

NOTES:

FOR TRENCH WIDTHS EXCEEDING 4' REFER TO TYPE 2, SHEET 2 STD DTL 216.

PATCH AREAS EXCEEDING 4' IN WIDTH SHALL CONFORM TO MORATORIUM PAVEMENT REPAIR COT STD DTL 218.

"T TOP" TYPE TRENCH PATCH REQUIRED FOR ALL STREETS ON THE MS&R MAP AND FOR ALL WATER CARRYING STREETS. WATER CARRYING STREETS ARE THOSE THAT DO NOT HAVE CATCH BASINS OR UNDERGROUND STORM DRAINS.

ALL SURVEY MONUMENTS MUST BE IDENTIFIED AND REFERENCED BY A REGISTERED LAND SURVEYOR PRIOR TO TRENCHING AND PAVING AND SHALL BE REPLACED AT THE SAME LOCATION BY AN RLS ACCORDING TO STATE LAW (ARS 33-103). THE CITY OF TUCSON SURVEY SECTION WILL REFERENCE SURVEY MONUMENTS PRIOR TO COMMENCEMENT OF WORK AND REPLACE THEM FOLLOWING COMPLETION OF WORK AT THE EXPENSE OF THE PARTY DISTURBING SAID MONUMENT.

PAVEMENT:

ARTERIAL STREETS – 6" MIN. or MATCH EXISTING THICKNESS WHICHEVER IS GREATER.

LOCAL STREETS – 3" MIN. or MATCH EXISTING THICKNESS WHICHEVER IS GREATER.

MORATORIUM STREETS – PAG 2 (CITY MIX) WITH TR-22

NON-MORATORIUM STREETS – PAG 2 (CITY MIX)

PAVEMENT SHALL BE SAW CUT, TACKED AND JOINED FOR THINNER SECTIONS

IF PAVEMENT IS ESPECIALLY THICK, THE PAVEMENT IN THE "T TOP" AREA CAN BE MILLED AND REPLACED WITH 3" OF AC INSTEAD OF REMOVING AND REPLACING THE ENTIRE PAVEMENT AREA. TO BE TACKED AND JOINED.

ALL MATERIALS SHALL BE TESTED FOR DENSITY AND CONFORMANCE TO PAG AND CITY OF TUCSON DTM SPECIFICATIONS. THE NUMBER OF TESTS REQUIRED IS BASED UPON THE QUANTITY OF MATERIALS USED AND THE NUMBER OF BATCHES REQUIRED.

TRENCH WILL NEED TO BE PLATED AND RECESSED INTO THE EXISTING STREET UNTIL COMPLETE AND LAND SHALL BE RETURNED TO USERS AFTER WORK HOURS.

