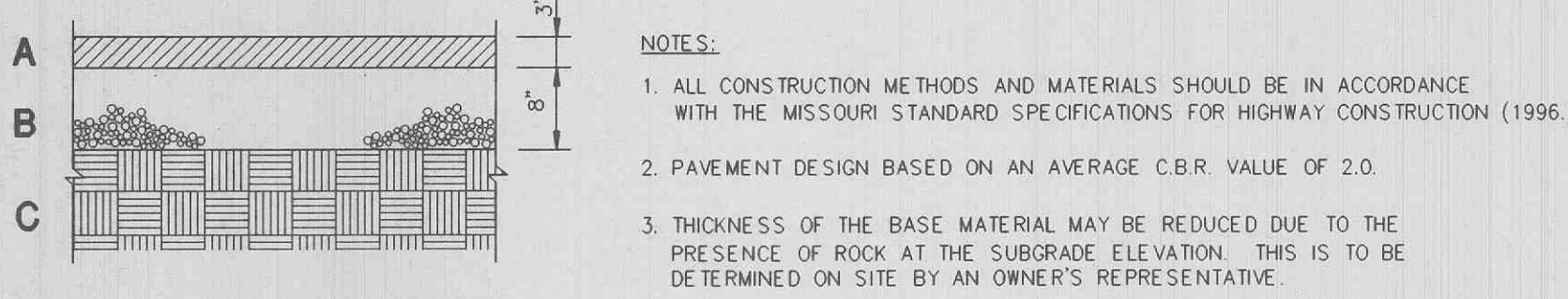


- A.** 3" INCHES ASPHALTIC CONCRETE TYPE "C" SURFACE COURSE. (TYPE "C" SECTION 403 PGS 148 TO 163 OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (MSSH 1996))
- B.** 8" INCHES OF AGGREGATE BASE (TYPE "1" SECTION 1007, PG 497 OF THE MSSH, 1996). WELL GRADED GRANULAR FILL PLACED IN THE UPPER 2" BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 100 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. WELL GRADED GRANULAR FILL THAT IS MORE THAN 2" BELOW PAVEMENT AREAS SHOULD BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
- C.** SUBGRADE SHOULD BE SCARIFIED TO A DEPTH OF ABOUT 6 INCHES, THE MOISTURE CONTENT OF THE SOIL ADJUSTED TO NEAR ITS OPTIMUM MOISTURE CONTENT, AND THE SUBGRADE COMPACTED AS FOLLOWS:  
THE UPPER 2" BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. SUBGRADE MORE THAN 2" BELOW PAVEMENT AREAS SHOULD BE COMPACTED TO 90% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.

EARTH FILL MATERIAL WITHIN THE UPPER 2" OF EARTH FILL BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. EARTH FILL MORE THAN 2" BELOW PLANNED PAVEMENTS SHOULD BE COMPACTED TO NOT LESS THAN 90% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.

ALL PLASTICITY FILL MATERIALS SHOULD GENERALLY BE WITHIN 3% WET OR DRY, OF THE OPTIMUM MOISTURE CONTENT OF THE MATERIAL AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST, ASTM D 698. HIGH PLASTICITY FILL MATERIALS SHOULD BE MOISTURE CONDITIONED TO A UNIFORM MOISTURE CONTENT THAT IS 1 TO 4 PERCENT WET OF THE OPTIMUM MOISTURE CONTENT PRIOR TO COMPACTION.

CONTRACTOR SHALL REFER TO GEOTECHNICAL STUDY BY MIDWEST TESTING FOR DETAILS.



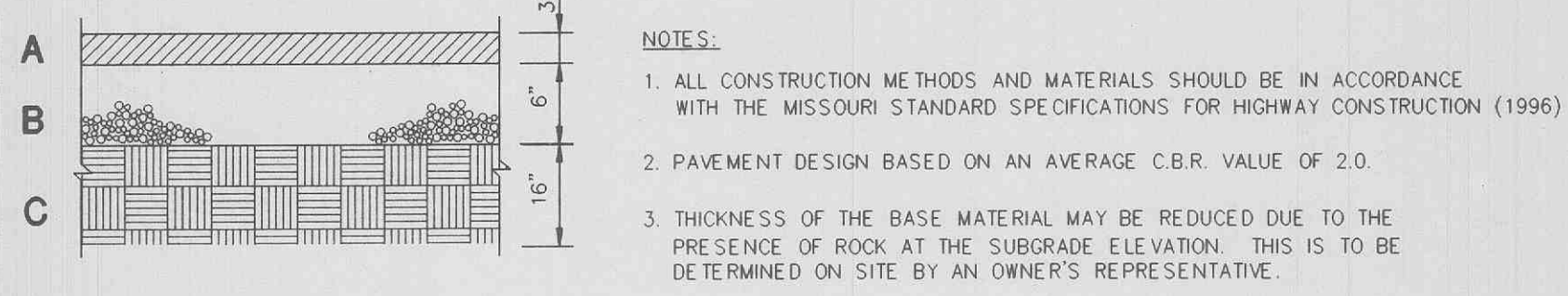
**STANDARD DUTY ASPHALTIC PAVEMENT**  
N.T.S. CS17

- A.** 3" INCHES ASPHALTIC CONCRETE TYPE "C" SURFACE COURSE. (TYPE "C" SECTION 403 PGS 148 TO 163 OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (MSSH 1996))
- B.** 6" INCHES OF AGGREGATE BASE (TYPE "1" SECTION 1007, PG 497 OF THE MSSH, 1996). WELL GRADED GRANULAR FILL PLACED IN THE UPPER 2" BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 100 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. WELL GRADED GRANULAR FILL THAT IS MORE THAN 2" BELOW PAVEMENT AREAS SHOULD BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
- C.** IT IS RECOMMENDED THAT THE 16" THICK LAYER OF LIME MODIFIED SOIL CONSIST OF MATERIAL PLACED IN MAXIMUM 8" LOOSE-LIFT THICKNESSES AND MECHANICALLY COMPACTED TO 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR (ASTM D 698) MAXIMUM DRY DENSITY. IT IS RECOMMENDED THAT CODE L OR CODE H BE INCORPORATED AT THE ESTIMATED RATE OF 9 PERCENT BY WEIGHT, SUBJECT TO ADJUSTMENT ACCORDING TO THE NEEDED MOISTURE REDUCTION. HYDRATED LIME OR QUICKLIME CAN BE APPLIED IN LIEU OF CODE L OR CODE H AT THE RATE OF 3 PERCENT BY WEIGHT, SUBJECT TO THE SAME ADJUSTMENTS FOR THE NEEDED MOISTURE REDUCTION.

