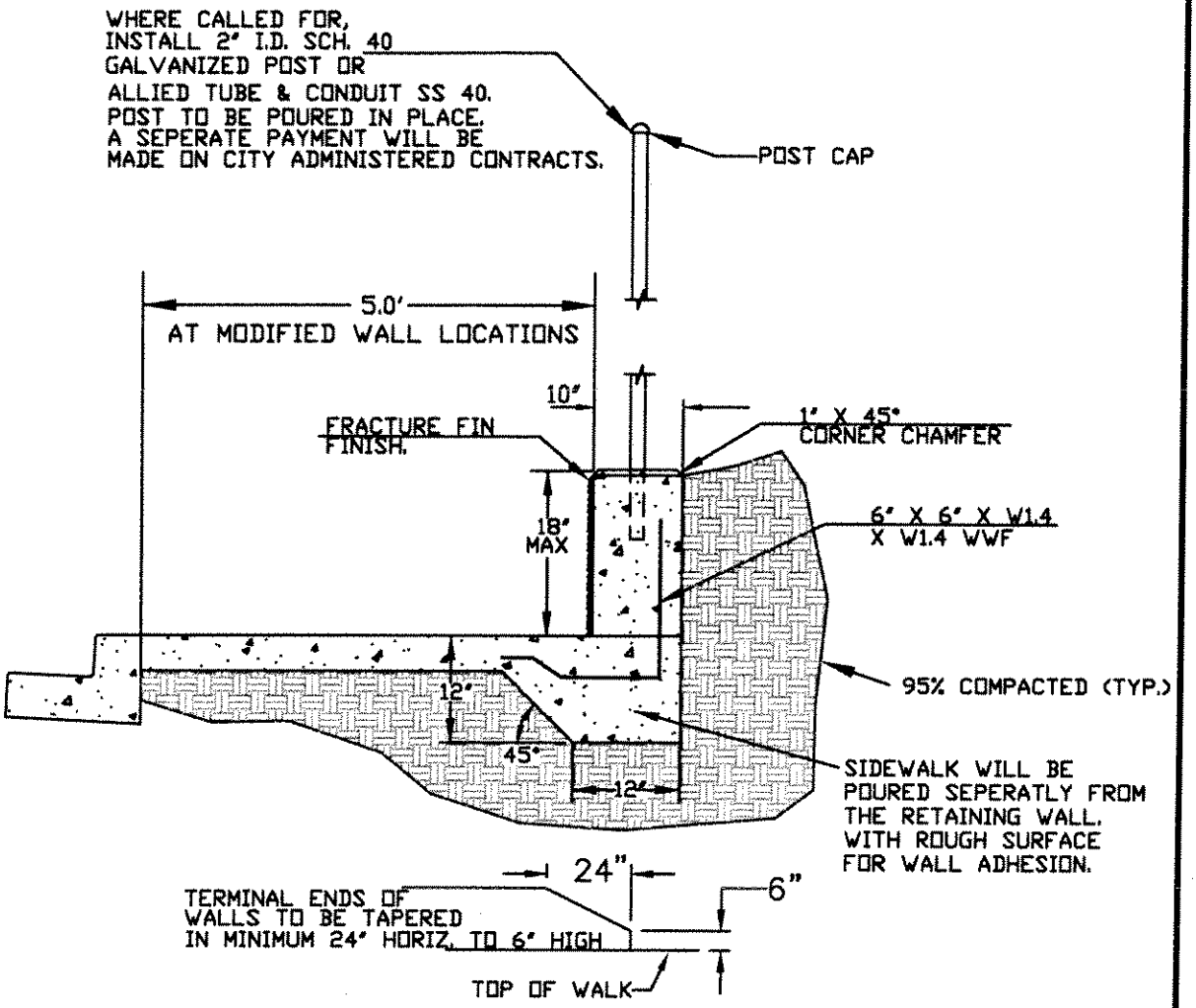
DWG. NO.
2-15



1) ON CITY ADMINISTERED CONTRACTS, DROP BACK SIDEWALK LOCATIONS WILL BE STAKED IN THE FIELD BY THE ENGINEER IN AREAS WHERE A SLOPED YARD TRANSITION IS DETERMINED TO BE UNDESIREABLE.

SIDEWALK RETAINING WALL DETAIL

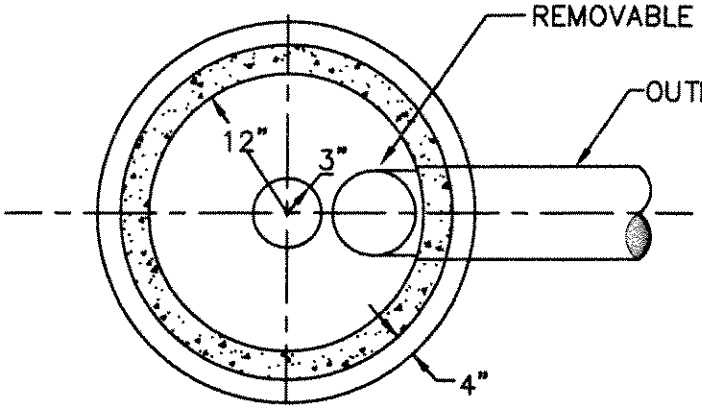
CITY OF SUNNYSIDE PUBLIC WORKS DEPARTMENT	DATE 5/05 DWN SRF REV CHK JLB SCALE NTS	DWG. NO.	2—16



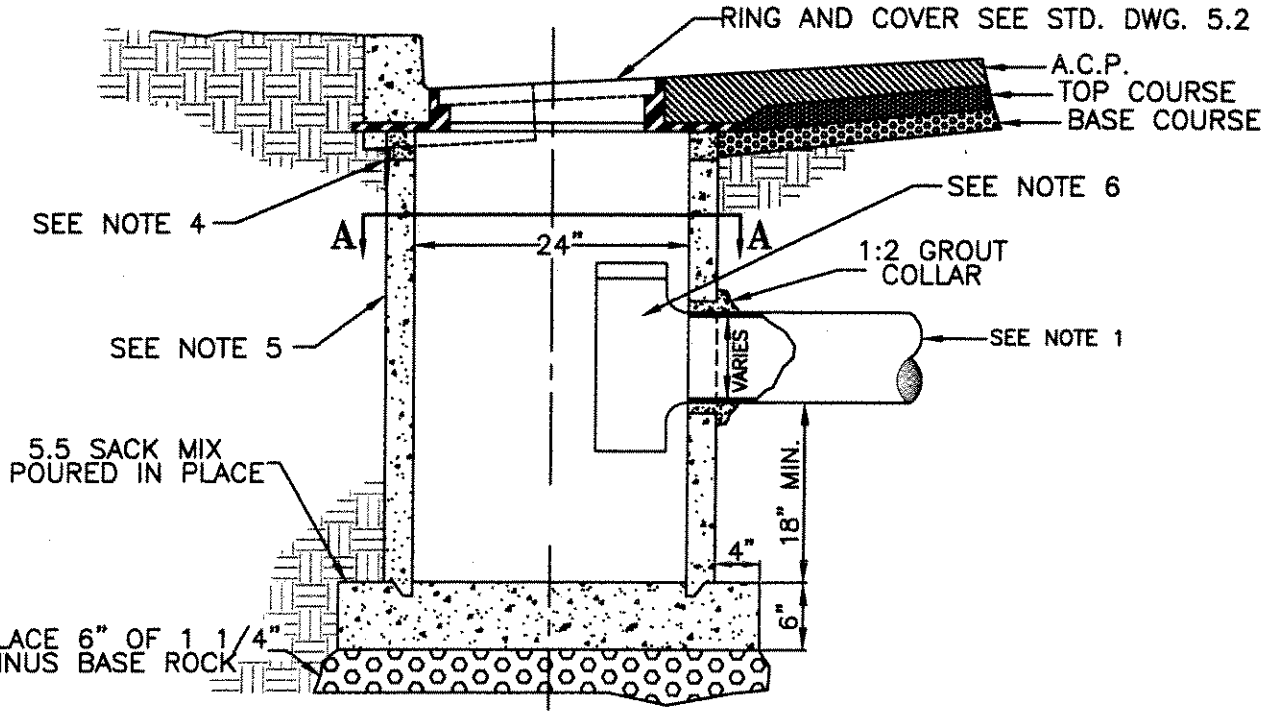
1) ON CITY ADMINISTERED CONTRACTS, MODIFIED RETAINING WALL LOCATIONS WILL BE STAKED IN THE FIELD BY THE ENGINEER IN AREAS WHERE A SLOPED YARD TRANSITION IS DETERMINED TO BE UNDESIREABLE.

MODIFIED RETAINING WALL DETAIL

CITY OF SUNNYSIDE PUBLIC WORKS DEPARTMENT	DATE 5/05 DWN SRF REV CHK JLB SCALE NTS	DWG. NO. 2-17



SECTION A-A



NOTES:

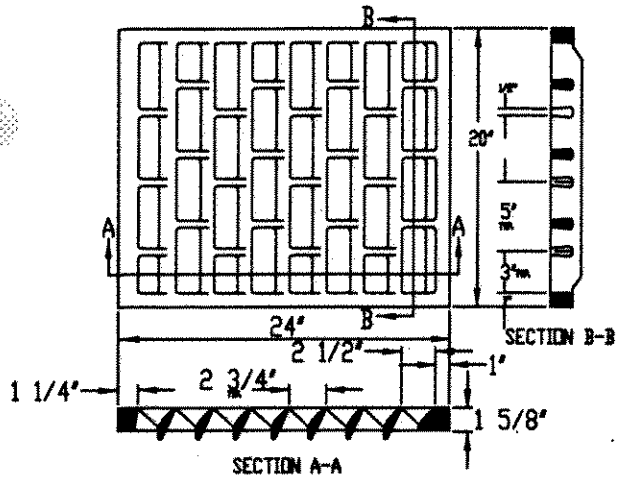
1. MIN. PIPE BURY TO BE 18", SEE PIPE SPECIFICATIONS FOR ADDED REQUIREMENTS. MAXIMUM NUMBER AND SIZE OF PIPE CONNECTING INTO CATCH BASIN SHALL NOT EXCEED 3-12" PIPES.
2. FILTER FABRIC TO BE INSTALLED UNDER GRATE PER SECTION 2-28 OF THESE SPECIFICATIONS. REMOVE ONLY WHEN DIRECTED BY ENGINEER.
3. PRECAST CATCH BASIN SHALL CONFORM TO CITY OF SUNNYSIDE CONCRETE SPECIFICATIONS SEE STANDARD DWG 2-14.
4. 1:2 GROUT BETWEEN CATCH BASIN RING AND CONCRETE TILE, BOTH INSIDE AND OUTSIDE. ADJUSTMENTS 2" AND GREATER TO BE MADE WITH PRECAST CONCRETE RINGS.
5. WIRE REINFORCED PRECAST CATCH BASIN SHALL BE REQUIRED WHEN 3-12" PIPES ARE TO BE CONNECTED.
6. OIL/WATER SEPERATOR WILL CONSIST OF A REMOVABLE PVC TEE W/ REMOVABLE CAP.

TYPE 1 CATCH BASIN

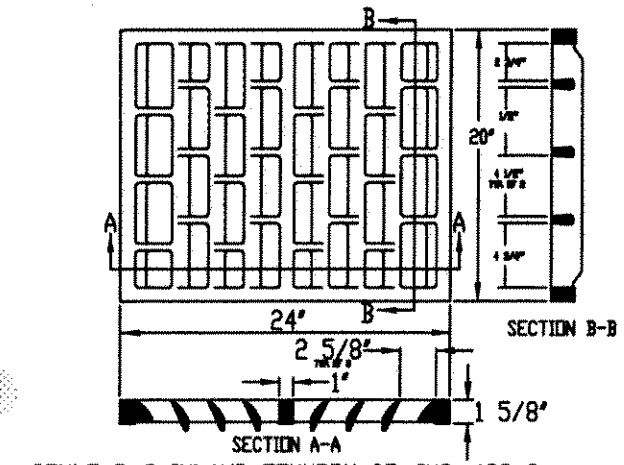
CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	6/05
DWN	SRF
REV	9/05
CHK	JLB
SCALE	NTS

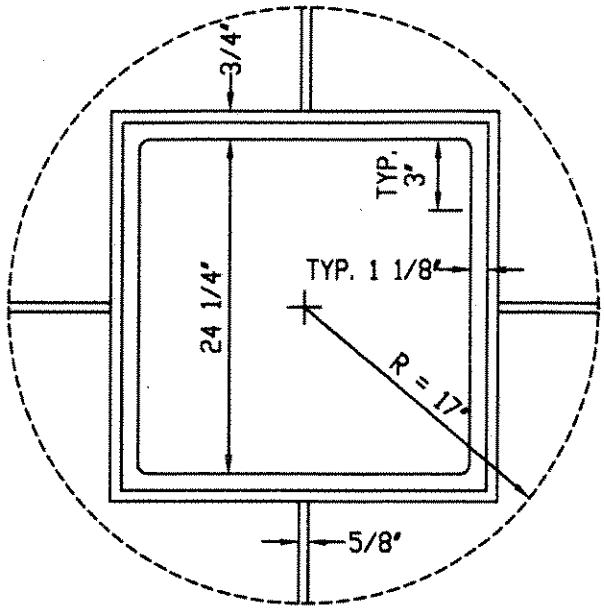
DWG. NO. 2-18



STYLE D-1 INLAND FOUNDRY CO. INC. 432-2



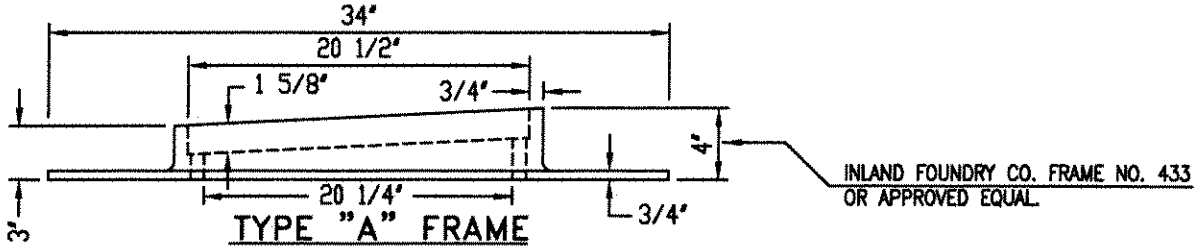
STYLE D-2 INLAND FOUNDRY CO. INC. 432-2



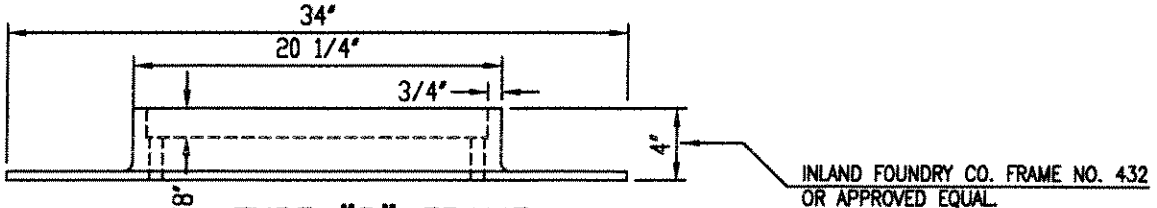
TYPE "A" FRAME

NOTES:

* STYLE D-1 OR EQUAL
  USE AT CONTINUOUS GRADE LOCATIONS
* STYLE D-2 OR EQUAL
  USE AT CURB LOW POINTS



TYPE "A" FRAME



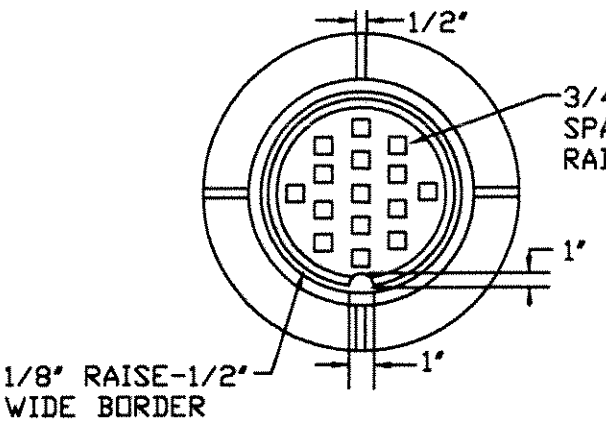
TYPE "B" FRAME
(SPECIAL USE ONLY)

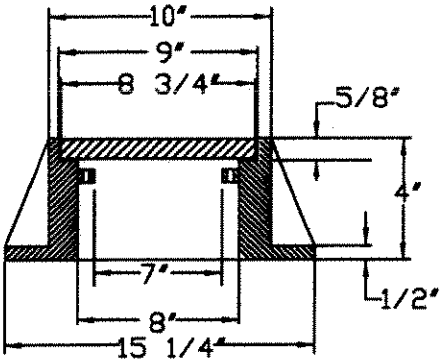
CATCH BASIN FRAME AND COVER

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	6/05
DWN	SRF
REV	9/05
CHK	JLB
SCALE	NTS

DWG. NO.
2-19





CAST IRON RING & COVER

INLAND FOUNDARY CO. RING & COVER
NO. 247 OR APPROVED EQUAL

UNIT WEIGHT 64 POUNDS MINIMUM

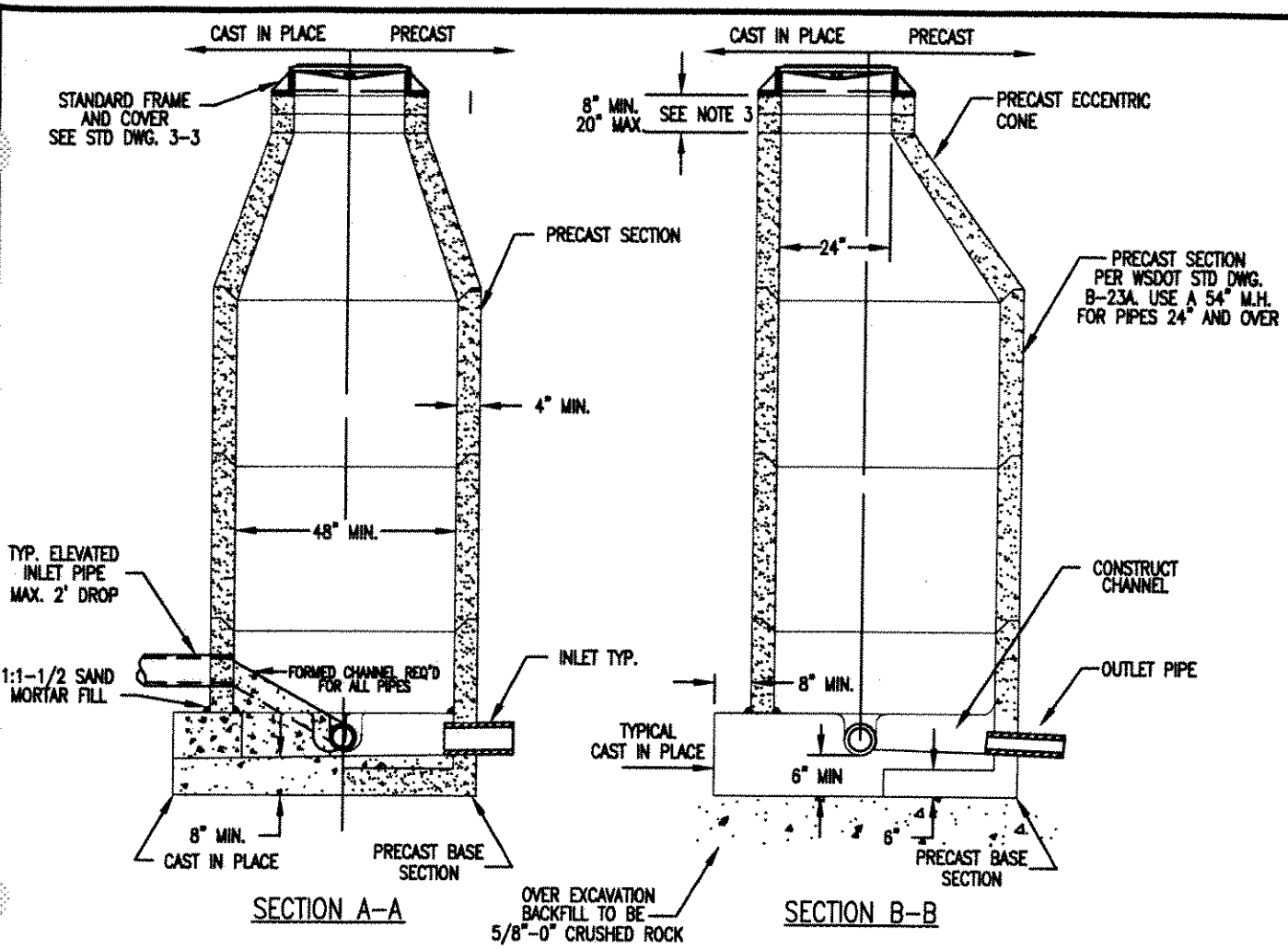
6" AND 8" CLEANOUT

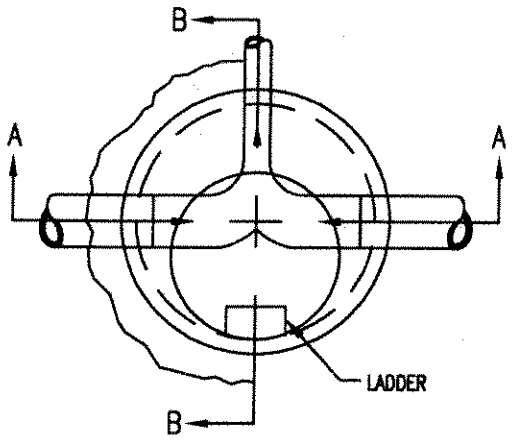
CLEANOUT PIPE TO BE SAME SIZE AS MAIN LINE

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
3-1





NOTE:

1. A KOR-N-SEAL ENTRY COUPLING SHALL BE USED WITH P.V.C. PIPE.
2. ALL MANHOLE JOINTS SHALL BE MADE USING A CONTINUOUS FLEXIBLE RUBBER MANHOLE GASKET. INTERIOR JOINTS SHALL BE GROUTED AND TROWELED TO A SMOOTH FINISH.
3. ADJUSTMENTS OVER 2" UTILIZE PRECAST CONCRETE RINGS. GROUT BETWEEN EACH RING AND FRAME AND FINISH GROUT INSIDE. REMOVE ALL WOOD SHIMS.
4. ALL CHANNELIZATION OF MANHOLE BASES SHALL BE COVERED BY A RIGID MATERIAL DURING CONSTRUCTION OF ROAD SURFACES TO PREVENT FOREIGN MATERIALS FROM ENTERING SYSTEM PER SECTION 2-27 OF THESE SPECIFICATIONS.
5. WHEN CONSTRUCTING MANHOLE OVER AN EXISTING MAIN, SUPPORT PIPE(S) WITH CONCRETE BLOCK AND POUR BASE AS SHOWN. REMOVE TOP 1/2 OF MAIN PIPE AND FORM SIDE CHANNEL(S) AS REQUIRED.
6. ALL NEW SEWER MAINLINES TO BE PRESSURE TESTED @ 5 lbs. FOR 10 MINUTES AND MUST BE WITNESSED BY A CITY OF SUNNYSIDE PUBLIC WORKS INSPECTOR.
7. ALL STORMDRAIN MANHOLES TO HAVE 2' SUMP FROM INVERT OF SD PIPE.

STANDARD MANHOLE DETAIL

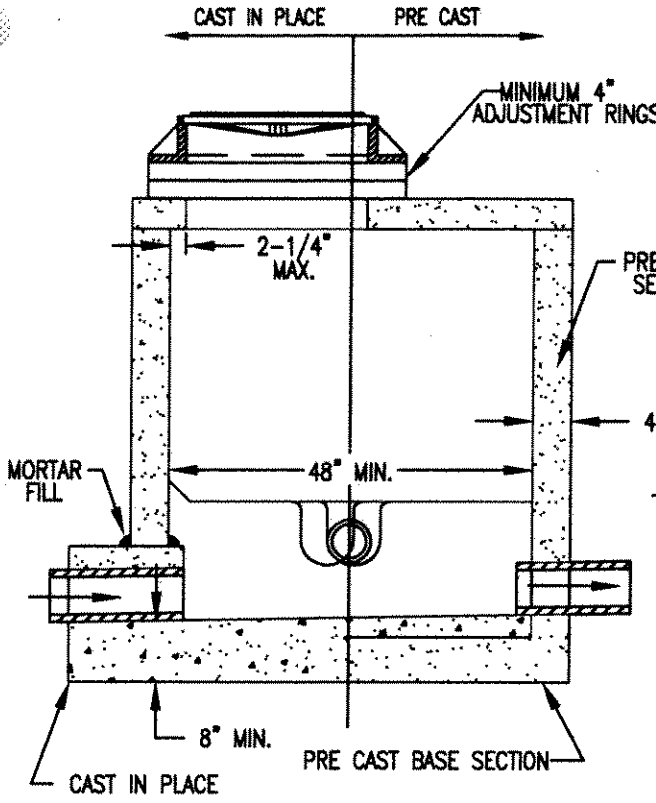
MINIMUM 5' INVERT TO COVER. SEE STD DWG. 3-2A FOR UNDER 5' IN HEIGHT

CITY OF SUNNYSIDE

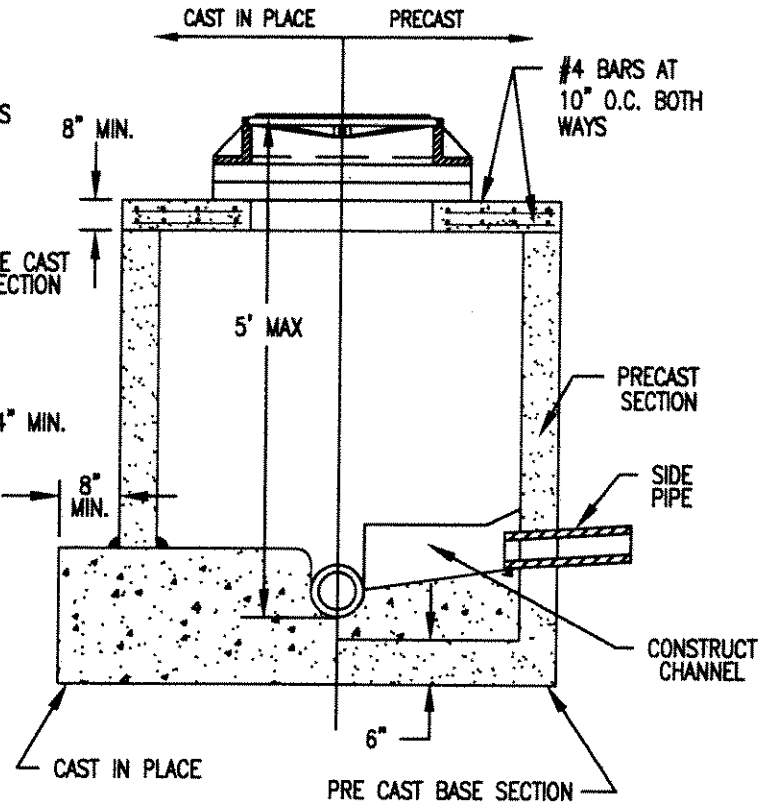
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

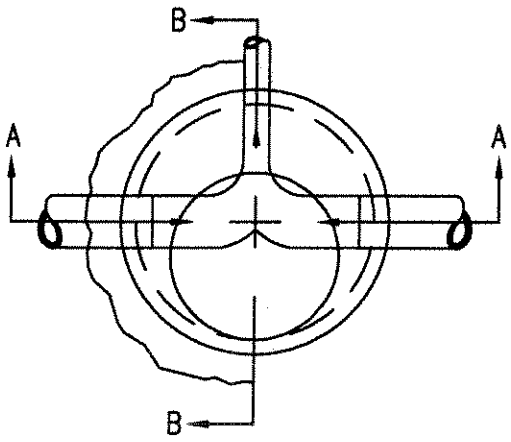
DWG. NO. 3-2



SECTION A-A



SECTION B-B



NOTE:

1. A KOR-N-SEAL ENTRY COUPLING SHALL BE USED WITH P.V.C. PIPE.
2. PRE CAST MANHOLE SECTION AND FLAT SLAB COVER SHALL CONFORM TO WSDOT STD DWG B-15.
3. ALL MANHOLE JOINTS SHALL BE MADE USING CONTINUOUS RUBBER MANHOLE GASKET. INTERIOR JOINTS SHALL BE GROUTED AND TROWELED TO SMOOTH FINISH.
4. ALL CHANNELIZATION OF MANHOLE BASES SHALL BE COVERED BY A RIGID MATERIAL DURING CONSTRUCTION OF ROAD SURFACES TO PREVENT FOREIGN MATERIALS FROM ENTERING SYSTEM PER SECTION 2-27 OF THESE SPECIFICATIONS.
5. PRIOR TO FLUSHING THE SEWER MAIN, INSTALL A SRECO, UEMSI OR EQUAL METAL STOVE PIPE WITH A 90° BEND SANDTRAP, THE SAME DIAMETER AS THE SEWER MAIN, IN THE DOWN STREAM INVERT OF THE NEXT MANHOLE.
6. WHEN CONSTRUCTING MANHOLE OVER AN EXISTING MAIN, SUPPORT PIPE(S) WITH CONCRETE BLOCK AND POUR BASE AS SHOWN. REMOVE TOP 1/2 OF MAIN PIPE AND FORM SIDE CHANNEL(S) AS REQUIRED.
7. ALL SEWERMAINS TO BE PRESSURE TESTED FOR 10 MIN. @ 5 LBS.
8. ALL STORMDRAIN MANHOLES TO HAVE 2' SUMP TO INVERT OF SD PIPE.