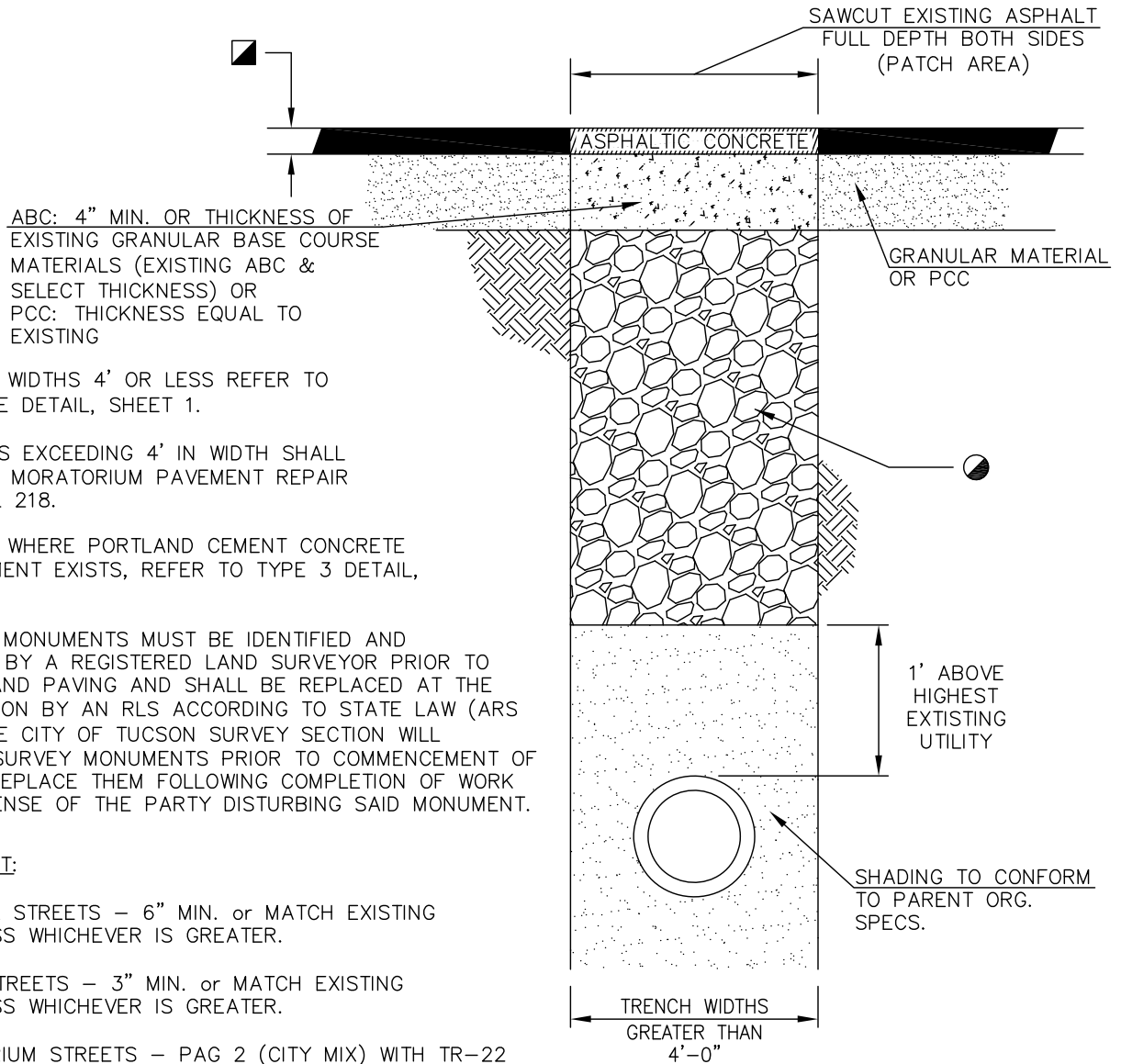
BACKFILL:

AGGREGATE BASE (AB) – CAN BE USED THE ENTIRE DEPTH OF THE "T TRENCH" AREA TO THE BOTTOM OF THE "T TOP" AREA AND MUST MEET CURRENT PAG STANDARDS AND SPECIFICATIONS. AB MUST BE COMPACTED TO 100% OF THE RESPECTIVE MATERIAL MAXIMUM DENSITY.

CONCRETE CAP – 12" THICK IF CLSM IS USED, 6" THICK IF CLASS 'S' OR CLASS 'P' USED WITH 6" OF AB. THE LIMITS OF BACKFILL NEED ONLY GO TO THE BOTTOM OF THE "T TOP" AREA OF THE PAVEMENT PATCH. A 6" THICK CONCRETE CAP OR CONCRETE ENCASEMENT OF THE CONDUIT SHALL BE USED AS REQUIRED UNDER SECTION 8 FOR UTILITIES INSTALLED UNDERGROUND THAT HAVE LESS THAN 24" OF COVER.

FULL DEPTH CLSM MATERIAL CAN BE USED TO THE BOTTOM OF THE AB LAYER IN THE "T TOP" AREA.

ISSUED:		STANDARD DETAIL "T TOP" TYPE TRENCH PATCH - PAVED AREA		DETAIL NO.
01/93				216
REVISED:				M-2021-002
07/21				SHEET 1 OF 5



NOTES:

FOR TRENCH WIDTHS 4' OR LESS REFER TO "T TOP" TYPE DETAIL, SHEET 1.

PATCH AREAS EXCEEDING 4' IN WIDTH SHALL CONFORM TO MORATORIUM PAVEMENT REPAIR COT STD DTL 218.

FOR TRENCH WHERE PORTLAND CEMENT CONCRETE (PCC) PAVEMENT EXISTS, REFER TO TYPE 3 DETAIL, SHEET 3.