EARTH FILL MATERIAL WITHIN THE UPPER 2" OF EARTH FILL BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. EARTH FILL MORE THAN 2" BELOW PLANNED PAVEMENTS SHOULD BE COMPACTED TO NOT LESS THAN 90% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.

ALL PLASTICITY FILL MATERIALS SHOULD GENERALLY BE WITHIN 3% WET OR DRY, OF THE OPTIMUM MOISTURE CONTENT OF THE MATERIAL AS DETERMINED BY THE STANDARD PROCTOR COMPACTION TEST, ASTM D 698. HIGH PLASTICITY FILL MATERIALS SHOULD BE MOISTURE CONDITIONED TO A UNIFORM MOISTURE CONTENT THAT IS 1 TO 4 PERCENT WET OF THE OPTIMUM MOISTURE CONTENT PRIOR TO COMPACTION.

CONTRACTOR SHALL REFER TO GEOTECHNICAL STUDY BY MIDWEST TESTING FOR DETAILS.



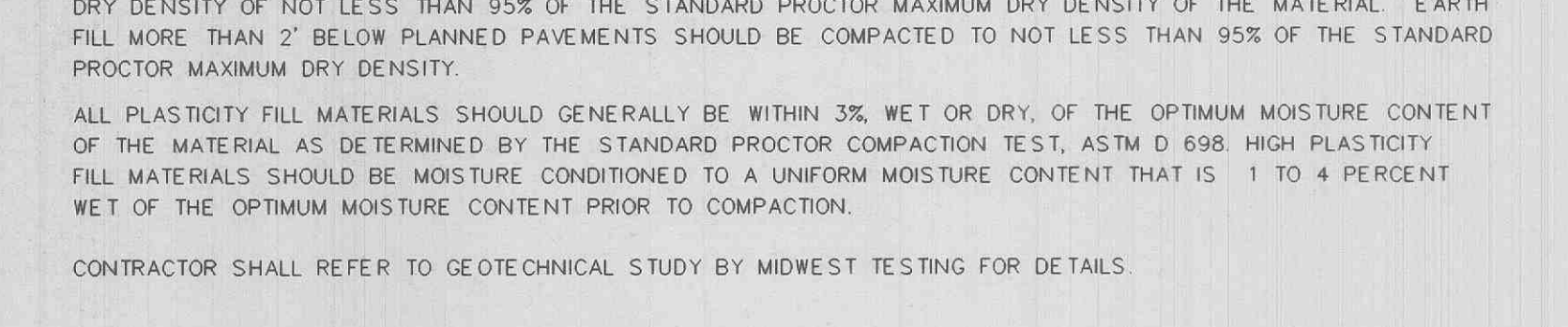
**STANDARD DUTY ASPHALTIC PAVEMENT**  
FOR AREAS TO RECEIVE LIME STABILIZATION  
N.T.S. CS17

- A.** 5" INCHES ASPHALTIC CONCRETE TYPE "C" SURFACE COURSE. (TYPE "C" SECTION 403 PGS 148 TO 163 OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (MSSH 1996)). THE ASPHALTIC CONCRETE SHOULD BE APPLIED AS 3" LAYER OF A BINDER COURSE FOLLOWED BY 2" LAYER OF A SURFACE COURSE OF EQUAL THICKNESS PER MSSH, 1996 SPECIFICATIONS.
- B.** 12" INCHES OF AGGREGATE BASE (TYPE "1" SECTION 1007, PG 497 OF THE MSSH, 1996). WELL GRADED GRANULAR FILL PLACED IN THE UPPER 2" BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 100 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. WELL GRADED GRANULAR FILL THAT IS MORE THAN 2" BELOW PAVEMENT AREAS SHOULD BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
- C.** SUBGRADE SHOULD BE SCARIFIED TO A DEPTH OF ABOUT 6 INCHES, THE MOISTURE CONTENT OF THE SOIL ADJUSTED TO NEAR ITS OPTIMUM MOISTURE CONTENT, AND THE SUBGRADE COMPACTED AS FOLLOWS:  
THE UPPER 2" BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. SUBGRADE MORE THAN 2" BELOW PAVEMENT AREAS SHOULD BE COMPACTED TO 90% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.

EARTH FILL MATERIAL WITHIN THE UPPER 2" OF EARTH FILL BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. EARTH FILL MORE THAN 2" BELOW PLANNED PAVEMENTS SHOULD BE COMPACTED TO NOT LESS THAN 90% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.

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CONTRACTOR SHALL REFER TO GEOTECHNICAL STUDY BY MIDWEST TESTING FOR DETAILS.



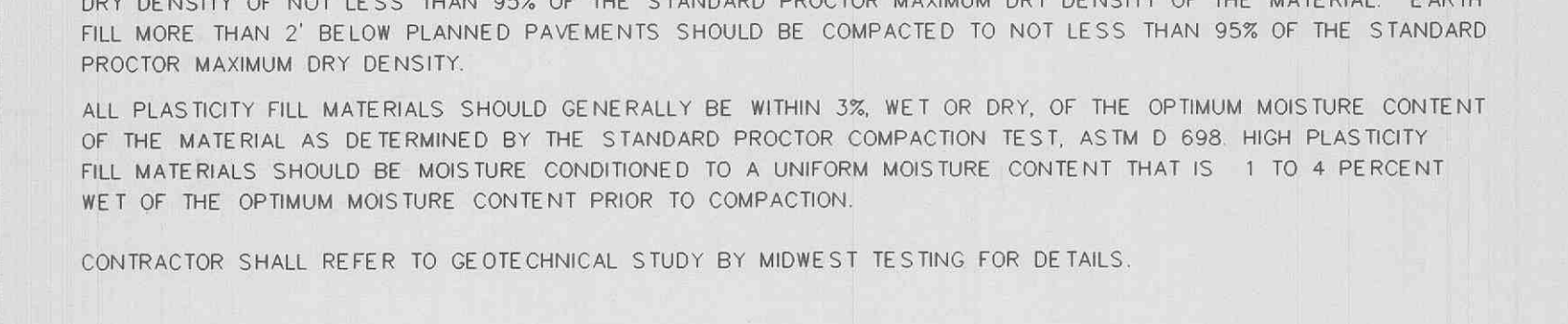
**HEAVY DUTY ASPHALTIC PAVEMENT**  
N.T.S. CS15