SHALLOW MANHOLE DETAIL

UNDER 5' INVERT TO COVER

CITY OF SUNNYSIDE

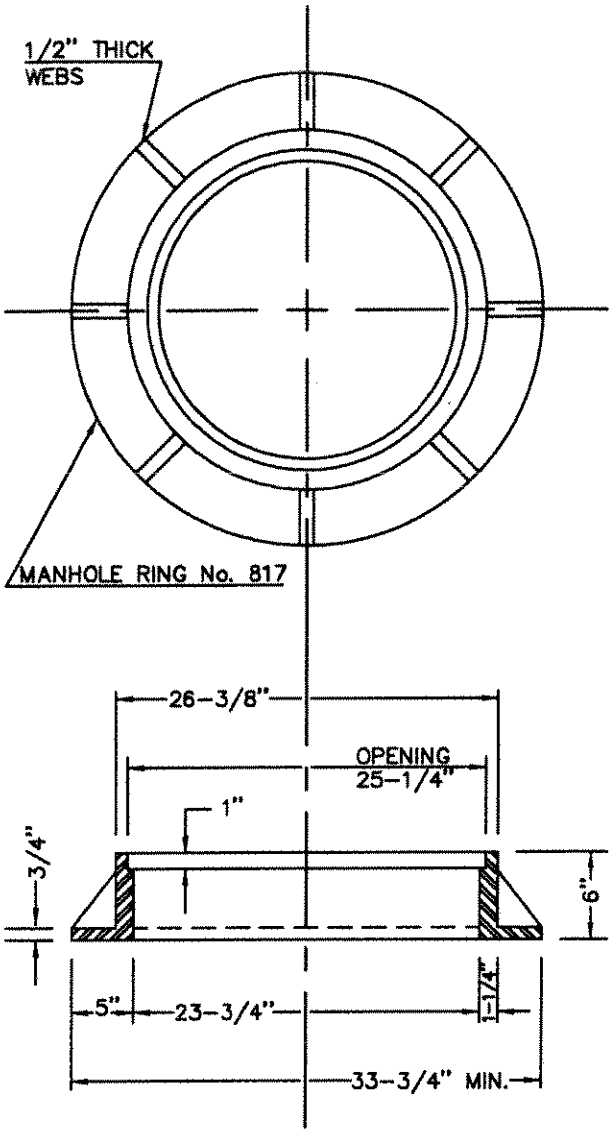
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

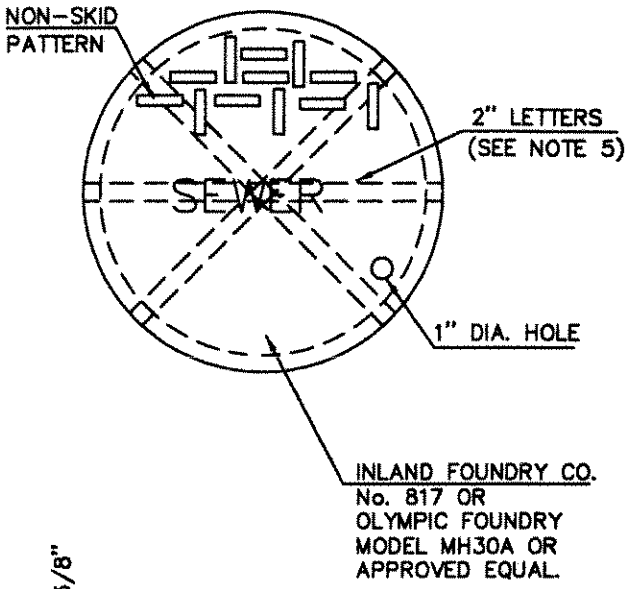
DWG. NO.

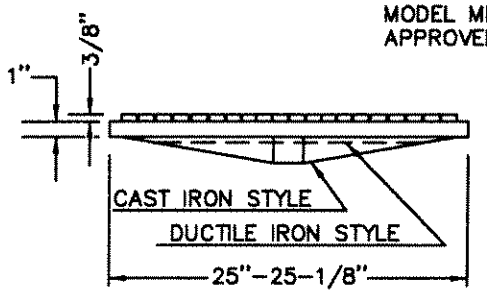
3-2A

FRAME



COVER





NOTE:

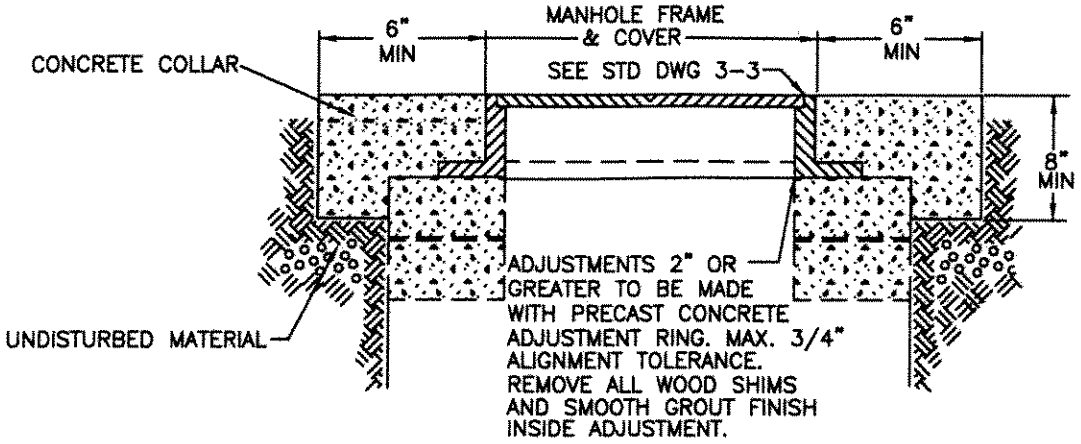
1) FRAME AND COVER SHALL BE CAST OR DUCTILE IRON
2) COVER WEIGHT-MIN. 147 LBS.
   FRAME WEIGHT-MIN. 210 LBS.
3) MACHINE COVER SEAT & COVER FACE.
4) LOADING-40,000 LBS. HEAVY TRAFFIC LOADING
5) MANHOLE COVERS TO BE LETTERED AS "WATER," "SEWER," OR "STORM" AS REQUIRED BY TYPE OF APPLICATION.

MANHOLE FRAME & COVER

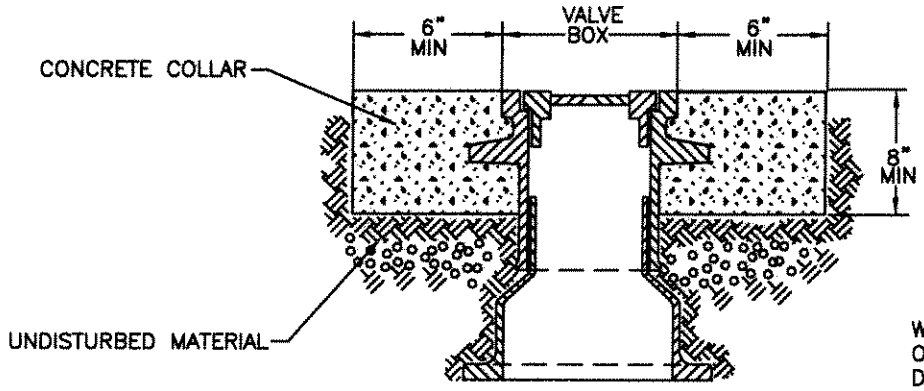
CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
3-3

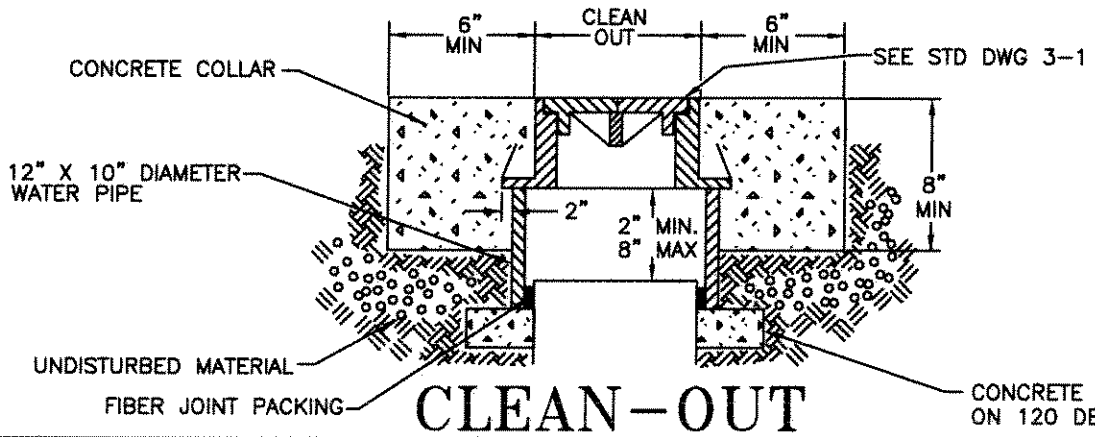


MANHOLE FRAME & COVER



WHEN ADJUSTING VALVE BOXES OVER NON-METALLIC WATER LINES, DO NOT DAMAGE TRACER WIRE SHOWN ON STD. DWG. 4-9

VALVE BOX



CLEAN-OUT

* NOTE:

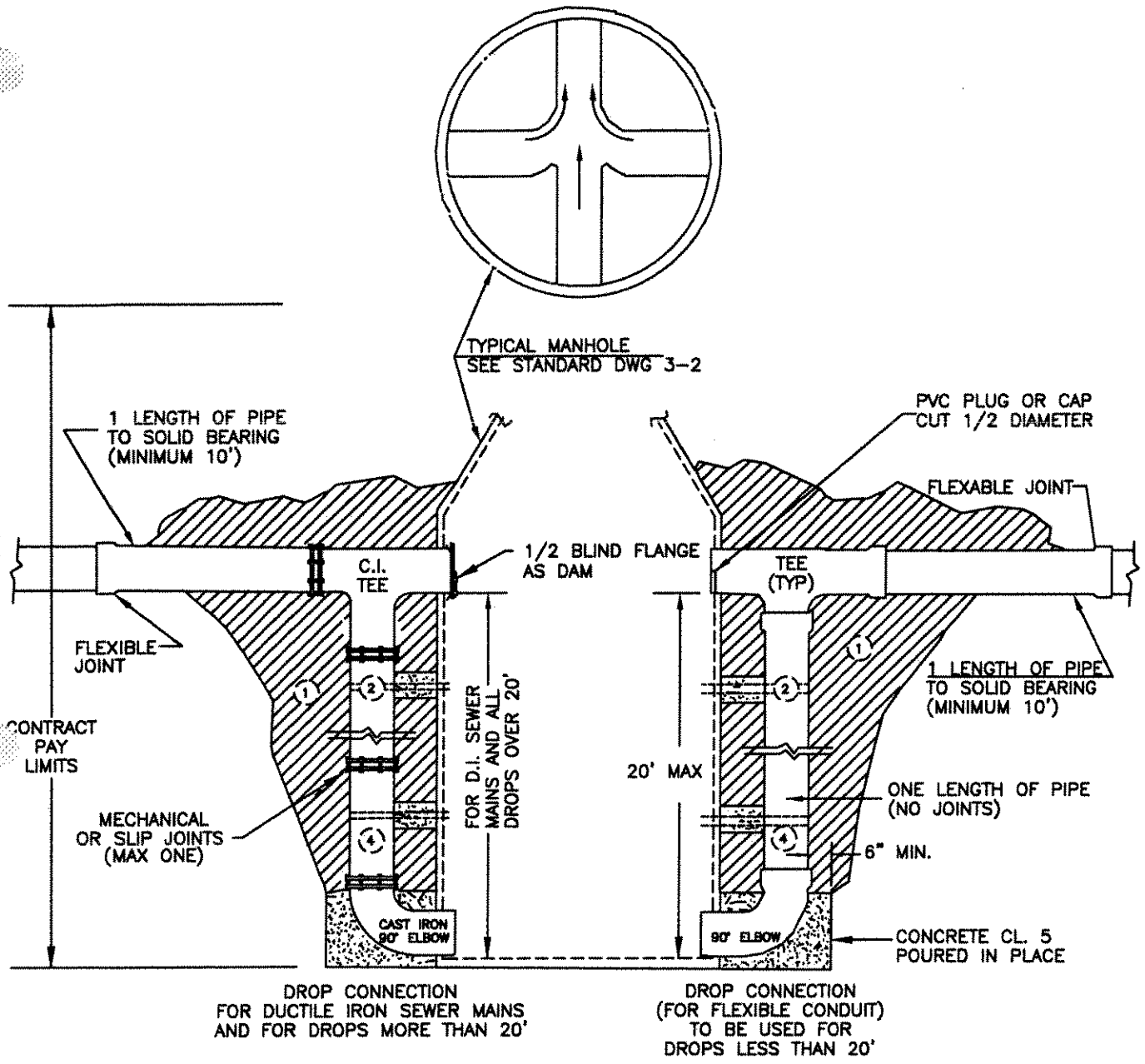
A CONCRETE COLLAR IS REQUIRED ON ALL INSTALLATIONS. IN UNIMPROVED OR UNPAVED AREAS, INSTALL AN 8" THICK CONCRETE COLLAR AS FOLLOWS:
30"X30"X8" FOR VALVE AND CLEANOUT COVERS
42"X42"X8" FOR MANHOLE COVERS

UTILITY/MON. ADJUSTMENTS

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 3-4



NOTES:

1. SELECT NATIVE BACKFILL MATERIAL OR IMPORTED BACKFILL MATERIAL COMPACTED PER SPECIFICATIONS
2. STAINLESS BANDS WITH CONCRETE SPACER TO MANHOLE (5' MAX. SPACING, 1' MIN.)
3. SEE STD DWG 3-1 FOR CLEANOUT DETAILS (NOT SHOWN)
4. DROP CONNECTION PIPE DIAMETER AND FITTINGS SHALL BE EQUAL TO OR GREATER THAN THE DIAMETER OF THE SEWER MAIN.

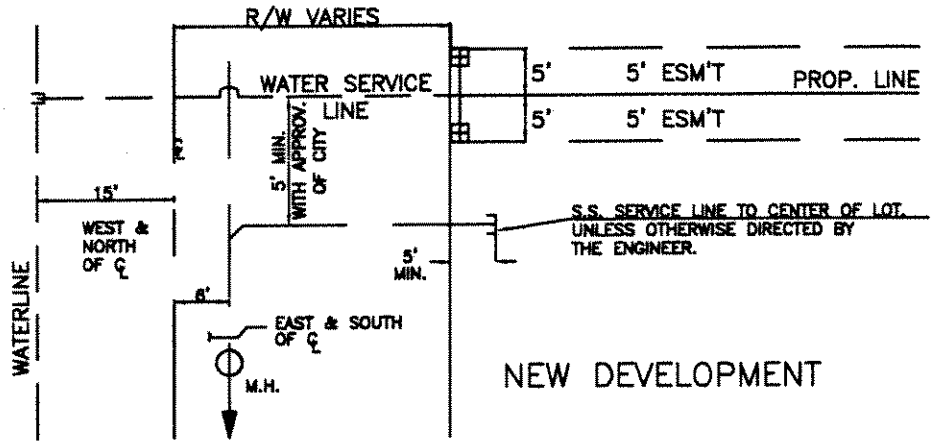
MANHOLE DROP CONNECTION

CITY OF SUNNYSIDE

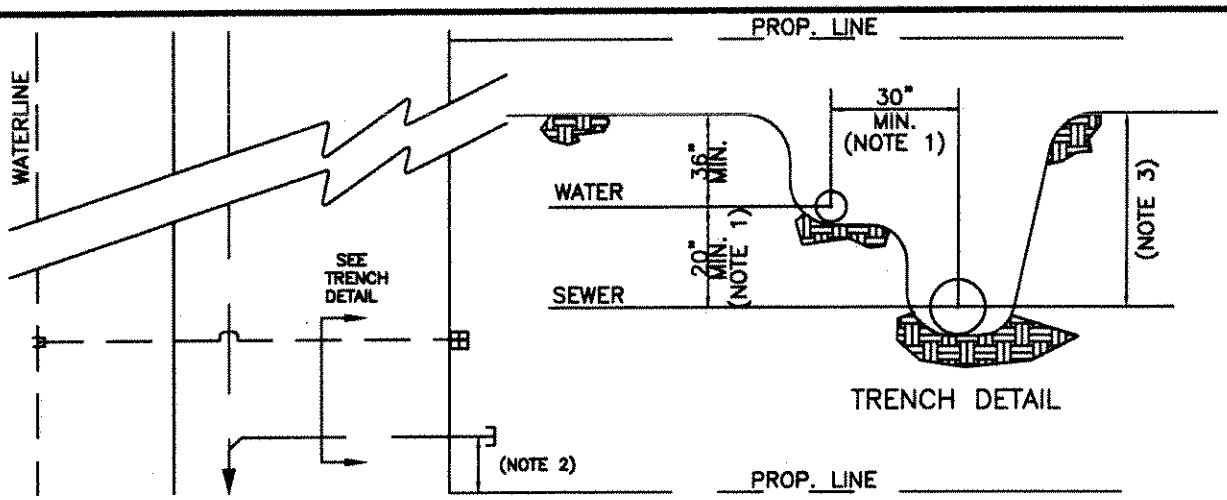
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 3-5



NEW DEVELOPMENT



EXISTING DEVELOPMENT

NOTE 1 : WHEN MINIMUM HORIZONTAL & VERTICAL SEPARATIONS CANNOT BE MAINTAINED DUE TO SHALLOW SEWER SERVICE LINES AT PROPERTY LINE, THE WATER AND SEWER SERVICE LINES SHALL HAVE A MIN. HORIZONTAL SEPARATION OF AT LEAST 5' AND MAY REQUIRE TWO SEPARATE TRENCHS, OR THEY SHALL BE SEPARATED AS DIRECTED BY THE CITY ENGINNEER.

NOTE 2 : DISTANCES FROM PROPERTY LINES TO EXIST. WATER OR SEWER SERVICE LINES MAY VARY DUE TO FIELD CONDITIONS. WHENEVER A NEW WATER/SEWER SERVICE LINE IS INSTALLED IT SHALL NOT BE PLACED ANY CLOSER TO AN EXISTING WATER/SEWER SERVICE LINE THAN AS INDICATED BY THE TRENCH DETAIL WITHOUT WRITTEN PERMISSION BY THE CITY ENGINEER.

NOTE 3 : SEWER SERVICE MINIMUM DEPTH.
WHERE THE SEWER MAIN DEPTH ALLOWS, SEWER SERVICE TO EXISTING BUILDING SHALL BE A MINIMUM 6 FEET BURY WITHIN THE STREET RIGHT-OF-WAY OR 4 FOOT BELOW THE LOWEST FLOOR ELEVATION, WHICHEVER IS DEEPER. WHERE THE DEPTH OF THE SEWER MAIN ALLOWS, SEWER SERVICES TO VACANT LOTS SHALL BE AS DEEP AS POSSIBLE OR PRACTICAL TO PROVIDE FULL BASEMENT SERVICE TO THE PROPERTY. TYPICALLY THE INVERT SHALL BE 12 FEET BELOW THE PROPERTY GROUND ELEVATION AT A 25 FOOT FRONT SETBACK, PROVIDING HOWEVER , THAT THE MINIMUM DEPTH IN THE RIGHT-OF-WAY EVEN FOR UPHILL LOTS, SHALL BE 6 FEET BURY."

NOTE 4 : THE REQUIREMENTS OF THIS STANDARD CITY OF KENNEWICK DRAWING SHALL BE BINDING UPON ALL PUBLIC OR PRIVATE WATER/SEWER SERVICE LINES THAT CONNECT INTO A CITY WATER OR SEWER MAIN AND IS INTENDED FOR THE SOLE PURPOSE OF PROVIDING PROTECTION FROM CONTAMINATION TO THE POTABLE WATER DISTRIBUTION SYSTEM.

NOTE 5 : SEE STANDARD DRAWING 4-7 AND STANDARD SPECIFICATIONS SECTION 8 FOR SEWER MAINLINE,TRENCH, BEDDING, AND CONSTRUCTION REQUIREMENTS.

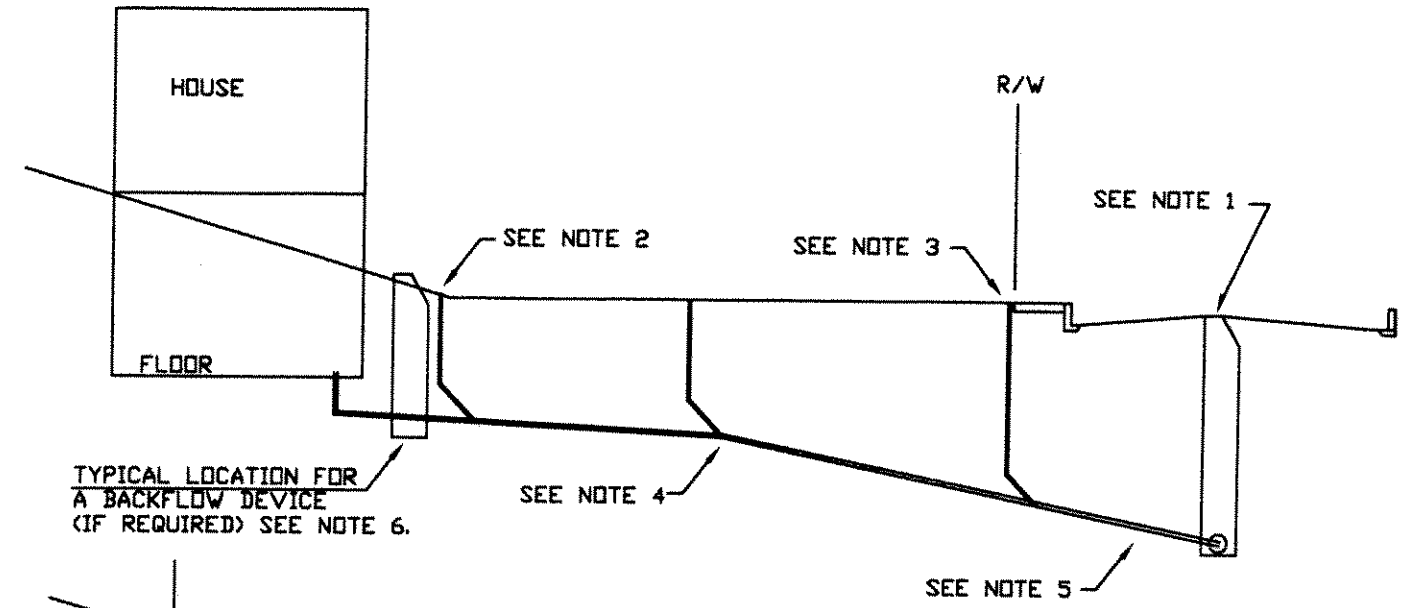
NOTE 6 : SEE STANDARD DRAWING 3-7 FOR SEWER SERVICE CLEANOUT AND BACKFLOW REQUIREMENTS.

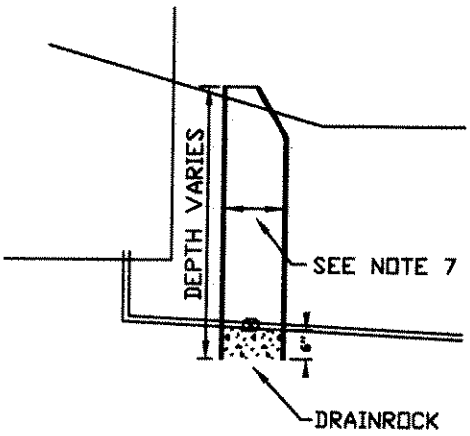
SEWER SERVICE INSTALLATION

CITY OF SUNNYSIDE
ENGINEERING DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 3-6





1) IF RIM (LID) OF THE NEAREST UPSTREAM MANHOLE IS HIGHER THAN THE HOUSE OR THE BASEMENT FLOOR, THEN A BACKFLOW PREVENTION DEVICE IS REQUIRED.

2) IF A BACKFLOW MANHOLE IS REQUIRED, A CLEANOUT IS REQUIRED EITHER IN THE VAULT OR AS SHOWN.

3) AT ALL INSTALLATIONS, BUILDER TO INSTALL A CLEANOUT AT THE RIGHT OF WAY LINE.

4) INSTALL ADDITIONAL CLEANOUTS AS REQUIRED BY CITY STANDARD SPECIFICATIONS SECTION 8-6.03.

5) TYPICAL SEWER SERVICE INSTALLED PER THE REQUIREMENTS OF CITY STANDARD SPECIFICATIONS SECTION 8-6.

6) ALTERNATE LOCATION IS IN BASEMENT FLOOR OR IN CRAWLSPACE. IF INSTALLED IN CRAWL SPACE A MINIMUM 10" X 15" ACCESS MUST BE PROVIDED. SEE DETAIL THIS SHEET FOR TYPICAL MANHOLE.