ALL SURVEY MONUMENTS MUST BE IDENTIFIED AND REFERENCED BY A REGISTERED LAND SURVEYOR PRIOR TO TRENCHING AND PAVING AND SHALL BE REPLACED AT THE SAME LOCATION BY AN RLS ACCORDING TO STATE LAW (ARS 33-103). THE CITY OF TUCSON SURVEY SECTION WILL REFERENCE SURVEY MONUMENTS PRIOR TO COMMENCEMENT OF WORK AND REPLACE THEM FOLLOWING COMPLETION OF WORK AT THE EXPENSE OF THE PARTY DISTURBING SAID MONUMENT.

PAVEMENT:

ARTERIAL STREETS – 6" MIN. or MATCH EXISTING THICKNESS WHICHEVER IS GREATER.

LOCAL STREETS – 3" MIN. or MATCH EXISTING THICKNESS WHICHEVER IS GREATER.

MORATORIUM STREETS – PAG 2 (CITY MIX) WITH TR-22

NON-MORATORIUM STREETS – PAG 2 (CITY MIX)

PAVEMENT SHALL BE SAW CUT, TACKED AND JOINED FOR THINNER SECTIONS

ALL MATERIALS SHALL BE TESTED FOR DENSITY AND CONFORMANCE TO PAG AND CITY OF TUCSON DTM SPECIFICATIONS. THE NUMBER OF TESTS REQUIRED IS BASED UPON THE QUANTITY OF MATERIALS USED AND THE NUMBER OF BATCHES REQUIRED.

TRENCH WILL NEED TO BE PLATED AND RECESSED INTO THE EXISTING STREET UNTIL COMPLETE AND LAND SHALL BE RETURNED TO USERS AFTER WORK HOURS.

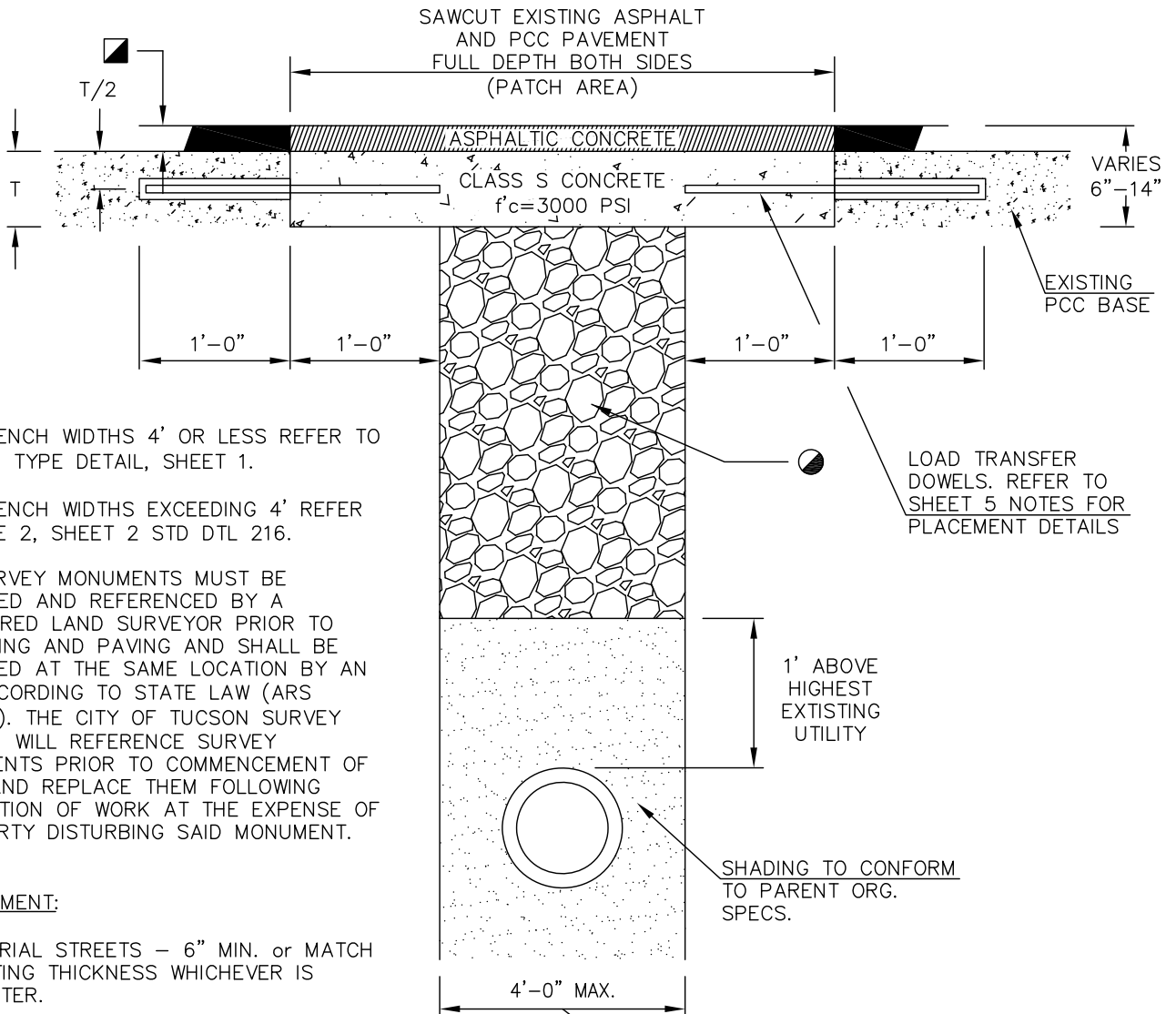
BACKFILL:

NATIVE – CAN BE USED WITH AGENCY APPROVAL AND MUST BE COMPACTED TO 95% MAX. DENSITY.

AGGREGATE BASE (AB) – CAN BE USED THE ENTIRE DEPTH OF THE TRENCH AREA AND MUST MEET CURRENT PAG STANDARDS AND SPECIFICATIONS. AB MUST BE COMPACTED TO 100% OF THE RESPECTIVE MATERIAL MAXIMUM DENSITY.

CONCRETE CAP – A 6" THICK CONCRETE CAP OR CONCRETE ENCASEMENT OF THE CONDUIT SHALL BE USED AS REQUIRED UNDER SECTION 8 FOR UTILITIES INSTALLED UNDERGROUND THAT HAVE LESS THAN 24" OF COVER

ISSUED:		STANDARD DETAIL TYPE 2 UTILITY TRENCH PATCH - PAVED AREA		DETAIL NO.
01/93				216
REVISED:				M-2021-002
07/21				SHEET 2 OF 5



NOTES:

FOR TRENCH WIDTHS 4' OR LESS REFER TO "T TOP" TYPE DETAIL, SHEET 1.

FOR TRENCH WIDTHS EXCEEDING 4' REFER TO TYPE 2, SHEET 2 STD DTL 216.

ALL SURVEY MONUMENTS MUST BE IDENTIFIED AND REFERENCED BY A REGISTERED LAND SURVEYOR PRIOR TO TRENCHING AND PAVING AND SHALL BE REPLACED AT THE SAME LOCATION BY AN RLS ACCORDING TO STATE LAW (ARS 33-103). THE CITY OF TUCSON SURVEY SECTION WILL REFERENCE SURVEY MONUMENTS PRIOR TO COMMENCEMENT OF WORK AND REPLACE THEM FOLLOWING COMPLETION OF WORK AT THE EXPENSE OF THE PARTY DISTURBING SAID MONUMENT.

PAVEMENT:

ARTERIAL STREETS – 6" MIN. or MATCH EXISTING THICKNESS WHICHEVER IS GREATER.

LOCAL STREETS – 3" MIN. or MATCH EXISTING THICKNESS WHICHEVER IS GREATER.

MORATORIUM STREETS – PAG 2 (CITY MIX) WITH TR-22

NON-MORATORIUM STREETS – PAG 2 (CITY MIX)

PAVEMENT SHALL BE SAW CUT, TACKED AND JOINED FOR THINNER SECTIONS

ALL MATERIALS SHALL BE TESTED FOR DENSITY AND CONFORMANCE TO PAG AND CITY OF TUCSON DTM SPECIFICATIONS. THE NUMBER OF TESTS REQUIRED IS BASED UPON THE QUANTITY OF MATERIALS USED AND THE NUMBER OF BATCHES REQUIRED.