- A.** 4" INCHES ASPHALTIC CONCRETE TYPE "C" SURFACE COURSE. (TYPE "C" SECTION 403 PGS 148 TO 163 OF THE MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (MSSH 1996)). THE ASPHALTIC CONCRETE SHOULD BE APPLIED AS A BINDER COURSE FOLLOWED BY A SURFACE COURSE OF EQUAL THICKNESS PER MSSH, 1996 SPECIFICATIONS.
- B.** 10" INCHES OF AGGREGATE BASE (TYPE "1" SECTION 1007, PG 501 OF THE MSSH, 1996). WELL GRADED GRANULAR FILL PLACED IN THE UPPER 2" BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 100 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. WELL GRADED GRANULAR FILL THAT IS MORE THAN 2" BELOW PAVEMENT AREAS SHOULD BE COMPACTED TO NOT LESS THAN 95 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
- C.** IT IS RECOMMENDED THAT THE 16" THICK LAYER OF LIME MODIFIED SOIL CONSIST OF MATERIAL PLACED IN MAXIMUM 8" LOOSE-LIFT THICKNESSES AND MECHANICALLY COMPACTED TO 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR (ASTM D 698) MAXIMUM DRY DENSITY. IT IS RECOMMENDED THAT CODE L OR CODE H BE INCORPORATED AT THE ESTIMATED RATE OF 9 PERCENT BY WEIGHT, SUBJECT TO ADJUSTMENT ACCORDING TO THE NEEDED MOISTURE REDUCTION. HYDRATED LIME OR QUICKLIME CAN BE APPLIED IN LIEU OF CODE L OR CODE H AT THE RATE OF 3 PERCENT BY WEIGHT, SUBJECT TO THE SAME ADJUSTMENTS FOR THE NEEDED MOISTURE REDUCTION.

EARTH FILL MATERIAL WITHIN THE UPPER 2" OF EARTH FILL BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. EARTH FILL MORE THAN 2" BELOW PLANNED PAVEMENTS SHOULD BE COMPACTED TO NOT LESS THAN 90% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.

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CONTRACTOR SHALL REFER TO GEOTECHNICAL STUDY BY MIDWEST TESTING FOR DETAILS.



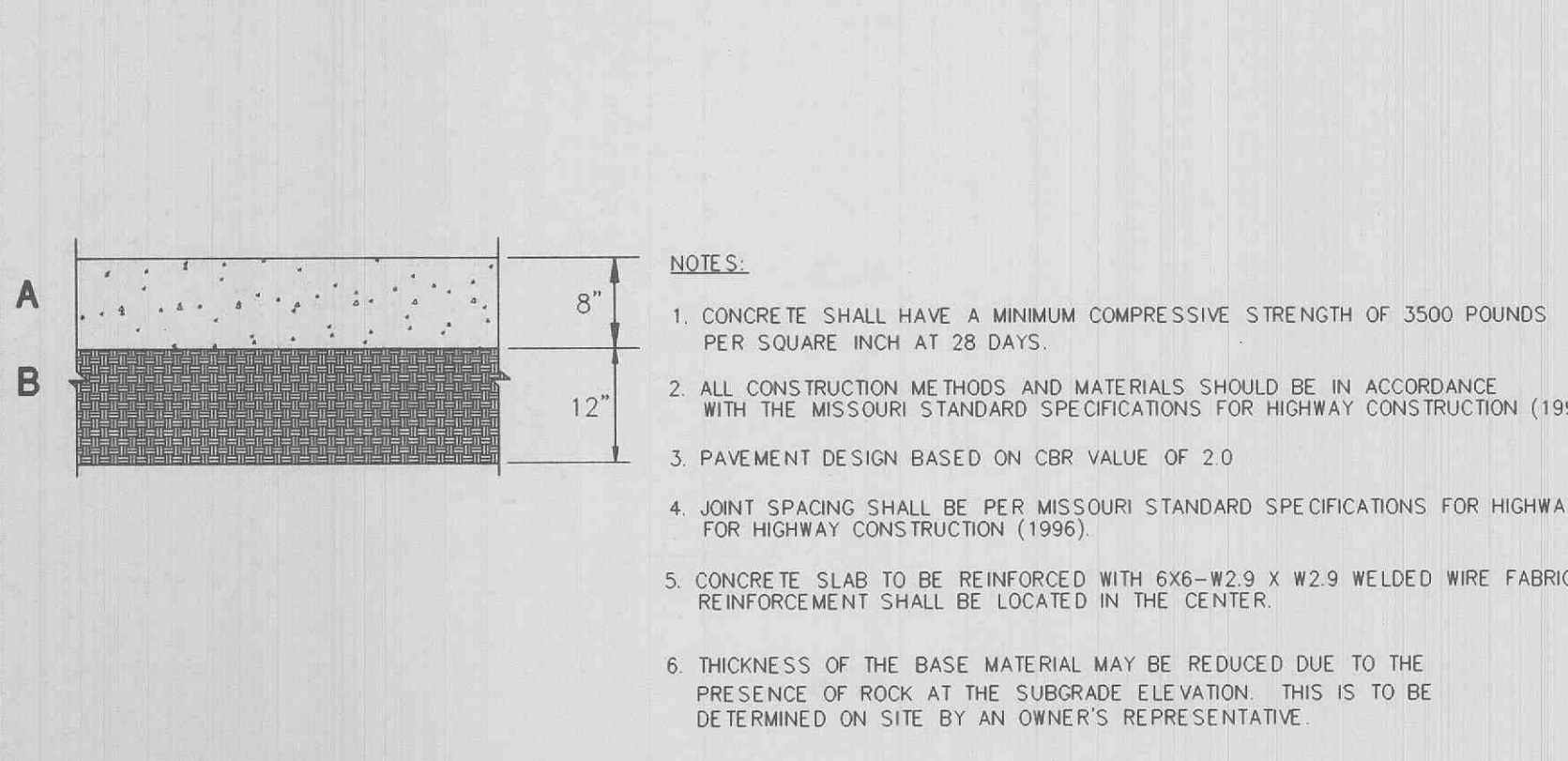
**HEAVY DUTY ASPHALTIC PAVEMENT**  
FOR AREAS TO RECEIVE LIME STABILIZATION  
N.T.S. CS15