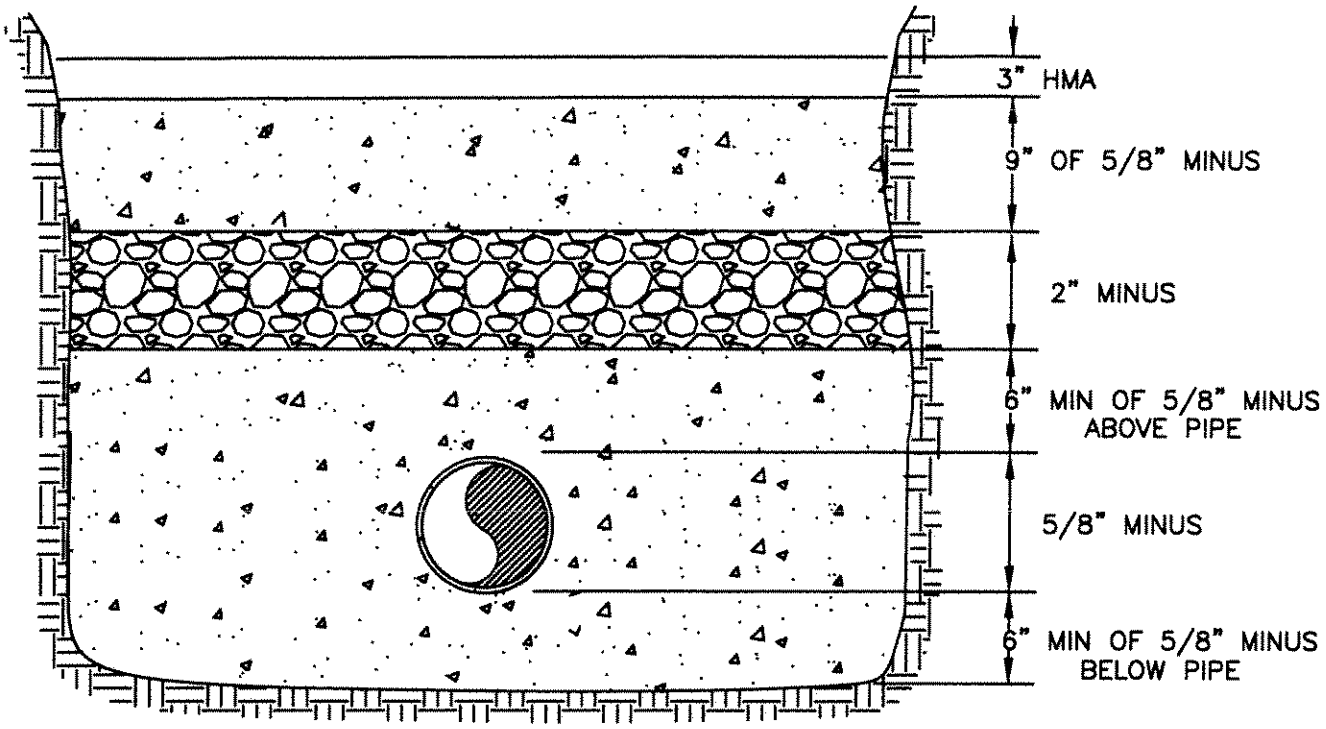
7) IF THE TOTAL DEPTH IS LESS THAN 30", A METER BOX OR MINIMUM 18" DIAMETER ACCESS WITH LID MAY BE USED. IF DEPTH IS OVER 30", MINIMUM DIAMETER WILL BE 42" WITH A MINIMUM 24" ACCESS COVER. MANHOLE TO BE CONCRETE BLOCK, CULVERT PIPE OR CONCRETE.

TYPICAL SANITARY SEWER SERVICE AND BACKFLOW REQUIREMENT

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
3 — 7



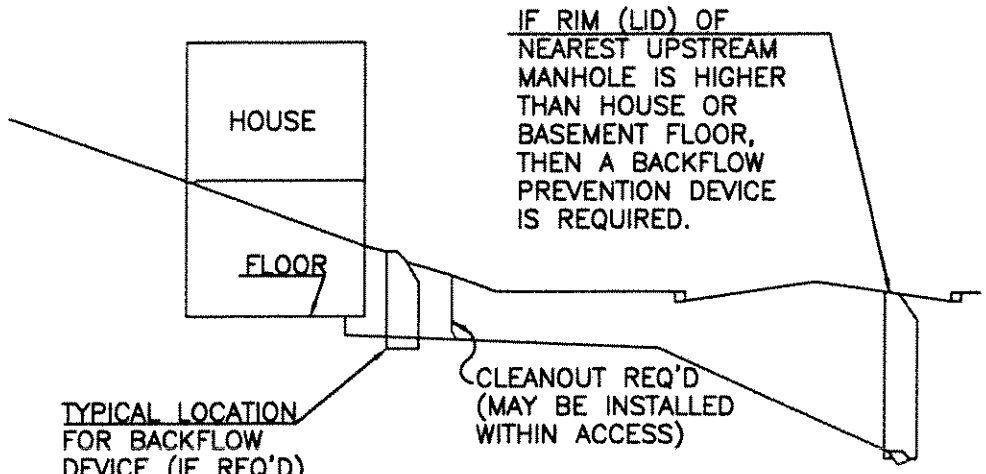
1. IMPORTED BEDDING MATERIAL ABOVE THE BOTTOM OF PIPE FOR STORM DRAINAGE PIPE, SANITARY SEWER SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF SUNNYSIDE STANDARD SPECIFICATIONS 7–3, 8–3 AND 10–4 RESPECTIVELY.
2. BEDDING MATERIAL BELOW THE PIPE SHALL BE 5/8" MINUS CRUSHED ROCK FOR SANITARY SEWER PIPES. IMPORTED BEDDING MATERIAL FOR STORM DRAINAGE PIPE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF SUNNYSIDE STANDARD SPECIFICATIONS .
3. TRENCH WIDTH "W" SHALL BE 40 INCHES MAXIMUM FOR PIPE 15 INCHES I.D. OR SMALLER AND 1 1/2 INCH I.D. PLUS 18 INCHES FOR PIPE 18 INCHES OR LARGER.
4. HAND TAMP UNDER PIPE HAUNCHES.
5. PROVIDE UNIFORM SUPPORT UNDER PIPE BARREL.
6. COMPACT BEDDING MATERIAL TO 95% MAXIMUM DENSITY EXCEPT DIRECTLY OVER THE PIPE, WHERE BEDDING MATERIAL SHALL BE HAND TAMPED ONLY.
7. PAVEMENT WIDTH FOR EXCAVATION AND PAVEMENT REPAIR.... SEE CITY OF SUNNYSIDE STANDARD DRAWING 2–6.

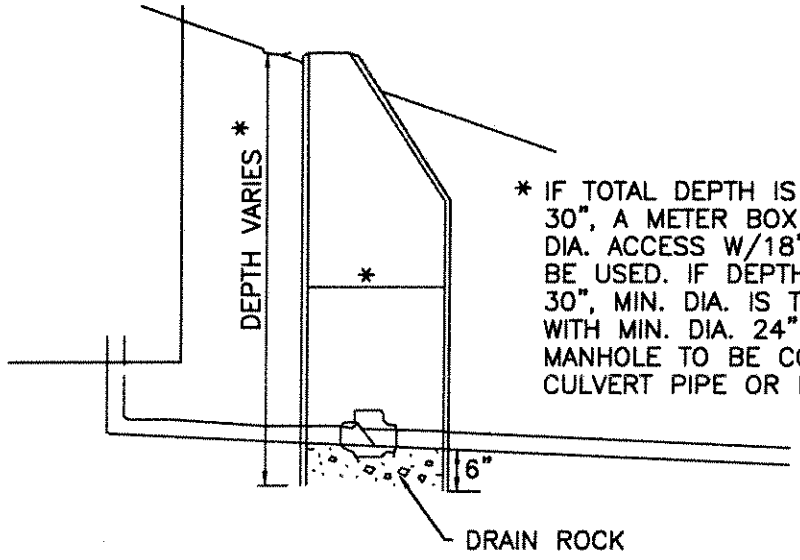
IMPORTED PIPE BEDDING DETAIL FOR SANITARY SEWER & STORM

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 3–8





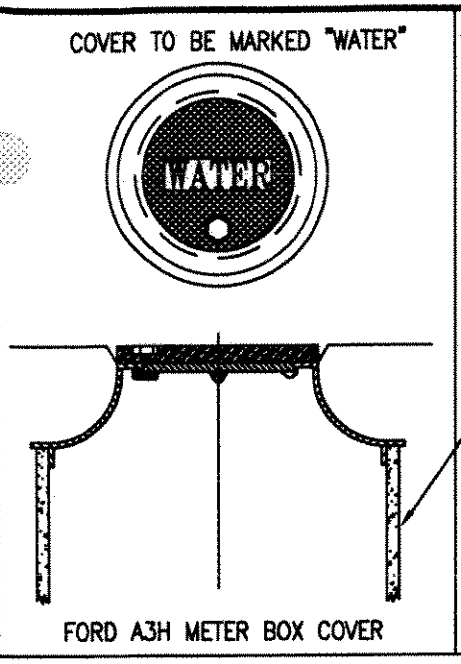
* IF TOTAL DEPTH IS LESS THAN 30", A METER BOX OR MIN. 18" DIA. ACCESS W/18" LID MAY BE USED. IF DEPTH IS OVER 30", MIN. DIA. IS TO BE 42" WITH MIN. DIA. 24" ACCESS COVER. MANHOLE TO BE CONCRETE BLOCK CULVERT PIPE OR PRE-CAST CONCRETE.

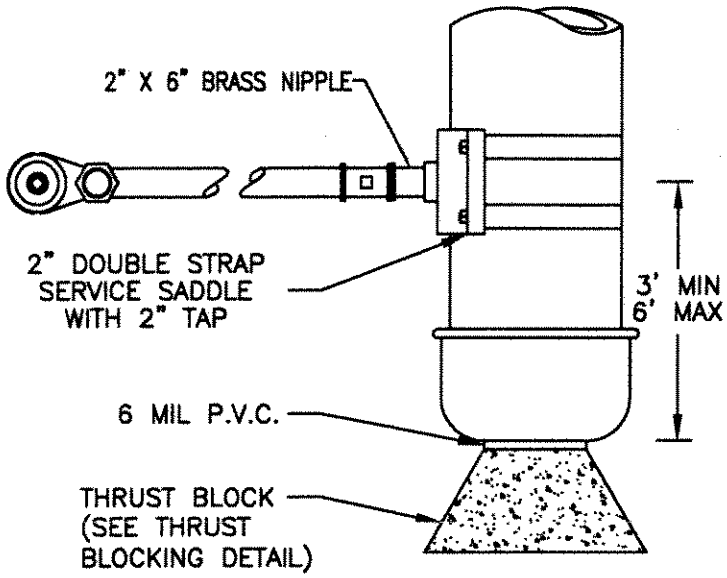
TYPICAL SAN. SEWER SERVICE BACKFLOW REQUIREMENT

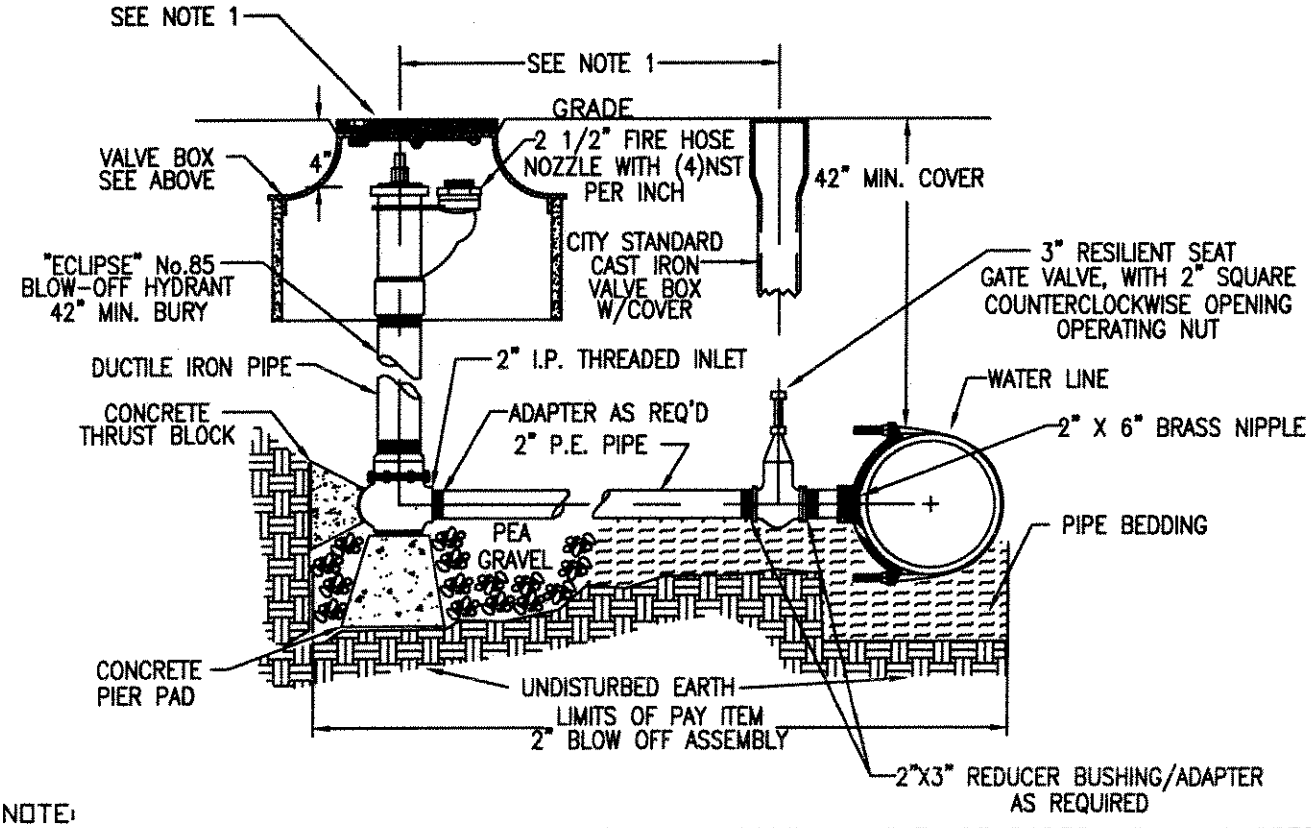
CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 3-9







NOTE:

1) IN CUL-DE-SACS, LOCATE THE BLOWOFF ON A PROPERTY LINE, CENTERED AT 1 1/2 FEET BACK OF SIDEWALK. PROVIDE ADJUSTMENT, OR CONCRETE PAD AS REQUIRED BY STANDARD DRAWING 3-4. ON STREETS THE BLOW OFF IS TO BE LOCATED AT BACK OF EXISTING, OR FUTURE SIDEWALK.

2" BLOW-OFF ASSEMBLY

PERMANENT (OVER 10 DAYS)

CITY OF SUNNYSIDE

PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

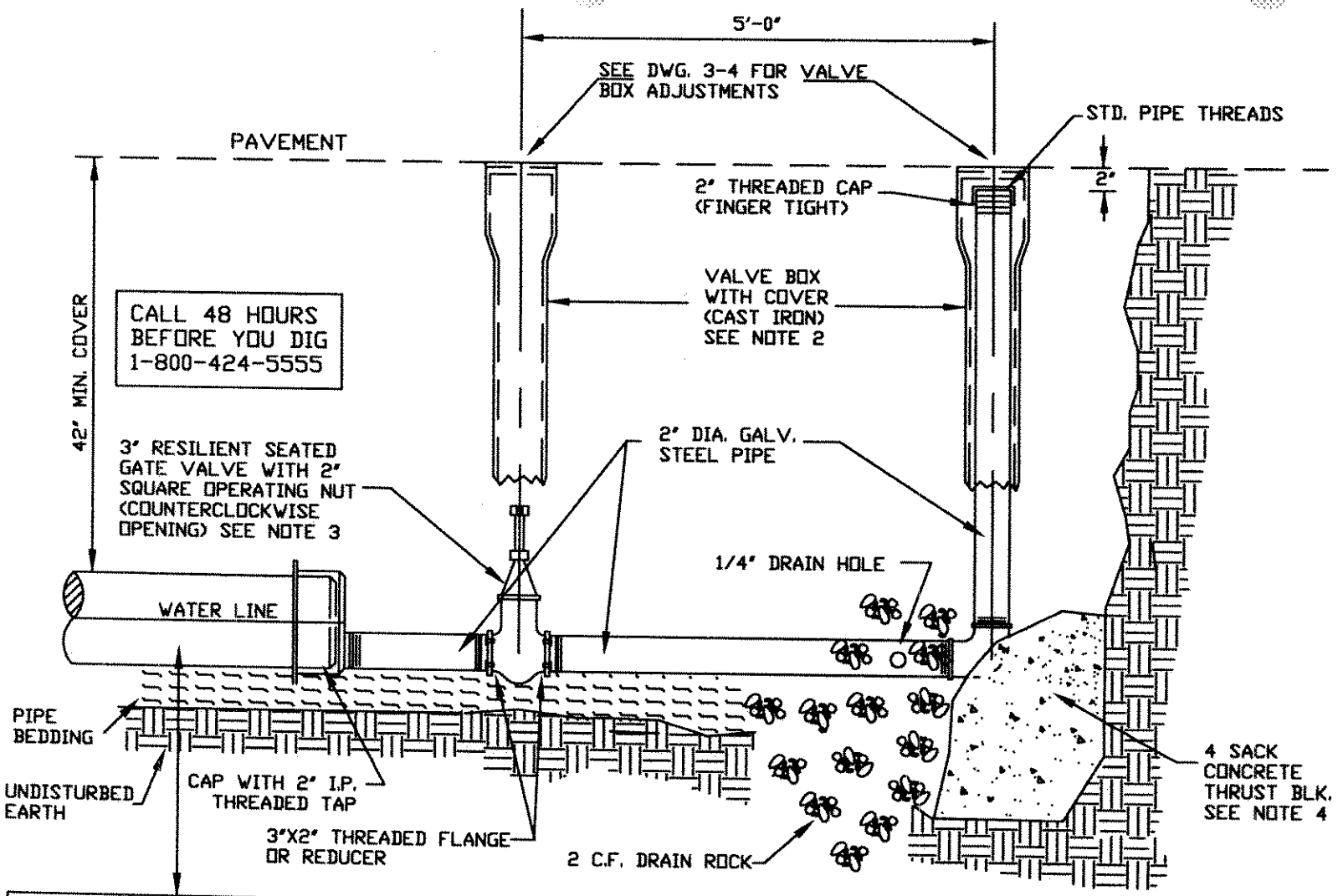
DWG. NO.

4—1

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE 5/05
DWN SRF
REV
CHK
SCALE JLB
NTS

DWG. NO. 4 — 2

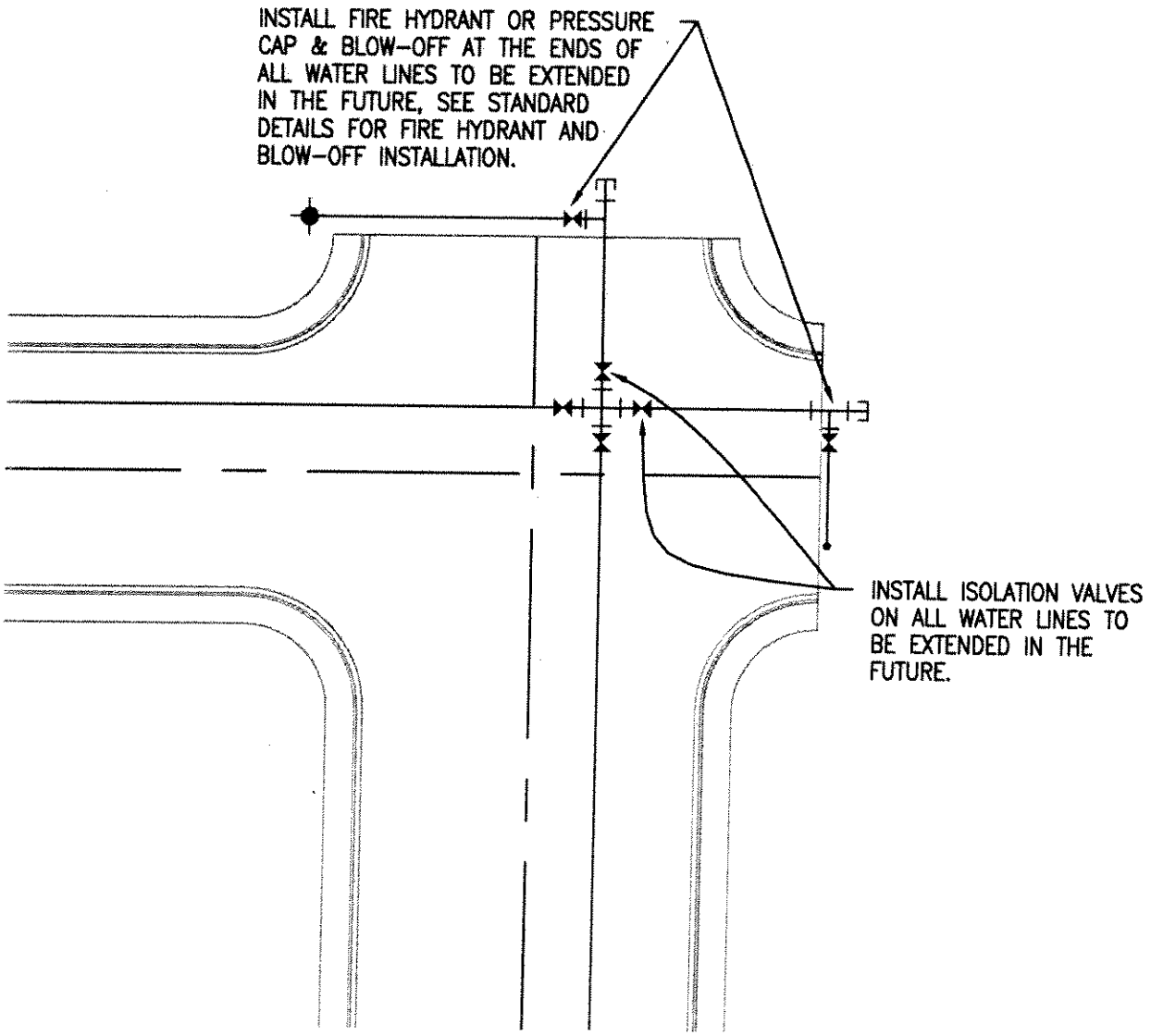


WATER LINE SIZE	THRUST * BLK. SIZE
6"	1.9 S.F.
8"	3.3 S.F.
10"	5.4 S.F.
12"	7.7 S.F.

* BEARING AREA AGAINST THE TRENCH WALL

1) TO BE USED FOR INSTALLATIONS WHERE THE BLOW OFF WILL REMAIN IN PLACE FOR LESS THAN 10 DAYS AND AT THE ENDS OF LATERAL STUBS ONLY. FOR LATERALS, THE BLOW OFF MUST BE LOCATED OUT OF THE PAVEMENT. FOR MAINLINE BLOWOFFS THAT WILL BE IN PLACE FOR LONGER THAN 10 DAYS, SEE DWG 4-1 OR 4-3.
2) ON LATERAL STUBS, THE VALVE BOX & COVER SHALL BE PER SECTION 10-8 OF THESE SPECIFICATIONS.
3) FOR LATERALS PROVIDE A CONCRETE THRUST BLOCK. ALL VALVES SHALL BE IN ACCORDANCE WITH CITY OF SUNNYSIDE STD. WATERMAIN SPECIFICATIONS.
4) THE THRUST BLOCK SHALL BE SIZED TO PROVIDE THRUST FOR THE LATERAL WATER LINE. ALL NOTES SHOWN ON DRAWING 4-6 SHALL APPLY.

TEMPORARY 2" BLOW-OFF ASSEMBLY



CITY OF SUNNYSIDE

PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

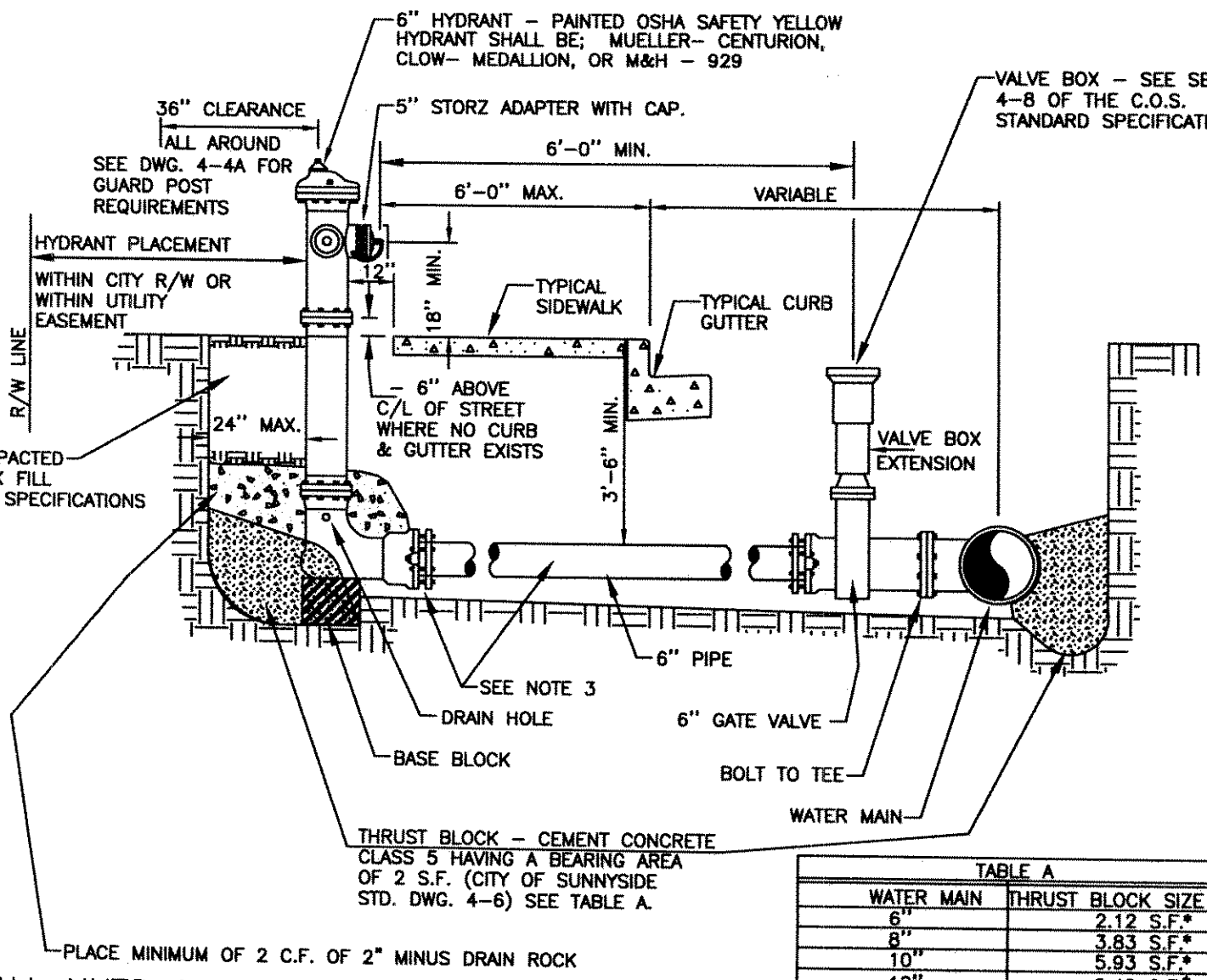
DWG. NO.

4 – 3

TYPICAL FIRE HYDRANT INSTALLATION

CALL 48 HOURS BEFORE YOU DIG 1-800-424-5555

NOTES:
1) HYDRANTS SHALL BE 3 PORTS.
2) HYDRANTS SHALL BE PER SECTION 4-5 OF THE CITY OF SUNNYSIDE STANDARD SPECIFICATIONS.
3) HUB & FLANGE CASTING. (SEE NOTE 2)
4) HYDRANTS SHALL BE HOODED UNTIL OPERATIONAL.
5) REMOVE CHAINS ON SIDE PORTS AND REMOVE CHAIN AND CAP ON MAIN PORT.