TRENCH WILL NEED TO BE PLATED AND RECESSED INTO THE EXISTING STREET UNTIL COMPLETE AND LAND SHALL BE RETURNED TO USERS AFTER WORK HOURS.

BACKFILL:

AGGREGATE BASE (AB) – CAN BE USED THE ENTIRE DEPTH OF THE TRENCH AREA AND MUST MEET CURRENT PAG STANDARDS AND SPECIFICATIONS. AB MUST BE COMPACTED TO 100% OF THE RESPECTIVE MATERIAL MAXIMUM DENSITY.

CONCRETE CAP – A 6" THICK CONCRETE CAP OR CONCRETE ENCASEMENT OF THE CONDUIT SHALL BE USED AS REQUIRED UNDER SECTION 8 FOR UTILITIES INSTALLED UNDERGROUND THAT HAVE LESS THAN 24" OF COVER.

LOAD TRANSFER DOWELS. REFER TO SHEET 5 NOTES FOR PLACEMENT DETAILS

1' ABOVE HIGHEST EXISTING UTILITY

SHADING TO CONFORM TO PARENT ORG. SPECS.

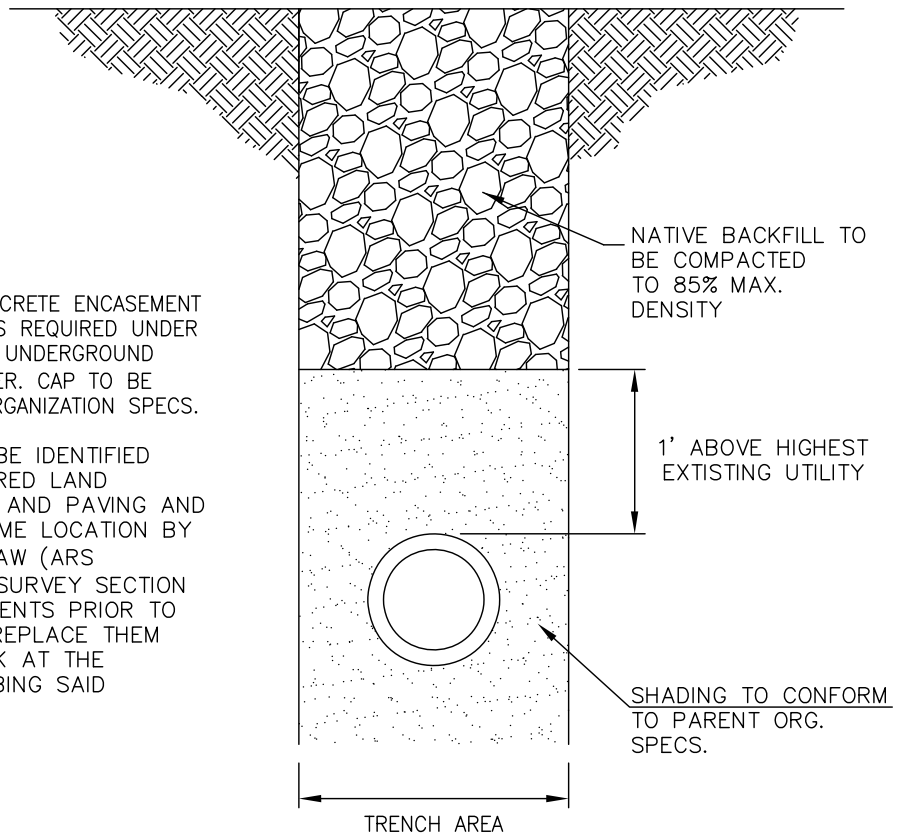
WHEN TRENCH WIDTHS EXCEED 4', LOAD TRANSFER DOWELS ARE DELETED.

ISSUED:		STANDARD DETAIL TYPE 3 UTILITY TRENCH PATCH - PAVED AREA		DETAIL NO.
01/93				216
REVISED:				M-2021-002
07/21				SHEET 3 OF 5

NOTE:

A 6" THICK CONCRETE CAP OR CONCRETE ENCASEMENT OF THE CONDUIT SHALL BE USED AS REQUIRED UNDER SECTION 8 FOR UTILITIES INSTALLED UNDERGROUND THAT HAVE LESS THAN 24" OF COVER. CAP TO BE PLACED AS DIRECTED BY PARENT ORGANIZATION SPECS.