- A.** 8" PORTLAND CEMENT CONCRETE. PORTLAND CEMENT MIX DESIGN & SLUMP REQUIREMENTS SHOULD BE IN ACCORDANCE WITH MISSOURI STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION (MSSH 1996).
- B.** SUBGRADE SHOULD BE PLACED IN MAXIMUM 8" LOOSE LIFT THICKNESSES, THE MOISTURE CONTENT OF THE SOIL ADJUSTED TO NEAR ITS OPTIMUM MOISTURE CONTENT, AND THE SUBGRADE COMPACTED AS FOLLOWS:  
THE SUBGRADE SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY.
- EARTH FILL MATERIAL WITHIN THE UPPER 2" OF EARTH FILL BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. EARTH FILL MORE THAN 2" BELOW PLANNED PAVEMENTS SHOULD BE COMPACTED TO NOT LESS THAN 90% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
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- CONTRACTOR SHALL REFER TO GEOTECHNICAL STUDY BY MIDWEST TESTING FOR DETAILS.

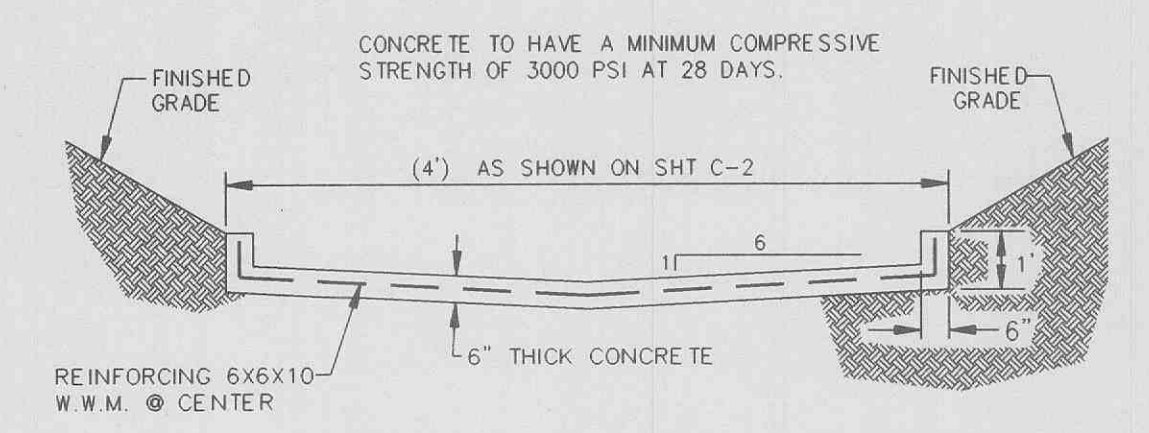
EARTH FILL MATERIAL WITHIN THE UPPER 2" OF EARTH FILL BENEATH ANY PAVEMENT AREAS SHOULD BE COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY OF THE MATERIAL. EARTH FILL MORE THAN 2" BELOW PLANNED PAVEMENTS SHOULD BE COMPACTED TO NOT LESS THAN 90% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.

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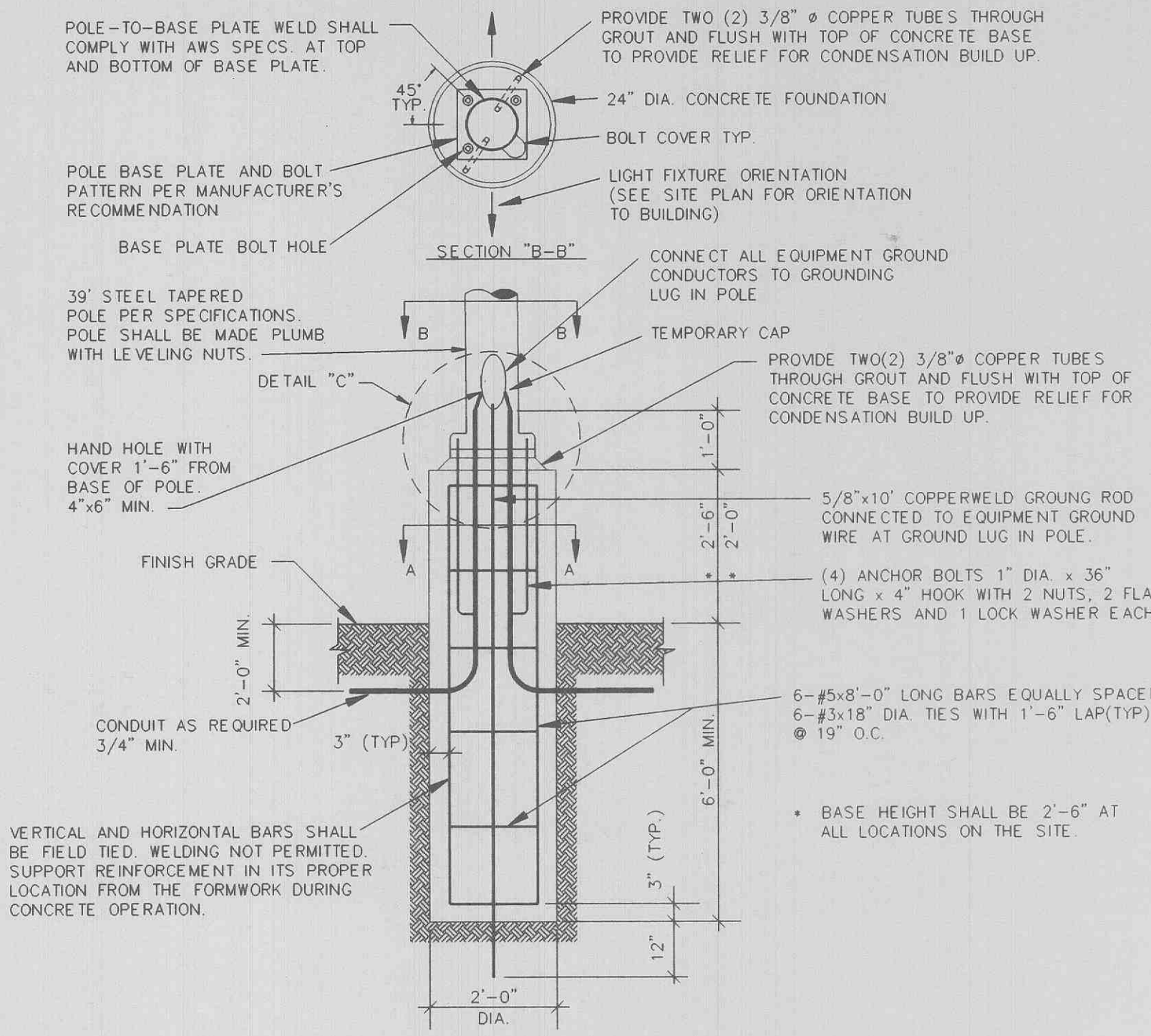
CONTRACTOR SHALL REFER TO GEOTECHNICAL STUDY BY MIDWEST TESTING FOR DETAILS.