ALL NUTS & BOLTS TO BE STAINLESS STEEL

ALL NUTS & BOLTS TO BE STAINLESS STEEL

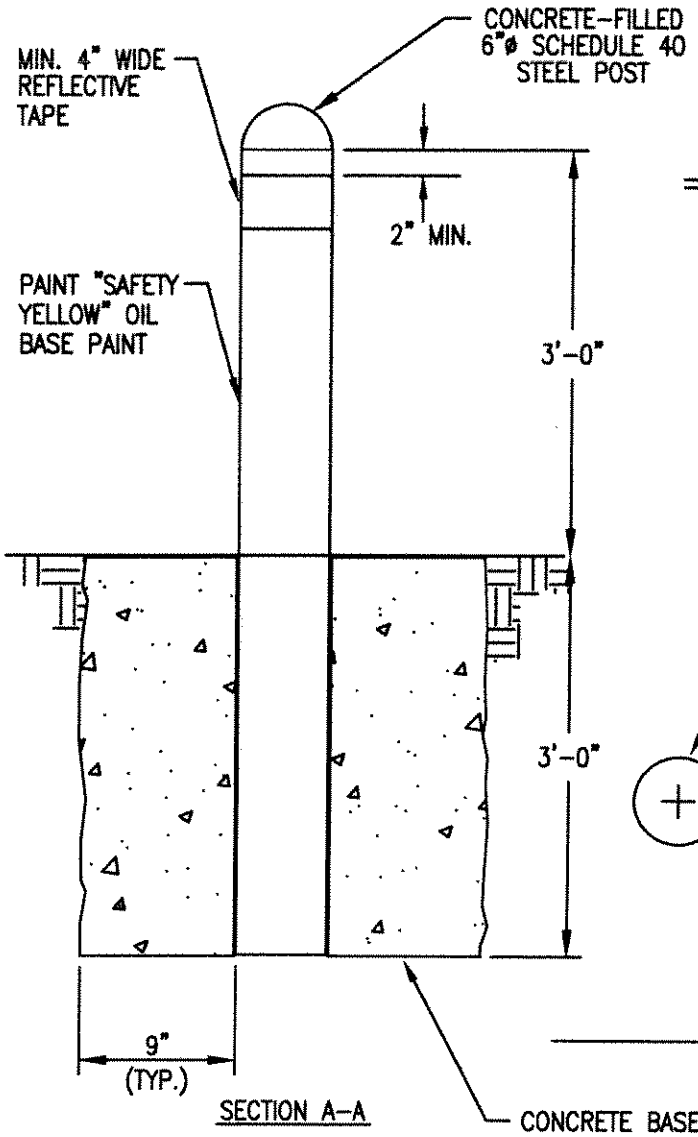
TABLE A	
WATER MAIN	THRUST BLOCK SIZE
6"	2.12 S.F.*
8"	3.83 S.F.*
10"	5.93 S.F.*
12"	8.48 S.F.*

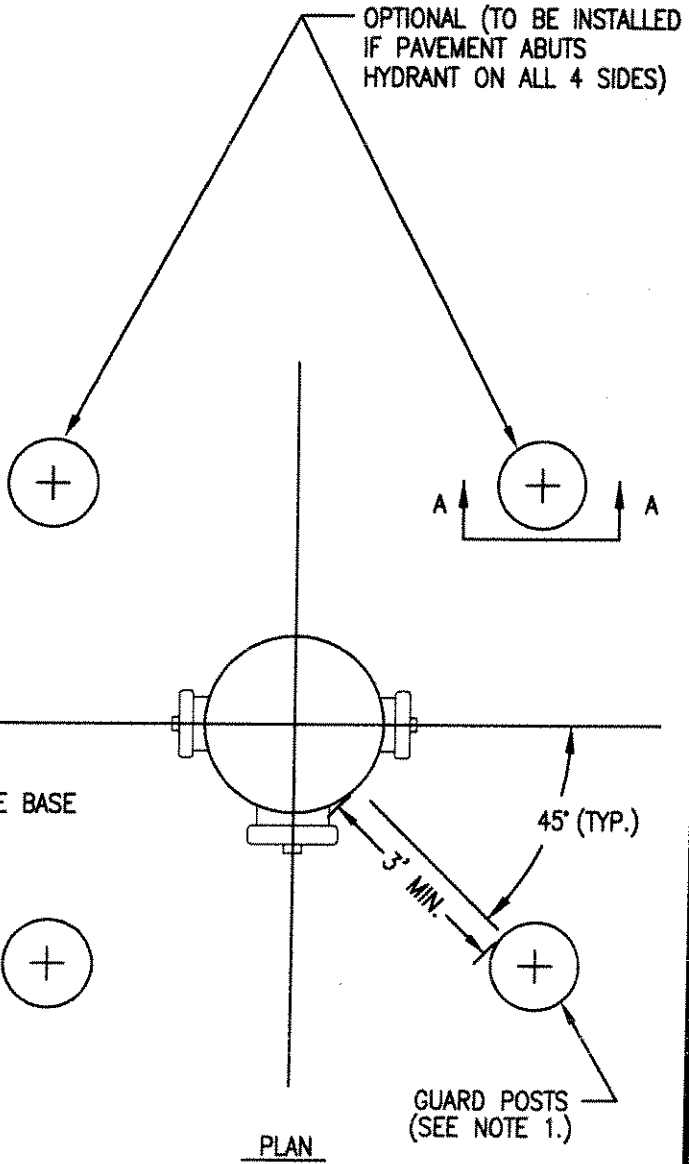
CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE 5/05
DWN SRF
REV
CHK JLB
SCALE NTS

DWG. NO. 4 — 4

BOLLARD GUARD POST





NOTES:

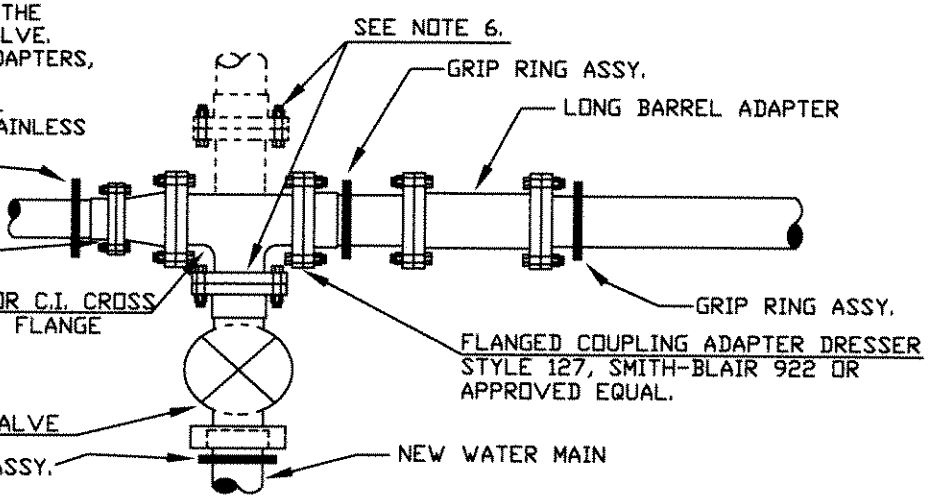
1. WHERE CONCRETE CURBING IS NOT INSTALLED, GUARD POSTS (2 EA. MIN) SHALL BE INSTALLED ON SIDE FACING PAVED SURFACE.
2. GUARD POSTS TO BE PAINTED SAME AS HYDRANT.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
4 — 4A

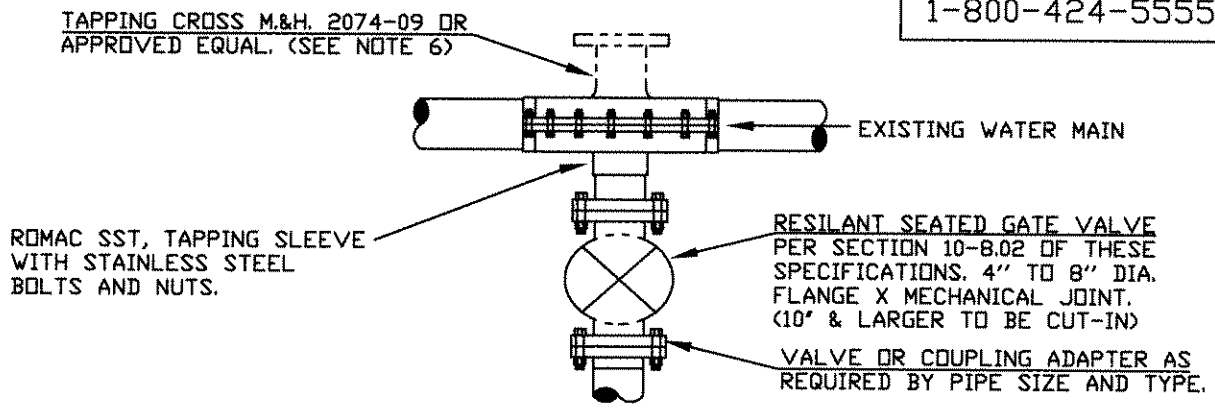
WHEN EXISTING WATERLINE REQUIRES THE INSTALLATION OF A CUT-IN TEE & VALVE, ALL VALVES, REDUCERS, & FLANGE ADAPTERS, MUST BE FLANGED. A LONG BARRELL ADAPTER MUST BE USED AS WELL. ALL FLANGED CONNECTIONS MUST HAVE STAINLESS STEEL NUTS & BOLTS.



NOTE:
ADDITIONAL VALVES AT ALL TEE LOCATIONS AS REQUIRED BY CITY ENGINEER.

CUT-IN TEE

CALL 48 HOURS BEFORE YOU DIG 1-800-424-5555



TAPPING SLEEVE AND VALVE

NOTES:

1. CONTRACTOR TO DIG & VERIFY MAIN SIZE AND PIPE PRIOR TO ORDERING MATERIALS.
2. CHLORINATE VALVE & FITTINGS PER SECTION 4-14 OF THE C.O.S. STANDARD SPECIFICATIONS.
3. MATERIALS TO BE ON THE THE JOB PRIOR TO SCHEDULING SHUTDOWNS OR TAPS. UP TO 3 WORK DAYS NOTICE MAY BE REQUIRED TO SCHEDULE CITY CREWS FOR TAP.
4. MAXIMUM TAP TO EXISTING LINE NOT TO EXCEED 50% OF MAIN DIAMETER ON A.C. OR P.V.C. PIPE; OR MORE THEN 75% OF THE MAIN DIAMETER FOR STEEL OR DUCTILE IRON PIPE. MAX. TAP FOR CROSS NOT TO EXCEED 50% OF MAIN.
5. INSTALL THRUST BLOCKS PER STD. DRAWING 4-6
6. ON STEEL PIPE, CONTRACTOR TO RESTORE ALL DISTURBED COAL TAR & WRAPPING.
7. ALL NUTS & BOLTS TO BE STAINLESS STEEL.

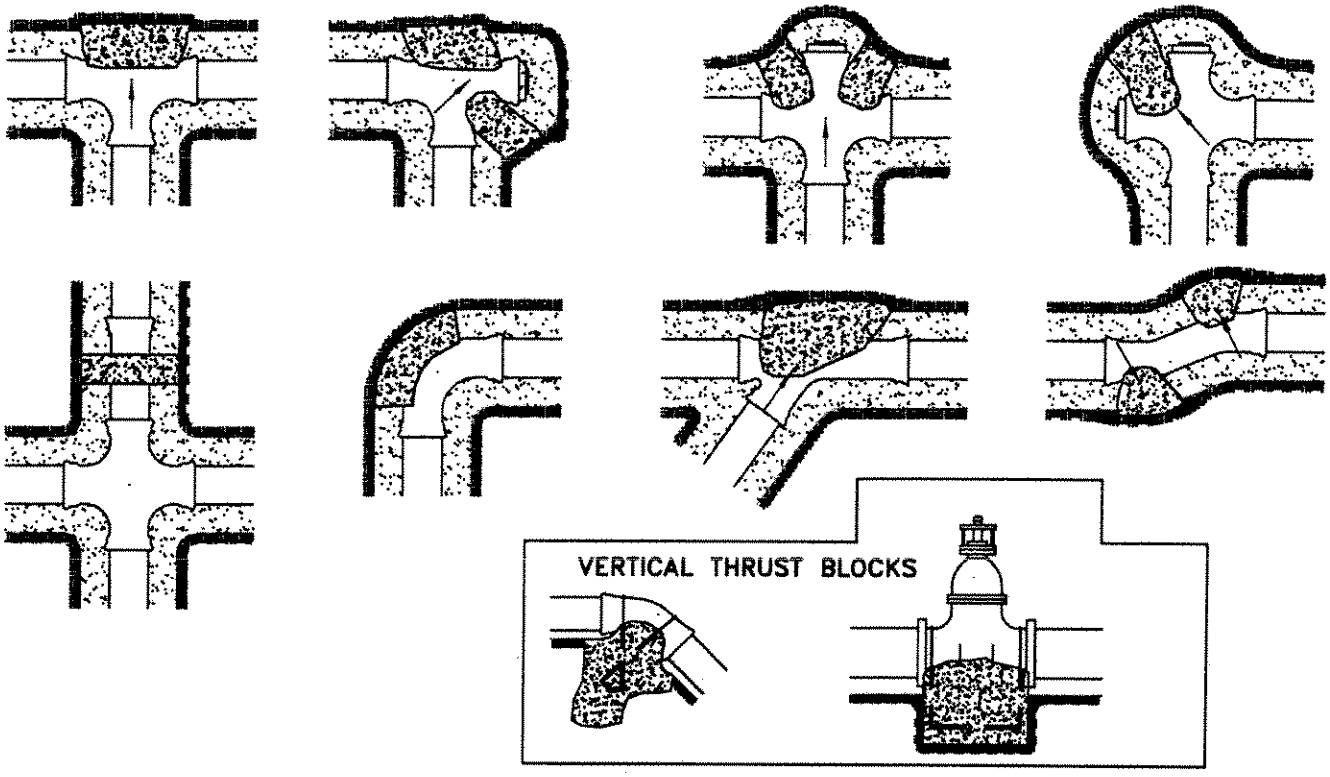
DETAILS FOR TAPPING WATER MAINS

(TYPICAL)

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
4-5



Pipe Size in Inches	HORIZONTAL THRUST BLOCKS MIN. BEARING AREA IN SQUARE FEET				VERTICAL THRUST BLOCKS MIN. VOLUME IN CUBIC YARDS		
	Tees, Wyes & Dead Ends	90° Bend	45° Bend	11 1/4° 22 1/2° Bend	45° Vertical Bend	11–1/4° 22–1/2° Vert. Bend	Restrained Valve (see note 5)
4 & Smaller	1.88	2.66	1.44	0.74	0.74	0.38	0.96
6	4.24	6.00	3.24	1.66	1.66	0.84	2.16
8	7.54	10.66	5.78	2.94	2.94	1.50	3.86
10	11.78	16.66	9.02	4.60	4.60	2.34	6.02
12	16.96	24.00	12.98	6.62	6.62	3.38	8.66
14	23.10	32.66	17.68	9.00	9.00	4.60	11.80
16	30.16	42.66	23.08	11.76	11.80	6.02	15.40

NOTES:

1. Concrete thrust blocking to be poured against undisturbed earth.
2. Keep concrete clear of joint and accessories.
3. Above bearing areas and volumes are calculated at a soil bearing capacity of 2000 PSF and a test pressure of 150 PSI.
4. Thrust blocks for vertical upward bends shall be the same as for horizontal bends.
5. When called for on the construction drawings or contract special provisions, valves shall have concrete restraint blocks as specified above, unless the valve is flanged to a tee, cross or similar fitting or another method of restraint acceptable to the engineer is provided.

THRUST BLOCKING DETAILS

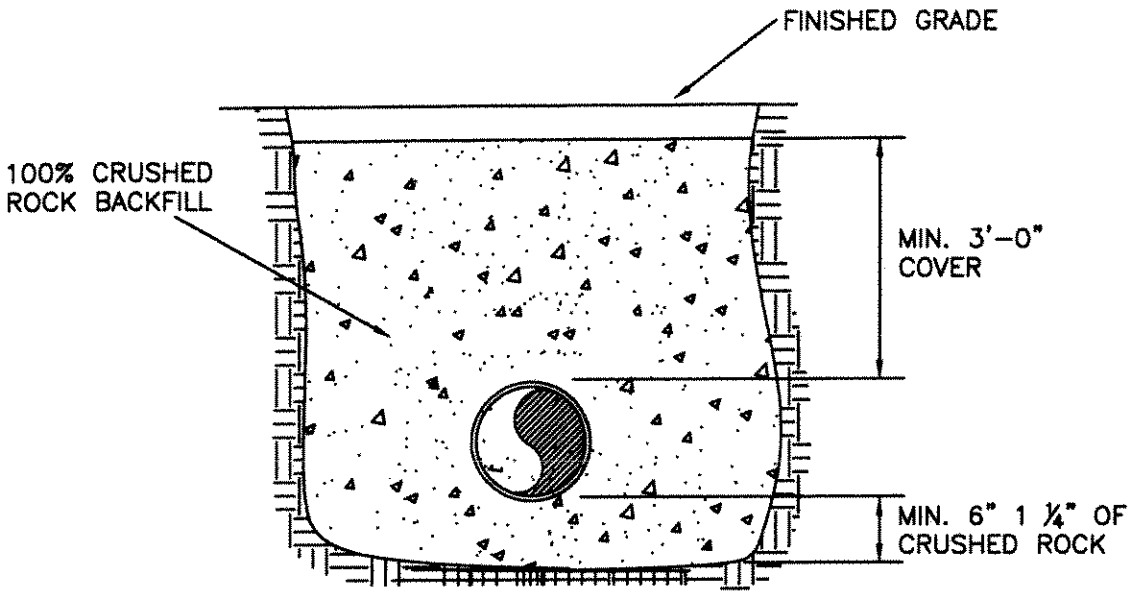
CITY OF SUNNYSIDE

PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.

4–6



1. IMPORTED BEDDING & TRENCH BACKFILL MATERIAL ABOVE AND BELOW ALL UNDERGROUND SHALL BE 1 1/4" MINUS IN ACCORDANCE WITH THE CITY OF SUNNYSIDE STANDARD SPECIFICATIONS AND ENGINEER.
2. TRENCH WIDTH SHALL BE 40 INCHES MAXIMUM FOR PIPE 15 INCHES I.D. OR SMALLER AND 1 1/2 INCH I.D. PLUS 18 INCHES FOR PIPE 18 INCHES OR LARGER.
3. HAND TAMP UNDER PIPE HAUNCHES.
4. PROVIDE UNIFORM SUPPORT UNDER PIPE BARREL.
5. COMPACT TRENCH BACKFILL MATERIAL TO 95% MAXIMUM DENSITY EXCEPT DIRECTLY OVER THE PIPE, WHERE BEDDING MATERIAL SHALL BE HAND TAMPED ONLY.
6. PAVEMENT WIDTH FOR EXCAVATION AND PAVEMENT REPAIR.... SEE CITY OF SUNNYSIDE STANDARD DRAWING 2-6.

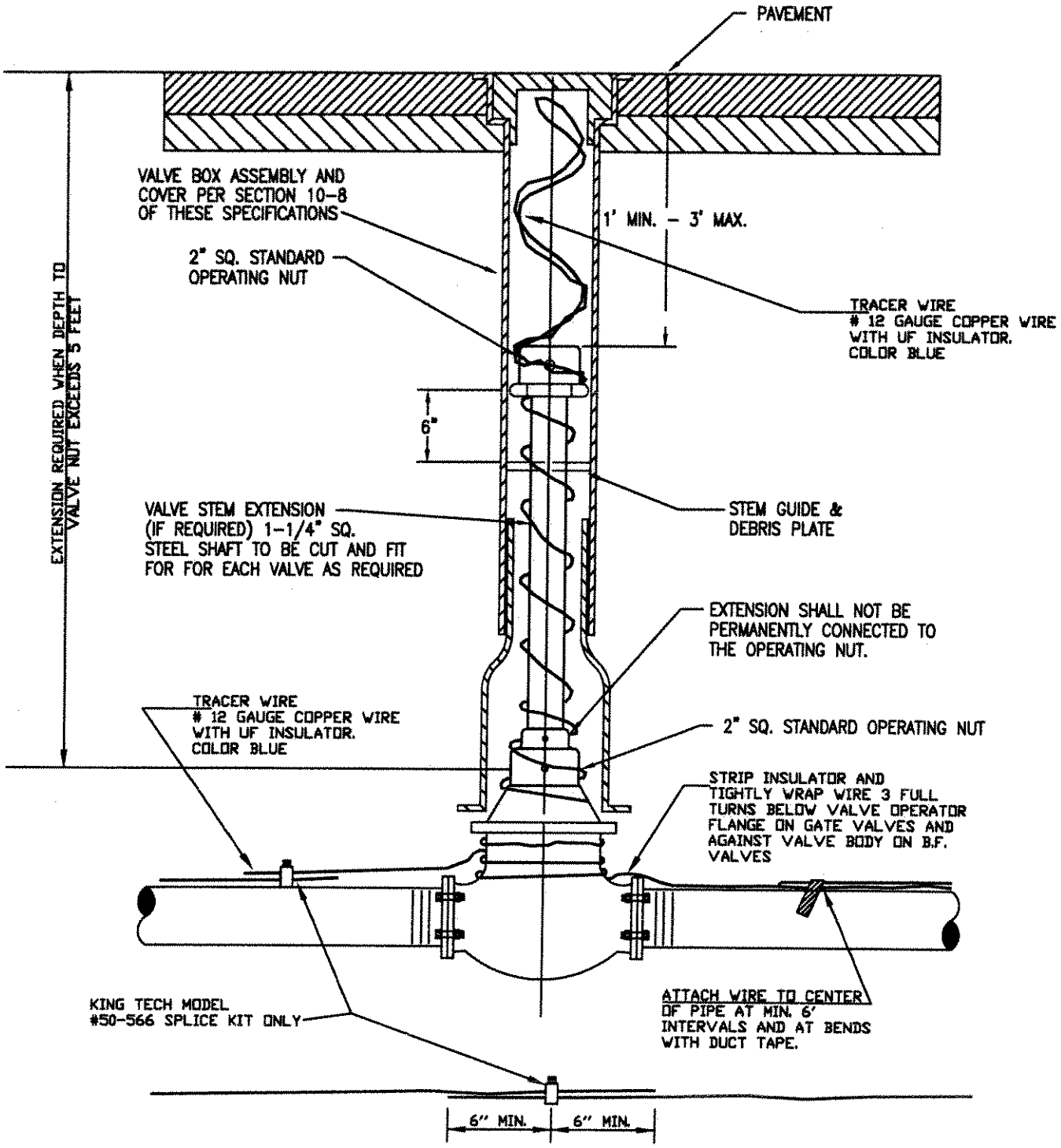
TRENCH BACKFILL & PIPE BEDDING FOR UNDERGROUND UTILITIES

CITY OF SUNNYSIDE

PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 4-7



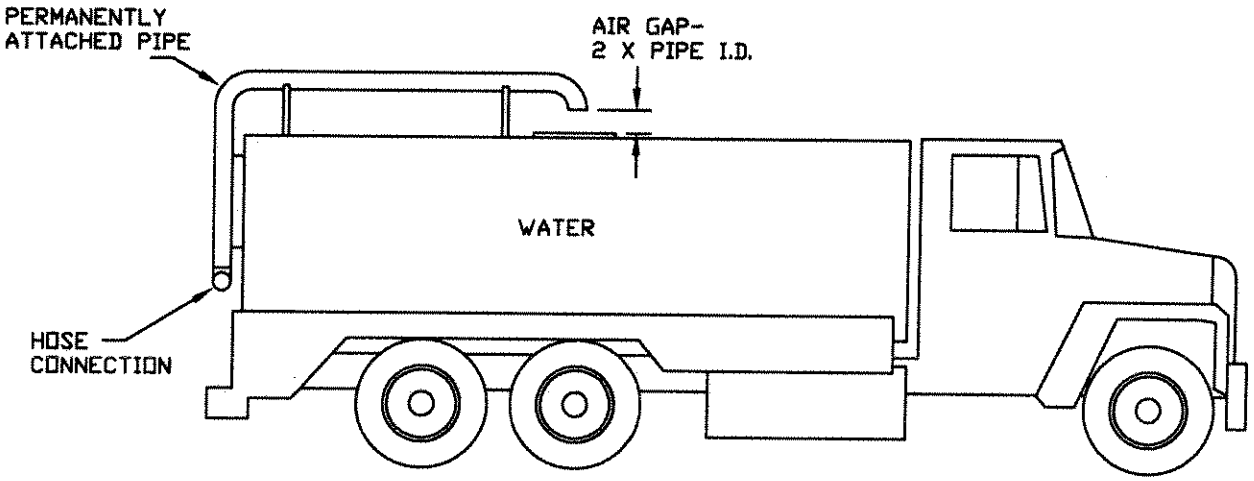
TRACER WIRE INSTALLATION
AND VALVE STEM EXTENSION DETAIL

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
4-9

WATER TRUCK WITH AIR GAP



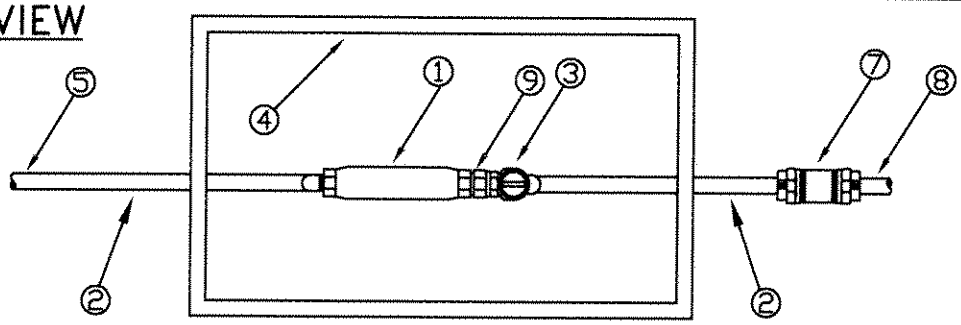
CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.

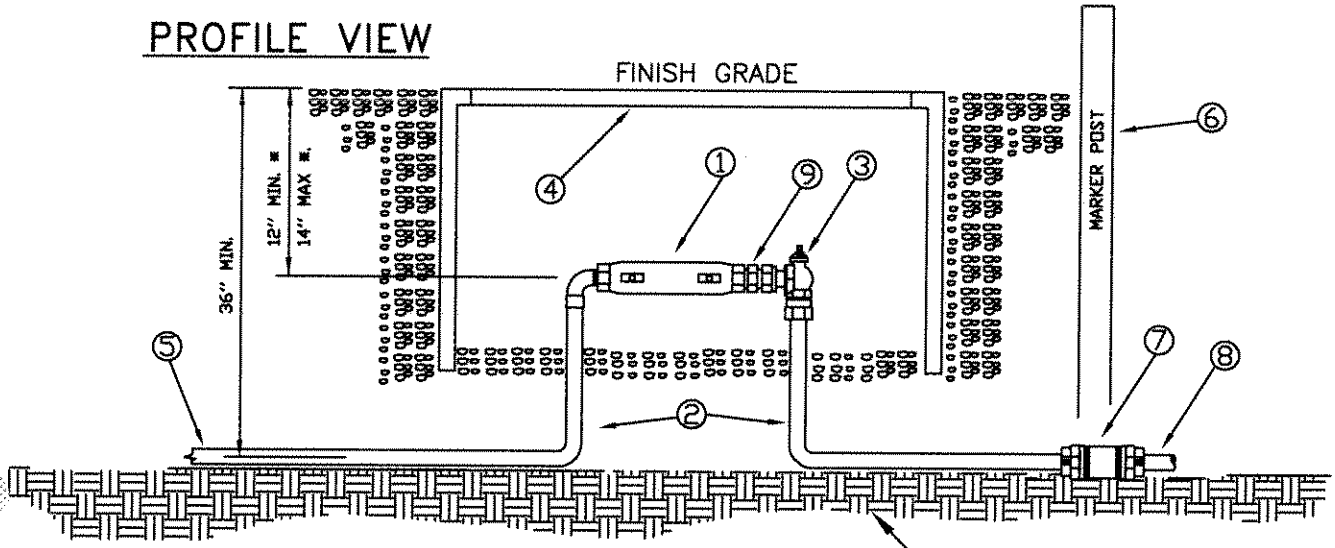
4-10

PLAN VIEW



BACKFLOW REQUIRED ON ALL SERVICES

PROFILE VIEW



* BACKFLOW MUST BE WITHIN 12"-14" OF FINISHED GRADE. IT IS THE CONTRACTORS RESPONSIBLITY TO ESTABLISH FINISHED GRADE. IF DEVICE IS MORE THAN 14" BELOW GRADE, CITY WILL REQUIRE THE SERVICE TO BE A STACKED BOX. 1 1/2" & 2" SERVICES MUST BE A STACKED BOX.