ALL SURVEY MONUMENTS MUST BE IDENTIFIED AND REFERENCED BY A REGISTERED LAND SURVEYOR PRIOR TO TRENCHING AND PAVING AND SHALL BE REPLACED AT THE SAME LOCATION BY AN RLS ACCORDING TO STATE LAW (ARS 33-103). THE CITY OF TUCSON SURVEY SECTION WILL REFERENCE SURVEY MONUMENTS PRIOR TO COMMENCEMENT OF WORK AND REPLACE THEM FOLLOWING COMPLETION OF WORK AT THE EXPENSE OF THE PARTY DISTURBING SAID MONUMENT.



ISSUED:

01/93

REVISED:

07/21



**STANDARD DETAIL
TYPE 4 UTILITY
TRENCH PATCH -
NON-PAVED AREA**



DETAIL NO.

216

M-2021-002

SHEET 4 OF 5

NOTES:

1. MATERIAL AND COMPACTION REQUIREMENTS FOR PIPE BEDDING/SHADING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE APPLICABLE UTILITY PIPE.
2. TRENCH BACKFILL SHALL COMMENCE 1 FOOT ABOVE THE TOP OF PIPE AND SHALL BE PER SECTION 923-2.
3. BACKFILL COMPACTION REQUIREMENTS SHALL BE PER SECTION 923-3.07.
4. THE 1 FOOT "T TOP" AREAS SHALL BE DELETED FOR TYPE 2 TRENCHES.
5. ABC SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 303-2.
6. PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1006.
7. ASPHALTIC TACK MATERIAL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1005.
8. ASPHALTIC CONCRETE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 406 FOR THE TYPE SPECIFIED.
9. BITUMINOUS SURFACE TREATMENT (CHIP SEAL) SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 404 FOR THE TYPE SPECIFIED.
10. LOAD TRANSFER DOWELS FOR JOINTS TRANSVERSE TO THE ROADWAY CENTERLINE SHALL BE SMOOTH STEEL DOWELS IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1003. DOWELS SHALL BE SIZED AND SPACED AS FOLLOWS:

PCCP THICKNESS	DOWEL SIZE	DOWEL LENGTH	DOWEL SPACING
6" (150mm)	#5 (NO. 16)	12" (305mm)	18" (455mm)
7" (180mm)	#6 (NO. 19)	15" (380mm)	15" (380mm)
8" (205mm)	#8 (NO. 25)	15" (380mm)	12" (305mm)
10"+(255mm)	#10 (NO. 32)	15" (380mm)	12" (305mm)

11. DEFORMED TIE BARS SHALL BE USED IN TRENCH PATCHES LONGITUDINAL TO THE ROADWAY CENTERLINE WHEN THE TRENCH LENGTH IS GREATER THAN 50 FEET. TIE BARS SHALL BE 24 INCHES LONG. DEFORMED #4 BARS FOR PCCP LESS THAN 8 INCHES THICK AND #5 BARS IF 8 INCHES THICK OR MORE. TIE BARS SHALL BE PLACED 30 INCHES CENTER-TO-CENTER.
12. HOLES SHALL BE DRILLED 1 FOOT INTO THE EXISTING SLAB FOR THE TIE BARS AND 7 INCHES FOR DOWELS. HOLES SHALL BE DIAMETER SUFFICIENT TO ACCOMMODATE THE TIE BAR ANCHORAGE OR DOWEL CAP. TIE BARS SHALL BE ANCHORED WITH AN APPROVED HIGH VISCOSITY EPOXY.
13. IF THE CONCRETE SLAB REMAINING NEXT TO A LONGITUDINAL OR TRANSVERSE JOINT IS LESS THAN 6 FEET AT ITS NARROWEST WIDTH, REMOVE AND REPLACE THE EXISTING CONCRETE TO THE JOINT.

ISSUED:		STANDARD DETAIL		DETAIL NO.
01/93		UTILITY TRENCH PATCH		216
REVISED:		NON-PAVED AREA		M-2021-002
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