**HEAVY DUTY CONCRETE PAVEMENT**  
N.T.S. CS16



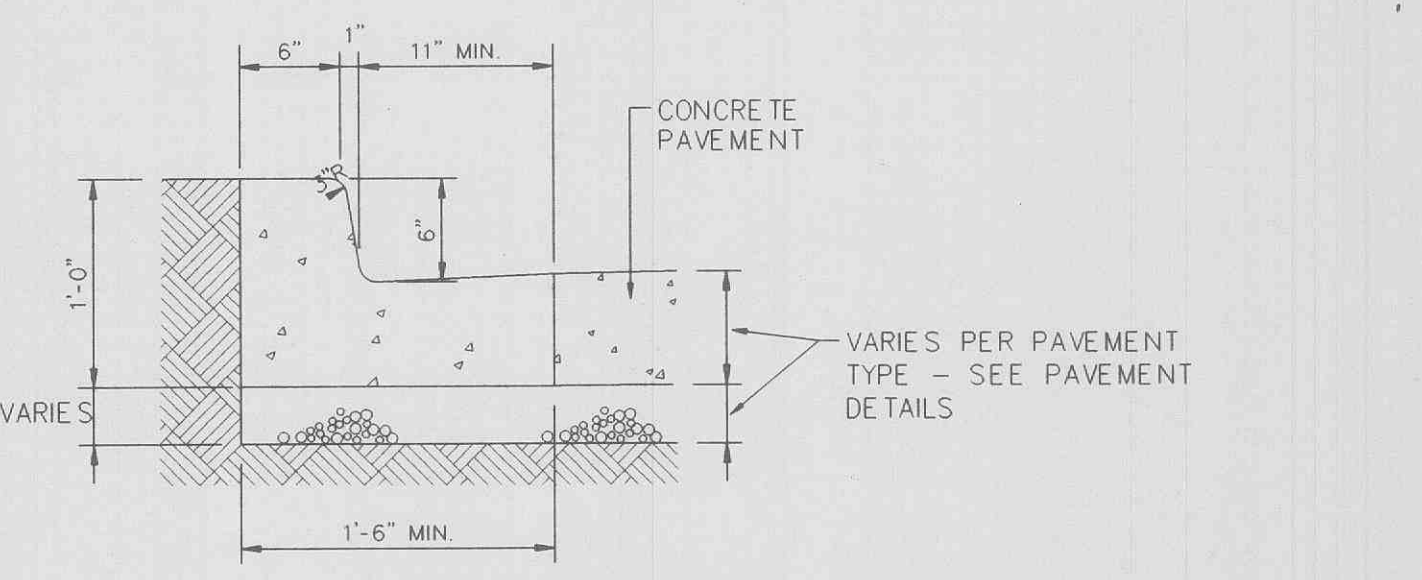
**CONCRETE SWALE DETAIL**  
N.T.S. CG16



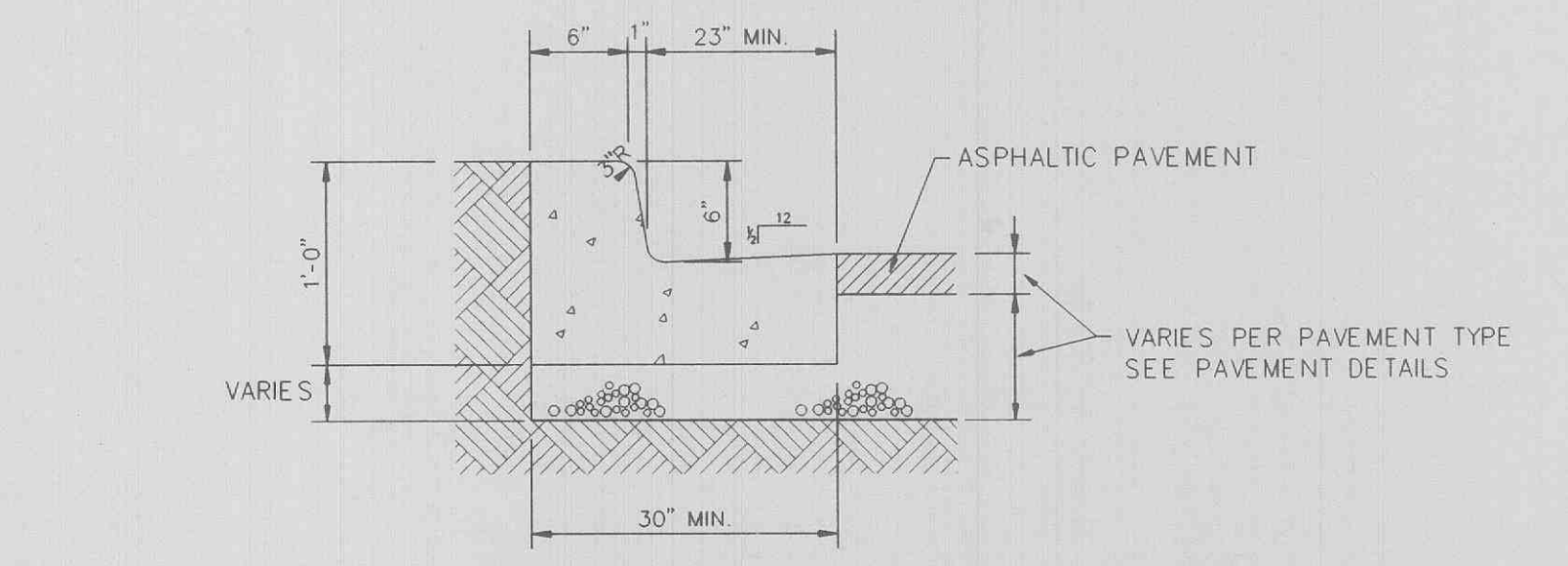
**NOTES:**

- 3500 PSI MIN. 28 DAY COMPRESSIVE STRENGTH CONCRETE WITH GRADE 60 REINFORCING STEEL.
- IF WATER IS PRESENT IN HOLE, REMOVE BEFORE POURING CONCRETE.
- FOUNDATION EXCAVATION SHALL BE BY 24" AUGER IN UNDISTURBED OR PROPERLY COMPACTED FILL PER SPECIFICATIONS.
- FOUNDATION SHALL HAVE A MINIMUM ALLOWABLE END BEARING OF 2000 PSF.