DO NOT OVER EXCAVATE TRENCH. PLACE PIPE BEDDING A MINUMUM OF 4" ABOVE PIPE ZONE WITH 5/8" UNCOMPACTED CRUSHED MATERIAL.

IN-LINE DCVA INSTALLATION

DOUBLE CHECK VALVE ASSEMBLY FOR ASSEMBLIES 3/4" TO 2"

① CITY OF SUNNYSIDE APPROVED BACKFLOWS:
A) WATTS 007 QT
B) WILKINS 950 XLT

② TYPE "K" COPPER TUBING OR PEX-A TUBING (CTS)

③ ANGLE BALL VALVE 90° SHUT OFF(MUELLER)

④ 3/4"-1" SERVICES-MID-STATES BCF-173018B
1 1/2"-2" SERVICES-(2)CARSON SUPER JUMBO 1730-18
TRAFFIC AREAS- BROOKS- MODEL 66(ROAD RATED)

⑤ COPPER PIPE TO WATER METER

⑥ CONTRACTOR TO INSTALL GROUND CONTACT STEEL MARKER POST SET TO 3' ABOVE FINISH GRADE, PAINTED BLUE.

⑦ COMPRESSION COUPLING

⑧ OWNERS SERVICE LINE BY LICENSED PLUMBING CONTRACTOR

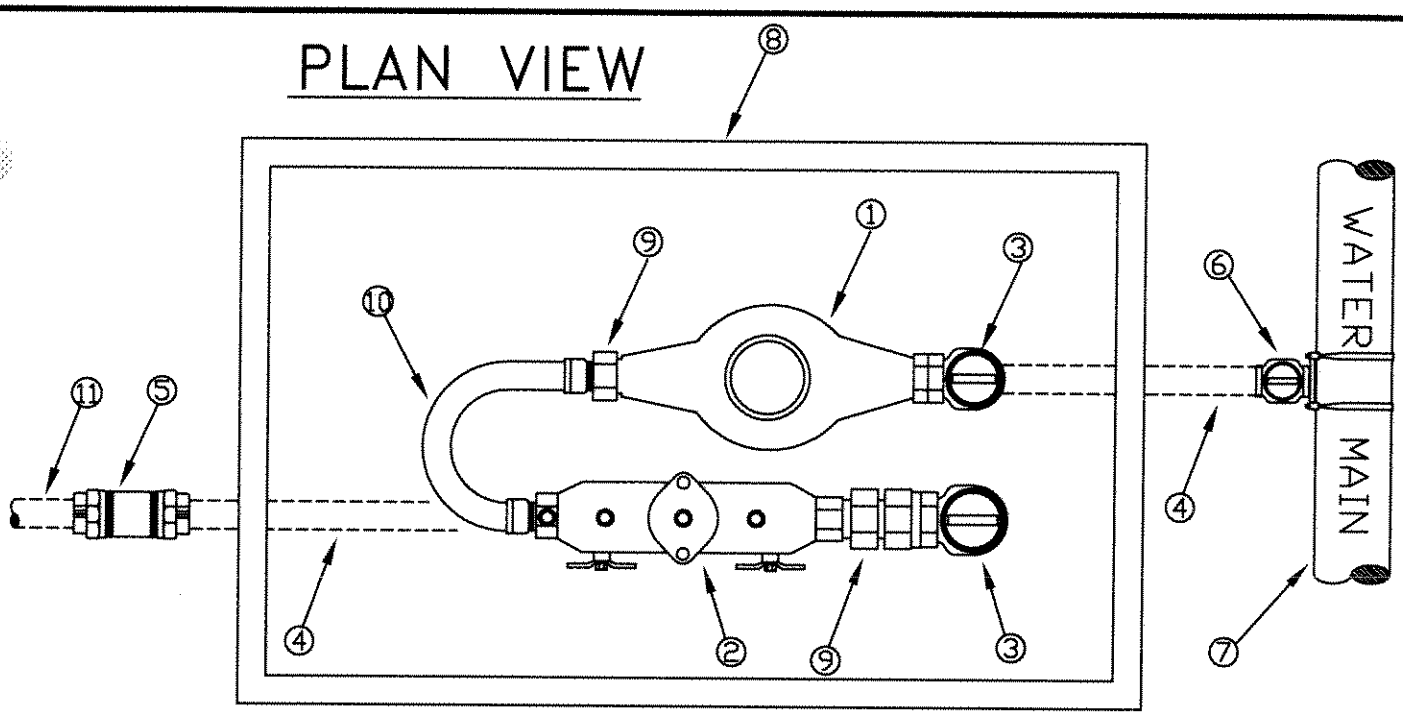
⑨ SPUD ADAPTER

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
4-13

PLAN VIEW



BACKFLOW REQUIRED ON ALL SERVICES

NOTES:

1. WATER METER MUST BE WITHIN 12"-14" OF FINISHED GRADE. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN FINISHED GRADE FROM THE CONSTRUCTION PLANS. IF METER IS MORE THAN 14" FROM GRADE, THE CITY MAY REQUIRE THE METER BOX TO BE STACKED TO ACHIEVE CLEARENCE FROM THE BOTTOM OF THE METER TO DIRT GRADE INSIDE THE BOX..

2. NEW SERVICE LINES WILL BE 1" OR 2" ONLY. IF A 1 1/2" METER IS NEEDED, CONTRACTOR CAN REDUCE AT THE BALL VALVE BEFORE THE METER.

METER & BACKFLOW MATERIALS

① WATER METER- PURCHASED FROM THE CITY

② CITY OF SUNNYSIDE APPROVED BACKFLOWS:
A) WATTS 007 QT
B) WILKINS 950 XLT

③ ANGLE BALL VALVE 90° SHUT OFF(MUELLER)

④ TYPE "K" COPPER TUBING OR,
PEX-A TUBING (CTS)

⑤ COMPRESSION COUPLING TO OWNERS SERVICE LINE BY LICENSED PLUMBING CONTRACTOR

⑥ ROMAC 202N SADDLE & CORP. BALL VALVE W/ C-C PIPE THREAD X COMPRESSION CONNECTION AT HORIZONTAL FOR ALL 3/4" TO 2" PIPE TYPES

⑦ WATER MAIN

⑧ MID-STATES BCF-173018B- (1")
(2)CARSON SUPER JUMBO- (1 1/2"-2")
BROOKS MODEL 66- TRAFFIC AREAS

⑨ ADAPTER

⑩ U-BEND

⑪ WHEN USING PEX-A TUBING, A 12-GAUGE TRACER WIRE MUST BE TAPED TO TUBING.

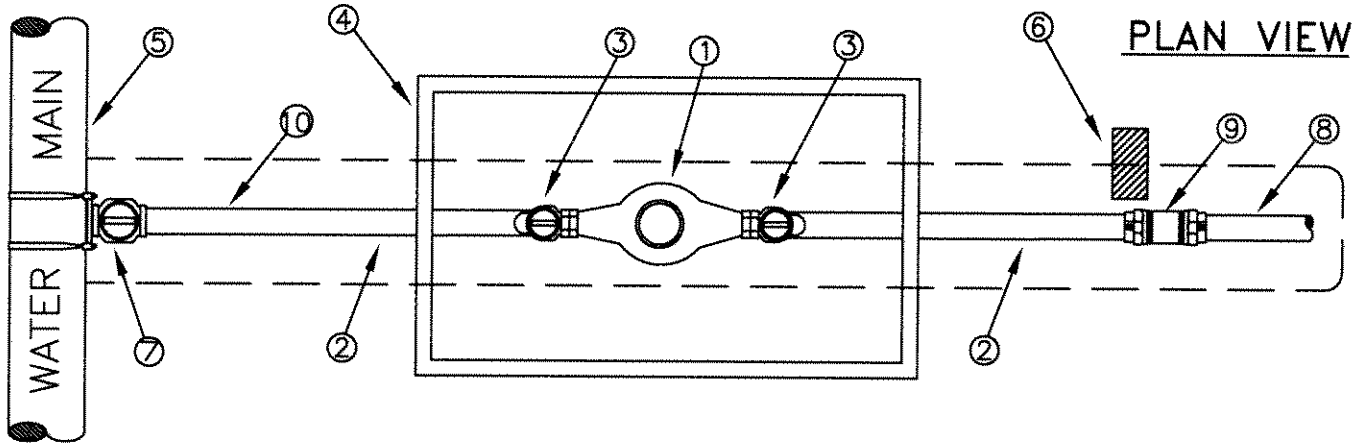
WATER METER & DCVA INSTALLATION

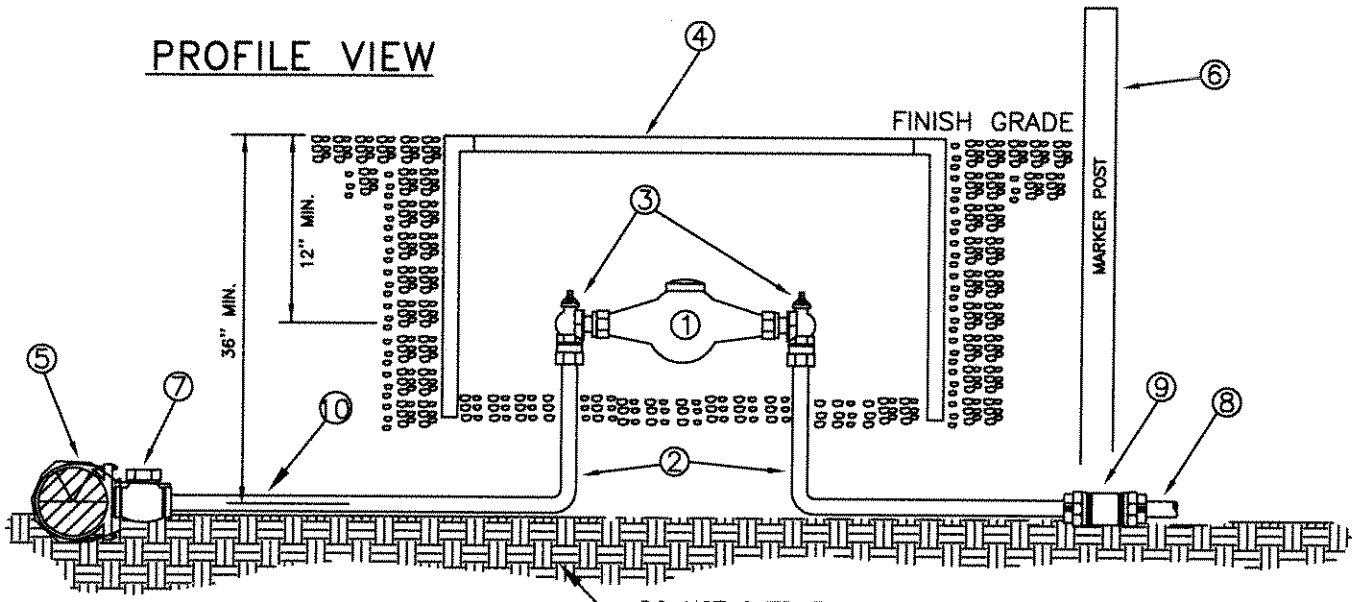
REQUIRED FOR 1" THRU 2" METER INSTALLATIONS

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
4-14





DO NOT OVER EXCAVATE TRENCH.
PLACE PIPE BEDDING A MINIMUM OF 4" ABOVE PIPE ZONE WITH 5/8" CRUSHED UNCOMPACTED MATERIAL.

METER ASSEMBLY MATERIALS

1. WATER METER– PURCHASE FROM CITY
2. TYPE "K" COPPER TUBING OR PEX–A TUBING(CTS)
3. ANGLE BALL VALVE 90° SHUT OFF(MUELLER)
4. 3/4" & 1" SERVICES– MID–STATES BCF–173018B
   1 1/2" & 2" SERVICES– CARSON SUPER JUMBO 1730–18
   TRAFFIC AREAS– BROOKS MODEL 66(ROAD RATED)
5. MAINLINE
6. CONTRACTOR TO INSTALL GROUND CONTACT STEEL MARKER POST SET 3' ABOVE FINISH GRADE, PAINTED BLUE.
7. ROMAC 202N SADDLE & CORP. BALL VALVE W/ C–C PIPE THREAD X COMPRESSION CONNECTION AT HORIZONTAL FOR ALL 3/4" TO 2" PIPE TYPES
8. OWNERS SERVICE LINE BY LICENSED PLUMBING CONTRACTOR
9. COMPRESSION COUPLING
10. WHEN PEX–A TUBING IS USED, 12 GAUGE TRACER WIRE IS REQUIRED. PLASTIC COATED & TAPED TO THE PEX TUBING.

BACKFLOW DEVICE REQUIRED ON ALL WATER METERS

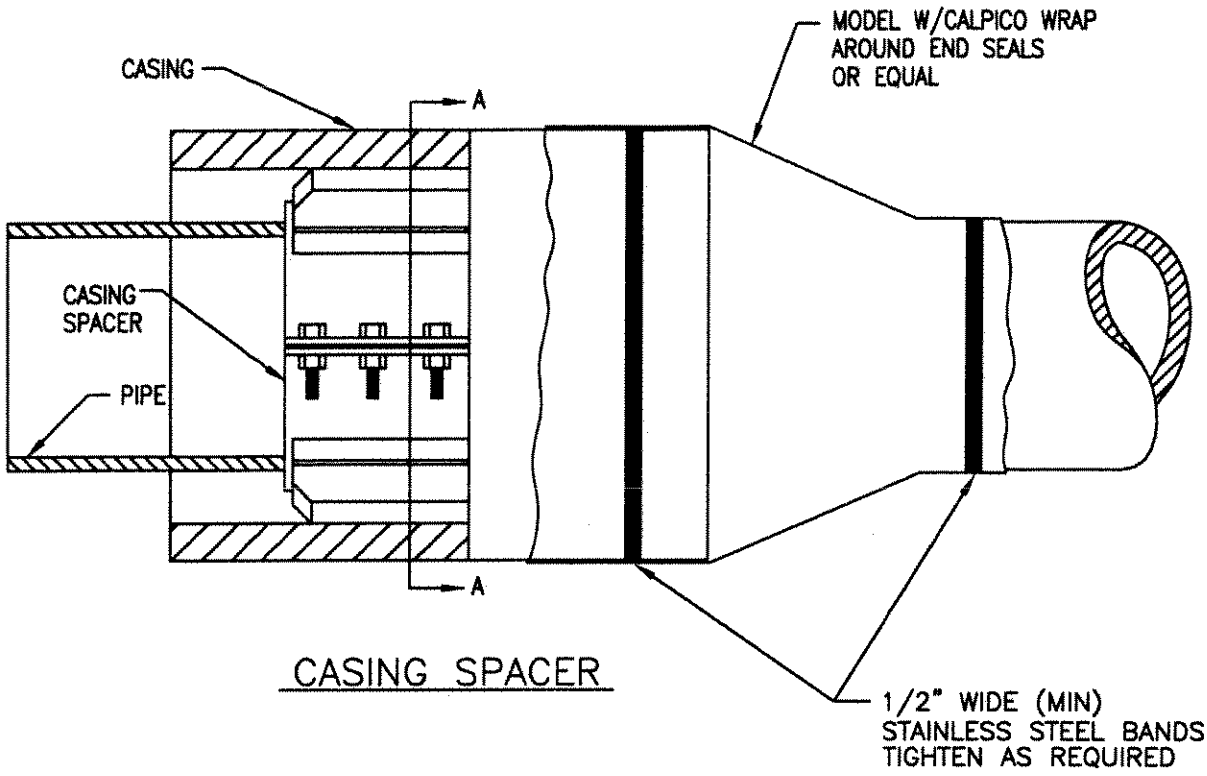
RESIDENTIAL WATER SERVICE INSTALLATION

REQUIRED FOR 3/4" THRU 2" METER INSTALLATIONS

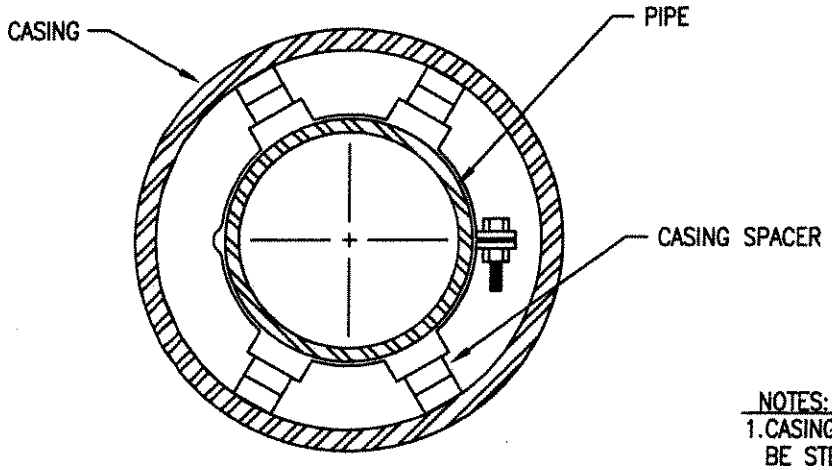
CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 4–30



CASING SPACER



SECTION A–A

NOTES:
1. CASING SPACERS SHALL BE STEEL OR POLYETHYLENE.
2. MINIMUM NUMBER OF SPACERS PER MANUFACTURERS SPECIFICATIONS

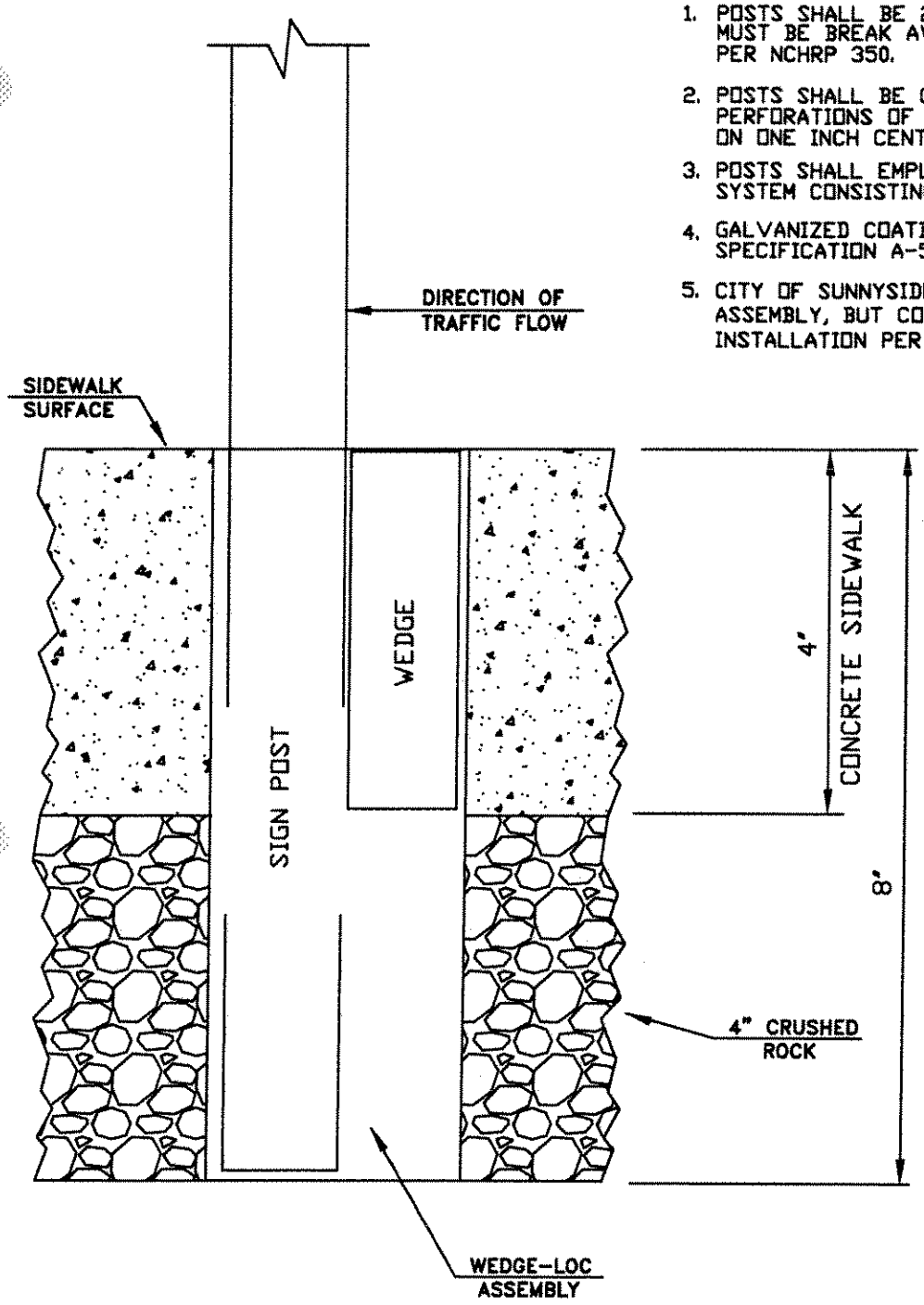
WATERMAIN CASING DETAIL

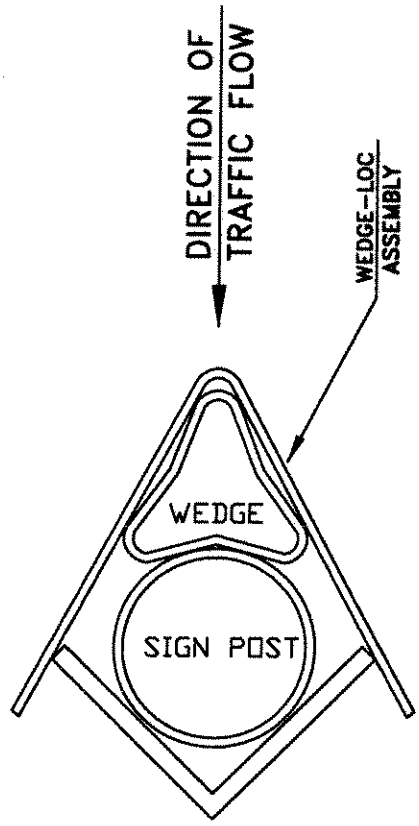
CITY OF SUNNYSIDE PUBLIC WORKS DEPARTMENT	DATE 5/05 DWN SRF REV CHK JLB SCALE NTS

DWG. NO. 4–33

NOTES:

1. POSTS SHALL BE 2" ROUND STEEL. MUST BE BREAK AWAY AND ACCEPTABLE PER NCHRP 350.
2. POSTS SHALL BE COLD ROLLED STEEL WITH PERFORATIONS OF .4375 INCH DIAMETER ON ONE INCH CENTERS ON ALL FOUR SIDES.
3. POSTS SHALL EMPLOY A YIELDING BREAKAWAY SYSTEM CONSISTING OF A WEDGE-LOC ASSEMBLY.
4. GALVANIZED COATING SHALL CONFORM TO A.S.T.M. SPECIFICATION A-525,DES. G-90.
5. CITY OF SUNNYSIDE WILL PROVIDE WEDGE LOCK ASSEMBLY, BUT CONTRACTOR IS RESPONSIBLE FOR INSTALLATION PER THIS DETAIL.

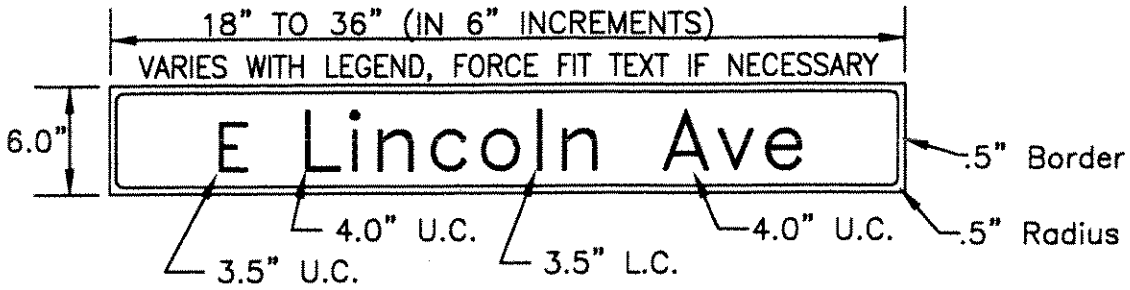




PLAN VIEW

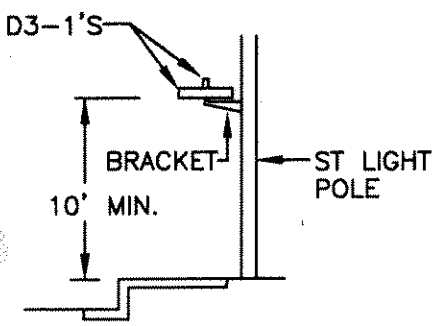
SIDEWALK SIGN POST DETAIL

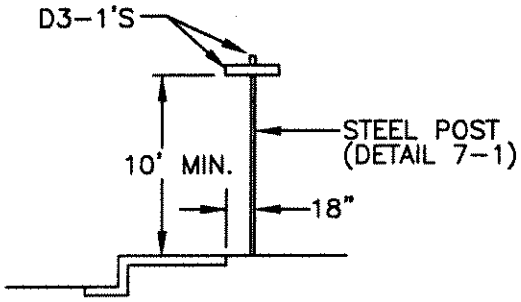
CITY OF SUNNYSIDE PUBLIC WORKS DEPARTMENT	DATE 5/05 DWN SRF REV CHK JLB SCALE NTS	DWG. NO. 7—1

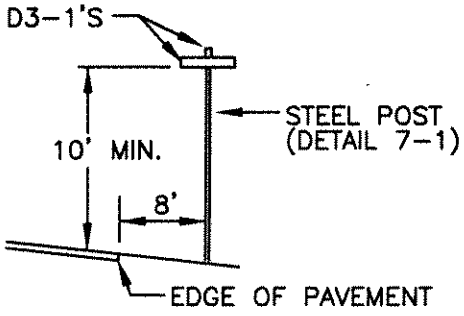


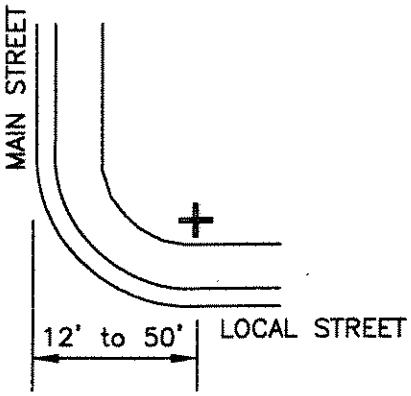
NOTES:

1. REFLECTORIZED WHITE LETTERS AND NUMBERS ON REFLECTIVE GREEN BACKGROUND. LETTERS ARE TO BE HIGHWAY GOTHIC, SERIES "C". LETTERS AND SPACING TO BE PER THE STATE OF WASHINGTON SIGN FABRICATION MANUAL.
2. LETTERS, NUMBERS, BORDER AND BACKGROUND ARE TO BE 3M SCOTCHLITE REFLECTIVE ENGINEER GRADE VIP SERIES 981.
3. EXTRUDED ALUMINUM PLATE 6061–P61 WITH ALODINE FINISH.
4. STREET NAME SIGNS SHALL BE INSTALLED ON THE SIGN POST OR TRAFFIC LIGHT STANDARD BY MEANS OF AN ALUMINUM SIGN BRACKET APPROVED BY THE TRAFFIC ENGINEER.
5. STREET SIGN BRACKETS MUST BE ZUMAR PRODUCTS (12 INCH) OR ENGINEER APPROVED EQUAL. ZUMAR PRODUCTS CAN BE PURCHASED THROUGH ZUMAR INDUSTRIES, INC AT (800) 426–7967.