- FOUNDATION HAS BEEN DESIGNED FOR A COHESIVE SOIL BASED ON A MINIMUM COHESIVE VALUE OF 1000 PSF.
- FOUNDATION HAS BEEN DESIGNED FOR A GRANULAR SOIL BASED ON A MINIMUM LATERAL SOIL PRESSURE OF 1000 PSF UTILIZING AASHTO FIGURE 1.8.2C(4), OF EMBEDMENT OF POSTS WITH OVERTURNING LOADS.
- EXPOSED CONCRETE AND GROUT SHALL BE PAINTED TRAFFIC YELLOW.
- DETAIL FOR 39" POLE WITH MAX. FIXTURE EPA 4.8 50 FT.

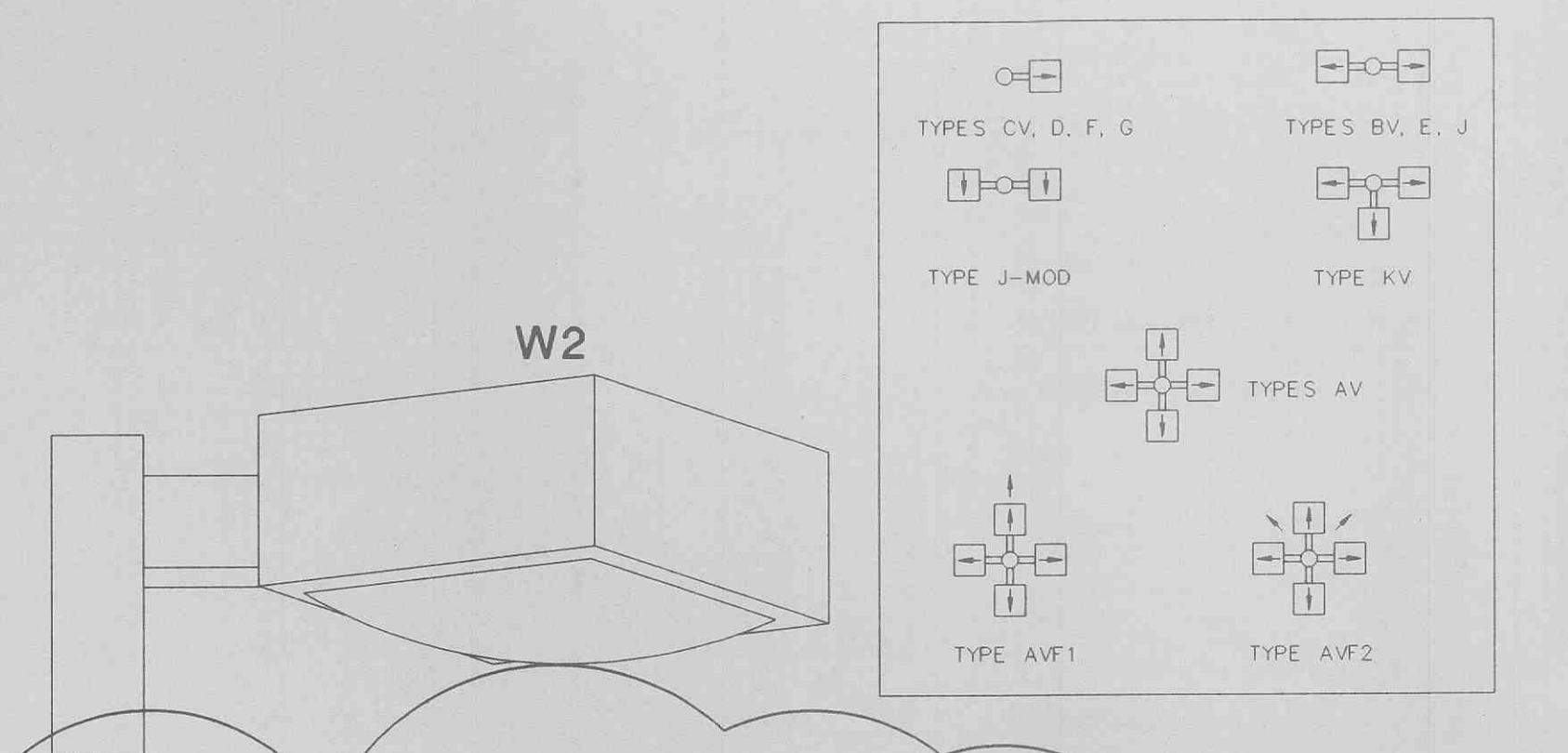
**TYPICAL LIGHTING POLE BASE**  
NO SCALE CS40



**TYPE 'A' INTEGRAL CONCRETE CURB AND GUTTER**  
N.T.S. CS39



**TYPE 'B' INTEGRAL CONCRETE CURB AND GUTTER**  
N.T.S. CS38



**ORDERING INFORMATION**

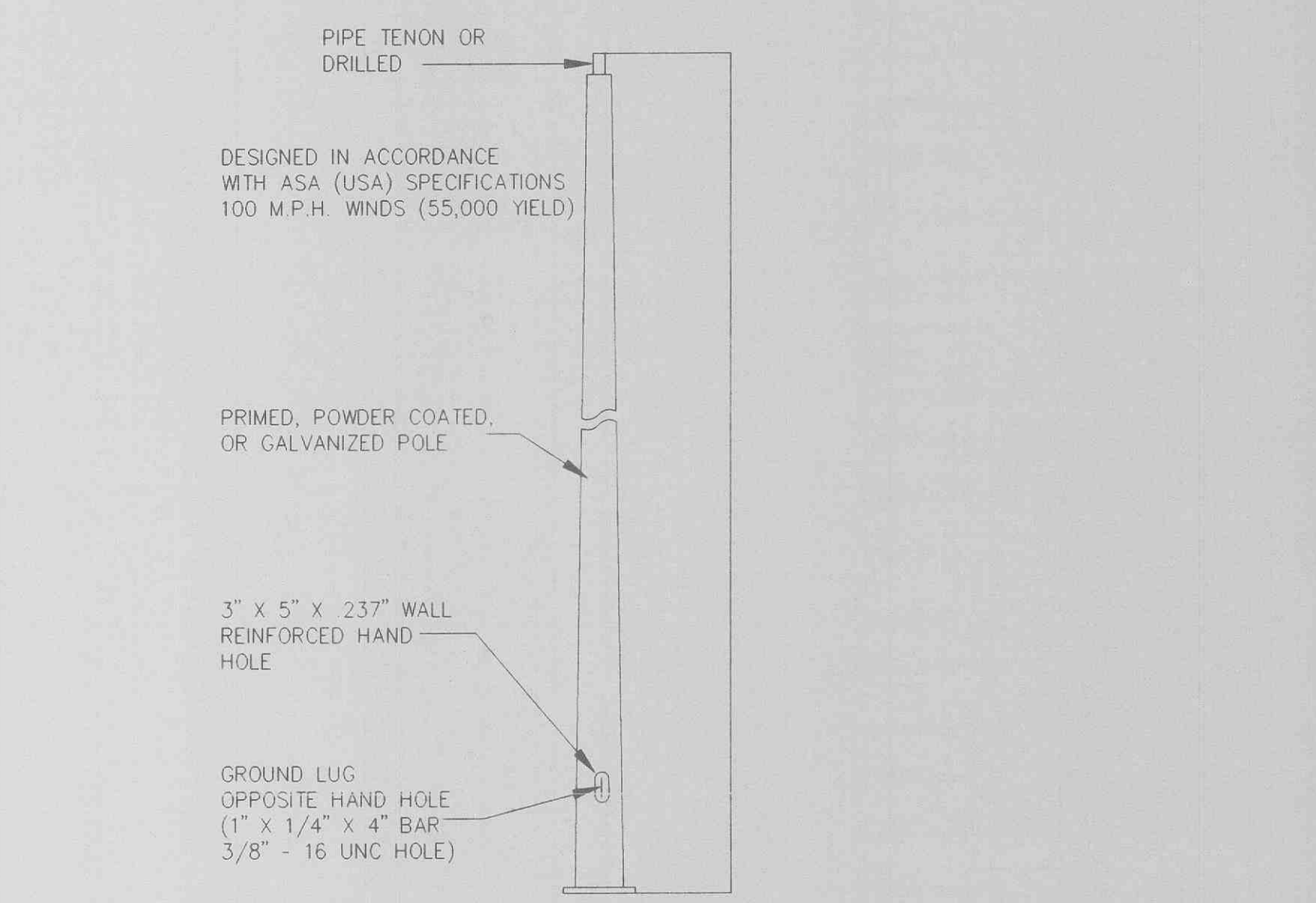
TYPE	QTY	CATALOG NUMBER	DESCRIPTION/LAMP
AV	16	W2-194VS-480-400MH-BLP	4-WAY (MS 400 BU)
AV-F1	1	W2-194VS-480-400MH-BLP (1)SFC-67NH-480H	SINGLE FLOODS(MS 400 HOR)
AV-F2	3	W2-194VS-480-400MH-BLP (2)SFC-67NH-480H	4-WAY (MS 1000 BU) TWIN FLOOD (MS 400 HOR)
KV		W2-193VS-480-400MH-BLP	3-WAY (MS 400 BU)
BV		W2-192VS-480-400MH-BLP	2-WAY (MS 400 BU)
CV		W2-191VS-480-400MH-BLP	1-WAY (MS 400 BU)
D		W2-191FM-480-400MH-BLP	1-WAY (MS 400 HOR)
E		W2-1921-480-400MH-BLP	2-WAY (MS 400 HOR)
F		W2-1911-480-400MH-BLP	1-WAY (MS 400 HOR)
G		W2-1913-480-400MH-BLP	1-WAY (MS 400 HOR)
J		W2-1923-480-400MH-BLP	2-WAY (MS 400 HOR)
J-MOD	4	W2-1923-480-400MH-BLP	2-WAY (MS 400 HOR)
		GFCI FEETSTON	TYPE
		WF12-SP-HSP-400MH-480-BLP	
		WCD-TRS-39-11-DM-BLP	39" ROUND TAPERED STEEL POLE
		WCD-TRS-39-11-MO80-BLP	POLE W/SINGLE BULLHORN
		WCD-TRS-39-11-2MO80-BLP	POLE W/DOUBLE BULLHORN
		D1016	TOUCH UP KIT
		MS-400 HOR	HORIZ. LAMP
		MS 400 BU	VERTICAL LAMP

NOTE: CONTRACTOR SHALL VERIFY QUANTITIES WITH SITE PLAN PRIOR TO ORDERING.