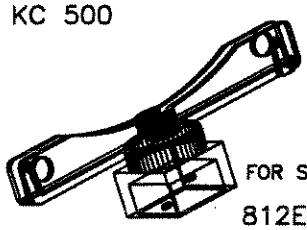




TYPICAL PLACEMENT

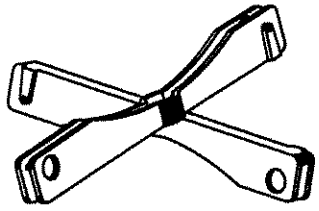
STREET LIGHT MOUNTING BRACKET.

KC 500



FOR SQUARE POSTS

812EX2



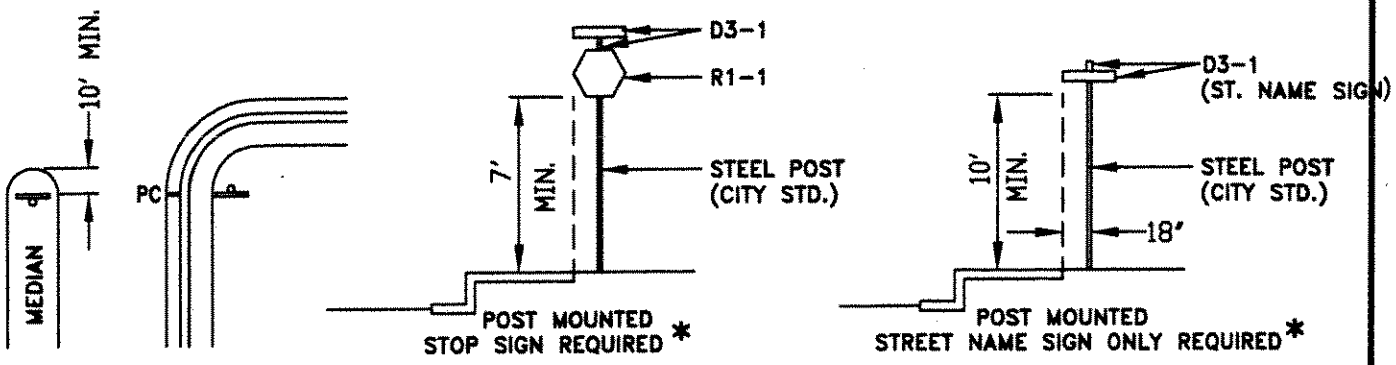
UNIVERSAL CROSS SEPARATOR MAY BE SET TO ANY ANGLE FOR OBLIQUE INTERSECTIONS

81290X

STREET SIGN BRACKETS

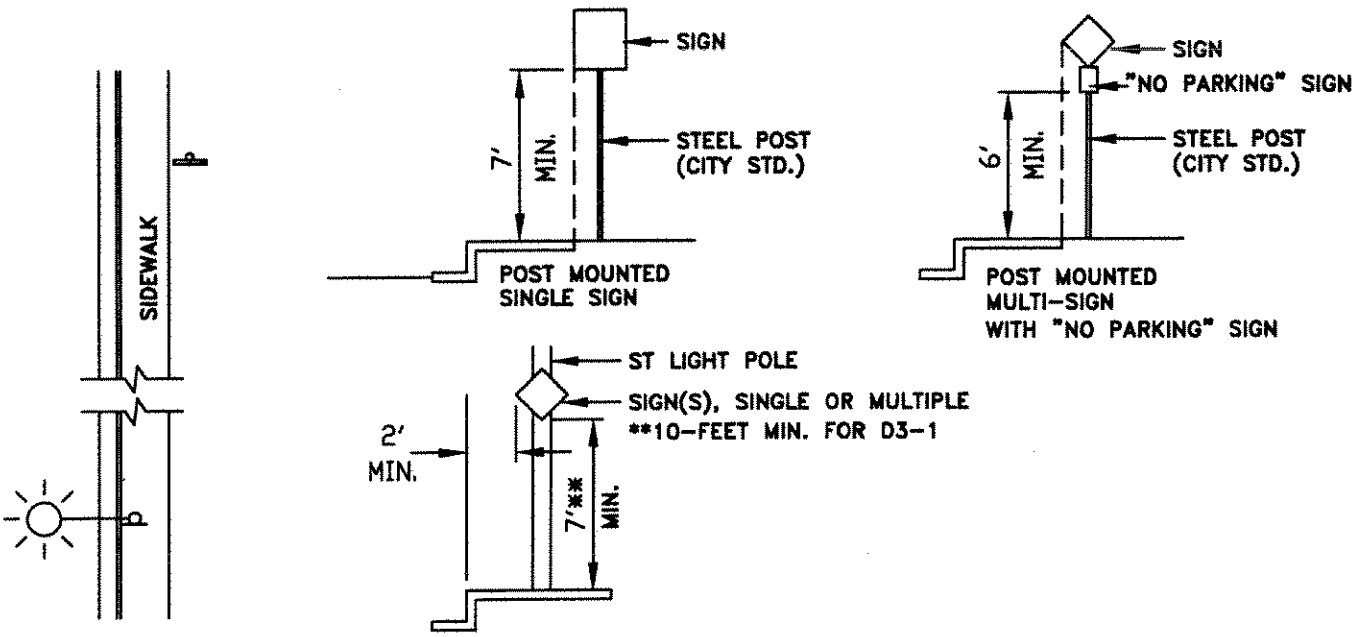
STREET NAME SIGN (D3–1)

CITY OF SUNNYSIDE PUBLIC WORKS DEPARTMENT	DATE 5/05 DWN SRF REV CHK JLB SCALE NTS	DWG. NO. 7–2



(* AS DETERMINED BY TRAFFIC ENGINEER)

CORNER INSTALLATION



MID-BLOCK INSTALLATION

NOTES:

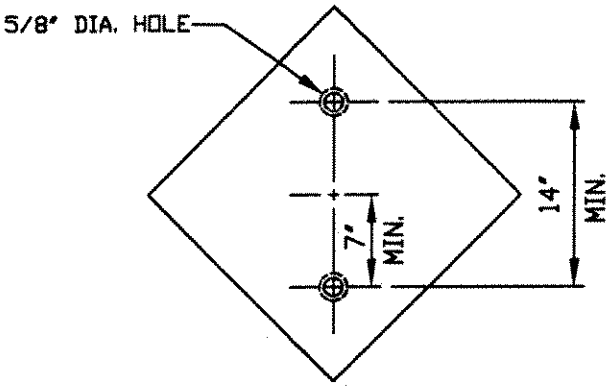
1. EDGE OF SIGN TO BE EVEN WITH BACK OF SIDEWALK.
2. SIGNS TO BE INSTALLED BACK OF SIDEWALK UNLESS OTHERWISE NOTED ON PLANS.
3. SIGNS SHALL CONFORM TO THE LATEST EDITION OF THE 'MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES' AND SHALL BE THE STANDARD SIZE AND LETTERING APPROPRIATE FOR URBAN AREAS UNLESS OTHERWISE NOTED.
4. ALL SIGN PLAQUES SHALL BE MADE OF ALUMINUM HAVING A MINIMUM THICKNESS OF 0.10 INCHES.
5. BOLTS, NUTS AND METAL WASHERS SHALL BE GALVANIZED OR CADMIUM PLATE STEEL.
6. POSTS SHALL CONFORM TO CITY OF SUNNYSIDE STD. DWG. NO. 7-1
7. REFLECTIVE SHEETING SHALL BE AS A MINIMUM 3-M HIGH INTENSITY GRADE UNLESS A HIGHER GRADE IS SPECIFIED OR DIRECTED BY THE TRAFFIC ENGINEER.
8. ALL SIGNS AND PLACEMENT MUST HAVE APPROVAL OF THE TRAFFIC ENGINEER.

TYPICAL SIGN INSTALLATION

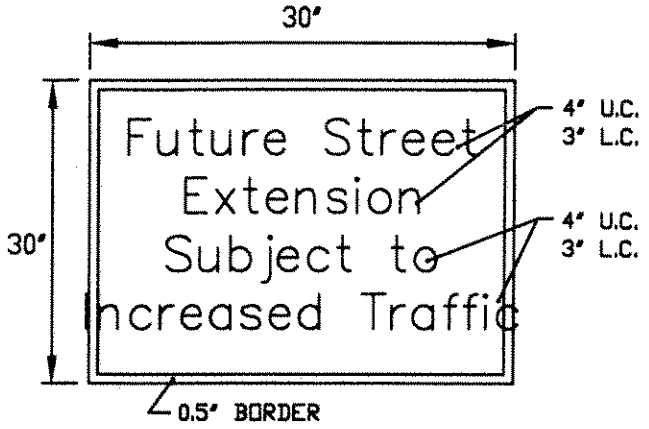
CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO. 7-3



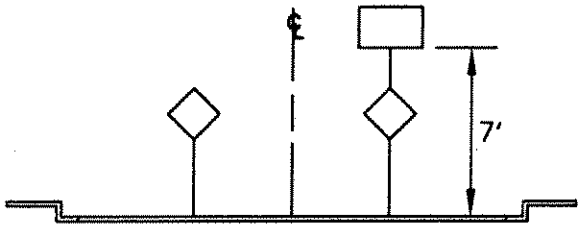
OM4-3
COLOR: RED
18" X 18"



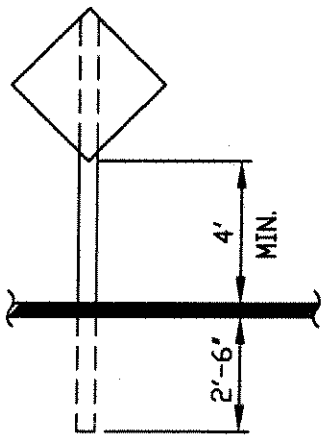
COLOR: WHITE LETTERS AND BORDER ON YELLOW BACKGROUND

NOTES:

1. REFLECTORIZED 3M HIGH INTENSITY OR DIAMOND GRADE SHEETING OR TRAFFIC ENGINEER APPROVED EQUAL.
2. ONE-TENTH GAUGE ALUMINUM PLATE.
3. POST SHALL BE AS PER CITY OF SUNNYSIDE STD. DWG. NO. 7-1 EXCEPT 8 FT. SIGN POSTS MAY BE USED WHEN OM4-3 ARE USED ALONE.
4. THE NUMBER OF OM4-3 SIGNS REQUIRED FOR ANY STREET SHALL BE DETERMINED BY THE TRAFFIC ENGINEER.
5. OM4-3 SIGNS ARE TO BE INSTALLED IN THE CENTER OF TRAVEL AND/OR PARKING LANE.
6. ONE "FUTURE STREET EXTENSION" SIGN SHALL BE INSTALLED ABOVE ONE OF THE OM4-3 AT THE END, UNLESS OTHERWISE APPROVED BY THE ENGINEER.



APPROACH LANE

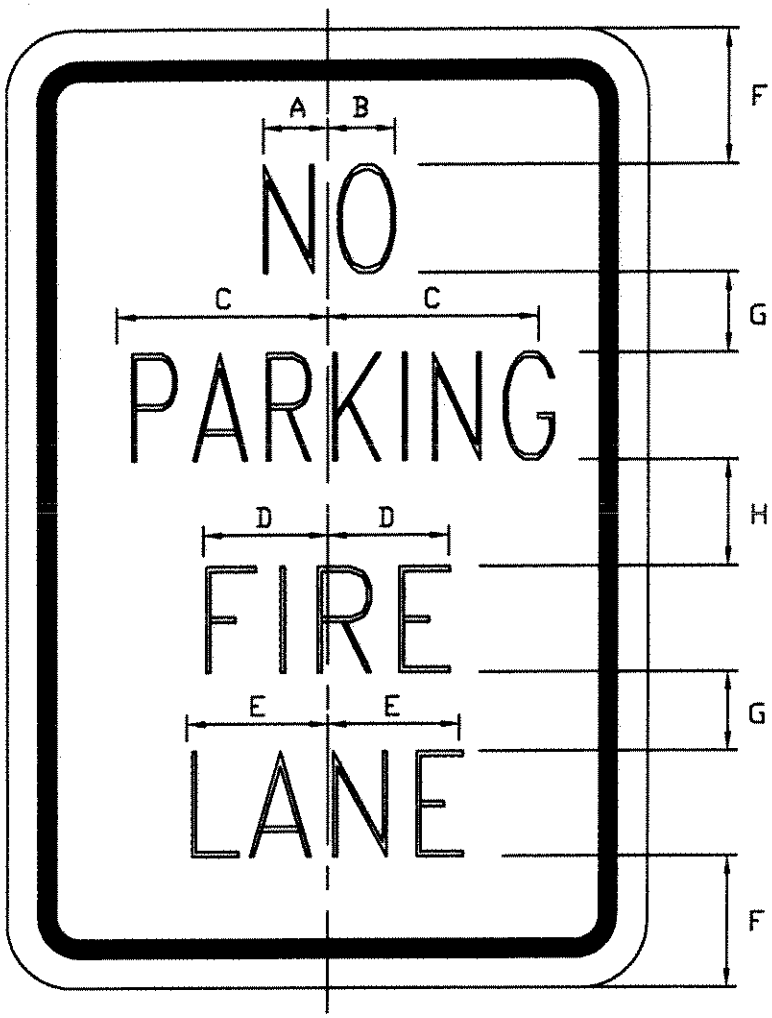


END OF ROADWAY SIGNAGE

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
7 — 4



R7-35

ALL DIMENSIONS ARE IN INCHES

SIZE	BORDER WIDTH	MARGIN WIDTH	LETTER SIZE, SERIES & STROKE WIDTH					CORNER RADIUS	
			LINE 1	LINE 2	LINE 3	LINE 4			
12 x 18	1/4	1/4	2 C	2 C	2 C	2 C		1-1/4	

	DIMENSIONS													
	A	B	C	D	E	F	G	H						
12 x 18	1-1/8	1-1/2	4-1/2	2-5/8	2-7/8	2-1/2	1-1/2	2						

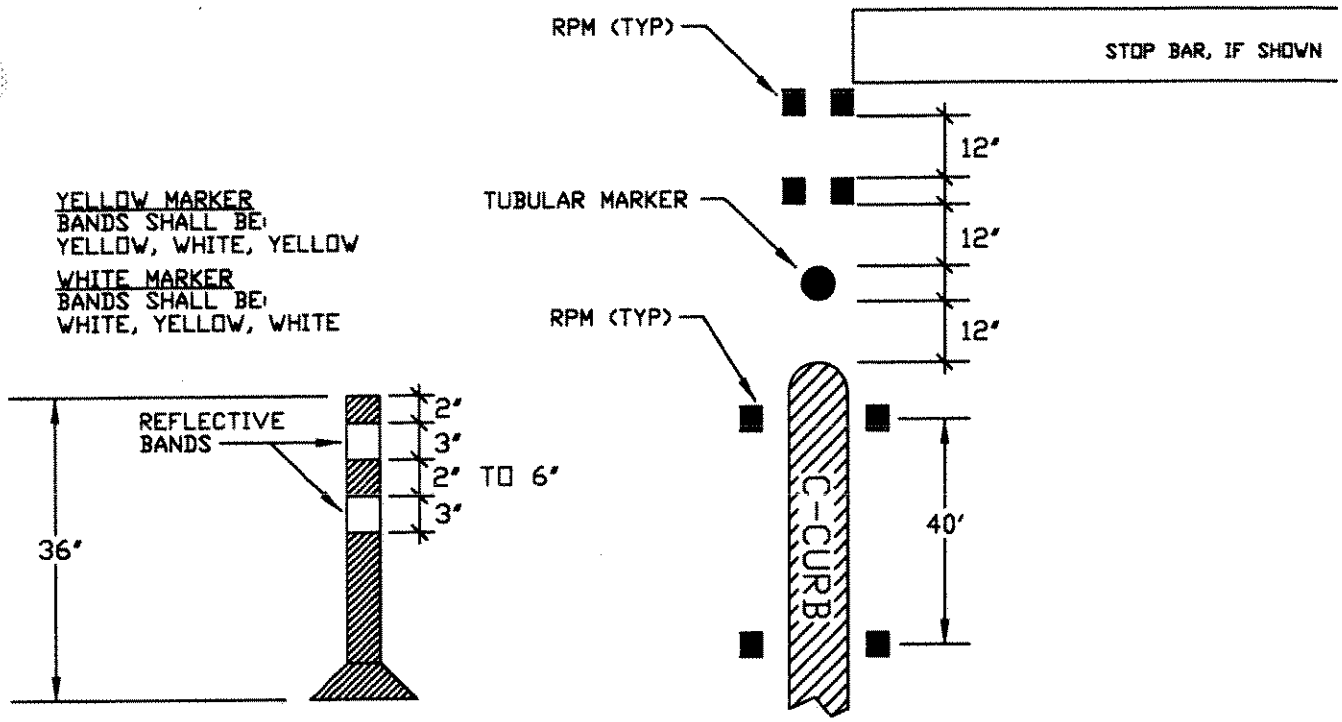
WHITE BACKGROUND WITH RED BORDER & LEGEND.
REFLECTORIZED BACKGROUND/OPAQUE LEGEND.

NO PARKING FIRE LANE SIGN

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
7-5



TUBULAR MARKER

DRIVE PIN ASSEMBLY

DIMENSIONS SHOWN ARE APPROXIMATE AND MAY VARY ± 10 PERCENT.

NOTES:

1. RAISED PAVEMENT MARKERS (RPM) ARE TO BE PER THE STATE OF WASHINGTON STANDARD SPECIFICATION (SWSS) SECTION 8-09 AND 9-21. TYPE 2 SHALL NORMALLY BE REQUIRED.
2. C-CURB SHALL BE PER SWSS SECTION 8-07.
3. RPM'S SHALL BE 2YY WHEN USED FOR CENTERLINE, AND 2W WHEN USED FOR GORE LINES UNLESS OTHERWISE INDICATED ON THE PLANS OR DIRECTED BY THE ENGINEER.
4. TUBULAR MARKERS SHALL BE 36" FLEXIBLE YELLOW (ON CENTERLINE) OR WHITE (ON GORE LINES) MARKERS. YELLOW MARKERS SHALL HAVE A MINIMUM OF TWO 3-INCH WIDE YELLOW AND ONE 2-INCH WIDE WHITE REFLECTIVE BANDS. WHITE MARKERS SHALL HAVE A MINIMUM OF TWO 3-INCH WIDE WHITE AND ONE 2-INCH WIDE YELLOW REFLECTIVE BANDS. THE REFLECTIVE BANDS SHALL BE ATSM TYPE VI OR 3M DIAMOND GRADE MATERIAL. THE TUBULAR MARKERS SHALL BE DURAPOST ROUND DELINEATOR OR ENGINEER APPROVED EQUAL WITH DRIVE PIN ASSEMBLY, NOT TWIST LOCK.
5. MARKERS ARE TO BE INSTALLED USING HOT MELT BITUMEN ADHESIVE PER THE MANUFACTURERS RECOMMENDATIONS. ADHESIVE TO COVER THE ENTIRE BASE.

PAVEMENT AND TUBULAR MARKER INSTALLATION

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
7—6

ALL STREET INTERSECTION WIDENING, STRIPPING, AND SIGNAGE IS PER THE MOST CURRENT MUTCD

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

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REV	
CHK	JLB
SCALE	NTS

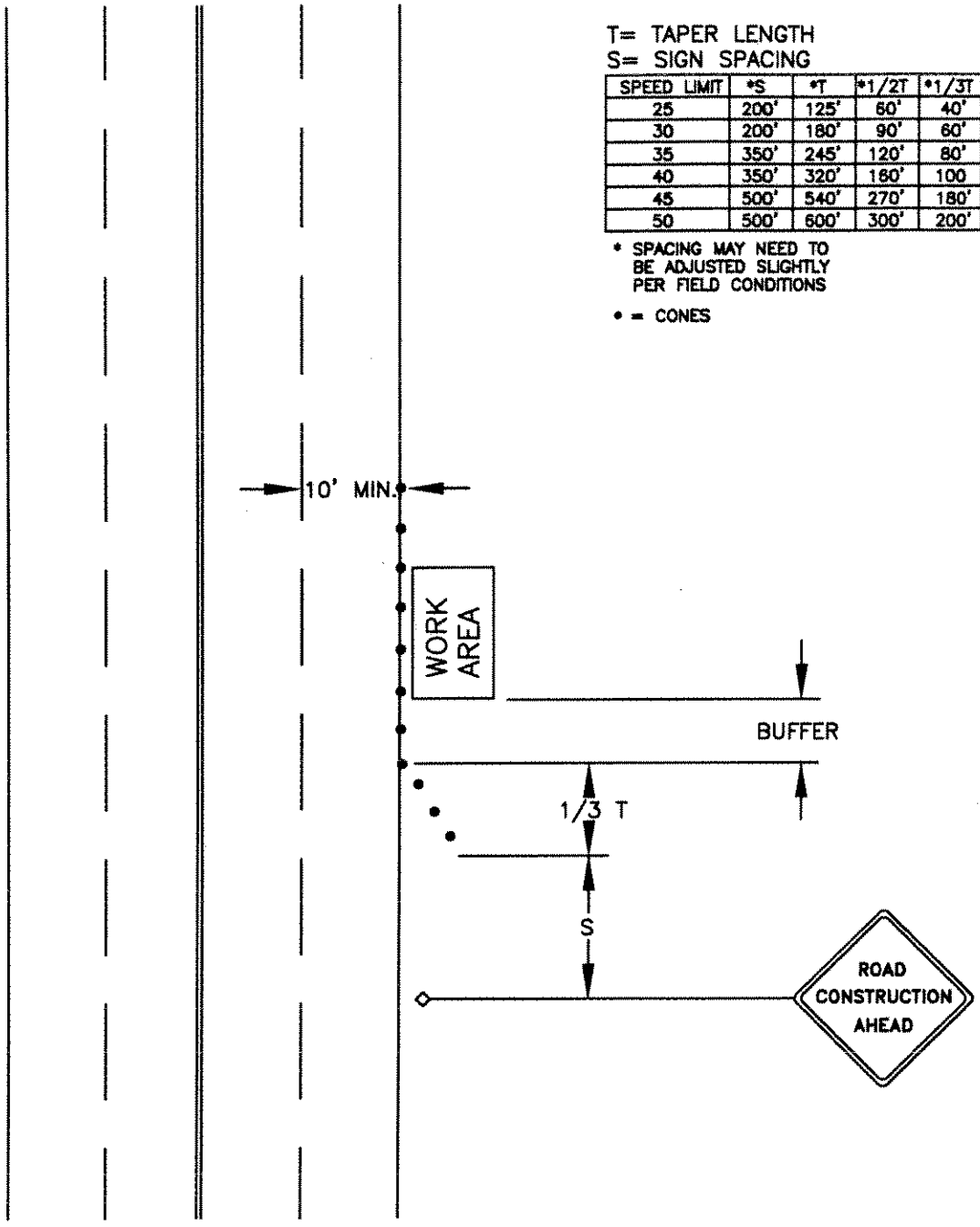
DWG. NO.
7-8

T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES



TRAFFIC TAPER
SHOULDER WORK

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

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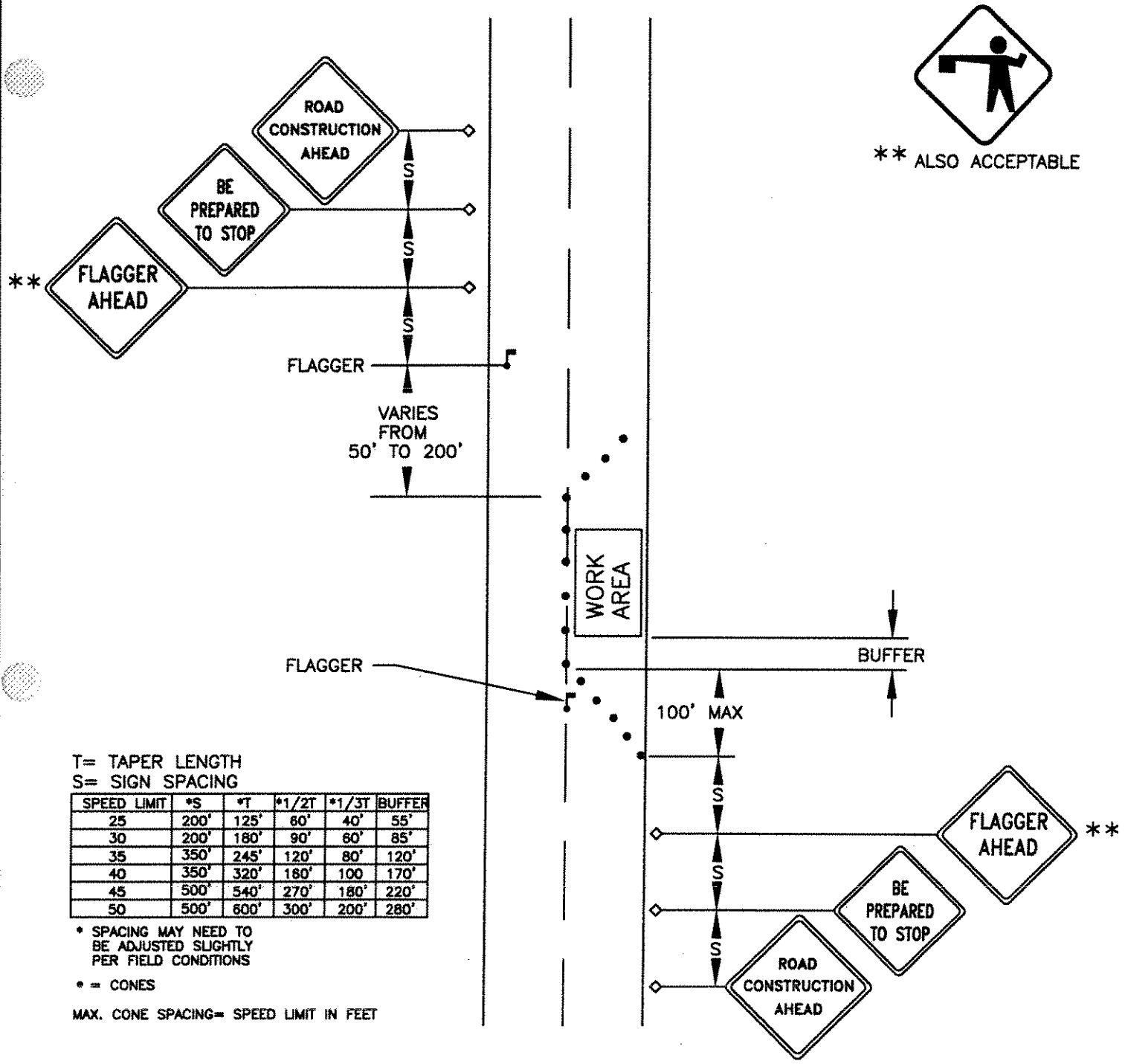
SCALE	NTS

DWG. NO. 8-1



T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	180'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES

MAX. CONE SPACING= SPEED LIMIT IN FEET

TYPICAL LANE CLOSURE
2 LANE ROAD

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

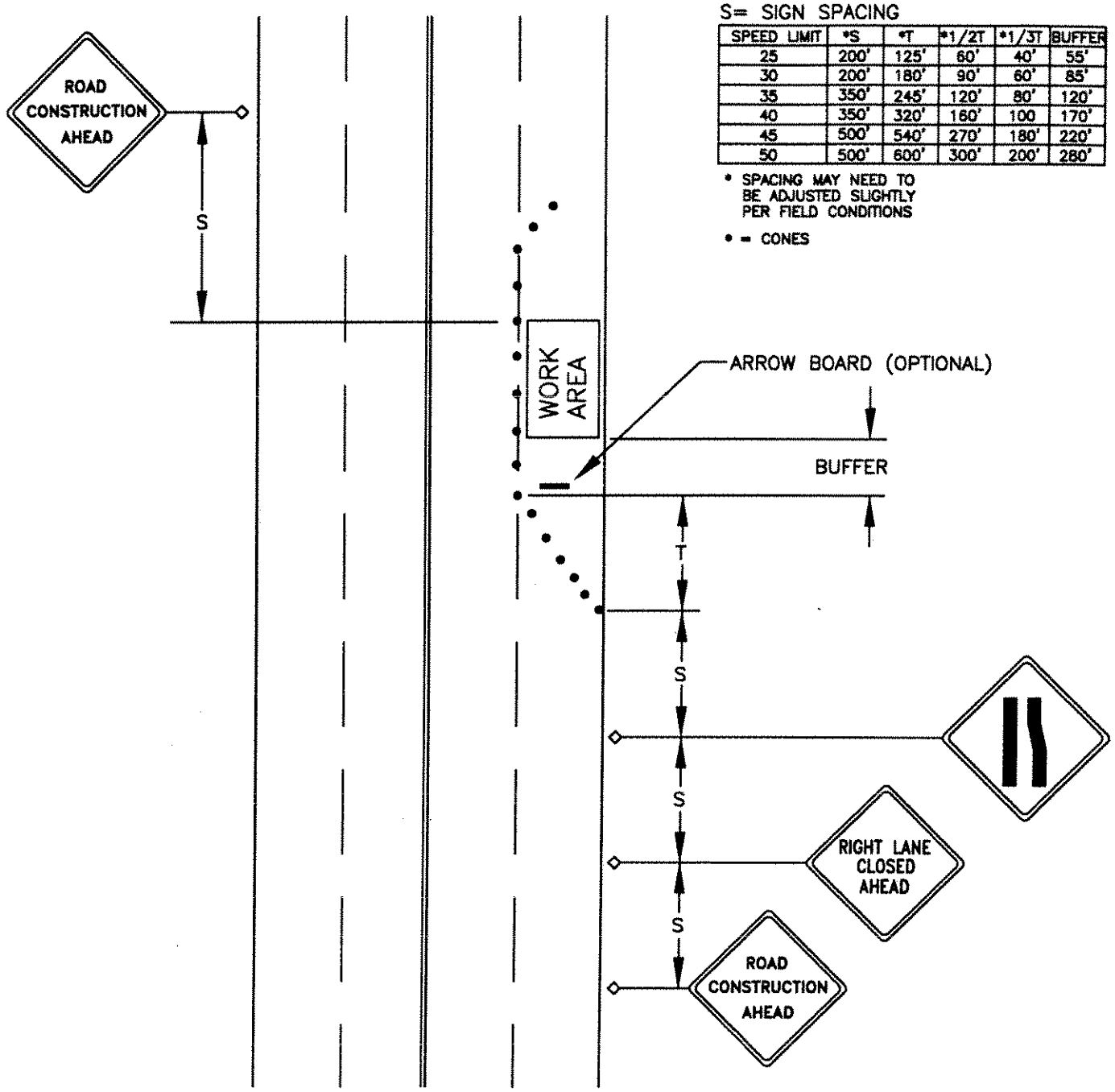
DWG. NO.
8-2

T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES



TYPICAL RIGHT LANE CLOSURE

4 LANE ROAD

(WITH OR WITHOUT 2-WAY TURN LANE)

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

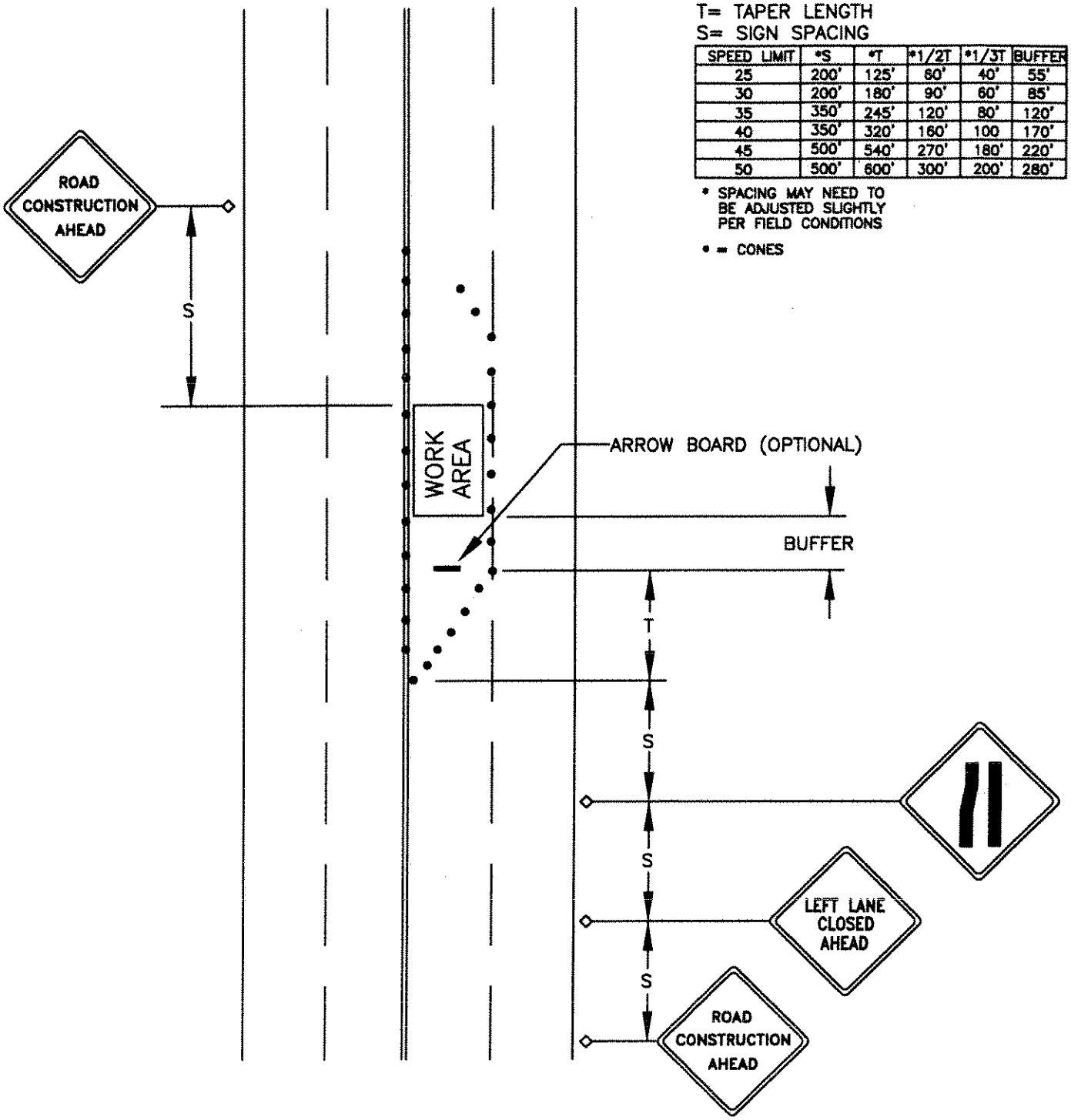
CITY OF SUNNYSIDE PUBLIC WORKS DEPARTMENT	DATE 5/05 DWN SRF REV CHK JLB SCALE NTS	DWG. NO. 8-3

T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	80'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES



TYPICAL LEFT LANE CLOSURE

4 LANE ROAD

(WITH OR WITHOUT 2-WAY TURN LANE)

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE

PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

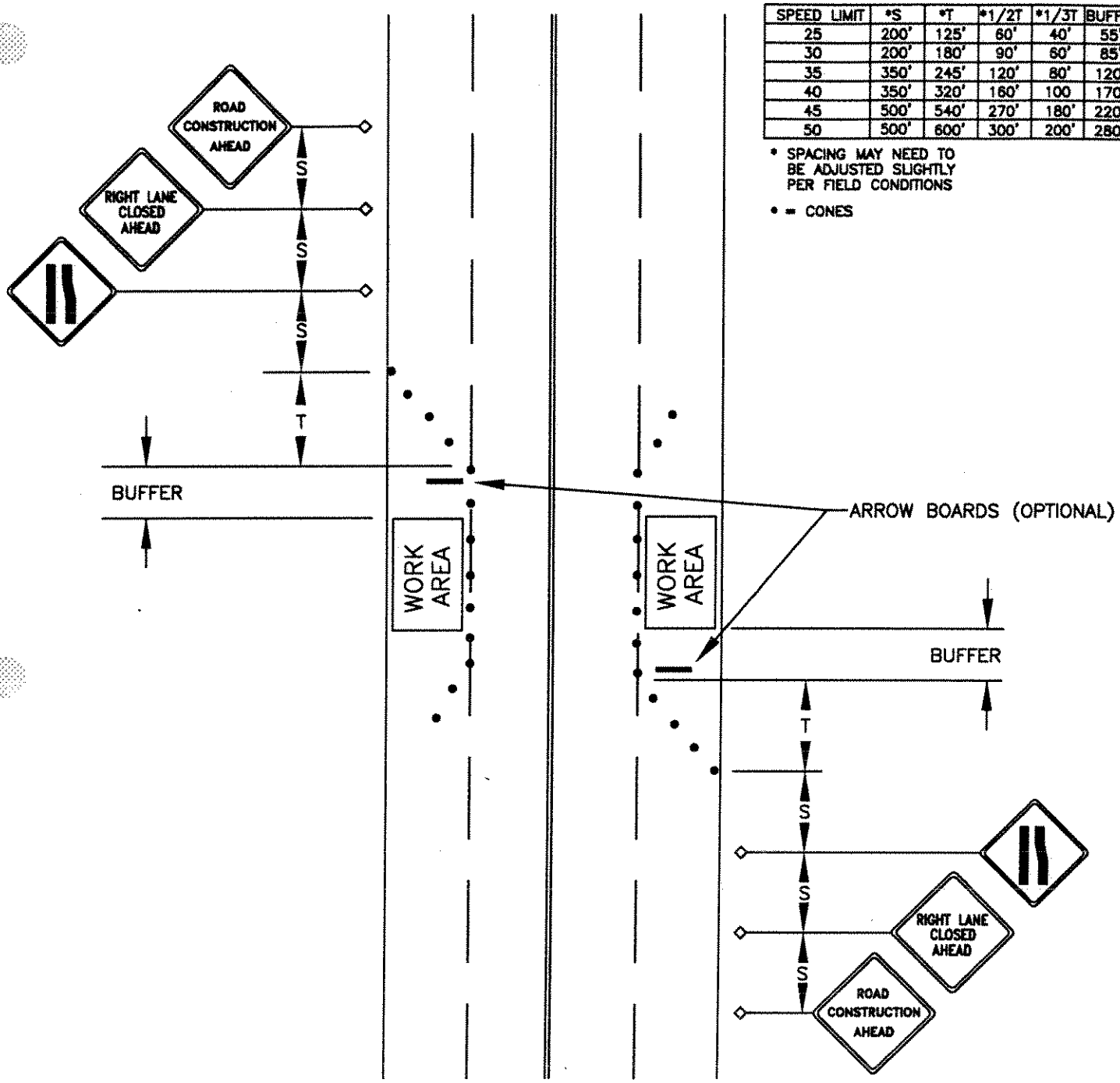
DWG. NO. 8-4

T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES



TYPICAL DOUBLE LANE CLOSURE
OUTSIDE–4 LANE ROAD

(WITH OR WITHOUT 2–WAY TURN LANE)

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

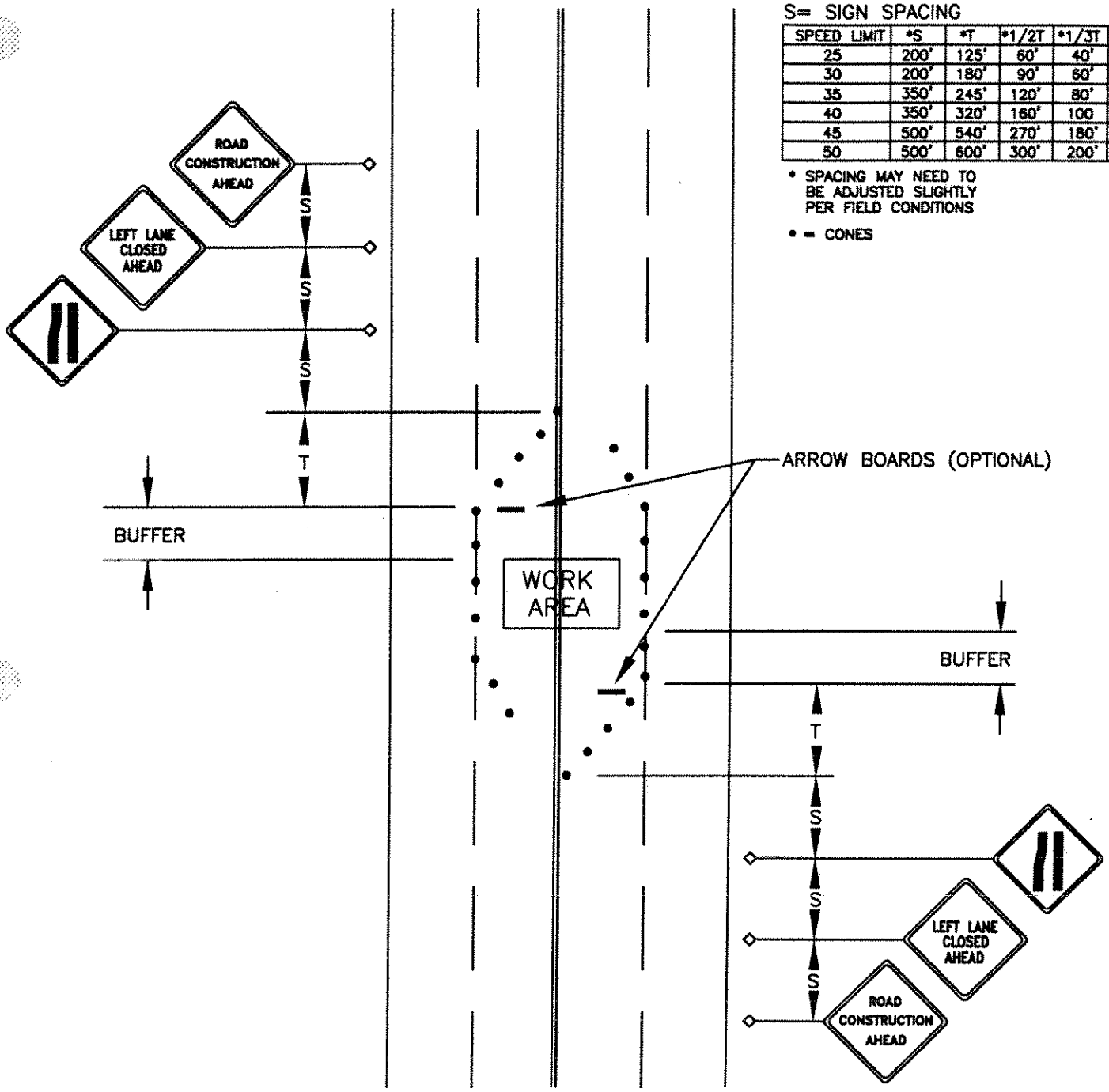
DWG. NO.
8–5

T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES



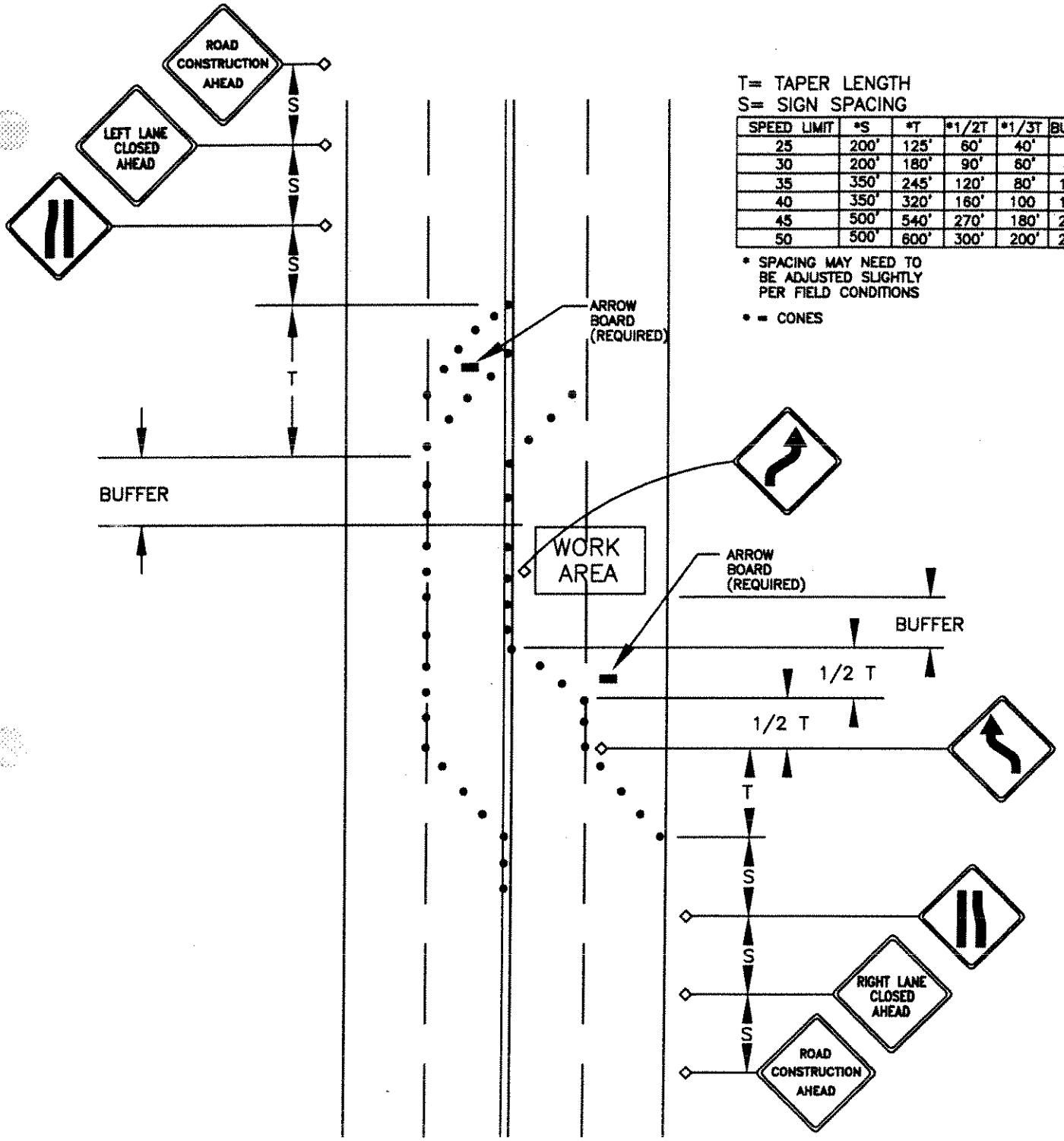
TYPICAL DOUBLE LANE CLOSURE
INSIDE–4 LANE ROAD

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
8–6



T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES

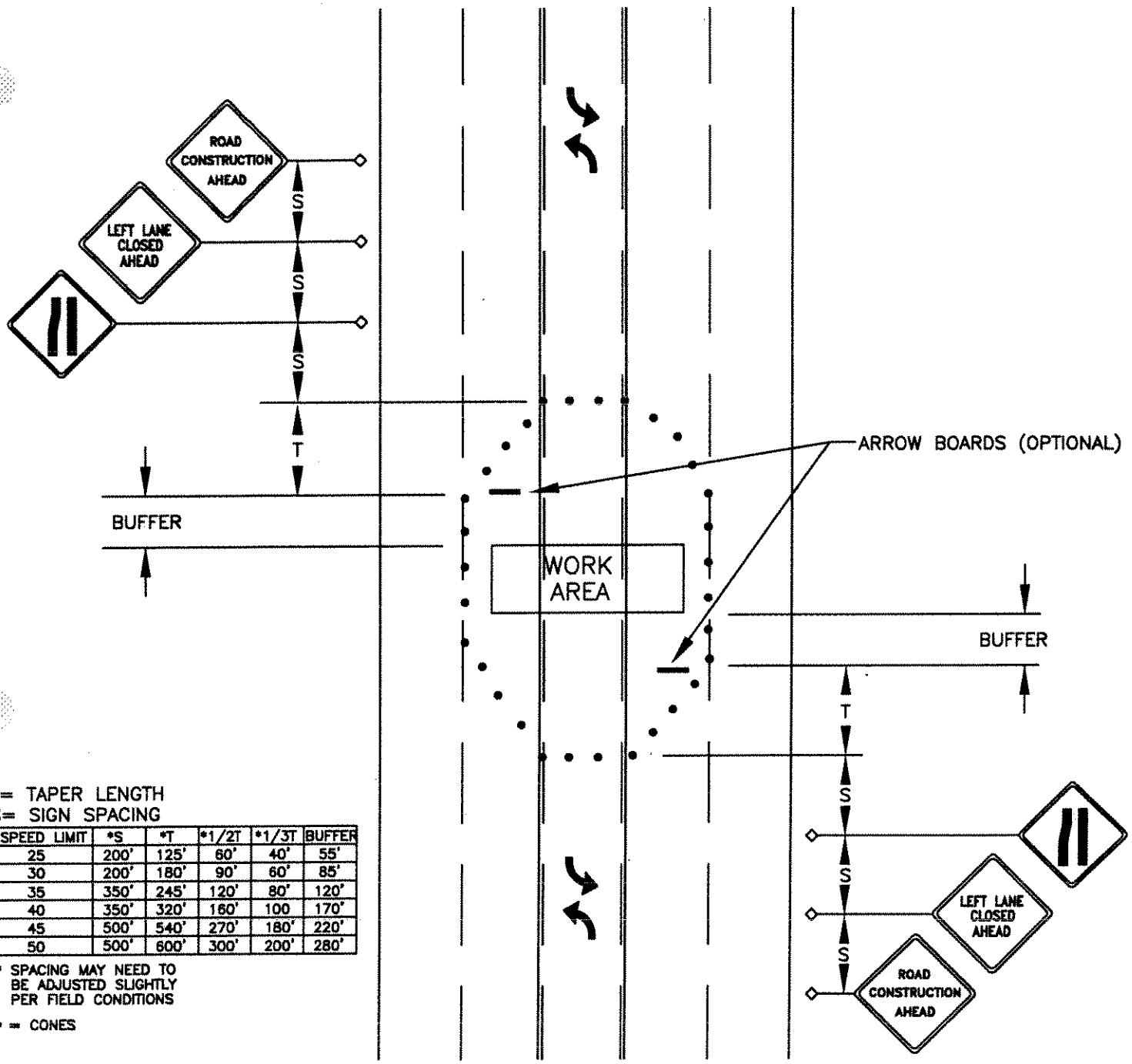
TYPICAL 2-LANE CLOSURE
4 LANE ROAD

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
8-7



T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES

TYPICAL 2-LANE CLOSURE INSIDE-5 LANE ROAD

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

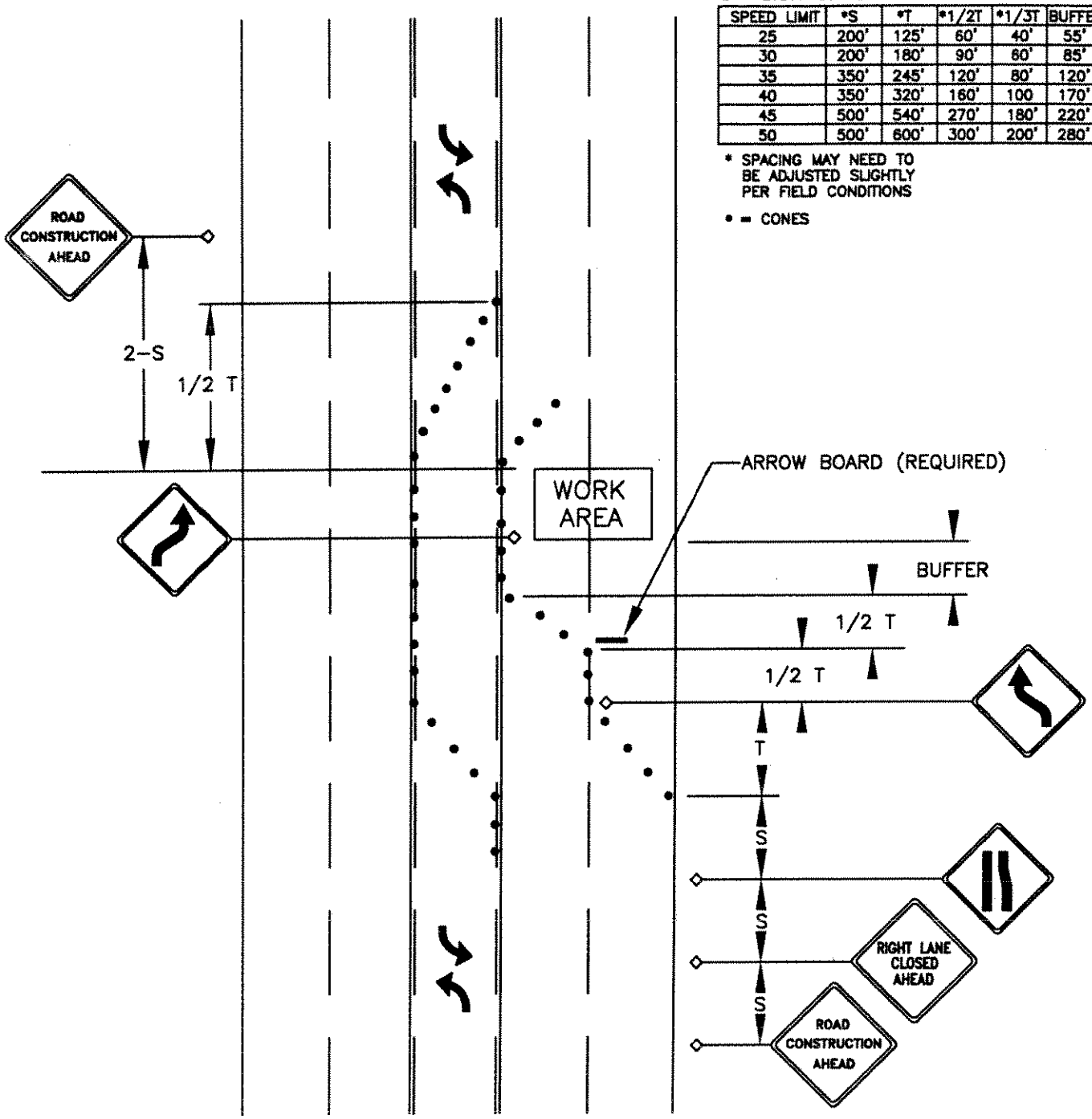
DWG. NO. 8-8

T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

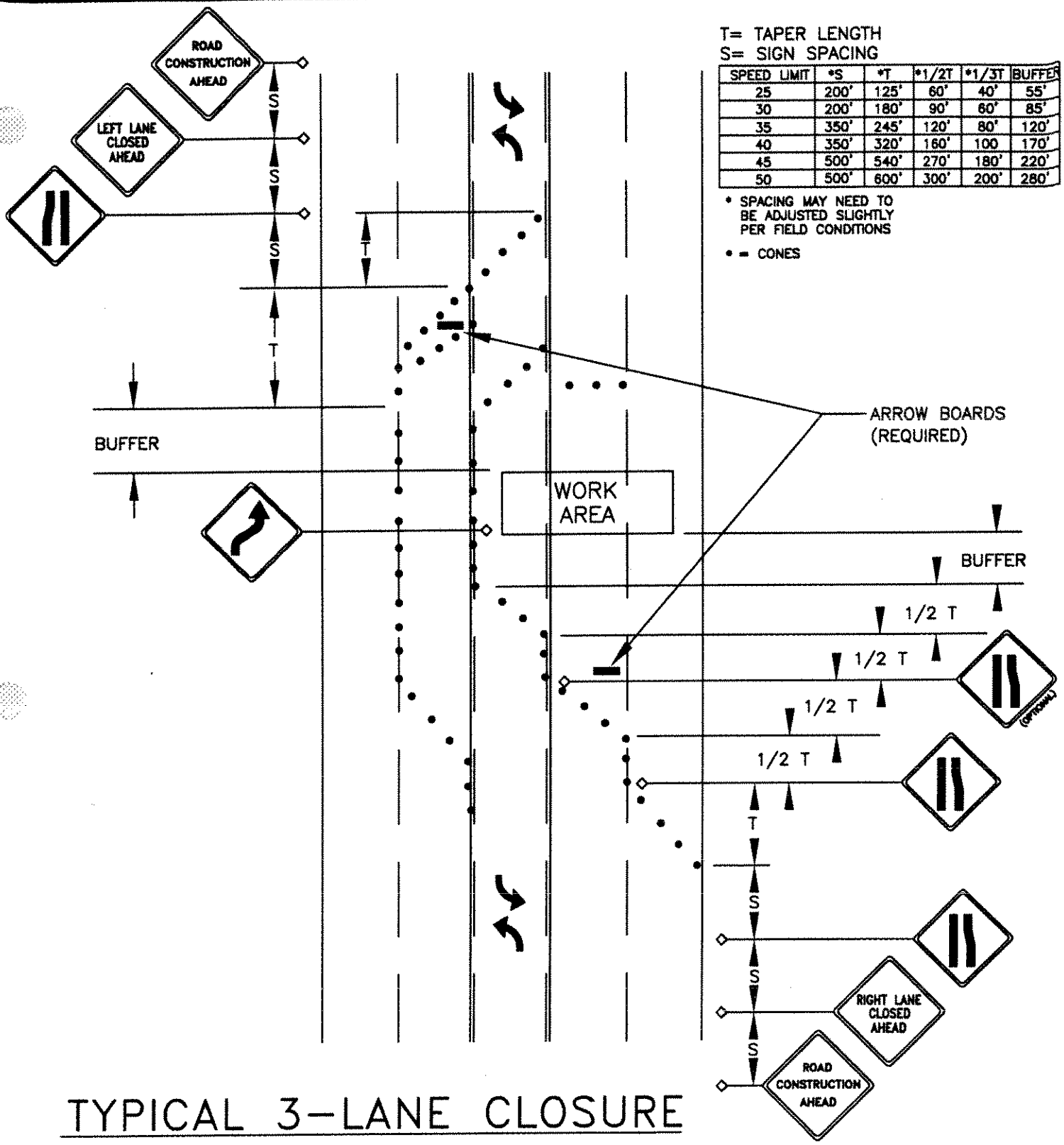
• = CONES



TYPICAL 2-LANE CLOSURE OUTSIDE-5 LANE ROAD

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE PUBLIC WORKS DEPARTMENT	DATE 5/05 DWN SRF REV CHK JLB SCALE NTS	DWG. NO.	8-9