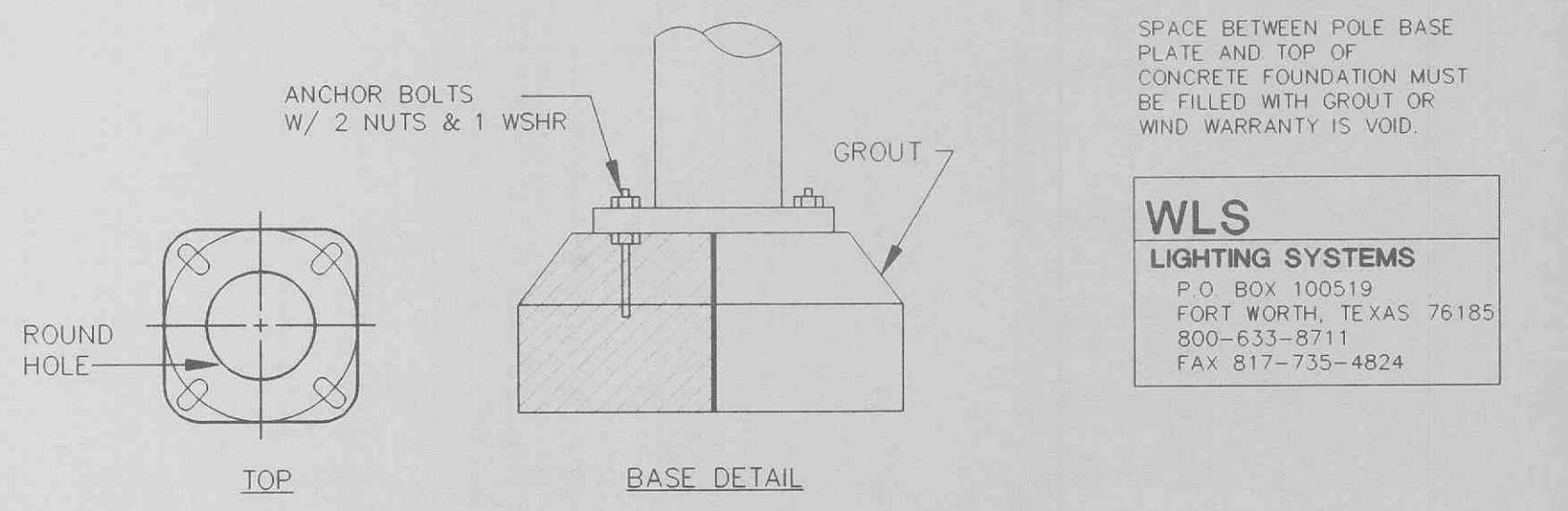
GARCO LIGHTING  
2651 ALVARADO ST  
SAN LEANDRO, CA 94577  
800-227-0758  
(IN CALIFORNIA 415 357-6900)

ALL CATALOG NUMBERS SHOWN ARE 480 VOLT. OTHER VOLTAGES ARE AVAILABLE.  
PLEASE SPECIFY (120, 240, 208, 277V)  
GARCO OPTICAL SYSTEMS ARE PROTECTED BY U.S. PATENT #3746854

**W-2 SITE LIGHTING SCHEDULE**  
(WAL-MART PREMISE DEMISE AREA)



**ROUND TAPERED STEEL POLE**



TYPE	QTY	POLE	QTY	FIXTURE	QTY	WATTS/ASSEMBLY
A	9	40"	9	WLS-V5-1000-SMV	9	3240
B	5	40"	5	WLS-V5-1000-SMV	5	2160
C	5	40"	5	WLS-V5-1000-SMV	5	1080
D	1		1	WLSF-WB-1000-MH	1	1080

NOTE: ALL POLES TO BE MOUNTED ON CONCRETE PEDESTALS 3' ABOVE GRADE, FOR A TOTAL MOUNTING HEIGHT OF 43'.

NOTE: CONTRACTOR SHALL VERIFY QUANTITIES WITH SITE PLAN PRIOR TO ORDERING.

**LIGHTING SCHEDULE**

CATALOG NO.	A	GAUGE	SHAFT SIZE	BASE PLATE	BOLT SIZE	ANCHOR BOLT	WEIGHT (LBS.)	MAX EPA
40-0-9T	40"	11	9.0" TO 3.5"	12.38" SQ	1/2 1/2"	1" X 40"	392	17

ADD GA/ AFTER CATALOG NO. IF GALVANIZED POLE IS DESIRED.  
DENOTE TENON SIZE (O.D. ONLY) IF OTHER THAN 2 3/8".  
ALL WELDS BY CERTIFIED WELDERS.

**WLS LIGHTING SYSTEM**  
CS58  
(SHOPPING CENTER PREMISE DEMISE AREA)

REVISIONS

NO.	DATE	DESCRIPTION
1	4/22/91	WAL-MART LIGHTING LAYOUT

**WOLVERTON & ASSOCIATES, INC.**  
5600 OAKBROOK PARKWAY / SUITE 100 / NORCROSS, GEORGIA 30063  
770 447-8970 FAX  
770 447-8986 PHONE



**PROPOSED COMMERCIAL DEVELOPMENT**  
OF FALLON, MISSOURI  
THE ONTARIO DEVELOPMENT, L.L.C.  
ST. LOUIS, MISSOURI

DRAWN  
MHE  
CHECKED  
JCW  
DATE  
4/22/91  
SCALE  
NO SCALE  
JOB No.  
98-137  
SHEET

**C-10**  
OF SHEETS