T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES

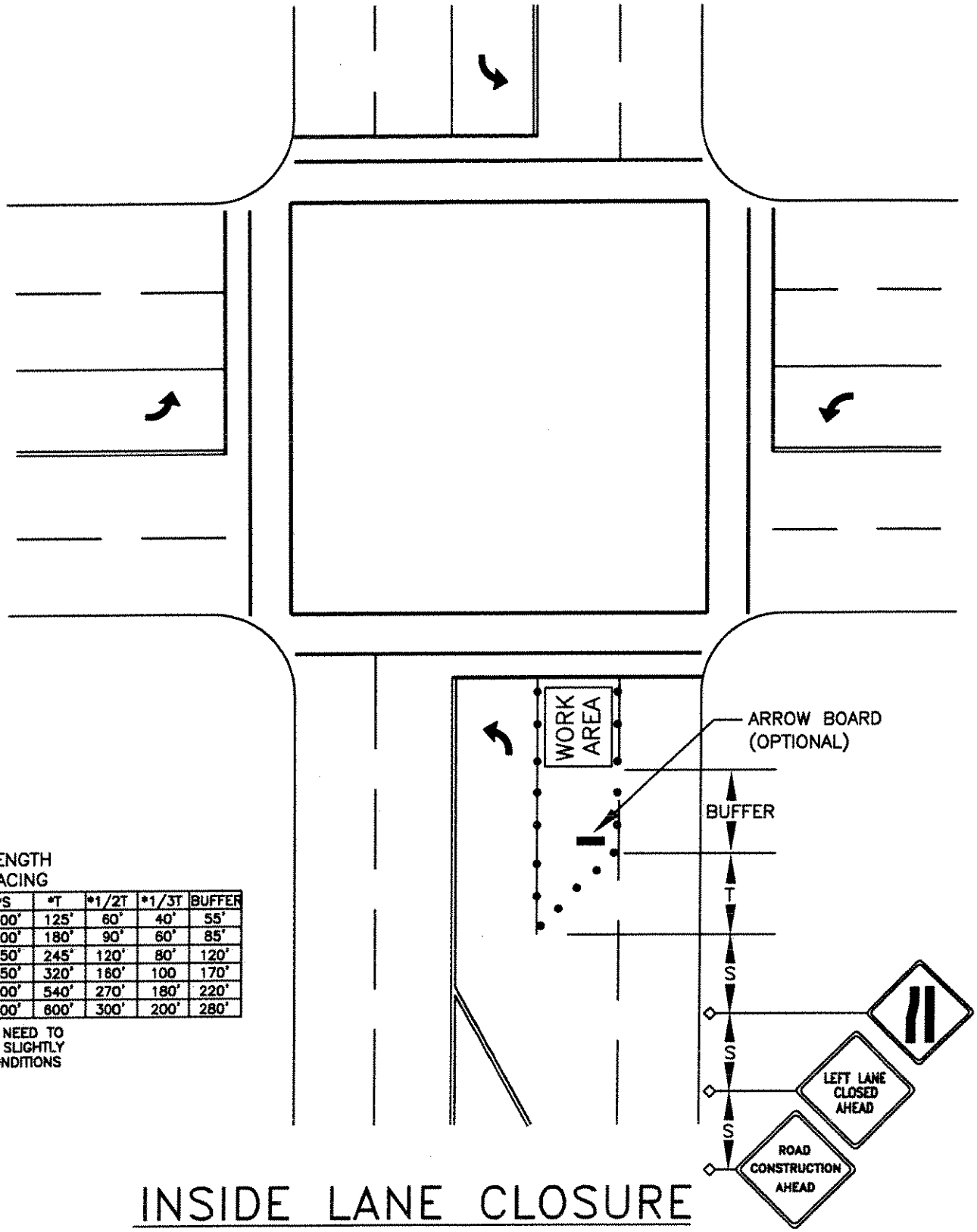
TYPICAL 3-LANE CLOSURE OUTSIDE-5 LANE ROAD

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
8-10



T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES

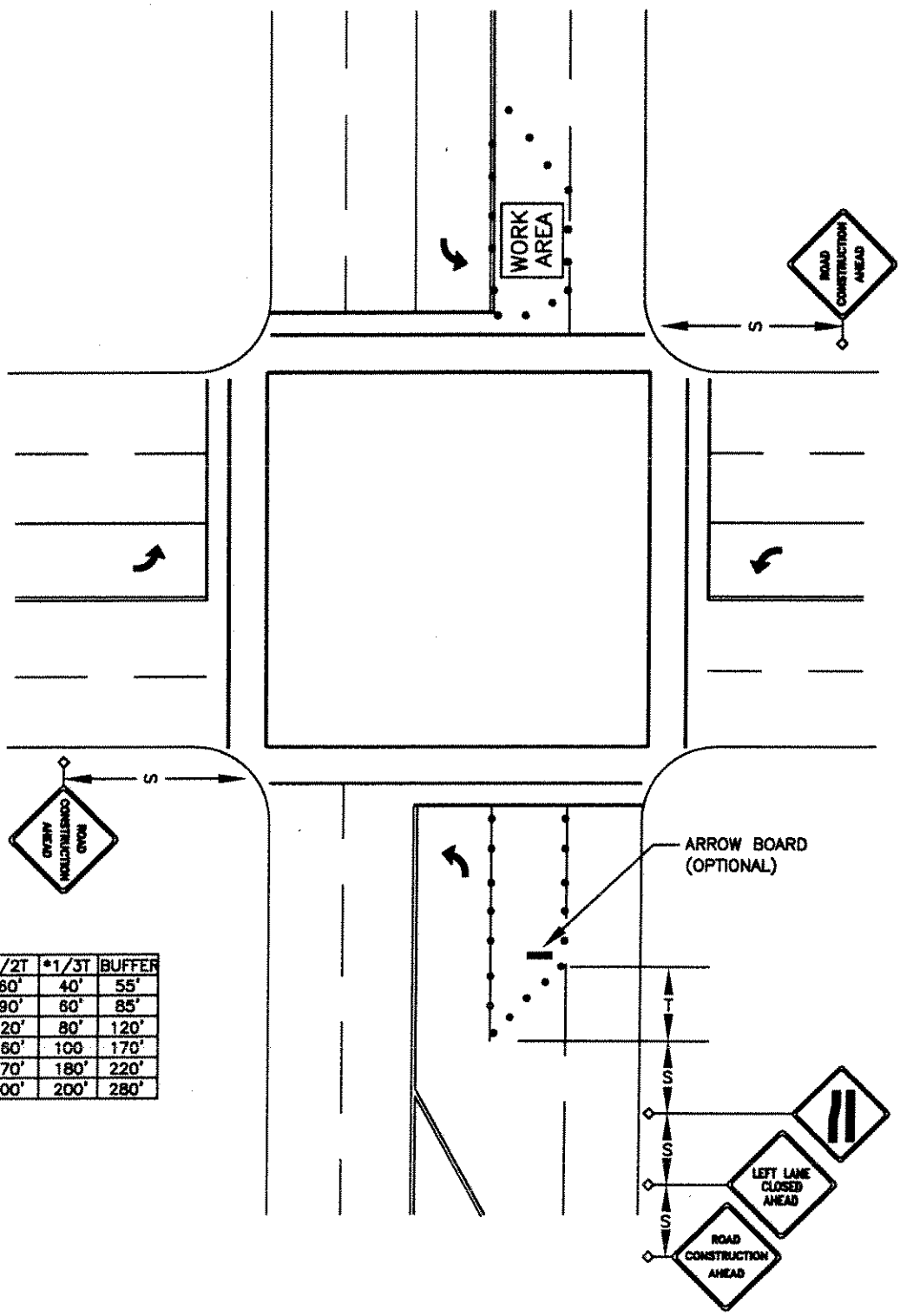
INSIDE LANE CLOSURE
NEAR SIDE OF INTERSECTION

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
8—11



T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES

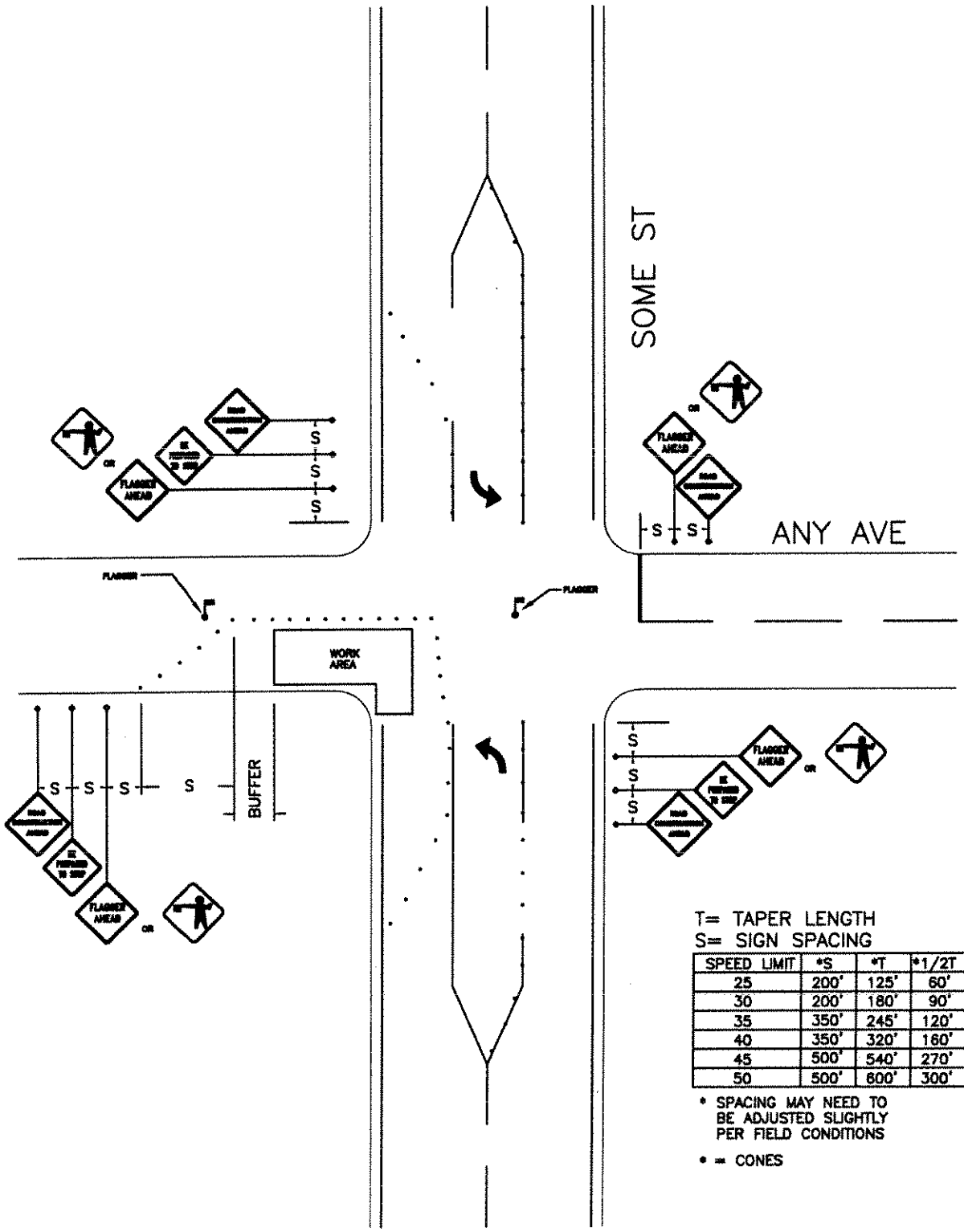
INSIDE LANE CLOSURE
FAR SIDE OF INTERSECTION

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
8-12



T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES

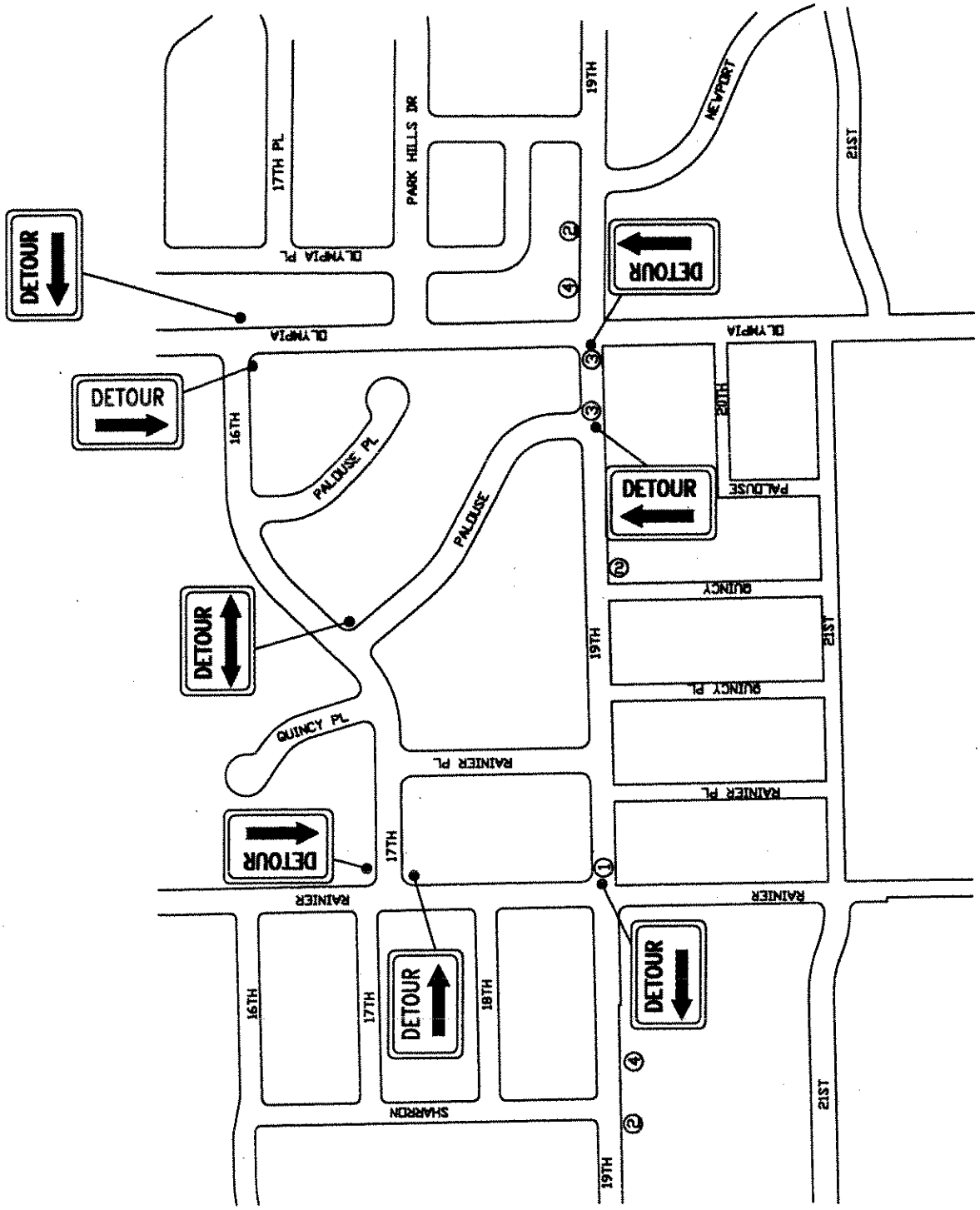
WORK AREA NEAR INTERSECTION

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
8-13



EXAMPLE OF ROAD CLOSURE AND DETOUR

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

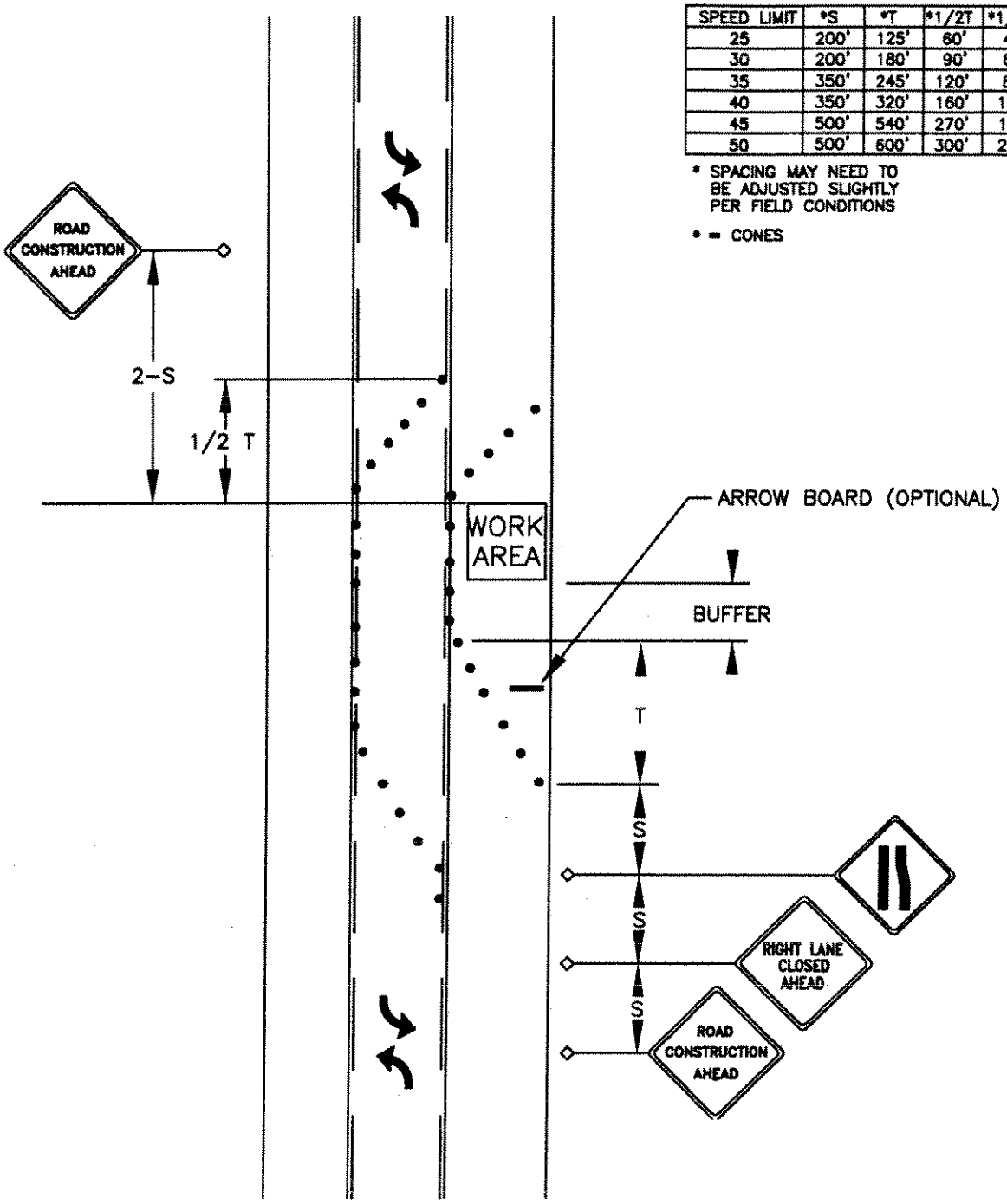
CITY OF SUNNYSIDE PUBLIC WORKS DEPARTMENT	DATE 5/05 DWN SRF REV CHK JLB SCALE NTS	DWG. NO. 8—14

T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES



TYPICAL 1-LANE CLOSURE
ONE SIDE-3 LANE ROAD

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

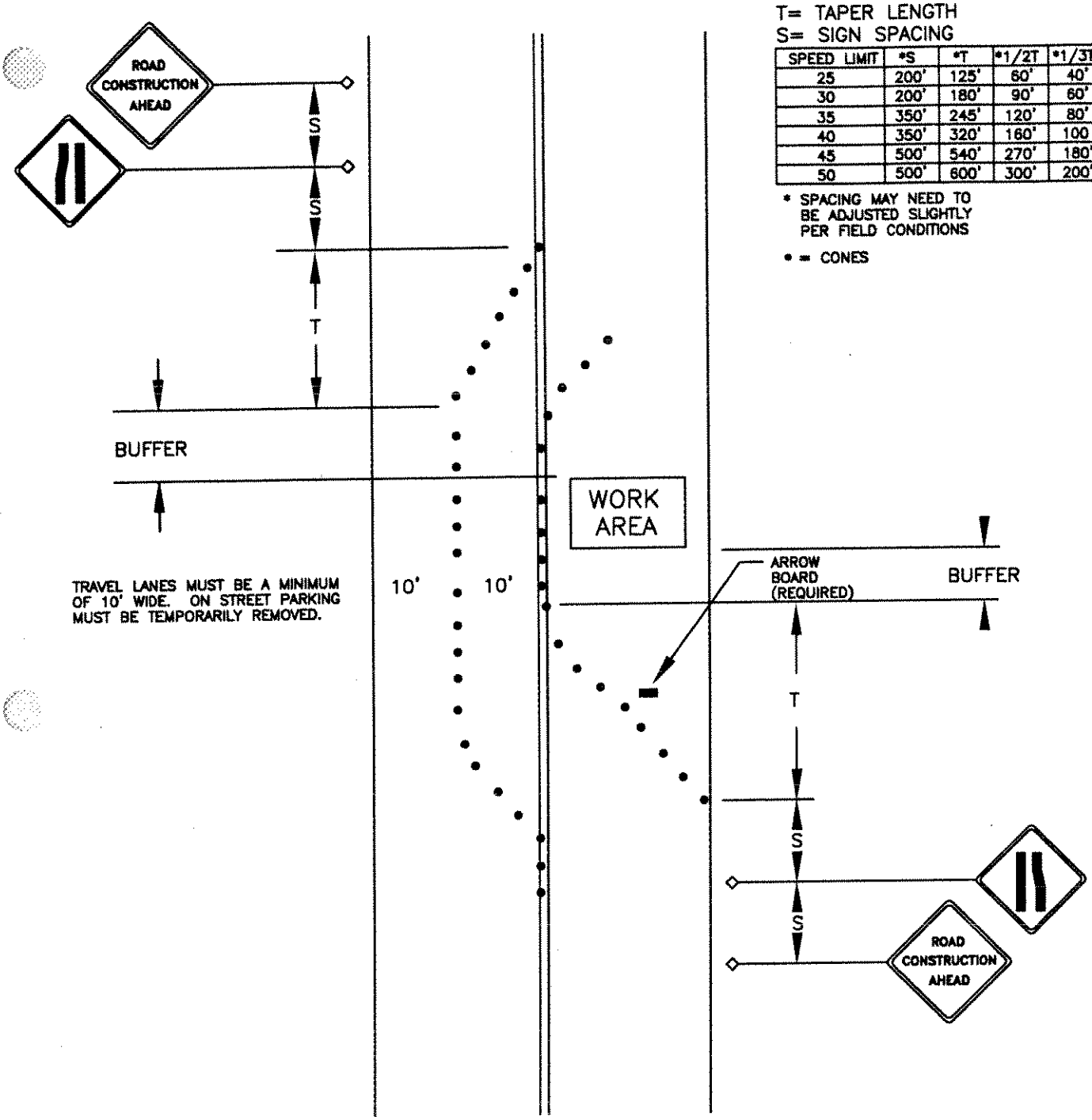
DWG. NO.
8-15

T= TAPER LENGTH
S= SIGN SPACING

SPEED LIMIT	*S	*T	*1/2T	*1/3T	BUFFER
25	200'	125'	60'	40'	55'
30	200'	180'	90'	60'	85'
35	350'	245'	120'	80'	120'
40	350'	320'	160'	100	170'
45	500'	540'	270'	180'	220'
50	500'	600'	300'	200'	280'

* SPACING MAY NEED TO BE ADJUSTED SLIGHTLY PER FIELD CONDITIONS

• = CONES



TYPICAL LANE CLOSURE
2 LANE ROAD 2-WAY TRAFFIC

*ALL DATA IS BASED ON THE MUTCD, SECTION VI FOR STANDARDS AND PROCEDURES.

CITY OF SUNNYSIDE
PUBLIC WORKS DEPARTMENT

DATE	5/05
DWN	SRF
REV	
CHK	JLB
SCALE	NTS

DWG. NO.
8-16